

\_\_\_\_\_ Project name  
 \_\_\_\_\_ Prepared by  
 / / Date



## AirLink™ Wireless Mounted Sensors

enabled by Lutron®



Catalog #: **ALW XX XX**  
 Part #: **(see ordering guide)**

The wireless mounted sensors (available in occupancy or vacancy) are battery-powered, passive infrared (PIR) sensors that automatically control lights via RF communication to compatible dimming or switching devices. These sensors detect people moving within an area then wirelessly transmit the appropriate commands to the associated dimming or switching devices to turn the lights on or off automatically. They combine both convenience and exceptional energy savings with ease of installation.

### Applications



Small offices



Conference rooms



Classrooms



Lounges

### Features

- All AirLink wireless controls are compatible with the wireless hub which enables a simple setup process using a standard web browser on any Wi-Fi enabled phone, tablet or computer. The hub also enables control and monitoring of all wireless devices
- Wireless occupancy/vacancy sensor has 2 settings available: Auto-On/Auto-Off, and Manual-On/Auto-Off
- Passive infrared motion detection with exclusive Lutron XCT Technology for fine motion detection
- 180° field of view model: Minor motion = 1500ft<sup>2</sup> (139.4m<sup>2</sup>)  
Major motion = 3000ft<sup>2</sup> (278.7m<sup>2</sup>)
- 90° field of view model: Minor motion = 1225ft<sup>2</sup> (113.8m<sup>2</sup>) Major motion = 2500ft<sup>2</sup> (232.3m<sup>2</sup>)
- Hallway model with long, narrow field of view: Major motion = coverage of up to 150ft (45.7m)
- Accessible test buttons make setup easy
- Lens illuminates during test mode to verify ideal locations
- Multiple sensors can be added for extended coverages
- Non-volatile memory (saved changes are stored during power loss)

- Adjustments for Auto-On, Timeout and Activity settings (defaults shown in **bold**):

#### Auto-On Settings:

- **Enabled:** Sensor turns lights ON and OFF automatically
- Disabled\*: Lights to be turned ON manually from dimming or switching device; sensor turns lights OFF automatically

Timeout Options: 1 min\*\*, 5 min, **15 min**, 30 min

Activity Options: **Low**, Medium, High

\* 15 second grace period begins when the lights are automatically turned OFF. They automatically turn back ON in response to motion. This grace period is provided as a safety and convenience feature if the lights turn OFF while the room is still occupied. After 15 seconds, the lights must be manually turned ON

\*\* Intended for high-activity, briefly occupied areas only

- 10-year battery life design

### Certifications & Affiliations



Canada Industry  
Canada (IC)





## Specifications

### Regulatory Approvals

- RoHS compliant
- Lutron Quality Systems Registered to ISO 9001:2008
- cULus® listed
- FCC, IC, COFETEL, ANATEL and SUTEL certified
- Meets CA (U.S.A.) Energy Commission Title 24 requirements (Vacancy model only)
- Complies with requirements for use in a compartment handling environmental air (plenum) per NEC® 2011 300.22(C)(3)
- UL Listed, UL 2043 Plenum Rated, NOM, and FCC Approved. Complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rule

### Environmental

32°F to 104°F (0°C to 40°C), 0%–90%; indoor use only

Note: For environments where the air temperature may approach the temperature of the occupants, additional sensors will be needed (true for all exclusive PIR sensors)

### Range

- Distance between local load controls and sensor should not exceed 60ft (18m) line-of-sight or 30ft (9m) through walls

### Power / Load

- Operating voltage: 3V<sup>---</sup>
- Operating current: 14 µA nominal
- Requires one CR 123 lithium battery

### Tests

- Sensor Coverage Test
  - Dedicated test button
  - Lens illuminates in response to motion in test mode
- Wireless Communication Test
  - Dedicated test button
  - Turn associated loads on and off

## Ordering Information

### Sensors

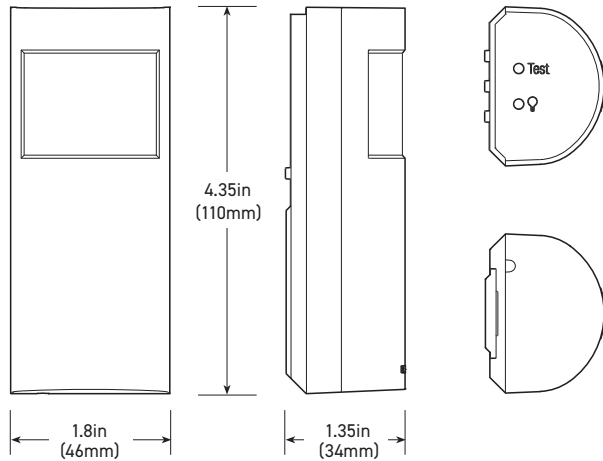
Part #	Catalog #	Description	Placement
632617	ALW OS WM	AirLink System – Wall-mounted Wireless Occupancy Sensor	Wall
632619	ALW VS WM	AirLink System – Wall-mounted Wireless Vacancy Sensor	Wall
624096	ALW OS CR	AirLink System – Corner-mounted Wireless Occupancy Sensor	Corner
632616	ALW VS CR	AirLink System – Corner-mounted Wireless Vacancy Sensor	Corner
632620	ALW OS HW	AirLink System – Hallway-mounted Wireless Occupancy Sensor	Hallway
632624	ALW VS HW	AirLink System – Hallway-mounted Wireless Vacancy Sensor	Hallway

### Sensor Accessories

Part #	Catalog #	Description	Placement
632637	HW BKT	Flexible Mounting Armature	Wall, Corner, Hall
632635	WM WG	Wall-Mounted Wireguard (Accessory for Wall-Mount Sensor)	Wall
632634	CM WG	Corner-Mounted Wireguard (Accessory for Corner-Mount Sensor)	Corner
632638	HW WG	Hallway-Mounted Wireguard (Accessory for Hallway-Mount Sensor)	Hallway



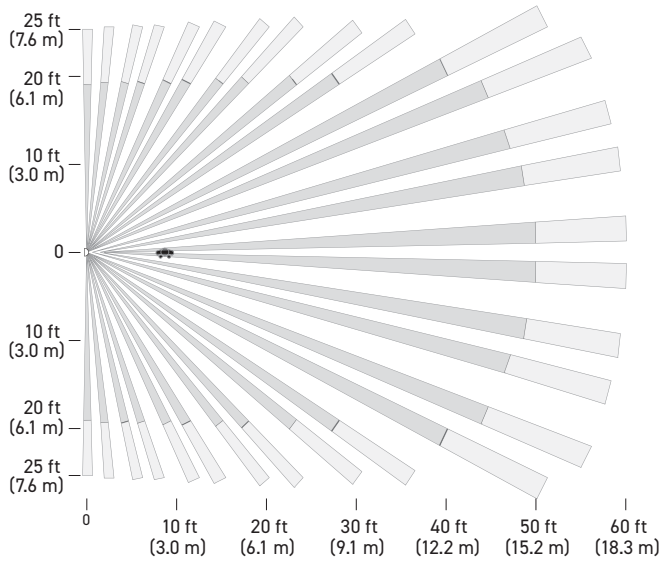
**Dimensions**



**Coverage Diagrams**

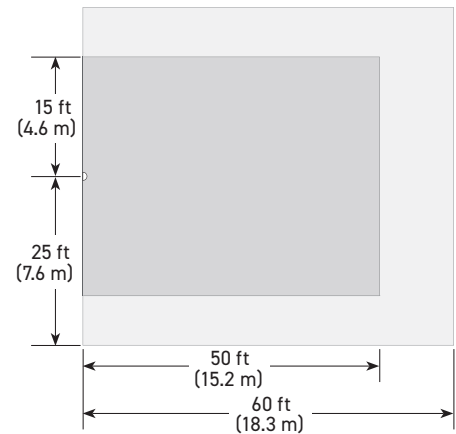
**180° Wall-Mount Sensors:** Available in occupancy (ALW OS WM) and vacancy (ALW VS WM)

**Horizontal Beam Diagram**

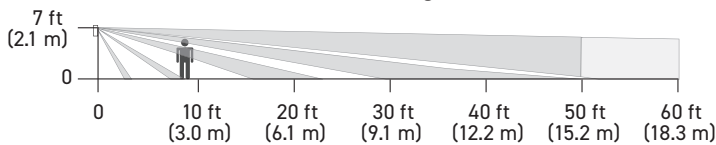


**Tested Coverage Area**

Major motion coverage: 3000ft<sup>2</sup> (278.7m<sup>2</sup>)  
 Minor motion coverage: 1500ft<sup>2</sup> (139.4m<sup>2</sup>)  
 Compliant to NEMA WD7 test grid (shown below)



**Vertical Beam Diagram**



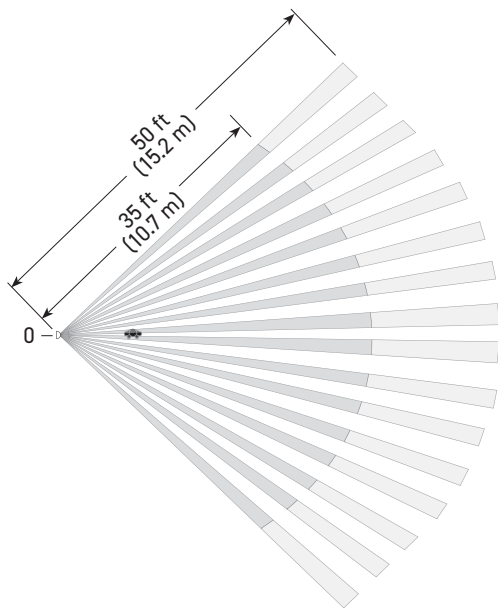
\*Sensor mounting shown at 7ft (2.1m). Mounting height should be between 6ft and 8ft (1.6m and 2.4m)



### Coverage Diagrams (continued)

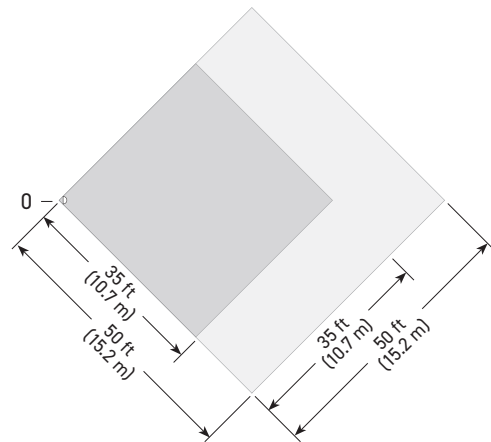
**90° Corner-Mount Sensors:** Available in occupancy (ALW OS CR) and vacancy (ALW VS CR)

Horizontal Beam Diagram

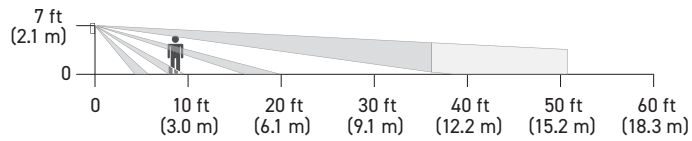


Tested Coverage Area

Major motion coverage: 2500ft<sup>2</sup> (232.3m<sup>2</sup>)  
Minor motion coverage: 1225ft<sup>2</sup> (113.8m<sup>2</sup>)  
Compliant to NEMA WD7 test grid (shown below)



Vertical Beam Diagram



\*Sensor mounting shown at 7ft (2.1m). Mounting height should be between 6ft and 8ft (1.6m and 2.4m)



### Coverage Diagrams (continued)

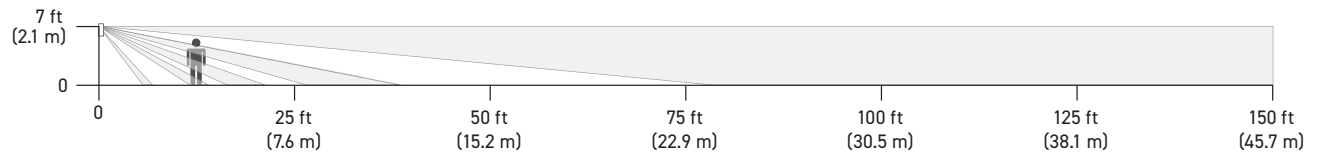
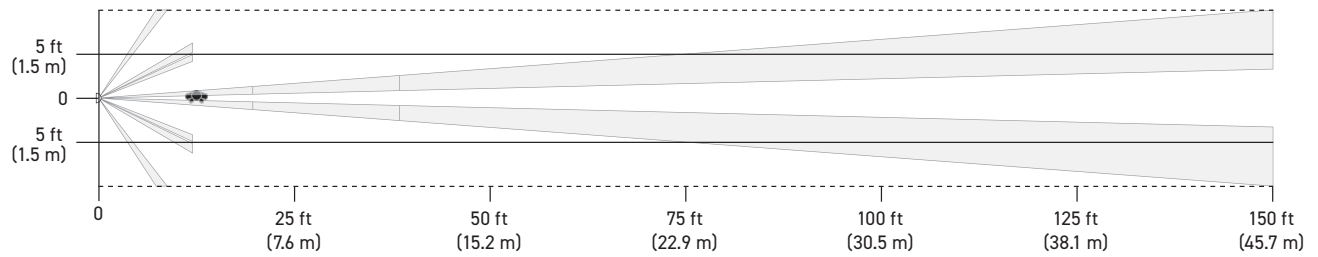
#### Hallway Sensors:

Available in occupancy (ALW OS HW) and vacancy (ALW VS HW)

- Designed to mount at the end of a hallway with a clear view down the length of a hall
- Detection at longer distances is best when motion occurs at right angles to the sensor
- Multiple sensors can be used to extend coverage

#### Maximum Recommended Hallway Length:

Hall Width	Hall Length
6ft (1.8m) or less	50ft (15.2m)
8ft (2.4m) or less	100ft (30.5m)
10ft (3.0m) or more	150ft (45.7m)



\*Sensor mounting shown at 7ft (2.1m). Mounting height should be between 6ft and 8ft (1.6m and 2.4m) and centered within hallway.



## Installation Overview

- The mounting height of the sensor should be between 6ft and 8ft (1.6m and 2.4m)
- For smaller rooms less than 12ft × 12ft (3.7m × 3.7m), detection may be improved by mounting the sensor at 6ft (1.8m) from the floor
- The ability to detect motion requires that the sensor have line-of-sight of all room occupants. The sensor must have an unobstructed view of the room. DO NOT mount behind or near tall cabinets, shelves, hanging fixtures, etc. The sensor cannot detect occupants through glass objects such as patio or shower doors
- Hot objects and moving air currents can affect the performance of the sensor. To ensure proper operation, the sensor should be mounted at least 4ft (1.2m) away from light bulbs and HVAC vents
- The performance of the sensor 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
- Distance between local load controls and sensor should not exceed 60ft (18m) line-of-sight or 30ft (9m) through walls

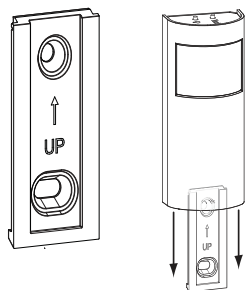
## Mounting

- 0° and hallway sensors mount directly to wall with mounting bracket (included). See Figure A
- 90° sensors mount directly in corner or on wall offset away from corner with mounting bracket (included). See Figure B
  - Temporary mounting is recommended to test sensor coverage and wireless communication before permanently installing the sensor.
    - Temporary mounting: A 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: Mounting bracket, screws, and anchors are provided to mount sensor.
- The Flexible Mounting Armature, HW-BKT (purchased separately), allows sensors to be mounted at greater heights on a ceiling, wall, or other flat surface.
  - The ball-and-clamp design expands the coverage area for standard wall, corner, or hall-mount sensors. See Figure C.
  - Common mounting areas: warehouse aisles, loading docks, long hallways.

**Figure A**

180° Wall-Mount Sensor (ALW VS/OS WM)  
180° Hallway Sensor (ALW VS/OS HW)

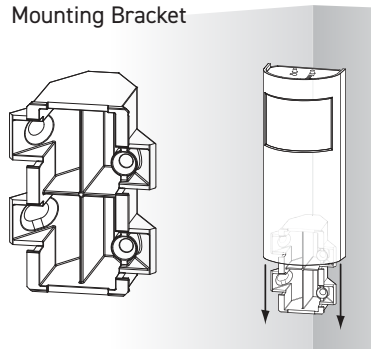
Mounting Bracket



**Figure B**

90° Corner-Mount Sensor (ALW VS/OS CR)

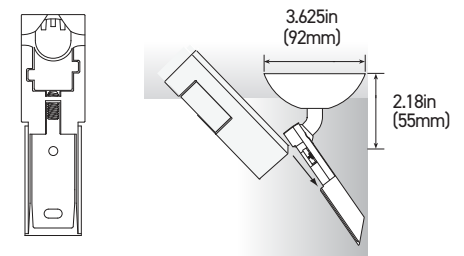
Mounting Bracket



**Figure C**

Flexible Mounting Armature (sold separately: HW BKT)

Mounting Bracket (for wall or ceiling)





**AirLink™**  
enabled by Lutron®

## Wireless Mounted Sensors

### The AirLink System

#### Wireless controls & sensors



Wireless remotes & switches



Occupancy/Vacancy & Daylight sensors



AirLink-integrated Fixtures

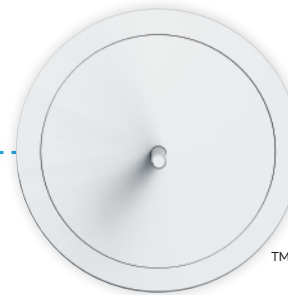


AirLink-compatible Fixtures



Plug load controllers

#### Centralized control & integration



Wireless hub

Wired / Ethernet

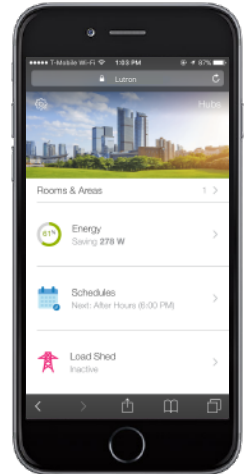


Demand Response



BACnet integration

#### Simple-to-use software



Lighting control web app

### Contact LSI Controls



**Sales**  
controls.sales@lsi-industries.com



**Support**  
controls.support@lsi-industries.com  
1 (800) 436-7800 (support, option 8)



**More information**  
For more information on AirLink, visit our website at [www.lsi-airlink.com/airlink](http://www.lsi-airlink.com/airlink)