

Project		Catalog #		Type	
Prepared by		Notes		Date	



WaveLinX

LITE Dual Technology Ceiling Sensor (OCS-L-D-*)

Ceiling mount occupancy and daylight sensor

Typical Applications

Office • Education • Healthcare • Hospitality • Retail

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- 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



Compatibility



Overview

The LITE Dual Technology Ceiling Sensor with passive infrared (PIR), acoustics, and photocell that automatically control lights via bluetooth communication 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.

Acoustics detection provides the secondary means of occupancy detection. The secondary technology is acoustics, which provides the capability to passively detect occupancy without direct line of sight to the occupant. The secondary technology is used to detect occupancy, keeping the lights on when they are already triggered by the PIR detection.

Product Features & Benefits

- **PIR and Acoustics sensing** – Dual tech sensor utilizing PIR sensing for activation and acoustics for sustaining 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 LITE mobile app

product diagrams

Order Information

SAMPLE ORDER NUMBER: **OCS-L-D-06-MV**

The Dual Technology Ceiling Sensor is an accessory to the WaveLinx LITE system which may be used with out-of-the-box functionality or commissioned via the WaveLinx LITE mobile application. The Acoustic Ceiling Sensor is typically used to provide occupancy sensing and daylight dimming for luminaries that cannot include integrated occupancy and daylight sensors.

WaveLinx LITE devices are not currently compatible with the WaveLinx Area Controller.

Catalog Number

Sensor Type	Technology	Occupancy Detection Technology	Coverage	Voltage
OCS = Occupancy Ceiling Sensor	L = WaveLinx LITE	D = PIR and Acoustic Dual Technology Sensor	06 = 600 sqft 12 = 1200 sqft 20 = 2000 sqft	[Blank] = 24VDC MV = 120V/277V rated

Optional Accessories

Catalog Number

Catalog Number	Ratings	(LED) Ballast	General Purpose (Plug Load)	Motor (HP)	Output
RSP-V-SW	120/277VAC, 50/60 Hz	16A	20A	1HP-120V, 2HP-250V	24 VDC, 150mA

If the out-of-the-box behavior of the WaveLinx LITE Sensor does not satisfy project requirements, download and register the WaveLinx LITE mobile application from either the Google Play or Apple Store®. This mobile application can be used to form a lighting network - creating control zones, occupancy sets, setting occupancy or vacancy modes of operation, configuring daylighting, etc.

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 a 24VDC power supply (low-voltage models only)

Mechanical

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

Color: White

Coverage: 600, 1200 or 2000 sq. ft.

Occupancy Detection Technology: Passive Infrared (PIR) and acoustics

Mounting Height: 8-12 ft (2.4384 to 3.6576m)

Lens Type: Multi-level Fresnel 360°

Daylight Sensing Range: 0 to 1000 lux

Daylight Sensing Coverage: Light input within 60° cone

Installation:

- 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

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

Network Operation:

Pair in the WaveLinx LITE mobile app with any WaveLinx LITE device

Compatible Network LITE devices:

- WLS Sensor, WAB Sensor, WLN Node, ESP-L-010-347, RSP-L-010-347, WWLX wallstations, WTK, WOF/WOB/WLS2/WLS4 sensor

Electrical

Status Indicator: LED

Input Voltage (Low Voltage): 12-24VDC, Tolerant to 26.4VDC Max

Wiring: Power Wires 18AWG, signal 22AWG

- 6 Flying leads
- BAS output for use with switchpack with Form C relay when used with RSP-V-SW
- 10mA draw

Input Voltage (Line Voltage): 120V/277V

Output Rating (Line Voltage):

- 5A General Use
- 5A Standard Ballast
- 3A Electronic Ballast
- 5A Resistive Ballast

Network connection:

- Bluetooth capable device

Control Specification:

- Communication Interface: Bluetooth
- Over the air (OTA) firmware upgrade capable

Standards/Ratings*

- Class 2 Input
- cULus Listed
- UL Listed
- FCC Part 15, Part B and Part C
- 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

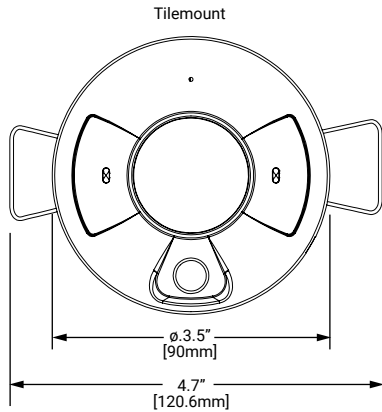
Five year warranty standard



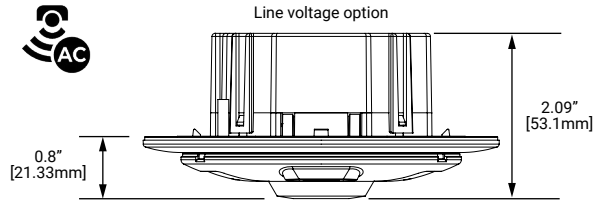
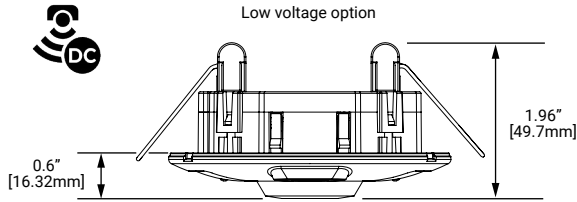
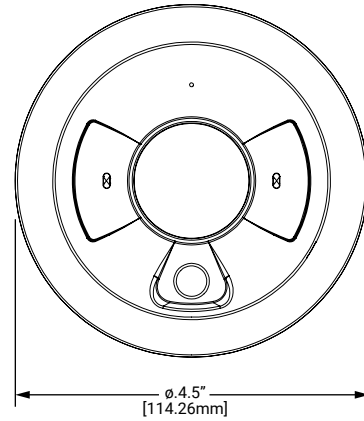
Download the WaveLinx LITE Mobile App from either the Google Play or Apple Store®

Dimensional Details

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

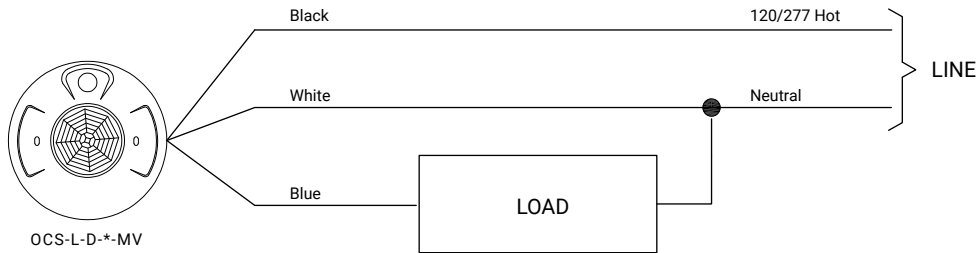


4" Octagon, 2 1/8" deep Junction Box with adapter plate and trim ring

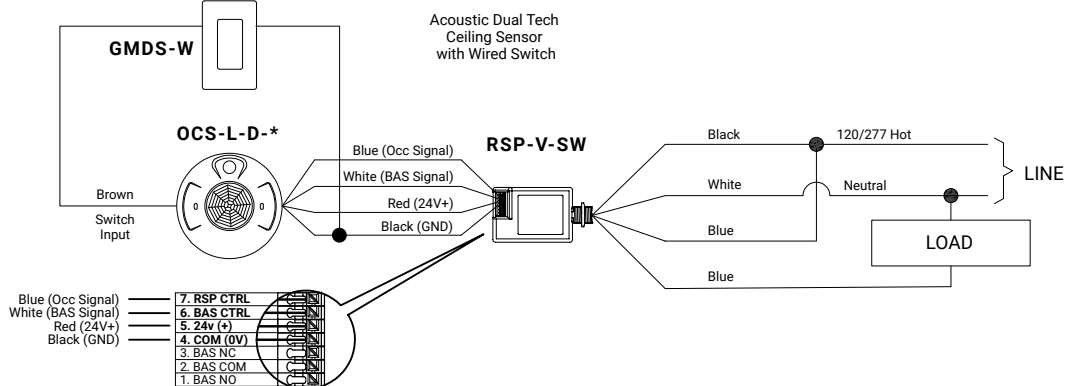


Wiring Diagrams

Line Voltage



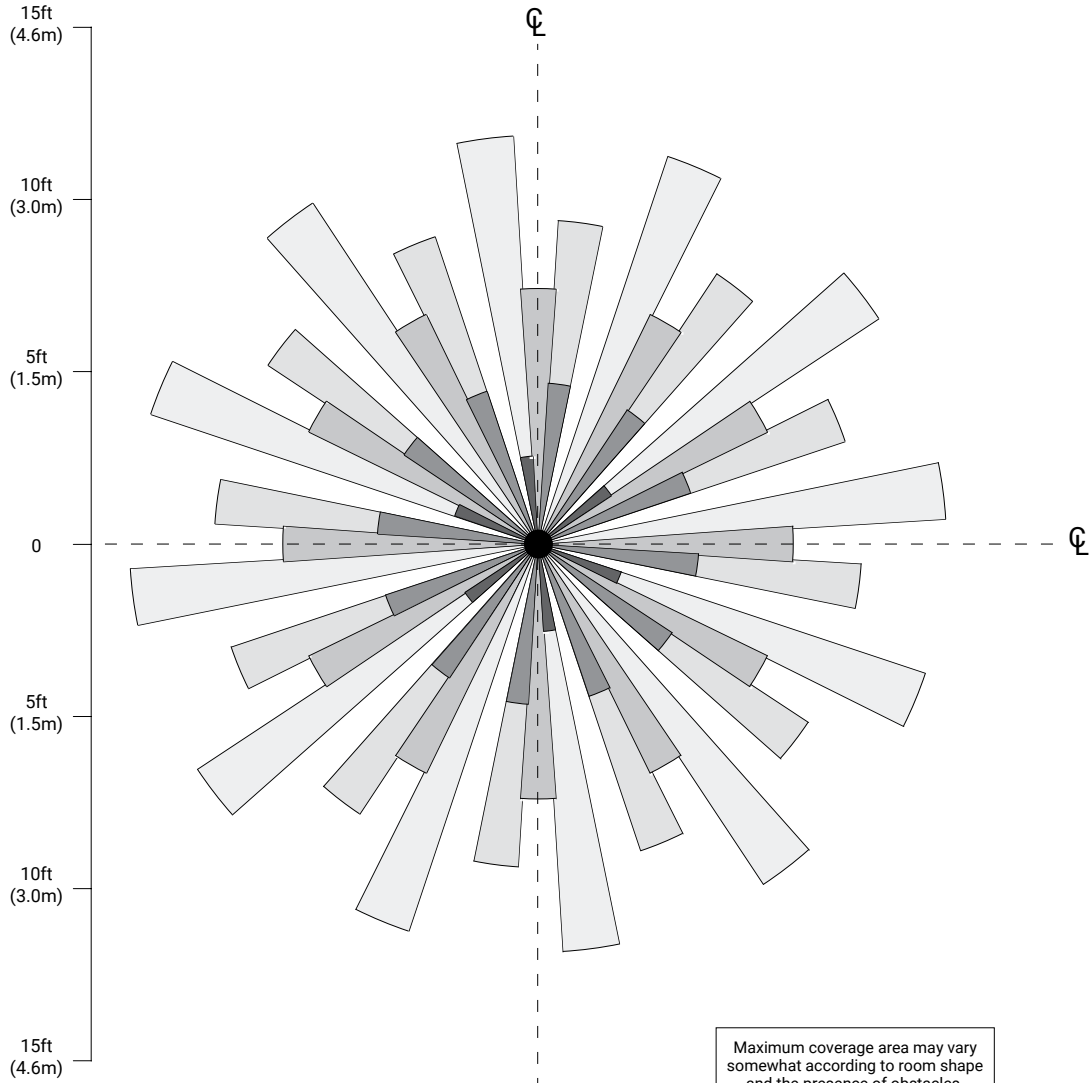
Low-Voltage



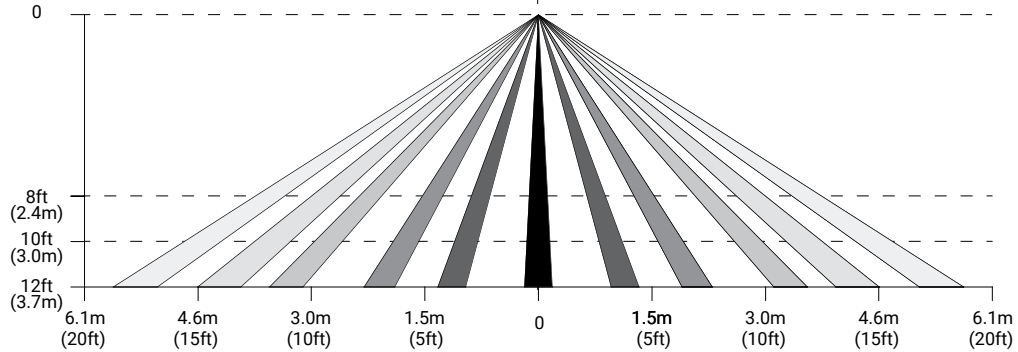
Coverage

OCS-L-D-06-MV and OCS-L-D-06 (600 sq ft)

TOP VIEW:



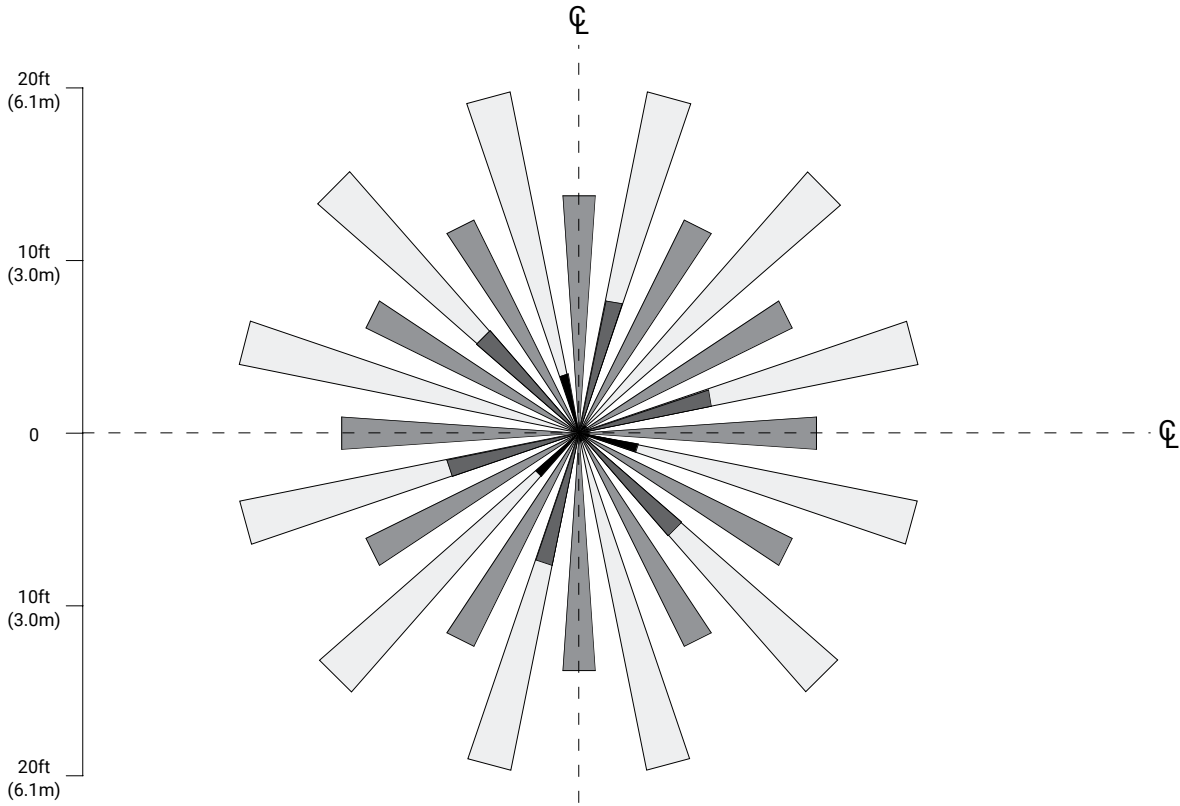
SIDE VIEW:



Coverage

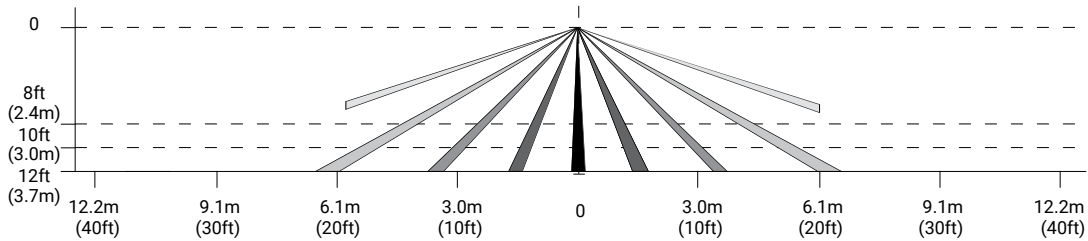
OCS-L-D-12-MV and OCS-L-D-12 (1200 sq ft)

TOP VIEW:



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

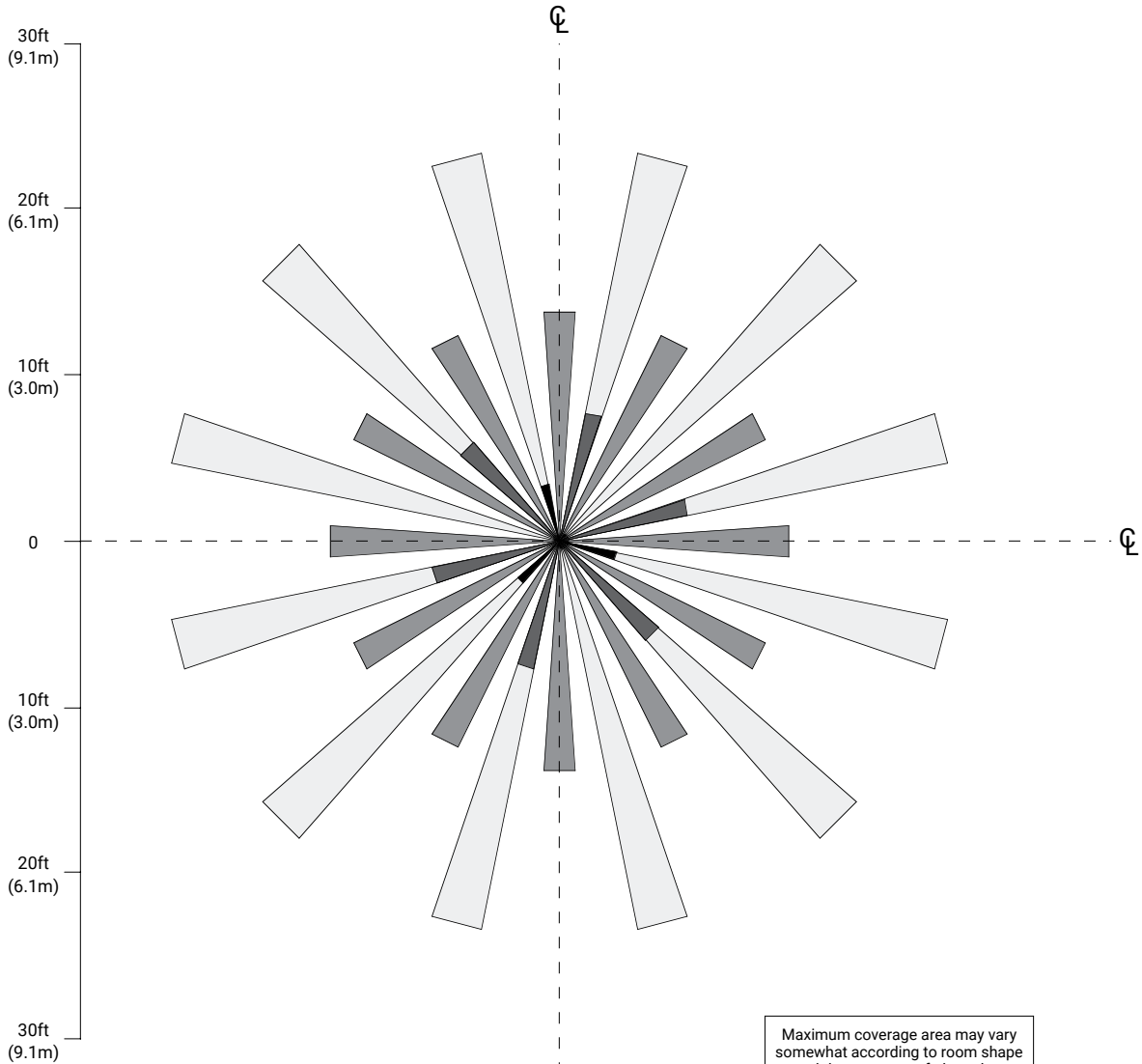
SIDE VIEW:



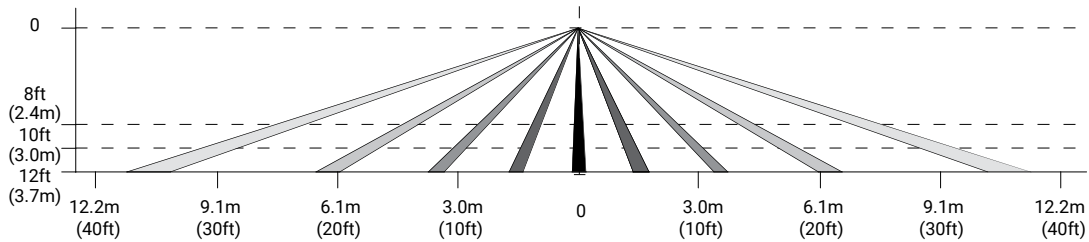
Coverage

OCS-L-D-20-MV and OCS-L-D-20 (2000 sq ft)

TOP VIEW:

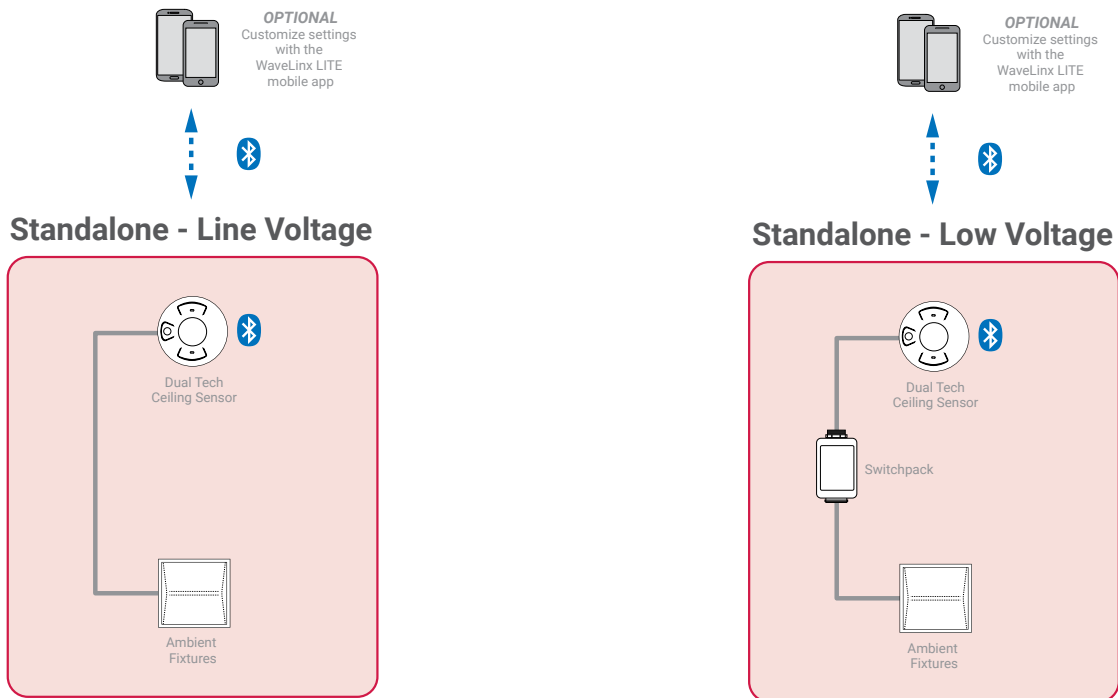


SIDE VIEW:

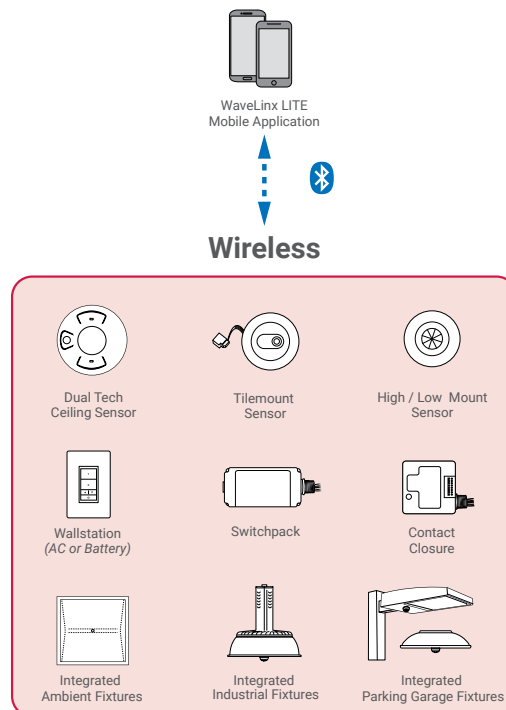


System Diagram:

The OCS-L-D-* is a plug-and-play indoor occupancy motion detector sensor, designed to automate your space lighting without requiring on-site programming. Simply install the sensor, connect it to a fixture for ON/OFF control, or to a switchpack to add dimming, and enjoy instant, energy-efficient lighting control. While the sensor comes pre-programmed for immediate use, it can be further customized with our easy-to-use app, allowing you to tailor sensor behavior to specific needs and optimize energy efficiency.



When used in combination of WaveLinx LITE devices, the sensor communicate via Bluetooth to other LITE devices as shown in the diagram below. The WaveLinx LITE devices use standardized IEEE 802.15.1 (Bluetooth® 4.2 Low Energy) mesh technology for device to device communications without the requirement of a gateway. The WaveLinx LITE enabled luminaires provide out-of-the-box functionality for independent operation when energized. With the use of the WaveLinx LITE mobile application with MyApps secure cloud portal access, groups of independent luminaires may be created and maintained with areas, control zones, and occupancy sets. WaveLinx LITE devices are not currently compatible with the WaveLinx Area Controller.



Control Systems

- WaveLinx