

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: P298955

Luminaire Tested: **GLNA-AF-07-LED-E1-SLL-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298955
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-07-LED-E1-SLL-7050-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29794.1 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

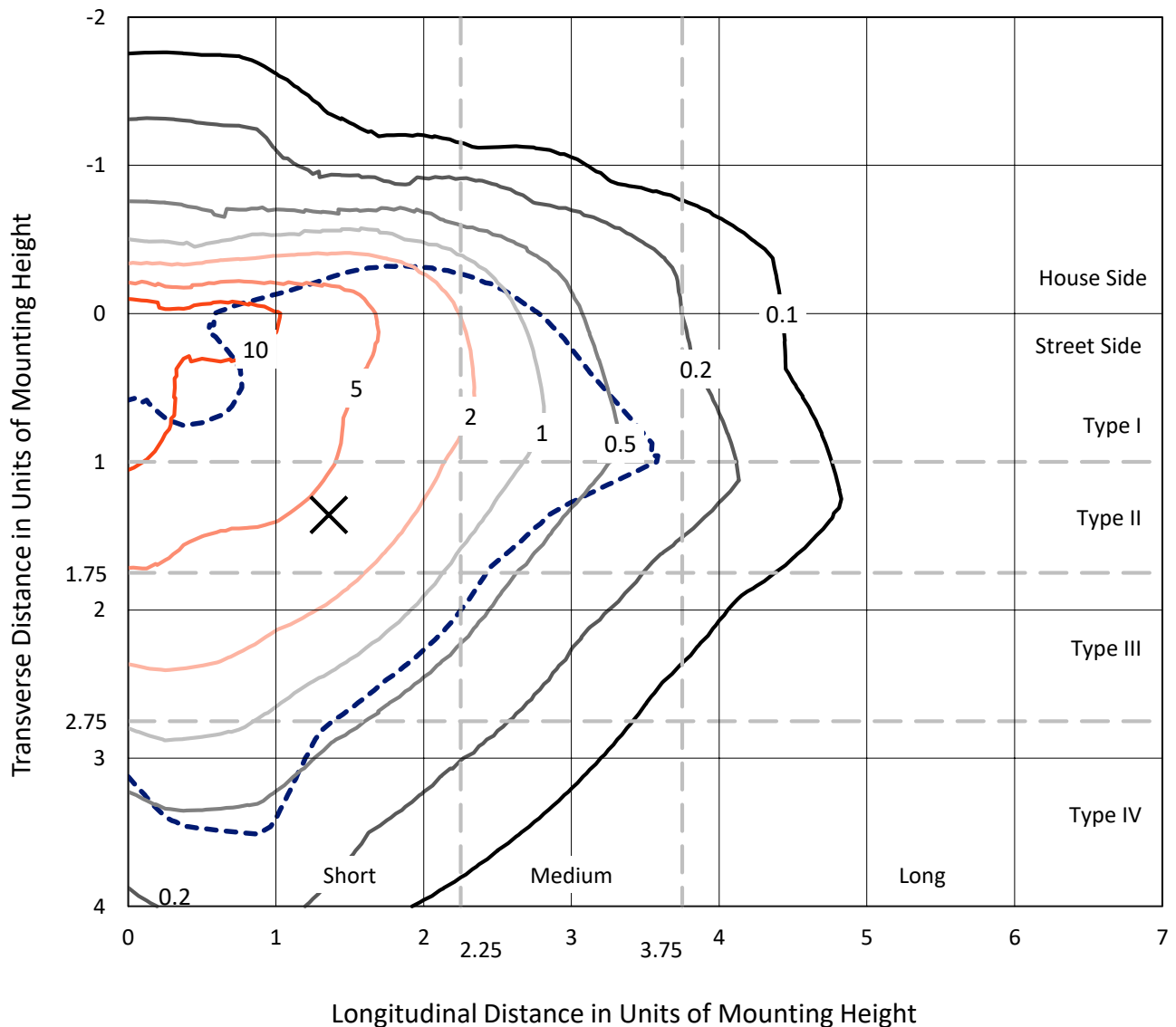
Input Watts (W): 295
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

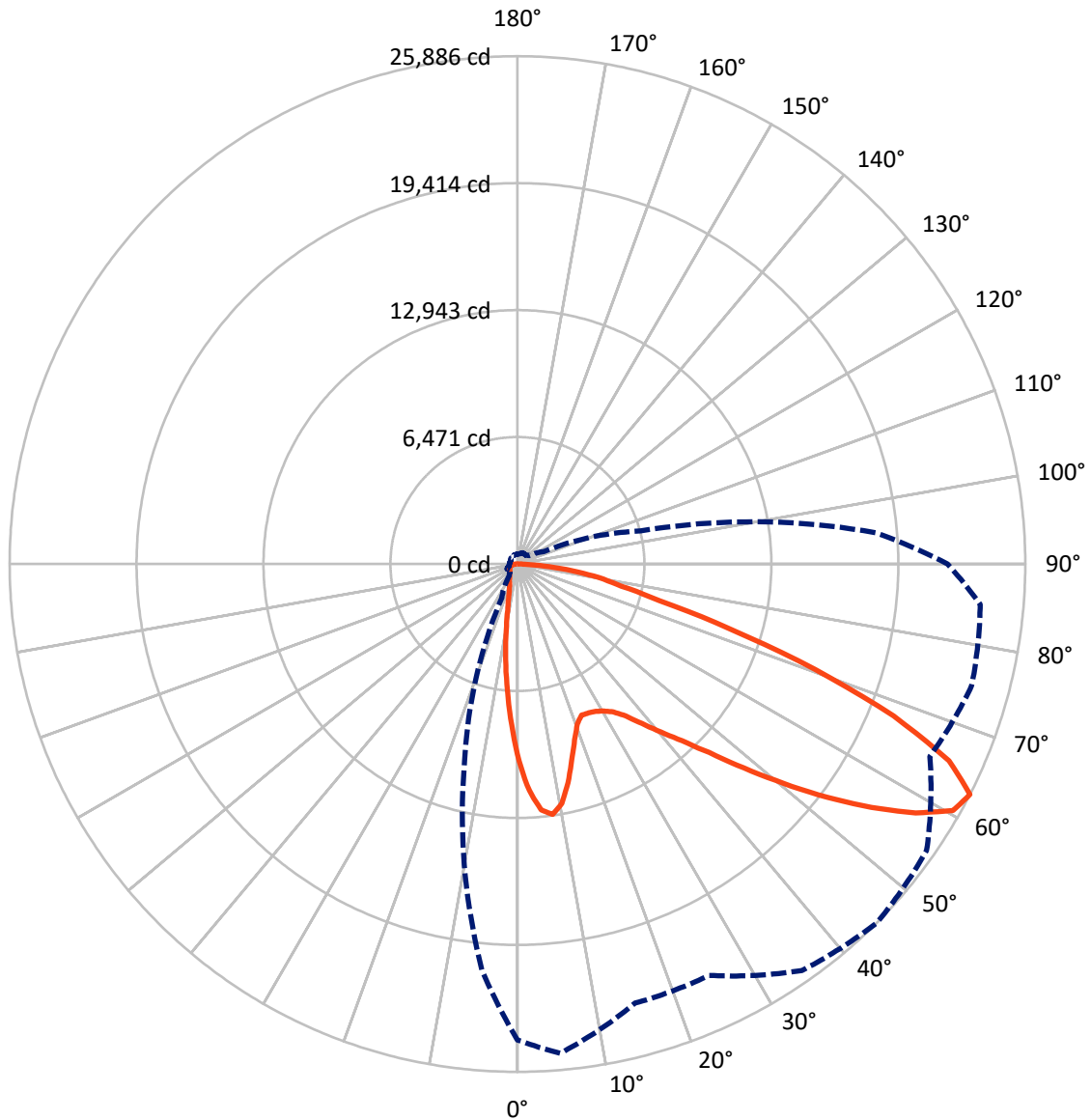
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 19 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	4930.5	0.0	4930.5
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	24863.6	0.0	24863.6
	% Fixture	83.5	0.0	83.5
Total	Lumens	29794.1	0.0	29794.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	732.8	2.5
10°-20°	1343.7	4.5
20°-30°	1959.1	6.6
30°-40°	3017.3	10.1
40°-50°	4440.6	14.9
50°-60°	6513.5	21.9
60°-70°	7281.1	24.4
70°-80°	3564.7	12.0
80°-90°	941.2	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°	29794.1	100.0
0°-180°	29794.1	100.0



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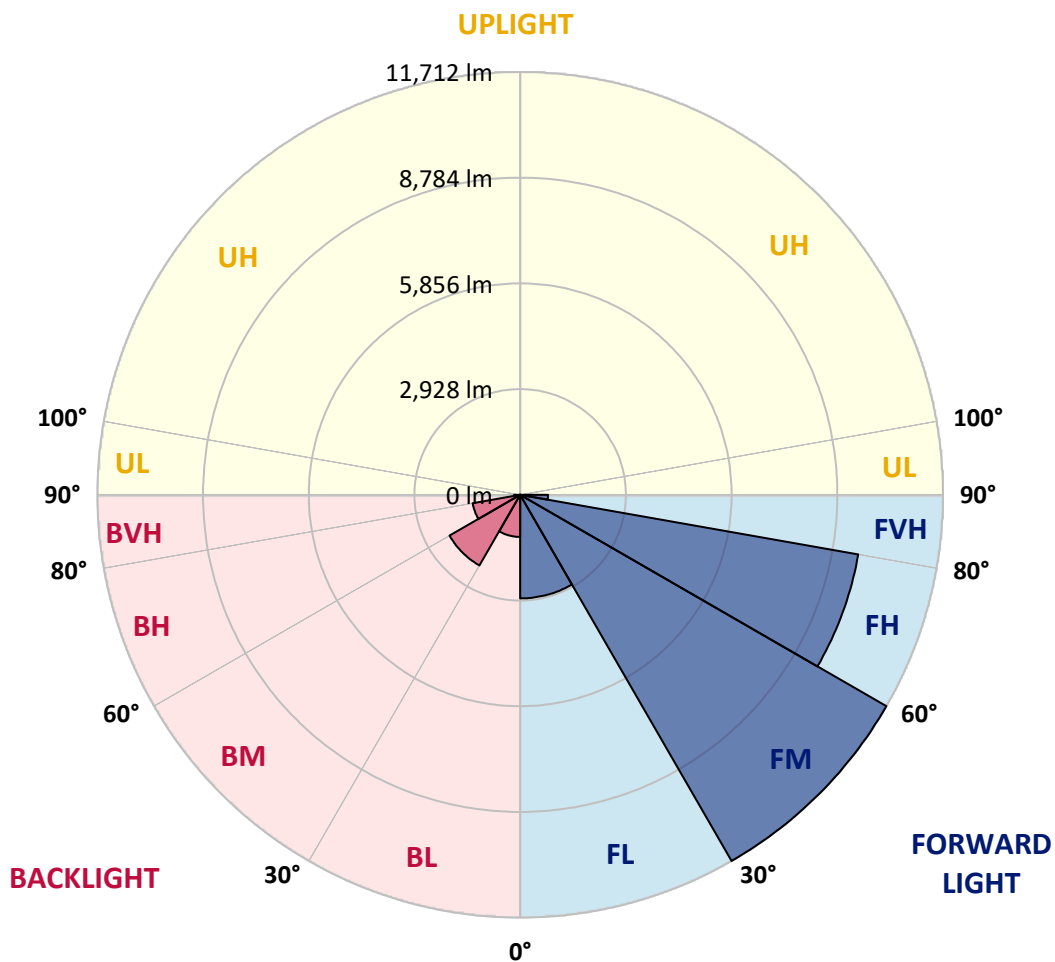
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2869.1	9.6			
FM	(30°-60°)	11712.3	39.3			
FH	(60°-80°)	9509.2	31.9			G4/12000
FVH	(80°-90°)	772.9	2.6			G5
BL	(0°-30°)	1166.5	3.9	B3/2500		
BM	(30°-60°)	2259.1	7.6	B2/2500		
BH	(60°-80°)	1336.6	4.5	B3/2500		G3/2500
BVH	(80°-90°)	168.3	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4
2.5°	10458.8	10626.2	10952.2	11195.7	11492.9	11561.5	11656.6	11563.1	11397.7	11178.1	11106.3
5°	9835.1	10192.4	10983.0	11679.5	12298.4	12586.6	12667.4	12429.2	11949.6	11319.0	10934.1
7.5°	8834.5	9342.2	10413.0	11438.6	12350.5	12889.6	12876.3	12324.4	11441.8	10414.6	9797.3
10°	7971.0	8551.1	9779.8	10926.1	11893.8	12416.4	12214.4	11509.4	10455.6	9273.1	8603.7
12.5°	7488.2	8056.6	9302.9	10454.0	11263.2	11443.4	11289.2	10598.1	9605.4	8410.2	7823.7
15°	7404.2	8029.0	9113.1	10049.9	10503.4	10346.6	10162.6	9853.2	9151.9	8131.6	7520.7
17.5°	7766.8	8454.3	9331.1	9768.1	9691.0	9417.2	9365.1	9399.6	9231.1	8441.0	7737.1
20°	8461.2	9286.4	9850.0	9635.7	9073.7	8696.8	8710.0	9235.9	9735.1	9225.8	8421.3
22.5°	9435.3	10377.4	10598.1	9705.9	8813.2	8366.0	8474.5	9326.3	10539.6	10372.6	9345.4
25°	10696.4	11555.1	11396.1	9961.1	8839.2	8407.0	8493.6	9637.3	11489.2	11518.9	10489.1
27.5°	11918.2	12714.7	12065.5	10300.3	8947.7	8503.8	8618.6	10126.4	12396.7	12763.6	11795.9
30°	12871.5	13425.5	12330.8	10609.7	9160.4	8692.0	8834.5	10591.7	12809.9	13603.7	12801.4
32.5°	13661.1	14058.8	12753.5	10993.1	9551.7	8988.1	9239.1	11156.9	13404.3	14403.3	13785.5
35°	14669.7	14782.9	13279.3	11420.6	10156.2	9504.4	9815.4	11710.3	13971.1	15210.4	14755.3
37.5°	15852.7	15707.0	13775.4	12005.4	10937.8	10311.5	10568.8	12318.0	14437.3	16126.0	15745.8
40°	17021.9	16670.9	14398.5	12912.5	12077.7	11263.2	11567.8	12966.7	14873.3	17043.1	16714.0
42.5°	18016.1	17496.6	15012.1	13909.9	13138.4	12313.3	12676.9	13620.1	15289.1	17825.8	17554.1
45°	18751.4	18106.0	15596.9	14868.0	14601.1	13708.4	13880.7	14368.2	15739.4	18479.7	18245.3
47.5°	19408.1	18718.5	16258.4	15834.6	15880.3	15523.0	15246.0	15239.7	16270.6	19013.5	18898.7
50°	20287.5	19568.6	16969.2	16829.9	17799.7	17562.0	16951.1	16256.8	16941.6	19619.7	19606.4
52.5°	21499.7	20915.4	17837.5	17902.9	19592.0	19747.3	18990.1	17479.1	17992.7	20731.4	20653.3
55°	22933.1	22591.8	19020.5	19136.4	21789.5	21901.1	21148.8	19006.6	19539.4	22341.9	22123.9
57.5°	24051.2	23979.5	20317.2	20617.1	23430.8	23932.2	23241.0	20776.1	21281.7	23697.7	23150.6
60°	24496.8	24845.6	21698.0	22110.6	24949.3	25503.8	24898.2	22329.7	22826.2	24259.7	23080.4
62.5°	24256.5	25035.4	23168.7	23134.1	25287.9	25885.6	25459.7	23194.7	23971.5	23679.6	21912.8
65°	23144.2	24352.7	24022.0	22870.4	24128.3	24177.3	24039.6	22808.2	24241.6	21846.9	19655.3
67.5°	20721.3	22461.0	22898.0	20610.7	20999.9	20680.9	20449.6	20692.1	22832.6	19100.2	16518.9
70°	16877.8	19495.2	19704.2	16484.9	16307.8	16093.0	15633.1	16964.4	20053.5	15654.4	13107.6
72.5°	12410.0	15161.5	15804.8	12090.5	11271.7	11315.3	10952.2	12784.3	16304.6	11628.5	9786.2
75°	8490.5	10978.2	12365.9	8436.2	7454.2	7471.8	7425.5	9058.8	12986.4	8089.0	7322.9
77.5°	6202.6	7843.4	9326.3	5671.5	5506.1	5404.6	5380.1	6338.2	9956.3	5873.5	5686.4
80°	4977.1	5794.8	6264.3	3930.7	4226.9	4218.9	4082.8	4358.2	6502.0	4296.0	4252.9
82.5°	3452.8	4453.4	5075.5	3080.6	2853.0	2805.2	2838.7	3245.9	4595.9	2936.5	2792.4
85°	1821.5	2957.8	5026.5	2730.2	1693.4	1351.0	1680.7	2657.9	3981.8	1556.2	1362.2
87.5°	232.9	854.9	3327.8	1089.4	668.3	359.9	798.1	1496.7	2556.9	317.4	277.0
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°	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4
2.5°	10921.3	10703.3	10418.3	10154.1	9880.8	9608.6	9253.4	9030.6	8877.0	8847.2	8782.4
5°	10656.0	9931.9	9384.8	8911.6	8482.5	7875.8	7540.3	7261.7	7112.9	7098.5	7062.4
7.5°	9432.1	8433.0	7694.5	7024.6	6416.9	5927.2	5386.5	5135.0	5031.3	5055.8	5080.2
10°	8159.2	7042.7	6194.1	5509.3	4973.9	4561.3	4127.5	3834.5	3630.9	3589.9	3582.0
12.5°	7229.3	6004.3	5180.7	4696.9	4283.2	3894.6	3434.7	3088.6	2825.4	2735.0	2674.9
15°	6835.9	5496.5	4633.6	4112.6	3655.3	3162.5	2735.0	2372.9	2131.0	2052.3	2008.2
17.5°	6919.9	5355.7	4256.7	3589.9	3005.6	2490.9	1952.3	1642.4	1496.7	1459.5	1459.5
20°	7359.0	5329.6	3945.1	3108.8	2379.3	1783.3	1341.4	1164.4	1117.1	1112.3	1125.0
22.5°	7974.7	5421.6	3713.3	2691.4	1849.2	1302.1	1044.8	979.4	958.1	963.4	977.8
25°	8891.9	5731.0	3544.7	2319.2	1451.0	1066.0	931.5	892.7	882.6	895.9	914.0
27.5°	9979.2	6040.5	3439.5	2039.0	1225.0	974.6	885.8	845.4	851.8	868.2	884.2
30°	10934.1	6294.6	3274.1	1839.6	1154.8	979.4	885.8	830.5	824.1	827.3	832.1
32.5°	11791.2	6466.3	3080.6	1649.3	995.8	869.8	827.3	819.3	782.6	769.3	771.5
35°	12529.7	6466.3	2964.7	1538.2	892.7	771.5	702.9	661.9	643.3	644.9	663.5
37.5°	13242.1	6336.6	2907.2	1475.4	836.9	733.7	673.1	637.0	612.5	607.7	610.9
40°	13870.6	6148.4	2841.8	1449.4	794.3	710.9	654.0	623.7	597.6	589.6	591.2
42.5°	14375.1	5995.8	2769.5	1415.3	767.8	694.4	640.1	614.1	584.9	576.3	574.8
45°	14920.6	5945.3	2674.9	1346.2	781.0	696.0	637.0	609.3	579.5	570.0	566.8
47.5°	15639.5	6104.3	2576.5	1264.3	809.2	704.5	641.7	609.3	577.9	570.0	566.8
50°	16544.9	6477.5	2451.6	1144.7	781.0	727.3	640.1	604.0	577.9	570.0	563.6
52.5°	17708.3	6982.1	2288.4	1007.5	764.6	782.6	637.0	594.4	570.0	558.8	547.1
55°	19121.5	7394.7	2092.7	894.3	727.3	767.8	632.2	583.3	557.2	540.7	530.6
57.5°	20156.7	7543.5	1842.8	820.9	674.7	743.3	625.3	568.4	540.7	527.4	514.7
60°	19952.0	7255.4	1631.2	774.7	643.3	671.5	620.5	555.1	525.8	516.3	504.0
62.5°	18312.8	6502.0	1495.1	753.4	623.7	612.5	625.3	542.3	513.1	502.4	499.3
65°	15854.3	5389.7	1441.4	748.6	607.7	577.9	581.7	527.4	497.7	489.7	486.5
67.5°	13077.8	4350.2	1394.1	764.6	586.4	553.5	537.5	507.8	482.8	474.8	468.4
70°	10313.1	3618.1	1372.3	755.0	560.4	529.0	511.5	486.5	465.2	456.7	451.9
72.5°	8304.9	3056.1	1360.6	744.9	525.8	496.1	479.6	458.3	435.4	432.3	427.5
75°	7028.3	2402.7	1246.8	714.1	486.5	456.7	445.6	425.9	403.0	403.0	399.8
77.5°	5421.6	1737.5	1036.8	632.2	445.6	412.6	403.0	388.1	362.1	366.9	365.3
80°	4004.6	1133.5	810.8	524.2	395.0	363.7	358.4	344.0	315.8	322.7	322.7
82.5°	2743.5	743.3	583.3	429.1	337.1	307.8	307.8	293.0	262.1	265.3	275.4
85°	1377.6	511.5	435.4	332.3	262.1	247.2	247.2	236.1	204.7	206.3	219.6
87.5°	419.5	307.8	288.2	237.7	188.2	185.0	176.5	168.5	148.9	147.3	155.8
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4
2.5°	8681.9	8588.3	8476.1	8226.7	8143.3	8138.0	8214.0	8134.8	8285.8	8222.0	8292.1
5°	7001.2	6910.3	6783.8	6466.3	6272.8	6141.5	6079.8	5896.4	6028.8	5932.0	6012.8
7.5°	5149.4	5170.6	5087.2	4900.5	4479.4	4268.4	4143.9	4032.3	4129.1	4119.0	4273.1
10°	3619.7	3676.6	3618.1	3429.9	3088.6	2972.6	2995.5	3039.6	3166.2	3231.0	3468.7
12.5°	2605.8	2602.6	2564.8	2396.3	2171.9	2184.7	2278.3	2354.8	2471.3	2540.4	2782.3
15°	1945.4	1916.2	1899.7	1762.0	1634.4	1662.6	1708.3	1716.3	1790.2	1831.1	2027.8
17.5°	1470.6	1485.5	1503.1	1405.2	1308.5	1290.4	1254.8	1210.1	1231.9	1239.9	1337.7
20°	1167.6	1226.6	1271.3	1202.1	1104.3	1051.1	1005.4	976.2	976.2	974.6	1002.2
22.5°	1020.3	1062.8	1110.7	1062.8	974.6	928.3	902.3	879.4	876.2	876.2	902.3
25°	940.5	971.4	1017.1	984.7	918.7	884.2	859.7	830.5	819.3	815.6	833.7
27.5°	900.7	914.0	936.8	907.1	851.8	835.3	828.9	802.8	787.4	779.4	798.1
30°	833.7	830.5	832.1	802.8	758.2	756.6	767.8	773.1	767.8	766.2	794.3
32.5°	771.5	764.6	763.0	736.9	696.0	686.4	696.0	706.1	717.2	733.7	766.2
35°	692.8	709.3	718.8	696.0	646.5	617.3	606.1	588.0	577.9	577.9	615.7
37.5°	630.6	668.3	683.2	661.9	607.7	566.8	547.1	543.9	545.5	551.9	588.0
40°	609.3	637.0	649.7	629.0	574.8	537.5	525.8	522.6	525.8	535.9	571.6
42.5°	596.0	615.7	614.1	588.0	543.9	517.9	511.5	507.8	511.5	521.1	560.4
45°	584.9	597.6	584.9	553.5	513.1	499.3	500.8	499.3	502.4	513.1	550.3
47.5°	574.8	579.5	563.6	532.2	489.7	486.5	492.9	497.7	500.8	509.9	548.7
50°	560.4	560.4	545.5	513.1	470.0	471.6	479.6	491.3	492.9	502.4	534.3
52.5°	542.3	540.7	530.6	499.3	453.5	458.3	458.3	471.6	474.8	486.5	519.5
55°	527.4	524.2	519.5	489.7	439.2	447.1	442.4	447.1	455.1	466.8	502.4
57.5°	514.7	507.8	507.8	481.2	427.5	430.7	419.5	425.9	435.4	445.6	482.8
60°	500.8	494.5	497.7	470.0	409.4	406.2	401.4	414.2	417.9	429.1	466.8
62.5°	486.5	481.2	482.8	456.7	396.6	388.1	388.1	399.8	401.4	417.9	453.5
65°	474.8	468.4	466.8	444.0	381.7	372.2	377.0	381.7	384.9	401.4	435.4
67.5°	463.6	450.3	450.3	432.3	365.3	355.2	365.3	363.7	369.0	383.3	411.0
70°	448.7	430.7	432.3	424.3	348.8	337.1	345.6	344.0	347.2	356.8	384.9
72.5°	425.9	411.0	414.2	411.0	332.3	315.8	319.0	319.0	319.0	327.5	356.8
75°	396.6	384.9	395.0	403.0	312.6	289.8	293.0	293.0	288.2	293.0	329.1
77.5°	359.9	353.6	386.5	375.4	289.8	262.1	262.1	258.9	249.4	255.7	294.6
80°	321.1	315.8	356.8	314.2	263.7	228.1	224.4	215.9	206.3	211.1	251.0
82.5°	280.2	275.4	299.9	240.9	228.1	188.2	180.2	165.4	155.8	160.6	196.2
85°	229.7	229.7	231.3	181.8	173.3	144.1	134.5	114.8	103.1	106.3	140.9
87.5°	163.8	168.5	155.8	124.4	103.1	80.3	73.9	62.2	52.1	60.6	73.9
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: P298955

CATALOG NUMBER: GLNA-AF-07-LED-E1-SLL-7050-800

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4	10066.4
2.5°	8652.6	8832.9	9037.6	9299.1	9524.1	9892.0	10246.1	10458.8
5°	6469.5	6769.4	7142.1	7622.8	8069.9	8740.9	9407.6	9835.1
7.5°	4629.9	4951.0	5354.1	5953.3	6586.0	7442.0	8323.5	8834.5
10°	3831.3	4160.4	4499.1	4903.7	5421.6	6353.1	7394.7	7971.0
12.5°	3169.4	3521.3	3886.6	4312.5	4792.1	5624.2	6824.7	7488.2
15°	2425.5	2818.5	3249.1	3788.2	4389.0	5350.9	6683.8	7404.2
17.5°	1662.6	2101.7	2630.2	3295.4	4030.7	5262.1	6936.3	7766.8
20°	1144.7	1464.3	2029.4	2808.9	3693.6	5250.9	7420.7	8461.2
22.5°	958.1	1100.6	1513.2	2361.7	3439.5	5391.8	8173.0	9435.3
25°	885.8	971.4	1208.5	1973.6	3254.4	5716.1	9208.2	10696.4
27.5°	843.8	920.3	1097.4	1720.0	3108.8	6092.6	10215.2	11918.2
30°	859.7	938.4	1066.0	1590.3	2910.4	6406.8	11109.5	12871.5
32.5°	774.7	809.2	914.0	1475.4	2767.9	6670.5	11892.2	13661.1
35°	660.4	720.4	815.6	1421.7	2771.1	6847.6	12745.5	14669.7
37.5°	629.0	689.6	758.2	1402.1	2808.9	7036.3	13724.9	15852.7
40°	609.3	665.1	724.2	1390.9	2845.0	7208.0	14685.1	17021.9
42.5°	596.0	646.5	720.4	1351.0	2863.1	7362.2	15474.1	18016.1
45°	594.4	646.5	733.7	1311.7	2890.8	7527.6	16136.1	18751.4
47.5°	596.0	668.3	709.3	1264.3	2890.8	7804.1	16912.3	19408.1
50°	589.6	704.5	683.2	1197.4	2823.8	8328.3	17976.8	20287.5
52.5°	586.4	699.7	632.2	1094.2	2707.3	9160.4	19341.1	21499.7
55°	577.9	674.7	596.0	940.5	2571.8	10068.0	20802.1	22933.1
57.5°	570.0	597.6	576.3	806.0	2361.7	10706.5	21807.5	24051.2
60°	638.6	522.6	560.4	740.1	2081.5	10881.4	21768.7	24496.8
62.5°	591.2	489.7	539.1	725.7	1885.4	10390.2	20762.8	24256.5
65°	463.6	468.4	517.9	767.8	1832.7	9088.6	18980.6	23144.2
67.5°	424.3	447.1	496.1	822.5	1838.0	7276.6	16317.9	20721.3
70°	399.8	424.3	471.6	850.2	1850.8	5424.8	12900.8	16877.8
72.5°	372.2	393.4	444.0	854.9	1765.2	3940.3	9943.6	12410.0
75°	338.7	358.4	404.6	744.9	1462.7	2733.4	7606.3	8490.5
77.5°	301.5	315.8	355.2	574.8	1086.2	1749.2	5709.2	6202.6
80°	257.3	265.3	298.3	421.1	743.3	1094.2	4517.2	4977.1
82.5°	206.3	209.5	231.3	315.8	482.8	702.9	3025.3	3452.8
85°	145.7	145.7	159.0	229.7	329.1	445.6	1642.4	1821.5
87.5°	68.6	70.2	70.2	126.0	171.7	226.5	378.6	232.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)