

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: P299339

Luminaire Tested: **GLNA-AF-01-LED-E1-SLR-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299339  
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-01-LED-E1-SLR-7050  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(1) 70 CRI, 5000K 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: 5459.1 lumens  
Efficiency: N/A  
Efficacy: 92.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2

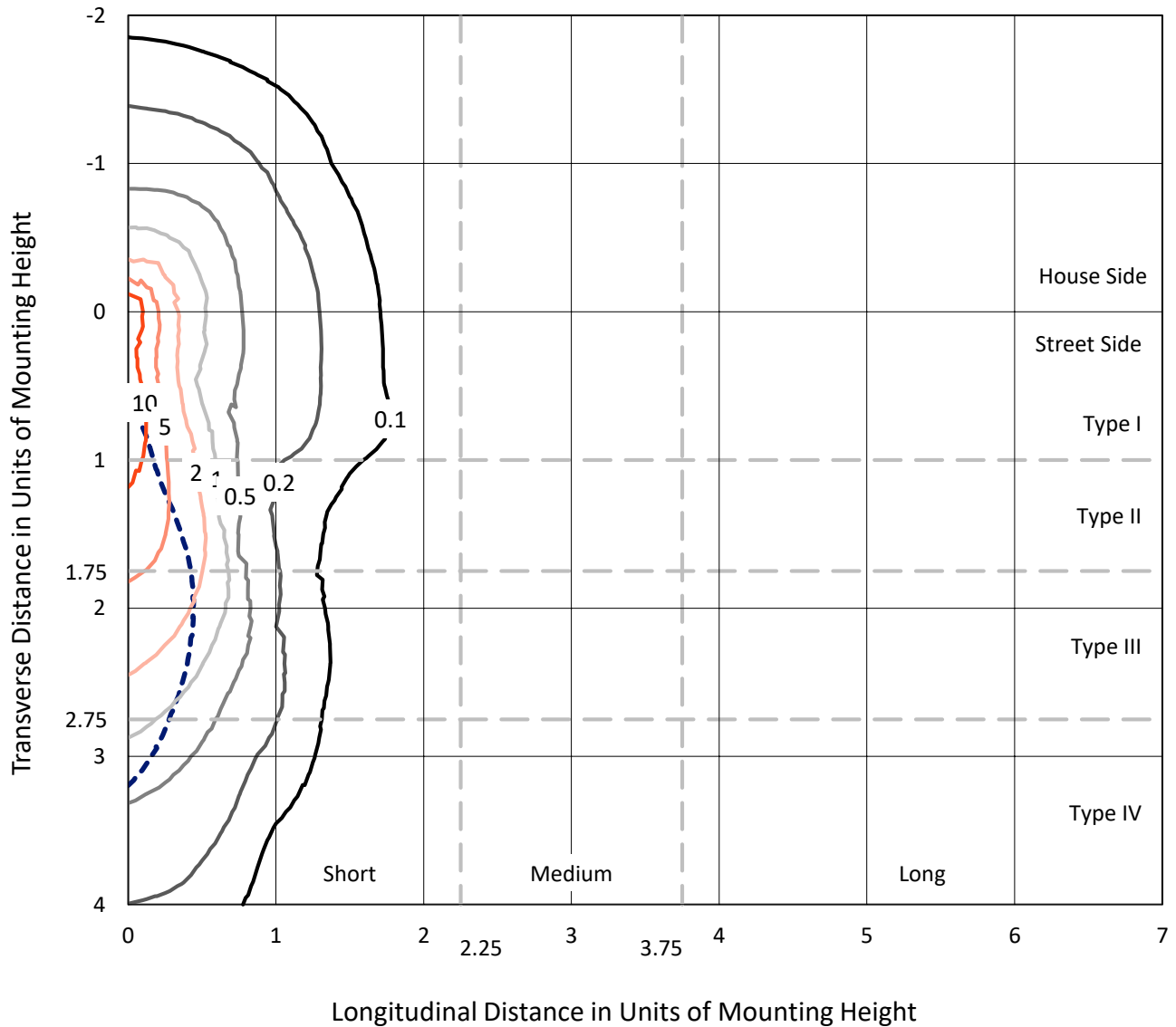
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

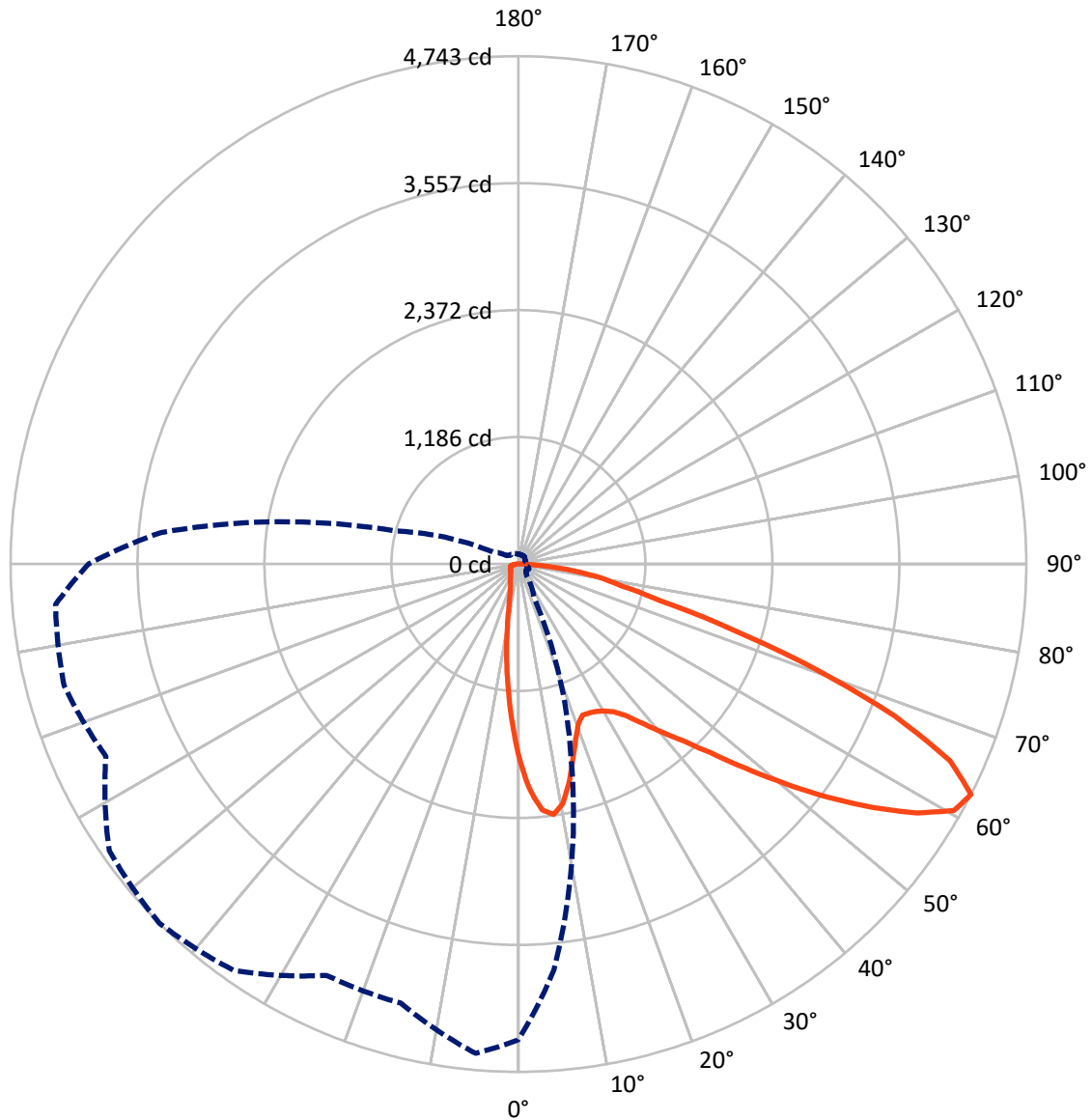
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.4 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
<b>House Side</b>	Lumens	903.4	0.0	903.4
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	4555.7	0.0	4555.7
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	5459.1	0.0	5459.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.3	2.5
10°-20°	246.2	4.5
20°-30°	359.0	6.6
30°-40°	552.9	10.1
40°-50°	813.7	14.9
50°-60°	1193.5	21.9
60°-70°	1334.1	24.4
70°-80°	653.2	12.0
80°-90°	172.4	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°	5459.1	100.0
0°-180°	5459.1	100.0



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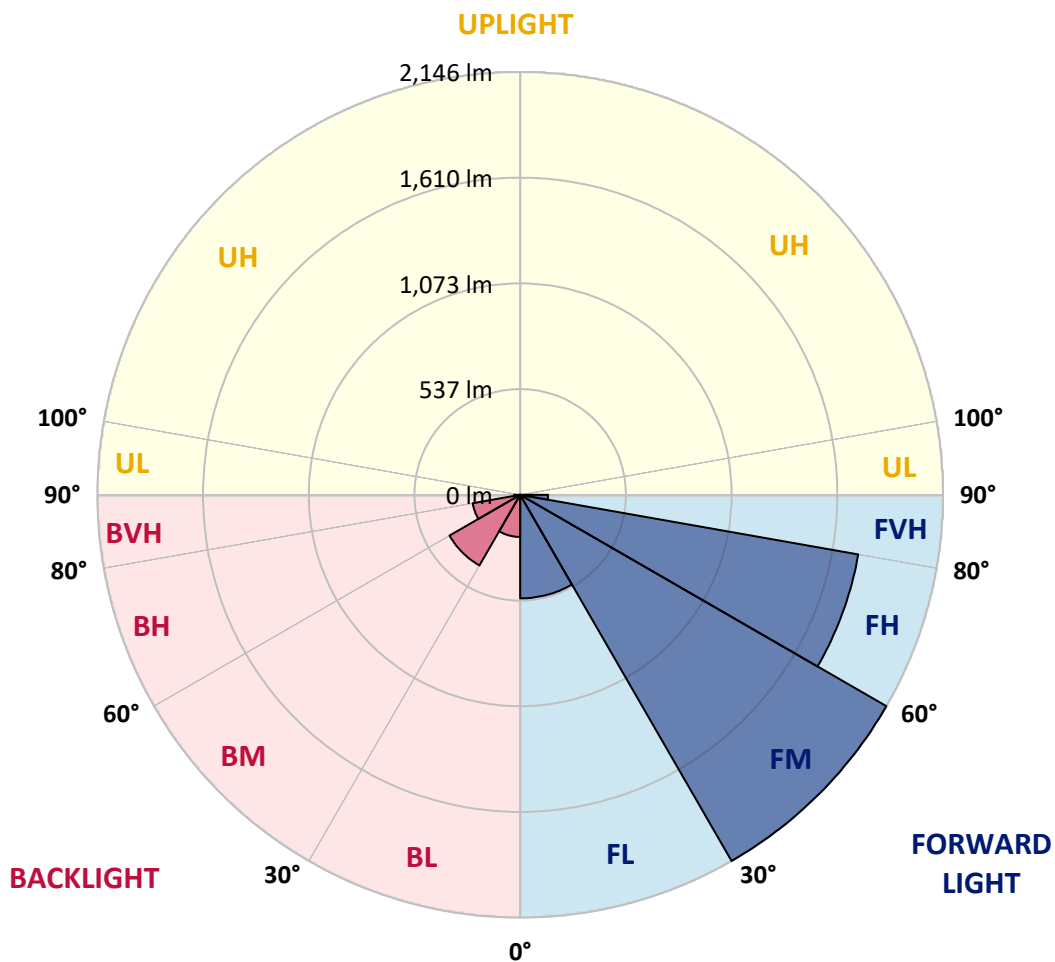
CATALOG NUMBER: GLNA-AF-01-LED-E1-SLR-7050

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	525.7	9.6			
FM	(30°-60°)	2146.0	39.3			
FH	(60°-80°)	1742.4	31.9			G1/1800
FVH	(80°-90°)	141.6	2.6			G2/225
BL	(0°-30°)	213.7	3.9	B1/500		
BM	(30°-60°)	413.9	7.6	B1/1000		
BH	(60°-80°)	244.9	4.5	B1/500		G1/500
BVH	(80°-90°)	30.8	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-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4
2.5°	1916.4	1877.4	1812.5	1745.0	1704.0	1655.9	1618.4	1585.4	1519.4	1506.5	1518.2
5°	1802.1	1723.8	1601.6	1478.6	1396.6	1308.7	1240.3	1185.4	1101.6	1086.9	1104.6
7.5°	1618.7	1525.1	1363.6	1206.7	1090.8	981.0	907.2	848.3	782.9	754.8	756.5
10°	1460.6	1354.9	1164.0	993.3	898.5	824.4	762.2	701.9	635.6	592.1	580.1
12.5°	1372.0	1250.5	1030.5	878.1	790.1	712.2	645.2	580.7	509.8	465.4	452.9
15°	1356.7	1224.6	980.4	804.3	694.1	595.4	516.5	444.4	371.5	335.5	328.0
17.5°	1423.1	1270.9	964.2	738.5	603.8	482.0	385.0	304.6	245.2	227.2	225.7
20°	1550.2	1359.7	962.1	676.7	514.7	371.8	268.3	209.8	183.7	178.5	178.9
22.5°	1728.9	1497.5	987.9	630.2	432.7	277.3	201.7	175.5	165.3	160.5	160.5
25°	1959.9	1687.2	1047.3	596.3	361.6	221.5	178.0	162.3	152.7	149.4	150.1
27.5°	2183.8	1871.7	1116.3	569.6	315.1	201.0	168.6	154.5	146.2	142.8	144.4
30°	2358.4	2035.6	1173.9	533.3	291.4	195.3	172.0	157.5	145.5	140.5	140.7
32.5°	2503.1	2179.0	1222.3	507.1	270.4	167.4	148.3	141.9	140.5	134.5	131.5
35°	2687.9	2335.4	1254.7	507.8	260.5	149.4	132.0	120.9	112.8	105.9	105.9
37.5°	2904.6	2514.8	1289.2	514.7	256.9	138.9	126.4	115.2	107.7	101.1	99.9
40°	3118.8	2690.7	1320.8	521.3	254.7	132.6	121.8	111.7	104.7	98.1	96.3
42.5°	3301.1	2835.3	1348.9	524.6	247.6	132.0	118.6	109.2	102.7	95.4	93.7
45°	3435.8	2956.5	1379.3	529.6	240.4	134.5	118.6	108.9	100.8	93.9	92.1
47.5°	3556.1	3098.8	1430.0	529.6	231.7	129.9	122.5	109.2	100.6	93.3	91.8
50°	3717.3	3293.8	1526.0	517.4	219.4	125.1	129.0	108.0	97.8	92.1	90.3
52.5°	3939.3	3543.8	1678.4	496.0	200.5	115.8	128.1	107.5	95.1	89.1	87.0
55°	4201.9	3811.5	1844.7	471.1	172.2	109.2	123.6	105.9	92.1	85.5	83.4
57.5°	4406.9	3995.7	1961.7	432.7	147.6	105.7	109.6	104.5	88.5	81.6	79.9
60°	4488.5	3988.5	1993.9	381.4	135.6	102.7	95.8	117.0	85.5	78.6	76.5
62.5°	4444.4	3804.3	1903.8	345.4	132.9	98.8	89.8	108.3	83.1	76.5	73.5
65°	4240.6	3477.8	1665.3	335.8	140.7	94.8	85.9	84.9	79.9	73.5	70.5
67.5°	3796.7	2989.8	1333.3	336.7	150.6	90.9	81.9	77.8	75.3	70.2	67.5
70°	3092.5	2363.9	993.9	339.1	155.7	86.4	77.8	73.2	70.5	65.4	63.6
72.5°	2273.9	1821.9	722.1	323.5	156.6	81.3	72.0	68.1	65.4	60.1	58.5
75°	1555.7	1393.6	500.8	268.0	136.5	74.1	65.7	62.1	60.3	53.7	52.8
77.5°	1136.4	1046.1	320.5	199.0	105.3	65.1	58.0	55.2	54.1	46.8	45.6
80°	912.0	827.6	200.5	136.3	77.1	54.6	48.6	47.2	45.9	38.7	37.8
82.5°	632.6	554.3	128.7	88.5	58.0	42.3	38.4	37.8	36.0	29.4	28.5
85°	333.7	301.0	81.6	60.3	42.0	29.1	26.7	26.7	25.8	19.5	18.9
87.5°	42.6	69.3	41.4	31.5	23.1	12.9	12.9	12.6	13.5	11.1	9.6
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°	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4
2.5°	1490.6	1505.0	1491.2	1492.1	1507.4	1553.0	1573.7	1590.8	1609.1	1621.1	1626.5
5°	1080.4	1114.0	1125.3	1149.3	1184.8	1243.0	1266.1	1282.9	1294.0	1300.6	1303.3
7.5°	738.9	759.2	782.0	820.7	897.9	932.1	947.4	943.5	930.9	926.4	921.9
10°	557.0	548.9	544.6	566.0	628.4	662.9	673.7	663.2	656.3	657.8	665.3
12.5°	431.5	417.4	400.4	397.9	439.1	470.0	476.9	477.4	490.0	501.1	517.7
15°	314.5	313.0	304.6	299.5	322.9	348.1	351.1	356.5	367.9	376.0	390.4
17.5°	221.8	229.8	236.5	239.7	257.5	275.5	272.2	269.5	267.4	267.4	274.3
20°	178.9	184.2	192.7	202.2	220.3	232.8	224.8	213.9	206.1	203.8	204.7
22.5°	161.2	165.3	170.2	178.5	194.8	203.5	194.8	187.0	179.2	176.4	175.5
25°	152.2	157.5	162.1	168.3	180.3	186.3	178.0	172.2	167.4	164.2	161.7
27.5°	147.1	151.8	153.1	156.1	166.3	171.6	167.4	165.1	162.1	159.1	156.1
30°	141.6	140.7	138.6	138.9	147.1	152.4	152.2	152.7	152.4	151.5	151.0
32.5°	129.4	127.6	125.7	127.6	135.0	139.8	140.2	141.4	141.4	141.1	143.5
35°	107.7	111.0	113.1	118.6	127.6	131.7	129.9	126.9	121.6	118.2	117.9
37.5°	99.7	100.2	103.8	111.3	121.3	125.1	122.5	115.6	111.9	111.3	112.2
40°	95.8	96.3	98.4	105.3	115.2	119.1	116.7	111.7	108.3	108.0	109.6
42.5°	93.0	93.7	94.8	99.7	107.7	112.6	112.8	109.2	105.3	105.7	107.1
45°	91.5	91.8	91.5	93.9	101.4	107.1	109.6	107.1	103.8	104.5	106.2
47.5°	91.2	90.3	89.1	89.8	97.6	103.2	106.2	105.3	103.8	104.5	105.9
50°	90.0	87.9	86.4	86.1	93.9	99.9	102.7	102.7	103.2	104.5	105.9
52.5°	86.4	84.0	84.0	83.1	91.5	97.2	99.0	99.3	100.2	102.3	104.5
55°	81.9	81.0	81.9	80.4	89.8	95.1	96.0	96.7	97.2	99.0	102.0
57.5°	78.0	76.9	78.9	78.3	88.2	93.0	93.0	94.2	94.2	96.7	99.0
60°	75.9	73.5	74.4	75.0	86.1	91.2	90.7	91.8	92.4	94.6	96.3
62.5°	73.2	71.1	71.1	72.6	83.8	88.5	88.2	89.1	91.5	92.1	93.9
65°	70.0	69.0	68.1	70.0	81.3	85.5	85.9	87.0	89.1	89.8	91.2
67.5°	66.6	67.0	65.1	67.0	79.2	82.5	82.5	84.9	85.9	87.0	88.5
70°	63.0	63.3	61.8	64.0	77.8	79.2	78.9	82.2	82.9	83.8	85.2
72.5°	58.5	58.5	58.0	61.0	75.3	75.9	75.3	78.0	78.3	79.2	79.9
75°	53.7	53.7	53.1	57.3	73.9	72.3	70.5	72.6	73.2	73.9	73.9
77.5°	47.4	48.1	48.1	53.1	68.7	70.9	64.8	66.0	67.0	67.2	66.3
80°	39.6	41.2	41.7	48.3	57.6	65.4	58.0	58.8	59.1	59.1	58.0
82.5°	30.3	33.0	34.5	41.7	44.2	54.9	50.4	51.3	50.4	48.6	48.1
85°	21.0	24.6	26.4	31.8	33.3	42.3	42.0	42.0	40.2	37.8	37.5
87.5°	11.4	13.5	14.7	18.9	22.8	28.5	30.9	30.0	28.5	27.0	27.3
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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**CANDELA DISTRIBUTION (continued):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4
2.5°	1654.7	1695.5	1760.6	1810.4	1860.6	1908.9	1961.2	2001.0	2034.9	2048.2	2088.3
5°	1330.7	1381.6	1443.1	1554.1	1632.8	1719.5	1819.8	1952.4	2003.4	2074.0	2189.5
7.5°	940.8	987.0	1086.0	1175.8	1287.1	1409.9	1545.2	1728.2	1795.2	1908.3	2096.4
10°	702.5	756.2	835.7	911.4	1009.5	1135.0	1290.4	1495.1	1576.4	1699.1	1915.8
12.5°	566.0	629.3	713.6	784.8	860.7	949.2	1100.2	1324.6	1433.6	1541.0	1760.0
15°	434.8	501.1	579.5	669.8	753.5	849.0	1007.1	1252.6	1378.0	1490.0	1676.9
17.5°	301.0	357.7	456.4	550.6	657.8	779.9	981.3	1267.9	1417.6	1546.7	1691.3
20°	213.4	245.7	326.8	436.1	569.6	722.9	976.5	1348.3	1543.1	1690.4	1783.7
22.5°	179.4	191.4	238.6	338.8	493.0	680.3	993.3	1461.1	1712.3	1900.5	1931.1
25°	163.5	170.8	195.3	265.9	424.9	649.4	1050.0	1629.2	1921.8	2110.6	2105.1
27.5°	154.8	162.3	178.5	224.5	373.7	630.2	1106.7	1828.5	2161.3	2338.6	2271.4
30°	152.2	162.3	179.4	211.6	337.0	599.9	1153.2	2003.4	2345.5	2492.6	2347.1
32.5°	150.1	151.5	159.3	182.4	302.2	564.4	1184.8	2160.4	2525.9	2639.1	2456.0
35°	121.3	128.7	141.4	163.5	281.8	543.2	1184.8	2295.7	2703.6	2787.0	2559.8
37.5°	116.7	123.4	134.5	153.4	270.4	532.6	1161.0	2426.3	2885.1	2954.8	2645.3
40°	114.4	119.7	130.3	145.5	265.6	520.7	1126.5	2541.5	3062.4	3122.7	2725.2
42.5°	112.6	117.4	127.3	140.7	259.3	507.5	1098.6	2633.9	3216.4	3266.2	2801.4
45°	111.7	116.7	127.6	143.2	246.7	490.0	1089.4	2733.8	3343.1	3385.9	2883.9
47.5°	111.7	117.6	129.0	148.3	231.7	472.0	1118.4	2865.6	3462.8	3483.8	2981.1
50°	110.7	117.4	133.3	143.2	209.8	449.2	1186.8	3031.5	3592.4	3594.8	3104.2
52.5°	108.9	116.7	143.5	140.2	184.5	419.3	1279.3	3244.7	3784.2	3798.6	3296.8
55°	106.8	115.8	140.7	133.3	163.9	383.6	1354.9	3503.6	4053.7	4093.6	3580.2
57.5°	104.1	114.7	136.3	123.6	150.4	337.6	1382.3	3693.3	4241.8	4342.0	3899.4
60°	101.8	113.7	123.0	117.9	141.9	298.9	1329.4	3655.8	4228.9	4445.0	4182.4
62.5°	99.3	114.7	112.2	114.4	138.0	274.0	1191.4	3355.3	4015.0	4338.8	4392.2
65°	96.7	106.6	105.9	111.3	137.2	264.1	987.6	2904.9	3601.4	4003.0	4441.7
67.5°	93.0	98.4	101.4	107.5	140.2	255.4	797.0	2396.2	3026.7	3499.7	4183.6
70°	89.1	93.7	96.9	102.7	138.4	251.5	662.9	1889.7	2401.7	2868.3	3674.4
72.5°	84.0	87.9	90.9	96.3	136.5	249.4	560.0	1521.8	1793.1	2130.7	2987.5
75°	78.0	81.6	83.8	89.1	130.8	228.4	440.3	1287.7	1341.7	1482.2	2379.4
77.5°	71.1	73.9	75.6	81.6	115.8	190.0	318.4	993.3	1041.9	1076.1	1824.2
80°	63.0	65.7	66.6	72.3	96.0	148.5	207.7	733.7	779.3	787.1	1191.4
82.5°	53.7	56.4	56.4	61.8	78.6	106.8	136.3	502.7	511.7	538.1	842.1
85°	43.2	45.3	45.3	48.1	61.0	79.9	93.7	252.4	249.7	285.1	729.5
87.5°	30.9	32.4	33.9	34.5	43.5	52.8	56.4	76.9	50.7	58.2	468.4
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-01-LED-E1-SLR-7050

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4
2.5°	2118.7	2135.8	2118.3	2105.8	2051.5	2006.8	1947.0	1916.4
5°	2277.4	2320.9	2306.2	2253.4	2139.9	2012.4	1867.5	1802.1
7.5°	2258.2	2359.3	2361.7	2263.0	2095.9	1908.0	1711.8	1618.7
10°	2108.8	2238.1	2275.0	2179.3	2001.9	1791.9	1566.8	1460.6
12.5°	1941.9	2068.5	2096.8	2063.7	1915.5	1704.5	1476.2	1372.0
15°	1805.3	1862.1	1895.6	1924.5	1841.4	1669.7	1471.0	1356.7
17.5°	1722.2	1716.0	1725.6	1775.6	1789.7	1709.6	1549.1	1423.1
20°	1692.2	1595.9	1593.5	1662.5	1765.5	1804.8	1701.5	1550.2
22.5°	1708.8	1552.7	1532.9	1614.8	1778.4	1941.9	1901.4	1728.9
25°	1765.7	1556.3	1540.3	1619.7	1825.2	2088.1	2117.1	1959.9
27.5°	1855.5	1579.1	1558.1	1639.5	1887.3	2210.8	2329.6	2183.8
30°	1940.7	1618.7	1592.6	1678.4	1944.0	2259.4	2459.9	2358.4
32.5°	2044.3	1692.9	1646.9	1750.1	2014.2	2336.8	2576.0	2503.1
35°	2145.7	1798.4	1741.5	1860.9	2092.5	2433.2	2708.7	2687.9
37.5°	2257.0	1936.5	1889.4	2004.0	2199.7	2524.0	2877.9	2904.6
40°	2375.9	2119.6	2063.7	2212.9	2366.0	2638.2	3054.7	3118.8
42.5°	2495.6	2322.7	2256.1	2407.3	2548.7	2750.6	3205.9	3301.1
45°	2632.7	2543.3	2511.8	2675.3	2724.3	2857.8	3317.5	3435.8
47.5°	2792.4	2793.6	2844.3	2909.7	2901.3	2979.0	3429.8	3556.1
50°	2978.7	3105.9	3218.0	3261.4	3083.8	3109.3	3585.5	3717.3
52.5°	3202.6	3479.6	3618.2	3589.7	3280.4	3268.3	3832.2	3939.3
55°	3482.6	3875.2	4012.9	3992.4	3506.3	3485.0	4139.5	4201.9
57.5°	3806.7	4258.4	4385.0	4293.1	3777.6	3722.7	4393.7	4406.9
60°	4091.5	4562.1	4673.1	4571.3	4051.3	3975.6	4552.4	4488.5
62.5°	4249.9	4665.0	4743.0	4633.5	4238.8	4245.1	4587.2	4444.4
65°	4179.1	4404.8	4430.0	4421.0	4190.5	4401.4	4462.1	4240.6
67.5°	3791.4	3747.0	3789.3	3847.8	3776.4	4195.6	4115.4	3796.7
70°	3108.4	2864.4	2948.8	2988.0	3020.4	3610.4	3572.0	3092.5
72.5°	2342.5	2006.8	2073.3	2065.3	2215.3	2895.9	2778.0	2273.9
75°	1659.8	1360.6	1369.0	1365.7	1545.8	2265.7	2011.6	1555.7
77.5°	1161.3	985.8	990.3	1008.9	1039.2	1708.8	1437.1	1136.4
80°	798.6	748.1	773.0	774.6	720.2	1147.9	1061.7	912.0
82.5°	594.8	520.0	514.0	522.7	564.4	930.0	815.9	632.6
85°	487.0	307.9	247.6	310.3	500.2	921.0	542.0	333.7
87.5°	274.3	146.2	66.0	122.5	199.6	609.8	156.6	42.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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