

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: P301713

Luminaire Tested: **GLNA-AF-06-LED-E1-T2R-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301713  
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-600  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(6) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24346.4 lumens  
Efficiency: N/A  
Efficacy: 126.1 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

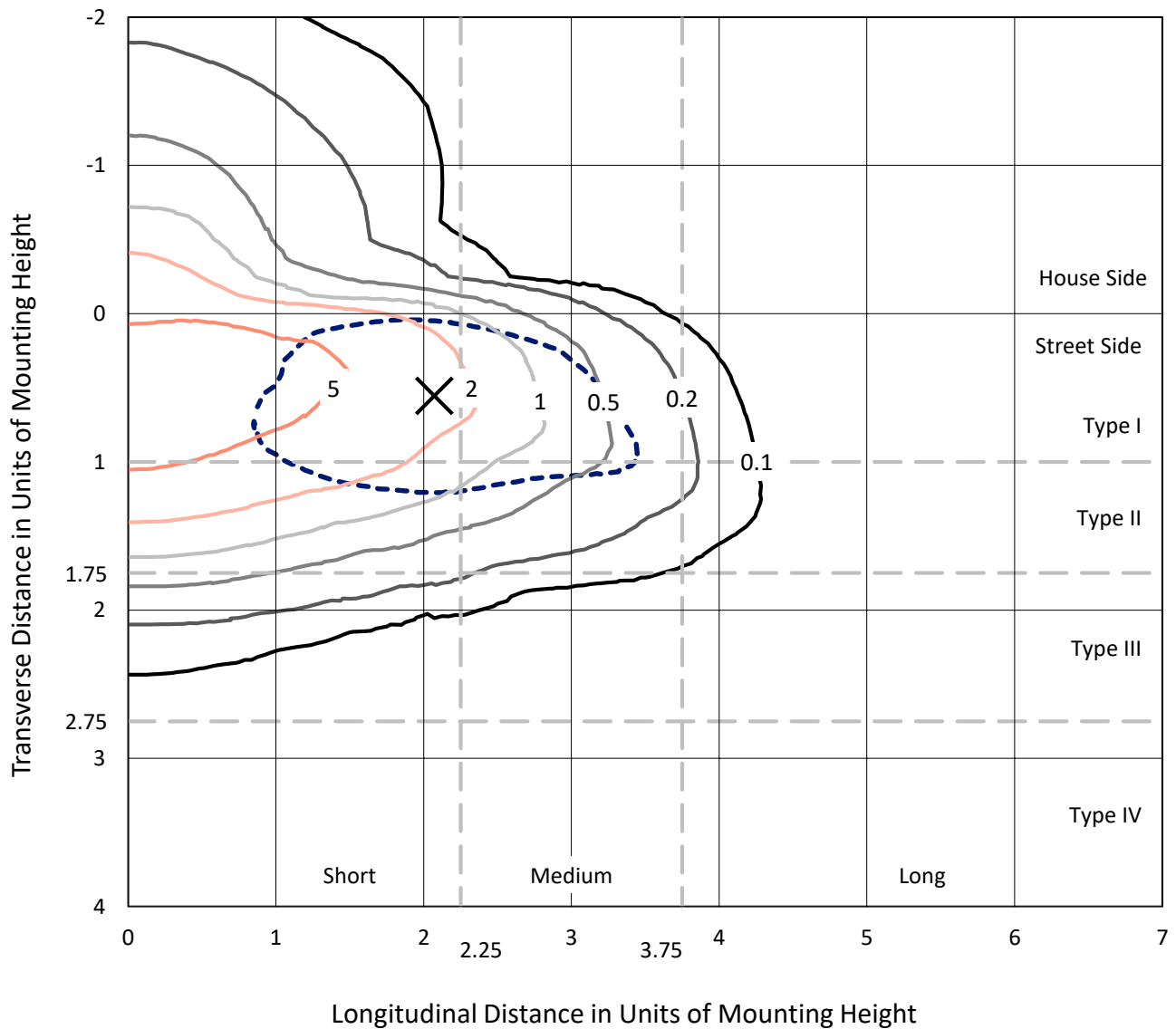
Input Watts (W): 193  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

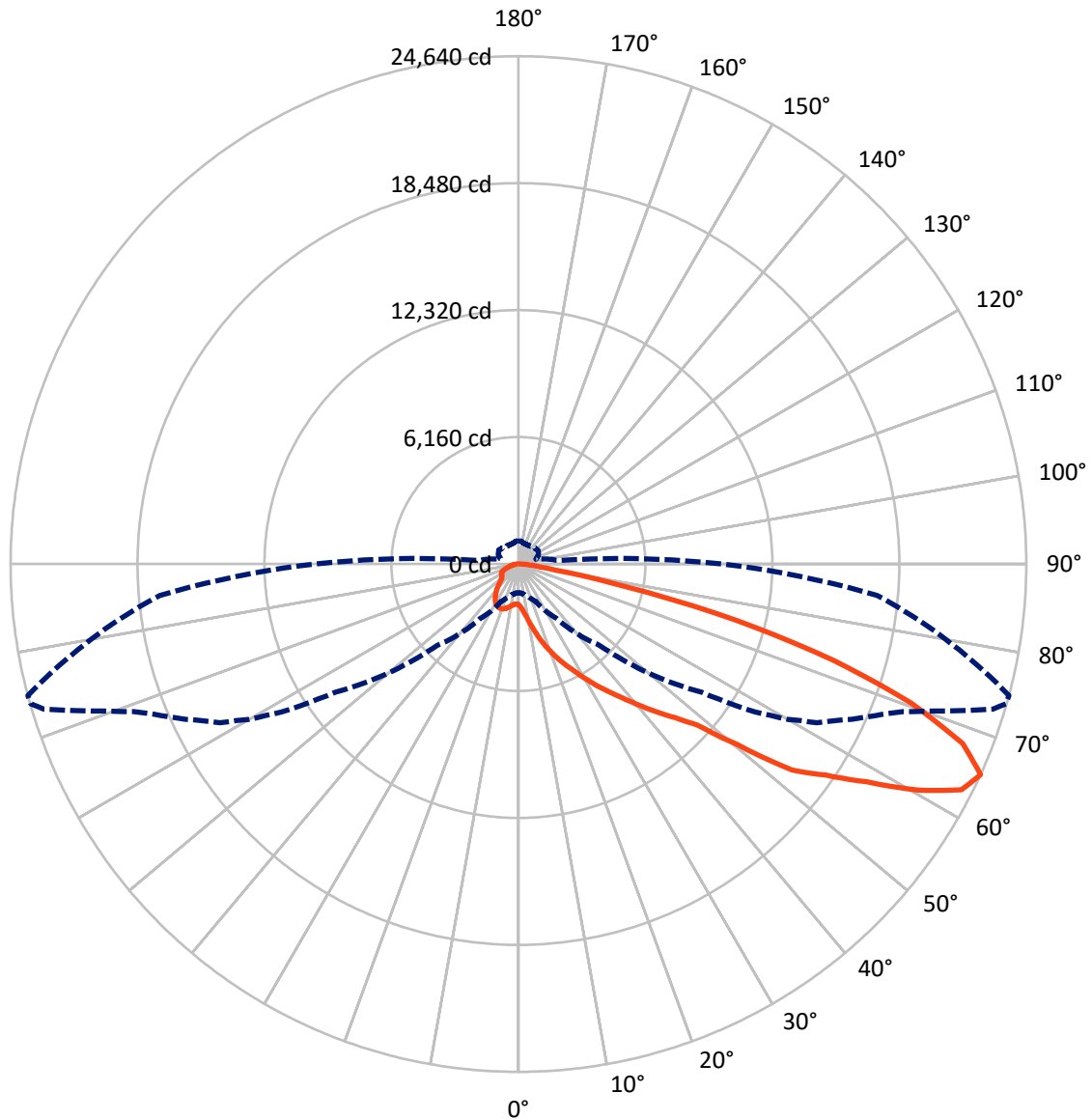
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 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	3753.6	0.0	3753.6
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	20592.8	0.0	20592.8
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	24346.4	0.0	24346.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	244.6	1.0
10°-20°	955.6	3.9
20°-30°	1960.5	8.1
30°-40°	3298.4	13.5
40°-50°	4557.5	18.7
50°-60°	5689.1	23.4
60°-70°	5119.6	21.0
70°-80°	2146.1	8.8
80°-90°	374.9	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°	24346.4	100.0
0°-180°	24346.4	100.0

**Coefficient of Utilization**



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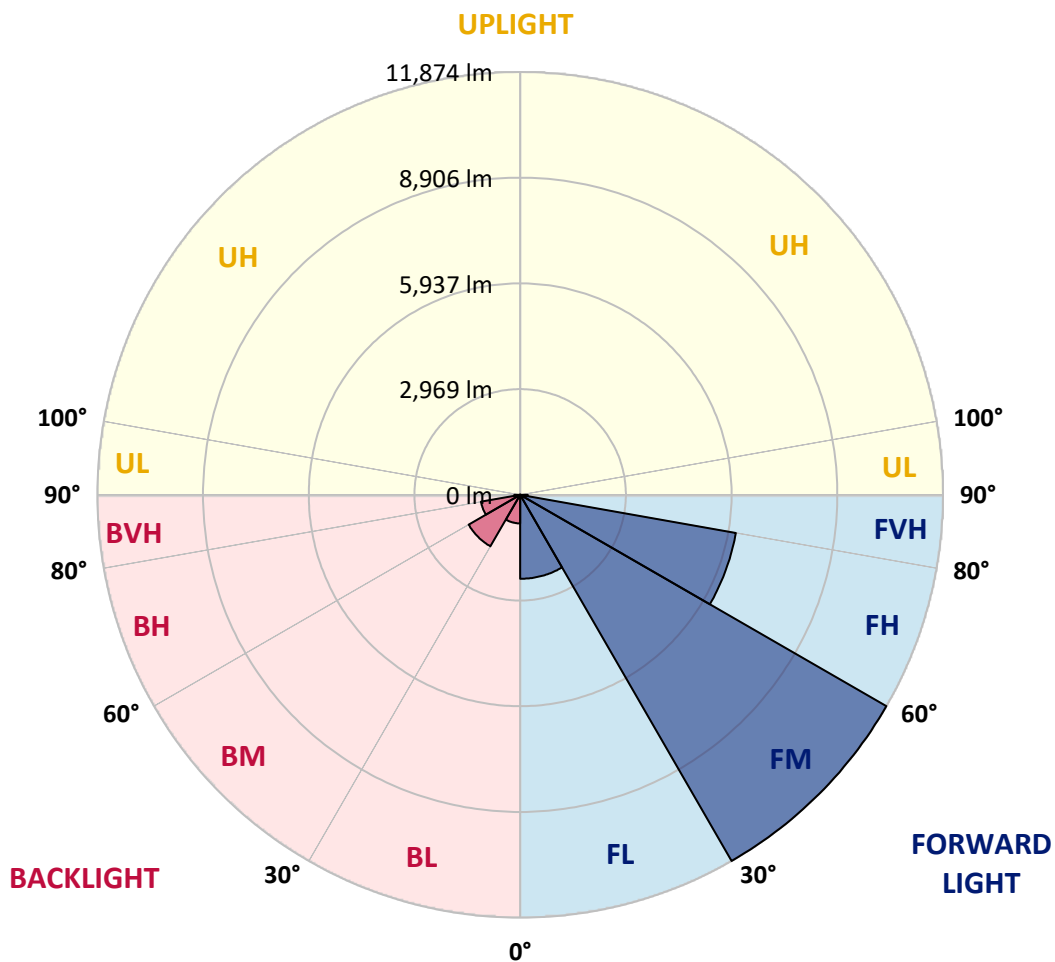
CATALOG NUMBER: GLNA-AF-06-LED-E1-T2R-600

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2357.9	9.7			
FM (30°-60°)	11874.3	48.8			
FH (60°-80°)	6149.8	25.3			G3/7500
FVH (80°-90°)	210.7	0.9			G2/225
BL (0°-30°)	802.8	3.3	B2/1000		
BM (30°-60°)	1670.8	6.9	B2/2500		
BH (60°-80°)	1115.9	4.6	B3/2500		G3/2500
BVH (80°-90°)	164.2	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°	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6
2.5°	2512.2	2484.6	2491.4	2445.2	2388.8	2315.0	2233.3	2232.3	2233.3	2225.1	2195.3
5°	3483.4	3450.3	3437.6	3333.7	3181.6	2965.2	2730.0	2704.7	2694.1	2667.8	2606.6
7.5°	4192.4	4174.0	4154.1	4075.9	3937.7	3695.7	3379.9	3325.8	3273.9	3261.2	3192.2
10°	4649.8	4645.0	4603.7	4582.8	4496.7	4286.8	3979.1	3927.1	3870.7	3851.3	3778.4
12.5°	5011.5	5010.5	4991.0	4996.8	4921.6	4769.8	4504.5	4457.4	4416.0	4355.8	4304.2
15°	5261.7	5262.7	5291.8	5323.9	5312.3	5209.8	4960.9	4940.0	4904.5	4863.1	4801.9
17.5°	5466.8	5472.6	5502.4	5561.2	5624.8	5616.6	5419.7	5402.2	5371.1	5314.7	5282.6
20°	5930.0	5951.9	5894.5	5894.5	5901.3	5932.4	5837.7	5824.1	5780.3	5750.2	5724.9
22.5°	6712.5	6737.8	6607.6	6475.3	6345.0	6250.3	6156.0	6173.1	6143.3	6122.5	6107.5
25°	7728.8	7748.7	7537.7	7314.2	7048.9	6703.3	6469.5	6458.9	6442.8	6430.2	6423.3
27.5°	8685.3	8693.5	8494.2	8166.7	7859.1	7362.4	6787.4	6774.7	6755.3	6731.0	6710.1
30°	9503.7	9501.3	9296.2	8983.8	8654.2	8104.5	7270.4	7231.1	7173.3	7107.7	7057.1
32.5°	10212.4	10208.9	9984.0	9660.3	9314.7	8839.8	7931.9	7851.2	7761.3	7633.1	7556.2
35°	10769.9	10767.9	10555.6	10218.2	9821.6	9532.4	8690.1	8591.0	8476.8	8305.2	8186.6
37.5°	10980.8	10980.8	10862.2	10631.8	10281.4	10083.1	9532.4	9412.4	9290.4	9095.5	8961.9
40°	10857.4	10859.8	10885.1	10842.7	10672.2	10520.0	10318.3	10246.9	10141.9	9966.9	9827.4
42.5°	10443.8	10456.4	10625.0	10831.1	10916.2	10892.3	11015.4	10983.2	10909.4	10774.7	10663.9
45°	9919.4	9958.7	10143.0	10532.7	10984.3	11213.6	11599.6	11603.0	11589.3	11516.9	11431.4
47.5°	9199.5	9254.5	9497.9	10024.3	10825.3	11526.1	12193.0	12224.1	12253.2	12206.0	12166.7
50°	8243.0	8308.6	8672.7	9371.1	10501.6	11849.8	13314.3	13455.1	13586.4	13570.3	13596.7
52.5°	7218.5	7295.7	7741.5	8519.5	9945.0	11924.7	14031.1	14260.5	14489.9	14677.6	14876.9
55°	6294.1	6252.7	6698.9	7517.9	9029.9	11586.9	14675.5	14952.1	15207.8	15438.2	15675.8
57.5°	5041.6	5109.6	5556.7	6366.9	7818.7	10633.9	15118.9	15523.7	15891.1	16272.6	16609.0
60°	3685.1	3753.1	4238.2	5061.1	6504.0	9188.9	14780.1	15393.4	15982.1	16566.3	17022.7
62.5°	2225.1	2276.0	2703.3	3487.2	5015.3	7475.5	13270.5	14074.9	14941.5	15639.9	16339.3
65°	1385.2	1413.9	1571.8	2002.9	3220.9	5581.0	10842.7	11719.6	12652.8	13539.2	14266.3
67.5°	1133.9	1144.2	1173.2	1265.2	1768.7	3639.3	8070.0	8846.7	9689.0	10546.4	11355.5
70°	1019.7	1012.9	1012.9	1018.7	1133.9	1956.7	5283.6	5789.5	6491.4	7236.9	7976.7
72.5°	920.6	913.8	901.1	884.0	925.4	1193.7	2731.0	3112.5	3618.5	4281.0	4989.6
75°	827.3	818.0	803.3	781.5	810.2	901.1	1311.3	1471.7	1718.1	2070.9	2466.1
77.5°	730.5	718.9	705.2	689.2	726.1	700.8	768.5	826.2	920.6	1033.7	1182.5
80°	621.1	610.9	606.1	598.2	642.0	533.6	542.9	578.4	633.8	695.0	764.0
82.5°	486.4	486.4	504.6	508.3	556.5	383.9	405.8	436.9	465.6	497.7	530.2
85°	320.3	322.7	384.9	409.2	438.9	258.1	304.2	314.5	337.7	356.2	369.9
87.5°	100.2	108.4	235.2	260.5	252.3	146.3	186.6	191.4	207.5	220.2	231.8
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°	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6
2.5°	2195.3	2181.3	2168.7	2167.7	2158.4	2145.8	2150.2	2130.7	2131.8	2121.5	2109.9
5°	2581.3	2572.1	2525.9	2513.3	2478.7	2456.9	2453.4	2407.3	2401.5	2375.2	2346.1
7.5°	3136.8	3106.7	3042.1	3011.0	2952.2	2908.4	2887.9	2826.7	2796.7	2727.6	2696.5
10°	3718.6	3680.7	3601.0	3557.3	3500.9	3430.4	3392.5	3304.0	3269.1	3205.8	3130.0
12.5°	4258.1	4220.1	4138.1	4104.6	4029.7	3954.8	3913.5	3813.3	3768.2	3666.7	3606.8
15°	4756.8	4718.9	4647.4	4612.9	4538.0	4476.8	4421.5	4322.7	4269.7	4175.0	4096.7
17.5°	5240.9	5200.5	5138.3	5107.2	5034.7	4972.5	4912.7	4819.0	4765.0	4670.7	4600.2
20°	5690.4	5660.3	5615.5	5573.8	5501.4	5445.0	5373.5	5292.8	5214.5	5145.2	5078.5
22.5°	6082.2	6070.5	6022.3	6003.9	5941.7	5893.1	5830.9	5751.6	5694.8	5607.3	5545.1
25°	6419.9	6416.5	6393.2	6387.4	6343.7	6297.5	6283.8	6218.2	6166.3	6089.0	6024.7
27.5°	6710.1	6713.6	6708.1	6724.1	6712.5	6691.7	6693.0	6671.2	6641.1	6576.5	6520.1
30°	7032.8	7014.4	7025.0	7047.9	7054.7	7057.1	7095.1	7107.7	7105.7	7062.9	7035.2
32.5°	7489.2	7445.4	7405.1	7401.7	7424.6	7433.8	7498.4	7531.9	7560.7	7570.9	7575.7
35°	8071.0	7983.5	7899.4	7854.6	7815.3	7825.6	7871.7	7926.1	7989.3	8033.1	8085.0
37.5°	8804.0	8697.0	8548.2	8442.3	8415.6	8358.2	8387.9	8430.7	8492.9	8560.9	8650.8
40°	9692.4	9530.0	9362.9	9222.4	9146.5	9040.2	9039.1	9030.9	9069.2	9132.5	9259.3
42.5°	10547.7	10403.5	10226.0	10078.7	9979.6	9837.7	9809.0	9734.1	9751.2	9806.6	9930.0
45°	11348.3	11229.7	11121.3	10951.1	10866.7	10713.5	10665.0	10576.4	10526.9	10552.2	10675.6
47.5°	12124.0	12048.1	11934.9	11824.5	11759.9	11622.8	11560.6	11497.0	11433.8	11431.4	11560.6
50°	13636.0	13595.6	13462.0	13346.8	13377.9	13209.7	13219.9	13049.4	13126.6	13135.8	13406.6
52.5°	15056.7	15197.5	15296.7	15417.3	15496.0	15511.0	15562.6	15639.9	15733.2	15917.5	16168.7
55°	15870.3	16046.7	16149.2	16241.5	16393.7	16425.8	16512.3	16614.8	16696.5	16904.0	17117.4
57.5°	16837.4	17164.5	17323.5	17469.8	17674.9	17753.2	17897.4	18009.2	18115.2	18360.7	18618.7
60°	17432.9	17831.8	18155.5	18387.0	18644.0	18828.6	19046.4	19221.4	19470.3	19764.3	20149.2
62.5°	16959.4	17544.7	17974.7	18372.3	18721.3	19074.1	19386.2	19713.7	20091.4	20536.2	21133.4
65°	15073.1	15668.6	16404.9	16817.6	17279.7	17823.6	18298.4	18828.6	19343.5	19991.3	20873.9
67.5°	12134.6	12826.8	13654.4	14070.5	14601.7	15208.8	15741.4	16388.9	16990.5	17775.1	18866.6
70°	8746.5	9641.8	10337.8	10772.3	11392.4	12018.0	12532.1	13285.6	13783.3	14587.7	15716.1
72.5°	5538.3	6244.5	7097.4	7644.7	8195.5	8829.6	9355.0	10004.9	10469.1	11202.0	12224.1
75°	2977.8	3498.5	4247.5	4767.4	5357.4	5898.9	6514.3	6949.8	7293.3	7873.1	8702.8
77.5°	1395.4	1712.3	2091.4	2491.4	2891.3	3308.4	3714.2	4066.6	4214.3	4546.2	5035.8
80°	847.1	949.7	1060.1	1183.5	1350.6	1485.3	1664.1	1793.0	1802.2	1907.2	2056.9
82.5°	565.8	603.7	637.2	668.3	711.0	744.5	782.5	827.3	845.7	870.0	918.5
85°	385.9	404.4	411.2	431.1	426.3	437.9	452.9	468.0	475.9	474.8	496.7
87.5°	237.2	246.5	251.3	255.7	252.3	247.8	254.7	262.9	264.9	258.1	260.5
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°	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6
2.5°	2112.3	2102.0	2091.4	2084.6	2082.2	2021.3	1994.7	1977.6	1940.7	1910.6	1886.3
5°	2330.0	2308.2	2291.1	2270.2	2258.6	2104.1	2047.7	2008.7	1944.1	1906.1	1871.3
7.5°	2680.4	2619.2	2583.7	2543.3	2508.8	2229.9	2136.5	2075.4	1985.5	1934.9	1895.5
10°	3078.0	3014.8	2958.0	2895.8	2841.8	2397.0	2261.0	2166.3	2047.7	1982.0	1930.1
12.5°	3521.7	3459.5	3388.1	3308.4	3239.4	2609.0	2419.9	2285.3	2122.5	2035.0	1962.5
15°	4046.1	3936.4	3849.9	3757.9	3677.3	2862.6	2605.6	2418.9	2202.2	2083.6	1986.8
17.5°	4533.2	4418.0	4300.8	4220.1	4126.8	3147.1	2792.2	2554.6	2267.8	2114.7	1991.3
20°	5009.4	4883.6	4782.5	4674.1	4576.0	3442.1	2991.5	2674.6	2310.6	2115.7	1962.5
22.5°	5428.9	5350.3	5237.5	5119.9	5020.7	3737.1	3178.2	2776.1	2326.6	2089.4	1911.6
25°	5905.8	5823.0	5684.6	5585.5	5475.0	4037.9	3361.4	2854.4	2317.4	2039.8	1833.3
27.5°	6415.1	6323.2	6181.3	6077.7	5944.1	4350.0	3529.6	2910.8	2282.9	1959.1	1728.4
30°	6946.3	6862.3	6722.8	6618.2	6483.1	4680.9	3717.6	2948.8	2213.8	1847.3	1606.3
32.5°	7516.9	7446.5	7308.4	7199.0	7054.7	5039.2	3892.6	2960.4	2108.9	1714.7	1477.5
35°	8058.4	8010.2	7893.6	7791.1	7641.3	5378.0	4078.2	2954.6	1984.4	1569.4	1359.9
37.5°	8668.2	8639.2	8581.8	8451.5	8268.3	5837.7	4300.8	2930.3	1832.3	1425.5	1270.0
40°	9318.1	9320.5	9258.3	9169.4	8998.8	6395.6	4565.7	2883.1	1666.2	1298.7	1187.9
42.5°	10005.9	10041.8	10011.7	9948.5	9784.7	6958.0	4882.6	2825.7	1505.2	1175.3	1107.6
45°	10794.2	10837.9	10884.1	10790.8	10631.8	7700.1	5299.7	2750.9	1330.8	1072.7	1052.2
47.5°	11703.5	11772.6	11813.9	11815.3	11656.3	8619.7	5977.2	2705.7	1176.6	1003.7	1025.5
50°	13622.0	13644.2	13741.9	13912.5	13790.5	10748.0	7160.7	2678.0	1071.7	960.9	1006.1
52.5°	16386.5	16627.5	16797.0	16785.4	16619.3	12099.7	7812.9	2535.1	1009.5	944.9	996.8
55°	17512.5	17813.4	18126.8	18209.6	18080.7	13253.4	8429.6	2392.3	979.4	956.5	1000.2
57.5°	19012.9	19519.9	19949.9	20130.7	19944.1	14729.5	9240.8	2317.4	970.2	987.6	1022.1
60°	20765.6	21392.5	21957.2	22282.0	22282.0	16425.8	10082.1	2286.3	957.5	1033.7	1059.0
62.5°	21891.6	22812.2	23665.1	24141.0	24126.9	17606.9	10455.4	2180.3	928.8	1065.9	1109.6
65°	21896.0	22991.0	24077.4	24612.4	24639.7	17461.9	9839.1	1925.6	875.8	1070.7	1160.6
67.5°	20070.9	21238.0	22504.5	23102.8	23240.9	16074.4	8517.1	1583.4	789.3	1024.5	1179.0
70°	16951.2	18090.9	19383.8	19971.8	20217.2	13702.6	6859.9	1220.4	678.9	923.0	1140.7
72.5°	13354.6	14472.5	15372.6	15802.3	15993.7	10473.9	4995.4	922.0	556.5	777.7	1038.2
75°	9455.2	10294.1	10772.3	10868.0	10897.8	6313.9	3035.3	685.7	458.8	605.1	876.8
77.5°	5336.6	5696.2	5656.9	5699.6	5344.8	2437.4	1321.9	490.9	378.1	459.8	679.9
80°	2083.6	2148.2	2017.9	1977.6	1813.8	906.9	583.2	342.2	301.9	348.0	475.9
82.5°	918.5	948.3	920.6	927.8	887.4	468.0	349.0	247.8	230.4	254.7	315.9
85°	505.9	515.2	512.8	527.8	505.9	186.6	165.8	152.1	161.4	173.0	202.7
87.5°	246.5	248.9	241.0	253.7	245.4	94.4	81.7	86.5	94.4	96.7	96.7
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):**

	135°	145°	155°	165°	175°	180°
0°	1978.6	1978.6	1978.6	1978.6	1978.6	1978.6
2.5°	1869.2	1860.0	1861.0	1858.6	1854.2	1854.2
5°	1853.2	1843.9	1843.9	1841.5	1835.7	1836.7
7.5°	1869.2	1854.2	1848.4	1840.2	1832.3	1832.3
10°	1887.7	1861.0	1845.0	1831.3	1820.7	1820.7
12.5°	1901.4	1860.0	1833.3	1814.9	1804.6	1804.6
15°	1906.1	1851.8	1814.9	1793.0	1783.8	1782.7
17.5°	1891.1	1820.7	1775.9	1750.6	1739.0	1735.6
20°	1845.0	1764.3	1710.3	1681.2	1665.1	1659.3
22.5°	1775.9	1683.6	1620.4	1590.3	1569.4	1566.0
25°	1679.2	1580.0	1517.8	1488.7	1477.5	1473.7
27.5°	1566.0	1473.7	1420.7	1402.3	1392.0	1391.0
30°	1459.0	1380.4	1341.4	1327.4	1314.7	1312.7
32.5°	1358.5	1308.9	1294.2	1274.4	1244.7	1241.2
35°	1287.1	1282.6	1272.4	1228.3	1191.7	1181.1
37.5°	1243.3	1286.0	1233.0	1146.6	1120.2	1117.8
40°	1218.0	1250.5	1159.2	1129.5	1131.5	1129.5
42.5°	1160.6	1193.7	1161.6	1147.9	1156.8	1159.2
45°	1102.8	1139.7	1179.0	1169.8	1191.7	1191.7
47.5°	1070.7	1125.7	1177.7	1177.7	1210.1	1221.4
50°	1033.7	1114.4	1159.2	1175.3	1200.9	1191.7
52.5°	1031.4	1094.6	1132.9	1161.6	1173.2	1162.6
55°	1034.8	1078.5	1106.2	1138.7	1152.4	1153.4
57.5°	1039.6	1069.3	1087.8	1102.8	1144.2	1144.2
60°	1050.8	1061.4	1071.7	1079.9	1133.9	1134.9
62.5°	1069.3	1053.2	1050.8	1059.0	1128.1	1123.7
65°	1098.4	1041.6	1024.5	1032.4	1122.3	1108.6
67.5°	1137.3	1024.5	991.0	996.8	1117.8	1087.8
70°	1173.2	996.8	949.7	943.8	1074.1	1021.1
72.5°	1176.6	964.7	891.9	874.8	933.6	882.7
75°	1118.9	942.5	828.6	777.7	770.9	764.0
77.5°	1008.5	929.8	754.8	675.1	661.5	665.9
80°	843.7	882.7	665.9	571.6	646.4	638.6
82.5°	630.4	779.1	565.8	505.9	504.6	446.1
85°	350.4	607.5	460.8	379.1	263.9	255.7
87.5°	98.1	337.7	322.7	214.3	146.3	152.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)