4-pin Zhaga Book 18 socket

WaveLinx

PRO Industrial Fixture Mount High Bay/Low Bay Sensor (WPS*)

Motion and Closed Loop Daylighting including Field Installed Aisle Shield

Typical Applications
Industrial · Manufacturing

⚲ Interactive Menu

Product Certification*

UL CERTIFIED   FC Part 15/ECES-003

- 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

Compatibility

WaveLinx PRO

Overview

The PRO Industrial Fixture Mount High Bay / Low Bay Sensor offers passive infrared (PIR) occupancy and a photocell for closed loop daylighting. WaveLinx PRO industrial 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 industrial 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 Mobile application allows you to gain considerable energy savings from occupancy and daylight sensing lighting control. The WaveLinx 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 bay (up to 40ft / 45ft major motion) and Low bay (up to15ft) applications
- Out of the box functionality: Occupied to Full, Unoccupied to 10%, daylighting disabled
- 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 Mobile application
- Simple tool-less twist lock fixture connection via 4-pin Zhaga Book 18 socket
- IP66 rating for warehouse and manufacturing environments
- Energy calculations available through WaveLinx CORE

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Order Information

WaveLinx PRO Industrial Fixture Mount High Bay / Low Bay Sensors are accessories to the WaveLinx connected lighting (WCL) system and requires a WaveLinx Area Controller (WAC) for full functionality.

WaveLinx PRO Industrial Fixture Mount High Bay / Low Bay Sensors are used to provide occupancy and daylight dimming to spaces from the industrial light fixture. For energy code compliance, additional sensors may not be required.

Catalog Number

Catalog #	Description
WPS2-WH	WaveLinx PRO Industrial Fixture Mount Low Bay Sensor, White, 7 - 15ft (2.1 - 4.5m)
WPS4-WH	WaveLinx PRO Industrial Fixture Mount High Bay Sensor, White, 15 - 40ft (4.5 - 12.2m)
Notes	**Notes**
For use with industrial light fixtures equipped with the WaveLinx PRO Zhaga compliant 4-pin socket only.	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. 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 (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 3.2" (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)
  Sensor passive infrared (PIR) performance may become exceedingly sensitive below -4°F (-20°C)
  Note: WaveLinx Area Controller should be installed in an indoor conditioned envrionment, preferably with line of sight through a window to one or more WaveLinx PRO wireless devices.
- **Storage temperature:** -40°F to 158°F (-40°C to 70°C)
- Default behavior intended for indoor use only

Mounting: Fixture mount
Mounting Height: High bay up to 40ft (12m) and Low bay up to15ft (5m)
Color: White
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
- Use configurable lens mask for desired directionality

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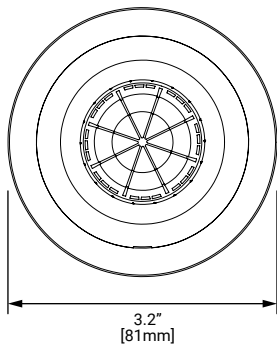
Standards/Ratings*
- cULus Listed - Energy Management Equipment (UL916)
- FCC Part 15/ECES-003
- Meets latest ASHRAE Standard 90.1 requirements
- Meets latest IECC requirements
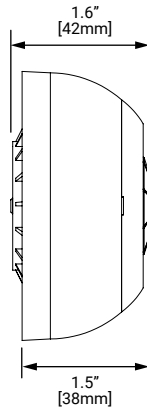- Meets latest CEC Title 24 requirements

Warranty
Five year warranty standard

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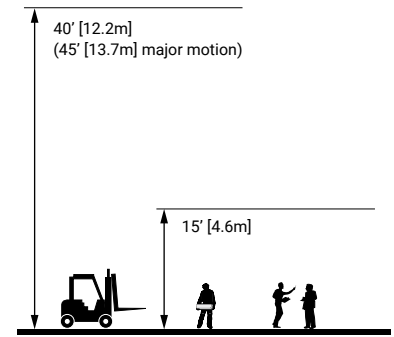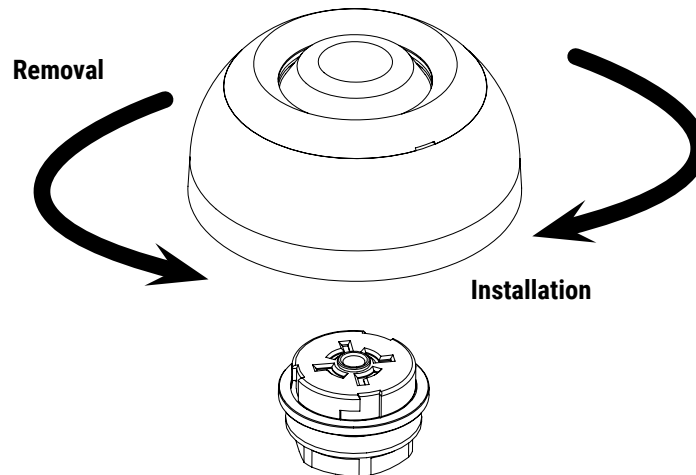
Dimensional Details

1.6"
[42mm]

3.2"
[81mm]

TOP

1.5"
[38mm]

SIDE

Mounting Height

40' [12.2m]
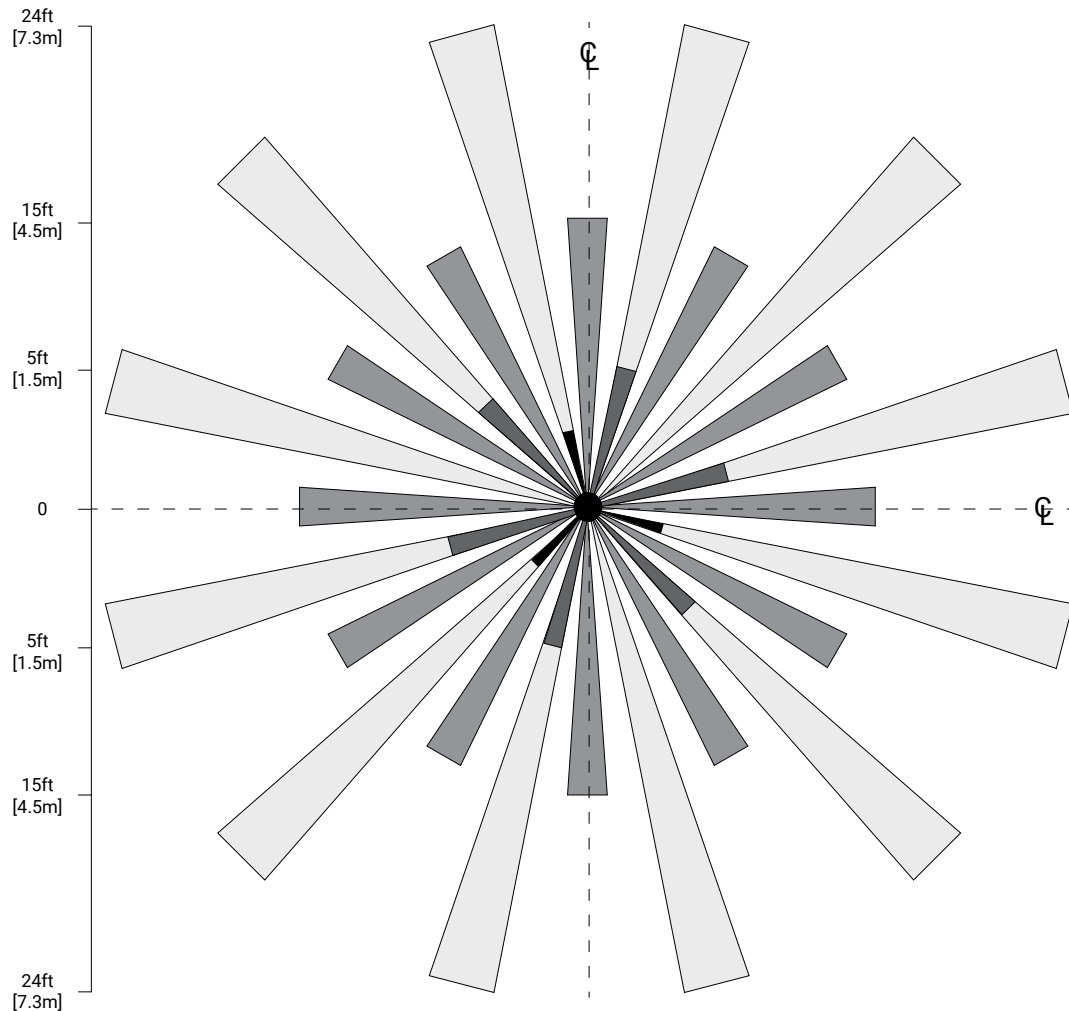(45' [13.7m] major motion)

15' [4.6m]

Installation

Both the WPS2 and WPS4 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.
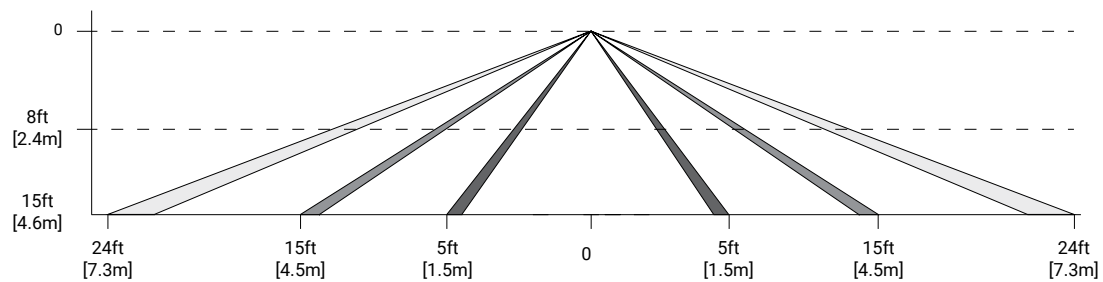
Removal

Installation

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Field of View - Low Bay

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:

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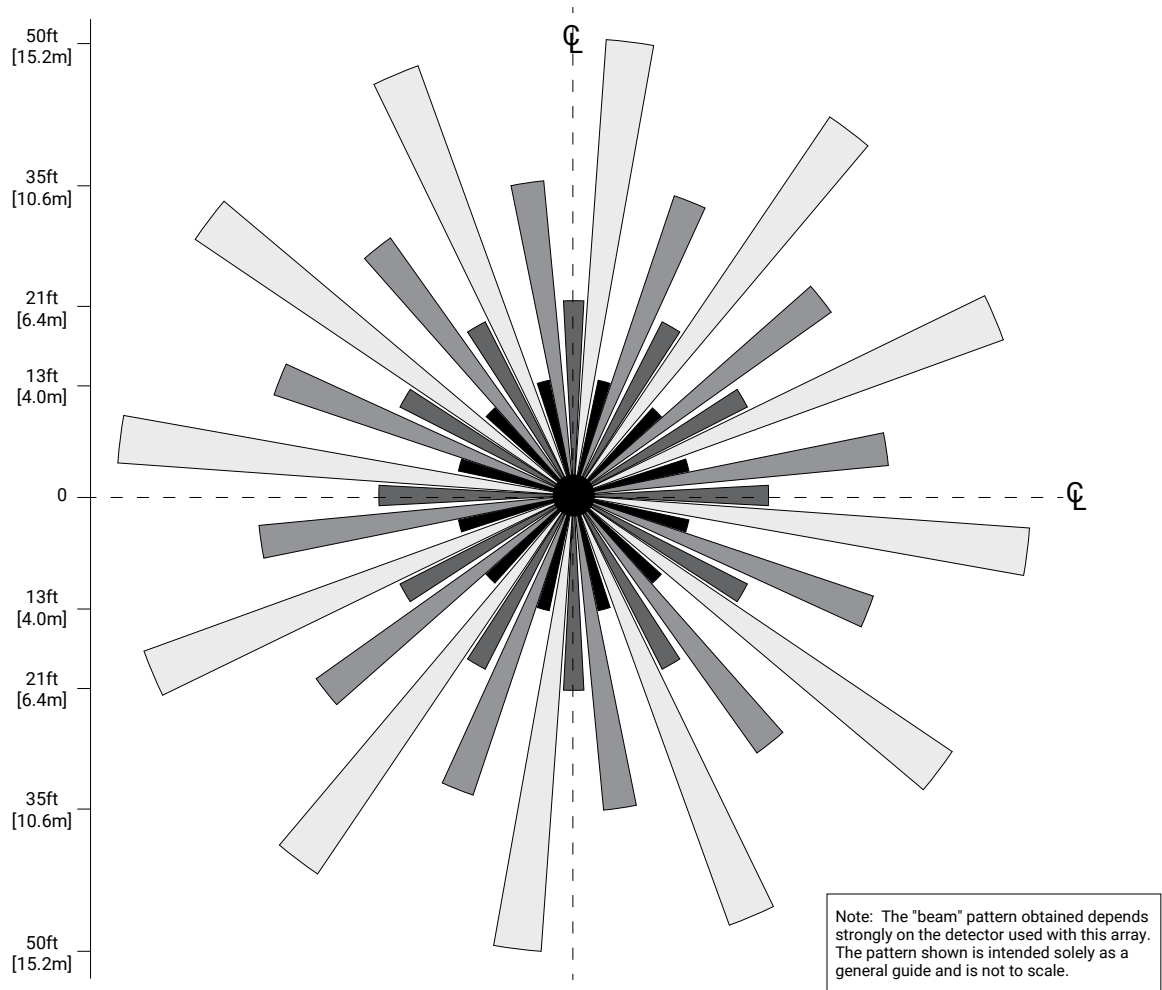
Field of View - High Bay

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.
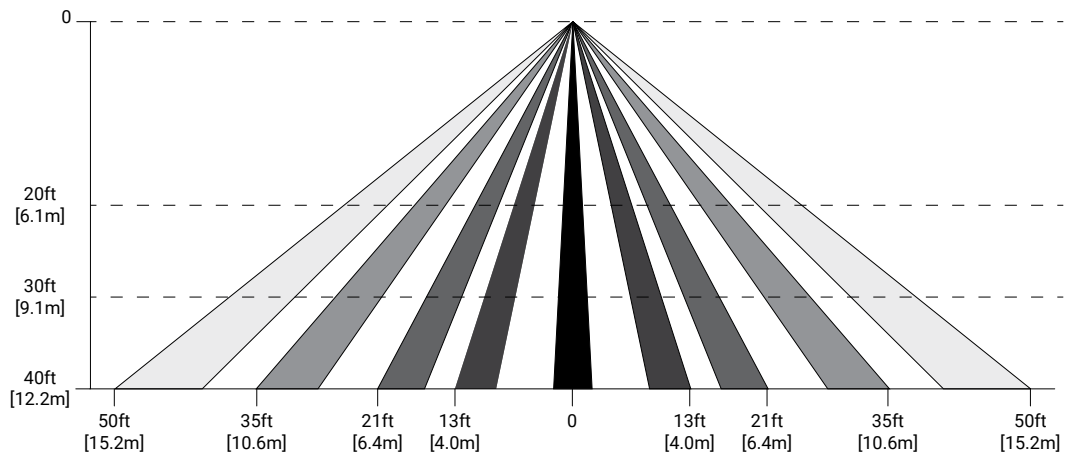
SIDE VIEW:

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.
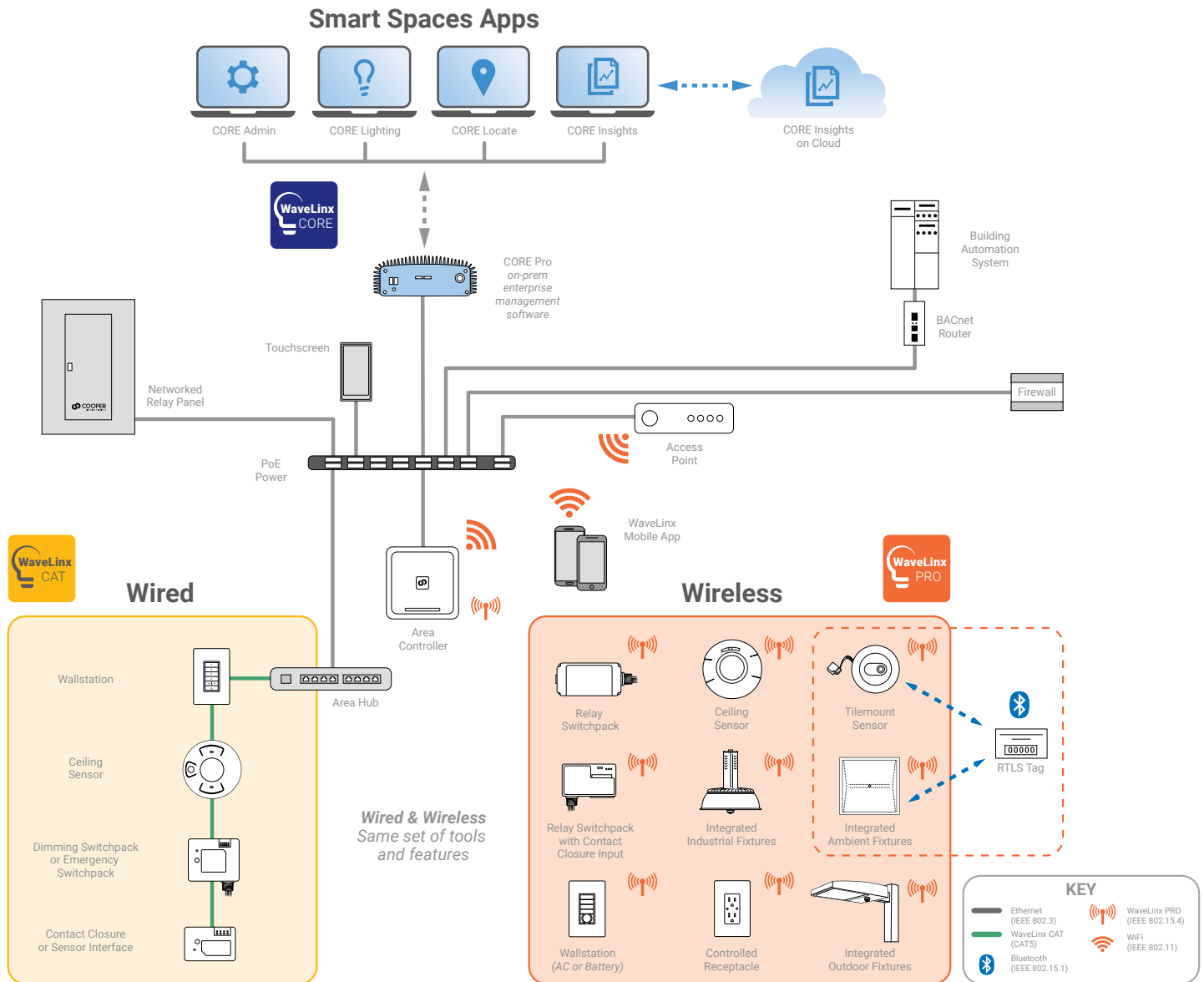
System Diagram:

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

Firewall

Networked Relay Panel

PoE Power

Access Point

WaveLinx Mobile App

WaveLinx CAT

Wired

Area Controller

Wallstation

Ceiling Sensor

Dimming Switchpack or Emergency Switchpack

Contact Closure or Sensor Interface

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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