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

Product Certification

UL CERTIFIED

FC Part 15/ECES-003

RoHS COMPLIANT

- 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

Battery Powered

Compatibility

WaveLinx PRO

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

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

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Order Information

The WaveLinx PRO ceiling sensor is an accessory to the WaveLinx connected lighting (WCL) 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 (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

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)
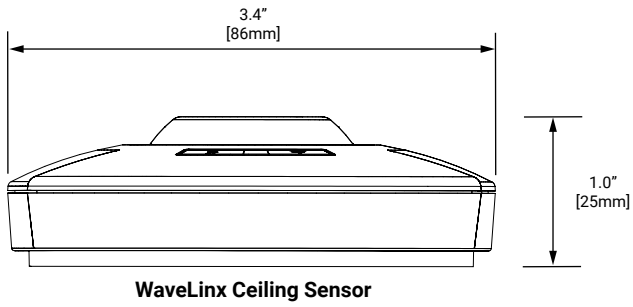
Standards/Ratings*

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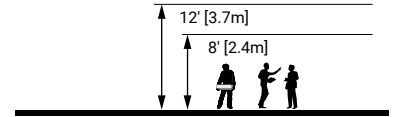- Meets latest CEC Title 24 requirements

Warranty

Five year warranty standard

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Dimensional Details

3.4"
[86mm]

1.0"
[25mm]

WaveLinx Ceiling Sensor

Mounting Height

12' [3.7m]

8' [2.4m]
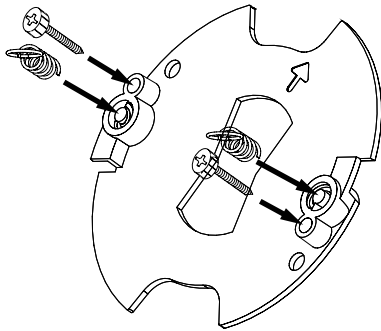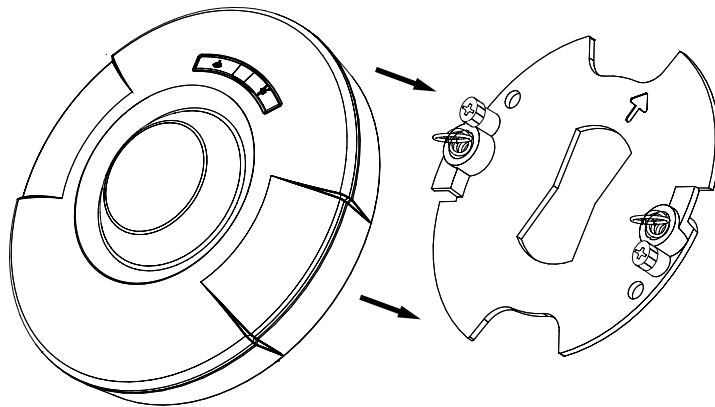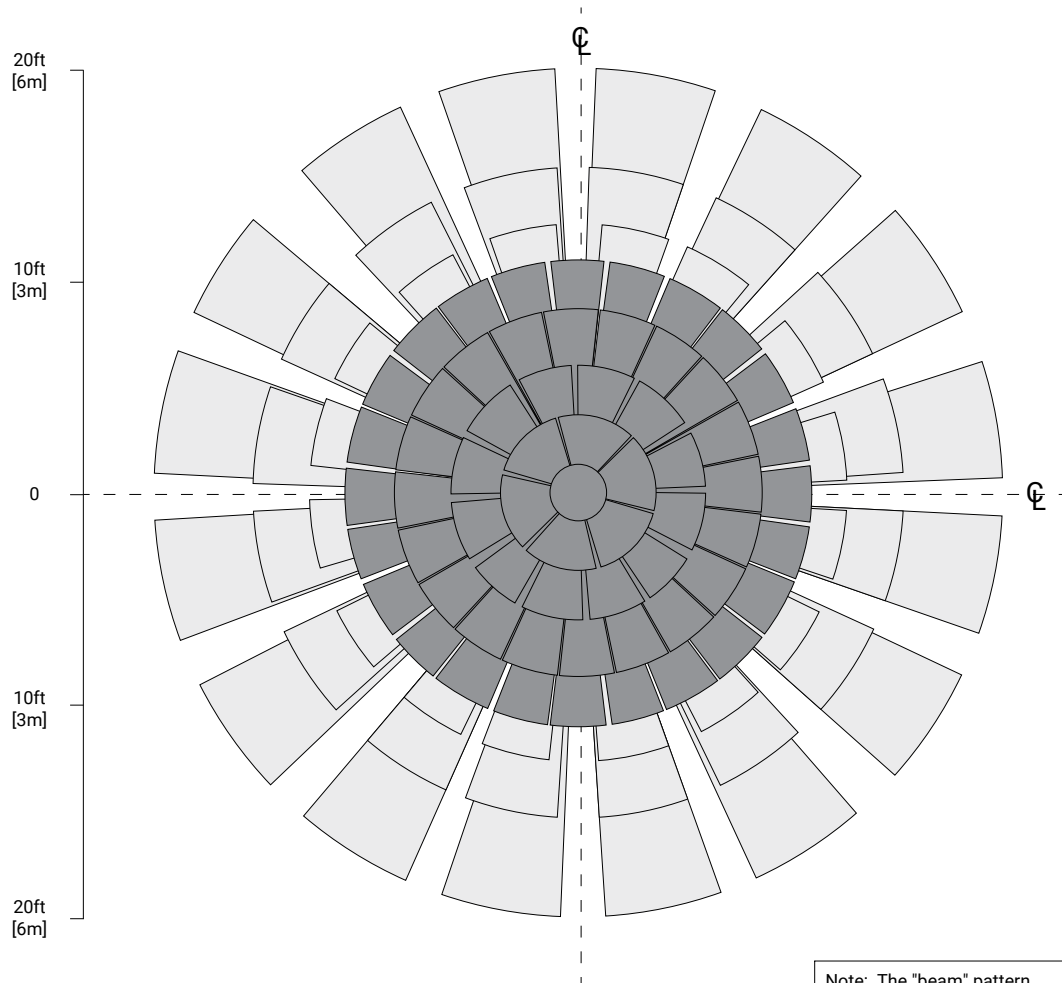
Installation

* 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

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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.
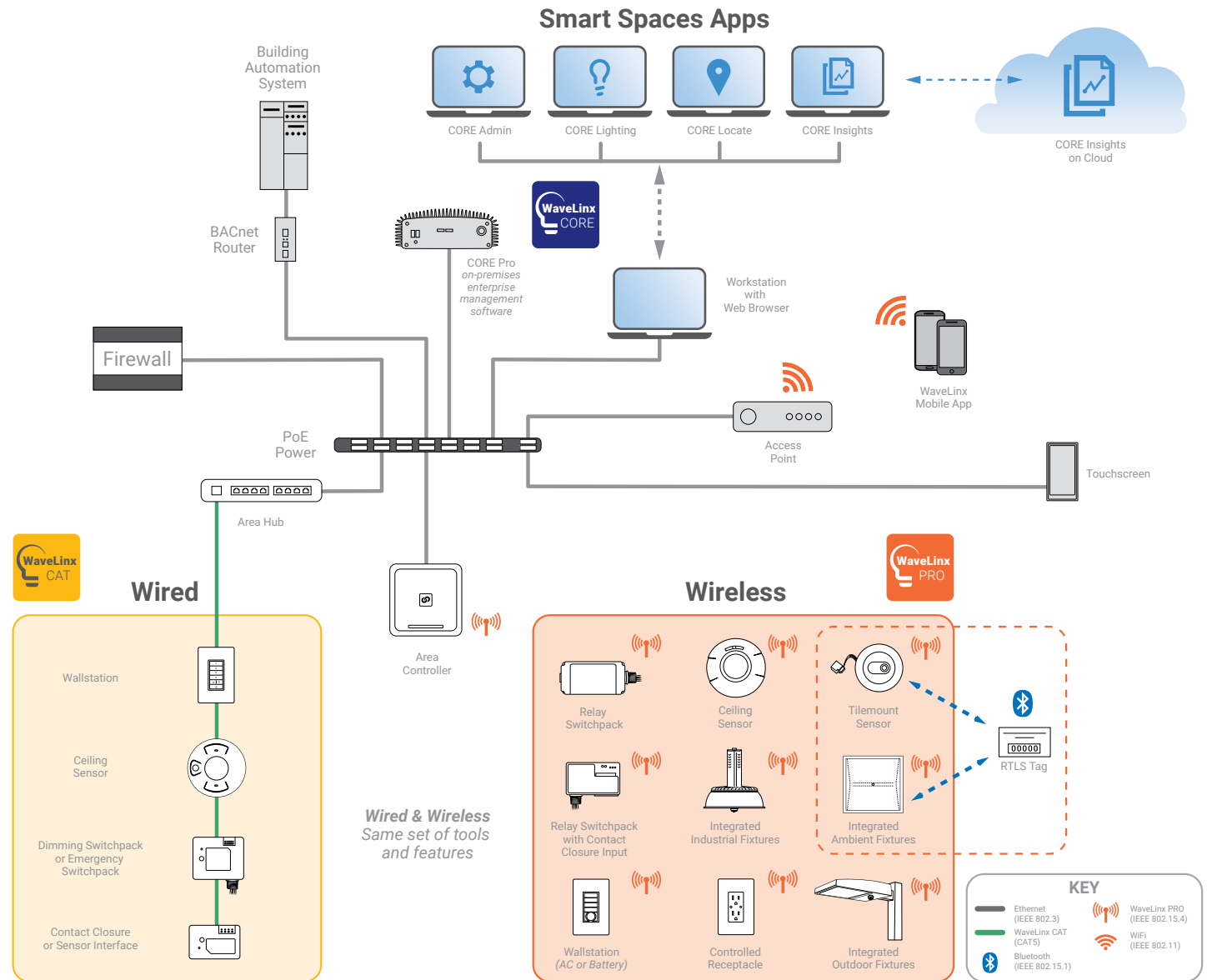
SIDE VIEW:

Extended Range
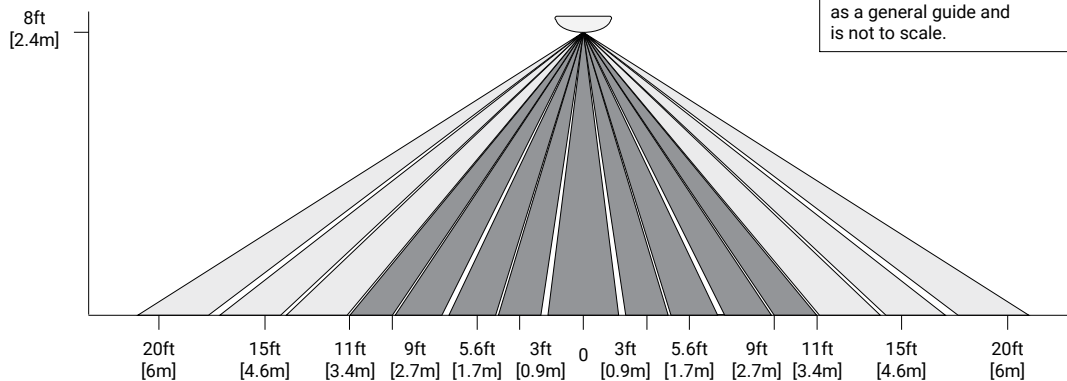
System Diagram:

This diagram shows the main components of the WaveLinx connected lighting system with 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

Smart Spaces Apps

CORE Admin · CORE Lighting · CORE Locate · CORE Insights

CORE Insights on Cloud

Building Automation System

BACnet Router

WaveLinx CORE

CORE Pro *on-premises enterprise management software*

Workstation with Web Browser

Firewall

WaveLinx Mobile App

PoE Power

Access Point

Touchscreen

Area Hub

WaveLinx CAT

Wired

Wallstation

Ceiling Sensor

Dimming Switchpack or Emergency Switchpack

Contact Closure or Sensor Interface

Area Controller

Wired & Wireless Same set of tools and features

Wireless

WaveLinx PRO

Relay Switchpack

Ceiling Sensor

Tilemount Sensor

RTLS Tag

Relay Switchpack with Contact Closure Input

Integrated Industrial Fixtures

Integrated Ambient Fixtures

Wallstation *(AC or Battery)*

Controlled Receptacle

Integrated Outdoor Fixtures

KEY

Ethernet (IEEE 802.3)		WaveLinx PRO (IEEE 802.15.4)	
WaveLinx CAT (CAT5)		WiFi (IEEE 802.11)	
Bluetooth (IEEE 802.15.1)			

Control Systems

- WaveLinx

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