

# Smart Sensor



## SPECIFICATION

The Enlighted Smart Sensor is designed for indoor high-bay applications that require a narrow field of view such as warehouses, atriums, manufacturing floors, etc. The sensor provides occupancy, ambient light, temperature, and digital motion data, which is processed locally to enable a rich set of intelligent features. Communication over the Enlighted Network and Bluetooth® Low Energy are both supported.

### OVERVIEW

The Smart Sensor incorporates a programmable microprocessor and wireless communications functionality, both operating from the power of the fixture to which it is attached. Capable of sensing occupancy, ambient light, temperature, and digital motion while processing information locally, the Smart Sensor enables autonomous fixture-level control, bringing advanced lighting automation to a whole new level.

### FEATURES AND BENEFITS

**Localized Control:** 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, but the sensor works autonomously to ensure continuous operation, eliminating any single point system failure.

**Smart Sensing:** Local processing capability supports advanced sensing and detection algorithms, enabling optimization of existing features and new future applications.

**Bluetooth Low Energy:** An embedded BLE radio enables receive and transmit beacons in addition to Bluetooth data communication.

**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:** Configurable lighting transitions based on the time of day are supported.

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

**Room/Zone Control:** Pairs with room control switches for code-compliant manual-on/auto-off capability. Sensors can be grouped into zones that share occupancy sensing data and coordinate light control based on detected motion.

**Data Reporting:** Sensor information regarding occupancy, power consumption, ambient light level, and temperature feeds Enlighted's software applications, providing insightful reporting and analytics.

**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.

**Light Fixture Compatibility:** Dimming and on/off control signaling for standard 0-10V ballasts and drivers in LED, fluorescent, HID, induction, or plasma fixtures.



The Enlighted Smart Sensor

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

### ENLIGHTED SPECIFICATION SUBMITTAL

Job Name:

Job Number:

Product Codes:

☐ SU-5S-H☐ BRKT\_SU-20-00☐ BTTN-SU-20-00☐ CBL-5S-CU3-7F☐☐

# Smart Sensor



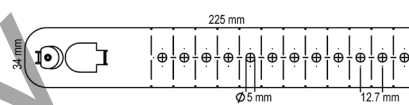
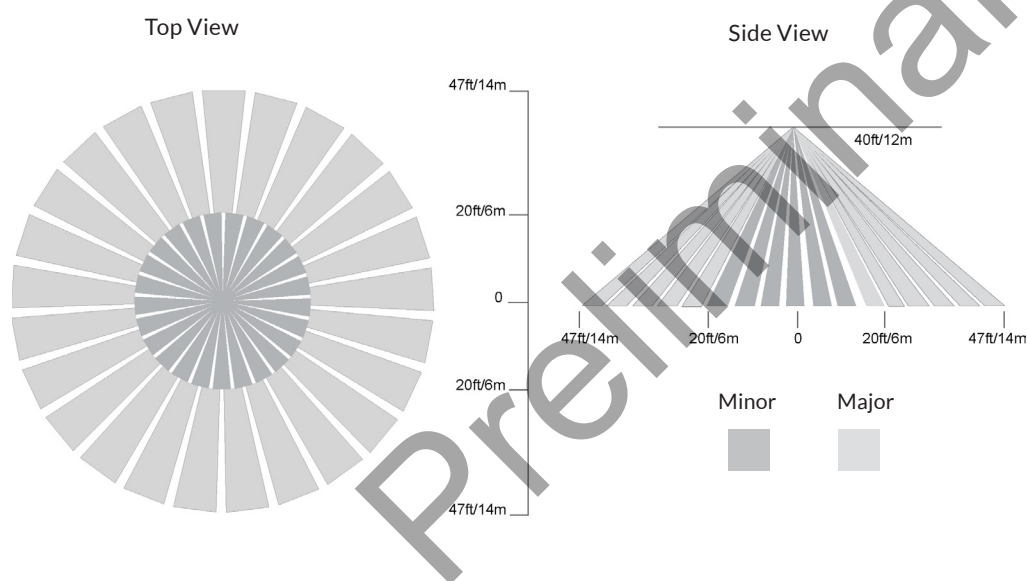
## MOUNTING

The Smart 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.

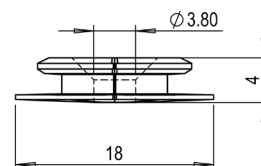
## SENSOR COVERAGE PATTERNS

The Enlighted Smart 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 Enlighted Smart Sensor is deployed per light fixture as recommended, the area covered by each device overlaps, reinforcing accuracy at the perimeters.

| Ceiling Height | Minor Motion     | Major Motion       |
|----------------|------------------|--------------------|
| 20 ft/6 m      | 10 ft/3 m radius | 10 ft/3.0 m radius |
| 40 ft/12 m     | 20 ft/6 m radius | 47 ft/14 m radius  |



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. (46 m) radius open range

**Encryption:** AES-128

**Max. Install Height:** 40 ft/12.2 m

## Bluetooth 4.0 Low Energy (BLE):

Operating Frequency: 2400–2483.5 MHz

IEEE Standard: 802.15.1

## ORDERING INFORMATION

SU-5S-H Smart Sensor

BRKT-SU-2O-00 Adjustable Mounting Bracket

BTTN-SU-2O-00 Button Mounting Bracket

CBL-5S-CU3-7F 7 ft. Sensor Cable

## COMPLIANCE

Europe



RoHS

REACH



United States



UL

LISTED

Canada



LISTED

**Warranty:** 5 years

Refer [www.enlightedinc.com/limited-warranty-terms](http://www.enlightedinc.com/limited-warranty-terms) for complete terms and conditions

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