

Hazardous area LED lighting

CROUSE-HINDS  
SERIES

# Champ VMVL

## High lumen LED lighting for hazardous areas



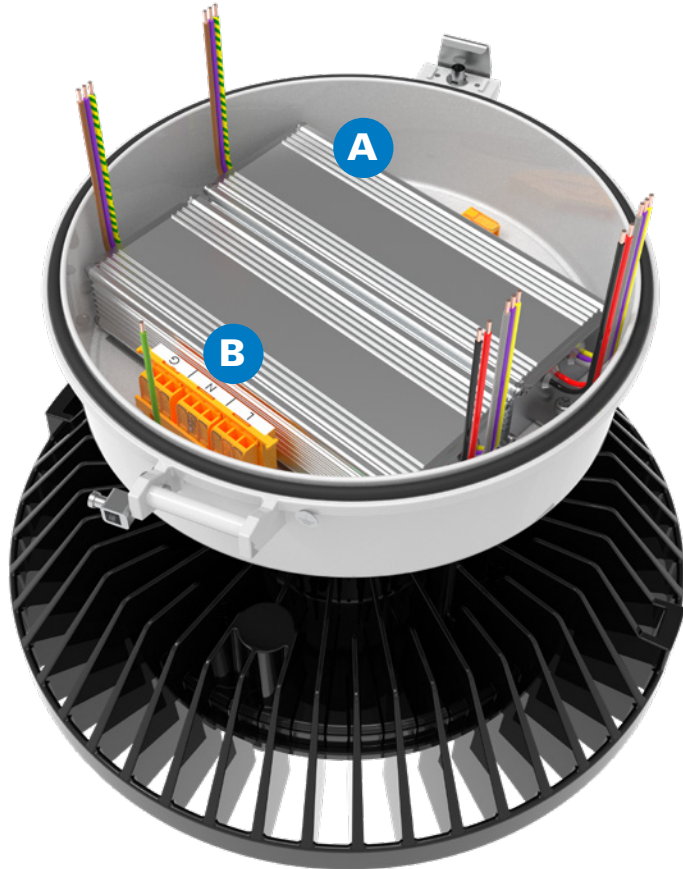
**Safe. Reliable. Efficient.**  
17,000 to 25,000 lumens

**EATON**

*Powering Business Worldwide*

# Design features

Our Champ VMVL high lumen LED is a field-proven design that helps ensure safety, reliability and performance in harsh and heavy industrial areas.



## INSTALLATION EASE

### A Easy access

- Separate driver compartment enables faster installation, access to wiring and field maintenance

### B Lever lock connectors and terminal blocks

- Plug and play wiring simplifies and speeds installations



### C Versatile mounting options

- Seven mounting options and four mounting adapters ensure that the fixtures are installed in the correct location to properly light your facility

## Mounting modules

C



Stanchion - straight



Ceiling



Pendant



Stanchion - 25° angled



Wall



Cone pendant

## Mounting adapters



Appleton MercMaster III



Appleton MercMaster II



Thomas & Betts HazLux



GE H2 Filtr-Gard

## RELIABLE PERFORMANCE

### D Thermal management

- Heat fins help ensure proper air flow and facilitate dust-shedding for effective heat dissipation and thermal management of LED engine



### E Performance in extreme environments

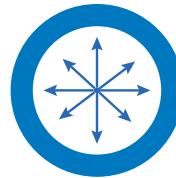
- Operating ambient: -40°C to 55°C
- Type 4X, IP66
- 6kV surge protection
- Corrosion-resistant aluminum housing with Corro-free™ epoxy powder coating
- Vibration tested in accordance with Section 33 of UL844
- Impact tested in accordance with Section 68 of UL844



## OPTIMIZED LIGHT & QUALITY

### F Custom optics & colors

- Type V optics with wide, medium and narrow beam pattern options engineered for flexibility without requiring clocking
- Directs light where you need it, helping eliminate gaps and dark spots
- Precision optics match to your application to reduce the number of light fixtures required
- 3000K-WARM, 4000K-NEUTRAL, 5000K-COOL and GREEN color options available



Wide

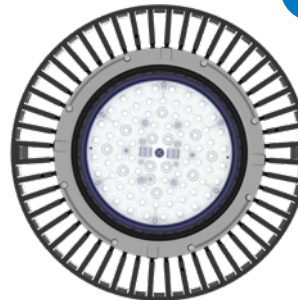


Medium

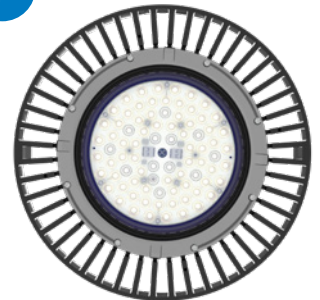


Narrow

### F



**5000K – COOL**  
Crisp, bright white with a blue hue.



**3000K – WARM**  
Warm white with a yellow hue.

### G Multiple lens options

- Clear glass lens standard
- Diffused glass, Teflon coated glass and clear polycarbonate lenses optional

### G



Clear



Diffused

# Specifications

## Certifications:

### NEC and 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 (UNV1 model only)
- Simultaneous Presence
- Wet Locations, Type 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 60079-0:2017; IEC 60079-15:2010; IEC 60079-31:2013; IEC 60598-2-1:2008; IEC 60529:2001; IEC 60079-7:2017; IEC 60079-18:2017
- Ex nA IIC T\* Gc -40 to +40
- Ex nA IIC T\* Gc -40 to +55
- Ex tb IIIC T\*°C Db -40 to +40
- Ex tb IIIC T\*°C Db -40 to +55
- IECEx UL 14.0031X

### ATEX/CE\*\*

- EN 60079-0:2018; EN 60079-15:2010; EN 60079-31:2014; EN 60598-2-1:2008; EN 60929:1991 +A1:2001; EN 60079-18:2015/A1:2017
- Ⓢ II 3 G Ex nA IIC T\* Gc -40 to +40
- Ⓢ II 3 G Ex nA IIC T\* Gc -40 to +55
- Ⓢ 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
- DEMKO 14 ATEX 1324722X; DEMKO 14 ATEX 2274231X

\*See temperature code table on the next page.

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

### Additional Champ VMVL design features:

- Installation flexibility - seven mounting module styles help ensure that the fixtures are installed in the correct location to properly light your facility
- 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
- Dimmable driver, 0-10V
- Operating ambient: -40°C to 55°C
- Up to 60,000 hours lifetime at 55°C
- 5 year fixture warranty\*

\*Refer to [terms & conditions](#) on Eaton.com for Crouse-Hinds series solutions.

### Standard materials:

- Lamp housing and adapter - die cast aluminum with Corro-free™ epoxy powder coat
- Lens - heat and impact-resistant glass in clear or diffused options; also available in clear polycarbonate
- Gaskets - silicone
- External hardware - stainless steel
- Factory-sealed, no external seals required



Shown with dust shedding cone pendant mount.

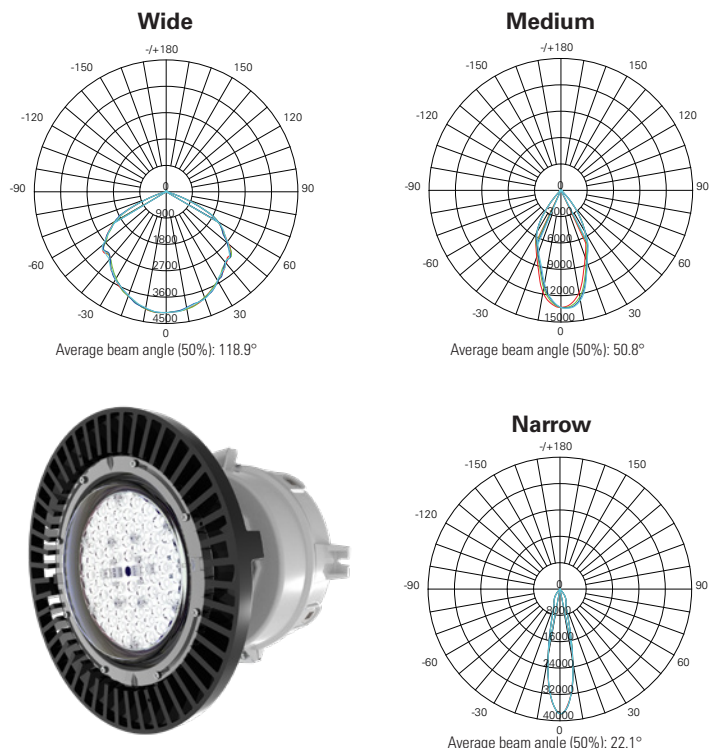
### LED system:

- High intensity discrete power emitters
- Standard: cool white (5000K, 70 CRI); optional: warm white, (3000K, 80 CRI) or neutral white (4000K, 70 CRI)
- Custom Type V optics with wide, medium and narrow patterns

### Enhanced Surge Protection:

- Standard: 6kV IEC rated (6 kV/3kA L-L, 10 kV/0.83kA L-G)
- SG1 option: 6kV IEC & ANSI rated (6kV/3kA L-L & L-G)

### Polar curves – Type V beam patterns:



### Photometrics:

For IES photometric files, please refer to the resource tab of the [VMVL LED product page](#) on Eaton.com



**Electrical ratings:**

Model	Weight lbs. (kg.)	Nominal lumens	Efficacy	Wattage	Voltage	Amps	Power factor	THD	Surge protection
<b>VMVL-17-UNV1</b>	22.30 (10.11)	17,800	132 lm/W	134.42	100-277 VAC, 50/60 Hz; 127-250 VDC	0.487-1.351 VAC 0.531-1.048 VDC	0.90	< 20%	6 kV
<b>VMVL-21-UNV1</b>	22.30 (10.11)	21,500	128 lm/W	168.23	100-277 VAC, 50/60 Hz; 127-250 VDC	0.600-1.687 VAC 0.567-1.309 VDC	0.90	< 20%	6 kV
<b>VMVL-25-UNV1</b>	22.30 (10.11)	25,171	122 lm/W	204.40	100-277 VAC, 50/60 Hz; 127-250 VDC	0.719-2.050 VAC 0.789-1.582 VDC	0.90	< 20%	6 kV
<b>VMVL-17-UNV34</b>	22.30 (10.11)	17,800	132 lm/W	133.40	347-480 VAC, 50/60 Hz	0.281-0.384 VAC	0.90	< 20%	6 kV
<b>VMVL-21-UNV34</b>	22.30 (10.11)	21,500	128 lm/W	165.64	347-480 VAC, 50/60 Hz	0.348-0.477 VAC	0.90	< 20%	6 kV
<b>VMVL-25-UNV34</b>	22.30 (10.11)	25,171	122 lm/W	199.43	347-480 VAC, 50/60 Hz	0.417-0.576 VAC	0.90	< 20%	6 kV

**Temperature codes:**

<b>UNV1</b>	<b>VMVL-17, -21, -25</b>		<b>UNV34</b>	<b>VMVL-17, -21, -25</b>	
Ambient temperature	40°C	55°C	Ambient temperature	40°C	55°C
Class I, Div. 2	T4A	T4A	Class I, Div. 2	T4A	T4A
Class II, Div. I	T5	T4A	Class II, Div. I	T5	T4A
Simultaneous rating Class I, Div. 2, Div. 1	T4A	T4A	Simultaneous rating Class I, Div. 2, Div. 1	T4A	T4A
Class I, Zone 2 AEx nA nR; Ex nA nR	T4	T4			
Class III, Div. 1 Class II, Div. 1, Groups E, F, G Zone 21, AEx tb IIIC	T72	T85			

# More Champ solutions available

**Champ VMVL  
LED low & mid bay**



 **Safe. Reliable. Efficient.  
3,000 to 13,000 lumens**

**Champ FMVA  
LED floodlights**



 **Safe. Reliable. Efficient.  
3,000 to 50,000 lumens**

# Ordering information

Part number example

VMVL-17-W-2A-R5M-G-UNV1-S831-M2

## VMVL - 17 - W - 2A - R5M - G - UNV1 - - S831 - M2

### Lamp/function

<b>17</b>	17,800 lumen LED
<b>21</b>	21,500 lumen LED
<b>25</b>	25,171 lumen LED

### Color temperature

<b>BLANK</b>	Cool (5000K)
<b>W</b>	Warm (3000K)
<b>N*</b>	Neutral (4000K)

\*Consult customer service for lead time information.

### Beam pattern

<b>BLANK</b>	Wide
<b>R5M</b>	Medium
<b>R5N</b>	Narrow

### Guard

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

### Voltage (50/60 Hz)

<b>UNV1</b>	120-277 VAC; 108-250 VDC
<b>UNV34</b>	347-480 VAC

### Lens type

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

\*Not available for IEC.

### Additional options

<b>S812</b>	Trunnion mount kit w/ pin (available with ceiling mount only)
<b>S831*</b>	Safety cable
<b>SG1**</b>	Enhanced ANSI compliant surge rating
<b>TB6</b>	Six-pole terminal block

\*Not available for IEC.

\*\*Not available on UNV34 models.

### Mounting style

<b>BLANK</b>	No mounting module	<b>25A</b>	25mm pendant	<b>25C</b>	25mm ceiling
<b>J</b>	1-1/2" stanchion, 25° angled	<b>2B</b>	3/4" cone pendant	<b>2HA</b>	3/4" flexible pendant
<b>P</b>	1-1/2" stanchion, straight	<b>3B</b>	1" cone pendant	<b>2TW</b>	3/4" wall
<b>2A</b>	3/4" pendant	<b>2C</b>	3/4" ceiling	<b>3TW</b>	1" wall
<b>3A</b>	1" pendant	<b>3C</b>	1" ceiling	<b>20TW</b>	20mm wall
<b>20A</b>	20mm pendant	<b>20C</b>	20mm ceiling	<b>25TW</b>	25mm wall

## Accessories (ordered separately)

### Mounting modules

Hub size	Stanchion - straight	Stanchion - angled	Pendant	Offset pendant	Wall	Ceiling	Cone pendant
3/4"	-	-	APM2	HPM2	TWM2	CM2	BPM2
1"	-	-	APM3	-	TWM3	CM3	BPM3
1-1/2"	PM5	JM5	-	-	-	-	-
20mm	-	-	APM20	-	-	-	-
25mm	-	-	APM25	-	TWM25	-	-

Mounting module	lbs.	kg.
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

### Mounting adapters

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

### Mounting kits & 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.

### Photocells

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

### Lens guard

<b>P3002</b>	Wire guard
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### Replacement driver kits - UNV1 (Units made from February 2024 - Current)

<b>VMVL-17L-UNV1-M2 DRIVER KIT</b>	UNV1 replacement driver kit for VMVL-17 M2 fixtures
<b>VMVL-21-UNV1-M2 DRIVER KIT</b>	UNV1 replacement driver kit for VMVL-21 M2 fixtures
<b>VMVL-25-UNV1-M2 DRIVER KIT</b>	UNV1 replacement driver kit for VMVL-25 M2 fixtures

\*Replacement UNV1 driver kits are sold as single units.

### Replacement driver kits - UNV1 (Units made from September 2021 - January 2024)

<b>VMVL-17L-UNV1-DRIVER-KIT</b>	UNV1 replacement driver kit for VMVL-17 fixtures
<b>VMVL-21-25L-UNV1-DRIVER-KIT</b>	UNV1 replacement driver kit for VMVL-21, -25 fixtures

\*Replacement UNV1 driver kits are sold as single units.

### Replacement driver kits - UNV34 (Units made from February 2024 - Current)

<b>VMVL-17L-UNV34-M2 DRIVER KIT</b>	UNV34 replacement driver kit for VMVL-17 M2 fixtures
<b>VMVL-21-UNV34-M2 DRIVER KIT</b>	UNV34 replacement driver kit for VMVL-21 M2 fixtures
<b>VMVL-25-UNV34-M2 DRIVER KIT</b>	UNV34 replacement driver kit for VMVL-25 M2 fixtures

\*Replacement UNV34 driver kits are sold as single units.

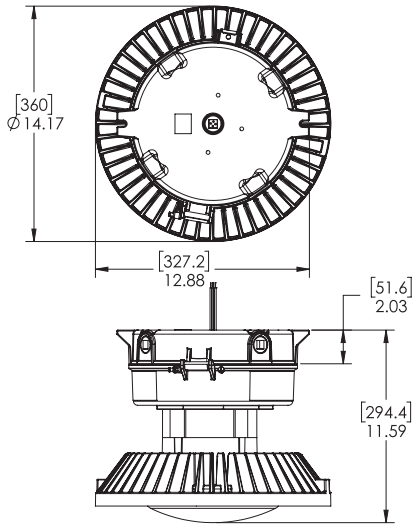
### Replacement driver kits - UNV34 (Units made from September 2021 - January 2024)

<b>VMVL-17L-25L-UNV34-DRIVER-KIT</b>	UNV34 replacement driver kit for VMVL-17, -21, -25 fixtures
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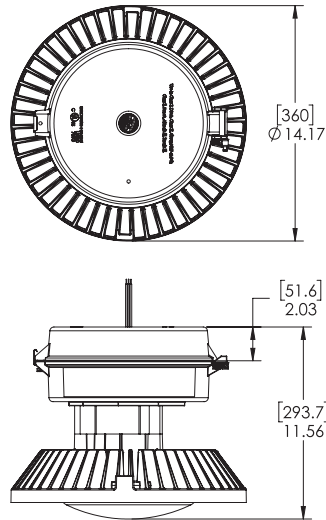
\*Replacement UNV34 driver kits are sold as single units.

# Dimensions

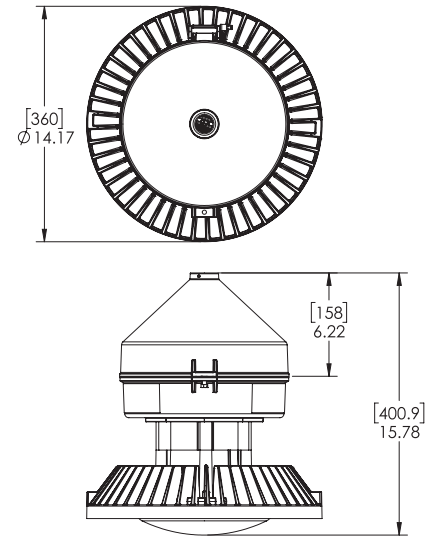
**Ceiling**



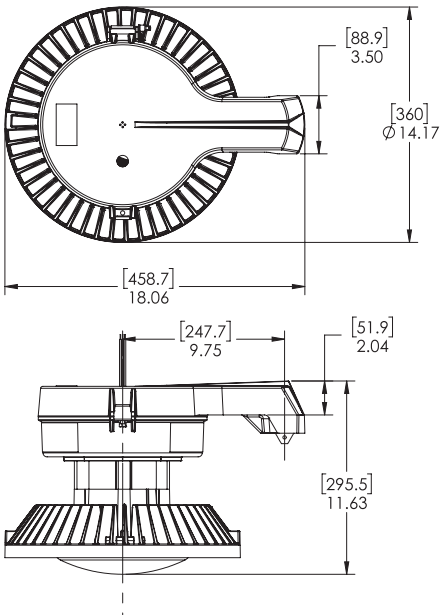
**Pendant**



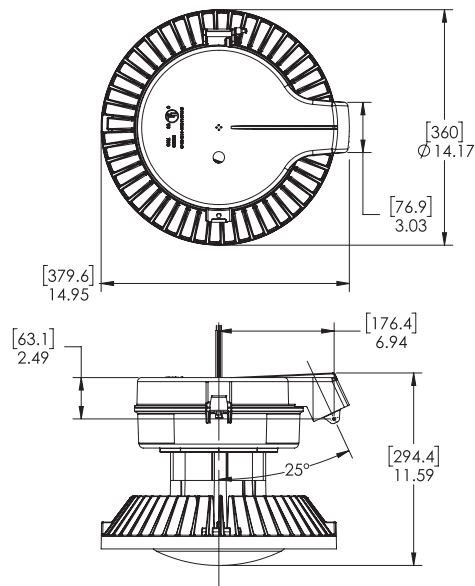
**Cone pendant**



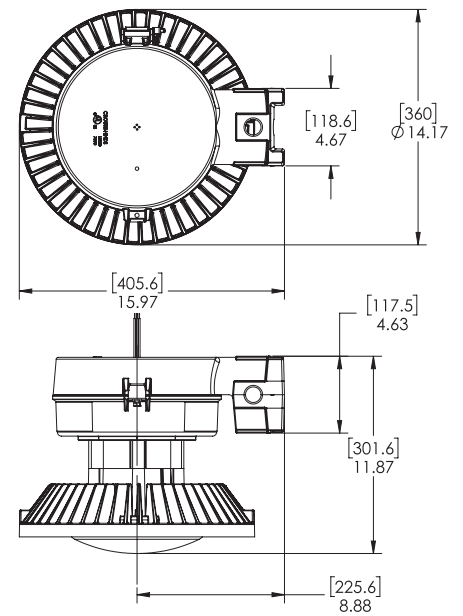
**Stanchion - straight**



**Stanchion - 25° angled**



**Wall**



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