

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: P299024

Luminaire Tested: **GLNA-AF-09-LED-E1-SLL-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299024  
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-09-LED-E1-SLL-7030-600  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3000K 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: 29701.6 lumens  
Efficiency: N/A  
Efficacy: 102.4 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5

Input Watts (W): 290  
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

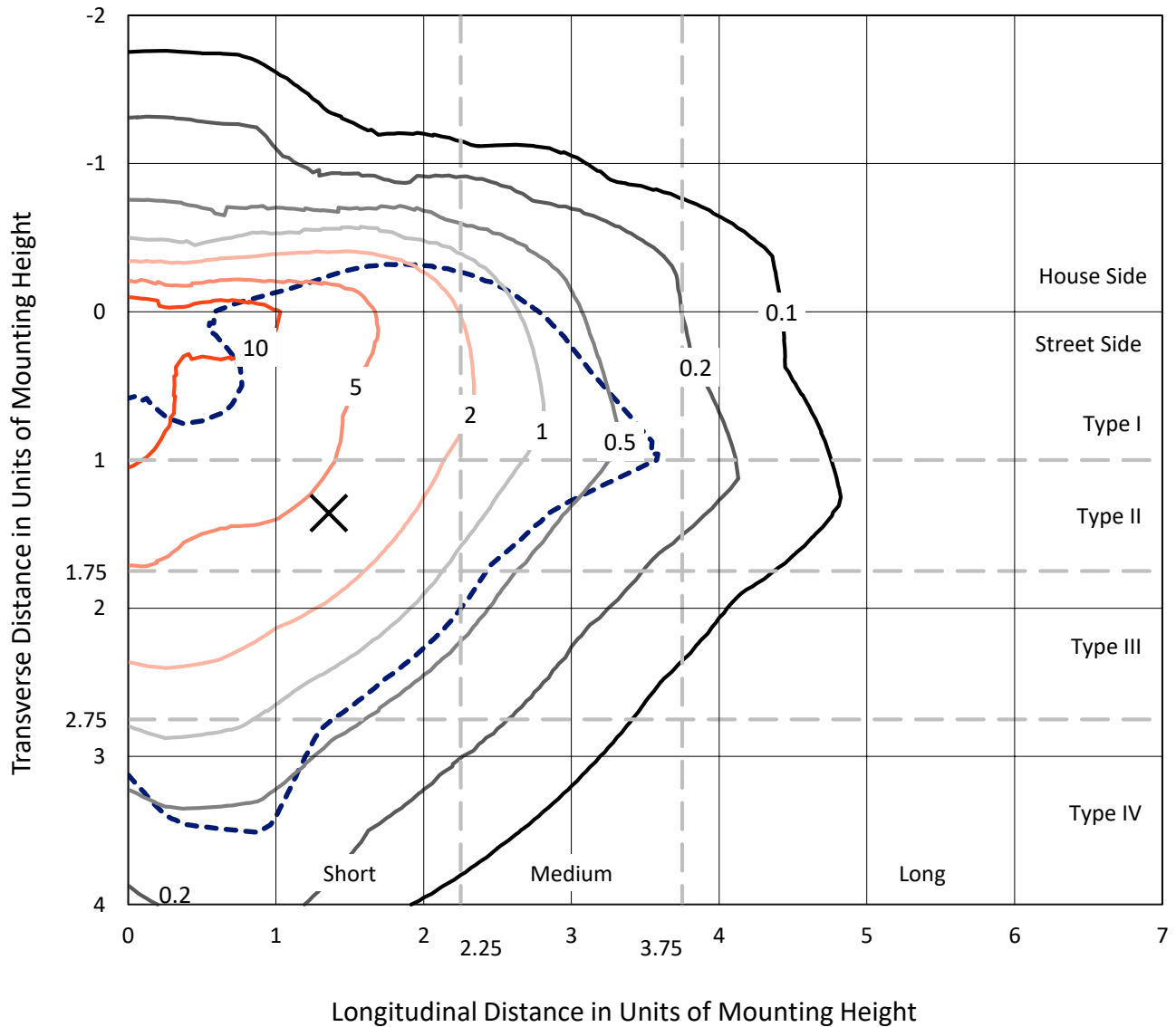


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

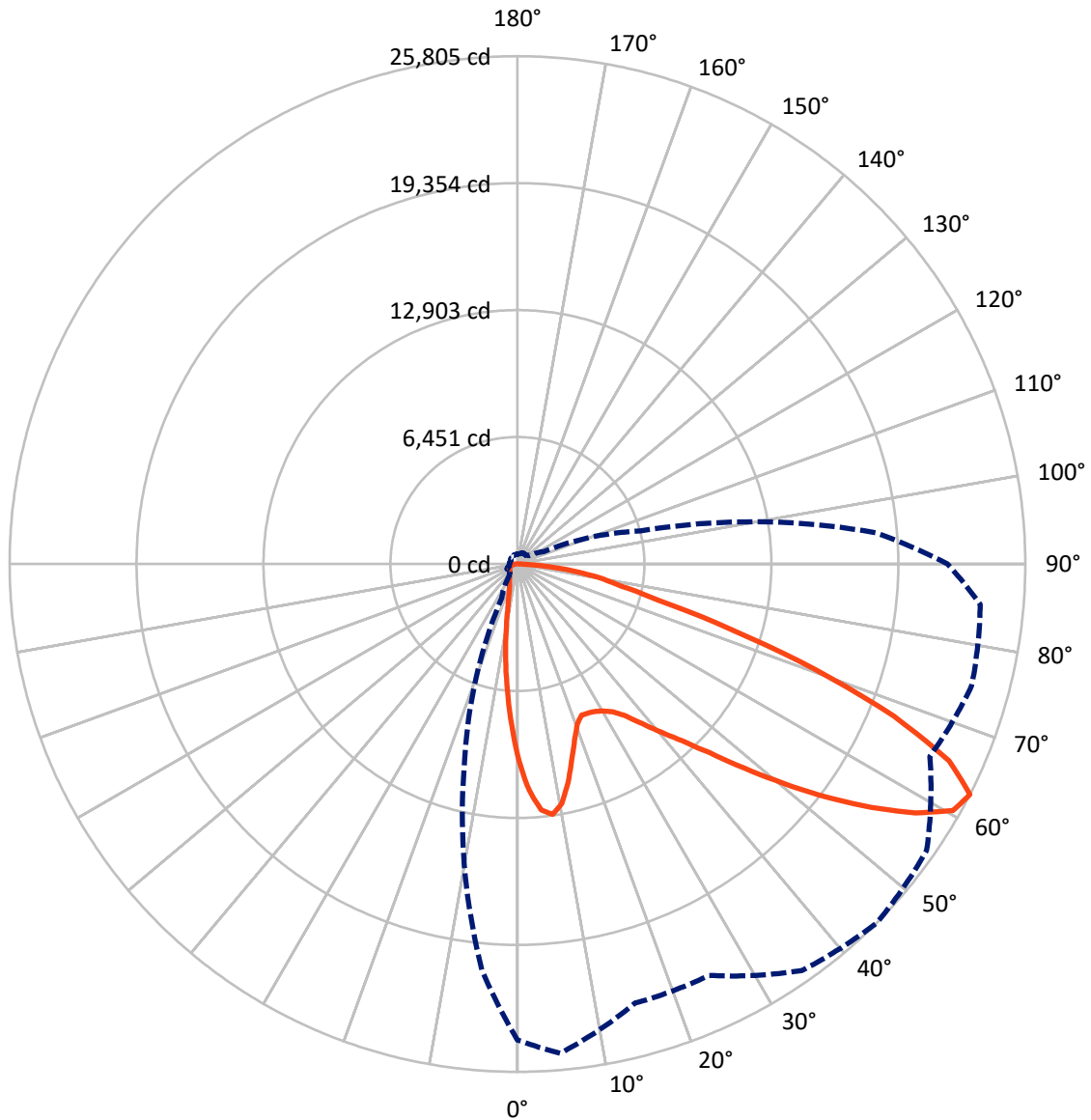


Based on 25 foot mounting height. Maximum calculated value = 18.9 fc  
 Type IV - Short - Non-Cutoff

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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
<b>House Side</b>	Lumens	4915.2	0.0	4915.2
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	24786.5	0.0	24786.5
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	29701.6	0.0	29701.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	730.5	2.5
10°-20°	1339.5	4.5
20°-30°	1953.0	6.6
30°-40°	3007.9	10.1
40°-50°	4426.9	14.9
50°-60°	6493.3	21.9
60°-70°	7258.6	24.4
70°-80°	3553.7	12.0
80°-90°	938.3	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°	29701.6	100.0
0°-180°	29701.6	100.0



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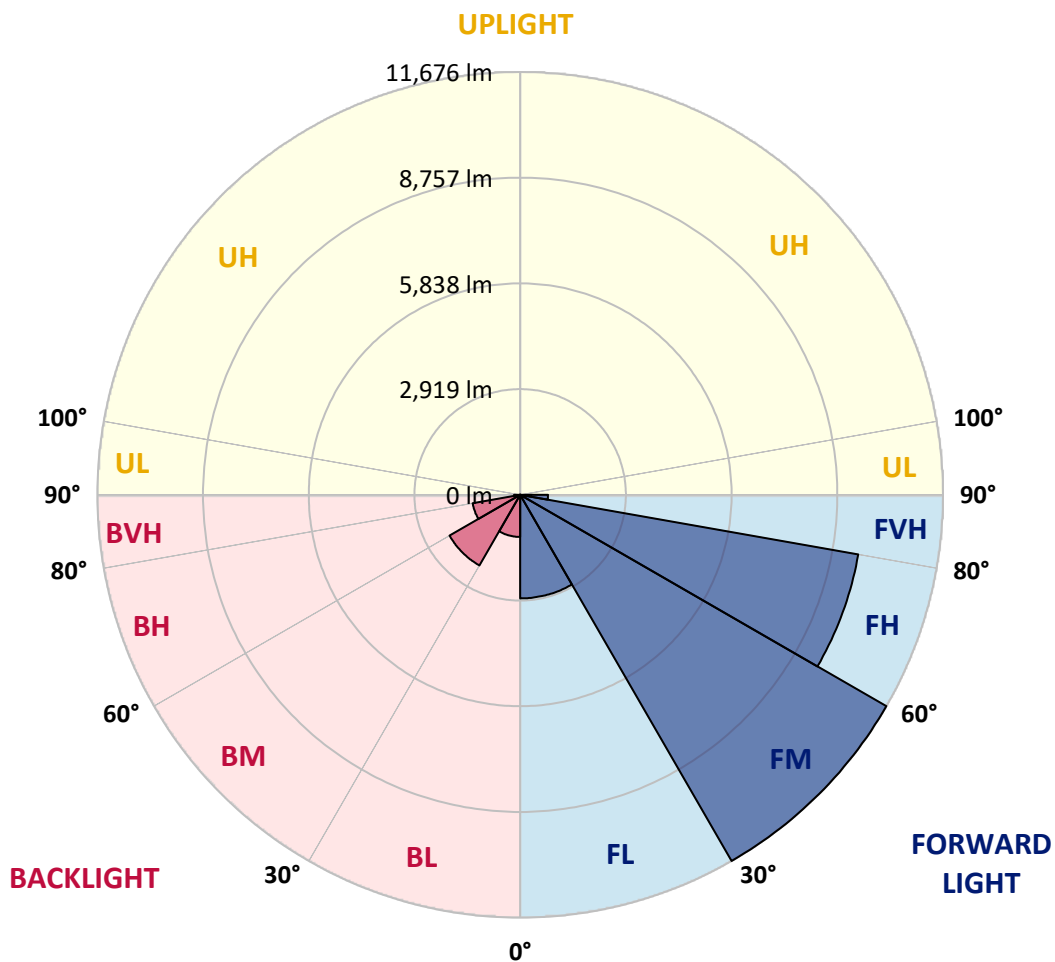
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2860.2	9.6			
FM (30°-60°)	11676.0	39.3			
FH (60°-80°)	9479.7	31.9			G4/12000
FVH (80°-90°)	770.5	2.6			G5
BL (0°-30°)	1162.9	3.9	B3/2500		
BM (30°-60°)	2252.1	7.6	B2/2500		
BH (60°-80°)	1332.5	4.5	B3/2500		G3/2500
BVH (80°-90°)	167.7	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°	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1
2.5°	10426.3	10593.3	10918.2	11160.9	11457.2	11525.6	11620.5	11527.2	11362.3	11143.4	11071.9
5°	9804.6	10160.8	10948.9	11643.3	12260.2	12547.5	12628.1	12390.6	11912.5	11283.9	10900.2
7.5°	8807.1	9313.2	10380.7	11403.2	12312.2	12849.6	12836.4	12286.2	11406.3	10382.3	9766.9
10°	7946.3	8524.5	9749.5	10892.2	11856.9	12377.9	12176.5	11473.7	10423.1	9244.3	8577.0
12.5°	7465.0	8031.6	9274.0	10421.5	11228.3	11407.9	11254.2	10565.2	9575.6	8384.1	7799.5
15°	7381.3	8004.1	9084.8	10018.7	10470.8	10314.5	10131.1	9822.6	9123.5	8106.3	7497.3
17.5°	7742.7	8428.1	9302.1	9737.8	9660.9	9388.0	9336.0	9370.5	9202.5	8414.8	7713.1
20°	8435.0	9257.6	9819.4	9605.8	9045.6	8669.8	8683.0	9207.2	9704.9	9197.2	8395.2
22.5°	9406.0	10345.2	10565.2	9675.8	8785.9	8340.1	8448.2	9297.3	10506.9	10340.4	9316.4
25°	10663.2	11519.2	11360.8	9930.2	8811.8	8380.9	8467.3	9607.4	11453.5	11483.2	10456.5
27.5°	11881.3	12675.2	12028.1	10268.4	8920.0	8477.4	8591.9	10095.0	12358.3	12724.0	11759.3
30°	12831.6	13383.9	12292.6	10576.8	9132.0	8665.0	8807.1	10558.8	12770.1	13561.5	12761.6
32.5°	13618.7	14015.2	12713.9	10959.0	9522.1	8960.2	9210.4	11122.2	13362.7	14358.6	13742.7
35°	14624.2	14737.1	13238.1	11385.1	10124.7	9474.9	9785.0	11674.0	13927.7	15163.2	14709.5
37.5°	15803.5	15658.3	13732.7	11968.2	10903.9	10279.5	10536.0	12279.8	14392.6	16075.9	15697.0
40°	16969.1	16619.2	14353.9	12872.4	12040.3	11228.3	11532.0	12926.5	14827.2	16990.3	16662.2
42.5°	17960.2	17442.4	14965.5	13866.8	13097.7	12275.1	12637.6	13577.9	15241.7	17770.5	17499.6
45°	18693.3	18049.8	15548.6	14821.9	14555.8	13665.9	13837.6	14323.7	15690.6	18422.4	18188.7
47.5°	19347.8	18660.4	16207.9	15785.5	15831.1	15474.9	15198.7	15192.4	16220.1	18954.6	18840.1
50°	20224.5	19507.9	16916.6	16777.7	17744.5	17507.6	16898.6	16206.3	16889.0	19558.8	19545.6
52.5°	21433.0	20850.5	17782.1	17847.3	19531.2	19686.0	18931.2	17424.9	17936.9	20667.1	20589.2
55°	22862.0	22521.7	18961.5	19077.0	21721.9	21833.2	21083.2	18947.7	19478.8	22272.6	22055.3
57.5°	23976.6	23905.1	20254.2	20553.1	23358.1	23857.9	23168.9	20711.6	21215.7	23624.2	23078.8
60°	24420.8	24768.5	21630.7	22042.0	24871.9	25424.7	24821.0	22260.4	22755.4	24184.4	23008.8
62.5°	24181.2	24957.7	23096.8	23062.3	25209.5	25805.3	25380.7	23122.8	23897.1	23606.1	21844.8
65°	23072.4	24277.2	23947.5	22799.4	24053.5	24102.3	23965.0	22737.4	24166.4	21779.1	19594.3
67.5°	20657.0	22391.3	22827.0	20546.8	20934.8	20616.8	20386.2	20627.9	22761.8	19041.0	16467.6
70°	16825.4	19434.8	19643.1	16433.7	16257.2	16043.1	15584.6	16911.8	19991.3	15605.8	13066.9
72.5°	12371.5	15114.5	15755.8	12053.0	11236.7	11280.2	10918.2	12744.7	16254.0	11592.4	9755.8
75°	8464.1	10944.2	12327.5	8410.1	7431.1	7448.6	7402.5	9030.7	12946.1	8063.9	7300.2
77.5°	6183.4	7819.1	9297.3	5653.9	5489.0	5387.8	5363.4	6318.5	9925.4	5855.3	5668.7
80°	4961.7	5776.8	6244.9	3918.5	4213.8	4205.8	4070.1	4344.7	6481.8	4282.7	4239.7
82.5°	3442.0	4439.6	5059.7	3071.0	2844.2	2796.5	2829.9	3235.9	4581.6	2927.4	2783.7
85°	1815.9	2948.6	5010.9	2721.7	1688.2	1346.8	1675.4	2649.6	3969.4	1551.4	1357.9
87.5°	232.2	852.3	3317.5	1086.0	666.3	358.8	795.6	1492.0	2548.9	316.4	276.1
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1
2.5°	10887.4	10670.1	10386.0	10122.6	9850.2	9578.8	9224.7	9002.6	8849.5	8819.8	8755.1
5°	10623.0	9901.0	9355.6	8883.9	8456.2	7851.4	7516.9	7239.2	7090.8	7076.5	7040.4
7.5°	9402.8	8406.9	7670.7	7002.8	6397.0	5908.8	5369.8	5119.1	5015.7	5040.1	5064.5
10°	8133.9	7020.8	6174.9	5492.2	4958.5	4547.2	4114.7	3822.6	3619.6	3578.8	3570.8
12.5°	7206.9	5985.7	5164.7	4682.3	4270.0	3882.5	3424.0	3079.0	2816.6	2726.5	2666.6
15°	6814.7	5479.5	4619.3	4099.8	3644.0	3152.6	2726.5	2365.5	2124.4	2045.9	2001.9
17.5°	6898.4	5339.0	4243.5	3578.8	2996.3	2483.2	1946.3	1637.3	1492.0	1454.9	1454.9
20°	7336.2	5313.1	3932.9	3099.1	2371.9	1777.7	1337.3	1160.8	1113.6	1108.8	1121.6
22.5°	7950.0	5404.8	3701.8	2683.0	1843.5	1298.1	1041.5	976.3	955.1	960.4	974.7
25°	8864.3	5713.2	3533.7	2312.0	1446.5	1062.7	928.6	889.9	879.9	893.1	911.1
27.5°	9948.2	6021.7	3428.8	2032.7	1221.2	971.6	883.0	842.8	849.1	865.5	881.4
30°	10900.2	6275.1	3264.0	1833.9	1151.2	976.3	883.0	827.9	821.6	824.7	829.5
32.5°	11754.6	6446.3	3071.0	1644.2	992.8	867.1	824.7	816.8	780.2	767.0	769.1
35°	12490.8	6446.3	2955.5	1533.4	889.9	769.1	700.7	659.9	641.3	642.9	661.5
37.5°	13201.0	6317.0	2898.2	1470.8	834.3	731.4	671.0	635.0	610.6	605.8	609.0
40°	13827.5	6129.3	2833.0	1444.9	791.9	708.7	651.9	621.7	595.8	587.8	589.4
42.5°	14330.5	5977.2	2760.9	1411.0	765.4	692.2	638.2	612.2	583.0	574.6	573.0
45°	14874.4	5926.8	2666.6	1342.0	778.6	693.8	635.0	607.4	577.7	568.2	565.0
47.5°	15591.0	6085.3	2568.5	1260.4	806.7	702.3	639.8	607.4	576.1	568.2	565.0
50°	16493.6	6457.4	2444.0	1141.2	778.6	725.1	638.2	602.1	576.1	568.2	561.8
52.5°	17653.3	6960.4	2281.3	1004.4	762.2	780.2	635.0	592.6	568.2	557.1	545.4
55°	19062.2	7371.7	2086.2	891.5	725.1	765.4	630.2	581.4	555.5	539.0	529.0
57.5°	20094.1	7520.1	1837.1	818.4	672.6	741.0	623.3	566.6	539.0	525.8	513.1
60°	19890.1	7232.9	1626.1	772.3	641.3	669.4	618.6	553.4	524.2	514.7	502.5
62.5°	18256.0	6481.8	1490.5	751.1	621.7	610.6	623.3	540.6	511.5	500.9	497.7
65°	15805.1	5373.0	1436.9	746.3	605.8	576.1	579.9	525.8	496.1	488.2	485.0
67.5°	13037.3	4336.7	1389.8	762.2	584.6	551.8	535.9	506.2	481.3	473.3	467.0
70°	10281.1	3606.9	1368.0	752.6	558.7	527.4	509.9	485.0	463.8	455.3	450.5
72.5°	8279.1	3046.6	1356.4	742.6	524.2	494.5	478.1	456.9	434.1	430.9	426.1
75°	7006.5	2395.2	1242.9	711.8	485.0	455.3	444.2	424.6	401.8	401.8	398.6
77.5°	5404.8	1732.2	1033.6	630.2	444.2	411.3	401.8	386.9	361.0	365.7	364.1
80°	3992.2	1130.0	808.3	522.6	393.8	362.5	357.2	342.9	314.8	321.7	321.7
82.5°	2735.0	741.0	581.4	427.7	336.0	306.9	306.9	292.0	261.3	264.5	274.6
85°	1373.3	509.9	434.1	331.3	261.3	246.5	246.5	235.3	204.1	205.7	218.9
87.5°	418.2	306.9	287.3	236.9	187.6	184.5	176.0	168.0	148.4	146.8	155.3
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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**CANDELA DISTRIBUTION (continued):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1
2.5°	8654.9	8561.6	8449.8	8201.2	8118.0	8112.7	8188.5	8109.5	8260.1	8196.5	8266.4
5°	6979.5	6888.9	6762.7	6446.3	6253.3	6122.4	6060.9	5878.1	6010.1	5913.6	5994.2
7.5°	5133.4	5154.6	5071.4	4885.3	4465.5	4255.1	4131.1	4019.8	4116.2	4106.2	4259.9
10°	3608.5	3665.2	3606.9	3419.3	3079.0	2963.4	2986.2	3030.2	3156.4	3221.0	3457.9
12.5°	2597.7	2594.5	2556.9	2388.9	2165.2	2177.9	2271.2	2347.5	2463.6	2532.5	2773.7
15°	1939.4	1910.2	1893.8	1756.5	1629.3	1657.4	1703.0	1711.0	1784.6	1825.4	2021.6
17.5°	1466.1	1480.9	1498.4	1400.9	1304.4	1286.4	1250.9	1206.4	1228.1	1236.0	1333.6
20°	1164.0	1222.8	1267.3	1198.4	1100.9	1047.9	1002.3	973.1	973.1	971.6	999.1
22.5°	1017.1	1059.5	1107.2	1059.5	971.6	925.4	899.5	876.7	873.5	873.5	899.5
25°	937.6	968.4	1014.0	981.6	915.9	881.4	857.1	827.9	816.8	813.1	831.1
27.5°	897.9	911.1	933.9	904.2	849.1	832.7	826.3	800.4	785.0	777.0	795.6
30°	831.1	827.9	829.5	800.4	755.8	754.2	765.4	770.7	765.4	763.8	791.9
32.5°	769.1	762.2	760.6	734.6	693.8	684.3	693.8	703.9	715.0	731.4	763.8
35°	690.6	707.1	716.6	693.8	644.5	615.4	604.2	586.2	576.1	576.1	613.8
37.5°	628.6	666.3	681.1	659.9	605.8	565.0	545.4	542.2	543.8	550.2	586.2
40°	607.4	635.0	647.7	627.0	573.0	535.9	524.2	521.0	524.2	534.3	569.8
42.5°	594.2	613.8	612.2	586.2	542.2	516.3	509.9	506.2	509.9	519.4	558.7
45°	583.0	595.8	583.0	551.8	511.5	497.7	499.3	497.7	500.9	511.5	548.6
47.5°	573.0	577.7	561.8	530.6	488.2	485.0	491.3	496.1	499.3	508.3	547.0
50°	558.7	558.7	543.8	511.5	468.6	470.1	478.1	489.8	491.3	500.9	532.7
52.5°	540.6	539.0	529.0	497.7	452.1	456.9	456.9	470.1	473.3	485.0	517.8
55°	525.8	522.6	517.8	488.2	437.8	445.8	441.0	445.8	453.7	465.4	500.9
57.5°	513.1	506.2	506.2	479.7	426.1	429.3	418.2	424.6	434.1	444.2	481.3
60°	499.3	492.9	496.1	468.6	408.1	404.9	400.2	412.9	416.6	427.7	465.4
62.5°	485.0	479.7	481.3	455.3	395.4	386.9	386.9	398.6	400.2	416.6	452.1
65°	473.3	467.0	465.4	442.6	380.6	371.0	375.8	380.6	383.7	400.2	434.1
67.5°	462.2	448.9	448.9	430.9	364.1	354.1	364.1	362.5	367.8	382.2	409.7
70°	447.3	429.3	430.9	423.0	347.7	336.0	344.5	342.9	346.1	355.7	383.7
72.5°	424.6	409.7	412.9	409.7	331.3	314.8	318.0	318.0	318.0	326.5	355.7
75°	395.4	383.7	393.8	401.8	311.7	288.9	292.0	292.0	287.3	292.0	328.1
77.5°	358.8	352.5	385.3	374.2	288.9	261.3	261.3	258.1	248.6	254.9	293.6
80°	320.1	314.8	355.7	313.3	262.9	227.4	223.7	215.2	205.7	210.4	250.2
82.5°	279.3	274.6	298.9	240.1	227.4	187.6	179.7	164.8	155.3	160.1	195.6
85°	229.0	229.0	230.6	181.3	172.8	143.6	134.1	114.5	102.8	106.0	140.5
87.5°	163.3	168.0	155.3	124.0	102.8	80.0	73.7	62.0	51.9	60.4	73.7
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: P299024

CATALOG NUMBER: GLNA-AF-09-LED-E1-SLL-7030-600

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1	10035.1
2.5°	8625.8	8805.5	9009.5	9270.3	9494.5	9861.3	10214.3	10426.3
5°	6449.5	6748.4	7120.0	7599.1	8044.9	8713.8	9378.4	9804.6
7.5°	4615.5	4935.7	5337.4	5934.8	6565.5	7418.9	8297.7	8807.1
10°	3819.4	4147.5	4485.2	4888.5	5404.8	6333.4	7371.7	7946.3
12.5°	3159.5	3510.4	3874.6	4299.1	4777.2	5606.7	6803.5	7465.0
15°	2418.0	2809.7	3239.0	3776.5	4375.4	5334.3	6663.1	7381.3
17.5°	1657.4	2095.2	2622.1	3285.2	4018.2	5245.8	6914.8	7742.7
20°	1141.2	1459.7	2023.1	2800.2	3682.1	5234.6	7397.7	8435.0
22.5°	955.1	1097.2	1508.5	2354.4	3428.8	5375.1	8147.7	9406.0
25°	883.0	968.4	1204.8	1967.5	3244.3	5698.4	9179.7	10663.2
27.5°	841.2	917.5	1094.0	1714.7	3099.1	6073.7	10183.6	11881.3
30°	857.1	935.5	1062.7	1585.3	2901.4	6386.9	11075.1	12831.6
32.5°	772.3	806.7	911.1	1470.8	2759.4	6649.8	11855.3	13618.7
35°	658.3	718.2	813.1	1417.3	2762.5	6826.3	12706.0	14624.2
37.5°	627.0	687.5	755.8	1397.7	2800.2	7014.5	13682.3	15803.5
40°	607.4	663.1	721.9	1386.6	2836.2	7185.7	14639.6	16969.1
42.5°	594.2	644.5	718.2	1346.8	2854.2	7339.4	15426.1	17960.2
45°	592.6	644.5	731.4	1307.6	2881.8	7504.2	16086.0	18693.3
47.5°	594.2	666.3	707.1	1260.4	2881.8	7779.8	16859.9	19347.8
50°	587.8	702.3	681.1	1193.6	2815.0	8302.5	17921.0	20224.5
52.5°	584.6	697.5	630.2	1090.8	2698.9	9132.0	19281.1	21433.0
55°	576.1	672.6	594.2	937.6	2563.8	10036.7	20737.6	22862.0
57.5°	568.2	595.8	574.6	803.5	2354.4	10673.3	21739.9	23976.6
60°	636.6	521.0	558.7	737.8	2075.1	10847.7	21701.2	24420.8
62.5°	589.4	488.2	537.5	723.5	1879.5	10357.9	20698.4	24181.2
65°	462.2	467.0	516.3	765.4	1827.0	9060.4	18921.7	23072.4
67.5°	423.0	445.8	494.5	820.0	1832.3	7254.1	16267.3	20657.0
70°	398.6	423.0	470.1	847.5	1845.1	5407.9	12860.8	16825.4
72.5°	371.0	392.2	442.6	852.3	1759.7	3928.1	9912.7	12371.5
75°	337.6	357.2	403.4	742.6	1458.1	2724.9	7582.7	8464.1
77.5°	300.5	314.8	354.1	573.0	1082.9	1743.8	5691.5	6183.4
80°	256.5	264.5	297.3	419.8	741.0	1090.8	4503.2	4961.7
82.5°	205.7	208.8	230.6	314.8	481.3	700.7	3015.9	3442.0
85°	145.2	145.2	158.5	229.0	328.1	444.2	1637.3	1815.9
87.5°	68.4	70.0	70.0	125.6	171.2	225.8	377.4	232.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)