Vaporgard™ LED Series Luminaires

Leading the way in LED technology for industrial and hazardous applications

Cl. I, Div. 2, Groups A, B, C, D
Cl. II, Div. 1, Groups F, G
IECEx/ATEX

UL Listed & CSA Certified
Wet Location
NEMA 4X
IP66

The Vaporgard LED Family:

V2LC/UNV - Cool White Color Temperature

The V2LC/UNV Luminaire provides uniform crisp, white light and is suitable for lower mounting heights, confined spaces, tunnels, or utility rooms. Using four high power, high brightness LED arrays, this fixture can deliver similar light levels to 150 watt incandescent.

V2LW/UNV - Warm White Color Temperature

The V2LW/UNV Luminaire provides similar benefits as the cool white version, but with a color rendering more consistent with a warm incandescent or HPS lamp source. Perfect for situations where Vaporgard LED will be installed next to a warmer color light source.

DC Power Supply - Available for Applications Requiring DC Power

For applications with DC power requirements such as solar or back-up battery. The DC power supply is suitable for 12VDC through 24VDC.

Applications:

Vaporgard LED Luminaires are ideal for use in:

- Wet, dirty, dusty, corrosive, hot/cold conditions
- Hazardous locations
- Confined space or low ceiling areas, such as tunnels, utility rooms, over doorways or entries, top of 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

Vaporgard LED Benefits:

- Instant illumination and restrike
- Cold temperature operation; no warm-up time
- Multi-die LED arrays improve reliability
- Lightweight, low profile, and cool surface temperatures
- Driver with internal fusing for branch circuit protection
- 22 watt LED system can save up to 85% in energy costs
- 50K hours rated life can provide >10 years of maintenance-free lighting
- 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: -30°C
- Operating ambient: -30°C to 55°C (High Temperature Option)
- Dark sky compliant
- 5 year limited warranty*

Certifications and Compliances:

- RoHS Compliant
- DesignLights Consortium® Qualified (some models are not DLC qualified)†

NEC and CEC

- Class I, Division 2, Groups A, B, C, D
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- NEMA 4X

UL Standards

- IP66
- UL844
- UL1598A Marine
- UL1598 Wet Locations

CSA Standard

- CSA C22.2 No. 137

IECEx/ATEX

- Ex II 3 G Ex nA IIC T4 Gc (T4 at 55°C)
- Ex II 3 D Ex tc IIIB T69°C Dc IP66
- EN60079-0:2009, EN60079-15:2010, EN60079-31:2009

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
- Factory-sealed, no external seals required

LED System:

- (4) High brightness LED arrays
- Cool white (5600K), CRI 65
- Warm white (3000K), CRI 82
- 70% lumen maintenance (L_{70}) at 50K hours
- Junction temperature T_j <90°C ensures long life
- Array complies with requirements of IEC LM80

LED Drivers:

- Constant current regulated power supply
- 90VAC - 264VAC, 277VAC, 50/60Hz
- Internal fusing
- Active power factor correction, >0.9
- Low harmonic distortion, <20%
- Low inrush current, <20 amps
- EMC compliant to 47CFR, Part 2, Part 15
- 12VDC/24VDC option available

Options:

Description	Suffix
Frosted lens reduces glare in applications where the user may have direct visual contact with the light source (NEC version only)	**S891**
Teflon coating on lens provides additional shatter protection for applications in food and beverage facilities (NEC version only)	**S896**
High temperature option allows operation up to 55°C ambient temperature (AC unit only)	**S902**
Brazil (CEPEL) certification (IEC version only)	**BR**

Electrical Ratings:

	Series			
	V2LC/UNV1*	**V2LW/UNV1**	**V2LC/DC1**	**V2LW/DC1**
Voltage	90-264VAC, 277VAC	90-264VAC, 277VAC	12-24VDC	12-24VDC
Input Power (Watts)	22	22	22	22
Input Current	0.23 / 0.10	0.23 / 0.10	2.1 / 1.0	2.1 / 1.0
Power Factor	>0.9	>0.9	N/A	N/A
THD (I) (%)	<20%	<20%	N/A	N/A
Maintained Lumens	1633	1400	1633	1400
Efficacy, LPW	64	56	64	56
Color Temperature	5600K	3000K	5600K	3000K

*Refer to page 2 of the D-0914 authorized distributor price book for Crouse-Hinds standard Terms and Conditions.

†Approved models include V2LC/UNV1. Refer to www.designlights.org Qualified Products List under Family Models for full listing details. Not all models are approved for all application categories.

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Installation and replacement made simple

This contractor-friendly design is ideal for both retrofit and new construction applications. These luminaires are installed using the same wall and ceiling mounting modules as existing Vaporgard fixtures.

Safe, reliable heat transfer

Heat sink - engineered to safely and effectively remove heat from the LED and the driver, while providing durable protection for the optical elements of the fixture. This unique design increases overall flexibility of the luminaire by reducing both driver temperature and junction temperature of the LED arrays.

Easy Maintenance and Component Replacement

The compact and modular design of the Vaporgard LED allows for both easy component replacement and future upgrade.

Unique domeless, 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 the mechanical envelope required.

LED Arrays

Four high power multi-die LED arrays provide instant on and full illumination throughout specified operational temperature range. Since LEDs contain no filament or lamp, the fixture can survive even the harshest environmental conditions and exposure to high, repeated vibration.

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Ordering Information - NEC and CEC:

	Cool White		Warm White	
Mounting Style	**AC Drive**	**DC Drive**	**AC Drive**	**DC Drive**
½" Pendant*	**V2LCA1/UNV1**	**V2LCA1/DC1**	**V2LWA1/UNV1**	**V2LWA1/DC1**
¾" Pendant*	**V2LCA2/UNV1**	**V2LCA2/DC1**	**V2LWA2/UNV1**	**V2LWA2/DC1**
1" Pendant*	**V2LCA3/UNV1**	**V2LCA3/DC1**	**V2LWA3/UNV1**	**V2LWA3/DC1**
½" Wall with Junction Box	**V2LCHBF1/UNV1**	**V2LCHBF1/DC1**	**V2LWHBF1/UNV1**	**V2LWHBF1/DC1**
¾" Wall with Junction Box	**V2LCHBF2/UNV1**	**V2LCHBF2/DC1**	**V2LWHBF2/UNV1**	**V2LWHBF2/DC1**
½" Ceiling	**V2LCHF1/UNV1**	**V2LCHF1/DC1**	**V2LWHF1/UNV1**	**V2LWHF1/DC1**
¾" Ceiling	**V2LCHF2/UNV1**	**V2LCHF2/DC1**	**V2LWHF2/UNV1**	**V2LWHF2/DC1**
½" VXT Wall	**V2LCHT1/UNV1**	**V2LCHT1/DC1**	**V2LWHT1/UNV1**	**V2LWHT1/DC1**
¾" VXT Wall	**V2LCHT2/UNV1**	**V2LCHT2/DC1**	**V2LWHT2/UNV1**	**V2LWHT2/DC1**
½" VXW Wall*	**V2LCHW1/UNV1**	**V2LCHW1/DC1**	**V2LWHW1/UNV1**	**V2LWHW1/DC1**
¾" VXW Wall*	**V2LCHW2/UNV1**	**V2LCHW2/DC1**	**V2LWHW2/UNV1**	**V2LWHW2/DC1**
1¼" Stanchion*	**V2LCHJ4/UNV1**	**V2LCHJ4/DC1**	**V2LWHJ4/UNV1**	**V2LWHJ4/DC1**
Adapter Only**	**V2LCHR/UNV1**	**V2LCHR/DC1**	**V2LWHR/UNV1**	**V2LWHR/DC1**

*For use in Class I, Division 2 or Class II, Division 1, Groups F, G. For Class II, you must order complete catalog number (not available for purchase in components).
**For use when wall mount or ceiling mount box is already installed.

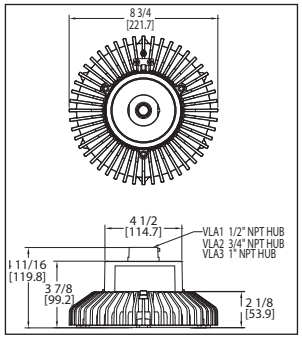
Ordering Information - IECEx/ATEX:

	Cool White	Warm White
Mounting Style	**AC Drive**	**AC Drive**
½" Pendant	**NV2LCA1/UNV1**	**NV2LWA1/UNV1**
¾" Pendant	**NV2LCA2/UNV1**	**NV2LWA2/UNV1**
1" Pendant	**NV2LCA3/UNV1**	**NV2LWA3/UNV1**
½" Wall with Junction Box	**NV2LCHBF1/UNV1**	**NV2LWHBF1/UNV1**
¾" Wall with Junction Box	**NV2LCHBF2/UNV1**	**NV2LWHBF2/UNV1**
½" Ceiling	**NV2LCHF1/UNV1**	**NV2LWHF1/UNV1**
¾" Ceiling	**NV2LCHF2/UNV1**	**NV2LWHF2/UNV1**
½" Wall	**NV2LCHT1/UNV1**	**NV2LWHT1/UNV1**
¾" Wall	**NV2LCHT2/UNV1**	**NV2LWHT2/UNV1**
1¼" Stanchion	**NV2LCHJ4/UNV1**	**NV2LWHJ4/UNV1**

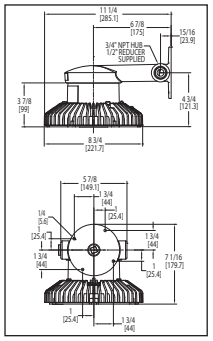
Note: For IEC applications, you must order complete catalog number (not available for purchase in components).

Dimensions:

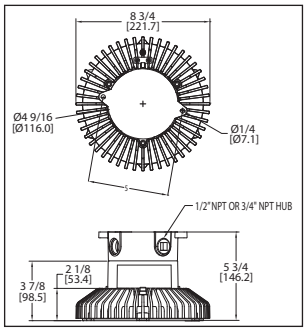
Pendant



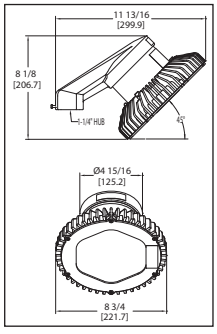
Wall



Ceiling



Stanchion



Weights:

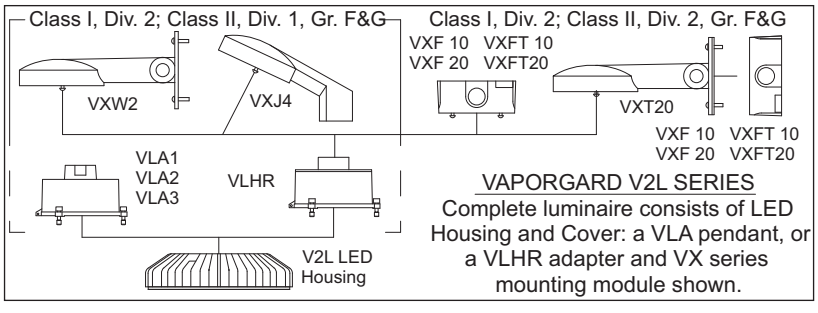
Luminaire & Mounting Module Weight	Lbs.
Pendant Mount	5.7
Ceiling Mount	6.8
Wall Mount	7.9
Stanchion Mount	6.5

Temperature Ratings:

	Max. Temp. °C	Temp. Rating†
V2LC/UNV1	40	T5
V2LC/UNV1 S902	55	T4A
V2LC/DC1	40	T5
NV2LC/UNV1	40	T4
NV2LC/UNV1 S902	55	T4

†Contact your local sales representative for warm white temperature ratings.

Family Tree:



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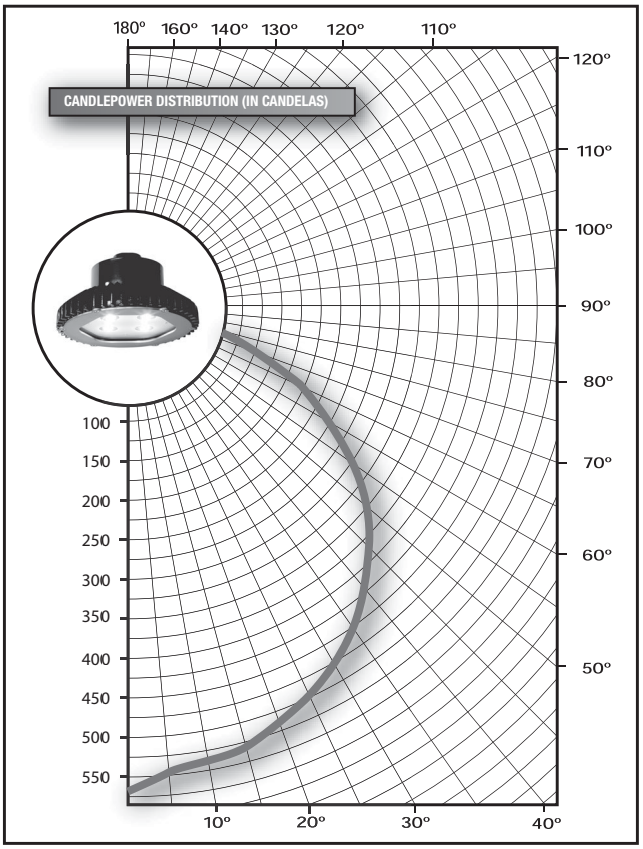
Photometric Data:

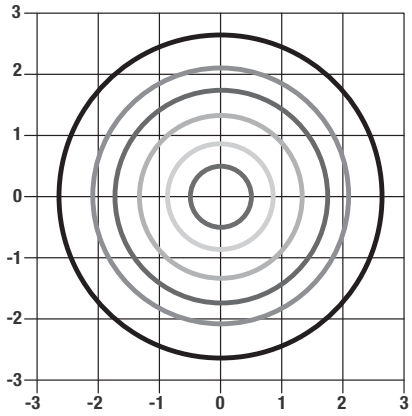
Vaporgard™ LED (22 Watt)



ZONAL LUMENS

ZONE	LUMENS	% LUMEN
0-30	468	28.65
0-40	772	47.30
0-60	1374	84.15
0-90	1633	100.00
40-90	860	52.70
60-90	259	15.85
90-180	0	0.00
0-180	1633	100.00

DISTANCE TO MOUNTING HEIGHT
Isofootcandle chart shows illuminance in foot-candles at ground level



ISOFOOTCANDLE CHART
Footcandle Values for Isofootcandle Lines

A B C D E F

Mtg. Hgt.	A	B	C	D	E	F
6'	10.00	5.00	2.00	1.00	0.50	0.20
8'	5.62	2.81	1.13	0.56	0.28	0.11
10'	3.60	1.80	0.72	0.36	0.18	0.07
12'	2.50	1.25	0.50	0.25	0.13	0.05
14'	1.84	0.92	0.37	0.18	0.09	0.04

Crouse-Hinds by EATON