Light Veil Series
Tokistar’s Light Veil is a highly efficient LED wall-grazing fixture with asymmetrical light distribution. The unique multi-faceted reflectors deliver scallop-free light evenly from the very top of a wall to the floor beneath.

This application demonstrates Light Veil’s unique abilities. Instead of placing a fixture under each shelf, a single luminaire on the ceiling evenly illuminates every shelf, top to bottom. This reduces costs and complexity, adding to the system’s efficiency.

Fixtures are typically recessed or surface mounted on the ceiling 8-24” from the wall. Light is cast across the ceiling then makes the turn to graze the wall. It delivers a powerful amount of light similar to a downlight, yet has the soft and even appearance of a wall washer.
Light Veil comes in three configurations:

- **LVRH Series** with hinges for installations on ceilings with open air space behind.

- **LVRS Series** for direct attachment into a recessed space.

- **LVSM Series** a surface mount version where no recess exists.
Typical wall washers have a brighter concentration of light directly under the fixture. Light Veil evenly illuminates the entire surface without casting shadows. When used on surfaces with unsightly construction lines, the reflector optics mask and minimize the seams.

**Specify by Catalog Number**

**LVRS - 2700**

<table>
<thead>
<tr>
<th>Extrusion Style</th>
<th>LED</th>
<th>Lumens Per Watt</th>
<th>Lumens Per Foot</th>
<th>CRI Value</th>
<th>Kelvin</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVRS Recessed in Surface</td>
<td>2700</td>
<td>42.5</td>
<td>255 Lm</td>
<td>85</td>
<td>2700K</td>
</tr>
<tr>
<td>LVSM Surface Mount</td>
<td>3000</td>
<td>44.0</td>
<td>263 Lm</td>
<td>85</td>
<td>3000K</td>
</tr>
<tr>
<td>LVRS Recessed with Hinge</td>
<td>4000</td>
<td>47.5</td>
<td>285 Lm</td>
<td>85</td>
<td>4000K</td>
</tr>
</tbody>
</table>

**Mounting Methods**

- **Recessed in Surface**
- **Surface Mount**
- **Recessed with Hinge**

**Specifications**

- **Extrusion** is Powder Coated Aluminum
- **End Caps** are Powder Coated Aluminum
- **Light Bars** are Rigid Polycarbonate 8” (200 mm) long
- **Light Sources** are 0.80 Watt LEDs (5 per Light Bar)
- **Baffle** is Powder Coated Aluminum
**Design Guidelines**

Light Veil may be specified in different configurations. All versions include a track fitted with Light Bars. A single fixture can range from 1-12 Light Bars. Each Light Bar consumes 4 watts. Up to 24 Light Bars (96 watts) may be connected together.

Since fixtures have an asymmetrical shape, all feed wires originate from the left as shown.

**Fixture Lengths**

Fixtures cannot be trimmed on site, so the overall length is based upon the number of Light Bars included. Check the sizes and lengths chart for precise measurements.

**Multiple Length Assembly**

Light Veil fixtures are provided with male & female connectors and end caps. For ease in connecting runs exceeding 12 Light Bars remove end caps.

**Photometrics**

Footcandle Summaries

- **Test Criteria:**
  - Lamp: 0.8 Watt/35 Lm/3000K
  - Optics: Asymmetrical Lens
  - LED Spacing: 1.6" O.C. (40 mm)
  - Length: 120" (3 M)
- **Reflectance Values**: Ceiling: 80% / Wall 50% / Floor 20%

**Conversion Factors:**

- **Lamp:** Multiply by .97 for 0.8 Watt/34 Lm/2700K
- **Lamp:** Multiply by 1.09 for 0.8 Watt/38 Lm/4000K
- **Lux Value:** Multiply Footcandle Value by 1.0764 to Determine Lux Value

**Light Distribution**

- Maximum Fixture Length: 24 Light Bars
- Light Veil System

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Bars</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV-(Ordering Code)-1</td>
<td>1</td>
<td>8.25&quot;</td>
</tr>
<tr>
<td>LV-(Ordering Code)-2</td>
<td>2</td>
<td>16.125&quot;</td>
</tr>
<tr>
<td>LV-(Ordering Code)-3</td>
<td>3</td>
<td>24&quot;</td>
</tr>
<tr>
<td>LV-(Ordering Code)-4</td>
<td>4</td>
<td>31.875&quot;</td>
</tr>
<tr>
<td>LV-(Ordering Code)-5</td>
<td>5</td>
<td>39.75&quot;</td>
</tr>
<tr>
<td>LV-(Ordering Code)-6</td>
<td>6</td>
<td>47.625&quot;</td>
</tr>
<tr>
<td>LV-(Ordering Code)-7</td>
<td>7</td>
<td>55.5&quot;</td>
</tr>
<tr>
<td>LV-(Ordering Code)-8</td>
<td>8</td>
<td>63.375&quot;</td>
</tr>
<tr>
<td>LV-(Ordering Code)-9</td>
<td>9</td>
<td>71.25&quot;</td>
</tr>
<tr>
<td>LV-(Ordering Code)-10</td>
<td>10</td>
<td>79.125&quot;</td>
</tr>
<tr>
<td>LV-(Ordering Code)-11</td>
<td>11</td>
<td>87&quot;</td>
</tr>
<tr>
<td>LV-(Ordering Code)-12</td>
<td>12</td>
<td>94.875&quot;</td>
</tr>
</tbody>
</table>
Secondary Lead Wire

Leads on feed connectors are 18” long. Additional lead wire may be spliced on by the installer in order to reach remote LED driver locations. The distance from the fixture to the power supply and the load of the fixture will determine the proper size of secondary wire. This chart provides recommended distance of the secondary circuit using #12 AWG based upon the loads shown.

Power Supply

24 VDC LED Drivers

Light Veil Systems are operated from Tokistar’s 24 VDC LED Drivers. These Class 2 power supplies have a single or dual outputs limited to 96 watts/4 amps. The input is universal ranging from 100 to 277 VAC 50/60 Hz.

Part#: LDR24-96

Tokistar’s LDR24-96 is a 96 Watt Class 2 LED Driver used to convert an AC input into a 24 VDC output. It may be operated from a wide range of input voltages.

Part#: LDR24-192

Tokistar’s LDR24-192 has two independent 96 watt outputs. The unit has wiring compartments for splicing on input and output leads, and can be connected directly to conduit. The enclosure is suitable for wet locations and rated IP65.

<table>
<thead>
<tr>
<th>Load / Amps</th>
<th>Wire Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 watts / 1 amp</td>
<td>130’ (40 M)</td>
</tr>
<tr>
<td>48 watts / 2 amps</td>
<td>98’ (30 M)</td>
</tr>
<tr>
<td>72 watts / 3 amps</td>
<td>65’ (20 M)</td>
</tr>
<tr>
<td>96 watts / 4 amps</td>
<td>32’ (10 M)</td>
</tr>
</tbody>
</table>

LDR24-96 Specifications
Input Range: 100~277 VAC
Frequency Range: 50/60 Hz
Output: 24 VDC (+/- 3%)
Max. Output Current: 4.0A
Max. Output Power: 96W
Protection: Overload, Over voltage, Short Circuit, Over Temperature
Working Temperature: -30°C~+50°C

Mechanical Specifications
Dimensions: 2.7” x 8.8” x 1.6”
Weight: 998g / 2.2 lbs
Enclosure Rating: Suitable for use in Dry, Damp and Wet Locations/IP67 Rated
Mounting: Flange Mount

Safety Standards
UL 879, UL 8750, UL 1310 Class 2, TUV EN60950-1, EN61347-1, EN61347-2-3 ind.
CAN/CSA C22.2 No. 223-M91, IP67 Rated

LED Capacity
4. Watt Light Bars: 24 each

LDR24-192 Specifications
Input Range: 100~277 VAC
Frequency Range: 50/60 Hz
Output: 24 VDC (Adjustable +5% / -30%)
Max. Output Current: 8.0A (2 @ 4.0A)
Max. Output Power: 192W (2 @ 96W)
Protection: Overload, Overcurrent, Short Circuit
Operating Temperature: -25°C to +60°C

Mechanical Specifications
Dimensions: 4.5” x 12.3” x 2.4”
Weight: 2.55Kg / 6 lbs
Enclosure Rating: Nema 3/IP65
Mounting: Flange Mount
Connection: Knockouts for 1/2” Conduit

Safety Standards
UL 1012/1585, UL8750, UL Class 2 Wet locations, UL 48cUL, CE, UL #: E342485

LED Capacity
4. Watt Light Bars: 48 each / 24 per output
**Dimming**

**LC-1CH-MULTI Dimming System/24 VDC**

Tokistar’s LC-1CH-MULTI Dimmer Pack is compatible with industry-standard dimmers working on DMX or 0/1-10 VDC protocol. In the manual mode, a preset light level can be set without the use of an external dimmer.

**Part #: LC-1CH-MULTI**

Technical Specifications:
- Max. Load: 96 Watts @ 24 VDC
- Environmental Rating: Dry Location/IP20
- Dimensions: 3/4” x 1-3/4” x 3-1/2”
- Weight: 50g / 0.11 lbs
- Listing: ETL Listed/CE Certified
- Operating Temperature: 0~+50°C

**DMX Mode**

In this mode, dimmer packs are addressable and may be used with any controller working on DMX protocol. Up to 36 dimmer packs may be connected in series. For applications exceeding 36 dimmer packs, a splitter is required. Consult factory on details of DMX Splitters.

**Analog Mode 0/1-10 VDC**

For operation from devices using 0/1-10 VDC protocol, up to 10 dimmer packs may be connected in series. For applications exceeding 10 dimmer packs, an additional feed from the analog dimming device is required.

**Manual Mode**

You may select a light intensity at which the fixtures operate. In this case, no external dimming device is required.

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**LC Dimming System/24 VDC**

This proprietary dimming system provides full-range dimming of LEDs from our LED Drivers. The system components connect with CAT5 cable. Up to 25 dimmer packs may be connected in series if the total length of all CAT5 cable does not exceed 165 feet from the wall dimmer to the last dimmer pack. CAT5 cables are included with units.

**Part #: LC-DMR**

The remote wall dimmer has a rotary dial and on/off switch. Power to the wall dimmer is provided from the LED Driver powering the first dimmer pack. The unit installs in a single-gang box.

**Part #: LC-1CH-DP**

Each dimmer pack receives a 24 VDC input from an LED Driver and sends a PWM output to the fixture. Logic input and output is communicated through CAT5 cable. Max. Load: 96 Watts @ 24 VDC
- Dimensions: 1-1/2” x 3-1/2” x 4-1/16”
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