

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P301917

Luminaire Tested: **GLNA-AF-10-LED-E1-SL4-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301917  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-10-LED-E1-SL4-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

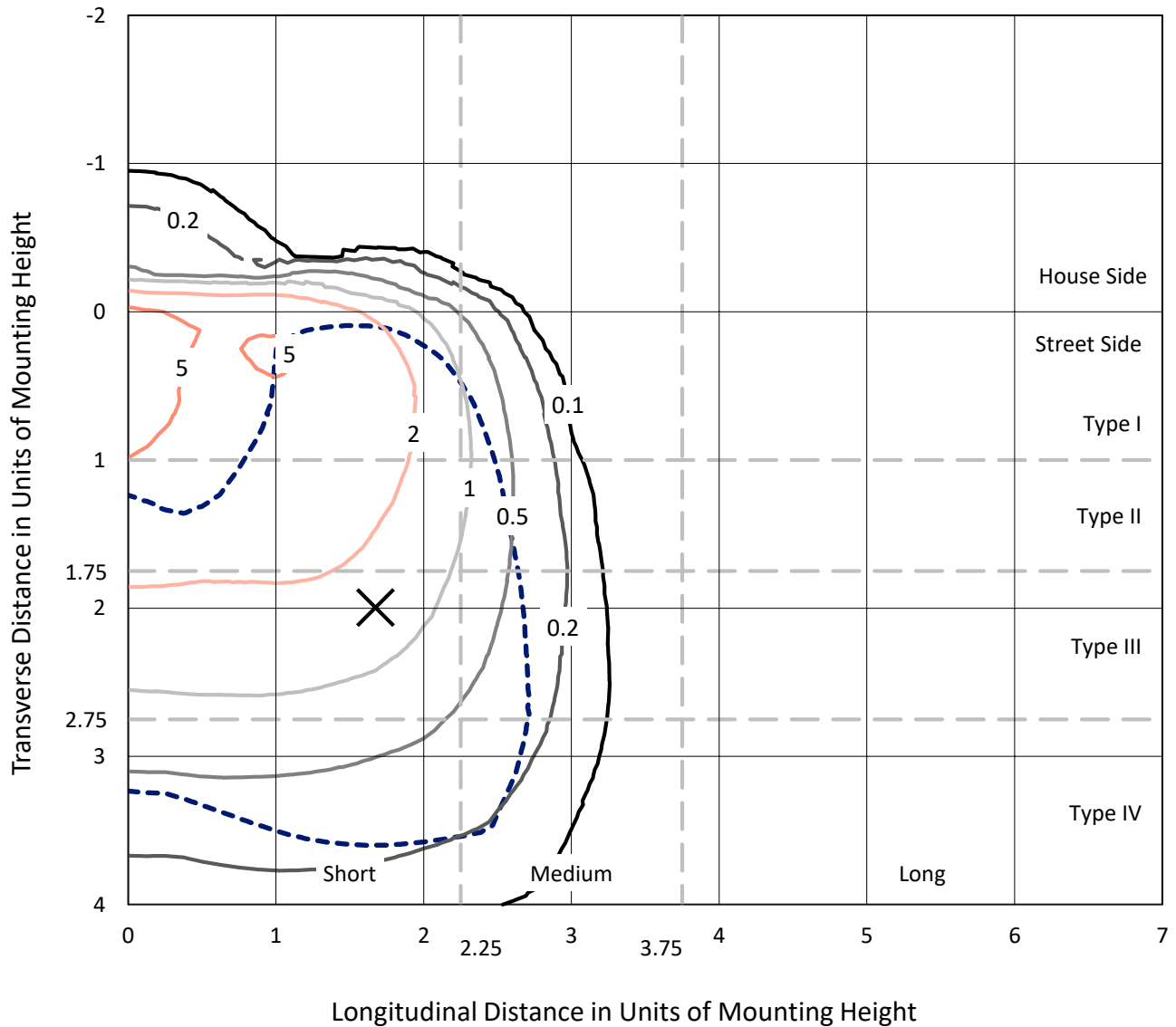
Lumens per Lamp: N/A  
Luminaire Lumens: 35099.7 lumens  
Efficiency: N/A  
Efficacy: 83.8 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G5  
  
Input Watts (W): 419  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

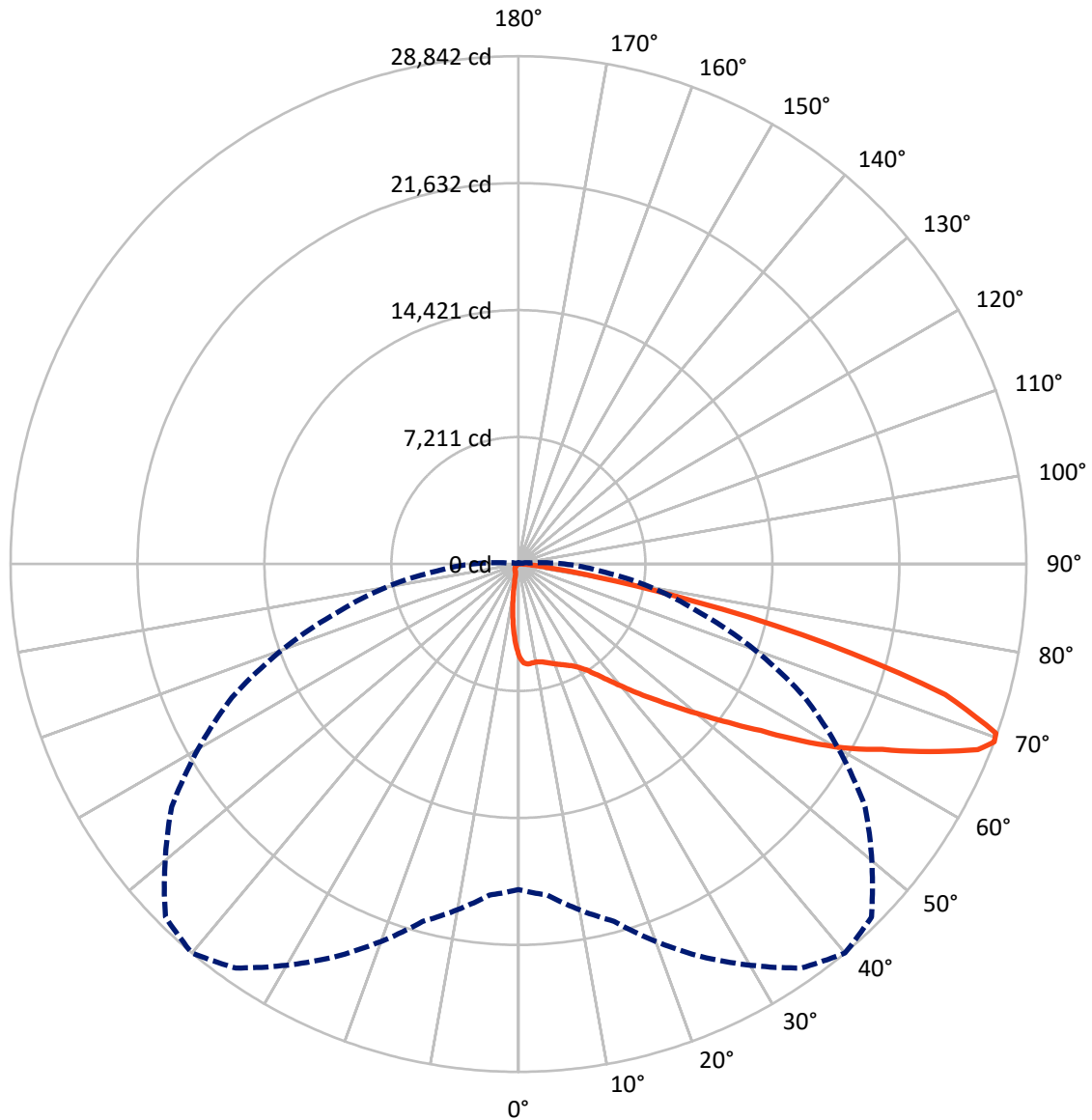


Based on 30 foot mounting height. Maximum calculated value = 6.4 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P301917

CATALOG NUMBER: GLNA-AF-10-LED-E1-SL4-800-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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CATALOG NUMBER: GLNA-AF-10-LED-E1-SL4-800-HSS

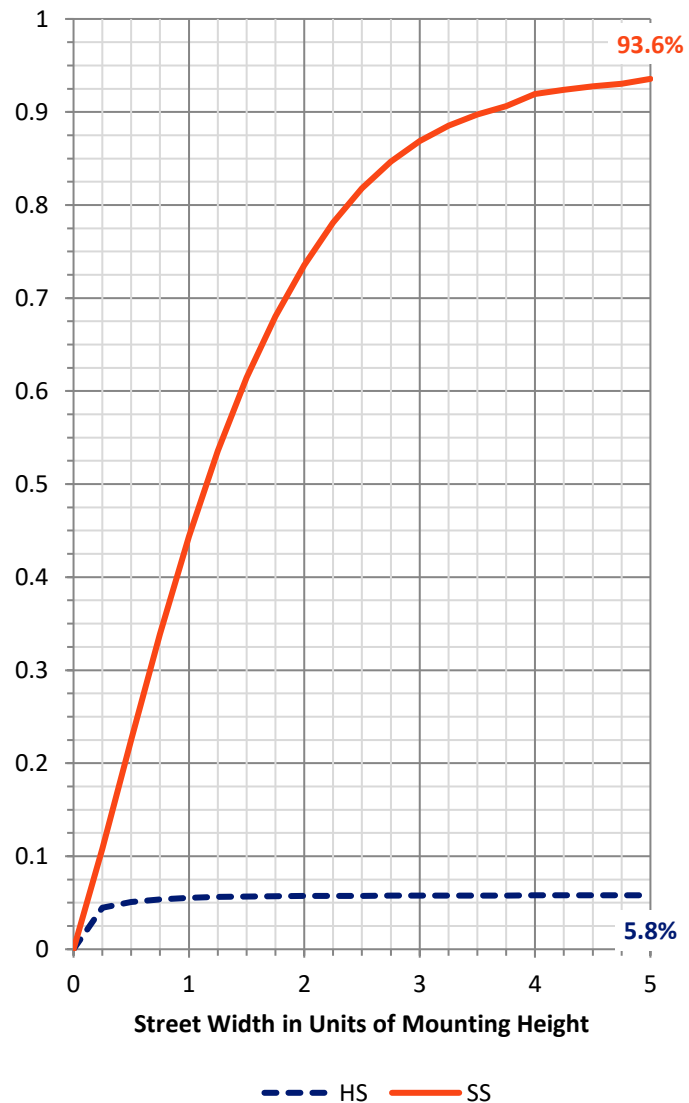
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2053.5	0.0	2053.5
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	33046.2	0.0	33046.2
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	35099.7	0.0	35099.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	425.2	1.2
10°-20°	1045.6	3.0
20°-30°	1761.2	5.0
30°-40°	2883.1	8.2
40°-50°	4992.0	14.2
50°-60°	7862.9	22.4
60°-70°	10268.7	29.3
70°-80°	5288.8	15.1
80°-90°	572.1	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	35099.7	100.0
0°-180°	35099.7	100.0



REPORT NUMBER: P301917

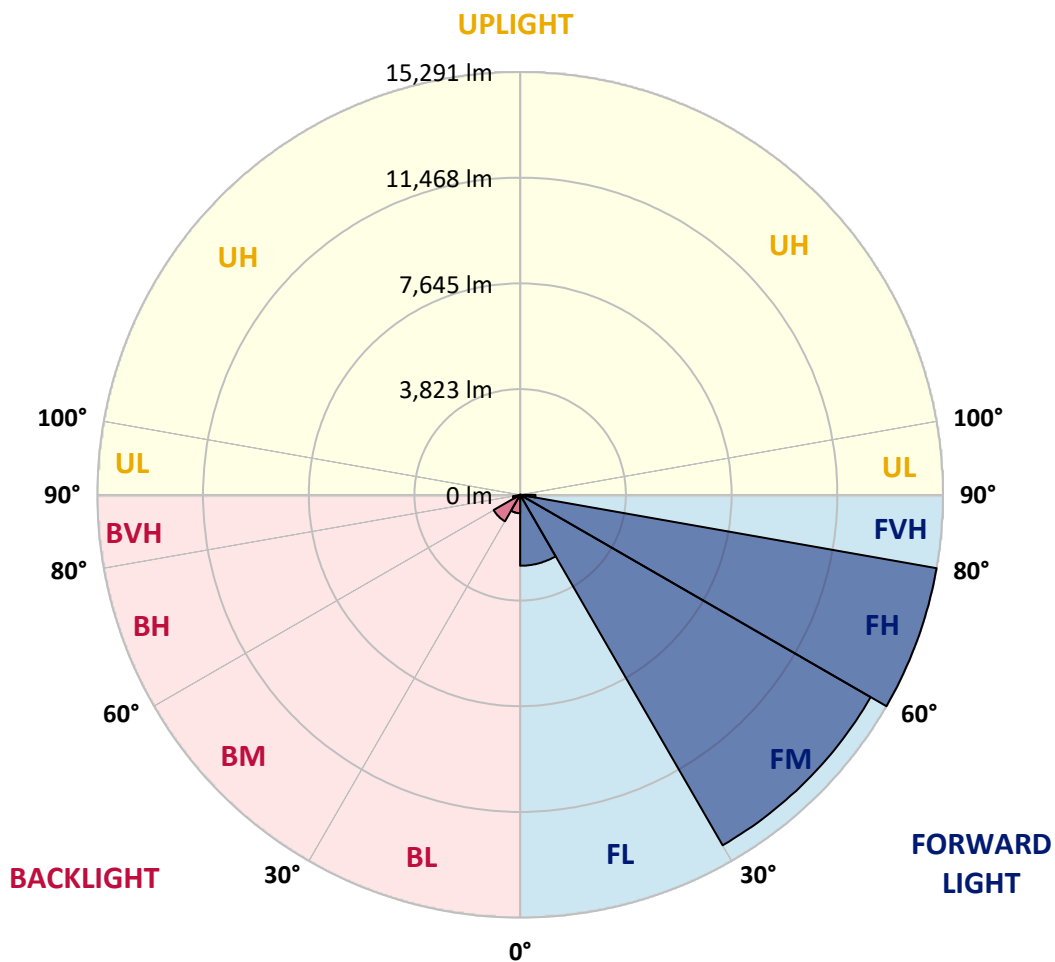
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2566.8	7.3			
FM	(30°-60°)	14634.4	41.7			
FH	(60°-80°)	15290.9	43.6			G5
FVH	(80°-90°)	554.1	1.6			G4/750
BL	(0°-30°)	665.2	1.9	B2/1000		
BM	(30°-60°)	1103.7	3.1	B2/2500		
BH	(60°-80°)	266.6	0.8	B1/500		G1/500
BVH	(80°-90°)	18.0	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	5244.1	5244.1	5244.1	5244.1	5244.1	5244.1	5244.1	5244.1	5244.1	5244.1	5244.1
2.5°	5758.0	5726.7	5707.9	5682.8	5651.5	5624.3	5613.9	5536.6	5463.5	5363.2	5248.3
5°	5864.6	5854.1	5820.7	5787.3	5749.7	5707.9	5684.9	5593.0	5488.5	5342.3	5141.7
7.5°	5875.0	5862.5	5820.7	5774.8	5722.5	5672.4	5632.7	5540.8	5444.6	5296.3	5051.9
10°	5858.3	5843.7	5812.4	5762.2	5697.5	5649.4	5609.7	5522.0	5440.5	5306.8	5035.2
12.5°	5839.5	5824.9	5810.3	5785.2	5728.8	5695.4	5661.9	5578.4	5505.2	5392.4	5095.7
15°	5858.3	5850.0	5866.7	5856.2	5824.9	5795.6	5762.2	5687.0	5620.1	5526.1	5206.5
17.5°	5937.7	5937.7	5989.9	5996.2	5967.0	5925.2	5877.1	5801.9	5745.5	5666.1	5338.1
20°	6123.7	6117.4	6184.3	6196.8	6125.8	6061.0	5989.9	5898.0	5854.1	5804.0	5467.6
22.5°	6443.3	6414.1	6453.8	6441.2	6301.3	6201.0	6113.2	6000.4	5977.4	5954.4	5611.8
25°	6859.1	6842.4	6869.5	6746.3	6499.7	6363.9	6259.5	6132.0	6132.0	6155.0	5774.8
27.5°	7462.9	7400.2	7308.3	7091.0	6721.2	6547.8	6435.0	6299.2	6334.7	6420.3	5989.9
30°	8081.3	8012.4	7801.3	7467.1	6990.7	6808.9	6677.3	6535.2	6618.8	6775.5	6278.3
32.5°	8691.4	8614.1	8315.3	7893.3	7377.2	7195.5	7068.0	6911.3	7051.3	7314.5	6700.3
35°	9282.6	9213.7	8869.0	8371.7	7891.2	7740.8	7623.8	7488.0	7667.6	8035.3	7295.7
37.5°	9947.0	9871.8	9451.9	8912.8	8515.9	8407.2	8321.6	8185.8	8499.2	9038.2	8125.2
40°	10763.9	10636.5	10070.3	9533.4	9238.8	9186.5	9128.0	9109.2	9596.0	10341.9	9230.4
42.5°	11699.9	11491.0	10718.0	10187.3	10032.7	10070.3	10055.7	10139.2	10968.7	11963.2	10575.9
45°	12635.9	12366.4	11438.8	10885.1	10906.0	11037.6	11119.1	11453.4	12688.2	13822.6	12023.8
47.5°	13429.9	13164.5	12130.3	11639.3	11890.1	12149.1	12370.6	13003.6	14455.7	15652.8	13149.9
50°	14108.9	13858.2	12863.7	12468.8	13032.9	13450.7	13810.1	14748.2	16356.9	17046.4	13939.6
52.5°	14664.6	14497.5	13624.2	13419.4	14338.7	14950.8	15477.3	16601.4	18040.9	18178.8	14553.9
55°	15205.7	15086.6	14441.1	14549.7	15872.2	16705.8	17372.3	18567.4	19490.8	19123.1	15143.1
57.5°	15828.3	15719.7	15372.9	15982.9	17888.4	18937.2	19664.2	20309.8	20767.4	20088.4	15698.8
60°	16463.5	16400.8	16409.2	17575.0	20203.3	21210.3	21611.5	21778.6	22021.0	20997.2	15730.1
62.5°	17069.4	17188.5	17593.8	19346.7	22420.0	23193.0	23395.7	23560.7	23276.6	21141.4	14533.0
65°	18095.2	18289.5	19256.8	21718.0	24858.2	25685.5	25894.5	25328.3	23475.1	19277.7	11821.1
67.5°	18596.6	18951.8	20677.5	23928.5	27223.2	28142.5	28065.2	25443.2	21066.2	14700.1	7586.2
69°	18492.2	18870.3	21005.6	24605.4	28008.8	28842.4	28351.5	24037.1	17946.9	10649.0	4657.0
70°	18078.5	18460.8	20836.3	24580.3	28109.1	28769.3	27820.8	22300.9	15174.4	7786.7	2912.4
72.5°	15097.1	15427.2	18498.4	22217.3	25894.5	25357.5	23274.5	15450.2	7393.9	2120.6	656.0
75°	9293.1	9476.9	13273.2	16737.2	19557.7	18178.8	15506.6	7686.4	2204.2	599.6	363.5
77.5°	4909.8	4993.4	7266.5	9865.6	12397.8	10258.3	7947.6	2998.1	1015.4	376.1	263.2
80°	2902.0	2964.7	3913.2	4510.7	5365.3	4481.5	3177.8	1840.7	727.1	236.1	234.0
82.5°	1661.0	1700.7	2837.2	2507.1	2114.3	1805.1	1581.6	1744.5	436.7	158.8	242.4
85°	610.1	618.4	1596.2	1907.5	1257.7	748.0	785.6	1445.8	117.0	100.3	190.1
87.5°	284.1	277.9	821.1	1167.9	735.4	474.3	612.2	317.6	46.0	64.8	52.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: GLNA-AF-10-LED-E1-SL4-800-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5244.1	5244.1	5244.1	5244.1	5244.1	5244.1	5244.1	5244.1	5244.1	5244.1	5244.1
2.5°	5181.4	5104.1	4964.1	4820.0	4673.7	4560.9	4450.2	4362.4	4333.2	4278.8	4283.0
5°	5022.6	4880.5	4588.0	4291.4	3982.2	3727.3	3487.0	3292.7	3198.7	3102.6	3102.6
7.5°	4884.7	4677.9	4220.3	3737.7	3238.4	2818.4	2440.3	2156.1	1999.4	1874.1	1872.0
10°	4832.5	4552.5	3913.2	3221.7	2525.9	1953.5	1504.3	1216.0	1067.6	971.5	967.3
12.5°	4855.5	4508.7	3677.1	2745.3	1872.0	1255.7	871.2	685.3	622.6	593.4	593.4
15°	4922.3	4496.1	3441.0	2279.4	1322.5	785.6	578.7	528.6	524.4	524.4	524.4
17.5°	5003.8	4500.3	3198.7	1826.0	900.5	562.0	499.3	493.1	497.2	497.2	497.2
20°	5087.4	4502.4	2937.5	1406.1	635.1	488.9	470.1	468.0	472.2	472.2	474.3
22.5°	5189.8	4512.8	2676.4	1050.9	524.4	461.7	447.1	447.1	449.2	449.2	447.1
25°	5306.8	4533.7	2404.8	779.3	478.4	442.9	430.4	428.3	430.4	428.3	426.2
27.5°	5453.0	4563.0	2101.8	610.1	457.6	424.1	413.7	413.7	411.6	409.5	407.4
30°	5636.9	4596.4	1761.3	518.1	436.7	407.4	397.0	394.9	392.8	388.6	388.6
32.5°	5916.8	4669.5	1424.9	470.1	413.7	384.4	376.1	376.1	371.9	367.7	365.6
35°	6347.2	4813.7	1124.0	440.8	388.6	359.4	348.9	348.9	344.7	342.6	340.6
37.5°	6942.7	5033.1	873.3	413.7	363.5	332.2	321.7	319.7	315.5	311.3	309.2
40°	7734.5	5304.7	687.4	388.6	338.5	305.0	296.7	292.5	284.1	277.9	277.9
42.5°	8729.0	5613.9	557.8	361.4	309.2	280.0	273.7	267.4	252.8	246.5	244.4
45°	9769.4	5891.8	472.2	330.1	280.0	254.9	250.7	240.3	221.5	215.2	215.2
47.5°	10519.5	5956.5	415.8	300.9	252.8	227.7	225.6	206.8	190.1	185.9	183.9
50°	10987.5	5829.1	369.8	271.6	227.7	202.7	196.4	173.4	163.0	158.8	156.7
52.5°	11303.0	5601.3	332.2	246.5	204.7	179.7	165.1	148.3	140.0	135.8	135.8
55°	11555.8	5279.6	294.6	223.6	185.9	160.9	140.0	127.4	119.1	114.9	114.9
57.5°	11626.8	4842.9	257.0	204.7	167.1	142.1	119.1	110.7	100.3	98.2	98.2
60°	11110.8	4055.3	227.7	181.8	150.4	123.3	104.5	94.0	83.6	81.5	79.4
62.5°	9750.6	3138.1	200.6	160.9	131.6	106.6	89.8	77.3	68.9	68.9	68.9
65°	7437.8	2103.9	175.5	140.0	114.9	89.8	77.3	62.7	58.5	58.5	60.6
67.5°	4452.2	1144.9	150.4	119.1	98.2	75.2	64.8	54.3	52.2	54.3	54.3
69°	2609.5	672.7	135.8	106.6	85.7	66.9	56.4	48.1	52.2	54.3	54.3
70°	1610.8	453.4	125.4	96.1	77.3	60.6	52.2	46.0	50.1	52.2	52.2
72.5°	449.2	234.0	100.3	75.2	62.7	50.1	41.8	41.8	48.1	50.1	50.1
75°	292.5	173.4	77.3	56.4	48.1	39.7	35.5	39.7	46.0	48.1	48.1
77.5°	242.4	142.1	62.7	46.0	39.7	37.6	33.4	35.5	41.8	43.9	43.9
80°	221.5	100.3	50.1	41.8	35.5	33.4	31.3	29.2	37.6	39.7	39.7
82.5°	211.0	79.4	43.9	37.6	33.4	29.2	27.2	29.2	33.4	35.5	37.6
85°	131.6	52.2	39.7	35.5	29.2	27.2	27.2	27.2	31.3	33.4	33.4
87.5°	48.1	41.8	35.5	29.2	25.1	25.1	25.1	25.1	27.2	31.3	31.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)