

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: P299390

Luminaire Tested: **GLNA-AF-10-LED-E1-SLR-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299390
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-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 49918.4 lumens
Efficiency: N/A
Efficacy: 89.5 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

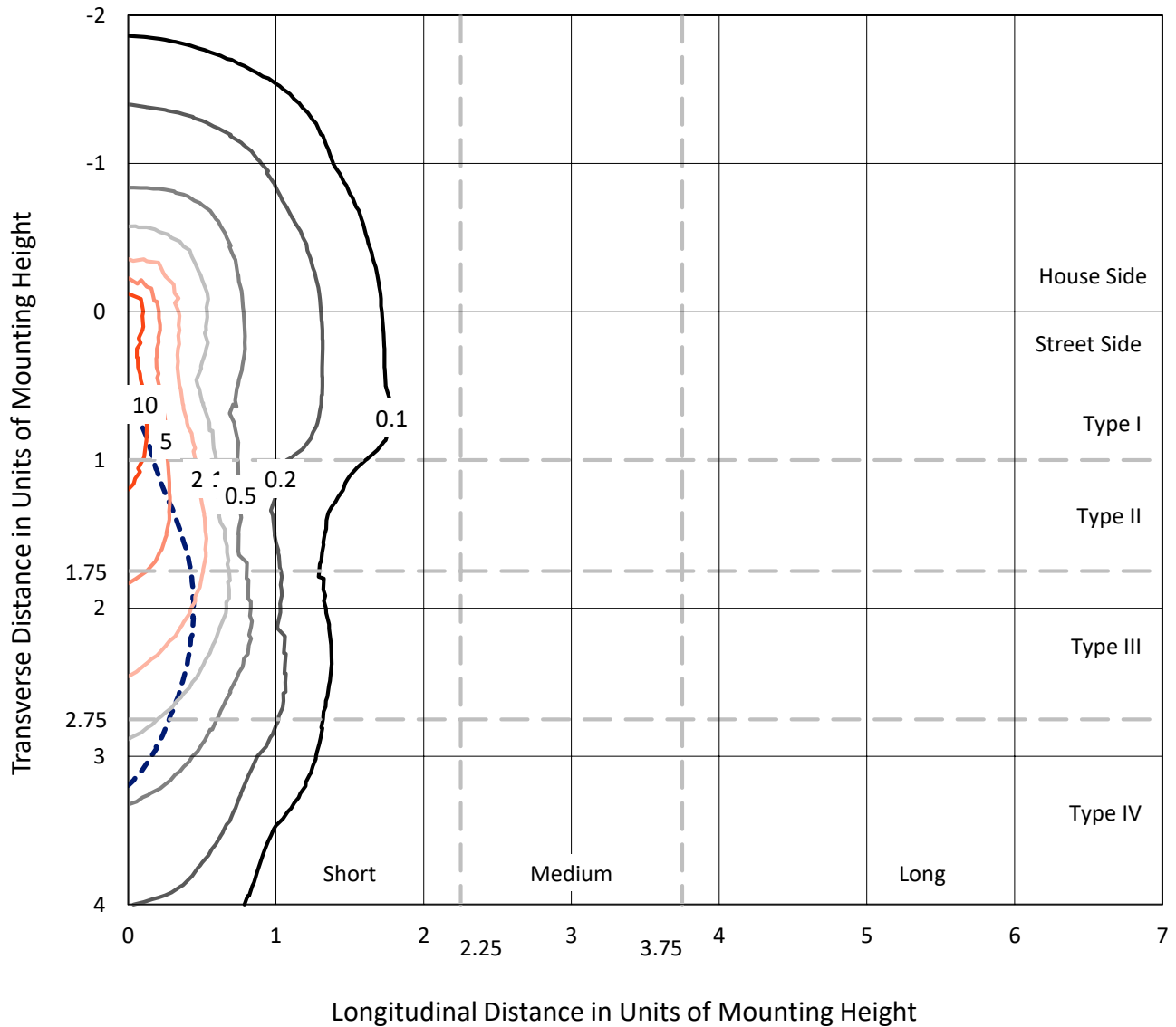
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

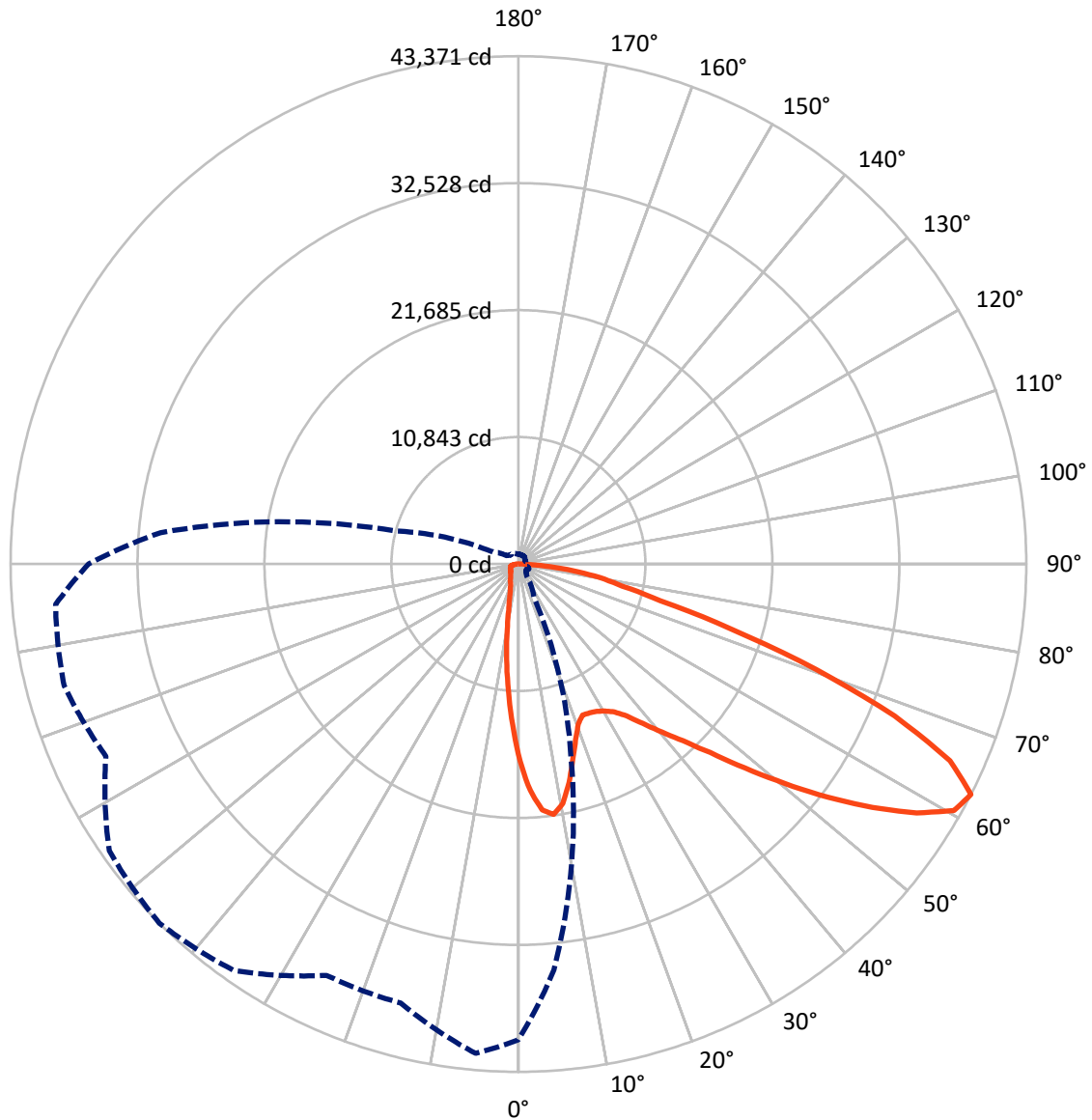
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 18.7 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	8260.8	0.0	8260.8
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	41657.6	0.0	41657.6
	% Fixture	83.5	0.0	83.5
Total	Lumens	49918.4	0.0	49918.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1227.7	2.5
10°-20°	2251.3	4.5
20°-30°	3282.4	6.6
30°-40°	5055.3	10.1
40°-50°	7440.1	14.9
50°-60°	10913.0	21.9
60°-70°	12199.2	24.4
70°-80°	5972.6	12.0
80°-90°	1576.9	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°	49918.4	100.0
0°-180°	49918.4	100.0



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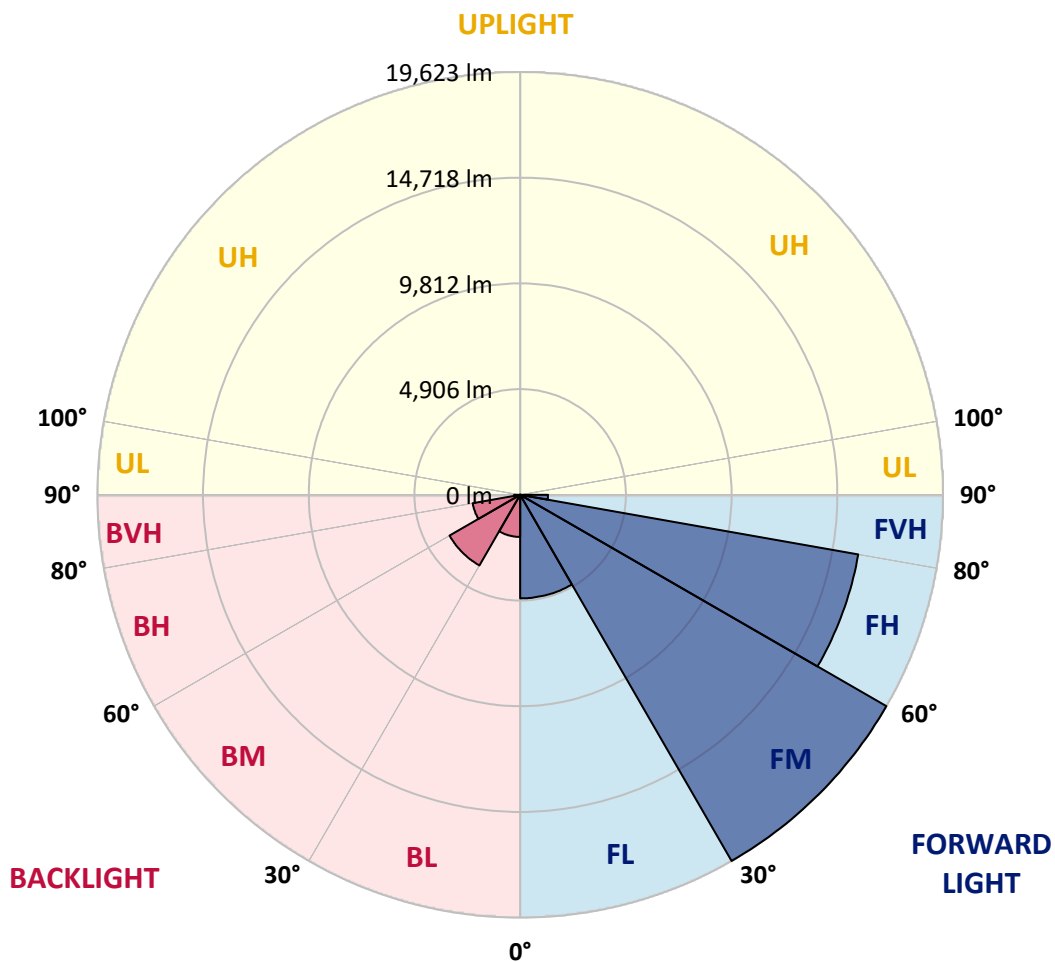
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4807.0	9.6			
FM	(30°-60°)	19623.4	39.3			
FH	(60°-80°)	15932.2	31.9			G5
FVH	(80°-90°)	1295.0	2.6			G5
BL	(0°-30°)	1954.4	3.9	B3/2500		
BM	(30°-60°)	3785.1	7.6	B3/5000		
BH	(60°-80°)	2239.5	4.5	B3/2500		G3/2500
BVH	(80°-90°)	281.9	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°	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4
2.5°	17523.4	17167.0	16573.8	15956.6	15581.1	15141.7	14798.6	14497.0	13893.1	13775.1	13882.3
5°	16478.3	15762.2	14644.9	13520.1	12770.8	11966.6	11341.1	10839.3	10073.4	9938.8	10100.8
7.5°	14801.9	13945.4	12469.2	11033.7	9974.5	8970.2	8295.6	7757.3	7159.2	6901.7	6917.5
10°	13355.6	12389.5	10644.1	9083.2	8215.9	7538.0	6969.8	6418.2	5811.8	5413.9	5304.2
12.5°	12545.6	11435.0	9422.9	8029.0	7224.8	6512.1	5899.8	5310.0	4662.0	4255.8	4141.2
15°	12406.1	11198.2	8965.2	7354.4	6346.8	5444.6	4722.7	4063.9	3396.8	3067.9	2998.9
17.5°	13012.5	11621.0	8816.5	6753.0	5521.0	4407.0	3520.6	2785.4	2242.1	2077.6	2063.5
20°	14175.5	12433.5	8797.4	6188.1	4706.1	3400.2	2453.1	1918.2	1679.7	1632.4	1635.7
22.5°	15808.7	13692.9	9033.3	5762.8	3956.8	2535.4	1844.2	1605.0	1511.9	1467.9	1467.9
25°	17921.3	15427.4	9576.6	5452.9	3306.3	2025.3	1627.4	1484.5	1396.5	1366.5	1372.4
27.5°	19969.0	17114.7	10208.0	5208.7	2881.0	1838.4	1541.8	1413.1	1336.6	1305.9	1320.0
30°	21565.7	18613.3	10734.7	4876.4	2664.1	1786.1	1572.6	1440.5	1330.8	1284.3	1286.8
32.5°	22888.2	19925.0	11176.6	4637.1	2472.2	1531.0	1355.7	1297.6	1284.3	1229.5	1202.1
35°	24578.7	21354.7	11473.2	4642.9	2381.7	1366.5	1207.0	1105.7	1031.8	968.6	968.6
37.5°	26560.0	22995.4	11788.9	4706.1	2349.3	1270.2	1155.5	1053.4	985.2	924.6	913.8
40°	28518.9	24603.7	12077.1	4766.7	2329.4	1212.9	1114.0	1021.0	957.8	897.2	880.6
42.5°	30185.3	25926.2	12334.6	4796.6	2263.7	1207.0	1084.1	998.5	938.7	872.3	856.5
45°	31417.3	27034.4	12612.1	4843.1	2198.1	1229.5	1084.1	996.0	922.1	859.0	842.4
47.5°	32517.2	28335.3	13075.7	4843.1	2118.4	1187.9	1119.8	998.5	919.6	853.2	839.9
50°	33990.9	30118.9	13953.7	4731.0	2006.2	1143.9	1179.6	987.7	894.7	842.4	825.7
52.5°	36021.2	32405.0	15347.7	4535.8	1833.4	1059.2	1171.3	982.8	869.8	814.9	795.8
55°	38422.8	34852.3	16867.9	4308.2	1575.1	998.5	1130.6	968.6	842.4	781.7	762.6
57.5°	40296.9	36537.1	17937.9	3956.8	1349.9	966.1	1001.9	955.3	809.1	746.0	730.2
60°	41042.9	36471.4	18232.0	3487.4	1240.3	938.7	875.6	1070.0	781.7	718.6	699.5
62.5°	40640.0	34786.7	17408.7	3158.4	1215.4	903.0	820.8	990.2	760.1	699.5	672.1
65°	38776.7	31801.1	15227.2	3070.4	1286.8	867.3	785.0	776.7	730.2	672.1	644.6
67.5°	34717.8	27339.2	12191.8	3078.7	1377.3	831.6	749.3	711.1	688.7	642.2	617.2
70°	28278.0	21615.5	9088.2	3101.1	1423.9	790.0	711.1	669.6	644.6	598.1	581.5
72.5°	20792.3	16659.4	6602.6	2958.2	1432.2	743.5	658.8	623.0	598.1	549.1	535.0
75°	14225.4	12743.4	4579.8	2450.6	1248.6	677.9	600.6	568.2	551.6	491.0	482.7
77.5°	10391.6	9565.8	2930.8	1819.3	962.8	595.6	530.0	505.1	494.3	427.8	417.0
80°	8339.7	7567.9	1833.4	1246.1	705.3	499.3	444.4	431.1	419.5	353.9	345.6
82.5°	5784.4	5068.3	1177.1	809.1	530.0	387.1	351.4	345.6	329.0	269.2	260.8
85°	3051.3	2752.2	746.0	551.6	383.8	265.8	244.2	244.2	235.9	178.6	172.8
87.5°	389.6	633.8	378.8	288.3	211.0	118.0	118.0	115.5	123.8	101.3	88.1
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°	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4
2.5°	13629.7	13761.8	13635.6	13643.9	13783.4	14200.5	14389.9	14546.0	14713.8	14823.5	14872.5
5°	9879.0	10186.4	10290.2	10509.5	10833.5	11366.0	11577.0	11730.7	11832.9	11892.7	11917.6
7.5°	6756.3	6942.4	7150.9	7504.8	8210.1	8523.3	8662.8	8627.1	8512.5	8470.9	8430.2
10°	5093.2	5019.3	4980.2	5175.4	5746.1	6061.8	6160.7	6064.3	6001.2	6015.3	6083.4
12.5°	3946.0	3817.2	3661.0	3638.6	4014.9	4297.4	4360.5	4365.5	4480.9	4582.3	4733.5
15°	2876.0	2861.9	2785.4	2738.9	2952.4	3183.3	3210.8	3259.8	3364.4	3438.4	3569.6
17.5°	2027.8	2101.7	2162.4	2192.3	2354.3	2518.8	2488.9	2463.9	2444.8	2444.8	2508.0
20°	1635.7	1684.7	1762.0	1849.2	2014.5	2129.2	2055.2	1956.4	1884.9	1863.3	1871.6
22.5°	1473.7	1511.9	1556.0	1632.4	1781.1	1860.8	1781.1	1709.6	1638.2	1613.3	1605.0
25°	1391.5	1440.5	1482.0	1539.3	1649.0	1703.8	1627.4	1575.1	1531.0	1501.1	1478.7
27.5°	1344.9	1388.1	1399.8	1427.2	1520.2	1569.2	1531.0	1509.4	1482.0	1454.6	1427.2
30°	1295.1	1286.8	1267.7	1270.2	1344.9	1394.0	1391.5	1396.5	1394.0	1385.7	1380.7
32.5°	1183.0	1166.3	1149.7	1166.3	1234.5	1278.5	1281.8	1292.6	1292.6	1290.1	1311.7
35°	985.2	1015.1	1034.3	1084.1	1166.3	1204.6	1187.9	1160.5	1111.5	1080.8	1078.3
37.5°	911.3	916.3	949.5	1017.6	1109.0	1143.9	1119.8	1056.7	1023.5	1017.6	1025.9
40°	875.6	880.6	899.7	962.8	1053.4	1089.1	1067.5	1021.0	990.2	987.7	1001.9
42.5°	850.7	856.5	867.3	911.3	985.2	1029.3	1031.8	998.5	962.8	966.1	979.4
45°	836.5	839.9	836.5	859.0	927.1	979.4	1001.9	979.4	949.5	955.3	971.1
47.5°	834.1	825.7	814.9	820.8	892.2	943.7	971.1	962.8	949.5	955.3	968.6
50°	823.3	804.1	790.0	787.5	859.0	913.8	938.7	938.7	943.7	955.3	968.6
52.5°	790.0	768.4	768.4	760.1	836.5	888.9	905.5	908.0	916.3	935.4	955.3
55°	749.3	741.0	749.3	735.2	820.8	869.8	878.1	883.9	888.9	905.5	932.9
57.5°	713.6	702.8	721.9	716.1	806.6	850.7	850.7	861.5	861.5	883.9	905.5
60°	694.5	672.1	680.4	686.2	787.5	834.1	829.1	839.9	844.8	864.8	880.6
62.5°	669.6	650.5	650.5	663.8	765.9	809.1	806.6	814.9	836.5	842.4	859.0
65°	639.7	631.4	623.0	639.7	743.5	781.7	785.0	795.8	814.9	820.8	834.1
67.5°	608.9	612.2	595.6	612.2	724.4	754.3	754.3	776.7	785.0	795.8	809.1
70°	576.5	579.0	564.9	584.8	711.1	724.4	721.9	751.8	757.6	765.9	779.2
72.5°	535.0	535.0	530.0	557.4	688.7	694.5	688.7	713.6	716.1	724.4	730.2
75°	491.0	491.0	486.0	524.2	675.4	661.3	644.6	663.8	669.6	675.4	675.4
77.5°	433.6	439.5	439.5	486.0	628.0	648.0	592.3	603.9	612.2	614.7	606.4
80°	362.2	376.3	381.3	441.9	526.7	598.1	530.0	537.5	540.8	540.8	530.0
82.5°	277.5	301.6	315.7	381.3	403.7	501.8	461.1	469.4	461.1	444.4	439.5
85°	191.9	225.1	241.7	290.8	304.9	387.1	383.8	383.8	368.0	345.6	343.1
87.5°	104.7	123.8	134.6	172.8	208.5	260.8	282.4	274.1	260.8	246.7	250.0
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°	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4
2.5°	15130.9	15503.9	16099.5	16554.7	17013.3	17455.2	17932.9	18297.6	18607.5	18728.8	19095.9
5°	12167.7	12633.7	13196.1	14211.3	14930.7	15723.2	16640.3	17853.2	18319.2	18964.7	20020.5
7.5°	8603.0	9025.0	9930.5	10751.3	11769.7	12892.1	14129.0	15802.9	16415.2	17449.4	19169.9
10°	6424.0	6915.0	7641.9	8333.9	9231.0	10378.3	11799.7	13671.3	14414.8	15537.1	17518.4
12.5°	5175.4	5754.5	6525.4	7175.8	7870.3	8679.4	10060.1	12112.0	13108.9	14090.8	16093.7
15°	3975.9	4582.3	5299.2	6125.0	6890.1	7763.1	9209.4	11454.1	12600.5	13624.8	15333.6
17.5°	2752.2	3270.6	4173.6	5035.0	6015.3	7131.8	8973.5	11593.6	12962.7	14143.1	15465.7
20°	1951.4	2247.1	2988.1	3987.5	5208.7	6610.1	8929.5	12328.8	14109.9	15457.3	16310.5
22.5°	1640.7	1750.3	2181.5	3097.8	4508.4	6220.5	9083.2	13360.6	15657.6	17378.0	17657.9
25°	1495.3	1561.8	1786.1	2431.5	3885.3	5938.0	9601.5	14897.4	17573.2	19299.5	19249.6
27.5°	1415.6	1484.5	1632.4	2052.7	3416.8	5762.8	10119.9	16720.1	19763.0	21384.6	20769.9
30°	1391.5	1484.5	1640.7	1934.8	3082.0	5485.3	10545.3	18319.2	21447.7	22792.7	21461.8
32.5°	1372.4	1385.7	1457.1	1668.1	2763.0	5161.3	10833.5	19754.7	23096.7	24131.8	22457.9
35°	1109.0	1177.1	1292.6	1495.3	2576.9	4966.9	10833.5	20992.5	24721.6	25484.2	23407.4
37.5°	1067.5	1128.1	1229.5	1402.3	2472.2	4870.6	10616.7	22186.2	26381.4	27018.6	24189.1
40°	1045.9	1094.9	1191.3	1330.8	2428.2	4760.9	10301.0	23239.6	28003.0	28554.6	24919.3
42.5°	1029.3	1073.3	1163.8	1286.8	2370.9	4640.4	10046.0	24084.5	29411.1	29866.3	25616.3
45°	1021.0	1067.5	1166.3	1309.2	2255.4	4480.9	9961.3	24998.3	30569.1	30961.2	26370.6
47.5°	1021.0	1075.8	1179.6	1355.7	2118.4	4316.5	10227.1	26203.6	31664.0	31855.9	27259.5
50°	1012.7	1073.3	1218.7	1309.2	1918.2	4107.9	10852.6	27720.5	32849.5	32871.1	28385.1
52.5°	996.0	1067.5	1311.7	1281.8	1687.2	3833.8	11698.3	29669.4	34603.1	34734.4	30146.3
55°	976.9	1059.2	1286.8	1218.7	1498.6	3507.3	12389.5	32037.0	37067.1	37431.8	32737.3
57.5°	952.0	1048.4	1246.1	1130.6	1374.9	3087.0	12639.5	33771.6	38787.5	39703.8	35656.5
60°	930.4	1040.1	1124.8	1078.3	1297.6	2733.1	12156.0	33428.5	38669.5	40645.0	38244.2
62.5°	908.0	1048.4	1025.9	1045.9	1261.9	2505.5	10894.2	30681.3	36713.2	39673.9	40162.4
65°	883.9	974.4	968.6	1017.6	1254.4	2414.9	9030.8	26562.5	32931.7	36603.5	40615.1
67.5°	850.7	899.7	927.1	982.8	1281.8	2335.2	7288.0	21911.3	27676.5	32001.3	38255.0
70°	814.9	856.5	886.4	938.7	1265.2	2299.5	6061.8	17279.1	21961.1	26227.7	33598.8
72.5°	768.4	804.1	831.6	880.6	1248.6	2280.3	5120.6	13915.5	16396.1	19483.1	27317.6
75°	713.6	746.0	765.9	814.9	1196.2	2088.4	4025.7	11774.7	12269.0	13553.3	21757.6
77.5°	650.5	675.4	691.2	746.0	1059.2	1737.1	2911.7	9083.2	9527.6	9840.0	16681.0
80°	576.5	600.6	608.9	661.3	878.1	1358.2	1899.0	6709.0	7126.0	7197.4	10894.2
82.5°	491.0	515.9	515.9	564.9	718.6	976.9	1246.1	4596.4	4678.7	4920.4	7700.0
85°	395.4	414.5	414.5	439.5	557.4	730.2	856.5	2307.8	2282.8	2606.8	6670.7
87.5°	282.4	296.6	309.9	315.7	397.9	482.7	515.9	702.8	463.5	532.5	4283.2
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: P299390

CATALOG NUMBER: GLNA-AF-10-LED-E1-SLR-7030

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4	16865.4
2.5°	19373.4	19529.6	19370.1	19255.4	18758.7	18349.9	17803.3	17523.4
5°	20824.7	21222.6	21088.0	20605.4	19567.8	18401.4	17076.4	16478.3
7.5°	20649.4	21574.0	21595.6	20693.4	19164.9	17446.9	15652.6	14801.9
10°	19282.8	20465.0	20803.1	19927.5	18305.9	16385.3	14326.7	13355.6
12.5°	17756.8	18914.8	19173.2	18870.8	17515.9	15586.1	13498.5	12545.6
15°	16508.2	17027.4	17334.0	17598.1	16838.0	15267.9	13451.1	12406.1
17.5°	15748.1	15690.8	15778.8	16236.6	16365.3	15632.6	14164.7	13012.5
20°	15474.0	14593.4	14571.0	15202.3	16143.5	16503.2	15558.7	14175.5
22.5°	15625.2	14198.0	14016.9	14766.2	16261.5	17756.8	17386.3	15808.7
25°	16146.0	14231.2	14085.0	14810.2	16689.3	19093.4	19359.3	17921.3
27.5°	16966.8	14439.7	14247.0	14991.3	17257.5	20215.8	21302.3	19969.0
30°	17746.0	14801.9	14562.7	15347.7	17775.9	20660.2	22493.6	21565.7
32.5°	18693.0	15479.8	15059.4	16003.1	18418.1	21368.0	23555.3	22888.2
35°	19620.1	16445.1	15924.2	17015.8	19134.1	22249.4	24768.1	24578.7
37.5°	20638.6	17707.8	17276.6	18325.0	20114.4	23080.1	26315.8	26560.0
40°	21725.2	19381.7	18870.8	20234.9	21634.6	24123.5	27932.4	28518.9
42.5°	22820.1	21239.2	20630.3	22012.6	23305.2	25151.9	29314.7	30185.3
45°	24073.7	23256.2	22968.0	24463.3	24911.0	26132.2	30335.7	31417.3
47.5°	25534.1	25544.9	26008.4	26606.5	26530.1	27240.4	31362.5	32517.2
50°	27237.9	28400.9	29425.2	29822.3	28198.2	28431.7	32786.3	33990.9
52.5°	29284.8	31817.7	33085.4	32824.5	29995.9	29885.4	35041.8	36021.2
55°	31845.1	35434.7	36694.1	36507.2	32061.9	31866.7	37852.1	38422.8
57.5°	34808.3	38938.7	40096.7	39256.9	34542.5	34040.7	40176.5	40296.9
60°	37412.6	41715.8	42731.0	41800.6	37045.5	36353.5	41627.8	41042.9
62.5°	38861.4	42657.0	43370.6	42368.8	38760.1	38817.4	41945.9	40640.0
65°	38214.3	40277.8	40507.9	40425.7	38318.1	40247.1	40802.0	38776.7
67.5°	34668.8	34262.5	34649.6	35184.6	34531.7	38364.7	37632.0	34717.8
70°	28423.3	26192.0	26963.8	27322.6	27619.2	33013.9	32662.5	28278.0
72.5°	21420.3	18349.9	18958.9	18884.9	20256.5	26480.3	25402.0	20792.3
75°	15177.4	12441.8	12518.2	12488.3	14134.8	20717.5	18394.0	14225.4
77.5°	10619.2	9014.2	9055.8	9225.2	9502.7	15625.2	13141.3	10391.6
80°	7302.1	6841.0	7068.7	7082.8	6586.0	10496.2	9708.7	8339.7
82.5°	5438.8	4755.1	4700.3	4780.0	5161.3	8504.2	7460.8	5784.4
85°	4453.5	2815.3	2263.7	2837.8	4574.0	8421.9	4956.1	3051.3
87.5°	2508.0	1336.6	603.9	1119.8	1825.1	5575.8	1432.2	389.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)