

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: P298900

Luminaire Tested: **GLNA-AF-08-LED-E1-SLL**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298900  
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-08-LED-E1-SLL  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill  
Light Eliminator Left OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

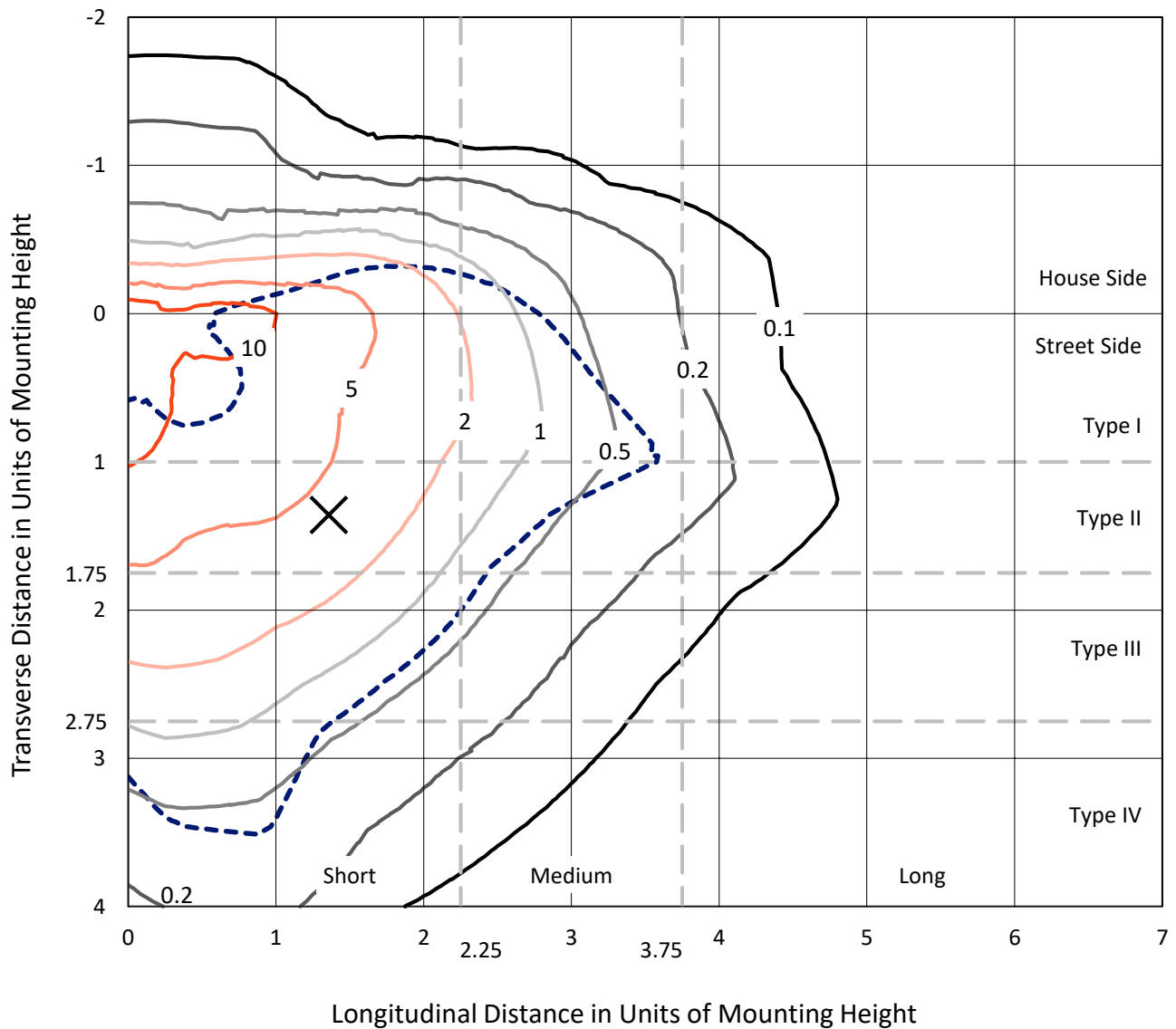
Lumens per Lamp: N/A  
Luminaire Lumens: 41785.9 lumens  
Efficiency: N/A  
Efficacy: 93.9 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 445  
Input Voltage (V): NR  
Input Current (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

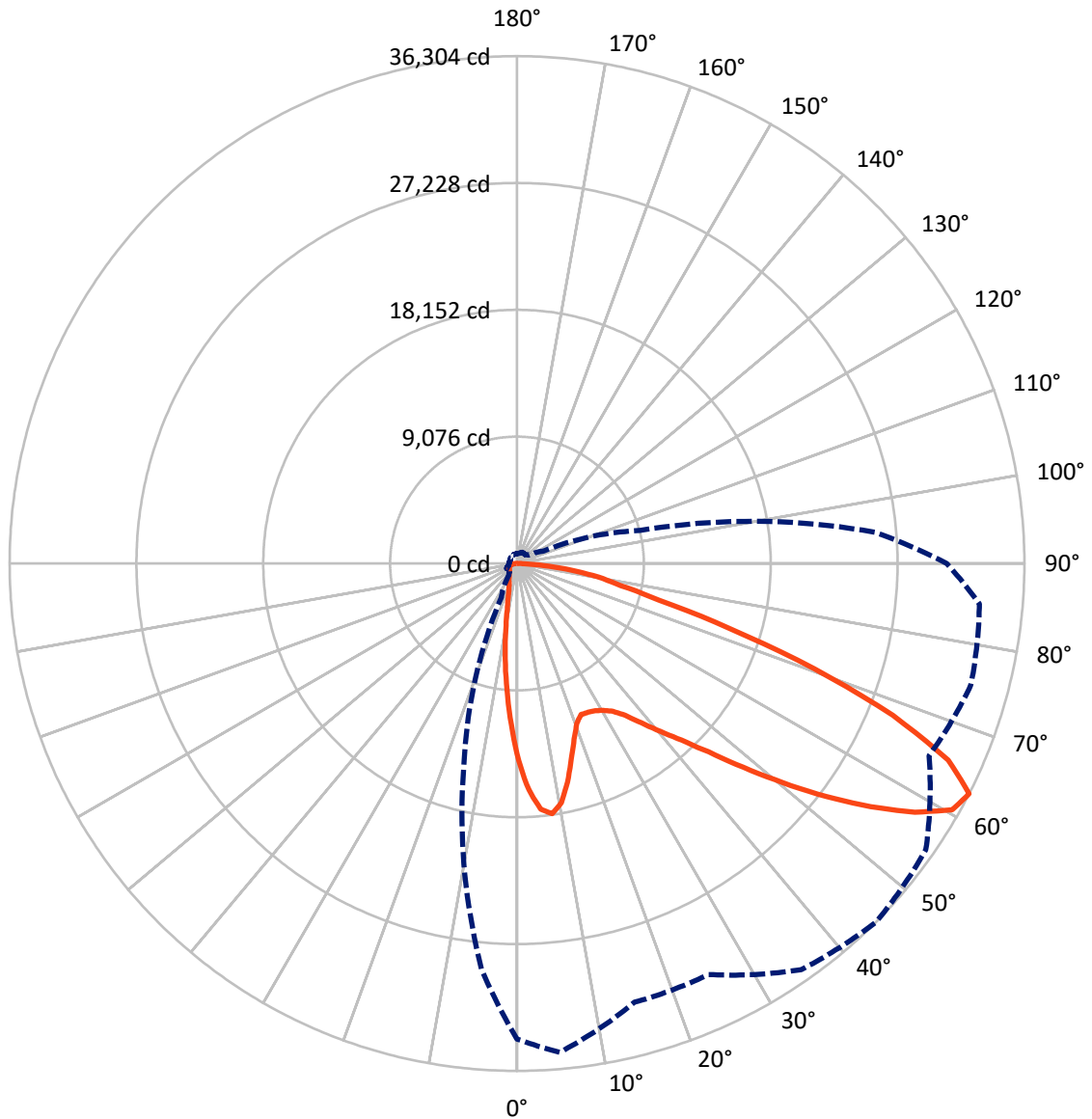
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 18.5 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	6915.0	0.0	6915.0
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	34870.9	0.0	34870.9
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	41785.9	0.0	41785.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1027.7	2.5
10°-20°	1884.5	4.5
20°-30°	2747.6	6.6
30°-40°	4231.7	10.1
40°-50°	6228.0	14.9
50°-60°	9135.1	21.9
60°-70°	10211.7	24.4
70°-80°	4999.5	12.0
80°-90°	1320.0	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°	41785.9	100.0
0°-180°	41785.9	100.0



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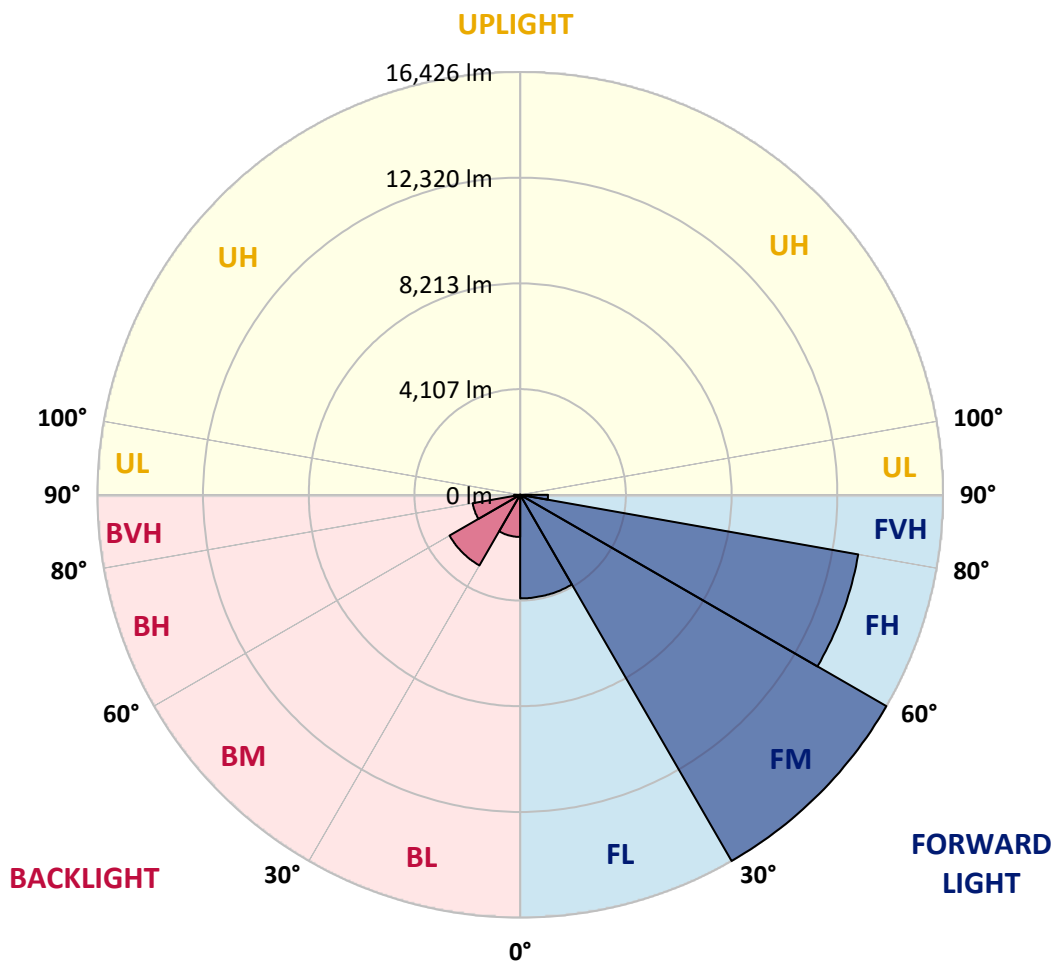
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4023.9	9.6			
FM (30°-60°)	16426.4	39.3			
FH (60°-80°)	13336.6	31.9			G5
FVH (80°-90°)	1084.0	2.6			G5
BL (0°-30°)	1636.0	3.9	B3/2500		
BM (30°-60°)	3168.4	7.6	B3/5000		
BH (60°-80°)	1874.6	4.5	B3/2500		G3/2500
BVH (80°-90°)	236.0	0.6			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0
2.5°	14668.3	14903.2	15360.3	15701.8	16118.6	16214.8	16348.3	16217.1	15985.2	15677.2	15576.5
5°	13793.6	14294.7	15403.5	16380.4	17248.3	17652.5	17765.8	17431.8	16759.2	15874.8	15334.9
7.5°	12390.2	13102.4	14604.2	16042.6	17321.4	18077.5	18058.9	17284.9	16047.1	14606.4	13740.7
10°	11179.2	11992.8	13716.1	15323.7	16680.9	17413.9	17130.5	16141.8	14663.8	13005.4	12066.6
12.5°	10502.2	11299.3	13047.2	14661.6	15796.5	16049.3	15833.0	14863.7	13471.5	11795.2	10972.7
15°	10384.4	11260.5	12781.0	14094.9	14730.9	14510.9	14252.9	13819.0	12835.4	11404.4	10547.7
17.5°	10892.9	11857.1	13086.7	13699.6	13591.5	13207.5	13134.4	13182.9	12946.5	11838.4	10851.1
20°	11866.8	13024.1	13814.5	13514.0	12725.8	12197.1	12215.7	12953.2	13653.4	12939.1	11810.8
22.5°	13232.9	14554.2	14863.7	13612.4	12360.4	11733.3	11885.4	13080.0	14781.6	14547.5	13106.8
25°	15001.6	16205.9	15982.9	13970.3	12396.9	11790.7	11912.3	13516.2	16113.4	16155.2	14710.8
27.5°	16715.2	17832.2	16921.7	14446.1	12549.1	11926.4	12087.5	14202.2	17386.3	17900.8	16543.7
30°	18052.2	18829.2	17293.8	14880.1	12847.3	12190.4	12390.2	14854.7	17965.7	19079.0	17953.8
32.5°	19159.5	19717.3	17886.6	15417.7	13396.2	12605.7	12957.7	15647.4	18799.4	20200.5	19334.0
35°	20574.1	20732.9	18624.1	16017.2	14244.0	13329.8	13766.0	16423.6	19594.3	21332.4	20694.1
37.5°	22233.2	22028.9	19319.8	16837.5	15340.1	14461.7	14822.6	17275.9	20248.2	22616.5	22083.3
40°	23873.0	23380.8	20193.8	18109.6	16938.9	15796.5	16223.8	18185.7	20859.7	23902.8	23441.2
42.5°	25267.4	24538.9	21054.3	19508.5	18426.5	17269.2	17779.3	19102.1	21442.8	25000.4	24619.4
45°	26298.7	25393.4	21874.5	20852.2	20477.9	19225.9	19467.5	20151.3	22074.4	25917.6	25588.8
47.5°	27219.6	26252.4	22802.2	22207.9	22272.0	21770.9	21382.4	21373.5	22819.3	26666.3	26505.2
50°	28452.9	27444.8	23799.2	23603.8	24963.9	24630.6	23773.8	22799.9	23760.4	27516.4	27497.7
52.5°	30153.1	29333.6	25016.8	25108.6	27477.6	27695.3	26633.5	24514.3	25234.6	29075.6	28966.0
55°	32163.5	31684.7	26676.0	26838.5	30559.5	30716.1	29660.9	26656.6	27403.8	31334.3	31028.5
57.5°	33731.6	33631.0	28494.7	28915.3	32861.4	33564.6	32595.2	29138.2	29847.4	33235.7	32468.4
60°	34356.5	34845.7	30431.2	31009.9	34991.1	35768.8	34919.5	31317.1	32013.6	34023.9	32370.0
62.5°	34019.5	35111.9	32493.8	32445.3	35466.1	36304.2	35706.9	32530.3	33619.8	33210.4	30732.5
65°	32459.5	34154.4	33690.6	32075.5	33839.7	33908.3	33715.2	31988.2	33998.6	30640.0	27566.3
67.5°	29061.4	31501.3	32114.2	28906.3	29452.2	29004.7	28680.4	29020.4	32022.5	26787.8	23167.6
70°	23670.9	27341.9	27634.9	23119.8	22871.5	22570.3	21925.3	23792.4	28124.8	21955.1	18383.3
72.5°	17404.9	21263.8	22166.1	16956.8	15808.4	15869.6	15360.3	17929.9	22867.0	16308.8	13725.0
75°	11907.8	15396.8	17343.0	11831.7	10454.4	10479.1	10414.2	12704.9	18213.3	11344.8	10270.3
77.5°	8699.1	11000.3	13080.0	7954.2	7722.3	7579.8	7545.5	8889.3	13963.6	8237.5	7975.1
80°	6980.3	8127.2	8785.6	5512.8	5928.2	5917.0	5726.1	6112.3	9118.9	6025.1	5964.7
82.5°	4842.5	6245.8	7118.3	4320.5	4001.3	3934.2	3981.2	4552.4	6445.7	4118.4	3916.3
85°	2554.7	4148.2	7049.7	3829.1	2375.0	1894.8	2357.1	3727.7	5584.4	2182.6	1910.4
87.5°	326.6	1199.1	4667.2	1527.9	937.3	504.8	1119.3	2099.1	3586.0	445.2	388.5
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0
2.5°	15317.0	15011.3	14611.6	14241.0	13857.7	13475.9	12977.8	12665.4	12449.9	12408.1	12317.2
5°	14944.9	13929.3	13162.0	12498.4	11896.6	11045.8	10575.2	10184.5	9975.7	9955.6	9904.9
7.5°	13228.4	11827.2	10791.5	9851.9	8999.6	8312.9	7554.5	7201.8	7056.4	7090.7	7125.0
10°	11443.2	9877.3	8687.2	7726.7	6975.8	6397.2	5788.7	5377.9	5092.3	5034.8	5023.7
12.5°	10139.0	8421.0	7265.9	6587.3	6007.2	5462.1	4817.1	4331.7	3962.5	3835.8	3751.5
15°	9587.2	7708.8	6498.6	5767.8	5126.6	4435.3	3835.8	3328.0	2988.7	2878.3	2816.4
17.5°	9705.0	7511.2	5969.9	5034.8	4215.3	3493.5	2738.1	2303.4	2099.1	2046.9	2046.9
20°	10321.0	7474.7	5533.0	4360.0	3336.9	2501.0	1881.4	1633.0	1566.7	1560.0	1577.9
22.5°	11184.5	7603.7	5207.8	3774.6	2593.5	1826.2	1465.3	1373.5	1343.7	1351.2	1371.3
25°	12470.8	8037.7	4971.5	3252.7	2035.0	1495.1	1306.4	1252.0	1237.8	1256.5	1281.8
27.5°	13995.7	8471.7	4823.8	2859.7	1718.0	1366.8	1242.3	1185.6	1194.6	1217.7	1240.1
30°	15334.9	8828.1	4591.9	2580.1	1619.6	1373.5	1242.3	1164.8	1155.8	1160.3	1167.0
32.5°	16537.0	9069.0	4320.5	2313.1	1396.7	1219.9	1160.3	1149.1	1097.6	1079.0	1082.0
35°	17572.7	9069.0	4157.9	2157.3	1252.0	1082.0	985.8	928.4	902.3	904.5	930.6
37.5°	18571.9	8887.0	4077.4	2069.3	1173.7	1029.0	944.0	893.3	859.0	852.3	856.8
40°	19453.3	8623.1	3985.7	2032.7	1114.0	997.0	917.2	874.7	838.1	827.0	829.2
42.5°	20161.0	8409.0	3884.3	1985.0	1076.8	973.9	897.8	861.3	820.2	808.3	806.1
45°	20926.0	8338.2	3751.5	1888.1	1095.4	976.1	893.3	854.6	812.8	799.4	794.9
47.5°	21934.2	8561.2	3613.6	1773.2	1134.9	988.0	900.0	854.6	810.6	799.4	794.9
50°	23204.1	9084.6	3438.3	1605.5	1095.4	1020.1	897.8	847.1	810.6	799.4	790.4
52.5°	24835.6	9792.3	3209.4	1413.1	1072.3	1097.6	893.3	833.7	799.4	783.7	767.3
55°	26817.7	10370.9	2935.0	1254.2	1020.1	1076.8	886.6	818.0	781.5	758.4	744.2
57.5°	28269.5	10579.7	2584.5	1151.3	946.3	1042.5	876.9	797.1	758.4	739.7	721.8
60°	27982.4	10175.6	2287.7	1086.5	902.3	941.8	870.2	778.5	737.5	724.1	706.9
62.5°	25683.5	9118.9	2096.9	1056.6	874.7	859.0	876.9	760.6	719.6	704.7	700.2
65°	22235.5	7559.0	2021.5	1049.9	852.3	810.6	815.8	739.7	698.0	686.8	682.3
67.5°	18341.5	6101.2	1955.2	1072.3	822.5	776.3	753.9	712.1	677.1	665.9	656.9
70°	14464.0	5074.4	1924.6	1058.9	785.9	742.0	717.3	682.3	652.5	640.5	633.8
72.5°	11647.5	4286.2	1908.2	1044.7	737.5	695.7	672.6	642.8	610.7	606.2	599.5
75°	9857.2	3369.7	1748.6	1001.4	682.3	640.5	624.9	597.3	565.2	565.2	560.8
77.5°	7603.7	2436.9	1454.1	886.6	624.9	578.6	565.2	544.3	507.8	514.5	512.3
80°	5616.5	1589.8	1137.2	735.2	554.0	510.0	502.6	482.5	442.9	452.6	452.6
82.5°	3847.7	1042.5	818.0	601.8	472.8	431.7	431.7	410.9	367.6	372.1	386.3
85°	1932.1	717.3	610.7	466.1	367.6	346.7	346.7	331.1	287.1	289.3	308.0
87.5°	588.3	431.7	404.2	333.3	264.0	259.5	247.6	236.4	208.8	206.6	218.5
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°	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0
2.5°	12176.2	12045.0	11887.6	11537.9	11420.8	11413.4	11520.0	11408.9	11620.7	11531.2	11629.6
5°	9819.1	9691.6	9514.1	9069.0	8797.5	8613.4	8526.9	8269.6	8455.3	8319.6	8432.9
7.5°	7221.9	7251.7	7134.7	6872.9	6282.4	5986.3	5811.8	5655.2	5791.0	5776.8	5993.0
10°	5076.6	5156.4	5074.4	4810.4	4331.7	4169.1	4201.2	4263.1	4440.5	4531.5	4864.8
12.5°	3654.6	3650.1	3597.2	3360.8	3046.1	3064.0	3195.2	3302.6	3465.9	3562.9	3902.1
15°	2728.4	2687.4	2664.3	2471.2	2292.2	2331.7	2395.9	2407.1	2510.7	2568.1	2844.0
17.5°	2062.6	2083.4	2108.0	1970.8	1835.1	1809.8	1759.8	1697.2	1727.7	1738.9	1876.1
20°	1637.5	1720.3	1782.9	1686.0	1548.8	1474.2	1410.1	1369.1	1369.1	1366.8	1405.6
22.5°	1431.0	1490.6	1557.7	1490.6	1366.8	1302.0	1265.4	1233.4	1228.9	1228.9	1265.4
25°	1319.1	1362.4	1426.5	1381.0	1288.5	1240.1	1205.8	1164.8	1149.1	1143.9	1169.2
27.5°	1263.2	1281.8	1313.9	1272.1	1194.6	1171.5	1162.5	1126.0	1104.4	1093.2	1119.3
30°	1169.2	1164.8	1167.0	1126.0	1063.3	1061.1	1076.8	1084.2	1076.8	1074.5	1114.0
32.5°	1082.0	1072.3	1070.1	1033.5	976.1	962.7	976.1	990.3	1005.9	1029.0	1074.5
35°	971.6	994.7	1008.2	976.1	906.7	865.7	850.1	824.7	810.6	810.6	863.5
37.5°	884.4	937.3	958.2	928.4	852.3	794.9	767.3	762.8	765.1	774.0	824.7
40°	854.6	893.3	911.2	882.1	806.1	753.9	737.5	733.0	737.5	751.6	801.6
42.5°	835.9	863.5	861.3	824.7	762.8	726.3	717.3	712.1	717.3	730.8	785.9
45°	820.2	838.1	820.2	776.3	719.6	700.2	702.4	700.2	704.7	719.6	771.8
47.5°	806.1	812.8	790.4	746.4	686.8	682.3	691.2	698.0	702.4	715.1	769.5
50°	785.9	785.9	765.1	719.6	659.2	661.4	672.6	689.0	691.2	704.7	749.4
52.5°	760.6	758.4	744.2	700.2	636.1	642.8	642.8	661.4	665.9	682.3	728.5
55°	739.7	735.2	728.5	686.8	615.9	627.1	620.4	627.1	638.3	654.7	704.7
57.5°	721.8	712.1	712.1	674.8	599.5	604.0	588.3	597.3	610.7	624.9	677.1
60°	702.4	693.5	698.0	659.2	574.2	569.7	563.0	580.9	586.1	601.8	654.7
62.5°	682.3	674.8	677.1	640.5	556.3	544.3	544.3	560.8	563.0	586.1	636.1
65°	665.9	656.9	654.7	622.6	535.4	522.0	528.7	535.4	539.9	563.0	610.7
67.5°	650.2	631.6	631.6	606.2	512.3	498.1	512.3	510.0	517.5	537.6	576.4
70°	629.4	604.0	606.2	595.1	489.2	472.8	484.7	482.5	486.9	500.4	539.9
72.5°	597.3	576.4	580.9	576.4	466.1	442.9	447.4	447.4	447.4	459.3	500.4
75°	556.3	539.9	554.0	565.2	438.5	406.4	410.9	410.9	404.2	410.9	461.6
77.5°	504.8	495.9	542.1	526.5	406.4	367.6	367.6	363.1	349.7	358.7	413.1
80°	450.4	442.9	500.4	440.7	369.9	319.9	314.7	302.7	289.3	296.0	352.0
82.5°	393.0	386.3	420.6	337.8	319.9	264.0	252.8	231.9	218.5	225.2	275.2
85°	322.1	322.1	324.4	255.0	243.1	202.1	188.7	161.1	144.7	149.1	197.6
87.5°	229.7	236.4	218.5	174.5	144.7	112.6	103.6	87.2	73.1	85.0	103.6
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: P298900

CATALOG NUMBER: GLNA-AF-08-LED-E1-SLL

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0	14118.0
2.5°	12135.2	12388.0	12675.1	13042.0	13357.4	13873.4	14370.0	14668.3
5°	9073.4	9494.0	10016.7	10690.8	11317.9	12259.0	13194.1	13793.6
7.5°	6493.4	6943.8	7509.0	8349.4	9236.7	10437.3	11673.6	12390.2
10°	5373.4	5835.0	6310.0	6877.4	7603.7	8910.1	10370.9	11179.2
12.5°	4445.0	4938.6	5450.9	6048.2	6720.8	7887.8	9571.6	10502.2
15°	3401.8	3952.9	4556.9	5313.0	6155.6	7504.5	9374.0	10384.4
17.5°	2331.7	2947.7	3688.9	4621.7	5653.0	7380.0	9728.2	10892.9
20°	1605.5	2053.6	2846.3	3939.4	5180.2	7364.3	10407.5	11866.8
22.5°	1343.7	1543.6	2122.2	3312.3	4823.8	7561.9	11462.6	13232.9
25°	1242.3	1362.4	1694.9	2768.0	4564.3	8016.8	12914.4	15001.6
27.5°	1183.4	1290.8	1539.1	2412.3	4360.0	8544.8	14326.8	16715.2
30°	1205.8	1316.1	1495.1	2230.3	4081.9	8985.5	15581.0	18052.2
32.5°	1086.5	1134.9	1281.8	2069.3	3882.0	9355.3	16678.6	19159.5
35°	926.1	1010.4	1143.9	1994.0	3886.5	9603.6	17875.5	20574.1
37.5°	882.1	967.1	1063.3	1966.4	3939.4	9868.3	19249.0	22233.2
40°	854.6	932.8	1015.6	1950.7	3990.1	10109.2	20595.7	23873.0
42.5°	835.9	906.7	1010.4	1894.8	4015.5	10325.4	21702.3	25267.4
45°	833.7	906.7	1029.0	1839.6	4054.3	10557.3	22630.7	26298.7
47.5°	835.9	937.3	994.7	1773.2	4054.3	10945.1	23719.4	27219.6
50°	827.0	988.0	958.2	1679.3	3960.3	11680.3	25212.2	28452.9
52.5°	822.5	981.3	886.6	1534.6	3797.0	12847.3	27125.6	30153.1
55°	810.6	946.3	835.9	1319.1	3606.9	14120.2	29174.8	32163.5
57.5°	799.4	838.1	808.3	1130.5	3312.3	15015.8	30584.8	33731.6
60°	895.6	733.0	785.9	1038.0	2919.3	15261.1	30530.4	34356.5
62.5°	829.2	686.8	756.1	1017.9	2644.2	14572.1	29119.6	34019.5
65°	650.2	656.9	726.3	1076.8	2570.4	12746.7	26620.1	32459.5
67.5°	595.1	627.1	695.7	1153.6	2577.8	10205.4	22885.7	29061.4
70°	560.8	595.1	661.4	1192.3	2595.7	7608.2	18093.2	23670.9
72.5°	522.0	551.8	622.6	1199.1	2475.7	5526.2	13945.7	17404.9
75°	475.0	502.6	567.5	1044.7	2051.4	3833.5	10667.7	11907.8
77.5°	422.8	442.9	498.1	806.1	1523.4	2453.3	8007.1	8699.1
80°	360.9	372.1	418.3	590.6	1042.5	1534.6	6335.3	6980.3
82.5°	289.3	293.8	324.4	442.9	677.1	985.8	4242.9	4842.5
85°	204.3	204.3	223.0	322.1	461.6	624.9	2303.4	2554.7
87.5°	96.2	98.4	98.4	176.7	240.9	317.7	530.9	326.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)