

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: P302930

Luminaire Tested: **GLNA-AF-09-LED-E1-T4W-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302930  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-09-LED-E1-T4W-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30142.3 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G5

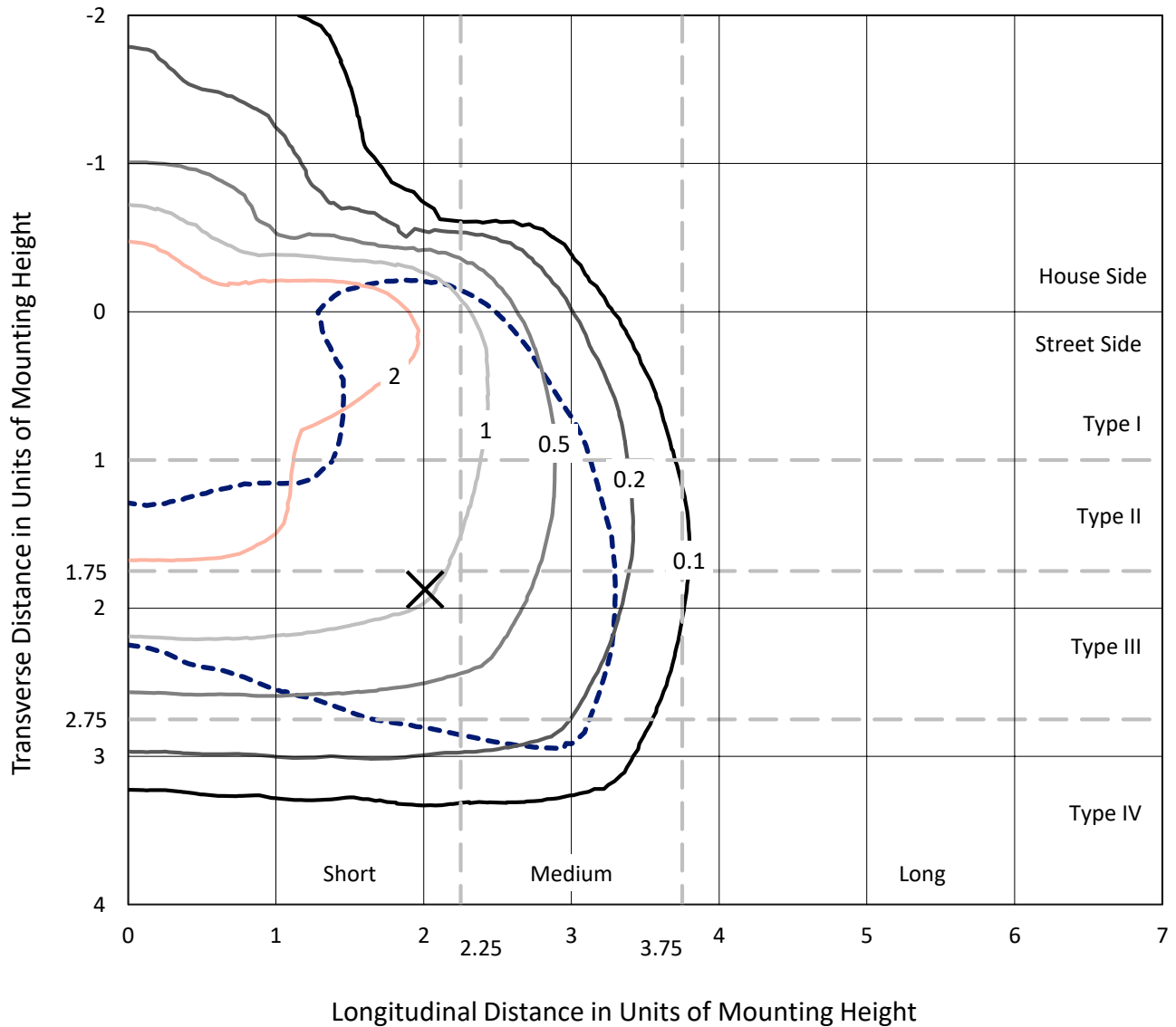
Input Watts (W): 290  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P302930  
 CATALOG NUMBER: GLNA-AF-09-LED-E1-T4W-7027-600

### Iso-Footcandle Lines of Horizontal Illumination

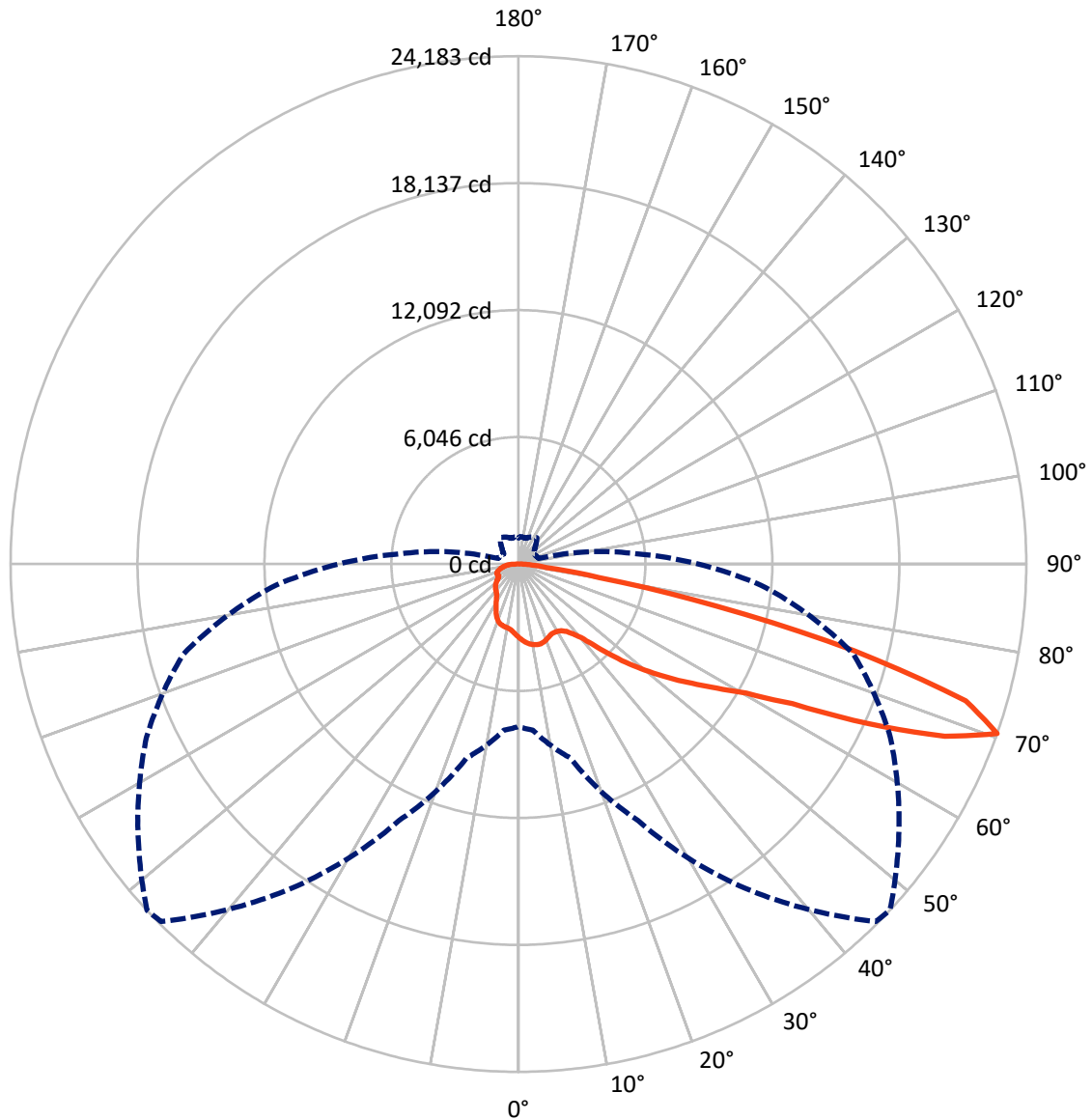
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.5 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P302930  
CATALOG NUMBER: GLNA-AF-09-LED-E1-T4W-7027-600

### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P302930

CATALOG NUMBER: GLNA-AF-09-LED-E1-T4W-7027-600

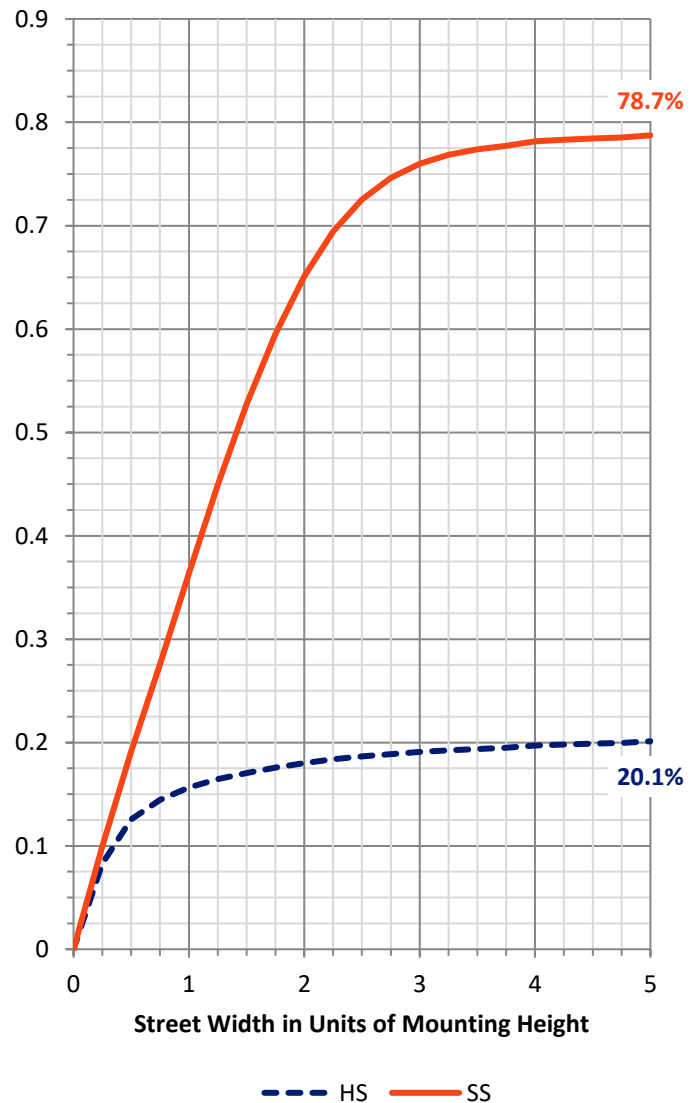
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6288.3	0.0	6288.3
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	23854.0	0.0	23854.0
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	30142.3	0.0	30142.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	335.1	1.1
10°-20°	983.1	3.3
20°-30°	1451.8	4.8
30°-40°	2110.2	7.0
40°-50°	3797.6	12.6
50°-60°	6579.0	21.8
60°-70°	9390.2	31.2
70°-80°	4820.4	16.0
80°-90°	674.9	2.2
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°	30142.3	100.0
0°-180°	30142.3	100.0

**Coefficient of Utilization**



REPORT NUMBER: P302930

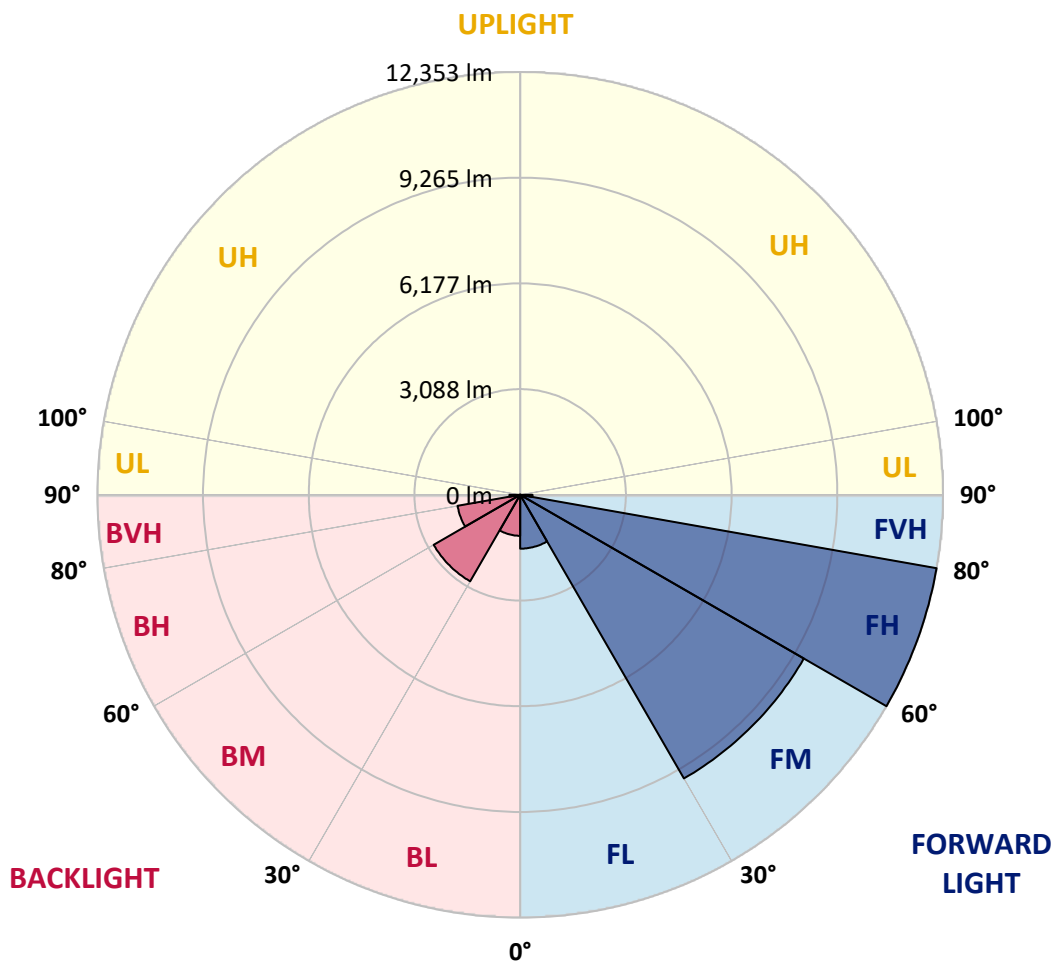
CATALOG NUMBER: GLNA-AF-09-LED-E1-T4W-7027-600

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1572.8	5.2			
FM	(30°-60°)	9568.0	31.7			
FH	(60°-80°)	12353.1	41.0			G5
FVH	(80°-90°)	360.1	1.2			G3/500
BL	(0°-30°)	1197.3	4.0	B3/2500		
BM	(30°-60°)	2918.8	9.7	B3/5000		
BH	(60°-80°)	1857.4	6.2	B3/2500		G3/2500
BVH	(80°-90°)	314.7	1.0			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





REPORT NUMBER: P302930

CATALOG NUMBER: GLNA-AF-09-LED-E1-T4W-7027-600

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	3497.4	3497.4	3497.4	3497.4	3497.4	3497.4	3497.4	3497.4	3497.4	3497.4	3497.4
2.5°	3702.9	3695.6	3692.7	3686.8	3679.5	3642.5	3635.2	3608.9	3572.4	3533.9	3494.4
5°	3946.4	3945.0	3928.4	3899.2	3852.4	3771.6	3752.6	3688.3	3601.6	3517.8	3434.5
7.5°	4160.2	4147.1	4116.4	4057.5	3975.6	3865.6	3839.3	3749.7	3630.8	3516.4	3403.4
10°	4317.0	4309.7	4242.5	4161.7	4054.5	3932.8	3902.1	3802.3	3671.7	3526.6	3385.8
12.5°	4406.7	4392.0	4314.1	4217.7	4090.1	3971.3	3940.1	3839.3	3692.7	3526.6	3361.0
15°	4400.8	4390.6	4312.7	4207.0	4078.4	3974.2	3946.4	3845.1	3688.3	3512.0	3328.9
17.5°	4283.4	4287.8	4222.1	4117.8	4012.2	3932.8	3907.9	3814.4	3658.6	3482.8	3290.9
20°	4078.4	4098.9	4054.5	3962.5	3903.6	3849.5	3833.4	3754.0	3613.3	3440.4	3249.5
22.5°	3872.9	3891.9	3874.3	3796.4	3787.6	3755.5	3746.7	3689.7	3573.8	3414.1	3224.6
25°	3721.9	3739.4	3736.5	3668.8	3695.6	3694.1	3686.8	3658.6	3565.1	3414.1	3229.0
27.5°	3681.0	3686.8	3681.0	3619.1	3655.7	3685.4	3679.5	3674.6	3591.4	3456.5	3285.0
30°	3821.7	3813.0	3767.2	3642.5	3676.6	3717.5	3711.7	3714.6	3670.3	3568.0	3409.7
32.5°	4383.3	4343.3	4199.7	3849.5	3759.9	3781.8	3784.7	3833.4	3840.7	3739.4	3603.1
35°	5223.4	5179.6	4993.0	4403.7	4019.5	3943.5	3943.5	4016.5	4060.4	3985.9	3903.6
37.5°	6113.7	6065.0	5965.6	5172.3	4564.9	4223.5	4216.2	4267.4	4330.2	4348.2	4368.7
40°	7125.3	7074.1	7101.9	6034.3	5326.2	4708.6	4604.4	4567.9	4737.8	4850.8	5015.4
42.5°	8232.8	8208.9	8219.1	6994.7	6192.6	5434.8	5286.7	5097.3	5302.8	5503.4	5848.3
45°	9257.5	9277.9	9267.7	8022.9	7157.9	6320.2	6163.4	5796.6	5997.8	6342.1	6904.2
47.5°	10155.1	10069.9	10201.8	9146.0	8238.6	7311.8	7118.0	6627.0	6830.6	7255.8	8206.0
50°	11244.6	11232.9	11039.5	10645.0	9544.8	8307.3	8053.5	7484.7	7801.3	8392.5	9847.3
52.5°	12390.1	12177.2	12000.0	11810.5	10930.9	9328.1	9016.9	8339.4	8942.4	9685.6	11847.5
55°	12624.3	12529.4	12749.0	13067.5	12266.8	10388.4	10026.0	9411.4	10227.2	11164.2	14154.1
57.5°	13126.0	13124.5	13579.4	14146.8	13642.2	11512.9	11147.7	10706.4	11671.2	12857.6	16602.9
60°	13464.9	13559.9	14404.9	15506.1	14992.8	12812.3	12476.3	12200.6	13314.0	14750.7	18884.6
62.5°	13642.2	13771.3	14924.1	16057.4	16901.9	14975.2	14639.7	14242.2	15487.1	16827.4	20219.1
65°	12904.9	13158.1	14843.2	16534.2	18573.9	18481.4	18330.4	17632.5	18204.2	18468.2	19736.9
67.5°	10863.2	11122.8	13085.1	16089.6	19767.6	21863.3	21895.5	20703.2	19876.2	18609.0	16594.1
70°	7739.9	7943.5	9567.2	13489.8	18858.3	24073.0	24183.0	22118.0	19543.1	16503.0	11593.8
72.5°	3674.6	3799.3	5336.4	8779.7	14965.0	22056.7	22269.5	20311.6	16617.5	12218.1	6324.6
75°	1350.5	1388.5	1803.5	3735.0	8679.9	16265.9	16516.7	14560.3	11015.7	6083.0	2409.3
77.5°	809.4	834.3	1012.1	1576.5	3414.1	9297.4	9668.1	7918.6	4814.3	2264.2	1184.9
80°	565.9	583.5	725.7	980.9	1613.0	3543.2	3872.9	3231.9	1917.9	1432.8	862.0
82.5°	382.8	391.6	510.4	662.8	1072.0	1265.3	1365.1	1437.2	1293.6	1066.1	546.9
85°	250.8	259.6	346.3	436.9	681.8	654.1	668.7	846.0	944.4	724.2	303.4
87.5°	143.7	149.5	208.4	233.3	334.6	277.1	280.0	445.6	604.4	488.5	184.6
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: P302930

CATALOG NUMBER: GLNA-AF-09-LED-E1-T4W-7027-600

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3497.4	3497.4	3497.4	3497.4	3497.4	3497.4	3497.4	3497.4	3497.4	3497.4	3497.4
2.5°	3484.2	3465.2	3422.9	3396.1	3371.2	3365.4	3355.2	3353.7	3352.2	3352.2	3347.9
5°	3406.3	3374.2	3308.4	3271.4	3240.7	3237.8	3236.3	3243.6	3246.5	3249.5	3245.1
7.5°	3356.6	3312.8	3230.5	3177.9	3141.3	3132.1	3147.2	3180.8	3202.7	3211.5	3207.1
10°	3325.9	3271.4	3176.4	3118.9	3088.3	3083.9	3102.9	3142.8	3188.1	3205.6	3204.2
12.5°	3290.9	3229.0	3127.7	3067.8	3050.3	3059.0	3083.9	3120.4	3167.6	3195.4	3196.9
15°	3255.3	3183.7	3079.5	3026.9	3019.6	3031.3	3054.7	3082.4	3118.9	3147.2	3150.1
17.5°	3212.9	3137.9	3034.2	2979.7	2973.8	2979.7	2981.1	2995.7	3019.6	3045.9	3053.2
20°	3167.6	3091.2	2982.6	2928.5	2902.2	2878.8	2852.1	2855.0	2862.3	2889.1	2894.9
22.5°	3135.0	3059.0	2943.1	2868.1	2798.0	2727.4	2674.8	2667.5	2670.4	2692.3	2699.6
25°	3137.9	3057.6	2932.9	2803.8	2649.9	2536.9	2466.3	2454.6	2453.2	2469.2	2480.0
27.5°	3195.4	3114.6	2970.9	2737.6	2488.7	2321.2	2246.7	2237.9	2226.2	2230.6	2242.3
30°	3323.0	3248.0	3063.4	2670.4	2313.9	2110.3	2032.4	2023.6	2007.5	2000.2	2009.0
32.5°	3531.0	3469.6	3198.3	2605.6	2139.5	1929.6	1850.7	1831.7	1821.5	1812.7	1820.0
35°	3877.3	3851.0	3378.5	2535.5	1985.6	1790.3	1718.7	1689.5	1674.9	1691.0	1702.7
37.5°	4419.8	4434.4	3614.7	2425.4	1866.8	1698.3	1637.9	1604.3	1582.4	1595.5	1608.7
40°	5188.3	5198.6	3875.8	2270.1	1764.0	1643.7	1579.4	1548.8	1517.6	1494.2	1492.7
42.5°	6197.0	6093.2	4132.5	2101.5	1645.2	1610.1	1538.5	1500.1	1453.3	1388.5	1375.4
45°	7393.6	7028.8	4327.3	1907.7	1511.7	1569.2	1492.7	1440.2	1366.6	1296.5	1289.2
47.5°	8772.4	8033.1	4422.7	1707.0	1387.1	1508.8	1437.2	1353.5	1260.9	1225.9	1221.5
50°	10455.6	9225.3	4468.0	1511.7	1278.9	1429.9	1356.4	1258.0	1180.6	1173.3	1168.9
52.5°	12372.5	10659.6	4483.1	1352.0	1189.3	1327.2	1290.6	1195.2	1133.3	1139.7	1139.7
55°	14378.6	12140.7	4283.4	1236.1	1107.0	1221.5	1246.3	1170.3	1118.7	1142.6	1151.3
57.5°	16220.1	13453.3	3655.7	1147.0	1029.6	1141.1	1230.2	1193.7	1158.6	1253.6	1259.5
60°	17633.9	14228.6	2730.3	1066.1	972.1	1112.9	1273.1	1283.3	1292.1	1519.0	1550.2
62.5°	17930.0	13971.0	1877.0	1003.3	945.8	1136.7	1350.5	1352.0	1341.8	1500.1	1519.0
65°	16570.7	12338.4	1365.1	967.7	923.9	1179.1	1416.8	1385.6	1318.4	1438.7	1403.1
67.5°	13159.6	9296.0	1136.7	941.4	891.8	1176.2	1486.9	1416.8	1305.2	1409.5	1352.0
70°	8542.0	5620.8	1012.1	919.5	853.3	1120.2	1527.8	1413.9	1266.8	1311.1	1243.4
72.5°	4167.5	2513.6	928.3	887.4	813.8	1042.7	1526.4	1387.1	1227.3	1224.4	1187.9
75°	1630.6	1151.3	851.8	838.7	746.6	954.6	1485.4	1349.1	1180.6	1133.3	1120.2
77.5°	954.6	821.1	755.4	767.1	665.8	866.4	1425.5	1283.3	1115.8	1060.3	1045.7
80°	695.0	614.6	643.9	662.8	568.9	778.8	1344.7	1202.5	1044.2	1072.0	1051.5
82.5°	445.6	396.0	522.1	541.1	473.9	689.1	1256.5	1117.2	942.9	856.2	835.7
85°	227.4	250.8	388.7	412.0	365.3	565.9	1149.9	1004.7	828.4	712.5	724.2
87.5°	127.6	171.4	247.9	277.1	258.1	435.4	932.7	828.4	676.0	549.9	484.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)