

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: P301566

Luminaire Tested: **GLNA-AF-02-LED-E1-T2R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301566  
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-02-LED-E1-T2R-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10984.1 lumens  
Efficiency: N/A  
Efficacy: 97.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

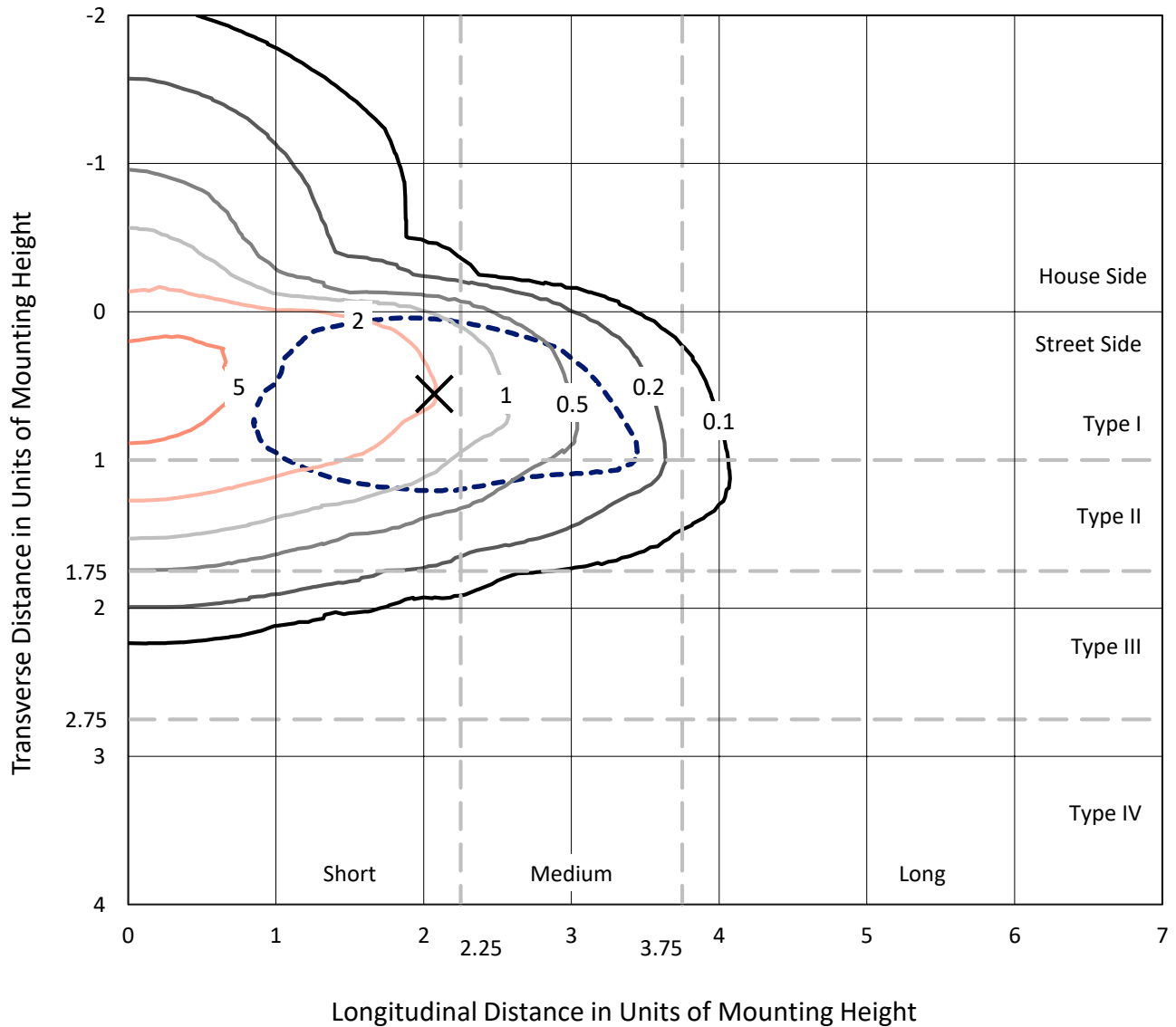
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P301566  
 CATALOG NUMBER: GLNA-AF-02-LED-E1-T2R-7027

### Iso-Footcandle Lines of Horizontal Illumination

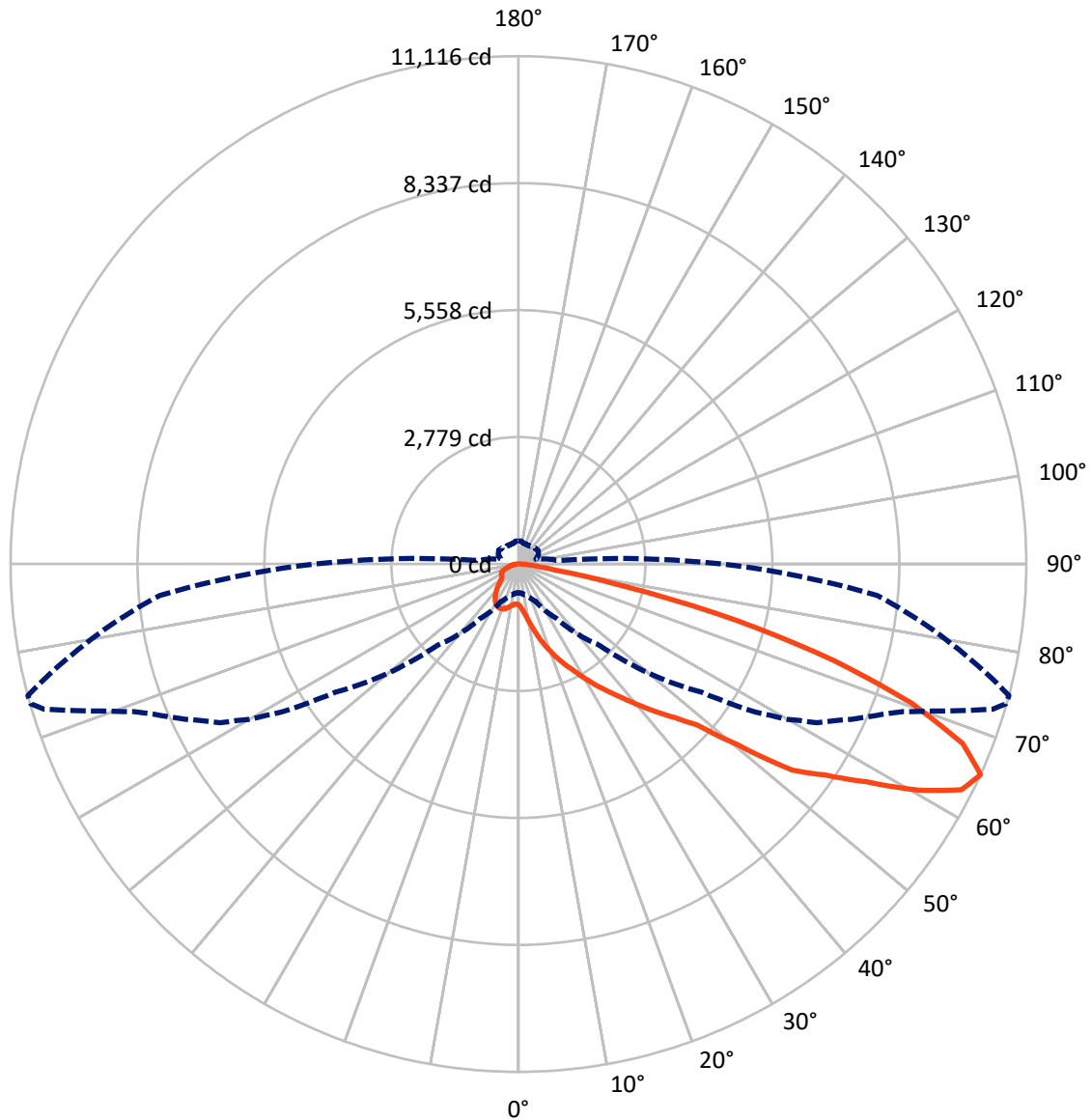
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.9 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P301566  
CATALOG NUMBER: GLNA-AF-02-LED-E1-T2R-7027

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P301566

CATALOG NUMBER: GLNA-AF-02-LED-E1-T2R-7027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1693.5	0.0	1693.5
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	9290.6	0.0	9290.6
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	10984.1	0.0	10984.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.3	1.0
10°-20°	431.1	3.9
20°-30°	884.5	8.1
30°-40°	1488.1	13.5
40°-50°	2056.2	18.7
50°-60°	2566.7	23.4
60°-70°	2309.8	21.0
70°-80°	968.2	8.8
80°-90°	169.2	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°	10984.1	100.0
0°-180°	10984.1	100.0

**Coefficient of Utilization**



REPORT NUMBER: P301566

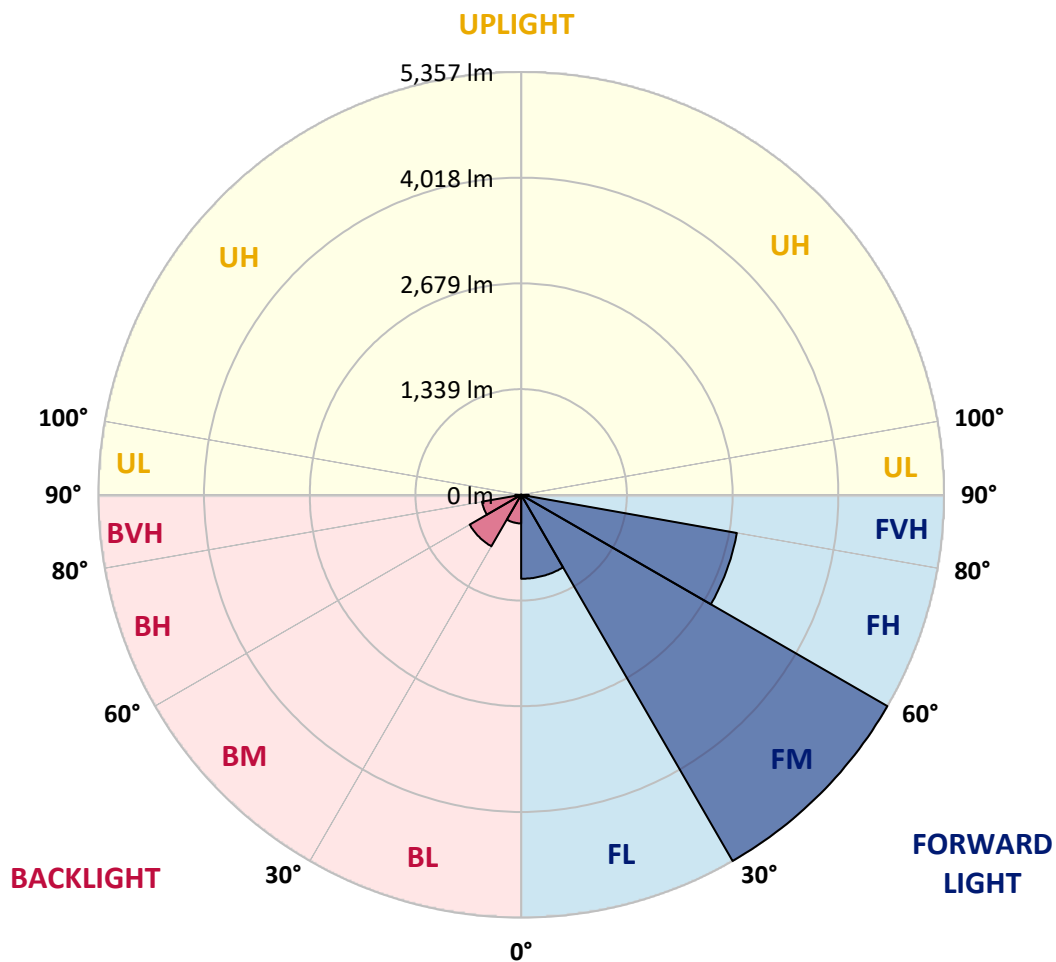
CATALOG NUMBER: GLNA-AF-02-LED-E1-T2R-7027

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1063.8	9.7			
FM	(30°-60°)	5357.2	48.8			
FH	(60°-80°)	2774.5	25.3			G2/5000
FVH	(80°-90°)	95.1	0.9			G1/100
BL	(0°-30°)	362.2	3.3	B1/500		
BM	(30°-60°)	753.8	6.9	B1/1000		
BH	(60°-80°)	503.5	4.6	B2/1000		G2/1000
BVH	(80°-90°)	74.1	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





REPORT NUMBER: P301566

CATALOG NUMBER: GLNA-AF-02-LED-E1-T2R-7027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7
2.5°	1133.4	1120.9	1124.0	1103.2	1077.7	1044.4	1007.6	1007.1	1007.6	1003.9	990.4
5°	1571.6	1556.6	1550.9	1504.0	1435.4	1337.8	1231.7	1220.2	1215.5	1203.6	1176.0
7.5°	1891.4	1883.1	1874.2	1838.9	1776.5	1667.4	1524.8	1500.5	1477.0	1471.3	1440.2
10°	2097.8	2095.6	2077.0	2067.6	2028.7	1934.0	1795.2	1771.8	1746.3	1737.5	1704.7
12.5°	2261.0	2260.5	2251.7	2254.3	2220.4	2151.9	2032.3	2011.0	1992.3	1965.2	1941.9
15°	2373.9	2374.3	2387.4	2401.9	2396.7	2350.4	2238.1	2228.7	2212.7	2194.0	2166.4
17.5°	2466.4	2469.0	2482.4	2509.0	2537.7	2534.0	2445.1	2437.3	2423.2	2397.8	2383.3
20°	2675.4	2685.2	2659.3	2659.3	2662.4	2676.5	2633.7	2627.6	2607.8	2594.3	2582.8
22.5°	3028.4	3039.8	2981.1	2921.4	2862.6	2819.9	2777.3	2785.0	2771.6	2762.2	2755.4
25°	3486.9	3495.9	3400.7	3299.8	3180.2	3024.2	2918.7	2914.0	2906.7	2901.0	2897.9
27.5°	3918.5	3922.2	3832.2	3684.5	3545.7	3321.6	3062.2	3056.5	3047.7	3036.7	3027.3
30°	4287.7	4286.6	4194.1	4053.1	3904.4	3656.4	3280.1	3262.4	3236.3	3206.7	3183.9
32.5°	4607.4	4605.8	4504.4	4358.3	4202.4	3988.2	3578.5	3542.1	3501.6	3443.7	3409.0
35°	4858.9	4858.0	4762.2	4610.0	4431.1	4300.6	3920.6	3875.9	3824.4	3746.9	3693.4
37.5°	4954.1	4954.1	4900.6	4796.6	4638.5	4549.1	4300.6	4246.5	4191.4	4103.5	4043.2
40°	4898.4	4899.5	4910.9	4891.8	4814.8	4746.2	4655.2	4623.0	4575.6	4496.6	4433.7
42.5°	4711.8	4717.5	4793.5	4886.5	4924.9	4914.1	4969.7	4955.2	4921.9	4861.1	4811.1
45°	4475.2	4492.9	4576.1	4751.9	4955.6	5059.1	5233.2	5234.8	5228.6	5195.9	5157.4
47.5°	4150.4	4175.2	4285.0	4522.6	4883.9	5200.1	5501.0	5515.0	5528.1	5506.8	5489.1
50°	3718.9	3748.5	3912.7	4227.8	4737.9	5346.1	6006.8	6070.4	6129.6	6122.4	6134.2
52.5°	3256.7	3291.5	3492.6	3843.7	4486.8	5379.9	6330.3	6433.7	6537.2	6621.9	6711.8
55°	2839.6	2821.0	3022.2	3391.8	4073.9	5227.5	6621.0	6745.7	6861.1	6965.1	7072.2
57.5°	2274.5	2305.2	2507.0	2872.5	3527.5	4797.5	6821.0	7003.6	7169.4	7341.5	7493.3
60°	1662.6	1693.3	1912.1	2283.3	2934.3	4145.6	6668.2	6944.9	7210.4	7474.0	7679.9
62.5°	1003.9	1026.8	1219.6	1573.3	2262.7	3372.6	5987.1	6350.0	6741.0	7056.0	7371.6
65°	624.9	637.9	709.1	903.6	1453.1	2517.9	4891.8	5287.4	5708.4	6108.3	6436.4
67.5°	511.6	516.2	529.3	570.8	798.0	1641.9	3640.8	3991.2	4371.3	4758.1	5123.1
70°	460.1	457.0	457.0	459.6	511.6	882.8	2383.7	2612.0	2928.6	3265.0	3598.7
72.5°	415.3	412.2	406.5	398.8	417.5	538.6	1232.1	1404.2	1632.5	1931.4	2251.1
75°	373.2	369.1	362.4	352.6	365.5	406.5	591.6	663.9	775.1	934.3	1112.6
77.5°	329.6	324.3	318.2	310.9	327.6	316.2	346.7	372.8	415.3	466.4	533.5
80°	280.2	275.6	273.4	269.9	289.6	240.7	244.9	261.0	285.9	313.5	344.7
82.5°	219.5	219.5	227.6	229.3	251.1	173.2	183.1	197.1	210.1	224.6	239.2
85°	144.5	145.6	173.7	184.6	198.0	116.4	137.3	141.9	152.4	160.7	166.9
87.5°	45.2	48.9	106.1	117.5	113.8	66.0	84.2	86.4	93.6	99.3	104.6
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: P301566

CATALOG NUMBER: GLNA-AF-02-LED-E1-T2R-7027

**CANDELA DISTRIBUTION (continued):**

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7
2.5°	990.4	984.1	978.4	978.0	973.8	968.1	970.1	961.3	961.8	957.1	951.9
5°	1164.6	1160.4	1139.6	1133.9	1118.3	1108.4	1106.9	1086.1	1083.4	1071.6	1058.5
7.5°	1415.2	1401.6	1372.5	1358.4	1331.9	1312.2	1302.9	1275.3	1261.7	1230.6	1216.5
10°	1677.7	1660.6	1624.6	1604.9	1579.4	1547.7	1530.6	1490.6	1474.9	1446.3	1412.1
12.5°	1921.1	1903.9	1866.9	1851.8	1818.0	1784.3	1765.6	1720.4	1700.0	1654.2	1627.3
15°	2146.1	2129.0	2096.7	2081.1	2047.4	2019.8	1994.8	1950.2	1926.3	1883.6	1848.3
17.5°	2364.5	2346.3	2318.2	2304.2	2271.5	2243.4	2216.4	2174.1	2149.8	2107.2	2075.4
20°	2567.3	2553.7	2533.5	2514.7	2482.0	2456.5	2424.3	2387.9	2352.6	2321.3	2291.2
22.5°	2744.0	2738.8	2717.0	2708.7	2680.6	2658.7	2630.7	2594.9	2569.3	2529.8	2501.7
25°	2896.4	2894.8	2884.4	2881.7	2862.0	2841.2	2835.0	2805.4	2782.0	2747.1	2718.1
27.5°	3027.3	3028.9	3026.4	3033.6	3028.4	3019.0	3019.6	3009.7	2996.2	2967.0	2941.6
30°	3172.9	3164.6	3169.4	3179.7	3182.8	3183.9	3201.0	3206.7	3205.8	3186.5	3174.0
32.5°	3378.8	3359.1	3340.9	3339.3	3349.7	3353.8	3383.0	3398.1	3411.0	3415.7	3417.8
35°	3641.3	3601.8	3563.9	3543.7	3525.9	3530.6	3551.4	3575.9	3604.4	3624.2	3647.6
37.5°	3972.0	3923.7	3856.6	3808.8	3796.8	3770.9	3784.3	3803.6	3831.6	3862.3	3902.9
40°	4372.8	4299.5	4224.1	4160.7	4126.5	4078.5	4078.1	4074.4	4091.6	4120.2	4177.4
42.5°	4758.7	4693.6	4613.6	4547.1	4502.4	4438.4	4425.4	4391.6	4399.3	4424.3	4480.0
45°	5119.9	5066.4	5017.5	4940.7	4902.6	4833.5	4811.6	4771.6	4749.3	4760.7	4816.4
47.5°	5469.8	5435.6	5384.5	5334.7	5305.6	5243.7	5215.7	5187.0	5158.4	5157.4	5215.7
50°	6152.0	6133.8	6073.5	6021.5	6035.5	5959.6	5964.3	5887.3	5922.2	5926.3	6048.5
52.5°	6792.9	6856.5	6901.2	6955.6	6991.1	6997.9	7021.2	7056.0	7098.2	7181.3	7294.6
55°	7160.0	7239.6	7285.8	7327.5	7396.1	7410.6	7449.6	7495.9	7532.8	7626.4	7722.6
57.5°	7596.3	7743.9	7815.6	7881.6	7974.2	8009.5	8074.6	8125.0	8172.8	8283.5	8400.0
60°	7865.0	8045.0	8191.0	8295.4	8411.4	8494.7	8592.9	8671.9	8784.2	8916.8	9090.5
62.5°	7651.4	7915.4	8109.4	8288.8	8446.3	8605.4	8746.2	8894.0	9064.4	9265.0	9534.5
65°	6800.3	7069.0	7401.2	7587.4	7795.9	8041.3	8255.5	8494.7	8726.9	9019.2	9417.4
67.5°	5474.6	5786.9	6160.3	6348.0	6587.7	6861.6	7101.9	7394.0	7665.4	8019.4	8511.8
70°	3946.1	4350.0	4664.0	4860.0	5139.8	5422.0	5654.0	5993.9	6218.4	6581.3	7090.4
72.5°	2498.6	2817.3	3202.1	3449.0	3697.4	3983.5	4220.6	4513.8	4723.2	5053.9	5515.0
75°	1343.5	1578.4	1916.3	2150.9	2417.0	2661.3	2939.0	3135.4	3290.4	3552.0	3926.3
77.5°	629.6	772.5	943.6	1124.0	1304.5	1492.6	1675.7	1834.7	1901.3	2051.1	2271.9
80°	382.2	428.4	478.3	533.9	609.4	670.1	750.8	808.9	813.1	860.4	928.0
82.5°	255.2	272.4	287.5	301.5	320.8	335.9	353.0	373.2	381.6	392.5	414.4
85°	174.1	182.5	185.5	194.5	192.3	197.6	204.4	211.1	214.7	214.2	224.1
87.5°	107.0	111.2	113.4	115.4	113.8	111.8	114.9	118.6	119.5	116.4	117.5
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: P301566

CATALOG NUMBER: GLNA-AF-02-LED-E1-T2R-7027

**CANDELA DISTRIBUTION (continued):**

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7
2.5°	953.0	948.3	943.6	940.5	939.4	911.9	899.9	892.2	875.5	862.0	851.0
5°	1051.2	1041.3	1033.6	1024.2	1019.0	949.3	923.8	906.2	877.1	860.0	844.2
7.5°	1209.3	1181.7	1165.6	1147.5	1131.9	1006.0	963.9	936.3	895.8	872.9	855.2
10°	1388.7	1360.1	1334.5	1306.5	1282.1	1081.4	1020.1	977.3	923.8	894.2	870.8
12.5°	1588.8	1560.8	1528.5	1492.6	1461.5	1177.1	1091.8	1031.0	957.6	918.1	885.4
15°	1825.4	1775.9	1736.9	1695.4	1659.0	1291.5	1175.5	1091.3	993.5	940.0	896.4
17.5°	2045.2	1993.2	1940.3	1903.9	1861.8	1419.8	1259.7	1152.5	1023.1	954.0	898.4
20°	2260.0	2203.3	2157.6	2108.7	2064.5	1552.9	1349.6	1206.7	1042.4	954.5	885.4
22.5°	2449.3	2413.8	2362.9	2309.9	2265.1	1686.0	1433.9	1252.5	1049.7	942.6	862.4
25°	2664.4	2627.1	2564.6	2519.9	2470.1	1821.7	1516.5	1287.8	1045.5	920.3	827.1
27.5°	2894.2	2852.7	2788.7	2742.0	2681.7	1962.5	1592.4	1313.2	1029.9	883.9	779.8
30°	3133.9	3096.0	3033.0	2985.8	2924.9	2111.8	1677.2	1330.4	998.8	833.4	724.7
32.5°	3391.3	3359.5	3297.2	3247.9	3182.8	2273.5	1756.2	1335.6	951.4	773.6	666.6
35°	3635.6	3613.9	3561.3	3515.0	3447.4	2426.3	1839.9	1333.0	895.3	708.1	613.5
37.5°	3910.7	3897.6	3871.7	3813.0	3730.3	2633.7	1940.3	1322.0	826.7	643.1	573.0
40°	4203.9	4205.0	4176.9	4136.8	4059.9	2885.4	2059.9	1300.8	751.7	585.9	535.9
42.5°	4514.2	4530.4	4516.9	4488.3	4414.4	3139.1	2202.8	1274.8	679.1	530.2	499.7
45°	4869.9	4889.6	4910.4	4868.3	4796.6	3474.0	2391.0	1241.1	600.4	484.0	474.7
47.5°	5280.1	5311.3	5329.9	5330.6	5258.8	3888.8	2696.7	1220.7	530.9	452.8	462.7
50°	6145.6	6155.7	6199.8	6276.7	6221.7	4849.1	3230.6	1208.2	483.5	433.5	453.9
52.5°	7392.9	7501.6	7578.1	7572.9	7497.9	5458.9	3524.9	1143.7	455.4	426.3	449.7
55°	7900.9	8036.6	8178.1	8215.4	8157.2	5979.4	3803.1	1079.3	441.9	431.5	451.3
57.5°	8577.8	8806.5	9000.5	9082.1	8997.9	6645.3	4169.1	1045.5	437.7	445.6	461.1
60°	9368.5	9651.4	9906.2	10052.7	10052.7	7410.6	4548.6	1031.5	432.0	466.4	477.8
62.5°	9876.6	10291.9	10676.7	10891.4	10885.0	7943.5	4717.0	983.7	419.0	480.9	500.6
65°	9878.6	10372.6	10862.7	11104.0	11116.4	7878.1	4439.0	868.8	395.1	483.0	523.6
67.5°	9055.1	9581.7	10153.1	10423.0	10485.3	7252.1	3842.6	714.4	356.1	462.2	531.9
70°	7647.7	8161.9	8745.1	9010.4	9121.2	6182.0	3094.9	550.6	306.3	416.4	514.7
72.5°	6025.0	6529.4	6935.4	7129.3	7215.7	4725.4	2253.7	416.0	251.1	350.9	468.4
75°	4265.8	4644.2	4860.0	4903.2	4916.6	2848.6	1369.4	309.4	207.0	273.0	395.6
77.5°	2407.6	2569.9	2552.2	2571.4	2411.3	1099.6	596.4	221.5	170.6	207.4	306.8
80°	940.0	969.2	910.4	892.2	818.3	409.2	263.1	154.4	136.2	157.0	214.7
82.5°	414.4	427.8	415.3	418.6	400.4	211.1	157.5	111.8	103.9	114.9	142.5
85°	228.3	232.4	231.3	238.1	228.3	84.2	74.8	68.6	72.8	78.0	91.5
87.5°	111.2	112.3	108.7	114.4	110.7	42.6	36.9	39.0	42.6	43.6	43.6
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: P301566

CATALOG NUMBER: GLNA-AF-02-LED-E1-T2R-7027

**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
0°	892.7	892.7	892.7	892.7	892.7	892.7
2.5°	843.3	839.2	839.6	838.5	836.5	836.5
5°	836.1	831.9	831.9	830.8	828.2	828.7
7.5°	843.3	836.5	833.9	830.2	826.7	826.7
10°	851.6	839.6	832.4	826.2	821.4	821.4
12.5°	857.8	839.2	827.1	818.8	814.2	814.2
15°	860.0	835.4	818.8	808.9	804.8	804.3
17.5°	853.2	821.4	801.2	789.8	784.6	783.0
20°	832.4	796.0	771.6	758.5	751.2	748.6
22.5°	801.2	759.6	731.0	717.5	708.1	706.5
25°	757.6	712.8	684.8	671.7	666.6	664.9
27.5°	706.5	664.9	641.0	632.6	628.0	627.6
30°	658.2	622.8	605.2	598.9	593.2	592.2
32.5°	612.9	590.5	583.9	575.0	561.5	560.0
35°	580.7	578.7	574.0	554.1	537.6	532.9
37.5°	560.9	580.2	556.3	517.3	505.4	504.3
40°	549.5	564.2	523.0	509.6	510.5	509.6
42.5°	523.6	538.6	524.1	517.9	521.9	523.0
45°	497.5	514.2	531.9	527.8	537.6	537.6
47.5°	483.0	507.9	531.3	531.3	546.0	551.1
50°	466.4	502.8	523.0	530.2	541.8	537.6
52.5°	465.3	493.8	511.1	524.1	529.3	524.5
55°	466.8	486.6	499.1	513.7	519.9	520.4
57.5°	469.0	482.4	490.8	497.5	516.2	516.2
60°	474.1	478.9	483.5	487.2	511.6	512.0
62.5°	482.4	475.2	474.1	477.8	508.9	506.9
65°	495.5	469.9	462.2	465.8	506.3	500.2
67.5°	513.1	462.2	447.1	449.7	504.3	490.8
70°	529.3	449.7	428.4	425.8	484.6	460.7
72.5°	530.9	435.2	402.4	394.7	421.2	398.2
75°	504.8	425.2	373.8	350.9	347.8	344.7
77.5°	455.0	419.5	340.5	304.6	298.4	300.4
80°	380.6	398.2	300.4	257.9	291.6	288.1
82.5°	284.4	351.5	255.2	228.3	227.6	201.3
85°	158.1	274.1	207.9	171.0	119.1	115.4
87.5°	44.3	152.4	145.6	96.7	66.0	68.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)