

# Champ® VMV Series LED Luminaires

Cl. I, Div. 2, Groups A, B, C, D  
Cl. I, Zone 2, nA nR  
Cl. II, Groups E, F, G  
Cl. III & Simultaneous  
Presence

UL/cUL Listed  
IECEX/ATEX/CE  
Wet Locations  
Type 4X, IP66

2L

2L

## The Champ® VMV LED Family:

Champ VMV LED Series Luminaires are designed to provide full-spectrum, crisp, white light with custom IES Type I, III and V distribution. Nine versions of the VMV LED are available, providing ideal solutions for a wide range of applications.

Model	Typical Lumens (Type V) <sup>A</sup>	Watts	Lumens per Watt	Equivalent HID Luminaire	Typical Energy Savings/Lifetime
VMV3L	3,531	29	122	70W-100W	Up to 77%
VMV5L	5,335	43	124	100W-150W	Up to 67%
VMV7L	7,195	62	116	150W-175W	Up to 67%
VMV9L	9,266	85	109	250W-320W	Up to 74%
VMV11L	11,440	113	101	320W-400W	Up to 74%
VMV13L	13,226	130	102	400W	Up to 68%
VMV17L	18,793	168	112	400W-600W	Up to 72%
VMV21L	22,110	196	113	600W-750W	Up to 74%
VMV25L	26,531	232	114	750W-1000W	Up to 77%



## Applications:

- For areas with mounting heights of 8-60 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

## Features:

- 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 64% 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)
- 5 year fixture warranty<sup>B</sup>

## Certifications and Complies:

- DesignLights Consortium® Qualified (some models are not DLC qualified)<sup>C</sup>

### NEC/CEC:

- Class I, Division 2, Groups A, B, C, D; Class I, Zone 2, nA nR; Class II, Groups E, F, G; Class III
- Zone 21 tb
- Simultaneous Presence
- Wet locations, Type 4X, IP66

### UL Standards:

- UL844; UL1598 – Luminaires; UL1598A – Marine; UL8750; UL150; UL50E

### CSA Standard:

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

### IEC: <sup>D</sup>

- IEC 60079-0:2011; IEC 60079-15:2010; IEC 60079-31:2008; IEC 60598-2-1:1979; IEC 60529:2001
- Ex nA nR IIC T\* Gc -40 to +40
- Ex nA nR IIC T\* Gc -40 to +55
- Ex nA nR IIC T\* Gc -40 to +65
- Ex tb IIIC T\*°C Db -40 to +40
- Ex tb IIIC T\*°C Db -40 to +55
- Ex tb IIIC T\*°C Db -40 to +65

### VMV3L-VMV11L only

- IECEx UL 13.0052X

### VMV13L-VMV25L only

- IECEx UL 14.0031X

<sup>A</sup>Tolerance +/- 10%.

<sup>B</sup>Refer to page 2 of the current authorized distributor price book for Eaton's standard Terms and Conditions.

<sup>C</sup>Approved models include: VMV3L/UNV1; VMV5L/UNV1; VMV7L/UNV1; VMV9L/UNV1; VMV11L/UNV1; VMV13L/UNV1; VMV17L/UNV1; VMV21L/UNV1; VMV25L/UNV1; VMV3L/UNV34; VMV5L/UNV34; VMV7L/UNV34; VMV9L/UNV34; VMV11L/UNV34. Refer to [www.designlights.org](http://www.designlights.org) Qualified Products List under family models for full listing details. Not all models are approved for all application categories.

<sup>D</sup>VMV3L-VMV11L/UNV1 rated to +65°C; VMV13L-VMV25L and VMV3L-VMV11L/UNV34 rated to +55°C.

\*See temperature code table on following page.

## Certifications and Complies (Continued):

### ATEX/CE: <sup>D</sup>

- EN 60079-0:2012; EN 60079-15:2010; EN 60079-31:2009; EN 60598-2-1:1989; EN 60929:1991 +A1:2001
- II 3 G Ex nA nR IIC T\* Gc -40 to +40
- II 3 G Ex nA nR IIC T\* Gc -40 to +55
- II 3 G Ex nA nR IIC T\* Gc -40 to +65
- II 2 D Ex tb IIIC T\*°C Db IP66 -40 to +40
- II 2 D Ex tb IIIC T\*°C Db IP66 -40 to +55
- II 2 D Ex tb IIIC T\*°C Db IP66 -40 to +65

### VMV3L-VMV11L only

- DEMKO 13 ATEX 1475031X; DEMKO 13 ATEX 1305741X

### VMV13L-VMV25L only

- DEMKO 14 ATEX 1324722X; DEMKO 14 ATEX 2274231X

## 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

## Photometrics:

- Complete photometrics can be found at [www.crouse-hinds.com/photometrics](http://www.crouse-hinds.com/photometrics)

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## LED System:

- High intensity discrete power emitters
- Cool white (5000K, 70 CRI) (standard); warm white, (3000K, 80 CRI) (optional)
- 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:

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

## Custom Optics:

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
- Aisleways and hallways
- Catwalks and walkways
- Ramps and loading docks
- Tunnels with overhead mounts

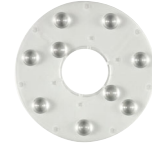


### TYPE III

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.



## Colored LED Options:

- Available in red, blue, green and amber<sup>Ⓔ</sup>
- 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

## Electrical Ratings:

	VMV3L	VMV5L	VMV7L	VMV9L	VMV11L	VMV13L	VMV17L	VMV21L	VMV25L
Voltage Range, VAC	120-277	120-277	120-277	120-277	120-277	120-277	120-277	120-277	120-277
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Input Power (Watts)	29	43	62	85	113	131	168	196	232
Input Amps at 120-277 VAC	0.24 - 0.11	0.35 - 0.16	0.52 - 0.23	0.71 - 0.31	0.95 - 0.41	1.08 - 0.48	1.40 - 0.62	1.64 - 0.73	1.94 - 0.87
Voltage Range, VDC	108-250	108-250	108-250	108-250	108-250	108-250	108-250	108-250	108-250
Power Factor	>0.90	>0.90	>0.90	>0.90	>0.90	>0.90	>0.90	>0.90	>0.90
Total Harmonic Distortion (THD)	<20%	<20%	<20%	<20%	<20%	<20%	<20%	<20%	<20%
Nominal Lumens (Type V) <sup>Ⓕ</sup>	3,531	5,335	7,195	9,266	11,440	13,226	18,793	22,110	26,531

## Temperature Performance Data:

Lamp/Lumen Output	Driver Type	Ambient Temp. °C	Class I, Div. 2	Class II, Div. 1	Simultaneous Rating		Class I, Zone 2	
					Class I, Div. 2, Div. 1	AEx nA nR; Ex nA nR	Zone 21, AEx tb IIIC	
3L, 5L, 7L, 9L, 11L	/UNV1	40	T5	T5	T3C	T6	T66°C	
3L, 5L, 7L, 9L, 11L	/UNV1	55	T5	T4A	T3A	T5	T83°C	
3L, 5L, 7L, 9L, 11L	/UNV1	65	T4A	T4A	T3A	T4	T92°C	
3L, 5L, 7L, 9L, 11L	/UNV34	40	T3C	T5	T3C	T4	T70°C	
3L, 5L, 7L, 9L, 11L	/UNV34	55	T3A	T4A	T3A	T4	T85°C	
3L, 5L, 7L, 9L, 11L	/UNV34	65	T3A	T4A	T3A	T4	T92°C	
13L, 17L	/UNV1; UNV34	40	T4A	T5	T4A	T6	T66°C	
13L, 17L	/UNV1; UNV34	55	T4	T4A	T4	T5	T81°C	
21L, 25L	/UNV1; UNV34	40	T4A	T5	T4A	T6	T71°C	
21L, 25L	/UNV1; UNV34	55	T4	T4A	T4	T5	T86°C	

<sup>Ⓔ</sup> Custom optics not available with colored LEDs. One model per color; see catalog numbering system on following page.

<sup>Ⓕ</sup> Tolerance +/- 10%.

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Wet Locations  
Type 4X, IP66

2L

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## Ordering Information:

Part number example

VMV17LW2AR1G/UNV1 S890

**VMV** **17L** **W** **2A** **R1** **G** **/UNV1** **S890**

Lamp/Function	
3L	3,531 Lumen LED
5L	5,335 Lumen LED
7L	7,195 Lumen LED
9L	9,226 Lumen LED
11L	11,440 Lumen LED
13L	13,226 Lumen LED
17L	18,793 Lumen LED
21L	22,110 Lumen LED
25L	26,531 Lumen LED
RL <sup>Ⓞ</sup>	Red (3,200 Lumen LED)
GL <sup>Ⓞ</sup>	Green (4,300 Lumen LED)
BL <sup>Ⓞ</sup>	Blue (2,100 Lumen LED)
AL <sup>Ⓞ</sup>	Amber (5,000 Lumen LED)

Color Temperature	
BLANK	Cool (5000K), Colored
W	Warm (3000K)

Mounting Style			
BLANK	No Cover	2C	¾" Ceiling
J <sup>Ⓜ</sup>	1-½" Stanchion, 25° Angled	3C	1" Ceiling
P	1-½" Stanchion, Straight	20C	20mm Ceiling
2A	¾" Pendant	25C	25mm Ceiling
3A	1" Pendant	2HA	¾" Flexible Pendant
20A	20mm Pendant	2TW	¾" Wall
25A	25mm Pendant	3TW	1" Wall
2B	¾" Cone Pendant	20TW	20mm Wall
3B	1" Cone Pendant	25TW	25mm Wall

Options	
S812 <sup>Ⓛ</sup>	Trunnion Mount Kit with Pin
S831 <sup>Ⓛ</sup>	Safety Cable
S890	Quick Clip
S891 <sup>Ⓛ</sup>	Diffused Lens
S892 <sup>Ⓚ</sup>	Redundant Driver
S896 <sup>Ⓛ</sup>	Teflon® Coated Lens
S903	Polycarbonate Lens
TB6	Six-pole Terminal Block

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
G	P3001 Wire Guard

Optics	
BLANK	Type V Optic Standard (All Mounts)
R1	Type I Optic (All Mounts Minus Ceiling)
R1A <sup>Ⓜ</sup>	Type I Optic (Ceiling with Conduit 45° Counterclockwise or 135° Clockwise from Hinge)
R1B <sup>Ⓜ</sup>	Type I Optic (Ceiling with Conduit 45° Clockwise or 135° Counterclockwise from Hinge)
R3	Type III Optic (All Mounts Minus Ceiling)
R3AP <sup>Ⓜ</sup>	Type III Optic (Select when using Appleton® Top Hat Adapter with Champ Fixture)
R3A1 <sup>Ⓜ</sup>	Type III Optic (Ceiling with Conduit 45° Counterclockwise from Top Hat Hinge)
R3A2 <sup>Ⓜ</sup>	Type III Optic (Ceiling with Conduit 135° Clockwise from Top Hat Hinge)
R3B1 <sup>Ⓜ</sup>	Type III Optic (Ceiling with Conduit 45° Clockwise from Top Hat Hinge)
R3B2 <sup>Ⓜ</sup>	Type III Optic (Ceiling with Conduit 135° Counterclockwise from Top Hat Hinge)

## Accessories (Ordered Separately):

Description	Cat. #
• Photocell, 120V, 50/60 Hz	D2S20
• Photocell, 208-277V	D2S208 277
• Trunnion mount kit with pin	VMVL S812 K1 <sup>Ⓛ</sup>
• Wire guard with captive mounting hardware	P3001
• Top hat adapter	CHMM1

For retrofitting Appleton® MercMaster III top hats to Champ VMV Luminaires

<sup>Ⓞ</sup> Custom optics not available with colored LEDs.

<sup>Ⓜ</sup> For VMV3L-VMV11L only.

<sup>Ⓛ</sup> Order with ceiling mount only.

<sup>Ⓛ</sup> Not available for IEC.

<sup>Ⓚ</sup> Available for VMV5L and VMV7L only. Redundant driver standard on VMV9L-VMV25L models. 7L = 6,616 lumens with S892 suffix.



CHMM1

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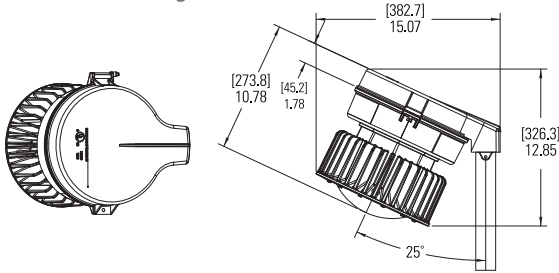
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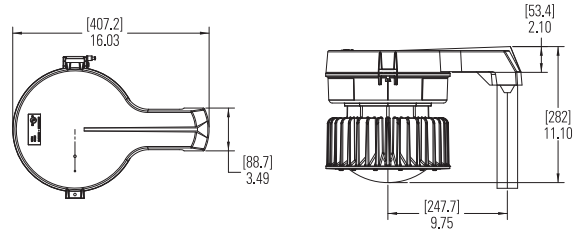
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## Dimensions:

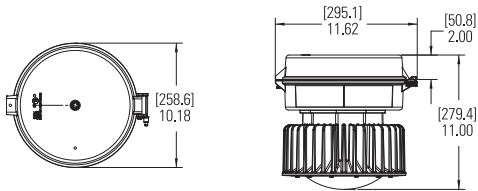
### Stanchion - 25° Angled



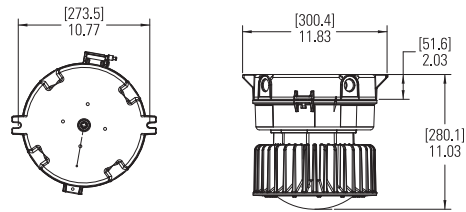
### Stanchion - Straight



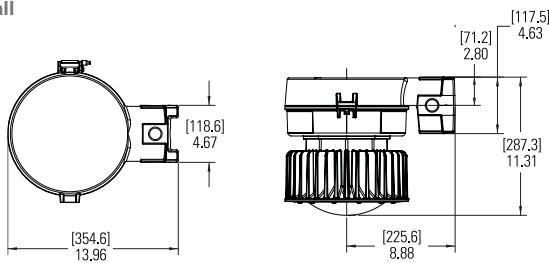
### Pendant



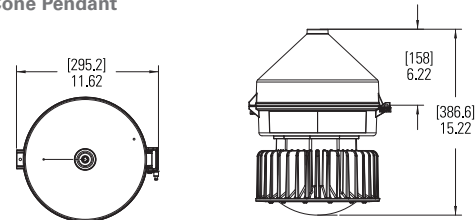
### Ceiling



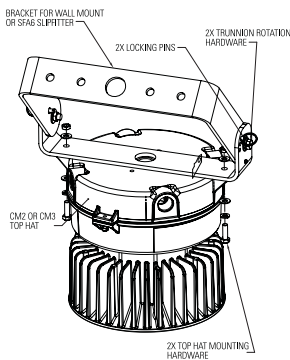
### Wall



### Cone Pendant



### Trunnion



## Net Luminaire Weights:

Model	Lbs.	Kg.
VMV3L-VMV11L	21.80	8.07
VMV13L & VMV17L	36.00	16.32
VMV21L & VMV25L	44.00	19.95
<b>Add Mounting Modules:</b>		
Pendant	1.25	0.57
Cone Pendant	4.00	1.81
Flexible Pendant	1.50	0.68
Ceiling	2.75	1.25
Wall	4.50	2.04
Angled Stanchion <sup>1</sup>	3.50	1.59
Straight Stanchion	4.50	2.04

<sup>1</sup> Angled stanchion for VMV3L-VMV11L models only.