

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: P299488

Luminaire Tested: **GLNA-AF-06-LED-E1-SLR-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299488
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-06-LED-E1-SLR-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(6) 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: 20543.2 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

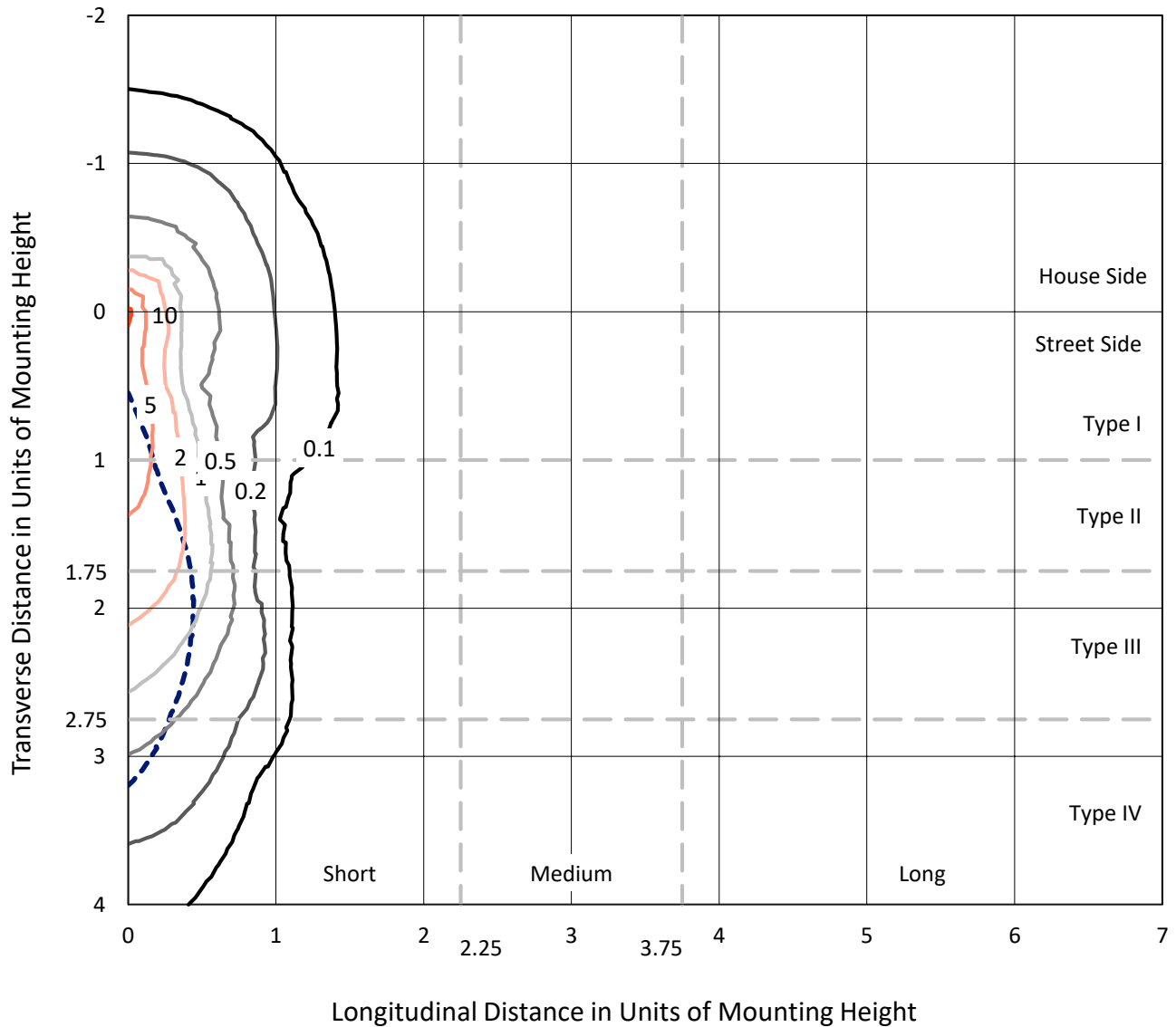
Input Watts (W): 193
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

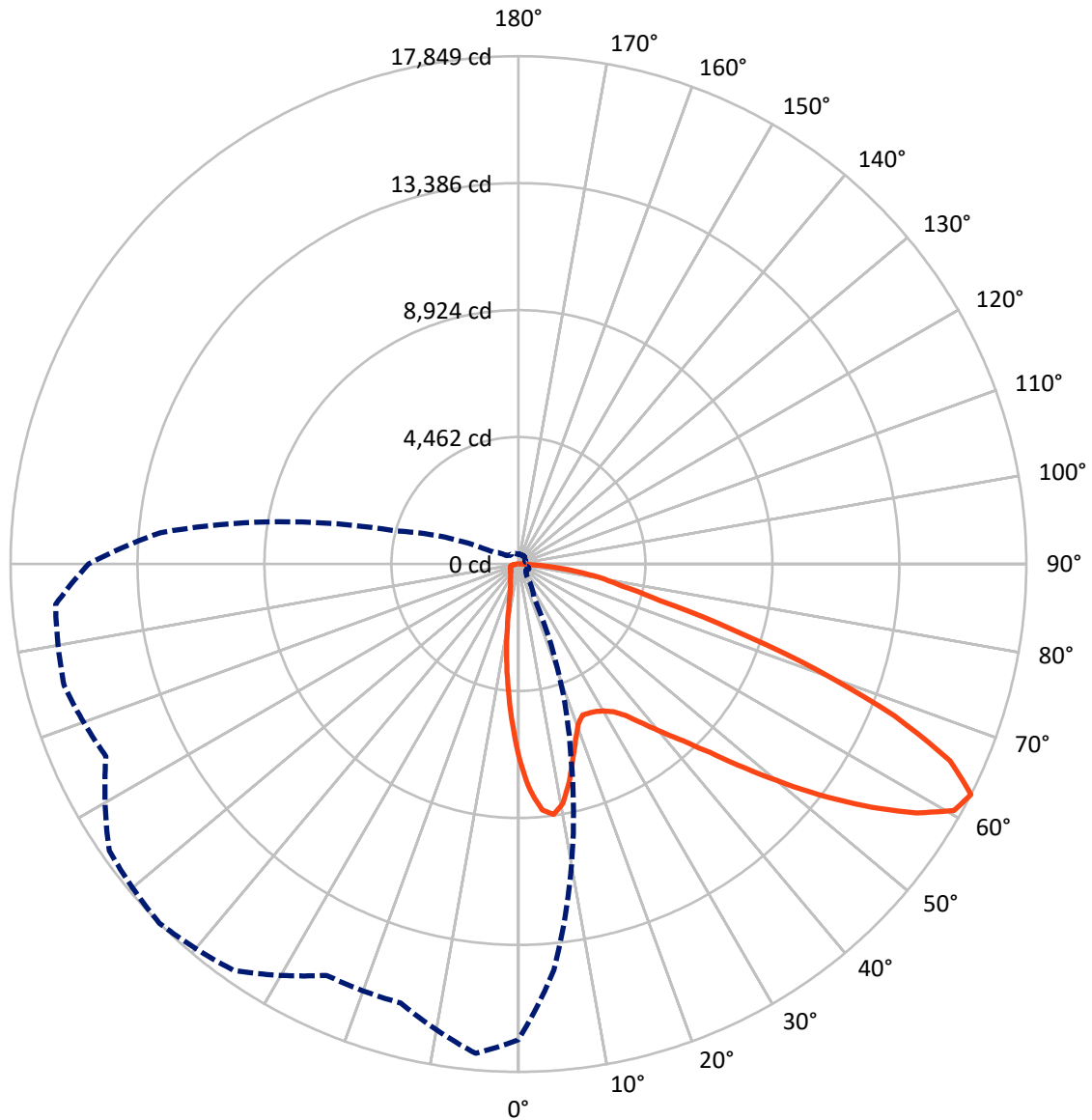
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.1 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	3399.6	0.0	3399.6
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	17143.6	0.0	17143.6
	% Fixture	83.5	0.0	83.5
Total	Lumens	20543.2	0.0	20543.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	505.2	2.5
10°-20°	926.5	4.5
20°-30°	1350.8	6.6
30°-40°	2080.4	10.1
40°-50°	3061.9	14.9
50°-60°	4491.1	21.9
60°-70°	5020.4	24.4
70°-80°	2457.9	12.0
80°-90°	648.9	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°	20543.2	100.0
0°-180°	20543.2	100.0



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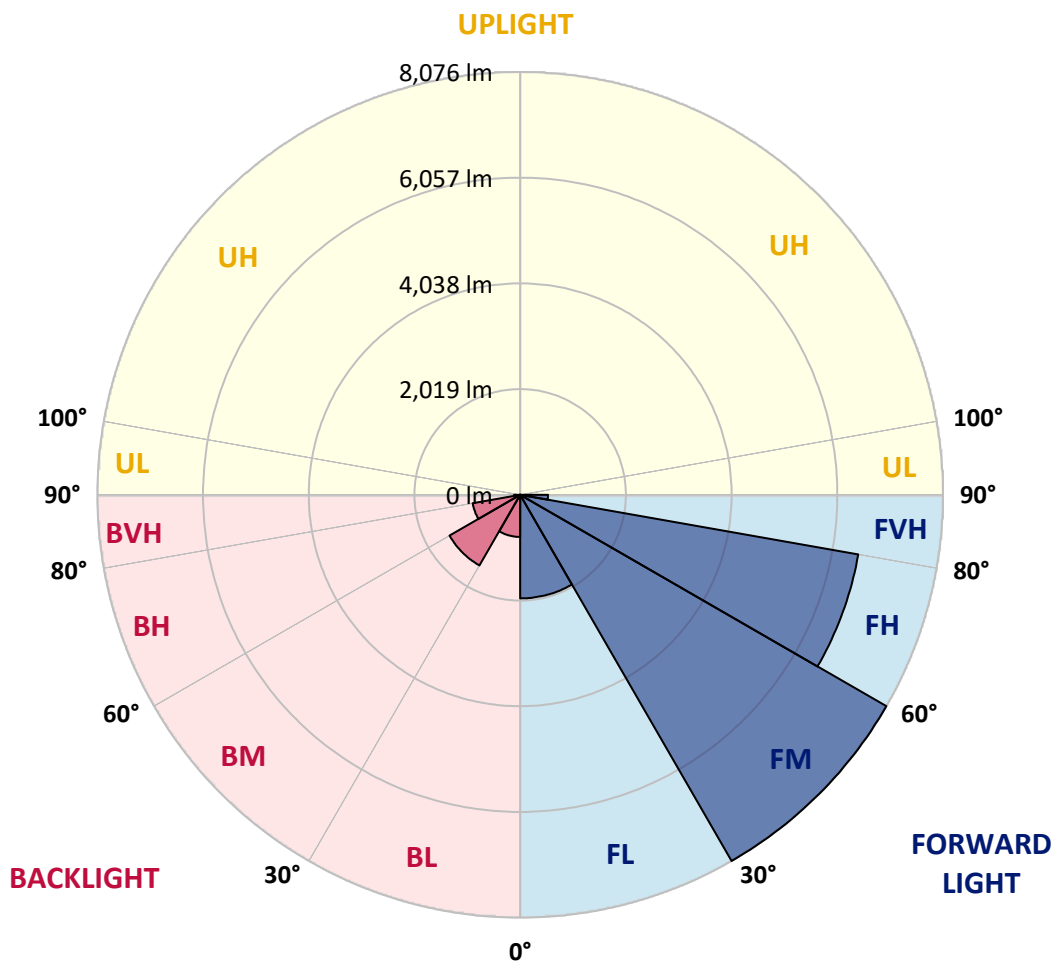
CATALOG NUMBER: GLNA-AF-06-LED-E1-SLR-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1978.2	9.6			
FM (30°-60°)	8075.7	39.3			
FH (60°-80°)	6556.7	31.9			G3/7500
FVH (80°-90°)	532.9	2.6			G4/750
BL (0°-30°)	804.3	3.9	B2/1000		
BM (30°-60°)	1557.7	7.6	B2/2500		
BH (60°-80°)	921.6	4.5	B2/1000		G2/1000
BVH (80°-90°)	116.0	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7
2.5°	7211.5	7064.8	6820.7	6566.7	6412.2	6231.3	6090.2	5966.1	5717.5	5669.0	5713.1
5°	6781.4	6486.7	6026.9	5564.0	5255.6	4924.7	4667.3	4460.8	4145.6	4090.2	4156.9
7.5°	6091.5	5739.0	5131.5	4540.8	4104.9	3691.6	3414.0	3192.4	2946.3	2840.3	2846.8
10°	5496.3	5098.7	4380.4	3738.1	3381.1	3102.2	2868.3	2641.3	2391.8	2228.0	2182.9
12.5°	5163.0	4705.9	3877.9	3304.2	2973.3	2680.0	2428.0	2185.3	1918.6	1751.4	1704.2
15°	5105.6	4608.5	3689.5	3026.6	2611.9	2240.6	1943.6	1672.4	1397.9	1262.5	1234.2
17.5°	5355.1	4782.5	3628.3	2779.1	2272.1	1813.6	1448.9	1146.3	922.7	855.0	849.2
20°	5833.7	5116.8	3620.5	2546.6	1936.7	1399.3	1009.6	789.4	691.3	671.8	673.2
22.5°	6505.9	5635.1	3717.5	2371.6	1628.3	1043.4	759.0	660.5	622.2	604.1	604.1
25°	7375.3	6348.9	3941.1	2244.1	1360.7	833.5	669.7	610.9	574.7	562.4	564.8
27.5°	8218.0	7043.3	4201.0	2143.6	1185.6	756.6	634.5	581.5	550.1	537.4	543.2
30°	8875.1	7660.0	4417.7	2006.8	1096.4	735.0	647.2	592.8	547.7	528.5	529.6
32.5°	9419.3	8199.9	4599.6	1908.3	1017.4	630.1	557.9	534.0	528.5	506.0	494.7
35°	10115.0	8788.2	4721.6	1910.7	980.2	562.4	496.7	455.0	424.6	398.6	398.6
37.5°	10930.4	9463.4	4851.5	1936.7	966.8	522.7	475.5	433.5	405.5	380.5	376.1
40°	11736.5	10125.3	4970.2	1961.7	958.6	499.1	458.5	420.2	394.2	369.2	362.4
42.5°	12422.3	10669.6	5076.2	1974.0	931.6	496.7	446.1	410.9	386.3	359.0	352.5
45°	12929.3	11125.6	5190.3	1993.1	904.6	506.0	446.1	409.9	379.5	353.5	346.7
47.5°	13382.0	11661.0	5381.1	1993.1	871.8	488.9	460.8	410.9	378.5	351.1	345.6
50°	13988.5	12395.0	5742.5	1947.0	825.6	470.8	485.5	406.5	368.2	346.7	339.8
52.5°	14824.0	13335.8	6316.1	1866.6	754.5	435.9	482.0	404.4	357.9	335.4	327.5
55°	15812.4	14343.0	6941.8	1773.0	648.2	410.9	465.3	398.6	346.7	321.7	313.8
57.5°	16583.6	15036.3	7382.1	1628.3	555.5	397.6	412.3	393.2	333.0	307.0	300.5
60°	16890.6	15009.3	7503.1	1435.2	510.4	386.3	360.3	440.3	321.7	295.7	287.9
62.5°	16724.8	14316.0	7164.3	1299.8	500.2	371.6	337.8	407.5	312.8	287.9	276.6
65°	15958.0	13087.3	6266.6	1263.6	529.6	356.9	323.1	319.7	300.5	276.6	265.3
67.5°	14287.6	11251.1	5017.3	1267.0	566.8	342.2	308.4	292.6	283.4	264.3	254.0
70°	11637.4	8895.6	3740.1	1276.2	586.0	325.1	292.6	275.6	265.3	246.1	239.3
72.5°	8556.8	6855.9	2717.2	1217.4	589.4	306.0	271.1	256.4	246.1	226.0	220.2
75°	5854.3	5244.4	1884.8	1008.5	513.8	279.0	247.2	233.8	227.0	202.0	198.6
77.5°	4276.5	3936.7	1206.1	748.7	396.2	245.1	218.1	207.9	203.4	176.1	171.6
80°	3432.1	3114.5	754.5	512.8	290.3	205.5	182.9	177.4	172.6	145.6	142.2
82.5°	2380.5	2085.8	484.4	333.0	218.1	159.3	144.6	142.2	135.4	110.8	107.3
85°	1255.7	1132.6	307.0	227.0	157.9	109.4	100.5	100.5	97.1	73.5	71.1
87.5°	160.3	260.9	155.9	118.6	86.8	48.5	48.5	47.5	50.9	41.7	36.2
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°	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7
2.5°	5609.1	5663.5	5611.5	5614.9	5672.4	5844.0	5921.9	5986.2	6055.3	6100.4	6120.6
5°	4065.6	4192.1	4234.8	4325.1	4458.4	4677.5	4764.4	4827.6	4869.7	4894.3	4904.5
7.5°	2780.5	2857.0	2942.9	3088.5	3378.7	3507.6	3565.1	3550.4	3503.2	3486.1	3469.3
10°	2096.0	2065.6	2049.5	2129.9	2364.7	2494.7	2535.3	2495.7	2469.7	2475.5	2503.5
12.5°	1623.9	1570.9	1506.6	1497.4	1652.3	1768.5	1794.5	1796.6	1844.1	1885.8	1948.0
15°	1183.6	1177.8	1146.3	1127.2	1215.0	1310.1	1321.3	1341.5	1384.6	1415.0	1469.0
17.5°	834.5	864.9	889.9	902.2	968.9	1036.6	1024.3	1014.0	1006.1	1006.1	1032.1
20°	673.2	693.3	725.1	761.0	829.0	876.2	845.8	805.1	775.7	766.8	770.2
22.5°	606.5	622.2	640.3	671.8	733.0	765.8	733.0	703.6	674.2	663.9	660.5
25°	572.6	592.8	609.9	633.5	678.6	701.2	669.7	648.2	630.1	617.8	608.5
27.5°	553.5	571.3	576.1	587.3	625.6	645.8	630.1	621.2	609.9	598.6	587.3
30°	533.0	529.6	521.7	522.7	553.5	573.7	572.6	574.7	573.7	570.2	568.2
32.5°	486.8	480.0	473.2	480.0	508.0	526.1	527.5	532.0	532.0	530.9	539.8
35°	405.5	417.8	425.6	446.1	480.0	495.7	488.9	477.6	457.4	444.8	443.8
37.5°	375.0	377.1	390.8	418.8	456.4	470.8	460.8	434.9	421.2	418.8	422.2
40°	360.3	362.4	370.2	396.2	433.5	448.2	439.3	420.2	407.5	406.5	412.3
42.5°	350.1	352.5	356.9	375.0	405.5	423.6	424.6	410.9	396.2	397.6	403.1
45°	344.3	345.6	344.3	353.5	381.5	403.1	412.3	403.1	390.8	393.2	399.7
47.5°	343.2	339.8	335.4	337.8	367.2	388.4	399.7	396.2	390.8	393.2	398.6
50°	338.8	330.9	325.1	324.1	353.5	376.1	386.3	386.3	388.4	393.2	398.6
52.5°	325.1	316.2	316.2	312.8	344.3	365.8	372.6	373.7	377.1	385.0	393.2
55°	308.4	305.0	308.4	302.6	337.8	357.9	361.4	363.8	365.8	372.6	383.9
57.5°	293.7	289.2	297.1	294.7	332.0	350.1	350.1	354.5	354.5	363.8	372.6
60°	285.8	276.6	280.0	282.4	324.1	343.2	341.2	345.6	347.7	355.9	362.4
62.5°	275.6	267.7	267.7	273.2	315.2	333.0	332.0	335.4	344.3	346.7	353.5
65°	263.2	259.8	256.4	263.2	306.0	321.7	323.1	327.5	335.4	337.8	343.2
67.5°	250.6	252.0	245.1	252.0	298.1	310.4	310.4	319.7	323.1	327.5	333.0
70°	237.3	238.3	232.5	240.7	292.6	298.1	297.1	309.4	311.8	315.2	320.7
72.5°	220.2	220.2	218.1	229.4	283.4	285.8	283.4	293.7	294.7	298.1	300.5
75°	202.0	202.0	200.0	215.7	277.9	272.1	265.3	273.2	275.6	277.9	277.9
77.5°	178.5	180.9	180.9	200.0	258.5	266.7	243.8	248.5	252.0	253.0	249.6
80°	149.1	154.9	156.9	181.9	216.7	246.1	218.1	221.2	222.6	222.6	218.1
82.5°	114.2	124.1	129.9	156.9	166.2	206.5	189.7	193.2	189.7	182.9	180.9
85°	79.0	92.6	99.5	119.7	125.5	159.3	157.9	157.9	151.5	142.2	141.2
87.5°	43.1	50.9	55.4	71.1	85.8	107.3	116.2	112.8	107.3	101.5	102.9
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°	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7
2.5°	6226.9	6380.4	6625.5	6812.9	7001.6	7183.5	7380.0	7530.1	7657.6	7707.6	7858.7
5°	5007.4	5199.2	5430.7	5848.4	6144.5	6470.7	6848.1	7347.2	7539.0	7804.7	8239.2
7.5°	3540.5	3714.1	4086.8	4424.5	4843.7	5305.5	5814.6	6503.5	6755.4	7181.1	7889.1
10°	2643.7	2845.8	3144.9	3429.7	3798.9	4271.0	4856.0	5626.2	5932.2	6394.1	7209.4
12.5°	2129.9	2368.2	2685.4	2953.1	3238.9	3571.9	4140.1	4984.5	5394.8	5798.9	6623.1
15°	1636.2	1885.8	2180.8	2520.6	2835.5	3194.8	3790.0	4713.8	5185.6	5607.1	6310.3
17.5°	1132.6	1346.0	1717.6	2072.1	2475.5	2935.0	3692.9	4771.2	5334.6	5820.4	6364.7
20°	803.1	924.8	1229.7	1641.0	2143.6	2720.3	3674.8	5073.8	5806.7	6361.3	6712.4
22.5°	675.2	720.3	897.8	1274.8	1855.4	2560.0	3738.1	5498.4	6443.6	7151.7	7266.9
25°	615.4	642.7	735.0	1000.7	1598.9	2443.7	3951.4	6130.8	7232.0	7942.4	7921.9
27.5°	582.6	610.9	671.8	844.8	1406.1	2371.6	4164.7	6880.9	8133.2	8800.5	8547.5
30°	572.6	610.9	675.2	796.2	1268.4	2257.4	4339.8	7539.0	8826.5	9380.0	8832.3
32.5°	564.8	570.2	599.6	686.5	1137.1	2124.1	4458.4	8129.8	9505.1	9931.1	9242.2
35°	456.4	484.4	532.0	615.4	1060.5	2044.1	4458.4	8639.2	10173.8	10487.7	9633.0
37.5°	439.3	464.3	506.0	577.1	1017.4	2004.4	4369.2	9130.4	10856.9	11119.1	9954.7
40°	430.4	450.6	490.2	547.7	999.3	1959.3	4239.2	9563.9	11524.2	11751.2	10255.2
42.5°	423.6	441.7	479.0	529.6	975.7	1909.7	4134.3	9911.6	12103.7	12291.1	10542.0
45°	420.2	439.3	480.0	538.8	928.2	1844.1	4099.4	10287.7	12580.3	12741.7	10852.5
47.5°	420.2	442.7	485.5	557.9	871.8	1776.4	4208.8	10783.7	13030.9	13109.9	11218.3
50°	416.7	441.7	501.5	538.8	789.4	1690.6	4466.2	11408.0	13518.7	13527.6	11681.5
52.5°	409.9	439.3	539.8	527.5	694.3	1577.8	4814.3	12210.0	14240.4	14294.5	12406.3
55°	402.0	435.9	529.6	501.5	616.7	1443.4	5098.7	13184.4	15254.4	15404.5	13472.6
57.5°	391.8	431.4	512.8	465.3	565.8	1270.4	5201.6	13898.2	15962.5	16339.5	14673.9
60°	382.9	428.0	462.9	443.8	534.0	1124.8	5002.6	13757.0	15913.9	16726.9	15738.9
62.5°	373.7	431.4	422.2	430.4	519.3	1031.1	4483.3	12626.4	15108.8	16327.2	16528.3
65°	363.8	401.0	398.6	418.8	516.2	993.8	3716.5	10931.4	13552.6	15063.7	16714.6
67.5°	350.1	370.2	381.5	404.4	527.5	961.0	2999.3	9017.3	11389.9	13169.7	15743.3
70°	335.4	352.5	364.8	386.3	520.7	946.3	2494.7	7111.0	9037.8	10793.7	13827.1
72.5°	316.2	330.9	342.2	362.4	513.8	938.4	2107.3	5726.7	6747.6	8018.0	11242.2
75°	293.7	307.0	315.2	335.4	492.3	859.5	1656.7	4845.7	5049.1	5577.7	8954.0
77.5°	267.7	277.9	284.4	307.0	435.9	714.9	1198.3	3738.1	3921.0	4049.5	6864.8
80°	237.3	247.2	250.6	272.1	361.4	559.0	781.5	2761.0	2932.6	2962.0	4483.3
82.5°	202.0	212.3	212.3	232.5	295.7	402.0	512.8	1891.6	1925.4	2024.9	3168.8
85°	162.7	170.6	170.6	180.9	229.4	300.5	352.5	949.7	939.5	1072.8	2745.3
87.5°	116.2	122.0	127.5	129.9	163.8	198.6	212.3	289.2	190.8	219.1	1762.7
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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CATALOG NUMBER: GLNA-AF-06-LED-E1-SLR-600

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7	6940.7
2.5°	7972.9	8037.1	7971.5	7924.3	7719.9	7551.7	7326.7	7211.5
5°	8570.1	8733.9	8678.5	8479.9	8052.9	7572.9	7027.6	6781.4
7.5°	8498.0	8878.5	8887.4	8516.1	7887.0	7180.0	6441.6	6091.5
10°	7935.6	8422.1	8561.2	8200.9	7533.5	6743.1	5896.0	5496.3
12.5°	7307.6	7784.1	7890.5	7766.0	7208.4	6414.2	5555.1	5163.0
15°	6793.7	7007.4	7133.6	7242.3	6929.5	6283.3	5535.6	5105.6
17.5°	6480.9	6457.3	6493.6	6681.9	6734.9	6433.4	5829.3	5355.1
20°	6368.1	6005.7	5996.5	6256.3	6643.6	6791.7	6403.0	5833.7
22.5°	6430.3	5843.0	5768.4	6076.8	6692.2	7307.6	7155.1	6505.9
25°	6644.7	5856.7	5796.5	6094.9	6868.3	7857.6	7967.0	7375.3
27.5°	6982.4	5942.5	5863.1	6169.5	7102.1	8319.5	8766.7	8218.0
30°	7303.1	6091.5	5993.1	6316.1	7315.4	8502.4	9256.9	8875.1
32.5°	7692.9	6370.5	6197.5	6585.9	7579.7	8793.7	9693.8	9419.3
35°	8074.4	6767.7	6553.4	7002.6	7874.4	9156.4	10193.0	10115.0
37.5°	8493.5	7287.4	7110.0	7541.4	8277.8	9498.3	10829.9	10930.4
40°	8940.7	7976.3	7766.0	8327.4	8903.4	9927.7	11495.2	11736.5
42.5°	9391.3	8740.7	8490.1	9059.0	9590.9	10350.9	12064.1	12422.3
45°	9907.2	9570.8	9452.1	10067.5	10251.8	10754.3	12484.2	12929.3
47.5°	10508.2	10512.6	10703.4	10949.6	10918.1	11210.4	12906.8	13382.0
50°	11209.4	11688.0	12109.5	12272.9	11604.6	11700.7	13492.8	13988.5
52.5°	12051.8	13094.1	13615.8	13508.5	12344.4	12298.9	14420.9	14824.0
55°	13105.4	14582.7	15100.9	15024.0	13194.6	13114.3	15577.5	15812.4
57.5°	14324.9	16024.7	16501.3	16155.6	14215.5	14009.0	16534.1	16583.6
60°	15396.7	17167.6	17585.3	17202.4	15245.5	14960.8	17131.3	16890.6
62.5°	15992.9	17554.9	17848.6	17436.3	15951.2	15974.8	17262.3	16724.8
65°	15726.6	16575.8	16670.5	16636.6	15769.3	16563.1	16791.5	15958.0
67.5°	14267.4	14100.3	14259.6	14479.7	14211.0	15788.4	15486.9	14287.6
70°	11697.2	10779.0	11096.6	11244.2	11366.3	13586.4	13441.8	11637.4
72.5°	8815.2	7551.7	7802.3	7771.8	8336.3	10897.6	10453.8	8556.8
75°	6246.0	5120.3	5151.7	5139.4	5817.0	8526.0	7569.8	5854.3
77.5°	4370.2	3709.7	3726.8	3796.5	3910.7	6430.3	5408.1	4276.5
80°	3005.1	2815.3	2909.0	2914.8	2710.4	4319.6	3995.5	3432.1
82.5°	2238.3	1956.9	1934.3	1967.1	2124.1	3499.8	3070.4	2380.5
85°	1832.8	1158.6	931.6	1167.8	1882.4	3465.9	2039.6	1255.7
87.5°	1032.1	550.1	248.5	460.8	751.1	2294.7	589.4	160.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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