

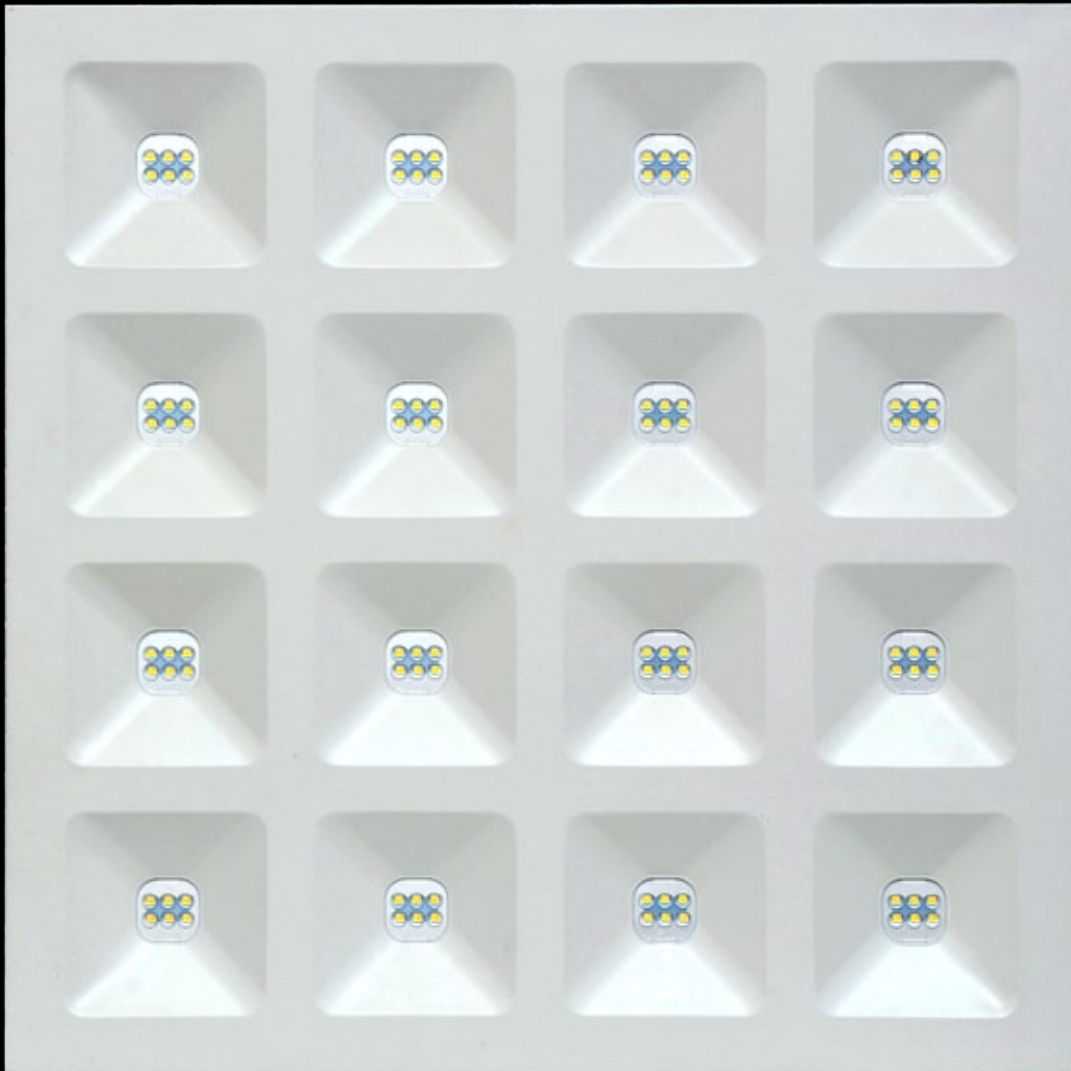
LED line®
the way to do it better



Innovation

Development

Reliability



We aspire to create a human-friendly sources of light.

By working with the best business partners we strive to deliver excellence and the greatest value to achieve client's highest satisfaction. The highest quality standard is a priority for us. Our mission is: "to develop and deliver the highest quality light sources in accordance with European standards".

We continually strive to achieve the highest quality. We guarantee full compliance of the published parameters with the actual photometric tests.



The beginning of 2019 has been a milestone as we have launched the LED Line® Research and Measurement Centre. The research and measurement centre has been created for you! This gives you the following benefits:

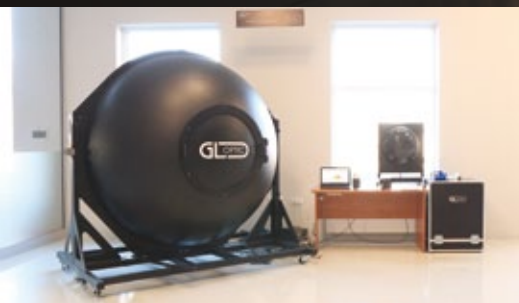
1. Full confidence in our innovative LED solutions

Our R&D team of experts work in the LAB to implement new products, adjusting the product's parameters to the client's needs and expectations. This is also the place where new product concepts are developed and where prototypes are created. Here the concepts of new products are created and their prototypes are prepared. Our team of experts deal comprehensively with the development of new products, careful selection of components and rigid quality control.



2. Safety and Reliability

Thanks to the reliable and thorough testing of our products, carried out in accordance with current directives and standards - we know that the products we make for you are safe and meet all the formal and legal requirements as prescribed by the relevant laws and regulations.



3. Durability and high quality

At the aging test station, within a few days, we can check how products would work after a few years of use. We select only those items which we have full confidence in and we are sure the product will operate efficiently and sufficiently long.

4. Reliable IES and EULUMDAT files.

We aim to help lighting designers create high-class projects. In the photometric darkroom, we perform C type measurements in C- γ (gamma) coordinates, define electrical values, perform luminous flux measurements, and light distribution tests. We create polar and cone charts, define colour rendering indexes (Ra, CRI), define CCT and DUV colour temperature, as well as McAdam ellipses. Overall - we generate high quality photometric files that will help you in your lighting designs.





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LED STRIPS

page 07-17

CLASSIC

page 08

LED strips designed to fulfil the needs of basic lighting. Available in white and RGB colour palette. Perfect choice for general applications. Dedicated for the illumination and decoration of any space.

WATERPROOF

page 10

LED strips placed inside a flexible, yellow-free silicone tube (IP67) or coated with a high quality PU glue layer (IP65) with high resistance to yellowing. Complete protection against ingress of dust and strong protection against ingress of water (liquid) in harmful quantity and jets of water.

EXPERT

page 13

LED strips designed for professional applications. Unique features and high performance is the solution for most demanding applications.



LED MODULES

page 19-21

EXPERT

page 20

OPTO LED line® modules are a wide-angle solution for the illumination of advertising cassettes and spatial letters. This solution provides reliable operation in the temperature range of -40° C - + 55° C, both indoors and outdoors. Its top quality is evidenced by up to 7-year warranty and IP65 protection rating.



INDUSTRIAL LIGHTS

page 23-35

FLOOD LIGHTS

page 24

Our industrial grade LED floodlights have been designed for the illumination of buildings and industrial halls. A densely ribbed, aluminium housing acts as a very efficient heat sink which effectively dissipates the heat produced by LEDs. The use of high quality heat paste is used to eliminate air gaps (thermal insulation) to maximise heat transfer. Such effective cooling system extends the lifespan of LEDs. IP65 protection rating and the wide range of working temperature ensure highly reliable performance in most difficult conditions.

HIGH BAY LIGHTS

page 27

HIGH BAY LIGHTS dedicated for the illumination of warehouses, industrial buildings, production halls and any space where an extremely long and trouble-free operation of the lighting fixture is important. The housing has been made of cold forged 100% aluminium, thanks to which it achieves more efficient heat dissipation to the outside and therefore, extends the life span of the LEDs. The yellowing caused by UV radiation has been eliminated by the use of polycarbonate material which the lens are made of, in addition it also provides great light transmission. Available selection of lens (60°, 90° and 120° beam angle) as well as a selection of different wattages (100W, 150W, 200W) will offer a complete choice of solutions for any lighting project. For demanding applications we recommend our new solution with CREE LEDs and 1-10V dimming function.

TRI-PROOF LIGHTS

page 33

TRI-PROOF LIGHTS are certified by the Polish National Institute of Hygiene. These were created with the aim of illuminating industrial facilities, warehouses, multi-storey parking spaces, or medical care buildings. High resistance to mechanical damage (IK08) and ingress protection class (IP65) guarantee efficient operation in a wide temperature range (-25°C - + 45° C). Thanks to the adjustable assembly clips, the lamp will fit into most pre-existing mounting holes.

CEILING LIGHTS

page 34

This solution is suitable for universal applications and will provide high quality and effective illumination in both, residential and industrial spaces. High degree of protection against mechanical impact (IK10) and high ingress protection rating (IP65) let the luminaire work efficiently in the most difficult conditions – indoors and outdoors.

SOLAR LIGHTS

page 35

Solar lighting generates savings! It additionally does not require any wiring and electrical installations. This solution is equipped with a photovoltaic panel, coupled with replaceable lithium-ion batteries which guarantee continuous operation for over a dozen of hours from a full charge, delivering optimum level of brightness.



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LED LIGHTS

page 37-54

FILAMENT

page 38

This is a great combination of retro style EDISON type bulb with the most advanced and modern LED technology. The use of graphene in the construction of FILAMENT LIGHTS achieves exceptional light parameters and at the same time extends the life of the LEDs.

CERAMIC

page 42

CERAMIC radiator, which these lamps are equipped with, guarantees optimal thermal conductivity which results in effective heat dissipation. CERAMIC series has proven to be highly reliable source of light, delivering exceptional efficiency, durability and safety for users.

GLASS

page 52

Thanks to its insulation properties, GLASS series ensures high level of safety for the user. This solution is highly attractive not only in terms of safety, but also due to its visual and economic aspect.

STANDARD

page 54

Energy-saving light sources which reduce energy consumption. Long life and high efficiency are the features of the LEDs used in the construction of these lights.



LED PANELS

page 57-64

EXPERT

page 58

Innovative solutions created for professional lighting projects and investments. LED panels offer a unique and interesting design, high luminous efficacy and exceptionally low glare rating (UGR). The warranty period is granted for up to 5 years.

EASY FIX

page 60

The fundamental advantage of these LED panels is extremely easy assembly. The fixtures are suitable for both, recessed and surface installation. Thanks to the adjustable assembly clips, the panels will fit into most pre-existing mounting holes. All panels with 6W, 12W, 18W output power are equipped with glass LGP, whereas 24W variant is equipped with PMMA (acrylic glass) LGP. All diffusers used in the panels are resistant to UV radiation, thanks to which they do not turn yellow and retain original white colour, aesthetic appearance and high lighting parameters for many years.

CLASSIC

page 63

Aesthetic solutions with high quality LEDs. PMMA LGP and a high quality diffuser ensures even spread of light over the entire surface of the panel, lack of dark shadows and thanks to pure white reflector a high reflection ratio. The choice of high quality polycarbonate diffuser gives effective resistance to UV radiation, preserving its natural whiteness for many years of use. The LEDs produce a small amount of heat which is discharged to the outside through an aluminium casing. This solution ensures total security for system ceilings.



FIXTURES

page 67-111

GYPSUM

page 68

Highly stylish in appearance gypsum-made downlight fixtures are dedicated for suspended ceiling installations. The use of this solution will give you the opportunity to achieve a minimalist design blended into the background of the ceiling. The fixture is designed for 50mm LED light sources.

CLASSIC

page 70

The variety of colours, shapes and materials make them suitable for any application. Depending on its application purpose, adjustable and fixed models are available. Aluminium, which the fixtures are made of, serves as an additional heatsink for the lights installed in the fixture, which extends the life of the light source.

GLASS

page 96

Due to its insulating properties, glass ensures the high safety of use. The fixtures offer exceptionally aesthetic and high quality appearance.

WATERPROOF

page 101

Waterproof, aluminium downlight fixtures are designed for spaces exposed to contact with water. The design of the fixture with the use of dedicated seals guarantees the IP44/IP20 protection class. The fixtures are ideal for places of high humidity level.

TUBE

page 108

Modern surface-mounted spotlights with an aesthetic design and high quality appearance. Not only these tube downlight fixtures will offer a beautiful and stylish decoration but will also provide protection for LED lights placed inside the tube. Fixtures are made of aluminium which serves as an additional heatsink for the light source, extending the life of LEDs.



CLASSIC

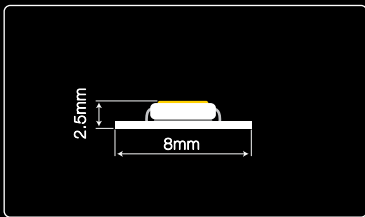
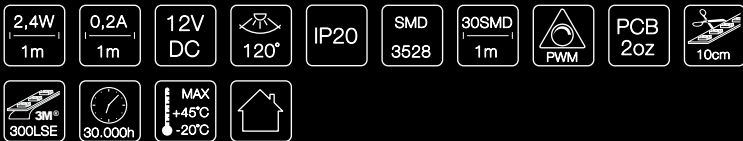
LED STRIPS

3-step

MacAdam

3-year
warranty

*.IES
↓



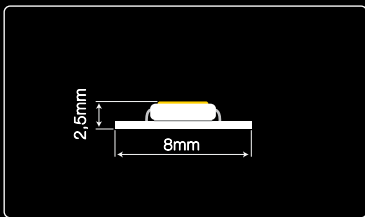
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2865-3025K	200lm	83lm/W	≥80	A++	5m	240003
3900-4175K	200lm	83lm/W	≥80	A++	5m	241826
6200-6700K	200lm	83lm/W	≥80	A++	5m	240010
10000-13000K	200lm	83lm/W	≥80	A++	5m	240027
Colour	Wavelength					Product code
red	620nm				5m	240034
green	520nm				5m	240058
blue	465nm				5m	240041
yellow	590nm				5m	240065

3-step

MacAdam

3-year
warranty

*.IES
↓



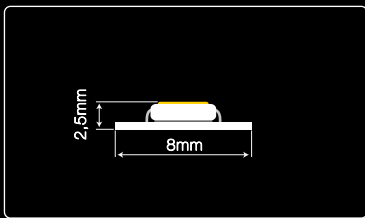
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2400-2600K	400lm	83lm/W	≥80	A+	5m	246463
2865-3025K	400lm	83lm/W	≥80	A+	5m	240164
3900-4175K	400lm	83lm/W	≥80	A+	5m	245602
6200-6700K	400lm	83lm/W	≥80	A+	5m	240188
10000-13000K	400lm	83lm/W	≥80	A+	5m	240195
2865-3025K	400lm	83lm/W	≥80	A+	30m	249419
3900-4175K	400lm	83lm/W	≥80	A+	30m	249426
6200-6700K	400lm	83lm/W	≥80	A+	30m	249433
10000-13000K	400lm	83lm/W	≥80	A+	30m	249440
Colour	Wavelength					Product code
red	620nm				5m	240201
green	520nm				5m	240225
blue	465nm				5m	240218
yellow	590nm				5m	240232

3-step

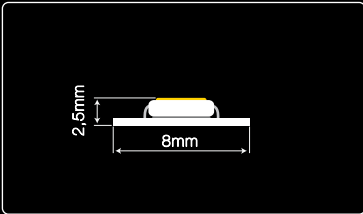
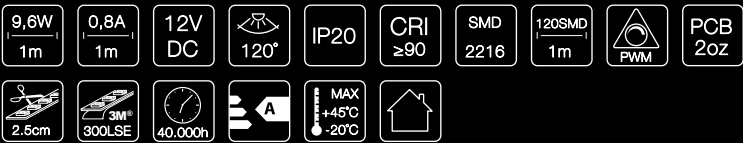
MacAdam

3-year
warranty

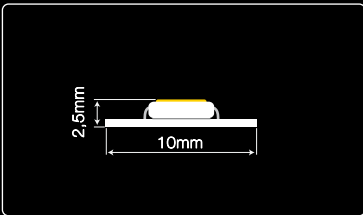
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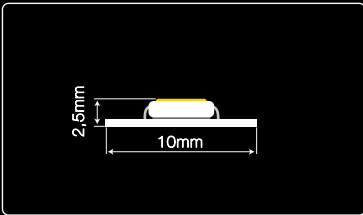
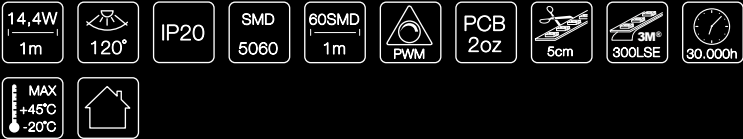
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10000-13000K	800lm	83lm/W	≥80	A+	5m	240331
Colour	Wavelength					Product code
red	620nm				5m	240348
green	520nm				5m	240362
blue	465nm				5m	240355
yellow	590nm				5m	240379



CCT	Luminous flux/1m	Efficacy	Length	Product code
2700-2868K	680lm	71lm/W	5m	249396
3900-4175K	680lm	71lm/W	5m	249143
6200-6700K	680lm	71lm/W	5m	249402



Colour	Wavelength	Length	Product code
RGB	620 / 520 / 465nm	5m	240140



Colour	Wavelength	Current/1m	Voltage	Length	Product code
RGB	620 / 520 / 465nm	1,2A	12V DC	5m	240522
RGB	620 / 520 / 465nm	0,6A	24V DC	5m	240539



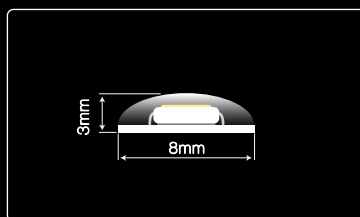
WATERPROOF

LED STRIPS

YELLOW
FREE™

3-year
warranty

3-step
MacAdam

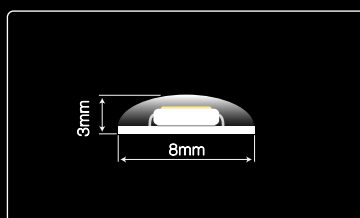


CCT	Luminous flux/1m	Efficacy	R _a	Energy class	Length	Product code
2865-3025K	200lm	83lm/W	≥80	A++	5m	240072
3900-4175K	200lm	83lm/W	≥80	A++	5m	242151
6200-6700K	200lm	83lm/W	≥80	A++	5m	240089
10000-13000K	200lm	83lm/W	≥80	A++	5m	240096
Colour	Wavelength					Product code
red	620nm				5m	240102
green	520nm				5m	240126
blue	465nm				5m	240119
yellow	590nm				5m	240133

YELLOW
FREE™

3-year
warranty

3-step
MacAdam

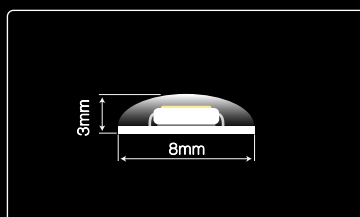


CCT	Luminous flux/1m	Efficacy	R _a	Energy class	Length	Product code
2400-2600K	400lm	83lm/W	≥80	A+	5m	247774
2865-3025K	400lm	83lm/W	≥80	A+	5m	240249
3900-4175K	400lm	83lm/W	≥80	A+	5m	245619
6200-6700K	400lm	83lm/W	≥80	A+	5m	240256
10000-13000K	400lm	83lm/W	≥80	A+	5m	240263
Colour	Wavelength					Product code
red	620nm				5m	240270
green	520nm				5m	240294
blue	465nm				5m	240287
yellow	590nm				5m	240300

YELLOW
FREE™

3-year
warranty

3-step
MacAdam



CCT	Luminous flux/1m	Efficacy	R _a	Energy class	Length	Product code
10000-13000K	800lm	83lm/W	≥80	A+	5m	240409
Colour	Wavelength					Product code
red	620nm				5m	240416
green	520nm				5m	240430
blue	465nm				5m	240423
yellow	590nm				5m	240447

YELLOW
FREE™

3-year warranty

HIGH CRI

LONGER LIFESPAN

*.IES



9,6W
1m

0,8A
1m

12V
DC

120°

IP65
IP20

CRI ≥90

SMD 2216

120SMD
1m

PWM

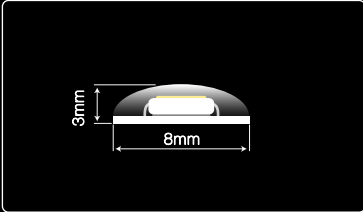
PCB 2oz

2.5cm

300LSE

40.000h

MAX +45°C -20°C



CCT	Luminous flux/1m	Efficacy	Length	Product code
2700-2868K	680lm	71lm/W	5m	249501
3900-4175K	680lm	71lm/W	5m	249150
6200-6700K	680lm	71lm/W	5m	249754

RGB

3-year warranty

YELLOW FREE™

*.IES



7,2W
1m

0,6A
1m

12V
DC

120°

IP65
IP20

SMD 5060

30SMD
1m

PWM

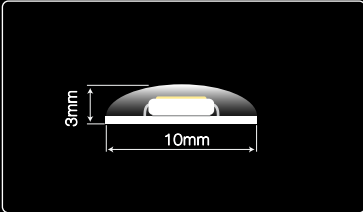
PCB 2oz

10cm

300LSE

30.000h

MAX +45°C -20°C



Colour	Wavelength	Length	Product code
RGB	620 / 520 / 465nm	5m	240157

RGB

3-year warranty

YELLOW FREE™

*.IES



14,4W
1m

1,2A
1m

12V
DC

120°

IP65
IP20

SMD 5060

60SMD
1m

PWM

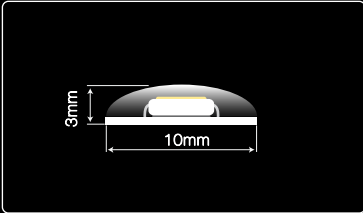
PCB 2oz

5cm

300LSE

30.000h

MAX +45°C -20°C



Colour	Wavelength	Length	Product code
RGB	620 / 520 / 465nm	5m	240614



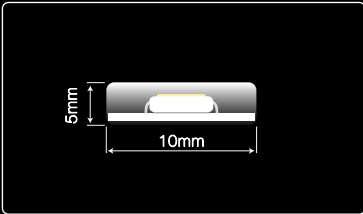
WATERPROOF









LED STRIPS

YELLOW
FREE™

3-year
warranty

3-step
MacAdam

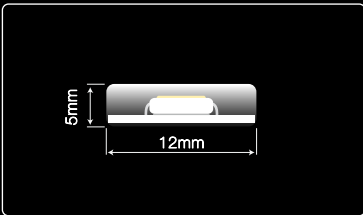


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	6200-6700K	400lm	83lm/W	≥80	A+	5m	241475
	10000-13000K	400lm	83lm/W	≥80	A+	5m	241482
	Colour	Wavelength					Product code
   	red	620nm					241499
	green	520nm					241505
	blue	465nm					241512
	yellow	590nm					241529



3-year
warranty

YELLOW
FREE™

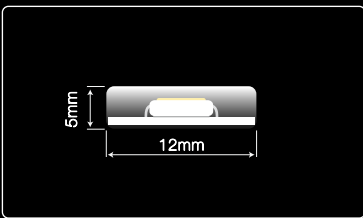


Colour	Wavelength	Length	Product code
RGB	620 / 520 / 465nm	5m	241444

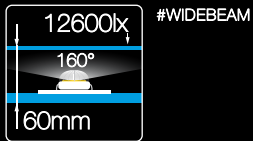


3-year
warranty

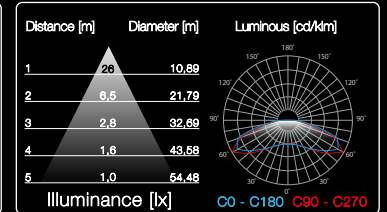
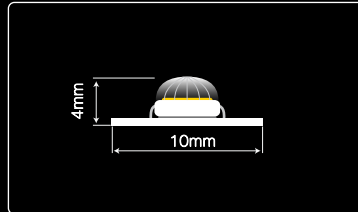
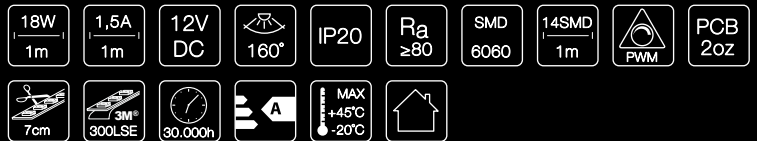
YELLOW
FREE™



Colour	Wavelength	Length	Product code
RGB	620 / 520 / 465nm	5m	241451



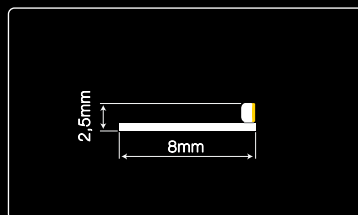
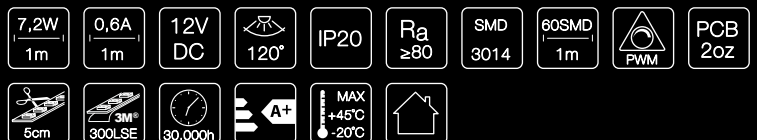
3-year warranty
90lm LED
3-step MacAdam
*.IES



CCT	Luminous flux/1m	Efficacy	Length	Product code
6000-7000K	1260lm	70lm/W	5m	244056



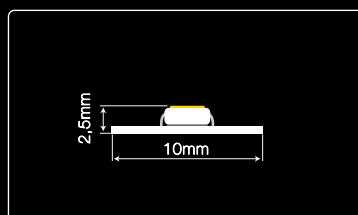
3-year warranty
3-step MacAdam
*.IES



CCT	Luminous flux/1m	Efficacy	Length	Product code
2700-2868K	550lm	76lm/W	5m	244094
3900-4175K	550lm	76lm/W	5m	244100
6200-6700K	550lm	76lm/W	5m	244216



3-year warranty
HIGH CRI
3-step MacAdam
*.IES

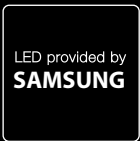


CCT	Luminous flux/1m	Efficacy	Length	Product code
2700-2868K	1700lm	71lm/W	5m	245268
3900-4175K	1700lm	71lm/W	5m	245589
6200-6700K	1700lm	71lm/W	5m	246333



EXPERT

LED STRIPS



#SAMSUNG



5-year warranty

3-step MacAdam

LOW VOLTAGE DROP

LONGER LIFESPAN

*.IES

18W
1m

120°

IP20

Ra ≥80

SMD 5630

60SMD
1m

PWM

PCB 30Z

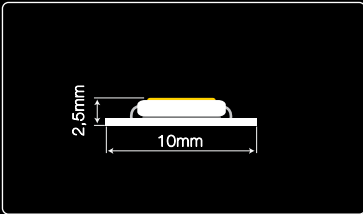
5cm

300LSE

50.000h

A+

MAX +45°C -20°C



	CCT	Luminous flux/1m	Efficacy	Current/1m	Voltage	Length	Product code
●	2700-2868K	1650lm	92lm/W	1,5A	12V DC	5m	245916
●	3900-4175K	1650lm	92lm/W	1,5A	12V DC	5m	245923
●	6200-6700K	1650lm	92lm/W	1,5A	12V DC	5m	245930
●	10000-13000K	1650lm	92lm/W	1,5A	12V DC	5m	246982
●	2700-2868K	1650lm	92lm/W	0,75A	24V DC	5m	247743
●	3900-4175K	1650lm	92lm/W	0,75A	24V DC	5m	247750
●	6200-6700K	1650lm	92lm/W	0,75A	24V DC	5m	247767
●	10000-13000K	1650lm	92lm/W	0,75A	24V DC	5m	247965



#HIGHCRI



3-year warranty

3-step MacAdam

LOW VOLTAGE DROP

*.IES

18W
1m

1,5A
1m

12V DC

120°

IP20

CRI ≥95

SMD 5730

60SMD
1m

PWM

PCB 30Z

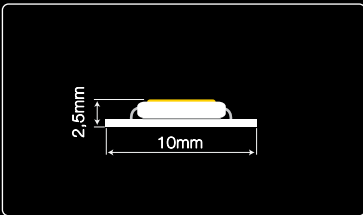
5cm

300LSE

30.000h

A+

MAX +45°C -20°C



	CCT	Luminous flux/1m	Efficacy	Length	Product code
●	3900-4175K	1260lm	70lm/W	5m	246739



#ULTRASLIM



3-year warranty

HIGH CRI

3-step MacAdam

LOW VOLTAGE DROP

*.IES

9,6W
1m

0,8A
1m

12V DC

120°

IP20

CRI ≥90

SMD 2216

120SMD
1m

PWM

PCB 40Z

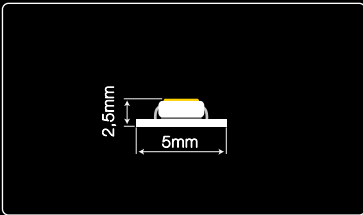
2,5cm

300LSE

30.000h

A

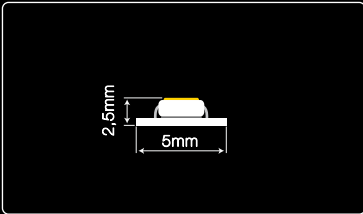
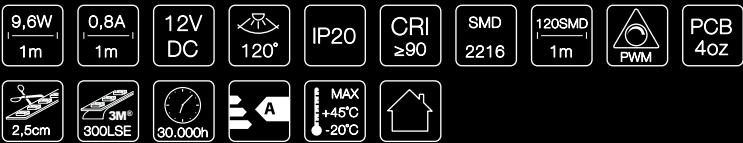
MAX +45°C -20°C



	CCT	Luminous flux/1m	Efficacy	Length	Product code
●	3900-4175K	680lm	71lm/W	5m	249167



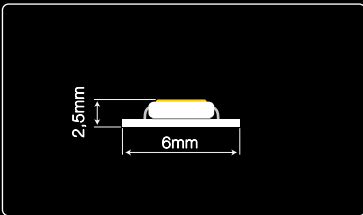
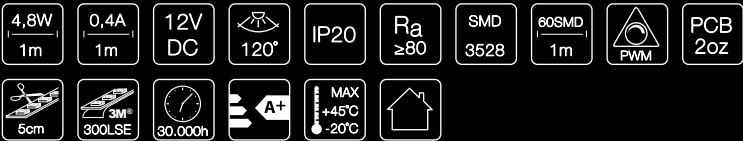
#ULTRASLIM



CCT	Luminous flux/1m	Efficacy	Length	Product code
● 3900-4175K	680lm	71lm/W	5m	249174



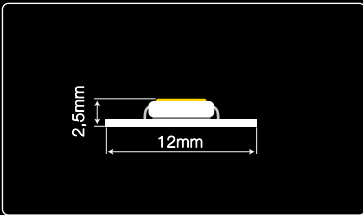
#TWIST



CCT	Luminous flux/1m	Efficacy	Length	Product code
● 3900-4175K	420lm	88lm/W	5m	246494



#TWIST



Colour	Wavelength	Length	Product code
● ● ● RGB	620 / 520 / 465nm	5m	246500

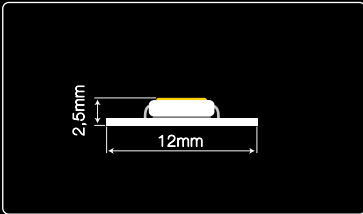


EXPERT

LED STRIPS



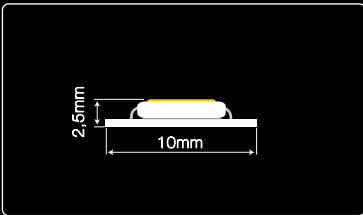
#RGBW



CCT	Luminous flux/1m	Efficacy	R _a	Energy class	Length	Product code
• 2600-2868K	400lm	83/W	≥80	A+	5m	247071
• 6100-6800K	400lm	83/W	≥80	A+	5m	245657
Colour	Wavelength					
• • • RGB	620 / 520 / 465nm					



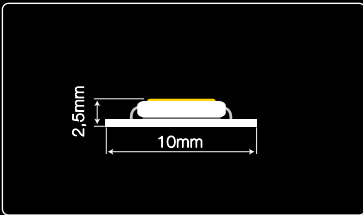
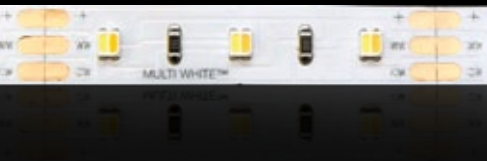
#DIGITAL



Colour	Wavelength	Length	Product code
• • • RGB	620 / 520 / 465nm	5m	248238



#MULTIWHITE

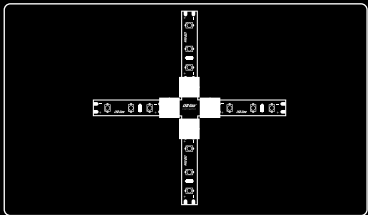


CCT	Luminous flux/1m	Efficacy	Length	Product code
• 3000-6000K	740lm	77lm/W	5m	243714

5 PIN

PCB 12mm

5-year warranty

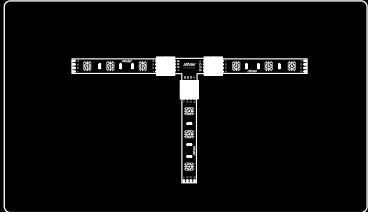


Product name	Product code
CLICK corner connector for 12mm LED line® strips 5 pin type +	247859

4 PIN

PCB 10mm

5-year warranty

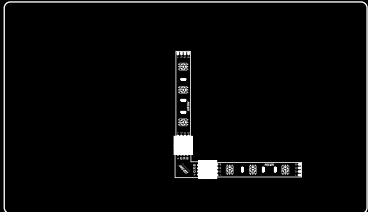


Product name	Product code
CLICK corner connector for 10mm LED line® strips 4 pin type T	246524

4 PIN

PCB 10mm

5-year warranty

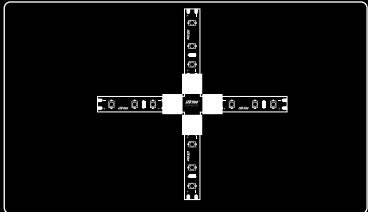


Product name	Product code
CLICK corner connector for 10mm LED line® strips 4 pin type L	246517

2 PIN

PCB 8mm

5-year warranty

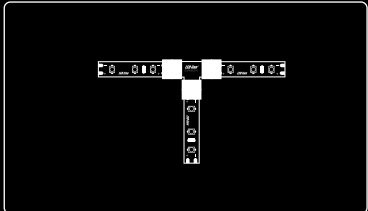


Product name	Product code
CLICK corner connector for 8mm LED line® strips 2 pin type +	246548

2 PIN

PCB 8mm

5-year warranty

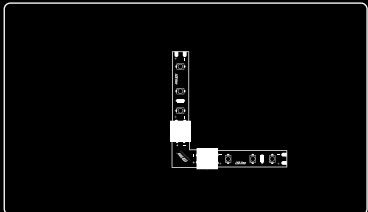


Product name	Product code
CLICK corner connector for 8mm LED line® strips 2 pin type T	246555

2 PIN

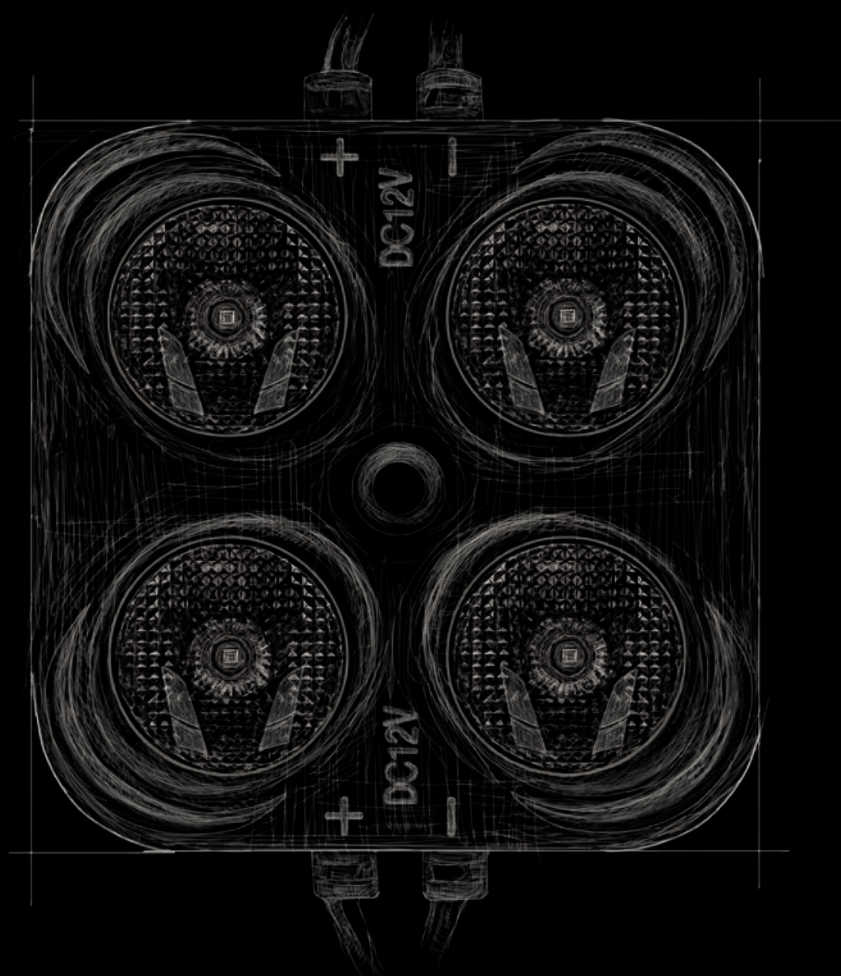
PCB 8mm

5-year warranty



Accessories	Product code
CLICK corner connector for 8mm LED line® strips 2 pin type L	246562

LED line[®]



LED MODULES

Perfect choice for the advertising industry



EXPERT

LED MODULES

LED provided by

OSRAM

7 year warranty

95lm W

*.IES



83mA

12V DC

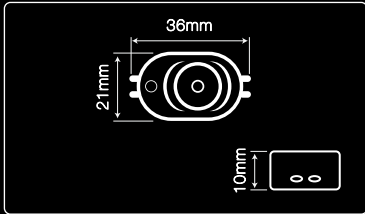
170°

Ra ≥80

1SMD 2835

70.000h

MAX +55°C -40°C



CCT	Luminous flux	Power	Efficacy	Product code
● 6000-6500K	95lm	1W	95lm/W	243400

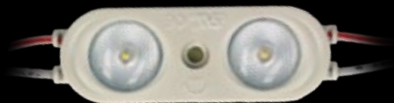
LED provided by

OSRAM

7 year warranty

95lm W

*.IES



166mA

12V DC

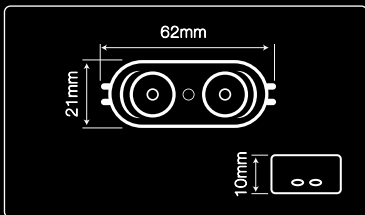
170°

Ra ≥80

2SMD 2835

70.000h

MAX +55°C -40°C



CCT	Luminous flux	Power	Efficacy	Product code
● 6000-6500K	190lm	2W	95lm/W	243417

LED provided by

OSRAM

7 year warranty

95lm W

*.IES



208mA

12V DC

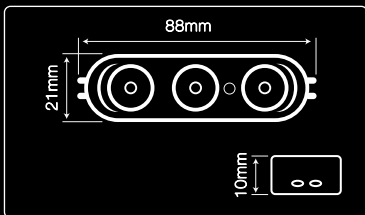
170°

Ra ≥80

3SMD 2835

70.000h

MAX +55°C -40°C



CCT	Luminous flux	Power	Efficacy	Product code
● 6000-6500K	237lm	2,5W	95lm/W	243424

LED provided by

OSRAM

7 year warranty

95lm W

IP65

IES



250mA

12V DC

170°

IP65

PVC

Ra ≥80

4SMD 2835

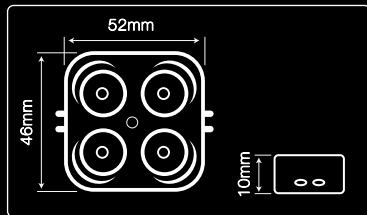
PWM

70.000h

A++

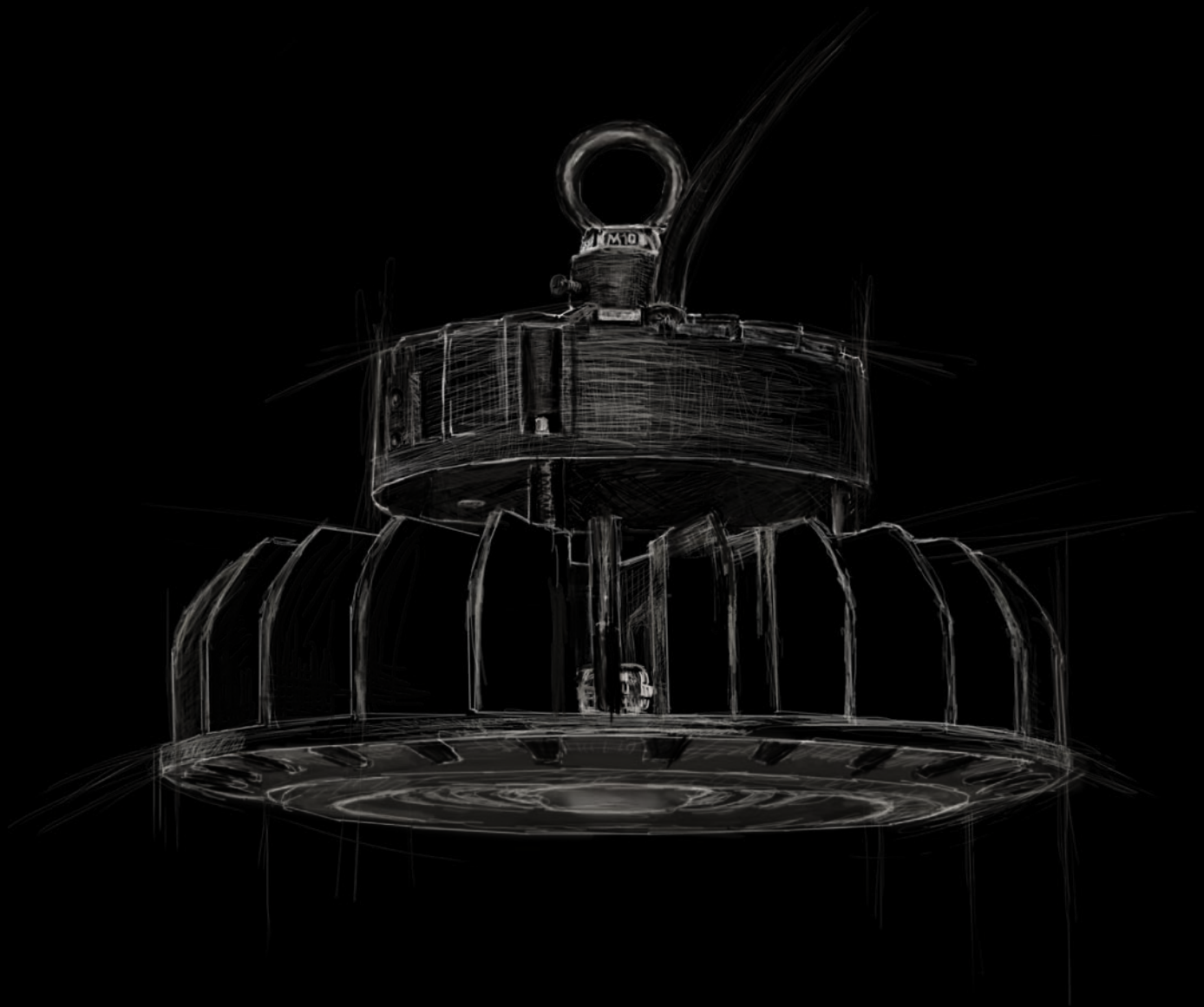
MAX +55°C -40°C

Household icon



CCT	Luminous flux	Power	Efficacy	Product code
● 6000-6500K	285lm	3W	95lm/W	243431

LED line[®]



INDUSTRIAL LIGHTS

Advanced LED technology for business and industry

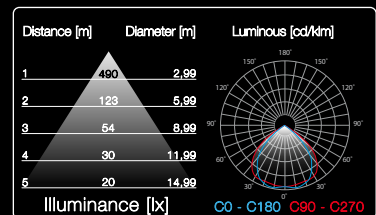
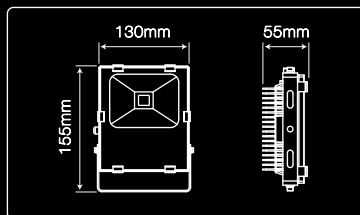
FLOOD LIGHTS

LED provided by
LUMILEDS

3-year warranty 100lm W

QUICK PLUG ready

*.IES



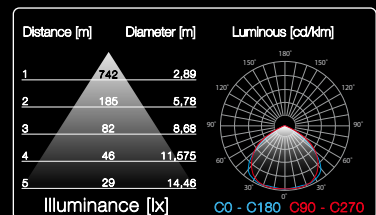
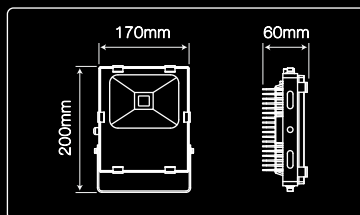
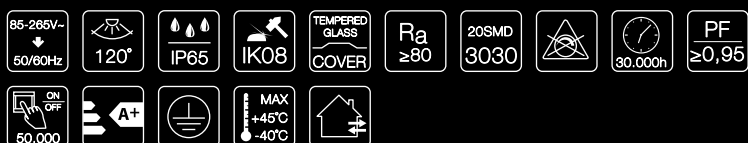
CCT	Luminous flux	Power	Efficacy	Product code
4000K	1000lm	10W	100lm/W	245992

LED provided by
LUMILEDS

3-year warranty 100lm W

QUICK PLUG ready

*.IES



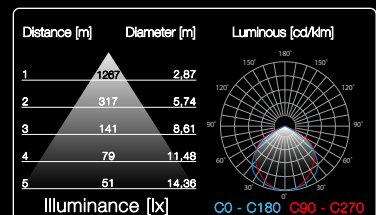
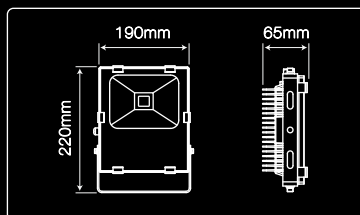
CCT	Luminous flux	Power	Efficacy	Product code
4000K	2000lm	20W	100lm/W	246005

LED provided by
LUMILEDS

3-year warranty 100lm W

QUICK PLUG ready

*.IES



CCT	Luminous flux	Power	Efficacy	Product code
4000K	3000lm	30W	100lm/W	246012



LED provided by
LUMILEDS

3-year warranty 100lm W

QUICK PLUG ready

*.IES



85-265V~
50/60Hz

120°

IP65

IK08

TEMPERED GLASS COVER

Ra ≥80

50SMD 3030

30.000h

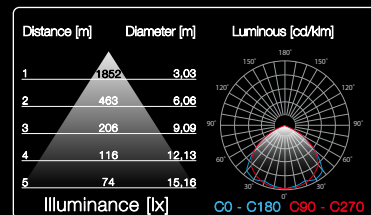
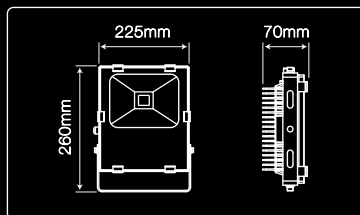
PF ≥0,95

ON OFF
50.000

A+

MAX +45°C -40°C

House icon



CCT	Luminous flux	Power	Efficacy	Product code
4000K	5000lm	50W	100lm/W	246029

LED provided by
LUMILEDS

3-year warranty 100lm W

QUICK PLUG ready

*.IES



85-265V~
50/60Hz

120°

IP65

IK08

TEMPERED GLASS COVER

Ra ≥80

70SMD 3030

30.000h

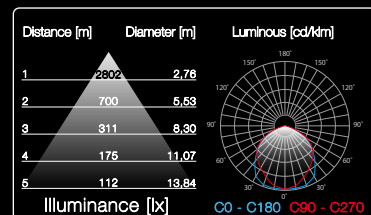
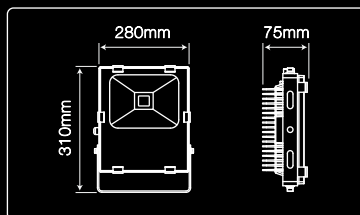
PF ≥0,95

ON OFF
50.000

A+

MAX +45°C -40°C

House icon



CCT	Luminous flux	Power	Efficacy	Product code
4000K	7000lm	70W	100lm/W	247712

LED provided by
LUMILEDS

3-year warranty 100lm W

QUICK PLUG ready

*.IES



85-265V~
50/60Hz

120°

IP65

IK08

TEMPERED GLASS COVER

Ra ≥80

100SMD 3030

30.000h

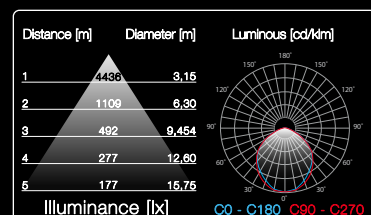
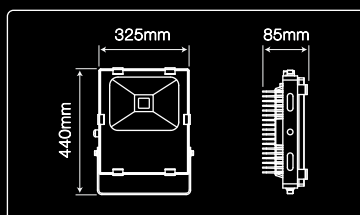
PF ≥0,95

ON OFF
50.000

A+

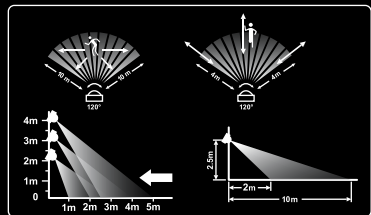
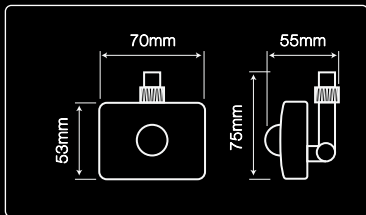
MAX +45°C -40°C

House icon



CCT	Luminous flux	Power	Efficacy	Product code
4000K	10000lm	100W	100lm/W	247729

QUICK
PLUG



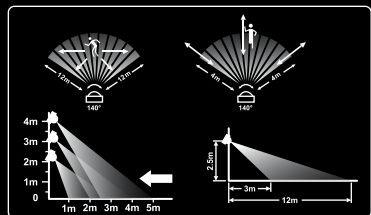
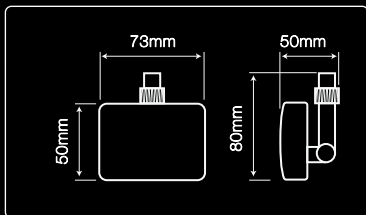
Product name

QUICK PLUG - PIR sensor

Product code

249495

QUICK
PLUG

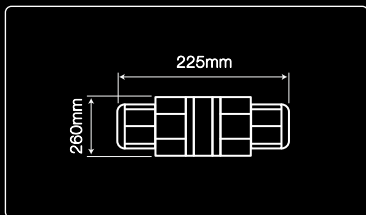


Product name

QUICK PLUG - Microwave motion sensor

Product code

248221



Product name

Hermetic connector IP68

Recommended for:

FLOOD LIGHTS / HIGH BAY LIGHTS / TRI-PROOF LIGHTS / CEILING LIGHTS

Product code

248074



LED provided by
LUMILEDS

5-year warranty 130lm W

LiFud DRIVER flicker free

*.IES



220-240V~ 50/60Hz

60°

IP65

IK08

POLY CARBONATE COVER

Ra ≥80

144SMD 3030

50.000h

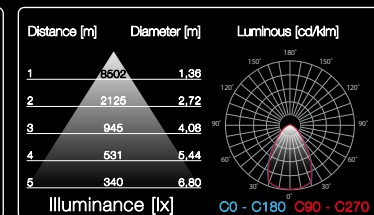
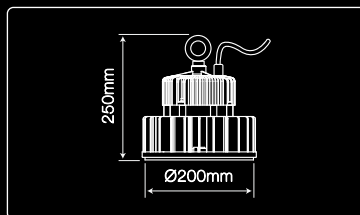
PF ≥0,95

ON OFF 50.000

A+

MAX +45°C -40°C

House icon



CCT	Luminous flux	Power	Efficacy	Product code
4000K	13000lm	100W	130lm/W	249907

LED provided by
LUMILEDS

5-year warranty 130lm W

LiFud DRIVER flicker free

*.IES



220-240V~ 50/60Hz

90°

IP65

IK08

POLY CARBONATE COVER

Ra ≥80

144SMD 3030

50.000h

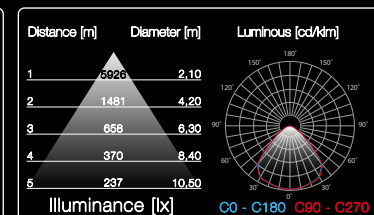
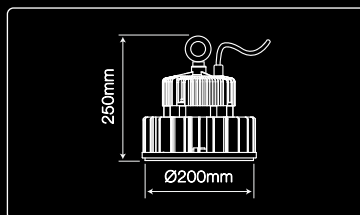
PF ≥0,95

ON OFF 50.000

A+

MAX +45°C -40°C

House icon



CCT	Luminous flux	Power	Efficacy	Product code
4000K	13000lm	100W	130lm/W	249914

LED provided by
LUMILEDS

5-year warranty 130lm W

LiFud DRIVER flicker free

*.IES



220-240V~ 50/60Hz

120°

IP65

IK08

POLY CARBONATE COVER

Ra ≥80

144SMD 3030

50.000h

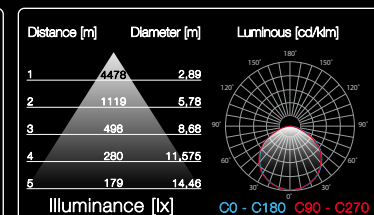
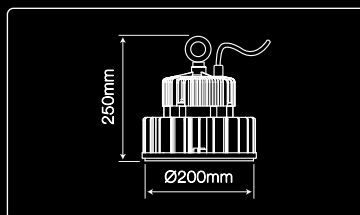
PF ≥0,95

ON OFF 50.000

A+

MAX +45°C -40°C

House icon



CCT	Luminous flux	Power	Efficacy	Product code
4000K	13000lm	100W	130lm/W	249921



HIGH BAY

LIGHTS

LED provided by
LUMILEDS

5-year
warranty

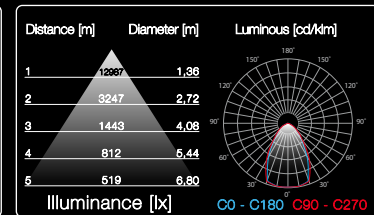
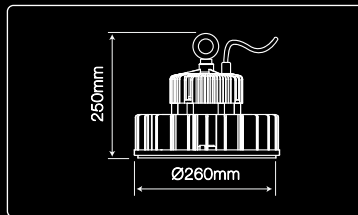
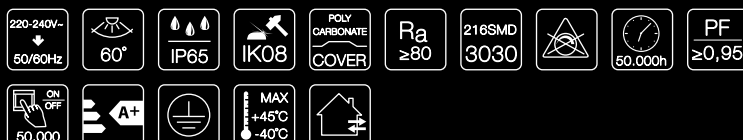
130lm
W

LiFud
DRIVER

flicker
free



*.IES
↓



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	19500lm	150W	130lm/W	249938

LED provided by
LUMILEDS

5-year
warranty

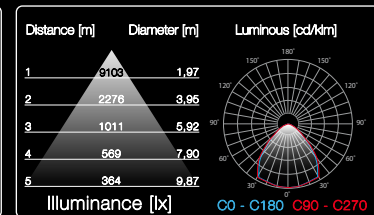
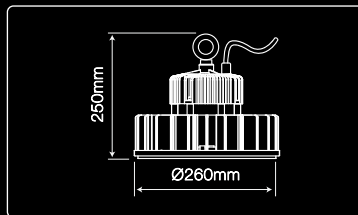
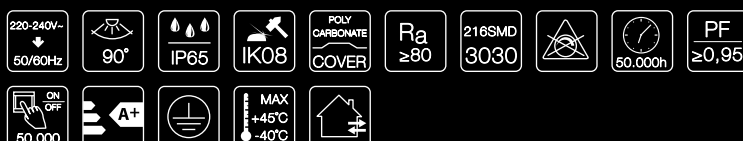
130lm
W

LiFud
DRIVER

flicker
free



*.IES
↓



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	19500lm	150W	130lm/W	249945

LED provided by
LUMILEDS

5-year
warranty

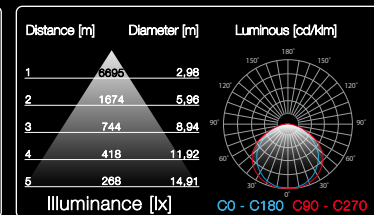
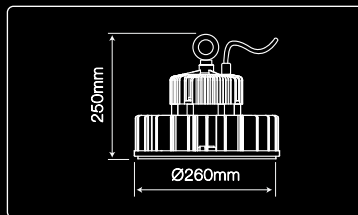
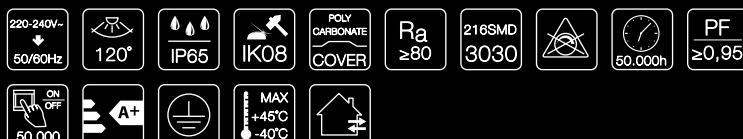
130lm
W

LiFud
DRIVER

flicker
free



*.IES
↓



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	19500lm	150W	130lm/W	249952



LED provided by
LUMILEDS

5-year warranty 130lm W

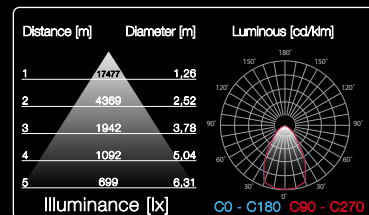
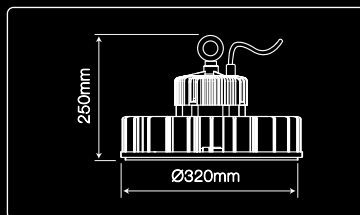
LiFud DRIVER flicker free

*.IES



220-240V~ 50/60Hz 60° IP65 IK08 POLY CARBONATE COVER Ra ≥80 324SMD 3030 50.000h PF ≥0,95

ON OFF 50.000 A+ MAX +45°C -40°C



CCT	Luminous flux	Power	Efficacy	Product code
4000K	26000lm	200W	130lm/W	248184

LED provided by
LUMILEDS

5-year warranty 130lm W

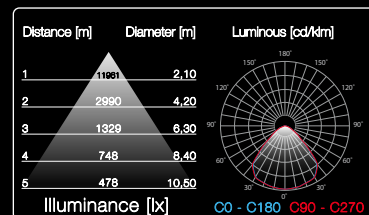
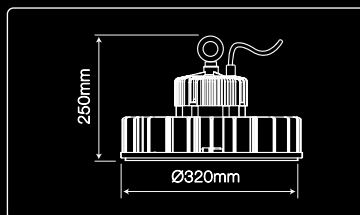
LiFud DRIVER flicker free

*.IES



220-240V~ 50/60Hz 90° IP65 IK08 POLY CARBONATE COVER Ra ≥80 324SMD 3030 50.000h PF ≥0,95

ON OFF 50.000 A+ MAX +45°C -40°C



CCT	Luminous flux	Power	Efficacy	Product code
4000K	26000lm	200W	130lm/W	248733

LED provided by
LUMILEDS

5-year warranty 130lm W

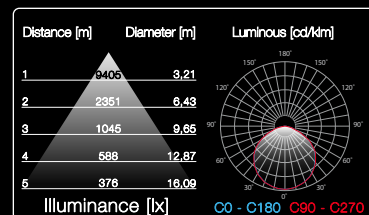
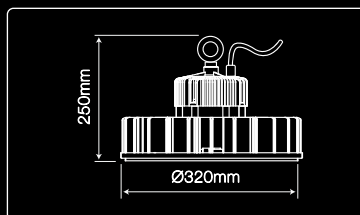
LiFud DRIVER flicker free

*.IES



220-240V~ 50/60Hz 120° IP65 IK08 POLY CARBONATE COVER Ra ≥80 324SMD 3030 50.000h PF ≥0,95

ON OFF 50.000 A+ MAX +45°C -40°C



CCT	Luminous flux	Power	Efficacy	Product code
4000K	26000lm	200W	130lm/W	248740



HIGH BAY

LIGHTS

LED provided by
CREE

5-year
warranty

DIMMABLE

flicker
free

150lm
W



*.IES
↓



100-277V~
50/60Hz

60°

IP65

IK08

POLY
CARBONATE
COVER

Ra
≥80

144SMD
3030

1-10V

50.000h

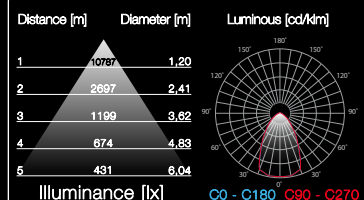
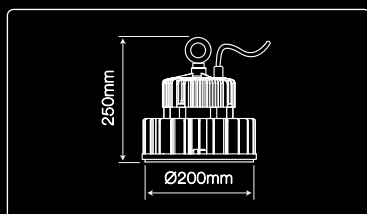
PF
≥0,95

ON
OFF
50.000

A+

MAX
+45°C
-40°C

HOUSE



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	15000lm	100W	150lm/W	244018

LED provided by
CREE

5-year
warranty

DIMMABLE

flicker
free

150lm
W



*.IES
↓



100-277V~
50/60Hz

90°

IP65

IK08

POLY
CARBONATE
COVER

Ra
≥80

144SMD
3030

1-10V

50.000h

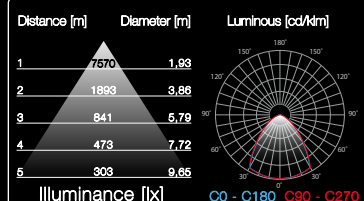
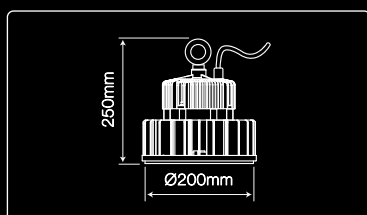
PF
≥0,95

ON
OFF
50.000

A+

MAX
+45°C
-40°C

HOUSE



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	15000lm	100W	150lm/W	244223

LED provided by
CREE

5-year
warranty

DIMMABLE

flicker
free

150lm
W



*.IES
↓



100-277V~
50/60Hz

120°

IP65

IK08

POLY
CARBONATE
COVER

Ra
≥80

144SMD
3030

1-10V

50.000h

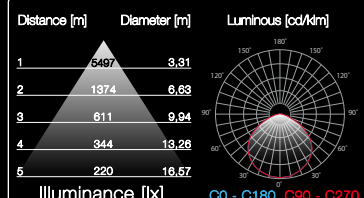
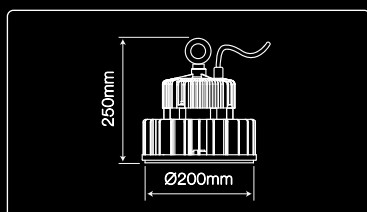
PF
≥0,95

ON
OFF
50.000

A+

MAX
+45°C
-40°C

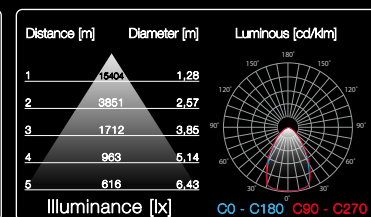
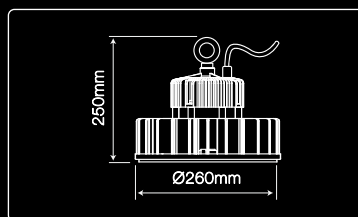
HOUSE



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	15000lm	100W	150lm/W	244339

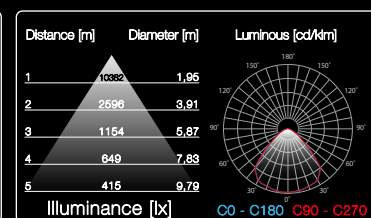
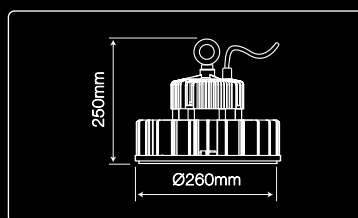
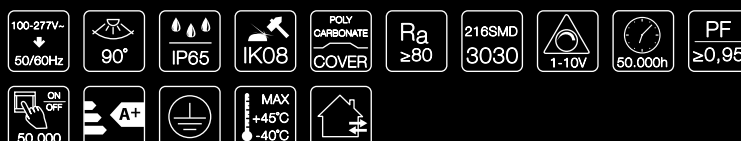
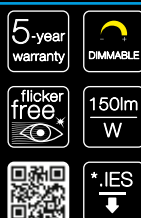


LED provided by
CREE



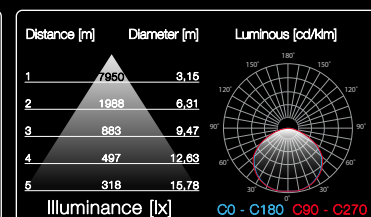
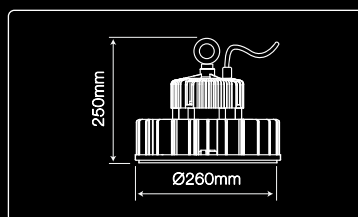
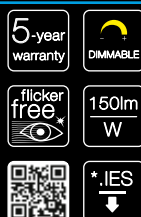
CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	22500lm	150W	150lm/W	245343

LED provided by
CREE



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	22500lm	150W	150lm/W	245633

LED provided by
CREE



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	22500lm	150W	150lm/W	245640



HIGH BAY

LIGHTS

LED provided by
CREE

5-year
warranty

DIMMABLE

flicker
free

150lm
W



*.IES
↓



100-277V~
50/60Hz

60°

IP65

IK08

POLY
CARBONATE
COVER

Ra
≥80

324SMD
3030

1-10V

50.000h

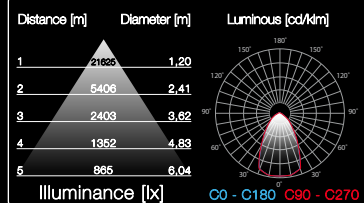
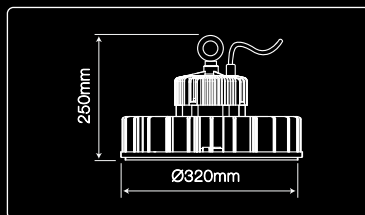
PF
≥0,95

ON
OFF
50.000

A+

MAX
+45°C
-40°C

↓



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	30000lm	200W	150lm/W	247316

LED provided by
CREE

5-year
warranty

DIMMABLE

flicker
free

150lm
W



*.IES
↓



100-277V~
50/60Hz

90°

IP65

IK08

POLY
CARBONATE
COVER

Ra
≥80

324SMD
3030

1-10V

50.000h

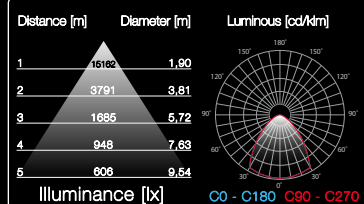
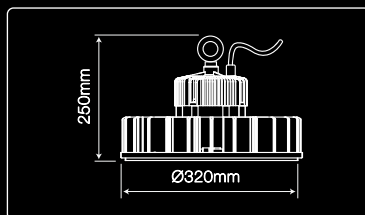
PF
≥0,95

ON
OFF
50.000

A+

MAX
+45°C
-40°C

↓



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	30000lm	200W	150lm/W	247323

LED provided by
CREE

5-year
warranty

DIMMABLE

flicker
free

150lm
W



*.IES
↓



100-277V~
50/60Hz

120°

IP65

IK08

POLY
CARBONATE
COVER

Ra
≥80

324SMD
3030

1-10V

50.000h

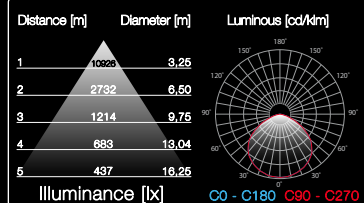
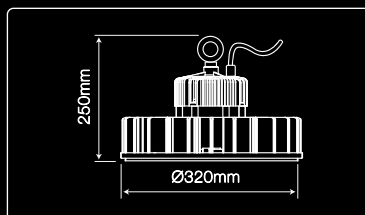
PF
≥0,95

ON
OFF
50.000

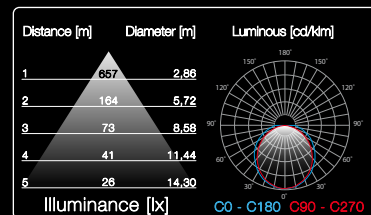
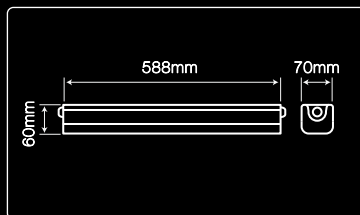
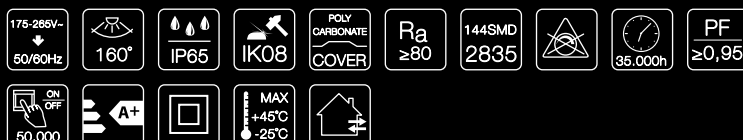
A+

MAX
+45°C
-40°C

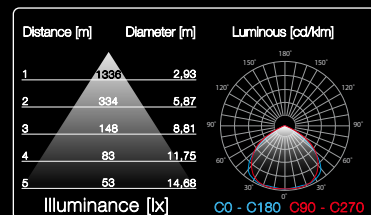
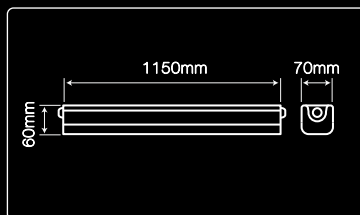
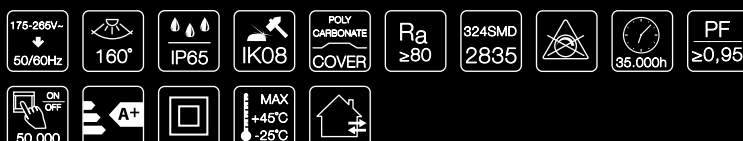
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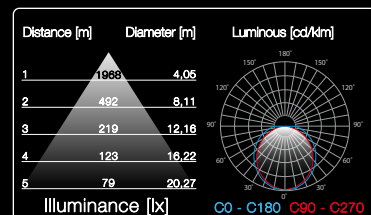
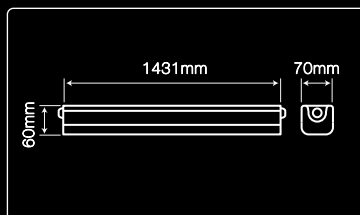
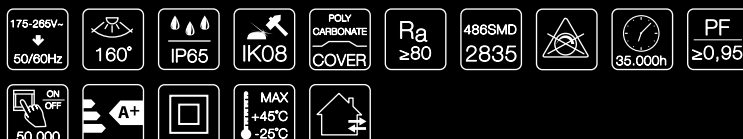
CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	30000lm	200W	150lm/W	247330



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	2000lm	20W	100lm/W	248528



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	4000lm	40W	100lm/W	248535



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	6000lm	60W	100lm/W	248542

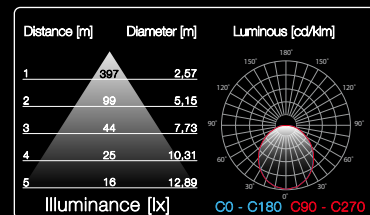
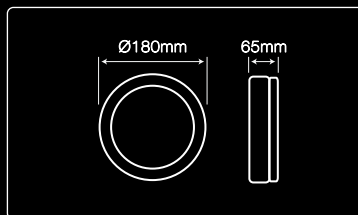
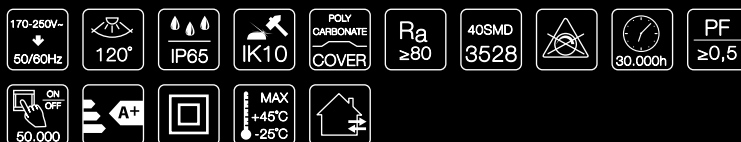


CEILING

LIGHTS



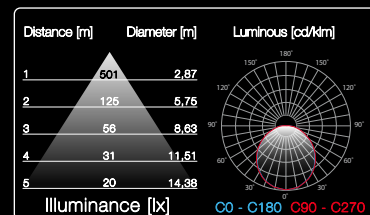
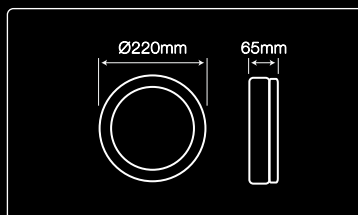
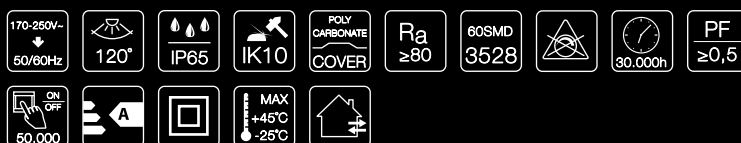
#LUNA



CCT	Luminous flux	Power	Efficacy	Sensor	Product code
• 4000K	1000lm	12W	83lm/W	—	249631
• 4000K	1000lm	12W	83lm/W	Microvave	249648



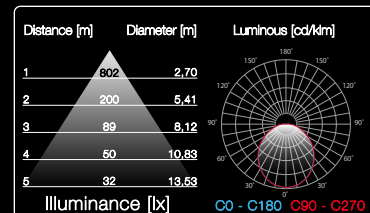
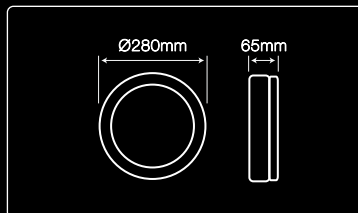
#LUNA



CCT	Luminous flux	Power	Efficacy	Sensor	Product code
• 4000K	1440lm	18W	80lm/W	—	249655
• 4000K	1440lm	18W	80lm/W	Microvave	249662



#LUNA



CCT	Luminous flux	Power	Efficacy	Sensor	Product code
• 4000K	2040lm	24W	85lm/W	—	249679
• 4000K	2040lm	24W	85lm/W	Microvave	249686



SOLAR

LIGHTS

\$0

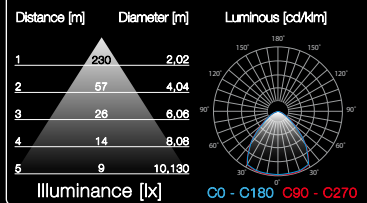
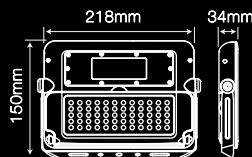
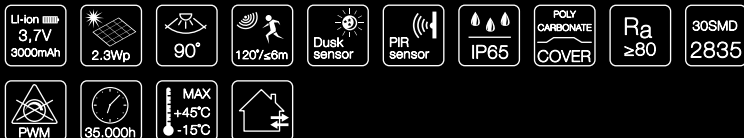
Energy
cost

2-year
warranty

Solar
powered



Cordless



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	500lm	5W	100lm/W	249389

\$0

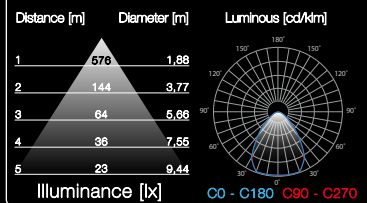
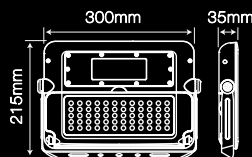
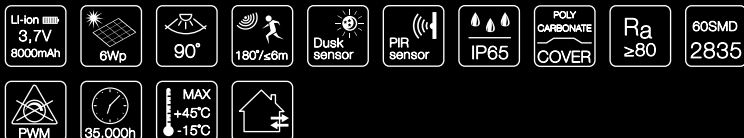
Energy
cost

2-year
warranty

Solar
powered

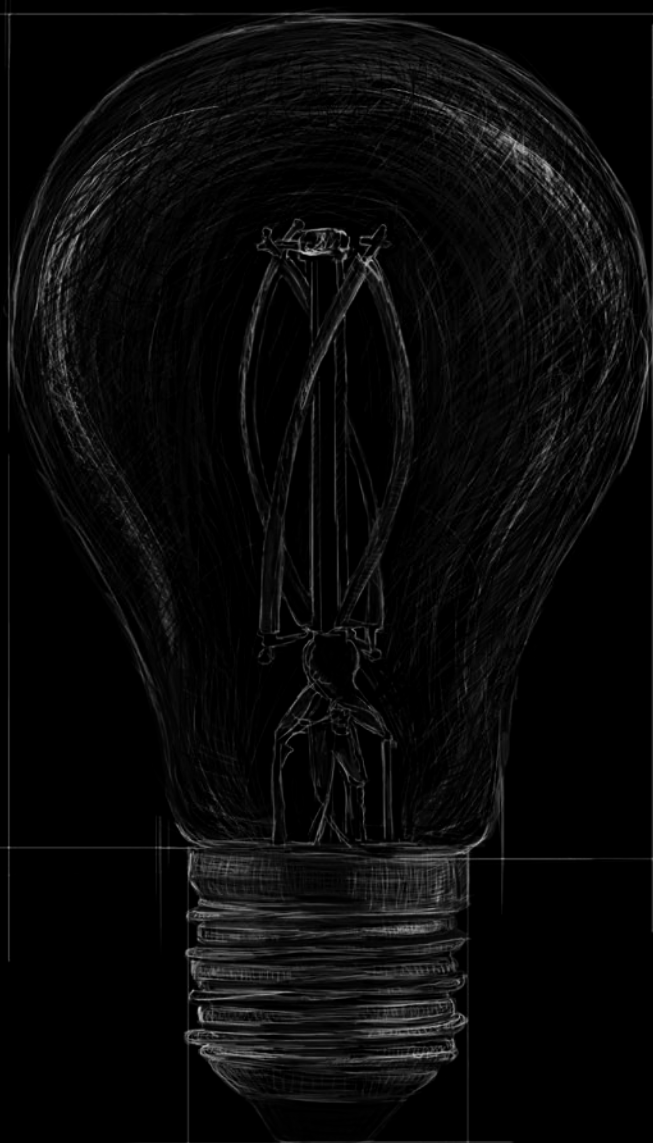


Cordless



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	1080lm	10W	108lm/W	248993

LED line[®]



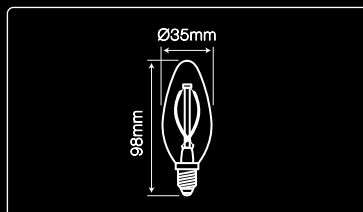
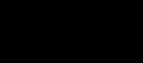
LED LIGHTS

Tradition made modern

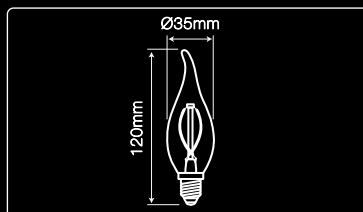
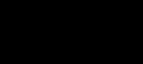


FILAMENT

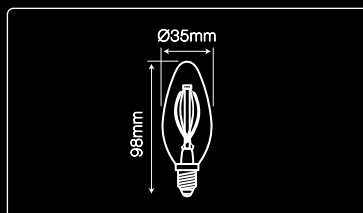
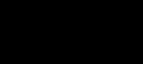
LED LIGHTS



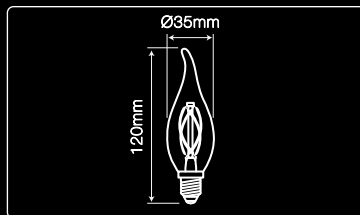
CCT	Luminous flux	Power	Efficacy	Product code
2700K	260lm	2W	130lm/W	249051
4000K	260lm	2W	130lm/W	249518



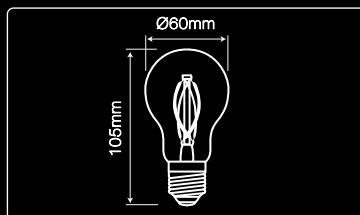
CCT	Luminous flux	Power	Efficacy	Product code
2700K	260lm	2W	130lm/W	249068
4000K	260lm	2W	130lm/W	249525



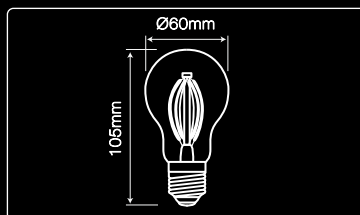
CCT	Luminous flux	Power	Efficacy	Product code
2700K	488lm	4W	122lm/W	249075
4000K	488lm	4W	122lm/W	249136



CCT	Luminous flux	Power	Efficacy	Product code
2700K	488lm	4W	122lm/W	249082
4000K	488lm	4W	122lm/W	249532



CCT	Luminous flux	Power	Efficacy	Product code
2700K	488lm	4W	122lm/W	249099
4000K	488lm	4W	122lm/W	249549

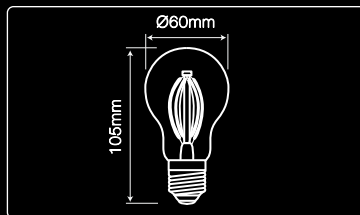


CCT	Luminous flux	Power	Efficacy	Product code
2700K	726lm	6W	121lm/W	249105
4000K	726lm	6W	121lm/W	249556

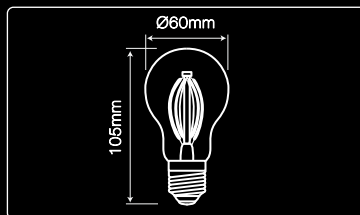
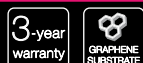


FILAMENT

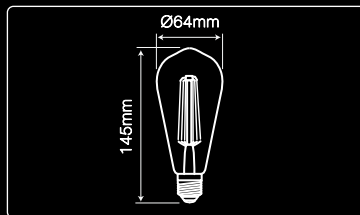
LED LIGHTS



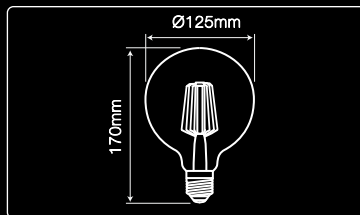
CCT	Luminous flux	Power	Efficacy	Product code
● 2700K	968lm	8W	121lm/W	249112
● 4000K	968lm	8W	121lm/W	249563



CCT	Luminous flux	Power	Efficacy	Product code
● 2700K	968lm	8W	121lm/W	249129
● 4000K	968lm	8W	121lm/W	249990



CCT	Luminous flux	Power	Efficacy	Product code
● 2200K	648lm	6W	108lm/W	246111



	CCT	Luminous flux	Power	Efficacy	Product code
●	2200K	864lm	8W	108lm/W	247668



CERAMIC

LED LIGHTS



3-year
warranty



220-240V~
50/60Hz

G9

270°

Ra
≥80

SMD
2835

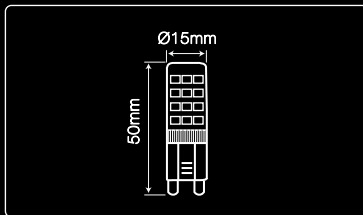


30.000h

PF
≥0,4

ON
OFF
50.000

A+



CCT	Luminous flux	Power	Efficacy	Product code
2700K	350lm	4W	88lm/W	245480
4000K	350lm	4W	88lm/W	245534
6000K	350lm	4W	88lm/W	245541



3-year
warranty



220-240V~
50/60Hz

G9

270°

Ra
≥80

SMD
2835

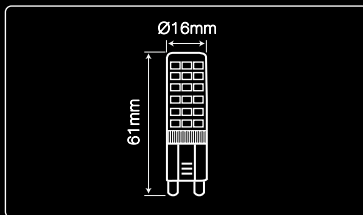


30.000h

PF
≥0,5

ON
OFF
50.000

A+



CCT	Luminous flux	Power	Efficacy	Product code
2700K	550lm	6W	92lm/W	245947
4000K	550lm	6W	92lm/W	245954
6000K	550lm	6W	92lm/W	245961



3-year
warranty



220-240V~
50/60Hz

G9

270°

Ra
≥80

SMD
2835

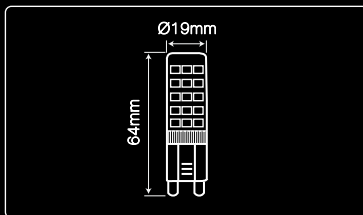


30.000h

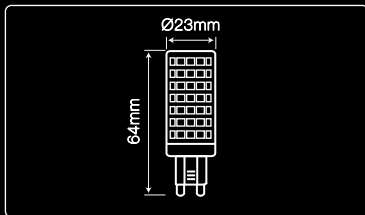
PF
≥0,5

ON
OFF
50.000

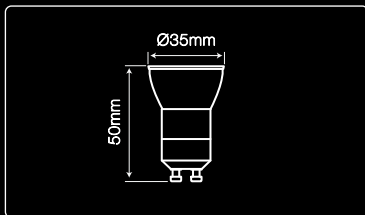
A+



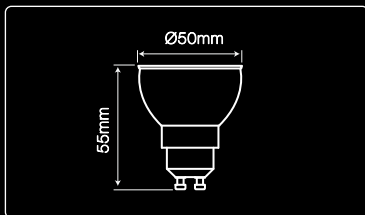
CCT	Luminous flux	Power	Efficacy	Product code
2700K	750lm	8W	94lm/W	247903
4000K	750lm	8W	94lm/W	247910
6000K	750lm	8W	94lm/W	247927



CCT	Luminous flux	Power	Efficacy	Product code
2700K	1080lm	12W	90lm/W	248900
4000K	1080lm	12W	90lm/W	248917
6000K	1080lm	12W	90lm/W	248924



CCT	Luminous flux	Power	Efficacy	Product code
2700K	255lm	3W	85lm/W	248108
4000K	255lm	3W	85lm/W	248115
6000K	255lm	3W	85lm/W	248122

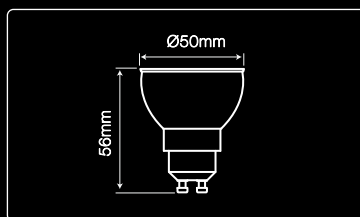


CCT	Luminous flux	Power	Efficacy	Product code
2700K	630lm	7W	90lm/W	247613
4000K	630lm	7W	90lm/W	247620
6500K	630lm	7W	90lm/W	270737

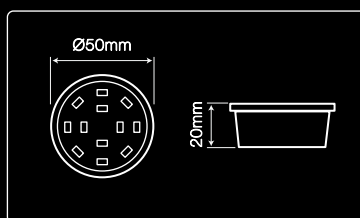
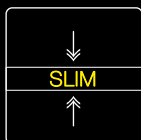


CERAMIC

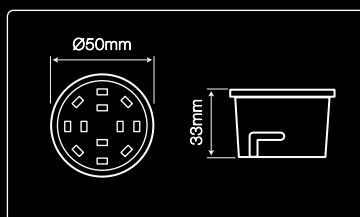
LED LIGHTS



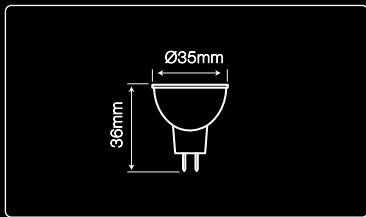
CCT	Luminous flux	Power	Efficacy	Product code
2700K	1000lm	10W	100lm/W	248580
4000K	1000lm	10W	100lm/W	248597
6500K	1000lm	10W	100lm/W	248603



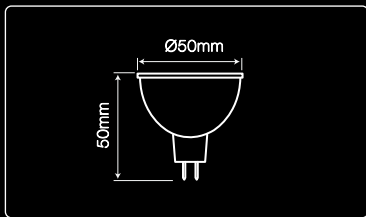
CCT	Luminous flux	Power	Efficacy	Product code
2700K	400lm	5W	80lm/W	247286
4000K	400lm	5W	80lm/W	247293



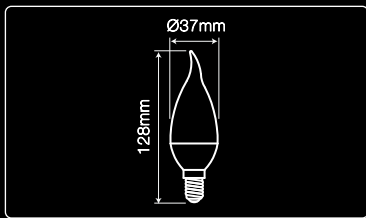
CCT	Luminous flux	Power	Efficacy	Product code
2700K	100% - 550lm	7W	79lm/W	248283
	50% - 310lm	3,5W	88lm/W	
	20% - 125lm	1,5W	83lm/W	
4000K	100% - 550lm	7W	79lm/W	248290
	50% - 310lm	3,5W	88lm/W	
	20% - 125lm	1,5W	83lm/W	



	CCT	Luminous flux	Power	Efficacy	Product code
	2700K	255lm	3W	85lm/W	248139
	4000K	255lm	3W	85lm/W	248146
	6500K	255lm	3W	85lm/W	248153



	CCT	Luminous flux	Power	Efficacy	Product code
	2700K	595lm	7W	85lm/W	247637
	4000K	595lm	7W	85lm/W	247644

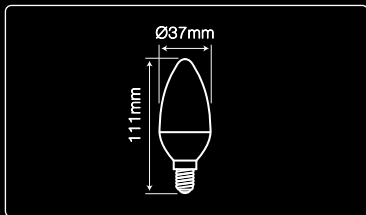


	CCT	Luminous flux	Power	Efficacy	Product code
	2700K	425lm	5W	85lm/W	242618
	4000K	425lm	5W	85lm/W	247002

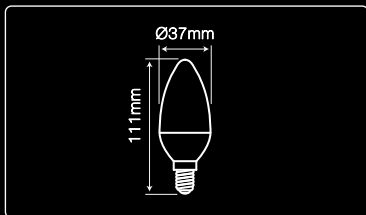


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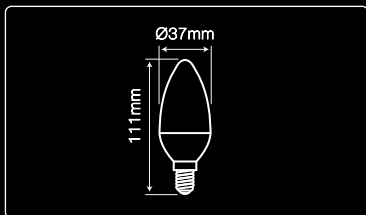
LED LIGHTS



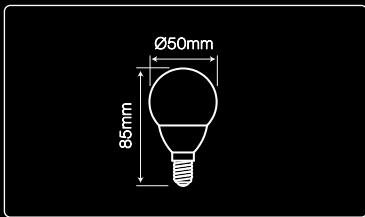
CCT	Luminous flux	Power	Efficacy	Product code
2700K	425lm	5W	85lm/W	242625
4000K	425lm	5W	85lm/W	246999



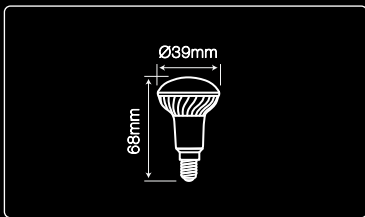
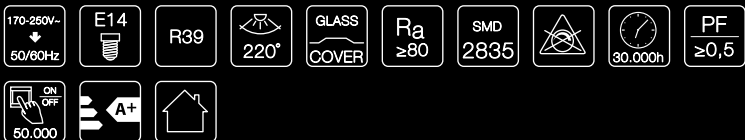
CCT	Luminous flux	Power	Efficacy	Product code
2700K	630lm	7W	90lm/W	247576
4000K	630lm	7W	90lm/W	247583



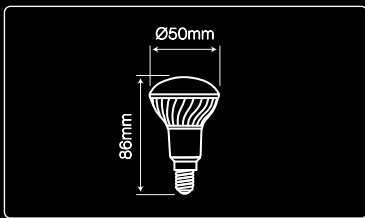
CCT	Luminous flux	Power	Efficacy	Product code
2700K	992lm	9W	110lm/W	248610
4000K	992lm	9W	110lm/W	248627



CCT	Luminous flux	Power	Efficacy	Product code
2700K	425lm	5W	85lm/W	243288
4000K	425lm	5W	85lm/W	247019



CCT	Luminous flux	Power	Efficacy	Product code
2700K	425lm	5W	85lm/W	245244
4000K	425lm	5W	85lm/W	247064

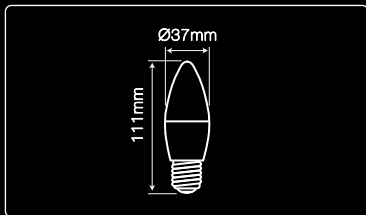


CCT	Luminous flux	Power	Efficacy	Product code
2700K	560lm	7W	80lm/W	243295
4000K	595lm	7W	85lm/W	247057

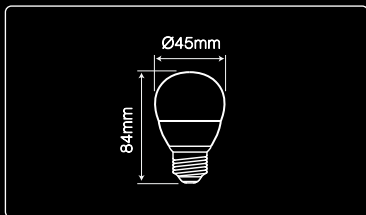


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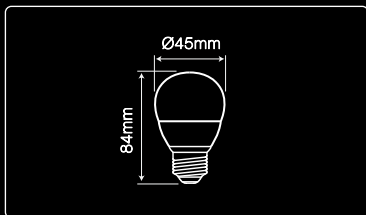
LED LIGHTS



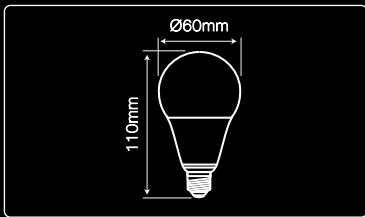
CCT	Luminous flux	Power	Efficacy	Product code
2700K	630lm	7W	90lm/W	249204
4000K	630lm	7W	90lm/W	249211



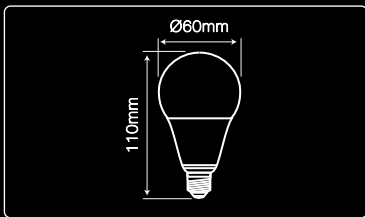
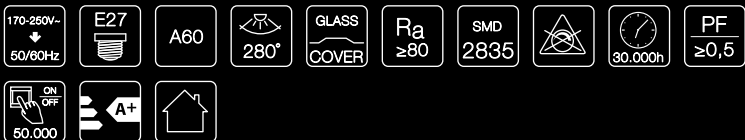
CCT	Luminous flux	Power	Efficacy	Product code
2700K	425lm	5W	85lm/W	243189
4000K	425lm	5W	85lm/W	247033



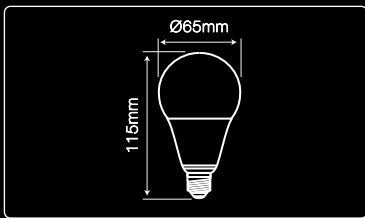
CCT	Luminous flux	Power	Efficacy	Product code
2700K	630lm	7W	90lm/W	247590
4000K	630lm	7W	90lm/W	247606



CCT	Luminous flux	Power	Efficacy	Product code
2700K	800lm	8W	100lm/W	241697
4000K	800lm	8W	100lm/W	241703



CCT	Luminous flux	Power	Efficacy	Product code
2700K	1000lm	10W	100lm/W	241710
4000K	1000lm	10W	100lm/W	241727

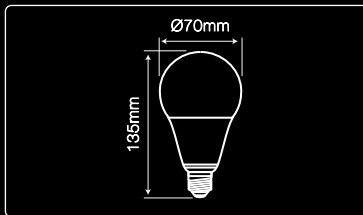


CCT	Luminous flux	Power	Efficacy	Product code
2700K	1300lm	13W	100lm/W	241734
4000K	1300lm	13W	100lm/W	241772

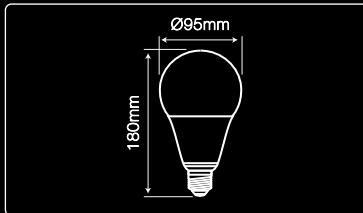


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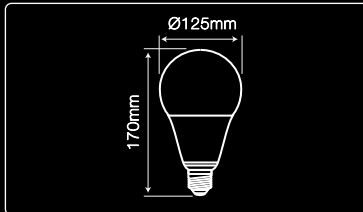
LED LIGHTS



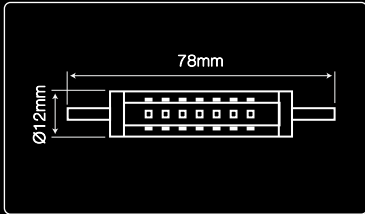
CCT	Luminous flux	Power	Efficacy	Product code
2700K	1800lm	18W	100lm/W	241833
4000K	1800lm	18W	100lm/W	241840



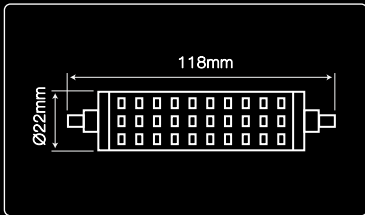
CCT	Luminous flux	Power	Efficacy	Product code
2700K	2500lm	25W	100lm/W	242403
4000K	2500lm	25W	100lm/W	243257



CCT	Luminous flux	Power	Efficacy	Product code
2700K	3500lm	35W	100lm/W	243264
4000K	3500lm	35W	100lm/W	244247



CCT		Luminous flux	Power	Efficacy	Product code
 	2700K	500lm	6W	83lm/W	248955
	4000K	500lm	6W	83lm/W	248962



CCT		Luminous flux	Power	Efficacy	Product code
 	2700K	915lm	10W	92lm/W	248968
	4000K	915lm	10W	92lm/W	248975



GLASS

LED LIGHTS

#DIMTOWARM

DIM TO WARM
0% 100%
2200K - 3000K

3-year
warranty

SAFE

NARROW
BEAM ANGLE

*.IES



220-240V~
50/60Hz

GU10

60°

Ra
≥90

SMD
2835

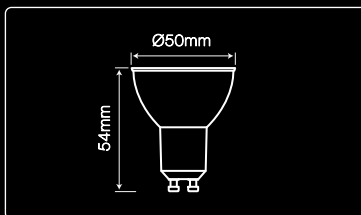
30.000h

PF
≥0,7

50.000

ON
OFF

A+



CCT	Luminous flux	Power	Efficacy	Product code
2200-3000K	345lm	5,5W	63lm/W	248948

7 colours

3-year
warranty

SAFE



220-280V~
50/60Hz

GU10

120°

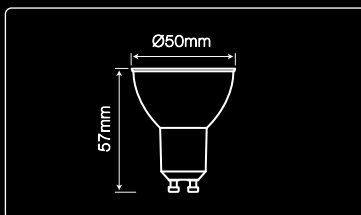
SMD
2835


30.000h

50.000

ON
OFF

House icon



	CCT	Luminous flux	Power	Efficacy	Ra	Energy class	Product code
	2700K	80lm	1W	80lm/W	≥80	A++	242250
	4000K	80lm	1W	80lm/W	≥80	A++	248337
	6500K	80lm	1W	80lm/W	≥80	A++	242267
	Colour	Wavelength	Power				Product code
	red	620nm	1W				242274
	green	520nm	1W				242298
	blue	465nm	1W				242281
	yellow	590nm	1W				242304

NARROW
BEAM ANGLE

3-year
warranty

SAFE



*.IES



220-280V~
50/60Hz

GU10

36°

Ra
≥80

SMD
2835

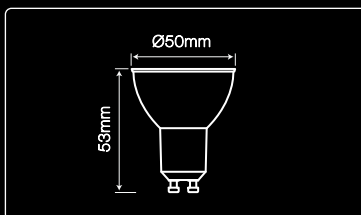
30.000h

PF
≥0,4

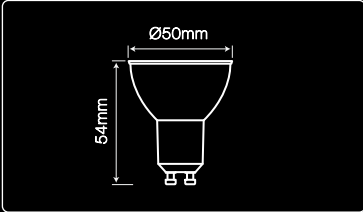
50.000

ON
OFF

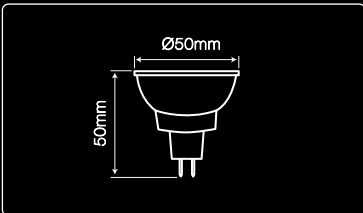
A++



CCT	Luminous flux	Power	Efficacy	Product code
2700K	273lm	3W	91lm/W	247835
4000K	273lm	3W	91lm/W	247828
6500K	273lm	3W	91lm/W	277811



	CCT	Luminous flux	Power	Efficacy	Product code
	2700K	410lm	5W	82lm/W	248306
	4000K	410lm	5W	82lm/W	248313
	6500K	410lm	5W	82lm/W	248320



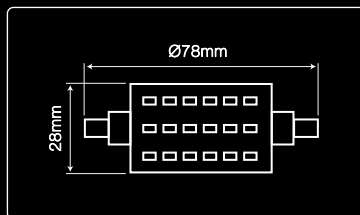
	CCT	Luminous flux	Power	Efficacy	Product code
	2700K	273lm	3W	91lm/W	247804
	4000K	273lm	3W	91lm/W	247798
	6500K	273lm	3W	91lm/W	247781



STANDARD

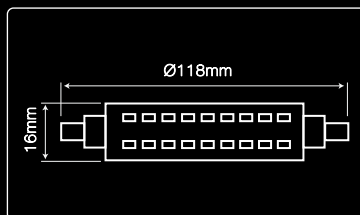
LED LIGHTS

3-year
warranty



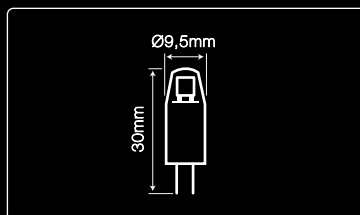
	CCT	Luminous flux	Power	Efficacy	Product code
●	3000K	500lm	6W	83lm/W	246081
●	6500K	500lm	6W	83lm/W	245824

3-year
warranty



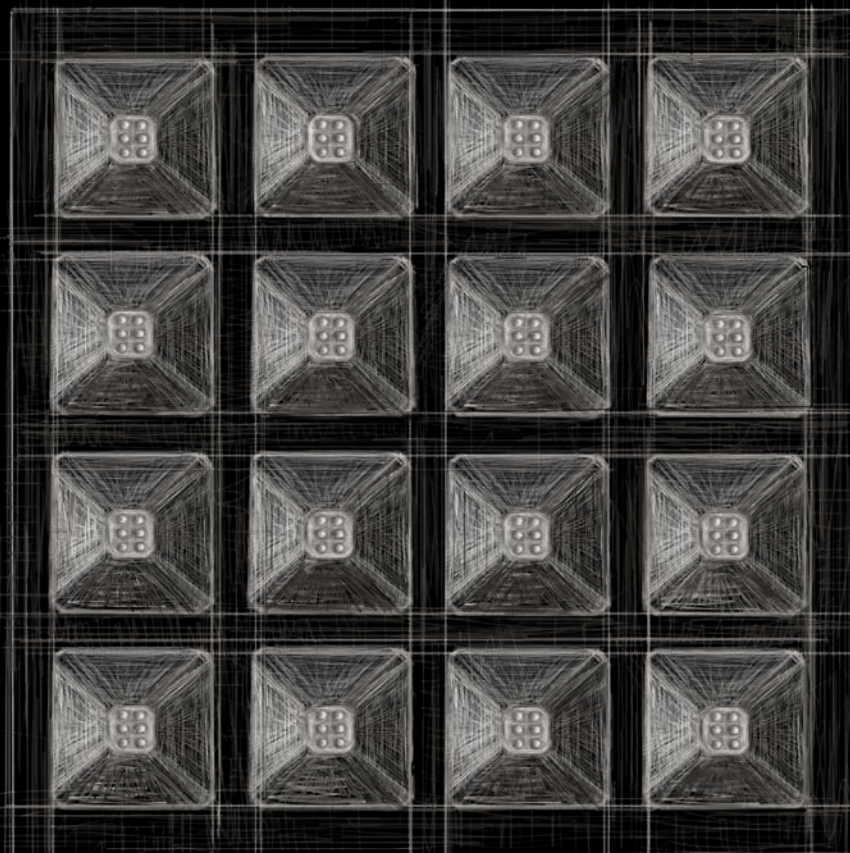
	CCT	Luminous flux	Power	Efficacy	Product code
●	3000K	500lm	6W	83lm/W	246098
●	6500K	500lm	6W	83lm/W	245817

3-year
warranty



	CCT	Luminous flux	Power	Efficacy	Product code
●	2700K	120lm	1,5W	80lm/W	248979
●	6000K	120lm	1,5W	80lm/W	248986

LED line[®]

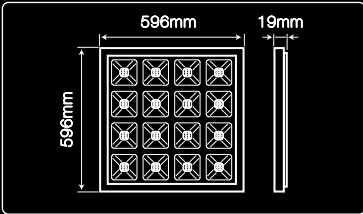


LED PANELS

Setting the right mood and atmosphere for home and offices



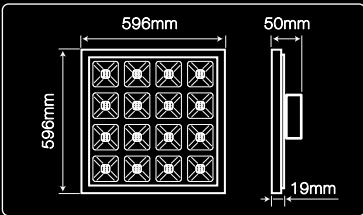
#DIUNA



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	3240lm	27W	120lm/W	244186



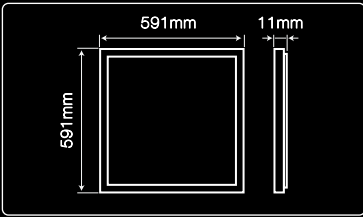
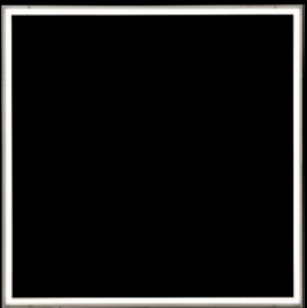
#DIORA



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	2250lm	15W	150lm/W	244193
	2700lm	18W	150lm/W	
	3150lm	21W	150lm/W	
	3480lm	24W	145lm/W	
	3915lm	27W	145lm/W	
	4200lm	30W	140lm/W	
	4620lm	33W	140lm/W	
	5040lm	36W	140lm/W	



#FRAME



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	3200lm	40W	80lm/W	249181



3-year
warranty

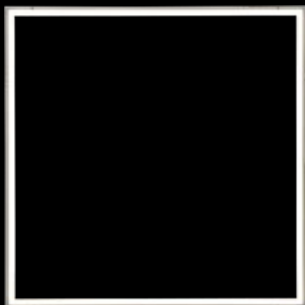
#FRAME

YELLOW
FREE™

LiFud
DRIVER

flicker
free™

*.IES
↓



175-250V~
↓
50/60Hz

120°

IP20

POLY
CARBONATE
COVER

Ra
≥80

300SMD
2835



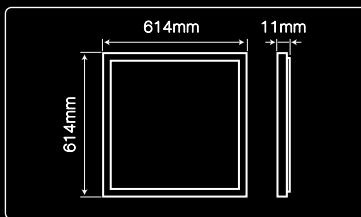
30.000h

PF
≥0,9

ON
OFF
50.000



MAX
+40°C
-5°C



CCT	Luminous flux	Power	Efficacy	Product code
● 4000K	3200lm	40W	80lm/W	249198



3-year
warranty

LiFud
DRIVER

flicker
free™

YELLOW
FREE™



*.IES
↓



200-260V~
↓
50/60Hz

120°

IP42

PMMA
LGP
★★★★

Ra
≥80

240SMD
2835



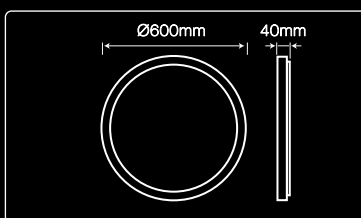
30.000h

PF
≥0,95

ON
OFF
50.000



MAX
+40°C
-5°C



CCT	Luminous flux	Power	Efficacy	Product code
● 2700K	3200lm	40W	80lm/W	248757
● 4000K	3200lm	40W	80lm/W	248764

EASY FIX

LED PANELS



220-280V~
50/60Hz

120°

IP20

GLASS
LGP

Ra
≥80

28SMD
2835

30.000h

PF
≥0,5

ON
OFF
50.000

A++

MAX
+40°C
-5°C

Ø113mm

13mm

CCT	Luminous flux	Power	Efficacy	Product code
2700K	450lm	6W	75lm/W	248771
4000K	470lm	6W	78lm/W	248788



220-280V~
50/60Hz

120°

IP20

GLASS
LGP

Ra
≥80

56SMD
2835

30.000h

PF
≥0,5

ON
OFF
50.000

A++

MAX
+40°C
-5°C

Ø160mm

13mm

CCT	Luminous flux	Power	Efficacy	Product code
2700K	1010lm	12W	84lm/W	248795
4000K	1060lm	12W	88lm/W	248801



220-280V~
50/60Hz

120°

IP20

GLASS
LGP

Ra
≥80

84SMD
2835

30.000h

PF
≥0,5

ON
OFF
50.000

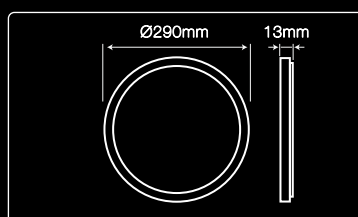
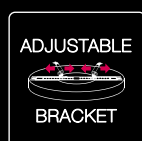
A++

MAX
+40°C
-5°C

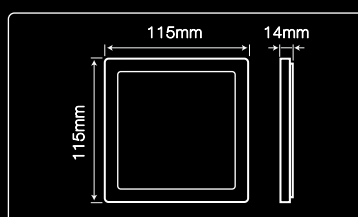
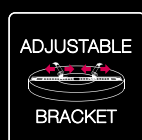
Ø215mm

13mm

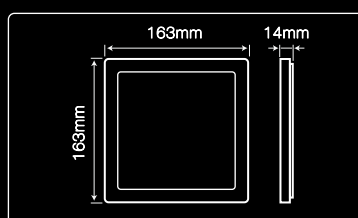
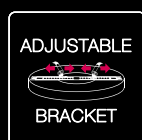
CCT	Luminous flux	Power	Efficacy	Product code
2700K	1570lm	18W	87lm/W	248818
4000K	1650lm	18W	92lm/W	248825



CCT	Luminous flux	Power	Efficacy	Product code
2700K	2200lm	24W	92lm/W	248832
4000K	2300lm	24W	96lm/W	248849



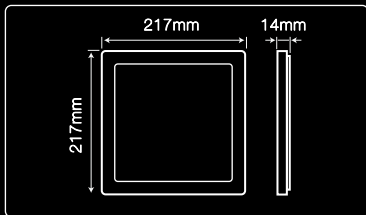
CCT	Luminous flux	Power	Efficacy	Product code
2700K	450lm	6W	75lm/W	246777
4000K	470lm	6W	78lm/W	246784



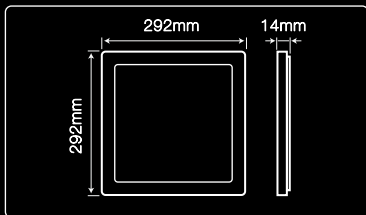
CCT	Luminous flux	Power	Efficacy	Product code
2700K	850lm	12W	71lm/W	246791
4000K	890lm	12W	74lm/W	246890

EASY FIX

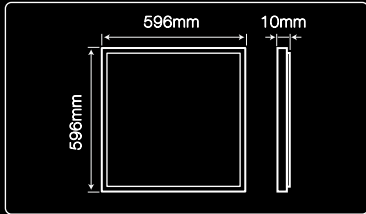
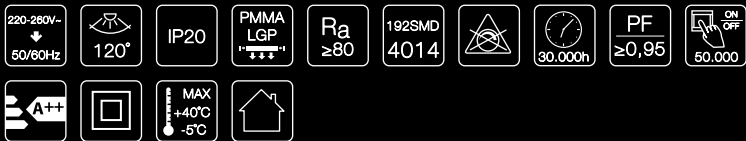
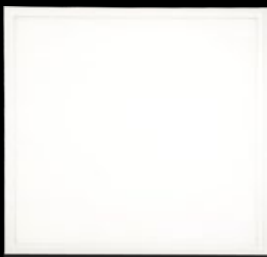
LED PANELS



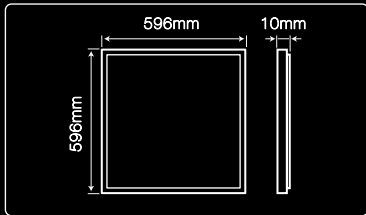
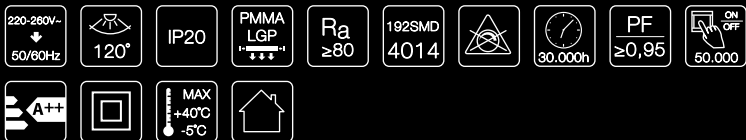
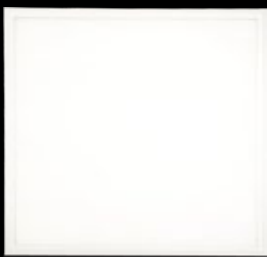
CCT	Luminous flux	Power	Efficacy	Product code
2700K	1300lm	18W	72lm/W	249457
4000K	1450lm	18W	81lm/W	249464



CCT	Luminous flux	Power	Efficacy	Product code
2700K	2150lm	24W	90lm/W	249471
4000K	2300lm	24W	96lm/W	249488



	CCT	Luminous flux	Power	Efficacy	Product code
●	2700K	2880lm	36W	80lm/W	248856
●	4000K	2880lm	36W	80lm/W	248863

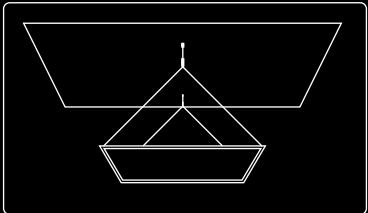


	CCT	Luminous flux	Power	Efficacy	Product code
●	2700K	3680lm	46W	80lm/W	248870
●	4000K	3680lm	46W	80lm/W	248887



ACCESSORIES

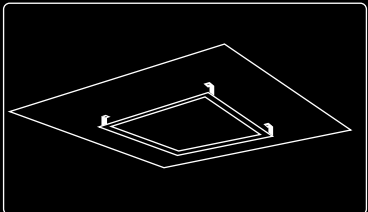
5-year
warranty



Product name
WIRE SUSPENSION KIT

Product code
245701

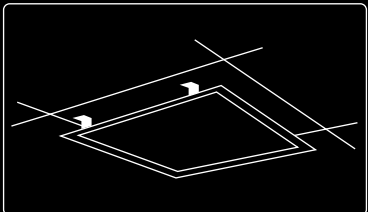
5-year
warranty



Product name
HOOKS SURFACE KIT

Product code
245718

5-year
warranty



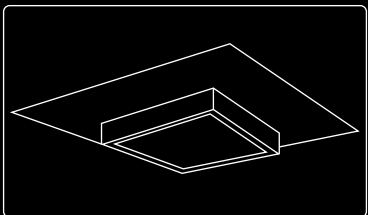
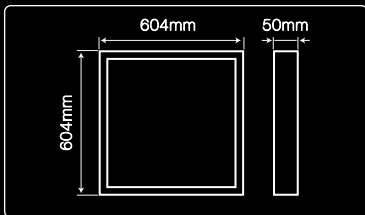
Product name
SPRINGS RECESSED KIT

Product code
245725

5-year
warranty



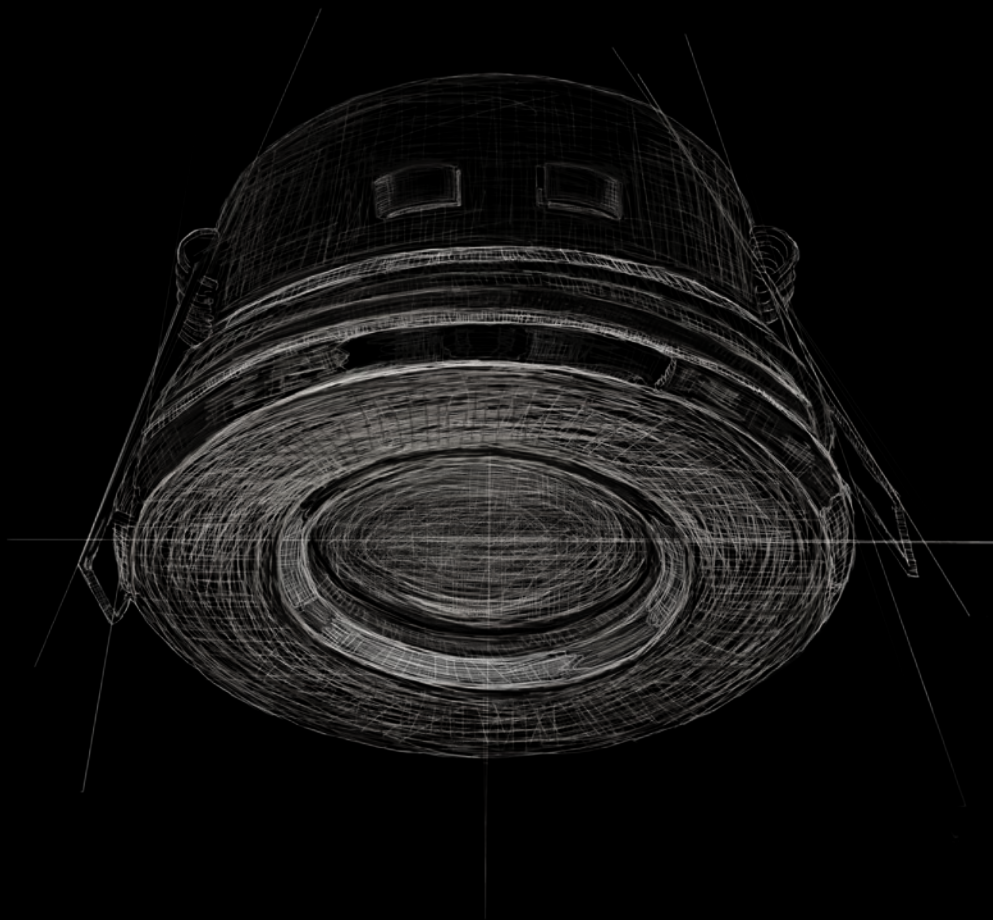
60x60
PANELS



Product name
FRAME SURFACE KIT

Product code
248894

LED line[®]



FIXTURES

The right direction for LED light



GYPSUM

FIXTURES



#ORION

5-year
warranty



MAX
35W

IP20

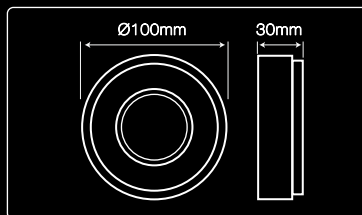
GYPSUM



12,5mm
PLASTER
BOARD



SOCKET
included



Colour
White

Product code
249006



#VELA

5-year
warranty



MAX
35W

IP20

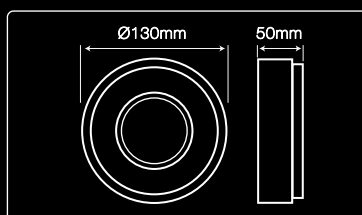
GYPSUM



12,5mm
PLASTER
BOARD



SOCKET
included



Colour
White

Product code
249013



#PAVO

5-year
warranty



MAX
35W

IP20

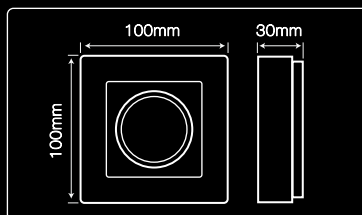
GYPSUM



12,5mm
PLASTER
BOARD



SOCKET
included

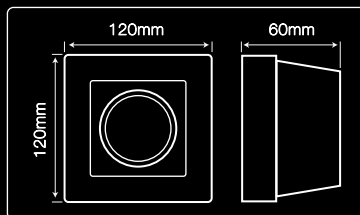


Colour
White

Product code
249020



#POLIS

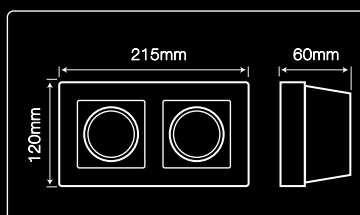


Colour
White

Product code
249037



#VEGA



Colour
White

Product code
249044



CLASSIC

FIXTURES

MATT

5-year
warranty



MAX
35W

IP20

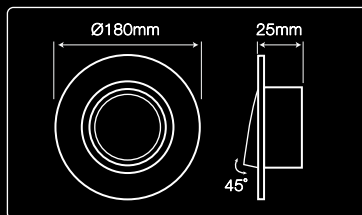
PURE
ALUMINIUM

POWDER
COATED

45°



0.5m

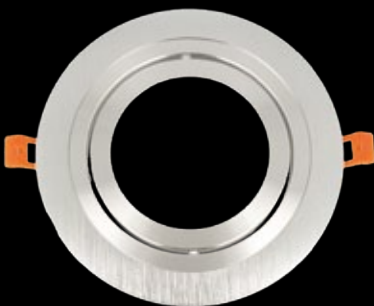


Colour
White

Product code
248344

BRUSHED

5-year
warranty



MAX
35W

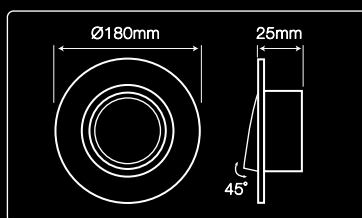
IP20

PURE
ALUMINIUM

45°



0.5m



Colour
Silver

Product code
248351

BRUSHED

5-year
warranty



MAX
35W

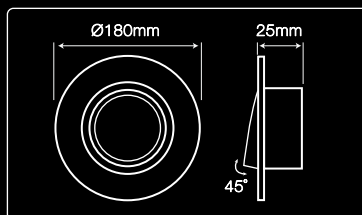
IP20

PURE
ALUMINIUM

45°

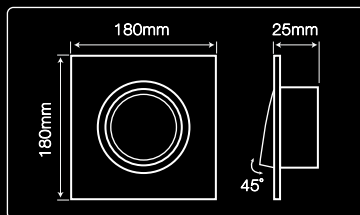


0.5m



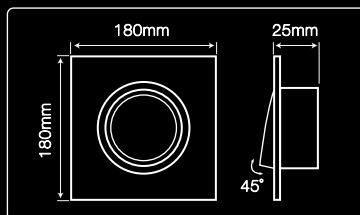
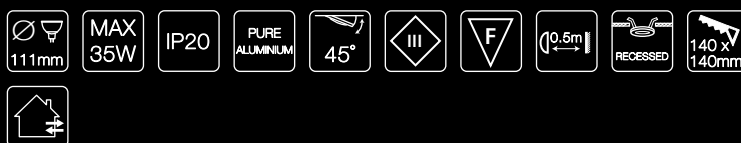
Colour
Black

Product code
248368



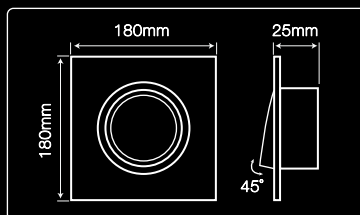
Colour
White

Product code
248375



Colour
Silver

Product code
248382



Colour
Black

Product code
248214



CLASSIC

FIXTURES

BRUSHED

5-year
warranty



MAX
35W

IP20

PURE
ALUMINIUM

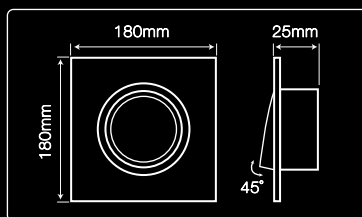
45°



0.5m



140 x
140mm

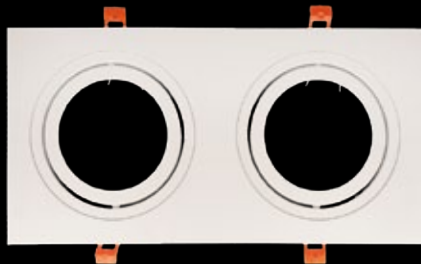


Colour
Black

Product code
248399

MATT

5-year
warranty



MAX
2x35W

IP20

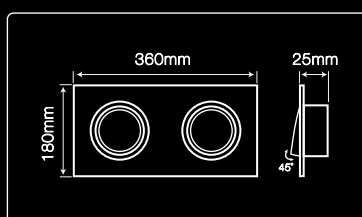
PURE
ALUMINIUM

POWDER
COATED

45°



0.5m



Colour
White

Product code
248405

BRUSHED

5-year
warranty



MAX
2x35W

IP20

PURE
ALUMINIUM

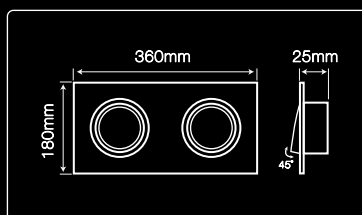
45°



0.5m

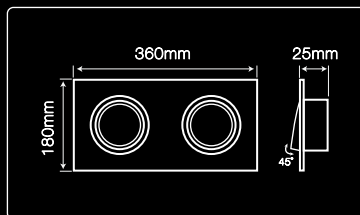
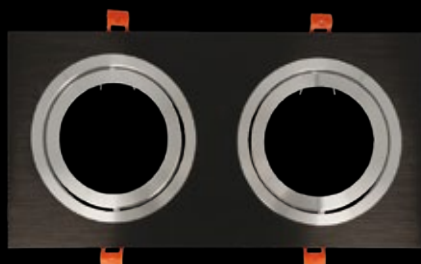
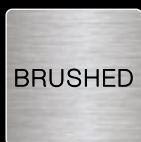


320 x
140mm



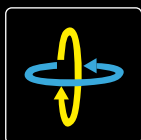
Colour
Silver

Product code
248412

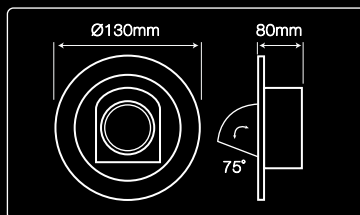


Colour
Black

Product code
248429

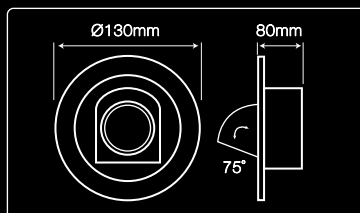
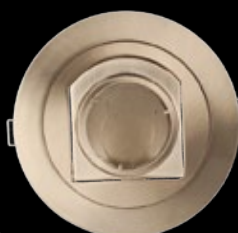
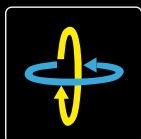


MATT



Colour
White

Product code
248425



Colour
Satin

Product code
248432

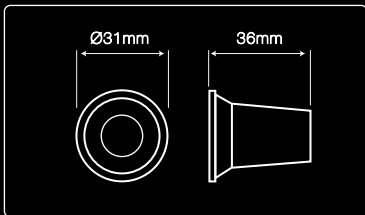


CLASSIC

FIXTURES

MATT

5-year
warranty

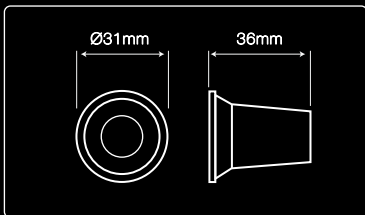


Colour
White

Product code
249341

MATT

5-year
warranty

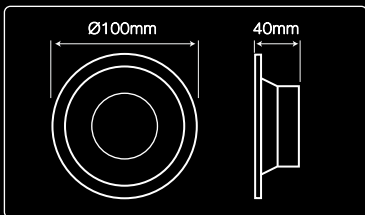


Colour
Graphite

Product code
249358

SANDED

5-year
warranty



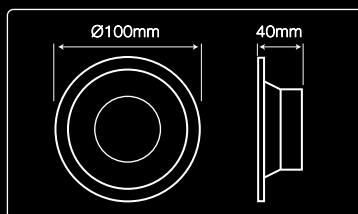
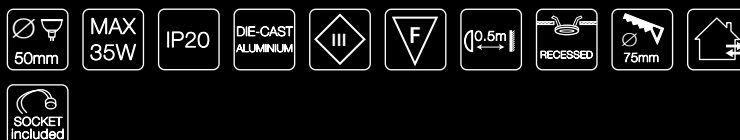
Colour
Gold & White

Product code
241314



SANDED

5-year
warranty

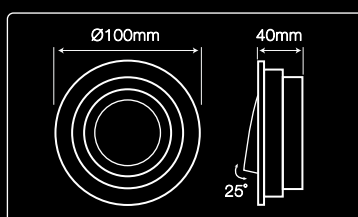


Colour
Gold & Black

Product code
241321

MATT

5-year
warranty

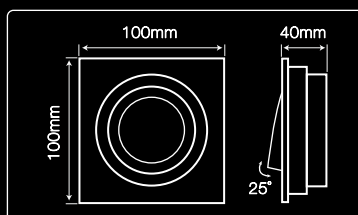


Colour
Black & White

Product code
241291

MATT

5-year
warranty



Colour
Black & White

Product code
241307

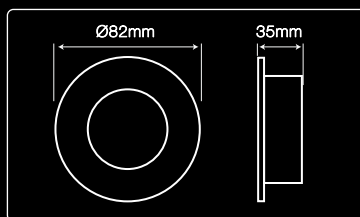
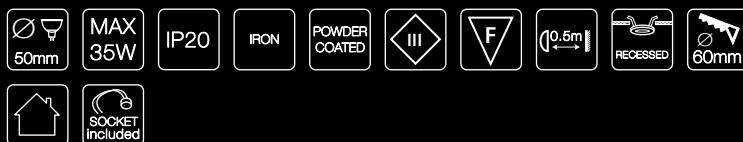


CLASSIC

FIXTURES

MATT

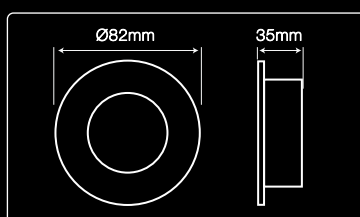
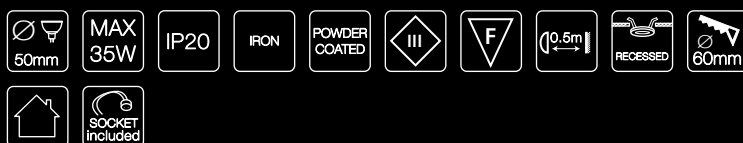
5-year
warranty



Colour
White

Product code
242731

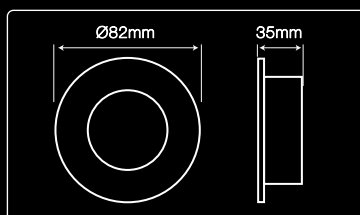
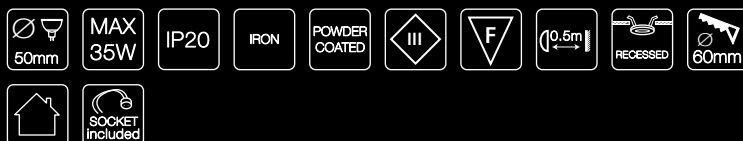
5-year
warranty



Colour
Chrome

Product code
242724

5-year
warranty

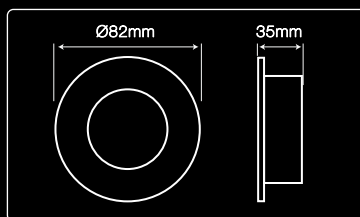
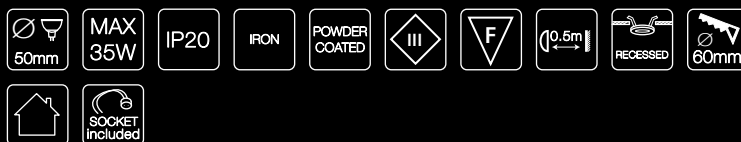


Colour
Satin

Product code
242700



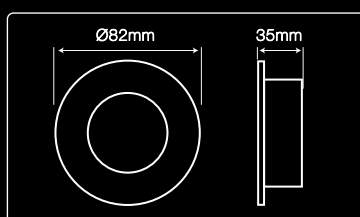
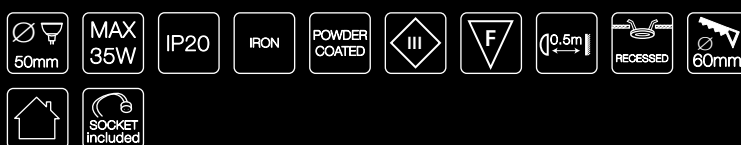
5-year
warranty



Colour
Antique

Product code
242687

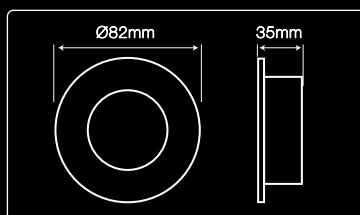
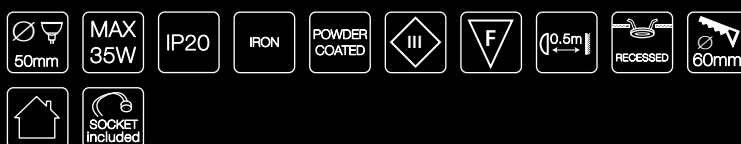
5-year
warranty



Colour
Gold

Product code
242694

5-year
warranty



Colour
Patina

Product code
242717

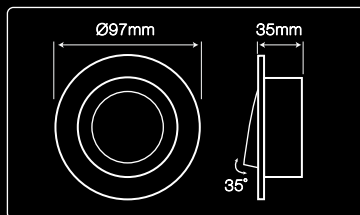


CLASSIC

FIXTURES

MATT

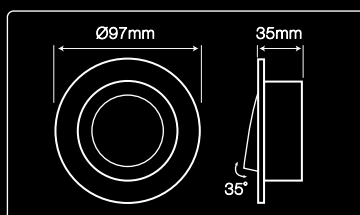
5-year
warranty



Colour
White

Product code
242793

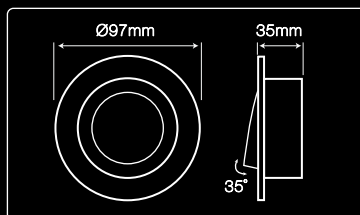
5-year
warranty



Colour
Chrome

Product code
242786

5-year
warranty

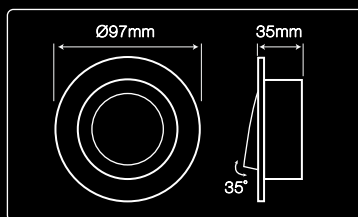


Colour
Satin

Product code
242762



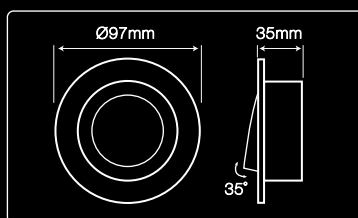
5-year
warranty



Colour
Antique

Product code
242748

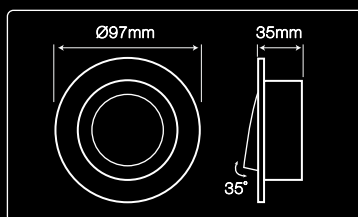
5-year
warranty



Colour
Gold

Product code
242755

5-year
warranty



Colour
Patina

Product code
242779



CLASSIC

FIXTURES

MATT

5-year
warranty



MAX
35W

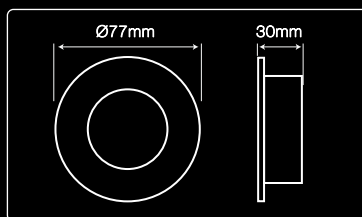
IP20

DIE-CAST
ALUMINIUM

POWDER
COATED



SOCKET
included



Colour
White

Product code
242854

5-year
warranty



MAX
35W

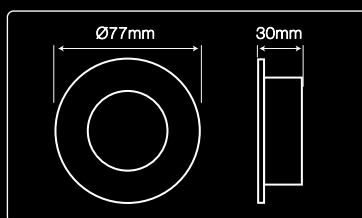
IP20

DIE-CAST
ALUMINIUM

POWDER
COATED



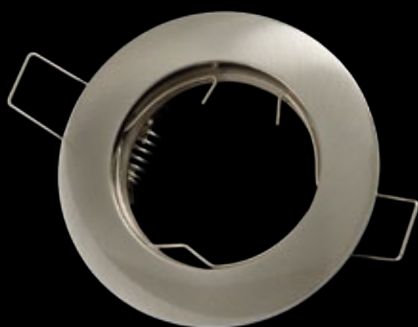
SOCKET
included



Colour
Chrome

Product code
242847

5-year
warranty



MAX
35W

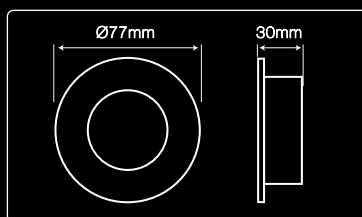
IP20

DIE-CAST
ALUMINIUM

POWDER
COATED

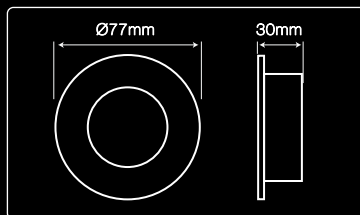
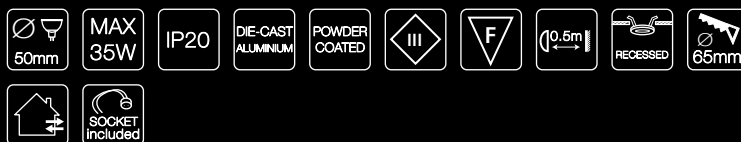


SOCKET
included



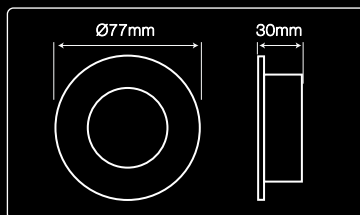
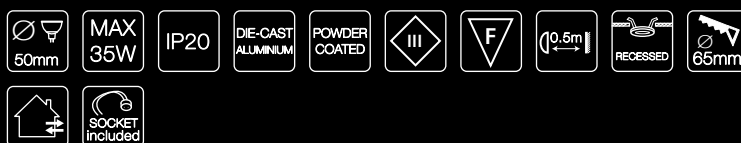
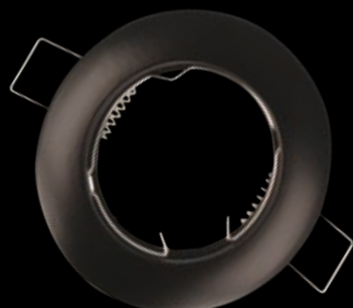
Colour
Satin

Product code
242823



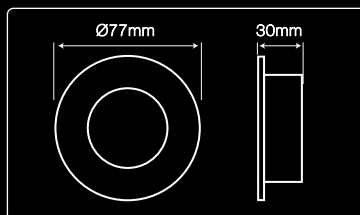
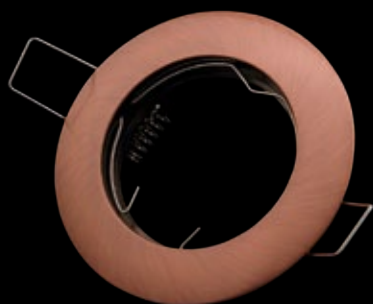
Colour
Graphite

Product code
249228



Colour
Black

Product code
249235



Colour
Antique

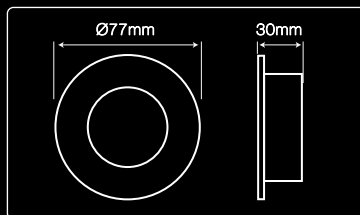
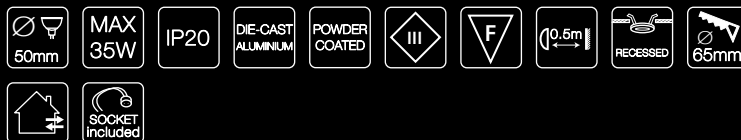
Product code
242809



CLASSIC

FIXTURES

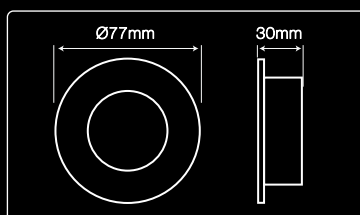
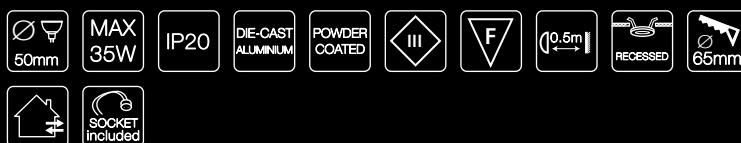
5-year
warranty



Colour
Gold

Product code
242816

5-year
warranty

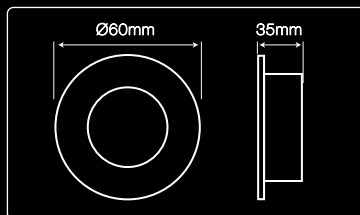
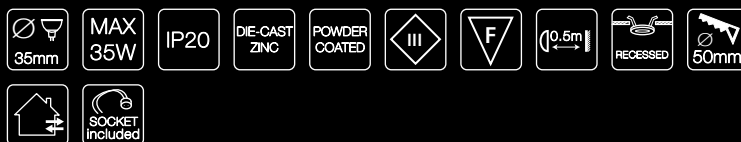


Colour
Patina

Product code
242830



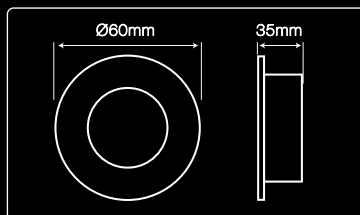
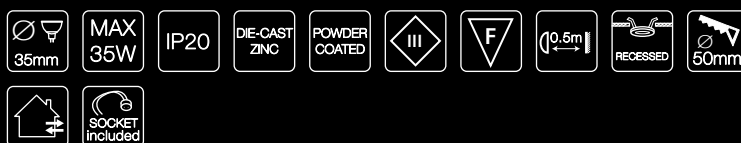
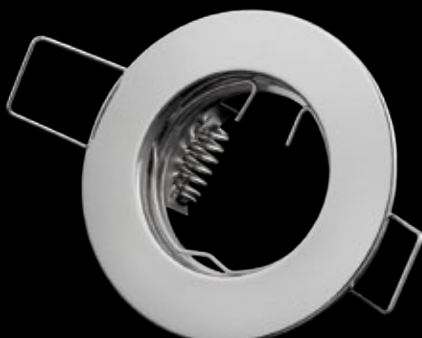
MATT



Colour
White

Product code
245114

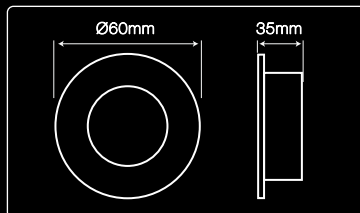
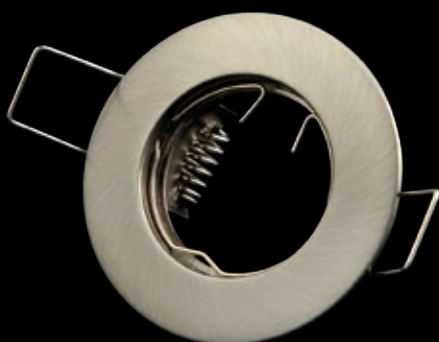
5-year warranty



Colour
Chrome

Product code
243028

5-year warranty



Colour
Satin

Product code
243004

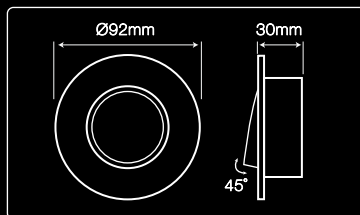


CLASSIC

FIXTURES

MATT

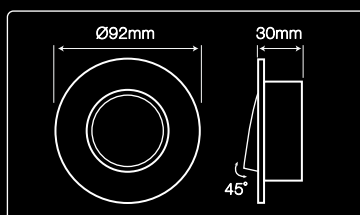
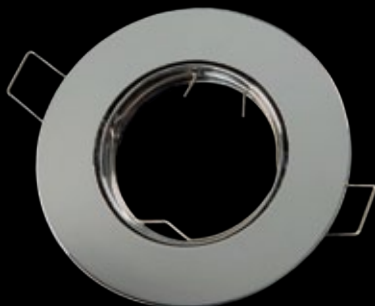
5-year
warranty



Colour
White

Product code
242915

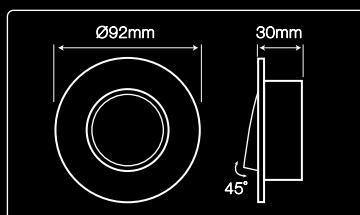
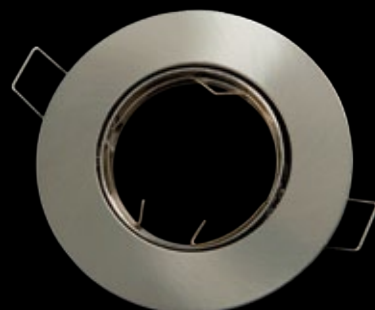
5-year
warranty



Colour
Chrome

Product code
242908

5-year
warranty



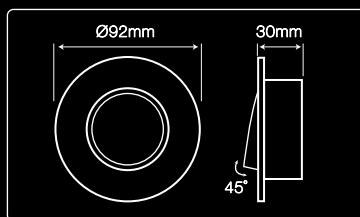
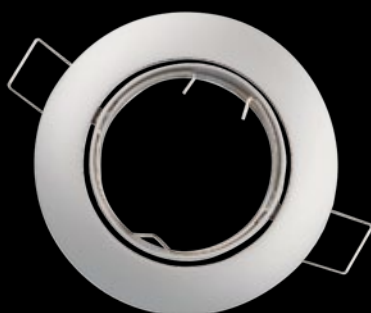
Colour
Satin

Product code
242885



MATT

5-year
warranty

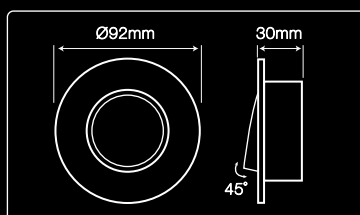


Colour
Graphite

Product code
249242

MATT

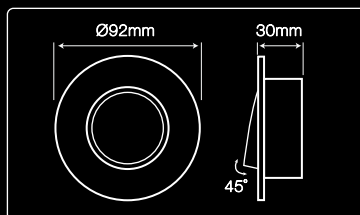
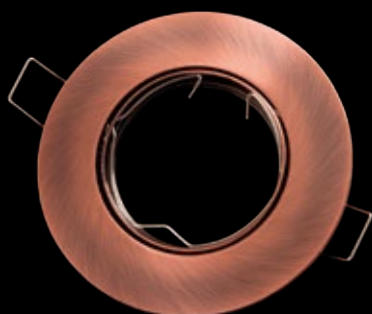
5-year
warranty



Colour
Black

Product code
249259

5-year
warranty



Colour
Antique

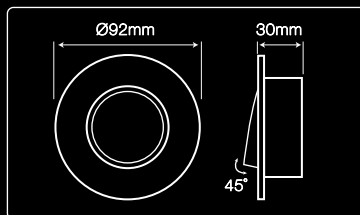
Product code
242861



CLASSIC

FIXTURES

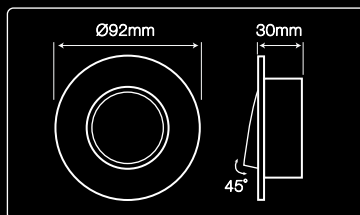
5-year
warranty



Colour
Gold

Product code
242878

5-year
warranty



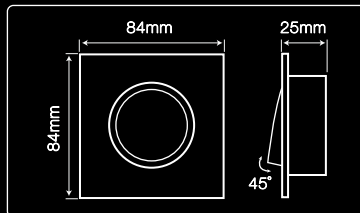
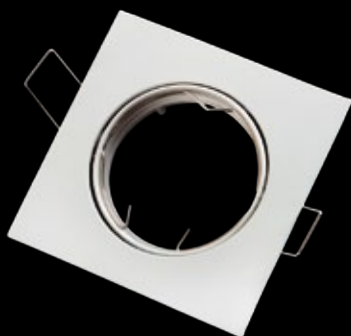
Colour
Patina

Product code
242892



MATT

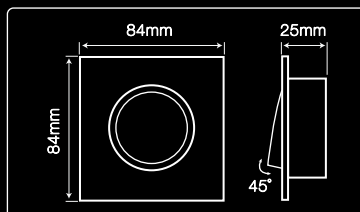
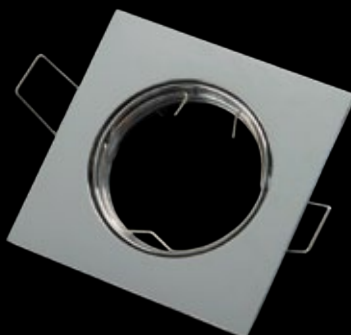
5-year warranty



Colour
White

Product code
242977

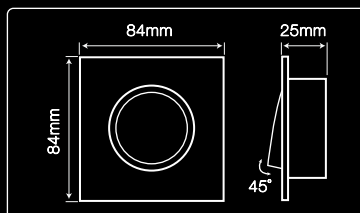
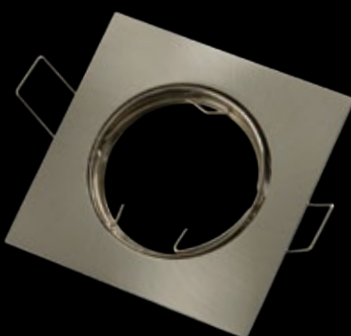
5-year warranty



Colour
Chrome

Product code
242960

5-year warranty



Colour
Satin

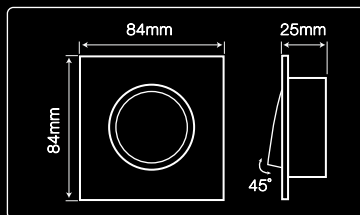
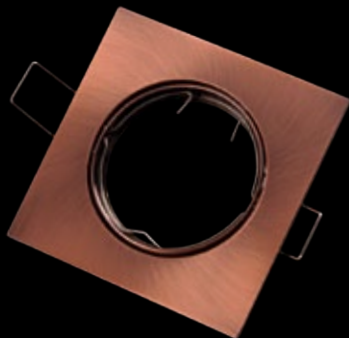
Product code
242946



CLASSIC

FIXTURES

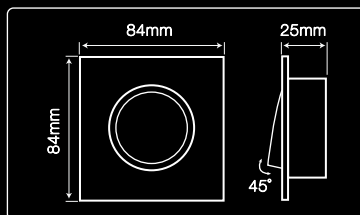
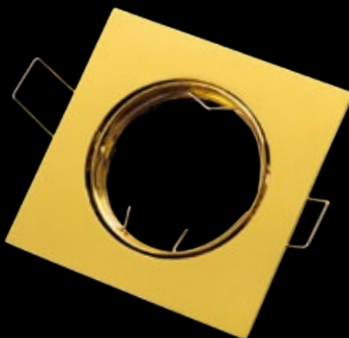
5-year
warranty



Colour
Antique

Product code
242922

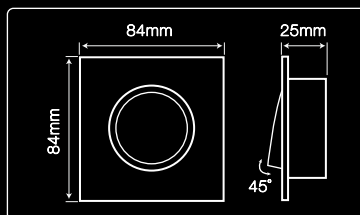
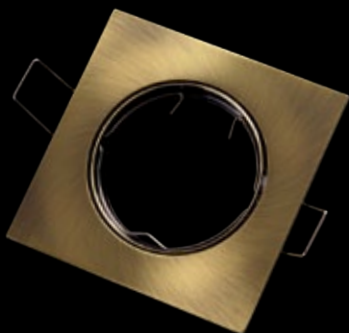
5-year
warranty



Colour
Gold

Product code
242939

5-year
warranty



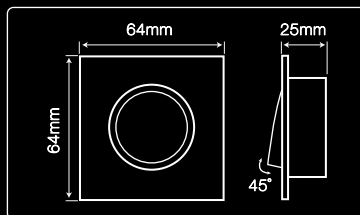
Colour
Patina

Product code
242953



MATT

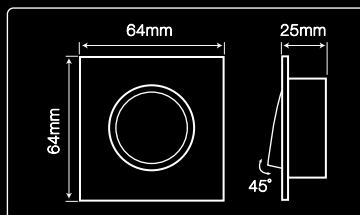
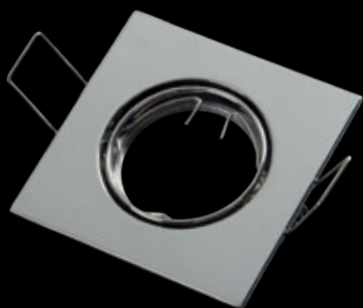
5-year warranty



Colour
White

Product code
245107

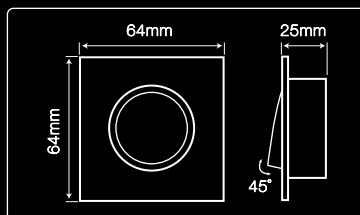
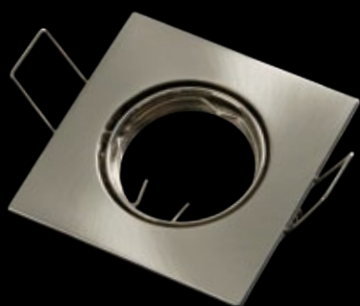
5-year warranty



Colour
Chrome

Product code
243080

5-year warranty



Colour
Satin

Product code
243066

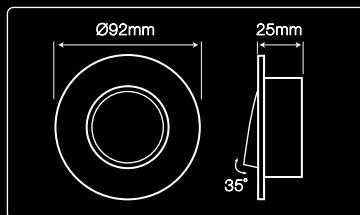
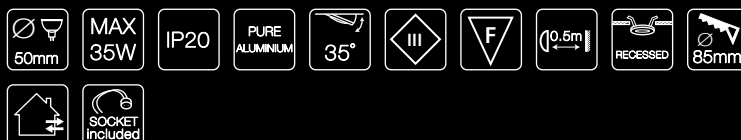


CLASSIC

FIXTURES

MATT

5-year
warranty

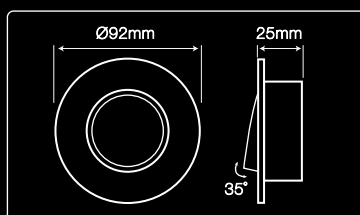
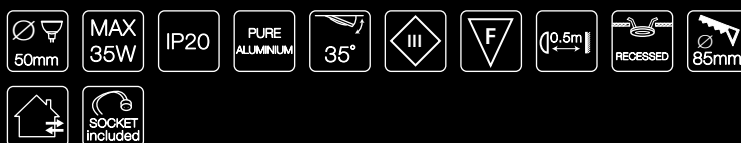
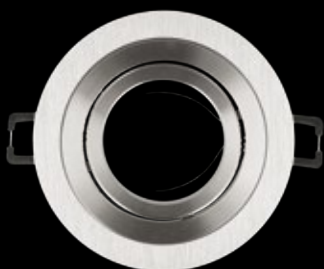


Colour
White

Product code
241284

BRUSHED

5-year
warranty

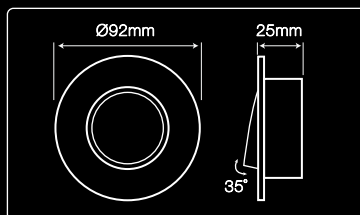
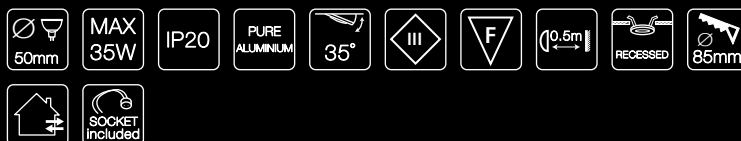
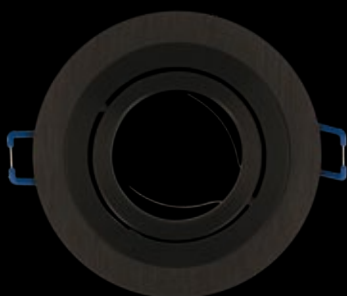


Colour
Silver

Product code
241239

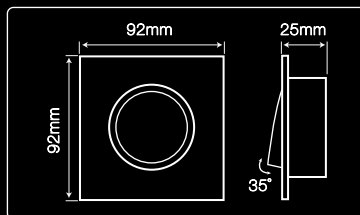
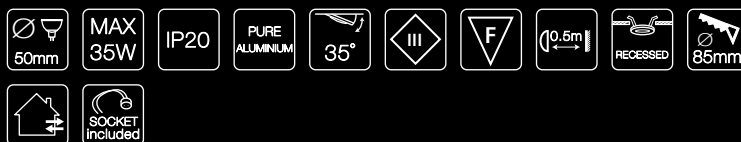
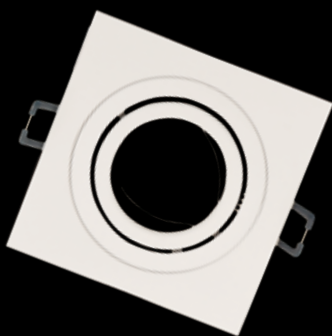
BRUSHED

5-year
warranty



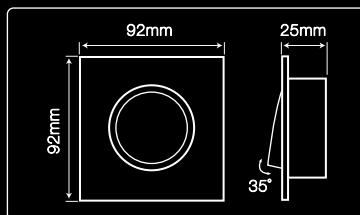
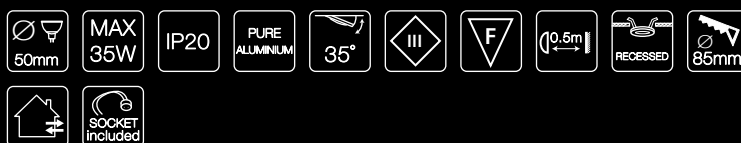
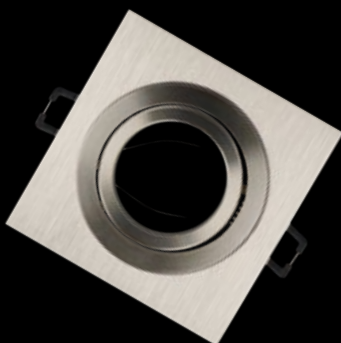
Colour
Black

Product code
241253



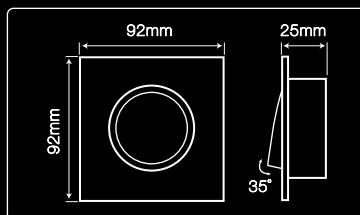
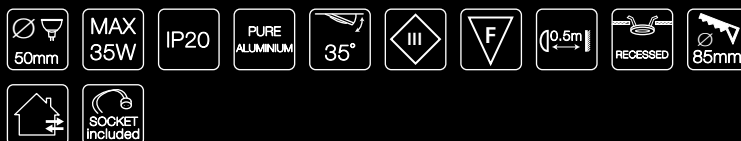
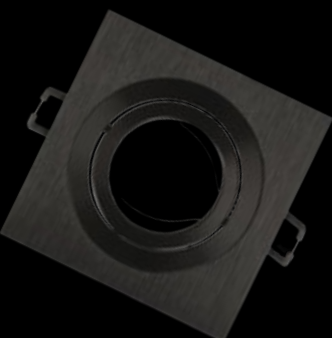
Colour
White

Product code
241222



Colour
Silver

Product code
241215



Colour
Black

Product code
241208

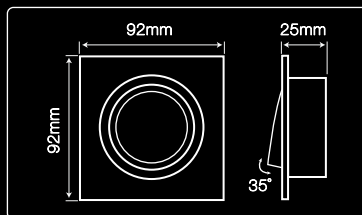
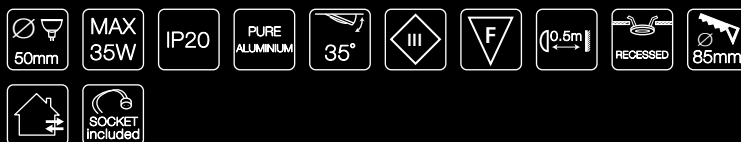
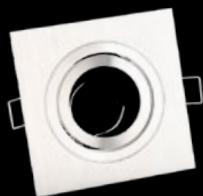


CLASSIC

FIXTURES



5-year
warranty

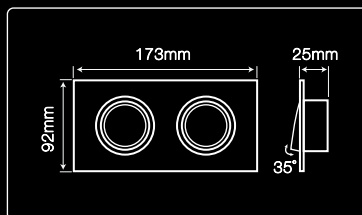
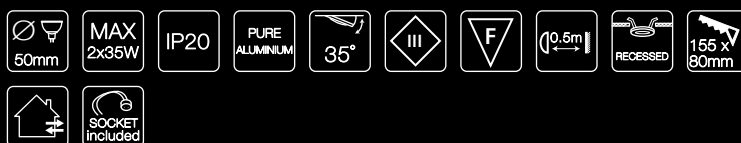
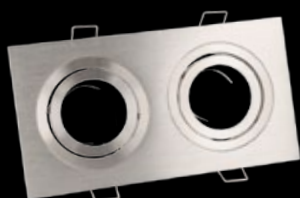


Colour
White

Product code
244926



5-year
warranty

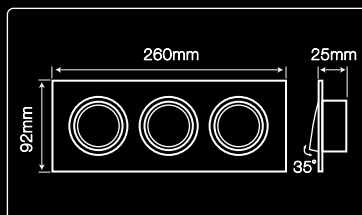
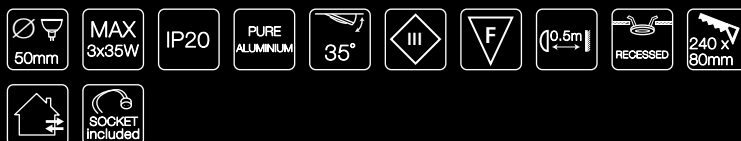


Colour
Silver

Product code
246340



5-year
warranty



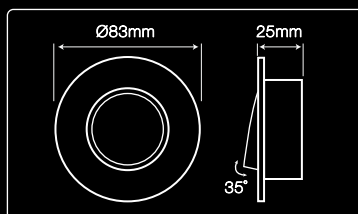
Colour
Silver

Product code
242424



SANDED

5-year
warranty

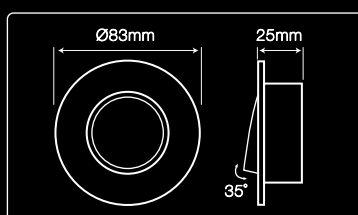
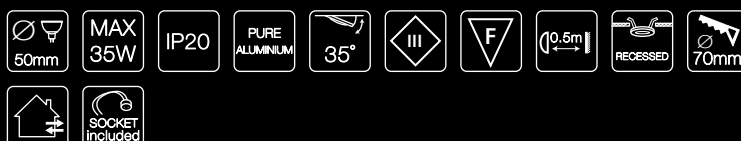


Colour
Silver

Product code
244896

BRUSHED

5-year
warranty

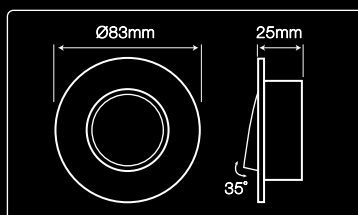
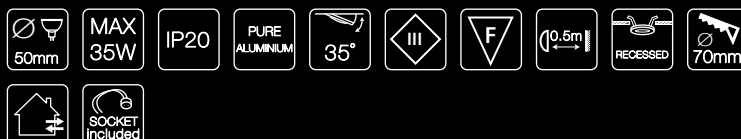
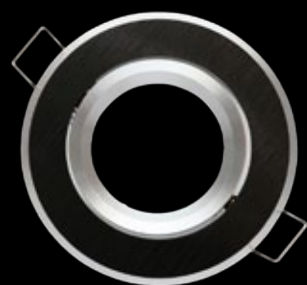


Colour
Silver

Product code
244810

BRUSHED

5-year
warranty



Colour
Black

Product code
244902



CLASSIC

FIXTURES

BRUSHED

5-year
warranty



MAX
35W

IP20

PURE
ALUMINIUM

35°



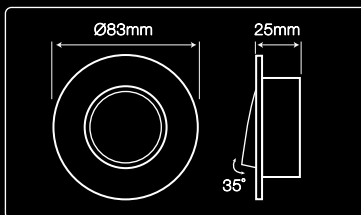
0.5m



70mm



SOCKET
included



Colour
Gold

Product code
244933

SANDED

5-year
warranty



MAX
35W

IP20

PURE
ALUMINIUM

45°



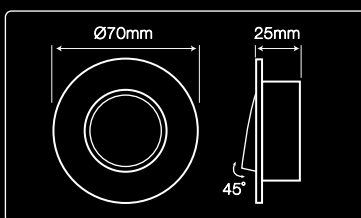
0.5m



60mm



SOCKET
included



Colour
Silver

Product code
245121

BRUSHED

5-year
warranty



MAX
35W

IP20

PURE
ALUMINIUM

45°



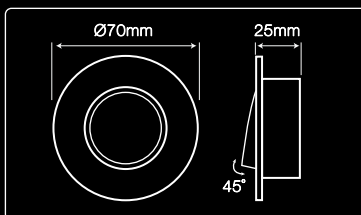
0.5m



60mm

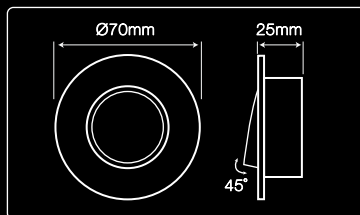
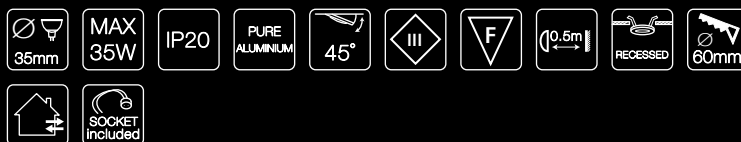
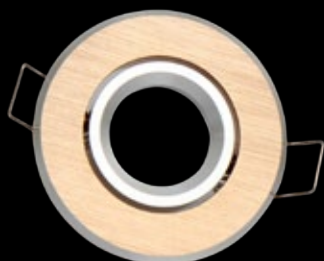


SOCKET
included



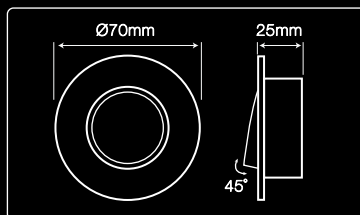
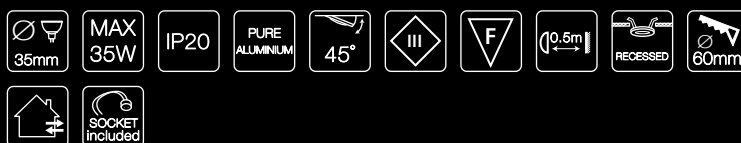
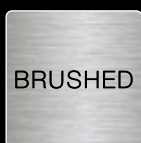
Colour
Silver

Product code
244919



Colour
Gold

Product code
244865



Colour
Black

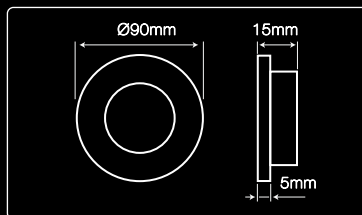
Product code
244872



GLASS

FIXTURES

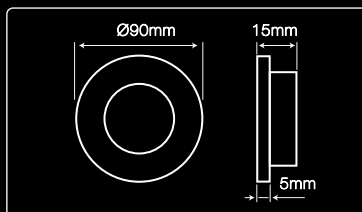
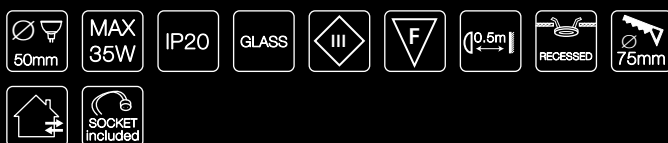
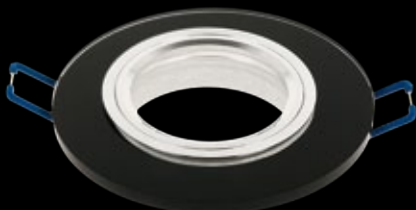
5-year
warranty



Colour
Silver

Product code
241642

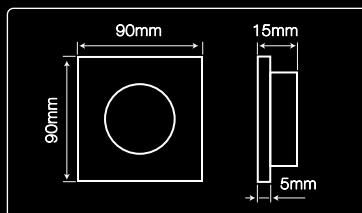
5-year
warranty



Colour
Black

Product code
241437

5-year
warranty

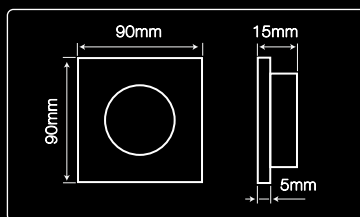


Colour
Silver

Product code
241871



5-year
warranty

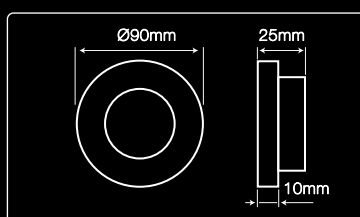
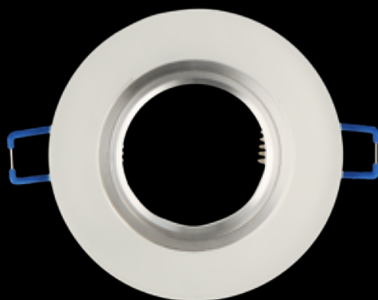


Colour
Black

Product code
242236

FROSTED

5-year
warranty

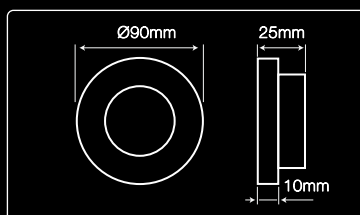
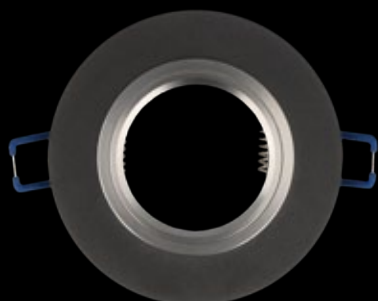


Colour
White

Product code
241413

FROSTED

5-year
warranty



Colour
Black

Product code
241420

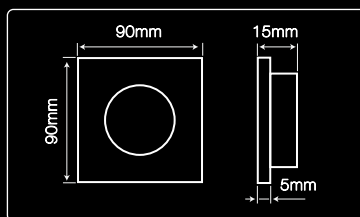


GLASS

FIXTURES

FROSTED

5-year
warranty

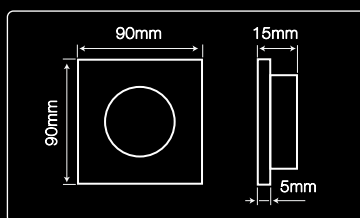
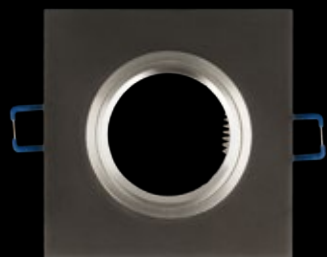


Colour
White

Product code
241338

FROSTED

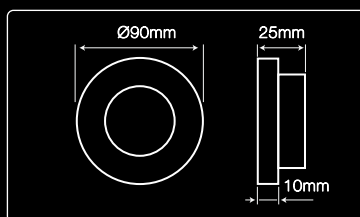
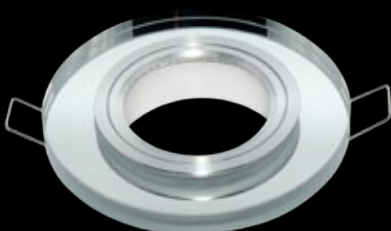
5-year
warranty



Colour
Black

Product code
241345

5-year
warranty

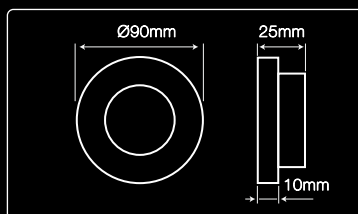


Colour
Silver

Product code
246364



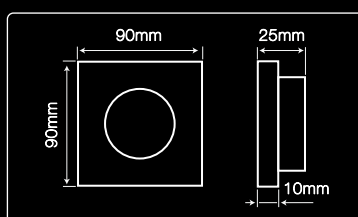
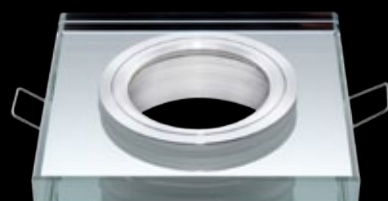
5-year
warranty



Colour
Black

Product code
246371

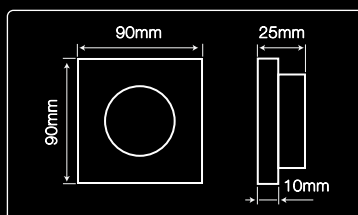
5-year
warranty



Colour
Silver

Product code
246388

5-year
warranty



Colour
Black

Product code
246395



GLASS
FIXTURES

5-year
warranty



50mm

MAX
2x35W

IP20

GLASS

III

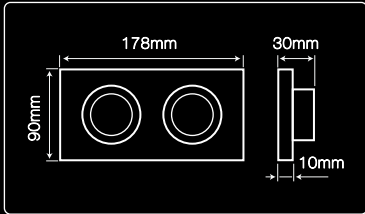
F

10.5m

RECESSED

150 x
75mm

SOCKET
included



Colour
Silver

Product code
246401

5-year
warranty



50mm

MAX
2x35W

IP20

GLASS

III

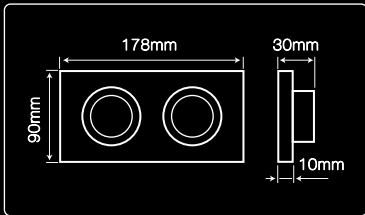
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10.5m

RECESSED

150 x
75mm

SOCKET
included



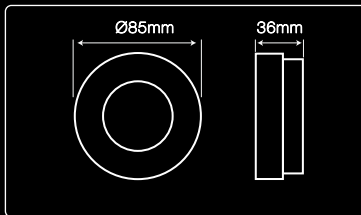
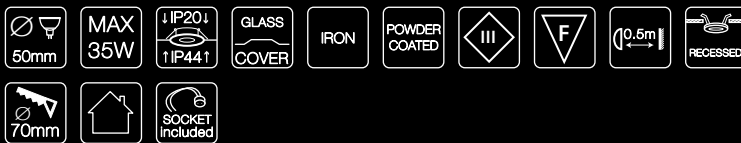
Colour
Black

Product code
246418



5-year
warranty

MATT

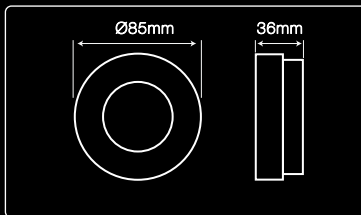
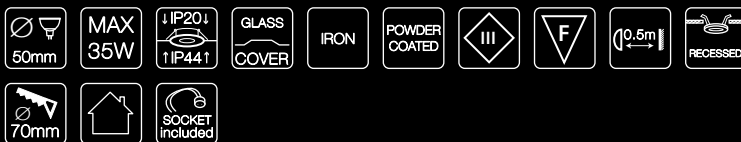


Colour
White

Product code
245404



5-year
warranty

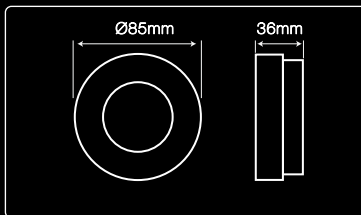
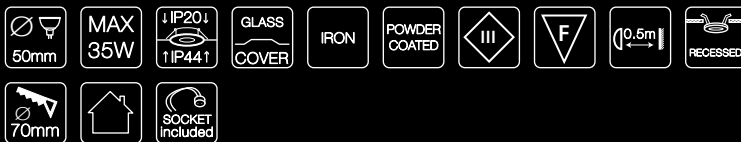


Colour
Chrome

Product code
245411



5-year
warranty



Colour
Satin

Product code
245459



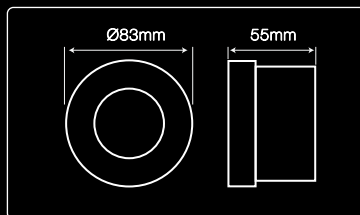
WATERPROOF

FIXTURES



5-year
warranty

MATT

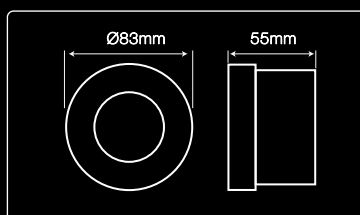


Colour
White

Product code
245428



5-year
warranty

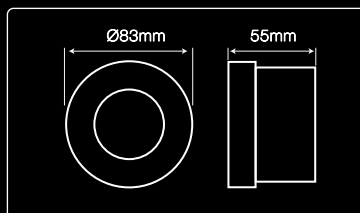


Colour
Chrome

Product code
245435



5-year
warranty



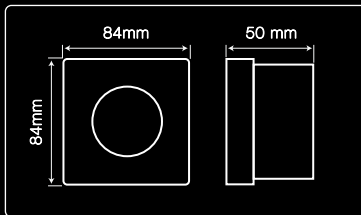
Colour
Satin

Product code
245442



5-year warranty

MATT

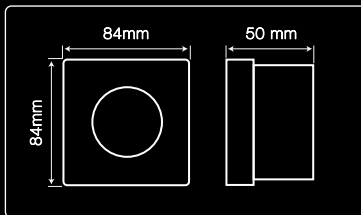


Colour
White

Product code
245374



5-year warranty

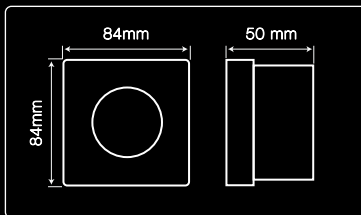


Colour
Chrome

Product code
245381



5-year warranty



Colour
Satin

Product code
245398



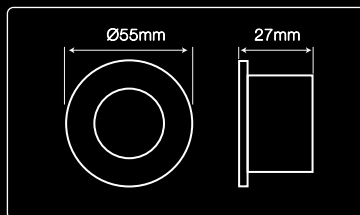
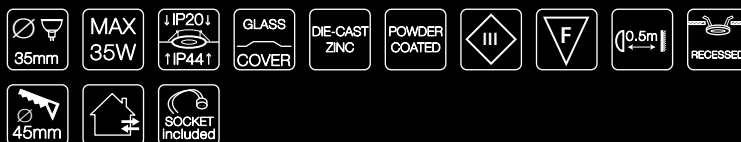
WATERPROOF

FIXTURES



5-year
warranty

MATT

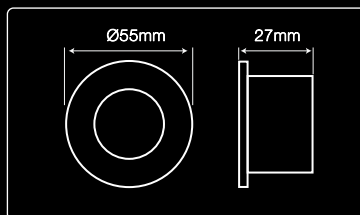
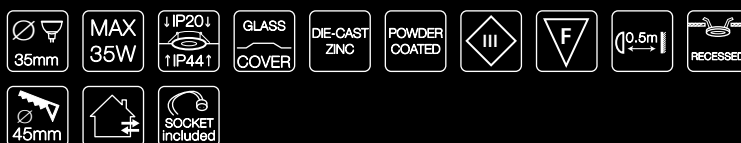


Colour
White

Product code
249266



5-year
warranty



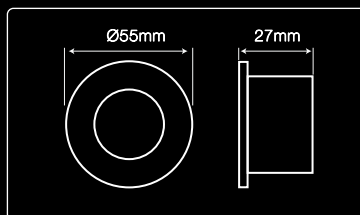
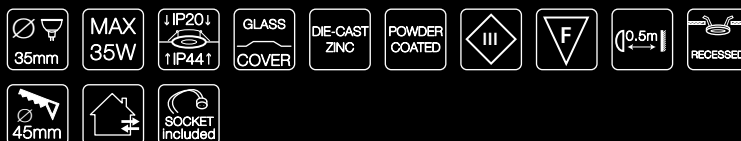
Colour
Chrome

Product code
249273



5-year
warranty

MATT



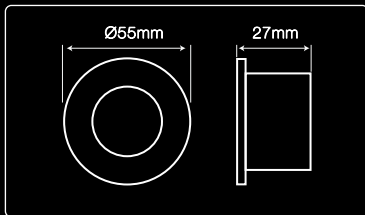
Colour
Graphite

Product code
249280



5-year
warranty

MATT



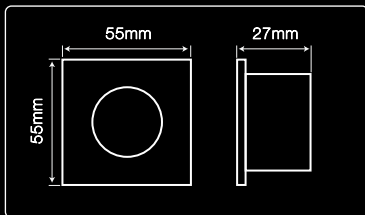
Colour
Black

Product code
249297



5-year
warranty

MATT

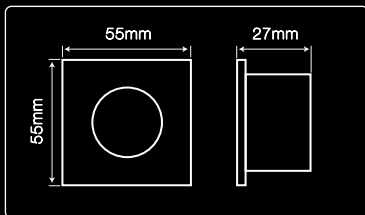
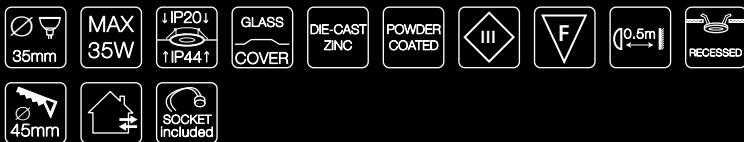


Colour
White

Product code
249303



5-year
warranty



Colour
Chrome

Product code
249310



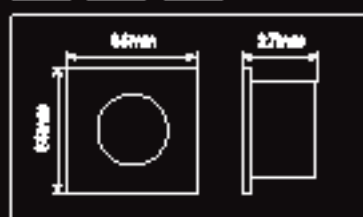
WATERPROOF

FIXTURES



5-year warranty

MATT



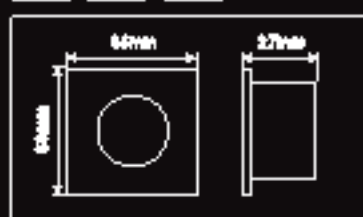
Colour
Graphite

Product code
344427



5-year warranty

MATT



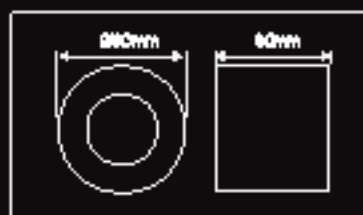
Colour
Black

Product code
344444



5-year warranty

MATT



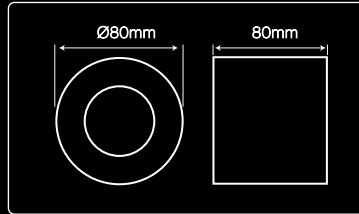
Colour
White

Product code
343440



5-year
warranty

MATT



Colour
Black

Product code
242557



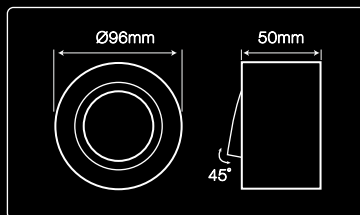
TUBE

FIXTURES



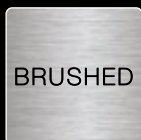
#ROLLOSLIM

5-year
warranty



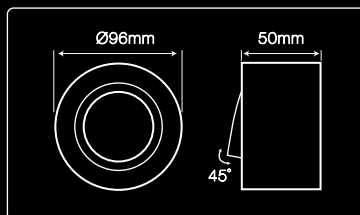
Colour
White

Product code
243851



#ROLLOSLIM

5-year
warranty



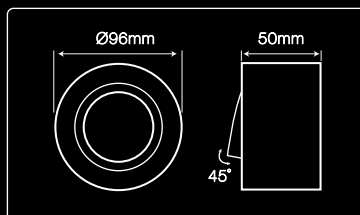
Colour
Silver

Product code
243134



#ROLLOSLIM

5-year
warranty

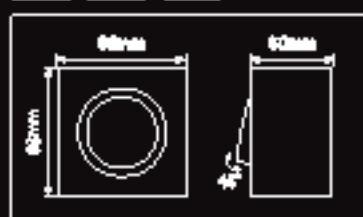


Colour
Black

Product code
242656



ACQUODUM

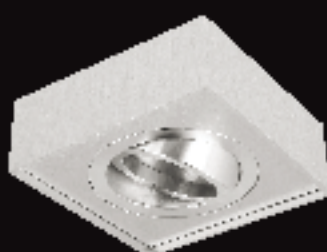


Colour
White

Product code
344141



ACQUODUM

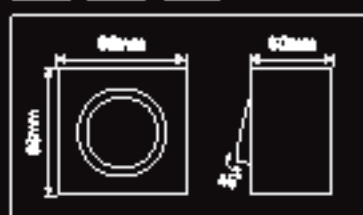
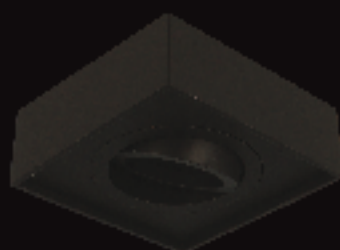


Colour
Silver

Product code
344700



ACQUODUM



Colour
Black

Product code
344173

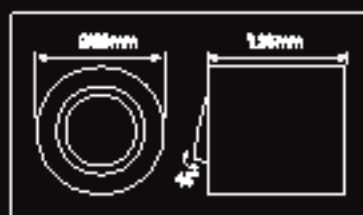


TUBE

FIXTURES



#R0LLO

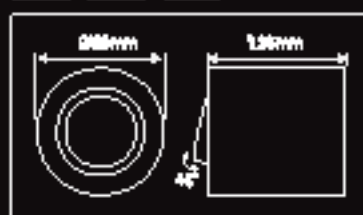


Colour
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Product code
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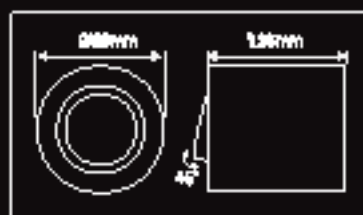


Colour
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Product code
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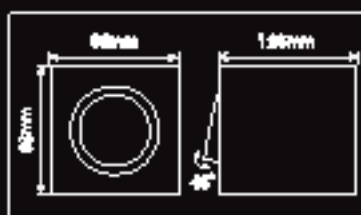


Colour
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Product code
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ACQUO

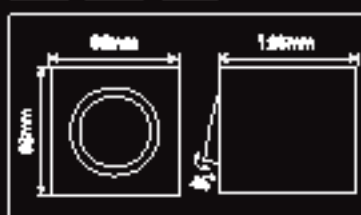
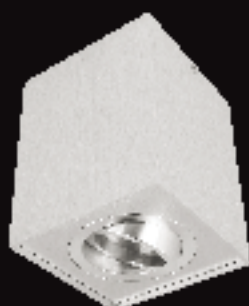


Colour
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Product code
346720



ACQUO

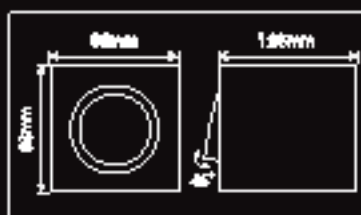


Colour
Silver

Product code
346747



ACQUO



Colour
Black

Product code
346760



ICONOGRAPHY



wattage consumption for one metre of LED strip



current for 1 metre of LED strip



voltage range and voltage type



ingress protection rating against dust and water



LED type



LED quantity for one metre of LED strip



PWM dimmable



amount of copper used for PCB



cutting sections of LED strip, measured in centimetres



3M™ 300 LSE double-adhesive tape



LED lifespan, measured in hours



ambient temperature range suitable for operation



for indoor use



LED strip ingress protection rating against dust and water



energy efficiency class



colour rendering index (CRI)



luminous flux per 1 LED



integrated chip type



colour rendering index (Ra)



beam angle



number of PINs per connector



the width of suitable PCB for a specific connector



current



non-flammable material



for indoor and outdoor use



the degree of protection of the device against external impacts



cover material



power factor



number of on / off cycles



IEC protection classes (class I)



IEC protection classes (class II)



IEC protection classes (class III)



non-dimmable



detection angle and detection range



sensor's stay-on time settings



sensor's detection sensitivity settings



sensor's LUX sensitivity settings



wire thickness range



maximum suitable voltage



maximum suitable current



1-10V dimmable



battery type



photovoltaic efficiency



dusk sensor



PIR sensor



fitting type



cover shape



step dimmable



Unified Glare Rating



LGP type



possible installation methods: recessed and surface



light source diameter

	fixture's material		LED strip with adjustable colour temperature of white light within given range
	installation method		product equipped with QUICK PLUG connection socket for easy connection of applicable accessories
	mounting hole diameter		product compatible with QUICK PLUG connection socket
	electrical socket included in the box		driver brand
	mountable on surfaces with standard degree of flammability		no undesirable flickering effect
	recommended plaster thickness		product certified by Polish National Institute of Hygiene
	adjustable angle range		product resistant to external impacts
	fixture's rotation range		product requires no external electricity connection to operate
	painting technique		solar powered product
	colour temperature range according to MacAdam's ellipse formula, which ensures colour consistency for the LED strip		product requires no wiring
	applicable warranty period		product containing graphene substrate which extends the lifespan of the LEDs and is very flexible
	photometric data files available		vintage style product
	high Colour Rendering Index. The higher the CRI value, the better the colours of illuminated object/surface are revealed		product with good heat dissipation qualities
	extended life span		product equipped with optics focusing the beam angle of the light
	product produces desired light from RGB colour palette		product featured with slim housing
	high resistance to yellowing degeneration caused by UV radiation		step dimmable product. Dimming is achieved by quickly turning the light on and off
	waterproof product		product with dim to warm function changes colour temperature to more warm light while dimming
	luminous flux and beam angle values for specified distance from illuminated surface		high user-safety thanks to the housing material
	LED strip with side emitting LEDs		product offered in the choice of 7 colours
	high density LED strip emitting continuous line of light		product with low glare factor
	product with decreased voltage drop		mounting clips can be moved along the mounting bracket allowing the product to fit into most existing mounting holes
	LED brand		installation method of the gypsum downlight fixture
	narrow width for easy installation		product suitable for painting
	bendable LED strip		type of paint finish
	product produces any light from RGB+W colour palette		adjustable fixture
	programmable multicolour LED strip used for advanced lighting projections		product vertically and horizontally adjustable

Luminous flux [(lm)] – is the measure of brightness of a light source in terms of energy being emitted. It is a measurement of energy released in the form of visible light from a light-producing source.

Illuminance [(lx)] – is a measure of the intensity, as perceived by the human eye, of light that hits or passes through a surface. It is equal to one lumen per square metre.

Luminous efficacy [(lm / W)] – is a measure of how well a light source produces visible light. It is the ratio of luminous flux to power, measured in lumens per watt in the International System of Units.

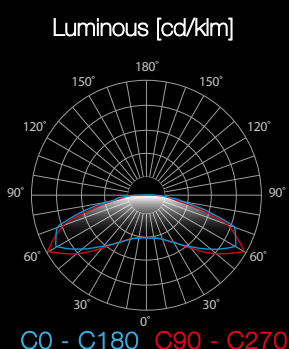
CRI / Ra (Colour rendering index) – is a quantitative measure of the ability of a light source to reveal the colours of various objects faithfully in comparison with an ideal or natural light source. Numerically, the highest possible CRI value is 100 and would only be given to a source identical to standardised daylight (sunlight with a colour temperature of 6670K). The higher the CRI value, the better the colours of illuminated object/surface are revealed. Ra is the average value of 8 colour samples, whereas CRI uses a palette of 14 colours and tends to be more accurate.

CCT (Correlated Colour Temperature or Colour Temperature) - is expressed in Kelvins [K]. It is a measure of the colour appearance of a given light source. CCT values are intended by the lighting industry to give a general indication of the apparent "warmth" or "coolness" of the light emitted by the source. According to lighting industry convention, lamps with low CCT values provide light that appears "warm," while lamps having high CCT values provide light that appears "cool."

Fixture efficiency – is the ratio of light output emitted by the luminaire to the light output emitted by its lamps $\eta = \Phi_{opr.} / \Phi$

Light distribution curve – provides information on how light is emitted from a lamp or a light fixture. It is a diagram that represents a section cut through the fixture and shows the intensity of light emitted in each direction. The portion of the graph above the horizontal 90°-270° line indicates light that shines above the fixture (indirect), while the portion of the graph below represents light shining down (direct). The straight lines radiating from the centre point identify the angle of the light emitted while the circles represent the intensity

Fig. A – Light distribution curve diagram



The graph shows the distribution of light in two planes:

- In the vertical plane passing through the longitudinal axis of the fitting, plane C90-C270,
- In the plane perpendicular to the axis of the luminaire, plane C0-C180.

If the luminaire is rotational-symmetrical, the light distribution is given only in one plane C. If the light distribution is asymmetrical, the luminous intensity distribution is given in planes C at angles of 30° or even 15°. The light distribution diagram provides basic information about the shape of the luminaire's light distribution.

FLICKER - flickering is a constant fluctuation of the luminous flux from on to off. The Lighting Engineering Society (IES) has developed two parameters of quantitative flickering.

Percent Flicker - indicates the average amount of modulation or reduction in the luminous flux in one turn on and off cycle. A source of light with 100% flickering would indicate that at some point in the above on/off cycle the luminaire does not produce light, while a completely stable light would have zero percent flickering.

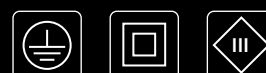
Flicker Index - it is the percentage of flickering and two other variables: the shape of the light wave or the output curve and the work cycle, which refers to the percentage time in which the light source is switched on in a single on and off cycle. The lower the flicker percentage and the flicker indicator, the less the source fluctuates.

UGR (glare) - is a method of calculating glare, bright light sources, from luminaires. The UGR rating helps to determine how likely a luminaire is to cause discomfort to those around it. UGR is not a standalone technical parameter of the luminaire - it rather indicates what UGR rating is to be achieved in a lighting project with given parameters using a given luminaire.

Protection against mechanical impact (IK rating) – are an international numeric classification to indicate the degrees of protection provided by light fixtures against external mechanical impacts. It provides a means of specifying the capacity of a fixture (luminaire) to protect its parts (components) from external impacts. The range of protection is measured on the scale from 00 (no protection) up to 10 (impact resistance against 20J). The higher the numerical value of the IK parameter, the greater the mechanical protection of the given device.

IK rate	Impact energy	Impact equivalent
00	0 J	no protection
01	0.15 J	impact of a 200g mass dropping from 7.5 cm height
02	0.20 J	impact of a 200g mass dropping from 10 cm height
03	0.35 J	impact of a 200g mass dropping from 17.5 cm height
04	0.50 J	impact of a 200g mass dropping from 25 cm height
05	0.70 J	impact of a 200g mass dropping from 35 cm height
06	1 J	impact of a 500g mass dropping from 20 cm height
07	2 J	impact of a 500g mass dropping from 40 cm height
08	5 J	impact of a 1700g mass dropping from 29.5 cm height
09	10 J	impact of a 5000g mass dropping from 20 cm height
10	20 J	impact of a 5000g mass dropping from 40 cm height

IEC protection class – this is an international standard set up by the International Electrotechnical Commission defining the protective-earth connection requirements for electronic devices. In other words, the protection class defines the means that should be adopted to ensure protection against electric shock. However, it is not in any extent a measure relating to the safety of the given product. The classification is set out in the PN-EN 61140: 2005 regulations. In summary, there are four classes of protection: 0, I, II, III. Protection classes are illustrated with symbols, except for protection class 0, which has no symbol and therefore no protective-earth connection whatsoever. The symbols are shown in the below picture.



IES (photometric file) – A file with the IES file extension is an IES Photometric file that stands for Illuminating Engineering Society. They are plain text files that contain data on light for architectural software (e.g. DIALUX, RELUX) that can simulate light. These files describe how various structures are affected by the product and illustrate how to display the correct lighting patterns on the chosen area.

Ingress Protection (IP) - IP protection class classifies and rates the degree of protection provided against ingress of body parts, solid objects, dust, water or other liquids to the inside of the luminaire. Depending on the degree of protection, the device may be dedicated to work in various conditions. This table below shows what each digit or part of the IP code represents.

First digit: protection against the ingress of solid objects (according to PN-EN 60529: 2003)

Number Protection level

0	no protection
1	protection against contact with hazardous parts with a back of a hand protection against solid objects with a diameter of 50mm or more
2	protection against contact with hazardous parts with a finger protection against solid objects with a diameter of 12.5mm or more
3	protection against contact with hazardous parts with tools, tick wires, etc. protection against solid objects with a diameter of 2.5mm or more
4	protection against contact with hazardous parts with most wires, slender screws, etc. protection against solid objects with a diameter of 1mm or more
5	protection against contact with hazardous parts with wires dust protected – ingress of dust not entirely prevented (some ingress shall not have a harmful effect on the operation of the luminaire)
6	protection against contact with hazardous parts with wires dust tight – full protection against ingress of dust

Second digit: protection against the ingress of liquids (according to PN-EN 60529: 2003)

Num. Protection level

0	no protection
1	protection against water drops
2	protection against water drops when tilted at 15° (vertical dropping shall have no harmful effect on the operation of the luminaire)
3	protection against spraying water at any angle up to 60° from the vertical
4	protection against splashes of water from any direction
5	protection against a water jet (12.5 litre per minute) poured onto the housing from any direction
6	protection against a powerful water jet (100 litre per minute) poured into the housing from any direction
7	protection against the short immersion in water (30 minutes up to 1m of submersion)
8	protection against the continuous immersion in water (housing permanently submerged in water as per the conditions agreed between the producer and the user, but the depth should be greater than at IP7 above)
9	protection against powerful high temperature and high pressure water jets (80-100 bar and temperature + 80° C) in accordance with DIN 40050

Additional letters (according to PN-EN 60529: 2003)

Letter	Degree of protection
A	protection against access to dangerous parts with the front of hand
B	protection against access to dangerous parts with a finger
C	protection against access to dangerous parts with a tool
D	protection against access to dangerous parts with a wire

Supplementary letters (according to PN-EN 60529: 2003)

Letter	Meaning
H	high voltage equipment
M	device moving during water test
S	device standing still during water test
W	Device is suitable for use under certain weather conditio

PWM (pulse-width modulation) - a method of controlling and regulating electric current or voltage signal of constant amplitude and frequency by changing the value of the current or voltage fed to the load. The average value of voltage (and current) fed to the load is controlled by turning the switch between supply and load on and off at a fast rate. The longer the switch is on compared to the off periods, the higher the total power supplied to the load.

1-10V (analogue control) – this is a system in which by controlling input voltage the user adjusts the output power level of the device. The control voltage is independent of the device power supply voltage. The value of 10V corresponds to 100% of the output power. The value of 1V corresponds to 5-10% of the output power.

Oz (ounce) - amount of Cu (copper) used in the production of PCB laminate. Copper is a very good conductor of heat and electricity. The greater amount of copper used on the laminate guarantees higher voltage and current stability as well as thermal resistance, which allows for the longer life span of LED light sources.

PMMA (poly methyl methacrylate) known as acrylic glass - material used for the production of lamps' covers and diffusers. This material is highly resistant to UV radiation which prevents the diffuser from yellowing (the diffuser remains pure white for many years of use) . It also has a very good visible light transmission of 92%. The material is also easily recyclable.

PC (polycarbonate) - material used in the construction of LED luminaires. It has an excellent mechanical properties and is particularly resistant to mechanical impact. Compressive strength is similar to aluminium. Visible light transmission is at 90%.

Tempered glass - type of safety glass processed by controlled thermal or chemical treatments to increase its strength compared with normal glass. It is used in the production of lampshades and diaphragms in LED fittings. It has three times greater resistance to mechanical damage compared to ordinary glass. Tempered glass has much higher thermal resistance than standard glass and, when broken, the glass crumble into small granular chunks instead of splintering into jagged shards as plate glass.

LGP (LIGHT GUIDE PLATE) - material with a matrix of lines reflecting the light into the diffuser. This solution is dedicated for edge-lit luminaires.

PF (power factor) - the power factor of an AC electrical power system is defined as the ratio of the real power absorbed by the load to the apparent power flowing in the circuit. In simple terms, it determines what part of the energy taken from the electrical network will be used effectively by the device. A power factor of less than one indicates the voltage and current are not in phase, reducing the instantaneous product of the two (reactive power). This causes undesirable heat emission.

Functionality parameter	Stage 1 (unless indicated otherwise)	Stage 3
Lamp power factor for lamps with built-in control equipment	$\geq 0,50$, if $P < 25 \text{ W}$ $\geq 0,90$, if $P < 25 \text{ W}$	$\geq 0,55$, if $P < 25 \text{ W}$ $\geq 0,50$, if $P < 25 \text{ W}$