

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: P299443

Luminaire Tested: **GLNA-AF-09-LED-E1-SLR-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299443
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-09-LED-E1-SLR-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32717.9 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 374
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

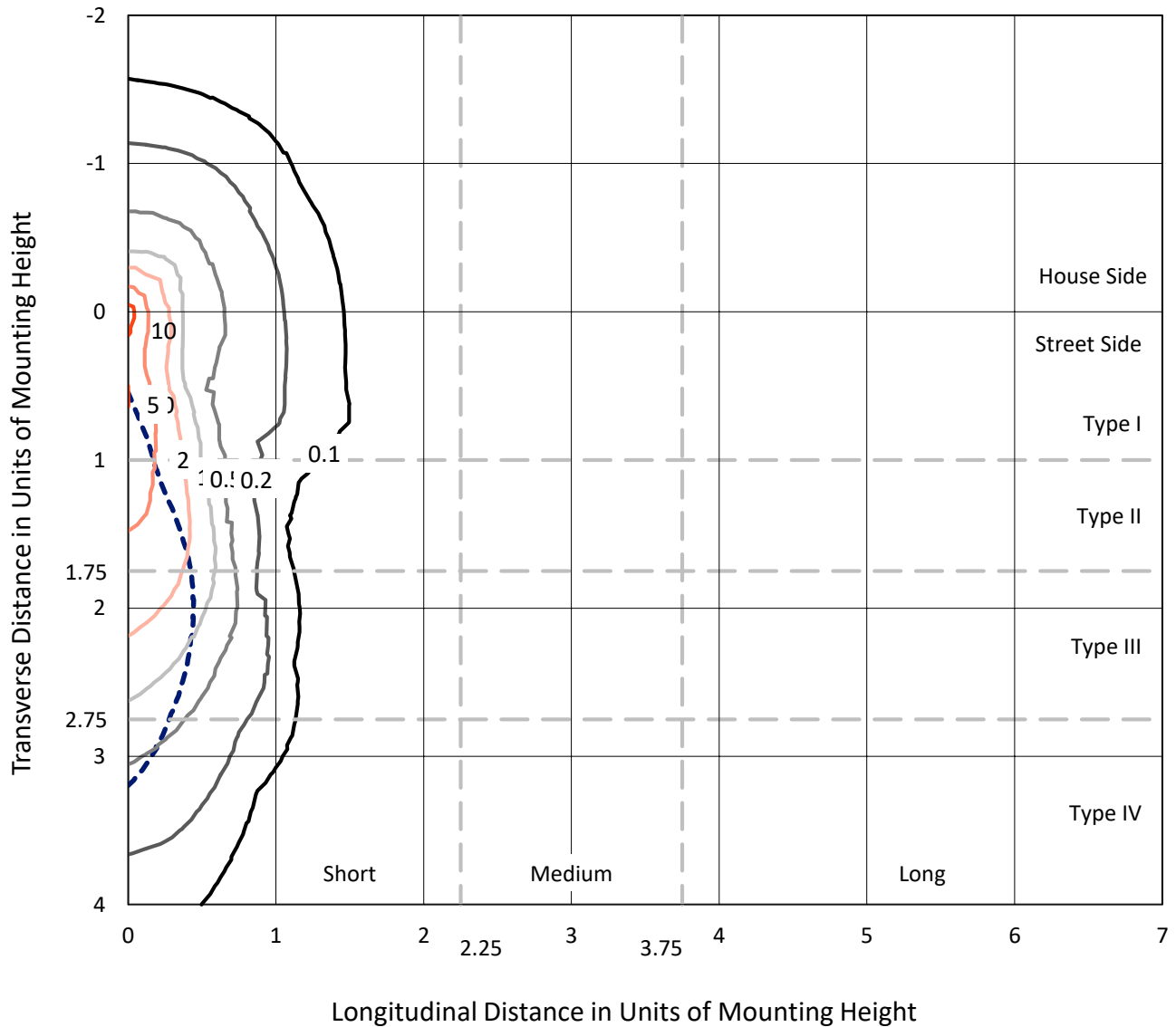


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Iso-Footcandle Lines of Horizontal Illumination

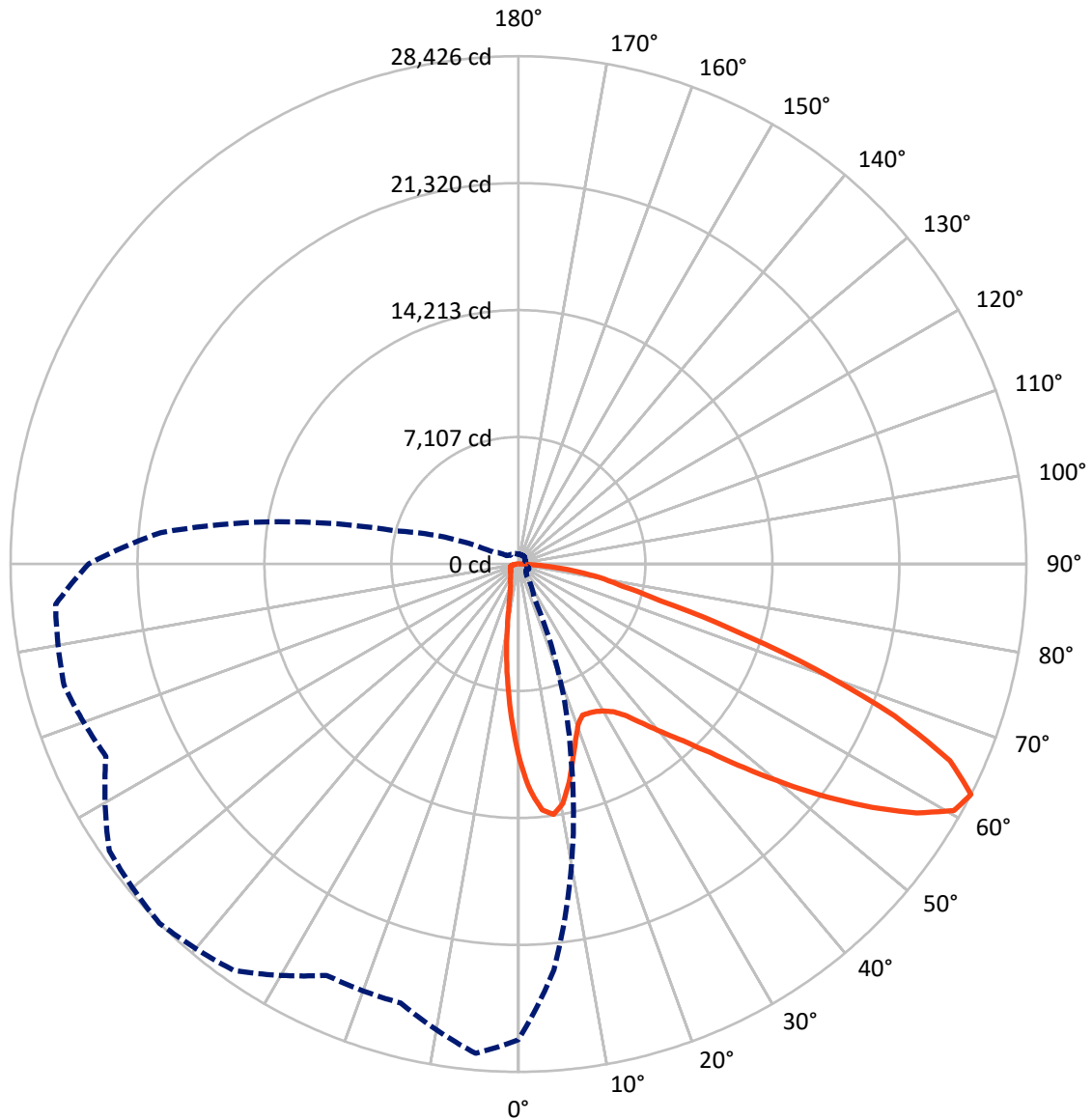
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.3 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	5414.4	0.0	5414.4
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	27303.5	0.0	27303.5
	% Fixture	83.5	0.0	83.5
Total	Lumens	32717.9	0.0	32717.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	804.7	2.5
10°-20°	1475.6	4.5
20°-30°	2151.3	6.6
30°-40°	3313.4	10.1
40°-50°	4876.4	14.9
50°-60°	7152.7	21.9
60°-70°	7995.7	24.4
70°-80°	3914.6	12.0
80°-90°	1033.5	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°	32717.9	100.0
0°-180°	32717.9	100.0



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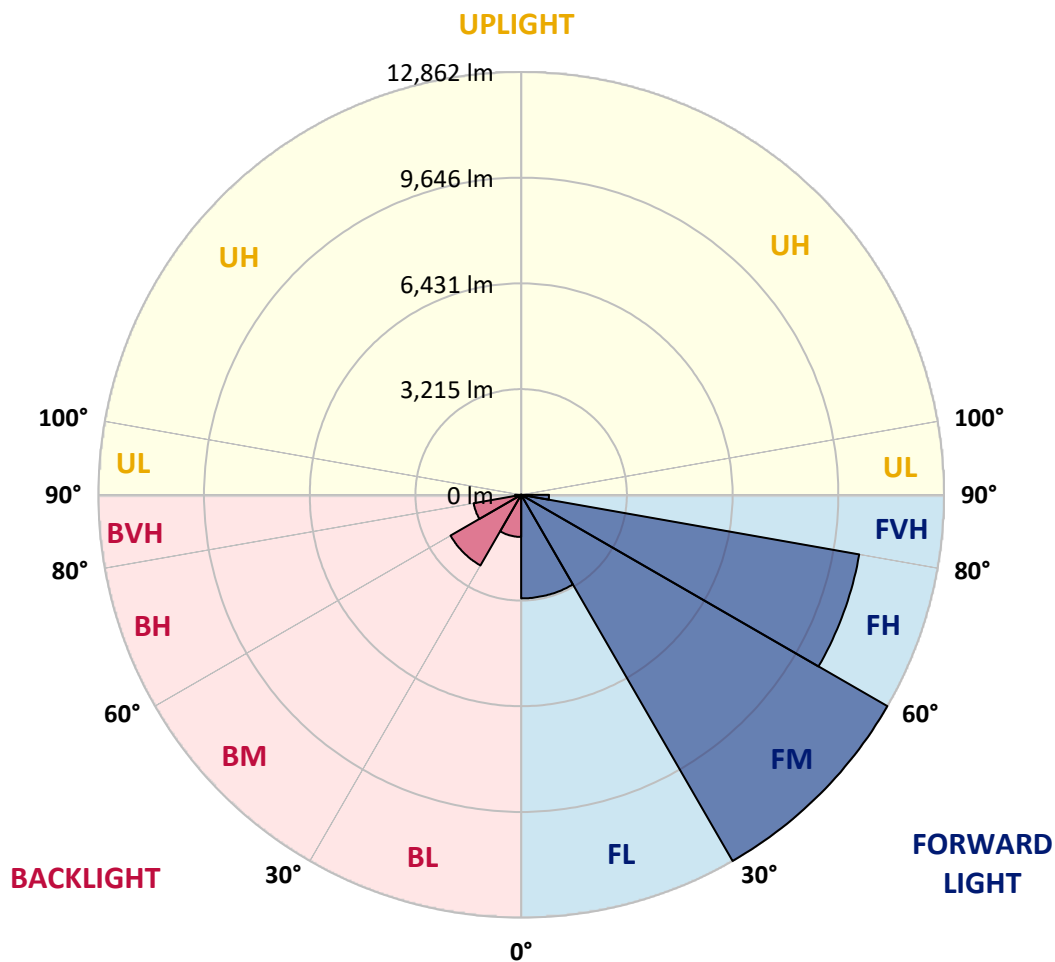
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3150.6	9.6			
FM	(30°-60°)	12861.7	39.3			
FH	(60°-80°)	10442.4	31.9			G4/12000
FVH	(80°-90°)	848.8	2.6			G5
BL	(0°-30°)	1280.9	3.9	B3/2500		
BM	(30°-60°)	2480.8	7.6	B2/2500		
BH	(60°-80°)	1467.8	4.5	B3/2500		G3/2500
BVH	(80°-90°)	184.8	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1
2.5°	11485.3	11251.7	10862.9	10458.4	10212.3	9924.3	9699.4	9501.7	9105.9	9028.6	9098.8
5°	10800.3	10331.0	9598.7	8861.4	8370.3	7843.3	7433.3	7104.4	6602.4	6514.2	6620.3
7.5°	9701.6	9140.2	8172.7	7231.8	6537.6	5879.3	5437.2	5084.4	4692.3	4523.6	4533.9
10°	8753.6	8120.4	6976.4	5953.4	5384.9	4940.6	4568.2	4206.7	3809.2	3548.4	3476.5
12.5°	8222.8	7494.8	6176.1	5262.4	4735.4	4268.2	3866.9	3480.3	3055.6	2789.4	2714.2
15°	8131.3	7339.6	5876.0	4820.3	4159.8	3568.5	3095.4	2663.6	2226.4	2010.8	1965.6
17.5°	8528.8	7616.7	5778.6	4426.1	3618.6	2888.5	2307.5	1825.6	1469.6	1361.7	1352.5
20°	9291.0	8149.3	5766.1	4055.8	3084.5	2228.6	1607.9	1257.2	1100.9	1069.9	1072.1
22.5°	10361.5	8974.7	5920.7	3777.1	2593.4	1661.8	1208.7	1051.9	991.0	962.1	962.1
25°	11746.1	10111.6	6276.8	3574.0	2167.0	1327.4	1066.6	973.0	915.3	895.7	899.5
27.5°	13088.2	11217.4	6690.6	3413.9	1888.3	1204.9	1010.6	926.2	876.1	855.9	865.2
30°	14134.7	12199.6	7035.8	3196.1	1746.2	1170.6	1030.7	944.1	872.3	841.8	843.4
32.5°	15001.5	13059.4	7325.5	3039.3	1620.4	1003.5	888.6	850.5	841.8	805.8	787.9
35°	16109.6	13996.4	7519.8	3043.1	1561.0	895.7	791.1	724.7	676.2	634.9	634.9
37.5°	17408.2	15071.8	7726.7	3084.5	1539.8	832.5	757.4	690.4	645.8	606.0	598.9
40°	18692.0	16125.9	7915.7	3124.2	1526.7	794.9	730.1	669.2	627.8	588.0	577.2
42.5°	19784.3	16992.7	8084.5	3143.8	1483.7	791.1	710.5	654.5	615.3	571.7	561.4
45°	20591.7	17719.1	8266.3	3174.3	1440.7	805.8	710.5	652.8	604.4	563.0	552.1
47.5°	21312.6	18571.7	8570.1	3174.3	1388.4	778.6	734.0	654.5	602.7	559.2	550.5
50°	22278.5	19740.7	9145.7	3100.8	1314.9	749.8	773.2	647.4	586.4	552.1	541.2
52.5°	23609.3	21239.1	10059.3	2972.9	1201.7	694.2	767.7	644.1	570.1	534.1	521.6
55°	25183.3	22843.2	11055.7	2823.7	1032.3	654.5	741.0	634.9	552.1	512.4	499.8
57.5°	26411.7	23947.4	11757.0	2593.4	884.8	633.2	656.6	626.2	530.3	488.9	478.6
60°	26900.6	23904.4	11949.7	2285.7	812.9	615.3	573.9	701.3	512.4	471.0	458.5
62.5°	26636.6	22800.2	11410.1	2070.1	796.6	591.9	537.9	649.0	498.2	458.5	440.5
65°	25415.3	20843.3	9980.3	2012.4	843.4	568.4	514.5	509.1	478.6	440.5	422.5
67.5°	22755.0	17918.9	7990.8	2017.8	902.7	545.0	491.1	466.1	451.4	420.9	404.5
70°	18534.1	14167.4	5956.6	2032.5	933.2	517.8	466.1	438.9	422.5	392.0	381.1
72.5°	13627.8	10919.0	4327.5	1938.9	938.7	487.3	431.8	408.4	392.0	359.9	350.6
75°	9323.7	8352.3	3001.7	1606.2	818.4	444.3	393.7	372.4	361.5	321.8	316.3
77.5°	6810.9	6269.7	1920.9	1192.4	631.1	390.4	347.4	331.0	324.0	280.4	273.3
80°	5466.0	4960.2	1201.7	816.7	462.3	327.2	291.3	282.6	275.0	231.9	226.5
82.5°	3791.2	3321.9	771.5	530.3	347.4	253.7	230.3	226.5	215.6	176.4	171.0
85°	1999.9	1803.9	488.9	361.5	251.6	174.2	160.1	160.1	154.6	117.1	113.3
87.5°	255.4	415.4	248.3	188.9	138.3	77.3	77.3	75.7	81.1	66.4	57.7
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°	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1
2.5°	8933.3	9019.9	8937.1	8942.6	9034.0	9307.4	9431.5	9533.9	9643.9	9715.7	9747.8
5°	6475.0	6676.4	6744.5	6888.2	7100.6	7449.6	7587.9	7688.6	7755.6	7794.8	7811.1
7.5°	4428.3	4550.2	4686.9	4918.8	5381.1	5586.4	5677.9	5654.4	5579.3	5552.1	5525.4
10°	3338.2	3289.8	3264.2	3392.1	3766.2	3973.1	4037.9	3974.7	3933.3	3942.6	3987.2
12.5°	2586.3	2501.9	2399.5	2384.8	2631.5	2816.6	2858.0	2861.2	2936.9	3003.4	3102.5
15°	1885.0	1875.7	1825.6	1795.2	1935.1	2086.5	2104.4	2136.5	2205.1	2253.6	2339.6
17.5°	1329.1	1377.5	1417.3	1436.9	1543.1	1650.9	1631.3	1614.9	1602.4	1602.4	1643.8
20°	1072.1	1104.2	1154.8	1212.0	1320.4	1395.5	1347.0	1282.3	1235.4	1221.3	1226.7
22.5°	965.9	991.0	1019.8	1069.9	1167.4	1219.6	1167.4	1120.5	1073.7	1057.4	1051.9
25°	912.0	944.1	971.4	1008.9	1080.8	1116.7	1066.6	1032.3	1003.5	983.9	969.2
27.5°	881.5	909.8	917.5	935.4	996.4	1028.5	1003.5	989.3	971.4	953.4	935.4
30°	848.8	843.4	830.9	832.5	881.5	913.6	912.0	915.3	913.6	908.2	904.9
32.5°	775.3	764.5	753.6	764.5	809.1	838.0	840.1	847.2	847.2	845.6	859.7
35°	645.8	665.4	677.9	710.5	764.5	789.5	778.6	760.6	728.5	708.4	706.7
37.5°	597.3	600.6	622.3	667.0	726.9	749.8	734.0	692.6	670.8	667.0	672.4
40°	573.9	577.2	589.7	631.1	690.4	713.8	699.7	669.2	649.0	647.4	656.6
42.5°	557.5	561.4	568.4	597.3	645.8	674.6	676.2	654.5	631.1	633.2	641.9
45°	548.3	550.5	548.3	563.0	607.6	641.9	656.6	641.9	622.3	626.2	636.5
47.5°	546.7	541.2	534.1	537.9	584.8	618.5	636.5	631.1	622.3	626.2	634.9
50°	539.6	527.1	517.8	516.2	563.0	598.9	615.3	615.3	618.5	626.2	634.9
52.5°	517.8	503.6	503.6	498.2	548.3	582.6	593.5	595.1	600.6	613.1	626.2
55°	491.1	485.7	491.1	481.9	537.9	570.1	575.5	579.3	582.6	593.5	611.5
57.5°	467.7	460.6	473.2	469.3	528.7	557.5	557.5	564.6	564.6	579.3	593.5
60°	455.2	440.5	445.9	449.7	516.2	546.7	543.4	550.5	553.7	566.8	577.2
62.5°	438.9	426.3	426.3	435.0	502.0	530.3	528.7	534.1	548.3	552.1	563.0
65°	419.3	413.8	408.4	419.3	487.3	512.4	514.5	521.6	534.1	537.9	546.7
67.5°	399.1	401.3	390.4	401.3	474.8	494.4	494.4	509.1	514.5	521.6	530.3
70°	377.9	379.5	370.2	383.3	466.1	474.8	473.2	492.8	496.6	502.0	510.7
72.5°	350.6	350.6	347.4	365.3	451.4	455.2	451.4	467.7	469.3	474.8	478.6
75°	321.8	321.8	318.5	343.6	442.7	433.4	422.5	435.0	438.9	442.7	442.7
77.5°	284.2	288.0	288.0	318.5	411.6	424.7	388.2	395.8	401.3	402.9	397.5
80°	237.4	246.7	249.9	289.7	345.2	392.0	347.4	352.3	354.5	354.5	347.4
82.5°	181.9	197.6	206.9	249.9	264.6	328.9	302.2	307.6	302.2	291.3	288.0
85°	125.8	147.6	158.4	190.6	199.8	253.7	251.6	251.6	241.2	226.5	224.9
87.5°	68.6	81.1	88.2	113.3	136.7	171.0	185.1	179.7	171.0	161.7	163.9
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°	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1
2.5°	9917.2	10161.7	10552.0	10850.4	11151.0	11440.6	11753.7	11992.7	12195.8	12275.3	12516.0
5°	7975.0	8280.5	8649.1	9314.4	9786.0	10305.4	10906.5	11701.4	12006.9	12430.0	13122.0
7.5°	5638.6	5915.2	6508.7	7046.7	7714.2	8449.8	9260.5	10357.7	10758.9	11436.8	12564.4
10°	4210.5	4532.3	5008.7	5462.2	6050.3	6802.2	7733.8	8960.5	9447.8	10183.4	11482.0
12.5°	3392.1	3771.6	4276.9	4703.2	5158.4	5688.7	6593.7	7938.5	8591.9	9235.5	10548.2
15°	2605.9	3003.4	3473.2	4014.5	4515.9	5088.2	6036.1	7507.3	8258.7	8930.0	10050.0
17.5°	1803.9	2143.6	2735.5	3300.1	3942.6	4674.4	5881.5	7598.8	8496.1	9269.8	10136.6
20°	1279.0	1472.8	1958.5	2613.5	3413.9	4332.4	5852.6	8080.6	9248.0	10131.2	10690.3
22.5°	1075.4	1147.2	1429.8	2030.4	2954.9	4077.1	5953.4	8756.9	10262.4	11390.0	11573.5
25°	980.1	1023.6	1170.6	1593.7	2546.5	3892.0	6293.1	9764.2	11518.0	12649.4	12616.7
27.5°	927.8	973.0	1069.9	1345.4	2239.5	3777.1	6632.9	10958.8	12953.2	14016.0	13613.1
30°	912.0	973.0	1075.4	1268.1	2020.0	3595.2	6911.6	12006.9	14057.4	14938.9	14066.7
32.5°	899.5	908.2	955.0	1093.3	1810.9	3382.9	7100.6	12947.8	15138.2	15816.6	14719.5
35°	726.9	771.5	847.2	980.1	1689.0	3255.5	7100.6	13759.0	16203.2	16703.1	15341.8
37.5°	699.7	739.4	805.8	919.1	1620.4	3192.3	6958.5	14541.5	17291.1	17708.7	15854.2
40°	685.5	717.6	780.8	872.3	1591.5	3120.4	6751.6	15231.9	18353.9	18715.5	16332.8
42.5°	674.6	703.5	762.8	843.4	1553.9	3041.5	6584.4	15785.6	19276.8	19575.2	16789.6
45°	669.2	699.7	764.5	858.1	1478.3	2936.9	6528.9	16384.5	20035.8	20292.8	17284.0
47.5°	669.2	705.1	773.2	888.6	1388.4	2829.1	6703.1	17174.6	20753.4	20879.2	17866.6
50°	663.7	703.5	798.8	858.1	1257.2	2692.5	7113.1	18168.8	21530.4	21544.6	18604.4
52.5°	652.8	699.7	859.7	840.1	1105.8	2512.8	7667.4	19446.1	22679.8	22765.9	19758.7
55°	640.3	694.2	843.4	798.8	982.2	2298.8	8120.4	20997.9	24294.8	24533.8	21456.9
57.5°	624.0	687.1	816.7	741.0	901.1	2023.3	8284.3	22134.8	25422.4	26022.9	23370.2
60°	609.8	681.7	737.2	706.7	850.5	1791.3	7967.4	21909.9	25345.1	26639.8	25066.3
62.5°	595.1	687.1	672.4	685.5	827.1	1642.2	7140.3	20109.3	24062.8	26003.3	26323.5
65°	579.3	638.7	634.9	667.0	822.2	1582.8	5919.1	17409.8	21584.3	23990.9	26620.2
67.5°	557.5	589.7	607.6	644.1	840.1	1530.5	4776.7	14361.2	18139.9	20974.5	25073.4
70°	534.1	561.4	581.0	615.3	829.2	1507.1	3973.1	11325.2	14393.9	17190.4	22021.5
72.5°	503.6	527.1	545.0	577.2	818.4	1494.6	3356.2	9120.6	10746.4	12769.7	17904.7
75°	467.7	488.9	502.0	534.1	784.1	1368.8	2638.6	7717.5	8041.4	8883.2	14260.5
77.5°	426.3	442.7	453.0	488.9	694.2	1138.5	1908.4	5953.4	6244.7	6449.4	10933.2
80°	377.9	393.7	399.1	433.4	575.5	890.2	1244.7	4397.2	4670.6	4717.4	7140.3
82.5°	321.8	338.1	338.1	370.2	471.0	640.3	816.7	3012.6	3066.5	3225.0	5046.8
85°	259.2	271.7	271.7	288.0	365.3	478.6	561.4	1512.6	1496.2	1708.6	4372.2
87.5°	185.1	194.4	203.1	206.9	260.8	316.3	338.1	460.6	303.8	349.0	2807.3
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-09-LED-E1-SLR-7027-800

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1	11054.1
2.5°	12697.8	12800.2	12695.7	12620.5	12294.9	12027.0	11668.8	11485.3
5°	13649.1	13909.9	13821.7	13505.3	12825.3	12060.8	11192.4	10800.3
7.5°	13534.2	14140.2	14154.3	13563.0	12561.2	11435.2	10259.1	9701.6
10°	12638.5	13413.3	13634.9	13061.0	11998.2	10739.3	9390.1	8753.6
12.5°	11638.3	12397.3	12566.6	12368.4	11480.4	10215.6	8847.3	8222.8
15°	10819.9	11160.2	11361.1	11534.3	11036.1	10007.0	8816.2	8131.3
17.5°	10321.7	10284.2	10341.9	10641.9	10726.3	10246.0	9284.0	8528.8
20°	10142.1	9564.9	9550.2	9964.0	10580.9	10816.7	10197.6	9291.0
22.5°	10241.1	9305.7	9187.0	9678.2	10658.2	11638.3	11395.4	10361.5
25°	10582.5	9327.5	9231.7	9707.0	10938.6	12514.4	12688.6	11746.1
27.5°	11120.5	9464.2	9337.9	9825.7	11311.1	13250.0	13962.1	13088.2
30°	11631.2	9701.6	9544.8	10059.3	11650.8	13541.2	14742.9	14134.7
32.5°	12251.9	10145.9	9870.4	10488.9	12071.7	14005.1	15438.8	15001.5
35°	12859.6	10778.6	10437.2	11152.6	12541.0	14582.8	16233.7	16109.6
37.5°	13527.1	11606.2	11323.6	12010.7	13183.5	15127.3	17248.1	17408.2
40°	14239.3	12703.3	12368.4	13262.5	14179.9	15811.2	18307.6	18692.0
42.5°	14956.9	13920.8	13521.6	14427.7	15274.9	16485.3	19213.7	19784.3
45°	15778.5	15242.8	15053.8	16033.9	16327.4	17127.7	19882.8	20591.7
47.5°	16735.7	16742.8	17046.6	17438.6	17388.6	17854.1	20555.8	21312.6
50°	17852.5	18614.7	19286.1	19546.3	18481.9	18634.9	21489.0	22278.5
52.5°	19194.1	20854.2	21685.1	21514.1	19660.1	19587.7	22967.3	23609.3
55°	20872.1	23224.8	24050.3	23927.8	21014.3	20886.3	24809.3	25183.3
57.5°	22814.3	25521.5	26280.5	25730.0	22640.1	22311.2	26332.7	26411.7
60°	24521.3	27341.7	28007.0	27397.2	24280.6	23827.0	27284.0	26900.6
62.5°	25470.8	27958.6	28426.3	27769.6	25404.4	25442.0	27492.5	26636.6
65°	25046.7	26399.2	26550.0	26496.1	25114.7	26379.0	26742.7	25415.3
67.5°	22722.8	22456.6	22710.3	23061.0	22633.0	25145.2	24665.0	22755.0
70°	18629.4	17167.0	17672.8	17908.0	18102.4	21638.2	21407.9	18534.1
72.5°	14039.4	12027.0	12426.2	12377.7	13276.6	17355.9	16649.1	13627.8
75°	9947.7	8154.7	8204.8	8185.2	9264.3	13578.8	12055.9	9323.7
77.5°	6960.1	5908.2	5935.4	6046.5	6228.3	10241.1	8613.1	6810.9
80°	4786.0	4483.8	4633.0	4642.2	4316.6	6879.5	6363.4	5466.0
82.5°	3564.7	3116.6	3080.7	3132.9	3382.9	5573.9	4890.0	3791.2
85°	2919.0	1845.2	1483.7	1859.9	2997.9	5520.0	3248.4	1999.9
87.5°	1643.8	876.1	395.8	734.0	1196.2	3654.6	938.7	255.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)