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

# WaveLinx

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

Ceiling mount occupancy and daylight sensor

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

### Interactive Menu

## Product Certification*

FC Part 15

RoHS COMPLIANT

- 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

## Compatibility

WaveLinx CAT

## Overview

The Occupancy Ceiling Sensor with passive infrared and photocell that automatically control lights via CAT communication bus to compatible dimming and switching devices. These sensors detect the heat from people moving within the area to determine when the space is occupied. The sensor also detects the daylight coming into the space from the windows to determine when the fixtures near the windows should be dimmed.

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

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## Order Information

**Catalog Number**

| Catalog Number | Description |
|---|---|
| OCS-C-P12 | OCS-C Occupancy Ceiling Sensor, 1200 sqft |
| OCS-C-P06 | OCS-C Occupancy Ceiling Sensor, 600 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 |
|---|---|
| GGRJ45-006-G | RJ45 cables 6 inches |
| 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:** 4" octagon junction box or 3" hole in ceiling tile
**Color:** White
**Coverage:** 600 or 1200 sq. ft. at 8' ceiling height
**Occupancy Detection Technology:** Passive Infrared (PIR)
**Lens Type:** Multi-level Fresnel 360°
**Daylight Sensing Range:** 0 to 100 lux
**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

**Environmental Regulations:**
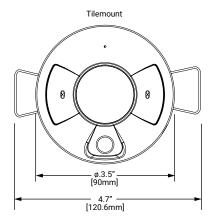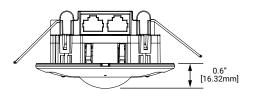
- RoHS

### Warranty

Five year warranty standard

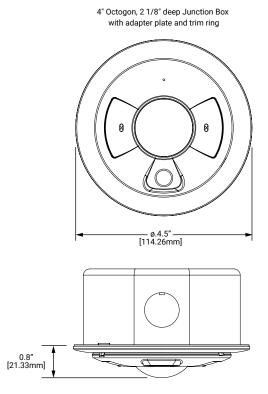Download the WaveLinx CAT Mobile Application from either the Google Play or Apple Store®

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

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## Dimensional Details

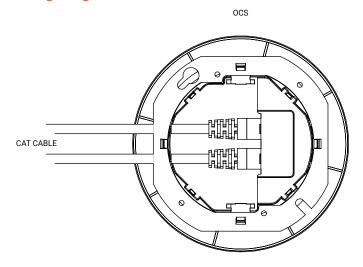**Sensor is designed to be installed into ceiling tile or onto a junction box.**

Tilemount

ø.3.5"
[90mm]
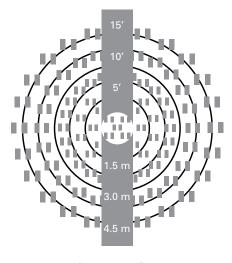
4.7"
[120.6mm]

0.6"
[16.32mm]

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

ø.4.5"
[114.26mm]

0.8"
[21.33mm]

## Wiring Diagrams

OCS

CAT CABLE
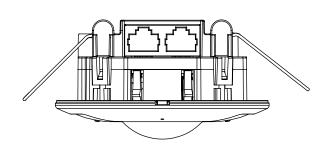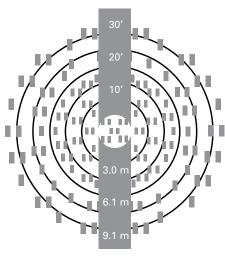
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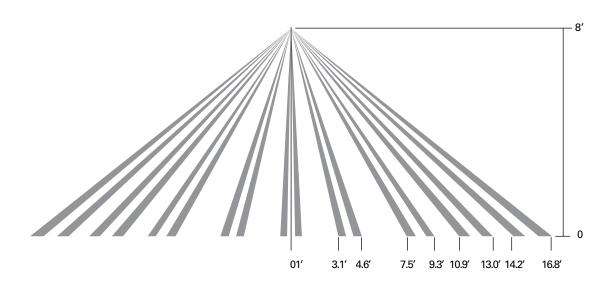
## Coverage
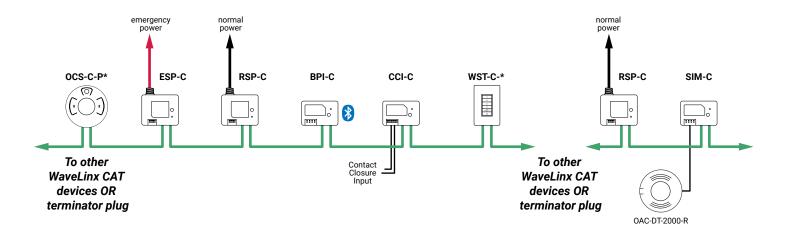
**Coverage Area
600 sq. ft.**

15′
10′
5′
1.5 m
3.0 m
4.5 m

**Coverage Area
1,200 sq. ft.**

30′
20′
10′
3.0 m
6.1 m
9.1 m

8′

0

01′   3.1′   4.6′   7.5′   9.3′   10.9′   13.0′   14.2′   16.8′

## Typical Topology

emergency power

normal power

normal power

OCS-C-P*   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

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## 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).

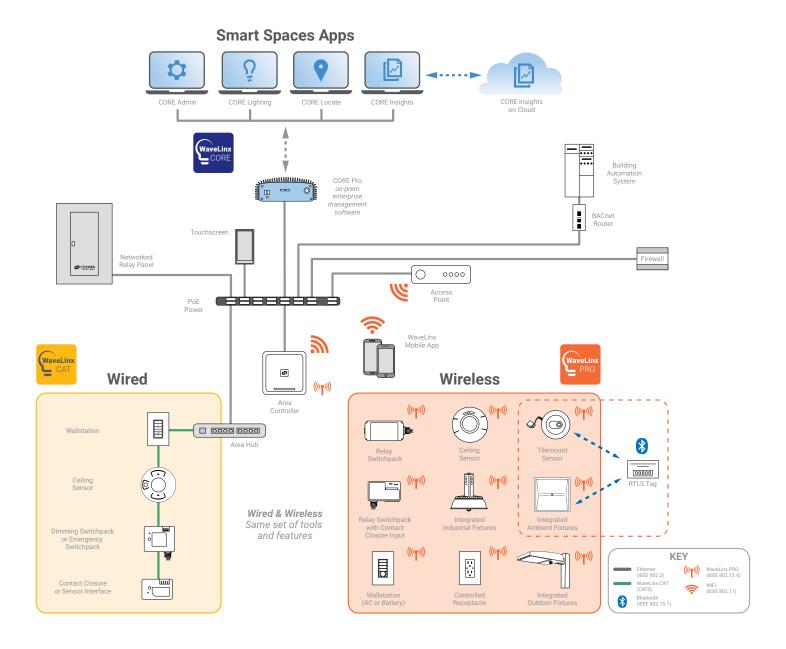WaveLinx Area Controllers (WAC) communicate with WaveLinx CORE Apps over the Ethernet network.

> **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

Area Controller

**WaveLinx CAT**

**Wired**

- Wallstation
- Ceiling Sensor
- Dimming Switchpack or Emergency Switchpack
- Contact Closure or Sensor Interface

Area Hub

*Wired & Wireless Same set of tools and features*

**WaveLinx PRO**

**Wireless**

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

> **Control Systems**
> - WaveLinx

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a *signify* business