

# Champ VMVL uplight LED lighting for hazardous areas

## Rugged solutions for complex environments.

Champ VMVL LED luminaires are now available with an uplight refractor which maximizes light dispersion. The new refractor is perfect for low bay ceilings, suspended pendant mounts, areas with elevated infrastructure or areas which require dispersed side and uplight illumination.

Model	Nominal lumens*	Watts	Efficacy	Equivalent HID
VMVL-3	3,250	26	125 lm/W	70W
VMVL-5	5,537	43	128 lm/W	100W
VMVL-7	7,442	59	126 lm/W	175W
VMVL-9	9,234	73	126 lm/W	250W
VMVL-11	11,114	91	122 lm/W	320W
VMVL-13	13,100	95	137 lm/W	400W

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

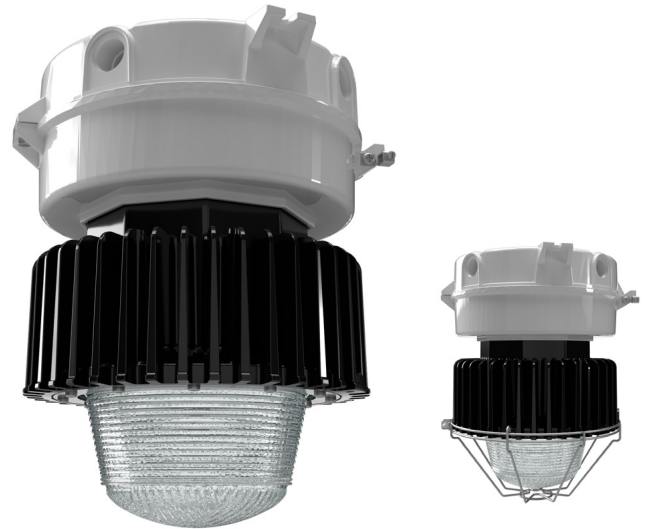
### Applications:

- 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
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist
- Classified and hazardous locations

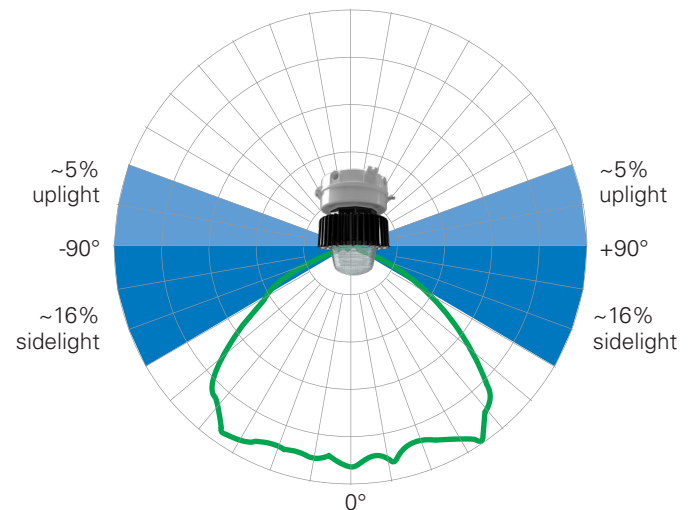
### Champ VMVL benefits:

- 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
- Up to 60,000 hours lifetime at 55°C
- 5 year fixture warranty†

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



## Refractor directs light to sides and above fixture



### Uplight refractor lens benefits:

- ~5% uplight and ~16% sidelight for better visibility
- High impact resistance – meets or exceeds 4 joule impact testing

# Ordering information

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

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

### Light source/intensity

<b>3</b>	3,250 nominal lumens
<b>5</b>	5,537 nominal lumens
<b>7</b>	7,442 nominal lumens
<b>9</b>	9,234 nominal lumens
<b>11</b>	11,114 nominal lumens
<b>13*</b>	13,100 nominal lumens
<b>A</b>	Amber - 5,200 lumens
<b>G</b>	Green - 4,300 lumens

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

### Color temperature

<b>BLANK</b>	5000K, 70 CRI ( <i>cool white</i> )
<b>N*</b>	4000K, 70 CRI ( <i>neutral white</i> )
<b>W</b>	3000K, 80 CRI ( <i>warm white</i> )

\*Consult factory for lead time.  
\*\*5700K and 6500K are available upon request; consult factory.  
\*\*\*Not available for Amber or Green LED.

### Mounting

<b>BLANK</b>	No mounting module
<b>J</b>	1-½" stanchion, 25° angled
<b>P</b>	1-½" stanchion, straight
<b>2A</b>	¾" pendant
<b>3A</b>	1" pendant
<b>20A</b>	20mm pendant

<b>25A</b>	25mm pendant
<b>2B</b>	¾" cone pendant
<b>3B</b>	1" cone pendant
<b>2HA</b>	¾" flexible pendant
<b>2C</b>	¾" ceiling
<b>3C</b>	1" ceiling

<b>20C</b>	20mm ceiling
<b>25C</b>	25mm ceiling
<b>2TW</b>	¾" wall
<b>3TW</b>	1" wall
<b>20TW</b>	20mm wall
<b>25TW</b>	25mm wall

### Lens guard

<b>BLANK</b>	No guard
<b>G</b>	Wire guard

### Optics

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

\*Available with ceiling mount modules only.

### Accessories & options†

<b>S812</b>	Trunnion mount kit with pin ( <i>available with ceiling mount only</i> )
<b>S831</b>	Safety cable
<b>S890</b>	Quick clip
<b>S892*</b>	Redundant driver
<b>TB6**</b>	Six-pole terminal block

†Ordered with fixture or available separately.

\*Available for VMVL-7, 9, 11 and 13 only

\*\*For NEC/CEC only.

### Voltage†

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

†IEC voltage; 100-240 VAC at 50/60 Hz.

### Lens material

<b>BLANK</b>	Clear glass
<b>S891</b>	Diffused glass
<b>S896*</b>	Teflon coated lens
<b>S903</b>	Polycarbonate
<b>UPLT**</b>	Uplight refractor lens

\*For NEC/CEC only.

\*\*Recommended for use with Type V optic

## Accessories (ordered separately)

### Replacement driver kits

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

### Mounting & hardware

<b>VMVL S812 K1</b>	Trunnion mount kit with pin*
<b>VMVL S812 K1 DBR</b>	PVC coated trunnion mount kit with pin*
<b>VMVL S831 K1</b>	Safety cable
<b>VMVL S890 K1</b>	Quick Clip

\*Available with ceiling mounted modules only.

### Mounting adapters

<b>CHMM1</b>	Mounting adapter for Appleton MercMaster III mounts
<b>CHMM2</b>	Mounting adapter for MercMaster II mounts
<b>CHMM3</b>	Mounting adapter for Thomas & Betts HazLux mounts
<b>CHMM4</b>	Mounting adapter for GE H2 Filtr-Gard mounts

### Photocells

<b>D2S20</b>	Photocell, 120V
<b>D2S208 277</b>	Photocell, 208-277V

### Lens guard

<b>P3001</b>	Wire guard
<b>P3003</b>	UPLT wire guard

## 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	26	0.27-0.10	VMVL-3	27	0.08-0.06
VMVL-5	43	0.45-0.16	VMVL-5	44	0.13-0.09
VMVL-7	59	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	73	0.76-0.26	VMVL-9	75	0.20-0.14
VMVL-9-S892	80	0.80-0.29	VMVL-9-S892	73	0.22-0.15
VMVL-11	91	0.92-0.32	VMVL-11	91	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

## Temperature codes, 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	T5	T4A	T4A
Simultaneous rating Class I, Division 1 & 2	T3C	T3A	T3A
Class I, Zone 2 AEx ec mb; Ex ec mb	T5	T5*	T4
Class III, Div. 1 Class II, Div. 1, Groups E, F, G Zone 21, AEx tb IIIC	T72	T72	T92

\* T-Code is T4A for VMVL-11 with R1, R3 Optics

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, Division 1 & 2	T4A	T4	T3C
Class I, Zone 2 AEx ec mb; Ex ec mb	T5A	T4	T3C
Class III, Div. 1 Class II, Div. 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, Division 1 & 2	T4A	T4A
Class I, Zone 2 AEx ec mb; Ex ec mb	T5	T4
Class III, Div. 1 Class II, Div. 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, Division 1 & 2	T5	T4A
Class I, Zone 2 AEx ec mb; Ex ec mb	T4	T4
Class III, Div. 1 Class II, Div. 1, Groups E, F, G Zone 21 AEx tb IIIC	T64	T77

## All models

Power factor	≥0.90	THD	≤15%
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## UNV34

Voltage range, VAC*	347-480V at 50/60 Hz
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\*IEC voltage: 100-240 VAC @ 50/60 Hz.

\*\*For VMVL3: PF>0.9 from 100-255 VAC.

## UNV1

Voltage range, VAC*	100-277V at 50/60 Hz
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Voltage range, VDC	127-250V
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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 codes, 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, Division 1 & 2	T4A	T4	T3C

\* T-Code is T4A for VMVL-11 with R1, R3 Optics

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, Division 1 & 2	T4A	T4	T3C

\* T-Code is T4A for VMVL-11-S892 with R1, R3 Optics

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

## Certifications and compliances:

### NEC, CEC & IEC

- Class I, Division 2, Groups A, B, C, D
- Class II, Groups E, F, G
- Class III
- Class I, Zone 2 AEx ec mb IICT\*GC
- Zone 21 tb IIIC
- Simultaneous Presence
- Wet Locations, Type 4X

### UL standards

- UL 844 Hazardous (Classified)
- UL1598 Luminaires, UL1598A Marine

### CSA standard

- CSA C22.2 No. 137

### IEC/ATEX standards\*

- 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

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

### 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)\*

\*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.

## 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

## Weights:

Model	lbs.	kg.	Mounting module	lbs.	kg.
VMVL-3 to VMVL-7	19.00	8.62	Pendant	1.25	0.57
VMVL-9 to VMVL-13	19.20	8.70	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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