

Project		Catalog #		Type	
Prepared by		Notes		Date	



WaveLinX

PRO Industrial Standalone Sensor Kit (SWPD*-KIT)

Provides motion sensing, daylight dimming and wireless control for connected 0-10V luminaires or provides a non-integrated motion sensor system input

Typical Applications

Industrial • Manufacturing

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- 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 PRO Industrial Standalone Sensor Kit is an integral part of the WaveLinX connected lighting (WCL) system and offers 120-277VAC 8 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 industrial luminaires that do not support the WaveLinX integrated sensor. Alternatively, the WaveLinX PRO Industrial Standalone Sensor Kit can provide occupancy inputs to the WaveLinX System when not directly connected to loads.

The PRO Industrial Standalone Sensor Kit is powered by the 120-277VAC circuit it is controlling and allows simple electrical junction box (not included) mounting via ½" knock out. The WaveLinX PRO Industrial Standalone 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 or use as non-integrated occupancy sensor
- 120-277VAC with 8 amp zero cross relay and 0-10V continuous dimming
- Models suitable for High bay (up to 40ft / 45ft major motion) and Low bay (up to 15ft) applications
- Out-of-the-box functionality: Occupied to Full, Unoccupied to 10%, daylighting disabled
- Passive Infra-Red (PIR) motion sensor with coverage up to 5000 square feet
- Integrated photocell for closed loop daylight harvesting
- Software configurable settings with WaveLinX Mobile application
- Energy calculations available through WaveLinX CORE

Order Information

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

The wireless industrial standalone 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 industrial standalone sensor kit is typically used to provide occupancy sensing and daylight dimming for luminaries that do not include integrated occupancy and daylight sensors. The sensor may also be used without loads connected as an occupancy sensor input to the WaveLinx System.

Catalog Number

Catalog Number	Description
SWPD2-KIT	WaveLinx PRO Industrial Standalone Kit, 7-15ft (2.1-4.5m) MH
SWPD3-KIT	WaveLinx PRO Industrial Standalone Kit, 15-40ft (4.6-12.2m) MH
Notes For use with industrial light fixtures equipped with standard 0-10V drivers.	Notes When used as a component in the WaveLinx connected lighting system, WaveLinx PRO system design best practices (including WaveLinx Area Controller placement, line of sight distances, number of hops, etc.) must be followed. High mount models accommodate mounting height to 45ft (13.7m) for major motion (vehicles, fork trucks, etc.) - may not detect minor motion of people depending on conditions.

Required Accessories

All WaveLinx connected lighting (WCL) system accessories require at least one WaveLinx Area Controller (WAC2) 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

Mechanical

Kit Contents:

- Sensor
- 4" junction box cover with 4-pin Socket
(standard 4" octagon junction box not included; 1.5" recommended depth)
- Control Module

Size: Base Diameter 3.2" (82mm) Height: 1.6" (41mm)

Weight: 0.20 lbs (0.10 kg)

Environment:

- **Operating temperature:** -4°F to 131°F (-20°C to 55°C)
- Note: WaveLinx Area Controller should be installed in an indoor conditioned environment, preferably with line of sight through a window to one or more WaveLinx PRO devices.
- **Storage temperature:** -40°F to 158°F (-40°C to 70°C)
- Default behavior intended for indoor use only

Mounting: Standard 4 inch octagon junction box (*not included*)

Mounting Height: High bay up to 40ft (12m) and Low bay up to 15ft (5m)

Color: White (sensor and control module)

Housing: UV stabilized plastic

Ingress protection: IP66 (sensor only - kit intended for dry locations)

Light Sensor Detector Shields: Field configured shield included

Daylighting Installation:

- Ensure that sensor is not looking directly at artificial light
- Ensure that sensor is not obstructed
- Use configurable lens mask for desired directionality

Electrical

- 120/277VAC incoming and switched power
- 20mA 0-10V sink (typical 10 drivers MAX)
- 8 amp LED loads

Software Specifications

- Any number of sensors can be mapped to any number of zones
- Mobile app configuration for Occupancy/Vacancy
- Remote Hold Time settings fully configurable via mobile app
- Mobile app configuration of Occupied and Unoccupied light levels
- Energy calculations available through WaveLinx CORE

Wireless Specifications

Radio: 2.4GHz

Standard: IEEE 802.15.4

Transmitter Power: + 8dBm

Range: Sensor to sensor; 160ft (49m) LOS (best practice)

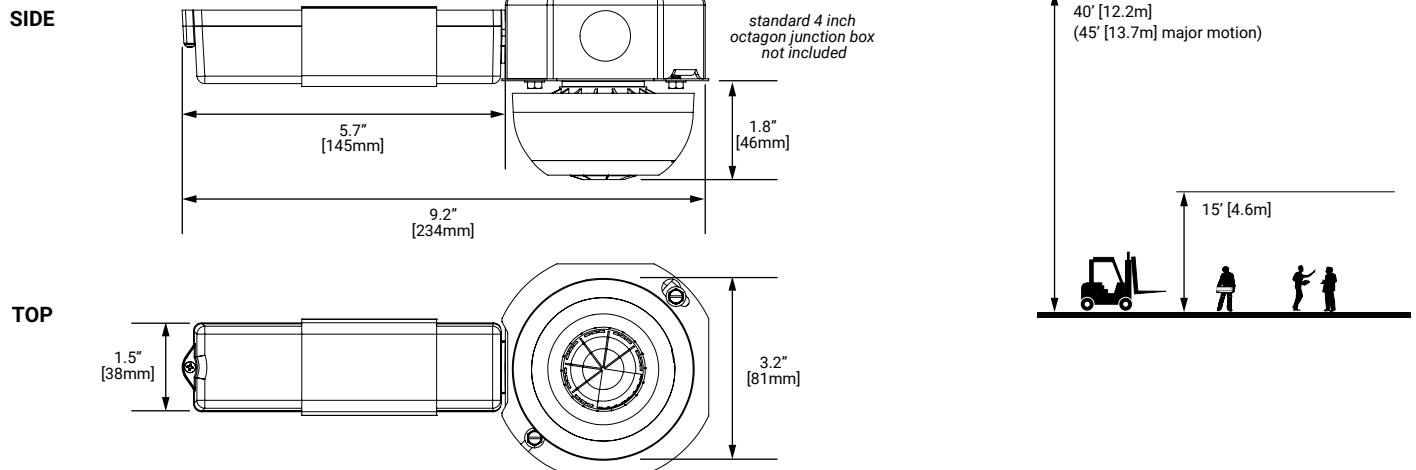
Standards/Ratings*

- cULus Listed - Energy Management Equipment (UL916)
- FCC Part 15/ECES-003
- RoHS
- Meets latest ASHRAE Standard 90.1 requirements
- Meets latest IECC requirements
- Meets latest CEC Title 24 requirements

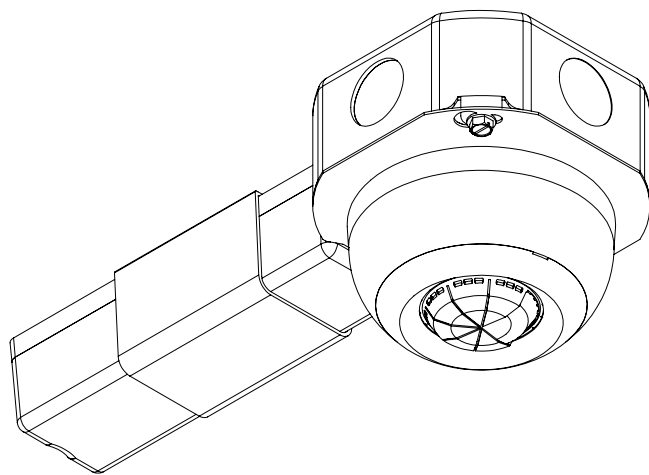
Warranty

- Five year warranty standard

Dimensional Details

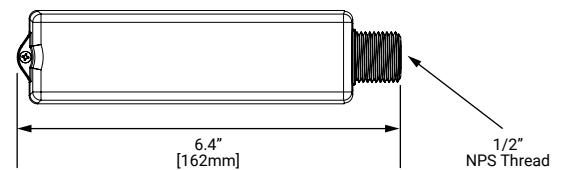


Industrial Standalone Sensor Kit

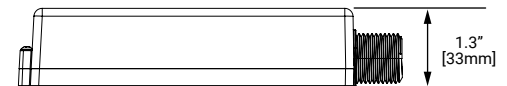


Control module

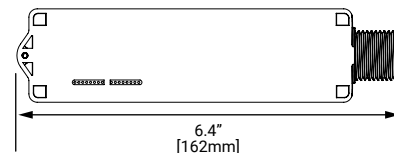
Top



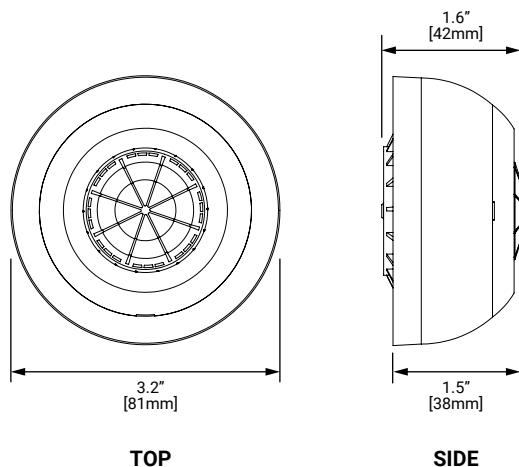
Front



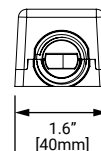
Bottom



Sensor

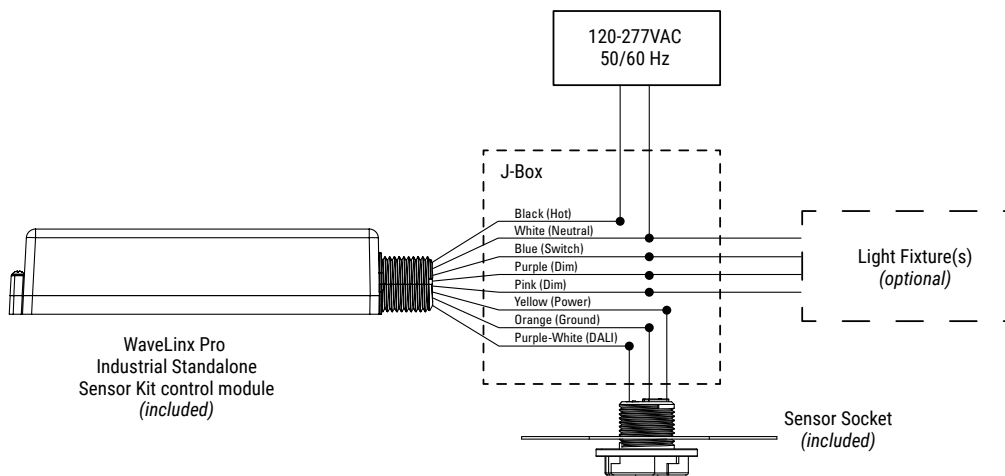
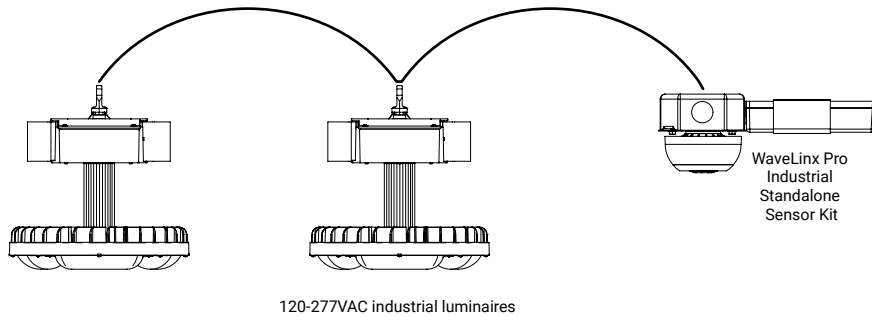


End

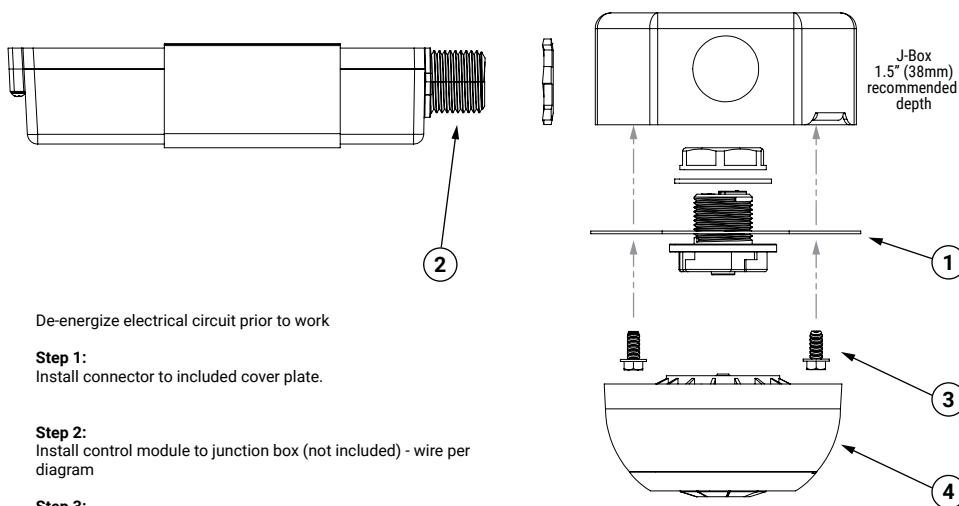


Wiring Diagrams

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



J-Box Installation



De-energize electrical circuit prior to work

Step 1:
Install connector to included cover plate.

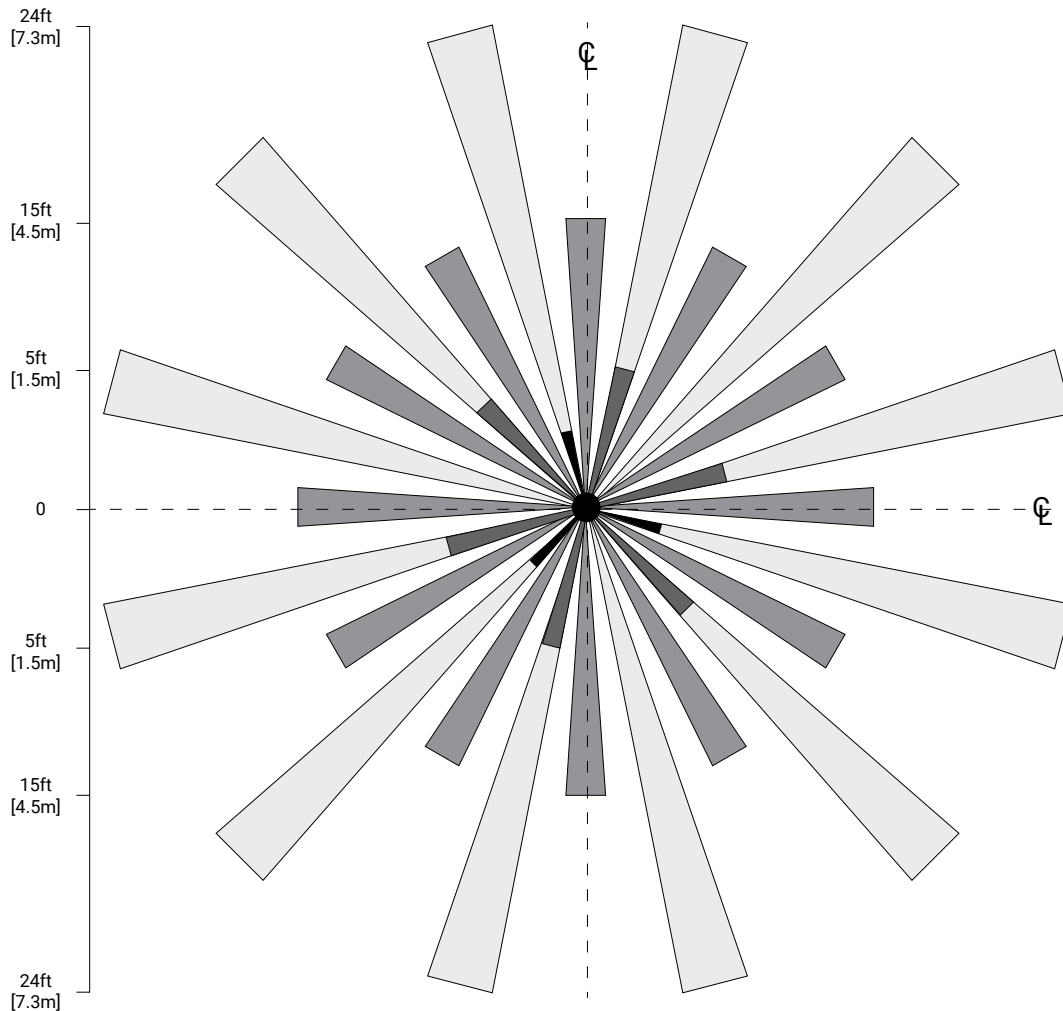
Step 2:
Install control module to junction box (not included) - wire per diagram

Step 3:
Install cover to junction box

Step 4:
Install sensor (twist to lock)

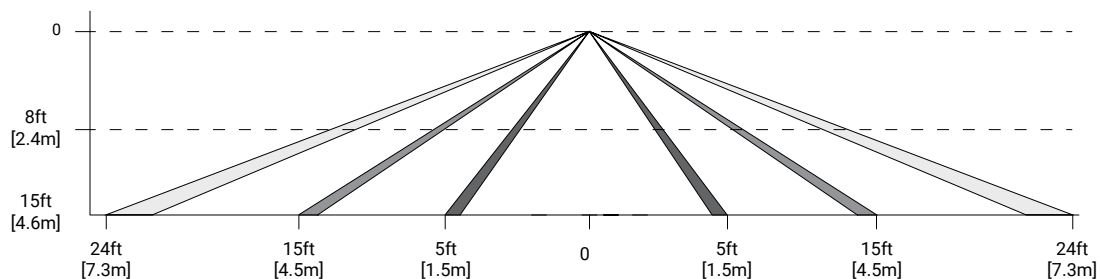
Field of View - Low Bay

TOP VIEW:



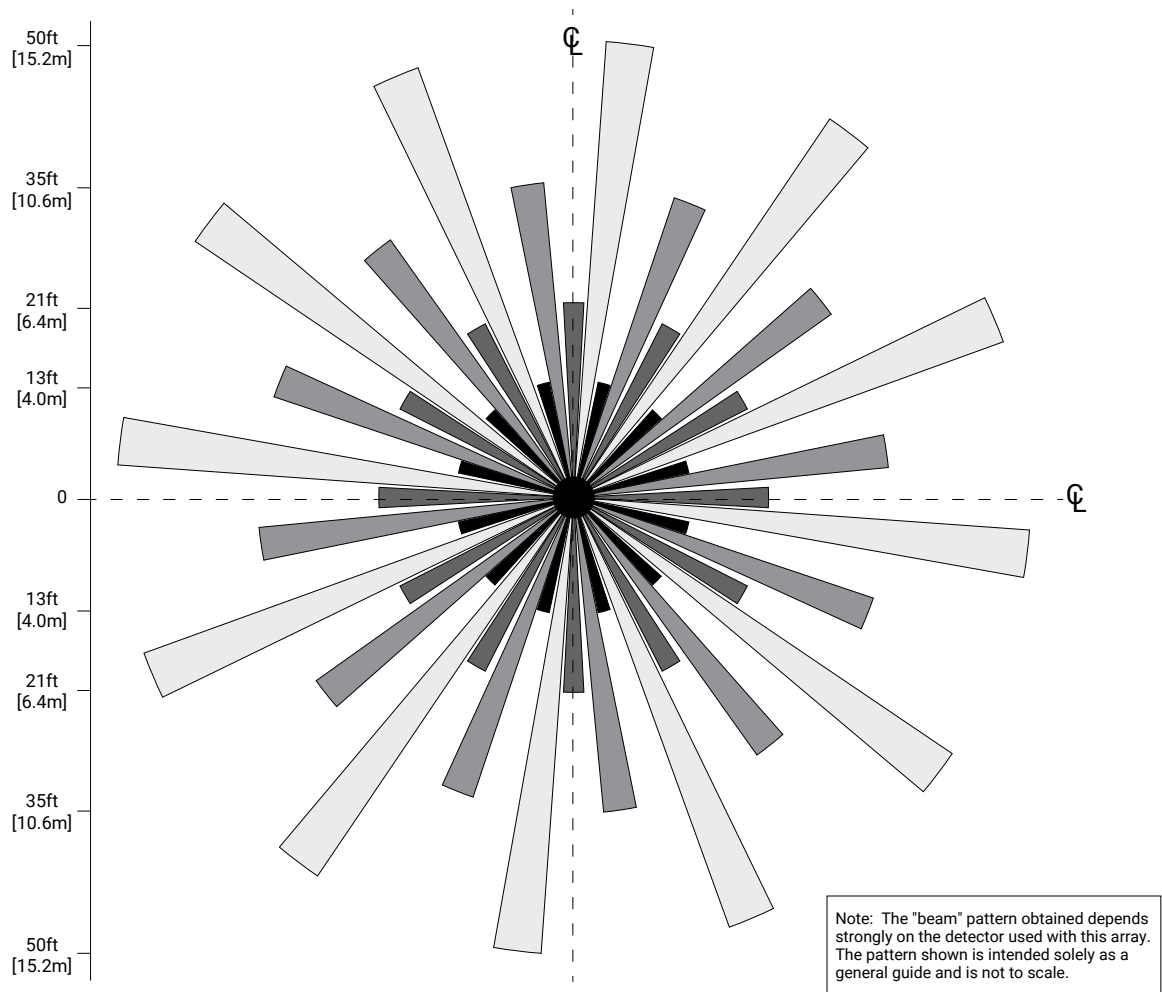
Note: The "beam" pattern obtained depends strongly on the detector used with this array. The pattern shown is intended solely as a general guide and is not to scale.

SIDE VIEW:

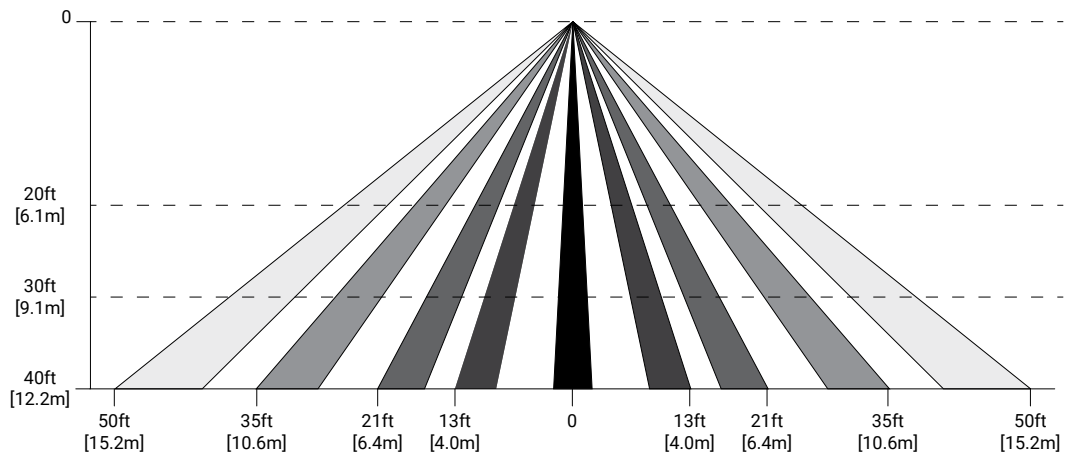


Field of View - High Bay

TOP VIEW:



SIDE VIEW:



System Diagram:

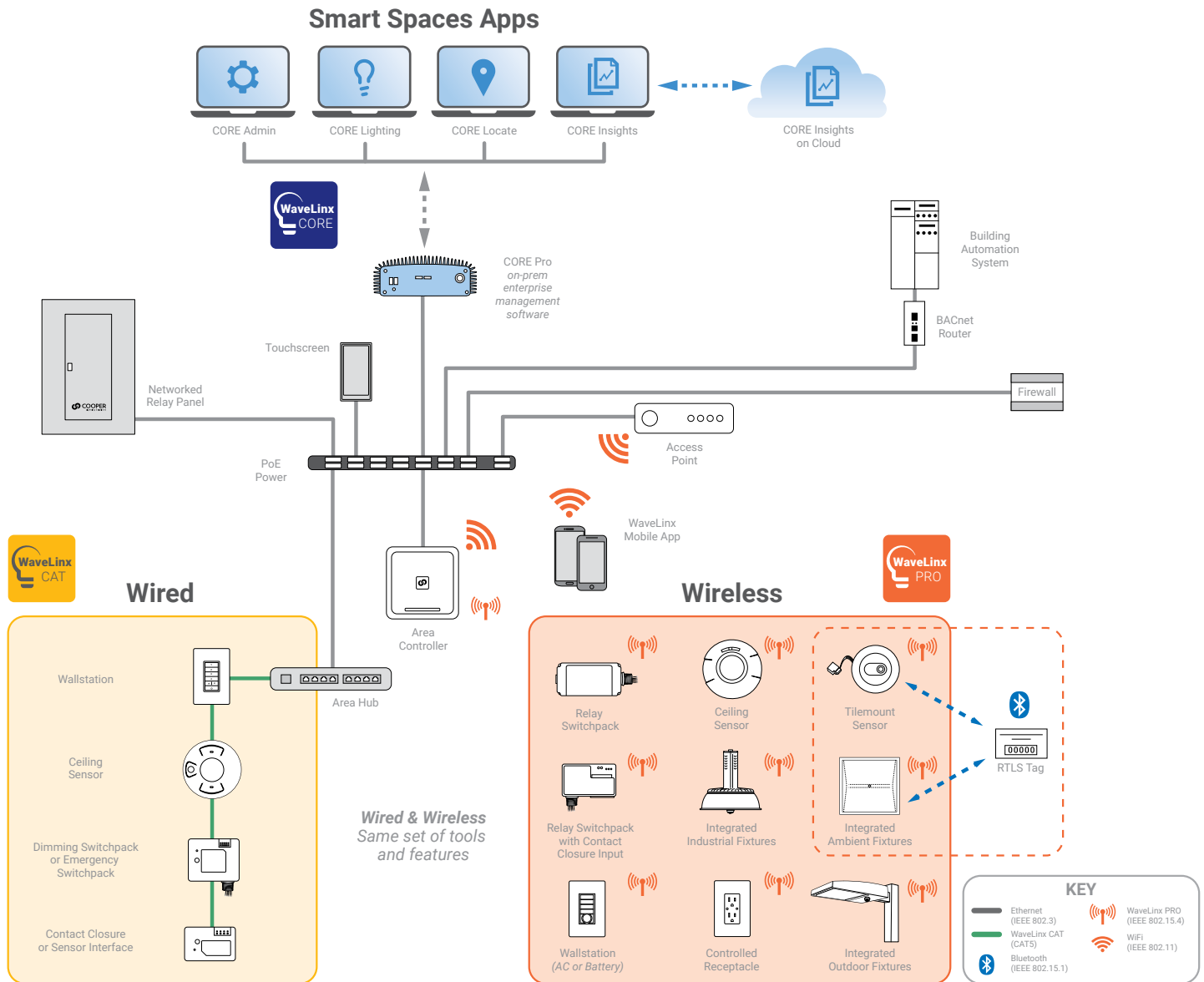
This diagram shows the main components of the WaveLinx connected lighting system with CAT and PRO devices.

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