

Ruggedized Sensor

SPECIFICATION

The Enlighted Ruggedized Sensor is designed for outdoor applications, parking structures, damp and wet locations, and other areas that require an IP65 rated sensor. The sensor monitors occupancy, ambient light, and temperature, processing the information locally and creating a rich set of data that is backhauled wirelessly through the intelligent Enlighted IoT platform. The sensor also receives and transmits beacons and data using Bluetooth® Low Energy (BLE) protocol.



OVERVIEW

Designed for outdoor applications, the Ruggedized Sensor is a fully-integrated, microprocessor-based sensor that incorporates motion and daylight sensing. The sensor is rated as IP65—totally protected against dust ingress and low-pressure water jets from any direction.

FEATURES AND BENEFITS

Localized Control: Local microprocessor and memory in each sensor enable a sequence of operations at the fixture, eliminating dependency on any other network component once system setup is complete. The sensor works autonomously to ensure continuous operation, eliminating any single point system failure.

Software-Driven: Light-level schedules, preferences, and behavior profiles for each fixture are wirelessly communicated during system setup and locally stored. Profiles can be modified and updated wirelessly.

Occupancy/Thermal Sensing: Digital Passive Infrared (PIR) detection with separate ambient light and temperature sensors support precise motion sensing while minimizing false detection events.

Tunable White: When used with a compatible pair of LED drivers, the sensor is capable of controlling the color temperature of a fixture along with the dim level. Also, when used with Energy Manager 3.6 and above, the sensor supports color transitions based on circadian rhythm.

Manual-on/Vacancy Sensing: When paired with the Wireless Room Control (WS-2-00), the sensor acts as a vacancy sensor providing code-compliant manual-on/auto-off capability.

Bluetooth 4.0: An embedded BLE radio enables the sensor to receive and transmit beacons in addition to Bluetooth data communication.

Daylight Harvesting: Captured ambient light levels are locally interpreted into control commands to raise and lower light levels based on available daylight.

Zone Control: Sensors can be grouped into zones, thereby allowing multiple fixtures to share occupancy sensing data and respond simultaneously to occupant motion patterns.

Data Reporting: Local occupancy, power consumption, light levels, and temperature data collection compatible with Enlighted's control network can enable local analysis and provide custom reports.

Standards-Based Networking and Security: The Enlighted 802.15.4 wireless network with AES-128 encryption supports reliable communication that coexists with Wi-Fi networks by sensing low-traffic channels and transmitting in bursts.

Simple and Low-Cost Installation: Single wiring connection in a fixture with no other above ceiling wiring required. One-sensor-per-fixture approach simplifies the installation process.

Lighting Technology Compatibility: The sensor can send dimming controls to standard 0–10V ballasts and drivers for LED, fluorescent, High Intensity Discharge (HID), induction, or plasma fixtures and on/off controls for all types of fixtures and relays.

Ruggedized Sensor

Dia.	3.54"	90.0 mm
H	1.16"	29.5 mm

ENLIGHTED SPECIFICATION SUBMITTAL

Job Name:	<input type="text"/>
Job Number:	<input type="text"/>
Product Codes:	<input type="checkbox"/> SU-4S-HRW <input type="checkbox"/> SU-4S-HRB <input type="checkbox"/> SU-4S-LRW <input type="checkbox"/> SU-4S-LRB <input type="checkbox"/> CPL-RJ12 <input type="checkbox"/> CBL-2-7F

Ruggedized Sensor



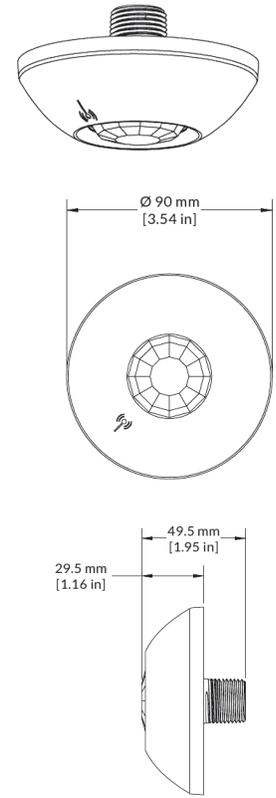
MOUNTING

The Ruggedized sensor comes attached with a 22 inch cable and an RJ-12 connector on the end. To mount the sensor in a lighting fixture, remove a 1/2 inch fixture knockout and pull the sensor cable through the knockout into the fixture. Mount the sensor to the fixture by threading the locknut shipped along with the sensor.

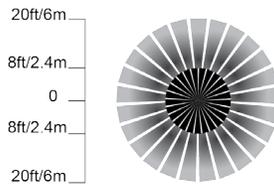
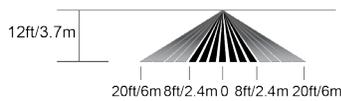
SENSOR COVERAGE PATTERNS

The Enlighted Ruggedized Sensor incorporates a state-of-the-art optical Fresnel lens for Digital Passive Infrared (DPIR) motion sensing. The lens array produces an all-encompassing field of view by aggregating many repeated narrow fields of view.

Ceiling Height	Minor Motion (Radius)	Major Motion (Radius)
12 feet/3,7m	8 feet/2.4m	20 feet/6m
40 feet/12m	20 feet/6m	47 feet/14m



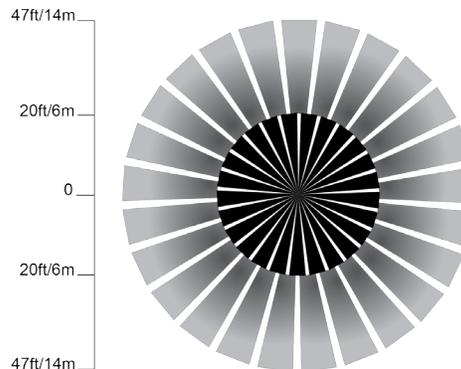
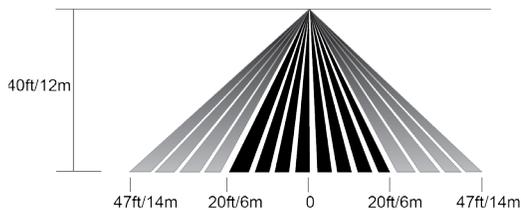
Standard Ruggedized Sensor



High Bay Ruggedized Sensor

Top View

Side View



■ Minor Motion
■ Major Motion

TECHNICAL SPECIFICATIONS

Motion Sensing: Digital Passive IR
 Photosensor: Light Pipe/Photosensor Array
 Enclosure: UV Stabilized Polycarbonate
 Type: Close Loop Light Sensor
 Operating: 31° to 185° F / -35° to 85° C
 Radio Frequency: 2400–2483.5 MHz
 Wireless Protocol: IEEE 802.15.4
 Wireless Range: 150 ft radius (46m) open-range
 Encryption: AES-128
 Cable: 22" (559 mm) RJ-12 connector
 Max. Install Height: High Bay 50 feet/15.2m
 Standard 18 feet/5.4m

Bluetooth 4.0 Low Energy (BLE):

Operating Frequency: 2400–2483.5 MHz
 IEEE Standard: 802.15.1

ORDERING INFORMATION

SU-4S-HRW High Bay Ruggedized Sensor (White)
 SU-4S-HRB High Bay Ruggedized Sensor (Bronze)
 SU-4S-LRW Standard Ruggedized Sensor (White)
 SU-4S-LRB Standard Ruggedized Sensor (Bronze)
 CPL-RJ12 Female Coupling (optional)
 CBL-2-7F 7 feet Cable

COMPLIANCE

Europe RoHS REACH
 United States
 Canada

Warranty: 5 years
 Refer www.enlightedinc.com/limited-warranty-terms
 for complete terms and conditions

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