

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: P298868

Luminaire Tested: **GLNA-AF-03-LED-E1-SLL-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298868  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191289)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-03-LED-E1-SLL-7030  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill  
Light Eliminator Left OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15396.8 lumens  
Efficiency: N/A  
Efficacy: 92.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G3

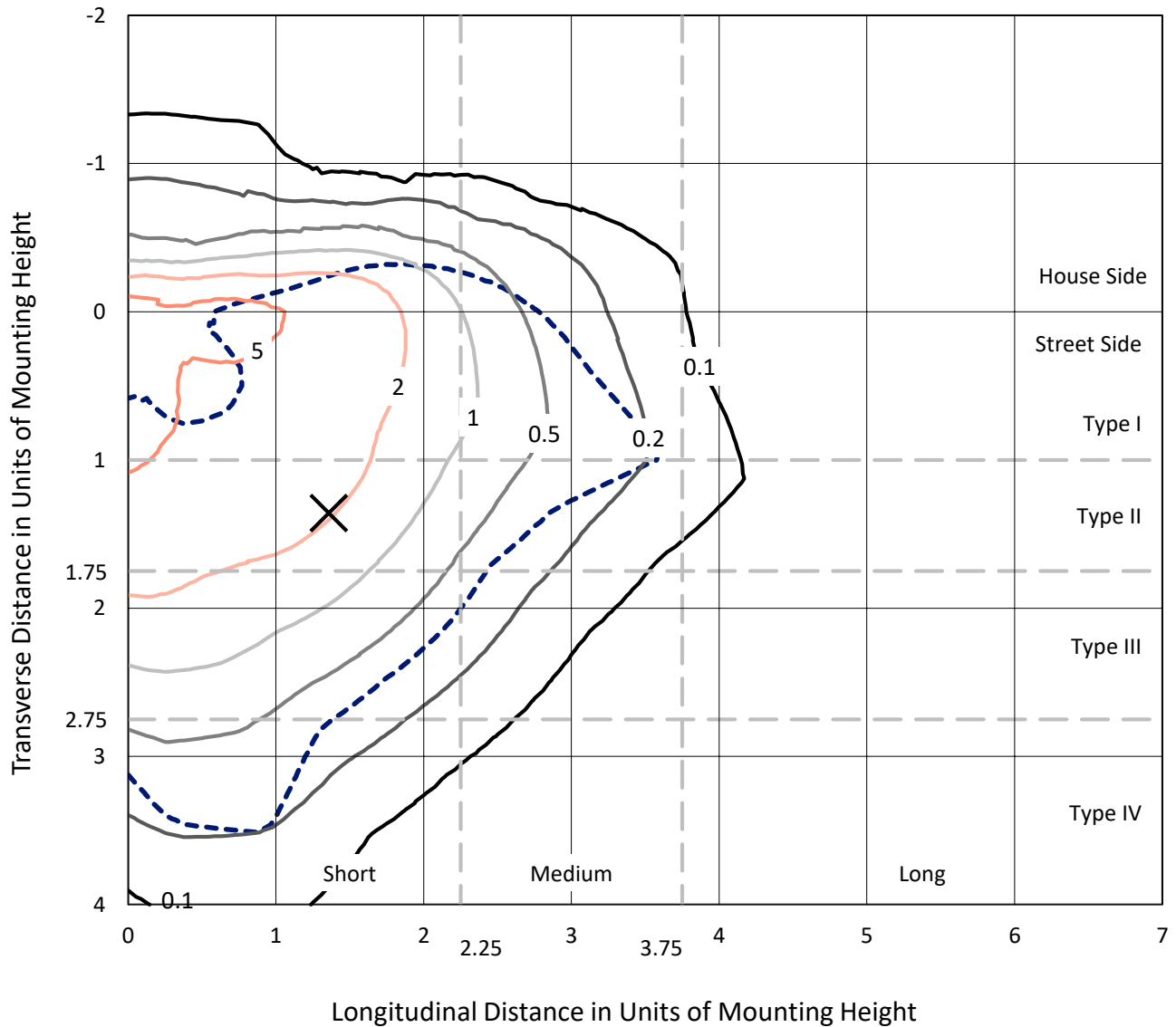
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

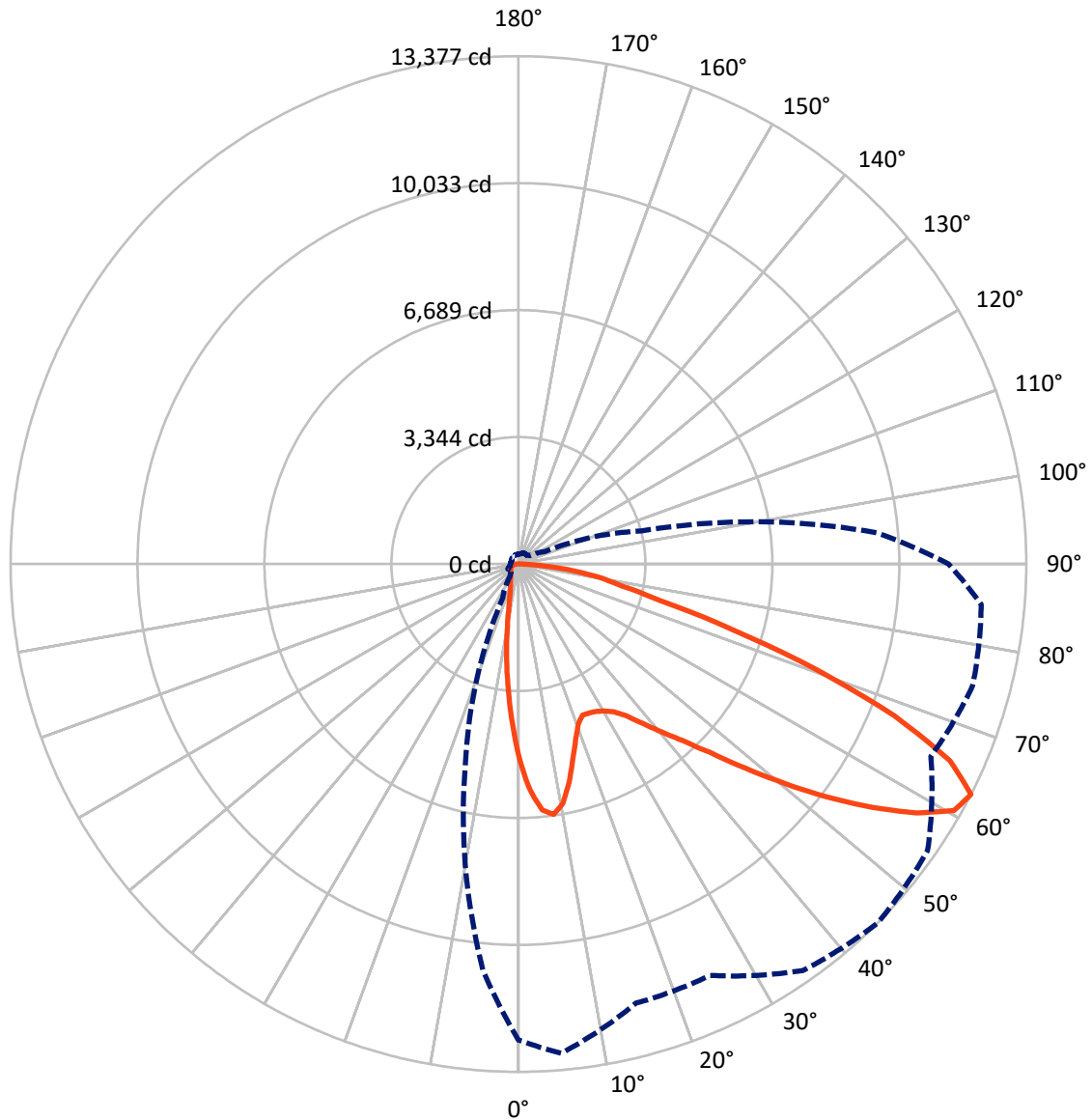
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2548.0	0.0	2548.0
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	12848.8	0.0	12848.8
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	15396.8	0.0	15396.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	378.7	2.5
10°-20°	694.4	4.5
20°-30°	1012.4	6.6
30°-40°	1559.3	10.1
40°-50°	2294.8	14.9
50°-60°	3366.0	21.9
60°-70°	3762.7	24.4
70°-80°	1842.2	12.0
80°-90°	486.4	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°	15396.8	100.0
0°-180°	15396.8	100.0



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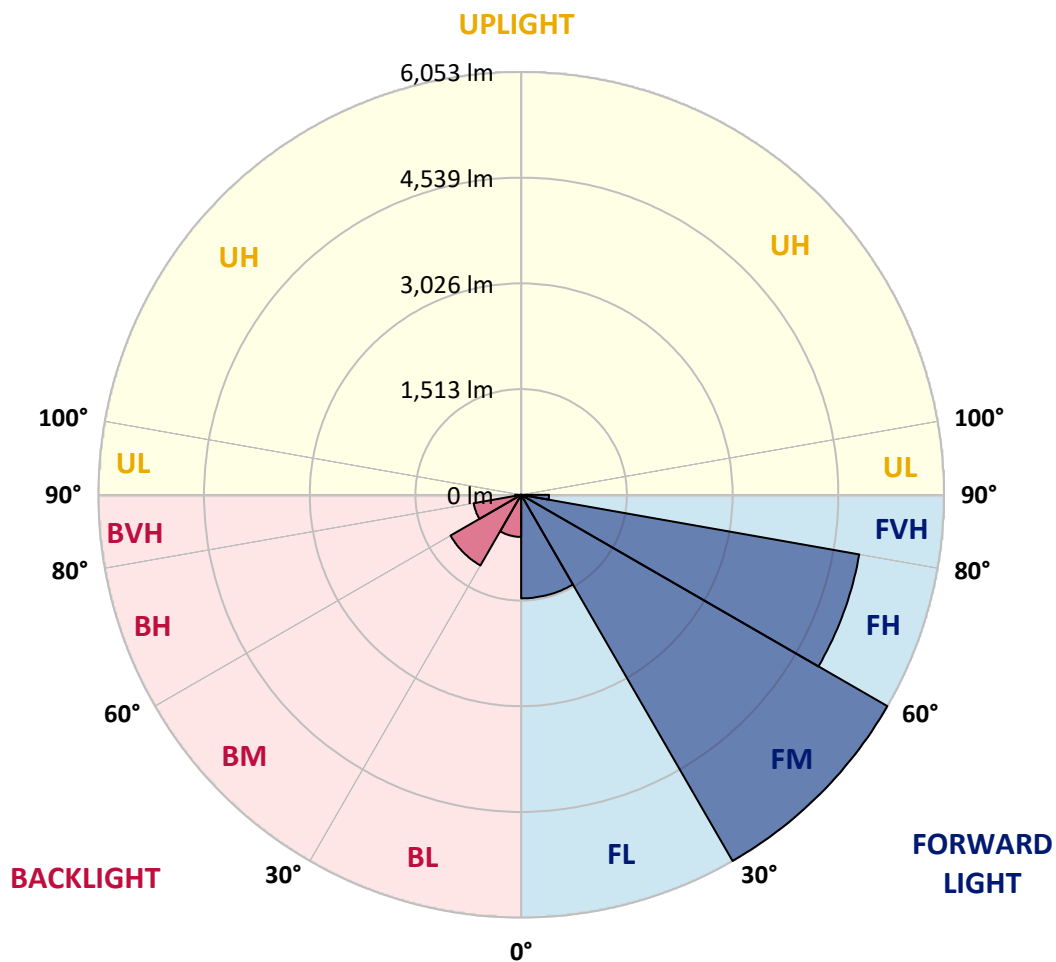
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1482.7	9.6			
FM	(30°-60°)	6052.6	39.3			
FH	(60°-80°)	4914.1	31.9			G2/5000
FVH	(80°-90°)	399.4	2.6			G3/500
BL	(0°-30°)	602.8	3.9	B2/1000		
BM	(30°-60°)	1167.5	7.6	B2/2500		
BH	(60°-80°)	690.7	4.5	B2/1000		G2/1000
BVH	(80°-90°)	87.0	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°	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0
2.5°	5404.8	5491.4	5659.8	5785.6	5939.2	5974.7	6023.8	5975.5	5890.0	5776.6	5739.5
5°	5082.5	5267.1	5675.7	6035.7	6355.5	6504.4	6546.2	6423.1	6175.2	5849.4	5650.4
7.5°	4565.4	4827.8	5381.2	5911.2	6382.4	6661.0	6654.1	6368.9	5912.8	5382.0	5063.0
10°	4119.2	4419.0	5053.9	5646.3	6146.4	6416.5	6312.1	5947.7	5403.2	4792.1	4446.2
12.5°	3869.7	4163.4	4807.5	5402.3	5820.5	5913.7	5834.0	5476.8	4963.8	4346.2	4043.1
15°	3826.3	4149.2	4709.4	5193.5	5427.9	5346.8	5251.8	5091.9	4729.4	4202.2	3886.5
17.5°	4013.7	4369.0	4822.0	5047.9	5008.1	4866.5	4839.6	4857.5	4770.4	4362.1	3998.3
20°	4372.5	4799.0	5090.2	4979.5	4689.1	4494.2	4501.1	4772.9	5030.9	4767.6	4351.9
22.5°	4875.9	5362.8	5476.8	5015.7	4554.4	4323.3	4379.4	4819.6	5446.6	5360.3	4829.5
25°	5527.6	5971.4	5889.2	5147.6	4567.9	4344.5	4389.3	4980.3	5937.3	5952.7	5420.5
27.5°	6159.0	6570.6	6235.1	5322.9	4623.9	4394.5	4453.9	5233.1	6406.3	6595.9	6095.8
30°	6651.7	6938.0	6372.2	5482.8	4733.8	4491.8	4565.4	5473.5	6619.8	7030.0	6615.4
32.5°	7059.7	7265.2	6590.7	5680.9	4936.1	4644.8	4774.5	5765.6	6927.0	7443.2	7124.0
35°	7580.9	7639.4	6862.4	5901.8	5248.5	4911.6	5072.3	6051.6	7219.9	7860.3	7625.1
37.5°	8192.2	8117.0	7118.8	6204.1	5652.4	5328.7	5461.7	6365.6	7460.8	8333.5	8137.0
40°	8796.4	8615.1	7440.8	6672.8	6241.4	5820.5	5978.0	6700.8	7686.1	8807.4	8637.4
42.5°	9310.2	9041.8	7757.8	7188.3	6789.6	6363.2	6551.1	7038.5	7901.0	9211.9	9071.5
45°	9690.2	9356.7	8060.1	7683.4	7545.5	7084.1	7173.2	7425.1	8133.7	9549.8	9428.7
47.5°	10029.6	9673.2	8401.9	8182.9	8206.5	8021.9	7878.7	7875.4	8408.2	9825.7	9766.3
50°	10484.0	10112.5	8769.2	8697.3	9198.4	9075.6	8759.9	8401.1	8755.0	10138.9	10132.1
52.5°	11110.5	10808.5	9217.9	9251.7	10124.6	10204.9	9813.6	9032.7	9298.2	10713.4	10673.1
55°	11851.2	11674.8	9829.3	9889.2	11260.2	11317.9	10929.1	9822.1	10097.4	11545.7	11433.0
57.5°	12429.0	12392.0	10499.4	10654.4	12108.4	12367.5	12010.3	10736.5	10997.8	12246.3	11963.6
60°	12659.3	12839.5	11213.0	11426.2	12893.1	13179.7	12866.7	11539.4	11796.0	12536.8	11927.3
62.5°	12535.1	12937.6	11972.9	11955.1	13068.1	13377.0	13156.9	11986.4	12387.8	12237.0	11324.0
65°	11960.3	12584.8	12413.9	11818.8	12468.9	12494.2	12423.0	11786.7	12527.4	11289.9	10157.3
67.5°	10708.2	11607.2	11833.1	10651.1	10852.2	10687.3	10567.8	10693.1	11799.3	9870.5	8536.5
70°	8722.0	10074.6	10182.6	8518.9	8427.4	8316.4	8078.8	8766.8	10363.1	8089.8	6773.7
72.5°	6413.2	7835.1	8167.5	6248.0	5824.9	5847.4	5659.8	6606.6	8425.8	6009.3	5057.2
75°	4387.6	5673.2	6390.4	4359.6	3852.1	3861.2	3837.3	4681.4	6711.0	4180.2	3784.3
77.5°	3205.4	4053.3	4819.6	2930.9	2845.4	2792.9	2780.3	3275.4	5145.2	3035.3	2938.6
80°	2572.0	2994.6	3237.2	2031.3	2184.3	2180.2	2109.9	2252.2	3360.0	2220.1	2197.8
82.5°	1784.3	2301.4	2622.9	1592.0	1474.4	1449.6	1466.9	1677.4	2375.0	1517.5	1443.0
85°	941.3	1528.5	2597.6	1410.9	875.1	698.2	868.5	1373.5	2057.7	804.2	703.9
87.5°	120.3	441.8	1719.7	563.0	345.4	186.0	412.4	773.4	1321.3	164.0	143.1
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°	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0
2.5°	5643.8	5531.2	5383.9	5247.4	5106.1	4965.5	4781.9	4666.8	4587.4	4572.0	4538.5
5°	5506.7	5132.5	4849.8	4605.3	4383.5	4070.0	3896.6	3752.7	3675.7	3668.3	3649.6
7.5°	4874.2	4358.0	3976.3	3630.1	3316.1	3063.0	2783.6	2653.6	2600.1	2612.7	2625.3
10°	4216.5	3639.5	3201.0	2847.1	2570.4	2357.2	2133.0	1981.6	1876.3	1855.2	1851.1
12.5°	3735.9	3102.9	2677.3	2427.2	2213.5	2012.6	1774.9	1596.1	1460.1	1413.4	1382.3
15°	3532.6	2840.5	2394.5	2125.3	1889.0	1634.3	1413.4	1226.3	1101.2	1060.6	1037.8
17.5°	3576.0	2767.7	2199.7	1855.2	1553.2	1287.3	1008.9	848.7	773.4	754.2	754.2
20°	3803.0	2754.2	2038.7	1606.5	1229.6	921.5	693.2	601.7	577.3	574.8	581.4
22.5°	4121.1	2801.7	1918.9	1390.8	955.6	672.9	539.9	506.1	495.1	497.9	505.3
25°	4595.1	2961.6	1831.8	1198.5	749.8	550.9	481.4	461.3	456.1	463.0	472.3
27.5°	5157.0	3121.5	1777.4	1053.7	633.0	503.6	457.8	436.9	440.2	448.7	456.9
30°	5650.4	3252.9	1692.0	950.7	596.8	506.1	457.8	429.2	425.9	427.5	430.0
32.5°	6093.4	3341.6	1592.0	852.3	514.6	449.5	427.5	423.4	404.4	397.6	398.7
35°	6475.0	3341.6	1532.1	794.9	461.3	398.7	363.2	342.1	332.5	333.3	342.9
37.5°	6843.2	3274.6	1502.4	762.5	432.5	379.2	347.8	329.2	316.5	314.1	315.7
40°	7167.9	3177.3	1468.6	749.0	410.5	367.4	338.0	322.3	308.8	304.7	305.5
42.5°	7428.7	3098.5	1431.2	731.4	396.8	358.8	330.8	317.3	302.2	297.8	297.0
45°	7710.6	3072.4	1382.3	695.7	403.6	359.7	329.2	314.9	299.5	294.5	292.9
47.5°	8082.1	3154.5	1331.5	653.4	418.2	364.1	331.6	314.9	298.7	294.5	292.9
50°	8550.0	3347.4	1266.9	591.6	403.6	375.9	330.8	312.1	298.7	294.5	291.2
52.5°	9151.2	3608.1	1182.6	520.7	395.1	404.4	329.2	307.2	294.5	288.8	282.7
55°	9881.5	3821.4	1081.5	462.1	375.9	396.8	326.7	301.4	287.9	279.4	274.2
57.5°	10416.4	3898.3	952.3	424.2	348.7	384.1	323.1	293.7	279.4	272.6	266.0
60°	10310.6	3749.4	843.0	400.3	332.5	347.0	320.6	286.8	271.7	266.8	260.5
62.5°	9463.6	3360.0	772.6	389.3	322.3	316.5	323.1	280.3	265.1	259.6	258.0
65°	8193.1	2785.2	744.9	386.9	314.1	298.7	300.6	272.6	257.2	253.1	251.4
67.5°	6758.3	2248.1	720.4	395.1	303.1	286.0	277.8	262.4	249.5	245.4	242.1
70°	5329.5	1869.7	709.2	390.2	289.6	273.4	264.3	251.4	240.4	236.0	233.5
72.5°	4291.8	1579.3	703.1	384.9	271.7	256.4	247.8	236.8	225.0	223.4	220.9
75°	3632.1	1241.6	644.3	369.0	251.4	236.0	230.2	220.1	208.3	208.3	206.6
77.5°	2801.7	897.9	535.8	326.7	230.2	213.2	208.3	200.6	187.1	189.6	188.8
80°	2069.5	585.8	419.0	270.9	204.1	187.9	185.2	177.8	163.2	166.8	166.8
82.5°	1417.8	384.1	301.4	221.7	174.2	159.1	159.1	151.4	135.5	137.1	142.3
85°	711.9	264.3	225.0	171.7	135.5	127.8	127.8	122.0	105.8	106.6	113.5
87.5°	216.8	159.1	148.9	122.8	97.3	95.6	91.2	87.1	76.9	76.1	80.5
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°	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0
2.5°	4486.6	4438.2	4380.2	4251.4	4208.2	4205.5	4244.8	4203.8	4281.9	4248.9	4285.2
5°	3618.0	3571.1	3505.7	3341.6	3241.6	3173.8	3141.9	3047.1	3115.5	3065.5	3107.3
7.5°	2661.1	2672.0	2628.9	2532.5	2314.9	2205.8	2141.5	2083.8	2133.8	2128.6	2208.2
10°	1870.6	1900.0	1869.7	1772.5	1596.1	1536.2	1548.0	1570.8	1636.2	1669.7	1792.5
12.5°	1346.6	1345.0	1325.4	1238.3	1122.4	1129.0	1177.3	1216.9	1277.1	1312.8	1437.8
15°	1005.3	990.2	981.7	910.6	844.6	859.2	882.8	886.9	925.1	946.3	1047.9
17.5°	760.0	767.7	776.7	726.2	676.2	666.8	648.4	625.4	636.6	640.7	691.3
20°	603.4	633.9	657.0	621.2	570.7	543.2	519.6	504.5	504.5	503.6	517.9
22.5°	527.3	549.2	574.0	549.2	503.6	479.7	466.3	454.5	452.8	452.8	466.3
25°	486.1	502.0	525.6	508.9	474.8	456.9	444.3	429.2	423.4	421.5	430.8
27.5°	465.4	472.3	484.1	468.7	440.2	431.6	428.4	414.9	406.9	402.8	412.4
30°	430.8	429.2	430.0	414.9	391.8	391.0	396.8	399.5	396.8	395.9	410.5
32.5°	398.7	395.1	394.3	380.8	359.7	354.7	359.7	364.9	370.7	379.2	395.9
35°	358.0	366.5	371.5	359.7	334.1	319.0	313.2	303.9	298.7	298.7	318.2
37.5°	325.9	345.4	353.1	342.1	314.1	292.9	282.7	281.1	281.9	285.2	303.9
40°	314.9	329.2	335.8	325.0	297.0	277.8	271.7	270.1	271.7	277.0	295.4
42.5°	308.0	318.2	317.3	303.9	281.1	267.6	264.3	262.4	264.3	269.3	289.6
45°	302.2	308.8	302.2	286.0	265.1	258.0	258.8	258.0	259.6	265.1	284.4
47.5°	297.0	299.5	291.2	275.0	253.1	251.4	254.7	257.2	258.8	263.5	283.6
50°	289.6	289.6	281.9	265.1	242.9	243.7	247.8	253.9	254.7	259.6	276.1
52.5°	280.3	279.4	274.2	258.0	234.4	236.8	236.8	243.7	245.4	251.4	268.4
55°	272.6	270.9	268.4	253.1	227.0	231.1	228.6	231.1	235.2	241.2	259.6
57.5°	266.0	262.4	262.4	248.7	220.9	222.6	216.8	220.1	225.0	230.2	249.5
60°	258.8	255.5	257.2	242.9	211.6	209.9	207.4	214.0	216.0	221.7	241.2
62.5°	251.4	248.7	249.5	236.0	205.0	200.6	200.6	206.6	207.4	216.0	234.4
65°	245.4	242.1	241.2	229.4	197.3	192.3	194.8	197.3	198.9	207.4	225.0
67.5°	239.6	232.7	232.7	223.4	188.8	183.5	188.8	187.9	190.7	198.1	212.4
70°	231.9	222.6	223.4	219.3	180.2	174.2	178.6	177.8	179.4	184.4	198.9
72.5°	220.1	212.4	214.0	212.4	171.7	163.2	164.9	164.9	164.9	169.3	184.4
75°	205.0	198.9	204.1	208.3	161.6	149.7	151.4	151.4	148.9	151.4	170.1
77.5°	186.0	182.7	199.8	194.0	149.7	135.5	135.5	133.8	128.9	132.2	152.2
80°	166.0	163.2	184.4	162.4	136.3	117.9	115.9	111.6	106.6	109.1	129.7
82.5°	144.8	142.3	155.0	124.5	117.9	97.3	93.1	85.5	80.5	83.0	101.4
85°	118.7	118.7	119.5	94.0	89.6	74.5	69.5	59.3	53.3	55.0	72.8
87.5°	84.6	87.1	80.5	64.3	53.3	41.5	38.2	32.1	26.9	31.3	38.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P298868

CATALOG NUMBER: GLNA-AF-03-LED-E1-SLL-7030

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0	5202.0
2.5°	4471.4	4564.6	4670.4	4805.6	4921.8	5111.9	5294.9	5404.8
5°	3343.3	3498.2	3690.9	3939.2	4170.3	4517.1	4861.6	5082.5
7.5°	2392.6	2558.6	2766.8	3076.5	3403.5	3845.8	4301.4	4565.4
10°	1979.9	2150.0	2325.0	2534.1	2801.7	3283.1	3821.4	4119.2
12.5°	1637.8	1819.7	2008.5	2228.6	2476.4	2906.4	3526.8	3869.7
15°	1253.5	1456.5	1679.1	1957.7	2268.1	2765.2	3454.0	3826.3
17.5°	859.2	1086.1	1359.2	1703.0	2083.0	2719.3	3584.5	4013.7
20°	591.6	756.7	1048.8	1451.6	1908.8	2713.5	3834.8	4372.5
22.5°	495.1	568.8	782.0	1220.5	1777.4	2786.3	4223.6	4875.9
25°	457.8	502.0	624.5	1019.9	1681.8	2953.9	4758.6	5527.6
27.5°	436.0	475.6	567.1	888.8	1606.5	3148.5	5279.0	6159.0
30°	444.3	485.0	550.9	821.8	1504.0	3310.9	5741.1	6651.7
32.5°	400.3	418.2	472.3	762.5	1430.4	3447.1	6145.6	7059.7
35°	341.3	372.3	421.5	734.7	1432.0	3538.6	6586.5	7580.9
37.5°	325.0	356.4	391.8	724.5	1451.6	3636.2	7092.7	8192.2
40°	314.9	343.7	374.2	718.8	1470.2	3724.9	7588.9	8796.4
42.5°	308.0	334.1	372.3	698.2	1479.6	3804.6	7996.6	9310.2
45°	307.2	334.1	379.2	677.8	1493.9	3890.1	8338.7	9690.2
47.5°	308.0	345.4	366.5	653.4	1493.9	4032.9	8739.8	10029.6
50°	304.7	364.1	353.1	618.8	1459.3	4303.8	9289.9	10484.0
52.5°	303.1	361.6	326.7	565.5	1399.1	4733.8	9994.9	11110.5
55°	298.7	348.7	308.0	486.1	1329.0	5202.9	10750.0	11851.2
57.5°	294.5	308.8	297.8	416.5	1220.5	5532.8	11269.6	12429.0
60°	330.0	270.1	289.6	382.5	1075.7	5623.2	11249.5	12659.3
62.5°	305.5	253.1	278.6	375.0	974.3	5369.4	10729.7	12535.1
65°	239.6	242.1	267.6	396.8	947.1	4696.7	9808.7	11960.3
67.5°	219.3	231.1	256.4	425.1	949.8	3760.4	8432.7	10708.2
70°	206.6	219.3	243.7	439.3	956.4	2803.4	6666.8	8722.0
72.5°	192.3	203.3	229.4	441.8	912.2	2036.2	5138.6	6413.2
75°	175.0	185.2	209.1	384.9	755.9	1412.5	3930.7	4387.6
77.5°	155.8	163.2	183.5	297.0	561.3	904.0	2950.4	3205.4
80°	133.0	137.1	154.1	217.6	384.1	565.5	2334.4	2572.0
82.5°	106.6	108.3	119.5	163.2	249.5	363.2	1563.4	1784.3
85°	75.3	75.3	82.2	118.7	170.1	230.2	848.7	941.3
87.5°	35.4	36.3	36.3	65.1	88.7	117.0	195.6	120.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)