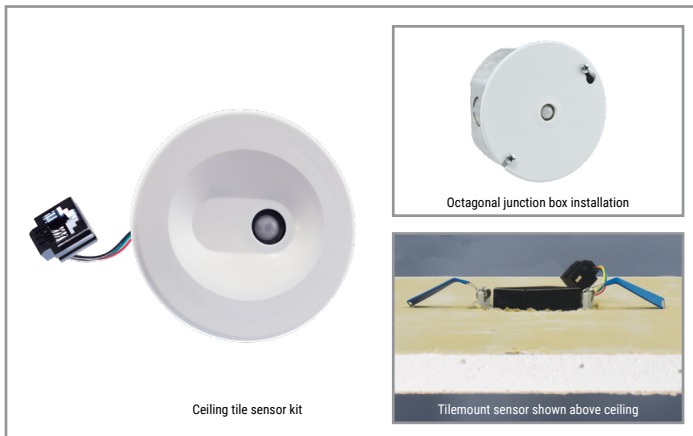


Project		Catalog #		Type	
Prepared by		Notes		Date	



## WaveLinX

### PRO Tilemount Sensor Kit (WTA)

Provides motion sensing, daylight dimming and wireless control for connected 0-10V luminaires that do not support the WaveLinX PRO integrated sensor

#### Typical Applications

Office • Education • Healthcare • Hospitality • Retail  
Industrial • Manufacturing

#### Interactive Menu

- Order Information page 2
- Additional Resources page 3
- Connected Systems page 7
- Product Warranty

#### Product Certification\*



- Meets latest ASHRAE Standard 90.1 requirements
- Meets latest IECC requirements
- Meets latest CEC Title 24 requirements

#### Product Features



#### Compatibility



### Overview

The WaveLinX Tilemount Sensor Kit is an integral part of the WaveLinX connected lighting (WCL) system and offers 120-277VAC 3 amp zero crossing relay control and continuous 0-10V dimming control of LED and non-LED loads. The intended use of the Tilemount Sensor Kit is to provide daylight dimming and control for connected downlight luminaires or other luminaires that do not support the WaveLinX integrated sensor.

The Tilemount Sensor Kit is powered by the 120-277VAC circuit it is controlling and allows simple electrical junction box mounting via 1/2" knock out or direct connection to the junction box attached to connected luminaire. The WaveLinX Tilemount Sensor Kit operates on a wireless mesh network based on IEEE 802.15.4 standards and is controlled by the WaveLinX Area Controller.

### Product Features & Benefits

- Easily enable 0-10V luminaires to be controlled by WaveLinX PRO
- 120-277VAC with 3 amp zero cross relay and 0-10V continuous dimming
- 10mA 0-10V sink (refer to driver specifications to calculate quantity supported)
- Mounting heights of 8 to 15ft (2.4 to 4.5m)
- Provides passive infrared (PIR) motion coverage up to 500 sq-ft (46m<sup>2</sup>)
- Provides closed loop daylighting control of non-integrated luminaires
- Control module mounting to junction box or luminaire driver compartment
- Sensor installs into 1/2 - 3/4" (12 - 19mm) ceilings or octagonal junction boxes
- Hardware capable of Real Time Location Services (RTLS) - CORE Locate license required

\*T24 and RoHS are self-tested by Cooper Lighting Solutions. Not a third party certification.

## Order Information

The Tilemount Sensor Kit is an accessory to the WaveLinx connected lighting (WCL) system and requires a WaveLinx Area Controller (WAC) for full functionality.

The wireless tilemount sensor kit is used to provide occupancy sensing and closed loop daylighting in spaces and can be mapped to other sensors in an area for maximum coverage and control. The wireless tilemount sensor kit is typically used to provide occupancy sensing and daylight dimming for luminaires that cannot include integrated occupancy and daylight sensors.

### Catalog Number

Catalog Number	Description
WTA	WaveLinx PRO Tilemount Sensor Kit

## Required Accessories

All WaveLinx connected lighting (WCL) system accessories require at least one WaveLinx Area Controller (WAC) for communications. Ensure the bill of material includes one of the following components.

### Catalog Number

Catalog Number	Description
WAC2-POE	WaveLinx Area Controller G2, PoE powered
WAC2-120	WaveLinx Area Controller G2 with 120VAC to PoE Injector

## Optional Accessories

For connection to 120VAC outlets.

### Catalog Number

Catalog Number	Description
WPOE2-120	120VAC to PoE Injector

## Product Specifications

### Key Features

#### Kit Contents:

- Sensor
- Control module
- 54" Plenum rated cable
- Tile and 4" octagon mounting trim
- Easily enable 0-10V luminaires to be controlled by WaveLinx
- Provides closed loop daylighting control of non-integrated luminaires
- Control module mounting to junction box or luminaire driver compartment
- Sensor installs into 1/2 - 3/4" (12 - 19mm) ceilings or octagonal junction boxes
- Ceiling white trims that can be painted for custom appearance
- Mounting heights of 8 to 15ft (2.4 to 4.5m)
- Provides passive infrared (PIR) motion coverage up to 500 sq-ft (46m<sup>2</sup>)
- Hardware capable of Real Time Location Services (RTLS)  
CORE Locate license required
- Energy calculations available through WaveLinx CORE

### Mechanical

**Tilemount Sensor Size:** 2.8" x 2.8" x 1.2" (70mm x 70mm x 31mm)

**J-Box Sensor Size:** 4.1" x 4.1" x 1.0" (105mm x 105mm x 24mm)

#### Environment:

- **Operating temperature:** -4°F to 131°F (-20°C to 55°C)
- **Storage temperature:** -40°F to 158°F (-40°C to 70°C)
- **Relative humidity operating:** 5% to 95% non-condensing
- For indoor use only

**Mounting Height:** 8-15ft (2.4 to 4.5m)

**Ceiling hole diameter:** 2.9" (73mm)

**Ceiling thickness:** 0.5 to 0.75" (12 - 19mm) drop ceiling thickness

**Color:** Matte white (field paintable trim)

**Housing:** UV stabilized plastic

### Electrical

- 120/277VAC incoming and switched power
- 10mA 0-10V sink (refer to driver specifications to calculate quantity supported)
- 3A LED loads

### Software Specifications

- Any number of sensors can be mapped to any number of zones
- Remote configuration of occupancy sensing and closed loop daylighting

### Wireless Specifications

**Radio:** 2.4GHz

**Standard:** IEEE 802.15.4

**Transmitter Power:** + 7dBm

**Range:** 75ft (25m) LOS

**# of Walls:** 2 interior walls standard construction

### Standards/Ratings\*

- cULus Listed
- Meets latest ASHRAE Standard 90.1 requirements
- Meets latest IECC requirements
- Meets latest CEC Title 24 requirements

### Environmental Regulations:

- RoHS Directive 2011/65/EU

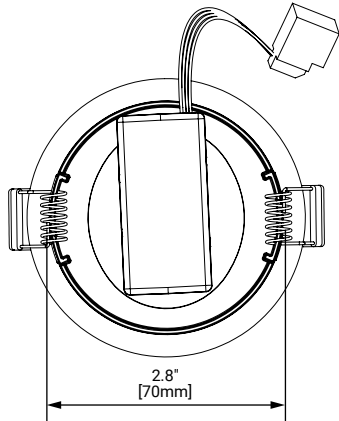
### Warranty

- Five year warranty standard

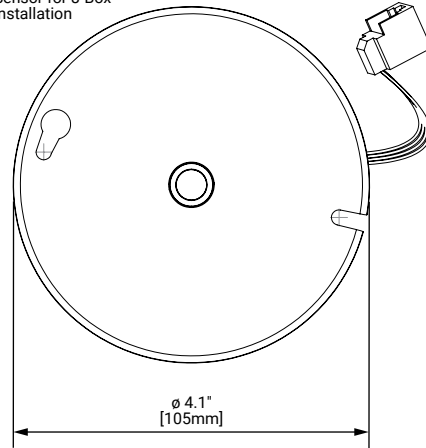
\*T24 and RoHS are self-tested by Cooper Lighting Solutions. Not a third party certification.

## Dimensional Details

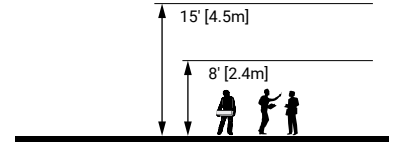
Sensor for Tilemount installation



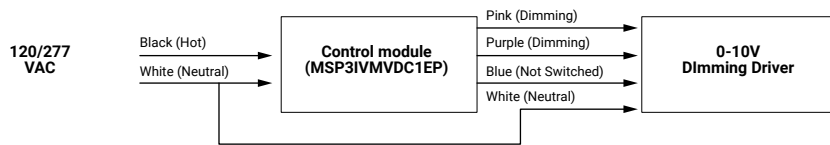
Sensor for J-Box installation



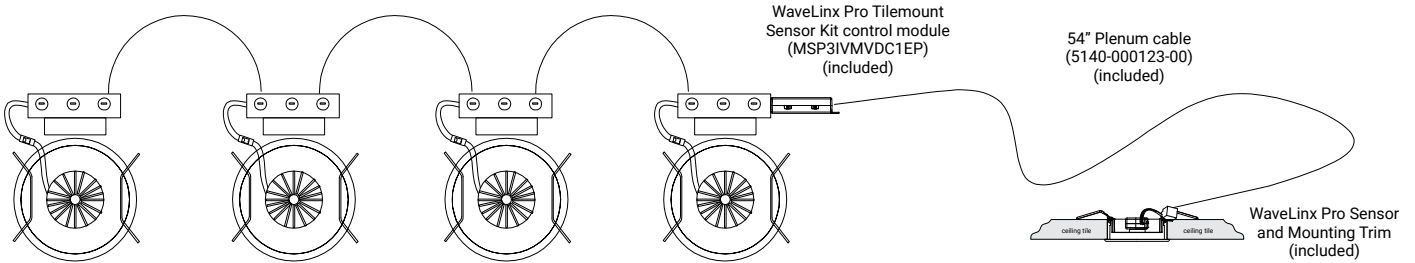
## Mounting Height



## Wiring Diagrams



Includes switchleg (Blue load out wire) and 0-10V to each fixture controlled



120/277 VAC 3A downlights with 0-10V control

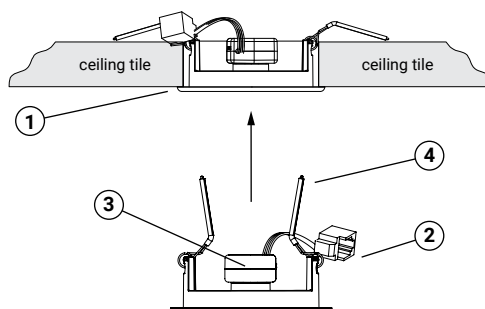
## Tilemount Installation

**Step 1:**  
Cut 2-7/8" (73mm) to 3" (76mm) diameter hole in ceiling tile.

**Step 2:**  
Connect plenum cable connectors.

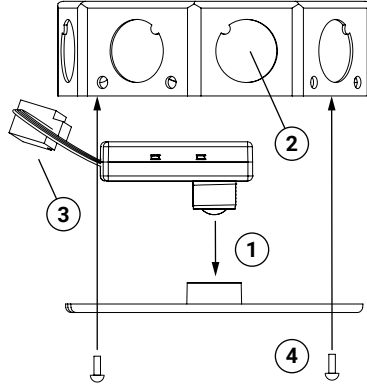
**Step 3:**  
Snap sensor body into ceiling trim.

**Step 4:**  
Squeeze trim springs and insert through hole.

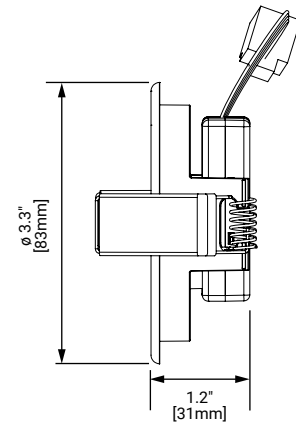
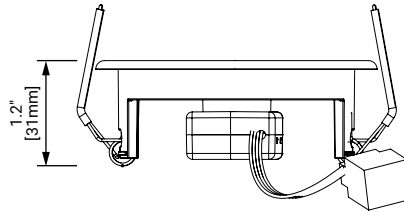
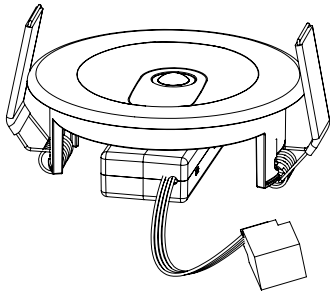


J-Box Installation

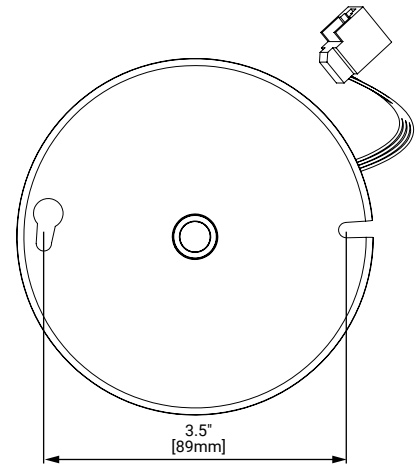
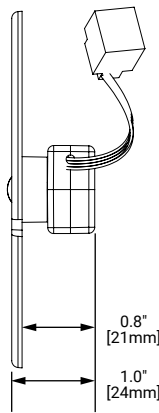
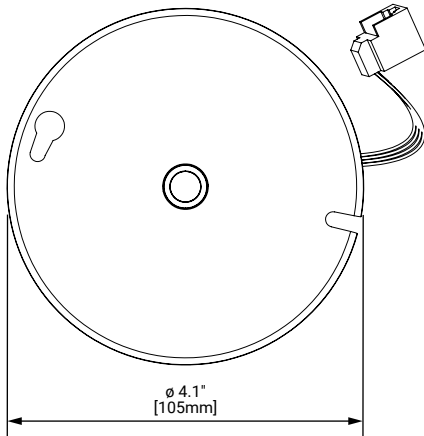
- Step 1:**  
Snap sensor body into cover plate.
- Step 2:**  
Pull plenum sensor cable through junction box knockout.
- Step 3:**  
Connect plenum cable connectors.
- Step 4:**  
Secure sensor kit to junction box.



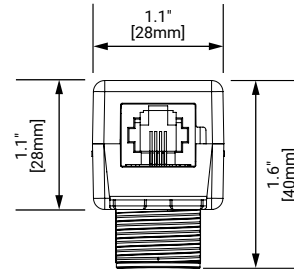
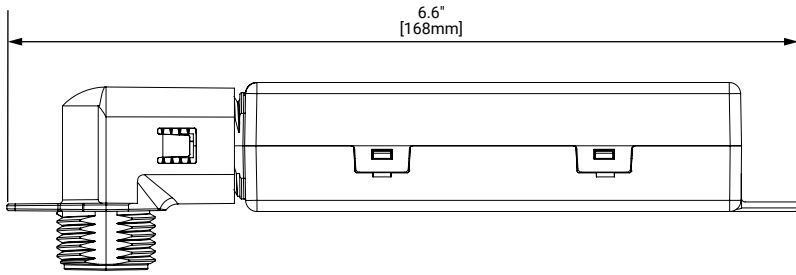
Additional Dimensional Details - Tilemount Sensor



Additional Dimensional Details - J-Box Sensor

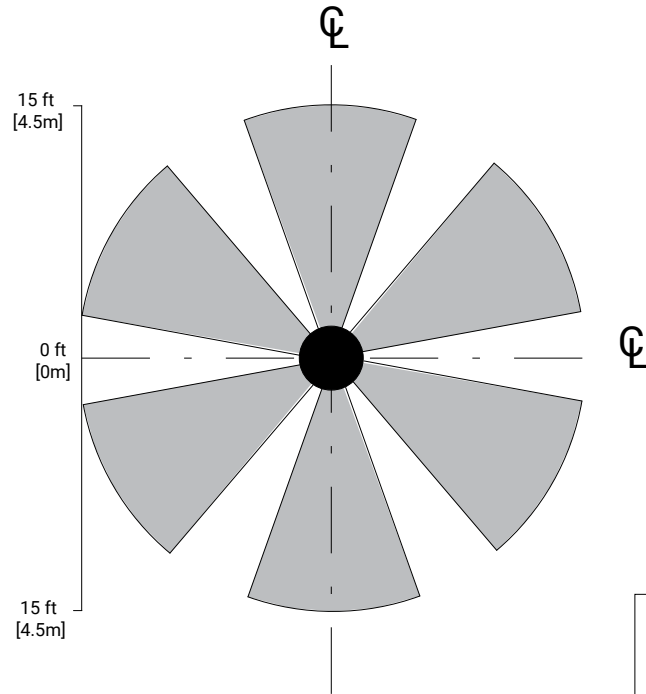


## Additional Dimensional Details - Control module



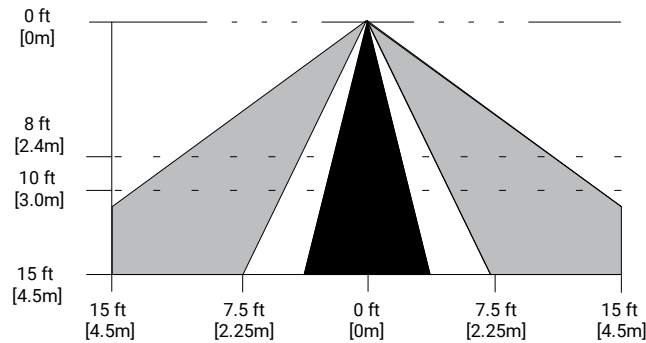
Field of View

TOP VIEW:



Notes: (1) The coverage pattern shown above depicts the area below the luminaire where the integrated sensor system can detect occupancy. (2) Spacing between fixtures should not exceed the coverage pattern of the sensor. (3) Mounting height should not exceed coverage shown. (4) Exceeding these spacing/height guidelines will result in reduced integrated sensor performance.

SIDE VIEW:



**Recommended Mounting Height 8 to 15 ft [2.4 to 4.5m].**

Note - coverage pattern not to scale

## System Diagram:

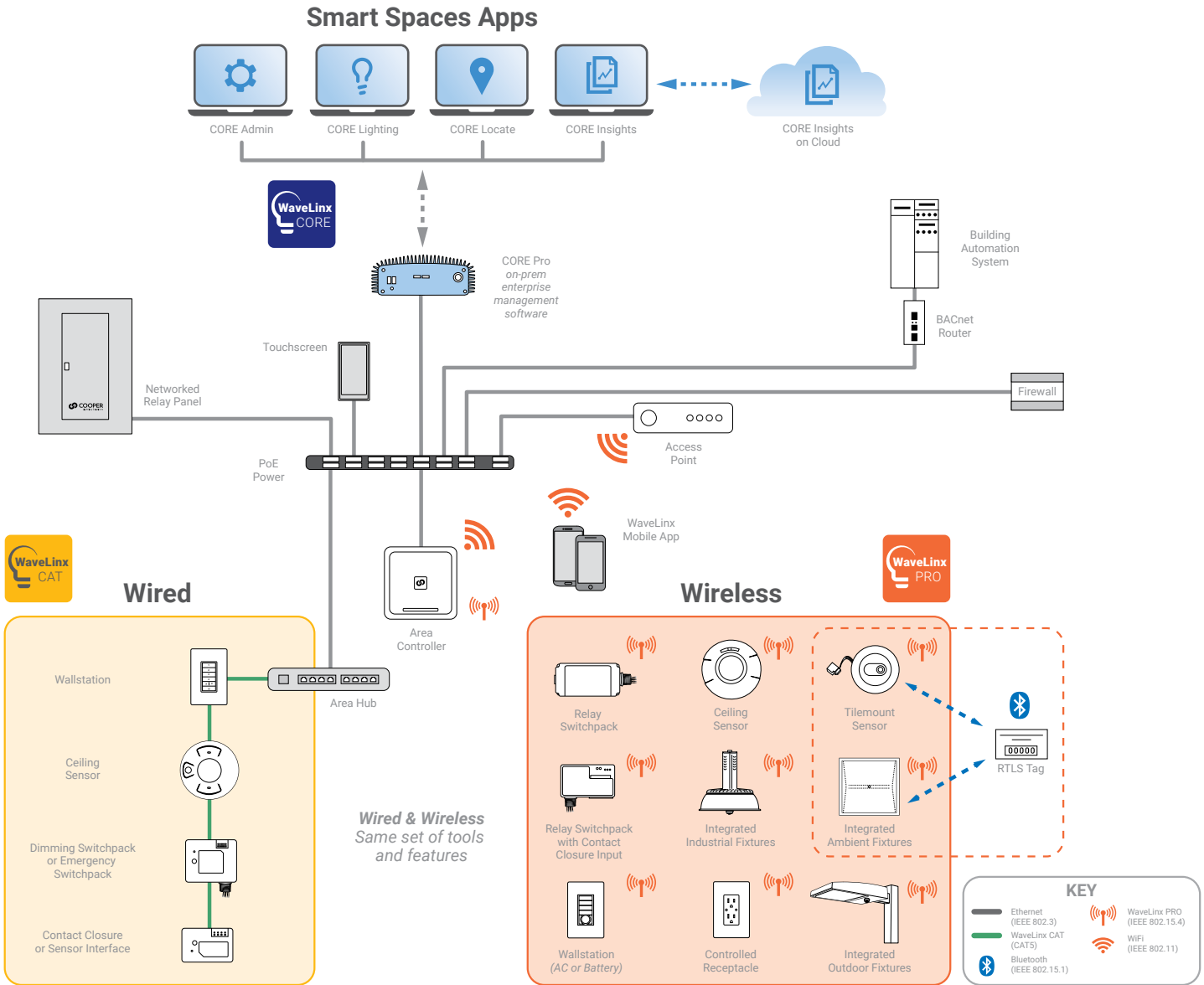
This diagram shows the main components of the WaveLinx connected lighting system with CAT and PRO devices.

The PRO devices communicate using wireless mesh technology based on the IEEE 802.15.4 standard. A PoE LAN connection for each WaveLinx Area Controller (WAC) is required for power and data access to the building lighting network.

The CAT devices communicate over the category 5 based communication bus and control the light fixtures using a relay (on/off) and 0-10V output (dim/raise).

WaveLinx Area Controllers (WAC) communicate with WaveLinx CORE Apps over the Ethernet network.

[View WaveLinx Network and IT Guidance Technical Guide](#)



**Control Systems**

- WaveLinx