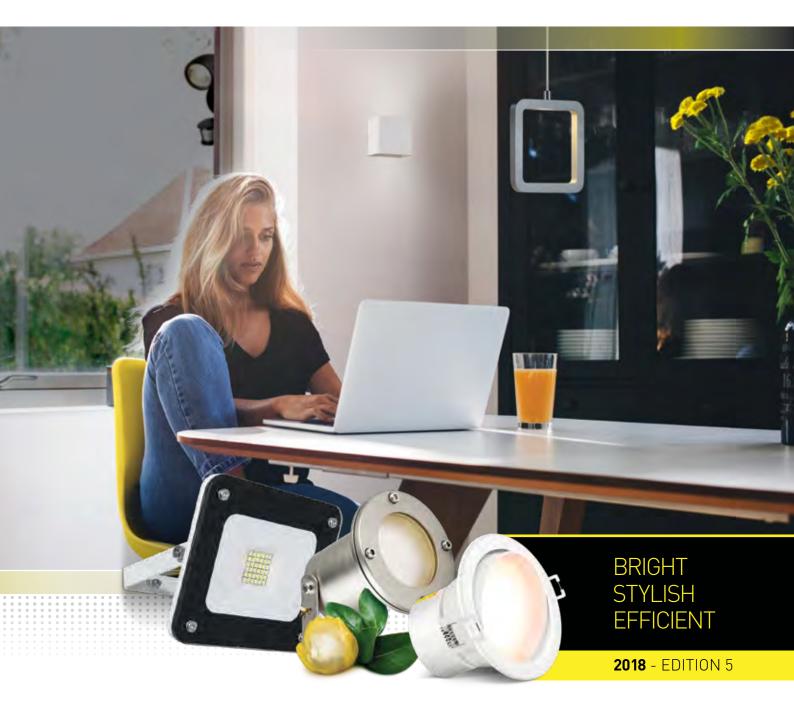


LED LIGHTING







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LED LIGHTING EXPLAINED

LIGHT COLOUR

Expressed in Degrees Kelvin (K), light colours are the key to determining the mood of a room.



AVERAGE LAMP LIFE





COMPACT FLUORESCENT 10,000 HOURS



INCANDESCENT 1.000 HOURS

DURABILITY: LEDs are very long-lasting compared to other lighting technologies, with an average 30,000 hours life expectancy. We use quality components which make our lamps even more durable, being laboratory tested and assessed at 30,000 hours life expectancy. That represents approximately 20 years based on 3 to 4 hours usage per day.

DIMMING COMPATIBILITY

Critical to a successful installation is an understanding of LED compatibility with dimmers.

HPM is one of the only major brands on the market to deliver a full solution from dimmers to drivers and LED fixtures. Choose the winning combination of HPM LED fixtures and HPM or Legrand dimmers to ensure superior performance – including smooth dimming with no flickering, reliability and long life.



LIGHT PERFORMANCE

LIGHT OUTPUT	INCANDESCENT	HALOGEN	CFL	LED
220 lm	25W	18W	5-7W	3W
420 lm	40W	28W	7-8W	4-5W
720 lm	60W	42W	11-12W	6-8W
930 lm	75W	52W	13-18W	9-13W
1300 lm	100W	70W	18-23W	16-20W

LUMINOUS EFFICACY (lm/W)

Picking a lamp fixture based only on wattage or physical size could result in the wrong choice: Wattage (measured in W) represents the power consumed by the luminaire. The actual output of a lamp is measured in lumens (lm): the more lumens, the more light emitted by the luminaire. A smart criteria for determining the efficiency of a light fixture is its lumens/Watt ratio, which represents how much light the fixture delivers versus what it consumes to perform. This value is called luminous efficacy, and proves LED lights are more efficient than other light technologies.

COLOUR RENDERING INDEX (CRI)

CRI measures how well a lamp makes colours appear. CRI scores light sources from 1 – 100: a high CRI means that the eye can pick up slight variations in colour, making details in an interior appear sharper and more vibrant. For outstanding colour rendering, opt for our Dalia series which boasts a very high 92 index.

Our downlights range from 80 to 92, to enhance skin tones, hues and textures in rooms.

BEAM ANGLE

The light effect from a luminaire is determined by its beam angle, That is the shape and direction of light generated by the lamp. Most conventional fixtures deliver a focused light distribution at 35-60° beam angle, but LED technology can go well above those values, while still maintaining a fair pool of light.

Our lights deliver beam angles ranging from 80 to 120° to ensure a beautiful light is spread throughout a room.

OUR QUALITY PROMISE



DIMMING COMPATIBILITY

Many of our lights are capable of being dimmed effectively. For optimum dimming performance and to reduce flickering, use HPM or Legrand dimmers. See pages 102-103 for more details.



INSULATION RATING

All recessed luminaires included in this brochure have an insulation rating of IC, IC-F, IC-4, CA80 and CA90.

This means insulation may abut or cover the LED luminaire.



NATA ACCREDITED LABORATORY

To ensure the highest possible quality assurance standards all HPM lighting fixtures and lamps are tested in our NATA accredited laboratory in Sydney.

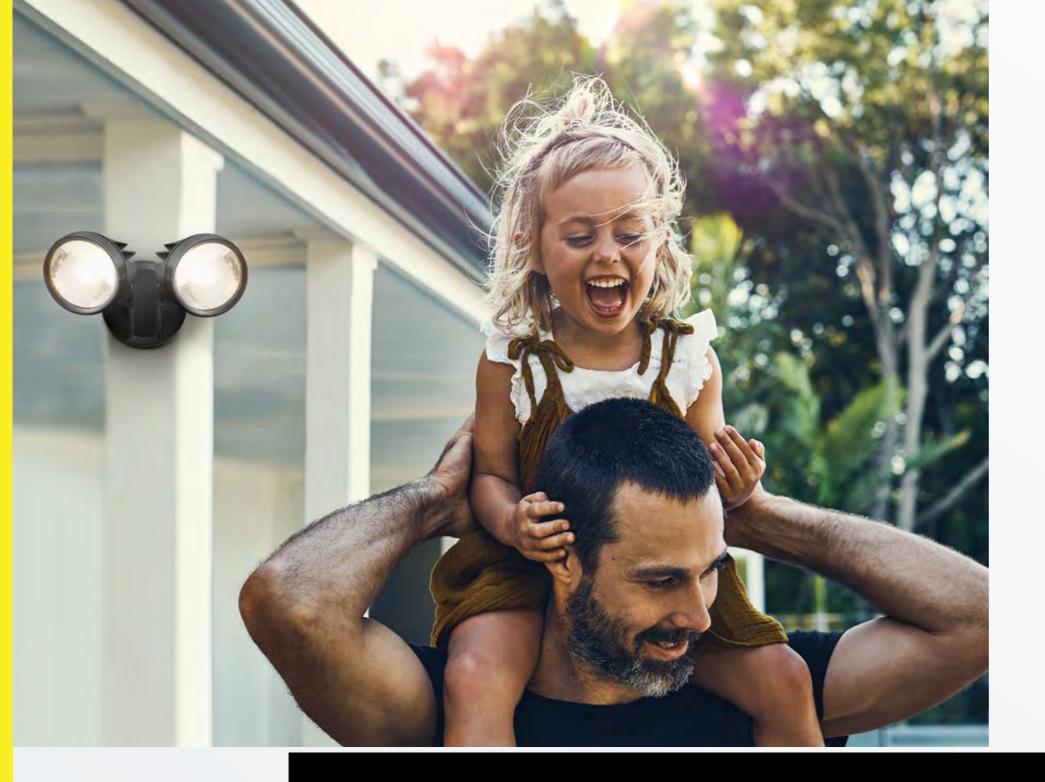


IP RATING

All our products are assured against insects and moisture, with IP ratings ranging from IP42 to IP65. See IP chart on page 105 for more information.

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LED LIGHTING FIXTURES

LED LIGHTING FIXTURES | **BROCHURE** | 7

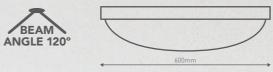
OROYA OUTDOOR BUNKER LIGHT (12W)

The Oroya is a great choice as a weatherproof outdoor lighting solution with the versatility of being mounted on a wall or in a ceiling. With a weatherproof IP65 rating, it is the ideal solution as an outdoor oyster light or bunker wall light.





Power	12W	
Lumen output	Cool White	870 lm
Efficacy	Cool White	72 lm/W
Colour temperature	Cool White	4,000K
CRI	80+	
Construction	UV resistant polyca	arbonate
Package contents	12W outdoor light wall plugs and scr	
Product codes	White Finish Cool White Light	LBL014KWE
	Black Finish Cool White Light	LBL014KBL



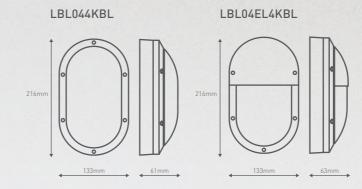


OVALIA OUTDOOR BUNKER LIGHT (6W)

A small, compact bunker light that delivers an exceptional illumination every time, Ovalia does not disappoint. This 'fun-sized' wall light adds the perfect splash of light play, without overpowering an outdoor area with too much light. Its energy consumption matches its mini size - the LED globe provides a low cost solution that will save you a ton of energy. A mini solution that promises maximum performance.



128	S. 101 (1990 - 20)	Carlo Santa
	LBL044KBL 7W	LBL04EL4KBL
Cool White	485 lm	420 lm
Cool White	69 lm/W	68 lm/W
Cool White		4,000k
80+		
30,000 h		
UV resistan	t polycarbonate	9
6-7W outdo and screws	or light fixture,	wall plugs
Black Finish Cool White	Light	LBL044KBI
Diacit i asci	4	LBL04EL4KBL
	Black Fasci	Black Fascia Cool White Light





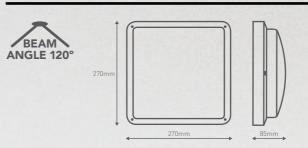
SELENTA OUTDOOR BUNKER LIGHT (12W)

It's rare to find a square-shaped bunkerlight. Through popular demand, we have designed Selenta. With its sleek, modern lines and unique, square-shaped finish, this long-lasting LED wall light will be an eye-catcher. So, don't be a square, jazz up your outdoor area!





Power	12W	
Lumen output	Cool White	870 lm
Efficacy	Cool White	72 lm/W
Colour temperature	Cool White	4,000K
CRI	80+	
Construction	UV resistant polycarbor	nate
Package contents	12W outdoor light fixtur wall plugs and screws	e,
Product codes	White Finish Cool White Light LE	BL024KWE
	Black Finish Cool White Light	BL024KBL





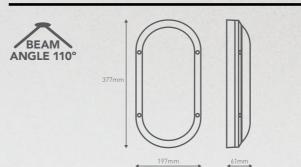


ELLIPTICA OUTDOOR BUNKER LIGHT (20W)

Now here's a bunker light that makes outdoor wall lighting sexy! With its smooth curves, Elliptica adds the perfect amount of light play to any outdoor area, instantly jazzing up dark, drab walls with a sleek, modern oval-shaped finish. If you like an ultra-modern, simplistic look, this stunner will tick every box!



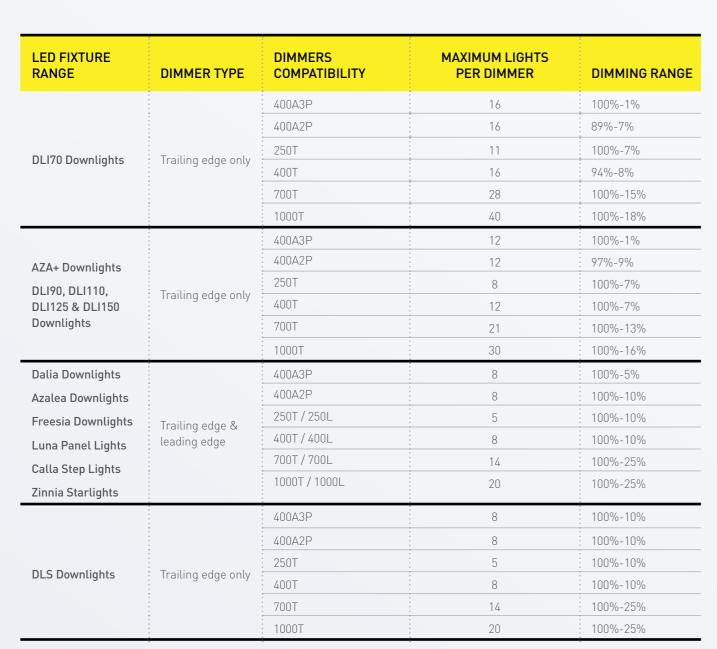
17W Power 1700 lm Lumen output Cool White Cool White 100 lm/W Efficacy Colour temperature Cool White 4,000K CRI 80+ UV resistant polycarbonate Construction 17W outdoor light fixture, Package contents wall plugs and screws White Finish **Product codes** Cool White Light LBL034KWE Black Finish Cool White Light LBL034KBL





DIMMER COMPATIBILITY





Note: Not all LED lights are dimmable, refer to product details to confirm suitability for dimming.



LEGRAND EXCEL LIFE™



LEGRAND ARTEOR™



HPM LINEA™ AND EXCEL



VIVO™



EM400A3P (3 wire) EM400A2P (2 wire)

Excel Life 400VA all load 2 & 3 wire electronic push-button dimmer mechanism White: EM400A3PWE EM400A2PWE

Urban Grey: EM400A3PUG EM400A2PUG



AR400A3P (3 wire) AR400A2P (2 wire)

Arteor 400VA all load 2 & 3 wire push-button dimmer mechanism White: AR400A3PMWE

AR400A2PMWE Magnesium: AR400A3PMMGN AR400A2PMMGN

AR400T / AR400L*

dimmer mechanism

White: AR400TMWE

AR400LMWE

AR400LMMGN

Arteor 400VA 2 wire rotary

Magnesium: AR400TMMGN



Excel or Linea and 400VA (2 wire) electronic push-button dimmer mechanism White: 400A2PWE



250T / 250L*

Excel or Linea 250VA 2 wire rotary dimmer mechanism White: 250LMWE 250TMWE Also available in black & cream



400T / 400L*

Excel or Linea 400VA 2 wire rotary dimmer mechanism White: 400TMWE 400LMWE Also available in black & cream



rotary dimmer mechanism White: 700TMWE 700LMWE



1000T / 1000L*

Excel or Linea 1000VA 2 wire rotary dimmer mechanism White: 1000TMWE 1000LMWE



Excel Life 250VA 2 wire trailing edge rotary dimmer mechanism

White: EM250TRWE Urban Grey: EM250TRUG



EM400T*

Excel Life 400VA 2 wire trailing edge rotary dimmer mechanism

White: EM400TRWE Urban Grey: EM400TRUG





EVM400A3* (3 wire) EVM400A2* (2 wire)

VIVO 400VA all load 2 & 3 wire electronic push button dimmer mechanism White: EVM400A3WE. EVM400A2WE





700T / 700L*

Excel or Linea 700VA 2 wire



LED LIGHTING FIXTURES | **BROCHURE** | 103 102

ACCESSORIES

DOWNLIGHT EXTENSION PLATES

Cat No.	Image	Description
LEP120WE		Suitable for hole cut-outs up to Ø120mm
LEP150WE	0	Suitable for hole cut-outs up to Ø150mm

Suitable for: DLI90, AZA+, Dalia, Azalea, and DLS series

LIGHTING SENSORS

Passive infrared (PIR) sensor

Sensitive to a person's skin temperature through emitted body radiation, in contrast to background objects at room temperature. HPM range of sensors is suitable for both indoor and outdoor for various locations throughout the house including corridors, wardrobes, secluded walkways and garages.

Whether used for extra safety around the house or for convenience indoors, these deliver great energy savings all year round.

Cat No.	lmage	Description	Finish	Manual override	IP Rating	Application	Mounting type	Detection range	Detection angle	Time delay
630S01BL		180° PIR Sensor	Black	No	IP44	Indoor/Outdoor	Wall Surface Mounted	12m	180°	8s to 7min
630S01WE		180° PIR Sensor	White	No	IP44	Indoor/Outdoor	Wall Surface Mounted	12m	180°	8s to 7min
630SM01BL		180° PIR Sensor	Black	Yes	IP44	Indoor/Outdoor	Wall Surface Mounted	12m	180°	8s to 7min
630SM01WE		180° PIR Sensor	White	Yes	IP44	Indoor/Outdoor	Wall Surface Mounted	12m	180°	8s to 7min
630S02WE		360° PIR Sensor	White	No	IP20	Indoor	Ceiling Surface mouted	8m	360°	10s to 10min
630R02WE	0	360° PIR Sensor	White	No	IP41	Indoor	Ceiling Surface mounted	8m	360°	10s to 10min
630R01WE		360° PIR Sensor	White	No	IP20	Indoor	Ceiling surface mounted	6m	360°	10s to 15min
488TRI3W		Triscan 3-Wire Pir Sensor	White	Yes	IP66	Outdoor	Wall Surface Mounted	8m	120°	8s to 15min

INDEX OF PROTECTION

수 <mark>HPM</mark>

1. Protection against solid bodies and liquids: IP index of protection

Degrees of protection for enclosures of electrical equipment according to standards: IEC 60529, BS EN 60529 and NF EN 60529

First digit:

Protection against solid bodies (See AS 1939, Clause 5)

IP	Tests		ΙP
0		No protection	-
1	Ø 50 mm	Protected against solid bodies larger than 50 mm (e.g. accidental contact with the hand)	A
2	Ø 12.5 mm	Protected against solid bodies larger than 12.5 mm (e.g. finger)	В
3	Ø 2.5 mm	Protected against solid bodies larger than 2.5 mm (e.g. tools, wires)	С
4	<u>Ø 1 mm</u>	Protected against solid bodies larger than 1 mm (e.g. fine tools and small wires)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5		Protected against dust (no harmful deposit)	D
6	0).	Completely protected against dust	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Second digit:

Protection of equipment against ingress of harmful liquids (See AS 1939, Clause 6)

IP	Tests		
0		No protection	
1	Ö	Protected against vertically-falling drops of water (condensation)	
2	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Protected against drops of water falling at up to 15° from the vertical	
3		Protected against drops of rain water at up to 60° from the vertical	
4		Protected against projections of water from all directions	
5	1	Protected against jets of water (from all directions)	
6	- CAR	Protected against jets of water of similar force to heavy seas	
7	mini	Protected against the effects of immersion	
8	E	Protected against prolonged effects of immersion	

2. Protection IK, against mechanical impact.

According to standards: IEC 62262, BS EN 62262 and NF EN 62262

IK	Tests	Impact energy (in Joules)
IK 00		0
IK 01	0.2 kg 75 mm	0.15
IK 02	0.2 kg	0.2
IK 03	0.2 kg	0.35
IK 04	0.2 kg 250 mm	0.5
IK 05	0.2 kg 350 mm	0.7

IK	Tests	Impact energy (in Joules)
IK 06	0.5 kg 200 mm	1
IK 07	0.5 kg 400 mm	2
IK 08	1.7 kg 295 mm	5
IK 09	200 mm	10
IK 10	5 kg 400 mm	20

• This table can be used to ascertain the resistance of a product to an impact given in Joules from the IK code (graduated from 00 to 10)

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A brand of **Glegrand**°

Member of:







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Legrand New Zealand

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03/2018