

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: P301584

Luminaire Tested: **GLNA-AF-05-LED-E1-T2R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301584  
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-05-LED-E1-T2R-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 26832.9 lumens  
Efficiency: N/A  
Efficacy: 96.2 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 - G3

Input Watts (W): 279  
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

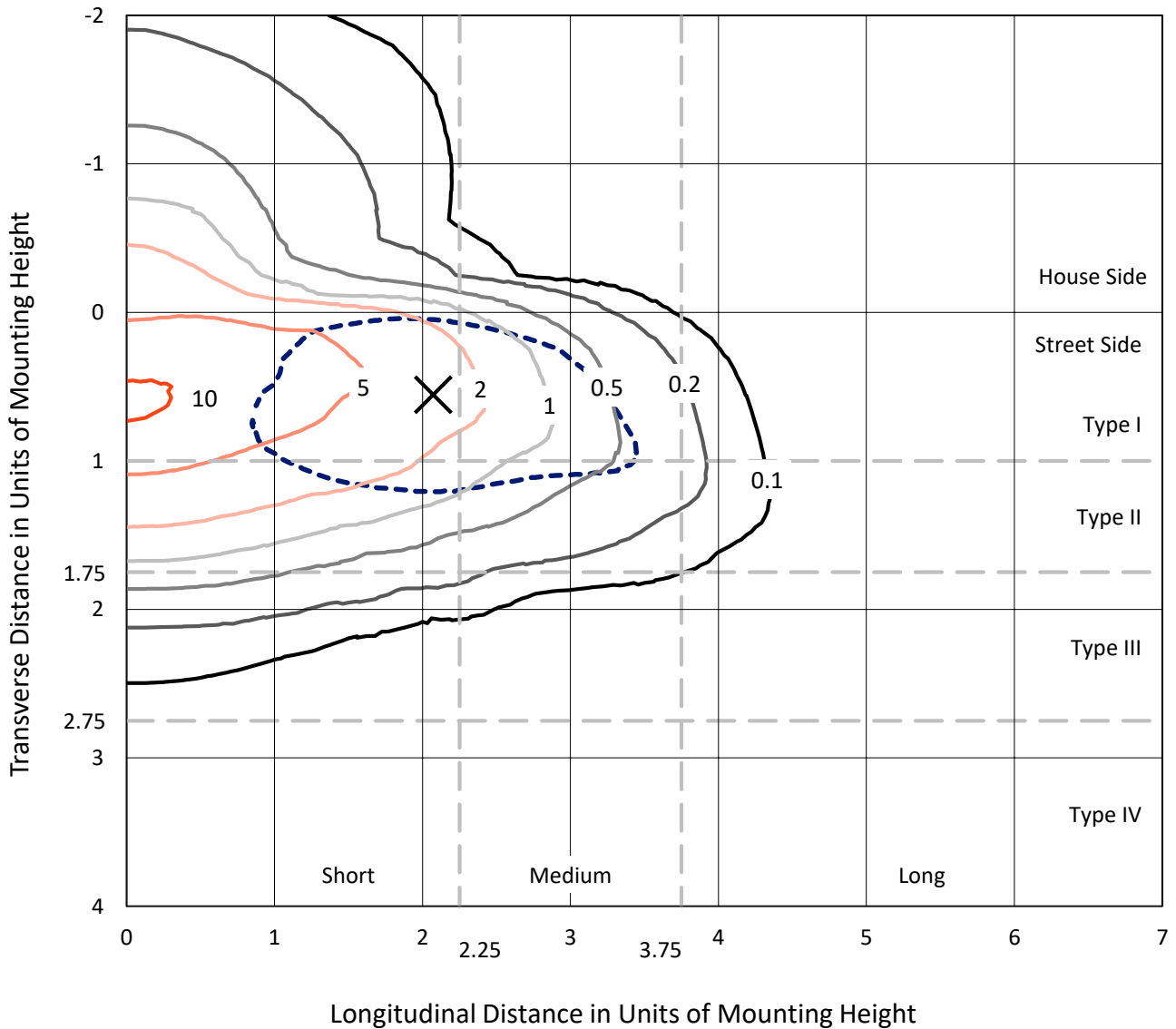


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### Iso-Footcandle Lines of Horizontal Illumination

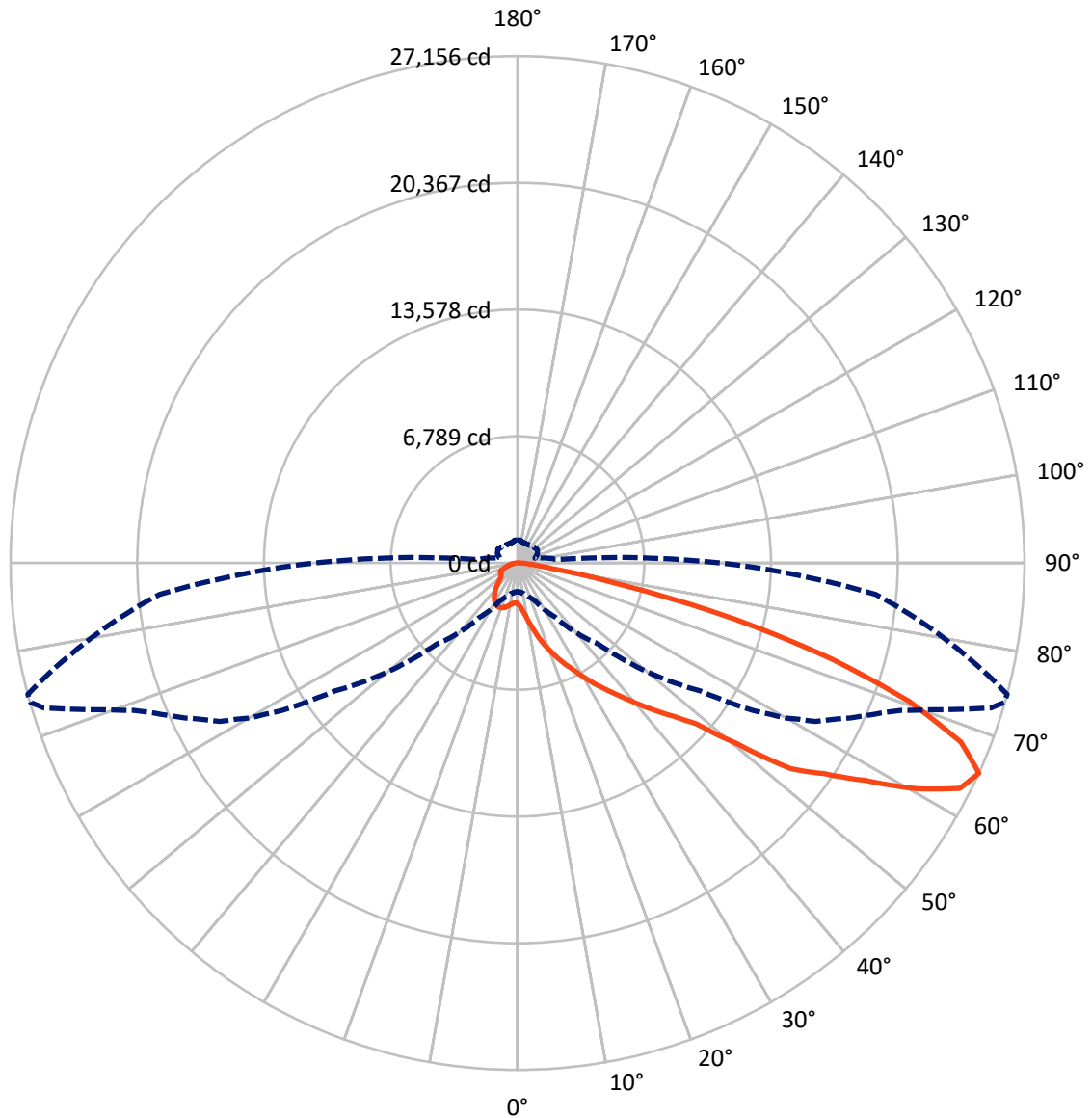
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.8 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	4137.0	0.0	4137.0
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	22695.9	0.0	22695.9
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	26832.9	0.0	26832.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	269.5	1.0
10°-20°	1053.2	3.9
20°-30°	2160.7	8.1
30°-40°	3635.3	13.5
40°-50°	5023.0	18.7
50°-60°	6270.2	23.4
60°-70°	5642.5	21.0
70°-80°	2365.3	8.8
80°-90°	413.2	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°	26832.9	100.0
0°-180°	26832.9	100.0

**Coefficient of Utilization**



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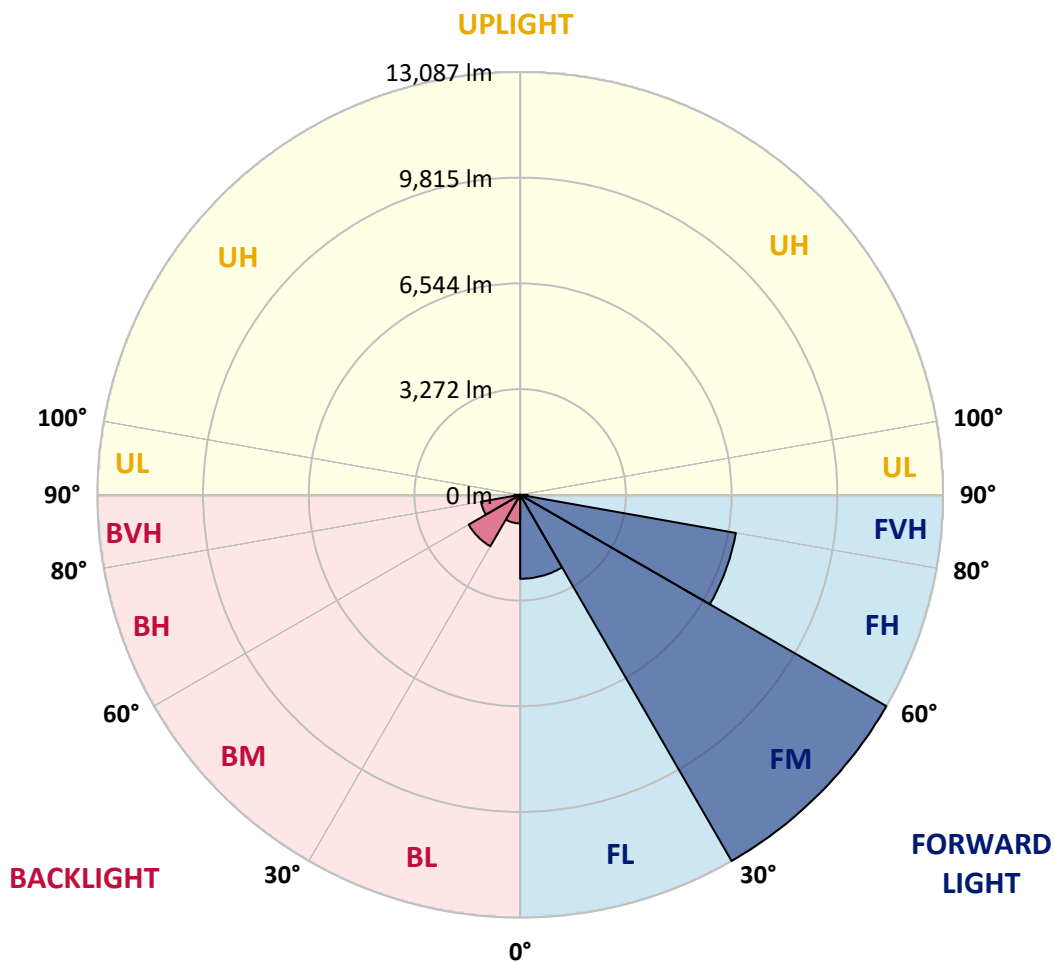
CATALOG NUMBER: GLNA-AF-05-LED-E1-T2R-7027

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2598.7	9.7			
FM	(30°-60°)	13087.0	48.8			
FH	(60°-80°)	6777.9	25.3			G3/7500
FVH	(80°-90°)	232.3	0.9			G3/500
BL	(0°-30°)	884.7	3.3	B2/1000		
BM	(30°-60°)	1841.4	6.9	B2/2500		
BH	(60°-80°)	1229.9	4.6	B3/2500		G3/2500
BVH	(80°-90°)	181.0	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-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7
2.5°	2768.8	2738.3	2745.8	2695.0	2632.8	2551.4	2461.4	2460.2	2461.4	2452.3	2419.6
5°	3839.2	3802.6	3788.7	3674.2	3506.5	3268.0	3008.8	2980.9	2969.2	2940.2	2872.8
7.5°	4620.6	4600.2	4578.4	4492.1	4339.9	4073.2	3725.0	3665.5	3608.2	3594.3	3518.2
10°	5124.7	5119.4	5073.8	5050.8	4955.9	4724.6	4385.5	4328.2	4266.1	4244.6	4164.3
12.5°	5523.3	5522.2	5500.7	5507.1	5424.2	5256.9	4964.6	4912.6	4867.0	4800.7	4743.8
15°	5799.1	5800.2	5832.3	5867.7	5854.9	5741.8	5467.5	5444.6	5405.4	5359.8	5292.4
17.5°	6025.2	6031.6	6064.3	6129.1	6199.2	6190.2	5973.2	5953.9	5919.7	5857.5	5822.1
20°	6535.7	6559.8	6496.5	6496.5	6504.0	6538.3	6433.9	6418.9	6370.6	6337.5	6309.6
22.5°	7398.1	7425.9	7282.4	7136.6	6993.0	6888.7	6784.7	6803.5	6770.8	6747.8	6731.2
25°	8518.2	8540.0	8307.6	8061.2	7768.8	7387.9	7130.2	7118.5	7100.8	7086.9	7079.3
27.5°	9572.4	9581.4	9361.7	9000.8	8661.7	8114.3	7480.6	7466.6	7445.2	7418.4	7395.4
30°	10474.3	10471.7	10245.6	9901.3	9538.1	8932.2	8012.9	7969.6	7905.9	7833.6	7777.8
32.5°	11255.3	11251.6	11003.7	10646.9	10266.0	9742.6	8742.0	8653.1	8554.0	8412.7	8327.9
35°	11869.8	11867.6	11633.6	11261.7	10824.7	10506.0	9577.6	9468.4	9342.5	9153.4	9022.7
37.5°	12102.3	12102.3	11971.6	11717.6	11331.4	11112.9	10506.0	10373.7	10239.2	10024.5	9877.1
40°	11966.3	11968.9	11996.8	11950.1	11762.1	11594.4	11372.1	11293.4	11177.7	10984.8	10831.1
42.5°	11510.4	11524.3	11710.1	11937.3	12031.1	12004.7	12140.3	12104.9	12023.6	11875.1	11753.0
45°	10932.5	10975.8	11178.9	11608.4	12106.1	12358.9	12784.2	12788.0	12772.9	12693.1	12598.9
47.5°	10139.0	10199.7	10467.9	11048.1	11930.9	12703.2	13438.3	13472.6	13504.6	13452.6	13409.3
50°	9084.8	9157.2	9558.4	10328.1	11574.1	13060.0	14674.1	14829.3	14974.0	14956.3	14985.3
52.5°	7955.7	8040.8	8532.1	9389.6	10960.7	13142.5	15464.1	15716.9	15969.7	16176.6	16396.2
55°	6936.9	6891.3	7383.0	8285.7	9952.1	12770.3	16174.3	16479.1	16760.9	17014.9	17276.7
57.5°	5556.5	5631.4	6124.2	7017.2	8617.3	11719.9	16663.0	17109.1	17514.1	17934.5	18305.3
60°	4061.5	4136.5	4671.1	5577.9	7168.2	10127.3	16289.6	16965.5	17614.3	18258.2	18761.2
62.5°	2452.3	2508.5	2979.4	3843.3	5527.5	8239.0	14625.8	15512.4	16467.4	17237.2	18008.0
65°	1526.6	1558.3	1732.3	2207.4	3549.8	6151.0	11950.1	12916.5	13945.0	14922.0	15723.3
67.5°	1249.7	1261.0	1293.0	1394.4	1949.4	4011.0	8894.2	9750.2	10678.5	11623.4	12515.2
70°	1123.9	1116.3	1116.3	1122.7	1249.7	2156.6	5823.2	6380.8	7154.3	7976.0	8791.3
72.5°	1014.6	1007.1	993.1	974.3	1019.9	1315.6	3009.9	3430.4	3988.0	4718.2	5499.2
75°	911.8	901.6	885.4	861.3	892.9	993.1	1445.3	1622.0	1893.6	2282.4	2717.9
77.5°	805.1	792.3	777.3	759.5	800.2	772.4	847.0	910.6	1014.6	1139.3	1303.2
80°	684.6	673.3	668.0	659.3	707.6	588.1	598.3	637.5	698.5	766.0	842.1
82.5°	536.1	536.1	556.1	560.2	613.4	423.1	447.2	481.5	513.1	548.6	584.4
85°	353.0	355.7	424.2	451.0	483.8	284.5	335.3	346.6	372.2	392.6	407.7
87.5°	110.4	119.4	259.2	287.1	278.0	161.3	205.7	211.0	228.7	242.6	255.4
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°	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7
2.5°	2419.6	2404.1	2390.2	2389.0	2378.9	2364.9	2369.8	2348.3	2349.5	2338.2	2325.4
5°	2844.9	2834.7	2783.9	2769.9	2731.9	2707.8	2704.0	2653.1	2646.7	2617.7	2585.7
7.5°	3457.2	3424.0	3352.8	3318.5	3253.7	3205.5	3182.9	3115.4	3082.3	3006.2	2971.9
10°	4098.4	4056.6	3968.8	3920.6	3858.4	3780.8	3739.0	3641.4	3603.0	3533.3	3449.6
12.5°	4692.9	4651.1	4560.7	4523.8	4441.3	4358.7	4313.2	4202.8	4153.0	4041.1	3975.2
15°	5242.6	5200.8	5122.1	5084.0	5001.5	4934.1	4873.0	4764.1	4705.7	4601.4	4515.1
17.5°	5776.1	5731.7	5663.1	5628.8	5548.9	5480.4	5414.4	5311.2	5251.7	5147.7	5070.1
20°	6271.6	6238.4	6189.0	6143.1	6063.2	6001.0	5922.3	5833.4	5747.1	5670.6	5597.2
22.5°	6703.3	6690.5	6637.4	6617.0	6548.5	6495.0	6426.4	6339.0	6276.5	6180.0	6111.4
25°	7075.6	7071.8	7046.2	7039.8	6991.5	6940.7	6925.6	6853.3	6796.0	6710.9	6640.0
27.5°	7395.4	7399.2	7393.2	7410.9	7398.1	7375.1	7376.6	7352.5	7319.3	7248.1	7186.0
30°	7751.1	7730.7	7742.4	7767.7	7775.2	7777.8	7819.7	7833.6	7831.3	7784.2	7753.7
32.5°	8254.1	8205.8	8161.4	8157.6	8182.9	8193.0	8264.2	8301.2	8332.8	8344.1	8349.4
35°	8895.3	8798.9	8706.2	8656.8	8613.5	8624.8	8675.7	8735.6	8805.3	8853.5	8910.8
37.5°	9703.1	9585.2	9421.3	9304.5	9275.1	9211.8	9244.6	9291.7	9360.2	9435.2	9534.3
40°	10682.3	10503.3	10319.1	10164.2	10080.6	9963.4	9962.3	9953.3	9995.5	10065.2	10204.9
42.5°	11624.9	11465.9	11270.4	11108.0	10998.8	10842.4	10810.8	10728.3	10747.1	10808.1	10944.1
45°	12507.3	12376.6	12257.1	12069.5	11976.5	11807.7	11754.2	11656.6	11602.0	11629.8	11765.8
47.5°	13362.2	13278.5	13153.8	13032.1	12960.9	12809.9	12741.3	12671.2	12601.5	12598.9	12741.3
50°	15028.6	14984.1	14836.8	14709.9	14744.1	14558.8	14570.1	14382.1	14467.2	14477.4	14775.8
52.5°	16594.4	16749.6	16858.9	16991.9	17078.5	17095.1	17152.0	17237.2	17340.0	17543.1	17820.0
55°	17491.1	17685.5	17798.5	17900.3	18067.9	18103.3	18198.7	18311.7	18401.7	18630.4	18865.5
57.5°	18557.0	18917.5	19092.7	19254.0	19480.0	19566.3	19725.3	19848.5	19965.3	20235.8	20520.3
60°	19213.3	19653.0	20009.7	20264.8	20548.1	20751.6	20991.6	21184.5	21458.8	21782.8	22207.0
62.5°	18691.5	19336.5	19810.4	20248.6	20633.3	21022.1	21366.1	21727.0	22143.3	22633.5	23291.7
65°	16612.5	17268.8	18080.4	18535.1	19044.5	19643.9	20167.2	20751.6	21319.0	22032.9	23005.7
67.5°	13373.9	14136.8	15048.9	15507.5	16092.9	16762.1	17349.1	18062.6	18725.7	19590.4	20793.4
70°	9639.8	10626.5	11393.6	11872.5	12555.9	13245.4	13812.0	14642.4	15191.0	16077.5	17321.2
72.5°	6103.9	6882.3	7822.3	8425.5	9032.5	9731.3	10310.4	11026.6	11538.3	12346.1	13472.6
75°	3282.0	3855.8	4681.2	5254.3	5904.6	6501.4	7179.5	7659.5	8038.2	8677.2	9591.6
77.5°	1537.9	1887.2	2305.0	2745.8	3186.6	3646.3	4093.5	4481.9	4644.7	5010.5	5550.1
80°	933.6	1046.6	1168.3	1304.3	1488.6	1637.0	1834.1	1976.1	1986.3	2101.9	2267.0
82.5°	623.5	665.4	702.3	736.6	783.7	820.6	862.4	911.8	932.1	958.9	1012.4
85°	425.4	445.7	453.2	475.1	469.8	482.6	499.2	515.8	524.5	523.3	547.4
87.5°	261.5	271.6	276.9	281.8	278.0	273.2	280.7	289.7	292.0	284.5	287.1
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°	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7
2.5°	2328.0	2316.7	2305.0	2297.5	2294.8	2227.8	2198.4	2179.6	2138.9	2105.7	2079.0
5°	2568.0	2543.9	2525.0	2502.1	2489.3	2319.0	2256.8	2213.8	2142.6	2100.8	2062.4
7.5°	2954.2	2886.7	2847.6	2803.1	2765.0	2457.6	2354.8	2287.3	2188.2	2132.5	2089.1
10°	3392.4	3322.6	3260.1	3191.5	3132.0	2641.8	2491.9	2387.5	2256.8	2184.5	2127.2
12.5°	3881.4	3812.8	3734.1	3646.3	3570.2	2875.4	2667.1	2518.6	2339.3	2242.9	2163.0
15°	4459.3	4338.4	4243.1	4141.7	4052.8	3155.0	2871.7	2666.0	2427.1	2296.4	2189.7
17.5°	4996.2	4869.3	4740.0	4651.1	4548.3	3468.5	3077.4	2815.5	2499.4	2330.6	2194.6
20°	5521.0	5382.4	5270.9	5151.4	5043.3	3793.6	3297.0	2947.8	2546.5	2331.8	2163.0
22.5°	5983.3	5896.7	5772.3	5642.7	5533.5	4118.7	3502.7	3059.7	2564.2	2302.8	2106.8
25°	6508.9	6417.7	6265.1	6155.9	6034.2	4450.3	3704.7	3145.9	2554.1	2248.1	2020.6
27.5°	7070.3	6968.9	6812.6	6698.4	6551.1	4794.3	3890.1	3208.1	2516.0	2159.2	1904.9
30°	7655.8	7563.1	7409.4	7294.1	7145.3	5159.0	4097.3	3249.9	2439.9	2036.0	1770.4
32.5°	8284.6	8207.0	8054.8	7934.2	7775.2	5553.8	4290.2	3262.7	2324.2	1889.8	1628.4
35°	8881.4	8828.2	8699.8	8586.7	8421.7	5927.2	4494.8	3256.3	2187.1	1729.7	1498.8
37.5°	9553.5	9521.5	9458.2	9314.6	9112.7	6433.9	4740.0	3229.6	2019.4	1571.1	1399.7
40°	10269.7	10272.4	10203.8	10105.8	9917.8	7048.8	5032.0	3177.6	1836.3	1431.3	1309.2
42.5°	11027.8	11067.3	11034.2	10964.5	10784.0	7668.6	5381.3	3114.3	1658.9	1295.3	1220.7
45°	11896.6	11944.8	11995.7	11892.8	11717.6	8486.5	5840.9	3031.8	1466.7	1182.3	1159.7
47.5°	12898.8	12974.9	13020.5	13022.0	12846.8	9500.0	6587.7	2982.1	1296.8	1106.2	1130.3
50°	15013.1	15037.6	15145.4	15333.4	15198.9	11845.7	7892.0	2951.5	1181.1	1059.1	1108.8
52.5°	18060.0	18325.6	18512.5	18499.7	18316.6	13335.4	8610.9	2794.1	1112.6	1041.4	1098.6
55°	19301.1	19632.6	19978.1	20069.3	19927.2	14607.0	9290.5	2636.6	1079.4	1054.2	1102.4
57.5°	20954.7	21513.4	21987.4	22186.7	21981.0	16233.9	10184.6	2554.1	1069.2	1088.5	1126.5
60°	22886.3	23577.3	24199.7	24557.6	24557.6	18103.3	11111.8	2519.8	1055.3	1139.3	1167.2
62.5°	24127.4	25142.0	26082.0	26606.4	26591.0	19405.0	11523.2	2403.0	1023.7	1174.7	1223.0
65°	24132.3	25339.0	26536.4	27126.0	27156.1	19245.3	10843.9	2122.3	965.3	1180.0	1279.1
67.5°	22120.7	23407.0	24802.9	25462.2	25614.4	17716.0	9387.0	1745.2	869.9	1129.2	1299.4
70°	18682.4	19938.5	21363.4	22011.5	22282.0	15102.1	7560.5	1345.0	748.2	1017.3	1257.2
72.5°	14718.5	15950.5	16942.5	17416.1	17627.1	11543.6	5505.6	1016.1	613.4	857.1	1144.2
75°	10420.8	11345.4	11872.5	11978.0	12010.7	6958.8	3345.3	755.8	505.6	666.9	966.4
77.5°	5881.6	6278.0	6234.6	6281.7	5890.6	2686.3	1456.9	541.0	416.7	506.7	749.4
80°	2296.4	2367.6	2224.0	2179.6	1999.1	999.5	642.8	377.1	332.7	383.5	524.5
82.5°	1012.4	1045.1	1014.6	1022.5	978.1	515.8	384.7	273.2	253.9	280.7	348.1
85°	557.6	567.8	565.1	581.7	557.6	205.7	182.7	167.7	177.8	190.6	223.4
87.5°	271.6	274.3	265.6	279.6	270.5	104.0	90.0	95.3	104.0	106.6	106.6
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°	2180.7	2180.7	2180.7	2180.7	2180.7	2180.7
2.5°	2060.1	2050.0	2051.1	2048.4	2043.5	2043.5
5°	2042.4	2032.2	2032.2	2029.6	2023.2	2024.3
7.5°	2060.1	2043.5	2037.1	2028.1	2019.4	2019.4
10°	2080.5	2051.1	2033.4	2018.3	2006.6	2006.6
12.5°	2095.5	2050.0	2020.6	2000.2	1988.9	1988.9
15°	2100.8	2040.9	2000.2	1976.1	1965.9	1964.8
17.5°	2084.2	2006.6	1957.3	1929.4	1916.6	1912.8
20°	2033.4	1944.5	1884.9	1852.9	1835.2	1828.8
22.5°	1957.3	1855.5	1785.8	1752.7	1729.7	1725.9
25°	1850.6	1741.4	1672.8	1640.8	1628.4	1624.2
27.5°	1725.9	1624.2	1565.8	1545.5	1534.2	1533.0
30°	1608.0	1521.4	1478.4	1463.0	1449.0	1446.8
32.5°	1497.2	1442.6	1426.4	1404.6	1371.8	1368.0
35°	1418.5	1413.6	1402.3	1353.7	1313.4	1301.7
37.5°	1370.3	1417.4	1359.0	1263.7	1234.6	1232.0
40°	1342.4	1378.2	1277.6	1244.8	1247.1	1244.8
42.5°	1279.1	1315.6	1280.2	1265.2	1275.0	1277.6
45°	1215.4	1256.1	1299.4	1289.3	1313.4	1313.4
47.5°	1180.0	1240.7	1297.9	1297.9	1333.7	1346.2
50°	1139.3	1228.2	1277.6	1295.3	1323.6	1313.4
52.5°	1136.7	1206.4	1248.6	1280.2	1293.0	1281.4
55°	1140.5	1188.7	1219.2	1255.0	1270.1	1271.2
57.5°	1145.7	1178.5	1198.9	1215.4	1261.0	1261.0
60°	1158.2	1169.8	1181.1	1190.2	1249.7	1250.8
62.5°	1178.5	1160.8	1158.2	1167.2	1243.3	1238.4
65°	1210.5	1148.0	1129.2	1137.8	1236.9	1221.8
67.5°	1253.5	1129.2	1092.2	1098.6	1232.0	1198.9
70°	1293.0	1098.6	1046.6	1040.2	1183.8	1125.4
72.5°	1296.8	1063.2	983.0	964.1	1028.9	972.8
75°	1233.1	1038.7	913.3	857.1	849.6	842.1
77.5°	1111.4	1024.8	831.9	744.1	729.0	733.9
80°	929.8	972.8	733.9	629.9	712.5	703.8
82.5°	694.7	858.6	623.5	557.6	556.1	491.7
85°	386.2	669.5	507.9	417.8	290.9	281.8
87.5°	108.1	372.2	355.7	236.2	161.3	167.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)