Product Description
The ZR24™ LED troffer delivers 4000 lumens of superior 90 CRI light quality and is perfect for both new construction or renovation. Powered by Cree TrueWhite® Technology, the slim and lightweight ZR24 LED troffer boasts an efficacious 90 LPW performance along with 0-10V dimming to meet local energy codes. The ZR24 LED troffer embodies a breakthrough in balancing energy savings, visual comfort and initial cost.

Performance Summary
- Utilizes Cree TrueWhite® Technology
- Assembled in the US & Mexico
- Efficacy: 90 LPW
- Delivered Light Output: 4000 lumens
- Input Power: 44 watts
- CRI: 90 CRI
- CCT: 3500K, 4000K
- Input Voltage: 120-277 VAC
- Limited Warranty: 10 years†
- Lifetime: Designed to last up to 75,000 hours
- Controls: 0-10V (Standard)*
- Mounting: Recessed

Ordering Information
Example: ZR24-40L-35K-10V

<table>
<thead>
<tr>
<th>ZR24</th>
<th>40L</th>
<th>Lumen Output</th>
<th>Color Temp</th>
<th>Voltage</th>
<th>Control</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZR24</td>
<td>40L</td>
<td>44W, 4000 Lumens</td>
<td>35K 3000 Kelvin</td>
<td>Blank 120-277 Volt (Standard)</td>
<td>10V 0-10V Dimming 5%</td>
<td>EB Emergency Backup**</td>
</tr>
</tbody>
</table>

† See www.cree.com/lighting/products/warranty for warranty terms
* Reference www.cree.com/lighting for recommended dimming controls and wiring diagrams
** EB option available Q2 2014
**Product Specifications**

**CREE TRUEWHITE® TECHNOLOGY**
A revolutionary way to generate high efficacy light with superior color rendering and lifelong color consistency. Cree TrueWhite Technology delivers a no compromise solution to enhance any space.

**LUMEN MAINTENANCE FACTORS**
- Reference www.cree.com/lighting for detailed lumen maintenance factors

**CONSTRUCTION & MATERIALS**
- Durable cold rolled steel housing provides strength and uniformity
- Ultra-thin 3.9” fixture height and lightweight design effectively target a broad range of plenum spaces and allow for easy installations
- Fixture is pre-painted for enhanced smooth finish
- Provided t-bar clips and holes for mounting support wires enable recessed or suspended installation
- Fixture sides and ends are hemmed in for safe, easy handling

**OPTICAL SYSTEM**
- Unique fixture design creates perfect balance of both horizontal and vertical illumination
- Optimized smooth lens eliminates pixelation and delivers a low-glare, diffused light distribution

**ELECTRICAL SYSTEM**
- Cree born components including highly efficacious Cree® LED chips along with an integral high-efficiency Cree® driver
- Power Factor = 0.9 nominal
- Input Power: Stays constant over life
- Input Voltage: 120-277V, 50/60Hz
- Battery Backup: Consult factory
- Temperature Rating: Designed to operate in temperatures 0-35˚C and below room side and plenum side
- Total Harmonic Distortion: <20%

**CONTROLS**
- Continuous dimming to 5% with 0-10V controls comes standard*

**REGULATORY & VOLUNTARY QUALIFICATIONS**
- UL924 (EB option)
- cULus Listed
- Suitable for damp locations
- Designed for indoor use

*Reference www.cree.com/lighting for recommended dimming controls and wiring diagrams

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**Photometry**

**ZR24 BASED ON CESTL REPORT TEST #: 2014-0005**

Fixture photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a fixture efficiency of 100%.

**Coefficients Of Utilization**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Lumens</th>
<th>% Lamp</th>
<th>Luminaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-30</td>
<td>990</td>
<td>N/A</td>
<td>24.4%</td>
</tr>
<tr>
<td>0-40</td>
<td>1628</td>
<td>N/A</td>
<td>40.1%</td>
</tr>
<tr>
<td>0-60</td>
<td>2949</td>
<td>N/A</td>
<td>72.6%</td>
</tr>
<tr>
<td>0-90</td>
<td>4064</td>
<td>N/A</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Average Luminance Table (cd/m2)**

<table>
<thead>
<tr>
<th>Vertical Angle</th>
<th>0˚</th>
<th>45˚</th>
<th>90˚</th>
</tr>
</thead>
<tbody>
<tr>
<td>0˚</td>
<td>1269</td>
<td>1269</td>
<td>1269</td>
</tr>
<tr>
<td>45˚</td>
<td>813</td>
<td>879</td>
<td>940</td>
</tr>
<tr>
<td>55˚</td>
<td>634</td>
<td>718</td>
<td>809</td>
</tr>
<tr>
<td>65˚</td>
<td>438</td>
<td>558</td>
<td>693</td>
</tr>
<tr>
<td>75˚</td>
<td>231</td>
<td>406</td>
<td>511</td>
</tr>
<tr>
<td>85˚</td>
<td>58</td>
<td>152</td>
<td>195</td>
</tr>
</tbody>
</table>

**Effective Floor Cavity Reflectance: 20%**

**Reference**

www.cree.com/lighting
for detailed photometric data.

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**Application Reference**

**Open Space**

<table>
<thead>
<tr>
<th>Spacing</th>
<th>Lumens</th>
<th>Wattage</th>
<th>LPW</th>
<th>w/ft²</th>
<th>Average fc</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 x 10</td>
<td>4000L</td>
<td>44W</td>
<td>90</td>
<td>0.66</td>
<td>56</td>
</tr>
<tr>
<td>8 x 10</td>
<td>4000L</td>
<td>44W</td>
<td>90</td>
<td>0.55</td>
<td>46</td>
</tr>
<tr>
<td>10 x 10</td>
<td>4000L</td>
<td>44W</td>
<td>90</td>
<td>0.44</td>
<td>37</td>
</tr>
<tr>
<td>10 x 12</td>
<td>4000L</td>
<td>44W</td>
<td>90</td>
<td>0.35</td>
<td>30</td>
</tr>
</tbody>
</table>

9’ ceiling: 80/50/20 reflectances; 2.5’ workplane, open room, LLF: 1.0 Initial
Open Space: 50’ x 40’ x 10’

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