

Project		Catalog #		Type	
Prepared by		Notes		Date	



# WaveLinX

## PRO Ceiling Sensor (CWPD-1500)

Wireless Battery-Powered Passive Infrared (PIR) Occupancy Sensor with Photocell for daylight control, 1500 sqft coverage, Ceiling Mount.

### Typical Applications

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

### Interactive Menu

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- Product Warranty



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

### Product Features



### Compatibility



## Overview

The PRO Ceiling Occupancy Sensor, CWPD-1500, is a wireless passive infrared (PIR) occupancy sensor with 1500 sqft wide coverage. The device also incorporates a photocell with a range of 1000 Lux.

The PRO Ceiling Occupancy Sensor has three tasks: 1) Keeping the lights ON while the room is occupied, 2) Saving energy by keeping the lights OFF while the room is unoccupied, and 3) Saving energy by dimming the lights when the space is adequately lit by natural light, and the room is occupied.

## Product Features & Benefits

- **Passive Infrared (PIR) sensor with 1500 sqft coverage** – Enables flexible placement of sensor within a space
- **Daylight sensor with up to 1000 lux range** – Increase energy savings by dimming the lights when the space is adequately lit by natural light
- **Software configurable settings** – Adjust the sensor settings (time delay, sensitivity, others) remotely using WaveLinX mobile and web applications
- **Battery powered with up to 7 years battery life** – Eliminates the need to pull additional wire, making installation quick and easy
- **Three tool-less mounting options (magnetic, surface and electrical box)** – Increase labour savings with fast, simple installation and with the ability to reposition the sensor with additional wiring or noticeable markets

## Order Information

The WaveLinx PRO ceiling sensor is an accessory to the WaveLinx connected lighting system and requires a WaveLinx Area Controller (WAC) for full functionality.

The wireless ceiling sensor is used to detect occupancy in spaces and can be mapped to other sensors in an area for maximum coverage and control. The wireless ceiling sensor is typically used to control spaces controlled by switchpacks, areas where WaveLinx PRO fixtures are used, or WaveLinx integrated sensors do not provide adequate coverage.

### Catalog Number

Catalog #	Description
CWPD-1500	WaveLinx PRO Ceiling Sensor (1500 sq ft)

## 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

**Size:** Base Diameter: 3.1" (80mm), Height: 1.6" (41mm)

#### Environment:

- **Operating temperature:** +32° - 104° F (0° - 40° C) Standard Range (SR) and Long Range (LR)
- **Storage temperature:** -40°F to 158°F (-40°C to 70°C)
- **Relative humidity operating:** 0% to 95% non-condensing
- For indoor use only

**Mounting:** Ceiling

**Mounting Height:** 8 - 12ft (2 - 4m)

**Color:** White

**Housing:** UV stabilized plastic

**Light Sensor Detector Shields:** 0 to 1,000 Lux

- Shields included - no opening of sensor required

#### Daylighting Installation:

- Daylighting mounting distance from window: 1-2x window height
- Ensure that sensor is not looking directly at artificial light
- Ensure that sensor is not obstructed
- Use appropriate lens masks for directionality

### Electrical

**Power supply type:** Batteries

- 2-AA Alkaline batteries provided
- Replaceable and readily accessible
- 7 Year life - occupancy only
- 6 Year life - occupancy and daylighting

### Software Specifications

- Any number of sensors can be mapped to any number of zones
- Each sensor can be assigned to up to 6 open loop daylight sets
- Remote configuration for Occupancy/Vacancy, Walk-test functionality without opening covers
- Remote Time Delay settings fully configurable
- Remote configuration of Occupancy and Unoccupied light levels

### Wireless Specifications

**Radio:** 2.4GHz

**Standard:** IEEE 802.15.4

**Transmitter Power:** + 8dBm

**Range:** 30ft (9m) LOS

**# of Walls:** Range decreases by 50% through each interior wall of standard construction

### System Performance

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

### Standards/Ratings\*

- cULus Listed - Energy Management Equipment (UL916)
- RoHS Compliant
- Meets latest ASHRAE Standard 90.1 requirements
- Meets latest IECC requirements
- Meets latest CEC Title 24 requirements

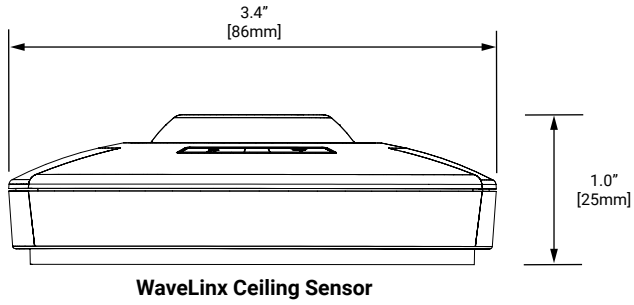
### Warranty

Five year warranty standard

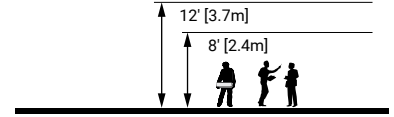


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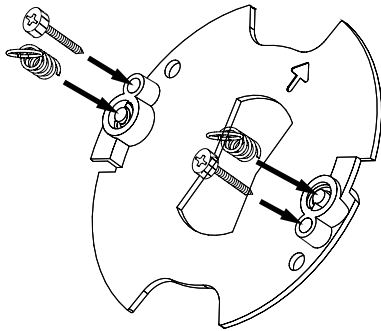
## Dimensional Details



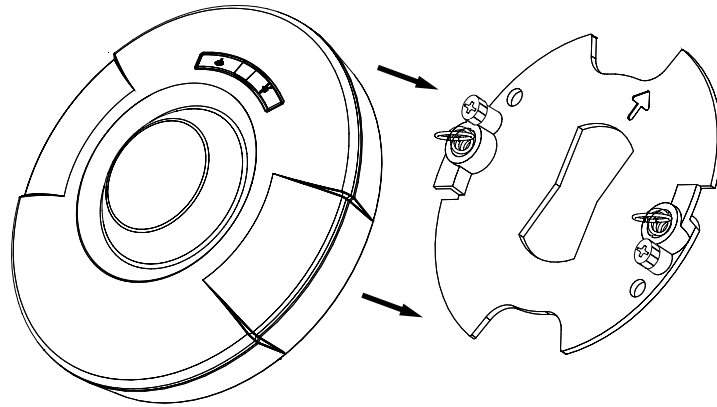
## Mounting Height



## Installation



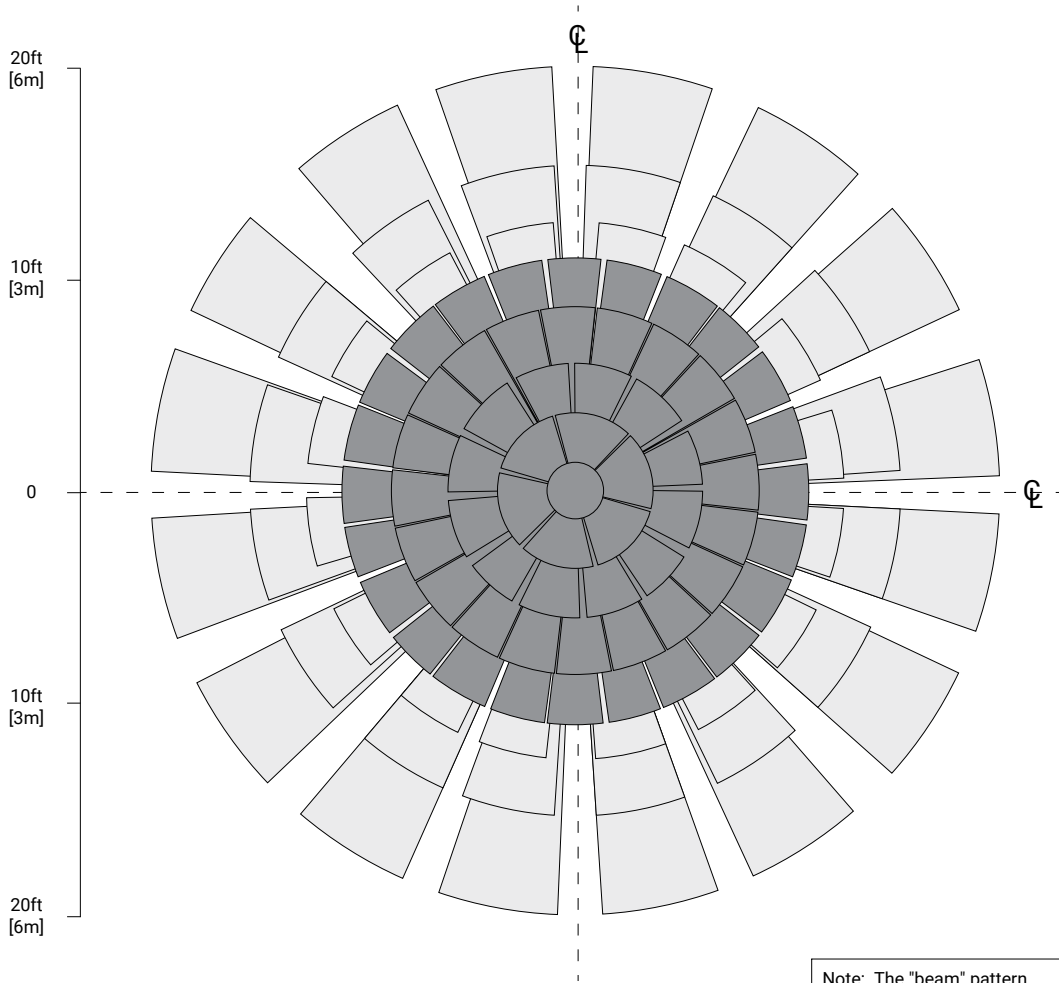
\* Use either the supplied thumb screw or helical screw to secure the mounting plate to the ceiling tile



Slightly rotate the main sensor assembly until it snaps in with the mounting plate

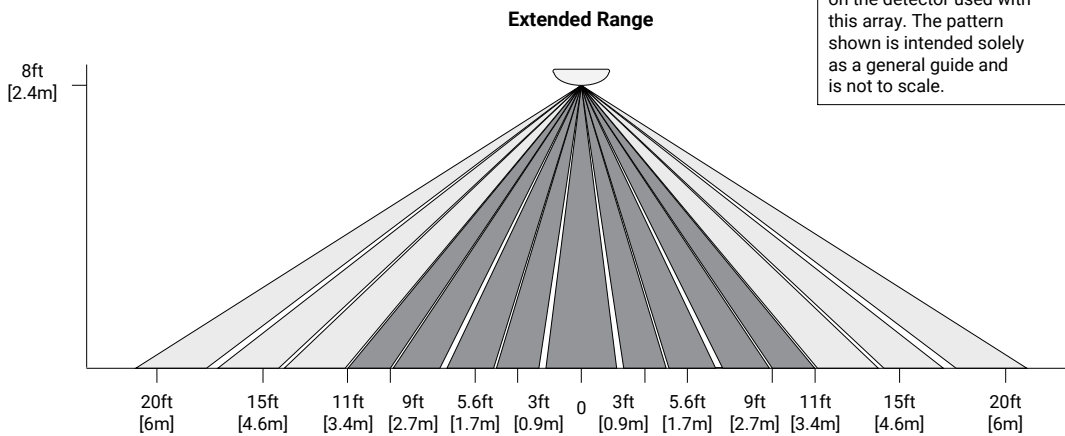
## Field of View

### 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:

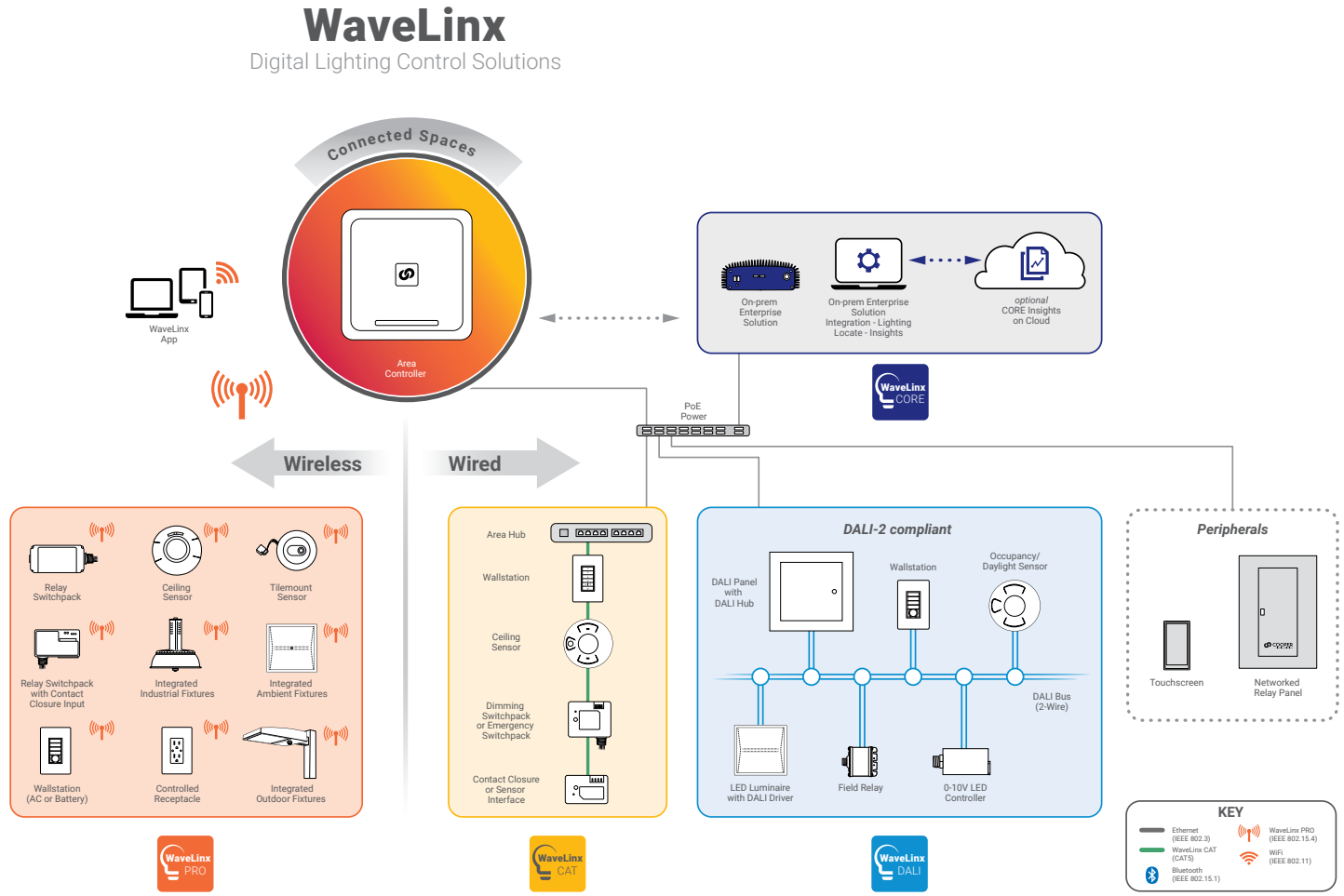


Extended Range

## 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