

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: P301738

Luminaire Tested: **GLNA-AF-10-LED-E1-T2R-7050-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301738  
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-10-LED-E1-T2R-7050-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40290.7 lumens  
Efficiency: N/A  
Efficacy: 124.7 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B3 - U0 - G4

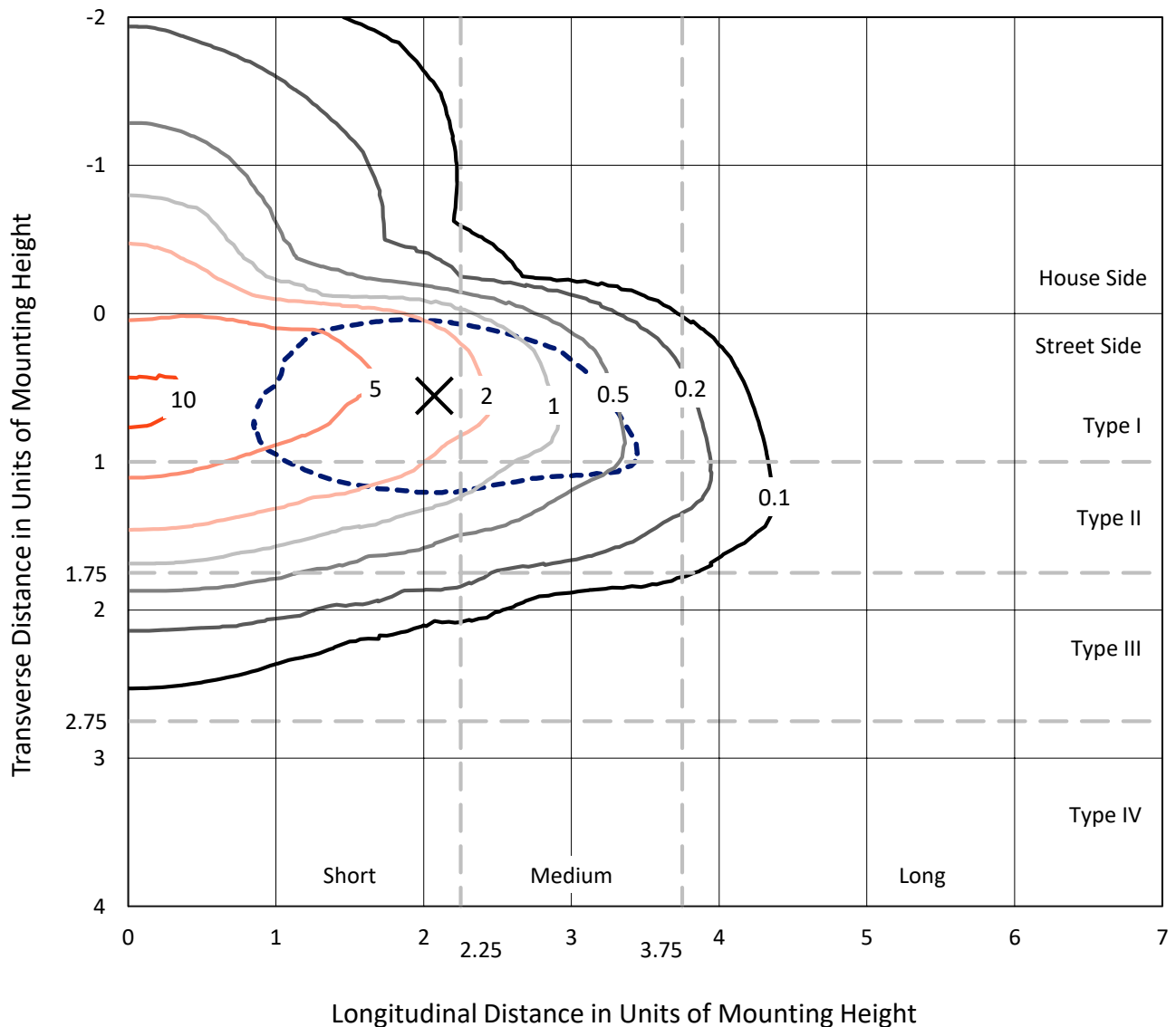
Input Watts (W): 323  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P301738  
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### Iso-Footcandle Lines of Horizontal Illumination

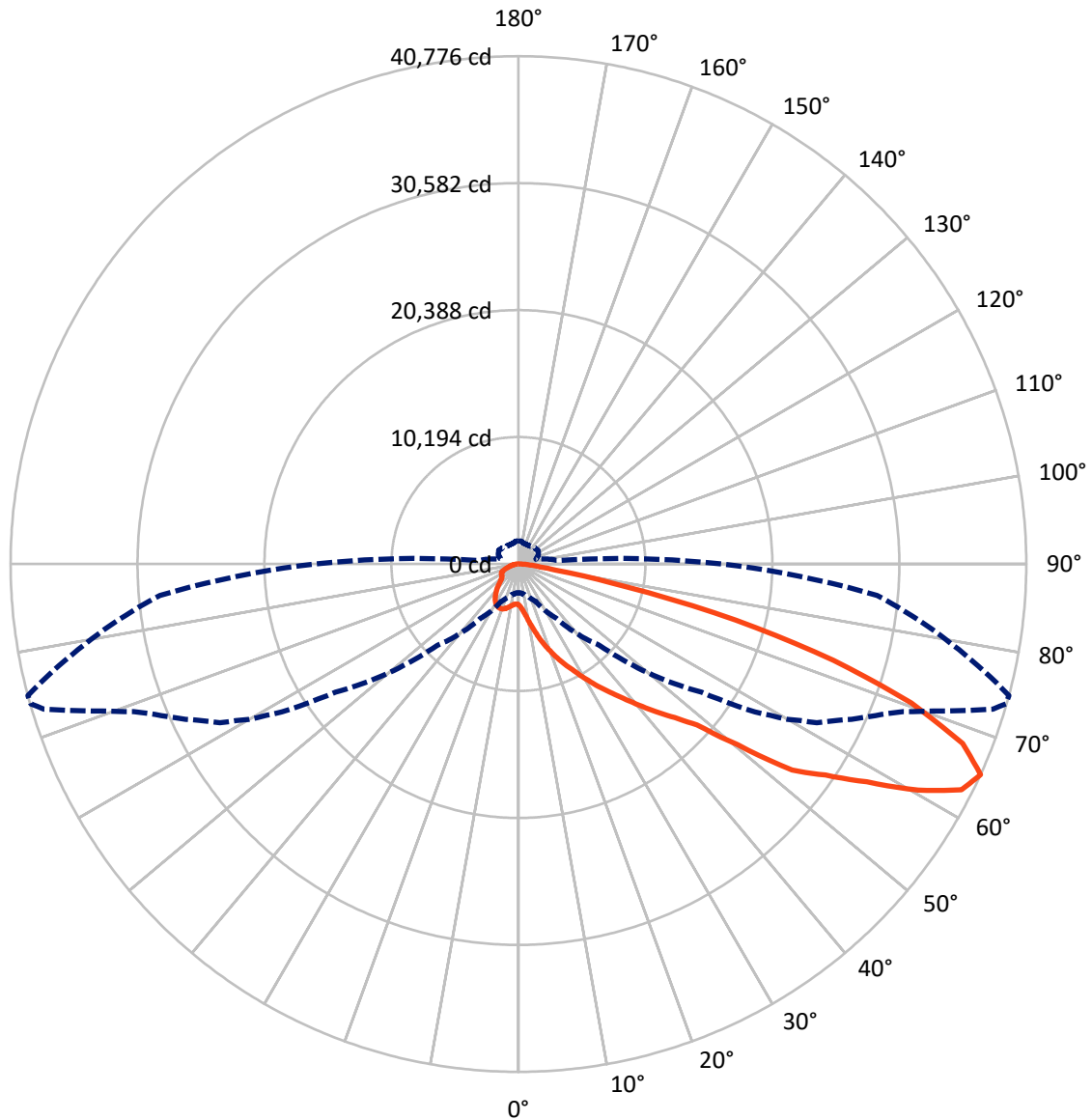
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.3 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P301738  
CATALOG NUMBER: GLNA-AF-10-LED-E1-T2R-7050-600

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P301738

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2R-7050-600

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6211.9	0.0	6211.9
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	34078.9	0.0	34078.9
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	40290.7	0.0	40290.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	404.7	1.0
10°-20°	1581.4	3.9
20°-30°	3244.4	8.1
30°-40°	5458.6	13.5
40°-50°	7542.2	18.7
50°-60°	9414.9	23.4
60°-70°	8472.5	21.0
70°-80°	3551.6	8.8
80°-90°	620.5	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°	40290.7	100.0
0°-180°	40290.7	100.0

**Coefficient of Utilization**



REPORT NUMBER: P301738

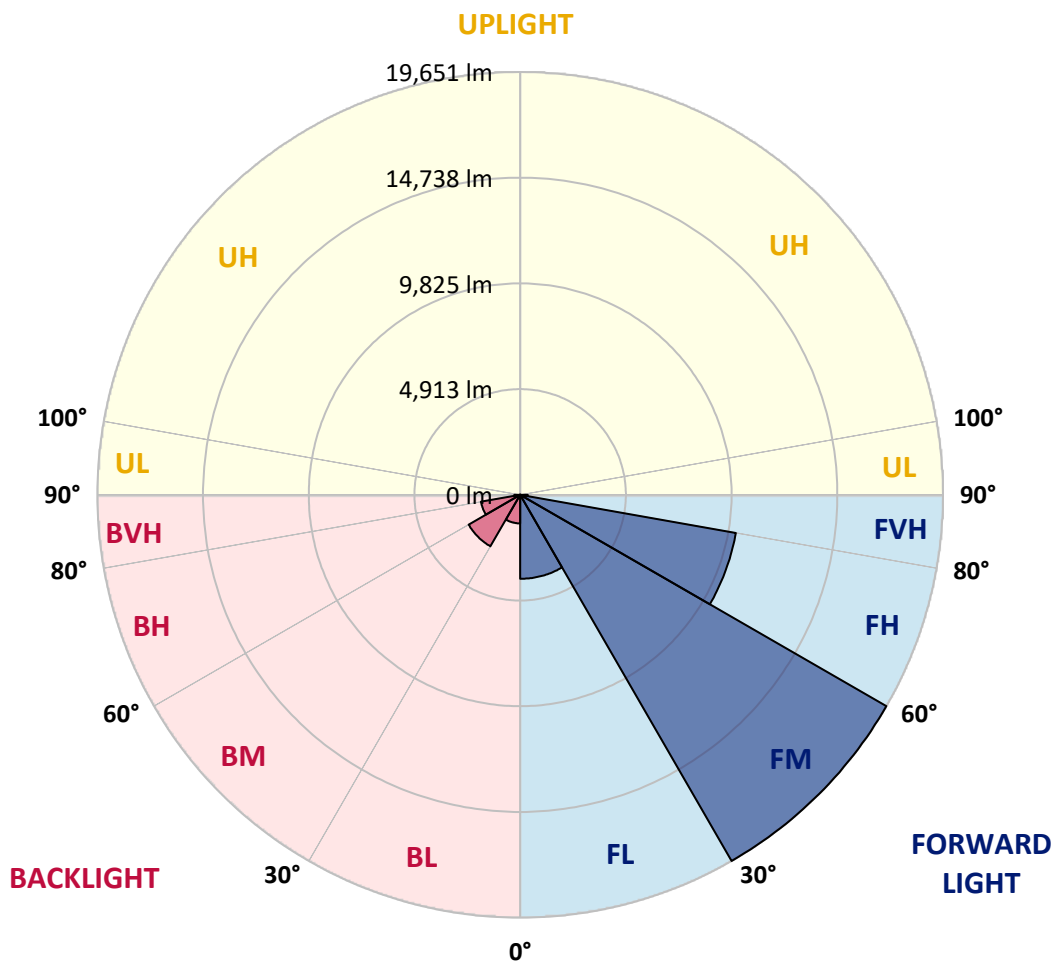
CATALOG NUMBER: GLNA-AF-10-LED-E1-T2R-7050-600

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3902.0	9.7			
FM (30°-60°)	19650.7	48.8			
FH (60°-80°)	10177.3	25.3			G4/12000
FVH (80°-90°)	348.8	0.9			G3/500
BL (0°-30°)	1328.5	3.3	B3/2500		
BM (30°-60°)	2765.0	6.9	B3/5000		
BH (60°-80°)	1846.7	4.6	B3/2500		G3/2500
BVH (80°-90°)	271.7	0.7			G3/500
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: P301738

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2R-7050-600

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4
2.5°	4157.5	4111.7	4123.0	4046.6	3953.3	3831.1	3695.9	3694.2	3695.9	3682.3	3633.1
5°	5764.7	5709.8	5688.9	5516.9	5265.2	4907.1	4517.9	4476.0	4458.5	4414.9	4313.6
7.5°	6938.0	6907.5	6874.7	6745.1	6516.5	6116.0	5593.3	5503.9	5417.9	5397.0	5282.7
10°	7694.9	7687.0	7618.6	7584.1	7441.5	7094.2	6585.0	6499.0	6405.7	6373.4	6252.9
12.5°	8293.5	8291.8	8259.5	8269.2	8144.7	7893.5	7454.5	7376.4	7308.0	7208.4	7123.0
15°	8707.6	8709.3	8757.4	8810.6	8791.3	8621.6	8209.8	8175.2	8116.4	8048.0	7946.7
17.5°	9047.0	9056.6	9105.9	9203.2	9308.4	9294.8	8969.0	8940.1	8888.6	8795.3	8742.1
20°	9813.6	9849.8	9754.7	9754.7	9766.1	9817.5	9660.8	9638.2	9565.8	9516.0	9474.1
22.5°	11108.5	11150.4	10934.8	10715.9	10500.4	10343.7	10187.5	10215.8	10166.6	10132.1	10107.2
25°	12790.4	12823.2	12474.2	12104.2	11665.2	11093.2	10706.3	10688.7	10662.2	10641.2	10629.9
27.5°	14373.3	14386.9	14057.1	13515.1	13005.9	12183.9	11232.4	11211.5	11179.2	11139.1	11104.6
30°	15727.6	15723.7	15384.2	14867.2	14321.8	13412.1	12031.8	11966.7	11871.1	11762.5	11678.8
32.5°	16900.4	16894.7	16522.5	15986.7	15414.8	14629.0	13126.4	12992.9	12844.1	12632.0	12504.7
35°	17823.1	17819.7	17468.4	16910.0	16253.8	15775.2	14381.2	14217.2	14028.2	13744.2	13547.9
37.5°	18172.1	18172.1	17975.8	17594.5	17014.6	16686.5	15775.2	15576.6	15374.6	15052.2	14831.0
40°	17967.9	17971.8	18013.7	17943.6	17661.3	17409.5	17075.7	16957.5	16783.8	16494.2	16263.4
42.5°	17283.4	17304.3	17583.2	17924.3	18065.2	18025.6	18229.3	18176.1	18053.9	17831.0	17647.7
45°	16415.5	16480.6	16785.5	17430.5	18177.8	18557.4	19196.1	19201.7	19179.1	19059.2	18917.7
47.5°	15224.1	15315.2	15718.0	16589.2	17914.7	19074.4	20178.2	20229.6	20277.7	20199.7	20134.6
50°	13641.2	13749.9	14352.4	15508.1	17379.0	19610.2	22033.7	22266.8	22484.0	22457.5	22501.0
52.5°	11945.8	12073.6	12811.3	14098.9	16458.0	19734.1	23220.0	23599.6	23979.2	24289.8	24619.6
55°	10416.1	10347.6	11085.9	12441.4	14943.5	19175.1	24286.4	24744.1	25167.3	25548.6	25941.7
57.5°	8343.3	8455.8	9195.8	10536.6	12939.2	17597.9	25020.2	25690.0	26298.1	26929.5	27486.2
60°	6098.5	6211.1	7013.8	8375.5	10763.4	15206.6	24459.5	25474.5	26448.6	27415.4	28170.7
62.5°	3682.3	3766.6	4473.7	5770.9	8299.7	12371.2	21961.3	23292.5	24726.6	25882.3	27039.8
65°	2292.3	2339.8	2601.2	3314.6	5330.2	9236.0	17943.6	19394.6	20939.1	22406.0	23609.3
67.5°	1876.5	1893.5	1941.6	2093.7	2927.0	6022.7	13355.0	14640.3	16034.3	17453.1	18792.1
70°	1687.5	1676.2	1676.2	1685.9	1876.5	3238.2	8743.8	9581.1	10742.5	11976.3	13200.6
72.5°	1523.5	1512.2	1491.2	1463.0	1531.4	1975.5	4519.6	5150.9	5988.2	7084.5	8257.3
75°	1369.0	1353.8	1329.4	1293.2	1340.8	1491.2	2170.1	2435.4	2843.3	3427.1	4081.1
77.5°	1208.9	1189.7	1167.1	1140.5	1201.6	1159.7	1271.7	1367.3	1523.5	1710.7	1956.8
80°	1027.9	1010.9	1003.0	990.0	1062.4	883.1	898.4	957.2	1048.8	1150.1	1264.4
82.5°	805.0	805.0	835.0	841.2	921.0	635.3	671.5	723.0	770.5	823.7	877.4
85°	530.1	534.0	637.0	677.2	726.4	427.1	503.5	520.5	558.9	589.5	612.1
87.5°	165.8	179.3	389.2	431.1	417.5	242.1	308.9	316.8	343.4	364.3	383.6
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: P301738

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2R-7050-600

**CANDELA DISTRIBUTION (continued):**

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4
2.5°	3633.1	3609.9	3588.9	3587.2	3572.0	3551.0	3558.4	3526.1	3527.8	3510.9	3491.6
5°	4271.8	4256.5	4180.1	4159.2	4102.0	4065.8	4060.2	3983.8	3974.2	3930.6	3882.5
7.5°	5191.1	5141.3	5034.4	4982.9	4885.6	4813.2	4779.2	4678.0	4628.2	4513.9	4462.4
10°	6153.9	6091.1	5959.3	5886.9	5793.6	5677.0	5614.2	5467.7	5410.0	5305.3	5179.7
12.5°	7046.6	6983.8	6848.1	6792.6	6668.7	6544.8	6476.4	6310.6	6236.0	6067.9	5968.9
15°	7872.0	7809.2	7691.0	7633.8	7510.0	7408.7	7317.0	7153.6	7065.9	6909.2	6779.6
17.5°	8673.1	8606.3	8503.4	8451.9	8332.0	8229.0	8130.0	7975.0	7885.6	7729.5	7612.9
20°	9417.0	9367.2	9293.1	9224.1	9104.2	9010.8	8892.6	8759.1	8629.5	8514.7	8404.4
22.5°	10065.3	10046.1	9966.3	9935.8	9832.8	9752.5	9649.5	9518.3	9424.4	9279.5	9176.6
25°	10624.3	10618.6	10580.1	10570.5	10498.1	10421.7	10399.1	10290.5	10204.5	10076.6	9970.3
27.5°	11104.6	11110.2	11101.2	11127.7	11108.5	11074.0	11076.3	11040.1	10990.3	10883.4	10790.0
30°	11638.6	11608.0	11625.6	11663.5	11674.8	11678.8	11741.6	11762.5	11759.1	11688.4	11642.6
32.5°	12393.8	12321.4	12254.7	12249.0	12286.9	12302.2	12409.1	12464.5	12512.1	12529.0	12537.0
35°	13356.7	13211.9	13072.7	12998.6	12933.5	12950.5	13026.9	13116.8	13221.5	13293.9	13379.9
37.5°	14569.6	14392.5	14146.4	13971.1	13926.9	13831.9	13881.1	13951.8	14054.8	14167.4	14316.2
40°	16039.9	15771.2	15494.6	15262.0	15136.5	14960.5	14958.8	14945.2	15008.6	15113.3	15323.1
42.5°	17455.3	17216.6	16923.0	16679.2	16515.1	16280.3	16232.8	16108.9	16137.2	16228.9	16433.1
45°	18780.3	18584.0	18404.6	18122.9	17983.2	17729.7	17649.4	17502.9	17420.8	17462.7	17666.9
47.5°	20063.9	19938.3	19751.0	19568.3	19461.4	19234.5	19131.6	19026.4	18921.7	18917.7	19131.6
50°	22566.1	22499.3	22278.1	22087.5	22139.0	21860.6	21877.6	21595.3	21723.1	21738.4	22186.5
52.5°	24917.2	25150.3	25314.4	25514.1	25644.2	25669.1	25754.5	25882.3	26036.8	26341.7	26757.5
55°	26263.6	26555.5	26725.3	26878.0	27129.8	27182.9	27326.1	27495.8	27631.0	27974.4	28327.4
57.5°	27864.1	28405.5	28668.5	28910.6	29250.1	29379.6	29618.4	29803.4	29978.7	30384.9	30812.0
60°	28849.5	29509.7	30045.5	30428.5	30853.9	31159.4	31519.8	31809.4	32221.2	32707.8	33344.8
62.5°	28066.0	29034.5	29746.2	30404.2	30981.8	31565.6	32082.1	32624.0	33249.2	33985.2	34973.5
65°	24944.4	25929.9	27148.4	27831.2	28596.1	29496.2	30282.0	31159.4	32011.4	33083.4	34544.1
67.5°	20081.4	21227.0	22596.6	23285.1	24164.2	25169.0	26050.4	27121.8	28117.5	29415.8	31222.2
70°	14474.6	15956.2	17108.0	17827.0	18853.2	19888.5	20739.4	21986.2	22809.9	24141.0	26008.5
72.5°	9165.3	10334.0	11745.5	12651.2	13562.6	14612.0	15481.5	16557.0	17325.2	18538.1	20229.6
75°	4928.0	5789.6	7029.1	7889.6	8866.0	9762.1	10780.4	11501.1	12069.7	13029.1	14402.1
77.5°	2309.3	2833.7	3461.1	4123.0	4784.9	5475.1	6146.6	6729.8	6974.2	7523.5	8333.6
80°	1401.9	1571.6	1754.3	1958.5	2235.2	2458.1	2753.9	2967.2	2982.5	3156.2	3403.9
82.5°	936.3	999.1	1054.5	1106.0	1176.7	1232.1	1294.9	1369.0	1399.6	1439.8	1520.1
85°	638.7	669.2	680.6	713.4	705.5	724.7	749.6	774.5	787.5	785.8	822.0
87.5°	392.6	407.9	415.8	423.2	417.5	410.1	421.5	435.0	438.4	427.1	431.1
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: P301738

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2R-7050-600

**CANDELA DISTRIBUTION (continued):**

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4
2.5°	3495.6	3478.6	3461.1	3449.8	3445.8	3345.1	3301.0	3272.7	3211.6	3161.8	3121.7
5°	3856.0	3819.8	3791.5	3757.0	3737.7	3482.0	3388.7	3324.2	3217.3	3154.5	3096.8
7.5°	4435.8	4334.6	4275.7	4209.0	4151.8	3690.2	3535.8	3434.5	3285.7	3202.0	3136.9
10°	5093.8	4989.1	4895.2	4792.2	4702.8	3966.8	3741.7	3585.0	3388.7	3280.1	3194.1
12.5°	5828.1	5725.1	5606.9	5475.1	5360.8	4317.6	4004.7	3781.8	3512.6	3367.7	3247.8
15°	6695.9	6514.3	6371.2	6219.0	6085.5	4737.4	4311.9	4003.0	3644.4	3448.1	3288.0
17.5°	7502.0	7311.4	7117.3	6983.8	6829.4	5208.0	4620.8	4227.6	3753.0	3499.6	3295.3
20°	8290.1	8081.9	7914.4	7735.1	7572.8	5696.3	4950.6	4426.2	3823.7	3501.3	3247.8
22.5°	8984.2	8854.1	8667.4	8472.8	8308.8	6184.5	5259.5	4594.2	3850.3	3457.7	3163.5
25°	9773.4	9636.5	9407.4	9243.3	9060.6	6682.3	5562.7	4723.8	3835.0	3375.7	3034.0
27.5°	10616.3	10464.2	10229.4	10058.0	9836.8	7198.8	5841.1	4817.1	3777.9	3242.2	2860.3
30°	11495.5	11356.3	11125.5	10952.4	10728.9	7746.4	6152.2	4879.9	3663.6	3057.2	2658.3
32.5°	12439.7	12323.1	12094.6	11913.5	11674.8	8339.3	6441.9	4899.2	3489.9	2837.7	2445.0
35°	13335.8	13256.0	13063.1	12893.4	12645.6	8899.9	6749.1	4889.5	3284.0	2597.2	2250.4
37.5°	14345.0	14296.9	14201.9	13986.3	13683.1	9660.8	7117.3	4849.4	3032.3	2359.1	2101.7
40°	15420.4	15424.4	15321.4	15174.4	14892.1	10584.1	7555.8	4771.3	2757.3	2149.2	1965.9
42.5°	16558.7	16618.1	16568.3	16463.6	16192.7	11514.7	8080.2	4676.3	2490.9	1945.0	1832.9
45°	17863.2	17935.6	18012.0	17857.6	17594.5	12742.9	8770.4	4552.4	2202.4	1775.2	1741.3
47.5°	19368.1	19482.3	19550.8	19553.0	19290.0	14264.7	9891.6	4477.7	1947.2	1661.0	1697.2
50°	22542.9	22579.7	22741.4	23023.7	22821.8	17786.9	11850.2	4431.9	1773.5	1590.2	1664.9
52.5°	27117.9	27516.7	27797.3	27778.1	27503.1	20023.7	12929.6	4195.4	1670.6	1563.7	1649.6
55°	28981.4	29479.2	29998.0	30134.9	29921.6	21933.0	13950.1	3958.9	1620.8	1582.9	1655.3
57.5°	31464.3	32303.3	33015.0	33314.2	33005.3	24375.8	15292.6	3835.0	1605.5	1634.4	1691.5
60°	34364.8	35402.3	36336.9	36874.3	36874.3	27182.9	16684.8	3783.5	1584.6	1710.7	1752.6
62.5°	36228.3	37751.7	39163.2	39950.7	39927.5	29137.5	17302.6	3608.2	1537.1	1763.9	1836.3
65°	36235.6	38047.6	39845.5	40730.8	40776.1	28897.6	16282.6	3186.7	1449.4	1771.8	1920.6
67.5°	33215.2	35146.6	37242.6	38232.6	38461.2	26601.4	14095.0	2620.4	1306.3	1695.5	1951.2
70°	28052.4	29938.6	32078.1	33051.2	33457.4	22676.4	11352.3	2019.6	1123.5	1527.4	1887.8
72.5°	22100.5	23950.4	25439.9	26151.1	26467.9	17333.1	8266.9	1525.8	921.0	1287.0	1718.1
75°	15647.3	17035.6	17827.0	17985.4	18034.6	10448.9	5023.0	1134.8	759.2	1001.3	1451.1
77.5°	8831.5	9426.6	9361.6	9432.3	8845.1	4033.6	2187.6	812.4	625.7	760.9	1125.2
80°	3448.1	3555.0	3339.5	3272.7	3001.7	1500.9	965.1	566.3	499.5	575.9	787.5
82.5°	1520.1	1569.3	1523.5	1535.4	1468.6	774.5	577.6	410.1	381.3	421.5	522.7
85°	837.3	852.5	848.6	873.5	837.3	308.9	274.4	251.7	267.0	286.3	335.5
87.5°	407.9	411.8	398.8	419.8	406.2	156.1	135.2	143.1	156.1	160.1	160.1
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: P301738

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2R-7050-600

**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
0°	3274.4	3274.4	3274.4	3274.4	3274.4	3274.4
2.5°	3093.4	3078.1	3079.8	3075.8	3068.5	3068.5
5°	3066.8	3051.5	3051.5	3047.5	3037.9	3039.6
7.5°	3093.4	3068.5	3058.9	3045.3	3032.3	3032.3
10°	3123.9	3079.8	3053.2	3030.6	3013.0	3013.0
12.5°	3146.5	3078.1	3034.0	3003.4	2986.4	2986.4
15°	3154.5	3064.5	3003.4	2967.2	2951.9	2950.2
17.5°	3129.6	3013.0	2938.9	2897.1	2877.8	2872.2
20°	3053.2	2919.7	2830.3	2782.2	2755.6	2746.0
22.5°	2938.9	2786.2	2681.5	2631.7	2597.2	2591.6
25°	2778.8	2614.8	2511.8	2463.7	2445.0	2438.8
27.5°	2591.6	2438.8	2351.1	2320.6	2303.6	2301.9
30°	2414.5	2284.4	2219.9	2196.7	2175.8	2172.4
32.5°	2248.2	2166.1	2141.8	2109.0	2059.8	2054.1
35°	2129.9	2122.6	2105.6	2032.6	1972.1	1954.6
37.5°	2057.5	2128.2	2040.6	1897.4	1853.9	1849.9
40°	2015.7	2069.4	1918.4	1869.1	1872.5	1869.1
42.5°	1920.6	1975.5	1922.3	1899.7	1914.4	1918.4
45°	1825.0	1886.1	1951.2	1935.9	1972.1	1972.1
47.5°	1771.8	1862.9	1948.9	1948.9	2002.7	2021.3
50°	1710.7	1844.3	1918.4	1945.0	1987.4	1972.1
52.5°	1706.8	1811.4	1874.8	1922.3	1941.6	1924.0
55°	1712.4	1784.9	1830.7	1884.4	1907.0	1908.7
57.5°	1720.4	1769.6	1800.1	1825.0	1893.5	1893.5
60°	1739.0	1756.6	1773.5	1787.1	1876.5	1878.2
62.5°	1769.6	1743.0	1739.0	1752.6	1866.9	1859.5
65°	1817.7	1723.8	1695.5	1708.5	1857.3	1834.6
67.5°	1882.2	1695.5	1640.0	1649.6	1849.9	1800.1
70°	1941.6	1649.6	1571.6	1562.0	1777.5	1689.8
72.5°	1947.2	1596.5	1476.0	1447.7	1545.0	1460.7
75°	1851.6	1559.7	1371.3	1287.0	1275.7	1264.4
77.5°	1668.9	1538.8	1249.1	1117.3	1094.7	1102.0
80°	1396.2	1460.7	1102.0	945.9	1069.8	1056.8
82.5°	1043.2	1289.3	936.3	837.3	835.0	738.3
85°	579.9	1005.3	762.6	627.4	436.7	423.2
87.5°	162.4	558.9	534.0	354.7	242.1	251.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)