

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: P299482

Luminaire Tested: **GLNA-AF-05-LED-E1-SLR-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299482  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194679)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-05-LED-E1-SLR-600  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill  
Light Eliminator Right OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

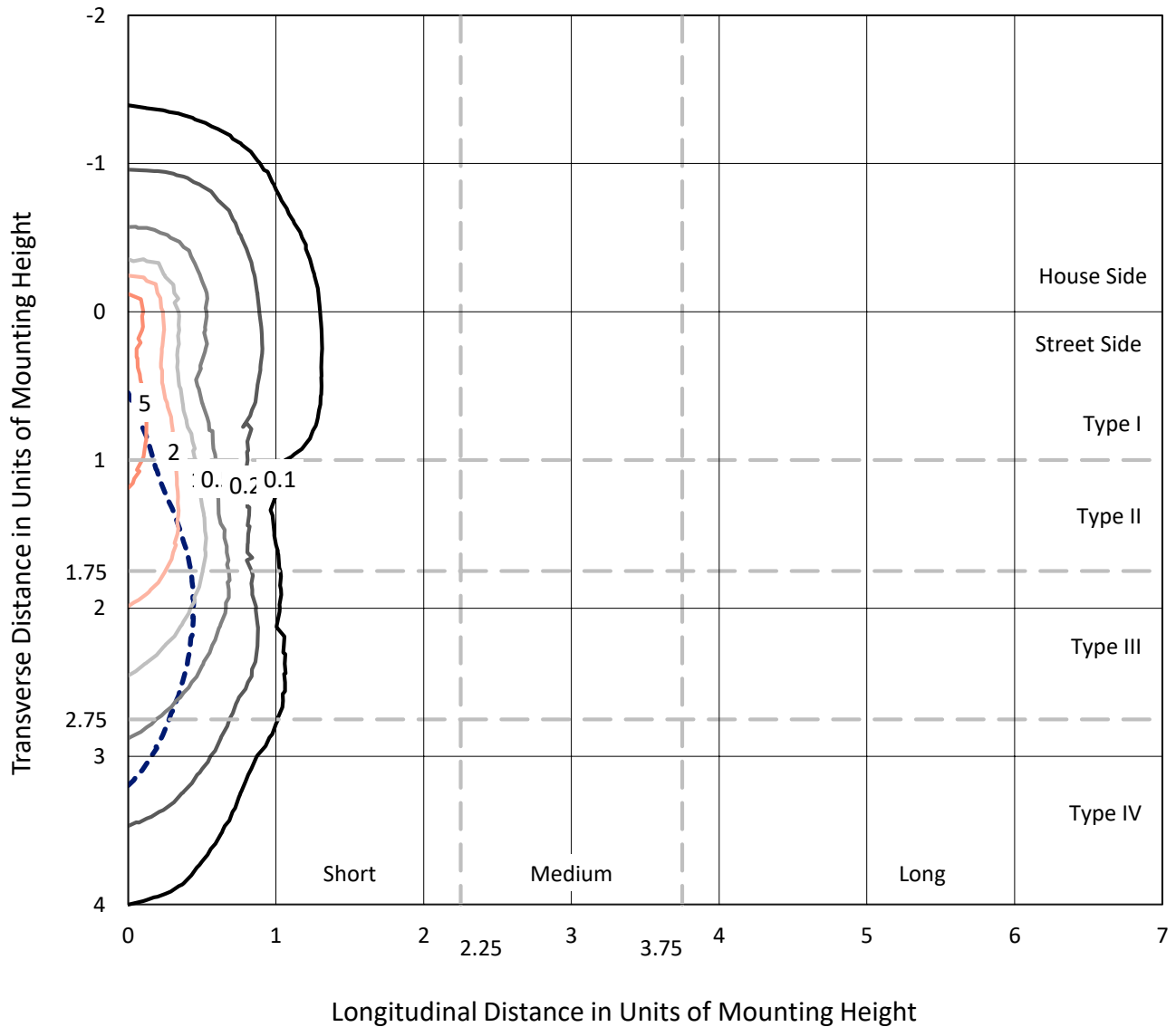
Lumens per Lamp: N/A  
Luminaire Lumens: 17166.9 lumens  
Efficiency: N/A  
Efficacy: 106.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 162  
Input Voltage (V): NR  
Input Current (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

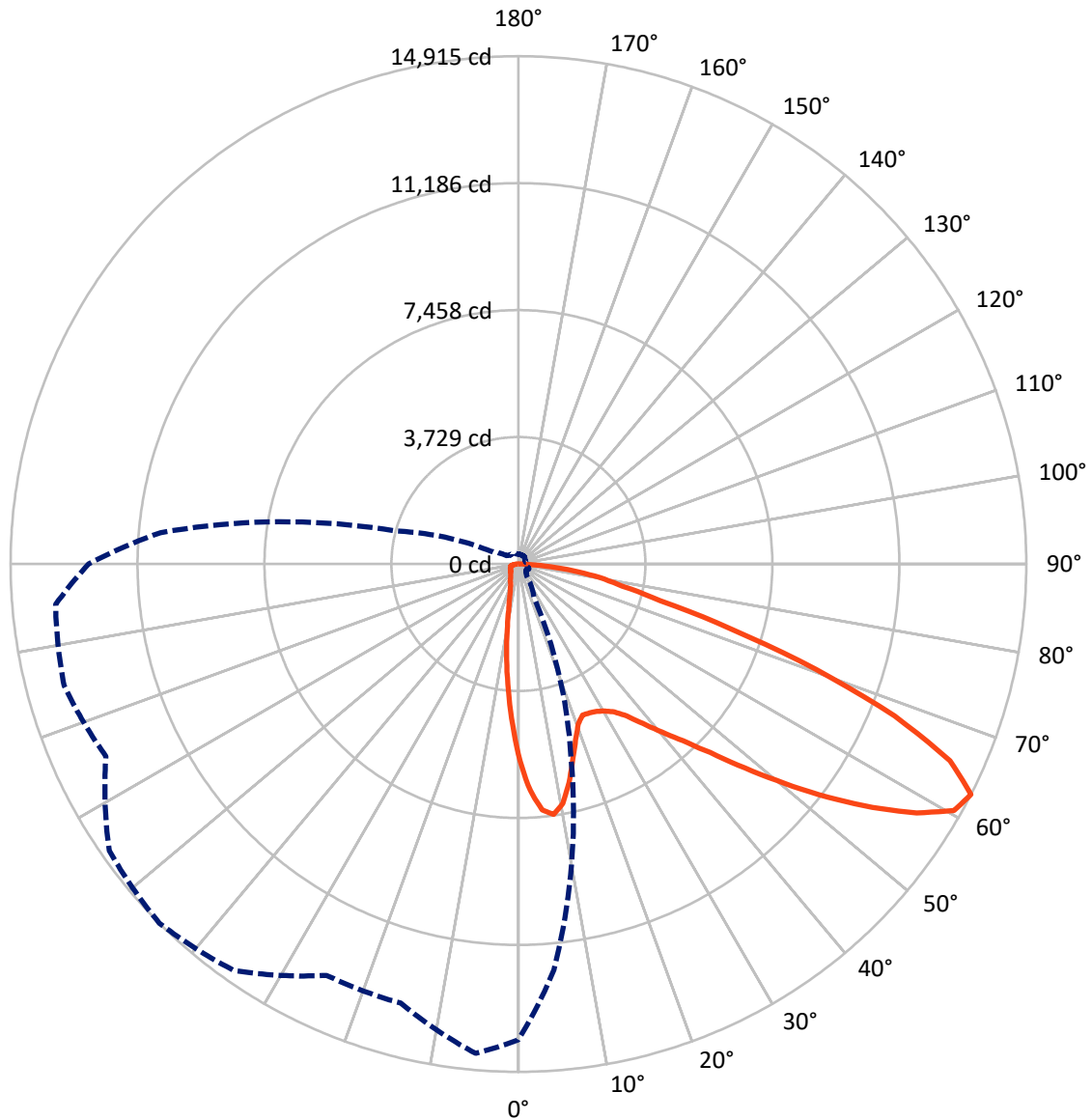
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2840.9	0.0	2840.9
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	14326.0	0.0	14326.0
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	17166.9	0.0	17166.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	422.2	2.5
10°-20°	774.2	4.5
20°-30°	1128.8	6.6
30°-40°	1738.5	10.1
40°-50°	2558.6	14.9
50°-60°	3753.0	21.9
60°-70°	4195.3	24.4
70°-80°	2054.0	12.0
80°-90°	542.3	3.2
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°	17166.9	100.0
0°-180°	17166.9	100.0



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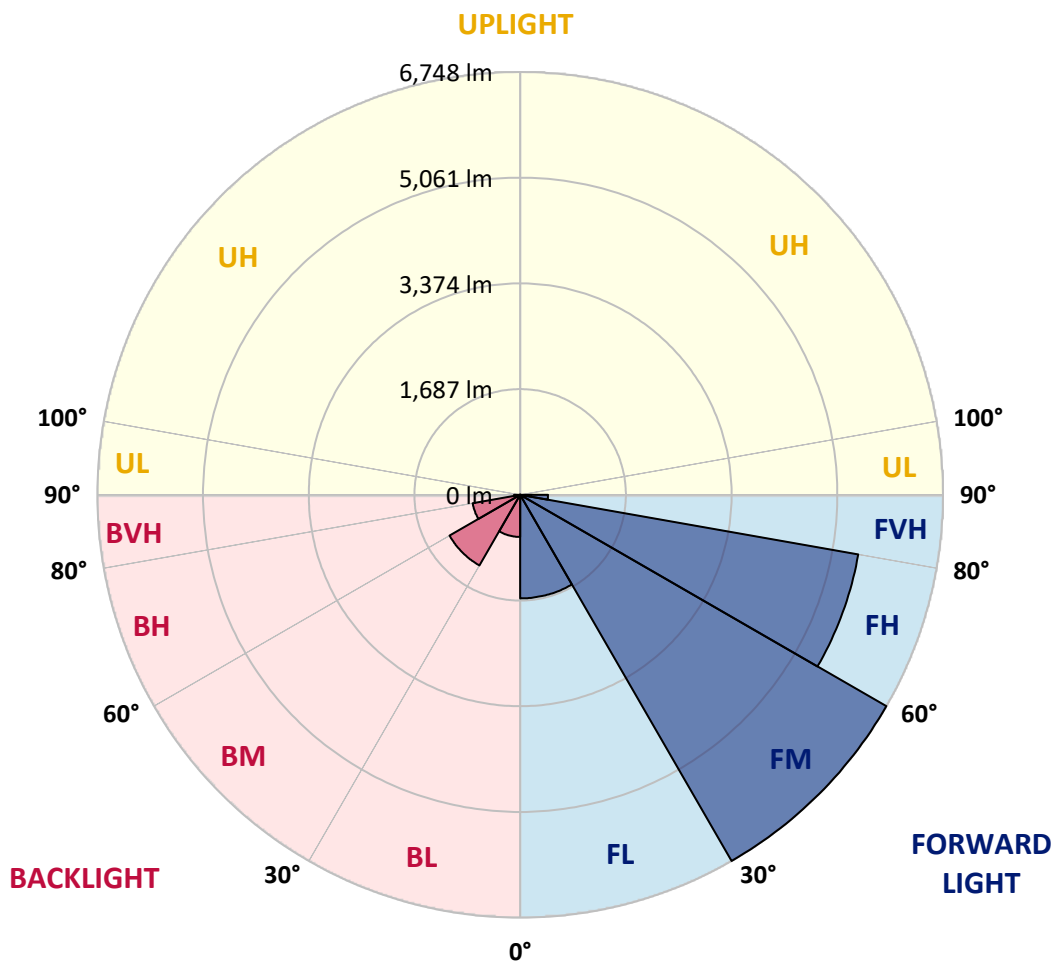
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1653.1	9.6			
FM (30°-60°)	6748.5	39.3			
FH (60°-80°)	5479.1	31.9			G3/7500
FVH (80°-90°)	445.4	2.6			G3/500
BL (0°-30°)	672.1	3.9	B2/1000		
BM (30°-60°)	1301.7	7.6	B2/2500		
BH (60°-80°)	770.2	4.5	B2/1000		G2/1000
BVH (80°-90°)	96.9	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0
2.5°	6026.3	5903.7	5699.7	5487.5	5358.3	5207.2	5089.2	4985.5	4777.8	4737.3	4774.1
5°	5666.9	5420.6	5036.4	4649.5	4391.9	4115.3	3900.2	3727.6	3464.2	3418.0	3473.7
7.5°	5090.4	4795.8	4288.2	3794.5	3430.2	3084.8	2852.9	2667.7	2462.0	2373.5	2378.9
10°	4593.0	4260.7	3660.5	3123.7	2825.4	2592.3	2396.9	2207.2	1998.7	1861.8	1824.1
12.5°	4314.4	3932.5	3240.5	2761.2	2484.6	2239.5	2028.9	1826.1	1603.3	1463.6	1424.1
15°	4266.4	3851.1	3083.1	2529.2	2182.6	1872.4	1624.1	1397.6	1168.2	1055.0	1031.3
17.5°	4475.0	3996.5	3032.0	2322.3	1898.7	1515.6	1210.7	957.9	771.1	714.5	709.6
20°	4875.0	4275.9	3025.4	2128.1	1618.4	1169.3	843.6	659.6	577.7	561.4	562.5
22.5°	5436.6	4709.0	3106.6	1981.8	1360.7	871.9	634.2	551.9	519.9	504.8	504.8
25°	6163.1	5305.5	3293.4	1875.2	1137.0	696.5	559.7	510.5	480.2	470.0	472.0
27.5°	6867.3	5885.7	3510.5	1791.3	990.8	632.2	530.2	486.0	459.7	449.1	454.0
30°	7416.4	6401.1	3691.6	1677.0	916.2	614.2	540.8	495.4	457.7	441.7	442.5
32.5°	7871.2	6852.2	3843.6	1594.7	850.2	526.5	466.2	446.2	441.7	422.8	413.4
35°	8452.6	7343.9	3945.6	1596.7	819.1	470.0	415.1	380.2	354.8	333.1	333.1
37.5°	9134.0	7908.1	4054.2	1618.4	807.9	436.8	397.4	362.3	338.8	318.0	314.3
40°	9807.6	8461.2	4153.3	1639.3	801.1	417.1	383.1	351.1	329.4	308.5	302.8
42.5°	10380.7	8916.0	4241.9	1649.6	778.5	415.1	372.8	343.4	322.8	300.0	294.5
45°	10804.4	9297.1	4337.3	1665.6	755.9	422.8	372.8	342.5	317.1	295.4	289.7
47.5°	11182.6	9744.5	4496.7	1665.6	728.5	408.5	385.1	343.4	316.3	293.4	288.8
50°	11689.4	10357.8	4798.7	1627.0	689.9	393.4	405.7	339.7	307.7	289.7	284.0
52.5°	12387.6	11144.1	5278.1	1559.8	630.5	364.3	402.8	338.0	299.1	280.3	273.7
55°	13213.6	11985.7	5800.9	1481.6	541.7	343.4	388.8	333.1	289.7	268.8	262.3
57.5°	13858.1	12565.1	6168.8	1360.7	464.2	332.3	344.5	328.5	278.3	256.5	251.1
60°	14114.6	12542.5	6270.0	1199.3	426.5	322.8	301.1	368.0	268.8	247.1	240.5
62.5°	13976.1	11963.1	5986.8	1086.2	418.0	310.5	282.3	340.5	261.4	240.5	231.1
65°	13335.3	10936.4	5236.6	1055.9	442.5	298.3	270.0	267.1	251.1	231.1	221.7
67.5°	11939.4	9401.9	4192.7	1058.8	473.7	286.0	257.7	244.5	236.8	220.8	212.3
70°	9724.8	7433.6	3125.4	1066.5	489.7	271.7	244.5	230.3	221.7	205.7	200.0
72.5°	7150.4	5729.2	2270.6	1017.3	492.5	255.7	226.5	214.3	205.7	188.8	184.0
75°	4892.1	4382.4	1575.0	842.8	429.4	233.1	206.6	195.4	189.7	168.8	166.0
77.5°	3573.7	3289.7	1007.9	625.7	331.1	204.8	182.3	173.7	170.0	147.1	143.4
80°	2868.0	2602.6	630.5	428.5	242.5	171.7	152.8	148.3	144.3	121.7	118.8
82.5°	1989.2	1743.0	404.8	278.3	182.3	133.1	120.8	118.8	113.1	92.6	89.7
85°	1049.3	946.5	256.5	189.7	132.0	91.4	84.0	84.0	81.1	61.4	59.4
87.5°	134.0	218.0	130.3	99.1	72.6	40.6	40.6	39.7	42.6	34.9	30.3
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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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0
2.5°	4687.3	4732.7	4689.3	4692.1	4740.1	4883.5	4948.7	5002.4	5060.1	5097.8	5114.6
5°	3397.4	3503.1	3538.8	3614.2	3725.6	3908.8	3981.3	4034.2	4069.3	4089.9	4098.5
7.5°	2323.5	2387.5	2459.2	2580.9	2823.4	2931.1	2979.1	2966.9	2927.4	2913.1	2899.1
10°	1751.5	1726.1	1712.7	1779.8	1976.1	2084.7	2118.6	2085.5	2063.8	2068.7	2092.1
12.5°	1357.0	1312.7	1259.0	1251.3	1380.7	1477.9	1499.6	1501.3	1541.0	1575.8	1627.8
15°	989.0	984.2	957.9	941.9	1015.3	1094.8	1104.2	1121.0	1157.0	1182.5	1227.6
17.5°	697.4	722.8	743.6	753.9	809.6	866.2	855.9	847.3	840.8	840.8	862.5
20°	562.5	579.4	605.9	635.9	692.8	732.2	706.8	672.8	648.2	640.8	643.7
22.5°	506.8	519.9	535.1	561.4	612.5	639.9	612.5	587.9	563.4	554.8	551.9
25°	478.5	495.4	509.7	529.4	567.1	585.9	559.7	541.7	526.5	516.2	508.5
27.5°	462.5	477.4	481.4	490.8	522.8	539.7	526.5	519.1	509.7	500.2	490.8
30°	445.4	442.5	436.0	436.8	462.5	479.4	478.5	480.2	479.4	476.5	474.8
32.5°	406.8	401.1	395.4	401.1	424.5	439.7	440.8	444.5	444.5	443.7	451.1
35°	338.8	349.1	355.7	372.8	401.1	414.2	408.5	399.1	382.2	371.7	370.8
37.5°	313.4	315.1	326.5	350.0	381.4	393.4	385.1	363.4	352.0	350.0	352.8
40°	301.1	302.8	309.4	331.1	362.3	374.5	367.1	351.1	340.5	339.7	344.5
42.5°	292.5	294.5	298.3	313.4	338.8	354.0	354.8	343.4	331.1	332.3	336.8
45°	287.7	288.8	287.7	295.4	318.8	336.8	344.5	336.8	326.5	328.5	334.0
47.5°	286.8	284.0	280.3	282.3	306.8	324.5	334.0	331.1	326.5	328.5	333.1
50°	283.1	276.5	271.7	270.8	295.4	314.3	322.8	322.8	324.5	328.5	333.1
52.5°	271.7	264.3	264.3	261.4	287.7	305.7	311.4	312.3	315.1	321.7	328.5
55°	257.7	254.8	257.7	252.8	282.3	299.1	302.0	304.0	305.7	311.4	320.8
57.5°	245.4	241.7	248.3	246.3	277.4	292.5	292.5	296.3	296.3	304.0	311.4
60°	238.8	231.1	234.0	236.0	270.8	286.8	285.1	288.8	290.5	297.4	302.8
62.5°	230.3	223.7	223.7	228.3	263.4	278.3	277.4	280.3	287.7	289.7	295.4
65°	220.0	217.1	214.3	220.0	255.7	268.8	270.0	273.7	280.3	282.3	286.8
67.5°	209.4	210.6	204.8	210.6	249.1	259.4	259.4	267.1	270.0	273.7	278.3
70°	198.3	199.1	194.3	201.1	244.5	249.1	248.3	258.5	260.5	263.4	268.0
72.5°	184.0	184.0	182.3	191.7	236.8	238.8	236.8	245.4	246.3	249.1	251.1
75°	168.8	168.8	167.1	180.3	232.3	227.4	221.7	228.3	230.3	232.3	232.3
77.5°	149.1	151.1	151.1	167.1	216.0	222.8	203.7	207.7	210.6	211.4	208.6
80°	124.6	129.4	131.1	152.0	181.1	205.7	182.3	184.8	186.0	186.0	182.3
82.5°	95.4	103.7	108.6	131.1	138.8	172.6	158.6	161.4	158.6	152.8	151.1
85°	66.0	77.4	83.1	100.0	104.8	133.1	132.0	132.0	126.6	118.8	118.0
87.5°	36.0	42.6	46.3	59.4	71.7	89.7	97.1	94.3	89.7	84.8	86.0
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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**CANDELA DISTRIBUTION (continued):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0
2.5°	5203.5	5331.8	5536.6	5693.2	5850.9	6002.8	6167.1	6292.5	6399.1	6440.8	6567.1
5°	4184.4	4344.7	4538.1	4887.2	5134.6	5407.2	5722.6	6139.7	6300.0	6521.9	6885.0
7.5°	2958.6	3103.7	3415.1	3697.4	4047.6	4433.6	4859.0	5434.6	5645.2	6000.8	6592.5
10°	2209.2	2378.1	2628.0	2866.0	3174.5	3569.1	4057.9	4701.5	4957.2	5343.2	6024.6
12.5°	1779.8	1978.9	2244.1	2467.8	2706.6	2984.9	3459.7	4165.3	4508.1	4845.8	5534.6
15°	1367.3	1575.8	1822.4	2106.4	2369.5	2669.7	3167.1	3939.0	4333.3	4685.5	5273.2
17.5°	946.5	1124.7	1435.3	1731.5	2068.7	2452.6	3086.0	3987.0	4457.8	4863.8	5318.6
20°	671.1	772.8	1027.6	1371.3	1791.3	2273.2	3070.8	4239.9	4852.4	5315.8	5609.2
22.5°	564.2	601.9	750.2	1065.3	1550.4	2139.2	3123.7	4594.7	5384.6	5976.3	6072.5
25°	514.2	537.1	614.2	836.2	1336.2	2042.1	3302.0	5123.2	6043.4	6637.1	6619.9
27.5°	486.8	510.5	561.4	705.9	1175.0	1981.8	3480.2	5750.0	6796.5	7354.1	7142.7
30°	478.5	510.5	564.2	665.4	1059.9	1886.4	3626.5	6300.0	7375.8	7838.4	7380.7
32.5°	472.0	476.5	501.1	573.7	950.2	1775.0	3725.6	6793.6	7942.9	8298.9	7723.2
35°	381.4	404.8	444.5	514.2	886.2	1708.1	3725.6	7219.3	8501.7	8764.0	8049.8
37.5°	367.1	388.0	422.8	482.2	850.2	1675.0	3651.1	7629.8	9072.5	9291.7	8318.6
40°	359.7	376.5	409.7	457.7	835.1	1637.3	3542.5	7992.1	9630.2	9819.9	8569.7
42.5°	354.0	369.1	400.2	442.5	815.3	1595.8	3454.8	8282.6	10114.4	10271.0	8809.4
45°	351.1	367.1	401.1	450.2	775.6	1541.0	3425.7	8596.9	10512.7	10647.5	9068.8
47.5°	351.1	370.0	405.7	466.2	728.5	1484.4	3517.1	9011.4	10889.2	10955.2	9374.5
50°	348.3	369.1	419.1	450.2	659.6	1412.7	3732.2	9533.1	11296.9	11304.3	9761.6
52.5°	342.5	367.1	451.1	440.8	580.2	1318.4	4023.0	10203.3	11900.0	11945.1	10367.3
55°	336.0	364.3	442.5	419.1	515.4	1206.2	4260.7	11017.5	12747.3	12872.7	11258.3
57.5°	327.4	360.5	428.5	388.8	472.8	1061.6	4346.7	11614.0	13339.0	13654.1	12262.2
60°	320.0	357.7	386.8	370.8	446.2	939.9	4180.4	11496.0	13298.4	13977.8	13152.1
62.5°	312.3	360.5	352.8	359.7	434.0	861.6	3746.5	10551.3	12625.6	13643.8	13811.8
65°	304.0	335.1	333.1	350.0	431.4	830.5	3105.7	9134.8	11325.2	12587.9	13967.5
67.5°	292.5	309.4	318.8	338.0	440.8	803.1	2506.3	7535.3	9517.9	11005.2	13155.9
70°	280.3	294.5	304.8	322.8	435.1	790.8	2084.7	5942.3	7552.4	9019.7	11554.6
72.5°	264.3	276.5	286.0	302.8	429.4	784.2	1761.0	4785.5	5638.6	6700.2	9394.5
75°	245.4	256.5	263.4	280.3	411.4	718.2	1384.4	4049.3	4219.3	4661.0	7482.4
77.5°	223.7	232.3	237.7	256.5	364.3	597.4	1001.3	3123.7	3276.5	3384.0	5736.6
80°	198.3	206.6	209.4	227.4	302.0	467.1	653.1	2307.2	2450.6	2475.2	3746.5
82.5°	168.8	177.4	177.4	194.3	247.1	336.0	428.5	1580.7	1609.0	1692.1	2648.0
85°	136.0	142.6	142.6	151.1	191.7	251.1	294.5	793.6	785.1	896.5	2294.1
87.5°	97.1	102.0	106.6	108.6	136.8	166.0	177.4	241.7	159.4	183.1	1473.0
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-05-LED-E1-SLR-600

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0	5800.0
2.5°	6662.5	6716.2	6661.3	6621.9	6451.1	6310.5	6122.5	6026.3
5°	7161.6	7298.4	7252.1	7086.2	6729.3	6328.2	5872.6	5666.9
7.5°	7101.3	7419.3	7426.7	7116.4	6590.8	6000.0	5382.9	5090.4
10°	6631.4	7037.9	7154.2	6853.0	6295.4	5634.9	4926.9	4593.0
12.5°	6106.5	6504.8	6593.6	6489.7	6023.7	5360.0	4642.1	4314.4
15°	5677.2	5855.7	5961.1	6052.0	5790.6	5250.6	4625.8	4266.4
17.5°	5415.8	5396.0	5426.3	5583.7	5628.0	5376.0	4871.2	4475.0
20°	5321.5	5018.7	5010.9	5228.1	5551.7	5675.4	5350.6	4875.0
22.5°	5373.5	4882.7	4820.4	5078.1	5592.3	6106.5	5979.1	5436.6
25°	5552.6	4894.1	4843.8	5093.2	5739.4	6566.2	6657.6	6163.1
27.5°	5834.9	4965.8	4899.5	5155.5	5934.8	6952.2	7325.9	6867.3
30°	6102.8	5090.4	5008.1	5278.1	6113.1	7105.0	7735.5	7416.4
32.5°	6428.5	5323.5	5178.9	5503.5	6334.0	7348.4	8100.6	7871.2
35°	6747.3	5655.4	5476.3	5851.7	6580.2	7651.5	8517.7	8452.6
37.5°	7097.6	6089.7	5941.4	6302.0	6917.3	7937.2	9050.0	9134.0
40°	7471.3	6665.3	6489.7	6958.7	7440.1	8296.0	9605.9	9807.6
42.5°	7847.8	7304.1	7094.7	7570.1	8014.6	8649.7	10081.3	10380.7
45°	8278.9	7997.8	7898.7	8412.9	8566.9	8986.8	10432.4	10804.4
47.5°	8781.1	8784.9	8944.3	9150.0	9123.7	9367.9	10785.5	11182.6
50°	9367.1	9767.0	10119.3	10255.9	9697.3	9777.6	11275.2	11689.4
52.5°	10071.0	10942.1	11378.0	11288.3	10315.6	10277.6	12050.8	12387.6
55°	10951.5	12186.0	12619.1	12554.8	11026.1	10958.9	13017.3	13213.6
57.5°	11970.5	13391.0	13789.2	13500.4	11879.1	11706.6	13816.6	13858.1
60°	12866.2	14346.0	14695.1	14375.2	12739.9	12501.9	14315.7	14114.6
62.5°	13364.4	14669.7	14915.1	14570.6	13329.6	13349.3	14425.2	13976.1
65°	13141.9	13851.5	13930.6	13902.4	13177.6	13840.9	14031.8	13335.3
67.5°	11922.5	11782.8	11916.0	12100.0	11875.4	13193.6	12941.6	11939.4
70°	9774.8	9007.4	9272.8	9396.2	9498.2	11353.5	11232.6	9724.8
72.5°	7366.4	6310.5	6519.9	6494.5	6966.2	9106.5	8735.7	7150.4
75°	5219.5	4278.7	4305.0	4294.7	4861.0	7124.7	6325.7	4892.1
77.5°	3651.9	3100.0	3114.3	3172.5	3268.0	5373.5	4519.3	3573.7
80°	2511.2	2352.6	2430.9	2435.8	2264.9	3609.6	3338.8	2868.0
82.5°	1870.4	1635.3	1616.4	1643.8	1775.0	2924.6	2565.7	1989.2
85°	1531.6	968.2	778.5	975.9	1573.0	2896.3	1704.4	1049.3
87.5°	862.5	459.7	207.7	385.1	627.7	1917.5	492.5	134.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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