

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: P298880

Luminaire Tested: **GLNA-AF-05-LED-E1-SLL-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298880
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-05-LED-E1-SLL-7030
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25206.6 lumens
Efficiency: N/A
Efficacy: 90.3 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

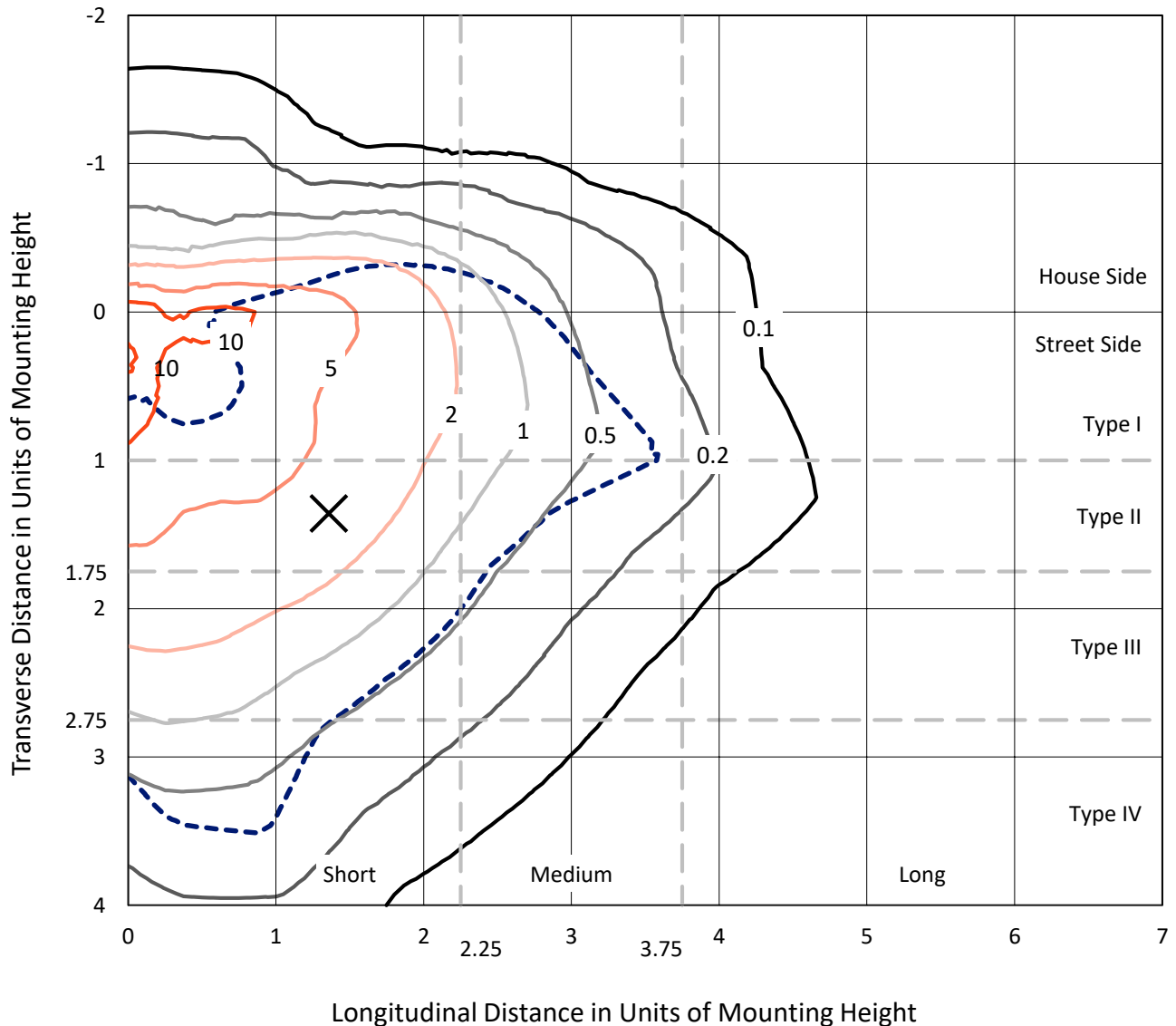
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

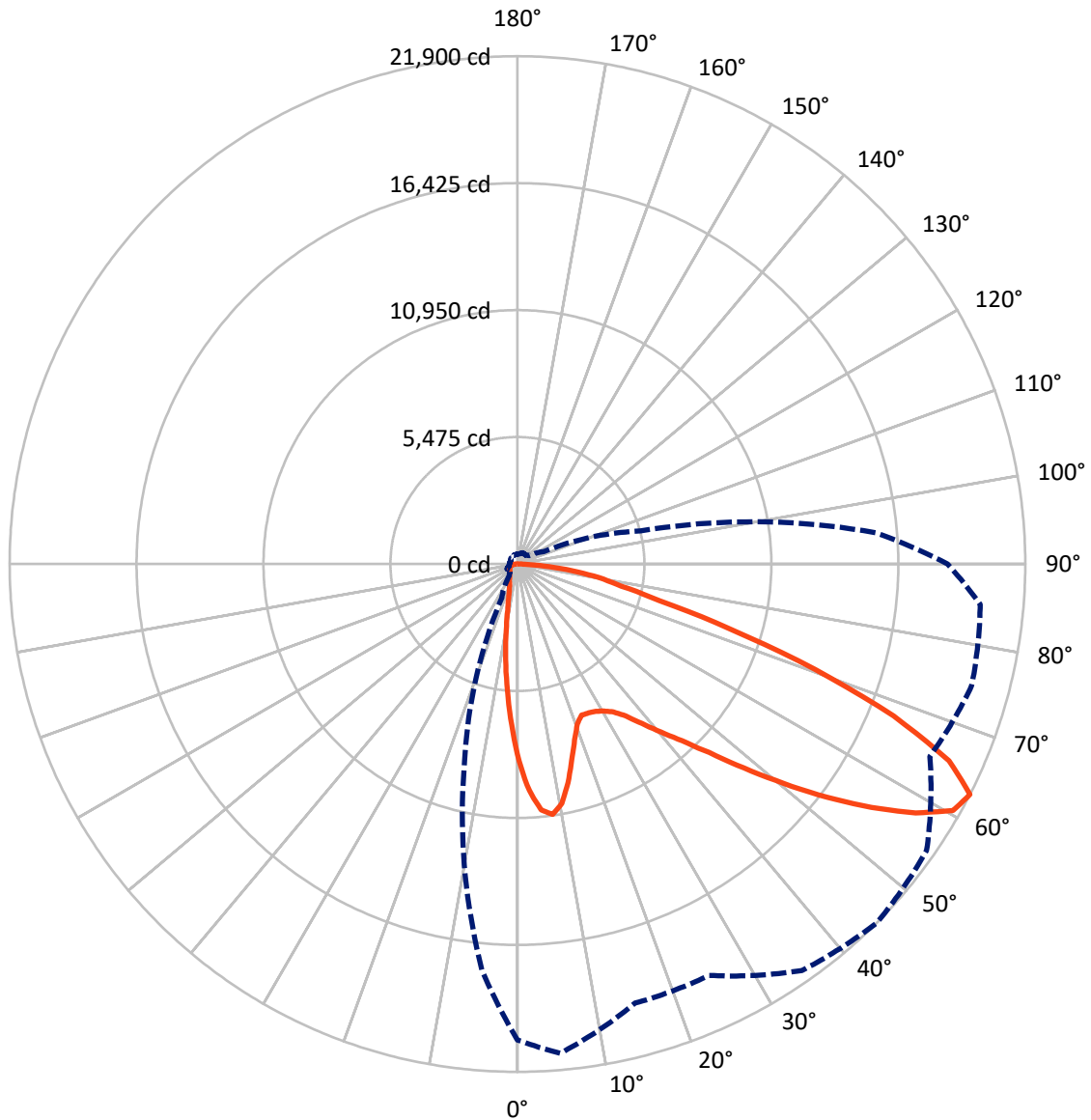
✕ Max cd
 - - - 1/2 Max cd



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	4171.3	0.0	4171.3
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	21035.3	0.0	21035.3
	% Fixture	83.5	0.0	83.5
Total	Lumens	25206.6	0.0	25206.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	619.9	2.5
10°-20°	1136.8	4.5
20°-30°	1657.5	6.6
30°-40°	2552.7	10.1
40°-50°	3756.9	14.9
50°-60°	5510.6	21.9
60°-70°	6160.0	24.4
70°-80°	3015.9	12.0
80°-90°	796.3	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°	25206.6	100.0
0°-180°	25206.6	100.0



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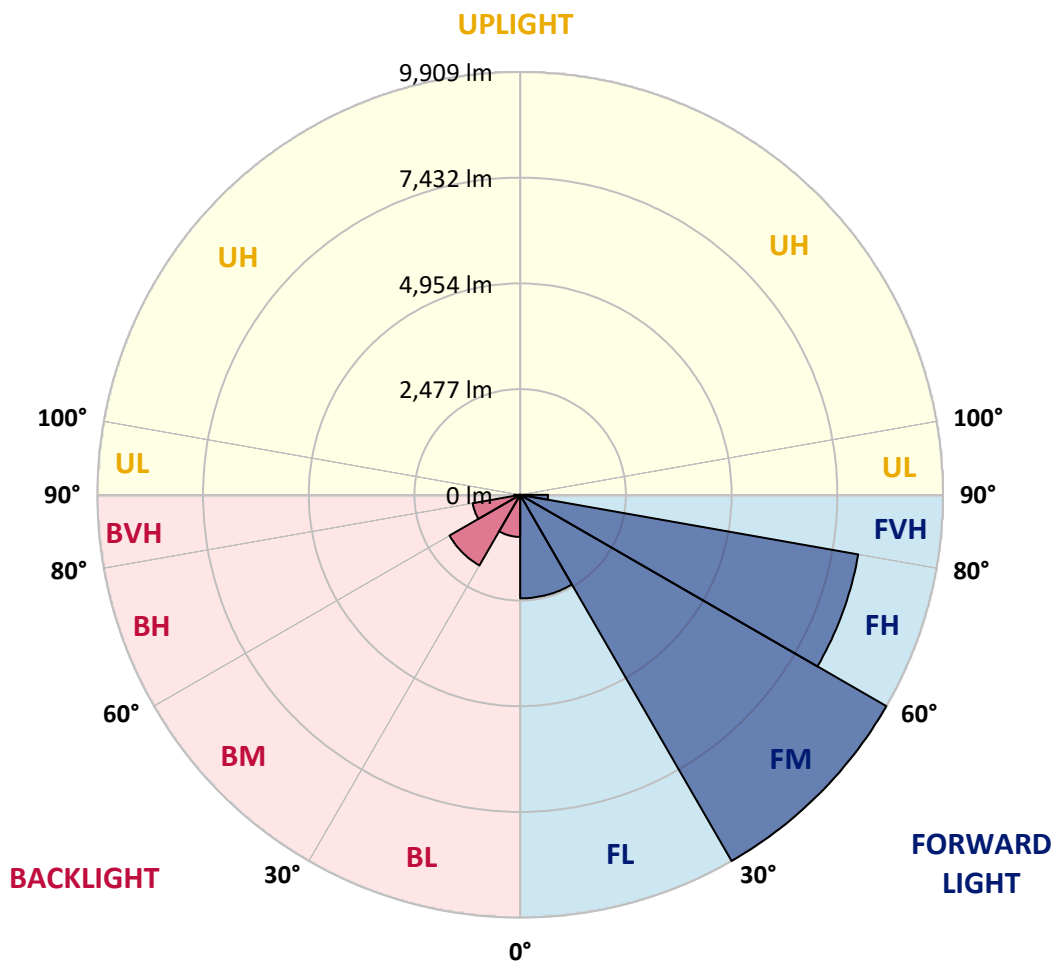
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2427.3	9.6			
FM	(30°-60°)	9908.9	39.3			
FH	(60°-80°)	8045.1	31.9			G4/12000
FVH	(80°-90°)	653.9	2.6			G4/750
BL	(0°-30°)	986.9	3.9	B2/1000		
BM	(30°-60°)	1911.3	7.6	B2/2500		
BH	(60°-80°)	1130.8	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°	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4
2.5°	8848.4	8990.1	9265.8	9471.8	9723.3	9781.3	9861.8	9782.7	9642.8	9457.0	9396.3
5°	8320.7	8623.0	9291.9	9881.2	10404.8	10648.6	10716.9	10515.4	10109.7	9576.2	9250.5
7.5°	7474.2	7903.8	8809.7	9677.4	10448.8	10905.0	10893.7	10426.8	9680.1	8811.1	8288.8
10°	6743.7	7234.4	8274.0	9243.8	10062.4	10504.6	10333.7	9737.2	8845.7	7845.3	7279.0
12.5°	6335.2	6816.1	7870.5	8844.3	9529.0	9681.5	9551.0	8966.2	8126.4	7115.2	6619.1
15°	6264.2	6792.7	7709.9	8502.5	8886.2	8753.5	8597.8	8336.0	7742.7	6879.5	6362.7
17.5°	6571.0	7152.6	7894.3	8264.1	8198.8	7967.2	7923.1	7952.3	7809.8	7141.3	6545.8
20°	7158.4	7856.5	8333.3	8152.1	7676.6	7357.7	7368.9	7813.8	8236.2	7805.3	7124.7
22.5°	7982.5	8779.6	8966.2	8211.4	7456.2	7077.9	7169.7	7890.3	8916.8	8775.5	7906.5
25°	9049.5	9775.9	9641.4	8427.4	7478.2	7112.5	7185.9	8153.4	9720.1	9745.3	8874.0
27.5°	10083.1	10757.0	10207.7	8714.3	7570.0	7194.4	7291.6	8567.2	10488.0	10798.4	9979.7
30°	10889.7	11358.4	10432.2	8976.1	7749.9	7353.6	7474.2	8960.8	10837.5	11509.1	10830.3
32.5°	11557.6	11894.1	10789.8	9300.5	8081.0	7604.2	7816.5	9439.0	11340.4	12185.6	11662.9
35°	12411.0	12506.8	11234.7	9662.1	8592.4	8041.0	8304.1	9907.3	11819.9	12868.4	12483.4
37.5°	13411.8	13288.5	11654.4	10156.9	9253.7	8723.8	8941.5	10421.4	12214.4	13643.0	13321.4
40°	14400.9	14104.1	12181.5	10924.3	10218.1	9529.0	9786.7	10970.2	12583.2	14418.9	14140.5
42.5°	15242.1	14802.6	12700.6	11768.2	11115.5	10417.4	10725.0	11523.0	12935.0	15081.1	14851.2
45°	15864.2	15318.1	13195.4	12578.7	12352.9	11597.7	11743.4	12155.9	13316.0	15634.4	15436.0
47.5°	16419.7	15836.3	13755.0	13396.5	13435.2	13132.9	12898.6	12893.2	13765.4	16086.0	15988.8
50°	17163.7	16555.6	14356.4	14238.6	15059.0	14858.0	14341.1	13753.7	14333.0	16598.8	16587.5
52.5°	18189.3	17695.0	15091.0	15146.3	16575.4	16706.7	16066.2	14787.8	15222.3	17539.3	17473.2
55°	19402.0	19113.3	16091.8	16189.9	18434.5	18528.9	17892.4	16080.1	16530.8	18901.8	18717.4
57.5°	20348.0	20287.3	17188.9	17442.6	19823.1	20247.2	19662.5	17577.1	18004.9	20048.9	19586.0
60°	20725.0	21020.0	18357.1	18706.2	21107.7	21576.9	21064.6	18891.5	19311.6	20524.3	19526.6
62.5°	20521.6	21180.6	19601.3	19572.1	21394.3	21899.9	21539.6	19623.3	20280.5	20033.6	18538.8
65°	19580.6	20603.1	20323.3	19349.0	20413.2	20454.6	20338.1	19296.3	20509.0	18483.1	16628.9
67.5°	17530.8	19002.6	19372.3	17437.2	17766.5	17496.6	17300.9	17506.0	19317.0	16159.3	13975.4
70°	14279.0	16493.5	16670.3	13946.6	13796.8	13615.1	13226.0	14352.4	16965.8	13244.0	11089.4
72.5°	10499.2	12827.0	13371.3	10228.9	9536.2	9573.0	9265.8	10815.9	13794.1	9838.0	8279.4
75°	7183.2	9287.9	10461.9	7137.3	6306.5	6321.3	6282.2	7664.0	10986.8	6843.5	6195.4
77.5°	5247.6	6635.7	7890.3	4798.2	4658.3	4572.4	4551.7	5362.3	8423.3	4969.1	4810.8
80°	4210.8	4902.6	5299.8	3325.5	3576.1	3569.3	3454.2	3687.2	5500.8	3634.5	3598.1
82.5°	2921.1	3767.7	4294.0	2606.3	2413.7	2373.2	2401.6	2746.1	3888.2	2484.3	2362.4
85°	1541.1	2502.3	4252.6	2309.8	1432.7	1143.0	1421.9	2248.6	3368.7	1316.6	1152.4
87.5°	197.0	723.3	2815.4	921.7	565.4	304.5	675.2	1266.2	2163.2	268.5	234.4
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°	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4
2.5°	9239.7	9055.3	8814.2	8590.6	8359.4	8129.1	7828.6	7640.2	7510.2	7485.0	7430.1
5°	9015.3	8402.6	7939.8	7539.4	7176.4	6663.2	6379.3	6143.6	6017.7	6005.5	5974.9
7.5°	7979.8	7134.6	6509.8	5943.0	5428.9	5014.6	4557.1	4344.4	4256.6	4277.3	4298.0
10°	6902.9	5958.3	5240.4	4661.0	4208.1	3859.0	3491.9	3244.1	3071.8	3037.2	3030.4
12.5°	6116.2	5079.8	4383.0	3973.7	3623.7	3294.9	2905.8	2613.0	2390.3	2313.9	2263.0
15°	5783.3	4650.2	3920.2	3479.3	3092.5	2675.5	2313.9	2007.5	1802.9	1736.3	1699.0
17.5°	5854.4	4531.0	3601.2	3037.2	2542.8	2107.4	1651.7	1389.5	1266.2	1234.8	1234.8
20°	6225.9	4509.0	3337.7	2630.1	2012.9	1508.7	1134.9	985.1	945.1	941.0	951.8
22.5°	6746.8	4586.8	3141.5	2277.0	1564.5	1101.6	883.9	828.6	810.6	815.1	827.2
25°	7522.8	4848.6	2998.9	1962.1	1227.6	901.9	788.1	755.2	746.7	757.9	773.2
27.5°	8442.6	5110.4	2909.9	1725.1	1036.4	824.5	749.4	715.2	720.6	734.6	748.0
30°	9250.5	5325.4	2770.0	1556.4	977.0	828.6	749.4	702.6	697.2	699.9	704.0
32.5°	9975.6	5470.7	2606.3	1395.3	842.5	735.9	699.9	693.2	662.1	650.9	652.7
35°	10600.4	5470.7	2508.2	1301.3	755.2	652.7	594.7	560.0	544.3	545.6	561.4
37.5°	11203.2	5360.9	2459.6	1248.2	708.0	620.7	569.5	538.9	518.2	514.1	516.8
40°	11734.9	5201.7	2404.3	1226.2	672.0	601.4	553.3	527.6	505.6	498.8	500.2
42.5°	12161.8	5072.6	2343.1	1197.4	649.5	587.5	541.6	519.5	494.8	487.6	486.3
45°	12623.3	5029.9	2263.0	1138.9	660.8	588.8	538.9	515.5	490.3	482.2	479.5
47.5°	13231.4	5164.4	2179.8	1069.7	684.6	596.0	542.9	515.5	489.0	482.2	479.5
50°	13997.5	5480.1	2074.1	968.5	660.8	615.4	541.6	511.0	489.0	482.2	476.8
52.5°	14981.7	5907.0	1936.0	852.4	646.8	662.1	538.9	502.9	482.2	472.8	462.9
55°	16177.3	6256.1	1770.5	756.6	615.4	649.5	534.8	493.5	471.4	457.5	448.9
57.5°	17053.1	6382.0	1559.1	694.5	570.8	628.8	529.0	480.9	457.5	446.2	435.4
60°	16879.9	6138.2	1380.0	655.4	544.3	568.1	524.9	469.6	444.9	436.8	426.4
62.5°	15493.1	5500.8	1264.9	637.4	527.6	518.2	529.0	458.8	434.1	425.1	422.4
65°	13413.1	4559.8	1219.5	633.3	514.1	489.0	492.1	446.2	421.0	414.3	411.6
67.5°	11064.2	3680.4	1179.4	646.8	496.2	468.3	454.8	429.6	408.4	401.7	396.3
70°	8725.1	3061.0	1161.0	638.7	474.1	447.6	432.7	411.6	393.6	386.4	382.3
72.5°	7026.2	2585.6	1151.1	630.2	444.9	419.7	405.7	387.7	368.4	365.7	361.7
75°	5946.2	2032.7	1054.8	604.1	411.6	386.4	376.9	360.3	341.0	341.0	338.3
77.5°	4586.8	1470.0	877.1	534.8	376.9	349.1	341.0	328.4	306.3	310.4	309.0
80°	3388.0	959.0	686.0	443.5	334.2	307.7	303.2	291.0	267.2	273.0	273.0
82.5°	2321.1	628.8	493.5	363.0	285.2	260.4	260.4	247.9	221.8	224.5	233.0
85°	1165.5	432.7	368.4	281.1	221.8	209.2	209.2	199.7	173.2	174.5	185.8
87.5°	354.9	260.4	243.8	201.1	159.2	156.5	149.3	142.6	125.9	124.6	131.8
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°	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4
2.5°	7345.1	7265.9	7171.0	6960.0	6889.4	6884.9	6949.3	6882.2	7010.0	6956.0	7015.4
5°	5923.2	5846.3	5739.2	5470.7	5307.0	5195.9	5143.7	4988.5	5100.5	5018.6	5087.0
7.5°	4356.5	4374.5	4303.9	4146.0	3789.7	3611.1	3505.9	3411.4	3493.3	3484.7	3615.2
10°	3062.4	3110.5	3061.0	2901.8	2613.0	2514.9	2534.3	2571.6	2678.7	2733.5	2934.6
12.5°	2204.6	2201.9	2169.9	2027.3	1837.5	1848.3	1927.5	1992.2	2090.8	2149.2	2353.9
15°	1645.9	1621.1	1607.2	1490.7	1382.7	1406.6	1445.3	1452.0	1514.5	1549.2	1715.6
17.5°	1244.2	1256.8	1271.6	1188.9	1107.0	1091.7	1061.6	1023.8	1042.2	1049.0	1131.7
20°	987.8	1037.7	1075.5	1017.0	934.3	889.3	850.6	825.9	825.9	824.5	847.9
22.5°	863.2	899.2	939.7	899.2	824.5	785.4	763.3	744.0	741.3	741.3	763.3
25°	795.7	821.8	860.5	833.1	777.3	748.0	727.4	702.6	693.2	690.0	705.3
27.5°	762.0	773.2	792.6	767.4	720.6	706.7	701.3	679.2	666.2	659.4	675.2
30°	705.3	702.6	704.0	679.2	641.4	640.1	649.5	654.0	649.5	648.2	672.0
32.5°	652.7	646.8	645.5	623.4	588.8	580.7	588.8	597.4	606.8	620.7	648.2
35°	586.1	600.1	608.2	588.8	547.0	522.2	512.8	497.5	489.0	489.0	520.9
37.5°	533.5	565.4	578.0	560.0	514.1	479.5	462.9	460.2	461.5	466.9	497.5
40°	515.5	538.9	549.7	532.1	486.3	454.8	444.9	442.2	444.9	453.4	483.6
42.5°	504.2	520.9	519.5	497.5	460.2	438.1	432.7	429.6	432.7	440.8	474.1
45°	494.8	505.6	494.8	468.3	434.1	422.4	423.7	422.4	425.1	434.1	465.6
47.5°	486.3	490.3	476.8	450.3	414.3	411.6	417.0	421.0	423.7	431.4	464.2
50°	474.1	474.1	461.5	434.1	397.6	399.0	405.7	415.6	417.0	425.1	452.1
52.5°	458.8	457.5	448.9	422.4	383.7	387.7	387.7	399.0	401.7	411.6	439.5
55°	446.2	443.5	439.5	414.3	371.6	378.3	374.2	378.3	385.0	394.9	425.1
57.5°	435.4	429.6	429.6	407.1	361.7	364.4	354.9	360.3	368.4	376.9	408.4
60°	423.7	418.3	421.0	397.6	346.4	343.7	339.6	350.4	353.6	363.0	394.9
62.5°	411.6	407.1	408.4	386.4	335.6	328.4	328.4	338.3	339.6	353.6	383.7
65°	401.7	396.3	394.9	375.6	323.0	314.9	318.9	323.0	325.7	339.6	368.4
67.5°	392.2	381.0	381.0	365.7	309.0	300.5	309.0	307.7	312.2	324.3	347.7
70°	379.6	364.4	365.7	359.0	295.1	285.2	292.4	291.0	293.7	301.8	325.7
72.5°	360.3	347.7	350.4	347.7	281.1	267.2	269.9	269.9	269.9	277.1	301.8
75°	335.6	325.7	334.2	341.0	264.5	245.2	247.9	247.9	243.8	247.9	278.4
77.5°	304.5	299.1	327.0	317.6	245.2	221.8	221.8	219.1	211.0	216.4	249.2
80°	271.7	267.2	301.8	265.8	223.1	193.0	189.8	182.6	174.5	178.6	212.3
82.5°	237.1	233.0	253.7	203.8	193.0	159.2	152.5	139.9	131.8	135.8	166.0
85°	194.3	194.3	195.7	153.8	146.6	121.9	113.8	97.2	87.3	90.0	119.2
87.5°	138.5	142.6	131.8	105.3	87.3	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



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CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7030

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4	8516.4
2.5°	7320.4	7472.8	7646.0	7867.3	8057.6	8368.9	8668.5	8848.4
5°	5473.4	5727.1	6042.4	6449.1	6827.4	7395.0	7959.1	8320.7
7.5°	3917.0	4188.7	4529.7	5036.6	5571.9	6296.1	7041.9	7474.2
10°	3241.4	3519.8	3806.4	4148.7	4586.8	5374.9	6256.1	6743.7
12.5°	2681.4	2979.2	3288.2	3648.5	4054.2	4758.2	5773.9	6335.2
15°	2052.1	2384.5	2748.8	3205.0	3713.3	4527.0	5654.7	6264.2
17.5°	1406.6	1778.1	2225.3	2788.0	3410.1	4451.9	5868.3	6571.0
20°	968.5	1238.8	1717.0	2376.4	3124.9	4442.4	6278.1	7158.4
22.5°	810.6	931.1	1280.2	1998.1	2909.9	4561.6	6914.6	7982.5
25°	749.4	821.8	1022.4	1669.7	2753.3	4836.0	7790.4	9049.5
27.5°	713.9	778.6	928.4	1455.2	2630.1	5154.5	8642.4	10083.1
30°	727.4	793.9	901.9	1345.4	2462.3	5420.3	9399.0	10889.7
32.5°	655.4	684.6	773.2	1248.2	2341.8	5643.4	10061.1	11557.6
35°	558.7	609.5	690.0	1202.8	2344.5	5793.2	10783.1	12411.0
37.5°	532.1	583.4	641.4	1186.2	2376.4	5952.9	11611.6	13411.8
40°	515.5	562.7	612.7	1176.7	2407.0	6098.2	12424.0	14400.9
42.5°	504.2	547.0	609.5	1143.0	2422.3	6228.6	13091.5	15242.1
45°	502.9	547.0	620.7	1109.7	2445.7	6368.5	13651.6	15864.2
47.5°	504.2	565.4	600.1	1069.7	2445.7	6602.4	14308.3	16419.7
50°	498.8	596.0	578.0	1013.0	2389.0	7046.0	15208.8	17163.7
52.5°	496.2	592.0	534.8	925.7	2290.5	7749.9	16363.1	18189.3
55°	489.0	570.8	504.2	795.7	2175.8	8517.8	17599.2	19402.0
57.5°	482.2	505.6	487.6	681.9	1998.1	9058.0	18449.8	20348.0
60°	540.2	442.2	474.1	626.1	1761.0	9206.0	18416.9	20725.0
62.5°	500.2	414.3	456.1	614.0	1595.1	8790.4	17565.9	20521.6
65°	392.2	396.3	438.1	649.5	1550.5	7689.2	16058.1	19580.6
67.5°	359.0	378.3	419.7	695.9	1555.0	6156.2	13805.4	17530.8
70°	338.3	359.0	399.0	719.3	1565.8	4589.5	10914.4	14279.0
72.5°	314.9	332.9	375.6	723.3	1493.4	3333.6	8412.5	10499.2
75°	286.5	303.2	342.3	630.2	1237.5	2312.5	6435.1	7183.2
77.5°	255.0	267.2	300.5	486.3	919.0	1479.9	4830.2	5247.6
80°	217.7	224.5	252.3	356.3	628.8	925.7	3821.7	4210.8
82.5°	174.5	177.2	195.7	267.2	408.4	594.7	2559.5	2921.1
85°	123.3	123.3	134.5	194.3	278.4	376.9	1389.5	1541.1
87.5°	58.0	59.4	59.4	106.6	145.3	191.6	320.3	197.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)