

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: P299420

Luminaire Tested: **GLNA-AF-05-LED-E1-SLR-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299420
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-05-LED-E1-SLR-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 3000K 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: 20363.9 lumens
Efficiency: N/A
Efficacy: 97.0 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

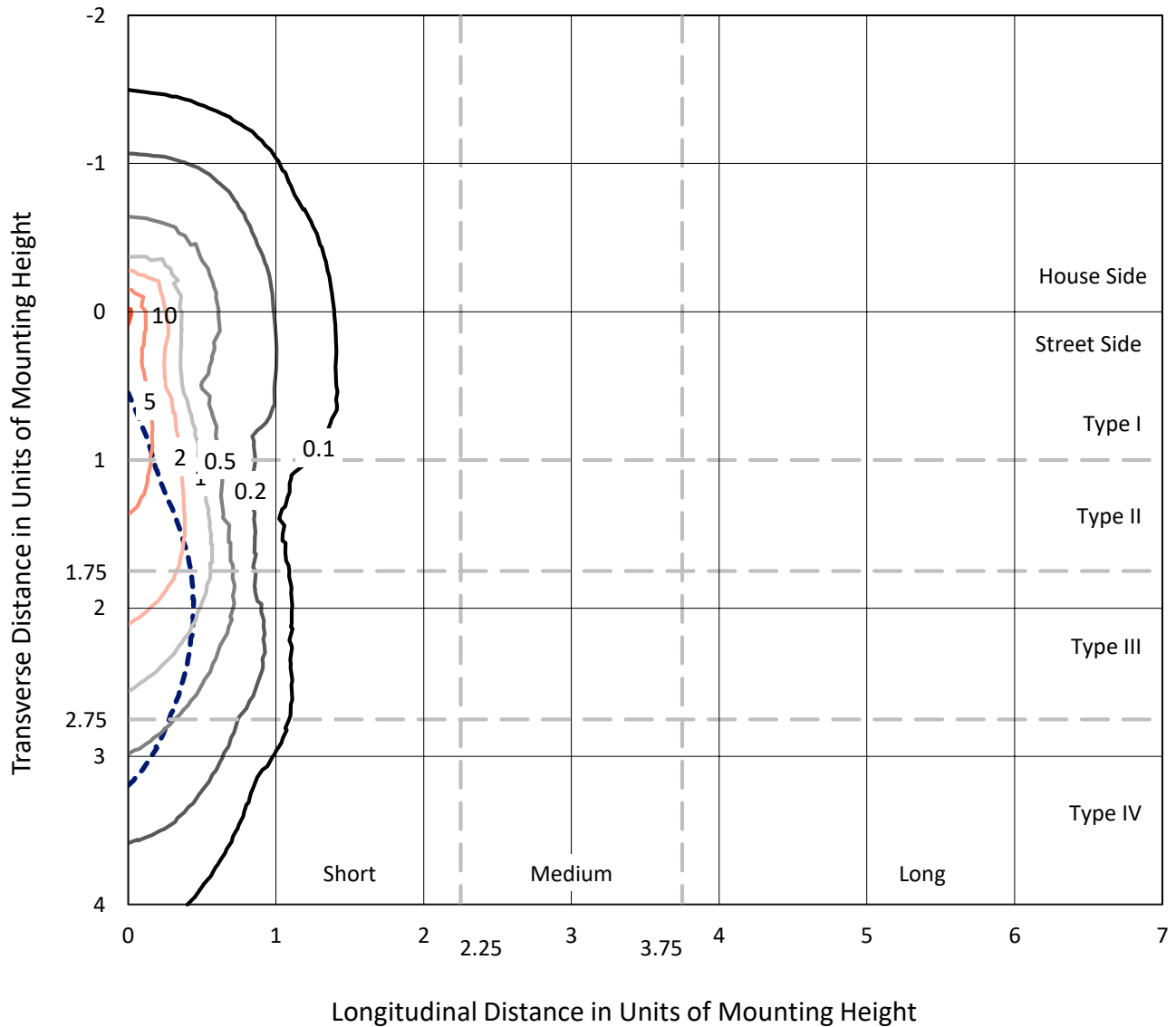
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

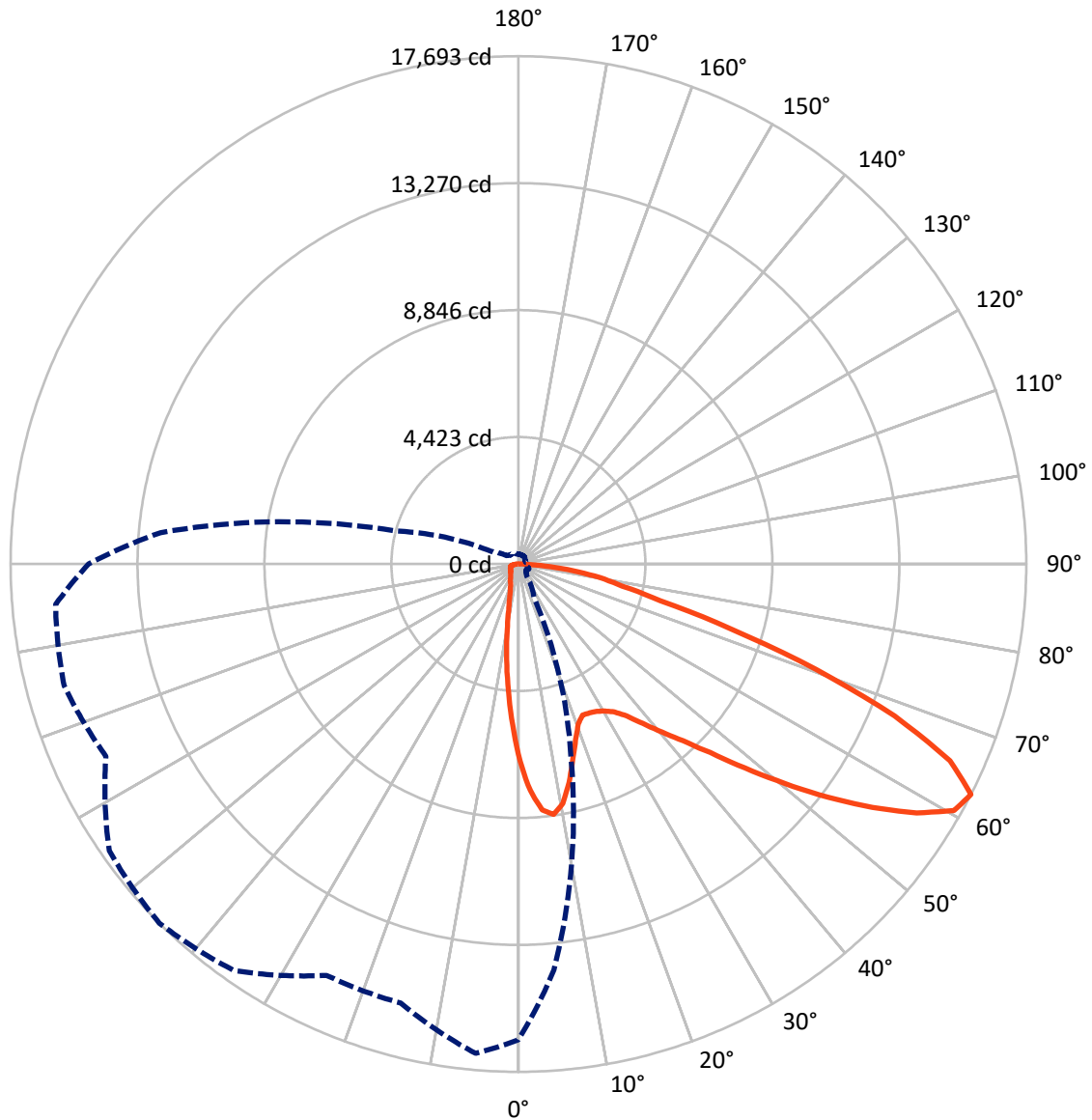
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11 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	3370.0	0.0	3370.0
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	16994.0	0.0	16994.0
	% Fixture	83.5	0.0	83.5
Total	Lumens	20363.9	0.0	20363.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	500.8	2.5
10°-20°	918.4	4.5
20°-30°	1339.0	6.6
30°-40°	2062.3	10.1
40°-50°	3035.1	14.9
50°-60°	4451.9	21.9
60°-70°	4976.6	24.4
70°-80°	2436.5	12.0
80°-90°	643.3	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°	20363.9	100.0
0°-180°	20363.9	100.0



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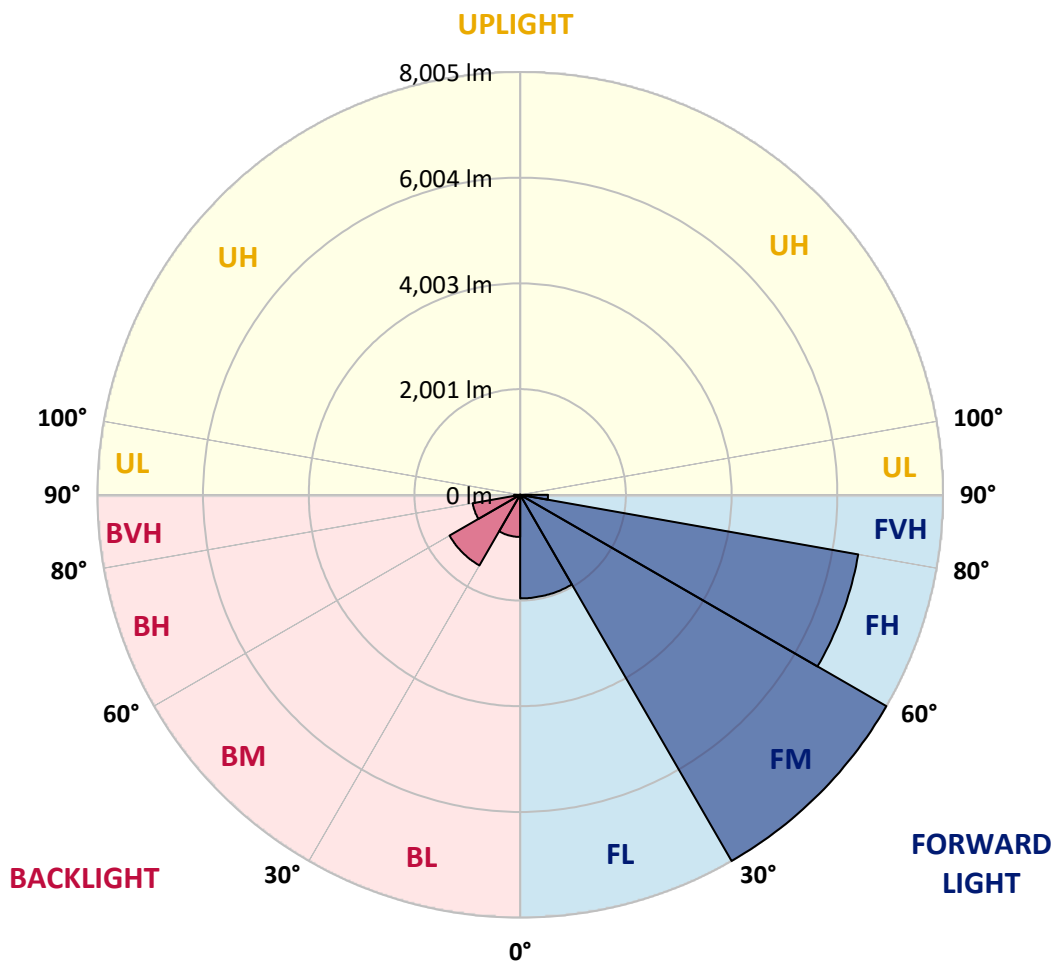
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1961.0	9.6			
FM (30°-60°)	8005.2	39.3			
FH (60°-80°)	6499.5	31.9			G3/7500
FVH (80°-90°)	528.3	2.6			G4/750
BL (0°-30°)	797.3	3.9	B2/1000		
BM (30°-60°)	1544.1	7.6	B2/2500		
BH (60°-80°)	913.6	4.5	B2/1000		G2/1000
BVH (80°-90°)	115.0	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°	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1
2.5°	7148.5	7003.2	6761.2	6509.4	6356.2	6177.0	6037.0	5914.0	5667.6	5619.5	5663.2
5°	6722.2	6430.1	5974.3	5515.4	5209.8	4881.7	4626.5	4421.8	4109.4	4054.5	4120.6
7.5°	6038.3	5688.9	5086.7	4501.1	4069.1	3659.3	3384.2	3164.6	2920.6	2815.5	2821.9
10°	5448.3	5054.2	4342.2	3705.4	3351.6	3075.1	2843.3	2618.3	2370.9	2208.5	2163.8
12.5°	5117.9	4664.8	3844.0	3275.4	2947.3	2656.6	2406.8	2166.2	1901.9	1736.1	1689.4
15°	5061.0	4568.2	3657.3	3000.2	2589.1	2221.1	1926.6	1657.9	1385.7	1251.5	1223.4
17.5°	5308.4	4740.7	3596.6	2754.8	2252.3	1797.8	1436.2	1136.3	914.7	847.6	841.8
20°	5782.8	5072.2	3588.8	2524.4	1919.8	1387.1	1000.7	782.5	685.2	665.9	667.3
22.5°	6449.1	5585.9	3685.1	2350.9	1614.1	1034.3	752.3	654.7	616.8	598.8	598.8
25°	7310.9	6293.5	3906.7	2224.5	1348.8	826.2	663.9	605.6	569.7	557.5	559.8
27.5°	8146.2	6981.8	4164.3	2124.8	1175.3	750.0	629.0	576.5	545.3	532.7	538.5
30°	8797.6	7593.2	4379.1	1989.3	1086.8	728.6	641.5	587.6	542.9	523.9	524.9
32.5°	9337.1	8128.3	4559.4	1891.7	1008.5	624.6	553.1	529.3	523.9	501.6	490.4
35°	10026.7	8711.5	4680.4	1894.1	971.6	557.5	492.4	451.1	420.9	395.1	395.1
37.5°	10835.0	9380.8	4809.2	1919.8	958.4	518.2	471.4	429.7	401.9	377.2	372.8
40°	11634.1	10036.9	4926.8	1944.6	950.2	494.8	454.5	416.5	390.7	366.0	359.2
42.5°	12313.9	10576.4	5031.8	1956.8	923.5	492.4	442.3	407.3	382.9	355.8	349.4
45°	12816.5	11028.5	5145.0	1975.7	896.7	501.6	442.3	406.3	376.2	350.4	343.6
47.5°	13265.2	11559.2	5334.1	1975.7	864.2	484.6	456.8	407.3	375.2	348.0	342.6
50°	13866.4	12286.8	5692.3	1930.0	818.4	466.7	481.2	402.9	365.0	343.6	336.9
52.5°	14694.6	13219.4	6261.0	1850.3	747.9	432.1	477.8	400.9	354.8	332.5	324.7
55°	15674.3	14217.8	6881.2	1757.5	642.5	407.3	461.2	395.1	343.6	318.9	311.1
57.5°	16438.9	14905.1	7317.7	1614.1	550.7	394.1	408.7	389.7	330.1	304.3	297.9
60°	16743.2	14878.3	7437.6	1422.7	506.0	382.9	357.2	436.5	318.9	293.1	285.3
62.5°	16578.8	14191.0	7101.8	1288.5	495.8	368.4	334.8	404.0	310.1	285.3	274.2
65°	15818.7	12973.1	6211.9	1252.5	524.9	353.8	320.3	316.9	297.9	274.2	263.0
67.5°	14162.9	11152.9	4973.6	1255.9	561.9	339.2	305.7	290.1	280.9	262.0	251.8
70°	11535.8	8817.9	3707.5	1265.1	580.9	322.3	290.1	273.1	263.0	244.0	237.2
72.5°	8482.1	6796.1	2693.5	1206.8	584.2	303.3	268.7	254.2	244.0	224.0	218.2
75°	5803.2	5198.6	1868.3	999.7	509.4	276.5	245.0	231.8	225.0	200.3	196.9
77.5°	4239.2	3902.3	1195.6	742.2	392.8	243.0	216.2	206.0	201.6	174.5	170.1
80°	3402.1	3087.3	747.9	508.3	287.7	203.7	181.3	175.9	171.1	144.4	141.0
82.5°	2359.7	2067.6	480.2	330.1	216.2	157.9	143.4	141.0	134.2	109.8	106.4
85°	1244.7	1122.7	304.3	225.0	156.6	108.4	99.6	99.6	96.2	72.9	70.5
87.5°	158.9	258.6	154.5	117.6	86.1	48.1	48.1	47.1	50.5	41.3	35.9
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1
2.5°	5560.2	5614.1	5562.5	5565.9	5622.9	5793.0	5870.3	5934.0	6002.4	6047.2	6067.2
5°	4030.1	4155.5	4197.8	4287.3	4419.5	4636.7	4722.8	4785.5	4827.2	4851.6	4861.7
7.5°	2756.2	2832.1	2917.2	3061.5	3349.3	3477.0	3533.9	3519.4	3472.6	3455.7	3439.1
10°	2077.7	2047.6	2031.6	2111.3	2344.1	2472.9	2513.2	2473.9	2448.1	2453.9	2481.7
12.5°	1609.7	1557.2	1493.5	1484.3	1637.9	1753.1	1778.8	1780.9	1828.0	1869.3	1931.0
15°	1173.2	1167.5	1136.3	1117.3	1204.4	1298.6	1309.8	1329.8	1372.5	1402.7	1456.2
17.5°	827.2	857.4	882.1	894.3	960.4	1027.5	1015.3	1005.1	997.4	997.4	1023.1
20°	667.3	687.3	718.8	754.4	821.8	868.6	838.4	798.1	768.9	760.1	763.5
22.5°	601.2	616.8	634.7	665.9	726.6	759.1	726.6	697.4	668.3	658.1	654.7
25°	567.6	587.6	604.6	628.0	672.7	695.1	663.9	642.5	624.6	612.4	603.2
27.5°	548.7	566.3	571.0	582.2	620.2	640.2	624.6	615.8	604.6	593.4	582.2
30°	528.3	524.9	517.1	518.2	548.7	568.7	567.6	569.7	568.7	565.3	563.2
32.5°	482.6	475.8	469.0	475.8	503.6	521.6	522.9	527.3	527.3	526.3	535.1
35°	401.9	414.1	421.9	442.3	475.8	491.4	484.6	473.4	453.4	440.9	439.9
37.5°	371.8	373.8	387.4	415.1	452.4	466.7	456.8	431.1	417.5	415.1	418.5
40°	357.2	359.2	367.0	392.8	429.7	444.3	435.5	416.5	404.0	402.9	408.7
42.5°	347.0	349.4	353.8	371.8	401.9	419.9	420.9	407.3	392.8	394.1	399.6
45°	341.3	342.6	341.3	350.4	378.2	399.6	408.7	399.6	387.4	389.7	396.2
47.5°	340.2	336.9	332.5	334.8	364.0	385.0	396.2	392.8	387.4	389.7	395.1
50°	335.8	328.0	322.3	321.3	350.4	372.8	382.9	382.9	385.0	389.7	395.1
52.5°	322.3	313.5	313.5	310.1	341.3	362.6	369.4	370.4	373.8	381.6	389.7
55°	305.7	302.3	305.7	299.9	334.8	354.8	358.2	360.6	362.6	369.4	380.6
57.5°	291.1	286.7	294.5	292.1	329.1	347.0	347.0	351.4	351.4	360.6	369.4
60°	283.3	274.2	277.6	279.9	321.3	340.2	338.2	342.6	344.7	352.8	359.2
62.5°	273.1	265.4	265.4	270.8	312.5	330.1	329.1	332.5	341.3	343.6	350.4
65°	260.9	257.6	254.2	260.9	303.3	318.9	320.3	324.7	332.5	334.8	340.2
67.5°	248.4	249.8	243.0	249.8	295.5	307.7	307.7	316.9	320.3	324.7	330.1
70°	235.2	236.2	230.4	238.6	290.1	295.5	294.5	306.7	309.1	312.5	317.9
72.5°	218.2	218.2	216.2	227.4	280.9	283.3	280.9	291.1	292.1	295.5	297.9
75°	200.3	200.3	198.3	213.8	275.5	269.8	263.0	270.8	273.1	275.5	275.5
77.5°	176.9	179.3	179.3	198.3	256.2	264.3	241.6	246.4	249.8	250.8	247.4
80°	147.8	153.5	155.6	180.3	214.9	244.0	216.2	219.3	220.6	220.6	216.2
82.5°	113.2	123.0	128.8	155.6	164.7	204.7	188.1	191.5	188.1	181.3	179.3
85°	78.3	91.8	98.6	118.6	124.4	157.9	156.6	156.6	150.1	141.0	140.0
87.5°	42.7	50.5	54.9	70.5	85.1	106.4	115.2	111.8	106.4	100.7	102.0
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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CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1
2.5°	6172.5	6324.7	6567.7	6753.4	6940.5	7120.8	7315.6	7464.4	7590.8	7640.3	7790.1
5°	4963.7	5153.8	5383.3	5797.4	6090.9	6414.2	6788.3	7283.1	7473.2	7736.5	8167.3
7.5°	3509.5	3681.7	4051.1	4385.9	4801.4	5259.2	5763.8	6446.7	6696.5	7118.4	7820.2
10°	2620.6	2820.9	3117.5	3399.7	3765.7	4233.8	4813.6	5577.1	5880.4	6338.3	7146.5
12.5°	2111.3	2347.5	2662.0	2927.3	3210.6	3540.7	4104.0	4941.0	5347.7	5748.3	6565.3
15°	1621.9	1869.3	2161.8	2498.6	2810.8	3166.9	3756.9	4672.6	5140.3	5558.1	6255.2
17.5°	1122.7	1334.2	1702.6	2054.0	2453.9	2909.4	3660.7	4729.6	5288.0	5769.6	6309.1
20°	796.1	916.7	1219.0	1626.7	2124.8	2696.5	3642.7	5029.5	5756.0	6305.7	6653.8
22.5°	669.3	714.0	889.9	1263.7	1839.2	2537.6	3705.4	5450.4	6387.4	7089.2	7203.4
25°	610.0	637.1	728.6	991.9	1585.0	2422.4	3916.9	6077.3	7168.9	7873.1	7852.8
27.5°	577.5	605.6	665.9	837.4	1393.9	2350.9	4128.4	6820.8	8062.2	8723.7	8472.9
30°	567.6	605.6	669.3	789.3	1257.3	2237.7	4301.9	7473.2	8749.5	9298.1	8755.2
32.5°	559.8	565.3	594.4	680.5	1127.1	2105.5	4419.5	8058.8	9422.2	9844.4	9161.6
35°	452.4	480.2	527.3	610.0	1051.2	2026.2	4419.5	8563.8	10085.0	10396.1	9548.9
37.5°	435.5	460.2	501.6	572.0	1008.5	1986.9	4331.0	9050.7	10762.1	11022.1	9867.8
40°	426.7	446.7	486.0	542.9	990.6	1942.2	4202.2	9480.5	11423.6	11648.7	10165.7
42.5°	419.9	437.8	474.8	524.9	967.2	1893.0	4098.2	9825.1	11998.1	12183.8	10450.0
45°	416.5	435.5	475.8	534.1	920.1	1828.0	4063.6	10197.9	12470.5	12630.4	10757.7
47.5°	416.5	438.9	481.2	553.1	864.2	1760.9	4172.1	10689.6	12917.1	12995.4	11120.3
50°	413.1	437.8	497.2	534.1	782.5	1675.8	4427.3	11308.4	13400.7	13409.5	11579.5
52.5°	406.3	435.5	535.1	522.9	688.3	1564.0	4772.3	12103.5	14116.1	14169.7	12298.0
55°	398.5	432.1	524.9	497.2	611.4	1430.8	5054.2	13069.3	15121.3	15270.1	13355.0
57.5°	388.4	427.7	508.3	461.2	560.9	1259.3	5156.2	13776.9	15823.1	16196.9	14545.8
60°	379.6	424.3	458.9	439.9	529.3	1114.9	4959.0	13636.9	15775.0	16580.9	15601.5
62.5°	370.4	427.7	418.5	426.7	514.8	1022.1	4444.2	12516.2	14976.9	16184.7	16384.0
65°	360.6	397.5	395.1	415.1	511.7	985.2	3684.1	10836.0	13434.3	14932.2	16568.7
67.5°	347.0	367.0	378.2	400.9	522.9	952.6	2973.1	8938.6	11290.5	13054.7	15605.9
70°	332.5	349.4	361.6	382.9	516.1	938.0	2472.9	7048.9	8958.9	10699.4	13706.4
72.5°	313.5	328.0	339.2	359.2	509.4	930.3	2088.9	5676.7	6688.7	7948.0	11144.1
75°	291.1	304.3	312.5	332.5	488.0	852.0	1642.3	4803.4	5005.1	5529.0	8875.9
77.5°	265.4	275.5	282.0	304.3	432.1	708.6	1187.8	3705.4	3886.7	4014.2	6804.9
80°	235.2	245.0	248.4	269.8	358.2	554.1	774.7	2736.9	2907.0	2936.1	4444.2
82.5°	200.3	210.5	210.5	230.4	293.1	398.5	508.3	1875.1	1908.6	2007.2	3141.2
85°	161.3	169.1	169.1	179.3	227.4	297.9	349.4	941.4	931.3	1063.4	2721.3
87.5°	115.2	121.0	126.4	128.8	162.3	196.9	210.5	286.7	189.1	217.2	1747.3
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-05-LED-E1-SLR-7030-800

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1	6880.1
2.5°	7903.3	7967.0	7901.9	7855.1	7652.5	7485.7	7262.8	7148.5
5°	8495.3	8657.6	8602.7	8405.8	7982.6	7506.8	6966.2	6722.2
7.5°	8423.8	8801.0	8809.8	8441.8	7818.2	7117.4	6385.4	6038.3
10°	7866.3	8348.6	8486.5	8129.3	7467.8	6684.3	5844.5	5448.3
12.5°	7243.8	7716.2	7821.6	7698.2	7145.5	6358.3	5506.6	5117.9
15°	6734.4	6946.2	7071.3	7179.0	6869.0	6228.5	5487.3	5061.0
17.5°	6424.3	6401.0	6436.9	6623.6	6676.1	6377.2	5778.4	5308.4
20°	6312.5	5953.3	5944.1	6201.7	6585.7	6732.4	6347.1	5782.8
22.5°	6374.2	5792.0	5718.1	6023.8	6633.8	7243.8	7092.6	6449.1
25°	6586.7	5805.5	5745.9	6041.7	6808.3	7789.1	7897.5	7310.9
27.5°	6921.5	5890.6	5812.0	6115.6	7040.1	8246.9	8690.2	8146.2
30°	7239.4	6038.3	5940.7	6261.0	7251.6	8428.2	9176.1	8797.6
32.5°	7625.7	6314.9	6143.4	6528.4	7513.5	8716.9	9609.2	9337.1
35°	8003.9	6708.7	6496.2	6941.5	7805.7	9076.5	10104.0	10026.7
37.5°	8419.4	7223.8	7047.9	7475.6	8205.5	9415.4	10735.4	10835.0
40°	8862.7	7906.6	7698.2	8254.7	8825.7	9841.0	11394.8	11634.1
42.5°	9309.3	8664.4	8416.0	8979.9	9507.2	10260.6	11958.8	12313.9
45°	9820.7	9487.2	9369.6	9979.6	10162.3	10660.5	12375.3	12816.5
47.5°	10416.5	10420.9	10610.0	10854.0	10822.8	11112.5	12794.1	13265.2
50°	11111.5	11586.0	12003.8	12165.8	11503.3	11598.5	13375.0	13866.4
52.5°	11946.6	12979.8	13497.0	13390.6	12236.6	12191.6	14295.1	14694.6
55°	12991.0	14455.4	14969.1	14892.9	13079.5	12999.8	15441.5	15674.3
57.5°	14199.8	15884.8	16357.2	16014.6	14091.4	13886.7	16389.7	16438.9
60°	15262.3	17017.7	17431.8	17052.3	15112.5	14830.2	16981.8	16743.2
62.5°	15853.3	17401.7	17692.8	17284.1	15811.9	15835.3	17111.6	16578.8
65°	15589.3	16431.1	16525.0	16491.4	15631.6	16418.6	16644.9	15818.7
67.5°	14142.9	13977.2	14135.1	14353.4	14087.0	15650.6	15351.7	14162.9
70°	11595.1	10684.9	10999.7	11146.1	11267.1	13467.8	13324.5	11535.8
72.5°	8738.3	7485.7	7734.2	7704.0	8263.5	10802.5	10362.6	8482.1
75°	6191.5	5075.6	5106.7	5094.5	5766.2	8451.6	7503.7	5803.2
77.5°	4332.0	3677.3	3694.2	3763.4	3876.6	6374.2	5360.9	4239.2
80°	2978.8	2790.8	2883.6	2889.4	2686.7	4281.9	3960.6	3402.1
82.5°	2218.7	1939.8	1917.4	1950.0	2105.5	3469.2	3043.6	2359.7
85°	1816.8	1148.5	923.5	1157.6	1865.9	3435.7	2021.8	1244.7
87.5°	1023.1	545.3	246.4	456.8	744.5	2274.6	584.2	158.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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