

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: P301636

Luminaire Tested: **GLNA-AF-03-LED-E1-T2R-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301636  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194759)  
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-T2R-7050-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15240.2 lumens  
Efficiency: N/A  
Efficacy: 122.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

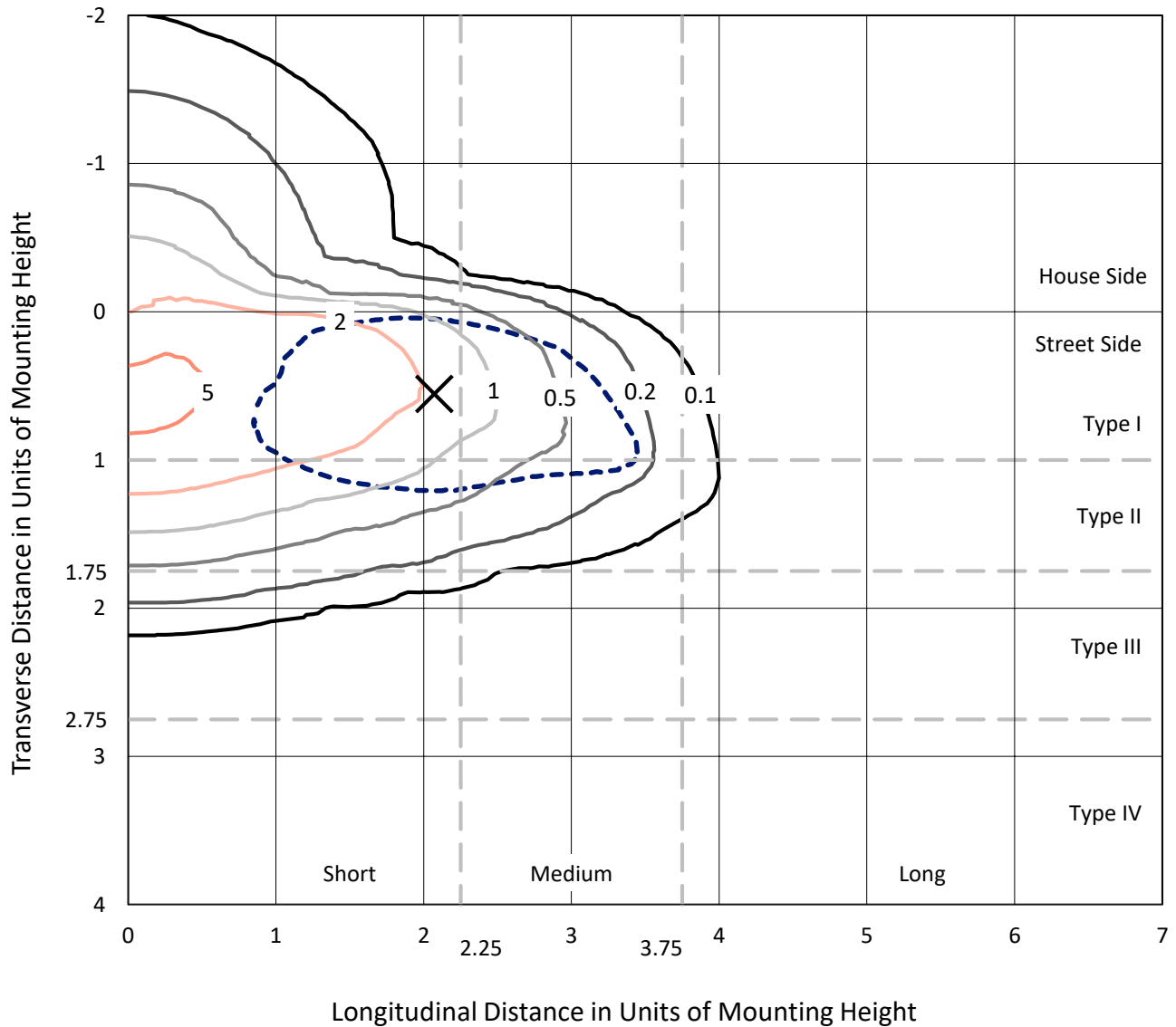
Input Watts (W): 124  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

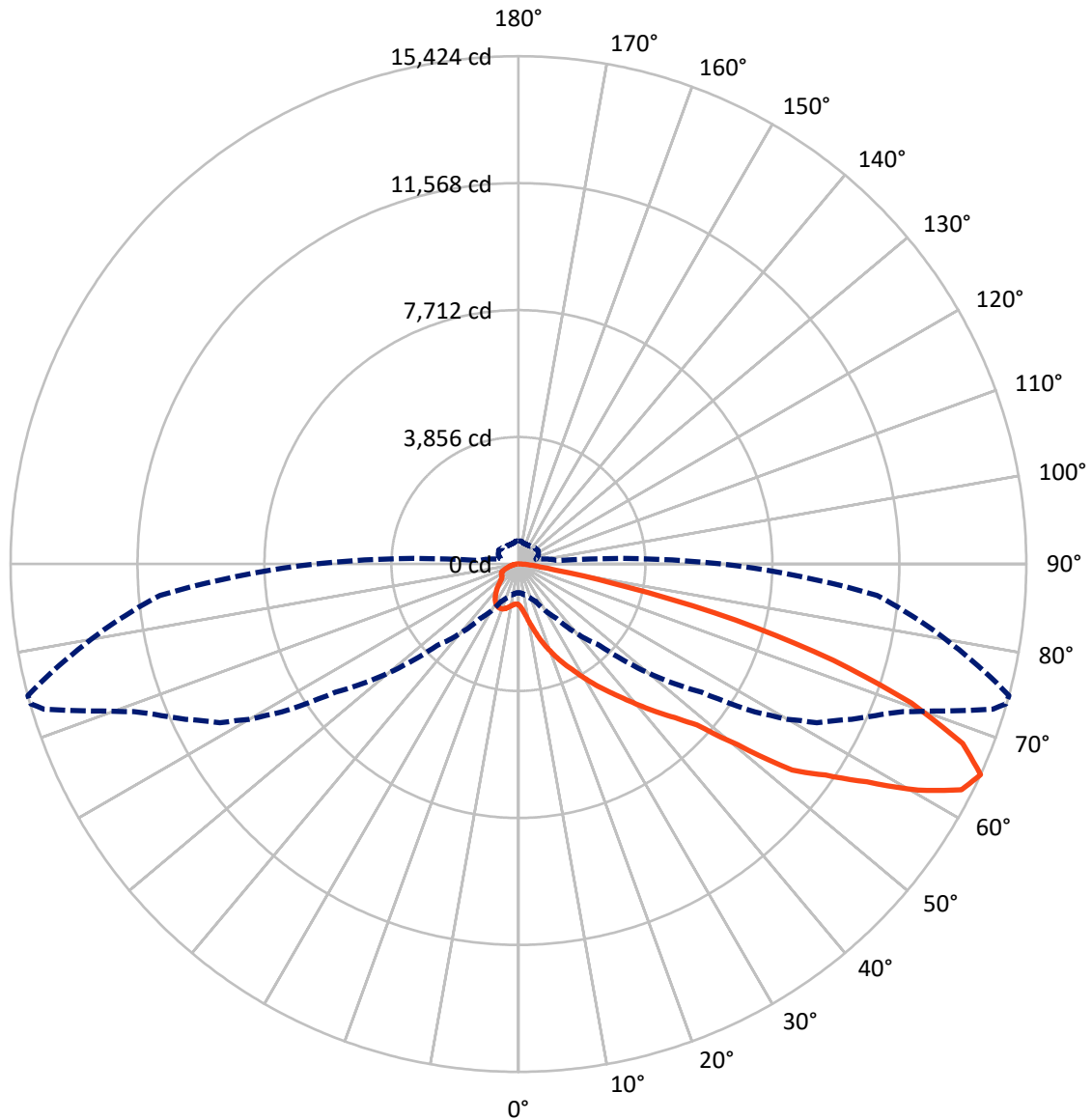
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2349.7	0.0	2349.7
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	12890.6	0.0	12890.6
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	15240.2	0.0	15240.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.1	1.0
10°-20°	598.2	3.9
20°-30°	1227.2	8.1
30°-40°	2064.7	13.5
40°-50°	2852.9	18.7
50°-60°	3561.3	23.4
60°-70°	3204.8	21.0
70°-80°	1343.4	8.8
80°-90°	234.7	1.5
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°	15240.2	100.0
0°-180°	15240.2	100.0

**Coefficient of Utilization**



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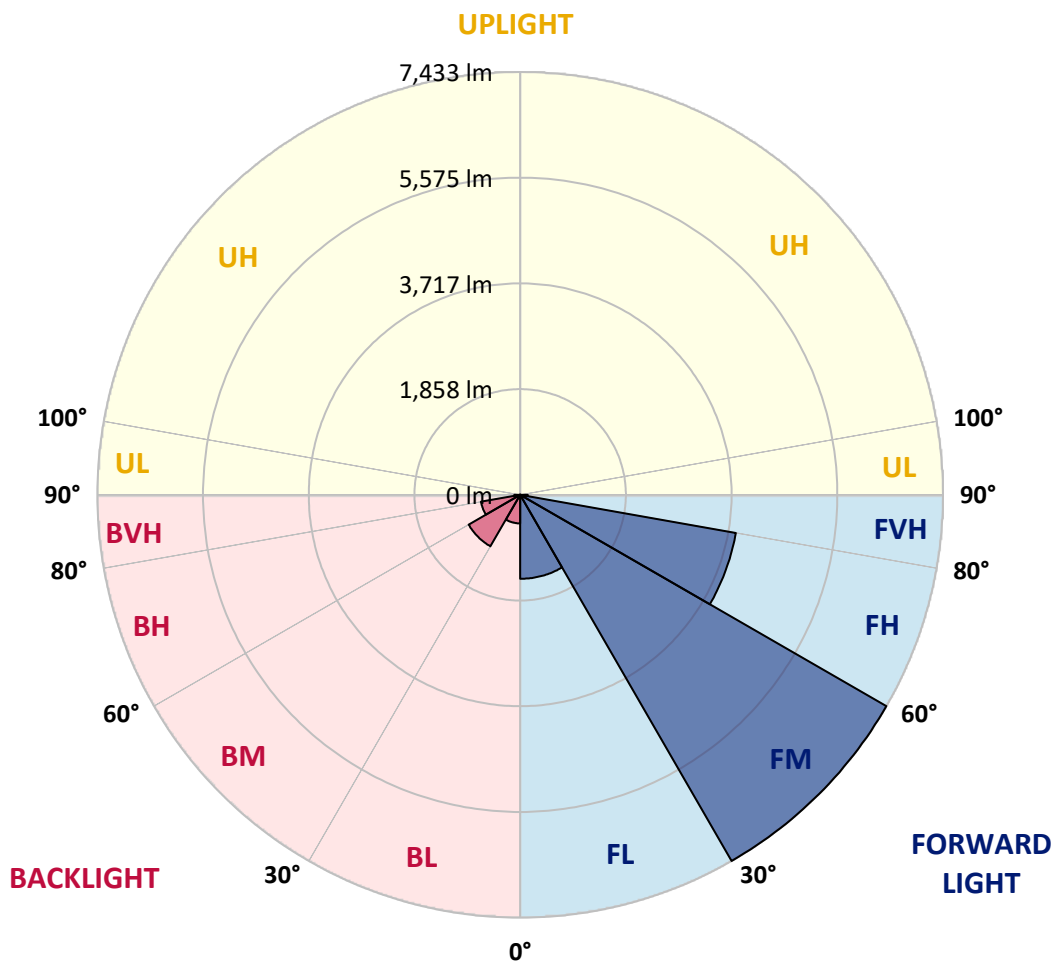
CATALOG NUMBER: GLNA-AF-03-LED-E1-T2R-7050-800

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1476.0	9.7			
FM (30°-60°)	7433.0	48.8			
FH (60°-80°)	3849.6	25.3			G2/5000
FVH (80°-90°)	131.9	0.9			G2/225
BL (0°-30°)	502.5	3.3	B2/1000		
BM (30°-60°)	1045.9	6.9	B2/2500		
BH (60°-80°)	698.5	4.6	B2/1000		G2/1000
BVH (80°-90°)	102.8	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

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

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6
2.5°	1572.6	1555.3	1559.5	1530.7	1495.3	1449.1	1398.0	1397.3	1398.0	1392.8	1374.2
5°	2180.5	2159.8	2151.9	2086.8	1991.6	1856.1	1708.9	1693.1	1686.4	1670.0	1631.7
7.5°	2624.3	2612.8	2600.4	2551.4	2464.9	2313.4	2115.7	2081.9	2049.4	2041.4	1998.2
10°	2910.7	2907.7	2881.8	2868.7	2814.8	2683.4	2490.8	2458.3	2423.0	2410.8	2365.2
12.5°	3137.1	3136.4	3124.2	3127.9	3080.8	2985.8	2819.7	2790.2	2764.3	2726.6	2694.3
15°	3293.7	3294.3	3312.5	3332.6	3325.4	3261.2	3105.4	3092.3	3070.1	3044.2	3005.9
17.5°	3422.1	3425.7	3444.4	3481.2	3521.0	3515.8	3392.6	3381.7	3362.2	3326.9	3306.8
20°	3712.0	3725.7	3689.8	3689.8	3694.1	3713.5	3654.3	3645.7	3618.3	3599.5	3583.7
22.5°	4201.9	4217.7	4136.2	4053.4	3971.8	3912.6	3853.5	3864.2	3845.6	3832.5	3823.1
25°	4838.1	4850.5	4718.4	4578.5	4412.4	4196.1	4049.7	4043.1	4033.0	4025.1	4020.8
27.5°	5436.8	5441.9	5317.2	5112.2	4919.6	4608.7	4248.7	4240.8	4228.6	4213.4	4200.4
30°	5949.1	5947.6	5819.2	5623.6	5417.3	5073.2	4551.1	4526.5	4490.3	4449.2	4417.6
32.5°	6392.7	6390.5	6249.7	6047.1	5830.7	5533.5	4965.2	4914.7	4858.4	4778.1	4730.0
35°	6741.7	6740.4	6607.5	6396.3	6148.1	5967.1	5439.8	5377.7	5306.3	5198.8	5124.6
37.5°	6873.7	6873.7	6799.5	6655.2	6435.9	6311.8	5967.1	5891.9	5815.6	5693.6	5609.9
40°	6796.5	6798.0	6813.8	6787.3	6680.5	6585.3	6459.0	6414.3	6348.6	6239.0	6151.7
42.5°	6537.5	6545.5	6651.0	6780.0	6833.3	6818.3	6895.3	6875.2	6829.0	6744.7	6675.4
45°	6209.3	6233.9	6349.2	6593.2	6875.9	7019.4	7261.0	7263.2	7254.6	7209.3	7155.8
47.5°	5758.6	5793.1	5945.4	6275.0	6776.4	7215.0	7632.5	7652.0	7670.2	7640.7	7616.0
50°	5159.9	5201.0	5428.9	5866.1	6573.7	7417.7	8334.4	8422.6	8504.7	8494.7	8511.2
52.5°	4518.6	4566.9	4846.0	5333.0	6225.3	7464.5	8783.1	8926.7	9070.3	9187.8	9312.5
55°	3939.9	3914.1	4193.3	4706.0	5652.5	7253.1	9186.5	9359.6	9519.7	9663.9	9812.6
57.5°	3155.9	3198.5	3478.4	3985.5	4894.3	6656.5	9464.0	9717.4	9947.4	10186.3	10396.8
60°	2306.8	2349.4	2653.0	3168.1	4071.3	5752.0	9252.0	9635.9	10004.4	10370.1	10655.7
62.5°	1392.8	1424.7	1692.2	2182.9	3139.4	4679.5	8307.0	8810.5	9353.0	9790.2	10228.0
65°	867.1	885.1	983.9	1253.8	2016.2	3493.6	6787.3	7336.1	7920.3	8475.2	8930.4
67.5°	709.8	716.2	734.4	792.0	1107.2	2278.1	5051.6	5537.8	6065.1	6601.7	7108.3
70°	638.3	634.0	634.0	637.7	709.8	1224.9	3307.4	3624.1	4063.4	4530.1	4993.2
72.5°	576.3	572.0	564.1	553.4	579.3	747.2	1709.5	1948.4	2265.1	2679.8	3123.4
75°	517.9	512.1	502.9	489.2	507.2	564.1	820.9	921.2	1075.5	1296.3	1543.7
77.5°	457.3	450.0	441.5	431.4	454.5	438.7	481.0	517.2	576.3	647.1	740.2
80°	388.8	382.4	379.4	374.5	401.9	334.0	339.8	362.1	396.7	435.0	478.3
82.5°	304.5	304.5	315.8	318.2	348.4	240.3	254.0	273.5	291.5	311.6	331.9
85°	200.5	202.0	241.0	256.1	274.8	161.6	190.4	196.9	211.4	223.0	231.5
87.5°	62.7	67.8	147.2	163.1	157.9	91.6	116.8	119.8	129.9	137.8	145.1
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):**

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6
2.5°	1374.2	1365.5	1357.5	1356.9	1351.1	1343.2	1346.0	1333.8	1334.4	1328.0	1320.7
5°	1615.8	1610.0	1581.2	1573.2	1551.6	1537.9	1535.8	1506.9	1503.3	1486.8	1468.6
7.5°	1963.6	1944.7	1904.3	1884.8	1848.0	1820.6	1807.8	1769.5	1750.6	1707.4	1687.9
10°	2327.8	2304.0	2254.1	2226.8	2191.5	2147.4	2123.6	2068.2	2046.4	2006.8	1959.3
12.5°	2665.4	2641.7	2590.3	2569.4	2522.5	2475.6	2449.7	2387.0	2358.8	2295.2	2257.8
15°	2977.6	2953.9	2909.2	2887.6	2840.7	2802.4	2767.7	2705.9	2672.7	2613.4	2564.4
17.5°	3280.6	3255.4	3216.5	3197.0	3151.6	3112.7	3075.2	3016.6	2982.8	2923.7	2879.6
20°	3562.0	3543.2	3515.2	3489.1	3443.7	3408.4	3363.7	3313.2	3264.2	3220.7	3179.0
22.5°	3807.3	3800.0	3769.8	3758.3	3719.3	3688.9	3650.0	3600.3	3564.8	3510.0	3471.1
25°	4018.7	4016.6	4002.0	3998.4	3971.0	3942.1	3933.5	3892.4	3859.9	3811.6	3771.3
27.5°	4200.4	4202.5	4199.1	4209.1	4201.9	4188.8	4189.7	4176.0	4157.1	4116.7	4081.4
30°	4402.4	4390.8	4397.5	4411.8	4416.1	4417.6	4441.3	4449.2	4448.0	4421.2	4403.9
32.5°	4688.0	4660.7	4635.4	4633.3	4647.6	4653.4	4693.8	4714.8	4732.8	4739.2	4742.2
35°	5052.3	4997.5	4944.8	4916.8	4892.2	4898.6	4927.5	4961.5	5001.1	5028.5	5061.0
37.5°	5511.0	5444.1	5351.0	5284.6	5268.0	5232.0	5250.6	5277.4	5316.3	5358.9	5415.2
40°	6067.2	5965.6	5860.9	5773.0	5725.5	5658.9	5658.3	5653.1	5677.1	5716.7	5796.1
42.5°	6602.6	6512.3	6401.2	6309.0	6247.0	6158.1	6140.2	6093.3	6104.0	6138.7	6215.9
45°	7103.8	7029.5	6961.7	6855.1	6802.2	6706.4	6676.0	6620.6	6589.5	6605.4	6682.6
47.5°	7589.3	7541.8	7471.0	7401.8	7361.4	7275.6	7236.6	7196.8	7157.3	7155.8	7236.6
50°	8535.8	8510.5	8426.8	8354.7	8374.2	8268.9	8275.3	8168.6	8216.9	8222.7	8392.2
52.5°	9425.1	9513.3	9575.3	9650.9	9700.1	9709.5	9741.8	9790.2	9848.6	9963.9	10121.2
55°	9934.4	10044.8	10109.0	10166.8	10262.0	10282.1	10336.3	10400.5	10451.6	10581.5	10715.0
57.5°	10539.8	10744.5	10844.1	10935.6	11064.0	11113.0	11203.3	11273.3	11339.6	11493.3	11654.9
60°	10912.5	11162.3	11364.9	11509.8	11670.7	11786.2	11922.6	12032.1	12187.9	12371.9	12612.9
62.5°	10616.2	10982.5	11251.7	11500.6	11719.1	11939.9	12135.3	12340.3	12576.7	12855.1	13228.9
65°	9435.4	9808.1	10269.1	10527.4	10816.7	11157.1	11454.3	11786.2	12108.5	12514.0	13066.5
67.5°	7595.9	8029.3	8547.3	8807.7	9140.3	9520.3	9853.7	10259.0	10635.6	11126.7	11810.0
70°	5475.1	6035.5	6471.2	6743.2	7131.4	7523.0	7844.8	8316.4	8628.0	9131.5	9837.9
72.5°	3466.8	3908.9	4442.8	4785.4	5130.1	5527.1	5856.0	6262.8	6553.4	7012.2	7652.0
75°	1864.0	2190.0	2658.8	2984.3	3353.6	3692.6	4077.8	4350.4	4565.4	4928.4	5447.7
77.5°	873.5	1071.9	1309.2	1559.5	1809.9	2071.0	2325.0	2545.6	2638.0	2845.8	3152.3
80°	530.3	594.5	663.6	740.8	845.5	929.8	1041.7	1122.4	1128.1	1193.8	1287.6
82.5°	354.2	377.9	398.9	418.3	445.1	466.1	489.8	517.9	529.4	544.6	575.0
85°	241.6	253.1	257.4	269.8	266.8	274.1	283.5	292.9	297.9	297.2	310.9
87.5°	148.5	154.3	157.3	160.1	157.9	155.1	159.4	164.6	165.8	161.6	163.1
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):**

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6
2.5°	1322.2	1315.8	1309.2	1304.9	1303.4	1265.3	1248.6	1237.9	1214.8	1196.0	1180.8
5°	1458.5	1444.8	1434.1	1421.1	1413.8	1317.1	1281.8	1257.4	1216.9	1193.2	1171.4
7.5°	1677.9	1639.6	1617.3	1592.1	1570.5	1395.8	1337.4	1299.1	1242.8	1211.2	1186.6
10°	1926.7	1887.2	1851.6	1812.7	1778.9	1500.5	1415.3	1356.0	1281.8	1240.7	1208.2
12.5°	2204.5	2165.6	2120.8	2071.0	2027.7	1633.2	1514.8	1430.5	1328.7	1273.9	1228.5
15°	2532.8	2464.1	2409.9	2352.4	2301.9	1791.9	1631.0	1514.2	1378.5	1304.3	1243.7
17.5°	2837.7	2765.6	2692.2	2641.7	2583.3	1970.0	1747.9	1599.1	1419.6	1323.7	1246.5
20°	3135.8	3057.0	2993.7	2925.9	2864.4	2154.6	1872.6	1674.2	1446.3	1324.4	1228.5
22.5°	3398.3	3349.1	3278.5	3204.9	3142.8	2339.3	1989.4	1737.8	1456.4	1307.9	1196.6
25°	3696.9	3645.1	3558.4	3496.3	3427.2	2527.6	2104.1	1786.8	1450.6	1276.9	1147.6
27.5°	4015.7	3958.1	3869.3	3804.5	3720.8	2723.0	2209.4	1822.1	1429.0	1226.4	1081.9
30°	4348.2	4295.6	4208.3	4142.8	4058.3	2930.1	2327.1	1845.9	1385.8	1156.4	1005.5
32.5°	4705.4	4661.3	4574.8	4506.4	4416.1	3154.4	2436.7	1853.1	1320.1	1073.4	924.9
35°	5044.3	5014.2	4941.2	4877.0	4783.3	3366.5	2552.9	1849.5	1242.2	982.4	851.2
37.5°	5426.1	5407.9	5372.0	5290.4	5175.7	3654.3	2692.2	1834.3	1147.0	892.3	795.0
40°	5832.9	5834.4	5795.4	5739.8	5633.0	4003.5	2858.0	1804.8	1043.0	812.9	743.6
42.5°	6263.4	6285.9	6267.1	6227.5	6125.0	4355.5	3056.4	1768.8	942.2	735.7	693.3
45°	6756.9	6784.3	6813.2	6754.7	6655.2	4820.1	3317.5	1722.0	833.1	671.5	658.7
47.5°	7326.1	7369.3	7395.2	7396.1	7296.6	5395.7	3741.6	1693.7	736.5	628.3	642.0
50°	8527.0	8540.9	8602.1	8708.9	8632.5	6728.0	4482.4	1676.4	670.9	601.5	629.8
52.5°	10257.5	10408.4	10514.5	10507.2	10403.2	7574.1	4890.7	1586.9	631.9	591.5	624.0
55°	10962.4	11150.7	11346.9	11398.7	11318.0	8296.3	5276.7	1497.5	613.1	598.7	626.1
57.5°	11901.6	12218.9	12488.1	12601.3	12484.5	9220.3	5784.5	1450.6	607.3	618.2	639.8
60°	12998.7	13391.2	13744.7	13947.9	13947.9	10282.1	6311.1	1431.2	599.4	647.1	662.9
62.5°	13703.6	14279.8	14813.7	15111.6	15102.8	11021.4	6544.8	1364.8	581.4	667.2	694.6
65°	13706.4	14391.8	15071.8	15406.7	15423.8	10930.7	6159.0	1205.4	548.2	670.2	726.5
67.5°	12563.9	13294.4	14087.3	14461.7	14548.2	10062.1	5331.5	991.2	494.1	641.3	738.0
70°	10611.0	11324.5	12133.8	12501.8	12655.5	8577.5	4294.1	763.9	425.0	577.8	714.1
72.5°	8359.7	9059.4	9622.8	9891.8	10011.6	6556.4	3127.0	577.1	348.4	486.8	649.9
75°	5918.7	6443.8	6743.2	6803.1	6821.7	3952.4	1900.0	429.3	287.2	378.8	548.9
77.5°	3340.6	3565.7	3541.1	3567.8	3345.7	1525.7	827.5	307.3	236.7	287.8	425.6
80°	1304.3	1344.7	1263.2	1237.9	1135.4	567.7	365.1	214.2	189.0	217.8	297.9
82.5°	575.0	593.6	576.3	580.8	555.5	292.9	218.5	155.1	144.2	159.4	197.7
85°	316.7	322.5	321.0	330.4	316.7	116.8	103.8	95.2	101.0	108.3	126.9
87.5°	154.3	155.8	150.9	158.8	153.6	59.1	51.1	54.1	59.1	60.6	60.6
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):**

	135°	145°	155°	165°	175°	180°
0°	1238.6	1238.6	1238.6	1238.6	1238.6	1238.6
2.5°	1170.1	1164.3	1165.0	1163.5	1160.7	1160.7
5°	1160.0	1154.3	1154.3	1152.8	1149.1	1149.8
7.5°	1170.1	1160.7	1157.0	1151.9	1147.0	1147.0
10°	1181.6	1165.0	1154.9	1146.3	1139.7	1139.7
12.5°	1190.2	1164.3	1147.6	1136.1	1129.6	1129.6
15°	1193.2	1159.2	1136.1	1122.4	1116.6	1115.9
17.5°	1183.8	1139.7	1111.7	1095.8	1088.6	1086.4
20°	1154.9	1104.4	1070.6	1052.4	1042.3	1038.7
22.5°	1111.7	1053.9	1014.3	995.5	982.4	980.3
25°	1051.1	989.1	950.1	931.9	924.9	922.5
27.5°	980.3	922.5	889.3	877.8	871.4	870.7
30°	913.3	864.1	839.7	830.9	823.0	821.7
32.5°	850.4	819.4	810.2	797.7	779.1	777.0
35°	805.7	802.9	796.5	768.9	746.0	739.3
37.5°	778.3	805.0	771.9	717.7	701.2	699.7
40°	762.4	782.8	725.6	707.0	708.3	707.0
42.5°	726.5	747.2	727.1	718.6	724.1	725.6
45°	690.3	713.4	738.0	732.3	746.0	746.0
47.5°	670.2	704.7	737.2	737.2	757.5	764.6
50°	647.1	697.6	725.6	735.7	751.7	746.0
52.5°	645.6	685.2	709.2	727.1	734.4	727.8
55°	647.7	675.1	692.5	712.8	721.4	722.0
57.5°	650.7	669.4	680.9	690.3	716.2	716.2
60°	657.8	664.4	670.9	676.0	709.8	710.4
62.5°	669.4	659.3	657.8	662.9	706.2	703.4
65°	687.5	652.0	641.3	646.2	702.5	694.0
67.5°	711.9	641.3	620.4	624.0	699.7	680.9
70°	734.4	624.0	594.5	590.8	672.4	639.2
72.5°	736.5	603.9	558.3	547.6	584.4	552.5
75°	700.4	590.0	518.7	486.8	482.5	478.3
77.5°	631.3	582.0	472.5	422.6	414.1	416.8
80°	528.1	552.5	416.8	357.8	404.7	399.7
82.5°	394.6	487.7	354.2	316.7	315.8	279.3
85°	219.3	380.3	288.5	237.3	165.2	160.1
87.5°	61.4	211.4	202.0	134.2	91.6	95.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)