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# LEO SERIES LED LINEAR HIGH BAY LIGHT

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BRIGHT

TRUSTED

HIGH-QUALITY

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# LEO series LED Linear High Bay Light



Linear High Bay Fixture, x2 V Hook, x2 Linked Chain

## DIMENSION(2ft&4ft)

L\*W\*H: 23.98\*11.81\*1.57 in



L\*W\*H: 46.06\*11.22\*1.57 in



## ADVANTAGE

- UL cUL certificate.
- Lumileds Chip, high CRI.
- Input voltage 120-277VAC.
- Output constant current lever can be adjusted through output cable with 0-10V.
- No UV or IR in the beam.
- Easy to install and operate.
- Energy saving, long lifespan.
- Light is soft and uniform, safe to eyes.
- Instant start, NO flickering, NO humming.
- Green and eco-friendly without mercury.

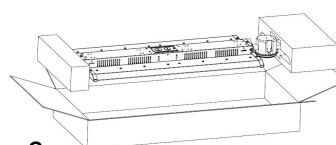
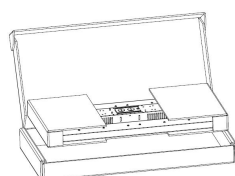
## APPLICATION

- Warehouse, factory and workshops;
- Exhibition hall and supermarkets, etc.

## PACKAGE

| 2FT-150W              | Carton Size   | Qty / Carton | Net Weight / Carton | Gross Weight / Carton |
|-----------------------|---------------|--------------|---------------------|-----------------------|
| Outer box (No Sensor) | 26*12.6*2.6IN | 1 PC         | 5.3LBS/PC           | 7.5LBS                |

Tolerance of Carton Size:  $\pm 0.6$ in, Tolerance of Weight:  $\pm 10\%$ .

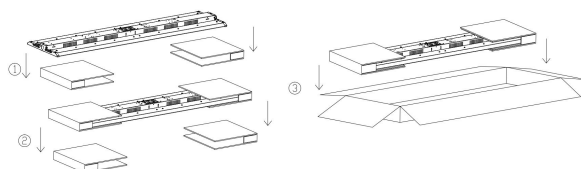


# LEO series LED Linear High Bay Light

| 4FT-250W              | Carton Size      | Qty / Carton | Net Weight / Carton | Gross Weight / Carton |
|-----------------------|------------------|--------------|---------------------|-----------------------|
| Outer box (No Sensor) | 47.4*13.2*3.15IN | 1 PC         | 10.4LBS/PC          | 14.8LBS               |

| 4FT-300W              | Carton Size      | Qty / Carton | Net Weight / Carton | Gross Weight / Carton |
|-----------------------|------------------|--------------|---------------------|-----------------------|
| Outer box (No Sensor) | 47.4*13.2*3.15IN | 1 PC         | 10.6LBS/PC          | 15LBS                 |

Tolerance of Carton Size:  $\pm 0.6$ in, Tolerance of Weight:  $\pm 10\%$ .



## SPECIFICATIONS

|                             |                                                         |          |          |
|-----------------------------|---------------------------------------------------------|----------|----------|
| Color Temperature           | 5000K                                                   |          |          |
| Wattage                     | 150W                                                    | 250W     | 300W     |
| Lumen                       | 19500 LM                                                | 31250 LM | 37500 LM |
| Efficacy                    | 130 LM/W                                                | 125 LM/W | 125 LM/W |
| CRI                         | >80                                                     |          |          |
| Color Consistency           | <6 Steps (or <6 SDCM)                                   |          |          |
| UGR                         | <30 (X=4H, Y=8H; S/H=1; Reflectances: 70%/50%/20%)      |          |          |
| Diffuser Type               | Frosted Lens                                            |          |          |
| Beam Angle                  | 105 Degree                                              |          |          |
| Input Voltage and Frequency | 120-277VAC, 50/60Hz                                     |          |          |
| PF (Tolerance : -3%)        | $\geq 0.9$                                              |          |          |
| THD (Tolerance : +5%)       | $\leq 20\%$                                             |          |          |
| Flicker Percent             | $\leq 5\%$                                              |          |          |
| Mount Type                  | Hanging                                                 |          |          |
| Driver Surge protection     | L/N-PE: 6kV, L-N: 6kV                                   |          |          |
| Dimming                     | 0-10V continuous dimming (min. Dimming range <10%)      |          |          |
| Sensor Type                 | Daylight Sensor, Occupancy Sensor, Multifunction Sensor |          |          |
| Optional Accessory          | AC Motion Microwave sensor; Emergency Power(9W/90min)   |          |          |
| Included Components         | Linear High Bay Fixture, x2 V Hook, x2 Linked Chain     |          |          |
| LED Type                    | SMD 2835                                                |          |          |
| Housing                     | IRON                                                    |          |          |
| Housing Color               | White                                                   |          |          |
| Waterproof Rating           | DAMP                                                    |          |          |
| Operating Temperature       | -22°F ~ 122°F                                           |          |          |
| Certification               | UL listed                                               |          |          |
| Lifespan                    | >50,000 Hours                                           |          |          |
| Warranty                    | 5 Years                                                 |          |          |

## LED Linear High Bay Installation Instruction

### Cautions:

1. Do not use any electric generator to test the LED light.
2. Please abide by related country, regional and local law and regulations when installing this fixture.
3. Please turn off the power before installation or maintenance.
4. Proper earth grounding is required to ensure safety.

### Notice:

1. To avoid possibility of electrical shock or fire, the installation personnel must have professional electric knowledge.
2. Please wear gloves to avoid injury before installation.
3. If any smoke or spark of the wire happened, please turn off the power immediately and notify relevant personnel.
4. Please use listed strain relief bushing when connecting the supply cord to the outlet box.

### Attention:

1. Please check if there is any damage during shipping. If so, please contact manufacturer timely.
2. Please read the installation instruction carefully to check whether all the accessories are complete. After confirmation, install the fixture according to installation steps.

### Wiring Diagram & Instruction:

3 dimming functions are available in this high bay light:

1. Constant current can be achieved by 0-10VDC dimming;
2. PWM signal dimming;
3. Variation of resistance unit dimming.

#### Description:

This product is 0/1-10V dimming, below dimmers are recommended:

| Brand   | Model        |
|---------|--------------|
| LUTRON  | NTSTV-DV     |
| LEVITON | DS710/ IP710 |
| LEGRAND | RH4FBL3PTC   |

### Wiring Instruction

L:Black,

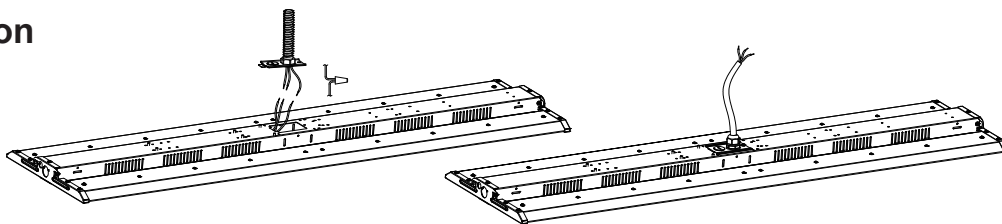
N:White,

⊕ : Green/Yellow

DIM +

DIM -

(As for the wire color of DIM+ and DIM-, pls check the light label.)



Please choose the appropriate dimming way according to your needs. You can also choose not to use this function.

\*The product can not be connected to a dimming device when it's equipped with Motion Sensor.

Three Installation: Chain/Cable installation, 3/4"NPT Installation, Surface Mounting

**(Please choose the most suitable installation method for the purchased product as per your needs)**

# LEO series LED Linear High Bay Light

## A. Hanging Installation: ( Chain/Cable)

- Step1. Hook up the chain(Figure 1);
- Step2. Connect the chain with fixture(Figure 1);
- Step3. Fix the chain on the rail, adjust the chain length as per need(Figure 1);
- Step4. After fixed , choose suitable wiring knock out, connect the wires according to local standard and code;

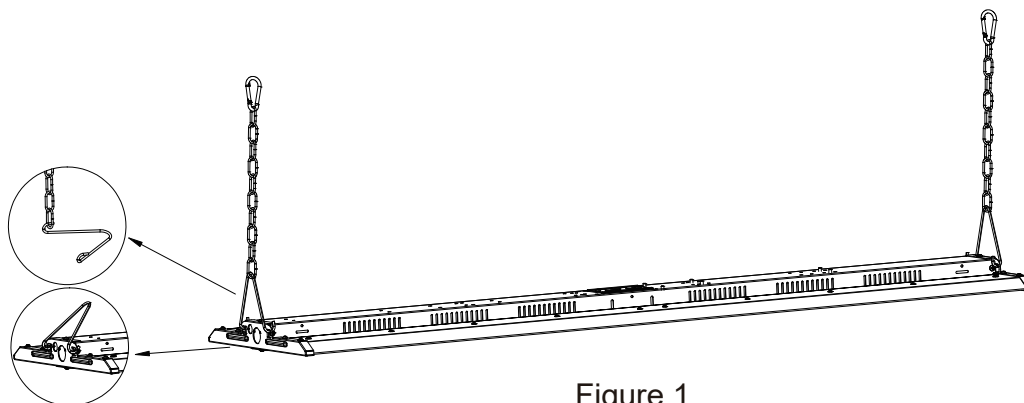


Figure 1

## B. 3/4"NPT Installation:

- Step1. Mount the bracket on 3/4"NPT (Figure 2);
- Step2. Lock fixture on the bracket (Figure 3);
- Step3. Connect the wires according to local standard and code;
- Step4 Lock side brackets with screw driver (Figure 4).



Figure 2

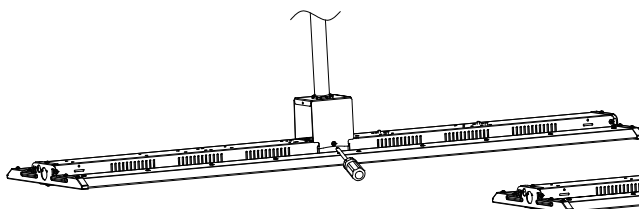


Figure 3

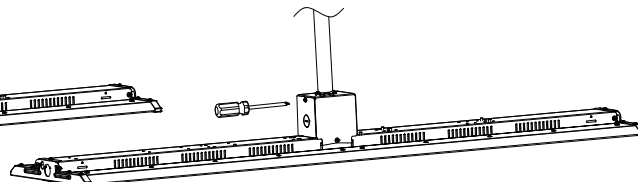


Figure 4

## C. Surface Mounting:

- Step1. Mount the bracket on the rail or ceiling (Figure 5);
- Step2. Assemble the lamp on the bracket and fix it with screws (Figure 6);
- Step3. After mounting, choose suitable wiring knock out and connect the wires according to local standard and code.

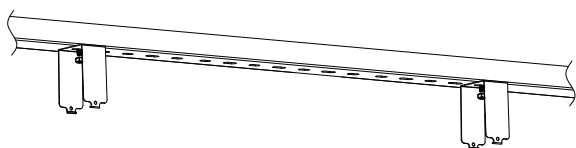


Figure 5

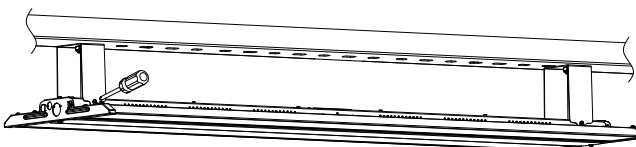


Figure 6

# LEO series LED Linear High Bay Light

## Extra Accessory Option Installation: 1:Wire Guard, 2:Motion Sensor / PIRSensor, 3: Backup driver

### 1.Wire Guard:(Purchase the correct size wire guard from manufacturer)

Step1. Unscrew the two screws on the front of the lamp(Figure 7);

Step2. Place the wire guard on the lamp and fix it with screws (Figure 8).

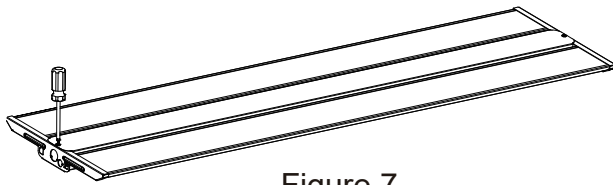


Figure 7

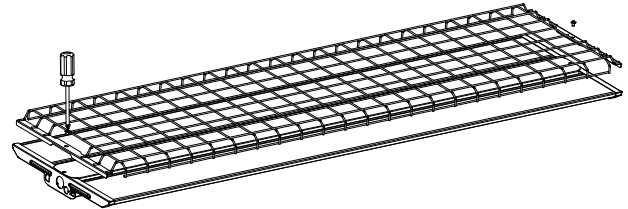


Figure 8

### 2. Motion Sensor / PIR Sensor:(Both sensor are with same installation)

Step1.Open the face cover with screw driver (Figure 9);

Step2.Knock out the side cover, mount the sensor on the side, do wiring accofing to instruction on sensor (Figure 10);

Step3.Put face cover back with screw driver (Figure 11).

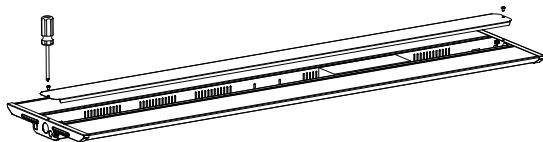


Figure 9

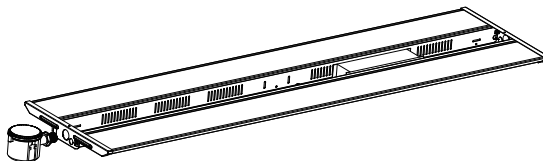


Figure 10

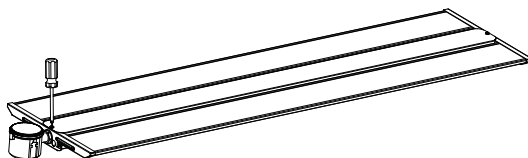
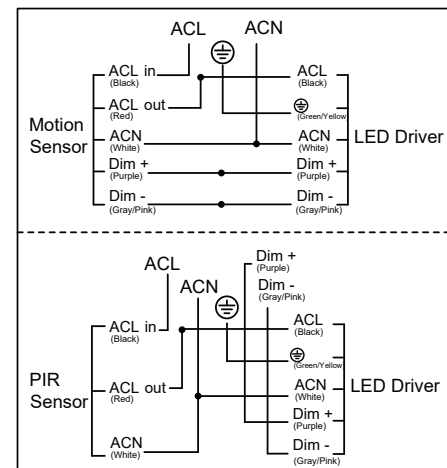


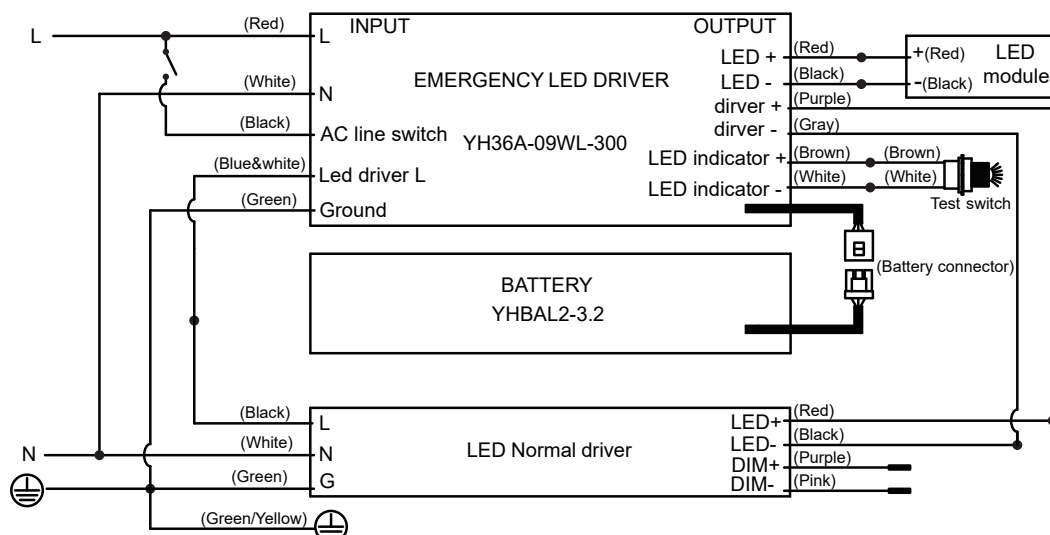
Figure 11

### Wiring Instruction



### 3: Backup driver

Connect the wires according to the wiring diagram(Figure 12).



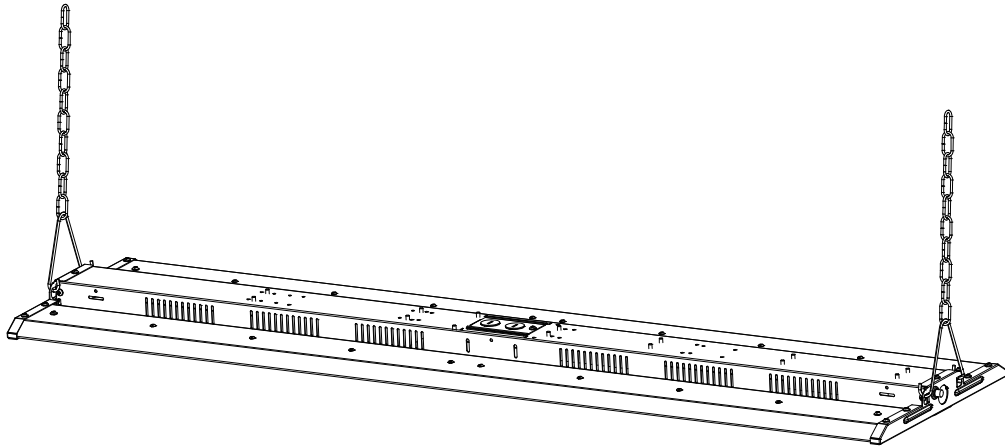


Figure 12

### **Warning / Avertissement**

#### **MIN 90 °C SUPPLY CONDUCTORS**

**THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED. CONSULT A QUALIFIED ELECTRICIAN TO ENSURE CORRECT BRANCH CIRCUIT CONDUCTOR.**

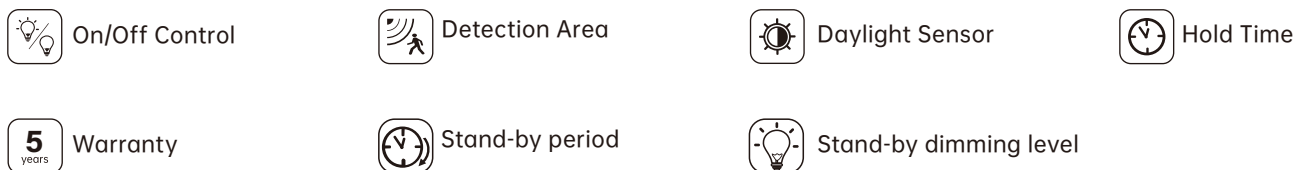
#### **LES FILS D'ALIMENTATION 90 °C MIN**

**CE PRODUIT DOIT ÊTRE INSTALLÉ SELON LE CODE D'INSTALLATION PERTINENT, PAR UNE PERSONNE QUI CONNAÎT BIEN LE PRODUIT ET SON FONCTIONNEMENT AINSI QUE LES RISQUES INHÉRENTS. CONSULTER UN ÉLECTRICIEN QUALIFIÉ POUR VOUS ASSURER QUE LES CONDUCTEURS DE LA DÉRIVATION SONT ADÉQUATS.**



## IP65 High altitude installation DIP Switch HD406VRH-D

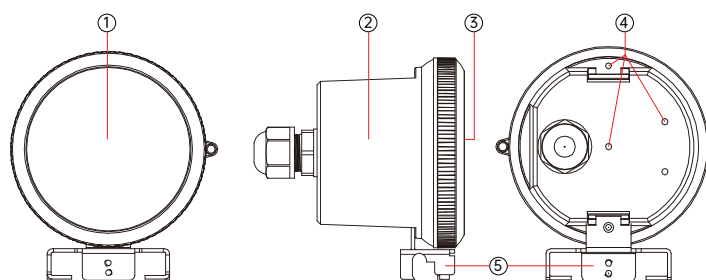
- 5.8GHz microwave motion sensor with dimmable function.
- Supporting different installation and applications, for surface mounting, traditional LED high bay with aluminium reflector, UFO highbay or linear/triproof high bay.
- Max. installation height is 15m/49.21ft. •1-10V Dimming.
- Remote control. •5 years warranty.



## Technical Data

|                                                                               |                                                                          |                                                            |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------|
| Operating Voltage<br><b>120-277VAC,50Hz/60Hz</b>                              | Detection Area<br><b>50%/100%</b>                                        | Motion Detection<br><b>0.5~1.5m/s</b>                      |
| Operating Temperature<br><b>-35°C~+60°C</b>                                   | Hold Time<br><b>5s/30s/1min/5min/10min/20min/30min</b>                   | Safety Standard<br><b>EN61347-1 EN61347-2-13 EN60598-1</b> |
| Stand-by power<br><b>≤1W</b>                                                  | Daylight Threshold<br><b>2Lux/10Lux/30Lux/50Lux/80Lux/120Lux/Disable</b> | Mounting Height<br><b>Max.15m ( 49.21ft )</b>              |
| Microwave Frequency<br><b>5.8GHz±75MHz</b>                                    | Stand-by Period<br><b>0s/10s/30s/1min/5min/30min/+∞</b>                  | Detection Range<br><b>Max.ø14m ( 45.93ft )</b>             |
| Microwave Power<br><b>&lt;0.3mW</b>                                           | Stand-by dimming level<br><b>10%/20%/30%/50%</b>                         | IP Rating<br><b>IP65</b>                                   |
| Switching Capacity<br><b>Max,3.0A@120Vac,50/60Hz; Max,2.0A@277Vac,50/60Hz</b> |                                                                          | Warranty<br><b>5 Years</b>                                 |
| Control Method<br><b>DIP Switch</b>                                           |                                                                          |                                                            |

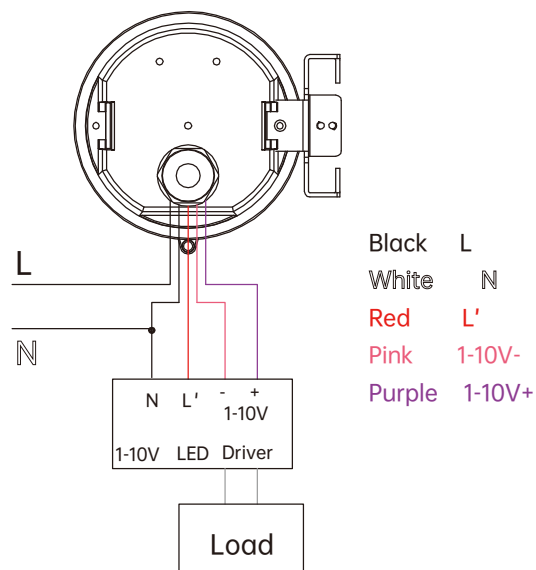
Factory Default Setting: Detection area 100%/ Hold time 5s/ Daylight threshold Disable/Stand-by period 0s/Stand-by dimming level 10%. Can be customized default programming.



- ① Microwave Module
- ② Bottom Case
- ③ Upper Cover
- ④ Installation Hole
- ⑤ Mounting Bracket

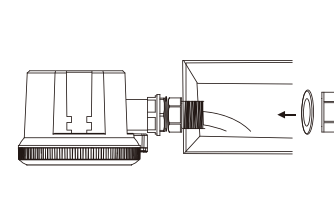
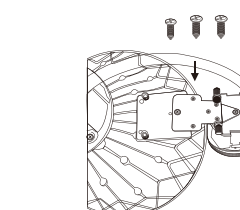
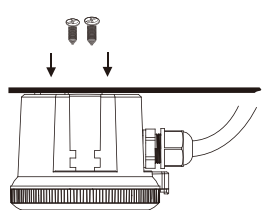
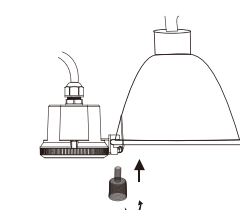
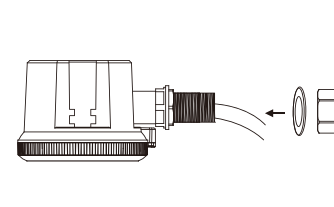
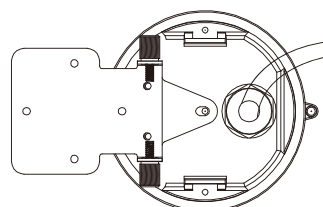
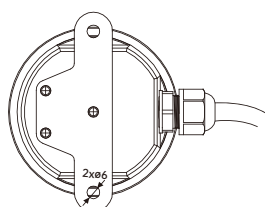
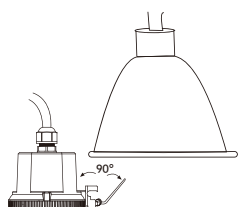
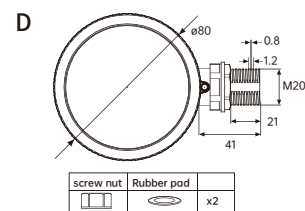
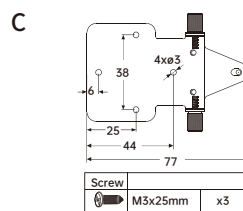
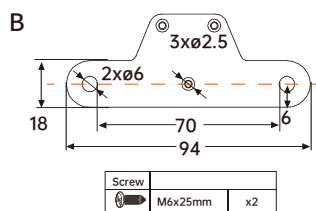
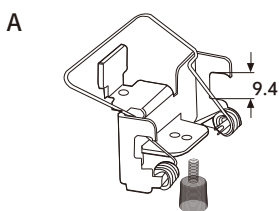
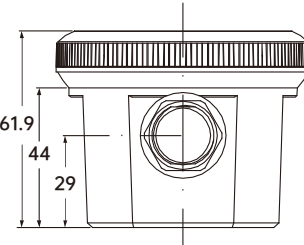
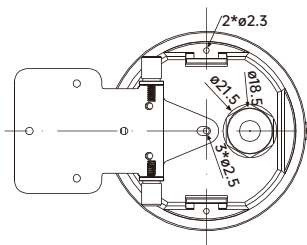
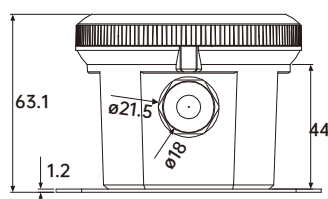
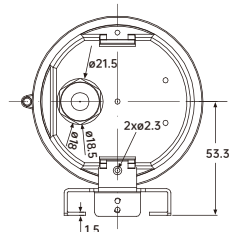
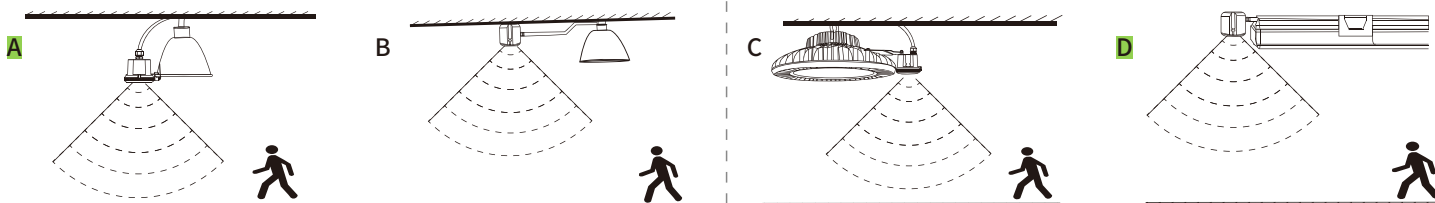
## Wiring Diagram

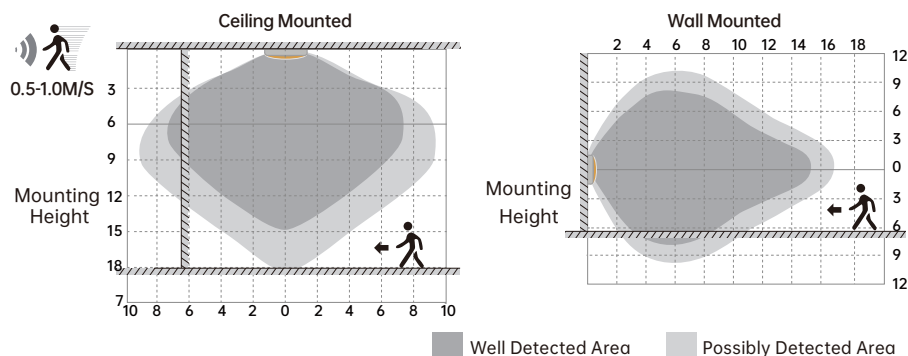
Shown-part length about 2.7FT



## Installation Method

Unit:mm





Highest mounting height is 15m

This figure indicates the maximum distance at the highest mounting height with 100% sensitivity.

## DIP Switch Setting

● Switch UP

○ Switch DOWN

**Stand-by dimming level**

|   |   |     |
|---|---|-----|
| ● | ● | 10% |
| ● | ○ | 20% |
| ○ | ● | 30% |
| ○ | ○ | 50% |

**Stand-by period**

|   |   |       |
|---|---|-------|
| ● | ● | 0s    |
| ○ | ● | 10s   |
| ● | ○ | 30s   |
| ○ | ○ | 1min  |
| ○ | ● | 5min  |
| ● | ○ | 30min |
| ○ | ○ | +∞    |

**Daylight Threshold**

|   |   |         |
|---|---|---------|
| ● | ● | Disable |
| ○ | ● | 120lux  |
| ● | ○ | 80lux   |
| ○ | ○ | 50lux   |
| ○ | ● | 30lux   |
| ● | ○ | 10lux   |
| ○ | ○ | 2lux    |

**Hold-Time**

|   |   |       |
|---|---|-------|
| ● | ● | 5s    |
| ○ | ● | 30s   |
| ● | ○ | 1min  |
| ○ | ○ | 5min  |
| ○ | ● | 10min |
| ● | ○ | 20min |
| ○ | ○ | 30min |

**Detection Area**

|   |      |
|---|------|
| ● | 100% |
| ○ | 50%  |

The definition of low output in the standby period.

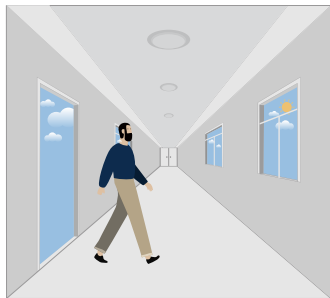
The period of light keeping low output before it's completely switched off. When it's preset as "∞", the light always keep at low output if no movement in the detection area and doesn't turn off.

Definition of the ambient brightness; only when the ambient brightness is lower than the preset specific lux amount, the sensor will work; when it's preset as "disable", the sensor works everytime it detects motion regardless the ambient brightness.

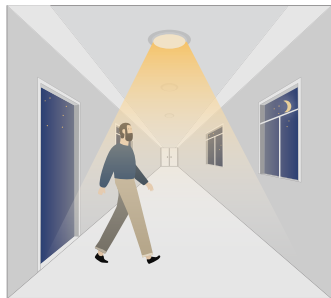
The period of light keeping 100% brightness after moving objects leave the detection area.

In this area, movement will be detected and able to trigger the sensor. 100% detection area is also known as the strong sensitivity.

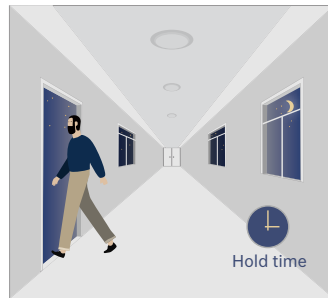
### 1. Automatically ON/OFF function



With sufficient daylight, even when motion detected, light remains OFF.



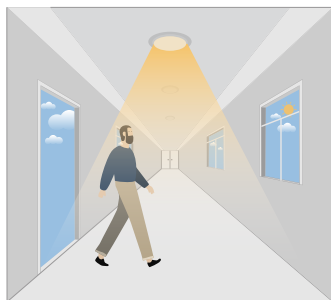
With insufficient daylight, the sensor turns light ON when motion gets detected.



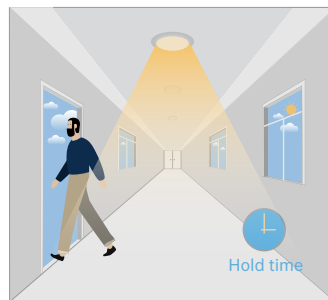
The sensor turns OFF light automatically after the holdtime when there's no motion detected.

### 2. Daylight Disable

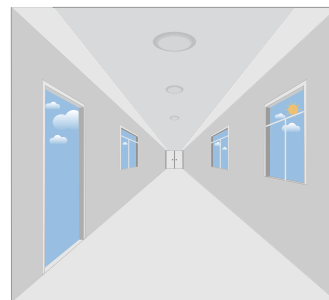
When daylight threshold is preset as "disable", the sensor turns light ON when motion gets detected, and OFF after holdtime.



The sensor turns light ON when motion gets detected.

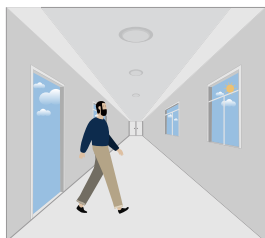


The sensor keeps light ON for holdtime period after motion leaves.

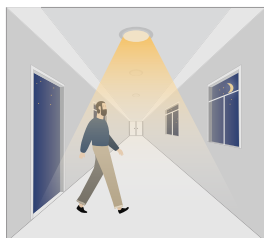


The sensor turns OFF light automatically after the holdtime.

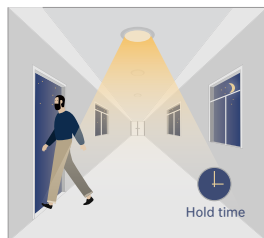
### 3. Corridor Function, Bi-level Dimmable



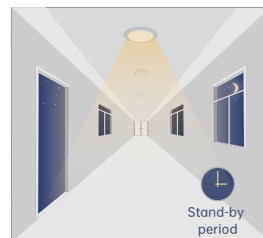
With sufficient daylight, the sensor keeps light OFF even motion gets detected.



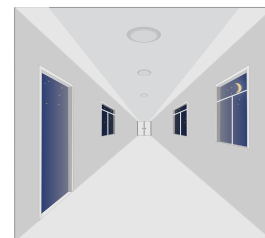
With insufficient daylight, the sensor turns light ON when motion gets detected.



After there's no motion detected, the sensor keeps light ON 100% for holdtime.



After holdtime, sensor dims light to standby dimming level for standby period.



The sensor turns OFF light automatically after the standby period when there's no motion detected.



# Attention

1. Please read the instructions carefully before using this product and keep it well for all users to read at any time.
2. The sensor should be installed by qualified electrician and ensure power is off before the installation.
3. We reserve the right to modify any incorrect text, image and necessary technical parameters.
4. Any unauthorized modification is forbidden, otherwise all guarantees will be immediately invalid.

## Installation precautions

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1. Microwave sensor can be installed in any lamp except the one with full metal shell.
2. The detected surface cannot be shielded by metal objects.
3. Make sure the microwave module is completely exposed outside.
4. The detection surface of the sensor module shall be installed facing the detection area.
5. Should be kept away from the driver to avoid interference generation and lamp flashing.
6. Wiring must be strictly in accordance with the wiring diagram to avoid short circuit.

## Application Environment

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1. Suitable for indoor installation to avoid false triggering due to external factors such as rain, wind or tree swing.
2. Shall not be installed in the place with all four metal shelters and small space (such as galvanized-iron roof ).
3. Shall note be mounted installation, so as to avoid false trigger caused by the lamp itself shaking.
4. Shall not be installed next to large operating machines such as ventilator/ceiling fan to avoid false triggering caused by machine vibration.

## User Notes

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1. Microwave can penetrate walls or glass thinner than <20mm and attenuate if thicker than <20mm.
2. The driver voltage shall be stable and float within 10%.
3. Detection area will be affected by speed of motion, mounting height and movement volume.
4. Conduct test on sunny days without the lampshade which will affect the tested lux value.