



# 19724 MICROWAVE SENSOR FOR D10

Thank you for buying RAB lighting fixtures. Our goal is to design the best quality products to get the job done right. We'd like to hear your comments. Call the Marketing Department at 888-RAB-1000 or email: [marketing@rabweb.com](mailto:marketing@rabweb.com)

## OPERATION

### Multi-level Dimming:

- 100% light
- Dimmed to: 10, 20, 30, 50\*%

*\*50% not on remote*

- Off

### Cut Off Time Adjustment:

- Once room is vacated, light dims to selected % after chosen hold time elapses

### Daylight Sensing:

- Surrounding natural light keeps fixture light off until room is occupied and natural light levels drop to selected level

### 8 Hour\* Manual Mode:

- Turn fixture off-on 3 times within 3 seconds
- Green LED on antenna will flash and fixture will flash 3 times if done correctly
- Fixture will remain 100% for 8 hours, then sensor will come on automatically
- To cancel, turn the fixture off-on within 1 second

*\*Times out after one 8-hour cycle*

### Ambient Daylight Threshold\*:

- Turn fixture off-on 2 times within 2 seconds
- Green LED on antenna will flash slowly for 5 seconds and fixture will blink twice if done correctly
- Surrounding fc will be measured and recorded for 1 second
- Green LED on antenna and fixture will light for 10 seconds to indicate successful fc recording
- Most recent fc measurement overwrites any prior

*\*DIP settings (pg 1) and ambient lux overwrite each other depending on latest action*

### Scene Mode:

- 100% detection range and 10% cut off dimming
- Scene 1 (SC1):** 1 min hold-time, 10 min cut off period, .2 fc daylight sensor
- Scene 2 (SC2):** 5 min hold-time, 10 min cut off period, .2 fc daylight sensor
- Scene 3 (SC3):** 10 min hold-time, 30 min cut off period, 1 fc daylight sensor
- Scene 4 (SC4):** 10 min hold-time, always on bi-level cut off period, 5 fc daylight sensor

## SENSOR COVERAGE DIAGRAM

Below diagrams represent best average coverage from lab testing. Actual coverage may vary as metal on the fixtures can interfere with microwaves from the sensor

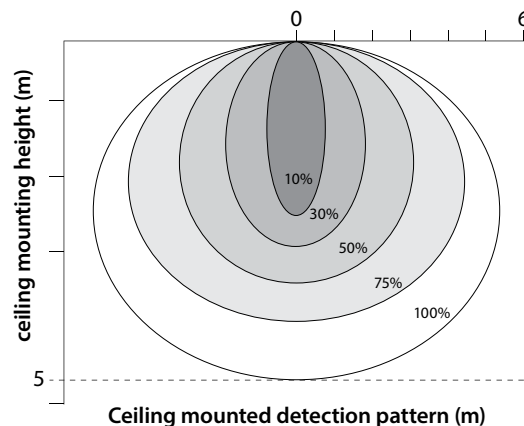


Fig. 3

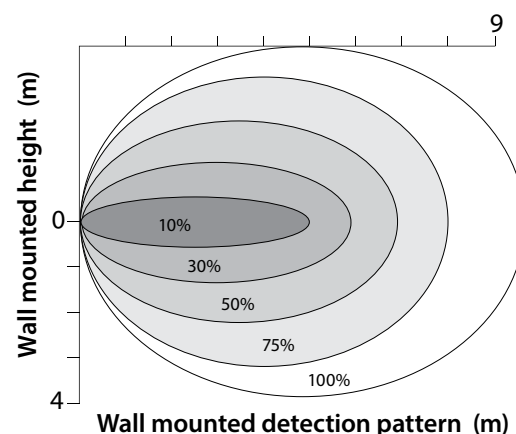


Fig. 4

## SENSOR TECHNICAL DATA

**Capacitance Load:** 400W at 120V, 800W at 230V, 1000W at 277V

**Operating Temperature:** -20°C to +60°C (-4°F to +140°F)

**Relay:** Zero-cross relay

**Maximum Mounting Height:** 5m

**Customizable Detection Area:** 10, 50, 75 or 100%

**Time Delay:** 5s, 30s, 1min, 5min, 10min, 20min, 30min

**Cut Off Period:** 0s, 10s, 1min, 5min, 10min, 30min, 1hr, Bi-Level

**Cut Off Dimming Level:** 10, 20, 30, 50%

**Cut Off Power:** Less Than 1W

**Daylight Threshold:** About .2-5 fc or Disabled

**Sensor Principle:** High Frequency

**Microwave Frequency:** 5.8GHz +/- 75MHz

**Microwave Power:** <0.2mW

**Detection Range Max:** 16m across, 10m high

**Detection Angle:** About 30 to 150 degrees

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## REMOTE

Sensor will beep one time to indicate remote received successfully

Remote settings will override DIP Switch settings

**ON/OFF:** disables sensor; light is permanently\* on or off  
\*un-do permanent on/off by selecting either Auto-Mode, RESET, or any Scene mode button

**Auto Mode:** sensor activates and all previously selected settings remain programmed

**RESET:** overrides selected settings; reverts to DIP settings

**Dim buttons:** + dims up and - dims down, adjusting lamp brightness

**Black Button:** no function

**Test 2s:** automatic\* test mode with 2 second time delay; disables cut off period and daylight sensor  
\*un-do automatic test mode by selecting either RESET, any Scene mode button, or hold time

**Power 100% & Power 80%:** adjusts power output; to save energy select Power 80%. Must return to full output after initial 10,000 hours of LEDs by pressing Power 100%.

### Group B:

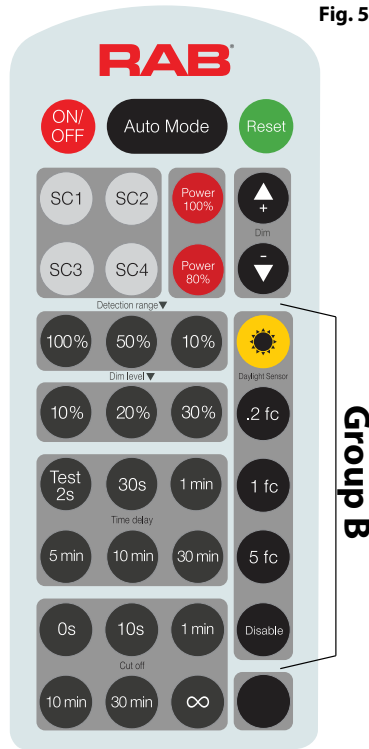
**Yellow Sun Button:** Ambient Daylight Threshold; records surrounding lux level and overwrites previously recorded value

**.2, 1 and 5 fc:** sets daylight sensor at respective ambient light values

**Disable:** disables daylight sensor; any motion registered by sensor activates fixture light

**SC1, SC2, SC3, SC4:** assigns one of 4 pre-set scenes; see "Operation" on pg 2 for scene descriptions

Fig. 5



## REMOTE CONTINUED

**Detection Range Button Group:** assigns detection range of 10, 50 or 100%; use coverage diagrams on pg 2 for guidance. To limit area in which motion will set off sensor, use a smaller percent. The sensor will not detect motion outside of 100% and the fixture will not light.

**Time Delay Button Group:** assigns hold time of 30 seconds, 1 minute, 5 minutes, 10 minutes, or 30 minutes

**Cut Off Button Group:** assigns cut off period of 0 seconds, 10 seconds, 1 minute, 10 minutes, 30 minutes, or 1 hour. 0 seconds gives fixture on/off control rather than dimming. + ∞ keeps the light on always (if daylight sensor is disabled) with Bi-Level dimming control.

**Dim Level:** assigns level of 10, 20, or 30% for dimmed light output after time delay passes

## TROUBLESHOOTING

If the sensor does not detect motion as expected:

- Check fixture mounting to compare fixture location and sensor coverage with the coverage diagrams on pg 2
- Adjust fixture location as necessary

Fixture will not light/sensor does not detect motion:

- Make sure ON/OFF button was not selected as this results in disabling the sensor
- Check all settings to be sure there is no conflicting selection with the ambient light level

Fixture and sensor are too active:

- Check detection area setting and reduce coverage as needed
- Increase time delay and/or adjust cut off period.

Basic Function Overview:

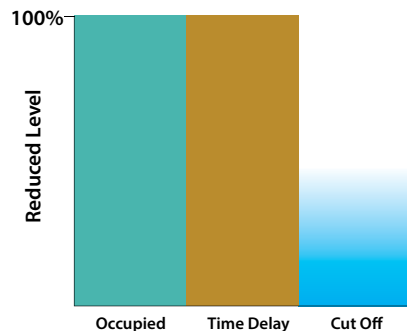


Fig. 6

Note: These instructions do not cover all details or variations in equipment nor do they provide for every possible situation during installation operation or maintenance.