

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: P299452

Luminaire Tested: **GLNA-AF-10-LED-E1-SLR-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299452
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-10-LED-E1-SLR-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41692.4 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

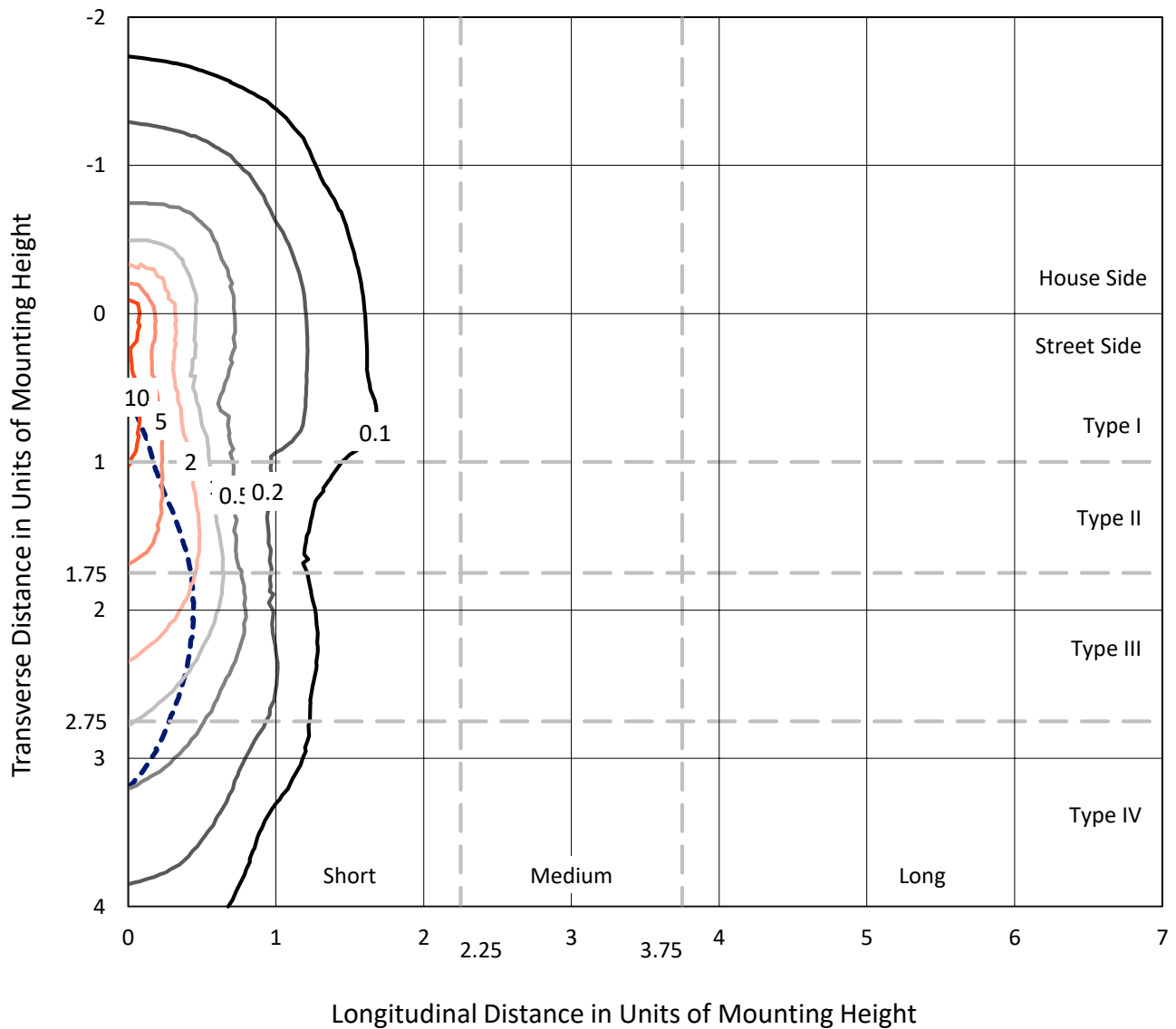
Input Watts (W): 419
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

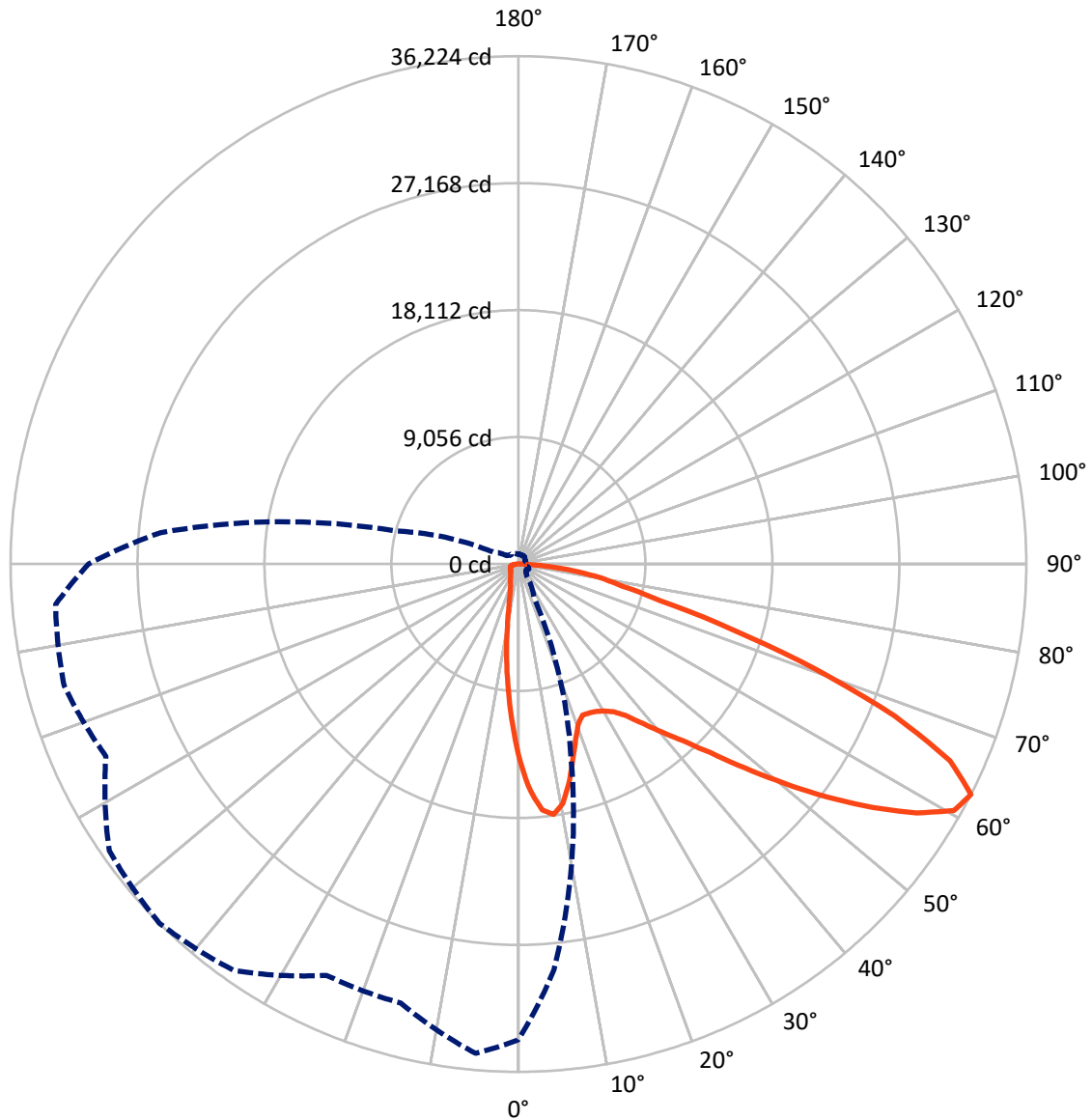
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 15.7 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
House Side	Lumens	6899.5	0.0	6899.5
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	34792.8	0.0	34792.8
	% Fixture	83.5	0.0	83.5
Total	Lumens	41692.4	0.0	41692.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1025.4	2.5
10°-20°	1880.3	4.5
20°-30°	2741.5	6.6
30°-40°	4222.2	10.1
40°-50°	6214.0	14.9
50°-60°	9114.7	21.9
60°-70°	10188.9	24.4
70°-80°	4988.4	12.0
80°-90°	1317.1	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°	41692.4	100.0
0°-180°	41692.4	100.0



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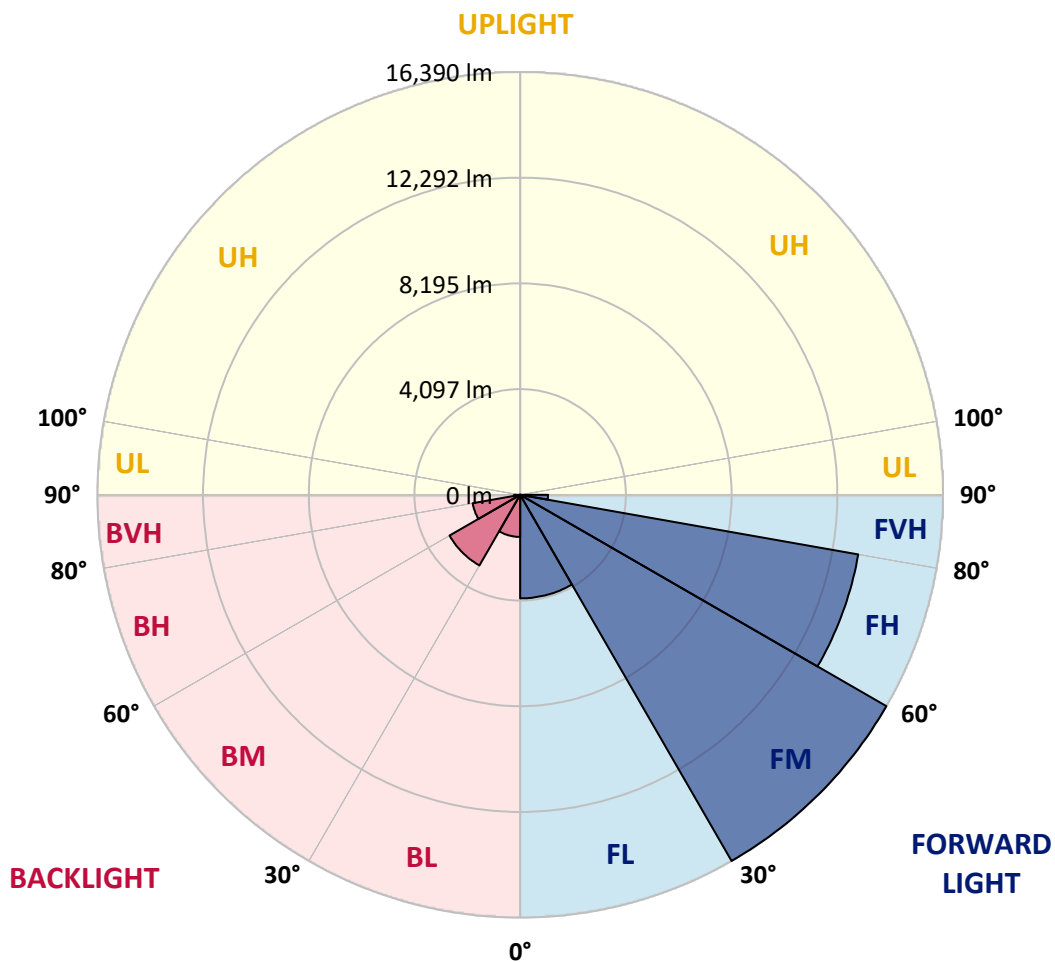
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4014.8	9.6			
FM	(30°-60°)	16389.6	39.3			
FH	(60°-80°)	13306.8	31.9			G5
FVH	(80°-90°)	1081.6	2.6			G5
BL	(0°-30°)	1632.3	3.9	B3/2500		
BM	(30°-60°)	3161.3	7.6	B3/5000		
BH	(60°-80°)	1870.5	4.5	B3/2500		G3/2500
BVH	(80°-90°)	235.4	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°	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2
2.5°	14635.7	14338.0	13842.6	13327.1	13013.5	12646.5	12359.9	12108.1	11603.6	11505.1	11594.6
5°	13762.8	13164.8	12231.6	11292.1	10666.3	9994.6	9472.2	9053.1	8413.4	8301.0	8436.3
7.5°	12362.7	11647.4	10414.4	9215.5	8330.8	7492.0	6928.6	6479.0	5979.4	5764.4	5777.5
10°	11154.7	10347.8	8890.1	7586.4	6862.0	6295.8	5821.2	5360.5	4854.0	4521.7	4430.1
12.5°	10478.2	9550.6	7870.1	6705.9	6034.3	5438.9	4927.6	4435.0	3893.8	3554.5	3458.8
15°	10361.7	9352.9	7487.8	6142.5	5300.9	4547.4	3944.4	3394.2	2837.1	2562.3	2504.7
17.5°	10868.2	9706.0	7363.6	5640.2	4611.2	3680.8	2940.5	2326.4	1872.7	1735.3	1723.5
20°	11839.5	10384.6	7347.7	5168.4	3930.6	2839.9	2048.9	1602.1	1402.9	1363.4	1366.2
22.5°	13203.6	11436.4	7544.7	4813.1	3304.7	2117.6	1540.3	1340.5	1262.8	1226.0	1226.0
25°	14968.0	12885.1	7998.5	4554.3	2761.5	1691.6	1359.2	1239.9	1166.3	1141.4	1146.2
27.5°	16678.3	14294.3	8525.8	4350.3	2406.2	1535.4	1287.8	1180.2	1116.4	1090.7	1102.5
30°	18011.9	15546.0	8965.7	4072.8	2225.1	1491.7	1313.4	1203.1	1111.5	1072.7	1074.7
32.5°	19116.5	16641.6	9334.8	3873.0	2064.8	1278.7	1132.3	1083.8	1072.7	1026.9	1004.0
35°	20528.4	17835.6	9582.5	3877.8	1989.2	1141.4	1008.1	923.5	861.7	809.0	809.0
37.5°	22183.2	19206.0	9846.2	3930.6	1962.2	1060.9	965.1	879.8	822.9	772.2	763.2
40°	23819.2	20549.2	10086.9	3981.2	1945.5	1013.0	930.4	852.7	800.0	749.3	735.5
42.5°	25211.1	21653.8	10302.0	4006.2	1890.7	1008.1	905.5	834.0	784.0	728.5	715.3
45°	26240.0	22579.4	10533.8	4045.0	1835.9	1026.9	905.5	831.9	770.2	717.4	703.5
47.5°	27158.7	23665.9	10920.9	4045.0	1769.3	992.2	935.3	834.0	768.1	712.6	701.5
50°	28389.5	25155.6	11654.3	3951.4	1675.6	955.4	985.2	825.0	747.3	703.5	689.7
52.5°	30085.2	27065.0	12818.5	3788.3	1531.3	884.6	978.3	820.8	726.4	680.6	664.7
55°	32091.1	29109.0	14088.3	3598.2	1315.5	834.0	944.3	809.0	703.5	652.9	636.9
57.5°	33656.4	30516.1	14981.9	3304.7	1127.5	806.9	836.8	797.9	675.8	623.1	609.9
60°	34279.4	30461.3	15227.5	2912.7	1035.9	784.0	731.3	893.7	652.9	600.2	584.2
62.5°	33942.9	29054.2	14539.9	2637.9	1015.1	754.2	685.5	827.0	634.9	584.2	561.3
65°	32386.7	26560.6	12717.9	2564.4	1074.7	724.4	655.7	648.7	609.9	561.3	538.4
67.5°	28996.6	22834.0	10182.7	2571.3	1150.4	694.5	625.8	593.9	575.2	536.3	515.5
70°	23618.0	18053.5	7590.5	2590.1	1189.2	659.8	593.9	559.2	538.4	499.6	485.7
72.5°	17365.9	13914.1	5514.6	2470.7	1196.2	621.0	550.2	520.4	499.6	458.6	446.8
75°	11881.2	10643.4	3825.1	2046.8	1042.8	566.2	501.6	474.6	460.7	410.1	403.1
77.5°	8679.1	7989.5	2447.8	1519.5	804.2	497.5	442.7	421.8	412.8	357.3	348.3
80°	6965.4	6320.8	1531.3	1040.7	589.1	417.0	371.2	360.1	350.4	295.6	288.6
82.5°	4831.2	4233.1	983.2	675.8	442.7	323.3	293.5	288.6	274.8	224.8	217.9
85°	2548.4	2298.7	623.1	460.7	320.6	222.0	204.0	204.0	197.0	149.2	144.3
87.5°	325.4	529.4	316.4	240.8	176.2	98.5	98.5	96.4	103.4	84.6	73.5
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°	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2
2.5°	11383.7	11494.0	11388.6	11395.5	11512.1	11860.4	12018.6	12149.0	12289.1	12380.7	12421.7
5°	8251.0	8507.8	8594.5	8777.7	9048.3	9493.0	9669.2	9797.6	9882.9	9932.9	9953.7
7.5°	5642.9	5798.4	5972.5	6268.1	6857.1	7118.7	7235.3	7205.4	7109.7	7075.0	7041.0
10°	4253.9	4192.1	4159.5	4322.6	4799.2	5062.9	5145.5	5065.0	5012.2	5024.0	5080.9
12.5°	3295.7	3188.2	3057.7	3039.0	3353.3	3589.2	3641.9	3646.1	3742.5	3827.2	3953.5
15°	2402.0	2390.3	2326.4	2287.6	2465.9	2658.8	2681.7	2722.6	2810.0	2871.8	2981.4
17.5°	1693.6	1755.4	1806.0	1831.0	1966.3	2103.7	2078.7	2057.9	2041.9	2041.9	2094.7
20°	1366.2	1407.1	1471.6	1544.5	1682.5	1778.3	1716.5	1634.0	1574.3	1556.3	1563.2
22.5°	1230.9	1262.8	1299.5	1363.4	1487.6	1554.2	1487.6	1427.9	1368.2	1347.4	1340.5
25°	1162.2	1203.1	1237.8	1285.7	1377.3	1423.0	1359.2	1315.5	1278.7	1253.8	1235.0
27.5°	1123.3	1159.4	1169.1	1192.0	1269.7	1310.6	1278.7	1260.7	1237.8	1214.9	1192.0
30°	1081.7	1074.7	1058.8	1060.9	1123.3	1164.2	1162.2	1166.3	1164.2	1157.3	1153.1
32.5°	988.0	974.1	960.3	974.1	1031.0	1067.8	1070.6	1079.6	1079.6	1077.5	1095.6
35°	822.9	847.9	863.8	905.5	974.1	1006.1	992.2	969.3	928.3	902.7	900.6
37.5°	761.1	765.3	793.0	849.9	926.3	955.4	935.3	882.6	854.8	849.9	856.9
40°	731.3	735.5	751.4	804.2	879.8	909.6	891.6	852.7	827.0	825.0	836.8
42.5°	710.5	715.3	724.4	761.1	822.9	859.7	861.7	834.0	804.2	806.9	818.0
45°	698.7	701.5	698.7	717.4	774.3	818.0	836.8	818.0	793.0	797.9	811.1
47.5°	696.6	689.7	680.6	685.5	745.2	788.2	811.1	804.2	793.0	797.9	809.0
50°	687.6	671.6	659.8	657.8	717.4	763.2	784.0	784.0	788.2	797.9	809.0
52.5°	659.8	641.8	641.8	634.9	698.7	742.4	756.3	758.4	765.3	781.3	797.9
55°	625.8	618.9	625.8	614.0	685.5	726.4	733.4	738.2	742.4	756.3	779.2
57.5°	596.0	587.0	602.9	598.1	673.7	710.5	710.5	719.5	719.5	738.2	756.3
60°	580.0	561.3	568.2	573.1	657.8	696.6	692.4	701.5	705.6	722.3	735.5
62.5°	559.2	543.3	543.3	554.4	639.7	675.8	673.7	680.6	698.7	703.5	717.4
65°	534.3	527.3	520.4	534.3	621.0	652.9	655.7	664.7	680.6	685.5	696.6
67.5°	508.6	511.4	497.5	511.4	605.0	630.0	630.0	648.7	655.7	664.7	675.8
70°	481.5	483.6	471.8	488.5	593.9	605.0	602.9	627.9	632.8	639.7	650.8
72.5°	446.8	446.8	442.7	465.6	575.2	580.0	575.2	596.0	598.1	605.0	609.9
75°	410.1	410.1	405.9	437.8	564.1	552.3	538.4	554.4	559.2	564.1	564.1
77.5°	362.2	367.0	367.0	405.9	524.5	541.2	494.7	504.4	511.4	513.4	506.5
80°	302.5	314.3	318.5	369.1	439.9	499.6	442.7	448.9	451.7	451.7	442.7
82.5°	231.7	251.9	263.7	318.5	337.2	419.1	385.1	392.0	385.1	371.2	367.0
85°	160.3	188.0	201.9	242.8	254.6	323.3	320.6	320.6	307.4	288.6	286.6
87.5°	87.4	103.4	112.4	144.3	174.2	217.9	235.9	229.0	217.9	206.1	208.8
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°	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2
2.5°	12637.5	12949.0	13446.5	13826.7	14209.7	14578.8	14977.7	15282.3	15541.1	15642.4	15949.1
5°	10162.6	10551.8	11021.5	11869.4	12470.2	13132.2	13898.1	14911.1	15300.4	15839.5	16721.3
7.5°	7185.3	7537.8	8294.1	8979.6	9830.2	10767.6	11800.7	13198.8	13710.1	14573.9	16010.9
10°	5365.4	5775.5	6382.6	6960.5	7709.9	8668.0	9855.2	11418.4	12039.4	12976.7	14631.5
12.5°	4322.6	4806.2	5450.0	5993.3	6573.4	7249.2	8402.3	10116.1	10948.7	11768.8	13441.6
15°	3320.7	3827.2	4426.0	5115.6	5754.6	6483.9	7691.8	9566.6	10524.0	11379.5	12806.7
17.5°	2298.7	2731.6	3485.8	4205.3	5024.0	5956.5	7494.8	9683.1	10826.5	11812.5	12917.1
20°	1629.8	1876.8	2495.7	3330.4	4350.3	5520.8	7458.0	10297.2	11784.7	12910.1	13622.7
22.5°	1370.3	1461.9	1822.0	2587.3	3765.4	5195.4	7586.4	11158.9	13077.3	14514.3	14748.1
25°	1248.9	1304.4	1491.7	2030.8	3245.1	4959.5	8019.3	12442.5	14677.3	16119.1	16077.5
27.5°	1182.3	1239.9	1363.4	1714.5	2853.7	4813.1	8452.3	13964.8	16506.3	17860.6	17347.2
30°	1162.2	1239.9	1370.3	1615.9	2574.1	4581.4	8807.5	15300.4	17913.3	19036.7	17925.1
32.5°	1146.2	1157.3	1217.0	1393.2	2307.7	4310.8	9048.3	16499.3	19290.6	20155.1	18757.0
35°	926.3	983.2	1079.6	1248.9	2152.3	4148.4	9048.3	17533.1	20647.7	21284.7	19550.1
37.5°	891.6	942.2	1026.9	1171.2	2064.8	4067.9	8867.2	18530.2	22034.0	22566.2	20203.0
40°	873.5	914.5	995.0	1111.5	2028.1	3976.3	8603.5	19409.9	23388.4	23849.1	20812.9
42.5°	859.7	896.4	972.1	1074.7	1980.2	3875.7	8390.5	20115.6	24564.4	24944.6	21395.0
45°	852.7	891.6	974.1	1093.5	1883.8	3742.5	8319.7	20878.8	25531.6	25859.1	22025.0
47.5°	852.7	898.5	985.2	1132.3	1769.3	3605.1	8541.8	21885.5	26446.1	26606.4	22767.4
50°	845.8	896.4	1017.9	1093.5	1602.1	3431.0	9064.2	23152.5	27436.2	27454.2	23707.5
52.5°	831.9	891.6	1095.6	1070.6	1409.2	3202.0	9770.5	24780.2	28900.9	29010.5	25178.5
55°	815.9	884.6	1074.7	1017.9	1251.7	2929.4	10347.8	26757.6	30958.8	31263.4	27342.5
57.5°	795.1	875.6	1040.7	944.3	1148.3	2578.3	10556.6	28206.3	32395.7	33161.0	29780.6
60°	777.1	868.7	939.4	900.6	1083.8	2282.7	10152.8	27919.8	32297.2	33947.1	31941.9
62.5°	758.4	875.6	856.9	873.5	1053.9	2092.6	9098.9	25625.3	30663.2	33136.0	33544.0
65°	738.2	813.9	809.0	849.9	1047.7	2017.0	7542.6	22185.3	27504.9	30571.6	33922.1
67.5°	710.5	751.4	774.3	820.8	1070.6	1950.4	6087.0	18300.5	23115.7	26727.8	31950.9
70°	680.6	715.3	740.3	784.0	1056.7	1920.5	5062.9	14431.7	18342.1	21905.7	28062.0
72.5°	641.8	671.6	694.5	735.5	1042.8	1904.6	4276.8	11622.4	13694.2	16272.4	22816.0
75°	596.0	623.1	639.7	680.6	999.1	1744.3	3362.3	9834.4	10247.2	11319.9	18172.1
77.5°	543.3	564.1	577.3	623.1	884.6	1450.8	2431.9	7586.4	7957.6	8218.4	13932.1
80°	481.5	501.6	508.6	552.3	733.4	1134.4	1586.1	5603.4	5951.7	6011.4	9098.9
82.5°	410.1	430.9	430.9	471.8	600.2	815.9	1040.7	3839.0	3907.7	4109.6	6431.1
85°	330.3	346.2	346.2	367.0	465.6	609.9	715.3	1927.5	1906.6	2177.2	5571.5
87.5°	235.9	247.7	258.8	263.7	332.3	403.1	430.9	587.0	387.2	444.7	3577.4
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: P299452

CATALOG NUMBER: GLNA-AF-10-LED-E1-SLR-800

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2	14086.2
2.5°	16180.8	16311.3	16178.1	16082.3	15667.4	15326.0	14869.5	14635.7
5°	17393.0	17725.3	17612.9	17209.8	16343.2	15369.1	14262.4	13762.8
7.5°	17246.6	18018.8	18036.8	17283.3	16006.7	14571.9	13073.2	12362.7
10°	16105.2	17092.5	17374.9	16643.6	15289.3	13685.1	11965.8	11154.7
12.5°	14830.7	15797.9	16013.6	15761.1	14629.4	13017.7	11274.1	10478.2
15°	13787.8	14221.5	14477.5	14698.1	14063.3	12751.9	11234.5	10361.7
17.5°	13153.0	13105.1	13178.6	13560.9	13668.5	13056.5	11830.5	10868.2
20°	12924.0	12188.5	12169.8	12697.1	13483.2	13783.7	12994.8	11839.5
22.5°	13050.3	11858.3	11707.0	12332.9	13581.8	14830.7	14521.2	13203.6
25°	13485.3	11886.0	11763.9	12369.6	13939.1	15947.0	16169.1	14968.0
27.5°	14170.8	12060.2	11899.2	12520.9	14413.7	16884.4	17791.9	16678.3
30°	14821.6	12362.7	12162.9	12818.5	14846.6	17255.6	18786.9	18011.9
32.5°	15612.6	12928.9	12577.8	13366.0	15382.9	17846.7	19673.6	19116.5
35°	16386.9	13735.1	13300.1	14211.8	15981.0	18582.9	20686.6	20528.4
37.5°	17237.6	14789.7	14429.6	15305.2	16799.7	19276.7	21979.2	22183.2
40°	18145.1	16187.8	15761.1	16900.4	18069.5	20148.2	23329.4	23819.2
42.5°	19059.6	17739.2	17230.6	18385.2	19464.8	21007.1	24483.9	25211.1
45°	20106.5	19423.8	19183.1	20432.0	20805.9	21825.9	25336.7	26240.0
47.5°	21326.3	21335.3	21722.5	22222.0	22158.2	22751.4	26194.2	27158.7
50°	22749.4	23720.7	24576.2	24907.9	23551.4	23746.4	27383.5	28389.5
52.5°	24459.0	26574.4	27633.2	27415.4	25052.9	24960.6	29267.2	30085.2
55°	26597.3	29595.4	30647.2	30491.1	26778.4	26615.4	31614.4	32091.1
57.5°	29072.2	32522.0	33489.2	32787.7	28850.2	28431.1	33555.8	33656.4
60°	31247.4	34841.5	35689.3	34912.2	30940.7	30362.8	34767.9	34279.4
62.5°	32457.4	35627.6	36223.6	35386.8	32372.8	32420.7	35033.6	33942.9
65°	31917.0	33640.4	33832.6	33763.9	32003.7	33614.8	34078.2	32386.7
67.5°	28955.7	28616.4	28939.7	29386.5	28841.2	32042.5	31430.6	28996.6
70°	23739.5	21875.8	22520.4	22820.1	23067.8	27573.6	27280.1	23618.0
72.5°	17890.5	15326.0	15834.6	15772.9	16918.4	22116.6	21216.0	17365.9
75°	12676.3	10391.5	10455.3	10430.4	11805.5	17303.5	15362.8	11881.2
77.5°	8869.3	7528.8	7563.5	7705.0	7936.7	13050.3	10975.7	8679.1
80°	6098.8	5713.7	5903.8	5915.6	5500.7	8766.6	8108.8	6965.4
82.5°	4542.5	3971.5	3925.7	3992.3	4310.8	7102.8	6231.3	4831.2
85°	3719.6	2351.4	1890.7	2370.1	3820.2	7034.1	4139.4	2548.4
87.5°	2094.7	1116.4	504.4	935.3	1524.3	4657.0	1196.2	325.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)