

LMLS-400 Single Zone Switching and Dimming Closed Loop Digital Photosensor

Daylight responsive on/off, bi-level, tri-level or dimming control for one lighting zone

Extended tube model accommodates thicker ceiling materials

100 degree spatial response for optimal detection of ambient light level



Automatic calibration and configuration; optional hold off setting to maximize energy savings

Photodiode corrected to match the photopic response of the human eye

Can be calibrated in any daylight condition

PROJECT

LOCATION/TYPE

Product Overview

Description

The LMLS-400 is a closed loop photosensor that measures the ambient light level in order to automatically switch or dim one zone of lighting. It is part of a Digital Lighting Management (DLM) system and sends light level signals to control loads connected to DLM on/off or dimming room controllers. The LMLS-400 has a photodiode with an extended range of 1-6,553 footcandles (fc), and photopic correction to mimic the human eye, for precise measurement of visible light.

Operation

The LMLS-400 operates on Class 2 power supplied to a DLM local network by one or more DLM room controllers. When there is one LMLS-400, Plug n' Go assigns load 1 to daylighting control. An LMCT-100 is used to assign additional loads, and assign loads to multiple photosensors. Following an automatic setup process, the LMLS-400 monitors the ambient light in the controlled space and works with the room controller(s) to maintain the design light level. WattStopper's exclusive control algorithm uses on/off or dimming setpoints and other control parameters to establish the correct light levels throughout the day regardless of changing daylight contribution.

Features

- Digital Lighting Management components plug together on a free-topology Cat 5e DLM local network
- Test mode override of programmed time delay allows easy verification of selected settings
- Load status verification allows confirmation and testing of controlled load
- Infrared (IR) transceiver for wireless configuration and control

Automatic Setup

After installation, the LMLS-400 measures the daylight and electric light levels in order to automatically calibrate itself and establish setpoints. This process may be initiated from the photosensor or a handheld LMCT-100 wireless configuration tool. The LMCT-100 may also be used to adjust setpoints and other parameters including hold off functionality. Adjustable switching parameters include on and off setpoints and time delays. The off setpoint can be adjusted to a value of 25, 50 (default), 75, or 100 percent above the on setpoint. Adjustable dimming parameters include day and night setpoints, ramp up and down rates, and a cut-off time delay. Electric lights can be turned off (default) or dimmed to a user-selectable minimum level when daylight contribution is abundant.

Applications

The LMLS-400 photosensor is recommended for use in private offices, cafeterias, classrooms, atriums, lobbies and perimeter spaces with daylight contribution. It is designed to sense both daylight and electric light, and is typically ceiling mounted for sidelighting applications. The LMLS-400 can be used for on/off switching, bi-level or tri-level step switching or step dimming, or continuous dimming.

- Compatible with DLM wall switches for manual override, if desired
- LED status indicators
- Mounting options for hard ceilings, dropped ceilings and suspended lighting fixtures
- Complies with California Title 24, Section 119 requirements
- RoHS compliant
- Qualifies for ARRA-funded public works projects

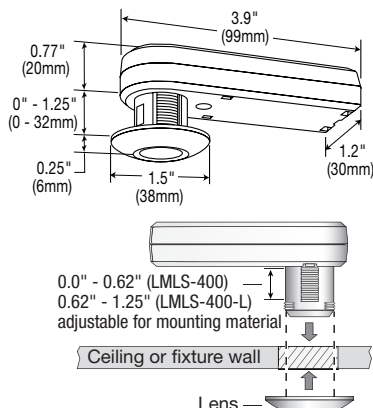


Specifications

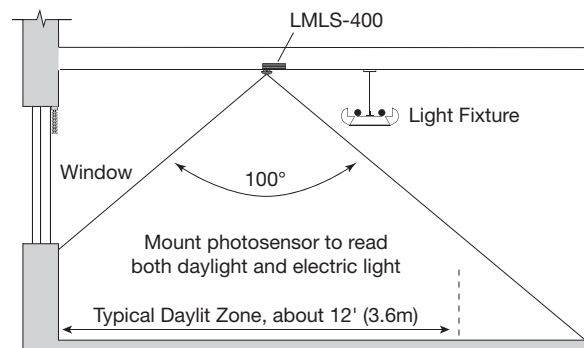
- Input voltage: 24VDC from DLM local network
- Current consumption: 7mA
- DLM local network connection: 1 RJ45 port
- Digital multi-band photodiode with extended range: 1-6,553 fc (10-70,536 lux)
- Spatial response: 100°
- LED status and configuration indicators
- Infrared (IR) transceiver
- Weight: 1.4 oz (40 g)
- Operating conditions: for indoor use only; 32-131°F (0-55°C); less than 90% RH, non-condensing
- UL and cUL listed
- FCC part 15 compliant
- Five year warranty

Dimensions & Mounting

Product Dimensions

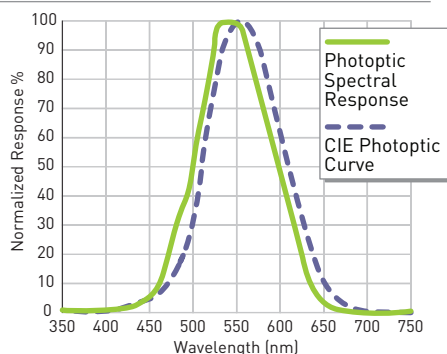


Placement for Sidelight Applications



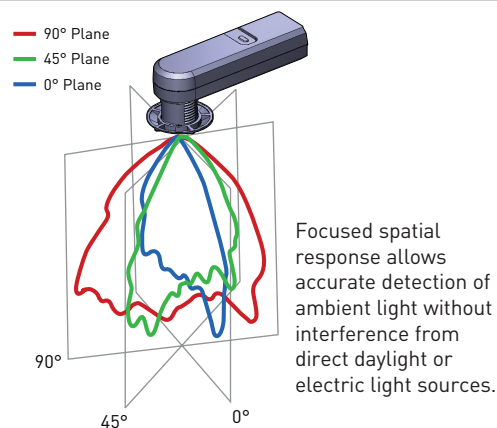
Photodiode Response

Spectral Response



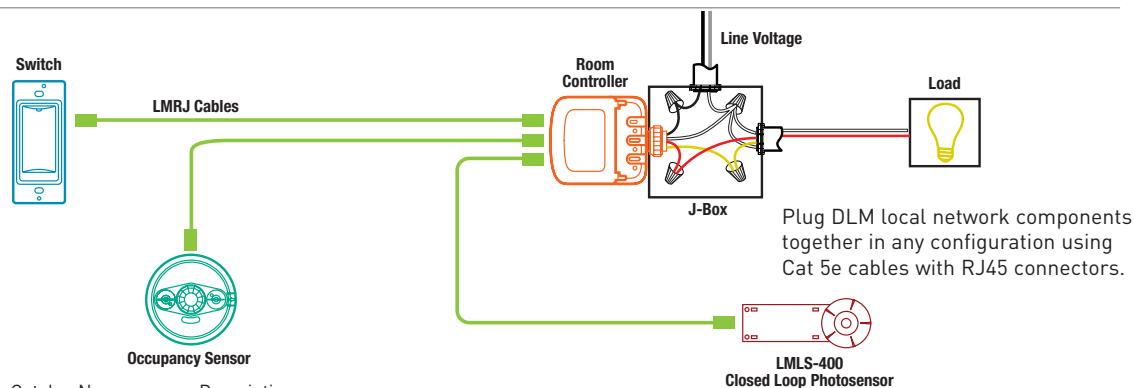
The photodiode detects just visible light, which ensures accurate lighting control.

Spatial Response



Connecting

Sample Connection Diagram for On/Off Switching Application



Ordering Information

Catalog No.	Description
<input type="checkbox"/> LMLS-400	Digital Single Zone On/Off and Dimming Closed Loop Photosensor
<input type="checkbox"/> LMLS-400-U	Digital Single Zone On/Off and Dimming Closed Loop Photosensor, ARRA-compliant*
<input type="checkbox"/> LMLS-400-L	Digital Single Zone On/Off and Dimming Closed Loop Photosensor with extended tube
<input type="checkbox"/> LMLS-MB1	Photosensor mounting bracket for J-box mounting
<input type="checkbox"/> LMLS-MB2	Photosensor mounting bracketed for wall mount applications
<input type="checkbox"/> LMCT-100	Digital Wireless Configuration Tool