

**OVERVIEW**

The CMRB family of fixture mount line voltage occupancy sensors provide a range of sensor solutions. The CMRB sensor mounts directly to the end of a lighting fixture through an extended 1/2 inch chase nipple. The CMRB family sensors utilize 100% digital Passive Infrared (PIR) detection and are available with several lens options, providing flexibility for multiple mounting height and coverage pattern requirements. Dual technology (PDT) occupancy detection can also be added as an option for applications where occupants are stationary for long periods of time.

**FEATURES**

- 360° and Aisleway coverage pattern
- Push- button programmable, adjustable time delays, and multiple operating modes
- 100 hr lamp burn-in timer
- No field calibration or sensitivity adjustments required
- Green LED indicator
- Self-Contained Relay, no Power Pack needed
- Dimming sinks up to 20 mA
- No minimum Load Requirements
- Compatible w/ Electronic & Magnetic Ballasts, CFLs, LED, & Incandescents

**Warranty**

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: [www.acuitybrands.com/support/warranty/terms-and-conditions](http://www.acuitybrands.com/support/warranty/terms-and-conditions)

**Note:** Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice



**CMRB**  
*Fixture Mount Occupancy Sensor*



**ORDERING INFORMATION**

CM Family							Example: CM PDT 11 R LT	
Series	Detection Technology	Coverage Type	Relay	Dimming	Voltage	Temp/Humidity		
CMRB Fixture Mount Sensor	[blank] PIR PDT <sup>1</sup> Dual Technology (PIR/Microphonics)	6 High Bay 360° 9 Small Motion 360° 10 Large Motion 360° 50 High Mount Aisleway	[blank] None 2P <sup>2</sup> Dual Relay	[blank] None D <sup>2,3</sup> Occupancy Controlled Dimming P Photocell ADC <sup>2,3</sup> Photocell w/ Dimming DZ <sup>2,4</sup> Dual Zone Photocell	[blank] 120/230/277 VAC 347 347 VAC 480 480 VAC	[blank] Standard LT Low Temp/ High humidity		

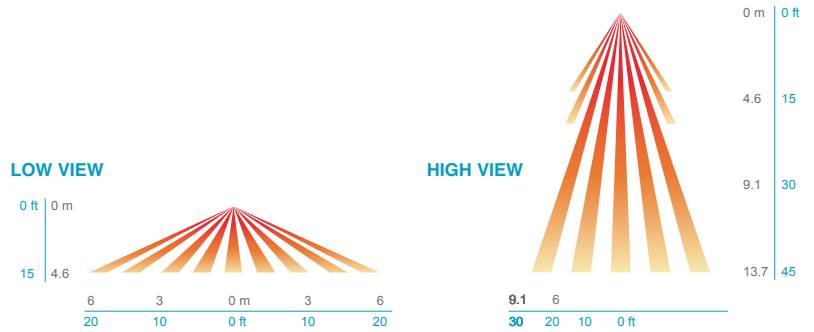
Notes

1. PDT option not available with 6 & 50 lens.
2. Not available with 480 option.
3. Not available with 2P option.
4. Not available with single relay option.

## COVERAGE PATTERNS

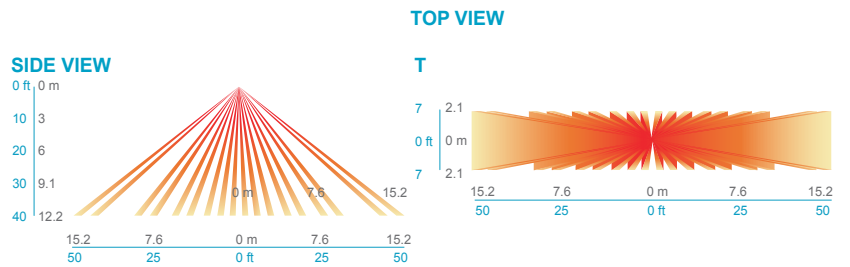
### High Mount 360° (Model # CM 6)

- Best choice for 15 to 45 ft (4.57 to 13.72 m) mounting heights
- 15 to 20 ft (4.57 to 6.10 m) radial coverage overlaps area lit by a typical high bay fixture
- Excellent detection of large motion (e.g. walking) up to 35 ft (10.76 m)
- Excellent detection of extra large motion (e.g. forklifts) up to a 45 ft (13.72 m)
- Tested to NEMA WD 7-2011



### High Mount Aisleway Lens (#50)

- Provides a bi-directional coverage pattern ideal for warehouse racking
- 1.2x mounting height equals approximate detection range in either direction
- Typical 40 ft (12.19 m) mounting detects 50 ft (15.24 m) in either direction
- Superior aisleway coverage compared to a masked 360° lens



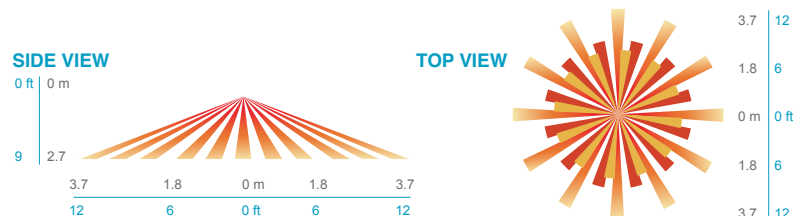
### Low Mount 360° Lens (#10)

- Best choice for large motion detection (e.g. walking)
- 360° conical shaped pattern
- Provides ~24 ft (7.32 m) radial coverage (~2000 ft<sup>2</sup>) when mounted at 9 ft (2.74 m)
- 7 to 15 ft (2.13 to 4.57 m) mounting heights provide 16 to 36 ft (4.88 to 10.97 m) radial coverage
- Detection range improves when walking across beams compared to into beams



### Small Motion 360° Lens (#9)

- Best choice for small motion (e.g. hand movements) detection
- 360° conical shaped pattern
- Provides 12 ft (3.66 m) radial coverage (~500 ft<sup>2</sup>) when mounted to standard 9 ft (2.74 m) ceiling
- 8 to 15 ft (2.44 to 4.57 m) mounting heights provide 10 to 20 ft (3.05 to 6.10 m) radial coverage
- Lens assembly is marked with a gray ring around lens to differentiate versus the #10 lens



# WIRING (DO NOT WIRE HOT)

## STANDARD WIRING

- BLACK\*** - Line Input
  - BLACK\*** - Load Output
  - WHITE** - Neutral
- } \*BLACK wires can be reversed

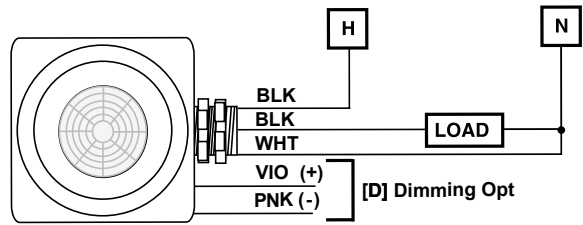
## 347 VAC OPTION (347)

Black wires are replaced w/ Red wires

## INITIAL POWER UP

The sensor's relay is shipped in a latched closed position so the lights will come on upon initial power-up. If the lights do not immediately turn on (initial installation only) the latching relay opened during shipment and will close within 30 secs.

**Note:** If the sensor loses power, the internal relay will latch closed.



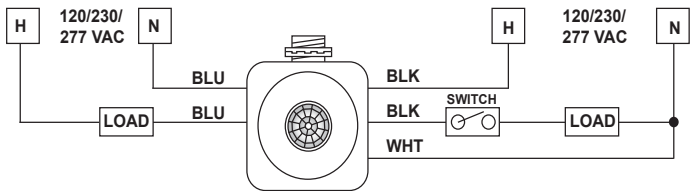
### DIMMING OPTION (D)

**VIOLET** - Connect to Violet control wire from 0-10 VDC dimmable ballast

**PINK** - Connect to Gray common wire from ballast

## 2 POLE (2P) WIRING

- BLACK\*** - Line Input 1
  - BLACK\*** - Load Output 1
  - BLUE\*\*** - Line Input 2
  - BLUE\*\*** - Load Output 2
  - WHITE** - Neutral
- } \*BLACK wires can be reversed
- } \*\*BLUE wires can be reversed



## 347 VAC OPTION (347)

Black wires are replaced w/ Red wires

## INITIAL POWER UP

The sensor's relay is shipped in a latched closed position so the lights will come on upon initial power-up. If the lights do not immediately turn on (initial installation only) the latching relay opened during shipment and will close within 30 secs.

**Note:** If the sensor loses power, the internal relay will latch closed.

## 480 VAC WIRING

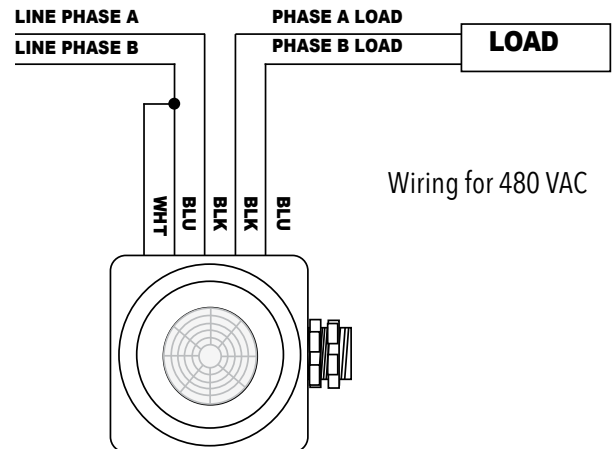
For 480 VAC version the white wire connects to either the phase 1 or phase 2 line input.

- BLACK** Line Phase A
- BLACK** Phase A Load
- BLUE** Line Phase B
- BLUE** Phase B Load
- WHITE** Connect to either Line Phase

## INITIAL POWER UP

The sensor's relay is shipped in a latched closed position so the lights will come on upon initial power-up. If the lights do not immediately turn on (initial installation only) the latching relay opened during shipment and will close within 30 secs.

**Note:** If the sensor loses power, the internal relay will latch closed.



## SPECIFICATIONS

---

### Electrical

**Input Ratings** 120/220/230/277, 80 mA, 50/60 Hz  
347V, 80 mA, 50/60Hz  
480V, 80 mA, 50/60Hz

**Output Ratings** 120V, 800W/6.67A - Tungsten, Ballast  
347V, 4.3A - General Purpose  
480V, 5A - General Purpose  
125V, 1/4HP - Motor

**Relay Type** Latching

**Low Voltage Output Ratings** 0-10VDC, Sinks <20mA

---

### Mechanical

**Dimensions** 4.55"W x 1.55"D (116mm x 40mm)

**Mounting** Single-Gang or Octagonal Box, Surface Mount

**Color** White

**Finish** Matte

**Connection Type** Line Voltage Leads

---

### Environmental

**Warrantied Operating Temperature** Standard: 14°F to 185°F (-10°C to 85°C)  
LT Option: -4°F to 185°F (-20°C to 85°C)

**Relative Humidity** Up to 90%, Non-Condensing

**Environment** Indoor

**Standards/ Ratings** RoHS