

Champ VMV LED luminaires

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

UL/cUL Listed
IECEx/ATEX/CE
Wet Locations
NEMA 4X; IP66

2L

The Champ VMV LED family

Champ® VMV LED 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) [Ⓐ]	Watts	Lumens per watt	Equivalent HID luminaire	Typical energy savings / lifetime
VMV3L	3,531	29	122	70W-100W	Up to 77%
VMV5L	5,256	41	129	100W-150W	Up to 67%
VMV7L	7,120	54	131	150W-175W	Up to 67%
VMV9L	9,134	74	124	250W-320W	Up to 74%
VMV11L	11,034	89	123	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 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

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 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
- Dimmable driver standard

Certifications and compliances:

- DesignLights Consortium® Qualified (some models are not DLC qualified)[Ⓑ]

NEC/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: Ⓒ

- IEC 60079-0:2011; IEC 60079-15:2010; IEC 60079-31:2013; IEC 60598-2-1:1979; IEC 60529:2001
- 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 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



Certifications and compliances (continued):

ATEX/CE: Ⓒ

- EN 60079-0:2012 +A11:2013; EN 60079-15:2010; EN 60079-31:2014; EN 60598-2-1:1989; EN 60929:1991 +A1:2001
- Ⓒ II 3 G Ex nA IIC T* Gc -40 to +40
- Ⓒ II 3 G Ex nA IIC T* Gc -40 to +55
- Ⓒ II 3 G Ex nA 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

[Ⓐ]Tolerance +/- 10%.

[Ⓑ]Refer to www.designlights.org Qualified Products List under family models for full listing details. Not all models are approved for all application categories.

[Ⓒ]VMV3L-VMV11L rated to +65°C; VMV13L-VMV25L rated to +55°C.

*See temperature code table on following page.

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LED system:

- High intensity discrete power emitters
- Cool white (5000K, 70 CRI) (standard); warm white (3000K, 80 CRI) or neutral white (4000K, 70 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: VMV3L-VMV25L
/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

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.

Colored LED options:

- Available in green and amber^D
- 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, UNV1 (VAC 50/60 Hz)	120-277	120-277	120-277	120-277	120-277	120-277	120-277	120-277	120-277
Voltage range, UNV1 (VDC 50/60 Hz)	108-250	108-250	108-250	108-250	108-250	108-250	108-250	108-250	108-250
Input power (watts)	29	41	54	74	89	131	168	196	232
Input amps at 120-277 VAC	0.24 - 0.11	0.34 - 0.16	0.45 - 0.23	0.61 - 0.31	0.74 - 0.41	1.08 - 0.48	1.40 - 0.62	1.64 - 0.73	1.94 - 0.87
Voltage range, UNV34 (VAC 50/60 Hz)	347-480	347-480	347-480	347-480	347-480	347-480	347-480	347-480	347-480
Input power (watts)	27	44	58	73	91	127	175	208	263
Input amps at 347-480 VAC	0.06 - 0.08	0.09 - 0.12	0.12 - 0.16	0.15 - 0.21	0.19 - 0.26	0.21 - 0.26	0.49 - 0.37	0.58 - 0.43	0.73 - 0.55
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%

Temperature performance data:

Lamp / lumen output	Driver type	Ambient temp. °C	Class I, Div. 2	Class II, Div. 1	Class III, Div. 1		
					Class II, Div. 1, Groups E, F, G		
					Simultaneous rating	Class I, Zone 2	Class II, Div. 1, Groups E, F, G
					Class I, Div. 2; Div. 1	AEx nA; Ex nA	Zone 21, AEx tb IIIC
3L, 5L, 7L, 9L, 11L	/UNV1	40	T5	T5	T3C	T5	T72°C
3L, 5L, 7L, 9L, 11L	/UNV1	55	T5	T4A	T3A	T5	T87°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

^D Custom optics not available with colored LEDs.

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Ordering information:

Part number example

VMV17LW2AR1G/UNV1 S890

VMV		17L	W	2A	R1	G	/UNV1	S890
Lamp / function		Options						
3L	3,531 lumen LED	S812 ⑥ Trunnion mount kit with pin						
5L	5,256 lumen LED	S831 ⑥ Safety cable						
7L	7,120 lumen LED	S890 Quick-Clip						
9L	9,134 lumen LED	S891 ⑥ Diffused lens						
11L	11,034 lumen LED	S892 ⑥ Redundant driver						
13L	13,226 lumen LED	S896 ⑥ Teflon coated lens						
17L	18,793 lumen LED	S903 Polycarbonate lens						
21L	22,110 lumen LED	TB6 ⑥ Six-pole terminal block						
25L	26,531 lumen LED	BR Certified for Brazil, INMETRO						
GL ⑥	Green (4,300 lumen LED)	Voltage						
AL ⑥	Amber (5,000 lumen LED)	/UNV1 120-277 VAC, 50/60 Hz; 108-250 VDC, 50/60 Hz						
Color temperature		/UNV34 347-480 VAC, 50/60 Hz						
BLANK	Cool (5000K) or colored	Guard						
N	Neutral (4000K)	BLANK No guard						
W	Warm (3000K)	G P3001 wire guard (3L-11L) P3002 wire guard (13L-25L)						
Mounting style		Optics						
BLANK	No cover	BLANK Type V optic standard (all mounts)						
J ⑥	1-½" stanchion, 25° angled	2C	¾" ceiling	R1 Type I optic (all mounts minus ceiling for 3L-11L, available with mounts for 13L-25L models)				
P	1-½" stanchion, straight	3C	1" ceiling	R1A ⑥ Type I optic (ceiling with conduit 45° counterclockwise or 135° clockwise from hinge)				
2A	¾" pendant	20C	20mm ceiling	R1B ⑥ Type I optic (ceiling with conduit 45° clockwise or 135° counterclockwise from hinge)				
3A	1" pendant	25C	25mm ceiling	R3 Type III optic (all mounts minus ceiling)				
20A	20mm pendant	2HA	¾" flexible pendant	R3AP ⑥ Type III optic (select when using Appleton® top hat adapter with Champ fixture)				
25A	25mm pendant	2TW	¾" wall	R3A1 ⑥ Type III optic (ceiling with conduit 45° counterclockwise from top hat hinge)				
2B	¾" cone pendant	3TW	1" wall	R3A2 ⑥ Type III optic (ceiling with conduit 135° clockwise from top hat hinge)				
3B	1" cone pendant	20TW	20mm wall	R3B1 ⑥ Type III optic (ceiling with conduit 45° clockwise from top hat hinge)				
		25TW	25mm wall	R3B2 ⑥ Type III optic (ceiling with conduit 135° counterclockwise from top hat hinge)				

Accessories (ordered separately):

Description

- Photocell, 120V, 50/60 Hz **D2S20**
- Photocell, 208-277V **D2S208 277**
- Trunnion mount kit with pin **VMVL S812 K1 ⑥**
- Wire guard with captive mounting hardware (3L-11L) **P3001**
- Wire guard with captive mounting hardware (13L-25L) **P3002**
- Top hat adapter **CHMM1**

For retrofitting Appleton MercMaster III top hats to Champ VMV luminaires



CHMM1

⑥ Custom optics not available with colored LEDs.

⑦ For VMV3L-VMV11L only.

⑧ Order with ceiling mount only.

⑨ Not available for IEC.

⑩ Available for VMV5L and VMV7L only. Redundant driver standard on VMV9L-VMV25L models. 7L = 6,616 lumens with S892 suffix.

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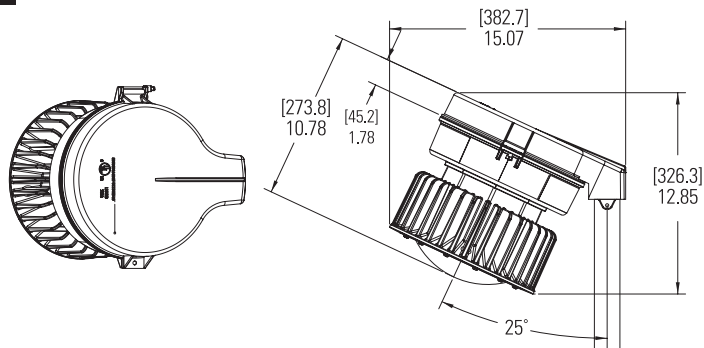
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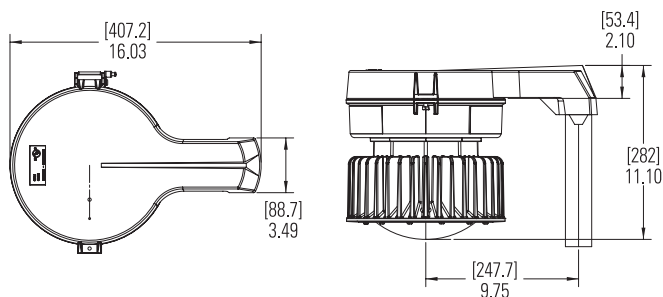
2L

Dimensions – 3L-11L:

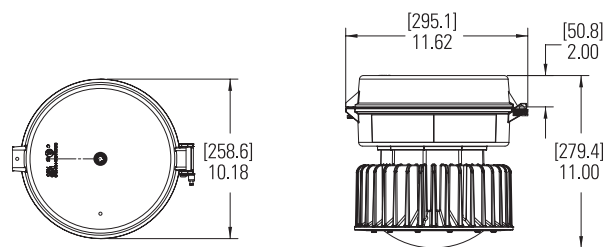
Stanchion - 25° angled



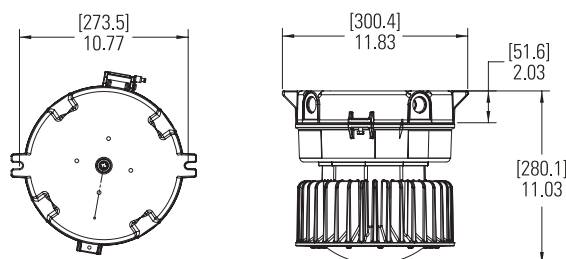
Stanchion - straight



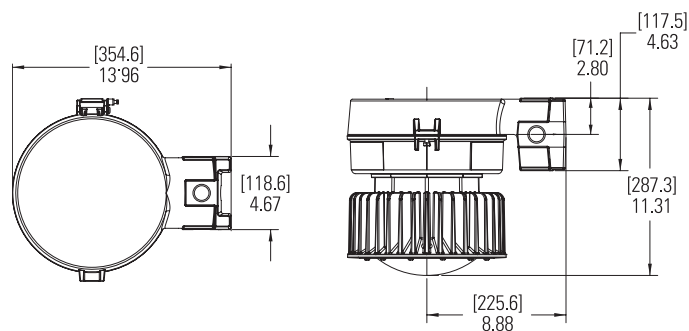
Pendant



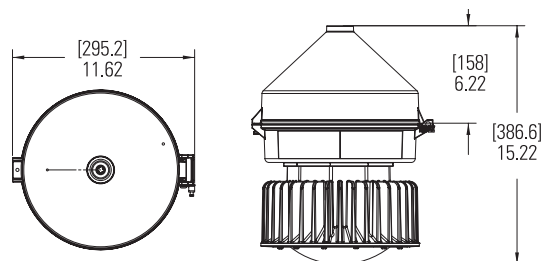
Ceiling



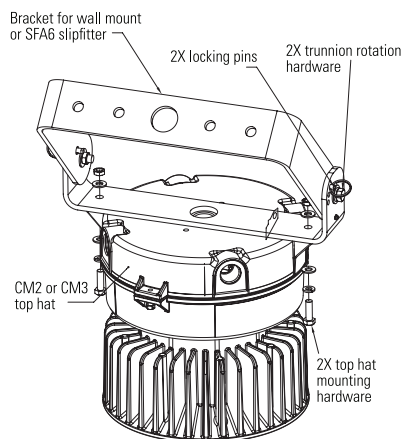
Wall



Cone pendant



Trunnion



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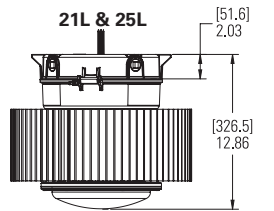
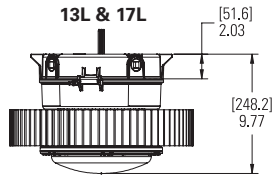
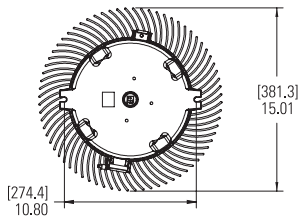
2L

2L

Dimensions – 13L-25L:

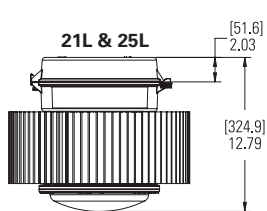
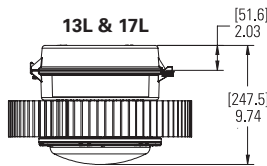
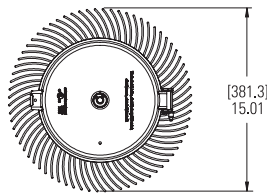
Ceiling

Top view: 13L-25L



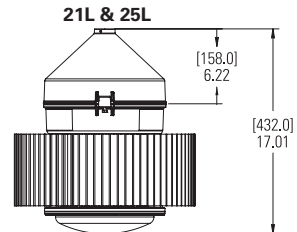
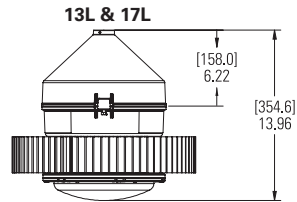
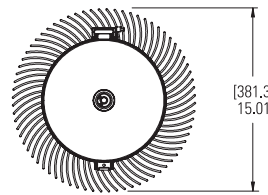
Pendant

Top view: 13L-25L



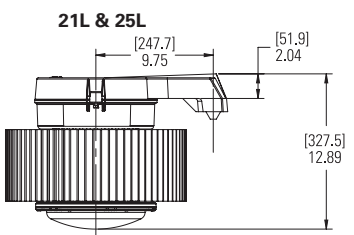
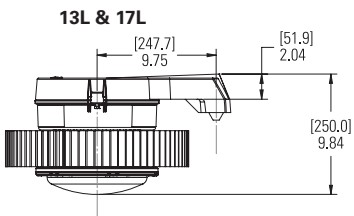
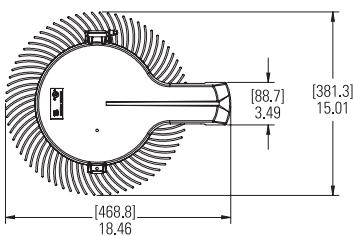
Cone pendant

Top view: 13L-25L



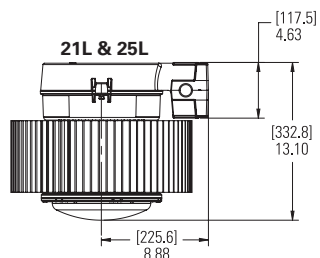
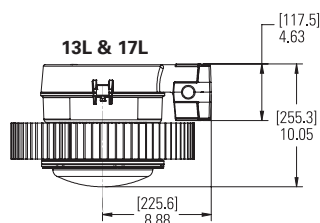
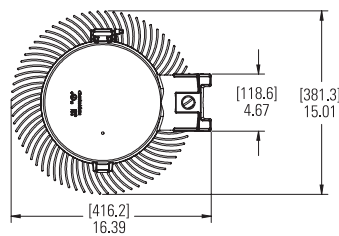
Stanchion

Top view: 13L-25L



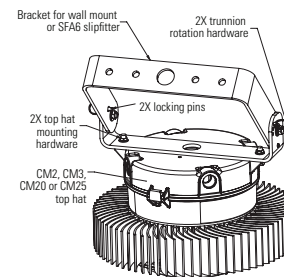
Wall

Top view: 13L-25L

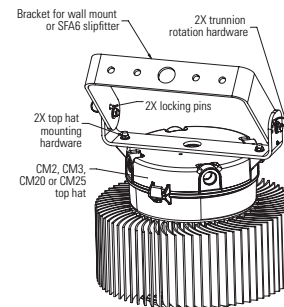


Trunnion

13L & 17L



21L & 25L



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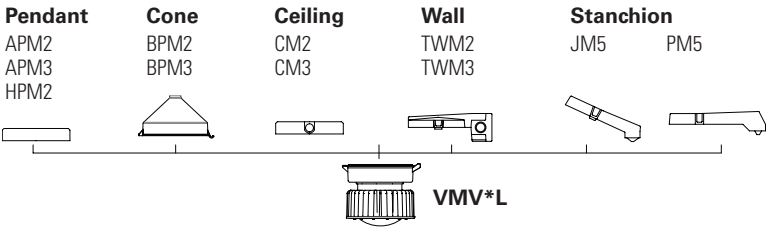
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Family tree:



Net luminaire weights:

Model	Lbs.	Kg.
VMV3L-VMV11L	20.80	9.43
VMV13L & VMV17L	36.00	16.32
VMV21L & VMV25L	44.00	19.95
Add mounting modules:		
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 stanchion❶	3.50	1.59
Straight stanchion	4.50	2.04

❶ Angled stanchion for VMV3L-VMV11L models only.