

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: P299464

Luminaire Tested: **GLNA-AF-02-LED-E1-SLR-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299464
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-02-LED-E1-SLR-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7027.3 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

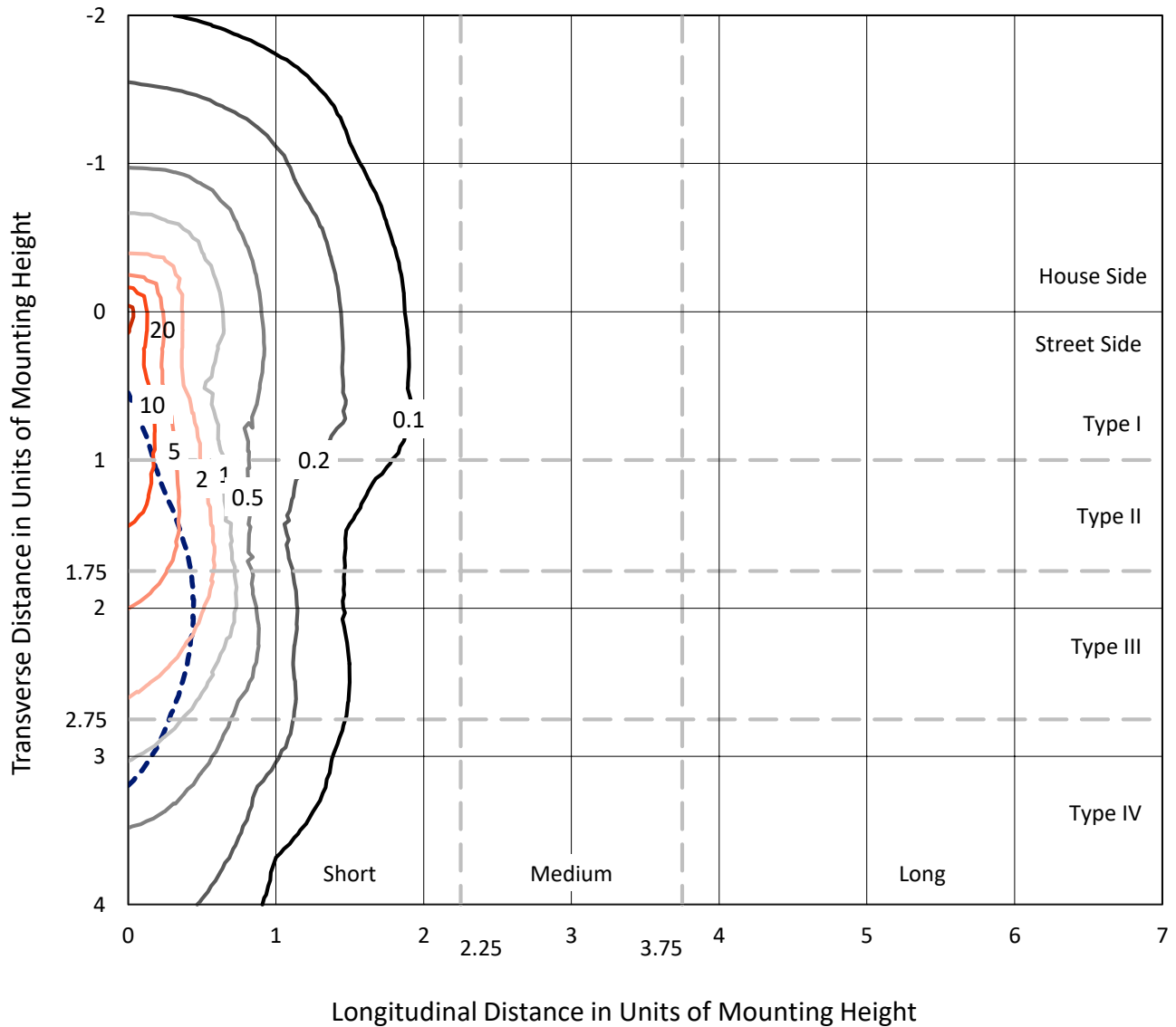
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299464
 CATALOG NUMBER: GLNA-AF-02-LED-E1-SLR-600

Iso-Footcandle Lines of Horizontal Illumination

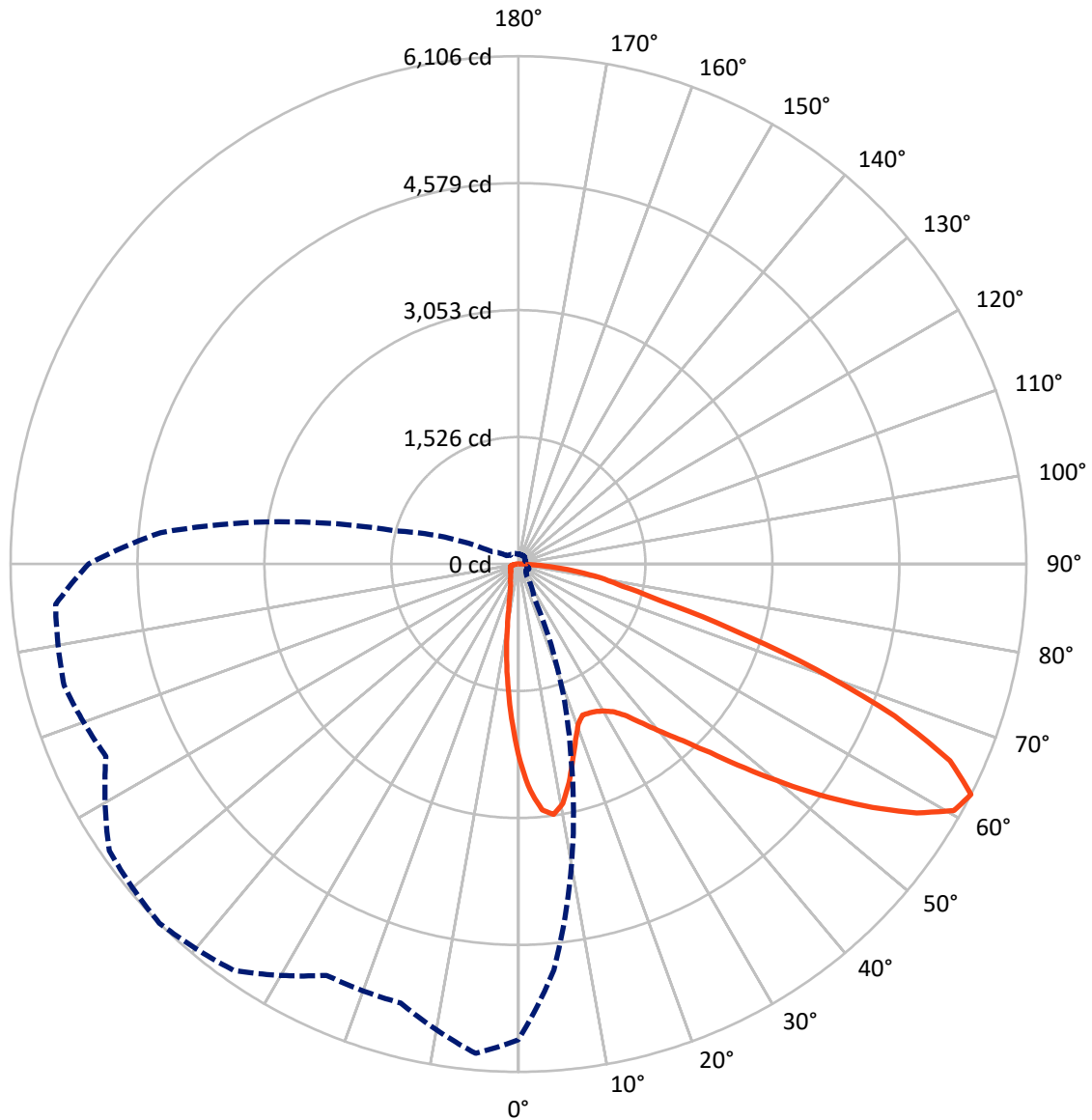
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 23.7 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P299464
CATALOG NUMBER: GLNA-AF-02-LED-E1-SLR-600

Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P299464

CATALOG NUMBER: GLNA-AF-02-LED-E1-SLR-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1162.9	0.0	1162.9
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	5864.4	0.0	5864.4
	% Fixture	83.5	0.0	83.5
Total	Lumens	7027.3	0.0	7027.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.8	2.5
10°-20°	316.9	4.5
20°-30°	462.1	6.6
30°-40°	711.7	10.1
40°-50°	1047.4	14.9
50°-60°	1536.3	21.9
60°-70°	1717.3	24.4
70°-80°	840.8	12.0
80°-90°	222.0	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°	7027.3	100.0
0°-180°	7027.3	100.0



REPORT NUMBER: P299464

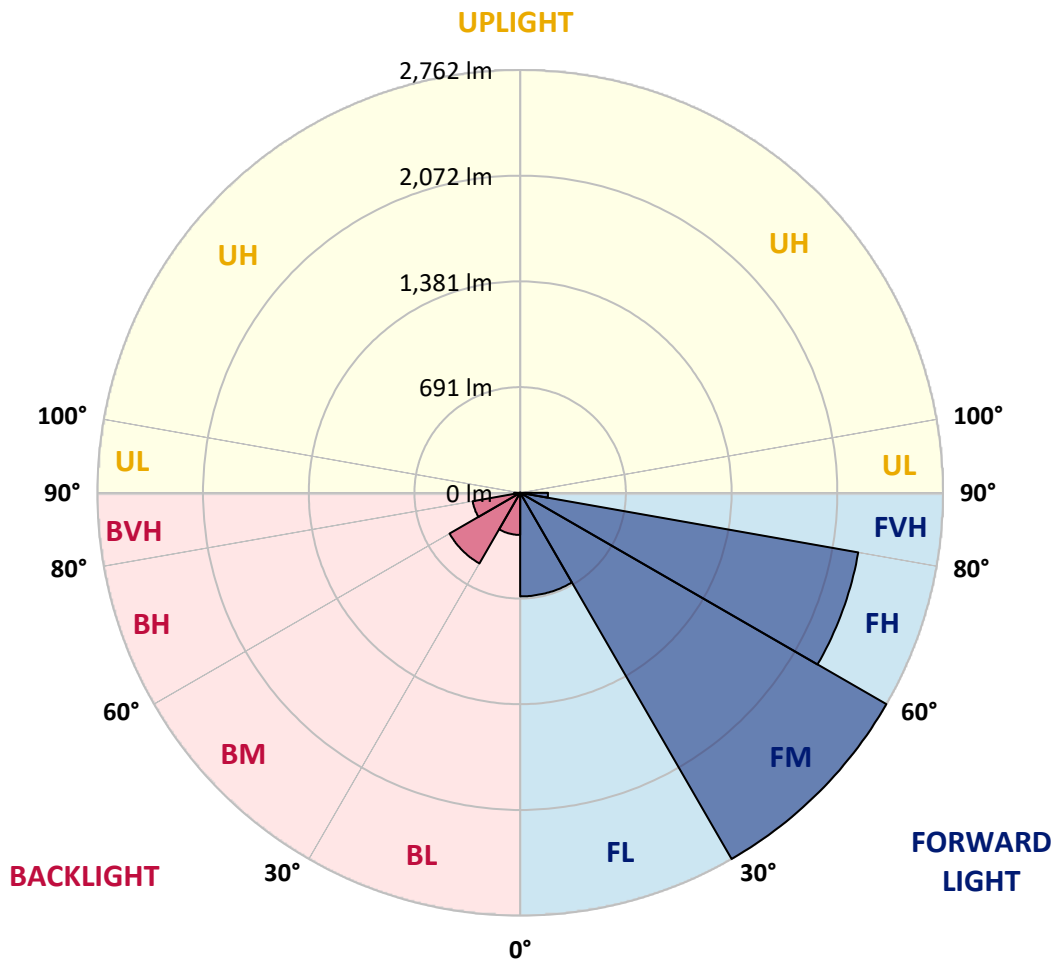
CATALOG NUMBER: GLNA-AF-02-LED-E1-SLR-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	676.7	9.6			
FM (30°-60°)	2762.5	39.3			
FH (60°-80°)	2242.9	31.9			G2/5000
FVH (80°-90°)	182.3	2.6			G2/225
BL (0°-30°)	275.1	3.9	B1/500		
BM (30°-60°)	532.8	7.6	B1/1000		
BH (60°-80°)	315.3	4.5	B1/500		G1/500
BVH (80°-90°)	39.7	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





REPORT NUMBER: P299464

CATALOG NUMBER: GLNA-AF-02-LED-E1-SLR-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2
2.5°	2466.9	2416.7	2333.2	2246.3	2193.4	2131.6	2083.3	2040.8	1955.8	1939.2	1954.3
5°	2319.7	2218.9	2061.6	1903.3	1797.8	1684.6	1596.5	1525.9	1418.1	1399.1	1421.9
7.5°	2083.7	1963.2	1755.4	1553.3	1404.2	1262.8	1167.8	1092.0	1007.8	971.6	973.8
10°	1880.1	1744.1	1498.4	1278.7	1156.6	1061.2	981.2	903.5	818.2	762.1	746.7
12.5°	1766.1	1609.8	1326.5	1130.3	1017.1	916.7	830.6	747.5	656.3	599.1	583.0
15°	1746.5	1576.4	1262.1	1035.3	893.5	766.5	664.8	572.1	478.2	431.9	422.2
17.5°	1831.8	1636.0	1241.1	950.7	777.2	620.4	495.6	392.1	315.6	292.5	290.5
20°	1995.6	1750.3	1238.5	871.1	662.5	478.7	345.3	270.0	236.5	229.8	230.3
22.5°	2225.5	1927.6	1271.7	811.3	557.0	356.9	259.6	225.9	212.8	206.6	206.6
25°	2522.9	2171.8	1348.2	767.6	465.4	285.1	229.1	209.0	196.6	192.4	193.2
27.5°	2811.1	2409.3	1437.0	733.3	405.6	258.8	217.1	198.9	188.2	183.8	185.8
30°	3035.9	2620.3	1511.2	686.5	375.0	251.4	221.4	202.8	187.3	180.8	181.1
32.5°	3222.1	2804.9	1573.4	652.8	348.0	215.5	190.9	182.7	180.8	173.1	169.2
35°	3460.1	3006.2	1615.1	653.6	335.3	192.4	169.9	155.7	145.2	136.4	136.4
37.5°	3739.0	3237.2	1659.6	662.5	330.7	178.8	162.7	148.3	138.7	130.2	128.6
40°	4014.8	3463.6	1700.2	671.0	327.9	170.7	156.8	143.7	134.8	126.3	124.0
42.5°	4249.3	3649.8	1736.4	675.2	318.7	169.9	152.6	140.6	132.1	122.8	120.6
45°	4422.8	3805.8	1775.5	681.8	309.4	173.1	152.6	140.2	129.8	120.9	118.6
47.5°	4577.6	3988.9	1840.7	681.8	298.2	167.2	157.6	140.6	129.5	120.1	118.2
50°	4785.1	4240.0	1964.3	666.0	282.4	161.0	166.1	139.0	126.0	118.6	116.2
52.5°	5070.9	4561.8	2160.6	638.5	258.1	149.1	164.9	138.3	122.4	114.7	112.0
55°	5409.0	4906.4	2374.6	606.5	221.7	140.6	159.2	136.4	118.6	110.0	107.4
57.5°	5672.8	5143.5	2525.2	557.0	190.0	136.0	141.0	134.5	113.9	105.0	102.8
60°	5777.8	5134.3	2566.6	490.9	174.6	132.1	123.3	150.6	110.0	101.2	98.5
62.5°	5721.1	4897.1	2450.7	444.6	171.1	127.1	115.5	139.4	107.0	98.5	94.6
65°	5458.8	4476.8	2143.6	432.2	181.1	122.1	110.5	109.3	102.8	94.6	90.8
67.5°	4887.4	3848.7	1716.3	433.4	193.9	117.1	105.5	100.1	96.9	90.4	86.9
70°	3980.8	3042.9	1279.4	436.6	200.4	111.2	100.1	94.3	90.8	84.2	81.9
72.5°	2927.0	2345.2	929.5	416.4	201.6	104.7	92.7	87.7	84.2	77.3	75.3
75°	2002.6	1794.0	644.7	345.0	175.8	95.4	84.6	80.0	77.7	69.1	67.9
77.5°	1462.9	1346.6	412.6	256.1	135.5	83.9	74.6	71.1	69.6	60.2	58.7
80°	1174.0	1065.4	258.1	175.4	99.3	70.3	62.6	60.7	59.1	49.8	48.6
82.5°	814.3	713.5	165.7	113.9	74.6	54.5	49.5	48.6	46.3	37.9	36.7
85°	429.5	387.4	105.0	77.7	54.0	37.4	34.4	34.4	33.2	25.1	24.3
87.5°	54.8	89.2	53.3	40.6	29.7	16.6	16.6	16.3	17.4	14.3	12.4
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: P299464

CATALOG NUMBER: GLNA-AF-02-LED-E1-SLR-600

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2
2.5°	1918.7	1937.3	1919.6	1920.7	1940.4	1999.1	2025.7	2047.7	2071.3	2086.8	2093.7
5°	1390.7	1434.0	1448.6	1479.5	1525.1	1600.1	1629.8	1651.4	1665.8	1674.2	1677.7
7.5°	951.1	977.3	1006.7	1056.5	1155.8	1199.9	1219.5	1214.5	1198.3	1192.5	1186.8
10°	717.0	706.6	701.1	728.6	808.9	853.4	867.3	853.7	844.8	846.8	856.4
12.5°	555.5	537.4	515.4	512.2	565.2	605.0	613.8	614.6	630.8	645.1	666.4
15°	404.9	402.9	392.1	385.6	415.6	448.1	452.0	458.9	473.6	484.0	502.5
17.5°	285.5	295.9	304.4	308.6	331.4	354.6	350.4	346.9	344.2	344.2	353.1
20°	230.3	237.2	248.0	260.3	283.6	299.7	289.3	275.4	265.4	262.3	263.5
22.5°	207.5	212.8	219.0	229.8	250.7	262.0	250.7	240.7	230.6	227.1	225.9
25°	195.9	202.8	208.6	216.7	232.1	239.9	229.1	221.7	215.5	211.3	208.2
27.5°	189.3	195.4	197.1	200.9	214.0	220.9	215.5	212.5	208.6	204.8	200.9
30°	182.3	181.1	178.5	178.8	189.3	196.2	195.9	196.6	196.2	195.1	194.4
32.5°	166.5	164.2	161.9	164.2	173.8	180.0	180.4	182.0	182.0	181.6	184.7
35°	138.7	142.9	145.6	152.6	164.2	169.6	167.2	163.4	156.5	152.1	151.8
37.5°	128.3	129.0	133.7	143.3	156.1	161.0	157.6	148.8	144.1	143.3	144.4
40°	123.3	124.0	126.7	135.5	148.3	153.3	150.3	143.7	139.4	139.0	141.0
42.5°	119.8	120.6	122.1	128.3	138.7	144.9	145.2	140.6	135.5	136.0	137.9
45°	117.8	118.2	117.8	120.9	130.5	137.9	141.0	137.9	133.7	134.5	136.7
47.5°	117.4	116.2	114.7	115.5	125.6	132.9	136.7	135.5	133.7	134.5	136.4
50°	115.9	113.2	111.2	110.9	120.9	128.6	132.1	132.1	132.9	134.5	136.4
52.5°	111.2	108.2	108.2	107.0	117.8	125.1	127.5	127.8	129.0	131.7	134.5
55°	105.5	104.3	105.5	103.5	115.5	122.4	123.6	124.4	125.1	127.5	131.3
57.5°	100.5	98.9	101.6	100.8	113.6	119.8	119.8	121.3	121.3	124.4	127.5
60°	97.8	94.6	95.8	96.6	110.9	117.4	116.7	118.2	118.9	121.7	124.0
62.5°	94.3	91.6	91.6	93.4	107.8	113.9	113.6	114.7	117.8	118.6	120.9
65°	90.0	88.9	87.7	90.0	104.7	110.0	110.5	112.0	114.7	115.5	117.4
67.5°	85.7	86.2	83.9	86.2	102.0	106.2	106.2	109.3	110.5	112.0	113.9
70°	81.2	81.5	79.5	82.3	100.1	102.0	101.6	105.8	106.7	107.8	109.7
72.5°	75.3	75.3	74.6	78.5	96.9	97.8	96.9	100.5	100.8	102.0	102.8
75°	69.1	69.1	68.4	73.8	95.1	93.1	90.8	93.4	94.3	95.1	95.1
77.5°	61.0	61.9	61.9	68.4	88.4	91.2	83.4	85.0	86.2	86.5	85.4
80°	51.0	53.0	53.7	62.2	74.1	84.2	74.6	75.7	76.1	76.1	74.6
82.5°	39.1	42.5	44.4	53.7	56.8	70.6	64.9	66.1	64.9	62.6	61.9
85°	27.0	31.7	34.0	40.9	42.9	54.5	54.0	54.0	51.8	48.6	48.3
87.5°	14.7	17.4	18.9	24.3	29.4	36.7	39.8	38.6	36.7	34.7	35.2
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: P299464

CATALOG NUMBER: GLNA-AF-02-LED-E1-SLR-600

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2
2.5°	2130.1	2182.6	2266.4	2330.5	2395.1	2457.3	2524.5	2575.9	2619.5	2636.5	2688.2
5°	1712.9	1778.5	1857.7	2000.6	2101.9	2213.4	2342.5	2513.3	2578.9	2669.8	2818.4
7.5°	1211.1	1270.5	1398.0	1513.5	1656.9	1814.9	1989.0	2224.7	2310.9	2456.4	2698.6
10°	904.3	973.5	1075.8	1173.2	1299.5	1461.0	1661.1	1924.6	2029.2	2187.2	2466.2
12.5°	728.6	810.1	918.6	1010.2	1107.9	1221.9	1416.2	1705.1	1845.4	1983.6	2265.6
15°	559.7	645.1	746.0	862.2	969.9	1092.9	1296.5	1612.5	1773.8	1918.0	2158.6
17.5°	387.4	460.4	587.5	708.8	846.8	1004.0	1263.3	1632.1	1824.8	1991.0	2177.2
20°	274.7	316.3	420.7	561.3	733.3	930.5	1257.1	1735.6	1986.3	2176.0	2296.1
22.5°	231.0	246.4	307.1	436.1	634.7	875.7	1278.7	1880.8	2204.2	2446.4	2485.8
25°	210.5	219.9	251.4	342.3	547.0	835.9	1351.7	2097.2	2473.9	2716.9	2709.9
27.5°	199.3	209.0	229.8	289.0	481.0	811.3	1424.6	2353.8	2782.1	3010.4	2923.9
30°	195.9	209.0	231.0	272.4	433.9	772.2	1484.5	2578.9	3019.3	3208.6	3021.3
32.5°	193.2	195.1	205.1	234.8	389.0	726.6	1525.1	2781.0	3251.4	3397.2	3161.5
35°	156.1	165.7	182.0	210.5	362.8	699.2	1525.1	2955.2	3480.2	3587.6	3295.2
37.5°	150.3	158.8	173.1	197.4	348.0	685.7	1494.6	3123.3	3713.9	3803.6	3405.2
40°	147.2	154.1	167.7	187.3	341.8	670.2	1450.1	3271.6	3942.1	4019.8	3508.0
42.5°	144.9	151.1	163.8	181.1	333.8	653.3	1414.2	3390.5	4140.4	4204.4	3606.1
45°	143.7	150.3	164.2	184.3	317.5	630.8	1402.3	3519.1	4303.4	4358.6	3712.3
47.5°	143.7	151.4	166.1	190.9	298.2	607.7	1439.7	3688.8	4457.5	4484.5	3837.5
50°	142.6	151.1	171.6	184.3	270.0	578.3	1527.8	3902.4	4624.4	4627.4	3995.9
52.5°	140.2	150.3	184.7	180.4	237.5	539.7	1646.8	4176.7	4871.3	4889.7	4243.9
55°	137.5	149.1	181.1	171.6	211.0	493.7	1744.1	4510.0	5218.1	5269.5	4608.6
57.5°	134.0	147.6	175.4	159.2	193.5	434.6	1779.3	4754.2	5460.3	5589.3	5019.6
60°	131.0	146.4	158.3	151.8	182.7	384.8	1711.3	4705.9	5443.7	5721.8	5383.8
62.5°	127.8	147.6	144.4	147.2	177.6	352.7	1533.6	4319.2	5168.3	5585.1	5653.9
65°	124.4	137.2	136.4	143.3	176.6	340.0	1271.3	3739.3	4636.0	5152.9	5717.6
67.5°	119.8	126.7	130.5	138.3	180.4	328.7	1026.0	3084.6	3896.2	4505.0	5385.4
70°	114.7	120.6	124.8	132.1	178.1	323.7	853.4	2432.5	3091.6	3692.2	4729.9
72.5°	108.2	113.2	117.1	124.0	175.8	321.0	720.9	1959.0	2308.2	2742.7	3845.7
75°	100.5	105.0	107.8	114.7	168.4	294.0	566.7	1657.6	1727.2	1908.0	3062.9
77.5°	91.6	95.1	97.3	105.0	149.1	244.5	409.9	1278.7	1341.3	1385.2	2348.3
80°	81.2	84.6	85.7	93.1	123.6	191.2	267.3	944.5	1003.2	1013.2	1533.6
82.5°	69.1	72.6	72.6	79.5	101.2	137.5	175.4	647.1	658.6	692.7	1084.0
85°	55.7	58.4	58.4	61.9	78.5	102.8	120.6	324.9	321.4	367.0	939.1
87.5°	39.8	41.7	43.6	44.4	56.0	67.9	72.6	98.9	65.3	75.0	603.0
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: P299464

CATALOG NUMBER: GLNA-AF-02-LED-E1-SLR-600

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2	2374.2
2.5°	2727.3	2749.3	2726.8	2710.7	2640.8	2583.2	2506.3	2466.9
5°	2931.6	2987.6	2968.7	2900.7	2754.7	2590.5	2403.9	2319.7
7.5°	2906.9	3037.1	3040.1	2913.1	2697.9	2456.1	2203.5	2083.7
10°	2714.5	2881.0	2928.6	2805.3	2577.0	2306.6	2016.9	1880.1
12.5°	2499.7	2662.7	2699.1	2656.5	2465.8	2194.1	1900.3	1766.1
15°	2324.0	2397.0	2440.2	2477.4	2370.4	2149.3	1893.6	1746.5
17.5°	2216.9	2208.9	2221.3	2285.7	2303.8	2200.7	1994.0	1831.8
20°	2178.4	2054.4	2051.2	2140.1	2272.6	2323.2	2190.3	1995.6
22.5°	2199.6	1998.7	1973.2	2078.7	2289.2	2499.7	2447.6	2225.5
25°	2273.0	2003.4	1982.8	2084.9	2349.4	2687.9	2725.3	2522.9
27.5°	2388.5	2032.8	2005.6	2110.4	2429.4	2845.9	2998.8	2811.1
30°	2498.2	2083.7	2050.1	2160.6	2502.4	2908.4	3166.5	3035.9
32.5°	2631.5	2179.2	2120.0	2252.8	2592.8	3008.1	3316.0	3222.1
35°	2762.0	2315.1	2241.7	2395.4	2693.6	3132.2	3486.7	3460.1
37.5°	2905.4	2492.8	2432.1	2579.7	2831.6	3249.1	3704.6	3739.0
40°	3058.4	2728.5	2656.5	2848.6	3045.6	3396.0	3932.2	4014.8
42.5°	3212.5	2990.0	2904.2	3098.8	3280.8	3540.8	4126.8	4249.3
45°	3389.0	3273.9	3233.3	3443.8	3506.9	3678.8	4270.5	4422.8
47.5°	3594.6	3596.1	3661.3	3745.5	3734.8	3834.8	4415.1	4577.6
50°	3834.4	3998.1	4142.3	4198.2	3969.6	4002.5	4615.5	4785.1
52.5°	4122.6	4479.1	4657.6	4620.9	4222.7	4207.1	4933.0	5070.9
55°	4483.0	4988.3	5165.6	5139.3	4513.5	4486.0	5328.6	5409.0
57.5°	4900.2	5481.6	5644.6	5526.4	4862.7	4792.1	5655.9	5672.8
60°	5266.8	5872.6	6015.5	5884.5	5215.1	5117.7	5860.2	5777.8
62.5°	5470.7	6005.1	6105.5	5964.5	5456.5	5464.5	5905.0	5721.1
65°	5379.6	5670.1	5702.5	5690.9	5394.2	5665.8	5743.9	5458.8
67.5°	4880.5	4823.3	4877.8	4953.1	4861.2	5400.8	5297.7	4887.4
70°	4001.3	3687.2	3795.8	3846.4	3888.1	4647.5	4598.1	3980.8
72.5°	3015.5	2583.2	2668.9	2658.5	2851.6	3727.8	3576.0	2927.0
75°	2136.6	1751.5	1762.3	1758.0	1989.8	2916.5	2589.4	2002.6
77.5°	1494.9	1269.0	1274.8	1298.7	1337.7	2199.6	1850.0	1462.9
80°	1028.0	963.1	995.1	997.1	927.1	1477.6	1366.7	1174.0
82.5°	765.6	669.4	661.7	672.9	726.6	1197.2	1050.3	814.3
85°	626.9	396.3	318.7	399.5	643.9	1185.6	697.7	429.5
87.5°	353.1	188.2	85.0	157.6	256.9	784.9	201.6	54.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)