

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: P298948

Luminaire Tested: **GLNA-AF-06-LED-E1-SLL-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298948
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-06-LED-E1-SLL-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 4000K 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: 25193.4 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

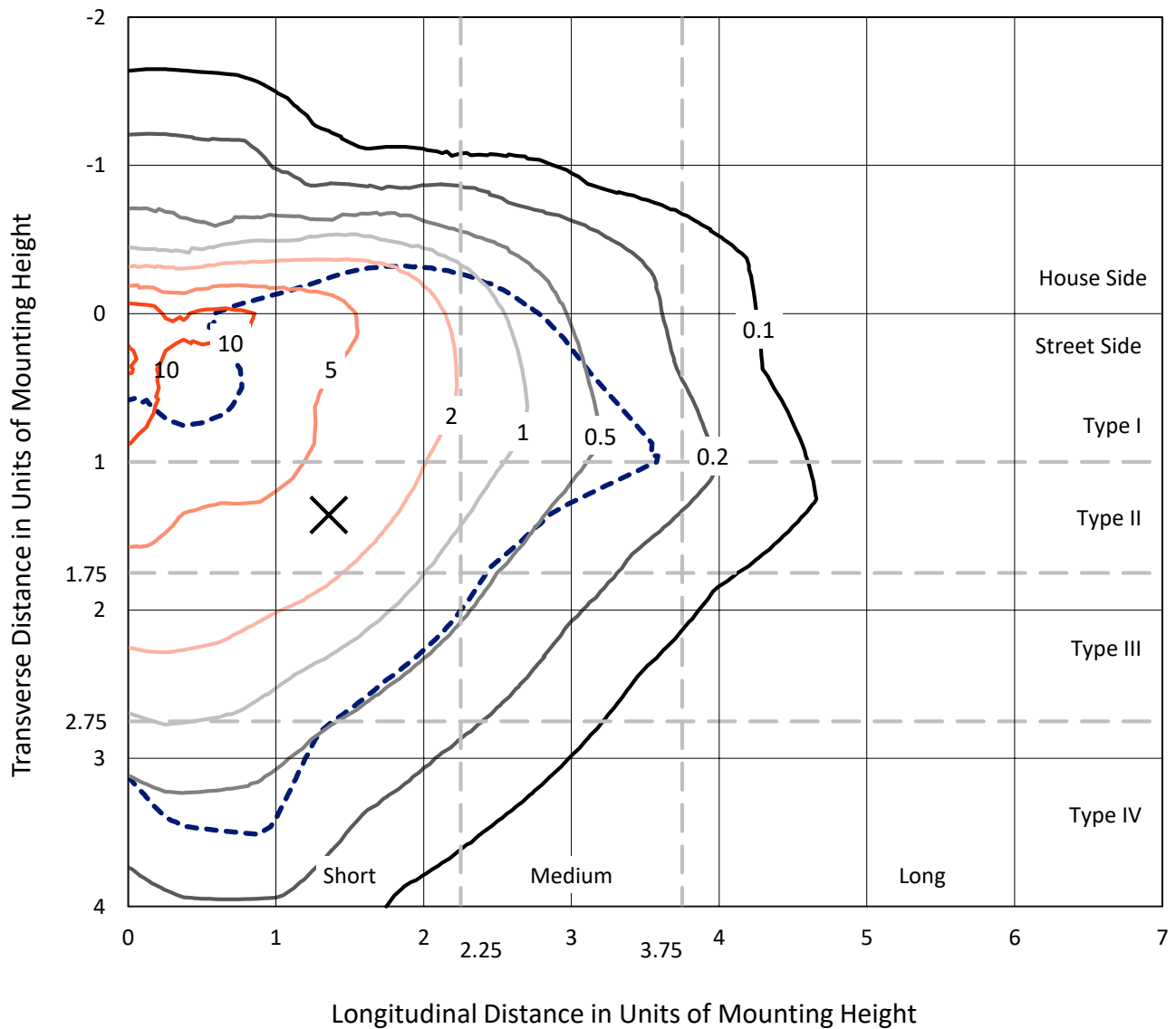
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

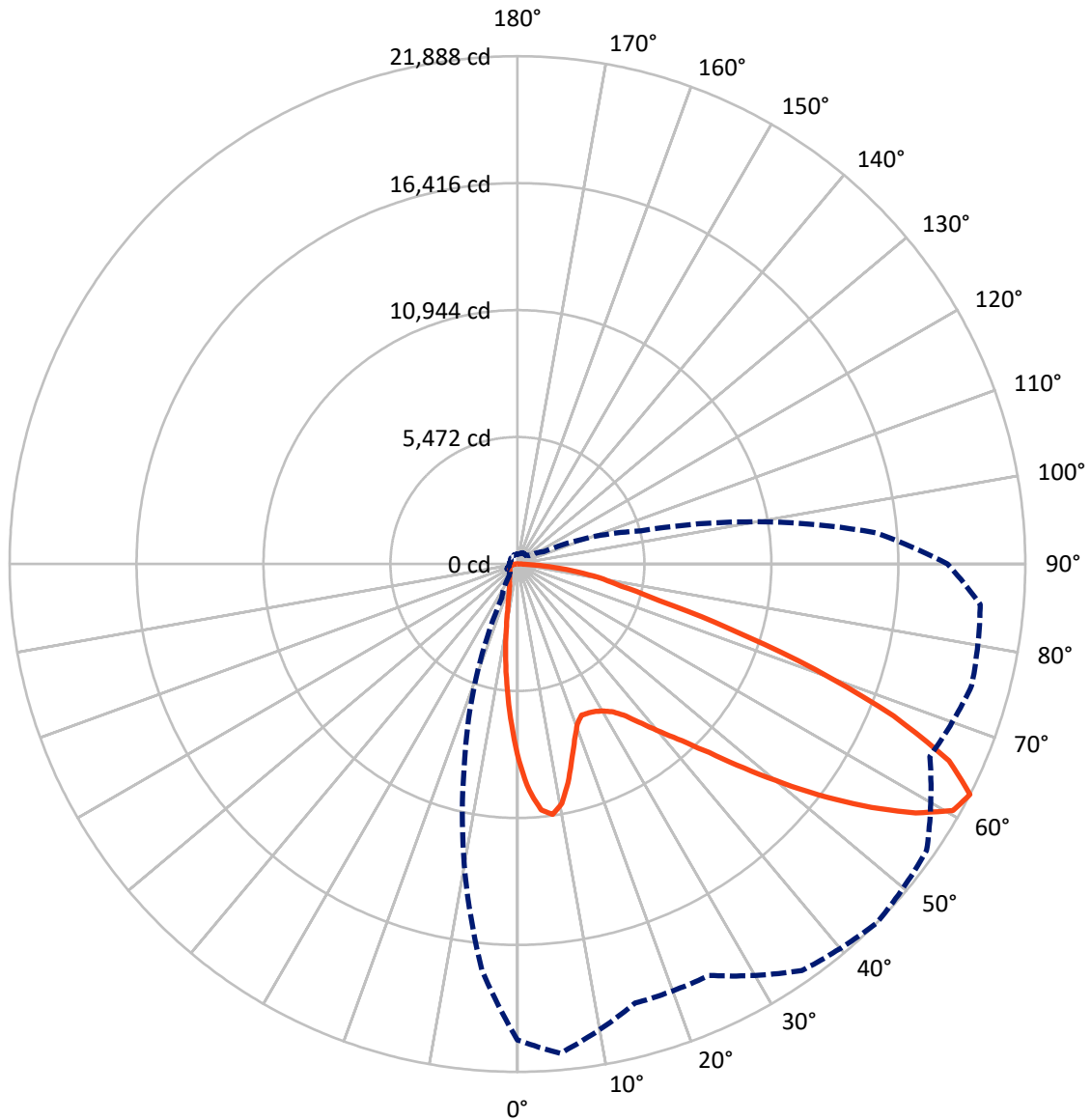
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16 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	4169.1	0.0	4169.1
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	21024.2	0.0	21024.2
	% Fixture	83.5	0.0	83.5
Total	Lumens	25193.4	0.0	25193.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	619.6	2.5
10°-20°	1136.2	4.5
20°-30°	1656.6	6.6
30°-40°	2551.4	10.1
40°-50°	3754.9	14.9
50°-60°	5507.7	21.9
60°-70°	6156.8	24.4
70°-80°	3014.3	12.0
80°-90°	795.8	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°	25193.4	100.0
0°-180°	25193.4	100.0



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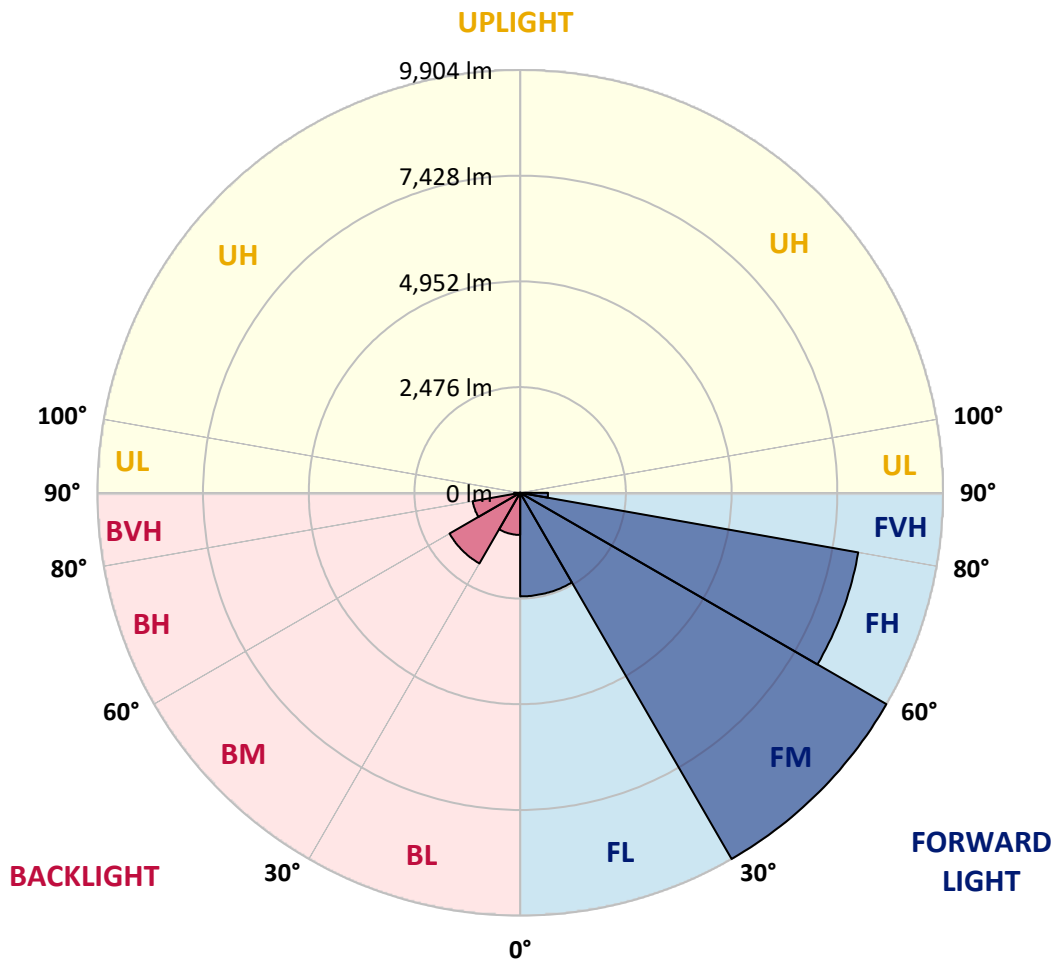
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2426.1	9.6			
FM	(30°-60°)	9903.8	39.3			
FH	(60°-80°)	8040.8	31.9			G4/12000
FVH	(80°-90°)	653.6	2.6			G4/750
BL	(0°-30°)	986.4	3.9	B2/1000		
BM	(30°-60°)	1910.3	7.6	B2/2500		
BH	(60°-80°)	1130.2	4.5	B3/2500		G3/2500
BVH	(80°-90°)	142.3	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0
2.5°	8843.8	8985.4	9261.0	9466.9	9718.2	9776.2	9856.7	9777.5	9637.7	9452.0	9391.3
5°	8316.4	8618.5	9287.0	9876.0	10399.3	10643.0	10711.3	10509.9	10104.4	9571.2	9245.7
7.5°	7470.3	7899.6	8805.1	9672.3	10443.4	10899.2	10888.0	10421.3	9675.0	8806.4	8284.5
10°	6740.2	7230.6	8269.6	9238.9	10057.2	10499.1	10328.3	9732.1	8841.1	7841.2	7275.2
12.5°	6331.9	6812.5	7866.4	8839.7	9524.0	9676.4	9546.0	8961.5	8122.2	7111.5	6615.6
15°	6260.9	6789.2	7705.9	8498.0	8881.5	8748.9	8593.3	8331.7	7738.7	6875.9	6359.4
17.5°	6567.5	7148.8	7890.2	8259.7	8194.6	7963.0	7919.0	7948.2	7805.7	7137.6	6542.3
20°	7154.7	7852.4	8329.0	8147.8	7672.6	7353.8	7365.1	7809.7	8231.9	7801.2	7121.0
22.5°	7978.3	8775.0	8961.5	8207.1	7452.3	7074.2	7165.9	7886.1	8912.1	8770.9	7902.3
25°	9044.7	9770.8	9636.4	8422.9	7474.3	7108.8	7182.1	8149.1	9715.0	9740.2	8869.4
27.5°	10077.9	10751.3	10202.4	8709.8	7566.0	7190.6	7287.7	8562.8	10482.5	10792.7	9974.5
30°	10884.0	11352.4	10426.7	8971.4	7745.9	7349.8	7470.3	8956.2	10831.8	11503.0	10824.6
32.5°	11551.6	11887.9	10784.2	9295.6	8076.8	7600.2	7812.4	9434.1	11334.4	12179.2	11656.8
35°	12404.5	12500.2	11228.8	9657.1	8587.9	8036.8	8299.8	9902.1	11813.7	12861.7	12476.8
37.5°	13404.8	13281.6	11648.3	10151.6	9248.8	8719.2	8936.8	10415.9	12208.0	13635.9	13314.4
40°	14393.4	14096.7	12175.2	10918.6	10212.7	9524.0	9781.6	10964.4	12576.6	14411.4	14133.1
42.5°	15234.1	14794.9	12694.0	11762.0	11109.7	10411.9	10719.4	11517.0	12928.2	15073.2	14843.4
45°	15855.9	15310.1	13188.5	12572.1	12346.5	11591.6	11737.3	12149.5	13309.0	15626.2	15427.9
47.5°	16411.1	15828.0	13747.8	13389.5	13428.2	13126.0	12891.8	12886.4	13758.2	16077.6	15980.4
50°	17154.8	16546.9	14348.9	14231.1	15051.2	14850.2	14333.6	13746.5	14325.5	16590.1	16578.8
52.5°	18179.8	17685.7	15083.1	15138.4	16566.7	16698.0	16057.8	14780.1	15214.4	17530.2	17464.1
55°	19391.9	19103.2	16083.4	16181.4	18424.8	18519.2	17883.1	16071.7	16522.2	18891.9	18707.6
57.5°	20337.4	20276.7	17179.9	17433.5	19812.7	20236.6	19652.2	17567.9	17995.5	20038.4	19575.8
60°	20714.1	21009.0	18347.5	18696.4	21096.7	21565.6	21053.5	18881.6	19301.5	20513.6	19516.4
62.5°	20510.9	21169.5	19591.0	19561.8	21383.1	21888.4	21528.3	19613.1	20269.9	20023.1	18529.1
65°	19570.4	20592.3	20312.6	19338.8	20402.5	20443.9	20327.5	19286.2	20498.3	18473.4	16620.2
67.5°	17521.6	18992.6	19362.2	17428.1	17757.2	17487.4	17291.9	17496.9	19306.9	16150.8	13968.1
70°	14271.6	16484.9	16661.6	13939.3	13789.6	13608.0	13219.1	14344.9	16956.9	13237.1	11083.6
72.5°	10493.7	12820.3	13364.3	10223.5	9531.2	9568.0	9261.0	10810.2	13786.9	9832.8	8275.0
75°	7179.4	9283.0	10456.4	7133.5	6303.2	6318.0	6278.9	7660.0	10981.1	6840.0	6192.1
77.5°	5244.8	6632.3	7886.1	4795.7	4655.9	4570.0	4549.3	5359.5	8418.9	4966.5	4808.3
80°	4208.5	4900.0	5297.0	3323.8	3574.2	3567.4	3452.4	3685.2	5498.0	3632.6	3596.2
82.5°	2919.6	3765.7	4291.7	2604.9	2412.5	2372.0	2400.3	2744.7	3886.2	2483.0	2361.2
85°	1540.3	2501.0	4250.4	2308.6	1431.9	1142.4	1421.1	2247.5	3366.9	1315.9	1151.8
87.5°	196.9	722.9	2813.9	921.2	565.1	304.4	674.8	1265.6	2162.0	268.4	234.2
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°	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0
2.5°	9234.9	9050.6	8809.6	8586.1	8355.1	8124.9	7824.5	7636.2	7506.2	7481.1	7426.2
5°	9010.5	8398.2	7935.6	7535.5	7172.7	6659.7	6376.0	6140.4	6014.5	6002.4	5971.8
7.5°	7975.6	7130.8	6506.4	5939.9	5426.0	5012.0	4554.7	4342.1	4254.4	4275.1	4295.8
10°	6899.3	5955.2	5237.6	4658.6	4205.9	3857.0	3490.1	3242.4	3070.2	3035.6	3028.8
12.5°	6113.0	5077.1	4380.7	3971.6	3621.8	3293.2	2904.3	2611.6	2389.1	2312.7	2261.9
15°	5780.3	4647.8	3918.1	3477.5	3090.9	2674.1	2312.7	2006.5	1801.9	1735.4	1698.1
17.5°	5851.3	4528.7	3599.4	3035.6	2541.5	2106.3	1650.9	1388.8	1265.6	1234.1	1234.1
20°	6222.7	4506.6	3335.9	2628.7	2011.9	1507.9	1134.3	984.6	944.6	940.5	951.3
22.5°	6743.3	4584.4	3139.9	2275.8	1563.7	1101.0	883.4	828.1	810.1	814.6	826.8
25°	7518.8	4846.1	2997.4	1961.1	1226.9	901.4	787.7	754.9	746.3	757.5	772.8
27.5°	8438.2	5107.7	2908.4	1724.2	1035.8	824.1	749.0	714.8	720.2	734.2	747.7
30°	9245.7	5322.6	2768.5	1555.6	976.5	828.1	749.0	702.2	696.9	699.6	703.6
32.5°	9970.4	5467.8	2604.9	1394.6	842.1	735.5	699.6	692.8	661.8	650.5	652.3
35°	10594.9	5467.8	2506.9	1300.6	754.9	652.3	594.3	559.7	544.0	545.3	561.1
37.5°	11197.3	5358.1	2458.3	1247.6	707.6	620.4	569.2	538.6	517.9	513.9	516.6
40°	11728.7	5199.0	2403.0	1225.6	671.7	601.1	553.0	527.4	505.3	498.6	499.9
42.5°	12155.4	5070.0	2341.9	1196.8	649.2	587.2	541.3	519.3	494.5	487.3	486.0
45°	12616.7	5027.2	2261.9	1138.3	660.4	588.5	538.6	515.2	490.0	482.0	479.3
47.5°	13224.5	5161.7	2178.7	1069.1	684.3	595.7	542.6	515.2	488.7	482.0	479.3
50°	13990.1	5477.3	2073.0	968.0	660.4	615.0	541.3	510.7	488.7	482.0	476.6
52.5°	14973.8	5903.9	1935.0	852.0	646.5	661.8	538.6	502.6	482.0	472.5	462.6
55°	16168.8	6252.8	1769.6	756.2	615.0	649.2	534.6	493.2	471.2	457.2	448.7
57.5°	17044.2	6378.7	1558.3	694.2	570.5	628.5	528.7	480.6	457.2	446.0	435.2
60°	16871.1	6135.0	1379.3	655.0	544.0	567.8	524.7	469.4	444.6	436.5	426.2
62.5°	15485.0	5498.0	1264.2	637.1	527.4	517.9	528.7	458.6	433.8	424.9	422.2
65°	13406.1	4557.4	1218.8	633.0	513.9	488.7	491.8	446.0	420.8	414.1	411.4
67.5°	11058.4	3678.5	1178.8	646.5	495.9	468.0	454.5	429.4	408.2	401.5	396.1
70°	8720.6	3059.4	1160.4	638.4	473.9	447.3	432.5	411.4	393.4	386.2	382.1
72.5°	7022.5	2584.2	1150.5	629.9	444.6	419.5	405.5	387.5	368.2	365.5	361.5
75°	5943.0	2031.7	1054.3	603.8	411.4	386.2	376.8	360.1	340.8	340.8	338.1
77.5°	4584.4	1469.2	876.7	534.6	376.8	348.9	340.8	328.2	306.2	310.2	308.9
80°	3386.3	958.5	685.6	443.3	334.0	307.5	303.0	290.9	267.1	272.9	272.9
82.5°	2319.9	628.5	493.2	362.8	285.0	260.3	260.3	247.7	221.6	224.3	232.9
85°	1164.9	432.5	368.2	281.0	221.6	209.1	209.1	199.6	173.1	174.4	185.7
87.5°	354.7	260.3	243.7	201.0	159.2	156.5	149.3	142.5	125.9	124.5	131.7
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°	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0
2.5°	7341.2	7262.1	7167.3	6956.4	6885.8	6881.3	6945.6	6878.6	7006.3	6952.4	7011.7
5°	5920.1	5843.2	5736.2	5467.8	5304.2	5193.1	5141.0	4985.9	5097.8	5016.0	5084.3
7.5°	4354.2	4372.2	4301.6	4143.8	3787.7	3609.3	3504.1	3409.6	3491.5	3482.9	3613.3
10°	3060.8	3108.9	3059.4	2900.3	2611.6	2513.6	2533.0	2570.3	2677.3	2732.1	2933.1
12.5°	2203.4	2200.7	2168.8	2026.3	1836.5	1847.3	1926.5	1991.2	2089.7	2148.1	2352.7
15°	1645.0	1620.3	1606.4	1489.9	1382.0	1405.8	1444.5	1451.3	1513.7	1548.4	1714.7
17.5°	1243.5	1256.1	1271.0	1188.2	1106.4	1091.1	1061.0	1023.3	1041.7	1048.4	1131.2
20°	987.3	1037.2	1075.0	1016.5	933.8	888.8	850.2	825.4	825.4	824.1	847.5
22.5°	862.8	898.7	939.2	898.7	824.1	785.0	762.9	743.6	740.9	740.9	762.9
25°	795.3	821.4	860.1	832.6	776.9	747.7	727.0	702.2	692.8	689.7	704.9
27.5°	761.6	772.8	792.2	767.0	720.2	706.3	700.9	678.9	665.8	659.1	674.8
30°	704.9	702.2	703.6	678.9	641.1	639.8	649.2	653.7	649.2	647.8	671.7
32.5°	652.3	646.5	645.2	623.1	588.5	580.4	588.5	597.0	606.5	620.4	647.8
35°	585.8	599.7	607.8	588.5	546.7	522.0	512.5	497.2	488.7	488.7	520.6
37.5°	533.2	565.1	577.7	559.7	513.9	479.3	462.6	459.9	461.3	466.7	497.2
40°	515.2	538.6	549.4	531.9	486.0	454.5	444.6	441.9	444.6	453.2	483.3
42.5°	504.0	520.6	519.3	497.2	459.9	437.9	432.5	429.4	432.5	440.6	473.9
45°	494.5	505.3	494.5	468.0	433.8	422.2	423.5	422.2	424.9	433.8	465.3
47.5°	486.0	490.0	476.6	450.0	414.1	411.4	416.8	420.8	423.5	431.2	464.0
50°	473.9	473.9	461.3	433.8	397.4	398.8	405.5	415.4	416.8	424.9	451.8
52.5°	458.6	457.2	448.7	422.2	383.5	387.5	387.5	398.8	401.5	411.4	439.2
55°	446.0	443.3	439.2	414.1	371.4	378.1	374.1	378.1	384.8	394.7	424.9
57.5°	435.2	429.4	429.4	406.9	361.5	364.2	354.7	360.1	368.2	376.8	408.2
60°	423.5	418.1	420.8	397.4	346.2	343.5	339.4	350.2	353.4	362.8	394.7
62.5°	411.4	406.9	408.2	386.2	335.4	328.2	328.2	338.1	339.4	353.4	383.5
65°	401.5	396.1	394.7	375.4	322.8	314.7	318.8	322.8	325.5	339.4	368.2
67.5°	392.0	380.8	380.8	365.5	308.9	300.3	308.9	307.5	312.0	324.1	347.5
70°	379.4	364.2	365.5	358.8	294.9	285.0	292.2	290.9	293.6	301.7	325.5
72.5°	360.1	347.5	350.2	347.5	281.0	267.1	269.8	269.8	269.8	276.9	301.7
75°	335.4	325.5	334.0	340.8	264.4	245.0	247.7	247.7	243.7	247.7	278.3
77.5°	304.4	299.0	326.8	317.4	245.0	221.6	221.6	218.9	210.9	216.2	249.1
80°	271.5	267.1	301.7	265.7	223.0	192.9	189.7	182.5	174.4	178.5	212.2
82.5°	236.9	232.9	253.6	203.7	192.9	159.2	152.4	139.8	131.7	135.8	165.9
85°	194.2	194.2	195.6	153.8	146.6	121.8	113.7	97.1	87.2	89.9	119.1
87.5°	138.5	142.5	131.7	105.2	87.2	67.9	62.5	52.6	44.1	51.3	62.5
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: P298948

CATALOG NUMBER: GLNA-AF-06-LED-E1-SLL-800

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0	8512.0
2.5°	7316.5	7468.9	7642.0	7863.2	8053.4	8364.5	8663.9	8843.8
5°	5470.5	5724.1	6039.3	6445.7	6823.8	7391.2	7954.9	8316.4
7.5°	3915.0	4186.5	4527.3	5034.0	5569.0	6292.8	7038.2	7470.3
10°	3239.7	3518.0	3804.4	4146.5	4584.4	5372.1	6252.8	6740.2
12.5°	2680.0	2977.6	3286.5	3646.6	4052.1	4755.7	5770.9	6331.9
15°	2051.0	2383.2	2747.4	3203.3	3711.3	4524.6	5651.7	6260.9
17.5°	1405.8	1777.2	2224.1	2786.5	3408.3	4449.5	5865.3	6567.5
20°	968.0	1238.2	1716.1	2375.1	3123.3	4440.1	6274.8	7154.7
22.5°	810.1	930.6	1279.5	1997.0	2908.4	4559.2	6911.0	7978.3
25°	749.0	821.4	1021.9	1668.9	2751.9	4833.5	7786.3	9044.7
27.5°	713.5	778.2	927.9	1454.4	2628.7	5151.8	8637.8	10077.9
30°	727.0	793.5	901.4	1344.7	2461.0	5417.5	9394.0	10884.0
32.5°	655.0	684.3	772.8	1247.6	2340.5	5640.5	10055.8	11551.6
35°	558.4	609.2	689.7	1202.2	2343.2	5790.2	10777.4	12404.5
37.5°	531.9	583.1	641.1	1185.6	2375.1	5949.8	11605.5	13404.8
40°	515.2	562.4	612.3	1176.1	2405.7	6095.0	12417.5	14393.4
42.5°	504.0	546.7	609.2	1142.4	2421.0	6225.4	13084.7	15234.1
45°	502.6	546.7	620.4	1109.1	2444.4	6365.2	13644.4	15855.9
47.5°	504.0	565.1	599.7	1069.1	2444.4	6599.0	14300.8	16411.1
50°	498.6	595.7	577.7	1012.5	2387.7	7042.3	15200.9	17154.8
52.5°	495.9	591.7	534.6	925.2	2289.3	7745.9	16354.5	18179.8
55°	488.7	570.5	504.0	795.3	2174.6	8513.3	17589.9	19391.9
57.5°	482.0	505.3	487.3	681.6	1997.0	9053.3	18440.1	20337.4
60°	539.9	441.9	473.9	625.8	1760.1	9201.2	18407.3	20714.1
62.5°	499.9	414.1	455.9	613.7	1594.2	8785.8	17556.7	20510.9
65°	392.0	396.1	437.9	649.2	1549.7	7685.2	16049.7	19570.4
67.5°	358.8	378.1	419.5	695.5	1554.2	6153.0	13798.2	17521.6
70°	338.1	358.8	398.8	718.9	1565.0	4587.1	10908.7	14271.6
72.5°	314.7	332.7	375.4	722.9	1492.6	3331.9	8408.1	10493.7
75°	286.4	303.0	342.1	629.9	1236.8	2311.3	6431.7	7179.4
77.5°	254.9	267.1	300.3	486.0	918.5	1479.1	4827.6	5244.8
80°	217.6	224.3	252.2	356.1	628.5	925.2	3819.7	4208.5
82.5°	174.4	177.1	195.6	267.1	408.2	594.3	2558.1	2919.6
85°	123.2	123.2	134.4	194.2	278.3	376.8	1388.8	1540.3
87.5°	58.0	59.3	59.3	106.6	145.2	191.5	320.1	196.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)