

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: P299371

Luminaire Tested: **GLNA-AF-07-LED-E1-SLR-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299371
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-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K 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: 32042.2 lumens
Efficiency: N/A
Efficacy: 81.9 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): 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

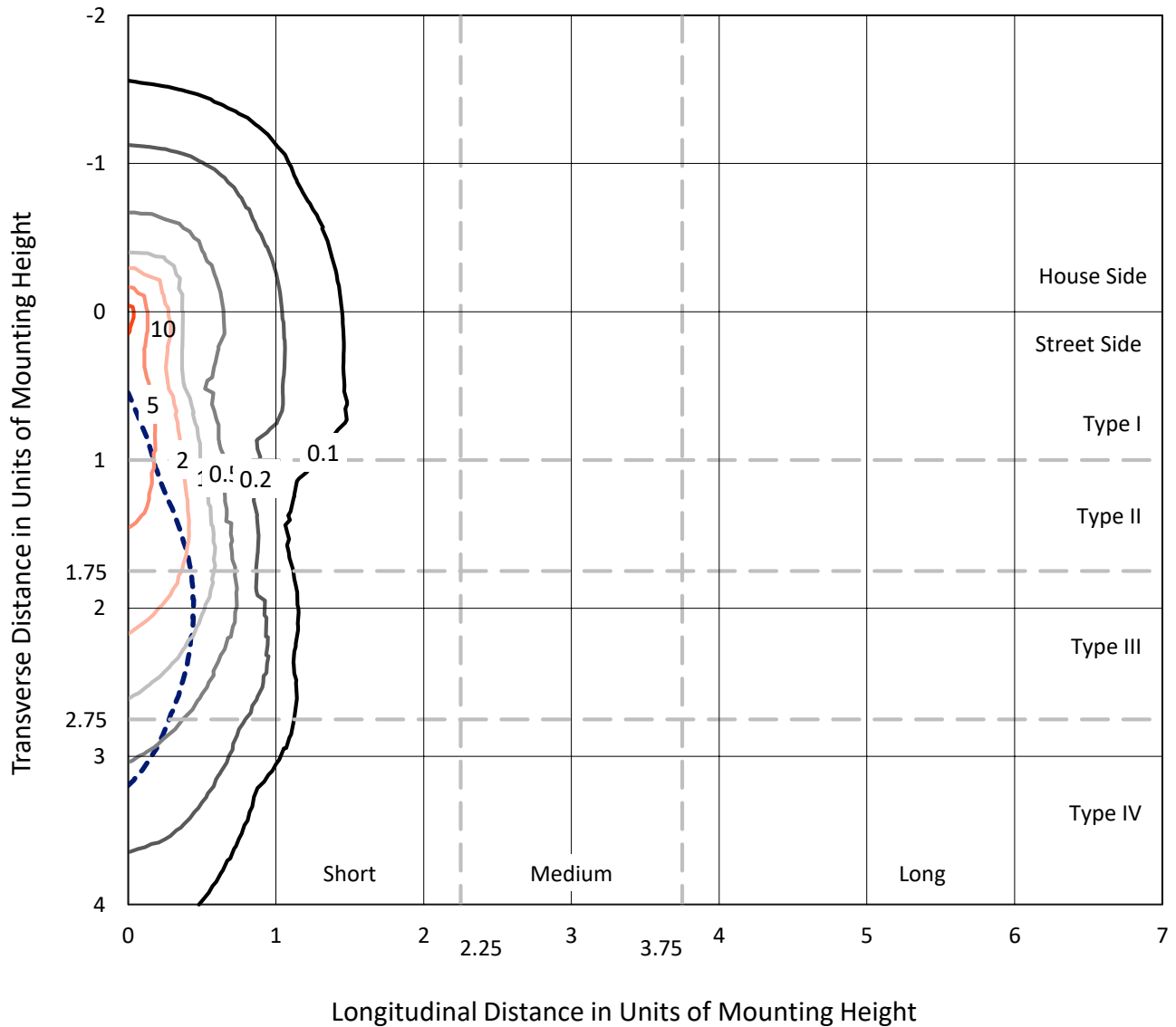


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Iso-Footcandle Lines of Horizontal Illumination

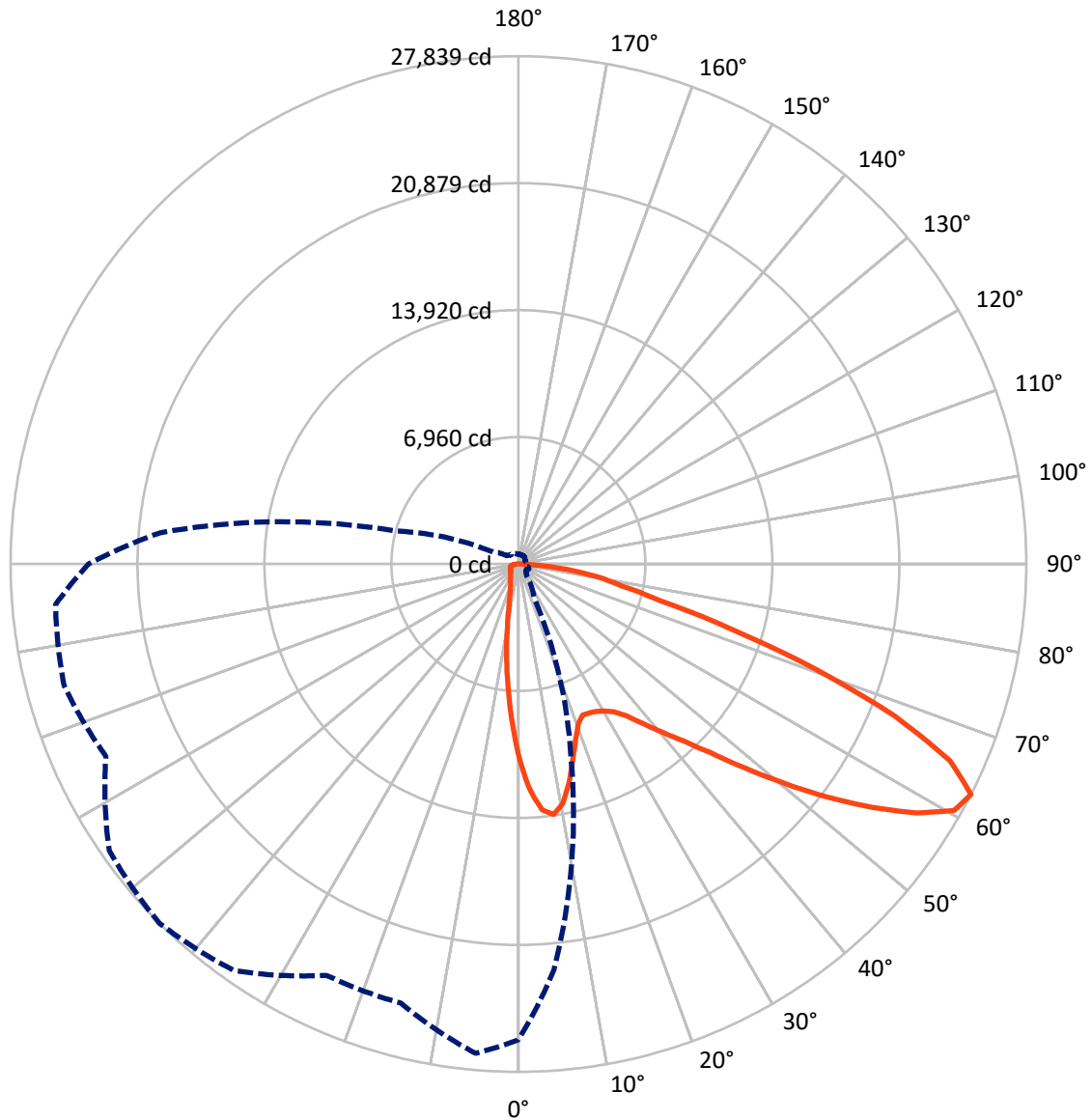
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12 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	5302.6	0.0	5302.6
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	26739.6	0.0	26739.6
	% Fixture	83.5	0.0	83.5
Total	Lumens	32042.2	0.0	32042.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	788.1	2.5
10°-20°	1445.1	4.5
20°-30°	2106.9	6.6
30°-40°	3245.0	10.1
40°-50°	4775.7	14.9
50°-60°	7005.0	21.9
60°-70°	7830.5	24.4
70°-80°	3833.7	12.0
80°-90°	1012.2	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°	32042.2	100.0
0°-180°	32042.2	100.0



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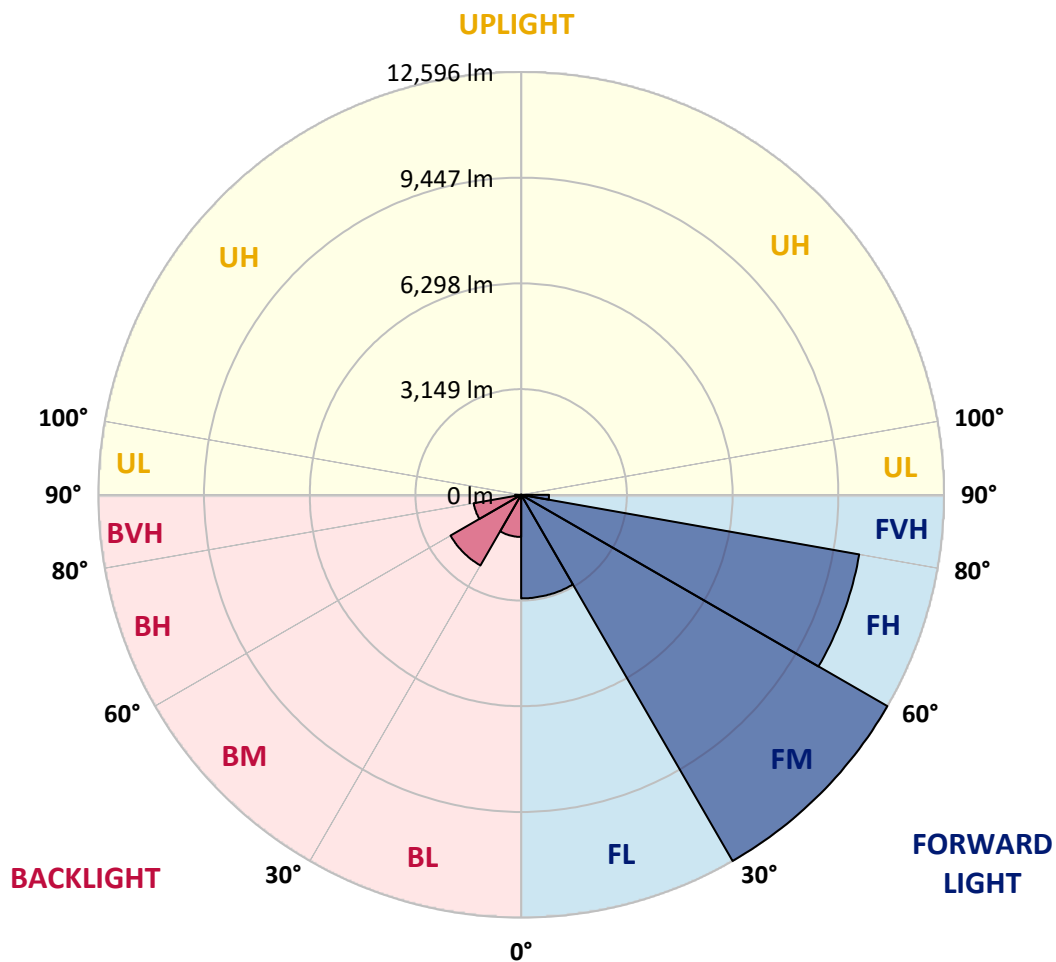
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3085.6	9.6			
FM (30°-60°)	12596.1	39.3			
FH (60°-80°)	10226.7	31.9			G4/12000
FVH (80°-90°)	831.3	2.6			G5
BL (0°-30°)	1254.5	3.9	B3/2500		
BM (30°-60°)	2429.6	7.6	B2/2500		
BH (60°-80°)	1437.5	4.5	B3/2500		G3/2500
BVH (80°-90°)	180.9	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°	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7
2.5°	11248.1	11019.3	10638.6	10242.4	10001.4	9719.3	9499.1	9305.5	8917.8	8842.1	8910.9
5°	10577.3	10117.6	9400.4	8678.4	8197.4	7681.3	7279.7	6957.7	6466.0	6379.6	6483.6
7.5°	9501.2	8951.4	8003.9	7082.4	6402.6	5757.9	5324.9	4979.4	4595.4	4430.1	4440.3
10°	8572.8	7952.7	6832.3	5830.4	5273.7	4838.6	4473.8	4119.8	3730.5	3475.1	3404.7
12.5°	8052.9	7340.0	6048.5	5153.7	4637.6	4180.0	3787.0	3408.4	2992.5	2731.8	2658.2
15°	7963.3	7188.0	5754.7	4720.7	4073.9	3494.8	3031.4	2608.6	2180.4	1969.2	1925.0
17.5°	8352.6	7459.4	5659.2	4334.7	3543.9	2828.8	2259.9	1787.9	1439.2	1333.6	1324.6
20°	9099.1	7980.9	5647.0	3972.1	3020.8	2182.5	1574.6	1231.2	1078.2	1047.8	1049.9
22.5°	10147.5	8789.3	5798.4	3699.1	2539.8	1627.4	1183.8	1030.2	970.5	942.2	942.2
25°	11503.5	9902.7	6147.1	3500.2	2122.3	1300.0	1044.6	952.9	896.4	877.2	880.9
27.5°	12817.9	10985.7	6552.4	3343.4	1849.3	1180.1	989.7	907.0	858.0	838.2	847.3
30°	13842.8	11947.7	6890.5	3130.1	1710.1	1146.5	1009.4	924.6	854.2	824.4	826.0
32.5°	14691.7	12789.7	7174.2	2976.5	1586.9	982.8	870.2	832.9	824.4	789.2	771.6
35°	15776.8	13707.4	7364.5	2980.3	1528.8	877.2	774.8	709.7	662.3	621.8	621.8
37.5°	17048.6	14760.5	7567.1	3020.8	1508.0	815.3	741.7	676.1	632.4	593.5	586.6
40°	18306.0	15792.8	7752.2	3059.7	1495.2	778.5	715.1	655.3	614.8	575.9	565.2
42.5°	19375.7	16641.8	7917.5	3078.9	1453.1	774.8	695.9	640.9	602.6	559.9	549.8
45°	20166.4	17353.1	8095.6	3108.8	1410.9	789.2	695.9	639.3	591.9	551.4	540.7
47.5°	20872.4	18188.1	8393.1	3108.8	1359.8	762.5	718.8	640.9	590.3	547.6	539.1
50°	21818.4	19333.0	8956.8	3036.8	1287.8	734.3	757.2	634.0	574.3	540.7	530.0
52.5°	23121.6	20800.5	9851.5	2911.5	1176.9	679.9	751.9	630.8	558.3	523.1	510.8
55°	24663.2	22371.4	10827.3	2765.4	1011.0	640.9	725.7	621.8	540.7	501.8	489.5
57.5°	25866.2	23452.8	11514.2	2539.8	866.5	620.2	643.1	613.2	519.4	478.8	468.7
60°	26345.0	23410.6	11702.9	2238.5	796.1	602.6	562.0	686.8	501.8	461.2	449.0
62.5°	26086.4	22329.2	11174.5	2027.4	780.1	579.6	526.8	635.6	487.9	449.0	431.4
65°	24890.4	20412.8	9774.2	1970.8	826.0	556.7	503.9	498.6	468.7	431.4	413.8
67.5°	22285.0	17548.8	7825.8	1976.2	884.1	533.8	481.0	456.4	442.1	412.2	396.2
70°	18151.3	13874.8	5833.6	1990.6	914.0	507.1	456.4	429.8	413.8	383.9	373.3
72.5°	13346.4	10693.5	4238.2	1898.9	919.3	477.2	422.9	399.9	383.9	352.5	343.4
75°	9131.1	8179.8	2939.7	1573.0	801.5	435.1	385.5	364.7	354.1	315.1	309.8
77.5°	6670.2	6140.2	1881.3	1167.8	618.0	382.3	340.2	324.2	317.3	274.6	267.7
80°	5353.2	4857.8	1176.9	799.9	452.7	320.5	285.3	276.7	269.3	227.2	221.8
82.5°	3712.9	3253.3	755.6	519.4	340.2	248.5	225.6	221.8	211.2	172.8	167.4
85°	1958.6	1766.6	478.8	354.1	246.4	170.6	156.8	156.8	151.4	114.6	110.9
87.5°	250.1	406.9	243.2	185.0	135.4	75.7	75.7	74.1	79.5	65.1	56.5
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°	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7
2.5°	8748.8	8833.6	8752.5	8757.9	8847.4	9115.1	9236.7	9337.0	9444.7	9515.1	9546.5
5°	6341.2	6538.5	6605.2	6746.0	6953.9	7295.7	7431.2	7529.8	7595.4	7633.8	7649.8
7.5°	4336.8	4456.3	4590.1	4817.3	5270.0	5471.0	5560.6	5537.7	5464.1	5437.4	5411.3
10°	3269.3	3221.8	3196.7	3322.1	3688.4	3891.0	3954.5	3892.6	3852.1	3861.2	3904.9
12.5°	2532.9	2450.2	2350.0	2335.6	2577.1	2758.4	2799.0	2802.2	2876.3	2941.3	3038.4
15°	1846.1	1837.0	1787.9	1758.1	1895.1	2043.4	2061.0	2092.4	2159.6	2207.1	2291.3
17.5°	1301.6	1349.1	1388.0	1407.2	1511.2	1616.8	1597.6	1581.6	1569.3	1569.3	1609.8
20°	1049.9	1081.4	1131.0	1187.0	1293.1	1366.7	1319.2	1255.8	1209.9	1196.0	1201.4
22.5°	946.0	970.5	998.8	1047.8	1143.3	1194.4	1143.3	1097.4	1051.5	1035.5	1030.2
25°	893.2	924.6	951.3	988.1	1058.5	1093.7	1044.6	1011.0	982.8	963.6	949.2
27.5°	863.3	891.0	898.5	916.1	975.8	1007.3	982.8	968.9	951.3	933.7	916.1
30°	831.3	826.0	813.7	815.3	863.3	894.8	893.2	896.4	894.8	889.4	886.2
32.5°	759.3	748.7	738.0	748.7	792.4	820.6	822.8	829.7	829.7	828.1	842.0
35°	632.4	651.6	663.9	695.9	748.7	773.2	762.5	744.9	713.5	693.7	692.1
37.5°	585.0	588.2	609.5	653.2	711.9	734.3	718.8	678.3	656.9	653.2	658.5
40°	562.0	565.2	577.5	618.0	676.1	699.1	685.2	655.3	635.6	634.0	643.1
42.5°	546.0	549.8	556.7	585.0	632.4	660.7	662.3	640.9	618.0	620.2	628.7
45°	537.0	539.1	537.0	551.4	595.1	628.7	643.1	628.7	609.5	613.2	623.4
47.5°	535.4	530.0	523.1	526.8	572.7	605.8	623.4	618.0	609.5	613.2	621.8
50°	528.4	516.2	507.1	505.5	551.4	586.6	602.6	602.6	605.8	613.2	621.8
52.5°	507.1	493.2	493.2	487.9	537.0	570.6	581.2	582.8	588.2	600.4	613.2
55°	481.0	475.6	481.0	471.9	526.8	558.3	563.6	567.4	570.6	581.2	598.8
57.5°	458.0	451.1	463.4	459.6	517.8	546.0	546.0	553.0	553.0	567.4	581.2
60°	445.8	431.4	436.7	440.5	505.5	535.4	532.2	539.1	542.3	555.1	565.2
62.5°	429.8	417.5	417.5	426.1	491.6	519.4	517.8	523.1	537.0	540.7	551.4
65°	410.6	405.3	399.9	410.6	477.2	501.8	503.9	510.8	523.1	526.8	535.4
67.5°	390.9	393.0	382.3	393.0	465.0	484.2	484.2	498.6	503.9	510.8	519.4
70°	370.1	371.7	362.6	375.4	456.4	465.0	463.4	482.6	486.3	491.6	500.2
72.5°	343.4	343.4	340.2	357.8	442.1	445.8	442.1	458.0	459.6	465.0	468.7
75°	315.1	315.1	311.9	336.5	433.5	424.5	413.8	426.1	429.8	433.5	433.5
77.5°	278.3	282.1	282.1	311.9	403.1	415.9	380.2	387.7	393.0	394.6	389.3
80°	232.5	241.6	244.8	283.7	338.1	383.9	340.2	345.0	347.1	347.1	340.2
82.5°	178.1	193.6	202.6	244.8	259.2	322.1	295.9	301.3	295.9	285.3	282.1
85°	123.2	144.5	155.2	186.6	195.7	248.5	246.4	246.4	236.2	221.8	220.2
87.5°	67.2	79.5	86.4	110.9	133.8	167.4	181.3	176.0	167.4	158.4	160.5
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°	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7
2.5°	9712.4	9951.8	10334.1	10626.3	10920.7	11204.3	11511.0	11745.0	11943.9	12021.8	12257.5
5°	7810.3	8109.4	8470.4	9122.1	9583.8	10092.6	10681.2	11459.8	11758.9	12173.2	12851.0
7.5°	5522.2	5793.1	6374.3	6901.1	7554.9	8275.3	9069.3	10143.7	10536.7	11200.6	12304.9
10°	4123.5	4438.7	4905.2	5349.4	5925.3	6661.7	7574.1	8775.5	9252.7	9973.1	11244.9
12.5°	3322.1	3693.7	4188.6	4606.1	5051.9	5571.2	6457.5	7774.6	8414.5	9044.7	10330.4
15°	2552.1	2941.3	3401.5	3931.5	4422.7	4983.1	5911.5	7352.3	8088.1	8745.6	9842.5
17.5°	1766.6	2099.3	2679.0	3231.9	3861.2	4577.8	5760.0	7441.8	8320.6	9078.3	9927.2
20°	1252.6	1442.4	1918.0	2559.5	3343.4	4243.0	5731.7	7913.8	9057.0	9921.9	10469.5
22.5°	1053.1	1123.5	1400.3	1988.4	2893.9	3992.9	5830.4	8576.0	10050.4	11154.8	11334.5
25°	959.8	1002.5	1146.5	1560.8	2493.9	3811.6	6163.1	9562.5	11280.1	12388.1	12356.1
27.5°	908.6	952.9	1047.8	1317.6	2193.2	3699.1	6495.9	10732.4	12685.7	13726.6	13332.0
30°	893.2	952.9	1053.1	1241.9	1978.3	3521.0	6768.9	11758.9	13767.1	14630.4	13776.1
32.5°	880.9	889.4	935.3	1070.7	1773.5	3313.0	6953.9	12680.3	14825.6	15490.0	14415.5
35°	711.9	755.6	829.7	959.8	1654.1	3188.2	6953.9	13474.9	15868.6	16358.1	15025.0
37.5°	685.2	724.1	789.2	900.1	1586.9	3126.4	6814.8	14241.1	16934.0	17343.0	15526.8
40°	671.3	702.8	764.7	854.2	1558.6	3056.0	6612.1	14917.3	17974.8	18328.9	15995.5
42.5°	660.7	688.9	747.1	826.0	1521.9	2978.7	6448.4	15459.6	18878.7	19170.9	16442.9
45°	655.3	685.2	748.7	840.4	1447.7	2876.3	6394.0	16046.1	19622.0	19873.7	16927.0
47.5°	655.3	690.5	757.2	870.2	1359.8	2770.7	6564.7	16819.9	20324.8	20448.0	17497.6
50°	650.0	688.9	782.3	840.4	1231.2	2636.9	6966.2	17793.5	21085.7	21099.6	18220.1
52.5°	639.3	685.2	842.0	822.8	1083.0	2460.9	7509.0	19044.5	22211.4	22295.6	19350.6
55°	627.1	679.9	826.0	782.3	962.0	2251.3	7952.7	20564.2	23793.0	24027.1	21013.8
57.5°	611.1	672.9	799.9	725.7	882.5	1981.5	8113.2	21677.6	24897.3	25485.5	22887.5
60°	597.2	667.6	722.0	692.1	832.9	1754.3	7802.8	21457.4	24821.6	26089.6	24548.6
62.5°	582.8	672.9	658.5	671.3	810.0	1608.2	6992.9	19694.0	23565.8	25466.3	25779.8
65°	567.4	625.5	621.8	653.2	805.2	1550.1	5796.8	17050.2	21138.5	23495.4	26070.4
67.5°	546.0	577.5	595.1	630.8	822.8	1498.9	4678.1	14064.6	17765.3	20541.3	24555.5
70°	523.1	549.8	569.0	602.6	812.1	1476.0	3891.0	11091.3	14096.6	16835.3	21566.7
72.5°	493.2	516.2	533.8	565.2	801.5	1463.7	3286.9	8932.2	10524.5	12506.0	17534.9
75°	458.0	478.8	491.6	523.1	767.9	1340.6	2584.1	7558.1	7875.4	8699.7	13966.0
77.5°	417.5	433.5	443.7	478.8	679.9	1115.0	1869.0	5830.4	6115.7	6316.2	10707.4
80°	370.1	385.5	390.9	424.5	563.6	871.8	1219.0	4306.4	4574.1	4620.0	6992.9
82.5°	315.1	331.1	331.1	362.6	461.2	627.1	799.9	2950.4	3003.2	3158.4	4942.6
85°	253.8	266.1	266.1	282.1	357.8	468.7	549.8	1481.3	1465.3	1673.3	4281.9
87.5°	181.3	190.4	198.9	202.6	255.4	309.8	331.1	451.1	297.5	341.8	2749.4
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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CATALOG NUMBER: GLNA-AF-07-LED-E1-SLR-7027

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7	10825.7
2.5°	12435.6	12535.8	12433.5	12359.9	12041.0	11778.6	11427.8	11248.1
5°	13367.2	13622.6	13536.2	13226.4	12560.4	11811.7	10961.2	10577.3
7.5°	13254.6	13848.1	13862.0	13282.9	12301.7	11199.0	10047.2	9501.2
10°	12377.5	13136.3	13353.3	12791.3	11750.4	10517.5	9196.2	8572.8
12.5°	11397.9	12141.2	12307.1	12113.0	11243.3	10004.6	8664.5	8052.9
15°	10596.5	10929.7	11126.5	11296.1	10808.2	9800.3	8634.2	7963.3
17.5°	10108.5	10071.8	10128.3	10422.1	10504.7	10034.4	9092.2	8352.6
20°	9932.6	9367.4	9353.0	9758.2	10362.4	10593.3	9987.0	9099.1
22.5°	10029.6	9113.5	8997.3	9478.3	10438.1	11397.9	11160.1	10147.5
25°	10364.0	9134.9	9041.0	9506.5	10712.7	12255.9	12426.5	11503.5
27.5°	10890.8	9268.7	9145.0	9622.8	11077.4	12976.3	13673.8	12817.9
30°	11391.0	9501.2	9347.6	9851.5	11410.2	13261.6	14438.4	13842.8
32.5°	11998.9	9936.3	9666.5	10272.3	11822.4	13715.9	15119.9	14691.7
35°	12594.0	10555.9	10221.6	10922.3	12282.0	14281.7	15898.4	15776.8
37.5°	13247.7	11366.5	11089.7	11762.6	12911.2	14814.9	16891.8	17048.6
40°	13945.2	12440.9	12113.0	12988.6	13887.1	15484.6	17929.5	18306.0
42.5°	14648.0	13633.2	13242.4	14129.7	14959.4	16144.8	18816.8	19375.7
45°	15452.6	14927.9	14742.9	15702.7	15990.1	16774.0	19472.2	20166.4
47.5°	16390.1	16397.0	16694.5	17078.5	17029.4	17485.3	20131.2	20872.4
50°	17483.7	18230.3	18887.7	19142.6	18100.2	18250.0	21045.2	21818.4
52.5°	18797.6	20423.5	21237.2	21069.7	19254.1	19183.2	22492.9	23121.6
55°	20441.1	22745.2	23553.6	23433.6	20580.2	20454.9	24296.9	24663.2
57.5°	22343.1	24994.4	25737.7	25198.6	22172.5	21850.4	25788.9	25866.2
60°	24014.8	26777.0	27428.6	26831.4	23779.1	23334.9	26720.4	26345.0
62.5°	24944.8	27381.1	27839.2	27196.1	24879.7	24916.5	26924.7	26086.4
65°	24529.4	25853.9	26001.6	25948.8	24596.0	25834.2	26190.4	24890.4
67.5°	22253.5	21992.8	22241.3	22584.7	22165.5	24625.9	24155.6	22285.0
70°	18244.7	16812.4	17307.8	17538.1	17728.5	21191.3	20965.8	18151.3
72.5°	13749.5	11778.6	12169.5	12122.0	13002.4	16997.4	16305.3	13346.4
75°	9742.2	7986.3	8035.3	8016.1	9073.0	13298.4	11806.9	9131.1
77.5°	6816.4	5786.1	5812.8	5921.6	6099.7	10029.6	8435.3	6670.2
80°	4687.1	4391.2	4537.3	4546.4	4227.5	6737.4	6231.9	5353.2
82.5°	3491.1	3052.2	3017.0	3068.2	3313.0	5458.7	4789.0	3712.9
85°	2858.7	1807.1	1453.1	1821.5	2936.0	5405.9	3181.3	1958.6
87.5°	1609.8	858.0	387.7	718.8	1171.5	3579.1	919.3	250.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)