

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: P299353

Luminaire Tested: **GLNA-AF-04-LED-E1-SLR-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299353
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-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18273.6 lumens
Efficiency: N/A
Efficacy: 81.2 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

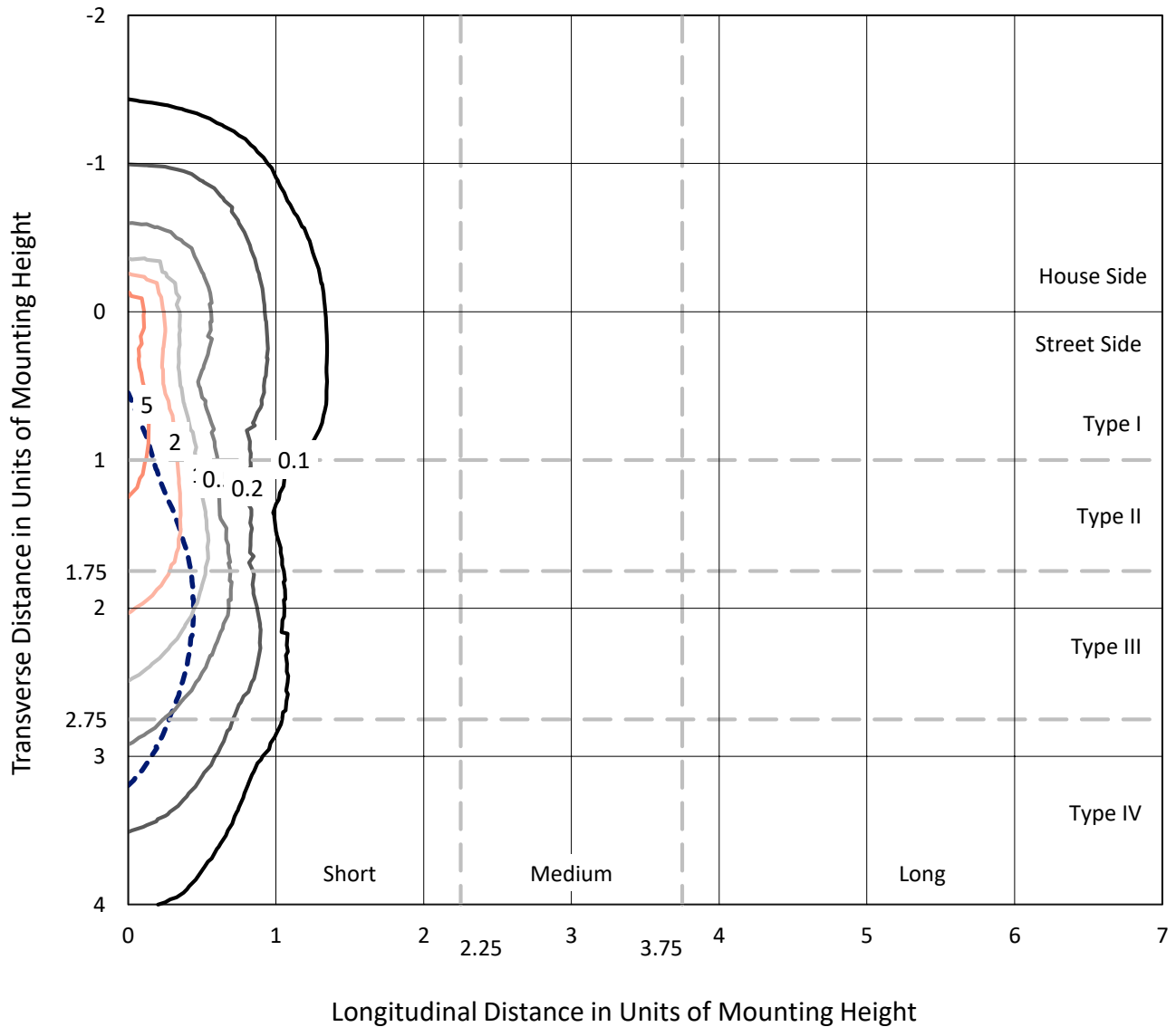
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

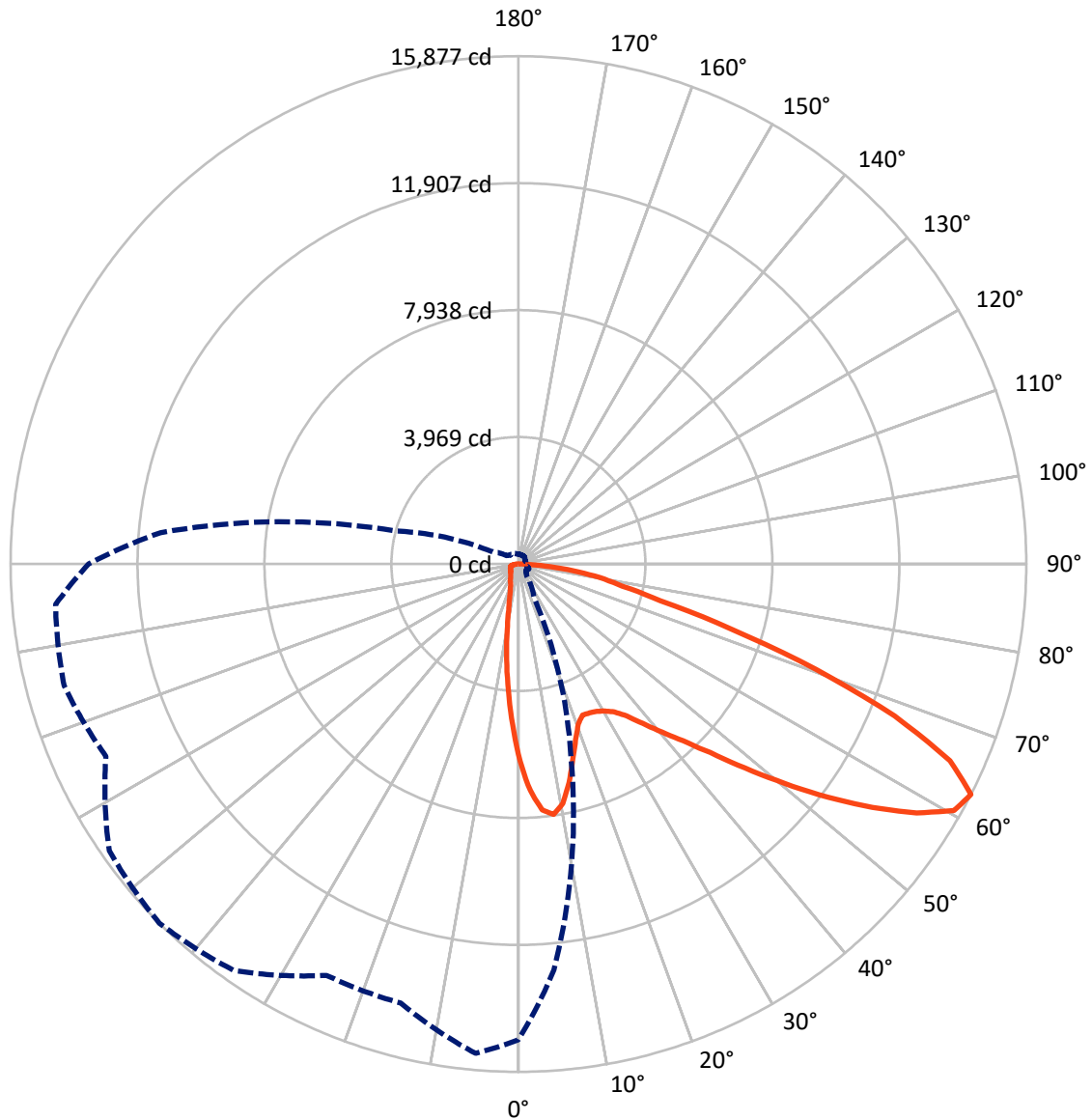
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.9 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
House Side	Lumens	3024.0	0.0	3024.0
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	15249.5	0.0	15249.5
	% Fixture	83.5	0.0	83.5
Total	Lumens	18273.6	0.0	18273.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	449.4	2.5
10°-20°	824.1	4.5
20°-30°	1201.6	6.6
30°-40°	1850.6	10.1
40°-50°	2723.6	14.9
50°-60°	3994.9	21.9
60°-70°	4465.7	24.4
70°-80°	2186.4	12.0
80°-90°	577.3	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°	18273.6	100.0
0°-180°	18273.6	100.0



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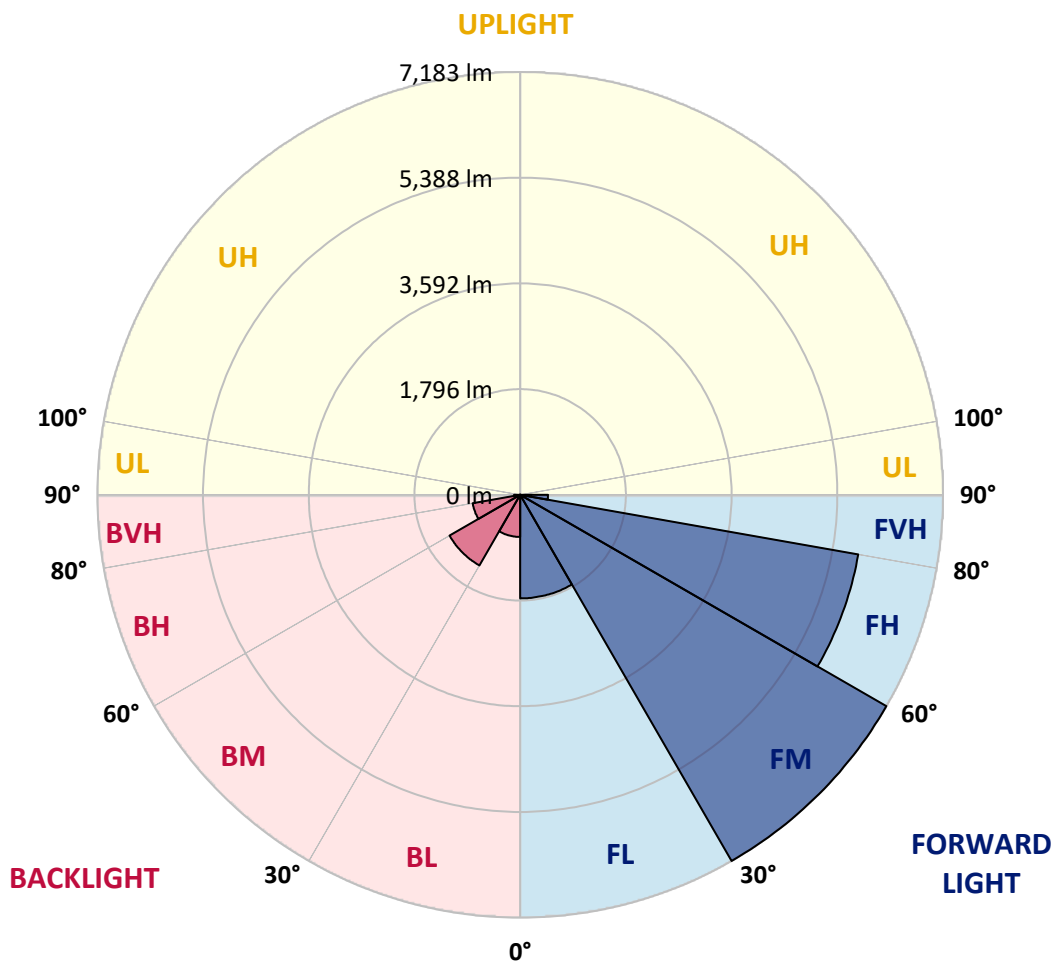
CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1759.7	9.6			
FM	(30°-60°)	7183.5	39.3			
FH	(60°-80°)	5832.3	31.9			G3/7500
FVH	(80°-90°)	474.1	2.6			G3/500
BL	(0°-30°)	715.4	3.9	B2/1000		
BM	(30°-60°)	1385.6	7.6	B2/2500		
BH	(60°-80°)	819.8	4.5	B2/1000		G2/1000
BVH	(80°-90°)	103.2	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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9
2.5°	6414.8	6284.3	6067.2	5841.2	5703.8	5542.9	5417.3	5306.9	5085.8	5042.6	5081.9
5°	6032.2	5770.1	5361.0	4949.3	4675.0	4380.6	4151.6	3967.9	3687.6	3638.3	3697.6
7.5°	5418.5	5105.0	4564.6	4039.1	3651.4	3283.7	3036.8	2839.7	2620.8	2526.5	2532.3
10°	4889.1	4535.4	3896.5	3325.1	3007.6	2759.4	2551.4	2349.5	2127.5	1981.8	1941.7
12.5°	4592.6	4186.0	3449.4	2939.2	2644.8	2383.9	2159.7	1943.8	1706.6	1557.9	1516.0
15°	4541.5	4099.3	3281.9	2692.2	2323.3	1993.1	1728.8	1487.7	1243.5	1123.1	1097.8
17.5°	4763.5	4254.1	3227.4	2472.1	2021.1	1613.3	1288.8	1019.7	820.8	760.6	755.4
20°	5189.2	4551.5	3220.5	2265.3	1722.7	1244.7	898.0	702.2	614.9	597.6	598.8
22.5°	5787.1	5012.5	3306.8	2109.6	1448.4	928.1	675.1	587.5	553.5	537.4	537.4
25°	6560.4	5647.5	3505.7	1996.1	1210.3	741.4	595.7	543.4	511.2	500.2	502.4
27.5°	7310.0	6265.1	3736.8	1906.7	1054.6	673.0	564.4	517.3	489.3	478.1	483.2
30°	7894.5	6813.7	3929.6	1785.1	975.3	653.8	575.7	527.3	487.2	470.1	471.1
32.5°	8378.7	7293.9	4091.4	1697.5	905.0	560.5	496.3	475.0	470.1	450.1	440.0
35°	8997.5	7817.3	4200.0	1699.6	871.9	500.2	441.9	404.8	377.7	354.6	354.6
37.5°	9722.8	8417.9	4315.5	1722.7	860.0	465.0	423.0	385.6	360.7	338.5	334.5
40°	10439.9	9006.6	4421.1	1744.9	852.7	444.0	407.8	373.7	350.6	328.4	322.3
42.5°	11049.9	9490.8	4515.3	1755.9	828.7	441.9	396.9	365.5	343.6	319.3	313.5
45°	11500.9	9896.4	4616.9	1772.9	804.7	450.1	396.9	364.6	337.6	314.4	308.4
47.5°	11903.5	10372.7	4786.6	1772.9	775.5	434.9	409.9	365.5	336.6	312.3	307.4
50°	12443.0	11025.6	5108.0	1731.9	734.4	418.8	431.8	361.6	327.5	308.4	302.3
52.5°	13186.2	11862.5	5618.3	1660.4	671.2	387.7	428.8	359.8	318.4	298.3	291.3
55°	14065.4	12758.3	6174.8	1577.1	576.6	365.5	413.9	354.6	308.4	286.2	279.2
57.5°	14751.4	13375.1	6566.5	1448.4	494.2	353.7	366.7	349.7	296.2	273.1	267.3
60°	15024.5	13351.0	6674.2	1276.6	454.0	343.6	320.5	391.7	286.2	263.0	256.1
62.5°	14877.0	12734.3	6372.8	1156.2	444.9	330.6	300.5	362.5	278.3	256.1	246.0
65°	14194.9	11641.4	5574.2	1124.0	471.1	317.5	287.4	284.3	267.3	246.0	236.0
67.5°	12709.1	10008.0	4463.0	1127.0	504.2	304.4	274.3	260.3	252.1	235.1	225.9
70°	10351.7	7912.8	3326.9	1135.2	521.2	289.2	260.3	245.1	236.0	219.0	212.9
72.5°	7611.4	6098.5	2417.0	1082.9	524.3	272.2	241.2	228.1	219.0	201.0	195.8
75°	5207.5	4664.9	1676.5	897.1	457.1	248.1	219.9	208.0	201.9	179.7	176.7
77.5°	3804.0	3501.7	1072.9	666.0	352.5	218.0	194.0	184.9	180.9	156.6	152.7
80°	3052.9	2770.4	671.2	456.2	258.2	182.8	162.7	157.8	153.6	129.5	126.5
82.5°	2117.5	1855.3	430.9	296.2	194.0	141.7	128.6	126.5	120.4	98.5	95.5
85°	1117.0	1007.5	273.1	201.9	140.5	97.3	89.4	89.4	86.4	65.4	63.3
87.5°	142.6	232.0	138.7	105.5	77.2	43.2	43.2	42.3	45.3	37.1	32.2
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°	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9
2.5°	4989.4	5037.8	4991.5	4994.6	5045.7	5198.3	5267.7	5324.8	5386.3	5426.4	5444.4
5°	3616.4	3728.9	3766.9	3847.2	3965.8	4160.7	4238.0	4294.2	4331.6	4353.5	4362.7
7.5°	2473.3	2541.4	2617.7	2747.3	3005.5	3120.1	3171.2	3158.1	3116.1	3100.9	3086.0
10°	1864.5	1837.4	1823.1	1894.6	2103.5	2219.0	2255.2	2220.0	2196.8	2202.0	2226.9
12.5°	1444.5	1397.4	1340.2	1332.0	1469.7	1573.1	1596.2	1598.1	1640.3	1677.4	1732.8
15°	1052.8	1047.6	1019.7	1002.6	1080.8	1165.3	1175.4	1193.3	1231.6	1258.7	1306.7
17.5°	742.3	769.4	791.6	802.5	861.8	922.0	911.1	902.0	895.0	895.0	918.1
20°	598.8	616.7	645.0	676.9	737.5	779.4	752.4	716.2	690.0	682.1	685.1
22.5°	539.5	553.5	569.6	597.6	652.0	681.2	652.0	625.8	599.7	590.6	587.5
25°	509.4	527.3	542.5	563.5	603.6	623.7	595.7	576.6	560.5	549.5	541.3
27.5°	492.3	508.2	512.4	522.4	556.5	574.5	560.5	552.6	542.5	532.5	522.4
30°	474.1	471.1	464.1	465.0	492.3	510.3	509.4	511.2	510.3	507.2	505.4
32.5°	433.0	427.0	420.9	427.0	451.9	468.0	469.2	473.2	473.2	472.3	480.2
35°	360.7	371.6	378.6	396.9	427.0	440.9	434.9	424.8	406.9	395.6	394.7
37.5°	333.6	335.4	347.6	372.5	406.0	418.8	409.9	386.8	374.7	372.5	375.6
40°	320.5	322.3	329.3	352.5	385.6	398.7	390.8	373.7	362.5	361.6	366.7
42.5°	311.4	313.5	317.5	333.6	360.7	376.8	377.7	365.5	352.5	353.7	358.5
45°	306.2	307.4	306.2	314.4	339.4	358.5	366.7	358.5	347.6	349.7	355.5
47.5°	305.3	302.3	298.3	300.5	326.6	345.5	355.5	352.5	347.6	349.7	354.6
50°	301.4	294.4	289.2	288.3	314.4	334.5	343.6	343.6	345.5	349.7	354.6
52.5°	289.2	281.3	281.3	278.3	306.2	325.4	331.5	332.4	335.4	342.4	349.7
55°	274.3	271.3	274.3	269.1	300.5	318.4	321.4	323.6	325.4	331.5	341.5
57.5°	261.2	257.3	264.3	262.1	295.3	311.4	311.4	315.4	315.4	323.6	331.5
60°	254.2	246.0	249.1	251.2	288.3	305.3	303.5	307.4	309.3	316.6	322.3
62.5°	245.1	238.1	238.1	243.0	280.4	296.2	295.3	298.3	306.2	308.4	314.4
65°	234.2	231.1	228.1	234.2	272.2	286.2	287.4	291.3	298.3	300.5	305.3
67.5°	222.9	224.1	218.0	224.1	265.2	276.1	276.1	284.3	287.4	291.3	296.2
70°	211.0	212.0	206.8	214.1	260.3	265.2	264.3	275.2	277.3	280.4	285.2
72.5°	195.8	195.8	194.0	204.1	252.1	254.2	252.1	261.2	262.1	265.2	267.3
75°	179.7	179.7	177.9	191.9	247.2	242.1	236.0	243.0	245.1	247.2	247.2
77.5°	158.7	160.9	160.9	177.9	229.9	237.2	216.8	221.1	224.1	225.0	222.0
80°	132.6	137.8	139.6	161.8	192.8	219.0	194.0	196.8	198.0	198.0	194.0
82.5°	101.6	110.4	115.6	139.6	147.8	183.7	168.8	171.8	168.8	162.7	160.9
85°	70.2	82.4	88.5	106.4	111.6	141.7	140.5	140.5	134.7	126.5	125.6
87.5°	38.3	45.3	49.3	63.3	76.3	95.5	103.4	100.4	95.5	90.3	91.5
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9
2.5°	5538.9	5675.5	5893.5	6060.2	6228.0	6389.8	6564.7	6698.2	6811.6	6856.0	6990.4
5°	4454.2	4624.8	4830.7	5202.3	5465.6	5755.8	6091.5	6535.5	6706.1	6942.4	7328.9
7.5°	3149.3	3303.8	3635.2	3935.7	4308.5	4719.4	5172.2	5785.0	6009.1	6387.7	7017.5
10°	2351.6	2531.4	2797.4	3050.8	3379.2	3799.2	4319.5	5004.6	5276.8	5687.6	6412.9
12.5°	1894.6	2106.5	2388.7	2626.8	2881.1	3177.3	3682.7	4433.8	4798.7	5158.2	5891.4
15°	1455.4	1677.4	1939.9	2242.2	2522.2	2841.8	3371.3	4193.0	4612.6	4987.6	5613.1
17.5°	1007.5	1197.3	1527.8	1843.2	2202.0	2610.7	3284.9	4244.1	4745.2	5177.4	5661.5
20°	714.3	822.6	1093.9	1459.7	1906.7	2419.7	3268.8	4513.2	5165.2	5658.4	5970.8
22.5°	600.6	640.7	798.6	1134.0	1650.4	2277.1	3325.1	4890.9	5731.7	6361.5	6464.0
25°	547.4	571.7	653.8	890.1	1422.3	2173.7	3514.8	5453.5	6433.0	7064.9	7046.7
27.5°	518.2	543.4	597.6	751.4	1250.8	2109.6	3704.6	6120.7	7234.6	7828.2	7603.2
30°	509.4	543.4	600.6	708.3	1128.2	2008.0	3860.3	6706.1	7851.3	8343.7	7856.5
32.5°	502.4	507.2	533.4	610.6	1011.4	1889.4	3965.8	7231.6	8455.0	8833.9	8221.1
35°	406.0	430.9	473.2	547.4	943.3	1818.2	3965.8	7684.7	9049.8	9329.0	8568.7
37.5°	390.8	413.0	450.1	513.3	905.0	1783.0	3886.4	8121.7	9657.4	9890.7	8854.9
40°	382.9	400.8	436.1	487.2	888.9	1742.8	3770.9	8507.3	10251.0	10452.9	9122.2
42.5°	376.8	392.9	426.0	471.1	867.9	1698.7	3677.5	8816.6	10766.5	10933.1	9377.3
45°	373.7	390.8	427.0	479.3	825.6	1640.3	3646.5	9151.1	11190.4	11333.9	9653.5
47.5°	373.7	393.8	431.8	496.3	775.5	1580.1	3743.8	9592.3	11591.2	11661.4	9978.8
50°	370.7	392.9	446.1	479.3	702.2	1503.8	3972.8	10147.6	12025.2	12033.1	10390.9
52.5°	364.6	390.8	480.2	469.2	617.6	1403.4	4282.4	10861.0	12667.1	12715.2	11035.6
55°	357.6	387.7	471.1	446.1	548.6	1283.9	4535.4	11727.7	13569.1	13702.6	11984.1
57.5°	348.5	383.8	456.2	413.9	503.3	1130.0	4626.9	12362.7	14198.9	14534.3	13052.7
60°	340.6	380.7	411.8	394.7	475.0	1000.5	4449.9	12237.1	14155.7	14878.9	14000.0
62.5°	332.4	383.8	375.6	382.9	461.9	917.2	3988.0	11231.4	13439.5	14523.4	14702.2
65°	323.6	356.7	354.6	372.5	459.2	884.0	3305.9	9723.7	12055.3	13399.4	14867.9
67.5°	311.4	329.3	339.4	359.8	469.2	854.8	2667.9	8021.0	10131.5	11714.7	14004.0
70°	298.3	313.5	324.5	343.6	463.1	841.8	2219.0	6325.3	8039.3	9601.1	12299.5
72.5°	281.3	294.4	304.4	322.3	457.1	834.8	1874.5	5094.0	6002.1	7132.1	10000.1
75°	261.2	273.1	280.4	298.3	437.9	764.5	1473.7	4310.4	4491.3	4961.4	7964.8
77.5°	238.1	247.2	253.0	273.1	387.7	635.9	1065.9	3325.1	3487.8	3602.1	6106.4
80°	211.0	219.9	222.9	242.1	321.4	497.2	695.2	2455.9	2608.6	2634.8	3988.0
82.5°	179.7	188.8	188.8	206.8	263.0	357.6	456.2	1682.6	1712.7	1801.2	2818.7
85°	144.8	151.7	151.7	160.9	204.1	267.3	313.5	844.8	835.7	954.3	2441.9
87.5°	103.4	108.6	113.4	115.6	145.7	176.7	188.8	257.3	169.7	194.9	1568.0
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-04-LED-E1-SLR-7027

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9	6173.9
2.5°	7092.0	7149.2	7090.8	7048.8	6867.0	6717.3	6517.2	6414.8
5°	7623.3	7768.9	7719.7	7543.0	7163.2	6736.2	6251.1	6032.2
7.5°	7559.1	7897.6	7905.5	7575.2	7015.7	6386.8	5729.9	5418.5
10°	7058.8	7491.6	7615.4	7294.8	6701.2	5998.1	5244.6	4889.1
12.5°	6500.2	6924.1	7018.7	6908.0	6412.0	5705.6	4941.4	4592.6
15°	6043.1	6233.2	6345.4	6442.1	6163.9	5589.1	4924.0	4541.5
17.5°	5764.9	5743.9	5776.1	5943.7	5990.8	5722.6	5185.3	4763.5
20°	5664.5	5342.2	5334.0	5565.1	5909.6	6041.3	5695.5	5189.2
22.5°	5719.9	5197.4	5131.1	5405.4	5952.8	6500.2	6364.6	5787.1
25°	5910.5	5209.6	5156.1	5421.6	6109.4	6989.5	7086.8	6560.4
27.5°	6211.0	5285.9	5215.4	5487.8	6317.4	7400.4	7798.1	7310.0
30°	6496.3	5418.5	5330.9	5618.3	6507.2	7563.0	8234.2	7894.5
32.5°	6842.9	5666.7	5512.8	5858.2	6742.3	7822.1	8622.8	8378.7
35°	7182.3	6020.0	5829.4	6228.9	7004.4	8144.8	9066.8	8997.5
37.5°	7555.1	6482.3	6324.4	6708.2	7363.3	8448.9	9633.4	9722.8
40°	7952.9	7095.0	6908.0	7407.3	7919.8	8830.9	10225.2	10439.9
42.5°	8353.7	7775.0	7552.1	8058.1	8531.3	9207.3	10731.2	11049.9
45°	8812.6	8513.4	8407.8	8955.2	9119.1	9566.2	11104.9	11500.9
47.5°	9347.2	9351.2	9520.9	9739.8	9711.8	9971.8	11480.8	11903.5
50°	9970.9	10396.7	10771.6	10917.0	10322.5	10407.9	12002.0	12443.0
52.5°	10720.2	11647.5	12111.5	12016.0	10980.6	10940.1	12827.7	13186.2
55°	11657.5	12971.5	13432.5	13364.1	11736.9	11665.4	13856.5	14065.4
57.5°	12742.2	14254.2	14678.1	14370.7	12644.9	12461.2	14707.3	14751.4
60°	13695.6	15270.8	15642.5	15301.9	13561.2	13307.9	15238.6	15024.5
62.5°	14225.9	15615.4	15876.6	15509.9	14188.8	14209.8	15355.1	14877.0
65°	13989.1	14744.4	14828.7	14798.6	14027.1	14733.2	14936.3	14194.9
67.5°	12691.1	12542.4	12684.1	12880.0	12641.0	14044.1	13775.9	12709.1
70°	10404.9	9588.1	9870.6	10002.0	10110.5	12085.4	11956.7	10351.7
72.5°	7841.3	6717.3	6940.2	6913.2	7415.3	9693.6	9298.9	7611.4
75°	5556.0	4554.6	4582.5	4571.6	5174.3	7584.0	6733.5	5207.5
77.5°	3887.4	3299.8	3315.0	3377.1	3478.6	5719.9	4810.6	3804.0
80°	2673.1	2504.3	2587.6	2592.8	2410.9	3842.3	3554.1	3052.9
82.5°	1991.0	1740.7	1720.6	1749.8	1889.4	3113.1	2731.2	2117.5
85°	1630.3	1030.6	828.7	1038.8	1674.4	3083.0	1814.3	1117.0
87.5°	918.1	489.3	221.1	409.9	668.1	2041.1	524.3	142.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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