

Omni TED

Trailing edge dimmer



PRODUCT OVERVIEW

Omni TED is a BLE5.2 controllable, trailing edge dimmer. It operates on 90–277VAC input voltage range and can work with single LED loads of up to 250W and has output to connect a switch. It also comes with an optional push button switch input to control the dimming and ON/OFF of the connected load.

The device is a part of the Lumos Controls ecosystem, including controllers, sensors, switches, modules, drivers, gateways, and analytical dashboards. It can be easily commissioned, configured and controlled from any mobile device and can be connected to Lumos Controls cloud for data analytics and configuration management. The ecosystem is listed by the **Design Lights Consortium (DLC)**, qualifying it for energy conservation incentive programs and rebates by utility companies.

SPECIFICATIONS

Electrical

Specifications	Value	Remarks
Input voltage	90–277VAC	Rated input voltage
Supply frequency	50–60Hz	
Inrush current protection	75A	
Surge transient protection	4kV	L-N, Bi wave
Dimming operation mode	Trailing edge	
Max output power	250W	250W @277VAC; 125W @90VAC
Min power requirement	None	Active power

FEATURES

- BLE5.2 based non-flooding intelligent communication
- 1 channel output, up to 250W
- Supports resistive and capacitive loads
- Optional push button switch input to control the dimming and ON/OFF of the connected load
- Compact form factor for easy installation
- Zero downtime Over-The-Air (OTA) firmware updates

Bluetooth

Specifications	Value	Remarks
Frequency range	2402–2483MHz	
Tx power	8dBm	With 150mm external wire antenna
Rx sensitivity	–95dBm	
Connection distance (device to device by mesh)	45m(147.6ft)	In an open office environment (Line of Sight)

Environmental

Specifications	Value
Operating temperature	–20 to 50°C (–4 to 122°F)
Storage temperature	–40 to 80 °C (–40 to 176°F)
Relative humidity	85%

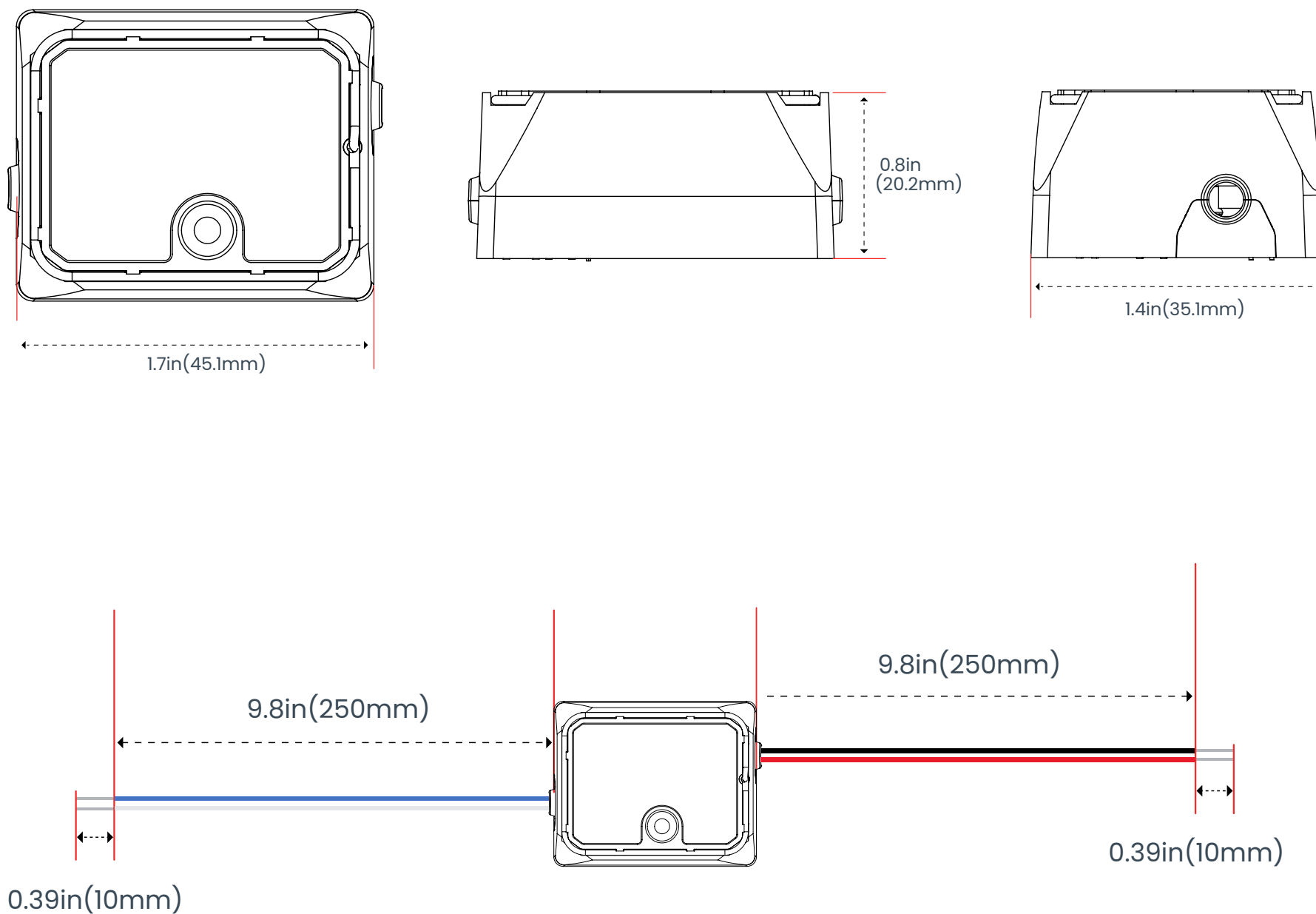
Mechanical

Specifications	Value	Remarks
Dimension	45.1 x 35.1 x 20.2mm (1.7 x 1.4 x 0.8in)	L x W x H
Weight	120g(4.23oz)	
Case material	ABS Plastic	
Flammability rating	UL 94 V-0	

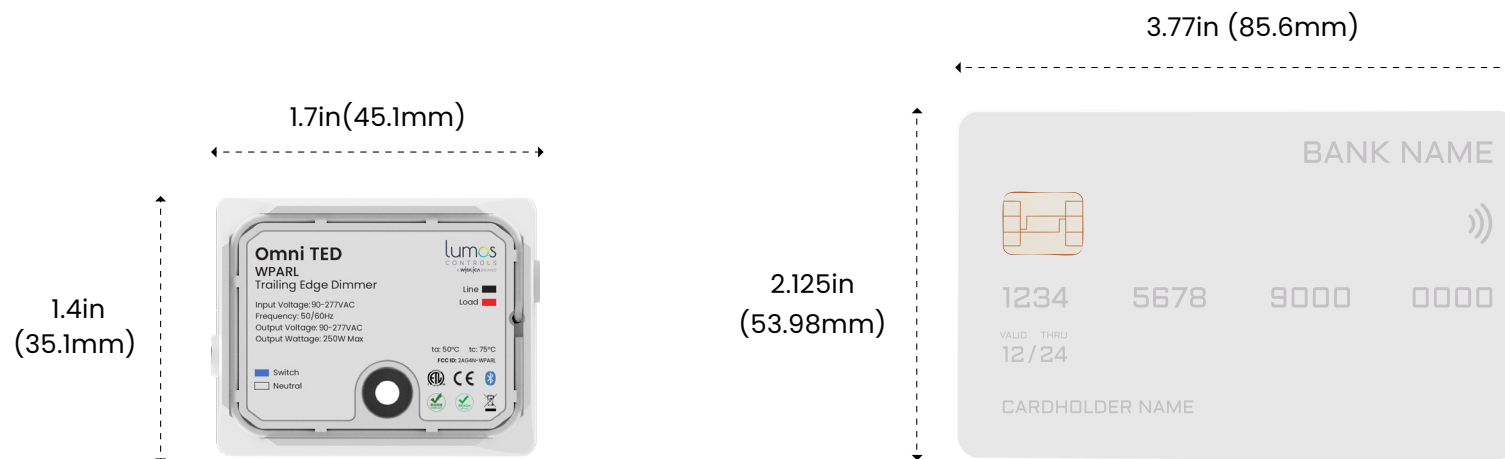
PRODUCT DIMENSIONS

Omni TED top view: 45.1 x 35.1 x 20.2mm (1.7 x 1.4 x 0.8 in) (L x W x H)

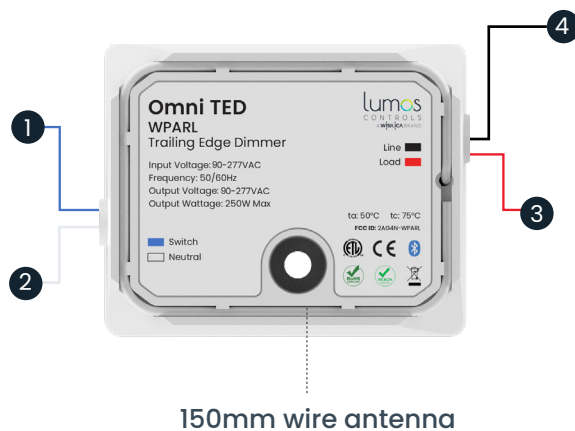
Case material: V0 flammability rated ABS plastic



Size comparison with a standard credit card



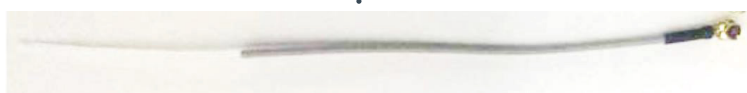
WIRE DESCRIPTION



Pin	Name	Color	Gauge	Rating	Description
1	Switch	Blue	18AWG (0.75mm ²)	600V	To connect switch control
2	Neutral	White	18AWG (0.75mm ²)	600V	Common neutral
3	Load	Red	18AWG (0.75mm ²)	600V	For load
4	Line	Black	18AWG (0.75mm ²)	600V	90-277VAC

ANTENNA INFORMATION

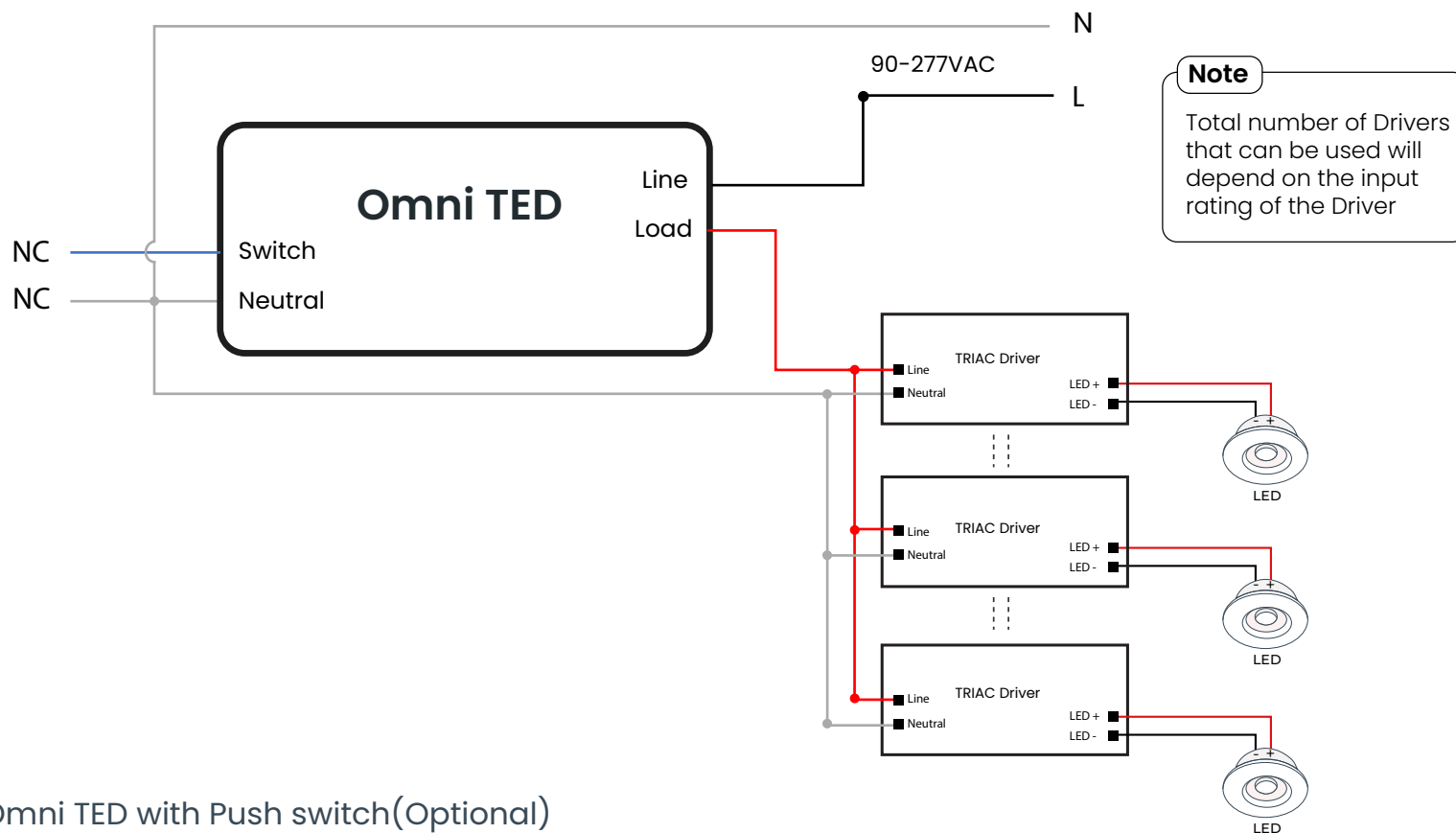
150mm wire antenna



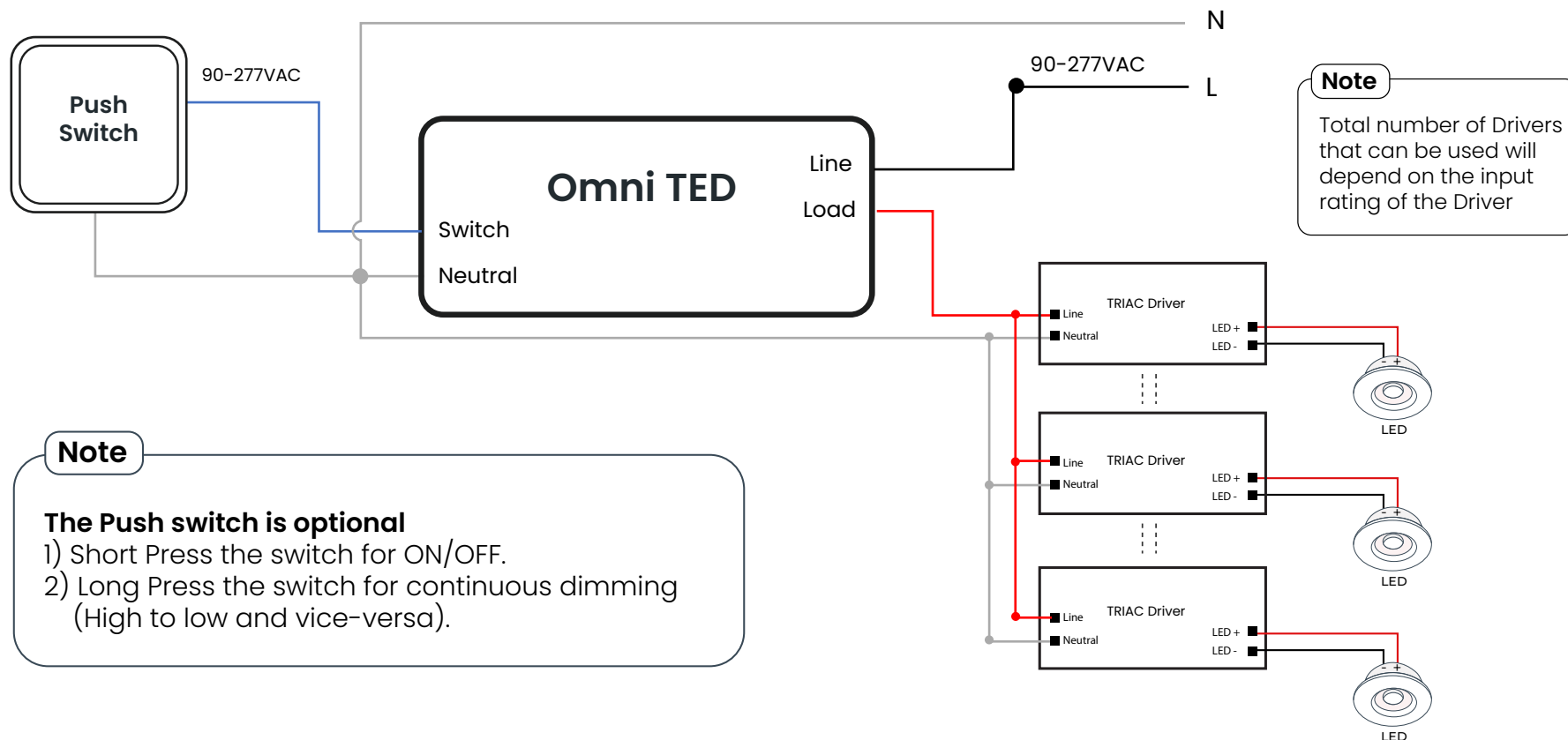
Antenna Properties	
Frequency range	2.4GHz-2.5GHz
Impedance	50Ω Nominal
VSWR	1.92:1 Max
Return loss	-10dB Max
Gain(peak)	1.5dBi
Cable loss	0.3dBi Max
Polarization	Linear

WIRING

1. Controlling Omni Ted using Lumos Controls app



2. Configuring Omni TED with Push switch(Optional)

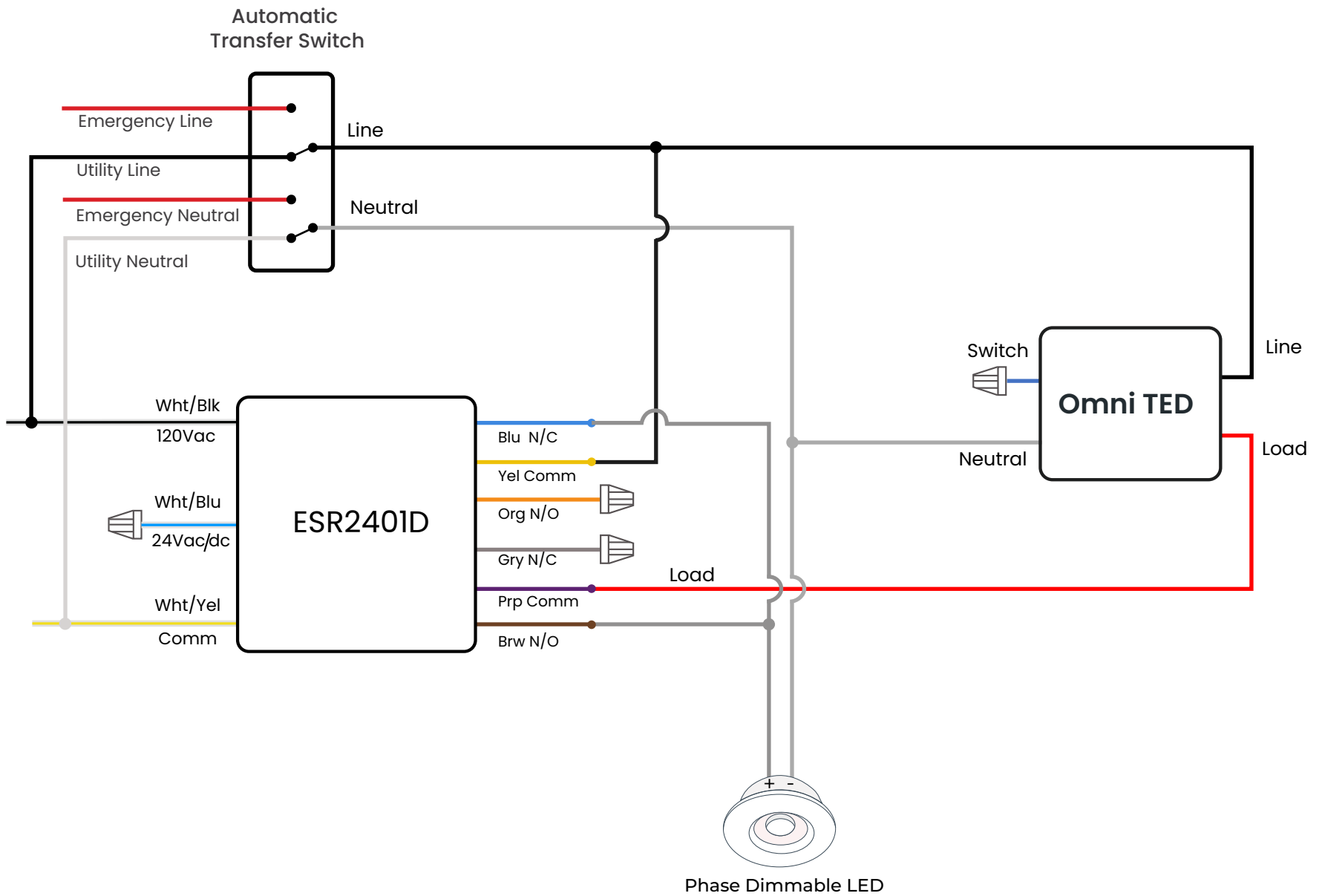


Note

The Push switch is optional

- 1) Short Press the switch for ON/OFF.
- 2) Long Press the switch for continuous dimming (High to low and vice-versa).

3. Configuring OmniTed for Emergency Lighting Control with ESR2401D(10Amp DPDT)



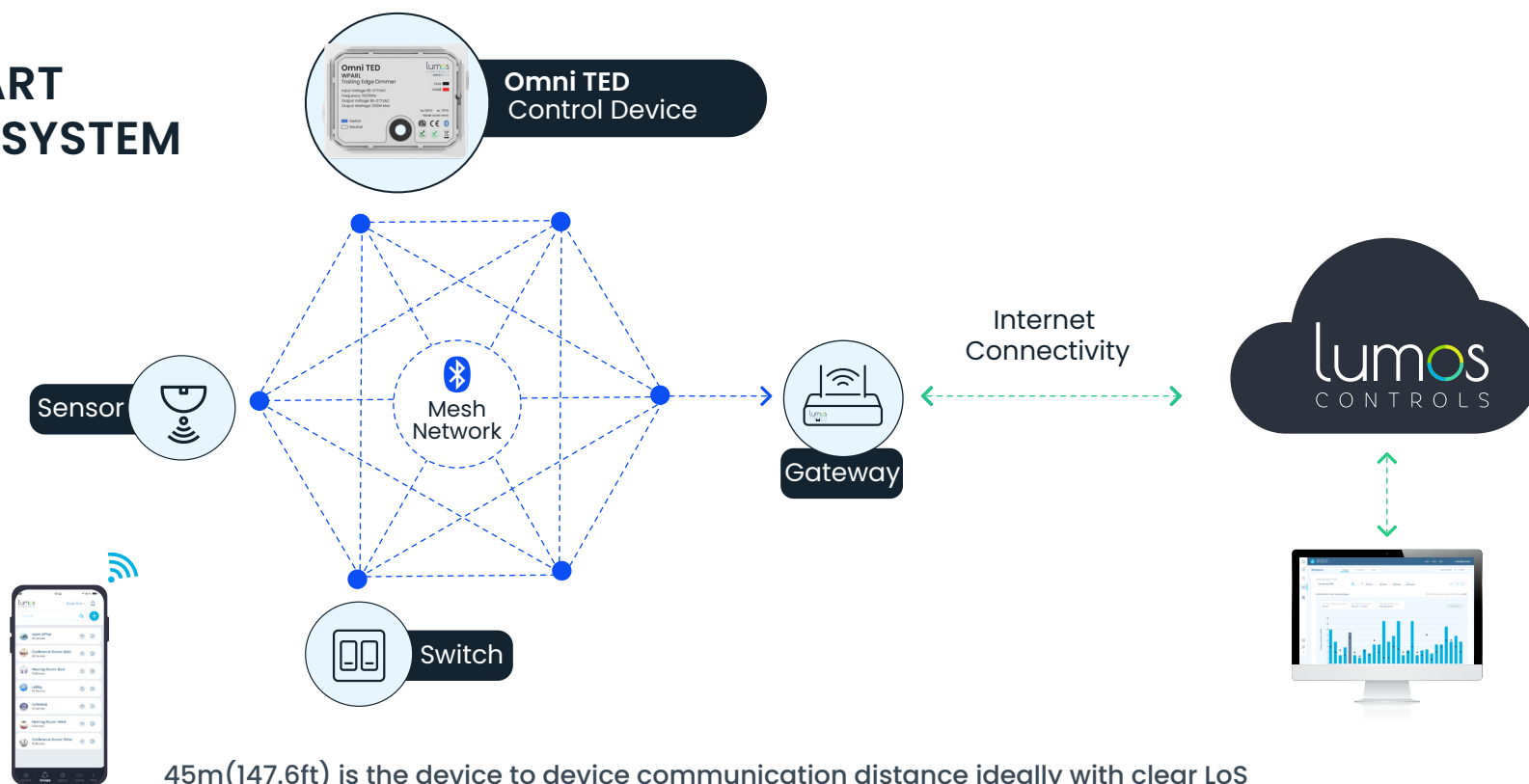
Wire Description Omni TED

█ Switch	█ Load
█ Neutral	█ Line

Wire Description ESR2401D

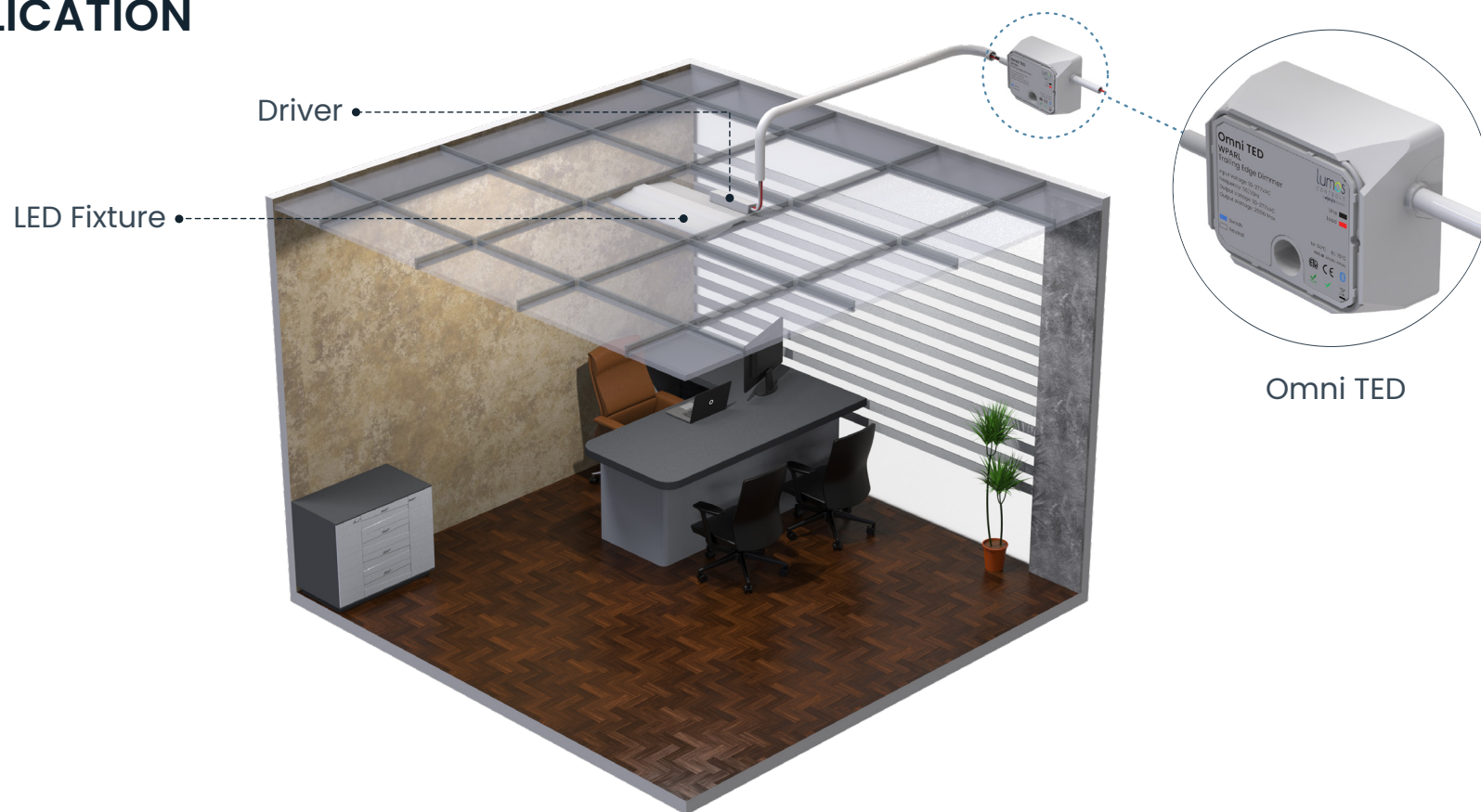
█ 120Vac	█ N/C	█ N/C
█ 24Vac/dc	█ Comm	█ Comm
█ Comm	█ N/O	█ N/O

SMART ECOSYSTEM



Certifications (in progress)	Details
CE	Article 3, RED 2014/53/EU EMC test standards Safety test standard Radio test standard Health test standard
RoHS 2.0	RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU
REACH	Regulation (EC) No 1907/2006 of REACH
WEEE	Under the WEEE Directive: 2012/19/EU
Bluetooth	Declaration ID: D059551
cETLus	Standard: UL 60730-1
FCC	ID: 2AG4N-WPARL

APPLICATION



ITEMS INCLUDED IN THE PACKAGE BOX

- Omni TED
- User manual
- Screw
- Wallplug
- Wirenut

ORDERING INFORMATION

Product Code	Product Name	Product Description	Communication	Voltage Rating	Load Rating
WPARL	Omni TED	Trailing edge dimmer	BLE5.2	90-277VAC	Up to 250W

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