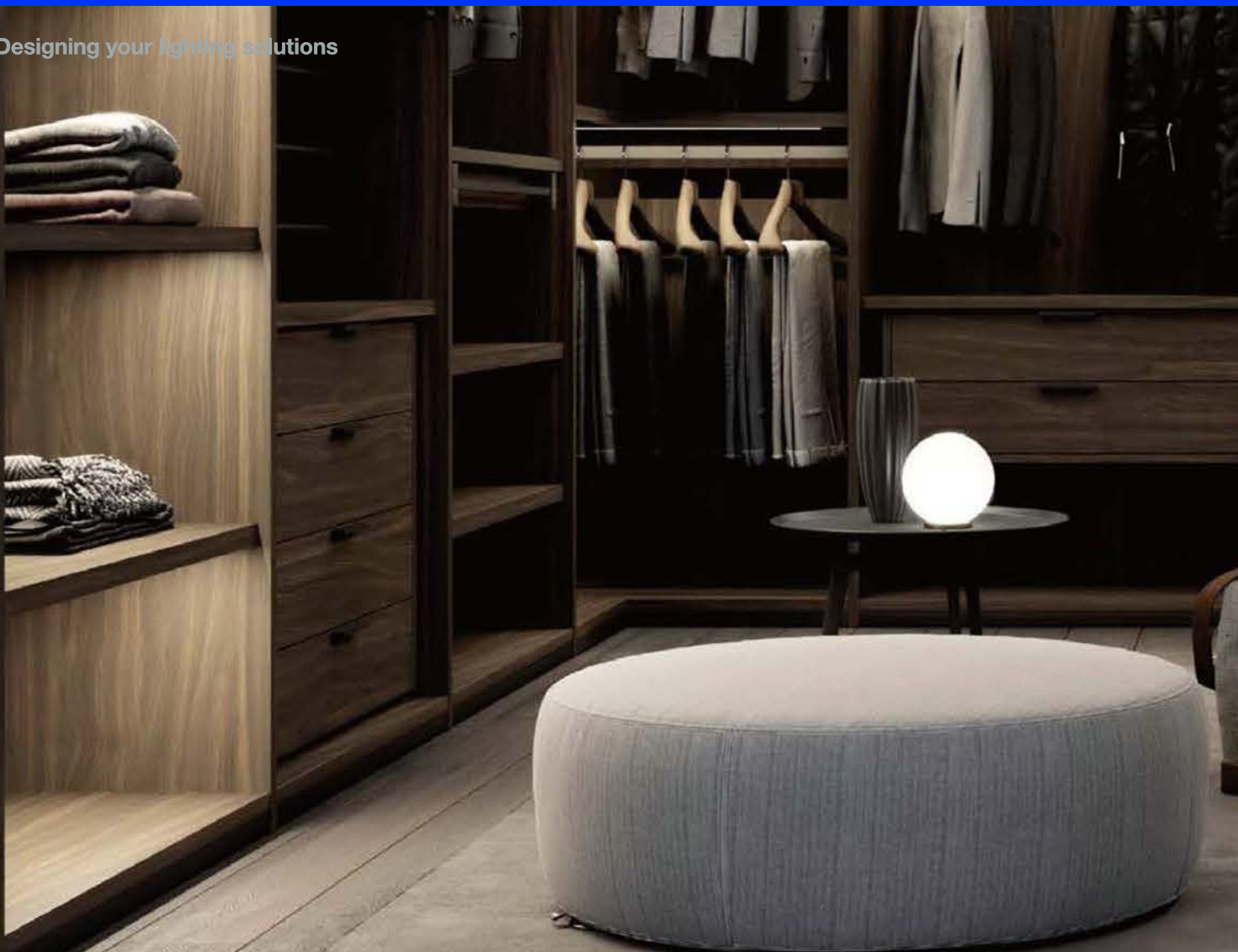






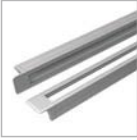


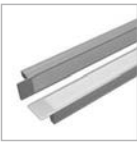


# LED Furniture & cabinets & displays

Designing your lighting solutions

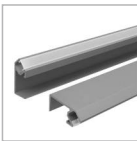


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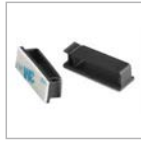
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Embed To The Rear Of Shelf								
Clip To The Class Shelf								
Lighting Mode								
Control Mode								

ERP AND ECODESIGN FOR EU



Regulation 2019/2020 & 2019/2015

Regulation (EU) No. 2019/2020 on Ecodesign outlines the required energy performance and environment levels

Regulation (EU) No. 2019/2015 on Energy labelling Labels outlining the efficiency band for lighting products

New ERP compliant products

The latest stage of the Energy related Products (ErP) directive that covers lighting products came into effect on the 30th September 2021

“Customer support for products compliant with the new EU directive”

ENERGY EFFICIENCY CLASSES AND CALCULATION METHOD

The energy efficiency class of light sources shall be determined as set out in Table1, on the basis of the total mains efficacy  $\eta_{TM}$ , which is calculated by dividing the declared useful luminous flux  $\Phi_{use}$  (expressed in lm) by the declared on-mode power consumption  $P_{on}$ (expressed in W) and multiplying by the applicable factor  $FTM$  of Table 2, as follows:  $\eta_{TM} = (\Phi_{use} / P_{on}) \times FTM \text{ (lm/W)}$ .

Table 1 - Energy efficiency classes of light sources

Energy efficiency class	Total mains efficacy $\eta_{TM}$ (lm / W)
A	$210 \leq \eta_{TM}$
B	$185 \leq \eta_{TM} < 210$
C	$160 \leq \eta_{TM} < 185$
D	$135 \leq \eta_{TM} < 160$
E	$110 \leq \eta_{TM} < 135$
F	$85 \leq \eta_{TM} < 110$
G	$\eta_{TM} < 85$

Table 2 - Factors  $FTM$  by light source type

Light source type	Factor $F_{TM}$
Non-directional (NDLS) operating on mains (MLS)	1.000
Non-directional (NDLS) not operating on mains (NMLS)	0.926
Directional (DLS) operating on mains (MLS)	1.176
Directional (DLS) not operating on mains (NMLS)	1.089

ECODESIGN REQUIREMENTS

For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using harmonised standards the reference numbers of which have been published for this purpose in the Official Journal of the European Union, or other reliable, accurate and reproducible methods, which take into account the generally recognised state-of-the-art.

1. Energy efficiency requirements:

- a. From 1 September 2021, the declared power consumption of a light source  $P_{on}$  shall not exceed the maximum allowed power  $P_{onmax}$  (in W), defined as a function of the declared useful luminous flux  $\Phi_{use}$  (in lm) and the declared colour rendering index  $CRI$  (-) as follows:
- $$P_{onmax} = C \times (L + \Phi_{use} / (F \times \eta)) \cdot R;$$
- where:
- The values for threshold efficacy ( $\eta$  in lm/W) and end loss factor ( $L$  in W) are specified in Table 1, depending on the light source type. They are constants used for computations and do not reflect true parameters of light sources. The threshold efficacy is not the minimum required efficacy; the latter can be computed by dividing the useful luminous flux by the computed maximum allowed power.
  - Basic values for correction factor ( $C$ ) depending on light source type, and additions to  $C$  for special light source features are specified in Table 2.
  - Efficacy factor ( $F$ ) is:
    - 1,00 for non-directional light sources (NDLS, using total flux)
    - 0.85 for directional light sources (DLS, using flux in a cone)
  - $CRI$  factor ( $R$ ) is:
    - 0.65 for  $CRI \leq 25$ ;

Table 1 - Thres hold efficacy ( $\eta$ ) and end loss factor ( $L$ )

Light source description	$\eta$ [lm / W]	$L$ [W]
LFL T5-HE	98.8	1.9
LFL T5-HO, $4000 \leq \Phi \leq 5000$ lm	83.0	1.9
LFL T5-HO, other lm output	79.0	1.9
FL T5 circular	79.0	1.9
FL T8 (including FL T8 U-shaped)	89.7	4.5
From 1 September 2023, for FL T8 of 2-, 4-and 5-foot	120.0	1.5
Magnetic induction light source, any length/flux	70.2	2.3
FL T9 circular	71.5	6.2
HPS single-ended	88.0	50.0
HPS double-ended	78.0	47.7
MH $\leq 405$ W single-ended	84.5	7.7
MH $> 405$ W single-ended	79.3	12.3
MH ceramic double-ended	84.5	7.7
MH quartz double-ended	79.3	12.3
Organic light-emitting diode (OLED)	65.0	1.5
Until 1 September 2023: HL G9, G4 and GY6.35	19.5	7.7
HL R7s $\leq 2700$ lm	26.0	13.0
Other light sources in scope not mentioned above	120.0	1.5*

\*For connected light sources (GLS) a factor  $L=2.0$  shall be applied



ECODESIGN REQUIREMENTS

Table 2 - Correction factor C depending on light source characteristics

Light source type	Basic C value	Special light source feature	Bonus on C
Non-directional (NDLS) not operating on mains (NMLS)	1.0	FL or HID with CCT >5000 K	+0.10
Non-directional (NDLS) operating on mains (MLS)	1.08	FL with CRI > 90	+0.10
Directional (DLS) not operating on mains (NMLS)	1.15	HID with second envelope	+0.10
Directional (DLS) operating on mains (MLS)	1.23	MH NDLS >405 W with non-clear envelope	+0.10
		DLS with anti-glare shield	+0.20
		Colour-tuneable light source (CTLS)	+0.10
		High luminance light sources (HLLS)	+0.0058 x Luminance-HLLS - 0.0167

Where applicable, bonuses on correction factor C are cumulative.  
The bonus for HLLS shall not be combined with the basic C-value for DLS (basic C-value for NDLS shall be used for HLLS).  
Light sources that allow the end-user to adapt the spectrum and/or the beam angle of the emitted light, thus changing the values for useful luminous flux, colour rendering index (CRI) and/or correlated colour temperature (CCT), and/or changing the directional/non-directional status of the light source, shall be evaluated using the reference control settings.  
The standby power P<sub>sb</sub> of a light source shall not exceed 0.5 W.  
The networked standby power P<sub>net</sub> of a connected light source shall not exceed 0.5 W.  
The allowable values for P<sub>sb</sub> and P<sub>net</sub> shall not be added together.

Table 3 - Minimum energy efficiency for separate control gear at full-load

Declared output power of the control gear (P <sub>cg</sub> ) or declared power of the light source (P <sub>ls</sub> ) in W, as applicable	Minimum energy efficiency
Control gear for HL light sources	
All wattages P <sub>cg</sub>	0.91
Control gear for FL light sources	
P <sub>ls</sub> ≤ 5	0.71
5 < P <sub>ls</sub> ≤ 100	P <sub>ls</sub> /(2 x √(P <sub>ls</sub> /36)+38/36 x P <sub>ls</sub> +1)
100 < P <sub>ls</sub>	0.91
Control gear for HID light sources	
P <sub>ls</sub> ≤ 30	0.78
30 < P <sub>ls</sub> ≤ 75	0.85
75 < P <sub>ls</sub> ≤ 105	0.87
105 < P <sub>ls</sub> ≤ 405	0.90
405 < P <sub>ls</sub>	0.92
Control gear for LED or OLED light sources	
all wattages P <sub>cg</sub>	P <sub>cg</sub> <sup>0.81</sup> / (1.09 x P <sub>cg</sub> <sup>0.81</sup> +2.10)

Multi-wattage separate control gears shall comply with the requirements in Table 3 according to the maximum declared power on which they can operate. The no-load power P<sub>no</sub> of a separate control gear shall not exceed 0.5 W. This applies only to separate control gear for which the manufacturer or importer has declared in the technical documentation that it has been designed for no-load mode.  
The standby power P<sub>sb</sub> of a separate control gear shall not exceed 0.5 W.  
The networked standby power P<sub>net</sub> of a connected separate control gear shall not exceed 0.5 W. The allowable values for P<sub>sb</sub> and P<sub>net</sub> shall not be added together.

ECODESIGN REQUIREMENTS

2. Functional requirements

From 1 September 2021, the functional requirements specified in Table 4 shall apply for light sources:

Table 4 - Functional requirements for light sources

Colour rendering	CRI ≥ 80 (except for HID with Φ <sub>use</sub> > 4 klm and for light sources intended for use in outdoor applications, industrial applications or other applications where lighting standards allow a CRI<80, when a clear indication to this effect is shown on the light source packaging and in all relevant printed and electronic documentation)
Displacement factor (DF, cos Φ1) at power input P <sub>on</sub> for LED and OLED MLS	No limit at P <sub>on</sub> ≤ 5 W, DF ≥ 0.5 at 5 W < P <sub>on</sub> ≤ 10 W, DF ≥ 0.7 at 10 W < P <sub>on</sub> ≤ 25 W DF ≥ 0.9 at 25 W < P <sub>on</sub>
Lumen maintenance factor (for LED and OLED)	The lumen maintenance factor X <sub>LMF</sub> % after endurance testing according to Annex V shall be at least X <sub>LMF,MIN</sub> % calculated as follows:  $X_{LMF,MIN} \% = 100 \times e^{\frac{300 \times \ln(0.7)}{L70}}$  where L70 is the declared L70B50 lifetime (in hours) If the calculated value for X <sub>LMF,MIN</sub> exceeds 96.0 %, an X <sub>LMF,MIN</sub> value of 96.0 % shall be used
Survival factor (for LED and OLED)	Light sources should be operational as specified in row “Survival factor (for LED and OLED)” of Annex IV, Table 6, following the endurance testing given in Annex V.
Colour consistency for LED and OLED light sources	Variation of chromaticity coordinates within a six-step MacAdam ellipse or less.
Flicker for LED and OLED MLS	P <sub>st</sub> <sup>LM</sup> ≤ 1.0 at full-load
Stroboscopic effect for LED and OLED MLS	SVM ≤ 0.4 at full-load (except for HID with Φ <sub>use</sub> > 4 klm and for light sources intended for use in outdoor applications, industrial applications or other applications where lighting standards allow a CRI<80)

# QUALITY OF LIGHT

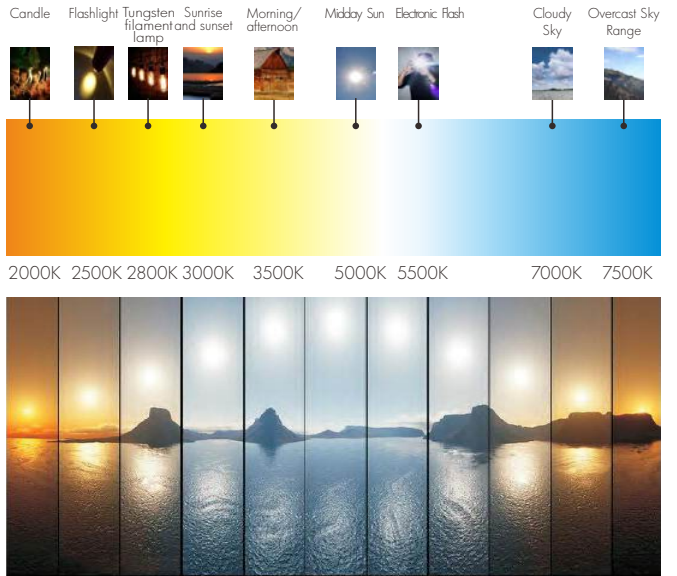
Without light, it would be impossible to view the world around us. Light illuminates objects for us to see and the spectrum emitted by a light source provides the colour in these objects. Variants of color offers advantages for different lighting applications. The lighting industry uses several tools-Kelvin, CCT, CRI, R-values and TM-30-to describe colour characteristics and light quality. With the development of LED technology the quality of electric light has been changed forever. LED sources illuminate objects for us to see and now feel the full range of colours within these objects. New lighting technology takes advantage of a wide variety of colours to meet your and your customers application needs.

## THE CORRELATED COLOR TEMPERATURE SCALE

The Kelvin based CCT (Correlated Colour Temperature), is a scale used in lighting to measure the colour temperature of a luminaire. It puts specifics to the description of the appearance of white light as “warm”, “neutral” or “cool” (CCT chart, below).

The colour chosen for an application may vary based on the use of the space and the material being illuminated. For example, “warmer” light is very popular in residential applications while “cool” light is more prevalent in commercial and industrial spaces. We offer a wide variety of options to meet your needs for any lighting application.

### CORRELATED COLOUR TEMPERATURE(CCT) LIGHT RANGE COMPARISON CHART



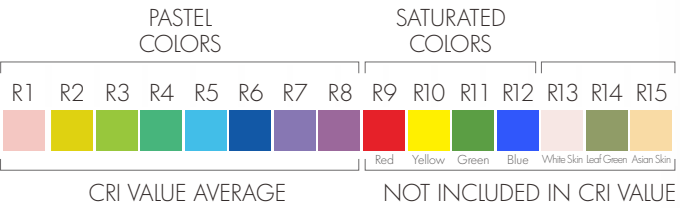
General Lighting offers a wide range of products and solution to illuminate your space.

METRIC	SCALE	DESCRIPTION
Fidelity Index (Rf)	0-100	A measurement of fidelity comparable to CIE CRI (Ra) but averages the values of 99 colour samples instead of 8. A higher value typically provides a more accurate rendition of colour in comparison to a natural light source.
Gamut Index (Rg)	60-140	Gamut (Rg) measures the average hue and saturation (chroma) shift of a light source using 99 colour samples. A value of 60-99 indicates average desaturation. A value of 101-160 indicates average increased saturation.
Color Vector Graphic	Visual	The Color Vector Graphic shows the relative saturation of multiple hues. It's important as it quickly conveys what types of colors are more or less saturated.
Fidelity Skin (Rf,skin)	0-100	Fidelity Skin (Rf, skin) is an average of CES15 and CES18 skin tones. A higher value typically pro-vides natural looking 'skin tones'.
Fidelity Red (R9)	0-100	Fidelity Red (R9) derives from a single, saturated, red color sample. A higher value is important for illuminating red surfaces, wood grains and skin tones.
CIE CRI (Ra)	<0-100	CRI (Ra) is a legacy measurement of Fidelity using 8 colour samples and with an undefined lower scale. A higher value typically provides more accurate average rendition of colour. Comparably, TM-30 fidelity (Rf) is a much more im-proved metric for accurate colour rendition than CRI (Ra).

## COLOUR RENDERING INDEX

A Colour Rendering Index (CRI) is the most useful measure of a colour characteristic of a light source, which is the 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 like the sun (CRI 100) or an incandescent bulb. To avoid under or over saturated objects and mute colors, CRI must be in a range of 80-98 CRI, specially in retail, food and art environments, making surfaces appear colourful, vibrant and natural.

CRI is calculated using eight reference samples in CIE 1995 colour space, called R-values, the highest values are very important for illuminating skin tones, retail object and food. Our LED are made to deliver highest R-values.



## A BRIEF LOOK INTO TM-30:

IES TM-30-15 is a new color rendering system that remedies flaws/limitations of CRI, providing complementary and more detailed information that benefits both specifiers and manufacturers. The much wider range of colors is a more accurate reflection of the real world – allowing you to show detailed colors for skin tones, wood grains, decorative art, furnishings, merchandising and more. While CRI isn't going anywhere soon, it's important to familiar-ize yourself with the new TM-30 metrics as they will become more common in years to come.

## TM-30 COLOR CHART

TM-30 measures against 99 color samples, all used to provide Fidelity (Rf), Gamut (Rg) and Color Vector Graphics.



## CRI VS TM-30 RENDERING TOOLS

- CIE 13.3-1995(CRI/Ra)
- Last major update was in 1976
- 8 main color samples (Ra), 6 special samples
- Measures Fidelity (Ra) only

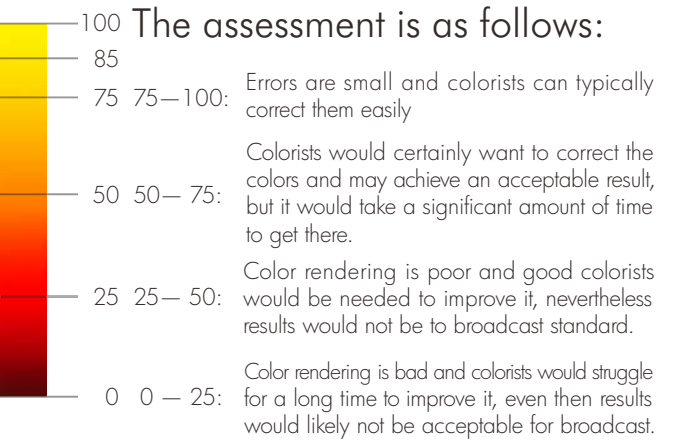
- IES TM-30-15
- Released in 2015
- 99 color samples
- Measures Fidelity (Rf), Gamut (Rg) and includes Color Vector

A combination of TM-30's Fidelity (Rf), Gamut (Rg) and Colour Vector Graphic will help further clarify beyond the typical CRI metric how a test source compares to a reference source.

## Television Lighting Consistency Index (TLCI)

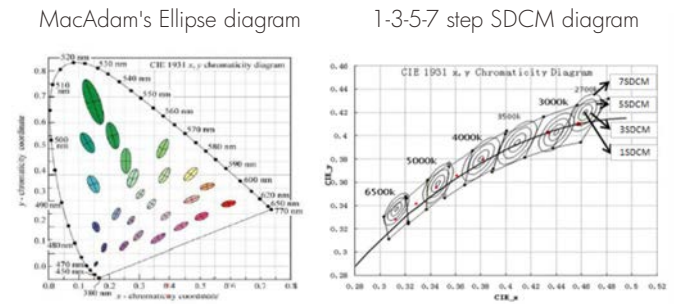
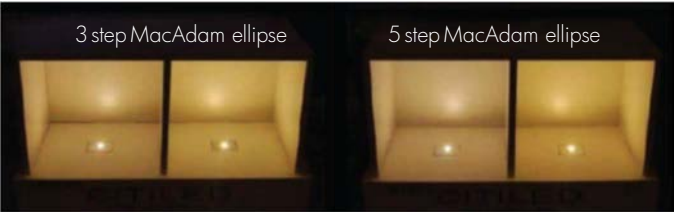


TLCI: The Television Lighting Consistency Index averages 24 colors from the MacBeth chart (which is now owned by X-Rite and is called the X-Rite ColorChecker). The maximum value is 100, with 100 being best. (Note: colors for TLCI are named below.)



## PERFECT COLOR CONSISTENCY

Perfect color consistency with SDCM (Standard deviation of color matching) in only 3-step and one bin as standard supply.







REFERENCE CCT VS. APPLICATION

CCT

Amber 1600K/Candle Light 1800K

▼

Warm WhiteNeutral WhiteCold White



European-Style HotelHotel Lobby

CCT

Reddish Meat Color 1800K

▼

Warm WhiteNeutral WhiteCold White



Red MeatBacon

CCT

2000K

▼

Warm WhiteNeutral WhiteCold White



Swimming PoolCorridor

CCT

2200K

▼

Warm WhiteNeutral WhiteCold White



CarnivalLandscape

CCT

2400K

▼

Warm WhiteNeutral WhiteCold White



Baked FoodGold Jewelry

CCT

2700K

▼

Warm WhiteNeutral WhiteCold White



FurnitureRestaurant & Club



REFERENCE CCT VS. APPLICATION

CCT

3000K

▼

Warm WhiteNeutral WhiteCold White



Fruit & VegetableShopping Mall

CCT

3500K

▼

Warm WhiteNeutral WhiteCold White



Clothes ShoesAutomobile Exhibition Hall

CCT

4000K

▼

Warm WhiteNeutral WhiteCold White



Jade JewelryCrystal Jewelry

CCT

5000K

▼

Warm WhiteNeutral WhiteCold White



Ceramic AdornmentBathroom

CCT

6500K

▼

Warm WhiteNeutral WhiteCold White



Business OfficeSports Gym

CCT

8000K

▼

Warm WhiteNeutral WhiteCold White



Diamond JewelryPlatinum Jewelry

VARIOUS OF PRODUCT SPECIFICATION AND COMBINATION

LED	Package	3528 / 5050 / 2835 / 2216 / 3014 / 4040 / 3535 / 4020 / 5630 / 3030
	Brand	Nicha / Osram / Samsung / Seoul / Philip / Bridgelux / Guangmu
	Voltage	3 / 6 / 9 / 18 / 24V
	Power	0.06 / 0.1 / 0.2 / 0.5 / 1W
	Color	White / Red / Green / Blue / Yellow / Orange / Amber / Pink / Purple / CCT / RGB / RGBW / RGBA / RGBCCT / RGBACCT / Special Color
	CCT	1600 / 1800 / 2000 / 2200 / 2400 / 2700 / 3000 / 3500 /4000 / 5000 / 6500 / 7500 / 10000K
	CRI	80+ / 90+ / 95+ / 97+ Full-Spectrum
	SDCM	1 / 2 / 3 / 5 step
PCB	Base Material	Flex / Rigid FR4 / Rigid Aluminum
	Cover Film Color	white / brown / black / gray / red / green / blue
	Voltage	5 / 12 / 24 / 36 / 48VDC / 120VAC / 230VAC
	Width	3.5 / 4 / 5 / 6 / 8 / 10 / 12 / 14 / 16 / 18 / 20 / 25 / 240 / 300mm
	Copper Layer	1 / 2 layers
	Solder Pad Surface Treatment	OSP(Organic Solderability Preservatives) / ENIG(Immersion Gold) / Immersion Tin
	Copper Thinkness	1 / 2 / 3 / 4oz (1oz≧35um)
Waterproof	Shape	Linear / Square / Rectangle / Circle / Annular / Irregular
	IP Rating	IP20 / IP54 / IP54 Thin / IP54 Plus / IP65 / IP67 / IP67 Plus Thin / IP67 Plus / IP68
Connector	Type	PCB to PCB / Cable to PCB
	Pin QTY	2 / 3 / 4 / 5 / 6 pins
	Match PCB Width	5 / 8 / 10 / 12mm
	Max. Density	≦90LED/M / ≦120LED/M / ≦240LED/M / ≦300LED/M
	IP Rating	IP20 / IP54 / IP65
Aluminum Profile	Color	Silver / Black / White
	Cover	Milky / Transparent / Black / Prismatic
	Match PCB Width	3.5 / 4 / 5 / 6 / 8 / 10 / 12 / 14 / 16 / 18 / 20 / 25 / 40 / 50 / 60mm
	Installation	Surface mounted / recessed mounted / corner mounted / suspension mounted
Driver	Type	Desktop / wall-mount / industrial / LED exclusive in C.V. & C.C.
Controller	Control Method	RF / DALI / triac / bluetooth / WIFI / 0-10V / 1-10V / APP
Warranty		3 / 5 years
Certification		CE / ErP / CB / ENEC / RCM / CCC / RoHS / SAA / UL / ETL / LM79 / LM80

WIRE GAUGE SELECTION ACCORDING TO THE DISTANCE BETWEEN DRIVER AND LOAD

(Always choice a nearest value for following calculation)

(1st step: calculate the Max. load power/current; 2nd step: measure the distance between driver and load; 3rd step: select the suggested wire gauge)

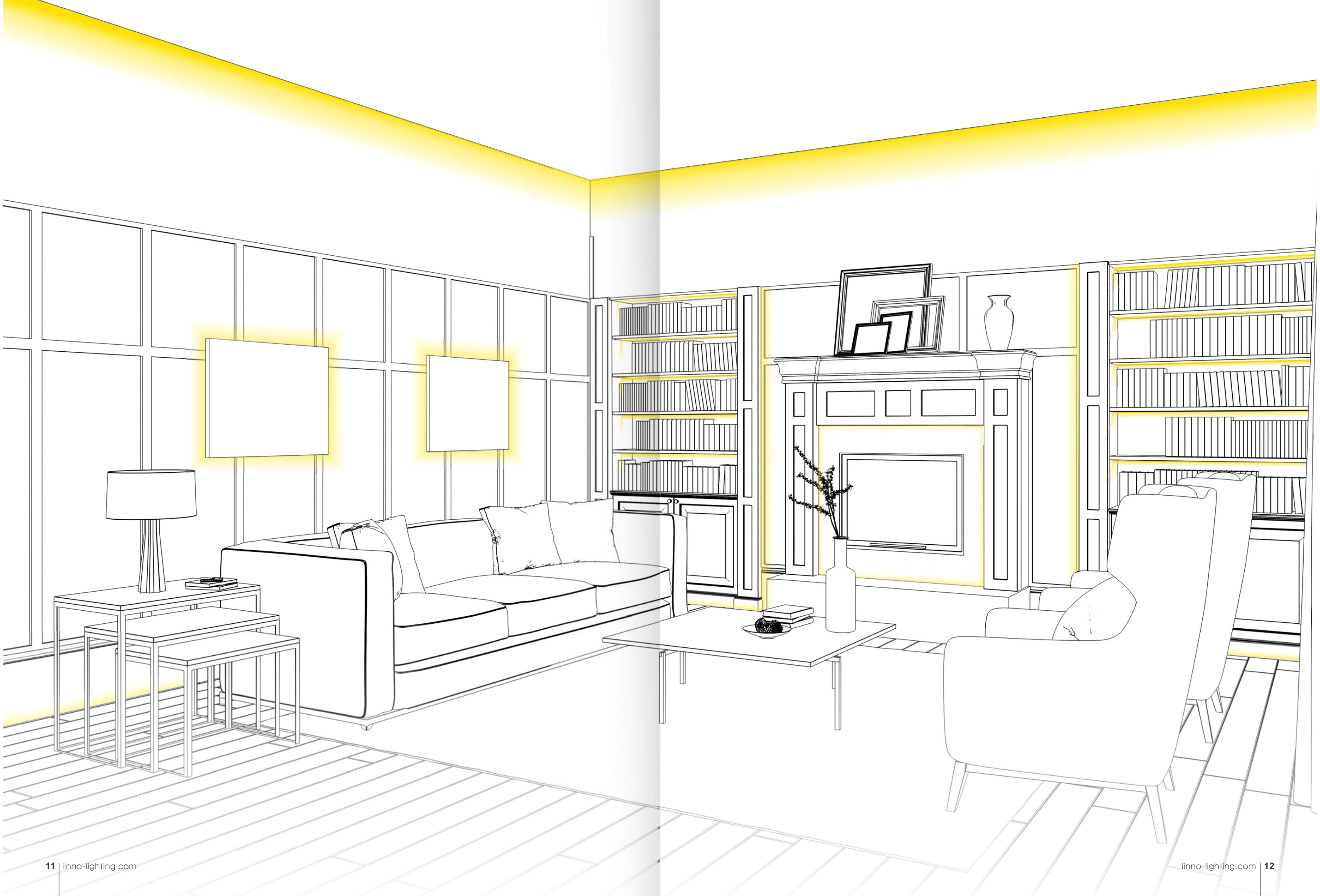
24V Voltage Drop & Wire Length Distance (3% Drop or 23.28V)												
Load Wire	20W 0.83A	30W 1.3A	40W 1.7A	50W 2.1A	60W 2.5A	70W 2.9A	80W 3.3A	90W 3.75A	100W 4.2A	150W 6.25A	200W 8.33A	300W 12.5A
20AWG	13.1m [43ft.]	8.2m [27ft.]	6.4m [21ft.]	5.2m [17ft.]	4.3m [14ft.]	3.7m [12ft.]	3.1m [10ft.]	2.7m [9ft.]	2.4m [8ft.]	1.2m [4ft.]	Don't Use	Don't Use
18AWG	20.7m [68ft.]	13.7m [45ft.]	10.1m [33ft.]	8.2m [27ft.]	6.7m [22ft.]	5.8m [19ft.]	5.2m [17ft.]	4.6m [15ft.]	4.3m [14ft.]	2.1m [7ft.]	1.5m [5ft.]	1m [3.5ft.]
16AWG	33.2m [109ft.]	21.9m [72ft.]	16.5m [54ft.]	13.1m [43ft.]	11m [36ft.]	9.4m [31ft.]	8.2m [27ft.]	7.3m [24ft.]	6.7m [22ft.]	3.4m [11ft.]	2.7m [9ft.]	1.73m [5.7ft.]
14AWG	53m [174ft.]	35.1m [115ft.]	26.2m [86ft.]	21m [69ft.]	17.4m [57ft.]	14.9m [49ft.]	13.1m [43ft.]	11.9m [39ft.]	11m [36ft.]	5.8m [19ft.]	4.3m [14ft.]	2.7m [9ft.]
12AWG	82.9m [272ft.]	55.2m [181ft.]	41.1m [135ft.]	32.9m [108ft.]	27.4m [90ft.]	23.5m [77ft.]	20.7m [68ft.]	18.6m [61ft.]	17.1m [56ft.]	9.1m [30ft.]	6.7m [22ft.]	4.6m [15ft.]
10AWG	121m [397ft.]	80.2m [263ft.]	60m [197ft.]	48.2m [158ft.]	39.9m [131ft.]	36.9m [121ft.]	29.9m [98ft.]	29.6m [97ft.]	25m [82ft.]	13.7m [45ft.]	13.7m [35ft.]	6.9m [22.7ft.]

12V Voltage Drop & Wire Length Distance (3% Drop or 11.64V)												
Load Wire	20W 0.83A	30W 1.3A	40W 1.7A	50W 2.1A	60W 2.5A	70W 2.9A	80W 3.3A	90W 3.75A	100W 4.2A	150W 6.25A	200W 8.33A	300W 12.5A
20AWG	2.7m [9ft.]	1.8m [6ft.]	1.5m [5ft.]	1.2m [4ft.]	0.9m [3ft.]	0.6m [2ft.]	Don't Use	Don't Use	Don't Use	Don't Use	Don't Use	Don't Use
18AWG	5.2m [17ft.]	3.4m [11ft.]	2.4m [8ft.]	1.8m [6ft.]	1.5m [5ft.]	1.2m [4ft.]	1m [3.4ft.]	0.9m [3ft.]	0.8m [2.7ft.]	0.5m [1.8ft.]	0.4m [1.3ft.]	Don't Use
16AWG	8.2m [27ft.]	5.5m [18ft.]	4m [13ft.]	3.1m [10ft.]	2.7m [9ft.]	1.9m [6.2ft.]	1.6m [5.4ft.]	1.5m [4.8ft.]	1.4m [4.5ft.]	0.9m [2.9ft.]	0.6m [2.1ft.]	0.4m [1.4ft.]
14AWG	13.1m [43ft.]	8.8m [29ft.]	6.4m [21ft.]	5.2m [17ft.]	4.3m [14ft.]	3m [9.8ft.]	2.6m [8.5ft.]	2.3m [7.7ft.]	2.1m [7ft.]	1.4m [4.6ft.]	1m [3.4ft.]	0.7m [2.3ft.]
12AWG	20.7m [68ft.]	13.7m [45ft.]	10.4m [34ft.]	8.2m [27ft.]	6.7m [22ft.]	4.9m [16ft.]	4.1m [13.5ft.]	3.7m [12ft.]	3.4m [11ft.]	2.3m [7.4ft.]	1.7m [5.5ft.]	1.1m [3.6ft.]
10AWG	30.2m [99ft.]	20.1m [66ft.]	14.9m [49ft.]	11.9m [39ft.]	10.1m [33ft.]	7.6m [25ft.]	7.5m [24.5ft.]	5.9m [19.5ft.]	5.5m [18ft.]	3.5m [11.6ft.]	2.6m [8.6ft.]	1.8m [6ft.]

RELIABLE LED LIFETIME APPROVED BY 10,000 HOURS LM80 REPORT

3528 @20mA&55℃	3528 @20mA&85℃	2835 @60mA&55℃	2835 @60mA&85℃	5050 @60mA&55℃	5050 @60mA&85℃	2216 @60mA&55℃	2216 @60mA&85℃
Lumen Maintenance		Lumen Maintenance		Lumen Maintenance		Lumen Maintenance	
97.76%	97.19%	97.80%	97.03%	97.70%	97.00%	97.90%	97.20%
Calculated by TM-21		Calculated by TM-21		Calculated by TM-21		Calculated by TM-21	
L70=136,000 Hours	L70=111,920 Hours	L70=127,800 Hours	L70=98,160 Hours	L70=131,000 Hours	L70=107,000 Hours	L70=147,000 Hours	L70=123,000 Hours
L80=87,720 Hours	L80=70,560 Hours	L80=80,080 Hours	L80=64,480 Hours	L80=83,000 Hours	L80=67,000 Hours	L80=112,000 Hours	L80=102,000 Hours
Reported by TM-21		Reported by TM-21		Reported by TM-21		Reported by TM-21	
L70>60,000 Hours, L80>60,000 Hours		L70>60,000 Hours, L80>60,000 Hours		L70>60,000 Hours, L80>60,000 Hours		L70>60,000 Hours, L80>60,000 Hours	
							







# LIGHT

is everywhere needed,  
in various of functional areas of home.



Residence Functional Area Division vs. Lighting Application

## 1 Living Room



Entrance / Corridor

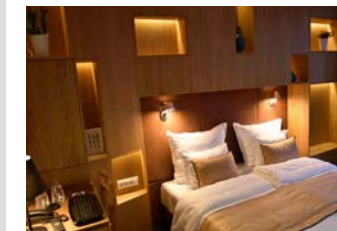


Shoecase

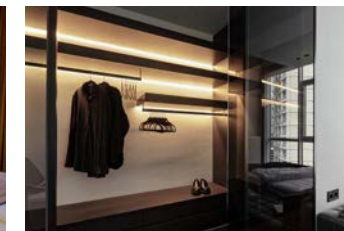


TV cabinet

## 2 Bedroom



Shelf

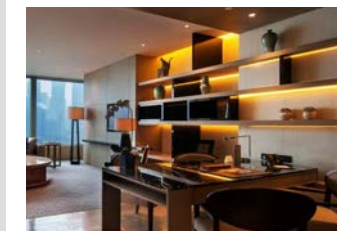


Wardrobe



Clothes Hanger

## 3 Study Room



Bookcase



Bookcase



Bookcase

## 4 Kitchen



Cupboard



Cupboard



Drawer

## 5 Bathroom



Mirror

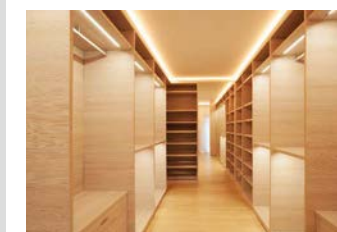


Dressing Cabinet

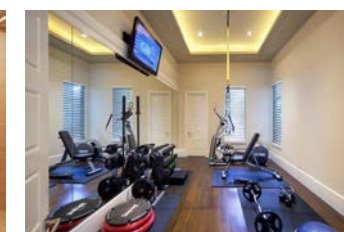


Show Case

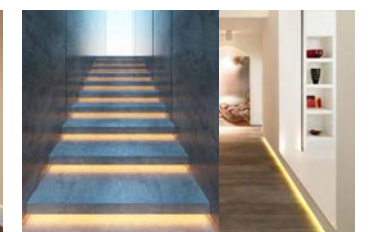
## 6 Other Room & Public Areas



Storage Room

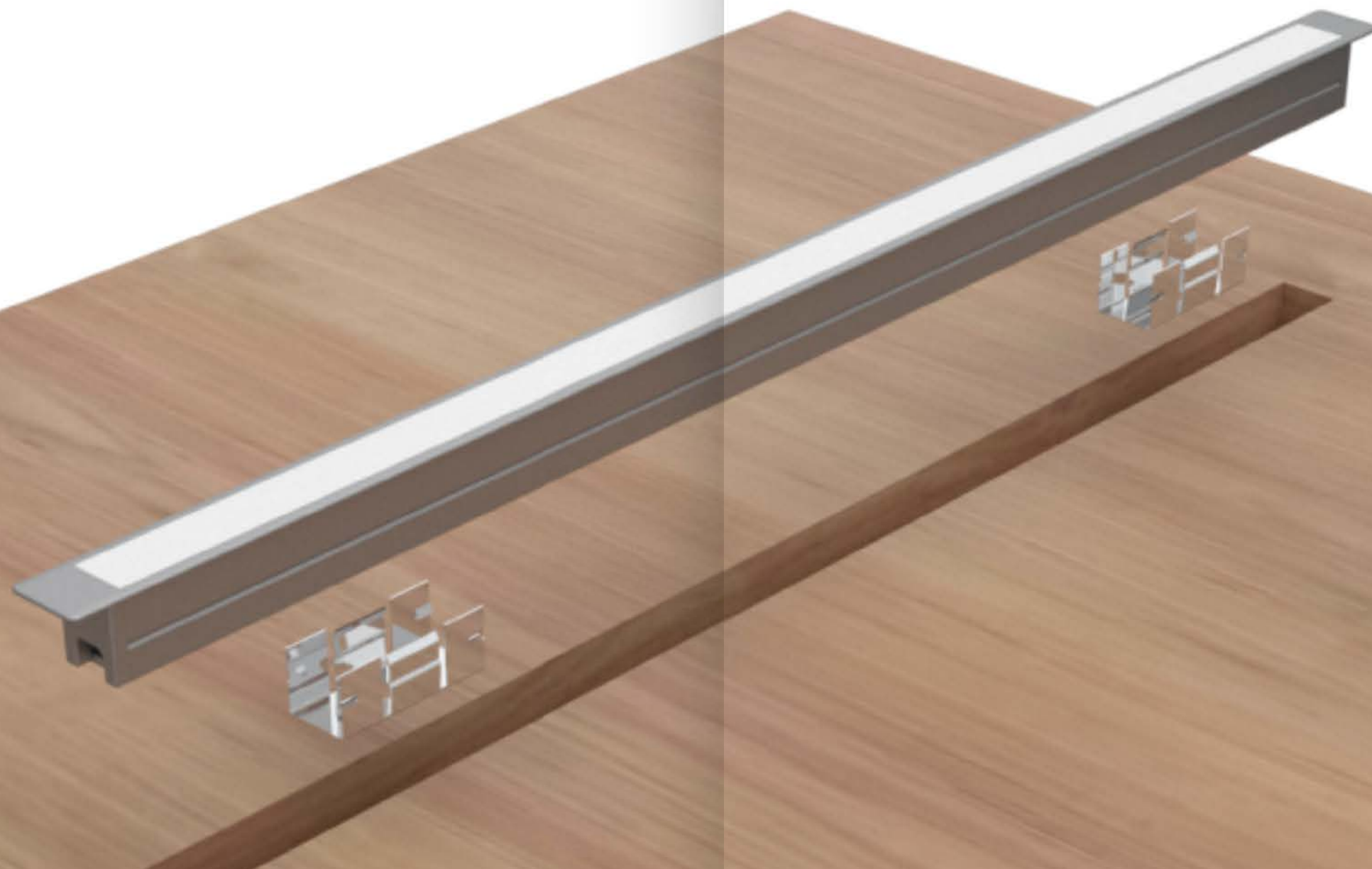


Gym



Stair & Wall Washer

# HORIZONTAL-SHELF RECESSED MOUNTING





# HORIZONTAL-SHELF RECESSED MOUNTING



Application  
Horizontal or vertical shelf of cupboard, wine cabinet,  
TV cabinet, bookcase, showcase, storage cabinet etc.

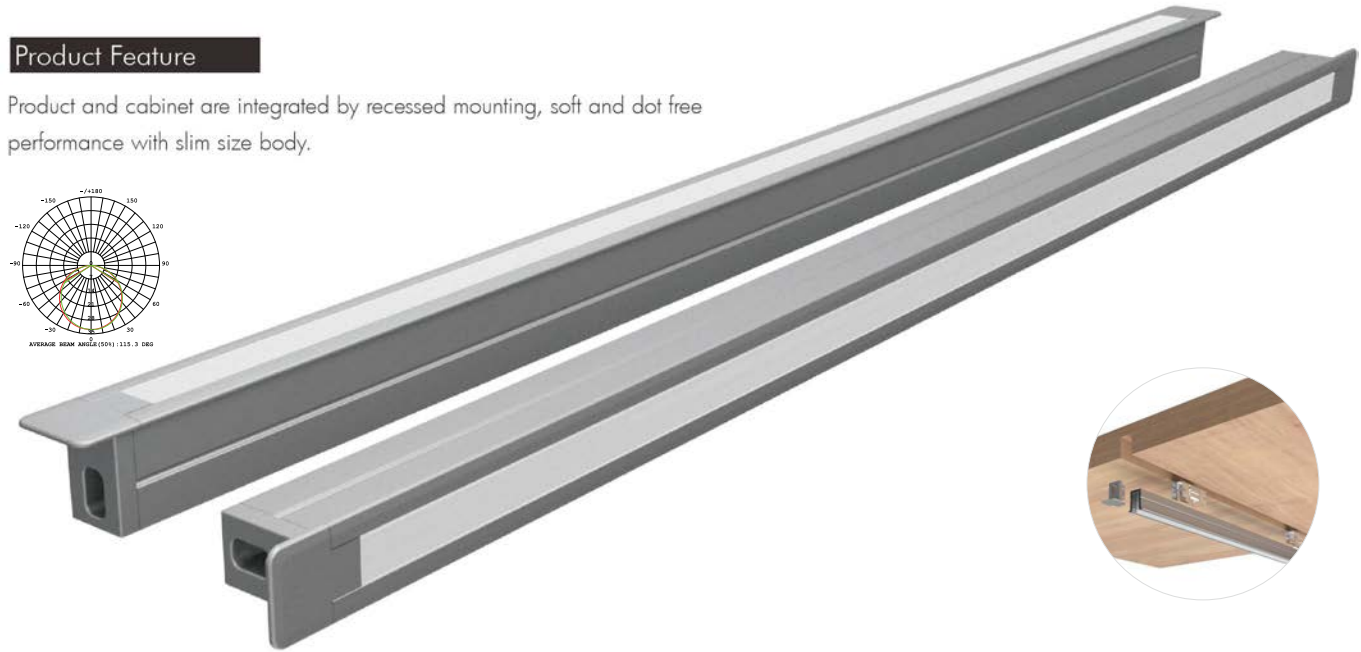
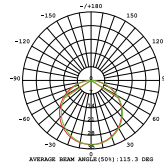


## Horizontal-Shelf Recessed Mounting

### Downward Emitting

#### Product Feature

Product and cabinet are integrated by recessed mounting, soft and dot free performance with slim size body.



Part No.: GLRES-0810S	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 192lm/M [59lm/ft.]	Brightness: 192lm/M [46lm/ft.]

Installation Method: Recessed mounting by insertion

Appearance Color (Surface Treatment):

Standard - iron grey (sand blasting)

Switch Mode (optional):

PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):

Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

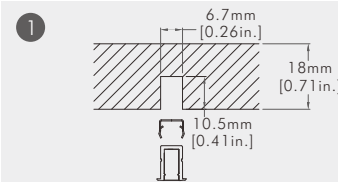
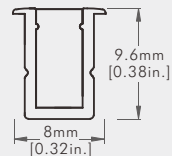
Standard Length:

Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

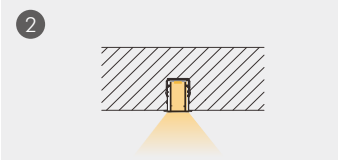
Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.

Note 2: Customized color needs to be evaluated additionally, please contact us for details.

#### Installation Diagram



Make a groove with size of W6.7\*  
H10.5mm[W0.3\*H0.4in.],  
and fix the clip to the luminary.



Insert the luminary into the groove.



# HORIZONTAL-SHELF RECESSED MOUNTING



### Application

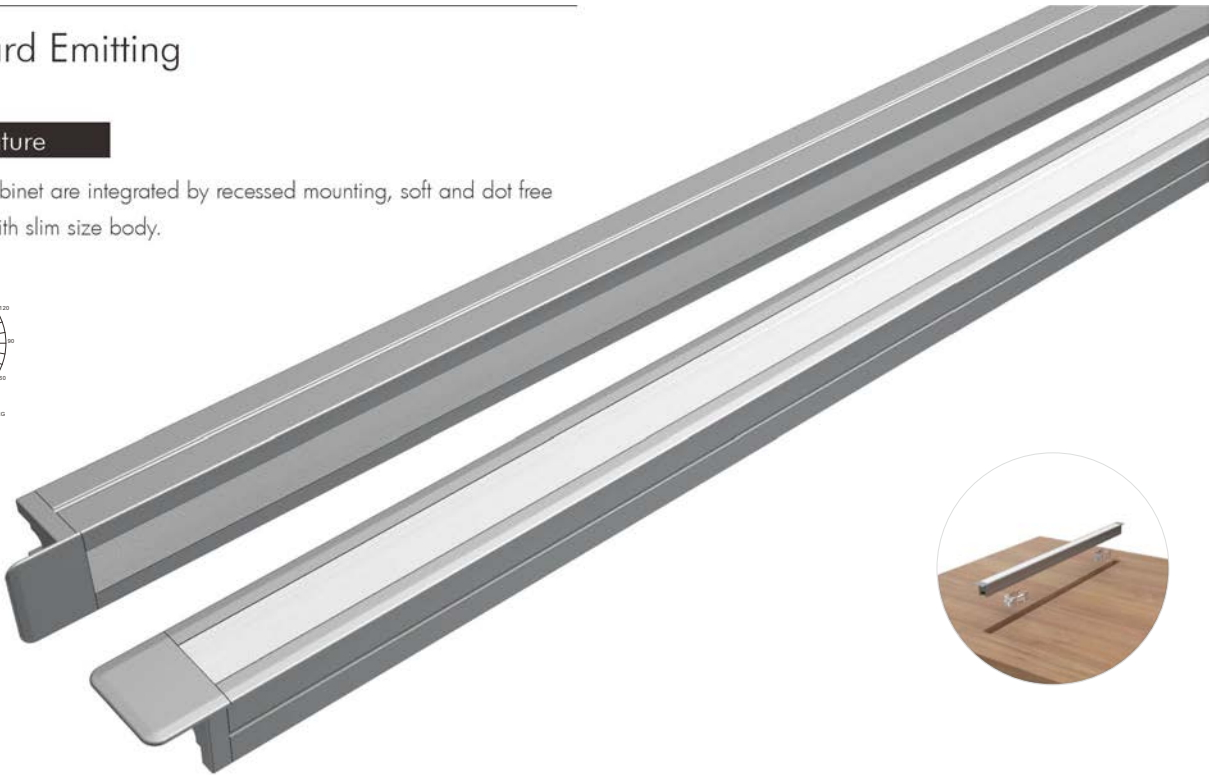
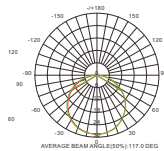
Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.

## Horizontal-Shelf Recessed Mounting

### Downward Emitting

#### Product Feature

Product and cabinet are integrated by recessed mounting, soft and dot free performance with slim size body.



Part No.: GLRES-0910A	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 160lm/M [49lm/ft.]	Brightness: 160lm/M [49lm/ft.]

Installation Method: Recessed mounting by insertion

Appearance Color (Surface Treatment):

Standard - iron grey (sand blasting)

Switch Mode (optional):

PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):

Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

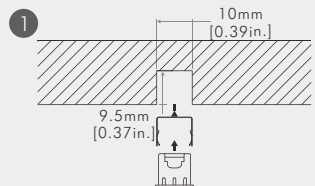
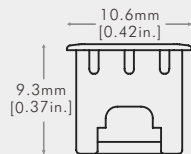
Standard Length:

Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

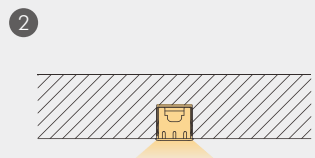
Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.

Note 2: Customized color needs to be evaluated additionally, please contact us for details.

### Installation Diagram



Make a groove with size of W10\*H9.5mm[W0.39\*H0.37in.], and fix the clip to the luminaire.



Insert the luminaire into the groove

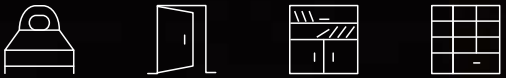


# HORIZONTAL-SHELF RECESSED MOUNTING



### Application

Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.

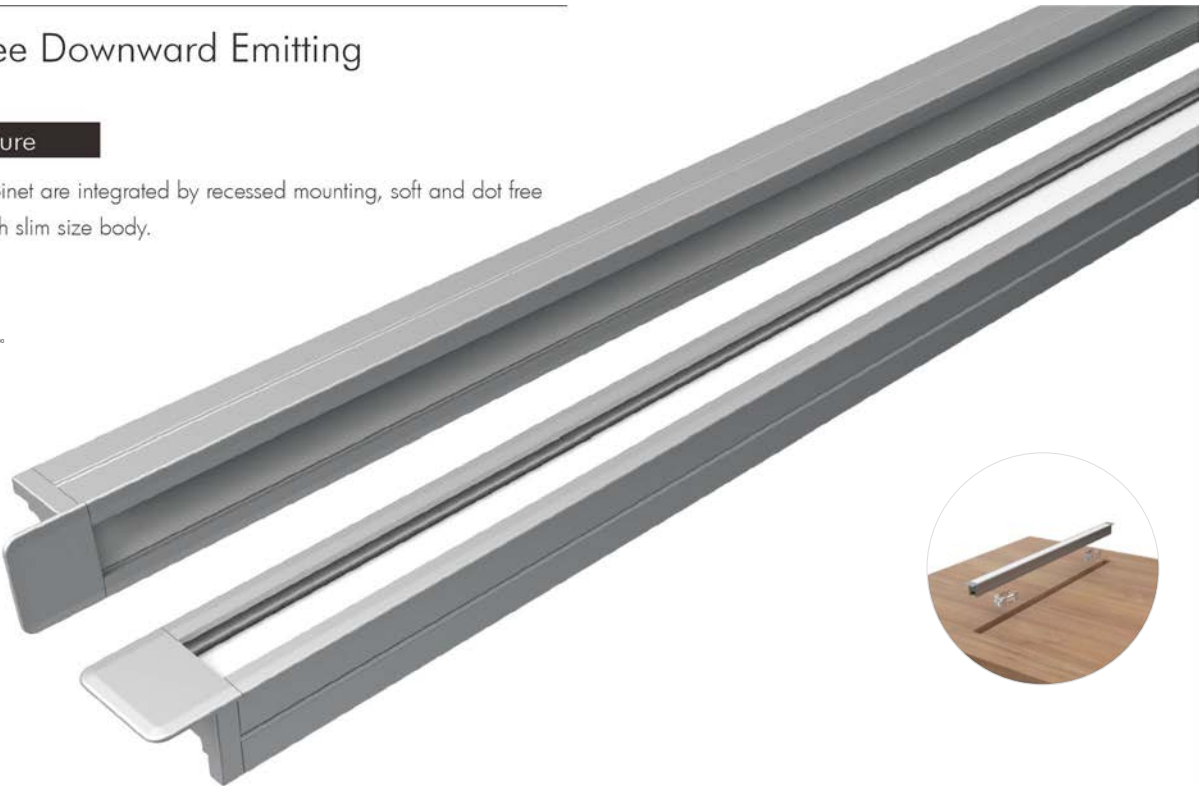
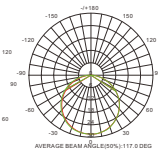


## Horizontal-Shelf Recessed Mounting

### 35 Degree Downward Emitting

#### Product Feature

Product and cabinet are integrated by recessed mounting, soft and dot free performance with slim size body.



Part No.: GLRES-0910B	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 136lm/M [41lm/ft.]	Brightness: 136lm/M [41lm/ft.]

Installation Method: Recessed mounting by insertion

Appearance Color (Surface Treatment):

Standard - iron grey (sand blasting)

Switch Mode (optional):

PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):

Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

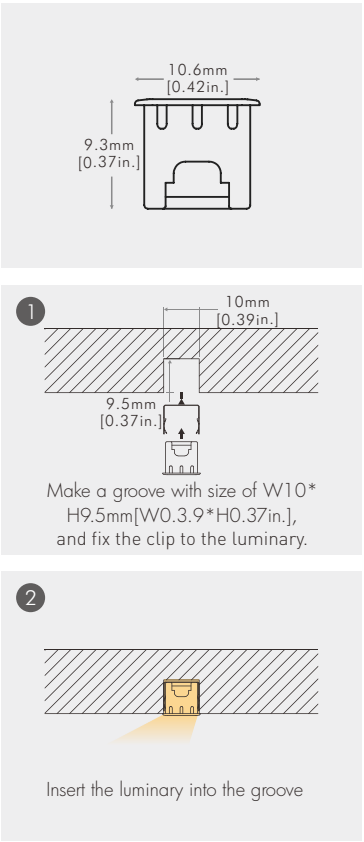
Standard Length:

Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.

Note 2: Customized color needs to be evaluated additionally, please contact us for details.

### Installation Diagram







Application

Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.

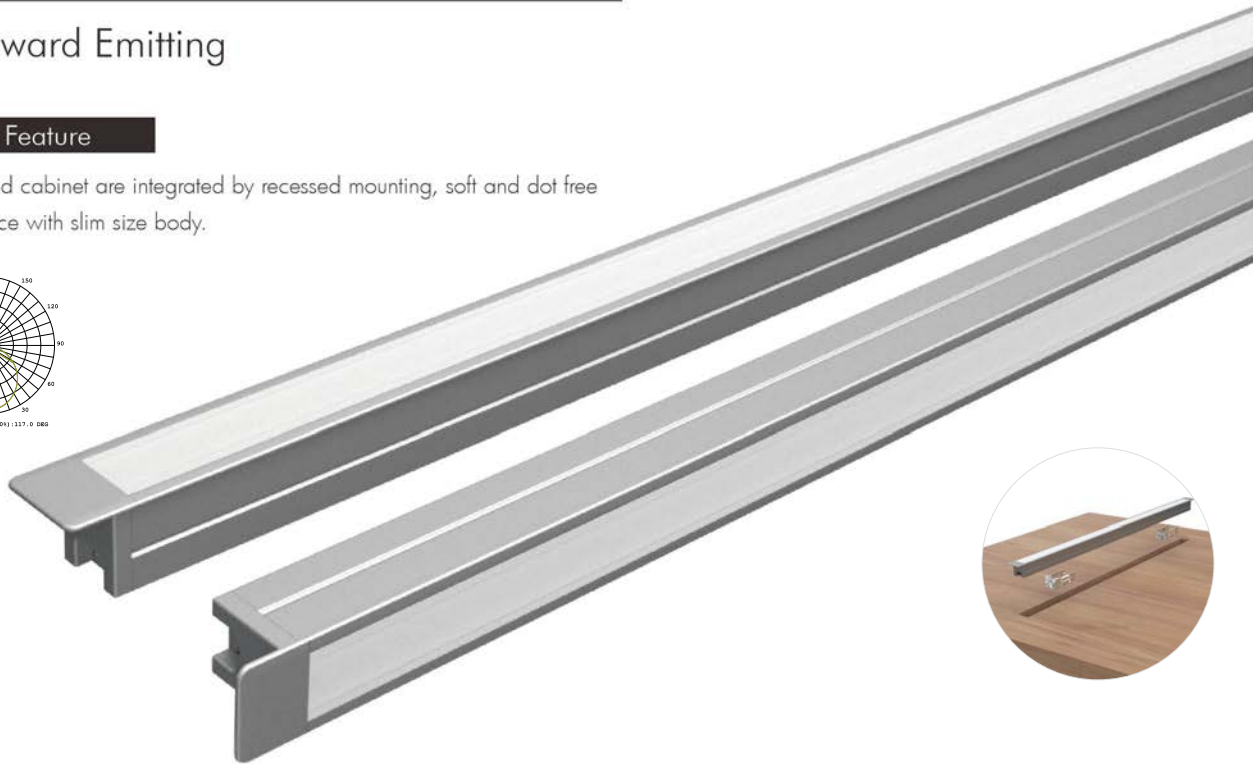
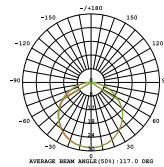


Horizontal-Shelf Recessed Mounting

Downward Emitting

Product Feature

Product and cabinet are integrated by recessed mounting, soft and dot free performance with slim size body.



Part No.: GLRES-1010B	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 184lm/M [56lm/ft.]	Brightness: 176lm/M [54lm/ft.]

Installation Method: Recessed mounting by insertion

Appearance Color (Surface Treatment):

Standard - iron grey (sand blasting)

Switch Mode (optional):

PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):

Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

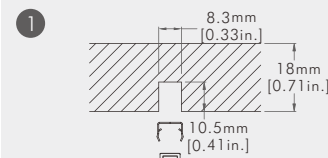
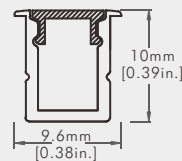
Standard Length:

Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

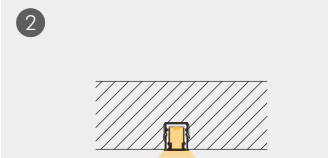
Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.

Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram



Make a groove with size of W8.3\* H10.5mm[W0.3\*H0.4in.], and fix the clip to the luminary.



Insert the luminary into the groove

# HORIZONTAL-SHELF RECESSED MOUNTING



## Horizontal-Shelf Recessed Mounting

### Downward Emitting (Solder-free Connect)

#### Product Feature

Soft and comfortable light performance, dot free with CRI90+.  
Quick assembly thank to the solder free connector design.



Part No.: GLRES-1010C	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 6.2mm [0.24in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: /
Increment: 13.5mm [0.53in.]	Increment: /
LED Density: 148LED/M [45LED/ft.]	LED Density: /
Brightness: 184lm/M [56lm/ft.]	Brightness: /

Installation Method: Recessed mounting by bracket

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting)

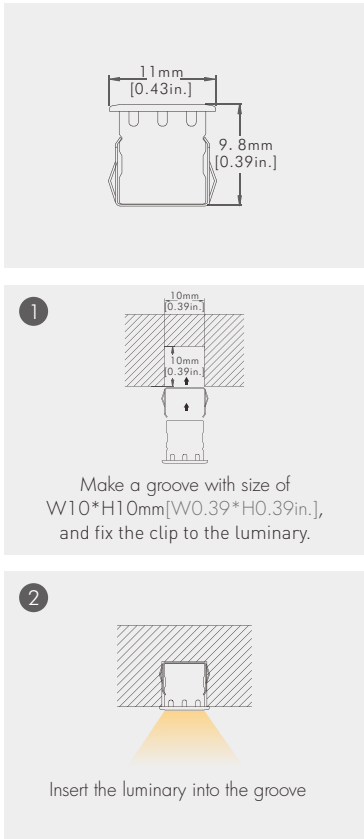
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive /  
Touch Dimming / Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of  
power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover.  
Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT  
5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

#### Installation Diagram





# HORIZONTAL-SHELF RECESSED MOUNTING



## Application

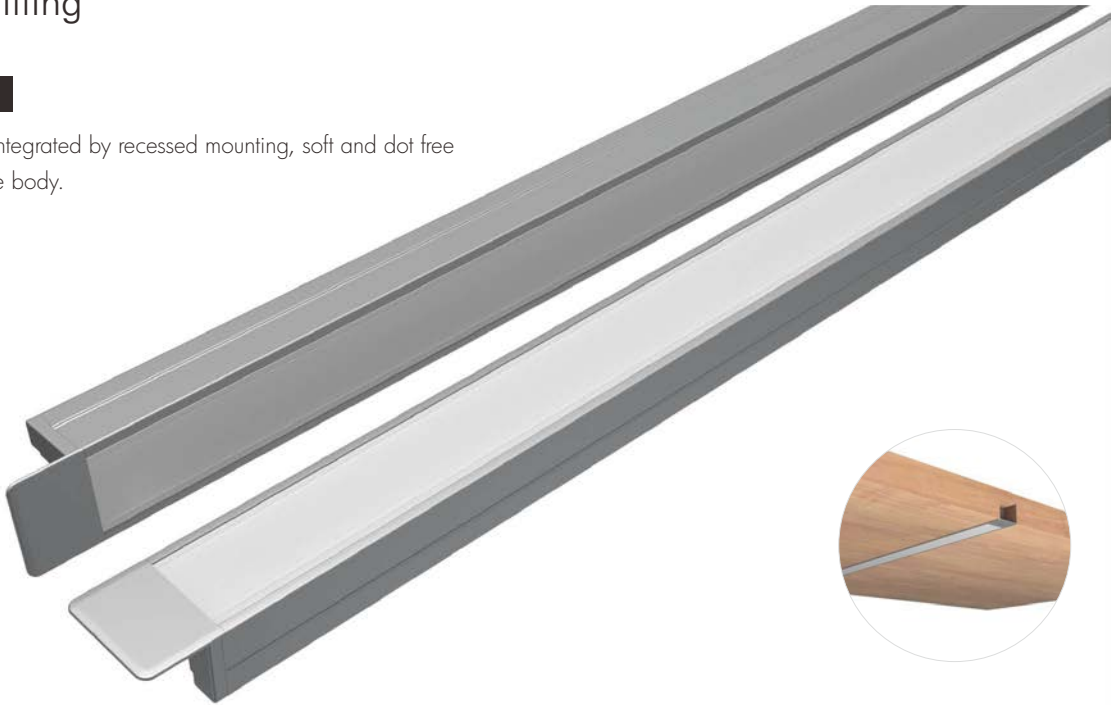
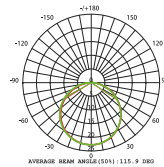
Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.

## Horizontal-Shelf Recessed Mounting

### Downward Emitting

#### Product Feature

Product and cabinet are integrated by recessed mounting, soft and dot free performance with slim size body.



Part No.: GLRES-1512B	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 240lm/M [73lm/ft.]	Brightness: 240lm/M [73lm/ft.]

Installation Method: Recessed mounting by bracket

Appearance Color (Surface Treatment):

Standard - iron grey (sand blasting)

Switch Mode (optional):

PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):

Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

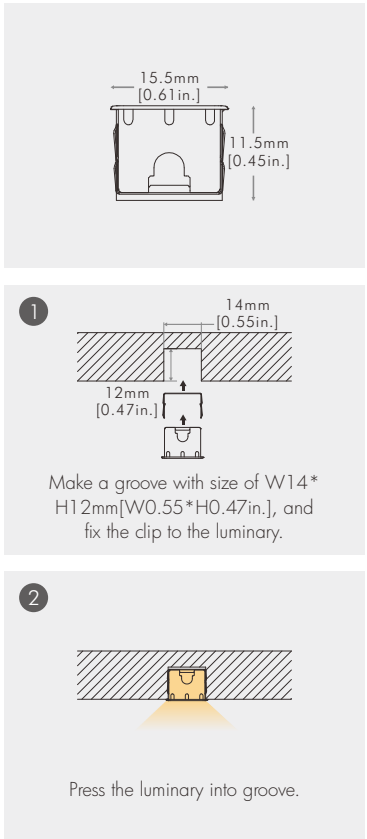
Standard Length:

Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.

Note 2: Customized color needs to be evaluated additionally, please contact us for details.

## Installation Diagram



# HORIZONTAL-SHELF RECESSED MOUNTING



## Application

Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.

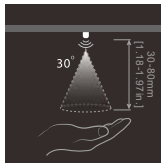
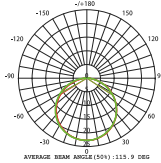


## Horizontal-Shelf Recessed Mounting

### Downward Emitting

#### Product Feature

Product and cabinet are integrated by recessed mounting, soft and dot free performance with slim size body.



Hand Scanning Sensor Switch



Part No.: GLRES-1512C	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: /
Increment: 5.59mm [0.23in.]	Increment: /
LED Density: 168LED/M [51LED/ft.]	LED Density: /
Brightness: 240lm/M [73lm/ft.]	Brightness: /

Installation Method: Recessed mounting by bracket

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting)

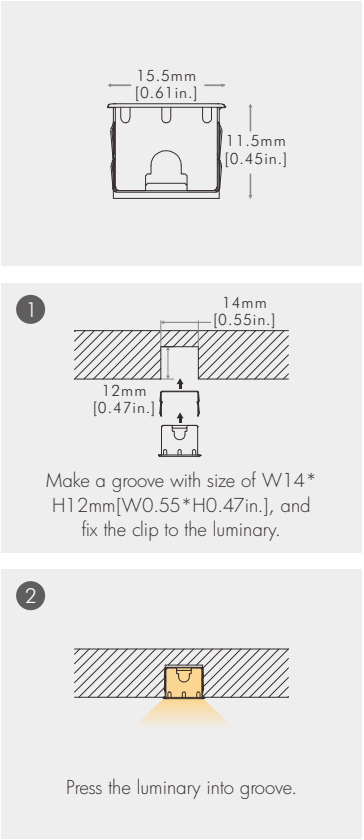
Switch Mode (standard):  
Hand Scanning Inductive

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

## Installation Diagram



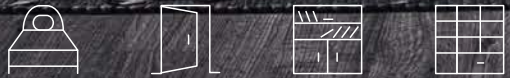


# HORIZONTAL-SHELF RECESSED MOUNTING



## Application

Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.

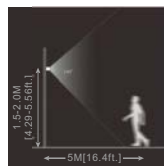
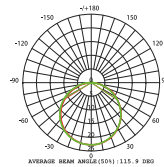


## Horizontal-Shelf Recessed Mounting

### Downward Emitting

#### Product Feature

Product and cabinet are integrated by recessed mounting, soft and dot free performance with slim size body.



5M [16.4ft.]  
PIR Sensor Switch



Part No.: GLRES-1512D	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: /
Increment: 5.59mm [0.23in.]	Increment: /
LED Density: 168LED/M [51LED/ft.]	LED Density: /
Brightness: 240lm/M [73lm/ft.]	Brightness: /

Installation Method: Recessed mounting by bracket

Appearance Color (Surface Treatment):

Standard - iron grey (sand blasting)

Switch Mode (standard):

Driver (optional):

Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

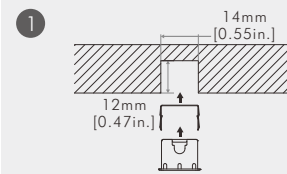
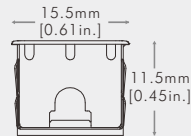
Standard Length:

Maximum shipping length is 3000mm [11.8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

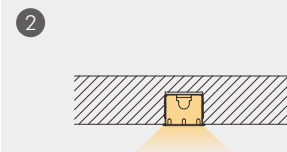
Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.

Note 2: Customized color needs to be evaluated additionally, please contact us for details.

## Installation Diagram



Make a groove with size of W14\*H12mm[W0.55\*H0.47in.], and fix the clip to the luminary.



Press the luminary into groove.





## HORIZONTAL-SHELF FRONT- EDGE MOUNTING



# HORIZONTAL-SHELF FRONT-EDGE MOUNTING



Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.

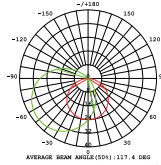


## Horizontal-Shelf Front-Edge Mounting

### 45 Degree Inward Emitting

#### Product Feature

Product and cabinet are integrated by recessed mounting, soft and dot free performance with oblique 45 degree emitting.



Part No.: GLRES-3314	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 176lm/M [54lm/ft.]	Brightness: 176lm/M [54lm/ft.]

Installation Method: Embedded into wooden shelf

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting)

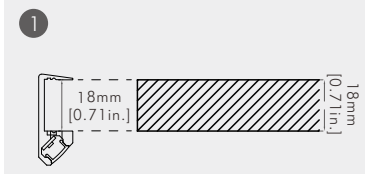
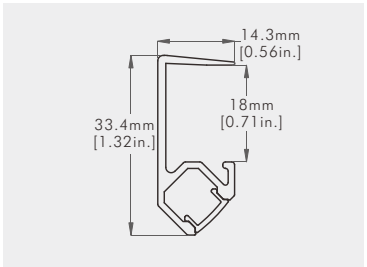
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

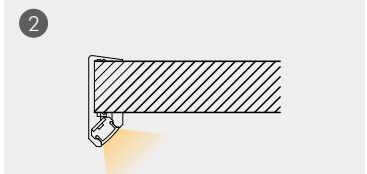
Standard Length:  
Maximum shipping length is 3000mm [11.8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

#### Installation Diagram



Clip the U-shaped groove of product to the wooden shelf in 18mm[0.71in.] thickness.



Push the product to the end until it's pressed to the wooden shelf.





## HORIZONTAL- SHELF REAR- EDGE MOUNTING

# HORIZONTAL-SHELF REAR-EDGE MOUNTING



## Application

Horizontal wooden shelf of cupboard, TV cabinet, bookcase, wardrobe, wine cabinet, showcase, storage cabinet etc.

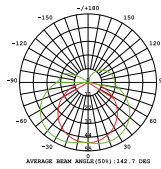


## Horizontal-Shelf Rear-Edge Mounting

Upward & Downward Emitting

### Product Feature

Illuminate the cabinet both upward and downward.



Part No.:	GLRES-1826	Power:	8W [2.44W/ft.]
CRI:	Ra>90	PCB Width:	5mm [0.2in.]
Unit QTY:	1LED SMD2216 (White)	Unit QTY:	6LED SMD2216 (CCT)
Increment:	5.59mm [0.23in.]	Increment:	17.9mm [0.7in.]
LED Density:	168LED/M [51LED/ft.]	LED Density:	168*2LED/M [51*2LED/ft.]
Brightness:	464lm/M [141lm/ft.]	Brightness:	464lm/M [141lm/ft.]

Installation Method: Embedded into wooden shelf

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting)

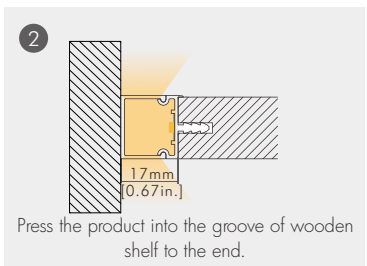
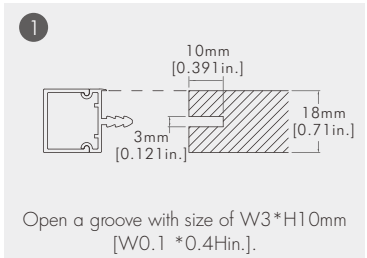
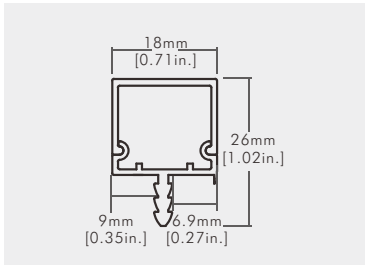
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11.8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

### Installation Diagram





# HORIZONTAL-SHELF REAR-EDGE MOUNTING



### Application

Horizontal wooden shelf of cupboard, TVcabinet, bookcase, wardrobe, wine cabinet, showcase, storage cabinet etc.

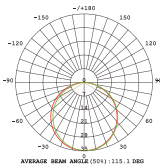


## Horizontal-Shelf Rear-Edge Mounting

Upward & Downward Emitting

### Product Feature

Illuminate the whole glass panel by edge-lit with the principle of light guide, well integrated with glass shelf and creat colorful performance.



Part No.: GLRES-1019	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 80lm/M [24lm/ft.]	Brightness: 80lm/M [24lm/ft.]

Installation Method: Stick to the wooden shelf by tape firstly, and then clamped by the wooden shelf.

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting)

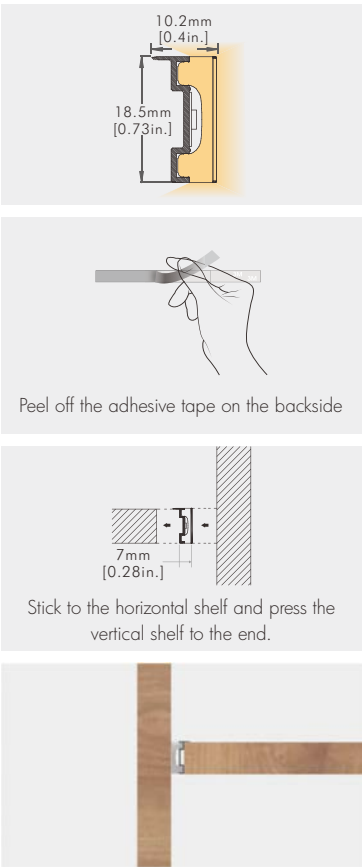
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

### Installation Diagram





# HORIZONTAL-SHELF REAR-EDGE MOUNTING



### Application

Horizontal wooden shelf of cupboard, TVcabinet, bookcase, wardrobe, wine cabinet, showcase, storage cabinet etc.



## Horizontal-Shelf Rear-Edge Mounting

Upward & Downward Emitting (Solder-free Connect)

### Product Feature

Upward and downward emitting light design.  
Quick assembly thank to the solder free connector design.



Part No.:	GLRES-0818B	Power:	8W [2.44W/ft.]
CRI:	Ra>90	PCB Width:	6.8mm [0.27in.]
Unit QTY:	1LED SMD2216 (White)	Unit QTY:	/
Increment:	13.5mm [0.53in.]	Increment:	/
LED Density:	148LED/M [45LED/ft.]	LED Density:	/
Brightness:	110lm/M [34lm/ft.]	Brightness:	/

Installation Method: Embedded into wooden shelf

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting)

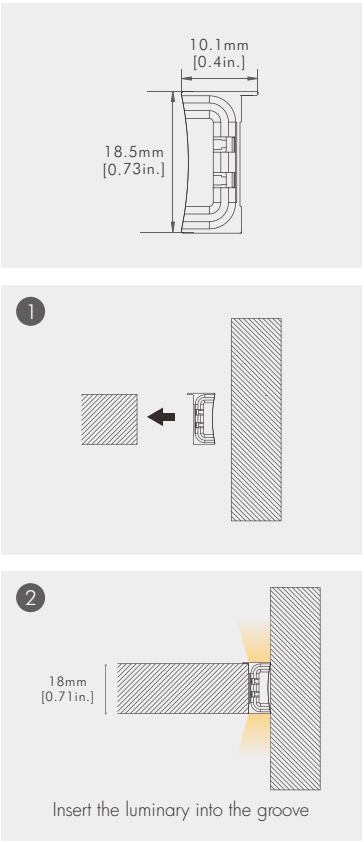
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

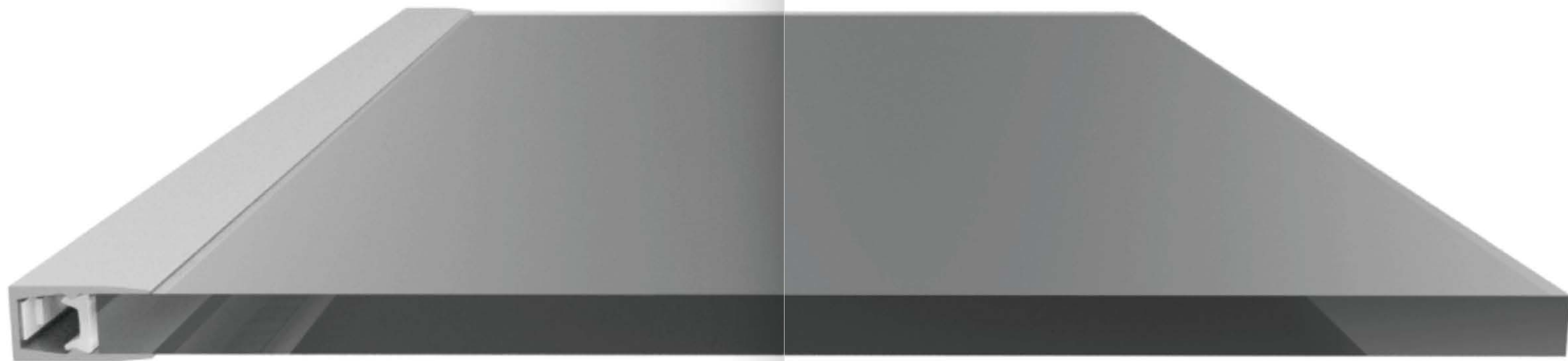
Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover.  
Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

### Installation Diagram





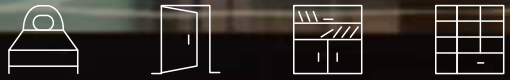
## GLASS SHELF REAR-EDGE MOUNTING





Application

Horizontal wooden shelf of cupboard, TV cabinet, bookcase, wardrobe, wine cabinet, showcase, storage cabinet etc.

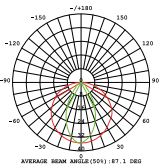


Glass Shelf Rear-Edge Mounting

Forward Emitting

Product Feature

Illuminate the whole glass panel by edge-lit with the principle of light guide, well integrated with glass shelf and creat colorful performance.



Part No.: GLRES-1018	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 80lm/M [24lm/ft.]	Brightness: 80lm/M [24lm/ft.]

Installation Method: Clip to the glass edge

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting)

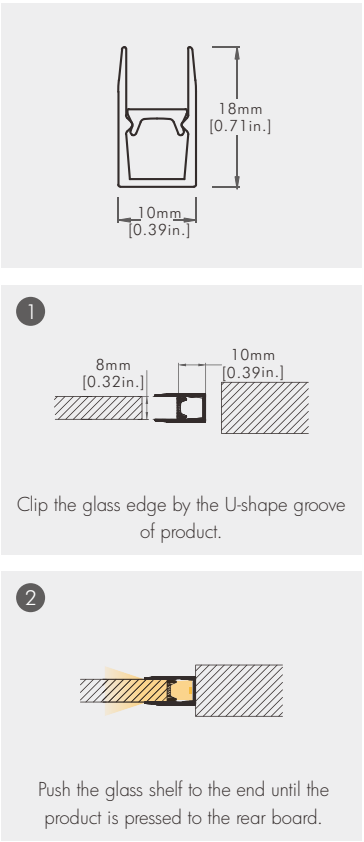
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram



# GLASS SHELF REAR-EDGE MOUNTING



**Application**  
Horizontal wooden shelf of cupboard, TV cabinet, bookcase, wardrobe, wine cabinet, showcase, storage cabinet etc.

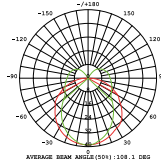


## Glass Shelf Rear-Edge Mounting

### Forward Emitting

#### Product Feature

Illuminate the whole glass panel by edge-lit with the principle of light guide, well integrated with glass shelf and creat colorful performance.



Part No.: GLRES-1218	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 304lm/M [93lm/ft.]	Brightness: 304lm/M [93lm/ft.]

Installation Method: Clip to the glass edge

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting)

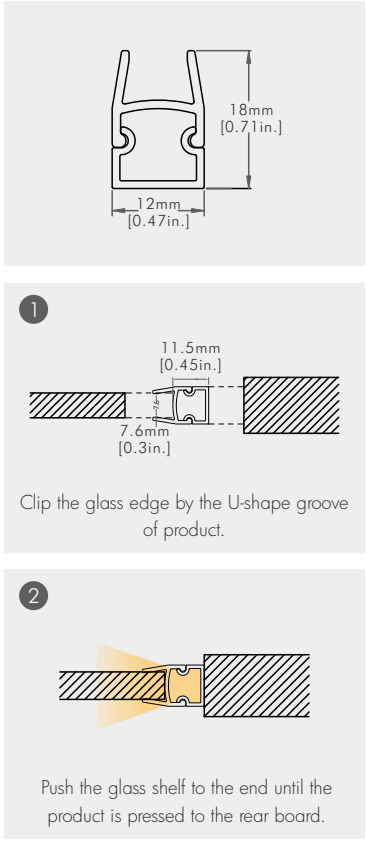
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11.8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

#### Installation Diagram







Application

Horizontal wooden shelf of cupboard, TVcabinet, bookcase, wardrobe, wine cabinet, showcase, storage cabinet etc.



Glass Shelf Rear-Edge Mounting

Forward Emitting

Product Feature

Illuminate the whole glass panel by edge-lit with the principle of light guide, well integrated with glass shelf and creat colorful performance.



Part No.: GLRES-1115A	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 6.8mm [0.27in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: /
Increment: 13.5mm [0.53in.]	Increment: /
LED Density: 148LED/M [45LED/ft.]	LED Density: /
Brightness: 280lm/M [85lm/ft.]	Brightness: /

Installation Method: Clip to the glass edge

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting)

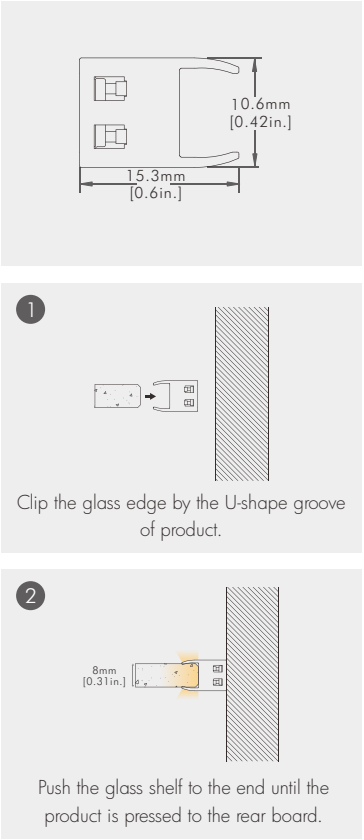
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

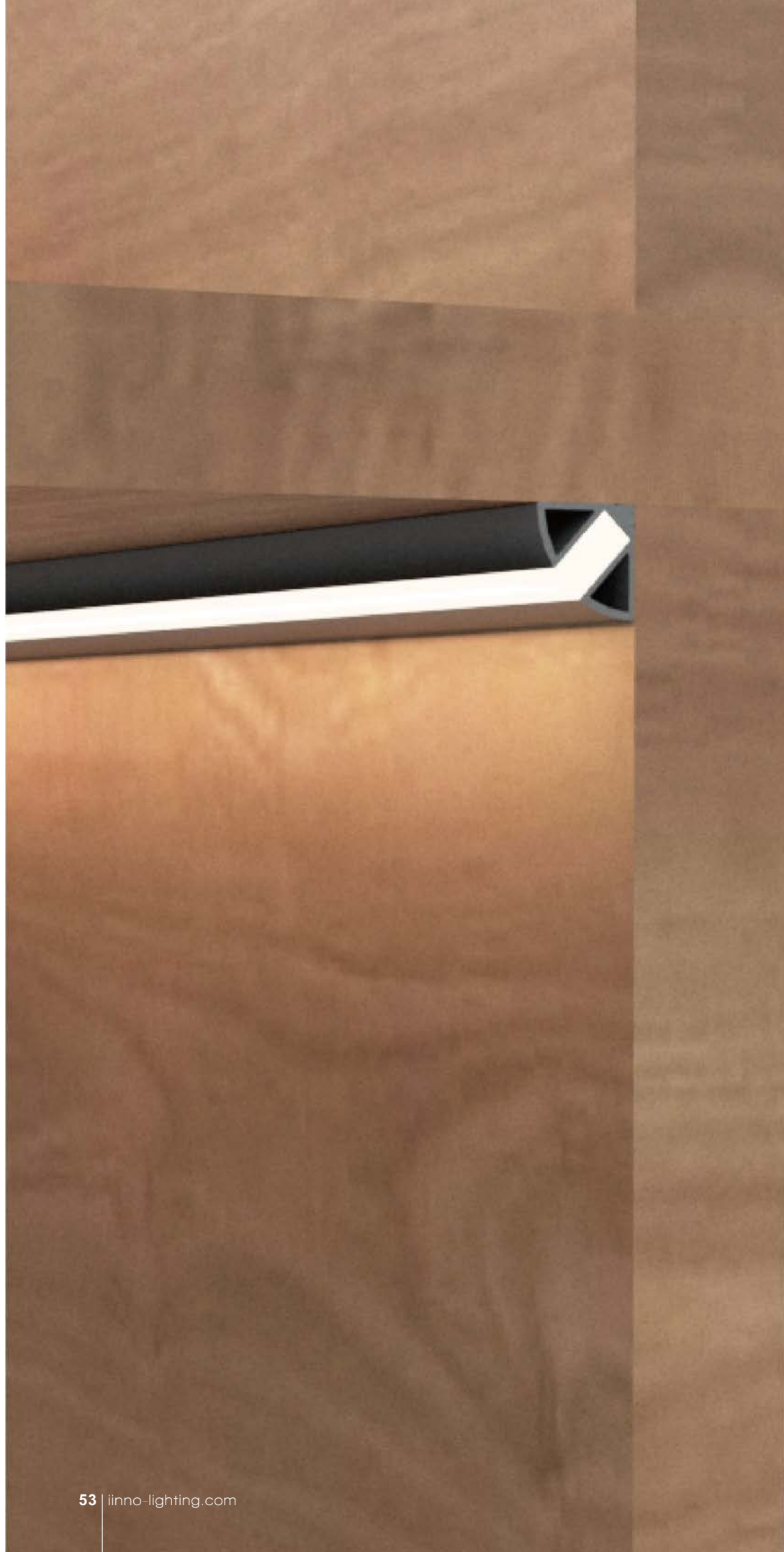
Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11.8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram





## HORIZONTAL- SHELF SURFACE MOUNTING



# HORIZONTAL-SHELF SURFACE MOUNTING



### Application

Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.

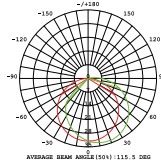


## Horizontal-Shelf Surface Mounting

### Downward Emitting

#### Product Feature

Convenient installation by adhesive tape or bracket without grooving, classic appearance, compact design, easy maintenance.



Part No.: GLRES-1209	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 160lm/M [49lm/ft.]	Brightness: 160lm/M [49lm/ft.]

Installation Method: Recessed mounting by adhesive tape or bracket

Appearance Color (Surface Treatment):  
Standard - silver (Anodizing)

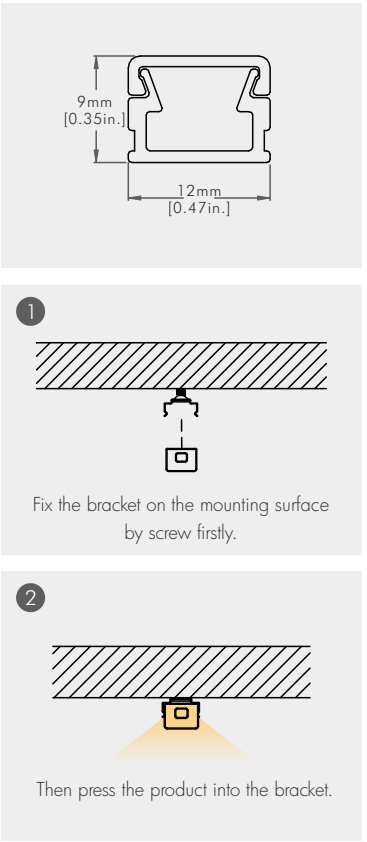
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

### Installation Diagram







Application

Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.

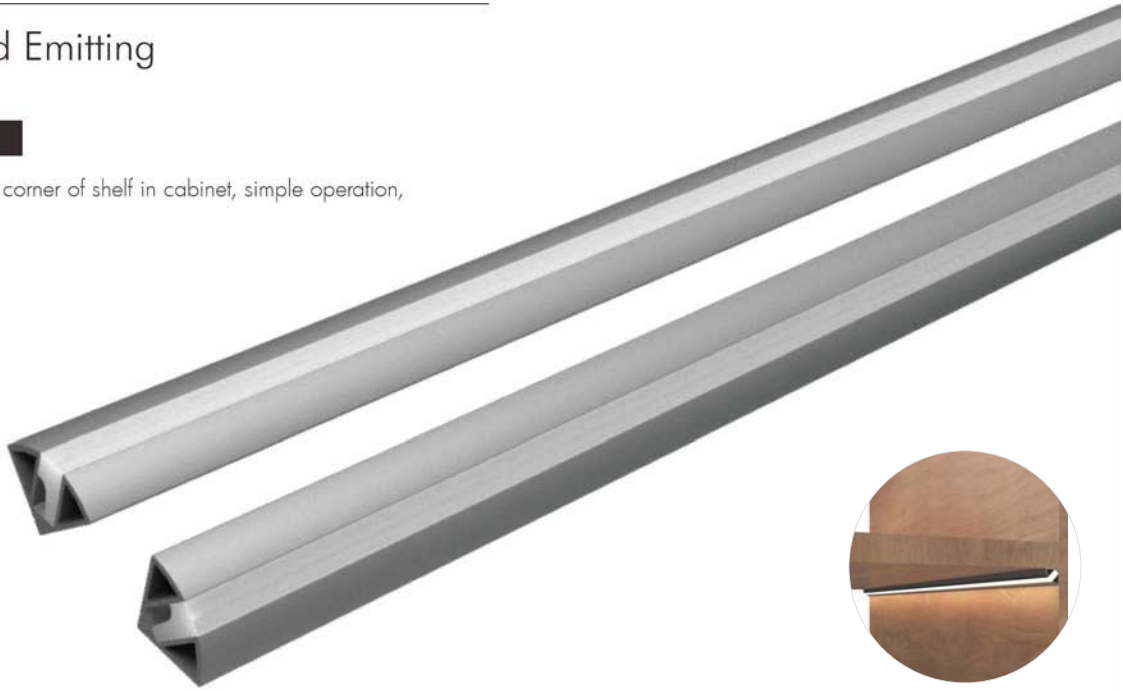
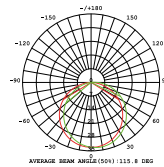


Horizontal-Shelf Surface Mounting

Corner Inward Emitting

Product Feature

Surface mounting on the corner of shelf in cabinet, simple operation, uniform illumination.



Part No.: GLRES-1611	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 224lm/M [68lm/ft.]	Brightness: 224lm/M [68lm/ft.]

Installation Method: Surface mounting on corner by adhesive

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting)

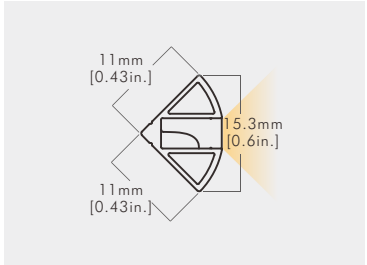
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram



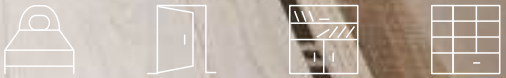


# HORIZONTAL-SHELF SURFACE MOUNTING



### Application

Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.



## Horizontal-Shelf Surface Mounting

### Corner Inward Emitting (Solder-free Connect)

#### Product Feature

Special design for corner mounting with the bracket.  
Quick assembly thank to the solder free connector design.



Part No.: GLRES-1616A	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 7.8mm [0.31in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: /
Increment: 13.5mm [0.53in.]	Increment: /
LED Density: 148LED/M [45LED/ft.]	LED Density: /
Brightness: 410lm/M [125lm/ft.]	Brightness: /

Installation Method: Surface mounting on corner by bracket

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting)

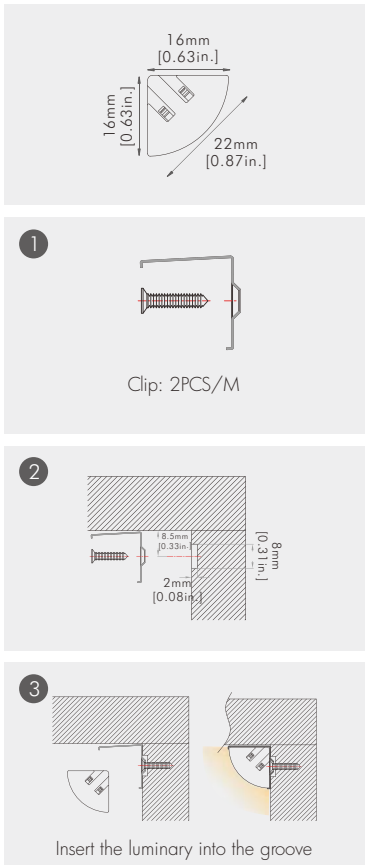
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover.  
Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

### Installation Diagram



## VERTICAL-SHELF RECESSED MOUNTING







Application

Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.

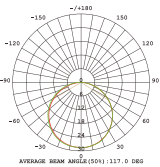


Vertical-Shelf Recessed Mounting

Side Emitting

Product Feature

Product and cabinet are integrated by recessed mounting, soft and dot free performance with slim size body.



Part No.:	GLRES-0806	Power:	6W [1.83W/ft.]
CRI:	Ra>90	PCB Width:	6mm [0.23in.]
Unit QTY:	1LED SMD2216 (White)	Unit QTY:	/
Increment:	5.59mm [0.23in.]	Increment:	/
LED Density:	168LED/M [51LED/ft.]	LED Density:	/
Brightness:	144lm/M [44lm/ft.]	Brightness:	/
Installation Method: Recessed mounting by insertion			

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting)

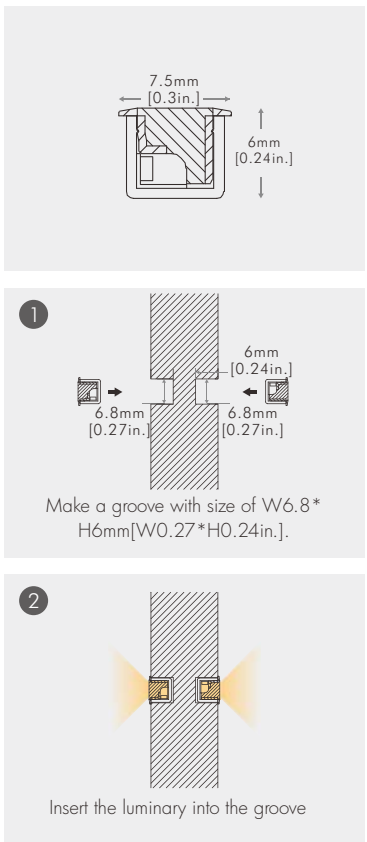
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram





VERTICAL-SHELF RECESSED MOUNTING



Application

Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.

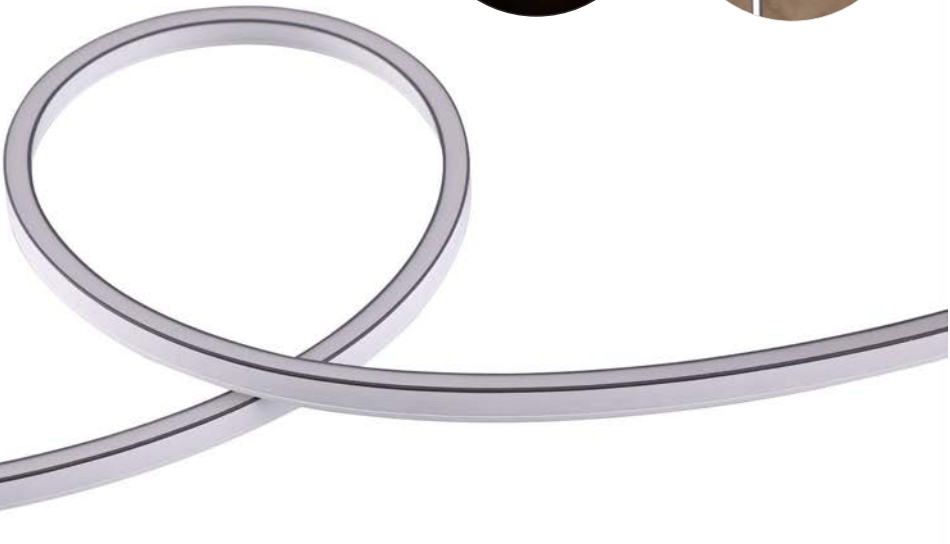
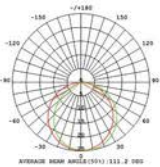


Vertical-Shelf Recessed Mounting - Neon Strip Slight Series

With Black Trim

Product Feature

Perfect recessed mounting with furniture, ultra-slim and dot-free linear lighting performance, flexible bend to build any mould.



Part No.:	GLRES-0610(with black trim)	Power:	6W [1.83W/ft.]
CRI:	Ra>90	PCB Width:	5mm [0.2in.]
Unit QTY:	1LED SMD2835 (White)	Unit QTY:	/
Increment:	Free-cutting to be any length	Increment:	/
LED Density:	120LED/M [36LED/ft.]	LED Density:	/
Brightness:	120lm/M [37lm/ft.]	Brightness:	/

Installation Method: Recessed into groove

Appearance Color (Surface Treatment):  
Standard - Milky

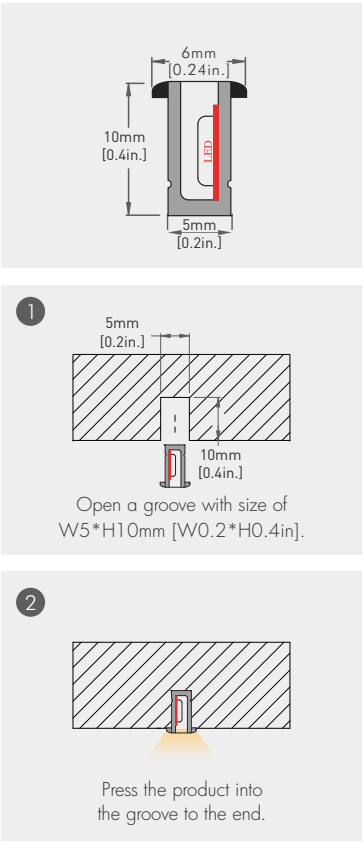
Switch Mode (optional):  
PIR/ Single Door Contact / Double Doors Contact / Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Customized length is available, and the Max. length is 3000mm[118in.].

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram





# HANDLE-FREE CABINET LIGHTING



### Application

Horizontal wooden shelf of cupboard, TV cabinet, bookcase, wardrobe, wine cabinet, showcase, storage cabinet etc.

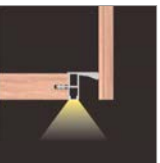
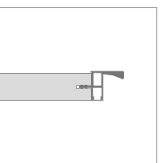
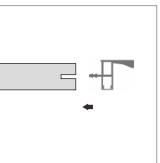


## Handle-Free Cabinet Lighting - Horizontal Plate Linear Light

### Downward Emitting

#### Product Feature

Ideal for handel-free horizontal cabinet, firm and reliable with bolt structure design.  
Perfect task light with soft and uniform lighting performance for the operating console.



Part No.:	GLRES-2118	Power:	8W [2.44W/ft.]
CRI:	Ra>90	PCB Width:	5mm [0.2in.]
Unit QTY:	1LED SMD2216 (White)	Unit QTY:	6LED SMD2216 (CCT)
Increment:	5.59mm [0.23in.]	Increment:	17.9mm [0.7in.]
LED Density:	168LED/M [51LED/ft.]	LED Density:	168*2LED/M [51*2LED/ft.]
Brightness:	200lm/M [61lm/ft.]	Brightness:	200lm/M [61lm/ft.]

Installation Method: Embedded into wooden shelf

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting) & brassy (brushing)

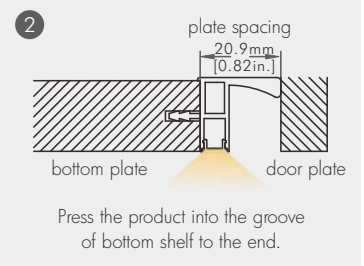
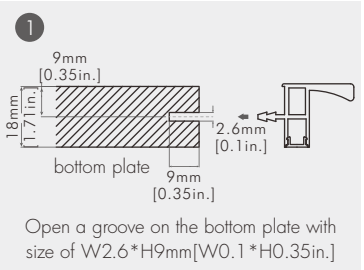
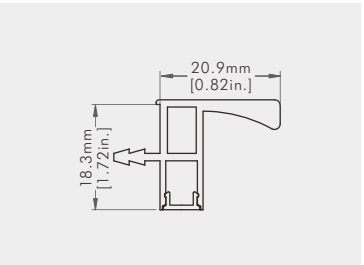
Switch Mode (optional):  
PIR/ Hand Scanning Inductive / Touch Dimming / Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

### Installation Diagram





Application

Horizontal wooden shelf of cupboard, TV cabinet, bookcase, wardrobe, wine cabinet, showcase, storage cabinet etc.

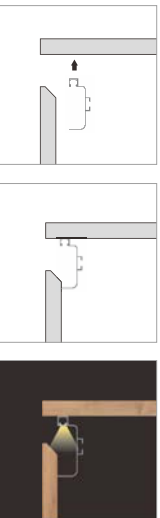


Handle-Free Cabinet Lighting - Floor Plate Linear Light

Diffuse Reflection Emitting

Product Feature

Ideal for handel-free floor cabinet, diffuse reflection emitting design.  
Hidden accent light with soft and uniform lighting performance.



Part No.: GLRES-2560	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 72lm/M [22lm/ft.]	Brightness: 72lm/M [22lm/ft.]

Installation Method: Fixed by installation accessory

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting) & brassy (brushing)

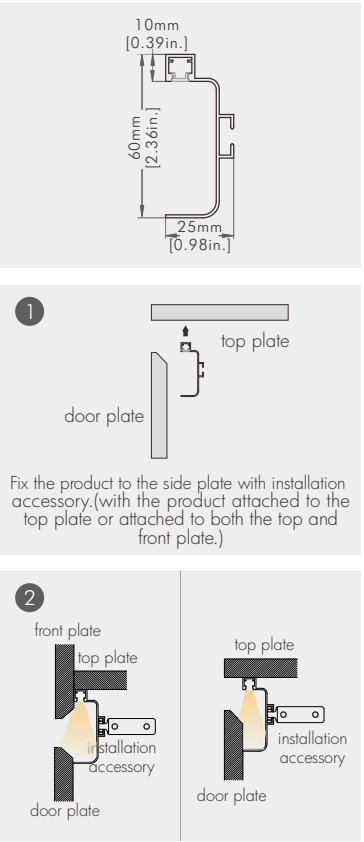
Switch Mode (optional):  
PIR/ Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover.  
Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram







Application

Vertical wooden shelf of cupboard, TV cabinet, bookcase, wardrobe, wine cabinet, showcase, storage cabinet etc.

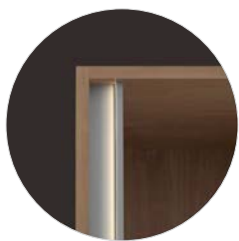
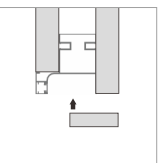
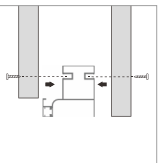


Handle-Free Cabinet Lighting - Single-Door Vertical Plate Linear Light

Diffuse Reflection Emitting

Product Feature

Ideal for handel-free single-door vertical cabinet, diffuse reflection emitting design.  
Hidden accent light with soft and uniform lighting performance.



Part No.: GLRES-4848	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 80lm/M [24lm/ft.]	Brightness: 80lm/M [24lm/ft.]

Installation Method: Recessed mounting by screw

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting) & brassy (brushing)

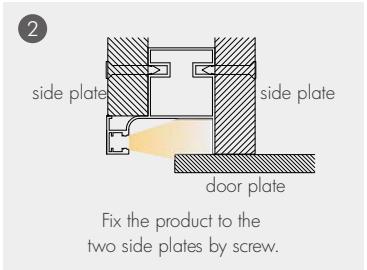
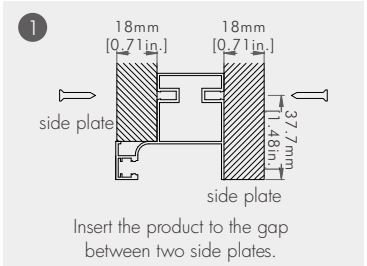
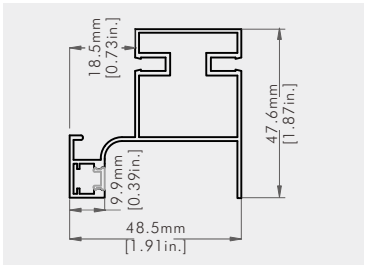
Switch Mode (optional):  
PIR/ Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover.  
Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram





Application

Vertical wooden shelf of cupboard, TV cabinet, bookcase, wardrobe, wine cabinet, showcase, storage cabinet etc.

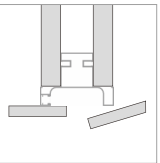
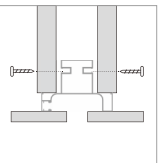


Handle-Free Cabinet Lighting - Double-Door Vertical Plate Linear Light

Diffuse Reflection Emitting

Product Feature

Ideal for handel-free double-doors vertical cabinet, diffuse reflection emitting.  
Hidden accent light with soft and uniform lighting perfor.



Part No.: GLRES-4767	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 72lm/M [22lm/ft.]	Brightness: 72lm/M [22lm/ft.]

Installation Method: Recessed mounting by screw

Appearance Color (Surface Treatment):  
Standard - iron grey (sand blasting) & brassy (brushing)

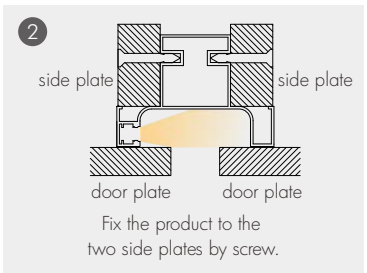
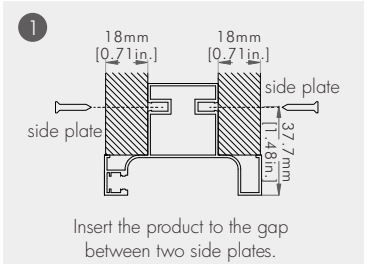
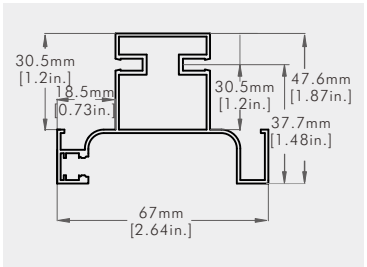
Switch Mode (optional):  
PIR/ Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover.  
Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram







Application

Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.



Drawer Lighting

IR Door Contact

Product Feature

Dot-free linear performance, strong and easy installation by bracket, built-in door contact sensor. Outward emitting light, Ideal for drawer.



Part No.: GLRES-2110A	Power: 6W [1.83W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 6LED SMD2835 (White)	Unit QTY: /
Increment: 50mm [0.23in.]	Increment: /
LED Density: 120LED/M [36LED/ft.]	LED Density: /
Brightness: 280lm/M [85lm/ft.]	Brightness: /
Installation Method: Surface mounting by bracket	

Appearance Color (Surface Treatment):  
Standard - matte silver (polishing)

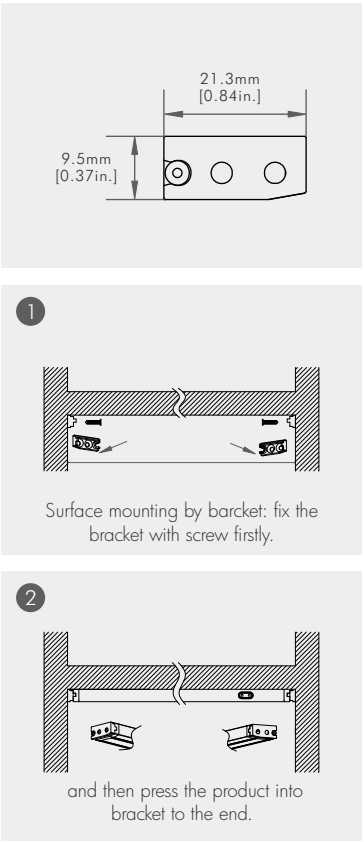
Switch Mode (optional):  
Doors Contact

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram





Application

Horizontal or vertical shelf of cupboard, wine cabinet, TV cabinet, bookcase, showcase, storage cabinet etc.

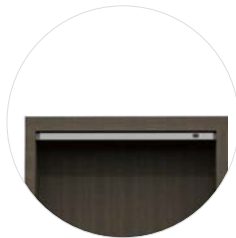


Drawer Lighting

IR Door Contact

Product Feature

Dot-free linear performance, strong and easy installation by bracket, built-in door contact sensor. Inward emitting light, Ideal for floor cabinet.



Part No.: GLRES-2110B	Power: 6W [1.83W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 6LED SMD2835 (White)	Unit QTY: /
Increment: 50mm [0.23in.]	Increment: /
LED Density: 120LED/M [36LED/ft.]	LED Density: /
Brightness: 280lm/M [85lm/ft.]	Brightness: /
Installation Method: Surface mounting by bracket	

Appearance Color (Surface Treatment):  
Standard - matte silver (polishing)

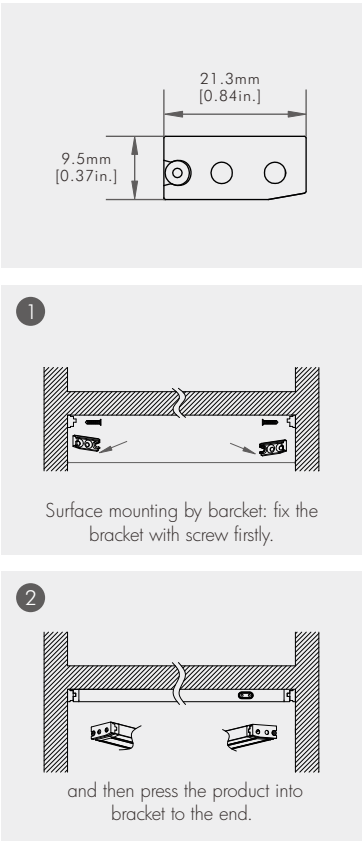
Switch Mode (optional):  
Doors Contact

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram







Application

Wall base lighting in bedroom, corridor, study room, storage room etc.

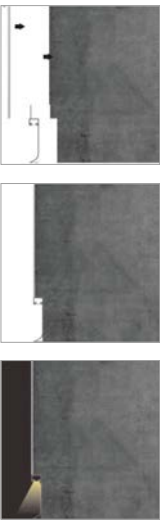


Skirt Lighting

Diffuse Reflection Emitting

Product Feature

Well integrated with wall base, downward illumination, soft lighting performance with diffuse reflection emitting.



Part No.: GLRES-1378	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 80lm/M [24lm/ft.]	Brightness: 80lm/M [24lm/ft.]

Installation Method: Recessed mounting by adhesive

Appearance Color (Surface Treatment):  
Standard-iron grey (sand blasting)

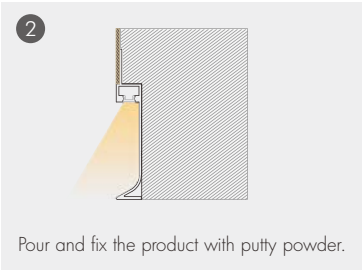
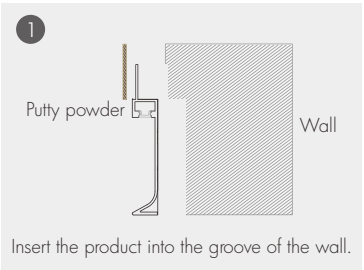
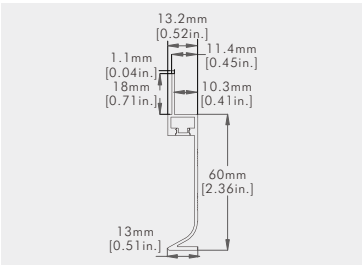
Switch Mode (optional):  
PIR/ Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram





Application

Wall base lighting in bedroom, corridor, study room, storage room etc.



Skirt Lighting

Diffuse Reflection Emitting

Product Feature

Well integrated with wall base, downward illumination, soft lighting performance with diffuse reflection emitting.



Part No.: GLRES-1365	Power: 8W [2.44W/ft.]
CRI: Ra>90	PCB Width: 5mm [0.2in.]
Unit QTY: 1LED SMD2216 (White)	Unit QTY: 6LED SMD2216 (CCT)
Increment: 5.59mm [0.23in.]	Increment: 17.9mm [0.7in.]
LED Density: 168LED/M [51LED/ft.]	LED Density: 168*2LED/M [51*2LED/ft.]
Brightness: 80lm/M [24lm/ft.]	Brightness: 80lm/M [24lm/ft.]

Installation Method: Recessed mounting by nail

Appearance Color (Surface Treatment):  
Standard-iron grey (sand blasting)

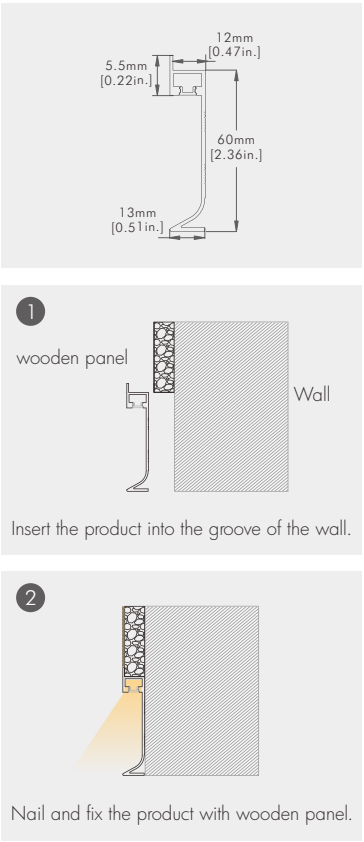
Switch Mode (optional):  
PIR/ Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11 8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

Installation Diagram







Application

Wall base lighting in bedroom, corridor, study room, storage room etc.

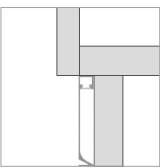
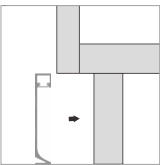


Skirt Lighting

Diffuse Reflection Emitting

Product Feature

Well integrated with wall base, downward illumination, soft lighting performance with diffuse reflection emitting.



Part No.:	GLRES-1060	Power:	8W [2.44W/ft.]
CRI:	Ra>90	PCB Width:	5mm [0.2in.]
Unit QTY:	1LED SMD2216 (White)	Unit QTY:	6LED SMD2216 (CCT)
Increment:	5.59mm [0.23in.]	Increment:	17.9mm [0.7in.]
LED Density:	168LED/M [51LED/ft.]	LED Density:	168*2LED/M [51*2LED/ft.]
Brightness:	80lm/M [24lm/ft.]	Brightness:	80lm/M [24lm/ft.]

Installation Method: Recessed mounting by adhesive

Appearance Color (Surface Treatment):  
Standard-iron grey (sand blasting)

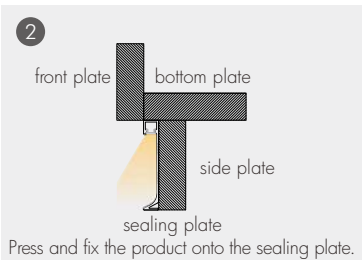
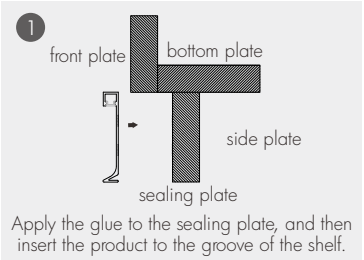
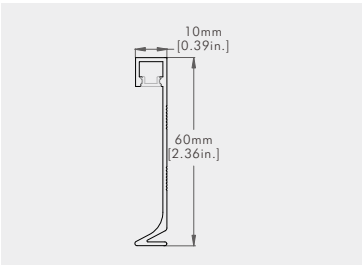
Switch Mode (optional):  
PIR/ Wireless

Driver (optional):  
Self-developed 20/30/48/60/72/100W power supply, or other types of power supply.

Standard Length:  
Maximum shipping length is 3000mm [11.8in.] for the aluminum profile and cover. Customized sizes within the maximum length are also acceptable.

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.  
Note 2: Customized color needs to be evaluated additionally, please contact us for details.

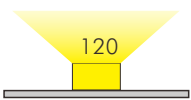
Installation Diagram



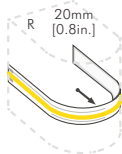
LED STRIP LIGHT SOURCE

LED Flexible Strip

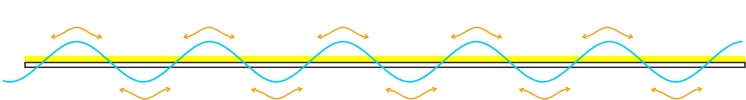
Style	Diagram	Width	LED Type	LED QTY	Voltage	Power	Brightness@ 4000K&IP20	Light Efficacy	Energy Efficiency Class	CRI	CCT	IP Rating	Increment	Shipping Length
White (Short Cutting)		5mm [0.2in.]	2216	168LEDs/M [51LEDs/ft.]	24V	8W/M [2.44W/ft.]	640lm/M [195lm/ft.]	80lm/W	G	>90			 5.59mm [0.23in.]	 5000mm [197in.]
White (Short Cutting)		6mm [0.24in.]	2216	168LEDs/M [51LEDs/ft.]	24V	6W/M [1.83W/ft.]	480lm/M [146lm/ft.]	80lm/W	G	>90			 5.59mm [0.23in.]	 5000mm [197in.]
CCT		5mm [0.2in.]	2216	168LEDs*2/M [51LEDs*2/ft.]	24V	4W*2/M [1.22W*2/ft.]	640lm/M [195lm/ft.]	80lm/W	G	>90			 17.9mm [0.7in.]	 5000mm [197in.]



Wide Beam Angle



Min.Bending Radius



Top Bend Only





# POWER SUPPLY

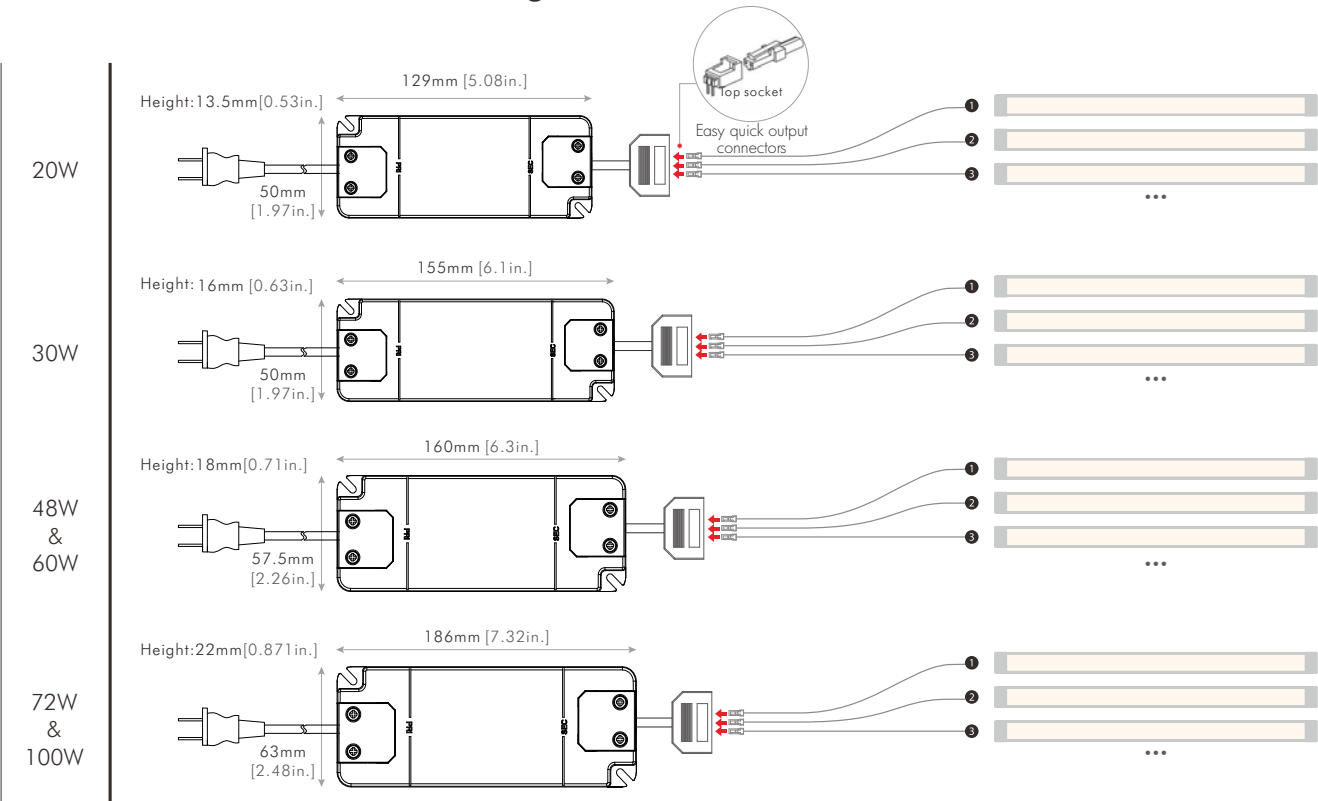
## Power Supply

### Product Feature

- Slime and compact size design
- Flick free with high PF
- Compliance to EU directive and New ERP request
- Open circuit short, overload and over temperature protection function
- Ideal for the limited space lighting applications in cabinet, furniture etc.



### Dimension and Connection Diagram

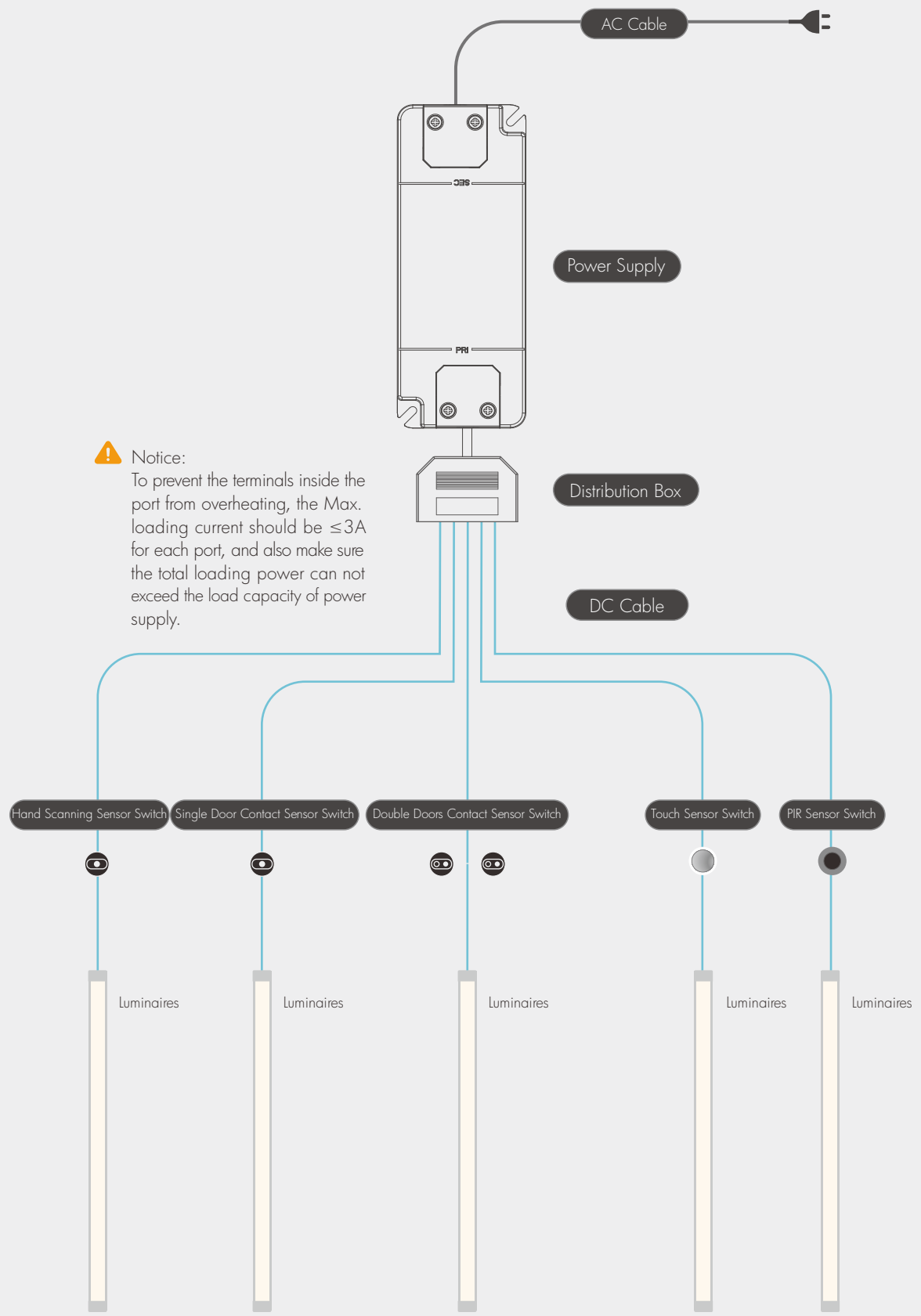


### Parameter

Part No.	Dimension	Power	Input Voltage	Output Voltage/Current	Certification
BK-PGV020-24V0	129x50x13.5mm [5.08x1.97x0.53in.]	Max. 20W	220-240VAC	DC24V-0.83A	CE, UKCA, RoHS
BK-PGV030-24V0	155x50x16mm [6.1x1.97x0.63in.]	Max. 30W	220-240VAC	DC24V-1.25A	
BK-PGV048-24V0	160x57.5x18mm [6.3x2.26x0.71in.]	Max. 48W	220-240VAC	DC24V-2A	
BK-PGV060-24V0	160x57.5x18mm [6.3x2.26x0.71in.]	Max. 60W	220-240VAC	DC24V-2.5A	
BK-PGV072-24V0	186x63x22mm [7.32x2.48x0.87in.]	Max. 72W	220-240VAC	DC24V-3A	
BK-PGV100-24V0	186x63x22mm [7.32x2.48x0.87in.]	Max. 100W	220-240VAC	DC24V-4.2A	

# SENSOR SWITCH

## CONNECTION DIAGRAM



**Notice:**  
To prevent the terminals inside the port from overheating, the Max. loading current should be  $\leq 3A$  for each port, and also make sure the total loading power can not exceed the load capacity of power supply.

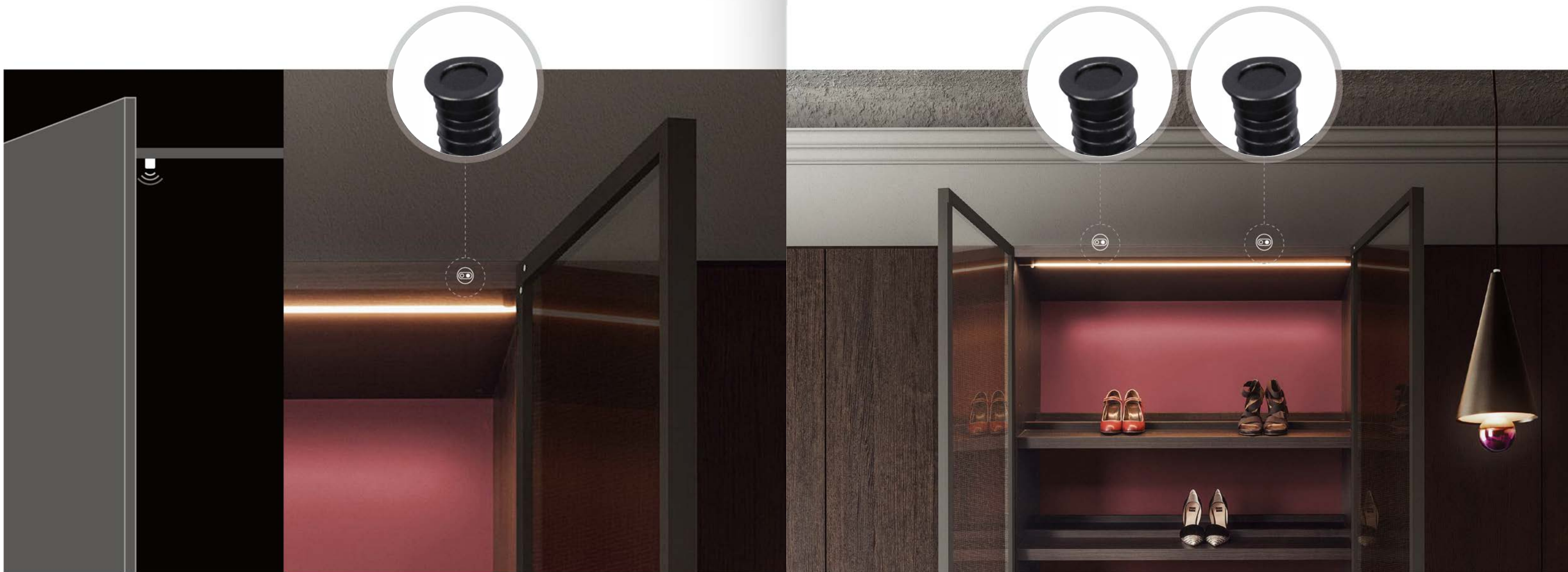


PIR Sensor Switch-Surface or Flush Mounting



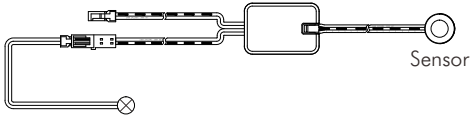
Part No.	Hole Size	Feature		
		Rated Voltage	Rated Current	Others
GLRES-B1203B-PIR (postpositioned)	$\Phi 14 \times H15\text{mm}$ [ $\Phi 0.6 \times H0.59\text{in.}$ ]	DC12-24V	3A	Delay time in 35 seconds, gradually brighten and fade.
				Detecting scope is a cone with distance $\leq 5\text{M}$ [16.4ft.] and angle in $120^\circ$ . 1.2M[3.94ft.] length of UL2468 AWG 22 black cable with input plug L813 and output plug L815.





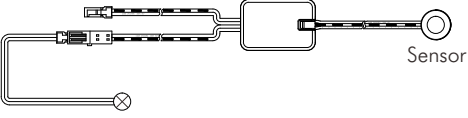
Door Contact Sensor Switch (Single Door)-Surface or Flush Mounting



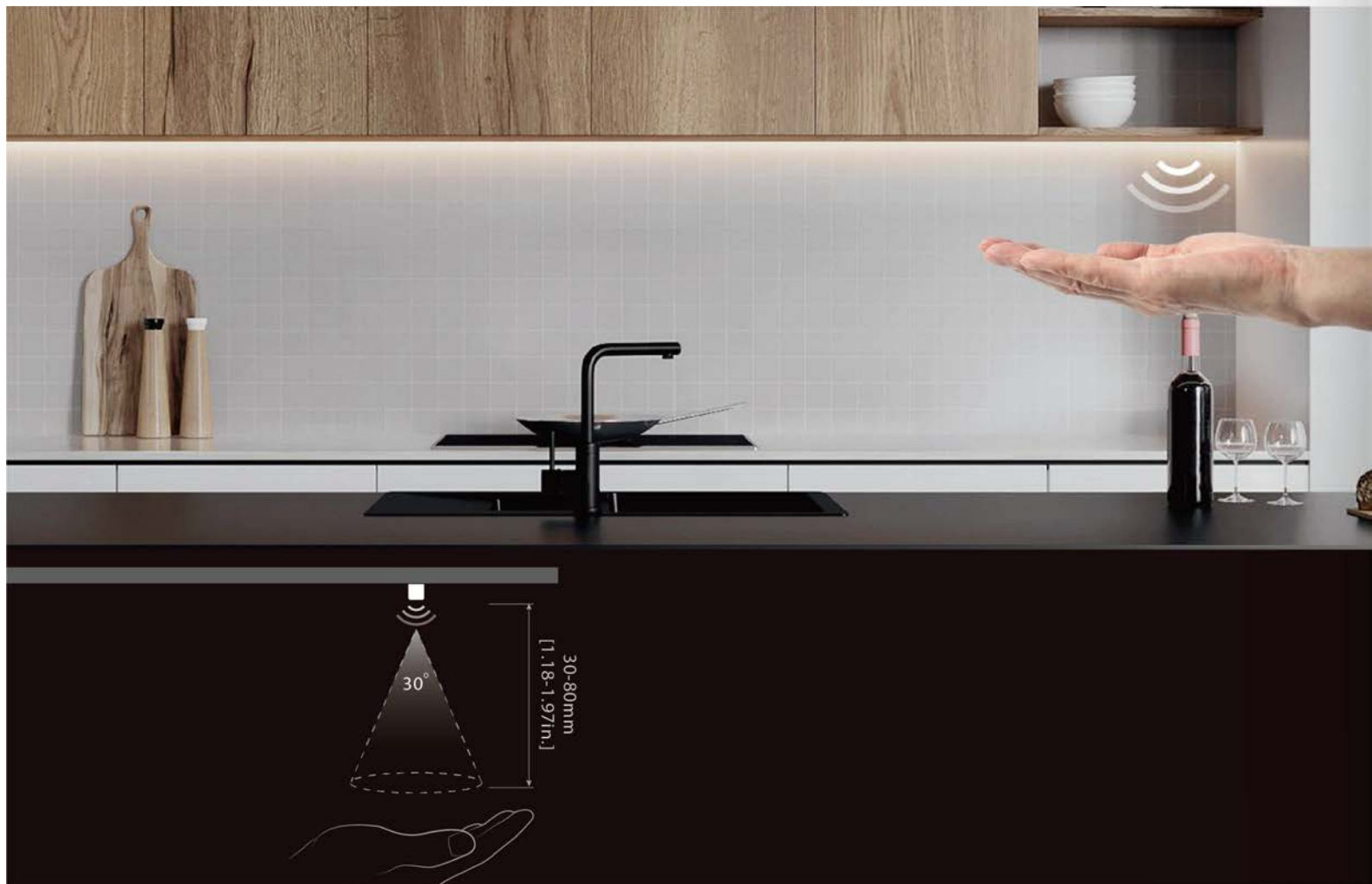
Part No.	Hole Size	Feature		
		Rated Voltage	Rated Current	Others
Single Door GLRES-B1203B-M1 (postpositioned)	Φ8xH12mm [Φ0.31xH0.47in.]	DC12-24V	3A	Gradually brighten and fade.
		1.2M[3.94ft.] length of UL2468 AWG 22 black cable with input plug L813 and output plug L815.		

Door Contact Sensor Switch (Dual Doors)-Surface or Flush Mounting



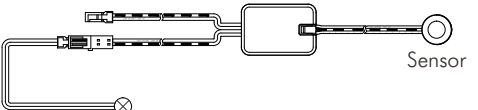
Part No.	Hole Size	Feature		
		Rated Voltage	Rated Current	Others
Dual Doors GLRES-B1203B-M2 (postpositioned)	Φ8xH12mm [Φ0.31xH0.47in.]	DC12-24V	3A	Detecting scope is a cone with distance in 30-80mm[1.18-3.15in.] and angle in 30°.
		1.2M[3.94ft.] length of UL2468 AWG 22 black cable with input plug L813 and output plug L815.		

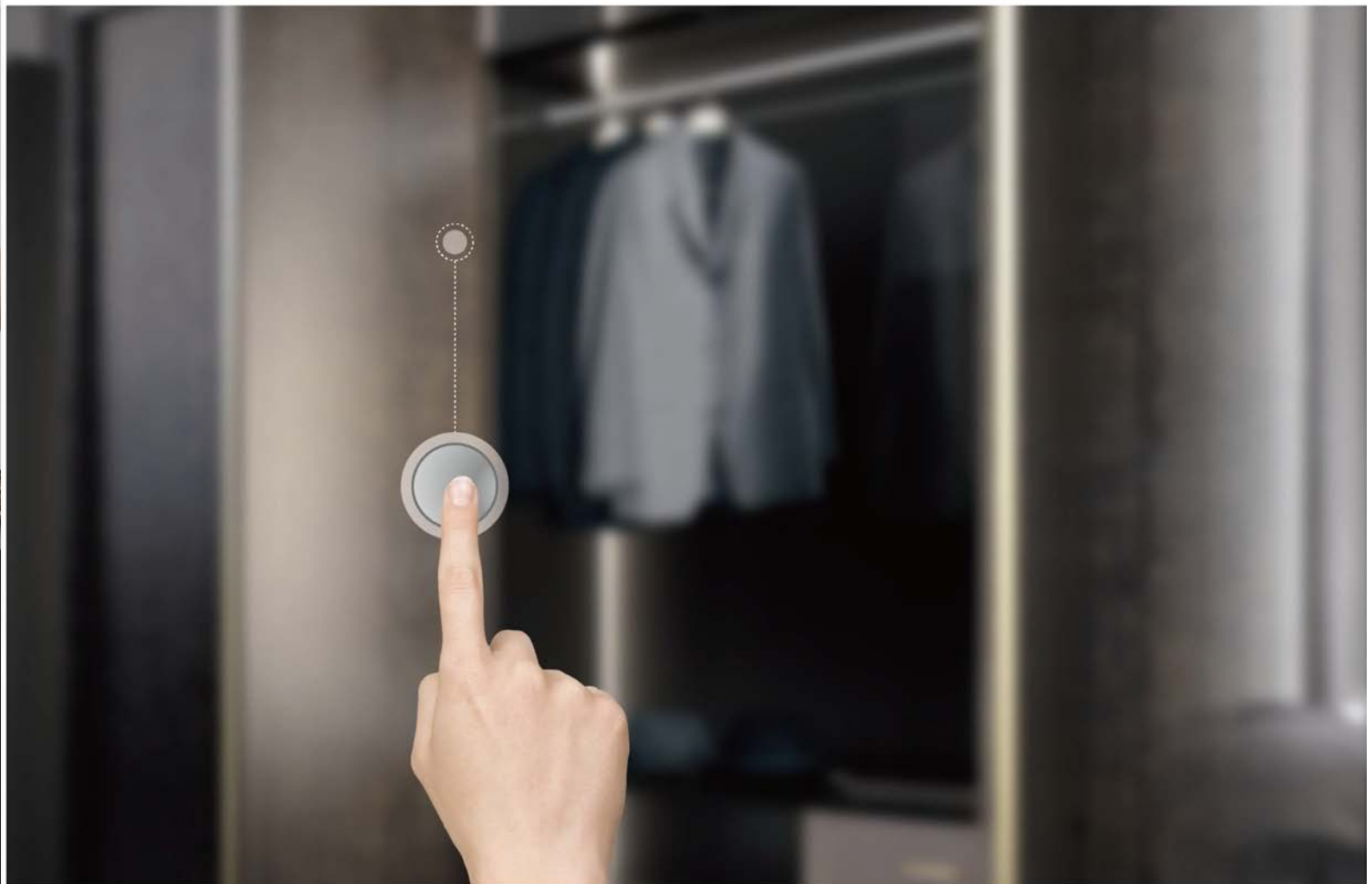
SENSOR SWITCH



Hand Scanning Sensor Switch-Surface or Flush Mounting

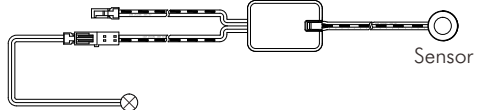


Part No.	Hole Size	Feature		
		Rated Voltage	Rated Current	Others
GLRES-B1203B-IR (postpositioned)	Φ8xH12mm [Φ0.31xH0.47in.]	DC12-24V	3A	Gradually brighten and fade.
		Detecting scope is a cone with distance in 30-80mm[1.18-3.15in.] and angle in 30°. 1.2M[3.94ft.] length of UL2468 AWG 22 black cable with input plug L813 and output plug L815.		



Touch Sensor Switch (Dimmable)-Surface Mounting

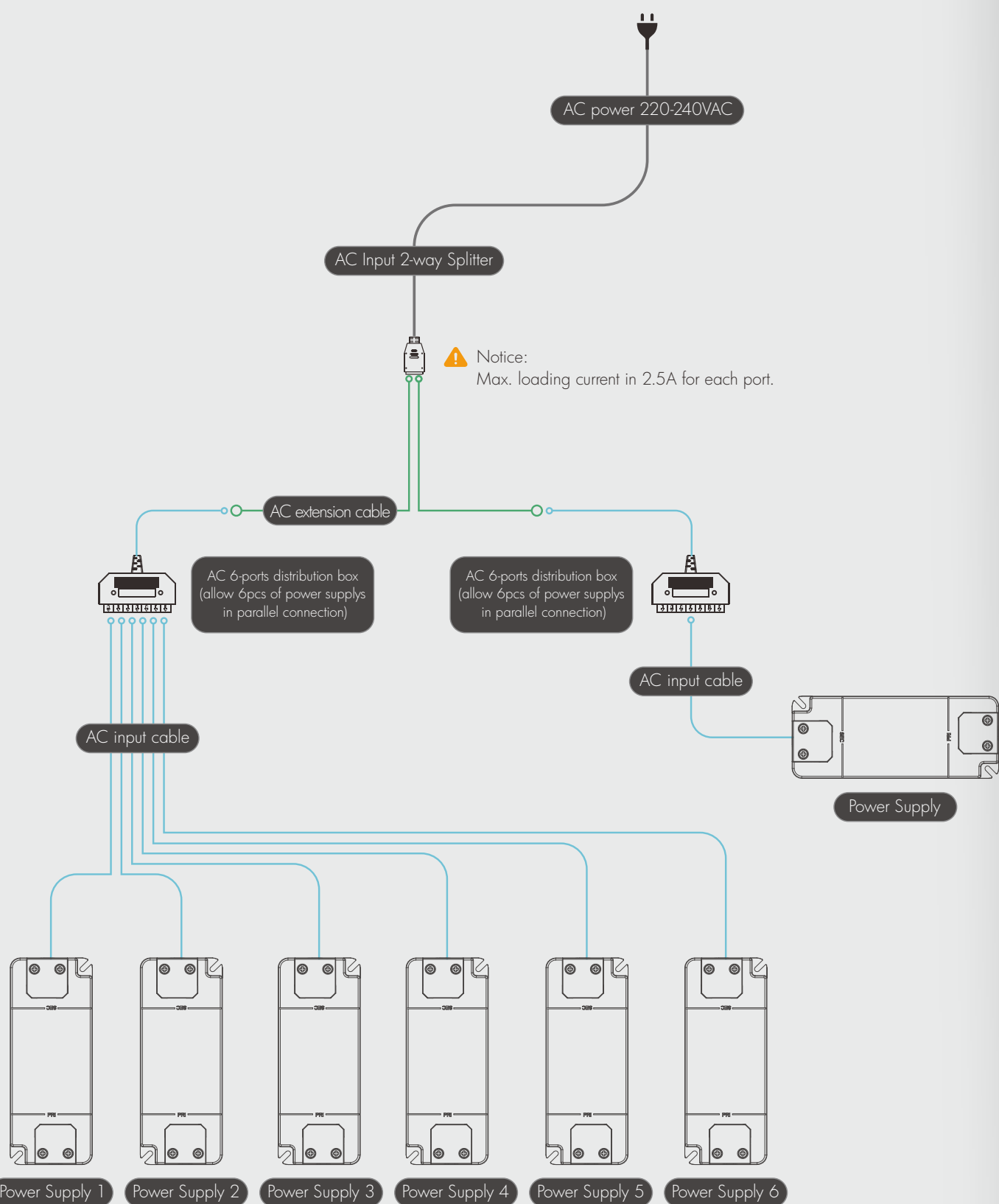


Part No.	Hole Size	Feature		
		Rated Voltage	Rated Current	Others
GLRES-B1203B-T1 (postpositioned)	Φ17xH12mm [Φ0.67xH0.47in.]	DC12-24V	3A	With memory function, or/off by short touch, dimming by long touch, gradually brighten and fade.
		5%-100% dimming 1.2M[3.94ft.] length of UL2468 AWG 22 black cable with input plug L813 and output plug L815.		



# CONNECTING ACCESSORY

## AC Power Wiring System



AC Power Cable

Part No.	Length	Feature		
		Rated Voltage	Rated Current	Others
GLRES-B220010A2	L: 1.5m [L: 59.06in.]	100-240V	5A	Black PVC cable in 2*0.75mm². One end with European type of AC plug, another end with horseshoe-tail male plug. /



AC 2-way Splitter

Part No.	Length	Feature		
		Rated Voltage	Rated Current	Others
GLRES-B220010A2	L: 1.5m [L: 59.06in.]	100-240VAC	2.5Ax2	Black PVC cable in 2*0.75mm². One end with European type of AC plug, another end with 2-way splitter. /



AC 6-ports Distribution Box

Part No.	Length	Feature		
		Rated Voltage	Rated Current	Others
GLRES-B220025B1	L: 1.5m [L: 59.06in.]	100-240VAC	2.5A	Black PVC cable in 2*0.75mm². One end with 6-port distribution box, another end with circular male plug. /



AC Input Cable

Part No.	Length	Feature		
		Rated Voltage	Rated Current	Others
GLRES-B220025D1	2.0m [78.74in.]	100-240VAC	2.5A	Black PVC cable in 2*0.75mm². One end with horseshoe-tail male plug, another end with circular male plug. /

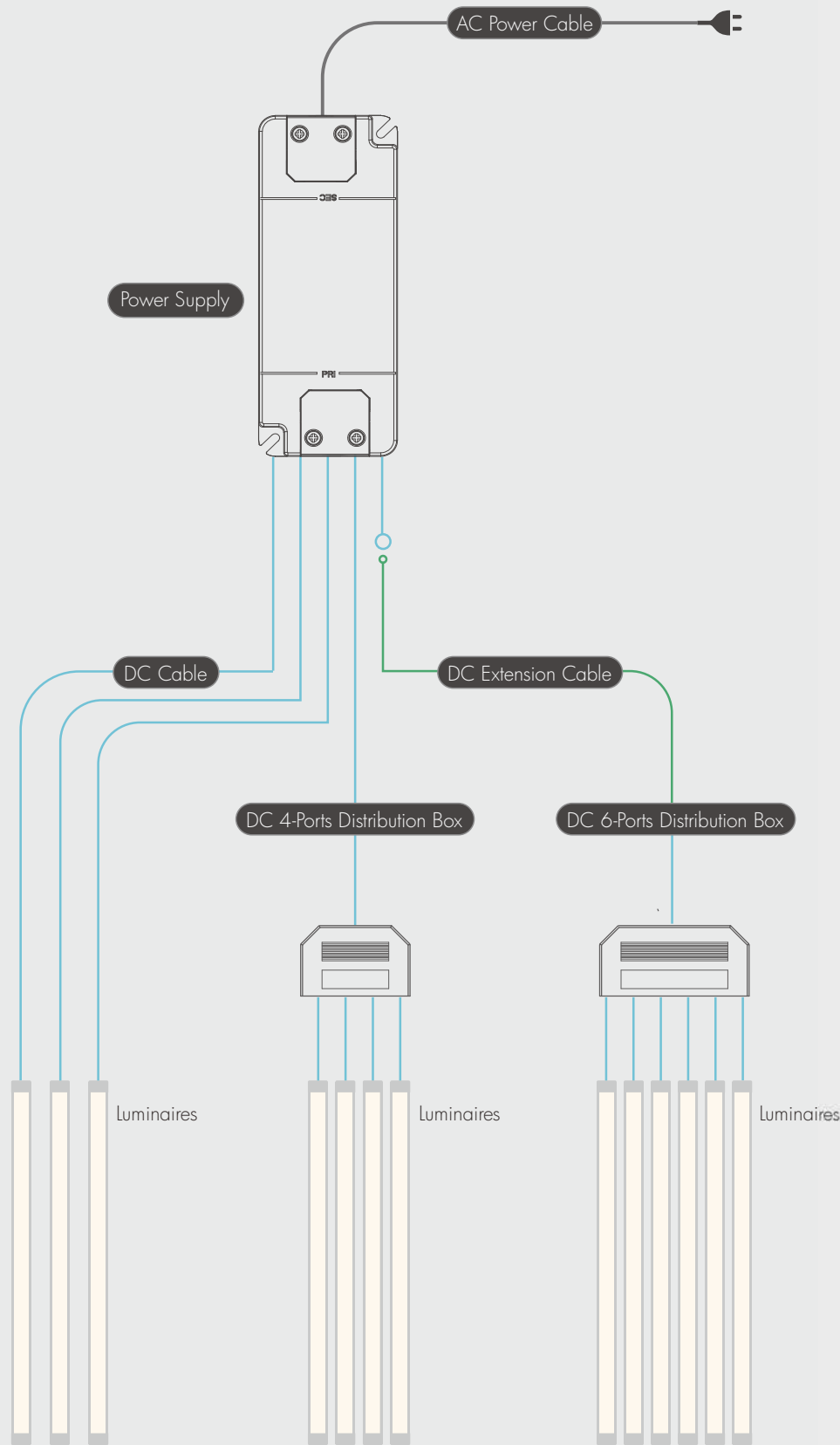


AC Extension Cable

Part No.	Length	Feature		
		Rated Voltage	Rated Current	Others
GLRES-B220025C1	2.0m [78.74ft.]	100-240VAC	2.5A	Black PVC cable in 2*0.75mm². One end with circular female plug, another end with circular male plug. /

CONNECTING ACCESSORY

DC Power Wiring System



DC 6-Ports Distribution Box

Part No.	Size	Feature		
		Rated Voltage	Rated Current	Others
GLRES-B12030B1	59x38x10.5mm [2.32x1.5x0.41 in.]	DC12-24V	3A	0.5M[1.64ft.] length of UL2468 AWG22 black cable with input plug L813
				/
				/



DC 4-Ports Distribution Box

Part No.	Size	Feature		
		Rated Voltage	Rated Current	Others
GLRES-B12030C1	42x38x10.5mm [1.65x1.5x0.41 in.]	DC12-24V	3A	0.5M[1.64ft.] length of UL2468 AWG22 black cable with input plug L813
				/
				/



DC Extension Cable

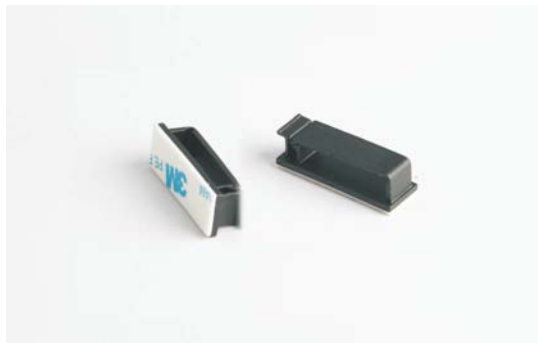
Part No.	Length	Feature		
		Rated Voltage	Rated Current	Others
GLRES-T12030A1	L:2M [L:78.74in.]	DC12-24V	3A	2M[6.56ft.] length of UL2468 AWG22 transparent cable with input plug L813 and output plug L815
				/
				/





Semicircle Wire Fastener

Part No.:	GLRES-T3011A
Color:	Transparent
Dimension:	L30*W11*H10mm [L1.2*W0.4*H0.4in.]



Rectangular Wire Fastener

Part No.:	GLRES-B3713A
Color:	Black
Dimension:	L37*W13*H11mm [L1.5*W0.5*H0.4in.]



Surface Mounting Trunking

Part No.:	GLRES-B1006A
Color:	Black
Dimension:	L(optional)*W10*H6mm [L(optional)*W0.4*H0.2in.]

# Contact details

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