

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: P299016

Luminaire Tested: **GLNA-AF-07-LED-E1-SLL-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299016
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-7060-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24294.7 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 226
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

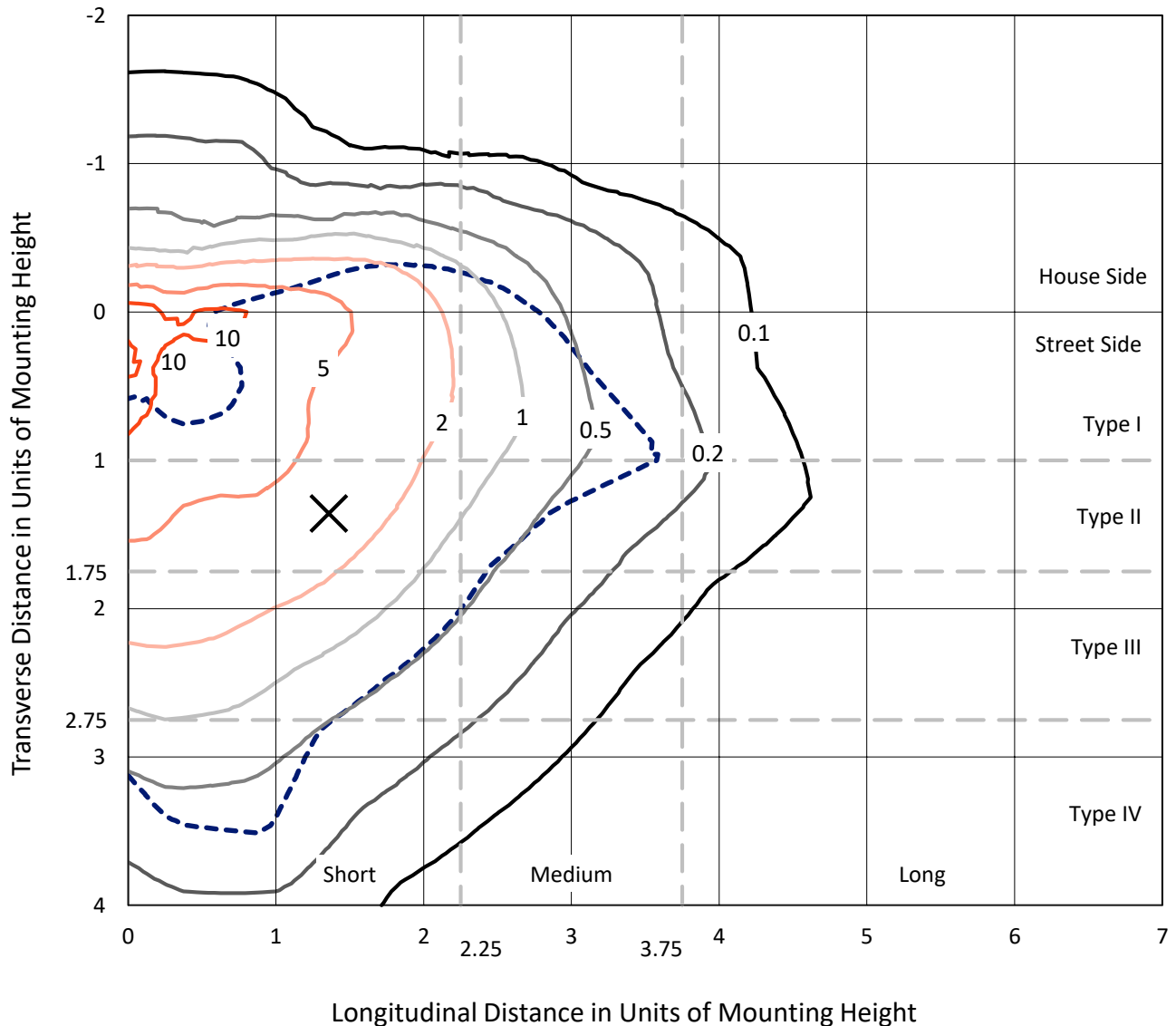


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Iso-Footcandle Lines of Horizontal Illumination

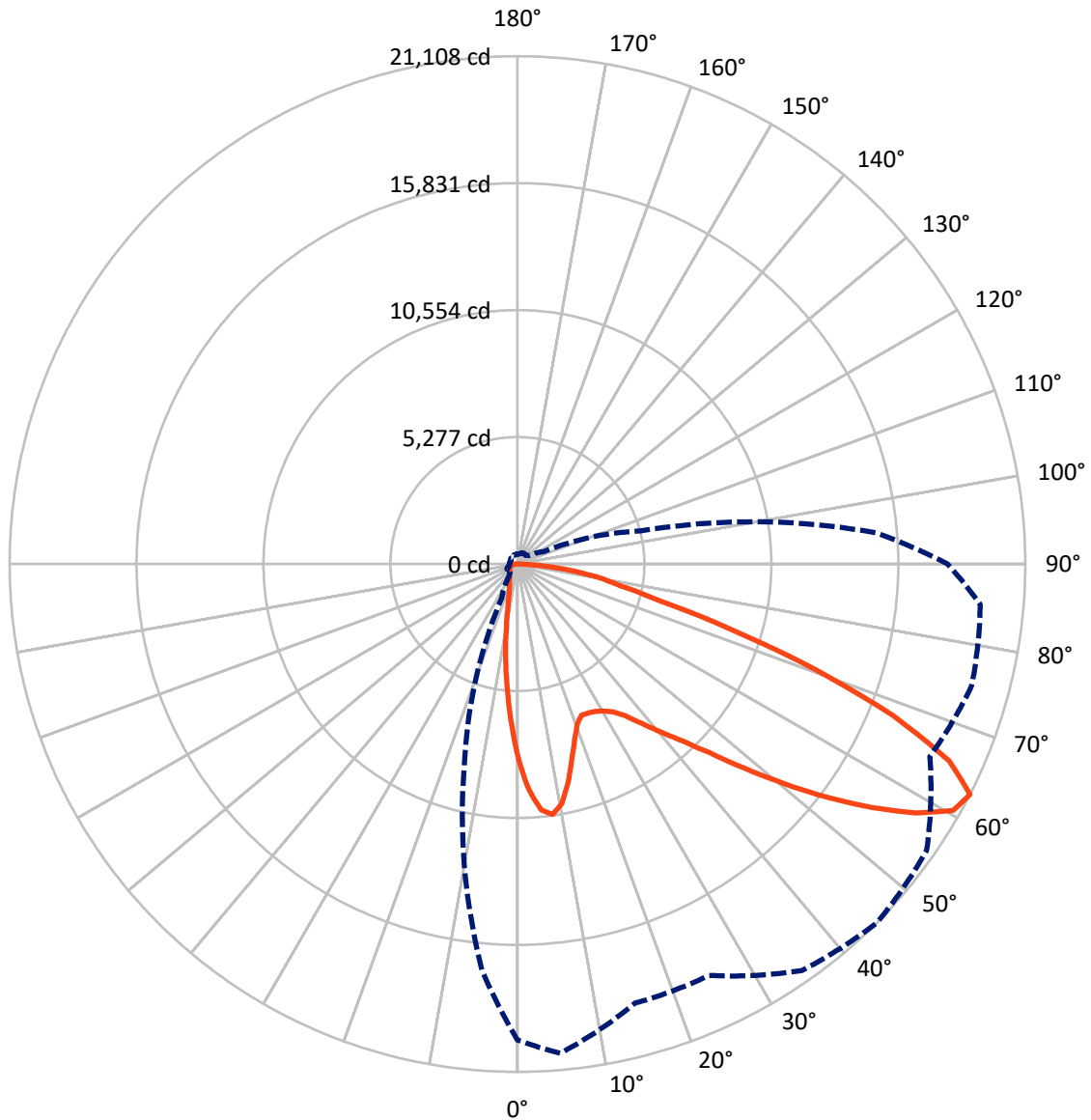
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.5 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	4020.4	0.0	4020.4
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	20274.3	0.0	20274.3
	% Fixture	83.5	0.0	83.5
Total	Lumens	24294.7	0.0	24294.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	597.5	2.5
10°-20°	1095.7	4.5
20°-30°	1597.5	6.6
30°-40°	2460.4	10.1
40°-50°	3621.0	14.9
50°-60°	5311.3	21.9
60°-70°	5937.2	24.4
70°-80°	2906.7	12.0
80°-90°	767.5	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°	24294.7	100.0
0°-180°	24294.7	100.0



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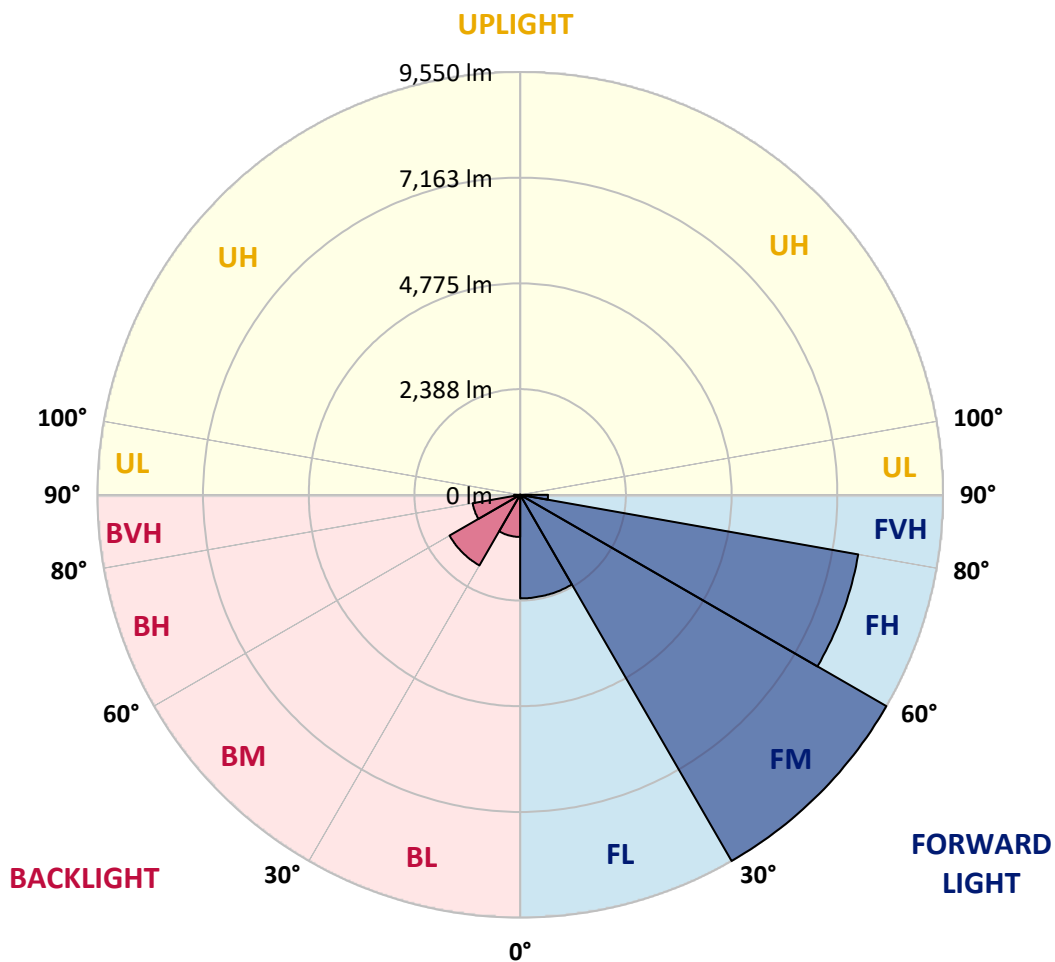
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2339.5	9.6			
FM (30°-60°)	9550.5	39.3			
FH (60°-80°)	7754.0	31.9			G4/12000
FVH (80°-90°)	630.3	2.6			G4/750
BL (0°-30°)	951.2	3.9	B2/1000		
BM (30°-60°)	1842.1	7.6	B2/2500		
BH (60°-80°)	1089.9	4.5	B3/2500		G3/2500
BVH (80°-90°)	137.2	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°	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3
2.5°	8528.3	8664.9	8930.6	9129.2	9371.5	9427.5	9505.1	9428.8	9293.9	9114.9	9056.4
5°	8019.7	8311.1	8955.8	9523.7	10028.4	10263.3	10329.2	10135.0	9744.0	9229.8	8915.9
7.5°	7203.8	7617.8	8491.0	9327.3	10070.9	10510.5	10499.6	10049.6	9329.9	8492.3	7989.0
10°	6499.7	6972.7	7974.7	8909.4	9698.4	10124.6	9959.9	9385.0	8525.7	7561.5	7015.7
12.5°	6106.1	6569.5	7585.8	8524.4	9184.3	9331.2	9205.5	8641.9	7832.5	6857.8	6379.6
15°	6037.6	6547.0	7431.0	8194.9	8564.7	8436.8	8286.8	8034.5	7462.6	6630.7	6132.5
17.5°	6333.2	6893.8	7608.7	7965.1	7902.3	7679.0	7636.5	7664.7	7527.2	6883.0	6309.0
20°	6899.5	7572.3	8031.9	7857.2	7398.9	7091.5	7102.4	7531.1	7938.2	7522.9	6866.9
22.5°	7693.7	8462.0	8641.9	7914.4	7186.5	6821.9	6910.3	7604.8	8594.2	8458.1	7620.4
25°	8722.1	9422.3	9292.6	8122.5	7207.7	6855.2	6925.9	7858.5	9368.5	9392.8	8553.0
27.5°	9718.4	10367.8	9838.5	8399.1	7296.2	6934.1	7027.8	8257.3	10108.6	10407.7	9618.7
30°	10495.7	10947.5	10054.8	8651.4	7469.6	7087.6	7203.8	8636.7	10445.4	11092.7	10438.5
32.5°	11139.5	11463.8	10399.5	8964.0	7788.7	7329.1	7533.7	9097.5	10930.1	11744.8	11241.0
35°	11962.0	12054.3	10828.3	9312.6	8281.6	7750.1	8003.7	9548.9	11392.3	12402.9	12031.8
37.5°	12926.6	12807.8	11232.8	9789.5	8918.9	8408.2	8618.0	10044.4	11772.5	13149.5	12839.5
40°	13880.0	13593.9	11740.9	10529.1	9848.4	9184.3	9432.7	10573.3	12128.0	13897.3	13629.0
42.5°	14690.7	14267.2	12241.2	11342.4	10713.4	10040.5	10337.1	11106.2	12467.1	14535.5	14314.0
45°	15290.3	14764.0	12718.1	12123.7	11906.1	11178.1	11318.6	11716.2	12834.3	15068.8	14877.6
47.5°	15825.8	15263.4	13257.4	12911.9	12949.2	12657.8	12431.9	12426.7	13267.4	15504.1	15410.4
50°	16542.8	15956.7	13837.1	13723.5	14514.3	14320.5	13822.3	13256.1	13814.5	15998.3	15987.5
52.5°	17531.3	17054.9	14545.1	14598.4	15975.8	16102.4	15485.0	14252.8	14671.7	16904.9	16841.1
55°	18700.2	18421.8	15509.7	15604.2	17767.6	17858.7	17245.2	15498.4	15932.8	18218.1	18040.3
57.5°	19611.9	19553.4	16567.1	16811.6	19106.0	19514.8	18951.2	16941.3	17353.6	19323.6	18877.5
60°	19975.2	20259.6	17693.0	18029.5	20344.2	20796.4	20302.6	18208.1	18613.0	19781.9	18820.3
62.5°	19779.3	20414.4	18892.2	18864.0	20620.3	21107.7	20760.4	18913.5	19546.9	19308.9	17868.2
65°	18872.3	19857.7	19588.1	18649.0	19674.8	19714.7	19602.4	18598.3	19767.1	17814.4	16027.4
67.5°	16896.6	18315.2	18671.6	16806.4	17123.8	16863.7	16675.1	16872.8	18618.2	15574.7	13469.9
70°	13762.5	15896.9	16067.2	13442.1	13297.7	13122.6	12747.6	13833.2	16352.1	12764.9	10688.2
72.5°	10119.4	12363.0	12887.6	9858.9	9191.2	9226.7	8930.6	10424.6	13295.1	9482.1	7979.9
75°	6923.3	8951.9	10083.4	6879.1	6078.3	6092.6	6054.9	7386.8	10589.4	6596.0	5971.2
77.5°	5057.8	6395.7	7604.8	4624.6	4489.8	4407.0	4387.1	5168.3	8118.6	4789.4	4636.8
80°	4058.4	4725.2	5108.0	3205.2	3446.7	3440.2	3329.2	3553.8	5301.8	3503.1	3467.9
82.5°	2815.5	3631.4	4138.6	2512.0	2326.4	2287.4	2314.7	2646.8	3747.6	2394.5	2277.0
85°	1485.3	2411.8	4098.7	2226.3	1380.8	1101.6	1370.4	2167.3	3246.8	1269.0	1110.7
87.5°	189.9	697.1	2713.6	888.3	545.0	293.5	650.8	1220.4	2084.9	258.8	225.9
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°	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3
2.5°	8905.5	8727.7	8495.3	8279.9	8057.0	7835.1	7545.4	7363.8	7238.5	7214.2	7161.3
5°	8689.1	8098.7	7652.5	7266.7	6916.8	6422.1	6148.6	5921.4	5800.0	5788.3	5758.8
7.5°	7691.1	6876.5	6274.3	5728.0	5232.5	4833.2	4392.3	4187.2	4102.7	4122.6	4142.5
10°	6653.2	5742.8	5050.8	4492.4	4055.8	3719.4	3365.6	3126.7	2960.7	2927.3	2920.8
12.5°	5894.9	4896.0	4224.5	3830.0	3492.7	3175.7	2800.7	2518.5	2303.9	2230.2	2181.2
15°	5574.1	4482.0	3778.4	3353.5	2980.6	2578.7	2230.2	1934.9	1737.7	1673.5	1637.5
17.5°	5642.6	4367.1	3471.0	2927.3	2450.8	2031.2	1592.0	1339.2	1220.4	1190.1	1190.1
20°	6000.7	4345.9	3216.9	2534.9	1940.1	1454.1	1093.8	949.5	910.9	907.0	917.4
22.5°	6502.8	4420.9	3027.9	2194.6	1507.9	1061.8	851.9	798.6	781.3	785.6	797.3
25°	7250.6	4673.2	2890.5	1891.1	1183.1	869.3	759.6	727.9	719.7	730.5	745.3
27.5°	8137.2	4925.5	2804.6	1662.7	998.9	794.7	722.3	689.3	694.5	708.0	721.0
30°	8915.9	5132.8	2669.8	1500.1	941.7	798.6	722.3	677.2	672.0	674.6	678.5
32.5°	9614.8	5272.8	2512.0	1344.9	812.0	709.3	674.6	668.1	638.2	627.3	629.1
35°	10217.0	5272.8	2417.5	1254.3	727.9	629.1	573.1	539.8	524.6	525.9	541.1
37.5°	10797.9	5167.0	2370.6	1203.1	682.4	598.3	548.9	519.4	499.4	495.5	498.1
40°	11310.4	5013.5	2317.3	1181.8	647.7	579.7	533.3	508.6	487.3	480.8	482.1
42.5°	11721.8	4889.1	2258.3	1154.1	626.0	566.2	522.0	500.7	476.9	470.0	468.7
45°	12166.6	4847.9	2181.2	1097.7	636.9	567.5	519.4	496.8	472.6	464.8	462.2
47.5°	12752.8	4977.5	2101.0	1031.0	659.9	574.4	523.3	496.8	471.3	464.8	462.2
50°	13491.1	5281.9	1999.1	933.4	636.9	593.1	522.0	492.5	471.3	464.8	459.6
52.5°	14439.7	5693.3	1866.0	821.6	623.4	638.2	519.4	484.7	464.8	455.7	446.1
55°	15592.1	6029.8	1706.4	729.2	593.1	626.0	515.5	475.6	454.4	440.9	432.7
57.5°	16436.2	6151.2	1502.7	669.4	550.2	606.1	509.9	463.5	440.9	430.1	419.7
60°	16269.3	5916.2	1330.1	631.7	524.6	547.6	505.9	452.6	428.8	421.0	411.0
62.5°	14932.6	5301.8	1219.1	614.3	508.6	499.4	509.9	442.2	418.4	409.7	407.1
65°	12927.9	4394.9	1175.3	610.4	495.5	471.3	474.3	430.1	405.8	399.3	396.7
67.5°	10663.9	3547.3	1136.8	623.4	478.2	451.3	438.3	414.0	393.7	387.2	382.0
70°	8409.5	2950.3	1119.0	615.6	457.0	431.4	417.1	396.7	379.4	372.4	368.5
72.5°	6772.0	2492.0	1109.4	607.4	428.8	404.5	391.1	373.7	355.1	352.5	348.6
75°	5731.1	1959.2	1016.7	582.3	396.7	372.4	363.3	347.3	328.6	328.6	326.0
77.5°	4420.9	1416.8	845.4	515.5	363.3	336.4	328.6	316.5	295.2	299.1	297.8
80°	3265.5	924.3	661.2	427.5	322.1	296.5	292.2	280.5	257.5	263.2	263.2
82.5°	2237.1	606.1	475.6	349.9	274.9	251.0	251.0	238.9	213.7	216.3	224.6
85°	1123.3	417.1	355.1	271.0	213.7	201.6	201.6	192.5	166.9	168.2	179.1
87.5°	342.1	251.0	235.0	193.8	153.5	150.9	143.9	137.4	121.4	120.1	127.0
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3
2.5°	7079.4	7003.1	6911.6	6708.3	6640.2	6635.9	6697.9	6633.3	6756.4	6704.4	6761.6
5°	5708.9	5634.8	5531.6	5272.8	5115.0	5007.9	4957.6	4808.0	4916.0	4837.1	4903.0
7.5°	4198.9	4216.2	4148.2	3996.0	3652.6	3480.5	3379.1	3288.0	3366.9	3358.7	3484.4
10°	2951.6	2998.0	2950.3	2796.8	2518.5	2424.0	2442.6	2478.6	2581.8	2634.7	2828.5
12.5°	2124.8	2122.2	2091.4	1954.0	1771.0	1781.4	1857.7	1920.2	2015.1	2071.5	2268.7
15°	1586.3	1562.5	1549.1	1436.8	1332.7	1355.7	1393.0	1399.5	1459.8	1493.1	1653.5
17.5°	1199.2	1211.3	1225.6	1145.9	1067.0	1052.2	1023.2	986.8	1004.5	1011.0	1090.8
20°	952.1	1000.2	1036.6	980.2	900.5	857.1	819.8	796.0	796.0	794.7	817.2
22.5°	832.0	866.7	905.7	866.7	794.7	757.0	735.7	717.1	714.5	714.5	735.7
25°	766.9	792.1	829.4	802.9	749.2	721.0	701.0	677.2	668.1	665.1	679.8
27.5°	734.4	745.3	763.9	739.6	694.5	681.1	675.9	654.7	642.1	635.6	650.8
30°	679.8	677.2	678.5	654.7	618.2	616.9	626.0	630.4	626.0	624.7	647.7
32.5°	629.1	623.4	622.1	600.9	567.5	559.7	567.5	575.7	584.9	598.3	624.7
35°	564.9	578.4	586.2	567.5	527.2	503.3	494.2	479.5	471.3	471.3	502.0
37.5°	514.2	545.0	557.1	539.8	495.5	462.2	446.1	443.5	444.8	450.0	479.5
40°	496.8	519.4	529.8	512.9	468.7	438.3	428.8	426.2	428.8	437.0	466.1
42.5°	486.0	502.0	500.7	479.5	443.5	422.3	417.1	414.0	417.1	424.9	457.0
45°	476.9	487.3	476.9	451.3	418.4	407.1	408.4	407.1	409.7	418.4	448.7
47.5°	468.7	472.6	459.6	434.0	399.3	396.7	401.9	405.8	408.4	415.8	447.4
50°	457.0	457.0	444.8	418.4	383.3	384.6	391.1	400.6	401.9	409.7	435.7
52.5°	442.2	440.9	432.7	407.1	369.8	373.7	373.7	384.6	387.2	396.7	423.6
55°	430.1	427.5	423.6	399.3	358.1	364.6	360.7	364.6	371.1	380.7	409.7
57.5°	419.7	414.0	414.0	392.4	348.6	351.2	342.1	347.3	355.1	363.3	393.7
60°	408.4	403.2	405.8	383.3	333.8	331.2	327.3	337.7	340.8	349.9	380.7
62.5°	396.7	392.4	393.7	372.4	323.4	316.5	316.5	326.0	327.3	340.8	369.8
65°	387.2	382.0	380.7	362.0	311.3	303.5	307.4	311.3	313.9	327.3	355.1
67.5°	378.1	367.2	367.2	352.5	297.8	289.6	297.8	296.5	300.9	312.6	335.1
70°	365.9	351.2	352.5	346.0	284.4	274.9	281.8	280.5	283.1	290.9	313.9
72.5°	347.3	335.1	337.7	335.1	271.0	257.5	260.1	260.1	260.1	267.1	290.9
75°	323.4	313.9	322.1	328.6	254.9	236.3	238.9	238.9	235.0	238.9	268.4
77.5°	293.5	288.3	315.2	306.1	236.3	213.7	213.7	211.1	203.3	208.5	240.2
80°	261.9	257.5	290.9	256.2	215.0	186.0	183.0	176.0	168.2	172.1	204.6
82.5°	228.5	224.6	244.5	196.4	186.0	153.5	147.0	134.8	127.0	130.9	160.0
85°	187.3	187.3	188.6	148.3	141.3	117.5	109.7	93.6	84.1	86.7	114.9
87.5°	133.5	137.4	127.0	101.4	84.1	65.5	60.3	50.7	42.5	49.4	60.3
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-07-LED-E1-SLL-7060-600

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3	8208.3
2.5°	7055.5	7202.5	7369.4	7582.7	7766.1	8066.1	8354.9	8528.3
5°	5275.4	5519.9	5823.8	6215.8	6580.4	7127.5	7671.2	8019.7
7.5°	3775.3	4037.2	4365.8	4854.4	5370.3	6068.4	6787.2	7203.8
10°	3124.1	3392.5	3668.7	3998.6	4420.9	5180.4	6029.8	6499.7
12.5°	2584.4	2871.4	3169.2	3516.5	3907.6	4586.1	5565.0	6106.1
15°	1977.8	2298.2	2649.4	3089.0	3578.9	4363.2	5450.1	6037.6
17.5°	1355.7	1713.8	2144.8	2687.1	3286.7	4290.8	5656.0	6333.2
20°	933.4	1194.0	1654.8	2290.4	3011.8	4281.7	6051.0	6899.5
22.5°	781.3	897.4	1233.9	1925.8	2804.6	4396.6	6664.5	7693.7
25°	722.3	792.1	985.5	1609.3	2653.7	4661.1	7508.6	8722.1
27.5°	688.0	750.5	894.8	1402.5	2534.9	4968.0	8329.7	9718.4
30°	701.0	765.2	869.3	1296.7	2373.2	5224.2	9059.0	10495.7
32.5°	631.7	659.9	745.3	1203.1	2257.0	5439.3	9697.1	11139.5
35°	538.5	587.5	665.1	1159.3	2259.6	5583.6	10393.0	11962.0
37.5°	512.9	562.3	618.2	1143.3	2290.4	5737.6	11191.6	12926.6
40°	496.8	542.4	590.5	1134.2	2319.9	5877.6	11974.6	13880.0
42.5°	486.0	527.2	587.5	1101.6	2334.6	6003.3	12617.9	14690.7
45°	484.7	527.2	598.3	1069.6	2357.2	6138.2	13157.7	15290.3
47.5°	486.0	545.0	578.4	1031.0	2357.2	6363.6	13790.7	15825.8
50°	480.8	574.4	557.1	976.3	2302.6	6791.1	14658.6	16542.8
52.5°	478.2	570.5	515.5	892.2	2207.6	7469.6	15771.1	17531.3
55°	471.3	550.2	486.0	766.9	2097.1	8209.6	16962.5	18700.2
57.5°	464.8	487.3	470.0	657.3	1925.8	8730.3	17782.3	19611.9
60°	520.7	426.2	457.0	603.5	1697.3	8873.0	17750.7	19975.2
62.5°	482.1	399.3	439.6	591.8	1537.4	8472.4	16930.4	19779.3
65°	378.1	382.0	422.3	626.0	1494.4	7411.0	15477.2	18872.3
67.5°	346.0	364.6	404.5	670.7	1498.8	5933.5	13306.0	16896.6
70°	326.0	346.0	384.6	693.2	1509.2	4423.5	10519.6	13762.5
72.5°	303.5	320.8	362.0	697.1	1439.4	3213.0	8108.2	10119.4
75°	276.2	292.2	329.9	607.4	1192.7	2228.9	6202.3	6923.3
77.5°	245.8	257.5	289.6	468.7	885.7	1426.4	4655.4	5057.8
80°	209.8	216.3	243.2	343.4	606.1	892.2	3683.4	4058.4
82.5°	168.2	170.8	188.6	257.5	393.7	573.1	2466.9	2815.5
85°	118.8	118.8	129.6	187.3	268.4	363.3	1339.2	1485.3
87.5°	55.9	57.2	57.2	102.8	140.0	184.7	308.7	189.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)