

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: P301656

Luminaire Tested: **GLNA-AF-07-LED-E1-T2R-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301656  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194759)  
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-T2R-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30678.6 lumens  
Efficiency: N/A  
Efficacy: 104.0 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 295  
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

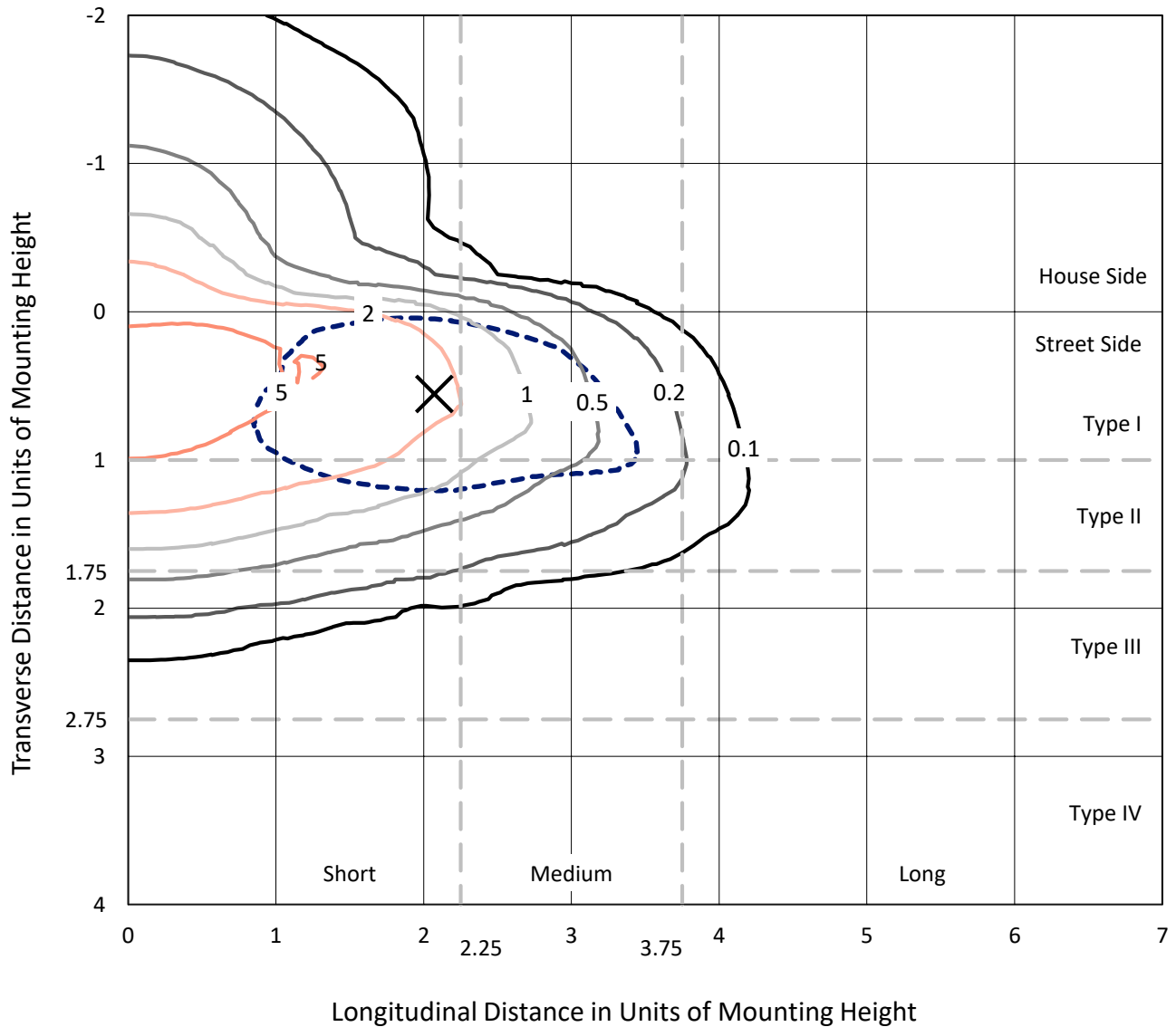


REPORT NUMBER: P301656

CATALOG NUMBER: GLNA-AF-07-LED-E1-T2R-7027-800

### Iso-Footcandle Lines of Horizontal Illumination

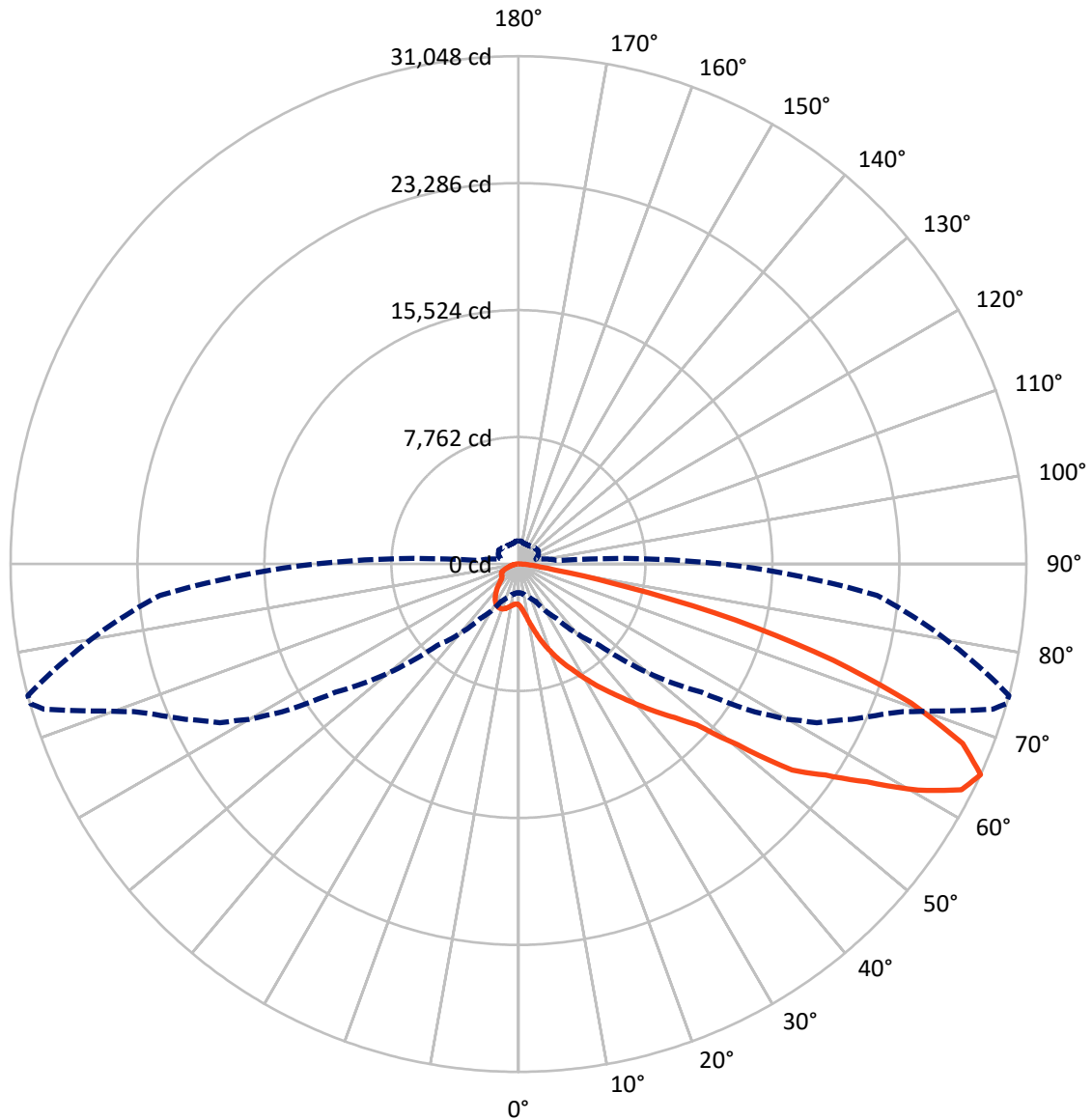
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.6 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P301656  
CATALOG NUMBER: GLNA-AF-07-LED-E1-T2R-7027-800

### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P301656

CATALOG NUMBER: GLNA-AF-07-LED-E1-T2R-7027-800

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4729.9	0.0	4729.9
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	25948.7	0.0	25948.7
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	30678.6	0.0	30678.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	308.2	1.0
10°-20°	1204.1	3.9
20°-30°	2470.4	8.1
30°-40°	4156.3	13.5
40°-50°	5742.9	18.7
50°-60°	7168.8	23.4
60°-70°	6451.2	21.0
70°-80°	2704.3	8.8
80°-90°	472.5	1.5
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°	30678.6	100.0
0°-180°	30678.6	100.0



REPORT NUMBER: P301656

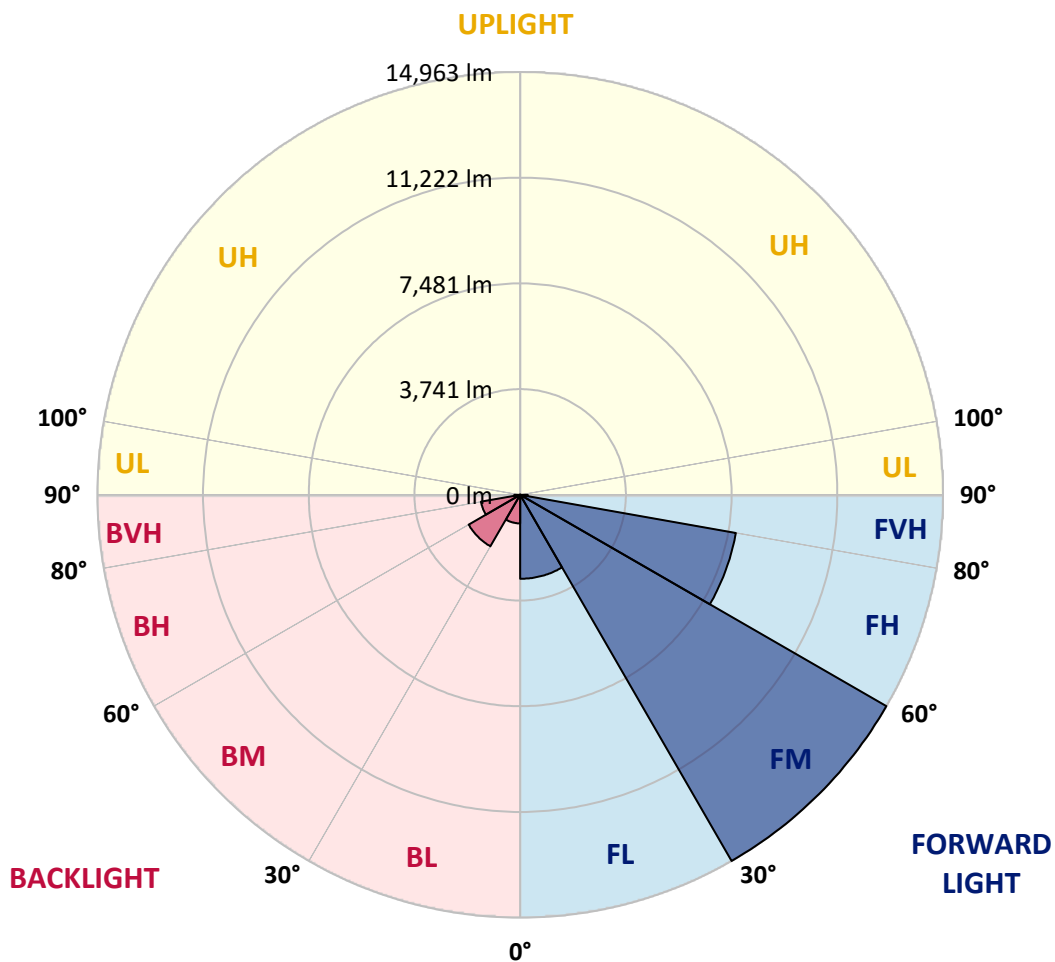
CATALOG NUMBER: GLNA-AF-07-LED-E1-T2R-7027-800

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2971.1	9.7			
FM (30°-60°)	14962.7	48.8			
FH (60°-80°)	7749.3	25.3			G4/12000
FVH (80°-90°)	265.6	0.9			G3/500
BL (0°-30°)	1011.5	3.3	B3/2500		
BM (30°-60°)	2105.3	6.9	B2/2500		
BH (60°-80°)	1406.2	4.6	B3/2500		G3/2500
BVH (80°-90°)	206.9	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type II Short





REPORT NUMBER: P301656

CATALOG NUMBER: GLNA-AF-07-LED-E1-T2R-7027-800

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2
2.5°	3165.6	3130.7	3139.4	3081.2	3010.1	2917.1	2814.1	2812.8	2814.1	2803.8	2766.3
5°	4389.4	4347.6	4331.7	4200.7	4009.1	3736.4	3440.0	3408.2	3394.8	3361.6	3284.5
7.5°	5282.8	5259.5	5234.6	5135.9	4961.9	4656.9	4258.9	4190.8	4125.4	4109.4	4022.4
10°	5859.2	5853.1	5801.0	5774.7	5666.2	5401.7	5014.0	4948.5	4877.5	4852.9	4761.2
12.5°	6314.9	6313.6	6289.1	6296.4	6201.6	6010.4	5676.1	5616.6	5564.5	5488.7	5423.7
15°	6630.2	6631.5	6668.1	6708.6	6694.0	6564.7	6251.2	6224.9	6180.1	6128.0	6050.9
17.5°	6888.7	6896.0	6933.5	7007.6	7087.7	7077.3	6829.2	6807.3	6768.1	6697.0	6656.5
20°	7472.4	7499.9	7427.6	7427.6	7436.2	7475.4	7356.0	7338.8	7283.7	7245.8	7213.9
22.5°	8458.4	8490.2	8326.1	8159.4	7995.3	7876.0	7757.1	7778.6	7741.1	7714.9	7695.9
25°	9739.0	9764.0	9498.2	9216.5	8882.2	8446.7	8152.1	8138.7	8118.5	8102.5	8093.9
27.5°	10944.3	10954.6	10703.5	10290.8	9903.1	9277.2	8552.7	8536.8	8512.2	8481.6	8455.3
30°	11975.5	11972.5	11714.0	11320.3	10905.1	10212.4	9161.4	9111.8	9039.0	8956.3	8892.6
32.5°	12868.5	12864.1	12580.7	12172.8	11737.3	11139.0	9994.9	9893.2	9779.9	9618.4	9521.5
35°	13571.0	13568.4	13300.9	12875.8	12376.1	12011.7	10950.3	10825.4	10681.5	10465.3	10315.8
37.5°	13836.8	13836.8	13687.3	13397.0	12955.5	12705.6	12011.7	11860.5	11706.7	11461.2	11292.7
40°	13681.3	13684.3	13716.2	13662.8	13447.8	13256.1	13002.0	12912.0	12779.7	12559.2	12383.4
42.5°	13160.1	13176.0	13388.4	13648.1	13755.4	13725.2	13880.3	13839.8	13746.8	13577.0	13437.5
45°	12499.3	12548.8	12781.0	13272.1	13841.1	14130.1	14616.5	14620.8	14603.5	14512.2	14404.5
47.5°	11592.1	11661.5	11968.2	12631.5	13640.8	14523.9	15364.3	15403.5	15440.1	15380.6	15331.1
50°	10386.9	10469.6	10928.3	11808.4	13232.9	14931.8	16777.1	16954.6	17120.0	17099.8	17133.0
52.5°	9095.9	9193.2	9754.9	10735.3	12531.6	15026.1	17680.4	17969.5	18258.5	18495.0	18746.1
55°	7931.1	7879.0	8441.1	9473.2	11378.5	14600.5	18492.4	18840.9	19163.1	19453.4	19752.8
57.5°	6352.8	6438.5	7002.0	8022.9	9852.3	13399.6	19051.1	19561.1	20024.2	20504.9	20928.8
60°	4643.6	4729.3	5340.5	6377.4	8195.6	11578.8	18624.2	19397.0	20138.8	20874.9	21450.0
62.5°	2803.8	2868.0	3406.4	4394.2	6319.6	9419.8	16722.0	17735.6	18827.6	19707.6	20588.9
65°	1745.4	1781.6	1980.6	2523.8	4058.6	7032.5	13662.8	14767.7	15943.6	17060.6	17976.8
67.5°	1428.8	1441.7	1478.4	1594.2	2228.7	4585.8	10168.9	11147.6	12209.0	13289.3	14308.9
70°	1284.9	1276.3	1276.3	1283.7	1428.8	2465.7	6657.8	7295.3	8179.7	9119.1	10051.3
72.5°	1160.0	1151.4	1135.5	1113.9	1166.1	1504.2	3441.3	3922.0	4559.6	5394.4	6287.3
75°	1042.4	1030.8	1012.3	984.7	1020.9	1135.5	1652.4	1854.4	2165.0	2609.5	3107.5
77.5°	920.5	905.9	888.7	868.4	914.9	883.1	968.3	1041.1	1160.0	1302.6	1490.0
80°	782.7	769.8	763.7	753.8	809.0	672.4	684.0	728.8	798.6	875.7	962.7
82.5°	613.0	613.0	635.8	640.5	701.3	483.7	511.3	550.5	586.7	627.2	668.1
85°	403.6	406.6	485.0	515.6	553.1	325.2	383.4	396.3	425.6	448.8	466.1
87.5°	126.2	136.6	296.4	328.2	317.9	184.4	235.2	241.2	261.5	277.4	292.1
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: P301656

CATALOG NUMBER: GLNA-AF-07-LED-E1-T2R-7027-800

**CANDELA DISTRIBUTION (continued):**

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2
2.5°	2766.3	2748.7	2732.7	2731.4	2719.8	2703.9	2709.5	2684.9	2686.2	2673.3	2658.6
5°	3252.7	3241.0	3182.9	3166.9	3123.4	3095.9	3091.5	3033.4	3026.1	2992.9	2956.3
7.5°	3952.6	3914.7	3833.3	3794.1	3720.0	3664.9	3639.0	3561.9	3524.0	3437.0	3397.8
10°	4685.8	4638.0	4537.6	4482.5	4411.4	4322.7	4274.8	4163.3	4119.3	4039.6	3944.0
12.5°	5365.5	5317.7	5214.3	5172.1	5077.8	4983.4	4931.3	4805.1	4748.2	4620.3	4544.9
15°	5994.0	5946.2	5856.1	5812.6	5718.3	5641.2	5571.4	5446.9	5380.2	5260.8	5162.2
17.5°	6603.9	6553.1	6474.7	6435.5	6344.2	6265.8	6190.4	6072.4	6004.3	5885.4	5796.7
20°	7170.4	7132.5	7076.1	7023.5	6932.2	6861.1	6771.1	6669.4	6570.8	6483.3	6399.3
22.5°	7664.0	7649.4	7588.7	7565.4	7487.0	7425.8	7347.4	7247.5	7176.0	7065.7	6987.3
25°	8089.6	8085.3	8056.0	8048.7	7993.6	7935.4	7918.2	7835.5	7770.0	7672.7	7591.7
27.5°	8455.3	8459.6	8452.8	8473.0	8458.4	8432.1	8433.8	8406.2	8368.3	8286.9	8215.8
30°	8862.0	8838.7	8852.1	8880.9	8889.5	8892.6	8940.4	8956.3	8953.7	8899.9	8865.0
32.5°	9437.0	9381.9	9331.1	9326.8	9355.6	9367.3	9448.7	9490.9	9527.1	9540.0	9546.0
35°	10170.2	10059.9	9953.9	9897.5	9848.0	9860.9	9919.1	9987.5	10067.2	10122.4	10187.8
37.5°	11093.7	10958.9	10771.5	10638.0	10604.4	10532.0	10569.5	10623.3	10701.7	10787.5	10900.8
40°	12213.3	12008.7	11798.0	11621.0	11525.3	11391.4	11390.1	11379.8	11428.0	11507.7	11667.5
42.5°	13291.0	13109.2	12885.7	12700.0	12575.1	12396.3	12360.2	12265.8	12287.4	12357.1	12512.6
45°	14299.9	14150.4	14013.8	13799.3	13692.9	13499.9	13438.8	13327.2	13264.7	13296.6	13452.1
47.5°	15277.2	15181.6	15039.0	14899.9	14818.5	14645.8	14567.4	14487.2	14407.5	14404.5	14567.4
50°	17182.5	17131.7	16963.2	16818.1	16857.3	16645.3	16658.3	16443.3	16540.7	16552.3	16893.4
52.5°	18972.7	19150.2	19275.1	19427.2	19526.2	19545.2	19610.2	19707.6	19825.2	20057.4	20374.0
55°	19997.9	20220.2	20349.4	20465.7	20657.4	20697.9	20806.9	20936.1	21039.1	21300.5	21569.3
57.5°	21216.5	21628.8	21829.1	22013.4	22271.9	22370.5	22552.3	22693.2	22826.7	23136.0	23461.2
60°	21966.9	22469.6	22877.5	23169.2	23493.1	23725.7	24000.1	24220.6	24534.2	24904.7	25389.7
62.5°	21370.3	22107.8	22649.7	23150.6	23590.4	24035.0	24428.3	24840.9	25316.9	25877.3	26629.9
65°	18993.4	19743.8	20671.6	21191.5	21773.9	22459.3	23057.6	23725.7	24374.4	25190.7	26302.9
67.5°	15290.6	16162.9	17205.7	17730.0	18399.4	19164.4	19835.5	20651.4	21409.5	22398.1	23773.5
70°	11021.4	12149.5	13026.5	13574.0	14355.4	15143.7	15791.6	16741.0	17368.1	18381.7	19803.6
72.5°	6978.7	7868.6	8943.4	9633.0	10327.0	11126.0	11788.1	12607.0	13191.9	14115.5	15403.5
75°	3752.3	4408.4	5352.2	6007.3	6750.8	7433.2	8208.5	8757.3	9190.2	9920.8	10966.2
77.5°	1758.4	2157.7	2635.4	3139.4	3643.3	4168.9	4680.2	5124.3	5310.4	5728.6	6345.5
80°	1067.4	1196.6	1335.8	1491.3	1701.9	1871.6	2096.9	2259.3	2271.0	2403.2	2591.9
82.5°	712.9	760.7	802.9	842.1	896.0	938.2	986.0	1042.4	1065.7	1096.3	1157.4
85°	486.3	509.6	518.2	543.2	537.2	551.8	570.8	589.7	599.6	598.3	625.9
87.5°	298.9	310.6	316.6	322.2	317.9	312.3	320.9	331.3	333.8	325.2	328.2
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: P301656

CATALOG NUMBER: GLNA-AF-07-LED-E1-T2R-7027-800

**CANDELA DISTRIBUTION (continued):**

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2
2.5°	2661.7	2648.7	2635.4	2626.8	2623.7	2547.1	2513.5	2491.9	2445.4	2407.5	2376.9
5°	2936.0	2908.5	2886.9	2860.7	2846.0	2651.3	2580.2	2531.1	2449.7	2401.9	2358.0
7.5°	3377.6	3300.5	3255.7	3204.8	3161.3	2809.8	2692.2	2615.1	2501.8	2438.1	2388.6
10°	3878.5	3798.9	3727.3	3648.9	3580.9	3020.5	2849.0	2729.7	2580.2	2497.5	2432.1
12.5°	4437.7	4359.3	4269.2	4168.9	4081.9	3287.5	3049.3	2879.6	2674.6	2564.3	2473.0
15°	5098.4	4960.2	4851.2	4735.3	4633.7	3607.2	3283.2	3048.0	2774.9	2625.5	2503.6
17.5°	5712.3	5567.1	5419.4	5317.7	5200.1	3965.6	3518.4	3219.1	2857.6	2664.7	2509.2
20°	6312.3	6153.8	6026.3	5889.7	5766.1	4337.3	3769.6	3370.2	2911.5	2666.0	2473.0
22.5°	6840.9	6741.8	6599.6	6451.5	6326.5	4709.0	4004.8	3498.2	2931.7	2632.8	2408.8
25°	7441.8	7337.5	7163.1	7038.1	6899.0	5088.1	4235.6	3596.8	2920.1	2570.3	2310.2
27.5°	8083.6	7967.7	7789.0	7658.4	7490.0	5481.4	4447.6	3667.9	2876.6	2468.7	2177.9
30°	8753.0	8647.0	8471.3	8339.5	8169.3	5898.4	4684.5	3715.7	2789.6	2327.8	2024.1
32.5°	9471.9	9383.2	9209.2	9071.3	8889.5	6349.8	4905.0	3730.4	2657.3	2160.7	1861.7
35°	10154.2	10093.5	9946.6	9817.4	9628.7	6776.7	5138.9	3723.0	2500.5	1977.6	1713.6
37.5°	10922.7	10886.1	10813.7	10649.6	10418.7	7356.0	5419.4	3692.5	2308.9	1796.3	1600.3
40°	11741.6	11744.6	11666.2	11554.2	11339.3	8059.0	5753.2	3633.0	2099.5	1636.4	1496.9
42.5°	12608.3	12653.5	12615.6	12535.9	12329.6	8767.6	6152.5	3560.6	1896.6	1480.9	1395.7
45°	13601.6	13656.7	13714.9	13597.3	13397.0	9702.8	6678.0	3466.3	1676.9	1351.7	1325.9
47.5°	14747.4	14834.4	14886.5	14888.3	14688.0	10861.6	7531.8	3409.4	1482.7	1264.7	1292.3
50°	17164.8	17192.8	17316.0	17531.0	17377.2	13543.4	9023.1	3374.6	1350.4	1210.9	1267.7
52.5°	20648.4	20952.0	21165.7	21151.1	20941.7	15246.7	9845.0	3194.5	1272.0	1190.6	1256.1
55°	22067.3	22446.3	22841.3	22945.6	22783.2	16700.5	10622.1	3014.4	1234.1	1205.3	1260.4
57.5°	23957.9	24596.7	25138.6	25366.4	25131.3	18560.5	11644.2	2920.1	1222.5	1244.5	1288.0
60°	26166.4	26956.4	27668.0	28077.2	28077.2	20697.9	12704.3	2880.9	1206.6	1302.6	1334.5
62.5°	27585.3	28745.3	29820.1	30419.7	30402.0	22186.2	13174.7	2747.4	1170.4	1343.1	1398.2
65°	27590.9	28970.6	30339.5	31013.7	31048.1	22003.5	12398.1	2426.5	1103.6	1349.1	1462.4
67.5°	25291.1	26761.7	28357.6	29111.5	29285.5	20255.1	10732.3	1995.3	994.6	1291.0	1485.7
70°	21360.0	22796.1	24425.2	25166.1	25475.4	17266.5	8644.0	1537.8	855.5	1163.0	1437.4
72.5°	16828.0	18236.6	19370.7	19912.2	20153.4	13198.0	6294.7	1161.8	701.3	980.0	1308.2
75°	11914.3	12971.4	13574.0	13694.6	13732.1	7956.1	3824.7	864.1	578.1	762.4	1104.9
77.5°	6724.6	7177.7	7128.2	7182.0	6734.9	3071.3	1665.7	618.6	476.4	579.4	856.8
80°	2625.5	2706.9	2542.8	2491.9	2285.6	1142.8	734.9	431.2	380.4	438.5	599.6
82.5°	1157.4	1194.9	1160.0	1169.1	1118.2	589.7	439.8	312.3	290.3	320.9	398.0
85°	637.5	649.2	646.1	665.1	637.5	235.2	208.9	191.7	203.3	218.0	255.4
87.5°	310.6	313.6	303.7	319.6	309.3	118.9	103.0	109.0	118.9	121.9	121.9
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: P301656

CATALOG NUMBER: GLNA-AF-07-LED-E1-T2R-7027-800

**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
0°	2493.2	2493.2	2493.2	2493.2	2493.2	2493.2
2.5°	2355.4	2343.8	2345.0	2342.0	2336.4	2336.4
5°	2335.1	2323.5	2323.5	2320.5	2313.2	2314.5
7.5°	2355.4	2336.4	2329.1	2318.8	2308.9	2308.9
10°	2378.6	2345.0	2324.8	2307.6	2294.2	2294.2
12.5°	2395.9	2343.8	2310.2	2286.9	2274.0	2274.0
15°	2401.9	2333.4	2286.9	2259.3	2247.7	2246.4
17.5°	2383.0	2294.2	2237.8	2205.9	2191.3	2187.0
20°	2324.8	2223.1	2155.1	2118.5	2098.2	2090.9
22.5°	2237.8	2121.5	2041.8	2003.9	1977.6	1973.3
25°	2115.9	1991.0	1912.6	1875.9	1861.7	1857.0
27.5°	1973.3	1857.0	1790.2	1767.0	1754.0	1752.8
30°	1838.5	1739.4	1690.3	1672.6	1656.7	1654.1
32.5°	1711.8	1649.4	1630.8	1605.9	1568.4	1564.1
35°	1621.8	1616.2	1603.3	1547.7	1501.6	1488.3
37.5°	1566.7	1620.5	1553.7	1444.8	1411.6	1408.6
40°	1534.8	1575.7	1460.7	1423.2	1425.8	1423.2
42.5°	1462.4	1504.2	1463.7	1446.5	1457.7	1460.7
45°	1389.6	1436.1	1485.7	1474.1	1501.6	1501.6
47.5°	1349.1	1418.5	1484.0	1484.0	1524.9	1539.1
50°	1302.6	1404.3	1460.7	1480.9	1513.3	1501.6
52.5°	1299.6	1379.3	1427.5	1463.7	1478.4	1465.0
55°	1303.9	1359.0	1393.9	1434.9	1452.1	1453.4
57.5°	1309.9	1347.4	1370.7	1389.6	1441.7	1441.7
60°	1324.1	1337.5	1350.4	1360.8	1428.8	1430.1
62.5°	1347.4	1327.2	1324.1	1334.5	1421.5	1415.9
65°	1384.0	1312.5	1291.0	1300.9	1414.2	1396.9
67.5°	1433.1	1291.0	1248.8	1256.1	1408.6	1370.7
70°	1478.4	1256.1	1196.6	1189.3	1353.4	1286.7
72.5°	1482.7	1215.6	1123.8	1102.3	1176.4	1112.2
75°	1409.9	1187.6	1044.2	980.0	971.4	962.7
77.5°	1270.7	1171.7	951.1	850.7	833.5	839.1
80°	1063.1	1112.2	839.1	720.2	814.6	804.7
82.5°	794.3	981.7	712.9	637.5	635.8	562.1
85°	441.5	765.5	580.7	477.7	332.5	322.2
87.5°	123.6	425.6	406.6	270.1	184.4	191.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)