

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: P301152

Luminaire Tested: **GLNA-AF-03-LED-E1-T3R-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301152  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-03-LED-E1-T3R-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12995.9 lumens  
Efficiency: N/A  
Efficacy: 104.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 124  
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

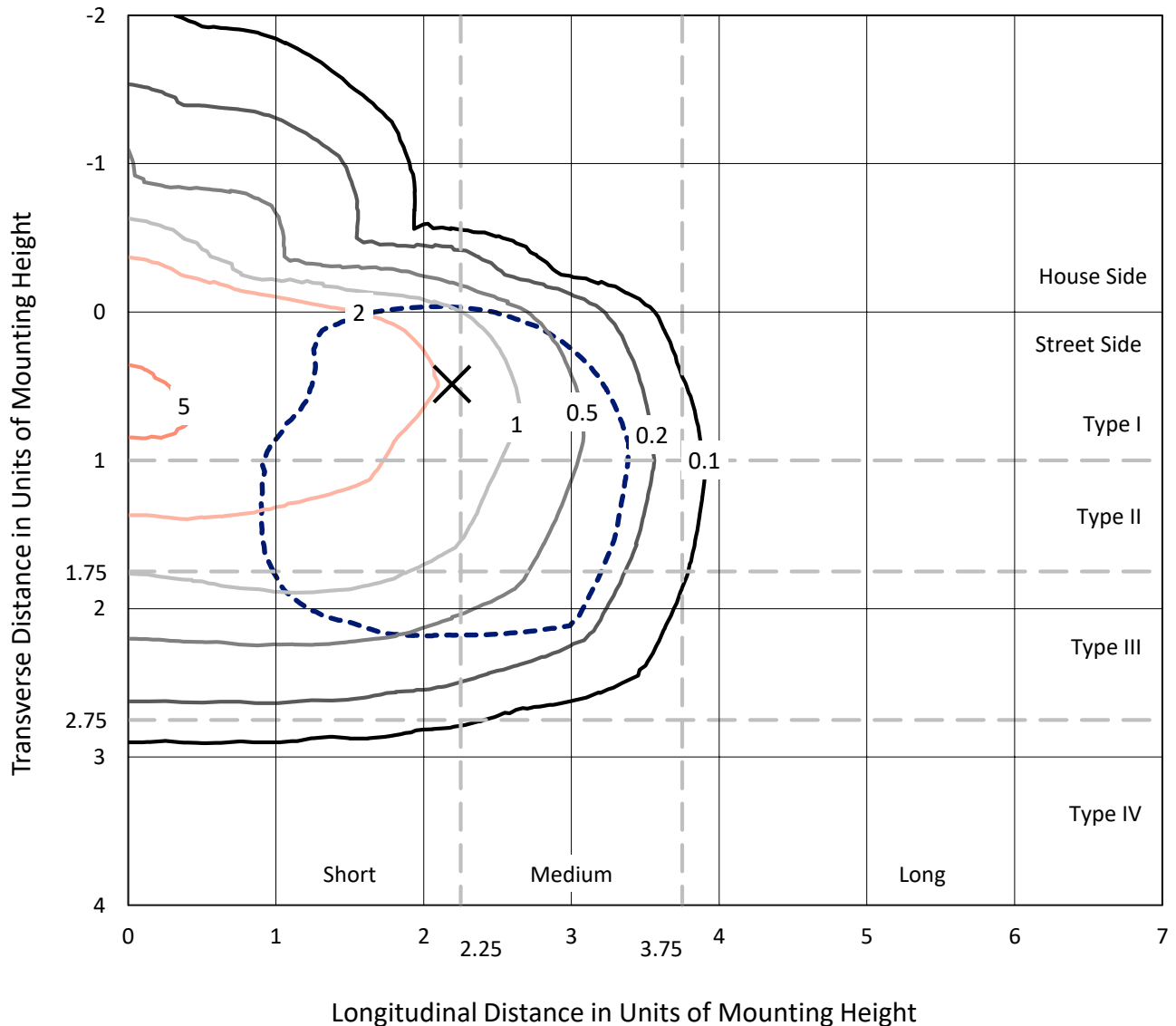


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### Iso-Footcandle Lines of Horizontal Illumination

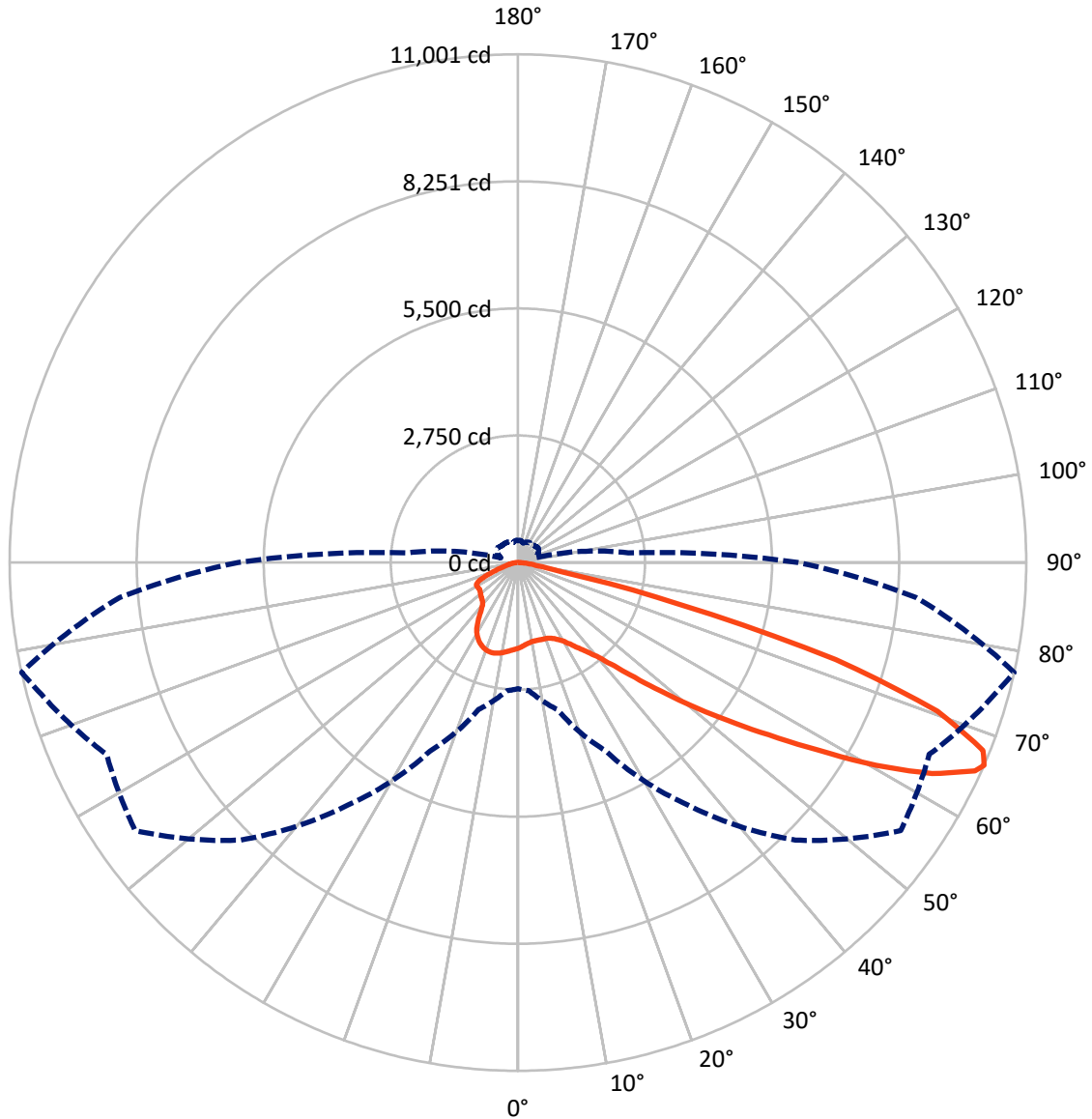
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.7 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

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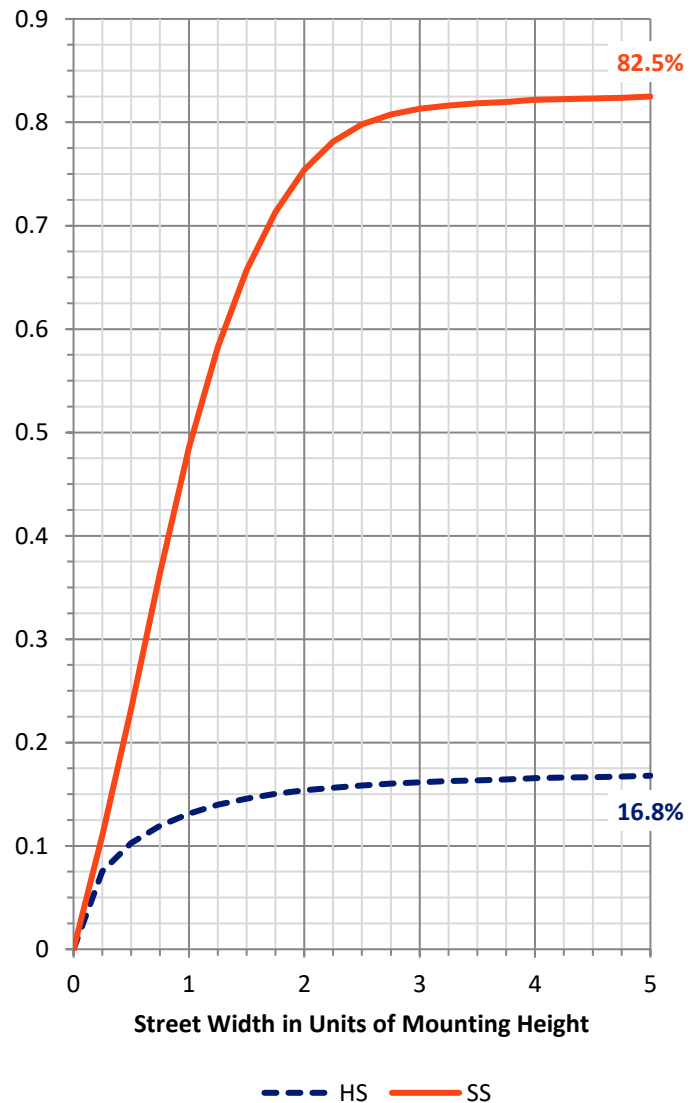
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2220.3	0.0	2220.3
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	10775.7	0.0	10775.7
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	12995.9	0.0	12995.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.5	1.3
10°-20°	466.8	3.6
20°-30°	796.6	6.1
30°-40°	1275.3	9.8
40°-50°	1970.2	15.2
50°-60°	2794.4	21.5
60°-70°	3738.2	28.8
70°-80°	1623.4	12.5
80°-90°	165.5	1.3
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°	12995.9	100.0
0°-180°	12995.9	100.0



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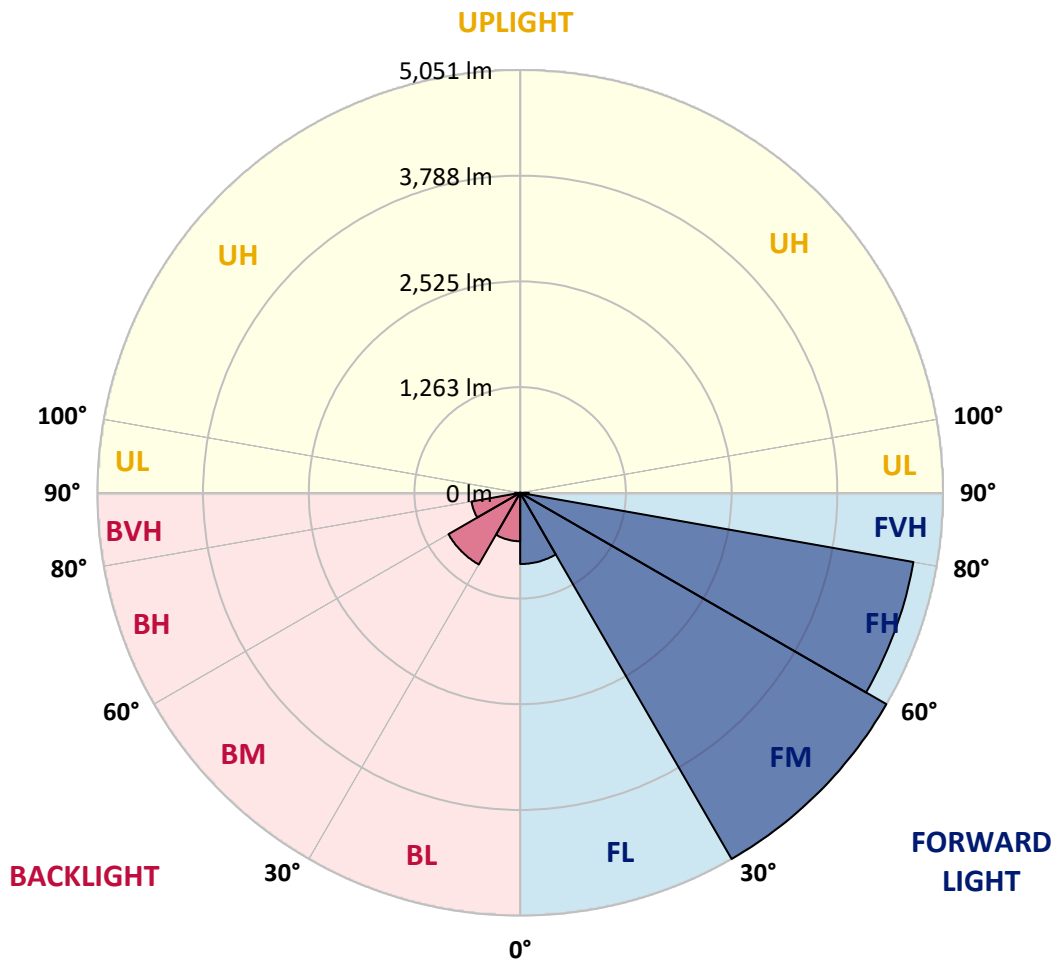
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	850.6	6.5			
FM	(30°-60°)	5050.9	38.9			
FH	(60°-80°)	4770.3	36.7			G2/5000
FVH	(80°-90°)	103.8	0.8			G2/225
BL	(0°-30°)	578.3	4.4	B2/1000		
BM	(30°-60°)	989.0	7.6	B1/1000		
BH	(60°-80°)	591.3	4.5	B2/1000		G2/1000
BVH	(80°-90°)	61.7	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	1852.0	1852.0	1852.0	1852.0	1852.0	1852.0	1852.0	1852.0	1852.0	1852.0	1852.0
2.5°	1638.3	1649.3	1658.6	1667.2	1684.3	1712.5	1745.1	1771.5	1809.6	1817.0	1837.3
5°	1487.9	1487.9	1495.2	1508.2	1531.4	1573.8	1618.1	1677.0	1759.9	1779.5	1833.6
7.5°	1414.9	1415.4	1419.7	1430.7	1450.9	1489.6	1538.1	1607.7	1720.0	1752.5	1844.5
10°	1441.8	1435.7	1426.4	1421.0	1424.0	1446.7	1492.8	1570.1	1695.4	1737.1	1869.3
12.5°	1592.8	1581.3	1549.3	1506.9	1466.4	1449.8	1476.8	1552.3	1685.0	1733.5	1901.8
15°	1839.7	1834.9	1775.2	1687.4	1589.3	1506.9	1488.5	1545.6	1686.1	1737.8	1940.5
17.5°	2149.3	2142.4	2063.9	1936.2	1775.9	1615.7	1529.6	1551.1	1690.4	1745.1	1977.8
20°	2461.8	2440.8	2356.2	2203.9	1998.1	1763.5	1597.8	1565.3	1696.0	1753.1	2017.2
22.5°	2695.1	2677.8	2601.8	2453.8	2216.7	1934.9	1689.3	1589.8	1713.8	1776.5	2065.6
25°	2900.2	2901.3	2825.8	2682.8	2437.8	2116.7	1807.2	1655.4	1759.2	1824.3	2132.0
27.5°	3153.8	3139.1	3068.4	2926.6	2656.4	2300.2	1949.6	1745.8	1826.9	1892.5	2219.2
30°	3457.0	3446.6	3365.0	3204.2	2898.9	2497.3	2112.3	1850.7	1914.1	1982.1	2333.3
32.5°	3813.8	3809.0	3724.2	3517.3	3178.9	2729.5	2303.4	1989.5	2044.2	2114.9	2497.3
35°	4232.7	4233.2	4133.2	3884.5	3485.3	2999.7	2520.0	2168.2	2202.6	2276.2	2692.7
37.5°	4490.6	4521.8	4484.4	4230.8	3832.2	3301.8	2801.3	2405.3	2383.1	2457.5	2902.0
40°	4545.8	4583.9	4702.3	4573.5	4220.4	3634.6	3050.6	2633.0	2605.5	2696.2	3171.6
42.5°	4468.4	4521.2	4771.9	4862.6	4632.4	4044.7	3385.8	2971.4	2936.4	3058.6	3506.8
45°	4422.3	4461.7	4751.6	5013.2	4989.8	4508.4	3812.7	3396.2	3383.4	3543.7	3893.8
47.5°	4342.6	4378.3	4657.0	5048.1	5199.8	4933.2	4325.5	3915.9	3941.0	4151.1	4330.3
50°	4385.5	4400.2	4551.4	4959.1	5260.6	5244.7	4898.3	4517.5	4603.6	4865.7	4824.7
52.5°	4379.4	4417.5	4539.1	4812.9	5268.6	5436.9	5462.6	5188.7	5370.0	5670.8	5372.9
55°	3540.7	3610.6	4394.8	4776.1	5296.7	5625.2	5964.9	5896.1	6233.8	6584.4	5991.9
57.5°	3381.0	3425.2	3859.9	4853.5	5446.6	5985.2	6523.6	6674.8	7239.6	7646.8	6746.0
60°	3349.6	3404.2	3854.3	4948.1	5750.5	6571.6	7352.1	7617.4	8463.5	8909.4	7620.4
62.5°	3252.0	3310.9	3818.1	4935.7	6182.3	7382.8	8412.6	8619.5	9624.0	10057.6	8351.8
65°	2942.6	2997.8	3522.8	4737.5	6473.4	8248.6	9667.5	9538.1	10540.3	10866.2	8716.4
66°	2730.6	2784.7	3290.1	4504.1	6405.7	8494.2	10112.3	9822.4	10745.3	11000.8	8645.2
67.5°	2343.2	2385.6	2838.1	3981.5	6046.5	8563.0	10486.2	10036.0	10766.7	10857.1	8238.2
70°	1480.5	1492.8	1844.5	2748.5	4577.2	7426.3	9916.9	9505.6	9878.9	9634.4	6906.2
72.5°	642.4	638.1	885.5	1398.1	2591.4	4983.1	8021.9	7843.3	7749.4	7191.8	4834.5
75°	357.3	362.4	460.0	649.1	1053.1	2447.7	5247.6	5021.7	4239.9	3618.0	2192.2
77.5°	286.7	293.6	381.3	460.5	472.8	853.6	2455.6	1998.1	1202.9	965.3	609.1
80°	226.6	238.9	332.8	358.6	318.7	351.8	793.3	634.4	476.0	436.5	315.7
82.5°	179.2	188.0	285.6	271.4	222.9	237.0	380.0	370.4	309.6	281.9	182.4
85°	129.0	144.8	234.6	204.5	146.1	159.7	252.3	241.9	177.4	144.8	80.5
87.5°	52.8	68.8	165.8	135.7	81.6	74.4	125.9	118.4	84.0	61.4	40.0
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1852.0	1852.0	1852.0	1852.0	1852.0	1852.0	1852.0	1852.0	1852.0	1852.0	1852.0
2.5°	1850.1	1864.8	1883.9	1895.7	1901.8	1906.1	1912.8	1912.2	1914.1	1914.6	1917.0
5°	1862.4	1886.9	1914.6	1922.1	1922.1	1915.2	1908.5	1897.3	1893.1	1891.9	1893.1
7.5°	1894.4	1921.3	1945.3	1936.7	1918.3	1891.2	1856.2	1825.6	1809.0	1803.4	1802.3
10°	1934.9	1967.4	1977.3	1944.7	1890.6	1825.6	1756.2	1705.8	1677.0	1669.0	1666.6
12.5°	1984.0	2014.6	2001.3	1932.5	1832.3	1727.4	1631.5	1551.1	1490.9	1471.9	1470.6
15°	2038.1	2062.1	2014.6	1894.4	1745.1	1590.4	1419.7	1281.0	1206.1	1182.1	1180.2
17.5°	2088.5	2100.7	2006.6	1828.0	1616.8	1366.3	1139.7	1032.8	1007.1	1013.3	1014.4
20°	2131.4	2131.4	1979.7	1732.8	1414.9	1070.9	927.7	926.1	944.5	962.9	966.6
22.5°	2178.6	2150.4	1932.5	1598.4	1128.5	876.2	855.4	872.5	893.4	913.6	916.8
25°	2237.0	2165.8	1866.7	1394.6	887.2	795.7	803.7	817.9	828.3	841.3	843.2
27.5°	2302.1	2185.3	1780.2	1113.9	770.1	745.5	751.7	756.5	755.2	760.2	761.3
30°	2380.0	2208.2	1661.6	870.7	721.6	702.4	691.4	687.2	687.2	695.2	698.1
32.5°	2484.5	2241.8	1491.5	746.1	698.1	671.7	636.2	620.2	626.4	653.3	659.5
35°	2599.4	2278.1	1261.3	703.7	693.3	657.6	602.4	572.8	573.6	598.7	606.7
37.5°	2724.5	2324.2	1008.8	695.7	704.3	658.3	584.5	544.0	527.5	527.5	530.6
40°	2884.8	2371.4	816.8	701.3	727.7	665.6	575.4	521.3	474.7	476.0	478.4
42.5°	3093.5	2412.0	713.6	712.8	756.0	675.5	574.7	491.2	450.7	478.4	503.5
45°	3325.8	2432.2	668.0	723.4	778.6	681.6	565.0	486.4	453.8	536.0	584.0
47.5°	3592.7	2420.5	642.9	727.0	784.2	681.6	553.9	498.1	475.2	620.8	676.8
50°	3885.8	2386.9	618.4	719.7	782.4	680.3	564.3	509.6	483.2	635.5	674.2
52.5°	4230.3	2358.6	592.5	703.7	769.3	673.6	576.5	504.8	458.1	577.8	604.8
55°	4623.1	2366.6	563.7	681.0	749.1	660.8	572.3	485.1	431.7	509.1	525.6
57.5°	5125.5	2461.8	529.3	652.2	721.6	639.2	557.0	476.0	423.7	461.8	471.7
60°	5686.0	2627.4	486.4	623.2	687.2	604.8	545.3	480.2	427.4	458.1	462.9
62.5°	6097.5	2723.9	449.6	580.8	640.5	566.7	530.6	485.6	437.3	470.9	469.8
65°	6209.2	2565.5	403.4	518.9	577.3	526.9	512.0	491.8	441.6	481.4	476.0
66°	6052.7	2394.9	383.2	490.1	545.3	507.2	502.9	491.2	439.7	482.7	473.4
67.5°	5672.6	2044.8	348.2	447.7	494.4	477.8	488.2	485.6	434.7	481.4	468.5
70°	4626.3	1395.2	297.8	372.8	411.4	420.6	460.0	466.1	418.7	460.0	431.7
72.5°	3232.4	849.8	263.5	289.3	332.8	358.6	421.3	439.0	397.3	401.6	374.6
75°	1562.1	451.4	238.9	224.2	258.4	299.7	374.6	402.1	363.5	336.0	326.1
77.5°	486.9	275.7	202.7	180.5	202.7	241.9	313.1	352.5	323.7	281.3	277.6
80°	261.6	202.7	156.0	144.8	160.3	189.8	246.2	294.1	278.1	252.3	225.3
82.5°	172.5	131.4	115.5	112.3	122.2	144.8	182.9	243.7	243.7	216.2	157.3
85°	89.1	80.5	79.2	79.2	85.3	96.5	124.6	188.0	200.2	114.2	94.6
87.5°	44.2	46.1	42.9	44.8	48.0	47.2	59.5	94.6	113.0	69.3	57.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)