DESCRIPTION
The LumaWatt Pro Two-wire 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 sensor incorporates digital PIR occupancy, ambient light sensing, daylight harvesting, and environment monitoring. The sensor also includes a Bluetooth 4.0 BLE radio for beaconing. Data is transmitted wirelessly to the LumaWatt Pro control network. Designed for indoor lighting applications, the LumaWatt Pro Compact Sensor features onboard intelligence. The device can be mounted inside a LED lighting fixture or into the ceiling.

OVERVIEW
Designed for indoor lighting applications, the LumaWatt Pro Two-wire Compact Sensor features onboard intelligence. The device can be mounted inside a fixture or into the ceiling, leaving only the sensor face visible, making it an ideal choice for 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, photocell, and temperature sensing, the sensor enables autonomous fixture-level control, bringing advanced lighting controls to a whole new scale.

SPECIFICATION FEATURES

Localized Control
Local microprocessor and memory in each sensor enable a sequence of operations at the fixture, eliminating dependence on any other network component once system setup is completed. Fixtures can operate without an active Gateway or Energy Manager ensuring no single point of failure.

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 detection is supplemented with data from the ambient light sensor for precise detection of changes in the coverage area 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 LumaWatt Pro Energy Manager.

Manual-on/Vacancy Sensing
When paired with the wireless LumaWatt Pro Room Control (LWP-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 interprets 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.

Standards-Based Networking and Security
The LumaWatt Pro wireless network reliably coexists with Wi-Fi networks adhering to the 802.15.4 wireless protocol, transmitting in bursts and appropriately selecting low-traffic channels. AES-128 encryption provides robust data security.

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

Warranty
5 years

TECHNICAL SPECIFICATIONS

Motion Sensing: Digital Passive IR
Photosensor: Light Pipe/Photosensor Array
Enclosure: ABS/Polycarbonate blend
Type: Closed 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
Encryption: AES-128
Bluetooth 4.0 Low Energy (BLE):
Operating Frequency: 2400–2483.5 MHz
IEEE Standard: 802.15.1
Broadcasting Interval: Configurable

Bluetooth® is a registered trademark of Bluetooth SIG, Inc.

COMPLIANCE
Europe: CE, RoHS, Reach
U.S.A.: FC, cUL Listed
Canada: cUL Listed
**Specifications and dimensions subject to change without notice.**

Eaton
1121 Highway 7 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

---

**LUMAWATT PRO COMPACT SENSOR**

**PS503012EN**

4-26-2017

---

**SENSOR COVERAGE PATTERNS**

The LumaWatt Pro Two-wire 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 (PIR) detector. Using patented algorithms, the LumaWatt Pro Two-wire Compact Sensor analyzes the PIR’s output and determines if a person is present.

The LumaWatt Pro Two-wire Compact Sensor produces an all-encompassing Field of View (FOV) by aggregating many repeated narrow FOVs. For the typical 8.5 feet ceiling, minor and major motion can be detected up to 5 feet radius and 10 feet radius respectively. For a 16 feet ceiling, minor motion can be detected up to 9 feet radius and major motion up to 18 feet radius.

---

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Body Diameter</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.8mm (0.820 inches)</td>
<td>56.8mm (2.236 inches)</td>
</tr>
</tbody>
</table>

---

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>Catalog number</th>
<th>Product description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LWP-CS-D2</td>
<td>LumaWatt Pro Two-wire Compact Sensor 1</td>
</tr>
</tbody>
</table>

---

**NOTES:**

1. Sensor is mounted outside the luminaire.
Controlled Fixture Wiring Diagrams

(1:1 Dimming) - Fixture with 1 Sensor and 1 LED driver