

# MICROWAVE MOTION AND DAYLIGHT SENSOR - 54870

## INSTALL INSTRUCTIONS



**PLEASE FIND A QUALIFIED ELECTRICIAN FOR INSTALLATION. Please read the instructions before you install the sensor and use the luminaire.**

**GENERAL:** ALL ELECTRICAL CONNECTIONS MUST BE IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODE (N.E.C.) STANDARDS. IF YOU ARE UNFAMILIAR WITH PROPER ELECTRICAL WIRING CONNECTIONS OBTAIN THE SERVICES OF A QUALIFIED ELECTRICIAN. REMOVE THE TRIM FROM THE BOX AND MAKE SURE THAT NO PARTS ARE MISSING.

- WARNING - Risk of fire or electric shock. Sensor installation requires knowledge of luminaires electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.
- WARNING - Risk of fire or electric shock. Install this sensor only in luminaires that have the construction features and dimensions shown in the photographs and/or drawings and where the input rating of the sensor does not exceed the input rating of the luminaire.
- WARNING - To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- Risk of Electric Shock: Disconnect power or circuit breaker before installing or servicing.
- Do not make or alter any open holes in an enclosure of wiring or electrical components during installation.

### WARNING

- Warm up time approx. 30 seconds. After the sensor receives input power for the first time, the light will stay on for approx. 15 seconds, then functions as programmed.
- Factory Default Settings: Sensitivity set to 100%. Hold on time 10 seconds. Daylight sensor at 30 Lux. Dimming level at 30%. Dimming time at 60 minutes.
- If any setting is changed with DIP Switch or remote control (RC-100, sold separately), the LED light will turn on/off as confirmation of connection.

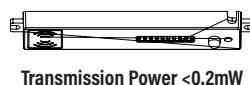
**CAUTION FOR YOUR SAFETY: IF YOU ARE UNSURE ABOUT ANY PART OF THESE INSTRUCTIONS, CONSULT A QUALIFIED ELECTRICIAN.**

**! WARNING DISCONNECT POWER BEFORE INSTALLING OR SERVICING.**

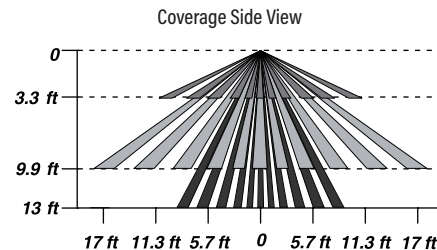
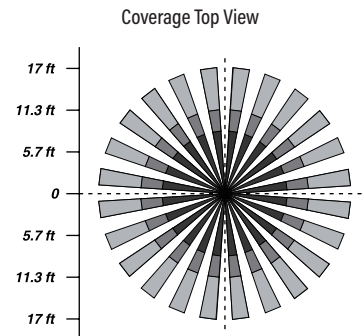
### SENSOR INFORMATION

SPECIFICATIONS	
Power Supply	12V-24VDC, >50mA
HF System	5.8GHz ± 75MHz
Dim Control Output	0-10V, Max. 25mA Sinking Current
Detection Radius/Angle	Max. 17ft (5.2 Meters) / 360°
Mounting Height	Max. 13ft (4 Meters)
Remote Range (RC-100, Sold Separately)	50ft (15 Meters) Indoor, no backlight
Humidity	Max. 95% RH
Temperature	-40° ~ 158°F

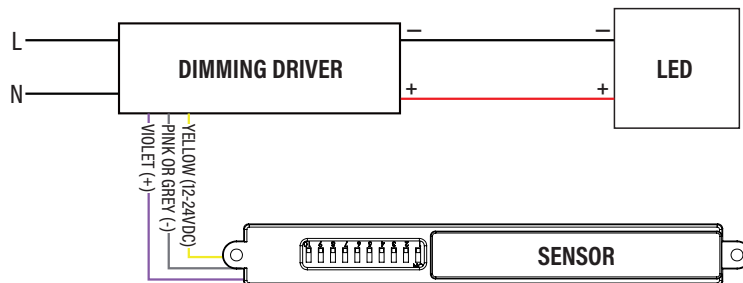
Note: The high-frequency output of this sensor is <0.2mW that is just one 5000<sup>th</sup> of the transmission power of a mobile phone or a microwave oven.



### SENSOR COVERAGE



### WIRING DIAGRAM



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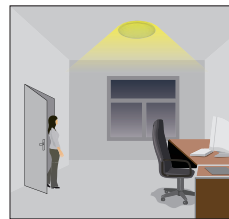
### FUNCTION AND OPTIONS

This sensor offers three levels of light control: 100% / Dimmed 10%, 30%, 50% / Off; selectable motion hold-time; selectable daylight threshold, and detection range sensitivity.

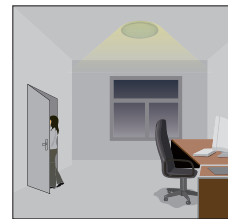
If natural daylighting falls below the sensor setting (10Lux, 30Lux, or 50Lux) and no motion is sensed, the fixture will shut off, but then as soon as motion is sensed, it will turn on to 100% and remain at 100% as long as there is motion/occupying of the room. If motion goes it will stay on 100% for the Hold Time setting (10 seconds, 1 minute, 5 minutes, or 15 minutes), and then switch to Standby settings. If no motion is sensed under Standby, the fixture will operate at Standby light levels per sensor setting (0%, 10%, 30%, and 50%) for the amount of Standby time per sensor setting (Infinity=stays on, 1 minute, 30 minutes, or 60 minutes). If no motion after standby time elapses, fixture will shut off (unless Standby time is set to Infinity). The next motion sensed will re-start the sequence.



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



When natural light drops below the sensor setting, the light will switch on when someone enters the area. At this point, the light will stay on even with motion detected (even if natural light exceeds the sensor setting).



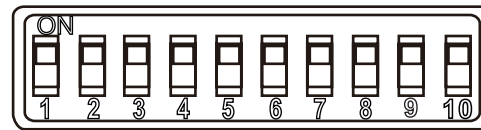
After a person leaves the room, the light dims to selected stand-by level (0, 10%, 30%, 50%) after hold time.



Light switches off automatically after the Stand-by dimming time elapses (unless dimming time is set to infinity).

### DIP SWITCH SETTINGS

- Switches 1 and 2 set the sensitivity of the sensor.
- Switches 3 and 4 set the hold time of the sensor.
- Switches 5 and 6 set the lux of the sensor.
- Switches 7 and 8 set the stand-by light level of the fixture.
- Switches 9 and 10 set the stand-by time.



**Detection Range Setting (Sensitivity):** Detection range can be reduced by selecting the combination on the DIP switched to precisely fit each application Fig. 1.

**Hold Time Setting:** The light can be set to stay ON for any period of time between approximately 10 seconds and a maximum of 15 minutes. Any movement detected before this time has elapsed will re-start the timer. It is recommended to select the shortest time for adjusting the detection zone and for performing the walk test. Fig. 2.

**Light Control Setting (Lux):** The chosen light response threshold can be infinitely from approx. 10-50Lux, switch location and light-control as shown in Fig. 3.

**Stand-By Light Level Setting:** Switch location and settings are shown in Fig. 4.

**Stand-By Time Setting:** Switch location and settings are shown in Fig. 5.

Fig. 1

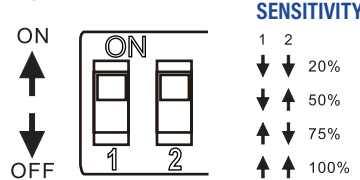


Fig. 2

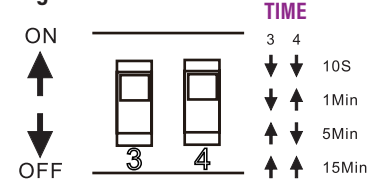


Fig. 3

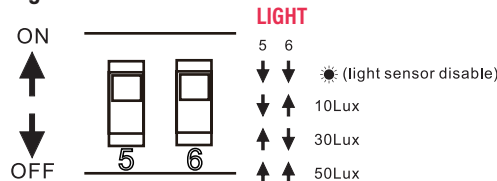


Fig. 4

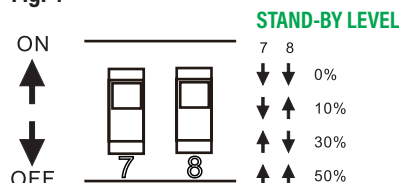


Fig. 5

