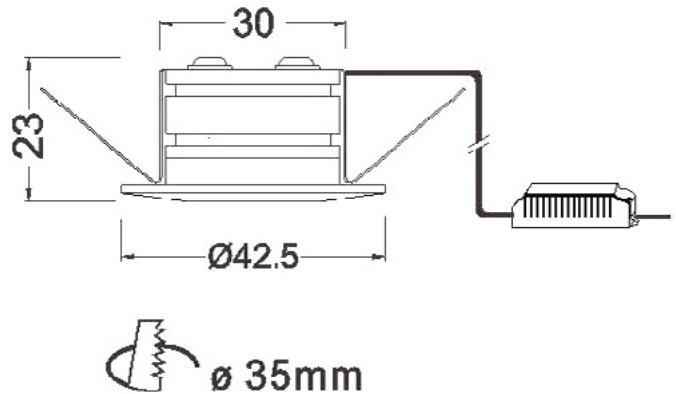


DARKLIGHT DESIGN

DARKLIGHT DESIGN SUN LED 2W RECESSED DOWNLIGHT

1061118TS



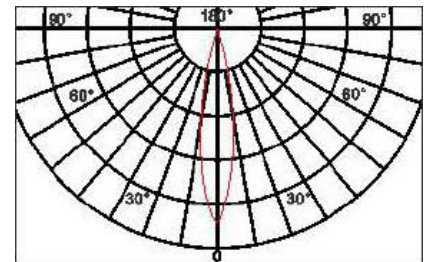
*complete with 500mA dimmable driver

LED COB 15°

Power	2W	2W
CCT	2700K	3000K
CRI	=80(min)	=80(min)
Output V.	3V DC	3V DC
I	350mA	180mA
Efficacy	52lm/W	54lm/W

2W 2700K - Flux 103lm

Lux				
h(m)	d(cm)	Em	Emax	
1	25	381	624	
2	51	95	151	
3	76	42	66	



Fitting: Machined aluminium 6063
Ambient temperature: -15 °C~40 °C
QTY/CTN: 288 PCS/CTN
GW: 25.7kg/CTN
CTN size: 518x435x410mm

2W 3000K - Flux 106lm

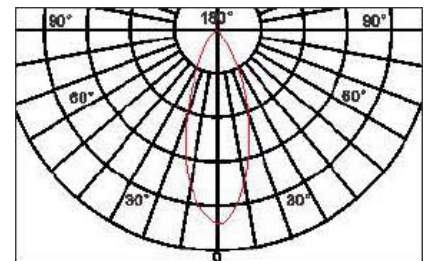
Lux				
h(m)	d(cm)	Em	Emax	
1	25	418	645	
2	50	104	158	
3	76	46	69	

LED COB 25°

Power	2W	2W
CCT	2700K	3000K
CRI	=80(min)	=80(min)
Output V.	3V DC	3V DC
I	350mA	350mA
Efficacy	51lm/W	52lm/W

2W 2700K - Flux 102lm

Lux				
h(m)	d(cm)	Em	Emax	
1	47	191	275	
2	95	47	73	
3	143	21	32	



Fitting: Machined aluminium 6063
Ambient temperature: -15 °C~40 °C
QTY/CTN: 288 PCS/CTN
GW: 25.7kg/CTN
CTN size: 518x435x410mm

2W 3000K - Flux 104lm

Lux				
h(m)	d(cm)	Em	Emax	
1	47	198	300	
2	94	49	81	
3	141	22	36	

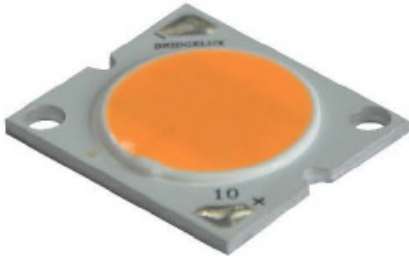
* can be dimmed via compatible DALI, 0-10v, trailing edge or leading edge drivers. Please specify your preference at the time of ordering.

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2W RECESSED DOWNLIGHT
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COB (chip-on-board)

COB (chip-on-board) technology generates the light evenly over the surface like that of an incandescent lamp, but without double image. The light generated from the fitting with COB makes the subject look natural and clean compared to a fitting with a single-LED-chip, which has a double image.



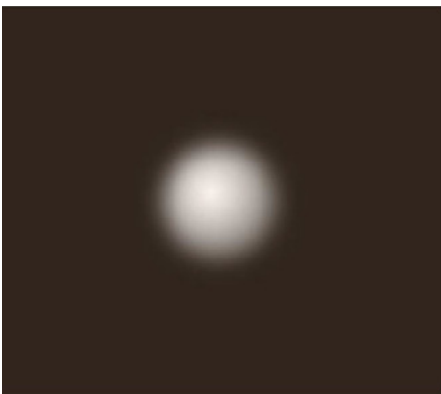
Fitting with COB generates the light even and soft, making the subject natural and clean and consequently creating strong stereoscopic feel.



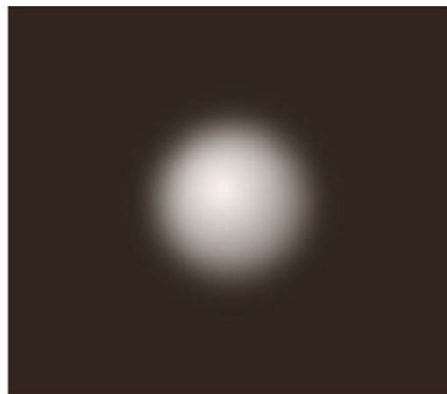
Fitting with single LED chip generates the light from the scattered chips, making the subject blur and unclear in boundary with double image and consequently creating weak stereoscopic feel.

ACCURATE LIGHT DISTRIBUTION AND CONTROL

Available with beam angles at 15° or 25° to cater for differing requirements.



15°



25°

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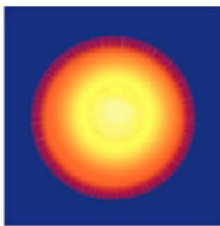
T 01189 882294

W www.darklightdesign.com

E sales@darklightdesign.com

HEAT SINK

Wind cooling theory is fully taken into account in the heat sink design. Sufficient passageway for air ventilation is made so that the hot and cool air can exchange freely within the heat sink. Thus strong heat dissipation is produced. This is a so-called heat sink which can breathe.



THERMAL MANAGEMENT

Efficient thermal management is indispensable in order to achieve the long service life and to operate LEDs as efficiently as possible. The extra-high temperatures in the LED chip reduces not only its own service life but also its efficiency.

Reliable and efficient thermal management starts during the development process, which includes comprehensive tests and simulations. A large heat sink alone cannot generally be considered a sufficient quality criterion for optimal thermal management.

A thermal connection between board and heat sink must also be ensured in quality. Thermal pads or compounds are utilized as required for this purpose. Within the scope of quality processes, thermal connection of the LED chips to the boards is checked as well with reference to the LED manufacturer's specifications.

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DARKLIGHT DESIGN

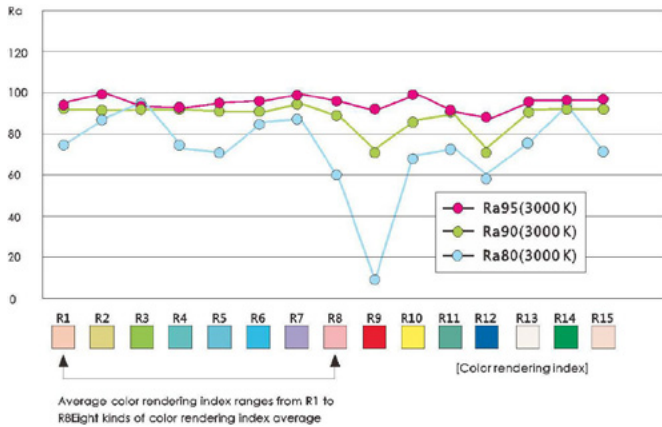
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HIGH CRI

Utilizing a world top class LED chip which creates high color rendering with RA > 90 and makes the subject natural and fresh in a way that few other LED products can do at present.

Lighting in high power & high CRI results in higher definition of the colour and detail of the subject. Subsequently this fitting is an ideal lighting solution for both the retail sector and public spaces.

This fitting is available in CRI 80 or CRI 90.



AVERAGE RA EVALUATION INDEX

Ra Evaluation Index is applied to estimate the color rendering index of the lighting product to see the reflection level of natural color compared to those by conventional lightings.

Average color rendering index ranges from R1 to R8.

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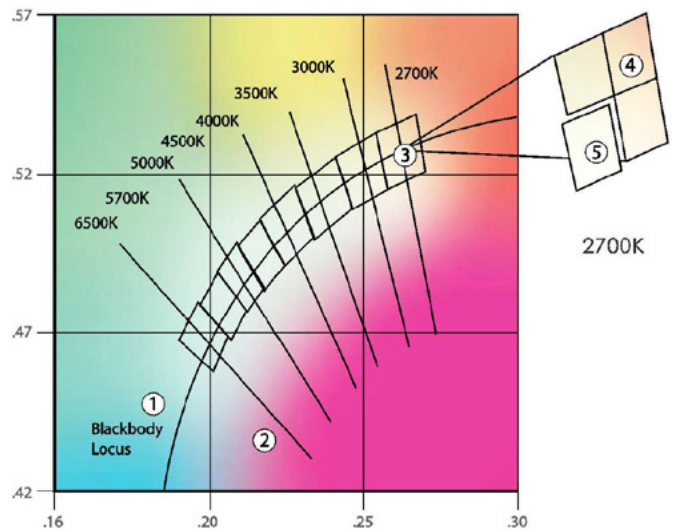
DARKLIGHT DESIGN

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RA CONSISTENCY

The requirement for high Ra consistency for the quality lighting and also faces the phenomenon of inconsistency in terms of Ra market. It is a headache of designers and the consumers. For this purpose, our LED chips are sourced at a high consistency from the quality chips manufacturers. All LED chips are sorted out, stored and processed in strict and scientific criterion to guarantee the LED chip in consistency in one batch.



When LEDs are manufactured, the most challenging part is producing consistent and precise white color. Binning is the process of sorting the white LEDs into groups of similar white colors. The regulation of this process is outlined by the ANSI standards for tolerances of white color variations to fit within a color temperature group, or bin. Some LED manufacturers have adapted a more stringent process of sorting called micro-bins which allows for much smaller white color variations.

Our LEDs exceed the ANSI binning standards, giving our fittings optimal color matching. Definition of 'Binning' - when white LEDs are created, whether they be on the warm or cool end of the spectrum, there are always slight inconsistencies with regards to specific color temperatures.

- The arced black line in the graph represents the white color spectrum.
- These long intersecting lines represent the range, from one end of the line to the other, of variation in color for each corresponding color temperature.
- In order to keep the range of each temperature as close to the same color as possible, ANSI created tolerance zones. Only the LEDs that fall into this range are used for that particular color temperature, these are referred to as "bins".
- As you can see this bin still has plainly visible variations throughout. ANSI tolerance zones are adjacent to account for the challenges around manufacturing LED chips consistently.
- Once divided into smaller bins, the differences in color are much less, allowing for minimal variation when two or more LEDs are used together.

Although there is a cost associated with consistency, various LED chip manufacturers now make smaller bins available.

Micro-bin sizes vary between chip manufacturers and while micro-bins allow for better consistency by batch, there is commonly a color variation between batches.

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