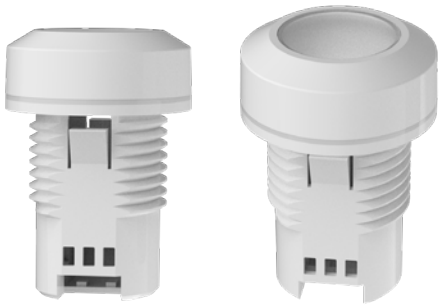
US085-SM8L-A MICROWAVE SENSOR

FEATURES



- Specially designed tiny microwave.
- Easy remote control.
- 12VDC input, Bi-level dimmable.
- Suitable for Dim-to-Off applications
- With Daylight Harvesting and Photocell Function.

On/Off Control | Detection Area | Stand-by dimming level | Hold Time | IP65 IP Rating

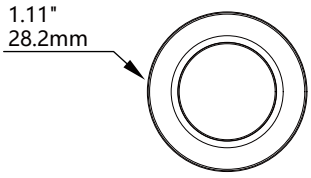
TECHNICAL DATA

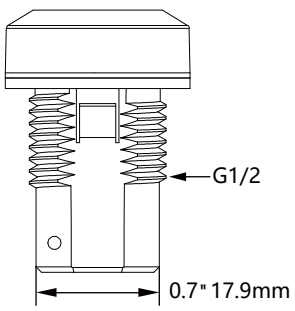
Microwave Information	
Frequency	5.8GHz±75MHz
Microwave Power	0.3mW
Installation Height	<4M/13ft
Detection Distance	3-8M/9.84-26.24ft Radius.
Detection Angle	30-150°

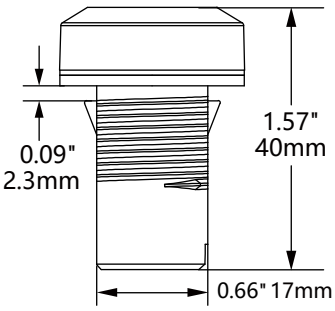
Electrical Specifications	
Input Range	10.5-15VDC (Supply Current>50mA)
Operating Current	<30mA
Function Performance	DIM 0-10V
Working Temp	-30°C~+60°C
Connection	VCC，GND，DIM+（22AWG/24AWG）

Sensor Parameter	
Warming-up Period	About 10S
Control Device	Remote control HD06R (Separately)
Detection Area	25%/50%/75%/100%
Hold Time	5s/30s/1min/3min/5min/10min/20min/30min
Daylight Threshold	2Lux/10Lux/30Lux/50Lux/80Lux/120Lux/ 200Lux/250Lux/300Lux/350Lux/400Lux/Disable
Standby Dim Level	10%/20%/30%/50%
Standby Period	0s/10s/30s/1min/5min/10min/30min/60min/+∞
Manually Dimming Play	Function supported, 10-100% in manual mode, 60%-100% in sensor mode.
Automatically Dimming (Daylight Harvesting)	1. Stay in SENSOR MODE 2. STANDBY PERIOD as 0S 3. DAYLIGHT as any of 50LUX, 80LUX, 120LUX, 200LUX, 250LUX, 300LUX, 350LUX, 400LUX. 4. Press DAYLIGHT HARVESTING button to ON
Automatically ON/OFF (Photocell)	1. STANDBY DIM LEVEL as any of 10% 20% 30% 2. STANDBY PERIOD as infinite 3. DAYLIGHT as any of 30LUX, 50LUX, 80LUX, 120LUX, 200LUX, 250LUX, 300LUX, 350LUX, 400LUX.

DIMENSIONS



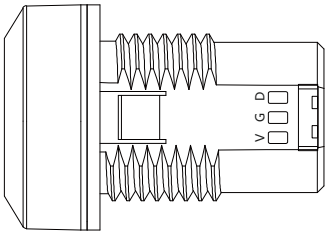




CONNECTION

Quick Connector

V : VCC 12V
G: GND
D: DIM+/0-10V



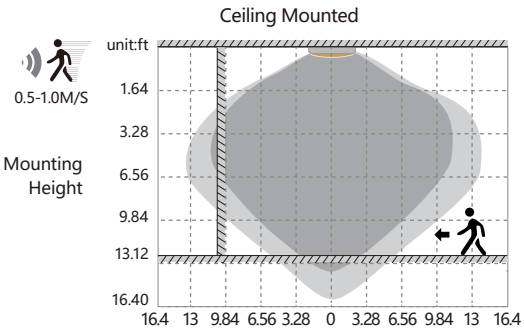
DETECTION COVERAGE

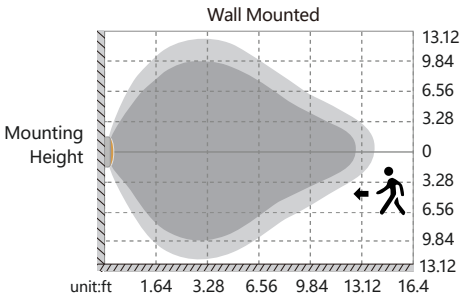
Highest mounting height is 4m/13ft

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

Well Detected Area

Possibly Detected Area





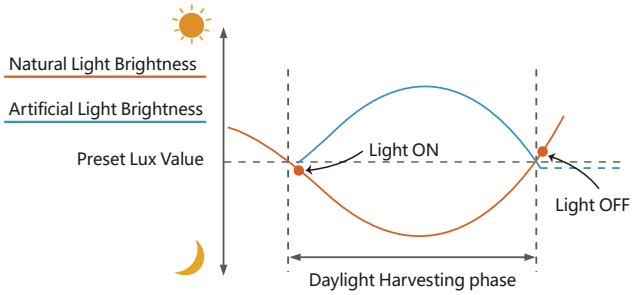
PERFORMANCE

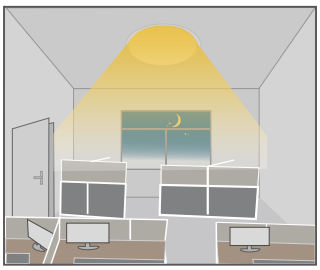
1.Daylight Harvesting

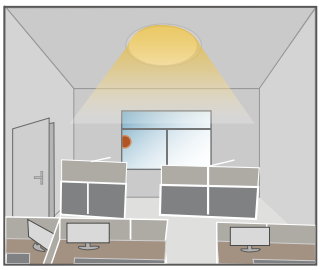
Please follow below setting steps to perform this function:

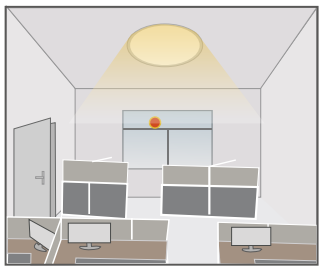
1. Stay in SENSOR MODE
2. STANDBY PERIOD as 0S
3. DAYLIGHT as any of 50LUX, 80LUX, 120LUX, 200LUX, 250LUX, 300LUX, 350LUX, 400LUX.
4. Press DAYLIGHT HARVESTING button to ON











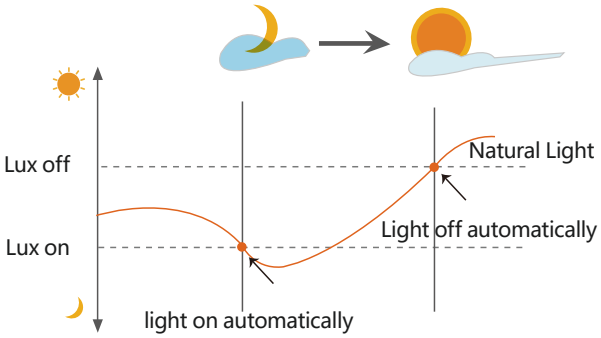


When ambient brightness is lower than preset lux level, sensor will turn on light automatically and keep dimming according to the change of the ambient brightness;
when outside is getting darker, the inside will be brighter, and brighter darker.

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

2.Dusk/Dawn function

HD09VR 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.

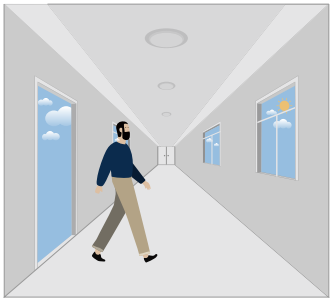


Please follow below setting steps to perform this function:

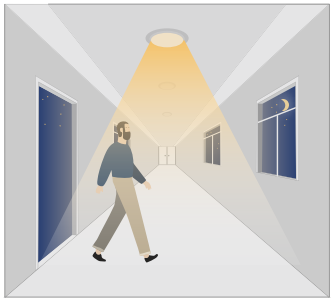
1. STANDBY DIM LEVEL as any of 10% 20% 30%
2. STANDBY PERIOD as infinite
3. DAYLIGHT as any of 30LUX, 50LUX, 80LUX, 120LUX, 200LUX, 250LUX, 300LUX, 350LUX, 400LUX.



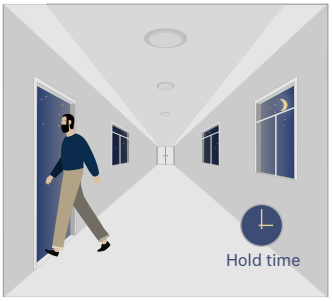
3. Automatically ON/OFF function



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

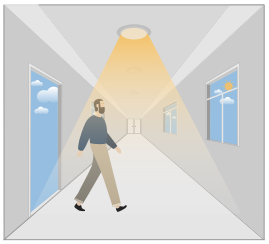


With insufficient daylight, the sensor turns light ON when motion gets detected.

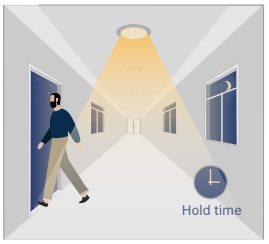


The sensor turns OFF light automatically after the holdtime when there's no motion detected.

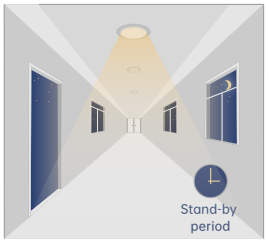
4. Without daylight disabled



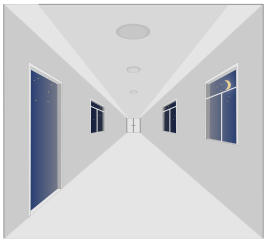
Sensor turns ON light when motion is detected.



Sensor keeps for a hold time period after motion leaves

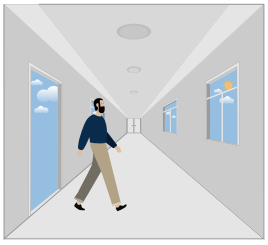


Sensor dims light to standby dimming level after hold time if there is still no motion

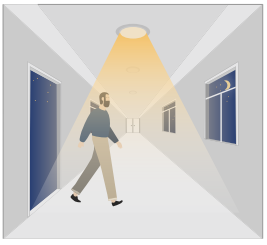


Sensor turns OFF light after standby period

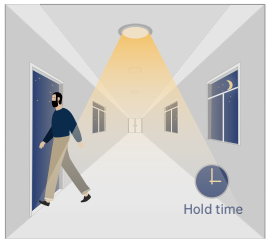
5. With Daylight Threshold



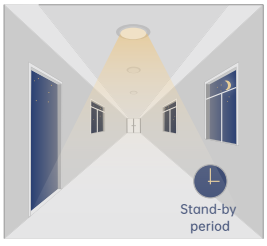
With sufficient daylight, the sensor keeps light OFF even motion gets detected



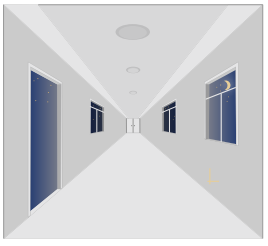
With insufficient daylight, the sensor turns light ON when motion gets detected



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 automatically after holdtime.



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

FACTORY SETTING

1. Detection Area - 100%
2. Hold Time - 20min
3. Daylight Threshold - disable
4. Standby Period - 60S
5. Standby Dimming Level - 20%
6. Max Dim Level: 80%



Attention

1. The sensor should be installed by a qualified electrician, Make sure the power is OFF before installation.
2. Please read the instruction carefully before using the product and save it for future reference.
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.

APPLICATION NOTES

1. Suitable for indoor application, half/completely outdoor environment conditions might be captured as moving signals to trigger the sensor.
2. Suitable for installations where the sensor is facing to the ground. There will be increased sensitivity if installed in a side wall or perpendicular to the ground. Adjust the sensitivity accordingly.
3. Adjust sensitivity properly when the sensor is applied in small/narrow/metal-built/with metal spaces.
4. Microwave sensor cannot 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 cannot completely turn OFF, sensor cannot either.
10. Input power voltage must be stable within a 10% tolerance.
11. When powering ON the sensor for the first time, light will be ON 100% for about 10S then dims to standby level or OFF.
12. Detection distance is determined with a 5.5ft test subject in open area as reference. Results may differ based on size and speed of moving objects, mounting height, and environmental conditions.