

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: P299008

Luminaire Tested: **GLNA-AF-06-LED-E1-SLL-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299008  
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-600  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(6) 70 CRI, 4000K 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: 20543.2 lumens  
Efficiency: N/A  
Efficacy: 106.4 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G4

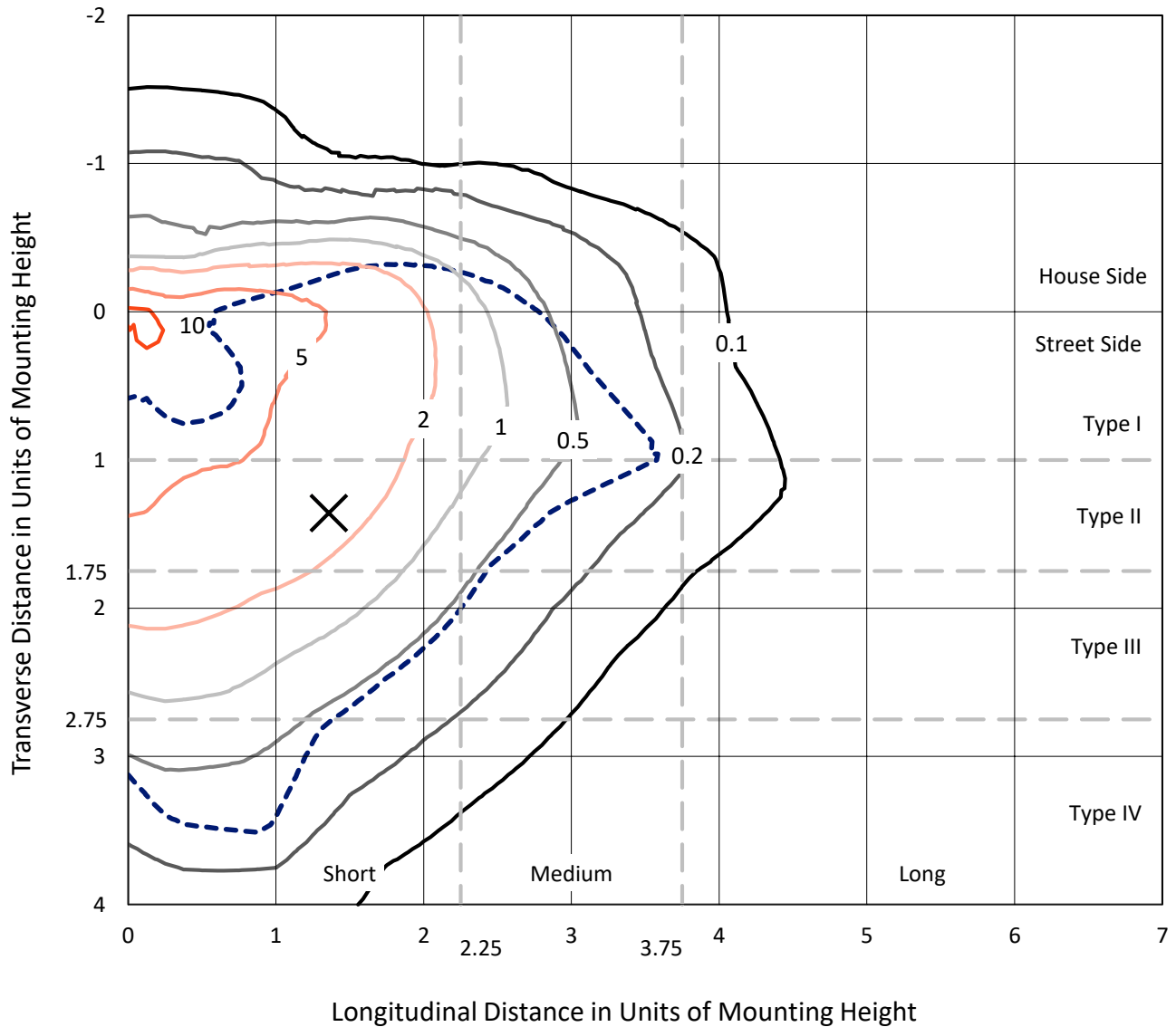
Input Watts (W): 193  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

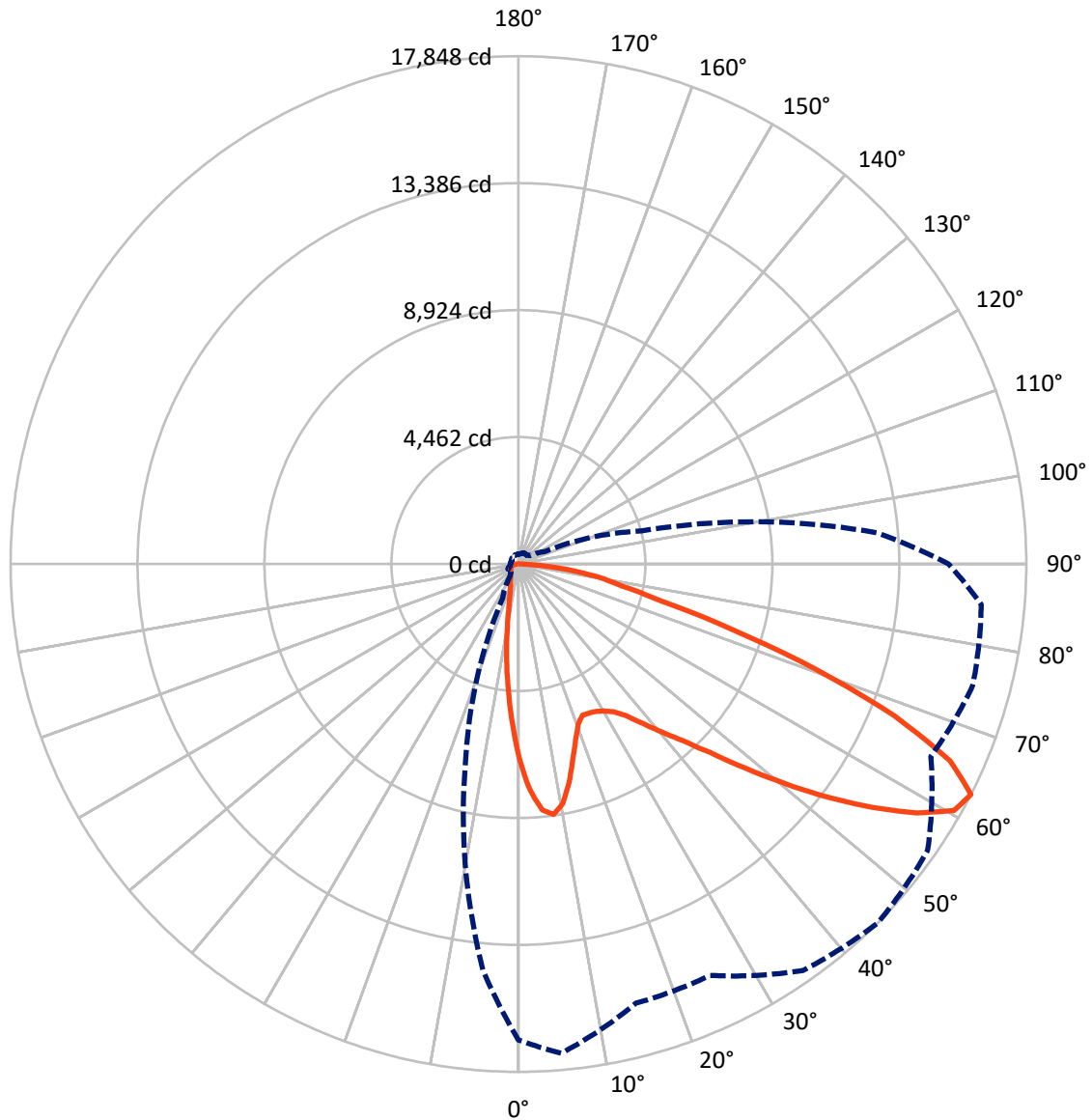
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.1 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	3399.6	0.0	3399.6
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	17143.6	0.0	17143.6
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	20543.2	0.0	20543.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	505.2	2.5
10°-20°	926.5	4.5
20°-30°	1350.8	6.6
30°-40°	2080.5	10.1
40°-50°	3061.9	14.9
50°-60°	4491.1	21.9
60°-70°	5020.4	24.4
70°-80°	2457.9	12.0
80°-90°	649.0	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°	20543.2	100.0
0°-180°	20543.2	100.0

**Coefficient of Utilization**



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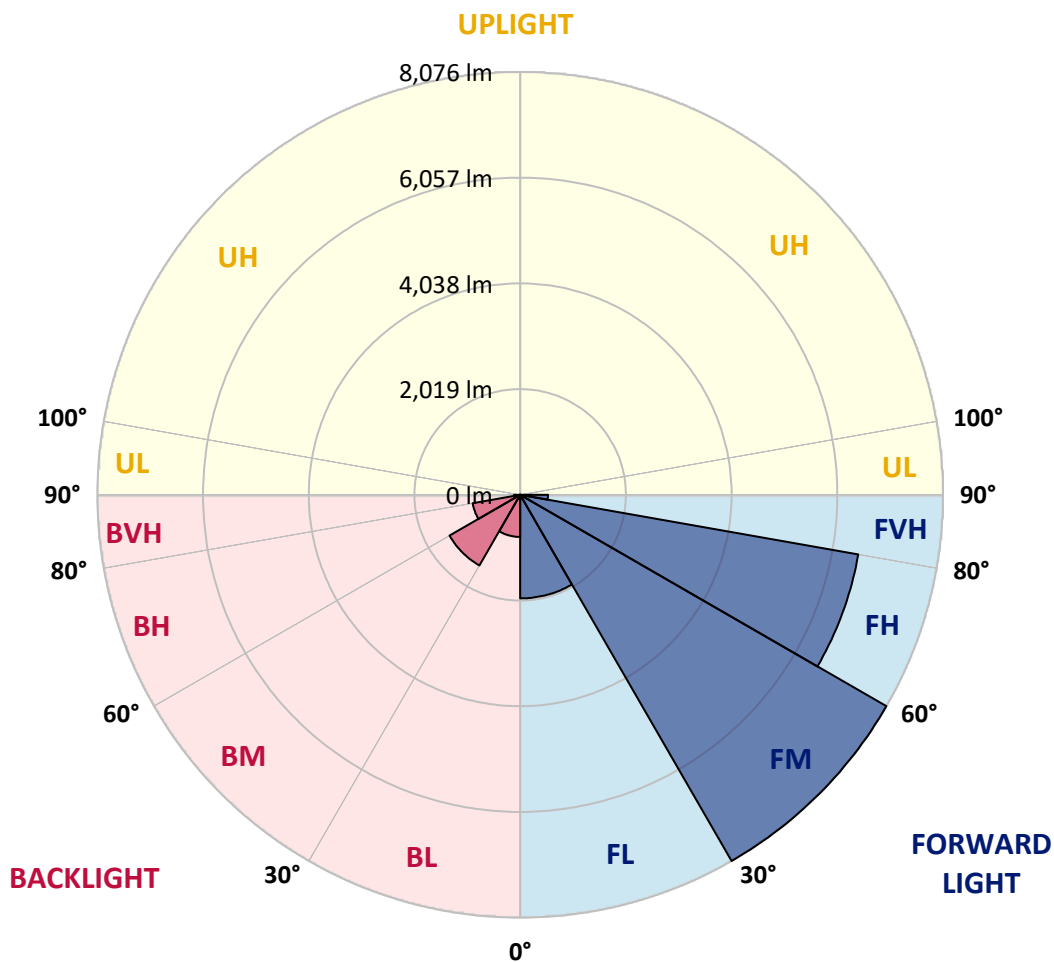
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1978.3	9.6			
FM (30°-60°)	8075.7	39.3			
FH (60°-80°)	6556.7	31.9			G3/7500
FVH (80°-90°)	532.9	2.6			G4/750
BL (0°-30°)	804.3	3.9	B2/1000		
BM (30°-60°)	1557.7	7.6	B2/2500		
BH (60°-80°)	921.6	4.5	B2/1000		G2/1000
BVH (80°-90°)	116.0	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8
2.5°	7211.4	7326.9	7551.6	7719.5	7924.4	7971.7	8037.3	7972.8	7858.8	7707.4	7657.9
5°	6781.4	7027.7	7572.9	8053.1	8479.8	8678.5	8734.2	8570.0	8239.3	7804.6	7539.1
7.5°	6091.4	6441.5	7179.9	7887.0	8515.8	8887.5	8878.3	8497.8	7889.2	7181.0	6755.3
10°	5496.1	5896.0	6743.2	7533.6	8200.8	8561.2	8421.9	7935.8	7209.2	6393.9	5932.3
12.5°	5163.2	5555.1	6414.4	7208.1	7766.1	7890.3	7784.0	7307.4	6623.0	5798.9	5394.5
15°	5105.3	5536.0	6283.5	6929.5	7242.2	7134.0	7007.2	6793.8	6310.3	5606.8	5185.6
17.5°	5355.3	5829.3	6433.8	6735.2	6682.0	6493.2	6457.3	6481.1	6364.9	5820.1	5334.8
20°	5834.1	6403.0	6791.6	6643.9	6256.4	5996.5	6005.6	6368.2	6712.4	6361.2	5806.6
22.5°	6505.7	7155.3	7307.4	6692.3	6076.8	5768.5	5843.2	6430.5	7267.1	7152.0	6443.7
25°	7375.3	7967.3	7857.7	6868.3	6094.7	5796.7	5856.4	6645.0	7921.9	7942.4	7232.3
27.5°	8217.7	8766.9	8319.3	7102.1	6169.5	5863.4	5942.6	6982.3	8547.6	8800.6	8133.4
30°	8875.0	9257.0	8502.2	7315.5	6316.2	5993.2	6091.4	7303.0	8832.5	9379.8	8826.6
32.5°	9419.4	9693.6	8793.6	7579.8	6586.0	6197.4	6370.4	7692.7	9242.4	9931.2	9505.2
35°	10114.9	10193.0	9156.2	7874.6	7002.8	6553.3	6767.8	8074.4	9633.2	10487.7	10173.9
37.5°	10930.6	10830.1	9498.2	8277.8	7541.7	7109.8	7287.3	8493.4	9954.7	11119.0	10856.9
40°	11736.7	11494.7	9927.9	8903.3	8327.7	7766.1	7976.1	8940.6	10255.3	11751.4	11524.4
42.5°	12422.2	12064.1	10351.0	9591.0	9059.1	8490.1	8740.8	9391.2	10542.0	12291.0	12103.7
45°	12929.3	12484.2	10754.2	10251.6	10067.6	9452.1	9570.8	9907.0	10852.5	12741.9	12580.3
47.5°	13382.0	12906.5	11210.3	10918.1	10949.6	10703.3	10512.3	10507.9	11218.7	13110.0	13030.8
50°	13988.4	13492.7	11700.4	11604.4	12273.0	12109.2	11687.9	11209.2	11681.3	13527.9	13518.7
52.5°	14824.2	14421.3	12299.1	12344.2	13508.8	13615.9	13093.9	12052.0	12406.1	14294.5	14240.6
55°	15812.6	15577.2	13114.8	13194.7	15024.0	15101.0	14582.3	13105.2	13472.6	15404.9	15254.6
57.5°	16583.5	16534.0	14008.9	14215.7	16155.7	16501.4	16024.8	14325.3	14673.9	16339.7	15962.5
60°	16890.7	17131.2	14961.0	15245.4	17202.7	17585.1	17167.5	15396.5	15738.9	16727.2	15914.1
62.5°	16725.0	17262.1	15975.0	15951.1	17436.2	17848.3	17554.6	15992.9	16528.5	16327.3	15109.1
65°	15958.1	16791.4	16563.4	15769.3	16636.7	16670.4	16575.5	15726.4	16714.8	15063.6	13552.5
67.5°	14287.5	15487.0	15788.4	14211.3	14479.6	14259.6	14100.2	14267.3	15743.3	13169.7	11389.9
70°	11637.4	13442.1	13586.2	11366.4	11244.4	11096.3	10779.1	11697.1	13827.1	10793.8	9037.8
72.5°	8556.8	10454.0	10897.6	8336.5	7771.9	7802.0	7551.6	8814.9	11242.2	8017.9	6747.6
75°	5854.2	7569.6	8526.4	5816.8	5139.7	5151.8	5119.9	6246.1	8954.2	5577.5	5049.2
77.5°	4276.8	5408.1	6430.5	3910.5	3796.5	3726.5	3709.6	4370.2	6865.0	4049.8	3920.8
80°	3431.7	3995.6	4319.3	2710.3	2914.5	2909.0	2815.1	3005.0	4483.2	2962.1	2932.4
82.5°	2380.7	3070.6	3499.6	2124.1	1967.2	1934.2	1957.3	2238.1	3168.9	2024.7	1925.4
85°	1256.0	2039.4	3465.8	1882.5	1167.6	931.5	1158.8	1832.6	2745.5	1073.0	939.2
87.5°	160.6	589.5	2294.6	751.2	460.8	248.2	550.3	1032.0	1763.0	218.9	191.0
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°	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8
2.5°	7530.3	7380.0	7183.5	7001.3	6812.9	6625.2	6380.3	6226.7	6120.8	6100.2	6055.5
5°	7347.4	6848.1	6470.9	6144.6	5848.7	5430.4	5199.1	5007.0	4904.4	4894.5	4869.5
7.5°	6503.5	5814.6	5305.4	4843.5	4424.5	4086.9	3714.0	3540.6	3469.1	3486.0	3502.9
10°	5625.8	4856.0	4270.9	3798.7	3429.5	3145.1	2845.9	2643.9	2503.5	2475.3	2469.8
12.5°	4984.7	4140.0	3572.2	3238.5	2953.3	2685.3	2368.2	2129.6	1948.1	1885.8	1844.4
15°	4713.4	3789.9	3194.9	2835.7	2520.4	2180.5	1885.8	1636.1	1469.3	1415.1	1384.6
17.5°	4771.3	3692.8	2935.0	2475.3	2072.4	1717.5	1346.2	1132.4	1032.0	1006.3	1006.3
20°	5074.1	3674.8	2720.2	2143.5	1640.5	1229.6	924.9	802.9	770.2	766.9	775.7
22.5°	5498.6	3738.2	2560.3	1855.7	1275.0	897.8	720.4	675.3	660.6	664.3	674.2
25°	6131.0	3951.6	2444.1	1599.1	1000.5	735.0	642.3	615.5	608.6	617.7	630.2
27.5°	6880.7	4164.9	2371.5	1405.9	844.6	672.0	610.8	582.9	587.3	598.7	609.7
30°	7539.1	4340.2	2257.5	1268.4	796.3	675.3	610.8	572.6	568.2	570.4	573.7
32.5°	8130.1	4458.6	2124.1	1137.2	686.6	599.8	570.4	564.9	539.6	530.5	531.9
35°	8639.3	4458.6	2044.2	1060.6	615.5	531.9	484.6	456.4	443.6	444.7	457.5
37.5°	9130.5	4369.1	2004.6	1017.3	577.0	505.9	464.1	439.2	422.3	419.0	421.2
40°	9563.9	4239.4	1959.5	999.4	547.7	490.1	450.9	430.0	412.1	406.6	407.7
42.5°	9911.8	4134.2	1909.6	975.9	529.4	478.8	441.4	423.4	403.3	397.4	396.3
45°	10287.9	4099.3	1844.4	928.2	538.5	479.9	439.2	420.1	399.6	393.0	390.8
47.5°	10783.5	4208.9	1776.5	871.8	558.0	485.7	442.5	420.1	398.5	393.0	390.8
50°	11407.9	4466.3	1690.4	789.3	538.5	501.5	441.4	416.5	398.5	393.0	388.6
52.5°	12210.0	4814.2	1577.8	694.7	527.2	539.6	439.2	409.9	393.0	385.3	377.2
55°	13184.4	5098.7	1442.9	616.6	501.5	529.4	435.9	402.2	384.2	372.8	365.9
57.5°	13898.2	5201.3	1270.6	566.0	465.2	512.5	431.1	391.9	372.8	363.7	354.9
60°	13757.0	5002.6	1124.7	534.1	443.6	463.0	427.8	382.7	362.6	356.0	347.5
62.5°	12626.8	4483.2	1030.9	519.5	430.0	422.3	431.1	373.9	353.8	346.4	344.2
65°	10931.7	3716.2	993.9	516.2	419.0	398.5	401.1	363.7	343.1	337.6	335.4
67.5°	9017.3	2999.5	961.2	527.2	404.4	381.6	370.6	350.1	332.9	327.4	323.0
70°	7110.9	2494.7	946.2	520.6	386.4	364.8	352.7	335.4	320.8	314.9	311.6
72.5°	5726.3	2107.2	938.1	513.6	362.6	342.0	330.7	316.0	300.2	298.0	294.7
75°	4846.1	1656.7	859.7	492.3	335.4	314.9	307.2	293.6	277.9	277.9	275.7
77.5°	3738.2	1198.0	714.9	435.9	307.2	284.5	277.9	267.6	249.7	253.0	251.9
80°	2761.2	781.6	559.1	361.5	272.4	250.8	247.1	237.2	217.8	222.5	222.5
82.5°	1891.7	512.5	402.2	295.8	232.4	212.3	212.3	202.0	180.7	182.9	189.9
85°	949.9	352.7	300.2	229.1	180.7	170.5	170.5	162.8	141.1	142.2	151.4
87.5°	289.2	212.3	198.7	163.9	129.8	127.6	121.7	116.2	102.6	101.5	107.4
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8
2.5°	5986.2	5921.7	5844.3	5672.4	5614.8	5611.2	5663.6	5609.0	5713.1	5669.1	5717.5
5°	4827.4	4764.7	4677.5	4458.6	4325.1	4234.6	4192.1	4065.6	4156.9	4090.2	4145.9
7.5°	3550.5	3565.2	3507.6	3379.0	3088.6	2943.1	2857.3	2780.3	2847.0	2840.1	2946.4
10°	2495.8	2535.0	2494.7	2364.9	2129.6	2049.7	2065.4	2095.9	2183.1	2227.8	2391.7
12.5°	1796.7	1794.5	1768.5	1652.3	1497.6	1506.4	1570.9	1623.7	1704.0	1751.6	1918.4
15°	1341.4	1321.2	1309.9	1214.9	1126.9	1146.4	1177.9	1183.4	1234.3	1262.6	1398.2
17.5°	1014.0	1024.3	1036.4	968.9	902.2	889.7	865.2	834.4	849.4	854.9	922.4
20°	805.1	845.7	876.5	828.9	761.4	724.8	693.2	673.1	673.1	672.0	691.0
22.5°	703.5	732.8	765.8	732.8	672.0	640.1	622.1	606.4	604.2	604.2	622.1
25°	648.5	669.8	701.3	678.9	633.5	609.7	592.8	572.6	564.9	562.4	574.8
27.5°	621.0	630.2	645.9	625.4	587.3	575.9	571.5	553.6	542.9	537.4	550.3
30°	574.8	572.6	573.7	553.6	522.8	521.7	529.4	533.0	529.4	528.3	547.7
32.5°	531.9	527.2	526.1	508.1	479.9	473.3	479.9	486.8	494.5	505.9	528.3
35°	477.7	489.0	495.6	479.9	445.8	425.6	417.9	405.5	398.5	398.5	424.5
37.5°	434.8	460.8	471.1	456.4	419.0	390.8	377.2	375.0	376.1	380.5	405.5
40°	420.1	439.2	448.0	433.7	396.3	370.6	362.6	360.4	362.6	369.5	394.1
42.5°	411.0	424.5	423.4	405.5	375.0	357.1	352.7	350.1	352.7	359.3	386.4
45°	403.3	412.1	403.3	381.6	353.8	344.2	345.3	344.2	346.4	353.8	379.4
47.5°	396.3	399.6	388.6	367.0	337.6	335.4	339.8	343.1	345.3	351.6	378.3
50°	386.4	386.4	376.1	353.8	324.1	325.2	330.7	338.7	339.8	346.4	368.4
52.5°	373.9	372.8	365.9	344.2	312.7	316.0	316.0	325.2	327.4	335.4	358.2
55°	363.7	361.5	358.2	337.6	302.8	308.3	305.0	308.3	313.8	321.9	346.4
57.5°	354.9	350.1	350.1	331.8	294.7	296.9	289.2	293.6	300.2	307.2	332.9
60°	345.3	340.9	343.1	324.1	282.3	280.1	276.8	285.6	288.1	295.8	321.9
62.5°	335.4	331.8	332.9	314.9	273.5	267.6	267.6	275.7	276.8	288.1	312.7
65°	327.4	323.0	321.9	306.1	263.2	256.6	259.9	263.2	265.4	276.8	300.2
67.5°	319.7	310.5	310.5	298.0	251.9	244.9	251.9	250.8	254.4	264.3	283.4
70°	309.4	296.9	298.0	292.5	240.5	232.4	238.3	237.2	239.4	246.0	265.4
72.5°	293.6	283.4	285.6	283.4	229.1	217.8	220.0	220.0	220.0	225.8	246.0
75°	273.5	265.4	272.4	277.9	215.6	199.8	202.0	202.0	198.7	202.0	226.9
77.5°	248.2	243.8	266.5	258.8	199.8	180.7	180.7	178.5	171.9	176.3	203.1
80°	221.4	217.8	246.0	216.7	181.8	157.3	154.7	148.8	142.2	145.5	173.0
82.5°	193.2	189.9	206.8	166.1	157.3	129.8	124.3	114.0	107.4	110.7	135.3
85°	158.4	158.4	159.5	125.4	119.5	99.3	92.7	79.2	71.1	73.3	97.1
87.5°	112.9	116.2	107.4	85.8	71.1	55.4	51.0	42.9	35.9	41.8	51.0
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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CATALOG NUMBER: GLNA-AF-06-LED-E1-SLL-600

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8	6940.8
2.5°	5966.1	6090.3	6231.5	6411.8	6566.9	6820.6	7064.8	7211.4
5°	4460.8	4667.6	4924.5	5255.9	5564.3	6026.9	6486.6	6781.4
7.5°	3192.4	3413.8	3691.7	4104.8	4541.1	5131.3	5739.1	6091.4
10°	2641.7	2868.6	3102.2	3381.2	3738.2	4380.5	5098.7	5496.1
12.5°	2185.3	2428.0	2679.8	2973.5	3304.2	3877.9	4705.7	5163.2
15°	1672.4	1943.3	2240.3	2612.0	3026.3	3689.5	4608.5	5105.3
17.5°	1146.4	1449.2	1813.6	2272.2	2779.2	3628.2	4782.7	5355.3
20°	789.3	1009.6	1399.3	1936.7	2546.8	3620.5	5116.6	5834.1
22.5°	660.6	758.9	1043.3	1628.4	2371.5	3717.7	5635.4	6505.7
25°	610.8	669.8	833.3	1360.8	2244.0	3941.3	6349.1	7375.3
27.5°	581.8	634.6	756.7	1186.0	2143.5	4200.9	7043.5	8217.7
30°	592.8	647.0	735.0	1096.5	2006.8	4417.5	7660.1	8875.0
32.5°	534.1	558.0	630.2	1017.3	1908.5	4599.4	8199.7	9419.4
35°	455.3	496.7	562.4	980.3	1910.7	4721.4	8788.1	10114.9
37.5°	433.7	475.5	522.8	966.7	1936.7	4851.6	9463.4	10930.6
40°	420.1	458.6	499.3	959.0	1961.7	4970.0	10125.5	11736.7
42.5°	411.0	445.8	496.7	931.5	1974.1	5076.3	10669.5	12422.2
45°	409.9	445.8	505.9	904.4	1993.2	5190.3	11125.9	12929.3
47.5°	411.0	460.8	489.0	871.8	1993.2	5381.0	11661.2	13382.0
50°	406.6	485.7	471.1	825.6	1947.0	5742.4	12395.1	13988.4
52.5°	404.4	482.4	435.9	754.5	1866.7	6316.2	13335.8	14824.2
55°	398.5	465.2	411.0	648.5	1773.2	6941.9	14343.2	15812.6
57.5°	393.0	412.1	397.4	555.8	1628.4	7382.2	15036.5	16583.5
60°	440.3	360.4	386.4	510.3	1435.2	7502.8	15009.7	16890.7
62.5°	407.7	337.6	371.7	500.4	1300.0	7164.1	14316.1	16725.0
65°	319.7	323.0	357.1	529.4	1263.7	6266.7	13087.3	15958.1
67.5°	292.5	308.3	342.0	567.1	1267.3	5017.3	11251.3	14287.5
70°	275.7	292.5	325.2	586.2	1276.1	3740.4	8895.2	11637.4
72.5°	256.6	271.3	306.1	589.5	1217.1	2716.9	6856.2	8556.8
75°	233.5	247.1	279.0	513.6	1008.5	1884.7	5244.6	5854.2
77.5°	207.9	217.8	244.9	396.3	749.0	1206.1	3936.6	4276.8
80°	177.4	182.9	205.7	290.3	512.5	754.5	3114.6	3431.7
82.5°	142.2	144.4	159.5	217.8	332.9	484.6	2086.0	2380.7
85°	100.4	100.4	109.6	158.4	226.9	307.2	1132.4	1256.0
87.5°	47.3	48.4	48.4	86.9	118.4	156.2	261.0	160.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)