

# LED LIGHTING



BRIGHT  
STYLISH  
EFFICIENT







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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.

 WARM WHITE	DEGREES	2700-3000K
	DESCRIPTION	<b>SOFTER, WARMER LIGHT</b> Comparable to traditional incandescent lighting. Preferred in cooler climates
	ROOM	Bedroom, living room, bathroom, kitchen
 COOL WHITE	DEGREES	4000K
	DESCRIPTION	<b>NEUTRAL LIGHT</b> Used for task lighting and preferred in warmer, tropical climates
	ROOM	Laundry, garage, study, bathroom, kitchen

## AVERAGE LAMP LIFE

 LED 20,000 HOURS	 COMPACT FLUORESCENT 10,000 HOURS	 INCANDESCENT 1,000 HOURS
------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------

**DURABILITY:** LEDs are very long-lasting compared to other lighting technologies, with an average 20,000 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
220lm	25W	18W	5-7W	3W
420lm	40W	28W	7-8W	4-5W
720lm	60W	42W	11-12W	6-8W
930lm	75W	52W	13-18W	9-13W
1300lm	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

Yes! Our lights can be dimmed effectively. For optimum dimming performance and to avoid flickering, use HPM or Legrand dimmers. See p.26 for more details



### INSULATION RATING

All recessed luminaires included in this brochure have an IC insulation rating. This means insulation may abut or cover the LED luminaire



### LED CHIP

We use Citizen LED chips. Citizen is one of the world's leading LED chip manufacturers and are well-known for the quality and longevity of their products



### EASY INSTALLATION

We use flex and plug for easy fit-off and designed a handy downlight bracket to enable the driver to sit close to the luminaire for easy access



All our products are assured against insects and moisture, with IP ratings ranging from IP44 to IP65. See IP chart on p.28 for more information

# DALIA

DOWNLIGHT SERIES (15W)

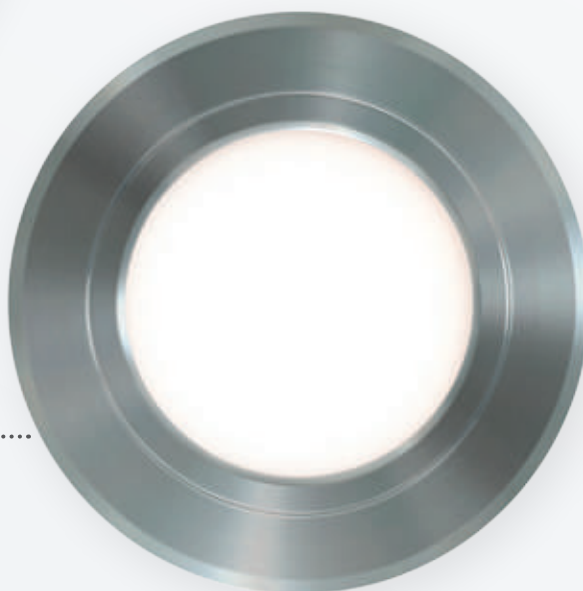
Equipped with a Citizen LED chip, these superior downlights are our brightest and deliver exceptional colour rendering, making details in an interior space appear sharper and more vibrant. Dalia is a fusion of craftsmanship, highest-calibre materials and advanced technology. Available in white or polished aluminium.



#### Main applications

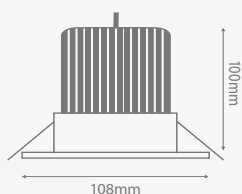
Living areas, bedrooms, bathrooms,  
outdoor areas (undercover)

With an outstanding 92+ CRI, Dalia  
downlights illuminate objects and  
surfaces in their true colours





<b>Power</b>	15W	
<b>Lumen output</b>	Warm White	950lm
	Cool White	980lm
<b>Efficacy</b>	Warm White	63lm/W
	Cool White	65lm/W
<b>Colour temperature</b>	Warm White	3,000K
	Cool White	4,000K
<b>CRI</b>	92+	
<b>Dimming</b>	Trailing & leading edge, 2 & 3-wire	
<b>Equivalent to</b>	80W halogen globe and uses up to 81% less energy	
<b>Construction</b>	Corrosion resistant anodised aluminium	
<b>Package contents</b>	Dimmable SELV external LED driver with quick-connect plug and 15W LED sealed fixture	
<b>Product codes</b>	White Fascia	
	Warm White Light	LDL023KWE
	White Fascia	
	Cool White Light	LDL024KWE
	Aluminium Fascia	
	Warm White Light	LDL023KPS
	Aluminium Fascia	
	Cool White Light	LDL024KPS



# AZALEA

DOWNLIGHT SERIES (11W)

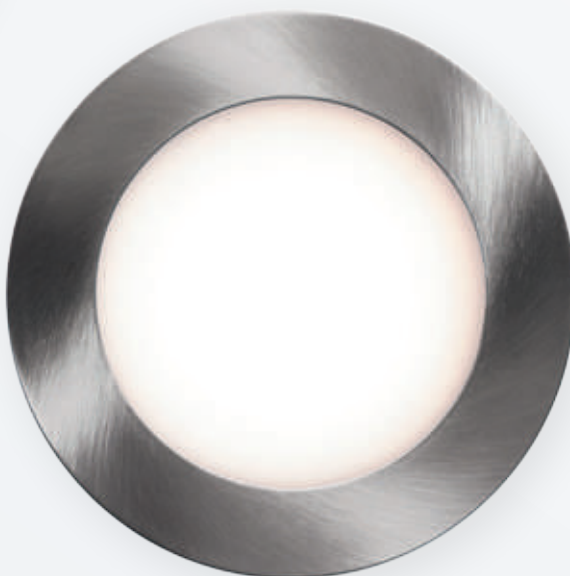
A marriage of style and function, our Azalea effortlessly achieves optimum lighting performance with impressive economy. With a 48mm depth, it is brilliant for tight ceiling cavities and multi-floor dwellings.



#### Main applications

Living areas, bedrooms, bathrooms,  
outdoor areas (undercover)

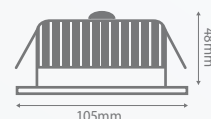
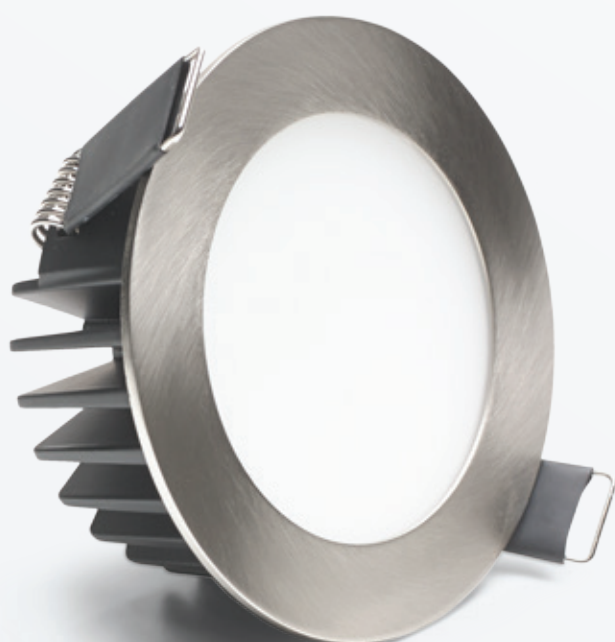
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<b>Power</b>	11W	
<b>Lumen output</b>	Warm White	800lm
	Cool White	850lm
<b>Efficacy</b>	Warm White	73lm/W
	Cool White	77lm/W
<b>Colour temperature</b>	Warm White	3,000K
	Cool White	4,000K
<b>CRI</b>	80+	
<b>Dimming</b>	Trailing & leading edge, 2 & 3-wire	
<b>Equivalent to</b>	60W halogen globe and uses up to 81% less energy	
<b>Construction</b>	Corrosion resistant anodised aluminium	
<b>Package contents</b>	Dimmable SELV external LED driver with quick-connect plug and 11W LED sealed fixture	
<b>Product codes</b>	White Fascia	
	Warm White Light	LDL013KWE
	White Fascia	
	Cool White Light	LDL014KWE
	Aluminium Fascia	
	Warm White Light	LDL013KPS
	Aluminium Fascia	
	Cool White Light	LDL014KPS



# DLS

DOWNLIGHT SERIES (10W)

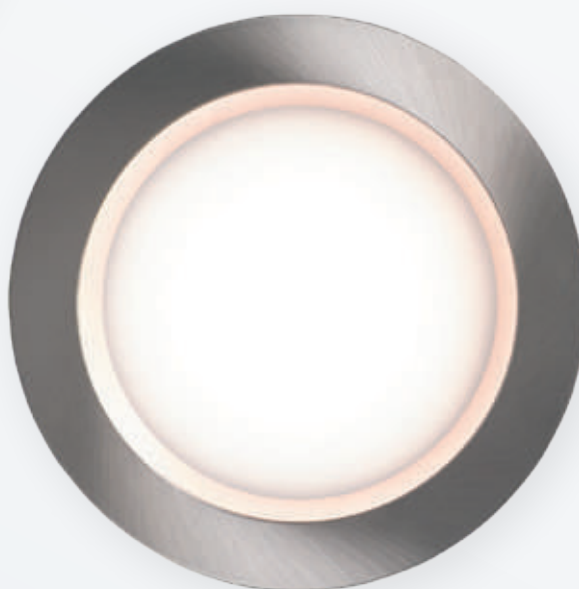
Behind the stylish facade of white or brushed chrome, the DLS features a frosted recessed diffuser to reduce glare and ensure a perfect light spread across any room. Our vision, improving your vision.



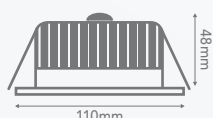
#### Main applications

Living areas, bedrooms, bathrooms,  
outdoor areas (undercover)

Recessed diffuser reduces glare



<b>Power</b>	10W	
<b>Lumen output</b>	Warm White	800lm
	Cool White	830lm
<b>Efficacy</b>	Warm White	80lm/W
	Cool White	83lm/W
<b>Colour temperature</b>	Warm White	3,000K
	Cool White	4,000K
<b>CRI</b>	80+	
<b>Dimming</b>	Trailing edge dimmers only	
<b>Equivalent to</b>	60W halogen globe and uses up to 83% less energy	
<b>Package contents</b>	Dimmable SELV external LED driver with quick-connect plug and 10W LED sealed fixture	
<b>Product codes</b>	White Fascia	
	Warm White Light	DLS9001
	White Fascia	
	Cool White Light	DLS9002
	Brushed Chrome Fascia	
	Warm White Light	DLS9003
	Brushed Chrome Fascia	
	Cool White Light	DLS9004



CUT-OUT



# FREESIA

DOWNLIGHT SERIES (8W)

The diminutive Freesia series delivers a big performance with a minimal footprint. Available in both white or polished aluminium, it is ideal for retrofitting halogen lights with 70mm hole cut-outs.



#### Main applications

Living areas, bedrooms, bathrooms,  
outdoor areas (undercover)

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Freesia's 70mm cut-out makes it an ideal  
upgrade of fixed halogen downlights

.....



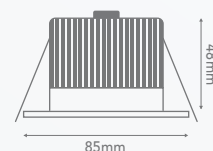
UP TO  
**650**  
LUMENS

IC  
ABUTTED &  
COVERED

**IP44**

**6 YEAR**  
WARRANTY

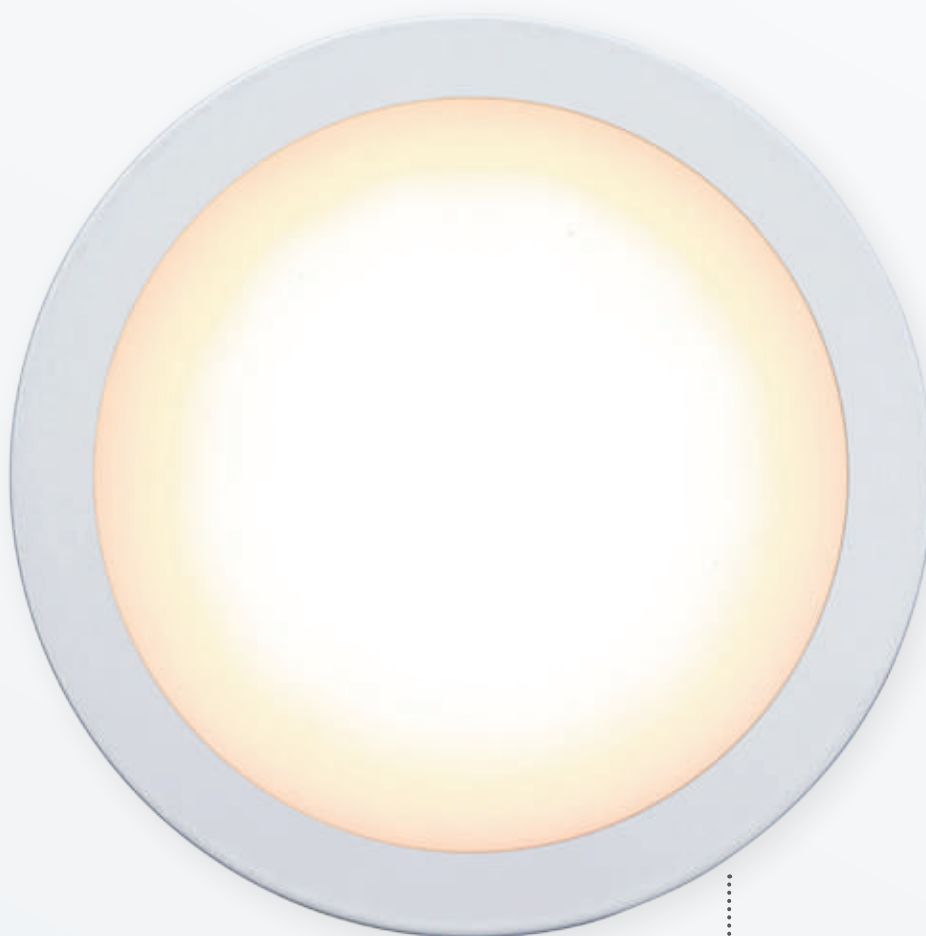
<b>Power</b>	8W	
<b>Lumen output</b>	Warm White	600lm
	Cool White	650lm
<b>Efficacy</b>	Warm White	75lm/W
	Cool White	81lm/W
<b>Colour temperature</b>	Warm White	3,000K
	Cool White	4,000K
<b>CRI</b>	80+	
<b>Dimming</b>	Trailing & leading edge, 2 & 3-wire	
<b>Equivalent to</b>	55W halogen globe and uses up to 85% less energy	
<b>Construction</b>	Corrosion resistant anodised aluminium	
<b>Package contents</b>	Dimmable SELV external LED driver with quick-connect plug and 8W LED sealed fixture	
<b>Product codes</b>	White Fascia Warm White Light    LDL033KWE White Fascia Cool White Light    LDL034KWE Aluminium Fascia Warm White Light    LDL033KPS Aluminium Fascia Cool White Light    LDL034KPS	



# LUNA

PANEL LIGHT (18W)

Offering the ultimate in discreet lighting, the Luna's slim depth allows it to fit effortlessly into tight ceiling cavities. All the illumination of an oyster light, none of the obtrusiveness.

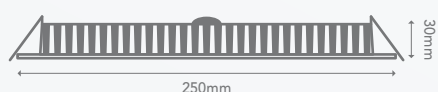


#### Main applications

Living areas, bedrooms, bathrooms,  
outdoor areas (undercover).  
Ideal replacement for oyster lights



<b>Power</b>	18W	
<b>Lumen output</b>	Warm White	1,440lm
<b>Efficacy</b>	Warm White	80lm/W
<b>Colour temperature</b>	Warm White	3,000K
<b>CRI</b>	80+	
<b>Dimming</b>	Trailing & leading edge, 2 & 3-wire	
<b>Equivalent to</b>	100W halogen globe and uses up to 82% less energy	
<b>Construction</b>	Corrosion resistant anodised aluminium	
<b>Package contents</b>	Dimmable SELV external LED driver with quick-connect plug and 18W LED sealed fixture	
<b>Product code</b>	White Fascia Warm White Light	LPA013KWE



# DIAMA

INTERIOR UP/DOWN LIGHT (7.5W)

Transform walls into a visual feast with a Diama fixture. With its unique two-directional light beam, Diama is the perfect light for enhancing architecture.



↑  
Light flows both  
up and down  
↓



#### TIP

Combine this architectural light with Legrand Arteor switches and sockets to create a genuine feel of interior elegance and refinement

#### Main applications

Living areas, hallways, entrances

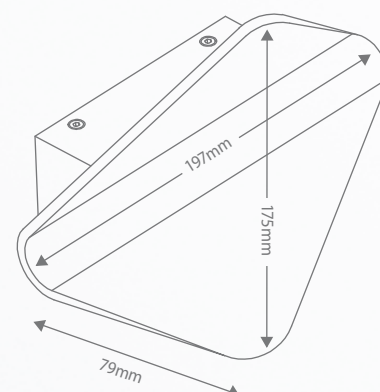
520  
LUMENS

UP DOWN  
LIGHT BEAM

6 YEAR  
WARRANTY

Power	7.5W	
Lumen output	Warm White	520lm
Efficacy	Warm White	69lm/W
Colour temperature	Warm White	3,000K
CRI	80+	
Equivalent to	2x30W halogen globe and uses up to 88% less energy	
Construction	Anodised aluminium with high gloss white finish	
Package contents	7.5W LED up/down light fixture	
Product code	White Finish	
	Warm White Light	LWL033KWE

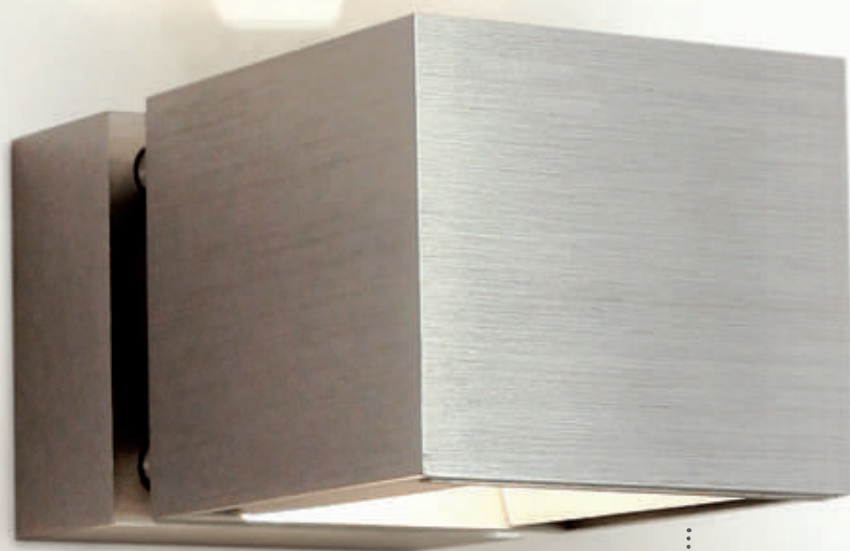
~~BEAM  
ANGLE 120°~~



# KYRA

EXTERIOR UP/DOWN LIGHT (7.5W)

The multi-talented Kyra represents the ultimate in lighting versatility. Fitted with adjustable panels, Kyra effortlessly oscillates from an uplight to a downlight, or even both. Ideal for highlighting entrances or pillars. Weatherproof rated IP54.



↑  
Light can flow  
up, down or both  
up and down  
↓

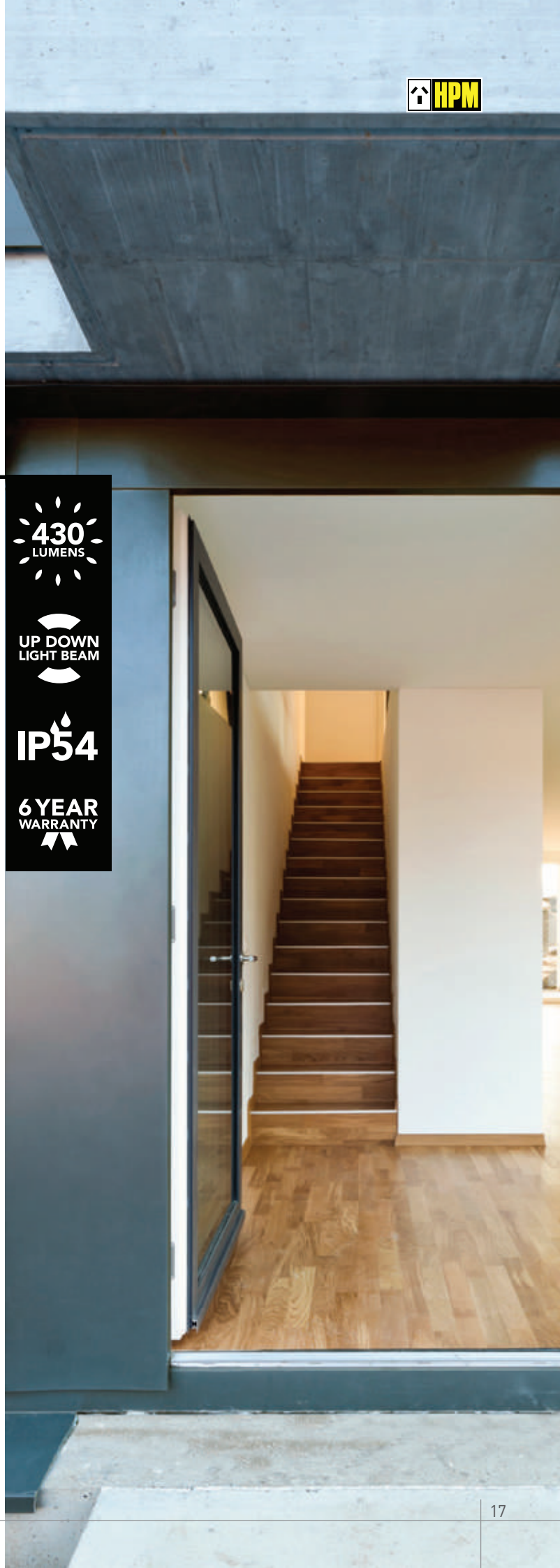
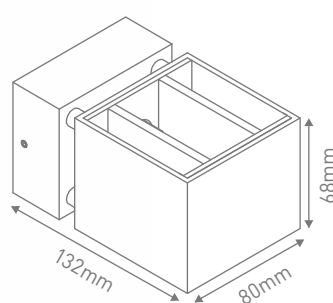
#### TIP

Use in conjunction with HPM 3-wire sensors to automatically switch on lights when movement is detected

#### Main applications

Exterior walls, pillars,  
front entrances

<b>Power</b>	7.5W	
<b>Lumen output</b>	Warm White	430lm
<b>Efficacy</b>	Warm White	57lm/W
<b>Colour temperature</b>	Warm White	3,000K
<b>CRI</b>	80+	
<b>Equivalent to</b>	2x30W halogen globe and uses up to 88% less energy	
<b>Construction</b>	Anodised aluminium	
<b>Package contents</b>	7.5W LED up/down light fixture with allen key for mounting	
<b>Product code</b>	Aluminium Finish Warm White Light	LWL023KPS





# PINNA

EXTERIOR UP/DOWN LIGHT (10W)

Slimline, discreet, stylish - the Pinna thrives in outdoor spaces. Utilise its dual-direction beam to foster an atmosphere of blissful tranquillity. Weatherproof rated IP54 and corrosion resistant.



↑  
Light flows both  
up and down  
↓

#### TIP

Match Pinna with Legrand Soliroc weatherproof switches and sockets for a harmonious outdoor theme

#### Main applications

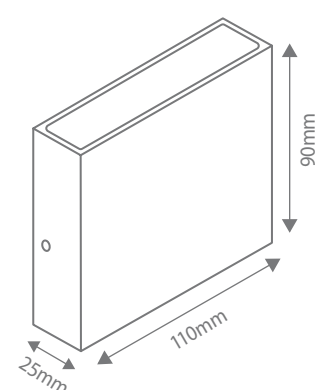
Exterior walls, pillars, front entrances and backyard entertainment areas







<b>Power</b>	10W	
<b>Lumen output</b>	Warm White	380lm
<b>Efficacy</b>	Warm White	38lm/W
<b>Colour temperature</b>	Warm White	3,000K
<b>CRI</b>	80+	
<b>Equivalent to</b>	2x35W halogen globe and uses up to 86% less energy	
<b>Construction</b>	Corrosion resistant anodised aluminium	
<b>Package contents</b>	10W LED up/down light fixture with allen key for mounting	
<b>Product code</b>	Aluminium Finish Warm White Light	LWL013KPS



# CALLA STEP LIGHTS (2.4W)

Scale the heights of style with Calla step lights, an illuminating choice for stairwells or hallways. Whether indoor or outdoor, the Calla excels with its impressive IP65 weatherproof rating.

## Main applications

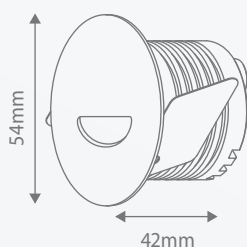
Stairs, hallways, corridors



Use every second or third step, approximately 300-350mm above floor level, for the ultimate light spread



<b>Power</b>	2.4W	
<b>Lumen output</b>	Warm White	24lm
<b>Efficacy</b>	Warm White	10lm/W
<b>Colour temperature</b>	Warm White	3,000K
<b>CRI</b>	80+	
<b>Dimming</b>	Trailing & leading edge, 2 & 3-wire	
<b>Construction</b>	Corrosion resistant anodised aluminium	
<b>Package contents</b>	1 x 2.4W LED step light fixture	
<b>Installation</b>	Must be installed with driver kit LDR02D700/18 (connect up to 6 step lights per driver)	
<b>Product codes</b>	White Finish Warm White Light      LST013KWE Aluminium Finish Warm White Light      LST013KPS Driver Kit                LDR02D700/18	



# ZINNIA

STARLIGHTS (2.4W)

A fusion of discretion and efficiency, the Zinnia starlights are an in vogue choice for those with an eye for detail. Whether illuminating under cabinets or wall features, indoors or outdoors, the Zinnia is the epitome of versatile style. Available in white and silver. Weatherproof rated IP65.

## Main applications

Under cabinets, alfresco areas, home theatres. Ideal for illuminating features and creating ambience

.....



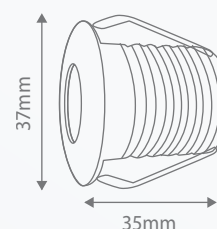
With a slim 35mm depth, Zinnia fits into almost any wall or ceiling cavity

.....





<b>Power</b>	2.4W	
<b>Lumen output</b>	Warm White	95lm
<b>Efficacy</b>	Warm White	39lm/W
<b>Colour temperature</b>	Warm White	3,000K
<b>CRI</b>	80+	
<b>Dimming</b>	Trailing & leading edge, 2 & 3-wire	
<b>Construction</b>	Corrosion resistant anodised aluminium	
<b>Package contents</b>	1 x 2.4W LED starlight fixture	
<b>Installation</b>	Must be installed with driver kit LDR02D700/18 (connect up to 6 starlights per driver)	
<b>Product code</b>	White Finish Warm White Light      LST023KWE Aluminium Finish Warm White Light      LST023KPS Driver Kit                LDR02D700/18	



# RIBA STRIPLIGHT

Where other lights fear to tread the Riba calls home.  
Whatever your lighting challenge the Riba is equipped to  
match it - and always with style to spare. Be it a confined  
space or delicate mood lighting, satisfaction is assured.



#### Main applications

Under cabinets,  
entertaining areas,  
kitchens, home theatres



<b>Power</b>	7.2W	
<b>Lumen output</b>	Warm White	600lm
<b>Efficacy</b>	Warm White	50lm/W
<b>Colour temperature</b>	Warm White	3,000K
<b>CRI</b>	80+	
<b>Package contents</b>	LDR01N700/36: 1m LED strip 7.2W & plug-in 36W transformer LSL013K: 1m LED strip with quick-connector	
<b>Installation</b>	Starter kit (cat no LDR01N700/36) contains plug-in transformer with 1m LED strip. Additional inter-connectible 1m LED strips available (cat no LSL013K). Connect up to 5m of LED strips on one transformer	
<b>Product codes</b>	LED striplight (1m) and transformer    LDR01N700/36 LED striplight (1m) and quick-connector    LSL013K	

**600**  
LUMENS


**QUICK  
CONNECT  
UP TO  
5M**

**3 YEAR  
WARRANTY**

# DIMMER COMPATIBILITY

LED FIXTURE RANGE	DIMMER TYPE	DIMMERS COMPATIBILITY	MAXIMUM LIGHTS PER DIMMER	DIMMING RANGE
<b>Dalia Downlights</b> <b>Azalea Downlights</b> <b>Freesia Downlights</b> <b>Luna Panel Lights</b> <b>Calla Step Lights</b> <b>Zinnia Starlights</b>	Trailing edge & leading edge	EM400A3P	8	100%-5%
		EM250T	5	100%-10%
		EM400T	8	100%-10%
		AR400T / AR400L	8	100%-10%
		AR400A3P	8	100%-5%
		250T / 250L	5	100%-10%
		400T / 400L	8	100%-10%
		700T / 700L	14	100%-25%
		1000T / 1000L	20	100%-25%
<b>DLS Downlights</b>	Trailing edge only	EM400A3P	8	100%-10%
		EM250T	5	100%-10%
		EM400T	8	100%-10%
		AR400T	8	100%-10%
		AR400A3P	8	100%-10%
		250T	5	100%-10%
		400T	8	100%-10%
		700T	14	100%-25%
		1000T	20	100%-25%

## ACCESSORIES

DOWNLIGHT COMPATIBILITY		
<b>CAT No: LDLBRACKET</b> › Speeds your fit-off and makes it neat, tidy and easily accessible › Enables the driver to sit close to the luminaire for easy access, rather than mounted on a joist or sitting loose › Enables the driver to sit above insulation material › Ideal for hard-wired installations	<b>Dalia</b>  <b>Azalea</b>  <b>Freesia</b>	



Legrand Excel Life



Legrand Arteur



HPM Linea and Excel

## LEGRAND EXCEL LIFE



**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



**EM250T\***  
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



**AR400A3P (3-wire)**  
**AR400A2P (2-wire)**  
Arteur 400VA all load 2  
& 3-wire push-button  
dimmer mechanism

**White:**  
AR400A3PMWE  
AR400A2PMWE  
**Magnesium:**  
AR400A3PMMGN  
AR400A2PMMGN



**AR400T / AR400L\***  
Arteur 400VA 2-wire  
rotary dimmer  
mechanism

**White:**  
AR400TMWE  
AR400LMWE  
**Magnesium:**  
AR400TMMGN  
AR400LMMGN



**450PM (3-wire)**  
**400A2P (2-wire)**  
Excel or Linea 450VA  
(3-wire) and 400VA  
(2-wire) electronic  
push-button dimmer  
mechanism

**White:** 450PMWE  
400A2PWE  
450PM also available  
in black, black matt  
silver, white matt  
silver & cream



**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



**700T / 700L\***  
Excel or Linea 700VA  
2-wire rotary dimmer  
mechanism

**White:** 700TMWE  
700LMWE



**1000T / 1000L\***  
Excel or Linea 1000VA  
2-wire rotary dimmer  
mechanism

**White:** 1000TMWE  
1000LMWE

\*T = Trailing Edge, L = Leading Edge

# INDEX OF PROTECTION



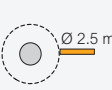

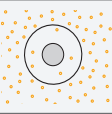

## 1. Protection against solid bodies and liquids: IP index of protection

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

### 1<sup>st</sup> digit:

#### protection against solid bodies


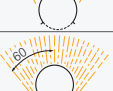

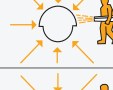
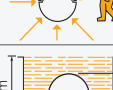



(See AS 1939, Clause 5)

IP	Tests	IP
0	No protection	
1	 Ø 50 mm	A
2	 Ø 12.5 mm	B
3	 Ø 2.5 mm	C
4	 Ø 1 mm	
5		D
6		

### 2<sup>nd</sup> digit:

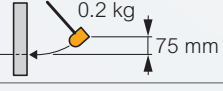



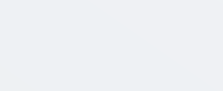
#### protection of equipment against ingress of harmful liquids

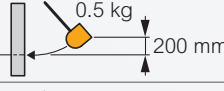
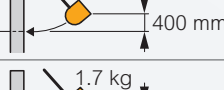


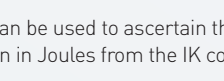
(See AS 1939, Clause 6)

IP	Tests	IP
0	No protection	
1		
2	 15°	
3	 60°	
4		
5		
6		
7	 1 m	
8	 15 cm	

## 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 100 mm	0.2
IK 03	 0.2 kg 175 mm	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	 5 kg 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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