

LED BACK-LIT PANEL LIGHT (PB2 SERIES)



Application: Offices, Schools, Showrooms, Airports, Retail and Healthcare Facilities...

Features

- UL&DLC Listed. Suitable for damp locations. More than 50% energy savings compared to traditional fluorescent fixtures.
- Reduce SKUs with Power Select and Color Select switches, allowing quick selection of 5 lumen outputs and 5 color temperatures on one model.
- Easy installation for new construction and retrofits. Fits standard T-grid ceilings for recessed installation and supports surface or suspended mounting with optional accessories.
- Optional plug-and-play motion and daylight harvesting sensors for enhanced energy savings.

Optional Accessories



Emergency Back-Up



Sensor

Specifications

Model No.	ESS-PB2-1X4-40W-H-TWCCT	ESS-PB2-2X2-40W-H-TWCCT	ESS-PB2-2X4-72W-H-TWCCT	ESS-PB2-2X2-40W-H-TW CCT(X X)	ESS-PB2-2X4-72W-H-TW CCT(X X)	ESS-PB2-2X2-40W-H-TWCCT (EM)	ESS-PB2-2X4-72W-H-TWCCT(EM)
Size	1'x4'	2'x2'	2'x4'	2'x2'	2'x4'	2'x2'	2'x4'
Feature	LED Panel Backlit			LED Panel Backlit With Sensor Base		LED Panel Backlit With Emergency Back-up Battery	
Wattage	20W/25W/30W/35W/40W		30W/40W/50W/60W/72W	20W/25W/30W/35W/40W	30W/40W/50W/60W/72W	20W/25W/30W/35W/40W	30W/40W/50W/60W/72W
DLC ID	P2U165MP	S-HRQP59	S-FL8HZW	S-HRQP59	S-FL8HZW	S-HRQP59	S-FL8HZW
Lumens	5200 LM@40W		9360 LM@72W	5200LM @40W	9360LM @72W	5200LM @40W	9360LM @72W
Rated Input Voltage(V)	120-277V						
Dimming	0-10V Dimmable						
CCT	30K/35K/40K/50K/65K Selectable						
CRI	≥80						
Power Factor	>0.9						
Beam Angle (°)	110°						
Lumen Efficiency	130 Lm/W						
Working Temperature	-13°F~ +113°F/-25°C~ +45°C						
Environment Location	IP 20 – Indoor Only						CCT 30CCT
Lifespan	Lumen Maintenance over 70% @ 50,000+ Hours						
Lampshell	White						
PC/ Master Pack	2						

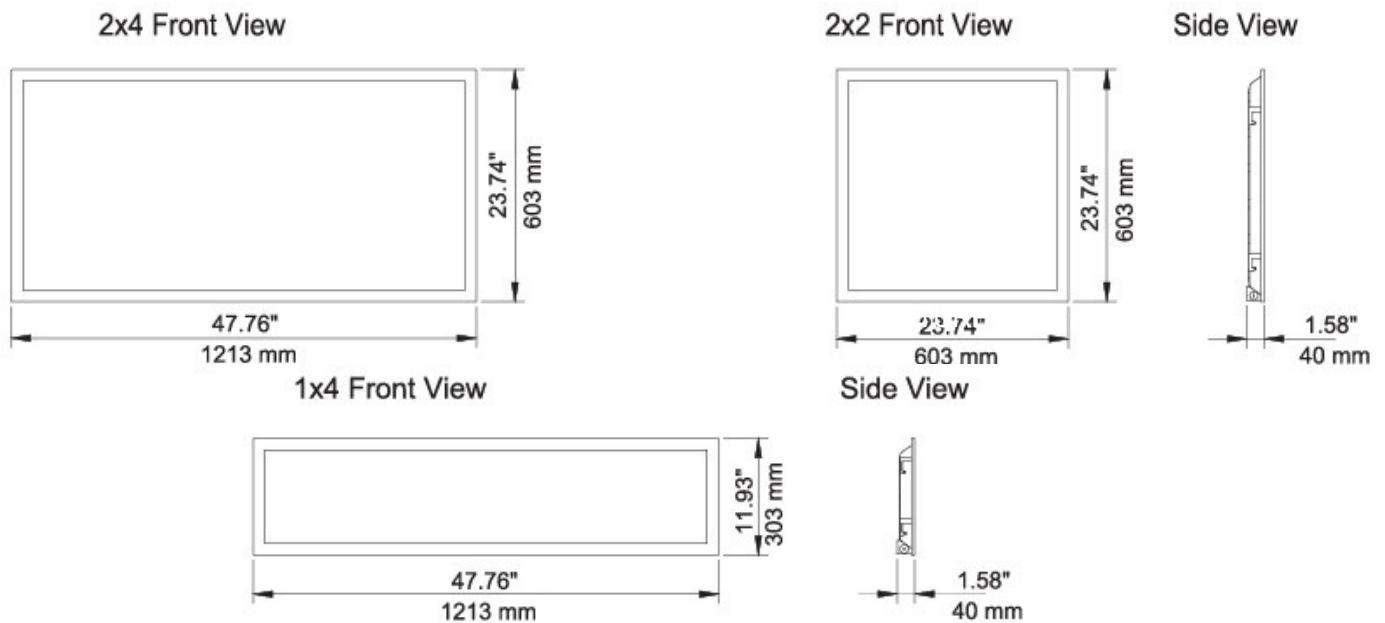
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Ordering Code Definition

Example: ESS-PB2-1X4-40W-H-TWCCT

Company Code	Product	Size	Power:	H	TW	CCT	Suffix
ESS	PB2: LED Backlit Panel	1'x 4'	20W/25W/30W/35W/40W	120-277V	Tunable Wattage	30K / 35K / 40K / 50K / 65K	XX: With Sensor Base MS: With motion Sensor EM: with Emergency Back-up Battery
		2'x2'					
		2'x 4'	30W/40W/50W/60W/72W				

Product Dimensions



Package Information

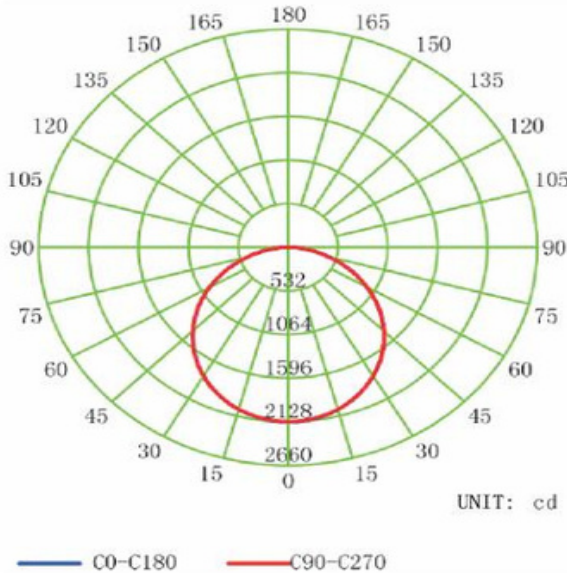
Model NO	ESS-PB2-1X4-40W-H-TWCCT	ESS-PB2-2X2-40W-H-TWCCT	ESS-PB2-2X4-72W-H-TWCCT	ESS-PB2-2X2-40W-H-TWCCT (XX)	ESS-PB2-2X4-72W-H-TWCCT (XX)	ESS-PB2-2X2-40W-H-TWCCT (EM)	ESS-PB2-2X4-72W-H-TWCCT (EM)
Package Size	1265X95X360mm 49.8"x3.74"x14.17"	655X95X660mm 25.79"x3.74"x25.98"	1265X95X660mm 49.8"x3.74"x25.98"	655X95X660mm 25.79"x3.74"x25.98"	1265X95X660mm 49.8"x3.74"x25.98"	655X95X660mm 25.79"x3.74"x25.98"	1265X95X660mm 49.8"x3.74"x25.98"
Package Weight	4.45kg / 9.81LBS	4.71kg / 10.38LBS	9.22kg / 22.33LBS	4.71kg / 10.38LBS	9.22kg / 20.33LBS	5.5kg / 12.13LBS	10.4kg / 22.93LBS
Package CBM	0.043263	0.041069	0.079316	0.041069	0.079316	0.041069	0.079316
40HQ Capacity (PCS)	~2680	~2820	~1460	~2820	~1460	~2820	~1460
40HQ Capacity (PCS)	~3140	~3310	~1710	~3310	~1710	~3310	~1710
40HQ Capacity (PCS)	~3600	~3790	~1960	~3790	~1960	~3790	~1960

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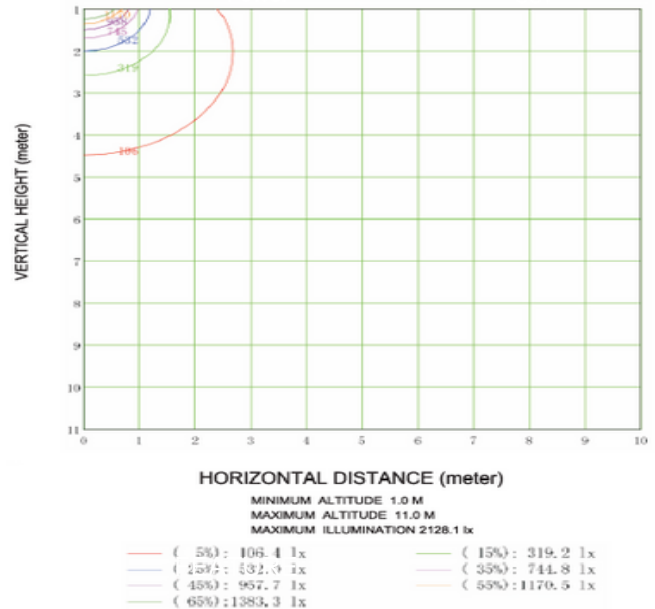
Photometric Report

2X4 50W LED BACKLIT PANEL

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



VERTICAL EQUILUMINOUS CURVE



Installation

Read Before Installation:

Always follow basic safety precautions when installing. These include:

1. Carefully read all instructions prior to installation.
2. Professional installation and maintenance are required for this LED panel.
3. Use only a dedicated external LED driver to power the LED panel.
4. Disconnect the power supply before installation or maintenance.
5. Ensure all wires are properly connected before powering on the device.
6. Provide sufficient space for heat dissipation.
7. Never cover the luminaire with heat insulation mats or slim layer materials.
8. IP40 rating is for indoor use only (not suitable for damp locations); IP54 rating is for indoor damp locations.
9. Operating temperature: -10°C to +45°C. Avoid direct sunlight.
10. Store in cool, dry conditions.

Installation Procedure

WARNING:

1. Switch off before installation.
2. Switch on only after complete installation and examination of the circuit.

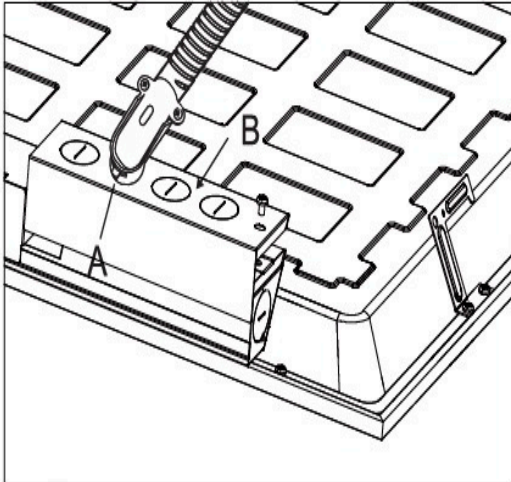


CAUTION:

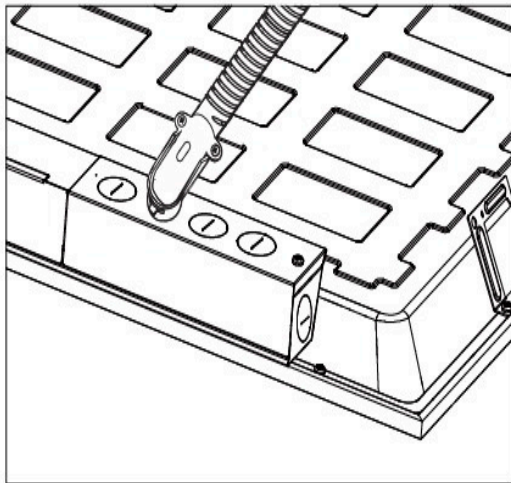
Make sure that the mounting surface or structural member used for installation can support the weight of LED Panel.

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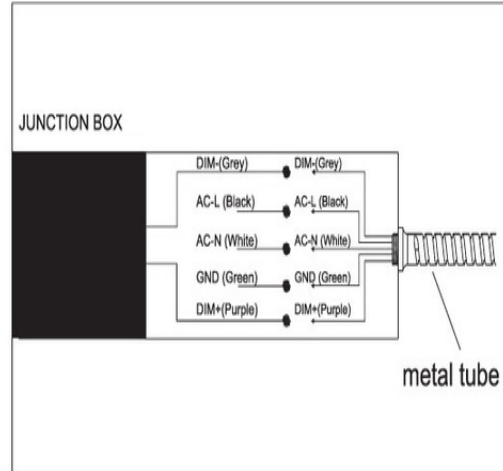
Wiring Guide



(1) Remove the knock-down hole on box by screwdriver (Part A), Remove screw and take out the driver cover (Part B)

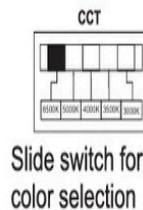


(3) Cover the driver box and tighten it with a screwdriver, finish connection.

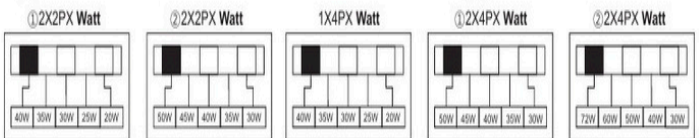
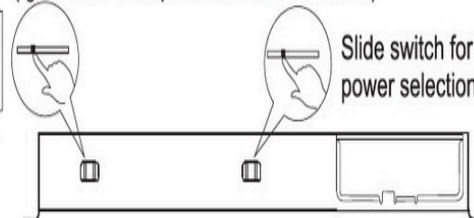


(2) Connect the wire as the picture showing.
※ This knock-out at side surface is not permitted for branch circuit entry into the luminaire.

For the product with Slide Switch of CCT or power selection, please select the CCT or power needed before installation.
(Ignore these steps if without the function)



Slide switch for color selection

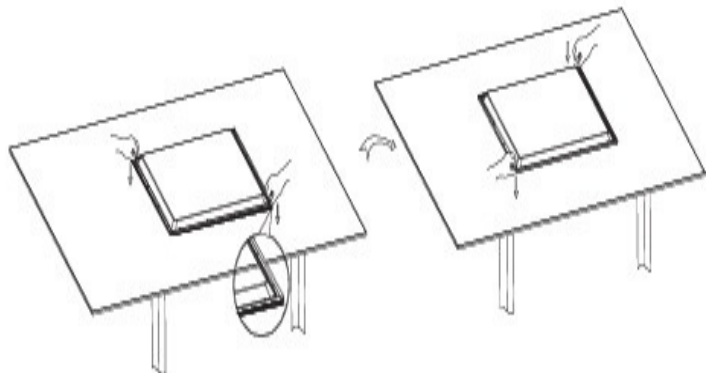


Lamp inspection before installation:

please adjust the lamp with below steps before installation:

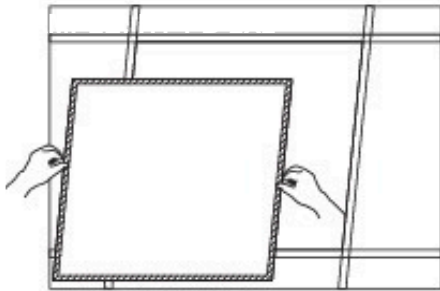
1. Press the opposite angles at the same time;
2. Press another two opposite angles at the same time, make sure the four angles are flat, then start the installation.

Take out the lamp from the box and put it in a flat table, if the lamp upwarps,



LED BACK-LIT PANEL LIGHT (PB2 SERIES)

Recessed Mounted

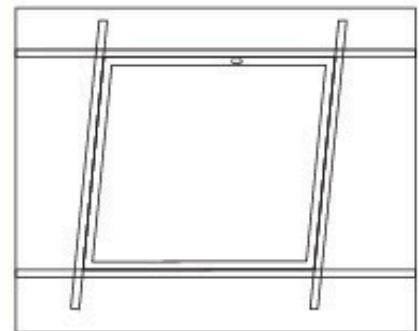


① Remove the ceiling plaster slab.

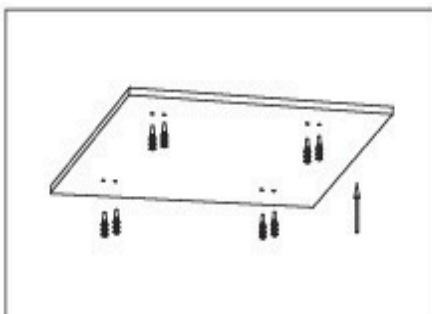
② Feed the main AC wire in driver terminal block respectively, connect the panel light and driver.

③ Fix the panel light into plaster ceiling.

④ Make sure the led panel light is firmly fixed, turn on the power.



Suspended Mounted

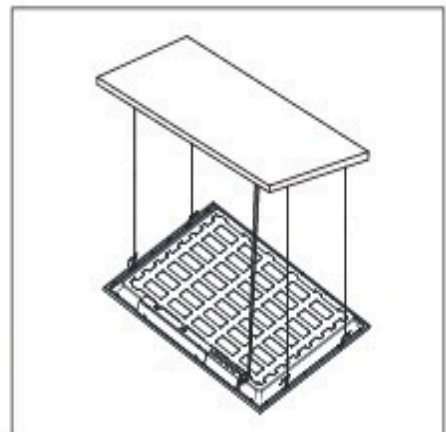
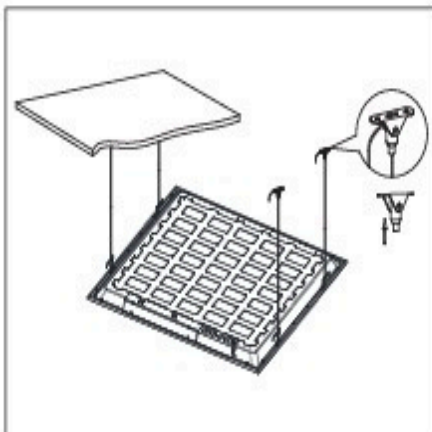
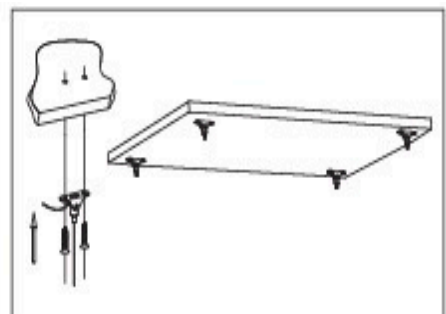


① Fix the anchor into target place on the ceiling.

② Fix the installation mount on the ceiling with plastic anchor.

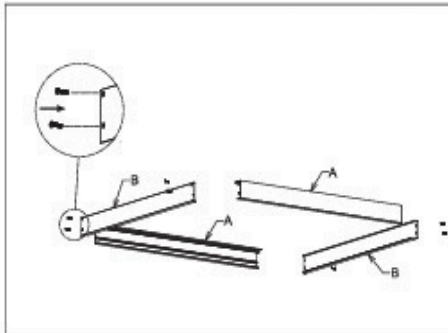
③ Hang the panel to ceiling with suspended installation kits, adjust the length of steel wires.

④ Feed the main AC wire in driver terminal block respectively, turn on the power.



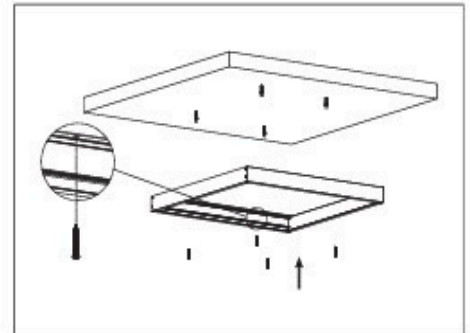
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Surface Mounted

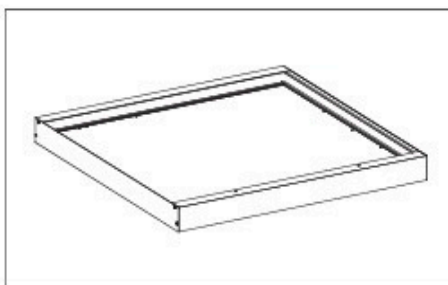
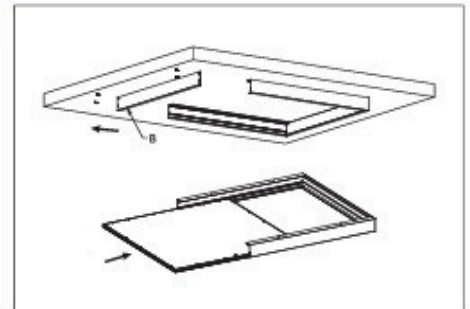


① Assemble the surface mounted frame and fix by screws.

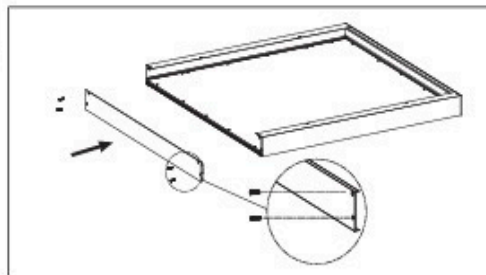
② knock the plastic anchor into ceiling, fix the surface mounted frame on the ceiling by screws.



③ Unscrew the side frame then take out, connect the panel light to power supply, insert the panel light into the frame.

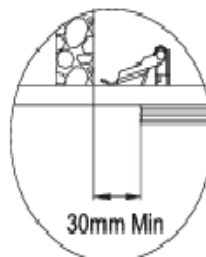
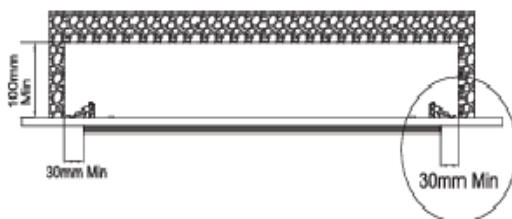


④ Fix the side frame back by screw.



⑤ Make sure the frame and panel light are firmly fixed, turn on the power.

Recessed Mounting(Clips)



Cut Out Sizes		
Type	A(mm)	B(mm)
PL2X2	578	578
PL1X4	1188	278
PL2X4	1188	578

Clips should be purchased separately as an accessory

Warning:

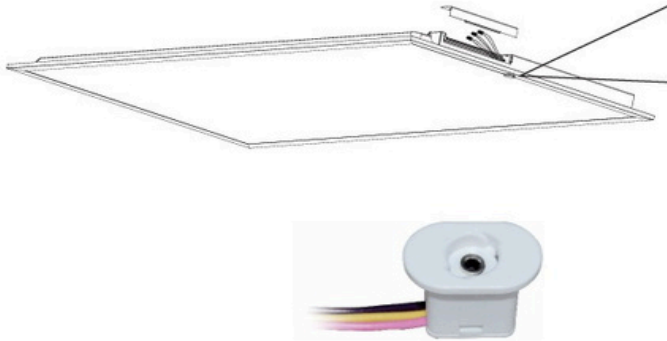
Input wire diameter $\geq 0.75\text{mm}^2$;

Product modification and improper installation are not valid for warranty!

LED BACK-LIT PANEL LIGHT (PB2 SERIES)

Sensor Light Instruction

SENSOR BASE



SENSOR

PIR Occupancy Bi-level
&
Daylight Harvesting Sensor



Bluetooth Fixture Sensor



⚠ WARNING

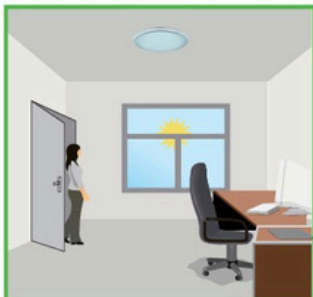
NOTE: Warm up time is 40seconds. After the sensor connects input power first time, the light will keep on 40seconds, then go to dimming to work normally.

NOTE: Factory Default Setting: Task light level: 100%, Occupied timeout: 5min, Timeout light level: 20%, Prolonged: 30 minutes.

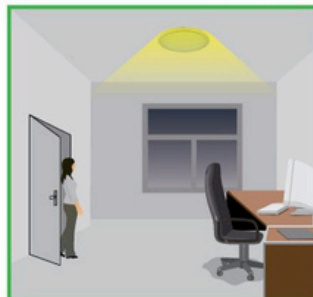
NOTE: Any setting changed by remote control, the led light that sensor connect will on/off as confirm.

Dimming Function

This function inside the motion sensor to achieve tri-level control, for some areas which require a light change notice before switch-off. The sensor offers 3 levels of light: 100%-->dimmed light (natural light is insufficient) -->off; and 2 periods of selectable waiting time: motion hold-time and stand-by period; Selectable daylight threshold and freedom of detection area.



With sufficient natural light, the light does not switch on when presence is detected.



With insufficient natural light, the sensor switches on the light automatically when presence is detected.



After hold-time, the light dims to stand-by level if the surrounding natural light is below the daylight threshold.



Light switches off automatically after the stand-by period elapses.

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Emergency LED Driver Installation

CAUTION:

- ① The Emergency LED driver must connect to 0-10V dimming wires(DIM+,DIM-) of the luminaire if the LED
- ② When dimming to minimum,the LED luminaire power must be less than emergency driver's power.
- ③ In emergency mode, double click test switch to turn off emergency state during storage and transportation .

Model: **BLD-YT08H-XXX**

Input Voltage: 100-347Vac, 50/60Hz

Input Current: $\leq 100\text{mA}$

Input Power: 6W Max.

Output Voltage: 170Vdc

Output Power: 8W

Ambient Temperature: $5^{\circ}\text{C} \sim 50^{\circ}\text{C}$ ($41^{\circ}\text{F} \sim 122^{\circ}\text{F}$)

Application: (1) $\leq 60\text{W}$ (0-10V dimming luminaire)

(2) $\leq 8\text{W}$ (non-dimming luminaire)

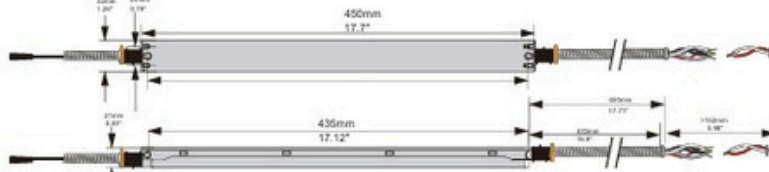
Product includes the following components:

PARTS	QUANTITY
LED Emergency Driver	1
Charging Indicator/Testing Button	1
Charging Indicator/Testing Button Wall Cover	1
Instruction Sheet	1



Dimension:

17.7"X1.26"X0.83" (450X32X21mm)



Wiring Diagram:

1. For luminaire with 0-10V LED driver and using 0-10V dimmer (* LED DRIVER INPUT POWER NOT GREATER THAN 60W) Emergency Inverter Dim+ (Blue) , Driver Dim- (Yellow) has to connect with LED driver DIM+ and DIM

