

Project		Catalog #		Type	
Prepared by		Notes		Date	



WaveLinx

LITE Industrial Fixture Mount High Bay / Low Bay Sensor (WIK-WH / WIM-WH)

Motion and closed loop daylighting
including field installed shield

Typical Applications
Industrial • Manufacturing

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- 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



Compatibility



Overview

The industrial high bay and low bay sensors are an integral part of the WaveLinx LITE system and offer passive infrared (PIR) occupancy and a photocell for closed loop daylighting. WaveLinx 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 the WaveLinx LITE system, the sensor operates on a wireless mesh network based on IEEE 802.15.1 standards.

The sensors offer simple tool-less integration into WaveLinx 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 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

- Models suitable for High bay (up to 40ft / 45ft major motion) and Low bay (up to 15ft) 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 in networks of 40 devices with WaveLinx LITE mobile application
- Simple tool-less twist lock fixture connection via 4-pin Zhaga Book 18 socket
- IP66 rating for warehouse and manufacturing environments
- WaveLinx LITE is DLC Listed for interior applications - meeting the NLC5 Technical Requirements

Order Information

WaveLinX LITE Industrial Fixture Mount High Bay / Low Bay Sensors are accessories to the WaveLinX LITE system which may be used with out-of-the-box functionality or commissioned via the WaveLinX LITE mobile application.

WaveLinX LITE 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.

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

Catalog Number

Catalog #	Description
WIK-WH	WaveLinX LITE Industrial Fixture Mount Low Bay Sensor, White, 7 - 15ft (2.1 - 4.5m)
WIM-WH	WaveLinX LITE 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 Zhaga compliant 4-pin socket only.	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 Industrial 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

- Models suitable for High bay (up to 40ft / 45ft major motion) and Low bay (up to 15ft) applications
- Out of the box functionality: Occupied to Full, Unoccupied to 10%, daylighting disabled (accurate daylighting requires calibration)
- 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 LITE mobile application
- Simple tool-less twist lock fixture connection via 4-pin Zhaga Book 18 socket
- IP66 rating for warehouse and manufacturing environments

Mechanical

Size: Base Diameter 3.2" (82mm) Height: 1.6" (41mm)

Weight: 0.20 lbs (0.10 kg)

Environment:

- **Operating temperature:** -40°F to 185°F (-40°C to 85°C)
Sensor passive infrared (PIR) performance may become exceedingly sensitive below -4°F (-20°C)
- **Storage temperature:** -40°F to 185°F (-40°C to 85°C)
- **Relative humidity operating:** 5% to 95% non-condensing
- Default behavior intended for indoor use only

Mounting: Fixture mount

Mounting Height: High bay up to 40ft (12m) and Low bay up to 15ft (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

Wireless Specifications

Radio: 2.4GHz

Standard: IEEE 802.15.1 - Bluetooth® 4.2 Low Energy (BLE)

Transmitter Power: +0dBm and +16dBm

Range: Sensor to sensor; 100ft (30m) LOS (best practice)

System Performance

Maximum number of nodes supported: Best practice of 40 devices, maximum of 50 devices per commissioned network

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
- WaveLinX LITE is DLC Listed for interior applications - meeting the NLC5 Technical Requirements

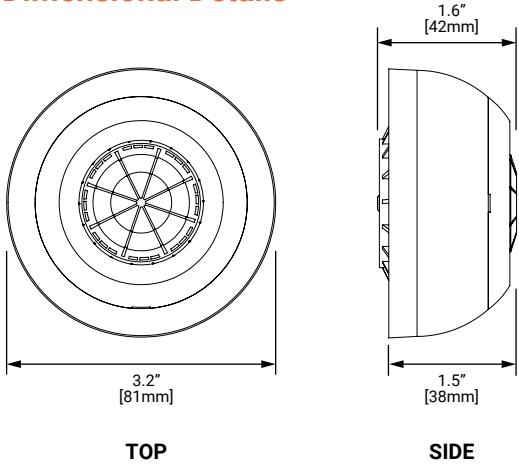
Warranty

Five year warranty standard

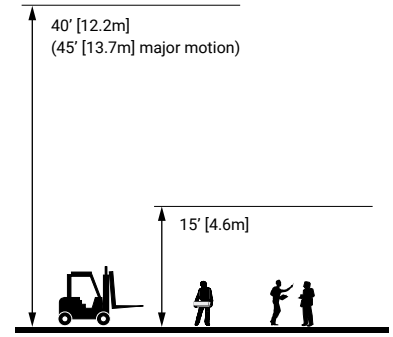


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Dimensional Details

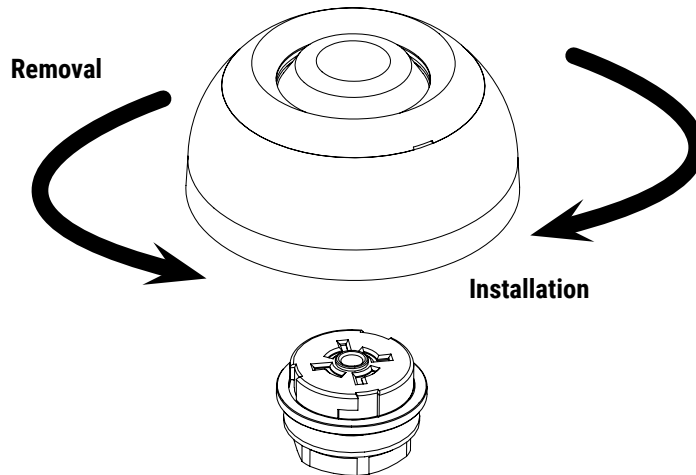


Mounting Height



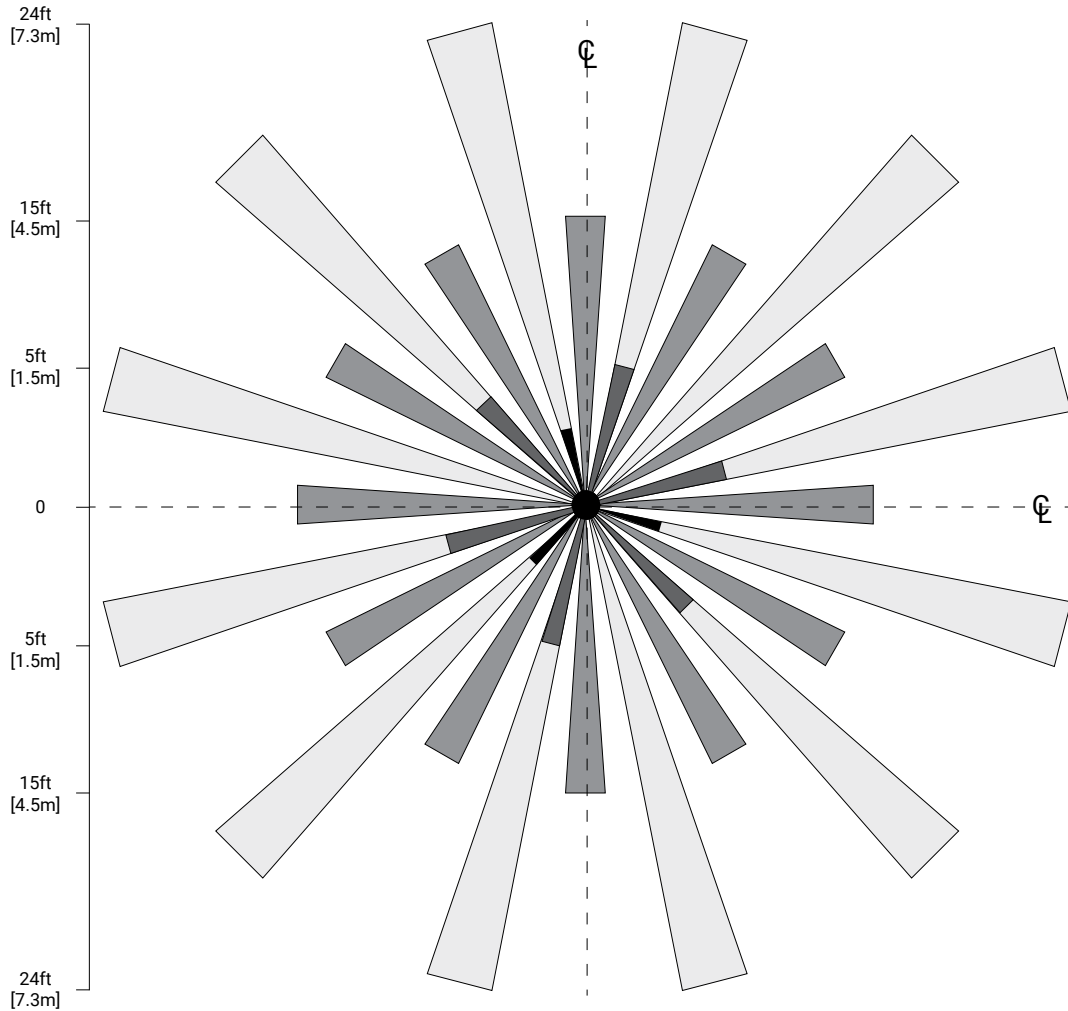
Installation

Both the WIK and WIM 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.



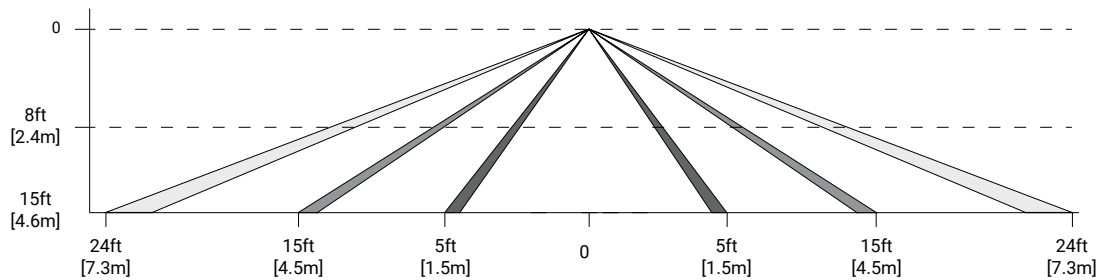
Field of View - Low Bay

TOP VIEW:



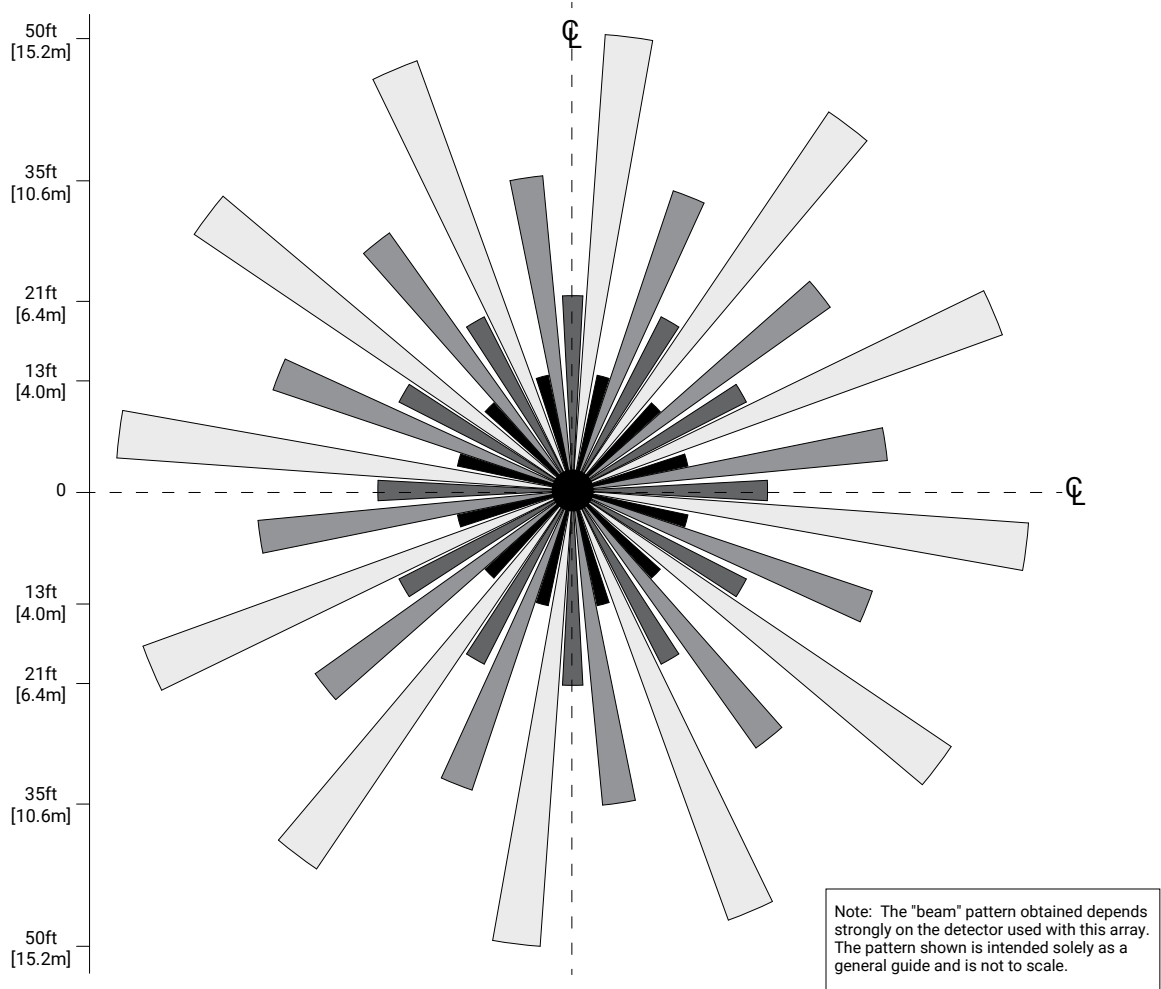
Note: The "beam" pattern obtained depends strongly on the detector used with this array. The pattern shown is intended solely as a general guide and is not to scale.

SIDE VIEW:

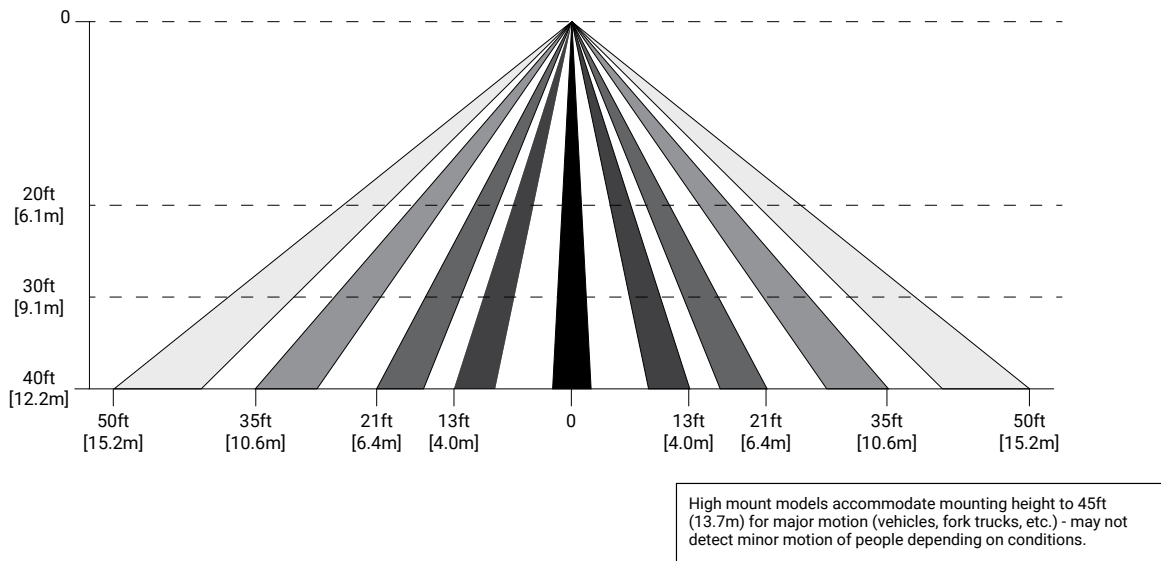


Field of View - High Bay

TOP VIEW:

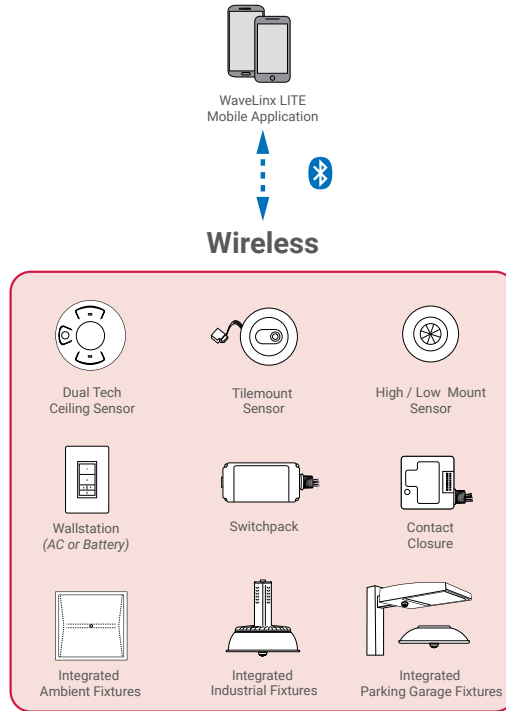



SIDE VIEW:



System Diagram:

This diagram shows 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 devices are not currently compatible with the WaveLinx Area Controller.



 **Control Systems**
• WaveLinx