WaveLinx

CAT Occupancy Ceiling Sensor (OCS-C-***)

Ceiling mount occupancy and daylight sensor

Typical Applications
Office • Education • Healthcare • Hospitality • Retail • Industrial • Manufacturing • Outdoor

Product Certification*

FC Part 15   RoHS COMPLIANT   DLC LISTED

- Meets latest ASHRAE 90.1 - 2019 requirements
- Meets latest IECC - 2021 requirements
- Meets latest Title 24 - 2019 requirements
- Manufactured in an ISO 9001 certified factory

Product Features

CAT Mobile App   Occupancy Sensor   Daylighting Control

PIR Detection   Acoustic Detection

Compatibility

WaveLinx CAT

Overview

The WaveLinx CAT ceiling sensor is offered in two varieties - the passive infrared (PIR) and dual tech. The PIR technology detects the presence of people by sensing changes in heat, while dual tech combines PIR with acoustic feature that listens for sounds, such as talking or movement, to determine if an area is still occupied.

This sensor also works as a daylight sensor that detects the level of natural light in the space and adjusts indoor lighting accordingly to maintain a desired brightness level.

The sensor then transmits the appropriate commands to the associated dimming and switching devices via the CAT communication bus to turn the lights on or off automatically to meet and exceed the local energy code.

Product Features & Benefits

- **Motion detection up to 12 ft mounting height –** Reduce energy consumption by turning lights on/off based on the space occupancy
- **Built-in Photocell –** Reduce energy usage based on the daylight coming into the space
- **LED Status Indicator –** Easily troubleshoot the sensor when required.
- Easy to configure / commission – Remotely configurable through WaveLinx CAT mobile app

product diagrams

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

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March 2025

Order Information

Catalog Number

Catalog Number	Description
OCS-C-D06	WaveLinx CAT Dual Tech Ceiling Sensor, 600 sqft
OCS-C-D12	WaveLinx CAT Dual Tech Ceiling Sensor, 1200 sqft
OCS-C-D20	WaveLinx CAT Dual Tech Ceiling Sensor, 2000 sqft
OCS-C-P06	WaveLinx CAT PIR Ceiling Sensor, 600 sqft
OCS-C-P12	WaveLinx CAT PIR Ceiling Sensor, 1200 sqft

Required Accessory

The WaveLinx CAT network requires termination of the local CAT bus network on both ends.

Catalog Number

Catalog Number	Description
ACC-C-TP-6PK	ACC-C Canbus Termination Plug - 6PK

Optional Accessories

Catalog Number

Catalog Number	Description
GGRJ45-03-G	RJ45 cables 3 feet
GGRJ45-10-G	RJ45 cables 10 feet
GGRJ45-25-G	RJ45 cables 25 feet
GGRJ45-50-G	RJ45 cables 50 feet
GGRJ45-100-G	RJ45 cables 100 feet
GGRJ45-10P-G	RJ45 cables 10 feet plenum rated
GGRJ45-25P-G	RJ45 cables 25 feet plenum rated
GGRJ45-50P-G	RJ45 cables 50 feet plenum rated
GGRJ45-100P-G	RJ45 cables 100 feet plenum rated

Product Specifications

Key Features

- Daylight sensing and occupancy detection technologies combined into a single device
- All device settings (timers, sensitivity and groups) programmable through mobile app, no physical adjustments needed
- Ultra low profile and small diameter provides an aesthetically pleasing design
- Powered by the CAT local bus

Mechanical

Size: 3.6"H x 3.6"W x 1.4"D (91mm x 91mm x 36mm)

Mounting:
- Can be installed in 2-1/8" deep, 4" octagonal junction box
- Can be installed recessed in 3/8" to 1-1/4" thick ceilings
- Cutout utilizes standard 3" hole saw sizes
- Heat treated springs hold sensor securely eliminating the risk of oscillation and false triggering.
- Can be removed from below the ceiling for service or replacement

Color: White

Coverage:
- **PIR only:** 600, 1200 sqft
- **Dual Tech:** 600, 1200, 2000 sqft

Occupancy Detection Technology: Dual Tech: Passive Infrared (PIR) and Acoustic

Lens Type: Multi-level Fresnel 360°

Daylight Sensing Coverage: Light input within 60° cone

Environmental:
- **Operating temperature:** 32°F to 104°F (0°C to 40°C)
- **Operating relative humidity:** 5% to 85% non-condensing
- **Storage temperature:** -22°F to 158°F (-30°C to 70°C)
- For indoor use only

Electrical

Status Indicator: LED

Input Voltage: 9.5 - 22.5 VDC supplied by communication bus

Wiring: 18 AWG stranded PTFE plenum rated

Network connection:
- CAT5 Solid Copper 24AWG
- T568B pin/pair assignment is recommended for all CAT5 cable

Control Specification:
- **Communication Interface:** CAT cable bus

Standards/Ratings*
- Class 2 Input
- FCC Part 15
- Manufactured in an ISO 9001 certified factory
- Meets ASHRAE Standard 90.1 requirements
- Meets IECC 2021 requirements
- Meets CEC Title 24 requirements
- WaveLinx CAT is DLC Listed for interior applications - meeting the NLC5 Technical Requirements

Environmental Regulations:
- RoHS
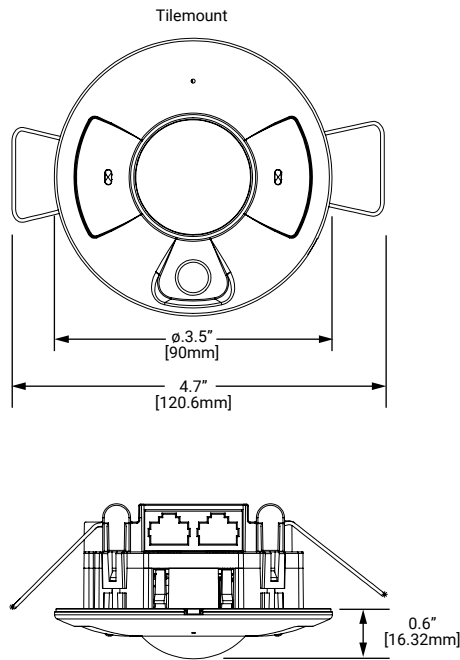
Warranty

Five year warranty standard

Download on the App Store

GET IT ON Google Play

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

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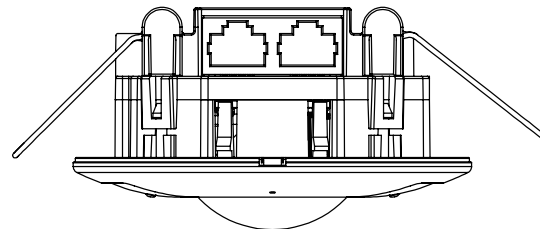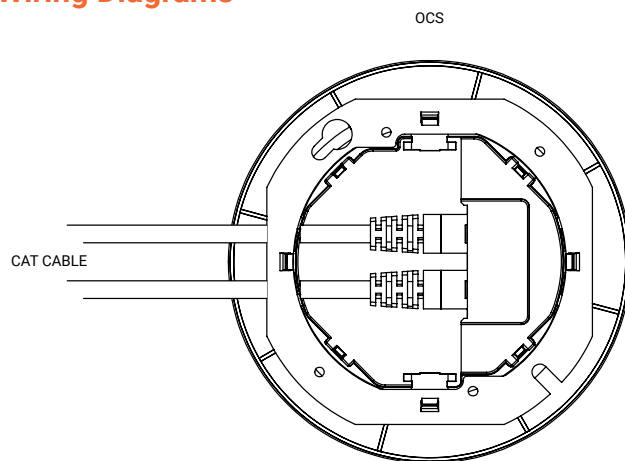
Dimensional Details

Sensor is designed to be installed into ceiling tile or onto a junction box.

4" Octogon, 2 1/8" deep Junction Box with adapter plate and trim ring

Tilemount

ø.3.5"
[90mm]

4.7"
[120.6mm]

0.6"
[16.32mm]

ø.4.5"
[114.26mm]

0.8"
[21.33mm]

Wiring Diagrams

OCS

CAT CABLE

Typical Topology

emergency power

normal power

normal power

OCS-C-***   ESP-C   RSP-C   BPI-C   CCI-C   WST-C-*   RSP-C   SIM-C

To other WaveLinx CAT devices OR terminator plug

Contact Closure Input

To other WaveLinx CAT devices OR terminator plug

OAC-DT-2000-R
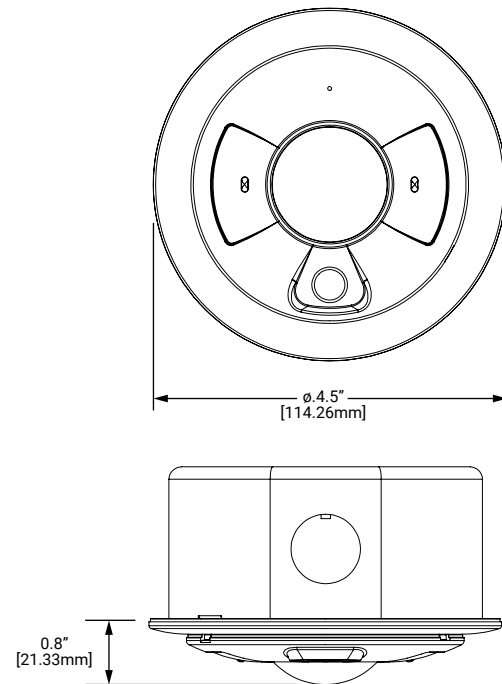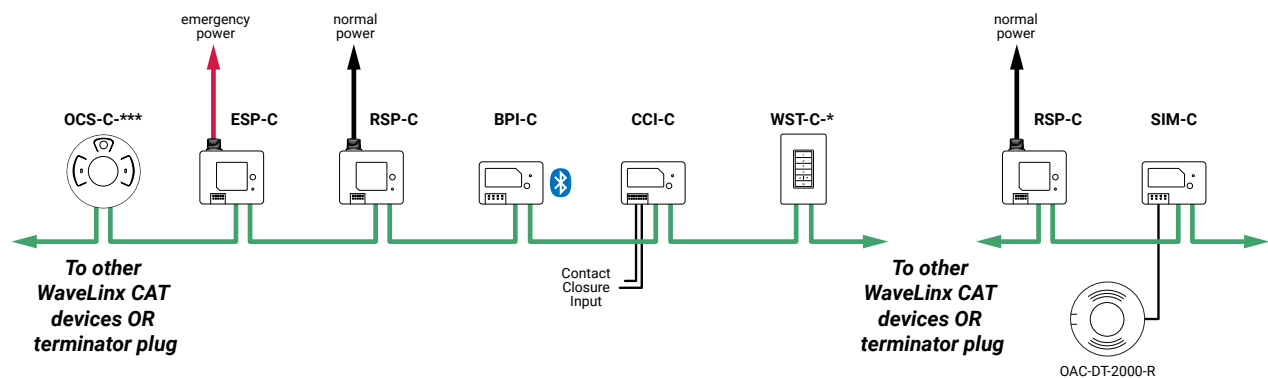
Coverage

OCS-C-D06 (600 sqft)
OCS-C-P06 (600 sqft)

TOP VIEW:

15ft
(4.6m)

CL

10ft
(3.0m)

5ft
(1.5m)

0

CL

5ft
(1.5m)

10ft
(3.0m)

15ft
(4.6m)

Maximum coverage area may vary
somewhat according to room shape
and the presence of obstacles.

SIDE VIEW:

0

8ft
(2.4m)

10ft
(3.0m)

12ft
(3.7m)

| 6.1m (20ft) | 4.6m (15ft) | 3.0m (10ft) | 1.5m (5ft) | 0 | 1.5m (5ft) | 3.0m (10ft) | 4.6m (15ft) | 6.1m (20ft) |

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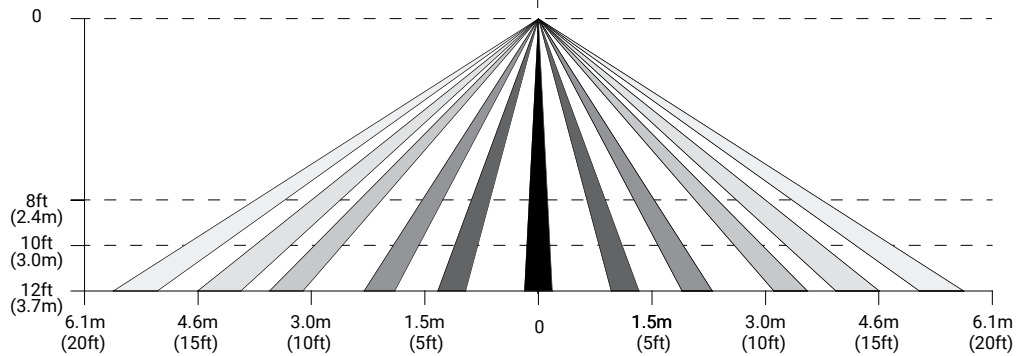
Coverage

OCS-C-D12 (1200 sqft)
OCS-C-P12 (1200 sqft)

TOP VIEW:
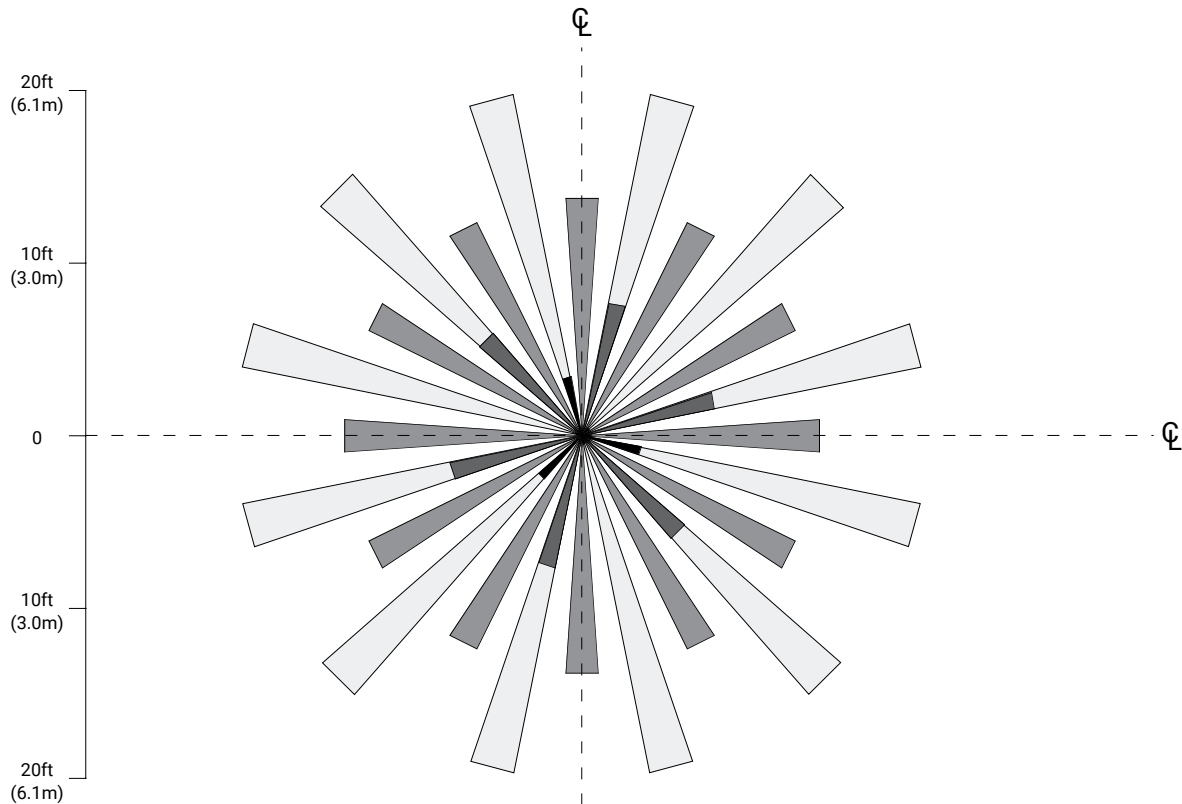
Maximum coverage area may vary somewhat according to room shape and the presence of obstacles.

SIDE VIEW:

Coverage

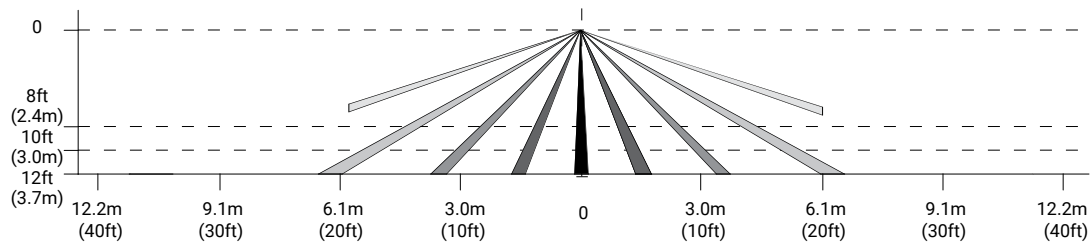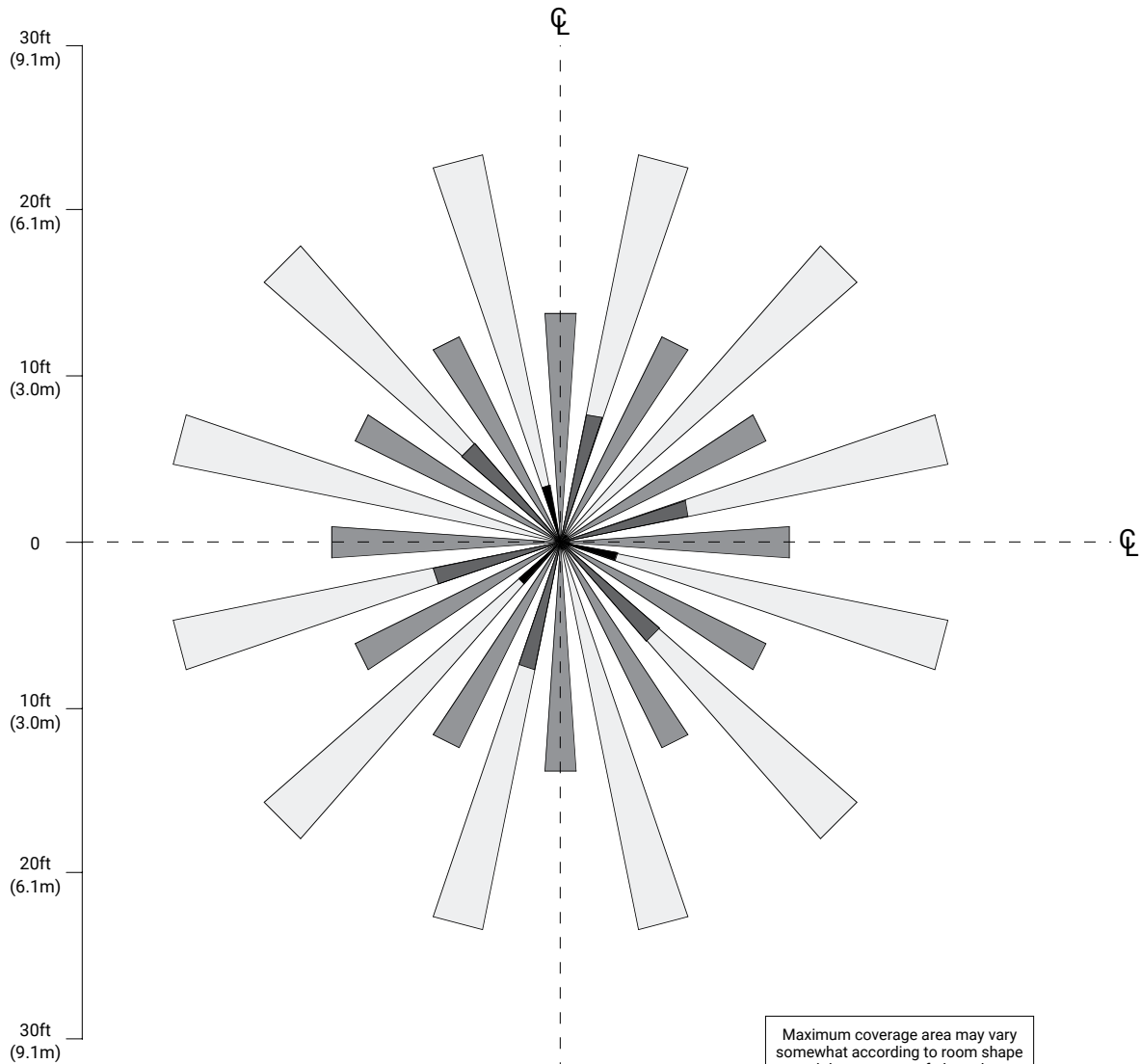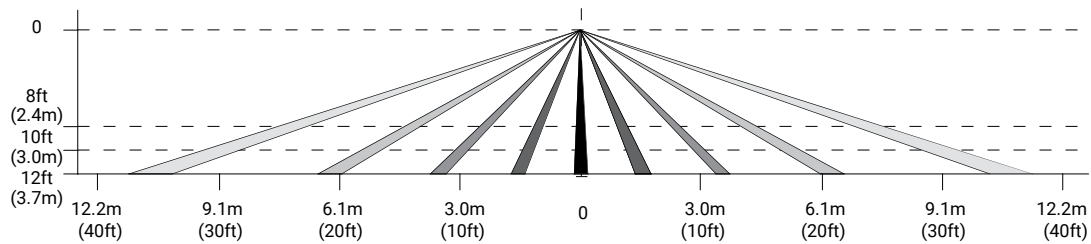OCS-C-D20 (2000 sq ft)

TOP VIEW:

Maximum coverage area may vary somewhat according to room shape and the presence of obstacles.
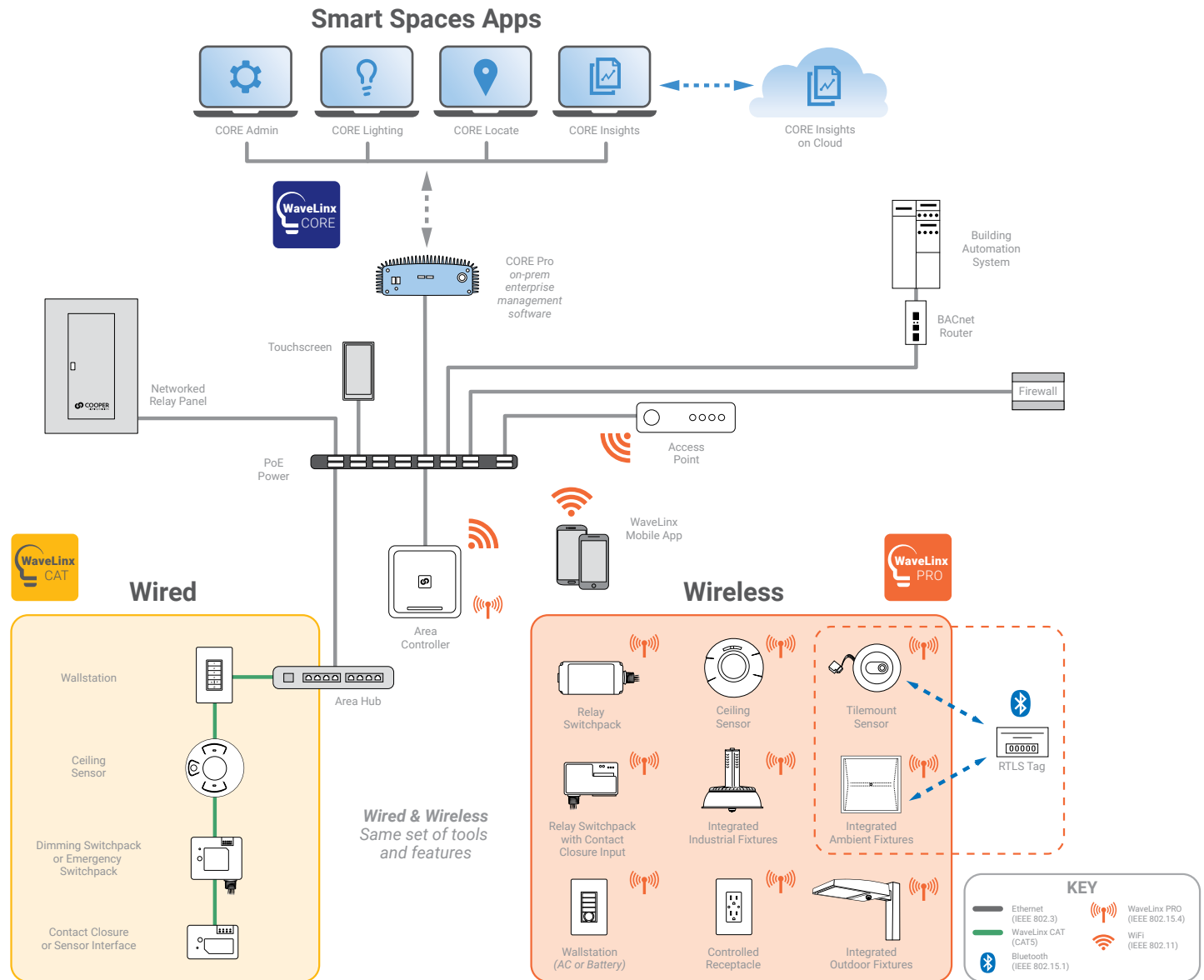
SIDE VIEW:

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**

Smart Spaces Apps

CORE Admin   CORE Lighting   CORE Locate   CORE Insights   CORE Insights on Cloud

WaveLinx CORE

CORE Pro *on-prem enterprise management software*

Building Automation System

BACnet Router

Touchscreen

Networked Relay Panel

Firewall

PoE Power

Access Point

WaveLinx Mobile App

WaveLinx CAT

Wired

Wallstation

Ceiling Sensor

Dimming Switchpack or Emergency Switchpack

Contact Closure or Sensor Interface

Area Controller

Area Hub

*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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Specifications and dimensions
subject to change without notice.

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