LUTRON Energi Savr Node LED+ Phase Adaptive Installation Guide

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Adaptive Installation Guide

Please read before installing.

⚠️ **WARNING** Shock Hazard. May result in serious injury or death. Turn off power at circuit breaker before installing the unit.
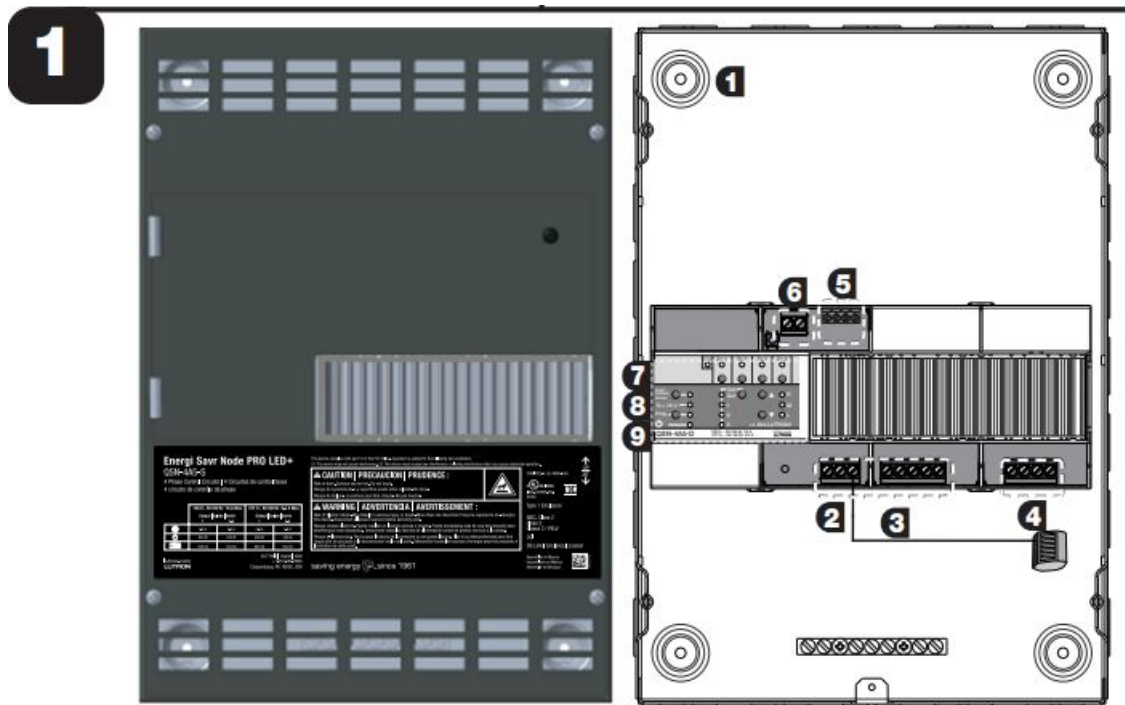
Buttons and LEDs in the unit are used for programming and troubleshooting. If wiring is exposed when accessing buttons and LEDs, the unit must be accessed by a certified electrician, following local codes.

Note: For additional information on unit operation and ratings, please refer to Lutron P/N 3691137 at www.lutron.com.
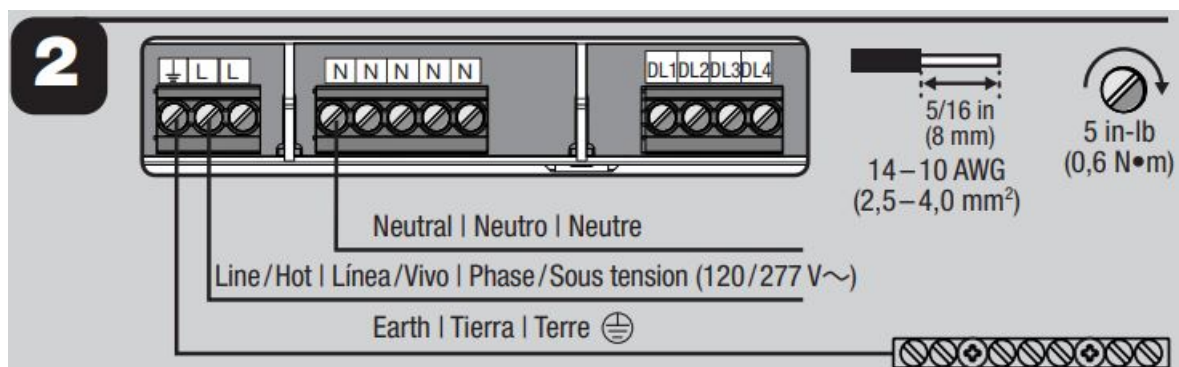
(1) Mounting

Note: Mount the Energi Savr Node (ESN) unit in a position where it can be easily located and accessed if service or troubleshooting is necessary.

- Remove metal outer panel cover.
- Mount vertically to ensure adequate cooling. Use 4 screws in corners of panel to securely mount unit. For alternate mounting orientations, refer to Lutron P/N 3691137 at **www.lutron.com**
- Internal relays make audible noise, mount where acceptable.
- Unit is 9.25 in (234.95 mm) wide x 13.25 in (336.55 mm) tall.

(2) Mains Wiring

- Turn off power (DO NOT WIRE LIVE), remove metal outer panel cover, and wire mains to the unit as shown (connect Earth to module and enclosure).
- Replace metal outer panel cover.
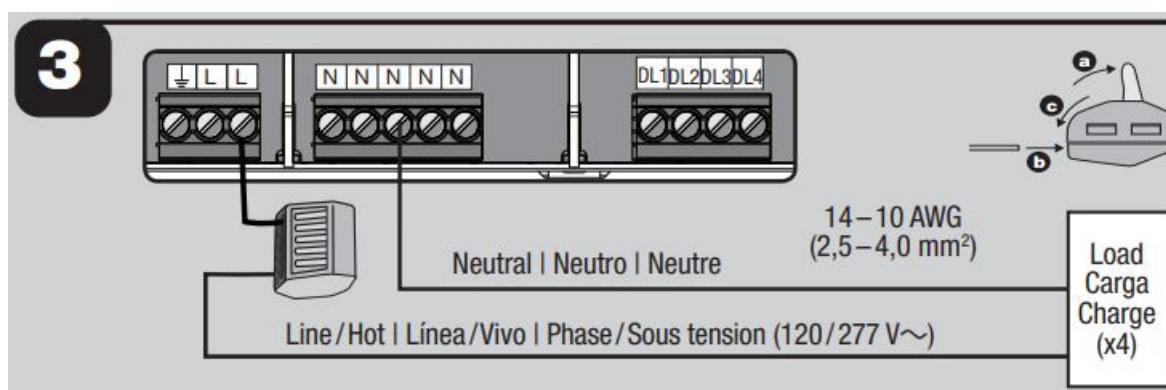- Apply power, "⏻" LED will light if unit is wired correctly.

(3) Verify Wiring

Follow the steps below to verify there are no faults in the load or wiring.

- Turn off power (DO NOT WIRE LIVE).
- Remove metal outer panel cover.

- Wire loads directly to Line / Hot using the provided bypass connector.
- Replace metal outer panel cover.
- Apply power and ensure that the desired loads power on without any faults.

(4) Zone Wiring

Note: Derating may be required depending on panel installation details. For derating information, refer to Lutron

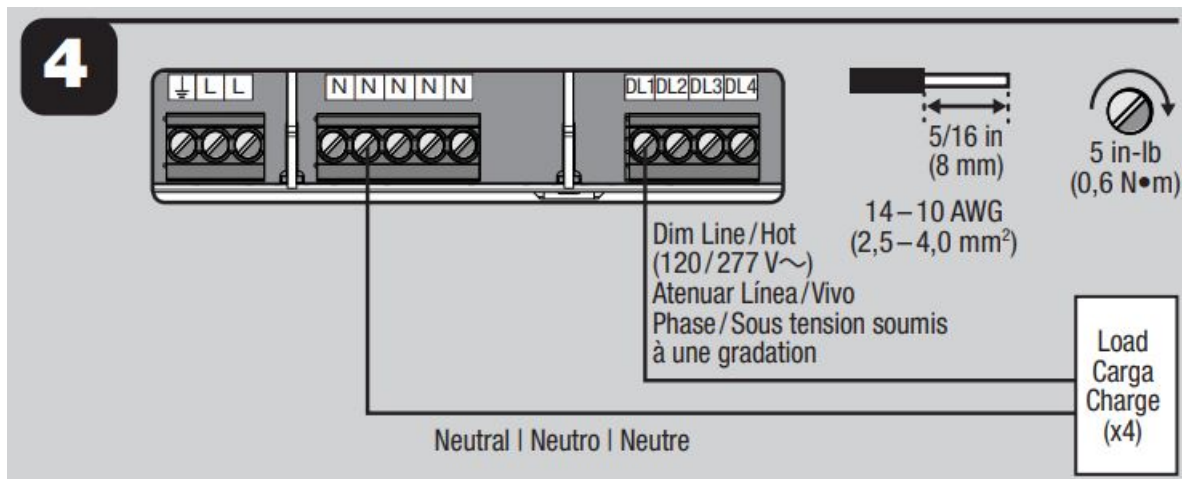| 120 V∼ Ratings:		
Load Type	Zone 1	Zone 2, 3 and 4 (per zone)
LED (reverse-phase) [1]	6.6 A	4.2 A
Lutron Hi-lume A-series LTE	4 A (20 drivers maximum)	3 A (13 drivers maximum)
LED SSL7A-2015 (forward-phase)	400 W	200 W
Incandescent/Halogen, ELV	800 W	500 W
Neon/Cold Cathode, MLV [2]	800 VA (600 W)	500 VA (380 W)
277 V∼ Ratings:		
Load Type	Zone 1	Zone 2, 3 and 4 (per zone)
LED (reverse-phase) [1]	2,9 A	1,8 A
Incandescent/Halogen, ELV	800 W	500 W
Neon/Cold Cathode, MLV [2]	800 VA (600 W)	500 VA (380 W)

product specification (3691137).
1 Refer to **www.lutron.com/ledtool** for specific LED compatibility information and recommended LED light sources.
2 Operation of a low-voltage circuit with lamps inoperative or removed may result in transformer overheating and premature failure. Lutron strongly recommends the following:
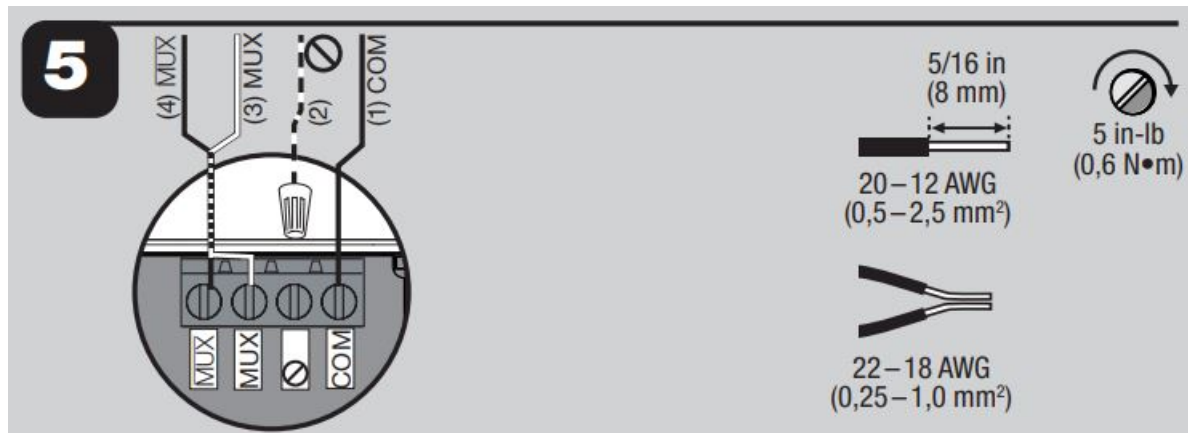a. Do not operate low-voltage circuits without operative lamps in place.
b. Replace burned-out lamps as quickly as possible.
c. Use transformers that incorporate thermal protection or fused transformer primary windings to prevent transformer failure due to overcurrent.

- Turn off power (DO NOT WIRE LIVE).
- Remove metal outer panel cover.
- Wire loads as shown.
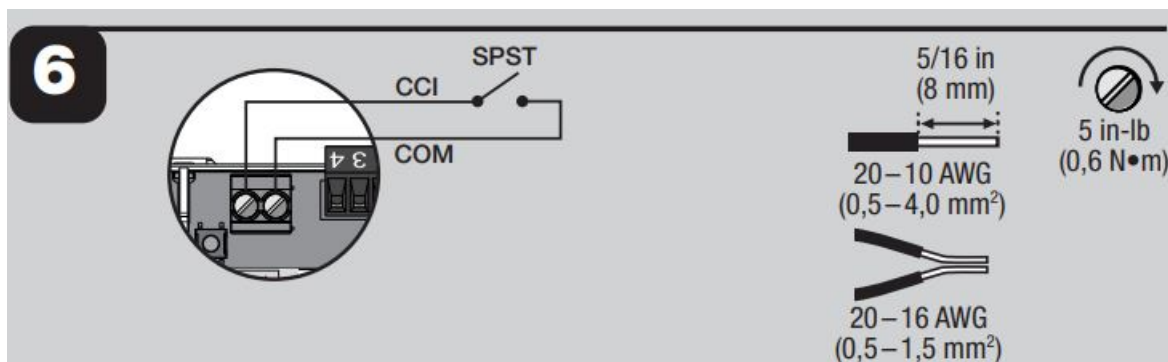- Replace metal outer panel cover and apply power.

(5) QS Link (NECR Class 2)

- Turn off power while servicing unit (DO NOT WIRE LIVE).
- Remove metal outer panel cover.
- Wire QS Link to the unit as shown, note terminals 3 and 4 are twisted, screened pair. Recommended **Lutron cable:** GRX-CBL-346S for wiring length less than 500 ft (153 m); GRX-CBL-46L for wiring length up to 2000 ft. (610 m).
- Link may be daisy chained or t-tapped, length not to exceed 2000 ft (610 m).
- Do not connect to terminal 2.
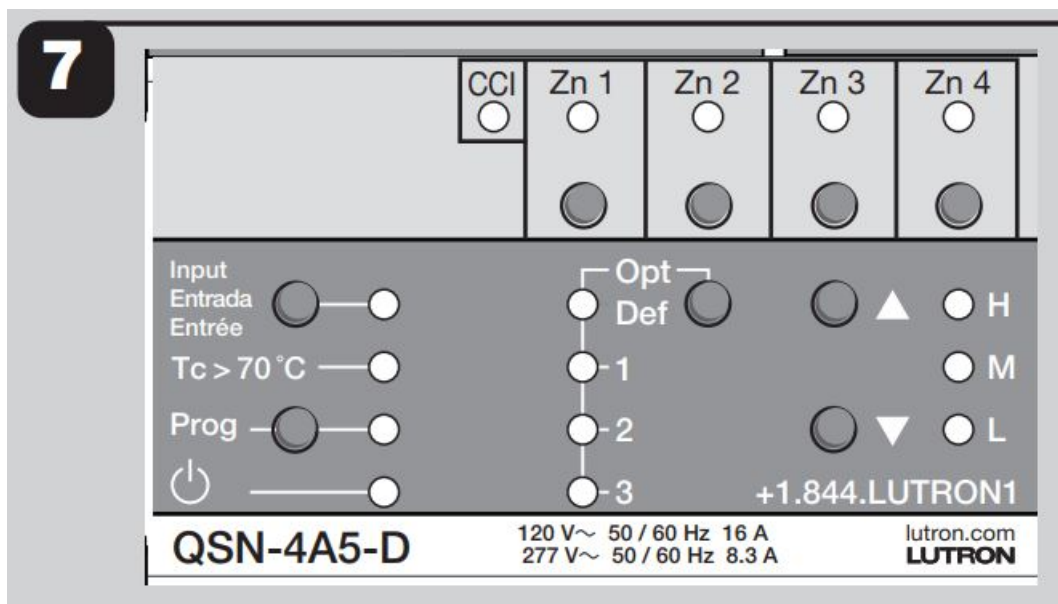- Replace metal outer panel cover and apply power.

(6) Emergency Contact Closure Input (NECR Class 2)

- If no external override control is required, leave pre-installed jumper in CCI terminals.
- Turn off power while servicing unit (DO NOT WIRE LIVE).
- Remove metal outer panel cover.
- Wire CCI as shown. A single pole switch (provided by others) must be wired in place of the jumper.
- If opened, unit will go to emergency light levels and not respond to inputs from other devices.
- When closed or umpired, unit will return to the settings or levels they were at prior to entering emergency.
- Replace metal outer panel cover and apply power.
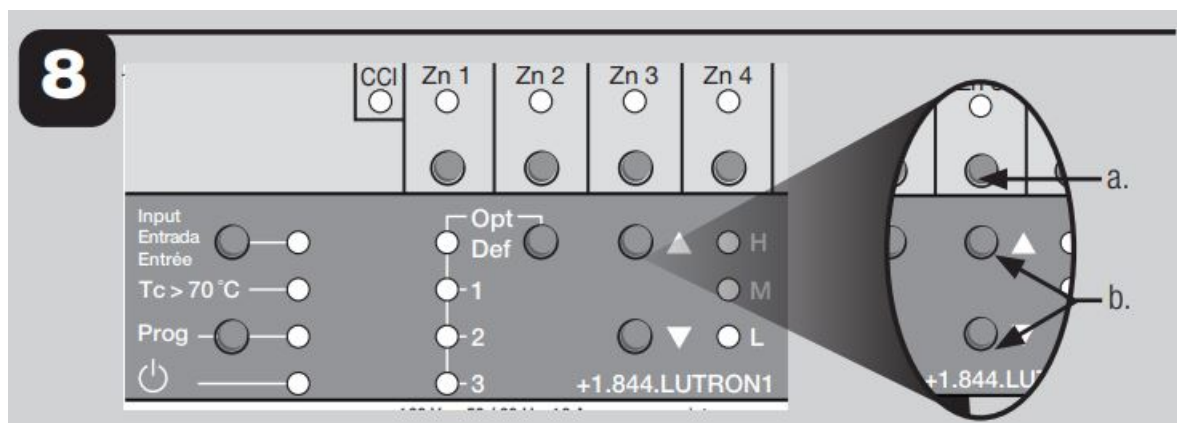
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(7) LED Diagnostic Indicators

LED	Behavior	Description
⏻ (Power)	Continuous on	Normal operation
	Off	General system failure / No power; verify breaker is on
	Rapid flash: 10 blinks/sec	Unit failure: contact Lutron
Tc > 70 °C (Hi Temp)	Off	Normal Operation
	1 second on, 7 seconds off	Unit is too hot, loads scaled to 25% power
	Continuous on	Unit is too hot, loads turned off
	Flashing: 1 blink/sec	Unit was overheated and has now cooled to acceptable temperature. To clear error, press the **"Input"**, **"Prog"**, **"▲"**, and **"▼"** buttons simultaneously.
Prog (Program)	Off	Device in Normal Mode
	Flashing: 1 blink/sec	Device in Program Mode
Zn 1-4 (Zone 1-4)	Off	Normal Operation: zone off
	Continuous on	Normal Operation: zone on
	1 blink, pause	Zone selected for manual control; will timeout after 10 seconds
		Output shorted or overloaded: verify wiring
	2 blink, pause	Overvoltage: verify load type
	3 blink, pause	Shorted component: verify panel jumper/wiring; contact Lutron
	4 blink, pause	Over temperature: zone may be overloaded, all loads scaled to 25%
	5 blink pause	Over temperature: zone may be overloaded, all loads turned off
	Rapid flash: 10 blinks/sec	Multiple errors: contact Lutron
CCI	Continuous on	Normal operation
	Rapid flash: 10 blinks/sec	Emergency mode / Contact open / Jumper missing

8 Verify Lights – On / Off

- Open Access Door on Metal Outer Panel Cover

    a "**Zn**" buttons: Press "**Zn**" button to select zone to control.

    b. " ▲ " **and** " ▼ " Buttons: Turn loads on and off.

    Note: Unit will only turn on and off until load type is programmed for dimming.

9 Verify Lights – Dimming (Optional)
a. Press and hold "**Prog**" and "**Input**" button for 3 seconds. b. Press a "**Zn**" button to select a zone. c. Press "opt" button repeatedly until opt 2 is selected. d. Use the " ▲ " and " ▼ " buttons to select desired
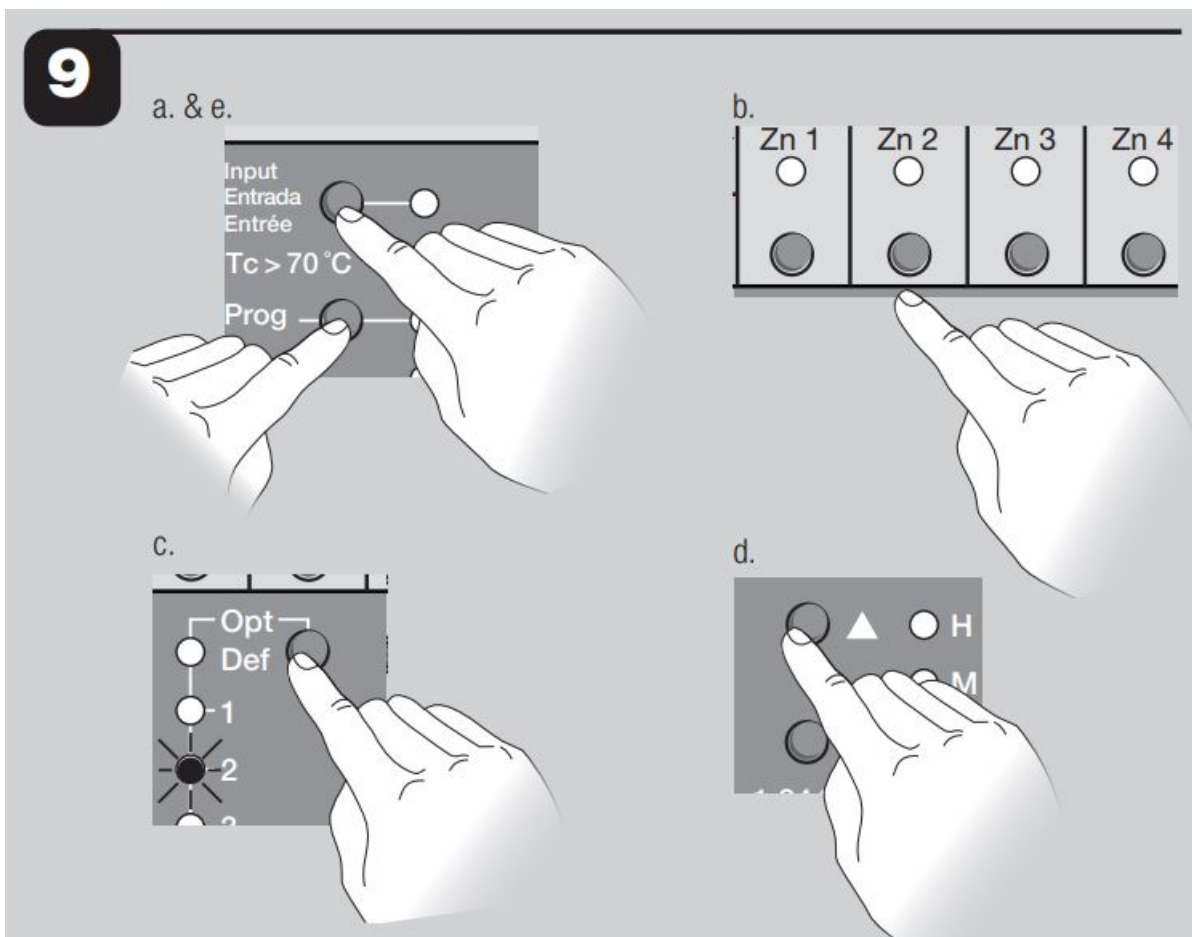
load type.
H: Auto (dim) Phase detection
Load Types M: MLV (dim) Leading edge / forward phase
L: ELV (dim) Trailing edge / reverse phase
Note: All load type settings will be overwritten by iOS programming. e. Press and hold " **Prog**" and "**Input**" button for 3 seconds to exit setup.

(10) Programming

- For iOS programming: Use the iOS Energi Savr application

  Note: Button programming is not supported.

FAQs (Frequently Asked Questions)

1. **Can I use non-dim loads with this product?** No, only dimmable loads may be used. Use PHPM-SW-DV-WH if non-dim control is required.
2. **Can I use LED loads with this product?** Yes, Refer to **www.lutron.com/ledtool** for compatibility with dimmable LED light sources.
3. **Can I use multiple load types on one zone?** No, only one load type may be used per zone.
4. **Can I control receptacles with this product?** No, use PHPM-SW-DV-WH if receptacle control (15 A maximum) is required.
5. **How do I know if the unit is dimming with leading-edge or trailing-edge dimming?** Press the "Opt." button and look at the "Zn" LEDs: Solid on = trailing edge / reverse phase 1 blink / second = leading edge / forward phase
6. How do I know if the QS link is working properly? Press the "Opt." button. If the " ⏻ " LED flutters periodically,

the QS link is operating normally. If the " ⏻' " LED is flashing, there is a communication error or there are no other QS devices on the link.

Customer Assistance **www.lutron.com/support**

U.S.A./Canada | E.U.A./Canadá | É.-U./Canada (1.844.LUTRON1)
Mexico | México | Mexique (+1.888.235.2910)
Others | Otros | Autres (610.282.3800)

Limited Warranty
www.lutron.com/TechnicalDocumentLibrary/Warranty.pdf

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Help: **www.lutron.com/support**

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Documents / Resources

	LUTRON Energi Savr Node LED+ Phase Adaptive [pdf] Installation Guide LUTRON, Energi Savr Node LED Phase Adaptive

References

- ☀ **Lutron: Beautiful light. Intelligent Shades. Powerful Controls**
- ☀ **Lutron: Beautiful light. Intelligent Shades. Powerful Controls**
- ☀ **LED Product Selection Tool**
- ☀ **Lutron Support Center | Lutron**

Manuals+,