

Whitecroft Lighting

Lighting & Controls



Leading the lighting revolution



“The primary objectives for any lighting project are to provide the highest quality lighting with the lowest energy demands. At Whitecroft we are at the forefront of the latest developments in both lighting and lighting controls, bringing you the most cost-effective, energy saving lighting available today. Lighting is the most visual way of demonstrating your commitment to energy reduction and our range of low energy LED luminaires can be utilised across a wide spectrum of applications, whether in the workplace, education, healthcare, retail or industry.”



Paul Cassidy
Design Director
Whitecroft Lighting Ltd



The industry standard benchmark to achieve energy efficient lighting solutions is in excess of 60 luminaire lumens per circuit watt. Many of our conventional source luminaires, as well as a majority of our LED luminaires, already exceed 60 luminaire lumens per circuit watt, and these are highlighted with the  icon. Wherever you see this mark you can be assured of an energy efficient luminaire that will allow you to reach the higher grades of BREEAM classification.

downlighters



mirage LED 10



concert S 28



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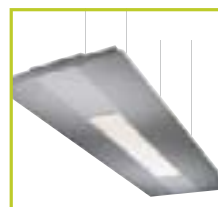
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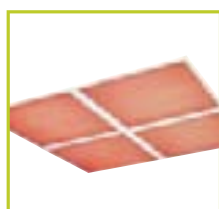
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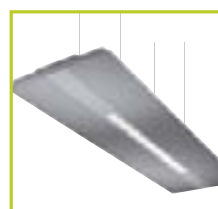
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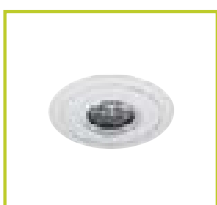
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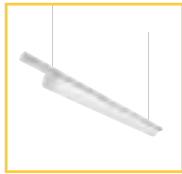
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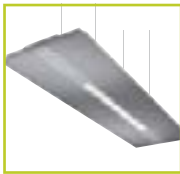
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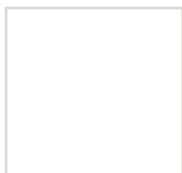
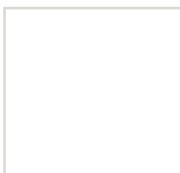
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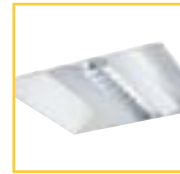
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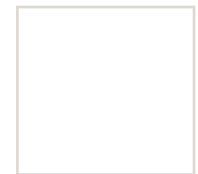
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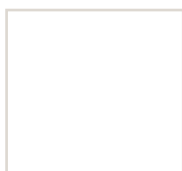
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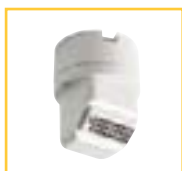
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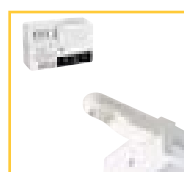
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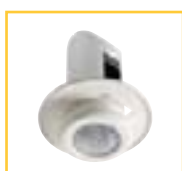
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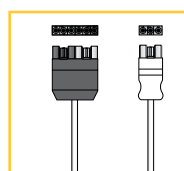
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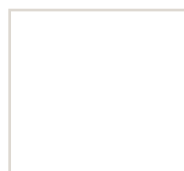
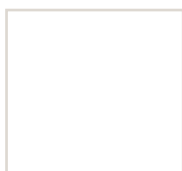
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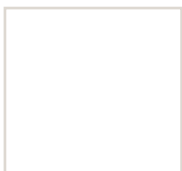
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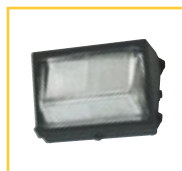
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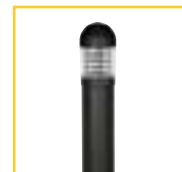
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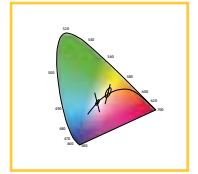
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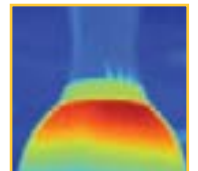
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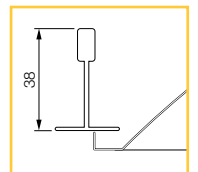
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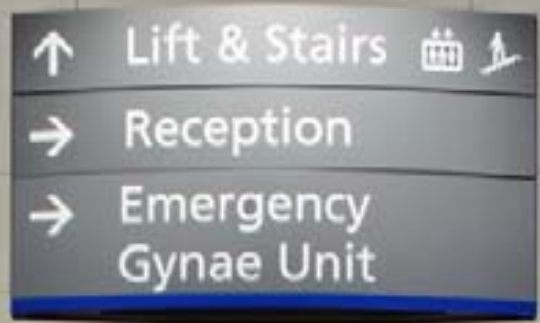
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LDR LED micro tilt 49



LDR LED IP65 49



Mirage LED represents a step change in LED technology. Combining advanced optical design with the latest LED developments, Mirage LED is the first ambient lighting solution that delivers affordable energy savings across any application.

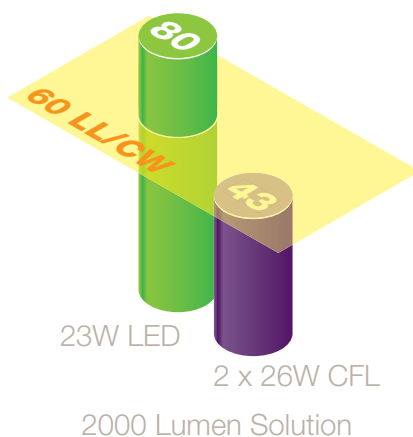
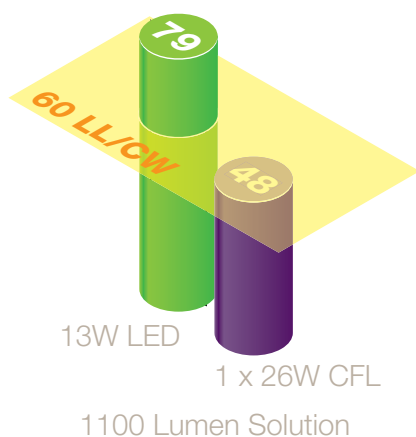
driving down costs

With ever increasing costs straining energy budgets, Mirage LED can save over 55% energy consumption compared to the equivalent compact fluorescent solution, resulting in a 1 - 3 year payback on many installations.

compliance guaranteed

The target of 55 luminaire lumens per watt established in the UK Building Regulations 2010 is difficult to achieve with most T5 fluorescent luminaires and almost impossible with compact fluorescent downlighters. Mirage LED can deliver up to 80 luminaire lumens per watt, far exceeding the compliance threshold.

BREEAM is a popular and well established building efficiency scheme. Mirage LED can help meet the higher categories within this assessment, helping buildings to achieve 'very good' and 'excellent' ratings.





environmental challenges

Energy reduction is driven by more than just building regulations. Large organisations are taking part in the government's Carbon Reduction Commitment, which targets a 40% reduction in carbon emissions over the next 10 years. The implementation of energy efficient lighting will go a long way towards helping businesses achieve this goal, ensuring the UK meets it's Kyoto Protocol commitments.



6500K creates a stimulating bright working environment.



4000K is the general lighting quality utilised in today's modern office.



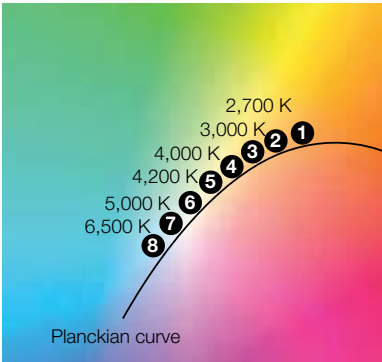
2700K is a warm welcoming light promoting relaxation and social interaction.

mirage LED

Mirage Tune offers a unique feature that enables the user to select a series of pre-programmed colour temperatures, designed to create either different motivational environments or a range of display effects.

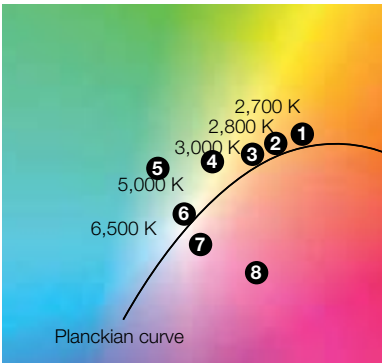
colour temperature mode

In this mode the user can select from a series of pre-programmed white points, from a warm 2,700K which delivers a relaxing atmosphere to a stimulating 6,500K working environment. This allows the same luminaire to be used to create different effects throughout a building, from reception areas to canteens and boardrooms. Alternatively, multi-use spaces can be simply switched from a cool motivating space to a warm relaxing area.



colour switch mode

In colour switch mode a wider colour range can be selected. In a Retail application, colour selection can significantly enhance the presentation of specific produce. This feature can also enhance the appearance of signature spaces within a commercial building emphasising artwork or specific decorative features.



Colour point	Colour	Produce
1	Gold	Bakery
2	Orange	Fruit
3	Yellow	Vegetables
4	Green	Fish
5	Green/Blue	Cheese
6	White	
7	Pink/Red	Meat
8		



A pink hue enhances meat



Yellow light displays vegetables best



Bread appears most appetising under golden light



Optics

LED light engines available in either a fixed or replaceable 'integra' format

- Light Output Options - Integra
 - 1100 lumens (18W*)
- Light Output Options - Comfort and Compact
 - 1100 lumens (13W*)
 - 2000 lumens (23W*)
 - 3000 lumens (37W*)
- Light Output Options - Tune
 - 1800 lumens (28W*)

*Total power consumption including driver based on the 4000K light engine

- Supplied complete with specular reflector
- Available in 3000K & 4000K
- Optional anti-glare control ring
- 50,000 hour life expectancy
- IP44 as standard (excluding Integra - IP20)

Body

- Black cast aluminium body with polycarbonate reflector ring in white
- Bodies available in two depths, Compact or Comfort
- Rapid installation guaranteed with our unique spring assembly
- Luminaire supplied with interconnecting cable for connection to the LED driver
- LED driver to be ordered separately with Compact and Comfort. Integra and Tune supplied with driver
- For ceilings 5-50mm thick
- Available with a wide range of attachments



mirage LED

Order Codes

Mirage LED Integra (no driver required)	Fixed Output	3 hr Emergency
1100 lumen 4000K	MLB114KCMP	-

Mirage LED Compact (order driver separately)	Fixed Output	3 hr Emergency
1100 lumen 4000K	MLA114KCMP	MLA114KCMPEM
2000 lumen 4000K	MLA204KCMP	MLA204KCMPEM

Mirage LED Comfort [†] (order driver separately)	Fixed Output	3 hr Emergency
1100 lumen 4000K	MLA114KCFT	MLA114KCFTEM
2000 lumen 4000K	MLA204KCFT	MLA204KCFTEM
3000 lumen 4000K [†]	MLA304KCFT	MLA304KCFTEM

Mirage LED Tune (supplied with driver)	Fixed Output	3 hr Emergency
1800 lumen 2700K – 6500K	MLC20CFT	-

Drivers	Fixed Output	DALI
1100 lumens	MLH12W	MLY17W
2000 lumens	MLH25W	MLY25W
3000 lumens	MLH50W	MLY50W

Options		
3000K COLOUR TEMP	Replace 4K with 3K	i.e. MLA203KCMP
EASYTEST	Add suffix /ET	i.e. MLA204KCMP/ET
COMEPS	Add suffix /EP	i.e. MLA204KCMP/EP
PATTRESS		MLA-PAT

[†] Please note, the 3000 lumen variant is only available in 4000K colour temperature in the comfort body.



LED Light Engine



Anti-Glare Control Insert



Quick Fix Spring System



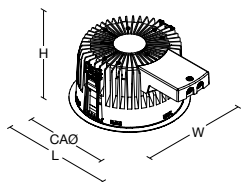
Integra Module



Pattress

mirage LED

Dimensions



Version	L	W	H	CAØ	KG	KG
Integra	232	183	100	165	1.18	-
Compact	232	183	100	165	1.18	2.7
Comfort	232	183	137	165	1.35	2.9
Tune	232	183	137	165	1.35	-
Driver	220	83	35	-	0.3	-

LED Performance

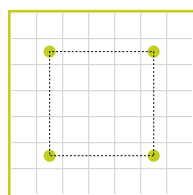
Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
3000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM
3000K - Integra	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM
4000K - Integra	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM
2700K - 6500K Tunable White	≥ 90	L ₇₀ (50,000hrs)	MacAdam 3 SDCM

Equivalent Lamp Types

1100 Lumen Output	
Compact fluorescent	1 x 18/26W
2000 Lumen Output	
Compact fluorescent	1 x 32/42W
	2 x 26W
3000 Lumen Output	
Compact fluorescent	2 x 32W

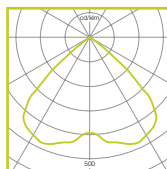
Performance Guide

Lamps	Illuminance	Spacing
23W LED	200 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.0m

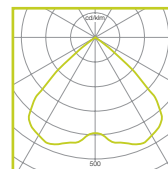
Photometric Performance



13W LED
Compact
1033 lumens
4000K
• LOR = 100%
• SHR MAX = 1.97

Utilisation Factors UF(F)

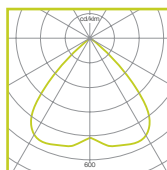
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.79 1.02 1.08



23W LED
Compact
1834 lumens
4000K
• LOR = 100%
• SHR MAX = 1.97

Utilisation Factors UF(F)

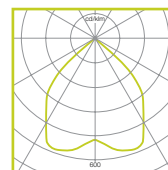
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.79 1.02 1.08



23W LED
Comfort
1778 lumens
4000K
• LOR = 100%
• SHR MAX = 1.75

Utilisation Factors UF(F)

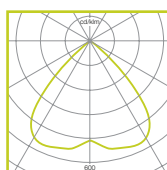
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.80 1.03 1.08



23W LED
Comfort
Cylinder attachment
1793 lumens
4000K
• LOR = 100%
• SHR MAX = 1.67

Utilisation Factors UF(F)

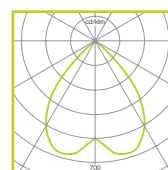
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.89 1.05 1.09



37W LED
Comfort
2677 lumens
4000K
• LOR = 100%
• SHR MAX = 1.75

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.80 1.03 1.08



23W LED
Comfort
Anti-glare control
1365 lumens
4000K
• LOR = 100%
• SHR MAX = 1.62

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.83 1.04 1.08

To Specify

Mirage LED
Recessed LED downlight with cast aluminium body, white polycarbonate bezel and integral 1100 / 2000 / 3000 lumen light engine. For ceiling thicknesses of 5-50mm – as Whitecroft Lighting MIRAGE LED

Integra
Recessed LED downlight with cast aluminium body, white polycarbonate bezel and removable 1100 lumen light engine. For ceiling thicknesses of 5-50mm – as Whitecroft Lighting MIRAGE LED INTEGRA

Tune
Recessed LED downlight with cast aluminium body, white polycarbonate bezel and integral 1800 lumen 2700K-6500K tunable light engine. For ceiling thicknesses of 5-50mm – as Whitecroft Lighting MIRAGE LED TUNE



mirage attachments



To compliment the Mirage LED downlighter, a new range of architectural attachments have been developed. The range consists of 5 different feature rings, each developed to provide a subtle aesthetic enhancement to the standard luminaire. These feature attachments can be further enhanced by the addition of coloured rings, along with clear or opal inserts, to provide a staggering combination of options.

These attachments all share a number of unique features:

Easy Installation

The feature attachments simply clip into the Mirage LED bezel from the front face, and do not require tools to install. This means that they can be fitted at any time during or after installation, or even retro-fitted to existing luminaires.

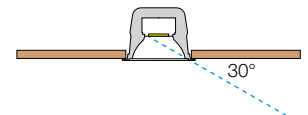
Visual Integration

The attachments can be mixed and matched throughout a building to offer visual zoning and architectural integration. The additional use of coloured inserts can help with navigation throughout a building by differentiating between areas, as well as just adding visual interest.

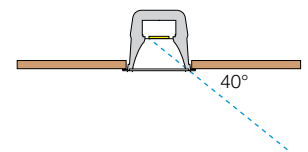
Glare Control

All feature attachments employ the same micro-polymer materials first used in our successful DUO² range of luminaires and provide excellent light output ratios. The feature attachments also create an Intermediate Brightness Zone between ceiling and optic, which leads to greater visual comfort.

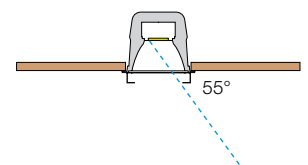
Mirage compact



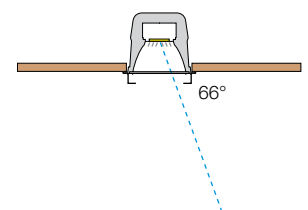
Mirage comfort



Cylinder ring attachment



Anti-glare control insert



IP64 Clear Disc



Cylinder



Flush Ring



Floating Ring



Cylinder Ring



Coloured Ring Inserts



Etched Glass Ring



Anti-Glare Control



mirage LED attachments

IP64 Clear Disc

- IP64 protection
- High light output ratios for maximum efficiency
- Allows architectural harmony with other areas

Please note, IP64 clear disc cannot be used with 3000 lumen variant.



Cylinder

- No upward facing surface
- Intermediate brightness zone
- Long range visibility
- Minimum efficiency disruption



Flush Ring

- Fully recessed
- Intermediate brightness zone
- Minimum efficiency disruption
- Option with coloured inserts (RGB)



Floating Ring

- Invisible suspension – no shadows from fixings
- Intermediate brightness zone
- Long range visibility
- Minimum efficiency disruption
- Option with coloured inserts (RGB)



Cylinder Ring

- Architectural feature – adds presence to any application
- Intermediate brightness zone
- Long range visibility
- Minimum efficiency disruption
- Option with coloured inserts (RGB)



Coloured Ring Inserts

- Red, green and blue inserts
- Create a dramatic appearance or compliment an interior scheme
- Ideal as a navigation aid



Etched Glass Ring

- Feature glass is easily fitted via 3 metal clip-in pillars
- Long range visibility
- Etched pattern on glass



Anti-Glare Control Insert

- Clips over light engine
- Shields light source from any angle of view



mirage LED attachments

Order Codes

Attachments

Anti-Glare Control Insert

Cylinder

Flush ring

Flush ring and colour inserts

Floating ring with clear sides

Floating ring with clear sides and colour ring inserts

Cylinder ring with satin sides

Cylinder ring with satin sides and colour ring inserts

*Clear inner disc

*Satin inner disc

Feature glass ring

Feature glass ring emergency

IP64 clear disc

**Attachment ring

***Attachment ring emergency

* Accessory for flush ring, floating ring or cylinder ring

** Required for all attachments except feature glass ring and anti-glare control insert - non emergency luminaires

*** Required for all attachments except feature glass ring and anti-glare control insert - emergency luminaires

MLA-AGC

MLA-2

MLA-1

MLA-1C

MLA-3

MLA-3C

MLA-4

MLA-4C

MLA-IDC

MLA-IDS

MLA-61

MLA-61EM

MLA-IP64C

MLA-STD

MLA-EMG



Coloured Ring Inserts

mirage LED retrofit

- Replace any CFL downlighter with a cut aperture of 240mm or less to Mirage LED without replacing the ceiling tile or altering plasterboard ceilings
- Retrofit kit consists of a pattress and 250mm diameter Mirage LED attachment bezel
- Steel pattress is designed to go through all cut apertures greater than 165mm
- Mirage LED luminaire to be ordered separately

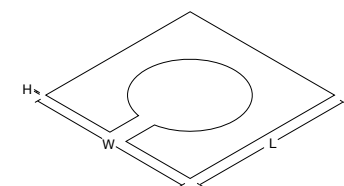
Order Codes

Mirage LED Retrofit Kit

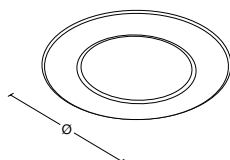
Retrofit Kit

MLAREFIT

Dimensions



L	W	H	KG
270	270	0.5	0.5



Ø	KG
250	0.2

retrofit kit for replacement of CFL to LED downlighters



To Specify

Retrofit kit for the replacement of any compact fluorescent downlighter to LED with a cut aperture of up to 240mm. Supplied with steel pattress and a 250mm attachment bezel which removes the need to replace any ceiling tiles – as Whitecroft Lighting MIRAGE LED RETROFIT



Optics

- 20° or 60° beam angles for precise lighting control
- 3000K or 4000K options
- 18W total power consumption (incl. driver)
 - total power consumption will decrease as LED technology advances
- Uniform light output with very low glare due to the unique remote phosphor diffuser
- 50,000 hours life expectancy

Body

- Single, twin or triple bezel clusters available
- 30° tilt and 350° rotation within bezel
- Cast aluminium body provides efficient heat sink connection with the LED module
- Available in white, black or brushed aluminium
- Light engine and bezel to be ordered separately
- For ceiling thickness:
 - 5 - 17mm

Driver

- Fixed output or DALI dimming versions available
- Constant current 700mA



Round Single Brushed Aluminium



Square Single Brushed Aluminium



Round Twin Brushed Aluminium



Square Twin Brushed Aluminium



Round Triple Brushed Aluminium



Square Triple Brushed Aluminium

concert ME

Order Codes

Concert ME White Light Engine

4000K 60° Optic	CNHME10004KFLW
3000K 60° Optic	CNHME10003KFLW
4000K 20° Optic	CNHME10004KSPW
3000K 20° Optic	CNHME10003KSPW

Round White Bezel

Single	CNME1000W/R1
Twin	CNME1000W/R2
Triple	CNME1000W/R3

Square White Bezel

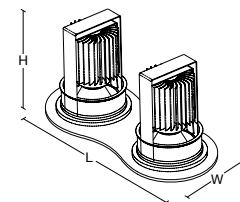
Single	CNME1000W/S1
Twin	CNME1000W/S2
Triple	CNME1000W/S3

Options

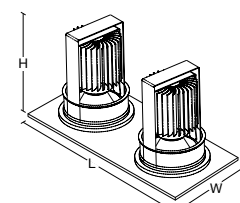
BLACK	Replace W with BK	i.e. CNHME10004KFL BK
ALUMINIUM	Replace W with S	i.e. CNHME10004KFL S
DALI DIMMING	Replace H with Y	i.e. CNYME10004KFLW

Note: light engines and bezels must be ordered together to create complete luminaire

Dimensions



Round	L	W	H	KG
Single	120	120	145	0.6
Twin	240	120	145	1.2
Triple	360	120	145	1.8
Driver	H	W	L	KG
Driver	31	32	179	0.12



Square	L	W	H	KG
Single	120	120	145	0.6
Twin	240	120	145	1.2
Triple	360	120	145	1.8
Driver	H	W	L	KG
Driver	31	32	179	0.12

Equivalent Lamp Types

Concert ME Lumen Output

Compact fluorescent	1 x 18W, 1 x 26W
CDM	1 x 20W
Tungsten Halogen	1 x 75W

Photometric Performance

20° 3000K			60° 4000K		
MH	LUX	Ø	MH	LUX	Ø
1.0m	3168	0.5	1.0m	1047	1.2
1.5m	1408	0.7	1.5m	465	1.7
2.0m	792	1.0	2.0m	262	2.30
2.5m	507	1.2	2.5m	168	2.9
3.0m	352	1.5	3.0m	116	3.5

To Specify

Recessed high output LED directional downlight. Cast aluminium body with integral 1000 lumen LED light engine and remote driver for flexibility and rapid installation. For ceiling thicknesses of 5-17mm supplied complete with driver – as Whitecroft Lighting CONCERT ME



concert M

1000 lumen
downlighter



Optics

- 24° or 42° beam angles
- 3000K or 4000K options
- 18W total power consumption (inc. driver)
– total power consumption will decrease as LED technology advances
- Uniform light output with very low glare due to the unique remote phosphor diffuser
- Vacuum metalised reflector
- 50,000 hours life expectancy

Body

- Die cast aluminium body and luminaire housing finished in white
- Extruded aluminium, multi-fin heat sink ensures maximum thermal diffusion
- Fixed and tilting versions
- Adjustable option tilts 0-60°
- Suitable for ceiling thickness of 8-25mm
- Fixed version IP44 from below as standard
- Adjustable version IP40 from below as standard (fixed version IP44)

Driver

- Fixed output or DALI dimming version
- Constant Current 700mA

Order Codes

Concert M Fixed Bezel	Colour	
4000K Flood Optic	White	CNHMFT4KFLW
3000K Flood Optic	White	CNHMFT3KFLW
4000K Spot Optic	White	CNHMFT4KSPW
3000K Spot Optic	White	CNHMFT3KSPW

Concert M Adjustable Bezel	Colour	
4000K Flood Optic	White	CNHMFX4KFLW
3000K Flood Optic	White	CNHMFX3KFLW
4000K Spot Optic	White	CNHMFX4KSPW
3000K Spot Optic	White	CNHMFX3KSPW

Options

DALI DIMMING	Replace H with Y	i.e. CNYMFT4KFLW
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Emergency (Fixed Bezel Only)

Emergency Conversion Kit
(To be ordered in addition to standard luminaires)

CNMFTMKIT



Equivalent Lamp Types

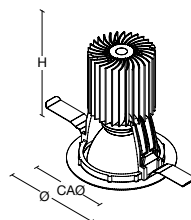
Concert M Lumen Output

Compact Fluorescent	1 x 18W, 1 x 26W
CDM	1 x 20W
Tungsten Halogen	1 x 75W

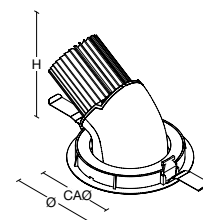
Photometric Performance

24° 3000K			42° 3000K			24° 4000K			42° 4000K		
MH	LUX	Ø	MH	LUX	Ø	MH	LUX	Ø	MH	LUX	Ø
1.0m	3468	0.4	1.0m	1629	0.7	1.0m	3398	0.4	1.0m	1616	0.7
2.0m	867	0.8	2.0m	407	1.5	2.0m	849	0.8	2.0m	404	1.5
3.0m	385	1.2	3.0m	181	2.2	3.0m	378	1.2	3.0m	180	2.2
4.0m	217	1.6	4.0m	102	2.9	4.0m	212	1.6	4.0m	101	2.9
5.0m	139	2.0	5.0m	65	3.7	5.0m	198	2.0	5.0m	65	3.7

Dimensions



H	Ø	CAØ	KG
136	113	95	0.75



H	Ø	CAØ	KG
130	146	140	0.91

To Specify

Recessed high output LED directional or fixed downlight with 24° or 42° light distribution. Cast aluminium body with integral 1000 lumen LED light engine and remote driver for flexibility and rapid installation. For ceiling thicknesses of 8-25mm supplied complete with driver – as Whitecroft Lighting CONCERT M



Optics

- 3000K or 4000K options
- 54°/17° beam angles for maximum room surface illumination or highly defined accent lighting
- SE500 - 7 LEDs running at 350mA = 9.5w system power
- SE1000 - 7 LEDs running at 700mA = 18w system power – total power consumption will decrease as LED technology advances
- High quality, single bin LEDs with a 4 Macadam ellipse tolerance
- Lower point brightness due to the unique LED arrangement
- Specifically designed lens array to produce a precise beam control and high colour rendering index
- 50,000 hours life expectancy

Body

- Choice of four aesthetically appealing bezels
- Modular design utilising either a 500 or 1000 lumen LED package
- CNC machined aluminium bezels for a high quality appearance and finish
- Finished in white, black or brushed aluminium
- For ceiling thickness: – 3 to 17mm

Driver

- Constant current 350mA / 700mA
- 1-10V analogue dimming as standard
- Optional DALI dimming driver



Concert SE Adjustable



Concert SE Cone



Concert SE Recessed



Concert SE 45° Cap

concert SE

Order Codes

Concert SE500 White Fixed Bezel – 500 Lumen Output

4000K Flood Optic	CNSE5004KFLW/A
3000K Flood Optic	CNSE5003KFLW/A
4000K Spot Optic	CNSE5004KSPW/A
3000K Spot Optic	CNSE5003KSPW/A

Concert SE500 White Adjustable Bezel – 500 Lumen Output

4000K Flood Optic	CNSE5004KFLW/B
3000K Flood Optic	CNSE5003KFLW/B
4000K Spot Optic	CNSE5004KSPW/B
3000K Spot Optic	CNSE5003KSPW/B

Concert SE500 White Cone Bezel – 500 Lumen Output

4000K Flood Optic	CNSE5004KFLW/C
3000K Flood Optic	CNSE5003KFLW/C
4000K Spot Optic	CNSE5004KSPW/C
3000K Spot Optic	CNSE5003KSPW/C

Concert SE500 White Recessed Bezel – 500 Lumen Output

4000K Flood Optic	CNSE5004KFLW/D
3000K Flood Optic	CNSE5003KFLW/D
4000K Spot Optic	CNSE5004KSPW/D
3000K Spot Optic	CNSE5003KSPW/D

45° Cap

CAP ACCESSORY FOR FIXED AND ADJUSTABLE BEZELS CNSE500W/E

Options

DALI DIMMING	Insert Y after CN	i.e. CNYSE5004KFLW/A
1000 LUMEN LED	Replace 500 with 1000	i.e. CNSE10003KFLW
BLACK FINISH	Replace W with BK	i.e. CNSE5004KFLBK/A
ALUMINIUM FINISH	Replace W with B	i.e. CNSE5004KFLB/A

Emergency

EMERGENCY CONVERSION KIT (SE500 & SE1000) CNSE500EMKIT

Note: To be ordered in addition to standard luminaires

Equivalent Lamp Types

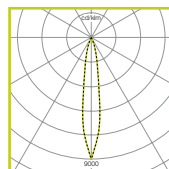
Concert SE 1000 Lumen Output

Compact Fluorescent	1 x 18W, 1 x 26W
CDM	1 x 20W
Tungsten Halogen	1 x 50W, 1 x 75W

Concert SE 500 Lumen Output

Compact Fluorescent	1 x 13W
Tungsten Halogen	1 x 35W

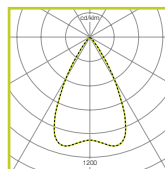
Photometric Performance



Concert SE500
17° 4000K
530 lumens
• LOR = 100%
• SHR MAX = 1.01

Utilisation Factors UF(F)

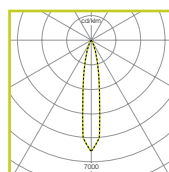
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	1.01	1.11	1.14



Concert SE500
54° 3000K
475 lumens
• LOR = 100%
• SHR MAX = 1.17

Utilisation Factors UF(F)

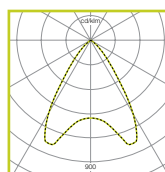
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.85	1.04	1.08



Concert SE1000
17° 4000K
1130 lumens
• LOR = 100%
• SHR MAX = N/A

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.97	1.08	1.11

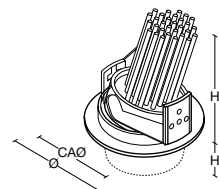


Concert SE1000
54° 3000K
1120 lumens
• LOR = 100%
• SHR MAX = N/A

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.82	1.03	1.08

Dimensions



Version	H	H ₁	Ø	CAØ	KG
Fixed	100	-	90	80	0.84
Adjustable	100	-	90	80	0.86
Cone	100	30	90	80	0.92
Recessed	120	-	90	80	0.97
45° Cap	-	60	45	-	0.2

To Specify

Recessed high output single bin LED downlight. CNC machined bezel finished in white/brushed aluminium/black. For ceiling thicknesses of 3-17mm, supplied complete with driver as Whitecroft Lighting CONCERT SE500 / SE1000



Optics

- 3000K or 4000K options
- 54°/17° beam angles for maximum room surface illumination or highly defined accent lighting
- S500 - 7 LEDs running at 350mA = 9.5w system power
- S1000 - 7 LEDs running at 700mA = 18w system power
 - total power consumption will decrease as LED technology advances
- High quality, single bin LEDs with only a 4 Macadam ellipse tolerance
- Lower point brightness due to the unique LED arrangement
- 50,000 hours life expectancy

Body

- Sizes and options:
 - Fixed 82mm Ø
 - Adjustable 95mm Ø
- Modular design with fixed and tilting versions
- Adjustable version IP40 from below as standard (fixed version IP44)
- Die cast aluminium body
- Bezel finished white or brushed aluminium
- For ceiling thickness – 3mm to 17mm

Driver

- Constant current 350mA or 700mA
- 1-10V analogue dimming as standard
- Optional DALI dimming driver



Concert S White Fixed



Concert S White Adjustable

concert s

Order Codes

Concert S500 White Fixed Bezel – 500 Lumen Output

3000K Flood Optic
4000K Flood Optic
3000K Spot Optic
4000K Spot Optic

CN5003KFLFW
CN5004KFLFW
CN5003KSPFW
CN5004KSPFW

Concert S500 White Adjustable Bezel – 500 Lumen Output

3000K Flood Optic
4000K Flood Optic
3000K Spot Optic
4000K Spot Optic

CN5003KFLAW
CN5004KFLAW
CN5003KSPAW
CN5004KSPAW

Options

DALI DIMMING	Insert Y after CN	i.e. CNY5003KFLFW
ALUMINIUM	Replace W with B	i.e. CN5003KFLAB
CONCERT S1000	Replace 500 with 1000	i.e. CN10003KFLFW

Emergency

Emergency Conversion Kit (S500 & S1000)

CN500EMKIT

Note: To be ordered in addition to standard luminaires

Equivalent Lamp Types

Concert S 1000 Lumen Output

Compact Fluorescent
CDM
Tungsten Halogen

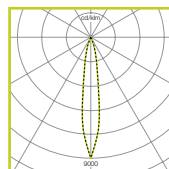
1 x 18W, 1 x 26W
1 x 20W
1 x 50W, 1 x 75W

Concert S 500 Lumen Output

Compact Fluorescent
Tungsten Halogen

1 x 13W
1 x 35W

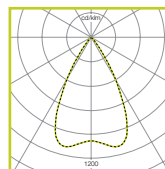
Photometric Performance



Concert S500
17° 4000K
530 lumens
• LOR = 100%
• SHR MAX = 1.01

Utilisation Factors UF(F)

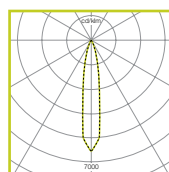
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	1.01	1.11	1.14



Concert S500
54° 3000K
475 lumens
• LOR = 100%
• SHR MAX = 1.17

Utilisation Factors UF(F)

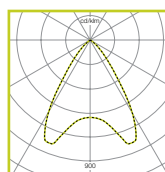
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.85	1.04	1.08



Concert S1000
17° 4000K
1130 lumens
• LOR = 100%
• SHR MAX = N/A

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.97	1.08	1.11

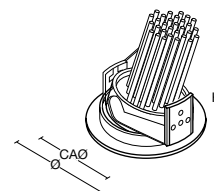


Concert S1000
54° 3000K
1120 lumens
• LOR = 100%
• SHR MAX = N/A

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.82	1.03	1.08

Dimensions



Version	H	Ø	CAØ	KG
Fixed	100	82	72	0.3
Adjustable	100	95	80	0.3
Driver	H	W	L	KG
Std Driver	37	52	108	0.2
DALI Driver	32	31	179	0.2

To Specify

Recessed high output single bin LED downlight. Fixed 82mm/adjustable 95mm bezel finished in white/brushed aluminium. Fixed bezel IP44/adjustable bezel IP40 from below the ceiling. For ceiling thicknesses of 3-17mm, supplied complete with dimmable driver as Whitecroft Lighting CONCERT S500 / S1000



Optics

- Light Output Options:
 - 1100 lumens (13W*)
 - 2000 lumens (23W*)
- *Total power consumption including driver
- MIRO reflector
- Available in 4000K
- 50,000 hour life expectancy

Body

- Die cast aluminium bezel
- For ceilings 5 – 25mm thick
- Optimised passive thermal management system
- LED driver to be ordered separately
- Decorative attachment available

Order Codes

Spectre SQ (standard)	Fixed Output	3 hr Emergency
1100 lumen 4000K	SQL114K	SQL114KEM
2000 lumen 4000K	SQL204K	SQL204KEM

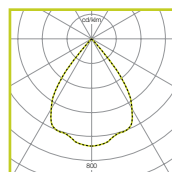
Spectre SQ (With feature attachment)	Fixed Output	3 hr Emergency
1100 lumen 4000K	SQA114KFA	SQA114KEMFA
2000 lumen 4000K	SQA204KFA	SQA204KEMFA

Driver	Fixed Output	DALI
1100 lumens	MLH12W	MLY17W
2000 lumens	MLH25W	MLY25W

Options

EASYTEST	Add suffix /ET	i.e. SQL114K/ET
COMEPS	Add suffix /EP	i.e. SQL114K/EP

Photometric Performance



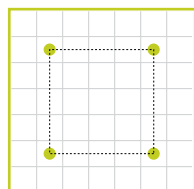
- Spectre SQ
- LOR = 100%
- SHR MAX = 1.41
- 1954 lumens

Utilisation Factors UF(F)

Room Reflectance	Room Index			
C	W	F	1.00	3.00
0.70	0.50	0.20	0.89	1.04
				1.08

Performance Guide

Lamps	Illuminance	Spacing
23W LED	200 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.0m



Feature Attachment

Equivalent Lamp Types

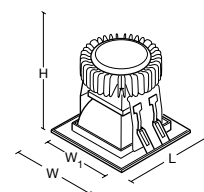
1100 Lumen Output
Compact Fluorescent 1 x 18/26W

2000 Lumen Output
Compact Fluorescent 1 x 32/42W, 2 x 26W

LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM

Dimensions



L	W	H	W ₁	KG	KG
170	170	160	140	1.6	3.1

To Specify

Recessed square LED downlighter with die-cast aluminium bezel, Miro reflector and integral 1100 / 2000 lumen light engine. For ceiling thicknesses of 5-25mm – as Whitecroft Lighting SPECTRE SQ

mirage LED surface

surface mounted
LED downlighter



Optics

- LED light engine available in either a fixed or replaceable 'integra' format
- Light Output Options - Integra
 - 1100 lumens (18W*)
- Light Output Options
 - 1100 lumens (13W*)
 - 2000 lumens (23W*)

*Total power consumption including driver based on the 4000K light engine

- Supplied complete with specular reflector
- Available in 4000K
- Optional anti-glare control ring
- 50,000 hour life expectancy
- IP20

Body

- Cast aluminium body finished in white
- Supplied complete with driver



Order Codes

Mirage LED S – Integra	Fixed Output	DALI
1100 lumen 4000K	MSBH114KCFT	-

Mirage LED S	Fixed Output	DALI
1100 lumen 4000K	MSAH114KCFT	MSAY114KCFT
2000 lumen 4000K	MSAH204KCFT	MSAY204KCFT

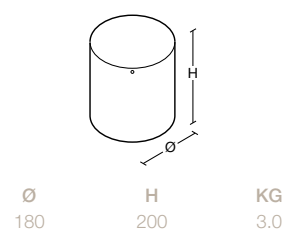
Attachments

Anti-glare control insert	MLA-AGC
---------------------------	---------

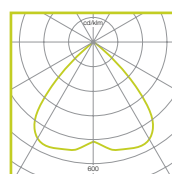
LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4000K - Integra	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM

Dimensions



Photometric Performance



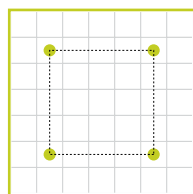
23W LED
Comfort
1778 lumens
4000K
• LOR = 100%
• SHR MAX = 1.75

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.80 1.03 1.08

Performance Guide

Lamps	Illuminance	Spacing
23W LED	200 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.0m

To Specify

Mirage LED S

Surface mounted LED downlighter with cast aluminium body and specular reflector finished in white. Integral 1100 / 2000 lumen light engine – as Whitecroft Lighting MIRAGE LED S

Mirage LED S Integra

Surface mounted LED downlighter with cast aluminium body and specular reflector finished in white. Removable 1100 lumen light engine – as Whitecroft Lighting MIRAGE LED S Integra

mirage MX24

compact fluorescent
downlighter



Plain Reflector

Optics

- Lamp options:
 - 2 x 18W TC-D
 - 1 or 2 x 26W TC-D
 - 1 or 2 x 32W TC-T
 - 1 or 2 x 42W TC-T
 - 1 x 57W TC-T
 - 1 or 2 x 17W PL-R ECO
 - 2 x 14W PL-R ECO
- Vacuum metalised diamond facet or anodised plain reflector

Body

- Cast aluminium body with cast aluminium bezel painted white
- 3 point fixing for ceilings, 1mm to 25mm thick
- Supplied with cut aperture support ring to simplify installation
- Integrated removable gear tray for HF and dimming versions
- Available with a wide range of attachments



mirage MX24

compact fluorescent
downlighter



Order Codes

Diamond Facet

TC-D 2 x 18W
TC-D 1 x 26W
TC-D 2 x 26W

HF Gear

MX24H218S
MX24H126S
MX24H226S

3 hr Emergency

MX24H218SEM
MX24H126SEM
MX24H226SEM

Plain

TC-D 2 x 18W
TC-D 1 x 26W
TC-D 2 x 26W
TC-T 1 x 32W
TC-T 2 x 32W
TC-T 1 x 42W
TC-T 2 x 42W
TC-T 1 x 57W

HF Gear

MX24H218P
MX24H126P
MX24H226P
MX24H132P
MX24H232P
MX24H142P
MX24H242P
MX24H157P

3 hr Emergency

MX24H218PEM
MX24H126PEM
MX24H226PEM
MX24H132PEM
MX24H232PEM
MX24H142PEM
MX24H242PEM
MX24H157PEM

ECO Diamond Facet

PL-R 2 x 14W
PL-R 1 x 17W
PL-R 2 x 17W

HF Gear

MX24H214S
MX24H117S
MX24H217S

3 hr Emergency

MX24H214SEM
MX24H117SEM
MX24H217SEM

ECO Plain

PL-R 2 x 14W
PL-R 1 x 17W
PL-R 2 x 17W

HF Gear

MX24H214P
MX24H117P
MX24H217P

3 hr Emergency

MX24H214PEM
MX24H117PEM
MX24H217PEM

Options

DALI DIMMING
SWITCH DIMMING*
COMEPS
EASYTEST*
COMET

Replace H with Y
Replace H with X
Add suffix /EP
Add suffix /ET
Add suffix /CT

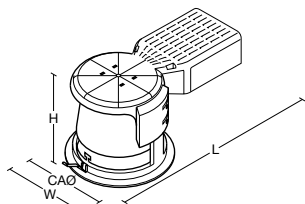
i.e. MX24Y218P
i.e. MX24X218P
i.e. MX24H218P/EP
i.e. MX24H218P/ET
i.e. MX24H218P/CT

*Not available for PLR-ECO 2 x 14W and 1/2 x 17W



mirage MX24

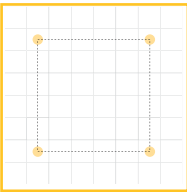
Dimensions



Version	L	W	H	CAØ	KG	KG
Diamond Facet	420	240	122	230 ± 1	2.0	3.0
Plain	420	240	171	230 ± 1	2.0	3.0

Performance Guide

Lamps	Illuminance	Spacing
2 x 26W TC-D	210 lux	3.0m x 3.0m



Maintenance:	0.8
Reflectance:	70/50/20
Ceiling Height:	2.7m
Working Plane:	0.0m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W PL-R ECO 1050		24,000hrs
1 x 17W PL-R ECO 1250		24,000hrs
1 x 18W TC-D	1200	13,000hrs
1 x 26W TC-D	1800	13,000hrs
1 x 32W TC-T	2400	13,000hrs
1 x 42W TC-T	3200	13,000hrs
1 x 57W TC-T	4200	13,000hrs

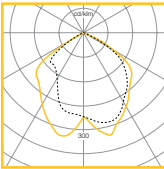
Photometric Performance



1 x 26W TC-D Diamond Facet
• LOR = 80.2%
• SHR MAX = 1.88

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.53 0.76 0.81



2 x 26W TC-D Diamond Facet
• LOR = 70.7%
• SHR MAX = 1.68

Utilisation Factors UF(F)

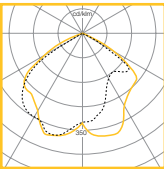
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.46 0.61 0.65



2 x 26W TC-D Plain Reflector
• LOR = 66.1%
• SHR MAX = 1.68

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.46 0.61 0.65



1 x 17W PL-R ECO Diamond Facet
• LOR = 88.1%
• SHR MAX = 1.74

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.61 0.87 0.93

To Specify

Compact fluorescent downlighter with cast aluminium body, white cast aluminium bezel and integral control gear. With choice of plain silver or diamond faceted reflector – as Whitcroft Lighting MIRAGE MX24

mirage MX20

compact fluorescent
downlighter



Optics

- Lamp options:
 - 1 or 2 x 13W TC-D
 - 1 or 2 x 18W TC-D
- Vacuum metalised diamond facet reflector or anodised plain reflector

Body

- Cast aluminium body with cast aluminium bezel painted white
- 3 point fixing for ceilings, 1mm to 25mm thick
- Integrated removable gear tray for HF and dimming versions
- Available with a wide range of attachments



Plain Reflector

mirage MX20

Order Codes

Diamond Facet

TC-D 1 x 13W
TC-D 2 x 13W
TC-D 1 x 18W
TC-D 2 x 18W

HF Gear

MX20H113S
MX20H213S
MX20H118S
MX20H218S

3 hr Emergency

MX20H113SEM
MX20H213SEM
MX20H118SEM
MX20H218SEM

Plain*

TC-D 1 x 13W
TC-D 2 x 13W
TC-D 1 x 18W
TC-D 2 x 18W

HF Gear

MX20H113P
MX20H213P
MX20H118P
MX20H218P

3 hr Emergency

MX20H113PEM
MX20H213PEM
MX20H118PEM
MX20H218PEM

*Plain reflector not suitable for any of the MX attachments

Options

DALI DIMMING

Replace H with Y

i.e. MX20Y113P

SWITCH DIMMING

Replace H with X

i.e. MX20X113P

COMEPS

Add suffix /EP

i.e. MX20H113P/EP

EASYTEST

Add suffix /ET

i.e. MX20H113P/ET

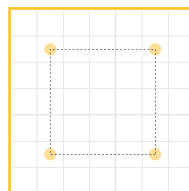
COMET

Add suffix /CT

i.e. MX20H113P/CT

Performance Guide

Lamps Illuminance Spacing
2 x 18W TC-D 260 lux 2.4m x 2.4m



Maintenance:
0.8

Reflectance:
70/50/20

Ceiling Height:
2.7m

Working Plane:
0.0m

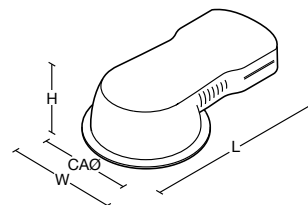


Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 13W TC-D	900	13,000hrs
1 x 18W TC-D	1200	13,000hrs



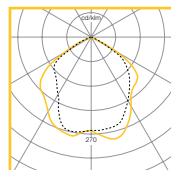
Dimensions



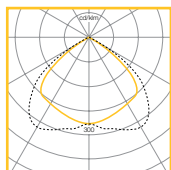
L	W	H	CAØ	KG	KG
332	200	112	185	2.8	3.8



Photometric Performance



2 x 18W TC-D
Diamond Facet
• LOR = 57.3%
• SHR MAX = 1.59



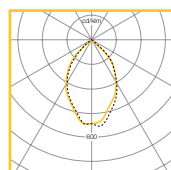
2 x 18W TC-D
Plain Reflector
• LOR = 68.5%
• SHR MAX = 1.81

Utilisation Factors UF(F)

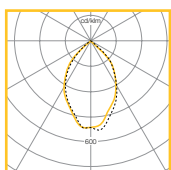
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.45	0.59	0.62

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.58	0.72	0.76



1 x 18W TC-D
Diamond Facet
• LOR = 61.4%
• SHR MAX = 1.26



1 x 18W TC-D
Plain Reflector
• LOR = 60.1%
• SHR MAX = 1.26

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.55	0.65	0.67

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.54	0.64	0.66

To Specify

Compact fluorescent downlighter with cast aluminium body, white cast aluminium bezel and integral control gear. With choice of plain silver or diamond faceted reflector – as Whitcroft Lighting MIRAGE MX20

mirage attachments

IP44 Satin or Clear Disc

- IP44 protection
 - Satin or Clear diffuser for maximum comfort
 - High light output ratios for maximum efficiency
 - Allows architectural harmony with other areas
-



Cylinder

- No upward facing surface – does not harbour dust
 - Intermediate brightness zone
 - Long range visibility
 - Minimum efficiency disruption
-



Flush Ring

- Fully recessed
 - Intermediate brightness zone
 - Minimum efficiency disruption
 - Option with coloured inserts (RGB)
-



Floating Ring

- Invisible suspension – no shadows from fixings
 - Intermediate brightness zone
 - Long range visibility
 - Minimum efficiency disruption
 - Option with coloured inserts (RGB)
-



Cylinder Ring

- Architectural feature – adds presence to any application
 - Intermediate brightness zone
 - Long range visibility
 - Minimum efficiency disruption
 - Option with coloured inserts (RGB)
-



Inner Disc

- IP40 protection
 - Clear or satin for choice of aesthetics
 - Suitable for use with all ring attachments
-



Coloured Ring Inserts

- Red, green and blue inserts
- Create a dramatic appearance or compliment an interior scheme
- Ideal as a navigation aid



mirage attachments

Technical Louvre

- Injection moulded cross design
- Vacuum metalised specular finish
- 65° lamp cut off



Etched Glass Ring

- Feature glass is easily fitted via 3 metal clip-in pillars
- Long range visibility
- Etched pattern on glass



Order Codes

MX20

IP44 disc¹

Technical louvre¹

Etched glass ring¹

MXA20-IP44

MXA20-10

MXA20-61

MX24

IP44 disc²

IP44 clear disc²

Cylinder

Flush ring

Flush ring + coloured ring inserts (RGB)

Floating ring with clear sides

Floating ring with clear sides + floating coloured ring inserts (RGB)

Cylinder ring with satin sides

Cylinder ring with satin sides + floating coloured ring inserts (RGB)

Clear inner disc (IP40)^{2 3}

Satin inner disc (IP40)²

Technical louvre

Etched glass ring

MXA24-IP44

MXA24-IP44C

MXA24-2

MXA24-1

MXA24-1C

MXA24-3

MXA24-3C

MXA24-4

MXA24-4C

MXA24-IDC

MXA24-IDS

MXA24-10

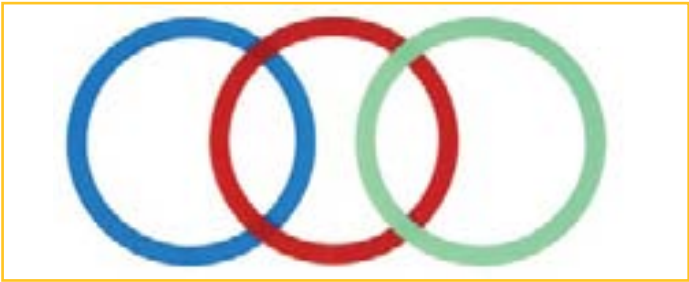
MXA24-61

Note:

¹ Only suitable for use with diamond facet reflector

² Not suitable for 2 x 42W luminaires

³ Accessory for flush ring, floating ring or cylinder ring



Coloured Ring Inserts



Inner Disc Installation





Optics

- Lamp options:
 - 1 x 13W TC-D
 - 1 or 2 x 18/26W TC-D
 - 1 or 2 x 32/42W TC-T
- Anodised aluminium reflectors, (except 13W – vacuum metalised)

Body

- One piece assembly with precision moulded bezel and gear housing
- 13W luminaire is supplied complete with IP44, TP(a) attachment which can be removed if not required
- 3 point fixing with rapid fix pull down straps
- IP44 fresnel lens with twist and lock location. Order separately for 18W or 26W versions
- Feature glass can be fitted via 3 pilot holes in rear of bezel
- For ceiling thickness of 1-25mm (13W) or 1-50mm (26-42W)

Order Codes

Esprit	HF Gear	3 hr Emergency
TC-D 1 x 13W	ESPH113	ESPH113EM
TC-D 1 x 18W	ESPH118	ESPH118EM
TC-D 2 x 18W	ESPH218	ESPH218EM
TC-D 1 x 26W	ESPH126	ESPH126EM
TC-D 2 x 26W	ESPH226	ESPH226EM
TC-T 1 x 32W	ESPH132	ESPH132EM
TC-T 2 x 32W	ESPH232	ESPH232EM
TC-T 1 x 42W	ESPH142	ESPH142EM
TC-T 2 x 42W	ESPH242	ESPH242EM

Options

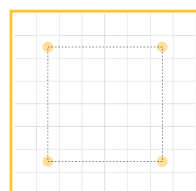
POLO FEATURE GLASS	18/26W ONLY	ESFG-2
POLO FEATURE GLASS	32/42W ONLY	ESFG-3
IP44 ATTACHMENT*	18/26W ONLY	ESIP44-2
DALI DIMMING	Replace H with Y	i.e. ESPY226
SWITCH DIMMING	Replace H with X	i.e. ESPX226
COMEPS	Add suffix /EP	i.e. ESPH226/EP
EASYTEST	Add suffix /ET	i.e. ESPH226/ET
COMET	Add suffix /CT	i.e. ESPH226/CT

Note: dimming not available on 13W version

*IP44 not available for 32/42W versions

Performance Guide

Lamps	Illuminance	Spacing
2 x 26W TC-D	230 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.0m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 13W TC-D	900	13,000hrs
1 x 18W TC-D	1200	13,000hrs
1 x 26W TC-D	1800	13,000hrs
1 x 32W TC-T	2400	13,000hrs
1 x 42W TC-T	3200	13,000hrs

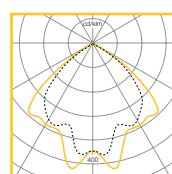


Polo Feature Glass

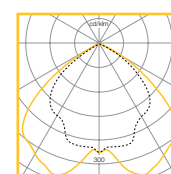


IP44 Cover

Photometric Performance



1 x 18W TC-D
• LOR = 76%
• SHR MAX = 1.82



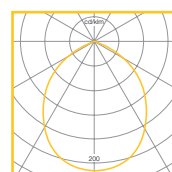
2 x 18W TC-D
• LOR = 69%
• SHR MAX = 1.96

Utilisation Factors UF(F)

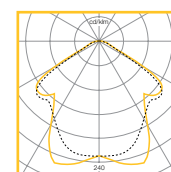
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.65 0.80 0.83

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.59 0.72 0.75



2 x 18W TC-D
IP44 Diffuser
• LOR = 47%
• SHR MAX = 1.32



1 x 32W TC-T
• LOR = 60%
• SHR MAX = 1.18

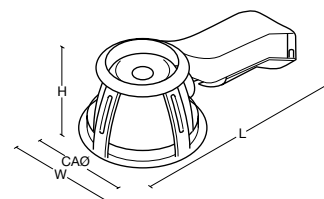
Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.34 0.46 0.49

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.42 0.58 0.62

Dimensions



Version	L	W	H	CAØ	KG	KG ☒
13W	268	165	80	150	0.3	1.3
18/26W	363	218	114	200	0.9	1.9
32/42W	445	275	150	250	1.8	2.8

To Specify

One piece construction compact fluorescent luminaire, with precision moulded gear housing, body and bezel. 13W < 81mm deep and 151mm cut aperture, 18W and 26W < 115mm deep and 201mm cut aperture, 32W and 42W < 151mm deep and 251mm cut aperture. 3 point rapid fix pull down straps – as Whitecroft Lighting ESPRIT

mirage MX wallwash

compact fluorescent
wallwasher



Optics

- Lamp options:
 - 1 or 2 x 26W TC-D
- Vacuum metalised specular asymmetric reflector
- Low glare in room direction, high cut off in direction of wall

Body

- Cast aluminium body with cast aluminium bezel painted white
- Integrated removable gear tray for HF and dimming versions
- 3 point fixing for ceilings 1mm-25mm
- Supplied with cut aperture support ring to simplify installation



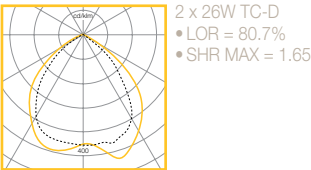
Order Codes

Mirage MX Wallwash	HF Gear
TC-D 1 x 26W	MX24H126W
TC-D 2 x 26W	MX24H226W

Options

DALI DIMMING	Replace H with Y	i.e. MX24Y126W
SWITCH DIMMING	Replace H with X	i.e. MX24X126W

Photometric Performance



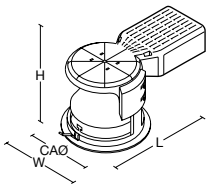
Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.66	0.82	0.86

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 26W TC-D	1800	13,000hrs

Dimensions



L	W	H	CAØ	KG
416	240	171	230	2.0

To Specify

Compact fluorescent downlighter with specular wallwash reflector, cast aluminium body, cast aluminium bezel finished white and integral control gear – as Whitecroft Lighting MIRAGE WALLWASH

mirage sx

surface mounted circular fluorescent downlighter



Optics

- Lamp options:
 - 1 or 2 x 26W TC-T
 - 1 or 2 x 32W TC-T
 - 1 or 2 x 42W TC-T
- Pure aluminium anodised low glare diamond facet optic

Body

- Spun aluminium body finished in white
- Three point fixing
- 20mm cable way
- Integrated low energy LED emergency (available with the long version only)

Order Codes

Short

TC-T 1 x 26/32/42W	Multi Watt Ballast	SXSH126-42
TC-T 2 x 26/32/42W	Multi Watt Ballast	SXSH226-42

Long

TC-T 1 x 26/32/42W	Multi Watt Ballast	SXLH126-42
TC-T 2 x 26/32/42W	Multi Watt Ballast	SXLH226-42

DALI Dimming (Long Version Only)

TC-T 1 x 26W	SXLY126
TC-T 1 x 32W	SXLY132
TC-T 1 x 42W	SXLY142
TC-T 2 x 26W	SXLY226
TC-T 2 x 32W	SXLY232
TC-T 2 x 42W	SXLY242

Options

EMERGENCY*	Add suffix /EM	i.e. SXLD126/ EM
EASYTEST*	Add suffix /ET	i.e. SXLD126/ ET
COMEPS*	Add suffix /EP	i.e. SXLD126/ EP

*Note: Emergency and dimming are not available in the short version

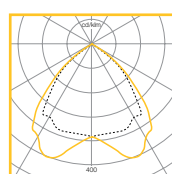


Low Energy Emergency LED



Short Body

Photometric Performance



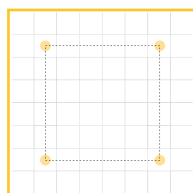
2 x 26W TC-T
Diamond Facet
Reflector
• LOR = 67%
• SHR MAX = 1.52

Utilisation Factors UF(F)

Room Reflectance	Room Index				
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.47	0.61	0.65

Performance Guide

Lamps	Illuminance	Spacing
2 x 26W TC-T	185 lux	3.0m x 3.0m

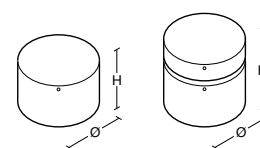


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.0m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 26W TC-T	1800	13,000hrs
1 x 32W TC-T	2400	13,000hrs
1 x 42W TC-T	3200	13,000hrs

Dimensions



Version	Ø	H	KG	KG
Short	255	205	1.3	–
Long	255	275	2.1	2.6

To Specify

Surface mounted downlight with spun aluminium body and pure aluminium diamond facet reflector – as Whitecroft Lighting MIRAGE SX



Optics

- Lamp options:
 - 1 x 26/32/42W TC-T, utilising HF multi-watt ballast
 - Emergency and dimming versions utilise specific wattage ballasts
- Faceted vacuum metalised reflector
- Optional version with decorative feature glass

Body

- Square recessed downlighter
- Injection moulded flame retardant polycarbonate body with white die cast bezel
- Fitting is supplied complete with a 2m lead with free stripped ends
- Suitable for ceiling thickness of 1-25mm



Without Feature Glass

Order Codes

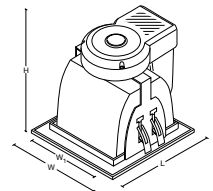
SQ (Standard) HF Gear
TC-T 1 x 26/32/42W Multi-Watt Ballast **SQH126-42**

SQ (Emergency) 3 hr Emergency
TC-T 1 x 26W **SQH126EM**
TC-T 1 x 32W **SQH132EM**
TC-T 1 x 42W **SQH142EM**

Options (For dimming and emergency options, the wattage must be specified)

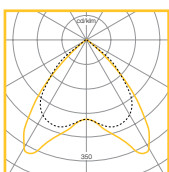
DALI DIMMING	Replace H126-42 with Y126, Y132 or Y142	i.e. SQY126
SWITCH DIMMING	Replace H126-42 with X126, X132 or X142	i.e. SQX126
EASYTEST	Add suffix /ET	i.e. SQH126/ET
COMET	Add suffix /CT	i.e. SQH126/CT
FEATURE GLASS	Add suffix FG	i.e. SQH126FG

Dimensions



L	W	H	W ₁	KG	KG
244	244	192	210	1.5	2.8

Photometric Performance



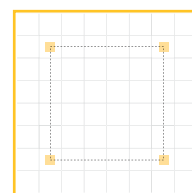
1 x 42W TC-D
• LOR = 62.1%
• SHR MAX = 1.81

Utilisation Factors UF(F)

Utilisation Factors of (r)					
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.48	0.63	0.67

Performance Guide

Lamps	Illuminance	Spacing
1 x 42W TC-T	200 lux	3.0m x 3.0m



Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 2.7m
Working Plane: 0.0m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 26W TC-T	1800	13,000hrs
1 x 32W TC-T	2400	13,000hrs
1 x 42W TC-T	3200	13,000hrs

To Specify

Square compact fluorescent downlighter with faceted reflector, die cast bezel and polycarbonate body – as Whitecroft Lighting SQ



Optics

- Lamp options:
 - Small bezel diameter (Ø 192 mm)
 - 1 x 35W, 70W or 150W CDM-T head.
 - 1 x 26W, 32W or 42W TC-T
 - 2 x 26W TC-D HF
 - Large bezel diameter (Ø 237 mm)
 - 2 x 26W, 32W or 42W TC-T
- Faceted aluminium reflector

Body

- IP65 from front. IP20 from behind
- Injection moulded flame retardant polycarbonate body
- Toughened glass cover with die cast bezel painted white, secured with tamperproof fixings
- Fluorescent fittings are supplied complete with 2m lead with free stripped ends. CDM fittings include lead with ST18/3 plug for connection to gearbox
- Suitable for ceiling thickness of 1-25mm

Order Codes

CDM-T Lamps Small 192mm Ø

CDM-T 1 x 35/70/150W	Multi-Lamp Housing	HF Gear
35W electronic gearbox		C65S35-150C
70W electronic gearbox		GB-C35E-P
150W electronic gearbox		GB-C70E-P
		GB-C15E-P

Fluorescent HF Small 192mm Ø

TC-T 1 x 26/32/42W	Multi-Watt Ballast	HF Gear
TC-D 2 x 26W		C65SH126-42
		C65SH226

Fluorescent HF Small 192mm Ø

TC-T 1 x 26W	3 hr Emergency
TC-T 1 x 32W	C65SH126EM
TC-T 1 x 42W	C65SH132EM
TC-D 2 x 26W	C65SH142EM
	C65SH226EM

Fluorescent HF Large 237mm Ø

TC-T 2 x 26/32/42W	Multi-Watt Ballast	HF Gear
		C65LH226-42

Fluorescent HF Large 237mm Ø

TC-T 2 x 26W	3 hr Emergency
TC-T 2 x 32W	C65LH226EM
TC-T 2 x 42W	C65LH232EM
	C65LH242EM

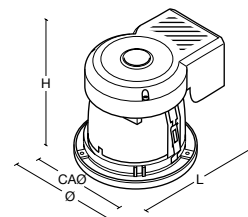
Options (Fluorescent Only)

DALI DIMMING	Replace H126-42 with Y126, Y132 or Y142	i.e. C65SY126
SWITCH DIMMING	Replace H126-42 with X126, X132 or X142	i.e. C65SX126
COMEPS	Add suffix /EP	i.e. C65SH126/EP
EASYTEST	Add suffix /ET	i.e. C65SH126/ET
COMET	Add suffix /CT	i.e. C65SH126/CT
ACCESS & FIXING TOOL		C65-KEY

Note: For dimming and emergency options, the wattage must be specified

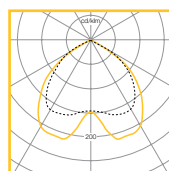


Dimensions

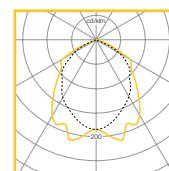


Version	Ø	CAØ	H	L	KG	KG/m²
Fluorescent small 192	192	176	145	220	1.5	2.5
Fluorescent large	237	222	205	250	2.1	3.4
CDM-T small	192	176	180	220	1.2	—
Gearbox	—	—	250	250	2	—

Photometric Performance



2 x 42W TC-D
237mm Diameter
• LOR = 45.7%
• SHR MAX = 1.99



2 x 26W TC-D
192mm Diameter
• LOR = 42.0%
• SHR MAX = 1.61

Utilisation Factors UF(F)

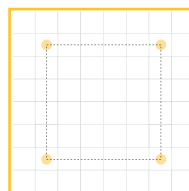
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.33 0.45 0.48

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.32 0.42 0.45

Performance Guide

Lamps	Illuminance	Spacing
2 x 26W TC-T	240 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.0m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 26W TC-D	1800	13,000hrs
1 x 26W TC-T	1800	13,000hrs
1 x 32W TC-T	2400	13,000hrs
1 x 42W TC-T	3200	13,000hrs
1 x 35W CDM-T	3300	12,000hrs
1 x 70W CDM-T	6600	12,000hrs
1 x 150W CDM-T	14000	12,000hrs

To Specify

IP65 compact fluorescent or CDM-T downlighter with polycarbonate body, faceted aluminium reflector and cast bezel, finished white, secured with tamper-proof fixings – as Whitecroft Lighting CIRCO IP65



Optics

- Two different sized heads:
 - Circo Flex 190 for 35/70W CDM-T or 100W White SON
 - Circo Flex 145 for 20/35W CDM-Tm
- CDM available with medium or wide distribution
- SON wide distribution only
- Specular anodised aluminium reflector with integral safety glass

Body

- Die cast aluminium body painted white
- Easy installation using spring clips
- 360° swivel and adjustable tilt. 0-60°
- Supplied with ST18/3 plug for electronic gearbox connection.
(Order gearbox separately)
- Suitable for ceiling thickness of 3-20mm



Order Codes

Circo Flex 145
CDM-Tm 20/35W

Wide Reflector
FLX-C20-35-W

Medium Reflector
FLX-C20-35-M

Circo Flex 190
CDM-T 35/70W
SON WHITE 100W

Wide Reflector
FLX-C35-70-W
FLX-S100-W

Medium Reflector
FLX-C35-70-M
–

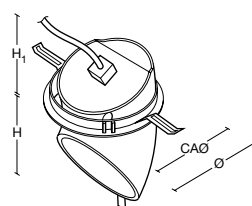
Gearbox

CDM-Tm 20W
CDM-Tm 35W
CDM 35W
CDM 70W
SON WHITE 100W

Electronic

GB-C20TME-P
GB-C35TME-P
GB-C35E-P
GB-C70E-P
GB-S100E-P

Dimensions



Version	H	H ₁	Ø	CAØ	KG
Circo Flex 190	128	132	190	180	0.8
Circo Flex 145	92	96	146	140	0.4

Photometric Performance

70W CDM-T			70W CDM-T			20W CDM-Tm			20W CDM-Tm		
M	LUX	Ø	M	LUX	Ø	M	LUX	Ø	M	LUX	Ø
1.0m	18995	0.5	1.0m	5369	1.1	1.0m	4882	0.6	1.0m	1160	1.5
2.0m	4748	1.1	2.0m	1342	2.1	2.0m	1220	1.3	2.0m	290	2.9
3.0m	2110	1.6	3.0m	596	3.2	3.0m	542	1.9	3.0m	129	4.4
4.0m	1187	2.1	4.0m	335	4.2	4.0m	305	2.5	4.0m	73	5.8
Medium 30°			Wide 56°			Medium 40°			Wide 71°		

To Specify

Circo Flex 145
Directional downlighter for 20W or 35W CDM-Tm. Die cast aluminium body painted white with 146mm Ø bezel and specular aluminium reflector giving medium (40°) or wide (71°) distribution. With 360° swivel and 0-60° tilt – as Whitecroft Lighting CIRCO FLEX 145

Circo Flex 190
Directional downlighter for 35W or 70W CDM-T or 100W STH lamp. Die cast aluminium body painted white with 190mm Ø bezel and specular aluminium reflector giving medium (30°) or wide (56°) distribution. With 360° swivel and 0-60° tilt – as Whitecroft Lighting CIRCO FLEX 190



Beers
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Spirits

FAIRTRADE
WINE

Fairtrade Concessions

Lager

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Optics

- Two different sized heads:
 - Circo Fast 125 for 20/35W CDM-Tm
 - Circo Fast 190 for 35/70/150W CDM-T or 100W White SON
- CDM available with medium or wide distribution
- SON wide distribution only
- Specular anodised aluminium reflector with integral safety glass

Body

- Bezel painted white
- Easy installation using spring clips
- Supplied with ST18/3 plug for electronic gearbox connection.
(Order gearbox separately)
- Suitable for ceiling thickness of 3-20mm



Order Codes

Circo Fast 125
CDM-Tm 20/35W

Wide Reflector
FAS-C20-35-W

Medium Reflector
FAS-C20-35-M

Circo Fast 190
CDM-T 35/70/150W
SON WHITE 100W

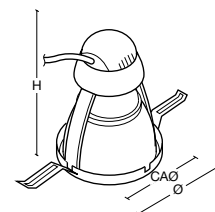
Wide Reflector
FAS-C35-150-W
FAS-S100-W

Medium Reflector
FAS-C35-150-M
-

Gearbox
CDM-Tm 20W
CDM-Tm 35W
CDM 35W
CDM 70W
CDM 150W
SON WHITE 100W

HF
GB-C20TME-P
GB-C35TME-P
GB-C35E-P
GB-C70E-P
GB-C15E-P
GB-S100E-P

Dimensions



Version	H	Ø	CAØ	KG
Circo Fast 125	133	125	118	1.8
Circo Fast 190	203	190	175	2.4

Photometric Performance

70W CDM-T				70W CDM-T				20W CDM-Tm				20W CDM-Tm			
M	LUX	Ø		M	LUX	Ø		M	LUX	Ø		M	LUX	Ø	
1.0m	13296	0.7		1.0m	5198	1.4		1.0m	6187	0.5		1.0m	1279	1.3	
2.0m	3324	1.4		2.0m	1300	2.8		2.0m	1547	0.9		2.0m	320	2.7	
3.0m	1477	2.2		3.0m	578	4.3		3.0m	687	1.4		3.0m	142	4.0	
4.0m	831	2.9		4.0m	325	5.7		4.0m	387	1.9		4.0m	80	5.4	
Medium 40°				Wide 71°				Medium 26°				Wide 68°			

To Specify

Circo Fast 125
Fixed downlighter for 20W or 35W CDM-Tm. Die cast aluminium body with white 126mm Ø bezel and specular aluminium reflector giving medium (40°) or wide (71°) distribution – as Whitecroft Lighting CIRCO FAST 125

Circo Fast 190
Fixed downlighter for 35/70/150W CDM-T or 100W STH lamp. Die cast aluminium body with white 188mm Ø bezel and specular aluminium reflector giving medium (40°) or wide (71° CDM/62° SON) distribution – as Whitecroft Lighting CIRCO FAST 190

LDR LED micro tilt

directional LED downlighter

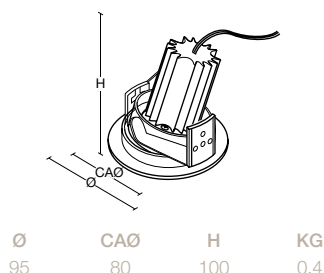


Order Codes

LDR LED Micro Tilt	Finish	Spot Lens	Flood Lens
3 x 1W White	White	LDRLEDWS31W	LDRLEDWF31W
3 x 1W White	Chrome	LDRLEDWS31C	LDRLEDWF31C
3 x 1W RGB	White	–	LDRLEDRGB31W
3 x 1W RGB	Chrome	–	LDRLEDRGB31C
3 x 3W RGB	White	–	LDRLEDRGB33W
3 x 3W RGB	Chrome	–	LDRLEDRGB33C
Driver (for white)			
Runs upto 3 fittings		3 x 1W Driver	CNPLU/3501-9
Driver (for RGB)			
Runs upto 9, 3 x 1W or 2, 3 x 3W		18W RGB Driver	CNRGBOX
Dimmable Driver (for white)			
Runs upto 3, 3 x 1W		18W Driver	CNPLDUN1350
See page 74 for RGB control specification			
Junction box for series connection (for RGB)			
			CNJB3



Dimensions



To Specify

Recessed directional white or RGB LED downlight with 95mm diameter die cast white bezel, aluminium body and LED surround. Beam angle to be 5° – 50°, to accommodate ceiling thicknesses of 3 – 17mm – as Whitecroft Lighting LDR LED Micro Tilt

LDR LED IP65

IP65 LED downlighter



Optics

- 4000K
- 7 LEDs running at 700mA = 18W system power
- Opaque glass front for maximum glare control
- 50,000 hours life expectancy

Body

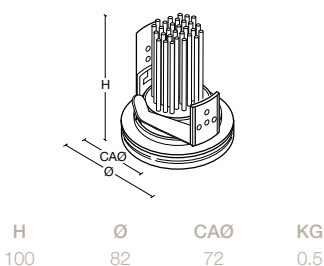
- Micro IP65 82mm Ø bezel
- Bezel finished white or chrome
- For ceiling thickness:
 - 3mm to 17mm

Order Codes

LDR LED IP65	
White	LDRLEDIP65-4KW
Chrome	LDRLEDIP65-4KC



Dimensions



To Specify

Recessed high output single bin LED downlight with bezel Ø <82mm and depth <100mm. Die cast aluminium body finished white or chrome complete with driver. IP65 from below ceiling – as Whitecroft Lighting LDR LED IP65



WELCOME TO
Severn Trent Centre

feature & display



quest LED

52



emphasis LED

54



concert starline

56



concert starline flex

57



emphasis

58



strato

60



direct 3

61



life L

62



NOC

65



orbit

66



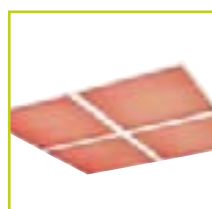
life Q

68



life P

70



life colour

72



concert C111

73



concert RGB controls

74



concert starline flex RGB

75



asymmetric wallwasher

76



squire

77

Optics

- 20°, 40° or 60° beam angles
- 3000K or 4000K options
- 18W total power consumption (inc. driver)
– total power consumption will decrease as LED technology advances
- Uniform light output with very low glare due to the unique remote phosphor diffuser
- Vacuum metalised plain reflector
- 50,000 hours life expectancy

Body

- For use with iTrack or 3 circuit track
- Extruded aluminium body and luminaire housing finished white, grey or black
- Cast aluminium, multi-fin heat sink ensures maximum thermal diffusion
- Swivels 355° and tilts 2 x 90°

Driver

- Constant Current 700mA

Order Codes

Spot Beam (20°)

3000K	White	QU3KSPW
4000K	White	QU4KSPW

Medium Beam (40°)

3000K	White	QU3KMEW
4000K	White	QU4KMEW

Flood Beam (60°)

3000K	White	QU3KFLW
4000K	White	QU4KFLW

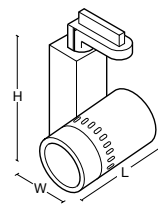
Options

GREY FINISH	Replace W with G	i.e. QU3KSPG
BLACK FINISH	Replace W with BK	i.e. QU3KSPBK



Grey Finish

Dimensions



W	L	H	KG
130	135	175	1.2

Photometric Performance

20° 3000K			60° 3000K			20° 4000K			60° 4000K		
MH	LUX	Ø	MH	LUX	Ø	MH	LUX	Ø	MH	LUX	Ø
1.0m	3168	0.5	1.0m	1047	1.2	1.0m	3168	0.5	1.0m	1047	1.2
2.0m	792	1.0	2.0m	262	2.3	2.0m	792	1.0	2.0m	262	2.3
3.0m	352	1.5	3.0m	116	3.5	3.0m	352	1.5	3.0m	116	3.5
4.0m	198	1.9	4.0m	66	4.6	4.0m	198	2.0	4.0m	66	4.6
5.0m	127	2.5	5.0m	42	5.8	5.0m	127	2.5	5.0m	42	5.8

To Specify

Track mounted LED spotlight with integrated driver. Extruded aluminium body with LED engine providing spot (20°), medium (40°) or flood (60°) distribution with 355° swivel and 2x90° tilt – as Whitecroft Lighting QUEST LED





Optics

- 3000K or 4000K options
- 17° or 54° beam angles
- 9.5W total power consumption (inc. driver)
- Total power consumption will decrease as LED technology advances
- High quality single bin LEDs
- Lower point brightness due to the unique LED arrangement
- 50,000 hours life expectancy

Body

- For use with iTrack or 3 circuit track
- Extruded aluminium luminaire housing and body painted white or black
- Swivels 360° and tilts 0-90°

Driver

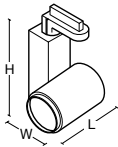
- Constant Current 350mA

Order Codes

Spot Beam (17°)		
3000K	White	EMPH3KSPW
4000K	White	EMPH4KSPW
Medium Beam (54°)		
3000K	White	EMPH3KFLW
4000K	White	EMPH4KFLW
Options		
BLACK FINISH	Replace W with BK	i.e. EMPH4KFLBK



Dimensions



W	L	H	KG
110	109	160	1.2

Photometric Performance

54° 4000K			17° 4000K		
MH	LUX	Ø	MH	LUX	Ø
1.0m	519	1.1	1.0m	4726	0.3
2.0m	130	2.2	2.0m	1182	0.5
3.0m	58	3.4	3.0m	525	0.8
4.0m	32	4.5	4.0m	295	1.1
5.0m	21	5.6	5.0m	189	1.4

To Specify

Track mounted LED spotlight with integrated driver. Extruded aluminium luminaire housing and body providing spot (17°), medium (54°) distribution with 360° swivel and tilts 0-90° – as Whitecroft Lighting EMPHASIS LED

Starline

- Up to IP65 when used in conjunction with additional waterproof connector
- Aluminium slimline channel complete with fixing brackets
- Complete with 150mm connecting cables, with standard connectors, at each end for ease of installation
- Non IP65 plug & play connectors for simple connection pre-wired
- Beam angle - 110°
- High brightness LEDs in linear array mounted in aluminium alloy channel and covered by silicone resin

Driver

- 24V DC electronically stabilised constant voltage driver

Note: Drivers are not IP rated and should not be used in non weatherproof locations



Order Codes

Concert Starline

Starline 600 Warm White	10 Watt	CNSL3K600
Starline 600 Cool White	10 Watt	CNSL4K600
Starline 1200 Warm White	20 Watt	CNSL3K1200
Starline 1200 Cool White	20 Watt	CNSL4K1200

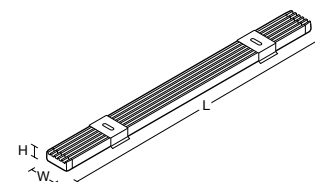
Driver

20 Watt	Runs upto 2 x 10W or 1 x 20W	CNSLD20
75 Watt	Runs upto 7 x 10W or 3 x 20W	CNSLD75

Accessories

QUICK WATERPROOF CONNECTOR (FOR LINKING STRIPS)	CNUY2
---	-------

Dimensions



Version	L	W	H	KG
Starline 600	620	20	6.2	0.1
Starline 1200	1220	20	6.2	0.2

To Specify

Linear LED strip luminaire with extruded aluminium body. Complete with pre-wired cables and connectors. IP65 when used with quick fix waterproof connectors – as Whitecroft Lighting CONCERT STARLINE

concert starline flex

flexible LED
linear strip



Optics

- Total power consumption including driver is 72W
- Available in 3000K or 4000K options
- 50,000 hour life expectancy

Body

- Linear separable LED strip on flexible printed circuit board with self-adhesive back
- High performing adhesive that can be bonded to a variety of surfaces including metal, plastic and glass
- Connection possible at the reel end or at the cut point
- Available in two reel lengths:
 - 3.0m – can be cut in 150mm intervals
 - 9.9m – can be cut in 100mm intervals
- The DALI driver can be programmed to have either one output of 75W or the output split equally between 1-4 channels
- Minimum bending radius 20mm

Driver

- Available with fixed output or DALI drivers
- 20W driver will run 0.75m of CSF283K/CSF364K or 2.75m of CSF213K/CSF274K
- 75W drivers will run 1 full reel



Order Codes

Standard/Fixed Output

Starline Flex 9.9m reel	3000K	CSF213K
Starline Flex 9.9m reel	4000K	CSF274K
Starline Flex 3m reel	3000K	CSF283K
Starline Flex 3m reel	4000K	CSF364K

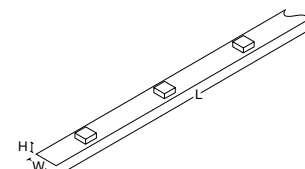
Driver

Standard 75 Watt	CNSLD75
DALI 75 Watt	CSFDY75
Standard 20 Watt	CNSLD20

Accessories

2 PIN CONNECTOR FOR STRIP TO DRIVER* (QTY 10)	CSF2PIN
CONNECTOR FOR CONNECTING STRIPS – 10MM (QTY 10)	CSFCON10
CONNECTOR FOR CONNECTING STRIPS – 150MM (QTY 10)	CSFCON150

Dimensions



Version	L	W	H
3M	3000	8	8
9M	9900	8	8
Driver 20W	109	50	35
Driver 75W (& Dali driver)	221	44	45

LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
3000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM

To Specify

Linear separable LED strip luminaire on a flexible printed circuit board with a self adhesive back. Available in 3m or 9.9m reels – as Whitecroft Lighting CONCERT STARLINE FLEX

Optics

- Lamp options:
 - 20W CDM-TM
 - 35W CDM-TC
 - 70W CDM-T
- Specular anodized aluminium reflector with rectangular facets

Body

- Electronic control gear
- Universal 3 phase adapter included for use with 3 circuit track or 12 circuit "iTrack"
- Ballast housing and luminaire housing of enamelled aluminium extrusion / die cast aluminium painted White or Black
- Swivels 360° and tilts 0-90°



Order Codes

Spot Ref ector	Colour	
20W CDM-TM	White	EMPH-C20E-M3-21
35W CDM-TC	White	EMPH-C35E-M3-21
70W CDM-T	White	EMPH-C70E-M3-21

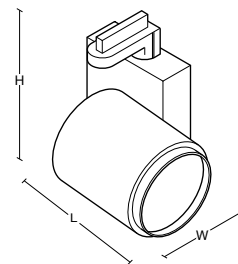
Medium Ref ector	Colour	
20W CDM-TM	White	EMPH-C20E-M3-22
35W CDM-TC	White	EMPH-C35E-M3-22
70W CDM-T	White	EMPH-C70E-M3-22

Flood Ref ector	Colour	
20W CDM-TM	White	EMPH-C20E-M3-23
35W CDM-TC	White	EMPH-C35E-M3-23
70W CDM-T	White	EMPH-C70E-M3-23

Options

BLACK	Replace 1st Number 2 with 3	i.e. EMPH-C70E-M3-31
-------	-----------------------------	----------------------

Dimensions



Version	L	W	H	KG
20/35W	125	131	141	1.0
70W	159	171	194	1.3

Photometric Performance

70W Spot			70W Medium			70W Flood		
MH	LUX	Ø	MH	LUX	Ø	MH	LUX	Ø
1.0m	45802	0.3	1.0m	19748	0.4	1.0m	12072	0.6
2.0m	11451	0.5	2.0m	4937	0.9	2.0m	3018	1.2
3.0m	5089	0.8	3.0m	2194	1.3	3.0m	1341	1.8
4.0m	2883	1.0	4.0m	1234	1.8	4.0m	755	2.4
5.0m	1832	1.3	5.0m	790	2.2	5.0m	483	3.1

To Specify

Track mounted spotlight for 20W CDM-TM, 35W CDM-TC or 70W CDM-T lamp with integral electronic gear. Die cast aluminium body which swivels 360° and tilts 0-90°. Specular anodized aluminium reflector with rectangular facets – as Whitecroft Lighting EMPHASIS





Optics

- Lamp options:
 - 35/70W CDM-T

Body

- For use with 3 circuit track
- Electronic control gear
- Ballast housing, shade and trim ring of die cast aluminium painted silver, white or black
- Protective glass integrated in the trim ring
- Swivels 360° and tilts 0-90°. Can also be tilted 90° upwards on the Y-axis
- Specular anodised aluminium reflector. Available with spot (14°), medium (24°) or wide (42°) distribution



Order Codes

Spot Ref ector (14°)	Colour	
35W CDM-T	Silver	STRA-C35E-M3-11
70W CDM-T	Silver	STRA-C70E-M3-11

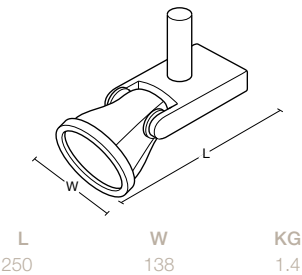
Medium Ref ector (24°)	Colour	
35W CDM-T	Silver	STRA-C35E-M3-12
70W CDM-T	Silver	STRA-C70E-M3-12

Flood Ref ector (42°)	Colour	
35W CDM-T	Silver	STRA-C35E-M3-13
70W CDM-T	Silver	STRA-C70E-M3-13

Options

WHITE	Replace 1st Number 1 with 2	i.e. STRA-C35E-M3-21
BLACK	Replace 1st Number 1 with 3	i.e. STRA-C35E-M3-31

Dimensions



Photometric Performance

70W CDM-T			70W CDM-T			70W CDM-T		
LUX			LUX			LUX		
MH	70W	Ø	MH	70W	Ø	MH	70W	Ø
1.0m	43283	0.3	1.0m	21498	0.4	1.0m	7600	0.8
2.0m	10821	0.5	2.0m	5374	0.8	2.0m	1902	1.5
3.0m	4809	0.8	3.0m	2389	1.3	3.0m	846	2.3
4.0m	2705	1.0	4.0m	1344	1.7	4.0m	476	3.1
Spot 14°			Medium 24°			Flood 42°		

To Specify

3 circuit track mounted spotlight for 35W or 70W CDM-T lamp with integral electronic gear. Die cast aluminium body, with specular aluminium reflector giving spot (14°), medium (24°) or wide (42°) distribution and with 360° swivel and 0-90° tilt – as Whitecroft Lighting STRATO

direct 3

3 circuit mains voltage track system



- Manufactured from extruded aluminium with a maximum rating of 16A from a 240v mains supply
- The system comprises three individually controlled circuits for maximum flexibility and control. The design allows quick and easy connection and mounting
- Available in 2m and 3m lengths finished white or black
- Live and dead ends
- Straight and flexible connectors
- Surface or suspended ceiling fixings

Order Codes

Direct 3

2m length 3 circuit surface track

3m length 3 circuit surface track

Live end feed right

Live end feed left

Dead end

Straight connector

Flexible connector

Ceiling clamp (recommended every 600mm)

Wire suspension set (1500mm maximum length)

Point clamp suspension (must be ordered for use with wire suspension set)

Bending Tool

White

SHXTS4200W

SHXTS4300W

SHXTS11W

SHXTS12W

SHXTS41W

SHXTS21W

SHXTS23W

SHSKB12W

SHSPW1W

SHSP4PW

SHXTSV12

Options

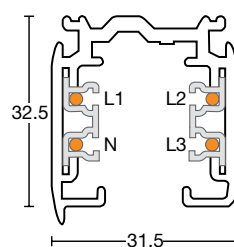
BLACK

Replace W with B

i.e. SHXTS4200B

Note: Other accessories, track lengths and colours also available – please contact our sales office

Dimensions



Track Components



Straight Connector



Flex Corner Connector



Ceiling Clamp



Live End



Dead End



Point Clamp



Wire Suspension

To Specify

Three circuit extruded aluminium track with a maximum rating of 16A from a 240v mains supply compatible with Strato range spotlights. Three individually controlled circuits for maximum flexibility and control. Available in 2m and 3m lengths finished white with live and dead end fixings and for surface or suspended mounting – as Whitecroft Lighting DIRECT 3



Optics

- Lamp options:
 - 1 x 24/28/54W T5
- Lamps overlap to avoid dark spots on the diffuser
- Satine Blend polycarbonate TP(a) diffuser. Provides even illumination whilst maximising light output
- Clip in diffuser with overlap joint detail to eliminate gaps on continuous runs

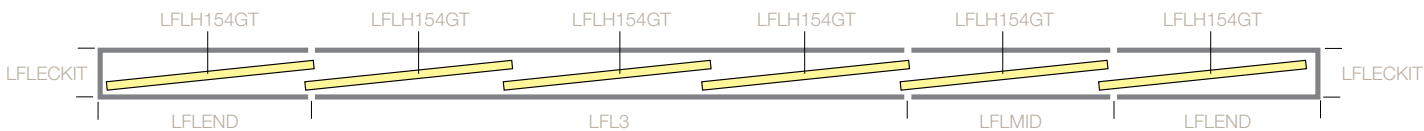
Body

- Recessed luminaire system
- Available in continuous or individual units. All luminaires with exception of the stand alone unit supplied with through wiring
- IP20 rated
- Extruded aluminium body finished white
- Extra long length body/diffuser to minimise joint details
- Can be ceiling or wall mounted
- Installation kits included
- For plasterboard and exposed T ceilings





Continuous Configuration



Typical parts configuration
Contact our Technical Desk for advice on alternative configuration

Order Codes

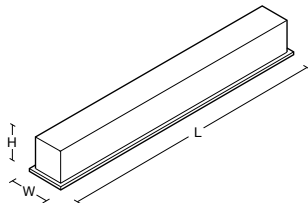
Extruded Body Sections (Includes Diffuser & Installation Kit)	
1200mm End of Row Body with diffuser & one installation kit*	LFLH154GT
1200mm Mid Row Body with diffuser & one installation kit*	LFLMID
3000mm Mid Row Body with diffuser & two installation kits*	LFL3
Individual Body with diffuser & one installation kit*	LFLH154GT
*Note: End caps to be ordered separately	

Gear Trays	HF Gear	3 hr Emergency
T5 1 x 54W	LFLH154GT	LFLH154GTEM
T5 1 x 28W	LFLH128GT	LFLH128GTEM
T5 1 x 24W	LFLH124GT	-

Accessories	
End Cap Kit (Qty 2)	LFLH154GT

Options	
DALI DIMMING	Replace H with Y i.e. LFLY154GT
SWITCH DIMMING	Replace H with X i.e. LFLX154GT
COMEPS	Add suffix /EP i.e. LFLH154GT/EP

Dimensions

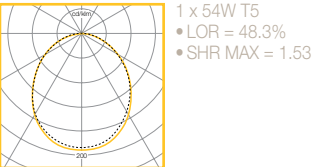


Version	L	W	H	KG	KG
LFLH154GT	1133	112	90.5	3.5	-
LFLMID	1070	112	90.5	3.4	-
LFL3	3210	112	90.5	10.2	-
LFLH154GT	1230*	112	90.5	3.6	-
LFLH154GT	Incorporated above			0.9	1.9
LFLH128GT	Incorporated above			0.9	1.9
LFLH124GT	Incorporated above			0.6	-
End Cap	15	112	90.5	0.1	-
*Includes End Caps					

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 54W T5	4450	24,000hrs
1 x 28W T5	2625	24,000hrs
1 x 24W T5	1750	24,000hrs

Photometric Performance



Utilisation Factors UF(F)	
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.34 0.47 0.50

To Specify

Linear recessed continuous or individual T5 luminaire system for feature lighting with lamp image diffusion and extruded aluminium body – as Whitecroft Lighting LIFE L



Optics

- Lamps:
 - 18W TC-D and 20W CDM-Tm
- Acrylic diffuser shade for soft ambient lighting effect with 18W TC-D lamp
- Reflector with 30° beam angle for accent lighting with 20W CMH Tm

Body

- Recessed multi-source downlighter with a brushed anodised aluminium body
- Electronic control gear included for 18W TC-D lamp
- Remote electronic gearbox required for each 20W CMH lamp
- To fit ceilings 5-25mm thickness



NOC Combi Double

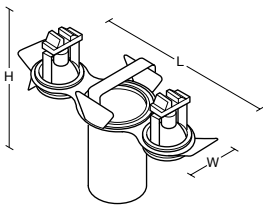
Order Codes

NOC	HF Gear
NOC Combi Double	WACO490.04.4.20.2
NOC Combi Triple	WACO490.04.4.20.3
Remote Gear Box	GB-C20TME-P

Lamp Performance

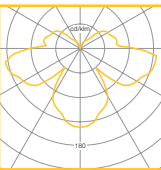
Wattage	IL@25°C	Lamp Life
1 x 18W TC-DEL	1200	13,000hrs
1 x 20W CDM-Tm	1650	12,000hrs

Dimensions



Version	L	W	H	KG
Double	290	170	300	0.8
Triple	410	170	300	1.0

Photometric Performance



1 x 18W TC-D
• LOR = 67%
• SHR MAX = 1.81

20W CDM-Tm		
	LUX	
M	20W	Ø
1.0m	3616	0.49
2.0m	904	0.98
3.0m	402	1.47
4.0m	180	2.10
Medium 30°		

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.43	0.68	0.81

To Specify

Recessed multi-source downlighter with a brushed anodised aluminium body and acrylic shade – as Whitecroft Lighting NOC



Optics

- Recessed 1, 2, or 3 lamps in line
- 35W and 70W CDM-T with G12 lamp base
- Highly polished anodised aluminium reflectors
- Medium 20° reflector beam angle

Body

- Cast aluminium Gimbal finished in silver
- Steel frame finished in silver
- Steel canopy finished in black
- Remote gearbox must be ordered separately. Plug and socket connection to luminaire

Order Codes

Orbit – CDMT lamps

Single 20° Reflector

Twin 20° Reflector

Triple 20° Reflector

Control Gear (Order separately for each lampway)

1 x 35W CDMT Remote Electronic Gear

1 x 70W CDMT Remote Electronic Gear

ORB-1LR-12

ORB-2LR-12

ORB-3LR-12

GB-C35E-P

GB-C70E-P



Single

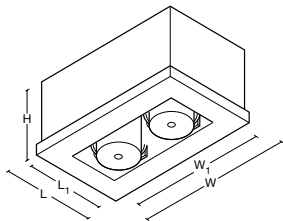


Twin



Triple

Dimensions



Type	L	W	H	L ₁	W ₁	KG
Single	230	202	162	210	162	2.5
Twin	376	202	162	355	162	2.5
Triple	520	202	162	500	162	3.0
Gearbox	175	90	40	–	–	0.4

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 35W CDM-T	3300	12,000hrs
1 x 70W CDM-T	6600	12,000hrs

Photometric Performance

Orbit angle 20°
CDM MEDIUM REFLECTOR

MH	35W	70W	Ø
1.0m	7500	15000	0.35
2.0m	1875	3760	0.70
3.0m	830	1760	1.05
4.0m	470	940	1.40

To Specify

Recessed Gimbal directional cluster spotlight with cast aluminium Gimbals and 0.8mm rigid, 162 mm deep mild steel canopy and frame and remote gearbox with plug and socket connection. Reflector to be spring retained – as Whitecroft Lighting ORBIT



Optics

- Lamp options:
 - 3 x 24W T5
- Polycarbonate diffuser, with no lamp image visible
- Positively retained framed diffuser
- Can be used with daylight balanced lamp to create skylight feature
- IP40

Body

- Steel body finished white
- For installation in exposed T, spring T or plasterboard ceilings

Order Codes

Life Q
T5 3 x 24W

HF Gear
LFQH324

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

T15/T25 Pull up

Spring T Grids

SAS – 150/120
Armstrong – Orcal 1800/3000
Burgess – Clip in/Abar

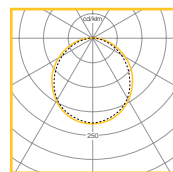
Plasterboard

Prepared aperture -
Cut out 578 x 578mm_{±0}
For multiple configurations please contact the Technical Desk

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 24W T5	1750	24,000hrs

Photometric Performance



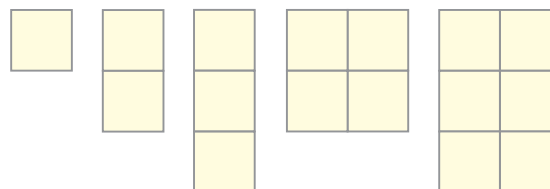
- 3 x 24W T5
- LOR = 60.3%
- SHR MAX = 1.59

Utilisation Factors UF(F)

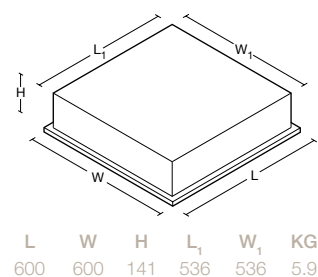
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.42	0.59	0.63



Typical Configurations



Dimensions



Colour Balance



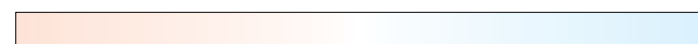
Warm Fluorescent - 3000k



Cool Fluorescent - 4000k



Daylight - 6500k



To Specify

Square recessed fluorescent luminaire system for feature lighting, with lamp image diffusion and steel body – as Whitecroft Lighting LIFE Q







Optics

- Lamp options:
 - 3 x 24W T5
- Polycarbonate diffuser, with printed image (order separately)
- A selection of images are available to enhance and define the space
- Positively retained framed diffuser
- IP40

Body

- Steel body finished white
- For installation in exposed T, spring T or plasterboard ceilings



Order Codes

Life P (Body & Frame)
T5 3 x 24W

HF Gear
LFPH324BD

Printed Diffuser

Configuration C1 and sky image

i.e. LFPC1-PA

Alternative configurations:

Replace C1 with C2 – C6 depending on configuration required

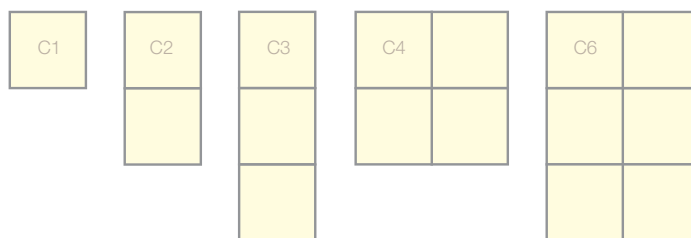
Alternative images:

Replace PA with PB, PC or PD depending on picture required

e.g. To order C6 with Autumn you must order: 6 off LFPH324BD
1 off LFPC6-PB

Special configurations and images available on request

Typical Configurations



Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 24W T5	1750	24,000hrs

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

T15/T25 Pull up

Spring T Grids

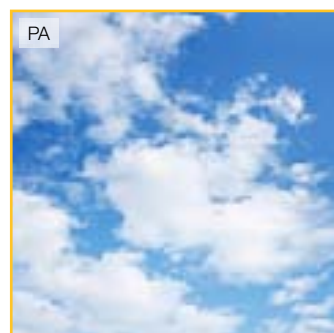
SAS – 150/120
Armstrong – Orcal 1800/3000
Burgess – Clip in/Abar

Plasterboard

Prepared aperture
Cut out 578 x 578mm ±0.5

Printed Images

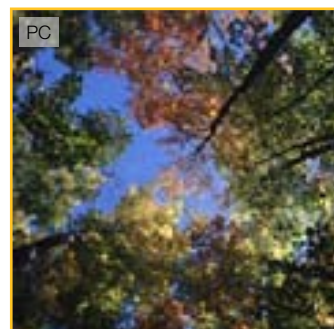
Sky



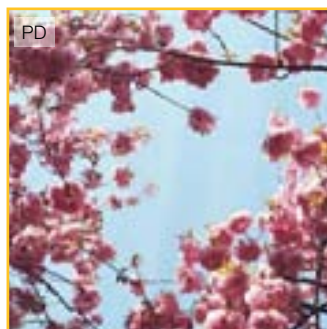
Autumn 1



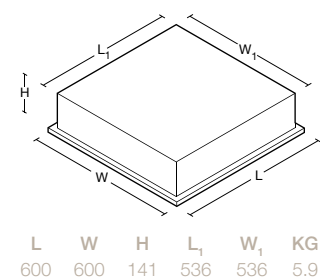
Autumn 2



Blossom



Dimensions



To Specify

Square recessed fluorescent luminaire system for feature lighting, with printed diffuser and steel body – as Whitcroft Lighting LIFE P

Optics

- 6 LED RGB strips
- Polycarbonate Tp(a) diffuser to deliver a solid block of saturated colour
- Positively retained framed diffuser
- One master luminaire unit can be linked to and drive up to 15 slave luminaires

Body

- Steel body finished white
- For installation in exposed T, spring T or plasterboard ceilings
- A master kit must be purchased separately to convert standard luminaire into a master unit
- Supplied with each luminaire:
 - 1 Y connector
 - 2 connection cables (2.1m)
- Master kit contents:
 - 1 infra red receiver
 - 1 remote control



Order Codes

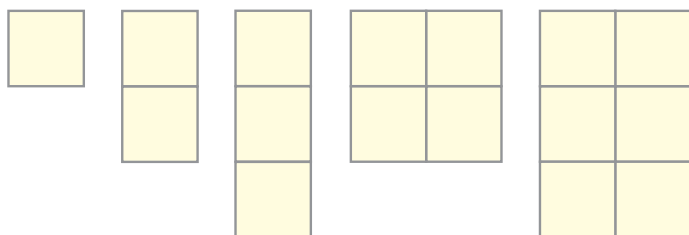
Life Colour

Life colour unit

Life colour master kit

LFC
LFCMASKIT

Typical Configurations



Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

T15/T25 Pull up

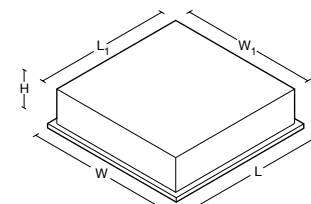
Spring T Grids

SAS – 150/120
Armstrong – Orcal 1800/3000
Burgess – Clip in/Abar

Plasterboard

Prepared aperture -
Cut out 578 x 578mm
For multiple configurations please contact the Technical Desk

Dimensions



L	W	H	L ₁	W ₁	KG
600	600	141	536	536	6.0



To Specify

Square recessed colour change LED system for feature lighting with lamp image diffusion and steel body – as Whitecroft Lighting LIFE COLOUR

concert c111

LED directional
downlighter



Optics

- 7 x 3W LEDs (6000K) - 320 lumens
- 5 x 3W LEDs (RGB) colour change
- 16° beam angle

Body

- Die cast aluminium bezel finished silver
- Circular gimbal that tilts up to 30°



Order Codes

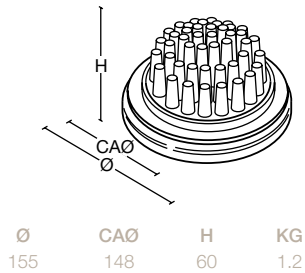
Concert C111

Circular Gimbal (Requires LED Set Below)		CNAR111104
7 x 3W LED White Spot	Includes driver	CNLEDPSC111
5 x 3W LED RGB Flood	Requires driver	CNLEDPRGB
Driver for RGB head	Drives 1 RGB head	CNRGBBOX
See page 74 for RGB driver specification		

Photometric Performance

Due to the continual development in LED technology, please contact our Technical Desk for up to date photometric data

Dimensions



To Specify

Recessed 21W LED gimbal in 6000K / RGB that will tilt up to 30° in circular silver aluminium frame – as Whitecroft Lighting CONCERT C111

RGB Colour Change Driver

- Maximum load: 27watt - 9watt max per circuit (3 circuits)
- Output: 3 x 0.35A (350mA)
- Colour change is controlled either via a customer supplied push to make switch, an optional infra-red receiver and remote control (CNRGBOXIR-2) or by DMX using an optional DMX interface (CNDMXI)
- IP66 rated junction box available for parallel wiring of luminaires
- Includes 1m interface cable for connection to additional CNRGBOXs

RGB Remote Control

- Remote control and infra-red receiver, for use in conjunction with CNRGBOX. Colour change, brightness and colours can be all operated from the controller
- Batteries not included

DMX Interface

- Interface unit for connection to CNRGBOX driver to allow control by DMX protocol
- Maximum load: 10 CNRGBOX drivers connected by interface cable

DMX Wall Controller

- Wall mounted DMX controller with 3 rotating switches to provide control for colour, brightness and colour change program
- Controls up to 32 DMX interface units
- The controller pack includes 1 x 5m Cat5 Cable terminated with RJ45 connectors, 1 x 5m Cat5 Cable 1 end terminated with RJ45 connector and the other open for wiring into DMX interface, 1 x power supply

Order Codes

RGB Controls

RGB colour change driver	CNRGBOX
RGB Infra-red remote control & receiver*	CNRGBOXIR-2
DMX interface*	CNDMXI
DMX wall controller	CNDMXCWM01
IP66 Junction box for serial connection of 2 RGB luminaires	CNJB3
Quick waterproof connector for 2 cables	CNUY2

*Includes 1M interface cable for connection to CNRGBOX

Please refer to www.whitecroftlighting.com for the wiring diagrams



RGB Colour Change Driver



RGB Infra-Red Receiver



RGB Remote Control



DMX Interface



DMX Wall Controller

concert starline flex RGB

flexible colour change
adhesive LED strip

Optics

- Total power consumption including driver is 67W
- 50,000 hr life expectancy
- Each LED contains red, green and blue emitters

Body

- Linear separable LED strip on flexible printed circuit board with self-adhesive back
- The strip features a high performing adhesive that can be bonded to a variety of surfaces
- For optimum adhesion, installation on a metal heatsink is recommended
- 4m length reel
- Can be cut in 100mm intervals
- Either 10mm or 150mm connectors available to connect strips together

Control

- 60W driver and control unit with integrated RGB sequencer for up to 4 different sequences and 16 scenes*
- Up to 16 60W drivers can be linked together using Y Connectors (supplied separately)
- If more than 16 linked drivers are required a System Coupler can be used (supplied separately)
- Ceiling mounted infra-red receiver can be used in conjunction with the handheld remote control to switch between sequences and scenes. One receiver and one remote can control an entire system
- Push button coupler to enable controlling of the strips via a retractive switch mounted on the wall (Y Connector Screw Lead must be used with Push Button Coupler)

* The 60W driver will power a maximum length of 3m of Concert Starline Flex RGB.

Order Codes

Standard/Fixed Output

Starline Flex RGB 4m reel

CSFRGB

Driver

60W Driver and Control Unit

CSFRD60

Accessories

1 x Y Connector Lead

CSFRYCON

4 Pin Connector (Qty 10)

CSFR4PIN

10mm Connector (Qty 10)

CSFCON10

150mm Connector (Qty 10)

CSFCON150

System Components

Infra-red Remote Control

CSFRRC

Infra-red Receiver

CSFFRIIR

Push Button Coupler

CSFRPC

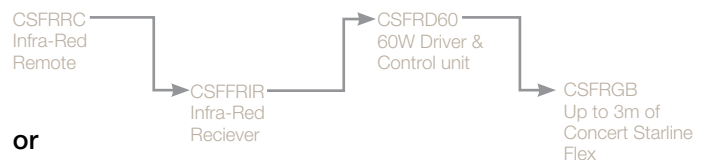
System Expansion Coupler

CSFRSC



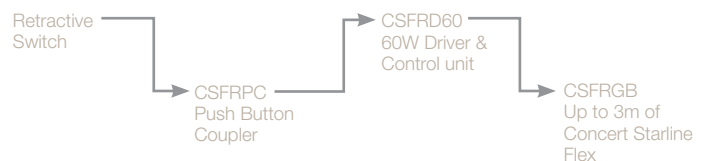
System Examples

1

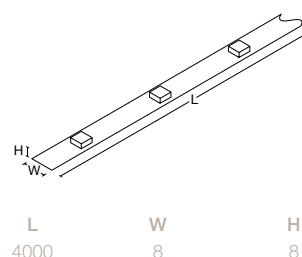


or

2



Dimensions



To Specify

Linear separable LED strip luminaire on a flexible printed circuit board with a self adhesive back. Red, green and blue colour changing LEDs. Available in 4m length reel with a number of control options. – as Whitecroft Lighting Concert Starline Flex RGB

asymmetric wallwasher

compact fluorescent
recessed & surface
wall washer



Optics

- Lamp options:
 - 1 or 2 x 55W TC-L
- Asymmetric semi-specular reflector
- Recommended spacing:
 - 750mm from vertical surface on 1.8m centre

Body

- Steel body finished white
- Universal body for surface or recessed mounting
- Compatible with the following ceiling types:
 - Exposed T 15mm and 25mm flat
- BESA fixings at rear for surface mounting



Order Codes

Asymmetric Wallwasher
TC-L 1 x 55W
TC-L 2 x 55W

HF Gear
ASYU155S
ASYU255S

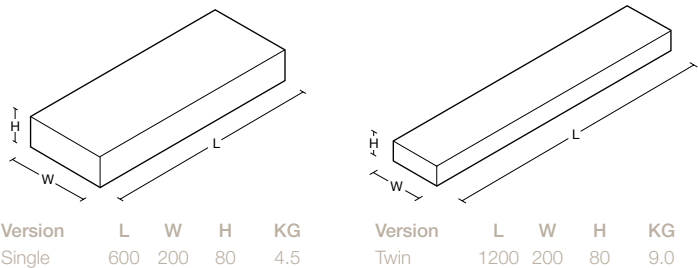


Recessed Mount

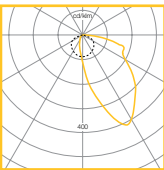
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 55W TC-L	4800	20,000hrs

Dimensions



Photometric Performance



1 x 55W TC-L
• LOR = 53.5%

To Specify

Universal fully recessed/surface compact fluorescent asymmetric luminaire. Semi-specular parabolic low glare louvre – as Whitecroft Lighting ASYMMETRIC WALLWASHER



Optics

- Lamp options:
 - 1 x 5W TC-S
- Supplied with yellow, red, green and blue polypropylene diffusers for on site customisation
- Front and back light feature

Body

- Recessed wall box with a choice of 4 alternative decorative anodised aluminium facias
- IP40
- Suitable for wall thickness 5-20mm

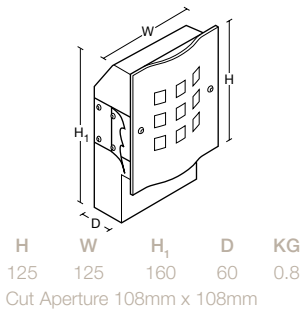
Order Codes

Squire	Facia	HF Gear
TC-S 1 x 5W	Cedric	WACO618.02.0.20.2
TC-S 1 x 5W	Kay	WACO618.02.0.20.4
TC-S 1 x 5W	Laurence	WACO618.02.0.20.6
TC-S 1 x 5W	Vaillant	WACO618.02.0.20.8

Options

PLASTERKIT	For use with plastered walls	WACO618.05.0.00.0
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Dimensions



Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 5W TC-S	250	13,000hrs



Cedric



Kay



Laurence



Vaillant



Colour Variations

To Specify

Recessed wall light with surface mounted decorative screen – as Whitecroft Lighting SQUIRE



suspended



powerbay CX 80



echo 280 LED 82



echo 280 84



echo 380 86



kolo 88



convor 90



atlanta 92



atlanta junior 93



buzzito 94



iceberg 95



foil twin optic 96



foil single optic 106



javellin 108



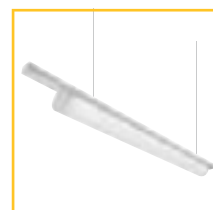
penna 110



orlas 114



vector 118



inspiration 120



glide 122



buuze 124



aerial 126

pendant

suspended

Optics

- Light Output Options:
 - 11,500 lumens (137W*)
- *Total power consumption including driver based on 6000K light engine
- Open area and aisle distribution patterns available
- Supplied with Acrylic (PMMA) lens
- Available in 4300K & 6000K
- 100,000 hour life expectancy
- IP66 rated as standard / IP54 with integral sensor
- Suitable for mounting heights above 4m

Body

- Low profile cast aluminium body finished light grey
- Operating temperature from -40°C to +65°C
- Mounting brackets available for ceiling and wall mounting to be ordered separately
- Available with a wide range of attachments
- Optional Command 7 integral sensor for on/off switching. Suitable for up to 15m mounting height (not for use with attachments)
- Supplied with a 3M PVC cable

Order Codes

Powerbay CX

11,500 lumens 6000K – Open Area Distribution
11,500 lumens 6000K – Aisle Distribution

Fixed Output

PCXAH6KC
PCXAH6KA

Accessories

Close Coupler Bracket
Ceiling and wall Mounting Bracket
Wire Suspension Kit
Clear Refractor*
Feature Ring*
Feature Ring inner disc**
Integral detector remote control

PCXCBB
PCXWMB
PCXWSUSKIT
PCXCBB
PCXFR
PCXID
PCXRC

Options

4300K COLOUR TEMP	Replace 6 with 4	i.e. PCXAH4KC
1-10V DIMMING	Replace H with R	i.e. PCXAR6KC
INTEGRAL SENSOR	Insert Q7 after A	i.e. PCXAQ7R6KC

*Requires wire suspension kit

**Requires feature ring



Body Only

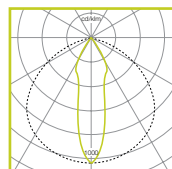


Feature Ring

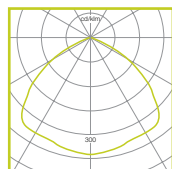


Ceiling and Wall Mounting Bracket

Photometric Performance



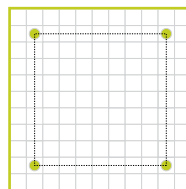
Powerbay CX elliptical distribution
• LOR = 100%



Powerbay CX symmetrical distribution
• LOR = 100%

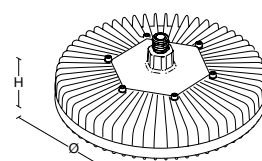
Performance Guide

Lamps	Illuminance	Spacing
11,500 lumens	350 lux	4.0m x 4.0m



Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 10.0m
Working Plane: 0.0m

Dimensions



Ø	H	KG
406	125	8.2

To Specify

IP66 11,500 lumen circular high bay luminaire. Cast aluminium body finished grey with PMMA acrylic lens and open area / aisle light distribution pattern – as Whitecroft Lighting POWERBAY CX





echo 280 LED

LED architectural low bay luminaire



Optics

- LED Options (4000K only)
 - 1,500 lumens – 16 LEDs running at 350mA = 18W system power
 - 4,000 lumens – 25 LEDs running at 700mA = 55W system power
- High quality single bin LEDs
- 50,000 hour life expectancy
- Clear, opal and metalised prismatic refractor or metal reflector options

Body

- Aluminium spun housing integrating an extruded aluminium heat sink
- Simple screw removal allows access to the gear housing for efficient installation and maintenance
- Body supplied complete with an adjustable twin wire suspension kit (up to 3.0m drop)
- 3 point key holes allow for rapid onsite assembly of the body and reflector / refractor
- Body and reflector / refractor to be ordered separately
- Finished in grey
- DALI and emergency luminaires supplied with ceiling suspension kit as standard (can be ordered separately for non emergency/DALI luminaires)

Order Codes

Echo 280 LED – 1500 lumens	Fixed Output	3 hr Emergency
Echo 280 LED - 4000K	EC280-H154KG	–

Echo 280 LED – 4000 lumens		
Echo 280 LED - 4000K	EC280-H404KG	EC280-H404KGEM

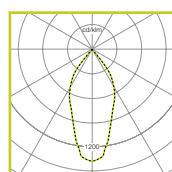
Accessories

Clear Refractor	EC30
Part Metalised Refractor	EC30PRTMET
Metal Reflector	EC30REFLC
Opal Reflector	EC30PAL
Ceiling Rose Kit	EC70CEILKIT

Options

DALI DIMMING	Replace H with Y	i.e. EC280-Y154KG
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Photometric Performance



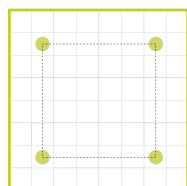
55W LED + EC30
 • LOR = 100%
 • SHR MAX = 0.92
 • 3493 lumens

Utilisation Factors UF(F)

Utilisation Factors U _r (r)					
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.85	1.03	1.08

Performance Guide

Lamps	Illuminance	Spacing
4000 lumens	310 lux	3.0m x 3.0m



Maintenance: 0.8
 Reflectance: 70/50/20
 Ceiling Height: 6.0m
 Working Plane: 0.0m



Opal Prismatic Refractor



Part Metalised Prismatic Refractor



Clear Prismatic Refractor

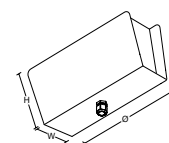
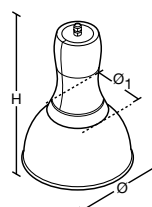


Spun Aluminium Reflector



Ceiling Suspension Kit - Emergency and DALI Luminaires (Compulsory)

Dimensions



Ø	Ø ₁	H	KG	L	W	H	KG
315	139	443	5.75	300	142	138	1.0

To Specify

Suspended architectural LED low bay luminaire utilising high quality single bin LEDs. Aluminium spun housing integrating an extruded aluminium heat sink with clear / opal / part metalised refractor or aluminium reflector – as Whitecroft Lighting ECHO 280 LED

echo 280

architectural low bay
pendant luminaire



Optics

- Lamp options:
 - 1 x 17W PL-R
 - 1 x 26W TC-T
 - 1 x 57W TC-T
 - 3 x 26W TC-T
 - 70W or 150W HIPE high output open fixture rated Venture ceramic metal halide with superior lumen maintenance
- Clear, opal and metalised prismatic refractor or metal reflector options

Body

- Two piece cast aluminium body finished grey
- Simple screw removal allows access to the gear housing for efficient installation or maintenance
- Body supplied complete with an adjustable twin wire suspension kit (up to 3.0m drop)
- 3 point key holes allow for rapid onsite assembly of the body and reflector / refractor
- Body and reflector / refractor to be ordered separately
- Ceiling rose can be used on all products but is supplied as standard with the emergency product

echo 280

Order Codes

Echo 280	Standard	3 hr Emergency
PL-R 1 x 17W	EC280-F17H	EC280-F17HEM
TC-T 1 x 26W HF	EC280-F26H	EC280-F26HEM
TC-T 1 x 57W HF	EC280-F57H	-
TC-T 3 x 26W HF	EC280-F326H	EC280-F326HEM
HIPE 1 x 70W	EC280-C70H	-
HIPE 1 x 150W	EC280-C150H	-

Accessories

Clear Refractor	EC30
Part Metalised Refractor	EC30PRTMET
Metal Reflector	EC30REFLC
Opal Refractor	EC30PAL
Ceiling Rose Kit	EC80CEILKIT

Options

DALI DIMMING	Replace H with Y	i.e. EC280-F17Y
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Note: Dimming versions not available with HIPE 1 x 70W / 1 x 150W
Ceiling rose kit is supplied as standard with emergency products



Opal Prismatic Refractor



Part Metalised Prismatic Refractor



Clear Prismatic Refractor



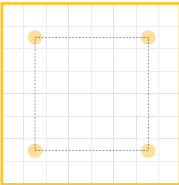
Metal Reflector



Ceiling Suspension Kit

Performance Guide

Lamps	Illuminance	Spacing
3 x 26W TC-T	275 lux	3.0m x 3.0m

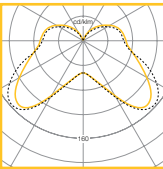


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
6.0m
Working Plane:
0.0m

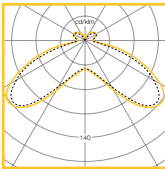
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 17W PL-R	1250	24,000hrs
1 x 26W TC-T	1800	13,000hrs
1 x 57W TC-T	4300	13,000hrs
1 x 70W HIPE	5000	15,000hrs
1 x 150W HIPE	12600	15,000hrs

Photometric Performance



3 x 26W TC-T
Clear Prismatic
Refractor
• LOR = 93.4%
• SHR MAX = 2.69



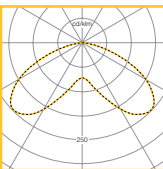
3 x 26W TC-T
Part Metalised
Refractor
• LOR = 80.5%
• SHR MAX = 1.33

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.45 0.73 0.82

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.42 0.69 0.77

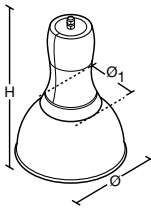


3 x 26W TC-T
Metal Reflector
• LOR = 83.1%
• SHR MAX = 2.69

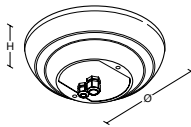
Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.48 0.77 0.84

Dimensions



Ø	Ø ₁	H	KG	KG
315	180	442	3.8	5.3



Ø	H	KG
255	100	1.0

To Specify

Suspended architectural low bay luminaire with two piece extruded aluminium gear housing, with clear /opal / part metalised refractor or aluminium reflector – as Whitecroft Lighting ECHO 280

echo 380

suspended architectural
high bay luminaire



Optics

- Lamp options:
 - 4 x 42W TC-T
 - 250W or 400W high output open fixture rated Venture ceramic metal halide with superior lumen maintenance
- Clear and metalised prismatic refractor or metal reflector options

Body

- Two piece cast aluminium housing finished grey
- Pre-wired GST18 i5 socket is integrated within the top of the body and supplied with GST18 i5 plug as standard for efficient installation
- Body supplied complete with an adjustable twin wire suspension kit (up to 3.0m drop)
- 3 point key holes allow for rapid onsite assembly of the body and reflector / refractor
- Optional spun steel ceiling rose finished grey
- Body and reflector / refractor to be ordered separately

echo 380

Order Codes

Echo 380	Standard	3 hr Emergency
TC-T 4 X 42W HF	EC380-F442H	EC380-F442HEM
HQI-E 1 X 250W	EC380-250V	-
HQI-E 1 X 400W	EC380-400V	-

Accessories

417mm Ø Clear Refractor	EC40
570mm Ø Clear Refractor	EC50
570mm Ø Part Metalised Refractor	EC50PRTMET
417mm Ø Metal Reflector	EC40REFLC
Ceiling Rose Kit (optional)	EC80CEILKIT

Options (4x42W Only)

DALI DIMMING	Replace H with Y	i.e. EC380-F442Y
SWITCH DIMMING	Replace H with X	i.e. EC380-F442X
COMEPS	Add suffix /EP	i.e. EC380-F442H/EP
EASYTEST	Add suffix /ET	i.e. EC380-F442H/ET
COMET	Add suffix /CT	i.e. EC380-F442H/CT



Part Metalised Prismatic Refractor



Metal Reflector

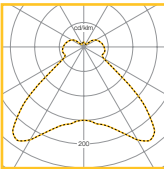


Clear Prismatic Refractor



Ceiling Suspension Kit (Optional)

Photometric Performance



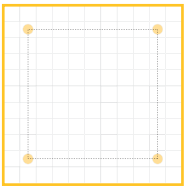
4 x 42W TC-T
Clear Prismatic
Refractor
• LOR = 79.4%
• SHR MAX = 2.14

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.48	0.69	0.75

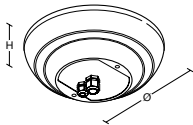
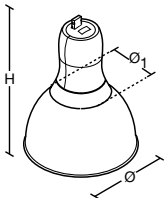
Performance Guide

Lamps	Illuminance	Spacing
4 x 42W TC-T	330 lux	4.0m x 4.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
10.0m
Working Plane:
0.0m

Dimensions



With EC50 refractor							Ø	H	KG
Version	Ø	Ø ₁	H	KG	KG ₂	KG ₃	255	100	1.0
4 x 42W	570	304	700	7.1	7.8				
250/400W	570	304	700	12.4	-				
With EC40 refractor									
Version	Ø	Ø ₁	H	KG	KG ₂	KG ₃			
4 x 42W	417	304	637	7	7.2				
250/400W	417	304	637	12	-				

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 42W TC-T	3200	13,000hrs
1 x 250W HIPE	23500	15,000hrs
1 x 400W HIPE	40000	20,000hrs

To Specify

Suspended architectural high bay with cast aluminium gear housing and clear prismatic / part metalised refractor or aluminium reflector. Supplied with pre-wired GST18 i5 socket mounted in the housing – as Whitecroft Lighting ECHO 380



Optics

- Light output options:
 - 4000 Kelvin 'cool white' colour temperature
- High quality, single bin LEDs with a 4 MacAdam ellipse tolerance
- Polycarbonate opal diffuser
- 50,000 hours life expectancy
- Up to 87 luminaire lumens per circuit watt

Body

- 300mm or 400mm diameter bodies in cast aluminium with injection moulded base
- Finished in white or silver
- IP40
- Choice of integrated emergency options:
 - 3 hour emergency
 - EasyTest
 - COMEPS
- Optional Command 5 microwave detector mounted behind the diffuser that can be set to one of two configurations;
 - Microwave presence detection with ON/OFF operation
 - Microwave presence detection with High/Low/Off set-back functionality. Can be set to switch from 100% down to set-back position of 50%, 30%, 20%, 10% or OFF
- Command 5 sensor can only be used in conjunction with fixed output products
- Optional trim ring available for an alternative aesthetic finish
- Product also available in a surface version, see page 170

Order Codes

300mm 4K Silver	Fixed Output	3 hr Emergency
800 lumens (11W)*	K4H364KS	K4H364KSEM
1100 lumens (15W)*	K4H3124KS	K4H3124KSEM

400mm 4K Silver	Fixed Output	3 hr Emergency
1700 lumens (20W)*	K4H4154KS	K4H4154KSEM
2300 lumens (28W)*	K4H4204KS	K4H4204KSEM

Accessories

Trim ring 300mm silver	KLTR300S
Trim ring 400mm silver	KLTR400S
Suspension kit	KLSUSKIT

Options

DALI DIMMING	Replace H with Y	i.e. K4Y364KS
EASYTEST	Add suffix /ET	i.e. K4H364KS/ET
COMEPS	Add suffix /EP	i.e. K4H364KS/EP
COMMAND 5**	Replace H with Q5	i.e. K4Q5364KS
WHITE FINISH	Replace S with W	i.e. K4H364KW

**Note: Command 5 set-back functionality not available in 300mm emergency or DALI products

*Available for delivery from January 2013.



Without Trim Ring



400mm Diameter



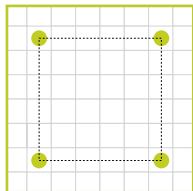
300mm Diameter

LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 4 SDCM

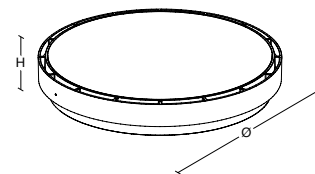
Performance Guide

Lamps	Illuminance	Spacing
28W LED	200 lux	3.0m x 3.0m



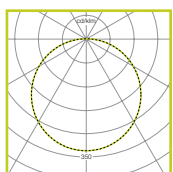
Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 2.7m
Working Plane: 0.8m

Dimensions

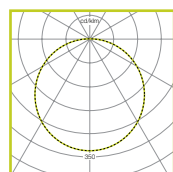


Version	Ø	H	KG	KG/m²
300mm suspended	300	95	2.1	2.5
400mm suspended	400	95	3.5	3.9

Photometric Performance



300mm
11W 800 lumen
• LOR = 100%
• SHR MAX = 1.64



400mm
20W 1700 lumen
• LOR = 100%
• SHR MAX = 1.64

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.67 0.95 1.03

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.67 0.95 1.02

To Specify

Suspended circular IP40 LED luminaire in 300 or 400mm diameter. Polycarbonate opal diffuser. Optional integrated microwave presence detector with ON/OFF or set-back functionality – as Whitecroft Lighting KOLO



convor suspended

high output
circular pendant



Optics

- Lamp options:
 - 4 x 26W TC-D
 - 1 x 60W T5-C
 - 4 x 17W PLR-ECO
- Micro polymer diffuser option in polycarbonate for applications where impact resistance is important

Body

- Two part spun steel body finished silver and injection moulded gear tray, providing thermal management
- IP40
- Optional extruded and rolled aluminium bezel
- Optional acrylic feature ring available
- Suspension by 3 wire suspension kit supplied separately. Adjustable drop to 3m
- Integral emergency versions due to superior thermal management construction
- Optional Command 5 microwave sensor available mounted behind the diffuser for on/off operation

Order Codes

Convor	HF Gear	3 hr Emergency
TC-D 4 x 26W	CNVAH426	CNVAH426EM
T5-C 1 x 60W	CNVAH160	CNVAH160EM
PLR-ECO 4 x 17W	CNVAH417	CNVAH417EM

Options

DALI DIMMING	Replace H with Y	i.e. CNVAY426
SWITCH DIMMING*	Replace H with X	i.e. CNVAX426
COMMAND 5**	Add Q5 after CNVA	i.e. CNVA Q5 H426
EASYTEST*	Add suffix /ET	i.e. CNVAH426/ ET
COMEPS*	Add suffix /EP	i.e. CNVAH426/ EP
COMET	Add suffix /CT	i.e. CNVAH426/ CT
SUSPENSION KIT		CNVSUSKIT
POLYCARBONATE DIFFUSER	Replace A with P	CNVP426
FEATURE RING		CNVFR
ALUMINIUM BEZEL		CNVBEZ

*Not available for T5-C 1 x 60W

**Command 5 is only available with HF gear.



Feature Ring



Extruded Aluminium Bezel

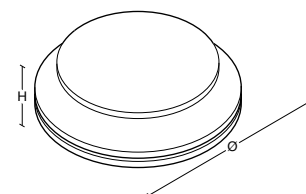


Standard Bezel

Lamp Performance

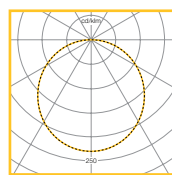
Wattage	IL@25°C	Lamp Life
1 x 26W TC-D	1800	13,000hrs
1 x 60W T5-C	5000	12,000hrs
1 x 17W PLR-ECO	1250	19,000hrs

Dimensions



Version	Ø	H	KG	KG ☐
Standard	538	168	7.9	8.9
Bezel	596	168	8.4	9.4
Feature ring	680	168	8.1	9.1

Photometric Performance



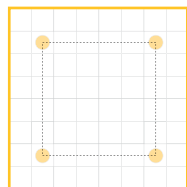
4 x 26W TC-D
• LOR = 73.7%
• SHR MAX = 1.67

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.47 0.68 0.74

Performance Guide

Lamps	Illuminance	Spacing
4 x 26W TC-D	520 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

To Specify

High output circular IP40 luminaire with micro polymer diffuser in acrylic or polycarbonate. Two part body with thermal management to allow integral self contained emergency option – as Whitcroft Lighting CONVOR



Optics

- Lamp options:
 - 250W or 400W high output open fixture rated Venture metal halide with superior lumen maintenance
 - 4 x 42W TC-T high frequency gear or dimming

Body

- Four piece extruded aluminium housing
- Silver grey polyester powder paint finish
- Fixing bracket suitable for hook, 20mm conduit or BESA fix
- Optional adjustable suspension kit available (3m max)
- High ambient temperature operation up to 40°C
- Pre-wired panel mounted socket integrated within top of body and supplied with plug as standard for efficient installation

Order Codes

Atlanta	Gear Box	3 hr Emergency
HQI-E 1 x 250W	AT250V-1	–
HQI-E 1 x 250W (250W TH Auxillary)	AT250VX1	–
HQI-E 1 x 400W	AT400V-1	–
HQI-E 1 x 400W (250W TH Auxillary)	AT400VX1	–
TC-T 4 x 42W HF	AT442F-1	AT442F-1EMIN
TC-T 4 x 42W DALI	AT442F-1Y	AT442F-1YEMIN
OTC-T 4 x 42W Switch dim	AT442F-1X	AT442F-1XEMIN

Options

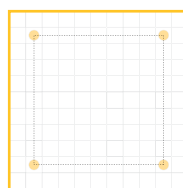
EASYTEST (4 X 42W ONLY)	Add suffix /ET	i.e. AT442F-1/ET
COMEPS	Add suffix /EP	i.e. AT442F-1/EP
COMET (4 X 42W ONLY)	Add suffix /CT	i.e. AT442F-1/CT
METAL REFLECTOR 417mm Ø		AT45
ACRYLIC REFRACTOR 417mm Ø		AT40
ACRYLIC REFRACTOR 570mm Ø		AT50
3M SUSPENSION KIT		ATSUSKIT



Metal Reflector

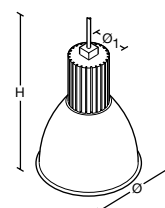
Performance Guide

Lamps	Illuminance	Spacing
4 x 42W TC-T	330 lux	4.0m x 4.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
10.0m
Working Plane:
0.0m

Dimensions

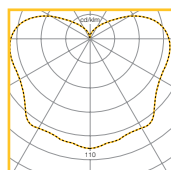


Version	Ø	Ø ₁	H	KG	KG ☐
AT40/45	417	206	558	*	**
AT50	570	206	622	*	**

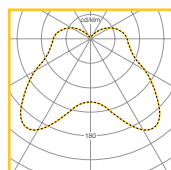
*Maximum weight 8.5KG

**Emergency option only available for 4 x 42W TC-T version

Photometric Performance



1 x 400W HQI-E
Acrylic Refractor
• LOR = 83.4%
• SHR MAX = 1.79



4 x 42W TC-T
Acrylic Refractor
• LOR = 87.8%
• SHR MAX = 2.32

Utilisation Factors UF(F)

Room Reflectance	Room Index				
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.43	0.64	0.72

Utilisation Factors UF(F)

Room Reflectance	Room Index				
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.47	0.72	0.80

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 42W TC-T	3200	13,000hrs
1 x 250W HQI-E	23500	20,000hrs
1 x 400W HQI-E	40000	20,000hrs

To Specify

Suspended architectural high bay with extruded aluminium gear housing and aluminium/acrylic refractor – as Whitecroft Lighting ATLANTA

atlanta junior

fluorescent and HID
architectural low bay



Optics

- Lamp options:
 - 57W TC-T
 - 70W CDM-T
 - 150W CDM-T

Body

- One piece extruded aluminium housing finished silver grey
- U bracket suitable for hook or 20mm conduit option as standard
- Optional adjustable suspension kit available (3m max)
- Rapid installation
- Ambient temperature operation up to 30°C
- 315mm Ø opal or clear prismatic acrylic refractor
- 315mm Ø spun aluminium reflector with etched inner surface

Order Codes

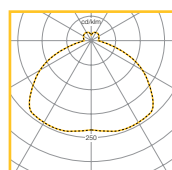
Atlanta Junior	Clear Refractor	Aluminium Reflector	Opal Refractor
TC-T 1 x 57W	ATJ30-F57-1	ATJ35-F57-1	ATJ32-F57-1
CDM-T 1 x 70W	ATJ30-C70-1	ATJ35-C70-1	ATJ32-C70-1
CDM-T 1 x 150W	ATJ30-C150-1	ATJ35-C150-1	ATJ32-C150-1

Options

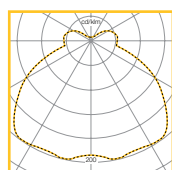
DALI DIMMING*	Insert Y after 57	i.e. ATJ35-F57Y-1
3HR EMERGENCY*	Add suffix /EMIN	i.e. ATJ30-F57-1/EMIN
3M SUSPENSION KIT		ATJSUSKIT

*Only available on TC-T 1 x 57W

Photometric Performance



- 1 x 57W TC-T
Opal Refractor
- LOR = 90.4%
 - SHR MAX = 1.93



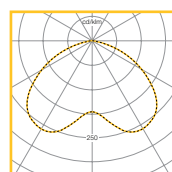
- 1 x 57W TC-T
Clear Refractor
- LOR = 94.0%
 - SHR MAX = 1.92

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.59 0.83 0.90

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.59 0.83 0.90



- 1 x 57W TC-T
Aluminium Reflector
- LOR = 86.0%
 - SHR MAX = 2.18

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.54 0.82 0.89



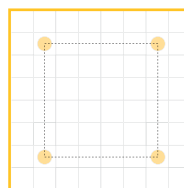
Spun Aluminium Reflector



Opal Prismatic Refractor

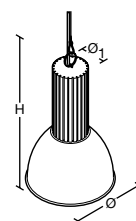
Performance Guide

Lamps	Illuminance	Spacing
1 x 57W TC-T	290 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
6.0m
Working Plane:
0.0m

Dimensions



Ø	Ø1	H	KG	KG
315	139	443	2.0	3.8

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 57W TC-T	4300	13,000hrs
1 x 70W CDM-T	6600	12,000hrs
1 x 150W CDM-T	14000	12,000hrs

To Specify

Surface or suspended architectural low bay luminaire with extruded aluminium gear housing and either a clear or opal refractor or an aluminium reflector – as Whitecroft Lighting ATLANTA JUNIOR



Optics

- Lamp options:
 - 1 x 18W TC-D
- Circular polycarbonate diffuser
- The solid translucent polycarbonate diffuser guarantees even light dispersion and fades out the shape of the lamp

Body

- Suspended
- Maximum suspension drop 2m
- Extruded plain anodised aluminium body
- Slim anodised aluminium bracket holds a polycarbonate diffuser in which the lamp is housed

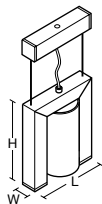


Order Codes

Buzzito Suspended
TC-D 1 X 18W

HF Gear
WACO880.42.1.20.1

Dimensions



L	Ø	H	KG
218	133	267	0.7

Photometric Performance



- 1 x 18W TC-D
- LOR = 47.9%
- SHR MAX = 1.80

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.51	0.68	0.76

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 18W TC-D	1200	13,000hrs

To Specify

Decorative pendant luminaire with an anodised aluminium body and circular polycarbonate diffuser – as Whitecroft Lighting BUZZITO SUSPENDED



Optics

- Lamp options:
 - 1 x 55W T5-C
- Opal white polypropylene shade masking the lamp image

Body

- Maximum suspension drop 2m
- 4 point adjustable wire suspension kit as standard
- Mains feed cable with ceiling rose
- IP40

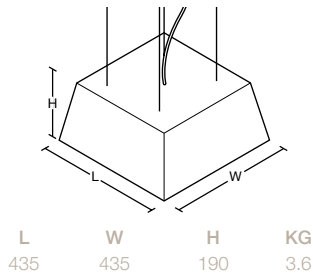


Order Codes

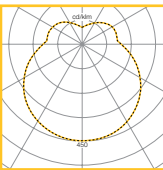
Iceberg Suspended
T5-C 1 x 55W

HF Gear
WACO903.12.2.03.1

Dimensions



Photometric Performance



- 1 x 55W T5-C
- LOR = 71.1%
- SHR MAX = 1.54

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 55W T5-C	4200	12,000hrs

To Specify

Square decorative pendant luminaire with opal polypropylene shade and 4 point wire suspension – as Whitecroft Lighting ICEBERG

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.62	0.46	0.35

The Perfect Combination

Foil offers the perfect combination of low energy and high performance.

Employing dual layer LEDs or conventional T5 optics in single or twin configurations, Foil has both up and downlighting elements for bright, even illumination of all surfaces. Designed specifically for open soffit architecture, Foil has integral acoustic tiles eliminating the need for separate acoustic panels, and can be specified with integrated electrical, fire and even heating services to aid installation and reduce ceiling clutter.





With the growing demand to reduce their carbon footprint, the design of buildings has entered a more challenging era. The overriding aim is to create the most comfortable and effective conditions possible, but with the additional emphasis on achieving environmental and economic objectives.

Current best practice in building design is to utilise the natural cooling properties of the building to deliver the lowest through-life cost. The removal of a suspended ceiling challenges the designers of building services to meet both the technical and aesthetic demands of the modern building.

Foil is a market leading lighting solution that had been developed in response to these challenges, creating a revolutionary lighting system that incorporates excellent acoustic features and allows full integration of services, including heating, sprinklers, lighting controls and audio systems. In excess of 50,000 luminaires have been supplied over the last 5 years ensuring customers maximize the benefits on offer from the natural cooling properties of their building.

foil integrated services

Integrated Acoustics



Integrated acoustic material

Foil has been designed with integrated panels filled with anechoic material to reduce reverberation times and to fully meet the most demanding requirements. Options in width and acoustic material thickness allow both technical performance and cost to be optimised.

Lighting Controls & Service Integration



Lighting controls



Integrated services

Every building is committed to reducing its carbon footprint. Lighting controls provide the best opportunity to reduce energy consumption, and Foil has been designed to incorporate integrated lighting controls.

Services previously installed behind suspended ceilings need to be concealed by other means. Foil can be pre installed with a wide range of services, including sprinkler heads, smoke detection and public address systems, reducing installation time and minimising ceiling clutter.

Heating and Acoustics



Foil radiant panel



End return

To complete the integration of services, Foil can be specified with radiant panels, adding heating to lighting and building services. This allows the architect complete flexibility in space management, with all essential services contained in a single unit.

Creative freedom



Cross connector



Mirage MX24 infill panel

A range of complimentary components have been designed to give the lighting designer more flexibility than ever when using Foil as a lighting solution. Cross, L and T connectors, feature lighting infill panels can add interest to any lighting scheme.

foil acoustic performance

The FOIL has been independently tested by SRL to accurately determine its acoustic performance.

Empty Room:

Temperature: 16.2°C

Humidity: 55%RH

Pressure: 1008 mbar

Room with Sample:

Temperature: 16.2°C

Humidity: 55%RH

Pressure: 1008 mbar

700/800mm wide Foil with 48mm layer of Compressed Fibre acoustic material

700/800mm wide Foil with 30mm layer of Compressed Fibre acoustic material

500/600mm wide Foil with 30mm layer of Compressed Fibre acoustic material

900mm wide Radiant Foil with 48mm layer of Compressed Fibre acoustic material

Freq Hz	T1 sec	T2 sec	Equivalent Sound Absorption Area, m ²
50*	4.59	3.99	0.4
63*	4.66	3.37	1.0
80*	3.94	3.59	0.3
100	6.17	5.83	0.1
125	6.75	5.40	0.4
160	6.46	4.83	0.6
200	6.94	4.94	0.7
250	7.03	4.98	0.7
315	6.87	3.61	1.6
400	5.92	3.13	1.8
500	5.26	2.58	2.4
630	5.12	2.46	2.6
800	5.33	2.39	2.8
1000	5.62	2.34	3.0
1250	5.56	2.34	3.0
1600	5.13	2.27	2.9
2000	4.55	2.15	2.9
2500	3.98	1.99	2.9
3150	3.33	1.81	2.7
4000	2.69	1.56	2.7
5000	2.17	1.34	2.6
6300*	1.59	1.07	2.4
8000*	1.21	0.86	2.3
10000*	0.91	0.66	2.6

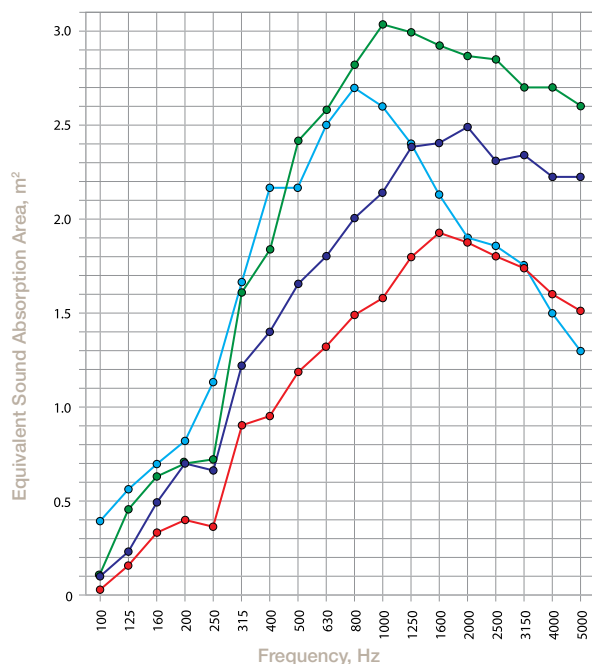
Freq Hz	T1 sec	T2 sec	Equivalent Sound Absorption Area, m ²
50*	4.59	4.16	0.3
63*	4.66	2.94	1.5
80*	3.94	3.40	0.5
100	6.17	5.86	0.1
125	6.75	5.98	0.2
160	6.46	5.11	0.5
200	6.94	4.95	0.7
250	7.03	5.09	0.7
315	6.87	4.08	1.2
400	5.92	3.53	1.4
500	5.26	3.08	1.7
630	5.12	2.92	1.8
800	5.33	2.84	2.0
1000	5.62	2.82	2.1
1250	5.56	2.64	2.4
1600	5.13	2.50	2.4
2000	4.55	2.28	2.5
2500	3.98	2.15	2.3
3150	3.33	1.88	2.3
4000	2.69	1.62	2.2
5000	2.17	1.35	2.2
6300*	1.59	1.07	2.0
8000*	1.21	0.82	2.3
10000*	0.91	0.64	2.4

Freq Hz	T1 sec	T2 sec	Equivalent Sound Absorption Area, m ²
50*	4.59	4.61	-0.0
63*	4.66	3.69	0.7
80*	3.94	3.61	0.3
100	6.17	6.05	0.0
125	6.75	6.18	0.2
160	6.46	5.48	0.3
200	6.94	5.66	0.4
250	7.03	5.82	0.4
315	6.87	4.57	0.9
400	5.92	4.07	1.0
500	5.26	3.50	1.2
630	5.12	3.31	1.3
800	5.33	2.23	1.5
1000	5.62	3.24	1.6
1250	5.56	3.02	1.8
1600	5.13	2.77	1.9
2000	4.55	2.57	1.9
2500	3.98	2.35	1.8
3150	3.33	2.06	1.7
4000	2.69	1.75	1.6
5000	2.17	1.45	1.5
6300*	1.59	1.11	1.4
8000*	1.21	0.85	1.6
10000*	0.91	0.64	2.3

Freq Hz	T1 sec	T2 sec	Equivalent Sound Absorption Area, m ²
50*	6.18	6.28	-0.0
63*	4.21	3.82	0.3
80*	5.50	5.37	0.1
100	6.68	5.55	0.4
125	7.49	5.56	0.6
160	6.90	4.96	0.7
200	7.55	5.00	0.8
250	7.97	4.59	1.1
315	7.65	3.74	1.7
400	7.08	3.14	2.2
500	5.79	2.86	2.2
630	5.38	2.56	2.5
800	5.87	2.55	2.7
1000	6.29	2.69	2.6
1250	5.97	2.75	2.4
1600	5.24	2.73	2.1
2000	4.68	2.70	1.9
2500	4.02	2.48	1.8
3150	3.15	2.15	1.7
4000	2.73	1.81	1.5
5000	1.79	1.48	1.3
6300*	1.23	1.11	0.9
8000*	0.96	0.86	1.2
10000*	0.69	0.63	1.4

* Denotes frequencies outside the range covered by BS EN ISO 354:2003
T1, empty room reverberation time. T2, room reverberation time with sample
Chamber Volume 300m³
800mm suspension height
Full independent test reports available on request

Equivalent Sound Absorption Area



- 700/800mm wide Foil with 48mm layer of Compressed Fibre acoustic material
- 700/800mm wide Foil with 30mm layer of Compressed Fibre acoustic material
- 500/600mm wide Foil with 30mm layer of Compressed Fibre acoustic material
- 900mm wide Radiant Foil with 48mm of Compressed Fibre acoustic material



Optics

- Light source options:
 - LED 4600 lumens (55W)
 - LED 7800 lumens (90W)
 - Precise pattern Hexaprism optic for all-round glare control and maximum efficiency
- Or
- 21/28/35/39/49 or 54W T5 lamps
- Twin cell louvre in semi specular zero iridescent MIRO 5 material, 'DUO' panels with a central 'Living Louvre', or hexaprism optic for maximum vertical illuminance
- Light distribution: 80% down and 20% up (70:30 with hexaprism optic). Up-light designed to give an asymmetric throw to aid vertical illuminance
- To optimise emergency performance we recommend the installation onsite of Florin E3

Body

- 0.6m or 0.8m wide, 2.2m long steel bodies painted silver or white
- Chamfered 30° luminaire body edge for a slimline appearance
- Infill panels available in 400mm, 800mm and 1200mm lengths
- Perforated side panels of luminaires and infill panels contain 30mm or 48mm acoustic absorbing material
- Twin adjustable wire suspension kits 1.5m maximum drop
- 3 segregated cable conduits. Central for luminaire control, outer for data or power
- Subject to project size and upon request luminaire infill panels can be modified to incorporate items such as speakers, smoke detectors, fire alarms, and sprinkler heads. Radiant heating panels can also be incorporated
- Optional Command Fast Link plug and play system integration for simplified installation



Order Codes

Foil LED

800 wide 30mm Acoustics

4600 lumen 55W 4000k

7800 lumen 90W 4000k

Foil Louvre

800 wide 30mm Acoustics

T5 2 x 21W

T5 2 x 28W

T5 2 x 35W

T5 2 x 39W

T5 2 x 49W

T5 2 x 54W

Foil Hexaprism

800 wide 30mm Acoustics

T5 2 x 21W

T5 2 x 28W

T5 2 x 35W

T5 2 x 39W

T5 2 x 49W

T5 2 x 54W

Foil Duo

800 wide 30mm Acoustics

T5 2 x 21W

T5 2 x 28W

T5 2 x 35W

T5 2 x 39W

T5 2 x 49W

T5 2 x 54W

T5 1 x 49W

T5 1 x 54W

HF Gear

FLL830H221S

FLL830H228S

FLL830H235S

FLL830H239S

FLL830H249S

FLL830H254S

HF Gear

FPL830H221S

FPL830H228S

FPL830H235S

FPL830H239S

FPL830H249S

FPL830H254S

HF Gear

FDL830H221S

FDL830H228S

FDL830H235S

FDL830H239S

FDL830H249S

FDL830H254S

FDL830H149S

FDL830H154S

DALI

FPA830Y40S

FPA830Y80S

3 hr Emergency

FLL830H221SEMIN

FLL830H228SEMIN

FLL830H235SEMIN

FLL830H239SEMIN

FLL830H249SEMIN

FLL830H254SEMIN

3 hr Emergency

FPL830H221SEMIN

FPL830H228SEMIN

FPL830H235SEMIN

FPL830H239SEMIN

FPL830H249SEMIN

FPL830H254SEMIN

3 hr Emergency

FDL830H221SEMIN

FDL830H228SEMIN

FDL830H235SEMIN

FDL830H239SEMIN

FDL830H249SEMIN

FDL830H254SEMIN

FDL830H149SEMIN

FDL830H154SEMIN

Order Codes (continued)

Accessories

400mm long infill, 800mm wide

FLL830INF400S

800mm long infill, 800mm wide

FLL830INF800S

1200mm long infill, 800mm wide*

FLL830INF1200S

*1200mm requires separate suspension kit

End cap 30mm acoustic absorber, 800mm wide

FLL830ECS

End cap 48mm acoustic absorber, 800mm wide

FLL848ECS

Wire Suspension Kit for one

luminaire supplied separately Full suspension assembly

FLLSUSKIT

Bracket set for one luminaire Drop rods to be supplied by others

FLLBRAKIT

Options

600mm WIDE OPTION

Replace the 8 with **6**
for rafts, infills and end caps i.e. FLL630H221S

48mm ACOUSTIC

ABSORPTION MATERIAL Replace the 30 with **48** i.e. FLL848H221S

WHITE FINISH Replace S with **W** i.e. FLL830H221W

DALI DIMMING Replace H with **Y** i.e. FLL830Y221S

*COMMAND 4 Replace H with **Q4Y** i.e. FLL830Q4Y221S

*EASYTEST Add suffix **/ET** i.e. FLL830H221S/ET

*COMEPS Add suffix **/EP** i.e. FLL830H221S/EP

*COMET Add suffix **/CT** i.e. FLL830H221S/CT

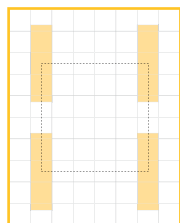
COMAND FAST LINK Add suffix **/CFL** i.e. FLL830H221S/CFL

*Not available with LED luminaire

foil twin optic

Performance Guide

Lamps	Illuminance	Spacing
2 x 54W T5	530 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 21W T5	1920	24,000hrs
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 39W T5	3100	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs

LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 4 SDCM

Equivalent Lamp Types

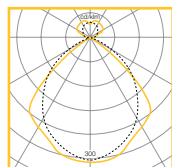
4600 Lumen Output

T5 lamp 2 x 28W

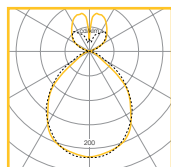
7800 Lumen Output

T5 lamp 2 x 54W

Photometric Performance



2 x 54W T5
Foil Louvre
• LOR = 77.5%
• SHR MAX = 1.65



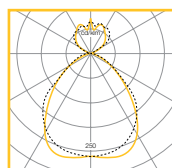
2 x 54W T5
Foil Duo
• LOR = 64.2%
• SHR MAX = 1.48

Utilisation Factors UF(F)

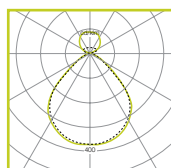
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.57	0.74	0.78

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.42	0.57	0.61



2 x 39W T5
Micro prism
• LOR = 83.4%
• SHR MAX = 1.57



55W LED
• LOR = 100%
• SHR MAX = 1.62
• 4600 lumens

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.57	0.76	0.81

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.72	0.93	0.99



Hexaprism Optic (LED)



Louvre Optic

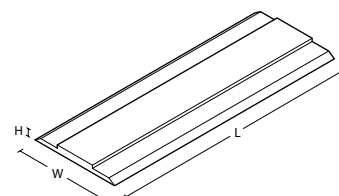


Hexaprism Optic (T5)



Duo Optic

Dimensions



Version	L	W	H	KG	KG/m
LED 4600 Lumen	2200	800 (600)	58	26.2	-
LED 7800 Lumen	2200	800 (600)	58	26.5	-
21/39W	2200	800 (600)	58	17.3	18.3
28/54W	2200	800 (600)	58	18.3	19.3
35/49W	2200	800 (600)	58	19.3	20.3

To Specify

Suspended LED or T5 lighting, acoustic and integrated services 600 or 800mm raft with concealed 30 or 48mm thick acoustic absorbers behind perforated side panels in a shallow 30° chamfered steel body. 3 segregated 28mm x 28mm wiring channels with:

- Hexaprism LED controller
– as Whitecroft Lighting FOIL LED
- MIRO 5 zero iridescent louvres
– as Whitecroft Lighting FOIL LOUVRE
- Living louvre centrally mounted in micro polymer optic
– as Whitecroft Lighting FOIL DUO
- Hexaprism Optic
– as Whitecroft Lighting FOIL HEXAPRISM

foil twin optic radiant panels

Radiant Panels

- Acoustic and heating incorporated into one raft
- One panel is dedicated to acoustic performance containing 48mm material, whilst the radiant heating element is incorporated in the opposite panel
- Minimum additional weight to the raft
- Edge detail provides a thin appearance

Order Codes

Foil Louvre Radiant Panel	HF Gear	3 hr Emergency
T5 2 x 21W	FLR948H221S	FLR948H221SEMIN
T5 2 x 28W	FLR948H228S	FLR948H228SEMIN
T5 2 x 35W	FLR948H235S	FLR948H235SEMIN
T5 2 x 39W	FLR948H239S	FLR948H239SEMIN
T5 2 x 49W	FLR948H249S	FLR948H249SEMIN
T5 2 x 54W	FLR948H254S	FLR948H254SEMIN

End of Row

	HF Gear	3 hr Emergency
T5 2 x 21W	FLRE948H221S	FLRE948H221SEMIN
T5 2 x 28W	FLRE948H228S	FLRE948H228SEMIN
T5 2 x 35W	FLRE948H235S	FLRE948H235SEMIN
T5 2 x 39W	FLRE948H239S	FLRE948H239SEMIN
T5 2 x 49W	FLRE948H249S	FLRE948H249SEMIN
T5 2 x 54W	FLRE948H254S	FLRE948H254SEMIN

Options

End cap 48mm acoustic absorber, 900mm wide
 MICRO PRISM OPTIC Replace L with **P**
 WHITE FINISH Replace S with **W**

FLR948ECS
 i.e. FPR948H221S
 i.e. FLR948H221W

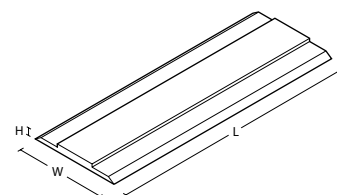


Through Connection



End Return

Dimensions



Version	L	W	H	KG	KG 
21/39W	2200	900	58	27.3	28.3
28/54W	2200	900	58	28.3	29.3
35/49W	2200	900	58	29.3	30.3

foil twin optic accessories

Corner Connectors

- Corner infill connectors provide seamless integration with the Foil luminaire
- Create continuous corner mounting formations using left and right corners, tees and cross connectors
- Perforated side panels contain 30mm or 48mm acoustic material
- Not available with the radiant panel option

Order Codes

Connector

Cross Connector

FLL830XS

Tee Connector

FLL830TS

Corner Connector

FLL830LS

Options

600MM WIDE OPTION	Replace the 8 with 6	i.e. FLL 6 30XS
48MM ACOUSTIC ABSORPTION MATERIAL	Replace the 30 with 48	i.e. FLL 848 XS
WHITE FINISH	Replace S with W	i.e. FLL830 XW



Cross Connector

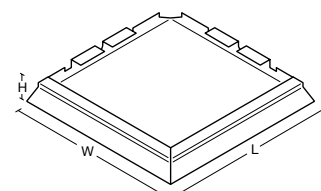


Tee Connector



Corner Connector

Dimensions



L	W	H	KG
600	600	60	4.0
800	800	60	5.5

Mirage Infill Panel

- Infills supplied with cutout apertures for integration of MX24 downlighters
- Perforated side panels containing 30mm or 48mm acoustic material
- MX24 downlight to be ordered separately



Order Codes

Mirage MX24 Infill Panel

400mm long infill, 800mm wide

FLL830INF400S/MX24

800mm long infill, 800mm wide

FLL830INF800S/MX24

1200mm long infill, 800mm wide*

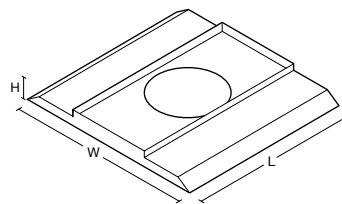
FLL830INF1200S/MX24

* 1200mm requires separate suspension kit

Options

600MM WIDE OPTION	Replace the 8 with 6	i.e. FLL 6 30INF400S/MX24
48MM ACOUSTIC ABSORPTION MATERIAL	Replace the 30 with 48	i.e. FLL 848 INF400S/MX24
WHITE FINISH	Replace S with W	i.e. FLL830INF400 W /MX24

Dimensions



Version	L	W	H	KG
400	400	800 (600)	58	3.5 (2.9)
800	800	800 (600)	58	6.5 (5.5)
1200	1200	800 (600)	58	9.5 (8.0)

foil single optic

acoustic suspended lighting system



Optics

- Light source options:
 - LED 3000 lumens (36W)
 - LED 3500 lumens (41W)
 - LED 4800 lumens (54W)
 - LED 5700 lumens (67W)
 - Precise pattern Hexaprism optic for all-round glare control and maximum efficiency
- Or
 - 1 x 25/28, 32/35, 45/49, 50/54W, 73/80W T5 Eco/T5
 - 2 x 45/49 T5 Eco/T5
 - Single cell louvre in semi specular zero iridescent MIRO 5 material or precise pattern Hexaprism optic for all-round glare control and maximum efficiency
- Light distribution: 80% down and 20% up (70:30 with Hexaprism optic). Up-light designed to give an asymmetric throw to aid vertical illuminance

Body

- 500mm or 700mm wide, 2.2m length steel body painted silver or white
- Chamfered 30° luminaire body edge for a slim line appearance
- Infill panels in 400mm, 800mm and 1200mm lengths
- Perforated side panels of luminaire and infill panels contain either 46mm or 30mm acoustic material
- Twin adjustable wire suspension kits 1.5m maximum drop
- 2 segregated cable conduits, excluding power in conduit
- Subject to project size and upon request, luminaire infill panels can be modified to incorporate items such as speakers, smoke detectors, fire alarms, and sprinkler heads
- High frequency and DALI dimming control gears available
- Two emergency options;
 - Integrated 3 hour Emergency (T5 product only)
 - Integrated Florin E3 Emergency (T5 and LED product only)
- The integrated Florin E3 LED head optimises emergency performance and vastly reduces the parasitic energy load. Can be specified in either standard 3 hour non-maintained emergency, EasyTest, COMEPE or Central Battery

Order Codes

Foil LED Hexaprism 4K

700 wide 30mm Acoustics

3000 lumen 36W

4800 lumen 54W

3500 lumen 41W

5700 lumen 67W

HF Gear

FSAH73014KS

FSAH73024KS

FSAH73034KS

FSAH73044KS

3 hr Emergency

FSAH73014KSF3

FSAH73024KSF3

FSAH73034KSF3

FSAH73044KSF3

Foil Louvre

700 wide 30mm Acoustics

T5 1 x 25/28W

T5 1 x 32/35W

T5 1 x 45/49W

T5 1 x 50/54W

T5 1 x 73/80W

T5 2 x 45/49W

HF Gear

FSL730H128S

FSL730H135S

FSL730H149S

FSL730H154S

FSL730H180S

FSL730H249S

3 hr Emergency

FSL730H128SEM

FSL730H135SEM

FSL730H149SEM

FSL730H154SEM

FSL730H180SEM

FSL730H249SEM

Foil Hexaprism

700 wide 30mm Acoustics

T5 1 x 25/28W

T5 1 x 32/35W

T5 1 x 45/49W

T5 1 x 50/54W

T5 1 x 73/80W

T5 2 x 45/49W

HF Gear

FSP730H128S

FSP730H135S

FSP730H149S

FSP730H154S

FSP730H180S

FSP730H249S

3 hr Emergency

FSP730H128SEM

FSP730H135SEM

FSP730H149SEM

FSP730H154SEM

FSP730H180SEM

FSP730H249SEM

Accessories

400mm infill

800mm infill

1200mm infill

End caps 700mm

End caps 500mm

Suspension kit

FSL730INF400S

FSL730INF800S

FSL730INF1200S

FSL730ECS

FSL530ECS

FSLSUSKIT

Options

500MM WIDE OPTION

Replace the 7 with **5**

i.e. FSL530H128S

46MM ACOUSTIC

Replace 30 with **46**

FSL746H128S

ABSORPTION MATERIAL

Replace S with **W**

i.e. FSL730H128W

WHITE FINISH

Replace H with **Y**

i.e. FSL730Y128S

DALI DIMMING

Replace H with **Q4Y**

i.e. FSL730Q4Y128S

COMMAND 4

Replace H with **Q4Y**

i.e. FSL730Q4Y128S

Emergency Options

FLORIN E3*

Replace EM with **F3**

i.e. FSP730H128SF3

EASYTEST

Add suffix /ET

i.e. FSL730H128S/ET

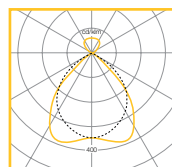
COMEPS

Add suffix /EP

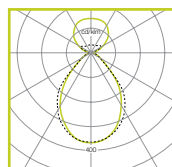
i.e. FSL730H128S/EP

* Applicable to T5 lamp options only

Photometric Performance



1 x 35W T5
Foil Solo
• LOR = 84.7%
• SHR MAX = 1.66



54W LED
4800 lumens
• LOR = 100%
• SHR MAX = 1.35

Utilisation Factors UF(F)

Room Reflectance	Room Index					
C	W	F	1.00	3.00	5.00	
0.70	0.50	0.20	0.66	0.83	0.87	

Utilisation Factors UF(F)

Room Reflectance	Room Index					
C	W	F	1.00	3.00	5.00	
0.70	0.50	0.20	0.65	0.87	0.93	



Louvre Optic



Infill Panel

LED Performance

Colour Temp

4000K

Ra (CRI)

≥ 80

Life Expectancy

L₇₀ (50,000hrs)

Colour Consistency

MacAdam 3.5 SDCM

Equivalent Lamp Types

3000 Lumen Output

T5 lamp

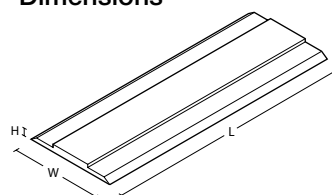
1 x 54W

4800 Lumen Output

T5 lamp

2 x 39W

Dimensions



Version	L	W	H	KG	KG
500mm	2200	500	60	16	17
700mm	2200	700	60	19	20

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 25W T5 Eco	2450	24,000hrs
1 x 32W T5 Eco	3100	24,000hrs
1 x 45W T5 Eco	4100	24,000hrs
1 x 50W T5 Eco	4400	24,000hrs
1 x 73W T5 Eco	6550	24,000hrs
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 39W T5	3100	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs
1 x 80W T5	6550	24,000hrs

To Specify

Suspended LED or T5 lighting, acoustic and integrated services with concealed thick acoustic absorbers behind perforated side panels in a shallow 30° chamfered steel body. 2 segregated wiring channels with either semi specular zero iridescent MIRO 5 material louvre or hexaprism diffuser – as Whitecroft Lighting FOIL Single Optic





Optics

- Light source:
 - 7 x 2.5W LEDs with acrylic diffuser
- Available in 4000K only
- 20W total power consumption (including driver)
 - total power consumption will decrease as LED technology advances
- 50,000 hours life expectancy
- 100% downlight
- 480 lumen output

Body

- Slim extruded aluminium body with cast aluminium end caps finished in white, silver or black
- Supplied with wire suspension kit including T25 ceiling bracket, friction lock and wire (1.5m)
- For electrical connection the luminaire is supplied with transparent mains cable and ceiling cup

Driver

- Can be wired for fixed output or DALI controlled



LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 5 SDCM

Order Codes

Javelin LED 4000K Optic

White
Black
Silver

DALI Dimming

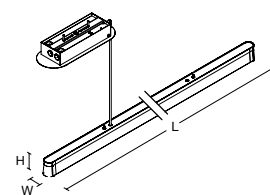
JAVY4KW
JAVY4K BK
JAVY4KS

Options

T15 ceiling tee adaptor

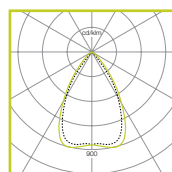
JAVT15BRK

Dimensions



L	W	H	KG
1740	36	48	2.8

Photometric Performance



4000K
480 lumens
• LOR = 100%
• SHR MAX = 1.26

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.83	1.04	1.84

To Specify

Suspended architectural LED luminaire, with 48mm depth extruded aluminium body finished in white, silver or black with acrylic diffuser and transparent mains cable – as Whitecroft Lighting JAVELIN LED



Optics

- Lamp options:
 - 1 or 2 x 28/35/49/54/80 T5
- Two optical options:
 - Louvre - Single cell louvre with satin matt metallised aluminium side and cross blades
 - Diffuser – Quadraprism optic provides all-round glare control and maximum efficiency
- Choice of light output ratios:
 - 50% down and 50% up
 - 80% down and 20% up

Body

- Individual or continuous in-line mounting
- Luminaires supplied through-wired as standard
- Sheet steel body finished in white or silver
- Injection moulded colour coded polycarbonate end caps
- Wire suspension kit to be ordered separately
- For continuous installations, continuous couplers to be ordered separately
- Infill options available from 300 – 1200mm
- Options include Command 4 sensor mounted in with the louvre or quadraprism
- Re-lamping is performed from above without removing the louvre or quadraprism



Order Codes

Penna	HF Gear	3 hr Emergency
T5 1 x 28W	PNAWH128##S	PNAWH128##SEM
T5 1 x 35W	PNAWH135##S	PNAWH135##SEM
T5 1 x 49W	PNAWH149##S	PNAWH149##SEM
T5 1 x 54W	PNAWH154##S	PNAWH154##SEM
T5 1 x 80W	PNAWH180##S	PNAWH180##SEM
T5 2 x 28W	PNAWH228##S	PNAWH228##SEM
T5 2 x 35W	PNAWH235##S	PNAWH235##SEM
T5 2 x 49W	PNAWH249##S	PNAWH249##SEM
T5 2 x 54W	PNAWH254##S	PNAWH254##SEM
T5 2 x 80W	PNAWH280##S	PNAWH280##SEM

Accessories

Wire Suspension Kit*	PNASUSKIT
End Caps in Silver (Pair)	PNAECS
100mm Continuous Coupler in Silver*****	PNACCS
300mm Infill in Silver**	PNAINF300S
600mm Infill in Silver	PNAINF600S
900mm Infill in Silver	PNAINF900S
1200mm Infill in Silver	PNAINF1200S
Dust Cover 28/54W***	PNADC4
Dust Cover 35/49W***	PNADC5

Output Variants

50% UP 50% DOWN	Replace ## with 50	i.e. PNAWH235 50 S
20% UP 80%**** DOWN	Replace ## with 80	i.e. PNAWH235 80 S

Options

DALI/SWITCH DIMMING	Replace H with Y	i.e. PNAW Y 23550S
QUADRAPRISM	Replace W with M	i.e. PNAMH23550S
COMMAND 4	Replace H with Q4Y	i.e. PNAW Q4Y H23550S
EASYTEST	Add suffix /ET	i.e. PNAWH23550S/ ET
COMEPS	Add suffix /EP	i.e. PNAWH23550S/ EP
WHITE FINISH	Replace S with W	i.e. PNAWH23550 W

* For stand-alone luminaires, two wire suspension kits must be ordered per luminaire. For continuous mounting, one suspension kit per coupler plus one for each end of row

** Each infill requires 2 continuous couplers, adding 200mm to the infill length

*** Supplied as standard with micro prism option, not suitable for 80W lamp packages

**** 20% up and 80% down output not available with Quadraprism

*****For continuous mounting each joint requires a coupler



Quadraprism Diffuser



Continuous Mounting Kit



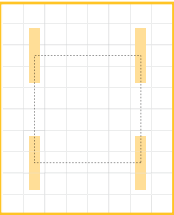
Command 4 Integration



Wire Suspension Kit

Performance Guide

Lamps	Illuminance	Spacing
2 x 35W T5	500 lux	3.0m x 3.0m

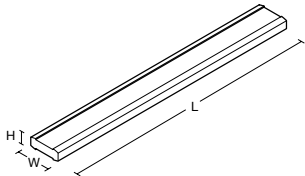


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 X 28W T5	2625	24,000hrs
1 X 35W T5	3325	24,000hrs
1 X 49W T5	4375	24,000hrs
1 X 54W T5	4450	24,000hrs
1 X 80W T5	6550	24,000hrs

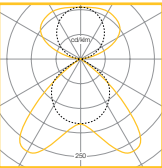
Dimensions



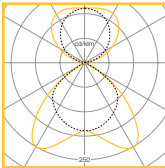
Version	L	W	H	KG	KG
1 or 2 x 28/54W	1293	140	56	2.7	3.2
1 or 2 x 35/49/80W	1593	140	56	2.9	3.5
300mm infill	500	140	56	0.6	-
600mm infill	800	140	56	1.2	-
900mm infill	1100	140	56	1.8	-
1200mm infill	1400	140	56	2.4	-

Each infill requires 2 continuous couplers, adding 200mm to the infill length

Photometric Performance



1 x 35W T5
Louvre
• LOR = 97.3%



2 x 35W T5
Louvre
• LOR = 94.7 %

To specify

Suspended architectural T5 luminaire with direct: indirect lighting ratios 50:50 or 80:20. Body to be of sheet steal with end caps colour coded with the luminaire body, supplied complete with through wiring provision – as Whitecroft Lighting PENNA



Optics

- Lamp options:
 - 1 or 2 x 28/35/49/54W T5
 - 1 x 80W T5
- Wedge blade VDT semi-specular louvre or opal acrylic diffuser
- Controlled light distribution: 80% down and 20% up

Body

- Slim depth, extruded aluminium body, painted white or silver
- Hinged steel gear tray enables easy access for maintenance
- Mounting by means of a wire suspension kit (up to 1.5m drop) or close mount bracket kit. Kits to be ordered separately
- Injection moulded polycarbonate end caps (to be ordered separately)
- Can be continuously mounted with the use of a kit (to be ordered separately). The continuous mounting caps have U shaped channels to facilitate easy through wiring
- Infill options available. Includes version with Command 4 sensor mounted in infill
- Product also available as surface version with downlight only distribution. See page 184



Order Codes

Wedge Louvre

T5 1 x 28W
T5 1 x 35W
T5 1 x 49W
T5 1 x 54W
T5 1 x 80W
T5 2 x 28W
T5 2 x 35W
T5 2 x 49W
T5 2 x 54W

HF Gear

ORPWH128W
ORPWH135W
ORPWH149W
ORPWH154W
ORPWH180W
ORPWH228W
ORPWH235W
ORPWH249W
ORPWH254W

3 hr Emergency

ORPWH128WEM
ORPWH135WEM
ORPWH149WEM
ORPWH154WEM
ORPWH180WEM
ORPWH228WEM
ORPWH235WEM
ORPWH249WEM
ORPWH254WEM

Accessories

Wire Suspension Kit***

ORPSUSKIT

Single Lamp Body

Twin Lamp Body

Close Mount Bracket Kit (150mm)

ORPSGCMB

ORPTWCMB

End Caps (Pair)

ORSGCAPW

ORTWCAPW

Continuous Mount Kit****

ORSGCMKW

ORTWCMKW

300mm Infill

ORSGINF300W

ORTWINF300W

600mm Infill

ORSGINF600W

ORTWINF600W

900mm Infill

ORSGINF900W

ORTWINF900W

1200mm Infill

ORSGINF1200W

ORTWINF1200W

1500mm Infill

ORSGINF1500W

ORTWINF1500W

Options

DALI DIMMING

Replace H with **Y**

i.e. ORPW**Y**128W

SWITCH DIMMING

Replace H with **X**

i.e. ORPW**X**128W

COMMAND 4*

Replace H with **Q4Y**

i.e. ORPW**Q4Y**128W

COMMAND 4 INFILL**

Add suffix **/Q4Y**

i.e. ORSGINF300W/**Q4Y**

EASYTEST

Add suffix **/ET**

i.e. ORPWH128W/**ET**

COMEPS

Add suffix **/EP**

i.e. ORPWH128W/**EP**

SILVER FINISH

Replace W with **S**

i.e. ORPWH128**S**

DIFFUSER

Replace W after ORP with **D**

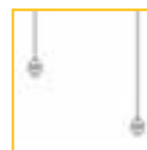
i.e. ORP**D**H128W

*A Command 4 luminaire is supplied as a single luminaire including two end caps, one of which has an integrated Command 4 sensor

**The integrated sensor infill can only be used with DALI luminaires and control one or two luminaires only

***One kit required for each luminaire and each infill 1200mm or longer

****For continuous mounting each joint requires a continuous mounting kit



Wire Suspension
ORPSUSKIT



Close Mount Kit
Single ORPSGCMB
Twin ORPTWCMB



Single End Cap
ORSGCAPW



Twin End Cap
ORTWCAPW

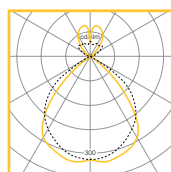


Single Continuous
Mount
ORSGCMKW

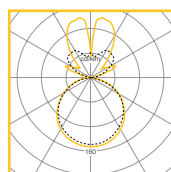


Twin Continuous
Mount
ORTWCMKW

Photometric Performance



2 x 28W T5
Wedge Louvre
• LOR = 80.6%
• SHR MAX = 1.59



2 x 28W T5
Diffuser
• LOR = 74.5 %
• SHR MAX = 1.63

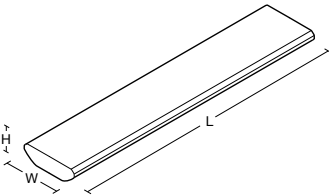
Utilisation Factors UF(F)

Room Reflectance Room Index
C W F 1.00 3.00 5.00
0.70 0.50 0.20 0.60 0.76 0.80

Utilisation Factors UF(F)

Room Reflectance Room Index
C W F 1.00 3.00 5.00
0.70 0.50 0.20 0.43 0.62 0.67

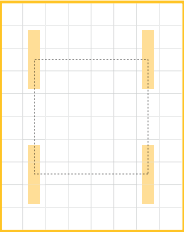
Dimensions



Version	L	W	H	KG	KG/m²
1 x 28/54W	1234	173	51	3.8	4.3
2 x 28/54W	1234	238	51	4.2	4.7
1 x 35/49/80W	1534	173	51	4.8	5.3
2 x 35/49W	1534	238	51	5.2	5.7

Performance Guide

Lamps	Illuminance	Spacing
2 x 35W T5	520 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs
1 x 80W T5	6550	24,000hrs



Continuous Mount Kit



Sensor Infill



Hinge Detail



Louvre



Diffuser

To Specify

Suspended architectural T5 luminaire system, with 51mm depth extruded aluminium body painted white or silver, with wedge louvre or opal acrylic diffuser. Easy maintenance via hinged body and gear tray – as Whitecroft Lighting ORIAS



Optics

- Lamp options:
 - 1 or 2 x 28/35/49/54W T5
- Choice of light output ratios:
 - 90% down and 10% up or 70% down and 30% up on single lamp
 - 90% down and 10% up or 60% down and 40% up on twin lamp
- Zero iridescence MIRO 6 semi-specular louvre

Body

- Individual or continuous in-line mounting
- Twin adjustable stainless steel wire suspension kits included (1.5m drop standard)
- Extruded aluminium body in white or silver
- Injection moulded colour coded polycarbonate end caps (order separately)
- Injection moulded colour coded polycarbonate ceiling rose cover included
- Internal wire-way for through wiring if continuously mounted

vector

Order Codes

Vector	HF Gear	3 hr Emergency
T5 1 x 28W	VECW5H128##S	VECW5H128##SEMIN
T5 2 x 28W	VECW5H228##S	VECW5H228##SEMIN
T5 1 x 35W	VECW5H135##S	VECW5H135##SEMIN
T5 2 x 35W	VECW5H235##S	VECW5H235##SEMIN
T5 1 x 49W	VECW5H149##S	VECW5H149##SEMIN
T5 2 x 49W	VECW5H249##S	VECW5H249##SEMIN
T5 1 x 54W	VECW5H154##S	VECW5H154##SEMIN
T5 2 x 54W	VECW5H254##S	VECW5H254##SEMIN

Accessories

Set of 2 silver end caps

300mm infill

600mm infill

900mm infill

1200mm infill

2-way variable corner assembly

3-way variable corner assembly

4-way variable corner assembly

VECECS

VECINF300S

VECINF600S

VECINF900S

VECINF1200S

VEC2S

VEC3S

VEC4S

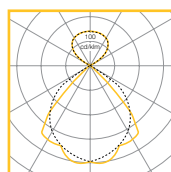
Output Variants

10% up 90% down	Replace ## with 90	i.e. VECW5H128 90 S
40% up 60% down (Twin lamp variants)	Replace ## with 60	i.e. VECW5H228 60 S
30% up 70% down (Single lamp variants)	Replace ## with 70	i.e. VECW5H128 70 S

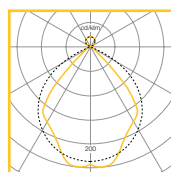
Options

DALI DIMMING	Replace H with Y	i.e. VECW5 Y 128##S
SWITCH DIMMING	Replace H with X	i.e. VECW5 X 128##S
EASYTEST	Add suffix /ET	i.e. VECW5H128##S/ ET
COMEPS	Add suffix /EP	i.e. VECW5H128##S/ EP
COMMAND 4	Replace H with Q4Y	i.e. VECW5 Q4Y 128##S
COMMAND 3	Replace H with Q3Y	i.e. VECW5 Q3Y 128##S
WHITE FINISH	Replace S with W	i.e. VECW5H128## W

Photometric Performance



1 x 35W T5 30:70
• LOR = 96.5%
• SHR MAX = 1.62



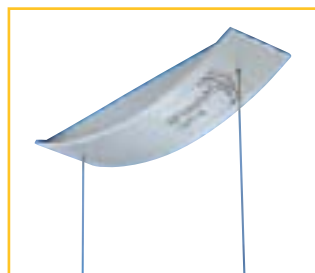
1 x 35W T5 10:90
• LOR = 78.3%
• SHR MAX = 1.50

Utilisation Factors UF(F)

Room Reflectance	Room Index			
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.69	0.88 0.93

Utilisation Factors UF(F)

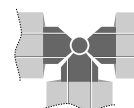
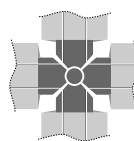
Room Reflectance	Room Index			
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.65	0.79 0.82



Ceiling Mounting Detail



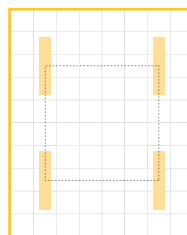
2 Way Variable Corner Assembly



Corner assembly options

Performance Guide

Lamps	Illuminance	Spacing
2 x 35W T5	540 lux	3.0m x 3.0m

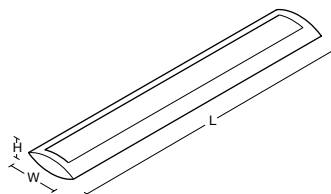


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs

Dimensions



Version	L	W	H	KG	KG
28/54W	1208	222	75	4.5	5.5
35/49W	1508	222	75	5.2	6.2

To Specify

Suspended T5 fluorescent luminaire with direct: indirect lighting ratios of 10:90, 30:70 (40:60 on twin lamp). Body to be in extruded aluminium, end caps and ceiling roses to be colour coded with luminaire body. Width and depth not to exceed 222mm and 75mm respectively, control gear and emergency to be integral – as Whitecroft Lighting VECTOR



Optics

- Lamp options:
 - 1 x 45/49W, 50/54W T5 ECO/T5
 - 2 x 25/28W, 32/35W T5 ECO/T5
- Cylindrical polycarbonate diffuser guarantees even light distribution and masks the lamp image

Body

- IP40 as standard
- Can be suspended or surface mounted
- When suspended a cable entry block enables discreet cable entry from above (supplied separately)
- Extruded aluminium trunking
- 7 pole through wiring as standard
- Quick Connect system for simple and rapid installation and reduction in labour costs
- Trunking infills in either 500mm or 1000mm
- Range of compulsory trunking covers (supplied separately)
- Trunking covers available with integral PIR presence detector and photocell* (supplied separately)
- Also available in Surface section. See page 206
- For integral sensor options all luminaires to be controlled must be DALI

* One Master Luminaire must be used in conjunction with the Integral Sensor.



Through Wiring



Trunking cover with integral sensor



Quick connect system

inspiration

Order Codes

Trunking

2000mm start of row
2000mm middle/end of row

INSST
INSMID

Luminaire

T5 ECO/T5 1 x 45/49W
T5 ECO/T5 1 x 50/54W
T5 ECO/T5 2 x 25/28W
T5 ECO/T5 2 x 32/35W

HF Gear

INSH149W
INSH154W
INSH228W
INSH235W

3 hr Emergency

INSH149WEM
INSH154WEM
INSH228WEM
INSH235WEM

Accessories

Trunking Infills

500mm infill
1000mm infill

INSINF500W
INSINF1000W

Trunking Cover for start/end of row†

35/49W Cover
28/54W Cover

INSCOV230W
INSCOV380W

Trunking Cover for start of row inc. cable entry block†

35/49W Cover
28/54W Cover

INSCOV330
INSCOV480

Trunking Cover for system without Infills

35/49W Cover
28/54W Cover

INSCOV460W
INSCOV760W

Trunking Cover for system with 500mm Infills

35/49W Cover
28/54W Cover

INSCOV960W
INSCOV1260W

Trunking Cover for system with 1000mm Infills

35/49W Cover
28/54W Cover

INSCOV1460W
INSCOV1760W

Components

WIRE SUSPENSION KIT*
TRUNKING END CAPS (1 required per row)
CABLE ENTRY FROM ABOVE

ITRBPEND
INSECW
INSABCAB

*Two suspension kits required per 2m start of row trunking and one for each additional trunking section

Options

DALI DIMMING	Replace H with Y	i.e. INSY149W
EASYTEST	Add suffix /ET	i.e. INSH149W/ET
COMEPS**	Add suffix /EP	i.e. INSH149W/EP
MASTER LUMINAIRE***	Add suffix /MAST	INSY149W/MAST
(One Master Luminaire must be used when incorporating integrated sensor cover)		
INTEGRAL SENSOR WITHIN		
TRUNKING COVER	Add suffix /SEN	INSCOV460W/SEN
(Use in conjunction with DALI luminaires only)		

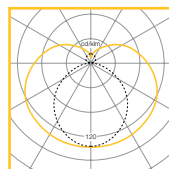
Note:

**DALI dimming combined with COMEPS is only available in conjunction with Whitecroft Command Elite DALI addressable system. Please consult our Technical Desk.

***Master Luminaires must be DALI. EM not available in Master Luminaires. Only one master luminaire per circuit layout, please contact Technical Desk for further information

† Cannot be used in conjunction with integral sensor

Photometric Performance

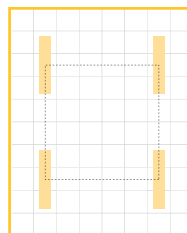


Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.43	0.63	0.70

Performance Guide

Lamps	Illuminance	Spacing
2 x 35W T5	361 lux	3.0m x 3.0m

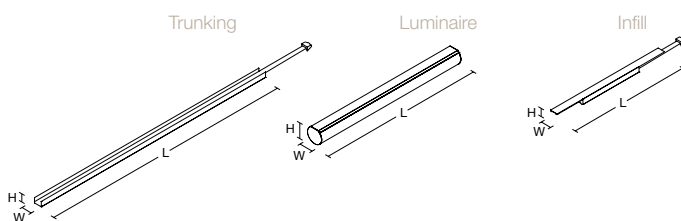


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.75m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 25W T5 ECO	2450	24,000hrs
1 x 32W T5 ECO	3100	24,000hrs
1 x 45W T5 ECO	4100	24,000hrs
1 x 50W T5 ECO	4400	24,000hrs
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs

Dimensions



Version	L	W	H	KG	KG
Starter Trunking	2000	61	47	3.9	N/A
Middle Trunking	2000	61	47	3.9	N/A
500mm Infill	500	61	47	1.0	N/A
1000mm Infill	1000	61	47	2.0	N/A
28/54W Luminaire	1246	125	118	2.2	2.7
35/49W Luminaire	1546	125	118	3.3	3.7
Cable entry from above	100	61	47	0.7	N/A

To Specify

Suspended T5 fluorescent lighting system with polycarbonate circular diffuser and quick connect system for ease of installation, maximum efficiency and tool free installation – as Whitecroft Lighting INSPIRATION





Optics

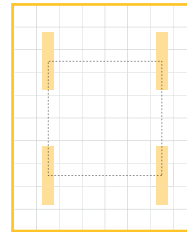
- Lamp options:
 - 1 or 2 x 28/35/49/54W T5
- MIRO 6 semi-specular louvre
- Light distribution, 80% down and 20% up

Body

- Steel body finished white or silver
- Low profile body designed for individual mounting
- Includes a 2 wire adjustable (max 1.5m) suspension kit with polycarbonate colour coded ceiling cover

Performance Guide

Lamps	Illuminance	Spacing
2 x 54W T5	500 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

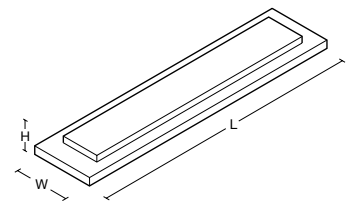
Order Codes

Glide	HF Gear	3 hr Emergency
T5 1 x 28W	GLIW5H128S	GLIW5H128SEMIN
T5 2 x 28W	GLIW5H228S	GLIW5H228SEMIN
T5 1 x 35W	GLIW5H135S	GLIW5H135SEMIN
T5 2 x 35W	GLIW5H235S	GLIW5H235SEMIN
T5 1 x 49W	GLIW5H149S	GLIW5H149SEMIN
T5 2 x 49W	GLIW5H249S	GLIW5H249SEMIN
T5 1 x 54W	GLIW5H154S	GLIW5H154SEMIN
T5 2 x 54W	GLIW5H254S	GLIW5H254SEMIN

Options

DALI DIMMING	Replace H with Y	i.e. GLIW5 Y 128S
SWITCH DIMMING	Replace H with X	i.e. GLIW5 X 128S
COMMAND 4	Replace H with Q4Y	i.e. GLIW5 Q4Y 128S
EASYTEST	Add suffix /ET	i.e. GLIW5H128S/ ET
COMEPS	Add suffix /EP	i.e. GLIW5H128S/ EP
COMET	Add suffix /CT	i.e. GLIW5H128S/ CT
WHITE FINISH	Replace S with W	i.e. GLIW5H128 W

Dimensions

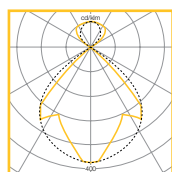


Version	L	W	H	KG	KG
28/54W	1330	250	58	7.0	8.0
35/49W	1630	250	58	7.0	8.0

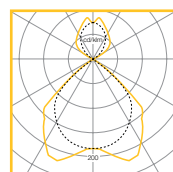
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs

Photometric Performance



1 x 54W T5
• LOR = 81%
• SHR MAX = 1.54



2 x 54W T5
• LOR = 60%
• SHR MAX = 1.31

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.61	0.77	0.81

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.40	0.54	0.58

To Specify

Suspended T5 fluorescent luminaire with direct/indirect lighting ratio 80% down and 20% up. Positively retained MIRO 6 zero iridescence louvre and integral gear on a detachable tray. 58mm deep. Adjustable twin wire suspension with injection moulded polycarbonate ceiling rose cover – as Whitecroft Lighting GLIDE

Optics

- Lamp options:
 - 2 x 28/54W T5 multi watt control gear
- Circular polycarbonate diffuser
- The solid translucent polycarbonate diffuser guarantees even light dispersion and fades out the shape of the lamp

Body

- Suspended
- Maximum suspension drop 2m
- Extruded plain anodised aluminium body
- Slim anodised aluminium bracket holds a polycarbonate diffuser in which the lamps are housed

Order Codes

Buuze HF Gear
T5 2 x 28/54W WACO880.03.2.20.1

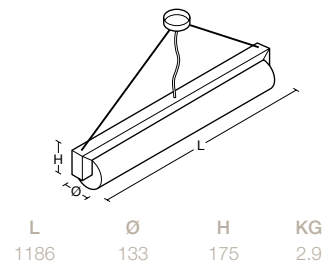
Options

POLYCARBONATE END CAPS WACO880.08.0.00.0
ANODISED ALUMINIUM END CAPS WACO880.09.0.20.0

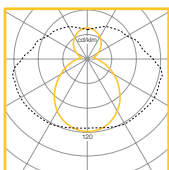
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 54W T5	4450	24,000hrs

Dimensions



Photometric Performance



2 x 54W T5
• LOR = 46.1%
• SHR MAX = 1.61

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.61 0.82 0.89

To Specify

Suspended linear luminaire with an anodised aluminium body and circular polycarbonate diffuser – as Whitecroft Lighting BUUZE





Optics

- Lamp options:
 - 4 or 6 x 49/80W T5
- Combination of specular and semi-specular reflectors for high efficiency and controlled contrast
- Uplighting element
- Suitable for mounting heights between 4m and 8m

Body

- Steel body finished white
- 4 suspension points for wire or chain suspension (by others)
- Optional suspension kit with up to 3m drop
- On high frequency versions, lamps are separately switched to allow varying light levels
- Not suitable for trunking mounting as standard

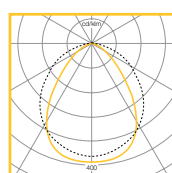
Order Codes

Aerial	HF Gear	3 hr Emergency
T5 4 x 49W	AERH449	AERH449EMIN
T5 6 x 49W	AERH649	AERH649EMIN
T5 4 x 80W	AERH480	AERH480EMIN
T5 6 x 80W	AERH680	AERH680EMIN

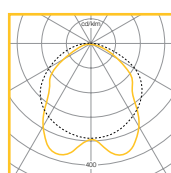
Options

DALI DIMMING	Replace H with Y	i.e. AERY449
EASYTEST	Add suffix /ET	i.e. AERH449/ET
COMEPS	Add suffix /EP	i.e. AERH449/EP
COMET	Add suffix /CT	i.e. AERH449/CT
WIRE SUSPENSION KIT	Up to 3m drop	AERSK1

Photometric Performance



6 x 80W T5
• LOR = 80.5%
• SHR MAX = 1.44



4 x 80W T5
• LOR = 85.2%
• SHR MAX = 1.61

Utilisation Factors UF(F)

Room Reflectance Room Index						
C	W	F	1.00	3.00	5.00	
0.70	0.50	0.20	0.61	0.81	0.86	

Utilisation Factors UF(F)

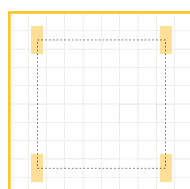
Room Reflectance Room Index						
C	W	F	1.00	3.00	5.00	
0.70	0.50	0.20	0.56	0.82	0.89	

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 49W T5	4375	24,000hrs
1 x 80W T5	6550	24,000hrs

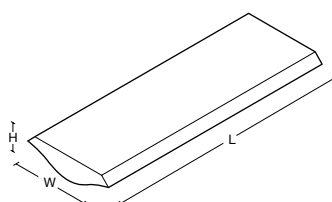
Performance Guide

Lamps	Illuminance	Spacing
6 x 80W T5	520 lux	7.0m x 7.0m



Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 10m
Working Plane: 0.0m

Dimensions

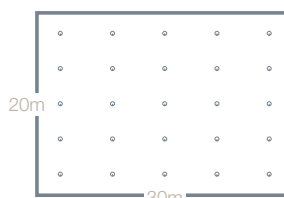


Version	L	W	H	KG	KG
6 Lamp	1478	450	118	9.5	10.5
4 Lamp	1472	356	100	6.0	7.0

Hibay vs Aerial Performance Guide

Hibay Sample Plot

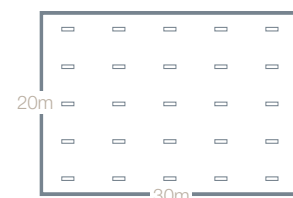
Lamps	Illuminance (Initial)	Illuminance (after 15,000 hrs)
400W HQI	1290 lux	890 lux



Reflectance: 70/50/20
Spacing: 6m x 4m
Mounting Height: 6m
No. of luminaires: 25

Aerial Sample Plot

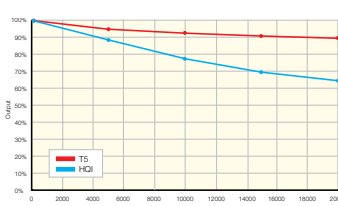
Lamps	Illuminance (Initial)	Illuminance (after 15,000 hrs)
6 x 80W T5	1240 lux	1116 lux



Reflectance: 70/50/20
Spacing: 6m x 4m
Mounting Height: 6m
No. of luminaires: 25

HQI vs T5 Lumen Maintenance

Lumen Maintenance Curve for HQI & T5 Lamps



HQI and T5 Lumen Maintenance
T5 fluorescent lamp has superior performance over life when compared with HID lamp types.

To Specify

Suspended fluorescent high output with 4 or 6 x 49/80W T5 lamps, high reflectivity aluminium optic to control glare & optimise horizontal & vertical illuminance. 4 suspension points for wire or chain suspension – as Whitecroft Lighting AERIAL





recessed



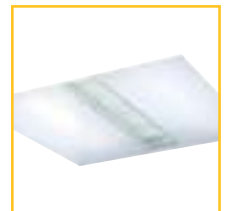
life M 130



softlighter 134



cascade edge 136



duo² centre optic 142



duo² side optic 146



duo² 1200 linear 147



softcell 3 148



vivant 150



cascade TSI 152



cascade 156



cascade retail 159



spear profile 160



spear diffuser 161



hygiene 162



duo line 164



gibraltar 165



broadspread asymmetric 166



LED ambient lighting

Life M brings LED technology to the workplace. The ever improving performance of LED solutions allows them to be used not only for display and effect lighting, but now in modular ambient applications as well.

Improving the lit environment

Life M sets new standards in ambient lighting solutions. The soft glare-free ambience created by Life M will enhance any application. A unique hexaprism diffuser ensures even illumination without the brightness traditionally associated with LED solutions. This leads to improved cylindrical illuminance, resulting in better modelling and facial recognition.

Quality and Compliance Assured

Life M delivers quality and compliance in every area. Single bin LED sets ensure a consistent 4000K colour temperature, whilst the uniform diffusion of light delivers surface brightness below 3,000Cd/m² and eliminates drop off in illumination commonly found in T5 solutions. This enables Life M to meet the lighting quality standards laid out in EN12464.

Delivering Energy Savings

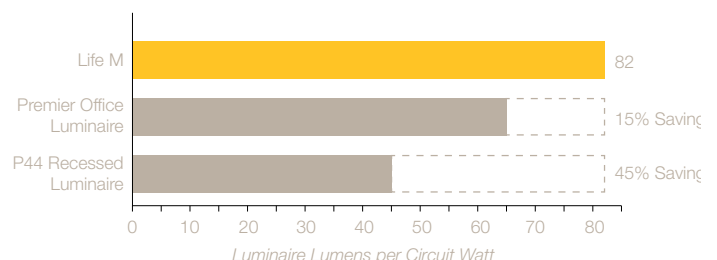
Premier Commercial Office Luminaires

LED solutions are primarily employed for energy saving. Premier T5 recessed office luminaires can deliver 65 luminaire lumens per circuit watt. Life M, delivering 74 luminaire lumens per watt, will achieve energy savings of 10%.

IP44 Recessed Diffuser Luminaires

For lighting applications requiring IP44 protection, typical T5 diffuser luminaires deliver 45 luminaire lumens per watt. Life M, offering IP44 protection as standard will deliver energy savings of up to 40%.

Furthermore, integrated DALI lighting controls can further reduce energy load, allowing compliance with the higher levels of BREEAM.







Optics

- Precise pattern Hexaprism optic for all-round glare control and perfect uniformity
- No drop off of illumination commonly found in fluorescent luminaires at lamp ends or between lamps
- 4100 lumen 50W LED light engine
- 1200 x 300mm is 3800 lumens
- Surface brightness below 3,000cd/m² for use in VDT areas
- 50,000 hour life
- Up to 82 luminaire lumens per circuit watt

Body

- Steel body finished white
- Shallow body profile
- IP44 protection as standard
- For 600 x 600mm or 1200 x 300mm grid ceilings
- Recessed mounted

life M

Order Codes

Life M 600 x 600 Hexaprism Optic DALI 3hr Emergency
4100 Lumen 4000K LM6Y14KP LM6Y24KPEM

Life M 1200 x 300 Hexaprism Optic DALI 3hr Emergency
3800 Lumen 4000K LM12Y34KP LM12Y44KPEM

Options

EASYTEST Add suffix /ET i.e. LM6Y24KP/ET
COMEPS Add suffix /EP i.e. LM6Y24KP/EP



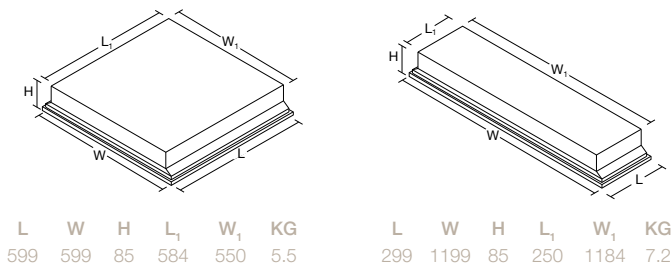
LED Light Engine

Ceiling Integration

Exposed T Grids
T15/T25 Pull up

Spring T Grids
SAS – 150/120
Armstrong – Orcal 1800/3000
Burgess – Clip in/A bar

Dimensions

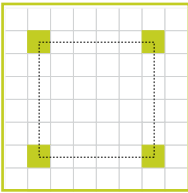


LED Performance

Colour Temp Ra (CRI) Life Expectancy Colour Consistency
4000K ≥ 80 L₇₀ (50,000hrs) MacAdam 4 SDCM

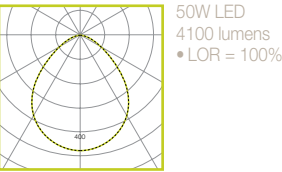
Performance Guide

Lamps Illuminance Spacing
50W LED 420 lux 3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.8m
Working Plane:
0.8m

Photometric Performance



Utilisation Factors UF(F)
Room Reflectance Room Index
C W F 1.00 3.00 5.00
0.70 0.50 0.20 0.78 1.00 1.06

To Specify

Recessed LED 600 x 600mm or 1200 x 300mm luminaire with slimline steel body and Hexaprism optic for all-round glare control. Surface brightness to be below 3,000cd/m² as per Whiterc Light LIFE M



Optics

- Precise pattern Hexaprism optic for all-round glare control and maximum efficiency
- Intermediate Brightness Zone technology using Satine Acrylic material
- Single cell hexaprism light source options:
 - LED 1950 Lumen (25W)
 - 2 x 20W T5 ECO
 - 1 x 55W TC-L Amalgam
- Twin cell hexaprism light source options:
 - LED 3750 Lumen (46W)
 - 4 x 14W T5
 - 2 x 20W T5 ECO
 - 2 x 40W TC-L Amalgam
 - 2 x 55W TC-L Amalgam

Body

- Steel body finished white
- For 600 x 600mm grid ceilings
- One piece front frame and gear tray assembly for easy access and maintenance
- Compatible with the following ceiling types:
 - Exposed T 25mm flat
 - Exposed T 15mm tegular
 - Spring T
 - Plasterboard prepared aperture (using optional frame)
 - Alugrid 15/16 – 15/08
- Air handling:
 - 20L/sec for 2 x 20W
 - 30L/sec for all other variants



Softlighter Single Cell



COM4 Integration

softlighter

Order Codes

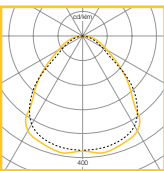
Softlighter Single Cell	HF Gear	3 hr Emergency
LED 1950 Lumen (25W)*	SLSY17PXT	SLSY17PXTEM
T5 2 x 20W ECO	SFSH220PXT	SFSH220PXTEM
TC-L 1 x 55W (Amalgam)	SFSH155PXT	SFSH155PXTEM
Softlighter Twin Cell	HF Gear	3 hr Emergency
LED 3750 Lumen (46W)*	SLTY35PXT	SLTY35PXTEM
T5 4 x 14W	SFTH414PXT	SFTH414PXTEM
T5 2 x 20W ECO	SFTH220PXT	SFTH220PXTEM
TC-L 2 x 40W (Amalgam)	SFTH240PXT	SFTH240PXTEM
TC-L 2 x 55W (Amalgam)	SFTH255PXT	SFTH255PXTEM

Options

DALI / SWITCH DIMMING	Replace H with Y	i.e. SFSY220PXT
EASYTEST	Add suffix /ET	i.e. SFSH220PXT/ET
COMEPS	Add suffix /EP	i.e. SFSH220PXT/EP
COMMAND 4	Replace H with Q4Y	i.e. SFSQ4Y220PXT
COMET	Add suffix /CT	i.e. SFSH220PXT/CT
SPRING T INTEGRATION	Replace XT with ST	i.e. SFSH220PST
PLASTERBOARD INSTALLATION FRAME		SFTPBF

*Note: DALI Dimming as standard on LED version

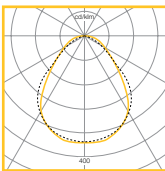
Photometric Performance



2 x 20W T5 Twin
• LOR = 86.6%
• SHR MAX = 1.61

Utilisation Factors UF(F)

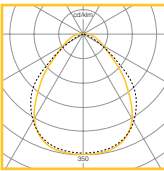
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.67	0.87	0.92



1 x 55W TC-L
• LOR = 77%
• SHR MAX = 1.52

Utilisation Factors UF(F)

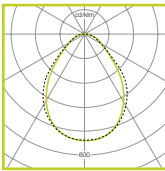
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.57	0.75	0.80



2 x 40W TC-L
• LOR = 72.8%
• SHR MAX = 1.51

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.57	0.73	0.77



46W LED
3750 lumens
• LOR = 100%
• SHR MAX = 1.40

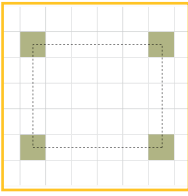
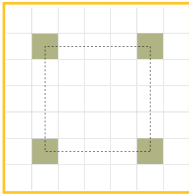
Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.76	0.10	1.06

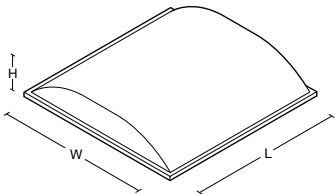
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 20W T5 ECO	1650	21,000hrs
1 x 40W TC-L (Amalgam)	3500	20,000hrs
1 x 55W TC-L (Amalgam)	4800	20,000hrs

Performance Guide

Lamps	Illuminance	Spacing	Lamps	Illuminance	Spacing
2 x 20W T5 Twin	360 lux	3.0m x 2.4m	4 x 14W T5 Twin	530 lux	2.4m x 2.4m
					
Maintenance: 0.8			Maintenance: 0.8		
Reflectance: 70/50/20			Reflectance: 70/50/20		
Ceiling Height: 2.7m			Ceiling Height: 2.7m		
Working Plane: 0.8m			Working Plane: 0.8m		

Dimensions



Version	L	W	H	Prepared Aperture	KG	KG 
Exposed T	584	584	95	—	4.4	5.4
Spring T	599	599	100	—	4.5	5.5
Plasterboard Frame	660	660	100	625 x 625 	6.4	7.4

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

T25 Lay in
T15 Tegral

Alugrids

SAS AL 15/16
SAS AL 15/08

Spring T Grids (add ST)

SAS – 150
Armstrong – Orcal 3000
Burgess – Clip in / A bar
Armstrong – Orcal 1800 Half Spring T
Burgess Clip in Half Spring T

Plasterboard (requires installation frame)

Prepared aperture

To Specify

Direct/indirect T5 or TC-L luminaire. Single or twin cell Hexaprism optic incorporating Intermediate Brightness Zone element to diffuse light and graduate brightness across the ceiling, mounted in a steel body painted white with air handling conversion as standard – as Whitecroft Lighting SOFTLIGHTER



Optics

- Hexaprism optic for all-round glare control and maximum efficiency mounted between perforated blades
- Single cell hexaprism light source options:
 - LED 1750 Lumen (25W)
 - 2 x 20W T5 Eco
 - 1 x 55W TC-L Amalgam
- Twin cell hexaprism lamp options:
 - LED 3500 Lumen (46W)
 - 4 x 14W T5
 - 2 x 40W TC-L Amalgam
 - 2 x 55W TC-L Amalgam

Body

- Steel body finished white
- For 600 x 600mm grid ceilings
- One piece front frame and gear tray assembly for easy access and maintenance
- Compatible with the following ceiling types:
 - Exposed T 25mm flat
 - Exposed T 15mm tegular
 - Spring T
 - Plasterboard prepared aperture (using optional frame)
 - Alugrid 15/16 – 15/08
- Air handling:
 - 20L/sec for 2 x 20W
 - 30L/sec for all other variants



Cascade Edge Twin Cell



COM4 Integration

cascade edge

Order Codes

Cascade Edge Single Cell	HF Gear	3 hr Emergency
LED 1750 Lumen (25W)*	CLSY17PXT	CLSY17PXTEM
T5 2 x 20W ECO	CESH220PXT	CESH220PXTEM
TCL 1 x 55W (Amalgam)	CESH155PXT	CESH155PXTEM

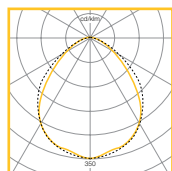
Cascade Edge Twin Cell	HF Gear	3 hr Emergency
LED 3500 Lumen (46W)*	CLTY35PXT	CLTY35PXTEM
T5 4 x 14W	CETH414PXT	CETH414PXTEM
TC-L 2 x 40W (Amalgam)	CETH240PXT	CETH240PXTEM
TC-L 2 x 55W (Amalgam)	CETH255PXT	CETH255PXTEM

Options

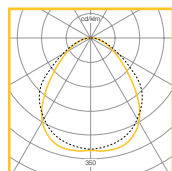
DALI / SWITCH DIMMING	Replace H with Y	i.e. CESY220PXT
EASYTEST	Add suffix /ET	i.e. CESH220PXT/ET
COMEPS	Add suffix /EP	i.e. CESH220PXT/EP
COMMAND 4	Replace H with Q4Y	i.e. CESQ4Y220PXT
COMET	Add suffix /CT	i.e. CESH220PXT/CT
SPRING T INTEGRATION	Replace XT with ST	i.e. CESH220PST
PLASTERBOARD INSTALLATION FRAME		SFTPB

*Note: DALI Dimming as standard on LED version

Photometric Performance



2 x 20W T5
• LOR = 79.4%
• SHR MAX = 1.54



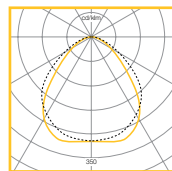
1 x 55W TC-L
• LOR = 75.3%
• SHR MAX = 1.56

Utilisation Factors UF(F)

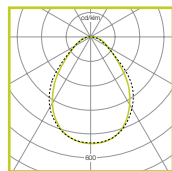
Room Reflectance	Room Index			
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.60	0.79 0.84

Utilisation Factors UF(F)

Room Reflectance	Room Index			
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.57	0.75 0.80



2 x 40W TC-L
• LOR = 72.4%
• SHR MAX = 1.61



46W LED
3500 lumens
• LOR = 100%
• SHR MAX = 1.38

Utilisation Factors UF(F)

Room Reflectance	Room Index			
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.55	0.72 0.78

Utilisation Factors UF(F)

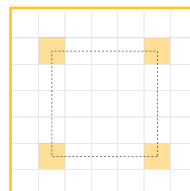
Room Reflectance	Room Index			
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.76	1.00 1.05

Lamp Performance

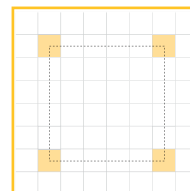
Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 20W T5 ECO	1650	21,000hrs
1 x 40W TC-L (Amalgam)	3500	20,000hrs
1 x 55W TC-L (Amalgam)	4800	20,000hrs

Performance Guide

Lamps	Illuminance	Spacing	Lamps	Illuminance	Spacing
2 x 20W T5 Single	450 lux	2.4m x 2.4m	2 x 40W TC-L Twin	507 lux	3.0m x 3.0m

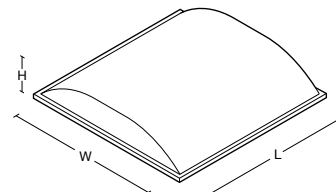


Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 2.7m
Working Plane: 0.8m



Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 2.7m
Working Plane: 0.8m

Dimensions



Version	L	W	H	Prepared Aperture	KG	KG
Exposed T	584	584	95	—	4.4	5.4
Spring T	599	599	100	—	4.5	5.5
Plasterboard Frame	660	660	100	625 x 625 ±3	6.4	7.4

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

T25 Lay in
T15 Tegral

Alugrids

SAS AL 15/16
SAS AL 15/08

Spring T Grids (add ST)

SAS – 150
Armstrong – Orcal 3000
Burgess – Clip in / A bar
Armstrong – Orcal 1800 Half Spring T
Burgess Clip in Half Spring T

Plasterboard (requires installation frame)

Prepared aperture

To Specify

Direct/indirect T5 or TC-L luminaire. Single or twin cell hexaprism optic with perforated blades, mounted in a steel body painted white with air handling conversion – as Whitecroft Lighting CASCADE EDGE

DUO² - the evolution of performance

Introducing duo²

The most advanced recessed luminaire available today

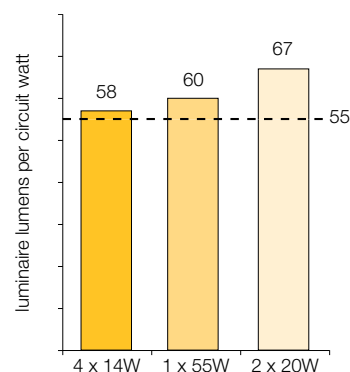
At its launch in 2009, DUO set the standard for high quality recessed fluorescent luminaires. Since then, it has had many imitators. To keep ahead of this trend, Whitecroft have now developed DUO² which sets new standards in both visual comfort and lighting performance.

DUO² boasts all of the features that made its predecessor so successful, whilst the range has been broadened with the addition of a new fixed micro prism optic. This optic uses the same conical refraction technology as the flagship dual position micro prism variant but with a recessed central optic arrangement similar to the louvred variants in the DUO² range.



Compliance Guaranteed

An uplift in performance across the range has been achieved with the development of new high output reflector technology, resulting in a 10% increase in light output. This means that the entire DUO² range achieves efficacy in excess of 55 luminaire lumens per circuit watt, resulting in guaranteed compliance with Part L of UK Building Regulations. This energy efficiency makes DUO² the ideal lighting solution for low carbon lighting schemes. Indeed its high performance means that DUO² has Light Output Ratios of up to 84%, whilst its unique Intermediate Brightness Zones allow this performance without the high degrees of glare normally associated with high LOR luminaires.





duo² the range

Centre Optic



Dual Optic Technology

The DUO² luminaire range has two distinct optical elements which are common throughout the range. DUO² employs Intermediate Brightness Zones (IBZ), which deliver diffuse light and inject brightness directly into the ceiling plane. These work in conjunction with optical cells which deliver controlled light, maximising efficiency and reducing glare.

These optical cells are available with a choice of four controllers. The Micro Prism optic delivers exceptional controlled contrast with higher luminance and is available in either fixed or moveable versions. The latter has the unique ability to be used in either its recessed position for maximum ceiling integration or dropped to allow its linear refractor optics to further enhance the lighting of the ceiling plane.

If lower luminance levels are required a choice of two louvres are available: a 'living' louvre which builds on our unique Vivant louvre technology to create visual interest and a conventional semi-specular louvre. Both offer excellent glare control.



DUO²'s Micro Prism optic can be dropped from its recessed position to enhance the lighting of the ceiling plane

Side Optic



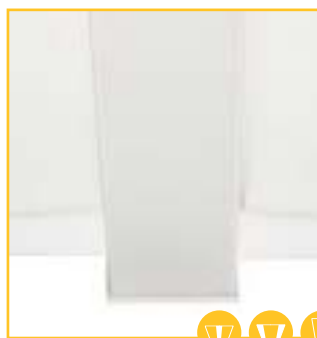
Luminaire Aesthetics

As well as offering a choice of optical arrangements, DUO² allows for two distinct aesthetic options. The DUO² centre optic range combines a familiar design style with high performance, whilst the DUO² side optic range maximises performance and has been designed to offer the ultimate aesthetic integration.

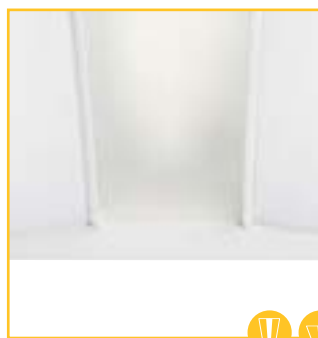
Two sizes of luminaire are available to integrate into both 600mm² and 1200mm x 300mm suspended ceiling systems.

All DUO² luminaires have air handling capability as standard - a carefully considered design feature which eliminates the need for unsightly extraction vents in the ceiling plane. DUO² has an air handling capacity of between 20 and 40 litres per second depending on its optical configuration.

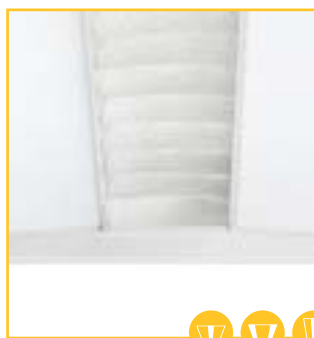
Moveable Micro Prism



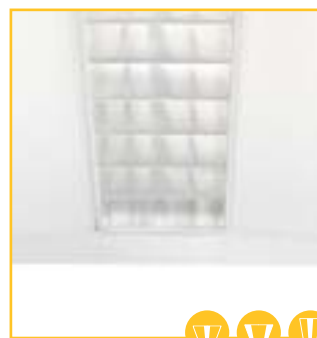
Fixed Micro Prism



Living Louvre



Semi-Specular Louvre



Duo² 600mm² centre optic



Duo² 600mm² side optic



Duo² 1200mm x 300mm



Optics

- 3 optical options:
 - Micro Prism – combines micro optical cones in a fixed recessed format or alternatively a flexible pod which can be fully recessed or lowered to deliver further enhanced room surface ratios
 - Living Louvre – vacuum metalised injection moulded and textured louvre
 - Semi-Specular Louvre – high quality zero iridescence aluminium louvre
- 600 x 600mm lamp options:
 - 3 x 14W T5
 - 4 x 14W T5
 - 3 x 20W T5
 - 1 x 55W TC-L (Amalgam)
- 1200 x 300mm lamp options:
 - 1 or 2 x 28/54W T5
 - 1 or 2 x 25/50W T5
- Side or centre optic positions
- Intermediate Brightness Zone technology using TP(a) rated polycarbonate material (fixed centre pod micro prism product TP(b) rated PMMA)

Body

- Steel body finished white
- For 600 x 600mm or 1200 x 300mm grid ceilings
- Compatible with the following ceiling types:
 - Exposed T 15mm and 25mm flat
 - Exposed T 15mm tegular
 - Spring T
 - Plasterboard prepared aperture
- Air handling as standard 20 to 40 litres per second depending on the luminaire type (refer to Whitecroft Technical Desk)



duo² centre optic

Order Codes

Duo Micro Prism Optic

T5 3 x 14W

T5 3 x 20W ECO

HF Gear

D2CH314PXT

D2CH320PXT

3 hr Emergency

D2CH314PXTEM

D2CH320PXTEM

Duo Living Louvre

T5 3 x 14W

T5 3 x 20W ECO

T5 4 x 14W

HF Gear

D2CH314VXT

D2CH320VXT

D2CH414VXT

3 hr Emergency

D2CH314VXTEM

D2CH320VXTEM

D2CH414VXTEM

Duo Semi-Specular Louvre

T5 3 x 14W

T5 3 x 20W ECO

T5 4 x 14W

HF Gear

D2CH314WXT

D2CH320WXT

D2CH414WXT

3 hr Emergency

D2CH314WXTEM

D2CH320WXTEM

D2CH414WXTEM

Duo Micro Prism Optic (Fixed)

T5 3 x 14W

T5 3 x 20W ECO

T5 2 x 20W ECO

TC-L 1 x 55W (Amalgam)

HF Gear

D2FH314PXT

D2FH320PXT

D2FH220PXT

D2FH155PXT

3 hr Emergency

D2FH314PXTEM

D2FH320PXTEM

D2FH220PXTEM

D2FH155PXTEM

Options

DALI/SWITCH DIMMING

Replace H with **C**

i.e. D2CC414PXT

EASYTEST

Add suffix **/ET**

i.e. D2CH414PXT/ET

COMEPS

Add suffix **/EP**

i.e. D2CH414PXT/EP

COMMAND 4*

Replace H with **Q4Y**

i.e. D2FQ4Y314PXT

COMET

Add suffix **/CT**

i.e. D2CH414PXT/CT

PREPARED APERTURE/
SPRING T INTEGRATION

Replace XT with **ST**

i.e. D2CH414PST

PREPARED APERTURE

DUO2 Fixed Micro Prism only

D2FPA

TEGULAR T15

CEILING INTEGRATION**

Bracket kit for pull up

DUO600BKTKIT

* Only available with DUO2 Micro Prism Optic (Fixed)

** Not required with DUO2 Micro Prism Optic (Fixed)



Micro Prism Optic (Lowered)



Living Louvre



Semi-Specular Louvre



Micro Prism Optic (Fixed)

Ceiling Integration

Refer to common ceiling
compatibility matrix –
See page 404

Exposed T Grids

T25 Lay in

T15 Lay in

T15 Tegular (Bracket kit required)

Alugrids (Fixed Micro Prism Only)

SAS AL 15/16

SAS AL 15/08

Spring T Grids (Add ST)

SAS – 150

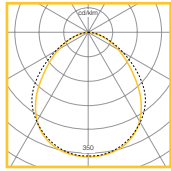
Armstrong – Orcal 1800/3000

Burgess – Clip in/A bar

Plasterboard (Add ST)

Prepared aperture

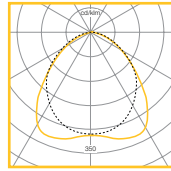
Photometric Performance



2 x 20W ECO T5
Micro Prism (Fixed)
• LOR = 84.0%
• SHR MAX = 1.55

Utilisation Factors UF(F)

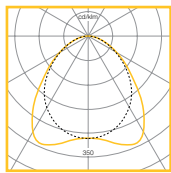
Room Reflectance Room Index
C W F 1.00 3.00 5.00
0.70 0.50 0.20 0.63 0.83 0.89



3 x 20W ECO T5
Living Louvre
• LOR = 79.2%
• SHR MAX = 1.71

Utilisation Factors UF(F)

Room Reflectance Room Index
C W F 1.00 3.00 5.00
0.70 0.50 0.20 0.59 0.79 0.84



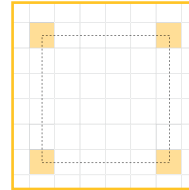
3 x 20W ECO T5
Semi-Specular
• LOR = 78.9%
• SHR MAX = 1.72

Utilisation Factors UF(F)

Room Reflectance Room Index
C W F 1.00 3.00 5.00
0.70 0.50 0.20 0.54 0.77 0.82

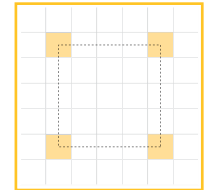
Performance Guide

Lamps Illuminance Spacing
1 x 55W T5 340 lux 3.0m x 3.0m
Micro Prism



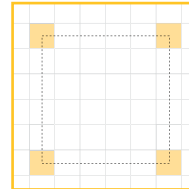
Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamps Illuminance Spacing
1 x 55W T5 520 lux 2.4m x 2.4m
Micro Prism



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamps Illuminance Spacing
3 x 20W T5 400 lux 3.0m x 3.0m
Micro Prism

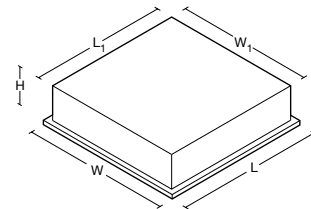


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 20W T5 ECO	1650	21,000hrs
1 x 55W TC-L	4800	20,000hrs

Dimensions



MP/LL/SSL*	L	W	H	L ₁	W ₁	Prepared Aperture	KG	KG
Exposed T	593	593	103	575	575	—	4.9	5.9
Plasterboard/Spring T	599	599	103	575	575	587 x 587 ^{-0/+3}	4.9	5.9

Micro Prism Fixed	L	W	H	L ₁	W ₁	Prepared Aperture	KG	KG
Exposed T	584	584	103	570	570	—	6.4	7.4
Plasterboard/Spring T	599	599	103	570	570	587 x 587 ^{-0/+3}	6.4	7.4

* Micro Prism Optic (MP), Living Louvre (LL), Semi-Specular Louvre (SSL)

To Specify

Recessed T5 600 x 600mm luminaire with dual optic configuration and air return facility. Incorporating Intermediate Brightness Zone element to diffuse light and graduate brightness across the ceiling, manufactured in a TP(a) rated polycarbonate (TP(b) rated PMMA for fixed Micro Prism), and 1 optical cell with Micro Prisms / Living Louvre / Semi Spec Louvre to control light and reduce glare – as Whitecroft Lighting DUO²

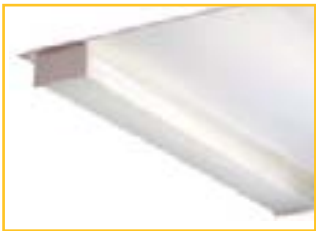
duo² side optic

Order Codes

Duo Micro Prism Optic T5 4 x 14W	HF Gear D2SH414PXT	3 hr Emergency D2SH414PXTEM
Duo Living Louvre T5 4 x 14W	HF Gear D2SH414VXT	3 hr Emergency D2SH414VXTEM
Duo Semi-Specular Louvre T5 4 x 14W	HF Gear D2SH414WXT	3 hr Emergency D2SH414WXTEM

Options

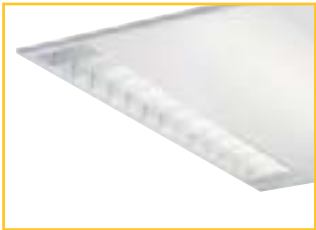
DALI/SWITCH DIMMING	Replace H with C	i.e. D2SC414PXT
EASYTEST	Add suffix /ET	i.e. D2SH414PXT/ET
COMEPS	Add suffix /EP	i.e. D2SH414PXT/EP
COMET	Add suffix /CT	i.e. D2SH414PXT/CT
PREPARED APERTURE/ SPRING T INTEGRATION	Replace XT with ST	i.e. D2SH414PST
REGULAR T15 CEILING INTEGRATION	Bracket kit for pull up	DUO600BKTKIT



Micro Prism Optic (Lowered)



Semi-Specular Louvre



Living Louvre

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

T25 Lay in
T15 Lay in
T15 Tegal (Bracket kit required)

Spring T Grids (Add ST)

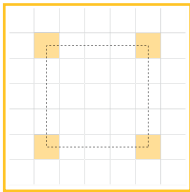
SAS – 150
Armstrong – Orcal 1800/3000
Burgess – Clip in/A bar

Plasterboard (Add ST)

Prepared aperture

Performance Guide

Lamps	Illuminance	Spacing
4 x 14W T5	550 lux	2.4m x 2.4m

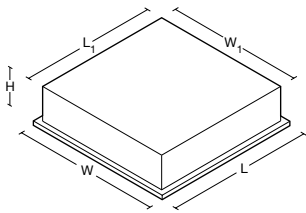


Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 2.7m
Working Plane: 0.8m

Lamp Performance

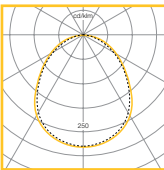
Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs

Dimensions



Version	L	W	H	L ₁	W ₁	Prepared Aperture	KG	KG
Exposed T	593	593	103	575	575	–	4.9	5.9
Plasterboard/Spring T	599	599	103	575	575	587 x 587 ⁻⁰ / ₅	4.9	5.9

Photometric Performance

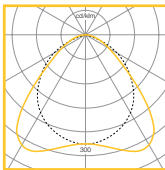


4 x 14W T5
Micro Prism
• LOR* = 70.1 (71.5)%
• SHR MAX = 1.56

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.51 0.69 0.74

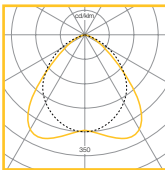
*Cell in recessed position – Figures in brackets cell in lowered position



4 x 14W T5
Living Louvre
• LOR = 72.8%
• SHR MAX = 1.77

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.50 0.71 0.76



4 x 14W T5
Semi-Specular
• LOR = 72.2%
• SHR MAX = 1.74

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.51 0.71 0.76

To Specify

Recessed T5 600 x 600mm luminaire with dual optic configuration and air return facility. Incorporating Intermediate Brightness Zone element to diffuse light and graduate brightness across the ceiling, manufactured in a Tp(a) rated polycarbonate, and 2 optical cells with (Micro Prisms / Living Louvre / Semi Spec Louvre) to control light and reduce glare – as Whitecroft Lighting DUO²

duo² 1200 x 300 linear

Order Codes

Duo Micro Prism Optic

T5 1 x 28W

T5 1 x 54W

HF Gear

D2CH128PST

D2CH154PST

3 hr Emergency

D2CH128PSTEM

D2CH154PSTEM

Duo Living Louvre

T5 1 x 28W

T5 2 x 28W

T5 1 x 54W

T5 2 x 54W

HF Gear

D2CH128VST

D2CH228VST

D2CH154VST

D2CH254VST

3 hr Emergency

D2CH128VSTEM

D2CH228VSTEM

D2CH154VSTEM

D2CH254VSTEM

Duo Semi-Specular Louvre

T5 1 x 28W

T5 2 x 28W

T5 1 x 54W

T5 2 x 54W

HF Gear

D2CH128WST

D2CH228WST

D2CH154WST

D2CH254WST

3 hr Emergency

D2CH128WSTEM

D2CH228WSTEM

D2CH154WSTEM

D2CH254WSTEM

Duo Micro Prism Optic (Fixed)

T5 1 x 25/28W

T5 ECO 1 x 50W

T5 2 x 25/28W

T5 ECO 2 x 50W

HF Gear

D2FH128PST

D2FH154PST

D2FH228PST

D2FH254PST

3 hr Emergency

D2FH128PSTEM

D2FH154PSTEM

D2FH228PSTEM

D2FH254PSTEM

Options

DALI / SWITCH DIMMING

Replace H with C

i.e. D2CC128PST

EASYTEST

Add suffix /ET

i.e. D2CH128PST/ET

COMEPS

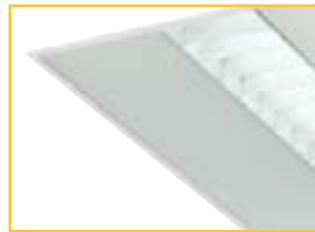
Add suffix /EP

i.e. D2CH128PST/EP

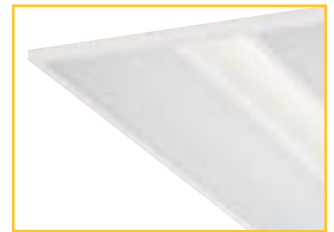
COMET

Add suffix /CT

i.e. D2CH128PST/CT



Living Louvre



Micro Prism Optic (Fixed)

Lamp Performance

Wattage	IL@25°C	Lamp Life	Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs	1 x 25W T5	1650	21,000hrs
1 x 54W T5	4450	24,000hrs	1 x 50W T5	4400	24,000hrs

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Spring T Grids

SAS – 150

Armstrong – Orcal 1800/3000

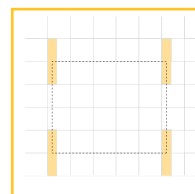
Burgess – Clip in/A bar

Plasterboard

Prepared aperture

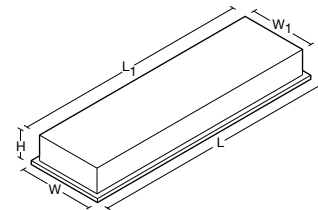
Performance Guide

Lamps	Illuminance	Spacing
2 x 28W T5	520 lux	2.4m x 3.0m



Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 2.7m
Working Plane: 0.8m

Dimensions

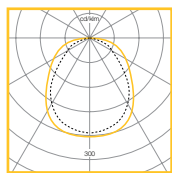


MP/LL/SSL*	L	W	H	L ₁	W ₁	Prepared Aperture	KG	KG
Plasterboard/Spring T	1199	299	123	1175	275	285 x 1187 $\frac{0}{0}$	8.1	9.1

Micro Prism Fixed	L	W	H	L ₁	W ₁	Prepared Aperture	KG	KG
Plasterboard/Spring T	1199	299	103	1175	281	285 x 1187 $\frac{0}{0}$	8.6	9.5

* Micro Prism Optic (MP), Living Louvre (LL), Semi-Specular Louvre (SSL)

Photometric Performance

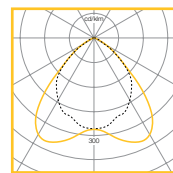


1 x 28W T5
Micro Prism
• LOR* = 67.1
(75.0)%
• SHR MAX = 1.53

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.47 0.65 0.70

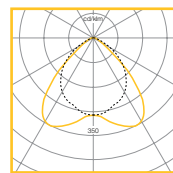
*Cell in recessed position – Figures in brackets cell in lowered position



1 x 28W T5
Living Louvre
• LOR = 72.4%
• SHR MAX = 1.81

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.51 0.70 0.74



1 x 28W T5
Semi-Specular
• LOR = 69.6%
• SHR MAX = 1.81

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.51 0.70 0.74

To Specify

Recessed T5 1200 x 300mm luminaire with dual optic configuration and air return facility. Incorporating Intermediate Brightness Zone element to diffuse light and graduate brightness across the ceiling and 1 optical cell with (Micro Prisms / Living Louvre / Semi Spec Louvre) to control light and reduce glare – as Whitecroft Lighting DUO²



Optics

- MIRO 5 zero iridescent semi-specular curved nose louvre
- Lamp options:
 - 600 x 600mm – 3 or 4 x 14/24W T5
 - 500 x 500mm – 3 or 4 x 14W T5
- Can provide compliance with LG7:2005 using only Softcell 3 luminaires to deliver 30% ceiling illuminance ratio and 50% wall illuminance ratio

Body

- 600 x 600mm recessed ceiling mount finished white
- 600mm surface mount finished white
- Perforated steel aerofoil finished white
- One piece colour coded end caps in injection moulded polycarbonate
- Control gear, lamps and emergency pack contained within aerofoil
- Tool free access for maintenance
- Air handling as standard, 20L/sec

softcell 3

Order Codes

Order both Aerofoil and Ceiling Mount for complete luminaire

Softcell 3 Aerofoil	HF Gear	3 hr Emergency
T5 3 x 14W	SOF3W5H314	SOF3W5H314EMIN
T5 4 x 14W	SOF3W5H414	SOF3W5H414EMIN
T5 3 x 24W	SOF3W5H324	SOF3W5H324EMIN
T5 4 x 24W	SOF3W5H424	SOF3W5H424EMIN

Softcell 3 Ceiling Mount

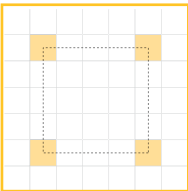
Recessed ceiling mount – exposed T15 Tegular /T25 Lay in	SOF3600XT
Recessed ceiling mount – spring T	SOF3600ST
Surface ceiling mount	SOF3600SM

Options

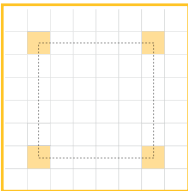
DALI DIMMING	Replace H with Y	i.e. SOF3W5Y314
SWITCH DIMMING	Replace H with X	i.e. SOF3W5X314
COMMAND 4	Replace H with Q4Y	i.e. SOF3W5Q4Y314
EASYTEST	Add suffix /ET	i.e. SOF3W5H314/ET
COMEPS	Add suffix /EP	i.e. SOF3W5H314/EP
COMET	Add suffix /CT	i.e. SOF3W5H314/CT

Performance Guide

Lamps	Illuminance	Spacing	Lamps	Illuminance	Spacing
4 x 14W T5	450 lux	2.4m x 2.4m	4 x 24W T5	500 lux	3.0m x 3.0m

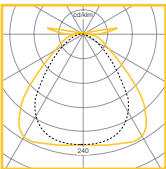


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

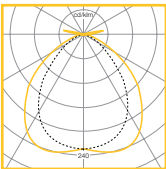


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Photometric Performance



3 x 14W T5
• LOR = 57.2%
• SHR MAX = 1.78



4 x 14W T5
• LOR = 63.7%
• SHR MAX = 1.63

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.42 0.55 0.59

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.47 0.62 0.66

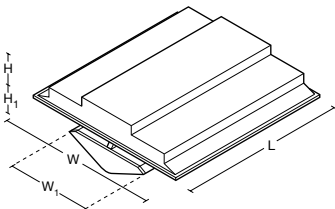
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 24W T5	1750	24,000hrs



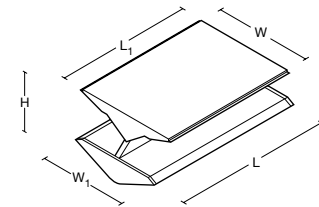
Dimensions

Recessed



Version	L	W	H	H ₁	W ₁	KG	KG
Exposed T	584	584	91	120	295	5.8	6.2
Spring T	599	599	91	120	295	5.8	6.2

Surface



L	W	H	L ₁	W ₁	KG	KG
593	337	206	567	295	5.8	6.2

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

T25 Lay in
T15 Tegular

Spring T Grids

SAS – 150/120
Armstrong – Orcal 1800
Burgess – Clip in

To Specify

Architectural T5 600 x 600mm luminaire offering semi-recessed and surface options, all delivering >50% of average working plane illuminance on walls and 30% on ceilings whilst avoiding abrupt luminance change. Curved nose louvre in MIRO 5 material. No disruption to Coanda effect – as Whitecroft Lighting SOFTCELL 3



Optics

- Living louvre: positively retained with shimmer effect vacuum metalised blades
- All luminaires have perforated Matrix luminance profilers delivering wall and ceiling wash
- Lamp options:
 - 600 x 600mm – 4 x 14W or 2 x 24W T5

Body

- Steel body finished white
- For multiple ceiling integration
- Air handling as standard, 30L/sec

Order Codes

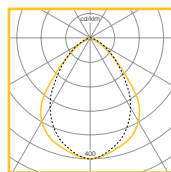
Vivant 600 x 600	HF Gear	3 hr Emergency
T5 2 x 24W	VIVM224	VIVM224EMIN
T5 4 x 14W	VIVM414	VIVM414EMIN

Options

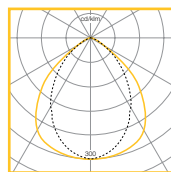
DALI DIMMING	Add Y after VIVM	i.e. VIVMY414
SWITCH DIMMING	Add X after VIVM	i.e. VIVMX414
COMMAND 4	Add Q4Y after VIVM	i.e. VIVMQ4Y414
COMMAND 3	Add Q3Y after VIVM	i.e. VIVMQ3Y414
EASYTEST	Add suffix /ET	i.e. VIVM414/ET
COMEPS	Add suffix /EP	i.e. VIVM414/EP
COMET	Add suffix /CT	i.e. VIVM414/CT
PREPARED APERTURE/ SPRING T INTEGRATION	Add suffix ST	i.e. VIVM414ST



Photometric Performance



2 x 24W T5
• LOR = 66.4%
• SHR MAX = 1.48



4 x 14W T5
• LOR = 63.3%
• SHR MAX = 1.53

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.53	0.67	0.71

Utilisation Factors UF(F)

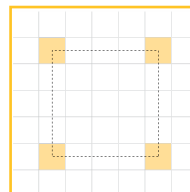
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.51	0.65	0.68

Performance Guide

Lamps	Illuminance	Spacing
4 x 14W T5	500 lux	2.4m x 2.4m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 24W T5	1750	24,000hrs



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Ceiling Integration

Refer to common ceiling
compatibility matrix –
See page 404

Exposed T Grids

T25 Lay in
T15 Tegular

Alugrids

SAS AL 15/16
SAS AL 15/08

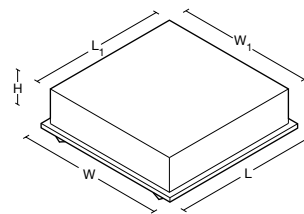
Spring T Grids (Add ST)

SAS – 150/120
Armstrong – Orcal 1800
Burgess – Clip in

Plasterboard (Add ST)

Prepared aperture

Dimensions



Version	L	W	H	L ₁	W ₁	Prepared Aperture	KG	KG
Exposed T	584	584	113	571	567	–	7.5	8.5
Plasterboard/Spring T	599	599	113	571	551	575 x 575	7.5	8.5

To Specify

Semi-recessed architectural T5 600 x 600mm luminaire with a concave metalised living louvre and matrix luminance profilers projecting 28mm below the ceiling delivering light spill on the ceiling and a smoothly graduated wall wash. Optic to incorporate intermediate brightness zones for maximum visual comfort – as Whitecroft Lighting VIVANT



cascade TSI

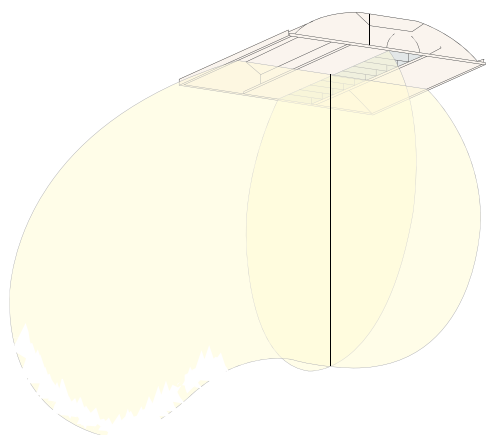
The importance of the role that lighting has to play in the health and welfare of our children cannot be underestimated. Nowhere is this more apparent than in the school environment, where lighting can have a direct and dramatic effect on educational achievement. Lighting can stimulate and energise the learning process by providing not just an attractive environment, but also by actively motivating the student.

The principle of TSI – teaching surface illumination

It is important to understand the way in which teacher and pupils interact when designing lighting schemes for classrooms. Education is not a 2-dimensional activity and even illumination must be given to all teaching surfaces, namely walls, white boards and desk surfaces alike.

Traditional office luminaires deliver desk level illumination but are not designed to illuminate a vertical surface as well as the TSI does.

As classroom walls are working task areas, both the quantity and quality of light are important and add to both the functionality and ambience of the space.



Whitecroft developed Cascade TSI (Teaching Surface Illuminance) specifically to address the problem of lighting the teaching surfaces of a classroom without the need for supplementary wall washers. Cascade TSI combines high optical performance with innovative design and not only delivers the best lit environment but also reduces energy consumption and installation costs. Cascade TSI used in conjunction with a standard Cascade luminaire provides the best possible recessed lighting solution for the classroom.

Cascade TSI has an asymmetric distribution in one quadrant to maximise wall illuminance, whilst the other 3 quadrants control glare and direct light onto the horizontal working plane.

Classroom comparative lighting levels

	Typical 3 x 14W T5	Cascade TSI 4 x 14W T5
Average Horizontal Illuminance	327 lux	341 lux
Average Side Wall Illuminance	27%	59%
Average End Wall Illuminance	30%	48%

Cascade TSI puts almost twice as much light onto the walls of a classroom with a superior degree of uniformity than that of a typical symmetrical distribution luminaire.



Typical 3 x 14W T5



Cascade TSI 4 x 14W T5



Optics

- Asymmetric light output with one half of the luminaire providing ambient direct/indirect lighting and the other half providing wall illumination
- MIRO 5 semi-specular louvre on ambient half with perforated wings. On the wall wash side the lamp is covered by a flat perforated foil
- Lamp options:
 - 4 x 14W T5
 - 2 x 40/55W TC-L

Body

- Steel body with tightly jointed end plates finished white
- Designed to rest above 600 x 600mm exposed T (15mm and 25mm) ceilings. Installation in plasterboard ceilings possible using optional frame

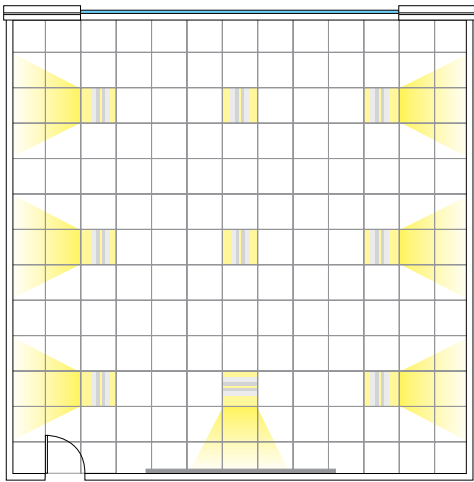
cascade TSI

Order Codes

Cascade TSI	HF Gear	3 hr Emergency
T5 4 x 14W	CTSH414	CTSH414EMIN
TC-L 2 x 40W	CTSH240	CTSH240EMIN
TC-L 2 x 55W	CTSH255	CTSH255EMIN

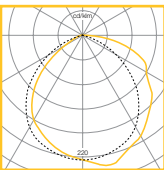
Options

DALI DIMMING	Replace H with Y	i.e. CTS Y 414
SWITCH DIMMING	Replace H with X	i.e. CTS X 414
COMMAND 4	Replace H with Q4Y	i.e. CTS Q4Y 414
COMMAND 3	Replace H with Q3Y	i.e. CTS Q3Y 414
EASYTEST	Add suffix /ET	i.e. CTSH414/ ET
COMEPS	Add suffix /EP	i.e. CTSH414/ EP
COMET	Add suffix /CT	i.e. CTSH414/ CT
PLASTERBOARD INSTALLATION FRAME		CSDPBF

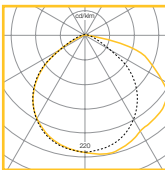


Cascade TSI used in conjunction with standard Cascade in a 9 luminaire typical classroom arrangement

Photometric Performance



2 x 40W TC-L
• LOR = 59.2%
• SHR MAX = 1.60



4 x 14W T5
• LOR = 59.1%
• SHR MAX = 1.66

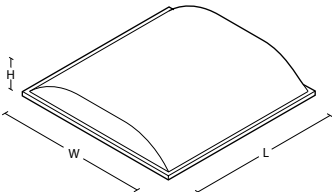
Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.42	0.58	0.62

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.42	0.58	0.62

Dimensions



Version	L	W	H	Prepared Aperture	KG	KG
Exposed T	593	591	95	—	6.0	7.0
Plasterboard frame	660	660	100	625 x 625	8.0	9.0

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 40W TC-L	3500	20,000hrs
1 x 55W TC-L	4800	20,000hrs

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

T25 Lay in
T15 Lay in

Plasterboard (Installation frame required)

Prepared aperture

To Specify

Recessed direct/indirect fluorescent T5 module for classroom lighting. Rolled steel body finished white, with MIRO 5 louvre and perforated side panels. Asymmetric light distribution with half of the luminaire providing 'Teaching Surface Illumination' – as Whitecroft CASCADE TSI



Optics

- MIRO 5 zero iridescent semi-specular louvre mounted between perforated gull wings
- Single cell louvre:
 - 2 x 24/54W T5
 - 1 x 40/55W TC-L
- Twin cell louvre:
 - 4 x 14W T5
 - 2 x 40/55W TC-L
- All the above lamp options are also available with lamps concealed behind a micro perforated diffuser

Body

- Designed to rest above 15 and 25mm exposed T ceilings. Installation in plasterboard ceilings possible using optional frame
- Fully flanged rolled body with end plates tightly jointed for a rigid construction, finished white
- Air handling option on louvre version, 30L/sec



paversmith
managing reputations

cascade

Order Codes

Cascade Single Cell Louvre	HF Gear	3 hr Emergency
T5 2 x 24W	CSDWH224	CSDWH224EMIN
T5 2 x 54W	CSDWH254	CSDWH254EMIN
TC-L 1 x 40W	CSDWH140	CSDWH140EMIN
TC-L 1 x 55W	CSDWH155	CSDWH155EMIN

Cascade Twin Cell Louvre	HF Gear	3 hr Emergency
T5 4 x 14W	CSDWH414	CSDWH414EMIN
TC-L 2 x 40W	CSDWH240	CSDWH240EMIN
TC-L 2 x 55W	CSDWH255	CSDWH255EMIN

Options

DALI DIMMING	Replace H with Y	i.e. CSDWY224
SWITCH DIMMING	Replace H with X	i.e. CSDWX224
COMMAND 4	Replace H with Q4Y	i.e. CSDWQ4Y224
COMMAND 3	Replace H with Q3Y	i.e. CSDWQ3Y224
EASYTEST	Add suffix /ET	i.e. CSDWH224/ET
COMEPS	Add suffix /EP	i.e. CSDWH224/EP
COMET	Add suffix /CT	i.e. CSDWH224/CT
AIR HANDLING	Add suffix /AH	i.e. CSDWH224/AH
PLASTERBOARD INSTALLATION FRAME		CSDPBF

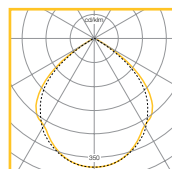


Cascade 2 x 54W Single Cell Louvre

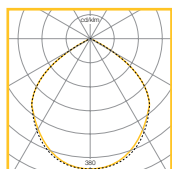


Cascade Twin Cell Louvre

Photometric Performance



4 x 14W T5
• LOR = 72.6%
• SHR MAX = 1.58



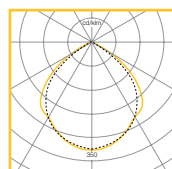
2 x 24W T5
• LOR = 77.7%
• SHR MAX = 1.57

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.58 0.75 0.78

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.61 0.79 0.84



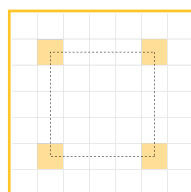
2 x 55W TC-L
• LOR = 68.8%
• SHR MAX = 1.55

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.56 0.71 0.74

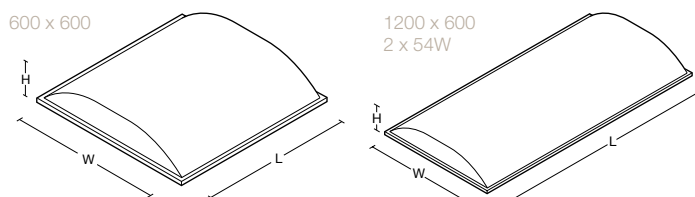
Performance Guide

Lamps	Illuminance	Spacing
4 x 14W T5	510 lux	2.4m x 2.4m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Dimensions



Version	L	W	H	Prepared Aperture	KG	KG
Exposed T	593	595	95	—	4.5	5.5
Plasterboard frame	660	660	95	625 x 625	6.5	7.5
2 x 54W Version	1193	595	95	—	8.0	9.0

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

T25 Lay in
T15 Lay in

Plasterboard (Requires installation frame)

Prepared aperture (600 x 600 only)

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 24W T5	1750	24,000hrs
1 x 54W T5	4450	24,000hrs
1 x 40W TC-L	3500	20,000hrs
1 x 55W TC-L	4800	20,000hrs

To Specify

Direct/indirect recessed T5 or TCL luminaire. Single or twin cell MIRO 5 louvre with perforated wings mounted in a steel body painted white – as Whitecroft Lighting CASCADE

cascade retail

Optics

- Lamp options:
 - 2 x 55W TC-L
- Optic incorporates a micro dot zero iridescent semi-specular louvre between perforated gull wings

Body

- Steel body finished white
- Designed to rest above 15 and 25mm exposed T ceilings
- Installation in plasterboard ceilings using an optional frame



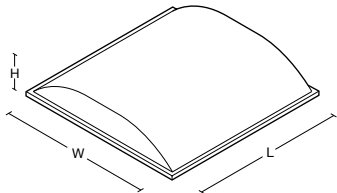
Order Codes

Cascade Retail Louvre	HF Gear	3 hr Emergency
TC-L 2 x 55W	CSDWH255RLV	CSDWH255RLVEMIN

Options

DALI DIMMING	Replace H with Y	i.e. CSDW Y 255RLV
SWITCH DIMMING	Replace H with X	i.e. CSDW X 255RLV
EASYTEST	Add suffix /ET	i.e. CSDWH255RLV/ ET
COMEPS	Add suffix /EP	i.e. CSDWH255RLV/ EP
COMET	Add suffix /CT	i.e. CSDWH255RLV/ CT
PLASTERBOARD INSTALLATION FRAME		CSDPBF

Dimensions



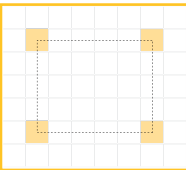
Version	L	W	H	Prepared Aperture	KG	KG
2 x 55W TC-L Exposed T	593	595	95	–	4.5	5.5
2 x 55W TC-L Plasterboard	660	660	95	625 x 625 ± 3	6.5	7.5

Performance Guide

Lamps	Illuminance	Spacing
2 x 55W TC-L	830 lux	2.4m x 3.0m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 55W TC-L	4800	20,000hrs



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

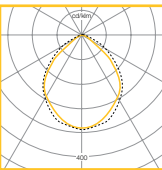
Exposed T Grids

T25 Lay in
T15 Lay in

Plasterboard (Requires installation frame)

Prepared aperture

Photometric Performance



2 x 55W TC-L
• LOR = 65.7%
• SHR MAX = 1.52

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.52 0.67 0.71

To Specify

Direct/indirect recessed luminaire for 2 x 55W TC-L lamps. Micro dot, zero iridescent louvre with perforated wings mounted in a steel body painted white – as Whitecroft Lighting CASCADE RETAIL

spear profile

semi-recessed
louvred luminaire



Optics

- Spring retained MIRO 5 zero iridescent semi-specular louvre mounted between perforated luminance profilers
- Lamp options:
 - 3 or 4 x 14W T5, 3 x 24W T5

Body

- Steel body finished white
- Designed to fit T15 tegular ceilings aligning with tiles and as a lay in on T25 ceilings
- Air handling 30L/sec



Order Codes

Spear Profile	HF Gear	3 hr Emergency
T5 3 x 14W	SPPH314	SPPH314EMIN
T5 4 x 14W	SPPH414	SPPH414EMIN
T5 3 x 24W	SPPH324	SPPH324EMIN

Options

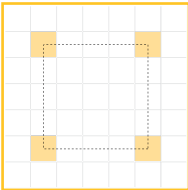
DALI DIMMING	Replace H with Y	i.e. SPPY314
SWITCH DIMMING	Replace H with X	i.e. SPPX314
COMMAND 4	Replace H with Q4Y	i.e. SPPQ4Y314
EASYTEST	Add suffix /ET	i.e. SPPH314/ET
COMEPS	Add suffix /EP	i.e. SPPH314/EP
COMET	Add suffix /CT	i.e. SPPH314/CT

Performance Guide

Lamps	Illuminance	Spacing
4 x 14W T5	530 lux	2.4m x 2.4m

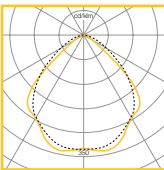
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 24W T5	1750	24,000hrs



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

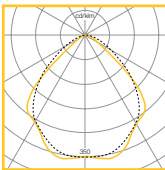
Photometric Performance



3 x 14W T5
• LOR = 74%
• SHR MAX = 1.71

Utilisation Factors UF(F)

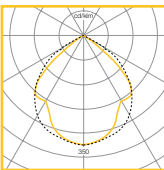
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.60 0.76 0.80



3 x 24W T5
• LOR = 76.5%
• SHR MAX = 1.70

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.62 0.79 0.83

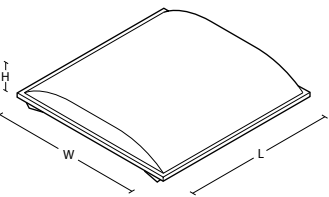


4 x 14W T5
• LOR = 68%
• SHR MAX = 1.58

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.55 0.70 0.73

Dimensions



L	W	H	KG	KG
584	584	81	7.0	8.0

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

T25 Lay in
T15 Tegular

To Specify

Recessed architectural T5 luminaire. Fully flanged and jointed rigid body finished white with semi-specular MIRO 5 zero iridescent louvre mounted between matrix luminance profilers projecting no more than 30mm below the ceiling line – as Whitecroft Lighting SPEAR PROFILE

spear diffuser

IP44/IP20 T5 or LED recessed diffuser luminaire



Optics

- Light source options:
 - LED 3650 lumens (50W) 4000K
- Or
- 3 or 4 x 14/24W T5
- Framed flat sheet TP(a) fire resistant prismatic diffuser, positively retained by wishbone side springs
- Smooth face to room side for easy cleaning

Body

- Steel body finished white
- IP44 to the void with frame in place, IP20 with frame removed
- Designed as a lay in on T15 and T25 ceilings
- Ceiling brackets required for prepared aperture ceilings or tegular tiles

Order Codes

Spear Diffuser	HF Gear	3 hr Emergency
LED 3650 lumens (50W)	SDLPH14K	SDLPH14KEM
T5 3 x 14W	SFPH314	SFPH314EMIN
T5 4 x 14W	SFPH414	SFPH414EMIN
T5 3 x 24W	SFPHa324	SFPH324EMIN
T5 4 x 24W	SFPH424	SFPH424EMIN

Options

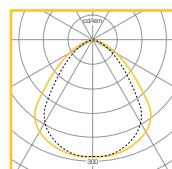
DALI DIMMING	Replace H with Y	i.e. SFPY314
SWITCH DIMMING*	Replace H with X	i.e. SFPX314
EASYTEST	Add suffix /ET	i.e. SFPH314/ET
COMEPS	Add suffix /EP	i.e. SFPH314/EP
COMET*	Add suffix /CT	i.e. SFPH314/CT

4 SLIDING BRACKETS FOR PLASTERBOARD
CEILINGS AND TEGULAR TILES

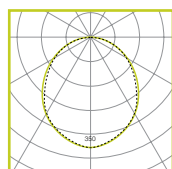
BCNSB

* Not available with Spear Diffuser LED

Photometric Performance



4 x 14W T5
• LOR = 63.6%
• SHR MAX = 1.63



50W LED
3650 lumens
• LOR = 100%

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.50	0.64	0.68

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.70	0.97	1.04

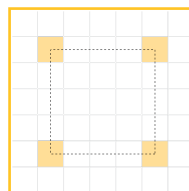
LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 4 SDCM

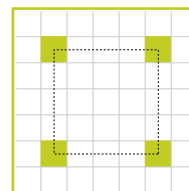


Performance Guide

Lamps	Illuminance	Spacing	Lamps	Illuminance	Spacing
4 x 14W T5	490 lux	2.4m x 2.4m	50W LED	512 lux	2.4m x 2.4m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Ceiling Integration

Refer to common ceiling
compatibility matrix – See page 404

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 24W T5	1750	24,000hrs

Exposed T Grids

T25 Lay in
T15 Lay in
T15/T25 Pull up
(Sliding brackets required)

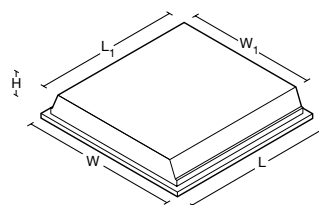
Equivalent Lamp Types

3650 Lumen Output
T5 4 x 14W

Plasterboard

Prepared aperture
(Sliding brackets required)

Dimensions



Version	L	W	H	L ₁	W ₁	Prep Aperture	KG	KG
T5 Exposed T/Plasterboard	595	595	97	575	575	580 x 580 ^{+3/-3}	5.0	6.0
LED Exposed T/Plasterboard	595	595	97	575	575	580 x 580 ^{+3/-3}	7.0	8.0

To Specify

Rigid fully boxed and jointed T5 or LED recessed luminaire with positively retained framed TP(a) diffuser to be suitable for mounting above or below a T15 or T25 exposed T or in prepared aperture ceilings – as Whitecroft Lighting SPEAR DIFFUSER





Optics

- Screw retained frame with Tp(a) Polycarbonate diffuser. Smooth face on the room side for easy cleaning
- Lamp options:
 - 3 or 4 x 14W T5
 - 4 x 24/28W T5

Body

- Steel body finished white, with bonded diffuser
- Concealed screw fixing detail
- IP54 to the void with the front frame in place, IP20 with the front frame removed
- Suitable for T15 and T25 exposed T, Spring T and prepared aperture ceilings

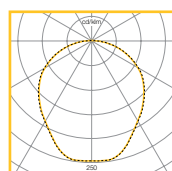
Order Codes

Hygiene	HF Gear	3 hr Emergency
T5 3 x 14W	HYGP314	HYGP314EMIN
T5 4 x 14W	HYGP414	HYGP414EMIN
T5 4 x 24W	HYGP424	HYGP424EMIN
T5 4 x 28W	HYGP428	HYGP428EMIN

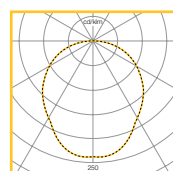
Options

DALI DIMMING	Add Y after HYGP	i.e. HYGPY314
SWITCH DIMMING	Add X after HYGP	i.e. HYGPX314
EASYTEST	Add suffix /ET	i.e. HYGP314/ET
COMEPS	Add suffix /EP	i.e. HYGP314/EP
COMET	Add suffix /CT	i.e. HYGP314/CT
RECESSING PANEL	To maintain IP54 on spring T ceilings	
	Add suffix R	i.e. HYGP314R
PLASTERBOARD INSTALLATION KIT		LUMAFIXBKTKIT

Photometric Performance



3 x 14W T5
 • LOR = 61.5%
 • SHR MAX = 1.51



4 x 14W T5
 • LOR = 61.6%
 • SHR MAX = 1.51

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.46	0.66	0.71

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.45	0.64	0.69



Lamp Performance

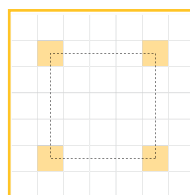
Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 24W T5	1750	24,000hrs
1 x 28W T5	2625	24,000hrs

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Performance Guide

Lamps	Illuminance	Spacing
4 x 14W T5	450 lux	2.4m x 2.4m



Maintenance: 0.8
 Reflectance: 70/50/20
 Ceiling Height: 2.7m
 Working Plane: 0.8m

Exposed T Grids

T15/T25 Pull up

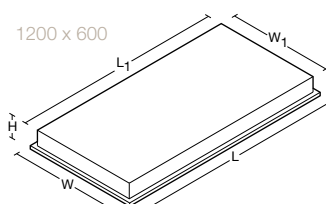
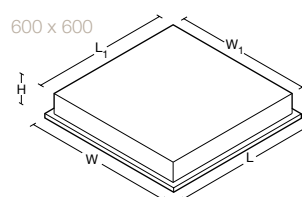
Spring T Grids (Optional recessing panel available)

SAS – 150/120*
 Armstrong – Orcal 1800/3000*
 Burgess – Clip in/Abar*

Plasterboard

Prepared aperture*
 *Plasterboard installation kit required

Dimensions



Version	L	W	H	L ₁	W ₁	Prepared Aperture	KG	KG
600 x 600	599	599	106	570	540	550 x 550 ± 3	6.0	7.0
1200 x 600	1199	599	106	1170	540	550 x 1150 ± 3	7.0	8.0

To Specify

Recessed T5 modular luminaire with steel body and diffuser frame finished white, sealed to IP54 on the front face – as Whitcroft Lighting HYGIENE



Optics

- Easy to clean Duo micro-polymer TP(a) rated polycarbonate diffuser
- Lamp options:
 - 1 x 28/54W T5

Body

- Steel body finished white
- IP40 rating from the front of the luminaire
- Can be installed in exposed T15/T25 or plasterboard ceilings

Order Codes

Duo Line	HF Gear	3 hr Emergency
T5 1 x 28W	DUOLH128	DUOLH128EMIN
T5 1 x 54W	DUOLH154	DUOLH154EMIN

Options

DALI DIMMING	Replace H with Y	i.e. DUOLY128
SWITCH DIMMING	Replace H with X	i.e. DUOLX128
EASYTEST	Add suffix /ET	i.e. DUOLH128/ET
COMEPS	Add suffix /EP	i.e. DUOLH128/EP
COMET	Add suffix /CT	i.e. DUOLH128/CT
PLASTERBOARD/EXPOSED T TEGULAR INSTALLATION KIT		LUMAFIXBKTKIT

Ceiling Integration

Refer to common ceiling
compatibility matrix –
See page 404

Exposed T Grids

T25 Lay in
T15 Lay in
T15/T25 Pull up (Installation kit
required)

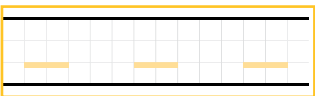
Plasterboard

Prepared aperture (Installation kit
required)



Performance Guide

Lamps	Illuminance	Spacing
1 x 54W T5	200 lux	3.0m

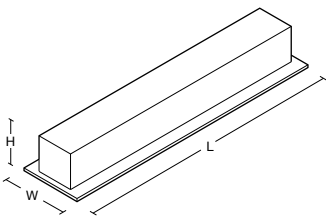


Maintenance: 0.8	Ceiling Height: 2.7m
Reflectance: 70/50/20	Working Plane: 0.0m

Lamp Performance

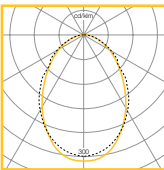
Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 54W T5	4450	24,000hrs

Dimensions



Version	L	W	H	Prepared Aperture	KG	KG
Exposed T/Plasterboard	1195	197	120	175 x 1175 ⁺³ ₋₃	6.5	7.5

Photometric Performance



- 1 x 54W T5
- LOR = 63.5%
- SHR MAX = 1.35

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.46	0.62	0.67

To Specify

Recessed T5 linear IP40 luminaire, with easy to clean Duo Micro-Polymer TP(a) rated polycarbonate diffuser. Steel body finished white, designed to fit both modular T-bar or plasterboard ceilings – as Whitecroft Lighting DUO LINE



Optics

- Specular aluminium reflector with easily cleaned smooth faced internally reeded polycarbonate diffuser
- Lamp options:
 - 1 x 28/54W T5

Body

- Steel body finished white
- Designed to fit exposed T15, T25 or plasterboard ceilings

Order Codes

Gibraltar	HF Gear	3 hr Emergency
T5 1 x 28W	GIBYH128	GIBYH128EM
T5 1 x 54W	GIBYH154	GIBYH154EM

Options

DALI DIMMING	Replace H with Y	i.e. GIBYY128
SWITCH DIMMING	Replace H with X	i.e. GIBYX128
EASYTEST	Add suffix /ET	i.e. GIBYH128/ET
COMEPS	Add suffix /EP	i.e. GIBYH128/EP
COMET	Add suffix /CT	i.e. GIBYH128/CT
PLASTERBOARD INSTALLATION KIT		LUMAFIXBKTKIT



Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

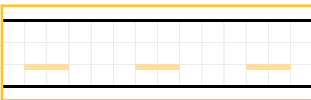
T25 Lay in
T15 Lay in

Plasterboard

Prepared aperture (Installation kit required)

Performance Guide

Lamps	Illuminance	Spacing
1 x 54W T5	190 lux	3.0m

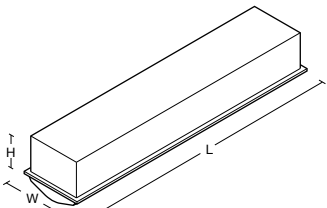


Maintenance: 0.8	Ceiling Height: 2.7m
Reflectance: 70/50/20	Working Plane: 0.0m

Lamp Performance

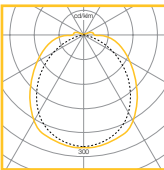
Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 54W T5	4450	24,000hrs

Dimensions



Version	L	W	H	Prepared Aperture	KG	KG
Exposed T/Plasterboard	1199	93	68	1188 x 82	2.5	3.0

Photometric Performance



- 1 x 28W T5
- LOR = 92%
- SHR MAX = 1.60

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.62 0.86 0.93

To Specify

T5 linear recessed luminaire with smooth easily cleanable front face and internally reeded polycarbonate diffuser. Diffuser to be positively retained. Rigid steel body to incorporate specular reflector and removable gear-tray with integral emergency and accommodate either exposed T or prepared aperture ceilings – as Whitecroft Lighting GIBALTAR

broadcast asymmetric

asymmetric luminaire
ideal for corridors



Optics

- Asymmetric cross blade louvre
- Lamp options:
 - 1 x 54W T5
 - additional 7W TC-S night light option for healthcare applications

Body

- Steel body finished white
- Designed to fit exposed T15, T25 or plasterboard ceilings

Order Codes

Broadcast Asymmetric	HF Gear	3 hr Emergency
T5 1 x 54W	BASMH154	BASMH154EMIN
T5 1 x 54W with Nightlight	BASMH154NL	BASMH154NLEMIN

Options

DALI DIMMING	Replace H with Y	i.e. BASMY154
SWITCH DIMMING	Replace H with X	i.e. BASMX154
EASYTEST	Add suffix /ET	i.e. BASMH154/ET
COMEPS	Add suffix /EP	i.e. BASMH154/EP
COMET	Add suffix /CT	i.e. BASMH154/CT
PREPARED APERTURE INSTALLATION KIT		BASYSBKIT

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

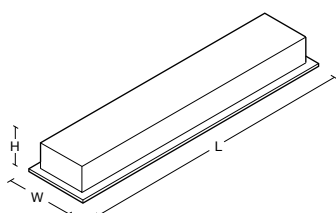
Exposed T Grids

T25 Lay in
T15 Lay in
T15/T25 Pull up (Installation kit required)

Plasterboard

Prepared aperture (Installation kit required)

Dimensions

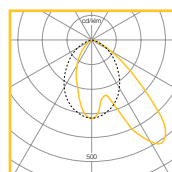


Version	L	W	H	Prepared Aperture	KG	KG
Exposed T/Plasterboard	1197	197	80	175 x 1175	3.8	4.8

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 54W T5	4450	24,000hrs

Photometric Performance



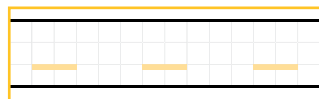
- 1 x 54W T5
- LOR = 65.4%
- SHR MAX = 1.66

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.51 0.67 0.70

Performance Guide

Lamps	Illuminance	Spacing
1 x 54W T5	180 lux	3.6m



Maintenance: 0.8	Ceiling Height: 2.7m
Reflectance: 70/50/20	Working Plane: 0.0m

To Specify

Asymmetric corridor T5 luminaire, with 7W TC-S night light option. Rigid and jointed steel body and screwless steel front frame, finished white. Designed to fit both exposed T-bar or plasterboard ceilings & including close wall mounting up to 40mm. Positively retained asymmetric cross-blade louvre – as Whitecroft Lighting BROADCAST ASYMMETRIC





surface



kolo 170



horizon LED 172



horizon 173



convor 174



laguna 176



lunar 177



flight 178



oasis 179



vespere wall 180



buzzito wall 182



enterprise 183



orias 184



radial 188



trimpak 190



trimpak attachments 192



ACF duraLED 194



ACF duralite 196



ACFDN 198



comfort surface 199



stiletto LED 200



stiletto five 201



serve 202



strike 205



inspiration 206



Optics

- Light output options:
 - 4000 Kelvin 'cool white' colour temperature
- High quality, single bin LEDs with a 4 MacAdam ellipse tolerance
- White or blue LED feature halo ring options (400mm diameter product only)
- Polycarbonate opal diffuser
- 50,000 hours life expectancy
- Up to 87 luminaire lumens per circuit watt

Body

- Surface mounted as standard
- Recessing kit to be ordered separately
- 300mm or 400mm diameter in cast aluminium with injection moulded base
- Finished in silver or white
- IP40
- Choice of integrated emergency options:
 - 3 hour emergency
 - EasyTest
 - COMEPS
- Optional Command 5 microwave detector mounted behind the diffuser available that can be set to one of two configurations;
 - Microwave presence detection with ON/OFF operation
 - Microwave presence detection with High/Low/Off set-back functionality. Can be set to switch from 100% down to set-back position of 50%, 30%, 20%, 10% or OFF
- Command 5 sensor can only be used in conjunction with fixed output products
- Optional trim ring available for an alternative aesthetic finish
- Product also available in suspended, see page 88

Order Codes

300mm 4K	Fixed Output	3 hr Emergency
800 lumens (11W)*	K4H364KS	K4H364KSEM
1100 lumens (15W)*	K4H3124KS	K4H3124KSEM

400mm 4K	Fixed Output	3 hr Emergency
1700 lumens (20W)*	K4H4154KS	K4H4154KSEM
2300 lumens (28W)*	K4H4204KS	K4H4204KSEM

Accessories

Recessing kit 300mm silver	KLREC300S
Recessing kit 400mm silver	KLREC400S
Trim ring 300mm silver	KLTR300S
Trim ring 400mm silver	KLTR400S

Options

WHITE LED HALO RING†	Add HA after K4	i.e. K4 HA H464KS
BLUE LED HALO RING†	Add HB after K4	i.e. K4 HB H464KS
DALI DIMMING	Replace H with Y	i.e. K4 Y 364KS
EASYTEST	Add suffix /ET	i.e. K4H364KS/ ET
COMEPS	Add suffix /EP	i.e. K4H364KS/ EP
COMMAND 5**	Replace H with Q5	i.e. K4 Q5 364KS
WHITE FINISH	Replace S with W	i.e. K4H364 KW

*Available for delivery from January 2013.

** Command 5 set-back functionality not available in 300mm emergency or DALI products

†Only available with 400mm product



Recess Ring



Without Trim Ring

LED Performance

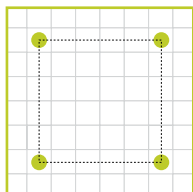
Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 4 SDCM

Equivalent Lamp Types

TCD	18/26W
2D	28/38/55W

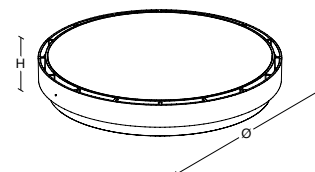
Performance Guide

Lamps	Illuminance	Spacing
28W LED	200 lux	3.0m x 3.0m



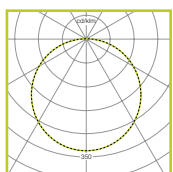
Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Dimensions

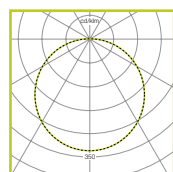


Version	Ø	H	CAØ	KG	KG/m²
300mm recessed	320	95	310	2.0	2.5
300mm surface	300	95	-	2.0	2.5
400mm recessed	420	95	410	3.4	3.8
400mm surface	400	95	-	3.4	3.8

Photometric Performance



300mm
11W 800 lumen
• LOR = 100%
• SHR MAX = 1.64



400mm
20W 1700 lumen
• LOR = 100%
• SHR MAX = 1.64

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.67 0.95 1.03

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.67 0.95 1.02

To Specify

Surface mounted or recessed circular IP40 LED bulkhead luminaire in 300 or 400mm diameter. Polycarbonate opal diffuser. Optional integrated microwave presence detector with ON/OFF or set-back functionality – as Whitecroft Lighting KOLO



Optics

- Light output options:
 - 900 lumens (3K – 19W*)
 - 1200 lumens (3K – 28W*)
 - 1000 lumens (4K – 19W*)
 - 1300 lumens (4K – 28W*)
- *Total power consumption including driver
- High quality, single bin LEDs with a 4 MacAdam ellipse tolerance
- Polycarbonate opal diffuser retained in steel bezel
- Positive snap fit diffuser
- 50,000 hours life expectancy

Body

- Spun steel body, finished white
- IP40
- Surface mounted
- Wall or ceiling mounting
- Side or rear entry mains connection
- Optional Command 5 microwave sensor available mounted behind the diffuser

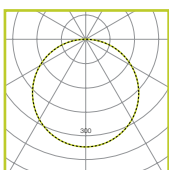
Order Codes

Surface	HF Gear	3 hr Emergency
900 lumens 3K	HRL93K	HRL93KEM
1200 lumens 3K	HRL123K	HRL123KEM
1000 lumens 4K	HRL104K	HRL104KEM
1300 lumens 4K	HRL134K	HRL134KEM

Options

EASYTEST	Add suffix /ET	i.e. HRL93K/ET
COMEPS	Add suffix /EP	i.e. HRL93K/EP
COMMAND 5	Replace L with Q5	i.e. HRQ593K

Photometric Performance



19W LED (4K)
1000 lumens
• LOR = 100%
• SHR MAX = 1.64

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.67 0.95 1.02

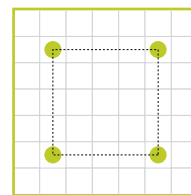


LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
3K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 4 SDCM
4K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 4 SDCM

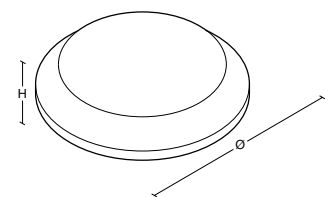
Performance Guide

Lamps	Illuminance	Spacing
28W LED	200 lux	2.4m x 2.4m



Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 2.7m
Working Plane: 0.8m

Dimensions



Ø	H	KG	KG
430	100	3.5	3.8

To Specify

Surface mounted circular IP40 LED luminaire 430mm Ø and 100mm protrusion from surface. Flame retardant opal diffuser with spun steel body - as Whitecroft Lighting HORIZON LED



Optics

- Lamp options:
 - 1 x 28W 2D
 - 1 x 38W 2D
- Polycarbonate opal diffuser retained in steel bezel
- Positive snap fit diffuser

Body

- Spun steel body, finished white
- IP40
- Surface or semi-recessed mounting (minimum void depth 56mm)
- Wall or ceiling mounting
- Integral hinged geartray
- Optional Command 5 microwave sensor available mounted behind the diffuser



Order Codes

Surface	HF Gear	3 hr Emergency
2D 1 x 28W	HRH128	HRH128EM
2D 1 x 38W	HRH138	HRH138EM

Semi-Recessed	HF Gear	3 hr Emergency
2D 1 x 28W	HRH128SR	HRH128SREM
2D 1 x 38W	HRH138SR	HRH138SREM

Options

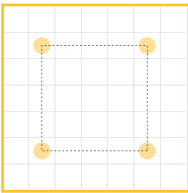
COMMAND 5	Add Q5 after HR	i.e. HR Q5 H128
EASYTEST	Add suffix /ET	i.e. HRH128/ ET
COMEPS	Add suffix /EP	i.e. HRH128/ EP
COMET	Add suffix /CT	i.e. HRH128/ CT

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W 2D	2150	21,000hrs
1 x 38W 2D	3020	21,000hrs

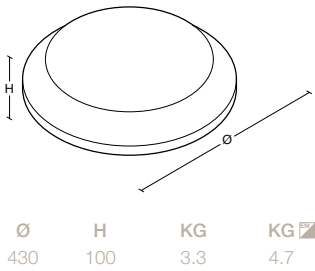
Performance Guide

Lamps	Illuminance	Spacing
1 x 38W	240 lux	2.4m x 2.4m

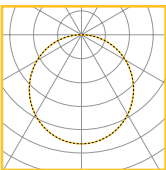


Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 2.7m
Working Plane: 0.8m

Dimensions



Photometric Performance



1 x 28W 2D T5
• LOR = 54.8%
• SHR MAX = 1.62

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.37	0.52	0.56

To Specify

Surface/semi-recessed circular IP40 2D luminaire 430mm Ø and 100mm protrusion from surface or 54mm when semi-recessed. Flame retardant opal diffuser, spun steel body – as Whitecroft Lighting HORIZON



convor surface

high output circular
bulkhead



Optics

- Lamp options:
 - 4 x 26W TC-D
 - 1 x 60W T5-C
 - 4 x 17W PLR-ECO
- Large lamp package options to reduce number of installed luminaires, ideal for stairwells
- Micro polymer diffuser option in polycarbonate for applications where impact resistance is important
- Twist and lock diffuser location

Body

- Two part spun steel body finished silver and injection moulded gear tray with first fix detail
- Integral emergency versions due to a superior thermal management construction
- IP40
- Optional extruded and rolled aluminium bezel
- Optional acrylic feature ring available
- Optional Command 5 microwave sensor available mounted behind the diffuser with on/off operation



Feature Ring



Extruded Aluminium Bezel



Standard Bezel

Order Codes

Convor	HF Gear	3 hr Emergency
TC-D 4 x 26W	CNVAH426	CNVAH426EM
T5-C 1 x 60W	CNVAH160	CNVAH160EM
PLR-ECO 4 x 17W	CNVAH417	CNVAH417EM

Options

DALI DIMMING	Replace H with Y	i.e. CNVAY426
SWITCH DIMMING*	Replace H with X	i.e. CNVAX426
COMMAND 5**	Add Q5 after CNVA	i.e. CNVA Q5 H426
EASYTEST*	Add suffix /ET	i.e. CNVAH426/ ET
COMEPS*	Add suffix /EP	i.e. CNVAH426/ EP
COMET	Add suffix /CT	i.e. CNVAH426/ CT
POLYCARBONATE DIFFUSER	Replace A with P	i.e. CNVPH426
FEATURE RING		CNVFR
BEZEL		CNVBEZ
SURFACE CONDUIT ADAPTER		CNVSCA

*Not available for T5-C 1 x 60W

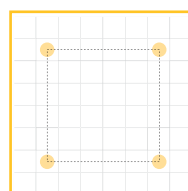
**Command 5 is only available with HF gear

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 26W TC-D	1800	13,000hrs
1 x 60W T5-C	5000	12,000hrs
1 x 17W PLR-ECO	1250	19,000hrs

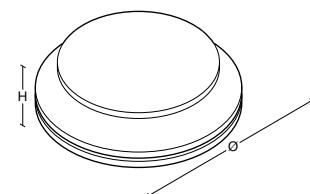
Performance Guide

Lamps	Illuminance	Spacing
4 x 26W TC-D	520 lux	3.0m x 3.0m



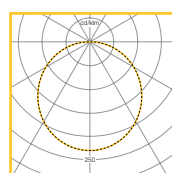
Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 2.7m
Working Plane: 0.8m

Dimensions



Version	Ø	H	KG	KG
Standard	538	168	7.9	8.9
Bezel	596	168	8.4	9.4
Feature ring	680	168	8.1	9.1

Photometric Performance



4 x 26W TC-D
Acrylic
• LOR = 73.7%
• SHR MAX = 1.67

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.47	0.68	0.74

To Specify

High output circular IP40 luminaire with micro polymer diffuser in acrylic/polycarbonate. Two part body with thermal management to allow integral self contained emergency option – as Whitecroft Lighting CONVOR



Optics

- Lamp options:
 - 1 x 28W 2D
 - 1 x 38W 2D
- Etched glass outer ring supported by 3 chrome pillars
- White opal glass diffuser giving halo effect

Body

- Spun steel body, finished in white
- Wall or ceiling mounting



Order Codes

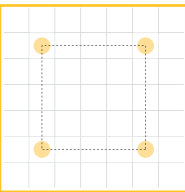
Laguna	HF Gear	3 hr Emergency
2D 1 x 28W	LNH128	LNH128EM
2D 1 x 38W	LNH138	LNH138EM

Options

EASYTEST	Add suffix /ET	i.e. LNH128/ET
COMEPS	Add suffix /EP	i.e. LNH128/EP
COMET	Add suffix /CT	i.e. LNH128/CT

Performance Guide

Lamps	Illuminance	Spacing
1 x 38W	230 lux	2.4m x 2.4m

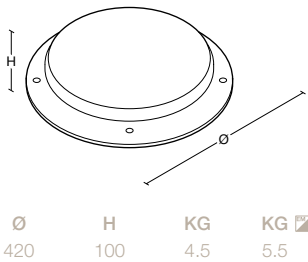


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

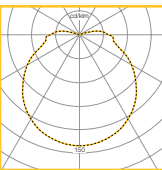
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W 2D	2150	21,000hrs
1 x 38W 2D	3020	21,000hrs

Dimensions



Photometric Performance



1 x 28W 2D
• LOR = 56.9%
• SHR MAX = 1.67

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.34	0.50	0.54

To Specify

Surface mounted circular 2D luminaire 420mm Ø and 100mm protrusion from surface. White opal glass diffuser with etched outer glass ring. Spun steel body – as Whitecroft Lighting LAGUNA



Optics

- Lamp options:
 - 1 x 28W 2D
 - 1 x 38W 2D
- Polycarbonate opal diffuser with positive snap fit

Body

- White flame retardant polycarbonate
- Mounting:
 - Surface or semi-recessed (requires semi-recessing kit)
 - Spacing ring for flush surface mounting
 - Wall or ceiling mounted
- IP54

Order Codes

Lunar	HF Gear	3 hr Emergency
2D 1 x 28W	LUNH128	LUNH128EM
2D 1 x 38W	LUNH138	-

Options

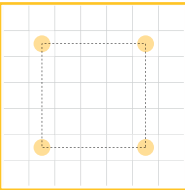
WHITE SPACING RING	LUNSRW
SEMI-RECESSING KIT	LUNSRK



Spacing Ring Detail LUNH28W with LUNSRW

Performance Guide

Lamps	Illuminance	Spacing
1 x 38W	180 lux	2.4m x 2.4m

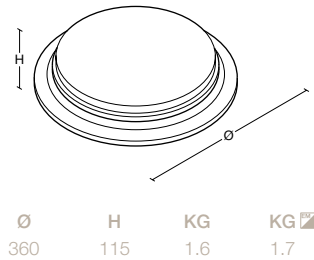


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

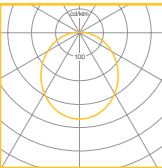
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W 2D	2150	21,000hrs
1 x 38W 2D	3020	21,000hrs

Dimensions



Photometric Performance



1 x 28W 2D T5
• DLOR = 39.2%
• SHR MAX = 1.61

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.26 0.37 0.40

To Specify

Surface/semi-recessed circular IP54 28/38W 2D luminaire 360mm Ø and 115mm protrusion from surface or 75mm when semi-recessed. Flame retardant polycarbonate diffuser and body. Sealed to IP54 – as Whitecroft Lighting LUNAR



Optics

- Lamp options:
 - 2 x 36W TC-L
 - 2 x 40W TC-L
 - 2 x 55W TC-L
 - 3 x 55W TC-L
 - 4 x 55W TC-L
- Light distribution: 80% up and 20% down
- Downlight controller white perforated steel

Body

- Extruded aluminium and fabricated steel construction finished matt metallic grey



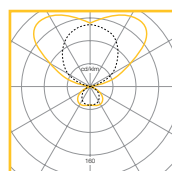
Order Codes

Flight	HF Gear
TC-L 2 x 36W	FLTW2369H
TC-L 2 x 40W	FLTW2409H
TC-L 2 x 55W	FLTW2559H
TC-L 3 x 55W	FLTW3559H
TC-L 4 x 55W	FLTW4559H

Options

DALI DIMMING	Replace H with Y	i.e. FLTW2369Y
SWITCH DIMMING	Replace H with X	i.e. FLTW2369X

Photometric Performance



- 2 x 55W TC-L
- LOR = 62.8%
- SHR MAX = 1.26

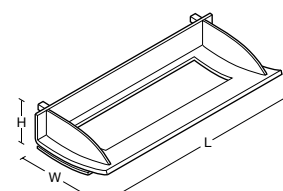
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 36W TC-L	2900	20,000hrs
1 x 40W TC-L	3500	20,000hrs
1 x 55W TC-L	4800	20,000hrs

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.31 0.47 0.51

Dimensions



Version	L	W	H	KG
2 x 36W	495	274	72	5.0
2 x 40/55W	615	274	72	5.4
3 x 55W	615	274	72	5.5
4 x 55W	615	395	72	6.5

To Specify

Wall mounted uplighter extruded aluminium and fabricated steel. 72mm in depth. 80% uplight, 20% downlight – as Whitecroft Lighting FLIGHT



Optics

- Lamp options:
 - 1 x 40W TC-L
 - 1 x 55W TC-L

Body

- Extruded aluminium body painted white
- Individual switch incorporated into bracket
- Specular wedge blade louvre positively retained via quick release springs
- Die cast aluminium end caps
- Asymmetric light distribution
- Upward light controlled by extruded acrylic lens



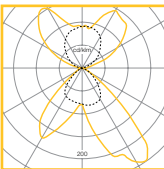
Order Codes

Oasis	HF Gear	3 hr Emergency
TC-L 1 x 40W	OAGW2H140	OAGW2H140EMIN
TC-L 1 x 55W	OAGW2H155	OAGW2H155EMIN

Options

DALI DIMMING	Replace H with Y	i.e. OAGW2Y140
SWITCH DIMMING	Replace H with X	i.e. OAGW2X140
EASYTEST	Add suffix /ET	i.e. OAGW2H140/ET
COMEPS	Add suffix /EP	i.e. OAGW2H140/EP

Photometric Performance



- 1 x 55W TC-L
- LOR = 69.5%
- SHR MAX = 2.16

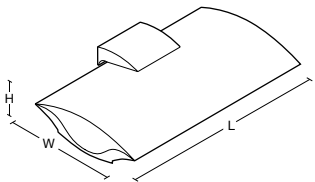
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 40W TC-L	3500	20,000hrs
1 x 55W TC-L	4800	20,000hrs

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.39	0.56	0.60

Dimensions



L	W	H	KG	KG
660	360	95	5.4	6.4

To Specify

Wall mounted direct/indirect luminaire extruded aluminium body 95mm deep acrylic lens for upward light component curved wedge louvre with asymmetric distribution – as Whitecroft Lighting OASIS

vespere wall

architectural
fluorescent wall light



Optics

- Lamp options:
 - 2 x 36W TC-L

Body

- Fabricated steel back plate
- White polyester powder paint
- Curved panel fabricated perforated steel front fascia

Order Codes

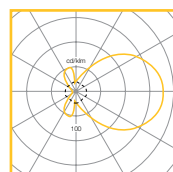
Vespere Wall Mounted TC-L 2 x 36W	HF Gear VWMH236	3 hr Emergency VWMH236EMIN
--------------------------------------	--------------------	-------------------------------

Options

DALI DIMMING	Replace H with Y	i.e. VWMY236
SWITCH DIMMING	Replace H with X	i.e. VWMX236
EASYTEST	Add suffix /ET	i.e. VWMH236/ET
COMEPS	Add suffix /EP	i.e. VWMH236/EP
COMET	Add suffix /CT	i.e. VWMH236/CT



Photometric Performance



- 2 x 36W TC-L
- LOR = 40.8%
- SHR MAX = 1.21

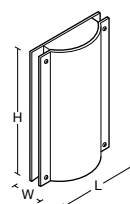
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 36W TC-L	2900	20,000hrs

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.18 0.29 0.32

Dimensions



W	L	H	KG	KG
98	260	430	6.0	7.0

To Specify

Wall mounted compact fluorescent luminaire with curved perforated front panel protruding a maximum of 98mm – as Whitecroft Lighting VESPERE WALL



buzzito wall

wall mounted
architectural luminaire



Optics

- Lamp options:
 - 1 x 18W TC-D
- The solid translucent polycarbonate tube guarantees even light diffusion and fades out the shape of the lamp

Body

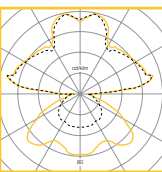
- Wall mounted
- Extruded plain anodised aluminium body
- Part of a family of products:
 - see page 94 for Buzzito
 - see page 124 for Buuze



Order Codes

Buzzito Wall	HF Gear
TC-D 1 x 18W	WACO880.41.1.20.1

Photometric Performance



1 x 18W TC-D
• LOR = 68.6%
• SHR MAX = 1.50

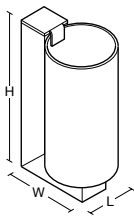
Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.32	0.42	0.55

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 18W TC-D	1200	13,000hrs

Dimensions



L	W	H	KG
133	130	267	0.7

To Specify

Wall mounted luminaire with anodised aluminium body and circular polycarbonate diffuser – as Whitecroft Lighting BUZZITO WALL



Optics

- Lamp options:
 - 2 x 55W TC-L
- Clear prismatic polycarbonate diffuser fixed to body via tamper proof fixing screw and spun aluminium clamp plate

Body

- Spun aluminium body finished white
- EPDM gasket seal between body & diffuser
- IP55



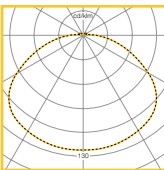
Order Codes

Enterprise	HF Gear	3 hr Emergency
TC-L 2 x 55W	ENH255	ENH255EMIN

Options

DALI DIMMING	Replace H with Y	i.e. ENY255
SWITCH DIMMING	Replace H with X	i.e. ENX255
EASYTEST	Add suffix /ET	i.e. ENH255/ET
COMEPS	Add suffix /EP	i.e. ENH255/EP
COMET	Add suffix /CT	i.e. ENH255/CT
Special tool required for access and fixing		HAL-KEY

Photometric Performance



2 x 55W TC-L
• LOR = 54.6%
• SHR MAX = 1.82

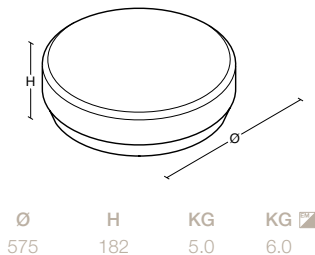
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 55W TC-L	4800	20,000hrs

Utilisation Factors UF(F)

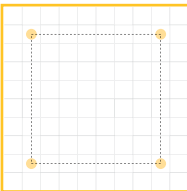
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.35	0.50	0.55

Dimensions



Performance Guide

Lamps	Illuminance	Spacing
2 x 55W TC-L	220 lux	4.0m x 4.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
6m
Working Plane:
0.0m

To Specify

IP55 2 x 55W TC-L circular surface luminaire with clear prismatic polycarbonate diffuser lens and high frequency control gear. Diffuser positively fixed via central tamper proof fixing and spun aluminium clamping ring – as Whitecroft Lighting ENTERPRISE



Optics

- Lamp options:
 - 1 or 2 x 28/35/49/54W T5
 - 1 x 80W T5
- Wedge blade semi-specular louvre or opal acrylic diffuser
- 100% downlight

Body

- Slim depth, extruded aluminium body, painted white or silver
- Hinged steel gear tray enables easy access for maintenance
- Two moulded BESA blocks
- Injection moulded polycarbonate end caps (to be ordered separately)
- Can be continuously mounted with the use of a kit (to be ordered separately). The continuous mounting caps have U shaped channels to facilitate easy through wiring
- Not suitable for mounting on suspended trunking
- Infill options available. Includes a version with Command 4 sensor mounted infill
- Product also available as suspended version with up and down light see page 114





Order Codes

Orias Wedge Louvre

T5 1 x 28W
T5 1 x 35W
T5 1 x 49W
T5 1 x 54W
T5 1 x 80W
T5 2 x 28W
T5 2 x 35W
T5 2 x 49W
T5 2 x 54W

HF Gear

ORSWH128W
ORSWH135W
ORSWH149W
ORSWH154W
ORSWH180W
ORSWH228W
ORSWH235W
ORSWH249W
ORSWH254W

3 hr Emergency

ORSWH128WEM
ORSWH135WEM
ORSWH149WEM
ORSWH154WEM
ORSWH180WEM
ORSWH228WEM
ORSWH235WEM
ORSWH249WEM
ORSWH254WEM

Accessories

End Caps (Pair)
Continuous Mounting Kit
300mm Infill
600mm Infill
900mm Infill
1200mm Infill
1500mm Infill

Single Lamp Body

ORSGCAPW
ORSGCMKW
ORSGINF300W
ORSGINF600W
ORSGINF900W
ORSGINF1200W
ORSGINF1500W

Twin Lamp Body

ORTWCAPW
ORTWCMKW
ORTWINF300W
ORTWINF600W
ORTWINF900W
ORTWINF1200W
ORTWINF1500W

Options

DALI DIMMING	Replace H with Y	i.e. ORSWY128W
SWITCH DIMMING	Replace H with X	i.e. ORSWX128W
COMMAND 4*	Replace H with Q4Y	i.e. ORSWQ4Y128W
COMMAND 4 INFILL**	Add suffix /Q4Y	i.e. ORSGINF300W/Q4Y
EASYTEST	Add suffix /ET	i.e. ORSWH128W/ET
COMEPS	Add suffix /EP	i.e. ORSGINF300W/EP
SILVER FINISH	Replace final W with S	i.e. ORSWH128S
DIFFUSER	Replace W after ORS with D	i.e. ORSDH128W

*A Command 4 luminaire is supplied as a single luminaire including two end caps, one of which has an integrated Command 4 sensor

**The integrated sensor infill can only be used with DALI luminaires and control one or two luminaires only



Single End Cap



Twin End Cap



Single Continuous Mount



Twin Continuous Mount



Continuous Mount Kit



Sensor Infill



Hinge Detail

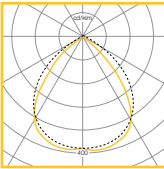


Louvre



Diffuser

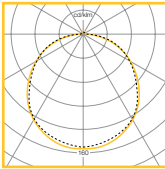
Photometric Performance



2 x 28W T5
Wedge Louvre
• LOR = 72.9%
• SHR MAX = 1.54

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.62	0.75	0.78



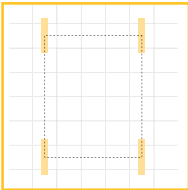
2 x 28W T5
Diffuser
• LOR = 56.6%
• SHR MAX = 1.63

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.38	0.53	0.58

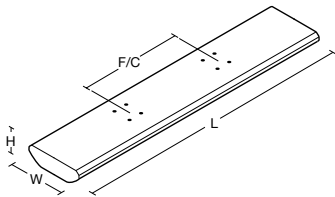
Performance Guide

Lamps	Illuminance	Spacing
2 x 28W T5	490 lux	2.4m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Dimensions



Version	L	W	H	F/C	KG	KG 
1 x 28/54W	1234	173	51	760	3.8	4.3
2 x 28/54W	1234	238	51	760	4.2	4.7
1 x 35/49/80W	1534	173	51	1060	4.8	5.3
2 x 35/49W	1534	238	51	1060	5.2	5.7

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs
1 x 80W T5	6550	24,000hrs

To Specify

Surface mount architectural T5 luminaire system, with 51mm depth extruded aluminium body painted white or silver, with wedge louvre or opal acrylic diffuser. Easy maintenance via hinged body and gear tray – as Whitecroft Lighting ORIAS



radial cornice/central

T5 luminaire for cornice or central mounting



Optics

- Lamp options:
 - 1 x 28/35/49/54W T5
- Internal reflector system for superior efficiency
- Reeded polycarbonate diffuser
- Radial cornice suitable for surface mounting
- Radial central suitable for surface or trunking mounting. End caps are 50mm wide at the top to match 50mm trunking

Body

- IP40
- Extruded aluminium body finished white or silver
- Aluminium profiled end caps
- Robust construction
- Suitable for wall or ceiling fixing

Order Codes

Radial Cornice	HF Gear	3 hr Emergency
T5 1 x 28W	RADH128W	RADH128WEM
T5 1 x 35W	RADH135W	RADH135WEM
T5 1 x 49W	RADH149W	RADH149WEM
T5 1 x 54W	RADH154W	RADH154WEM

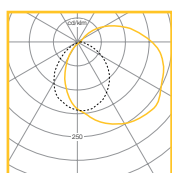
Options

DALI DIMMING	Replace H with Y	i.e. RADY128W
SWITCH DIMMING	Replace H with X	i.e. RADX128W
EASYTEST	Add suffix /ET	i.e. RADH128W/ET
COMEPS	Add suffix /EP	i.e. RADH128W/EP
SILVER	Replace W with S	i.e. RADH128S
RADIAL CENTRAL	Replace AD with TS	i.e. RTSH128W

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs

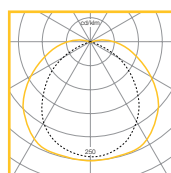
Photometric Performance



1 x 49W T5
Radial Cornice
• LOR = 82.7%
• SHR MAX = 1.65

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.48	0.70	0.79



1 x 54W T5
Radial Central
• LOR = 77.9%
• SHR MAX = 1.72

Utilisation Factors UF(F)

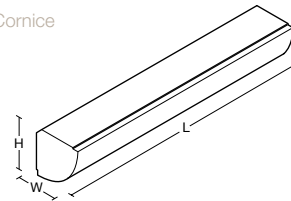
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.51	0.72	0.78



Radial Central

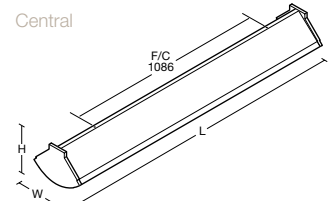
Dimensions

Cornice



Version	L	W	H	KG	KG
28/54W	1186	93	93	3.2	4.2
35/49W	1486	93	93	3.8	4.8

Central



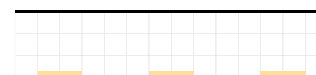
Version	L	W	H	KG	KG
28/54W	1182	127	89	3.2	4.2
35/49W	1482	127	89	3.8	4.8

Performance guide

Cornice

Lamps	Illuminance	Spacing
1 x 54W T5	200 lux	3.0m

Corridor Solution

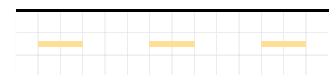


Maintenance: 0.8	Ceiling Height: 2.7m
Reflectance: 70/50/20	Working Plane: 0.0m

Central

Lamps	Illuminance	Spacing
1 x 54W T5	210 lux	3.0m

Corridor Solution



Maintenance: 0.8	Ceiling Height: 2.7m
Reflectance: 70/50/20	Working Plane: 0.0m

To Specify

Radial Cornice

Cornice mounted IP40 rated luminaire with extruded aluminium body and reeded polycarbonate diffuser – as Whitecroft Lighting RADIAL CORNICE

Radial Central

Trunking or surface mounted IP40 rated luminaire with extruded aluminium body and end caps, reeded polycarbonate diffuser – as Whitecroft Lighting RADIAL CENTRAL





Optics

- Lamp options:
 - 1 or 2 x 28/35/49/54/80W T5
 - 1 or 2 x 36/58W T8

Body

- Steel batten finished white
- BESA fixings on body section
- Range of attachments available:
 - Polycarbonate or acrylic diffusers
 - Symmetric, asymmetric or high rack reflectors
 - Wire guard (for use with symmetric reflector only)
- Command 6 sensor available mounted on the end of the luminaire

Order Codes

Trimpak	HF Gear	3 hr Emergency
T5 1 x 28W	TPH128	TPH128EM
T5 1 x 35W	TPH135	TPH135EM
T5 1 x 49W	TPH149	TPH149EM
T5 1 x 54W	TPH154	TPH154EM
T5 1 x 80W	TPH180	TPH180EM
T5 2 x 28W	TPH228	TPH228EM
T5 2 x 54W	TPH254	TPH254EM
T5 2 x 35W	TPH235	TPH235EM
T5 2 x 49W	TPH249	TPH249EM
T5 2 x 80W	TPH280	TPH280EM
T8 1 x 36W	TPH136	TPH136EM
T8 1 x 58W	TPH158	TPH158EM
T8 2 x 36W	TPH236	TPH236EM
T8 2 x 58W	TPH258	TPH258EM

Options

DALI DIMMING	Replace H with Y	i.e. TPY128
SWITCH DIMMING	Replace H with X	i.e. TPX128
COMMAND 6	Add Q6 before H	i.e. TPQ6H128
COMMAND 6 DALI	Replace H with Q6Y	i.e. TPQ6Y128
EASYTEST	Add suffix /ET	i.e. TPH128/ET
COMEPS	Add suffix /EP	i.e. TPH128/EP
COMET	Add suffix /CT	i.e. TPH128/CT



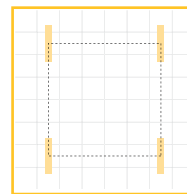
Single Lamp Option



COM6 Sensor

Performance Guide

Lamps	Illuminance	Spacing
2 x 28W T5	320 lux	3.0m x 3.0m



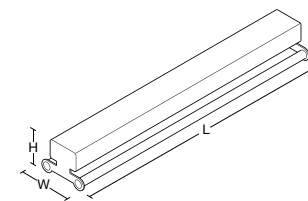
Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
6m
Working Plane:
0.0m

Lamp Performance

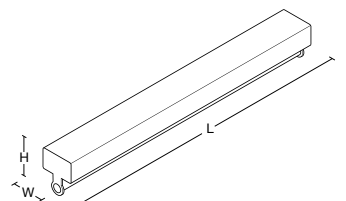
Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs
1 x 80W T5	6550	24,000hrs
1 x 36W T8	3350	19,000hrs
1 x 58W T8	5240	19,000hrs

Dimensions

Twin lamp



Single lamp



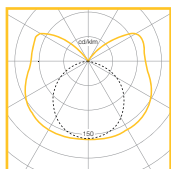
Version	L	W	H	KG	KG/m
28/54W	1221	101	87	2.3	3.3
35/49/80W	1524	101	87	3.0	4.0
36W	1221	102	79	2.3	3.3
58W	1524	102	79	3.0	4.0

BESA fixing centres at 600mm on all products

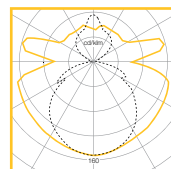
Version	L	W	H	KG	KG/m
28/54W	1221	58	88	2.2	3.2
35/49/80W	1524	58	88	2.3	3.3
36W	1221	58	79	2.2	3.2
58W	1524	58	79	2.3	3.3

BESA fixing centres at 600mm on all products

Photometric Performance



1 x 35W T5
• LOR = 96%
• SHR MAX = 1.85



2 x 35W T5
• LOR = 93%
• SHR MAX = 1.75

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.53 0.78 0.86

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.49 0.75 0.82

To Specify

Fluorescent batten with rigid section body and clip on cover. Twist locking lamp holders for quick and easy installation – as Whitecroft Lighting TRIMPAK

trimpak attachments

– reflectors

**T5 and T8 fluorescent
batten attachments**

Symmetric

- Provides even downward light over a wide area
- Slots provide a degree of up-lighting and ventilation
- Wire guard available for protection
- Reflectors – sheet steel, enamelled with white high reflective paint

Asymmetric

- Provides directional lighting on vertical surfaces
- Reflectors – sheet steel, enamelled with white high reflective paint

Hi-Rack

- Highly polished aluminium
- Very narrow beam below batten for excellent floor and rack face illumination

All reflectors fit single & twin lamp battens



Symmetric



Asymmetric



Hi-Rack



Wire Guard

Order Codes

Symmetric Reflector

1 or 2 x 28/36/54W
1 or 2 x 35/49/58/80W
1 or 2 x 70W

TPR4
TPR5
TPR6

Wire Guard*

1 or 2 x 28/36/54W
1 or 2 x 35/49/58/80W
1 or 2 x 70W

*For use with symmetric reflector TPR4/TPR5/TPR6

TPWG4
TPWG5
TPWG6

Asymmetric Reflector

1 or 2 x 28/36/54W
1 or 2 x 35/49/58/80W
1 or 2 x 70W

TPZ4
TPZ5
TPZ6

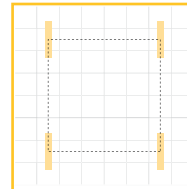
Hi-Rack Reflector

1 or 2 x 28/36/54W
1 or 2 x 35/49/58/80W
1 or 2 x 70W

TPH4
TPH5
TPH6

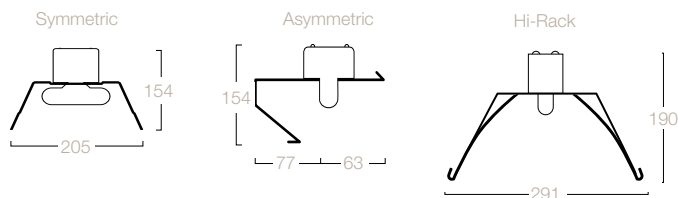
Performance Guide

Lamps Illuminance Spacing
2 x 28W T5 360 lux 3.0m x 3.0m
Symmetric reflector

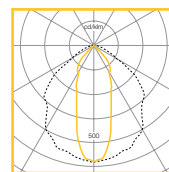


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
6m
Working Plane:
0.8m

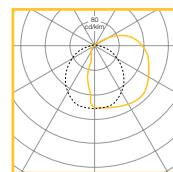
Dimensions



Photometric Performance



1 x 58W T8
Hi-Rack Reflector
• LOR = 89%



1 x 36W T8
Asymmetric
Reflector
• LOR = 77%

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.61	0.84	0.90

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.58	0.77	0.82

trimpak attachments

– prismatic diffusers

T5 and T8 fluorescent
batten attachments

- Polycarbonate diffuser complete with end caps – TP(a) fire retardant prismatic
- Acrylic diffuser complete with end caps – reeded sides and prismatic base
- Narrow diffuser – single lamp Trimpak
- Wide diffuser – single or twin lamp Trimpak

Order Codes

Polycarbonate Prismatic

1 x 28/36/54W	TPCSP4
1 x 35/49/58/80W	TPCSP5
1 x 70W	TPCSP6
1 or 2 x 28/36/54W	TPCTP4
1 or 2 x 35/49/58/80W	TPCTP5
1 or 2 x 70W	TPCTP6

Acrylic Prismatic

1 x 28/36/54W	TPCSA4
1 x 35/49/58/80W	TPCSA5
1 x 70W	TPCSA6
1 or 2 x 28/36/54W	TPCTA4
1 or 2 x 35/49/58/80W	TPCTA5
1 or 2 x 70W	TPCTA6



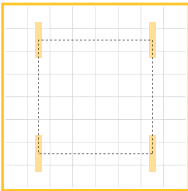
Narrow Diffuser



Wide Diffuser

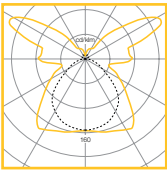
Performance Guide

Lamps	Illuminance	Spacing
2 x 28W T5	350 lux	3.0m x 3.0m
Acrylic diffuser		



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
6m
Working Plane:
0.0m

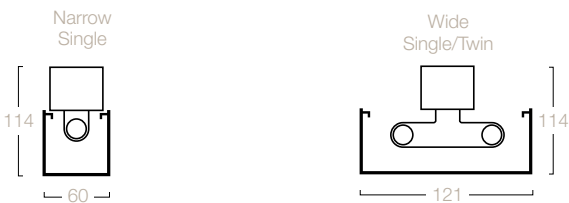
Photometric Performance



1 x 35W T5
Acrylic Diffuser
• LOR = 90%

Dimensions

Prismatic diffusers



Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.57	0.83	0.91



Optics

- Lumen output options:
 - 2250 lumens (23W)
 - 2850 lumens (29W)
 - 3800 lumens (36W)
 - 4400 lumens (44W)
 - 5500 lumens (55W)
 - 7400 lumens (73W)
- 4000K
- High impact polycarbonate injection moulded diffuser

Body

- IP65
- GRP body finished light grey
- Surface mounted with cable or conduit entry
- Suitable for exterior areas i.e. under a canopy or covered environment but not in direct sunlight or open areas exposed to adverse weather conditions. Not for installation in a environment liable to produce standing water on the fitting or IP glands
- Stainless steel clips (lockable via screw fixing)

Order Codes

ACF DuraLED	Fixed Output	3 hr Emergency
2250 lumens (23W)	ALH114K	ALH114KEM
2850 lumens (29W)	ALH124K	ALH124KEM
3800 lumens (36W)	ALH134K	ALH134KEM
4400 lumens (44W)	ALH254K	ALH254KEM
5500 lumens (55W)	ALH264K	ALH264KEM
7400 lumens (73W)	ALH274K	ALH274KEM

Accessories

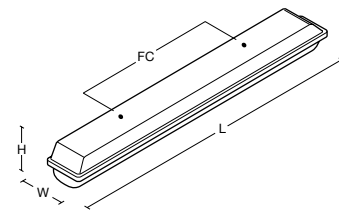
HOOK SUSPENSION KIT	ACFHOOKKIT
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Options

DALI DIMMING	Replace H with Y	i.e. ALY114KEM
COMEPS	Add suffix /EP	i.e. ALH114K/EP



Dimensions



Version	L	W	H	FC	KG	KG ²
2250/3800 lumen	1275	100	103	840	3.4	4.4
4400/7400 lumen	1275	170	103	840	5.0	6.0
2850 lumen	1575	100	103	1140	4.0	5.0
5500 lumen	1575	170	103	1140	5.8	6.8

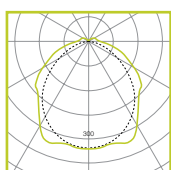
LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3.5 SDCM

Equivalent Lamp Types

4400 Lumen Output	
T5 lamp	2 x 28W
7400 Lumen Output	
T5 lamp	2 x 54W

Photometric Performance



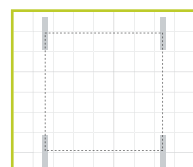
44W LED 4000k
4429 lumens
• LOR = 100%
• SHR MAX = 1.59

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.67 0.94 1.00

Performance Guide

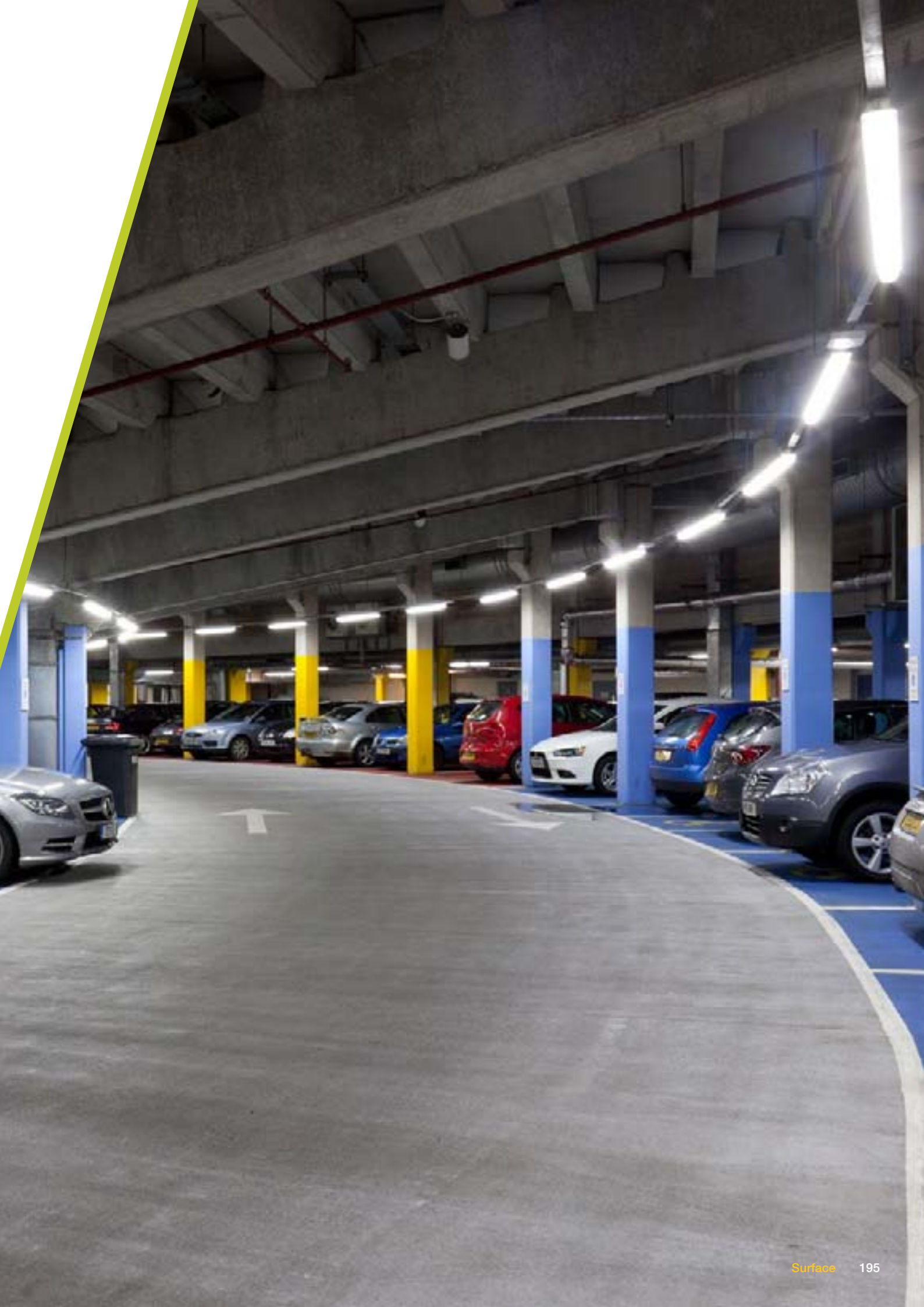
Lamps	Illuminance	Spacing
44W LED	269 lux	3.5m x 3.5m



Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 3.2m
Working Plane: 0.0m

To Specify

IP65 LED anti-corrosive luminaire with GRP body and high impact polycarbonate injection moulded linear prism diffuser. One piece seamless gasket for increased life and protection – as Whitecroft Lighting ACF DURALED



ACF duralite

IP65 anti-corrosive luminaire
for tough environments



Optics

- Lamp options:
 - 1 or 2 x 28/35/49/54W T5
 - 1 or 2 x 36/58W T8
- Diffusers high impact polycarbonate injection moulded with linear prisms

Body

- IP65
- GRP body finished light grey
- Tough and corrosion resistant
- Surface mounted with cable or conduit entry
- Suitable for exterior or high humidity areas, under a canopy or covered environment, but not in direct sunlight or open areas exposed to adverse weather conditions. Not for installation in an environment liable to produce standing water on the fitting or IP glands
- Suitable for a wide range of ambient temperatures:
 - T5, -5°C to 25°C
 - T8, -15°C to 25°C
- Plastic toggle clip lock mechanism
- Optional stainless steel tamper resistant clips
- Optional Command 5 microwave sensor available mounted behind the diffuser

ACF duralite

**IP65 anti-corrosive luminaire
for tough environments**

Order Codes

ACF Duralite	HF Gear	3 hr Emergency
T5 1 x 28W	ACFH128P	ACFH128PEM
T5 1 x 54W	ACFH154P	ACFH154PEM
T5 1 x 35W	ACFH135P	ACFH135PEM
T5 1 x 49W	ACFH149P	ACFH149PEM
T5 2 x 28W	ACFH228P	ACFH228PEM
T5 2 x 54W	ACFH254P	ACFH254PEM
T5 2 x 35W	ACFH235P	ACFH235PEM
T5 2 x 49W	ACFH249P	ACFH249PEM
T8 1 x 36W	ACFH136P	ACFH136PEM
T8 1 x 58W	ACFH158P	ACFH158PEM
T8 2 x 36W	ACFH236P	ACFH236PEM
T8 2 x 58W	ACFH258P	ACFH258PEM

Note: Self contained emergency versions may not deliver the designed output at temperatures below 15°C

Options

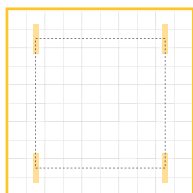
DALI DIMMING	Replace H with Y	i.e. ACFY154P
SWITCH DIMMING	Replace H with X	i.e. ACFX154P
COMMAND 5*	Add Q5 after ACF	i.e. ACFQ5H228
EASYTEST	Add suffix /ET	i.e. ACFH154P/ET
COMEPS	Add suffix /EP	i.e. ACFH154P/EP
COMET	Add suffix /CT	i.e. ACFH154P/CT
Spare plastic securing clip (quantity of 10)		ACFTOG
Lockable stainless steel securing clip (quantity of 10)		ACFCLIP
Hook suspension kit		ACFHOOKKIT

*Only available with T5 twin lamp products and HF gear



Performance Guide

Lamps	Illuminance	Spacing
2 x 35W T5	250 lux	4.0m x 4.0m

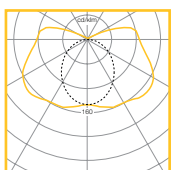


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
6m
Working Plane:
0.0m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	20,000hrs
1 x 35W T5	3325	20,000hrs
1 x 49W T5	4375	20,000hrs
1 x 54W T5	4450	20,000hrs
1 x 36W T8	3350	19,000hrs
1 x 58W T8	5240	19,000hrs

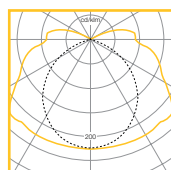
Photometric Performance



1 x 35W T5
• LOR = 85%
• SHR MAX = 2.02

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.49 0.71 0.78

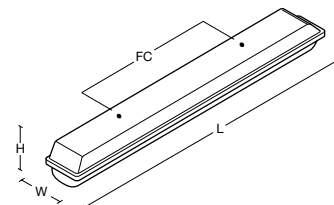


2 x 35W T5
• LOR = 87.1%
• SHR MAX = 1.89

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.57 0.83 0.91

Dimensions



Version	L	W	H	FC	KG	KG ☐
1 x 28/36/54W	1275	100	103	840	2.5	3.5
2 x 28/36/54W	1275	170	103	840	5.0	6.0
1 x 35/49/58W	1575	100	103	1140	3.5	4.5
2 x 35/49/58W	1575	170	103	1140	7.0	8.0

To Specify

IP65 fluorescent T5 or T8 anti-corrosive luminaire with GRP body, polycarbonate diffuser, removable gear tray on safety straps and one piece seamless gasket for increased life and protection – as Whitecroft Lighting ACF DURALITE



Optics

- Lamp options:
 - 1 or 2 x 36/58W T8

Body

- GRP with polycarbonate diffuser and stainless steel retaining clips
- Two M8 clearance holes on rear of body. Washers provided for sealing to IP54 minimum
- Type of protection: Ex nA non-sparking
- Area classification: Zone 2 areas to EN 60079-14
- Apparatus standard: EN 60079-15
- Certificate: BASEEFA Ex 95Y4016
- Coding: nA11
- IP65

Order Codes

ACFDN	T Class	Ta °C	Body	
T8 1 x 36W	T4	40	Single	ACFDN14HP
T8 2 x 36W	T4	45	Twin	ACFDN24HP
T8 1 x 58W	T4	30	Single	ACFDN15HP
T8 2 x 58W	T4	35	Twin	ACFDN25HP

ACFDN 3 hr Emergency	T Class	Ta °C	Body	
T8 1 x 36W	T4	35	Twin	ACFDN14HPEMIN
T8 2 x 36W	T4	35	Twin	ACFDN24HPEMIN
T8 1 x 58W	T4	35	Twin	ACFDN15HPEMIN
T8 2 x 58W	150°C (T3)	30	Twin	ACFDN25HPEMIN

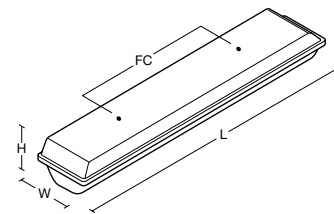
Options

Stainless steel hook suspension set	ACF3HS
Stainless steel diffuser clips and screw set	A70.981.907



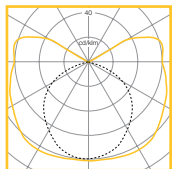
Single lamp

Dimensions

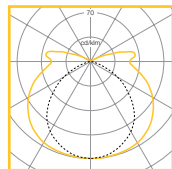


Version	L	W	H	FC	KG	KG
1 x 36W	1271	108	105	800	3.3	4.9
2 x 36W	1293	178	123	800	4.8	6.4
1 x 58W	1571	108	105	1100	4.3	5.9
2 x 58W	1593	178	123	1100	6.5	7.5

Photometric Performance



- 1 x 58W T8
- LOR = 68.4%
- SHR MAX = 1.88



- 2 x 58W T8
- LOR = 68.9%
- SHR MAX = 1.79

Utilisation Factors UF(F)

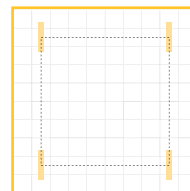
Room Reflectance		Room Index	
C	W	F	
0.70	0.50	0.20	0.48 0.73 0.80

Utilisation Factors UF(F)

Room Reflectance		Room Index	
C	W	F	
0.70	0.50	0.20	0.47 0.68 0.74

Performance Guide

Lamps	Illuminance	Spacing
2 x 36W T8	200 lux	4.0m x 4.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
6m
Working Plane:
0.0m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 36W T8	3350	19,000hrs
1 x 58W T8	5240	19,000hrs

To Specify

IP65 anti-corrosive luminaire for zone 2 hazardous areas – as Whitecroft Lighting ACFDN

comfort surface

performance
fluorescent luminaire



Optics

- Lamp options:
 - 1 or 2 x 28/35/54W T5
- Wedge blade specular louvre

Body

- Steel body finished white
- Injection moulded end caps to match body colour
- BESA fixing to rear

Order Codes

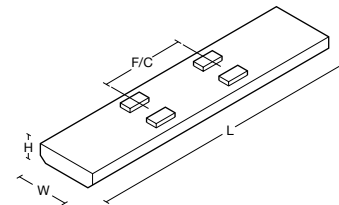
Comfort Surface	HF Gear	3 hr Emergency
T5 1 x 28W	CS128HW	CS128HWEMIN
T5 1 x 54W	CS154HW	CS154HWEMIN
T5 1 x 35W	CS135HW	CS135HWEMIN
T5 2 x 28W	CS228HW	CS228HWEMIN
T5 2 x 54W	CS254HW	CS254HWEMIN
T5 2 x 35W	CS235HW	CS235HWEMIN

Options

DALI DIMMING	Replace H with Y	i.e. CS128 Y W
SWITCH DIMMING	Replace H with X	i.e. CS128 X W
COMMAND 4	Replace H with Q4Y	i.e. CS128 Q4Y W
COMMAND 3	Replace H with Q3Y	i.e. CS128 Q3Y W
EASYTEST	Add suffix /ET	i.e. CS128HW/ ET
COMEPS	Add suffix /EP	i.e. CS128HW/ EP
COMET	Add suffix /CT	i.e. CS128HW/ CT

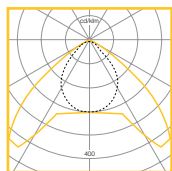


Dimensions



Version	L	W	H	F/C	KG	KG
28/54W	1199	235	67	1040 x 142	5.5	6.5
35W	1499	235	67	1340 x 142	6.5	7.5

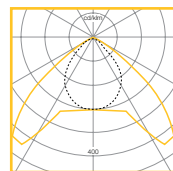
Photometric Performance



- 1 x 35W T5
- LOR = 53%
- SHR MAX = 1.14

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.40 0.54 0.57



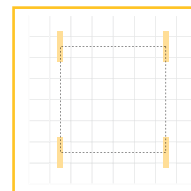
- 2 x 35W T5
- LOR = 53%
- SHR MAX = 1.18

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.38 0.46 0.57

Performance Guide

Lamps	Illuminance	Spacing
2 x 54W T5	500 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 54W T5	4450	24,000hrs

To Specify

Surface slimline rigid steel bodied Cat 2 luminaire < 67mm overall depth. Colour matched body and end caps. Positively retained louvre – as Whitecroft Lighting COMFORT SURFACE

stiletto LED

IP40 diffuser
LED luminaire



Optics

- Lumen output options:
 - 2100 lumens (23W)
 - 2700 lumens (29W)
 - 3600 lumens (36W)
 - 4200 lumens (44W)
 - 5200 lumens (55W)
 - 7000 lumens (73W)
- Co-extruded reeded polycarbonate diffuser with translucent centre section and precision linear prisms to minimise glare from all viewing angles
- 4000K

Body

- Steel body finished white
- IP40 construction when fully assembled
- BESA fixings to the rear
- Screw retained polycarbonate end caps
- Diffuser retained along full body length by rolled body profile



Order Codes

Stiletto LED	Fixed Output	3 hr Emergency
2100 lumens (23W)	STLLH114K	STLLH114KEM
2700 lumens (29W)	STLLH124K	STLLH124KEM
3600 lumens (36W)	STLLH134K	STLLH134KEM
4200 lumens (44W)	STLLH154K	STLLH154KEM
5200 lumens (55W)	STLLH164K	STLLH164KEM
7000 lumens (73W)	STLLH174K	STLLH174KEM

Options

DALI DIMMING	Replace H with Y	i.e. STLLY114KEM
COMEPS	Add suffix /EP	i.e. STLLH114K/EP

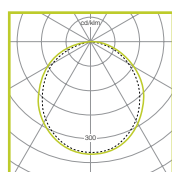
LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3.5 SDCM

Equivalent Lamp Types

2700 Lumen Output	
T5 lamp	1 x 35W
5200 Lumen Output	
T5 lamp	2 x 35W

Photometric Performance



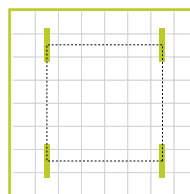
36W 4K
3600 lumens
• LOR = 100%
• SHR MAX = 1.59

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.67	0.95	1.02

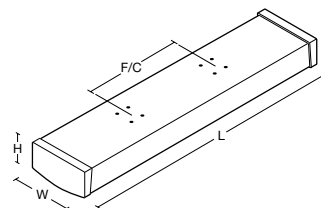
Performance Guide

Lamps	Illuminance	Spacing
55W LED	500 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Dimensions



Version	L	W	H	F/C	KG	KG
2100/3600/ 4200/7000	1207	145	72.5	610	5.0	6.0
2700/5200	1507	145	72.5	610	5.5	6.5

To Specify

Surface mounted IP40, steel bodied, LED luminaire with polycarbonate diffuser, reeded sides and diffuser base, retained along full length by rolled body profile – as Whitecroft Lighting STILETTO LED

stiletto five

T5 diffuser
luminaire



Optics

- Lamp options:
 - 1 or 2 x 28/35/49W T5
 - 1 x 54W T5
- Co-extruded reeded polycarbonate diffuser with translucent centre section and precision linear prisms to minimise glare from all viewing angles

Body

- Steel body finished white
- IP40 construction when fully assembled
- BESA fixings to the rear
- Screw retained polycarbonate end caps
- Diffuser retained along full body length by rolled body profile
- Command 6 sensor available mounted on the end of the luminaire



COM6 Sensor

Order Codes

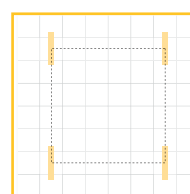
Stiletto Five	HF Gear	3 hr Emergency
T5 1 x 28W	STLH128	STLH128EMIN
T5 1 x 35W	STLH135	STLH135EMIN
T5 1 x 49W	STLH149	STLH149EMIN
T5 1 x 54W	STLH154	STLH154EMIN
T5 2 x 28W	STLH228	STLH228EMIN
T5 2 x 35W	STLH235	STLH235EMIN
T5 2 x 49W	STLH249	STLH249EMIN

Options

DALI DIMMING	Replace H with Y	i.e. STLY128
SWITCH DIMMING	Replace H with X	i.e. STLX128
COMMAND 6	Add Q6 before H	i.e. STL Q6 H128
COMMAND 6 DALI	Replace H with Q6Y	i.e. STL Q6Y 128
EASYTEST	Add suffix /ET	i.e. STLH128/ ET
COMEPS	Add suffix /EP	i.e. STLH128/ EP
COMET	Add suffix /CT	i.e. STLH128/ CT

Performance Guide

Lamps	Illuminance	Spacing
2 x 35W T5	500 lux	3.0m x 3.0m

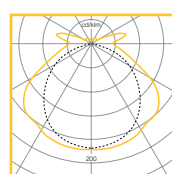


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

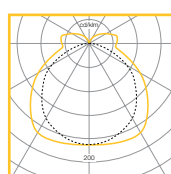
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs

Photometric Performance



1 x 49W T5
• LOR = 83.1%
• SHR MAX = 1.75



2 x 49W T5
• LOR = 85.0%
• SHR MAX = 1.80

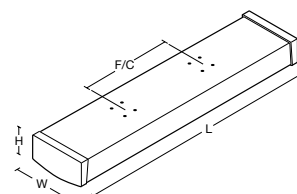
Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.54 0.75 0.82

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.55 0.76 0.83

Dimensions



Version	L	W	H	F/C	KG	KG
28/54W	1207	145	72.5	610	2.2	3.2
35/49W	1507	145	72.5	610	2.8	3.8

To Specify

Surface mounted IP40, steel bodied, fluorescent luminaire with polycarbonate diffuser, reeded sides and diffuser base, retained along full length by rolled body profile – as Whitecroft Lighting STILETTO FIVE



Optics

- Lamp options:
 - 4 or 6 x 55W TC-L
- Specular MIRO 4 reflectors
- Separately switched inner and outer lamps to provide three different lighting levels on the 6 lamp luminaire and two levels for the 4 lamp

Body

- Resilient steel body finished white
- High frequency gear housed in separate side pods, with a thermal barrier from the lamp housing, enables operation at an ambient temperature up to 35°C
- Punched steel cover guard prevents damage from projectiles and is designed to stop shuttlecocks becoming trapped
- Cover is hinged, opening fully for complete access to gear and lamps from below
- Lockable lamp holders and clipsprings ensure lamps remain in place after impact by a ball
- Suitable for surface, suspended or trunking mounting



Order Codes

Serve	HF Gear	3 hr Emergency
TC-L 4 x 55W	SLBH455G	SLBH455GEMIN
TC-L 6 x 55W	SLBH655G	SLBH655GEMIN

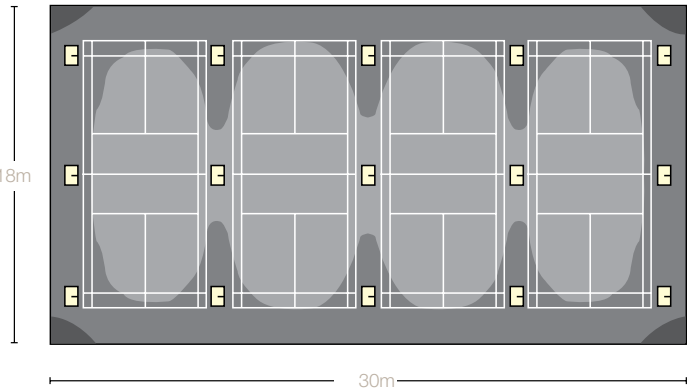
Options

DALI DIMMING	Replace H with Y	i.e. SLBY455G
COMEPS	Add suffix /EP	i.e. SLBH455G/EP
EASYTEST	Add suffix /ET	i.e. SLBH455G/ET
COMET	Add suffix /CT	i.e. SLBH455G/CT



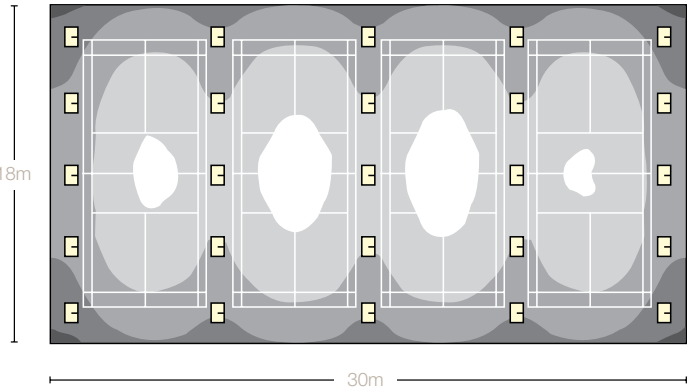
Performance Guide

15 Luminaire configuration – Serve 6 x 55W

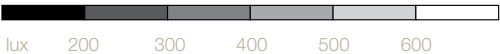


Average Illuminance: 300 lux Mounting Height: 7.6m

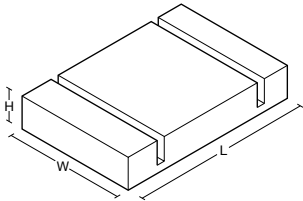
25 Luminaire configuration - Serve 6 x 55W



Average Illuminance: 500 lux Mounting Height: 7.6m

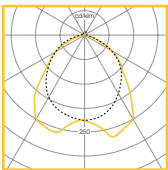


Dimensions



Version	L	W	H	KG	KG
4/6 Lamp	900	600	100	13.1	14.1

Photometric Performance



6 x 55W TC-L
• LOR = 67.5%
• SHR MAX = 1.71

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 55W TC-L	4800	20,000hrs

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.46	0.66	0.71

To Specify

4 or 6 x 55W TC-L separately switched fluorescent sports hall luminaire with steel body, hinged steel cover guard with punched grid, MIRO 4 reflectors and lockable lamp holders, with high frequency gear housed in separate pods enabling operation in ambient temperatures up to 35°C – as Whitecroft Lighting SERVE



Optics

- Lamps options:
 - 1 or 2 x 28/35/49/54W T5
- Diffuser in 3mm thick moulded textured polycarbonate meeting HM Prisons specification and achieving an IK rating of 9 (IP559) for impact resistance
- Diffuser edges fully concealed, fully gasketed and retained by 6 x M5 hex pin anti-tamper fixings

Body

- IP55 rated steel body finished white. Corners fully welded and finished smooth with a flat back for mounting tight to the ceiling to meet anti-ligature requirements
- Fully removable gear tray with retention cords for easy maintenance



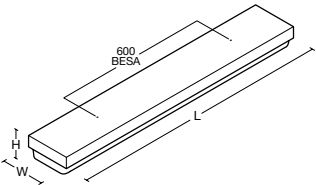
Order Codes

Strike	HF Gear	3 hr Emergency
T5 1 x 28W	STRH128	STRH128EMIN
T5 2 x 28W	STRH228	STRH228EMIN
T5 1 x 35W	STRH135	STRH135EMIN
T5 2 x 35W	STRH235	STRH235EMIN
T5 1 x 49W	STRH149	STRH149EMIN
T5 2 x 49W	STRH249	STRH249EMIN
T5 1 x 54W	STRH154	STRH154EMIN
T5 2 x 54W	STRH254	STRH254EMIN

Options

DALI DIMMING	Replace H with Y	i.e. STRY128
SWITCH DIMMING	Replace H with X	i.e. STRX128
EASYTEST	Add suffix /ET	i.e. STRH128/ET
COMEPS	Add suffix /EP	i.e. STRH128/EP
COMET	Add suffix /CT	i.e. STRH128/CT
Special tool required for access and fixing		HAL-KEY

Dimensions



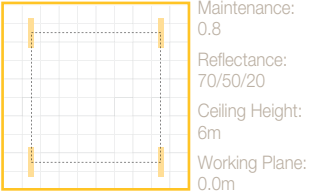
Version	L	W	H	KG	KG/m²
28/54W	1315	215	103	7.5	8.5
35/49W	1615	215	103	8.5	9.5

Performance Guide

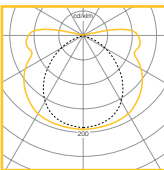
Lamps	Illuminance	Spacing
2 x 35W T5	270 lux	4.0m x 4.0m

Lamp Performance

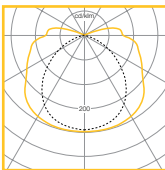
Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs



Photometric Performance



1 x 35W T5
• LOR = 88%
• SHR MAX = 1.75



2 x 35W T5
• LOR = 87.3%
• SHR MAX = 1.78

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.54	0.77	0.84

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.54	0.77	0.85

To Specify

IP559 anti vandal luminaire with fully welded body and flat back to meet anti-ligature requirements. 3mm thick moulded textured polycarbonate diffuser to HM Prisons specification, edges fully concealed and gasketed and gripped at all points by a 1.2mm zintec steel retention pan secured by 6 anti-tamper fixings. Fully removable gear and lamp tray incorporating 3 hour integral emergency when required – as Whitecroft Lighting STRIKE



Optics

- Lamp options:
 - 1 x 45/49W, 50/54W T5 ECO/T5
 - 2 x 25/28W, 32/35W T5 ECO/T5
- Cylindrical polycarbonate diffuser guarantees even light dispersion and fades out the shape of the lamp

Body

- IP40 as standard
- Surface mounted
- When suspended a cable entry block enables discreet cable entry from above (supplied separately)
- Extruded aluminium trunking
- 7 pole through wiring as standard
- Tool-free installation
- Quick Connect system for simple and rapid installation and reduction in labour costs
- Trunking infills in either 500mm or 1000mm
- Range of compulsory trunking covers (supplied separately)
- Trunking covers with integral PIR presence detector and photocell available* (supplied separately)
- Also available in Surface section. See page 120
- For integral sensor options all luminaires to be controlled must be DALI

* One Master Luminaire must be used in conjunction with the Integral Sensor.



Through Wiring



Trunking cover with integral sensor



Quick connect system

inspiration

Order Codes

Trunking

2000mm start of row
2000mm middle/end of row

Luminaire

T5 ECO/T5 1 x 45/49W
T5 ECO/T5 1 x 50/54W
T5 ECO/T5 2 x 25/28W
T5 ECO/T5 2 x 32/35W

HF Gear

INSH149W
INSH154W
INSH228W
INSH235W

3 hr Emergency

INSH149WEM
INSH154WEM
INSH228WEM
INSH235WEM

Accessories

Trunking Inf IIs

500mm infill
1000mm infill

Trunking Cover for start/end of row†

35/49W Cover
28/54W Cover

Trunking Cover for start of row inc. cable entry block†

35/49W Cover
28/54W Cover

Trunking Cover for system without Inf IIs

35/49W Cover
28/54W Cover

Trunking Cover for 500mm Inf IIs

35/49W Cover
28/54W Cover

Trunking Cover for 1000mm Inf IIs

35/49W Cover
28/54W Cover

Trunking Cover for cable entry block

35/49W Cover
28/54W Cover

Components

TRUNKING END CAPS (1 required per row)
CABLE ENTRY FROM ABOVE
SURFACE MOUNTING KIT

Options

DALI DIMMING	Replace H with Y	i.e. INSY149W
EASYTEST	Add suffix /ET	i.e. INSH149W/ET
COMEPS**	Add suffix /EP	i.e. INSH149W/EP
MASTER LUMINAIRE***	Add suffix /MAST	INSY149W/MAST
(One Master Luminaire must be used when incorporating integrated sensor cover)		
INTEGRAL SENSOR WITHIN TRUNKING COVER	Add suffix /SEN	INSCOV460W/SEN
(Use in conjunction with DALI luminaires only)		

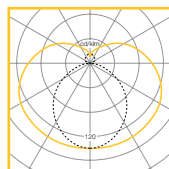
Note:

**DALI dimming combined with COMECS is only available in conjunction with Whitecroft Command Elite DALI addressable system. Please consult our Technical Desk.

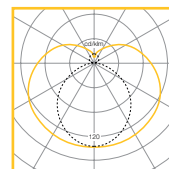
***Master Luminaires must be DALI. EM not available in Master Luminaires. Only one master luminaire per circuit layout, please contact Technical Desk for further information

† Cannot be used in conjunction with integral sensor

Photometric Performance



1 x 35W T5
• LOR = 82.5%
• SHR MAX = 1.84



2 x 35W T5
• LOR = 77.8%
• SHR MAX = 1.82

Utilisation Factors UF(F)

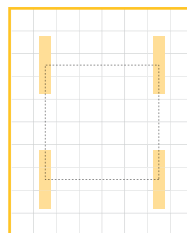
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.45	0.67	0.74

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.43	0.63	0.70

Performance Guide

Lamps	Illuminance	Spacing
2 x 35W T5	361 lux	3.0m x 3.0m

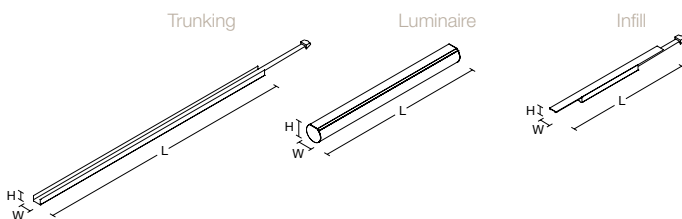


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.75m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 25W T5 ECO	2450	24,000hrs
1 x 32W T5 ECO	3100	24,000hrs
1 x 45W T5 ECO	4100	24,000hrs
1 x 50W T5 ECO	4400	24,000hrs
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs

Dimensions



Version	L	W	H	KG	KG
Starter Trunking	2000	61	47	3.9	N/A
Middle Trunking	2000	61	47	3.9	N/A
500mm Infill	500	61	47	1.0	N/A
1000mm Infill	1000	61	47	2.0	N/A
28/54W Luminaire	1246	125	118	2.2	2.7
35/49W Luminaire	1546	125	118	3.3	3.7
Cable entry from above	100	61	47	0.7	N/A

To Specify

Surface or suspended T5 fluorescent lighting system with polycarbonate circular diffuser and quick connect system for ease of installation, maximum efficiency and tool free installation – as Whitecroft Lighting INSPIRATION

Phone Shop

Accessories
SALE 1/2

Accessories

Pay as you go

SALE 1/2 SALE 1/2

Please
Government and

SALE 1/2 SALE 1/2

Mens
Jeans

12.50

SALE 1/2 SALE 1/2

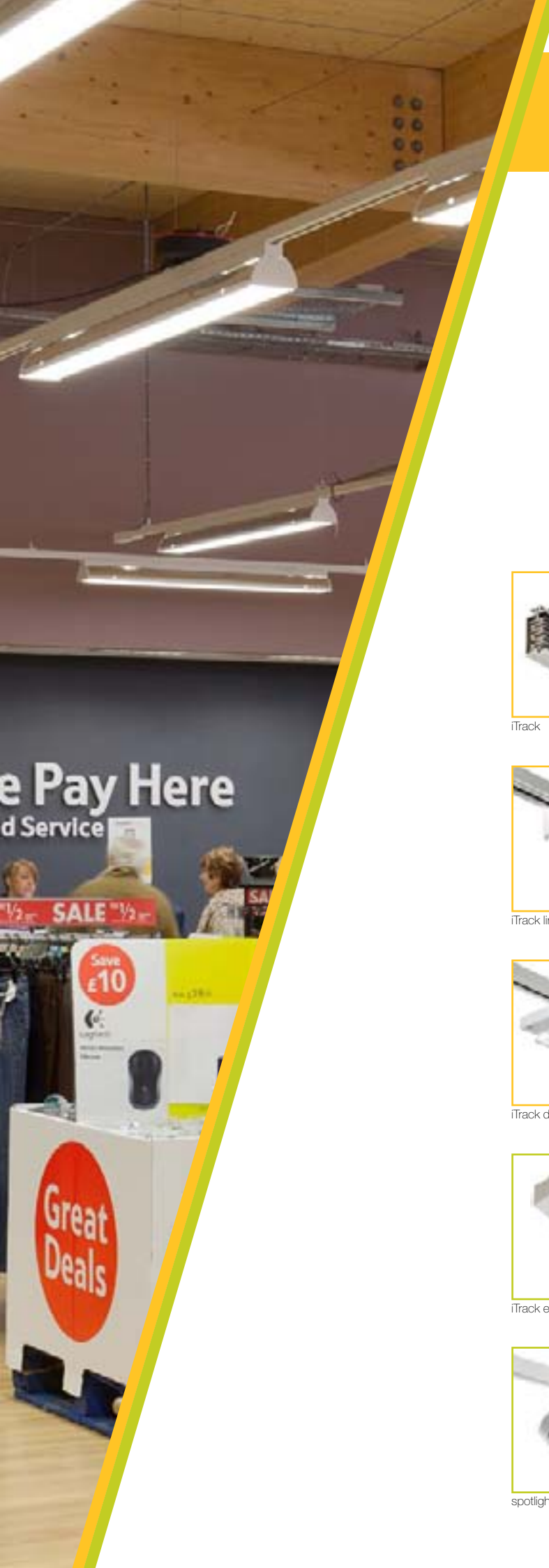
Half
Price

NEED
PLUGS

REDUCED
TO CLEAR

REDUCED
TO CLEAR

iTrack



iTrack

210



iTrack couplers

213



iTrack suspension

214



iTrack line

215



iTrack line relectors

216



iTrack line attachments

217



iTrack dupio

218



iTrack kite

220



iTrack dual

222



iTrack emLED

224



iTrack spine

225



iTrack power module

226



spotlight options

226



iTrack DALI multisensor

227

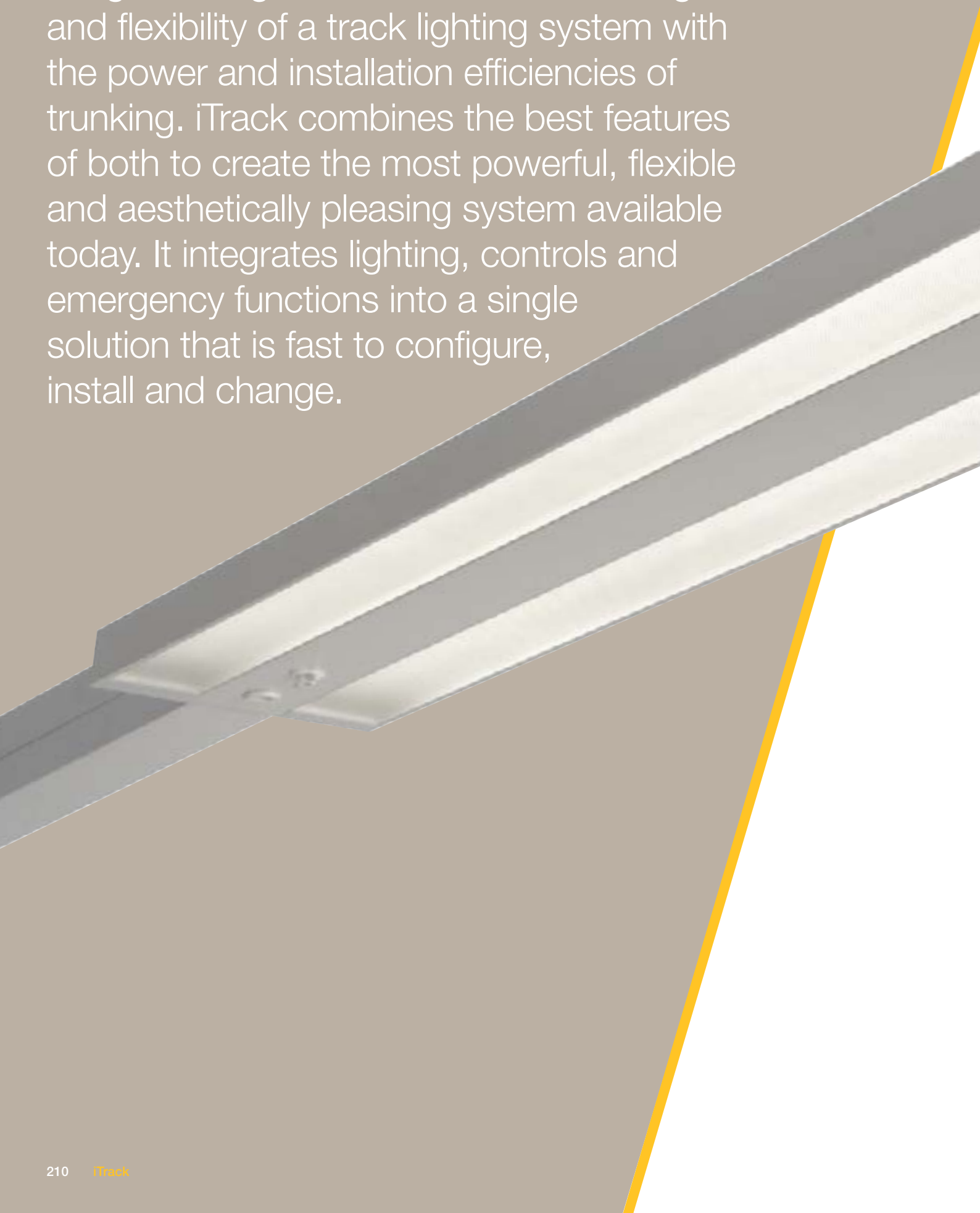


DALI components

227

iTrack - trunking redefined

Imagine being able to combine the design and flexibility of a track lighting system with the power and installation efficiencies of trunking. iTrack combines the best features of both to create the most powerful, flexible and aesthetically pleasing system available today. It integrates lighting, controls and emergency functions into a single solution that is fast to configure, install and change.

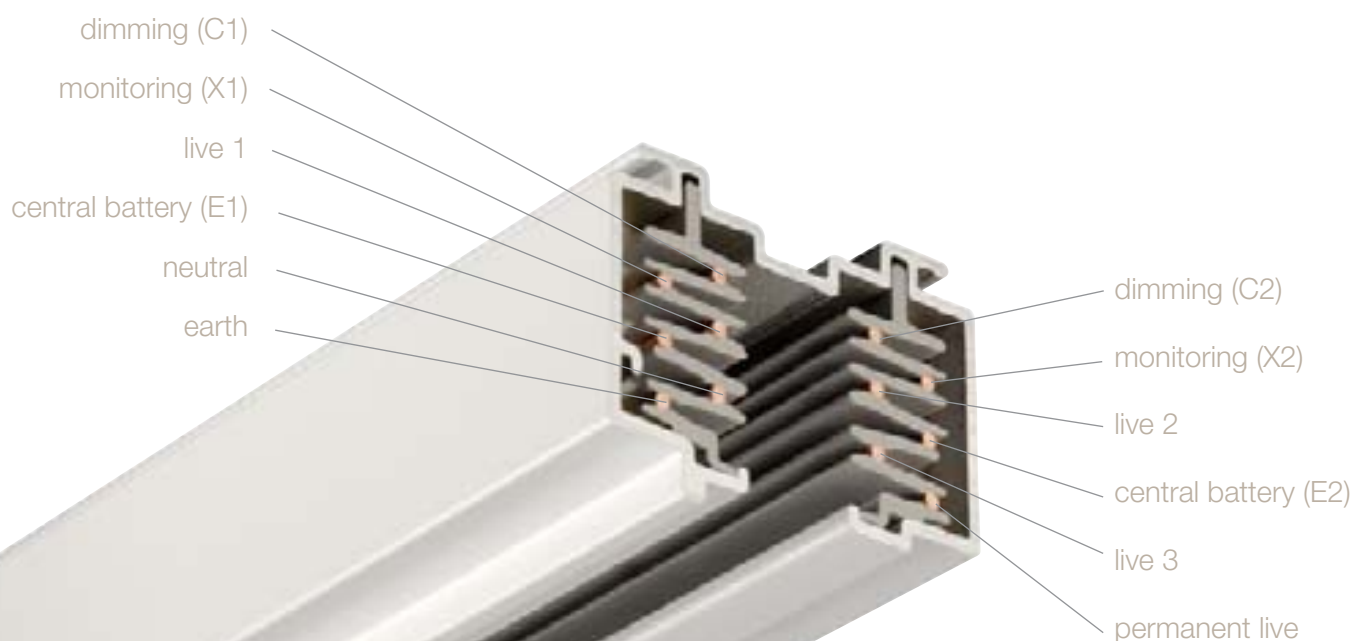




Integration as standard

iTrack is designed to connect. 12 circuits bring unparalleled flexibility and choice, with up to 3 different lighting circuits, DALI lighting controls and emergency capability built in.

That is only the start – compatibility has been extended outside iTrack's impressive range of luminaires. iTrack is compatible with many 3 circuit track adaptors offered by other lighting companies, giving the lighting designer the ultimate flexibility in luminaire selection.



iTrack

- 2.5mm² cross section for all conductors
- L1, L2, L3, rated at 16A with creepage and clearance making them suitable for single or three phase applications (3 x 16A)
- iTrack is fully compliant with BS EN60570 - electrical supply track systems for luminaires
- Extruded aluminium construction
- Surface and suspension mounting
- 12 integrated circuits to connect and control:
 - 3 different lighting circuits
 - emergency lighting
 - lighting control systems
- Ability to accept standard 3 circuit track adaptors
- Wide range of couplers for a flexible system design
- Micro coupler and clamp for a perfect joint creating seamless appearance
- Positive retention locking system to create a stronger link between iTrack lengths
- Finished in white



iTrack



iTrack Cover



End Cap



Cover End Cap

Order Codes

iTrack

iTrack 1000 mm	ITR1000
iTrack 2000 mm	ITR2000
iTrack 3000 mm	ITR3000
iTrack 4000 mm	ITR4000

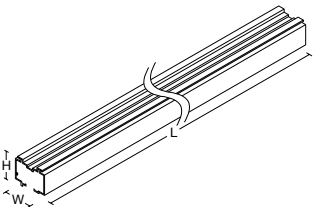
iTrack cover

Cover 600mm	ITRC600
Cover 900mm	ITRC900
Cover 1200mm	ITRC1200
Cover 1500mm	ITRC1500

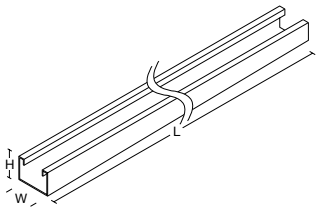
End caps

End cap	ITREC
Cover end cap	ITRCOVEREC

Dimensions



iTrack	L	W	H	KG
1m	988	52	35	1.4
2m	1988	52	35	2.8
3m	2988	52	35	4.2
4m	3988	52	35	5.6



iTrack Cover	L	W	H	KG
600	616	52	30	0.36
900	916	52	30	0.54
1200	1216	52	30	0.72
1500	1516	52	30	0.89

To Specify

12 circuit extruded aluminium track with 2.5mm² conductors providing a maximum rating of 16A from a 240V mains supply, compatible with a standard 3 circuit track adapter. Three individually controlled lighting circuits for maximum flexibility and control. Finished in white with live and dead end fixings for surface or suspended mounting – as Whitecroft Lighting iTRACK

Order Codes

iTrack couplers	
Supply coupler	ITRSC
Supply conduit (order supply coupler separately)	ITRCD1000
Linear coupler	ITRIC
L-coupler right	ITRLC/R
L-coupler left	ITRLC/L
T-coupler right	ITRTC/R
T-coupler left	ITRTC/L
X-coupler	ITRXC
Flex coupler	ITRFLEXC

Weights

iTrack couplers	KG
Supply coupler	0.20
Supply conduit	0.52
Linear coupler	0.05
L-coupler L/R	0.20
T-coupler L/R	0.30
X-coupler	0.40
Flex coupler	0.30



Supply Coupler



Supply Conduit



L-Coupler



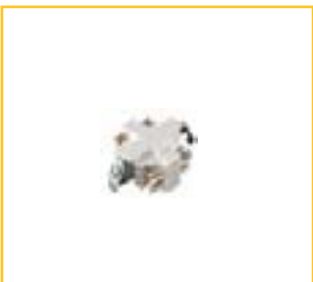
T-Coupler



X-Coupler

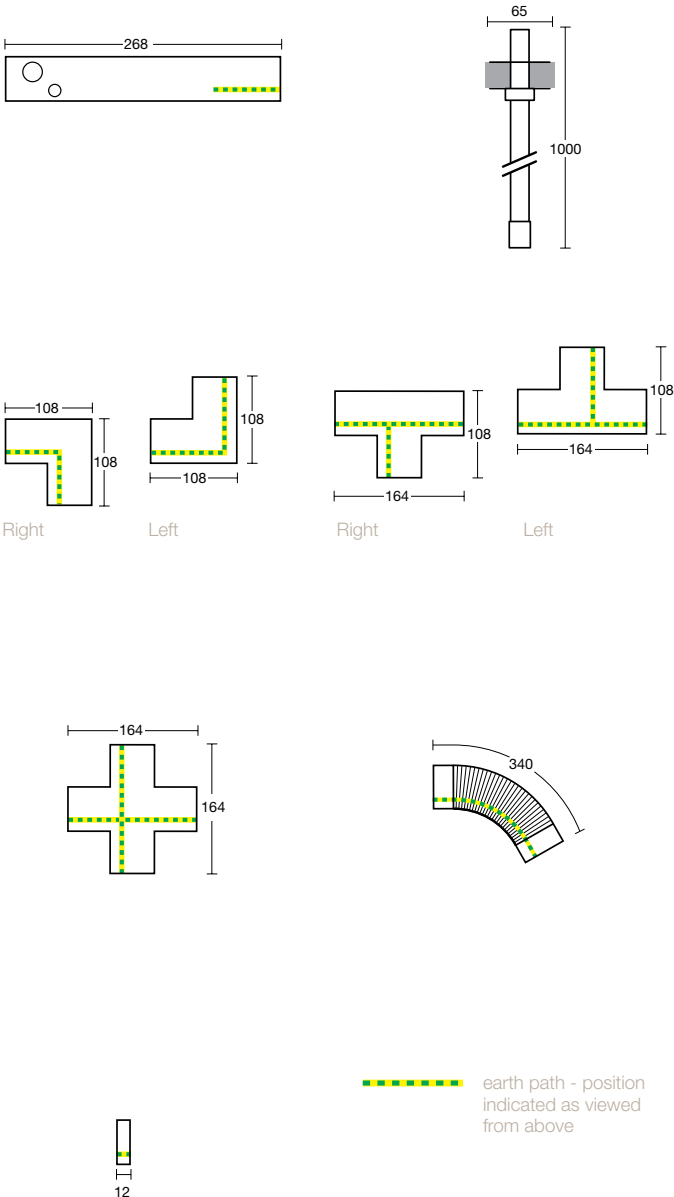


Flex Coupler



Linear Coupler

Dimensions



iTrack suspension

ceiling mounting
options



Wire Suspension Kit



15mm Ceiling Tee Adapter



25mm Ceiling Tee Adapter



Wire Suspension Kit Detail

Order Codes

Components

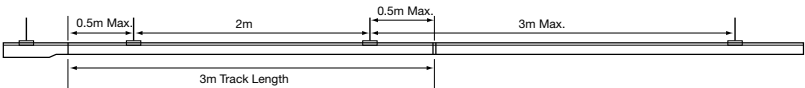
Surface suspension bracket	ITRBSURF
Wire suspension kit (1 meter)	ITRBPEND
Wire suspension kit (3 meter)	ITRBPEND/3M
15mm ceiling tee adapter (use in conjunction with wire suspension kit)	CBT15
25mm ceiling tee adapter (use in conjunction with wire suspension kit)	CBT25



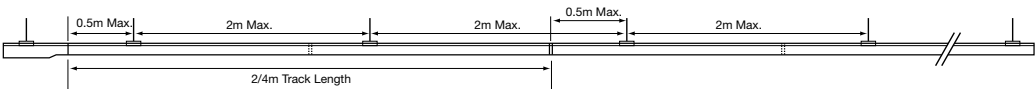
Surface Suspension Bracket Detail

Permitted Mechanical Loads

iTrack Length 3 Meters



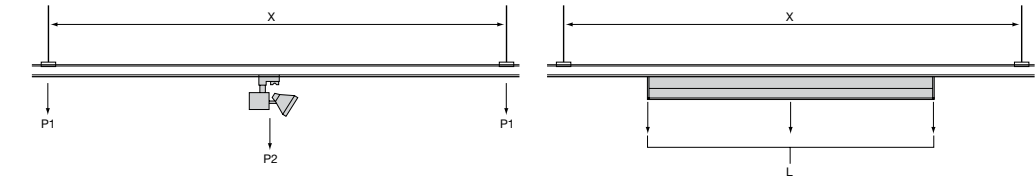
iTrack Length 2 or 4 Meters



Load Table

X	P1	P2	L
2m	10KG	9KG	14KG
3m	10KG	2KG	6KG

For more information please refer to iTrack design guide



Suspension Point Rules

1. Power feed requires dedicated suspension point.
2. First iTrack length in any run must have 2 suspension points.
3. Any joint should always have a suspension point within 500mm.
4. There should always be a suspension point within 500mm of the end run.
5. For maximum distance between suspension points refer to load table and suspension diagram.



Optics

- Lamp options:
 - 1 or 2 x 28/35/49/54/80W T5

Body

- Steel batten finished white
- Polycarbonate injection moulded end caps
- Supplied with iTrack 7 pole adapter which enables:
 - Rapid installation
 - Easy access for maintenance
 (Emergency luminaire supplied with 8 pole adapter)
- Compatible with iTrack Line reflectors and attachments, please order separately



Line Twin

Order Codes

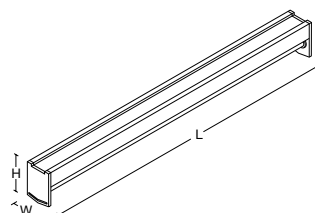
iTrack Line Single	HF Gear	3 hr Emergency
T5 1 x 28W	ITRLH128	ITRLH128EM
T5 1 x 35W	ITRLH135	ITRLH135EM
T5 1 x 49W	ITRLH149	ITRLH149EM
T5 1 x 54W	ITRLH154	ITRLH154EM
T5 1 x 80W	ITRLH180	-

iTrack Line Twin	HF Gear	3 hr Emergency
T5 2 x 28W	ITRLH228	ITRLH228EM
T5 2 x 35W	ITRLH235	ITRLH235EM
T5 2 x 49W	ITRLH249	ITRLH249EM
T5 2 x 54W	ITRLH254	ITRLH254EM
T5 2 x 80W	ITRLH280	-

Options

DALI DIMMING	Replace H with Y	i.e. ITRLY128
EASYTEST	Add suffix /ET	i.e. ITRLH128/ET
COMEPS	Add suffix /EP	i.e. ITRLH128/EP

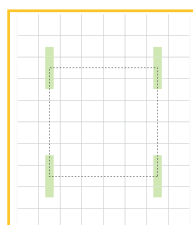
Dimensions



Version	L	W	H	KG	KG
28/54W	1183	51.5	74	1.4	2.2
35/49/80W	1483	51.5	74	1.8	2.6

Performance Guide

Luminaire with medium reflector		
Lamps	Illuminance	Spacing
1 x 54W T5	450 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
3m
Suspension:
0.5m
Working Plane:
0.8m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs
1 x 80W T5	6550	24,000hrs

To Specify

T5 fluorescent steel batten with polycarbonate end caps. Track phase selection to be located on the luminaire with twist locking rotary toggle for efficient installation and maintenance – as Whitecroft Lighting iTRACK LINE

iTrack line reflectors

**T5 fluorescent
batten reflectors**



Reflectors

- 5 aluminium reflector options available
 - extra narrow
 - narrow
 - medium
 - wide
 - asymmetric
- MIRO 5 zero iridescent semi-specular reflector
- Symmetric reflectors provide downward light over narrow, medium or wide areas
- Asymmetric reflector provides directional lighting on vertical surfaces
- All reflectors fit single or twin lamp battens

Order Codes

Extra narrow reflector*

1 or 2 x 28/54W
1 or 2 x 35/49/80W

LREN4

LREN5

Narrow reflector

1 or 2 x 28/54W
1 or 2 x 35/49/80W

LRN4

LRN5

Medium reflector

1 or 2 x 28/54W
1 or 2 x 35/49/80W

LRM4

LRM5

Wide reflector

1 or 2 x 28/54W
1 or 2 x 35/49/80W

LRW4

LRW5

Asymmetric reflector

1 or 2 x 28/54W
1 or 2 x 35/49/80W

LRA4

LRA5

*Note the extra narrow reflector is not available with any of the iTrack Line accessories



Narrow



Medium



Wide



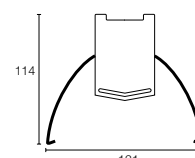
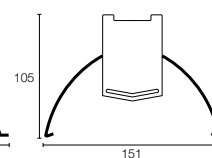
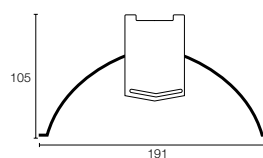
Asymmetric

Dimensions

Extra Narrow

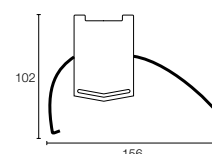
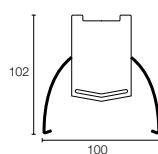
Narrow

Medium

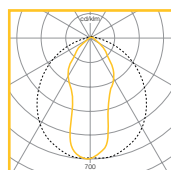


Wide

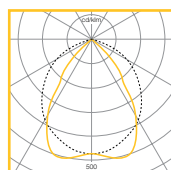
Asymmetric



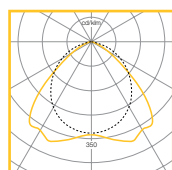
Photometric Performance



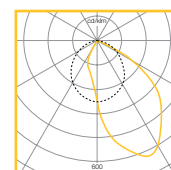
1 x 35W T5
narrow reflector
• LOR = 91.5%



1 x 35W T5
medium reflector
• LOR = 93.3%



1 x 35W T5
wide reflector
• LOR = 94.1%



1 x 35W T5
asymmetric reflector
• LOR = 92.3%

iTrack line attachments

T5 fluorescent
batten attachments



Attachments

- Cross blade louvre with push and lock fitting for efficient installation
- Aluminium seam to join reflectors linked in a continuous line
- Toughened plastic end cap to fit all reflector sizes and prevent light bleed



End Cap



Continuous Row Reflector Seam



Cross Blade Louvre

Order Codes

Lamella louvres

Medium louvre 28/54W	LLM4
Medium louvre 35/49/80W	LLM5
Wide louvre 28/54W	LLW4
Wide louvre 35/49/80W	LLW5
Asymmetric louvre 28/54W	LLA4
Asymmetric louvre 35/49/80W	LLA5

Continuous row reflector seams

Narrow reflector seam - pair	LCRSN
Medium reflector seam - pair	LCRSM
Wide reflector seam - pair	LCRSW
Asymmetric reflector seam - pair	LCRSA

Reflector end caps

Narrow reflector cap - pair	LRN/EC
Medium reflector cap - pair	LRM/EC
Wide reflector cap - pair	LRW/EC
Asymmetric reflector cap - pair	LRA/EC

Options

CONTINUOUS LOUVRE	Insert C	i.e. LLM4
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iTrack dupio

track mounted symmetric /
asymmetric lighting solution



Optics

- Lamp options:
 - 2 x 14/24/35/49/80W T5 utilising HF multi-watt ballasts
- DALI dimming version available in 2 x 35/49/80W only
- Two individually adjustable MIRO reflectors
- Cross blade louvre available in white or grey

Body

- Sheet steel body finished white, grey or black
- Electronic ballasts included in the central spine
- Supplied with iTrack adapter and twist locking rotary toggle for rapid installation onto iTrack
- Order reflectors and louvres separately (reflectors are compulsory when using louvres)

Order Codes

iTrack Dupio (body)

T5 2 x 14/24W

T5 2 x 35/49/80W

HF Gear

DUPH214/24W

DUPH235/49/80W

iTrack Dupio DALI Dimming (body)

T5 2 x 35/49/80W

DALI Gear

DUPY235/49/80W

Reflectors - pair

T5 2 x 14/24W

T5 2 x 35/49/80W

DUPR2

DUPR5

Louvres - pair

T5 2 x 14/24W

T5 2 x 35/49/80W

White

DUPR2W

DUPR5W

Grey

DUPR2G

DUPR5G

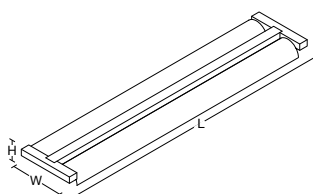
Options

GREY	Replace W with G	i.e. DUPH214/24G
BLACK	Replace W with B	i.e. DUPH214/24B

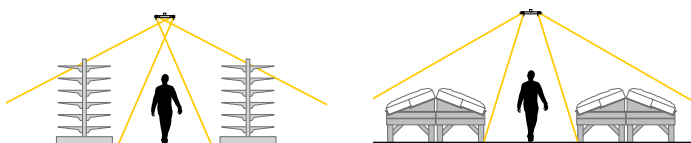


Dupio 2 x 14/24W

Dimensions



Version	L	W	H	KG
14/24W	620	300	30	2.9
35/49/80W	1520	300	30	4.6



Dupio's adjustable optics allow for both vertical and horizontal illumination

To Specify

Sheet steel body with two individually adjustable MIRO reflectors providing symmetrical and/or asymmetrical illumination. Electronic ballast to be included in the frame, with phase selection and twist locking rotary toggle located on the luminaire for efficient installation and maintenance – as Whitecroft Lighting iTrack Dupio







Optics

- Lamp options:
 - 1 x 28/35/49/54 T5
- Semi specular living louvre or micro prism optic
- 100% downlight
- Side mounted satin polycarbonate diffuser for glare control

Body

- Extruded aluminum body in white
- Injection moulded polycarbonate end caps
- Supplied with iTrack 7 pole adapter which enables:
 - Rapid installation
 - Easy access for maintenance
 (Emergency luminaire supplied with 8 pole adapter)

Order Codes

iTrack Kite Louvre

T5 1 x 28W
T5 1 x 35W
T5 1 x 49W
T5 1 x 54W

HF Gear

ITRKLH128
ITRKLH135
ITRKLH149
ITRKLH154

3 hr Emergency

ITRKLH128EM
ITRKLH135EM
ITRKLH149EM
ITRKLH154EM

iTrack Micro Prism

T5 1 x 28W
T5 1 x 35W
T5 1 x 49W
T5 1 x 54W

HF Gear

ITRKPH128
ITRKPH135
ITRKPH149
ITRKPH154

3 hr Emergency

ITRKPH128EM
ITRKPH135EM
ITRKPH149EM
ITRKPH154EM

Options

DALI DIMMING
EASYTEST
COMEPS

Replace H with Y
Add suffix /ET
Add suffix /EP

i.e. ITRKLY128
i.e. ITRKL128/ET
i.e. ITRLH128/EP

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs

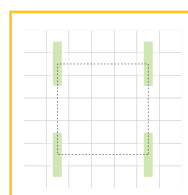


Micro Prism Optic

Performance Guide

Louvre Optic

Lamps	Illuminance	Spacing
1 x 28W T5	330 lux	2.4m x 2.4m



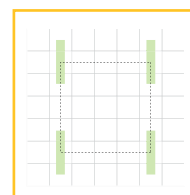
Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
3m
Suspension:
0.5m

Working Plane:
0.8m

Performance Guide

Prism Optic

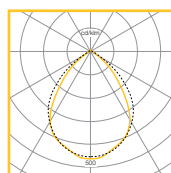
Lamps	Illuminance	Spacing
1 x 28W T5	300 lux	2.4m x 2.4m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
3m
Suspension:
0.5m

Working Plane:
0.8m

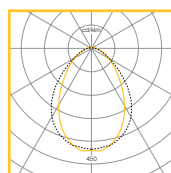
Photometric Performance



1 x 35W T5
Louvre
• LOR = 81.8%
• SHR MAX = 1.41

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.65 0.83 0.87

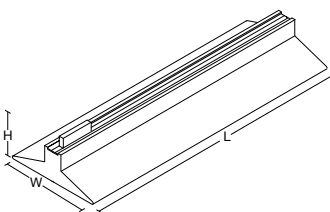


1 x 35W T5
Micro prism
• LOR = 75.0%
• SHR MAX = 1.30

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.56 0.74 0.78

Dimensions



Version	L	W	H	KG	KG
28/54W	1185	255	111	3.7	4.5
35/49W	1485	255	111	4.1	4.9

To Specify

Architectural T5 luminaire with side mounted satin polycarbonate diffuser. The body is to be extruded aluminium with injection moulded polycarbonate end caps. 100% down light with semi specular living louvre or micro prism diffuser with track phase selection located on the luminaire – as Whitecroft Lighting iTRACK KITE



Optics

- Lamp options:
 - 2 x 28/35/49/54W T5
- Semi specular living louvre or micro prism optic
- Light Distribution Ratios:
 - Louvre: 70% down and 30% up
 - Micro prism: 40% down and 60% up

Body

- Slim depth extruded aluminum body in white
 - Injection moulded polycarbonate end caps
 - Supplied with iTrack 7 pole adapter which enables:
 - Rapid installation
 - Easy access for maintenance
- (Emergency luminaire supplied with 8 pole adapter)

Order Codes

iTrack Dual Louvre	HF Gear	3 hr Emergency
T5 2 x 28W	ITRDLH228	ITRDLH228EM
T5 2 x 35W	ITRDLH235	ITRDLH235EM
T5 2 x 49W	ITRDLH249	ITRDLH249EM
T5 2 x 54W	ITRDLH254	ITRDLH254EM

iTrack Micro Prism	HF Gear	3 hr Emergency
T5 2 x 28W	ITRDPH228	ITRDPH228EM
T5 2 x 35W	ITRDPH235	ITRDPH235EM
T5 2 x 49W	ITRDPH249	ITRDPH249EM
T5 2 x 54W	ITRDPH254	ITRDPH254EM

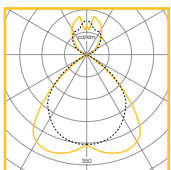
Options

DALI DIMMING	Replace H with Y	i.e. ITRDLY228
EASYTEST	Add suffix /ET	i.e. ITRDLH228/ET
COMEPS	Add suffix /EP	i.e. ITRDLH228/EP

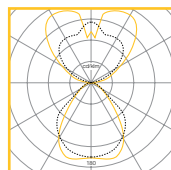
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 35W T5	3325	24,000hrs
1 x 49W T5	4375	24,000hrs
1 x 54W T5	4450	24,000hrs

Photometric Performance



2 x 49W T5
Louvre
• LOR = 87.4%
• SHR MAX = 1.71



2 x 49W T5
Micro prism
• LOR = 80.3%
• SHR MAX = 1.49

Utilisation Factors UF(F)

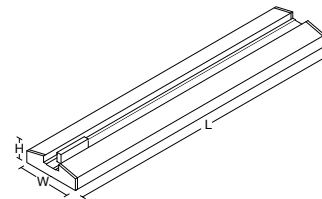
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.60 0.80 0.84

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.46 0.63 0.68



Dimensions



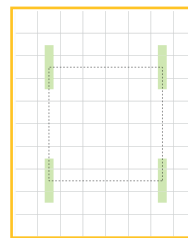
Version	L	W	H	KG	KG
28/54W	1183	171	56	3.1	3.9
35/49W	1483	171	56	3.6	4.4



Micro Prism Optic

Performance Guide

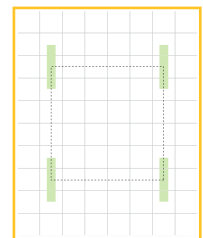
Lamps	Illuminance	Spacing
2 x 28W T5	490 lux	3.0m x 3.0m



Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 3m
Suspension: 0.5m
Working Plane: 0.8m

Performance Guide

Lamps	Illuminance	Spacing
2 x 28W T5	400 lux	3.0m x 3.0m



Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 3m
Suspension: 0.5m
Working Plane: 0.8m

To Specify

Slim line T5 architectural luminaire with semi specular living louvre or micro prism diffuser. Direct: indirect lighting ratio to be 70:30 (40:60 with micro prism diffuser). The body is to be extruded aluminium with injection moulded polycarbonate end caps. The track phase selection is to be located on the luminaire with twist locking rotary toggle for efficient installation and maintenance - as Whitecroft Lighting ITRACK DUAL



iTrack emLED provides a flexible standalone emergency lighting solution, utilising the latest LED technology. The LED head is integrated in an aluminum housing with reflector, which is specially developed to provide wide and balanced light distribution. NiMH battery provides 3 hour emergency durations as standard.

- 3 hour non maintained
- Automatic testing compliant to IEC62034
- Fault diagnostics indicating LED, battery charging system status via supplied LED indicator
- Nickel Metal Hydride (NiMH) battery

Order Codes

EmLED

1 x 1.4W LED	Self test - 3 hour non-maintained	EMLED/ET
1 x 1.4W LED	DALI central test - 3 hour non-maintained	EMLED/DT
1 x 1.7W LED	Central Battery	EMLED/CB

Easytest Emergency Luminaire Status

EmLED

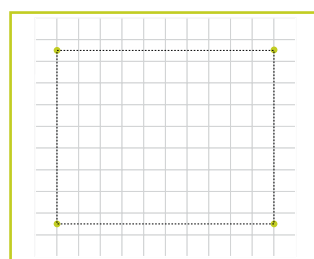
LED off	Mains not connected
LED green slow flash	Commissioning or Duration Test in progress
LED green fast flash	Functional test in progress
LED green 10 second blink	Normal standby mode
LED red slow flash	Charging system faulty, failed duration test
LED red fast flash	Defective power LED



Performance Guide

Escape Route

Lamps	Illuminance	Spacing
1 x 1.4W LED	1.25 lux	6.0 x 4.8 m

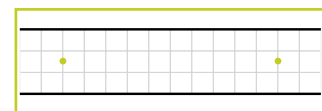


Maintenance: 0.8	Ceiling Height: 3.0m
Reflectance: 70/50/20	Suspension: 0.5m
	Working Plane: 0.0m

Performance Guide

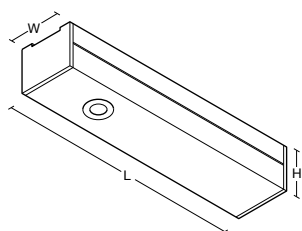
Escape Route

Lamps	Illuminance	Spacing
1 x 1.4W LED	1.65 lux	6.0m



Maintenance: 0.8	Ceiling Height: 3.0m
Reflectance: 70/50/20	Suspension: 0.5m
	Working Plane: 0.0m

Dimensions



L	W	H	KG
273	52	60	0.9

To Specify

Track mounted high performance standalone LED emergency luminaire, complete with charge indicator, driver and battery capable of operation in 3 hour self contained non-maintained, removable magnetic front panel for efficient installation and access – as Whitecroft Lighting iTRACK emLED

iTrack spine

spine for luminaire integration



iTrack Spine has been developed to integrate market leading products Aerial, ACF Duralite, ACF DuraLED, Stiletto Five and Stiletto LED onto the iTrack solution. The spine can be supplied as a single item for you to convert small quantities of luminaires on site, or can be supplied complete with luminaire ready for installation onto iTrack (subject to quantities).

Should you require other specific products to be supplied with a spine for integration onto iTrack, please contact our sales office.

Order Codes

iTrack Spine

Spine for 28/54W luminaires
Spine for 35/49/80W luminaires
Note: Order luminaire separately

ITRSP28/54W
ITRSP35/49/80W

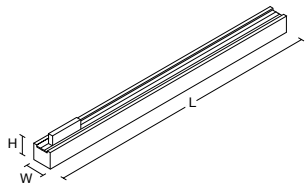


ACF Duralite Attached with iTrack Spine



Aerial Attached with iTrack Spine

Dimensions



Version	L	W	H	KG
14/24W	1500	51.5	30	1.1
35/49/80W	1800	51.5	30	1.3

To Specify

Track mounted extruded aluminium conversion body. Phase selection to be on the outside of the body along with twist locking rotary toggle for rapid installation – as Whitecroft Lighting iTRACK SPINE

iTrack power module

tracked mounted power
distribution unit

IP
20

For suspending and providing electrical connections for the following pendant luminaires*:

- Atlanta Junior (page 93)
- Echo 280 (page 84)

Body

- Extruded aluminium body with polycarbonate end caps
- Supplied with iTrack 7 pole adaptor
- Track phase selection located on the outside of the power module

* Non-emergency luminaires only

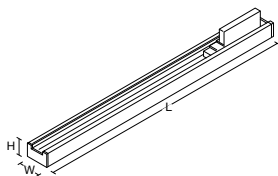


Order Codes

iTrack Mounted Power Module
Power Module

ITRMOD

Dimensions



L	W	H	KG
606	52	64	0.8

To Specify

Track mounted power module with extruded aluminium body, polycarbonate end caps and fixing bracket for suspending pendant luminaires. Track circuit selection to be located on the outside of the power module – as Whitecroft Lighting iTRACK POWER MODULE

spotlights

iTrack is compatible with any spotlight fitted with a standard 3 circuit track adaptor. For our full range of spotlights please look in the Feature & Display section starting on page 50



Quest LED



Emphasis LED



Strato



Emphasis

iTrack DALI multisensor

track mounted
addressable detector



The Multisensor is a compact unit containing the necessary sensors to provide energy saving functions. It has constant light sensor, a passive infra-red detector (PIR) and an infra-red receiver for the Infrared Remote.

- Programmable constant light
- Presence detection
- Control using the hand held remote
- Switch-Control input
- DALI power consumption 15mA

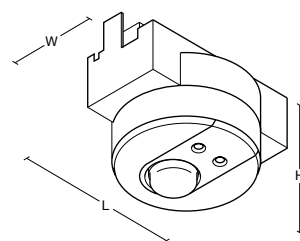


Order Codes

DALI Addressable PIR/Photocell detector
iTrack Mounted

ITR/COMDRD

Dimensions



L	W	H	KG
91	70	55	0.13

To Specify

Track mounted DALI addressable sensor, with a passive infra-red detector (PIR), an infra-red receiver for the infrared remote and constant light sensor. Width and length not to exceed 70mm and 91mm respectively – as Whitecroft Lighting iTRACK DALI MULTISENSOR

DALI components

A full range of complimentary DALI components are available, a selection of which are illustrated below. For our full range of DALI components, please look in the Controls section starting on page 266



DALI Addressable Hub



DALI Router



Hand Held Controller



Modular Switch Panel



emergency



pathfinder 232



pathfinder accessories 237



pathfinder LED head 239



pathfinder LED exit sign 240



pathfinder LED architectural exit sign 241



pathfinder LED recessed exit sign 242



pathfinder LED IP43 bulkhead 243



pathfinder LED IP65 bulkhead 244



pathfinder LED stairwell 245



pathfinder LED walkway 245



COMEPS 246



COMET 248



easytest 252



florin E3 253



concert EX1S 254



concert EX1R 255



concert tereo 256



concert EX2S 257



egress maxi 258



slot 259



slice 260



exit 261



weatherproof 262



egress recessed 263



sentry 264



twinspot 265



Every lighting project must contain an emergency lighting element. There are 3 levels of emergency system available, ranging from the most basic self contained luminaires to fully comprehensive LED based central test and reporting systems.

Whitecroft Lighting offer three levels of emergency testing systems, each with differing levels of functionality. These are:

Central Test Central Battery

Pathfinder offers the most comprehensive emergency testing and reporting available. This networkable system can provide complete building-wide emergency lighting requirements, whilst the all LED solution dramatically reduces energy consumption compared to the parasitic load of conventional self contained systems.

Central Test Self Contained

Both COMEPS and COMET allow automated, efficient and cost-effective testing and reporting using self-contained luminaires. Although not as energy efficient as Pathfinder, these systems offer central testing at a low installed cost.

Self Contained

Self Contained emergency luminaires ensure legal requirements are met at the lowest installed cost. Integrating LED products can be energy efficient but manual testing via key switches is labour intensive and can be unreliable.



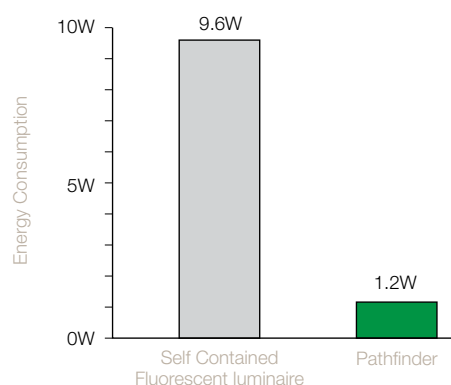


Pathfinder is a self contained central battery LED emergency lighting system designed to create the optimum emergency lighting scheme.

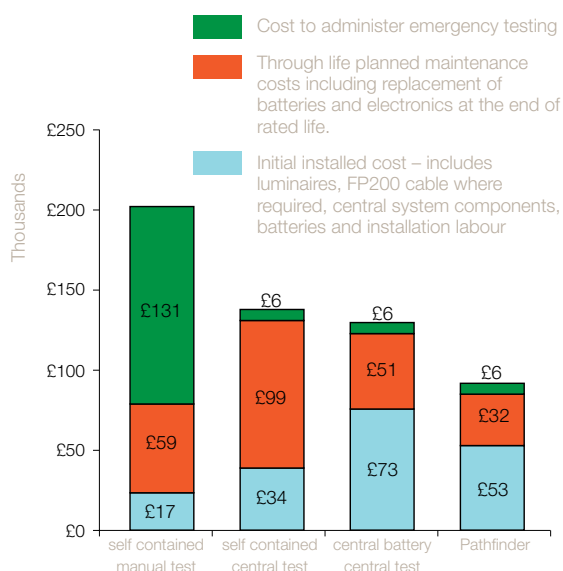


Driving Down Energy Consumption

LEDs have many advantages over traditional emergency lighting systems. Low energy consumption and a 50,000 hour life means that Pathfinder will dramatically reduce your through life maintenance and running costs. It is not generally recognised that integral emergency luminaires can add significantly to the overall energy consumption of a lighting installation. The constant trickle charge required to maintain emergency batteries can account for up to 14% of the luminaires overall energy consumption. This parasitic load can be reduced dramatically by using Pathfinder, as the extremely low energy consumption requires only a fraction of the power to charge.



Energy consumption of an emergency luminaire



Full Life Cycle costs based upon 300 lighting points over a 25 year cycle

Lowest Cost of Ownership

Self contained emergency lighting with an individual battery pack and inverter in each luminaire can offer the lowest installed cost for an emergency lighting scheme, however there are two issues which can make the solution very expensive over the full life cycle of an installation:

- Manual testing via key switches is labour intensive and can be unreliable
- A four year battery life requires frequent maintenance and replacement

Central testing systems can dramatically reduce the cost of emergency testing compared to manual testing, however maintenance and replacement of self contained batteries is still expensive.

Conventional central battery central test systems can significantly reduce the cost of battery maintenance and replacement due to ease of access.

Pathfinder LED central battery central test offers the lowest energy and life cycle cost solution. Low energy consumption means battery life capacity is only 5% of that for a conventional central battery system.

To Specify

Central battery, central test LED emergency lighting system. Fully addressable LED emergency lighting points. Control unit with programmable interface – as Whitecroft Lighting PATHFINDER

the pathfinder system

Pathfinder is a self contained, low power supply, central battery LED emergency lighting system. The system is capable of conducting automatic testing in accordance with BS5266 / EN50172 and contains a non volatile memory able to store up to 2,000 test events.

As Pathfinder is a dedicated emergency system it can be used to create an optimum emergency lighting scheme, that is simple and cost effective to install and is scalable to meet the changing needs of a building.

With simple and efficient testing regimes, utilising long life, low maintenance LEDs combined with cost effective installation, Pathfinder will deliver the lowest cost of ownership of any emergency system on the market today.

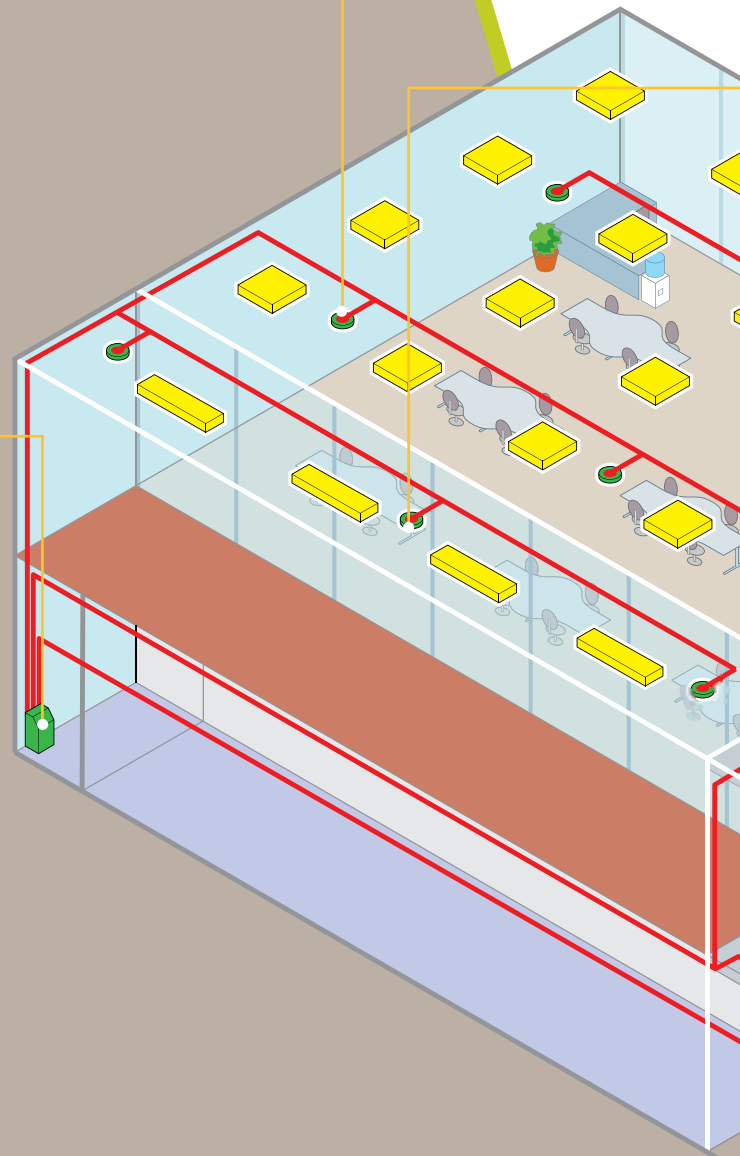
Control Panels



PFDANEL12AH
PFDANEL24AH



PFDANEL48AH



With the system utilising low energy LEDs, batteries are incorporated in the control panel and require significantly less space than traditional fluorescent central battery systems.



LED Heads



Delivering all the benefits of LEDs, the Pathfinder LED Head integrates effortlessly with its surroundings and due to its efficient, effective performance and with the ability to create an optimum emergency lighting scheme, initial installed costs are reduced. IP68 version also available.



The LED escape route head is especially effective in corridor applications.

LED Stairwell



For the architecturally demanding applications, the Pathfinder LED Stairwell provides a discreet emergency lighting solution. With a life span of 50,000 hours and robust construction, years of low through life maintenance costs are generated.

LED Exit Signs

Utilising the latest LED technology, Pathfinder Exit Signs are robust and have a much longer life than traditional fluorescent exit signs. Due to their compact size, Pathfinder Exit Signs offer architectural integration as standard and are less intrusive than comparative fluorescent products. Order legend panels separately, all legend panels comply with BS5266-1 2011 (ISO7010).



Specification

The Pathfinder emergency lighting system is a class 1 protection supply device for operating and monitoring up to 80 emergency LED luminaires, dependant upon loading of the control panel. The system uses addresses to allow identification and monitoring of individual luminaires.

The self contained unit incorporates all the control electronics and lead acid batteries for ease of installation. The front panel has indicators and LCD display for clear status of panel and LEDs. All control, administration, monitoring and testing can be performed through the front panel or remotely via a PC.

32 panels can be networked together on an existing TCP/ IP network to create an IP addressable installation with web browser access.

Control Panels

- Body
- IP20 power coated steel construction, wall mounted
- Electrical
- Input voltage 230V AC +/- 10%
 - Ambient -5 to +30°C
 - Final circuits x 4
 - 3A max per final circuit
 - Output voltage 24V DC

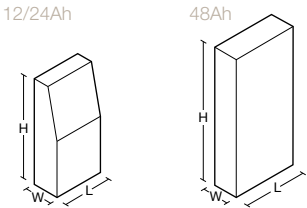


PFDPANEL12AH
PFDPANEL24AH



PFDPANEL48AH

Dimensions



Version	L	W	H	KG
PFDPANEL12Ah	253	120	470	15.0
PFDPANEL24Ah	253	120	630	25.7
PFDPANEL48Ah	400	170	800	56.5

Order Codes

LED Control Panel	Maximum Loading Per Panel	
Central Battery Control Panel 12Ah Capacity	2.9A	PFDPANEL12AH
Central Battery Control Panel 24Ah Capacity	5.8A	PFDPANEL24AH
Central Battery Control Panel 48Ah Capacity	11.6A	PFDPANEL48AH

Note: Refer to website for Pathfinder loading charts

To Specify

Central battery, central test LED emergency lighting system. Fully addressable LED emergency lighting points. Control unit with programmable interface – as Whitcroft Lighting PATHFINDER

Programming Device

- An intelligent connection stick that programmes and saves the Pathfinder Panel device configuration
- Supplied with programming software (CD-ROM) to enable amendments to the device configuration using Microsoft Windows (7, XP or Vista)
- Can store and print logbooks from devices



Order Codes

Programming Device

PFDSTICK

3 Phase Monitor Relay

- Three phase monitor
- Detects phase or circuit failures in general lighting sub-distribution panels with volt free failure indication contact
- LED indication for L1, L2 and L3
- Monitoring low voltage and mains failure in three phase systems
- Voltage – 230V/400V AC 50/60 Hz
- To be installed in accordance with BS5266/EN50172



Order Codes

3 Phase Monitor Relay

PFD3PMONITOR

Integral Pathfinder LED Head

- An integral luminaire LED head with threaded body and lock nut for ease of installation
- Supplied complete with driver
- Small, discrete and high performing LED head
- Aluminium heat sink integrated in head
- 18mm diameter and 110° beam angle



Order Codes

NB: Product is supplied within a luminaire and not individually. To specify this product within a luminaire please consult our Technical Desk.

Mimic Panel

- A control monitoring device for external status and failure indication of upto 16 Pathfinder control panels (page 236)
- Manual and automatic function and battery duration test can be activated centrally at definable intervals
- Displays status of all connected Pathfinder control panels
- A central monitoring device for up to 16 Pathfinder panels.
- Includes:
 - One interface card for the connection of 8 Pathfinder control panels
 - A second interface card for a further 8 panels is available (supplied separately)
 - One button control
 - 4 volt-free contact, one of which can be programmed
 - 3 status LEDs
 - Central reset
 - Central blocking function
 - Connection by 3 wire bus cable



Order Codes

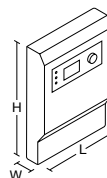
Mimic panel with 1 interface card for up to 8 Pathfinder control panels

PFDMIM

Additional interface card to enable expansion to up to 16 Pathfinder control panels

PFDINTCARD

Dimensions



Version	W	H	D	KG
PFDMIM	186	230	38	0.8

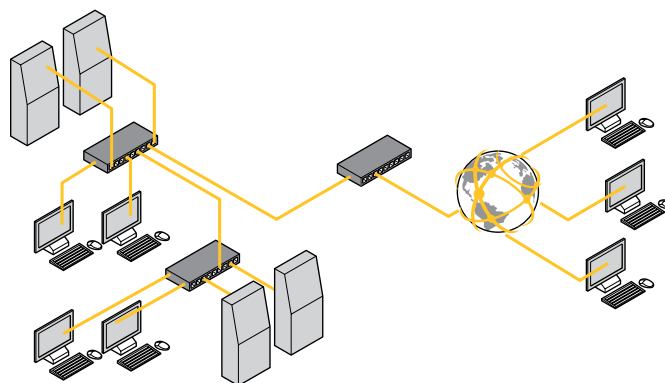
Web Control Software

- To centrally control and monitor up to 99 Pathfinder Control Panels via the Internet/Intranet remotely
- To be installed on a PC with Ethernet access and Windows XP, Vista or Windows 7

Functionality

- Automatic function/battery duration test
- Logbook function for all connected devices
- Email automatically sent at definable intervals in the event of tests or faults
- Overall status displayed (of all systems) by an icon on the task bar

Internal or External Control



Order Codes

Web control software

PFDWEBCS

Optics

- High performance, LED emergency luminaires supplied complete with driver
- Recessed - Open area, escape route and IP68 options available
- Surface Mounted - Open area, escape route options available
- Robust, compact and low energy solution

Body

- Cast aluminium body with integral heat sink
- Powder coated white or silver options
- Spring retaining clips for ceilings up to 16mm
- Input voltage 24V DC
- Supplied complete with driver
- Current consumption: 0.14A

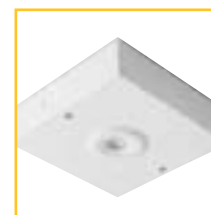
Note: LED heads can only be used as part of a Pathfinder system



Escape Route Head



IP68 Head



Surface Mounted

Order Codes

LED Head

Recessed Emergency LED Silver Body – 3W

PFDRELEDS

Recessed Emergency LED White Body – 3W

PFDRELEDW

Surface Mounted Emergency LED Silver Body – 3W

PFDRELEDSSM

Surface Mounted Emergency LED White Body – 3W

PFDRELEDWSM

Escape Route LED Head

Recessed Emergency LED Silver Body – 3W

PFDCELEDS

Recessed Emergency LED White Body – 3W

PFDCELEDW

Surface Mounted Emergency LED Silver Body – 3W

PFDCELEDSSM

Surface Mounted Emergency LED White Body – 3W

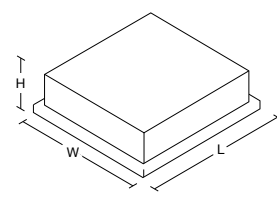
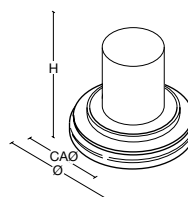
PFDCELEDWSM

IP68

Recessed Emergency LED Silver Body IP68 – 3W

PFDRELEDS/IP68

Dimensions



Recessed	Ø	H	CAØ	KG
LED Head	55	50	46	0.1
Escape Route	55	25	46	0.1
IP68	31	53	26	0.1

Surface mounted	L	W	H	KG
LED Head	140	140	42	0.53
Escape Route	140	140	42	0.53

Performance Guide Spacing Table



LED Head

Mounting height	Distance from wall	Distance between heads
2.50	2.40	5.60
3.00	2.60	5.80
4.00	3.10	7.00

Escape Route LED Head

Mounting height	Distance from wall	Distance between heads
2.50	4.60	10.90
3.00	4.90	12.10
4.00	4.20	12.20

To Specify

Central battery, central test LED emergency lighting system. Fully addressable LED emergency lighting points. Control unit with programmable interface – as Whitecroft Lighting PATHFINDER

Optics

- 16 or 22m viewing distance options
 - 16m – 4 x 0.5W LEDs
 - 22m – 6 x 0.5W LEDs
- LEFT, RIGHT, UP and DOWN printed acrylic legend panel to be ordered separately

Body

- Extruded aluminium body housing electronics and LEDs
- Three mounting options:
 - Ceiling
 - Wall
 - Suspended (Supplied with 1m wire suspension kit)
- Input voltage 24V DC
- Supplied complete with driver
- Current consumption:
 - 16m: 0.1A
 - 22m: 0.125A

Note: LED exit sign can only be used as part of a Pathfinder system

Order Codes

LED Exit Sign 16m

4 x 0.5W LED	Ceiling Mounted	PFDCEILING
4 x 0.5W LED	Wall Mounted	PFDWALL
4 x 0.5W LED	Suspended	PFDSUSPENDED

Legends

DOWN LEGEND	SINGLE SIDED	PFDLPSSD
UP LEGEND	SINGLE SIDED	PFDLPSSU
LEFT LEGEND	SINGLE SIDED	PFDLPSSL
RIGHT LEGEND	SINGLE SIDED	PFDLPSSR
DOWN LEGEND	DOUBLE SIDED	PFDLPDSD
UP LEGEND	DOUBLE SIDED	PFDLPDSU
TO SIDE LEGEND	DOUBLE SIDED	PFDLPDST

Note: Legends to be ordered separately

Options

22m version	Add suffix /22M	i.e. PFDCEILING/22M
22m version (LEGENDS)	Add suffix /22M	i.e. PFDLPSSD/22M

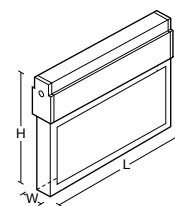


Wall Mount



Ceiling Mount

Dimensions



Version	L	W	H	KG
16m	176	28	134	0.6
22m	256	28	180	0.9

Legends



Up



Down



Left



Right

To Specify

Central battery, central test LED emergency lighting system. Fully addressable LED emergency lighting points. Control unit with programmable interface – as Whitecroft Lighting PATHFINDER

Optics

- 4 x 1W LED
- 22m viewing distance
- LEFT, RIGHT, UP and DOWN printed acrylic legend panel to be ordered separately

Body

- Brushed stainless steel body housing LEDs and electronics
- Three mounting options:
 - Ceiling
 - Wall
 - Suspended (Supplied with 1m wire suspension kit)
- Input voltage 24V DC
- Supplied complete with driver
- Current consumption: 0.2A

Note: LED architectural exit sign can only be used as part of a Pathfinder system



Order Codes

Architectural Exit Sign

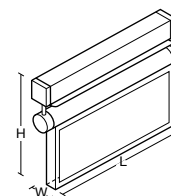
4 x 1W LED	Ceiling Mounted	PFDCEILING/ARCH
4 x 1W LED	Wall Mounted	PFDWALL/ARCH
4 x 1W LED	Suspended	PFDSUSPENDED/ARCH

Legends

DOWN LEGEND	SINGLE SIDED	PFDARCHSSD
UP LEGEND	SINGLE SIDED	PFDARCHSSU
LEFT LEGEND	SINGLE SIDED	PFDARCHSSL
RIGHT LEGEND	SINGLE SIDED	PFDARCHSSR
DOWN LEGEND	DOUBLE SIDED	PFDARCHDSD
UP LEGEND	DOUBLE SIDED	PFDARCHDSU
TO SIDE LEGEND	DOUBLE SIDED	PFDARCHDST

Note: Legends to be ordered separately

Dimensions



L	W	H	KG
286	55	231	1.95

Legends



Up



Down



Left



Right

To Specify

Central battery, central test LED emergency lighting system. Fully addressable LED emergency lighting points. Control unit with programmable interface – as Whitecroft Lighting PATHFINDER

Optics

- 22m viewing distance
- 3 x 1W LEDs
- LEFT, RIGHT, UP and DOWN acrylic legend panel to be ordered separately

Body

- Brushed steel body finished silver
- Housing has adjustable arms to simplify installation
- Smaller than conventional recessed exit signs making installation more attractive
- Supplied complete with driver
- Input voltage 24V DC
- Current consumption: 0.15A

Note: LED recessed exit sign can only be used as part of a Pathfinder system



Order codes

LED Recessed Exit Sign

3 x 1W LED Silver

Ceiling Mounted

PFDRECESSED

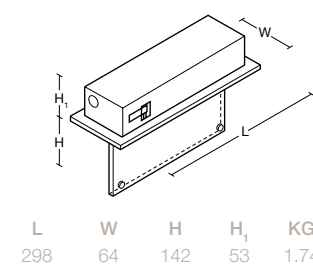
Legends

DOWN LEGEND	SINGLE SIDED
UP LEGEND	SINGLE SIDED
LEFT LEGEND	SINGLE SIDED
RIGHT LEGEND	SINGLE SIDED
DOWN LEGEND	DOUBLE SIDED
UP LEGEND	DOUBLE SIDED
TO SIDE LEGEND	DOUBLE SIDED

PFDRESSD
PFDRESSU
PFDRESSL
PFDRESSR
PFDRESDSD
PFDREDSU
PFDREDST

Note: Legends to be ordered separately

Dimensions



Legends



Up



Down



Left



Right

To Specify

Central battery, central test LED emergency lighting system. Fully addressable LED emergency lighting points. Control unit with programmable interface – as Whitecroft Lighting PATHFINDER

Optics

- 3 x 1W LED
- If used with legend, maximum 30m viewing distance
- Clear or opal polycarbonate or legend cover to be ordered separately

Body

- Slim white polycarbonate body
- IP43
- Cable entry from the top or rear of the product
- Input Voltage 24V DC
- Supplied complete with driver
- Current consumption: 0.125A

Note: IP43 bulkhead can only be used as part of a Pathfinder system



Clear Cover

Order Codes

LED IP43 Exit Bulkhead

3 x 1W LED

Wall Mounted

PFDEXIT/IP43

Legends

DOWN LEGEND

UP LEGEND

LEFT LEGEND

RIGHT LEGEND

CLEAR COVER

OPAL COVER

Note: Legends to be ordered separately

PFDCOVD/IP43

PFDCOVU/IP43

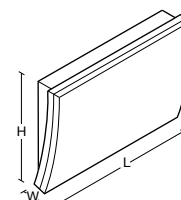
PFDCOVL/IP43

PFDCOVR/IP43

PFDCOVC/IP43

PFDCOVO/IP43

Dimensions



L	W	H	KG
337	72	160	0.6

Legends



Up



Down



Left



Right

To Specify

Central battery, central test LED emergency lighting system. Fully addressable LED emergency lighting points. Control unit with programmable interface – as Whitecroft Lighting PATHFINDER

Optics

- 4 x 1W LED
- If used with legend kit max 22m viewing distance
- Clear polycarbonate diffuser
- Legend kit to be ordered separately if required

Body

- Slim white polycarbonate body
- IP65
- Suitable for ceiling or wall mounting
- Input Voltage 24V DC
- Supplied complete with Driver
- Current consumption: 0.2A

Note: LED IP65 bulkhead can only be used as part of a Pathfinder system



Order Codes

LED IP65 Bulkhead

4 x 1W LED

Wall Mounted

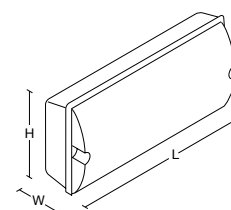
PFDEXIT/IP65

Legends

IP65 Legend Kit

PFDEXIT/IP65LKIT

Dimensions



L	W	H	KG
356	79	136	0.6

Legend Kit



To Specify

Central battery, central test LED emergency lighting system. Fully addressable LED emergency lighting points. Control unit with programmable interface – as Whitecroft Lighting PATHFINDER

pathfinder LED stairwell

LED IP 20

Optics

- 2 x 1W LEDs
- Acrylic diffuser optic
- High output LEDs provide 50,000 hours life expectancy

Body

- Steel and aluminium body housing electronics & LEDs
- Suitable for wall mounting vertically or horizontally
- Input voltage 24V DC
- Supplied complete with driver
- Current Consumption: 0.115A

Note: LED stairwell can only be used as part of a Pathfinder system

Order Codes

LED Stairwell

2 x 1W LED

White

PFDSTAIRW

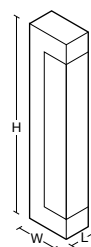
2 x 1W LED

Silver

PFDSTAIRS



Dimensions



L	W	H	KG
30	50	230	0.5

To Specify

Central battery, central test LED emergency lighting system. Fully addressable LED emergency lighting points. Control unit with programmable interface – as Whitecroft Lighting PATHFINDER

pathfinder LED walkway luminaire

LED IP 20

Optics

- Opal or gridded cover available to control light distribution
- 3 x 0.5W LEDs

Body

- Powder coated sheet steel
- Front cover finished white or silver
- Total consumption 0.115A
- Driver included in fitting
- For installation in cavity wall box (included)



Gridded Cover

Order Codes

Safety LED Walkway Luminaire

Opal Cover White

PFDWWOPW

Gridded Cover White

PFDWWGRW

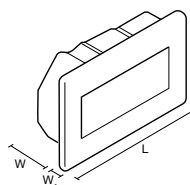
Options

SILVER FINISH

Replace W with S

i.e. PFDWWOPS

Dimensions



L	W	W ₁	H	KG
155	5	75	84	0.5

To Specify

Central battery, central test LED emergency lighting system. Fully addressable LED emergency lighting points. Control unit with programmable interface – as Whitecroft Lighting PATHFINDER

Application

Command Emergency Programmable System (COMEPS) is a DALI based automatic test system that allows the emergency lighting system to be tested over a robust DALI bus. It can be integrated into a total lighting control system along with other devices using the same two wire DALI bus.

The system is designed for organisations seeking an automated, efficient, cost effective and reliable means of meeting the mandatory requirements. The automatic central test systems guarantees regular testing and monitoring of emergency lighting and will reduce the cost of maintenance.

COMEPS can be purchased as a complete system or supplied as individual COMEPS compatible luminaires that can be integrated into other industry standard DALI Emergency Lighting Systems.

Emergency Operation

In any emergency situation when the mains supply fails, or in a test situation where the supply failure is simulated, the COMEPS unit will switch the light source from the normal ballast supply to the emergency inverter supplied from the batteries. COMEPS uses the industry standard IEC 62386 DALI communication protocol and can be commissioned and programmed to conduct duration and frequency emergency testing in line with the requirements of BS EN50172.

Specification

- Compatible with a wide range of Whitecroft's LED and non-LED luminaires
- Single system can monitor and test an unlimited number of luminaires
- Operated over the DALI bus that can be used to control the lighting control system
- Each luminaire has a unique address
- Test schedules can be programmed to suit the occupancy of the building
- Testing times and dates can be easily programmed
- Failures indicated locally at the luminaire and on the central controller
- All tests are automatically recorded and stored

Testing and monitoring

COMEPS is designed to automatically test and monitor the following parameters:

- Battery charging
 - Charging current
 - Battery voltage
- Function test
 - Lamp operation
 - Circuit operation
- Duration test
 - Lamp operation
 - Circuit operation
 - Battery charge capacity

COMEPS system components

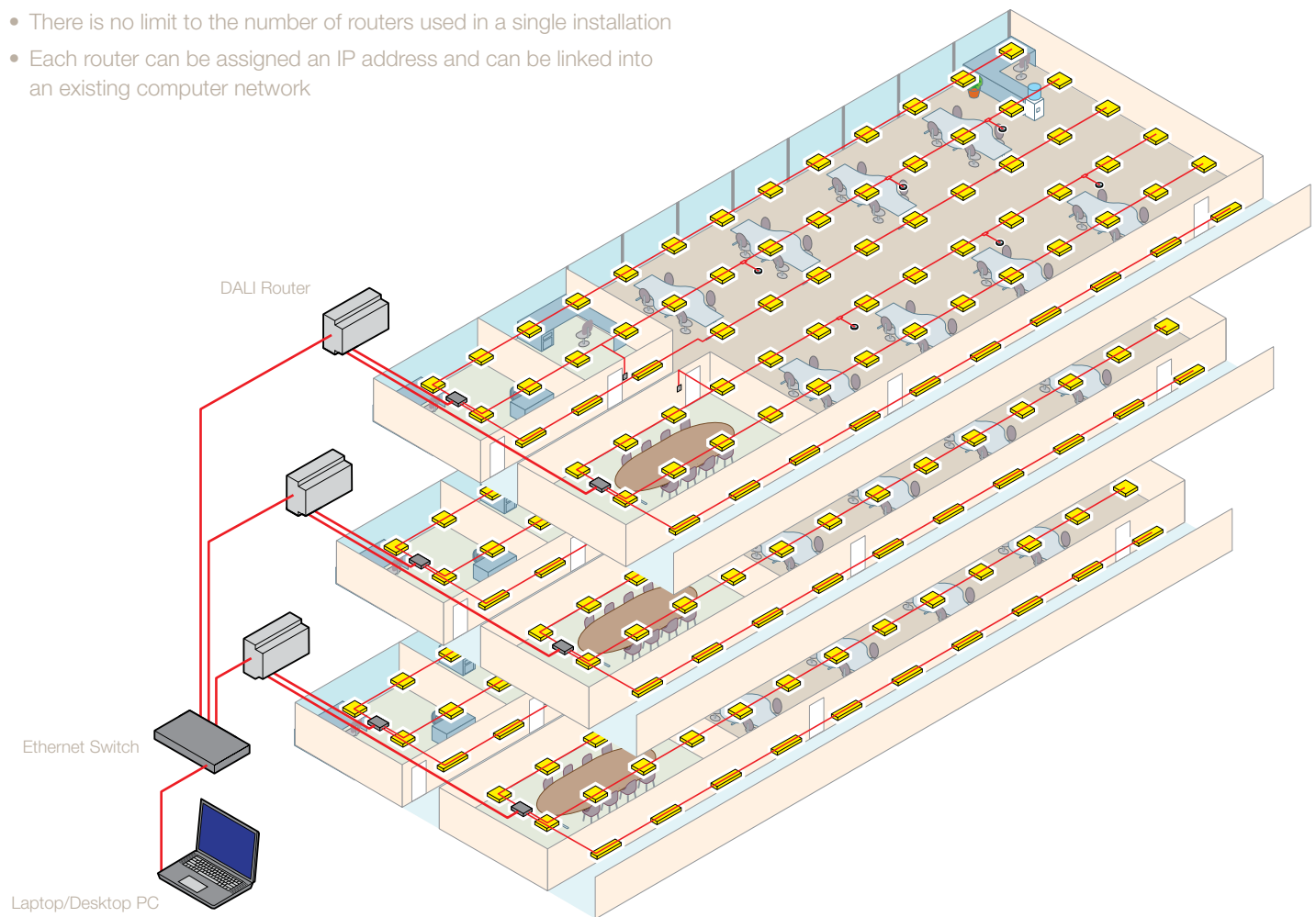
DALI Router

128 Addresses

- The DALI router can address 64 devices on each of 2 channels, giving a wider range than an individual hub.

Scalable

- DALI Routers can be linked together by Ethernet cable
- There is no limit to the number of routers used in a single installation
- Each router can be assigned an IP address and can be linked into an existing computer network



Software Interface

Whitecroft have developed a user friendly interface that provides centralised testing, reporting and simplifies commissioning.



Application

COMMAND EMERGENCY TEST or COMET is designed for organisations seeking an automated, efficient, cost effective and reliable means of meeting the mandatory requirement to conduct and record fully diagnostic tests on emergency lighting installations. Its unique robust communication protocol allows it to monitor up to 16,000 luminaires making it particularly cost effective in larger buildings:

- Commercial offices
- Hospitals
- Education
- Retail stores

Operation

The COMET system will be commissioned at the end of installation so that brief details (22 characters) of every luminaire are recorded against each address. Test schedules will be pre-programmed so that the required tests will automatically take place on dates and times best suited to the occupier. COMET has three levels of test:

Status

A brief check of mains supply, battery charge presence and general electrical conditions.

Functional

An operational test putting the luminaire into emergency lighting mode for a few minutes to assess discharge conditions, light output, battery capacity etc.

Duration

The same tests as 'Functional' but operating the luminaires for the full rated duration to ensure lamp condition at the end of duration.

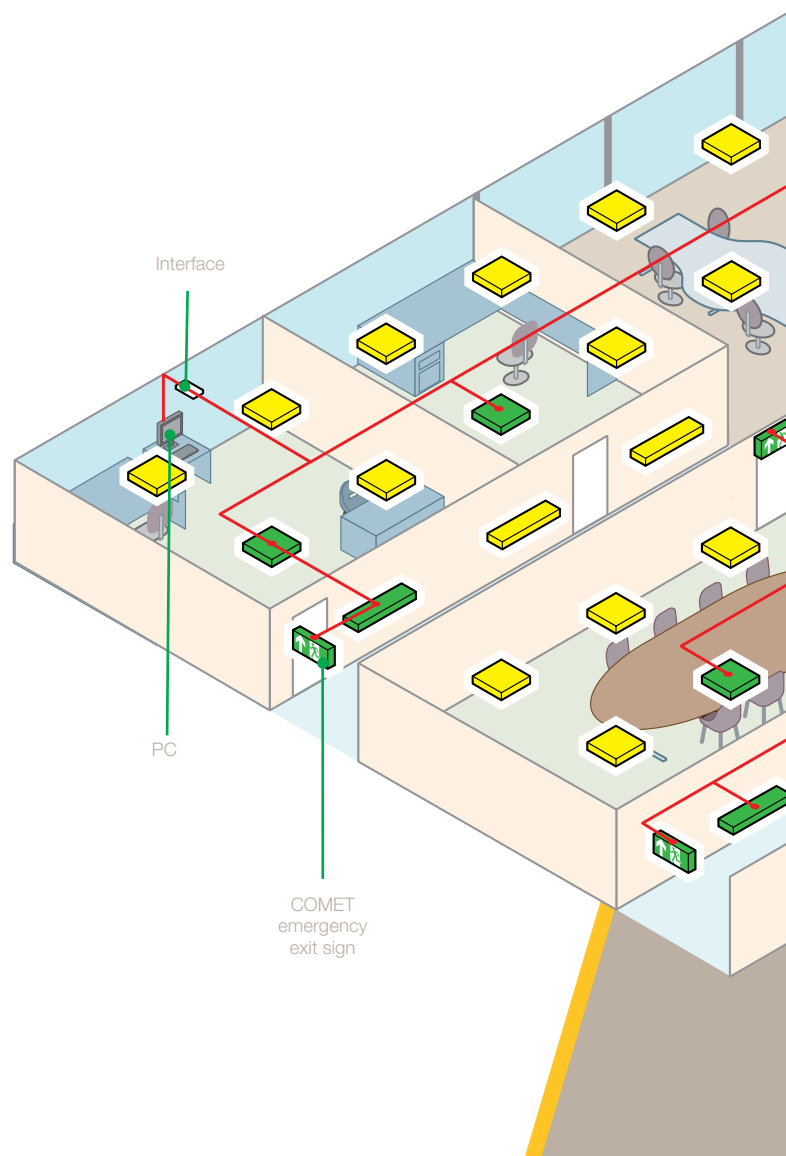
Any of these tests can be utilised at any time but a typical schedule would be to conduct status checks every week, Functional checks every month and duration checks every year in line with the European Standard.

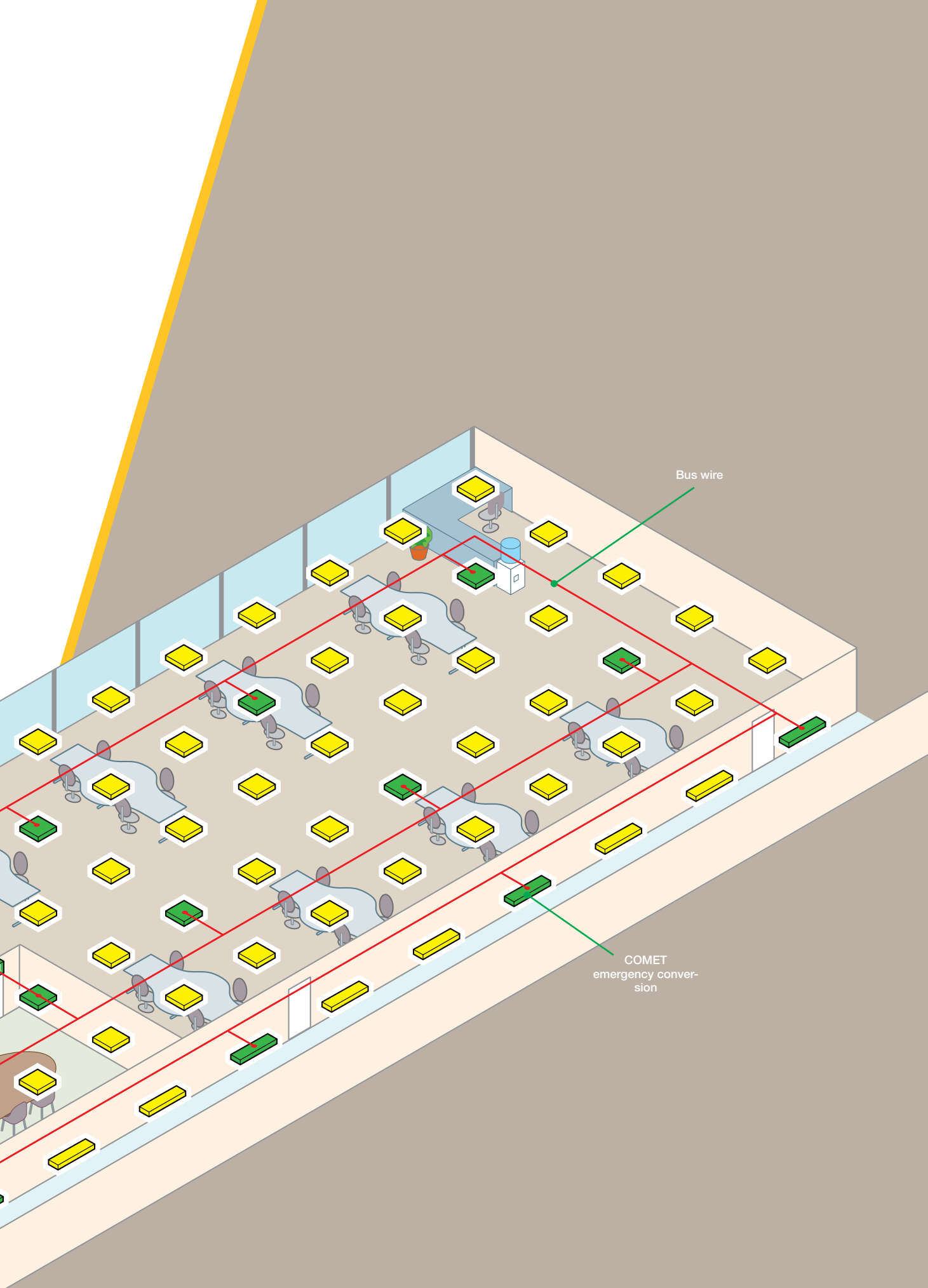
The COMET software allows tests to be carried out on groups of luminaires to avoid all luminaires being discharged at the same time. For example it may be decided to conduct Functional checks on all even numbered addresses at 10.00pm on the 22nd day of every month and on all odd numbered addresses at the same time on the 26th day of every month, then conduct a full Duration test on all luminaires at 1.00am on 31st December every year.

Every test is recorded in a text file for examination by any duly authorised person and the COMET software can be programmed to notify failures in various ways.

Specification

- Designed for all projects using Whitecroft fluorescent emergency luminaires
- Standard PC running Windows
- Single system can monitor up to 16,000 luminaires and different zones can be networked via a modem to a single central control position (recommended for larger projects)
- Simple twisted pair bus cable keeps installation cost low
- Test schedules can be programmed to suit the use and occupancy of any building type
- Each luminaire has unique address and descriptive text file
- Times and dates of tests easily programmed
- Luminaires may be tested individually or in groups
- Failures indicated locally at the luminaire and on the central controller
- All test details are automatically held in a text file





COMET system components

System Components

Central controller and software

Computer; virtually any existing PC running windows can be utilised to operate the COMET testing system. The COMET software works in the background of the Windows operating system and does not restrict the prime functions of the PC. A CIU interface unit is required for communication to the intelligent COMET luminaires and an additional interface unit is required per 1000 extra luminaires. Each interface unit must be connected to the computers I/O ports by an RS232 cable.

Note: PC must be left running at all times.



Interface Units

COMET Interface Units (CIU) are required to allow a computer to communicate with up to 1000 Whitecroft intelligent emergency lighting luminaires.

The CIU's are connected to the computer's I/O ports by RS232 cables and the communication path to the luminaires is made via simple twisted pair cables. Each luminaire has a unique address and the system 'polls' each address in turn. However, the twisted pair communication cables can be connected to luminaires in any order and using any parallel connection (multi spur, loop in/loop out, ring etc).



Intelligent luminaires

Whitecroft can offer most of their wide range of emergency lighting luminaires with COMET intelligent inverters.

Each luminaire will be provided clearly marked with it's unique address number so that details of where it is positioned within a lighting scheme can be noted ready for commissioning.



COMET system components

central automatic
testing

Order Codes

COMET System Components

Standard personal computer available through Whitecroft if required

COMET/PCP

COMET interface unit required with PC installations and supplied with Command software

COMET/CIU

COMET isolator for introduction into the communication wiring breaking the installation into 'zones'

COMET/ISO

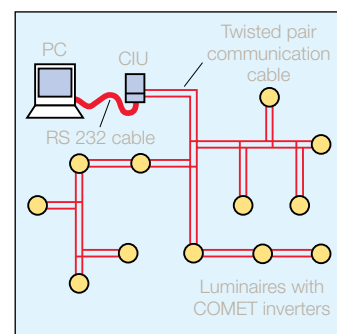
Most Whitecroft Lighting luminaires can be supplied to be suitable for the use with COMET emergency test systems. Please confirm compatibility with the Whitecroft technical department before placing your order.

Note: It is essential that the position and address of every COMET luminaire is recorded during installation. Whitecroft can then arrange a fast and effective commissioning of the system prior to hand over.

Communication Cables

The COMET system uses a very robust low baud communication protocol. There is no requirement for screened communication cables and any twisted pair, sized to minimise volt drop, will be acceptable. Whitecroft recommend 0.75mm² twisted pair (Belden 9407 or equivalent) for installations of up to 1000 luminaires (1000 metres of cable) and 2.5mm² twisted pair (Belden 9412 or equivalent) for larger installations involving long cable runs.

It is also recommended that for large installations COMET ISO data isolators are introduced in the communication cabling to break the installation into zones. This simplifies commissioning and the future addition of further COMET luminaires. Isolators are recommended for every 20 luminaires.



To Specify

Intelligent centralised automated emergency testing system using a simple twisted pair communication bus for conducting and recording fully diagnostic checks on up to 16,000 emergency luminaires. Control via central PC, individual or group testing, programmable to suit the usage and occupation of any type of building – as Whitecroft Lighting COMET

- Designed to operate in conjunction with a wide range of Whitecroft emergency luminaires
- Intelligent testing module for self-contained emergency lighting luminaires
- Emergency luminaire to comply to International Standards EN55015; EN61000; EN50082-2
- Capable of testing automatically to IEC62034
- Fault diagnostics indicating lamp, battery, and charger/inverter module status via supplied LED indicators
- 3 hour emergency durations as standard
- The default system tests luminaires weekly and annually in line with current legislation
- Low cost option to facilitate self test upgrade of luminaire at initial installation stage



Testing Procedure

The following testing procedure meets the recommendations of the latest European Standards including IEC62034

Weekly Test

The mains supply is interrupted at the charger/inverter unit
The lamp is checked for minimum light levels after 30 seconds

Annual Duration Test

The mains supply is interrupted at the charger/inverter unit
The lamp is checked for full rated battery duration

Emergency
Luminaire Status

The luminaire status is indicated as follows:

Status	LED
System okay	Green
Test underway	Flashing Green
Lamp fault	Fast Red
Charger fault	Fast Flashing Red
Battery fault	Slow Flashing Red

Optics

- 3W high output LED delivering 148 (recessed) or 56 (surface) lumens
- Open area and escape route distribution patterns
- Minimum life of 50,000 hours

Body

- White high performance LED emergency head and charge indicator with non-maintained driver, charger and battery
- 3 hour non-maintained
- Ambient temperature range of 0°C to +35°C
- Battery – Nickel Metal Hydride (NiMH)

Recessed

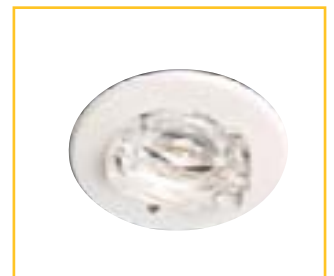
- Articulated plastic housing ensures a neat cut aperture hole and effective installation through fixed ceilings
- Suitable for ceiling thickness of 15-35mm with a minimum ceiling void of 160mm
- Stainless steel spring clips to secure lamp head in position

Surface

- Supplied with two lenses for open area or escape route distribution



Surface Mounting



Escape Route

Order Codes

Florin E3 Recessed

Open area distribution	FLE31
Escape route distribution	FLE32

Florin E3 Surface

Open area/escape route distribution	FLS31/EP**
-------------------------------------	-------------------

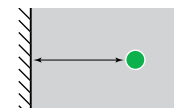
Options

EASYTEST	Add suffix /ET	i.e. FLE31/ET
COMEPS	Add suffix /EP	i.e. FLE31/EP
CENTRAL BATTERY	Add suffix /CB	i.e. FLE31/CB*

*Not available with surface Florin E3

**When not connected to the DALI system will operate as Easytest

Performance Guide Spacing Table (recessed version)



Open Area LED Head (0.5 Lux)

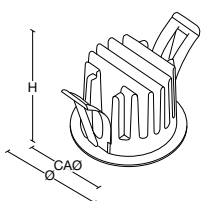
Mounting height	Distance from wall	Distance between heads
2.5	5.2	12.6
3.0	3.4	14.2
4.0	2.0	12.2

Escape Route LED Head (1 Lux)

Mounting height	Distance from wall	Distance between heads
2.5	5.7	15.4
3.0	5.8	16.4
4.0	2.7	11.9

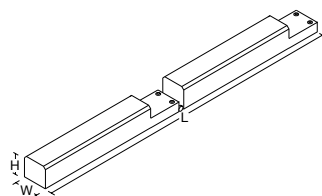
Dimensions

Recessed Florin E3 head

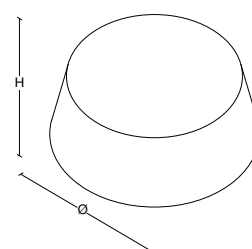


Ø	CAØ	H	W	L	H
50	43	80	29	414	28

Recessed Florin E3 articulated driver



Surface Florin E3 head



Ø	H
120	45

To Specify

Stand alone recessed or surface mounted white high performance LED emergency luminaire, complete with charge indicator, driver, charger and battery, capable of operation in non maintained mode. Driver to ensure constant light output independent of battery voltage for 3 hours from mains failure – as Whitecroft Lighting FLORIN E3

concert EX1S

surface or suspended
LED exit luminaire



Optics

- Power consumption
 - 12W maintained
- 28m viewing distance
- 15 long life white LEDs
- Complete with acrylic legend panel with double sided DOWN arrow screen print as standard
- LEFT, RIGHT and UP directions available to be ordered separately:
 - Simply open the panel blade and insert replacement legend print
- Legends supplied in accordance with BS 5266-1 2011 (ISO7010)

Body

- Wall, flag, ceiling or suspended mounting
- Mounting accessories required for installation to be ordered separately
- Extruded aluminium housing with brushed finish
- Smaller than conventional recessed exit signs making installation look more attractive
- Integral maintained 3 hour emergency lighting control gear
- Complete with Ni-Cd cells

Order Codes

Concert EX1S **3 hr Emergency**
Surface/suspended LED Exit Sign 3 hour maintained **EX1SM/7010**

Options

CEILING MOUNTING BRACKET		EX1SCBRK
WALL MOUNTING BRACKET		EX1SWBRK
END FIXING (FLAG) MOUNTING BRACKET		EX1SEBRK
WIRE SUSPENSION KIT	Adjustable to 1 metre maximum	EX1SWIRE
LEFT/RIGHT LEGEND	(Double sided set)	EX1LR/7010
UP LEGEND	(Double sided set)	EX1U/7010
EASYTEST	Add suffix /ET	i.e. EX1SM/7010/ET
COMEPS	Add suffix /EP	i.e. EX1SM/7010/EP

Note: Mounting brackets and legends to be ordered separately

Legends



Up

Down



Left

Right



Ceiling Bracket



End Fixing Bracket

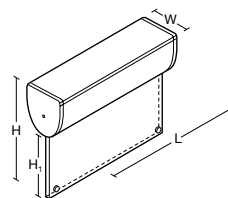


Wall Bracket



Wire Suspension Kit

Dimensions



L	W	H	H ₁	KG
300	50	220	50	1.2

To Specify

Surface or suspended LED exit luminaire with 15 long life LEDs – as Whitecroft Lighting CONCERT EX1S

concert EX1R

recessed LED
exit luminaire



Optics

- Power consumption
 - 12W maintained
- 28m viewing distance
- 15 long life white LEDs
- Complete with acrylic legend panel with double sided DOWN arrow screen print as standard
- LEFT, RIGHT and UP directions available to be ordered separately:
 - Simply open the panel blade and insert replacement legend print
- Legends supplied in accordance with BS 5266-1 2011 (ISO7010)

Body

- Steel body, finished white
- Smaller than conventional recessed exit signs making installation look more attractive
- Housing has adjustable arms to simplify installation
- Integral maintained 3 hour emergency lighting control gear
- Complete with Ni-Cd cells



Order Codes

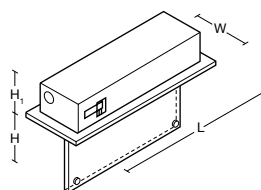
Concert EX1R **3 hr Emergency**
 Recessed LED Exit Sign **EX1RM/7010**
 3 hour maintained

Options

LEFT/RIGHT LEGEND	(Double sided set)	EX1LR/7010
UP LEGEND	(Double sided set)	EX1U/7010
EASYTEST	Add suffix /ET	i.e. EX1RM/7010/ET
COMEPS	Add suffix /EP	i.e. EX1RM/7010/EP

Note: Legends to be ordered separately

Dimensions



L	W	H	H ₁	CAØ	KG
355	112	150	66	350 x 95	1.2

Legends



Up



Down



Left



Right

To Specify

Recessed LED exit luminaire with 15 long life LEDs – as Whitecroft Lighting
 CONCERT EX1R

Optics

- Power consumption
 - 10W maintained
 - 7W non-maintained
- Clear polycarbonate TP(a) lens with linear prisms
- Wide light distribution
- 16 long life white LEDs
- Low tack self adhesive legends to be ordered separately
 - 30 metre viewing distance
- Normal lamp output 90 lumen
- Emergency lamp output 90 lumen
- Legends supplied in accordance with BS 5266-1 2011 (ISO7010)

Body

- High impact polycarbonate tp(a) body finished light grey
- Surface and semi recessed
 - (with semi-recessing bezel kit – to be ordered separately)
- IP54
- 3 hour maintained (may be wired as non-maintained)
- High temperature Ni-Cd battery with constant current charger and LED charge indicator
- Hinged gear tray for easy maintenance
- Cable entry options along the sides and back of the body

Order Codes

Concert Tereo		3 hr Emergency
LED Emergency Bulkhead	3 hour maintained	TERNM3

Options

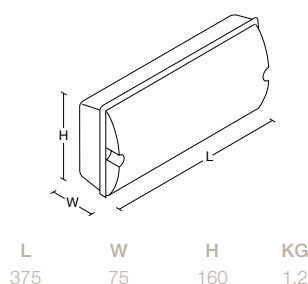
LEFT LEGEND		TER/AL/7010
RIGHT LEGEND		TER/AR/7010
DOWN LEGEND		TER/AD/7010
UP LEGEND		TER/AU/7010
SEMI RECESSING KIT		TER/SRK
EASYTEST	Add suffix /ET	i.e. TERNM3/ET
COMEPS	Add suffix /EP	i.e. TERNM3/EP

Note: Legends to be ordered separately



Semi-Recessing Bezel Kit

Dimensions



Legends



Up



Down



Left



Right

To Specify

Surface / Semi recessed LED bulkhead complete with all polycarbonate tp(a) construction. 3 hour self contained non maintained / maintained. – as Whitecroft Lighting Tereo

concert EX2S

wall mounted LED low
profile exit luminaire



Optics

- Power consumption
 - 10W maintained
 - 7W non-maintained
- 25 metre viewing distance
- 15 long life LEDs within a matrix dot coated reflector system for even illumination
- Complete with acrylic legend panel with down arrow as standard
- Legends supplied in accordance with BS 5266-1 2011 (ISO7010)

Body

- Wall mounted 'picture frame' style slim style steel body
- Wall mounted via key hole slot fixings
- Two part body for ease of installation, cover hooks over the backplate and is simply retained below
- High temperature Ni-Cd battery with constant current charger and LED charge indicator
- 3 hour maintained (may be wired as non-maintained)
- BESA cable entry



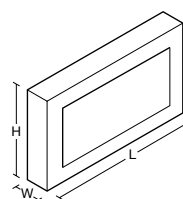
Order Codes

Concert EX2S	Legend	3 hr Emergency
LED Emergency Bulkhead	DOWN	3 hour maintained EX2S/7010
LED Emergency Bulkhead	LEFT	3 hour maintained EX2AL/7010
LED Emergency Bulkhead	RIGHT	3 hour maintained EX2AR/7010
LED Emergency Bulkhead	UP	3 hour maintained EX2AU/7010

Options

EASYTEST	Add suffix /ET	i.e. EX2S/7010/ET
COMEPS	Add suffix /EP	i.e. EX2S/7010/EP

Dimensions



L	W	H	KG
315	30	190	1.4

Legends



Up



Down



Left



Right

To Specify

Surface mounted slim LED 'picture frame' style emergency exit sign
– as Whitecroft Lighting EX2S

egress maxi

decorative low profile
emergency bulkhead



Optics

- Max 40m viewing distance
- Lamp options:
 - 1 x 8W T5
- Screen printed legend panel to be ordered separately
- Opal downlight panel illuminates escape route and door threshold
- Legends supplied in accordance with BS 5266-1 2011 (ISO7010)

Body

- Wall mounted
- Curved folded steel body, finished white
- Circuit Watts 8W (non-maintained), 20W (maintained)
- 3 hour maintained or non-maintained versions
- High temperature Ni - Cd battery with constant current charger and LED charge indicator
- Ambient 0 – 25°C



Order Codes

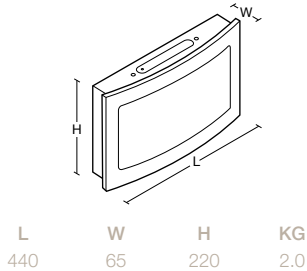
Egress Maxi		3 hr Emergency
T5 1 x 8W	3 hour non-maintained	EMANMF8
T5 1 x 8W	3 hour maintained	EMAMF8

Options

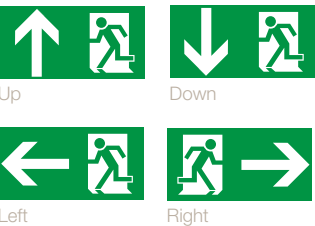
EASYTEST	Add suffix /ET	i.e. EMANMF8/ET
LEFT LEGEND		EMALL/7010
RIGHT LEGEND		EMALR/7010
DOWN LEGEND		EMALD/7010
UP LEGEND		EMALU/7010

Note: Available with COMET. Please refer to our sales office for details

Dimensions



Legends



To Specify

Decorative low profile wall mounted emergency bulkhead with curved folded steel body, finished white – as Whitecroft Lighting EGRESS MAXI



Optics

- Max 27m viewing distance
- Lamp options:
 - 1 x 8W T5
- 8mm thick Perspex legend panels, double sided, to be ordered separately
- Maximum projection below the ceiling 175mm
- Legends supplied in accordance with BS 5266-1 2011 (ISO7010)

Body

- Fully recessed white high grade polycarbonate body mounted in ceiling tile with winged fixings adjustable from below with white lip trim, recess depth 83mm. Light dispersal cover with slot for legend panel
- 3 hour maintained or non-maintained versions
- High temperature Ni - Cd battery with constant current charger and LED charge indicator
- Ambient 0 – 25°C
- Input voltage 230/240V – 50Hz
- Circuit Watts 8W (20W maintained version)



Order Codes

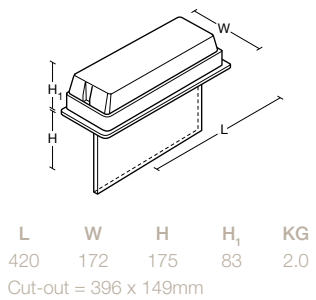
Slot		3 hr Emergency
T5 1 x 8W	3 hour non-maintained	SLOTNMF8
T5 1 x 8W	3 hour maintained	SLOTMF8

Options

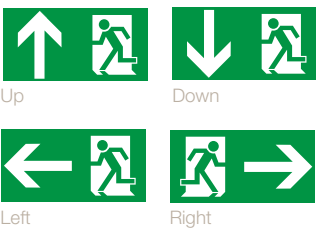
EASYTEST	Add suffix /ET	i.e. SLOTNMF8/ET
COMEPS	Add suffix /EP	i.e. SLOTNMF8/EP
LEFT/RIGHT LEGEND	(double sided)	SLOTLPL/RD/7010
DOWN LEGEND	(double sided)	SLOTLPDD/7010
UP LEGEND	(double sided)	SLOTLPUD/7010

Note: Available with COMET. Please refer to our sales office for details

Dimensions



Legends



To Specify

Recessed 8W T5 IP20 blade exit sign in 3 hour self contained maintained or non-maintained versions. Light dispersal cover with slot for 8mm thick Perspex legend panels, projection below the ceiling <176mm, polycarbonate body recess <83mm mounted in ceiling tile with winged fixings. High temperature Ni-Cd battery with constant current charger and LED charge indicator – as Whitecroft Lighting SLOT



Optics

- If used with legend, Max 22m viewing distance
- Lamp options:
 - 1 x 8W T5
- Clear polycarbonate TP(a) snap fix clear diffuser
- Low tack self adhesive legend to be ordered separately
- Normal lamp output 400 lumens
- Emergency lamp output 100 lumens
- Legends supplied in accordance with BS 5266-1 2011 (ISO7010)

Body

- White polycarbonate body
- Suitable for ceiling or wall mounting
- 3 hour maintained or non-maintained versions
- High temperature Ni-Cd battery with constant current charger and LED charge indicator
- BESA rear cable entry
- Ambient 0 – 25°C
- Circuit Watts 8W (20W maintained version)



Order Codes

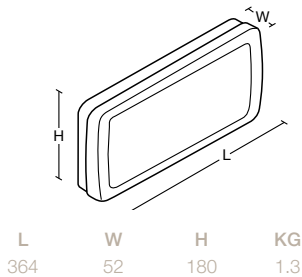
Slice		3 hr Emergency
T5 1 x 8W	3 hour non-maintained	CUTNMF8W
T5 1 x 8W	3 hour maintained	CUTMF8W

Options

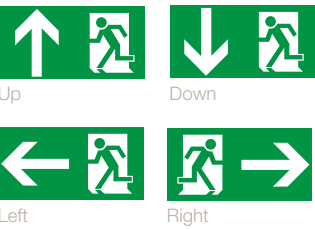
EASYTEST	Add suffix /ET	i.e. CUTNMF8W/ET
COMEPS	Add suffix /EP	i.e. CUTNMF8W/EP
LEFT LEGEND		CUTL/7010
RIGHT LEGEND		CUTR/7010
DOWN LEGEND		CUTD/7010
UP LEGEND		CUTU/7010

Note: Legends to be ordered separately
Available with COMET. Please refer to our sales office for details

Dimensions



Legends



To Specify

All polycarbonate ultra slim IP20 8W T5 indoor emergency bulkhead. Snap fix diffuser. White back body to facilitate first fix installation and wiring with clip in gear and lamp module. 3 hour self contained maintained or non-maintained versions. High temperature Ni – Cd battery with constant current charger and LED charge indicator – as Whitecroft Lighting SLICE

Optics

- Max 30m viewing distance
- Lamp options:
 - 1 x 8W T5
- Screen printed legend panel retained by screw fixed front frame to be ordered separately
- Legends supplied in accordance with BS 5266-1 2011 (ISO7010)

Body

- Rigid white powder coated steel housing and gear and lamp tray. Substantial downlight panels in body designed to give illumination at floor level
- 3 hour maintained or non-maintained versions
- High temperature Ni-Cd battery with constant current charger and LED charge indicator
- Cable entry via knockouts in sides and rear
- Ambient 0° – 25°C
- Circuit Watts 8W (20W maintained version)



Order Codes

Exit		3 hr Emergency
T5 1 x 8W	3 hour non-maintained	SENEXNMF8
T5 1 x 8W	3 hour maintained	SENEXMF8

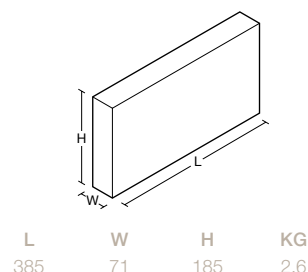
Options

EASYTEST	Add suffix /ET	i.e. SENEXNMF8/ET
COMEPS	Add suffix /EP	i.e. SENEXNMF8/EP
LEFT LEGEND		SENLP/7010
RIGHT LEGEND		SENLP/7010
DOWN LEGEND		SENLPD/7010
UP LEGEND		SENLP/7010

Note: Legends to be ordered separately

Available with COMET. Please refer to our sales office for details

Dimensions



Legends



Up



Down



Left



Right

To Specify

8W T5 IP20, 3 hour self contained maintained or non-maintained emergency exit sign with rigid white powder coated steel body and gear and lamp tray. Screen printed legend panels retained by screw fixed front frame. High temperature Ni-Cd battery with constant current charger and LED charge indicator – as Whitecroft Lighting EXIT



Optics

- If used with legend max 23m viewing distance
- Lamp options:
 - 1 x 8W T5
- Polycarbonate TP(a) screw fixed opal or clear prismatic diffuser with gasket to body
- Low tack self adhesive legend kit
- Normal lamp output 400 lumens
- Emergency lamp output 100 lumens

Body

- White ABS body. Surface and semi-recessed (with light grey semi – recessing bezel) option
- IP65
- 3 hour maintained or non-maintained versions
- High temperature Ni-Cd battery with constant current charger and LED charge indicator
- Cable entries on the side and back of the body
- Ambient 0 – 25°C
- Circuit Watts 8W (20W maintained version)



Order Codes

Opal Diffuser

T5 1 x 8W	3 hour non-maintained	3 hr Emergency	WBUNM3F8
T5 1 x 8W	3 hour maintained		WBUMA3F8

Clear Prismatic Diffuser

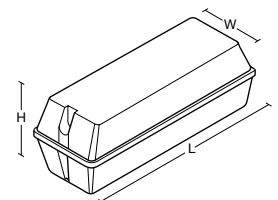
T5 1 x 8W	3 hour non-maintained	3 hr Emergency	WBCNM3F8
T5 1 x 8W	3 hour maintained		WBCMA3F8

Options

EASYTEST	Add suffix /ET	i.e. WBUNM3F8/ET
COMETS	Add suffix /EP	i.e. WBUNM3F8/EP
SELF ADHESIVE LEGENDS KIT		WBULK/7010
SEMI RECESSING BEZEL KIT LIGHT GREY		WBUSRK

Note: Available with COMET. Please refer to our Technical Desk for details

Dimensions



L	W	H	KG
370	135	88	1.2

To Specify

Surface/semi recessed IP65 8W T5, 3 hour self-contained maintained/non-maintained outdoor emergency bulkhead with screw retained opal/clear prismatic diffuser. High grade polymer body finished white. High temperature Ni-Cd battery with constant current charger and LED charge indicator – as Whitecroft Lighting WEATHERPROOF

egress recessed

recessed emergency
luminaire



Optics

- Lamp options:
 - 1 x 8W T5
- Normal lamp output 400 lumens
- Emergency lamp output 100 lumens

Body

- Fully recessed high grade polycarbonate body mounted in ceiling tile with winged fixings adjustable from below with white lip trim, recess depth 70mm
- 3 hour maintained, non-maintained or mains voltage versions
- High temperature Ni-Cd battery with constant current charger and LED charge indicator
- Cable entry locations at rear
- Ambient 0 – 25°C
- Circuit Watts 8W (non-maintained), 20W (maintained) and 12W (mains)



Order Codes

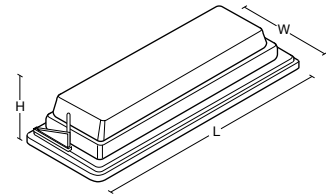
Egress Recessed		3 hr Emergency
T5 1 x 8W	3 hour non-maintained	EGRXNMF8
T5 1 x 8W	3 hour maintained	EGRXMF8
T5 1 x 8W	mains voltage	EGRXF8

Options

EASYTEST	Add suffix /ET	i.e. EGRXNMF8/ET
COMEPS	Add suffix /EP	i.e. EGRXNMF8/EP

Note: Available with COMET. Please refer to our sales office for details

Dimensions



L	W	H	KG
420	172	83	1.5

To Specify

Fully recessed 8W T5 IP20 emergency luminaire in 3 hour self contained maintained, non-maintained or mains voltage versions. Polycarbonate body recess <70mm mounted in ceiling tile with winged fixings. High temperature Ni-Cd battery with constant current charger and LED charge indicator – as Whitecroft Lighting EGRESS RECESSED



Optics

- If used with legend max 18m viewing distance
- Lamp options:
 - 1 x 8W T5
- Polycarbonate TP(a) snap fix diffuser optic is designed to deliver a directional light distribution
- Low tack self adhesive legend kit can be ordered separately
- Normal lamp output 400 lumens
- Emergency lamp output 100 lumens

Body

- High impact polycarbonate TP(a) body finished white. Surface and semi-recessed (with white semi-recessing bezel) option
- Wall or ceiling mounting (recessed option)
- IP65
- 3 hour maintained, non-maintained or mains versions
- High temperature Ni-Cd battery with constant current charger and LED charge indicator
- Cable entry options on the side and back of body
- Ambient 0 – 25°C
- Circuit Watts 8W (20W maintained version)



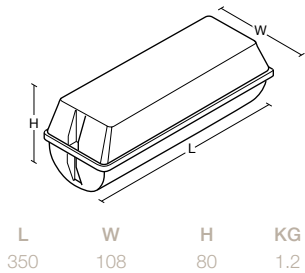
Order Codes

Sentry		3 hr Emergency
T5 1 x 8W	3 hour non-maintained	SENBHNMF8
T5 1 x 8W	3 hour maintained	SENBHMF8
T5 1 x 8W	mains voltage	SENBHMAINSF8

Options

EASYTEST	Add suffix /ET	i.e. SENBHNMF8/ET
SELF ADHESIVE LEGEND KIT		SENLK/7010
RECESSING BEZEL KIT WHITE		SENRK

Dimensions



To Specify

Surface/semi recessed IP65 8W T5, 3 hour self contained maintained/non-maintained indoor emergency bulkhead with snap fix diffuser optic delivering a directional light distribution. High impact polycarbonate body finished white. High temperature Ni-Cd battery with constant current charger and LED charge indicator – as Whitecroft Lighting SENTRY

twin spot

twin beam emergency indoor
lighting for high ceilings



Optics

- Supplied with twin 20W low voltage halogen spots sealed in white plastic housings with clear polycarbonate lenses

Body

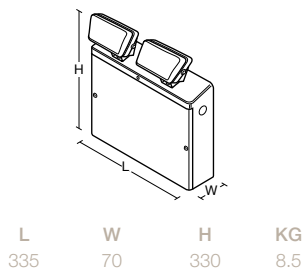
- Lamp projector assembly allows head adjustment in the horizontal and vertical planes. Projector location on the enclosure allows head alignment to meet the anti-glare requirement provided it is mounted at least 30° above the line of sight
- White powder coated steel body with removable front panel for access
- 2 x 12v 7Ah sealed lead acid battery, 3-5 year design life
- Single LED for battery charge monitor and dual lamp filament monitor
- Cable entry via 20mm knock outs
- Ambient 0 – 25°C
- Must be mounted vertically
- Fixing via 4 keyhole points in the back of the body



Order Codes

Twin Spot		
TH 2 x 20W	3 hour non-maintained	SENCT20NM
Options		
EASYTEST	Add suffix /ET	i.e. SENCT20NM/ET
COMEPS	Add suffix /EP	i.e. SENCT20NM/EP

Dimensions



To Specify

Twin 20W TH emergency unit, steel housing and fully adjustable twin spot heads, removable front panel for access. 2 x 12v 7Ah sealed lead acid battery with access panel – as Whitecroft Lighting TWIN SPOT



command elite



COMDRA 272



COMDRG 272



CFLDALIHUB 276



COMD2CR 278



COMPLB 284



COMPLCY 285



COMPLSP4 289



CPDMGAMMA 290



COMRA 296



COMRB 297



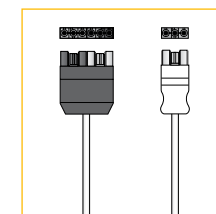
COMRJ 302



CPDMTHETA 303



Accessories 309



Command Fast Link 310

controls



COMDRD 273



COMDRE 273



COMD1 274



COMDPSU 275



COMDSIU 275



COMDS 280



COMDSSC 280



COMDT 281



COMRGY 286



COMPL4 287



COMRCYDO 288



COMPLY 288



COMPLSP10 289



COMPLBC 291



COMPLBCLT 292



COMPLUBT 292



CPDMIHW4/8 293



COMPLINT 293



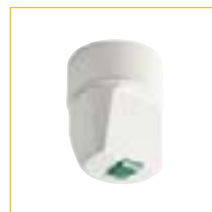
COMRCY 298



COMRGY 299



COMRD 300



COMRE 301



COMRF 302



OPDM 304



CFLHUB 305



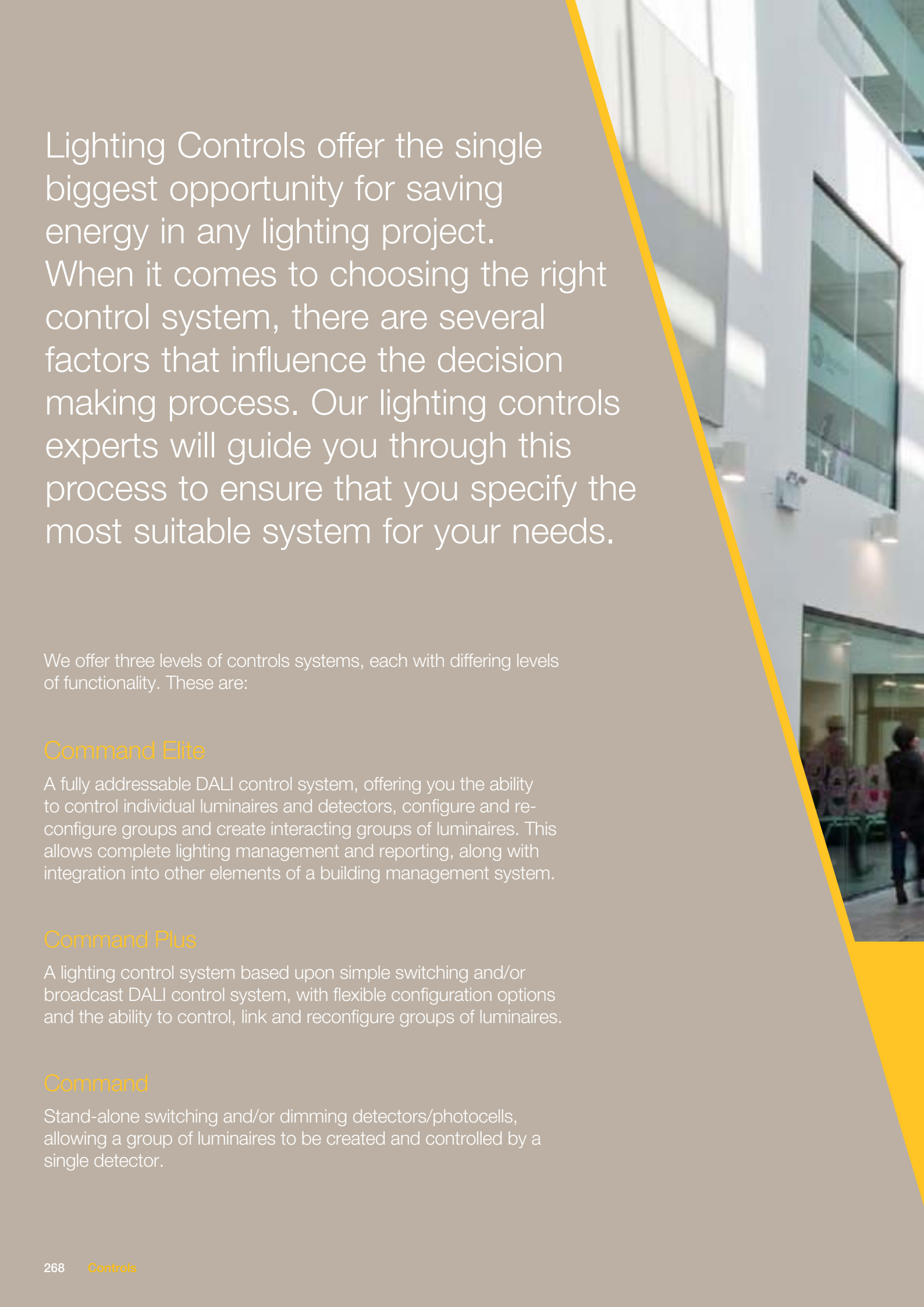
OPDMGAMMA 306



COM3 / COM4 307



COM5 / COM6 308



Lighting Controls offer the single biggest opportunity for saving energy in any lighting project. When it comes to choosing the right control system, there are several factors that influence the decision making process. Our lighting controls experts will guide you through this process to ensure that you specify the most suitable system for your needs.

We offer three levels of controls systems, each with differing levels of functionality. These are:

Command Elite

A fully addressable DALI control system, offering you the ability to control individual luminaires and detectors, configure and re-configure groups and create interacting groups of luminaires. This allows complete lighting management and reporting, along with integration into other elements of a building management system.

Command Plus

A lighting control system based upon simple switching and/or broadcast DALI control system, with flexible configuration options and the ability to control, link and reconfigure groups of luminaires.

Command

Stand-alone switching and/or dimming detectors/photocells, allowing a group of luminaires to be created and controlled by a single detector.



Feature Comparison

	Emergency test & report*	Fully addressable	Programmable corridor linking	Group / Zoning	Scene Setting	Presence / Absence	Photocell regulating controls
Command Elite	✓	✓	✓	✓	✓	✓	✓
Command Plus			✓	✓	✓	✓	✓
Command					✓	✓	✓

* For alternative emergency lighting solutions see emergency section page 228

command elite

A fully addressable DALI control system, offering you the ability to control individual luminaires and detectors, configure and re-configure groups and create interacting groups of luminaires. This allows complete lighting management and reporting, along with integration into other elements of a building management system.

detector selection chart

Detector	Catalogue page number	Mounting type	Detector type	Detector range	Maximum recommended ceiling height	Control method	Detection method	Occupancy type	Off delay x minutes	Daylight hold off	Daylight regulating	Programmable
DALI Addressable PIR Detector COMDRA	272	Recessed/ Surface	360°	Ø 7m @ 2.8m	3m	DALI Addressable	PIR	Presence / Absence	5 - 35 mins	No	No	Yes
DALI Addressable Microwave Detector COMDRG	272	Recessed/ Surface	360°	Ø 16m @ 2.8m	3m	DALI Addressable	Microwave	Presence / Absence	5 - 35 mins	No	No	Yes
DALI Addressable PIR Detector COMDRD	273	Recessed	360°	Ø 4.5m @ 2.5m	3m	DALI Addressable	PIR	Presence / Absence	5 - 35 mins	Yes	Yes	Yes
DALI Addressable Directional Microwave Detector COMDRE	273	Recessed/ Surface	Directional	22m x 6m @ 2.8m	3m	DALI Addressable	Microwave	Presence / Absence	5 - 35 mins	No	No	Yes
Integral DALI Addressable PIR Detector COMD1	274	Integrated	360°	Ø 4.5m @ 2.5m	3m	DALI Addressable	PIR	Presence / Absence	5 - 35 mins	Yes	Yes	Yes

command elite COMDRA

**DALI addressable
PIR detector**

A compact ceiling unit that utilises a passive infra-red detector.

- Designed with springs to push fit into a ceiling
- Presence detection
- DALI consumption 15mA
- Status LEDs
- Programmable light on when occupied and off when empty
- Programmable time out period for when room is vacated



Order Codes

DALI Addressable PIR Detector

Recessed

Surface Mounting Box*

*Sold separately to COMDRA unit

**COMDRA
COMSM1**

Optional Command Fast Link connector

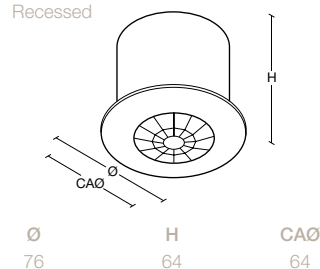
CFL 3 POLE

Add suffix **/CFL3P**

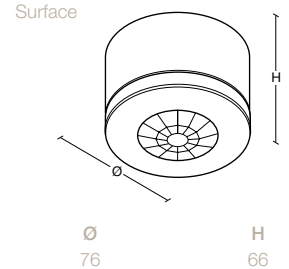
i.e. COMDRA/CFL3P

Dimensions

Recessed



Surface



command elite COMDRG

**DALI addressable
microwave detector**

A compact recessed low profile microwave detector that emits low power microwave signals to detect movement.

- Designed with springs to push fit into a ceiling
- Movement detection with sensitive microwave sensor
- DALI consumption 20mA
- Status LEDs
- Programmable time-out period for when room is vacated



Order Codes

DALI Addressable Microwave Detector

Recessed

Surface Mounting Box*

*Sold separately to COMDRG unit

**COMDRG
COMSM1**

Optional Command Fast Link connector

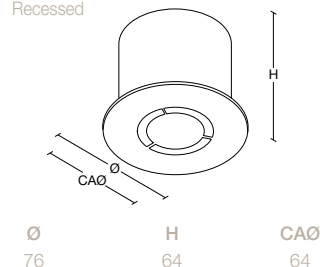
CFL 3 POLE

Add suffix **/CFL3P**

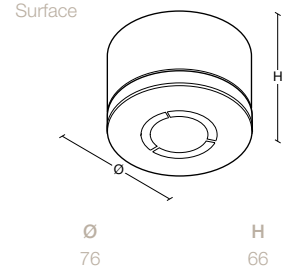
i.e. COMDRG/CFL3P

Dimensions

Recessed



Surface



command elite COMDRD

DALI addressable PIR detector/photocell

The Multisensor is a compact unit containing the necessary sensors to provide energy saving functions. It has constant light sensor, a passive infra-red detector (PIR) and an infra-red receiver for the Infrared Remote.

- Designed to push fit into a ceiling or luminaire housing
- Programmable constant light
- Presence detection
- Control using the hand held remote (COMDSSC)
- Switch-Control input
- DALI power consumption 15mA
- Programmable time out period for when room is vacated



Order Codes

DALI Addressable PIR/Photocell detector
Recessed Mounting

COMDRD

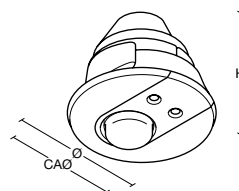
Optional Command Fast Link connector

CFL 3 POLE

Add suffix **/CFL3P**

i.e. COMDRD/CFL3P

Dimensions



Ø
65

H
51.4

CAØ
52

command elite COMDRE

DALI addressable tilting microwave detector

A compact recessed tilting microwave detector that emits low power microwave signals to detect movement. An adjustable sensor head allows the area of detection to be optimised for specific purposes.

- Designed with springs to push fit into a ceiling
- Movement detection with sensitive microwave sensor
- DALI consumption 40mA
- Status LEDs
- Programmable time out period for when room is vacated



Order Codes

DALI Addressable Tilting Microwave Detector

Recessed

COMDRE

Surface Mounting Box*

COMSM2

*Sold separately to COMDRE

Optional Command Fast Link connector

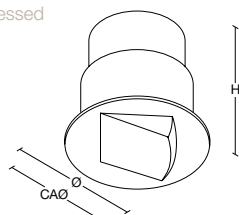
CFL 3 POLE

Add suffix **/CFL3P**

i.e. COMDRE/CFL3P

Dimensions

Recessed

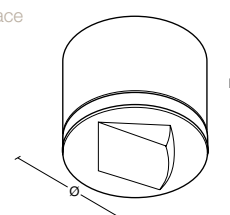


Ø
85

H
92

CAØ
74

Surface



Ø
85

H
94

COMD1

DALI addressable luminaire integrated detector

A compact luminaire based addressable sensor that utilises a passive infra-red detector (PIR), a photocell and an infra-red receiver for use with the infra-red handset (supplied separately).

- Integrated detector
- Regulating photocell ensures minimum maintained light level taking into account the contribution from adjacent luminaires and daylight
- Presence detection
- Control using hand held remote (COMDSSC)
- DALI consumption 10mA
- Mode selector with LED feedback
- Clip on fascias

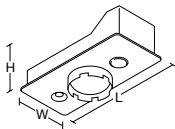


Order Codes

COMD1 DALI Addressable PIR Luminaire Integrated Detector

Product is supplied within a luminaire and not individually. To specify this product within a luminaire please consult our Technical Desk.

Dimensions



L	W	H
58	29	22
Cut out 56.5mm x 26mm		

command elite COMDPSU

DALI power supply

Fully DALI compatible Power Supply Unit, designed to provide the required supply of up to 250 mA, up to 63 devices. Unit is DIN-rail mounted.

- Status LED
- DALI short circuit and over temperature protected

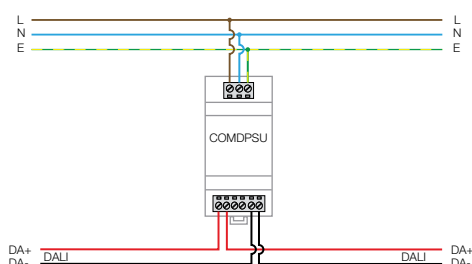
Order Codes

DALI Power Supply
DALI Power Supply

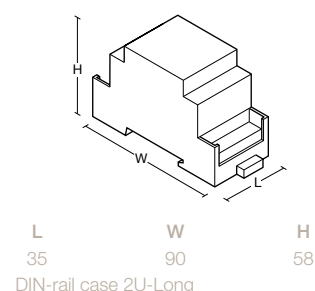
COMDPSU



Connections



Dimensions



command elite COMDSIU

DALI switch input unit

Switch Input Unit is designed to allow customer specified switches, sensors, time clocks or other on/off control devices to be incorporated into a Whitecroft DALI lighting control system. The Switch input Unit is suitable for inclusion into all standard size back boxes together with a suitable mains rated switch.

- Touch dimming with a momentary push switch
- Can be used with momentary or latching switches
- DALI power consumption 10mA

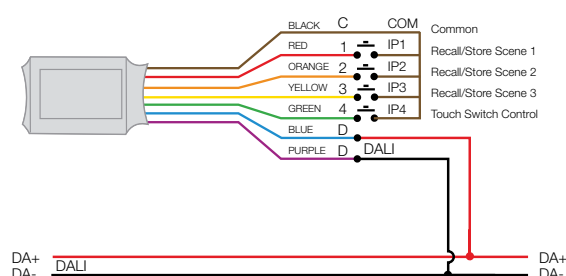


Order Codes

DALI Switch Input Unit
DALI Switch Input Unit

COMDSIU

Connections



The DALI addressable hub can be used in isolation to provide simple control to a localised application such as a classroom or office area. It has the added flexibility of being able to control multiple rooms up to the maximum addresses as detailed below.

- Low profile housing, perimeter mounted connector for mounting in limited void space
- Integrated mounting detail for surface, rod or trunking fixing
- Output connections
 - 4 x 6 pole lighting outputs rated at 6A (16A total maximum load)
- Injection moulded flame retardant housing with mains entry cover and cable retainer
- Integrated DALI power supply

System Guidelines

- Up to 63 addresses per hub (each ballast, detector or switch constitutes 1 address)
- Maximum 300m cable run and 250mA power consumption (typical 2mA per ballast)
- Up to 6A load on each of 4 socket outlets (16A total maximum load)

Simple Wiring

- Enhanced connectivity with CFL wiring components
- Switches and detectors can also be connected with CFL cables

Software Configuration

- Post installation software interface can be used to define dimming zones for daylight harvesting or switching zones

Scene Setting

- Touch button panels can be programmed to control a variety of different scenes by individually addressing each luminaire within the space
- Simple corridor linkage can be programmed so the luminaires stay on at a defined level whilst adjoining areas are occupied
- Multiple lighting levels can be selected from the switch panel
- Switching in 'X' direction and daylight control in 'Y' direction is possible

Order Codes

DALI Hub

DALI Addressable Hub

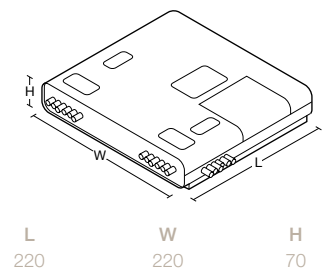
CFLDALIHUB

Command Fast Link

See pages 310 to 314 for a listing of the range of leads and detectors to complete a full Command Fast link plug and play installation. A design service is available, please contact the Whitecroft office for further details.



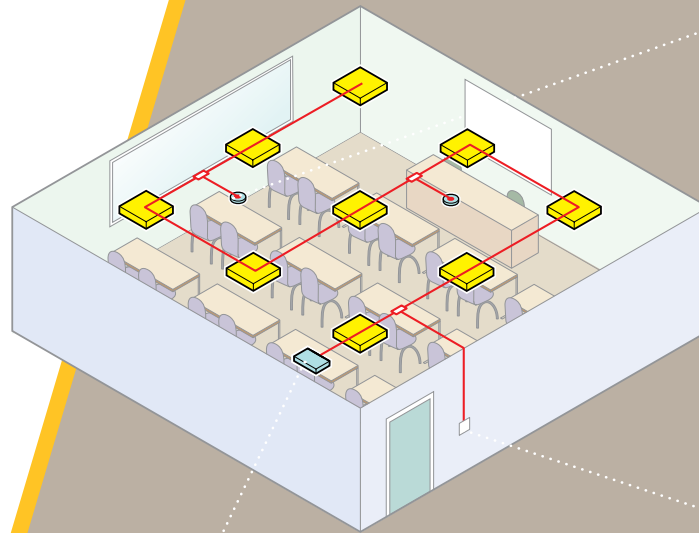
Dimensions



To Specify

DALI Hub with integrated power supply for connection of up to 63 luminaires via 4 separate GST18/6 outputs – as Whitecroft Lighting CFLDALIHUB

Typical single classroom configuration



COMDRD/CFL3P

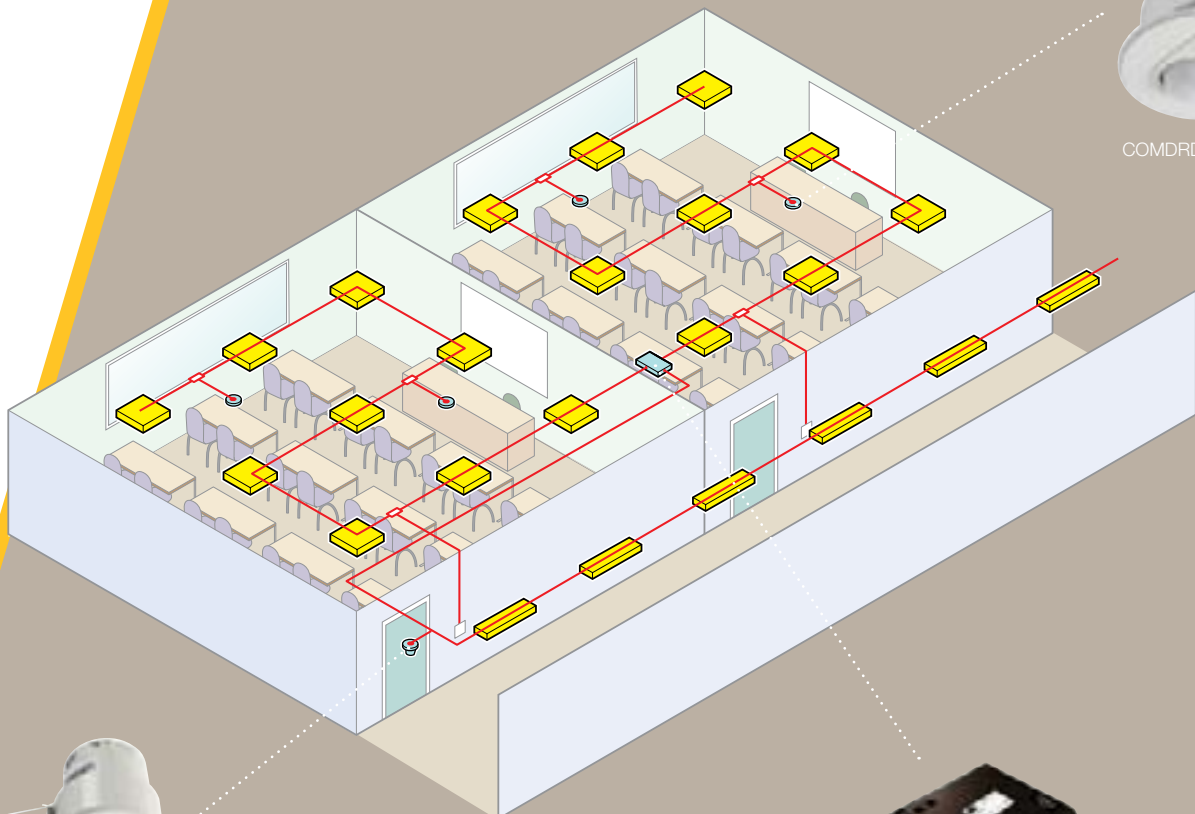


COMDS2W



CFLDALIHUB

Typical multi classroom configuration



COMDRD/CFL3P



COMDRE/CFL3P



CFLDALIHUB

To further expand the flexibility of a DALI lighting control system, a 2 channel router is available. This gives the opportunity to address up to 128 devices up to 500mA maximum from one router and is scalable to meet the needs of the largest installation as multiple routers can be networked.

128 Addresses

- The DALI Router can address up to 64 devices or up to 250mA maximum on each of 2 channels, giving a wider range than an individual hub

Scalable

- DALI Routers can be linked together by Ethernet cable
- There is no limit to the number of routers used in a single installation, making the system infinitely scalable
- Each router can be assigned an IP address and can be linked into an existing ethernet network

Building –wide Flexibility

- Each room can be configured independently for the requirements of the space, from simple PIR functionality for storage areas to complex scene-setting for meeting areas.
- Daylight harvesting can reduce energy consumption in open plan or cellular office environments
- Programming can be from a single point with PC-based software configuration. This can even be achieved remotely

Order Codes

DALI Router

DALI Router

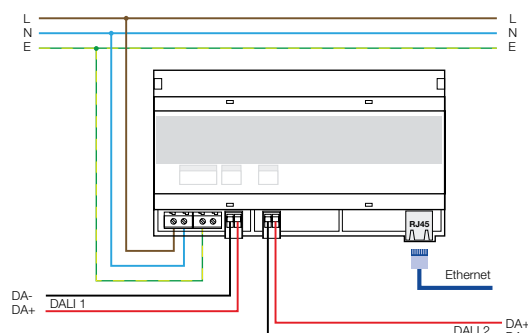
COMD2CR

Interface

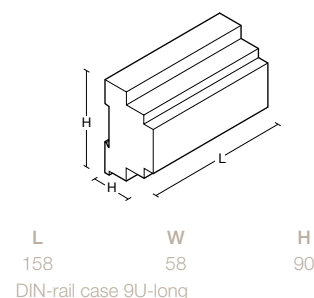
To enable complete control of your Command Elite lighting control system, Whitecroft have developed an on-line electronic interface allowing complete control and reporting from a remote location. This secure system allows you to interrogate and report on individual or groups of luminaires, or indeed any DALI component. Live energy monitoring enables the user to compare instant energy usage with recorded trends, ensuring the most efficient lighting set-up is maintained. Emergency testing can be scheduled and reported automatically, ensuring uninterrupted building use when using DALI emergency luminaires.



Connections



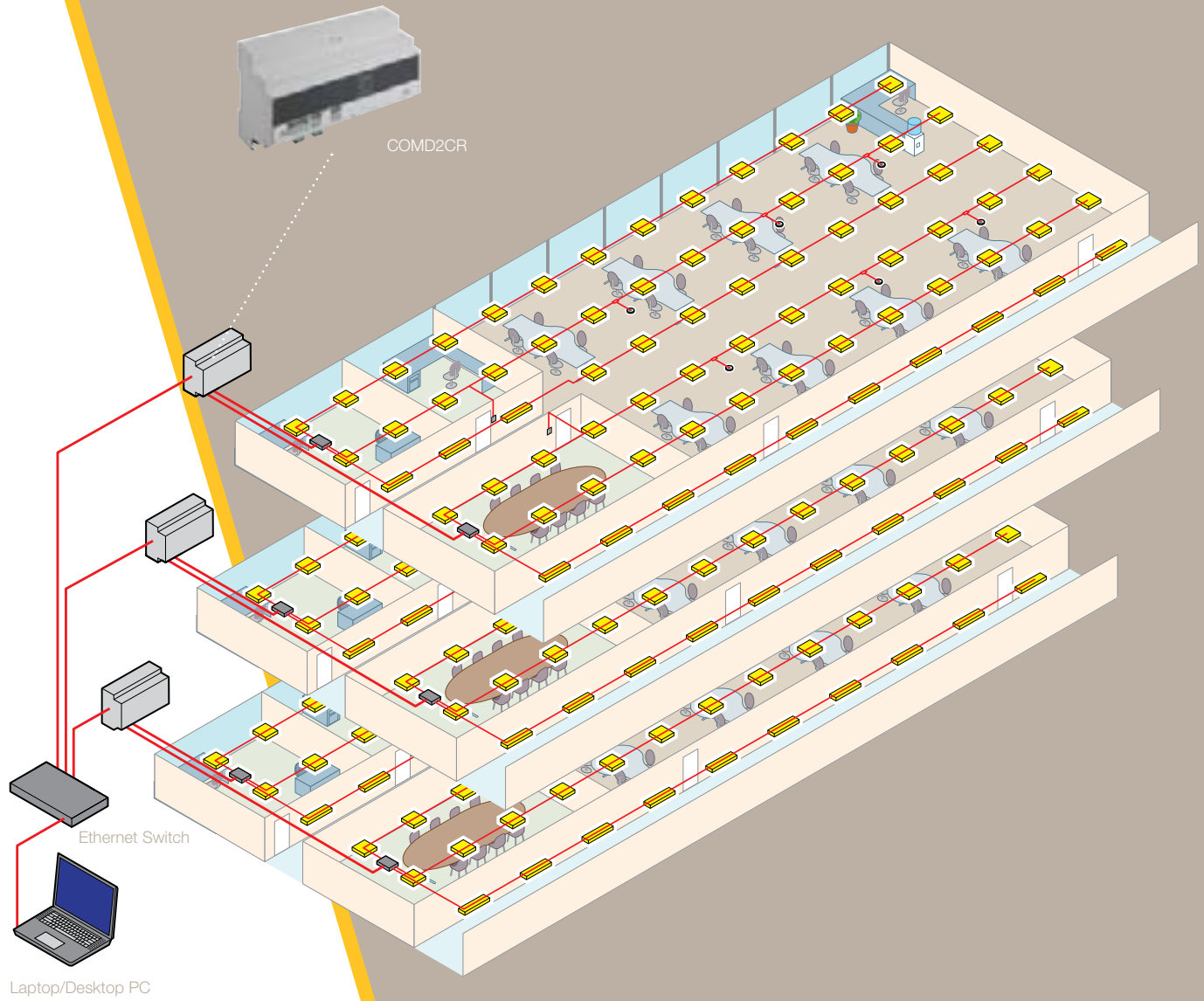
Dimensions



To Specify

DALI Router with 2 off 250mA channels. Din rail mounting and ethernet port for networking – as Whitecroft Lighting COMD2CR

Typical multi floor and room configuration



Modular switch panels are a fully DALI compatible range of user interfaces that allow basic adjustments to the system as well as scene setting.

- Indicator LED and an infrared receiver
- Out of box operation
- Designed to fit both DIN and UK standard back boxes
- DALI power consumption 10mA

Order Codes

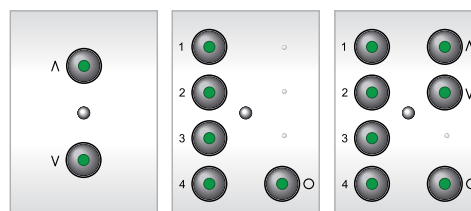
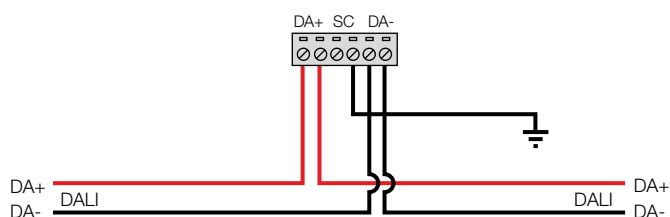
Modular Switch Panels

2 Button – On/Off, Raise/Lower – White	COMDS2W
5 Button – On/Off, 4 Scenes – White	COMDS5W
7 Button – On/Off, Raise/Lower, 4 Scenes – White	COMDS7W
2 Button – On/Off, Raise/Lower – Brushed Stainless Steel	COMDS2S
5 Button – On/Off, 4 Scenes – Brushed Stainless Steel	COMDS5S
7 Button – On/Off, Raise/Lower, 4 Scenes – Brushed Stainless Steel	COMDS7S



COMDS2W White/Brushed Stainless Steel

Connections



Standard Modules

The Infrared remote is a handheld unit that can be used to control basic system functions such as on/off, raising and lowering the general light level and the selection of four scenes.

- On/Off button
- Raise/Lower buttons
- Four scene recall buttons

Order Codes

Handheld Controller

DALI handheld Controller	COMDSSC
--------------------------	---------



The TouchPanel is a 3.5" touch sensitive 65,000 colour LCD screen that can be used for controlling a Command Elite control system.

- Built-in astronomic real time clock
- Automatic scene changing (Sequences and cycles)
- Integral infrared receiver
- Customisable graphics and user language selection
- Requires double gang UK back box

Order Codes

LCD Touch Screen

LCD Touch Screen – White

COMDTW

LCD Touch Screen – Brushed Stainless Steel

COMDTS

Options

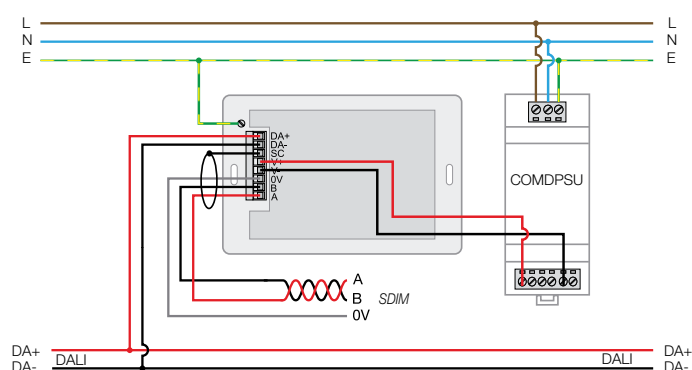
DALI Power Supply

COMDPSU

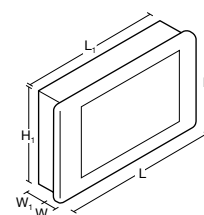
Note – The touch screen needs its own dedicated power supply unit.
Please add COMDPSU for each unit.



Connections



Dimensions



L	W	H	L ₁	W ₁	H ₁
146	6	88	113	29	64

*Requires Double Gang UK back box
(provided in the package)

command plus

A lighting control system based upon simple switching and/or broadcast DALI control system, with flexible configuration options and the ability to control, link and reconfigure groups of luminaires.

detector selection chart

Detector	Catalogue page number	Mounting type	Detector type	Detector range	Maximum recommended ceiling height	Control method	Detection method	Occupancy type	Off delay x minutes	Daylight hold off	Daylight regulating	Programmable	Maximum load
PIR Detector COMPLB	284	Recessed/ Surface	360°	Ø 6m @ 2.5m	3m	switch live	PIR	Presence	5 - 35 mins	Yes	No	Yes	6 amps
Programmable PIR Detector COMPLCY	285	Recessed/ Surface	360°	Ø 6m @ 2.5m	3m	DALI	PIR	Presence / Absence	5 - 35 mins	Yes	Yes	Yes	9 ballasts
Programmable PIR High Bay Detector COMPLCYHB	285	Recessed/ Surface	360°	Ø 16m @ 16m	16m	DALI	PIR	Presence / Absence	5 - 35 mins	Yes	Yes	Yes	9 ballasts
Programmable Microwave Detector COMRGY	286	Recessed/ Surface	360°	Ø 10m @ 2.5m	3m	switch live/ DALI	Microwave	Presence / Absence	5 - 35 mins	Yes	Yes	Yes	6 amps / 25 ballasts
Integrated PIR Detector COMPL4	287	Integrated	360°	Ø 6m @ 2.5m	3m	switch live/ DALI	PIR	Presence / Absence	5 - 35 mins	Yes	Yes	Yes	2 amps or 2 DALI ballasts
programmable PIR Detector / photocell COMRCYDO	288	Recessed/ Surface	360°	Ø 6m @ 2.5m	3m	switch live/ DALI	PIR	Presence / Absence	5 - 35 mins	Yes	Yes	Yes	6 amps / 9 ballasts
Programmable Directional Microwave Detector COMPLEY	288	Surface or Semi Recessed	Directional	20m x 20m rooms and up to 25m corridors	3.5m	switch live/ DALI	Microwave	Presence	5 - 35 mins	Yes	Yes	Yes	10 amps / 25 ballasts

Remote digital fixed output detector for controlling groups of luminaires. With integrated passive photocell and scene setting functionality.

- Recessed or surface mounted
- Switches up to 6A of lighting
- Maximum recommended mounting height 3M
- High frequency
- Maximum range of 6m Ø (based on 2.5m mounting height)
- Universal handheld controller purchased separately (COMSSC)
- Programmed with handheld programmer COMAP (supplied separately)

Order Codes

COMPLB

Command Plus PIR recessed detector

Command Plus PIR surface mounted detector

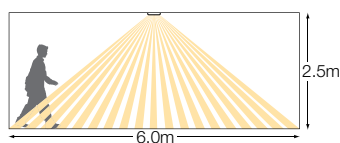
COMPLB

COMPLBSM



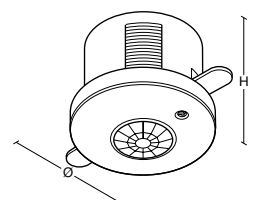
Surface Mounting

Detection Range



Dimensions

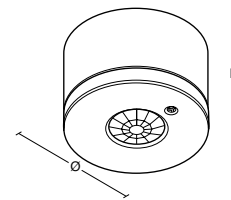
Recessed



Ø 100 H 62 CAØ 89*

* for metal pan or integration into luminaire cut aperture is 92mm

Surface



Ø 100 H 72

Accessories (See Page 309)



Advance Programmer COMAP



Handheld Controller COMHHC and COMSSC

- Programmable DALI broadcast PIR detector
- Recessed or surface mounted
- Standard height or high bay detectors
- For use with heights up to 3m with standard detectors or 16m for high bay
- Photocell
- Scene setting up to 6 scenes
- Universal handheld controller purchased separately (COMSSC)
- Programmed with handheld programmer COMAP (supplied separately)
- Controls up to 2 DALI ballasts (not for use with fixed output HF ballasts)

Order Codes

COMPLCY

Command Plus DALI PIR recessed detector

Command Plus DALI PIR surface mounted detector

Command Plus DALI PIR recessed high bay detector

Command Plus DALI PIR surface mount high bay detector

COMPLCY

COMPLCYSM

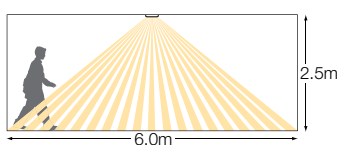
COMPLCYHB

COMPLCYHBSM

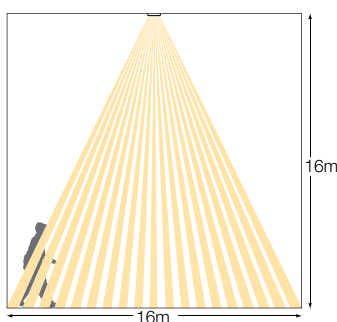


Surface Mounting

Detection Range



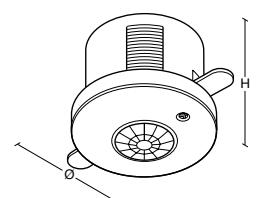
COMPLCY



COMPLCYHB

Dimensions

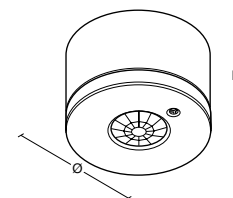
Recessed



Ø 100 H 62 CAØ 89*

* for metal pan or integration into luminaire cut aperture is 92mm

Surface



Ø 100 H 72

Accessories (See Page 309)



Advance Programmer COMAP



Handheld Controller COMHHC and COMSSC

- Uses active microwave presence detection technology
- Ceiling mounted 360° microwave detector
- Recessed or surface mounting
- Switches up to 6A of lighting
- Controls up to 25 DALI ballasts
- Sensitive to respond to very small movements
- Dual circuit control
 - switched output
 - separate DALI broadcast output for photocell control
- Wide angled lens detects movement up to 10m in diameter at 2.6m mounting height
- Measures daylight penetration and dims luminaires accordingly
- Maximum recommended mounting height 3m
- Wall switch override connections for push to make switch to manually control luminaires

Order Codes

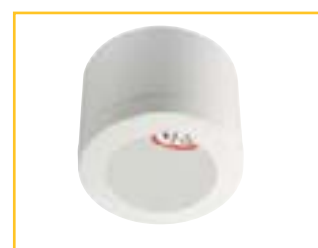
DALI microwave detector

Recessed Mounting

Surface Mounting

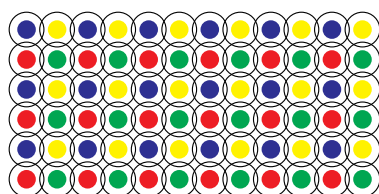
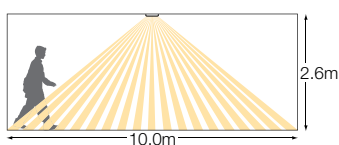
COMRGY

COMRGYSM



Surface Mounting

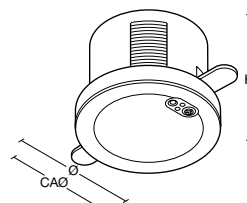
Detection Range



For reliable operation it is essential that units of the same colour code do not occupy adjacent positions in open-plan areas. This is why Whitecroft supplies four variants of the COMRG Detector (Blue/Yellow/Red/Green). Orders are dispatched with a suitable colour code mix.

Dimensions

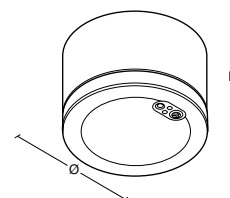
Recessed



Ø	H	CAØ
100	57	89*

* for metal pan or integration into luminaire cut aperture is 92mm

Surface



Ø	H
100	72

Accessories (See Page 309)



Advance Programmer COMAP



Handheld Controller COMHHC and COMSSC

- Integrated detector
- Programmable via the COMAP
- Regulating photocell ensures minimum maintained light level taking into account the contribution from adjacent luminaires and daylight
- Maximum range of 6m Ø (based on 2.5m mounting height)
- Remote switching via hand held controller
- Wall switch override to adjust light level or turn luminaires on or off
- Can control in a master and slave arrangement - contact our Technical Desk for further information
- Controls up to 2 DALI ballasts



Command plus 4



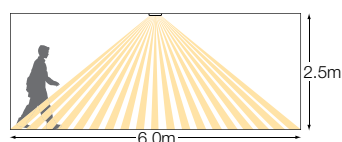
COM4 Louvre Mounted Option

Order Codes

COMPL4 PIR Integrated Detector

Product is supplied within a luminaire and not individually. To specify this product within a luminaire please consult our Technical Desk.

Detection Range



Accessories (See Page 309)



Advance Programmer COMAP



Handheld Controller COMHHC and COMSSC

command plus COMRCYDO

programmable PIR detector/photocell

- Programmable DALI broadcast and switching PIR detector
- Recessed or surface mounted
- Scene setting for up to six scenes
- Maximum range of 6m Ø (based on 2.5m mounting height)
- Maximum recommended mounting height 3m
- Universal handheld controller purchased separately (COMSSC)
- Programmed with handheld programmer COMAP (supplied separately)
- Switches up to 6A of lighting
- Controls up to 25 DALI ballasts



Order Codes

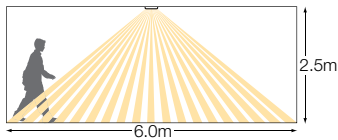
COMRCYDO

Recessed

Surface Mounting

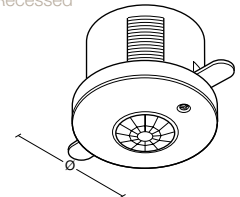
COMRCYDO
COMRCYDOSM

Detection Range



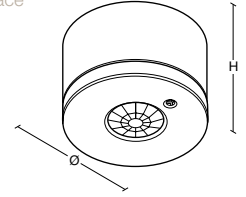
Dimensions

Recessed



Ø 100 H 62 CAØ 89*
* for metal pan or integration into luminaire cut aperture is 92mm

Surface



Ø 100 H 72

command plus COMPLEY

programmable directional microwave detector/photocell

The COMPLEY offers high performance directional presence detection for lighting control. It uses microwave presence detection technology which enables the range to be adjusted to suit any application and has relay and digital dimming outputs.

- Surface mounted mid range microwave presence detector
- Regulating photocell
- Scene setting
- Programmed with handheld programmer COMAP (supplied separately)
- Switches up to 10A of lighting
- Controls up to 25 DALI ballasts

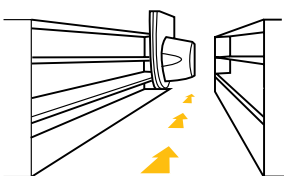


Order Codes

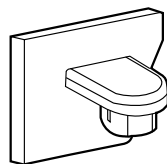
COMPLEY

Command Plus DALI and switching corner mount microwave COMPLEY

Methods Of Wall Mounting

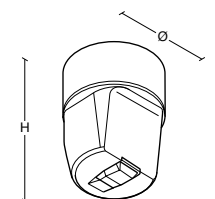


Vertical Mounting



Horizontal Mounting

Dimensions



Ø 74 H 95

command plus COMPLSP10

ten button scene control panel

The COMPLSP10 Scene Switch Panel is used to provide groups of luminaires with scene setting and recall, zone control and communication functions.

- Ten button scene control panel
- Fascia available in brushed stainless steel or white
- To set up to six lighting scenes
- Group dimming
- Fascia must be purchased separately to panel
- Universal handheld controller purchased separately (COMSSC)
- Programmed with handheld programmer COMAP (supplied separately)



Order Codes

COMPLSP10

Command Plus 10 button scene select panel

COMPLSP10

COMPLSP10 FASCIAS

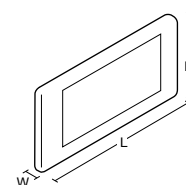
Brushed stainless steel fascia plate

SP10BSS

White fascia plate

SP10WHI

Dimensions



	L	W	H
With fascia	146	4	86

command plus COMPLSP4

four button scene control panel

- Four button scene control panel
- Fascia available in brushed stainless steel or white
- Fascia must be purchased separately to panel
- Counts as two nodes on Command Plus bus
- Commissioned using dip switches on reverse of panel



Order Codes

COMPLSP4

Command Plus 4 button scene select panel

COMPLSP4

FASCIAS

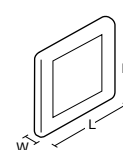
Brushed stainless steel fascia plate

SP4BSS

White fascia plate

SP4WHI

Dimensions



	L	W	H
With fascia	86	4	86

- An intelligent, programmable Lighting Control Module connection hub with 12 luminaire output sockets, 5 detector sockets and 5 override input sockets.
- Available in one of two formats:
 - Programmable Hub with Bus Card
 - Programmable Hub with Bus Card and DALI Dimming Card
- Detectors (supplied separately, requires patch lead for connection to hub):
 - Recessed PIR detector (COMRCGAMMA)
 - Recessed microwave detector (COMRGGAMMA)
 - Corner mounted microwave detector (COMREGAMMA)
 - Luminaire integrated PIR detector (COMPL4GAMMA)
- Universal handheld controller supplied separately (COMDSSC)



Order Codes

CPDMGAMMA	CPDMGAMMAB
Programmable Hub with Bus Card	
Programmable Hub with Bus Card and DALI Dimming Card	CPDMGAMMABY

Detectors	
Recessed PIR for Hub	COMRCGAMMA
Recessed Microwave Detector for Hub	COMRGGAMMA
Corner Mounted Microwave Detector for Hub	COMREGAMMA
Luminaire integrated detector/photocell*	COMPL4GAMMA

Accessories	
3m patch lead for detectors to Gamma Hub	W/BT5E030GY
5m patch lead for detectors to Gamma Hub	W/BT5E050GY
10m patch lead for detectors to Gamma Hub	W/BT5E100GY
Switch input plugs (pack of 5)	W/CDWIP

* Product is supplied within a luminaire and not individually. To specify this product within a luminaire please consult our Technical Desk.

Note: If you do not require this product to be networked please see command section.



COMRCGAMMA



COMRGGAMMA

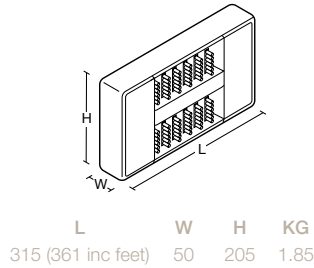


COMPL4GAMMA*



COMREGAMMA

Dimensions



Detector	Ø	H	CAØ	KG
COMRCGAMMA	100	62	89*	0.17
COMRGGAMMA	100	62	89*	0.2
COMREGAMMA	60	95	-	0.13

* for metal pan or integration into luminaire cut aperture is 92mm

The COMPLBC is a digital bus power supply that powers and synchronises the bus for up to 200 devices. It is equipped with a test facility which provides a simple check of the bus integrity and three volt free inputs to enable easy control of complete systems from one centralised location.

Linking of the Bus Power Supply units enables a building wide common zone to be established without the need for additional hardware. Up to 99 COMPLBC Power Supply units can be connected together (per installation) increasing capacity to almost 20,000 devices on a single system.

- Digital bus power supply
- Powers and synchronises the bus for up to 200 devices
- Integrated test facility
- Three volt free inputs
- Operating at 230V
- Power consumption <10W
- IP65



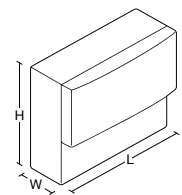
Order Codes

COMPLBC

Command Plus bus power supply

COMPLBC

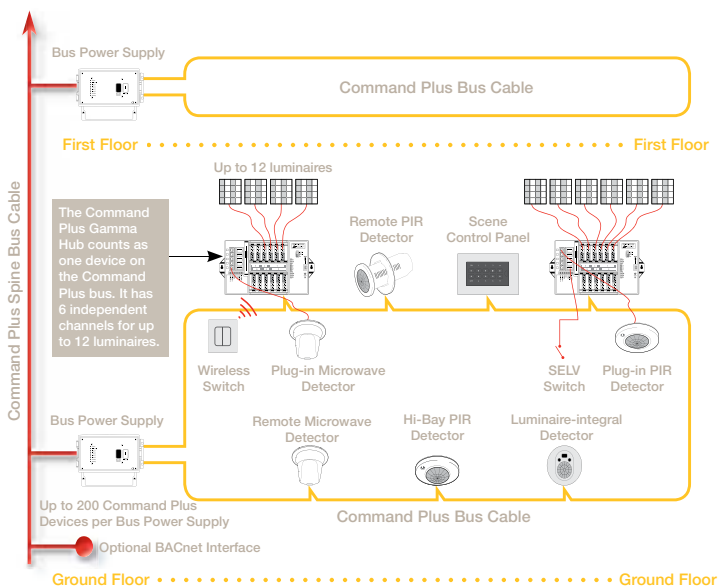
Dimensions



L	W	H
213	117	185

Installation

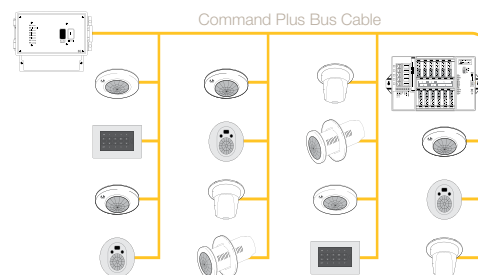
To further Bus Power Supplies (up to 99 in total)



Free bus topology for maximum flexibility

The 2-wire communications bus that connects all the devices so that they can share occupancy information can be run alongside the mains wiring.

The loop arrangement (shown in the example left) is preferred as it enables automatic bus-integrity testing but the bus may also be installed in a 'T' (shown below) or star arrangement.



command plus COMPLBCLT

small area digital
power supply

The COMPLBCLT Digital Power Supply 'Lite' is a low-cost Bus Power Supply for small buildings, or areas with fewer than 100 devices (e.g. presence detectors).

The COMPLBCLT can accept inputs from ordinary wall switches to manually override presence detectors programmed to zones 1 and/or 2.

- Digital bus power supply
- Powers and synchronises the bus for up to 100 devices
- Operating at 230V
- Power consumption <10W
- Switches up to 10A of lighting



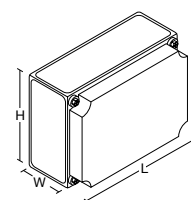
Order Codes

COMPLBCLT

Command Plus bus power supply lite

COMPLBCLT

Dimensions



L	W	H	KG
175	75	125	0.12

command plus COMPLUBT

universal bus
transceiver

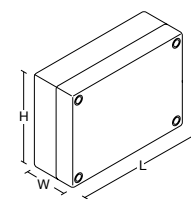
The COMPLUBT Universal Bus Transceiver expands the scope of your controls system by enabling otherwise uncontrolled lighting and non-lighting loads to be brought into the system.

Universal bus transceivers are programmed to respond to signals from the Command Plus bus as part of a zone, common zone and/or building zone and operate in the same way as all of our detectors.

- Enables otherwise uncontrolled lighting and non lighting loads to be brought into a controls system
- Transmits and receives signals to and from the bus
- A boxed enclosure
- Operating voltage 230V 50Hz
- Maximum of 20 DALI ballast load
- Programmed via COMAP (supplied separately)
- Switches up to 10A of lighting



Dimensions



L	W	H	KG
175	75	125	0.12

Order Codes

COMPLUBT

Command Plus universal bus transceiver

COMPLUBT

command plus CPDMHW4/8

programmable intelligent
hard wired hubs

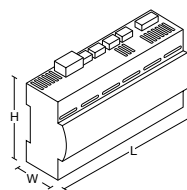
- Programmable intelligent hard wired lighting control modules in either 4 or 8 channel outputs
- Connects multiple luminaires, presence detectors and SELV inputs
- Maximum 18W power consumption
- Operational Supply 230VAC ~50Hz/60Hz

Order Codes

Command Plus 4 port hard wired hub	CPDMHW4
Command Plus 4 port hard wired hub with DALI dimming card	CPDMHW4Y
Command Plus 4 port hard wired hub with communicating card and DALI dimming card	CPDMHW4BY
Command Plus 4 port hard wired hub with communicating card	CPDMHW4B
Command Plus 8 port hard wired hub	CPDMHW8
Command Plus 8 port hard wired hub with DALI dimming card	CPDMHW8Y
Command Plus 8 port hard wired hub with communicating card and DALI dimming card	CPDMHW8BY
Command Plus 8 port hard wired hub with communicating card	CPDMHW8B



Dimensions



Version	L	W	H	KG
CPDMHW4	213	91	62	0.55
CPDMHW8	213	91	62	0.62

command plus COMPLINT

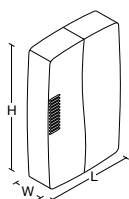
control and
communication interface

- Control and communication interface
- BACnet interface with supervisory and scheduling control
- Command Plus bus to RS485 interface
- Programmable timed event scheduling
- Sharing of occupancy information with the BMS

Order Codes

COMPLINT	
Command Plus control and communication interface	COMPLINT

Dimensions



L	D	H	KG
197	58	321	1.36



command

Stand-alone switching and/or dimming detectors/photocells, allowing a group of luminaires to be created and controlled by a single detector.

detector selection chart

Detector	Catalogue page number	Mounting type	Detector type	Detector range	Maximum recommended ceiling height	Control method	Detection method	Occupancy type	Off delay x minutes	Daylight hold off	Daylight regulating	Programmable	Maximum load
PIR Detector COMRA	296	Recessed	360°	Ø 6m @ 2.5m	3m	Switch live	PIR	Presence	20 mins	Yes	No	No	6 amps
PIR Detector without Photocell COMRAU	296	Recessed/ Surface	360°	Ø 6m @ 2.5m	3m	Switch live	PIR	Presence	20 mins	No	No	No	6 amps
Programmable PIR Detector COMRB	297	Recessed/ Surface	360°	Ø 6m @ 2.5m	3m	Switch live	PIR	Presence	5 - 35 mins	Yes	No	Yes	6 amps
Dual Circuit Programmable PIR Detector COMRBDC	297	Recessed/ Surface	360°	Ø 6m @ 2.5m	3m	1 x switch live and 1 x volt free	PIR	Presence	5 - 35 mins	Yes	No	Yes	6 amps
programmable PIR Detector COMRCY	298	Recessed/ Surface	360°	Ø 6m @ 2.5m	3m	DALI	PIR	Presence / Absence	5 - 35 mins	Yes	Yes	Yes	9 ballasts
Directional Ultrasonic Detector COMRD	300	Surface or Semi Recessed	Directional	10m x 10m rooms and up to 15m corridors	5m	Switch live	Ultrasonic	Presence	5 - 15 mins	Yes	No	Manual	10 amps
Directional Microwave Detector COMRE	301	Surface or Semi Recessed	Directional	20m x 20m rooms and up to 25m corridors	3.5m	Switch live	Microwave	Presence	10 sec - 20 mins	Yes	No	Manual	10 amps
Programmable Directional Microwave Detector COMREY	301	Surface or Semi Recessed	Directional	20m x 20m rooms and up to 25m corridors	3.5m	switch live/ DALI	Microwave	Presence / Absence	5 - 35 mins	Yes	Yes	Yes	10 amps/ 25 ballasts
Long Range Microwave Detector COMRF	302	Surface	Directional	30m/ 60m	6m	switch live	Microwave	Presence / Absence	0 - 16 mins	No	No	Manual	10 amps
Programmable Photocell COMRJ	302	Recessed	NA	NA	6m	switch live/ DALI	NA	NA	NA	Yes	Yes	Yes	6 amps/ 25 ballasts
Integrated PIR Detector COM3	307	Integrated	360°	Ø 6m @ 2.5m	3m	DALI	PIR	Presence	5 - 35 mins	Yes	Yes	Yes	1 DALI ballast
Integrated PIR Detector COM4	307	Integrated	360°	Ø 6m @ 2.5m	3m	switch live/ DALI	PIR	Presence / Absence	5 - 35 mins	Yes	Yes	Yes	2 amps or 2 DALI ballasts
Programmable Microwave Detector COMRGY	299	Recessed/ Surface	360°	Ø 10m @ 2.5m	3m	switch live/ DALI	Microwave	Presence / Absence	5 - 35 mins	Yes	Yes	Yes	6 amps/ 25 ballasts

- Uses passive infra red detection technology
- For recessed or surface mounting 360° detector
- Off delay of 20 minutes from last observed movement
- 10 second walk test mode
- Switches up to 6A of lighting
- Maximum range of 6m Ø (based on 2.5m mounting height)
- Maximum recommended mounting height 3m
- Photocell measures daylight penetration and holds off luminaires if adequate daylight is present (COMRA only)
- Remote switching via hand held controller (COMHHC)
- Recessed version supplied complete with 3m lead
- 'THETA' hub detector supplied with 3m lead and 7 way plug for connection to CPDMTHETA (see page 303)



Order Codes

PIR Detector with Photocell

Recessed

Recessed THETA

COMRA
COMRATHETA

PIR Detector without Photocell

Recessed

Surface Mounting

COMRAU
COMRAUSM

Options

Plasterboard Fixing Kit

COMPB

Optional Command Fast Link Connector

CFL 4 POLE

Add suffix /CFL4P

i.e. COMRA/CFL4P

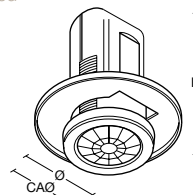
CFL 6 POLE

Add suffix /CFL6P

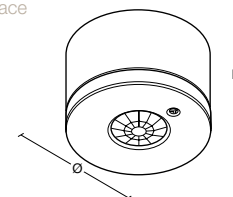
i.e. COMRA/CFL6P

Dimensions

Recessed



Surface

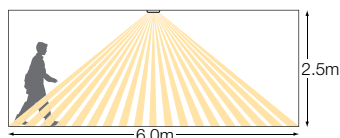


Version	Ø	H	CAØ
Recessed	65	115	50*
Recessed THETA	65	115	64

Ø	H
100	72

* When using CFL 6 Pole CAØ on recessed version is 64

Detection Range



Accessories (See Page 309)



Handheld Programmer COMPTC for COMRA Photocell Programming only



Handheld Controller COMHHC

- Uses passive infra red detection technology
- For recessed or surface mounting 360° detector
- Programmable via the COMPTC programmer
- Variable off delay of between 5 - 35 minutes from last observed movement including 10 second walk test mode
- Switches up to 6A of lighting
- Maximum range of 6m Ø (based on 2.5m mounting height)
- Maximum recommended mounting height 3m
- Photocell measures daylight penetration and switches luminaires dependant upon natural light level
- Dual circuit option -
1 x switched-live and 1 x volt-free circuit
(can be used to switch another device, e.g. Fan)
- Remote switching via hand held controller (COMHHC)
- Recessed version supplied complete with 3m lead
- 'THETA' hub detector supplied with 3m lead and 7 way plug for connection to CPDMTHETA (see page 303)



Recessed COMRBDC only



Surface Mounting

Order Codes

Programmable PIR Detector

Recessed
Recessed THETA
Surface Mounting

COMRB
COMRBTHETA
COMRBDM

Dual Circuit Programmable PIR Detector

Recessed Mounting
Surface Mounting

COMRBDC
COMRBDCSM

Options

Plasterboard Fixing Kit

COMPB

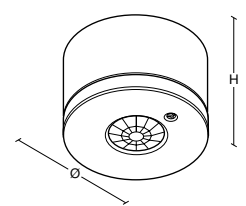
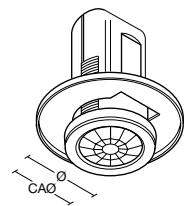
Optional Command Fast Link Connector

CFL 4 POLE	Add suffix /CFL4P	i.e. COMRB/CFL4P
CFL 6 POLE	Add suffix /CFL6P	i.e. COMRB/CFL6P

Dimensions

COMRB only

Surface

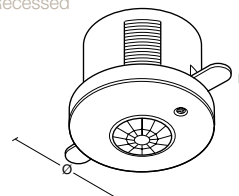


Version	Ø	H	CAØ
Recessed	65	115	50
Recessed THETA	65	115	64

Ø	H
100	72

* When using CFL 6 Pole CAØ on recessed version is 64

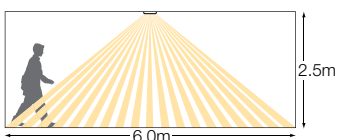
Recessed



Ø	H	CAØ
100	62	89*

* for metal pan or integration into luminaire cut aperture is 92mm

Detection Range



Accessories (See Page 309)



Handheld Programmer COMPTC



Handheld Controller COMHHC

- Uses passive infra red detection technology
- For recessed or surface ceiling mounting 360° detector
- Variable off delay of between 5 - 35 minutes from last observed movement including 10 second walk test mode
- Switches up to 6A of lighting (COMRCYDO only)
- Controls up to 9 DALI ballasts
- Maximum range of 6m Ø (based on 2.5m mounting height)
- Regulating photocell ensures a minimum maintained light level taking account of the contribution from adjacent luminaires and daylight
- Remote switching via hand held controller (COMHHC)
- Recessed version supplied complete with 3m lead (COMRCY only)
- Wall switch override for push to make switch to manually control luminaires
- Dual circuit control (COMRCYDO only)
 - switch output
 - separate DALI output for photocell control



Recessed COMRCYDO only



Surface Mounting

Order Codes

DALI Programmable PIR Detector

Recessed*

Surface Mounting*

COMRCY
COMRCYSM

DALI Dual Circuit Programmable PIR Detector

Recessed

Surface Mounting

COMRCYDO
COMRCYDOSM

Options

Plasterboard Fixing Kit (COMRCY only)

COMPB

Optional Command Fast Link Connector

CFL 6 POLE

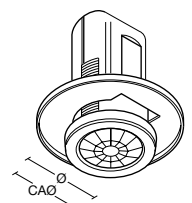
Add suffix /CFL6P

i.e. COMRCY/CFL6P

* Not for use with fixed output HF ballasts

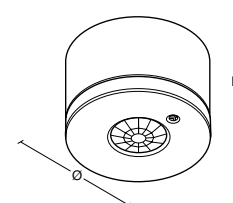
Dimensions

COMRCY only



Ø	H	CAØ
65	115	50

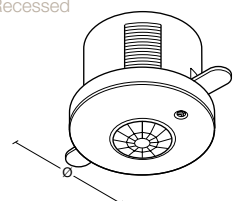
Surface



Ø	H
100	72

* When using CFL 6 Pole CAØ on recessed version is 64

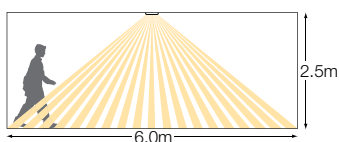
Recessed



Ø	H	CAØ
100	62	89*

* for metal pan or integration into luminaire cut aperture is 92mm

Detection Range



Accessories (See Page 309)



Advance Programmer COMAP



Handheld Controller COMHHC

- Uses active microwave presence detection technology
- Ceiling mounted 360° microwave detector
- Recessed or surface mounting
- Switches up to 6A of lighting
- Controls up to 25 DALI ballasts
- Sensitive to respond to very small movements
- Dual circuit control
 - switched output
 - separate DALI output for photocell control
- Wide angled lens detects movement up to 10m in diameter at 2.6m mounting height
- Measures daylight penetration and dims luminaires accordingly
- Maximum recommended mounting height 3m
- Wall switch override connections for push to make switch to manually control luminaires
- 'THETA' hub detector supplied with 3m lead and 7 way plug for connection to CPDMTHETA (see page 303)

Order Codes

DALI Microwave Detector

Recessed

Recessed THETA

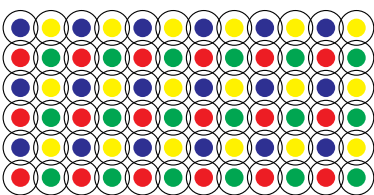
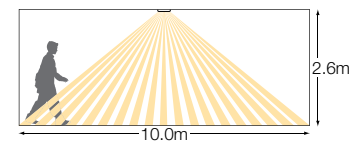
Surface Mounting

COMRGY
COMRGYTHETA
COMRGYSM

Optional Command Fast Link connector

CFL 6 POLE/3 POLE Add suffix /CFL63P i.e. COMRG/CFL63P

Detection Range



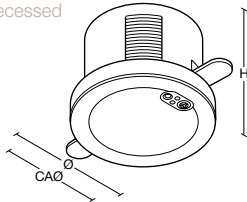
For reliable operation it is essential that units of the same colour code do not occupy adjacent positions in open-plan areas. This is why Whitecroft supplies four variants of the COMRG Detector (Blue/ Yellow/Red/Green). Orders are dispatched with a suitable colour code mix.



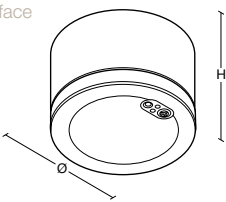
Surface Mounting

Dimensions

Recessed



Surface



Version	Ø	H	CAØ
Recessed	100	57	89*
Recessed THETA	100	62	89*

Ø	H
100	72

* for metal pan or integration into luminaire cut aperture is 92mm

Accessories (See Page 309)



Advance Programmer COMAP



Hand held controller COMHHC and COMSSC

- Uses ultrasonic detection technology
- Surface mounted directional detector
- 5, 10 or 15 minute time delay including 5 second walk test - selected via internal switches
- Switches up to 10A of lighting
- Sensitive to respond to very small movements
- Detects movement in rooms up to 10m x 10m and up to 15m range along a corridor - selected via internal switches
- Measures daylight penetration and holds off luminaires if adequate daylight is present
- Maximum recommended mounting height 5m
- Semi recessed mounting kit available



Order Codes

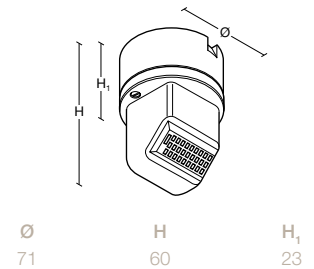
Directional Ultrasonic Detector

Surface Mounting

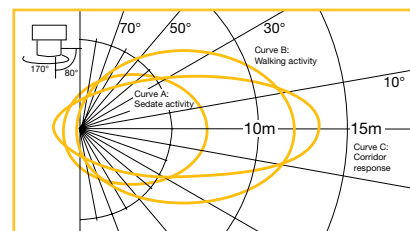
Semi Recessed Mounting Kit

COMRD
COMRDSFK

Dimensions



Detection Range



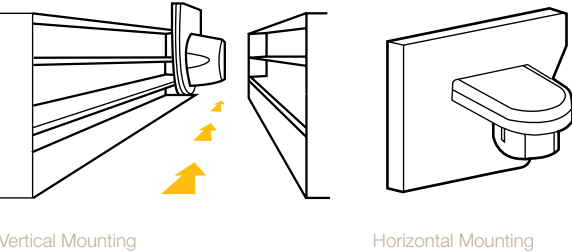
Detection Footprint at 2.4m Mounting Height

- Uses active microwave detection technology
- Surface mounted directional detector
- 10 second to 20 minute time delay
- Switches up to 10A of lighting
- Controls up to 25 DALI ballasts (COMREY only)
- Sensitive to respond to very small movements
- Capable of effective presence detection in rooms of up to 20m x 20m and up to 25m range along a corridor
- Measures daylight penetration and holds off luminaires if adequate daylight is present (COMRE only)
- Adjustment controls for ON range, OFF range, OFF delay and photocell via side door (COMRE only)
- Maximum recommended mounting height 3.5m
- Semi recessed mounting and wall mounting kit available
- DALI versions available. Connections for push to make switch to manually control luminaires (COMREY only)
- 'THETA' hub detector supplied with 3m lead and 7 way plug for connection to CPDMTHETA (see page 303)

Order Codes

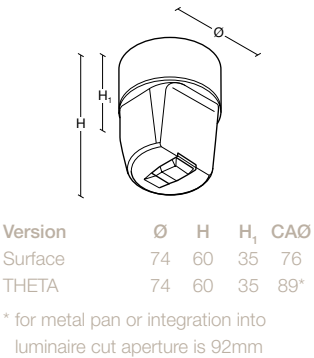
Directional Microwave Detector	COMRE
Surface Mounting	
DALI Directional Microwave Detector	COMREY
Surface Mounting	
Recessed Mounting THETA	COMREYTHETA
Options	
Semi Recessed Mounting Kit	COMRESFK
Wall Mounting Kit	COMREWMK

Methods Of Wall Mounting



Semi Recessed Mounting

Dimensions



Accessories (See Page 309)



Advance Programmer COMAP
(for use with COMREY and COMREYTHETA only)



Handheld Controller COMHHC

command COMRF

long range microwave detector

- Uses active microwave detection technology
- Surface mounted long range microwave detector
- 0 – 16 minutes time delay adjustable in control unit
- Superior microwave technology detects movement up to 60m range
- Robust construction allows presence detection for a variety of large areas such as Warehouses, Sports Halls, Car parks etc.
- Control unit and head box can be mounted up to 100m apart
- Dual circuit control unit can switch 10A in total

Order Codes

Long range microwave detector

30m head box mounted*

COMRF30B

60m head box mounted*

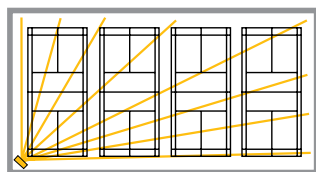
COMRF60B

Control unit with dual circuit relay

COMRCON2

* COMRF30B/60B must always be ordered in conjunction with COMRCON2 control unit

Positioning

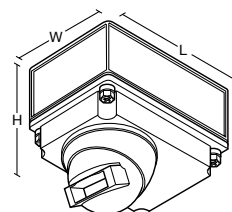


The detector can see through glass and should be positioned away from thin partitions and windows

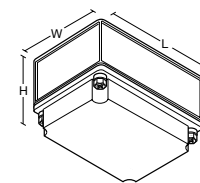


Semi Recessed Mounting

Dimensions



L 175 W 125 H 145



L 175 W 125 H 100

command COMRJ

programmable photocells

- Recessed ceiling mounted photocell
- Passing cloud timer
- Programmable via the COMAP programmer
- Supplied complete with 3m lead
- Programmable photocell
 - Switches up to 6A of lighting
 - Measures daylight penetration and holds off luminaires accordingly
- Programmable dimming photocell
 - Controls a maximum of 25 DALI ballast
 - Measures daylight penetration and dims luminaires accordingly



Order Codes

Programmable Photocell

Recessed Mounting

COMRJ

Dimming Universal Photocell

Recessed Mounting

COMRJDIM

Options

Plasterboard Fixing Kit

COMPB

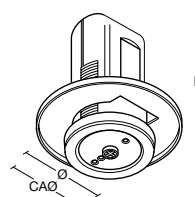
Optional Command Fast Link connector

CFL 6 POLE

Add suffix /CFL6P

i.e. COMRJ/CFL6P

Dimensions



Ø 65 H 115 CAØ 50

* When using CFL 6 Pole option CAØ is 64

Accessories



Advance Programmer COMAP



Handheld Controller COMHHC and COMSSC

- Command open plan 10 port hub
- To interconnect presence detectors and luminaires
- One or two detectors can be connected to up to ten luminaires depending on the configuration used
- Range of detectors for use with CPDMTHETA available (purchased separately)
- All THETA detectors are supplied with 3m cables and 7-way connector for connection to CPDMTHETA



Order Codes

CPDMTHETA
Command Connection Centre CD Box

CPDMTHETA

Accessories
7 pin plug for use with CPDMTHETA detectors

THETA/7P



COMRATHETA / COMRBTHETA



COMRGYTHETA

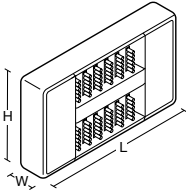


COMRCYDOTHETA



COMRETHETA / COMREYTHETA

Dimensions



L	W	H	KG
315 (361 inc feet)	50	205	1.85

Detector	Ø	H	CAØ
COMRATHETA	65	115	64
COMRBTHETA	65	115	64
COMRGYTHETA	100	62	89*
COMRCYDOTHETA	100	62	89*
COMRETHETA	74	95	90
COMREYTHETA	74	95	90

* for metal pan or integration into luminaire cut aperture is 92mm

- Available in two formats:
 - Non-dimming – CPDM Alpha
 - Dimming – CPDM Beta
- Output connections –
 - 10 Wieland type 4 pin GST/18 sockets (CPDM Alpha)
 - 10 Wieland type 6 pin GST/18 sockets (CPDM Beta)
- Switching capacity – 6 amps per socket outlet but the total load must not exceed 8 amps per switching group or 16 amps for the full unit (6A when COM detectors are used)
- Can be wall switched as one group of 10 or two groups of 5
- Can be PIR switched as one group of 9 or two groups of 4
- Command control via detector heads. Detectors simply plug into Wieland sockets
- 3 x 20mm knockouts for cable entry
- Sockets mounted in galvanised steel box
- Emergency lighting key switch terminations

Order Codes

CPDM

Non-dimming command open plan hub

CPDMALPHA

Command remote PIR non-dimming complete with 4-pin wieland plug and 3m lead (see **COMRA** for functions)

COMRACFL4P

Dimming command open plan hub

CPDMBETA

Command remote PIR non-dimming complete with 6-pin wieland plug and 3m lead (see **COMRB** for functions)

COMRBCFL6P

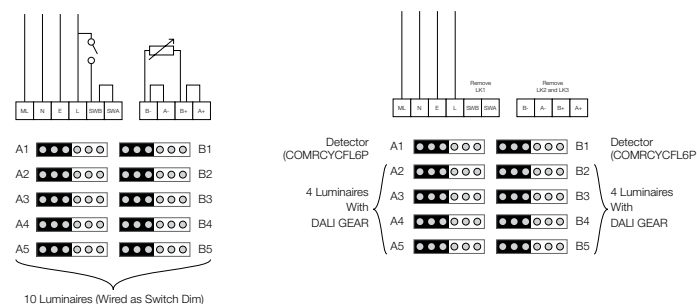
Command remote PIR digital (DALI) dimming complete with 6-pin wieland plug and 3m lead (see **COMRCY** for functions)

COMRCYCFL6P

Sample Wiring Diagram

Wall switching/dimming

Two DALI dimming detectors

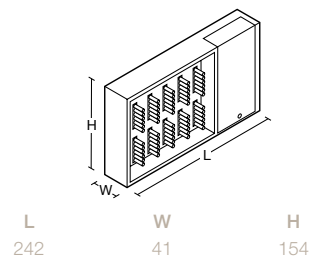


COMRA/COMRB

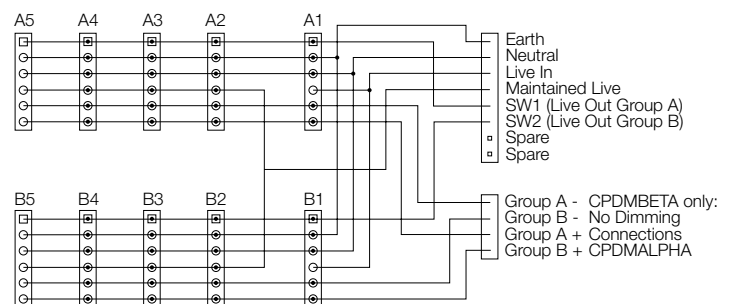


COMRCD/COMRCY

Dimensions



Connections



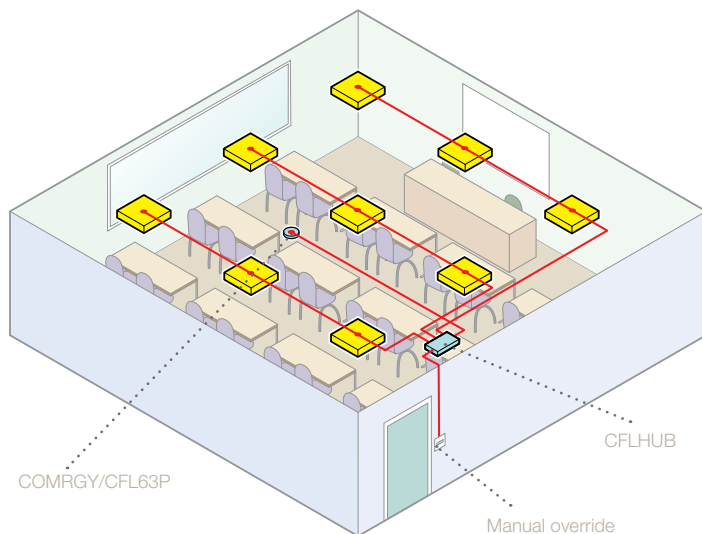
To Specify

Intelligent power distribution module with 10 Wieland type GST/18 output sockets switched as one group of 10 or two groups of 5 – wall switched, one group of 9 or two groups of 4 – PIR switched. Body in galvanised steel – as Whitecroft Lighting CPDM

- Low profile housing, perimeter mounted connector for mounting in limited void space
- Integrated mounting detail for surface, rod or trunking fixing
- Output connections
 - 3 x 6 pole lighting outputs rated at 6A
- Control Connections
 - Dimming or switching detector input socket
 - 1 - 3 gang manual switch override sockets
- Emergency lighting key switch socket
- Injection moulded flame retardant housing with mains entry cover and cable retainer

The Command Classroom Hub can be used in conjunction with CFL components to deliver a wide variety of configurations. An on-line systems builder is available to show how the hub can be configured to control daylight dimming, occupancy, manual overrides and emergency lighting options. Use our web based configurator to define one of 57 ways to connect the CFLHUB for a classroom application. For more information visit the Whitecroft website.

Typical classroom configuration utilising a command microwave detector/photocell/COMRGY/CFL63P for absence detection, window row dimming and manual override



Order Codes

Hub

Command Small Area Hub

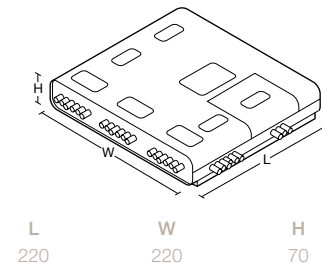
CFLHUB

Command Fast Link

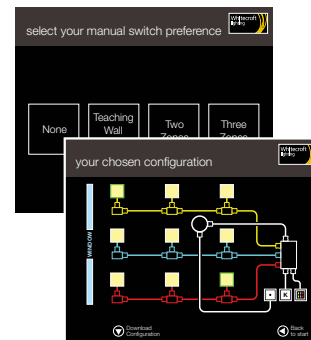
See pages 310 to 314 for a listing of the range of leads and detectors to complete a full Command Fast link plug and play installation. A design service is available, please contact the Whitecroft office for further details.



Dimensions



Web Configurator



Use our web based configurator to define one of 57 ways to connect the CFLHUB for a classroom application. For more information visit the Whitecroft website.

To Specify

Local area lighting control module with 3 off 6 pole 6A outputs, occupancy/daylight detection and manual override switch inputs. Compatible with GST18 connectors – as Whitecroft Lighting CFLHUB

- An intelligent, programmable Lighting Control Module connection hub with 12 luminaire output sockets, 5 detector sockets and 5 override input sockets.
- Available in one of two formats:
 - Programmable Hub
 - Programmable Hub with DALI Dimming Card
- Detectors (supplied separately, requires patch lead for connection to hub):
 - PIR detector (COMRCGAMMA)
 - Ceiling mounted microwave detector (COMRGGAMMA)
 - Corner mounted microwave detector (COMREGAMMA)
 - Luminaire integrated PIR detector (COMPL4GAMMA)
- Universal handheld controller supplied separately (COMDSSC)



Order Codes

CPDMGAMMA	CPDMGAMMA
Programmable Hub	
Programmable Hub with DALI Dimming Card	CPDMGAMMAY

Detectors

PIR for Hub	COMRCGAMMA
Ceiling Mounted Microwave Detector for Hub	COMRGGAMMA
Corner Mounted Microwave Detector for Hub	COMREGAMMA
Luminaire integrated detector*	COMPL4GAMMA

Accessories

3m patch lead for detectors to GammaHub	W/BT5E030GY
5m patch lead for detectors to Gamma Hub	W/BT5E050GY
10m patch lead for detectors to Gamma Hub	W/BT5E100GY
Switch input plugs (pack of 5)	W/CDWIP

* Product is supplied within a luminaire and not individually. To specify this product within a luminaire please consult our Technical Desk.

Note: If you require this product to be networked please see command plus section



COMRCGAMMA



COMRGGAMMA

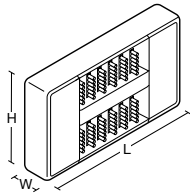


COMPL4GAMMA*



COMREGAMMA

Dimensions



L	W	H	KG
315 (361 inc feet)	50	205	1.85

Detector	Ø	H	CAØ	KG
COMRCGAMMA	100	62	89*	0.17
COMRGGAMMA	100	62	89*	0.2
COMREGAMMA	60	95	-	0.13

* for metal pan or integration into luminaire cut aperture is 92mm

- Integrated detector
- Programmable via the COMAP and COMPTC programmer
- Regulating photocell ensures minimum maintained light level taking into account the contribution from adjacent luminaires and daylight
- Maximum range of 6m Ø (based on 2.5m mounting height)
- 5-35 minute time delay including 10 second walk test
- Remote switching via hand held controller
- Wall switch override to adjust light level or turn luminaires on or off (COM4 only)
- Can control in a master and slave arrangement - contact our Technical Desk for further information

Order Codes

COM3 DALI PIR Detector

See luminaire pages for order codes

COM4 Switching PIR Detector

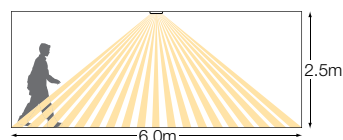
See luminaire pages for order codes

COM4 DALI PIR Detector

See luminaire pages for order codes

Look for the  symbol

Detection Range



Command 3



Command 4



COM3 Infill Mounted Option



COM4 Louvre Mounted Option

Accessories (See Page 309)



Advance Programmer COMAP



Handheld Programmer COMPTC



Handheld Controller COMHHC and COMSSC

command COM5

integrated intelligent
detector/photocells

- Integrated detector
- Uses active microwave technology
- 360° detection
- Maximum range of 10m Ø (based on 8m mounting height)
- Detection area can be reduced by selecting the combination on a DIP switch to maximise performance in specific applications (10/30/50/75/100%)
- 5 seconds to 25 minutes time delay
- Can control in a master and slave arrangement - contact our Technical Desk for further information



Look for the  symbol

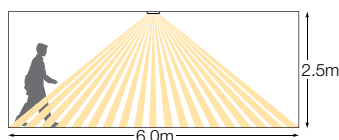
command COM6

- Integrated detector
- Programmable via the COMAP or COMPTC programmer
- Regulating photocell ensures minimum maintained light level taking into account the contribution from the adjacent luminaires and daylight (COM6Y only)
- Maximum range of 6m Ø (based on 2.5m mounting height)
- 5 min – 35 min time delay including 10 second walk test
- Remote switching via hand held controller
- Can control in a master and slave arrangement - contact our Technical Desk for further information



Look for the  symbol

Detection Range



COMHHC

- A handheld controller designed to allow temporary local user override – on, off, raise and lower light level

Order Codes

Handheld

Handheld Controller

COMHHC

handheld controller



COMSSC

- A handheld controller designed to allow temporary local user override – on, off, raise and lower light level
- 6 presets for scene setting

Order Codes

Scene Setting handheld

Handheld Controller

COMSSC

scene setting handheld controller



COMPTC

- A handheld programmer that allows the user to set variable parameters on selected Whitecroft Lighting Command COMR detectors by using switches within the device

Order Codes

Programmable

Handheld Programmer

COMPTC

handheld programmer



COMAP

- A handheld programmer that allows the user to set variable parameters on most Whitecroft Lighting Command COMR and all COMPL detectors via a digital display and on screen menu. This device can also interrogate and download settings from a detector

Order Codes

Advanced Programmable

Handheld Programmer

COMAP

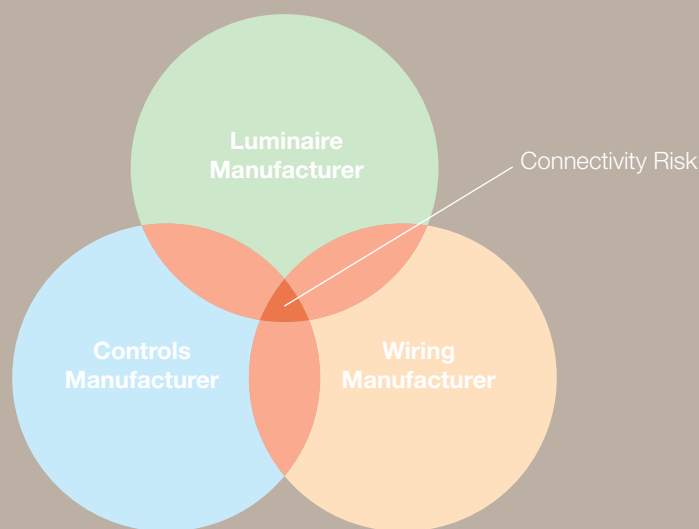
advanced handheld programmer



command fast link

Keeping Installation Simple

With Command Fast Link from Whitecroft Lighting, installation of any lighting scheme is significantly simplified. As a lighting scheme is designed, connectivity can be pre-planned and a complete package of luminaires, controls and wiring ready to install is delivered to site. Not only does this reduce installation time, but eliminates both costly down time and the risk associated with traditional multi-party specifications. These systems are factory tested and guaranteed to be fault free.



In any specification, the areas where different suppliers overlap creates a connectivity risk which can be time consuming and costly to solve on site.

Installation Time Comparison

	Traditional Installation Time	Command Fast Link Installation Time
Luminaire	30 mins	12 mins
Control Devices	40 mins	12 mins
Manual Switch	40 mins	20 mins
Emergency Key Switch	40 mins	20 mins

If we assume that a typical installation comprises 100 luminaires, with 10 control devices, 4 switches and 4 emergency key switches, then the installation will take around 63 man hours when wired conventionally. With Command Fast Link, this installation time is reduced to around 25 hours. Furthermore, because of Command Fast Link's plug and play connectivity, less skilled labour is required to successfully install a project.

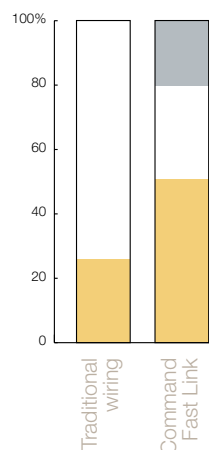
command fast link

Adding Flexibility To The Workspace

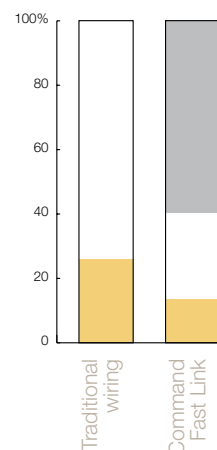
Command Fast Link brings savings to any installation. Whilst material costs increase, on-site labour cost is significantly reduced which can result in an overall saving of around 20%.

However, the benefits of Command Fast Link do not end at installation. In any modern office environment, flexibility is key to the success of the building. As the demands on the space change, lighting and controls need to be easily and quickly re-configured to adapt to the new requirements. Command Fast Link allows the contractor to simply re-configure switching arrangements without the need for costly re-wiring.

Cost comparison -
Initial Installation



Cost comparison -
Re-configuration



Labour Cost Material Cost Potential Saving

Command Fast Link Connectors

There are 6 basic elements in the Command Fast Link system which are available in both 4 and 6 core configurations. These can be combined to cater for any wiring need and are designed to allow fast, error free connection.

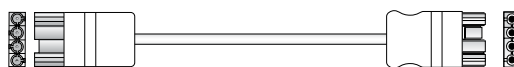
All plugs are mechanically keyed for easy connectivity and to prevent installation errors. Plugs are also self-locking to prevent accidental disconnection. Components are type tested to EN1313.

LSF 1.5mm² stranded cable is used throughout the system and is type tested to EN50267.

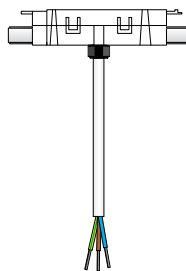
Once assembled the whole installation is factory tested for connectivity and clearly labelled. In full compliance with EN7671.



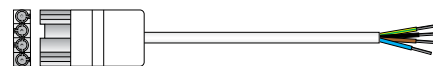
Starter Lead for connection to building power distribution



Extender to link luminaires and switch modules



Switch Module with in-line connection for wall switch



Flying Lead to link luminaires to T piece
These can be supplied pre-wired to luminaires



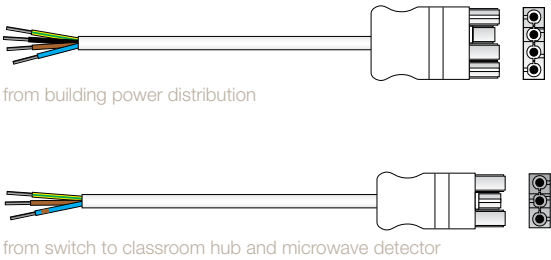
T Piece to connect luminaires and detectors to extender

starter and one-switch leads

Order Codes

Unit	Colour	
4m Starter Lead	White	CFL/ST/4P/4M
4m Starter Lead	White	CFL/ST/6P/4M
with 4/6 Pole GST Female connector to free end		
4m DALI Starter Lead	Black/Grey	CFL/DAL/ST/6P/4M
with 6 Pole GST Female connector to free end		

Unit	Colour	
6m Switch Lead	White	CFL/SD/3P/6M
12m Switch Lead	White	CFL/SD/3P/12M
with 3 Pole GST Male connector to free end		

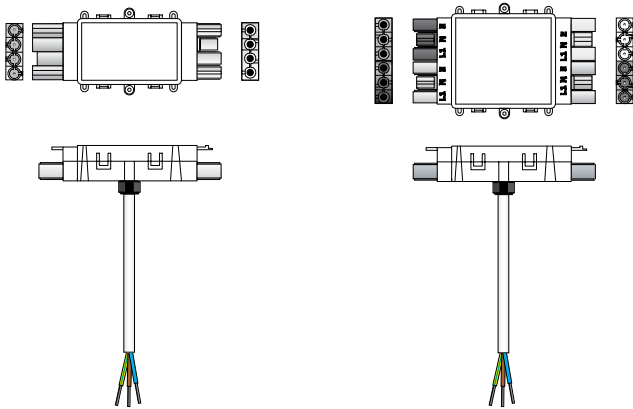


switch modules

Order Codes

Unit	Colour	
4 Pole Switch Module	White	CFL/SLM/4P
4 Pole Emergency Key Switch Module	White	CFL/SLME/4P
Male to Female GST 4 pole in-line connector, 4 metre 3 core cable to free end		

Unit	Colour	
6 Pole Switch Module	Black/Grey	CFL/SLM/6P
6 Pole Emergency Key Switch Module	Black/Grey	CFL/SLME/6P
Male to Female GST 6 pole in-line connector, 4 metre 3 core cable to free end		
6 Pole DALI Switch Module	Black/Grey	CFL/DAL/SLM/6P/4M
Male to Female GST 6 pole in-line connector, 4 metre 3 core cable to free end		

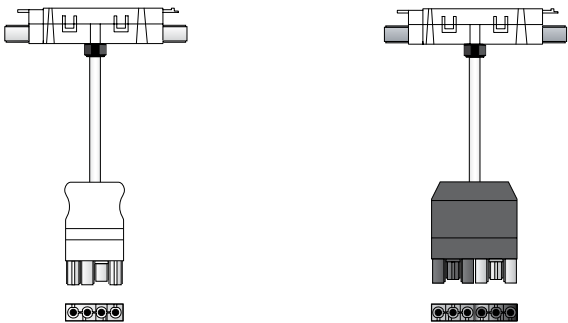


detector modules

Order Codes

Unit	Colour	
4 Pole Detector Module	White	CFL/DM/4P
Male to Female GST 4 pole in-line connector, 0.5 metre to Female GST 4 pole connector		

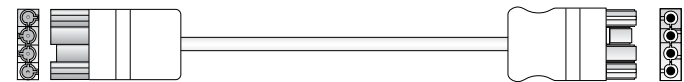
Unit	Colour	
6 Pole Dimming Detector Module	Black/Grey	CFL/DDM/6P
Male to Female GST 6 pole in-line connector, 0.5 metre to Female GST 6 pole connector		
6 Pole DALI Detector Module	Black/Grey	CFL/DAL/DM/6P
Male to Female GST 6 pole in-line connector, 0.5 metre to Female GST 3 pole connector		



4 pole extenders

Order Codes

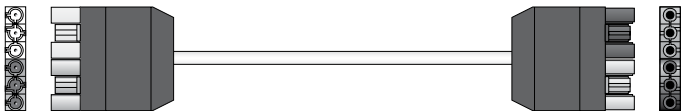
Unit	Colour	
1m Lighting Extender Lead	White	CFL/EX/4P/1M
3m Lighting Extender Lead	White	CFL/EX/4P/3M
5m Lighting Extender Lead	White	CFL/EX/4P/5M
7m Lighting Extender Lead	White	CFL/EX/4P/7M
9m Lighting Extender Lead	White	CFL/EX/4P/9M
4 Pole – 4 Core Male to Female GST connectors		



6 pole extenders

Order Codes

Unit	Colour	
1m Lighting Extender Lead	Black/Grey	CFL/EX/6P/1M
3m Lighting Extender Lead	Black/Grey	CFL/EX/6P/3M
5m Lighting Extender Lead	Black/Grey	CFL/EX/6P/5M
7m Lighting Extender Lead	Black/Grey	CFL/EX/6P/7M
9m Lighting Extender Lead	Black/Grey	CFL/EX/6P/9M
6 Pole – 6 Core Male to Female GST connectors		



4 to 6 pole converters

Order Codes

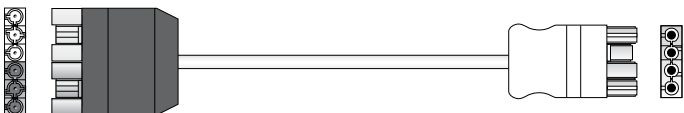
Unit	Colour	
3m 4 to 6 Pole Converter	White/Black/Grey	CFL/EX/4-6P/3M
6m 4 to 6 Pole Converter	White/Black/Grey	CFL/EX/4-6P/6M
4 Pole Male to 6 Pole Female GST connectors		



6 to 4 pole converters

Order Codes

Unit	Colour	
3m 6 to 4 Pole Converter	White/Black/Grey	CFL/EX/6-4P/3M
6m 6 to 4 Pole Converter	White/Black/Grey	CFL/EX/6-4P/6M
6 Pole Male to 4 Pole Female GST connectors		



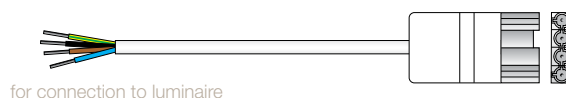
4 pole flying leads

Order Codes

Unit	Colour	
0.3m Flying Lead	White	CFL/FL/4P/4C/0.3M
3m Flying Lead	White	CFL/FL/4P/4C/3M
5m Flying Lead	White	CFL/FL/4P/4C/5M
Male GST to Free end 4 Pole 4 Core		

Unit	Colour	
0.3m Flying Lead	White	CFL/FL/4P/3C/0.3M
3m Flying Lead	White	CFL/FL/4P/3C/3M
5m Flying Lead	White	CFL/FL/4P/3C/5M
Male GST to Free end 4 Pole 3 Core		

NOTE: To pre-wire these leads to Whitecroft luminaires please contact the sales office for references.



6 pole flying leads

Order Codes

Unit	Colour	
3m Flying Lead	Black/Grey	CFL/FL/6P/6C/3M
5m Flying Lead	Black/Grey	CFL/FL/6P/6C/5M
Male GST to Free end 6 Pole 6 Core		

Unit	Colour	
3m Flying Lead	Black/Grey	CFL/FL/6P/5C/3M
5m Flying Lead	Black/Grey	CFL/FL/6P/5C/5M
Male GST to Free end 6 Pole 5 Core		

NOTE: To pre-wire these leads to Whitecroft luminaires please contact the sales office for references.



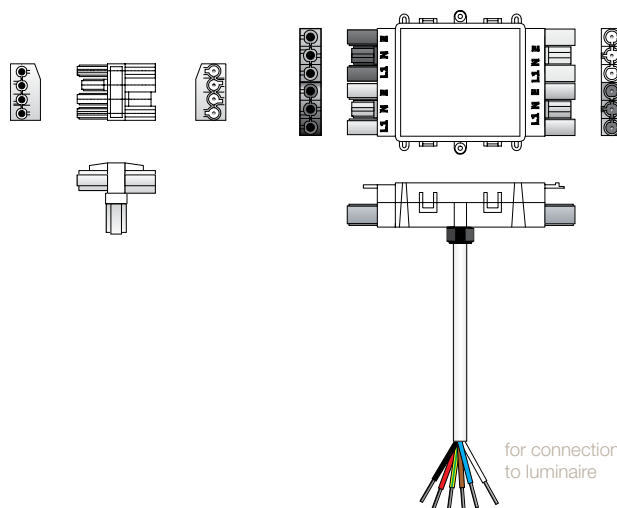
T piece

Order Codes

Unit	Colour	
T Piece	White	CFL/4T
4 Pole molded T Piece, 1 in 2 out		

Unit	Colour	
T Piece	Black/Grey	CFL/6T/3C/0.3M
T Piece	Black/Grey	CFL/6T/4C/0.3M
T Piece	Black/Grey	CFL/6T/5C/0.3M
T Piece	Black/Grey	CFL/6T/6C/0.3M
6 Pole GST T Piece, 0.3m Lead (3, 4, 5 or 6 Core)		

NOTE: To pre-wire these leads to Whitecroft luminaires please contact the sales office for references.



Command application

As services within a modern efficient building become more intelligent so does the complexity of the wiring installation, particularly regarding the lighting, lighting control and emergency lighting central test systems.

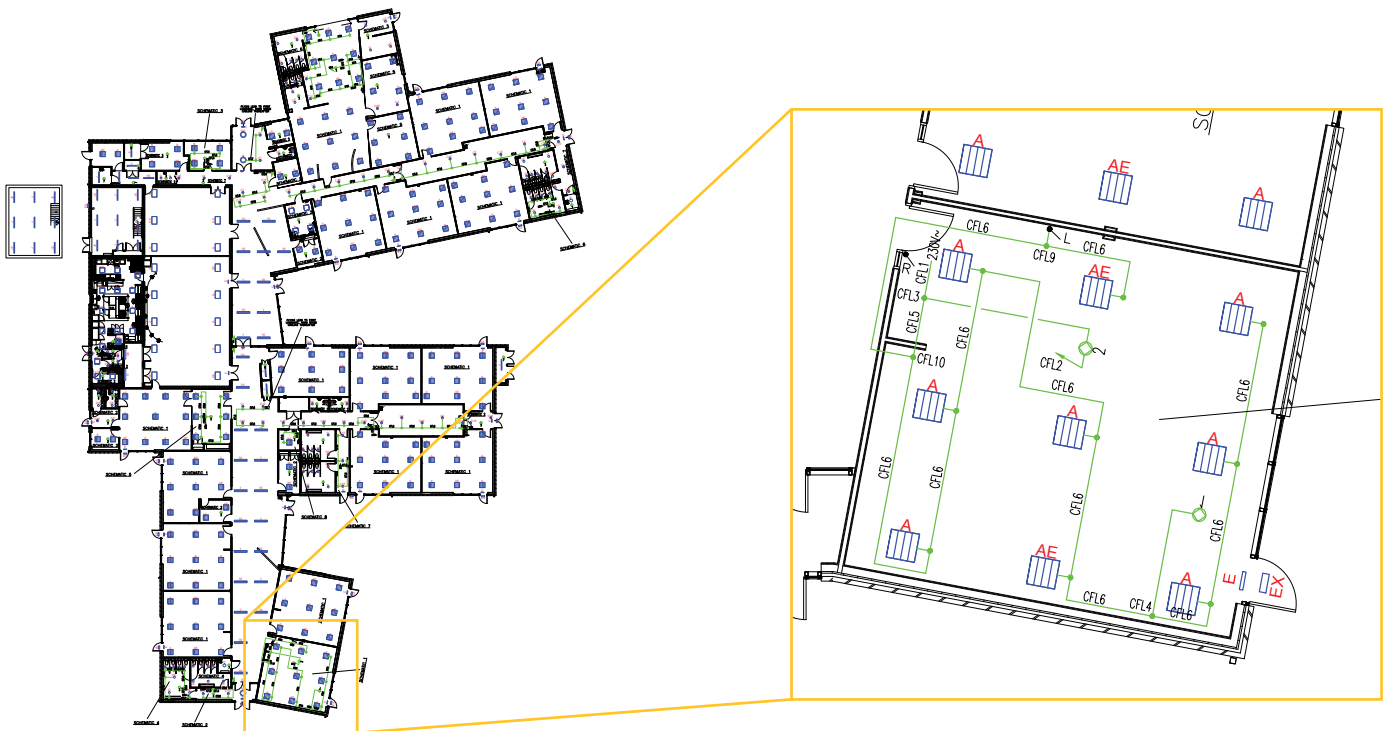
At Whitecroft Lighting we can offer a professional design service to minimise errors during the design and installation of the lighting and controls systems.

The Command Fast Link range of plug and play components reduces the risk to the installation when combined with the Whitecroft Command Application Design Service. The risk to the installation and operation of lighting and controls system is reduced to a minimum, resulting in a building that immediately meets operational requirements.

The Whitecroft Lighting team can deliver:

- Pre-installation site visits to include toolbox talks with operatives
- Individual room installation schematic drawings using the latest AutoCAD software
- Building wide installation schematic drawings for Command Plus and Command Elite systems detailing grouping, zoning and switching information
- Onsite commissioning by trained engineers of lighting, controls and emergency lighting control devices supplied by Whitecroft Lighting
- Onsite training on lighting, controls and emergency lighting control systems supplied by Whitecroft Lighting.

For further details please ask you Whitecroft sales representative or contact the Whitecroft sales office.





healthcare



nightingale LED 320



nightingale NX 321



florence elite 322



florence 324



medilight 326



surgeon 65 327



HDU 328



duo consult 330



DTFN elite TA 332



esprit MRI 335



concert MRI 336



kolo AL 337



horizon LED AL 338



horizon AL 339



mirage LED AL 340



mirage MX24 AL 341

healthcare lighting

No other physical situation creates such unique lighting demands as a hospital building. Patient comfort and well-being require primary consideration, alongside provision of a good working environment for staff, while energy conservation and lifecycle costs are also of major importance.

Patient well-being

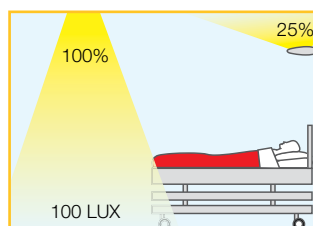
Research confirms the direct link between light quality and patient recovery rates. Recent studies by Professor Bryan Lawson and Doctor Michael Phiri of the University of Sheffield and NHS Estates show that an improved ward environment can result in a reduction in non-operative patient recovery times of between 14–21%.

Infection control

At Whitecroft Lighting we recognise the importance of infection control in all areas of the hospital. All of our luminaires are designed to afford easy cleaning and to minimise areas which can harbour germs. We draw on over 30 years of Clean Room experience to ensure that luminaires used in high risk areas actively reduce the risk of contamination from the ceiling void.

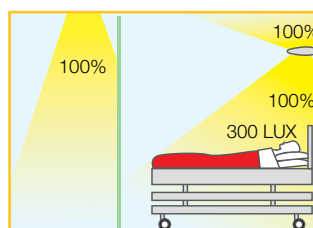
Lifecycle costing

For a typical hospital building, lifecycle costing indicates that for every £1 spent on construction, £5 is required for facilities management and no less than £200 is associated with the people who use it. Lighting is a significant factor in this equation, and choosing the right system and equipment can make a dramatic difference to the effectiveness of the patients and staff within a hospital.



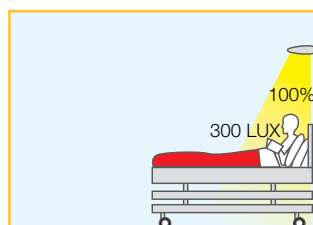
General Lighting

Centre ward illuminance should be sufficient to enable safe movement around ward area. Patient ambient should be a relaxing lower level of illumination.



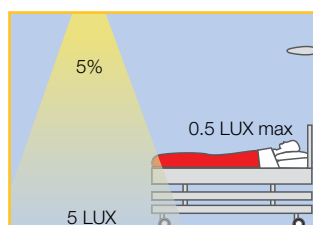
General/Nursing Care

Medical practices carried out at bed space with curtains open or closed. A 25% tolerance is acceptable when curtains are closed.



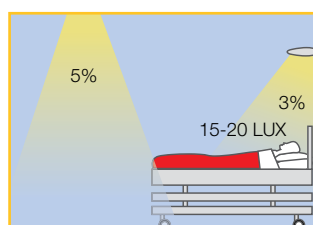
Reading Light

Directly on the pillow in a 1.0 x 1.0m area. May be used as an additional source for nursing tasks. If adjustable, avoidance of glare to others is essential.



Nightlight/Emergency

Downlight only, dimmed to minimum. Illuminance sufficient to allow staff and patients to move around. Should not disturb sleeping patients. Emergency lighting can also be incorporated into the central downlights.



Watchlight

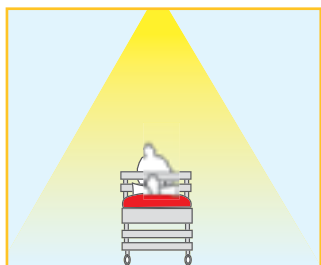
Downlight and reading light dimmed to allow continuous observation at night.

healthcare expertise

In every area of the hospital unique solutions are required to deliver the best lighting for patients and staff whilst minimising installed costs and ensuring energy efficiency.

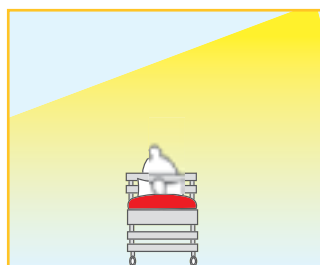
Corridor lighting

Corridors are as important as any other area of a hospital, so the same considerations of patient comfort, staff effectiveness and logistical efficiency apply. Lighting design needs to address all these issues, while the practical demands of cleaning and maintenance also come into play.



Centrally mounted

This can cause overhead glare and discomfort as patients are moved along hospital streets and corridors

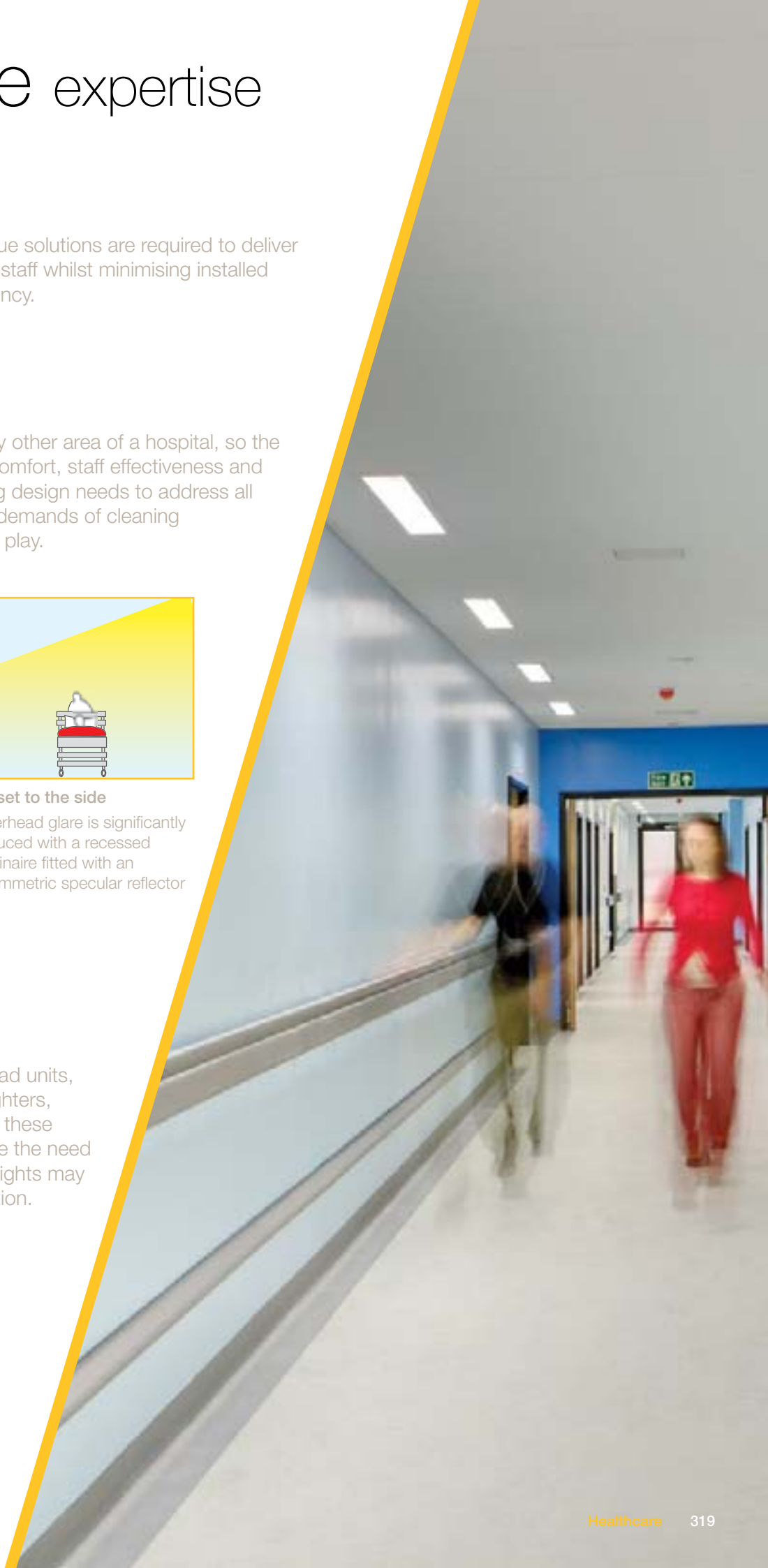


Offset to the side

Overhead glare is significantly reduced with a recessed luminaire fitted with an asymmetric specular reflector

Ward lighting

Our individually controlled bedhead units, combined with recessed downlighters, provide the perfect solution to all these different requirements and reduce the need for task lighting. Supplementary lights may be required for detailed examination.



nightingale LED

centre ward combined circulation/lighting LED luminaire



Optics

- Light Output Options:
 - 1100 lumens (17W*)
 - 2000 lumens (31W*)
 *Total power consumption including driver based on the 4000K light engine
- Low glare louvre as standard providing full glare control at the bedhead and good uniformity of illumination in the circulation zone
- The light source is switched between a 'Day' and 'Night' setting. The 'Day' position is typically 100% output for general ward circulation lighting and 'Night' position will provide the 5 lux required at night time
- Two methods of operation:
 - Standard latch – light source is switched using a standard light switch (not supplied) typically at the ward entrance to deliver Day (100% output) and Night-lighting (5% output)
 - DALI – light source is switched using two pre-set dimming levels, typically 100% (day) and 5% (night). Must be used in conjunction with DALI lighting controls (power supply and wall switch). Onsite commissioning required

Body

- Black cast aluminium body with polycarbonate reflector ring in white
- Rapid installation guaranteed with the unique spring assembly
- Luminaire and driver supplied as one complete item
- For ceiling 5-50mm thick
- Compatible with the Mirage LED Retro Fit solution (see page 21)

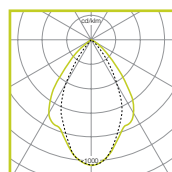
Order Codes

Nightingale LED	LED Head	3 hr Emergency
1100 lumen 4000K	NGD114KCFT	NGD114KCFTEM
2000 lumen 4000K	NGD204KCFT	NGD204KCFTEM

Options

3000K COLOUR TEMP	Replace 4K with 3K	i.e. NGD20 3 KCFT
EASYTEST	Add suffix /ET	i.e. NGD203KCFT/ ET
COMEPS	Add suffix /EP	i.e. NGD203KCFT/ EP

Photometric Performance



- 17W LED
- LOR = 100%
- SHR MAX = 1.33

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.93	1.07	1.11



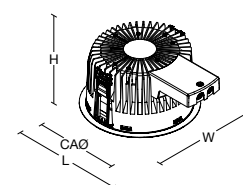
LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
3000K	≥ 90	L ₇₀ (50,000hrs)	MacAdam 3 SDCM
4000K	≥ 90	L ₇₀ (50,000hrs)	MacAdam 3 SDCM

Equivalent Lamp Types

2000 Lumen Output
 Compact fluorescent 1 x 32/42W
 2 x 26W

Dimensions



L	W	H	CAØ	KG	KG
232	183	137	165	1.4	3.0

To Specify

Cast aluminium bodied LED centre ward down lighter with louvre for glare control at bedhead. For ceiling thicknesses of 5-50mm – as Whitecroft Lighting NIGHTINGALE LED

nightingale NX

centre ward combined
circulation/lighting luminaire



Optics

- Lamp options:
 - 2 x 26W TC-D
- Low glare louvre as standard giving full glare control at the bedhead & good uniformity of illumination in circulation zone
- Provides 100 Lux daytime circulation lighting
- Night setting provides max 0.5 Lux at bedhead positions greater than 2m from luminaire with 2.6m mounting height
- Lamps are switched for night-lighting using a standard light switch (not supplied) typically at the ward entrance. This can be labelled 'Night' and 'Day'. The 'Day' position will give the 100% output required for general ward circulation lighting and the 'Night' position will give the 5 Lux required at night time. A separate mains switch is required to turn the light on and off

Body

- Analogue HF dimming gear integral to body
- Die cast aluminium bezel finished white



Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 26W TC-D	1800	13,000hrs

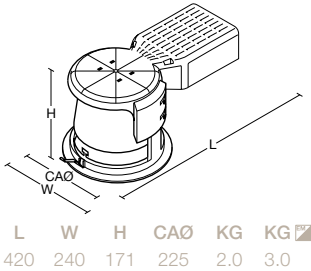
Order Codes

Nightingale NX	Standard	3 hr Emergency
TC-D 2 x 26W	NX24R226	NX24R226EM

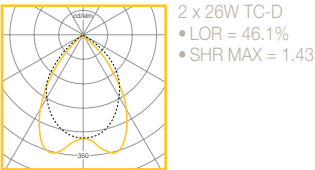
Options

EASYTEST	Add suffix /ET	i.e. NX24R226/ET
COMET	Add suffix /CT	i.e. NX24R226/CT
COMEPS	Add suffix /EP	i.e. NX24R226/EP

Dimensions



Photometric Performance



Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.37	0.47	0.50

To Specify

Die cast aluminium bodied compact fluorescent centre ward downlighter with louvre for glare control at bedhead. HF dimming gear with facility for local step dimming for night & day settings – as Whitecroft Lighting NIGHTINGALE



Optics

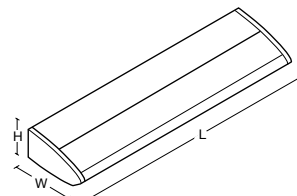
- Light source options:
 - LED 2400 lumens 26W* uplight (ward lighting)
 - LED 1500 lumens 20W* downlight (reading/nursing care)
- Or
 - 1 x 39W (44W)* T5 uplight (ward lighting)
 - 1 x 21W (25W)* T5 downlight (reading/nursing care)
- *Total power consumption including driver/ballast*
- Uplight – wide integrated reflectors to maximise efficiency
- Downlight – Nano prism diffuser for maximum patient comfort
- Medium power LEDs deliver 50,000hrs life to L₇₀
- Both the ward and reading light sources are independently dimmable by “push control” so the following lighting levels can be selected to meet LG2 requirements:
 - Patient rest 30-50 Lux
 - Watch light 15-20 Lux
 - Reading 300 Lux
 - General nursing care 300 Lux
- LED version requires DALI controls and onsite commissioning

Body

- IP40
- Extruded aluminium spine & ‘push on’ moulded end caps
- One piece membrane diffuser for maximum infection control
- Wall mounted, recommended mounting height 2m for typical 2.6m-3m ceiling heights
- 1st fix wall bracket, pre-wired to GST 18/4 flying leads
- No visible screws and easy/cleaning access to the top of the luminaire



Dimensions



L	W	H	KG
895	213	95	5.0

Order Codes

Florence Elite

T5 1 x 39W up/1 x 21W down (Switch Dim)
LED 2400 lumens up/1500 lumens down (DALI)

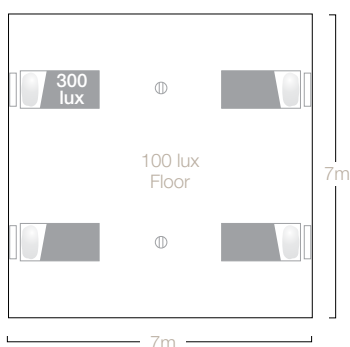
Standard

FEL3921
FEY2415

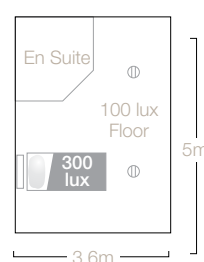
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 21W T5	1900	24,000hrs
1 x 39W T5	3100	24,000hrs

Typical 4 Bed Ward



Typical 1 Bed Ward



⊕ Nightingale recommended for circulation area lighting

To Specify

Direct/indirect wall mounted hospital bed head luminaire using LED or T5 light source with separately switched dimmable ward lighting and reading/nursing care light. Easy to clean, IP40 rated extruded aluminium body with one piece infection control diffuser membrane – as Whitecroft Lighting FLORENCE ELITE







Optics

- Lamp options (1200mm body):
 - 1 x 54W T5 uplighter (ward lighting)
 - 1 x 54W T5 downlighter (reading/nursing care)
- Lamp options (600mm body):
 - 1 x 55W TC-L uplighter (ward lighting)
 - 1 x 55W TC-L downlighter (reading/nursing care light)
- Removable diffusers for both ward and reading/nursing care lights run the full length of the body to optimise light distribution
- Both the ward and reading lamps are independently dimmable by “push control” and function so the following lighting levels can be selected to meet LG2 requirements:
 - Patient rest 30-50 Lux
 - Watch light 15-20 Lux
 - Reading 300 Lux
 - General nursing care 300 Lux

Body

- Extruded aluminium body and full length wall bracket with closed ends finished white
- Wall mounted, recommended mounting height 2m for typical 2.6m-3m ceiling heights
- 1st fix wall bracket, pre-wired to GST 18/4 flying leads



Mounting Bracket



End Section

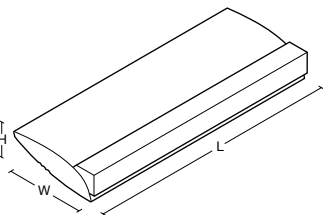
Order Codes

Florence	Standard
T5 2 x 54W (one for the ward and one for the reading light)	FLRX5454
TC-L 2 x 55W (one for the ward and one for the reading light)	FLRX5555

Lamp Performance

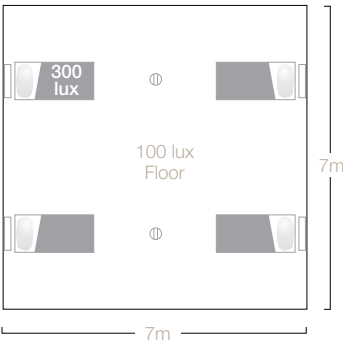
Wattage	IL@25°C	Lamp Life
1 x 54W T5	4450	24,000hrs
1 x 55W TC-L	4800	20,000hrs

Dimensions

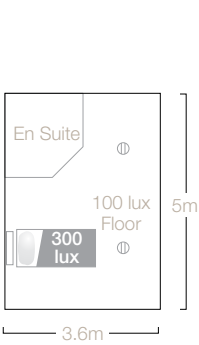


Version	L	W	H	KG
2 x 55W TC-L	580	322	100	7.0
2 x 54W T5	1188	322	100	10.0

Typical 4 Bed Ward



Typical 1 Bed Ward



Ⓜ Nightingale recommended for circulation area lighting

To Specify

Direct/Indirect wall mounted hospital bed-head luminaire with 2 x 54W T5 or 2 x 55W TC-L separately switched lamps one lamp providing ward lighting the other reading/nursing care light. Extruded aluminium body and wall bracket with profiled end caps and full length polycarbonate diffusers. Lamps to be independently dimmed by ‘push control’ – as Whitecroft Lighting FLORENCE



Optics

- Lamp options:
 - 2 x 54W T5 uplight
 - 1 x 54W T5 downlight
- Purpose designed reeded polycarbonate diffusers
- Both the ward and reading lamps are independently dimmable by “push control” and function so the following lighting levels can be selected to meet LG2 requirements:
 - Patient rest 30-50 Lux
 - Watch light 10-20 Lux
 - Reading 300 Lux
 - General nursing care 300 Lux

Body

- Purpose designed continuous profiled aluminium extrusion finished white (minimum length of 2m)
- Recommended mounting height 1.4 to centre of gases as per H.T.M. requirements
- Easy to clean continuous curved profile helping infection control, thus reducing hospital acquired infections
- Easy to reach top surface to facilitate daily cleaning
- Equipment that can be integrated includes:
 - 13 amp twin socket outlets
 - Data outlets
 - Telephone outlets
 - Nurse call equipment
 - Medical gas outlets

Note: Medical gas pipework not included



2 Tier



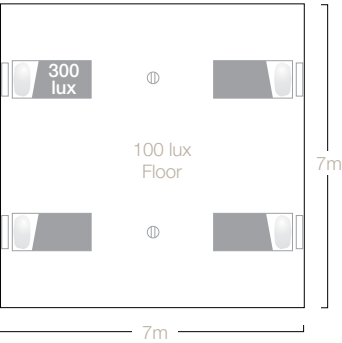
3 Tier

Order Codes

Medilight (Typical Configuration)		Standard
		MED4R
T5 2 x 54W	Aluminium base carcass: 2m long	
T5 1 x 54W	1 x circulation light	
	1 x reading/nursing care light	
	3 x twin 13 amp switched socket panel	
	1 x gas outlet panel	
	1 x 4 way RJ45 data ports	
	1 x nurse call panel	
	(Mediplan Series 25 recommended)	
	1 x reading light dimmer switch panel	
	1 x circulation light dimmer switch	
	Blanking panels to fill redundant space	

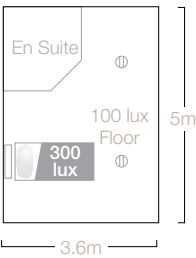
Note: Please contact our sales department for project specific requirements

Typical 4 Bed Ward



Ⓢ Nightingale recommended for circulation area lighting

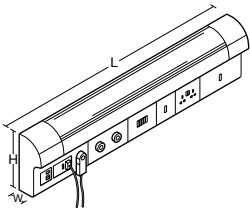
Typical 1 Bed Ward



Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 54W T5	4450	24,000hrs

Dimensions



Version	L	W	H	KG
2 Tier	2000	153	406	*
3 Tier	2000	153	514	*

* For weight, refer to Whitecroft Technical Desk

To Specify

Fully integrated wall mounted hospital extruded aluminium trunking system combining lighting and medical services. Incorporating 2 x 54W and 1 x 54W T5 separately switched lamps, two lamps providing ward lighting, one providing nursing care and reading light. Each set of lamps independently dimmed by ‘push control’ – as Whitecroft Lighting MEDILIGHT

surgeon 65

IP65 recessed hospital
bed luminaire



Optics

- Lamp options:
2 x 55W TC-L
- Semi-specular cross blade louvre with sharp cut-off for controlled patient comfort
- Clear Tp(a) rated sheet below louvre for ease of cleaning
- 3 pre-set light levels, dimmed by means of a 3 position switch (not supplied):
 - Low for watchlight (10-20 Lux)
 - Medium for patient rest (30-50 Lux)
 - High for general clinical care (400 Lux)

Body

- Rigid sheet steel body with white extruded aluminium front frames
- Dual IP rated to avoid any ingress of contamination from the void – IP65 frame on, IP54 during lamp change
- Modular version designed to engage below 600 x 600mm modular exposed T25 & spring T grids (refer to the ceiling compatibility matrix on page 404) using adjustable cam brackets
- Non modular version fits prepared aperture ceilings from 35-90mm thick as standard. Fixed using adjustable jacking brackets
- Frame fixing screws countersunk and capped to eliminate bacteria traps



Cam jacking bracket modular ceilings



Solid aluminium jacking bracket prepared aperture version

Order Codes

Surgeon 65 (Modular Ceilings)

TC-L 2 x 55W

Standard

SURM65R255

Surgeon 65 (Prepared Aperture)

TC-L 2 x 55W

Standard

SURNM65R255

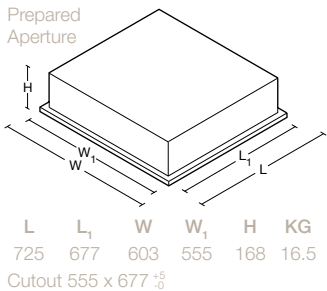
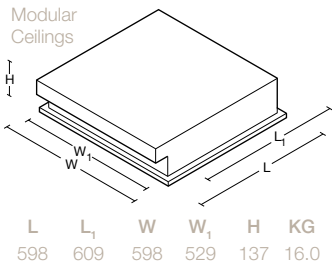
Options

RECESSING PANEL

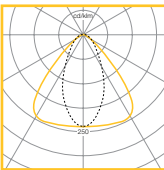
To retain integrity on spring T ceilings

RP600x600

Dimensions



Photometric Performance



2 x 55W TC-L
• LOR = 33.1%
• SHR MAX = 1.61

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.29	0.35	0.36

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 55W TC-L	4800	12,000hrs

To Specify

IP65/54, 2 x 55W TC-L over-bed luminaire in twin aluminium frames with gapless integration and cap fixings for ease of cleaning. Controlled by high frequency dimming gear with semi-specular cross blade louvre delivering a sharp cut off for maximum patient comfort and clear Tp(a) diffuser for infection control – as Whitecroft Lighting SURGEON 65



Optics

- Lamp options:
 - 4 x 55W TC-L
- 2 x 55W lamps controlled by high frequency dimming gear with semi-specular cross blade louvre delivering a controlled cut off for maximum patient comfort
- 2 x 55W lamps controlled by high frequency gear with reflector and twin sheet diffuser for best visual comfort – used with the above at full output for examination (1000 Lux)
- 3 pre-set light levels on louvre side, dimmed by means of a 3 position switch (not supplied):
 - Low for watchlight (10-20 Lux)
 - Medium for patient rest (30-50 Lux)
 - High for general clinical care (400 Lux)
- The diffuser is smooth face to room for ease of cleaning

Body

- Dual IP rated to avoid any ingress of contamination from the void – IP65 frame on, IP54 during lamp change – BSI IP65/54 certified
- Sealed drop rod suspension option, bungs can be removed if required, standard fixings are as illustrated opposite
- Rigid body in steel finished white
- Modular version designed to engage below 600 x 600mm modular exposed T25 & spring T grids (refer to the ceiling compatibility matrix on page 404), non modular version fits prepared aperture ceilings from 35-90mm as standard
- Extruded aluminium twin frame construction with angled integration to eliminate any vertical gap finished white. Outer frame sealed to the ceiling by a closed cell gasket. Mastic sealant can also be used between outer frame and ceiling without impairing access to lamps
- No visible screws

HDU

Order Codes

HDU (Modular Ceilings) Standard
TC-L 4 x 55W HDUM455R

HDU (Prepared Aperture) Standard
TC-L 4 x 55W HDUN455R

Options
RECESSING PANEL to retain integrity on spring T ceilings RP600x600



Cam jacking bracket modular ceilings

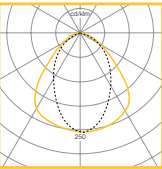


Solid aluminium jacking bracket prepared aperture version

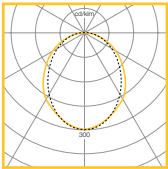
Lamp Performance

Wattage IL@25°C Lamp Life
1 x 55W TC-L 4800 12,000hrs

Photometric Performance



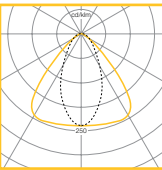
4 x 55W TC-L
Dual Optic -
Louvre & Diffuser
• LOR = 53.2%
• SHR MAX = 1.57



2 x 55W TC-L
Diffuser Side Only
• LOR = 71.8%
• SHR MAX = 1.52

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.40	0.53	0.56



2 x 55W TC-L
Louvre Side Only
• LOR = 33.1%
• SHR MAX = 1.61

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.29	0.35	0.36

HDUM Ceiling Integration

Refer to common ceiling
compatibility matrix –
See page 404

Exposed T Grids

T15/T25 Pull up

Spring T Grids (Recessing panel required)

SAS – 150/120
Armstrong – Orcal 1800/3000
Burgess – Clip in/Abar
Dampa – Clip in

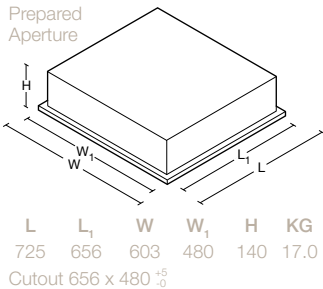
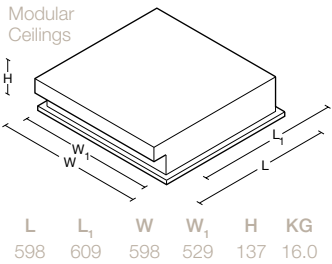
HDUN Ceiling Integration

Refer to common ceiling
compatibility matrix –
See page 404

Plasterboard

Prepared aperture

Dimensions



To Specify

IP65/54, 4 x 55W TC-L multi-function luminaire meeting CIBSE recommendations for high dependency units. 2 x 55W lamps controlled by high frequency dimming gear with semi-specular cross blade louvre delivering a sharp cut off for maximum patient comfort and 2 x 55W lamps controlled by high frequency gear with reflector and twin sheet diffuser. Diffuser with smooth face to room in twin aluminium frame with gapless integration and cap fixings for best infection control – as Whitecroft Lighting HDU



Optics

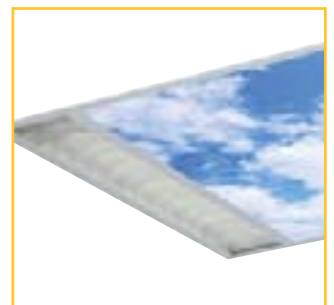
- Lamp options:
– 3 x 24W T5
- Micro prism side controllers or living louvres covered by clear polycarbonate
- Satine Blend central diffuser for lamp diffusion
- Framed polycarbonate sheet for ease of cleaning
- Picture options for central diffuser to add feature

Body

- Sheet steel body and frame with a choice of comfort and brightness controlled optics. Combines Duo office lighting excellence with infection control and clean area expertise
- IP40 rated



Micro Prism Diffuser with Opal Central Diffuser



Living Louvre with Sky Image

Order Codes

Micro Prism Optic	HF Gear	3 hr Emergency
T5 3 x 24W	DCNMH324	DCNMH324EM

Living Louvre Optic	HF Gear	3 hr Emergency
T5 3 x 24W	DCNVH324	DCNVH324EM

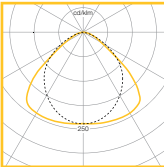
Options

DALI DIMMING	Replace H with Y	i.e. DCNMY324
SWITCH DIMMING	Replace H with X	i.e. DCNMX324
EASYTEST	Add suffix /ET	i.e. DCNMH324/ET
COMET	Add suffix /CT	i.e. DCNMH324/CT
COMEPS	Add suffix /EP	i.e. DCNMH324/EP

Image Options

Sky Add suffix /PA to order code i.e. DCNMH324/PA
Alternative images: Replace PA with PB, FA, FB, FC or FD depending on picture required
Note: Inclusion of an image can reduce light output by up to 25%

Photometric Performance



3 x 24W T5
Living Louvre
• LOR = 59.3%
• SHR MAX = 1.85

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.47	0.60	0.64

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 24W T5	1750	24,000hrs

Printed Images

Sky



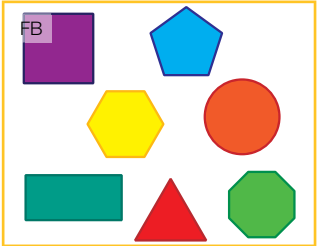
Autumn



Ladybirds



Shapes



Butterflies



Planets



Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

T15/T25 Pull up

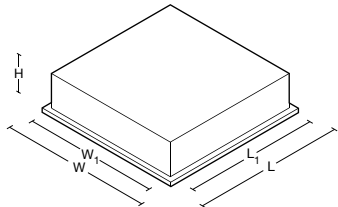
Spring T Grids

SAS – 150/120
Armstrong – Orcal 1800/3000
Burgess – Clip in/Abar

Plasterboard

Prepared aperture

Dimensions



L	W	H	L ₁	W ₁	KG	KG
598	598	100	536	536	5.9	6.9

To Specify

Consulting room T5 luminaire with IP40 easy clean front diffuser and living louvre, micro prism controller or picture options to add feature – as Whitecroft Lighting DUO CONSULT

DTFN elite

T5 through access

IP65/54 recessed luminaire with
sealed twin frame construction



Optics

- Lamp options:
 - 4 x 28W T5
 - 3 or 4 x 54W T5
- Louvre above 4mm toughened glass or clear 3mm fireguard material
- Prismatic acrylic above 4mm toughened glass
- Single 3mm sheet prismatic fireguard material

Body

- Front access with the fixings inside the sealed lid to provide void access
- Hinged lid
- Dual IP rated – to a BSI tested and certified construction as protecting the room to IP65 from void contamination with the front frame and IP54 with the frame removed
- Cut and prepared aperture ceilings and sandwich panels with capped aperture reinforcements up to a depth of 90mm with standard brackets as supplied on the luminaire or 155mm with optional special deep ceiling bracket (order separately)
- Extruded aluminium fixed outer frame (gasketed to ceiling) and removable inner frame integrate in line but at an angle to eliminate a vertical gap. Additional mastic sealant between outer frame and ceiling does not impede lamp access
- Diffuser securely clamped but easily removable from frame for replacement
- Solid aluminium side arm jacking brackets adjusted from within the sealed body
- Concealed front frame fixings and white full gloss frames as standard on all options

Note: a glass front face resists all cleaning chemicals and is best for a sterile environment
if advice is needed contact the Whitecroft technical team

Note: for a comprehensive range of standard access products see our clean area
section page 342



DTFN elite T5 through access

Order Codes

Cat 2 louvre above 4mm toughened glass	HF Gear	3 hr Emergency
T5 4 x 28W	DTFNWGH428TA	DTFNWGH428TAEMIN
T5 4 x 54W	DTFNWGH454TA	DTFNWGH454TAEMIN

Cat 2 louvre above 3mm clear TP(a) rated sheet	HF Gear	3 hr Emergency
T5 4 x 28W	DTFNWFH428TA	DTFNWFH428TAEMIN
T5 4 x 54W	DTFNWFH454TA	DTFNWFH454TAEMIN

Prismatic acrylic above 4mm toughened glass	HF Gear	3 hr Emergency
T5 4 x 28W	DTFNAGH428TA	DTFNAGH428TAEMIN
T5 3 x 54W	DTFNAGH354TA	DTFNAGH354TAEMIN
T5 4 x 54W	DTFNAGH454TA	DTFNAGH454TAEMIN

Prismatic TP(a) single sheet	HF Gear	3 hr Emergency
T5 4 x 28W	DTFNKH428TA	DTFNKH428TAEMIN
T5 3 x 54W	DTFNKH354TA	DTFNKH354TAEMIN
T5 4 x 54W	DTFNKH454TA	DTFNKH454TAEMIN

Options

DALI DIMMING	Replace H with Y	i.e. DTFNWGY428TA
SWITCH DIMMING	Replace H with X	i.e. DTFNWGX428TA
EASYTEST	Add suffix /ET	i.e. DTFNWDGH428TA/ET
COMET	Add suffix /CT	i.e. DTFNWDGH428TA/CT
COMEPS	Add suffix /EP	i.e. DTFNWDGH428TA/EP

DEEP CEILING BRACKET for ceilings up to 155mm order separately as **150CBKT1200** for 28 and 54W lamps

Note: The standard DTFN Elite range is detailed in the clean area section of the catalogue see page 342



Solid Aluminium Jacking Bracket



Easy Access to Ceiling Void

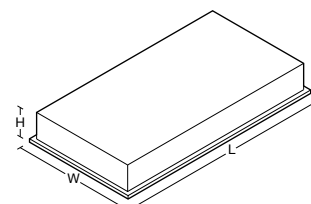
Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Plasterboard

Prepared aperture

Dimensions



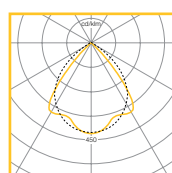
L	W	H	Cut Aperture
1325	603	145	555 x 1277 ⁺³

Weight

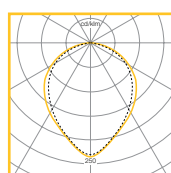
	Louvre/ toughened glass	Louvre/TP(a) rated sheet	Acrylic/ toughened glass	Prismatic TP(a)
T5 4 x 28W	28.0 KG	22.0 KG	29.0 KG	20.0 KG
T5 3 x 54W	–	–	29.0 KG	20.0 KG
T5 4 x 54W	28.0 KG	22.0 KG	29.0 KG	20.0 KG

Note: Emergency luminaires are 1 KG heavier than the standard shown above

Photometric Performance



4 x 28W T5
Louvre/clear
• LOR = 61.5%
• SHR MAX = 1.55



4 x 28W T5
Prismatic
• LOR = 64.7%
• SHR MAX = 1.42

Utilisation Factors UF(F)

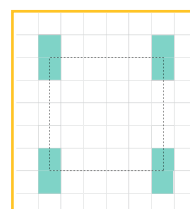
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.49 0.63 0.66

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.43 0.62 0.67

Performance Guide

Lamps	Illuminance	Spacing
4 x 54W T5	1000 lux	3.0m x 3.0m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 54W T5	4450	24,000hrs

To Specify

Recessed non-modular T5 clean room luminaire, for cut/prepared aperture ceilings to a BSI tested and certified construction, as IP65 frame on IP54 frame off with twin in line extruded aluminium frames, with angled integration and concealed front frame fixings. The luminaire is to provide access to void services. Suspension via solid aluminium jacking brackets adjusted from below – as Whitecroft Lighting DTFN ELITE T5 Through Access



Optics

- Anodised aluminium reflector
- 70W Osram Halolux E27 base tungsten halogen lamp included

Body

- One piece assembly with precision moulded bezel
- Only non-ferrous materials are used in the construction
- User friendly rapid fix push down straps with 3 point location

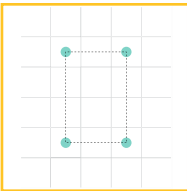


Order Codes

Esprit MRI	Standard
TH 1 x 70W	ESTH75

Performance Guide

Lamps	Illuminance	Spacing
1 x 70W TH	360 lux	1.8m x 1.2m

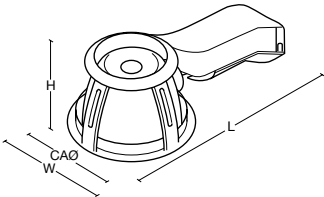


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 70W TH	1180	2,000hrs

Dimensions



L	W	H	CAØ	KG
363	218	114	200	0.9

Photometric Performance



1 x 70W TH
• LOR = 84.8%
• SHR MAX = 0.91

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.59	0.84	0.89

To Specify

One piece compact recessed downlighter for MRI scanning rooms, fabricated from non-ferrous materials and containing no electronic gear – as Whitecroft Lighting ESPRIT MRI



Optics

- 4000K
- 54° beam angle for maximum room surface illumination
- MRI500 - 7 LEDs running at 350mA = 9.0w system power
- MRI1000 - 7 LEDs running at 700mA = 16.5w system power
- High quality, single bin LEDs with only a 4 Macadam ellipse tolerance
- Lower point brightness due to the unique LED arrangement
- Specifically designed lens array to produce a precise beam control and high colour rendering index
- 50,000 hours life expectancy

Body

- Luminaire body and housing free from metallic magnetic materials
- Modular design utilising either a 500 or 1000 lumen LED package
- Supplied with an inline linear constant current regulator to connect to 24V system
- Finished in white
- For ceiling thickness: – 2 to 20mm
- Driver and head to be ordered separately

Driver

- Two options with 1-10V dimming:
 - 185 or 320W constant voltage (24V)



Equivalent Lamp Types

Concert MRI 1000 Lumen Output

Compact Fluorescent	1 x 18W, 1 x 26W
CDM	1 x 20W
Tungsten Halogen	1 x 50W, 1 x 75W

Concert MRI 500 Lumen Output

Compact Fluorescent	1 x 13W
Tungsten Halogen	1 x 35W

Order Codes

Concert MRI 500 Lumen Output

4000k Flood Optic

CNMR5004KFLW

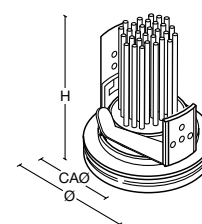
Options

1000 LUMEN LED Replace 500 with **1000** i.e. CNMR**1000**4KFLW

Drivers

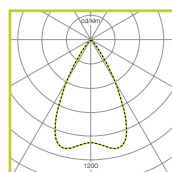
185W	CNMR185W
320W	CNMR320W

Dimensions

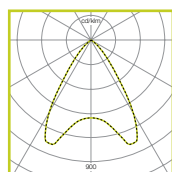


Version	H	Ø	CAØ	KG
Fixed	100	90	80	0.84

Photometric Performance



Concert MRI 500
54° 4000K
• LOR = 100%
• SHR MAX = 1.17



Concert MRI 1000
54° 4000K
• LOR = 100%
• SHR MAX = 0.61

Utilisation Factors UF(F)

Room Reflectance	Room Index			
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.89	1.09 1.13

Utilisation Factors UF(F)

Room Reflectance	Room Index			
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.82	1.05 1.10

To Specify

Recessed high output single bin LED downlight for MRI scanning rooms. Luminaire body and housing free from metallic magnetic materials. For ceiling thicknesses of 2-20mm, supplied complete with driver as Whitecroft Lighting CONCERT MRI 500 / MRI 1000

koło anti-ligature

anti-ligature LED surface mounted luminaire



Optics

- Light output options:
 - 4000 Kelvin 'cool white' colour temperature
- High quality, single bin LEDs with a 4 MacAdam ellipse tolerance
- Polycarbonate opal diffuser
- 50,000 hours life expectancy

Body

- Surface mounted as standard
- 467mm diameter
- Cast aluminium body with injection moulded base and front bezel
- IP65
- Finished in white
- Choice of integrated emergency options:
 - 3 hour emergency
 - EasyTest
 - COMEPS
- Optional Command 5 microwave detector mounted behind the diffuser available that can be set to one of two configurations:
 - Microwave presence detection with ON/OFF operation
 - Microwave presence detection with High/Low/Off set-back functionality. Can be set to switch from 100% down to set-back position of 50%, 30%, 20%, 10% or OFF
- Command 5 sensor can only be used in conjunction with fixed output products
- Luminaire and anti-ligature kit supplied separately



LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 4 SDCM

Order Codes

400mm 4000K	Fixed Output	3 hr Emergency
1700 lumens (20W)*	K6H4154KW	K6H4154KWEM
2300 lumens (28W)*	K6H4204KW	K6H4204KWEM

Accessories

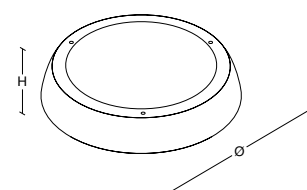
Anti-ligature kit	KLALKIT400W
-------------------	-------------

Options

DALI DIMMING	Replace H with Y	i.e. K4 Y 364KS
EASYTEST	Add suffix /ET	i.e. K4H364KS/ ET
COMEPS	Add suffix /EP	i.e. K4H364KS/ EP
COMMAND 5	Replace H with Q5	i.e. K4 Q5 364KS

*Available for delivery from January 2013. Typically 70-80 LL/W, please consult website for precise lumen output

Dimensions



Version	Ø	H	KG	KG
400mm surface	467	95	3.8	4.3

To Specify

Surface mounted LED vandal resistant IP65 anti-ligature luminaire with four tamper proof front face fixings. Opal diffuser with injection moulded bezel and cast aluminium body – as Whitecroft Lighting KOLO ANTI-LIGATURE

horizon LED anti-ligature

anti-ligature surface
mounted LED luminaire



Optics

- Light output options:
 - 900 lumens (3K – 19W*)
 - 1200 lumens (3K – 28W*)
 - 1000 lumens (4K – 19W*)
 - 1300 lumens (4K – 28W*)
- *Total power consumption including driver
- High quality, single bin LEDs with a 4 MacAdam ellipse tolerance
- 50,000 hours life expectancy

Body

- Heavy gauge steel spinning finished white
- Flush mounting on ceiling or wall
- 3 or 4 mounting points with 3 tamper proof front face fixings
- Flame retardant opal polycarbonate diffuser
- Optional Command 5 microwave sensor mounted behind the diffuser

Order Codes

Surface	Fixed Output	3 hr Emergency
900 lumens 3K	HRAL93K	HRAL93KEM
1200 lumens 3K	HRAL123K	HRAL123KEM
1000 lumens 4K	HRAL104K	HRAL104KEM
1300 lumens 4K	HRAL134K	HRAL134KEM

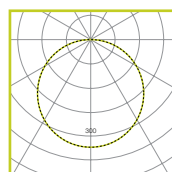
Options

EASYTEST	Add suffix /ET	i.e. HRAL93K/ET
COMEPS	Add suffix /EP	i.e. HRAL93K/EP
COMMAND 5	Replace L with Q5	i.e. HRAQ593K
SPECIAL TOOL REQUIRED FOR ACCESS AND FIXING		HAL-KEY

LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
3K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 4 SDCM
4K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 4 SDCM

Photometric Performance



19W LED
1000 lumens
• LOR = 100%
• SHR MAX = 1.64

Utilisation Factors UF(F)

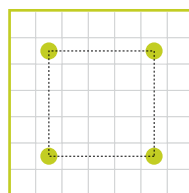
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.67	0.95	1.02



Tamper Proof Screws

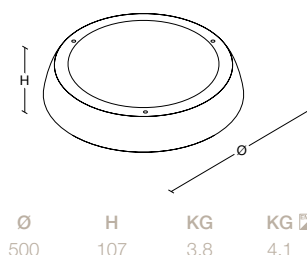
Performance Guide

Lamps	Illuminance	Spacing
28W LED	200 lux	2.4m x 2.4m



Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 2.7m
Working Plane: 0.8m

Dimensions



To Specify

Surface mounted, vandal resistant, anti-ligature luminaire with 3 or 4 mounting points and 3 tamper proof front face fixings for maintenance access with LED light source and emergency options. Flame retardant opal diffuser with spun steel body – as Whitecroft Lighting HORIZON LED ANTI-LIGATURE

horizon anti-ligature

anti-ligature surface
mounted luminaire



Optics

- Lamp options:
 - 1 x 28 or 38W 2D
 - 1 x 55W 2D
 - 2 x 26W TC-D
- Night light via 7W TC-S

Body

- Heavy gauge steel spinning finished white
- Flush mounting on ceiling or wall
- 3 or 4 mounting points with 3 tamper proof front face fixings
- Flame retardant opal polycarbonate diffuser



Tamper Proof Screws

Order Codes

Horizon Anti-Ligature	HF Gear	3 hr Emergency
2D 1 x 28W	HALH128	HALH128EM
2D 1 x 38W	HALH138	HALH138EM
2D 1 x 55W	HALH155	HALH155EM
TC-D 2 x 26W	HALH226	HALH226EM

Options

DALI DIMMING*	Replace H with Y	i.e. HALY226
EASYTEST	Add suffix /ET	i.e. HALH128/ET
COMET	Add suffix /CT	i.e. HALH128/CT
COMEPS	Add suffix /EP	i.e. HALH128/EP
7W NIGHT LIGHT	Add suffix NL	i.e. HALH128NL
	For emergency	i.e. HALH128NLEM

SPECIAL TOOL REQUIRED FOR ACCESS AND FIXING **HAL-KEY**

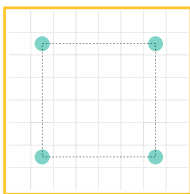
*DALI dimming only available on 2 x 26W TC-D versions

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W 2D	2150	21,000hrs
1 x 38W 2D	3020	21,000hrs
1 x 55W 2D	3900	15,000hrs
1 x 26W TC-D	1800	13,000hrs

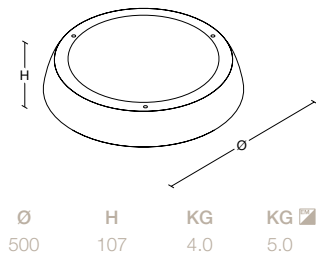
Performance Guide

Lamps	Illuminance	Spacing
1 x 55W 2D	200 lux	3.0m x 3.0m

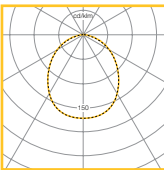


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Dimensions



Photometric Performance



1 x 55W 2D
• LOR = 50%
• SHR MAX = 1.70

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.33 0.47 0.51

To Specify

Surface mounted, vandal resistant, anti-ligature luminaire with 3 or 4 mounting points and 3 tamper proof front face fixings for maintenance access. Fully integral HF gear and emergency with 7W night light optional, 500mm diameter and 107mm deep – as Whitecroft Lighting HORIZON ANTI-LIGATURE

mirage LED anti-ligature

anti-ligature LED
recessed downlighter



Optics

- Light Output Options – stable white:
 - 1100 lumens (13W*)
 - 2000 lumens (23W*)
- *Total power consumption including driver based on the 4000K light engine
- Supplied complete with specular reflector
- Available in 3000K & 4000K
- Anti-glare control ring option
- 50,000 hour life expectancy
- High impact 5mm thick polycarbonate cover

Body

- Front bezel is screw fixed to the rear ceiling plate and secured by retaining tamper proof screws
- Black cast aluminium body with polycarbonate reflector ring in white
- Bodies available in two depths, compact or comfort
- Rapid installation guaranteed with our unique spring assembly
- Luminaire supplied with interconnecting cable for connection to the LED driver (LED driver to be ordered separately)
- For ceilings 5-50mm thick
- Can be used with the anti-glare control insert

Order Codes

Mirage LED Compact (order driver & anti-ligature kit separately)	Fixed Output	3 hr Emergency
1100 lumen 4000K	MLA114KCMP	MAA114KCMP
2000 lumen 4000K	MLA204KCMP	MAA204KCMP

Mirage LED Comfort (order driver & anti-ligature kit separately)	Fixed Output	3 hr Emergency
1100 lumen 4000K	MLA114KCFT	MAA114KCFT
2000 lumen 4000K	MLA204KCFT	MAA204KCFT

Mirage LED Anti-ligature Kit	
Anti-ligature kit (order one per product)	MALKIT

Drivers	Fixed Output	DALI
1100/2000 lumens	MLH25W	MLY25W

Attachments	
Anti Glare Control Insert	MLA-AGC

Options		
3000K COLOUR TEMP	Replace 4K with 3K	i.e. MLA203KCMP
EASYTEST	Add suffix /ET	i.e. MLA204KCMP/ET
COMEPS	Add suffix /EP	i.e. MLA204KCMP/EP
SPECIAL TOOL REQUIRED FOR ACCESS AND FIXING		HAL-KEY

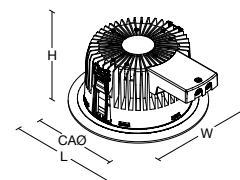


Equivalent Lamp Types

1100 Lumen Output
Compact fluorescent **1 x 18/26W**

2000 Lumen Output
Compact fluorescent **1 x 32/42W**
2 x 26W

Dimensions

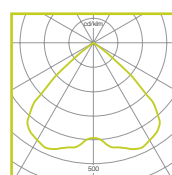


Version	L	W	H	CAØ	KG	KG
Compact	232	250	100	165	1.6	3.1
Comfort	232	250	137	165	1.8	3.3
Driver	220	83	35	-	0.3	-

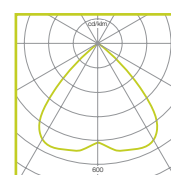
LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
3000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM

Photometric Performance



13W LED Compact
1033 lumens
4000K
• LOR = 100%
• SHR MAX = 1.97



23W LED Comfort
1778 lumens
4000K
• LOR = 100%
• SHR MAX = 1.75

Utilisation Factors UF(F)

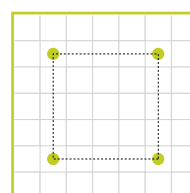
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.79 1.02 1.08

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.80 1.03 1.08

Performance Guide

Lamps	Illuminance	Spacing
23W LED	200 lux	3.0m x 3.0m



Maintenance: 0.8
Reflectance: 70/50/20
Ceiling Height: 2.7m
Working Plane: 0.0m

To Specify

Recessed Anti-Ligature LED downlighter with cast aluminium body, specular reflector with optional anti-glare control insert and high impact 5mm thick polycarbonate cover retained by ceiling mounting plate, front polycarbonate bezel and tamper proof screws – as Whitecroft Lighting MIRAGE LED ANTI-LIGATURE

mirage MX24 anti-ligature

anti-ligature recessed
downlighter



Optics

- Lamp options:
 - 2 x 18W TC-D
 - 2 x 26W TC-D
- Plain silver reflector with high impact 5mm thick polycarbonate cover

Body

- Die cast body and inner bezel
- Body screw fixed to ceiling before front bezel is located
- Front bezel secured by retained tamper proof screws
- Can be used with technical louvre and dimming control gear for night lighting applications
- IP44 from room side



Technical Louvre

Order Codes

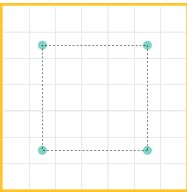
Mirage MX24 Anti-Ligature	HF Gear	3 hr Emergency
TC-D 2 x 18W	MX24ALH218P	MX24ALH218PEM
TC-D 2 x 26W	MX24ALH226P	MX24ALH226PEM

Options

DALI DIMMING	Replace H with Y	i.e. MX24ALY218P
SWITCH DIMMING	Replace H with X	i.e. MX24ALX218P
EASYTEST	Add suffix /ET	i.e. MX24ALH218P/ET
COMET	Add suffix /CT	i.e. MX24ALH218P/CT
COMEPS	Add suffix /EP	i.e. MX24ALH218P/EP
SPECIAL TOOL REQUIRED FOR ACCESS AND FIXING		HAL-KEY
TECH LOUVRE	Add suffix T	i.e. MX24ALH218PT
	For emergency	i.e. MX24ALH218PTM

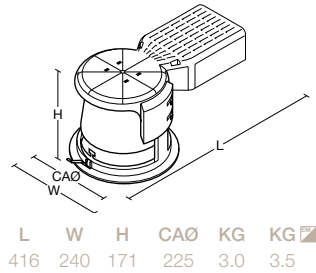
Performance Guide

Lamps	Illuminance	Spacing
2 x 26W TC-D	220 lux	2.4m x 2.4m

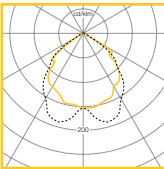


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Dimensions



Photometric Performance



2 x 26W TC-D
• LOR = 38.8%
• SHR MAX = 1.61

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 18W TC-D	1200	13,000hrs
1 x 26W TC-D	1800	13,000hrs

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.32 0.40 0.42

To Specify

Pressed steel and extruded aluminium bodied TC-D compact fluorescent anti-ligature down-lighter with high frequency gear integral to body and plain silver reflector with optional technical louvre. High impact 5mm thick polycarbonate cover retained by mounting ring and spun bezel in 0.9mm zinc steel finished white and secured by 3 – M5 x 20 tamper proof screws – as Whitecroft Lighting MIRAGE MX24 AL



clean area



curie elite 346



DTFA elite 348



DTFN elite 352



lister² 356



DTBY 359

clean area product selector

Clean Room Lighting Considerations

Lighting in Clean Rooms and Sterile Environments must address two key factors to satisfy regulatory bodies like the FDA. (Food and Drug Administration).

Firstly; will the luminaire protect the room from void contaminants? This requires luminaires to have the correct and independently certified IP rating on both front frame and body. Installation methods must also ensure full and even compression of luminaire seals against ceilings.

Secondly; are luminaires suitable for a sterile environment? To achieve this, luminaires must be easy to clean with minimal grooves and crevices and meet ISPE (International Society of Pharmaceutical Engineering) Baseline Guide recommendations for different classes of room. Seals should be bacterially inert and in more critical rooms luminaire frame fixings should be tightly capped. Luminaire components must be resistant to sterilising chemicals (glass diffusers are fully resistant but thermoplastic diffuser materials which can be attacked could be preferred only if ceiling loading is an issue).

Additional considerations include the need to maximise light output, as space in clean room ceilings is limited. To satisfy section 6, B2 of the Building Regulations, TP(a) diffusers are required in recessed luminaires in rooms over 30m² and this reduces light output. T5 lamps help address this problem and make higher lumen packages available while extending lamp life to 24,000 hours and ensuring good colour rendition.

To ensure luminaires do not generate particles (i.e. corrosion or paint shedding), all our clean room luminaires use extruded aluminium frames (recommended in the ISPE guide) and are painted as standard to a depth of 120µm baked at 180°C for a hard durable scratch resistant finish.

- So we can assist in selecting the best luminaire, it is helpful to have the following information:
- Room classification, activity and IP/IP (frame on/frame off) rating required.
 - Is the environment bio-hazardous? If so please provide details.
 - Front or back access? (Will lamps be changed from inside the room or from the room above).
 - Is the ceiling non-modular prepared aperture or a modular T bar ceiling?
If non-modular how thick is the ceiling panel?
 - If capping is used to strengthen around prepared apertures on non-modular ceilings how far does this extend below the ceiling? (Curie and DTFN conceal up to 15mm of capping).
 - On non-modular ceilings, is the standard suspension method suitable? If not, is a deeper ceiling bracket or special suspension method required?
 - Is the room area >30m²? In which case TP(a) diffuser materials are normally necessary in the UK. In smaller rooms and certain export markets TP(b) may be acceptable.
 - Does the room have computer screens and is a louvre needed?
 - If a thermoplastic diffuser is being considered, what chemicals and sterilising compounds are present?
 - On Spring T ceilings a recessing panel must be ordered if it is necessary to maintain room integrity to the void to IP65.

National and international standards comparison chart

Country	USA		EU	ISO		France	Germany	Australia
Standard	209D	209E	GGMP	BSEN 14644-1	BS5295	AFNOR X44101	VD I.2083.3	AS 1386
Date of issue	1988	1992	1997	1999	1989	1981	1993	1989
				2				
	1	M1.5		3	C		1	0.035
	10	M2.5		4	D		2	0.35
	100	M3.5	A&B	5	E, F	4000	3	3.5
	1,000	M4.5		6	G, H		4	35
	10,000	M5.5	C	7	J	400,000	5	350
	100,000	M6.5	D	8	K	4,000,000	6	3500

clean area product selector

Clean room product selector

STANDARD		PRODUCT					
FS209D	EU GMP	Curie	DTFN	DTFA	Lister ²	DTBY	DTFN TA
	1997	Elite	Elite	Elite			Elite
		IP65/65	IP65/54	IP65/54	IP65/20	IP65	IP65/54
1							
10							
100	A&B	•					
1,000		•	•	•			•
10,000	C	•	•	•		•	•
100,000	D	•	•	•	•	•	•
Unclassified	Unclassified	•	•	•	•	•	•
CONTAINMENT							
ACDP 1-2		•	•	•			
ACDP 3-4		•					
CEILING COMPATIBILITY							
Prepared aperture ceilings (See product pages for thickness range)		•	•		•		•
25mm Exposed T				•	•		
Spring T (Order a recessing panel if it is necessary to maintain room integrity)				•	•		
Surface Mounted						•	
Page		346	352	348	356	359	332

Clean room luminaires are designed on the assumption there will be a positive pressure regime in the room. Containment facilities operate at a negative pressure & particularly in the case of levels 3 & 4, present a considerable hazard if any escape occurs from the room. For these applications we would request further details.



Curie Elite



DTFN Elite



DTFA Elite



Lister²



DTBY



DTFN through access
see Healthcare section
page 332



Curie Elite Louvre



Solid Aluminium Jacking Bracket

Optics

- Lamp options:
 - 4 x 14/24W T5
 - 2 or 4 x 28W T5
 - 2, 3 or 4 x 54W T5
- All optics are TP(a) rated
 - Louvre above 4mm toughened glass
 - Prismatic acrylic above 4mm toughened glass
- Glass front face resists all cleaning chemicals and is recommended in critical aseptic or ACDP category 3 and 4 applications
- Shallow profile extruded aluminium diffuser frame with fully welded and finished corners finished white with a facility to remove and replace glass or diffusers
- Lamps on an interchangeable and rapidly detachable 'four point fix' gear and lamp tray complete with fused terminal block

Body

- Front access and back access version available
 - Back access has a hinged lid and no front frame fixings
- IP65/65 protection, a smooth crevice free front face and rapid maintenance features make Curie ideally suitable for any class of clean room or containment facility requiring a recessed non-modular luminaire up to the most exacting requirement. For FS209D class 100 and 1000 clean rooms or equivalent and ACDP class 3 and 4
- Suitable for prepared aperture ceilings and sandwich panels with capped aperture reinforcements up to a depth of 91mm front and 108mm back access with standard brackets or 155mm front and 172mm back access with special deep ceiling bracket
- Dual IP rated – to a BSI tested and certified construction as protecting the room to IP65 from void contamination with the front frame on or off
- Triple flipper thermoplastic rubber seal with welded corners to best cope with ceiling irregularity and maintain maximum room integrity
- Steel fully welded and finished body finished white
- Solid aluminium side arm jacking brackets adjusted from within the sealed body – front access/from the room above back access

curie elite

Order Codes

Curie Elite Louvre Above Glass	HF Gear	3 hr Emergency
T5 4 x 14W	CUWGH414	CUWGH414EMIN
T5 4 x 24W	CUWGH424	CUWGH424EMIN
T5 2 x 28W	CUWGH228	CUWGH228EMIN
T5 4 x 28W	CUWGH428	CUWGH428EMIN
T5 2 x 54W	CUWGH254	CUWGH254EMIN
T5 4 x 54W	CUWGH454	CUWGH454EMIN

Curie Elite Prismatic Acrylic Above Glass

Acrylic Above Glass	HF Gear	3 hr Emergency
T5 4 x 14W	CUAGH414	CUAGH414EMIN
T5 4 x 24W	CUAGH424	CUAGH424EMIN
T5 2 x 28W	CUAGH228	CUAGH228EMIN
T5 4 x 28W	CUAGH428	CUAGH428EMIN
T5 2 x 54W	CUAGH254	CUAGH254EMIN
T5 3 x 54W	CUAGH354	CUAGH354EMIN
T5 4 x 54W	CUAGH454	CUAGH454EMIN

Options

DALI DIMMING	Replace H with Y	i.e. CUWGY414
SWITCH DIMMING	Replace H with X	i.e. CUWGX414
COMEPS	Add suffix /EP	i.e. CUWGH414/EP
EASYTEST	Add suffix /ET	i.e. CUWGH414/ET
COMET	Add suffix /CT	i.e. CUWGH414/CT
BACK ACCESS	Add suffix BA	i.e. CUWGH414BA
DEEP CEILING BRACKET	For Emergency	i.e. CUWGH414BAEMIN
DEEP CEILING BRACKET	14/24W lamps	150CBKT600
DEEP CEILING BRACKET	28/54W lamps	150CBKT1200

Ceiling Depth Selection Guide

	Standard Bracket	Optional Deep Bracket
Front Access	33-91mm	33-155mm
Back Access	52-108mm	52-172mm

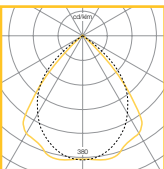
Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

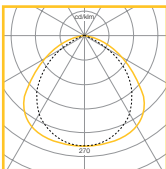
Plasterboard

Prepared aperture

Photometric Performance



4 x 14W T5
Louvre/Glass
• LOR = 57.7%
• SHR MAX = 1.55



4 x 14W T5
Prismatic/Glass
• LOR = 63.3%
• SHR MAX = 1.72

Utilisation Factors UF(F)

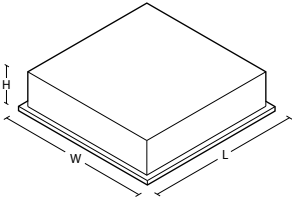
Room Reflectance	Room Index			
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.47	0.60 0.62

Utilisation Factors UF(F)

Room Reflectance	Room Index			
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.48	0.64 0.67

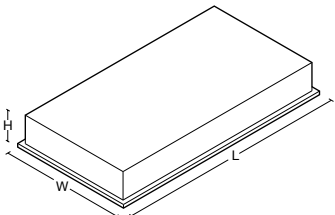
Dimensions

4 x 14/24W



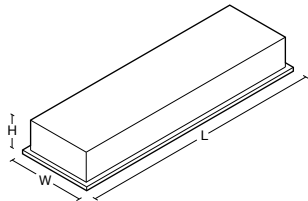
Version	L	W	H	Prepared Aperture	KG	KG
Front Access	735	608	123	542 x 669 $^{+0}_{-5}$	18.5	19.5
Back Access	735	608	143	542 x 669 $^{+0}_{-5}$	19.5	20.5

4 x 28/54W
3 x 54W



Version	L	W	H	Prepared Aperture	KG	KG
Front Access	1335	608	123	542 x 1269 $^{+0}_{-5}$	28.0	29.0
Back Access	1335	608	143	542 x 1269 $^{+0}_{-5}$	29.0	30.0

2 x 28/54W



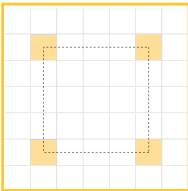
Version	L	W	H	Prepared Aperture	KG	KG
Front Access	1335	375	123	309 x 1269 $^{+0}_{-5}$	18.0	19.0
Back Access	1335	375	143	309 x 1269 $^{+0}_{-5}$	19.0	20.0

Performance Guide

Lamps	Illuminance	Spacing
4 x 14W T5	465 lux	2.4m x 2.4m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 24W T5	1750	24,000hrs
1 x 28W T5	2625	24,000hrs
1 x 54W T5	4450	24,000hrs



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

To Specify

Recessed non-modular front (back) access T5 clean room luminaire for cut/prepared aperture ceilings. To a BSI tested and certified construction as IP65 frame on or off with fully welded body and front frame corners and triple contact welded TPR gasket. Concealed or no front frame fixings, suspension via solid aluminium jacking bracket adjusted from (inside – front access, outside – back access) the luminaire – as Whitecroft Lighting CURIE ELITE

DTFA elite

– for modular ceilings

IP65/54 recessed T5 luminaire with
sealed twin frame construction



Optics

- Lamp options
 - 4 x 14/24W T5
 - 2 or 4 x 28W T5
 - 2, 3 or 4 x 54W T5
- All optics are TP(a) rated:
 - Louvre above 4mm toughened glass or clear fireguard material
 - Prismatic acrylic above 4mm toughened glass
 - Single sheet 3mm prismatic fireguard material

Note – a glass front face resists all cleaning chemicals and is best for a sterile environment. Other TP(a) materials are selected for best chemical resistance if advice is needed contact the Whitecroft Technical Desk.

Body

- Front access only
- Welded steel body finished white
- Compatible with modular exposed T and spring T ceilings. Recessing panels are recommended on spring T ceilings to retain room integrity – Refer to page 404 for ceiling compatibility information
- Dual IP rated – to a BSI tested and certified construction as protecting the room to IP65 from void contamination with the front frame in place and IP54 with the frame removed
- Extruded aluminium outer frame (gasketed to the T bar) and inner frame integrated in line but at an angle to eliminate a vertical gap. Concealed front frame fixings and white full gloss frames
- The diffuser clamping system is highly secure and will accept glass. The inner frame design facilitates diffuser replacement
- Robust extruded aluminium side arm cam brackets adjusted from outside the sealed body





DTFA elite – for modular ceilings

Order Codes -

Louvre above 4mm
toughened glass

	HF Gear	3 hr Emergency
T5 4 x 14W	DTFAWGH414	DTFAWGH414EMIN
T5 4 x 24W	DTFAWGH424	DTFAWGH424EMIN
T5 2 x 28W	DTFAWGH228	DTFAWGH228EMIN
T5 4 x 28W	DTFAWGH428	DTFAWGH428EMIN
T5 2 x 54W	DTFAWGH254	DTFAWGH254EMIN
T5 4 x 54W	DTFAWGH454	DTFAWGH454EMIN

Louvre above 3mm
clear TP(a) rated sheet

	HF Gear	3 hr Emergency
T5 4 x 14W	DTFAWFH414	DTFAWFH414EMIN
T5 4 x 24W	DTFAWFH424	DTFAWFH424EMIN
T5 2 x 28W	DTFAWFH228	DTFAWFH228EMIN
T5 4 x 28W	DTFAWFH428	DTFAWFH428EMIN
T5 2 x 54W	DTFAWFH254	DTFAWFH254EMIN
T5 4 x 54W	DTFAWFH454	DTFAWFH454EMIN

Prismatic acrylic above 4mm
toughened glass

	HF Gear	3 hr Emergency
T5 4 x 14W	DTFAAGH414	DTFAAGH414EMIN
T5 4 x 24W	DTFAAGH424	DTFAAGH424EMIN
T5 2 x 28W	DTFAAGH228	DTFAAGH228EMIN
T5 4 x 28W	DTFAAGH428	DTFAAGH428EMIN
T5 2 x 54W	DTFAAGH254	DTFAAGH254EMIN
T5 3 x 54W	DTFAAGH354	DTFAAGH354EMIN
T5 4 x 54W	DTFAAGH454	DTFAAGH454EMIN

Prismatic TP(a) single sheet

	HF Gear	3 hr Emergency
T5 4 x 14W	DTFAKH414	DTFAKH414EMIN
T5 4 x 24W	DTFAKH424	DTFAKH424EMIN
T5 2 x 28W	DTFAKH228	DTFAKH228EMIN
T5 4 x 28W	DTFAKH428	DTFAKH428EMIN
T5 2 x 54W	DTFAKH254	DTFAKH254EMIN
T5 3 x 54W	DTFAKH354	DTFAKH354EMIN
T5 4 x 54W	DTFAKH454	DTFAKH454EMIN

Options

DALI DIMMING	Replace H with Y	i.e. DTFAWGY414
SWITCH DIMMING	Replace H with X	i.e. DTFAWGX414
COMEPS	Add suffix /EP	i.e. DTFAWGH414/EP
EASYTEST	Add suffix /ET	i.e. DTFAWGH414/ET
COMET	Add suffix /CT	i.e. DTFAWGH414/CT

RECESSING PANEL to retain room integrity on spring T ceilings

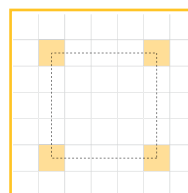
14/24W lamps	RP600x600
28/54W twin lamp options	RP300x1200
28/54W three and four lamp options	RP600x1200



Cam Jacking Bracket

Performance Guide

Lamps	Illuminance	Spacing
4 x 14W T5	465 lux	2.4m x 2.4m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 24W T5	1750	24,000hrs
1 x 28W T5	2625	24,000hrs
1 x 54W T5	4450	24,000hrs

DTFA elite – for modular ceilings

Weight

	Louvre/ toughened glass	Louvre/TP(a) rated sheet	Acrylic/ toughened glass	Prismatic TP(a)
T5 4 x 14W	15.0 KG	13.0 KG	16.0 KG	11.0 KG
T5 4 x 24W	15.0 KG	13.0 KG	16.0 KG	11.0 KG
T5 2 x 28W	16.0 KG	14.0 KG	17.0 KG	12.0 KG
T5 4 x 28W	26.0 KG	20.0 KG	27.0 KG	18.0 KG
T5 2 x 54W	16.0 KG	14.0 KG	17.0 KG	12.0 KG
T5 3 x 54W	–	–	27.0 KG	18.0 KG
T5 4 x 54W	26.0 KG	20.0 KG	27.0 KG	18.0 KG

Note: Emergency luminaires are 1 KG heavier than the standard shown above

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

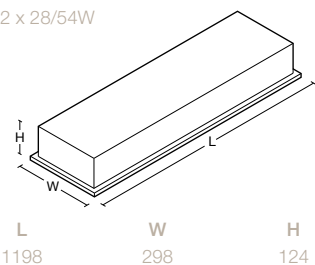
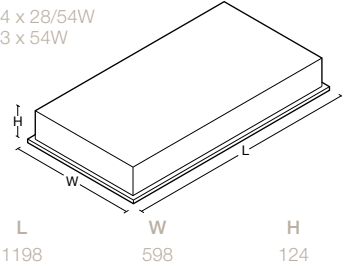
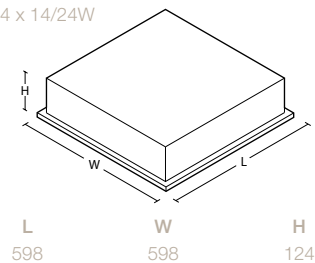
Exposed T Grids

T15/T25 Pull up

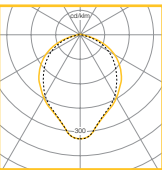
Spring T Grids

SAS – 150/120
Armstrong – Orcal 1800/3000
Burgess – Clip in/Abar
Dampa – Clip in

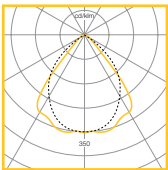
Dimensions



Photometric Performance



4 x 14W T5
Prismatic
• LOR = 62.6%
• SHR MAX = 1.39



4 x 14W T5
Louvre/glass
• LOR = 53.5%
• SHR MAX = 1.55

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.42	0.60	0.65

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.43	0.55	0.58

To Specify

Recessed modular T5 clean room luminaire to a BSI tested and certified construction as IP65 frame on IP54 frame off with twin in line extruded aluminium frames with angled integration and concealed front frame fixings, suspension via robust aluminium cam brackets adjusted from outside the luminaire – as Whitecroft Lighting DTFA ELITE.

DTFN elite

IP65/54 recessed T5 uminaire with
sealed two frame construction



– for prepared aperture ceilings



Optics

- Lamp options
 - 4 x 14 or 24W T5
 - 2 or 4 x 28W T5
 - 2, 3 or 4 x 54W T5
- All optics are TP(a) rated:
 - Louvre above 4mm toughened glass or clear fireguard material
 - Prismatic acrylic above 4mm toughened glass
 - Single sheet 3mm prismatic fireguard material

Note – a glass front face resists all cleaning chemicals and is best for a sterile environment. Other TP(a) materials are selected for best chemical resistance. If advice is needed contact the Whitecroft Technical Desk

Body

- Front or back access
- Suitable for cut and prepared aperture ceilings and sandwich panels with capped aperture reinforcements up to a depth of 91mm front and 108mm back access with standard brackets or 155mm front and 172mm back access with special deep ceiling bracket
- Through access version also available to facilitate maintenance of services located in the ceiling void (See page 332 for details)
- Welded steel body finished white
- Dual IP rated – to a BSI tested and certified construction as protecting the room to IP65 from void contamination with the front frame and IP54 with the frame removed
- Extruded aluminium fixed outer frame (gasketed to ceiling) and removable inner frame integrate in line but at an angle to eliminate a vertical gap. Additional mastic sealant between outer frame and ceiling does not impede lamp access. Concealed front frame fixings and white full gloss frames
- Solid aluminium side arm jacking brackets adjusted from within the sealed body (from the room above for back access versions)
- The diffuser clamping system is highly secure and will accept glass. The inner frame design facilitates diffuser replacement





DTFN elite – for prepared aperture ceilings

Order Codes

Louvre above 4mm
toughened glass

	HF Gear	3 hr Emergency
T5 4 x 14W	DTFNWGH414	DTFNWGH414EMIN
T5 4 x 24W	DTFNWGH424	DTFNWGH424EMIN
T5 2 x 28W	DTFNWGH228	DTFNWGH228EMIN
T5 4 x 28W	DTFNWGH428	DTFNWGH428EMIN
T5 2 x 54W	DTFNWGH254	DTFNWGH254EMIN
T5 4 x 54W	DTFNWGH454	DTFNWGH454EMIN

Louvre above 3mm
clear TP(a) rated sheet

	HF Gear	3 hr Emergency
T5 4 x 14W	DTFNWFH414	DTFNWFH414EMIN
T5 4 x 24W	DTFNWFH424	DTFNWFH424EMIN
T5 2 x 28W	DTFNWFH228	DTFNWFH228EMIN
T5 4 x 28W	DTFNWFH428	DTFNWFH428EMIN
T5 2 x 54W	DTFNWFH254	DTFNWFH254EMIN
T5 4 x 54W	DTFNWFH454	DTFNWFH454EMIN

Prismatic acrylic above 4mm
toughened glass

	HF Gear	3 hr Emergency
T5 4 x 14W	DTFNAGH414	DTFNAGH414EMIN
T5 4 x 24W	DTFNAGH424	DTFNAGH424EMIN
T5 2 x 28W	DTFNAGH228	DTFNAGH228EMIN
T5 4 x 28W	DTFNAGH428	DTFNAGH428EMIN
T5 2 x 54W	DTFNAGH254	DTFNAGH254EMIN
T5 3 x 54W	DTFNAGH354	DTFNAGH354EMIN
T5 4 x 54W	DTFNAGH454	DTFNAGH454EMIN

Prismatic TP(a) single sheet

	HF Gear	3 hr Emergency
T5 4 x 14W	DTFNKH414	DTFNKH414EMIN
T5 4 x 24W	DTFNKH424	DTFNKH424EMIN
T5 2 x 28W	DTFNKH228	DTFNKH228EMIN
T5 4 x 28W	DTFNKH428	DTFNKH428EMIN
T5 2 x 54W	DTFNKH254	DTFNKH254EMIN
T5 3 x 54W	DTFNKH354	DTFNKH354EMIN
T5 4 x 54W	DTFNKH454	DTFNKH454EMIN

Options

DALI DIMMING	Replace H with Y	i.e. DTFNWDY414
SWITCH DIMMING	Replace H with X	i.e. DTFNWDX414
COMEPS	Add suffix /EP	i.e. DTFNWDH414/EP
EASYTEST	Add suffix /ET	i.e. DTFNWDH414/ET
COMET	Add suffix /CT	i.e. DTFNWDH414/CT
BACK ACCESS	Add suffix BA	i.e. DTFNWDH414BA
	For emergency	i.e. DTFNWDH414BAEMIN

For ceilings up to 155mm thick (front access) and 172mm thick (back access)

DEEP CEILING BRACKET

14/24W lamps

28/54W lamps

Ceiling Depth Selection Guide

	Standard Bracket	Optional Deep Bracket
Front Access	33-91mm	33-155mm
Back Access	52-108mm	52-172mm

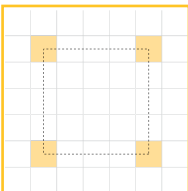
354 Clean Area



Solid Aluminium Jacking Bracket

Performance Guide

Lamps	Illuminance	Spacing
4 x 14W T5	465 lux	2.4m x 2.4m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 24W T5	1750	24,000hrs
1 x 28W T5	2625	24,000hrs
1 x 54W T5	4450	24,000hrs

DTFN elite – for prepared aperture ceilings

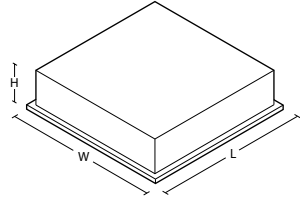
Weight

	Louvre/ toughened glass	Louvre/TP(a) rated sheet	Acrylic/ toughened glass	Prismatic TP(a)
T5 4 x 14W	16.0 KG	14.0 KG	16.0 KG	12.0 KG
T5 4 x 24W	16.0 KG	14.0 KG	16.0 KG	12.0 KG
T5 2 x 28W	18.0 KG	15.0 KG	18.0 KG	13.0 KG
T5 4 x 28W	27.0 KG	21.0 KG	28.0 KG	19.0 KG
T5 2 x 54W	18.0 KG	15.0 KG	18.0 KG	13.0 KG
T5 3 x 54W	–	–	28.0 KG	19.0 KG
T5 4 x 54W	27.0 KG	21.0 KG	28.0 KG	19.0 KG

Note: Emergency luminaires are 1 KG heavier than the standard shown above
Weights are for front access luminaires

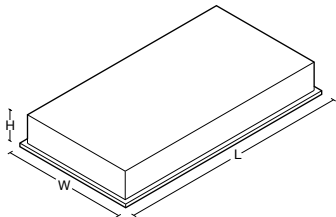
Dimensions

4 x 14/24W



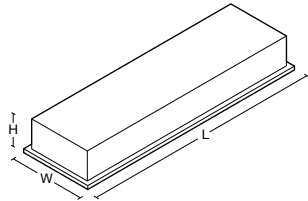
Version	W	L	H	Prepared Aperture
Front Access	603	725	124	555 x 677 ⁻⁰ / ₊₅
Back Access	603	725	145	555 x 677 ⁻⁰ / ₊₅

4 x 28/54W
3 x 54W



Version	W	L	H	Prepared Aperture
Front Access	603	1325	124	555 x 1277 ⁻⁰ / ₊₅
Back Access	603	1325	145	555 x 1277 ⁻⁰ / ₊₅

2 x 28/54W



Version	W	L	H	Prepared Aperture
Front Access	370	1325	124	322 x 1277 ⁻⁰ / ₊₅
Back Access	370	1325	145	322 x 1277 ⁻⁰ / ₊₅

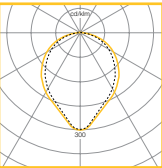
Ceiling Integration

Refer to common ceiling compatibility matrix –
See page 404

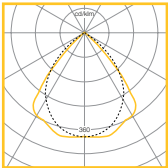
Plasterboard

Prepared aperture

Photometric Performance



4 x 14W T5
Prismatic
• LOR = 67.6%
• SHR MAX = 1.39



4 x 14W T5
Louvre/glass
• LOR = 57.8%
• SHR MAX = 1.55

Utilisation Factors UF(F)

Room Reflectance		Room Index		
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.46	0.65 0.70

Utilisation Factors UF(F)

Room Reflectance		Room Index		
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.47	0.60 0.63

To Specify

Recessed non-modular T5 clean room luminaire for prepared aperture ceilings to a BSI tested and certified construction as IP65 frame on IP54 frame off with twin in line extruded aluminium frames with angled integration and concealed front frame fixings. Suspension via solid aluminium jacking brackets adjusted from inside the luminaire (front access) or room above (back access) – as Whitcroft Lighting DTFN ELITE.



Luminaire aesthetics

With aesthetic appearance an important consideration in any project, Lister² has been redesigned to include an extruded aluminum front frame with concealed front frame fixings, which has dramatically improved its visual appearance. Room integrity continues to be protected to IP65 ensuring Lister² is now ready to continue meeting the demands of clean areas whilst ensuring aesthetically pleasing environments.

Lister² Performance – Optics

- Lamp options:
 - 4 x 20W T5 ECO
- Quadraprism optic for all round glare control and maximum efficiency
- Over 55 lm/cw for high efficacy
- All optics are TP(a) rated:
 - Single sheet 3mm prismatic firelux material

Lister² – Optics

- Light source options:
 - LED 3500 lumens (45W)*
 - LED 6000 lumens (73W)*
- * In two body sizes
- Or
 - 4 x 13/14W T5
 - 4 x 20/24W T5
 - 2 x 25/28W T5
 - 2 x 50/54W T5
- All optics are TP(a) rated:
 - Single sheet 3mm prismatic fireguard material

New standards in energy efficiency

Lister² Performance combines the latest lighting technology with highly efficient optics to increase Light Output Ratios to 75%. Lister² Performance exceeds an efficacy of 55 luminaire lumens per circuit watt ensuring low energy lighting solutions.

Body

- Front access only
- Compatible with modular exposed T25, spring T and prepared aperture ceilings. Recessing panels are recommended on spring T ceilings to retain room integrity
- Steel body finished white
- Extruded aluminium frame with concealed fixings
- Diffuser securely clamped but easily removable from frame for replacement
- IP65 rated – to BSI tested and certified construction as protecting the room to IP65 from void contamination with the front frame in place. IP20 rating with the frame removed
- Rapid fix Lumafix sliding side support brackets adjusted from inside the body

lister²

Order Codes

Lister² Performance	HF Gear	3 hr Emergency
T5 4 x 20W	LISP2H420	LISP2H420EM

Lister² LED	Fixed Output	3 hr Emergency
3500 lumens (45W, 600 x 600mm)	L2LH14K	L2LH14KEM
6000 lumens (73W, 600 X 600mm)	L2LH24K	L2LH24KEM
3500 lumens (45W, 1200 x 300mm)	L2LH34K	L2LH34KEM
6000 lumens (73W, 1200 x 300mm)	L2LH44K	L2LH44KEM

Lister²	HF Gear	3 hr Emergency
T5 4 x 13/14W	LISK2H414	LISK2H414EM
T5 4 x 20/24W	LISK2H424	LISK2H424EM
T5 2 x 25/28W	LISK2H228	LISK2H228EM
T5 2 x 50/54W	LISK2H254	LISK2H254EM

Options

DALI / SWITCH DIMMING	Replace H with Y	i.e. LISK2Y414
EASYTEST	Add suffix /ET	i.e. LISK2H414/ET
COMEPS	Add suffix /EP	i.e. LISK2H414/EP
COMET*	Add suffix /CT	i.e. LISK2H414/CT

RECESSING PANEL To retain room integrity on spring T ceilings

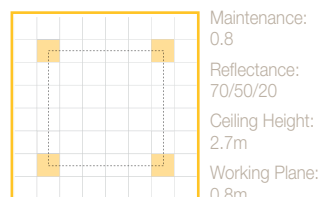
13W or 14/20W or 24W lamp options **RP600x600**

25W or 28/50W or 54W lamp options **RP300x1200**

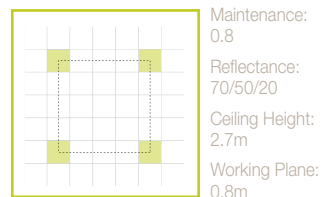
* Not available with LED product

Performance Guide

Lamps	Illuminance	Spacing
4 x 20W T5	530 lux	3.0m x 3.0m
Lister ² Performance		



Lamps	Illuminance	Spacing
LED 45W	555 lux	2.4m x 2.4m
Lister ²		

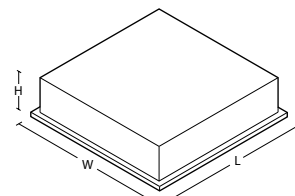


LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3.5 SDCM

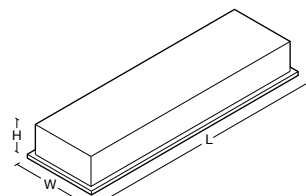
Dimensions

600mm x 600mm
4 x 14/20/24W
3500/6000 lumens



L	W	H	Prepared Aperture	KG	KG
599	599	113	575 x 575 $^{+0}_{-45}$	12.0	13.0

1200mm x 300mm
2 x 28/54W
3500/6000 lumens



L	W	H	Prepared Aperture	KG	KG
1199	299	113	1175 x 275 $^{+0}_{-45}$	13.0	14.0

Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Exposed T Grids

T15/T25 Pull up

Spring T Grids

SAS – 150/120
Armstrong – Orcal 1800/3000
Burgess – Clip in/Abar
Dampa – Clip in

Plasterboard

Prepared aperture

Lamp Performance

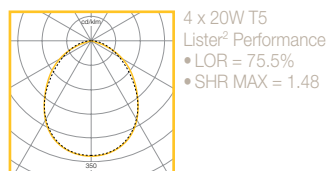
Wattage	IL@25°C	Lamp Life
1 x 13W T5 ECO	1150	21,000hrs
1 x 14W T5	1250	24,000hrs
1 x 20W T5 ECO	1650	21,000hrs
1 x 24W T5	1750	24,000hrs
1 x 25W T5 ECO	2450	21,000hrs
1 x 28W T5	2625	24,000hrs
1 x 50W T5 ECO	4400	21,000hrs
1 x 54W T5	4450	24,000hrs

Equivalent Lamp Types

3500 Lumen Output

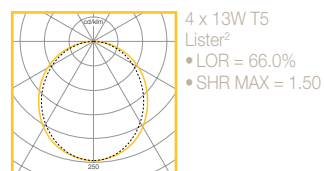
T5 lamp **4 x 14W**

Photometric Performance



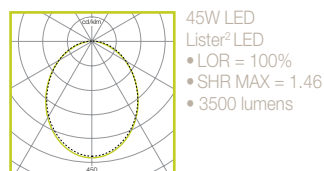
Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.54 0.74 0.79



Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.46 0.64 0.69



Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.70 0.97 1.04

To Specify

Recessed modular T5 or LED clean room luminaire to a BSI tested and certified construction as IP65 frame with extruded aluminium concealed fixing front frame, suspended via rapid fix Lumafix side support brackets adjusted from inside the luminaire – as Whitecroft Lighting LISTER²





Optics

- Lamp options:
 - 2 x 28/54W T5
- Louvre above clear 3mm TP(a) sheet
- Single sheet 3mm prismatic TP(a) diffuser

Body

- Extruded aluminium frame finished white
- Designed to be mounted flush to the solid ceiling leaving no upward facing ledge. Mastic to be applied between luminaire and ceiling, washers to be fitted to seal drop rod holes if not used
- Diffuser securely clamped but easily removable from frame for replacement
- Steel body IP65 with fully welded corners finished white



Order Codes

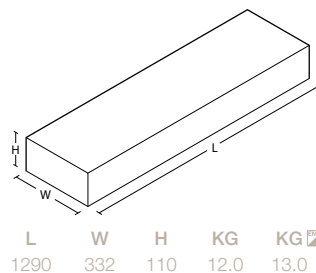
DTBY Louvre	HF Gear	3 hr Emergency
T5 2 x 28W	DTBYWFH228	DTBYWFH228EMIN
T5 2 x 54W	DTBYWFH254	DTBYWFH254EMIN

DTBY Diffuser	HF Gear	3 hr Emergency
T5 2 x 28W	DTBYKH228	DTBYKH228EMIN
T5 2 x 54W	DTBYKH254	DTBYKH254EMIN

Options

DALI DIMMING	Replace H with Y	i.e. DTBYWFY228
SWITCH DIMMING	Replace H with X	i.e. DTBYWFX228
COMEPS	Add suffix /EP	i.e. DTBYWFH228/EP
EASYTEST	Add suffix /ET	i.e. DTBYWFH228/ET
COMET	Add suffix /CT	i.e. DTBYWFH228/CT

Dimensions

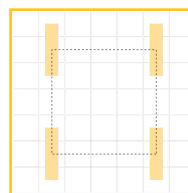


Performance Guide

Lamps	Illuminance	Spacing
2 x 28W T5	480 lux	2.4m x 2.4m

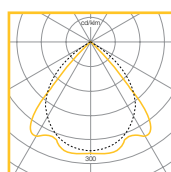
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W T5	2625	24,000hrs
1 x 54W T5	4450	24,000hrs

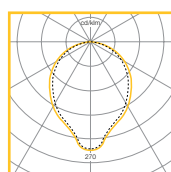


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Photometric Performance



2 x 28W T5
Louvre
• LOR = 52.2%
• SHR MAX = 1.60



2 x 28W T5
Diffuser
• LOR = 57.8%
• SHR MAX = 1.37

Utilisation Factors UF(F)

Utilisation Factors U _r					
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.42	0.54	0.56

Utilisation Factors UF(F)

Utilisation Factors U _r					
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.39	0.56	0.60

To Specify

Surface T5 clean room luminaire in 0.9mm gauge steel with fully welded corners, IP65 when the flat back is mastic sealed tight to the ceiling and fixing holes sealed with washers, extruded aluminium frame – as Whitecroft Lighting DTBY



exterior



powerbay CX 362



euroflood mini 364



euroflood midi 367



kolo 369



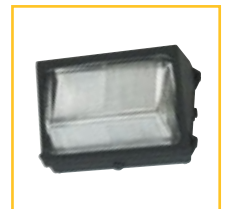
centurion 350 LED 372



centurion 350 373



centurion 265 374



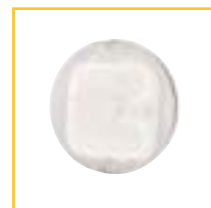
centurion PG54 375



centurion PP65 376



spectre 377



dusk 378



g-line 379



concert WL070 380



concert WL060 380



concert GL008 381



concert GL090 382



concert GL050 383



marine CDM/HQI 384



sirocco spoke 385



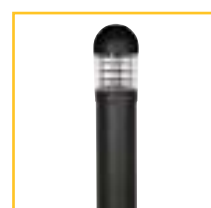
sirocco disc 386



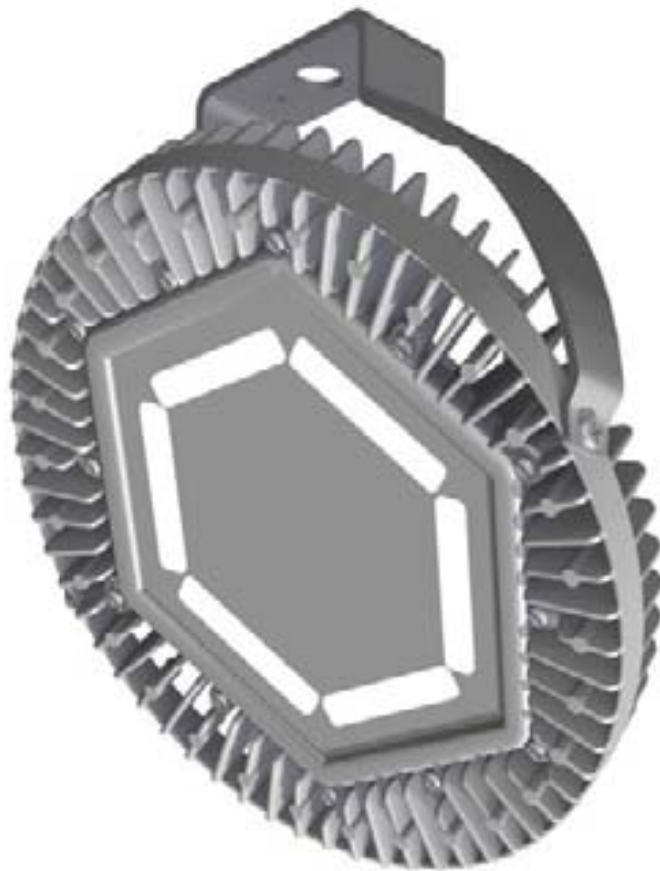
sirocco globe 387



mistral road 388



broadwalk 390



Optics

- Light Output Options:
 - 11,500 lumens (140W*)
- *Total power consumption including driver based on 4300K light engine
- Open area and aisle distribution patterns available
- Supplied with Acrylic (PMMA) lens
- Available in 4300K
- 100,000 hour life expectancy
- IP66 rated as standard

Body

- Low profile cast aluminium body finished light grey
- Operating temperature from -40°C to +65°C
- Mounting brackets for ceiling and wall mounting to be ordered separately
- Supplied with a 3M PVC cable
- Can only be used in a downlight orientation

powerbay cx

Order Codes

Powerbay CX

- 11,500 lumens 4300K – Symmetrical Distribution
- 11,500 lumens 4300K – Elliptical Distribution

Accessories

- Ceiling and wall mounting bracket

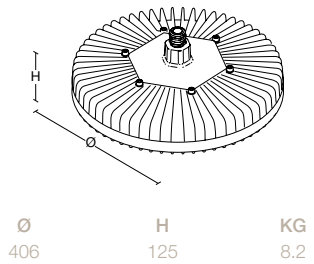
- Fixed Output
PCXAH4KC
PCXAH4KA

PCXWMB

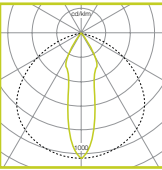


Ceiling and Wall Mounting Bracket

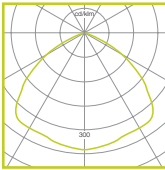
Dimensions



Photometric Performance



Powerbay cx
elliptical distribution
• LOR = 100%



Powerbay cx
symmetrical
distribution
• LOR = 100%

To Specify

IP66 11,500 lumen floodlight. Cast aluminium body finished grey with PMMA acrylic lens and symmetrical or elliptical light distribution pattern – as Whitecroft Lighting POWERBAY CX



Optics

- Lamp options:
 - 70W HQI-TS/CDM-TD
 - 150W HQI-TS/CDM-TD
 - 300W Tungsten Halogen
- Asymmetric light distribution for low light pollution
- Precise asymmetric optical control
- Hammered, high-grade aluminium reflector, brightened and anodised
- Toughened glass

Body

- IP65
- Precision diecast aluminium low profile design
- Polyester powder coat finished in black or white
- Mounting by cradle supplied
- Accessories:
 - Uplighter bracket (interior applications)
 - Wire cage
- Takes supply cable of 5-10mm diameter
- Timed ignitor
- Can be used in uplight or downlight orientation



Sainsbury's

euroflood mini

Order Codes

Euroflood Mini (Black)	
HQI-TS/CDM-TD 70W	SC70/B
HQI-TS/CDM-TD 150W	SC150/B
TUNGSTEN HALOGEN 300W	SC300/B

Options

WHITE	Replace B with W	i.e. SC70/W
WIRE CAGE		AFWC1
UPLIGHTER BRACKET BLACK		SCUBMN
UPLIGHTER BRACKET WHITE		SCUBMN/W

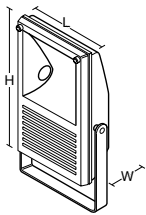


Windage

Version	Wattage	Windage*
SC70	70W	0.03m²
SC150	150W	0.03m²

*Figures are given for the typical mounting position i.e. side windage

Dimensions



Version	L	W	H	KG
SC70	235	88	350	6.0
SC150	235	88	350	6.5



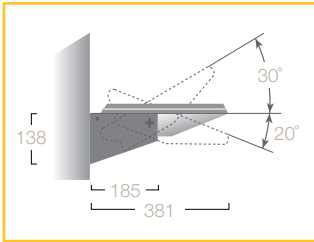
White



Wire Cage

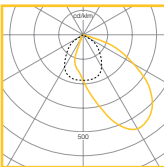


Uplighter Bracket



Uplighter Bracket

Photometric Performance



1 x 70W
CDM-TD/HQI-TS
• LOR = 68%

Lamp Performance

Wattage	IL@25°C	Lamp Life
70W CDM-TD	6000	16,000hrs
70W HQI-TS	7500	6,000hrs
150W CDM-TD	14200	16,000hrs
150W HQI-TS	12000	12,000hrs
300W TH	7000	1,000hrs

To Specify

Die cast aluminium precision floodlight with asymmetric beam. Body <89mm deep 70/150W HQI-TS/CDM-TD lamp. IP65 – as Whitecroft Lighting EUROFLOOD MINI

euroflood midi



Optics

- Lamp options:
 - 250W SON-T/HQI-T
 - 400W SON-T/HQI-T
- Asymmetric light distribution for low light pollution
- Precise asymmetric optical control

Body

- IP65
- Precision diecast aluminium
- Polyester powder coat finished in black or white
- Hammered, high-grade aluminium reflector, brightened and anodised
- Toughened glass
- Mounting by cradle supplied
- Attachments:
 - Uplighter bracket (interior applications)
 - Wire guard
 - Glare louvre
 - Glare baffle
- Takes supply cable of 5-10mm diameter



Order Codes

Euroflood Midi (Black)

SON-T 250W	SC250S
SON-T 400W	SC400S
HQI-T 250W	SC250H
HQI-T 400W	SC400H

Options

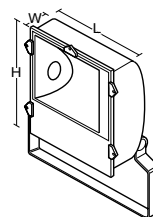
WHITE	Add suffix /W	i.e. SC250S/W
WIRE GUARD		SCWG250400R08
GLARE BAFFLE		SCGS250400R08
GLARE LOUVRE		SCGL250400R08
UPLIGHTER BRACKET BLACK		SCUBMD
UPLIGHTER BRACKET WHITE		SCUBMD/W

Windage

Version	Wattage	Windage*
SC250	250W	0.08m ²
SC400	400W	0.08m ²

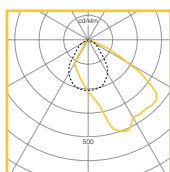
*Figures are given for the typical mounting position i.e. side windage

Dimensions



Version	L	W	H	KG
SC250	435	180	460	12.5
SC400	435	180	460	14.0

Photometric Performance



1 x 250W HQI-T
• LOR = 74.3%

Lamp Performance

Wattage	IL@25°C	Lamp Life
250W HQI-T	28300	18,000hrs
250W SON-T	33300	36,000hrs
400W HQI-T	32000	20,000hrs
400W SON-T	56500	36,000hrs

To Specify

Die cast aluminium precision floodlight with asymmetric beam and toughened glass lens. Sealed to IP65 – as Whitecroft Lighting EUROFLOOD MIDI



Optics

- Light output options:
 - 4000 Kelvin 'cool white' colour temperature
 - Lumen packages from 800 to 2300
- High quality, single bin LEDs with a 4 MacAdam ellipse tolerance
- Polycarbonate opal diffuser
- 50,000 hours life expectancy
- Up to 87 luminaire lumens per circuit watt

Body

- Surface mounted as standard
- 300mm or 400mm diameter in cast aluminium with injection moulded base
- IP65
- Finished in silver
- Choice of integrated emergency options:
 - 3 hour emergency
 - EasyTest
 - COMEPS
- Plastic toggle clip lock mechanism
- Optional Command 5 microwave detector mounted behind the diffuser available that can be set to one of two configurations;
 - Microwave presence detection with ON/OFF operation
 - Microwave presence detection with High/Low/Off set-back functionality. Can be set to switch from 100% down to set-back position of 50%, 30%, 20%, 10% or OFF*
- Command 5 sensor can only be used in conjunction with fixed output products

Order Codes

300mm 4K IP65	Fixed Output	3 hr Emergency
800 lumens (11W)*	K6H364KS	K6H3604KSEM
1100 lumens (15W)*	K6H3124KS	K6H3124KSEM

400mm 4K IP65	Fixed Output	3 hr Emergency
1700 lumens (20W)*	K6H4154KS	K6H4154KSEM
2300 lumens (28W)*	K6H4204KS	K6H4204KSEM

Options

DALI DIMMING	Replace H with Y	i.e. K6 Y 364KS
EASYTEST	Add suffix /ET	i.e. K6H364KS/ ET
COMEPS	Add suffix /EP	i.e. K6H364KS/ EP
COMMAND 5**	Replace H with Q5	i.e. K6 Q5 364KS

*Available for delivery from January 2013.

**Note: Command 5 set-back functionality not available in 300mm emergency or DALI products



400mm Diameter Version



300mm Diameter Version

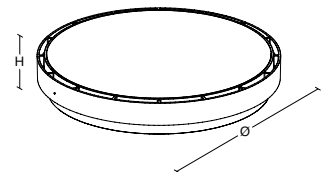
LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 4 SDCM

Equivalent Lamp Types

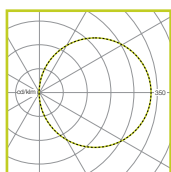
TCD	18/26W
2D	28/38/55W

Dimensions



Version	Ø	H	KG	KG
300mm surface	300	95	2.1	2.5
400mm surface	400	95	3.5	3.9

Photometric Performance



400mm
20W 1700 lumen
• LOR = 100%
• SHR MAX = 1.64

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.67 0.95 1.02

To Specify

Surface mounted circular IP65 LED bulkhead luminaire in 300 or 400mm diameter. Polycarbonate opal diffuser. Optional integrated microwave presence detector with ON/OFF or set-back functionality – as Whitecroft Lighting KOLO



Optics

- Light source options:
 - LED 700 lumens (3K – 19W*)
 - LED 900 lumens (3K – 28W*)
 - LED 800 lumens (4K – 19W*)
 - LED 1100 lumens (4K – 28W*)

Or

- 1 x 28/38W 2D T5
- 1 x 18/26W TC-D

**Total power consumption including driver*

Body

- Die-cast aluminium housing and front bezel
- Two sizes of luminaire:
 - 350 is available with smooth, grill, or wave front
 - 265 is available with smooth, grill, or hood front
- Injection moulded opal polycarbonate diffuser UV stabilised to prevent yellowing
- Polyester powder coat finish in black or silver
- Two cable entry glands and BESA fixing on rear casting
- Silicon rubber gasket and captive stainless steel fixing screws**
- IP65
- HF control gear
- Optional Command 5 microwave sensor mounted behind the diffuser (Centurion 350 LED only)

***LED product not suitable for cable entry via the BESA fixing*



centurion 350 LED

IP65 surface mounted
amenity luminaire



Order Codes

Centurion 350 LED Smooth (Black)	Fixed Output	3 hr Emergency
700 lumens 3K	CL703KDSB	CL703KDSBEM
900 lumens 3K	CL903KDSB	CL903KDSBEM
800 lumens 4K	CL804KDSB	CL804KDSBEM
1100 lumens 4K	CL1104KDSB	CL1104KDSBEM

Centurion 350 LED Grill (Black)	Fixed Output	3 hr Emergency
700 lumens 3K	CL703KDGB	CL703KDGBEM
900 lumens 3K	CL903KDGB	CL903KDGBEM
800 lumens 4K	CL804KDGB	CL804KDGBEM
1100 lumens 4K	CL1104KDGB	CL1104KDGBEM

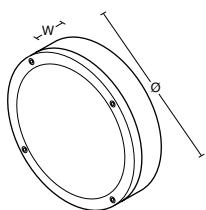
Centurion 350 LED Wave (Black)	Fixed Output	3 hr Emergency
700 lumens 3K	CL703KDWB	CL703KDWBEM
900 lumens 3K	CL903KDWB	CL903KDWBEM
800 lumens 4K	CL804KDWB	CL804KDWBEM
1100 lumens 4K	CL1104KDWB	CL1104KDWBEM

Options

EASYTEST	Add suffix /ET	i.e. CL703KDSB/ET
COMEPS	Add suffix /EP	i.e. CL703KDSB/EP
SILVER	Replace B with S	i.e. CL703KDS
COMMAND 5	Replace L with Q5	i.e. CQ5703KDSB



Dimensions



Version	Ø	W	KG	KG
Smooth	350	125	3.4	3.7
Grill	350	125	3.4	3.7
Wave	350	125	3.4	3.7



Wave

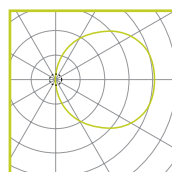


Grill

LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
3K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 4 SDCM
4K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 4 SDCM

Photometric Performance



19W LED
Smooth Front
• LOR = 100%

To Specify

Circular surface mounted, cast aluminium IP65 bulkhead with 19W / 28W LED light source. Smooth/grill/wave front design with opal polycarbonate diffuser – as Whitecroft Lighting Centurion 350 LED

centurion 350

IP65 surface mounted
amenity luminaire



Order Codes

Centurion 350 Smooth (Black)	Surface Mounted	3 hr Emergency
2D T5 1 x 28W	CENS282DSB	CENS282DSBEM
2D T5 1 x 38W	CENS382DSB	CENS382DSBEM

Centurion 350 Grill (Black)	Surface Mounted	3 hr Emergency
2D T5 1 x 28W	CENS282DGB	CENS282DGBEM
2D T5 1 x 38W	CENS382DGB	CENS382DGBEM

Centurion 350 Wave (Black)	Surface Mounted	3 hr Emergency
2D T5 1 x 28W	CENS282DWB	CENS282DWBEM
2D T5 1 x 38W	CENS382DWB	CENS382DWBEM

Options

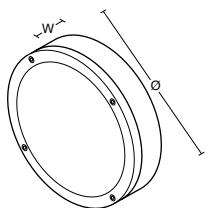
EASYTEST	Add suffix /ET	i.e. CENS282DSB/ET
SILVER	Replace B with S	i.e. CENS282DSS



Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W 2D T5	2150	21,000hrs
1 x 38W 2D T5	3020	21,000hrs

Dimensions



Version	Ø	W	KG	KG
Smooth	350	125	6.0	7.0
Grill	350	125	6.0	7.0
Wave	350	125	6.0	7.0

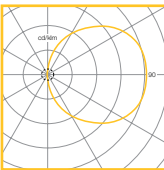


Smooth



Grill

Photometric Performance



1 x 28W 2D T5
Smooth
• LOR = 24%

To Specify

Circular surface mounted, cast aluminium bulkhead with 28/38W 2D T5 lamp. Smooth/grill/wave front design. Opal polycarbonate diffuser. IP65 – as Whitecroft Lighting Centurion 350

centurion 265

IP65 surface mounted
amenity luminaire



Order Codes

Centurion 265 Smooth (Black)	Surface Mounted	3 hr Emergency
TC-D 1 x 18W	CENS18SB	CENS18SBEM
TC-D 1 x 26W	CENS26SB	CENS26SBEM

Centurion 265 Grill (Black)	Surface Mounted	3 hr Emergency
TC-D 1 x 18W	CENS18GB	CENS18GBEM
TC-D 1 x 26W	CENS26GB	CENS26GBEM

Centurion 265 Hood (Black)	Surface Mounted	3 hr Emergency
TC-D 1 x 18W	CENS18HB	CENS18HBEM
TC-D 1 x 26W	CENS26HB	CENS26HBEM

Options

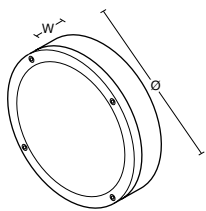
SILVER	Replace B with S	i.e. CENS18SS
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Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 18W TC-D	1200	13,000hrs
1 x 26W TC-D	1800	13,000hrs

Dimensions



Version	Ø	W	KG	KG
Smooth	265	90	5.0	6.0
Grill	265	100	5.0	6.0
Hood	265	100	5.0	6.0
Emergency	260	130	5.0	6.0

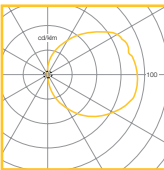


Smooth



Hood

Photometric Performance



1 x 26W TC-D
Smooth
• LOR = 24%

To Specify

Circular surface cast aluminium bulkhead with 18/26W TC-D lamp. Smooth/ grill/hood front design. Opal polycarbonate diffuser. IP65 – as Whitecroft Lighting CENTURION 265

centurion PG54

IP54 perimeter security
lighting bulkhead



Optics

- Lamp options:
 - 70/150W HQI-E
 - 70/150W SON-E

Body

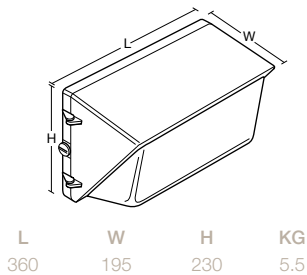
- IP54
- Black die cast aluminium body and diffuser frame
- Diffuser lens in heat resistant prismatic toughened glass
- Mounting can be direct to the wall or via a BESA box fixing (Do not mount on combustible surfaces)
- Integral photocell option
- Ambient operating temperature range -40°C to +25°C



Order Codes

Centurion PG54	Standard	Photocell
HQI-E 70W	CENG70H	CENG70HPC
HQI-E 150W	CENG150H	CENG150HPC
SON-E 70W	CENG70S	CENG70SPC
SON-E 150W	CENG150S	CENG150SPC

Dimensions



Lamp Performance

Wattage	IL@25°C	Lamp Life
70W HQI-E	7230	12,500hrs
150W HQI-E	15100	12,500hrs
70W SON-E	5810	28,500hrs
150W SON-E	12500	28,500hrs

Photometric Performance



1 x 70W HQI-E
• LOR = 45.2%

To Specify

IP54 perimeter lighting bulkhead to be suitable for direct surface or BESA box mounting. Body and frame to be in die cast aluminium finished black front. Heat resistant toughened glass prismatic diffuser lens, hinged for ease of lamp change with timed ignitor – as Whitecroft Lighting CENTURION PG54

centurion PP65

IP65 perimeter security
lighting bulkhead



Optics

- Lamp options:
 - 26W TC-D
 - 42W TC-T
 - 70W SON-E
 - 70W HQI-E

Body

- IP65
- Black polycarbonate base and visor
- Clear UV stabilised prismatic polycarbonate diffuser
- Two 20mm dia knock-out options for the cable entry gland either side of the base
- Integral photocell option
- Integral emergency option on 26W – TC-D only (may not achieve design output at low ambient temperatures)
- Ambient operating temperature range -30°C to +25°C



Order Codes

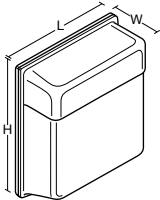
Centurion PP65	Standard	Photocell
HQI-E 70W	CENP70H	CENP70HP
SON-E 70W	CENP70S	CENP70SP
TC-D 26W	CENP26	CENP26P
TC-D 26W Emergency	CENP26EMIN	CENP26PEMIN
TC-T 42W	CENP42	CENP42P

Options

UPLIGHT CONTROLLER* Add suffix /UC i.e. CENP70H/UC

* Only available with HQI-E 70W and TC-D 26W lamp options

Dimensions



L	H	W	KG	KG
260	290	192	2.0	3.0

Photometric Performance



1 x 70W SON-E
• LOR = 78%

Lamp Performance

Wattage	IL@25°C	Lamp Life
26W TC-D	1800	13,000hrs
42W TC-T	3200	13,000hrs
70W SON-E	5810	28,500hrs
70W HQI-E	7230	12,500hrs

To Specify

IP65 perimeter security lighting bulkhead suitable for direct surface mounting with a 4 point fixing employing two key slots and 2 locking screws and timed ignitor on SON versions. Black polycarbonate base and visor and UV stabilised prismatic polycarbonate diffuser. Fluorescent and HID lamp options – as Whitecroft Lighting CENTURION PP65



Optics

- Lamp options:
 - 1 x 26W to 32W TC-T multi-watt or 1 x 70W CDM-T (Downlight)
 - 2 x 26W TC-T (Up/downlight)
- Anodised aluminium reflector
- Toughened glass cover

Body

- Wall mounted luminaire with downlight or twin up/downlight versions
- Cast aluminium body finished black or white
- 3 point screw fixing with gasket joint to achieve IP65
- High frequency control gear on fluorescent version
- Magnetic control gear with timed ignitor on CDM-T version



Downlighter



Up/Downlighter

Order Codes

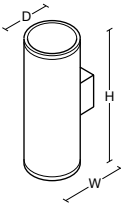
Downlighter	White	Black
TC-T 1 x 26W or 32W	SPWD18H126-32W	SPWD18H126-32B
CDM-T 1 x 70W	SPWD18C70W	SPWD18C70B

Twin Up/Downlighter	White	Black
TC-T 2 x 26W	SPWT18H226W	SPWT18H226B

Lamp Performance

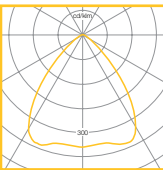
Wattage	IL@25°C	Lamp Life
1 x 26W TC-T	1800	13,000hrs
1 x 32W TC-T	2400	13,000hrs
1 x 70W CDM-T	6600	12,000hrs

Dimensions

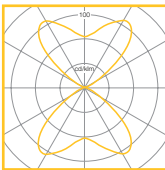


Version	D	W	H	KG
Down TC-T	184	284	271	4.0
Down CDM-T	184	284	271	5.2
Up/Down	184	284	490	5.0

Photometric Performance



1 x 70W CDM-T
• LOR = 63%



2 x 26W TC-T
• LOR = 51%

To Specify

IP65 Wall mounted cylindrical down or up/down lighter, with cast aluminium body & toughened glass cover. For TC-T or CDM-T lamps – as Whitecroft Lighting SPECTRE



Optics

- Lamp options:
 - 1 x 28W 2D T5
- Opal or clear prismatic polycarbonate diffuser

Body

- IP65
- Square or circular polycarbonate body finished white
- Not suitable for mounting in direct sunlight or open areas exposed to adverse weather conditions.



Order Codes

Dusk Opal – Round 2D T5 1 x 28W	HF Gear DKROH28W	3 hr Emergency DKROH28WEMIN
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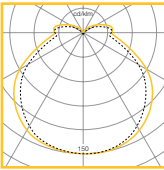
Dusk Prismatic – Round 2D T5 1 x 28W	HF Gear DKRPH28W	3 hr Emergency DKRPH28WEMIN
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Options SQUARE	Replace R with S	i.e. DKSOH128W
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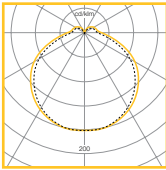


Square Opal

Photometric Performance

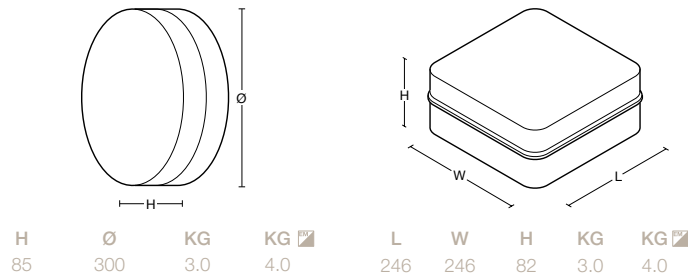


1 x 28W 2D T5
Round Prismatic
• LOR = 67%



1 x 28W 2D T5
Square Opal
• LOR = 56.6%

Dimensions



Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W 2D T5	2150	21,000hrs

To Specify

Surface mounted IP65 bulkhead for 28W 2D T5 lamp. Square or Round polycarbonate body and diffuser options opal or clear prismatic. Gear options high frequency with mains or 3 hour maintained integral emergency. Diffuser to be fixed to gasketed body with stainless steel fixing screws – as Whitecroft Lighting DUSK



Optics

- Lamp options:
 - 1 x 28W 2D T5
- Prismatic polycarbonate diffuser

Body

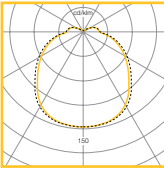
- Die cast circular aluminium body finished white
- Gasketed diffuser fixed to body with stainless steel fixing screws
- IP65



Order Codes

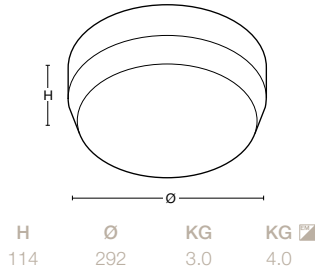
G-line	HF Gear	3 hr Emergency
2D T5 1 x 28W	GLNH282DW	GLNH282DWEMIN

Photometric Performance



1 x 28W 2D T5
• LOR = 69.8%

Dimensions



Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 28W 2D T5	2150	21,000hrs

To Specify

Surface mounted IP65 bulkhead for 28W 2D lamp, high frequency gear as mains or 3 hour maintained integral emergency. Die-cast circular aluminium body finished white with prismatic polycarbonate diffuser to be fixed to gasketed body with stainless steel fixing screws – as Whitecroft Lighting G-LINE

concert WL070/170

IP65 LED wall mounted
up/downlight



Optics

- Lamp options:
 - 3 x 1W white LED uplight
 - 3 x 1W white LED downlight
- Each set of 3 LEDs include 2 spots & 1 floodlight distribution to define wall & illuminate surrounding area
- Includes integral driver

Body

- IP65
- Anodised aluminium body or black finish



Order Codes

Concert WL070/170

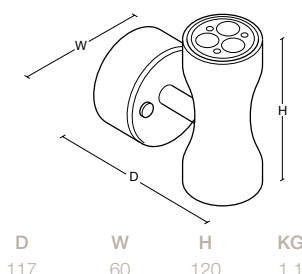
Anodised aluminium
Black

CNWL070
CNWL170

Photometric Performance

Due to the continual development in LED technology, please contact our Technical Desk for up to date photometric data

Dimensions



To Specify

IP65 up/down LED floodlight with each head consisting of 2 spot 1W LEDs for wallwash and 1 flood 1W LED mounted in an anodised aluminium body – as Whitecroft Lighting CONCERT WL070/170

concert WL060/160

IP65 LED wall mounted
feature luminaire



Optics

- Lamp options:
 - 1W white LED flood downlighter
 - 1W white LED decorative halo
- Includes integral driver

Body

- IP65
- Anodised aluminium body or black finish
- Acrylic halo with a frosted finish providing a diffused effect



Order Codes

Concert WL060/160

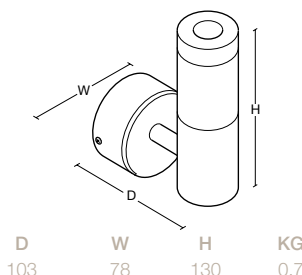
Anodised aluminium
Black

CNWL060
CNWL160

Photometric Performance

Due to the continual development in LED technology, please contact our Technical Desk for up to date photometric data

Dimensions



To Specify

IP65 wall mounted LED luminaire with flood downlight and decorative halo light – as Whitecroft Lighting CONCERT WL060/WL160

concert GL008

IP67 LED twin directional in ground uplighter



Optics

- Twin directional 3 x 3W LED heads. Neutral White, Blue or RGB colour change LEDs
- Neutral white and blue luminaires include integral driver. RGB requires separate driver
- LED Beam angle: 50°
- 10mm tempered glass cover. Maximum drive over speed: – 15mph. Maximum static load: 2000kg

Body

- IP67. 'Anti-Siphon' system prevents siphon ingress via cable entry
- Supplied with 1st fix installation tube
- Junction box available for connector of remote mounted RGB driver
- Body material: painted and pre-treated aluminium die cast base with stainless steel bezel
- Supplied with 1m flex



Order Codes

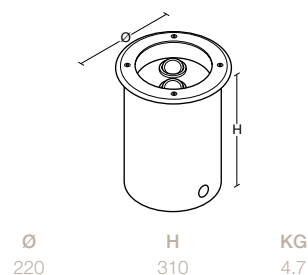
Concert GL008

18W Neutral White	Includes integral driver
18W Blue	Includes integral driver
18W RGB Colour Change	Requires RGB driver
Driver for RGB*	Drives 1 RGB luminaire
Junction box 8 way IP66	

CNGL008NW
CNGL008BL
CNGL008RGB
CNRGBOX
CNJB3

*See page 74 for details of RGB controls

Dimensions



Photometric Performance

Due to the continual development in LED technology, please contact our Technical Desk for up to date photometric data

To Specify

In ground twin directional 18W LED floodlights mounted in IP67 aluminium die cast body with stainless bezel and tempered, drive over glass cover – as Whitecroft Lighting CONCERT GL008

concert GL090

IP68 LED medium beam recessed luminaire



Optics

- 3 x 3W LED Neutral White, Blue or RGB colour change. All require separate driver
- LED Beam angle: 50°
- Walk over clear 5mm toughened glass cover

Body

- IP68. 'Anti-Siphon' system prevents siphon ingress via cable entry
- Marine grade stainless steel (316) body
- Suitable for in ground, wall or ceiling mounting
- For in ground application, use 1st fix installation tube
- IP66 junction box available for connection between luminaire and driver



Order Codes

Concert GL090

3 x 3W Neutral White

CNGL090FNW

3 x 3W Blue

CNGL090FBL

3 x 3W RGB Colour Change

CNGL090FRGB

Installation Tube

(In ground application)

CNTUBE/68

Driver for White/Blue* Drives up to 3 blue/white luminaires

CNPLU/7003-9

Dimmable Driver for white/blue

Drives up to 2 blue/white luminaires

CNPLD/1-16

Driver for RGB*

Drives up to 2 RGB luminaires

CNRGBOX

Junction box 4 way IP66

(For white/blue only)

CNJB2

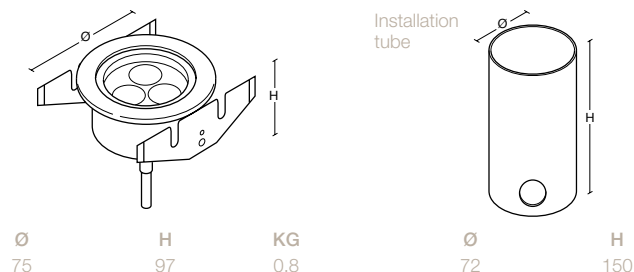
IP66 Junction box

For RGB only

CNJB3

*See page 74 for details of RGB controls

Dimensions



Photometric Performance

Due to the continual development in LED technology, please contact our Technical Desk for up to date photometric data

To Specify

IP68 recessed LED floodlight with marine grade (316) stainless steel body and clear toughened glass cover – as Whitecroft Lighting CONCERT GL090

concert GL050

IP68 LED diffused low power
recessed luminaire



Optics

- Lamp options:
 - 3 x 1W LED. Available in cool white, blue and RGB colour change.
 - All require separate driver
- Walk over, toughened frosted glass cover

Body

- IP68. 'Anti-Siphon' system prevents ingress via cable entry
- Marine grade stainless steel (316) body
- Suitable for in ground, wall or ceiling mounting
- For in ground application, use 1st fix installation tube
- IP66 junction box available for connection between luminaire and driver



Order Codes

Concert GL050

3 x 1W White

CNGL050WC

3 x 1W Blue

CNGL050BL

3 x 1W RGB Colour Change

CNGL050RGB

Installation Tube

(In ground application)

CNTUBE/68

Driver for White/Blue* Drives up to 3 blue/white luminaires

CNPLU/3501-9

Dimmable Driver for white/blue

Drives up to 4 blue/white luminaires

CNPLD/1-16

Driver for RGB*

Drives up to 4 RGB luminaires

CNRGBOX

Junction box 4 way IP66

For white/blue only

CNJB2

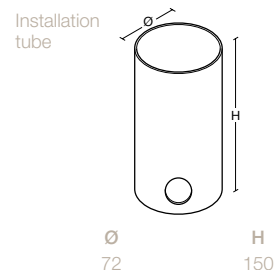
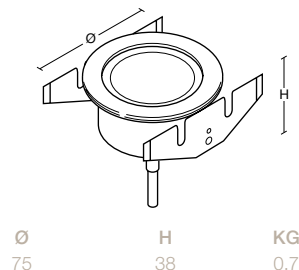
IP66 Junction box

For RGB only

CNJB3

*See page 74 for details of RGB controls

Dimensions



Photometric Performance

Due to the continual development in LED technology, please contact our Technical Desk for up to date photometric data

To Specify

IP68 in ground 3W LED luminaire, with marine grade (316) stainless steel body and frosted glass front cover – as Whitecroft Lighting CONCERT GL050

marine CDM/HQI

IP67 in ground
uplighter



Optics

- Lamp options:
 - 1 x 70W HQI-E/HQI-TS
 - 1 x 150W HQI-E/HQI-TS
 - 1 x 35W CDM-T
 - 1 x 70W CDM-T
- Available with narrow, wide or asymmetric beam

Body

- IP67
- 316 stainless steel front bezel
- Body (large) – corrosion resistant die cast aluminium alloy finished black – HQI
- Body (medium) – 316 stainless steel – CDM-T
- 12mm thick tempered shock resistant stepped safety glass lens
- High purity anodised aluminium reflector
- Cable gland with 1.5m of flexible cable
- Ambient temperature range -25°C to +30°C

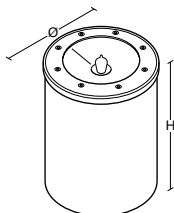


Order Codes

Marine HQI – Large Body	Beam	Lamp Holder	
HQI-E 1 x 70W	narrow beam	E27	MACL70N
HQI-E 1 x 150W	narrow beam	E27	MACL150N
HQI-E 1 x 70W	wide beam	E27	MACL70W
HQI-E 1 x 150W	wide beam	E27	MACL150W
HQI-TS 1 x 70W	asymmetric beam	RX7s	MACL70A
HQI-TS 1 x 150W	asymmetric beam	RX7s – 24	MACL150A

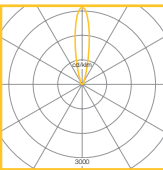
Marine CDM – Medium Body	Beam	Lamp Holder	
CDM-T 1 x 35W	narrow beam	G12	MACM35N
CDM-T 1 x 70W	narrow beam	G12	MACM70N
CDM-T 1 x 35W	wide beam	G12	MACM35W
CDM-T 1 x 70W	wide beam	G12	MACM70W
CDM-T 1 x 35W	asymmetric beam	G12	MACM35A
CDM-T 1 x 70W	asymmetric beam	G12	MACM70A

Dimensions



Version	Ø	H	KG
HQI Large	370	440	8.0
CDM medium	270	350	3.0

Photometric Performance



1 x 70W CDM-T
Narrow
• LOR = 76.8%

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 70W HQI-TS	5500	6,000hrs
1 x 150W HQI-TS	12000	6,000hrs
1 x 35W CDM-T	3150	12,000hrs
1 x 70W CDM-T	6600	12,000hrs
1 x 70W HQI-E	6500	20,000hrs
1 x 150W HQI-E	15100	20,000hrs

To Specify

IP67 buried up-lighter suitable for HQI or CDM lamps with narrow, wide or asymmetric beam options. Front frame to be in 316 stainless steel and the body with integral gear in corrosion resistant die cast aluminium alloy – large unit (HQI), or 316 stainless steel – medium unit (CDM). 12mm thick tempered shock resistant stepped safety glass lens – as Whitecroft Lighting MARINE CDM/HQI

sirocco spoke

IP55 amenity lighting
for open spaces



Optics

- Lamp options:
 - 1 x 70/100W HQI-E

Body

- Fits 76mm diameter column spigot
- IP55 protection and vandal resistant
- Black polyester powder coated cast aluminium alloy top cover, canopy and base
- Lens in UV stabilised polycarbonate
- High purity anodised aluminium louvre
- Suitable for an ambient temperature between -25°C to +35°C

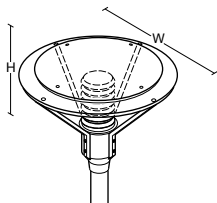


Order Codes

Sirocco Spoke
HQI-E 1 x 70W
HQI-E 1 x 100W

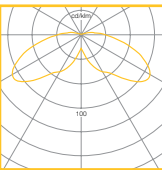
SIS70H
SIS100H

Dimensions



Version	W	H	KG	Windage
SIS70H	710	480	16.5	0.40m ²
SIS100H	710	480	17.0	0.40m ²

Photometric Performance



1 x 70W HQI-E
• LOR = 51%

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 70W HQI-E	7230	20,000hrs
1 x 100W HQI-E	9400	20,000hrs

To Specify

IP55 vandal resistant post top amenity luminaire with cast aluminium alloy top cover hub, spokes, rim and base, finished black. Lens in UV stabilised high impact acrylic and louvre in high purity anodised aluminium. Designed for pole heights of 2.5 – 4m. Integral gear and all fixings in stainless steel – as Whitecroft Lighting SIROCCO SPOKE

sirocco discus

IP55 amenity lighting
for open spaces



Optics

- Lamp options:
 - 1 x 70/100W HQI-E

Body

- Fits 60mm diameter column spigot
- IP55 protection and vandal resistant
- Black polyester powder coated cast aluminium alloy top cover, canopy and base
- Lens in UV stabilised polycarbonate
- High purity anodised aluminium louvre
- Suitable for an ambient temperature between -25°C to +35°C

Order Codes

Sirocco Discus
HQI-E 1 x 70W
HQI-E 1 x 100W

SID70H
SID100H



Photometric Performance

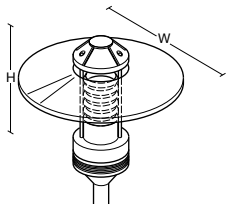


1 x 70W HQI-E
• LOR = 49.6%

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 70W HQI-E	7230	20,000hrs
1 x 100W HQI-E	9400	20,000hrs

Dimensions



W	H	KG	Windage
600	470	8.0	0.28m ²

To Specify

IP55 vandal resistant post top amenity luminaire with cast aluminium alloy top cover, canopy and base, finished black. Lens in UV stabilised polycarbonate and louvre in high purity anodised aluminium. Designed for pole heights of 2.5 – 4m. Integral gear with timed ignitor and all fixings in stainless steel – as Whitecroft Lighting SIROCCO DISCUS

sirocco globe

IP55 amenity lighting
for open spaces



Optics

- Lamp options:
 - 1 x 70/150W HQI-E

Body

- Fits 76mm diameter column spigot
- IP55 protection and vandal resistant
- Vandal resistant polycarbonate bowl
- High purity anodised aluminium louvre
- Suitable for an ambient temperature between -25°C to +35°C

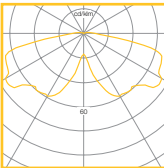


Order Codes

Sirocco Globe Clear Top	
HQI-E 1 x 70W	SIG70HCO
HQI-E 1 x 150W	SIG150HCO

Sirocco Globe Covered Top	
HQI-E 1 x 70W	SIG70HCC
HQI-E 1 x 150W	SIG150HCC

Photometric Performance

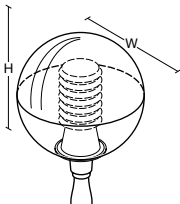


1 x 70W HQI-E
Covered
• LOR = 35.6%

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 70W HQI-E	7230	20,000hrs
1 x 150W HQI-E	15100	20,000hrs

Dimensions



W	H	KG	Windage
600	600	11.4	0.23m ²

To Specify

IP55 post top amenity luminaire with 600mm dia vandal resistant polycarbonate bowl. Integral control gear with timed ignitor and louvre. All fixings in stainless steel – as Whitecroft Lighting SIROCCO GLOBE



mistral road

IP66 post top
road lantern



Optics

- Lamp options:
 - 70/150/250/400W SON-T
 - 70/150W CDM-TT
 - 250/400W HQI-T

Body

- Seawater resistant die cast lacquered aluminium canopy, frame and spigot, finished silver
- Double ingress protection, sealed lamp compartment within IP66 body
- High purity anodised aluminium multi faceted one piece optic
- Both curved and flat options in toughened glass
- Horizontal and vertical lamp position adjustment
- Available with or without NEMA socket
- Universal spigot mounting post top and side entry. 60mm or 76mm diameter
- Small and medium body options to suit specific lamp type
- Tilt angle:
 - Post top 0°, +5°, +10°
 - Side entry 0°, -5°, -10°
- Suitable for an ambient temperature between -20°C to +35°C



Flat Glass

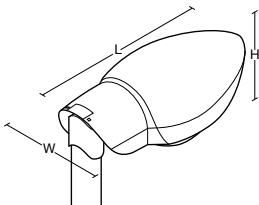
Order Codes

With NEMA Socket	Glass Option	
SON-T or CDM-TT 70W	Flat glass	MIR70FG
SON-T or CDM-TT 70W	Curved glass	MIR70CG
SON-T or CDM-TT 150W	Flat glass	MIR150FG
SON-T or CDM-TT 150W	Curved glass	MIR150CG
SON-T or HQI-T 250W	Flat glass	MIR250FG
SON-T or HQI-T 250W	Curved glass	MIR250CG
SON-T or HQI-T 400W	Flat glass	MIR400FG
SON-T or HQI-T 400W	Curved glass	MIR400CG

Options

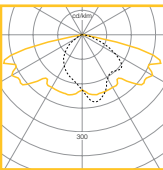
WITHOUT NEMA SOCKET	Add NN	i.e. MIR70FGNN
---------------------	--------	----------------

Dimensions



Version	L	W	H	KG	Windage
MIR70FG	670	325	190	10.0	0.06m ²
MIR70CG	670	325	240	10.0	0.06m ²
MIR150FG	670	325	190	10.0	0.06m ²
MIR150CG	670	325	240	10.0	0.06m ²
MIR250FG	775	380	200	12.5	0.07m ²
MIR250CG	775	380	250	13.0	0.07m ²
MIR400FG	775	380	200	13.5	0.07m ²
MIR400CG	775	380	250	14.0	0.07m ²

Photometric Performance



1 x 150W SON-T
• LOR = 80.4%

Lamp Performance

Wattage	IL@25°C	Lamp Life
70W CDM-TT	6600	12,500hrs
70W SON-T	6600	30,000hrs
150W CDM-TT	14000	12,500hrs
150W SON-T	18000	36,000hrs
250W HQI-T	28300	18,000hrs
250W SON-T	33300	36,000hrs
400W HQI-T	32000	20,000hrs
400W SON-T	56500	36,000hrs

To Specify

IP66 road lantern with canopy, frame and spigot in seawater resistant die cast lacquered aluminium, double ingress protection and controlled ventilation of lamp and body compartments. Auto disconnect for safe maintenance and hinged canopy and safety catch and detachable tray with either toughened curved or flat glass – as Whitecroft Lighting MISTRAL ROAD





Optics

- Lamp options:
 - 35W CDMT
 - 50W SON-T
 - 42W TC-T
- Clear polycarbonate cover with stainless louvre or opal polycarbonate diffuser

Body

- IP65 ingress protection
- Tubular steel body and top cap, available in black powder coated finish or stainless steel
- Round or square head options
- Flange or root mount options
- Head and bollard supplied separately. Bollard section contains gear

Order Codes

Head (Round)	Black	Stainless Steel
Opal Diffuser	BRKHEADOBR	BRKHEADOSR
Stainless Steel Louvre	BRKHEADLBR	BRKHEADLSR

Head Options		
SQUARE HEAD	Replace R with Q	i.e. BRKHEADOBQ

Bollard Base (Root Mounted)	Black	Stainless Steel
35W CDMT	BRK35HBR	BRK35HSR
50W SON-T	BRK50SBR	BRK50SSR
42W TC-T	BRK42FBR	BRK42FSR

Base Options		
FLANGE MOUNT*	Replace R with F	i.e. BRK35HBF

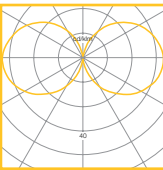
*Flange mount not available in stainless steel bollard bases
Note: Complete bollard consists of bollard base with optic and head which contains diffuser/louvre. Both must be ordered for complete unit.



Dimensions

Version Round Head	Version Square Head
W 177	W 177
H 976	H 930
KG 9.0	KG 9.0
Version Root mount	Version Flange mount
H 130	W 191
H1 480	L 191
KG 7.0	

Photometric Performance



1 x 35W CDMT
Opal Diffuser

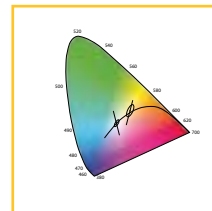
Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 35W CDMT	3300	12,000hrs
1 x 50W SON-T	4400	30,000hrs
1 x 42W TC-T	3200	13,000hrs

To Specify

IP65 bollard in stainless steel or black powder coated steel. With opal polycarbonate diffuser or stainless steel louvre with clear polycarbonate cover – as Whitecroft Lighting BROADWALK





light source selection 395



defining fluorescent lamp life 396



lighting quality 397



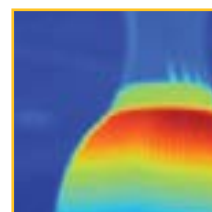
lamps fluorescent 398



lamps HID & tungsten 400



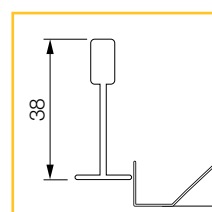
MCB Ratings 401



testing 402



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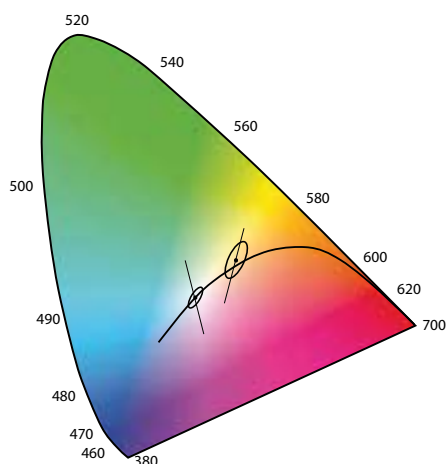


index 406

The lighting industry is going through a revolution and as we have witnessed in a few short years, LED technology has now leapt ahead. LED luminaires are no longer tucked away providing accent lighting in dark corners, LEDs are now a practical option for a wide range of applications.

Offering high light flows, excellent economy, and a typical lifespan of between 50,000 and 70,000 hours, LEDs are here to stay. It's time to do the sums and find out how you can best benefit from the new technologies available.

understanding LED technology



Consistency is critical

It's critical that users get a consistent quality of light from their light source.

The light source within an LED is a semi conductor. The nature of the process by which semi-conductors are made leads to wide variations in colour temperature between different LEDs. Manufacturers sort their products into bins according to their colour temperature performance. The fewer bins your LEDs come from, the more consistent the light you will get from them.

Another issue to be considered is the degree of deviation in colour temperature in the product. This is known as chromaticity, and is measured in MacAdam ellipses. The MacAdam system ranks colour quality on a scale of 0 to 10. At the higher end of the scale you can see clear differences in certain applications, particularly when lighting a white surface or when an LED strip is near a white wall. It is recommended that LEDs for indoor applications should be below MacAdam 5 SDCM

100% LOR – Absolute Photometry

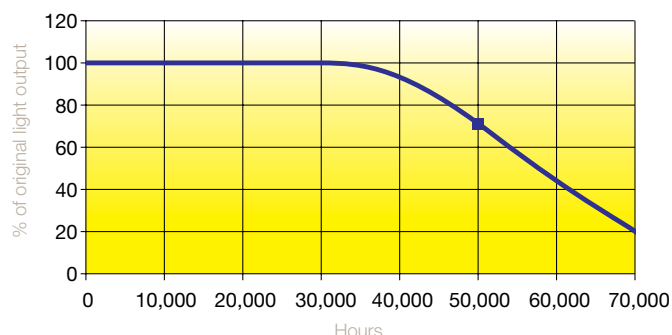
Absolute photometry is the method of measurement described in the American standard LM79 for luminaires with an LED as a source of light. Due to the lack of an approved European standard, LM79 is being widely adopted by companies in countries that lack their own standard.

The standard refers to absolute output from the fixture rather than the traditional relative method of measuring lamps alone, and then comparing the output figure to the output of the lamps when it is within the luminaire. Therefore, the luminaire under test will be shown to have an LOR of 100%.

The reason you cannot measure an LED or an array of LED in isolation as you would a conventional source is due to the fact that the LEDs need to be mounted on a material, which will determine the operating temperature of the LEDs. The operating temperature will contribute to the output of the luminaire.

Establishing the life of an LED Luminaire

A well-designed LED luminaire made with high quality parts and rigorously tested thermally to ensure the LEDs, electronic components and drivers are not thermally stressed will have a lifespan of 50,000 to 70,000 hours. That is equivalent to 15 – 20 years in a building lit for 9 hours a day. Unlike conventional lighting, an LED does not fail suddenly as it burns out. Instead, the light flow reduces over time, with the end of the luminaire's lifespan defined as the point at which this reduction reaches 70% of the original output. As with any electronic item, there will of course be the occasional failure.



Zhaga

Whitecroft Lighting Ltd, as part of the Fagerhult Group of Companies is one of the founding members of Zhaga. Zhaga is an industry-wide cooperation between companies aimed at enabling the interchangeability of LED light sources made by different manufacturers. Interchangeability is achieved by defining interfaces for a variety of application-specific light engines.

Zhaga specifications cover the physical dimensions, as well as the photometric, electrical and thermal behavior of LED light engines. The introduction of Zhaga specifications is an ongoing process and as such there will be a number of compliant and non-compliant LED modules in the lighting industry.

defining fluorescent lamp life

Lamp Life

The rated life of a lamp is given by manufacturers based upon IEC test criteria. In this way, comparisons can be made between light sources and between manufacturers. It is expressed in terms of the average number of hours operation until failure.

By giving the option to specify standard or long life lamps, Whitecroft Lighting recognise the benefits to the life cycle costs of an installation.

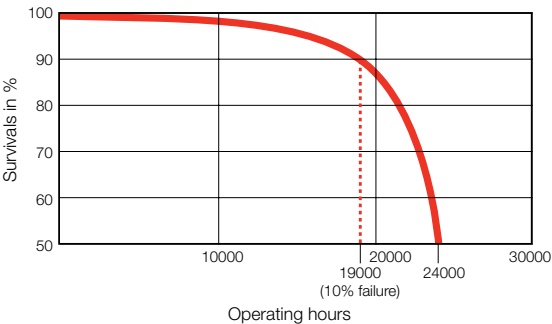
There have been significant developments in long life fluorescent lamps. Where currently available, a full range of long life lamps are listed on the following pages

A summary of typical fluorescent lamp life shows the potential to extend the time between planned maintenance cycles

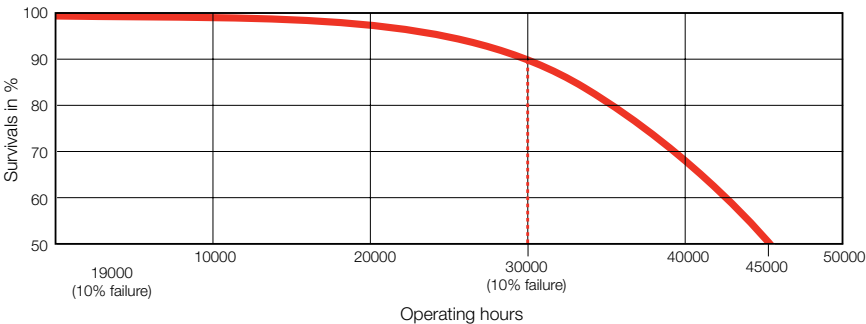
Typical Lamp Life Life

Lamp Type	Standard (hrs)	Long Life (hrs)
TC-D	13,000	33,000
TC-L	20,000	36,000
T8	20,000	55,000
T5	24,000	45,000

The life expectancy graphs show the potential extended life when selecting T5 lamps:



Life expectancy (IEC 60901) – Standard Lamps (T5)



Life expectancy (IEC 60901) – Long Life Lamps (T5)

Using occupancy and usage figures, a comparison can be made in the following installations. It can be seen that by installing long life lamps maintenance cycles can be drastically reduced.

Typically these are:

Location	Yearly Usage	Planned Maintenance Cycle (Based on 10% failure)	
		Standard Lamp	Long Life Lamp
Office	3000 hrs	6 yrs	10 yrs
Education	2000 hrs	9 yrs	15 yrs
Healthcare	7000 hrs	2 yrs	4 yrs
Retail	5000 hrs	3 yrs	6 yrs

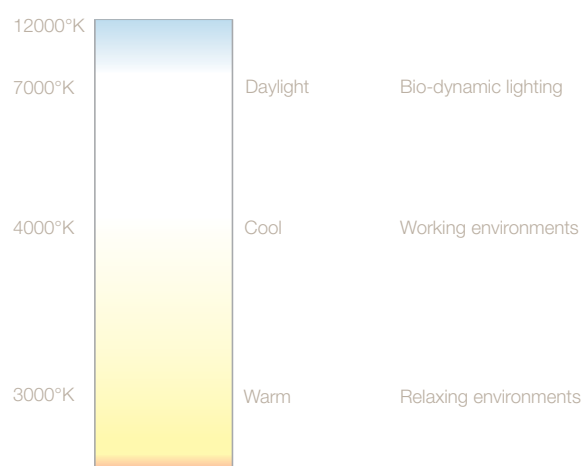
lighting quality

Selecting the best light source for an application raises a number of options to be considered. Amongst these considerations are light source colour temperature, colour rendering index and the light source life.

Colour Temperature

The characteristics of a light source is evaluated by the manufacturer in terms of its colour temperature. This is a measurement given in degrees Kelvin (°K). The colour temperature of a light source defines its 'whiteness', 'yellowness' or 'blueness' – i.e. its warmth or coldness. It does not define how natural or unnatural the colours of objects will appear when lit by the source, this is defined by the colour rendering index.

Lamp Colour (°K)



Colour Rendering Index (Ra)

To help indicate how colours appear under various light sources, a system was devised to mathematically compare how a light source shifts the appearance of a series of sample colours compared to a reference source. The CRI shows the ability of a light source to faithfully reproduce colours in comparison with a natural source. Light sources with a high Ra value are desirable in colour-critical applications such as healthcare, graphical work and retail.

It is therefore essential to specify both the colour temperature and colour rendering index when selecting lamps

Typical Lamp CRI Figures

- Fluorescent lamps with CRI 80+ will produce a first class environment
- Specialist CRI 90 are available. Currently used in some healthcare areas and specialist retail applications where colour rendering is critical.
- Typically HID sources will have low CRI figures. These range from CRI 5 – 70
- Modern CMH lamps can achieve CRI 80 – 90
- White LED solutions all typically exceed CRI 80



Colour rendition CRI 80



Colour rendition CRI 60

lamps fluorescent

Standard Lamps

T5 Linear Fluorescent - Ra85

Wattage	Nominal Length	Cap	Initial Lumens @25C 2700K, 3000K, 3500K, 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
14W HE	549	G5	1250	24000	19000
21W HE	849	G5	1920	24000	19000
24W HO	549	G5	1750	24000	19000
28W HE	1149	G5	2625	24000	19000
35W HE	1449	G5	3325	24000	19000
39W HO	849	G5	3100	24000	19000
49W HO	1449	G5	4375	24000	19000
54W HO	1149	G5	4450	24000	19000
80W HO	1449	G5	6550	24000	19000

Philips - MASTER TL5

Also available in 6500K (initial lumens are lower)

T5 ECO Linear Fluorescent - Ra85

Wattage	Nominal Length	Cap	Initial Lumens @25C 3000K, 3500K, 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
13W HE	549	G5	1150	25000	21000
19W HE	849	G5	1800	25000	21000
20W HO	549	G5	1650	25000	21000
25W HE	1149	G5	2600	25000	21000
32W HE	1449	G5	3100	25000	21000
34W HO	849	G5	3250	25000	21000
45W HO	1449	G5	4100	25000	21000
50W HO	1149	G5	4450	25000	21000
73W HO	1449	G5	6550	25000	21000

Philips - MASTER TL5 Eco

Not all colour temp available
Also available in 6500K (initial lumens are lower)

T8 Triphosphor Linear Fluorescent - Ra85

Wattage	Nominal Length	Cap	Electronic Ballast - Preheat		
			Initial Lumens @25C 2700K, 3000K, 3500K, 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
36W	1199	G13	3350	20000	17000
58W	1500	G13	5240	20000	17000
70W	1764	G13	6200	20000	17000

Philips - MASTER TL-D Super 80

Philips - MASTER TL-D Xtra
Also available in 6500K (initial lumens are lower)

TC-L Compact - Ra80/Ra82 (dependent on colour temperature)

Wattage	Nominal Length	Cap	Electronic Ballast - Preheat		
			Initial Lumens @25C 3000K, 3500K, 4000K, 6500K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
36W	410	2G11	2900	20000	14000
40W	535	2G11	3500	20000	14000
55W	535	2G11	4800	20000	14000

Philips - MASTER PL-L 4 Pin

Not all colour temp available

TC-D Compact 4 Pin - Ra82

Wattage	Nominal Length	Cap	Electronic Ballast - Preheat		
			Initial Lumens @25C 2700K, 3000K, 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
13W	131	G24q-1	900	13000	8000
18W	143	G24q-2	1200	13000	8000
26W	164	G24q-3	1800	13000	8000

Philips - MASTER PL-C 4 Pin

Long Life Lamps

T5 Linear Fluorescent Long Life - Ra85

Initial Lumens @ 25C 3000K, 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
4375	45000	30000
4450	45000	30000
6240	45000	30000

Philips - MASTER TL5 High Output Xtra

T8 Triphosphor Linear Fluorescent Long Life - Ra85

Electronic Ballast - Preheat		
Initial Lumens @ 25C 3000K, 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
3350	55000	46500
5200	55000	46500
6150	55000	46500

4000K only for 70W
Also available in 6500K (initial lumens are lower)

TC-L Compact Long Life - Ra80/Ra82 (dependent on colour temperature)

Electronic Ballast - Preheat		
Initial Lumens @ 25C 3000K, 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
2900	36000	25000
3500	36000	25000
4800	36000	25000

4000K only for 40W
Philips - MASTER PL-L Xtra 4 Pin

TC-D Compact 4 Pin Long Life - Ra82

Electronic Ballast - Preheat		
Initial Lumens @ 25C 3000K, 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
1200	33000	22000
1800	33000	22000

Philips - MASTER PL-C Xtra 4 Pin

Ra>90 Lamps

T5 Linear Fluorescent - Ra91-93 (dependent on colour temperature)

Initial Lumens @ 25C 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
1400	24000	19000
3700	24000	19000
3800	24000	19000

Philips - MASTER TL5 High Output 90 De Luxe
Also available in 6800K

T8 Triphosphor Linear Fluorescent - Ra91-93 (dependant on colour temperature)

Electronic Ballast - Preheat		
Initial Lumens @ 25C 3000K, 4000K, 53000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
2800	20000	17000
4600	20000	17000

Philips - MASTER TL-D 90 De Luxe
Also available in 6500K (initial lumens are lower)

TC-L Compact - Ra90

Electronic Ballast - Preheat		
Initial Lumens @ 25C 3000K, 5300K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
2350	20000	14000
3650	20000	14000

Philips - MASTER PL-L 90 De Luxe 4 Pin

lamps fluorescent

Standard Lamps

PLR-ECO - Ra82

Wattage	Nominal Length	Cap	Electronic Ballast - Preheat		
			Initial Lumens @25C 3000K & 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
14W	100	GR14q-1	1050	24000	19000
17W	122	GR14q-1	1250	24000	19000

Philips - MASTER PL-R Eco 4 Pin

TC-T Compact - Ra82

Wattage	Nominal Length	Cap	Electronic Ballast - Preheat		
			Initial Lumens @25C 2700K, 3000K, 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
18W	112	GX24q-2	1200	13000	8000
26W	127	GX24q-3	1800	13000	8000
32W	139	GX24q-3	2400	13000	8000
42W	161	GX24q-4	3200	13000	8000
57W	198	GX24q-5	4300	13000	8000

Philips - MASTER PL-T 4 Pin

TC-S Compact - Ra82

Wattage	Nominal Length	Cap	Electronic Ballast - Preheat		
			Initial Lumens @25C 2700K, 3000K, 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
5W	89	2G7	250	13000	8000
7W	119	2G7	400	13000	8000
11W	280	2G7	900	13000	8000

Philips - MASTER PL-S 4 Pin

T5 Circular - Ra85

Wattage	Nominal Length	Cap			
			Initial Lumens @25C 3000K, 4000K	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
40W	305	2GX13	3300	12000	8000
55W	305	2GX13	4200	12000	8000
60W	379	2GX13	5000	12000	8000

Philips - MASTER TL5 Circular

2D T5 Compact Square - Ra82

Wattage	Nominal Length	Cap		
			Initial Lumens @25C 2700K, 3000K	Rated Life
28W	204	GR10q-4	2150	21000
38W	204	GR10q-4	3020	21000
55W	206	GR10q-4	3900	8050

GE 2D® watt-miser - 28W, 38W and Biax (2D) - 55W
*3K only

Long Life Lamps

TC-T Compact Long Life - Ra82

Initial Lumens @25C 3000K, 4000K	Electronic Ballast - Preheat	
	Life to 50% Fail 3H cycle	Life to 10% Fail 3H cycle
2300	33000	20000
3200	33000	20000
4300	33000	20000

Philips - MASTER PL-T Xtra 4 Pin

lamps HID and tungsten halogen

Standard Lamps

HQI-E Master HPI Plus

Wattage	Nominal Length	Cap
70W	156	E27
100W	186	E40
150W	227	E40
250W	226	E40
400W	284	E40

Philips - MASTER City White CDO-ET Plus (70W, 100W, 150W) & MASTER HPI Plus (250 & 400W)

Initial Lumens @25C 2800K, 2900K	Colour Temp (K)	Colour Rendering	Life to 50% Fail	Life to 20% Fail
7230	2900	87	16000	12000
9400	2890	87	18000	14000
15100	2830	85	18000	14000
18000	4500*	69	20000	11000
32500	4500	69	20000	11000

*Also available in 6700K

HQI-T/CDO-TT

Nominal Length	Cap	Lumens @ 25C	Colour Temp (K)	Colour Rendering	Life to 50% Fail	Life to 20% Fail
156	E27	7500	2800	90	16000	12000
211	E40	16500	2800	87	18000	14000
257	E40	28300	3000	88	18000	12000
286	E40	32000	4500	65	20000	11000

Philips - MASTER City White CDO- TT (150W & 250W) & MASTER HPI-T Plus (400W)

HQI-TS

Wattage	Nominal Length	Cap
70W	118	R7s
150W	135	R7s

GE Arcstream® double ended UVC

Luminous Flux	Colour Temp (K)	Colour Rendering	Rated Life
5500	4200	70	6000
12000	4200	70	6000

*Also available in 3000K

CDM-TD Double Ended

Wattage	Nominal Length	Cap
70W	120	RX7s
150W	138	RX7s

Philips - MASTER Colour CDM-TD

Luminous Flux	Colour Temp (K)	Colour Rendering	Life to 50% Fail	Life to 20% Fail
6000	4200	92	16000	15000
14200	4200	92	16000	15000

Also available in 3000K

CDM-T

Wattage	Nominal Length	Cap
35W	103	G12
70W	103	G12
150W	110	G12

Philips - MASTER Colour CDM-T

Luminous Flux	Colour Temp (K)	Colour Rendering	Life to 50% Fail	Life to 20% Fail
3300	4200	84	12000	10000
6600	4200	92	12000	10000
12700	4200	96	12000	10000

Also available in 3000K

CDM-Tm Mini

Wattage	Nominal Length	Cap
20W	52	PGJ5
35W	52	PGJ5

Philips - MASTER Colour CDM-Tm Mini

Luminous Flux	Colour Temp (K)	Colour Rendering	Life to 50% Fail	Life to 20% Fail
1650	3000	85	12000	11000
3000	3000	90	12000	11000

SON-E

Wattage	Nominal Length	Cap
70W	156	E27
150W	227	E40

Philips - SON (70W) & SON Comfort (150W)

Luminous Flux	Colour Temp (K)	Colour Rendering	Life to 50% Fail	Life to 20% Fail
5810	2000	25	28000	19000
12500	2150	65	24000	16000

SON-T

Wattage	Nominal Length	Cap
50W	156	E27
70W	156	E27
150W	210	E40
250W	257	E40
400W	283	E40

Philips - MASTER SON-T PIA Plus

Luminous Flux	Colour Temp (K)	Colour Rendering	Life to 50% Fail	Life to 20% Fail
4400	2000	25	30000	22000
6600	2000	25	30000	22000
18000	2000	25	36000	26000
33300	2000	25	36000	26000
56500	2000	25	36000	26000

SDW-T (White SON)

Wattage	Nominal Length	Cap
100W	149	PG12-1

Philips - MASTER SDW-T

Luminous Flux	Colour Temp (K)	Colour Rendering	Life to 50% Fail	Life to 20% Fail
5000	2500	83	15000	10000

240V Halogen

Wattage	Nominal Length	Cap
70W	105	E27

Osram - Halolux Ceram Eco

Luminous Flux	Colour Temp (K)	Colour Rendering	Life
1180	2800	100	2000

Tungsten Halogen Double Ended

Wattage	Nominal Length	Cap
330W	119	R7s

GE - Halogen Linear

Luminous Flux	Colour Temp (K)	Colour Rendering	Life
7000	3000	100	1000

MCB ratings

Approximate maximum quantity of high frequency ballast controllable by type 3/type C MCB's

Ballast Rating (Watts)	Lamp Type	C10 MCB	C16 MCB
Linear Fluorescent			
1 x 14	T5 (HE)	29	48
2 x 14	T5 (HE)	29	48
3 x 14	T5 (HE)	29	48
4 x 14	T5 (HE)	29	48
1 x 21	T5 (HE)	29	48
2 x 21	T5 (HE)	29	48
1 x 24	T5 (HO)	29	48
2 x 24	T5 (HO)	12	20
1 x 28	T5 (HE)	29	48
2 x 28	T5 (HE)	29	48
1 x 35	T5 (HE)	29	48
2 x 35	T5 (HE)	29	48
1 x 36	T8	29	48
2 x 36	T8	29	48
1 x 39	T5 (HO)	29	48
2 x 39	T5 (HO)	12	20
1 x 49	T5 (HO)	29	48
2 x 49	T5 (HO)	12	20
1 x 54	T5 (HO)	29	48
2 x 54	T5 (HO)	12	20
1 x 58	T8	29	48
2 x 58	T8	12	20
1 x 70	T8	29	48
2 x 70	T8	12	20
1 x 80	T5 (HO)	29	48
2 x 80	T5 (HO)	12	20

Compact Fluorescent

1 x 13	TC-D	29	48
2 x 13	TC-D	29	48
2 x 14	PLR	29	48
1 x 17	PLR	29	48
2 x 17	PLR	29	48
1 x 18	TC-D/L/T	29	48
2 x 18	TC-D/L/T	29	48
1 x 22	T5 Circular	29	48
1 x 26	TC-D/T	29	48
2 x 26	TC-D/T	12	20
1 x 28	2D	29	48
1 x 32	TC-D	29	48
1 x 36	TC-L	29	48
2 x 36	TC-L	12	20
1 x 38	2D	29	48
1 x 40	TC-L	29	48
2 x 40	TC-L	12	20
1 x 42	TC-D	29	48
1 x 55	TC-L	29	48
2 x 55	TC-L	12	20

Approximate max quantity of discharge lamps controllable by type 6/type C MCB's

Lamp Power and Type	C10 MCB	C16 MCB	C20 MCB
HID			
20W CDM-TM	28	45	
35W CDM-T	28	45	
50W SON	19	31	39
70W SON & HQI	12	18	23
150W SON & HQI	7	11	14
250W SON & HQI	5	7	9
400W SON & HQI	3	4	5

(Data based on 240V 50Hz, luminaires fitted with compensation capacitor)

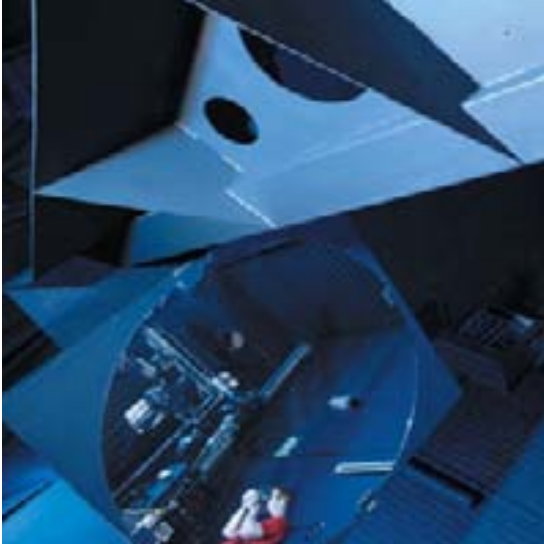
Approximate max quantity of LED luminaires controllable by type 6/ type C MCB's (Please refer to website for a complete list of all LED luminaires)

Luminaire	Product Code	Qty Per MCB Type	
		10A Type C	16A Type C
Mirage LED	MLA11XXXX + MLH25W	11	19
	MLA11XXXX + MLY25W	29	48
	MLA20XXXX + MLH25W	11	19
	MLA20XXXX + MLY25W	29	48
	MLA30XXXX + MLH50W	12	20
	MLA30XXXX + MLY50W	12	20
Life M	LM6Y14KP	14	22
	LM12Y34KP	14	22
Foil LED	FPA848Y40S	21	34
	FPA848Y80S	10	17
ACF LED	ALH114K	21	34
	ALH124K	21	34
	ALH134K	21	34
	ALH254K	10	17
	ALH264K	10	17
	ALH274K	10	17
Stilleto LED	STLLH114K	21	34
	STLLH124K	21	34
	STLLH134K	21	34
	STLLH154K	10	17
	STLLH164K	10	17
	STLLH174K	10	17
Horizon LED	HRL93K	50	80
	HRL123K	50	80
	HRL104K	50	80
	HRL134K	50	80
Centurion LED	CL703KXXX	50	80
	CL903KXXX	50	80
	CL804KXXX	50	80
	CL1104KXXX	50	80
Concert S 500	CN500XXXXXX	Not Available	48
Concert S 1000	CN1000XXXXXX	Not Available	48
Concert M	CNHXXXXXXX	50	80
Echo LED	EC280-H154KG	25	40
	EC280-H404KG	25	40
PowerBay CX	PCXAH6KC	12	18

This table is provided for general guidance only. If specific advice is required, please contact Technical Support for ballast characteristics. This information should then be relayed to the MCB manufacturers for advice on suitable breaker types.

testing

Utilising state of the art test facilities, Whitecroft Lighting ensure all luminaires and components are to the very highest standard of design, performance, construction and safety.



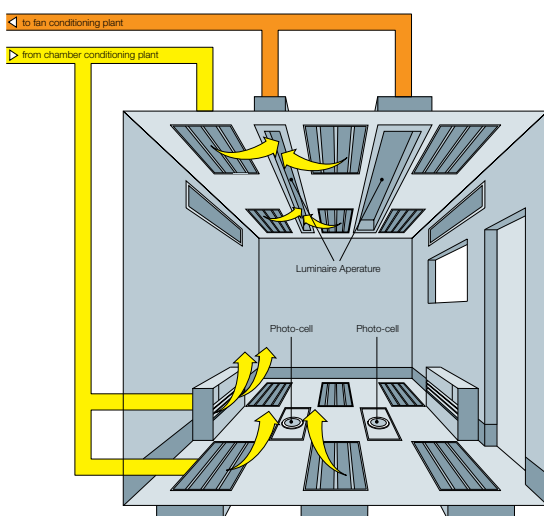
Photometry

The in-house goniophotometer is a device incorporating a large mirror and photocell to measure light output from a luminaire at varying angles. It is precision controlled by a computer programme. This enables the luminous characteristics of luminaires to be measured and recorded. Using this data, electronic files can be created to enable lighting designers to plan and evaluate the performance of luminaires within a project. The photometer is BSi certified to BS 5225



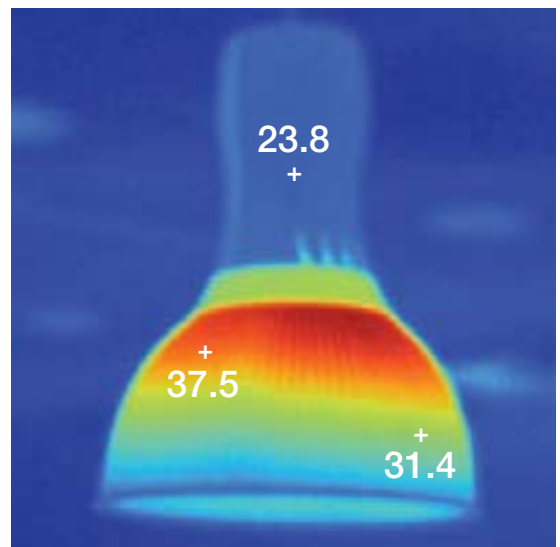
Integrating Sphere

The in-house Integrating Sphere is used for the measurement of light output from LED and compact sources. Measurements are carried out by a Spectroradiometer connected to the sphere. Using a Spectroradiometer gives the ability to determine Total Luminous Flux (lumens), Correlated Colour Temperature, Colour Rendering Indices and Chromaticity Coordinates from a light source.



Calorimeter

The calorimeter chamber at Whitecroft Lighting is a special purpose environment for testing both the air handling and thermal characteristics of luminaires. Many luminaires are capable of being used as an integral air return path. Testing enables accurate flow rates to be recorded and used in HVAC calculations.



Thermal Testing

The thermal characteristics of a luminaire can effect both it's operation and safety to users. Evaluation of these issues throughout the design stages ensures that all luminaires are fully tested and compliant to British Standards specifications. Using the latest in thermal imaging technology, accurate measurements ensure product performance and reliability through life.

ingress protection (IP)



The ingress protection (IP) rating denotes the protection against solid foreign objects and harmful ingress of water provided by the luminaire enclosure. If no code is marked, the luminaire is deemed to be IP20.

First Numeral

Protection against ingress of solid foreign objects

IP Requirements

0	No protection.
1	Full penetration of 50mm sphere not allowed and shall have adequate clearance from hazardous. Contact with hazardous parts not permitted.
2	Full penetration of 12.5mm diameter sphere not allowed. The jointed finger shall have adequate clearance from hazardous parts.
3	The access probe of 2.5mm diameter shall not penetrate.
4	The access probe of 1mm diameter shall not penetrate.
5	Limited ingress of dust permitted (no harmful deposit).
6	Totally protected against ingress of dust.

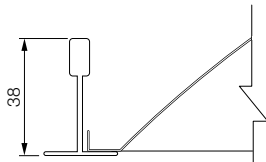
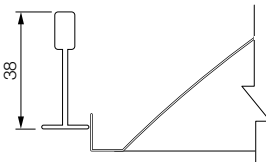
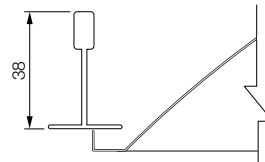
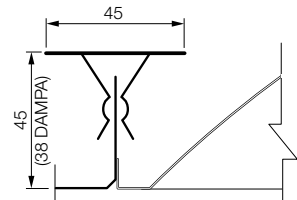
Second Numeral

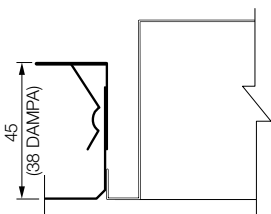
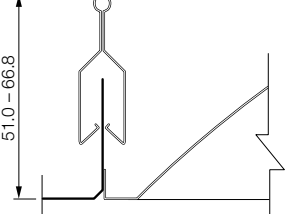
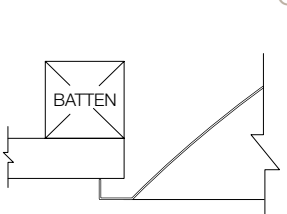
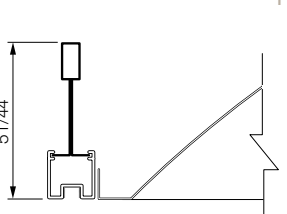
Protection against harmful ingress of water

IP Requirements

0	No protection.
1	Protected against vertically falling drops of water. Limited ingress permitted.
2	Protected against vertically falling drops of water with enclosure tilted 15° from the vertical. Limited ingress permitted.
3	Protected against sprays to 60° from the vertical. Limited ingress permitted.
4	Protected against water splashed from all directions. Limited ingress permitted.
5	Protected against low-pressure jets of water from all directions. Limited ingress permitted.
6	Protected against strong jets of water.
7	Protected against the effects of immersion between 15cm and 1m.
8	Protected against longer periods of immersion under pressure.

ceiling compatibility matrix

Ceiling Type Luminaire Type		Exposed T Grids				Spring T Grids	
		T25 Lay in (A)	T15 Lay in (A)	T15 Tegular (B)	T15/T25 Pull Up (C)	SAS 120 (D)	Armstrong Orcal 1800 (D)
Asymmetric Wallwasher page 76		✓	✓				
Broadspread Asymmetric page 166		✓	✓		✓ ₂		
Cascade 600/TSI/Retail page 152		✓	✓				
Cascade 1200/Retail page 158		✓	✓				
Cascade Edge page 136		✓		✓			✓ ₁
Curie Elite page 346							
DTFA Elite page 348					✓ ₅	✓	✓
DTFN Elite page 352							
Duo 2 Linear page 147							✓ ₁
Duo 2 page 142		✓	✓	✓ ₂			✓ ₁
Duo 600 Consult page 330					✓	✓	✓
Duo Line page 164		✓	✓		✓ ₂		
Gibraltar page 165		✓	✓				
HDUM page 328					✓ ₅	✓	✓
HDUN page 328							
Hygiene *600 x 600 page 162					✓	✓*	✓*
Life L page 62					✓		
Life M page 130					✓		
Life Q/P/Colour page 68					✓	✓	✓
Lister ² page 356					✓ ₅	✓	✓
Softcell 3 - 600 page 148		✓		✓		✓	✓
Softlighter page 134		✓		✓			✓ ₁
Spear Diffuser page 161		✓	✓		✓ ₂		
Spear Profile page 159		✓		✓			
Surgeon 65 (Non-modular) page 327							
Surgeon 65 (Modular) page 327					✓	✓	✓
Vivant 600 page 150		✓		✓		✓	✓
Integration Details	A	B		C		D	
							
	T25 Exposed T Lay in T15 Exposed T Lay in	T15 Tegular		T15/T25 Pull Up		SAS 120 Spring T Armstrong Orcal 1800 Spring T Burgess Clip in Spring T Dampa Clip in Tile	
Notes	1 – Half spring T and must run perpendicular to lamp (as integration detail E) 2 – Additional support bracket kit required 3 – Additional ceiling integration frame required 4 – Suspension via threaded drop rods supplied by others 5 – T25 only – contact Whitecroft Technical for T15 application 6 – Luminaire to be supported from full height T25/T15 main runners only 7 – Spring T orientation parallel to lamp unless stated otherwise						

Spring T Grids				see note 7	Plasterboard	Alugrids	
Burgess Clip in (D)	Dampa Clip in (D)	Armstrong Orcal 3000 (F)	SAS 150 (F)	Burgess 'A' Bar (F)	Prepared Aperture (G)	SAS AL 15/16 (H)	SAS AL 15/08 (H)
					✓ 2		
					✓ 3		
✓ 1		✓	✓	✓	✓ 3	✓	✓
					✓		
✓	✓	✓	✓	✓			
					✓		
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