

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: P298987

Luminaire Tested: **GLNA-AF-03-LED-E1-SLL-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298987  
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-03-LED-E1-SLL-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 2700K 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: 9110.6 lumens  
Efficiency: N/A  
Efficacy: 94.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G3  
  
Input Watts (W): 96  
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

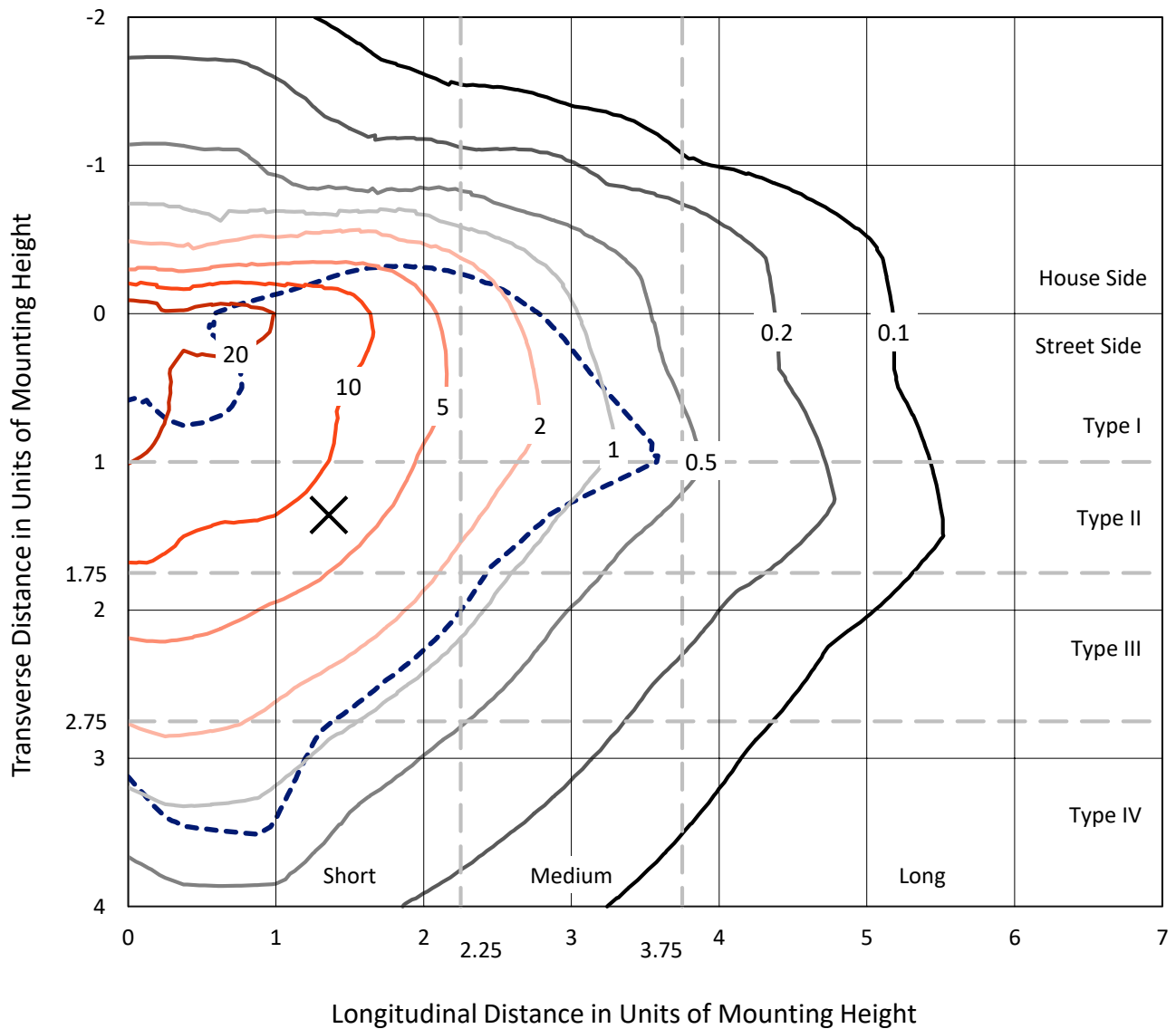


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### Iso-Footcandle Lines of Horizontal Illumination

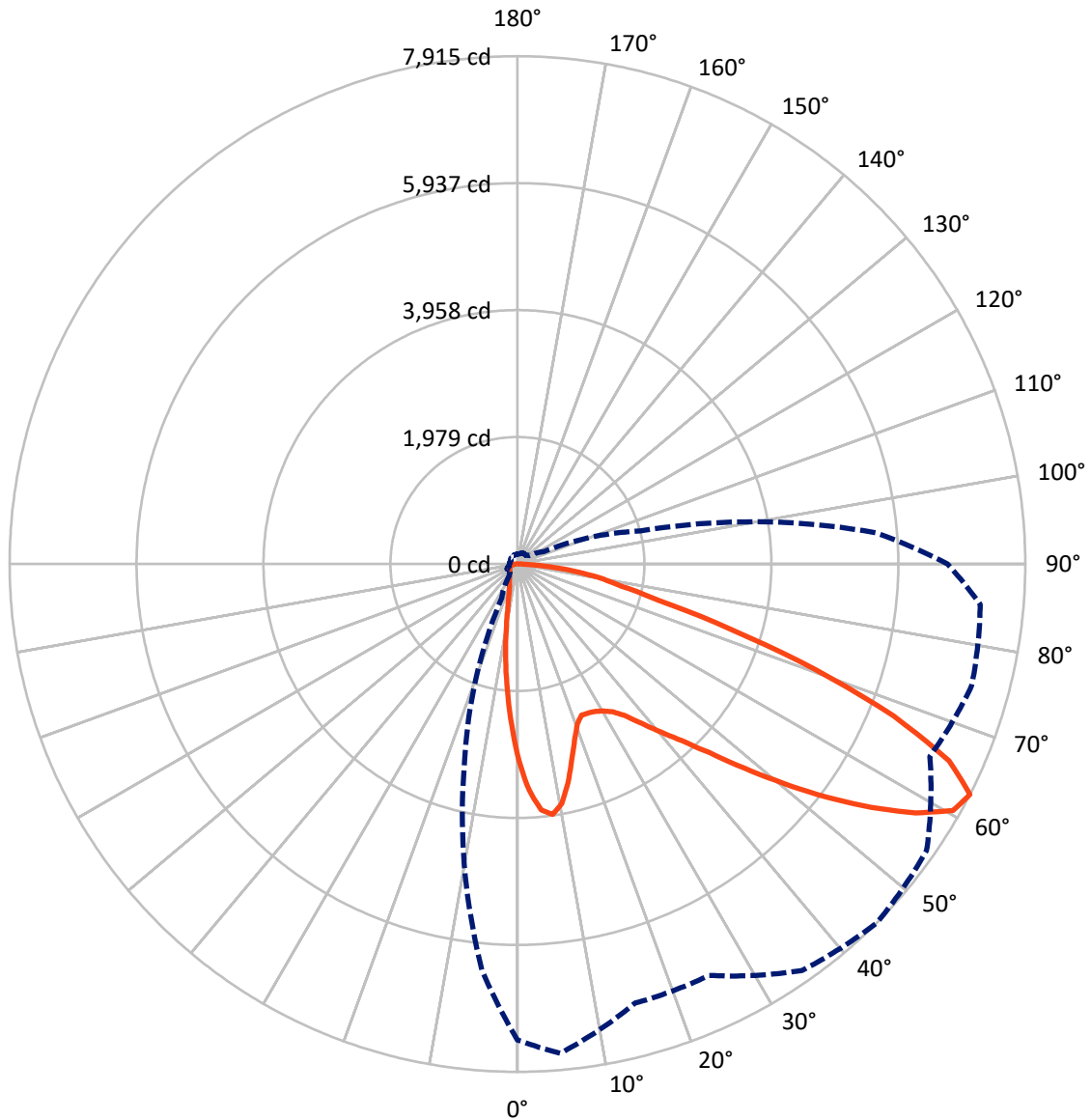
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 36.2 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	1507.7	0.0	1507.7
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	7602.9	0.0	7602.9
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	9110.6	0.0	9110.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	224.1	2.5
10°-20°	410.9	4.5
20°-30°	599.1	6.6
30°-40°	922.6	10.1
40°-50°	1357.9	14.9
50°-60°	1991.7	21.9
60°-70°	2226.5	24.4
70°-80°	1090.0	12.0
80°-90°	287.8	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°	9110.6	100.0
0°-180°	9110.6	100.0



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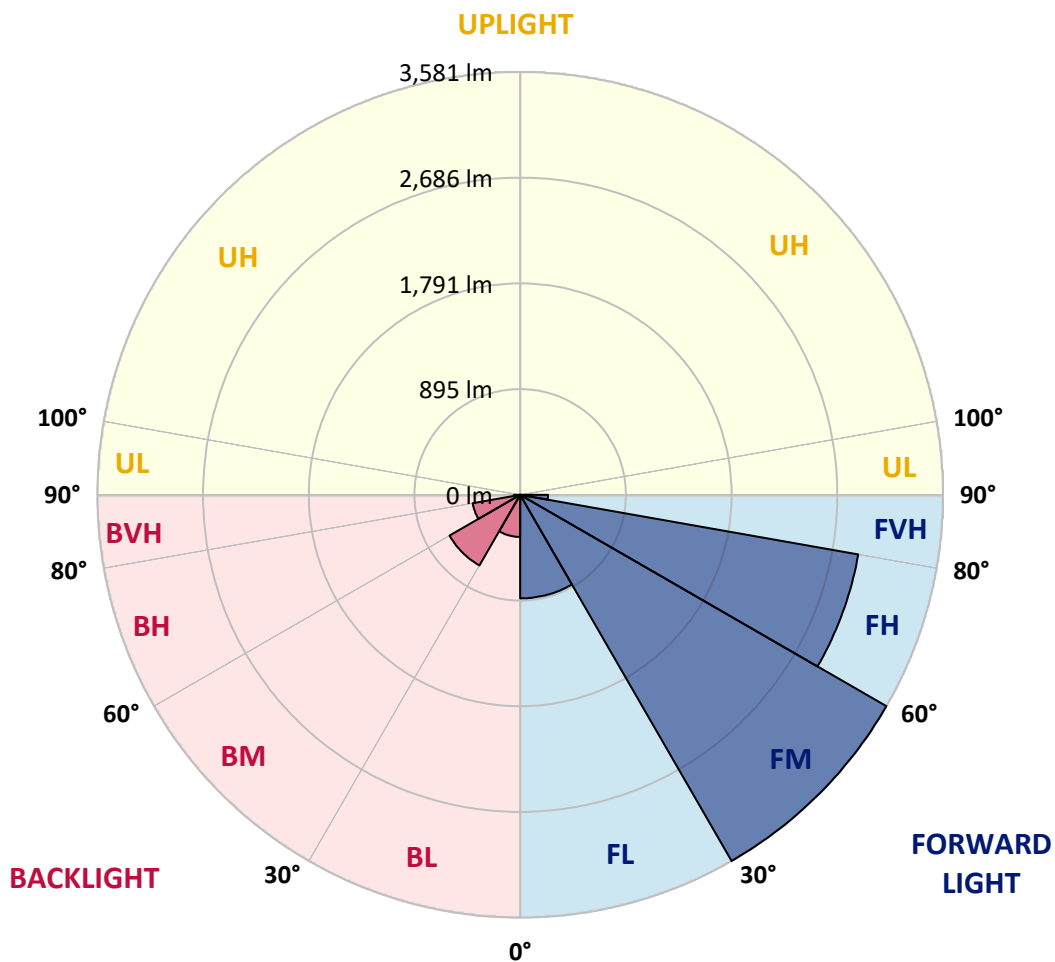
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	877.3	9.6			
FM	(30°-60°)	3581.5	39.3			
FH	(60°-80°)	2907.8	31.9			G2/5000
FVH	(80°-90°)	236.3	2.6			G3/500
BL	(0°-30°)	356.7	3.9	B1/500		
BM	(30°-60°)	690.8	7.6	B1/1000		
BH	(60°-80°)	408.7	4.5	B1/500		G1/500
BVH	(80°-90°)	51.4	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2
2.5°	3198.1	3249.4	3349.0	3423.5	3514.4	3535.3	3564.4	3535.8	3485.3	3418.1	3396.2
5°	3007.4	3116.7	3358.4	3571.4	3760.7	3848.8	3873.5	3800.7	3654.0	3461.2	3343.5
7.5°	2701.5	2856.7	3184.2	3497.8	3776.6	3941.5	3937.4	3768.6	3498.7	3184.6	2995.9
10°	2437.4	2614.8	2990.5	3341.0	3636.9	3796.8	3735.0	3519.4	3197.2	2835.6	2630.9
12.5°	2289.8	2463.6	2844.7	3196.7	3444.1	3499.2	3452.1	3240.7	2937.2	2571.7	2392.4
15°	2264.1	2455.1	2786.6	3073.1	3211.8	3163.8	3107.6	3013.0	2798.5	2486.5	2299.7
17.5°	2375.0	2585.2	2853.3	2986.9	2963.4	2879.6	2863.7	2874.3	2822.7	2581.1	2365.9
20°	2587.3	2839.6	3012.0	2946.5	2774.6	2659.3	2663.4	2824.2	2976.9	2821.1	2575.1
22.5°	2885.2	3173.3	3240.7	2967.9	2694.9	2558.2	2591.4	2851.8	3222.8	3171.8	2857.7
25°	3270.8	3533.4	3484.8	3046.0	2702.9	2570.7	2597.2	2946.9	3513.2	3522.3	3207.4
27.5°	3644.4	3888.0	3689.5	3149.7	2736.1	2600.3	2635.4	3096.5	3790.7	3902.9	3607.0
30°	3935.9	4105.3	3770.6	3244.3	2801.1	2657.9	2701.5	3238.8	3917.1	4159.8	3914.5
32.5°	4177.4	4299.0	3899.8	3361.5	2920.8	2748.4	2825.2	3411.6	4098.8	4404.3	4215.4
35°	4485.8	4520.4	4060.6	3492.2	3105.6	2906.3	3001.4	3580.9	4272.1	4651.1	4512.0
37.5°	4847.5	4803.0	4212.3	3671.1	3344.6	3153.1	3231.8	3766.7	4414.7	4931.1	4814.8
40°	5205.0	5097.7	4402.9	3948.4	3693.2	3444.1	3537.3	3965.0	4548.0	5211.5	5110.9
42.5°	5509.1	5350.2	4590.5	4253.5	4017.5	3765.2	3876.4	4164.8	4675.2	5450.9	5367.8
45°	5733.9	5536.5	4769.3	4546.4	4464.8	4191.8	4244.5	4393.6	4812.9	5650.8	5579.1
47.5°	5934.7	5723.8	4971.6	4842.0	4856.0	4746.7	4662.0	4660.1	4975.3	5814.1	5779.0
50°	6203.6	5983.8	5188.9	5146.3	5442.9	5370.2	5183.4	4971.1	5180.5	5999.4	5995.3
52.5°	6574.3	6395.6	5454.4	5474.4	5991.0	6038.4	5806.9	5344.9	5501.9	6339.4	6315.5
55°	7012.6	6908.2	5816.2	5851.6	6662.9	6697.0	6467.0	5812.0	5974.9	6831.8	6765.2
57.5°	7354.5	7332.6	6212.7	6304.4	7164.8	7318.1	7106.8	6353.0	6507.6	7246.4	7079.1
60°	7490.8	7597.4	6634.9	6761.1	7629.1	7798.7	7613.5	6828.1	6979.9	7418.3	7057.7
62.5°	7417.3	7655.5	7084.6	7074.1	7732.7	7915.4	7785.2	7092.6	7330.1	7240.9	6700.6
65°	7077.2	7446.7	7345.6	6993.4	7378.1	7393.1	7351.0	6974.4	7412.7	6680.5	6010.3
67.5°	6336.3	6868.2	7001.9	6302.5	6421.5	6323.9	6253.2	6327.3	6981.9	5840.6	5051.2
70°	5161.0	5961.4	6025.3	5040.8	4986.7	4921.0	4780.4	5187.5	6132.1	4786.9	4008.1
72.5°	3794.8	4636.2	4832.9	3697.1	3446.7	3460.1	3349.0	3909.3	4985.7	3555.8	2992.5
75°	2596.3	3357.0	3781.3	2579.7	2279.4	2284.8	2270.6	2770.1	3971.0	2473.5	2239.2
77.5°	1896.7	2398.4	2851.8	1734.3	1683.7	1652.6	1645.2	1938.1	3044.5	1796.0	1738.8
80°	1521.9	1772.0	1915.5	1202.0	1292.5	1290.1	1248.5	1332.7	1988.2	1313.7	1300.5
82.5°	1055.8	1361.8	1552.0	942.0	872.4	857.8	868.0	992.6	1405.4	897.9	853.9
85°	557.0	904.4	1537.0	834.9	517.8	413.1	513.9	812.7	1217.6	475.9	416.5
87.5°	71.2	261.4	1017.6	333.1	204.4	110.1	244.0	457.7	781.9	97.1	84.7
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°	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2
2.5°	3339.6	3272.9	3185.8	3105.0	3021.4	2938.2	2829.6	2761.4	2714.5	2705.4	2685.5
5°	3258.5	3037.0	2869.7	2725.0	2593.8	2408.3	2305.7	2220.5	2175.0	2170.6	2159.6
7.5°	2884.2	2578.7	2352.9	2148.0	1962.2	1812.5	1647.1	1570.2	1538.5	1546.0	1553.5
10°	2495.0	2153.6	1894.1	1684.7	1520.9	1394.8	1262.1	1172.5	1110.3	1097.7	1095.3
12.5°	2210.6	1836.0	1584.2	1436.2	1309.8	1190.9	1050.3	944.4	864.0	836.3	817.9
15°	2090.3	1680.8	1416.9	1257.6	1117.7	967.0	836.3	725.6	651.6	627.6	614.1
17.5°	2116.0	1637.7	1301.6	1097.7	919.1	761.7	597.0	502.2	457.7	446.3	446.3
20°	2250.3	1629.7	1206.4	950.6	727.6	545.3	410.2	356.1	341.6	340.1	344.0
22.5°	2438.6	1657.8	1135.5	823.0	565.5	398.2	319.5	299.5	293.0	294.6	299.0
25°	2719.0	1752.5	1083.9	709.2	443.7	326.0	284.8	273.0	269.9	273.9	279.5
27.5°	3051.5	1847.1	1051.7	623.5	374.6	298.0	270.9	258.5	260.5	265.5	270.4
30°	3343.5	1924.8	1001.2	562.5	353.1	299.5	270.9	254.0	252.0	253.0	254.4
32.5°	3605.6	1977.3	942.0	504.3	304.5	266.0	253.0	250.5	239.3	235.3	235.9
35°	3831.4	1977.3	906.6	470.3	273.0	235.9	214.9	202.4	196.7	197.2	202.9
37.5°	4049.3	1937.6	889.0	451.2	255.9	224.4	205.8	194.8	187.3	185.8	186.8
40°	4241.4	1880.1	869.0	443.2	242.9	217.4	200.0	190.7	182.7	180.3	180.8
42.5°	4395.7	1833.4	846.9	432.8	234.8	212.3	195.7	187.8	178.8	176.2	175.8
45°	4562.5	1818.0	817.9	411.7	238.8	212.8	194.8	186.3	177.2	174.3	173.3
47.5°	4782.3	1866.6	787.9	386.6	247.4	215.4	196.2	186.3	176.7	174.3	173.3
50°	5059.2	1980.7	749.7	350.0	238.8	222.4	195.7	184.7	176.7	174.3	172.3
52.5°	5414.9	2135.0	699.7	308.1	233.8	239.3	194.8	181.8	174.3	170.9	167.3
55°	5847.1	2261.2	639.9	273.5	222.4	234.8	193.3	178.4	170.4	165.3	162.3
57.5°	6163.6	2306.7	563.5	251.0	206.3	227.3	191.2	173.8	165.3	161.3	157.4
60°	6101.0	2218.6	498.8	236.9	196.7	205.3	189.7	169.7	160.8	157.9	154.1
62.5°	5599.8	1988.2	457.2	230.4	190.7	187.3	191.2	165.8	156.9	153.6	152.7
65°	4848.0	1648.1	440.8	228.9	185.8	176.7	177.9	161.3	152.2	149.7	148.8
67.5°	3999.0	1330.2	426.3	233.8	179.3	169.2	164.4	155.3	147.6	145.2	143.2
70°	3153.6	1106.4	419.6	230.9	171.4	161.8	156.4	148.8	142.3	139.7	138.2
72.5°	2539.5	934.5	416.0	227.8	160.8	151.7	146.6	140.1	133.2	132.2	130.7
75°	2149.2	734.7	381.3	218.3	148.8	139.7	136.2	130.2	123.2	123.2	122.3
77.5°	1657.8	531.3	317.0	193.3	136.2	126.2	123.2	118.7	110.7	112.2	111.7
80°	1224.6	346.6	247.9	160.3	120.8	111.2	109.6	105.2	96.6	98.7	98.7
82.5°	838.9	227.3	178.4	131.2	103.1	94.1	94.1	89.6	80.2	81.1	84.2
85°	421.2	156.4	133.2	101.6	80.2	75.6	75.6	72.2	62.6	63.1	67.1
87.5°	128.3	94.1	88.1	72.7	57.6	56.6	54.0	51.5	45.5	45.0	47.6
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°	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2
2.5°	2654.8	2626.2	2591.9	2515.6	2490.1	2488.5	2511.7	2487.5	2533.7	2514.2	2535.6
5°	2140.9	2113.1	2074.4	1977.3	1918.1	1878.0	1859.1	1803.0	1843.5	1813.9	1838.6
7.5°	1574.6	1581.1	1555.6	1498.5	1369.7	1305.2	1267.2	1233.0	1262.6	1259.5	1306.7
10°	1106.9	1124.2	1106.4	1048.8	944.4	909.0	916.0	929.5	968.2	988.0	1060.7
12.5°	796.8	795.8	784.3	732.8	664.1	668.0	696.7	720.1	755.7	776.8	850.8
15°	594.9	585.9	580.9	538.8	499.8	508.4	522.4	524.8	547.4	559.9	620.1
17.5°	449.7	454.3	459.6	429.7	400.1	394.6	383.7	370.0	376.7	379.1	409.1
20°	357.0	375.1	388.7	367.6	337.7	321.4	307.4	298.5	298.5	298.0	306.5
22.5°	312.0	325.0	339.6	325.0	298.0	283.9	275.9	268.9	267.9	267.9	275.9
25°	287.6	297.0	311.0	301.1	280.9	270.4	262.9	254.0	250.5	249.4	254.9
27.5°	275.4	279.5	286.5	277.4	260.5	255.4	253.5	245.5	240.8	238.3	244.0
30°	254.9	254.0	254.4	245.5	231.8	231.4	234.8	236.4	234.8	234.3	242.9
32.5°	235.9	233.8	233.3	225.3	212.8	209.9	212.8	215.9	219.3	224.4	234.3
35°	211.8	216.9	219.8	212.8	197.7	188.8	185.3	179.8	176.7	176.7	188.3
37.5°	192.8	204.4	208.9	202.4	185.8	173.3	167.3	166.3	166.8	168.8	179.8
40°	186.3	194.8	198.7	192.3	175.8	164.4	160.8	159.8	160.8	163.9	174.8
42.5°	182.3	188.3	187.8	179.8	166.3	158.4	156.4	155.3	156.4	159.3	171.4
45°	178.8	182.7	178.8	169.2	156.9	152.7	153.2	152.7	153.6	156.9	168.3
47.5°	175.8	177.2	172.3	162.7	149.7	148.8	150.7	152.2	153.2	155.9	167.8
50°	171.4	171.4	166.8	156.9	143.7	144.2	146.6	150.2	150.7	153.6	163.4
52.5°	165.8	165.3	162.3	152.7	138.7	140.1	140.1	144.2	145.2	148.8	158.8
55°	161.3	160.3	158.8	149.7	134.3	136.7	135.3	136.7	139.2	142.7	153.6
57.5°	157.4	155.3	155.3	147.1	130.7	131.7	128.3	130.2	133.2	136.2	147.6
60°	153.2	151.2	152.2	143.7	125.2	124.2	122.7	126.7	127.8	131.2	142.7
62.5°	148.8	147.1	147.6	139.7	121.3	118.7	118.7	122.3	122.7	127.8	138.7
65°	145.2	143.2	142.7	135.8	116.7	113.8	115.3	116.7	117.7	122.7	133.2
67.5°	141.8	137.7	137.7	132.2	111.7	108.6	111.7	111.2	112.8	117.2	125.7
70°	137.2	131.7	132.2	129.7	106.7	103.1	105.7	105.2	106.2	109.1	117.7
72.5°	130.2	125.7	126.7	125.7	101.6	96.6	97.5	97.5	97.5	100.2	109.1
75°	121.3	117.7	120.8	123.2	95.6	88.6	89.6	89.6	88.1	89.6	100.6
77.5°	110.1	108.1	118.2	114.8	88.6	80.2	80.2	79.2	76.3	78.2	90.1
80°	98.2	96.6	109.1	96.1	80.6	69.7	68.6	66.0	63.1	64.5	76.7
82.5°	85.7	84.2	91.7	73.6	69.7	57.6	55.1	50.6	47.6	49.1	60.0
85°	70.2	70.2	70.7	55.6	53.0	44.1	41.1	35.1	31.5	32.5	43.1
87.5°	50.1	51.5	47.6	38.0	31.5	24.5	22.6	19.0	15.9	18.5	22.6
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-03-LED-E1-SLL-7027-600

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2	3078.2
2.5°	2645.8	2701.0	2763.6	2843.5	2912.3	3024.8	3133.1	3198.1
5°	1978.3	2070.0	2184.0	2330.9	2467.7	2672.8	2876.7	3007.4
7.5°	1415.8	1514.0	1637.2	1820.4	2013.9	2275.7	2545.2	2701.5
10°	1171.6	1272.2	1375.8	1499.5	1657.8	1942.7	2261.2	2437.4
12.5°	969.1	1076.8	1188.5	1318.7	1465.3	1719.8	2086.9	2289.8
15°	741.7	861.8	993.5	1158.4	1342.1	1636.2	2043.8	2264.1
17.5°	508.4	642.7	804.3	1007.7	1232.5	1609.1	2121.0	2375.0
20°	350.0	447.7	620.6	858.9	1129.5	1605.7	2269.1	2587.3
22.5°	293.0	336.5	462.7	722.2	1051.7	1648.7	2499.2	2885.2
25°	270.9	297.0	369.5	603.5	995.2	1747.9	2815.7	3270.8
27.5°	258.0	281.4	335.6	526.0	950.6	1863.0	3123.7	3644.4
30°	262.9	287.0	326.0	486.3	890.0	1959.1	3397.1	3935.9
32.5°	236.9	247.4	279.5	451.2	846.4	2039.7	3636.5	4177.4
35°	201.9	220.3	249.4	434.7	847.4	2093.9	3897.4	4485.8
37.5°	192.3	210.9	231.8	428.7	858.9	2151.6	4196.9	4847.5
40°	186.3	203.4	221.4	425.3	870.0	2204.1	4490.5	5205.0
42.5°	182.3	197.7	220.3	413.1	875.5	2251.3	4731.8	5509.1
45°	181.8	197.7	224.4	401.1	884.0	2301.8	4934.2	5733.9
47.5°	182.3	204.4	216.9	386.6	884.0	2386.4	5171.5	5934.7
50°	180.3	215.4	208.9	366.1	863.5	2546.7	5497.0	6203.6
52.5°	179.3	214.0	193.3	334.6	827.9	2801.1	5914.2	6574.3
55°	176.7	206.3	182.3	287.6	786.4	3078.6	6361.0	7012.6
57.5°	174.3	182.7	176.2	246.5	722.2	3273.9	6668.4	7354.5
60°	195.3	159.8	171.4	226.3	636.5	3327.4	6656.6	7490.8
62.5°	180.8	149.7	164.9	221.9	576.5	3177.2	6349.0	7417.3
65°	141.8	143.2	158.4	234.8	560.4	2779.2	5804.0	7077.2
67.5°	129.7	136.7	151.7	251.5	562.0	2225.1	4989.8	6336.3
70°	122.3	129.7	144.2	260.0	565.9	1658.8	3944.9	5161.0
72.5°	113.8	120.3	135.8	261.4	539.8	1204.9	3040.6	3794.8
75°	103.6	109.6	123.7	227.8	447.3	835.8	2325.9	2596.3
77.5°	92.2	96.6	108.6	175.8	332.2	534.9	1745.8	1896.7
80°	78.7	81.1	91.2	128.8	227.3	334.6	1381.3	1521.9
82.5°	63.1	64.1	70.7	96.6	147.6	214.9	925.1	1055.8
85°	44.5	44.5	48.6	70.2	100.6	136.2	502.2	557.0
87.5°	21.0	21.5	21.5	38.5	52.5	69.3	115.8	71.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)