

## 1. What is LumaWatt Pro?

Eaton's LumaWatt Pro powered by Enlighted is the connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects important data about building performance and use. System software turns granular data into information and shares it through energy dashboards and specialized apps that make it easy to make better use of building resources, beyond lighting.

## 2. What components do I need to have a complete LumaWatt Pro system?

- LumaWatt Pro Energy Manger
- LumaWatt Pro POE Switch
- LumaWatt Pro Gateway
- LumaWatt Pro Sensors (Fixture integrated occupancy sensor, ambient light sensor and control)
- LumaWatt Pro Plug Load Controller
- LumaWatt Pro Wireless Wall switch
- LumaWatt Pro Software Licenses

## 3. What are the LumaWatt Pro design best practices?

DESIGN CONSIDERATION	BEST PRACTICE	MAXIMUM
Sensor to Gateway Communication	150-180' (45m-55m)	300' (90m)
Gateway 1st "Hopper" Communication	150' (45m)	150' (45m)
Sensor Hopper to Sensor Communication	250'-300' (75m-90m)	300' (90m)
Hopper to Hopper Communication	250' (75m)	250' (75m)
Number of Hops for LWR Sensors	15	15
Number of Hops for LWI, LWT Sensors	3	3
Gateway to Energy Manager distance (wired)	328' (100m)	328' (100m)
Gateway to Energy Manager network switch (additive)	328' (100m)	328' (100m)
Gateway per network switch (Power over Ethernet)	4	4
Gateways per Energy Manager	10	10
Sensors per Energy Manager	1000	1000
Sensors per Enterprise Energy Manager Pro	18000	18000
Sensors per Wall Station	100	100
Sensors to Wall Station Communication	150' (45m)	150' (45m)

## 4. Can LumaWatt Pro communicate through interior walls?

Yes, LumaWatt Pro will communicate through two to three interior walls of standard sheetrock construction with wood or aluminum framing.

## 5. Does the Gateway need to be installed in the space?

The **Gateway** shall be installed in the space and will communicate to the devices in the space. It should not be installed on or next to a metal or concrete wall.

## 6. Should I install the Gateway next to a concrete or metal wall?

No, Concrete or metal walls severely impact the strength of the wireless signal and will reduce the overall coverage and performance of the LumaWatt Pro system. The Gateway should be installed in the center of the overall space that it will be controlling.

## 7. Should I install the Gateway in an Electrical Closet or IT room?

No, these types of rooms are typically surrounded by concrete walls. Concrete walls severely impact the strength of the wireless signal and will reduce the overall coverage and performance of the LumaWatt Pro system. The Gateway should be installed in the center of the overall space that it will be controlling.

## 8. How does LumaWatt Pro communicate through or around concrete spaces, like stairwells and electrical closets?

The **Gateway** emits a wireless signal using the 802.15.4 wireless protocol on the 2.4 GHz frequency range. This signal pulses out from the **Gateway** in a wireless bubble. Concrete or metal structures will break this bubble. Ensure to place the **Gateway** at least 15 feet away from these structures to allow the wireless signal to have the best angle around these structures.

## 9. Can LumaWatt Pro be installed in the same area as the building Wi-Fi?

Yes, although 802.15.4 communications using a similar frequency as standard Wi-Fi it uses different channels, modulation and communications structure. This reduces the risk of conflicts of wireless systems.

## 10. Can multiple 802.15.4 wireless networks exist in the same area of a building?

Yes, 802.15.4 is self-healing, auto channel selecting mesh network. This means that these networks can coexist if set up correctly. In addition LumaWatt Pro devices will only communicate with the assigned **Gateway**. Other 802.15.4 wireless networks may not include all the security and performance qualities of LumaWatt Pro and may not perform as well.

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