Champ® VMV LED luminaires for hazardous areas

3,000 to 25,000 lumen LED high bay luminaires
Champ® VMV LED


Featuring the industry’s broadest range of LED luminaires for harsh, hazardous and industrial environments, Eaton’s Crouse-Hinds can deliver a lighting solution that performs reliably in even the worst operating conditions. All the while reducing your energy, maintenance and manpower costs.

Why LED?

| Useful life | Rated life is up to 60,000 hours of maintenance-free and safe operation |
| Energy efficiency | LED average energy consumption is significantly less than traditional fluorescent and HID fixtures |
| Start/restart time | Instant illumination versus 10 minute restrike time for HID |
| Light quality | Higher color rendering compared to fluorescent and HID |
| Environmental benefits | Mercury-free LED eliminates disposal costs and lower energy consumption for a smaller carbon footprint |

Why Crouse-Hinds?

| Rugged design | Built to withstand extreme temperatures, vibration, water and dust |
| High efficacy | Up to 130 lumens per watt (model dependent) |
| Thermal management | Effective heat sinking ensures longer life |
| Quality of light | Custom optics designed to maximize light distribution and intensity |
| Versatile mounting | LED fixtures are compatible with Crouse-Hinds’ HID installed base |
Why Champ VMV LED?

Rugged mid to high bay solutions. Champ VMV LED luminaires are engineered to provide maintenance-free operation while delivering long life and high lumen performance.

Built to last:
- Type 4X rated
- Impact-resistant lens sealed from the outside environment provides ingress protection against water and dust
- Die cast aluminum LED housing provides efficient thermal path to heat sink assembly
- Vertical fin design facilitates air flow and dust shedding

Simple installation and replacement:
- Contractor-friendly design is ideal for both retrofit and new construction
- Easy to retrofit using existing HID Champ mounting module
- Available with lever lock connectors and standard three-pole terminal block

Custom optics:
- Type III optics designed to maximize light distribution and intensity*

*Refer to Champ Generation 4 VMVL literature for ordering information for Type I & V optics.

Increased efficiency and durability:
- Up to 130 lumens per watt (7L model)

LED vs. HID savings at a glance

Why are so many facilities making the switch from HID to LED?
The numbers say it all.

VMV7L vs. 175 Watt MH

77% REDUCTION IN ENERGY COSTS
75% LOWER TOTAL COST OF OWNERSHIP
100% MAINTENANCE REDUCTION

Assumptions: Calculations based on overall life of the LED system. Energy cost of $.09 per kilowatt; 24 hour per day operation; labor rate of $75 each for 2 workers; average time for fixture maintenance of 1 hour.
Custom optics

Eaton’s Crouse-Hinds continuously focuses on engineering product solutions tailored to our customers’ unique needs and applications.

Champ VMV LED luminaires feature custom optics designed to maximize light distribution and intensity, providing flexibility for retrofits or new installations throughout the site.

Type III optics minimize light spillover onto the walls and direct light to the ground.

Three optical options to maximize light distribution and intensity

**TYPE I***
Long and rectangular for hallways, walkways, loading docks, catwalks.

Ideal for:
- Mining conveyor belts
- Aislesways and hallways
- Catwalks and walkways
- Ramps and loading docks
- Tunnels with overhead mounts

**TYPE III**
Stanchion and wall mount light distribution, minimizing spillover on the wall.

Ideal for:
- Narrow crosswalks or passages with wall mounted fixtures
- Tunnels with wall mount
- Wall or stanchion mount requiring 180° forward throw beam patterns

**TYPE V***
Regular circular distribution pattern for high/low bay indoor and outdoor ceiling or pendant mount lighting.

Ideal for:
- Pendant, ceiling or stanchion mount overhead building mounts
- Processing mills, industrial plants, large buildings, warehouses, etc.

*Refer to Champ Generation 4 VMVL literature for ordering information for Type I & V optics.
Case study: Type I optics

Catwalk/conveyor lighting

Utilizing Eaton’s Crouse-Hinds lighting layout services, Champ VMV luminaires with Type I optics and HID luminaires are shown installed on a catwalk to compare photometrics.

Comparison

Champ Type I LEDs have a wider linear pattern than equivalent HID luminaires and provide more efficient light dispersion, which fully illuminates the catwalk.

Results

Champ VMV LED with Type I optics provides superior illumination along the conveyor and walkway safely. With no gaps in illumination, the optical pattern allows for increased spacing of fixtures and a safer conveyor system.

Savings realized

- Champ Type I pattern allows for greater fixture spacing along the catwalk or conveyor system
- Increased visibility with no dark spots results in safer conditions for workers
- Up to 77% energy savings over the life of the fixture

Champ VMV has broader coverage area, higher delivered footcandles and uniformity for a typical catwalk or conveyor application.

<table>
<thead>
<tr>
<th>Luminaire</th>
<th>Calc. Type</th>
<th>Units</th>
<th>Avg.</th>
<th>Max.</th>
<th>Min.</th>
<th>Avg./Min.</th>
<th>Max./Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Champ VMV</td>
<td>Illuminance</td>
<td>Fc</td>
<td>26.91</td>
<td>36.9</td>
<td>17.4</td>
<td>1.55</td>
<td>2.12</td>
</tr>
<tr>
<td>175W MH</td>
<td>Illuminance</td>
<td>Fc</td>
<td>14.32</td>
<td>18.0</td>
<td>7.9</td>
<td>1.81</td>
<td>2.28</td>
</tr>
</tbody>
</table>

Lighting layout & design services:

Let us help you design your next big project!

Contact Crouse-Hinds Customer Service
crousecustomerctr @eaton.com
(866) 764-5454
Champ VMV LED Luminaires

Champ VMV LEDs are designed to provide full-spectrum, crisp, white light with custom IES Type I, III and V distribution.

<table>
<thead>
<tr>
<th>Model</th>
<th>Typical lumens*</th>
<th>Wattage</th>
<th>Lumens per watt</th>
<th>Equivalent HID luminaire</th>
<th>Typical energy savings / lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMV3L**</td>
<td>3,309</td>
<td>29</td>
<td>115</td>
<td>70W-100W</td>
<td>Up to 77%</td>
</tr>
<tr>
<td>VMV5L**</td>
<td>4,468</td>
<td>41</td>
<td>109</td>
<td>100W-150W</td>
<td>Up to 67%</td>
</tr>
<tr>
<td>VMV7L**</td>
<td>6,741</td>
<td>54</td>
<td>125</td>
<td>150W-175W</td>
<td>Up to 67%</td>
</tr>
<tr>
<td>VMV9L**</td>
<td>8,618</td>
<td>74</td>
<td>116</td>
<td>250W-320W</td>
<td>Up to 74%</td>
</tr>
<tr>
<td>VMV11L**</td>
<td>10,660</td>
<td>89</td>
<td>119</td>
<td>320W-400W</td>
<td>Up to 74%</td>
</tr>
<tr>
<td>VMV13L</td>
<td>13,226</td>
<td>130</td>
<td>102</td>
<td>400W</td>
<td>Up to 68%</td>
</tr>
<tr>
<td>VMV17L</td>
<td>18,793</td>
<td>168</td>
<td>112</td>
<td>400W-600W</td>
<td>Up to 72%</td>
</tr>
<tr>
<td>VMV21L</td>
<td>22,116</td>
<td>196</td>
<td>113</td>
<td>600W-750W</td>
<td>Up to 74%</td>
</tr>
<tr>
<td>VMV25L</td>
<td>26,531</td>
<td>232</td>
<td>114</td>
<td>750W-1000W</td>
<td>Up to 77%</td>
</tr>
</tbody>
</table>

* Tolerance +/- 10%.
** Typical lumens measured with Type III optics; VMV13L-21L measured with Type V optics

Applications:
- For areas with mounting heights of up to 60 feet
- Oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, indoor/ outdoor spotlighting, outdoor wall and stanchion mounted general area lighting, and where flammable vapors, gases, ignitable dusts, fibers or flyings are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist
- Classified and hazardous locations

Champ VMV benefits:
- Instant illumination and restrike
- Cold temperature operation / no warm-up required
- Option for redundancy in drivers with multiple series circuits connected to each driver to avoid complete loss of illumination
- Easy installation - compact modular fixture attaches onto existing Champ mounting module
- Energy-efficient technology - up to 77% energy savings over HID fixtures
- Contains no mercury or other hazardous substances
- Shock- and vibration-resistant solid-state luminaires have no filaments or glass components that could break - greatly reduces the risk of premature failure
- Operating ambient: -40°C to 65°C (VMV3L-VMV11L models); -40°C to 55°C (VMV13L-VMV25L models)
- Up to 60,000 hours lifetime at 55°C
- 5 year fixture warranty†

† Refer to page 2 of the authorized distributor price book for Crouse-Hinds standard Terms and Conditions.

Colored LED options:
- Available in green or amber*
- Reduction in light pollution for night space observation and sky glow due to isolating blue wavelength in red and amber colors
- Wildlife-friendly
- Improves visibility for telescopes in observatories during night sky space exploration
* Custom optics not available with colored LEDs.

LED system:
- High intensity discrete power emitters
- Standard: cool white (5000K, 70 CRI); Optional: warm white, (3000K, 80 CRI) or neutral white (4000K, 70 CRI)
- Custom Type I, III and V optics available
- Optics clocking in field to align Type I and Type III light patterns to illumination path for VMV13L-VMV25L

Drivers:
<table>
<thead>
<tr>
<th>Option</th>
<th>Voltage: VMV3L-VMV25L</th>
</tr>
</thead>
<tbody>
<tr>
<td>/UNV1</td>
<td>120-277 VAC, 50/60 Hz, 108-250 VDC, 50/60 Hz</td>
</tr>
<tr>
<td>/UNV34</td>
<td>347-480 VAC, 50/60 Hz</td>
</tr>
</tbody>
</table>

Standard materials:
- Lamp housing and adapter - die cast aluminum with Corro-free™ epoxy powder coat
- Lens - heat- and impact-resistant glass
- Gaskets - silicone
- External hardware - stainless steel
- Factory-sealed, no external seals required

Qualifications and compliances:
- DesignLights Consortium® Qualified (some models are not DLC qualified)*
  Refer to www.designlights.org Qualified Products List under family models for full listing details. Not all models are approved for all application categories.

Connected lighting functionality
Remote monitoring and control for use in hazardous and hard-to-access areas.

Advanced scheduling control allows for improving energy efficiency during non-operational hours. Easy software control lets a user set up schedules for lights to be on and off at pre-defined times, removing the challenges of manual management.

Daylight harvesting allows for use of the daylight and adjusts the light level of luminaire to maintain the desired light levels. It is best suited for outdoor environments or indoor areas where daylight is present during operational hours of a facility.

Fixture grouping is an added benefit that maximizes control in a defined area. By grouping light fixtures, same control settings can be applied to them to increase efficiency and response time.

Occupancy sensing is best used in areas that see infrequent traffic, such as storage areas of warehouses. Innovative occupancy sensor controls can automatically illuminate the area once presence is sensed in an area and also turn it back off when sensors stop sensing the presence.

Advanced dimming controls help reduce the energy consumptions by setting dimming levels. Dimming controls could be used in conjunction with other control features, such as scheduling and occupancy sensing, to improve energy savings.
Certifications and compliances:

NEC and CEC
- Class I, Division 2, Groups A, B, C, D; Class I, Zone 2, nA; Class II, Groups E, F, G; Class III
- Zone 21 tb
- Simultaneous Presence
- Wet Locations, NEMA 4X, IP66

UL Standards
- UL844; UL1598 Luminaires; UL1598A Marine; UL8750; UL50; UL50E

CSA Standard
- cUL Listed to CSA Standard CSA C22.2 No. 137

IEC**
- Ex nA IIC T* Gc -40 to +40
- Ex nA IIC T* Gc -40 to +55
- Ex nA IIC T* Gc -40 to +65
- Ex tb IIC T** Db -40 to +40
- Ex tb IIC T** Db -40 to +55
- Ex tb IIC T** Db -40 to +65

VMV3L-VMV11L only
- IECx UL 13.0052X

VMV13L-VMV25L only
- IECx UL 14.0031X

ATEX/CE**
- Ex nA IIC T* Gc -40 to +40
- Ex nA IIC T* Gc -40 to +55
- Ex nA IIC T* Gc -40 to +65
- Ex tb IIC T** Db -40 to +40
- Ex tb IIC T** Db -40 to +55
- Ex tb IIC T** Db -40 to +65

VMV3L-VMV11L only
- DEMKO 13 ATEX 1475031X; DEMKO 13 ATEX 13057 41X

VMV13L-VMV25L only
- DEMKO 14 ATEX 1324722X; DEMKO 14 ATEX 2274231X

* See temperature code table below.

** VMV3L-VMV11L rated to +65°C, VMV13L-VMV25L rated to +55°C.

Temperature codes:

<table>
<thead>
<tr>
<th>Lamp/Finish output</th>
<th>Driver type</th>
<th>Ambient temperature</th>
<th>Class I, Div. 2</th>
<th>Class II, Div. 1</th>
<th>Simultaneous presence Class I, Div. 2, Div. 1</th>
<th>Class I, Zone 2 AEx na nR; Ex Zone 21 AEx tb IIIIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>3L, 5L, 7L, 9L, 11L</td>
<td>/UNV1</td>
<td>40°C</td>
<td>T5</td>
<td>T5</td>
<td>T3C</td>
<td>T72°C</td>
</tr>
<tr>
<td>3L, 5L, 7L, 9L, 11L</td>
<td>/UNV1</td>
<td>55°C</td>
<td>T5</td>
<td>T4A</td>
<td>T3A</td>
<td>T5</td>
</tr>
<tr>
<td>3L, 5L, 7L, 9L, 11L</td>
<td>/UNV1</td>
<td>65°C</td>
<td>T4A</td>
<td>T4A</td>
<td>T3A</td>
<td>T4</td>
</tr>
<tr>
<td>3L, 5L, 7L, 9L, 11L</td>
<td>/UNV34</td>
<td>40°C</td>
<td>T3C</td>
<td>T5</td>
<td>T3C</td>
<td>T4</td>
</tr>
<tr>
<td>3L, 5L, 7L, 9L, 11L</td>
<td>/UNV34</td>
<td>55°C</td>
<td>T3A</td>
<td>T4A</td>
<td>T3A</td>
<td>T4</td>
</tr>
<tr>
<td>3L, 5L, 7L, 9L, 11L</td>
<td>/UNV34</td>
<td>65°C</td>
<td>T3A</td>
<td>T4A</td>
<td>T3A</td>
<td>T4</td>
</tr>
<tr>
<td>13L, 17L</td>
<td>/UNV1; UNV34</td>
<td>40°C</td>
<td>T4A</td>
<td>T5</td>
<td>T4A</td>
<td>T6</td>
</tr>
<tr>
<td>13L, 17L</td>
<td>/UNV1; UNV34</td>
<td>55°C</td>
<td>T4</td>
<td>T4A</td>
<td>T4</td>
<td>T5</td>
</tr>
<tr>
<td>21L, 25L</td>
<td>/UNV1; UNV34</td>
<td>40°C</td>
<td>T4A</td>
<td>T5</td>
<td>T4A</td>
<td>T6</td>
</tr>
<tr>
<td>21L, 25L</td>
<td>/UNV1; UNV34</td>
<td>55°C</td>
<td>T4</td>
<td>T4A</td>
<td>T4</td>
<td>T5</td>
</tr>
</tbody>
</table>

Electrical ratings:

<table>
<thead>
<tr>
<th>Voltage range UNV1 (VAC 50/60 Hz)</th>
<th>VMV3L</th>
<th>VMV5L</th>
<th>VMV7L</th>
<th>VMV9L</th>
<th>VMV11L</th>
</tr>
</thead>
<tbody>
<tr>
<td>120-277</td>
<td>120-277</td>
<td>120-277</td>
<td>120-277</td>
<td>120-277</td>
<td>120-277</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Voltage range UNV1 (VDC 50/60 Hz)</th>
<th>VMV13L</th>
<th>VMV17L</th>
<th>VMV21L</th>
<th>VMV25L</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Input power (watts)</th>
<th>VMV13L</th>
<th>VMV17L</th>
<th>VMV21L</th>
<th>VMV25L</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>41</td>
<td>54</td>
<td>74</td>
<td>89</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input amps at 120-277 VAC</th>
<th>VMV13L</th>
<th>VMV17L</th>
<th>VMV21L</th>
<th>VMV25L</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.24-0.11</td>
<td>0.34-0.16</td>
<td>0.45-0.23</td>
<td>0.61-0.31</td>
<td>0.74-0.41</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Voltage range UNV34 (VAC 50/60 Hz)</th>
<th>VMV13L</th>
<th>VMV17L</th>
<th>VMV21L</th>
<th>VMV25L</th>
</tr>
</thead>
<tbody>
<tr>
<td>347-480</td>
<td>347-480</td>
<td>347-480</td>
<td>347-480</td>
<td>347-480</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input power (watts)</th>
<th>VMV13L</th>
<th>VMV17L</th>
<th>VMV21L</th>
<th>VMV25L</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>44</td>
<td>58</td>
<td>73</td>
<td>91</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input amps at 347-480 VAC</th>
<th>VMV13L</th>
<th>VMV17L</th>
<th>VMV21L</th>
<th>VMV25L</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.08-0.08</td>
<td>0.09-0.12</td>
<td>0.12-0.18</td>
<td>0.15-0.21</td>
<td>0.19-0.26</td>
</tr>
</tbody>
</table>

Weights:

<table>
<thead>
<tr>
<th>Luminaire</th>
<th>lbs.</th>
<th>kg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMV3L-VMV11L</td>
<td>20.8</td>
<td>9.43</td>
</tr>
<tr>
<td>VMV13L &amp; VMV17L</td>
<td>36.0</td>
<td>16.32</td>
</tr>
<tr>
<td>VMV21L &amp; VMV25L</td>
<td>44.0</td>
<td>19.95</td>
</tr>
</tbody>
</table>

Mounting module

<table>
<thead>
<tr>
<th>lbs.</th>
<th>kg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pendant</td>
<td>1.25</td>
</tr>
<tr>
<td>Cone pendant</td>
<td>4.00</td>
</tr>
<tr>
<td>Flexible pendant</td>
<td>1.50</td>
</tr>
<tr>
<td>Ceiling</td>
<td>2.75</td>
</tr>
<tr>
<td>Wall</td>
<td>4.50</td>
</tr>
<tr>
<td>Angled stanchion*</td>
<td>3.50</td>
</tr>
<tr>
<td>Straight stanchion*</td>
<td>4.50</td>
</tr>
</tbody>
</table>

* Angled stanchion for VMV3L-VMV11L models only.
Ordering information
(For 3-11- UNV1, with Type I or V optics, see VMVL ordering Information on page 13)

Part number example
VMV17LW2AR1G/UNV1 S890

**Lamp/function**

<table>
<thead>
<tr>
<th>Part</th>
<th>Function</th>
<th>Lumens</th>
</tr>
</thead>
<tbody>
<tr>
<td>3L</td>
<td>3,309 lumen LED</td>
<td></td>
</tr>
<tr>
<td>5L</td>
<td>4,468 lumen LED</td>
<td></td>
</tr>
<tr>
<td>7L</td>
<td>6,741 lumen LED</td>
<td></td>
</tr>
<tr>
<td>9L</td>
<td>8,616 lumen LED</td>
<td></td>
</tr>
<tr>
<td>11L</td>
<td>10,660 lumen LED</td>
<td></td>
</tr>
<tr>
<td>13L</td>
<td>13,226 lumen LED</td>
<td></td>
</tr>
<tr>
<td>17L</td>
<td>18,793 lumen LED</td>
<td></td>
</tr>
<tr>
<td>21L</td>
<td>22,110 lumen LED</td>
<td></td>
</tr>
<tr>
<td>25L</td>
<td>26,531 lumen LED</td>
<td></td>
</tr>
<tr>
<td>GL</td>
<td>Green (4,300 lumen LED)</td>
<td></td>
</tr>
<tr>
<td>AL</td>
<td>Amber (5,000 lumen LED)</td>
<td></td>
</tr>
</tbody>
</table>

**Color temperature**

- BLANK: Cool (5000K) or colored
- W: Warm (3000K)
- N: Neutral (4000K)

*Custom optics not available with colored LEDs.

**Mounting style**

- BLANK: No Cover
- J*: 1-½” stanchion, 25° angled
- P: 1-½” stanchion, straight
- 2A: ¾” pendant
- 3A: 1” pendant
- 20A: 20mm pendant
- 25A: 25mm pendant
- 2B: ¾” cone pendant
- 3B: 1” cone pendant

* For VMV3L-VMV11L only.

**Optics†**

- BLANK: Type V optic (3L-11L/UNV34 only; 13L-21L/UNV1 & /UNV34)
- R1: Type I optic (3L-11L/UNV34 only; 13L-21L/UNV1 & /UNV34)
- R3: Type III optic (all mounts except ceiling; all models 3L-21L)
- R3AP*: Type III optic (select when using Appleton® top hat adapter with Champ fixture)
- R3A1*: Type III optic (ceiling with conduit 45° clockwise from top hat hinge)
- R3A2*: Type III optic (ceiling with conduit 135° clockwise from top hat hinge)
- R3B1*: Type III optic (ceiling with conduit 45° counterclockwise from top hat hinge)
- R3B2*: Type III optic (ceiling with conduit 135° counterclockwise from top hat hinge)

*For VMV3L-VMV11L only.
†For 3-11L/UNV1 products with Type I or Type V optics, refer to Champ VMVL literature for ordering information on page 13.

**Connected lighting**

Flexible & intuitive software controls
Tune light output to meet safety and task needs – light where you need it

For more information go to:
Crouse-Hinds.com/LEDconnected

**Voltage**

- /UNV1: 120-277 VAC, 50/60 Hz; 108-250 VDC, 50/60 Hz
- /UNV34: 347-480 VAC, 50/60 Hz

**Guard**

- BLANK: No guard
- P3001 wire guard (3L-11L)
- P3002 wire guard (13L-25L)

**Accessories (ordered separately)**

- D2S20: Photocell, 120V, 50/60 Hz
- D2S08 277: Photocell, 208-277V
- VMVL S812 K1*: Trunnion mount kit with pin

* Order with ceiling mount only.
Mounting options and dimensions: 3L–11L

**Stanchion - 25° Angled**

**Stanchion - Straight**

**Pendant**

**Ceiling**

**Wall**

**Cone pendant**

**Trunnion**

Bracket for wall mount or SFA6 splitter

2X locking pins

2X top hat mounting hardware

CM2 or CM1 top hat

Mounting module series

<table>
<thead>
<tr>
<th>Pendant</th>
<th>Cone</th>
<th>Ceiling</th>
<th>Wall</th>
<th>Stanchion</th>
</tr>
</thead>
<tbody>
<tr>
<td>APM2</td>
<td>BPM2</td>
<td>CM2</td>
<td>TWM2</td>
<td>JM5</td>
</tr>
<tr>
<td>APM3</td>
<td>BPM3</td>
<td>CM3</td>
<td>TWM3</td>
<td>PM5</td>
</tr>
<tr>
<td>HPM2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EATON'S CROUSE-HINDS SERIES
Mounting options and dimensions: 13L–25L

Ceiling

Top view: 13L-25L

13L & 17L

21L & 25L

Pendant

Top view: 13L-25L

13L & 17L

21L & 25L

Cone pendant
Mounting options and dimensions: 13L–25L

**Stanchion**

Top view: 13L-25L

**Wall**

Top view: 13L-25L

**Trunnion**

13L & 17L

21L & 25L
**Calculation summary**

<table>
<thead>
<tr>
<th>Label</th>
<th>Calc. type (in Fc)</th>
<th>Avg.</th>
<th>Max.</th>
<th>Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMV 175W MH Grid</td>
<td>Illuminance</td>
<td>0.45</td>
<td>2.8</td>
<td>0.0</td>
</tr>
<tr>
<td>VMV LED Grid</td>
<td>Illuminance</td>
<td>0.62</td>
<td>8.0</td>
<td>0.0</td>
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</table>

**Type I optical pattern**

<table>
<thead>
<tr>
<th>0.25</th>
<th>0.50</th>
<th>1.0</th>
<th>2.5</th>
<th>5.0</th>
</tr>
</thead>
</table>

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<tbody>
<tr>
<td>VMV 175W MH Grid</td>
<td>Illuminance</td>
<td>0.53</td>
<td>3.2</td>
<td>0.1</td>
</tr>
<tr>
<td>VMV LED Grid</td>
<td>Illuminance</td>
<td>0.61</td>
<td>7.5</td>
<td>0.0</td>
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</tbody>
</table>

**Type III optical pattern**

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<tr>
<th>0.25</th>
<th>0.50</th>
<th>1.0</th>
<th>2.5</th>
<th>5.0</th>
</tr>
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</thead>
<tbody>
<tr>
<td>VMV 175W MH Grid</td>
<td>Illuminance</td>
<td>0.51</td>
<td>2.8</td>
<td>0.1</td>
</tr>
<tr>
<td>VMV LED Grid</td>
<td>Illuminance</td>
<td>0.69</td>
<td>10.1</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Type V optical pattern**

<table>
<thead>
<tr>
<th>0.50</th>
<th>1.0</th>
<th>2.5</th>
<th>5.0</th>
<th>10.0</th>
</tr>
</thead>
</table>

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<td>0.69</td>
<td>10.1</td>
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</tr>
</tbody>
</table>

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Higher average footcandles, uniformity and distribution coverage with less than half the lumens and energy consumption compared to 175W metal halide
VMVL - 3 - N - 2A - R1 - G - UNV1 - S831 - S891

Part number example: VMVL-3-N-2A-R1-G-UNV1-S831-S891

Champ VMVL, 3,000 lumens, 4000K neutral white, ¾” pendant mount, Type I optics, wire guard, 100-277 VAC driver, safety cable, diffused glass lens

Ordering information
(For Type III optics and UNV34 models, see VMV ordering Information on page 8)

Light source/intensity†

- 3: 3,250 nominal lumens
- 5: 5,537 nominal lumens
- 7: 7,442 nominal lumens
- 9: 9,234 nominal lumens
- 11: 11,114 nominal lumens

†Refer to Champ VMV ordering information on page 8 for 13,000 to 21,000 lumen models.

Color temperature

- BLANK: 5000K, 70 CRI (cool white)
- N*: 4000K, 70 CRI (neutral white)
- W: 3000K, 80 CRI (warm white)

*Consult factory for lead time.
**5700K and 6600K are available upon request; consult factory.

Accessories & options†

- BLANK: Trunnion mount kit with pin (available with ceiling mount only)
- S812: Trunnion mount kit with pin
- S831: Safety cable
- S890: Quick clip
- TB6*: Six-pole terminal block

†Ordered with fixture or available separately.
*For NEC/CEC only.

Voltage†

- UNV1: 100-277 VAC, 50/60 Hz; 127-250 VDC

†Refer to Champ VMV ordering information on page 8 for 13,000 to 21,000 lumen models.

Optics†

- BLANK: Type V (all mounts)
- R1: Type I (all mounts minus ceiling)
- R1A: Type I (Ceiling mount with conduit 45° counterclockwise or 135° clockwise from hinge)
- R1B: Type I (Ceiling mount with conduit 45° clockwise or 135° counterclockwise from hinge)

†Refer to Champ VMV ordering information on page 8 for Type III optics.

Mounting

- BLANK: No mounting module
- J: 1-½” stanchion, 25° angled
- P: 1-½” stanchion, straight
- 2A: ¾” pendant
- 3A: 1” pendant
- 20A: 20mm pendant

Accessories (ordered separately)

- Pendant
- Cone
- Ceiling
- Wall
- Stanchion

- VMVL S812 K1: Trunnion mount kit with pin*
- VMVL S812 K1 DBR: PVC coated trunnion mount kit with pin*
- VMVL S831 K1: Safety cable
- VMVL S890 K1: Quick clip
- CHMM1: Top hat adapter (mounts to Appleton Mercmaster III top hats)

*Available with ceiling mounted modules only.

Replacement driver kit

- VMVL-3-5-7L-UNV1-DRIVER KIT: Replacement driver kit for VMVL-3, -5 and -7 models
- VMVL-9-11L-UNV1-DRIVER KIT: Replacement driver kit for VMVL-9 and -11 models

Photocells

- D2S20: Photocell, 120V
- D2S208 277: Photocell, 208-277V

Lens guard

- BLANK: No guard
- G: Wire guard

- BLANK: Clear glass
- S891: Diffused glass
- S896*: Teflon coated lens
- S903: Polycarbonate

*For NEC/CEC only.

*IEC voltage; 100-240 VAC at 50/60 Hz
†Refer to Champ VMV ordering information on page 8 for UNV34 voltage ranges and redundant drivers.

EATON’S CROUSE-HINDS SERIES