Enlighted Ruggedized Sensor

SPECIFICATION

The Enlighted Ruggedized Sensor is used in outdoor applications, parking structures, damp and wet locations, and other areas that require an IP65 rated sensor. The Ruggedized Sensor monitors occupancy, daylight, and temperature and incorporates all the programmability, sensing, and wireless communications needed to autonomously control illumination levels, monitor occupancy, and environmental conditions.

The Enlighted Ruggedized Sensor

Dia.	3.54"	90.0mm
H	1.16"	29.5mm

OVERVIEW

The Enlighted Ruggedized Sensor is a fully-integrated, microprocessor-based sensor that incorporates motion and daylight sensing. The sensor is designed to mount adjacent to the fixture on a ½" LB conduit body. Diameter of the sensor is approximately 3.5" (90mm). The sensor is constructed from polycarbonate polymer to endure for many years in a hostile environment. The sensor is rated as IP65—totally protected against dust ingress and against low pressure water jets from any direction. Limited ingress permitted. The sensor comes with a 22" CAT3 RJ-12 cable.

FEATURES AND BENEFITS

Localized Control. Local microprocessor and memory in each sensor allows the execution of programming at the fixture, eliminating dependence on any other network component.

Software-Driven. Light-level schedules, preferences and behavior settings can be defined for each individual fixture and saved in the Enlighted Ruggedized Sensor's local memory as a software profile. These profiles are wirelessly loaded into the Enlighted Ruggedized Sensors during system commissioning and can be easily modified when desired.

Dual-Technology Occupancy/Vacancy Sensing. Occupancy sensing is provided by the Digital Infrared motion sensor. Occupant sensing is enhanced by using the photo sensor to detect changes in the "scene" to minimize false tripping. When paired with the wireless Enlighted Room Control, the Enlighted Ruggedized Sensor can act as a vacancy sensor providing manual-on/auto-off capability.

Daylight Harvesting Photosensing. The Enlighted Ruggedized Sensor has a multi-phototransistor array attached to a light pipe which brings in data from the "scene" below. The Enlighted Ruggedized Sensor then sends commands to the Enlighted Control Unit to raise and lower light levels based on available daylight.

Thermal Sensing. Reports the temperature at each fixture in the facility.

Motion Grouping. Enlighted's Ruggedized Sensors can be placed into motion groups, thereby allowing fixtures to act as if a space is occupied based on the motion patterns of other sensors in the buildings.

Full Reporting Functions. Granular and frequent sensor data collection enables deep insightful reporting and analytics. The Enlighted system captures local occupancy, power consumption, light levels, and temperature data at each location.

Standards-Based Networking and Security. Adhering to the 802.15.4 wireless protocol, transmitting in bursts and appropriately selecting low-traffic channels, the Enlighted wireless network reliably coexists with Wi-Fi networks. Data is AES-128 encrypted to provide security.

Simple and Low-Cost Installation. No above ceiling wiring is necessary. Typical installations follow a one-to-one sensor-per-fixture plan, which makes the installation process simple and repeatable.

Lighting Technology Compatibility. The Enlighted Ruggedized Sensor can send dimming controls to standard 0–10V ballasts and drivers for LED, fluorescent, HID, induction, or plasma fixtures and on/off controls for all types of fixtures and relays.

ENLIGHTED SPECIFICATION SUBMITTAL

Job Name:

Job Number:

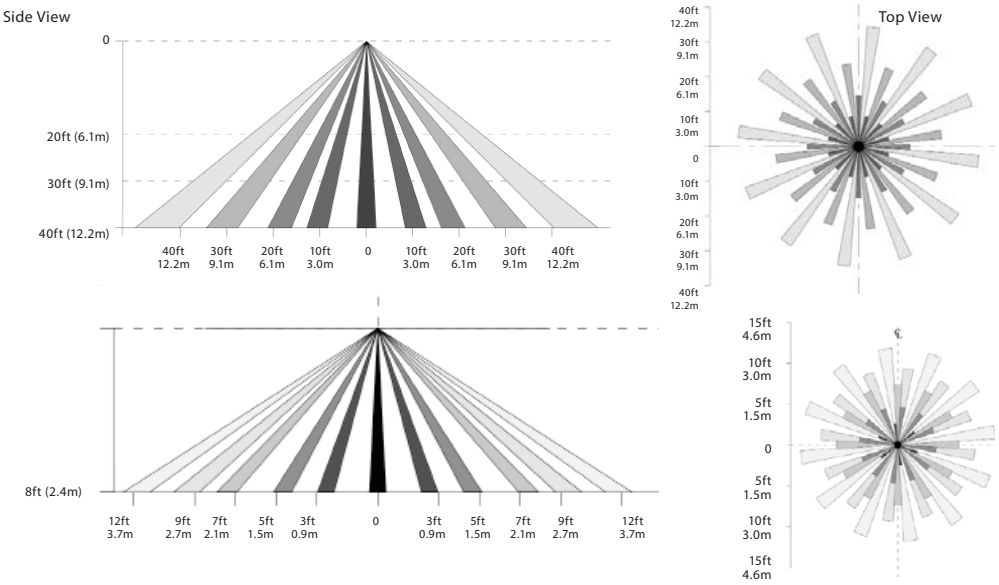
Model Numbers:

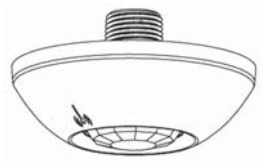
- ☐ RS-2O-S1
- ☐ RS-2O-H1
- ☐ RS-2O-S2
- ☐ RS-2O-H2
- ☐ CPL-RJ12
- ☐ CBL2-CAT3-CMP-7-600-WHT

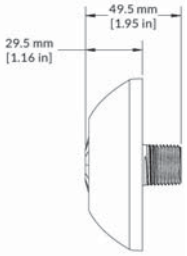
Enlighted Ruggedized Sensor

SENSOR COVERAGE PATTERNS

Enlighted Ruggedized Sensors incorporate a state-of-the-art optical Fresnel lens for digital passive infrared (DPIR) motion sensing.







The lens array incorporated in the Enlighted Ruggedized Sensor for motion sensing produces an all-encompassing field of view by aggregating many repeated narrow fields of view as depicted in the illustration above. For the typical 12.5 ft. ceiling, major motion can be detected at about a 10 ft. radius and minor motion at about 6.5 ft. radius. For a high-bay sensor installed at a 35 foot mounting height, major motion can be detected at about a 20 ft. radius and minor motion at about 12.5 ft. radius.

When the ceiling-mounted Enlighted Ruggedized Sensors are deployed per light fixture as recommended, the areas covered by each device overlap, reinforcing accuracy at the perimeters.

Motion sensitivity is also tunable via the customizable software profile loaded into each Enlighted Ruggedized Sensor during the Enlighted commissioning phase. The motion sensitivity parameter can be assigned a value from 0–10V, with higher values preferred for picking up small motion in low-traffic interior spaces and lower values preferred in high-traffic spaces when you want to avoid triggering by extraneous motion.

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TECHNICAL SPECIFICATIONS

Motion Sensing: Digital Passive IR

Photosensor: Light Pipe/Photosensor Array

Enclosure: Polycarbonate Polymer

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" (559mm) RJ-12 connector

ORDERING INFORMATION

RS-2O-S1 Standard-Mount Ruggedized Sensor Unit (white)

RS-2O-H1 High-Bay Mount Ruggedized Sensor Unit (white)

RS-2O-S2 Standard-Mount Ruggedized Sensor Unit (bronze)

RS-2O-H2 High-Bay Mount Ruggedized Sensor Unit (bronze)

CPL-RJ12 Female Coupling (optional)

CBL2-CAT3-CMP-7-600-WHT 7'/2mm Plenum-Rated Control Cable (optional)

COMPLIANCE

Europe CE RoHS REACH

United States FC UL LISTED

Canada c UL LISTED

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