

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: P301560

Luminaire Tested: **GLNA-AF-01-LED-E1-T2R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301560
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-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 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: 5621.2 lumens
Efficiency: N/A
Efficacy: 95.3 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

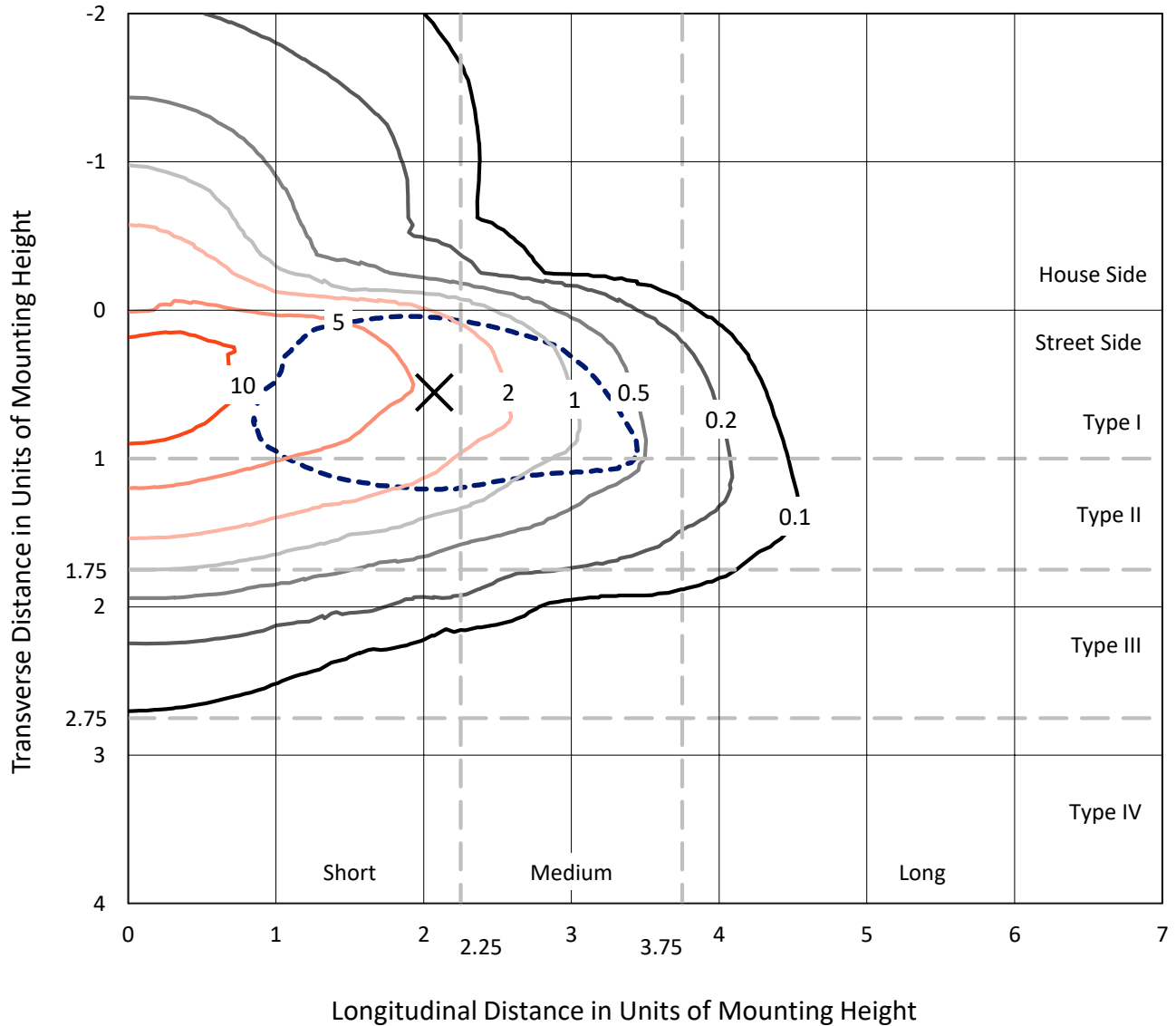
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

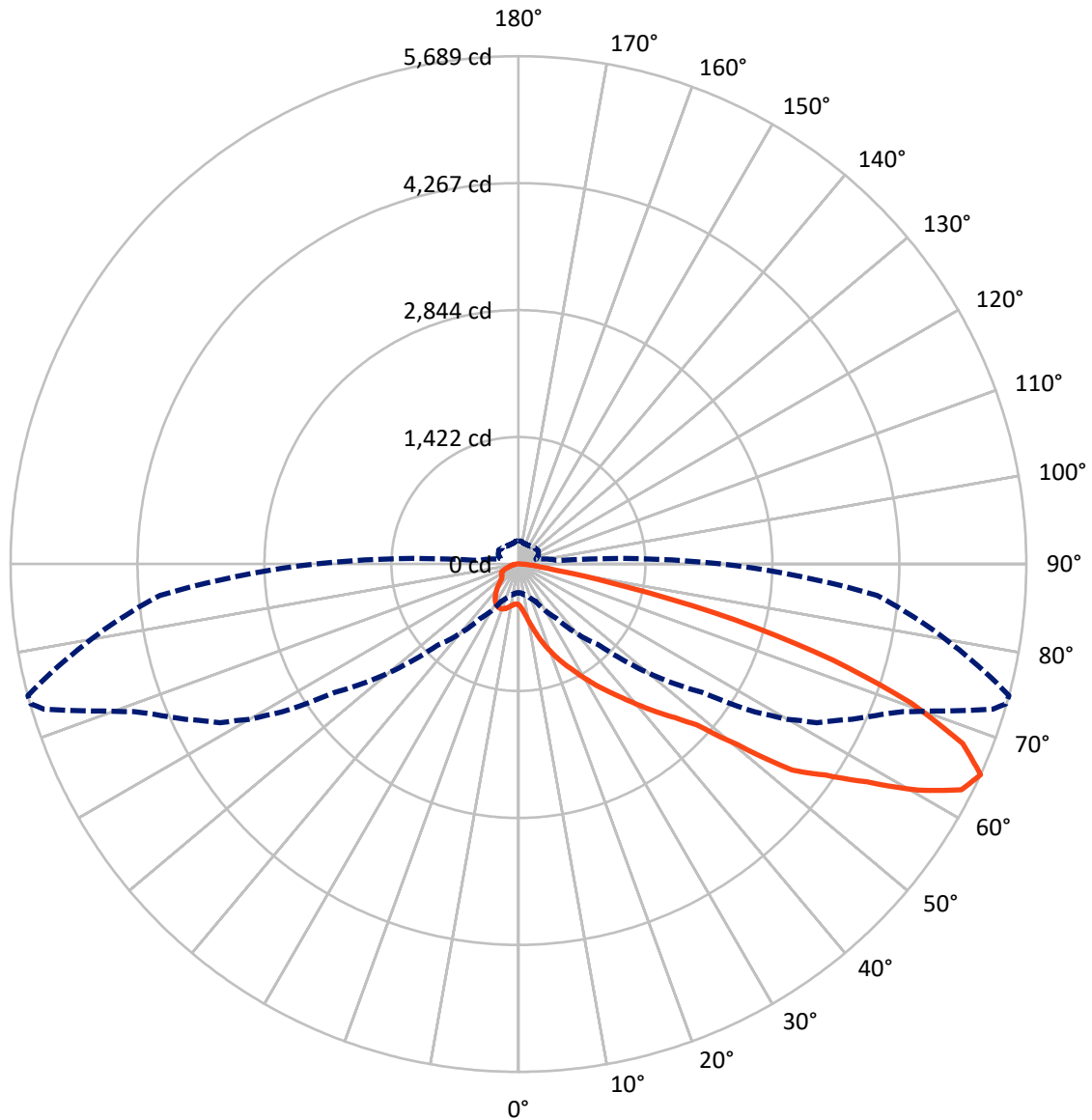
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.2 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	866.7	0.0	866.7
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	4754.5	0.0	4754.5
	% Fixture	84.6	0.0	84.6
Total	Lumens	5621.2	0.0	5621.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.5	1.0
10°-20°	220.6	3.9
20°-30°	452.6	8.1
30°-40°	761.6	13.5
40°-50°	1052.3	18.7
50°-60°	1313.5	23.4
60°-70°	1182.0	21.0
70°-80°	495.5	8.8
80°-90°	86.6	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°	5621.2	100.0
0°-180°	5621.2	100.0



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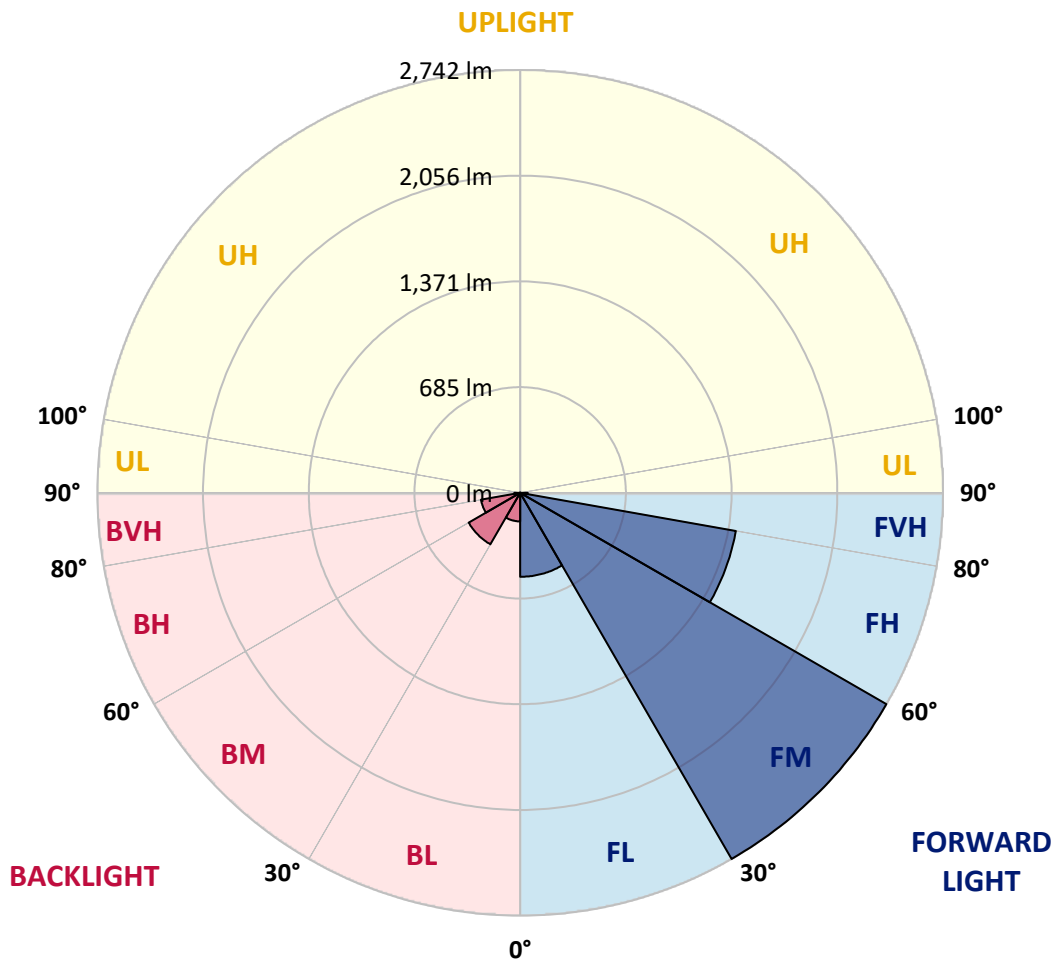
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	544.4	9.7			
FM	(30°-60°)	2741.6	48.8			
FH	(60°-80°)	1419.9	25.3			G1/1800
FVH	(80°-90°)	48.7	0.9			G1/100
BL	(0°-30°)	185.3	3.3	B1/500		
BM	(30°-60°)	385.8	6.9	B1/1000		
BH	(60°-80°)	257.6	4.6	B1/500		G1/500
BVH	(80°-90°)	37.9	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°	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8
2.5°	580.0	573.6	575.2	564.6	551.5	534.5	515.6	515.4	515.6	513.7	506.9
5°	804.3	796.6	793.7	769.7	734.6	684.6	630.3	624.5	622.0	615.9	601.8
7.5°	968.0	963.7	959.1	941.0	909.2	853.3	780.3	767.9	755.9	753.0	737.0
10°	1073.6	1072.5	1062.9	1058.1	1038.2	989.7	918.7	906.7	893.7	889.2	872.4
12.5°	1157.1	1156.8	1152.3	1153.7	1136.3	1101.3	1040.0	1029.1	1019.6	1005.7	993.8
15°	1214.8	1215.1	1221.8	1229.2	1226.5	1202.8	1145.4	1140.6	1132.4	1122.8	1108.7
17.5°	1262.2	1263.5	1270.4	1284.0	1298.7	1296.8	1251.3	1247.3	1240.1	1227.1	1219.7
20°	1369.1	1374.2	1360.9	1360.9	1362.5	1369.7	1347.8	1344.7	1334.6	1327.6	1321.8
22.5°	1549.8	1555.6	1525.6	1495.0	1465.0	1443.1	1421.3	1425.3	1418.4	1413.6	1410.1
25°	1784.5	1789.0	1740.3	1688.7	1627.5	1547.7	1493.7	1491.2	1487.5	1484.6	1483.0
27.5°	2005.3	2007.2	1961.2	1885.6	1814.5	1699.8	1567.1	1564.2	1559.7	1554.1	1549.3
30°	2194.2	2193.7	2146.3	2074.2	1998.1	1871.2	1678.6	1669.5	1656.2	1641.0	1629.4
32.5°	2357.9	2357.1	2305.1	2230.4	2150.6	2041.0	1831.3	1812.7	1792.0	1762.4	1744.6
35°	2486.6	2486.1	2437.1	2359.2	2267.6	2200.9	2006.4	1983.5	1957.1	1917.5	1890.1
37.5°	2535.3	2535.3	2507.9	2454.7	2373.8	2328.0	2200.9	2173.2	2145.0	2100.0	2069.1
40°	2506.8	2507.3	2513.2	2503.4	2464.0	2428.9	2382.3	2365.8	2341.6	2301.2	2269.0
42.5°	2411.3	2414.2	2453.1	2500.7	2520.4	2514.8	2543.3	2535.8	2518.8	2487.7	2462.1
45°	2290.2	2299.3	2341.8	2431.8	2536.1	2589.0	2678.1	2678.9	2675.8	2659.0	2639.3
47.5°	2124.0	2136.7	2192.9	2314.4	2499.4	2661.2	2815.2	2822.3	2829.1	2818.2	2809.1
50°	1903.2	1918.3	2002.4	2163.6	2424.6	2735.9	3074.0	3106.6	3136.9	3133.2	3139.2
52.5°	1666.6	1684.5	1787.4	1967.0	2296.1	2753.2	3239.5	3292.5	3345.5	3388.8	3434.8
55°	1453.2	1443.6	1546.6	1735.8	2084.9	2675.2	3388.3	3452.2	3511.2	3564.4	3619.3
57.5°	1164.0	1179.7	1283.0	1470.0	1805.2	2455.2	3490.7	3584.1	3669.0	3757.1	3834.7
60°	850.8	866.5	978.5	1168.5	1501.7	2121.6	3412.5	3554.1	3690.0	3824.9	3930.2
62.5°	513.7	525.5	624.2	805.1	1157.9	1726.0	3063.9	3249.7	3449.7	3611.0	3772.5
65°	319.8	326.4	362.9	462.4	743.6	1288.6	2503.4	2705.8	2921.3	3126.0	3293.8
67.5°	261.8	264.2	270.9	292.1	408.4	840.3	1863.2	2042.5	2237.0	2435.0	2621.8
70°	235.4	233.9	233.9	235.2	261.8	451.8	1219.9	1336.7	1498.7	1670.9	1841.7
72.5°	212.5	211.0	208.1	204.1	213.7	275.6	630.5	718.6	835.4	988.4	1152.0
75°	191.0	188.9	185.5	180.4	187.1	208.1	302.8	339.8	396.7	478.1	569.4
77.5°	168.7	166.0	162.8	159.1	167.6	161.8	177.4	190.8	212.5	238.7	273.0
80°	143.4	141.0	139.9	138.1	148.2	123.2	125.3	133.5	146.3	160.5	176.4
82.5°	112.3	112.3	116.5	117.4	128.5	88.6	93.7	100.9	107.5	114.9	122.4
85°	74.0	74.5	88.9	94.5	101.3	59.6	70.2	72.6	78.0	82.2	85.4
87.5°	23.1	25.0	54.3	60.1	58.2	33.8	43.1	44.2	47.9	50.8	53.5
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°	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8
2.5°	506.9	503.6	500.7	500.5	498.3	495.4	496.4	492.0	492.2	489.8	487.1
5°	596.0	593.8	583.2	580.3	572.3	567.2	566.5	555.8	554.5	548.4	541.7
7.5°	724.2	717.3	702.4	695.2	681.6	671.5	666.8	652.6	645.7	629.8	622.6
10°	858.6	849.8	831.4	821.3	808.3	792.0	783.3	762.8	754.8	740.2	722.7
12.5°	983.1	974.4	955.4	947.7	930.4	913.1	903.6	880.4	870.0	846.6	832.8
15°	1098.3	1089.5	1073.0	1065.0	1047.8	1033.6	1020.8	998.0	985.8	963.9	945.9
17.5°	1210.0	1200.7	1186.3	1179.2	1162.4	1148.1	1134.3	1112.6	1100.2	1078.4	1062.1
20°	1313.8	1306.9	1296.5	1286.9	1270.2	1257.1	1240.6	1222.0	1203.9	1187.9	1172.5
22.5°	1404.3	1401.6	1390.5	1386.2	1371.8	1360.6	1346.3	1327.9	1314.8	1294.6	1280.3
25°	1482.2	1481.5	1476.1	1474.7	1464.6	1454.0	1450.8	1435.7	1423.7	1405.8	1391.0
27.5°	1549.3	1550.0	1548.8	1552.5	1549.8	1545.0	1545.3	1540.3	1533.3	1518.4	1505.4
30°	1623.8	1619.5	1621.9	1627.2	1628.8	1629.4	1638.1	1641.0	1640.6	1630.7	1624.3
32.5°	1729.1	1719.0	1709.7	1708.9	1714.2	1716.3	1731.3	1739.0	1745.6	1748.0	1749.1
35°	1863.5	1843.3	1823.8	1813.5	1804.4	1806.8	1817.4	1830.0	1844.6	1854.7	1866.7
37.5°	2032.7	2008.0	1973.6	1949.2	1943.0	1929.8	1936.6	1946.5	1960.9	1976.6	1997.3
40°	2237.8	2200.3	2161.7	2129.3	2111.8	2087.2	2087.0	2085.1	2093.9	2108.5	2137.8
42.5°	2435.3	2402.0	2361.0	2327.0	2304.1	2271.4	2264.7	2247.4	2251.4	2264.2	2292.7
45°	2620.1	2592.7	2567.7	2528.4	2508.9	2473.6	2462.4	2441.9	2430.5	2436.3	2464.8
47.5°	2799.2	2781.7	2755.6	2730.1	2715.2	2683.5	2669.1	2654.5	2639.9	2639.3	2669.1
50°	3148.3	3139.0	3108.1	3081.5	3088.7	3049.9	3052.3	3012.9	3030.7	3032.8	3095.3
52.5°	3476.3	3508.8	3531.7	3559.6	3577.7	3581.2	3593.1	3611.0	3632.5	3675.1	3733.1
55°	3664.2	3704.9	3728.6	3749.9	3785.0	3792.4	3812.4	3836.1	3854.9	3902.8	3952.1
57.5°	3887.5	3963.0	3999.7	4033.5	4080.8	4098.9	4132.2	4158.0	4182.5	4239.2	4298.7
60°	4024.9	4117.1	4191.8	4245.2	4304.6	4347.2	4397.5	4437.9	4495.4	4563.2	4652.1
62.5°	3915.6	4050.8	4150.0	4241.8	4322.4	4403.9	4475.9	4551.5	4638.8	4741.4	4879.3
65°	3480.1	3617.6	3787.6	3882.9	3989.6	4115.2	4224.8	4347.2	4466.1	4615.6	4819.4
67.5°	2801.7	2961.5	3152.6	3248.6	3371.3	3511.5	3634.4	3783.9	3922.8	4104.0	4356.0
70°	2019.4	2226.1	2386.8	2487.1	2630.3	2774.7	2893.5	3067.4	3182.3	3368.0	3628.6
72.5°	1278.7	1441.8	1638.7	1765.0	1892.2	2038.6	2159.9	2309.9	2417.1	2586.4	2822.3
75°	687.5	807.7	980.7	1100.7	1236.9	1362.0	1504.0	1604.6	1683.9	1817.8	2009.3
77.5°	322.2	395.3	482.9	575.2	667.6	763.9	857.5	938.9	973.0	1049.6	1162.7
80°	195.6	219.3	244.8	273.2	311.8	342.9	384.2	414.0	416.1	440.3	474.9
82.5°	130.6	139.4	147.1	154.3	164.2	171.9	180.7	191.0	195.3	200.9	212.1
85°	89.1	93.4	94.9	99.5	98.4	101.1	104.6	108.1	109.9	109.6	114.7
87.5°	54.8	56.9	58.0	59.0	58.2	57.2	58.8	60.7	61.2	59.6	60.1
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°	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8
2.5°	487.7	485.3	482.9	481.3	480.7	466.7	460.5	456.6	448.1	441.1	435.5
5°	538.0	532.9	529.0	524.2	521.5	485.8	472.8	463.8	448.9	440.1	432.0
7.5°	618.9	604.7	596.5	587.2	579.2	514.8	493.3	479.2	458.4	446.7	437.6
10°	710.7	696.1	683.0	668.6	656.1	553.4	522.0	500.2	472.8	457.6	445.6
12.5°	813.1	798.7	782.2	763.9	747.9	602.4	558.7	527.6	490.1	469.9	453.1
15°	934.2	908.8	888.9	867.6	849.0	660.9	601.6	558.5	508.4	481.1	458.7
17.5°	1046.6	1020.0	993.0	974.4	952.8	726.6	644.7	589.8	523.6	488.2	459.7
20°	1156.6	1127.5	1104.2	1079.2	1056.5	794.7	690.7	617.5	533.5	488.5	453.1
22.5°	1253.4	1235.3	1209.2	1182.1	1159.2	862.8	733.8	641.0	537.2	482.4	441.4
25°	1363.5	1344.4	1312.5	1289.6	1264.1	932.3	776.1	659.0	535.0	471.0	423.3
27.5°	1481.1	1459.9	1427.2	1403.2	1372.4	1004.3	814.9	672.1	527.1	452.3	399.1
30°	1603.8	1584.4	1552.2	1528.0	1496.8	1080.7	858.3	680.8	511.1	426.5	370.9
32.5°	1735.5	1719.3	1687.4	1662.1	1628.8	1163.5	898.7	683.5	486.9	395.9	341.1
35°	1860.5	1849.4	1822.5	1798.8	1764.2	1241.7	941.6	682.2	458.2	362.4	314.0
37.5°	2001.3	1994.6	1981.4	1951.3	1909.0	1347.8	993.0	676.6	423.0	329.1	293.2
40°	2151.4	2151.9	2137.6	2117.1	2077.7	1476.6	1054.1	665.7	384.7	299.8	274.3
42.5°	2310.2	2318.5	2311.5	2296.9	2259.1	1606.5	1127.3	652.4	347.5	271.4	255.7
45°	2492.2	2502.3	2512.9	2491.4	2454.7	1777.8	1223.6	635.1	307.3	247.7	242.9
47.5°	2702.1	2718.1	2727.6	2727.9	2691.2	1990.1	1380.0	624.7	271.7	231.7	236.8
50°	3145.1	3150.2	3172.8	3212.2	3184.0	2481.5	1653.3	618.3	247.4	221.9	232.3
52.5°	3783.4	3839.0	3878.1	3875.5	3837.1	2793.6	1803.9	585.3	233.1	218.2	230.2
55°	4043.3	4112.8	4185.2	4204.3	4174.5	3060.0	1946.3	552.3	226.1	220.8	230.9
57.5°	4389.7	4506.8	4606.1	4647.8	4604.7	3400.8	2133.5	535.0	224.0	228.0	236.0
60°	4794.4	4939.2	5069.5	5144.5	5144.5	3792.4	2327.8	527.9	221.1	238.7	244.5
62.5°	5054.4	5266.9	5463.9	5573.7	5570.5	4065.1	2414.0	503.4	214.4	246.1	256.2
65°	5055.4	5308.2	5559.0	5682.6	5688.9	4031.7	2271.7	444.6	202.2	247.2	268.0
67.5°	4634.0	4903.5	5195.9	5334.0	5365.9	3711.3	1966.5	365.6	182.2	236.5	272.2
70°	3913.7	4176.9	4475.4	4611.1	4667.8	3163.7	1583.8	281.8	156.7	213.1	263.4
72.5°	3083.4	3341.4	3549.3	3648.5	3692.7	2418.2	1153.4	212.9	128.5	179.6	239.7
75°	2183.0	2376.7	2487.1	2509.2	2516.1	1457.8	700.8	158.3	105.9	139.7	202.4
77.5°	1232.1	1315.2	1306.1	1315.9	1234.0	562.7	305.2	113.3	87.3	106.2	157.0
80°	481.1	496.0	465.9	456.6	418.8	209.4	134.6	79.0	69.7	80.3	109.9
82.5°	212.1	218.9	212.5	214.2	204.9	108.1	80.6	57.2	53.2	58.8	72.9
85°	116.8	118.9	118.4	121.9	116.8	43.1	38.3	35.1	37.3	39.9	46.8
87.5°	56.9	57.5	55.6	58.6	56.7	21.8	18.9	20.0	21.8	22.3	22.3
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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CATALOG NUMBER: GLNA-AF-01-LED-E1-T2R-7027

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	456.8	456.8	456.8	456.8	456.8	456.8
2.5°	431.6	429.4	429.7	429.1	428.1	428.1
5°	427.9	425.7	425.7	425.2	423.8	424.1
7.5°	431.6	428.1	426.8	424.9	423.0	423.0
10°	435.8	429.7	426.0	422.8	420.4	420.4
12.5°	439.0	429.4	423.3	419.0	416.7	416.7
15°	440.1	427.5	419.0	414.0	411.8	411.6
17.5°	436.6	420.4	410.0	404.2	401.5	400.7
20°	426.0	407.3	394.9	388.2	384.5	383.1
22.5°	410.0	388.7	374.1	367.2	362.4	361.6
25°	387.7	364.8	350.4	343.7	341.1	340.3
27.5°	361.6	340.3	328.0	323.8	321.4	321.2
30°	336.9	318.7	309.7	306.5	303.6	303.1
32.5°	313.7	302.2	298.8	294.2	287.4	286.6
35°	297.2	296.1	293.8	283.6	275.1	272.7
37.5°	287.1	296.9	284.7	264.7	258.6	258.1
40°	281.2	288.7	267.6	260.8	261.2	260.8
42.5°	268.0	275.6	268.2	265.0	267.1	267.6
45°	254.6	263.1	272.2	270.1	275.1	275.1
47.5°	247.2	259.9	271.9	271.9	279.4	282.0
50°	238.7	257.3	267.6	271.4	277.3	275.1
52.5°	238.1	252.7	261.6	268.2	270.9	268.4
55°	238.9	249.0	255.4	262.9	266.1	266.3
57.5°	240.0	246.9	251.1	254.6	264.2	264.2
60°	242.6	245.1	247.4	249.3	261.8	262.0
62.5°	246.9	243.2	242.6	244.5	260.5	259.4
65°	253.6	240.5	236.5	238.4	259.1	256.0
67.5°	262.6	236.5	228.8	230.2	258.1	251.1
70°	270.9	230.2	219.3	217.9	248.0	235.8
72.5°	271.7	222.7	205.9	202.0	215.5	203.8
75°	258.3	217.6	191.3	179.6	178.0	176.4
77.5°	232.8	214.7	174.3	155.9	152.7	153.7
80°	194.8	203.8	153.7	132.0	149.3	147.4
82.5°	145.5	179.9	130.6	116.8	116.5	103.0
85°	80.9	140.3	106.4	87.5	60.9	59.0
87.5°	22.7	78.0	74.5	49.5	33.8	35.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)