

Project	
Notes	
Type	Date
Cat. No.	

SPIR-OSDL/BT-FM-AC-306 AleoBlue, Wireless Bluetooth® PIR Occ Sensor w/ Daylight Harvesting

DESCRIPTION

The SPIR-OSDL/BT-FM-AC-306 is a fixture-mounted Bluetooth® PIR occupancy sensor that enhances lighting control and energy efficiency. It features passive infrared (PIR) motion sensing, daylight harvesting, and 0-10V dimming control, all integrated into a compact design.

With Bluetooth® Mesh connectivity, this sensor enables wireless, scalable control without the need for gateways or additional hardware. Its decentralized architecture eliminates single points of failure, ensuring reliability for commercial and industrial applications.

APPLICATIONS

Designed for indoor environments, including offices, classrooms, retail stores, and healthcare facilities, the SPIR-OSDL/BT-FM-AC-306 provides a cost-effective and future-proof solution for modern lighting control.



SPIR-OSDL/BT-FM-AC-306

Fixture Mount | PIR Occ Sensor with Daylight Harvesting



Specification Features

Overview

- Bluetooth® Mesh Certified – Enables reliable, scalable, and decentralized wireless control.
- Passive Infrared (PIR) Motion Sensing – Detects occupancy for automated lighting control.
- Daylight Harvesting – Adjusts light levels based on ambient natural light.
- 0-10V Dimming Control – Supports smooth dimming with a 25mA max sinking current.
- Built-in 5A Relay – Provides direct switching for compatible lighting loads.
- On-board Antenna – Ensures strong and stable Bluetooth® connectivity.
- IP65 Rated – Dust-tight and water-resistant for enhanced durability.
- Easy Reset Options – Supports manual and remote reset for simplified commissioning.

Benefits

- Energy Savings & Code Compliance – Optimized for efficiency and meets stringent energy codes.
- No Gateway Required – Reduces installation complexity and cost.
- Decentralized Control – Eliminates single points of failure, ensuring system reliability.
- Seamless Scalability – Expands effortlessly with additional Bluetooth® Mesh devices.

Certification

- UL Listed.
- DLC NLC Certified.

Warranty

- 5-Year Limited Warranty – Covers defects in material and workmanship. See warranty documentation for details.

Ordering Information

Example: SPIR-OSDL/BT-FM-AC-306

SPIR	OSDL/BT	FM	AC	306
Series SPIR PIR Sensor	Controls OSDL/BT Wireless Bluetooth Occupancy Sensor with Daylight Harvesting	Mounting FM Fixture Mount	Input Power AC 120-277V AC	306 Designator 306

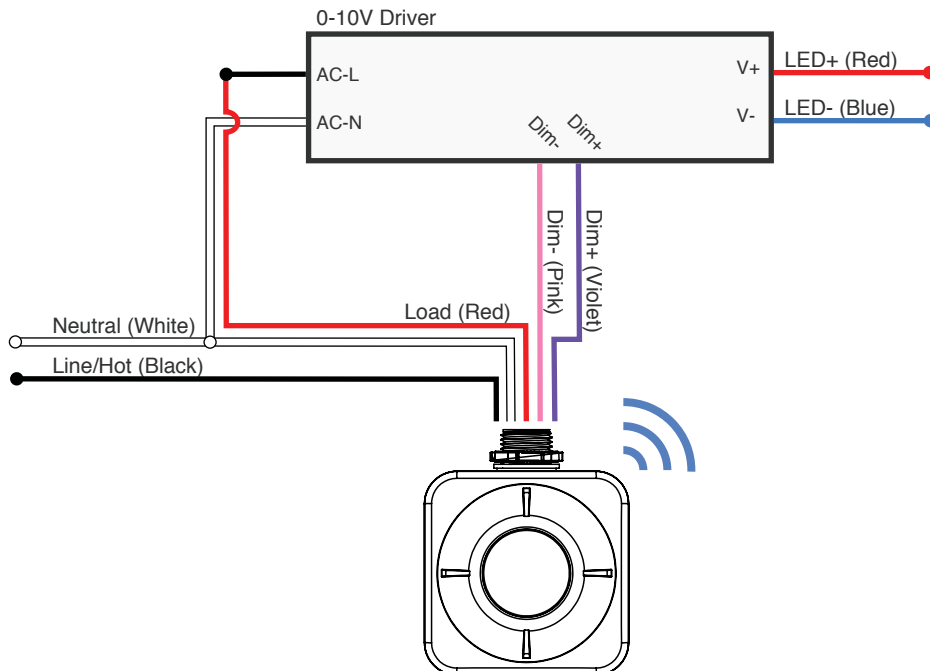
Specifications and Dimensions subject to change without notice.

Performance Summary

ELECTRICAL	
Input Power	120/277VAC 50/60Hz
Control Output	0-10V, max 25mA sinking current
Maximum Load	Resistive/Tungsten - 600W @ 120V Electronic Ballast - 800W @ 120V/1200W @ 277V
PHYSICAL	
Motion Sensing	Passive IR
Detection Angle	360°
Lens L1	Max. detection radius 30ft; Max. mounting height 25ft.
Lens L2	Max. detection radius 30ft. Max. mounting height 40ft.
Operating Temperature	-40°F ~ 167°F (-40°C ~ 75°C)
Bluetooth Range (Max.)	200ft (60m)
IP Rating	IP65

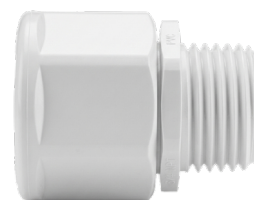
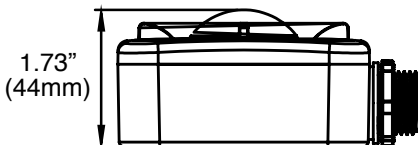
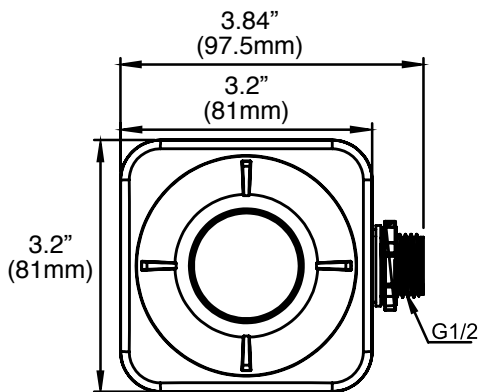
*Bluetooth® range varies based on fixture integration and environmental conditions. Perform field testing for optimal accuracy.

Wiring Diagram



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Dimensions and Product Information



20mm Mount Extender



L5
Low Bay
(Default)



L6
High Bay

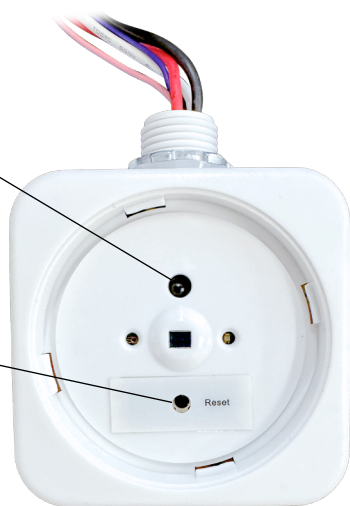
Watch Device Set Up
Tutorial Video



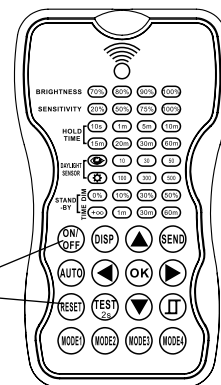
Additional Information

Motion Indicator: Green
Status Indicator: Red

Button Reset: Hold it to reset
the device. Luminaire quickly
flashes to indicate success



Remote Control Reset:
Point it to sensor. First press
"RESET" button, then press
"ON/OFF" button. Luminaire
quickly flashes to indicate
success.

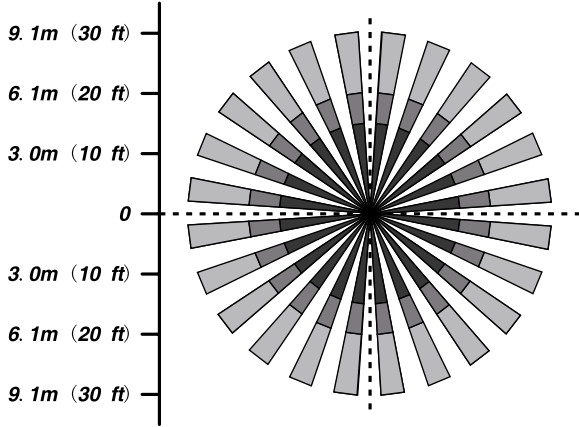


RC100

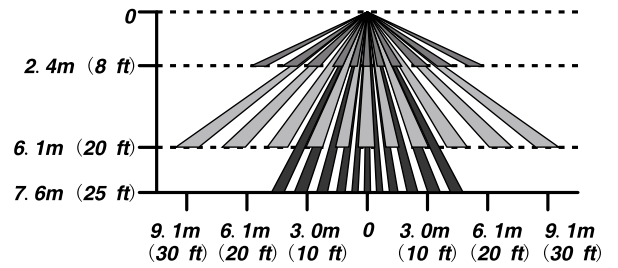
Detection Pattern

L5 Low Bay Lens

Coverage Top View

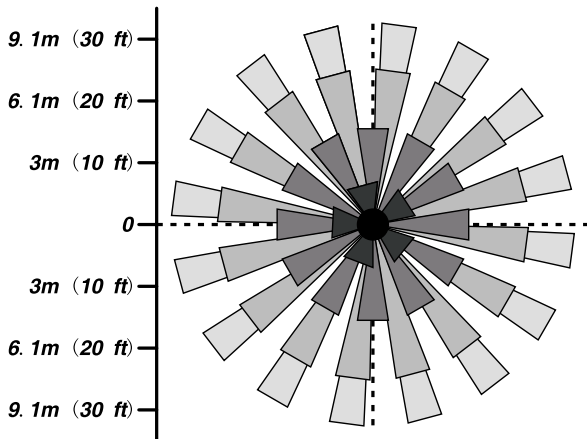


Coverage Side View

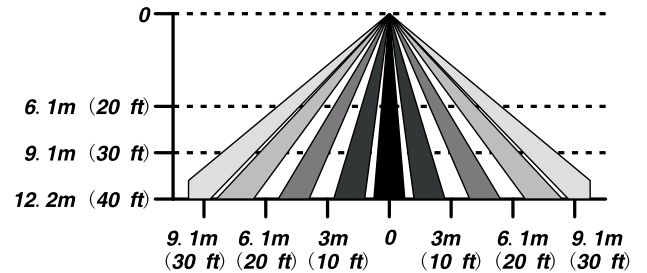


L6 High Bay Lens

Coverage Top View



Coverage Side View



NOTE: In typical outdoor environments, the typical range for wireless communication is 200ft (60m).

NOTE: Actual range is dependent on field installation.



AleoBlue Wireless Bluetooth Controls

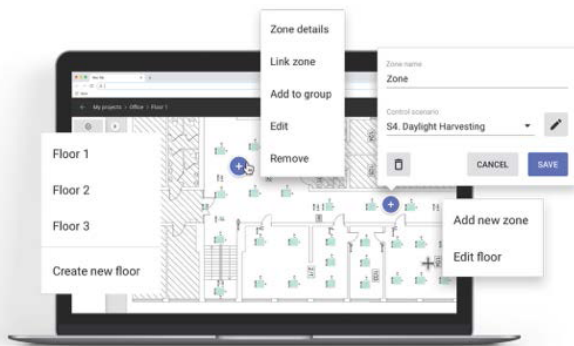


The AleoBlue is a complete solution for managing connected lighting systems using a Bluetooth Mesh lighting network. This enables seamless implementation of simple to complex lighting control scenarios without specialized training or lighting control engineering expertise.

DLC NLC Qualified.

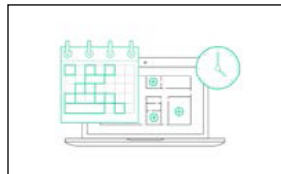
Features and Benefits

- Lighting Zones / Grouping
- Manual control of individual lights
- On Power up Behavior
- Zone Linking
- Vacancy Sensing
- Per fixture Daylight Control
- Per zone Daylight Control

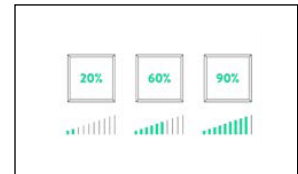


- Optimized Energy Consumption
- Less Hassle with On-Site Adjustments
- More Savings
- Increased Safety
- More Flexibility

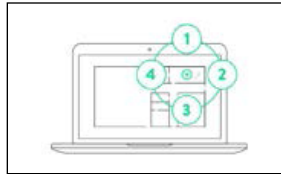
Scheduling



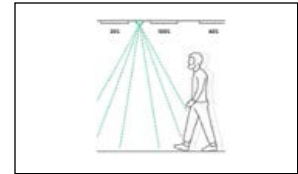
High and Low End Trim



Scenes



Occupancy Sensing



- Intuitive and user-friendly web and iOS apps
- No specialized training or lighting control expertise required
- Optimized for commercial spaces of any size
- No additional wiring or central control box
- Customizable lighting control parameters
- Future proof with Software Updates
- Multiple Zone Configurable
- Built-In Scenarios + Customization

Bluetooth Mesh Technology Advantages



The fastest low-power communication



Scalability to thousands of devices



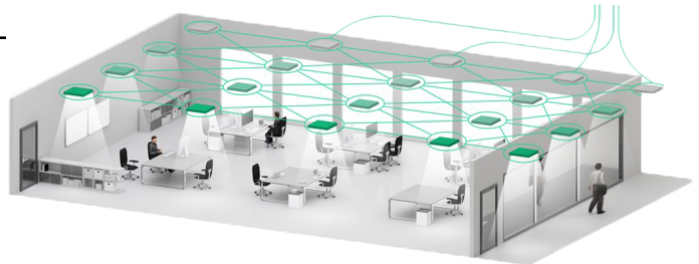
The most advanced encryption standards as well as the cutting-edge device authentication

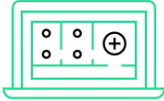


No single point of failure (no central device)



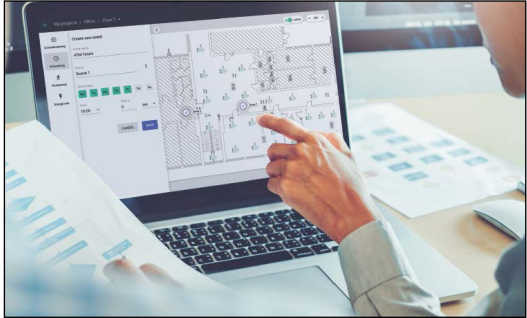
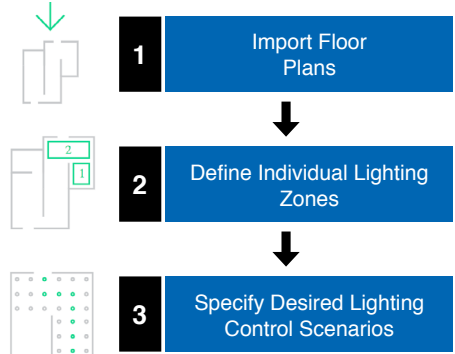
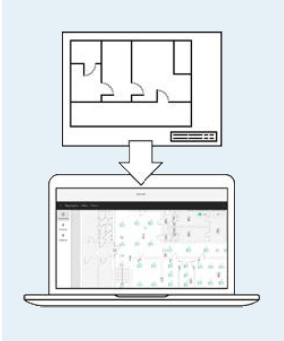
Compatibility with a widely available devices (smart phones & tablets – both with Bluetooth 4.0 and Bluetooth 5)





Planning

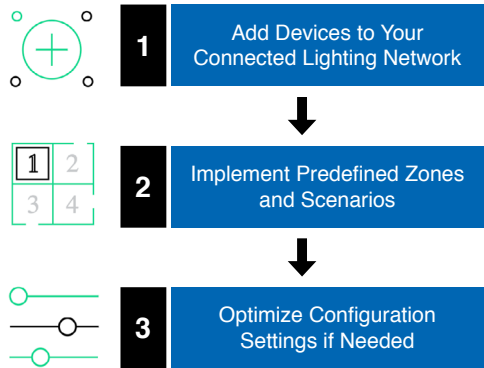
Remote preparation of a retrofit project with the use of our web app. Uploading floor plans, defining individual lighting zones and choosing lighting control scenarios.



Implementation

Adding lighting devices to the Bluetooth mesh network on-site with the use of an iOS app.

Customization and calibration of lighting control parameters during and after the commissioning process. Defining scenes for specific working activities.



Provisioning / Configurations

The Bluetooth mesh Node is in the Unprovisioned Mode until it is provisioned by a "Provisioner", which typically is a smart phone with a Bluetooth mesh compatible app.

Ordering Information



AleoBlue, Wireless Bluetooth PIR Occ Sensor w/ Daylight Harvesting
Model: SPIR-OSDL/BT-FM-AC-306

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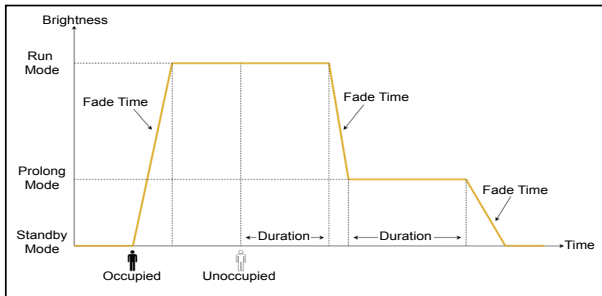
Lighting Control Scenarios

Multiple lighting control scenarios are available once the Bluetooth mesh Node is provisioned. At each scenario, duration, fade time and target brightness can be configured at any time with the iOS app.

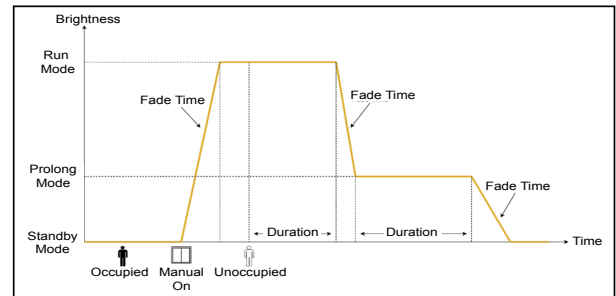


Mode / Scenario	Wireless Switch	Occupancy Sensor	Ambient Light Sensor
Unprovisioned Mode	-	-	-
Switch	On / Off / Scenes	-	-
Occupancy	On / Off / Scenes	Auto On / Off	-
Vacancy	On / Off / Scenes	Auto Off	-
Occupancy with Daylight Harvesting	On / Off / Scenes	Auto On / Off	Enabled
Vacancy with Daylight Harvesting	On / Off / Scenes	Auto Off	Enabled

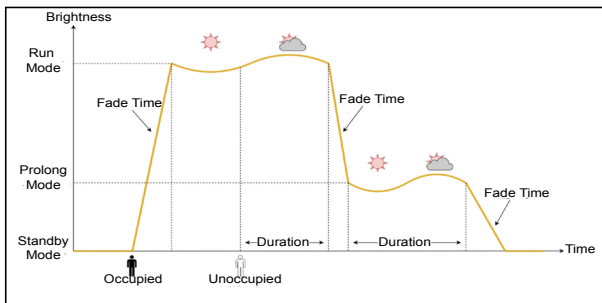
Occupancy Scenario



Vacancy Scenario



Occupancy Scenario - with Daylight Harvesting



Occupancy Scenario with Manual Override

