VL5Arc™ Wash Luminaire

The compact, lightweight VARI*LITE® VL5Arc™ wash luminaire uses a 575W, 5600°K arc lamp operating at 625W and cold mirror reflector that removes heat from the light beam, eliminates fans and associated fan noise, and reduces heat on stage.

The innovative DICHRo*TUNE™ radial color changer with enhanced dichroic filters produces smooth, full color spectrum crossfades. An internal douser provides intensity control.

Interchangeable front lenses work with the internal diffusion mechanism to provide a wide range of beam control options.

The VL5Arc luminaire can be controlled by PRG consoles or a wide variety of DMX512 consoles.

### Dimensions

**POSITIONING:**
Can be mounted and operated in any orientation.

**SPACING:**
Hangs on 18 inch (460 mm) centers.

**WEIGHT:**
29 lbs (14 kg)

Please see diagram on back

### Ordering Information

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.9647.0001</td>
<td>VL5Arc Wash Luminaire</td>
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<tr>
<td>71.2529.0575</td>
<td>575W Arc Lamp</td>
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<tr>
<td>22.9634.0206</td>
<td>Top Hat/Gel Holder with Rings</td>
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<td>22.9634.0207</td>
<td>Top Hat/Gel Holder without Rings</td>
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<tr>
<td>22.9634.0217</td>
<td>Series 300 Truss Hook</td>
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<td>22.9634.0145</td>
<td>Series 300 Safety Cable</td>
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<tr>
<td>22.9634.0161</td>
<td>Series 300 Floor Stand</td>
</tr>
<tr>
<td>42.5002.0004</td>
<td>Clear Lens</td>
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<tr>
<td>42.5002.0005</td>
<td>Stipple Lens</td>
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<tr>
<td>42.5002.0006</td>
<td>8-Row Lenticular Lens</td>
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<tr>
<td>42.5002.0007</td>
<td>10-Row Lenticular Lens</td>
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<tr>
<td>42.5002.0008</td>
<td>12-Row Lenticular Lens</td>
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<td>25.7042.0006</td>
<td>6 ft. Shielded Series 300 Lamp Cable</td>
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<tr>
<td>25.7042.0012</td>
<td>12 ft. Shielded Series 300 Lamp Cable</td>
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<td>25.7042.0020</td>
<td>20 ft. Shielded Series 300 Lamp Cable</td>
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<td>25.7042.0050</td>
<td>50 ft. Shielded Series 300 Lamp Cable</td>
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<td>25.7042.0100</td>
<td>100 ft. Shielded Series 300 Lamp Cable</td>
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<tr>
<td>25.7042.0XXX</td>
<td>Custom Length Shielded Series 300 Lamp Cable*</td>
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<td>20.9625.0018</td>
<td>Series 300 Molded Plastic Six Luminaire Case</td>
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<tr>
<td>20.9625.0024</td>
<td>Series 300 Molded Plastic Work Trunk</td>
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<tr>
<td>22.5011.0056</td>
<td>Spare Components Set</td>
</tr>
<tr>
<td>22.5011.0057</td>
<td>Spare Assemblies Set</td>
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</tbody>
</table>

* Cannot exceed 300 ft. in length.

### Features

**SOURCE:**
575W arc lamp operating at 625W, 5600°K integrated color temperature, 90 CRI.

**POWER & DIMMING:**
Lamps are powered by an APS6™ module installed in the Series 300™ Modular Power Distribution Rack. The APS6 module operates at 85 to 265 VAC, 50/60 Hz, requiring 5 to 10A, depending on line voltage.

Luminaires are powered through a Smart Repeater™ or Smart Repeater™ Plus processing unit.

**REFLECTOR:**
8-inch glass, dichroic cold-mirror reflector.

**OPERATING TEMP:**
32° to 120°F (0° to 49°C).

**COOLING:**
Convection cooled.

**CONTROL:**
Compatible with all PRG consoles and a wide variety of DMX512 consoles.

**POSITIONING:**
Can be mounted and operated in any orientation.

**SPACING:**
Hangs on 18 inch (460 mm) centers.

**WEIGHT:**
29 lbs (14 kg).

**PROGRAMMABLE FUNCTIONS**

**COLOR:**
Enhanced DICHRo*TUNE™ crossfadable dichroic colors feature independent cyan, magenta and amber color control. Smooth, timed color crossfades can occur in as little as 0.7 second.

**INTENSITY CONTROL:**
An internal douser provides intensity control.

**BEAM DIFFUSION:**
Textured diffusion panels intercept the beam, providing a continuous, time variable diffusion range for each of the available lenses.

**PAN & TILT:**
Smooth, time controlled continuous motion by way of a digital servo system.

**MAX VELOCITY:**
Pan - 360°, Tilt - 270°

**ACCURACY:**
0.3° resolution.
The unit shall be an integrally designed, remote controlled motorized wash luminaire. The housing and yoke shall be constructed of aluminum alloy and steel for lightweight strength.

The front nose ring and rear housing shall be hinged and latched providing ease of access to the lamp and lens for replacement. The lamp shall be a 575W arc lamp that shall run at 625 watts and operate at a color temperature of 5600°K. Five easily removable lenses shall be available; clear, stipple, 8-row lenticular, 10-row lenticular, and 12-row lenticular. Two enclosed, high torque servomotors shall be provided to permit movement of the head on a horizontal plane of 360° and on a vertical plane of 270°. Control cabling shall be run internally to prevent tangling. The low voltage motors shall be belt driven, providing positional resolution and repeatability within 0.3° on either axis. Manual override under power shall result in no harm to the drive mechanism.

Each unit shall be equipped with an on-board microprocessor providing diagnostic and self-calibration functions. In the event the luminaire encounters any physical obstruction during calibration, the pan and tilt motors will automatically be disabled preventing damage to the mechanisms.

The unit shall have three color changers holding a minimum of 16 frames of dichroic media of a typical color set: magenta, amber, and cyan. Three motors shall provide independent drive regardless of direction of movement. Positional accuracy of the dichroic filters in reference to the beam shall be ensured through specialized software controlling the motors. The color changers shall be capable of movement from fully opened to fully closed in less than 0.7 seconds.

The unit shall contain a dimmer mechanism holding a minimum of 16 black aluminum dimmer panels that intercept the beam, providing a continuously variable dimmer range. The dimmer mechanism shall be capable of movement from fully open to fully closed in less than 0.7 seconds.

Control cable to luminaire shall provide both digital control signal and power from the Smart Repeater unit. A safety cable shall be provided with unit. A floor stand and an optional top hat shall be available. Exterior finish shall be a black epoxy coat. Total weight shall not exceed 29 lbs (14 kg).

### Photometric Data

<table>
<thead>
<tr>
<th>LENS TYPE</th>
<th>DIFFUSION (cd)</th>
<th>CANDELA (degrees)</th>
<th>BEAM ANGLE TN</th>
<th>BEAM DIAMETER (degrees)</th>
<th>FULL FIELD ANGLE TN</th>
<th>FIELD DIAMETER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear (Very Narrow)</td>
<td>N/A</td>
<td>2,293,000</td>
<td>2.6°</td>
<td>.05</td>
<td>6.7°</td>
<td>.12</td>
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<tr>
<td>Light Stipple (Narrow Spot)</td>
<td>N/A</td>
<td>1,168,000</td>
<td>5°</td>
<td>.09</td>
<td>10°</td>
<td>.17</td>
</tr>
<tr>
<td>8-Row Lenticular (Narrow Flood)</td>
<td>N/A</td>
<td>240,000</td>
<td>7.9° x 22.5°</td>
<td>.14/.4</td>
<td>13° x 29°</td>
<td>.23/.52</td>
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<tr>
<td>10-Row Lenticular (Medium Flood)</td>
<td>N/A</td>
<td>200,000</td>
<td>9° x 18°</td>
<td>.16/.32</td>
<td>16° X 31°</td>
<td>.28/55</td>
</tr>
<tr>
<td>12-Row Lenticular (Wide Flood)</td>
<td>N/A</td>
<td>50,000</td>
<td>17° x 47°</td>
<td>.30/.86</td>
<td>26° x 60°</td>
<td>.47/117</td>
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</tbody>
</table>

* Multiply throw distance by Tn to determine coverage.

** To calculate center beam illuminance (I) at a specific distance (D):  
\[ I = \frac{cd}{D^2} \]  
If (D) is in feet, (I) is in foot candles / If (D) is in meters, (I) is in lux
### Photometric Data (continued)

**VL5Arc Wash Luminaire with Clear Lens**

- **Throw Distance (D)**
  - feet: 30, 50, 70, 85
  - meters: 9.1, 15.2, 21.3, 25.9

- **Beam Diameter**
  - feet: 1.5, 2.5, 3.5, 4.3
  - meters: 0.5, 0.8, 1.1, 1.3

- **Field Diameter**
  - feet: 3.6, 6.0, 8.4, 10.2
  - meters: 1.1, 1.8, 2.6, 3.1

- **Illuminance (I)**
  - fc: 2548, 917, 468, 317
  - lux: 27424, 9873, 5037, 3416

**VL5Arc Wash Luminaire with 8 Row Lenticular Lens**

- **Throw Distance (D)**
  - feet: 10, 16, 22, 27
  - meters: 3.0, 4.9, 6.7, 8.2

- **Beam Dimensions**
  - feet: 1.4 x 4.0, 2.2 x 6.4, 3.1 x 8.8, 3.8 x 10.8
  - meters: 0.4 x 1.2, 0.7 x 2.0, 0.9 x 2.7, 1.2 x 3.3

- **Field Dimensions**
  - feet: 2.3 x 5.2, 3.7 x 8.3, 5.1 x 11.4, 6.2 x 14.0
  - meters: 0.7 x 1.6, 1.1 x 2.5, 1.5 x 3.5, 1.9 x 4.3

- **Illuminance (I)**
  - fc: 2400, 938, 496, 329
  - lux: 25833, 10091, 5337, 3544

**VL5Arc Wash Luminaire with Light Stipple Lens**

- **Throw Distance (D)**
  - feet: 21, 36, 50, 60
  - meters: 6.4, 11.0, 15.2, 18.3

- **Beam Diameter**
  - feet: 1.9, 3.2, 4.5, 5.4
  - meters: 0.6, 1.0, 1.4, 1.6

- **Field Diameter**
  - feet: 3.6, 6.1, 8.5, 10.2
  - meters: 1.1, 1.9, 2.6, 3.1

- **Illuminance (I)**
  - fc: 2649, 901, 468, 317
  - lux: 28245, 9873, 5037, 3416

**VL5Arc Wash Luminaire with 10 Row Lenticular Lens**

- **Throw Distance (D)**
  - feet: 5, 7, 10, 12
  - meters: 1.5, 2.1, 3.0, 3.7

- **Beam Dimensions**
  - feet: 0.7 x 2.0, 1.0 x 2.8, 1.4 x 4.0, 1.7 x 4.8
  - meters: 0.2 x 0.6, 0.3 x 0.9, 0.4 x 1.2, 0.5 x 1.5

- **Field Dimensions**
  - feet: 1.2 x 2.6, 1.6 x 3.6, 2.3 x 5.2, 2.8 x 6.2
  - meters: 0.4 x 0.8, 0.5 x 1.1, 0.7 x 1.6, 0.8 x 1.9

- **Illuminance (I)**
  - fc: 2000, 1020, 500, 347
  - lux: 21728, 10984, 5382, 3737

**VL5Arc Wash Luminaire with 12 Row Lenticular Lens**

- **Throw Distance (D)**
  - feet: 5, 7, 10, 12
  - meters: 1.5, 2.1, 3.0, 3.7

- **Beam Dimensions**
  - feet: 0.7 x 2.0, 1.0 x 2.8, 1.4 x 4.0, 1.7 x 4.8
  - meters: 0.2 x 0.6, 0.3 x 0.9, 0.4 x 1.2, 0.5 x 1.5

- **Field Dimensions**
  - feet: 1.2 x 2.6, 1.6 x 3.6, 2.3 x 5.2, 2.8 x 6.2
  - meters: 0.4 x 0.8, 0.5 x 1.1, 0.7 x 1.6, 0.8 x 1.9

- **Illuminance (I)**
  - fc: 2000, 1020, 500, 347
  - lux: 21728, 10984, 5382, 3737