

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:

- Class I, Division 2, Groups A, B, C, D
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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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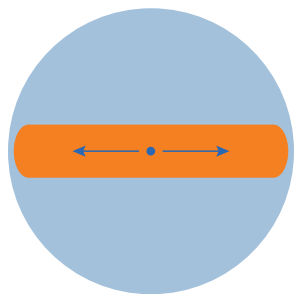
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Custom optics:

Three optical options to maximize light distribution and intensity:

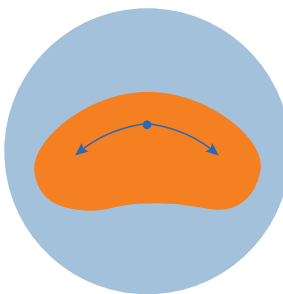


TYPE I

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

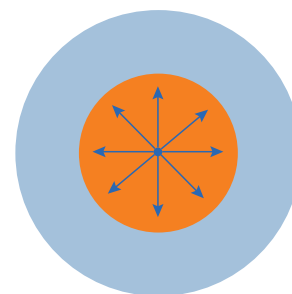


TYPE III

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, VAC [Ⓔ]	100-277V at 50/60 Hz
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Voltage range, VDC	127-250V
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UNV34

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