

Areamaster™ LED Flood/High Bay Luminaires

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA, Ex nA
Marine Outside (Salt Water)
Wet Locations
Type 4 and 3R

ATEX:
II 3 G
Ex nA IIC Gc T4
IP66

Applications

- Typical applications include:
 - Pulp and paper mills
 - Processing plants
 - Chemical plants
 - Oil refineries
 - Foundries
 - Storage areas
 - Waste and sewage treatment
 - Parking garages
 - Other areas where water, dirt and rough usage are a problem

Features

- Compact in size, attractively styled contemporary design, rugged and dependable.
- Easy to install and service.
- One-piece housing.
- One-piece lens in hinged cover. Secured by four M6 captive stainless steel slotted hex-head bolts.
- Thermal shock- and impact-resistant glass lens.
- Heavy duty, high temperature silicone rubber gasket, mechanically secured.
- Universal design for flood and highbay mounting.
- Floodlight Mounting:
 - Yoke mount, zinc plated steel yoke with architectural bronze polyester finish.
- High Bay Mounting:
 - (1) Conduit entry on back of luminaire with locking set screw.
 - Rotate yoke up or remove.
- Chain Mounting:
 - Mounts via eyebolts threaded into the corners of the fixture.
 - Available with chain mounting, or as an accessory.
 - Rotate yoke up or remove.
- Cool operating temperatures translate into long luminaire life.
- NEC/CEC versions available with a total of three (3) 3/4" NPT entries with integral bushings.
- ATEX version provided with one (1) 3/4" NPT/M20 adapter and two (2) close up plugs.
- Two (2) 3/4" NPT aluminum close up plugs provided.
- Electrical:
 - NEC/CEC: 120-277 Vac, 50/60 Hz; 347-480 Vac, 50/60 Hz.; 250 Vdc
 - ATEX: 220-240 Vac, 50/60 Hz.
- Terminal block (screw type for secure connection) can accept UL/CSA 24-10AWG and IEC 0.2 - 4 mm².

Standard Materials

- Ballast housing and lens door: copperfree (4/10 of 1% max.) aluminum
- Gasket: silicone rubber
- Reflector: metallized high reflectance finish
- Yoke mount: zinc plated steel
- Bolts: stainless steel
- Close up plugs: (2) aluminum provided

Standard Finishes

- Housing, lens cover and yoke mount: architectural bronze polyester



Floodlight



High Bay

Certifications and Compliances

- NEC/CEC
 - UL Standard: UL 1598, UL 1598A, UL 8750, UL 844
 - CSA Standards: C22.2 No. 250.0, C22.2 No. 137
 - cCSAus
 - NEMA 3R, 4
- ATEX
 - Gas
 - Conforming to ATEX 94/9/EC: II 3 G
 - ATEX Protection: Ex nA IIC
 - T Rating: T4 (Ta ≤ +40 °C) (Ta ≤ +104 °F)
 - Ambient Temperature: -25 °C ≤ Ta ≤ 40 °C (-13 °F ≤ Ta ≤ 104 °F)
 - ATEX Certificate: DEMKO 12 ATEX 1225382
 - Index of Protection: IP66
 - CE Declaration of Conformity: 12-01
 - Ex Standards: EN / IEC 60079-0 2009; 60079-15:2010
 - Product Standards: EN / IEC 60598-1; 60598-2-22
 - EMC Standards: EN / IEC 55015; 61547
 - Other Standards: EN / IEC 60529; 1991/A1 2000 (IP)

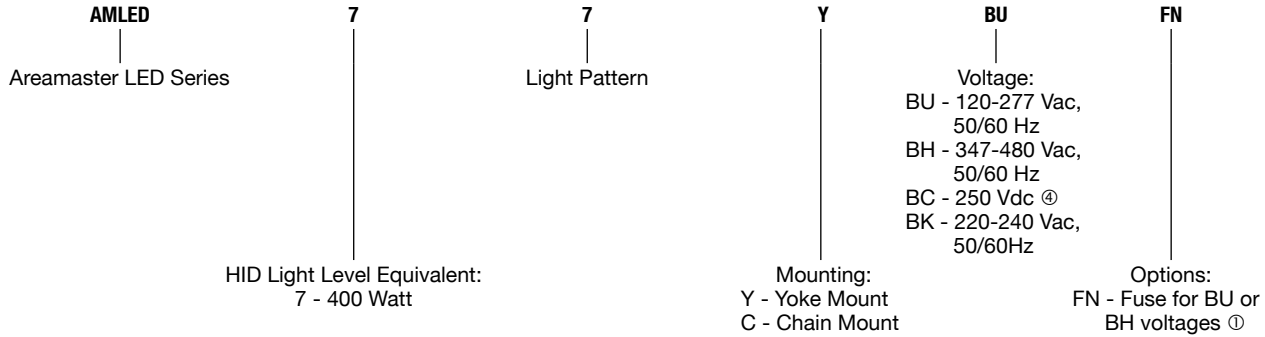
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Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide



Technical Data

Lamp			Ambient Temperature (°F/°C)	Supply Wire Temperature (°F/°C)	NEC/CEC				ATEX	
Catalog Number	Line Voltage	Type			Class I, Division 2 ②	Gas Groups	Class I, Division 2; Class I, Zone 2 ③	Dust Groups	Zone 2 Ex II 3G ② Ex nA	Gas Subdivision
AMLED77YBU	120-277 Vac	LED	104/40	140/60	T4	A, B, C, D	T4	A, B, C, D		
AMLED77YBH	347-480 Vac	LED	104/40	140/60	T4	A, B, C, D	T4	A, B, C, D		
AMLED77YBC	250 Vdc	LED	104/40	140/60	T4	A, B, C, D	T4	A, B, C, D		
AMLED77YBK	220-240 Vac	LED	104/40	140/60	T4	A, B, C, D	T4	A, B, C, D	T4	IIC

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

NEC/CEC																
“T” #	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range (°C)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85

IEC								
“T” #	T1	T2			T3	T4	T5	T6
Temp. Range (°C)	301-450	201-300			136-200	101-135	86-100	85

① Canadian Electrical Code does NOT allow fusing in hazardous locations ✖. Fuse not CEC rated.

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 Class I, Zone 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.

④ Includes 250 Vdc fuse, 10 Amp. Canadian Electrical Code does NOT allow fusing in hazardous locations ✖. Fuse not CEC rated.


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Electrical Specifications

Catalog Number	Voltage Range Vac	Hz	Watts Input Power (Nom.)	Input Amps (Max.)	Total Harmonic Distortion	Power Factor
AMLED77YBU	120 - 277	50/60	127	1.40 - 0.60	5.5% - 11.0%	> 0.90
AMLED77YBH	347 - 480	50/60	127	0.50 - 0.36	7.5% - 9.0%	> 0.90
AMLED77YBC	250 Vdc	—	127	0.67	9.0%	> 0.90
AMLED77YBK	220 - 240	50/60	127	0.73 - 0.69	9.0% - 10.0%	> 0.98





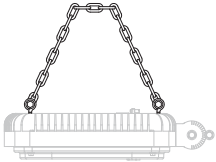
	Line Voltage	NEC/CEC	Catalog Number	ATEX
	120-277 Vac, 50/60 Hz		AMLED77YBU	—
	347-480 Vac, 50/60 Hz		AMLED77YBH	—
	250 Vdc		AMLED77YBC	—
	220-240 Vac, 50/60 Hz	—		AMLED77YBK

LIGHTING: ENCLOSED AND GASKETED – FLOODLIGHT

Lighting

Areamaster™ LED Flood/High Bay Luminaire Accessories

Accessories

	Description	Catalog Numbers
Crossarm Mounting Bracket		
	Has 180° horizontal adjustment — degree marked. Facilitates mounting floodlight to crossarm or other flat surface, or to G-AM-8-WB. Includes floodlight yoke bolts. Malleable iron, zinc plated, chromate sealed, architectural bronze polyester finish.	G-AM-8-CA
Pipe or Wall Mount Bracket		
	Used with G-AM-8-CA. Clamps to 1" to 2-1/2" pipe, vertical or horizontal, or mounts on flat surfaces. Includes U-bolt and crossarm bracket bolts. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish.	G-AM-8-WB
Poletop Slip-Fitter		
	Slip-fits 1-1/2" or 2" pipe size poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Body is malleable iron-zinc plated, chromate sealed, with cast aluminum cap. Assembly has architectural bronze polyester finish.	G-SF20
Poletop Slip-Fitter		
	Slip-fits 2" or 2-1/2" poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish.	G-AM-8-SF
Chain		
	Chain mount assembly comes with two (2) 36" (914.4 mm) long chains, four (4) eye bolts, four (4) hex bolts, four (4) lock washers, four (4) hex nuts, eight (8) plain washers and an instruction sheet for complete assembly and mounting. Chains are galvanized steel, eye bolts are zinc plated steel, all other hardware is stainless steel.	AMLEDCM

LIGHTING: ENCLOSED AND GASKETED — FLOODLIGHT

Lighting

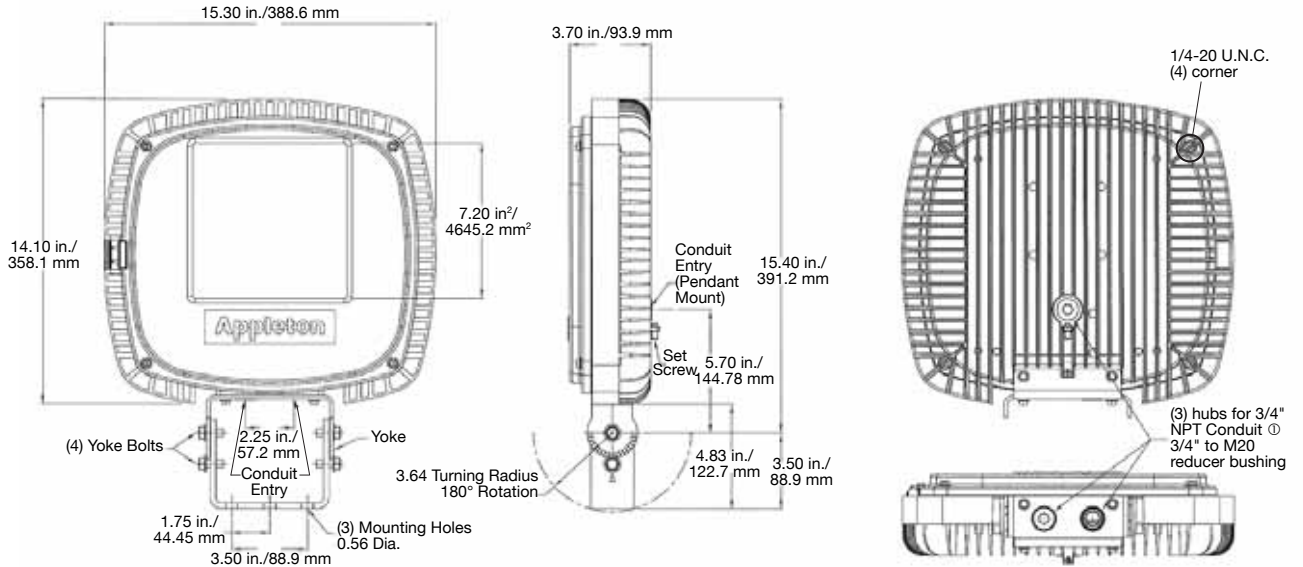
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 **Appleton®**

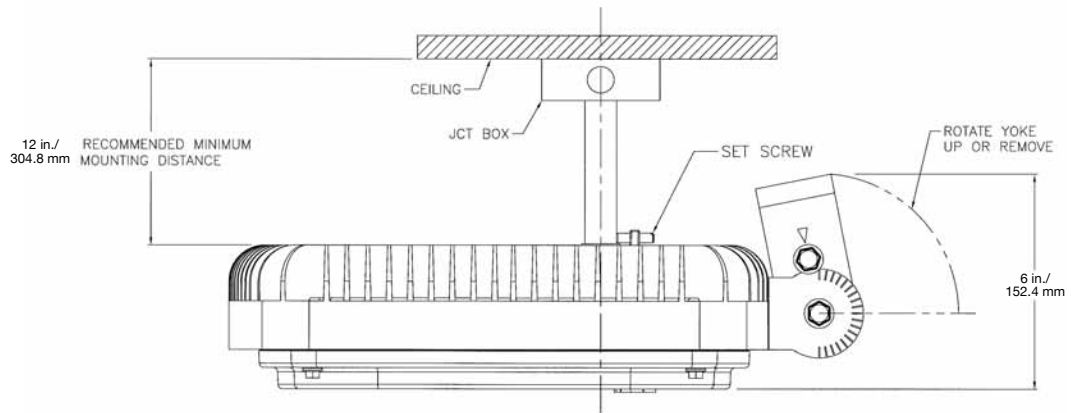
Areamaster™ LED Flood/High Bay Luminaire Dimensions

Dimensions in Inches/Millimeters

Floodlight



High Bay Pendant Mount



Ⓞ 3/4" NPT/M20 adapter supplied for ATEX version.

Areamaster™ LED Flood Luminaire Photometric Data

DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **AMLED77YBU_FLOOD**

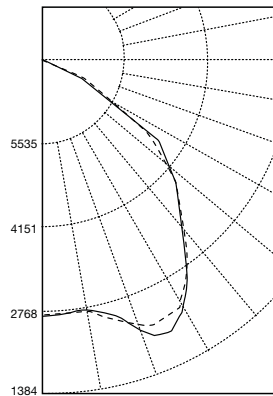
Lamps: Areamaster, Pendant Mount, LED Board 60 LEDs, Specular Reflector 6-1/2 X 6-1/2 Tapered To 3-1/2 X 3-1/2, Lens Clear

Characteristics: NEMA Type: 7Hx7V; Maximum Candela: 5535; Maximum Candela Angle: 25.5H 25.5V; Horizontal Beam Angle (50%): 97.7; Vertical Beam Angle (50%): 100.3; Horizontal Field Angle (1 0%): 131.2; Vertical Field Angle (10%): 133.5; Beam Lumens 10165; Field Lumens 12894; Spill Lumens 327; Luminaire Lumens 13221

AXIAL CANDELA

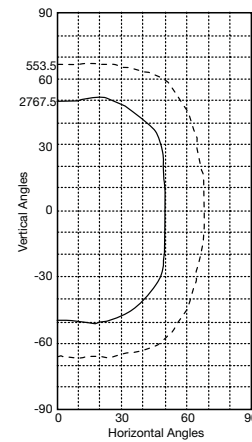
DEG.	HOR.	VERT.
90	0	0
85	24	3
75	35	7
65	803	690
55	2179	2348
47.5	3011	3017
42.5	3457	3371
37.5	3969	3916
33	4390	4432
29	4697	4785
25.5	4714	4992
22.5	4765	4932
19.5	4619	4726
17	4514	4452
15	4435	4350
13	4338	4262
11	4241	4214
9	4201	4183
7	4199	4198
5	4186	4207
3	4186	4212
1	4205	4212
0	4210	4210

AXIAL CANDELA DISPLAY



Maximum Candela= 5535
 Located At Horizontal Angle= 25.5, Vertical Angle= 25.5
 H – Horizontal Axial Candela
 V– Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 5535
 Located At Horizontal Angle = 25.5, Vertical Angle = 25.5
 50% Maximum Candela= 2767.5
 10% Maximum Candela= 553.5

LIGHTING: ENCLOSED AND GASKETED – FLOODLIGHT

Lighting

1160

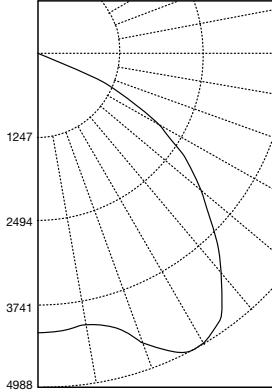


Areamaster™ LED High Bay Luminaire Photometric Data

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.62
90-270	1.62
Diagonal	1.58

Zone	Lumens
0-10	392.42
10-20	1209.56
20-30	2247.25
30-40	2948.69
40-50	2877.3
50-60	2353.25
60-70	1099.01
70-80	67.93
80-90	3.95
90-100	1.09
100-110	1.06
110-120	1.24
120-130	1.89
130-140	2.22
140-150	1.67
150-160	1.05
160-170	0.33
170-180	0.11



Maximum Candela= 4988
 Located At Horizontal Angle= 0, Vertical Angle= 27.5

REPORT NUMBER: AMLED77YBU_HIGHBAY

Lamps: Areamaster, High Bay Mount,
 LED Board 60 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Coefficients of Utilization – Zonal Cavity Method
 Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	% Walls	Rw	80		70			50			30			10			0		
			70	50	30	10	70	50	30	10	50	30	10	50	30	10	0		
0	0	0	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	1	111	107	103	108	105	101	99	100	98	96	97	95	93	93	91	90	88	
2	2	102	95	89	99	93	88	83	90	85	81	86	83	79	83	80	78	76	
3	3	94	84	77	91	83	76	70	80	74	69	77	72	68	75	70	67	65	
4	4	86	75	67	84	74	66	60	71	65	59	69	63	59	67	62	58	56	
5	5	79	67	59	77	66	58	52	64	57	52	62	56	51	60	55	50	48	
6	6	73	60	52	71	59	51	45	58	50	45	56	50	45	54	49	44	42	
7	7	67	54	46	66	54	46	40	52	45	40	51	44	39	49	44	39	37	
8	8	63	50	41	61	49	41	36	48	40	35	46	40	35	45	39	35	33	
9	9	58	45	37	57	45	37	32	44	37	32	43	36	31	42	36	31	30	
10	10	55	42	34	53	41	34	29	40	33	29	39	33	28	38	32	28	27	

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-20	1601.98	N.A.	12.1	60-80	1166.94	N.A.	8.8
0-30	3849.23	N.A.	29.1	70-80	67.93	N.A.	0.5
0-40	6797.92	N.A.	51.5	80-90	3.95	N.A.	0.0
0-60	12028.47	N.A.	91.1	90-110	2.15	N.A.	0.0
0-80	13195.42	N.A.	99.9	90-120	3.38	N.A.	0.0
0-90	13199.36	N.A.	99.9	90-130	5.28	N.A.	0.0
10-90	12806.94	N.A.	96.9	90-150	9.17	N.A.	0.1
20-40	5195.93	N.A.	39.3	90-180	10.66	N.A.	0.1
20-50	8073.24	N.A.	61.1	110-180	8.51	N.A.	0.1
40-70	6329.57	N.A.	47.9	0-180	13210.02	N.A.	100.0

LIGHTING: ENCLOSED AND GASKETED – FLOODLIGHT

Lighting