

Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 2, Groups F, G
Zone 22, Group IIIB
Class III

NEC/CEC:

Type 3R, 4, 4X
Marine Outside Type- For USA Only ⌘
IP66/IP67
Suitable for Use in Wet Locations

Applications

- For use in locations where:
 - Flammable gases, vapors and dusts are present
 - A high degree of corrosion resistance is required
 - Protection against dirt, water and moisture is necessary
- Typical applications include:
 - Oil refineries
 - Petrochemical facilities
 - Pulp and paper mills
 - Food processing plants
 - Waste and sewer treatment
 - Underground tunnels
 - General manufacturing facilities

Features

- 60,000+ hour LED life for years of maintenance free operation.
- Lightweight design, hinged cover with captive screws, and terminal block wiring for easy installation and maintenance.
- Standard screw-type terminal block can accept UL/CSA 26 to 10 AWG wire.
- Contemporary, low profile design suitable for tight spaces.
- Field replaceable LED driver and lens.
- Industry-leading thermal management for safe, reliable operation over wide temperature range.
- Full range of lumen outputs, with light distribution equivalent to Appleton's FV Series fluorescent fixtures
- Easy to retrofit in same mounting footprint as Appleton's FV Series fluorescent fixtures.
- 2 opposing 3/4" NPT hubs with adjacent terminal blocks for thru wiring. (1) 3/4" NPT close up plug provided.

Options

- Universal, high efficiency, drivers cover voltage requirements for 120-277 Vac and 347-480 Vac, 50/60 Hz +/- 10%.
- Standard 2KV surge suppression.
- Safety cable for fall safe retention; add suffix **-C** to the end of the catalog number.
- Fusing is available;
 - Add suffix **-F** to the end of the catalog number. ⌘
- Diffused lens is available;
 - Add suffix **-D** to the end of the catalog number.
- For emergency battery backup refer to Viamaster LED Series Emergency Luminaires.

Standard Materials

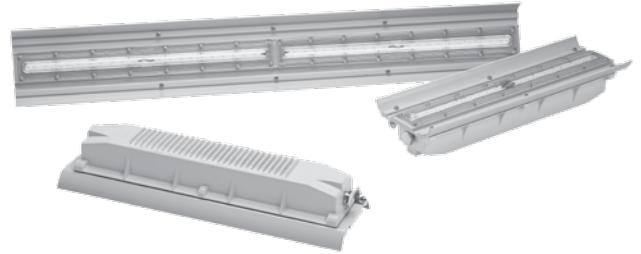
- Housing: copperfree (4/10 of 1% max.) aluminum
- Lens: thermal shock- and impact-resistant polycarbonate lens
- Gasket: silicone rubber, mechanically secured
- Bolts: stainless steel
- Close up plugs: nickel plated brass
 - Mounting hardware: See ordering information

Standard Finishes

- Housing: gray polyester

Related Products

- For ATEX/IECEx certified products, refer to Viamaster LED Series Luminaires for ATEX and IECEx Governed Locations



NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 8750, UL 844, UL1598A, UL50E
- cCSAus Certified: 065182. cULus E10444
- Ambient Temperature:
 - LU: 120-277 Volts: -40 °C up to +65 °C (-40 °F up to +149 °F)
 - BH: 347-480 Volts: -40 °C up to +65 °C (-40 °F up to +149 °F)
- DLC Qualified Products Listed

⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Luminaires

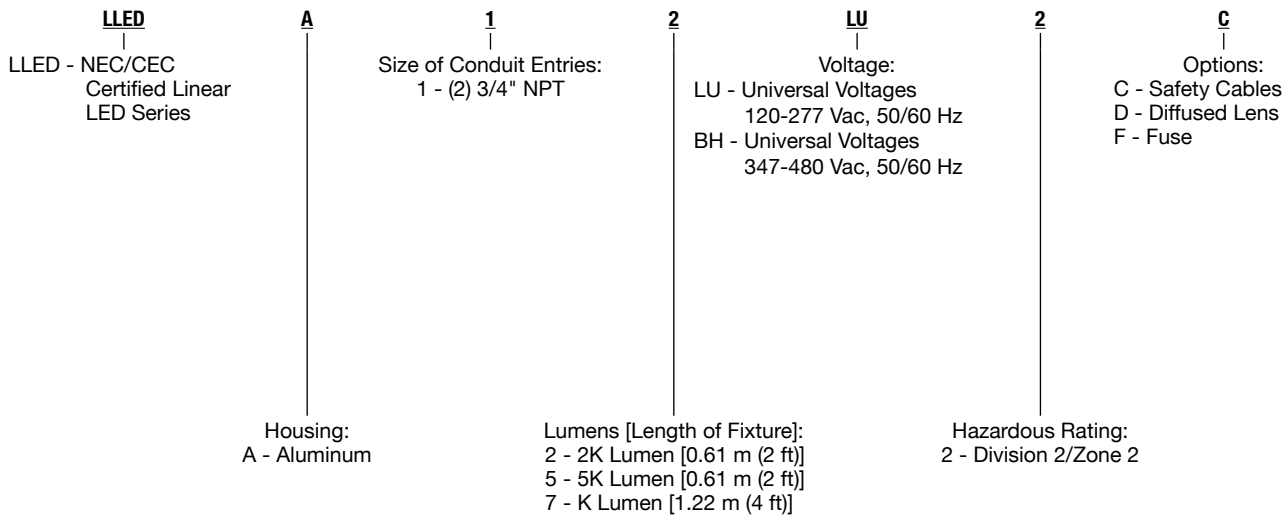
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Order using catalog numbering guides below or select catalog number from tables on following pages.

Catalog Numbering Guide – NEC/CEC Certified Linear LED



Appleton

LED/AREA: NEC/CEC, ATEX/IECx ENCLOSED AND GASKETED

Lamp Comparison Chart

Catalog Number	Line Current Amps	Input Power	Power Factor	THD	Lumens		CRI	Color Temp CCT	Length m (ft)
					Clear Polycarbonate	Diffused Polycarbonate			
NEC/CEC									
LLEDA12LU2	.20@120V	22	>0.95	<20%	2200	1800	70 typical	5650K	0.61 (2)
	.12@277V		>0.87						
LLEDA12BH2	.07@347V		>.95						
	.06@480V		>.77						
LLEDA15LU2	.37@120V	45	>.95	<20%	4400	3800	70 typical	5650K	0.61 (2)
	.17@277V		>.95						
LLEDA15BH2	.14@347V		>.95						
	.10@480V		>.95						
LLEDA17LU2	.70@120V	81	>.95	<20%	7800	6400	70 typical	5650K	1.22 (4)
	.31@277V		>.95						
LLEDA17BH2	.24@347V		>.95						
	.18@480V		>.95						

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Technical Data ①

Lamp		Ambient Temperature °C (°F)	Supply Wire Temperature °C (°F)	Gas		NEC/CEC		Dust	
Model	Type			Class I, Division 2 ②	Groups	Class I, Zone 2, AEx nA IIC, Ex nA IIC	Class II, Division 2 ③	Groups	
LLEDA12LU2	LED	40 (104)	75 (167)	T4	A, B, C, D	T4	T5	F, G	
		55 (131)	75 (167)	T4	A, B, C, D	T4	T5	F, G	
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
LLEDA12BH2	LED	40 (104)	75 (167)	T4A	A, B, C, D	T4	T6	F, G	
		55 (131)	75 (167)	T4A	A, B, C, D	T4	T5	F, G	
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
LLEDA15LU2	LED	40 (104)	75 (167)	T4A	A, B, C, D	T4	T5	F, G	
		55 (131)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
LLEDA15BH2	LED	40 (104)	75 (167)	T4	A, B, C, D	T4	T5	F, G	
		55 (131)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
LLEDA17LU2	LED	40 (104)	75 (167)	T4A	A, B, C, D	T4	T5	F, G	
		55 (131)	75 (167)	T5	A, B, C, D	T5	T4A	F, G	
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
LLEDA17BH2	LED	40 (104)	75 (167)	T4A	A, B, C, D	T4	T5	F, G	
		55 (131)	75 (167)	T4A	A, B, C, D	T4	T5	F, G	
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	

T Code data is per UL Certification.

“T” Numbers Represent the Maximum Internal Temperature ② or Maximum Surface Temperature ③

“T” #	NEC/CEC															
	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range °C (°F)	351-450 (664-842)	326-350 (619-662)	301-325 (574-617)	281-300 (538-572)	261-280 (502-536)	231-260 (448-500)	216-230 (421-446)	201-215 (394-419)	181-200 (358-392)	166-180 (331-356)	161-165 (322-329)	136-160 (277-320)	121-135 (250-275)	101-120 (214-248)	86-100 (187-212)	85 (185)

① T codes provided in catalog pages are based on worst case data.

② T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.

③ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and 2 as designated by the NEC.




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	Conduit/Cable Entries	Voltage	Weight kg (lb)	Catalog Numbers ①	
				Clear Polycarbonate	Diffused Polycarbonate
2,200 Lumens — 0.61 m (2 ft)					
	3/4" NPT (2)	120-277 Vac, 50/60 Hz	6.21 (13.7)	LLEDA12LU2	LLEDA12LU2D
	3/4" NPT (2)	347-480 Vac, 50/60 Hz		LLEDA12BH2	LLEDA12BH2D
4,400 Lumens — 0.61 m (2 ft)					
	3/4" NPT (2)	120-277 Vac, 50/60 Hz	6.35 (14.0)	LLEDA15LU2	LLEDA15LU2D
	3/4" NPT (2)	347-480 Vac, 50/60 Hz		LLEDA15BH2	LLEDA15BH2D
7,800 Lumens — 1.22 m (4 ft)					
	3/4" NPT (2)	120-277 Vac, 50/60 Hz	8.69 (19.15)	LLEDA17LU2	LLEDA17LU2D
	3/4" NPT (2)	347-480 Vac, 50/60 Hz		LLEDA17BH2	LLEDA17BH2D

① For optional safety cables, add suffix **-C** to the end of the catalog number. For optional fuse, add suffix **-F** to the end of the catalog number.

Example: LLEDA12LU2CDF.

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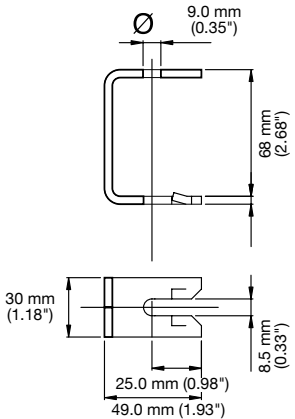
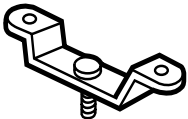
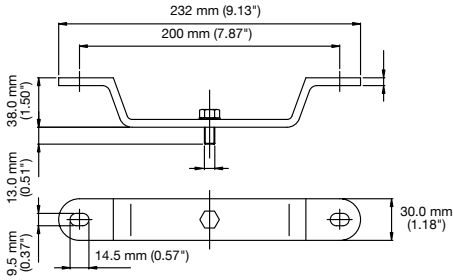
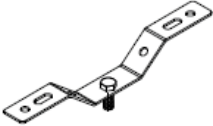
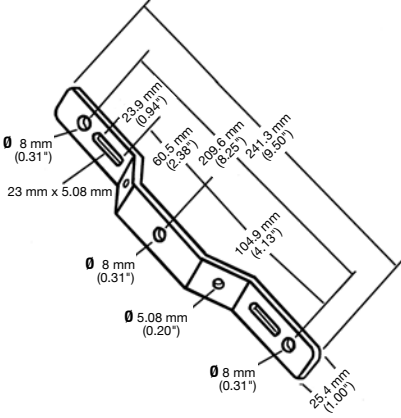
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Accessories and Replacement Parts

	Description	Catalog Numbers
Mounting Brackets – Set of Two		
		<p>Surface Mounting</p> <p>316 stainless steel</p> <p>FEFBS</p>
		<p>Surface Mounting</p> <p>Aluminium (gray painted) 316 stainless steel</p> <p>FESBA FESBS</p>
		<p>Surface Mounting</p> <p>14-gauge stainless steel</p> <p>FVSM</p>

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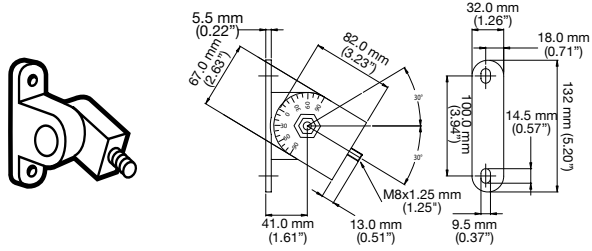
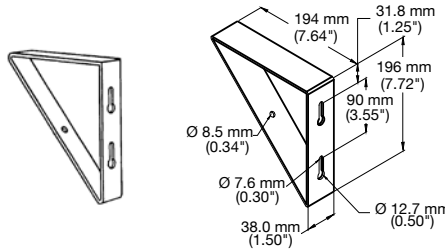
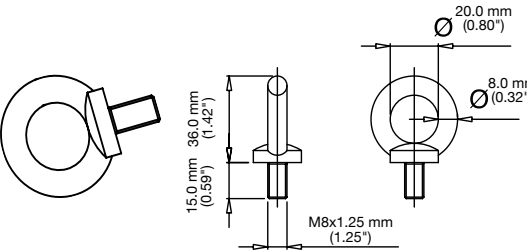
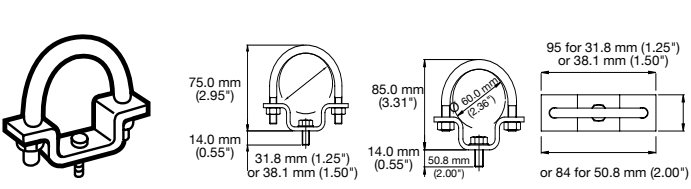
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	Description	Catalog Numbers
Mounting Brackets – Set of Two 	Hinged Brackets Aluminium	FEHBA
	Fixed 45° Wall Mount 11-gauge (1/8") stainless steel	FWWFM
	M8 Ring Bolts Zinc plated steel — For use with optional safety chain (not provided)	FERBM8Z
	Half Clamp Brackets for Pole Mounting For 42 mm to 49 mm pole (1-1/4 to 1-1/2" tube) Zinc plated steel 316 stainless steel For 60 mm pole (2" tube) Zinc plated steel 316 stainless steel	FEHC49Z FEHC49S FEHC60Z FEHC60S
Safety Cables – Set of Two	Safety Cables — Attached to fixtures to guard against them falling when the primary method of attachment fails.	LLEDSC
Replacement Drivers	120-277 Vac driver (-40 °C to +65 °C) 347-480 Vac driver	LLEDBU2 LLEDBH
Replacement Lenses	Clear Polycarbonate lens with an integral gasket Diffused lens with an integral gasket	LLEDCLP LLEDPL

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LED/AREA: NEC/CEC, ATEX/IECEx ENCLOSED AND GASKETED

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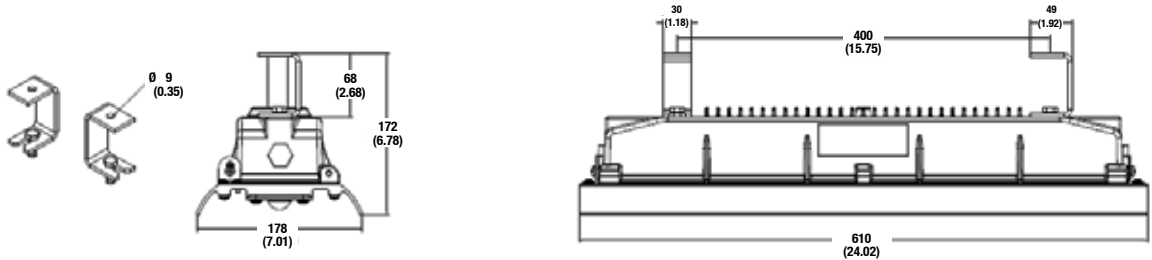
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Mounting Option Dimensions in Millimeters (Inches)

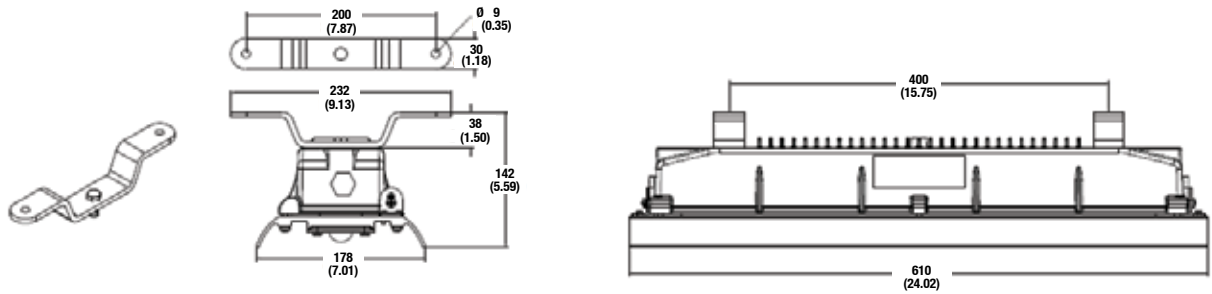
FEFBS

Ceiling/Surface Mount



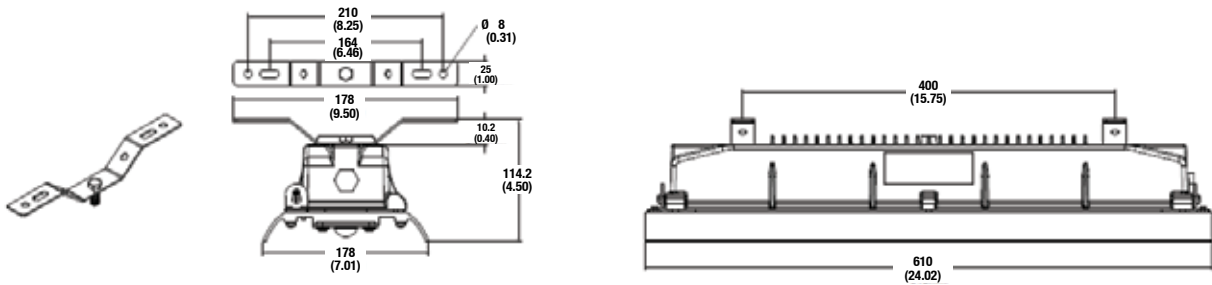
FESBA Aluminum (gray painted)
FESBS 316 stainless steel

Ceiling/Surface Mount



FVSM

Ceiling/Surface Mount



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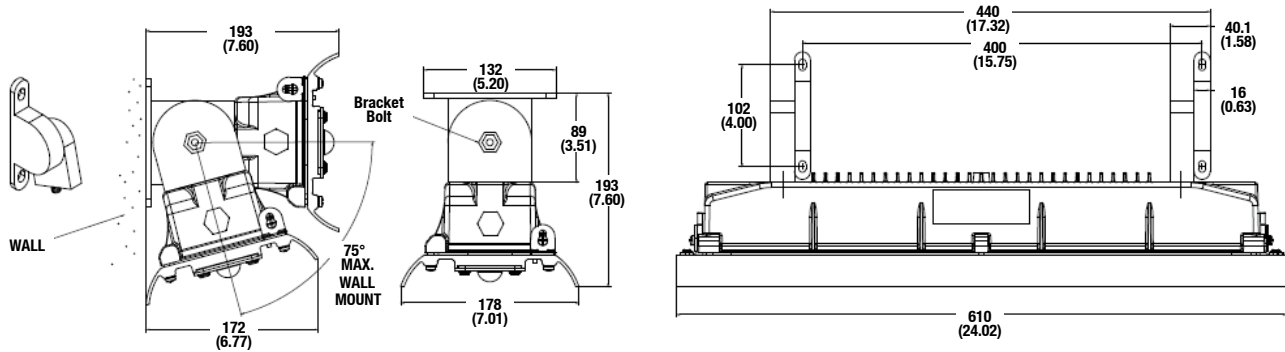
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Mounting Options (continued) Dimensions in Millimeters (Inches)

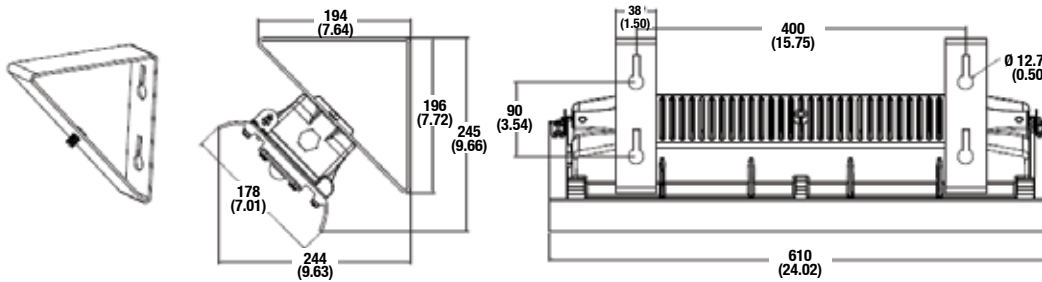
FEHBA

Wall/Hinged Mount



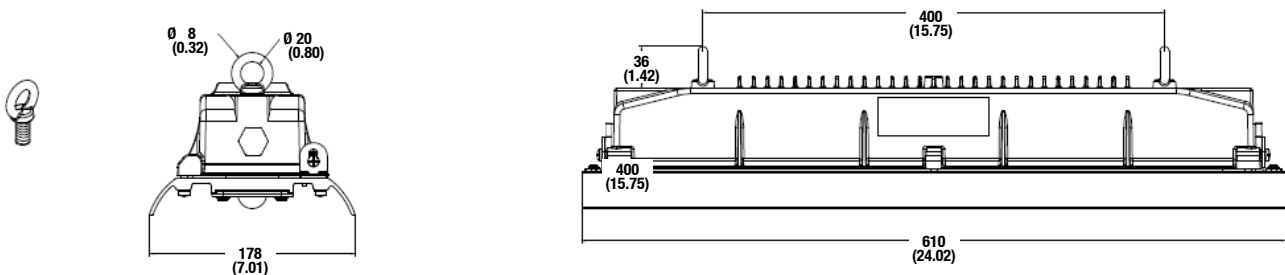
FWWFM

Wall/Fixed 45° Mount



FERBM8Z

Ceiling/Chain Mount



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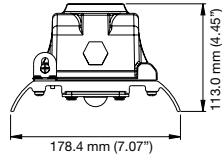
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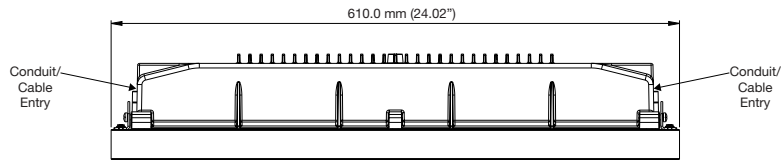
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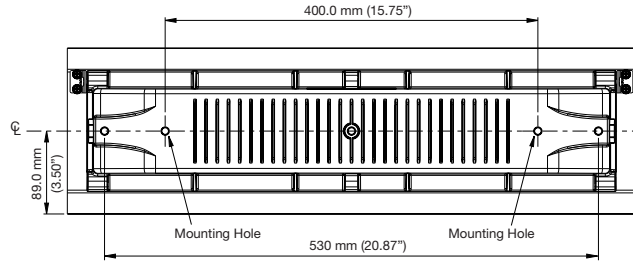
Luminaire Dimensions in Millimeters (Inches)



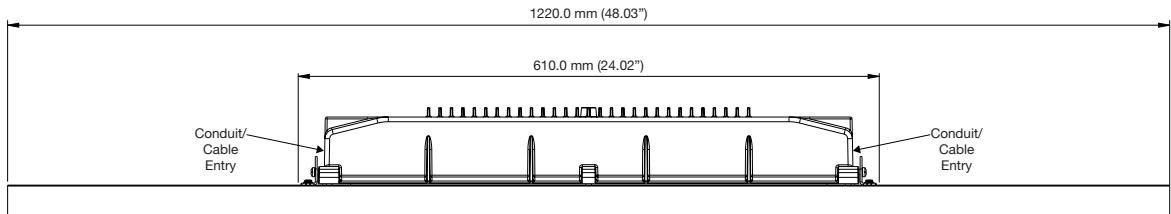
End View — 0.61 m (2 ft) and 1.22 m (4 ft) Versions



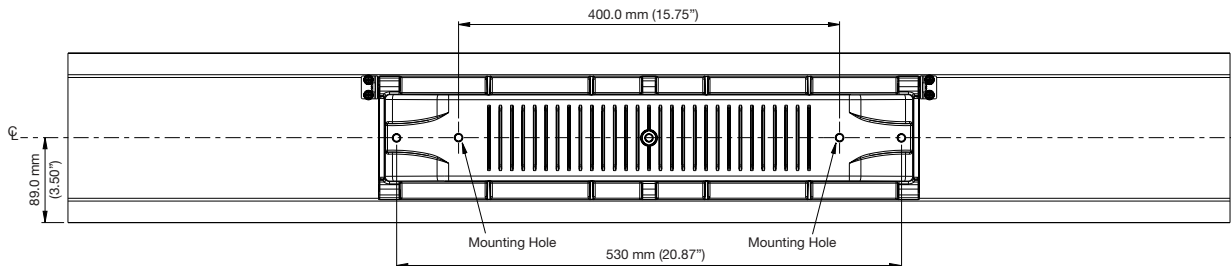
Side View — 0.61 m (2 ft) Versions



Top (Mounting) View — 0.61 m (2 ft) Versions



Side View — 1.22 m (4 ft) Version



Top (Mounting) View — 1.22 m (4 ft) Version

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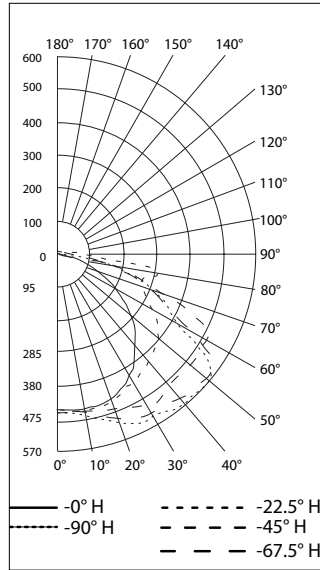
Photometric Data – DATA SHOWN IS ABSOLUTE

LLEDA12LU2 with Clear Polycarbonate Lens

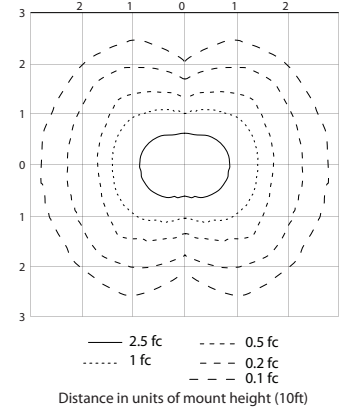
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	424.1	20.2	0-10	46.7	2.2
0-40	741.2	35.4	10-20	140.9	6.7
0-60	1521	72.6	20-30	236.4	11.3
60-90	573.3	27.4	30-40	317.2	15.1
0-90	2094	100.0	40-50	378.4	18.1
90-180	0.3	0.0	50-60	401.5	19.2
0-180	2095	100.0	60-70	324.6	15.5
			70-80	209.6	10.0
			80-90	39.1	1.9
			90-100	0.3	0.0

Polar Candela Distribution



Isoillumination Plot

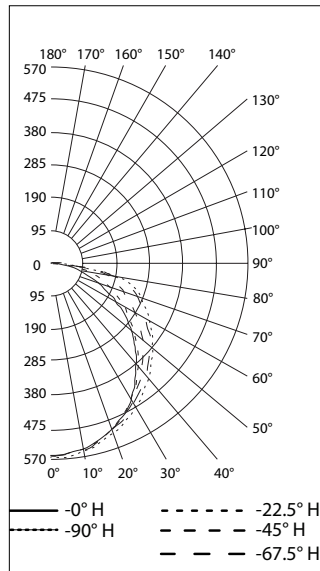


LLEDA12LU2D with Diffused Polycarbonate Lens

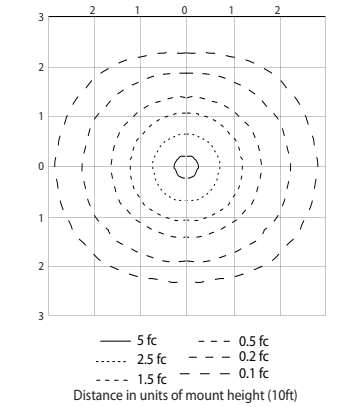
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	429.7	24.6	0-10	52.8	3.0
0-40	702.7	40.3	10-20	150.5	8.6
0-60	1264	72.4	20-30	226.5	13.0
60-90	482.0	27.6	30-40	272.9	15.6
0-90	1746	100.0	40-50	287.4	16.5
90-180	0.0	0.0	50-60	273.6	15.7
0-180	1746	100.0	60-70	236.9	13.6
			70-80	183.1	10.5
			80-90	62.1	3.6

Polar Candela Distribution



Isoillumination Plot



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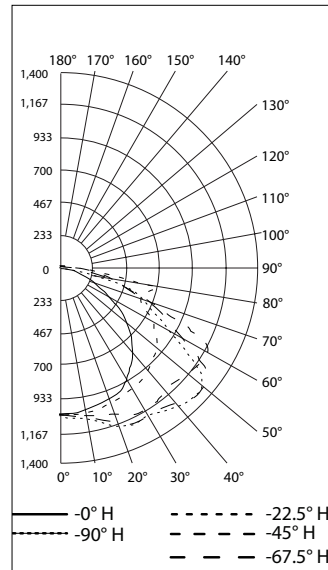
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LLEDA15LU2 with Clear Polycarbonate Lens

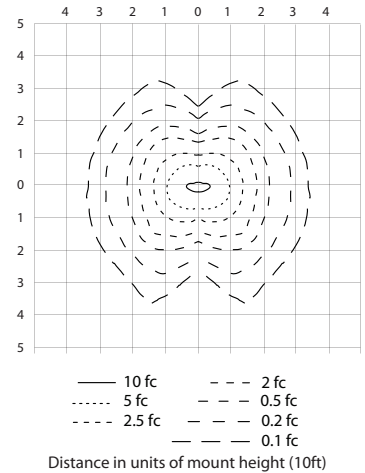
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	912.8	20.3	0-10	100.4	2.2
0-40	1593	35.5	10-20	303.6	6.8
0-60	3282	73.0	20-30	508.8	11.3
60-90	1206	26.8	30-40	680.0	15.1
0-90	4488	99.9	40-50	822.5	18.3
90-180	4.5	0.1	50-60	866.3	19.3
0-180	4492	100.0	60-70	682.0	15.2
			70-80	438.3	9.8
			80-90	85.9	1.9
			90-100	4.2	0.1
			100-110	0.3	0.0

Polar Candela Distribution



Isoillumination Plot

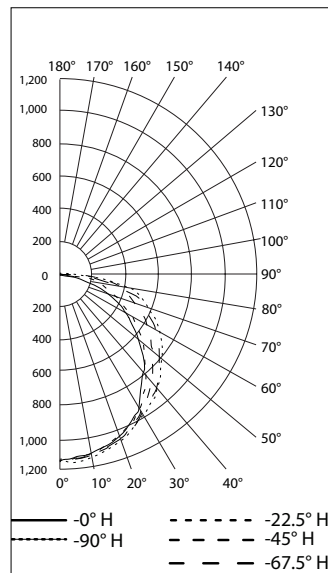


LLEDA15LU2D with Diffused Polycarbonate Lens

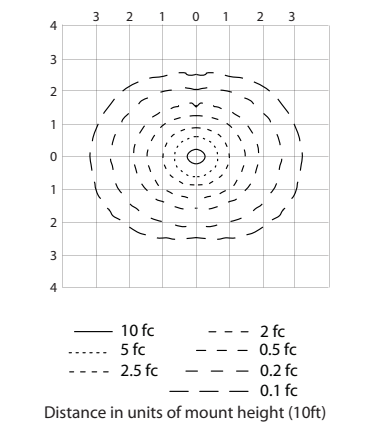
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	884.1	24.3	0-10	108.2	3.0
0-40	1450	39.8	10-20	308.9	8.5
0-60	2618	71.9	20-30	467.0	12.8
60-90	1017	27.9	30-40	565.5	15.5
0-90	3635	99.8	40-50	598.1	16.4
90-180	7.9	0.2	50-60	570.3	15.7
0-180	3643	100.0	60-70	494.4	13.6
			70-80	382.9	10.5
			80-90	139.8	3.8
			90-100	7.4	0.2
			100-110	0.5	0.0

Polar Candela Distribution



Isoillumination Plot



⚠ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Zone 22, Group IIIB
 Class III

NEC/CEC:
 Type 3R, 4, 4X
 Marine Outside Type- For USA Only ⌘
 IP66/IP67
 Suitable for Use in Wet Locations

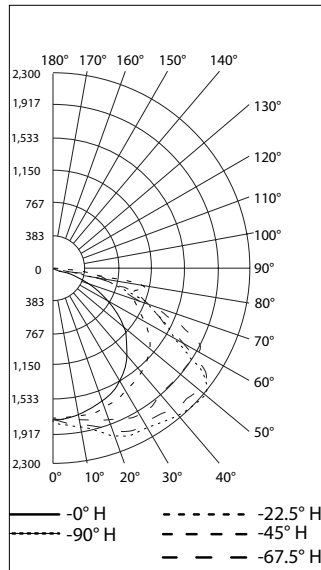
Photometric Data — DATA SHOWN IS ABSOLUTE

LLEDA17LU2 with Clear Polycarbonate Lens

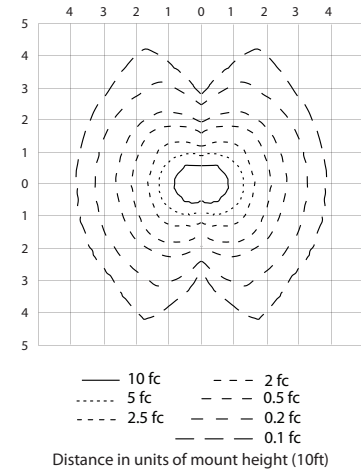
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1560	20.0	0-10	170.7	2.2
0-40	2728	34.9	10-20	518.4	6.6
0-60	5631	72.1	20-30	870.5	11.2
60-90	2171	27.8	30-40	1168	15.0
0-90	7802	100.0	40-50	1406	18.0
90-180	2.8	0.0	50-60	1497	19.2
0-180	7805	100.0	60-70	1229	15.7
			70-80	785.7	10.1
			80-90	156.6	2.0
			90-100	2.7	0.0

Polar Candela Distribution



Isoillumination Plot

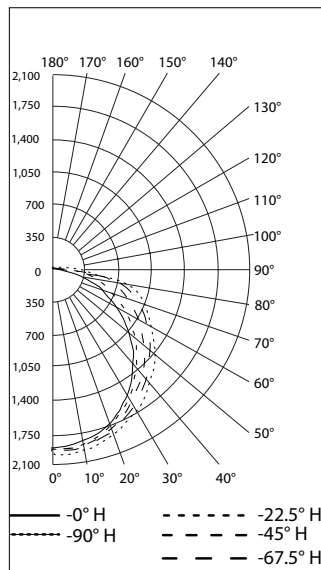


LLEDA17LU2D with Diffused Polycarbonate Lens

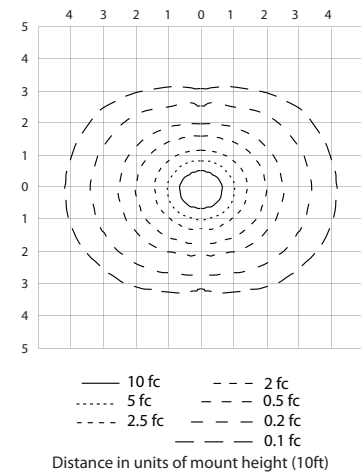
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1518	24.1	0-10	185.3	2.9
0-40	2494	39.5	10-20	529.7	8.4
0-60	4528	71.8	20-30	802.9	12.7
60-90	1775	28.1	30-40	976.2	15.5
0-90	6303	99.9	40-50	1038	16.5
90-180	3.4	0.1	50-60	995.8	15.8
0-180	6307	100.0	60-70	868.1	13.8
			70-80	673.7	10.7
			80-90	233.4	3.7
			90-100	3.4	0.1

Polar Candela Distribution



Isoillumination Plot



⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.