

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: P301645

Luminaire Tested: **GLNA-AF-05-LED-E1-T2R-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301645  
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-7030-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24133.9 lumens  
Efficiency: N/A  
Efficacy: 114.9 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 - G3

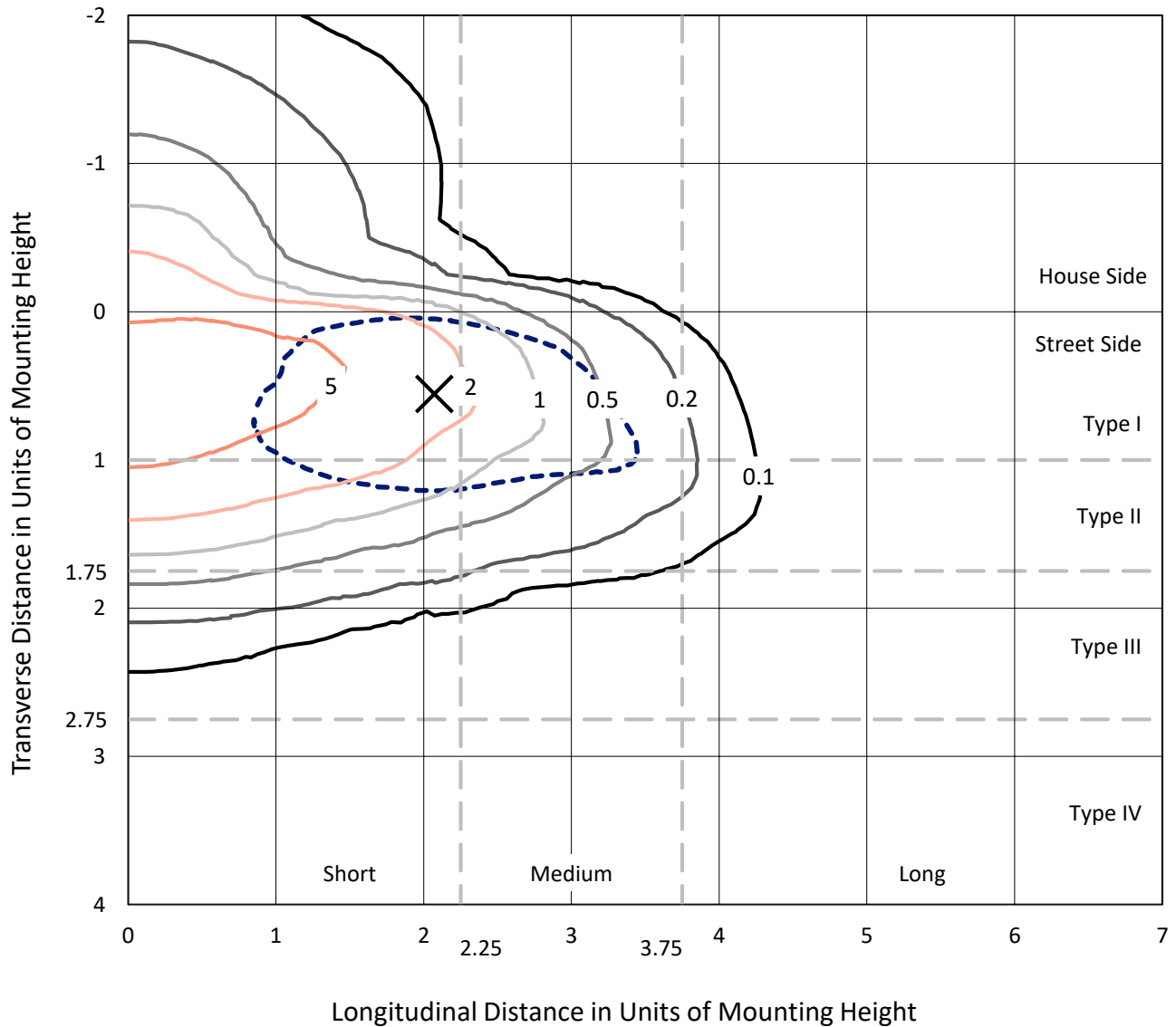
Input Watts (W): 210  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

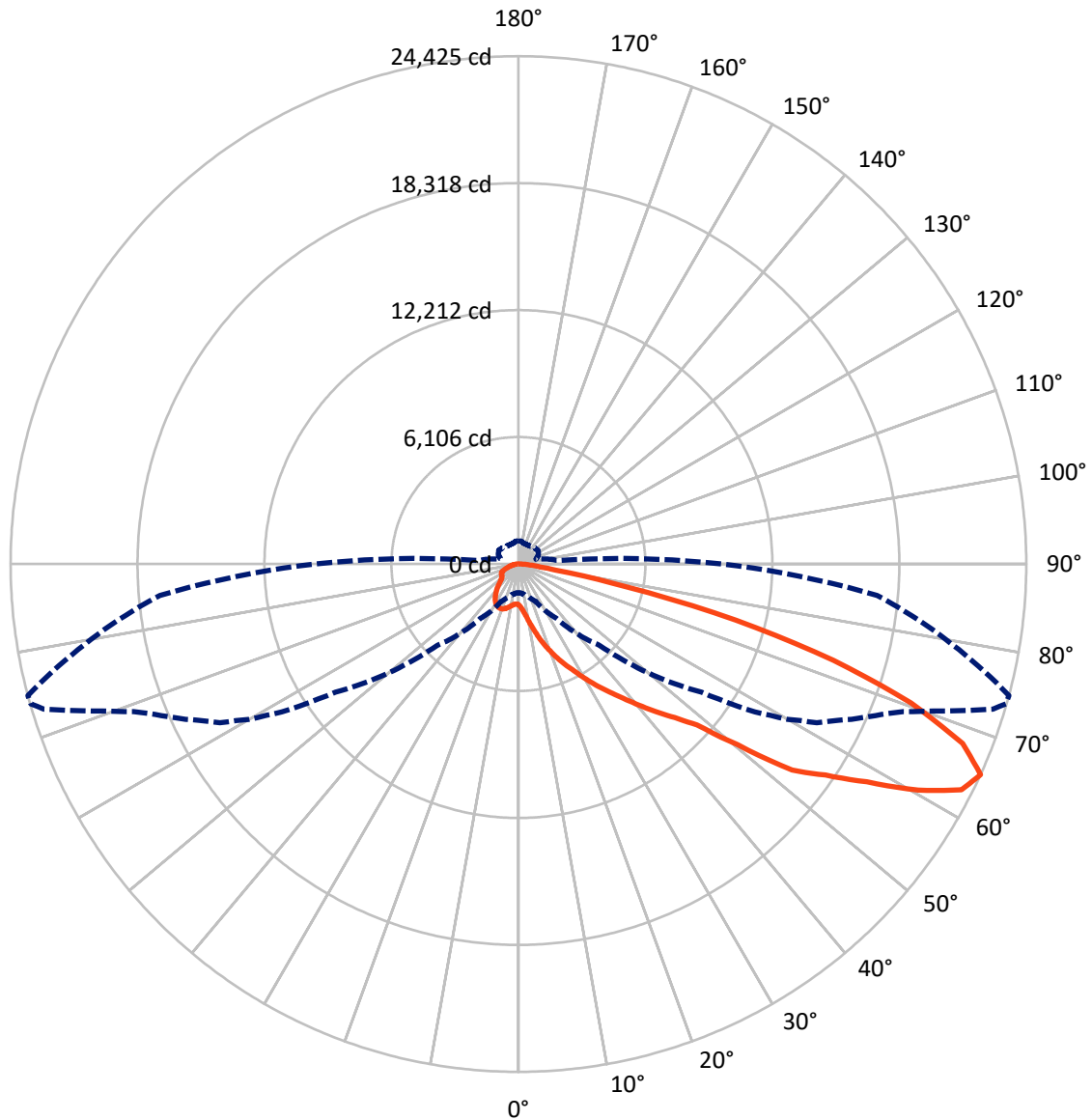
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.7 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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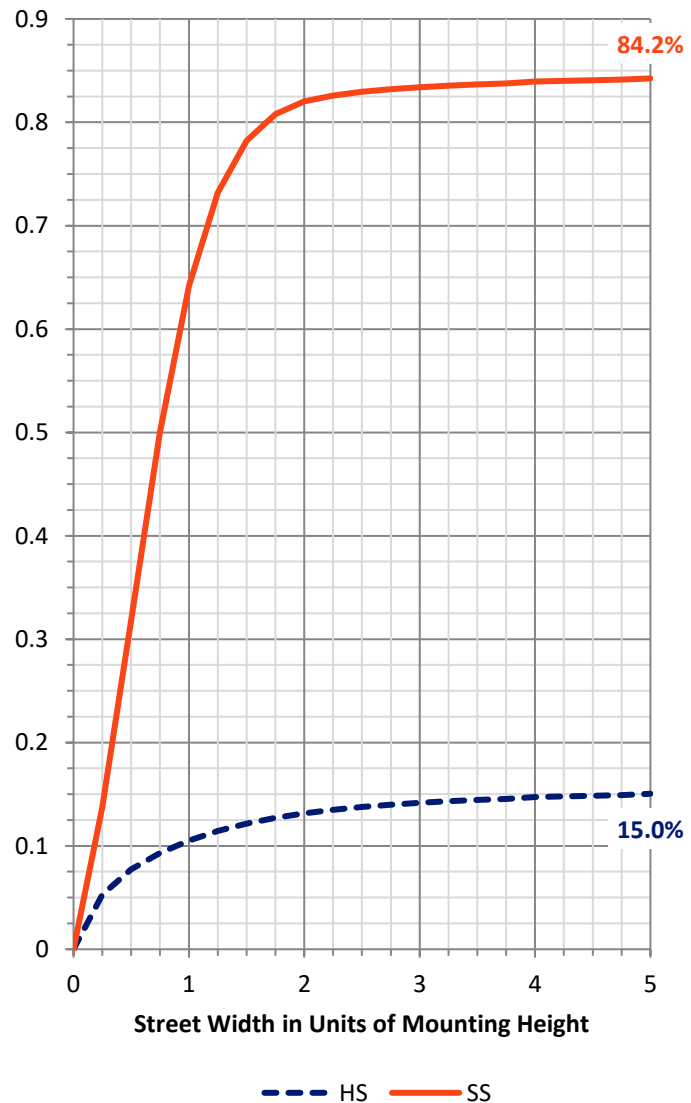
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3720.9	0.0	3720.9
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	20413.0	0.0	20413.0
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	24133.9	0.0	24133.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	242.4	1.0
10°-20°	947.2	3.9
20°-30°	1943.4	8.1
30°-40°	3269.7	13.5
40°-50°	4517.7	18.7
50°-60°	5639.5	23.4
60°-70°	5074.9	21.0
70°-80°	2127.4	8.8
80°-90°	371.7	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°	24133.9	100.0
0°-180°	24133.9	100.0

**Coefficient of Utilization**



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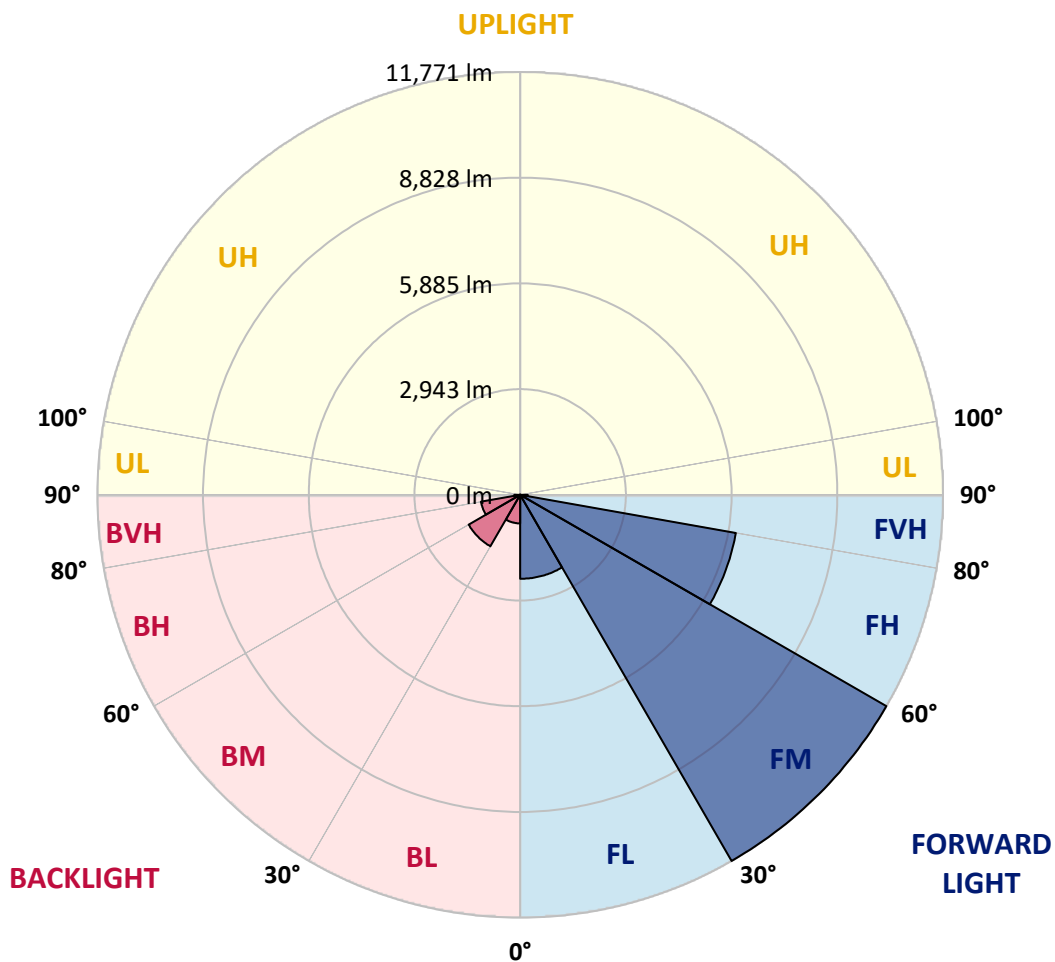
CATALOG NUMBER: GLNA-AF-05-LED-E1-T2R-7030-800

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2337.3	9.7			
FM (30°-60°)	11770.7	48.8			
FH (60°-80°)	6096.1	25.3			G3/7500
FVH (80°-90°)	208.9	0.9			G2/225
BL (0°-30°)	795.7	3.3	B2/1000		
BM (30°-60°)	1656.2	6.9	B2/2500		
BH (60°-80°)	1106.2	4.6	B3/2500		G3/2500
BVH (80°-90°)	162.8	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: 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°	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3
2.5°	2490.3	2462.9	2469.6	2423.9	2368.0	2294.8	2213.8	2212.8	2213.8	2205.7	2176.2
5°	3453.0	3420.2	3407.6	3304.6	3153.8	2939.3	2706.2	2681.1	2670.6	2644.5	2583.8
7.5°	4155.8	4137.5	4117.9	4040.3	3903.4	3663.5	3350.3	3296.8	3245.3	3232.8	3164.3
10°	4609.2	4604.5	4563.5	4542.8	4457.4	4249.4	3944.4	3892.9	3837.0	3817.6	3745.5
12.5°	4967.7	4966.7	4947.4	4953.2	4878.6	4728.2	4465.2	4418.4	4377.4	4317.8	4266.6
15°	5215.8	5216.8	5245.6	5277.5	5265.9	5164.3	4917.6	4896.9	4861.7	4820.7	4760.0
17.5°	5419.1	5424.9	5454.4	5512.6	5575.7	5567.5	5372.3	5355.1	5324.2	5268.3	5236.5
20°	5878.3	5900.0	5843.0	5843.0	5849.8	5880.6	5786.8	5773.2	5729.8	5700.0	5675.0
22.5°	6653.9	6679.0	6549.9	6418.8	6289.7	6195.8	6102.3	6119.2	6089.7	6069.1	6054.1
25°	7661.4	7681.0	7471.9	7250.3	6987.4	6644.8	6413.0	6402.5	6386.6	6374.0	6367.3
27.5°	8609.5	8617.6	8420.1	8095.5	7790.5	7298.1	6728.1	6715.6	6696.3	6672.2	6651.6
30°	9420.8	9418.4	9215.1	8905.3	8578.7	8033.8	7207.0	7168.0	7110.7	7045.7	6995.5
32.5°	10123.2	10119.8	9896.9	9576.0	9233.4	8762.7	7862.7	7782.7	7693.6	7566.5	7490.2
35°	10675.9	10673.9	10463.4	10129.0	9735.9	9449.2	8614.3	8516.0	8402.8	8232.7	8115.1
37.5°	10885.0	10885.0	10767.4	10539.0	10191.7	9995.1	9449.2	9330.3	9209.3	9016.2	8883.7
40°	10762.7	10765.0	10790.1	10748.1	10579.0	10428.2	10228.3	10157.4	10053.4	9879.9	9741.7
42.5°	10352.6	10365.2	10532.2	10736.6	10820.9	10797.2	10919.2	10887.4	10814.2	10680.7	10570.9
45°	9832.8	9871.8	10054.4	10440.7	10888.4	11115.8	11498.3	11501.7	11488.2	11416.3	11331.6
47.5°	9119.2	9173.7	9415.0	9936.8	10730.8	11425.5	12086.6	12117.4	12146.2	12099.5	12060.5
50°	8171.0	8236.1	8597.0	9289.3	10409.9	11746.4	13198.1	13337.7	13467.8	13451.9	13478.0
52.5°	7155.4	7232.0	7673.9	8445.2	9858.2	11820.6	13908.7	14136.0	14363.4	14549.5	14747.0
55°	6239.2	6198.2	6640.4	7452.3	8951.1	11485.8	14547.4	14821.6	15075.0	15303.4	15538.9
57.5°	4997.6	5065.0	5508.2	6311.3	7750.5	10541.0	14986.9	15388.1	15752.4	16130.6	16464.0
60°	3653.0	3720.4	4201.2	5016.9	6447.2	9108.7	14651.1	15259.0	15842.6	16421.7	16874.1
62.5°	2205.7	2256.2	2679.7	3456.8	4971.5	7410.3	13154.7	13952.0	14811.1	15503.4	16196.7
65°	1373.1	1401.5	1558.1	1985.4	3192.8	5532.3	10748.1	11617.3	12542.4	13421.0	14141.8
67.5°	1124.0	1134.2	1163.0	1254.1	1753.3	3607.5	7999.6	8769.5	9604.4	10454.3	11256.4
70°	1010.8	1004.1	1004.1	1009.8	1124.0	1939.7	5237.5	5739.0	6434.7	7173.7	7907.1
72.5°	912.6	905.8	893.2	876.3	917.3	1183.3	2707.2	3085.4	3586.9	4243.6	4946.1
75°	820.1	810.9	796.3	774.6	803.1	893.2	1299.9	1458.8	1703.1	2052.8	2444.6
77.5°	724.2	712.6	699.1	683.1	719.7	694.7	761.8	819.0	912.6	1024.7	1172.1
80°	615.7	605.5	600.8	593.0	636.4	529.0	538.1	573.4	628.3	688.9	757.4
82.5°	482.2	482.2	500.2	503.9	551.7	380.5	402.2	433.1	461.5	493.4	525.6
85°	317.5	319.9	381.6	405.6	435.1	255.8	301.6	311.8	334.8	353.1	366.7
87.5°	99.3	107.4	233.1	258.2	250.1	145.0	185.0	189.8	205.7	218.2	229.7
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°	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3
2.5°	2176.2	2162.3	2149.8	2148.7	2139.6	2127.0	2131.5	2112.1	2113.2	2103.0	2091.5
5°	2558.8	2549.6	2503.9	2491.3	2457.1	2435.4	2432.0	2386.3	2380.5	2354.4	2325.6
7.5°	3109.4	3079.6	3015.5	2984.7	2926.4	2883.1	2862.7	2802.1	2772.2	2703.8	2673.0
10°	3686.2	3648.5	3569.6	3526.2	3470.3	3400.5	3362.9	3275.1	3240.6	3177.9	3102.6
12.5°	4220.9	4183.3	4101.9	4068.7	3994.5	3920.3	3879.3	3780.0	3735.3	3634.7	3575.4
15°	4715.3	4677.7	4606.9	4572.6	4498.4	4437.8	4382.9	4284.9	4232.4	4138.5	4060.9
17.5°	5195.1	5155.1	5093.5	5062.6	4990.8	4929.1	4869.8	4777.0	4723.4	4629.9	4560.1
20°	5640.7	5610.9	5566.5	5525.2	5453.3	5397.4	5326.6	5246.6	5169.0	5100.2	5034.2
22.5°	6029.1	6017.5	5969.8	5951.5	5889.8	5841.7	5780.0	5701.4	5645.1	5558.4	5496.7
25°	6363.9	6360.5	6337.4	6331.7	6288.3	6242.6	6229.0	6163.9	6112.4	6035.8	5972.1
27.5°	6651.6	6654.9	6649.5	6665.5	6653.9	6633.3	6634.6	6612.9	6583.1	6519.1	6463.2
30°	6971.4	6953.1	6963.7	6986.4	6993.1	6995.5	7033.1	7045.7	7043.6	7001.3	6973.8
32.5°	7423.8	7380.5	7340.5	7337.1	7359.8	7368.9	7433.0	7466.2	7494.7	7504.8	7509.6
35°	8000.6	7913.8	7830.5	7786.1	7747.1	7757.3	7803.0	7856.9	7919.6	7963.0	8014.5
37.5°	8727.1	8621.0	8473.6	8368.6	8342.2	8285.2	8314.7	8357.1	8418.7	8486.2	8575.3
40°	9607.8	9446.8	9281.1	9141.9	9066.6	8961.3	8960.2	8952.1	8990.1	9052.7	9178.5
42.5°	10455.6	10312.6	10136.8	9990.7	9892.5	9751.8	9723.4	9649.1	9666.1	9721.0	9843.3
45°	11249.3	11131.7	11024.3	10855.5	10771.8	10620.0	10571.9	10484.1	10435.0	10460.1	10582.4
47.5°	12018.1	11942.9	11830.8	11721.3	11657.3	11521.4	11459.7	11396.7	11334.0	11331.6	11459.7
50°	13516.9	13477.0	13344.5	13230.3	13261.1	13094.4	13104.5	12935.5	13012.0	13021.2	13289.6
52.5°	14925.3	15064.9	15163.1	15282.8	15360.7	15375.6	15426.8	15503.4	15595.9	15778.5	16027.6
55°	15731.8	15906.6	16008.3	16099.8	16250.6	16282.4	16368.1	16469.8	16550.8	16756.5	16967.9
57.5°	16690.4	17014.7	17172.3	17317.3	17520.6	17598.2	17741.2	17852.0	17957.1	18200.4	18456.2
60°	17280.7	17676.2	17997.1	18226.5	18481.3	18664.3	18880.1	19053.6	19300.3	19591.8	19973.3
62.5°	16811.4	17391.5	17817.8	18211.9	18557.9	18907.6	19217.0	19541.6	19916.0	20356.9	20948.9
65°	14941.5	15531.8	16261.7	16670.7	17128.9	17668.0	18138.7	18664.3	19174.6	19816.8	20691.7
67.5°	12028.7	12714.9	13535.2	13947.6	14474.2	15076.1	15604.0	16245.8	16842.2	17619.9	18701.9
70°	8670.2	9557.7	10247.6	10678.3	11293.0	11913.1	12422.8	13169.6	13663.0	14460.3	15578.9
72.5°	5489.9	6190.0	7035.5	7578.0	8123.9	8752.5	9273.3	9917.5	10377.7	11104.2	12117.4
75°	2951.8	3467.9	4210.4	4725.8	5310.7	5847.4	6457.4	6889.1	7229.7	7804.4	8626.8
77.5°	1383.2	1697.4	2073.2	2469.6	2866.1	3279.5	3681.8	4031.1	4177.5	4506.6	4991.8
80°	839.7	941.4	1050.8	1173.1	1338.9	1472.4	1649.6	1777.3	1786.5	1890.5	2038.9
82.5°	560.8	598.4	631.6	662.5	704.8	738.0	775.7	820.1	838.3	862.4	910.5
85°	382.6	400.9	407.7	427.3	422.6	434.1	449.0	463.9	471.7	470.7	492.4
87.5°	235.2	244.3	249.1	253.5	250.1	245.7	252.5	260.6	262.6	255.8	258.2
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):**

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3
2.5°	2093.8	2083.7	2073.2	2066.4	2064.0	2003.7	1977.3	1960.3	1923.7	1893.9	1869.9
5°	2309.7	2288.0	2271.1	2250.4	2238.9	2085.7	2029.8	1991.2	1927.1	1889.5	1854.9
7.5°	2657.0	2596.4	2561.1	2521.1	2486.9	2210.4	2117.9	2057.2	1968.1	1918.0	1879.0
10°	3051.1	2988.4	2932.2	2870.5	2817.0	2376.1	2241.2	2147.4	2029.8	1964.7	1913.2
12.5°	3491.0	3429.3	3358.5	3279.5	3211.1	2586.2	2398.8	2265.3	2104.0	2017.3	1945.4
15°	4010.8	3902.0	3816.3	3725.1	3645.2	2837.6	2582.8	2397.8	2183.0	2065.4	1969.5
17.5°	4493.7	4379.5	4263.2	4183.3	4090.8	3119.6	2767.8	2532.3	2248.0	2096.2	1973.9
20°	4965.7	4841.0	4740.7	4633.3	4536.0	3412.0	2965.4	2651.3	2290.4	2097.2	1945.4
22.5°	5381.5	5303.6	5191.7	5075.2	4976.9	3704.5	3150.4	2751.9	2306.3	2071.1	1894.9
25°	5854.2	5772.2	5635.0	5536.7	5427.2	4002.7	3332.0	2829.5	2297.2	2022.0	1817.3
27.5°	6359.1	6268.0	6127.3	6024.7	5892.2	4312.0	3498.8	2885.4	2262.9	1942.0	1713.3
30°	6885.7	6802.4	6664.1	6560.4	6426.6	4640.1	3685.1	2923.0	2194.5	1831.2	1592.3
32.5°	7451.3	7381.5	7244.6	7136.1	6993.1	4995.2	3858.6	2934.6	2090.5	1699.7	1464.6
35°	7988.0	7940.3	7824.7	7723.0	7574.6	5331.0	4042.6	2928.8	1967.1	1555.7	1348.0
37.5°	8592.6	8563.8	8506.8	8377.7	8196.1	5786.8	4263.2	2904.7	1816.3	1413.1	1258.9
40°	9236.8	9239.1	9177.5	9089.3	8920.3	6339.8	4525.9	2858.0	1651.6	1287.3	1177.6
42.5°	9918.5	9954.1	9924.3	9861.6	9699.3	6897.2	4840.0	2801.0	1492.0	1165.0	1097.9
45°	10700.0	10743.3	10789.1	10696.6	10539.0	7632.9	5253.4	2726.8	1319.2	1063.4	1043.0
47.5°	11601.3	11669.8	11710.8	11712.2	11554.6	8544.5	5925.0	2682.1	1166.4	994.9	1016.6
50°	13503.0	13525.1	13622.0	13791.1	13670.1	10654.2	7098.2	2654.7	1062.3	952.5	997.3
52.5°	16243.4	16482.3	16650.4	16638.9	16474.2	11994.1	7744.7	2513.0	1000.7	936.6	988.1
55°	17359.7	17657.9	17968.6	18050.6	17922.8	13137.8	8356.0	2371.4	970.8	948.1	991.5
57.5°	18846.9	19349.5	19775.8	19955.0	19770.0	14601.0	9160.2	2297.2	961.7	979.0	1013.2
60°	20584.3	21205.8	21765.6	22087.5	22087.5	16282.4	9994.1	2266.3	949.2	1024.7	1049.8
62.5°	21700.5	22613.1	23458.5	23930.2	23916.3	17453.2	10364.2	2161.3	920.7	1056.6	1100.0
65°	21704.9	22790.3	23867.2	24397.5	24424.6	17309.5	9753.2	1908.8	868.2	1061.3	1150.4
67.5°	19895.7	21052.6	22308.1	22901.1	23038.0	15934.1	8442.8	1569.6	782.4	1015.6	1168.7
70°	16803.2	17933.0	19214.6	19797.4	20040.7	13583.0	6800.0	1209.7	673.0	914.9	1130.8
72.5°	13238.1	14346.1	15238.4	15664.3	15854.1	10382.5	4951.8	913.9	551.7	770.9	1029.1
75°	9372.6	10204.2	10678.3	10773.2	10802.6	6258.8	3008.8	679.8	454.8	599.8	869.2
77.5°	5290.0	5646.5	5607.5	5649.9	5298.1	2416.1	1310.4	486.6	374.8	455.8	674.0
80°	2065.4	2129.4	2000.3	1960.3	1798.0	899.0	578.1	339.2	299.2	345.0	471.7
82.5°	910.5	940.0	912.6	919.7	879.7	463.9	346.0	245.7	228.4	252.5	313.1
85°	501.5	510.7	508.3	523.2	501.5	185.0	164.3	150.8	159.9	171.5	200.9
87.5°	244.3	246.7	238.9	251.4	243.3	93.5	81.0	85.7	93.5	95.9	95.9
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):**

	135°	145°	155°	165°	175°	180°
0°	1961.3	1961.3	1961.3	1961.3	1961.3	1961.3
2.5°	1852.9	1843.8	1844.8	1842.4	1838.0	1838.0
5°	1837.0	1827.8	1827.8	1825.5	1819.7	1820.7
7.5°	1852.9	1838.0	1832.2	1824.1	1816.3	1816.3
10°	1871.2	1844.8	1828.8	1815.3	1804.8	1804.8
12.5°	1884.8	1843.8	1817.3	1799.0	1788.9	1788.9
15°	1889.5	1835.6	1799.0	1777.3	1768.2	1767.2
17.5°	1874.6	1804.8	1760.4	1735.3	1723.8	1720.4
20°	1828.8	1748.9	1695.3	1666.5	1650.6	1644.8
22.5°	1760.4	1668.9	1606.2	1576.4	1555.7	1552.3
25°	1664.5	1566.2	1504.6	1475.8	1464.6	1460.8
27.5°	1552.3	1460.8	1408.3	1390.0	1379.9	1378.8
30°	1446.3	1368.3	1329.7	1315.8	1303.3	1301.2
32.5°	1346.6	1297.5	1282.9	1263.3	1233.8	1230.4
35°	1275.8	1271.4	1261.3	1217.5	1181.3	1170.8
37.5°	1232.4	1274.8	1222.3	1136.5	1110.5	1108.1
40°	1207.4	1239.6	1149.1	1119.6	1121.6	1119.6
42.5°	1150.4	1183.3	1151.5	1137.9	1146.7	1149.1
45°	1093.2	1129.8	1168.7	1159.6	1181.3	1181.3
47.5°	1061.3	1115.9	1167.4	1167.4	1199.6	1210.8
50°	1024.7	1104.7	1149.1	1165.0	1190.4	1181.3
52.5°	1022.4	1085.0	1123.0	1151.5	1163.0	1152.5
55°	1025.7	1069.1	1096.6	1128.8	1142.3	1143.3
57.5°	1030.5	1060.0	1078.3	1093.2	1134.2	1134.2
60°	1041.7	1052.2	1062.3	1070.5	1124.0	1125.0
62.5°	1060.0	1044.0	1041.7	1049.8	1118.3	1113.8
65°	1088.8	1032.5	1015.6	1023.4	1112.5	1098.9
67.5°	1127.4	1015.6	982.4	988.1	1108.1	1078.3
70°	1163.0	988.1	941.4	935.6	1064.7	1012.2
72.5°	1166.4	956.3	884.1	867.2	925.4	874.9
75°	1109.1	934.2	821.4	770.9	764.1	757.4
77.5°	999.6	921.7	748.2	669.3	655.7	660.1
80°	836.3	874.9	660.1	566.6	640.8	633.0
82.5°	624.9	772.3	560.8	501.5	500.2	442.2
85°	347.3	602.2	456.8	375.8	261.6	253.5
87.5°	97.3	334.8	319.9	212.5	145.0	150.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)