



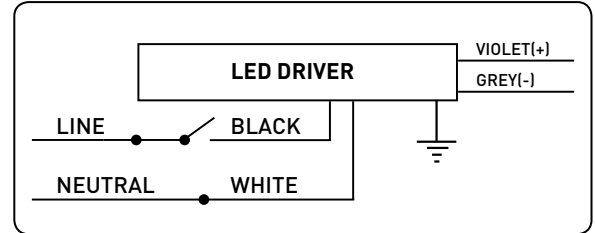
CR, LR, & ZR Series Troffers/Essentia® by Cree Flat Panel Troffers & S-WR Series Wraps/CS & LN Series Suspended Ambient Luminaires/LS Series Surface & Suspended Ambient Luminaires/UR Series LED Upgrade Kits  
**Control Options**

## 0-10V Dimming

The CR, LR, and ZR Series Troffers, Essentia® by Cree Flat Panel Troffers and S-WR Series Wraps, CS and LN Series Suspended Ambient Luminaires, LS Series Surface and Suspended Ambient Luminaires and UR Series LED Upgrade Kits work with any standard current sink 0-10V control (IEC60929). Adjust these luminaires to deliver the right amount of light for any task, or combine with energy-saving controls like timeclocks, occupancy sensors, and daylight sensors to maximize energy savings.

**IMPORTANT: USE ONLY RELAY BASED LIGHTING CONTROLS OR FET-BASED LIGHTING CONTROLS WITH A NEUTRAL CONNECTION.**

10V Source Current	
Luminaire	10V Source Current
CR Series Troffers	0.25mA
LR22™ Troffers	2.00mA
ZR Series Troffers	0.25mA
CS Series Suspended Ambient Luminaires	0.25mA
LS Series Surface and Suspended Ambient Luminaires	0.25mA
UR Series Upgrade Kits	0.25mA
Flat Panel Troffers	0.10mA
S-WR Series Wraps	0.25mA
LN Series Suspended Ambient Luminaires	0.25mA



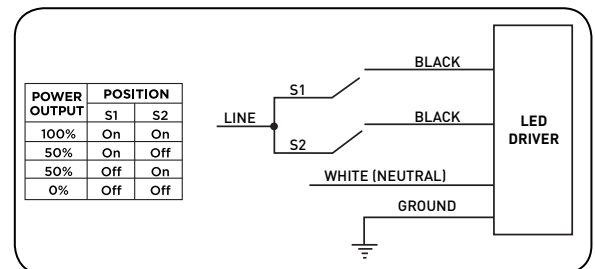
0-10V DIMMING WIRING DIAGRAM

## Step Dimming 50% (CR Series Troffers and UR Series Upgrade Kits ONLY)

The “S” option is for Step Dimming 50%. This option allows the luminaire to deliver either 100% light output (both switches ON), 50% light output (either switch ON and the other OFF) or 0% light output (both switches in the OFF position). Control the CR Series Troffers or UR Series Upgrade Kits with a simple toggle switch, or capture additional savings with energy-saving controls like timeclocks, occupancy sensors, and daylight sensors.

**IMPORTANT: USE ONLY RELAY BASED LIGHTING CONTROLS OR FET-BASED LIGHTING CONTROLS WITH A NEUTRAL CONNECTION.**

**NOTE:** (1) DO NOT CONNECT two separate phases of the line voltage to the input of the CR Troffer, the LED driver will be damaged and not covered by warranty. (2) Install in accordance with National & Local Electric Code(s). (3) The AC line inputs must be connected to the same phase of the line voltage. (4) If step dimming isn't required, combine BLACK- Switched HOT #1 (S1) and BLACK- Switched HOT #2 (S2) together.

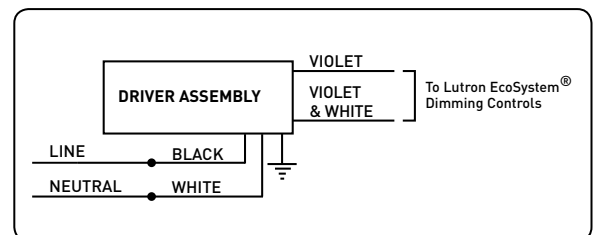


STEP DIMMING WIRING DIAGRAM

## Lutron EcoSystem® Dimming 5% (CR Series Troffers ONLY)

The “LES” option is for Lutron EcoSystem® Enabled dimming to 5%. With this option, the luminaire is designed with an intelligent, pre-tested microprocessor directly integrated into its LED driver. This design eliminates the need for additional interfaces, enabling the fixture and controls to communicate directly with each other for instant and seamless interoperability with Lutron EcoSystem® Technology.

The latest test results can be found at:  
<http://www.lutron.com/en-US/Service-Support/Pages/Technical/Design-SelectionTools/LEDDimmerMatrix.aspx>



LUTRON ECOSYSTEM® DIMMING WIRING DIAGRAM

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