

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: P191421

Luminaire Tested: **GLEON-AF-03-LED-E1-T2R-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P191421  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24657)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLEON-AF-03-LED-E1-T2R-1200  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21245.7 lumens  
Efficiency: N/A  
Efficacy: 111.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G3

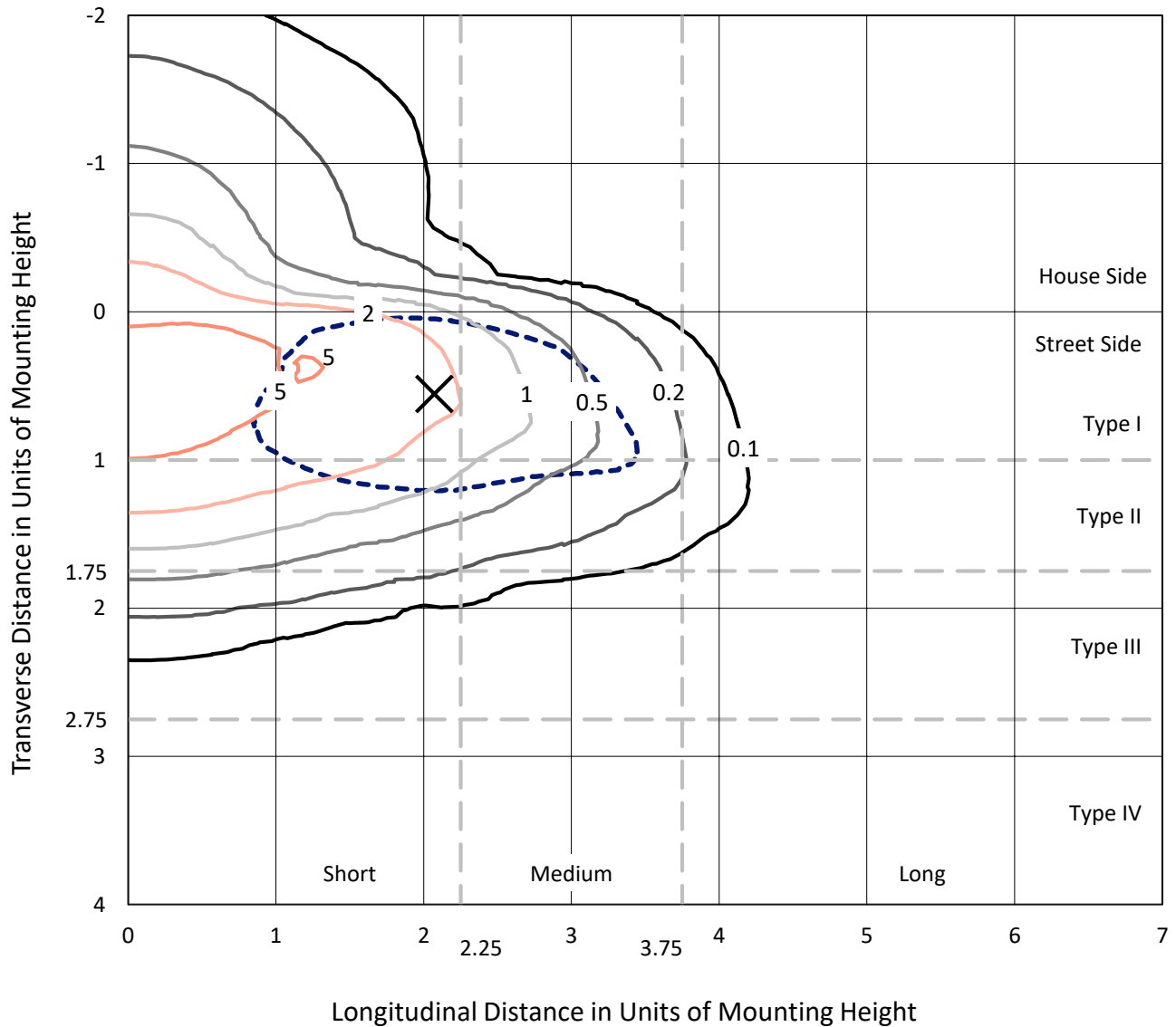
Input Watts (W): 191  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

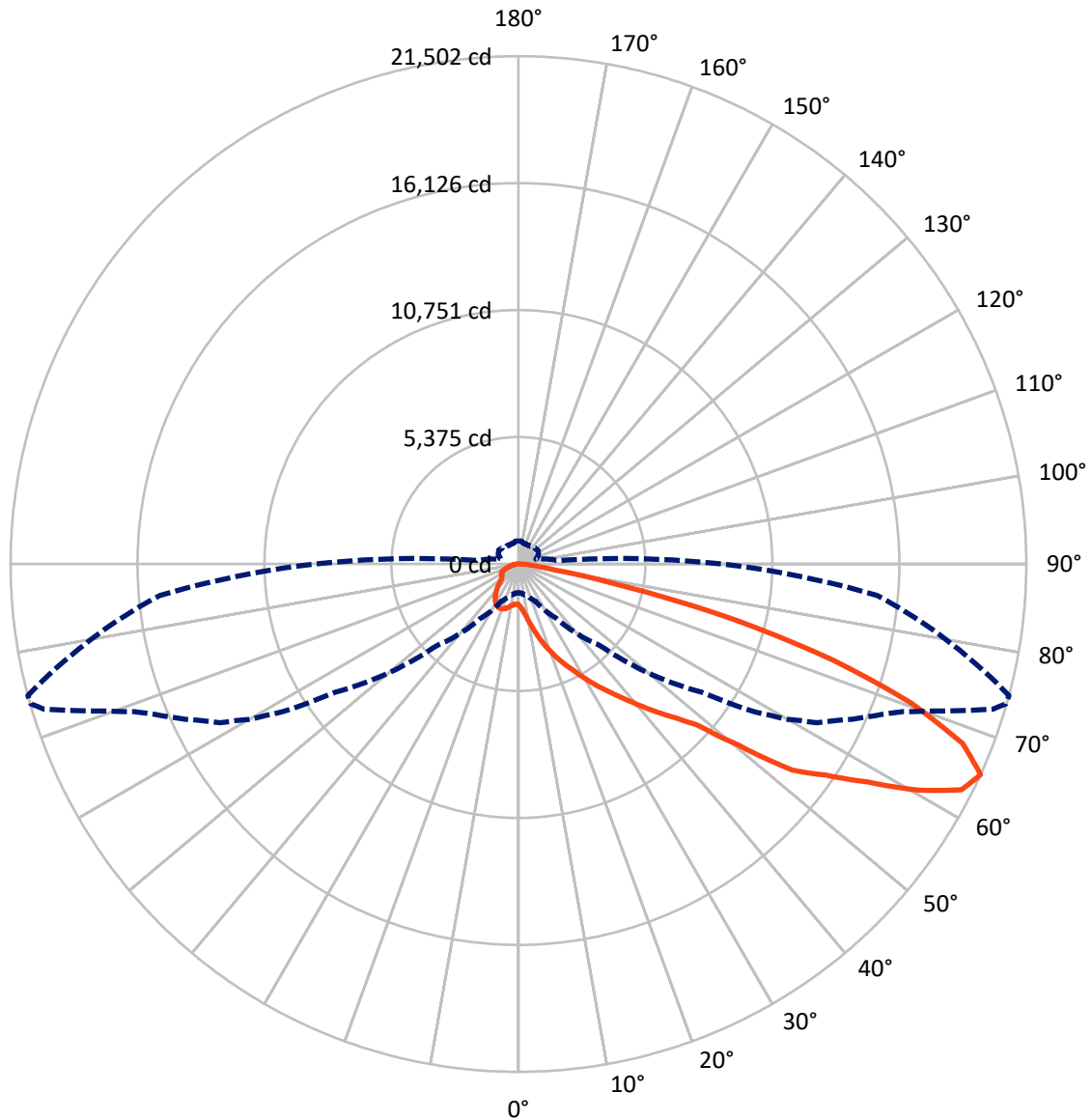
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.6 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	3275.6	0.0	3275.6
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	17970.1	0.0	17970.1
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	21245.7	0.0	21245.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	213.4	1.0
10°-20°	833.9	3.9
20°-30°	1710.8	8.1
30°-40°	2878.4	13.5
40°-50°	3977.1	18.7
50°-60°	4964.6	23.4
60°-70°	4467.6	21.0
70°-80°	1872.8	8.8
80°-90°	327.2	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°	21245.7	100.0
0°-180°	21245.7	100.0

**Coefficient of Utilization**



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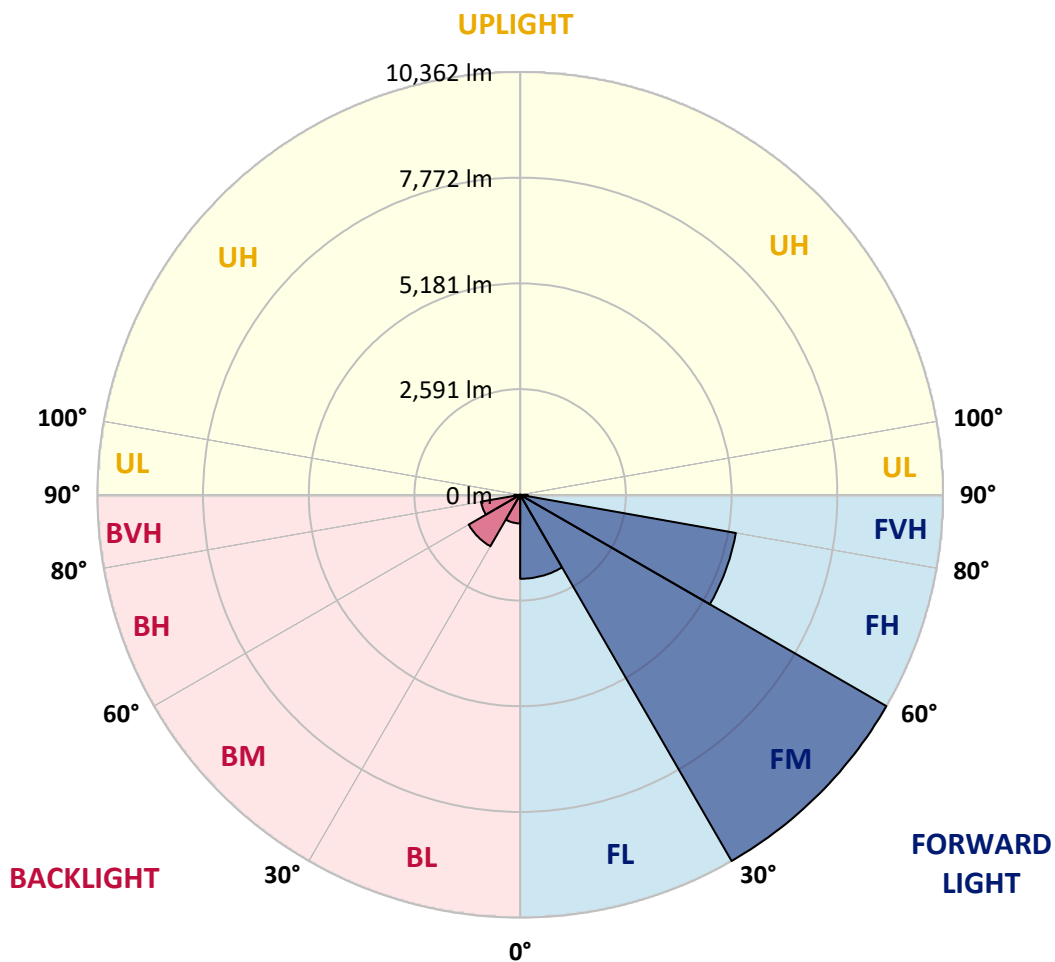
CATALOG NUMBER: GLEON-AF-03-LED-E1-T2R-1200

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2057.6	9.7			
FM (30°-60°)	10362.0	48.8			
FH (60°-80°)	5366.6	25.3			G3/7500
FVH (80°-90°)	183.9	0.9			G2/225
BL (0°-30°)	700.5	3.3	B2/1000		
BM (30°-60°)	1458.0	6.9	B2/2500		
BH (60°-80°)	973.8	4.6	B2/1000		G2/1000
BVH (80°-90°)	143.3	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6
2.5°	2192.2	2168.0	2174.1	2133.9	2084.6	2020.2	1948.8	1947.8	1948.8	1941.8	1915.7
5°	3039.9	3010.7	2999.7	2909.2	2776.5	2587.5	2382.2	2360.2	2351.0	2327.9	2274.6
7.5°	3658.4	3642.3	3625.2	3556.8	3436.1	3225.0	2949.5	2902.2	2856.9	2845.8	2785.5
10°	4057.6	4053.5	4017.3	3999.2	3923.8	3740.8	3472.3	3427.1	3377.8	3360.7	3297.4
12.5°	4373.3	4372.4	4355.2	4360.3	4295.0	4162.2	3930.9	3889.7	3853.5	3801.2	3756.0
15°	4591.6	4592.5	4617.7	4645.8	4635.8	4546.3	4329.1	4311.0	4279.8	4243.6	4190.3
17.5°	4770.5	4775.6	4801.7	4853.0	4908.3	4901.3	4729.3	4714.3	4687.1	4637.9	4609.7
20°	5174.8	5193.9	5143.6	5143.6	5149.6	5176.8	5094.4	5082.3	5044.1	5018.0	4995.8
22.5°	5857.6	5879.7	5766.1	5650.5	5536.8	5454.4	5371.9	5387.0	5360.9	5342.8	5329.7
25°	6744.5	6761.7	6577.7	6382.6	6151.3	5849.5	5645.5	5636.4	5622.3	5611.3	5605.3
27.5°	7579.2	7586.2	7412.3	7126.7	6858.2	6424.7	5923.0	5911.9	5894.9	5873.7	5855.6
30°	8293.2	8291.2	8112.2	7839.7	7552.0	7072.4	6344.3	6310.2	6259.8	6202.6	6158.3
32.5°	8911.6	8908.6	8712.6	8429.9	8128.3	7714.0	6921.6	6851.1	6772.8	6661.1	6593.7
35°	9398.4	9396.3	9211.3	8916.7	8570.7	8318.3	7583.2	7496.8	7397.2	7247.4	7143.8
37.5°	9582.4	9582.4	9478.8	9277.7	8972.0	8799.0	8318.3	8213.8	8107.2	7937.2	7820.6
40°	9474.8	9476.8	9498.9	9461.7	9312.8	9180.2	9004.1	8941.8	8850.3	8697.4	8575.8
42.5°	9113.8	9124.8	9271.6	9451.7	9526.0	9505.0	9612.6	9584.3	9520.0	9402.4	9305.8
45°	8656.2	8690.4	8851.3	9191.2	9585.4	9785.5	10122.4	10125.4	10113.3	10050.0	9975.6
47.5°	8027.7	8076.0	8288.2	8747.8	9446.6	10058.1	10640.2	10667.4	10692.6	10651.4	10617.1
50°	7193.1	7250.4	7568.2	8177.6	9164.0	10340.6	11618.7	11741.4	11856.0	11842.0	11865.1
52.5°	6299.1	6366.4	6755.7	7434.4	8678.3	10406.0	12244.2	12444.3	12644.4	12808.4	12982.3
55°	5492.6	5456.4	5845.6	6560.5	7879.9	10111.4	12806.3	13047.6	13270.9	13472.1	13679.2
57.5°	4399.5	4458.8	4849.0	5556.0	6823.0	9279.7	13193.5	13546.4	13867.2	14200.1	14493.7
60°	3216.0	3275.3	3698.6	4416.6	5675.6	8018.7	12897.9	13432.8	13946.7	14456.5	14854.8
62.5°	1941.8	1986.1	2359.1	3043.0	4376.4	6523.4	11580.5	12282.4	13038.6	13648.0	14258.4
65°	1208.7	1233.9	1371.7	1747.7	2810.7	4870.2	9461.7	10227.0	11041.5	11814.8	12449.3
67.5°	989.5	998.6	1023.7	1104.2	1543.6	3175.6	7042.2	7720.0	8455.1	9203.3	9909.2
70°	890.0	883.9	883.9	888.9	989.5	1707.5	4610.6	5052.1	5664.6	6315.2	6960.8
72.5°	803.4	797.5	786.3	771.3	807.5	1041.8	2383.3	2716.1	3157.5	3735.8	4354.3
75°	722.0	714.0	700.9	681.8	707.0	786.3	1144.4	1284.1	1499.3	1807.0	2152.0
77.5°	637.5	627.5	615.4	601.4	633.5	611.4	670.7	721.0	803.4	902.0	1031.7
80°	542.1	533.0	529.0	521.9	560.2	465.5	473.6	504.8	553.1	606.4	666.8
82.5°	424.3	424.3	440.5	443.4	485.7	334.9	353.9	381.2	406.2	434.4	462.6
85°	279.6	281.6	335.8	357.0	383.1	225.3	265.5	274.6	294.6	310.8	322.8
87.5°	87.5	94.5	205.1	227.3	220.2	127.7	163.0	166.9	181.0	192.1	202.1
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):**

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6
2.5°	1915.7	1903.6	1892.6	1891.5	1883.5	1872.4	1876.5	1859.3	1860.3	1851.3	1841.2
5°	2252.5	2244.5	2204.3	2193.2	2163.0	2143.9	2140.9	2100.7	2095.7	2072.5	2047.4
7.5°	2737.2	2711.1	2654.8	2627.7	2576.3	2538.1	2520.0	2466.7	2440.6	2380.3	2353.1
10°	3245.1	3211.9	3142.5	3104.2	3055.0	2993.7	2960.5	2883.1	2852.9	2797.6	2731.2
12.5°	3715.7	3682.5	3611.1	3582.0	3516.6	3451.2	3415.0	3327.6	3288.3	3199.8	3147.5
15°	4151.1	4117.9	4055.6	4025.4	3960.0	3906.8	3858.5	3772.0	3725.8	3643.3	3574.9
17.5°	4573.5	4538.3	4484.0	4456.8	4393.5	4339.2	4286.9	4205.5	4158.2	4075.7	4014.4
20°	4965.6	4939.5	4900.3	4864.1	4800.7	4751.5	4689.1	4618.7	4550.4	4490.0	4431.7
22.5°	5307.6	5297.6	5255.3	5239.1	5184.9	5142.7	5088.4	5018.9	4969.7	4893.3	4839.0
25°	5602.2	5599.2	5579.1	5574.1	5535.8	5495.6	5483.5	5426.2	5380.9	5313.6	5257.3
27.5°	5855.6	5858.6	5853.6	5867.6	5857.6	5839.5	5840.5	5821.4	5795.3	5739.0	5689.7
30°	6137.2	6121.1	6130.1	6150.3	6156.3	6158.3	6191.5	6202.6	6200.5	6163.3	6139.2
32.5°	6535.4	6497.2	6462.0	6459.0	6479.1	6487.1	6543.4	6572.6	6597.7	6606.8	6610.8
35°	7043.2	6966.8	6893.4	6854.2	6820.0	6829.0	6869.2	6916.5	6971.8	7010.1	7055.3
37.5°	7682.8	7589.3	7459.6	7367.0	7343.9	7293.6	7319.7	7357.0	7411.3	7470.6	7549.1
40°	8458.1	8316.3	8170.5	8047.9	7981.5	7888.9	7888.0	7880.9	7914.1	7969.4	8080.0
42.5°	9204.3	9078.6	8923.7	8795.0	8708.5	8584.8	8559.6	8494.3	8509.4	8557.7	8665.2
45°	9903.2	9799.6	9705.0	9556.2	9482.9	9349.1	9306.8	9229.4	9186.2	9208.3	9315.9
47.5°	10580.0	10513.6	10415.0	10318.5	10262.1	10142.5	10088.2	10032.9	9977.6	9975.6	10088.2
50°	11899.3	11864.1	11747.5	11646.9	11674.0	11527.2	11536.2	11387.4	11454.8	11462.9	11699.2
52.5°	13139.2	13261.8	13348.4	13454.0	13522.3	13535.4	13580.6	13648.0	13729.4	13890.3	14109.6
55°	13849.1	14003.0	14092.5	14173.0	14305.7	14333.8	14409.3	14498.8	14570.2	14751.2	14937.2
57.5°	14692.8	14978.5	15117.2	15244.9	15424.0	15492.3	15618.0	15715.5	15808.1	16022.3	16247.5
60°	15212.7	15560.7	15843.3	16045.4	16269.6	16430.5	16620.6	16773.4	16990.6	17247.1	17582.9
62.5°	14799.4	15310.3	15685.3	16032.3	16337.0	16644.7	16917.3	17202.9	17532.7	17920.8	18441.8
65°	13153.3	13673.2	14315.7	14675.8	15079.0	15553.7	15968.0	16430.5	16880.0	17445.2	18215.5
67.5°	10589.0	11193.3	11915.3	12278.4	12742.0	13272.0	13736.5	14301.7	14826.5	15511.4	16463.7
70°	7632.5	8413.9	9021.2	9400.4	9941.3	10487.4	10936.0	11593.6	12028.0	12729.9	13714.4
72.5°	4832.9	5449.4	6193.5	6671.2	7151.9	7704.9	8163.5	8730.6	9135.9	9775.4	10667.4
75°	2598.5	3053.0	3706.7	4160.1	4675.0	5147.7	5684.6	6064.8	6364.5	6870.2	7594.3
77.5°	1217.8	1494.3	1825.1	2174.1	2523.0	2887.1	3241.0	3548.7	3677.5	3967.1	4394.5
80°	739.1	828.6	925.2	1032.8	1178.5	1296.2	1452.1	1564.7	1572.8	1664.2	1795.0
82.5°	493.8	526.9	556.1	583.3	620.4	649.6	682.8	722.0	738.2	759.2	801.5
85°	336.9	352.9	359.0	376.1	372.0	382.2	395.2	408.3	415.3	414.3	433.4
87.5°	207.1	215.2	219.2	223.2	220.2	216.3	222.3	229.2	231.3	225.3	227.3
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°	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6
2.5°	1843.3	1834.3	1825.1	1819.1	1817.2	1763.9	1740.7	1725.6	1693.4	1667.3	1646.1
5°	2033.3	2014.2	1999.2	1981.0	1971.0	1836.2	1787.0	1752.7	1696.5	1663.2	1633.1
7.5°	2339.0	2285.7	2254.6	2219.4	2189.2	1945.9	1864.4	1811.1	1732.7	1688.4	1654.2
10°	2686.0	2630.6	2581.4	2527.1	2479.8	2091.6	1973.0	1890.5	1787.0	1729.6	1684.4
12.5°	3073.1	3018.8	2956.4	2887.1	2826.7	2276.7	2111.8	1994.1	1852.4	1775.8	1712.5
15°	3530.7	3435.2	3359.7	3279.3	3208.9	2497.9	2273.7	2110.8	1921.7	1818.1	1733.7
17.5°	3956.1	3855.5	3752.9	3682.5	3601.1	2746.3	2436.6	2229.4	1979.0	1845.3	1737.7
20°	4371.4	4261.7	4173.2	4078.7	3993.2	3003.7	2610.6	2334.0	2016.2	1846.3	1712.5
22.5°	4737.4	4669.1	4570.4	4467.8	4381.4	3261.2	2773.4	2422.4	2030.4	1823.2	1668.3
25°	5153.7	5081.3	4960.6	4874.2	4777.6	3523.7	2933.3	2490.9	2022.3	1779.9	1599.9
27.5°	5598.2	5517.7	5394.0	5303.5	5186.9	3796.2	3080.1	2540.2	1992.1	1709.6	1508.4
30°	6061.8	5988.4	5866.7	5775.2	5657.5	4084.7	3244.1	2573.3	1931.7	1612.0	1401.9
32.5°	6559.6	6498.2	6377.5	6281.9	6156.3	4397.5	3396.9	2583.4	1840.3	1496.4	1289.2
35°	7032.2	6989.9	6888.3	6798.8	6668.1	4693.1	3558.8	2578.3	1731.7	1369.6	1186.6
37.5°	7564.1	7538.9	7488.7	7375.1	7215.2	5094.4	3752.9	2557.3	1598.9	1243.9	1108.2
40°	8131.3	8133.3	8079.0	8001.5	7852.8	5581.1	3984.2	2516.0	1454.1	1133.3	1036.8
42.5°	8731.6	8762.8	8736.6	8681.4	8538.6	6071.8	4260.7	2465.7	1313.3	1025.7	966.4
45°	9419.4	9457.7	9497.9	9416.5	9277.7	6719.5	4624.8	2400.4	1161.5	936.2	918.1
47.5°	10212.8	10273.2	10309.4	10310.4	10171.6	7521.9	5216.0	2361.2	1026.7	875.9	895.0
50°	11887.2	11906.3	11991.7	12140.6	12034.0	9379.2	6248.8	2337.0	935.2	838.7	877.9
52.5°	14299.6	14509.8	14657.7	14647.6	14502.8	10558.8	6818.0	2212.3	880.9	824.6	869.8
55°	15282.1	15544.6	15818.1	15890.5	15777.9	11565.4	7355.9	2087.6	854.8	834.6	872.9
57.5°	16591.4	17033.9	17409.0	17566.8	17404.0	12853.6	8063.9	2022.3	846.7	861.8	892.0
60°	18121.0	18667.9	19160.7	19444.2	19444.2	14333.8	8798.0	1995.2	835.6	902.0	924.1
62.5°	19103.4	19906.8	20651.0	21066.3	21054.3	15364.6	9123.8	1902.6	810.5	930.2	968.4
65°	19107.4	20062.7	21011.0	21477.7	21501.7	15237.9	8585.8	1680.4	764.2	934.2	1012.6
67.5°	17514.6	18533.2	19638.4	20160.3	20280.9	14027.1	7432.4	1381.7	688.9	894.0	1028.7
70°	14792.4	15786.9	16915.2	17428.1	17642.2	11957.6	5986.3	1064.9	592.3	805.5	995.5
72.5°	11653.9	12629.4	13414.7	13789.8	13956.7	9139.9	4359.3	804.4	485.7	678.8	906.0
75°	8250.9	8983.0	9400.4	9483.8	9510.0	5509.7	2648.7	598.3	400.2	527.9	765.3
77.5°	4657.0	4970.7	4936.5	4973.7	4663.9	2126.8	1153.4	428.4	329.8	401.2	593.3
80°	1818.1	1874.5	1760.8	1725.6	1582.8	791.5	508.8	298.7	263.5	303.7	415.3
82.5°	801.5	827.6	803.4	809.5	774.3	408.3	304.7	216.3	201.1	222.3	275.6
85°	441.5	449.5	447.5	460.5	441.5	163.0	144.8	132.8	140.8	150.9	177.0
87.5°	215.2	217.2	210.2	221.3	214.2	82.4	71.4	75.4	82.4	84.5	84.5
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):**

	135°	145°	155°	165°	175°	180°
0°	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6
2.5°	1631.1	1623.0	1624.0	1622.0	1618.0	1618.0
5°	1617.0	1609.0	1609.0	1607.0	1601.9	1603.0
7.5°	1631.1	1618.0	1613.0	1605.9	1598.9	1598.9
10°	1647.2	1624.0	1609.9	1597.8	1588.8	1588.8
12.5°	1659.2	1623.0	1599.9	1583.8	1574.7	1574.7
15°	1663.2	1616.0	1583.8	1564.7	1556.6	1555.7
17.5°	1650.2	1588.8	1549.7	1527.5	1517.4	1514.5
20°	1609.9	1539.5	1492.3	1467.2	1453.1	1448.1
22.5°	1549.7	1469.2	1413.9	1387.7	1369.6	1366.7
25°	1465.2	1378.6	1324.4	1299.2	1289.2	1286.2
27.5°	1366.7	1286.2	1239.9	1223.9	1214.8	1213.7
30°	1273.1	1204.7	1170.6	1158.5	1147.3	1145.4
32.5°	1185.6	1142.3	1129.3	1112.2	1086.1	1083.0
35°	1123.3	1119.2	1110.2	1072.0	1039.8	1030.7
37.5°	1085.0	1122.3	1076.0	1000.5	977.4	975.4
40°	1062.9	1091.1	1011.6	985.5	987.5	985.5
42.5°	1012.6	1041.8	1013.6	1001.6	1009.7	1011.6
45°	962.4	994.5	1028.7	1020.7	1039.8	1039.8
47.5°	934.2	982.4	1027.8	1027.8	1055.9	1065.9
50°	902.0	972.4	1011.6	1025.7	1047.8	1039.8
52.5°	900.0	955.3	988.5	1013.6	1023.7	1014.7
55°	903.1	941.2	965.4	993.5	1005.6	1006.6
57.5°	907.1	933.2	949.3	962.4	998.6	998.6
60°	917.1	926.2	935.2	942.2	989.5	990.5
62.5°	933.2	919.1	917.1	924.1	984.5	980.5
65°	958.3	909.1	894.0	901.0	979.5	967.4
67.5°	992.6	894.0	864.8	869.8	975.4	949.3
70°	1023.7	869.8	828.6	823.6	937.2	891.0
72.5°	1026.7	841.7	778.4	763.2	814.6	770.3
75°	976.4	822.6	723.0	678.8	672.8	666.8
77.5°	879.9	811.5	658.7	589.3	577.3	581.2
80°	736.1	770.3	581.2	498.8	564.2	557.1
82.5°	550.0	679.8	493.8	441.5	440.5	389.1
85°	305.7	530.0	402.2	330.8	230.3	223.2
87.5°	85.5	294.6	281.6	187.0	127.7	132.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)