



healthcare



nightingale LED 320



nightingale NX 321



florence elite 322



florence 324



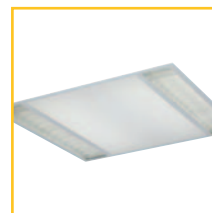
medilight 326



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

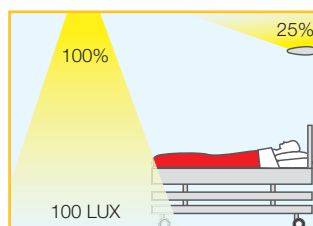
Research confirms the direct link between light quality and patient recovery rates. Recent studies by Professor Bryan Lawson and Doctor Michael Phiri of the University of Sheffield and NHS Estates show that an improved ward environment can result in a reduction in non-operative patient recovery times 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.

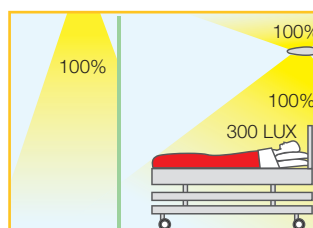
Lifecycle costing

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.



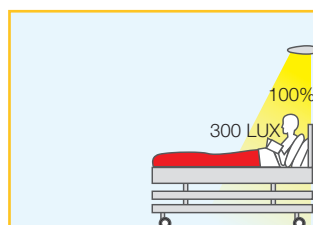
General Lighting

Centre ward illuminance should be sufficient to enable safe movement around ward area. Patient ambient should be a relaxing lower level of illumination.



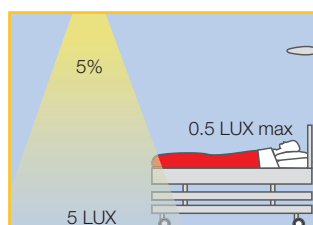
General/Nursing Care

Medical practices carried out at bed space with curtains open or closed. A 25% tolerance is acceptable when curtains are closed.



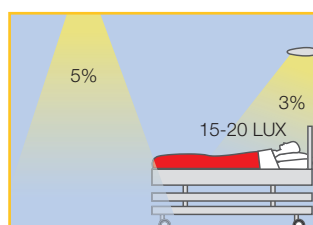
Reading Light

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

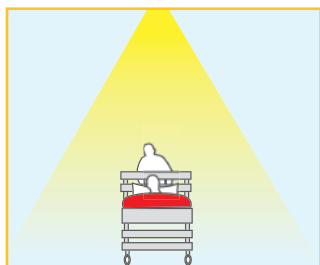
Downlight and reading light dimmed to allow continuous observation at night.

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.

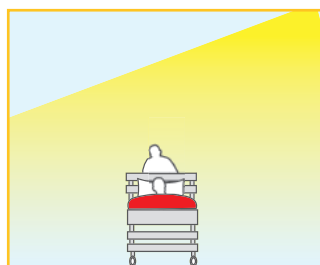
Corridor lighting

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)

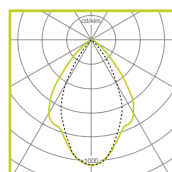
Order Codes

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. NGD203KCFT
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



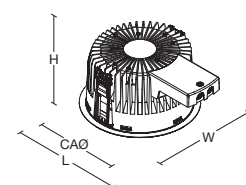
LED Performance

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

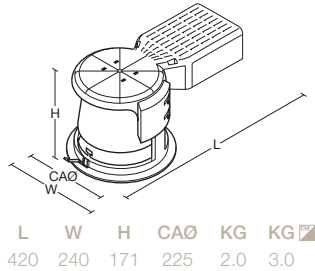
Order Codes

Nightingale NX	Standard	3 hr Emergency
TC-D 2 x 26W	NX24R226	NX24R226EM

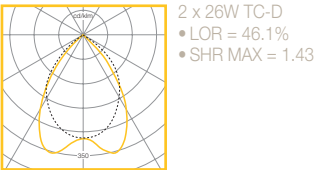
Options

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

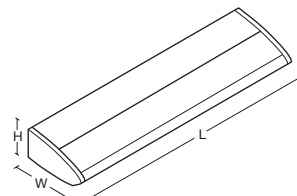
- Light source options:
 - LED 2400 lumens 26W* uplight (ward lighting)
 - LED 1500 lumens 20W* downlight (reading/nursing care)
- Or
 - 1 x 39W (44W)* T5 uplight (ward lighting)
 - 1 x 21W (25W)* T5 downlight (reading/nursing care)
- *Total power consumption including driver/ballast
- Uplight – wide 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)

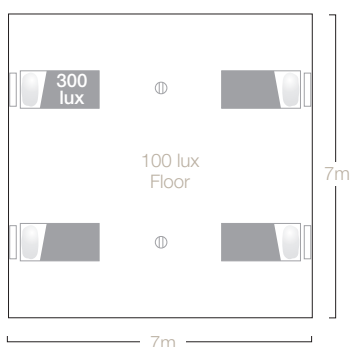
Standard

FEL3921
FEY2415

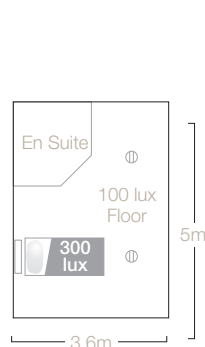
Lamp Performance

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

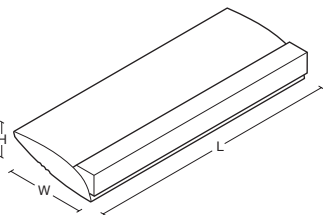
Order Codes

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

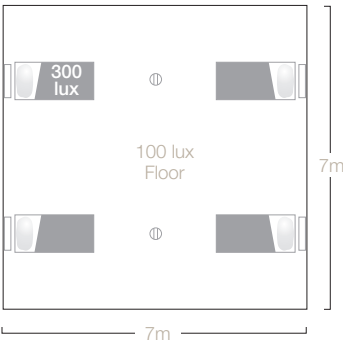
Wattage	IL@25°C	Lamp Life
1 x 54W T5	4450	24,000hrs
1 x 55W TC-L	4800	20,000hrs

Dimensions

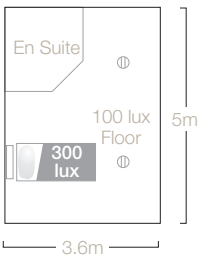


Version	L	W	H	KG
2 x 55W TC-L	580	322	100	7.0
2 x 54W T5	1188	322	100	10.0

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

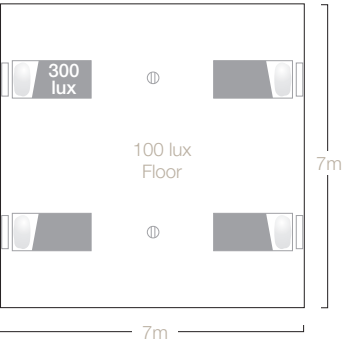


3 Tier

Order Codes

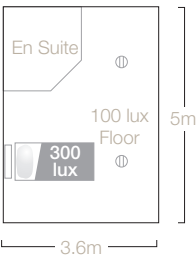
Medilight (Typical Configuration)		Standard
		MED4R
T5 2 x 54W	Aluminium base carcass: 2m long	1 x circulation light
T5 1 x 54W		1 x reading/nursing care light
		3 x twin 13 amp switched socket panel
		1 x gas outlet panel
		1 x 4 way RJ45 data ports
		1 x nurse call panel
		(Mediplan Series 25 recommended)
		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

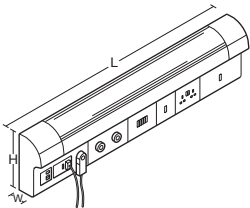
Typical 1 Bed Ward



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

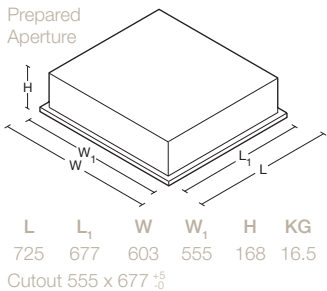
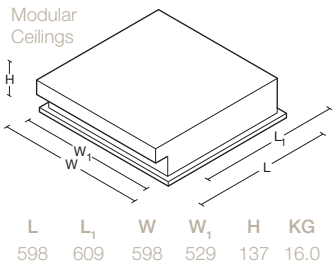
Options

RECESSING PANEL

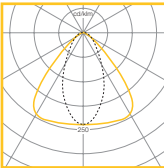
To retain integrity on spring T ceilings

RP600x600

Dimensions



Photometric Performance



2 x 55W TC-L

• LOR = 33.1%

• SHR MAX = 1.61

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 55W TC-L	4800	12,000hrs

Utilisation Factors UF(F)

Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.29	0.35	0.36

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

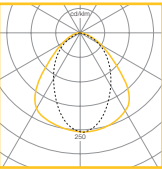


Solid aluminium jacking bracket prepared aperture version

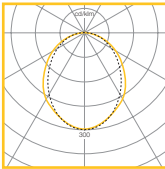
Lamp Performance

Wattage IL@25°C Lamp Life
1 x 55W TC-L 4800 12,000hrs

Photometric Performance



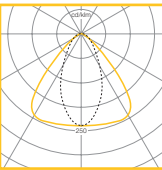
4 x 55W TC-L
Dual Optic –
Louvre & Diffuser
• LOR = 53.2%
• SHR MAX = 1.57



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

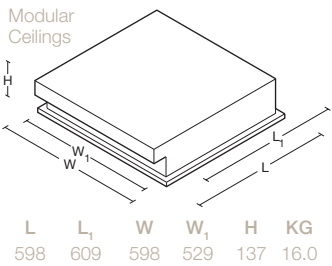
HDUN Ceiling Integration

Refer to common ceiling
compatibility matrix –
See page 404

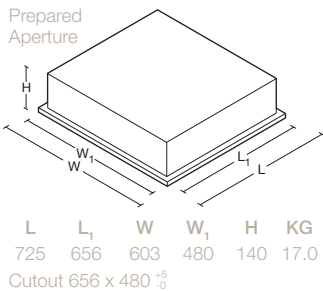
Plasterboard

Prepared aperture

Dimensions



L	L ₁	W	W ₁	H	KG
598	609	598	529	137	16.0



L	L ₁	W	W ₁	H	KG
725	656	603	480	140	17.0

Cutout 656 x 480 ^{±5}

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

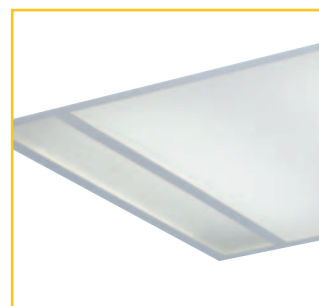


Optics

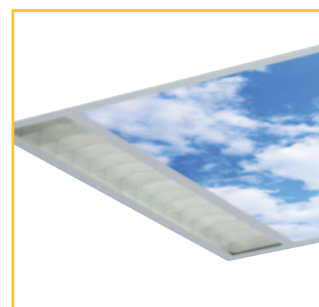
- Lamp options:
– 3 x 24W T5
- Micro prism side controllers or living louvres covered by clear polycarbonate
- Satine Blend central diffuser for lamp diffusion
- Framed polycarbonate sheet for ease of cleaning
- Picture options for central diffuser to add feature

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
T5 3 x 24W

HF Gear
DCNMH324

3 hr Emergency
DCNMH324EM

Living Louvre Optic
T5 3 x 24W

HF Gear
DCNVH324

3 hr Emergency
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

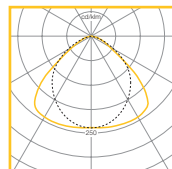
Image Options

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

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

Printed Images

Sky



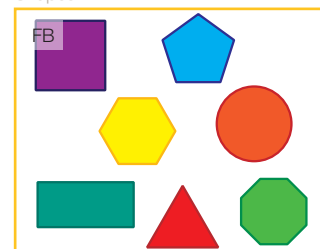
Autumn



Ladybirds



Shapes



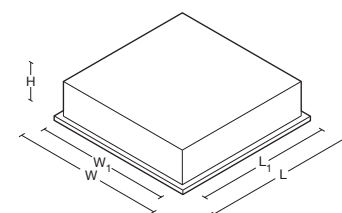
Butterflies



Planets



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. DTFNWDGY428TA
SWITCH DIMMING	Replace H with X	i.e. DTFNWDGX428TA
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

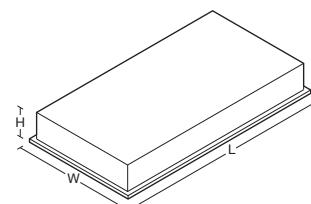
Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

Plasterboard

Prepared aperture

Dimensions



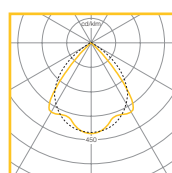
L	W	H	Cut Aperture
1325	603	145	555 x 1277 ⁺³

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

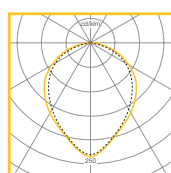
Note: Emergency luminaires are 1 KG heavier than the standard shown above

Photometric Performance



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

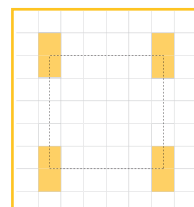


Utilisation Factors UF(F)

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

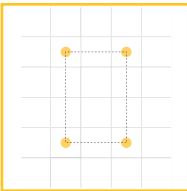


Order Codes

Esprit MRI	Standard
TH 1 x 70W	ESTH75

Performance Guide

Lamps	Illuminance	Spacing
1 x 70W TH	360 lux	1.8m x 1.2m

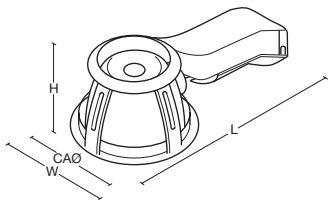


Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

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

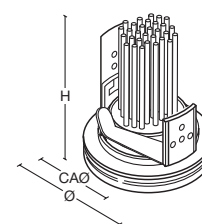
185W

CNMR185W

320W

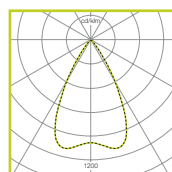
CNMR1320W

Dimensions

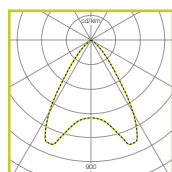


Version	H	Ø	CAØ	KG
Fixed	100	90	80	0.84

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
- 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
- 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
23W*	K6H4154KW	K6H4154KWEM
34W*	K6H4204KW	K6H4204KWEM

Accessories

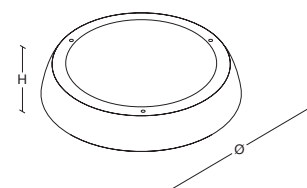
Anti-ligature kit	KLALKIT400W
-------------------	-------------

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

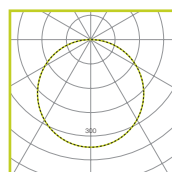
Options

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)

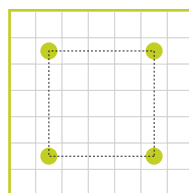
Room Reflectance			Room Index		
C	W	F	1.00	3.00	5.00
0.70	0.50	0.20	0.67	0.95	1.02



Tamper Proof Screws

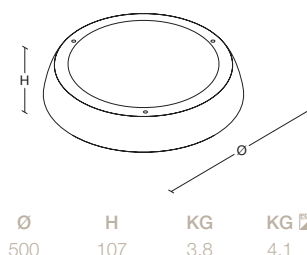
Performance Guide

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

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

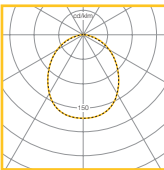
SPECIAL TOOL REQUIRED FOR ACCESS AND FIXING **HAL-KEY**

*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

Photometric Performance



- 1 x 55W 2D
- LOR = 50%
- SHR MAX = 1.70

Utilisation Factors UF(F)

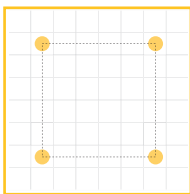
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.33 0.47 0.51



Tamper Proof Screws

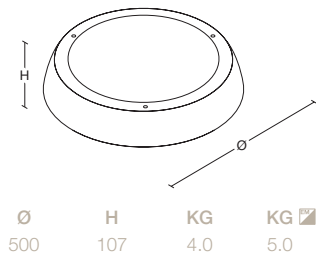
Performance Guide

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



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

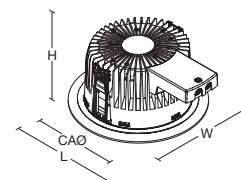


Equivalent Lamp Types

1100 Lumen Output
Compact fluorescent **1 x 18/26W**

2000 Lumen Output
Compact fluorescent **1 x 32/42W**
2 x 26W

Dimensions

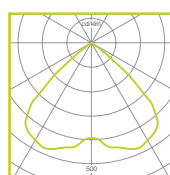


Version	L	W	H	CAØ	KG	KG/m²
Compact	232	250	100	165	1.6	3.1
Comfort	232	250	137	165	1.8	3.3
Driver	220	83	35	-	0.3	-

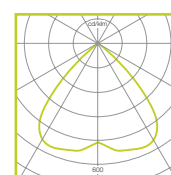
LED Performance

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)

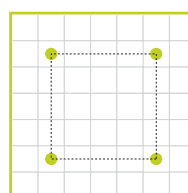
Room Reflectance		Room Index
C	W	F
1.00	3.00	5.00
0.70	0.50	0.20
0.79	1.02	1.08

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

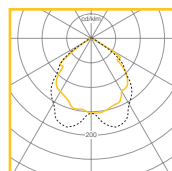
Order Codes

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. MX24AL Y 218P
SWITCH DIMMING	Replace H with X	i.e. MX24AL X 218P
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. MX24ALH218P T
	For emergency	i.e. MX24ALH218P TEM

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)

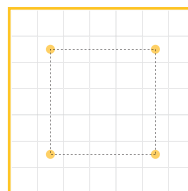
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.32 0.40 0.42



Technical Louvre

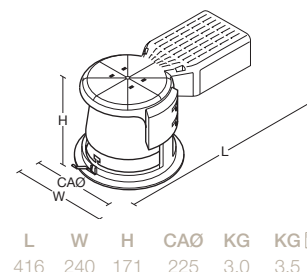
Performance Guide

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



L	W	H	CAØ	KG	KG
416	240	171	225	3.0	3.5

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