CR Series Troffer / FLEX Series Troffer / ZR Series Troffer / CS & LN Series Suspended Ambient Luminaire / LS Series Surface Ambient Luminaire / UR Series LED Upgrade Kit / Stylus Linear Series

Control Options

0-10V Dimming 5% (1% on select luminaires)

Increase energy savings and aesthetics with 0-10V dimming control to 5% or 1% (FLEX Series Troffer and Stylus Linear Series). The CR Series Troffer, FLEX Series Troffer, ZR Series Troffer, CS & LN Series Suspended Ambient Luminaire, LS Series Surface Ambient Luminaire, UR Series LED Upgrade Kit, and the Stylus Linear Series work with any standard current sink 0-10V control [IEC60929]. Adjust the 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 LIGHTING CONTROLS WITH RELAY OR FET-BASED OUTPUTS, OR LIGHTING CONTROLS WITH NEUTRAL CONNECTION.

Step Dimming 50% (CR Series Troffer 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 Troffer or UR Series Upgrade Kit with a simple toggle switch, or capture additional savings with energy-saving controls like timeclocks, occupancy sensors, and daylight sensors.

IMPORTANT: USE ONLY LIGHTING CONTROLS WITH RELAY OR FET-BASED OUTPUTS, OR LIGHTING CONTROLS WITH NEUTRAL CONNECTION.

NOTE: (1) DO NOT CONNECT two separate phases of the line voltage to the input of the CR Troffer or UR Series Upgrade Kits, 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.

Lutron EcoSystem® Dimming 5% (CR Series Troffer 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.

IMPORTANT: USE ONLY LIGHTING CONTROLS WITH RELAY OR FET-BASED OUTPUTS, OR LIGHTING CONTROLS WITH NEUTRAL CONNECTION.

© 2019 Cree Lighting, A company of IDEAL INDUSTRIES. All rights reserved. For informational purposes only. Content is subject to change. Patent www.creelighting.com/patents. Cree® and the Cree logo are registered trademarks of Cree, Inc. Lutron EcoSystem®, Lutron®, and the Lutron logo are registered trademarks of Lutron, Inc.

© 2019 Cree Lighting, A company of IDEAL INDUSTRIES. All rights reserved. For informational purposes only. Content is subject to change. Patent www.creelighting.com/patents. Cree® and the Cree logo are registered trademarks of Cree, Inc. Lutron EcoSystem®, Lutron®, and the Lutron logo are registered trademarks of Lutron, Inc.

US: creelighting.com  (800) 236-6800
Canada: creelighting-canada.com  (800) 473-1234

CA RESIDENTS WARNING: Cancer and Reproductive Harm – www.p65warnings.ca.gov
Manufacturer: Cree Lighting  
Model Number Tested: CR22-35L-35K-10V  
Other Model Numbers: CR14-xxxx-10V, CR22-xxxx-10V, and CR24-xxxx-10V models

### Manufacturer's Description

**Type of device:** LED CR22 35W troffer  
**Control Type:** 0-10V sink or EcoSystem  
**Operating voltage:** 120V  
**Input Power:** 50W maximum  
**Input Frequency:** 60Hz  
**Input Current:** Varies  
**Output Power:** Varies  
**Lumen Output:** Varies  
**Input Frequency:** 60Hz  
**Date Tested:** 3-Apr-12  
**Figure of Merit:** N/A  
**Test Voltage:** 120 V  
**Test Notes:** None

### Lutron Test Results

<table>
<thead>
<tr>
<th>Product</th>
<th>Model Number</th>
<th>Fixtures per Dimmer</th>
<th>Measured Dimming Range</th>
<th>Perceived Low End</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Minimum</td>
<td>Maximum</td>
<td>Low End</td>
</tr>
<tr>
<td><strong>Wallbox Dimmers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nova T/Nova/Diva (all with Power Pack)</td>
<td>DVT/NFTV/N TFFV with PP-20</td>
<td>1</td>
<td>47</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Commercial Systems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energi Savr Node</td>
<td>QSN-4T16-S</td>
<td>1</td>
<td>52</td>
<td>2%</td>
<td>98%</td>
</tr>
<tr>
<td>Panels</td>
<td>TVM2 Module</td>
<td>1</td>
<td>N/A</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>EcoSystem</td>
<td>All EcoSystem-compatible controls</td>
<td>1</td>
<td>32 or 64</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>EcoSystem</td>
<td>TVI-LMF-2A</td>
<td>1</td>
<td>5</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Residential Systems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panels</td>
<td>TVM2 Module</td>
<td>1</td>
<td>N/A</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Interfaces</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRX-TVI with Grafik Eye QS Main Unit</td>
<td>1</td>
<td>54</td>
<td>5%</td>
<td>100%</td>
<td>22%</td>
</tr>
</tbody>
</table>

**Notes:**

1. Values are based on light output using the specified dimming control, and may not be an indication of the fixture's full rated capability  
2. Perceived light level percentage is the square root of the measured light level percentage, per IESNA Lighting Handbook  
3. Interfaces have been tested with the listed control; any compatible dimmer may be used instead, but high end/low end light levels may vary slightly

Test Comments: High and low end trim required for all controls

For any questions on this report, please contact the Lutron LED Center of Excellence at 877-DIM-LED8 or leds@lutron.com. This information was posted with the consent and cooperation of the device manufacturer. Latest test results can always be found at www.lutron.com/LEDtool.