

# Compact Sensor

## SPECIFICATION

The Enlighted Compact Sensor's small form factor and flush mount design enables the sensor to blend into its surroundings while it monitors occupancy, daylight, and temperature. The Compact Sensor incorporates all the programmability and sensing needed to autonomously control illumination levels, monitor occupancy, and environmental conditions. Data is transmitted wirelessly to the Enlighted network management system.



### OVERVIEW

Designed for indoor lighting applications, the Enlighted Compact Sensor features onboard intelligence. The device can be mounted inside a fixture or into the ceiling. With a durable wireless antenna, digital motion, photocell, and temperature sensing, the sensor enables autonomous fixture-level control, bringing advanced lighting controls to a whole new scale.

### FEATURES

**Software-Driven:** Light-level schedules, preferences, and behavior settings definable for each fixture are saved in the sensor's local memory as a software profile. Profiles are wirelessly communicated to sensors during system setup and can be easily modified when desired.

**Occupancy Sensing:** Digital PIR occupancy detection is supplemented with data from the ambient light sensor for precise detection of changes in the coverage area and minimized false tipping.

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

**Daylight Harvesting:** An ambient light sensor captures light level data from the coverage area. The sensor then analyzes this data and transmits code-compliant control commands to the LED driver to raise and lower light levels based on available daylight.

**Thermal Sensing:** Reports the 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 in specific building areas.

**Full Reporting Functions:** Granular and frequent data collection enables deep insightful reporting and analytics for local occupancy, power consumption, light levels, and temperature data. Fixtures can operate without an active Gateway or Energy Manager, ensuring no single point of failure.

**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. AES-128 encryption provides robust data security.

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

**Lighting Technology Compatibility:** The Enlighted Compact 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.

### The Enlighted Compact Sensor

Body	L	1.87"	47.5mm
	Dia.	.82"	20.8mm
Bezel	Dia.	1.26"	32.0mm

### ENLIGHTED SPECIFICATION SUBMITTAL

Job Name:

Job Number:

Product Codes:

☐ SU-3E-00

☐ CBL-3-30N

☐ CBL-3-12N

☐ CBL-3-7F

☐ CBL-3-15F

☐ CBL-3-30F

☐ CBL-3-50F

Cables (CBL) are Cat3 with an RJ12 connector on one side and a proprietary Enlighted connector on the other side. Cables must be purchased through Enlighted.

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## MOUNTING

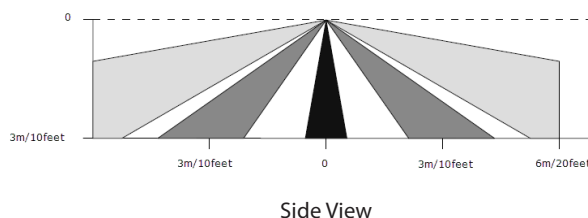
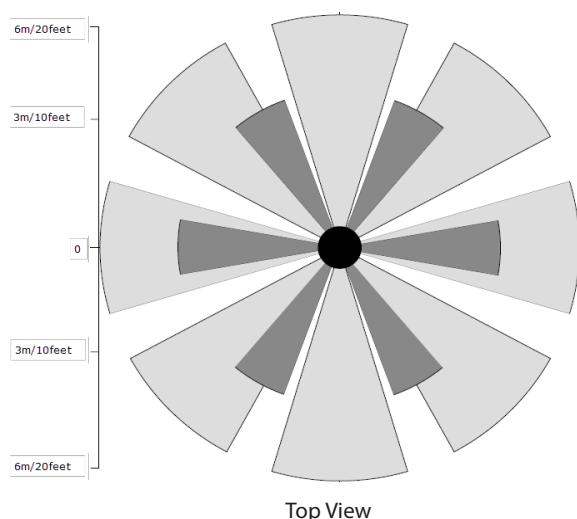
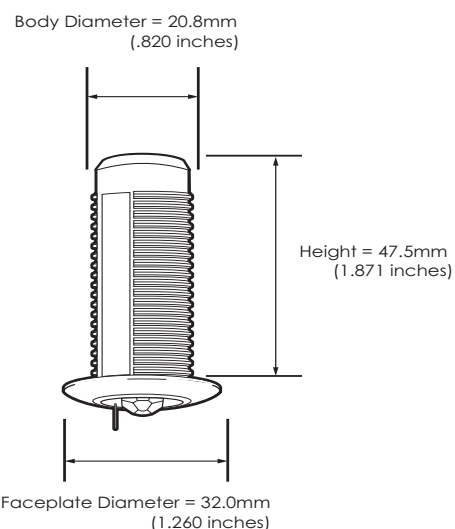
The Enlighted Compact Sensor is designed to be easily mounted into lighting fixtures or ceiling tiles so that only the discrete white faceplate is visible.

To mount the sensor in a lighting fixture, just insert the sensor through a 1/2 inch trade size knockout hole. Thread the spring arms (not pictured) around the back of the sensor to fasten it in place inside the fixture. To mount the sensor through a ceiling tile, thread the spring arms around the sensor and insert the sensor through a 15/16th inch hole in the tile. The spring arms hold the sensor in place.

## SENSOR COVERAGE PATTERNS

The Enlighted Compact Sensor uses infrared technology to detect occupancy. The human body emits heat as infrared light. The sensor incorporates a multifaceted lens to focus this light on to a passive infrared detector (PIR). Using patented algorithms, the Enlighted Compact Sensor analyzes the PIR's output and determines if a person is present.

The Enlighted Compact Sensor lens array produces an all-encompassing Field of View (FOV) by aggregating many repeated narrow FOVs. For the typical 9.5 feet ceiling, motion can be detected at about a 10 feet radius.



## TECHNICAL SPECIFICATIONS

Motion Sensing: Digital Passive IR  
 Photosensor: Light Pipe/Photosensor Array  
 Type: Closed Loop Light Sensor  
 Enclosure: ABS/Polycarbonate blend  
 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 in free space field  
 Encryption: AES-128

Warranty: 5 years

## ORDERING INFORMATION

SU-3E-00	Enlighted Compact Sensor
CBL-3-30N	30 inch SU-3E Sensor Cable
CBL-3-12N	12 inch SU-3E Sensor Cable
CBL-3-7F	7 ft SU-3E Sensor Cable
CBL-3-15F	15 ft SU-3E Sensor Cable
CBL-3-30F	30 ft SU-3E Sensor Cable
CBL-3-50F	50 ft SU-3E Sensor Cable

## COMPLIANCE

Europe	CE	RoHS	REACH	
United States	FC	UL LISTED		
Canada	cUL LISTED			

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

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