

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: P301570

Luminaire Tested: **GLNA-AF-02-LED-E1-T2R-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301570  
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-02-LED-E1-T2R-7050  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12642.2 lumens  
Efficiency: N/A  
Efficacy: 111.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 113  
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

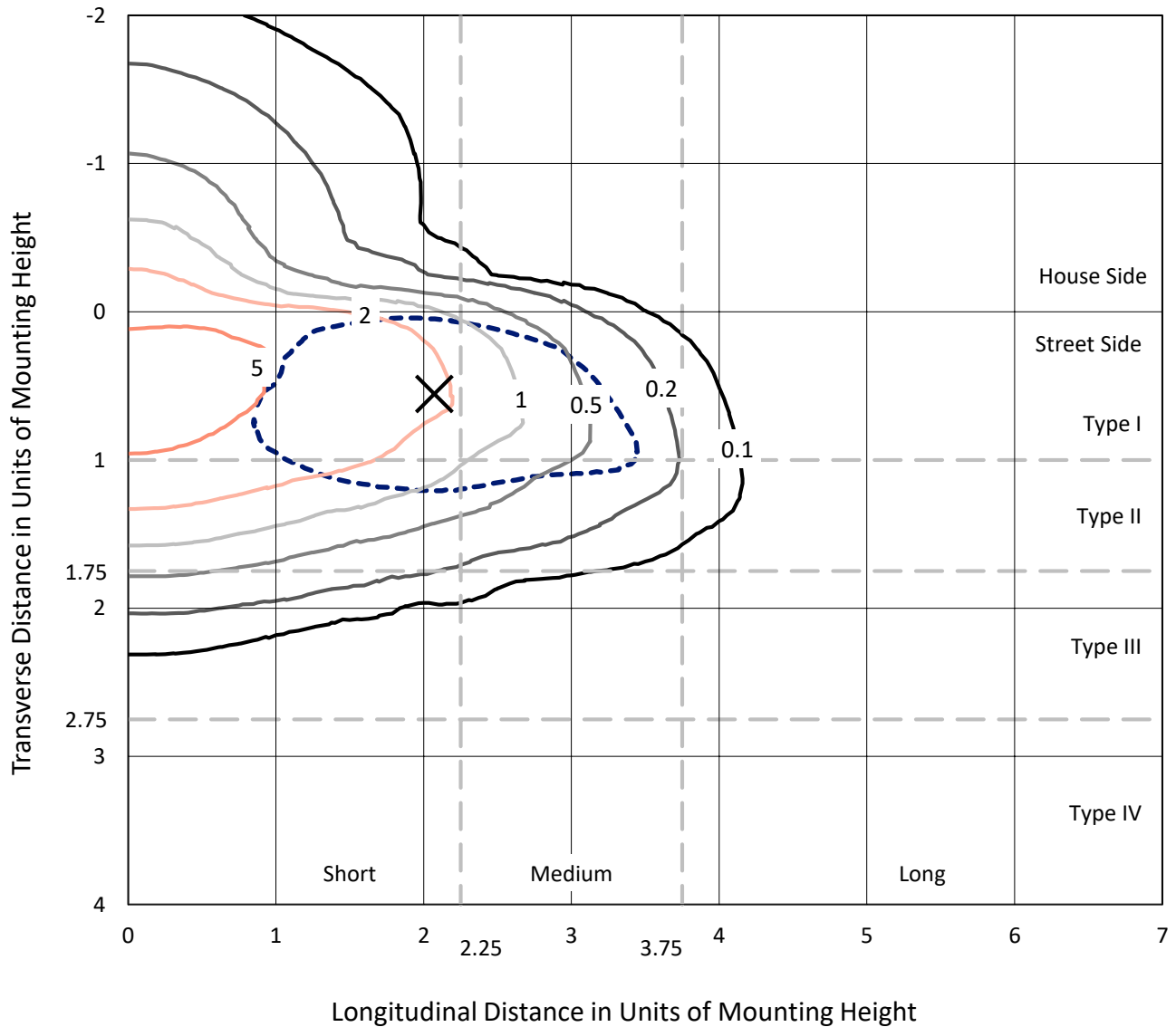


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### Iso-Footcandle Lines of Horizontal Illumination

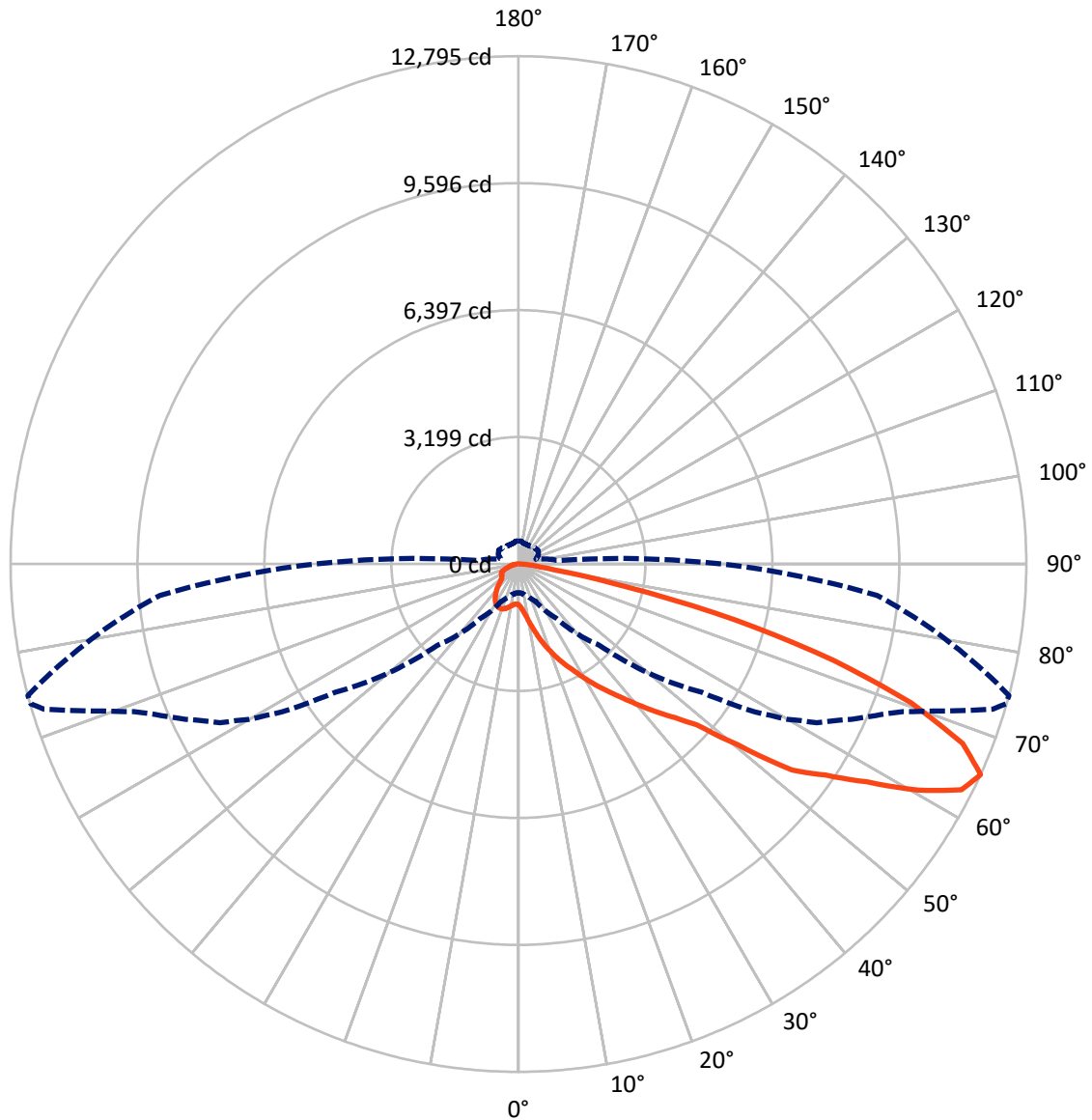
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8 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	1949.1	0.0	1949.1
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	10693.1	0.0	10693.1
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	12642.2	0.0	12642.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.0	1.0
10°-20°	496.2	3.9
20°-30°	1018.0	8.1
30°-40°	1712.8	13.5
40°-50°	2366.6	18.7
50°-60°	2954.2	23.4
60°-70°	2658.4	21.0
70°-80°	1114.4	8.8
80°-90°	194.7	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°	12642.2	100.0
0°-180°	12642.2	100.0



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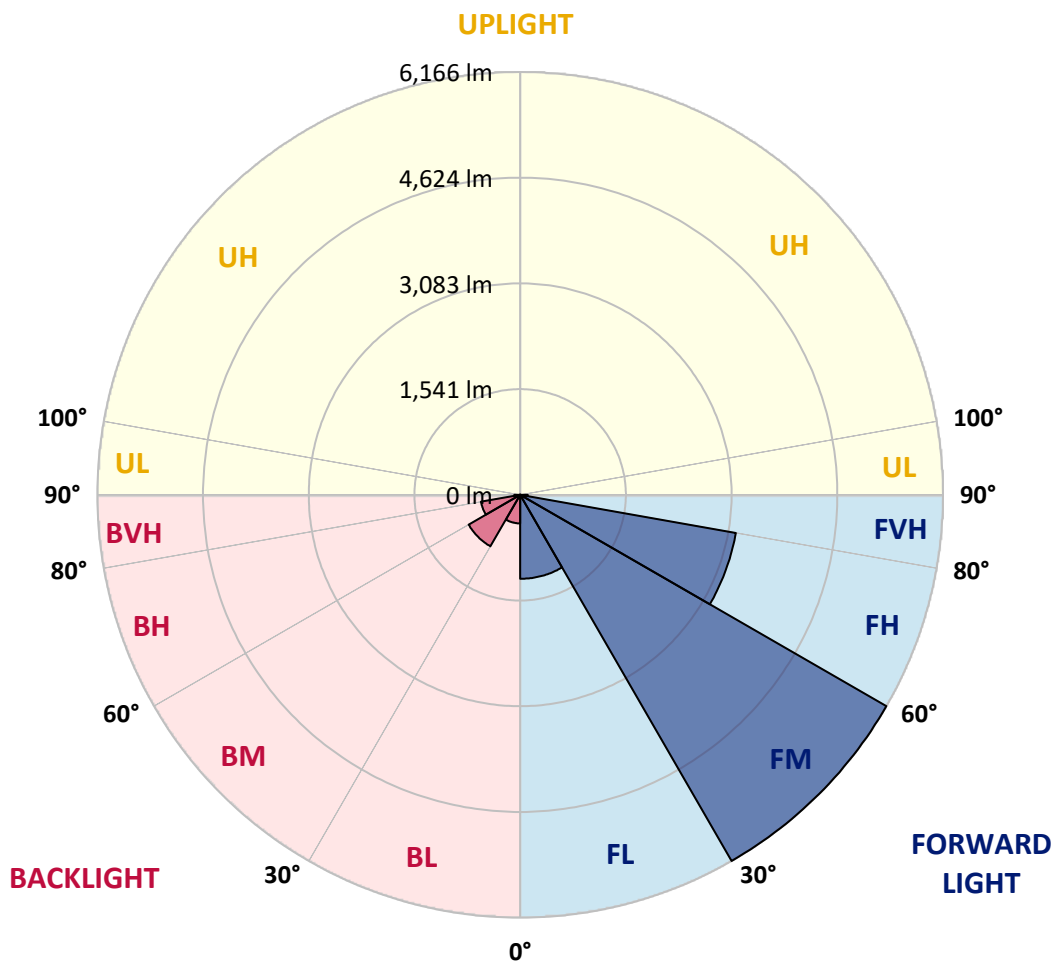
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1224.4	9.7			
FM	(30°-60°)	6165.9	48.8			
FH	(60°-80°)	3193.4	25.3			G2/5000
FVH	(80°-90°)	109.4	0.9			G2/225
BL	(0°-30°)	416.8	3.3	B1/500		
BM	(30°-60°)	867.6	6.9	B1/1000		
BH	(60°-80°)	579.5	4.6	B2/1000		G2/1000
BVH	(80°-90°)	85.3	0.7			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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4
2.5°	1304.5	1290.1	1293.7	1269.7	1240.4	1202.1	1159.7	1159.1	1159.7	1155.4	1140.0
5°	1808.8	1791.6	1785.0	1731.1	1652.1	1539.7	1417.6	1404.5	1399.0	1385.3	1353.5
7.5°	2177.0	2167.4	2157.1	2116.4	2044.7	1919.1	1755.0	1727.0	1700.0	1693.4	1657.6
10°	2414.5	2412.0	2390.5	2379.7	2335.0	2226.0	2066.2	2039.2	2009.9	1999.8	1962.0
12.5°	2602.3	2601.8	2591.6	2594.7	2555.6	2476.8	2339.0	2314.5	2293.1	2261.8	2235.0
15°	2732.2	2732.8	2747.8	2764.5	2758.5	2705.2	2576.0	2565.2	2546.7	2525.3	2493.5
17.5°	2838.7	2841.8	2857.2	2887.7	2920.7	2916.5	2814.2	2805.2	2789.0	2759.7	2743.1
20°	3079.3	3090.6	3060.8	3060.8	3064.3	3080.5	3031.3	3024.2	3001.5	2985.9	2972.8
22.5°	3485.6	3498.7	3431.1	3362.4	3294.8	3245.6	3196.6	3205.5	3190.0	3179.2	3171.4
25°	4013.3	4023.6	3914.1	3798.0	3660.2	3480.8	3359.4	3353.9	3345.5	3339.0	3335.4
27.5°	4510.0	4514.2	4410.8	4240.7	4080.9	3823.0	3524.5	3517.9	3507.8	3495.2	3484.3
30°	4934.9	4933.7	4827.2	4665.0	4493.8	4208.4	3775.3	3754.9	3724.9	3690.8	3664.5
32.5°	5302.9	5301.1	5184.3	5016.2	4836.8	4590.2	4118.8	4076.9	4030.2	3963.6	3923.7
35°	5592.4	5591.4	5481.1	5305.9	5100.0	4949.9	4512.5	4461.0	4401.7	4312.6	4251.0
37.5°	5702.0	5702.0	5640.4	5520.7	5338.8	5235.8	4949.9	4887.5	4824.2	4723.0	4653.6
40°	5637.9	5639.1	5652.3	5630.2	5541.7	5462.7	5357.9	5320.8	5266.4	5175.5	5103.0
42.5°	5423.1	5429.7	5517.2	5624.2	5668.4	5656.0	5719.9	5703.2	5664.9	5594.9	5537.4
45°	5150.8	5171.2	5266.9	5469.2	5703.7	5822.8	6023.3	6025.0	6017.9	5980.3	5935.9
47.5°	4777.0	4805.5	4931.9	5205.3	5621.2	5985.1	6331.4	6347.6	6362.7	6338.2	6317.7
50°	4280.3	4314.4	4503.4	4866.1	5453.1	6153.2	6913.6	6986.8	7054.9	7046.6	7060.3
52.5°	3748.3	3788.4	4019.9	4423.9	5164.1	6192.1	7285.9	7405.0	7524.1	7621.6	7725.0
55°	3268.3	3246.8	3478.5	3903.8	4688.9	6016.7	7620.5	7764.1	7896.9	8016.5	8139.9
57.5°	2617.9	2653.2	2885.4	3306.1	4060.0	5521.8	7850.7	8060.9	8251.7	8449.8	8624.5
60°	1913.6	1948.9	2200.8	2628.0	3377.3	4771.5	7674.8	7993.3	8298.9	8602.3	8839.3
62.5°	1155.4	1181.9	1403.7	1810.8	2604.2	3881.8	6890.9	7308.6	7758.6	8121.2	8484.4
65°	719.3	734.2	816.2	1040.0	1672.5	2898.0	5630.2	6085.6	6570.2	7030.4	7408.0
67.5°	588.8	594.1	609.2	657.0	918.4	1889.8	4190.5	4593.8	5031.2	5476.3	5896.5
70°	529.5	526.0	526.0	529.0	588.8	1016.1	2743.6	3006.3	3370.7	3757.9	4142.0
72.5°	478.0	474.5	467.9	459.0	480.5	619.9	1418.1	1616.2	1878.9	2223.0	2590.9
75°	429.6	424.8	417.1	405.8	420.7	467.9	680.9	764.2	892.2	1075.4	1280.6
77.5°	379.3	373.3	366.2	357.9	377.0	363.9	399.0	429.0	478.0	536.8	614.0
80°	322.5	317.2	314.7	310.6	333.4	277.1	281.9	300.3	329.1	360.9	396.7
82.5°	252.6	252.6	262.0	264.0	289.0	199.3	210.7	226.9	241.8	258.5	275.3
85°	166.3	167.6	199.9	212.5	227.9	134.0	158.0	163.3	175.4	185.0	192.1
87.5°	52.0	56.3	122.1	135.3	131.0	76.0	96.9	99.4	107.7	114.3	120.4
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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**CANDELA DISTRIBUTION (continued):**

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4
2.5°	1140.0	1132.7	1126.1	1125.6	1120.8	1114.2	1116.5	1106.4	1106.9	1101.6	1095.6
5°	1340.4	1335.6	1311.6	1305.1	1287.1	1275.8	1274.0	1250.0	1247.0	1233.3	1218.2
7.5°	1628.8	1613.2	1579.7	1563.5	1533.0	1510.3	1499.6	1467.8	1452.2	1416.3	1400.2
10°	1930.9	1911.2	1869.9	1847.2	1817.9	1781.3	1761.6	1715.6	1697.5	1664.7	1625.3
12.5°	2211.1	2191.4	2148.8	2131.4	2092.5	2053.6	2032.1	1980.1	1956.7	1904.0	1872.9
15°	2470.0	2450.3	2413.2	2395.3	2356.4	2324.7	2295.9	2244.6	2217.1	2167.9	2127.3
17.5°	2721.4	2700.5	2668.1	2652.0	2614.4	2582.1	2551.0	2502.4	2474.3	2425.3	2388.7
20°	2954.8	2939.2	2915.9	2894.3	2856.7	2827.4	2790.3	2748.4	2707.7	2671.7	2637.1
22.5°	3158.3	3152.2	3127.2	3117.6	3085.3	3060.1	3027.8	2986.6	2957.1	2911.7	2879.4
25°	3333.6	3331.9	3319.8	3316.8	3294.0	3270.1	3263.0	3228.9	3201.9	3161.8	3128.4
27.5°	3484.3	3486.1	3483.3	3491.6	3485.6	3474.7	3475.5	3464.1	3448.5	3414.9	3385.6
30°	3651.9	3642.3	3647.8	3659.7	3663.3	3664.5	3684.2	3690.8	3689.7	3667.5	3653.1
32.5°	3888.9	3866.2	3845.2	3843.4	3855.3	3860.1	3893.7	3911.1	3926.0	3931.3	3933.8
35°	4191.0	4145.6	4101.9	4078.6	4058.2	4063.5	4087.5	4115.7	4148.6	4171.3	4198.3
37.5°	4571.6	4516.0	4438.8	4383.8	4369.9	4340.1	4355.6	4377.7	4410.0	4445.4	4492.1
40°	5032.9	4948.6	4861.8	4788.9	4749.4	4694.2	4693.7	4689.4	4709.3	4742.2	4808.0
42.5°	5477.1	5402.1	5310.0	5233.5	5182.0	5108.4	5093.5	5054.6	5063.5	5092.2	5156.3
45°	5892.8	5831.2	5774.9	5686.5	5642.7	5563.2	5537.9	5492.0	5466.2	5479.4	5543.4
47.5°	6295.6	6256.1	6197.4	6140.1	6106.5	6035.3	6003.0	5970.0	5937.2	5935.9	6003.0
50°	7080.7	7059.7	6990.3	6930.5	6946.7	6859.3	6864.7	6776.1	6816.2	6821.0	6961.6
52.5°	7818.4	7891.5	7943.0	8005.7	8046.5	8054.3	8081.1	8121.2	8169.7	8265.4	8395.8
55°	8240.9	8332.5	8385.7	8433.7	8512.6	8529.3	8574.2	8627.5	8669.9	8777.7	8888.4
57.5°	8743.1	8912.9	8995.5	9071.4	9178.0	9218.6	9293.5	9351.6	9406.6	9534.0	9668.1
60°	9052.3	9259.4	9427.5	9547.7	9681.2	9777.0	9890.1	9981.0	10110.2	10262.9	10462.8
62.5°	8806.4	9110.3	9333.6	9540.1	9721.3	9904.5	10066.6	10236.6	10432.8	10663.7	10973.8
65°	7826.9	8136.2	8518.5	8732.8	8972.8	9255.2	9501.7	9777.0	10044.4	10380.8	10839.1
67.5°	6301.1	6660.5	7090.3	7306.3	7582.1	7897.4	8174.0	8510.2	8822.6	9230.0	9796.8
70°	4541.8	5006.7	5368.1	5593.7	5915.7	6240.5	6507.5	6898.7	7157.2	7574.9	8160.8
72.5°	2875.8	3242.6	3685.5	3969.6	4255.6	4584.9	4857.7	5195.2	5436.2	5816.8	6347.6
75°	1546.3	1816.6	2205.6	2475.5	2781.9	3063.1	3382.6	3608.8	3787.2	4088.2	4519.0
77.5°	724.6	889.1	1086.0	1293.7	1501.4	1717.9	1928.6	2111.7	2188.3	2360.7	2614.9
80°	439.9	493.1	550.5	614.5	701.3	771.3	864.1	931.0	935.8	990.3	1068.1
82.5°	293.8	313.5	330.9	347.0	369.2	386.6	406.3	429.6	439.2	451.8	477.0
85°	200.4	210.0	213.5	223.8	221.4	227.4	235.2	243.0	247.1	246.6	257.9
87.5°	123.2	128.0	130.5	132.8	131.0	128.7	132.2	136.5	137.6	134.0	135.3
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):**

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4
2.5°	1096.8	1091.5	1086.0	1082.5	1081.2	1049.6	1035.8	1026.9	1007.7	992.1	979.5
5°	1209.9	1198.5	1189.7	1178.8	1172.8	1092.6	1063.3	1043.0	1009.5	989.8	971.7
7.5°	1391.9	1360.1	1341.6	1320.7	1302.7	1157.9	1109.4	1077.7	1031.0	1004.7	984.3
10°	1598.3	1565.5	1536.0	1503.7	1475.6	1244.7	1174.0	1124.9	1063.3	1029.2	1002.2
12.5°	1828.7	1796.4	1759.3	1717.9	1682.1	1354.8	1256.6	1186.7	1102.2	1056.7	1019.1
15°	2101.0	2044.0	1999.1	1951.4	1909.5	1486.5	1353.0	1256.1	1143.5	1081.9	1031.7
17.5°	2354.0	2294.1	2233.2	2191.4	2142.9	1634.2	1449.9	1326.5	1177.6	1098.1	1034.0
20°	2601.2	2535.9	2483.4	2427.1	2376.1	1787.3	1553.4	1388.8	1199.8	1098.6	1019.1
22.5°	2819.0	2778.2	2719.6	2658.6	2607.1	1940.5	1650.3	1441.6	1208.1	1084.9	992.6
25°	3066.7	3023.7	2951.8	2900.3	2843.0	2096.7	1745.5	1482.2	1203.3	1059.2	952.0
27.5°	3331.1	3283.4	3209.7	3155.9	3086.5	2258.8	1832.8	1511.5	1185.4	1017.3	897.5
30°	3607.0	3563.3	3490.9	3436.6	3366.5	2430.6	1930.4	1531.2	1149.6	959.3	834.1
32.5°	3903.3	3866.7	3795.0	3738.2	3663.3	2616.7	2021.3	1537.2	1095.1	890.4	767.2
35°	4184.4	4159.4	4098.9	4045.6	3967.9	2792.6	2117.7	1534.2	1030.4	814.9	706.1
37.5°	4501.1	4486.0	4456.2	4388.6	4293.4	3031.3	2233.2	1521.6	951.5	740.2	659.4
40°	4838.6	4839.8	4807.5	4761.3	4672.8	3321.0	2370.8	1497.1	865.2	674.4	616.8
42.5°	5195.7	5214.3	5198.7	5165.9	5080.9	3613.0	2535.4	1467.3	781.6	610.3	575.1
45°	5605.0	5627.8	5651.7	5603.3	5520.7	3998.4	2751.9	1428.4	691.0	557.0	546.4
47.5°	6077.2	6113.1	6134.6	6135.3	6052.7	4475.9	3103.8	1405.0	611.0	521.2	532.5
50°	7073.4	7084.9	7135.7	7224.3	7160.9	5581.1	3718.3	1390.6	556.5	499.0	522.4
52.5°	8508.9	8634.1	8722.1	8716.1	8629.8	6283.0	4057.0	1316.4	524.2	490.6	517.6
55°	9093.6	9249.8	9412.6	9455.6	9388.7	6882.0	4377.2	1242.2	508.6	496.7	519.4
57.5°	9872.7	10136.0	10359.3	10453.2	10356.3	7648.5	4798.4	1203.3	503.8	512.8	530.8
60°	10782.8	11108.4	11401.6	11570.3	11570.3	8529.3	5235.3	1187.2	497.2	536.8	549.9
62.5°	11367.5	11845.6	12288.5	12535.5	12528.3	9142.6	5429.1	1132.2	482.3	553.5	576.2
65°	11369.8	11938.4	12502.5	12780.3	12794.5	9067.4	5109.1	999.9	454.8	556.0	602.6
67.5°	10422.1	11028.1	11685.8	11996.5	12068.2	8346.9	4422.7	822.2	409.9	532.0	612.2
70°	8802.2	9394.0	10065.3	10370.6	10498.1	7115.3	3562.1	633.7	352.5	479.3	592.3
72.5°	6934.6	7515.0	7982.4	8205.6	8305.0	5438.7	2593.9	478.7	289.0	403.8	539.1
75°	4909.7	5345.3	5593.7	5643.4	5658.8	3278.6	1576.1	356.1	238.2	314.2	455.3
77.5°	2771.1	2957.8	2937.4	2959.6	2775.4	1265.6	686.4	254.9	196.3	238.8	353.1
80°	1081.9	1115.5	1047.8	1026.9	941.9	470.9	302.8	177.7	156.7	180.7	247.1
82.5°	477.0	492.4	478.0	481.8	460.8	243.0	181.2	128.7	119.6	132.2	164.0
85°	262.7	267.5	266.3	274.1	262.7	96.9	86.1	79.0	83.8	89.8	105.3
87.5°	128.0	129.2	125.1	131.7	127.5	49.0	42.4	44.9	49.0	50.2	50.2
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):**

	135°	145°	155°	165°	175°	180°
0°	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4
2.5°	970.6	965.8	966.4	965.1	962.8	962.8
5°	962.3	957.5	957.5	956.2	953.2	953.8
7.5°	970.6	962.8	959.8	955.5	951.5	951.5
10°	980.2	966.4	958.0	950.9	945.4	945.4
12.5°	987.3	965.8	952.0	942.4	937.1	937.1
15°	989.8	961.6	942.4	931.0	926.2	925.7
17.5°	982.0	945.4	922.2	909.0	903.0	901.2
20°	958.0	916.1	888.1	873.0	864.6	861.6
22.5°	922.2	874.2	841.4	825.8	814.9	813.2
25°	871.9	820.4	788.1	773.1	767.2	765.2
27.5°	813.2	765.2	737.7	728.1	722.8	722.3
30°	757.6	716.8	696.5	689.3	682.7	681.6
32.5°	705.4	679.7	672.1	661.8	646.3	644.5
35°	668.3	666.0	660.7	637.8	618.8	613.3
37.5°	645.6	667.8	640.3	595.4	581.7	580.5
40°	632.5	649.3	601.9	586.5	587.6	586.5
42.5°	602.6	619.9	603.2	596.1	600.7	601.9
45°	572.6	591.8	612.2	607.4	618.8	618.8
47.5°	556.0	584.5	611.5	611.5	628.4	634.2
50°	536.8	578.7	601.9	610.3	623.6	618.8
52.5°	535.5	568.4	588.3	603.2	609.2	603.7
55°	537.3	560.0	574.4	591.3	598.4	598.9
57.5°	539.8	555.2	564.8	572.6	594.1	594.1
60°	545.7	551.2	556.5	560.8	588.8	589.3
62.5°	555.2	546.9	545.7	549.9	585.8	583.5
65°	570.3	540.9	532.0	536.1	582.8	575.7
67.5°	590.6	532.0	514.6	517.6	580.5	564.8
70°	609.2	517.6	493.1	490.1	557.7	530.2
72.5°	611.0	500.9	463.1	454.2	484.8	458.3
75°	581.0	489.4	430.3	403.8	400.3	396.7
77.5°	523.7	482.8	391.9	350.6	343.5	345.8
80°	438.1	458.3	345.8	296.8	335.7	331.6
82.5°	327.3	404.5	293.8	262.7	262.0	231.6
85°	181.9	315.4	239.3	196.9	137.0	132.8
87.5°	50.9	175.4	167.6	111.3	76.0	79.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)