Wireless Ceiling Mount Sensor

Lutron's ceiling-mounted occupancy/vacancy sensors are wireless, battery-powered passive infrared (PIR) sensors that automatically control lights via RF communication to compatible dimming and switching devices. These sensors detect the heat from people moving within an area to determine when the space is occupied. The sensors then wirelessly transmit the appropriate commands to the associated dimming and switching devices to turn the lights on or off automatically. They combine both convenience and exceptional energy savings along with ease of installation.

Features

- Wireless occupancy sensor has 3 settings available: Auto-On/Auto-Off, Auto-On Low-Light/Auto-Off, and Manual-On/Auto-Off
- Auto-On Low-Light feature will only turn lights on automatically if there is less than approximately 1 fc (10 lux) of ambient light
- Vacancy model available to meet CA Title 24 requirements
- 10-year battery life design
- Passive infrared motion detection with exclusive Lutron XCT™ Technology for fine motion detection
- 360˚ coverage ranges from 324 sq. ft to 676 sq. ft. (depending on mounting height)
- Multiple ceiling-mount methods available for different ceiling materials
- RoHS compliant
- Simple and intuitive adjustments available for Timeout, Auto-On, and Activity settings
- Front accessible test buttons make setup easy
- Lens illuminates during test mode to verify ideal locations
- Multiple sensors can be added for extended coverage— refer to product specification submittals of receiving device to determine system limits

Models Available:

- LRF2-OCRB-P-WH-xx
  434 MHz Occupancy/Vacancy Sensor

- LRF2-VCRB-P-WH-xx
  434 MHz Vacancy Sensor

  xx = Color Options:
  WH (white)
  BL (black)
  LA (light almond)

Compatible RF Devices:

- For use with Lutron® products only.
- Communicates to the following wireless *Lutron* systems:
  - Maestro® Wireless® (MRF2)
  - GRAFIK Eye® QS Wireless
  - Energi Savr Node™ QS (with QS Sensor Module on QS Link)
  - Quantum® (with QS Sensor Module on QS Link)
  - RadioRA® 2

Job Name:	Model Numbers:
Job Number:	

Specifications

Standards

- FCC certified
- IC certified
- COFETEL certified
- RoHS compliant

Environment

- Temperature: 32 ˚F to 104 ˚F (0 ˚C to 40 ˚C)
- For indoor use only

Power

- Operating voltage: 3 V⎓
- Operating current: 14 μA nominal
- Requires one CR 123 lithium battery
- 10-year battery life design
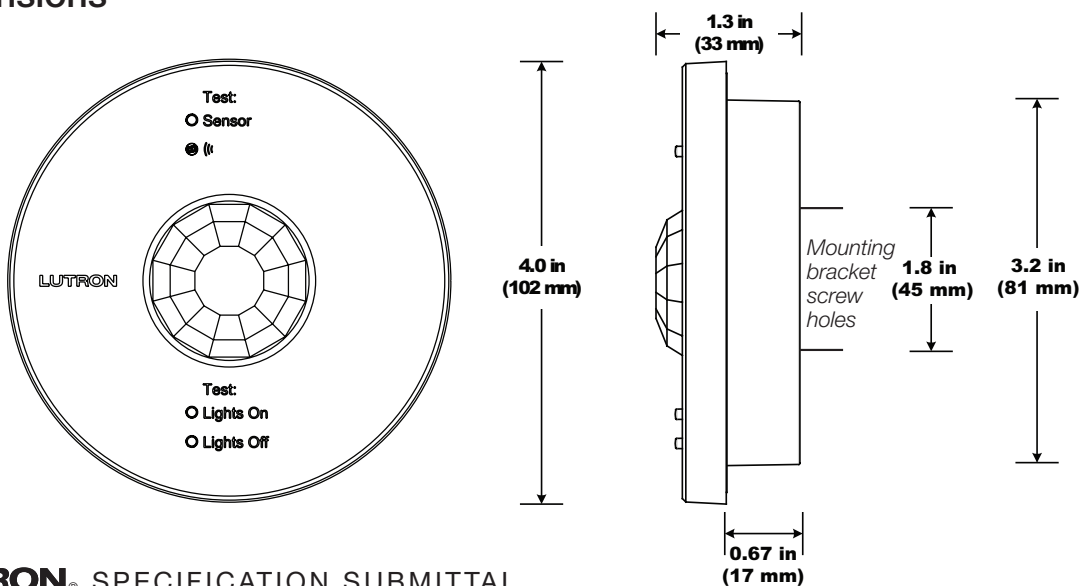- Non-volatile memory (saved changes are stored during power loss)

Sensor Coverage Test

- Front accessible test button
- Lens illuminates orange in response to motion during test mode and is visible from 60 ft (18 m)

Wireless Communication Test

- Front accessible test buttons
- Turn loads on and off

Timeout Options

- 1 minute **
- 5 minutes
- 15 minutes *
- 30 minutes

Auto-On Options (Occupancy Version Only)

- "Always" * - Sensor turns lights ON and OFF automatically.
- "Low light" - Sensor turns lights ON automatically only in low ambient light conditions. Sensor turns lights OFF automatically.
- "Disable" - Lights must be turned ON manually from dimming or switching device. Sensor turns lights OFF automatically.

Activity Options

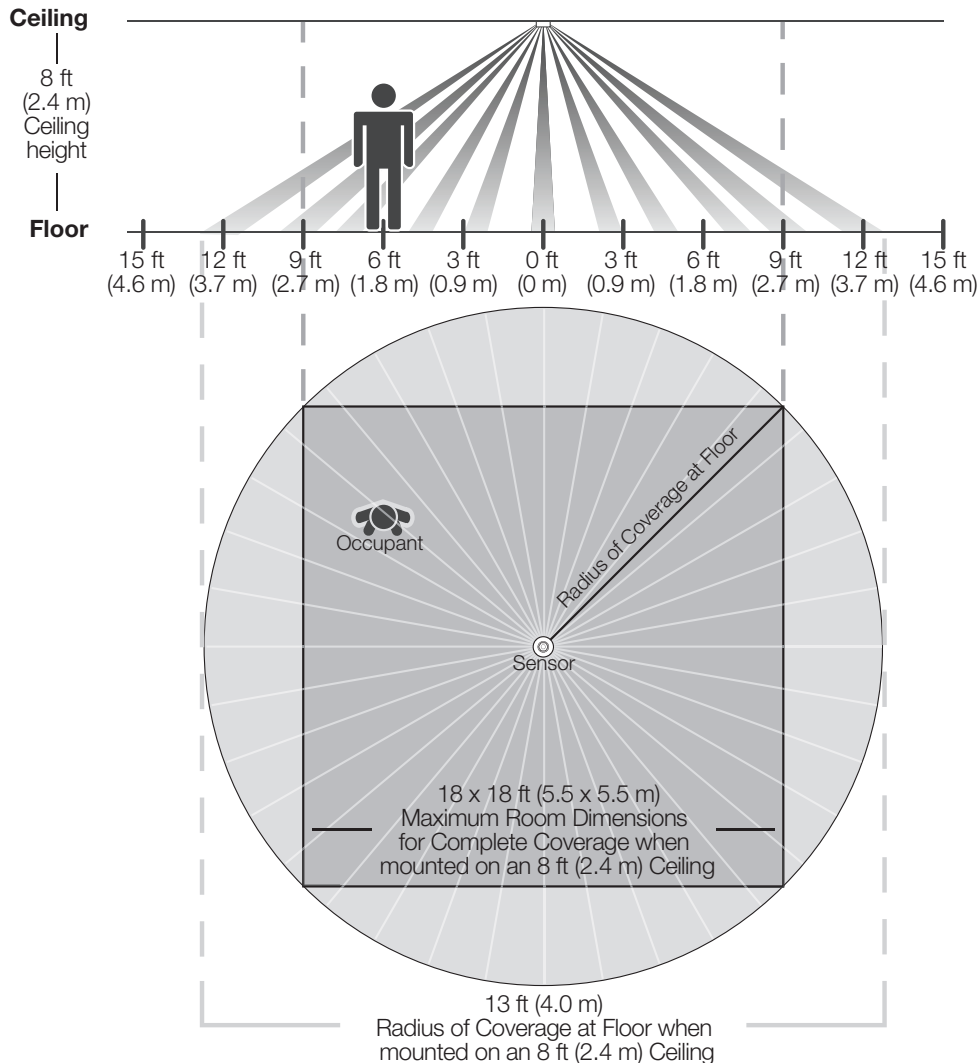- Low Activity * (⭐)
- Medium Activity (⭐)
- High Activity (⭐)

* - default settings

** - intended for use in high-activity, briefly occupied areas only

Dimensions

Job Name:	Model Numbers:
Job Number:	

Range Diagrams

Sensor Coverage with an 8 ft (2.4 m) Ceiling

Ceiling

8 ft
(2.4 m)
Ceiling
height

Floor

15 ft	12 ft	9 ft	6 ft	3 ft	0 ft	3 ft	6 ft	9 ft	12 ft	15 ft
(4.6 m)	(3.7 m)	(2.7 m)	(1.8 m)	(0.9 m)	(0 m)	(0.9 m)	(1.8 m)	(2.7 m)	(3.7 m)	(4.6 m)

Occupant

Radius of Coverage at Floor

Sensor

18 x 18 ft (5.5 x 5.5 m)
Maximum Room Dimensions
for Complete Coverage when
mounted on an 8 ft (2.4 m) Ceiling

13 ft (4.0 m)
Radius of Coverage at Floor when
mounted on an 8 ft (2.4 m) Ceiling

Sensor Coverage Chart (for sensor mounted in center of room)

Ceiling Height	Max. Room Dimensions for Complete Coverage	Radius of Coverage at Floor
8 ft (2.4 m)	18 x 18 ft (5.5 x 5.5 m)	13 ft (4.0 m)
9 ft (2.7 m)	20 x 20 ft (6.1 x 6.1 m)	14.5 ft (4.4 m)
10 ft (3.0 m)	22 x 22 ft (6.7 x 6.7 m)	16 ft (4.9 m)
12 ft (3.7 m)	26 x 26 ft (7.9 x 7.9 m)	19 ft (5.8 m)

* Multiple sensors can be added for extended coverage—refer to product specification
  submittals of receiving device to determine system limits.

Job Name:	Model Numbers:
Job Number:	

Installation Overview

Sensor Placement

- The sensor's ability to detect motion requires line of sight of room occupants. The sensor must have an unobstructed view of the room. **DO NOT** mount behind or near tall cabinets, shelves, hanging fixtures, ceiling fans, etc. The sensor cannot see through glass objects such as patio or shower doors.
- Hot objects and moving air currents can affect the sensor's performance. To ensure proper operation, the sensor should be mounted at least 4 ft (1.2 m) away from light bulbs below the ceiling line and HVAC vents.
- The sensor's performance depends on a temperature differential between the ambient room temperature and that of room occupants. Warmer rooms may reduce the sensor's ability to detect occupants.
- The sensor should be mounted within 60 ft (18 m) line of sight or 30 ft (9.1 m) through walls, of the associated dimming and switching receiving devices.

Mounting

- Mounting of any RF devices on or in close proximity to a metal surface (e.g. directly on fixture with metal housing, metal-backed ceiling tile) will drastically reduce the effective range of radio signal transmission or reception.
- All RF devices must be mounted on non-conductive materials to ensure proper performance.

Temporary mounting is recommended to test sensor coverage and wireless communication before permanently installing the sensor.

Drop Ceiling (Compressed Fiber Ceiling Tile)

- The ceiling tile mounting wire is provided for both temporary and permanent mounting of the sensor to ceiling tiles. It is designed to allow temporary mounting, testing, and repositioning (if necessary) of the sensor without damaging a ceiling tile. Once the sensor's final position has been chosen, the mounting wire should be twisted to lock the sensor in place permanently.

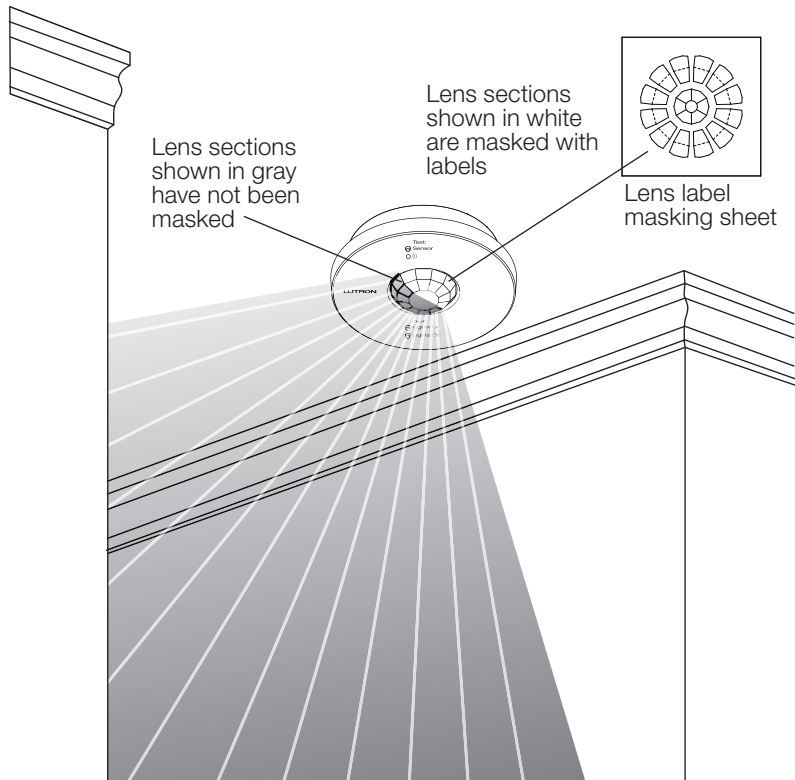### Solid Ceiling (Drywall, Plaster, Concrete, or Wood)

- Temporary mounting: One 3M™ Command™ adhesive strip is provided for temporarily mounting and testing the sensor. This strip is designed for easy, damage-free removal and is not reusable.
- Permanent mounting: Screws and anchors (for drywall or plaster) provided to mount sensor.

3M and Command are trademarks of 3M Company.

Job Name:	Model Numbers:
Job Number:	

Lens Masking

Whenever possible, the sensor should be installed in a location where it cannot easily see into areas outside the intended space, such as hallways or adjacent rooms. If this situation cannot be avoided, portions of the lens may be masked with the provided labels to block the sensor's view of the undesired areas.

Lens sections shown in gray have not been masked

Lens sections shown in white are masked with labels

Lens label masking sheet

Job Name:	Model Numbers:
Job Number:	