

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: P301621

Luminaire Tested: **GLNA-AF-01-LED-E1-T2R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301621
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-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5055.8 lumens
Efficiency: N/A
Efficacy: 114.9 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

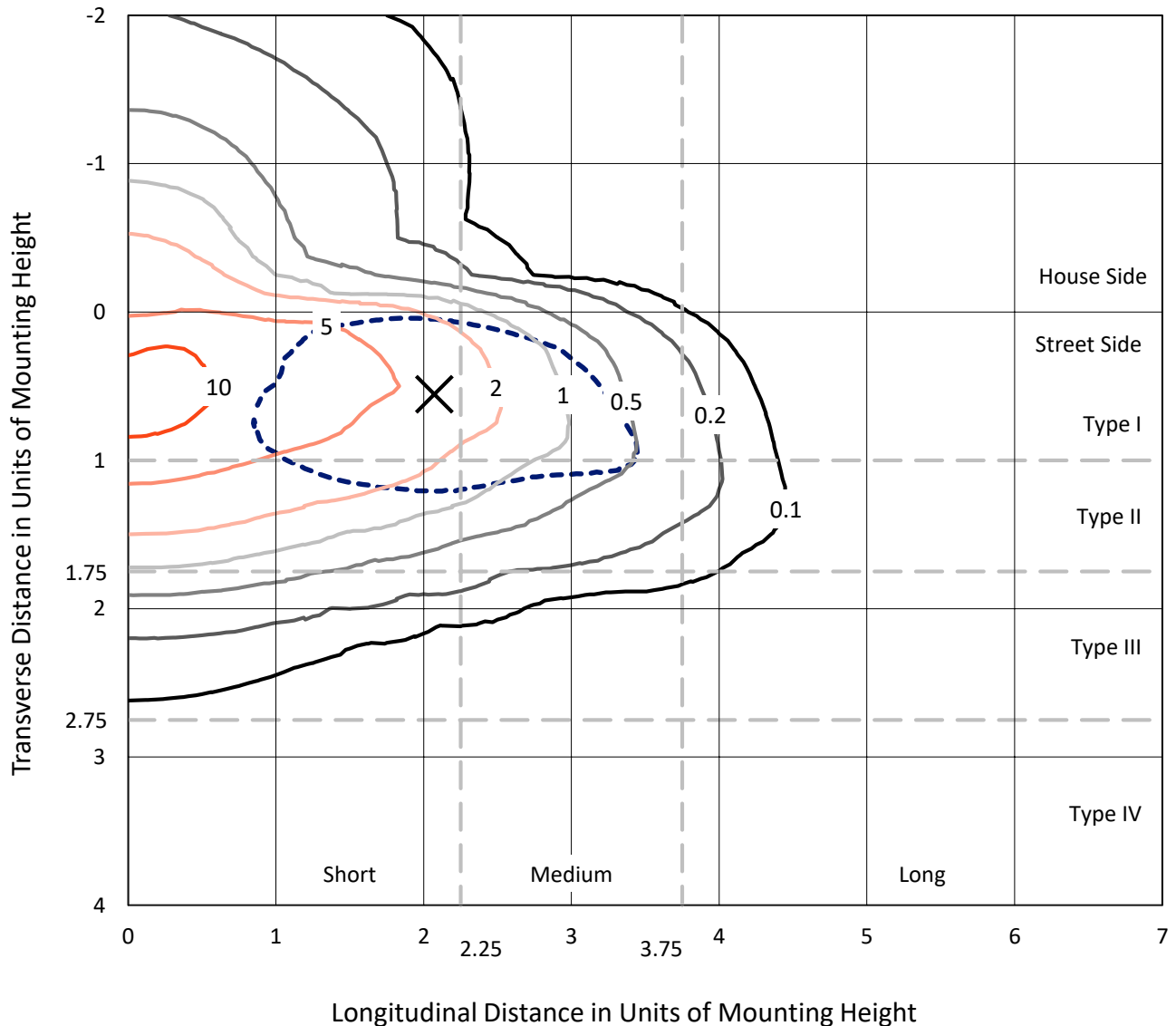
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

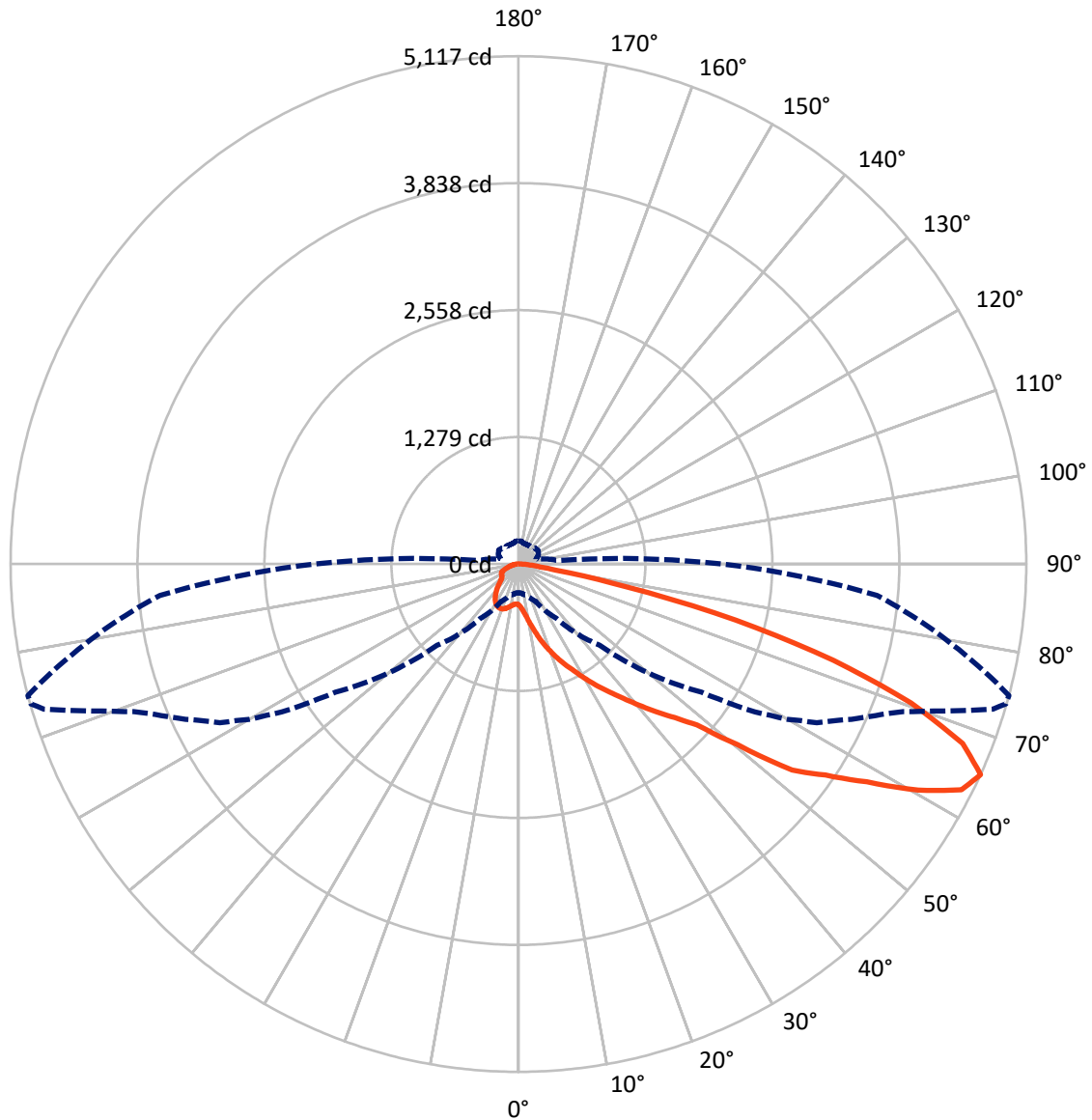
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.8 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	779.5	0.0	779.5
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	4276.3	0.0	4276.3
	% Fixture	84.6	0.0	84.6
Total	Lumens	5055.8	0.0	5055.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	1.0
10°-20°	198.4	3.9
20°-30°	407.1	8.1
30°-40°	685.0	13.5
40°-50°	946.4	18.7
50°-60°	1181.4	23.4
60°-70°	1063.1	21.0
70°-80°	445.7	8.8
80°-90°	77.9	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°	5055.8	100.0
0°-180°	5055.8	100.0

Coefficient of Utilization



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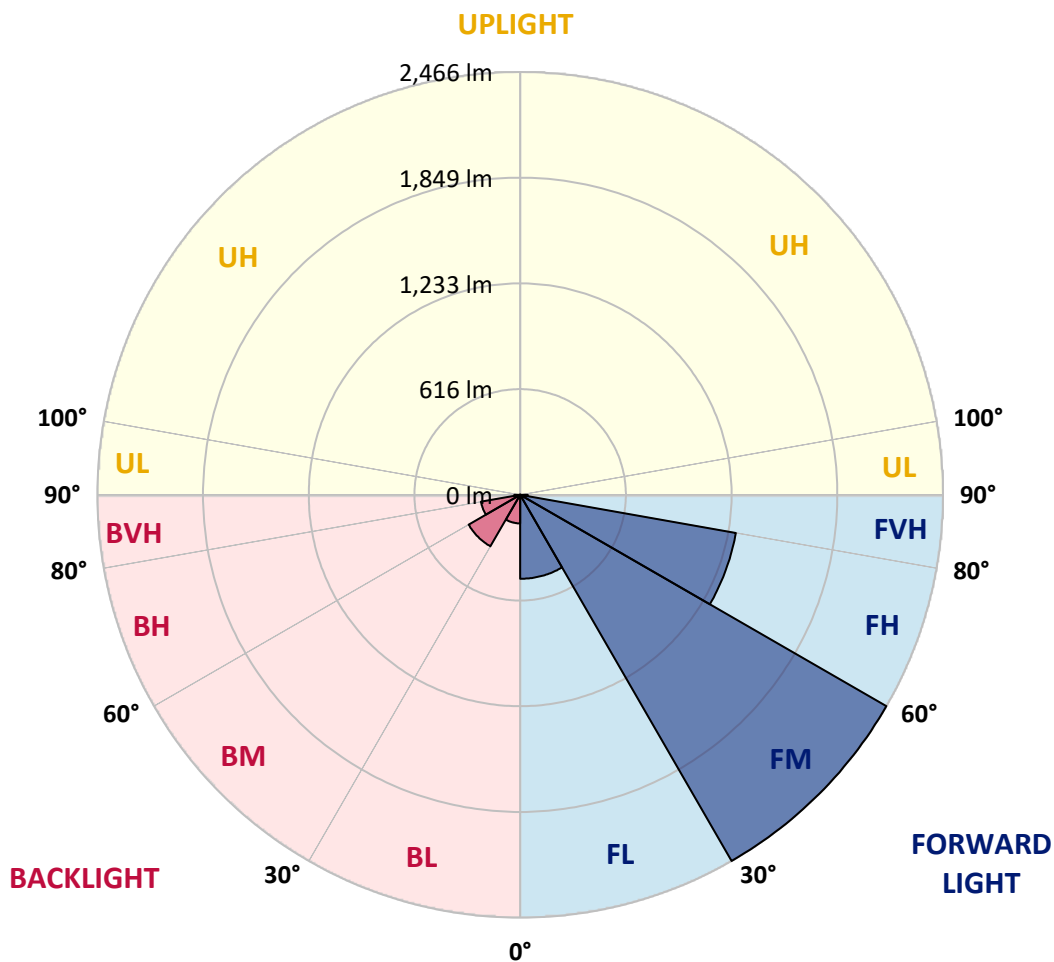
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	489.6	9.7			
FM	(30°-60°)	2465.8	48.8			
FH	(60°-80°)	1277.1	25.3			G1/1800
FVH	(80°-90°)	43.8	0.9			G1/100
BL	(0°-30°)	166.7	3.3	B1/500		
BM	(30°-60°)	347.0	6.9	B1/1000		
BH	(60°-80°)	231.7	4.6	B1/500		G1/500
BVH	(80°-90°)	34.1	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9
2.5°	521.7	515.9	517.4	507.8	496.1	480.7	463.8	463.6	463.8	462.1	455.9
5°	723.4	716.5	713.9	692.3	660.7	615.7	566.9	561.7	559.5	554.0	541.3
7.5°	870.6	866.8	862.6	846.4	817.7	767.5	701.9	690.6	679.9	677.2	662.9
10°	965.6	964.6	956.0	951.7	933.8	890.2	826.3	815.5	803.8	799.7	784.6
12.5°	1040.7	1040.5	1036.4	1037.6	1022.0	990.5	935.4	925.6	917.0	904.5	893.8
15°	1092.6	1092.9	1098.9	1105.6	1103.2	1081.9	1030.2	1025.8	1018.5	1009.9	997.2
17.5°	1135.2	1136.4	1142.6	1154.8	1168.0	1166.3	1125.4	1121.8	1115.4	1103.6	1097.0
20°	1231.4	1236.0	1224.0	1224.0	1225.5	1231.9	1212.3	1209.4	1200.3	1194.1	1188.8
22.5°	1393.9	1399.2	1372.1	1344.7	1317.6	1297.9	1278.3	1281.9	1275.7	1271.4	1268.3
25°	1605.0	1609.1	1565.3	1518.9	1463.8	1392.0	1343.4	1341.2	1337.9	1335.3	1333.9
27.5°	1803.6	1805.3	1763.9	1695.9	1632.0	1528.9	1409.5	1406.8	1402.8	1397.8	1393.4
30°	1973.5	1973.0	1930.4	1865.6	1797.1	1683.0	1509.8	1501.6	1489.6	1476.0	1465.5
32.5°	2120.7	2120.0	2073.3	2006.0	1934.3	1835.7	1647.1	1630.4	1611.7	1585.1	1569.1
35°	2236.5	2236.0	2192.0	2121.9	2039.6	1979.5	1804.6	1784.0	1760.3	1724.7	1700.0
37.5°	2280.3	2280.3	2255.6	2207.8	2135.0	2093.9	1979.5	1954.6	1929.2	1888.8	1861.0
40°	2254.6	2255.1	2260.4	2251.6	2216.2	2184.6	2142.7	2127.9	2106.1	2069.7	2040.8
42.5°	2168.8	2171.4	2206.4	2249.2	2266.9	2261.9	2287.4	2280.8	2265.4	2237.5	2214.5
45°	2059.9	2068.0	2106.3	2187.2	2281.0	2328.6	2408.8	2409.5	2406.6	2391.6	2373.8
47.5°	1910.4	1921.8	1972.3	2081.6	2248.0	2393.5	2532.0	2538.5	2544.5	2534.7	2526.5
50°	1711.7	1725.4	1801.0	1946.0	2180.7	2460.7	2764.8	2794.1	2821.3	2818.0	2823.5
52.5°	1499.0	1515.0	1607.6	1769.2	2065.2	2476.3	2913.7	2961.3	3009.0	3047.9	3089.3
55°	1307.0	1298.4	1391.1	1561.2	1875.1	2406.1	3047.5	3104.9	3158.0	3205.9	3255.2
57.5°	1046.9	1061.1	1153.9	1322.1	1623.6	2208.2	3139.6	3223.6	3299.9	3379.2	3449.0
60°	765.2	779.4	880.1	1051.0	1350.6	1908.2	3069.2	3196.6	3318.8	3440.1	3534.9
62.5°	462.1	472.6	561.4	724.1	1041.5	1552.4	2755.8	2922.8	3102.7	3247.8	3393.0
65°	287.6	293.6	326.4	415.9	668.8	1158.9	2251.6	2433.7	2627.5	2811.5	2962.5
67.5°	235.5	237.6	243.6	262.7	367.3	755.7	1675.8	1837.1	2012.0	2190.0	2358.1
70°	211.8	210.3	210.3	211.5	235.5	406.3	1097.2	1202.3	1348.0	1502.8	1656.4
72.5°	191.2	189.8	187.1	183.6	192.2	247.9	567.1	646.3	751.4	889.0	1036.1
75°	171.8	169.9	166.8	162.3	168.2	187.1	272.3	305.6	356.8	430.0	512.1
77.5°	151.7	149.3	146.4	143.1	150.8	145.5	159.6	171.6	191.2	214.7	245.5
80°	129.0	126.9	125.9	124.2	133.3	110.8	112.7	120.1	131.6	144.3	158.7
82.5°	101.0	101.0	104.8	105.6	115.6	79.7	84.3	90.7	96.7	103.4	110.1
85°	66.5	67.0	79.9	85.0	91.1	53.6	63.2	65.3	70.1	74.0	76.8
87.5°	20.8	22.5	48.8	54.1	52.4	30.4	38.8	39.8	43.1	45.7	48.1
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9
2.5°	455.9	453.0	450.3	450.1	448.2	445.6	446.5	442.5	442.7	440.6	438.1
5°	536.0	534.1	524.5	521.9	514.7	510.2	509.5	499.9	498.7	493.2	487.2
7.5°	651.4	645.1	631.7	625.3	613.1	604.0	599.7	587.0	580.8	566.4	560.0
10°	772.2	764.3	747.8	738.7	727.0	712.4	704.5	686.1	678.9	665.7	650.0
12.5°	884.2	876.3	859.3	852.4	836.8	821.3	812.7	791.9	782.5	761.4	749.0
15°	987.8	979.9	965.1	957.9	942.4	929.7	918.2	897.6	886.6	867.0	850.7
17.5°	1088.3	1079.9	1067.0	1060.6	1045.5	1032.6	1020.2	1000.7	989.5	969.9	955.3
20°	1181.7	1175.4	1166.1	1157.5	1142.4	1130.7	1115.9	1099.1	1082.8	1068.4	1054.6
22.5°	1263.0	1260.6	1250.6	1246.8	1233.8	1223.8	1210.8	1194.4	1182.6	1164.4	1151.5
25°	1333.2	1332.4	1327.6	1326.4	1317.3	1307.7	1304.9	1291.3	1280.5	1264.4	1251.1
27.5°	1393.4	1394.1	1393.0	1396.3	1393.9	1389.6	1389.9	1385.3	1379.1	1365.7	1354.0
30°	1460.4	1456.6	1458.8	1463.6	1465.0	1465.5	1473.4	1476.0	1475.6	1466.7	1460.9
32.5°	1555.2	1546.1	1537.7	1537.0	1541.8	1543.7	1557.1	1564.1	1570.0	1572.2	1573.2
35°	1676.0	1657.9	1640.4	1631.1	1622.9	1625.1	1634.6	1645.9	1659.1	1668.1	1678.9
37.5°	1828.2	1806.0	1775.1	1753.1	1747.6	1735.7	1741.8	1750.7	1763.6	1777.7	1796.4
40°	2012.7	1979.0	1944.3	1915.1	1899.4	1877.3	1877.1	1875.4	1883.3	1896.4	1922.8
42.5°	2190.3	2160.4	2123.5	2092.9	2072.3	2042.9	2036.9	2021.4	2024.9	2036.4	2062.1
45°	2356.6	2332.0	2309.4	2274.1	2256.6	2224.8	2214.7	2196.3	2186.0	2191.3	2216.9
47.5°	2517.7	2501.9	2478.4	2455.5	2442.1	2413.6	2400.7	2387.5	2374.3	2373.8	2400.7
50°	2831.6	2823.3	2795.5	2771.6	2778.0	2743.1	2745.2	2709.8	2725.9	2727.8	2784.0
52.5°	3126.7	3155.9	3176.5	3201.6	3217.9	3221.0	3231.7	3247.8	3267.1	3305.4	3357.6
55°	3295.6	3332.2	3353.5	3372.7	3404.3	3411.0	3428.9	3450.2	3467.2	3510.3	3554.6
57.5°	3496.4	3564.4	3597.4	3627.8	3670.4	3686.6	3716.6	3739.8	3761.8	3812.8	3866.4
60°	3620.1	3702.9	3770.2	3818.2	3871.6	3909.9	3955.2	3991.5	4043.2	4104.2	4184.2
62.5°	3521.8	3643.3	3732.6	3815.2	3887.7	3960.9	4025.7	4093.7	4172.2	4264.5	4388.5
65°	3130.1	3253.7	3406.6	3492.3	3588.3	3701.2	3799.8	3909.9	4016.8	4151.4	4334.7
67.5°	2519.9	2663.6	2835.5	2921.9	3032.2	3158.3	3268.9	3403.3	3528.2	3691.2	3917.8
70°	1816.3	2002.2	2146.7	2237.0	2365.7	2495.7	2602.4	2758.9	2862.2	3029.3	3263.6
72.5°	1150.1	1296.7	1473.9	1587.5	1701.9	1833.5	1942.7	2077.6	2174.0	2326.2	2538.5
75°	618.4	726.5	882.0	990.0	1112.5	1225.0	1352.7	1443.2	1514.5	1634.9	1807.2
77.5°	289.8	355.6	434.3	517.4	600.4	687.0	771.3	844.5	875.1	944.1	1045.7
80°	175.9	197.2	220.1	245.8	280.5	308.4	345.6	372.3	374.2	396.0	427.1
82.5°	117.5	125.4	132.3	138.8	147.7	154.6	162.5	171.8	175.6	180.7	190.7
85°	80.1	84.0	85.4	89.5	88.5	90.9	94.1	97.2	98.8	98.6	103.1
87.5°	49.3	51.2	52.2	53.1	52.4	51.5	52.9	54.6	55.0	53.6	54.1
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°	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9
2.5°	438.6	436.5	434.3	432.9	432.4	419.8	414.2	410.7	403.0	396.8	391.7
5°	483.9	479.3	475.8	471.4	469.0	436.9	425.2	417.1	403.7	395.8	388.6
7.5°	556.6	543.9	536.5	528.1	521.0	463.1	443.7	431.0	412.3	401.8	393.6
10°	639.2	626.0	614.3	601.3	590.1	497.8	469.5	449.9	425.2	411.6	400.8
12.5°	731.3	718.4	703.6	687.0	672.7	541.8	502.5	474.6	440.8	422.6	407.5
15°	840.2	817.4	799.5	780.4	763.6	594.5	541.1	502.3	457.3	432.7	412.6
17.5°	941.4	917.4	893.1	876.3	857.0	653.5	579.8	530.5	470.9	439.1	413.5
20°	1040.3	1014.1	993.1	970.6	950.2	714.8	621.2	555.4	479.8	439.3	407.5
22.5°	1127.4	1111.0	1087.6	1063.2	1042.6	776.0	660.0	576.5	483.1	433.9	397.0
25°	1226.4	1209.2	1180.5	1159.9	1136.9	838.5	698.0	592.7	481.2	423.6	380.7
27.5°	1332.2	1313.1	1283.6	1262.1	1234.3	903.3	732.9	604.5	474.1	406.8	358.9
30°	1442.5	1425.0	1396.0	1374.3	1346.3	972.0	772.0	612.3	459.7	383.6	333.6
32.5°	1561.0	1546.3	1517.7	1494.9	1465.0	1046.4	808.3	614.8	437.9	356.1	306.8
35°	1673.4	1663.4	1639.2	1617.9	1586.8	1116.8	846.9	613.5	412.1	325.9	282.4
37.5°	1800.0	1794.0	1782.1	1755.0	1717.0	1212.3	893.1	608.5	380.5	296.0	263.7
40°	1935.0	1935.5	1922.6	1904.1	1868.7	1328.1	948.1	598.7	346.0	269.7	246.7
42.5°	2077.8	2085.3	2079.0	2065.9	2031.9	1444.9	1013.9	586.8	312.6	244.1	230.0
45°	2241.5	2250.6	2260.2	2240.8	2207.8	1599.0	1100.5	571.2	276.4	222.8	218.5
47.5°	2430.3	2444.7	2453.3	2453.6	2420.5	1790.0	1241.2	561.9	244.3	208.4	213.0
50°	2828.7	2833.3	2853.6	2889.1	2863.7	2231.9	1487.0	556.1	222.5	199.5	208.9
52.5°	3402.8	3452.9	3488.1	3485.6	3451.1	2512.6	1622.4	526.4	209.6	196.2	207.0
55°	3636.6	3699.1	3764.2	3781.4	3754.6	2752.2	1750.5	496.8	203.4	198.6	207.7
57.5°	3948.2	4053.5	4142.8	4180.3	4141.6	3058.7	1918.9	481.2	201.5	205.1	212.3
60°	4312.2	4442.4	4559.6	4627.1	4627.1	3411.0	2093.6	474.8	198.8	214.7	219.9
62.5°	4546.0	4737.2	4914.3	5013.1	5010.2	3656.2	2171.2	452.8	192.9	221.3	230.4
65°	4546.9	4774.3	4999.9	5111.0	5116.7	3626.1	2043.2	399.9	181.9	222.3	241.0
67.5°	4167.9	4410.3	4673.3	4797.5	4826.2	3338.0	1768.7	328.8	163.9	212.8	244.8
70°	3520.1	3756.8	4025.2	4147.3	4198.3	2845.5	1424.5	253.4	141.0	191.7	236.9
72.5°	2773.2	3005.3	3192.3	3281.5	3321.2	2175.0	1037.3	191.5	115.6	161.5	215.6
75°	1963.5	2137.7	2237.0	2256.8	2263.0	1311.1	630.3	142.4	95.3	125.6	182.1
77.5°	1108.2	1182.9	1174.7	1183.6	1109.9	506.1	274.5	101.9	78.5	95.5	141.2
80°	432.7	446.1	419.0	410.7	376.7	188.3	121.1	71.1	62.7	72.3	98.8
82.5°	190.7	196.9	191.2	192.7	184.3	97.2	72.5	51.5	47.8	52.9	65.6
85°	105.1	107.0	106.5	109.6	105.1	38.8	34.4	31.6	33.5	35.9	42.1
87.5°	51.2	51.7	50.0	52.7	51.0	19.6	17.0	18.0	19.6	20.1	20.1
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: P301621

CATALOG NUMBER: GLNA-AF-01-LED-E1-T2R-7030-800

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	410.9	410.9	410.9	410.9	410.9	410.9
2.5°	388.2	386.2	386.5	386.0	385.0	385.0
5°	384.8	382.9	382.9	382.4	381.2	381.4
7.5°	388.2	385.0	383.8	382.1	380.5	380.5
10°	392.0	386.5	383.1	380.3	378.1	378.1
12.5°	394.8	386.2	380.7	376.9	374.7	374.7
15°	395.8	384.5	376.9	372.3	370.4	370.2
17.5°	392.7	378.1	368.8	363.5	361.1	360.4
20°	383.1	366.4	355.2	349.1	345.8	344.6
22.5°	368.8	349.6	336.5	330.2	325.9	325.2
25°	348.7	328.1	315.2	309.2	306.8	306.0
27.5°	325.2	306.0	295.0	291.2	289.1	288.8
30°	303.0	286.6	278.6	275.6	273.0	272.6
32.5°	282.1	271.8	268.8	264.6	258.5	257.8
35°	267.3	266.3	264.2	255.1	247.5	245.3
37.5°	258.2	267.1	256.1	238.1	232.6	232.1
40°	252.9	259.7	240.7	234.5	235.0	234.5
42.5°	241.0	247.9	241.2	238.4	240.2	240.7
45°	229.0	236.7	244.8	242.9	247.5	247.5
47.5°	222.3	233.8	244.6	244.6	251.3	253.6
50°	214.7	231.4	240.7	244.1	249.4	247.5
52.5°	214.2	227.3	235.3	241.2	243.6	241.4
55°	214.9	224.0	229.7	236.5	239.3	239.5
57.5°	215.9	222.1	225.9	229.0	237.6	237.6
60°	218.2	220.4	222.5	224.3	235.5	235.7
62.5°	222.1	218.7	218.2	219.9	234.3	233.3
65°	228.1	216.3	212.8	214.4	233.1	230.2
67.5°	236.2	212.8	205.8	207.0	232.1	225.9
70°	243.6	207.0	197.2	196.0	223.0	212.0
72.5°	244.3	200.3	185.2	181.7	193.9	183.3
75°	232.3	195.7	172.1	161.5	160.1	158.7
77.5°	209.4	193.1	156.7	140.2	137.4	138.3
80°	175.2	183.3	138.3	118.7	134.2	132.6
82.5°	130.9	161.8	117.5	105.1	104.8	92.6
85°	72.8	126.1	95.7	78.7	54.8	53.1
87.5°	20.4	70.1	67.0	44.5	30.4	31.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)