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|---|---|---|---|---|---|
| Project | | Catalog # | | Type | |
| Prepared by | | Notes | | Date | |


# WaveLinx

## PRO Industrial Sidecar Sensor Kit (SWPD*-WH-SKIT)

Provides motion sensing, daylight dimming and wireless control for connected 0-10V luminaires (optional extension available)

**Typical Applications**
Industrial • Manufacturing

## Interactive Menu



Part 15/ICES-003

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

## Product Features

WaveLinx Mobile App · IEEE 802.15.4 · Device Security · Customer Security · Daylighting Control · Occupancy Sensor

## Compatibility

WaveLinx PRO

## Overview

The WaveLinx PRO industrial high bay and low bay sensors are an integral part of the WaveLinx connected lighting system and offer passive infrared (PIR) occupancy and a photocell for closed loop daylighting. WaveLinx PRO industrial sensors offer installation heights up to 40 feet and have coverage patterns up to 5000 square feet (see sensor specifications - field of view). When part of WaveLinx PRO, the sensor operates on a wireless mesh network based on IEEE 802.15.4 standards.

The sensors offer simple tool-less integration into WaveLinx PRO industrial light fixtures equipped with the 4-pin Zhaga Book 18 compliant socket (including sidecar). Once installed, sensors receive power from their co-located light fixture with no batteries to replace. The sensor in combination with the WaveLinx Mobile application allows you to gain considerable energy savings from occupancy and daylight sensing lighting control. The WaveLinx Mobile application allows you to map the sensor to any area or control zone, select occupancy or vacancy, occupied and unoccupied light levels and set the hold time.

## Product Features & Benefits

- 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
- Sensor housing installs via 1/2” knockout and offers connection with standardized 0-10V drivers
- IP66 rating for warehouse and manufacturing environments
- Energy calculations available through WaveLinx CORE

## Order Information

WaveLinx PRO Industrial Fixture Sidecar High Bay / Low Bay Sensors are accessories to the WaveLinx connected lighting system and requires a WaveLinx Area Controller (WAC) for full functionality.

WaveLinx PRO Industrial Fixture Sidecar High Bay / Low Bay Sensors are used to provide occupancy and daylight dimming to spaces from the industrial light fixture. For energy code compliance, additional sensors may not be required.

Catalog Number

| Catalog # | Description |
|---|---|
| **SWPD2-WH-SKIT** | WaveLinx PRO Industrial Fixture Sidecar Low Bay Sensor, White, 7 - 15ft (2.1 - 4.5m) |
| **SWPD3-WH-SKIT** | WaveLinx PRO Industrial Fixture Sidecar High Bay Sensor, White, 15 - 40ft (4.5 - 12.2m) |
| **WLX-EXT-SKIT** | WaveLinx PRO Industrial Fixture Sidecar Extension (optional - for use when sensor position needs to be lowered) |
| **Notes**<br>For use with industrial light fixtures equipped with standard 0-10V drivers. | **Notes**<br>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.<br>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 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

**Sidecar Size:** 2.3" (58mm) SQ Height 2" (50mm)
**Sidecar Weight:** 0.35 lbs (0.16 kg)
**Sensor Size:** Base Diameter 3.2" (82mm) Height: 1.6" (41mm)
**Sensor Weight:** 0.20 lbs (0.10 kg)
**Environment:**
- **Operating temperature:** -40°F to 131°F (-40°C to 55°C)
- Sensor passive infrared (PIR) performance may become exceedingly sensitive below -4°F (-20°C)
- **Storage temperature:** -40°F to 158°F (-40°C to 70°C)
- Default behavior intended for indoor use only

**Mounting:** Fixture mount
**Mounting Height:** High bay up to 40ft (12m) and Low bay up to15ft (5m)
**Color:** White (sensor and control module)
**Housing:** UV stabilized plastic
**Ingress protection:** IP66
**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)
- 6 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

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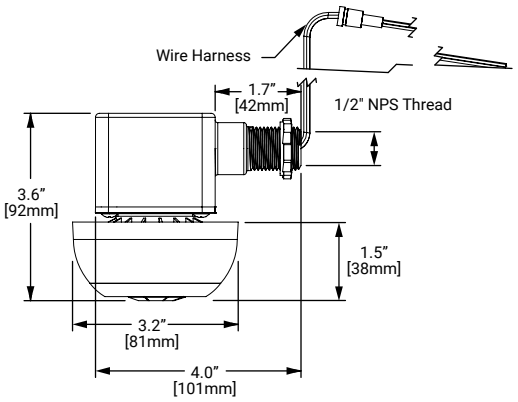
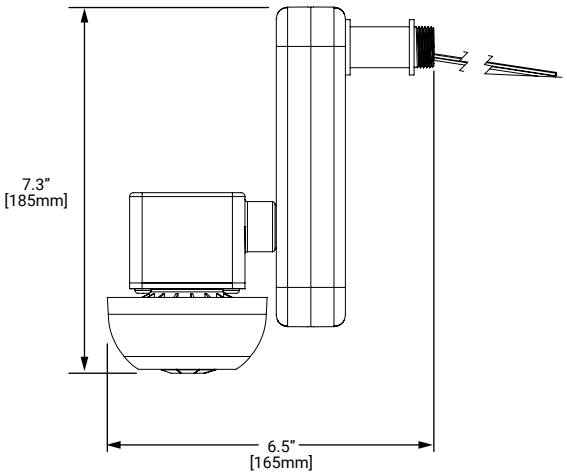
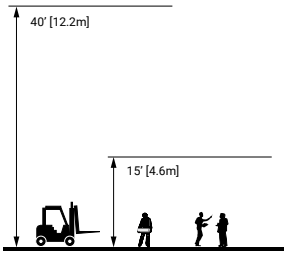
Download the WaveLinx Mobile App from either the Google Play or Apple Store®

## Dimensional Details

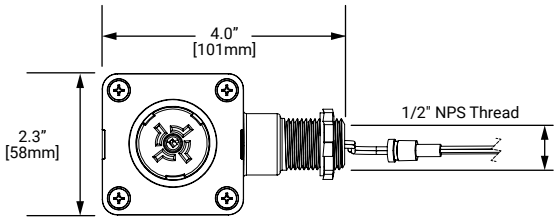


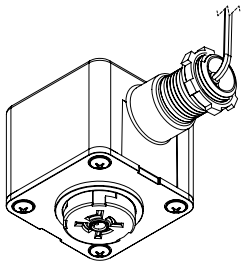



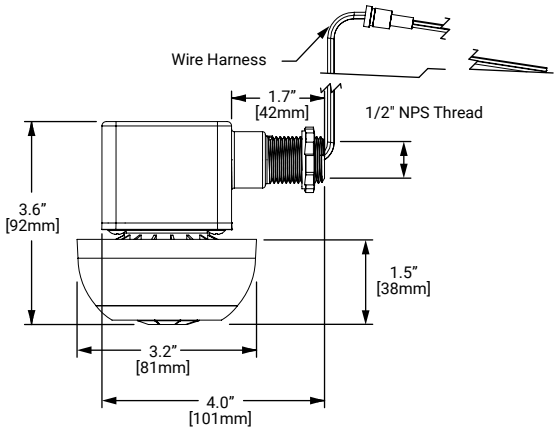

## Mounting Height

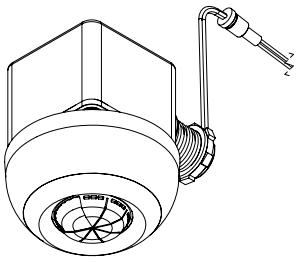



## Additional Dimensional Details - Industrial Sidecar Sensor Kit

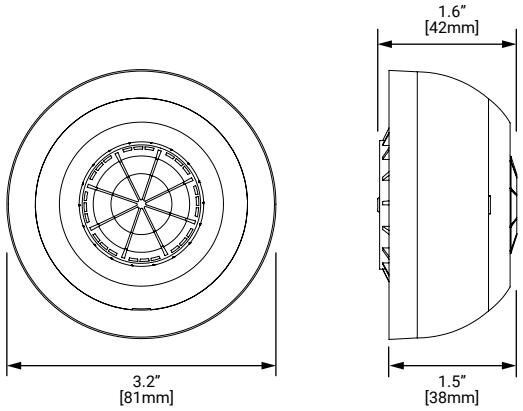


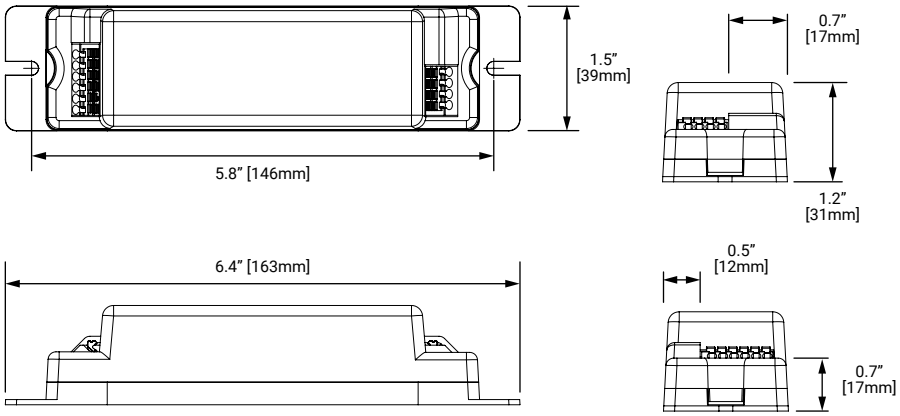


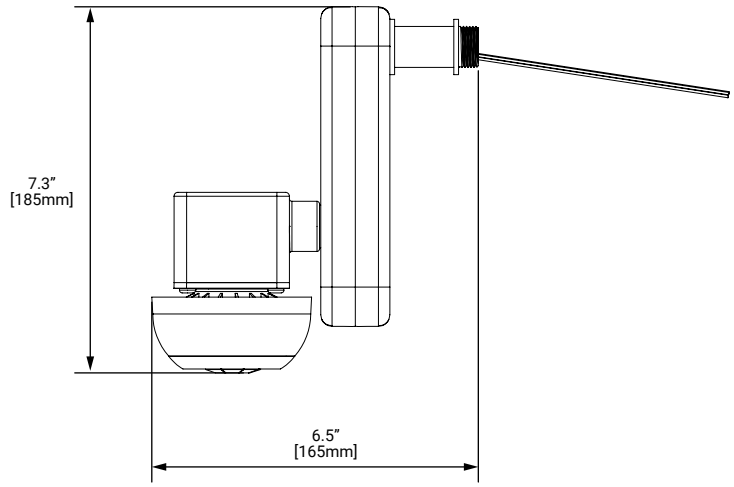
## Additional Dimensional Details - Sensor



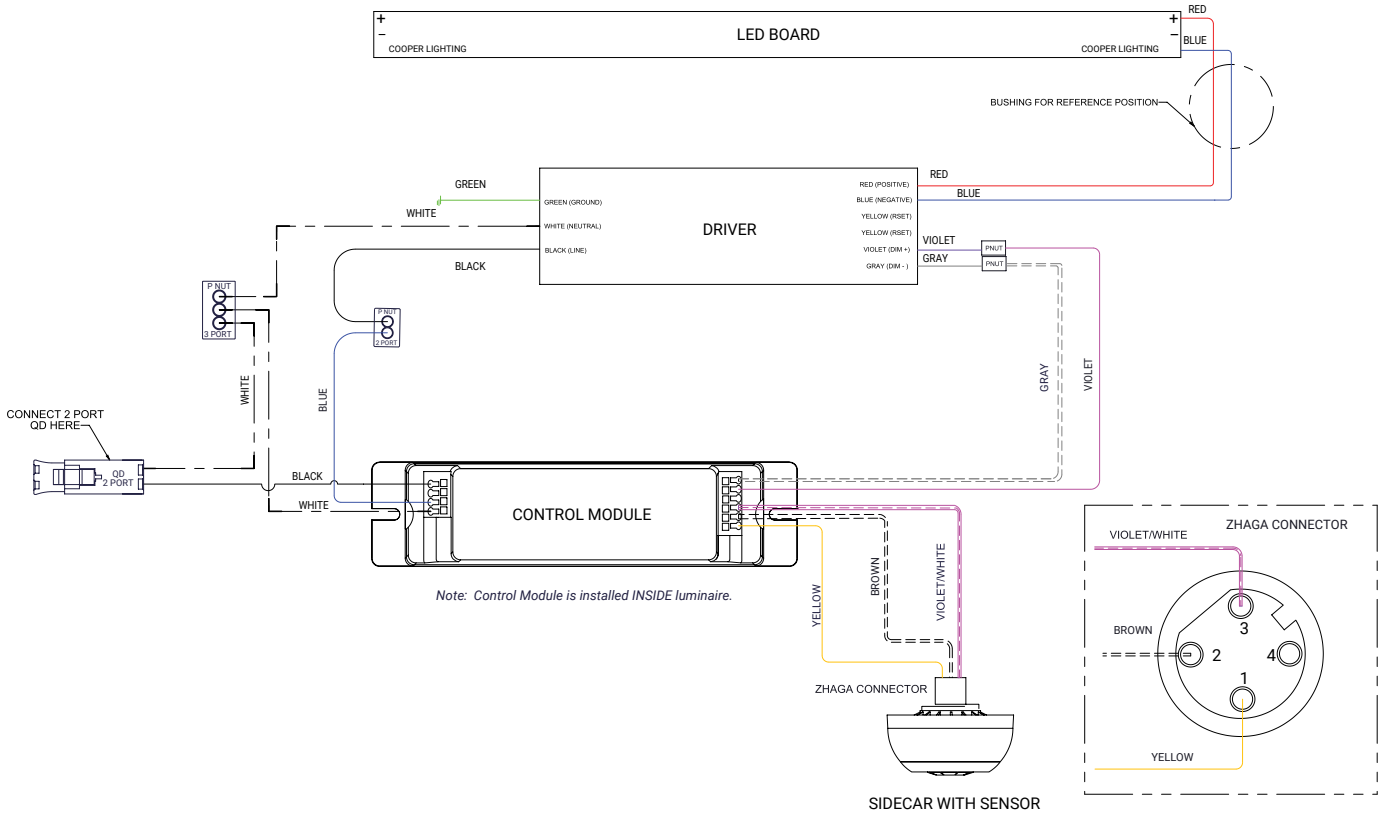

## Additional Dimensional Details - Control module



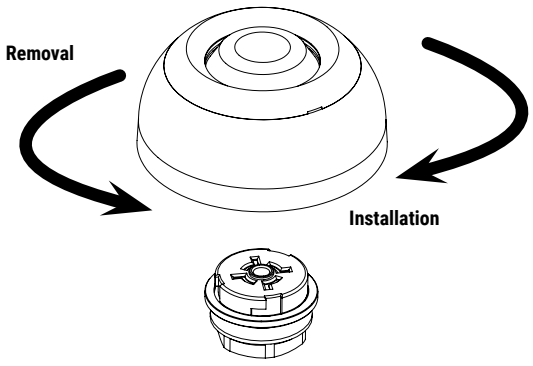

## Additional Dimensional Details - Optional Sidecar Extension



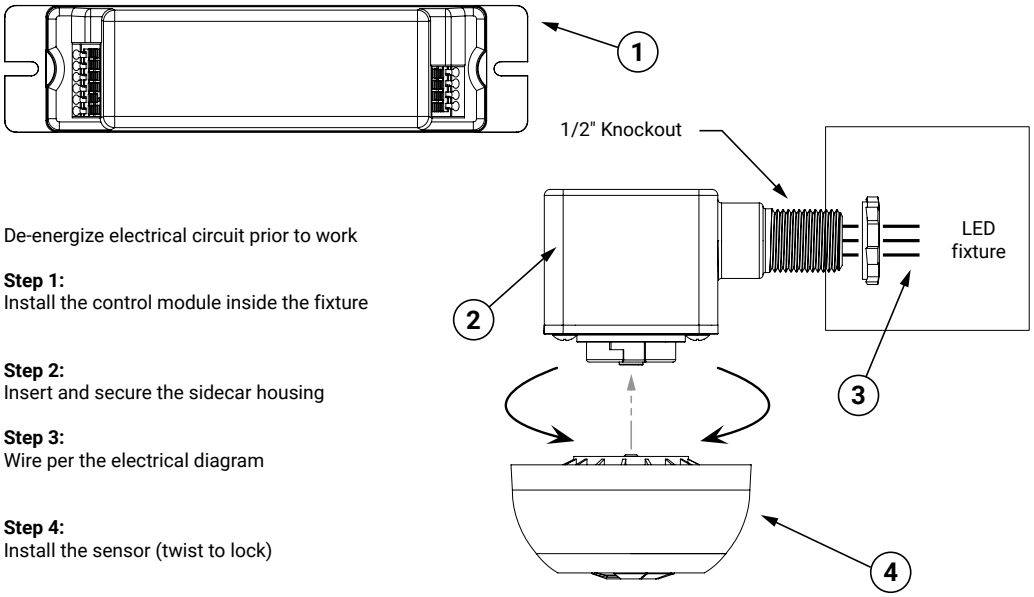
## Wiring Diagrams




*Note: Control Module is installed INSIDE luminaire.*



## Fixture Installation




De-energize electrical circuit prior to work

**Step 1:**
Install the control module inside the fixture

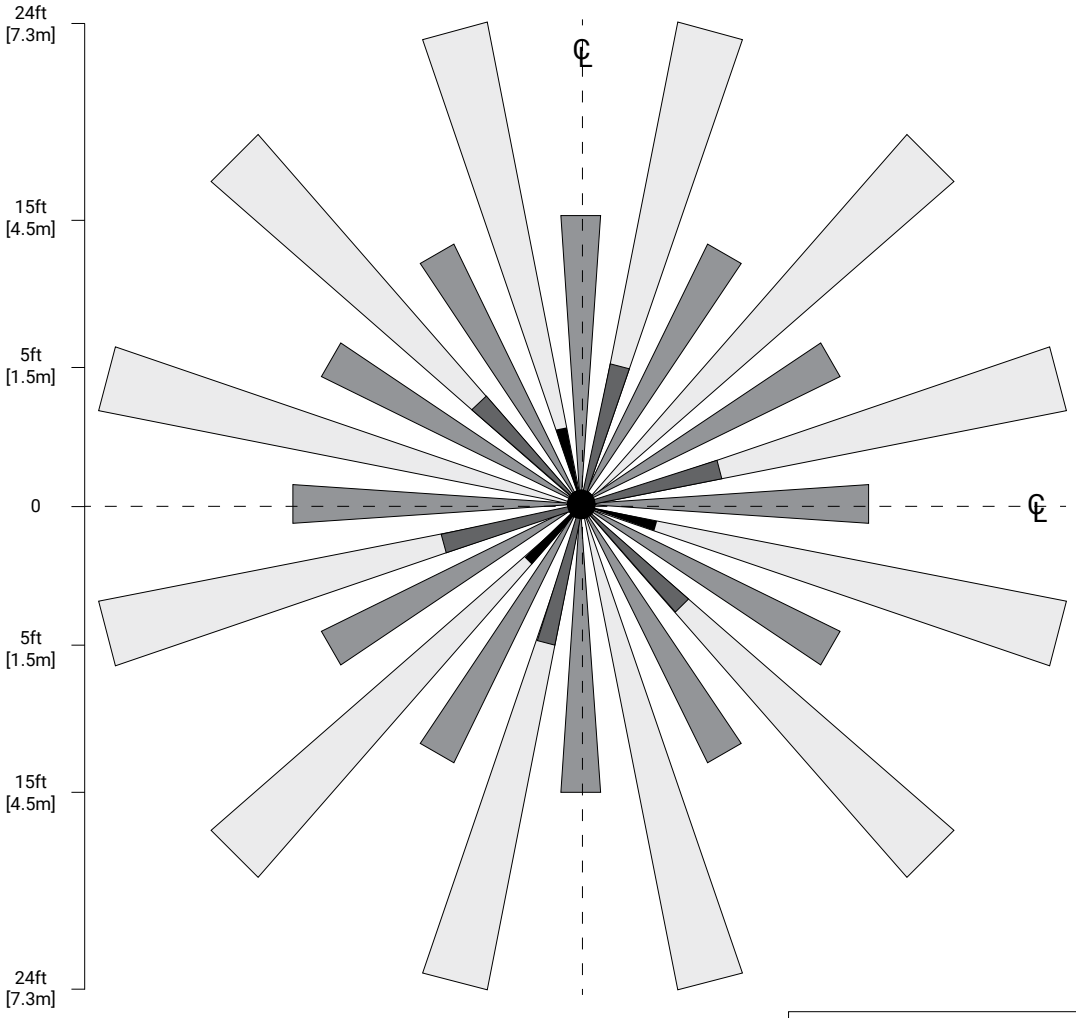
**Step 2:**
Insert and secure the sidecar housing

**Step 3:**
Wire per the electrical diagram

**Step 4:**
Install the sensor (twist to lock)

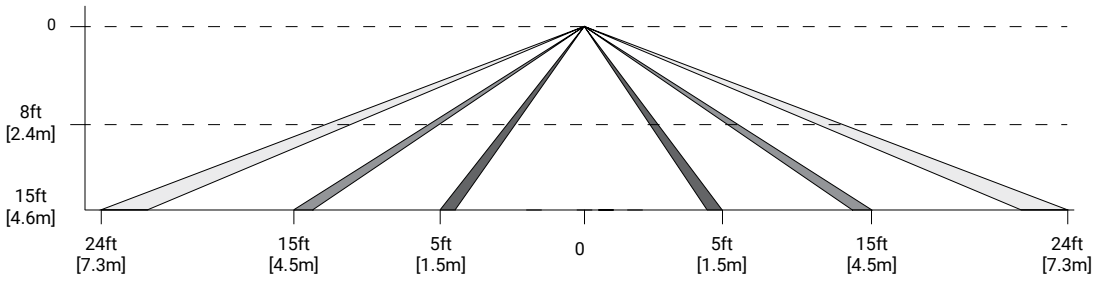
## Field of View - Low Bay

**TOP VIEW:**



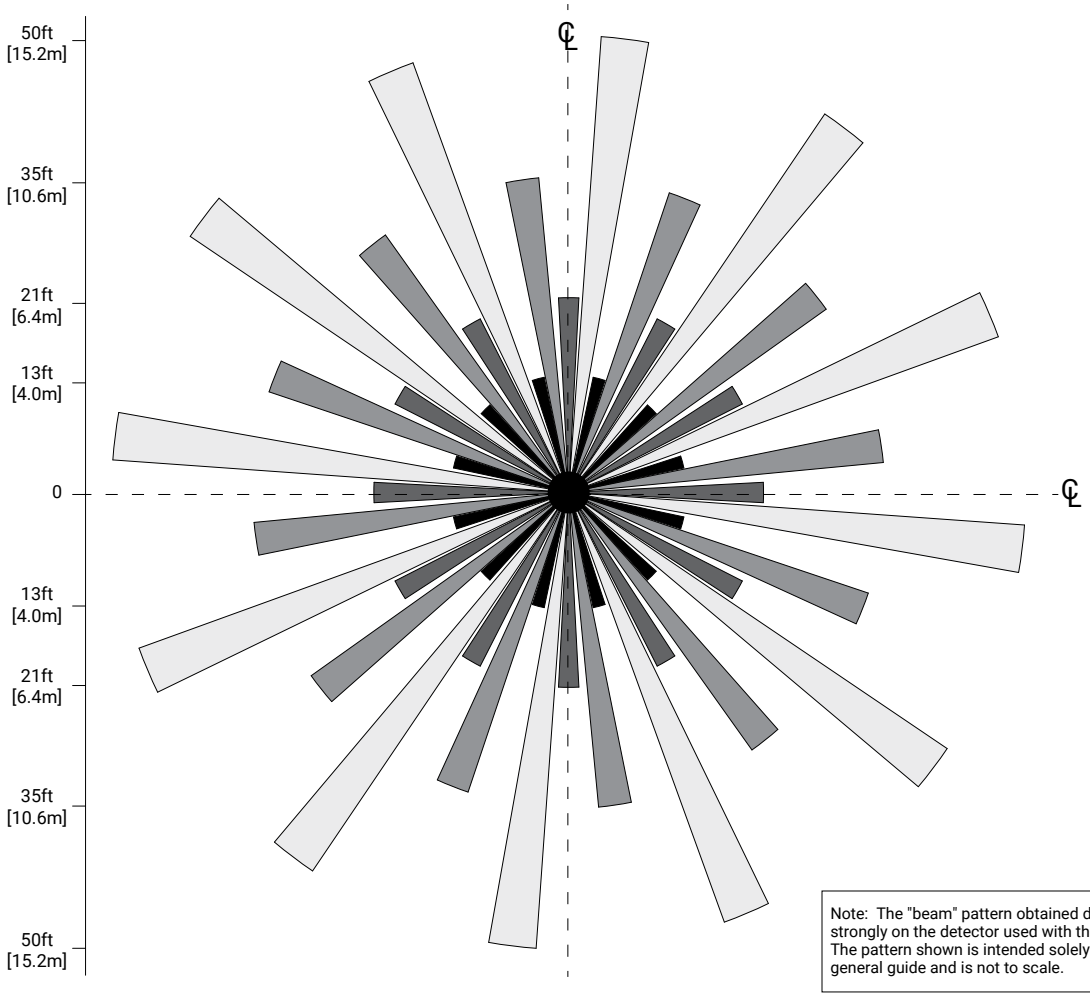

Note: The "beam" pattern obtained depends strongly on the detector used with this array. The pattern shown is intended solely as a general guide and is not to scale.

**SIDE VIEW:**



## Field of View - High Bay

**TOP VIEW:**

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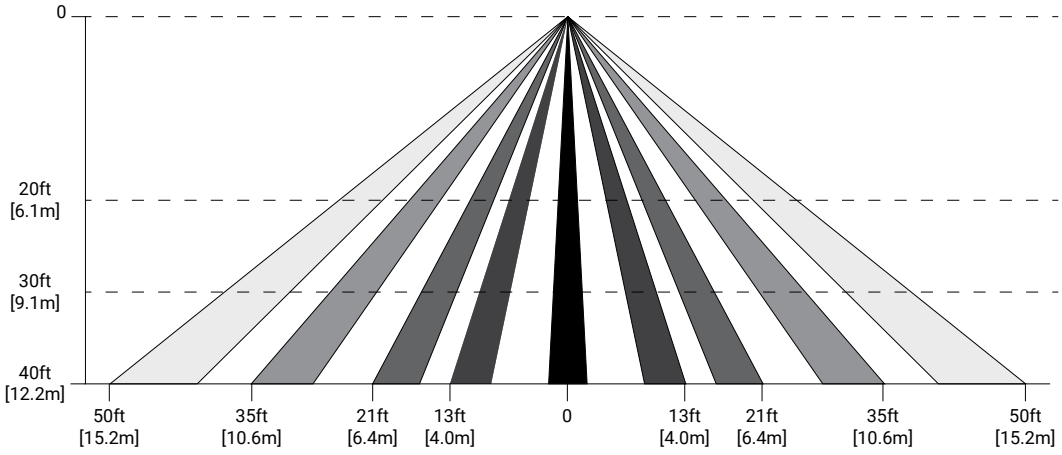
**SIDE VIEW:**




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.

## System Diagram:

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

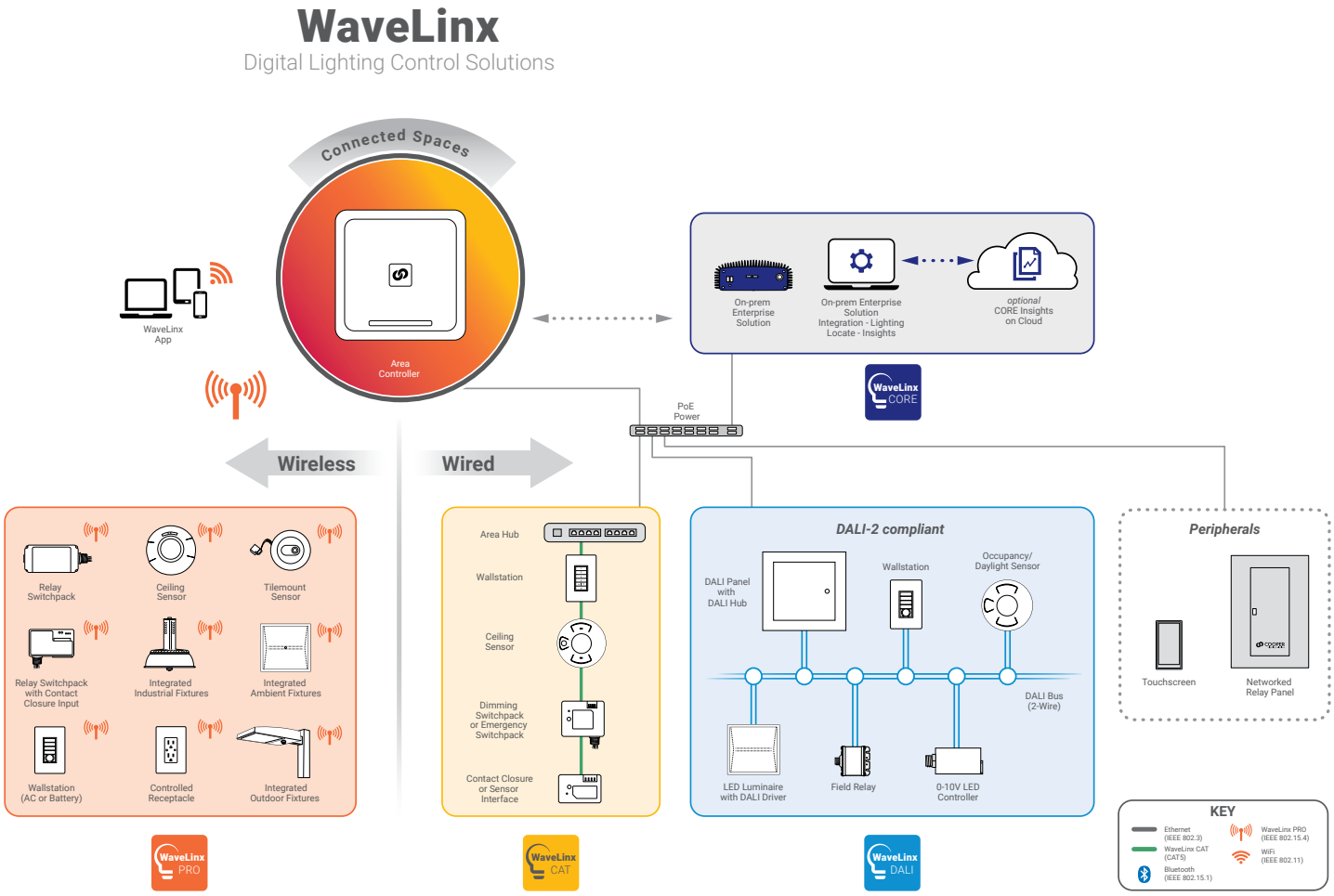
The PRO devices communicate using wireless mesh technology based on the IEEE 802.15.4 standard. A PoE LAN connection for each WaveLinx Area Controller (WAC) is required for power and data access to the building lighting network.

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 DALI devices communicate via a DALI bus (2 wires), which connects various components including DALI fixtures, a DALI DAC (DALI to 0-10V converter), DALI field relays, DALI wallstations, and DALI occupancy sensors.

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

View WaveLinx Network and IT Guidance Technical Guide




## Control Systems

- WaveLinx