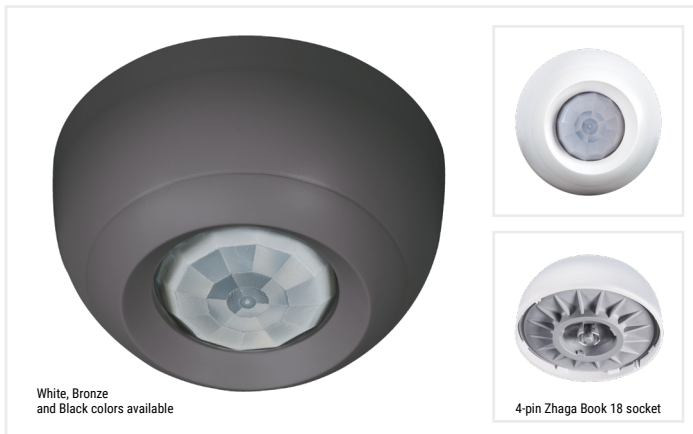


Project		Catalog #		Type	
Prepared by		Notes		Date	



## WaveLinX

### PRO Outdoor Fixture High / Low Mount Sensor (SWPD\*)

Motion and closed loop daylighting including field installed shield

#### Typical Applications

Outdoor • Parking areas • Pathways

#### Interactive Menu

- Order Information page 2
- Additional Resources page 4
- Connected Systems page 7
- Product Warranty



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

#### Product Features



#### Compatibility



### Overview

The outdoor (high and low mounted) sensors are an integral part of the WaveLinX connected lighting system and offer passive infrared (PIR) occupancy and a photocell for closed loop daylight sensing. WaveLinX PRO outdoor 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 outdoor light fixtures equipped with the 4-pin Zhaga Book 18 compliant socket. Once installed, sensors receive power from their co-located light fixture with no batteries to replace. The sensor in combination with the WaveLinX PRO Mobile application allows you to gain considerable energy savings from occupancy and daylight sensing lighting control. The WaveLinX PRO 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 (up to 40ft / 45ft major motion) and Low (up to 15ft) applications
- Out of the box functionality (on at dusk, off at dawn, occupied to 100%, unoccupied to 50%)
- 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 PRO Mobile application
- Simple tool-less twist lock fixture connection via 4-pin Zhaga Book 18 socket
- IP66 rating for outdoor site and indoor environments
- Energy calculations available through WaveLinX CORE

## Order Information

WaveLinx PRO Outdoor Fixture Mount Sensors are accessories to the WaveLinx connected lighting system and requires a WaveLinx Area Controller (WAC) for full functionality. WaveLinx PRO Outdoor Fixture Mount Sensors are used to provide occupancy and daylight dimming to spaces from the outdoor light fixture. For energy code compliance, additional sensors may not be required.

### Catalog Number

Catalog #	Description
<b>SWPD4-WH</b>	WaveLinx PRO Outdoor Fixture - Low Mount Sensor, White, 7 - 15ft (2.1 - 4.5m)
<b>SWPD4-BZ</b>	WaveLinx PRO Outdoor Fixture - Low Mount Sensor, Bronze, 7 - 15ft (2.1 - 4.5m)
<b>SWPD4-BK</b>	WaveLinx PRO Outdoor Fixture - Low Mount Sensor, Black, 7 - 15ft (2.1 - 4.5m)
<b>SWPD5-WH</b>	WaveLinx PRO Outdoor Fixture - High Mount Sensor, White, 15 - 40ft (4.5 - 12.2m)
<b>SWPD5-BZ</b>	WaveLinx PRO Outdoor Fixture - High Mount Sensor, Bronze, 15 - 40ft (4.5 - 12.2m)
<b>SWPD5-BK</b>	WaveLinx PRO Outdoor Fixture - High Mount Sensor, Black, 15 - 40ft (4.5 - 12.2m)
<b>Notes</b> For use with outdoor light fixtures equipped with the WaveLinx PRO Zhaga compliant 4-pin socket only.	<b>Notes</b> 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. For outdoor applications, the WaveLinx Area Controller should be located inside a conditioned building with a line of sight (LOS) through a window to an outdoor sensor (preferably 2-3 sensors) within the range specified below:  LOS through a window: Best practice: 160ft (49m) - tinting / shade reduce range by 20ft (6m) No direct LOS, through concrete (up to 7in thick): Best practice: 40ft (12m) 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 (WAC) for communications. Ensure the bill of material includes one of the following components.

### Catalog Number

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

## Optional Accessories

For connection to 120VAC outlets.

### Catalog Number

Catalog Number	Description
<b>WPOE2-120</b>	120VAC to PoE Injector

## Product Specifications

### Mechanical

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

**Weight:** 0.20 lbs (0.10 kg)

### Environment:

- **Operating temperature:** -40°F to 131°F (-40°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 wireless devices  
**Note:** 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 outdoor use only

**Mounting:** Fixture mount

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

**Color:** White, Bronze and Black colors available

**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

### Electrical

**Input Requirements:** Fixture connection via 4-pin Zhaga Book 18 socket

### 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)

### System Performance

**Maximum number of nodes supported:** 200 per WaveLinx Area Controller (best practice 150 devices)

### Standards/Ratings\*

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

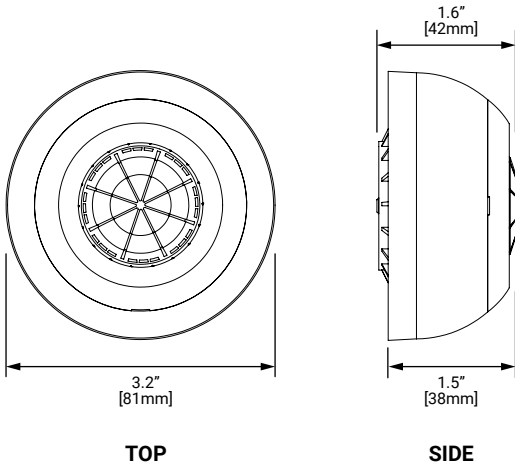
### Warranty

Five year warranty standard

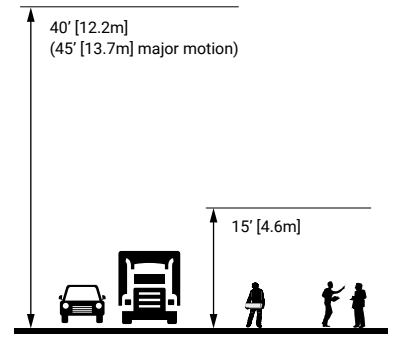


Download the WaveLinx Mobile App from either the Google Play or Apple Store®

## Dimensional Details

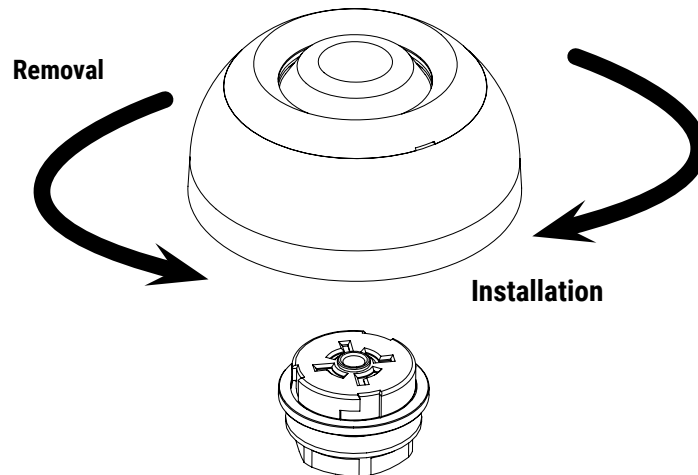


## Mounting Height



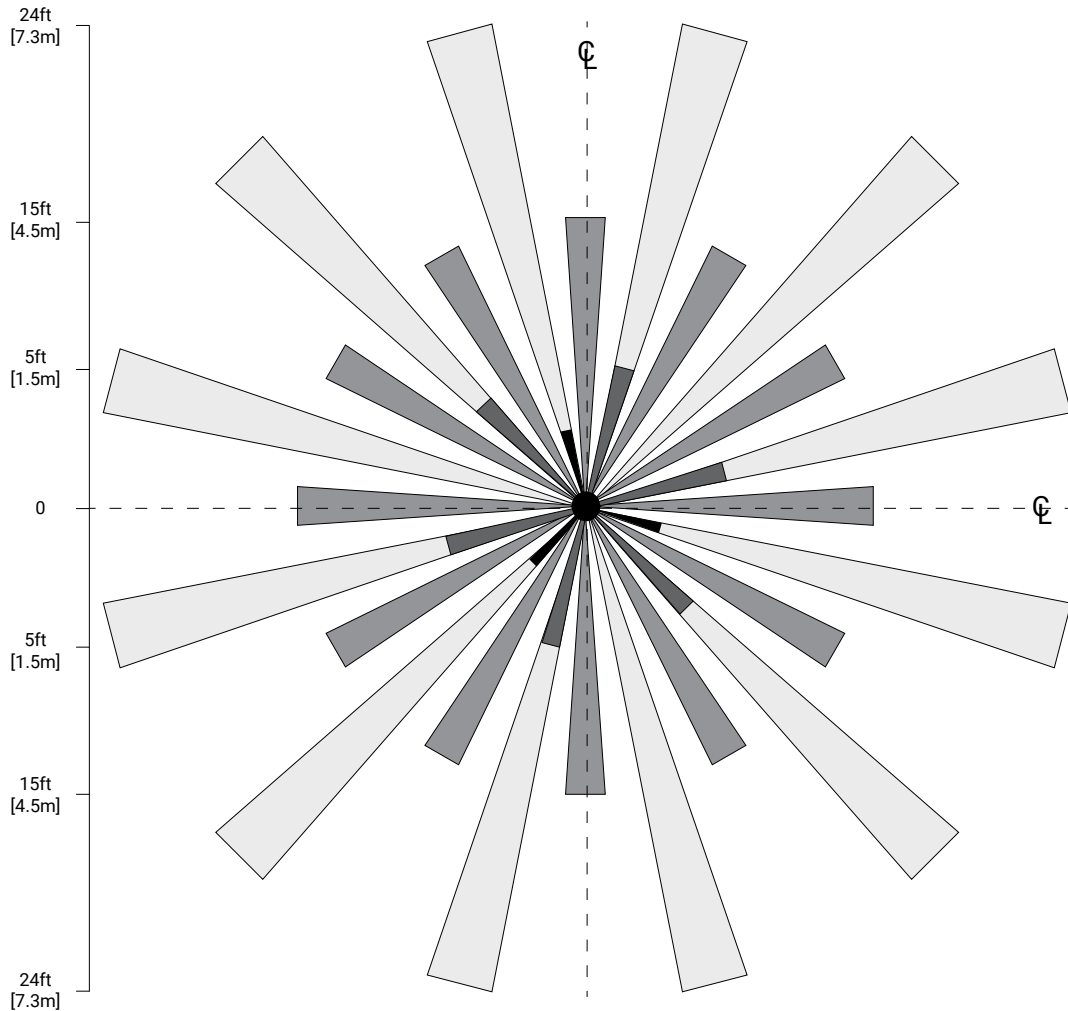
## Installation

Both the SWPD4 and SWPD5 easily install into WaveLinx PRO-ready LED fixtures equipped with Zhaga Book 18 4-pin sockets. Sensor connection is enabled via the simply twist-lock connection and provides immediate out of the box functionality.



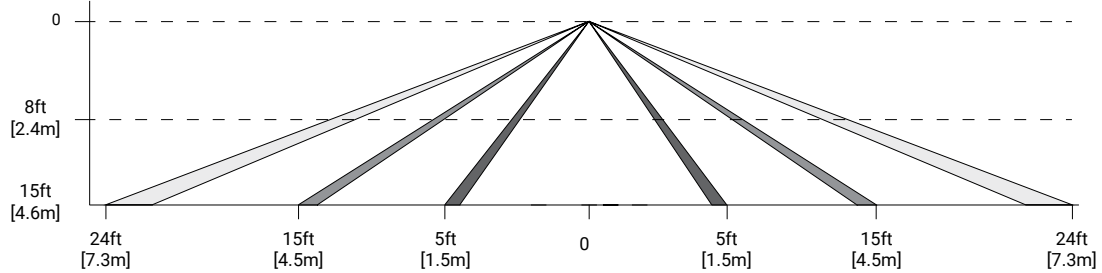
## Field of View - Low Mount

### TOP VIEW:



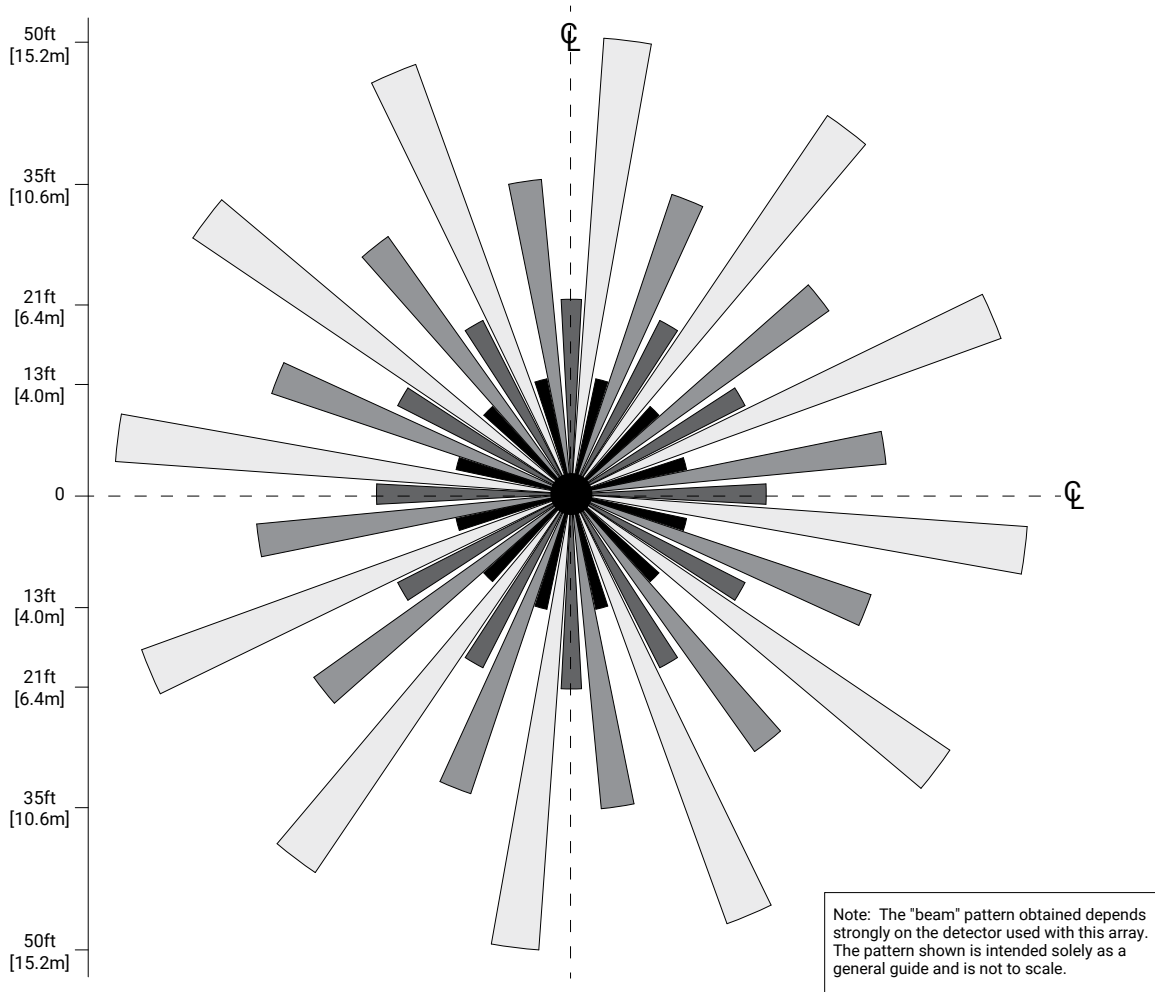
Note: The "beam" pattern obtained depends strongly on the detector used with this array. The pattern shown is intended solely as a general guide and is not to scale.

### SIDE VIEW:

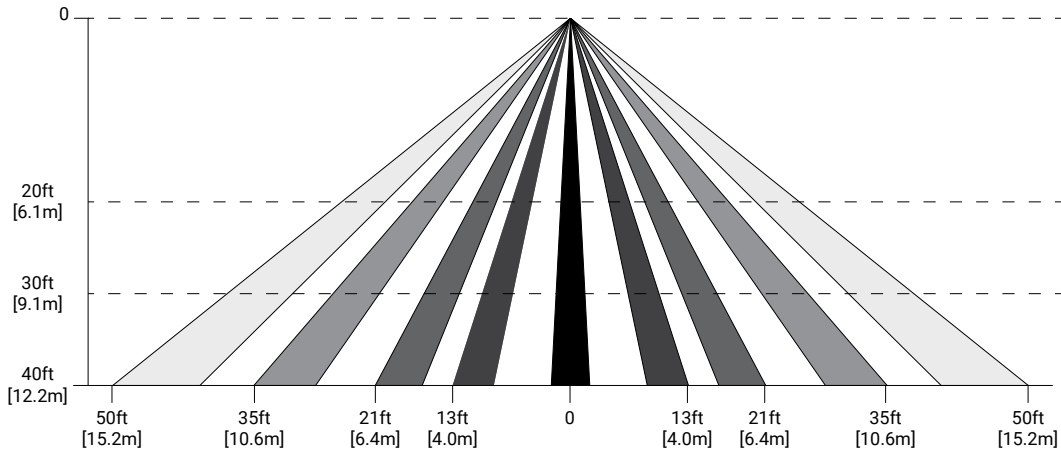


## Field of View - High Mount

### TOP VIEW:



### SIDE VIEW:

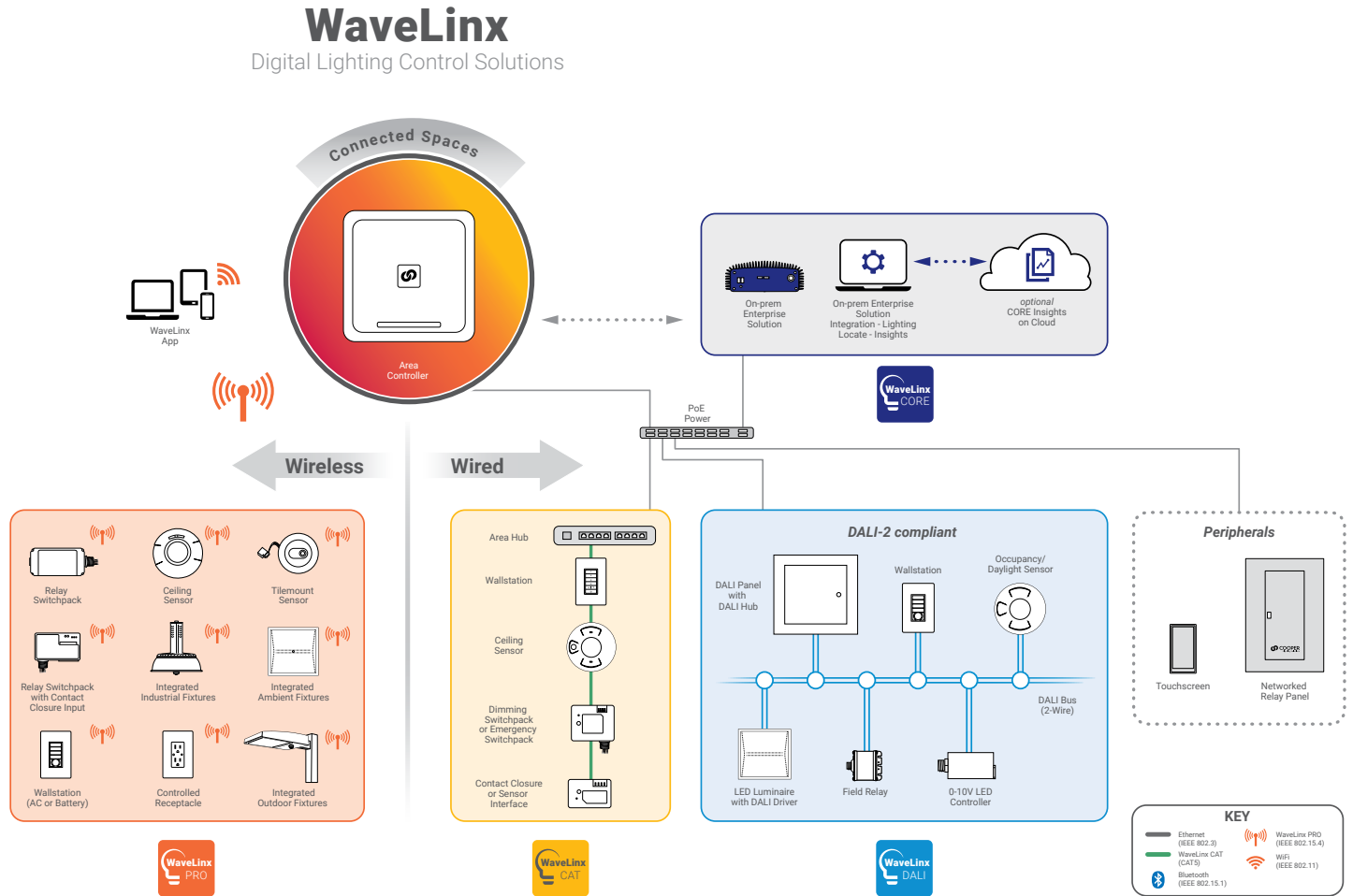


High mount models accommodate mounting height to 45ft (13.7m) for major motion (vehicles, fork trucks, etc.) - may not detect minor motion of people depending on conditions.

## 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