

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: P299374

Luminaire Tested: **GLNA-AF-07-LED-E1-SLR**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299374
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-07-LED-E1-SLR
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K 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: 36879.3 lumens
Efficiency: N/A
Efficacy: 94.3 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): 391
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

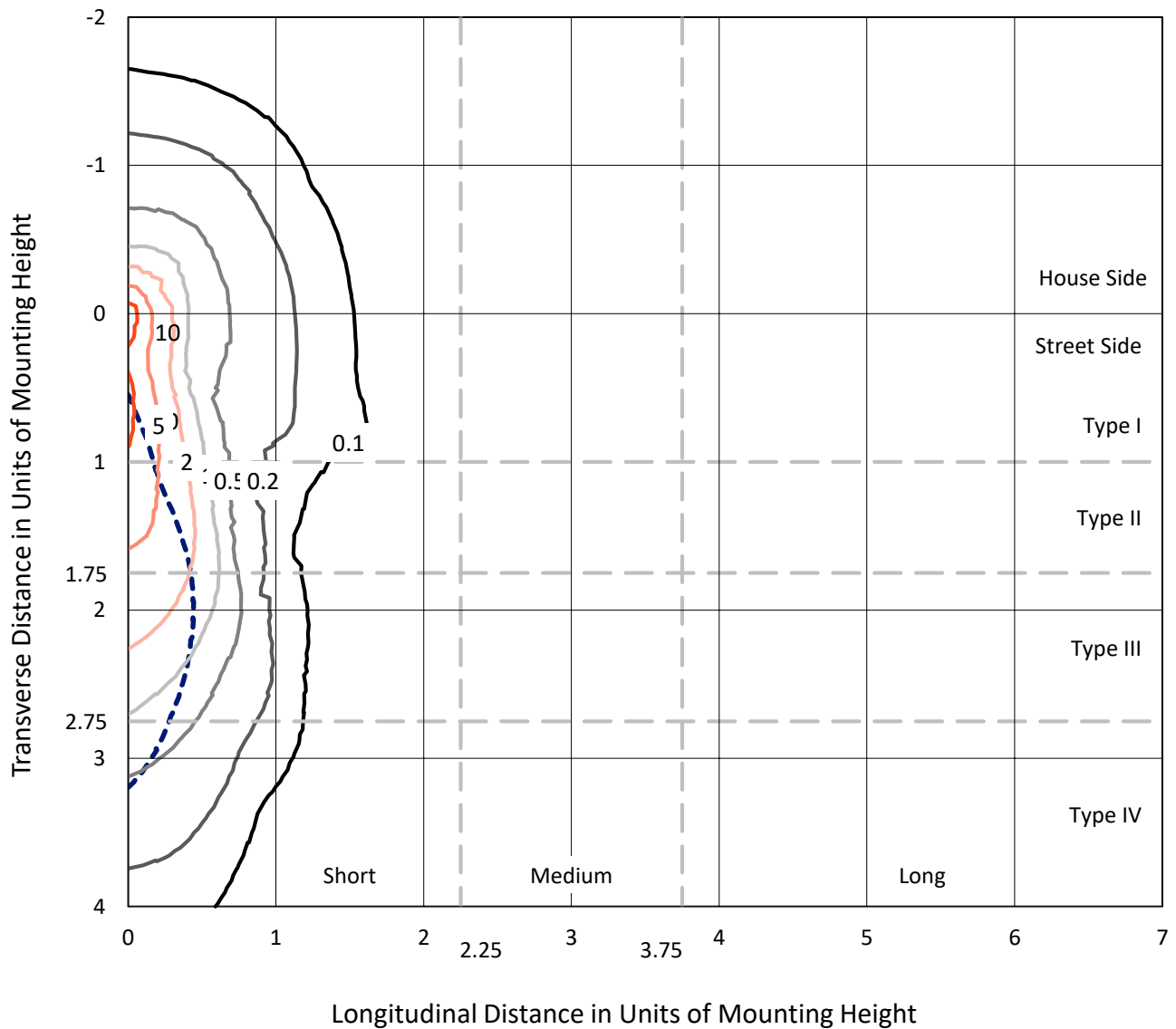


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

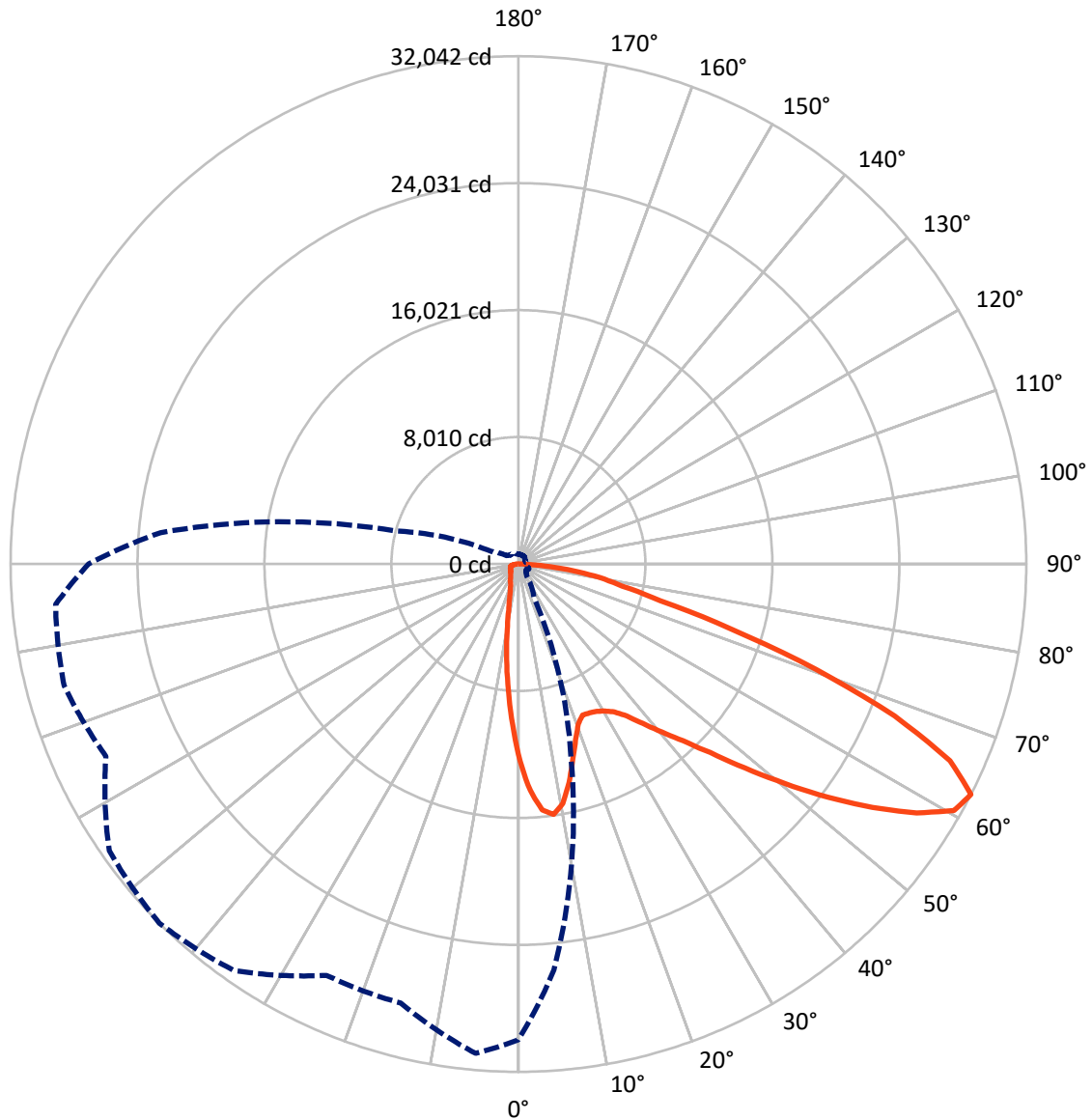


Based on 30 foot mounting height. Maximum calculated value = 13.8 fc
 Type IV - Short - Non-Cutoff

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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	6103.0	0.0	6103.0
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	30776.2	0.0	30776.2
	% Fixture	83.5	0.0	83.5
Total	Lumens	36879.3	0.0	36879.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	907.0	2.5
10°-20°	1663.2	4.5
20°-30°	2425.0	6.6
30°-40°	3734.8	10.1
40°-50°	5496.7	14.9
50°-60°	8062.4	21.9
60°-70°	9012.6	24.4
70°-80°	4412.5	12.0
80°-90°	1165.0	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°	36879.3	100.0
0°-180°	36879.3	100.0

Coefficient of Utilization



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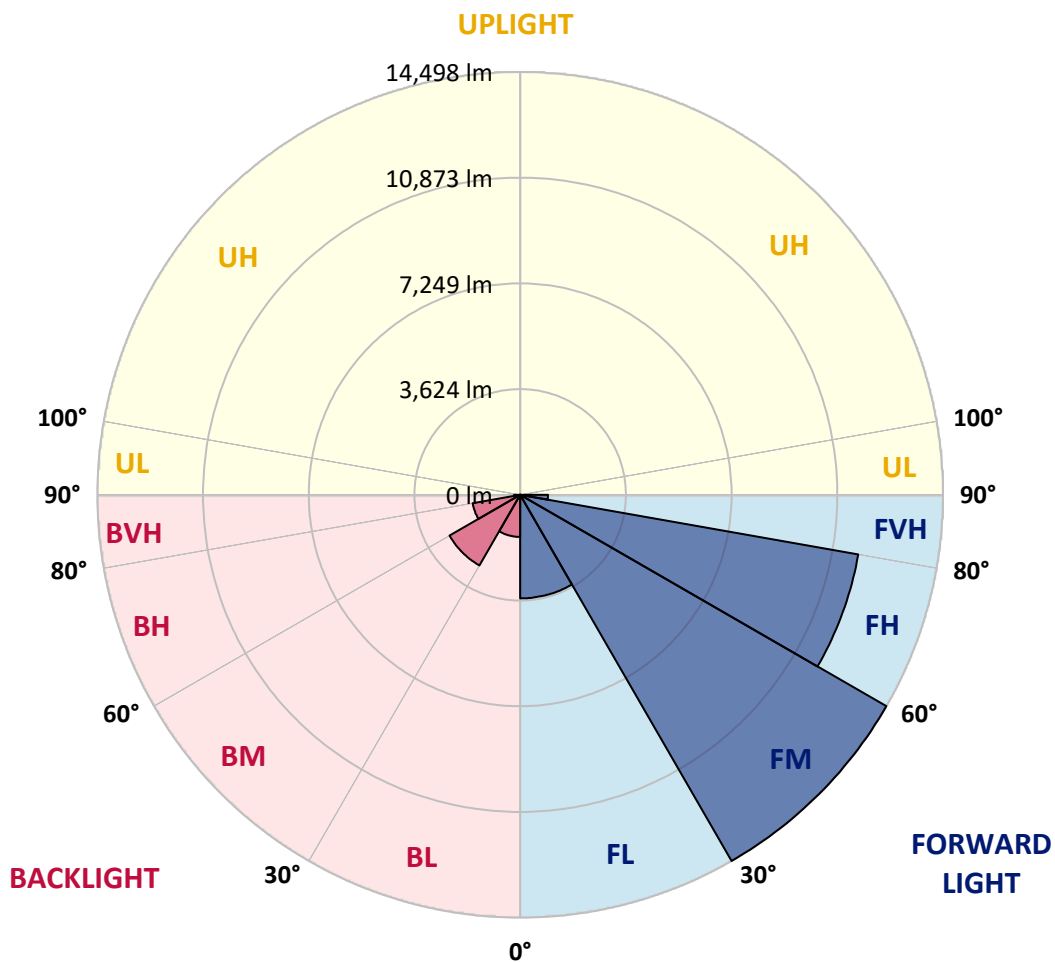
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3551.3	9.6			
FM (30°-60°)	14497.6	39.3			
FH (60°-80°)	11770.6	31.9			G4/12000
FVH (80°-90°)	956.7	2.6			G5
BL (0°-30°)	1443.9	3.9	B3/2500		
BM (30°-60°)	2796.4	7.6	B3/5000		
BH (60°-80°)	1654.5	4.5	B3/2500		G3/2500
BVH (80°-90°)	208.3	0.6			G2/225
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°	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0
2.5°	12946.1	12682.8	12244.6	11788.6	11511.2	11186.5	10933.1	10710.3	10264.1	10176.9	10256.1
5°	12174.0	11645.0	10819.5	9988.5	9434.9	8840.8	8378.7	8008.0	7442.1	7342.7	7462.4
7.5°	10935.5	10302.7	9212.1	8151.6	7369.1	6627.1	6128.7	5731.0	5289.2	5098.9	5110.6
10°	9867.0	9153.2	7863.8	6710.6	6069.8	5569.0	5149.2	4741.7	4293.7	3999.7	3918.7
12.5°	9268.6	8448.0	6961.6	5931.7	5337.6	4811.1	4358.7	3923.0	3444.3	3144.2	3059.5
15°	9165.5	8273.1	6623.4	5433.4	4688.9	4022.4	3489.1	3002.4	2509.6	2266.5	2215.6
17.5°	9613.5	8585.5	6513.6	4989.0	4078.9	3255.9	2601.0	2057.8	1656.5	1534.9	1524.5
20°	10472.8	9185.8	6499.4	4571.7	3476.8	2512.0	1812.4	1417.1	1241.0	1206.0	1208.4
22.5°	11679.4	10116.2	6673.7	4257.5	2923.2	1873.1	1362.5	1185.7	1117.0	1084.5	1084.5
25°	13240.1	11397.6	7075.1	4028.5	2442.7	1496.3	1202.3	1096.7	1031.7	1009.6	1013.9
27.5°	14752.9	12644.1	7541.6	3848.1	2128.4	1358.2	1139.1	1044.0	987.5	964.8	975.2
30°	15932.5	13751.3	7930.7	3602.6	1968.2	1319.5	1161.8	1064.2	983.2	948.8	950.7
32.5°	16909.6	14720.4	8257.2	3425.9	1826.5	1131.1	1001.6	958.7	948.8	908.3	888.1
35°	18158.5	15776.6	8476.3	3430.2	1759.6	1009.6	891.8	816.9	762.3	715.6	715.6
37.5°	19622.3	16988.8	8709.5	3476.8	1735.6	938.4	853.7	778.2	727.9	683.1	675.1
40°	21069.5	18177.0	8922.5	3521.6	1720.9	896.1	823.0	754.3	707.6	662.8	650.6
42.5°	22300.6	19154.0	9112.7	3543.7	1672.4	891.8	800.9	737.7	693.5	644.4	632.8
45°	23210.8	19972.7	9317.7	3578.1	1623.9	908.3	800.9	735.9	681.2	634.6	622.3
47.5°	24023.4	20933.8	9660.2	3578.1	1565.0	877.6	827.3	737.7	679.4	630.3	620.5
50°	25112.1	22251.5	10308.9	3495.2	1482.2	845.1	871.5	729.7	661.0	622.3	610.1
52.5°	26612.1	23940.5	11338.7	3351.0	1354.5	782.5	865.4	726.0	642.6	602.1	588.0
55°	28386.4	25748.6	12461.9	3182.8	1163.6	737.7	835.3	715.6	622.3	577.5	563.4
57.5°	29771.0	26993.2	13252.4	2923.2	997.3	713.8	740.2	705.8	597.8	551.1	539.5
60°	30322.1	26944.8	13469.6	2576.5	916.3	693.5	646.9	790.5	577.5	530.9	516.8
62.5°	30024.5	25700.1	12861.4	2333.4	897.9	667.1	606.4	731.6	561.6	516.8	496.5
65°	28647.9	23494.3	11249.7	2268.4	950.7	640.7	580.0	573.8	539.5	496.5	476.3
67.5°	25649.2	20198.0	9007.2	2274.5	1017.6	614.3	553.6	525.4	508.8	474.4	456.0
70°	20891.5	15969.4	6714.2	2291.1	1051.9	583.7	525.4	494.7	476.3	441.9	429.6
72.5°	15361.1	12307.8	4878.0	2185.5	1058.1	549.3	486.7	460.3	441.9	405.7	395.2
75°	10509.6	9414.7	3383.5	1810.5	922.4	500.8	443.7	419.8	407.5	362.7	356.6
77.5°	7677.2	7067.1	2165.3	1344.1	711.3	440.0	391.6	373.2	365.2	316.1	308.1
80°	6161.3	5591.1	1354.5	920.6	521.1	368.9	328.3	318.5	309.9	261.5	255.3
82.5°	4273.4	3744.4	869.7	597.8	391.6	286.0	259.6	255.3	243.0	198.8	192.7
85°	2254.2	2033.3	551.1	407.5	283.5	196.4	180.4	180.4	174.3	132.0	127.7
87.5°	287.8	468.3	279.9	213.0	155.9	87.2	87.2	85.3	91.4	74.9	65.1
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°	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0
2.5°	10069.5	10167.1	10073.8	10080.0	10183.1	10491.2	10631.1	10746.5	10870.5	10951.5	10987.7
5°	7298.5	7525.6	7602.3	7764.3	8003.7	8397.1	8553.0	8666.5	8742.0	8786.2	8804.6
7.5°	4991.5	5129.0	5283.0	5544.5	6065.5	6296.9	6400.0	6373.6	6288.9	6258.2	6228.2
10°	3762.8	3708.2	3679.3	3823.6	4245.2	4478.4	4551.4	4480.3	4433.6	4444.0	4494.4
12.5°	2915.2	2820.1	2704.7	2688.2	2966.2	3174.8	3221.5	3225.2	3310.5	3385.4	3497.1
15°	2124.7	2114.3	2057.8	2023.5	2181.2	2351.8	2372.1	2408.3	2485.6	2540.2	2637.2
17.5°	1498.1	1552.7	1597.5	1619.6	1739.3	1860.8	1838.7	1820.3	1806.2	1806.2	1852.9
20°	1208.4	1244.7	1301.7	1366.2	1488.3	1573.0	1518.4	1445.3	1392.6	1376.6	1382.7
22.5°	1088.8	1117.0	1149.5	1206.0	1315.8	1374.8	1315.8	1263.1	1210.3	1191.9	1185.7
25°	1028.0	1064.2	1094.9	1137.2	1218.3	1258.8	1202.3	1163.6	1131.1	1109.0	1092.4
27.5°	993.6	1025.5	1034.1	1054.4	1123.1	1159.3	1131.1	1115.2	1094.9	1074.6	1054.4
30°	956.8	950.7	936.6	938.4	993.6	1029.8	1028.0	1031.7	1029.8	1023.7	1020.0
32.5°	874.0	861.7	849.4	861.7	912.0	944.5	947.0	955.0	955.0	953.1	969.1
35°	727.9	750.0	764.1	800.9	861.7	889.9	877.6	857.4	821.2	798.5	796.6
37.5°	673.3	676.9	701.5	751.8	819.3	845.1	827.3	780.7	756.1	751.8	758.0
40°	646.9	650.6	664.7	711.3	778.2	804.6	788.6	754.3	731.6	729.7	740.2
42.5°	628.5	632.8	640.7	673.3	727.9	760.4	762.3	737.7	711.3	713.8	723.6
45°	618.0	620.5	618.0	634.6	684.9	723.6	740.2	723.6	701.5	705.8	717.5
47.5°	616.2	610.1	602.1	606.4	659.2	697.2	717.5	711.3	701.5	705.8	715.6
50°	608.2	594.1	583.7	581.8	634.6	675.1	693.5	693.5	697.2	705.8	715.6
52.5°	583.7	567.7	567.7	561.6	618.0	656.7	669.0	670.8	676.9	691.1	705.8
55°	553.6	547.5	553.6	543.2	606.4	642.6	648.7	653.0	656.7	669.0	689.2
57.5°	527.2	519.2	533.3	529.0	595.9	628.5	628.5	636.4	636.4	653.0	669.0
60°	513.1	496.5	502.6	506.9	581.8	616.2	612.5	620.5	624.2	638.9	650.6
62.5°	494.7	480.6	480.6	490.4	565.9	597.8	595.9	602.1	618.0	622.3	634.6
65°	472.6	466.4	460.3	472.6	549.3	577.5	580.0	588.0	602.1	606.4	616.2
67.5°	449.9	452.3	440.0	452.3	535.2	557.3	557.3	573.8	580.0	588.0	597.8
70°	425.9	427.8	417.3	432.1	525.4	535.2	533.3	555.4	559.7	565.9	575.7
72.5°	395.2	395.2	391.6	411.8	508.8	513.1	508.8	527.2	529.0	535.2	539.5
75°	362.7	362.7	359.0	387.3	499.0	488.5	476.3	490.4	494.7	499.0	499.0
77.5°	320.4	324.7	324.7	359.0	464.0	478.7	437.6	446.2	452.3	454.2	448.0
80°	267.6	278.0	281.7	326.5	389.1	441.9	391.6	397.1	399.5	399.5	391.6
82.5°	205.0	222.8	233.2	281.7	298.3	370.7	340.6	346.8	340.6	328.3	324.7
85°	141.8	166.3	178.6	214.8	225.2	286.0	283.5	283.5	271.9	255.3	253.5
87.5°	77.3	91.4	99.4	127.7	154.0	192.7	208.7	202.5	192.7	182.3	184.7
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°	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0
2.5°	11178.5	11454.1	11894.2	12230.5	12569.3	12895.8	13248.7	13518.1	13747.0	13836.6	14107.9
5°	8989.4	9333.7	9749.2	10499.1	11030.6	11616.1	12293.7	13189.8	13534.1	14010.9	14791.0
7.5°	6355.8	6667.6	7336.6	7942.9	8695.4	9524.5	10438.4	11675.1	12127.4	12891.5	14162.5
10°	4746.0	5108.7	5645.7	6157.0	6819.8	7667.4	8717.5	10100.2	10649.5	11478.7	12942.4
12.5°	3823.6	4251.3	4820.9	5301.4	5814.5	6412.3	7432.3	8948.2	9684.7	10410.2	11889.9
15°	2937.3	3385.4	3915.0	4525.1	5090.3	5735.3	6803.9	8462.2	9309.1	10065.8	11328.3
17.5°	2033.3	2416.3	3083.4	3719.8	4444.0	5268.9	6629.6	8565.3	9576.7	10448.8	11425.9
20°	1441.7	1660.1	2207.6	2945.9	3848.1	4883.5	6597.0	9108.4	10424.3	11419.7	12050.0
22.5°	1212.1	1293.1	1611.7	2288.6	3330.7	4595.6	6710.6	9870.7	11567.7	12838.7	13045.5
25°	1104.7	1153.8	1319.5	1796.4	2870.4	4387.0	7093.5	11006.1	12982.9	14258.3	14221.4
27.5°	1045.8	1096.7	1206.0	1516.5	2524.3	4257.5	7476.5	12352.6	14600.7	15798.7	15344.6
30°	1028.0	1096.7	1212.1	1429.4	2277.0	4052.5	7790.7	13534.1	15845.4	16839.0	15855.8
32.5°	1013.9	1023.7	1076.5	1232.4	2041.3	3813.1	8003.7	14594.6	17063.6	17828.4	16591.7
35°	819.3	869.7	955.0	1104.7	1903.8	3669.5	8003.7	15509.1	18264.1	18827.5	17293.2
37.5°	788.6	833.5	908.3	1036.0	1826.5	3598.3	7843.5	16391.0	19490.3	19961.1	17870.7
40°	772.7	808.9	880.1	983.2	1793.9	3517.3	7610.3	17169.2	20688.3	21095.9	18410.2
42.5°	760.4	792.9	859.8	950.7	1751.6	3428.3	7421.9	17793.4	21728.6	22065.0	18925.1
45°	754.3	788.6	861.7	967.2	1666.3	3310.5	7359.3	18468.5	22584.2	22873.9	19482.4
47.5°	754.3	794.8	871.5	1001.6	1565.0	3189.0	7555.7	19359.0	23393.1	23534.8	20139.1
50°	748.1	792.9	900.3	967.2	1417.1	3034.9	8017.8	20479.7	24268.9	24284.8	20970.7
52.5°	735.9	788.6	969.1	947.0	1246.5	2832.4	8642.6	21919.5	25564.5	25661.4	22271.8
55°	721.8	782.5	950.7	900.3	1107.2	2591.2	9153.2	23668.6	27384.8	27654.2	24186.0
57.5°	703.3	774.5	920.6	835.3	1015.7	2280.6	9338.0	24950.1	28655.8	29332.8	26342.7
60°	687.4	768.4	831.0	796.6	958.7	2019.2	8980.8	24696.6	28568.7	30028.1	28254.5
62.5°	670.8	774.5	758.0	772.7	932.3	1851.0	8048.5	22667.0	27123.3	29310.7	29671.6
65°	653.0	719.9	715.6	751.8	926.7	1784.1	6671.9	19624.1	24329.6	27042.3	30006.1
67.5°	628.5	664.7	684.9	726.0	947.0	1725.2	5384.3	16187.8	20447.2	23642.3	28262.4
70°	602.1	632.8	654.9	693.5	934.7	1698.8	4478.4	12765.7	16224.7	19376.8	24822.5
72.5°	567.7	594.1	614.3	650.6	922.4	1684.7	3783.1	10280.7	12113.3	14393.9	20182.0
75°	527.2	551.1	565.9	602.1	883.8	1542.9	2974.2	8699.1	9064.2	10013.1	16074.3
77.5°	480.6	499.0	510.6	551.1	782.5	1283.3	2151.1	6710.6	7038.9	7269.7	12323.8
80°	425.9	443.7	449.9	488.5	648.7	1003.5	1403.0	4956.5	5264.6	5317.4	8048.5
82.5°	362.7	381.1	381.1	417.3	530.9	721.8	920.6	3395.8	3456.5	3635.1	5688.7
85°	292.1	306.3	306.3	324.7	411.8	539.5	632.8	1705.0	1686.5	1925.9	4928.3
87.5°	208.7	219.1	228.9	233.2	294.0	356.6	381.1	519.2	342.5	393.4	3164.4
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: P299374

CATALOG NUMBER: GLNA-AF-07-LED-E1-SLR

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0	12460.0
2.5°	14312.9	14428.3	14310.4	14225.7	13858.7	13556.8	13152.9	12946.1
5°	15385.1	15679.1	15579.6	15223.1	14456.5	13594.8	12615.9	12174.0
7.5°	15255.6	15938.7	15954.6	15288.1	14158.8	12889.6	11564.0	10935.5
10°	14246.0	15119.3	15369.1	14722.2	13524.2	12105.3	10584.5	9867.0
12.5°	13118.6	13974.1	14165.0	13941.6	12940.6	11514.9	9972.6	9268.6
15°	12196.1	12579.7	12806.2	13001.3	12439.8	11279.8	9937.6	9165.5
17.5°	11634.5	11592.2	11657.3	11995.4	12090.6	11549.2	10464.8	9613.5
20°	11432.0	10781.5	10764.9	11231.3	11926.7	12192.4	11494.6	10472.8
22.5°	11543.7	10489.3	10355.5	10909.1	12013.8	13118.6	12844.8	11679.4
25°	11928.5	10513.9	10405.9	10941.6	12329.9	14106.1	14302.5	13240.1
27.5°	12534.9	10667.9	10525.5	11075.4	12749.7	14935.2	15738.0	14752.9
30°	13110.6	10935.5	10758.8	11338.7	13132.7	15263.6	16618.1	15932.5
32.5°	13810.2	11436.3	11125.8	11823.0	13607.1	15786.5	17402.4	16909.6
35°	14495.2	12149.5	11764.7	12571.1	14136.1	16437.6	18298.5	18158.5
37.5°	15247.6	13082.3	12763.8	13538.4	14860.3	17051.4	19441.9	19622.3
40°	16050.4	14319.0	13941.6	14949.3	15983.5	17822.2	20636.2	21069.5
42.5°	16859.3	15691.3	15241.5	16262.7	17217.7	18582.0	21657.4	22300.6
45°	17785.4	17181.5	16968.5	18073.2	18404.0	19306.2	22411.7	23210.8
47.5°	18864.3	18872.3	19214.8	19656.7	19600.2	20124.9	23170.3	24023.4
50°	20123.1	20982.3	21739.1	22032.4	20832.6	21005.0	24222.2	25112.1
52.5°	21635.3	23506.6	24443.2	24250.5	22160.7	22079.1	25888.5	26612.1
55°	23526.9	26178.8	27109.2	26971.1	23687.1	23542.8	27964.8	28386.4
57.5°	25716.1	28767.5	29623.1	29002.6	25519.7	25149.0	29682.0	29771.0
60°	27640.1	30819.3	31569.2	30881.9	27368.8	26857.6	30754.2	30322.1
62.5°	28710.5	31514.6	32041.8	31301.6	28635.6	28677.9	30989.3	30024.5
65°	28232.4	29756.9	29926.9	29866.1	28309.1	29734.2	30144.1	28647.9
67.5°	25612.9	25312.8	25598.8	25994.1	25511.7	28343.5	27802.1	25649.2
70°	20998.9	19350.4	19920.6	20185.7	20404.8	24390.4	24130.8	20891.5
72.5°	15825.1	13556.8	14006.6	13952.0	14965.3	19563.4	18766.7	15361.1
75°	11212.9	9191.9	9248.4	9226.3	10442.7	15305.9	13589.3	10509.6
77.5°	7845.4	6659.6	6690.3	6815.5	7020.5	11543.7	9708.7	7677.2
80°	5394.7	5054.1	5222.3	5232.7	4865.7	7754.5	7172.7	6161.3
82.5°	4018.1	3513.0	3472.5	3531.4	3813.1	6282.8	5511.9	4273.4
85°	3290.2	2079.9	1672.4	2096.5	3379.2	6222.0	3661.5	2254.2
87.5°	1852.9	987.5	446.2	827.3	1348.4	4119.4	1058.1	287.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)