

Surface Mount Sensor



SPECIFICATION

The Enlighted Surface Mount sensor is designed for indoor high ceiling applications that require a narrow Field of View (FOV) such as warehouses, atriums, manufacturing floors, etc. 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 the Bluetooth® Low Energy (BLE) protocol.

OVERVIEW

The Surface Mount sensor, designed for indoor high-bay lighting applications, measures occupancy and motion, ambient light, temperature, and fixture energy consumption. It incorporates a programmable microprocessor and wireless communication, both operating from the power of the fixture to which it is attached.

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 Sensing: Digital Passive Infrared (PIR) detection is supplemented with data from the ambient light sensor for precise detection of changes and minimized false tripping.

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.

Thermal Sensing: Reports ambient temperature at the sensor location.

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

Full Reporting Functions: 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.



Surface Mount Sensor

L	3.46"	88mm
W	3.46"	88mm
H	1.18"	30mm

ENLIGHTED SPECIFICATION SUBMITTAL

Job Name:

Job Number:

Product Codes:

☐ SU-4S-H☐ BRKT_SU-2O-00☐ BTTN-SU-2O-00☐ CBL-2-7F☐☐

Surface Mount Sensor



MOUNTING

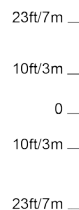
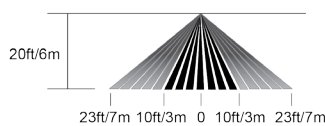
The sensor comes with a nylon threaded screw for mounting in acoustical tile or drywall ceilings. Optional mounting accessories available include a sheet metal screw with a button mounting bracket for fastening to T-bar ceilings and fixtures, and a formable bracket is available for mounting the sensor directly to the light fixture.

SENSOR COVERAGE PATTERNS

The Enlighted Surface Mount sensor incorporates 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. When the ceiling-mounted sensor is deployed per light fixture as recommended, the area covered by each device overlaps, reinforcing accuracy at the perimeters.

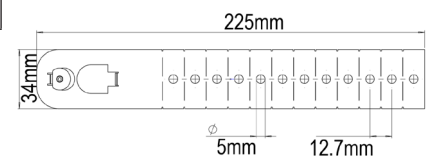
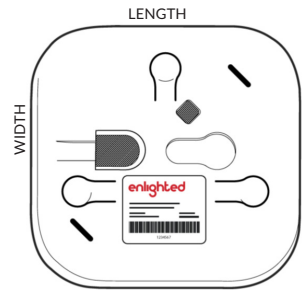
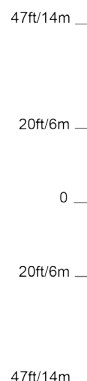
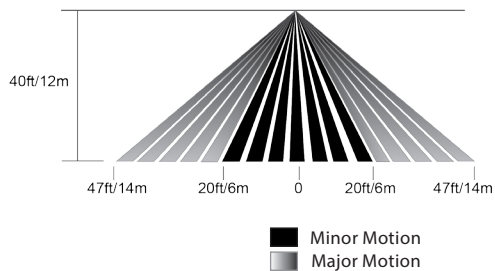
Ceiling Height	Minor Motion (Radius)	Major Motion (Radius)
20 feet/6m	10 feet/3m	23 feet/7m
40 feet/12m	20 feet/6m	47 feet/14m

20 feet Mounting Height

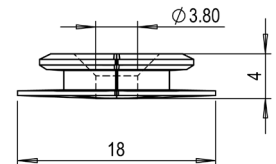


40 feet Mounting Height

Top View



Adjustable Mounting Bracket



Button Mounting Bracket

TECHNICAL SPECIFICATIONS

Motion Sensing: Digital Passive IR

Photosensor: Light Pipe/Photosensor Array

Enclosure: Recyclable ABS

Type: Close Loop Light Sensor

Operating: 32° to 122° F/0° to 50° C

Radio Frequency: 2400–2483.5 MHz

Wireless Protocol: IEEE 802.15.4

Wireless Range: 150 ft (46m) radius open range

Encryption: AES-128

Max. Install Height: 40 feet/12.2m

Bluetooth 4.0:

Operating Frequency: 2400–2483.5 MHz

IEEE Standard: 802.15.1

ORDERING INFORMATION

SU-4S-H	Surface Mount Sensor
BRKT-SU-2O-00	Adjustable Mounting Bracket
BTTN-SU-2O-00	Button Mounting Bracket
CBL-2-7F	7 feet Sensor Cable

COMPLIANCE

Europe

United States

Canada

Warranty: 5 years

Refer www.enlightedinc.com/limited-warranty-terms for complete terms and conditions

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