

Champ VMVL LED luminaires

3,000 to 13,000 lumens

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2, AEx ec mb IICT^AGC
Cl. II, Groups E, F, G
Cl. III & Simultaneous Presence
Zone 21 tb IIIC

UL/CSA Listed
IEC/ATEX
Wet Locations
Type 4X; IP66

2L

2L

The Champ VMVL LED family

Champ® VMVL LED luminaires are engineered to provide maintenance-free illumination in the most demanding hazardous rated environments.

The Champ VMVL features a compact, high efficacy design with custom optics to ensure maximum efficiency and mounting flexibility, including the ability to retrofit the Crouse-Hinds installed base to service both LED upgrades and new projects.

Model	Nominal lumens ^B	Watts	Efficacy	Equivalent HID luminaire
VMVL-3	3,250	28	123 lm/W	70W
VMVL-5	5,537	45	127 lm/W	100W
VMVL-7	7,442	61	127 lm/W	175W
VMVL-9	9,234	76	126 lm/W	250W
VMVL-11	11,114	92	122 lm/W	320W
VMVL-13	13,100	95	125 lm/W	400W

Applications:

- For areas with mounting heights of up to 30 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
- Extremely corrosive, wet, dusty, hot and/or cold conditions
- Classified and hazardous locations

Features:

- Instant illumination and restrike
- Dimmable driver, 0-10V
- 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
- Up to 60,000 hours lifetime at 55°C
- 5 year fixture warranty

^AIEC/ATEX certifications applicable for voltage ranges: 100-277 VAC, 127-250 VDC.

^BNominal lumens based on Type V optics, 5000K CCT with clear glass lens. Wattage measured at 120 VAC.

^CRefer to www.designlights.org Qualified Products List under family models for full listing details. Not all models are approved for all application categories.

^DCustom optics not available with colored LEDs.

Certifications and compliances:

NEC/CEC/IEC:

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- Class III
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UL standards:

- UL844 – Hazardous (Classified)
- UL1598 – Luminaires
- UL1598A – Marine

CSA standard:

- CSA C22.2 No. 137

IEC/ATEX standards^A:

- IEC 60079-0:2011, 6th Edition / EN 60079-0:2012
- IEC 60079-7:2010, 5.1 Edition / EN 60079-7:2015
- IEC 60079-31:2008, 2nd Edition / EN 60079-31:2014
- IEC 60529:2001 / EN 60529:2001
- IEC 60598-1:2008 / EN 60598-1:2008
- IEC 60598-2:2008 / EN 60598-2:2008
- IEC 60079-18:2017, 4.1 Edition / EN 60079-18:2015 + A1:2017

Luminaire markings:

- IECEx UL 13.0052X
- DEMKO 13 ATEX 1305741X
- DEMKO 13 ATEX 1475031X

100-277 VAC/127-250 VDC (UNV1 luminaire only)

- II 3 G EX ec mb IIC T5 Gc -40°C to +40°C
- II 3 G EX ec mb IIC T5 Gc -40°C to +55°C
- II 3 G EX ec mb IIC T4 Gc -40°C to +65°C
- II 2 D EX tb IIIC T72°C Db -40°C to +40°C
- II 2 D EX tb IIIC T87°C Db -40°C to +55°C
- II 2 D EX tb IIIC T92°C Db -40°C to +65°C

Qualifications and compliances:

- DesignLights Consortium® Qualified (pending)^C



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

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

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

Net luminaire weights:

Model	Lbs.	Kg.
VMVL-3 to VMVL-7	19.00	8.62
VMVL-9 to VMVL-13	19.20	8.70
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 stanchion	3.50	1.59
Straight stanchion	4.50	2.04

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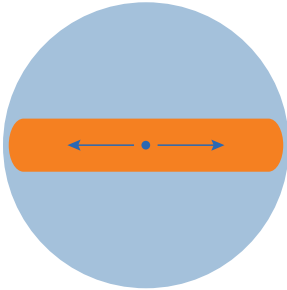
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Custom optics:

Three optical options to maximize light distribution and intensity:

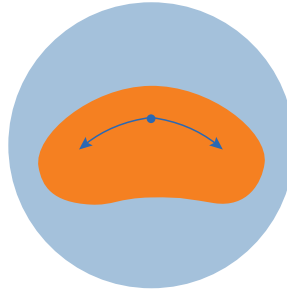


TYPE I

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

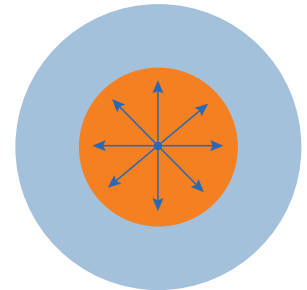


TYPE III

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.

[●] IEC/ATEX certifications applicable for voltage ranges: 100-277 VAC, 127-250 VDC.

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Electrical ratings:

UNV1 driver	Input power (watts)	Input amps at 100-277 VAC	UNV34 driver	Input power (watts)	Input amps at 347-480 VAC
VMVL-3	27	0.27 - 0.10	VMVL-3	28	0.08 - 0.06
VMVL-5	45	0.45 - 0.16	VMVL-5	44	0.13 - 0.09
VMVL-7	61	0.61 - 0.21	VMVL-7	57	0.16 - 0.12
VMVL-7-S892	60	0.60 - 0.23	VMVL-7-S892	61	0.18 - 0.13
VMVL-9	76	0.76 - 0.26	VMVL-9	68	0.20 - 0.14
VMVL-9-S892	80	0.80 - 0.29	VMVL-9-S892	73	0.22 - 0.15
VMVL-11	92	0.92 - 0.32	VMVL-11	83	0.24 - 0.17
VMVL-11-S892	97	0.97 - 0.35	VMVL-11-S892	86	0.25 - 0.18
VMVL-13	95	1.10 - 0.42	VMVL-13	91	0.29 - 0.17
VMVL-13-S892	99	1.10 - 0.36	VMVL-13-S892	96	0.31 - 0.19

All models

Power factor	≥0.90	THD	≤15%
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UNV1

Voltage range, 100-277V at VAC[Ⓔ]
50/60 Hz

Voltage range, 127-250V VDC

UNV34

Voltage range, 347-480V at VAC[Ⓔ]
50/60 Hz

EMC / CE compliance:

If the dimming interface of the LED driver is connected to an external dimmer which is not provided with the luminaire, a ferrite core must be used on the input and dimming lines.

Approved ferrite cores are: Fair-Rite P/N 0431167281.

Temperature performance data – UNV1 driver:

UNV1: VMVL-3 to VMVL-11	40°C	55°C	65°C
Class I, Division 2	T5	T5	T4A
Class II, Division 1	T6	T6	T4A
Simultaneous rating Class I, Divisions 1 & 2	T4A	T4	T3C
Class I, Zone 2 AEx ec mb; Ex ec mb	T5	T5 [Ⓘ]	T4
Class III, Division 1 Class II, Division 1, Groups E, F, G Zone 21, AEx tb IIIC	T72	T87	T92

UNV1: VMVL-7, -9 & -11-S892	40°C	55°C	65°C
Class I, Division 2	T5	T4A	T4A
Class II, Division 1	T6	T6	T5
Simultaneous rating Class I, Divisions 1 & 2	T4A	T4	T3C
Class I, Zone 2 AEx ec mb; Ex ec mb	T4	T4	T4
Class III, Division 1 Class II, Division 1, Groups E, F, G Zone 21, AEx tb IIIC	T72	T87	T92

UNV1: VMVL-13	40°C	55°C
Class I, Division 2	T4A	T4A
Class II, Division 1	T6	T6
Simultaneous rating Class I, Divisions 1 & 2	T4A	T4A
Class I, Zone 2 AEx ec mb; Ex ec mb	T5	T4
Class III, Division 1 Class II, Division 1, Groups E, F, G Zone 21, AEx tb IIIC	T64	T77

UNV1: VMVL-13-S892	40°C	55°C
Class I, Division 2	T5	T4A
Class II, Division 1	T6	T6
Simultaneous rating Class I, Divisions 1 & 2	T5	T4A
Class I, Zone 2 AEx ec mb; Ex ec mb	T4	T4
Class III, Division 1 Class II, Division 1, Groups E, F, G Zone 21, AEx tb IIIC	T64	T77

Temperature performance data – UNV34 driver:

UNV34: VMVL-3 to VMVL-11	40°C	55°C	65°C
Class I, Division 2	T5	T5 [Ⓘ]	T4A
Class II, Division 1	T6	T6	T5
Simultaneous rating Class I, Divisions 1 & 2	T4A	T4	T3C

UNV34: VMVL-7, -9, & -11-S892	40°C	55°C	65°C
Class I, Division 2	T5	T5 [Ⓘ]	T4A
Class II, Division 1	T6	T6	T5
Simultaneous rating Class I, Divisions 1 & 2	T4A	T4	T3C

UNV34: VMVL-13	40°C	55°C
Class I, Division 2	T4A	T4A
Class II, Division 1	T6	T6
Simultaneous rating Class I, Divisions 1 & 2	T4A	T4A

UNV34: VMVL-13-S892	40°C	55°C
Class I, Division 2	T4A	T4A
Class II, Division 1	T6	T6
Simultaneous rating Class I, Divisions 1 & 2	T4A	T4A

[Ⓐ] IEC/ATEX certifications applicable for voltage ranges: 100-277 VAC, 127-250 VDC.

[Ⓔ] IEC voltage: 100-240 VAC at 50/60 Hz. For VMVL-3: PF>0.9 from 100-255 VAC.

[Ⓘ] T-code is T4A for VMVL-11 with R1, R3 optics.

[Ⓛ] T-code is T4A for VMVL-11-S892 with R1, R3 optics.

[Ⓜ] T-code is T4 for R1, R3 optics.

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Ordering information:

Part number example

VMVL-3-N-2A-R1-G-UNV1-S831-S891-UPLT

VMVL -3 -N -2A -R1 -G -UNV1 -S831 -S891 -UPLT

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
13[Ⓛ]	13,100 nominal lumens
A	Amber – 5,200 lumens
G	Green – 4,300 lumens

Color temperature

BLANK	Cool white (5000K), 70 CRI
N[Ⓜ]	Neutral white (4000K), 70 CRI
W	Warm white (3000K), 80 CRI

Mounting style

BLANK	No mounting module	2C	¾" ceiling
J	1½" stanchion, 25° angled	3C	1" ceiling
P	1½" 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

Guard

BLANK	No guard
G	Wire guard

Voltage[Ⓚ]

UNV1	100-277 VAC, 50/60 Hz; 127-250 VDC
UNV34	347-480 VAC, 50/60 Hz

Lens material

BLANK	Clear glass
S891	Diffused glass
S896[Ⓡ]	Teflon coated lens
S903	Polycarbonate
UPLT[Ⓢ]	Uplight refractor lens

Accessories and options[Ⓚ]

S812[Ⓝ]	Trunnion mount kit with pin
S831	Safety cable
S890	Quick Clip
S891	Diffused lens
S892[Ⓚ]	Redundant driver
TB6[Ⓢ]	Six-pole terminal block

Optics

BLANK	Type V optic standard
R1	Type I optic (<i>all mounts minus ceiling</i>)
R1A[Ⓝ]	Type I optic (<i>ceiling with conduit 45° counterclockwise from top hat hinge</i>)
R1B[Ⓝ]	Type I optic (<i>ceiling with conduit 135° clockwise from top hat hinge</i>)
R3	Type III optic (<i>all mounts minus ceiling</i>)
R3AP[Ⓝ]	Type III optic (<i>select when using Appleton® top hat adapter with Champ fixture</i>)
R3A1[Ⓝ]	Type III optic (<i>ceiling with conduit 45° counterclockwise from top hat hinge</i>)
R3A2[Ⓝ]	Type III optic (<i>ceiling with conduit 135° clockwise from top hat hinge</i>)
R3B1[Ⓝ]	Type III optic (<i>ceiling with conduit 45° clockwise from top hat hinge</i>)
R3B2[Ⓝ]	Type III optic (<i>ceiling with conduit 135° counterclockwise from top hat hinge</i>)

[Ⓚ] IEC/ATEX certifications applicable for voltage ranges: 100-277 VAC, 127-250 VDC.

[Ⓛ] For 13L models, add suffix -M2 at the end of the part number. Example: VMVL-13-2A-R1-UNV1-S831-M2.

[Ⓜ] Consult factory for lead time. 5700K and 6500K are available upon request; consult factory. Not available for amber or green LED.

[Ⓝ] Available with ceiling mount modules only.

[Ⓚ] IEC voltage: 100-240 VAC at 50/60 Hz.

[Ⓟ] Ordered with fixture or available separately.

[Ⓚ] Available for VMVL-7, -9, -11 and -13 only.

[Ⓡ] For NEC/CEC only.

[Ⓢ] For use with Type V optic only.

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Accessories (ordered separately):

Replacement driver kits

VMVL-3-5-7L-UNV1-DRIVER-KIT	UNV1 replacement driver kit for VMVL-3, -5 and -7
VMVL-9-11L-UNV1-DRIVER-KIT	UNV1 replacement driver kit for VMVL-9 and -11
VMVL-96W-13L-UNV1-M2-DRIVER-REPL-KIT	UNV1 replacement driver kit for VMVL-13
VMVL-3L-5L-UNV34-DRIVER-KIT	UNV34 replacement driver kit for VMVL-3 and -5
VMVL-7L-UNV34-DRIVER-KIT	UNV34 replacement driver kit for VMVL-7
VMVL-9L-UNV34-DRIVER-KIT	UNV34 replacement driver kit for VMVL-9
VMVL-11L-UNV34-DRIVER-KIT	UNV34 replacement driver kit for VMVL-11
VMVL-13-M2-DRIVER-KIT	UNV34 replacement driver kit for VMVL-13
VMVL-7L-S892-UNV1-DRIVER-KIT	UNV1 replacement redundant driver kit for VMVL-7
VMVL-9L-11L-S892-UNV1-DRIVER-KIT	UNV1 replacement redundant driver kit for VMVL-9 and -11
VMVL-13-UNV1-S892-M2-DRIVER-KIT	UNV1 replacement redundant driver kit for VMVL-13
VMVL-7L-S892-UNV34-DRIVER-KIT	UNV34 replacement redundant driver kit for VMVL-7
VMVL-9L-S892-UNV34-DRIVER-KIT	UNV34 replacement redundant driver kit for VMVL-9
VMVL-11L-S892-UNV34-DRIVER-KIT	UNV34 replacement redundant driver kit for VMVL-11
VMVL-13-UNV34-S892-M2-DRIVER-KIT	UNV34 replacement redundant driver kit for VMVL-13
VMVL-AL-GL-UNV1-DRIVER-KIT	UNV1 replacement driver kit for amber or green models

Mounting and hardware

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

Mounting adapters

CHMM1	For Appleton MercMaster III mounts
CHMM2	For MercMaster II mounts
CHMM3	For Thomas & Betts HazLux mounts
CHMM4	For GE H2 Filtr-Gard mounts

Photocells

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

Lens guard

P3001	Wire guard
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[Ⓢ] IEC/ATEX certifications applicable for voltage ranges: 100-277 VAC, 127-250 VDC.

[Ⓢ] Available with ceiling mounted modules only.

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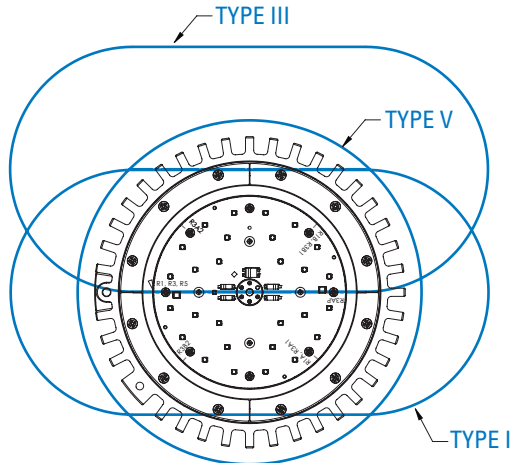
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Optics options:

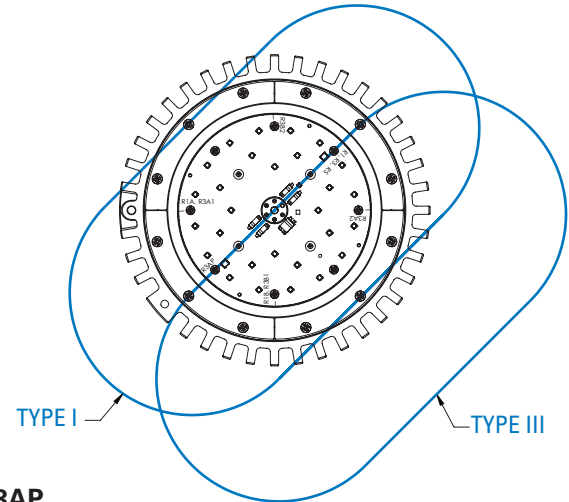
R1, R3 and BLANK

Type I, III and V optics with all mounts minus ceiling



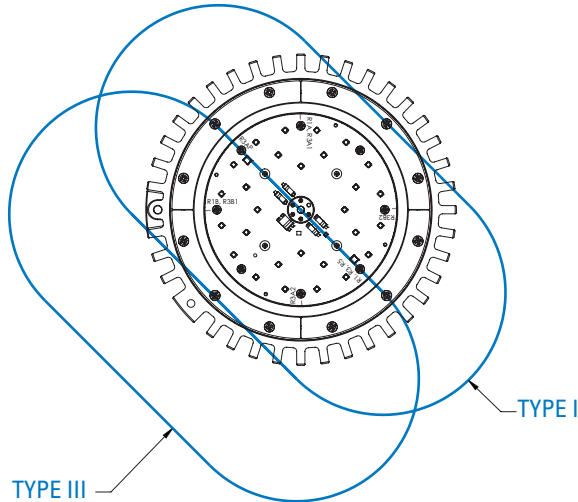
R1A and R3A1

Type I and Type III ceiling mount only



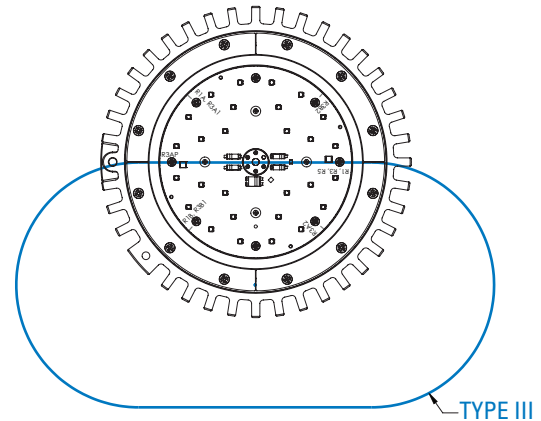
R1B and R3B1

Type I and Type III ceiling mount only



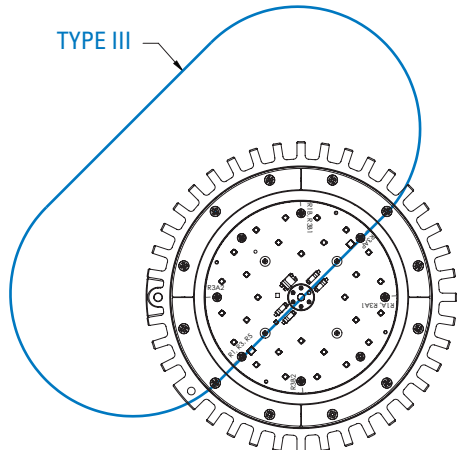
R3AP

Type III wall mount



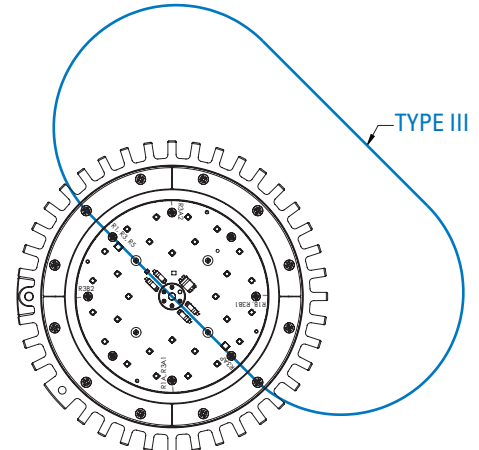
R3A2

Type III ceiling mount only



R3B2

Type III ceiling mount only



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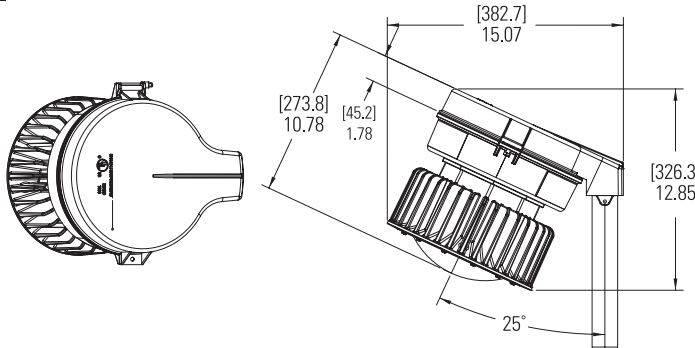
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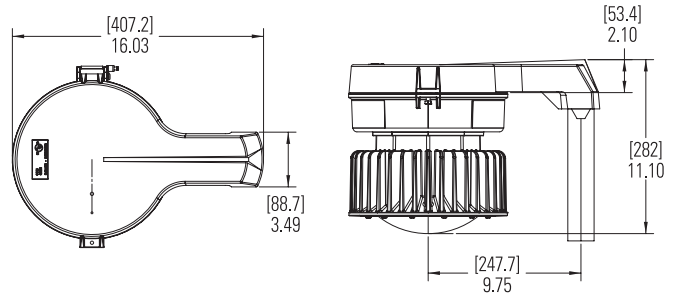
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Dimensions:

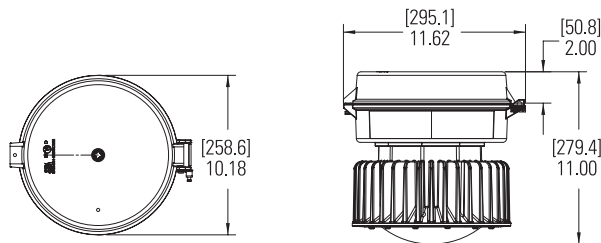
Stanchion - 25° angled



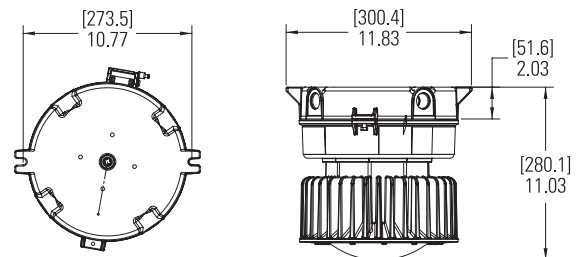
Stanchion - straight



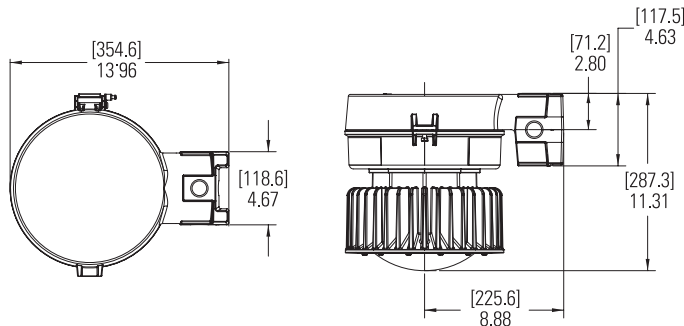
Pendant



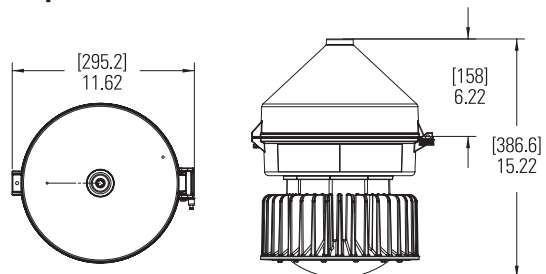
Ceiling



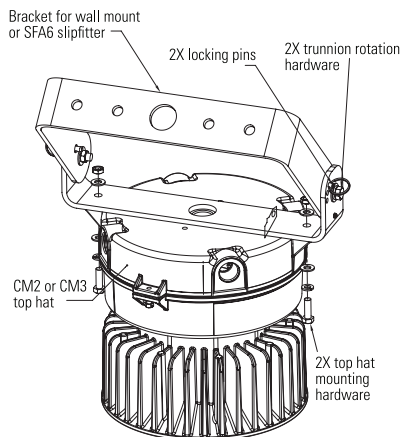
Wall



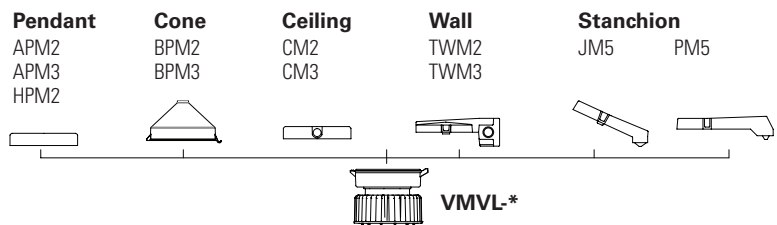
Cone pendant



Trunnion



Mounting module series:



W IEC/ATEX certifications applicable for voltage ranges: 100-277 VAC, 127-250 VDC.