

Two-wire Fixture Mount Sensor (FS-D22)

SPECIFICATION

The Enlighted Two-wire Fixture Mount Sensor features digital PIR occupancy, ambient light sensing, daylight harvesting, and environment monitoring, providing all the benefits of Enlighted's Smart Sensor technology. The sensor also includes a Bluetooth® 4.0 BLE radio for beaconing. Simple to mount within a fixture, the sensor operates seamlessly to create a comfortable space and communicates data wirelessly to the Enlighted control network.



OVERVIEW

The Two-wire Fixture Mount Sensor (FS-D22) is designed so the device installs into the fixture cavity, leaving only the sensor face visible, making it an ideal choice for adding intelligence while maintaining aesthetics. The 18 AWG solid copper wiring between the sensor and a compatible LED driver simplifies installation and provides plug and play capabilities. With a durable wireless antenna, digital motion, ambient light, temperature sensing, and distributed intelligence, the Two-wire Fixture Mount Sensor makes advanced lighting control a reality for any fixture manufacturer.

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.

Bluetooth 4.0 Low Energy (BLE): Incorporates a BLE radio and broadcasts beacons. Beacons can be turned on or off using the Enlighted Energy Manager.

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.

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 enable 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.

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: Sensor control signals are compatible with various LED drivers and two-wire devices.

Two-wire Fixture Mount Sensor			
Body	L	2.03"	51.7 mm
	W	0.9"	24 mm
Face	Dia.	1.06"	27 mm
Weight		0.8 oz	22.6 grams

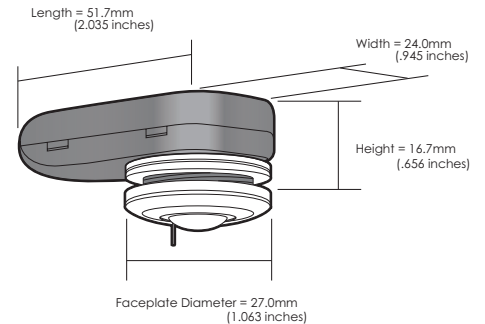
ENLIGHTED SPECIFICATION SUBMITTAL

Job Name: <input type="text"/>
Job Number: <input type="text"/>
Product Code: <input type="checkbox"/> FS-D22

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MOUNTING

The Enlighted Two-wire Fixture Mount Sensor can be easily integrated into lighting fixtures through a 1/2 inch trade size knockout or 0.875 inch (22 mm) hole. Just unscrew the faceplate from the sensor, insert the threaded part through the knockout, and reattach the faceplate from the outside of the fixture. A spring washer ensures that the faceplate is flush with the fixture. After the sensor has been properly mounted into a fixture, only the paintable white faceplate is visible.

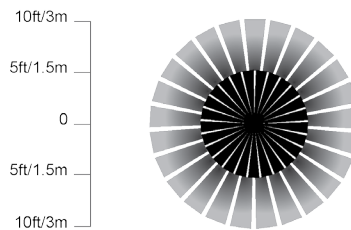
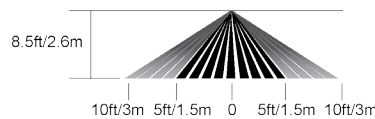


SENSOR COVERAGE PATTERNS

The Enlighted Two-wire Fixture Mount 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 (PIR) detector. Using patented algorithms, the Enlighted Two-wire Fixture Mount Sensor analyzes the PIR's output and determines if a person is present. The Enlighted Two-wire Fixture Mount Sensor produces an all-encompassing Field of View (FOV) by aggregating many repeated narrow FOVs.

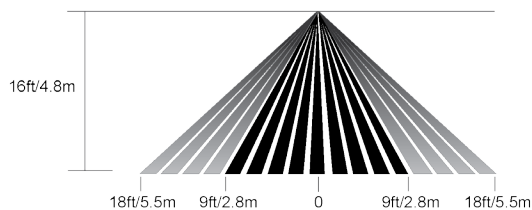
Ceiling Height	Minor Motion (Radius)	Major Motion (Radius)
8.5 feet/2.6m	5 feet/1.5m	10 feet/3m
16 feet/4.8m	9 feet/2.8m	18 feet/5.5m

8.5 feet Mounting Height

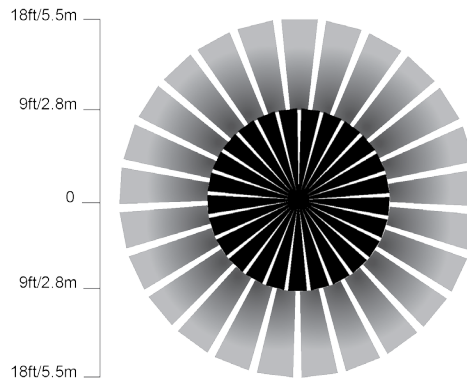


16 feet Mounting Height

Top View



Side View



■ Minor Motion
■ Major Motion

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

Bluetooth 4.0 Low Energy (BLE):

Operating Frequency: 2400–2483.5 MHz
 IEEE Standard: 802.15.1
 Broadcasting Interval: Configurable

Wireless Protocol: IEEE 802.15.4

Wireless Range: 150 ft (46m) radius in free space field

Encryption: AES-128

ORDERING INFORMATION

FS-D22 Two-wire Fixture Mount Sensor

COMPLIANCE

Europe RoHS
 United States
 Canada

Warranty: 5 years

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



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