

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: P301654

Luminaire Tested: **GLNA-AF-06-LED-E1-T2R-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301654  
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-06-LED-E1-T2R-7050-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(6) 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: 29857.5 lumens  
Efficiency: N/A  
Efficacy: 119.9 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B3 - U0 - G4

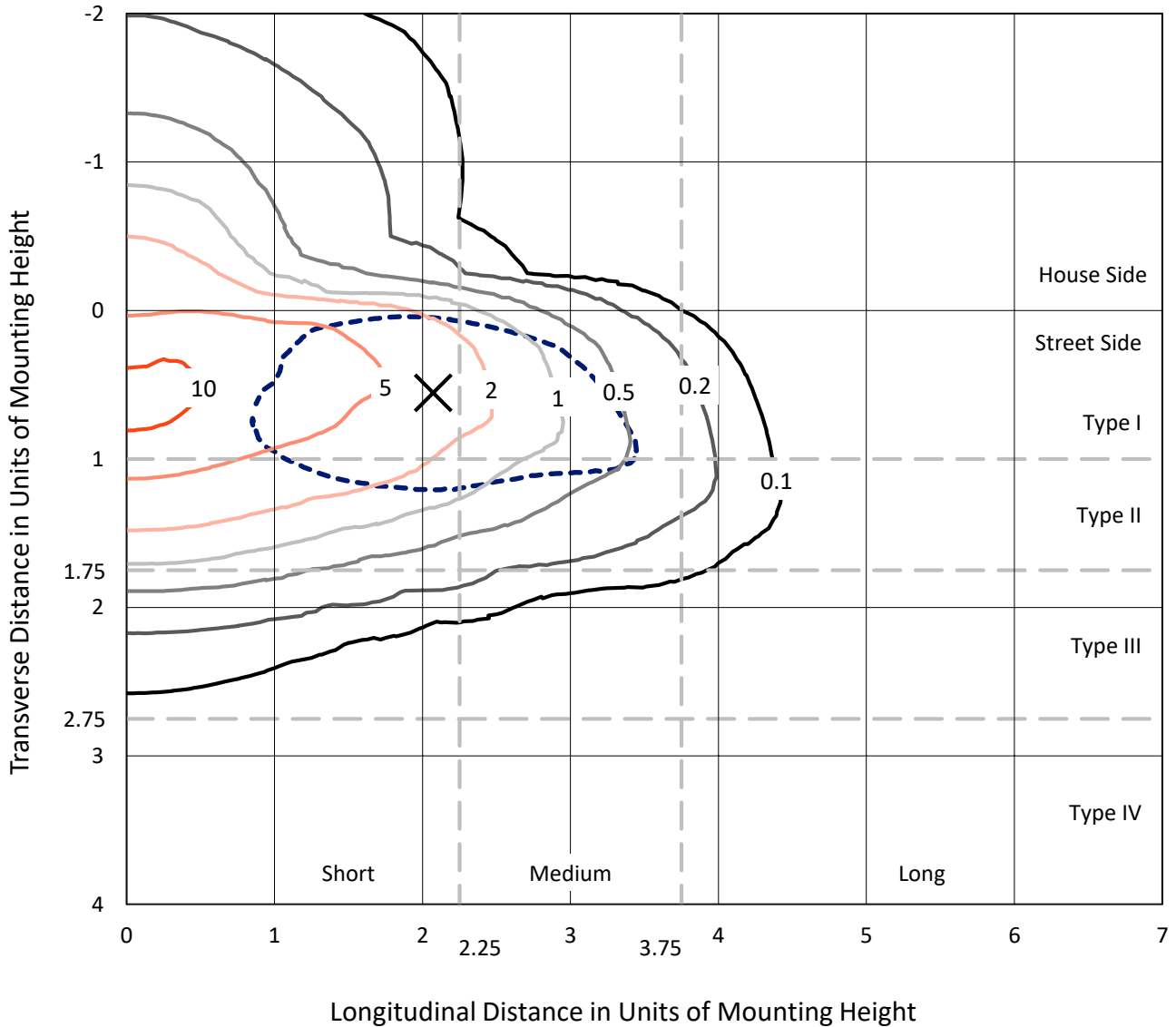
Input Watts (W): 249  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

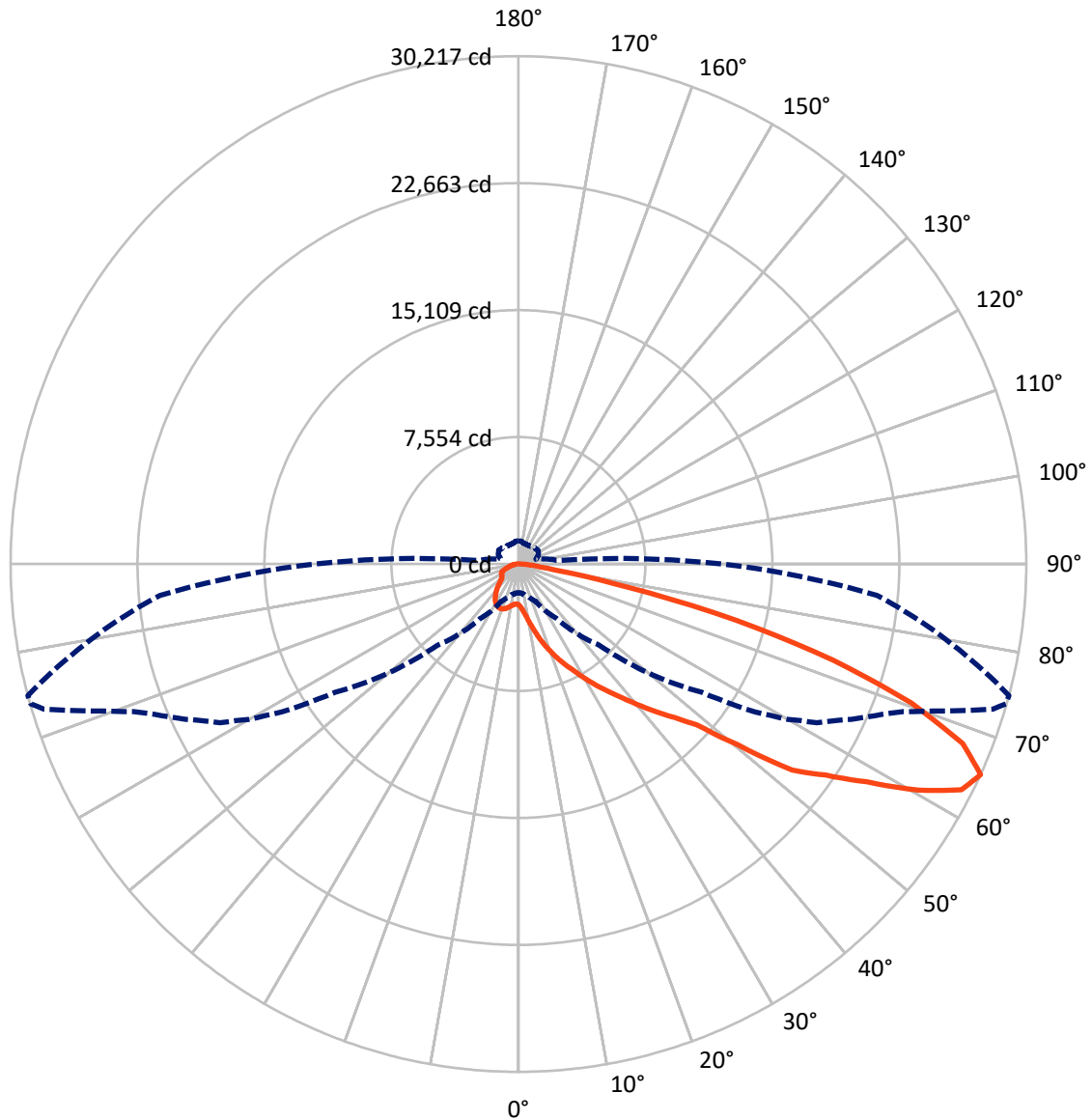
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.1 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	4603.3	0.0	4603.3
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	25254.1	0.0	25254.1
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	29857.5	0.0	29857.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	299.9	1.0
10°-20°	1171.9	3.9
20°-30°	2404.3	8.1
30°-40°	4045.1	13.5
40°-50°	5589.2	18.7
50°-60°	6976.9	23.4
60°-70°	6278.5	21.0
70°-80°	2631.9	8.8
80°-90°	459.8	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°	29857.5	100.0
0°-180°	29857.5	100.0



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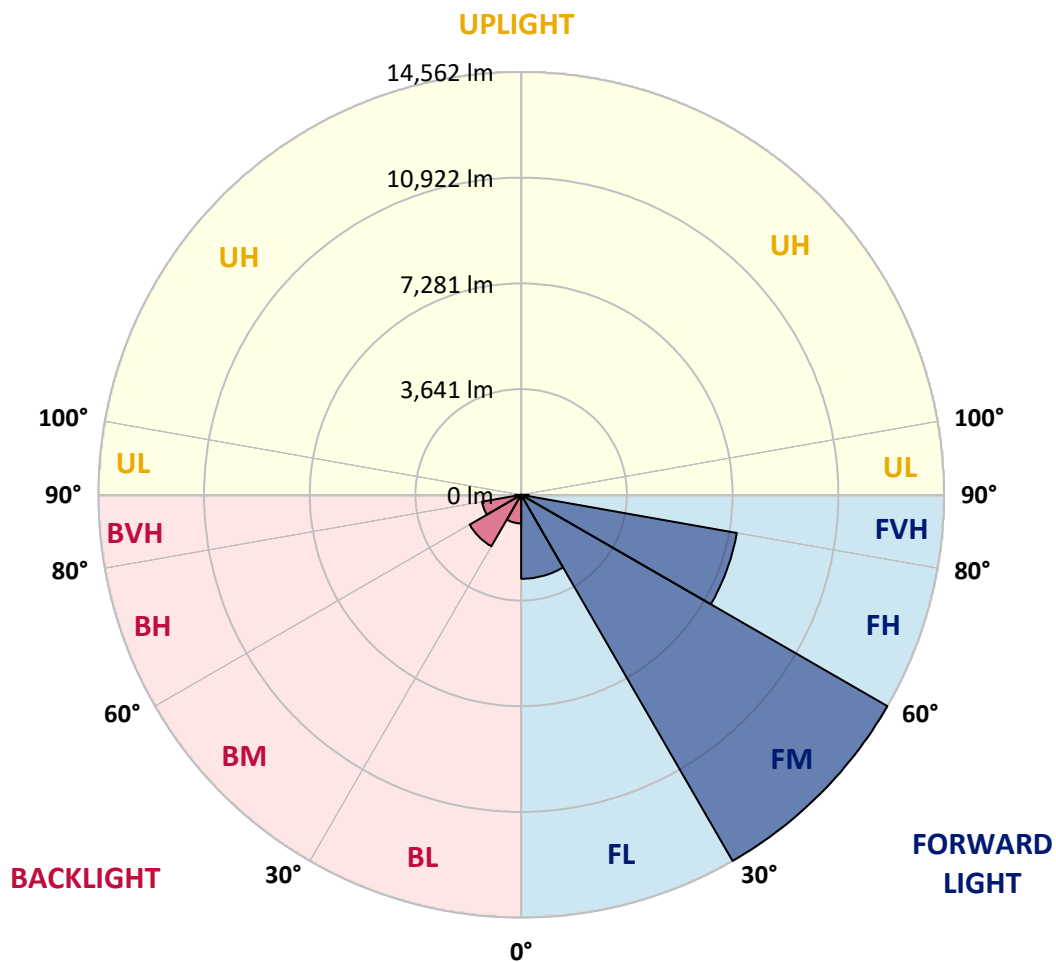
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2891.6	9.7			
FM (30°-60°)	14562.2	48.8			
FH (60°-80°)	7541.9	25.3			G4/12000
FVH (80°-90°)	258.5	0.9			G3/500
BL (0°-30°)	984.5	3.3	B2/1000		
BM (30°-60°)	2049.0	6.9	B2/2500		
BH (60°-80°)	1368.5	4.6	B3/2500		G3/2500
BVH (80°-90°)	201.4	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5
2.5°	3080.9	3047.0	3055.3	2998.7	2929.6	2839.0	2738.8	2737.6	2738.8	2728.8	2692.3
5°	4271.9	4231.3	4215.8	4088.3	3901.8	3636.4	3348.0	3316.9	3303.9	3271.7	3196.6
7.5°	5141.4	5118.8	5094.5	4998.5	4829.1	4532.3	4144.9	4078.7	4014.9	3999.4	3914.8
10°	5702.3	5696.5	5645.7	5620.2	5514.5	5257.1	4879.8	4816.1	4746.9	4723.0	4633.7
12.5°	6145.9	6144.6	6120.7	6127.9	6035.6	5849.5	5524.2	5466.3	5415.6	5341.8	5278.5
15°	6452.8	6454.0	6489.7	6529.1	6514.8	6389.0	6083.8	6058.3	6014.7	5963.9	5888.9
17.5°	6704.3	6711.4	6747.9	6820.0	6898.0	6887.9	6646.4	6625.1	6586.9	6517.7	6478.3
20°	7272.4	7299.2	7228.8	7228.8	7237.1	7275.3	7159.2	7142.4	7088.7	7051.8	7020.8
22.5°	8232.0	8263.0	8103.3	7941.0	7781.3	7665.2	7549.5	7570.4	7534.0	7508.4	7489.9
25°	9478.3	9502.6	9244.0	8969.8	8644.5	8220.6	7933.9	7920.9	7901.2	7885.7	7877.3
27.5°	10651.3	10661.4	10417.0	10015.4	9638.1	9028.9	8323.8	8308.3	8284.4	8254.6	8229.0
30°	11655.0	11652.0	11400.5	11017.3	10613.2	9939.1	8916.1	8867.9	8797.1	8716.6	8654.5
32.5°	12524.0	12519.8	12244.0	11847.0	11423.1	10840.8	9727.4	9628.4	9518.2	9360.9	9266.6
35°	13207.8	13205.3	12944.9	12531.2	12044.8	11690.2	10657.2	10535.6	10395.6	10185.1	10039.7
37.5°	13466.4	13466.4	13321.0	13038.4	12608.7	12365.6	11690.2	11543.0	11393.4	11154.4	10990.5
40°	13315.1	13318.0	13349.1	13297.1	13087.9	12901.3	12654.0	12566.4	12437.7	12223.0	12052.0
42.5°	12807.8	12823.4	13030.0	13282.8	13387.2	13357.9	13508.8	13469.4	13378.8	13213.7	13077.8
45°	12164.7	12213.0	12438.9	12916.8	13470.6	13751.9	14225.3	14229.4	14212.7	14123.8	14019.0
47.5°	11281.9	11349.3	11647.8	12293.4	13275.7	14135.1	14953.0	14991.2	15026.8	14969.0	14920.8
50°	10108.9	10189.3	10635.8	11492.3	12878.7	14532.1	16328.1	16500.8	16661.8	16642.1	16674.4
52.5°	8852.4	8947.2	9493.8	10448.0	12196.2	14623.9	17207.2	17488.5	17769.8	18000.0	18244.4
55°	7718.8	7668.1	8215.2	9219.7	11073.9	14209.7	17997.5	18336.6	18650.2	18932.8	19224.1
57.5°	6182.8	6266.2	6814.6	7808.1	9588.6	13040.9	18541.2	19037.6	19488.2	19956.1	20368.6
60°	4519.3	4602.7	5197.6	6206.7	7976.2	11268.9	18125.8	18877.8	19599.8	20316.2	20875.9
62.5°	2728.8	2791.2	3315.3	4276.5	6150.5	9167.7	16274.4	17260.9	18323.6	19180.1	20037.9
65°	1698.7	1733.9	1927.6	2456.3	3950.0	6844.3	13297.1	14372.4	15516.9	16604.0	17495.7
67.5°	1390.6	1403.2	1438.8	1551.6	2169.1	4463.1	9896.7	10849.2	11882.2	12933.6	13925.9
70°	1250.6	1242.2	1242.2	1249.3	1390.6	2399.7	6479.6	7100.0	7960.7	8875.1	9782.3
72.5°	1129.0	1120.6	1105.1	1084.1	1134.9	1463.9	3349.2	3817.1	4437.5	5250.0	6119.1
75°	1014.5	1003.2	985.2	958.4	993.6	1105.1	1608.2	1804.8	2107.0	2539.7	3024.3
77.5°	895.9	881.6	864.9	845.2	890.4	859.4	942.4	1013.3	1129.0	1267.7	1450.1
80°	761.7	749.2	743.3	733.6	787.3	654.4	665.7	709.3	777.2	852.3	937.0
82.5°	596.6	596.6	618.8	623.4	682.5	470.8	497.6	535.8	571.0	610.4	650.2
85°	392.8	395.8	472.1	501.8	538.3	316.5	373.1	385.7	414.2	436.8	453.6
87.5°	122.8	132.9	288.4	319.5	309.4	179.4	228.9	234.8	254.5	270.0	284.2
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):**

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5
2.5°	2692.3	2675.1	2659.6	2658.3	2647.0	2631.5	2636.9	2613.0	2614.3	2601.7	2587.5
5°	3165.6	3154.3	3097.7	3082.2	3039.8	3013.0	3008.8	2952.2	2945.1	2912.8	2877.2
7.5°	3846.8	3809.9	3730.7	3692.6	3620.5	3566.8	3541.6	3466.6	3429.7	3345.0	3306.9
10°	4560.4	4513.8	4416.2	4362.5	4293.3	4207.0	4160.4	4051.8	4009.1	3931.5	3838.5
12.5°	5221.9	5175.4	5074.8	5033.7	4941.9	4850.1	4799.3	4676.5	4621.2	4496.6	4423.3
15°	5833.6	5787.0	5699.4	5657.1	5565.3	5490.2	5422.3	5301.1	5236.2	5120.0	5024.0
17.5°	6427.2	6377.7	6301.4	6263.3	6174.4	6098.1	6024.7	5909.9	5843.6	5727.9	5641.6
20°	6978.5	6941.6	6886.7	6835.5	6746.6	6677.5	6589.8	6490.9	6394.9	6309.8	6228.1
22.5°	7458.9	7444.7	7385.5	7362.9	7286.6	7227.1	7150.8	7053.5	6983.9	6876.6	6800.3
25°	7873.1	7868.9	7840.4	7833.3	7779.6	7723.0	7706.3	7625.8	7562.0	7467.3	7388.5
27.5°	8229.0	8233.2	8226.5	8246.2	8232.0	8206.4	8208.1	8181.2	8144.3	8065.1	7995.9
30°	8624.8	8602.1	8615.1	8643.2	8651.6	8654.5	8701.1	8716.6	8714.1	8661.7	8627.7
32.5°	9184.5	9130.8	9081.3	9077.1	9105.2	9116.5	9195.8	9236.9	9272.1	9284.6	9290.5
35°	9898.0	9790.7	9687.5	9632.6	9584.4	9597.0	9653.6	9720.2	9797.8	9851.4	9915.2
37.5°	10796.8	10665.6	10483.2	10353.3	10320.6	10250.1	10286.6	10339.0	10415.3	10498.7	10609.0
40°	11886.4	11687.2	11482.2	11309.9	11216.9	11086.5	11085.2	11075.2	11122.1	11199.7	11355.2
42.5°	12935.3	12758.4	12540.8	12360.1	12238.5	12064.6	12029.3	11937.5	11958.5	12026.4	12177.7
45°	13917.1	13771.6	13638.8	13430.0	13326.4	13138.6	13079.1	12970.5	12909.7	12940.7	13092.1
47.5°	14868.3	14775.3	14636.5	14501.1	14421.9	14253.8	14177.5	14099.5	14021.9	14019.0	14177.5
50°	16722.6	16673.1	16509.2	16367.9	16406.1	16199.8	16212.4	16003.2	16097.9	16109.3	16441.3
52.5°	18464.9	18637.6	18759.2	18907.2	19003.6	19022.1	19085.4	19180.1	19294.6	19520.5	19828.7
55°	19462.7	19679.0	19804.8	19918.0	20104.5	20143.9	20250.0	20375.7	20475.9	20730.4	20992.0
57.5°	20648.7	21049.9	21244.8	21424.2	21675.8	21771.8	21948.7	22085.8	22215.7	22516.7	22833.3
60°	21379.0	21868.2	22265.2	22549.0	22864.3	23090.7	23357.7	23572.4	23877.6	24238.1	24710.2
62.5°	20798.3	21516.1	22043.4	22531.0	22959.0	23391.7	23774.4	24176.1	24639.3	25184.7	25917.1
65°	18485.0	19215.3	20118.3	20624.4	21191.1	21858.1	22440.4	23090.7	23722.0	24516.5	25598.9
67.5°	14881.3	15730.3	16745.2	17255.4	17906.9	18651.5	19304.6	20098.6	20836.5	21798.6	23137.2
70°	10726.4	11824.3	12677.9	13210.7	13971.2	14738.4	15368.9	16292.9	16903.3	17889.7	19273.6
72.5°	6791.9	7658.0	8704.0	9375.2	10050.6	10828.2	11472.6	12269.6	12838.9	13737.7	14991.2
75°	3651.9	4290.4	5208.9	5846.6	6570.1	7234.2	7988.8	8522.9	8944.2	9655.2	10672.7
77.5°	1711.3	2099.9	2564.8	3055.3	3545.8	4057.3	4554.9	4987.1	5168.2	5575.3	6175.7
80°	1038.8	1164.6	1300.0	1451.4	1656.4	1821.5	2040.8	2198.9	2210.2	2338.9	2522.5
82.5°	693.8	740.4	781.4	819.6	872.0	913.1	959.6	1014.5	1037.2	1066.9	1126.5
85°	473.3	495.9	504.3	528.6	522.8	537.0	555.5	573.9	583.6	582.3	609.1
87.5°	290.9	302.3	308.1	313.6	309.4	303.9	312.3	322.4	324.9	316.5	319.5
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°	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5
2.5°	2590.4	2577.8	2564.8	2556.5	2553.5	2478.9	2446.2	2425.2	2380.0	2343.1	2313.3
5°	2857.5	2830.6	2809.7	2784.1	2769.8	2580.3	2511.2	2463.4	2384.2	2337.6	2294.9
7.5°	3287.2	3212.1	3168.5	3119.1	3076.7	2734.6	2620.2	2545.1	2434.9	2372.8	2324.6
10°	3774.7	3697.2	3627.6	3551.3	3485.0	2939.6	2772.8	2656.6	2511.2	2430.7	2367.0
12.5°	4318.9	4242.6	4155.0	4057.3	3972.6	3199.5	2967.7	2802.5	2603.0	2495.7	2406.8
15°	4962.0	4827.4	4721.3	4608.6	4509.6	3510.6	3195.4	2966.5	2700.7	2555.2	2436.6
17.5°	5559.4	5418.1	5274.3	5175.4	5060.9	3859.4	3424.3	3132.9	2781.2	2593.3	2442.0
20°	6143.4	5989.1	5865.0	5732.1	5611.8	4221.2	3668.7	3280.0	2833.6	2594.6	2406.8
22.5°	6657.8	6561.3	6423.0	6278.8	6157.2	4583.0	3897.6	3404.6	2853.3	2562.3	2344.3
25°	7242.6	7141.1	6971.3	6849.8	6714.4	4951.9	4122.3	3500.6	2841.9	2501.5	2248.3
27.5°	7867.2	7754.5	7580.5	7453.5	7289.5	5334.7	4328.5	3569.7	2799.6	2402.6	2119.6
30°	8518.7	8415.6	8244.5	8116.3	7950.7	5740.5	4559.1	3616.3	2714.9	2265.5	1970.0
32.5°	9218.4	9132.0	8962.7	8828.5	8651.6	6179.8	4773.8	3630.5	2586.2	2102.8	1811.9
35°	9882.5	9823.4	9680.4	9554.6	9371.0	6595.3	5001.4	3623.4	2433.6	1924.7	1667.7
37.5°	10630.4	10594.7	10524.3	10364.6	10139.9	7159.2	5274.3	3593.6	2247.1	1748.2	1557.4
40°	11427.3	11430.3	11354.0	11245.0	11035.8	7843.3	5599.2	3535.8	2043.3	1592.6	1456.8
42.5°	12270.8	12314.8	12277.9	12200.4	11999.6	8533.0	5987.8	3465.3	1845.9	1441.3	1358.3
45°	13237.6	13291.2	13347.8	13233.4	13038.4	9443.1	6499.3	3373.5	1632.1	1315.5	1290.4
47.5°	14352.7	14437.4	14488.1	14489.8	14294.8	10570.8	7330.2	3318.2	1443.0	1230.9	1257.7
50°	16705.4	16732.7	16852.6	17061.8	16912.1	13181.0	8781.6	3284.2	1314.3	1178.5	1233.8
52.5°	20095.7	20391.3	20599.2	20584.9	20381.2	14838.6	9581.5	3109.0	1238.0	1158.7	1222.5
55°	21476.6	21845.6	22230.0	22331.4	22173.4	16253.5	10337.7	2933.8	1201.1	1173.0	1226.7
57.5°	23316.6	23938.4	24465.7	24687.5	24458.6	18063.7	11332.6	2841.9	1189.8	1211.2	1253.5
60°	25466.0	26234.9	26927.4	27325.7	27325.7	20143.9	12364.3	2803.8	1174.3	1267.7	1298.8
62.5°	26847.0	27975.9	29021.9	29605.5	29588.3	21592.4	12822.1	2673.8	1139.0	1307.2	1360.8
65°	26852.4	28195.2	29527.5	30183.6	30217.1	21414.6	12066.2	2361.5	1074.1	1313.0	1423.3
67.5°	24614.1	26045.4	27598.6	28332.3	28501.7	19713.0	10445.1	1941.9	968.0	1256.4	1445.9
70°	20788.3	22186.0	23771.5	24492.6	24793.6	16804.3	8412.7	1496.6	832.6	1131.9	1399.0
72.5°	16377.6	17748.4	18852.3	19379.2	19614.0	12844.7	6126.2	1130.7	682.5	953.7	1273.2
75°	11595.4	12624.2	13210.7	13328.1	13364.6	7743.1	3722.3	841.0	562.6	742.0	1075.3
77.5°	6544.6	6985.6	6937.4	6989.8	6554.6	2989.1	1621.2	602.0	463.7	563.9	833.8
80°	2555.2	2634.4	2474.7	2425.2	2224.4	1112.2	715.2	419.6	370.2	426.8	583.6
82.5°	1126.5	1162.9	1129.0	1137.8	1088.3	573.9	428.0	303.9	282.6	312.3	387.4
85°	620.5	631.8	628.8	647.3	620.5	228.9	203.3	186.6	197.9	212.1	248.6
87.5°	302.3	305.2	295.6	311.1	301.0	115.7	100.2	106.1	115.7	118.6	118.6
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°	2426.5	2426.5	2426.5	2426.5	2426.5	2426.5
2.5°	2292.3	2281.0	2282.3	2279.3	2273.9	2273.9
5°	2272.6	2261.3	2261.3	2258.4	2251.3	2252.5
7.5°	2292.3	2273.9	2266.8	2256.7	2247.1	2247.1
10°	2315.0	2282.3	2262.6	2245.8	2232.8	2232.8
12.5°	2331.7	2281.0	2248.3	2225.7	2213.1	2213.1
15°	2337.6	2271.0	2225.7	2198.9	2187.5	2186.3
17.5°	2319.2	2232.8	2177.9	2146.9	2132.6	2128.4
20°	2262.6	2163.6	2097.4	2061.8	2042.1	2034.9
22.5°	2177.9	2064.7	1987.1	1950.2	1924.7	1920.5
25°	2059.2	1937.7	1861.4	1825.7	1811.9	1807.3
27.5°	1920.5	1807.3	1742.3	1719.7	1707.1	1705.8
30°	1789.3	1692.8	1645.1	1627.9	1612.4	1609.8
32.5°	1666.0	1605.2	1587.2	1562.9	1526.4	1522.2
35°	1578.4	1572.9	1560.4	1506.3	1461.4	1448.4
37.5°	1524.7	1577.1	1512.2	1406.1	1373.8	1370.9
40°	1493.7	1533.5	1421.6	1385.1	1387.6	1385.1
42.5°	1423.3	1463.9	1424.5	1407.8	1418.7	1421.6
45°	1352.4	1397.7	1445.9	1434.6	1461.4	1461.4
47.5°	1313.0	1380.5	1444.2	1444.2	1484.1	1497.9
50°	1267.7	1366.7	1421.6	1441.3	1472.7	1461.4
52.5°	1264.8	1342.4	1389.3	1424.5	1438.8	1425.8
55°	1269.0	1322.7	1356.6	1396.4	1413.2	1414.5
57.5°	1274.9	1311.3	1334.0	1352.4	1403.2	1403.2
60°	1288.7	1301.7	1314.3	1324.3	1390.6	1391.8
62.5°	1311.3	1291.6	1288.7	1298.8	1383.5	1378.0
65°	1347.0	1277.4	1256.4	1266.1	1376.3	1359.6
67.5°	1394.8	1256.4	1215.3	1222.5	1370.9	1334.0
70°	1438.8	1222.5	1164.6	1157.5	1317.2	1252.2
72.5°	1443.0	1183.1	1093.8	1072.8	1144.9	1082.4
75°	1372.1	1155.8	1016.2	953.7	945.4	937.0
77.5°	1236.7	1140.3	925.7	828.0	811.2	816.7
80°	1034.7	1082.4	816.7	700.9	792.8	783.1
82.5°	773.1	955.4	693.8	620.5	618.8	547.1
85°	429.7	745.0	565.1	464.9	323.6	313.6
87.5°	120.3	414.2	395.8	262.9	179.4	186.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)