

# AMLED Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 8300, 13200 and 19000 lumens

Zone 2 - 21 and 22  
Gas (G) and Dust (D)

## Applications

- Typical applications include:
  - Pulp and paper mills
  - Processing plants
  - Chemical plants
  - Oil refineries
  - Foundries
  - Food processing plants
  - 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 standard.
- Diffused polycarbonate lens available as an option.
- Heavy duty, high temperature silicone rubber gasket, mechanically secured.
- Universal design for flood and high bay mounting.
- Floodlight Mounting:
  - Yoke mount, zinc plated steel yoke with architectural bronze polyester finish.
- High Bay Mounting:
  - One 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.
- Three 3/4" NPT threaded Entries with two 3/4" NPT aluminum close up plugs provided.
- Electrical:
  - 120-277 Vac, 50/60 Hz
- Terminal block (screw type for secure connection) can accept 0.2 - 4 mm<sup>2</sup>.

## Standard Materials

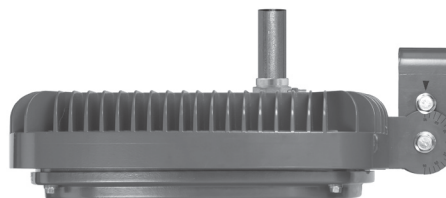
- Housing and lens door: copperfree (4/10 of 1% max.) aluminum
- Gasket: silicone rubber
- Reflector: metallized high reflectance finish
- Yoke mount: zinc plated steel
- Bolts: stainless steel
- Close up plugs: (2) aluminum provided

## Standard Finishes

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



Floodlight



High Bay

## Certifications and Compliances

### ◆ ATEX/IECEx Certification

- **Certification Type AMLED**
  - Gas: Zone 2
    - Conforming to ATEX 94/9/EC: Ⓔ II 3 G
    - Protection Level: EPL Gc
    - Type of Protection: Ex nA IIC
    - Temperature class: *See Table on following page*
  - Dust: Zones 21 and 22
    - Conforming to ATEX 94/9/EC: Ⓔ II 2 D and II 3D
    - Protection Level: EPL Db and Dc
    - Type of Protection: Ex tb IIIC and Ex tc IIIC
    - Temperature class: *See Table on following page*
- EC Declaration of Conformity: 50307
- ATEX Certificate:
  - Zone 2/22: LCIE 14 ATEX 1016X
  - Zone 21: LCIE 14 ATEX 3049X
- IECEx Certificate: IECEx LCIE 14.0030X
- Ambient Temperature: -40 °C to +55 °C
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK08

### ◆ EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

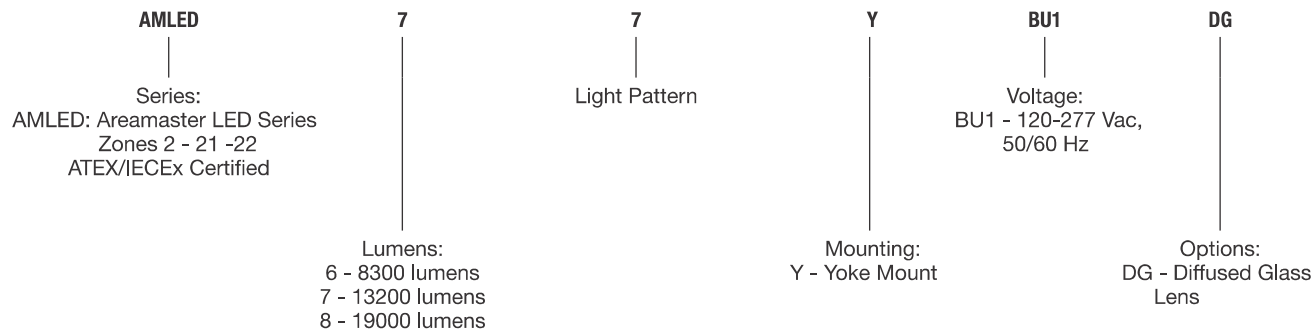
# AMLED Areamaster™ LED Flood/High Bay Luminaires

## For Hazardous Locations. 8300, 13200 and 19000 lumens

Zone 2 - 21 and 22  
Gas (G) and Dust (D)

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

### Catalog Numbering Guide — ATEX/IECEx Certified Areamaster LED



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## Technical Data – Ambient Temperature Ta °C

Lighting Position Ta	GAS (Zone 2) Temperature Class / Cable T°						DUST (Zones 21–22) Surface Temperature					
	Downward		Wall Mounting		Upward		Downward		Wall Mounting		Upward	
	+40°C	+55°C	+40°C	+55°C	+40°C	+55°C	+40°C	+55°C	+40°C	+55°C	+40°C	+55°C
AMLED67YBU1	T4 114°C	T4 129°C	T4 109°C	T4 124°C	T4 117°C	T3 132°C	68°C	83°C	67°C	82°C	70°C	85°C
AMLED77YBU1	T3 144°C	T3 159°C	T3 146°C	T3 161°C	T3 150°C	T3 165°C	75°C	90°C	74°C	89°C	77°C	92°C
AMLED87YBU1	T3 178°C	T3 193°C	T3 176°C	T3 191°C	T3 183°C	T2 198°C	83°C	98°C	82°C	97°C	87°C	102°C

## Electrical Specifications – Flood Mount

Catalog Number	Voltage Range	Frequency (Hz)	Watts Input Power (Nom.)	Input Amps (Max.)	Total Harmonic Distortion	Power Factor
AMLED67YBU1	120-277 Vac	50/60 Hz	76/74 W	0.64 - 0.32 A	0.5	> 0.98
AMLED77YBU1	120-277 Vac	50/60 Hz	125/121 W	1.10 - .047 A	0.5	> 0.98
AMLED87YBU1	120-277 Vac	50/60 Hz	174/169 W	1.60 - 0.70 A	0.5	> 0.98






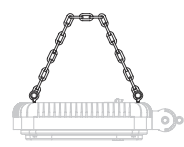
	Line Voltage	Catalog Number
	120-277 Vac, 50/60 Hz	AMLED67YBU1
	120-277 Vac, 50/60 Hz	AMLED77YBU1
	120-277 Vac, 50/60 Hz	AMLED87YBU1

Shaded catalog numbers are normally stocked items. All other items are made to order.

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Accessories and Replacement Parts		
	Description	Catalog Number
<b>Crossarm Mounting Bracket</b>		
	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.	GAM8CA
<b>Pipe or Wall Mount Bracket</b>		
	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.	GAM8WB
<b>Poletop Slip-Fitter</b>		
	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.	GSF20
	Slip-fits 1" or 1-1/2" 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.	AMLEDSF1
<b>Poletop Slip-Fitter</b>		
	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.	GAM8SF
<b>Chain</b>		
	Chain mount assembly comes with two (2) 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
Description		
LED Array		Catalog Number
With White LED's for the AMLED67		AMLED67AW
With White LED's for the AMLED77		AMLED77AW
With White LED's for the AMLED87		AMLED87AW
Drivers		
120 - 277 Vac — BU1 Version — AMLED87: Left Side — AMLED67, AMLED77		AMLEDDBU1L
120 - 277 Vac — BU1 Version — AMLED87: Right Side		AMLEDDBU1R
Door Assembly		
With a Glass Lens, Pins		AMLEDMDOOR

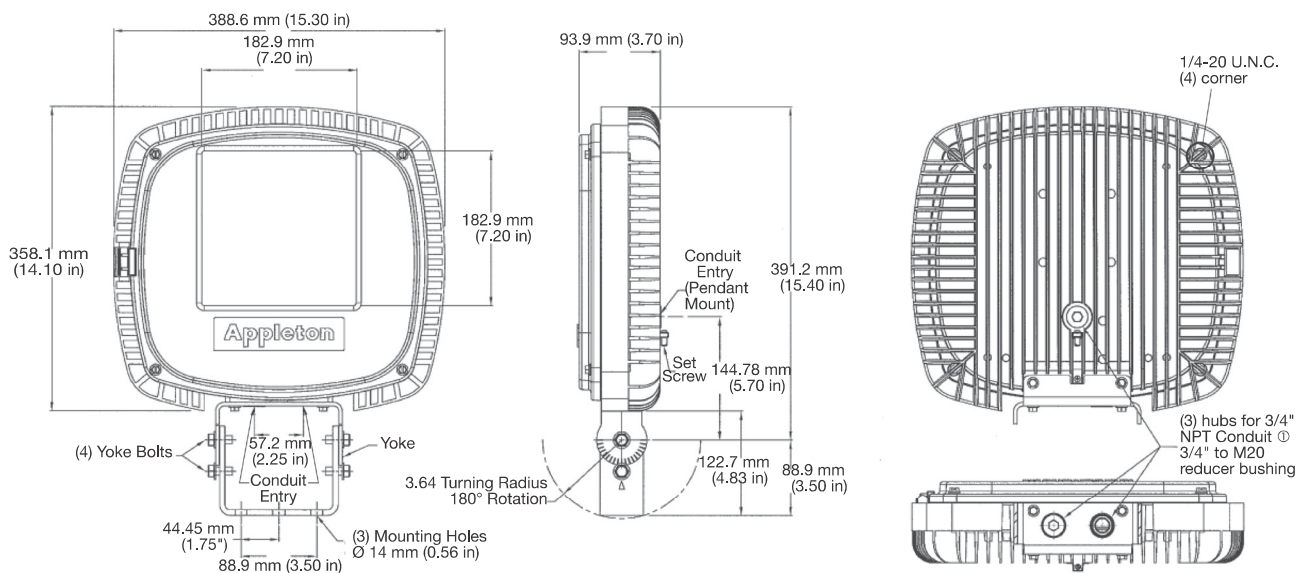
# AMLED Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 8300, 13200 and 19000 lumens

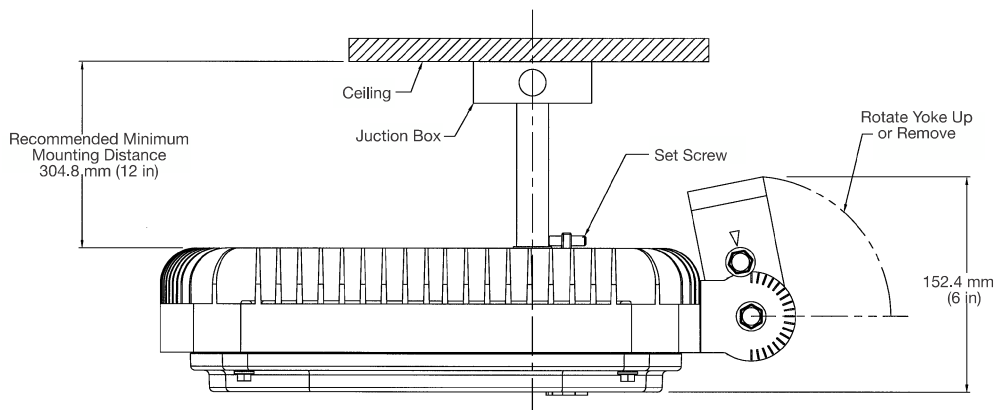
Zone 2 - 21 and 22  
Gas (G) and Dust (D)

## Dimensions in Millimeters (Inches)

### Floodlight



### High Bay Pendant Mount



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

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## For Hazardous Locations. 8300, 13200 and 19000 lumens

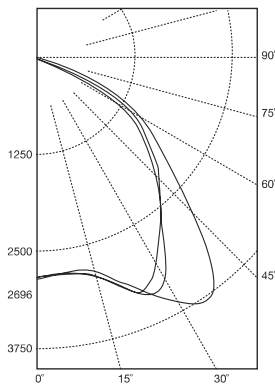
Zone 2 - 21 and 22  
Gas (G) and Dust (D)

### Photometric Data — DATA SHOWN IS ABSOLUTE

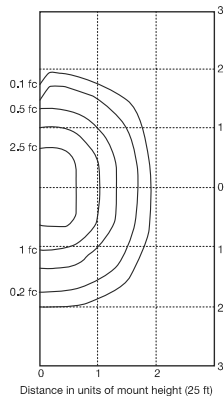
#### REPORT NUMBER: AMLED67YBU1\_FLOOD

Lamps: Areamaster, High Bay Mount, LED Board 39 LEDs, Specular Reflector 6-1/2 X 6-1/2 Tapered To 3-1/2 X 3-1/2, Lens Clear  
Luminaire Lumens 8238

#### POLAR CANDELA DISTRIBUTION



#### ISOCANDELA CURVES



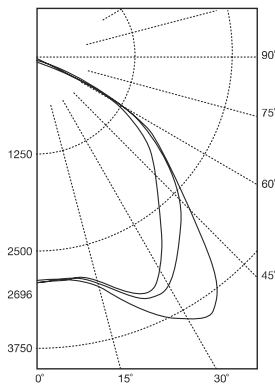
#### Zonal Lumen and Percentage at 25 °C (77 °F)

Zone	Lumens	% Lamp	% Fixture
0-10	245.6	N.A.	3.0
10-20	771.8	N.A.	9.4
20-30	1431	N.A.	17.4
30-40	1842	N.A.	22.4
40-50	1785	N.A.	21.7
50-60	1448	N.A.	17.6
60-70	667.1	N.A.	8.1
70-80	43.8	N.A.	0.5
80-90	4.5	N.A.	0.1

#### REPORT NUMBER: AMLED67YBU1\_Highbay

Lamps: Areamaster, High Bay Mount, LED Board 39 LEDs, Specular Reflector 6-1/2 X 6-1/2 Tapered To 3-1/2 X 3-1/2, Lens Clear

#### POLAR CANDELA DISTRIBUTION



#### Zonal Lumen Summary and Percentage at 25 °C (77 °F)

Zone	Lumens	% Lamp	% Fixture
0-30	2434	N.A.	29.2
0-40	4283	N.A.	51.6
0-60	7553	N.A.	90.6
60-90	780	N.A.	9.4
0-90	8333	N.A.	100.0
90-180	0	N.A.	0
0-180	8333	N.A.	100.0

#### Zonal Lumen and Percentage at 25 °C (77 °F)

Zone	Lumens	% Lamp	% Fixture
0-10	244.8	N.A.	2.9
10-20	764.2	N.A.	9.2
20-30	1425	N.A.	17.1
30-40	1849	N.A.	22.2
40-50	1787	N.A.	21.4
50-60	1483	N.A.	17.8
60-70	731.0	N.A.	8.8
70-80	46.7	N.A.	0.6
80-90	2.4	N.A.	0.0

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For Hazardous Locations. 8300, 13200 and 19000 lumens

Zone 2 - 21 and 22  
Gas (G) and Dust (D)

## Photometric Data — DATA SHOWN IS ABSOLUTE

### REPORT NUMBER: AMLED77YBU1\_FLOOD

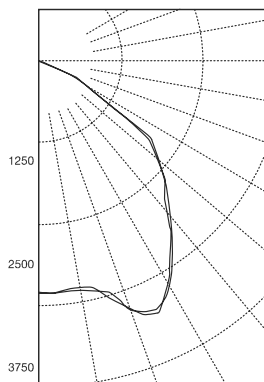
Lamps: Areamaster, High Bay Mount, LED Board 56 LEDs, Specular Reflector 6-1/2 X 6-1/2 Tapered To 3-1/2 X 3-1/2, Lens Clear

Characteristics: Maximum Candela: 5818; Maximum Candela Angle: 22.5 H 25.5 V; Horizontal Beam Angle (50%): 97.0; Vertical Beam Angle (50%): 102; Horizontal Field Angle (10%): 134; Vertical Field Angle (10%): 134; Beam Lumens 10414; Field Lumens 12967; Luminaire Lumens 13157

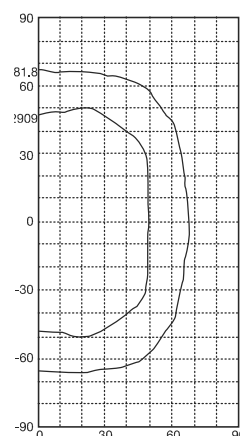
#### AXIAL CANDELA

DEG.	HOR.	VERT.
90.0	0	0
85.0	21	2
75.0	26	5
65.0	700	733
55.0	2400	2341
47.5	3023	2976
42.5	3375	3307
37.5	3838	3826
33.0	4312	4319
29.0	4670	4719
25.5	4964	4898
22.5	4910	4857
19.5	4700	4660
17.0	4456	4343
15.0	4273	4249
13.0	4184	4165
11.0	4154	4123
9.0	4139	4105
7.0	4124	4119
5.0	4127	4133
3.0	4138	4150
1.0	4149	4153
0.0	4149	4149

#### AXIAL CANDELA DISPLAY



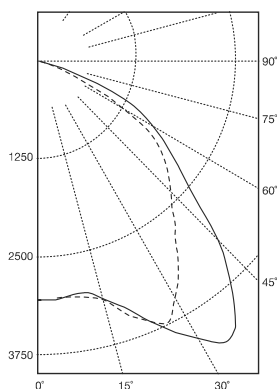
#### ISOCANDELA CURVES



#### CIE Type – Direct

Plane	Spacing Criteria
0 Deg	1.5
90 Deg	1.5

Zone	Lumens
0-5	98
5-10	290
10-15	485
15-20	711
20-25	993
25-30	1264
30-35	1440
35-40	1517
40-45	1471
45-50	1392
50-55	1283
55-60	1086
60-65	764
65-70	340
70-75	37
75-80	4
80-85	2
85-90	1



### REPORT NUMBER: AMLED77YBU1\_Highbay

Lamps: Areamaster, High Bay Mount, LED Board 56 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	80	70				50				30				10				0	
		70	50	30	10	70	50	30	10	50	30	10	50	30	10				
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76	76
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56	56
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	50	48	48
6	73	60	52	46	71	59	51	45	58	50	45	56	50	45	54	49	44	42	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37	37
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33	33
9	58	45	37	32	57	45	37	32	44	37	32	43	36	31	42	36	31	30	30
10	55	42	34	29	53	41	34	29	40	33	29	39	33	28	38	32	28	27	27

#### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	3841	N.A.	29.1	90-130	2	N.A.	0.0
0-40	6798	N.A.	51.5	90-150	6	N.A.	0.0
0-60	12029	N.A.	91.1	90-180	7	N.A.	0.1
0-90	13177	N.A.	99.8	0-180	13199	N.A.	100
90-120	1	N.A.	0.0				

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Gas (G) and Dust (D)

### Photometric Data — DATA SHOWN IS ABSOLUTE

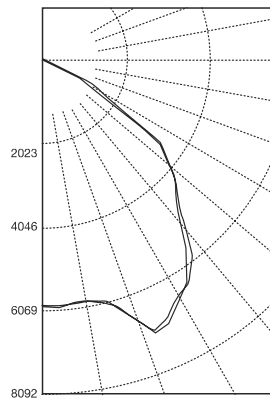
#### REPORT NUMBER: AMLED87YBU1\_FLOOD

Lamps: Areamaster, Pendant Mount, LED Board 20 LEDs, Specular Reflector 6-1/2 X 6-1/2 Tapered To 3-1/2 X 3-1/2, Lens Clear

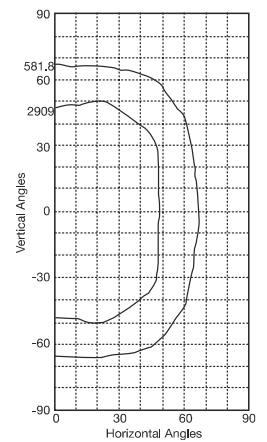
Characteristics: NEMA Type: 7Hx7V; Maximum Candela: 8092; Maximum Candela Angle: 25.5H 25.5V; Horizontal Beam Angle (50%): 97.3; Vertical Beam Angle (50%): 103; Horizontal Field Angle (10%): 137; Vertical Field Angle (10%): 136; Beam Lumens 14933; Field Lumens 18585; Luminaire Lumens 18842

AXIAL CANDELA		
DEG.	HOR.	VERT.
90	0	0
85	31	5
75	36	8
65	1239	938
55	3463	3477
47.5	4393	4345
42.5	4921	4831
37.5	5955	5752
33	6455	6392
29	6656	6778
25.5	6998	7087
22.5	7109	7158
19.5	6665	6664
17	6302	6222
15	6059	6108
13	6027	6044
11	5931	5942
9	5914	5938
7	5933	5956
5	5974	5975
3	6003	5995
1	6002	6004
0	5999	5999

#### AXIAL CANDELA DISPLAY



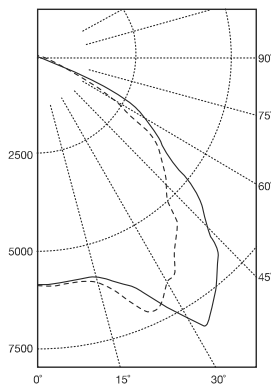
#### ISOCANDELA CURVES



#### CIE Type – Direct

Plane	Spacing Criteria
0-180	1.54
90-270	1.54

Zone	Lumens
0-5	141
5-10	419
10-15	697
15-20	1004
20-25	1408
25-30	1794
30-35	2079
35-40	2151
40-45	2143
45-50	2011
50-55	1834
55-60	1567
60-65	1118
65-70	514
70-75	62
75-80	3
80-85	2
85-90	1



#### REPORT NUMBER: AMLED87YBU1\_Highbay

Lamps: Areamaster, High Bay Mount, LED Board 20 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	Effective Floor Cavity Reflectance 0.20															
		80		70		50		30		10		0					
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	100
1	111	107	103	100	108	105	101	99	100	98	95	97	95	93	93	91	88
2	102	95	89	84	99	93	88	83	89	85	81	86	83	79	83	80	77
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67
4	86	75	67	60	84	73	66	60	71	64	59	69	63	58	67	62	58
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50
6	73	60	52	45	71	59	51	45	57	50	45	56	49	45	54	49	44
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39
8	63	49	41	36	61	49	41	35	47	40	35	46	40	35	45	39	35
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28

#### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	5462	N.A.	28.8	90-130	3	N.A.	0
0-40	9692	N.A.	51.2	90-150	5	N.A.	0
0-60	17247	N.A.	91.1	90-180	7	N.A.	0
0-90	18946	N.A.	100.1	0-180	18933	N.A.	100
90-120	2	N.A.	0				