

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: P301623

Luminaire Tested: **GLNA-AF-01-LED-E1-T2R-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301623
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-01-LED-E1-T2R-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5226.8 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

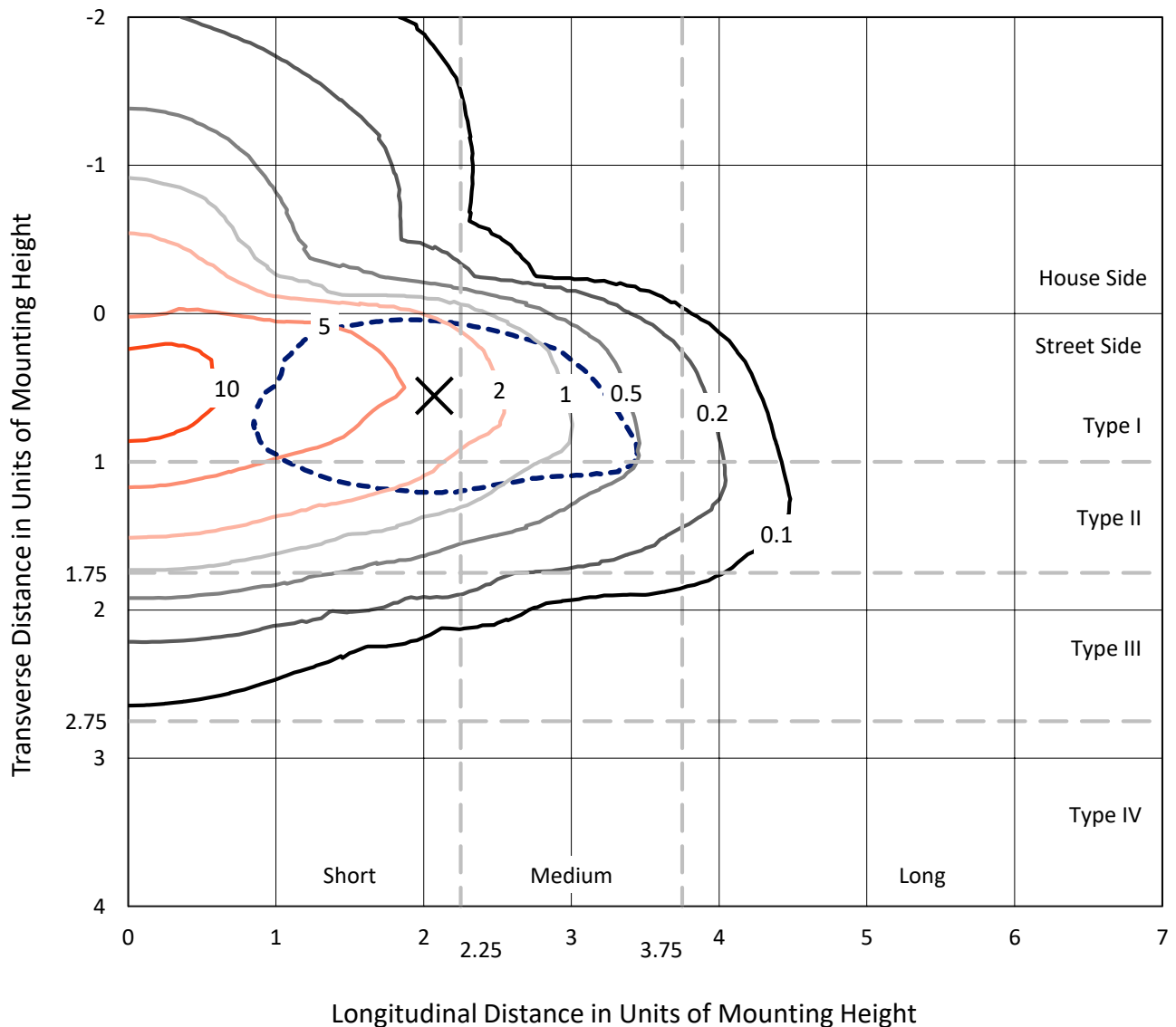
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

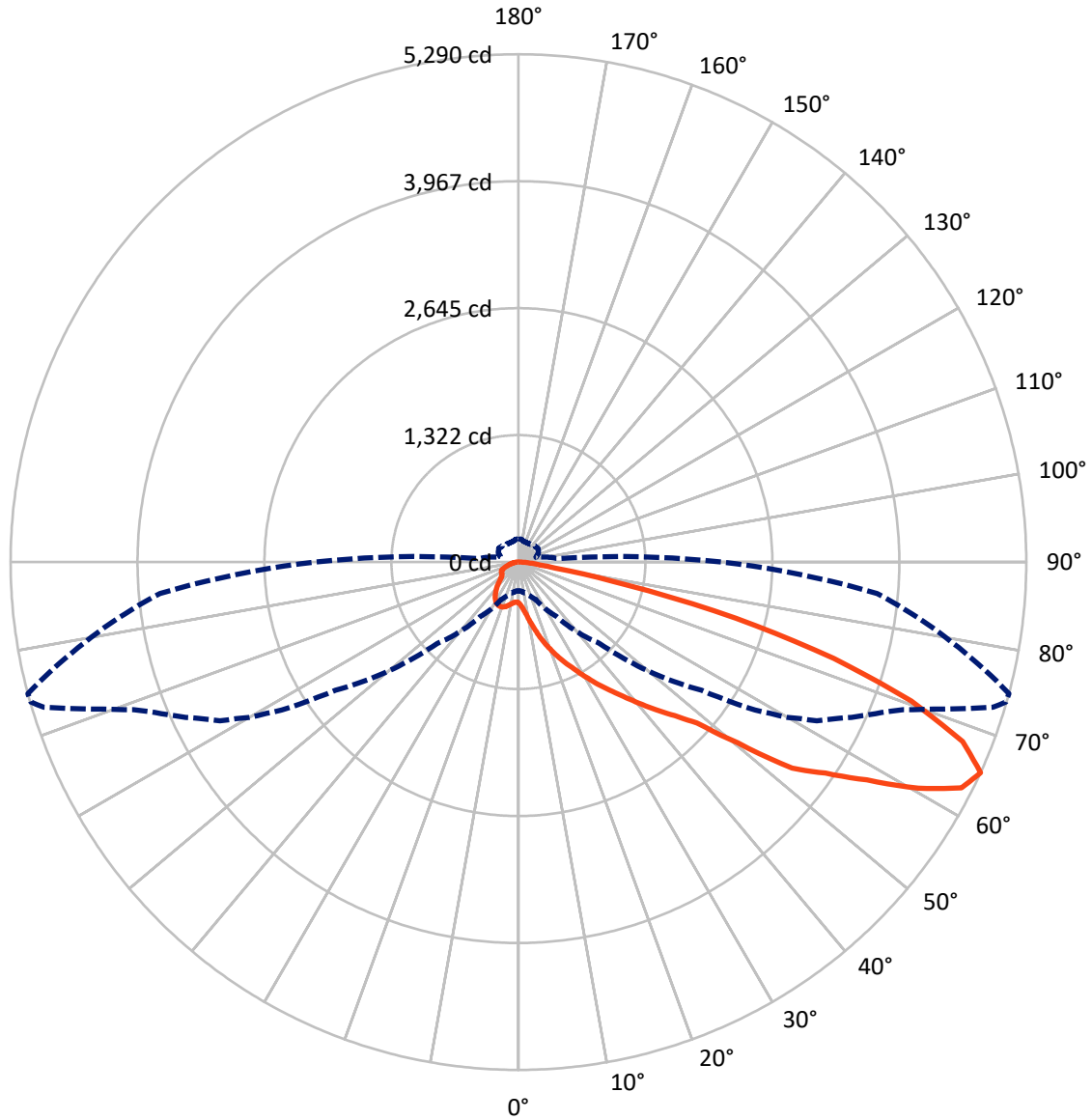
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.2 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	805.9	0.0	805.9
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	4420.9	0.0	4420.9
	% Fixture	84.6	0.0	84.6
Total	Lumens	5226.8	0.0	5226.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.5	1.0
10°-20°	205.1	3.9
20°-30°	420.9	8.1
30°-40°	708.1	13.5
40°-50°	978.4	18.7
50°-60°	1221.4	23.4
60°-70°	1099.1	21.0
70°-80°	460.7	8.8
80°-90°	80.5	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°	5226.8	100.0
0°-180°	5226.8	100.0

Coefficient of Utilization



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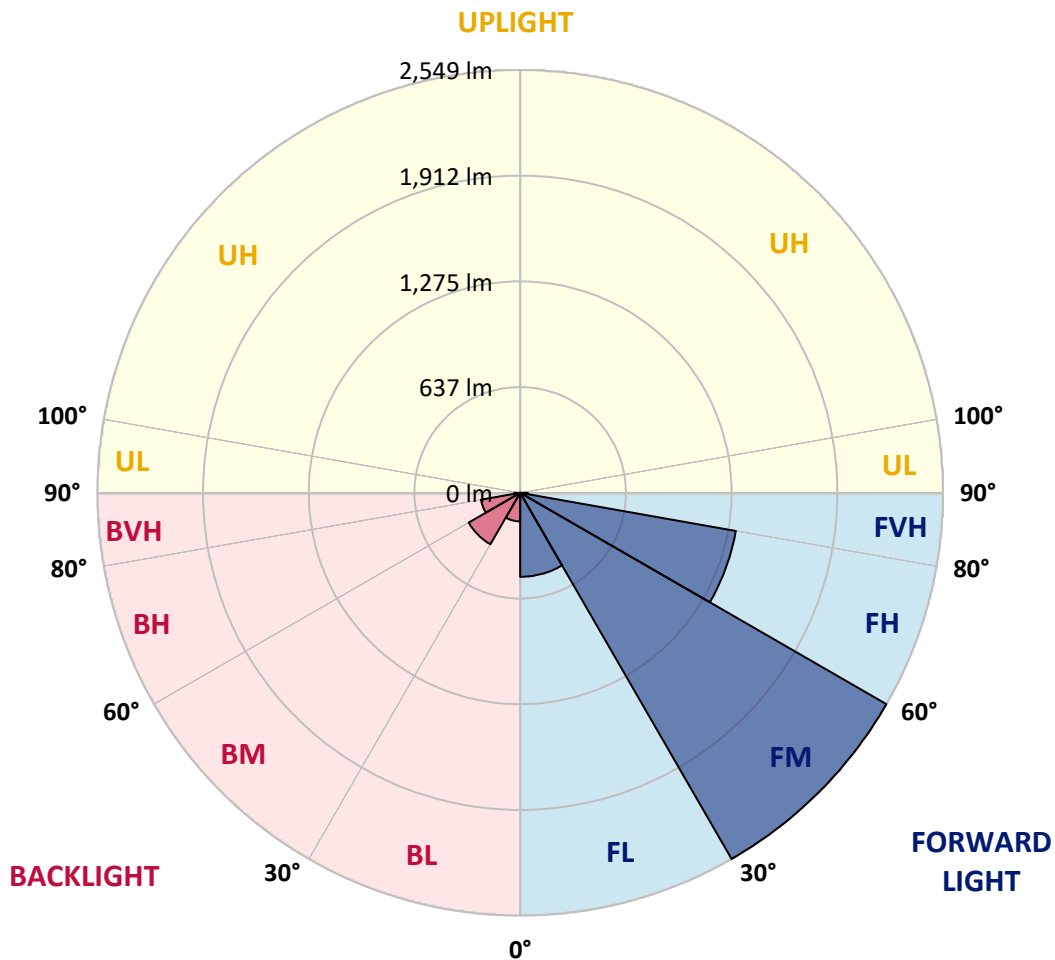
CATALOG NUMBER: GLNA-AF-01-LED-E1-T2R-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	506.2	9.7			
FM	(30°-60°)	2549.2	48.8			
FH	(60°-80°)	1320.3	25.3			G1/1800
FVH	(80°-90°)	45.2	0.9			G1/100
BL	(0°-30°)	172.3	3.3	B1/500		
BM	(30°-60°)	358.7	6.9	B1/1000		
BH	(60°-80°)	239.6	4.6	B1/500		G1/500
BVH	(80°-90°)	35.3	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8
2.5°	539.3	533.4	534.9	525.0	512.8	497.0	479.5	479.2	479.5	477.7	471.3
5°	747.8	740.7	738.0	715.7	683.0	636.6	586.1	580.7	578.4	572.7	559.6
7.5°	900.0	896.1	891.8	875.0	845.4	793.4	725.6	714.0	702.8	700.1	685.3
10°	998.2	997.2	988.3	983.9	965.4	920.3	854.3	843.1	831.0	826.8	811.2
12.5°	1075.9	1075.7	1071.5	1072.7	1056.6	1024.0	967.1	956.9	948.0	935.1	924.0
15°	1129.6	1129.8	1136.1	1143.0	1140.5	1118.5	1065.0	1060.5	1052.9	1044.0	1030.9
17.5°	1173.6	1174.9	1181.3	1193.9	1207.5	1205.8	1163.5	1159.8	1153.1	1141.0	1134.1
20°	1273.1	1277.8	1265.5	1265.5	1266.9	1273.6	1253.3	1250.3	1240.9	1234.5	1229.0
22.5°	1441.1	1446.5	1418.5	1390.1	1362.2	1341.8	1321.6	1325.3	1318.9	1314.4	1311.2
25°	1659.3	1663.5	1618.2	1570.2	1513.3	1439.1	1388.9	1386.6	1383.2	1380.5	1379.0
27.5°	1864.6	1866.4	1823.6	1753.3	1687.2	1580.6	1457.1	1454.4	1450.2	1445.0	1440.6
30°	2040.3	2039.8	1995.7	1928.7	1857.9	1739.9	1560.8	1552.4	1540.0	1525.9	1515.0
32.5°	2192.4	2191.7	2143.4	2073.9	1999.7	1897.8	1702.9	1685.5	1666.2	1638.7	1622.2
35°	2312.1	2311.7	2266.1	2193.7	2108.5	2046.5	1865.6	1844.3	1819.8	1783.0	1757.5
37.5°	2357.4	2357.4	2331.9	2282.5	2207.3	2164.7	2046.5	2020.7	1994.5	1952.7	1924.0
40°	2330.9	2331.4	2336.9	2327.8	2291.1	2258.5	2215.2	2199.8	2177.3	2139.7	2109.8
42.5°	2242.1	2244.8	2281.0	2325.3	2343.5	2338.4	2364.8	2357.9	2342.1	2313.2	2289.4
45°	2129.5	2138.0	2177.5	2261.2	2358.1	2407.4	2490.2	2491.0	2488.0	2472.5	2454.1
47.5°	1975.0	1986.8	2039.0	2152.1	2324.0	2474.5	2617.6	2624.3	2630.6	2620.4	2612.0
50°	1769.6	1783.7	1861.9	2011.8	2254.5	2544.0	2858.4	2888.6	2916.8	2913.3	2919.0
52.5°	1549.7	1566.3	1662.0	1829.0	2135.0	2560.0	3012.3	3061.5	3110.7	3151.0	3193.8
55°	1351.2	1342.4	1438.1	1614.0	1938.6	2487.5	3150.6	3210.0	3264.9	3314.3	3365.3
57.5°	1082.3	1096.9	1192.9	1366.9	1678.6	2282.9	3245.8	3332.7	3411.6	3493.5	3565.7
60°	791.1	805.7	909.9	1086.5	1396.3	1972.7	3173.1	3304.7	3431.1	3556.5	3654.5
62.5°	477.7	488.6	580.4	748.6	1076.7	1604.9	2849.0	3021.7	3207.7	3357.6	3507.8
65°	297.4	303.5	337.4	430.0	691.5	1198.2	2327.8	2516.0	2716.4	2906.7	3062.8
67.5°	243.4	245.6	251.9	271.6	379.7	781.3	1732.5	1899.2	2080.1	2264.1	2437.8
70°	218.9	217.5	217.5	218.7	243.4	420.1	1134.3	1242.9	1393.6	1553.7	1712.5
72.5°	197.6	196.2	193.5	189.8	198.7	256.3	586.3	668.2	776.8	919.1	1071.2
75°	177.6	175.6	172.5	167.8	173.9	193.5	281.5	315.9	368.9	444.6	529.4
77.5°	156.8	154.3	151.4	148.0	155.9	150.4	165.0	177.4	197.6	221.9	253.9
80°	133.3	131.1	130.1	128.4	137.8	114.6	116.5	124.2	136.1	149.2	164.0
82.5°	104.4	104.4	108.3	109.1	119.5	82.4	87.1	93.8	100.0	106.9	113.8
85°	68.8	69.3	82.6	87.8	94.2	55.4	65.3	67.5	72.5	76.5	79.4
87.5°	21.5	23.3	50.5	55.9	54.2	31.4	40.1	41.1	44.5	47.3	49.8
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8
2.5°	471.3	468.3	465.6	465.4	463.4	460.7	461.6	457.4	457.7	455.5	453.0
5°	554.2	552.2	542.3	539.6	532.1	527.4	526.7	516.8	515.6	509.9	503.7
7.5°	673.4	667.0	653.1	646.4	633.8	624.4	620.0	606.9	600.4	585.6	578.9
10°	798.3	790.2	773.1	763.7	751.6	736.5	728.3	709.3	701.8	688.2	672.0
12.5°	914.1	906.0	888.4	881.2	865.1	849.0	840.2	818.7	809.0	787.2	774.3
15°	1021.2	1013.1	997.7	990.3	974.2	961.1	949.2	928.0	916.6	896.3	879.5
17.5°	1125.1	1116.5	1103.1	1096.4	1080.9	1067.5	1054.7	1034.6	1023.0	1002.7	987.6
20°	1221.6	1215.2	1205.6	1196.6	1181.1	1168.9	1153.6	1136.3	1119.5	1104.6	1090.3
22.5°	1305.7	1303.2	1292.9	1288.9	1275.6	1265.2	1251.8	1234.8	1222.6	1203.8	1190.4
25°	1378.2	1377.5	1372.5	1371.3	1361.9	1352.0	1349.0	1335.0	1323.8	1307.2	1293.4
27.5°	1440.6	1441.3	1440.1	1443.6	1441.1	1436.6	1436.9	1432.2	1425.7	1411.9	1399.8
30°	1509.8	1505.9	1508.1	1513.1	1514.5	1515.0	1523.2	1525.9	1525.5	1516.3	1510.4
32.5°	1607.8	1598.4	1589.8	1589.0	1593.9	1595.9	1609.8	1617.0	1623.1	1625.4	1626.4
35°	1732.7	1713.9	1695.9	1686.3	1677.8	1680.0	1689.9	1701.6	1715.2	1724.6	1735.7
37.5°	1890.1	1867.1	1835.2	1812.4	1806.7	1794.4	1800.8	1809.9	1823.3	1837.9	1857.2
40°	2080.8	2045.9	2010.1	1979.9	1963.6	1940.8	1940.6	1938.8	1947.0	1960.6	1987.8
42.5°	2264.4	2233.5	2195.4	2163.7	2142.5	2112.0	2105.8	2089.8	2093.4	2105.3	2131.8
45°	2436.3	2410.8	2387.6	2351.0	2332.9	2300.0	2289.6	2270.6	2259.9	2265.4	2291.9
47.5°	2602.8	2586.5	2562.2	2538.5	2524.7	2495.2	2481.9	2468.2	2454.6	2454.1	2481.9
50°	2927.4	2918.8	2890.1	2865.3	2872.0	2835.9	2838.1	2801.5	2818.1	2820.1	2878.2
52.5°	3232.4	3262.7	3283.9	3309.9	3326.7	3330.0	3341.0	3357.6	3377.7	3417.2	3471.2
55°	3407.1	3445.0	3467.0	3486.8	3519.5	3526.4	3544.9	3566.9	3584.5	3629.0	3674.8
57.5°	3614.7	3684.9	3719.1	3750.5	3794.5	3811.3	3842.3	3866.3	3889.0	3941.7	3997.1
60°	3742.6	3828.2	3897.7	3947.4	4002.6	4042.2	4089.0	4126.5	4180.0	4243.1	4325.7
62.5°	3640.9	3766.6	3858.9	3944.2	4019.2	4094.9	4161.9	4232.2	4313.3	4408.8	4537.0
65°	3236.0	3363.8	3521.9	3610.5	3709.7	3826.4	3928.4	4042.2	4152.7	4291.8	4481.3
67.5°	2605.1	2753.7	2931.4	3020.7	3134.7	3265.1	3379.4	3518.4	3647.6	3816.0	4050.4
70°	1877.7	2069.9	2219.4	2312.6	2445.8	2580.1	2690.4	2852.2	2959.1	3131.7	3374.0
72.5°	1189.0	1340.6	1523.7	1641.2	1759.4	1895.6	2008.4	2147.9	2247.5	2404.9	2624.3
75°	639.3	751.1	911.9	1023.5	1150.2	1266.4	1398.5	1492.0	1565.8	1690.2	1868.3
77.5°	299.6	367.6	449.0	534.9	620.7	710.3	797.4	873.0	904.7	976.0	1081.1
80°	181.9	203.9	227.6	254.1	290.0	318.9	357.3	384.9	386.9	409.4	441.6
82.5°	121.5	129.6	136.8	143.5	152.6	159.8	168.0	177.6	181.6	186.8	197.2
85°	82.9	86.8	88.3	92.5	91.5	94.0	97.2	100.5	102.2	101.9	106.6
87.5°	50.9	52.9	53.9	54.9	54.2	53.2	54.7	56.4	56.9	55.4	55.9
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8
2.5°	453.5	451.3	449.0	447.5	447.0	434.0	428.2	424.6	416.6	410.2	405.0
5°	500.2	495.5	491.9	487.4	484.9	451.7	439.6	431.2	417.4	409.2	401.7
7.5°	575.4	562.3	554.7	546.0	538.6	478.7	458.7	445.5	426.2	415.4	406.9
10°	660.8	647.2	635.0	621.7	610.1	514.6	485.4	465.1	439.6	425.5	414.4
12.5°	756.1	742.7	727.4	710.3	695.4	560.1	519.5	490.6	455.7	436.9	421.3
15°	868.6	845.1	826.5	806.8	789.4	614.6	559.4	519.3	472.8	447.3	426.5
17.5°	973.2	948.5	923.3	906.0	886.0	675.6	599.4	548.4	486.9	454.0	427.5
20°	1075.4	1048.4	1026.7	1003.5	982.4	739.0	642.2	574.2	496.0	454.2	421.3
22.5°	1165.5	1148.6	1124.4	1099.2	1077.9	802.3	682.3	596.0	499.5	448.6	410.4
25°	1267.9	1250.1	1220.4	1199.1	1175.4	866.9	721.6	612.8	497.5	437.9	393.6
27.5°	1377.2	1357.5	1327.0	1304.8	1276.1	933.9	757.7	624.9	490.1	420.6	371.1
30°	1491.3	1473.2	1443.3	1420.8	1391.8	1004.9	798.1	633.1	475.3	396.6	344.9
32.5°	1613.8	1598.6	1569.0	1545.5	1514.5	1081.8	835.7	635.6	452.7	368.1	317.2
35°	1730.0	1719.7	1694.6	1672.6	1640.5	1154.6	875.5	634.3	426.0	336.9	291.9
37.5°	1860.9	1854.7	1842.4	1814.4	1775.1	1253.3	923.3	629.1	393.4	306.0	272.6
40°	2000.4	2001.0	1987.6	1968.5	1931.9	1373.0	980.2	619.0	357.7	278.8	255.0
42.5°	2148.1	2155.8	2149.4	2135.8	2100.6	1493.8	1048.2	606.6	323.1	252.3	237.8
45°	2317.3	2326.7	2336.6	2316.6	2282.5	1653.1	1137.8	590.6	285.7	230.3	225.9
47.5°	2512.6	2527.4	2536.3	2536.6	2502.4	1850.5	1283.2	580.9	252.6	215.5	220.2
50°	2924.4	2929.2	2950.2	2986.8	2960.6	2307.4	1537.3	574.9	230.1	206.3	216.0
52.5°	3517.9	3569.7	3606.1	3603.6	3567.9	2597.6	1677.3	544.3	216.7	202.8	214.0
55°	3759.7	3824.2	3891.5	3909.3	3881.6	2845.3	1809.7	513.6	210.3	205.3	214.7
57.5°	4081.8	4190.6	4282.9	4321.7	4281.7	3162.2	1983.9	497.5	208.3	212.0	219.4
60°	4458.0	4592.6	4713.9	4783.6	4783.6	3526.4	2164.5	490.8	205.6	221.9	227.4
62.5°	4699.8	4897.4	5080.5	5182.7	5179.7	3779.9	2244.6	468.1	199.4	228.8	238.2
65°	4700.7	4935.8	5169.0	5283.9	5289.7	3748.8	2112.3	413.4	188.0	229.9	249.2
67.5°	4308.9	4559.5	4831.4	4959.8	4989.4	3450.9	1828.5	339.9	169.5	219.9	253.1
70°	3639.2	3883.8	4161.4	4287.6	4340.3	2941.7	1472.7	262.0	145.8	198.2	244.9
72.5°	2867.0	3107.0	3300.2	3392.5	3433.6	2248.6	1072.4	197.9	119.5	167.0	222.9
75°	2029.9	2210.0	2312.6	2333.2	2339.6	1355.5	651.6	147.2	98.5	129.9	188.2
77.5°	1145.7	1222.9	1214.4	1223.6	1147.4	523.3	283.8	105.4	81.2	98.7	146.0
80°	447.3	461.2	433.2	424.6	389.4	194.7	125.2	73.5	64.8	74.7	102.2
82.5°	197.2	203.6	197.6	199.2	190.5	100.5	74.9	53.2	49.5	54.7	67.8
85°	108.6	110.6	110.1	113.3	108.6	40.1	35.6	32.7	34.6	37.1	43.5
87.5°	52.9	53.4	51.7	54.5	52.7	20.3	17.5	18.6	20.3	20.8	20.8
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-01-LED-E1-T2R-800

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	424.8	424.8	424.8	424.8	424.8	424.8
2.5°	401.3	399.3	399.5	399.0	398.1	398.1
5°	397.8	395.9	395.9	395.3	394.1	394.3
7.5°	401.3	398.1	396.8	395.1	393.4	393.4
10°	405.3	399.5	396.1	393.1	390.9	390.9
12.5°	408.2	399.3	393.6	389.6	387.4	387.4
15°	409.2	397.5	389.6	384.9	382.9	382.7
17.5°	406.0	390.9	381.3	375.8	373.3	372.6
20°	396.1	378.8	367.2	360.9	357.5	356.2
22.5°	381.3	361.4	347.9	341.4	336.9	336.2
25°	360.5	339.2	325.8	319.6	317.2	316.4
27.5°	336.2	316.4	305.0	301.0	298.8	298.6
30°	313.2	296.3	288.0	285.0	282.3	281.8
32.5°	291.6	281.0	277.9	273.6	267.2	266.5
35°	276.3	275.4	273.2	263.7	255.8	253.6
37.5°	266.9	276.1	264.7	246.1	240.5	240.0
40°	261.5	268.5	248.9	242.5	242.9	242.5
42.5°	249.2	256.3	249.4	246.4	248.3	248.9
45°	236.8	244.7	253.1	251.1	255.8	255.8
47.5°	229.9	241.7	252.8	252.8	259.8	262.2
50°	221.9	239.2	248.9	252.3	257.8	255.8
52.5°	221.4	235.0	243.2	249.4	251.9	249.6
55°	222.1	231.5	237.5	244.5	247.4	247.6
57.5°	223.2	229.6	233.5	236.8	245.6	245.6
60°	225.6	227.9	230.1	231.8	243.4	243.7
62.5°	229.6	226.1	225.6	227.4	242.2	241.2
65°	235.8	223.6	219.9	221.6	240.9	238.0
67.5°	244.2	219.9	212.8	214.0	240.0	233.5
70°	251.9	214.0	203.9	202.6	230.6	219.2
72.5°	252.6	207.1	191.5	187.8	200.4	189.5
75°	240.2	202.3	177.9	167.0	165.5	164.0
77.5°	216.5	199.6	162.0	144.9	142.0	143.0
80°	181.1	189.5	143.0	122.7	138.8	137.1
82.5°	135.3	167.3	121.5	108.6	108.3	95.8
85°	75.2	130.4	98.9	81.4	56.7	54.9
87.5°	21.1	72.5	69.3	46.0	31.4	32.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)