



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.

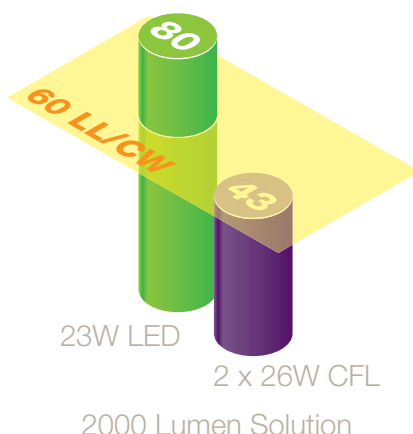
driving down costs

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.



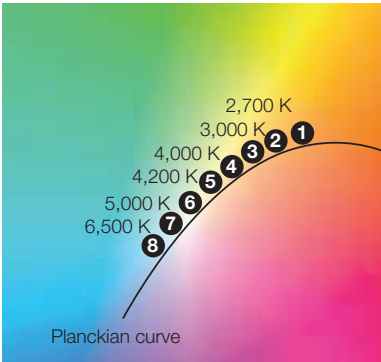
2700K is a warm welcoming light promoting relaxation and social interaction.

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.

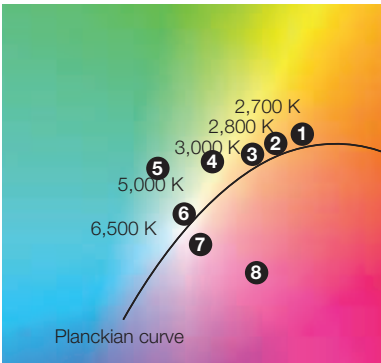
colour temperature mode

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



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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



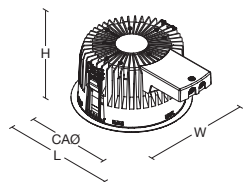
Integra Module



Pattress

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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

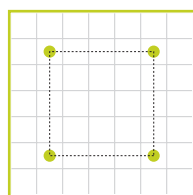
Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
3000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM
4000K	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM
3000K - Integra	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM
4000K - Integra	≥ 80	L ₇₀ (50,000hrs)	MacAdam 3 SDCM
2700K - 6500K Tunable White	≥ 90	L ₇₀ (50,000hrs)	MacAdam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

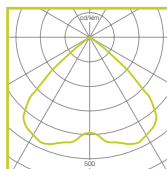
Performance Guide

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

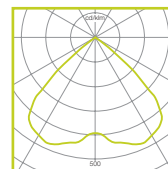
Photometric Performance



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

Utilisation Factors UF(F)

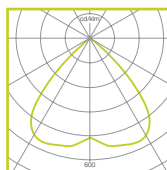
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.79 1.02 1.08



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

Utilisation Factors UF(F)

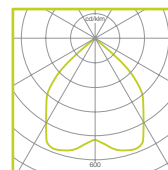
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.79 1.02 1.08



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

Utilisation Factors UF(F)

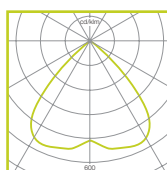
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.80 1.03 1.08



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

Utilisation Factors UF(F)

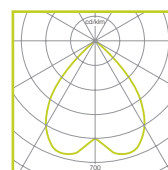
Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.89 1.05 1.09



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