

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: P299476

Luminaire Tested: **GLNA-AF-04-LED-E1-SLR-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299476  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194679)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-04-LED-E1-SLR-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill  
Light Eliminator Right OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

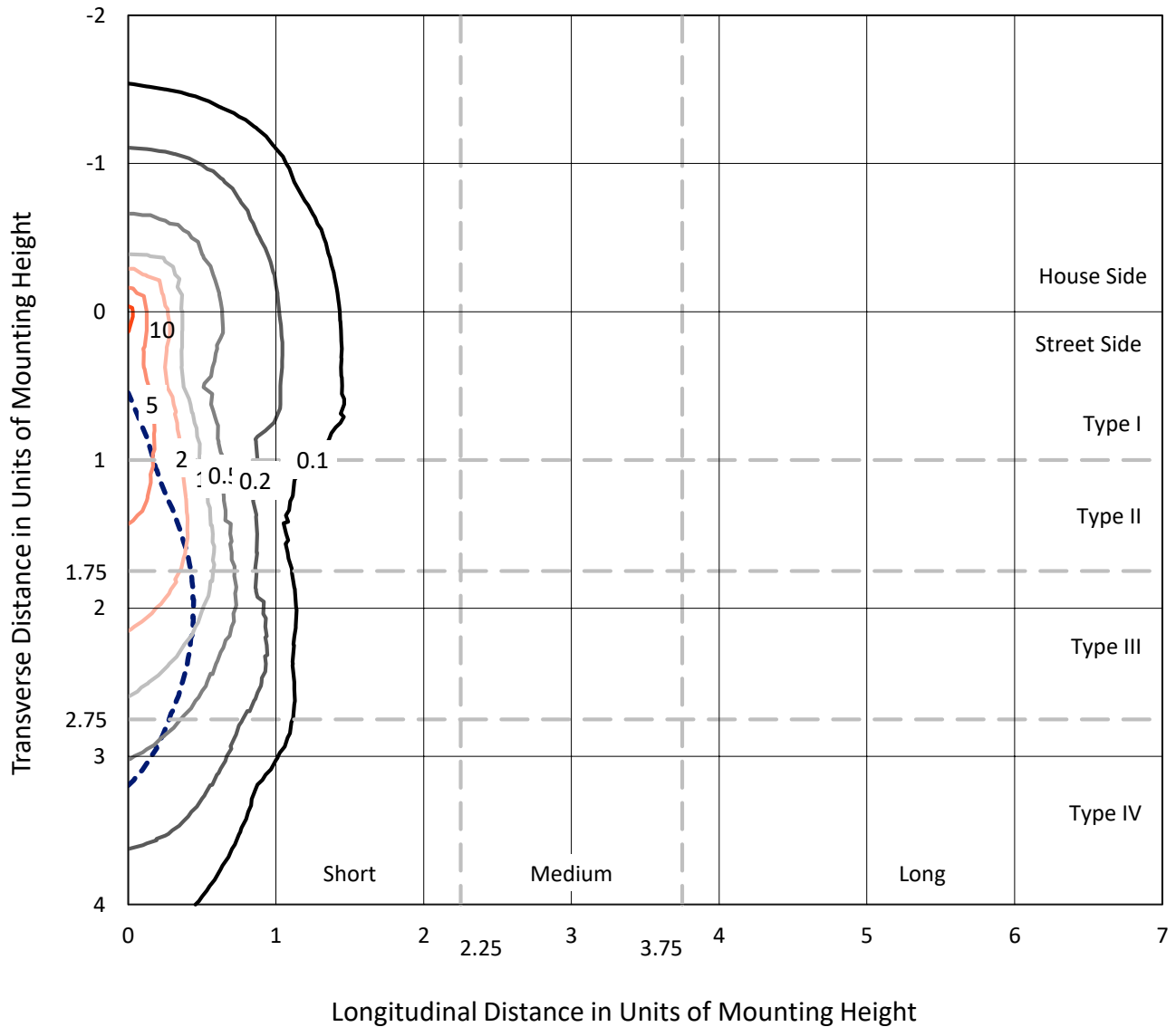
Lumens per Lamp: N/A  
Luminaire Lumens: 13855.2 lumens  
Efficiency: N/A  
Efficacy: 107.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (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

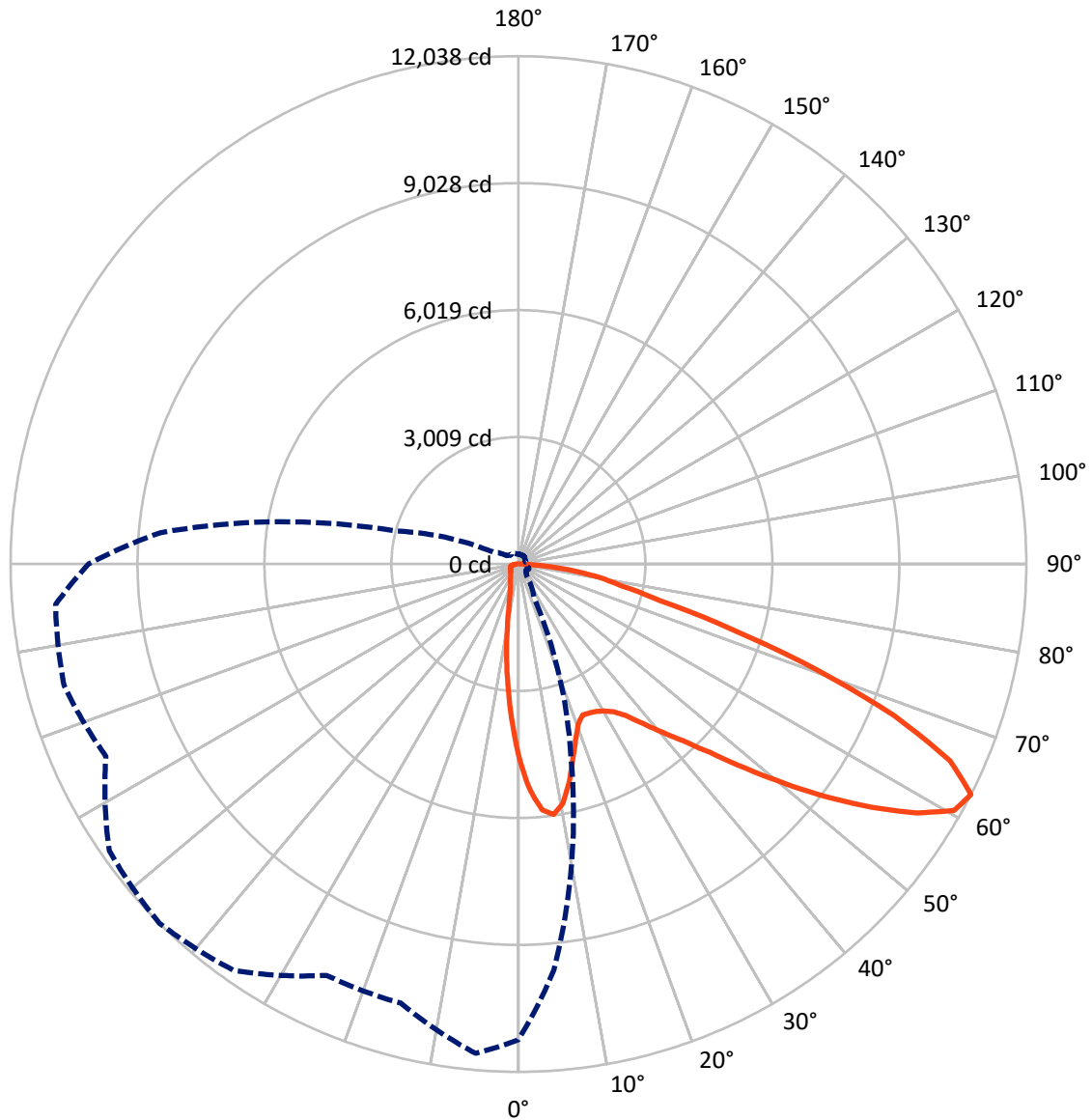
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 11.7 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2292.9	0.0	2292.9
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	11562.4	0.0	11562.4
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	13855.2	0.0	13855.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	340.8	2.5
10°-20°	624.9	4.5
20°-30°	911.0	6.6
30°-40°	1403.1	10.1
40°-50°	2065.1	14.9
50°-60°	3029.0	21.9
60°-70°	3386.0	24.4
70°-80°	1657.7	12.0
80°-90°	437.7	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°	13855.2	100.0
0°-180°	13855.2	100.0

**Coefficient of Utilization**



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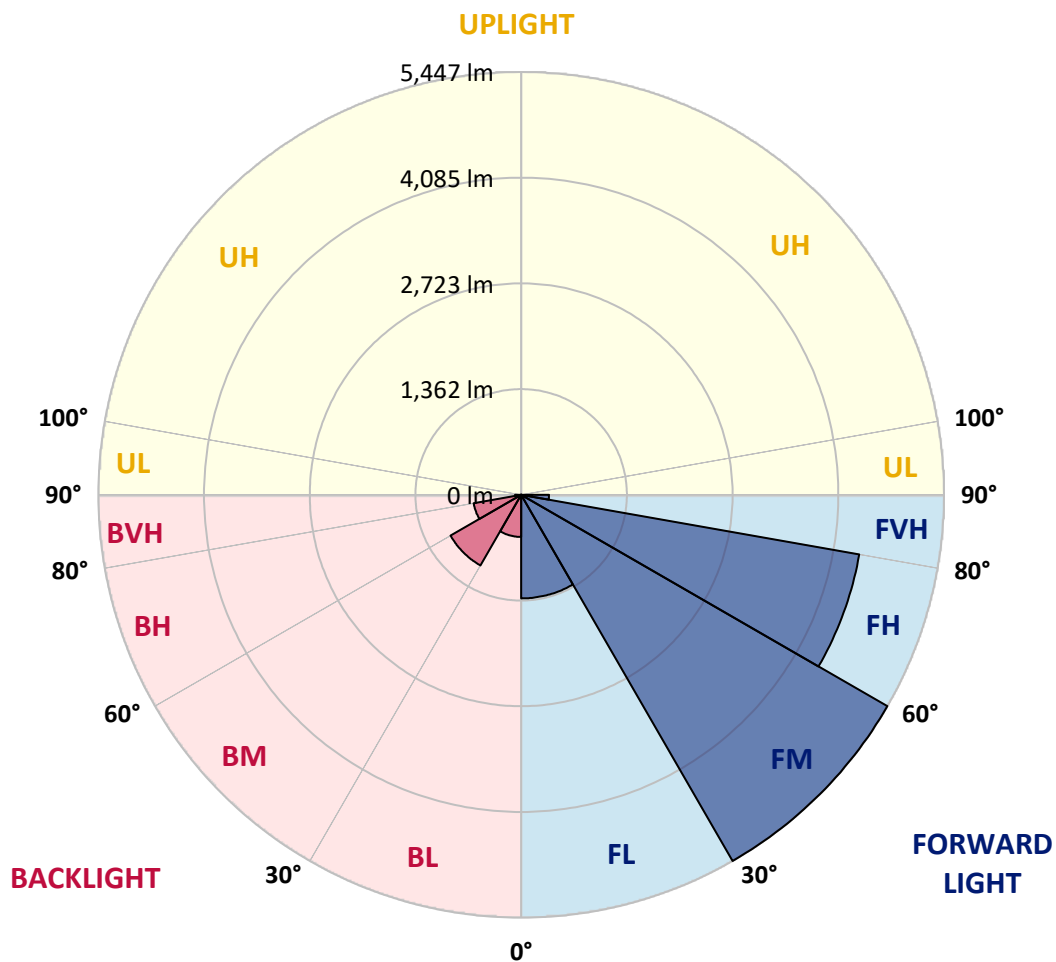
CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-600

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1334.2	9.6			
FM	(30°-60°)	5446.6	39.3			
FH	(60°-80°)	4422.1	31.9			G2/5000
FVH	(80°-90°)	359.4	2.6			G3/500
BL	(0°-30°)	542.4	3.9	B2/1000		
BM	(30°-60°)	1050.6	7.6	B2/2500		
BH	(60°-80°)	621.6	4.5	B2/1000		G2/1000
BVH	(80°-90°)	78.2	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1
2.5°	4863.7	4764.8	4600.2	4428.9	4324.7	4202.7	4107.5	4023.8	3856.1	3823.4	3853.1
5°	4573.7	4374.9	4064.8	3752.6	3544.6	3321.4	3147.8	3008.5	2795.9	2758.6	2803.6
7.5°	4108.4	3870.7	3460.9	3062.5	2768.5	2489.7	2302.5	2153.1	1987.1	1915.6	1920.0
10°	3706.9	3438.8	2954.4	2521.1	2280.4	2092.2	1934.5	1781.4	1613.1	1502.7	1472.2
12.5°	3482.1	3173.9	2615.4	2228.5	2005.3	1807.5	1637.5	1473.8	1294.0	1181.2	1149.4
15°	3443.4	3108.1	2488.4	2041.3	1761.6	1511.2	1310.8	1128.0	942.8	851.5	832.4
17.5°	3611.7	3225.5	2447.1	1874.3	1532.4	1223.2	977.2	773.1	622.3	576.7	572.7
20°	3934.5	3451.0	2441.8	1717.6	1306.2	943.7	680.9	532.4	466.2	453.1	454.0
22.5°	4387.8	3800.6	2507.3	1599.5	1098.2	703.7	511.9	445.5	419.6	407.4	407.4
25°	4974.2	4282.0	2658.1	1513.5	917.7	562.1	451.7	412.0	387.6	379.3	380.9
27.5°	5542.6	4750.3	2833.3	1445.7	799.6	510.3	427.9	392.2	371.0	362.5	366.4
30°	5985.7	5166.3	2979.5	1353.5	739.5	495.7	436.5	399.8	369.4	356.5	357.2
32.5°	6352.8	5530.3	3102.2	1287.1	686.2	424.9	376.3	360.2	356.5	341.3	333.6
35°	6822.0	5927.2	3184.5	1288.7	661.1	379.3	335.0	306.9	286.4	268.9	268.9
37.5°	7371.9	6382.5	3272.1	1306.2	652.1	352.5	320.7	292.4	273.5	256.6	253.6
40°	7915.6	6828.9	3352.1	1323.0	646.5	336.6	309.2	283.4	265.9	249.0	244.4
42.5°	8378.2	7196.0	3423.6	1331.3	628.3	335.0	300.9	277.2	260.5	242.1	237.7
45°	8720.1	7503.6	3500.6	1344.3	610.1	341.3	300.9	276.5	255.9	238.4	233.8
47.5°	9025.4	7864.7	3629.2	1344.3	588.0	329.7	310.8	277.2	255.2	236.8	233.1
50°	9434.4	8359.7	3873.0	1313.1	556.8	317.5	327.4	274.2	248.3	233.8	229.2
52.5°	9997.9	8994.3	4259.9	1258.9	508.9	294.0	325.1	272.8	241.4	226.2	220.9
55°	10664.5	9673.5	4681.8	1195.8	437.2	277.2	313.8	268.9	233.8	217.0	211.7
57.5°	11184.7	10141.1	4978.8	1098.2	374.7	268.2	278.1	265.2	224.6	207.1	202.7
60°	11391.8	10122.9	5060.4	968.0	344.2	260.5	243.0	297.0	217.0	199.4	194.1
62.5°	11279.9	9655.3	4831.9	876.6	337.3	250.6	227.8	274.8	211.0	194.1	186.5
65°	10762.8	8826.6	4226.4	852.2	357.2	240.7	217.9	215.6	202.7	186.5	178.9
67.5°	9636.2	7588.2	3383.9	854.5	382.3	230.8	208.0	197.4	191.1	178.2	171.3
70°	7848.8	5999.6	2522.5	860.7	395.2	219.3	197.4	185.8	178.9	166.0	161.4
72.5°	5771.1	4623.9	1832.6	821.1	397.5	206.4	182.8	172.9	166.0	152.4	148.5
75°	3948.4	3537.0	1271.2	680.2	346.6	188.1	166.7	157.7	153.1	136.3	134.0
77.5°	2884.3	2655.1	813.5	505.0	267.2	165.3	147.1	140.2	137.2	118.7	115.7
80°	2314.7	2100.5	508.9	345.9	195.8	138.6	123.4	119.7	116.4	98.2	95.9
82.5°	1605.5	1406.7	326.7	224.6	147.1	107.4	97.5	95.9	91.3	74.7	72.4
85°	846.9	763.9	207.1	153.1	106.5	73.8	67.8	67.8	65.5	49.6	48.0
87.5°	108.1	175.9	105.1	80.0	58.6	32.7	32.7	32.0	34.4	28.1	24.4
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°	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1
2.5°	3783.0	3819.7	3784.7	3787.0	3825.7	3941.4	3994.0	4037.4	4083.9	4114.4	4128.0
5°	2742.0	2827.3	2856.1	2917.0	3006.9	3154.7	3213.3	3255.9	3284.3	3300.9	3307.8
7.5°	1875.3	1926.9	1984.8	2083.0	2278.8	2365.7	2404.4	2394.5	2362.7	2351.2	2339.9
10°	1413.7	1393.1	1382.3	1436.5	1594.9	1682.5	1709.9	1683.2	1665.7	1669.6	1688.5
12.5°	1095.2	1059.5	1016.1	1009.9	1114.4	1192.8	1210.3	1211.7	1243.7	1271.8	1313.8
15°	798.2	794.3	773.1	760.2	819.5	883.6	891.2	904.8	933.8	954.3	990.8
17.5°	562.8	583.4	600.2	608.5	653.4	699.1	690.8	683.9	678.6	678.6	696.1
20°	454.0	467.6	489.0	513.3	559.1	591.0	570.4	543.0	523.2	517.2	519.5
22.5°	409.0	419.6	431.9	453.1	494.4	516.5	494.4	474.5	454.7	447.8	445.5
25°	386.2	399.8	411.3	427.3	457.7	472.9	451.7	437.2	424.9	416.6	410.4
27.5°	373.3	385.3	388.5	396.1	422.0	435.6	424.9	419.0	411.3	403.7	396.1
30°	359.5	357.2	351.9	352.5	373.3	386.9	386.2	387.6	386.9	384.6	383.2
32.5°	328.3	323.7	319.1	323.7	342.6	354.9	355.8	358.8	358.8	358.1	364.1
35°	273.5	281.8	287.1	300.9	323.7	334.3	329.7	322.1	308.5	300.0	299.3
37.5°	252.9	254.3	263.5	282.5	307.8	317.5	310.8	293.3	284.1	282.5	284.8
40°	243.0	244.4	249.7	267.2	292.4	302.3	296.3	283.4	274.8	274.2	278.1
42.5°	236.1	237.7	240.7	252.9	273.5	285.7	286.4	277.2	267.2	268.2	271.8
45°	232.2	233.1	232.2	238.4	257.3	271.8	278.1	271.8	263.5	265.2	269.5
47.5°	231.5	229.2	226.2	227.8	247.6	261.9	269.5	267.2	263.5	265.2	268.9
50°	228.5	223.2	219.3	218.6	238.4	253.6	260.5	260.5	261.9	265.2	268.9
52.5°	219.3	213.3	213.3	211.0	232.2	246.7	251.3	252.0	254.3	259.6	265.2
55°	208.0	205.7	208.0	204.1	227.8	241.4	243.7	245.3	246.7	251.3	258.9
57.5°	198.1	195.1	200.4	198.8	223.9	236.1	236.1	239.1	239.1	245.3	251.3
60°	192.8	186.5	188.8	190.5	218.6	231.5	230.1	233.1	234.5	240.0	244.4
62.5°	185.8	180.5	180.5	184.2	212.6	224.6	223.9	226.2	232.2	233.8	238.4
65°	177.5	175.2	172.9	177.5	206.4	217.0	217.9	220.9	226.2	227.8	231.5
67.5°	169.0	169.9	165.3	169.9	201.1	209.4	209.4	215.6	217.9	220.9	224.6
70°	160.0	160.7	156.8	162.3	197.4	201.1	200.4	208.7	210.3	212.6	216.3
72.5°	148.5	148.5	147.1	154.7	191.1	192.8	191.1	198.1	198.8	201.1	202.7
75°	136.3	136.3	134.9	145.5	187.5	183.5	178.9	184.2	185.8	187.5	187.5
77.5°	120.4	122.0	122.0	134.9	174.3	179.8	164.4	167.6	169.9	170.6	168.3
80°	100.5	104.5	105.8	122.7	146.2	166.0	147.1	149.2	150.1	150.1	147.1
82.5°	77.0	83.7	87.6	105.8	112.1	139.3	128.0	130.3	128.0	123.4	122.0
85°	53.3	62.5	67.1	80.7	84.6	107.4	106.5	106.5	102.1	95.9	95.2
87.5°	29.1	34.4	37.4	48.0	57.9	72.4	78.4	76.1	72.4	68.5	69.4
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°	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1
2.5°	4199.7	4303.2	4468.5	4594.9	4722.2	4844.8	4977.4	5078.6	5164.6	5198.3	5300.2
5°	3377.2	3506.6	3662.7	3944.4	4144.1	4364.1	4618.6	4955.3	5084.6	5263.8	5556.8
7.5°	2387.8	2505.0	2756.3	2984.1	3266.8	3578.3	3921.6	4386.2	4556.2	4843.2	5320.7
10°	1783.0	1919.3	2121.1	2313.1	2562.1	2880.6	3275.1	3794.6	4000.9	4312.4	4862.4
12.5°	1436.5	1597.2	1811.2	1991.7	2184.5	2409.0	2792.3	3361.8	3638.5	3911.0	4466.9
15°	1103.5	1271.8	1470.8	1700.0	1912.4	2154.7	2556.2	3179.2	3497.4	3781.7	4255.9
17.5°	763.9	907.8	1158.4	1397.5	1669.6	1979.5	2490.7	3217.9	3597.9	3925.5	4292.6
20°	541.6	623.7	829.4	1106.8	1445.7	1834.7	2478.4	3422.0	3916.3	4290.3	4527.1
22.5°	455.4	485.8	605.5	859.8	1251.3	1726.5	2521.1	3708.3	4345.9	4823.4	4901.1
25°	415.0	433.5	495.7	674.9	1078.4	1648.1	2665.0	4134.9	4877.6	5356.7	5342.9
27.5°	392.9	412.0	453.1	569.7	948.4	1599.5	2808.9	4640.8	5485.4	5935.5	5764.8
30°	386.2	412.0	455.4	537.0	855.4	1522.5	2926.9	5084.6	5953.0	6326.3	5956.9
32.5°	380.9	384.6	404.4	463.0	766.9	1432.6	3006.9	5483.1	6410.7	6698.0	6233.4
35°	307.8	326.7	358.8	415.0	715.2	1378.6	3006.9	5826.6	6861.7	7073.3	6496.9
37.5°	296.3	313.1	341.3	389.2	686.2	1351.9	2946.7	6158.0	7322.4	7499.2	6713.9
40°	290.3	303.9	330.6	369.4	674.0	1321.4	2859.1	6450.3	7772.4	7925.5	6916.5
42.5°	285.7	297.9	323.0	357.2	658.1	1288.0	2788.3	6684.8	8163.3	8289.6	7110.0
45°	283.4	296.3	323.7	363.4	626.0	1243.7	2764.8	6938.5	8484.7	8593.5	7319.4
47.5°	283.4	298.6	327.4	376.3	588.0	1198.1	2838.6	7273.0	8788.6	8841.8	7566.1
50°	281.1	297.9	338.3	363.4	532.4	1140.2	3012.2	7694.0	9117.6	9123.6	7878.5
52.5°	276.5	296.3	364.1	355.8	468.3	1064.1	3247.0	8235.0	9604.4	9640.8	8367.3
55°	271.2	294.0	357.2	338.3	416.0	973.5	3438.8	8892.1	10288.2	10389.5	9086.5
57.5°	264.2	291.0	345.9	313.8	381.6	856.8	3508.2	9373.6	10765.8	11020.1	9896.7
60°	258.2	288.7	312.2	299.3	360.2	758.6	3374.0	9278.3	10733.0	11281.3	10615.0
62.5°	252.0	291.0	284.8	290.3	350.2	695.4	3023.8	8515.8	10190.0	11011.8	11147.4
65°	245.3	270.5	268.9	282.5	348.2	670.3	2506.6	7372.6	9140.4	10159.6	11273.0
67.5°	236.1	249.7	257.3	272.8	355.8	648.1	2022.8	6081.6	7681.8	8882.2	10618.0
70°	226.2	237.7	246.0	260.5	351.2	638.2	1682.5	4796.0	6095.5	7279.7	9325.6
72.5°	213.3	223.2	230.8	244.4	346.6	632.9	1421.3	3862.4	4550.9	5407.7	7582.2
75°	198.1	207.1	212.6	226.2	332.0	579.7	1117.4	3268.2	3405.4	3761.8	6039.0
77.5°	180.5	187.5	191.8	207.1	294.0	482.1	808.2	2521.1	2644.5	2731.2	4629.9
80°	160.0	166.7	169.0	183.5	243.7	377.0	527.1	1862.1	1977.9	1997.7	3023.8
82.5°	136.3	143.2	143.2	156.8	199.4	271.2	345.9	1275.8	1298.6	1365.7	2137.2
85°	109.8	115.1	115.1	122.0	154.7	202.7	237.7	640.5	633.6	723.5	1851.5
87.5°	78.4	82.3	86.0	87.6	110.4	134.0	143.2	195.1	128.7	147.8	1188.8
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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CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-600

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1	4681.1
2.5°	5377.2	5420.6	5376.3	5344.5	5206.6	5093.2	4941.4	4863.7
5°	5780.0	5890.5	5853.1	5719.2	5431.2	5107.5	4739.7	4573.7
7.5°	5731.4	5988.0	5994.0	5743.6	5319.4	4842.5	4344.5	4108.4
10°	5352.1	5680.2	5774.1	5531.0	5080.9	4547.9	3976.5	3706.9
12.5°	4928.5	5250.0	5321.7	5237.7	4861.7	4326.0	3746.6	3482.1
15°	4582.0	4726.1	4811.2	4884.5	4673.5	4237.7	3733.5	3443.4
17.5°	4371.0	4355.1	4379.5	4506.6	4542.3	4339.0	3931.5	3611.7
20°	4294.9	4050.5	4044.3	4219.5	4480.8	4580.6	4318.4	3934.5
22.5°	4336.9	3940.8	3890.5	4098.5	4513.5	4928.5	4825.7	4387.8
25°	4481.4	3950.0	3909.4	4110.7	4632.2	5299.5	5373.3	4974.2
27.5°	4709.3	4007.8	3954.4	4161.0	4790.0	5611.0	5912.6	5542.6
30°	4925.5	4108.4	4042.0	4259.9	4933.8	5734.4	6243.3	5985.7
32.5°	5188.4	4296.5	4179.9	4441.8	5112.1	5930.8	6537.9	6352.8
35°	5445.7	4564.5	4419.9	4722.9	5310.8	6175.5	6874.6	6822.0
37.5°	5728.4	4914.9	4795.3	5086.2	5582.9	6406.1	7304.1	7371.9
40°	6030.0	5379.5	5237.7	5616.3	6004.9	6695.7	7752.8	7915.6
42.5°	6333.9	5895.1	5726.1	6109.8	6468.5	6981.1	8136.5	8378.2
45°	6681.8	6454.9	6374.9	6790.0	6914.2	7253.2	8419.9	8720.1
47.5°	7087.2	7090.2	7218.8	7384.8	7363.6	7560.8	8704.9	9025.4
50°	7560.1	7882.9	8167.2	8277.4	7826.6	7891.4	9100.1	9434.4
52.5°	8128.2	8831.2	9183.1	9110.7	8325.6	8294.9	9726.1	9997.9
55°	8838.8	9835.2	10184.7	10132.8	8899.0	8844.8	10506.1	10664.5
57.5°	9661.3	10807.7	11129.1	10896.0	9587.5	9448.3	11151.3	11184.7
60°	10384.2	11578.5	11860.3	11602.1	10282.2	10090.2	11554.1	11391.8
62.5°	10786.3	11839.8	12037.8	11759.8	10758.2	10774.1	11642.4	11279.9
65°	10606.7	11179.4	11243.3	11220.5	10635.5	11170.9	11324.9	10762.8
67.5°	9622.6	9509.8	9617.3	9765.8	9584.5	10648.4	10445.0	9636.2
70°	7889.1	7269.8	7484.0	7583.6	7665.9	9163.3	9065.7	7848.8
72.5°	5945.4	5093.2	5262.2	5241.7	5622.3	7349.8	7050.5	5771.1
75°	4212.6	3453.3	3474.5	3466.2	3923.2	5750.3	5105.4	3948.4
77.5°	2947.4	2502.0	2513.5	2560.5	2637.5	4336.9	3647.5	2884.3
80°	2026.8	1898.8	1962.0	1965.9	1828.0	2913.3	2694.7	2314.7
82.5°	1509.6	1319.8	1304.6	1326.7	1432.6	2360.4	2070.8	1605.5
85°	1236.1	781.4	628.3	787.6	1269.5	2337.6	1375.6	846.9
87.5°	696.1	371.0	167.6	310.8	506.6	1547.6	397.5	108.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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