PRODUCT SPECIFICATION

MODEL NO	HD08VR SERIES
INPUT	12VDC
DESCRIPTION	HD08VR SERIES (BLUETOOTH & REGULAR)
VERSION	V3.0

HD08VR SERIES

(BLUETOOTH & REGULAR)

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DATE	2023.12.14

HD08VR MICROWAVE SENSOR SERIES

HD08VR PIR SERIES

HD08VR-M1 MICROWAVE SENSOR SERIES

HD08VR-M-1B   MICROWAVE   SENSOR SERIES

HD08VR-P-1B PIR SERIES

HD08VRA RECEPTACLE

HD08VRB RECEPTACLE
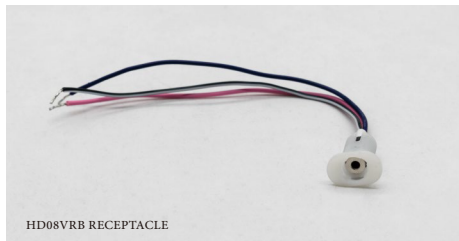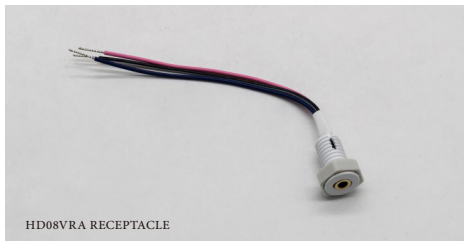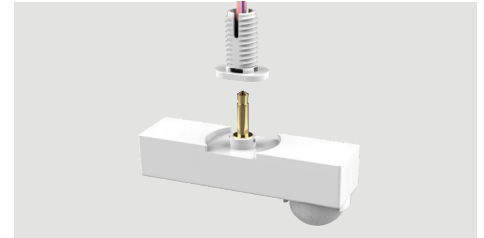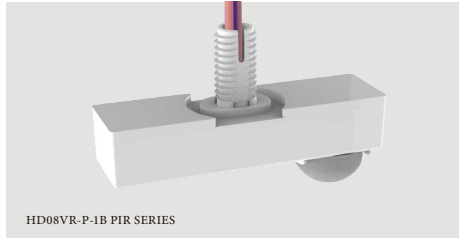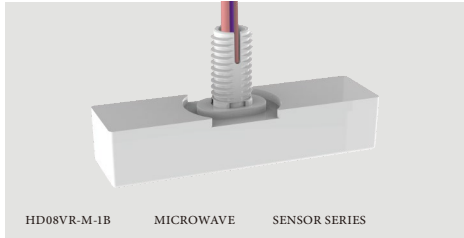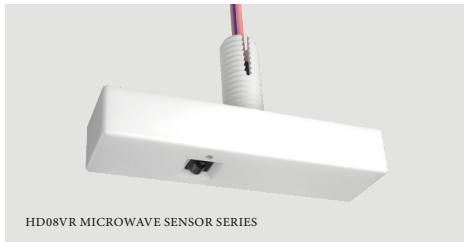
HD08VR Series

- NLC/DLC Qualified Product
- Tiny Microwave Sensor with/out Bluetooth-Mesh, PIR Version Interchangeable.
- 0-10V Dimming, with Daylight Harvesting
- Suitable for Indoor Lighting, Panel, Troffer etc.

Detection Coverage

Ceiling Mounted

Wall Mounted

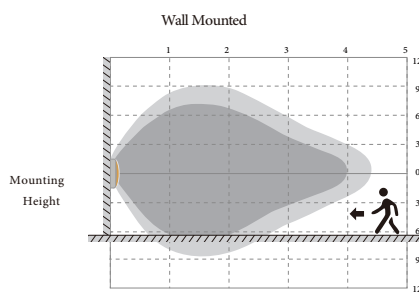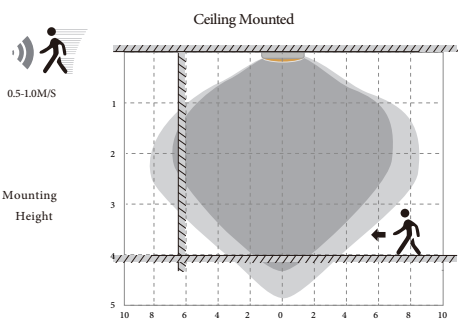Highest mounting height is 4m

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

Well Detected Area   Possibly Detected Area

Mounting Height
<4m/13.12 Ceiling Mounted

Detection Distance
Radius 2-4m/6.56-13.12ft

Ø12.8
18.5
32
11.2
20.3
Ø9.8
67
14.3

HD08VR MICROWAVE SENSOR SERIES
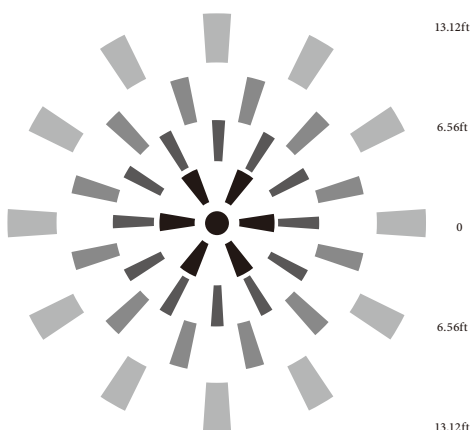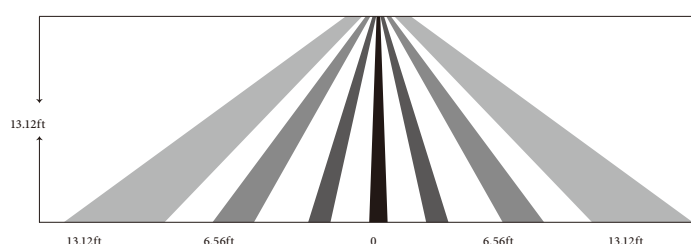
Ø12.8
11.2
21.9
32
18.5
1.1
14.3
20.3
Ø9.8
67

HD08VR PIR SERIES

13.8
67
32
31.8
18
11
18.5

HD08VR-M-1B MICROWAVE SENSOR SERIES

13.8
67
32
41.8
18
11
18.5

HD08VR-P-1B MICROWAVE SENSOR SERIES

73
32
18.5
7.8
11.2
67
3.2
79
1.5

HD08VR-M1 MICROWAVE SENSOR SERIES

2
10.5
16.8
20

HD08VRB RECEPTACLE

20
Ø12.8
0.8   1.5
Ø8.3 Ø9.8

HD08VRA RECEPTACLE

Wiring Diagram

VCC   Black&White wire
GND   Pink wire
0-10V   Purple wire

VCC
GND/DIM-
DIM+

L
N

L
N

LED+
LED-
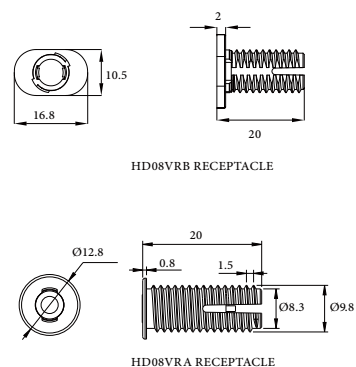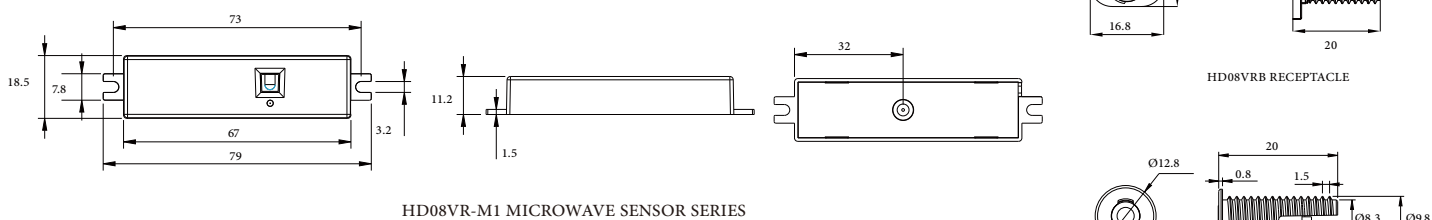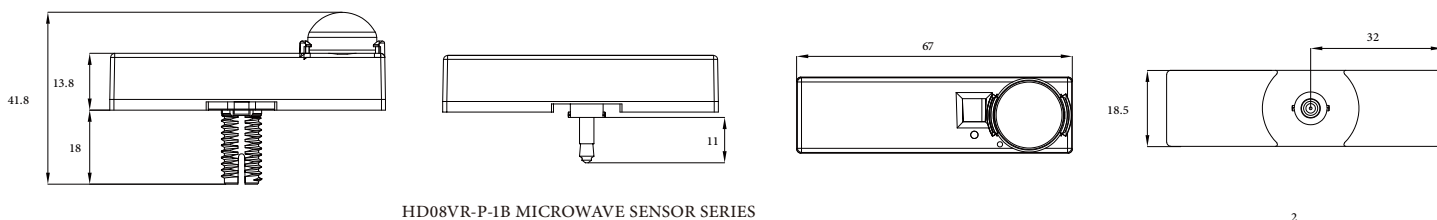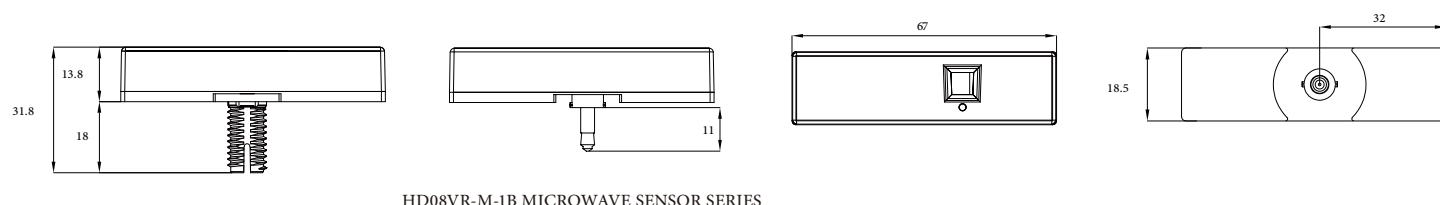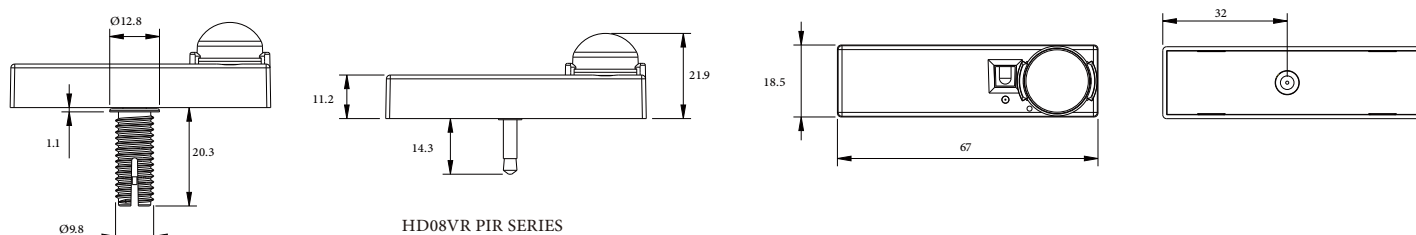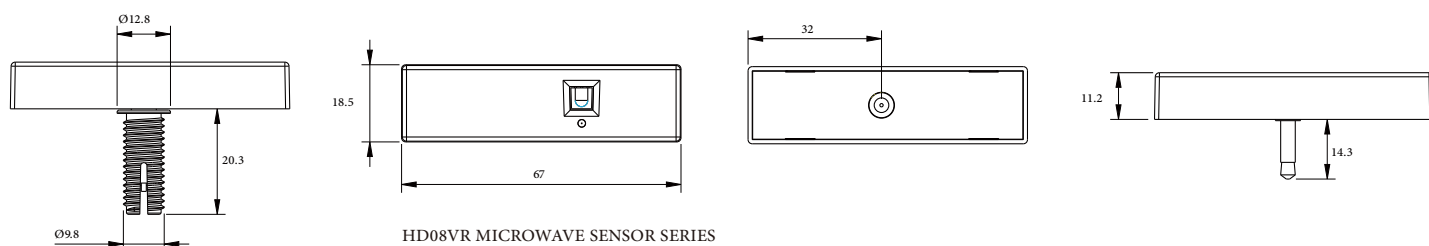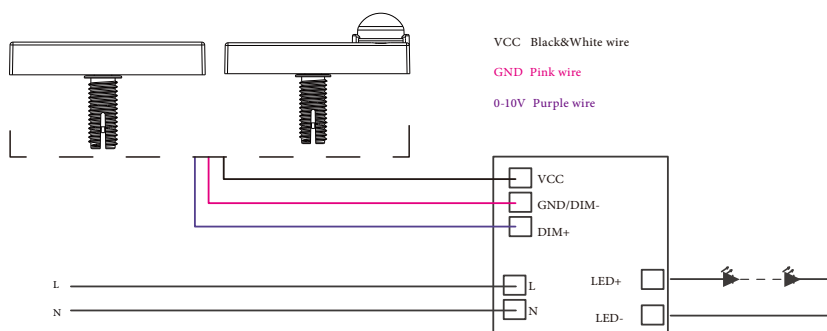
Model NO.		HD08VR
PIR INFORMATION	Warm-up Period	10S
	Installation Height	4m/13.12 Max.
	Detection Distance	Radius 2-4m
	Detection Angle	Fresnel Lens ≦120° Fersnel Lens 360° Ceiling Mounted
	Warranty	5 Years
MICROWAVE INFORMATION	Frequency	5.8GHz±75MHz
	Microwave Power	<0.3mW
	Installation Height	4m/13.12 Max.
	Detection Distance	≥ 3m/9ft
	Detection Angle	30-150° (Without Glass Cover)
	Warranty	5 Years
SENSOR PARAMETER	Detection Area	25%/50%/75%/100%
	Holdtime	Remote control Options: 5s/ 30s/ 1min/ 3min/ 5min/ 10min/ 20min/ 30min APP Control Options: 5s/ 30s/ 1min/ 2min/ 3min/ 5min/ 10min/ 15min/ 20min/ 25min/30min/ 45min/ 60min/ 90min/ 120min
	Daylight Threshold	Disable/400Lux/350Lux/300Lux/250Lux/200Lux/120Lux/ 80Lux/50Lux/30Lux/10Lux/2Lux
	Standby Dimming Level	10%/20%/30%/50%
	Standby Period	Remote control Options: 0s/ 10s/ 30s/ 1min/ 5min/ 10min/ 30min/ 60min/+∞ APP Control Options: 0s/5s/30s/1min/2min/3min/5min/10min/15min/20min/ 25min/30min/45min/60min/+ ∞
	Dusk/Dawn Sensing/ Photocell	Daylight threshold as 30lux/ 50lux/ 80lux/ 120lux/ 200Lux/ 250Lux/300Lux/ 350Lux/ 400Lux Standby period as + ∞ ; Standby dimming level as 10%/20%/30%
	Daylight Harvesting	1. Adjust "daylight" value higher than 50lux 2. Preset "standby period" 0S 3. Press "daylight harvesting" button on remote control to activate
BLUETOOTH INFORMATION	Wireless Control Range	>20m/65ft
	APP Download	Supported in both APP Store and Google Play Market
INPUT	Input Range	12VDC
	Voltage Range	10-15VDC
	Current	Remote control Options: <30mA APP Control Options: <40mA
OUTPUT	Signal	DIM 0-10V
	Connection	Tip DIM+、Ring VCC、Sleeve GND
	Stand-by Power	<0.5W
ENVIRONMENT	Working Temp	-25℃~+60℃
	Storage Temp	-40℃~+80℃ Humidity: 85% (non-condensation)
CERTIFICATE & STANDARDS	Environmental Requirements	In accordance with CE ROHS
	IP Rating	IP20

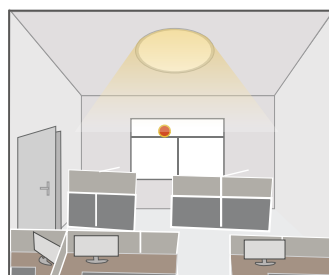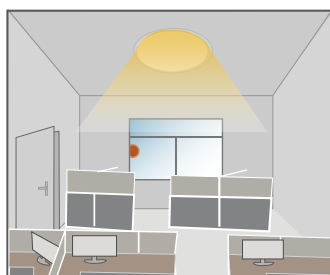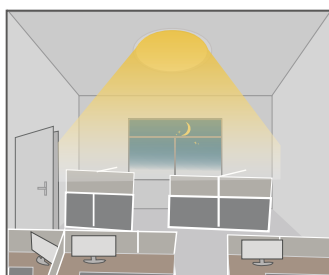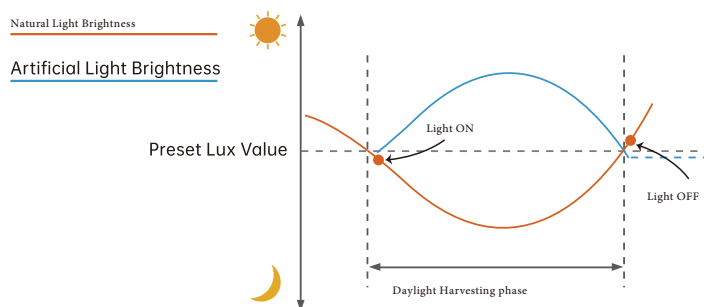| Model Number		Sensor Type	Connector	Controller
HD08VR-M1		Microwave	Wire connection	Remote Control HD06R
HD08VR-M1B	Bluetooth			HAISEN BLUE APP
HD08VR-M-1			Audio Jack	Remote Control HD06R
HD08VR-M-1B				
HD08VR-MB-1	Bluetooth			HAISEN BLUE APP
HD08VR-MB-1B	Bluetooth			
HD08VR-P-1		PIR		Remote Control HD06R
HD08VR-P-1B				
HD08VR-PB-1	Bluetooth			HAISEN BLUE APP
HD08VR-PB-1B	Bluetooth			

Performance

1.Daylight Harvesting

1. Adjust "daylight" value higher than 50lux

2. Preset "standby period" 0S

3. Press "daylight harvesting" button

   on remote control to activate

Natural Light Brightness

Artificial Light Brightness

Preset Lux Value

Light ON

Light OFF

Daylight Harvesting phase

When ambient brightness is lower than preset lux level, sensor will turn on light automatically and keep dimming according to the change of the ambient brightness;
when outside is getting darker, the inside will be brighter, and brighter darker.

Light OFF when ambient brightness becomes higher than the preset lux level.

2.Dusk/Dawn function

HD08VR is able to differentiate artificial light brightness from natural light after installed inside the fixture, and automatically turn off light when ambient brightness exceeds preset lux level.

Precondition of Dusk/Dawn function:

1. Standby period is + ∞;

2.Standby dimming level is on 10%,20% or 30%;

3. Daylight threshold is on 30lux/ 50lux/ 80lux/ 120lux/ 200Lux/ 250Lux/300Lux/ 350Lux/ 400Lux

LUX OFF

LUX ON

Natural Light

Light off automatically

light on automatically
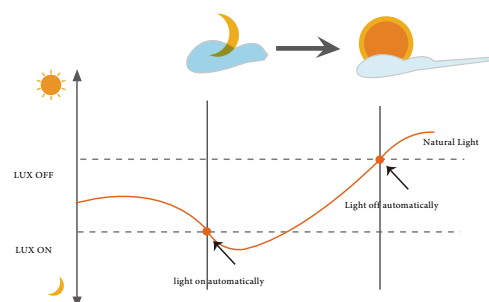
3. With Dusk/Dawn function

With insufficient ambient brightness, sensor turns
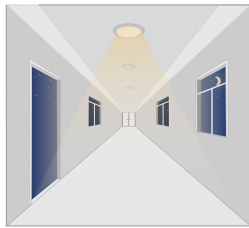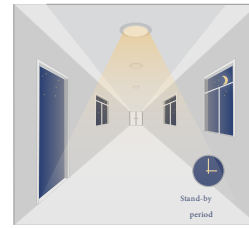on light and keeps it at
standby dimming level
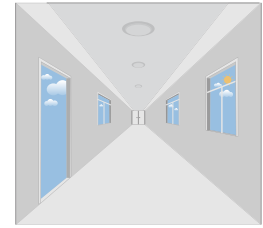even if there is no motion
or persence.

When sensor detects
motion or presence it will
bring the light level up to
100%.

After motion is no longer
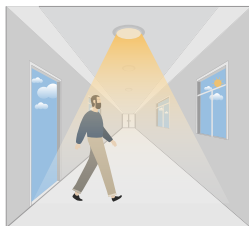**detected,fixture remains**
at 100% for hold time.

After pre-set hold time
period it will dim light to
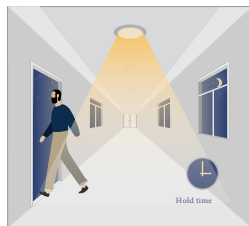standby dimming level
again and always keep it.

With sufficient ambient
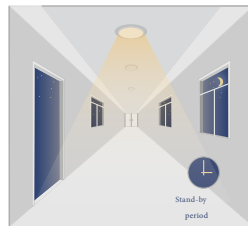brightness, sensor will turn
OFF light automatically.

4. Without daylight disabled

Sensor turns ON light when
motion is detected.

Sensor keeps for a hold
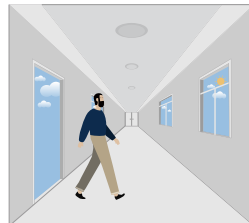time period after motion
leaves

Sensor dims light to
standby dimming level
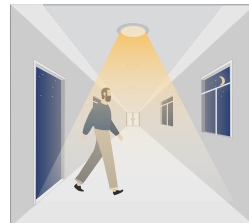after hold time if there is
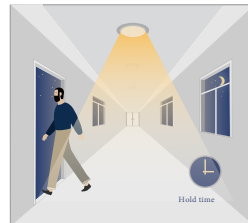still no motion

Sensor turns OFF light
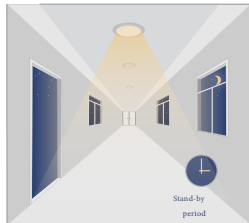after standby period

5. With Daylight Threshold

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.
if the standby period has
been set as Os, sensor
turns light OFF automatical   -
ly after holdtime.
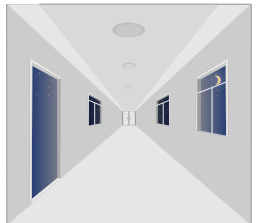
The sensor turns OFF light
automatically after the
standby period when
there's no motion detected.

Attention

1. The sensor should be installed by qualified electrician and ensure power is OFF before installation.

2. Please read the instruction carefully before using the product and keep it well for other users to read any time.

3. We reserve the right to modify any incorrect text, image and technical parameters.

4. Any unauthorized modification is forbidden. Otherwise all guarantees will be immediately invalid.

5. Product could be optimized without prior notice.

* When ambient temperature approaches the human body classic temperature range(36℃ ~37℃/96.8~98.6℉), PIR sensor's detecting performance will significantly weaken or non-responsive.

* When ambient temperature stays higher then 40℃/104℉, PIR sensor's detecting performance will significantly weaken.

MICROWAVE

1. Suitable for indoor application, half/completely outdoor environment conditions might be captured as moving signals to trigger the

sensor.

2. Suitable for ceiling mount installation, adjust sensitivity properly if it's installed on side-wall because it gets more sensitive.

3. Adjust sensitivity properly when the sensor is applied in small/narrow/metal-built/with metal spaces.

4. Microwave sensor can't be placed under/inside metal shell; Microwave module must directly face the detection area with edge

lower than light fixture.

5. Keep the sensor away from vibration equipments, air-conditioning outlets, smoke extractors alike conditions to avoid unwanted

trigger.

6. Keep the sensor module away from AC input and DC output to avoid high/low frequency signal interference.

7. At least 2m/6.5ft distance between microwave sensors; 1.5m/4.9ft between the sensor and other wireless devices such as routers

to avoid possible radio interference.

8. Daylight testing delivered in bright day without shadow or specially designed lampshade or lens.

9. Dimming performance differs when connected to different drivers; If the driver can't completely turn OFF, sensor can't either.

10. Input power voltage must be stable with float less than 10%.

11. The first time powered ON sensor, light will be ON 100% for about 10S then dims to standby level or OFF.

12. Distance detection is delivered by testing person about 165cm in open area as reference, the result differs by size and speed of

moving objects, mountng height and real-life situation.

PIR

1. Suitable for indoor application, half/completely outdoor environment conditions might trigger the sensor.

2. Suitable for ceiling mount installation, adjust sensitivity properly if it's installed on side-wall because it gets more sensitive.

3. PIR sensor can't be placed inside any material, fresnel lens must completely exposed in air.

4. Fresnel lens of the PIR sensor must be lower than light fixture.

5. Not suitable environment if there's sudden changed temperature of airflow for PIR sensor.

6. Not suitable environment if there's shelves blocking between the sensor and presence area.

7. Detection area options may NOT working obviously because it works depends on fresnel lens, it's physically defined.

8. Detection distance performance works better when moving parallelly than moving towards to the sensor.

9. Daylight testing delivered in bright day without shadow or specially designed lampshade or lens.

10. Dimming performance differs when connected to different drivers; If the driver can't completely turn OFF, sensor can't either.

11. Input power voltage must be stable with float less than 10%.

12. The first time powered ON sensor, light will be ON 100% for about 45S then dims to standby level or OFF.

13. Distance detection is delivered by testing person about 165cm in open area as reference, the result differs by size and speed of

moving objects, mountng height and real-life situation.