

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: P298984

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298984
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191289)
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-SLL-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left 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

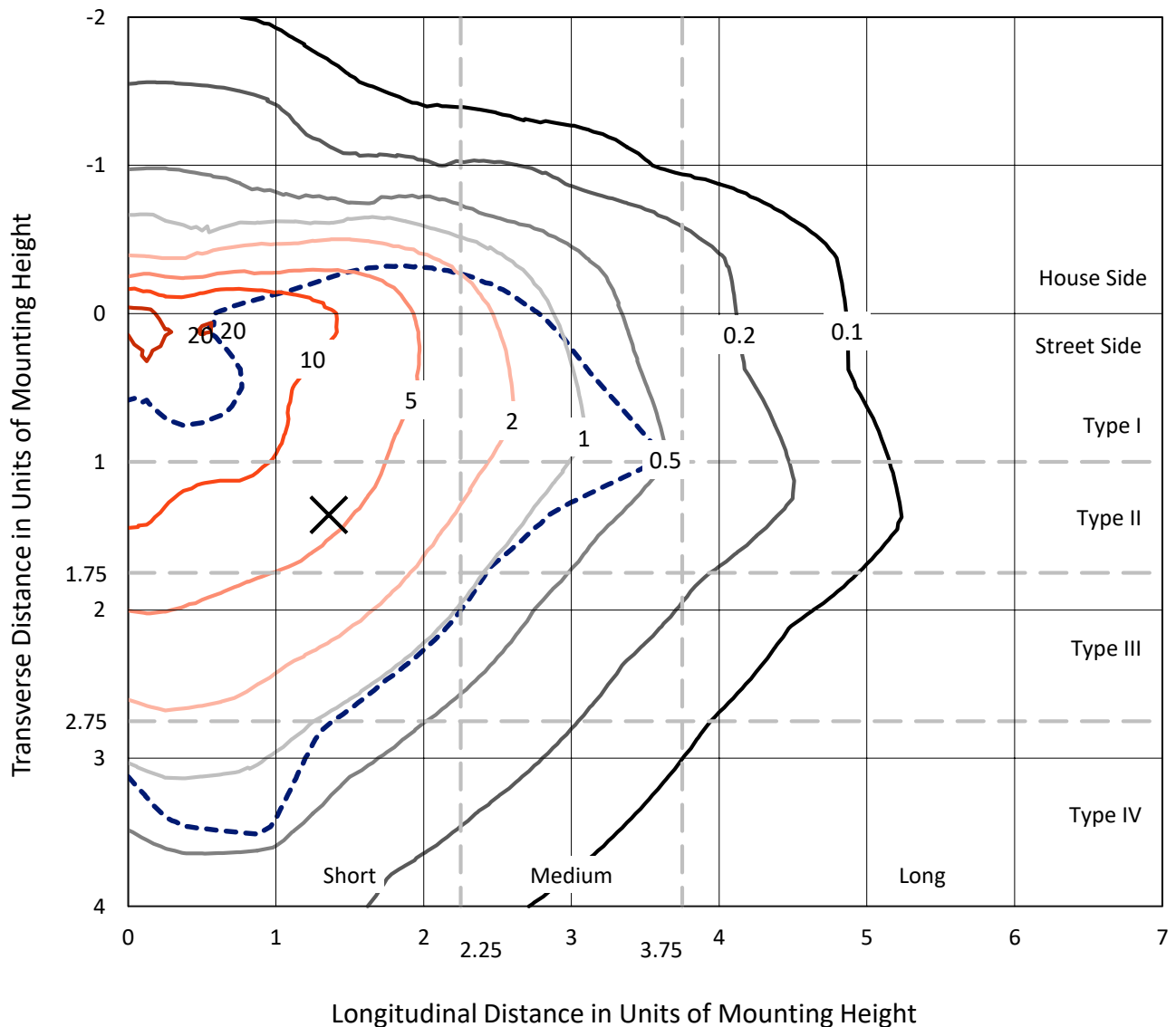
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

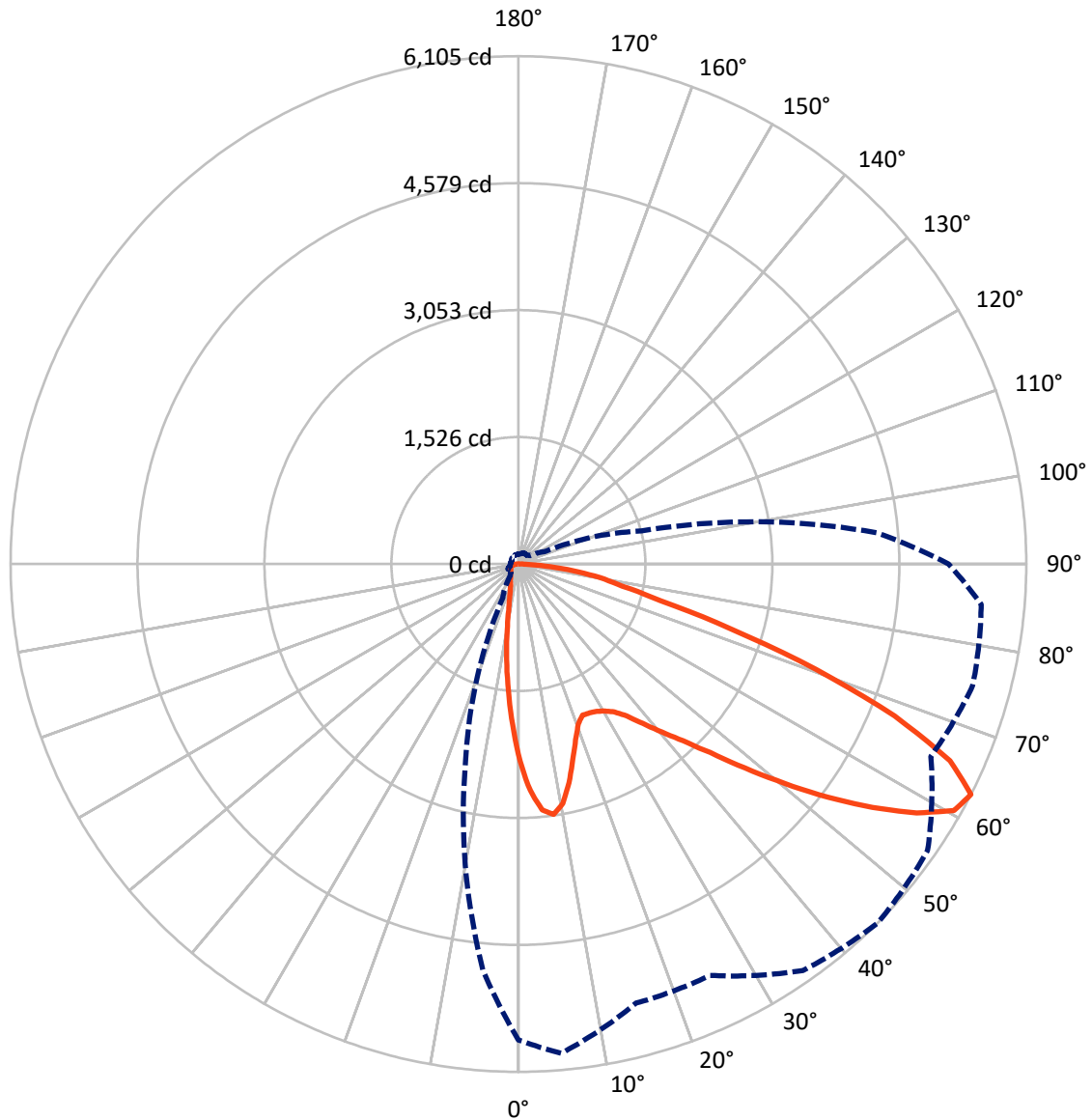
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 27.9 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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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



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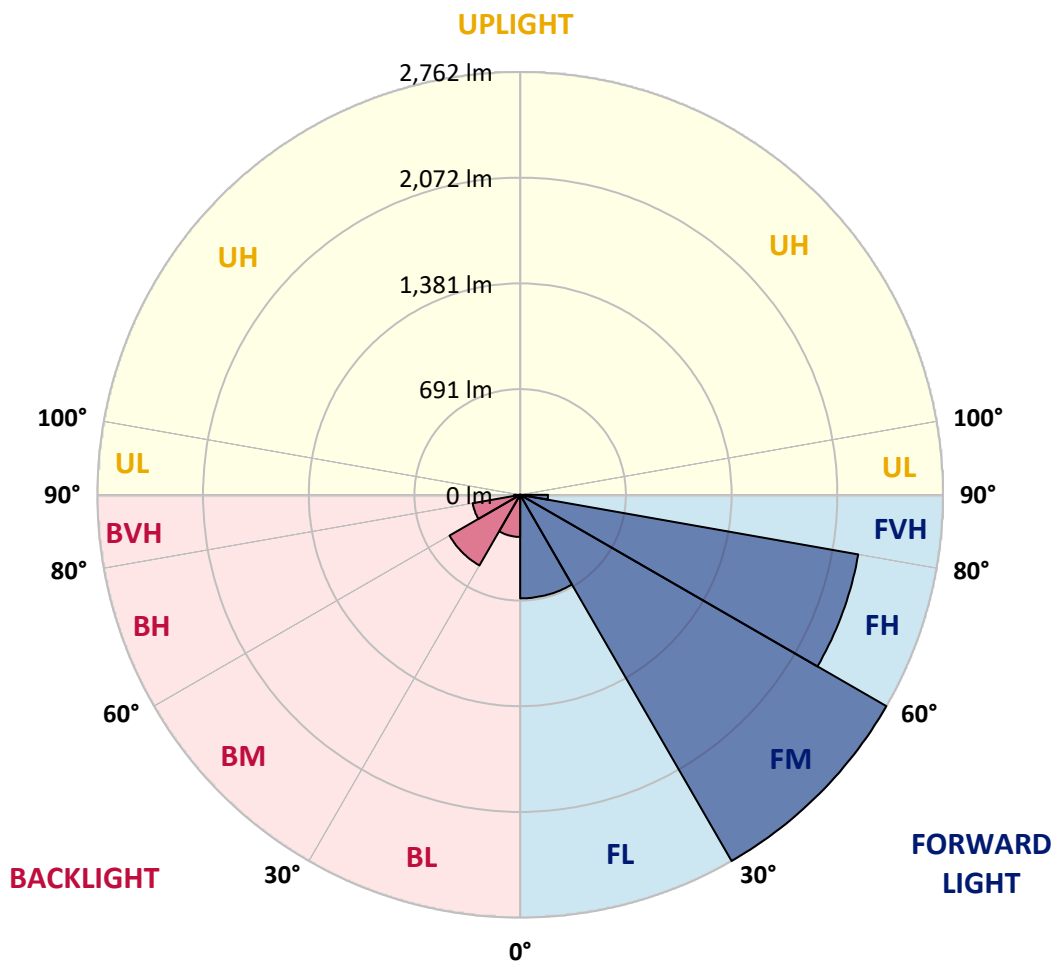
CATALOG NUMBER: GLNA-AF-02-LED-E1-SLL-600

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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3
2.5°	2466.8	2506.3	2583.2	2640.6	2710.7	2726.9	2749.4	2727.3	2688.3	2636.5	2619.6
5°	2319.7	2404.0	2590.5	2754.7	2900.7	2968.7	2987.7	2931.6	2818.5	2669.7	2578.9
7.5°	2083.7	2203.5	2456.0	2697.9	2913.0	3040.2	3037.0	2906.9	2698.7	2456.4	2310.8
10°	1880.1	2016.9	2306.7	2577.1	2805.3	2928.6	2880.9	2714.6	2466.1	2187.2	2029.3
12.5°	1766.2	1900.2	2194.2	2465.7	2656.6	2699.1	2662.7	2499.7	2265.5	1983.6	1845.3
15°	1746.4	1893.7	2149.4	2370.4	2477.4	2440.4	2397.0	2324.0	2158.6	1917.9	1773.8
17.5°	1831.9	1994.0	2200.8	2303.9	2285.7	2221.2	2208.9	2217.0	2177.3	1990.9	1824.9
20°	1995.7	2190.3	2323.2	2272.7	2140.1	2051.2	2054.4	2178.4	2296.1	2176.0	1986.3
22.5°	2225.4	2447.6	2499.7	2289.2	2078.7	1973.2	1998.8	2199.7	2485.9	2446.5	2204.2
25°	2522.9	2725.4	2687.9	2349.4	2084.8	1982.9	2003.3	2273.1	2709.9	2716.9	2474.0
27.5°	2811.1	2998.9	2845.8	2429.5	2110.4	2005.7	2032.8	2388.4	2923.9	3010.4	2782.2
30°	3035.9	3166.6	2908.4	2502.4	2160.6	2050.1	2083.7	2498.2	3021.4	3208.6	3019.4
32.5°	3222.1	3315.9	3008.1	2592.9	2252.9	2120.0	2179.1	2631.5	3161.6	3397.2	3251.5
35°	3460.0	3486.7	3132.1	2693.7	2395.5	2241.7	2315.1	2762.0	3295.2	3587.6	3480.2
37.5°	3739.0	3704.7	3249.1	2831.6	2579.8	2432.1	2492.8	2905.4	3405.2	3803.5	3713.8
40°	4014.8	3932.0	3396.1	3045.6	2848.7	2656.6	2728.4	3058.4	3508.1	4019.8	3942.2
42.5°	4249.3	4126.8	3540.8	3280.8	3098.9	2904.2	2990.0	3212.5	3606.1	4204.4	4140.3
45°	4422.7	4270.5	3678.7	3506.8	3443.8	3233.3	3273.9	3388.9	3712.3	4358.7	4303.4
47.5°	4577.6	4415.0	3834.7	3734.8	3745.6	3661.3	3596.0	3594.5	3837.6	4484.6	4457.5
50°	4785.0	4615.5	4002.4	3969.5	4198.3	4142.2	3998.1	3834.4	3995.9	4627.5	4624.4
52.5°	5071.0	4933.1	4207.2	4222.6	4621.0	4657.6	4479.1	4122.7	4243.8	4889.8	4871.3
55°	5409.0	5328.5	4486.2	4513.5	5139.3	5165.6	4988.2	4482.9	4608.6	5269.6	5218.2
57.5°	5672.8	5655.8	4792.1	4862.8	5526.4	5644.7	5481.7	4900.3	5019.5	5589.4	5460.3
60°	5777.9	5860.1	5117.7	5215.0	5884.6	6015.4	5872.5	5266.7	5383.8	5721.9	5443.8
62.5°	5721.2	5904.9	5464.6	5456.5	5964.5	6105.4	6005.0	5470.7	5654.0	5585.1	5168.4
65°	5458.8	5743.9	5665.9	5394.3	5691.0	5702.5	5670.0	5379.6	5717.7	5152.8	4635.9
67.5°	4887.4	5297.7	5400.8	4861.3	4953.1	4877.8	4823.3	4880.5	5385.3	4505.0	3896.2
70°	3980.8	4598.2	4647.5	3888.2	3846.4	3795.7	3687.3	4001.3	4729.9	3692.3	3091.6
72.5°	2927.1	3576.0	3727.8	2851.7	2658.6	2668.8	2583.2	3015.3	3845.6	2742.7	2308.2
75°	2002.6	2589.3	2916.6	1989.8	1758.2	1762.3	1751.4	2136.6	3063.0	1907.9	1727.2
77.5°	1463.0	1850.0	2199.7	1337.7	1298.7	1274.7	1269.0	1494.9	2348.3	1385.3	1341.2
80°	1173.9	1366.8	1477.5	927.1	997.0	995.1	963.0	1027.9	1533.6	1013.3	1003.1
82.5°	814.4	1050.4	1197.1	726.6	672.9	661.6	669.5	765.6	1084.0	692.6	658.6
85°	429.6	697.6	1185.6	643.9	399.4	318.7	396.4	626.9	939.2	367.1	321.3
87.5°	54.9	201.6	784.9	257.0	157.6	84.9	188.2	353.0	603.1	74.9	65.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3
2.5°	2575.9	2524.5	2457.3	2395.0	2330.5	2266.3	2182.5	2130.0	2093.7	2086.7	2071.4
5°	2513.3	2342.5	2213.5	2101.9	2000.7	1857.6	1778.5	1712.8	1677.7	1674.3	1665.7
7.5°	2224.7	1989.0	1814.8	1656.8	1513.5	1398.0	1270.5	1211.2	1186.7	1192.5	1198.2
10°	1924.4	1661.1	1461.0	1299.4	1173.2	1075.8	973.5	904.4	856.4	846.7	844.8
12.5°	1705.1	1416.2	1221.9	1107.8	1010.3	918.6	810.1	728.5	666.4	645.1	630.9
15°	1612.3	1296.4	1092.9	970.0	862.2	745.9	645.1	559.7	502.6	484.1	473.7
17.5°	1632.1	1263.2	1004.0	846.7	708.9	587.5	460.5	387.4	353.0	344.2	344.2
20°	1735.7	1257.0	930.5	733.2	561.2	420.6	316.4	274.6	263.5	262.3	265.4
22.5°	1880.9	1278.7	875.8	634.8	436.2	307.1	246.4	231.0	226.0	227.2	230.6
25°	2097.3	1351.7	836.1	547.0	342.2	251.4	219.7	210.6	208.2	211.3	215.6
27.5°	2353.7	1424.7	811.2	480.9	288.9	229.9	208.9	199.4	200.9	204.8	208.5
30°	2578.9	1484.7	772.2	433.9	272.4	231.0	208.9	195.9	194.4	195.1	196.3
32.5°	2781.1	1525.2	726.6	389.0	234.9	205.2	195.1	193.2	184.6	181.5	182.0
35°	2955.3	1525.2	699.3	362.8	210.6	182.0	165.8	156.1	151.7	152.1	156.5
37.5°	3123.3	1494.6	685.7	348.0	197.4	173.1	158.8	150.2	144.5	143.3	144.1
40°	3271.5	1450.2	670.3	341.9	187.4	167.7	154.2	147.1	141.0	139.1	139.4
42.5°	3390.5	1414.2	653.2	333.8	181.1	163.8	151.0	144.8	137.9	135.9	135.6
45°	3519.2	1402.3	630.9	317.5	184.2	164.2	150.2	143.7	136.7	134.4	133.7
47.5°	3688.8	1439.8	607.7	298.2	190.9	166.2	151.4	143.7	136.3	134.4	133.7
50°	3902.3	1527.8	578.2	270.0	184.2	171.6	151.0	142.5	136.3	134.4	132.9
52.5°	4176.7	1646.8	539.7	237.6	180.3	184.6	150.2	140.2	134.4	131.8	129.0
55°	4510.0	1744.1	493.6	210.9	171.6	181.1	149.1	137.6	131.4	127.5	125.2
57.5°	4754.2	1779.2	434.7	193.6	159.1	175.3	147.5	134.1	127.5	124.4	121.4
60°	4705.9	1711.3	384.7	182.7	151.7	158.4	146.3	130.9	124.0	121.8	118.9
62.5°	4319.3	1533.6	352.6	177.7	147.1	144.5	147.5	127.9	121.0	118.5	117.8
65°	3739.4	1271.2	340.0	176.6	143.3	136.3	137.2	124.4	117.4	115.5	114.7
67.5°	3084.6	1026.1	328.8	180.3	138.3	130.5	126.8	119.8	113.9	112.0	110.5
70°	2432.5	853.4	323.7	178.1	132.2	124.8	120.6	114.7	109.7	107.7	106.6
72.5°	1958.8	720.8	320.9	175.7	124.0	117.0	113.1	108.1	102.7	102.0	100.8
75°	1657.7	566.7	294.1	168.4	114.7	107.7	105.1	100.4	95.1	95.1	94.3
77.5°	1278.7	409.8	244.5	149.1	105.1	97.3	95.1	91.5	85.4	86.5	86.2
80°	944.5	267.4	191.2	123.6	93.2	85.8	84.5	81.1	74.5	76.1	76.1
82.5°	647.1	175.3	137.6	101.2	79.5	72.6	72.6	69.1	61.8	62.6	65.0
85°	324.9	120.6	102.7	78.4	61.8	58.3	58.3	55.7	48.3	48.7	51.8
87.5°	98.9	72.6	68.0	56.1	44.4	43.6	41.6	39.8	35.1	34.7	36.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3
2.5°	2047.7	2025.7	1999.2	1940.4	1920.7	1919.4	1937.4	1918.7	1954.3	1939.2	1955.8
5°	1651.3	1629.9	1600.0	1525.2	1479.5	1448.5	1434.0	1390.7	1422.0	1399.1	1418.2
7.5°	1214.5	1219.6	1199.9	1155.8	1056.5	1006.7	977.4	951.1	973.9	971.5	1007.9
10°	853.8	867.2	853.4	809.0	728.5	701.1	706.5	716.9	746.8	762.1	818.1
12.5°	614.6	613.9	604.9	565.2	512.3	515.3	537.4	555.4	582.9	599.2	656.2
15°	458.9	452.0	448.1	415.6	385.5	392.1	402.9	404.8	422.2	431.9	478.3
17.5°	346.9	350.4	354.5	331.4	308.6	304.4	296.0	285.4	290.6	292.4	315.5
20°	275.4	289.3	299.8	283.5	260.5	247.9	237.1	230.2	230.2	229.9	236.4
22.5°	240.7	250.7	262.0	250.7	229.9	219.0	212.8	207.4	206.7	206.7	212.8
25°	221.8	229.1	239.9	232.2	216.7	208.5	202.8	195.9	193.2	192.4	196.6
27.5°	212.4	215.6	221.0	213.9	200.9	197.0	195.5	189.4	185.7	183.8	188.2
30°	196.6	195.9	196.3	189.4	178.8	178.4	181.1	182.3	181.1	180.7	187.4
32.5°	182.0	180.3	180.0	173.8	164.2	161.9	164.2	166.5	169.2	173.1	180.7
35°	163.4	167.3	169.5	164.2	152.5	145.6	143.0	138.7	136.3	136.3	145.2
37.5°	148.7	157.6	161.1	156.1	143.3	133.7	129.0	128.3	128.7	130.2	138.7
40°	143.7	150.2	153.2	148.4	135.6	126.8	124.0	123.3	124.0	126.4	134.8
42.5°	140.6	145.2	144.8	138.7	128.3	122.1	120.6	119.8	120.6	122.9	132.2
45°	137.9	141.0	137.9	130.5	121.0	117.8	118.1	117.8	118.5	121.0	129.8
47.5°	135.6	136.7	132.9	125.5	115.5	114.7	116.2	117.4	118.1	120.3	129.4
50°	132.2	132.2	128.7	121.0	110.9	111.2	113.1	115.9	116.2	118.5	126.0
52.5°	127.9	127.5	125.2	117.8	107.0	108.1	108.1	111.2	112.0	114.7	122.5
55°	124.4	123.6	122.5	115.5	103.6	105.5	104.3	105.5	107.3	110.1	118.5
57.5°	121.4	119.8	119.8	113.5	100.8	101.6	98.9	100.4	102.7	105.1	113.9
60°	118.1	116.6	117.4	110.9	96.6	95.8	94.7	97.7	98.6	101.2	110.1
62.5°	114.7	113.5	113.9	107.7	93.6	91.5	91.5	94.3	94.7	98.6	107.0
65°	112.0	110.5	110.1	104.7	90.0	87.8	88.9	90.0	90.8	94.7	102.7
67.5°	109.4	106.2	106.2	102.0	86.2	83.8	86.2	85.8	87.0	90.4	96.9
70°	105.8	101.6	102.0	100.1	82.3	79.5	81.5	81.1	81.9	84.1	90.8
72.5°	100.4	96.9	97.7	96.9	78.4	74.5	75.2	75.2	75.2	77.2	84.1
75°	93.6	90.8	93.2	95.1	73.7	68.3	69.1	69.1	68.0	69.1	77.6
77.5°	84.9	83.4	91.2	88.5	68.3	61.8	61.8	61.1	58.8	60.3	69.5
80°	75.7	74.5	84.1	74.1	62.2	53.8	52.9	50.9	48.7	49.8	59.2
82.5°	66.1	65.0	70.7	56.8	53.8	44.4	42.5	39.0	36.7	37.9	46.3
85°	54.2	54.2	54.6	42.9	40.9	34.0	31.7	27.1	24.3	25.1	33.2
87.5°	38.6	39.8	36.7	29.3	24.3	18.9	17.4	14.7	12.3	14.3	17.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3	2374.3
2.5°	2040.8	2083.3	2131.6	2193.3	2246.4	2333.1	2416.7	2466.8
5°	1525.9	1596.6	1684.6	1797.9	1903.4	2061.6	2218.9	2319.7
7.5°	1092.0	1167.8	1262.8	1404.1	1553.4	1755.3	1963.2	2083.7
10°	903.7	981.3	1061.2	1156.6	1278.7	1498.5	1744.1	1880.1
12.5°	747.5	830.6	916.7	1017.2	1130.3	1326.5	1609.7	1766.2
15°	572.1	664.8	766.3	893.5	1035.2	1262.1	1576.5	1746.4
17.5°	392.1	495.7	620.4	777.3	950.7	1241.1	1636.0	1831.9
20°	270.0	345.4	478.7	662.5	871.2	1238.5	1750.3	1995.7
22.5°	226.0	259.6	356.9	557.0	811.2	1271.7	1927.7	2225.4
25°	208.9	229.1	285.0	465.5	767.6	1348.2	2171.9	2522.9
27.5°	199.0	217.1	258.8	405.7	733.2	1437.0	2409.4	2811.1
30°	202.8	221.3	251.4	375.1	686.5	1511.1	2620.3	3035.9
32.5°	182.7	190.9	215.6	348.0	652.9	1573.3	2804.9	3222.1
35°	155.8	169.9	192.4	335.3	653.6	1615.1	3006.2	3460.0
37.5°	148.4	162.6	178.8	330.7	662.5	1659.6	3237.2	3739.0
40°	143.7	156.9	170.8	328.1	671.0	1700.1	3463.7	4014.8
42.5°	140.6	152.5	169.9	318.7	675.3	1736.5	3649.8	4249.3
45°	140.2	152.5	173.1	309.4	681.8	1775.5	3805.9	4422.7
47.5°	140.6	157.6	167.3	298.2	681.8	1840.7	3989.0	4577.6
50°	139.1	166.2	161.1	282.4	666.0	1964.3	4240.0	4785.0
52.5°	138.3	165.0	149.1	258.1	638.6	2160.6	4561.8	5071.0
55°	136.3	159.1	140.6	221.8	606.6	2374.6	4906.4	5409.0
57.5°	134.4	141.0	135.9	190.1	557.0	2525.3	5143.6	5672.8
60°	150.6	123.3	132.2	174.6	491.0	2566.5	5134.4	5777.9
62.5°	139.4	115.5	127.2	171.2	444.7	2450.6	4897.2	5721.2
65°	109.4	110.5	122.1	181.1	432.3	2143.7	4476.8	5458.8
67.5°	100.1	105.5	117.0	194.0	433.5	1716.3	3848.8	4887.4
70°	94.3	100.1	111.2	200.5	436.5	1279.5	3042.8	3980.8
72.5°	87.8	92.8	104.7	201.6	416.3	929.4	2345.3	2927.1
75°	79.9	84.5	95.4	175.7	345.0	644.7	1794.0	2002.6
77.5°	71.1	74.5	83.8	135.6	256.2	412.6	1346.6	1463.0
80°	60.7	62.6	70.4	99.3	175.3	258.1	1065.4	1173.9
82.5°	48.7	49.4	54.6	74.5	113.9	165.8	713.5	814.4
85°	34.4	34.4	37.5	54.2	77.6	105.1	387.4	429.6
87.5°	16.2	16.6	16.6	29.7	40.5	53.4	89.3	54.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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