Project		Catalog #		Type	
Prepared by		Notes		Date	

White, Bronze and Black colors available

4-pin Zhaga Book 18 socket
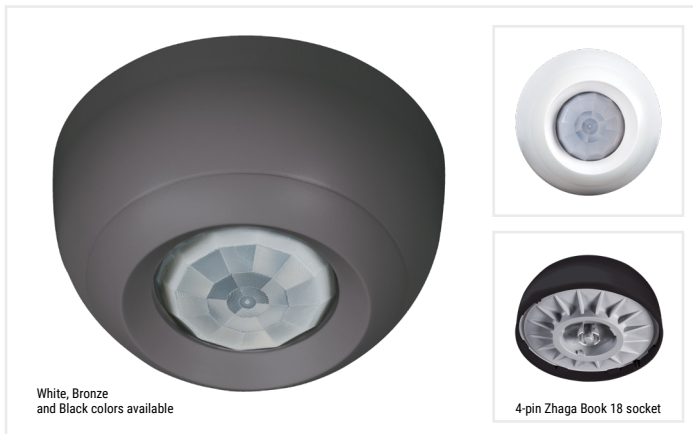
WaveLinx

LITE Outdoor Fixture High / Low Mount Sensor (WLS2* / WLS4-*)

Motion and closed loop daylighting including field installed shield

Typical Applications

Outdoor • Parking areas • Parking garages • Pathways

Interactive Menu

Product Certification*

FC Part 15 / Subpart B&C

RoHS COMPLIANT

Bluetooth®

- Meets latest ASHRAE Standard 90.1 requirements
- Meets latest IECC requirements
- Meets latest CEC Title 24 requirements
- NEMA WD-7 and NEMA 4 compliant

Product Features

LITE Mobile App

IEEE 802.15.1

Device Security

Customer Security

Daylighting Control

Occupancy Sensor

Outdoor Control

Compatibility

WaveLinx LITE

Overview

The outdoor (high and low mounted) sensors are an integral part of the WaveLinx LITE system and offer passive infrared (PIR) occupancy and a photocell for closed loop daylight sensing. WaveLinx outdoor 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 the WaveLinx LITE system, the sensor operates on a wireless mesh network based on IEEE 802.15.1 (Bluetooth® 4.2 Low Energy) standards.

The sensors offer simple tool-less integration into WaveLinx outdoor 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 LITE mobile application allows you to gain considerable energy savings from occupancy and daylight sensing lighting control. The WaveLinx LITE 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

- Perfect for parking garage / deck applications
- Models suitable for High (up to 40ft / 45ft major motion) and Low (up to 15ft) applications
- Out of the box functionality (on at dusk, off at dawn, occupied to 100%, unoccupied to 50%)
- Passive Infra-Red (PIR) motion sensor with coverage up to 5000 square feet
- Integrated photocell for closed loop daylight harvesting
- Software configurable networks up to 50 devices with the WaveLinx LITE mobile application
- Simple tool-less twist lock fixture connection via 4-pin Zhaga Book 18 socket
- IP66 rating for outdoor site and indoor environments

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

COOPER Lighting Solutions

a Signify business

Order Information

WaveLinx LITE Outdoor Fixture Mount Sensors are accessories to the WaveLinx LITE (WLC) system which may be used with out-of-the-box functionality or commissioned via the WaveLinx LITE mobile application.

WaveLinx LITE Outdoor Fixture Mount Sensors are used to provide occupancy and daylight dimming to spaces from the outdoor light fixture.

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

Catalog Number

Catalog #	Description
WLS2WH	WaveLinx LITE Outdoor Fixture - Low Mount Sensor, White, 7 - 15ft (2.1 - 4.5m)
WLS2BZ	WaveLinx LITE Outdoor Fixture - Low Mount Sensor, Bronze, 7 - 15ft (2.1 - 4.5m)
WLS2BK	WaveLinx LITE Outdoor Fixture - Low Mount Sensor, Black, 7 - 15ft (2.1 - 4.5m)
WLS4WH	WaveLinx LITE Outdoor Fixture - High Mount Sensor, White, 15 - 40ft (4.5 - 12.2m)
WLS4BZ	WaveLinx LITE Outdoor Fixture - High Mount Sensor, Bronze, 15 - 40ft (4.5 - 12.2m)
WLS4BK	WaveLinx LITE Outdoor Fixture - High Mount Sensor, Black, 15 - 40ft (4.5 - 12.2m)
Notes For use with outdoor light fixtures equipped with the WaveLinx Zhaga compliant 4-pin socket only.	**Notes** When used as a component in the WaveLinx LITE system, design best practices (including the number of devices, installation locations, device to device spacing, etc. must strictly adhered. 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.

Optional Accessories

If the out-of-the-box behavior of the WaveLinx LITE Outdoor 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 local mesh lighting network - creating control zones, occupancy sets, setting occupancy or vacancy modes of operation, configuring daylighting, etc.

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)
  Note: Sensor passive infrared (PIR) performance may become exceedingly sensitive below -4°F (-20°C)
- **Storage temperature:** -13°F to 185°F (-25°C to 85°C)
- **Relative humidity operating:** 0% to 95% non-condensing
- Default behavior intended for outdoor use only

Mounting: Fixture mount
Mounting Height: High bay up to 40ft (12m) and Low bay up to 15ft (5m)
Color: White, Bronze and Black colors available
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

Electrical
Input Requirements: Fixture connection via 4-pin Zhaga Book 18 socket

Software Specifications
- Any number of sensors can be mapped to a zone (up to 16 zones per network)
- Mobile app configuration for Occupancy/Vacancy
- Remote Hold Time settings fully configurable via mobile app
- Mobile app configuration of Occupied and Unoccupied light levels
- High end trim / task tuning adjustable through software
- Daylight calibration through software
- Secure firmware upgrade OTA from mobile application

Wireless Specifications
Radio: 2.4GHz
Standard: IEEE 802.15.1 - Bluetooth® 4.2 Low Energy (BLE)
Transmitter Power: +14dBm
Range: Device to device; 100ft (30m) LOS (best practice)

System Performance
Maximum number of nodes supported: Up to 50 devices per commissioned network (best practice 40 devices)

Standards/Ratings*
- cULus Listed - Energy Management Equipment (UL916)
- FCC Part 15, Subpart B & C
- Meets latest ASHRAE Standard 90.1 requirements
- Meets latest IECC requirements
- Meets latest CEC Title 24 requirements
- NEMA WD-7 and NEMA 4 compliant
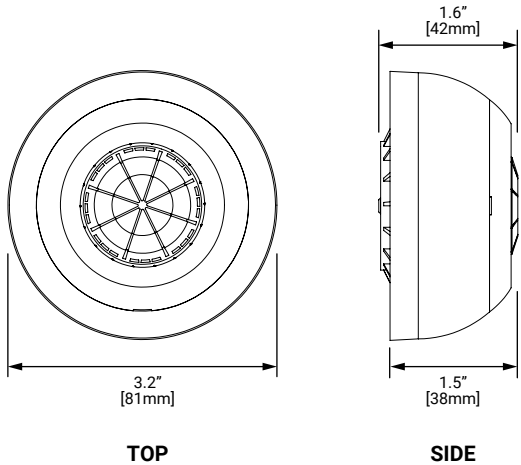- CA Title 20 and Prop 65 compliant
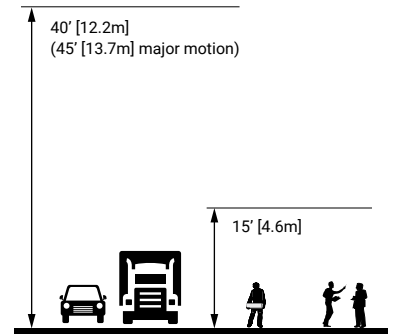- RoHS

Warranty
Five year warranty standard

Download the WaveLinx LITE 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.

PS50354824 **page 2**
January 2025

Dimensional Details

1.6"
[42mm]

3.2"
[81mm]

TOP

1.5"
[38mm]

SIDE

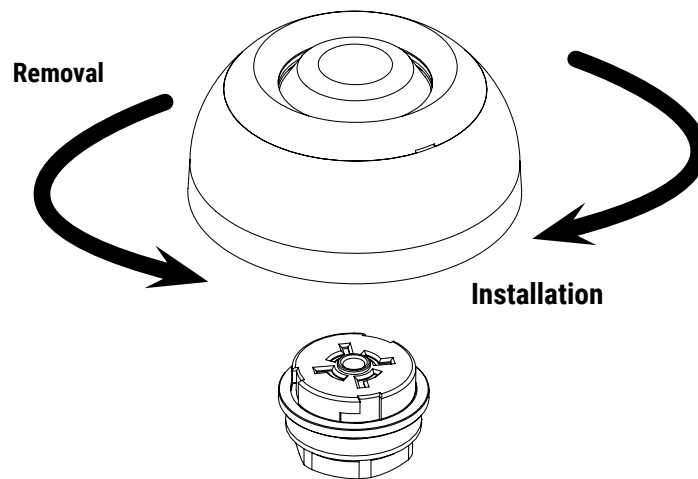## Mounting Height

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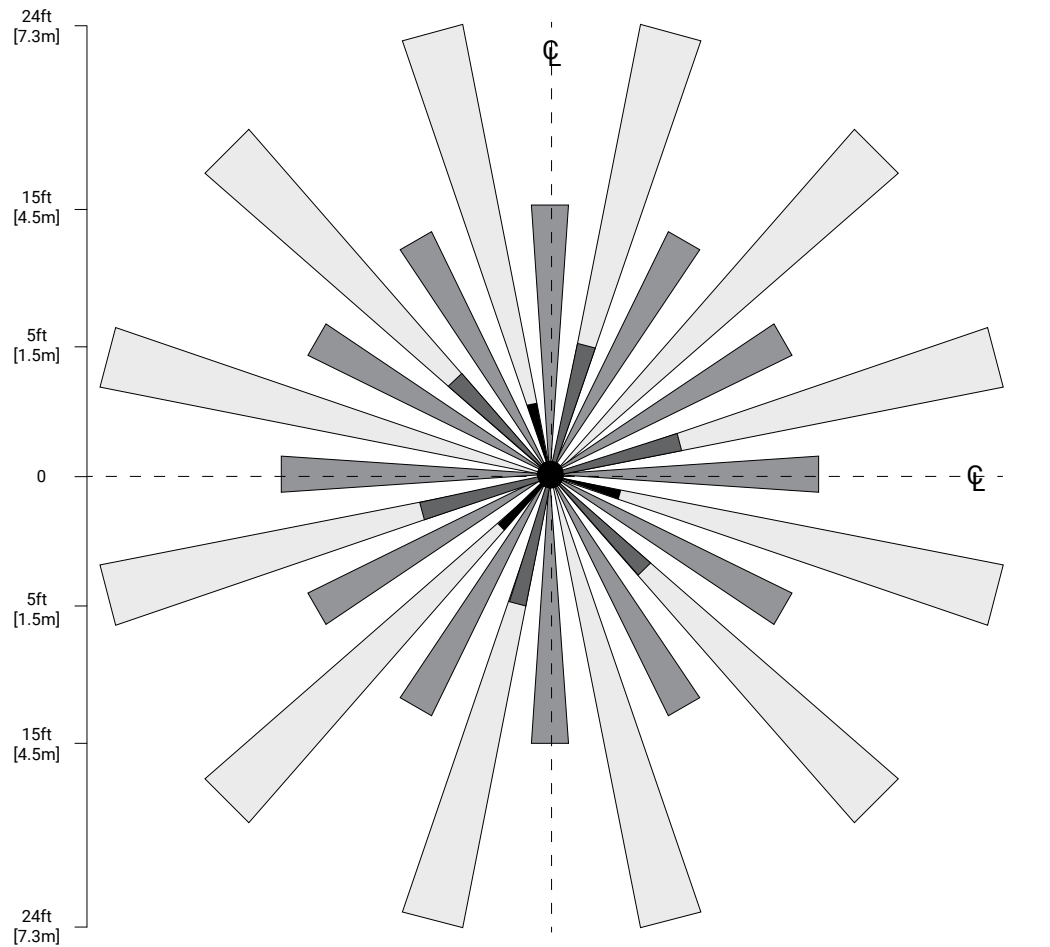(45' [13.7m] major motion)

15' [4.6m]

Installation

Both the WLS2 and WLS4 easily install into WaveLinx-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.
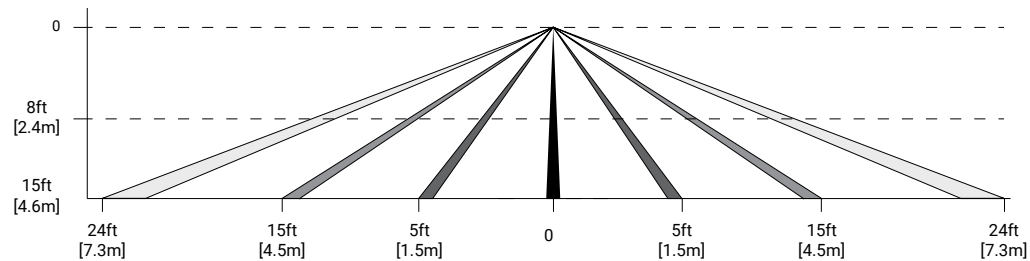
Removal

Installation

Field of View - Low Mount

TOP VIEW:

24ft
[7.3m]

15ft
[4.5m]

5ft
[1.5m]

0

5ft
[1.5m]

15ft
[4.5m]

24ft
[7.3m]

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:

0

8ft
[2.4m]

15ft
[4.6m]

| 24ft [7.3m] | 15ft [4.5m] | 5ft [1.5m] | 0 | 5ft [1.5m] | 15ft [4.5m] | 24ft [7.3m] |

COOPER
Lighting Solutions
a (S)ignify business
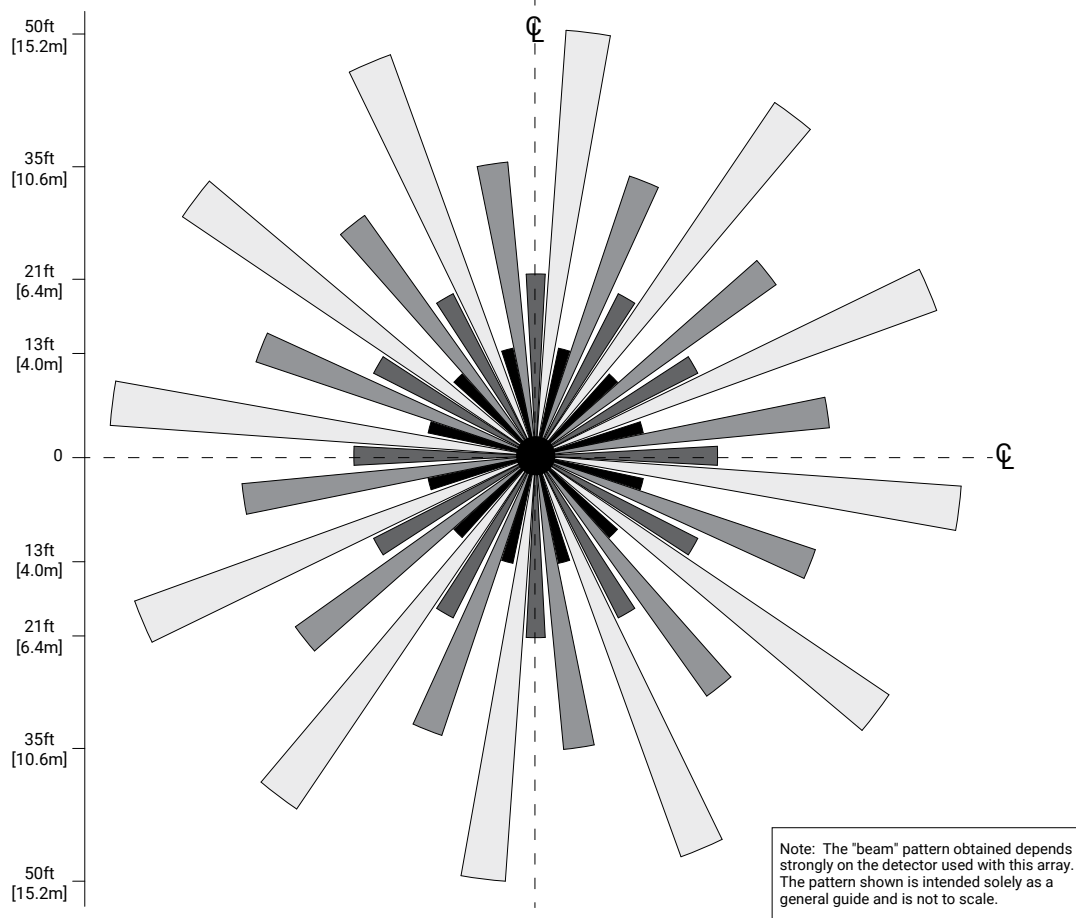
Field of View - High Mount

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.
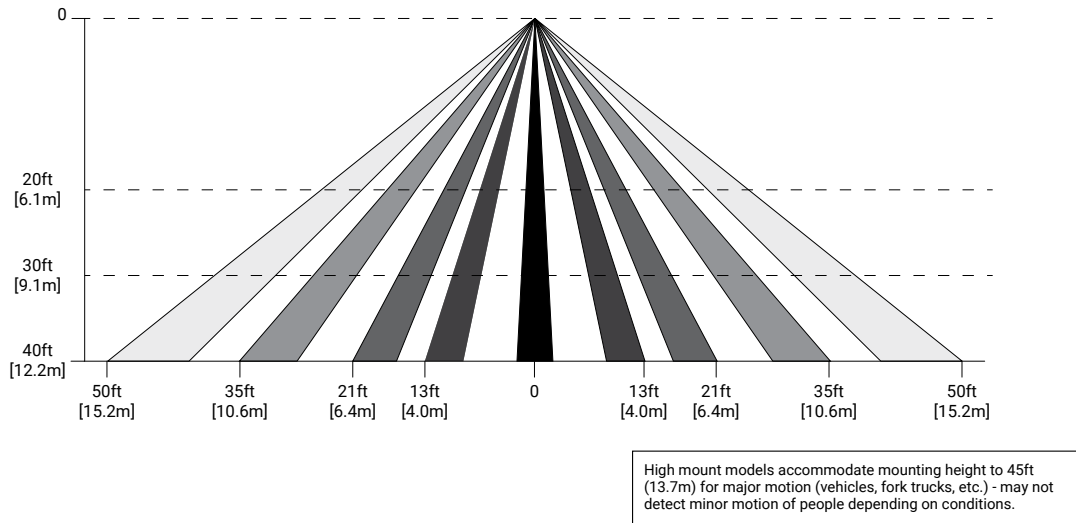
SIDE VIEW:

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.

Note: False motion detection can occur when objects of contrasting temperature with the surrounding environment move within the sensor field of view. Wind blowing leaves, branches, or other objects can trigger the motion sensor. It is recommended that the sensor be mounted away from these objects.

Note: Air movement at temperature contrasting with the environment may cause false motion detection. For that reason, it is recommended that the sensor be mounted 3-4ft away from air vents, when possible.

System Diagram:

This diagram shows the the main components and topology of the WaveLinx system with LITE devices. 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 Mobile App

WaveLinx LITE

Wireless

Dual Tech Ceiling Sensor

Tilemount Sensor

High / Low Mount Sensor

Wallstation (AC or Battery)

Switchpack

Integrated Ambient Fixtures

Integrated Industrial Fixtures

Integrated Parking Garage Fixtures

🚀 Control Systems

• WaveLinx