



# Wattstopper® PLUS

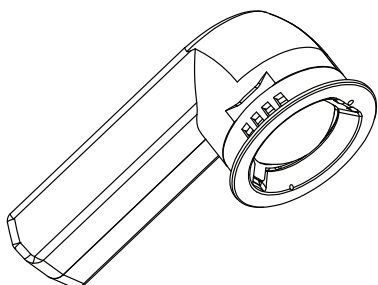
SensiLUM® Wireless Integrated Sensor

No: 080347 – 05/25 rev. 3

Installation Instructions • Instructions d'Installation • Instrucciones de Instalación

**Catalog Numbers • Les Numéros de Catalogue • Los Números de Catálogo: EN-CLM-PIR-DD-ZB**

Countries of Origin: China, Canada • Pays d'origine: Chine, Canada • Países de origen: China, Canadá



## SPECIFICATIONS

Voltage .....	12-24 VDC (0-10V with AUX connection only)
.....	18 to 24 VDC (DALI Driver with Self-Powered DALI Link)
Wireless Communication.....	45.7 m (150 ft) line of sight
Operating Temperature .....	32° to 140°F (0° to 60°C)
Relative Humidity .....	0% to 95%, non-condensing
Certifications	
UL/cUL 2043 Class 2 Plenum Rated	
FCC part 15 Class A	
Environmental Suitability .....	IP20

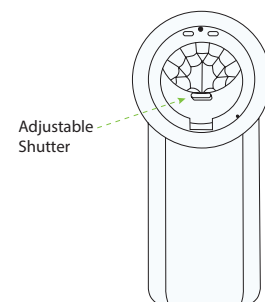
## DESCRIPTION

The SensiLUM® Wireless Integrated Sensor allows for brightness and ON/Off control of its luminaire as well as collects occupancy and daylight information. The SensiLUM communicates wirelessly to a Wattstopper PLUS Wireless Manager.

If used with tunable white luminaires, the SensiLUM should be used in conjunction with a tunable white (TW series) wallstation.

### Adjustable Shutter

The dual-axis shutter allows end user to fine tune field of view based on the luminaire's placement in the applications space.



## PRODUCT SAFETY

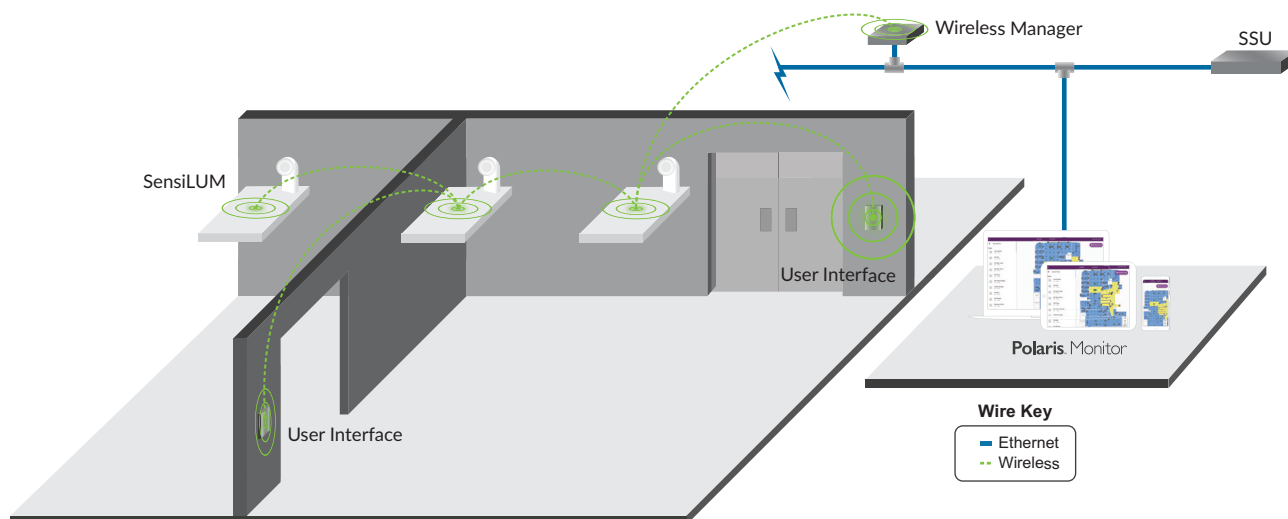


When using electrical equipment, basic safety precautions should always be followed, including the following:

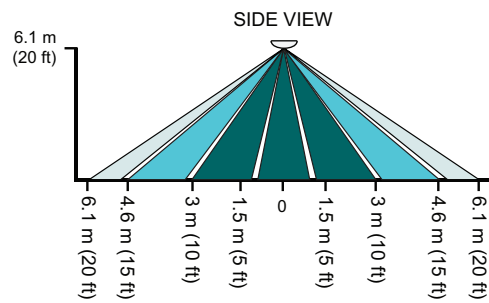
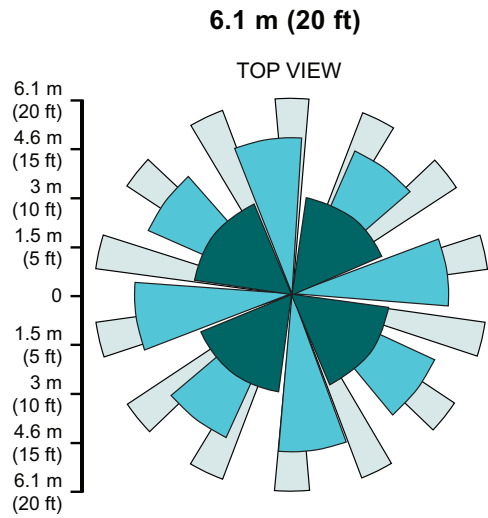
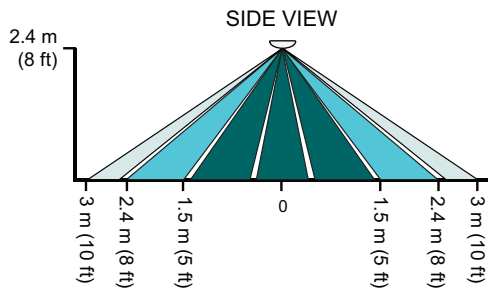
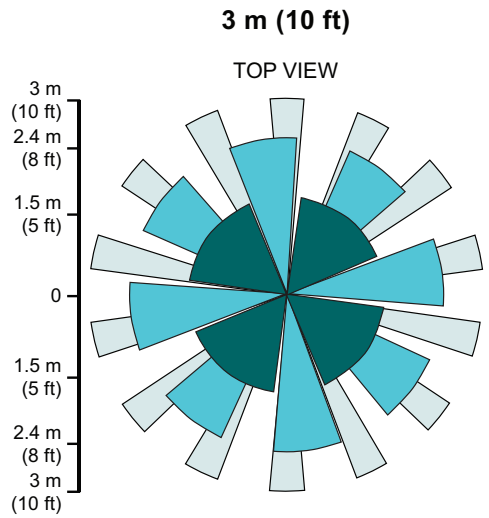
- Do not mount near gas or electric heaters or let power supply cords touch hot surfaces.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- The use of accessory equipment is not recommended by Legrand as it may cause an unsafe condition.
- Do not use this equipment for other than the intended use.

## WIRELESS SYSTEM OVERVIEW

This illustration shows how each component is easily integrated into the Wattstopper PLUS System.



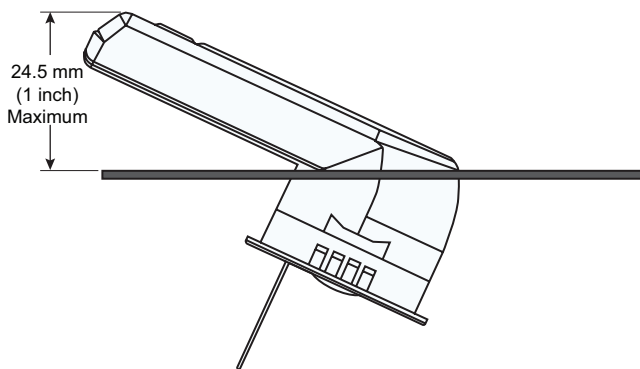
## SENSOR COVERAGE



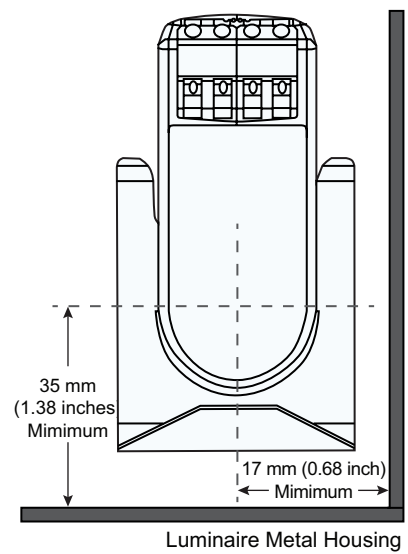
## INSTALLATION

Before initiating the installation, please note the minimum mechanical requirements.

Minimum height required in luminaires to mount the sensor.

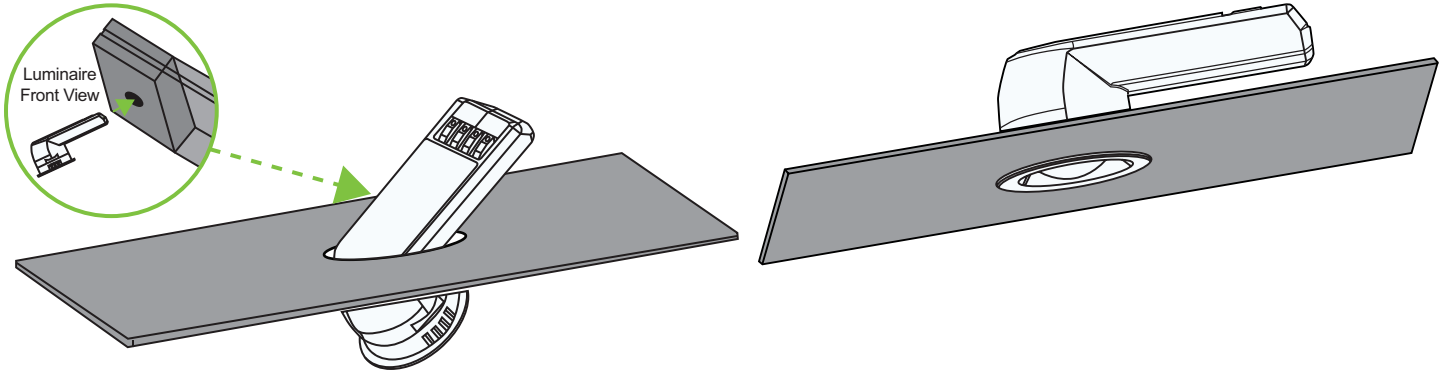


Minimum Requirements for Placing the Pre-Drilled Hole

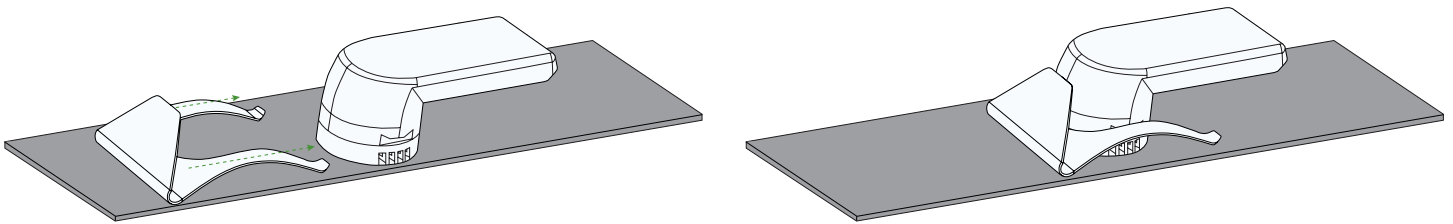


1. Push the sensor through the pre-drilled PG-7 (0.5 inch) trade-size ( $22.25 \text{ mm} \pm 0.25 \text{ mm}$  or  $0.875 \text{ inch} \pm 0.01 \text{ inch}$ ) hole.

2. Position the sensor flush to the luminaire metal casing.

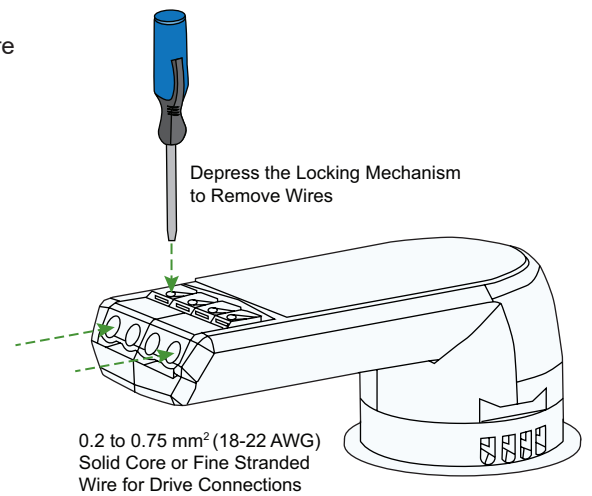


3. Push the clip towards the sensor until curved metal piece is clamped into the sensor groove.

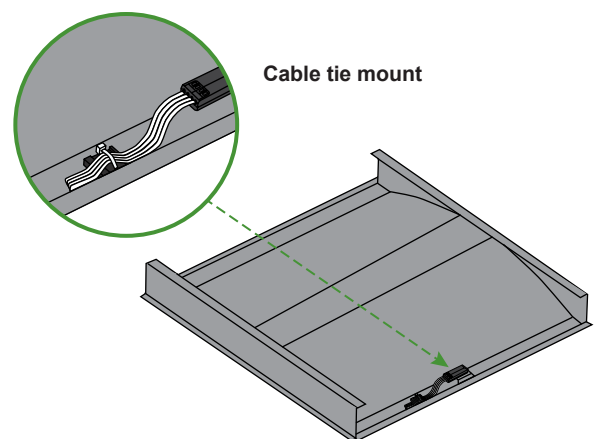
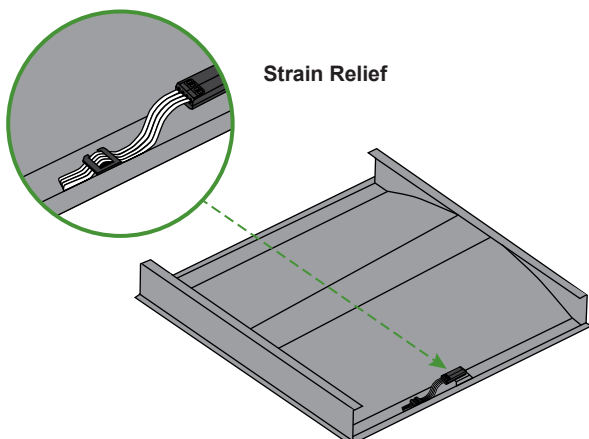


4. Connect wires as shown in section "Electrical Connections".

**NOTE:** Use a Solid core wire –  $0.2$  to  $0.75 \text{ mm}^2$  (18-22 AWG). Using a wire with a higher thickness will cause insufficient connection.



5. Apply strain relief to the wires using either (1) a built-in strain relief or (2) a stick-on adhesive backed cable tie mount, as well as a cable tie.



## WIRING

A solid core or fine stranded wire of 0.2 to 0.75 mm<sup>2</sup> (18-22 AWG) is to be used with a recommended strip length of 7 to 9 mm (0.27 to 0.35 inch) to ensure secure connection.

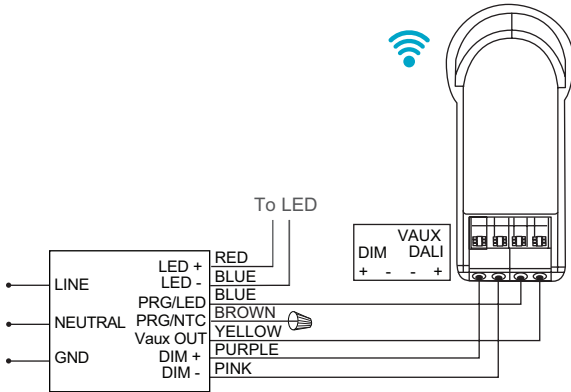


**WARNING: TURN THE POWER OFF AT THE CIRCUIT BREAKER BEFORE WIRING.**

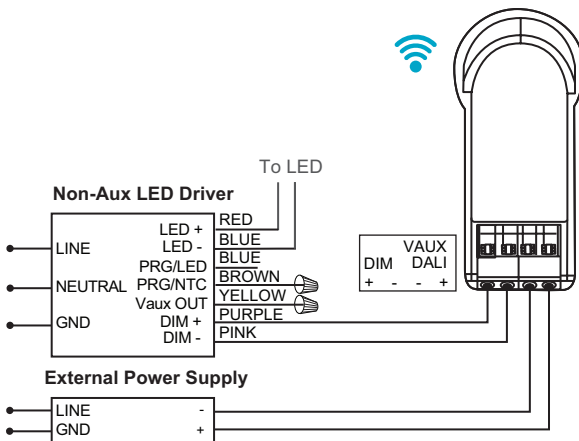


### 0-10V LED Driver Wiring Diagrams

#### 0-10V LED Driver with Auxiliary Power Output



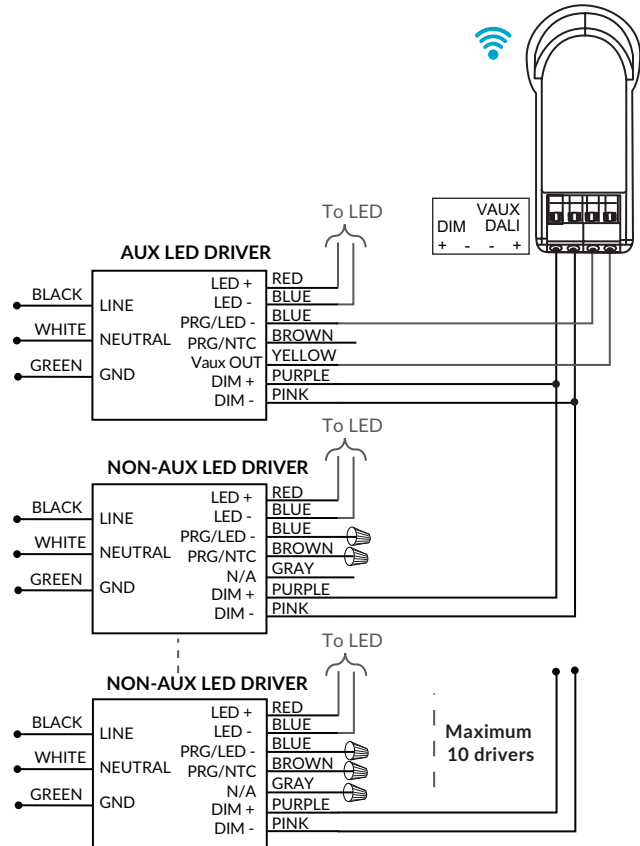
#### 0-10V LED Driver with External Power Supply



### Multiple 0-10V LED Drivers

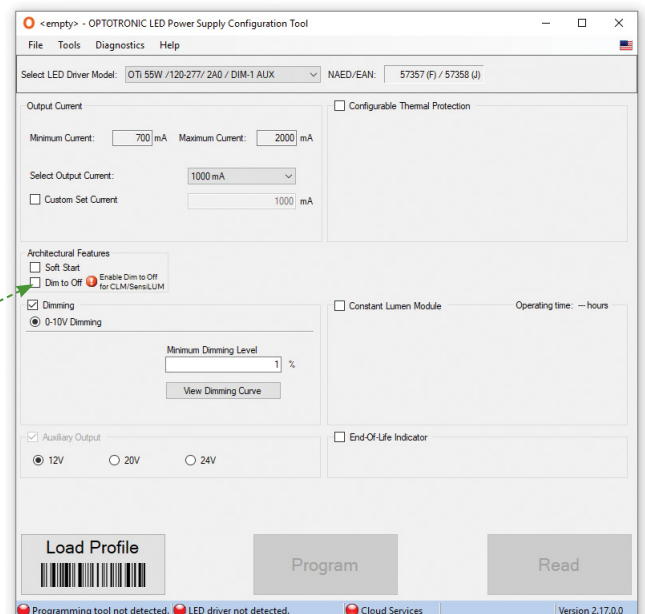
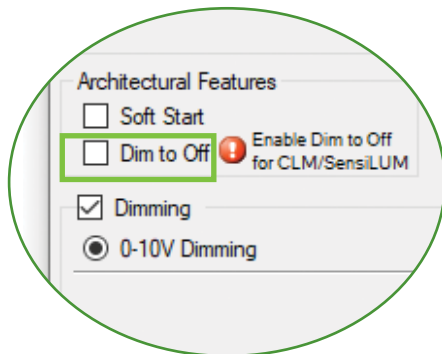
When using OPTOTRONIC LED drivers with auxiliary output, the driver should be programmed to 12V auxiliary. The default voltage of the driver out-of-the-box is 12V.

This wiring is suitable for luminaires with multiple LED power supplies that are to be controlled uniformly by a single module.



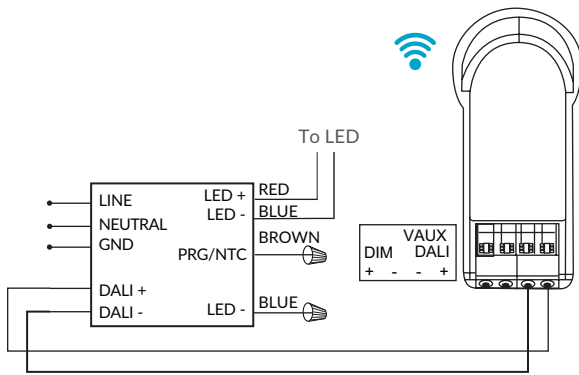
### 0-10V LED Driver Configuration

For applications that require the luminaire to be turned off, the LED driver must possess Dim-to-OFF capability, and it must be enabled. If using OPTOTRONIC LED Power Supplies, the dim-to-off feature must be enabled in the programming software. The default state of dim-to-off feature is disabled for out-of-the-box products.



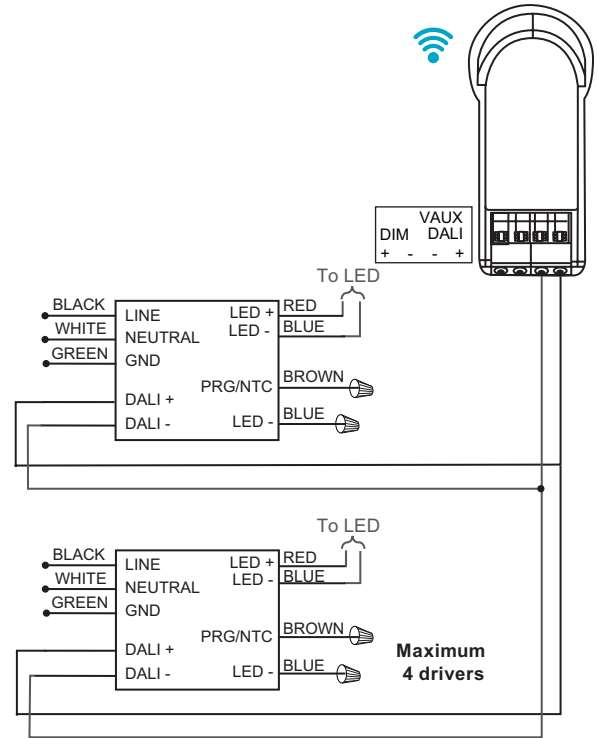
## Self-powered DALI LINK Wiring Diagrams

### Single DALI LED Driver



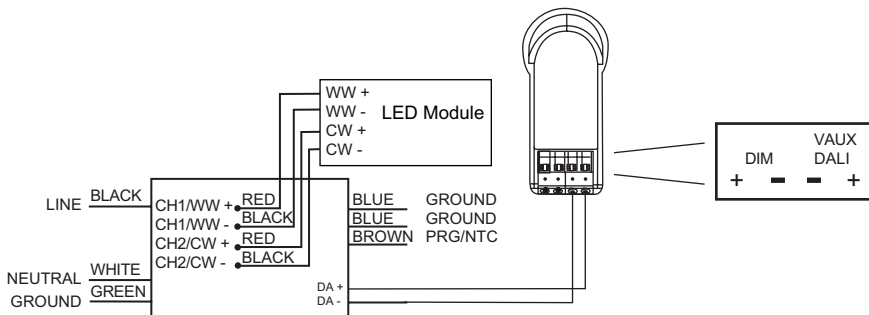
### Multiple DALI LED Drivers

When using OPTOTRONIC DALI LED drivers, the DALI setting needs to be enabled and programmed on the driver. By default, this setting is enabled for drivers out-of-the-box.



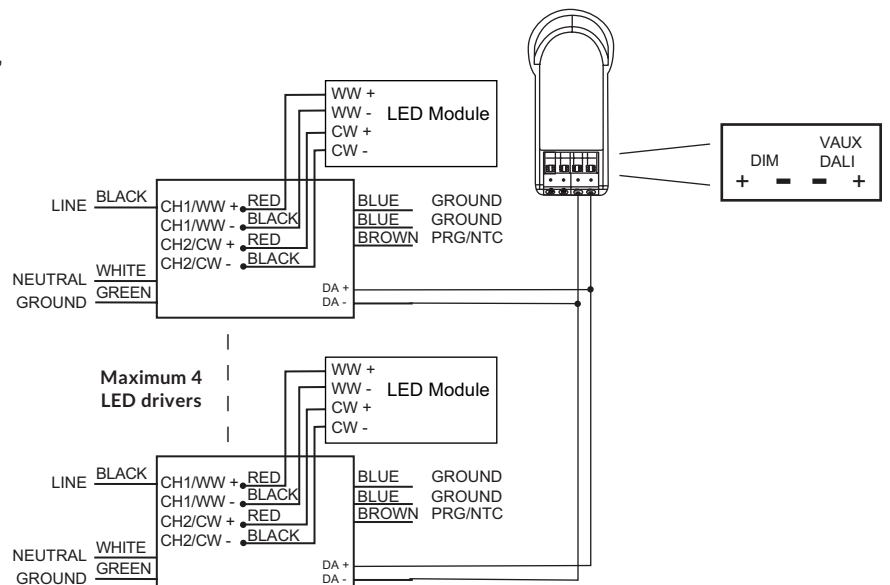
## Tunable White Wiring Diagrams

### Single DALI LED Driver



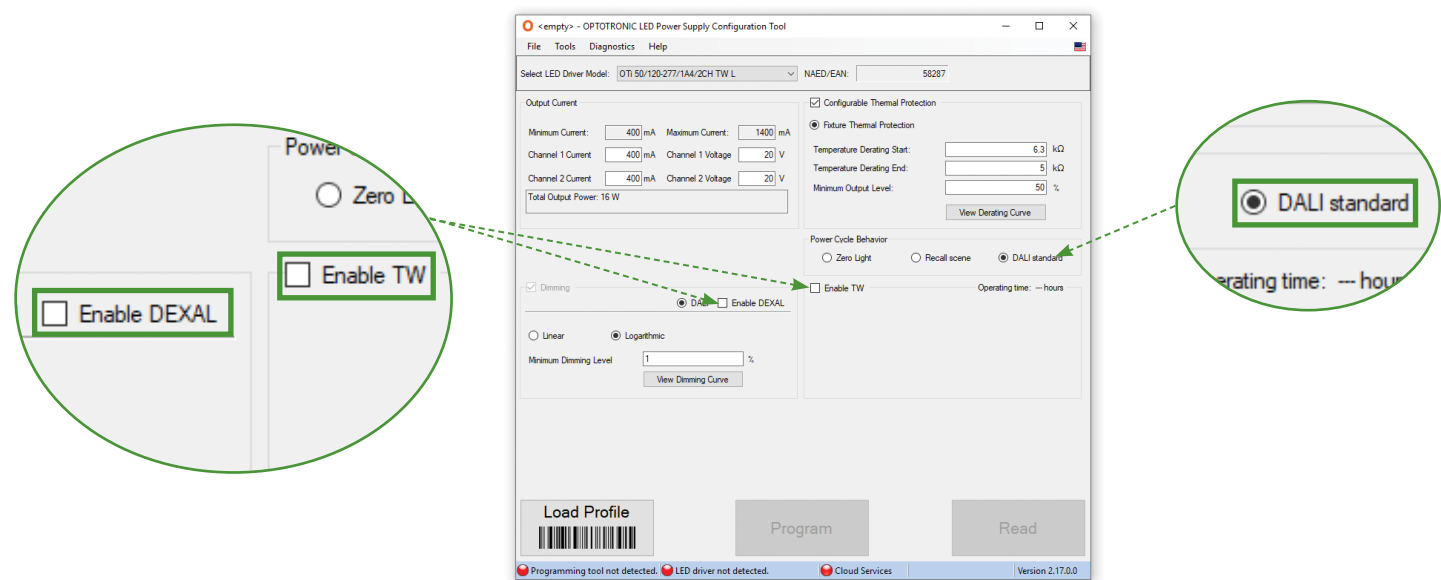
### Multiple DALI LED Drivers

When wiring multiple LED drivers to a single module, group the DA+ and DA- and follow the polarity as shown. A maximum of 4 LED drivers can be connected to a single module. .



Tunable White LED Driver Configuration

When using the OPTOTRONIC 2CH TW Led driver with SensiLUM, the following features need to be enabled – Enable DALI, Enable TW, and DALI Standard as shown in the image below. The Enable DALI feature turns on the DALI power supply from the LED driver that is used to provide power to the wireless devices.



END-OF-LINE TESTING

To facilitate OEMs conducting operation tests at the end of the manufacturing line with control modules installed, an end-of-line testing routine is pre-programmed into the device that confirms wiring and wireless communications. When the luminaire is powered, the fixture turns ON and reaches its full output. The sensor module then cycles through the entire dimming range starting from 100% output to OFF\* two times. This confirms that the module is receiving power and is able to communicate with the driver. If connected to a tunable white driver, an additional cycle of color temperature will occur, cycling the fixture from maximum cool (e.g. 6500K) to maximum warm (e.g. 2700K).

This end-of-line testing routine repeats whenever power is removed and reapplied to the device, for the first 10 times the devices is powered. Afterwards, the luminaire simply powers on. If additional wiring testing is needed, the Wiring Test Tool (EN-WTT-ZB) can be used to execute the end-of-line test sequence (available until the device is commissioned into a Wattstopper PLUS system), also confirming wireless communications. See the Wiring Test Tool user guide for more information.

\* Only when dim-to-off feature is enabled via the OT Programmer for OPTOTRONIC LED Power Supply. If feature set not enabled, the luminaire would go to the minimum dimming level.

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