ILUMINACIč N INDUSTRIAL
PARA ĆREAS NO EXPLOSIVAS

Champ Pro PVMA LED luminaires

UL Listed
CSA Certified
IP66
RoHS

Champ® Pro PVMA LED luminaires are engineered to provide maintenance-free illumination in the most demanding environments. The Champ Pro PVMA 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[A]	Watts[B]	Lumens per watt	Equivalent MH luminaire
PVMA5L	5,884	48	122	150W
PVMA7.5L	7,766	64	122	175W

Applications:

- Non-hazardous medium or heavy duty industrial environments
- Indoor or outdoor areas with extreme ambient temperatures; corrosive, wet or dusty conditions; high vibration installations
- Locations requiring consistent light levels with the flexibility of instant on/off
- Installations that require frequent re-lamping due to challenging conditions
- Mining, marine, food and beverage, wood, pulp and paper, pharmaceutical, livestock, wastewater, steel, power generation, chemical, automotive, aviation, aerospace and general industrial manufacturing

Features:

- Rugged design – engineered for durability in complex environments
- High efficiency – up to 122 lumens per watt and custom optics to maximize light on the work plane
- Ease of installation – compact footprint with ceiling, pendant, wall or stanchion mount options and the ability to retrofit Crouse-Hinds installed base
- Temperature rating: -40°C to 55°C
- 5 year fixture warranty

Certifications and compliances:

- DesignLights Consortium® Qualified

NEC/CEC:

- IP66

UL standards:

- UL1598 – Luminaires; UL1598A – Marine

CSA standard:

- C22.2 No. 250

IEC standards:

- CE
- IEC 60598
- RoHS

Standard materials:

- Lamp housing and adapter – die cast aluminum with Corro-free epoxy powder coat
- Lens – heat- and impact-resistant glass (standard); diffused glass, polycarbonate, diffused polycarbonate (optional)
- Gaskets – silicone

Photometrics:

- Complete photometrics can be found at www.crouse-hinds.com/photometrics

Electrical ratings:

Model	Input power (watts)	Input amps at 277 VAC
PVMA5L	48	0.21
PVMA7.5L	64	0.28

All models

Voltage range, VAC	120-277V at 50/60 Hz; 347-480V at 60 Hz
Voltage range, VDC	127-300V at 50/60 Hz
Power factor	≥ 0.90
Surge	4kV
THD	≤ 20%

Accessories:

Mounting (ordered separately)

JM5	1½" stanchion, 25° angled
PM5	1½" stanchion, straight
APM2	¾" pendant
APM3	1" pendant
APM20	20mm pendant
APM25	25mm pendant
BPM2	¾" cone pendant
BPM3	1" cone pendant
CM2	¾" ceiling
CM3	1" ceiling
CM20	20mm ceiling
CM25	25mm ceiling
HPM2	¾" flexible pendant
TWM2	¾" wall
TWM3	1" wall
TWM20	20mm wall
TWM25	25mm wall
VMVL S812 K1	Trunnion mount kit with pin
VMVL S831 K1	Safety cable
VMVL S890 K1	Quick clip

Replacement driver kits (ordered separately)

PVMA5L/UNV1 DRIVER KIT	Replacement driver kit for UNV1 driver *(120-277 VAC, 50/60 Hz; 127-300 VDC)*
PVMA5L/UNV34 DRIVER KIT	Replacement driver kit for UNV34 driver *(347-480 VAC, 60 Hz)*
PVMA7.5L/UNV1 DRIVER KIT	Replacement driver kit for UNV1 driver *(120-277 VAC, 50/60 Hz; 127-300 VDC)*
PVMA7.5L/UNV34 DRIVER KIT	Replacement driver kit for UNV34 driver *(347-480 VAC, 60 Hz)*

Lens guard (ordered separately)

PA3001	Wire guard

[A] Nominal lumens based on Type V optics, 5000K CCT with clear glass lens.
[B] Wattage measured at 120 VAC.

Champ Pro PVMA LED luminaires

UL Listed
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IP66
RoHS

Ordering information:

Part number example
PVMA5L/UNV1

PVMA 5L /UNV1 OPTIONS

Light source / intensity

5L	5,884 nominal lumens
7.5L	7,766 nominal lumens

Voltage

/UNV1	120-277 VAC, 50/60 Hz; 127-300 VDC

Consult factory for availability

Color temperature

WC	3000K, 70 CRI (warm white)

Voltage

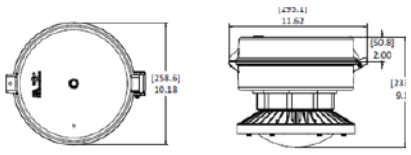
/UNV34	347-480 VAC, 60 Hz

Lens material

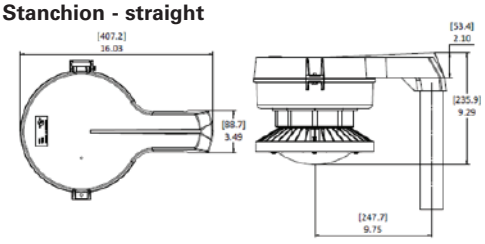
S891	Diffused glass
S903	Polycarbonate
S903D	Diffused polycarbonate

Dimensions:

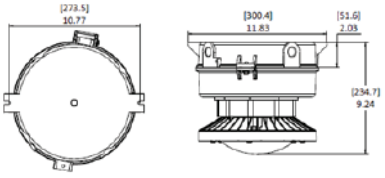
Pendant



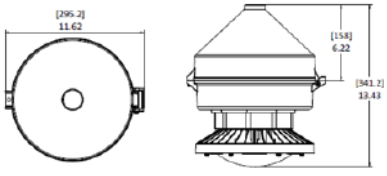
Stanchion - straight



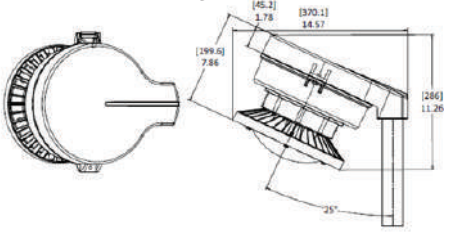
Ceiling



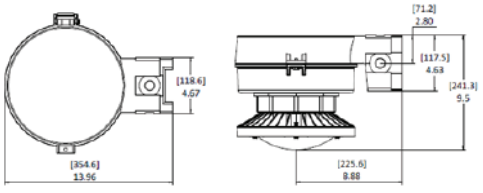
Cone pendant



Stanchion - 25° angled



Wall



C4000K and 5700K available upon request. Contact factory for availability.

EATON CROUSE-HINDS SERIES

Champ® Pro PVML Series LED Luminaires

Champ® Pro PVML luminaires are designed to provide full-spectrum, crisp, white light with custom Type I, III and V distribution. Nine versions of the PVML series are available, providing ideal solutions for a wide range of heavy industrial, non-hazardous applications, including:

- areas with mounting heights from 8 feet up to 60 feet
- Type 4X, marine, wet locations and hose-down environments
- locations requiring continuous and consistent light levels in extreme ambient temperatures

Key design features and benefits:

- Rated life of 60,000 hours @ 55°C operating ambient and 24/7 continuous operation for 365 days. Economic life of 170,000 hours @ 25°C ambient
- Die cast aluminum heat sink increases surface areas and improves airflow, optimizing both LED and driver life
- Custom Type V, Type III and Type I optics distribute the light where it is needed most and can help reduce the number of fixtures required for certain lighting applications
- Cool white standard (5000K, 70 CRI); warm white (3000K, 80 CRI) and neutral white (4000K, 70 CRI) optional
- Energy-efficient technology - up to 77% energy savings over HID fixtures
- Operating ambient: -40°C to 65°C (PVM3L-PVM11L models); -40°C to 55°C (PVM13L-PVM25L models)
- High efficiency drivers provide reliable operation in the harshest environments. Various AC and DC input voltage options are available to suit virtually any drive requirement
- Option for redundancy in drivers with multiple series circuits connected to each driver to avoid complete loss of illumination
- Provided with lever lock connectors and standard three-pole terminal block for easy installation
- Contractor-friendly PVML LED utilizes the same mounting modules as our legacy HID luminaires, simplifying installation and reducing costs in retrofit projects

Model	Typical lumens (Type V)*	Wattage	Lumens per watt	Equivalent HID luminaire	Typical energy savings / lifetime
PVML-3	3,250	26	123	70W	Up to 77%
PVML-5	5,537	43	127	100W	Up to 67%
PVML-7	7,442	59	127	175W	Up to 67%
PVML-9	9,234	73	126	250W	Up to 74%
PVML-11	11,114	91	122	320W	Up to 74%
PVM13L	13,226	130	102	400W	Up to 68%
PVM17L	18,793	168	112	400-600W	Up to 72%
PVM21L	22,110	196	113	600-750W	Up to 74%
PVM25L	26,531	232	114	750-1000W	Up to 77%

* Tolerance +/- 10%.

PVML-3–PVML–11

PVM13L and PVM17L

PVM21L and PVM25L

Certifications:

- DesignLights Consortium® Qualified (some models are not DLC qualified)*

NEC and CEC
- Wet Locations, Type 4X, IP66

UL Standards
- UL1598 Luminaires, UL1598A Marine

CSA Standard
- cUL Listed to CSA Standard CSA C22.2 No. 250

IEC Standard
- CE

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

Champ® Pro PVML LED Luminaires - Ordering information 3L-11L

Part number example

PVML-3-N-2A-R1-G-UNV1-S831-S891

Champ PVML, 3,000 lumens, 4000K neutral white, ¾" pendant mount, Type I optics, wire guard, 100 -277 VAC driver, safety cable, diffused glass lens

PVML - 3 - N - 2A - R1 - G - UNV1 - S831 - S891

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

†Refer to Champ PVM ordering information on page 11 for 13,000 to 25,000 lumen models.

Color temperature**

BLANK	5000K, 70 CRI *(cool white)*
N*	4000K, 70 CRI *(neutral white)*
W	3000K, 80 CRI *(warm white)*

*Consult factory for lead time.
**5700k and 6500K are available upon request; consult factory.

Optics

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

*Available with ceiling mount modules only.

Lens guard

BLANK	No guard
G	Wire guard

Accessories & options†

S812	Trunnion mount kit with pin *(available with ceiling mount only)*
S831	Safety cable
S890	Quick clip
S933	80 CRI minimum *(4000K & 5000K only)*
TB6*	Six-pole terminal block

†Ordered with fixture or available separately.
*For NEC/CEC only.

Voltage

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

IEC voltage; 100-240VAC @ 50/60 Hz

Mounting

BLANK	No mounting module
J	1-½ " stanchion, 25° angled
P	1-½" stanchion, straight
2A	¾" pendant
3A	1" pendant
20A	20mm pendant
25A	25mm pendant
2B	¾" cone pendant
3B	1" cone pendant
2HA	¾" flexible pendant
2C	¾" ceiling
3C	1" ceiling
20C	20mm ceiling
25C	25mm ceiling
2TW	¾" wall
3TW	1" wall
20TW	20mm wall
25TW	25mm wall

Lens material

BLANK	Clear glass
S891	Diffused glass
S896*	Teflon coated lens
S903	Clear polycarbonate

*NEC/CEC only.

Custom optics:
Three optical options to maximize light distribution and intensity:


Type I


Type III


Type V

TYPE I

Long and rectangular.

- Conveyor belts
- Hallways, aisleways, catwalks and walkways
- Ramps and loading docks
- Tunnels with overhead mounts

TYPE III

Wall mount light distribution, minimizing spillover.

- 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.

- Pendant, ceiling or stanchion mount overhead building mounts
- Processing mills, industrial plants, large buildings, warehouses, etc.

Champ® Pro PVML LED Luminaires - Ordering information 13L-25L

Part number example

PVM17LW2AR1G/UNV1 S890

Champ PVM, 18,793 lumens, 3000K warm white, ¾" pendant mount, Type I optics, wire guard, 100-277 VAC driver, safety cable, diffused glass lens

PVM 17L W 2A R1 G /UNV1 S890

Lamp/function

13L	13,226 lumen LED
17L	18,793 lumen LED
21L	22,110 lumen LED
25L	26,531 lumen LED
GL*	Green (4,300 lumen LED)
AL*	Amber (5,000 lumen LED)

*Custom optics not available with colored LEDs.

Color temperature*

BLANK	Cool (5000K) or colored
N	Neutral (4000K)
W	Warm (3000K)

*Consult with factory for additional color temperature options.

Mounting style

BLANK	No cover
P	1-½" stanchion, straight
2A	¾" pendant
3A	1" pendant
20A	20mm pendant
25A	25mm pendant
2B	¾" cone pendant
3B	1" cone pendant
2C	¾" ceiling
3C	1" ceiling
20C	20mm ceiling
25C	25mm ceiling
2HA	¾" flexible pendant
2TW	¾" wall
3TW	1" wall
20TW	20mm wall
25TW	25mm wall

Optics

BLANK	Type V optic standard
R1	Type I optic
R3	Type III optic *(all mounts minus ceiling)*

Guard

BLANK	No guard
G	Wire guard (3L-11L)

Voltage

/UNV1	120-277 VAC, 50/60 Hz; 108-250 VDC, 50/60 Hz
/UNV34	347-480 VAC, 50/60 Hz

Suffixes

S812*	Trunnion mount kit with pin
S831	Safety cable
S890	Quick clip
S891	Diffused lens
S896	Teflon coated lens
S903	Polycarbonate lens
TB6	Six-pole terminal block

*Order with ceiling mount only.

Custom optics:

Three optical options to maximize light distribution and intensity:


Type I


Type III


Type V

TYPE I

Long and rectangular.

- Conveyor belts
- Hallways, aisleways, catwalks and walkways
- Ramps and loading docks
- Tunnels with overhead mounts

TYPE III

Wall mount light distribution, minimizing spillover.

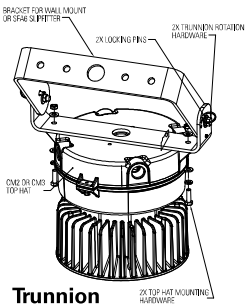
- Narrow crosswalks or passages with wall mounted fixtures
- Tunnels with wall mount
- Wall or stanchion mount requiring 180° forward throw beam patterns

TYPE V

Regular circular distribution pattern.

- Pendant, ceiling or stanchion mount overhead building mounts
- Processing mills, industrial plants, large buildings, warehouses, etc.

Champ® Pro PVML LED Luminaires - Accessories



Trunnion

Mounting & hardware

VMVL S812 K1*	Trunnion mount kit with pin
VMVL S831 K1	Safety cable
VMVL S890 K1	Quick clip
CHMM1	Top hat adapter *(mounts to Appleton Mercmaster III top hats)*
347/480 K1	Step down transformer for 347-480 VAC applications

*Available with ceiling mounted modules only

Replacement driver kit

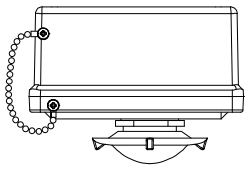
VMVL-3-5-7L-UNV1-DRIVER KIT	Replacement driver kit for PVML-3, -5 and -7 models
VMVL-9-11L-UNV1-DRIVER KIT	Replacement driver kit for PVML-9 and -11 models

Photocells

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

Lens guard

P3001	Wire guard (3L-11L)
P3002	Wire guard (13L-25L)



Occupancy sensors

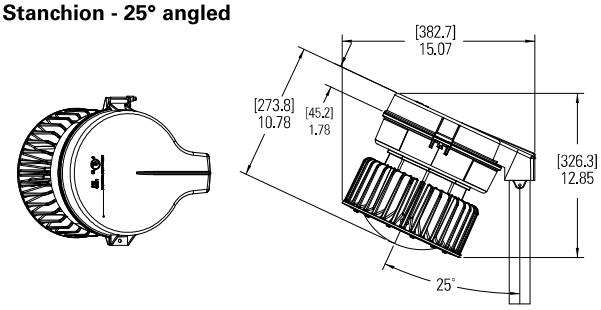
ORDC/UNV1	3/4" NPT entry, 100-277 VAC

Occupancy sensor accessories (ordered separately)

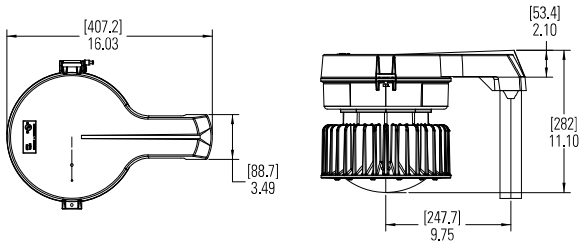
CABLE KIT ORD 1	TECK armored cable (5ft) with TECK glands (¾")
CABLE KIT ORD 2	P Type non armored cable (5ft) with ADE1F glands (3/4")
CABLE KIT ORD 3	Metal-clad armored cable (5ft) with TMC glands (3/4")
CABLE KIT ORD 4	SO cable (5ft) with ADE1F glands (3/4")
ORDC WKIT	Wall mount kit
ORDC PKIT	Pendant mount kit
ORDC SKIT	Stanchion mount kit
REMOTE CONTROL 1	Remote control for programming sensor

Mounting options and dimensions:

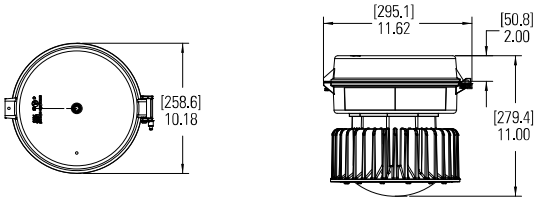
Stanchion - 25° angled



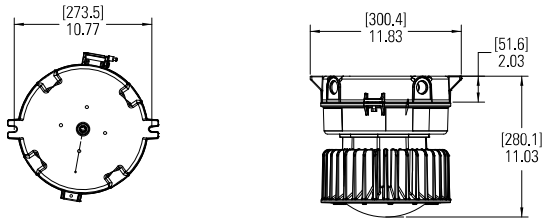
Stanchion - straight



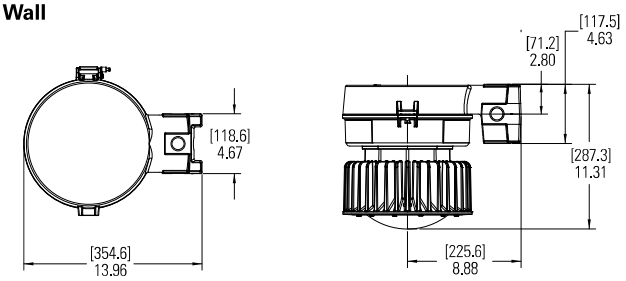
Pendant



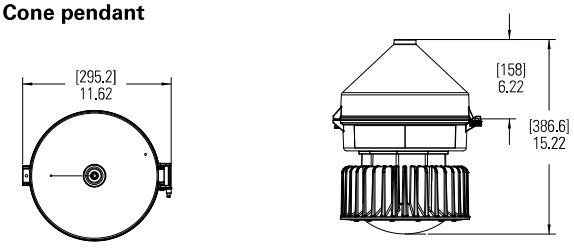
Ceiling



Wall



Cone pendant



Champ Pro PFMA LED floodlights

Perfect for outdoor/indoor flood illumination

UL/cUL Listed
IEC
Type 4X; IP66

6L MELEXA

The Champ Pro PFMA LED family

Champ® Pro PFMA LED floodlights are designed to provide full-spectrum, crisp, white light. Seven versions of the PFMA LED are available, from 3,000 to 15,000 lumens, providing ideal solutions for a wide range of harsh and heavy industrial applications.

Model	Nominal lumens[A]	Watts	Lumens per watt	Equivalent HID luminaire	Energy savings
PFMA3L	3,312	26	129	70W	Up to 75% reduction in energy costs and 150,000 hours of continuous operation
PFMA5L	5,381	40	133	100W	
PFMA7L	7,274	55	132	175W	
PFMA9L	9,479	67	142	250W	
PFMA11L	11,776	82	144	320W	
PFMA13L	13,362	93	143	400W	
PFMA15L	15,183	108	140	500W	

Applications:

- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Areas requiring frequent on-and-off of lights
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist
- Manufacturing plants; heavy industrial, chemical, food and beverage facilities; mining; platforms; loading docks; tunnels; outdoor wall and pole mounted areas

Features:

- Instant illumination and restrike
- Better visibility with crisp, white light
- Cold temperature operation/no warm-up required
- Serviceable drivers
- Easy installation – yoke design to mount to SFA6
- Energy-efficient technology – up to 72% energy savings over HID fixtures
- 60,000 hours of rated life at 55°C – eliminates need for frequent lamp replacement
- 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
- 5 year fixture warranty

Certifications and compliances:

- DesignLights Consortium® Qualified (pending)[B]

NEC/CEC:

- Wet locations, Type 4X, IP66

UL standards:

- UL1598 – Luminaires; UL1598A – Marine; UL8750

CSA standard:

- cUL Listed to CSA standard CSA C22.2 No. 250

IEC standards [E]:

- IEC 60598
- CE

Standard materials:

- Lamp housing and adapter – die cast aluminum with Corro-free epoxy powder coat
- Lens – heat- and impact-resistant glass (standard)
- Gaskets – silicone and neoprene
- External hardware – stainless steel

Fixture life:

- Rated life of 60,000 hours at 55°C operating ambient and 24/7 continuous operation for 365 days
- Economic life of 150,000 hours at 25°C ambient

LED system:

- Cool white (5000K, 70 CRI) and warm white (3000K, 80 CRI)
- Custom designed optics – 7x6 standard; 3x3 (optional)

Photometrics:

- Complete photometrics can be found at www.crouse-hinds.com/photometrics

Electrical ratings:

Model	Input power (watts)	Input amps at 120-277 VAC
PFMA3L	25-26	0.27 - 0.10
PFMA5L	40-41	0.41 - 0.16
PFMA7L	54-56	0.56 - 0.21
PFMA9L	67-69	0.78 - 0.28
PFMA11L	81-84	0.84 - 0.30
PFMA13L	91-95	0.95 - 0.34
PFMA15L	107-113	1.12 - 0.40

PFMA3L-PFMA15L	
Voltage range, VAC[C]	100-277V at 50/60 Hz 347-480V at 50/60 Hz
Voltage range, VDC	127-250V
Power factor	>0.90[D]

[A] Tolerance +/- 10%; at 120 VAC, 25°C ambient, 7x6 optics.

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

[C] IEC voltage; 100-240 VAC at 50/60 Hz; UNV34 option for PFMA9L-15L only.

[D] For PFMA3L: PF >0.90 from 100-255 VAC.

[E] Not applicable for 9L - 15L UNV34.

EATON CROUSE-HINDS SERIES

Champ Pro PFMA LED floodlights

Perfect for outdoor/indoor flood illumination

UL/cUL Listed
IEC
Type 4X; IP66

Versatile design

- Can be used for outdoor or indoor applications, and for a wide range of mounting heights depending on model and light level requirement

Smaller and lighter

- 25% smaller footprint than previous model
- 10 lbs. (4.5 kg) less weight than previous model

Full-frame yoke

- Designed to utilize the SFA6 slipfitter and SWB6 wall mount bracket, making it ideal for retrofit or new installations

High lumen output

- Up to 144 lumens per watt
- Up to 72% energy savings over traditional HID fixtures (compared to 400W MH)

Multiple lens options

- Tempered clear glass lens standard
- Polycarbonate and diffused glass lens options available

Rugged heat sink

- Heat sink designed to perform and provide maximum light levels in high ambient temperatures up to +65°C and as low as -40°C
- Thick walled castings make for a tough, rugged housing that keeps the internal driver and LED temperature down

Champ Pro PFMA LED floodlights

Perfect for outdoor/indoor flood illumination

UL/cUL Listed
IEC
Type 4X; IP66

Ordering information:

Part number example
PFMA7LCY-UNV1-76-M20-S891-BZ

PFMA 7L C Y - UNV1 - 76 - M20 - S891 - BZ

Light source / intensity

3L	3,312 nominal lumens[F]
5L	5,381 nominal lumens[F]
7L	7,274 nominal lumens[F]
9L	9,479 nominal lumens[F]
11L	11,776 nominal lumens[F]
13L	13,362 nominal lumens[F]
15L	15,183 nominal lumens[F]

Color temperature

C	5000K, 70 CRI (cool white)
W	3000K, 80 CRI (warm white)

Mounting

Y	Yoke

Voltage

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

Optical distribution

76	7x6 floodlight pattern optics
33	3x3 floodlight pattern optics

Entries

BLANK	¾" NPT
M20	20mm
M25	25mm

Lens material

BLANK	Clear glass lens
S891	Diffused glass lens
S903	Polycarbonate lens

Paint

BLANK	Gray
BZ	Bronze
WH	White

Options:

Description	Suffix
• Diffused glass lens	**S891**
• Polycarbonate lens	**S903**

Accessories (ordered separately):

Description	Cat. #
• Bull horn, gray	**BLHN**
• Bull horn, bronze	**BLHN-BZ**
• Bull horn, white	**BLHN-WH**
• Bolt-on visor	**DSV2**
• Bolt-on wire guard	**P62**
• 316 stainless steel safety cable	**SC831**
Can be added in the field	
• Floodlight slipfitter	**SFA6**
• Slipfitter wall mount adapter	**SWB6**

Replacement driver kits (ordered separately)

FMVA 3-5-7L UNV1 DRIVER KIT	Replacement driver kit for 3L, 5L and 7L models
FMVA 9-11-13L UNV1 DRIVER KIT	Replacement driver kit for 9L, 11L and 13L models
FMVA 15L UNV1 DRIVER KIT	Replacement driver kit for 15L model
FMVA 9L-11L UNV34 DRIVER KIT	Replacement driver kit for 9L and 11L models
FMVA 13L-15L UNV34 DRIVER KIT	Replacement driver kit for 13L and 15L models

[F] 7x6 model.
[G] IEC voltage; 100-240V at 50/60 Hz; 127-250 VDC.
[H] Available for PFMA9L-15L only.

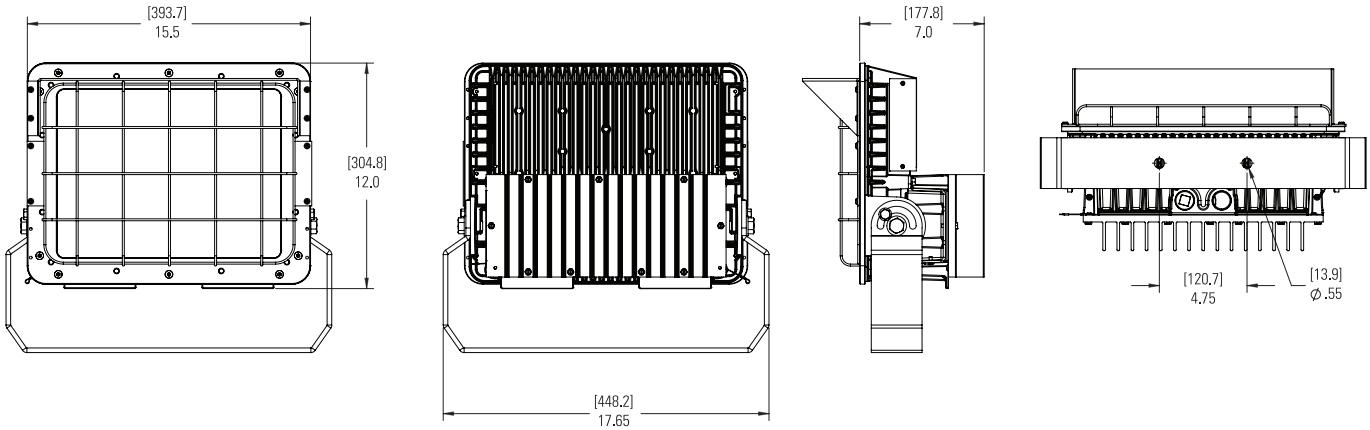
Champ Pro PFMA LED floodlights

Perfect for outdoor/indoor flood illumination

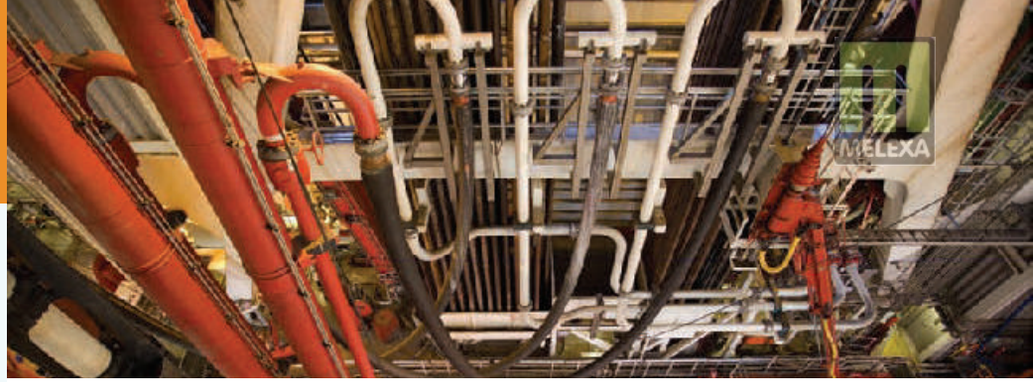
UL/cUL Listed
IEC
Type 4X; IP66

Weights and dimensions:

			Width		Height		Depth	
Model	**Lbs.**	**Kg.**	**in.**	**mm.**	**in.**	**mm.**	**in.**	**mm.**
PFMA3L-PFMA15L	32.00	14.50	15.50	393.70	12.00	304.80	7.00	177.80



Bull horns – provided with 2 3/8" pole tenon



Luminaria Industrial Portátil Serie PF-LED iluram

APLICACIONES

- Especialmente diseñadas para trabajar en condiciones severas, gran resistencia a la intemperie, soportan presencia de polvo, humedad, vapores agresivos. Son resistentes a los golpes, portátiles y livianas, su estructura en caucho permite excelente agarre, cuentan también con gancho de anclaje.
- Ideal para inspeccionar tanques, en interiores, y exteriores de bodegas, cuartos fríos, silos, tolvas, barcos, puertos, áreas industriales y otras locaciones con ambientes rudos.
- Ilumina de forma segura las áreas donde se utiliza.

CARACTERÍSTICAS

- Protección tipo NEMA 4 y 4X (IP 65) en la unidad de iluminación (luminaria), clavija estándar para conexión en áreas de propósito general, libres de presencia de agua.
- Lente acrílico translucido resistente a impactos.
- Tapones laterales en caucho con dureza shore 55-60A que aíslan su interior de las condiciones externas.
- Fuente de luz; tubos LED T8
- Equipadas gancho de anclaje
- Extensión de cable encauchetado longitud estándar 10 m.

BENEFICIOS

- Resistentes a la intemperie.
- Soportan ambientes agresivos, con presencia de humedad, polvo.
- Lentes acrílicos y exterior de caucho que soportan impactos.
- Elaboradas con caucho shore 55-60A resistente a la intemperie.
- Peso liviano, gran luminosidad y extensiones de diversas longitudes.

CUMPLIMIENTOS

- Certificado de conformidad RETILAP No. 06361

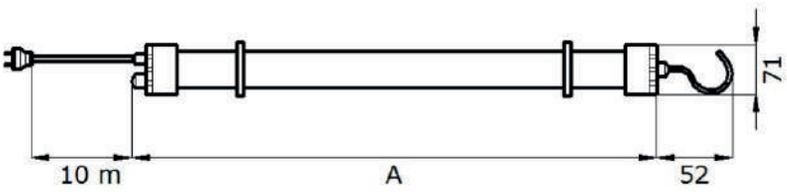
MATERIALES:

- Partes de Caucho con dureza 55-60 shore A.
- Lente de acrílico.

RANGO ELÉCTRICO

- Acepta tubos LED T8 modelo de 60cm para PF-73 y modelo de 120cm para PF-134 y voltajes de 100-277 VAC

Luminaria Industrial Portátil Serie PF-LED iluram



Referencia	Potencia (W)	Voltaje (VAC)	Longitud A (mm)	Extensión (m) bajo pedido especial hasta 60m	Masa (kg)
PF73 LED	9	100-277	680	10	1.4
PF134 LED	18	100-277	1280	10	1.8

OPCIONES DE PRODUCTO

- Se puede solicitar con extensiones de cable de diferente medida, hasta 60m.
- Voltajes diferentes comunicarse con fabrica.

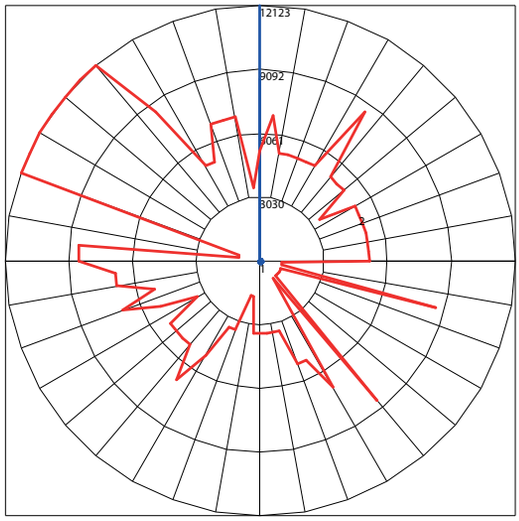
GARANTÍA

- Un año por defectos de fábrica.

DATOS FOTOMÉTRICOS

Se muestran los datos fotométricos de los modelos PF-73 y PF-134 LED

FOTOMETRÍA PARA LUMINARIA PF-73 LED



Los datos corresponden a fotometría realizada con ToLEDo tube 9W Sylvania de 6500K
Candela máxima = 12123 ubicada en ángulo horizontal = 130, ángulo vertical = 180
1 - Plano vertical a través de ángulos horizontales (130 - 310) (a través de Cd máx.)
2 - Horizontal Cone Through Vertical Angle (180) (Through Max. Cd.)

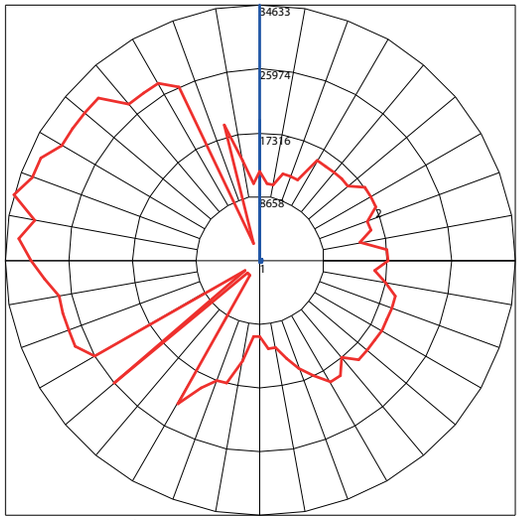
Características

Lúmenes de la Luminaria	690
Eficacia total de la Luminaria Rating (LER)	76
Potencia total de la Luminaria (W)	9W

Flujo Luminoso zonal (lm)

Zona	Lúmenes	% bombilla	% luminaria
0-30	93.28	N.A.	13.50
0-40	155.85	N.A.	22.60
0-60	287.46	N.A.	41.60
0-90	444.92	N.A.	64.40
90-180	163.28	N.A.	35.60

FOTOMETRÍA PARA LUMINARIA PF-134 LED



Los datos corresponden a fotometría realizada con ToLEDo tube 18W Sylvania de 6500K
Candela máxima = 34633 ubicada en ángulo horizontal = 165, ángulo vertical = 180
1 - Plano vertical a través de ángulos horizontales (165 - 345) (a través de Cd máx.
2 - Ángulo vertical del cono horizontal (180) (a través de Cd máx.)

Características

Lúmenes de la Luminaria	1383
Eficacia total de la Luminaria Rating (LER)	76
Potencia total de la Luminaria (W)	18.31W

Flujo Luminoso zonal (lm)

Zona	Lúmenes	% bombilla	% luminaria
0-30	200.10	N.A.	14.50
0-40	328.43	N.A.	23.80
0-60	591.44	N.A.	42.80
0-90	906.29	N.A.	63.80
90-180	476.29	N.A.	34.40

Luminaria Industrial Portátil Serie PI iluram

APLICACIONES

- Especialmente diseñadas para trabajar en condiciones severas, soportan presencia de polvo, humedad, vapores agresivos e hidrocarburos. Son portátiles, su mango en caucho permite excelente agarre, cuentan también con gancho de anclaje.
- Ideal para inspeccionar tanques, en interiores de bodegas, cuartos fríos, silos, tolvas, saunas, barcos, puertos, áreas industriales y otras locaciones con ambientes rudos.
- Ilumina de forma segura las áreas donde se utiliza.

CARACTERÍSTICAS

- Protección tipo NEMA 4 y 4X.
- Lente de vidrio transparente importado.
- Cuerpo en fundición de aluminio con bajo contenido de cobre.
- Clavija de conexión con polo a tierra (15A).
- Acepta Bombillas con conexión de rosca E27 hasta 23W.
- Mango en caucho.
- Extensión de cable encauchetado.

BENEFICIOS

- Resistente a la corrosión.
- Con gancho para fácil localización y seguridad de emplazamiento.
- Rejilla protectora que asegura larga vida.
- Mango de caucho neopreno, garantiza durabilidad resistencia a hidrocarburos y una sujeción segura.
- Gran luminosidad y extensiones estándar de 10 m.

CUMPLIMIENTOS

- Certificado de conformidad RETILAP No. 06361.

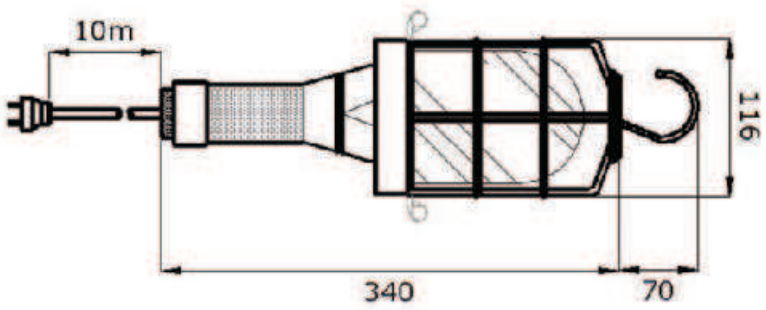
MATERIALES

- Cuerpo en aluminio con bajo contenido de cobre.
- Lente de vidrio.
- Rejilla y gancho en acero inoxidable.
- Mango de caucho.
- Acabado en pintura beige electrostática.

RANGO ELÉCTRICO

- Acepta bombillos hasta 23W 120VAC con conexión de rosca E27.

Luminaria Industrial Portátil Serie PI iluram



Referencia	Potencia (W)	Voltaje (VAC)	Rosca del bombillo	Extensión (m)	Masa (kg)
PI	Hasta 23	120	Conexión E27	De 10* a 60	2.0

* La extensión standart es de 10m, especificar longitudes diferentes.

OPCIONES DE PRODUCTO

- La extensión de cable encauchetado puede ser de 10 hasta 60m

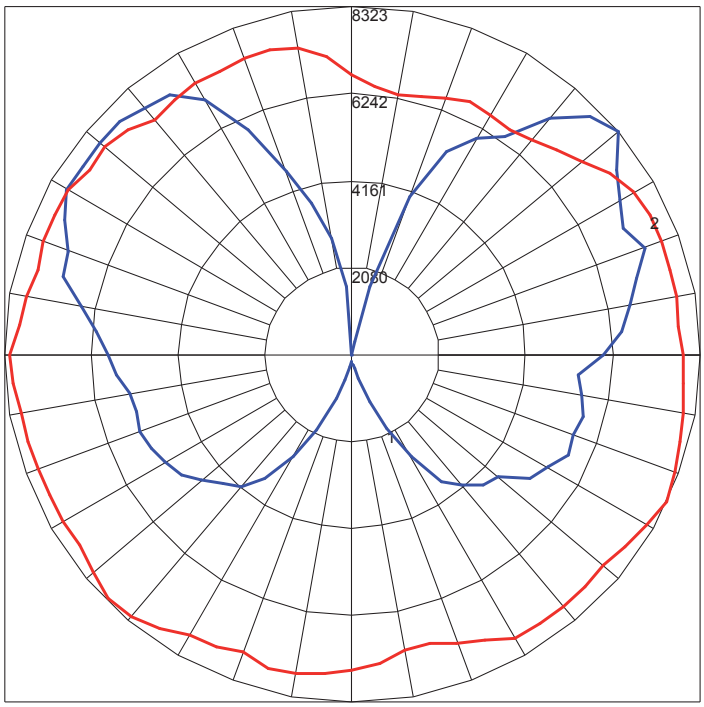
GARANTÍA

- Un año por defectos de fábrica.

DATOS FOTOMÉTRICOS

Se muestran los datos fotométricos con bombillo fluorescente compacto twister de 23W

FOTOMETRÍA PARA EQUIPO CON 2 BOMBILLAS LED DE 3.2W



Candela Máxima = 8323 situado en el ángulo Horizontal = 335, ángulo Vertical = 130
1 - plano Vertical a través de ángulos horizontales (335-155) (Max. Candelas)
2 - cono horizontal a través del ángulo de la Vertical (130) (Max. Candelas)

Características

Lúmenes por Bombillo	1476 (1 bombillo)
Lúmenes totales de los Bombillos	1476
Lúmenes de la Luminaria	683
Eficiencia Total de la Luminaria	46%
Eficacia total de la Luminaria Rating (LER)	0
Potencia total de la Luminaria (W)	23W
Factor del Balasto	1.00

Flujo Luminoso zonal (lm)

Zona	Lúmenes	% bombilla	% luminaria
0-30	1 .243	84	1
0-40	3 .434	232	4
0-60	11.019	746	15
0-90	27.651	1 .873	40
90-180	41.238	2 .793	59

ILUMINACIč N PARA ĆREAS EXPLOSIVAS

Vaporgard V2L/V3L LED luminaires

Cl. I, Div. 2, Groups A, B, C, D
Cl. II, Div. 1 & 2, Groups F, G

UL Listed
CSA Certified
NEMA 4X; IP66

The Vaporgard™ LED family

Cool white color temperature – 5000K
Provides uniform crisp, white light and is suitable for lower mounting heights, confined spaces, tunnels or utility rooms. This fixture can deliver similar light levels to 50 watt HID.

Warm white color temperature – 3000K
Provides similar benefits as the cool white version, but with a color rendering more consistent with a warm incandescent or HPS lamp source.

Available with DC power supply
For applications with DC power requirements such as solar, battery or UPS. The DC power supply is suitable for 12 VDC through 24 VDC.

Model	Nominal lumens	Watts	Equivalent luminaire	Typical energy savings / lifetime
V2LM2C/UNV1	1,772	14	50W HID or 150-200W incandescent	90% energy savings and 50,000 hours of 24/7 operation
V3LM2C/UNV1	3,335	29		

V2LM2C

V2LM2W

Applications:

- Oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, 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
- Type 4X, marine, wet locations and hose down environments
- Confined space or low ceiling areas, such as tunnels, utility rooms, over doorways, entries, landings, etc.
- Areas requiring frequent on/off of lights
- Areas where maintenance is difficult or challenging
- Areas requiring shatter-protected products, such as food processing facilities
- Outdoor wall or ceiling mounted area illumination
- Low mounting heights
- Classified and hazardous locations

Certifications and compliances:

- Class I, Division 2, Groups A, B, C, D
- Class II, Divisions 1 & 2, Groups F, G[A]
- UL844; UL1598; UL1598A
- CSA C22.2 No. 137
- NEMA 4X
- IP66
- EN60079-0:2009; EN60079-15:2010; EN60079-31:2009
- DesignLights Consortium® (pending)

Features:

- Instant illumination and restrike
- Cold temperature operation; no warm-up time
- Lightweight, low profile and cool surface temperatures
- Driver with internal fusing for branch circuit protection
- High efficacy LEDs can save up to 90% in energy costs
- No mercury or hazardous chemicals – eliminates disposal concerns
- Mounts to existing Vaporgard mounting modules
- Shock- and vibration-resistant
- Teflon coated lens (suffix S896) option for increased safety in food processing facilities
- Low starting temperature: -30ºC
- Operating ambient:
  - V2L: -30ºC to +55ºC
  - V3L: -30ºC to +40ºC

Standard materials:

- Body and mounting modules – copper-free aluminum with Corro-free epoxy powder coat
- Lens bezel – aluminum with anodized finish
- Lens – heat- and impact-resistant glass
- Gaskets – silicone
- External hardware – stainless steel

Photometrics:

- Complete photometrics can be found at www.crouse-hinds.com/photometrics

Electrical ratings:

	120-277 VAC input		12-24 VDC input	
Model	Power	Current	Power	Current
V2LM2	14W	0.12A	14W	1.4A
V3LM2	29W	0.24A	31W	3.0A

Note: 5 year limited warranty.

[A] Limited mounting options.

Vaporgard V2L/V3L LED luminaires

Cl. I, Div. 2, Groups A, B, C, D
Cl. II, Div. 1 & 2, Groups F, G

UL Listed
CSA Certified
NEMA 4X; IP66

EASY INSTALLATION AND REPLACEMENT

- Contractor-friendly design is ideal for both retrofit and new construction applications
- Installed using the same wall and ceiling mounts as incandescent Vaporgard fixtures

RUGGED HEAT SINK

- Heat sink designed to perform in high ambient temperatures up to +55°C and as low as -30°C
- Thick walled castings make for a tough, rugged housing that keeps the internal driver and LED temperature down

LOW PROFILE DESIGN

- Unique domeless, low profile design for low mounting heights and confined spaces where incandescent and HID based luminaires are too large to fit in the mechanical envelope required

MULTIPLE LENS OPTIONS

- Tempered clear glass lens standard
- Diffused glass lens and Teflon coated lens options available

MODULAR DESIGN

- Compact and modular design allows for easy component replacement and future upgrades

Vaporgard V2L/V3L LED luminaires

Cl. I, Div. 2, Groups A, B, C, D
Cl. II, Div. 1 & 2, Groups F, G

UL Listed
CSA Certified
NEMA 4X; IP66

LED driver:

- Constant current regulated power supply
- 120-277 VAC, 50/60 Hz
- Power factor, >0.90
- Low harmonic distortion, <20%
- Low in-rush current, <20 amperes
- EMC compliant to 47CFR, Part 2, Part 15
- 12-24 VDC option available

LED system:

- Four high brightness LED arrays
- Cool white (5600K), CRI 70
- Neutral white (4000K), CRI 80
- Warm white (3000K), CRI 82
- L70 >60,000 hours

Temperature performance data:

Model	Ambient temp. °C	Class I, Div. 2	Class II, Div. 2	Class III
V2LM2	40	T4A	T4A	T4A
	55	T4A	T4A	T4A
V3LM2	40	T3C	T3C	T3C

Weights:

Mounting style	Lbs.	Kg.
Pendant	5.70	2.59
Ceiling	6.80	3.08
Wall	7.90	3.58
Stanchion	6.50	2.95

Ordering information:

Part number example
V2LM2CHBF1/UNV1 S891

V **2LM2** **C** **HBF** **1** **/UNV1** **S891**

Series

V	Hazardous area rated

Nominal lumens

2LM2	1,772 lumen LED
3LM2	3,335 lumen LED

Color temperature

C	Cool (5000K), 70 CRI min.
N	Neutral (4000K), 80 CRI min.
W	Warm (3000K), 80 CRI min.

Mounting modules
Class I, Division 2; Class II, Division 1, Groups F, G

A	VLA – pendant mount
HJ	VXJ – stanchion mount
HW[B]	VXW – wall mount

OR

Class I, Division 2; Class II, Division 2, Groups F, G

BLANK	LED housing only *(warehouse/spare parts)*
HBF	VXT – wall mount with VXFT junction box
HF	VXF – junction box for ceiling mount
HR	VLHR – adapter cover (for retrofit)
HT	VXT – wall mount

Hub size

BLANK	No hub *(LED housing, adapter)*
1	½" NPT *(pendant, ceiling, wall)*
2	¾" NPT *(pendant, ceiling, wall)*
3	1" NPT *(pendant)*
4	1¼" NPT *(stanchion)*

Voltage

/UNV1	120-277 VAC, 50/60 Hz
/DC1[C]	12-24 VDC

Options

BLANK	Clear glass lens
S891	Diffused glass lens
S896	Teflon coated lens

[B] Mounts directly to the wall, no VXFT junction box needed.
[C] Rated to +40°C.

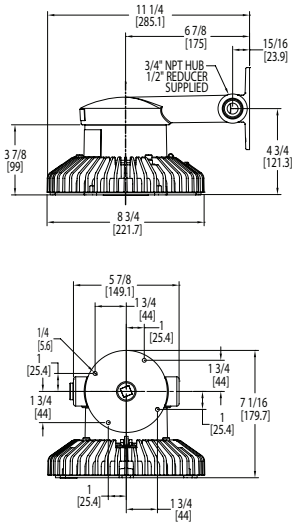
Vaporgard V2L/V3L LED luminaires

Cl. I, Div. 2, Groups A, B, C, D
Cl. II, Div. 1 & 2, Groups F, G

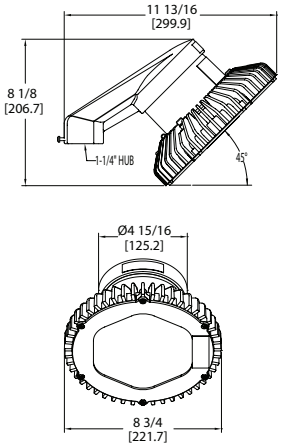
UL Listed
CSA Certified
NEMA 4X; IP66

Dimensions:

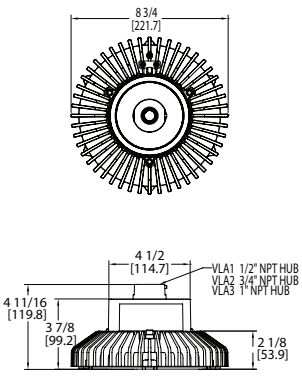
Wall



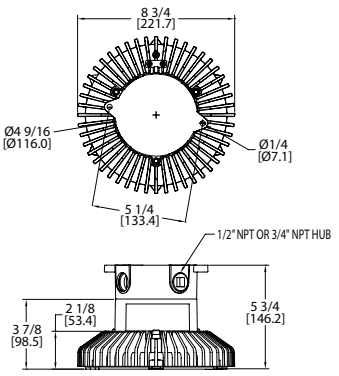
Stanchion



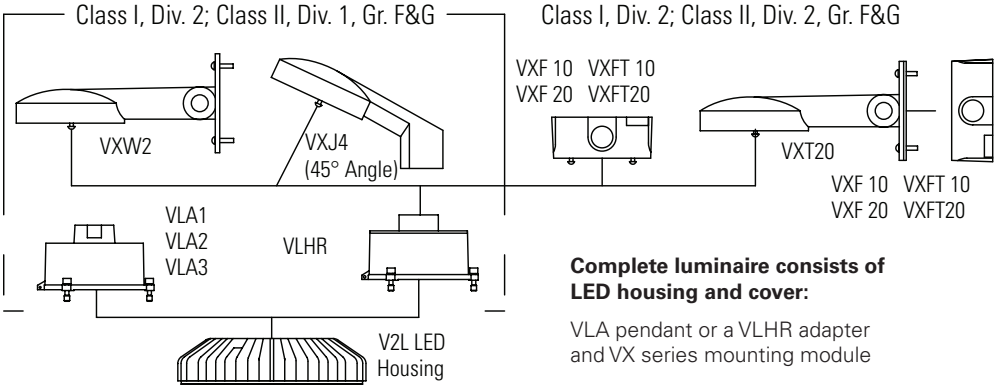
Pendant



Ceiling



Family tree:



Complete luminaire consists of LED housing and cover:

VLA pendant or a VLHR adapter and VX series mounting module

Hazardous Area LED Lighting
Champ® VMVL LED Luminaires

CROUSE-HINDS SERIES
MELEXA

Champ VMVL

LED lighting for hazardous areas

Safe. Reliable. Efficient.
5 models from 3,000 to 11,000 lumens

EATON
Powering Business Worldwide

Design features

Shown with optional diffused lens

Built to last:

- Type 4X rated
- Impact-resistant lens sealed from the outside environment provides ingress protection against water and dust
- Die cast aluminum LED housing provides efficient thermal path to heat sink assembly
- Vertical fin design facilitates air flow and dust shedding

Simple installation and replacement:

- Contractor-friendly design is ideal for both retrofit and new construction
- Easy to retrofit using existing HID Champ mounting module
- Available with lever lock connectors and standard three-pole terminal block

Multiple lens options:

- Clear glass lens standard
- Optional lenses include diffused glass or clear polycarbonate

Custom optics:

- Type I, III and V optics designed to maximize light distribution and intensity*

* Type V optics standard.

Increased efficiency and durability:

- Up to 127 lumens per watt *(7L model)*

Why choose Champ VMVL?

Safe, reliable and efficient. VMVL LED luminaires are engineered to deliver high lumen output and maintenance-free long life in the toughest conditions.

VMVL-7 vs. 175 watt HID

77% ENERGY EFFICIENCY

75% TOTAL COST OF OWNERSHIP

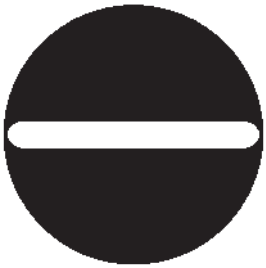
100% MAINTENANCE REDUCTION

Assumptions: Calculations based on overall life of the LED system. Energy cost of $.09 per kilowatt; 24 hour per day operation; labor rate of $75 each for 2 workers; average time for fixture maintenance of 1 hour.

Custom optics

Three optical options to maximize light distribution and intensity

VMVL-3 to VMVL-11



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.

Rugged solutions for complex environments.

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*	Watts	Efficacy	Equivalent HID luminaire
VMVL-3	3,250	26	123 lm/W	70W
VMVL-5	5,537	43	127 lm/W	100W
VMVL-7	7,442	59	127 lm/W	175W
VMVL-9	9,234	73	126 lm/W	250W
VMVL-11	11,114	91	122 lm/W	320W

*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 page 2 of the authorized distributor price book for Crouse-Hinds standard Terms and Conditions.

Colored LED options:

- Available in green or amber*
- Reduction in light polution 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

* Custom optics not availabe with colored LEDs.

Connected lighting highlights:

Advanced scheduling control allows for improving energy efficiency during non-operational hours. Easy software control lets a user set up schedules for lights to be on and off at pre-defined times, removing the challenges of manual management.

Daylight harvesting allows for use of the daylight and adjusts the light level of luminaire to maintain the desired light levels. It is best suited for outdoor environments or indoor areas where daylight is present during operational hours of a facility.

Fixture grouping is an added benefit that maximizes control in a defined area. By grouping light fixtures, same control settings can be applied to them to increase efficiency and response time.

Occupancy sensing is best used in areas that see infrequent traffic, such as storage areas of warehouses. Innovative occupancy sensor controls can automatically illuminate the area once presence is sensed in an area and also turn it back off when sensors stop sensing the presence.

Advanced dimming controls help reduce the energy consumptions by setting dimming levels. Dimming controls could be used in conjunction with other control features, such as scheduling and occupancy sensing, to improve energy savings.

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

Luminaire markings

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

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

- Ex II 3 G EX ec mb IIC T5 Gc -40°C to +40°C
- Ex II 3 G EX ec mb IIC T5 Gc -40°C to +55°C
- Ex II 3 G EX ec mb IIC T4 Gc -40°C to +65°C
- Ex II 2 D Ex tb IIIC T72°C Db -40°C to +40°C
- Ex II 2 D Ex tb IIIC T87°C Db -40°C to +55°C
- Ex 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 Qualified Products List under family models for full listing details. Not all models are approved for all application categories.

Temperature codes, UNV1 driver:

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 & II	T3C	T3A	T3A
Class I, Zone 2 AEx nA nR; Ex nA nR	T5	T5	T4
Class III, Div. 1 Class II, Div. 1, Groups E, F, G Zone 21 AEx tb IIIC	T72°C	T72°C	T92°C

Electrical ratings:

Model	Input power (watts)	Input amps at 277 VAC
VMVL-3	26	0.27-0.10
VMVL-5	43	0.45-0.16
VMVL-7	59	0.61-0.21
VMVL-9	73	0.76-0.26
VMVL-11	91	0.92-0.32

*IEC voltage; 100-240 VAC @ 50/60 Hz
**For VMVL-3:PF>0.9 from 100-255 VAC

All models	
Voltage range, VAC*	100-277V at 50/60 Hz
Voltage range, VDC	127-250V
Power factor	≥0.90
THD	≤20%

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.

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
- Standard: cool white (5000K, 70 CRI); optional: warm white, (3000K, 80 CRI) or neutral white (4000K, 70 CRI)
- Custom Type I, III and V optics available

Weights:

Model	lbs.	kg.
VMVL-3 to VMVL-7	19.00	8.62
VMVL-9 & VMVL-11	19.20	8.70

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

Ordering information

(For Type III optics and UNV34 models, see VMV ordering information on page 11)

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 - S891

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

†Refer to Champ VMV ordering information on page 11 for 13,000 to 21,000 lumen models.

Color temperature

BLANK	5000K, 70 CRI *(cool white)*
N*	4000K, 70 CRI *(neutral white)*
W	3000K, 80 CRI *(warm white)*

*Consult factory for lead time
**5700K and 6500K are available upon request; consult factory.

Lens guard

BLANK	No guard
G	Wire guard

Optics†

BLANK	Type V (all mounts)
R1	Type I *(all mounts minus ceilng)*
R1A	Type I *(Ceiling mount with conduit 45° counterclockwise or 135° clockwise from hinge)*
R1B	Type I *(Ceiling mount with conduit 45° clockwise or 135° counter-clockwise from hinge)*

†Refer to Champ VMV ordering information on page 11 for Type III optics.

Accessories & options†

S812	Trunnion mount kit with pin *(available with ceiling mount only)*
S831	Safety cable
S890	Quick clip
TB6*	Six-pole terminal block

†Ordered with fixture or available separately.
*For NEC/CEC only.

Voltage†

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

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

†Refer to Champ VMV ordering information on page 11 for UNV34 voltage ranges and redundant drivers.

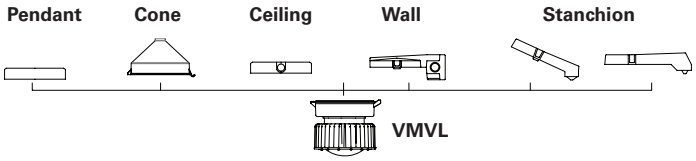
Mounting

BLANK	No mounting module
J	1-½ " stanchion, 25° angled
P	1-½" stanchion, straight
2A	¾" pendant
3A	1" pendant
20A	20mm pendant
25A	25mm pendant
2B	¾" cone pendant
3B	1" cone pendant
2HA	¾" flexible pendant
2C	¾" ceiling
3C	1" ceiling
20C	20mm ceiling
25C	25mm ceiling
2TW	¾" wall
3TW	1" wall
20TW	20mm wall
25TW	25mm wall

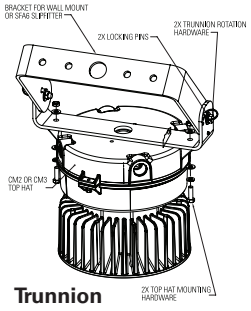
Lens material

BLANK	Clear glass
S891	Diffused glass
S896*	Teflon coated lens
S903	Polycarbonate

*For NEC/CEC only.



Accessories *(ordered separately)*



Trunnion

Mounting & 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
CHMM1	Top hat adapter *(mounts to Appleton Mercmaster III top hats)*

*Available with ceiling mounted modules only.

Replacement driver kit

VMVL-3-5-7L-UNV1-DRIVER KIT	Replacement driver kit for VMVL-3, -5 and -7 models
VMVL-9-11L-UNV1-DRIVER KIT	Replacement driver kit for VMVL-9 and -11 models

Photocells

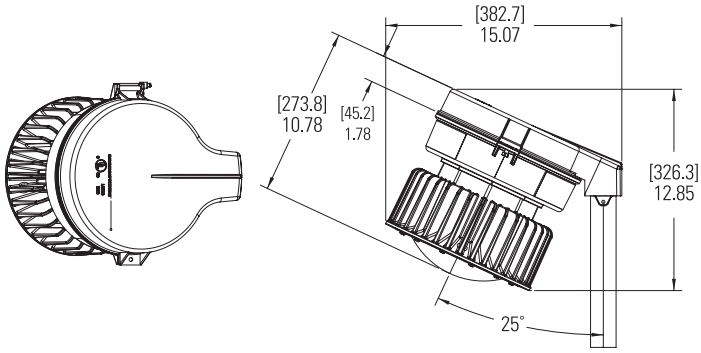
D2S20	Photocell, 120V
D2S208 277	Photocell, 208-277V

Lens guard

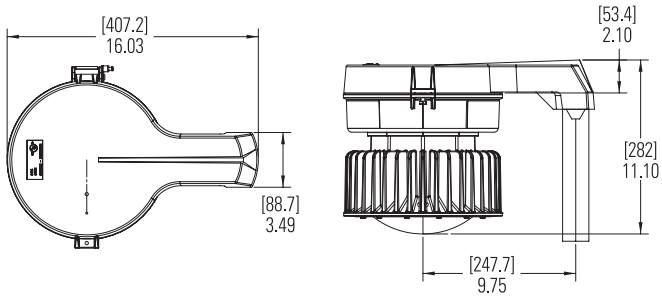
PA3001	Wire guard

Mounting options and dimensions

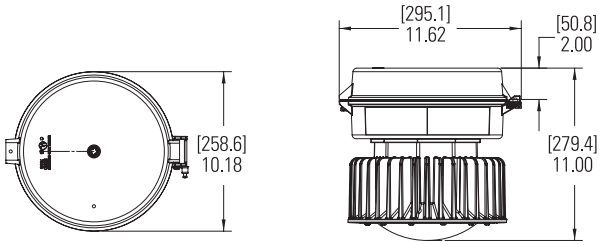
Stanchion - 25° angled



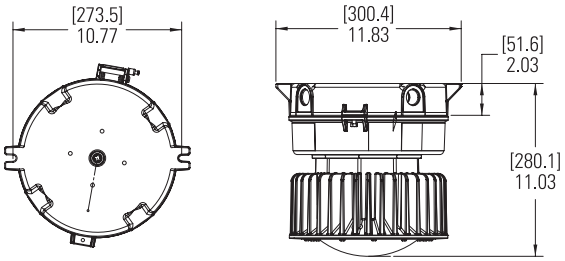
Stanchion - straight



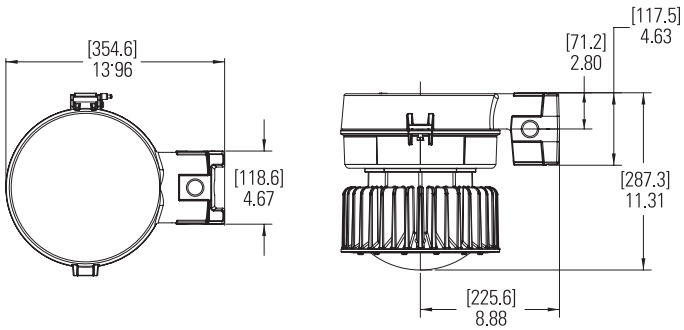
Pendant



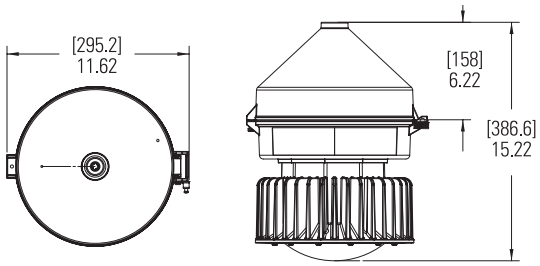
Ceiling



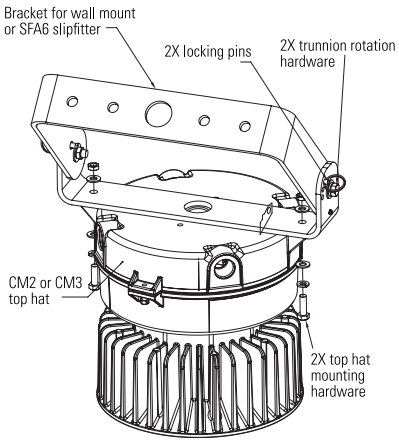
Wall



Cone pendant

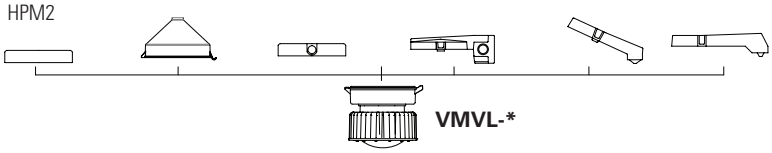


Trunnion



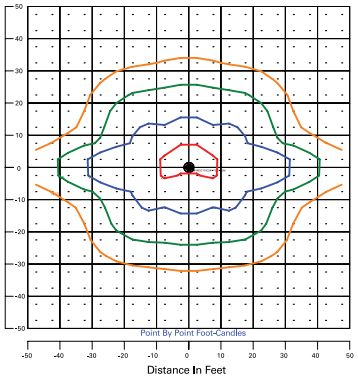
Mounting module series

Pendant	Cone	Ceiling	Wall	Stanchion	
APM2	BPM2	CM2	TWM2	JM5	PM5
APM3	BPM3	CM3	TWM3		
HPM2					

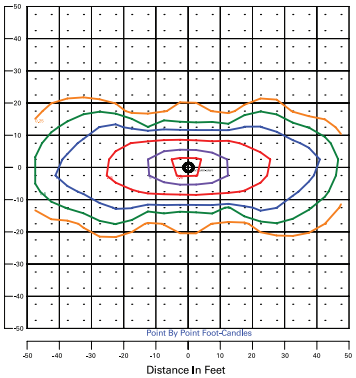


Photometric comparison at 15 ft. mounting height

175W PSMH - Type I



VMVL-7 - Type I



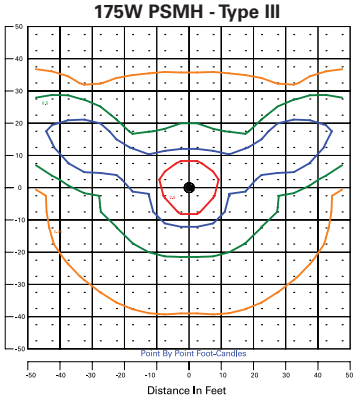
Type I optical pattern

0.25 0.50 1.0 2.5 5.0

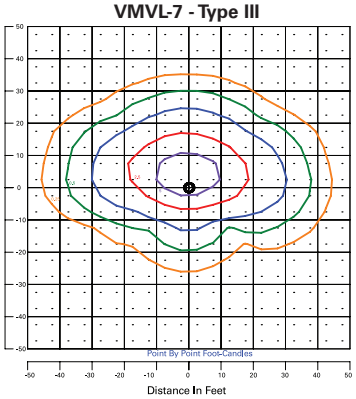
Calculation summary

Label	Calc. type (in Fc)	Avg.	Max.	Min.
VMV 175W MH Grid	Illuminance	0.45	2.8	0.0
VMV LED Grid	Illuminance	0.62	8.0	0.0

175W PSMH - Type III



VMVL-7 - Type III



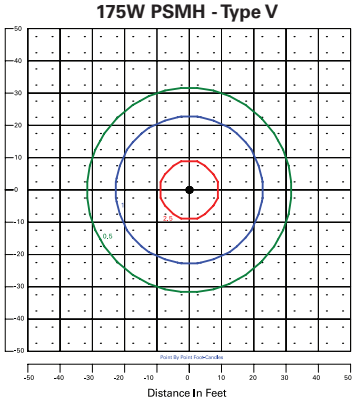
Type III optical pattern

0.25 0.50 1.0 2.5 5.0

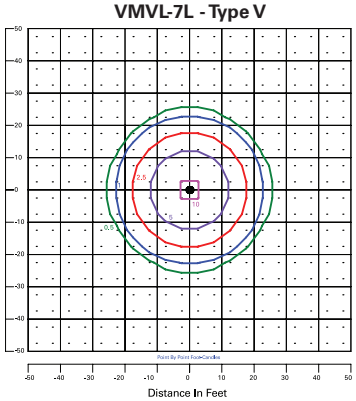
Calculation summary

Label	Calc. type (in Fc)	Avg.	Max.	Min.
VMV 175W MH Grid	Illuminance	0.53	3.2	0.1
VMV LED Grid	Illuminance	0.61	7.5	0.0

175W PSMH - Type V



VMVL-7L - Type V



Type V optical pattern

0.50 1.0 2.5 5.0 10.0

Calculation summary

Label	Calc. type (in Fc)	Avg.	Max.	Min.
VMV 175W MH Grid	Illuminance	0.51	2.8	0.1
VMV LED Grid	Illuminance	0.69	10.1	0.0

Higher average footcandles, uniformity and distribution coverage with less than half the lumens and energy consumption compared to 175W metal halide

Actual lumens (nominal†)	VMVL-3	VMVL-5	VMVL-7	VMVL-9	VMVL-11
Type I	3,360	5,045	6,844	8,823	10,730
Type III	3,309	4,468	6,741	8,618	10,660
Type V	3,250	5,537	7,442	9,234	11,114

† Tolerance +/- 10%.

Ordering information

(For 3-11- UNV1, with Type I or V optics, see VMVL ordering information on page 8)

Part number example

VMV17LW2AR1G/UNV1 S890

VMV 17L W 2A R1 G /UNV1 S890

Lamp/function	
3L	3,309 lumen LED
5L	4,468 lumen LED
7L	6,741 lumen LED
9L	8,618 lumen LED
11L	10,660 lumen LED
13L	13,226 lumen LED
17L	18,793 lumen LED
21L	22,110 lumen LED
25L	26,531 lumen LED
GL*	Green (4,300 lumen LED)
AL*	Amber (5,000 lumen LED)

*Custom optics not available with colored LEDs.

Color temperature	
BLANK	Cool (5000K) or colored
W	Warm (3000K)
N	Neutral (4000K)

*Consult with factory for additional color temperature options.

Mounting style			
BLANK	No Cover	2C	¾" ceiling
J*	1-½" stanchion, 25° angled	3C	1" ceiling
P	1-½" 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

* For VMV3L-VMV11L only.

Optics†	
BLANK	Type V optic *(3L-11L/UNV34 only; 13L-21L/UNV1 & /UNV34)*
R1	Type I optic *(3L-11L/UNV34 only; 13L-21L/UNV1 & /UNV34)*
R3	Type III optic *(all mounts minus ceiling; all models 3L-21L)*
R3AP*	Type III optic *(select when using Appleton® top hat adapter with Champ fixture)*
R3A1*	Type III optic *(ceiling with conduit 45° counterclockwise from top hat hinge)*
R3A2*	Type III optic *(ceiling with conduit 135° clockwise from top hat hinge)*
R3B1*	Type III optic *(ceiling with conduit 45° clockwise from top hat hinge)*
R3B2*	Type III optic *(ceiling with conduit 135° counterclockwise from top hat hinge)*

*For VMV3L-VMV11L only.
†For3-11L/UNV1 products with Type I or Type V optics, refer to page 8 for ordering information.

Suffixes	
S812*	Trunnion mount kit with pin
S831**	Safety cable
S890	Quick clip
S891**	Diffused lens
S892***	Redundant driver
S896**	Teflon coated lens
S903	Polycarbonate lens
TB6	Six-pole terminal block

*Order with ceiling mount only.
**Not available for IEC.
***Available for 5L & 7L only. Redundant driver standard on 9L - 25L models.
7L = 6,616 lumens with S892 suffix.

Voltage	
/UNV1	120-277 VAC, 50/60 Hz; 108-250 VDC, 50/60 Hz
/UNV34	347-480 VAC, 50/60 Hz

Guard	
BLANK	No guard
G	P3001 wire guard (3L-11L)
	P3002 wire guard (13L-25L)

Accessories (ordered separately)	
D2S20	Photocell, 120V, 50/60 Hz
D2S208 277	Photocell, 208-277V
VMVL S812 K1*	Trunnion mount kit with pin

* Order with ceiling mount only.

Pauluhn DLL LED luminaires

For land-based drilling

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2
Cl. II, Div. 2, Groups F, G
Cl. III

UL Listed
CSA Certified
Marine & Wet Locations
NEMA 4X; IP66

The Pauluhn™ DLL linear LED is specifically designed to replace fluorescent T12, T8 and T5HO lighting on land-based and offshore drilling platforms. The rugged and durable design features the industry's most versatile and flexible mounting options. The Pauluhn DLL is the ideal solution for high vibration, impact and hose down in drilling applications.

Model	Typical lumens	Watts	Lumens per watt	Equivalent HID luminaire	Typical energy savings / lifetime
DLL2	3,958	32	124	T12HO	Up to 63%
				T8HO	Up to 59%
				T5HO	Up to 47%
				T12	Up to 36%
				T8	Up to 25%
				T5	Up to 9%
DLL4	7,900	63	130	T12HO	Up to 58%
				T8HO	Up to 54%
				T5HO	Up to 43%
				T12	Up to 37%
				T8	Up to 22%
				T5	Up to 10%

Applications:

- Land-based and offshore rigs; areas include: derrick, mast, SCR house, top drive, operator's house, power and pump stations

Features:

- High efficacy: up to 120 LPW
- -40°C to +65°C ambient operating temperature (standard model)
- Low profile (<3" height)
- Versatile ceiling/swivel, wall, flush, pole and pendant mounting options
- Wide and narrow optics for uniform illumination in control room and drill mast
- Four points of secondary retention
- 2,000 PSI high pressure hose rated
- High vibration resistance
- Emergency battery back-up (90 minutes) and surge protection options (up to 10 kV)Ⓐ
- DesignLights Consortium® Qualified (some models are not DLC qualified)Ⓑ
- 5 year fixture warranty

Standard materials:

- Housing – copper-free aluminum; Corro-free epoxy powder coat (optional)
- Lens – clear polycarbonate; diffused polycarbonate

Photometrics:

- Complete photometrics can be found at www.crouse-hinds.com/photometrics

Temperature performance data:

				Simultaneous rating
Ambient temp. °C	Min. temp. supply wire °C	Class I, Div. 2	Class II, Div. 2	Class I, Div. 2; Class II, Div. 2
40	60	T6	T6	T6
55	75	T5	T5	T5
65	90	T5	T5	T5

Mounting (ordered separately):

Versatile mounting options:

- Flush back mount
- Swivel/ceiling back mount
- Offset ceiling mount
- Offset wall mount
- Pole mount
- Pendant mount

Easily retrofit to:

- Existing Pauluhn DuraPro and MagnaPro fluorescent light fixtures
- Rig-A-Lite and Snelson C1D2 fluorescent lighting fixtures

Certifications and compliances:

NEC:

- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2
- Class II, Division 2, Groups F, G
- Class III
- NEMA 4X, IP66
- Marine and wet locations

UL standards:

- UL844 – Electrical Fixture Hangers for Hazardous Locations
- UL1598 – Luminaire
- UL1598A – Luminaire for Installation on Marine Vessels
- UL924 – Emergency Lighting

CSA standard:

- C22.2 No. 137

Additional certifications:

- ABS design assessed

Electrical ratings:

	DLL2	DLL4
Lumen output	3,958	7,900
Frequency	50/60 Hz	50/60 Hz
Voltage	100-277 VAC, 108-250 VDC; 347-480 VAC	

Model	Voltage	Current (A)	Watts	Power factor	THD
DLL2/UNV1	100	0.33	32.5	0.92	<20%
DLL2/UNV1	277	0.13	34.3	0.92	<20%
DLL2/UNV34	347	0.10	32.2	0.92	<20%
DLL2/UNV34	480	0.07	34.5	0.92	<20%
DLL4/UNV1	100	0.63	63.4	0.92	<20%
DLL4/UNV1	277	0.23	62.5	0.92	<20%
DLL4/UNV34	347	0.18	61.4	0.92	<20%
DLL4/UNV34	480	0.13	63.9	0.92	<20%

Weights:

Model	Lbs.	Kg.
DLL2	12.50	5.70
DLL4	22.50	10.20

ⒶOne year warranty.

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

Pauluhn DLL LED luminaires

For land-based drilling

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2
Cl. II, Div. 2, Groups F, G
Cl. III

UL Listed
CSA Certified
Marine & Wet Locations
NEMA 4X; IP66

Designed for drilling. Pauluhn DLL linear LED luminaires are engineered to handle demanding conditions faced on land-based drilling rigs. The DLL stands up to high vibration, hose down, shock and impact, while delivering long life and high lumen performance for up to 20 years.

Custom optics:

- Standard wide (120°) beam spread for control room and indoor application maximizes illumination on wall panels
- Narrow (80°) beam spread option for high mast/derrick application avoids spillage and light loss

Comprehensive certification:

- Single model certified for use in Class I, Division 2 and Class II, Division 2 harsh and hazardous applications

Quick & easy installation:

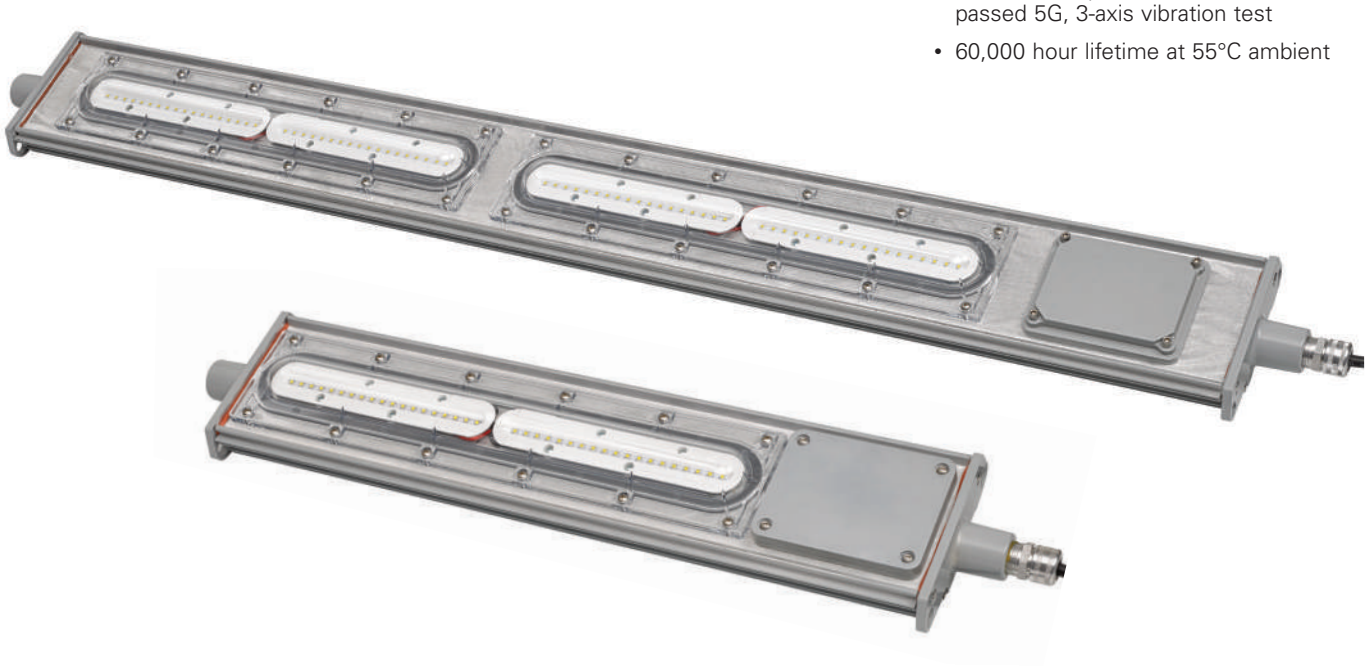
- Easy access to drivers and wiring
- No custom brackets or hardware needed
- Seven mounting options available
- Easily retrofit to Pauluhn DuraPro and MagnaPro, Rig-A-Lite and Snelson

Slim profile:

- 2.7" fixture height (excluding mounting brackets)
- Perfect for mounting in confined or low height areas

Built to last:

- Ingress protection from hose down water or diesel fuel in harsh operational conditions – passed 2,000 PSI high pressure test
- Vibration-, impact- and shock-resistant – passed 5G, 3-axis vibration test
- 60,000 hour lifetime at 55°C ambient



Pauluhn DLL LED luminaires

For land-based drilling

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2
Cl. II, Div. 2, Groups F, G
Cl. III

UL Listed
CSA Certified
Marine & Wet Locations
NEMA 4X; IP66

Ordering information:

Part number example

DLL4N/UNV1 S903 TF P EM1

DLL 4 N /UNV1 S903 TF P EM1

Series	
DLL	Pauluhn DLL linear LED luminaire

Length / lumens	
4	4 ft. length, 7,900 lumens
2	2 ft. length, 3,958 lumens

Optics	
BLANK	Wide (120°)
N	Narrow (80°)

Voltage	
/UNV1	100-277 VAC; 108-250 VDC
/UNV34	347-480 VAC

Lens	
S903	Clear polycarbonate
S903D	Diffused polycarbonate

Options	
TF	Pull wire included in fixture

Finish	
BLANK	Natural aluminum
P	Painted (gray, epoxy)
WH	Painted (white, epoxy)

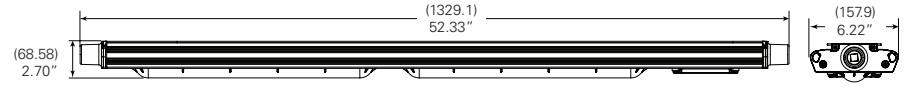
Emergency back-up	
BLANK	Standard model (no battery back-up)
EM1[C]	Integrated emergency battery back-up
EM	Remote emergency kit

Accessories (ordered separately):

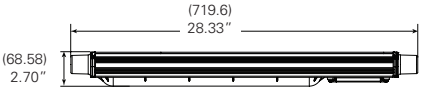
Description	Cat. #
• Flush/back mount back plate *Compatible with DuraPro*	**DP1057MTK**
• Ceiling/swivel mount *Compatible with DuraPro*	**DP1050MTK**
• Ceiling/wall mount offset *Compatible with DuraPro*	**DP1053MTK**
• Ceiling mount bracket and adapter kit *Compatible with MagnaPro*	**MP1054MTK KIT**
• Offset wall mount *Compatible with DuraPro*	**DP1052MTK**
• Pole mount kit, 1.25" conduit	**PM KIT 1.25**
• Pole mount kit, 1.50" conduit	**PM KIT 1.5**
• Pole mount kit, 2.00" conduit	**PM KIT 2.0**

Description	Cat. #
• Pendant mount kit	**PEND HAZ KIT**
• Safety chain kit	**SS KIT**
• 1 amp driver replacement kit, 100-277 VAC for 4 ft. linear	**VMVL/UNV1 80W 1A KIT**
• 1 amp driver replacement kit, 347-480 VAC for 4 ft. linear	**VMVL/UNV34 80W 1A KIT**
• 0.5 amp driver replacement kit, 100-277 VAC for 2 ft. linear	**VMVL/UNV1 80W 0.5A KIT**
• 0.5 amp driver replacement kit, 347-480 VAC for 2 ft. linear	**VMVL/UNV34 80W 0.5A KIT**

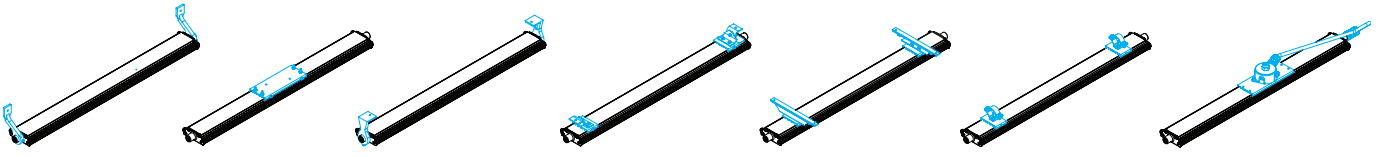
Dimensions and mounting options:



DLL4



DLL2



Offset wall
DP1052MTK

Flush ceiling
DP1057MTK

Offset ceiling
DP1053MTK

Ceiling/swivel
DP1050MTK

Ceiling and adapter
MP1054MTK KIT

Pole mount
PM KIT 1.25/1.5/2.0

Pendant mount
PEND HAZ KIT

[C] One year warranty. Remote EM kit also available, 120-277 VAC only. Available with 4 ft. model only.

Pauluhn DLL LED luminaires

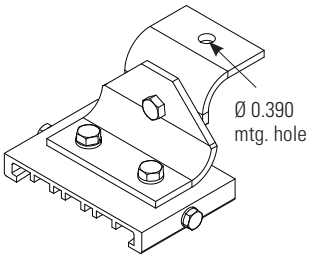
For land-based drilling

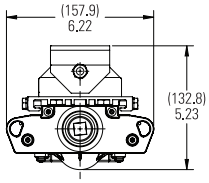
Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2
Cl. II, Div. 2, Groups F, G
Cl. III

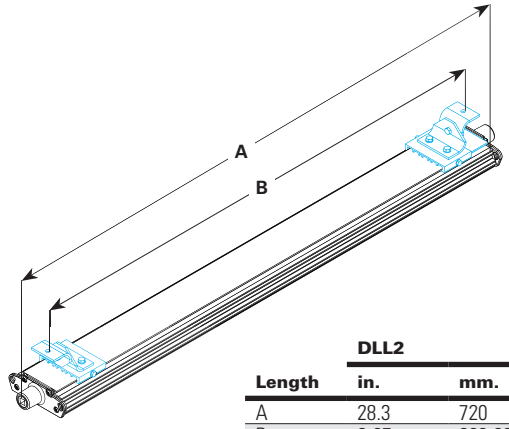
UL Listed
CSA Certified
Marine & Wet Locations
NEMA 4X; IP66

Mounting options:

Ceiling/swivel mount
DP1050MTK

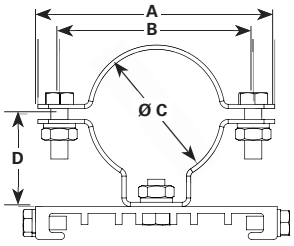






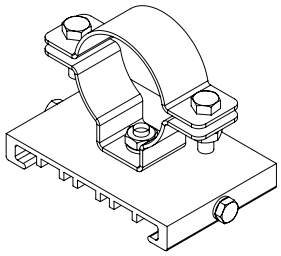
	DLL2		DLL4	
Length	**in.**	**mm.**	**in.**	**mm.**
A	28.3	720	52.3	1329
B	9-27	222-681	9-51	222-1289

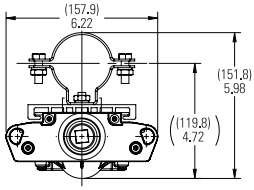
Pole mount
PM KIT 1.25/1.5/2.0

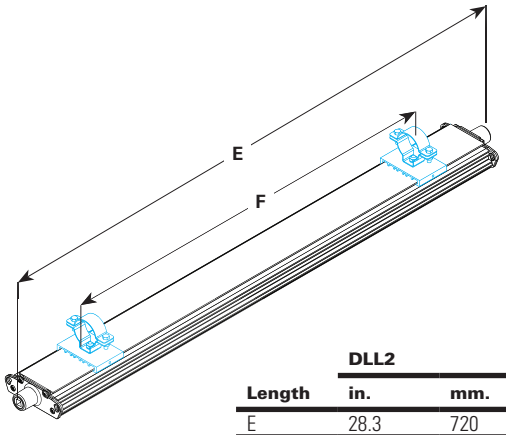


ALL MEASUREMENTS IN INCHES

Configuration	A	B	C	D
PM KIT 1.25	4.331	3.543	1.680	1.693
PM KIT 1.5	3.740	2.953	2.000	1.535
PM KIT 2.0	3.386	2.598	2.360	1.378

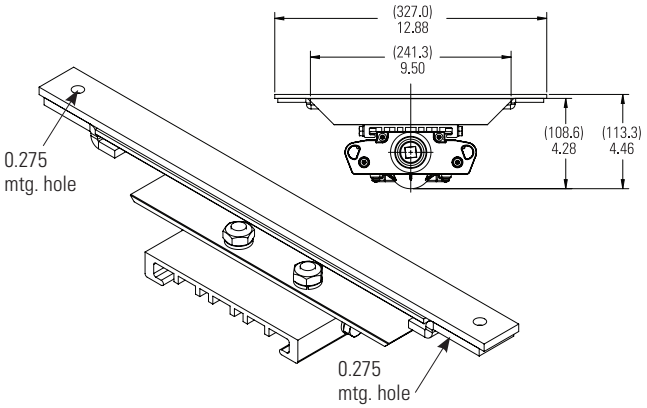


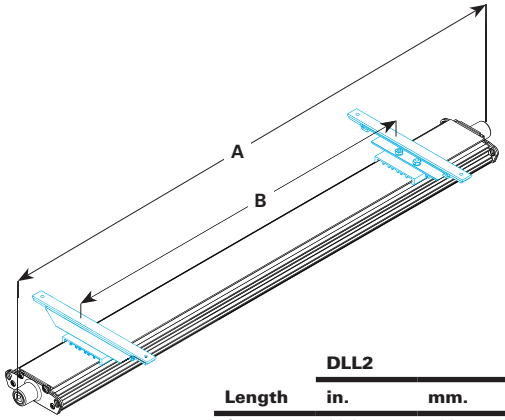




	DLL2		DLL4	
Length	**in.**	**mm.**	**in.**	**mm.**
E	28.3	720	52.3	1329
F	12-21	305-533	24-45	610-1143

MagnaPro mount
MP1054MTK KIT

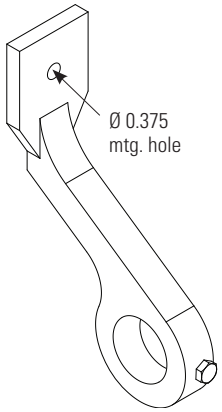


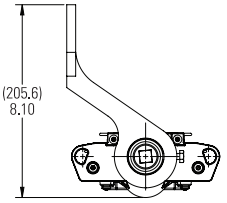


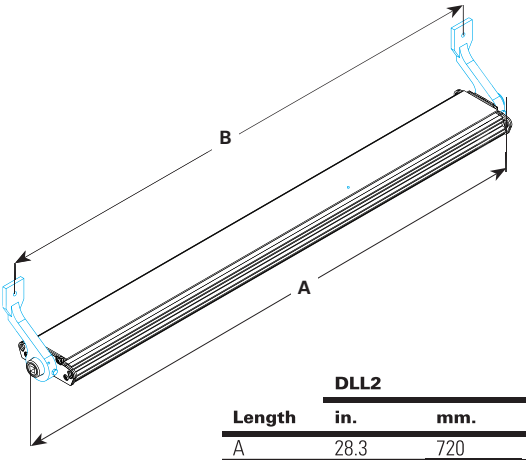
	DLL2		DLL4	
Length	**in.**	**mm.**	**in.**	**mm.**
A	28.3	720	52.3	1329
B	12-22	305-559	24-46	610-1168

Mounting options (continued):

Offset wall
DP1052MTK

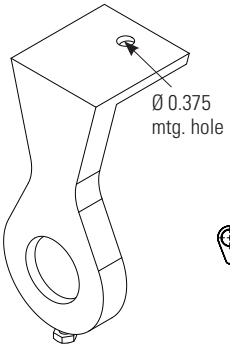


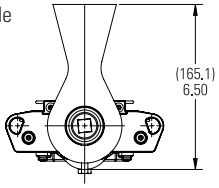


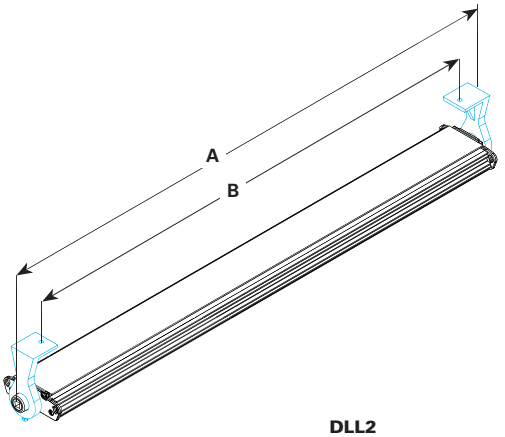


	DLL2		DLL4	
Length	**in.**	**mm.**	**in.**	**mm.**
A	28.3	720	52.3	1329
B	26.3	669	50.3	1278

Offset ceiling/wall mount
DP1053MTK

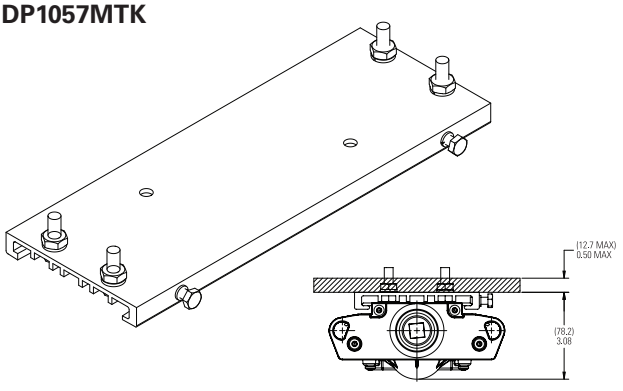


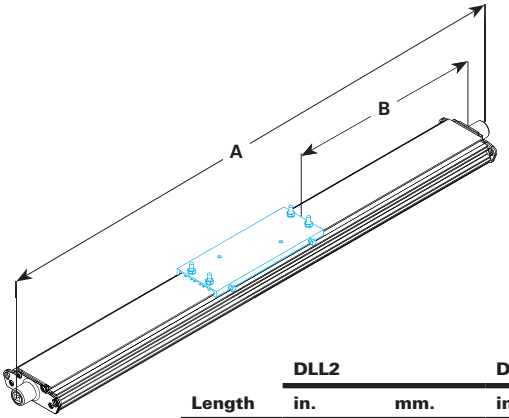




	DLL2		DLL4	
Length	**in.**	**mm.**	**in.**	**mm.**
A	28.3	720	52.3	1329
B	26.3	584	47.0	1194

Flush ceiling
DP1057MTK

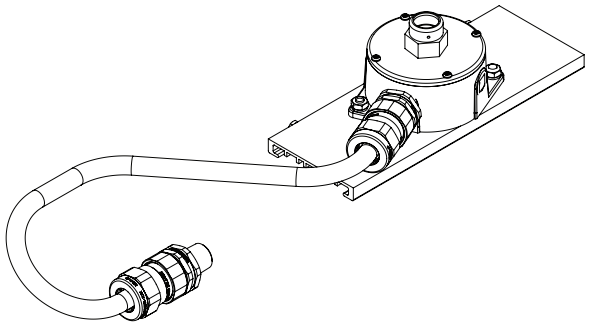


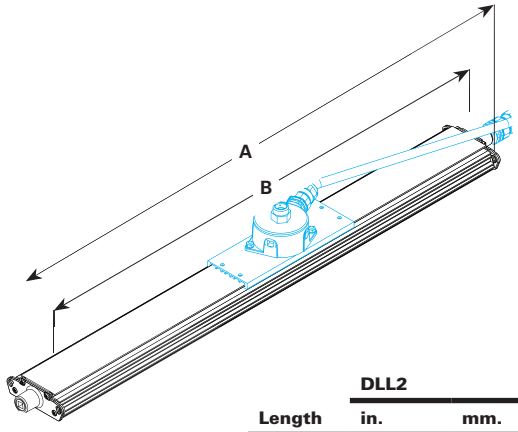


	DLL2		DLL4	
Length	**in.**	**mm.**	**in.**	**mm.**
A	28.3	720.0	52.3	1329.0
B	6.2	157.5	18.2	462.0

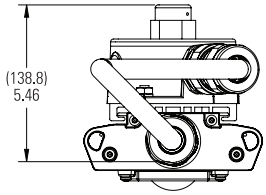
Mounting options (continued):

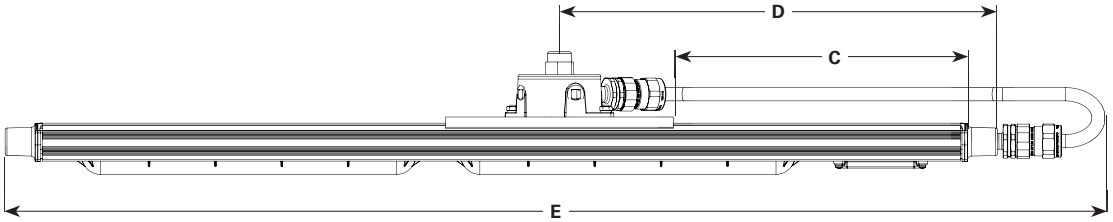
Pendant mount – Class I, Division 2 only
PEND HAZ KIT





Length	DLL2 in.	DLL2 mm.	DLL4 in.	DLL4 mm.
A	31.7	805	55.8	1418
B	28.3	720	52.3	1329
C	4.2	108	16.0	406
D	12.2	310	24.0	610
E	34.9	886	58.9	1495





Champ FMVA LED floodlights

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2
Cl. II, Groups E, F, G

UL Listed
IECEx/ATEX
Type 4X; IP66

6L MELEXA

The Champ FMVA LED family

Champ® FMVA LED floodlights are designed to provide full-spectrum, crisp, white light. Seven versions of the FMVA LED are available, from 3,000 to 15,000 lumens, providing ideal solutions for a wide range of harsh and hazardous applications.

Model	Nominal lumens[A]	Watts	Lumens per watt	Equivalent HID luminaire	Energy savings
FMVA3L	3,312	26	129	70W	Up to 75% reduction in energy costs and 150,000 hours of continuous operation
FMVA5L	5,381	40	133	100W	
FMVA7L	7,274	55	132	175W	
FMVA9L	9,479	67	142	250W	
FMVA11L	11,776	82	144	320W	
FMVA13L	13,362	93	143	400W	
FMVA15L	15,183	108	140	500W	

Applications:

- Oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, 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
- IP66, Type 4X, marine, wet locations and hose down environments
- Classified and hazardous locations

Features:

- Instant illumination and restrike
- Better visibility with crisp, white light
- Cold temperature operation/no warm-up required
- Minimum T3C temperature rating – safely operate in the most hazardous environments and any non-hazardous location
- Serviceable drivers
- Easy installation – yoke design to mount to SFA6
- Energy-efficient technology – up to 72% energy savings over HID fixtures
- 60,000 hours of rated life at 55°C – eliminates need for frequent lamp replacement
- 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 (NEC only; IEC: -40°C to 55°C)
- 5 year fixture warranty

Certifications and compliances:

- DesignLights Consortium® Qualified (pending)[B]

NEC/CEC:

- Class I, Division 2, Groups A, B, C, D; Class I, Zone 2; Class II, Groups E, F, G
- Wet locations, Type 4X, IP66

UL standards:

- UL844; UL1598; UL1598A; UL8750

IEC standards[H]:

- IEC 60079-0, 6th Edition (2011-06) + Corr. 1 (2012-01) + Corr. 2 (2013-12) + I-SH 01 (2013-11) + I-SH 02 (2014-10)/EN 60079-0:2012 + A11:2013
- IEC 60079-7, Edition 5.1 (2017-08)/EN 60079-7: 2015 +A1:2018
- IEC 60079-31, 2nd Edition (2013-11)/EN 60079-31:2014
- IEC 60598-1:2008/EN60598-1:2008
- IEC 60598-2:2008/EN60598-2:2008

IECEx/ATEX[H]:

- CE 0359
- IECEx UL15.0029X
- DEMKO 15 ATEX 1377X
- DEMKO 15 ATEX 1383
- Ex II 3 G Ex ec mb IIC T5 Gc Tamb -40° - +40°C
- Ex II 3 G Ex ec mb IIC T5 Gc Tamb -40° - +40°C[G]
- Ex ec IIC T5 Gc Tamb -40°C - +40°C
- Ex ec IIC T4 Gc Tamb -40°C - +55°C
- Ex II 2 D Ex tb IIIC T65 Db Tamb -40°C - +40°C
- Ex II 2 D Ex tb IIIC T80 Db Tamb -40°C - +55°C
- Ex tb IIIC T65 Db Tamb -40°C - +40°C
- Ex tb IIIC T80 Db Tamb -40°C - +55°C

Standard materials:

- Lamp housing and adapter – die cast aluminum with Corro-free epoxy powder coat
- Lens – heat- and impact-resistant glass (standard)
- Gaskets – silicone and neoprene
- External hardware – stainless steel

Fixture life:

- Rated life of 60,000 hours at 55°C operating ambient and 24/7 continuous operation for 365 days
- Economic life of 150,000 hours at 25°C ambient

LED system:

- Cool white (5000K, 70 CRI) and warm white (3000K, 80 CRI)
- Custom designed optics – 7x6 standard; 3x3 (optional)

Photometrics:

- Complete photometrics can be found at www.crouse-hinds.com/photometrics

Electrical ratings:

Model	Input power (watts)	Input amps at 120-277 VAC
FMVA3L	25	0.27 - 0.10
FMVA5L	40	0.41 - 0.16
FMVA7L	54-56	0.56 - 0.21
FMVA9L	67-69	0.78 - 0.28
FMVA11L	81-84	0.84 - 0.30
FMVA13L	91-95	0.95 - 0.34
FMVA15L	107-113	1.12 - 0.40

FMVA3L-FMVA15L	
Voltage range, VAC[C]	100-277V at 50/60 Hz
Voltage range, VDC	127-250V
Power factor	>0.90[D]

[A] Tolerance +/- 10%; at 120 VAC, 25°C ambient, 7x6 optics.

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

[C] IEC voltage; 100-250 VAC at 50/60 Hz, UNV34 option for FMVA9L-15L only.

[D] For FMVA3L: PF >0.90 from 100-255 VAC. From 255-277V, it varies +/- 10%. All other lumen levels are above 0.90 PF across full voltage range.

[G] T4 from -40°C to +40°C when used with 3x3 optic.

[H] Not applicable for FMVA9L-15L UNV34.

Champ FMVA LED floodlights

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2
Cl. II, Groups E, F, G

UL Listed
IECEx/ATEX
Type 4X; IP66

6L MELEXA

Versatile design
- Can be used for outdoor or indoor applications, and for a wide range of mounting heights depending on model and light level requirement

Smaller and lighter
- 25% smaller footprint than previous model
- 10 lbs. (4.5 kg) less weight than previous model

Full-frame yoke
- Designed to utilize the SFA6 slipfitter and SWB6 wall mount bracket, making it ideal for retrofit or new installations

High lumen output
- Up to 144 lumens per watt
- Up to 72% energy savings over traditional HID fixtures (compared to 400W MH)

Multiple lens options
- Tempered clear glass lens standard
- Polycarbonate and diffused glass lens options available

Rugged heat sink
- Heat sink designed to perform and provide maximum light levels in high ambient temperatures up to +65°C and as low as -40°C
- Thick walled castings make for a tough, rugged housing that keeps the internal driver and LED temperature down

Champ FMVA LED floodlights

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2
Cl. II, Groups E, F, G

UL Listed
IECEx/ATEX
Type 4X; IP66

Ordering information:

Part number example
FMVA7LCY-UNV1-76-M20-S891-BZ

FMVA 7L C Y - UNV1 - 76 - M20 - S891 - BZ

Light source / intensity

3L	3,312 nominal lumens[E]
5L	5,381 nominal lumens[E]
7L	7,274 nominal lumens[E]
9L	9,479 nominal lumens[E]
11L	11,776 nominal lumens[E]
13L	13,362 nominal lumens[E]
15L	15,183 nominal lumens[E]

Color temperature

C	5000K, 70 CRI (cool white)
W	3000K, 80 CRI (warm white)

Mounting

Y	Yoke

Voltage

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

Optical distribution

76	7x6 floodlight pattern optics
33	3x3 floodlight pattern optics

Entries

BLANK	¾" NPT
M20	20mm
M25	25mm

Lens material

BLANK	Clear glass lens
S891	Diffused glass lens
S903	Polycarbonate lens

Paint

BLANK	Gray
BZ	Bronze
WH	White

Options:

Description	Suffix
• Diffused glass lens	**S891**
• Polycarbonate lens	**S903**

Accessories (ordered separately):

Description	Cat. #
• Bull horn, gray	**BLHN**
• Bull horn, bronze	**BLHN-BZ**
• Bull horn, white	**BLHN-WH**
• Bolt-on visor	**DSV2**
• Bolt-on wire guard	**P62**
• 316 stainless steel safety cable *Can be added in the field*	**SC831**
• Floodlight slipfitter	**SFA6**
• Slipfitter wall mount adapter	**SWB6**

Replacement driver kits (ordered separately)

FMVA 3-5-7L UNV1 DRIVER KIT	UNV1 Replacement driver kit for 3L, 5L and 7L models
FMVA 9-11-13L UNV1 DRIVER KIT	UNV1 Replacement driver kit for 9L, 11L and 13L models
FMVA 15L UNV1 DRIVER KIT	UNV1 Replacement driver kit for 15L model
FMVA 9L-11L UNV34 DRIVER KIT	UNV34 Replacement driver kit for 9L and 11L models
FMVA 13L-15L UNV34 DRIVER KIT	UNV34 Replacement driver kit for 13L and 15L models

[E] 7x6 model.
[F] IEC voltage; 100-250V at 50/60 Hz.
[J] Available for FMVA9L-15L only.

Champ FMVA LED floodlights

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2
Cl. II, Groups E, F, G

UL Listed
IECEx/ATEX
Type 4X; IP66

Temperature performance data:

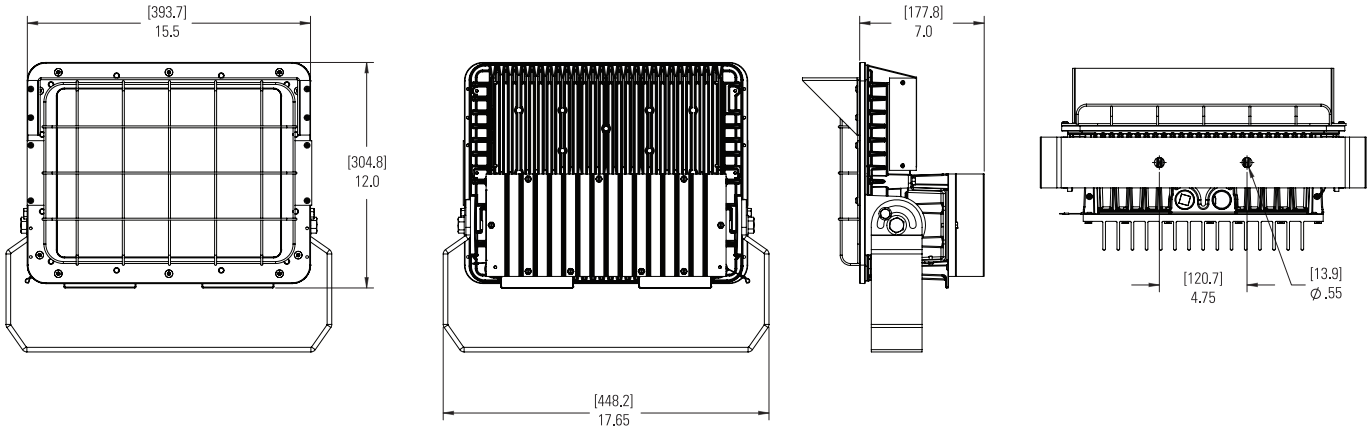
Model	Ambient temp. °C	Class I, Div. 2	Class II, Div. 1	Simultaneous rating: Class I, Div. 2; Div. 1	Class I, Zone 2	ATEX 3G	ATEX 2D	Minimum wire temp. °C
FMVA3L-FMVA15L	40	T5	T4	T4	T5	T5	T65	105
	55	T4A	T3C	T3C	T4	T4	T80	105
	65	T4A	T3C	T3C	T4	–	–	105

Drivers:

Option	FMVA3L-FMVA15L
/UNV1	NEC: 100-277 VAC, 50/60 Hz; 127-250 VDC; IEC: 100-240 VAC, 50/60 Hz; 127-250 VDC
/UNV34❶	NEC/CEC only: 347-480 VAC, 50/60 Hz

Weights and dimensions:

Model	Lbs.	Kg.	Width in.	Width mm.	Height in.	Height mm.	Depth in.	Depth mm.
FMVA3L-FMVA15L	32.00	14.50	15.50	393.70	12.00	304.80	7.00	177.80



6L

❶UNV34 driver available for FMVA9L-15L only.

CROUSE-HINDS SERIES
MELEXA

Champ-Pak CPMV

LED wall pack for hazardous areas

Safe. Reliable. Efficient.

3,000, 5,000 & 7,000 lumen models

EATON
Powering Business Worldwide

Design features

Built to last:
- Type 4X rated
- Impact-resistant lens sealed from the outside environment provides ingress protection against water and dust
- 60,000+ hours of operation at 55°C
- 5 year fixture warranty†

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

Simple installation and replacement:
- Contractor-friendly design is ideal for both retrofit and new construction
- Available with lever lock connectors

High efficiency:
- Up to 116 lumens per watt
- Optional photocell

Multiple lens options:
- Clear glass lens standard
- Optional lenses include:
  - Diffused glass
  - Clear polycarbonate
  - Diffused polycarbonate

Additional options:
- Yoke and hub mounts
- Photocell

Rugged design
- Engineered to perform in ambient temperatures from -40°C to +55°C
- Die cast aluminum LED housing provides efficient thermal path to heat sink assembly
- Vertical fin design facilitates air flow and dust shedding

Why choose Champ-Pak LED wall packs?

Reliability. CPMV LED wall packs are engineered to deliver high lumen output and maintenance-free long life in the toughest conditions.

CPMV7L vs. 150 watt HID

70% ENERGY EFFICIENCY

65% TOTAL COST OF OWNERSHIP

100% MAINTENANCE REDUCTION

Assumptions: Calculations based on overall life of the LED system. Energy cost of $.09 per kilowatt; 24 hour per day operation; labor rate of $75 each for 2 workers; average time for fixture maintenance of 1 hour.

Champ-Pak® CPMV LED wall pack

Rugged wall pack solutions.

Eaton's Crouse-Hinds Champ-Pak CPMV LED wall packs are engineered to provide maintenance-free illumination, long life and high performance in Class I, Division 2 areas.

The Champ CPMV LED is available from 3,000 to 7,000 lumens and is designed for extreme conditions and hazardous applications.

Available models:

Model number	Nominal lumens*	Watts	Efficacy	Equivalent MH luminaire
CPMV3L	3,400	30.6	111 Lm/W	70W
CPMV5L	5,200	44.8	116 Lm/W	100W
CPMV7L	6,800	58.9	115 Lm/W	150W-175W

*Nominal lumens based on 5000K CCT with clear glass lens. Wattage measured at 120 VAC.

Primary applications:

- Oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, outdoor wall 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
- NEMA 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

Certifications & compliances:

- DesignLights Consortium® Qualified *(pending)*
- NEC and CEC
  - UL Standards: UL1598, UL1598A, UL 844, UL8750
  - CSA Standard: C22.2 No. 137
- Class I, Division 2, Groups A, B, C, D,
- Class II, Division 1, Groups E, F, G
- Class III & Simultaneous Presence
- Marine and Wet Locations, NEMA 4X and IP66

Temperature codes:

Classified area	40°C	55°C
Class I, Division 2 Groups A, B, C, D	**T5**	**T4A**
Class II, Division 1 Groups E, F, G	**T4A**	**T4A**
Simultaneous presence	**T3**	**T3**

Electrical ratings:

Model number	120V Input power	120V Input amps	277V Input power	277V Input amps	347V Input power	347V Input amps	480V Input power	480V Input amps
CPMV3L	30.6	0.26	30.6	0.11	29.9	0.09	30.3	0.07
CPMV5L	44.8	0.37	43.9	0.16	43.3	0.13	43.7	0.09
CPMV7L	58.9	0.50	57.8	0.23	56.0	0.16	56.2	0.12

All models	
Voltage range, VAC	120-277V at 50/60 Hz, 347-480V at 60 Hz
Voltage range, VDC	125/250VDC
Power factor	≥0.90
Surge	6kV standard
THD	≤ 20%
Dimming	0-10V

Champ-Pak CPMV wall packs are designed, tested and certified for extreme environments

Ordering information

Part number example

CPMV3LWY-UNV1-S891 PC1

Champ-Pack CPMV LED wall pack, NEC/CEC rated, 3,400 lumens, 3000K warm white, wide optic,yoke mount, 120-277 VAC, diffused glass window, 120V photocell

CPMV 3L W Y - UNV1 - S891 PC1

Light source/intensity

3L	3,400 nominal lumens
5L	5,200 nominal lumens
7L	6,800 nominal lumens

Color temperature

BLANK	Cool (5000K)
N*	Neutral (4000K)
W	Warm (3000K)

*Consult factory for availability.

Optics

BLANK	Wide
R5	Narrow

Mounting

BLANK	Wall
H	Hub
Y	Yoke

Voltage

-UNV1	120-277 VAC, 50/60 Hz; 125, 250VDC
-UNV34	347-480 VAC, 50/60 Hz

Lens type

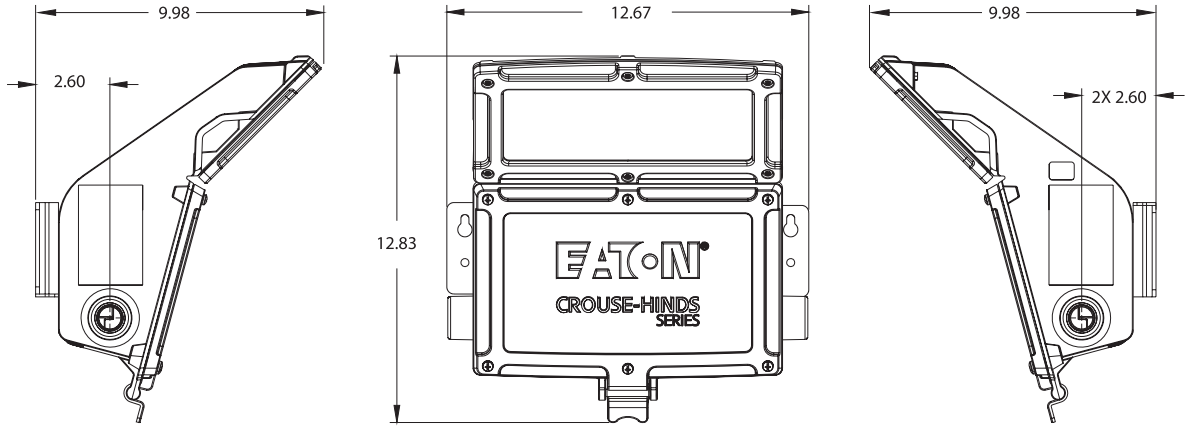
BLANK	Clear glass
S891	Diffused glass
S903	Clear polycarbonate
S903D	Diffused polycarbonate

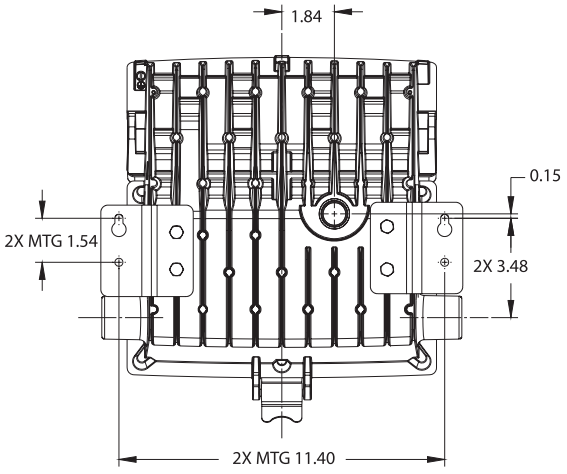
Photocell*

PC1	120V
PC2	208-277V

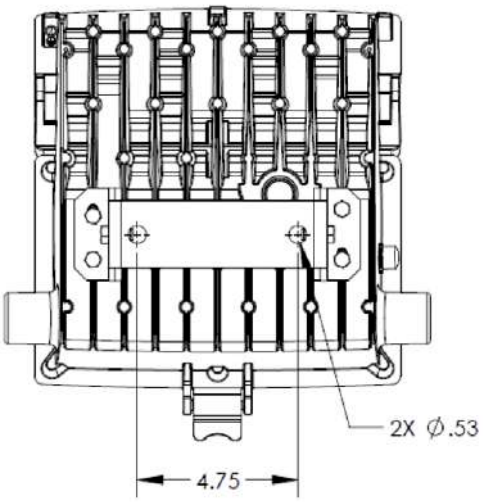
*Class I, Division 2 only.

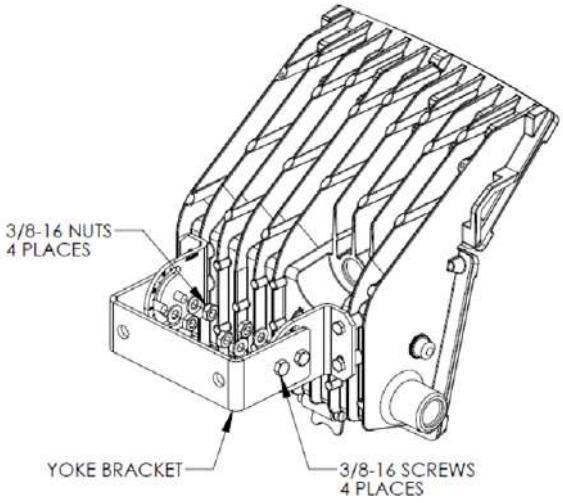
Dimensions: standard wall mount



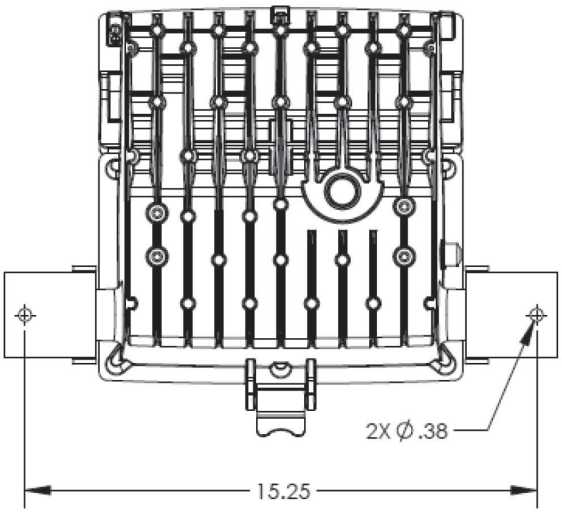


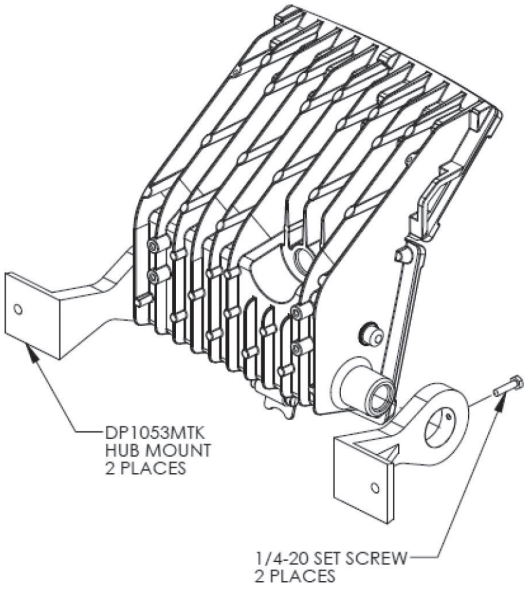
Dimensions: Yoke mount

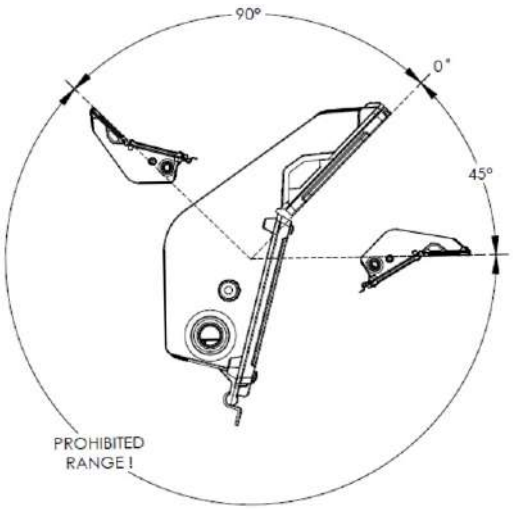




Dimensions: Hub mount







Mounting method	Angle range	Mounting surface
Wall (standard)	Fixed	Wall
Yoke	+45° to -90°	Wall, Ceiling, Horizontal Surface/Ground
Hub (DP1053MTK)	+45° to -90°	Wall, Ceiling, Horizontal Surface/Ground

Note: Class II, Div.1 and Simultaneous Presence Class I, Div. 2 and Class II will be limited to 0° to +45° aiming range only.

Luminaria a Prueba de Explosión XAFR

APLICACIONES

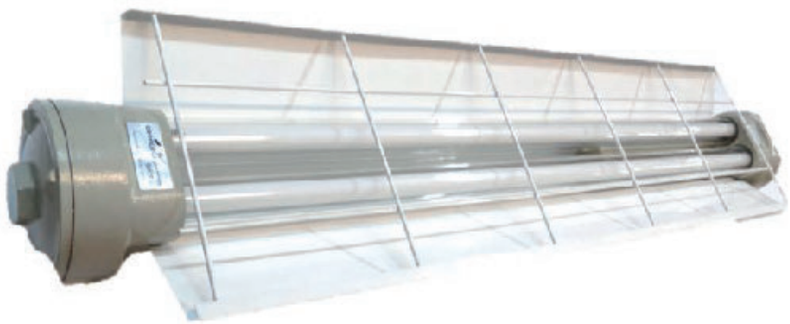
- Áreas peligrosas.
- Requerimientos a prueba de intemperie.
- Requerimientos a prueba de polvo.
- Exploración y producción de petróleo y gas.
- Plantas de tratamiento de aguas residuales.
- Tubería / bombeo y almacenamiento.
- Pozos de mantenimiento y lubricación.
- Instalaciones en industria Petroquímica.

CARACTERÍSTICAS

- Sistema fluorescente proporciona un ahorro energético de hasta el 50% cuando se compara con HID.
- Balasto electrónico Multi voltaje resistente a caídas de tensión o voltaje y fluctuaciones de frecuencia.
- Lentes de vidrio resistentes a la constante exposición de luz solar y contacto con productos a base de petróleo.

CERTIFICACIONES Y NORMAS

- Clase I Div. 1 y 2 Grupo C, D
- Clase II Div. 1 y 2 Grupos E,F,G
- Encerramiento tipo NEMA 7, 4 y 4X
- Certificado de Conformidad RETIE No. 05354
- Satisface los requerimientos de UL-844 localizaciones Peligrosas



CONDICIONES DE OPERACIÓN

- Temperatura de operación entre -10°C y 50°C.
- T rating: T6

OPCIONES DE PRODUCTO

- Para otras tensiones de alimentación (V) solicitar cotización a través de servicio al cliente.

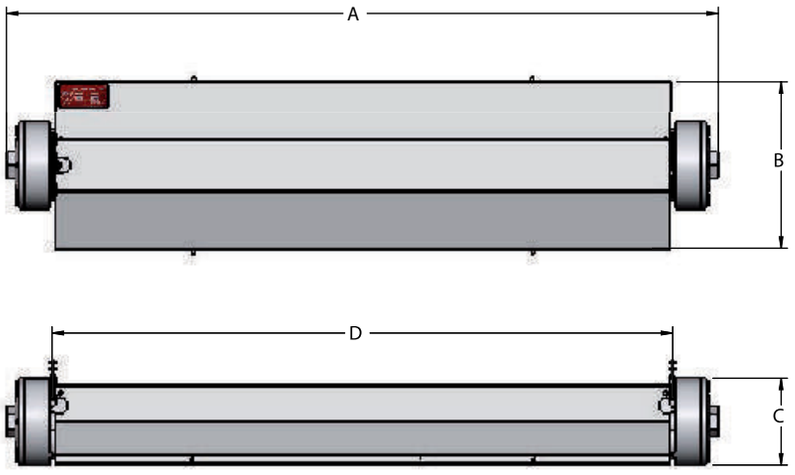
GARANTÍA

- Un (1) año contado a partir de la fecha de facturación.

RANGO ELÉCTRICO

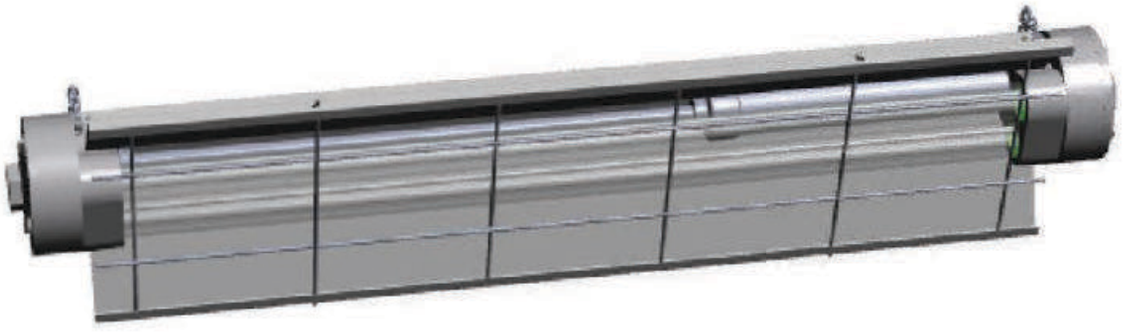
- Desde 120 - 277 VAC

Luminaria a Prueba de Explosión XAFR



ESPECIFICACIONES TÉCNICAS

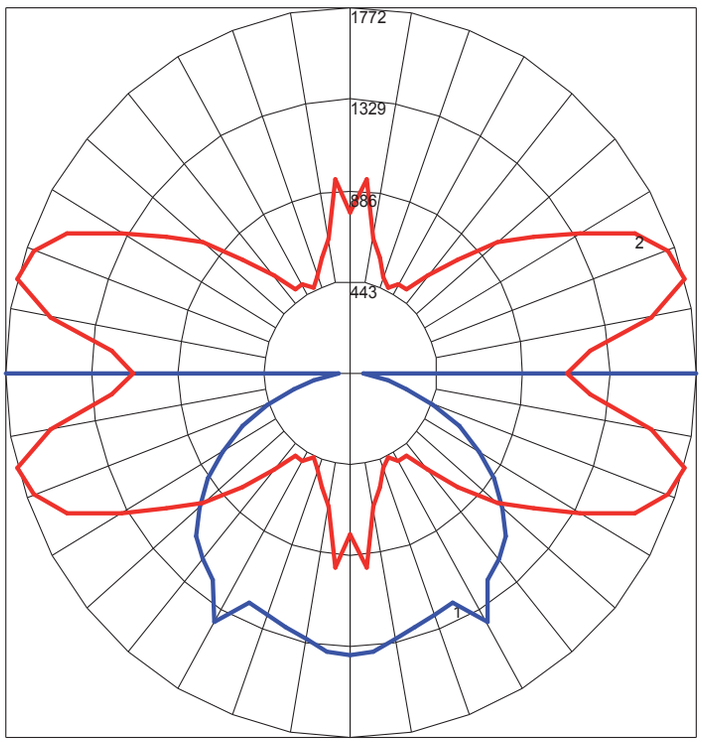
- Carcaza en Aluminio fundido con bajo contenido de cobre.
- Lentes en vidrio tipo pirex.
- Reflector en aluminio con un acabado de pintura blanca electrostática.
- Acceso roscado de 1/2".
- Balasto Electrónico para tensiones de 120V, 208V,220V y 277 VAC 50/60 Hz.



Referencia	Características	Voltaje (VAC)	No. De tubos por tipo	Dimensiones (mm)				Peso (kg)	Tolerancia (mm)
				A	B	C	D		
XAFR-1T5	Tubos T-5	120-277	2	1365	325	165	1118	16,5	±5

Luminaria a Prueba de Explosión XAFR

CONDICIONES FOTOMÉTRICAS LUMINARIA XAFR TIPO T5



Maximum Candela = 1772 Located At Horizontal Angle = 15, Vertical Angle = 90
1 - Vertical Plane Through Horizontal Angles (15 - 195) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (90) (Through Max. Cd.)

Características	
Clasificación IES	Tipo VS
Clasificación Longitudinal	Muy Corto
Lúmenes por bombilla	4254 (2 lámparas)
Lúmenes totales de las bombillas	8508
Lúmenes de la Luminaria	4893
Eficiencia total hacia abajo	58%
Eficiencia Total de la Luminaria	58%
Eficacia total de la Luminaria Rating (LER)	-
Potencia total de la Luminaria (W)	120W Fluorescente / 56W LED
Factor del Balasto	1.00
Candelas Máximas	1772
Angulo máximo de Candelas	15H 90V
Candelas Máximas (<90 grados vertical)	1602
Angulo máximo Candelas (<90 grados vertical)	80H 10V
Candelas Máximas en 90 grados vertical	1772 (20.8% Lúmenes de la lámpara)
Candelas Máximas de 80 a <90 grados vertical	226 (2.7% Lumens de lámpara

ILUMINACIÓN DE EMERGENCIA

Equipo Automático para Alumbrado de Emergencia EQ-AL LED

APLICACIONES

Los equipos de alumbrado de emergencia son usados:

- Para proporcionar iluminación segura y confiable en el evento de un corte en el suministro de energía eléctrica.
- Para uso interno únicamente.

CARACTERÍSTICAS

- Ensamblados en caja plástica ABS
- Bombillas tipo LED.
- Bombillas orientables.
- Baterías libres de mantenimiento.
- Batería Niquel Cadmio 3.6V 1000mAh
- Tiempo de operación con dos luminarias ≥ 90 minutos.
- Tiempo de carga 24 horas mínimo.
- Grado de protección IP20
- Protección contra sobrecarga y sobredescarga.

CERTIFICACIONES

- Certificado de Conformidad RETILAP

MATERIALES Y ACABADOS ESTÁNDAR

- Caja plástica inyectada

ESPECIFICACIONES ELÉCTRICAS

- Voltaje de alimentación 120-277 VAC
- Frecuencia 60Hz
- 2 Bombillas de 1.2W cada una.
- Voltaje de la batería 3.6 VDC

CONDICIONES DE OPERACIÓN

- Temperatura de operación entre -10°C y 40°C.

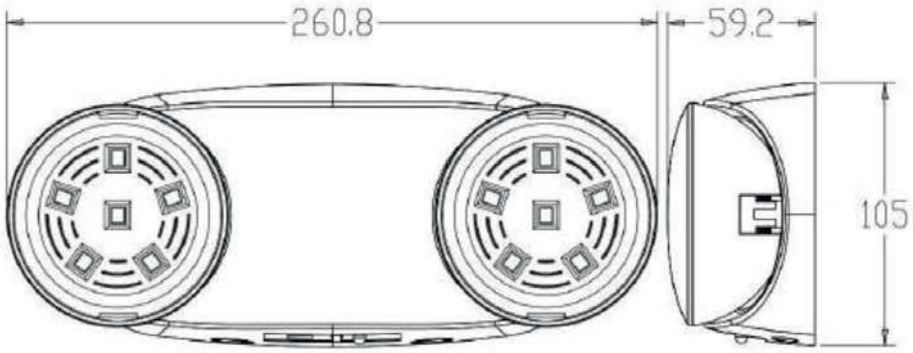
OPCIONES DE PRODUCTO

- Para otros voltajes solicitar cotización a través de servicio al cliente.

GARANTÍA

- Un (1) año contado a partir de la fecha de facturación.

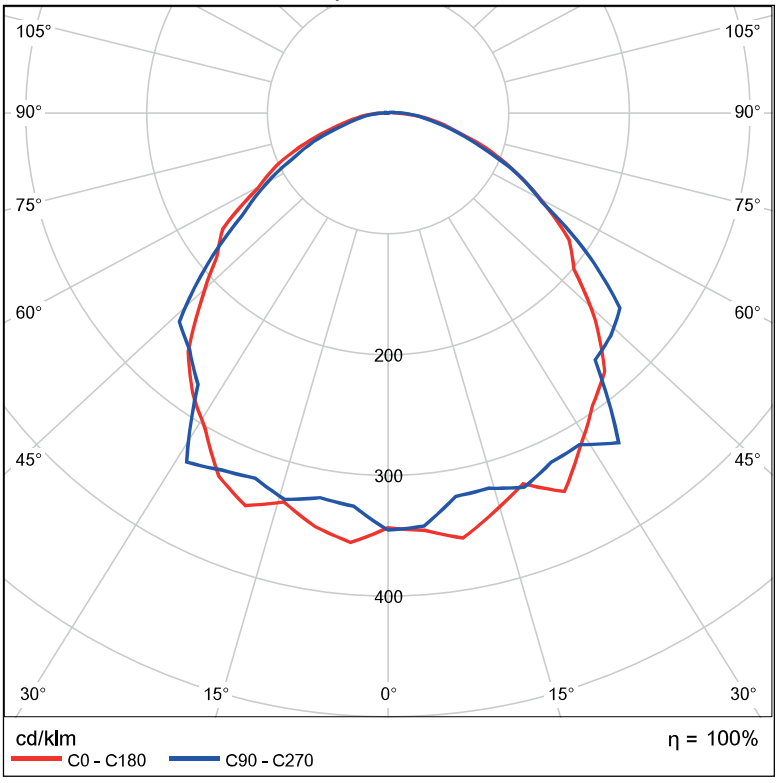
Equipo Automático para Alumbrado de Emergencia EQ-AL LED



Referencia	Voltaje de Alimentación (VAC)	Cantidad de Bombillas	Potencia por Bombilla (W)	Tiempo de operación en descarga (Horas)	Peso (Kg)
EQ-AL	120-277	2	1.2	1.5	0.375

FOTOMETRÍA PARA EQUIPO CON 2 BOMBILLAS LED

Emisión de luz 1 / CDL polar



Características	
Lúmenes por bombillo	91 lm
Lúmenes totales de los bombillos	182 lm
Flujo luminoso	182 lm
Eficiencia Total de la Luminaria	75.8%
Rendimiento lumínico	73.3 lm/W

Aviso de Señalización de Emergencia SD-AV-ICO LED y SD-AV

APLICACIONES

Los avisos de señalización de emergencia son usados:

- Para proporcionar información segura y confiable en el evento de un corte en el suministro de energía eléctrica, para señalizar rutas de evacuación.
- Para uso interno únicamente.

CARACTERÍSTICAS

- Ensamblados en caja plástica ABS.
- Bombillas tipo LED.
- Baterías libres de mantenimiento.
- Batería Niquel Cadmio 3.6V 300mAh
- Avisos con texto tipo informativo (SD-AV), aviso gráfico (SD-AV-ICO) indicando la salida.
- Tiempo de carga 24 horas mínimo.
- Tipo de montaje: en techo o pared.
- Grado de protección IP20
- Protección sontra sobrecarga y sobredescarga.

CERTIFICACIONES

- Certificado de Conformidad RETILAP

MATERIALES Y ACABADOS ESTÁNDAR

- Caja plástica fabricada plástico ABS.

ESPECIFICACIONES ELÉCTRICAS

- Voltaje de alimentación 120/ 277 VAC.
- Frecuencia 60Hz.
- Potencia 2W
- Voltaje de operación batería en apagones (VDC)

CONDICIONES DE OPERACIÓN

- Temperatura de operación entre -10°C y 40°C.

SD-AV

SD-AV-ICO LED

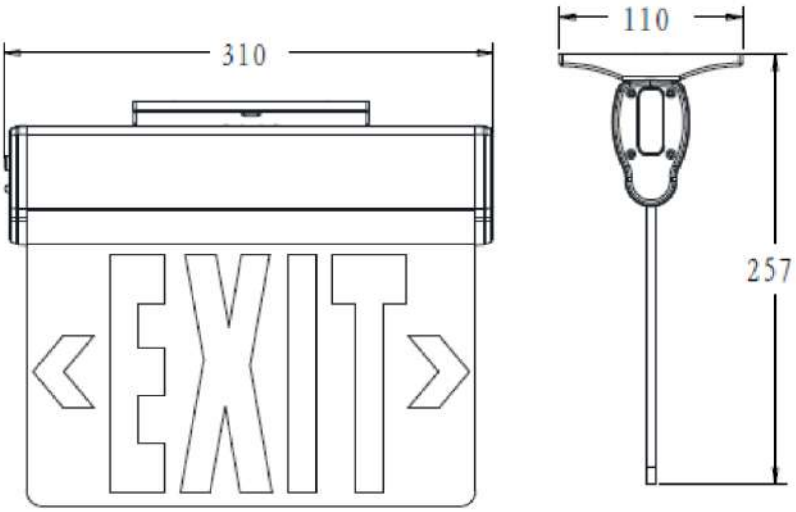
OPCIONES DE PRODUCTO

- Para otros voltajes solicitar cotización a través de servicio al cliente.

GARANTÍA

- Un (1) año contado a partir de la fecha de facturación.

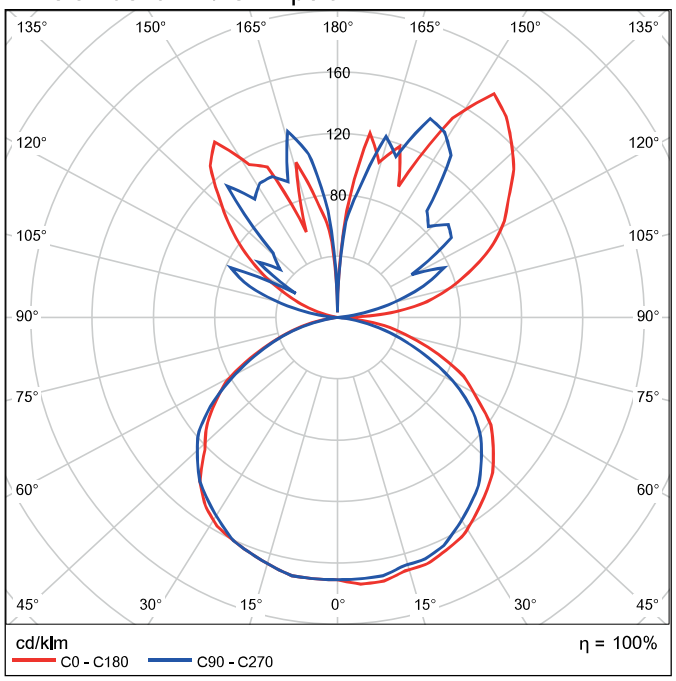
Aviso de Señalización de Emergencia SD-AV-ICO LED y SD-AV



Referencia	Caras señalizadas	Voltaje de Alimentación (VAC)	Tiempo de operación en apagones (Horas)	Tiempo de reposición de carga de batería (Horas)	Peso (Kg)
SD-AV	1	120/277	1.5	24	0,735
SD-AV-ICO	1	120/277	1.5	24	0,735

FOTOMETRÍA PARA EQUIPO CON 2 BOMBILLAS LED

Emisión de luz 1 / CDL polar



Características	
Lúmenes por bombillo	3 lm
Lúmenes totales de los bombillos	3 lm
Flujo lumínoso de la Luminaria	3 lm
Eficiencia Total de la Luminaria	100%
Rendimiento lumínico	6.1 lm/W

NOTA: Especificaciones técnicas sujetas a cambios sin previo aviso.

Equipos Automáticos L2M-12H LED y L3-2H LED iluram

APLICACIONES

- Los equipos de alumbrado de emergencia son usados como sistemas automáticos para proveer iluminación en ausencia de energía eléctrica.
- Uso interno únicamente.

CARACTERÍSTICAS

- Ensamblados en caja metálica o plástica.
- Luminarias LED.
- Cuenta con botón "PRUEBA", para realizar pruebas de funcionamiento fácilmente.
- Batería libre de mantenimiento.
- Cargador de baterías con regulador de voltaje máximo para evitar sobrecargas y mínimo para protegerla de descargas profundas que disminuyen su vida útil.
- Fusibles para protección contra cortocircuito en la alimentación.
- Tiempo de operación de 2.5 horas con dos luminarias LED .
- Tiempo de carga 10 horas mínimo.
- Tipo de montaje: sobreponer, con chazo a la pared.

BENEFICIOS

- Encendido automático al detectarse ausencia de alimentación eléctrica.
- Bombillas orientables en el plano horizontal y vertical.
- Bajo consumo de energía, alta luminosidad, y larga duración de los bombillos.
- Interruptor para las luminarias, apaga el equipo para almacenarlo, o para evitar descargas innecesarias cuando no haya alimentación eléctrica y no se necesite iluminación de emergencia.
- Botón "PRUEBA", permite verificar el encendido de las luminarias del equipo con sólo presionar un botón.
- Posibilidad de orientar la luz.
- Batería libre de mantenimiento.

MATERIALES Y ACABADOS ESTÁNDAR

- Caja metálica en lámina cold rolled y recubrimiento pintura electrostática color beige. (modelo L2M-12H LED).
- Caja plástica inyectada (modelo L3-2H LED).

CERTIFICACIONES

- Certificado de conformidad RETILAP No. 05029.

RANGO ELÉCTRICO

- Voltaje de alimentación 120VAC.
- Frecuencia 60Hz.
- 2 luminarias LED de 12V/2W cada una

OPCIONES DE PRODUCTO

- Otros voltajes o frecuencias de alimentación consultar con fábrica.

CONDICIONES DE OPERACIÓN

- Temperatura de operación entre 0°C y 40°C
- Uso interior.

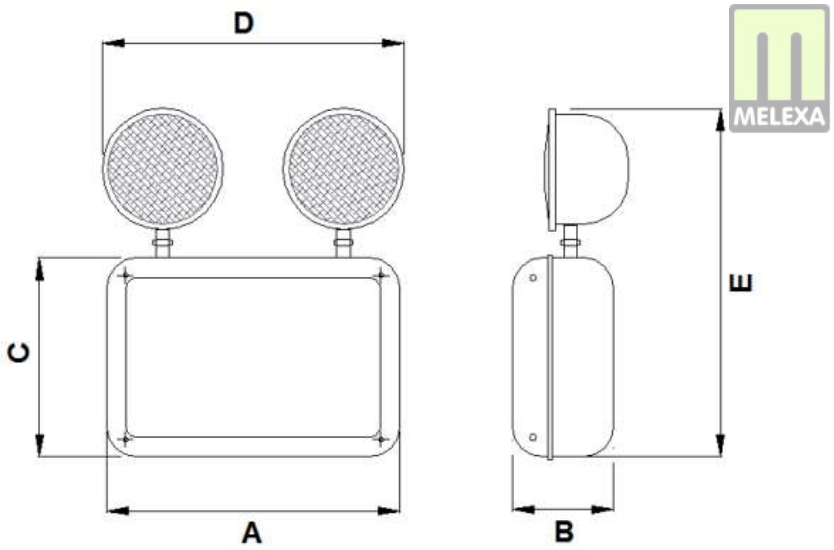
GARANTÍA

- Un (1) año contado a partir de la fecha de facturación.
- Sí el equipo de alumbrado de emergencia NO es energizado después de tres meses de facturado, el equipo pierde la garantía sobre la batería.

EATON

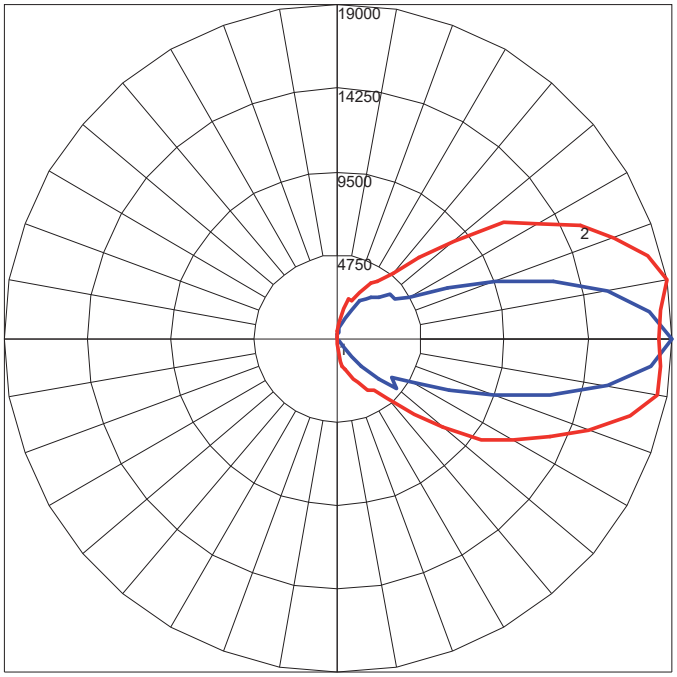
Powering Business Worldwide

Equipos Automáticos L2M-12H LED y L3-2H LED iluram



Serie	Contenido en Caja	Voltaje de batería (VDC)	Fuente de iluminación	Cantidad de Bombillas	Potencia por Bombillas (W)	Tiempo de Operación de la luminaria	Tiempo de Reposición de carga (Horas)	Dimensiones (mm)					Peso (Kg)
								A	B	C	D	E	
L2M-12H LED	Metálica	12	LED	2	2	2.5	10	307	130	197	327	352	4
L3-2H LED	Plástica							310	120	185	327	345	3

FOTOMETRÍA PARA EQUIPO CON 2 BOMBILLAS LED DE 3.2W



Candela Máxima = 19000 situado en el ángulo Horizontal = 10, ángulo Vertical = 90
1 - plano Vertical a través de ángulos horizontales (10-190) (Max. Candelas)
2 - cono horizontal a través del ángulo de la Vertical (90) (Max. Candelas)

Caracterìsticas

Lúmenes por bombillo	249.12 (1 bombillo)
Lúmenes totales de los bombillos	249.12
Lúmenes de la Luminaria	249.12
Eficiencia Total de la Luminaria	99%
Eficacia total de la Luminaria Rating (LER)	5
Potencia total de la Luminaria (W)	6.4W
Factor del Balasto	1.00

Flujo Luminoso zonal (lm)

Zona	Lúmenes	% bombilla	% luminaria
0-30	0,21	0,10	0,10
0-40	2,40	1,00	1,00
0-60	21,76	8,70	8,70
0-90	117,98	47,20	47,40
90° -180°	131,14	52,40	52,60

LED lighting for hazardous areas
N2LPS Light-Pak LED emergency lighting

CROUSE-HINDS SERIES
MEDEXA

N2LPS M2 Light-Pak™ LED emergency lighting systems

N2LPS Light-Pak emergency lighting systems are designed specifically for egress and emergency illumination in the most demanding harsh and hazardous environments.

Primary applications:

- To provide reliable illumination for egress areas during failure or interruption of power to the normal lighting system
- To illuminate machinery or panels during a loss of AC power
- In areas where flammable gases or vapors may become present due to abnormal, unusual or accidental conditions
- In manufacturing plants, refineries, petrochemical and chemical plants, waste and sewage treatment facilities, oil terminals, food processing facilities, breweries and other industrial manufacturing or process industry facilities subject to wet or corrosive conditions
- Where moisture, dirt, dust or corrosion will limit the life and reliability of ordinary emergency lighting systems
- Where required by the National Electrical Code®, the Life Safety Code® or other applicable codes
- In outdoor applications

Design features and benefits:

Non-metallic, enclosed, gasketed housing – Provides corrosion protection in the most extreme environments.

Durable and marine rated LED lamp head assemblies – Provide protection against water ingress, corrosion and impact.

Nickel cadmium battery – High temperature rated nickel cadmium battery for reliable operation up to 55°C ambient.

Reduced maintenance costs – Self-test, monitoring and diagnostics reduce costly maintenance checks.

Remote mountable lamp heads – Lamp heads can be mounted independently from the enclosure, allowing you to focus light where you need it.

Solid state battery charger – Ensures long life and reliable battery operation. Prevents deep discharge by automatically disconnecting the battery from the luminaire.

Certifications and compliances

NEC and CEC:

- Class I, Division 2, Groups B, C, D; Class I, Zone 2
- Class II, Division 2, Groups F, G (N2LPS only)
- NEMA 4, 4X, marine wet locations suitability

UL Standards:

- UL844; UL924; UL1598A

CSA Standard:

- CSA C22.2 No. 141-M1985; C22.2 No. 137-M-1981

NFPA:

- Life Safety Code NFPA101® - Section 5-9 (Emergency Lighting)

EATON
Powering Business Worldwide

Additional specifications and ordering information

Ordering information:

Model	Description
N2LPSM212222	28W, 12V power supply, (2) 1W LED lamp heads
N2LPSM212220	28W, 12V power supply, less luminaire heads
N2RFM21221	Remote luminaire assembly, (1) LED lamp head
N2RFM21222	Remote luminaire assembly, (2) LED lamp heads
*N2LPSM212222 UX71SDHAZ	6W, 12V power supply with exit sign (single sided)
*N2LPSM212222 UX72SDHAZ	6W, 12V power supply with exit sign (two sided)

*NEC only

Options:

Suffix	Description
S931	Breather/drain
S932	External battery disconnect switch

Temperature rating:

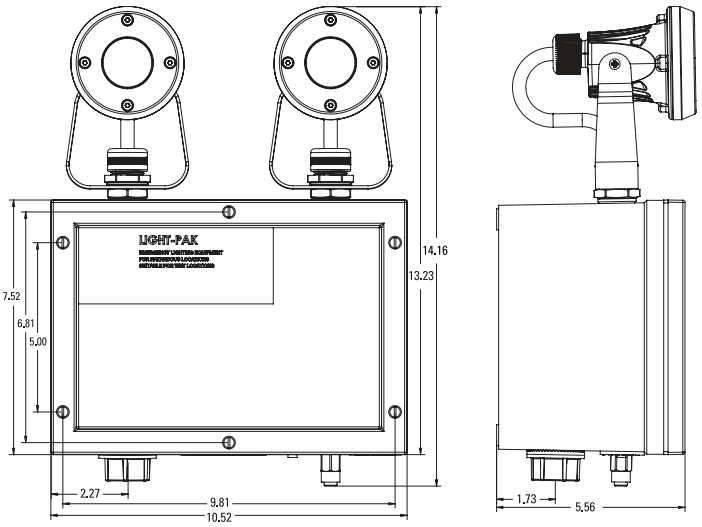
Model	Class I & II, Division 2
N2LPS *(all models)*	T6
N2RF *(all models)*	

Weights:

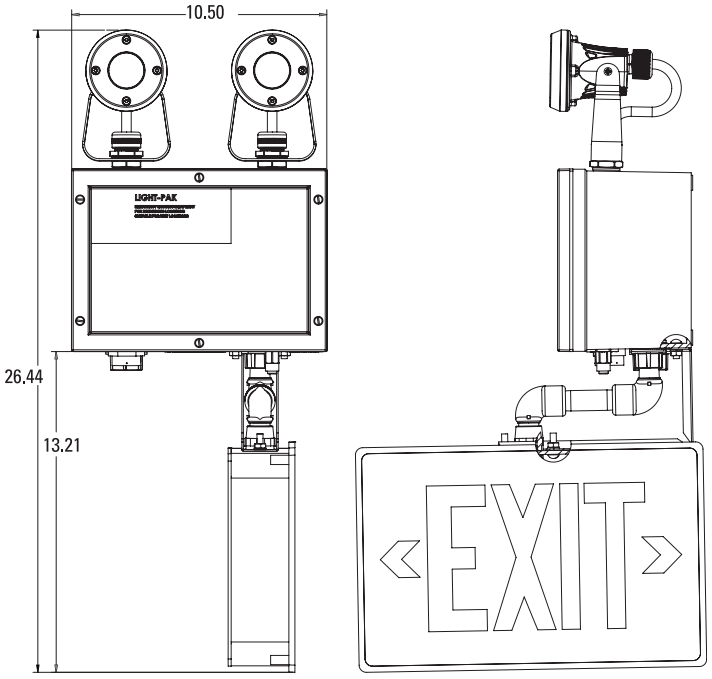
Model	lbs.	kg.
N2LPSM212222	12.00	7.26
N2LPSM212220	10.00	5.44
N2RFM21221	7.00	3.63
N2RFM21222	8.00	4.08

Note: ambient temperature at which the Light-Pak system is rated is -20°C to 55°C. Operation at temperatures outside this range will affect the battery life and/or the charging performance.

Dimensions:



All dimensions in inches



All dimensions in inches

Electrical ratings:

Power supply:

- Input: 120–277 VAC, 50 or 60 Hz; 6 watts max.
- Output: 12 VDC

LED luminaire heads:

- Voltage: 12 VDC
- Lamp: 1 watt LED, 6 watt maximum
- Maximum 6 lamp heads

Standard materials:

Power supply and remote luminaire enclosure:

- Krydon® fiberglass-reinforced polyester

LED lamp head assembly:

- Epoxy powder coated, aluminum

Exterior hardware:

- Nylon, plastic coated, and stainless steel

Cover gasket:

- Hypalon® synthetic rubber

Powering Business Worldwide

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Crouse-Hinds
1201 Wolf Street
Syracuse, NY 13208
Crouse-Hinds.com

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Light-Pak ELPS emergency lighting system

Cl. I, Div. 1, Groups B, C, D
Cl. II, Div. 1, Groups E, F, G

NEMA 3R

9L MELEXA

Applications:

Light-Pak™ ELPS emergency lighting systems are used:

- To provide safe, reliable illumination for egress areas during failure or interruption of power to the normal lighting system
- To illuminate machinery or panels during a loss of AC power
- In areas where flammable gases and vapors may become present due to abnormal, unusual or accidental conditions
- In manufacturing plants, refineries, petrochemical and chemical plants, waste and sewage treatment facilities, oil terminals, food processing facilities, breweries and other industrial manufacturing or process industry facilities subject to wet or corrosive conditions
- Where moisture, dirt, dust or corrosion will limit the life and reliability of ordinary emergency lighting systems
- Where required by the National Electrical Code, the Life Safety Code or other applicable codes
- In outdoor applications

Features:

- Copper-free aluminum enclosed, gasketed housing – provides corrosion protection in the most extreme environments
- Durable LED lamp head assemblies – provide protection against water ingress, corrosion and impact
- High temperature rated nickel cadmium battery for reliable operation up to +40°C ambient
- Reduced maintenance costs – self-test, monitoring and diagnostics reduce costly maintenance checks
- Remote mountable lamp heads – lamp heads can be mounted independently from the enclosure, allowing you to focus light where you need it
- Solid state battery charger – ensures long life and reliable battery operation; prevents deep discharge by automatically disconnecting the battery from the luminaire

Certifications and compliances:

NEC/CEC:

- Class I, Division 1, Groups B, C, D
- Class II, Division 1, Groups E, F, G
- NEMA 3R

UL standards:

- UL50E; UL844; UL924; UL1203; UL1598; UL8750

CSA standards:

- CSA C22.2 No. 141-10
- CSA C22.2 No. 137

NFPA:

- Life Safety Code NFPA101® - Section 5-9 (Emergency Lighting)

Standard materials:

- Power supply and remote luminaire enclosure – epoxy powder coated copper-free aluminum
- LED lamp head assembly – epoxy powder coated aluminum
- Exterior hardware – stainless steel
- Cover gasket – neoprene

Temperature performance data:

Cat. #	Class I & II, Division 1
ELPSM2 (all models)	T5

Note: Ambient temperature at which the emergency system is rated is 0°C to +40°C. Operation at temperatures outside this range will affect the battery life and/or charging performance.

Electrical ratings:

- **Power supply:**
  Input – 120-277 VAC, 50 or 60 Hz; 4W maximum
  Output – 12 VDC
- **LED luminaire heads:**
  Voltage – 12 VDC
  Lamp type – 2W LED, 4W maximum
  Maximum two lamp heads

Options:

Description	Suffix
• Key operated external battery disconnect switch	**S794**
• Keyless external battery disconnect switch	**S854**

Photometrics:

- Complete photometrics can be found at www.crouse-hinds.com/photometrics

Light-Pak ELPS emergency lighting system

Cl. I, Div. 1, Groups B, C, D
Cl. II, Div. 1, Groups E, F, G

NEMA 3R

Ordering information:

Part number example
ELPSM22EXSGBGN S794

ELPSM2 **2** **EXS** **GB** **GN** **S794**

Series

ELPSM2	Class I, Division 1 emergency luminaire

No. of integral luminaires

BLANK	No integral luminaires
2[A]	Two integral luminaires

Integral exit sign

BLANK	No integral exit sign
EXS[B]	Single sided integral exit sign
EXD[B]	Double sided integral exit sign

Exit sign luminaire[C]

BLANK	Groups C, D exit sign
GB	Groups B, C, D exit sign

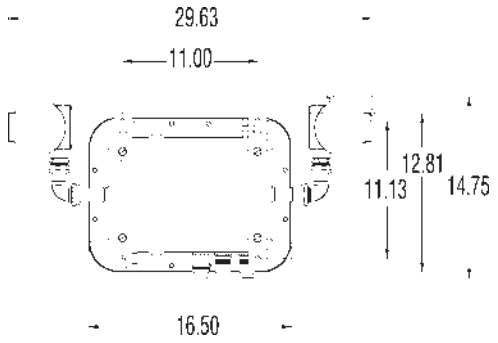
Exit sign letter color[C]

BLANK	Red lettering
GN	Green lettering

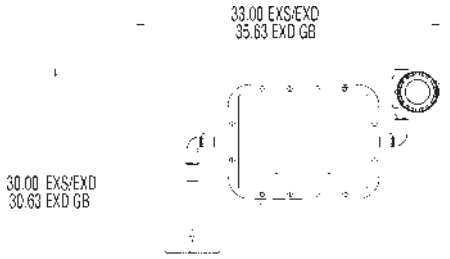
External battery disconnect switch

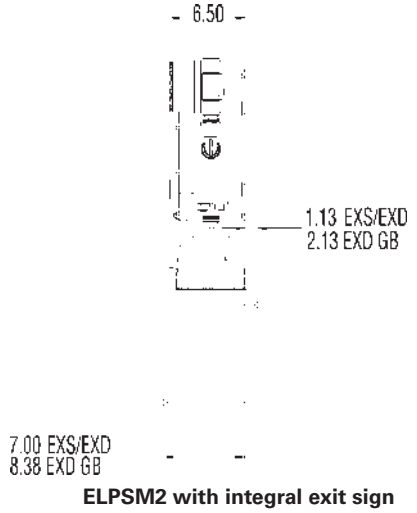
BLANK	No external battery disconnect switch
S794	Key operated external battery disconnect switch
S854	Keyless external battery disconnect switch

Dimensions (in inches):



Standard ELPSM2





ELPSM2 with integral exit sign

[A] Two luminaires comprised of either two lamp heads or one lamp head plus one exit sign lamp.
[B] Not UL or cUL Listed.
[C] Only applicable to assembly with EXS or EXD integral exit sign.