

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: P301665

Luminaire Tested: **GLNA-AF-08-LED-E1-T2R-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301665  
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-08-LED-E1-T2R-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40007.7 lumens  
Efficiency: N/A  
Efficacy: 119.8 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B3 - U0 - G4

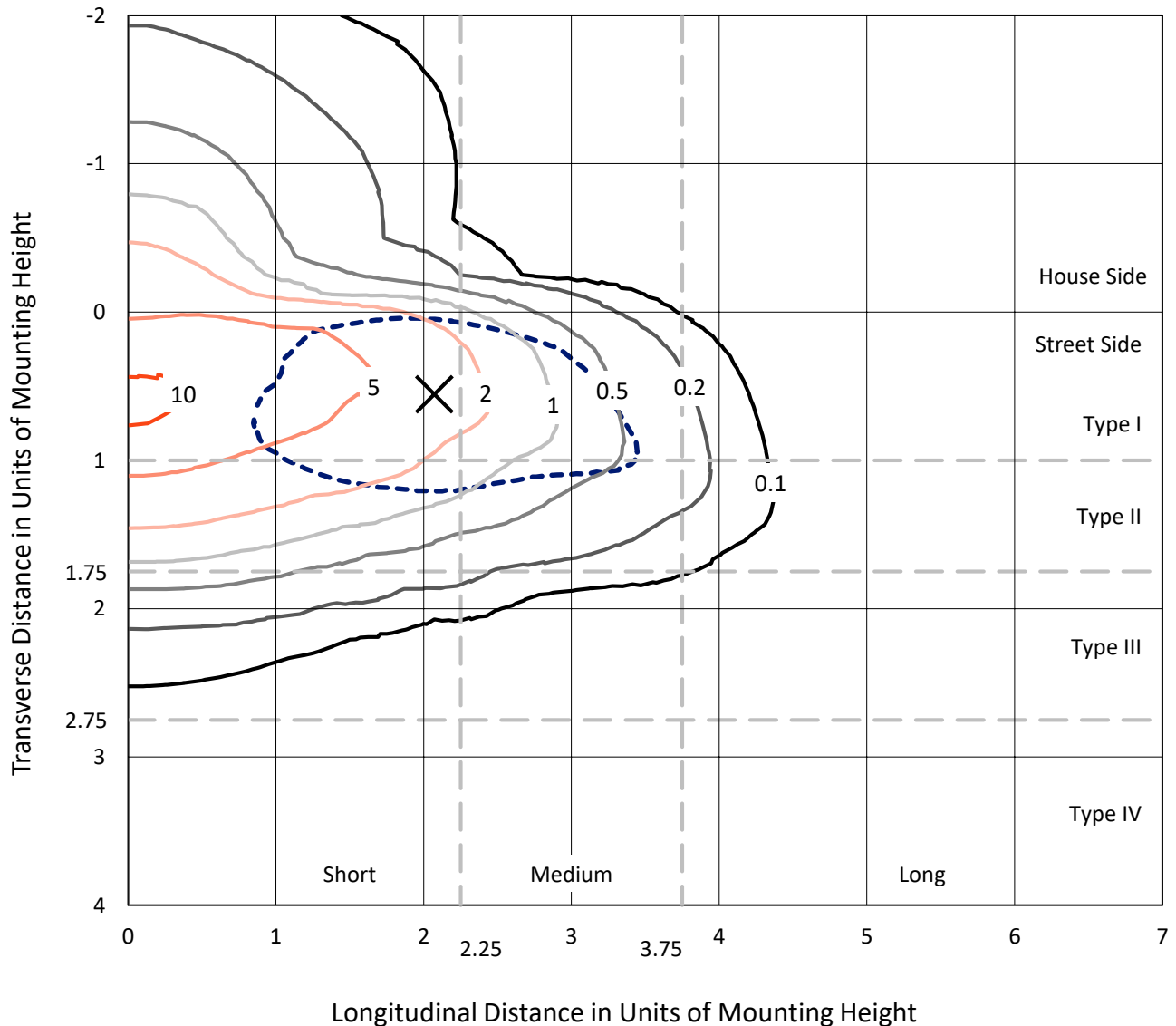
Input Watts (W): 334  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

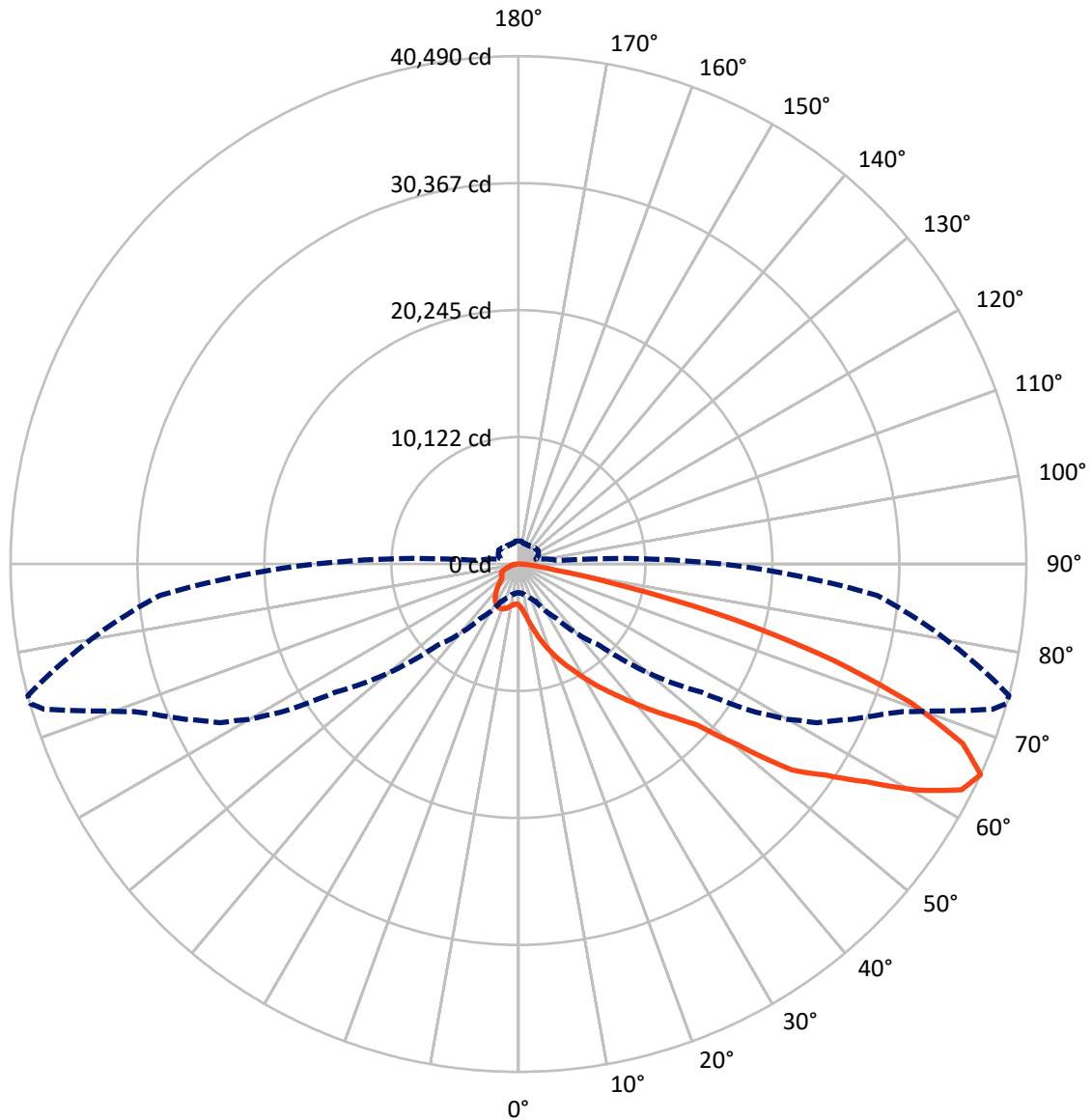
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.2 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	6168.2	0.0	6168.2
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	33839.4	0.0	33839.4
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	40007.7	0.0	40007.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	401.9	1.0
10°-20°	1570.2	3.9
20°-30°	3221.6	8.1
30°-40°	5420.2	13.5
40°-50°	7489.2	18.7
50°-60°	9348.8	23.4
60°-70°	8412.9	21.0
70°-80°	3526.6	8.8
80°-90°	616.1	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°	40007.7	100.0
0°-180°	40007.7	100.0

**Coefficient of Utilization**



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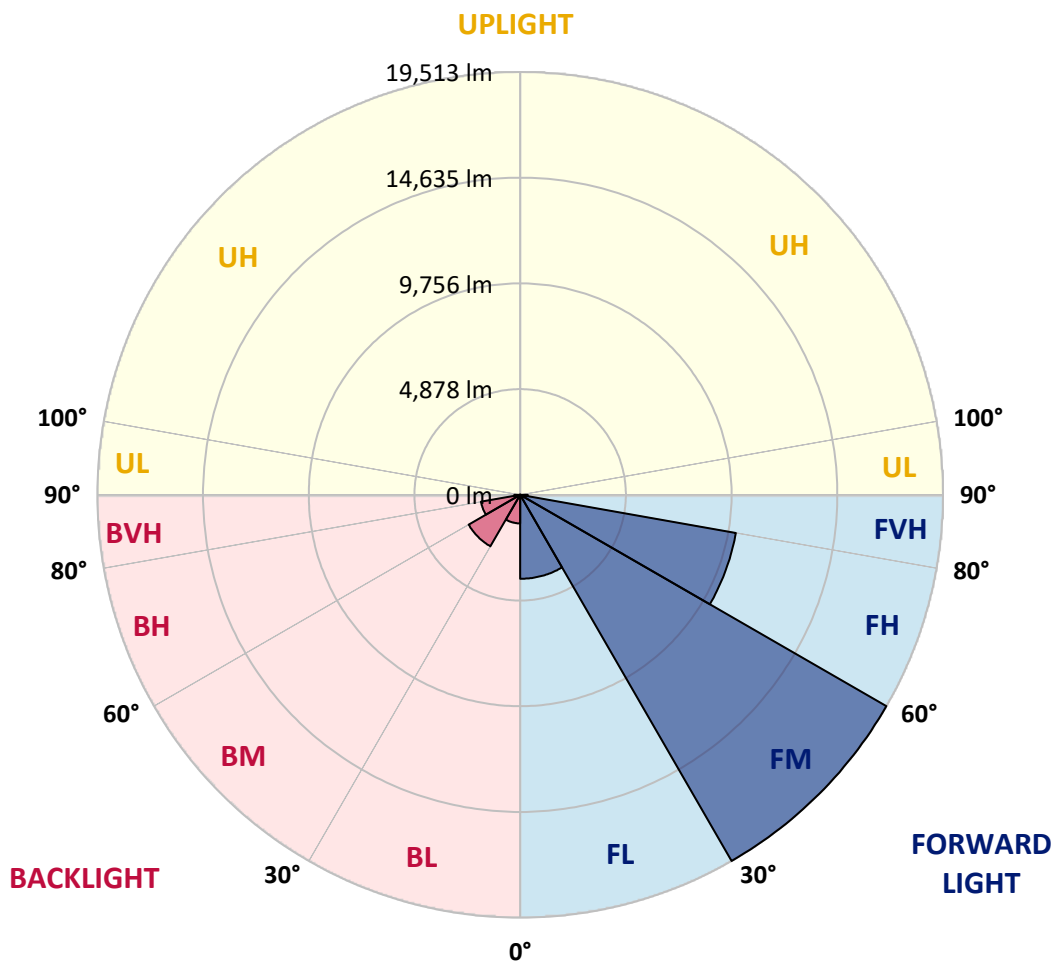
CATALOG NUMBER: GLNA-AF-08-LED-E1-T2R-800

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3874.6	9.7			
FM	(30°-60°)	19512.7	48.8			
FH	(60°-80°)	10105.8	25.3			G4/12000
FVH	(80°-90°)	346.3	0.9			G3/500
BL	(0°-30°)	1319.1	3.3	B3/2500		
BM	(30°-60°)	2745.6	6.9	B3/5000		
BH	(60°-80°)	1833.7	4.6	B3/2500		G3/2500
BVH	(80°-90°)	269.8	0.7			G3/500
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°	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4
2.5°	4128.3	4082.8	4094.0	4018.2	3925.5	3804.1	3669.9	3668.2	3669.9	3656.4	3607.5
5°	5724.2	5669.7	5648.9	5478.2	5228.2	4872.6	4486.1	4444.5	4427.1	4383.9	4283.3
7.5°	6889.3	6858.9	6826.3	6697.7	6470.8	6073.0	5554.0	5465.2	5379.8	5359.1	5245.6
10°	7640.9	7633.0	7565.0	7530.8	7389.2	7044.3	6538.7	6453.3	6360.7	6328.6	6209.0
12.5°	8235.2	8233.5	8201.5	8211.1	8087.5	7838.1	7402.1	7324.6	7256.6	7157.8	7073.0
15°	8646.4	8648.1	8695.8	8748.6	8729.5	8561.0	8152.1	8117.8	8059.4	7991.4	7890.9
17.5°	8983.5	8993.0	9041.9	9138.5	9243.0	9229.5	8905.9	8877.3	8826.2	8733.5	8680.7
20°	9744.6	9780.6	9686.2	9686.2	9697.4	9748.6	9593.0	9570.5	9498.6	9449.1	9407.6
22.5°	11030.5	11072.0	10858.0	10640.6	10426.6	10271.0	10115.9	10144.0	10095.2	10060.9	10036.2
25°	12700.5	12733.1	12386.5	12019.1	11583.2	11015.3	10631.1	10613.6	10587.2	10566.5	10555.2
27.5°	14272.3	14285.8	13958.3	13420.1	12914.6	12098.3	11153.5	11132.7	11100.7	11060.8	11026.5
30°	15617.1	15613.2	15276.1	14762.7	14221.2	13317.9	11947.2	11882.6	11787.7	11679.8	11596.7
32.5°	16781.6	16776.0	16406.4	15874.4	15306.5	14526.2	13034.2	12901.6	12753.9	12543.2	12416.9
35°	17697.8	17694.5	17345.6	16791.2	16139.5	15664.3	14280.2	14117.3	13929.6	13647.6	13452.7
37.5°	18044.4	18044.4	17849.5	17470.9	16895.1	16569.3	15664.3	15467.1	15266.6	14946.4	14726.8
40°	17841.6	17845.6	17887.1	17817.5	17537.2	17287.2	16955.8	16838.4	16665.9	16378.3	16149.1
42.5°	17161.9	17182.7	17459.7	17798.4	17938.3	17898.9	18101.2	18048.4	17927.0	17705.7	17523.7
45°	16300.2	16364.8	16667.6	17308.0	18050.1	18427.0	19061.2	19066.8	19044.3	18925.3	18784.8
47.5°	15117.2	15207.6	15607.6	16472.7	17788.8	18940.4	20036.4	20087.5	20135.3	20057.7	19993.1
50°	13545.4	13653.3	14251.5	15399.2	17256.9	19472.4	21878.9	22110.4	22326.1	22299.7	22342.9
52.5°	11861.8	11988.8	12721.3	13999.9	16342.3	19595.4	23056.9	23433.8	23810.8	24119.2	24446.7
55°	10342.9	10274.9	11008.0	12353.9	14838.5	19040.4	24115.8	24570.2	24990.4	25369.1	25759.5
57.5°	8284.6	8396.4	9131.2	10462.5	12848.3	17474.3	24844.4	25509.5	26113.4	26740.3	27293.0
60°	6055.6	6167.4	6964.5	8316.7	10687.8	15099.8	24287.7	25295.5	26262.8	27222.8	27972.7
62.5°	3656.4	3740.1	4442.3	5730.4	8241.4	12284.3	21807.0	23128.8	24552.8	25700.5	26849.8
65°	2276.2	2323.4	2582.9	3291.3	5292.8	9171.1	17817.5	19258.4	20791.9	22248.5	23443.4
67.5°	1863.3	1880.2	1927.9	2079.0	2906.5	5980.4	13261.2	14537.4	15921.6	17330.5	18660.1
70°	1675.7	1664.5	1664.5	1674.0	1863.3	3215.4	8682.4	9513.7	10667.0	11892.2	13107.8
72.5°	1512.8	1501.5	1480.8	1452.7	1520.6	1961.6	4487.8	5114.7	5946.1	7034.8	8199.3
75°	1359.4	1344.3	1320.1	1284.2	1331.3	1480.8	2154.9	2418.3	2823.3	3403.1	4052.4
77.5°	1200.5	1181.4	1158.9	1132.5	1193.2	1151.6	1262.8	1357.7	1512.8	1698.7	1943.1
80°	1020.7	1003.8	996.0	983.1	1055.0	876.9	892.1	950.5	1041.5	1142.0	1255.5
82.5°	799.4	799.4	829.1	835.3	914.5	630.8	666.8	717.9	765.1	817.9	871.3
85°	526.4	530.3	632.5	672.4	721.3	424.1	500.0	516.8	555.0	585.3	607.8
87.5°	164.6	178.1	386.5	428.1	414.6	240.4	306.7	314.6	341.0	361.8	380.9
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°	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4
2.5°	3607.5	3584.5	3563.7	3562.0	3546.9	3526.1	3533.4	3501.4	3503.1	3486.2	3467.1
5°	4241.8	4226.6	4150.7	4130.0	4073.2	4037.3	4031.7	3955.8	3946.3	3903.0	3855.3
7.5°	5154.6	5105.2	4999.0	4947.9	4851.2	4779.3	4745.6	4645.1	4595.7	4482.2	4431.1
10°	6110.7	6048.3	5917.4	5845.5	5752.8	5637.1	5574.8	5429.3	5372.0	5268.1	5143.4
12.5°	6997.1	6934.8	6799.9	6744.9	6621.9	6498.8	6430.9	6266.3	6192.1	6025.3	5927.0
15°	7816.7	7754.4	7636.9	7580.2	7457.2	7356.6	7265.6	7103.3	7016.2	6860.6	6732.0
17.5°	8612.1	8545.9	8443.6	8392.5	8273.4	8171.2	8072.9	7918.9	7830.2	7675.1	7559.4
20°	9350.8	9301.4	9227.8	9159.3	9040.2	8947.5	8830.1	8697.5	8568.9	8454.9	8345.3
22.5°	9994.6	9975.5	9896.3	9866.0	9763.7	9684.0	9581.7	9451.4	9358.1	9214.3	9112.1
25°	10549.6	10544.0	10505.8	10496.2	10424.3	10348.5	10326.0	10218.2	10132.8	10005.8	9900.2
27.5°	11026.5	11032.1	11023.2	11049.6	11030.5	10996.2	10998.4	10962.5	10913.1	10806.9	10714.2
30°	11556.8	11526.5	11543.9	11581.5	11592.8	11596.7	11659.1	11679.8	11676.5	11606.3	11560.8
32.5°	12306.8	12234.8	12168.6	12162.9	12200.6	12215.7	12321.9	12377.0	12424.2	12441.0	12448.9
35°	13262.8	13119.0	12980.8	12907.3	12842.7	12859.5	12935.3	13024.7	13128.6	13200.5	13285.9
37.5°	14467.2	14291.4	14047.0	13872.9	13829.1	13734.7	13783.6	13853.8	13956.0	14067.8	14215.6
40°	15927.2	15660.4	15385.7	15154.8	15030.1	14855.4	14853.7	14840.2	14903.1	15007.1	15215.5
42.5°	17332.7	17095.6	16804.1	16562.0	16399.1	16166.0	16118.8	15995.7	16023.8	16114.8	16317.6
45°	18648.3	18453.4	18275.3	17995.6	17856.8	17605.1	17525.4	17379.9	17298.4	17340.0	17542.8
47.5°	19922.9	19798.2	19612.3	19430.8	19324.7	19099.4	18997.2	18892.7	18788.7	18784.8	18997.2
50°	22407.5	22341.2	22121.6	21932.3	21983.4	21707.0	21723.9	21443.6	21570.5	21585.7	22030.6
52.5°	24742.1	24973.6	25136.5	25334.8	25464.0	25488.7	25573.5	25700.5	25853.8	26156.6	26569.5
55°	26079.1	26369.0	26537.5	26689.2	26939.1	26991.9	27134.1	27302.6	27436.8	27777.8	28128.4
57.5°	27668.3	28205.9	28467.1	28707.5	29044.6	29173.2	29410.3	29593.9	29768.1	30171.4	30595.5
60°	28646.8	29302.4	29834.4	30214.7	30637.1	30940.5	31298.3	31585.9	31994.9	32478.0	33110.5
62.5°	27868.8	28830.5	29537.2	30190.5	30764.1	31343.8	31856.7	32394.8	33015.5	33746.4	34727.8
65°	24769.1	25747.7	26957.7	27635.7	28395.2	29288.9	30069.2	30940.5	31786.4	32851.0	34301.4
67.5°	19940.3	21077.9	22437.9	23121.5	23994.5	24992.1	25867.3	26931.3	27919.9	29209.2	31002.8
70°	14372.9	15844.1	16987.8	17701.8	18720.8	19748.8	20593.6	21831.7	22649.6	23971.4	25825.8
72.5°	9100.9	10261.4	11663.0	12562.3	13467.3	14509.4	15372.8	16440.6	17203.5	18407.9	20087.5
75°	4893.4	5748.9	6979.7	7834.1	8803.7	9693.5	10704.6	11420.3	11984.9	12937.6	14301.0
77.5°	2293.1	2813.8	3436.8	4094.0	4751.3	5436.6	6103.4	6682.5	6925.2	7470.7	8275.1
80°	1392.0	1560.5	1742.0	1944.8	2219.5	2440.8	2734.6	2946.4	2961.5	3134.0	3380.0
82.5°	929.7	992.0	1047.1	1098.2	1168.4	1223.5	1285.8	1359.4	1389.8	1429.6	1509.4
85°	634.2	664.5	675.8	708.4	700.5	719.6	744.3	769.0	782.0	780.3	816.2
87.5°	389.9	405.0	412.9	420.2	414.6	407.3	418.5	432.0	435.4	424.1	428.1
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°	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4
2.5°	3471.0	3454.2	3436.8	3425.5	3421.6	3321.6	3277.8	3249.7	3189.0	3139.6	3099.7
5°	3828.9	3792.9	3764.8	3730.6	3711.5	3457.6	3364.9	3300.8	3194.7	3132.3	3075.0
7.5°	4404.7	4304.1	4245.7	4179.4	4122.7	3664.3	3510.9	3410.4	3262.6	3179.5	3114.9
10°	5058.0	4954.0	4860.8	4758.6	4669.8	3939.0	3715.4	3559.8	3364.9	3257.0	3171.6
12.5°	5787.1	5684.9	5567.5	5436.6	5323.1	4287.3	3976.6	3755.3	3487.9	3344.1	3225.0
15°	6648.8	6468.5	6326.4	6175.3	6042.7	4704.1	4281.6	3974.9	3618.8	3423.8	3264.9
17.5°	7449.3	7260.0	7067.3	6934.8	6781.4	5171.4	4588.3	4197.9	3726.6	3475.0	3272.2
20°	8231.8	8025.1	7858.8	7680.8	7519.5	5656.2	4915.8	4395.1	3796.8	3476.7	3225.0
22.5°	8921.1	8791.9	8606.5	8413.3	8250.4	6141.0	5222.6	4561.9	3823.2	3433.4	3141.3
25°	9704.7	9568.8	9341.3	9178.4	8996.9	6635.4	5523.7	4690.6	3808.1	3351.9	3012.6
27.5°	10541.7	10390.6	10157.5	9987.3	9767.7	7148.2	5800.0	4783.3	3751.3	3219.4	2840.2
30°	11414.7	11276.5	11047.3	10875.4	10653.5	7692.0	6109.0	4845.6	3637.9	3035.7	2639.6
32.5°	12352.3	12236.5	12009.6	11829.8	11592.8	8280.7	6396.6	4864.7	3465.4	2817.7	2427.9
35°	13242.1	13162.9	12971.3	12802.8	12556.7	8837.4	6701.6	4855.2	3260.9	2579.0	2234.6
37.5°	14244.2	14196.5	14102.1	13888.1	13587.0	9593.0	7067.3	4815.3	3011.0	2342.5	2086.9
40°	15312.1	15316.0	15213.8	15067.7	14787.4	10509.7	7502.7	4737.8	2738.0	2134.1	1952.1
42.5°	16442.3	16501.3	16451.9	16348.0	16078.9	11433.8	8023.4	4643.4	2473.4	1931.3	1820.1
45°	17737.7	17809.6	17885.5	17732.1	17470.9	12653.3	8708.8	4520.4	2186.9	1762.8	1729.1
47.5°	19232.0	19345.4	19413.4	19415.7	19154.4	14164.4	9822.1	4446.2	1933.5	1649.3	1685.2
50°	22384.5	22421.0	22581.7	22862.0	22661.4	17661.9	11766.9	4400.7	1761.1	1579.1	1653.2
52.5°	26927.3	27323.4	27602.0	27582.9	27309.9	19883.0	12838.7	4165.9	1658.8	1552.7	1638.1
55°	28777.7	29272.1	29787.2	29923.1	29711.4	21778.9	13852.1	3931.1	1609.4	1571.8	1643.7
57.5°	31243.2	32076.3	32783.0	33080.1	32773.4	24204.5	15185.1	3808.1	1594.2	1622.9	1679.6
60°	34123.3	35153.6	36081.6	36615.2	36615.2	26991.9	16567.6	3757.0	1573.5	1698.7	1740.3
62.5°	35973.7	37486.5	38888.1	39670.0	39647.0	28932.8	17181.0	3582.8	1526.3	1751.5	1823.4
65°	35981.0	37780.3	39565.5	40444.7	40489.6	28694.6	16168.2	3164.3	1439.2	1759.4	1907.1
67.5°	32981.8	34899.6	36980.9	37964.0	38190.9	26414.5	13995.9	2602.0	1297.1	1683.6	1937.5
70°	27855.3	29728.2	31852.7	32818.9	33222.3	22517.1	11272.6	2005.4	1115.6	1516.7	1874.5
72.5°	21945.2	23782.1	25261.2	25967.3	26281.9	17211.4	8208.8	1515.0	914.5	1278.0	1706.0
75°	15537.4	16915.9	17701.8	17859.1	17907.9	10375.5	4987.8	1126.9	753.9	994.3	1440.9
77.5°	8769.4	9360.4	9295.8	9366.0	8782.9	4005.3	2172.3	806.7	621.3	755.5	1117.3
80°	3423.8	3530.0	3316.0	3249.7	2980.6	1490.3	958.3	562.3	496.0	571.9	782.0
82.5°	1509.4	1558.3	1512.8	1524.6	1458.3	769.0	573.5	407.3	378.6	418.5	519.1
85°	831.4	846.6	842.6	867.3	831.4	306.7	272.4	250.0	265.1	284.2	333.1
87.5°	405.0	409.0	396.0	416.8	403.3	155.0	134.3	142.1	155.0	159.0	159.0
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):**

	135°	145°	155°	165°	175°	180°
0°	3251.4	3251.4	3251.4	3251.4	3251.4	3251.4
2.5°	3071.6	3056.5	3058.1	3054.2	3046.9	3046.9
5°	3045.2	3030.1	3030.1	3026.1	3016.6	3018.3
7.5°	3071.6	3046.9	3037.4	3023.9	3011.0	3011.0
10°	3102.0	3058.1	3031.7	3009.3	2991.9	2991.9
12.5°	3124.4	3056.5	3012.6	2982.3	2965.5	2965.5
15°	3132.3	3043.0	2982.3	2946.4	2931.2	2929.5
17.5°	3107.6	2991.9	2918.3	2876.7	2857.6	2852.0
20°	3031.7	2899.2	2810.4	2762.7	2736.3	2726.7
22.5°	2918.3	2766.6	2662.7	2613.2	2579.0	2573.4
25°	2759.3	2596.4	2494.2	2446.4	2427.9	2421.7
27.5°	2573.4	2421.7	2334.6	2304.3	2287.4	2285.7
30°	2397.5	2268.3	2204.3	2181.3	2160.5	2157.1
32.5°	2232.4	2150.9	2126.8	2094.2	2045.3	2039.7
35°	2115.0	2107.7	2090.8	2018.4	1958.2	1940.8
37.5°	2043.1	2113.3	2026.2	1884.1	1840.8	1836.9
40°	2001.5	2054.9	1904.9	1856.0	1859.4	1856.0
42.5°	1907.1	1961.6	1908.8	1886.3	1901.0	1904.9
45°	1812.2	1872.9	1937.5	1922.3	1958.2	1958.2
47.5°	1759.4	1849.8	1935.2	1935.2	1988.6	2007.1
50°	1698.7	1831.3	1904.9	1931.3	1973.4	1958.2
52.5°	1694.8	1798.7	1861.6	1908.8	1927.9	1910.5
55°	1700.4	1772.3	1817.8	1871.2	1893.6	1895.3
57.5°	1708.3	1757.1	1787.5	1812.2	1880.2	1880.2
60°	1726.8	1744.2	1761.1	1774.6	1863.3	1865.0
62.5°	1757.1	1730.7	1726.8	1740.3	1853.8	1846.5
65°	1804.9	1711.6	1683.6	1696.5	1844.2	1821.7
67.5°	1868.9	1683.6	1628.5	1638.1	1836.9	1787.5
70°	1927.9	1638.1	1560.5	1551.0	1765.0	1677.9
72.5°	1933.5	1585.2	1465.6	1437.5	1534.1	1450.4
75°	1838.6	1548.7	1361.7	1278.0	1266.7	1255.5
77.5°	1657.2	1528.0	1240.3	1109.5	1087.0	1094.3
80°	1386.4	1450.4	1094.3	939.2	1062.3	1049.3
82.5°	1035.9	1280.2	929.7	831.4	829.1	733.1
85°	575.8	998.2	757.2	623.0	433.7	420.2
87.5°	161.2	555.0	530.3	352.2	240.4	250.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)