

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: P298990

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298990
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-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 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: 10486 lumens
Efficiency: N/A
Efficacy: 109.2 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

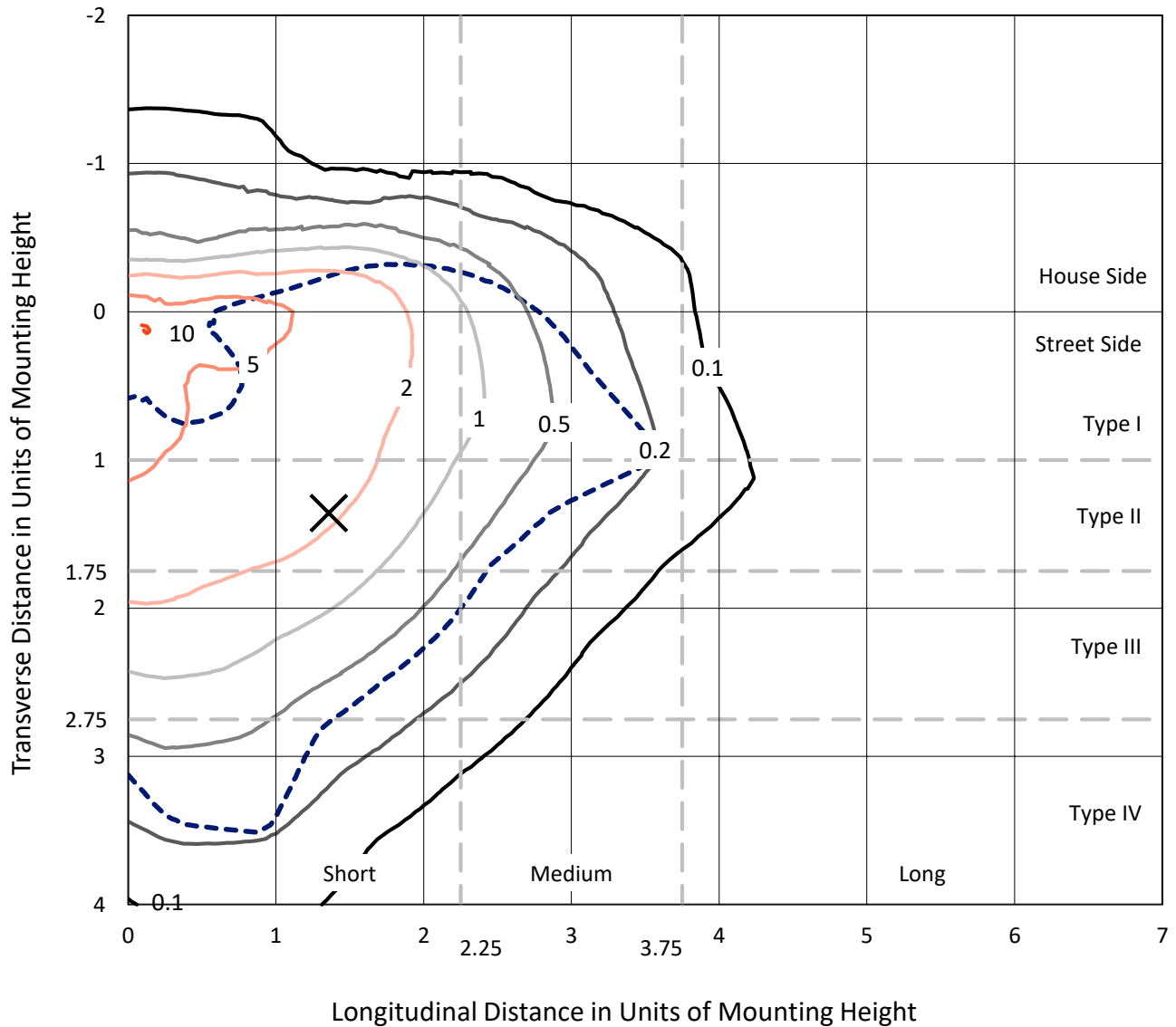
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

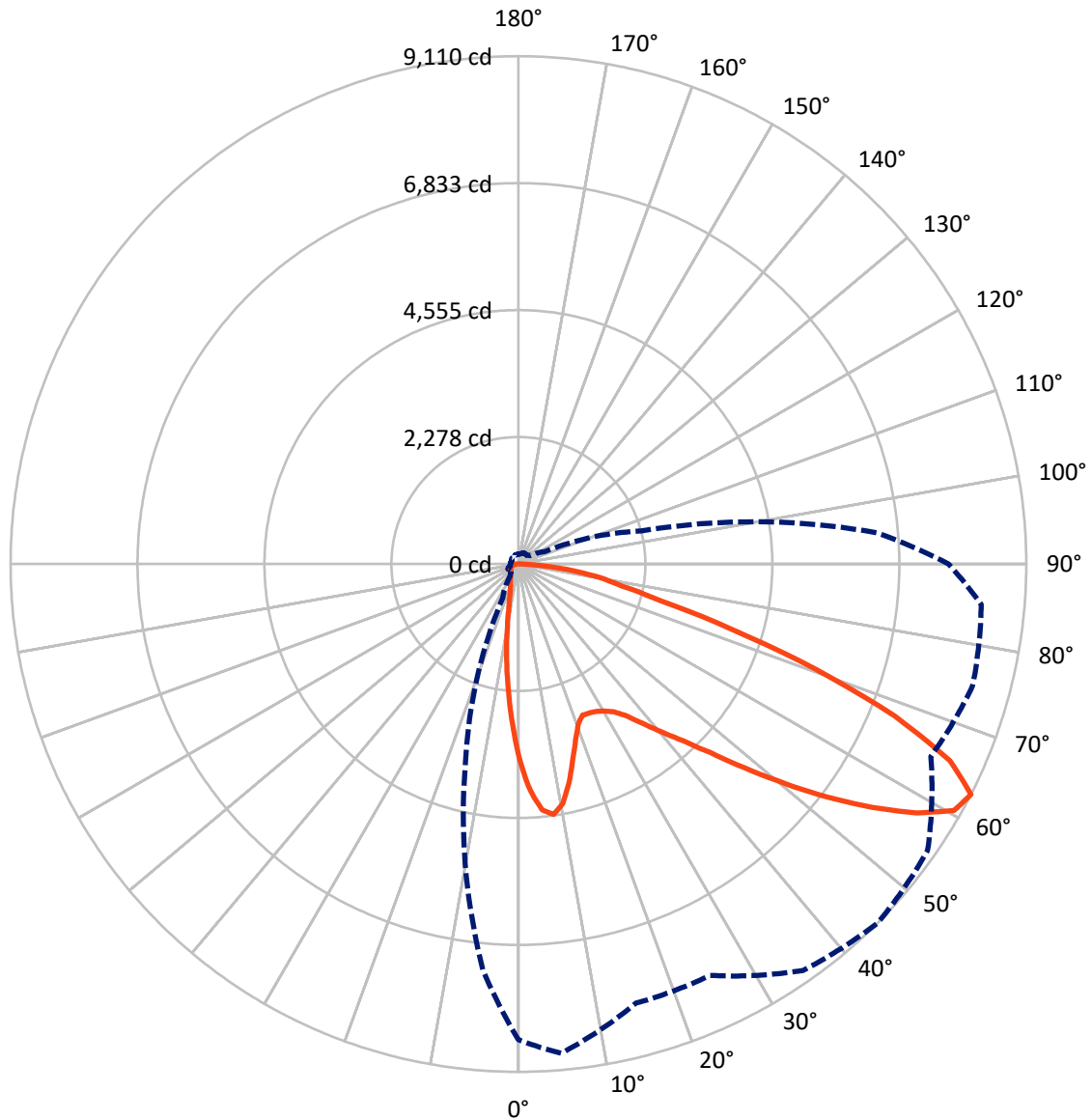
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 10.4 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	1735.3	0.0	1735.3
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	8750.7	0.0	8750.7
	% Fixture	83.5	0.0	83.5
Total	Lumens	10486.0	0.0	10486.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.9	2.5
10°-20°	472.9	4.5
20°-30°	689.5	6.6
30°-40°	1061.9	10.1
40°-50°	1562.9	14.9
50°-60°	2292.4	21.9
60°-70°	2562.6	24.4
70°-80°	1254.6	12.0
80°-90°	331.2	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°	10486.0	100.0
0°-180°	10486.0	100.0

Coefficient of Utilization



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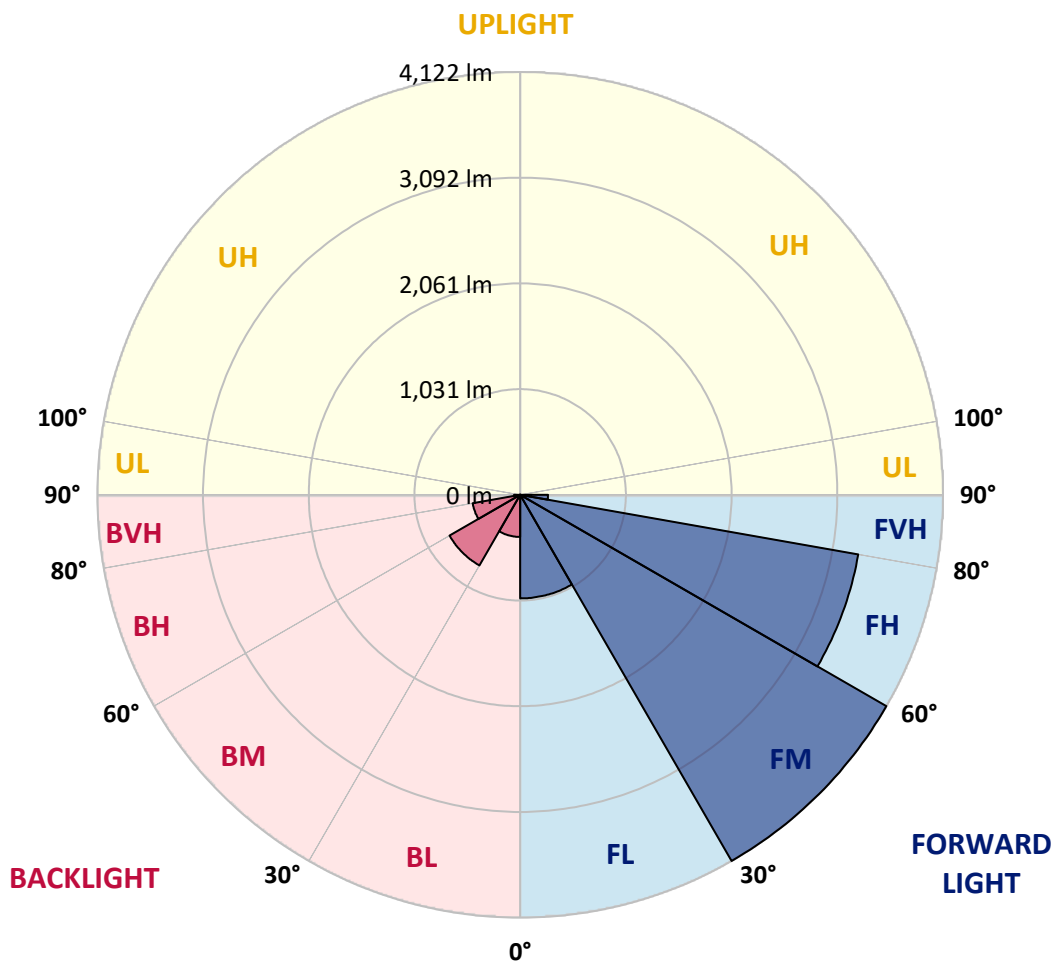
CATALOG NUMBER: GLNA-AF-03-LED-E1-SLL-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1009.8	9.6			
FM	(30°-60°)	4122.1	39.3			
FH	(60°-80°)	3346.8	31.9			G2/5000
FVH	(80°-90°)	272.0	2.6			G3/500
BL	(0°-30°)	410.5	3.9	B1/500		
BM	(30°-60°)	795.1	7.6	B1/1000		
BH	(60°-80°)	470.4	4.5	B1/500		G1/500
BVH	(80°-90°)	59.2	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8
2.5°	3680.9	3739.9	3854.6	3940.3	4044.9	4069.0	4102.5	4069.6	4011.4	3934.1	3908.9
5°	3461.4	3587.2	3865.4	4110.6	4328.4	4429.8	4458.2	4374.4	4205.6	3983.7	3848.2
7.5°	3109.3	3288.0	3664.8	4025.8	4346.7	4536.5	4531.8	4337.6	4026.9	3665.4	3448.1
10°	2805.4	3009.5	3442.0	3845.4	4186.0	4369.9	4298.8	4050.7	3679.8	3263.6	3028.1
12.5°	2635.5	2835.5	3274.1	3679.2	3964.1	4027.5	3973.2	3730.0	3380.6	2959.9	2753.5
15°	2605.9	2825.8	3207.3	3537.0	3696.7	3641.4	3576.7	3467.8	3221.0	2861.9	2646.9
17.5°	2733.5	2975.5	3284.0	3437.9	3410.7	3314.4	3296.0	3308.2	3248.9	2970.8	2723.0
20°	2977.9	3268.3	3466.7	3391.3	3193.5	3060.8	3065.5	3250.5	3426.3	3247.0	2963.9
22.5°	3320.7	3652.3	3730.0	3416.0	3101.8	2944.4	2982.6	3282.4	3709.4	3650.6	3289.1
25°	3764.6	4066.8	4010.8	3505.8	3111.0	2958.8	2989.3	3391.8	4043.6	4054.1	3691.6
27.5°	4194.6	4474.9	4246.4	3625.2	3149.1	2992.9	3033.3	3564.0	4363.0	4492.1	4151.6
30°	4530.1	4725.1	4339.8	3734.1	3224.0	3059.1	3109.3	3727.7	4508.4	4787.8	4505.4
32.5°	4808.0	4948.0	4488.6	3869.0	3361.7	3163.3	3251.7	3926.6	4717.6	5069.2	4851.8
35°	5163.0	5202.8	4673.6	4019.4	3574.5	3345.0	3454.5	4121.4	4917.1	5353.3	5193.1
37.5°	5579.3	5528.0	4848.2	4225.3	3849.5	3629.1	3719.7	4335.3	5081.2	5675.5	5541.7
40°	5990.8	5867.3	5067.5	4544.5	4250.7	3964.1	4071.3	4563.6	5234.6	5998.3	5882.5
42.5°	6340.7	6157.9	5283.5	4895.6	4624.0	4333.6	4461.6	4793.6	5381.0	6273.7	6178.1
45°	6599.5	6372.3	5489.3	5232.8	5138.8	4824.6	4885.3	5056.9	5539.5	6503.9	6421.4
47.5°	6830.6	6587.9	5722.1	5573.0	5589.0	5463.3	5365.8	5363.6	5726.4	6691.8	6651.4
50°	7140.1	6887.1	5972.3	5923.2	6264.6	6180.9	5965.9	5721.5	5962.5	6905.1	6900.4
52.5°	7566.8	7361.1	6277.9	6300.9	6895.4	6950.0	6683.5	6151.7	6332.5	7296.4	7268.9
55°	8071.3	7951.1	6694.2	6735.0	7668.8	7708.0	7443.3	6689.3	6876.8	7863.2	7786.5
57.5°	8464.8	8439.5	7150.6	7256.1	8246.4	8422.9	8179.6	7312.1	7490.0	8340.3	8147.8
60°	8621.6	8744.3	7636.6	7781.8	8780.8	8976.0	8762.9	7858.9	8033.6	8538.1	8123.1
62.5°	8537.0	8811.1	8154.2	8142.0	8900.0	9110.4	8960.5	8163.3	8436.7	8334.0	7712.2
65°	8145.5	8570.9	8454.5	8049.2	8491.9	8509.1	8460.7	8027.3	8531.8	7689.0	6917.6
67.5°	7292.8	7905.1	8058.9	7253.9	7390.9	7278.6	7197.2	7282.5	8035.9	6722.3	5813.8
70°	5940.1	6861.3	6934.8	5801.8	5739.5	5663.9	5502.0	5970.6	7057.8	5509.5	4613.2
72.5°	4367.7	5336.1	5562.5	4255.2	3967.0	3982.4	3854.6	4499.4	5738.4	4092.6	3444.2
75°	2988.2	3863.8	4352.1	2969.1	2623.5	2629.7	2613.4	3188.2	4570.5	2846.9	2577.3
77.5°	2183.0	2760.5	3282.4	1996.1	1937.9	1902.1	1893.5	2230.7	3504.1	2067.2	2001.3
80°	1751.7	2039.5	2204.7	1383.4	1487.6	1484.8	1436.9	1533.9	2288.3	1512.0	1496.8
82.5°	1215.2	1567.4	1786.3	1084.2	1004.1	987.3	999.1	1142.4	1617.5	1033.5	982.8
85°	641.1	1041.0	1769.1	960.9	596.0	475.5	591.5	935.4	1401.4	547.7	479.4
87.5°	82.0	300.9	1171.2	383.4	235.2	126.7	280.9	526.8	899.9	111.7	97.5
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°	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8
2.5°	3843.7	3767.0	3666.7	3573.7	3477.5	3381.7	3256.7	3178.3	3124.2	3113.8	3090.9
5°	3750.4	3495.5	3302.9	3136.4	2985.4	2771.9	2653.8	2555.8	2503.4	2498.3	2485.6
7.5°	3319.6	2968.0	2708.1	2472.3	2258.4	2086.1	1895.8	1807.3	1770.8	1779.4	1788.0
10°	2871.6	2478.7	2180.0	1939.0	1750.6	1605.3	1452.7	1349.5	1277.9	1263.5	1260.7
12.5°	2544.3	2113.2	1823.3	1653.1	1507.5	1370.7	1208.8	1087.0	994.4	962.6	941.4
15°	2405.9	1934.5	1630.8	1447.4	1286.5	1113.0	962.6	835.1	750.0	722.3	706.8
17.5°	2435.4	1884.9	1498.1	1263.5	1057.8	876.7	687.1	578.0	526.8	513.7	513.7
20°	2590.0	1875.7	1388.5	1094.1	837.4	627.6	472.1	409.8	393.1	391.5	396.0
22.5°	2806.7	1908.1	1306.9	947.2	650.8	458.3	367.7	344.7	337.2	339.1	344.1
25°	3129.5	2017.0	1247.6	816.2	510.7	375.2	327.8	314.2	310.6	315.3	321.7
27.5°	3512.1	2125.9	1210.5	717.6	431.1	343.0	311.7	297.5	299.8	305.6	311.2
30°	3848.2	2215.4	1152.3	647.5	406.4	344.7	311.7	292.3	290.0	291.2	292.9
32.5°	4149.9	2275.8	1084.2	580.5	350.5	306.1	291.2	288.4	275.4	270.8	271.5
35°	4409.8	2275.8	1043.4	541.4	314.2	271.5	247.4	233.0	226.4	227.0	233.5
37.5°	4660.5	2230.2	1023.2	519.3	294.5	258.2	236.9	224.2	215.6	213.9	215.0
40°	4881.7	2163.9	1000.2	510.1	279.6	250.2	230.2	219.5	210.3	207.5	208.1
42.5°	5059.3	2110.2	974.7	498.1	270.2	244.4	225.3	216.1	205.8	202.8	202.3
45°	5251.3	2092.4	941.4	473.8	274.9	244.9	224.2	214.4	204.0	200.6	199.5
47.5°	5504.3	2148.4	906.8	445.0	284.8	247.9	225.9	214.4	203.4	200.6	199.5
50°	5823.0	2279.7	862.8	402.9	274.9	256.0	225.3	212.6	203.4	200.6	198.4
52.5°	6232.4	2457.3	805.4	354.6	269.1	275.4	224.2	209.2	200.6	196.7	192.6
55°	6729.8	2602.5	736.5	314.7	256.0	270.2	222.5	205.3	196.1	190.3	186.8
57.5°	7094.1	2654.9	648.6	288.9	237.5	261.6	220.1	200.0	190.3	185.6	181.1
60°	7022.0	2553.5	574.1	272.6	226.4	236.3	218.4	195.4	185.1	181.7	177.4
62.5°	6445.1	2288.3	526.2	265.2	219.5	215.6	220.1	190.9	180.6	176.8	175.7
65°	5579.9	1896.9	507.3	263.5	213.9	203.4	204.7	185.6	175.1	172.3	171.2
67.5°	4602.7	1531.1	490.6	269.1	206.4	194.8	189.2	178.7	169.9	167.1	164.9
70°	3629.7	1273.4	483.0	265.7	197.2	186.2	180.0	171.2	163.7	160.7	159.1
72.5°	2922.9	1075.6	478.9	262.2	185.1	174.6	168.8	161.3	153.3	152.1	150.4
75°	2473.6	845.6	438.8	251.3	171.2	160.7	156.8	149.9	141.8	141.8	140.7
77.5°	1908.1	611.5	364.9	222.5	156.8	145.2	141.8	136.6	127.4	129.1	128.6
80°	1409.4	399.0	285.4	184.5	139.0	128.0	126.1	121.1	111.2	113.6	113.6
82.5°	965.6	261.6	205.3	151.0	118.6	108.3	108.3	103.1	92.3	93.4	96.9
85°	484.8	180.0	153.3	117.0	92.3	87.0	87.0	83.1	72.0	72.6	77.3
87.5°	147.6	108.3	101.4	83.6	66.2	65.1	62.1	59.3	52.4	51.8	54.8
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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CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8
2.5°	3055.6	3022.6	2983.1	2895.4	2866.0	2864.1	2890.9	2863.0	2916.2	2893.7	2918.4
5°	2464.1	2432.1	2387.5	2275.8	2207.7	2161.5	2139.8	2075.2	2121.8	2087.8	2116.2
7.5°	1812.3	1819.8	1790.4	1724.7	1576.5	1502.2	1458.5	1419.2	1453.2	1449.7	1503.9
10°	1273.9	1294.0	1273.4	1207.1	1087.0	1046.2	1054.3	1069.8	1114.3	1137.2	1220.8
12.5°	917.1	916.0	902.7	843.4	764.4	768.9	801.8	828.8	869.8	894.1	979.2
15°	684.7	674.4	668.6	620.1	575.2	585.1	601.2	604.0	630.0	644.5	713.7
17.5°	517.6	522.8	529.0	494.6	460.5	454.2	441.6	425.9	433.6	436.4	470.8
20°	410.9	431.7	447.4	423.1	388.7	369.9	353.9	343.6	343.6	343.0	352.7
22.5°	359.1	374.1	390.9	374.1	343.0	326.7	317.6	309.5	308.4	308.4	317.6
25°	331.0	341.9	358.0	346.6	323.4	311.2	302.6	292.3	288.4	287.0	293.4
27.5°	317.0	321.7	329.7	319.2	299.8	294.0	291.7	282.6	277.1	274.3	280.9
30°	293.4	292.3	292.9	282.6	266.8	266.3	270.2	272.1	270.2	269.6	279.6
32.5°	271.5	269.1	268.5	259.4	244.9	241.6	244.9	248.5	252.4	258.2	269.6
35°	243.8	249.6	253.0	244.9	227.5	217.3	213.3	207.0	203.4	203.4	216.7
37.5°	221.9	235.2	240.5	233.0	213.9	199.5	192.6	191.4	192.0	194.2	207.0
40°	214.4	224.2	228.7	221.4	202.3	189.2	185.1	183.9	185.1	188.6	201.2
42.5°	209.8	216.7	216.1	207.0	191.4	182.3	180.0	178.7	180.0	183.4	197.2
45°	205.8	210.3	205.8	194.8	180.6	175.7	176.3	175.7	176.8	180.6	193.7
47.5°	202.3	204.0	198.4	187.3	172.3	171.2	173.5	175.1	176.3	179.5	193.1
50°	197.2	197.2	192.0	180.6	165.4	166.0	168.8	172.9	173.5	176.8	188.1
52.5°	190.9	190.3	186.8	175.7	159.6	161.3	161.3	166.0	167.1	171.2	182.8
55°	185.6	184.5	182.8	172.3	154.6	157.4	155.7	157.4	160.2	164.3	176.8
57.5°	181.1	178.7	178.7	169.3	150.4	151.6	147.6	149.9	153.3	156.8	169.9
60°	176.3	174.0	175.1	165.4	144.1	143.0	141.3	145.8	147.1	151.0	164.3
62.5°	171.2	169.3	169.9	160.7	139.6	136.6	136.6	140.7	141.3	147.1	159.6
65°	167.1	164.9	164.3	156.2	134.4	131.0	132.7	134.4	135.5	141.3	153.3
67.5°	163.2	158.5	158.5	152.1	128.6	125.0	128.6	128.0	129.9	134.9	144.6
70°	157.9	151.6	152.1	149.3	122.8	118.6	121.6	121.1	122.2	125.6	135.5
72.5°	149.9	144.6	145.8	144.6	117.0	111.2	112.3	112.3	112.3	115.3	125.6
75°	139.6	135.5	139.0	141.8	110.0	102.0	103.1	103.1	101.4	103.1	115.8
77.5°	126.7	124.4	136.0	132.1	102.0	92.3	92.3	91.1	87.8	90.0	103.7
80°	113.0	111.2	125.6	110.6	92.8	80.3	79.0	76.0	72.6	74.3	88.3
82.5°	98.6	96.9	105.5	84.8	80.3	66.2	63.4	58.2	54.8	56.5	69.0
85°	80.8	80.8	81.4	64.0	61.0	50.7	47.3	40.4	36.3	37.4	49.6
87.5°	57.6	59.3	54.8	43.8	36.3	28.3	26.0	21.9	18.3	21.3	26.0
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-03-LED-E1-SLL-600

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8
2.5°	3045.3	3108.7	3180.7	3272.8	3352.0	3481.5	3606.1	3680.9
5°	2276.9	2382.5	2513.6	2682.8	2840.2	3076.3	3311.0	3461.4
7.5°	1629.5	1742.5	1884.3	2095.2	2317.9	2619.2	2929.4	3109.3
10°	1348.4	1464.3	1583.5	1725.9	1908.1	2236.0	2602.5	2805.4
12.5°	1115.5	1239.3	1367.9	1517.8	1686.6	1979.4	2401.9	2635.5
15°	853.7	991.9	1143.5	1333.3	1544.7	1883.2	2352.3	2605.9
17.5°	585.1	739.7	925.7	1159.8	1418.6	1852.0	2441.2	2733.5
20°	402.9	515.3	714.3	988.6	1300.0	1848.0	2611.7	2977.9
22.5°	337.2	387.3	532.6	831.2	1210.5	1897.6	2876.5	3320.7
25°	311.7	341.9	425.3	694.6	1145.4	2011.8	3240.8	3764.6
27.5°	297.0	323.9	386.2	605.3	1094.1	2144.3	3595.2	4194.6
30°	302.6	330.3	375.2	559.7	1024.3	2254.9	3910.0	4530.1
32.5°	272.6	284.8	321.7	519.3	974.2	2347.7	4185.4	4808.0
35°	232.4	253.6	287.0	500.4	975.3	2410.0	4485.8	5163.0
37.5°	221.4	242.7	266.8	493.4	988.6	2476.4	4830.4	5579.3
40°	214.4	234.1	254.9	489.5	1001.3	2536.9	5168.4	5990.8
42.5°	209.8	227.5	253.6	475.5	1007.7	2591.1	5446.1	6340.7
45°	209.2	227.5	258.2	461.6	1017.4	2649.3	5679.1	6599.5
47.5°	209.8	235.2	249.6	445.0	1017.4	2746.6	5952.3	6830.6
50°	207.5	247.9	240.5	421.4	993.8	2931.1	6326.9	7140.1
52.5°	206.4	246.3	222.5	385.1	952.8	3224.0	6807.0	7566.8
55°	203.4	237.5	209.8	331.0	905.1	3543.4	7321.3	8071.3
57.5°	200.6	210.3	202.8	283.7	831.2	3768.1	7675.1	8464.8
60°	224.7	183.9	197.2	260.5	732.6	3829.7	7661.5	8621.6
62.5°	208.1	172.3	189.7	255.4	663.5	3656.8	7307.4	8537.0
65°	163.2	164.9	182.3	270.2	645.0	3198.7	6680.2	8145.5
67.5°	149.3	157.4	174.6	289.5	646.9	2561.0	5743.0	7292.8
70°	140.7	149.3	166.0	299.2	651.4	1909.2	4540.4	5940.1
72.5°	131.0	138.5	156.2	300.9	621.3	1386.8	3499.6	4367.7
75°	119.2	126.1	142.4	262.2	514.8	962.0	2677.0	2988.2
77.5°	106.1	111.2	125.0	202.3	382.3	615.6	2009.3	2183.0
80°	90.6	93.4	105.0	148.2	261.6	385.1	1589.8	1751.7
82.5°	72.6	73.7	81.4	111.2	169.9	247.4	1064.7	1215.2
85°	51.3	51.3	56.0	80.8	115.8	156.8	578.0	641.1
87.5°	24.1	24.7	24.7	44.3	60.4	79.7	133.2	82.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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