

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: P191392

Luminaire Tested: **GLEON-AF-04-LED-E1-T2R-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P191392  
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-04-LED-E1-T2R-600  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16860.3 lumens  
Efficiency: N/A  
Efficacy: 130.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 129  
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

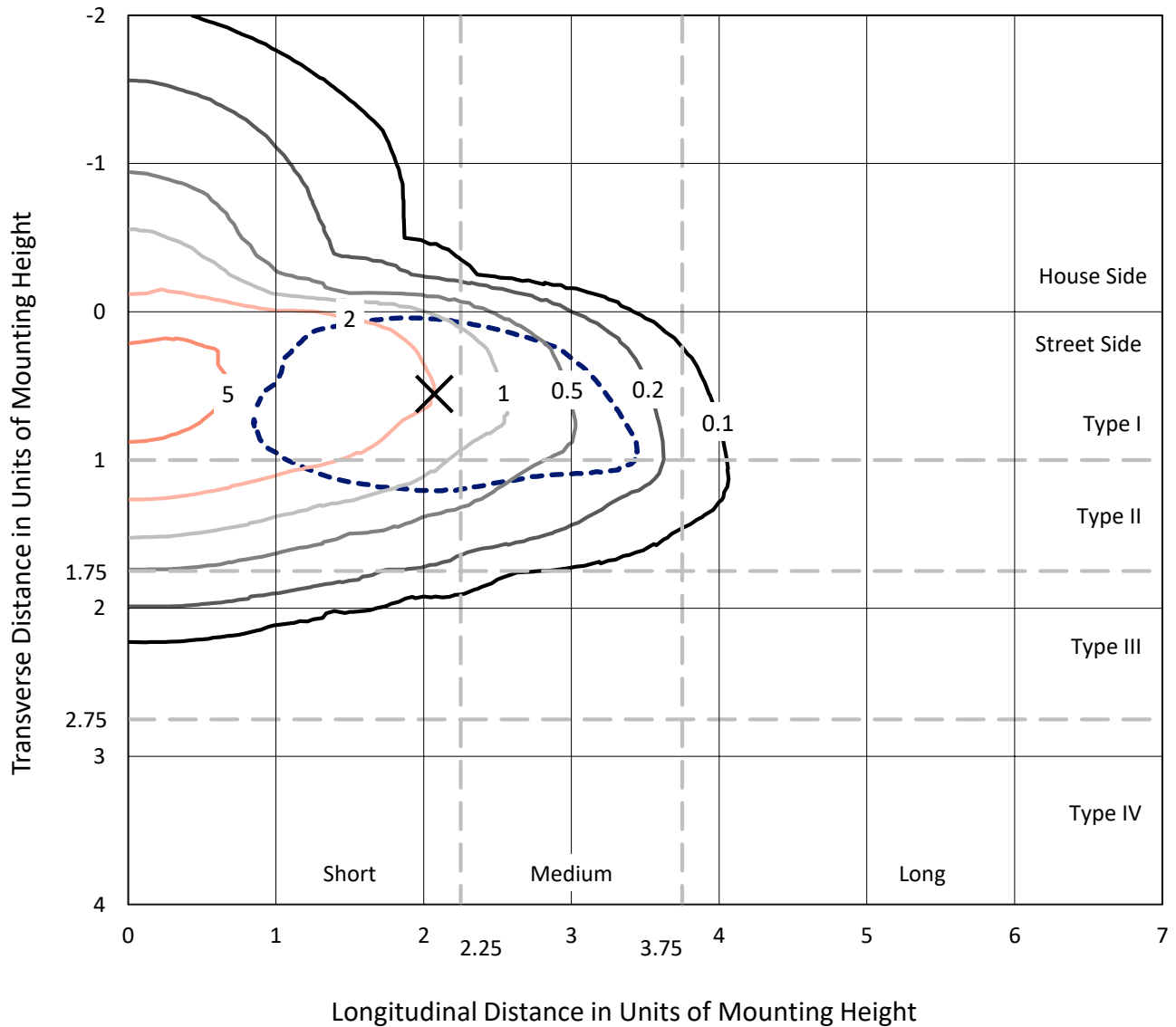


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### Iso-Footcandle Lines of Horizontal Illumination

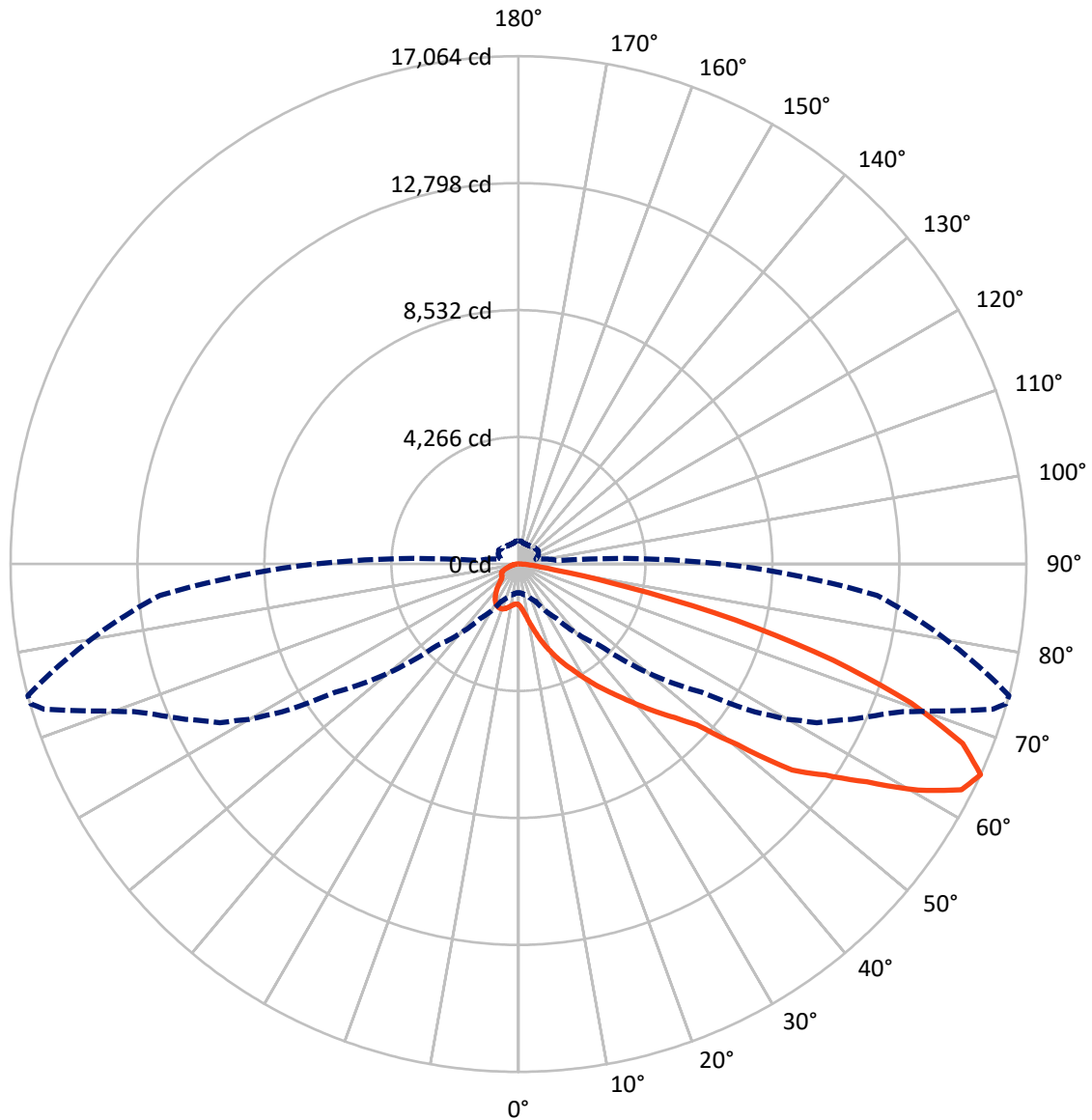
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 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	2599.5	0.0	2599.5
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	14260.8	0.0	14260.8
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	16860.3	0.0	16860.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	169.4	1.0
10°-20°	661.7	3.9
20°-30°	1357.7	8.1
30°-40°	2284.2	13.5
40°-50°	3156.2	18.7
50°-60°	3939.8	23.4
60°-70°	3545.4	21.0
70°-80°	1486.2	8.8
80°-90°	259.6	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°	16860.3	100.0
0°-180°	16860.3	100.0



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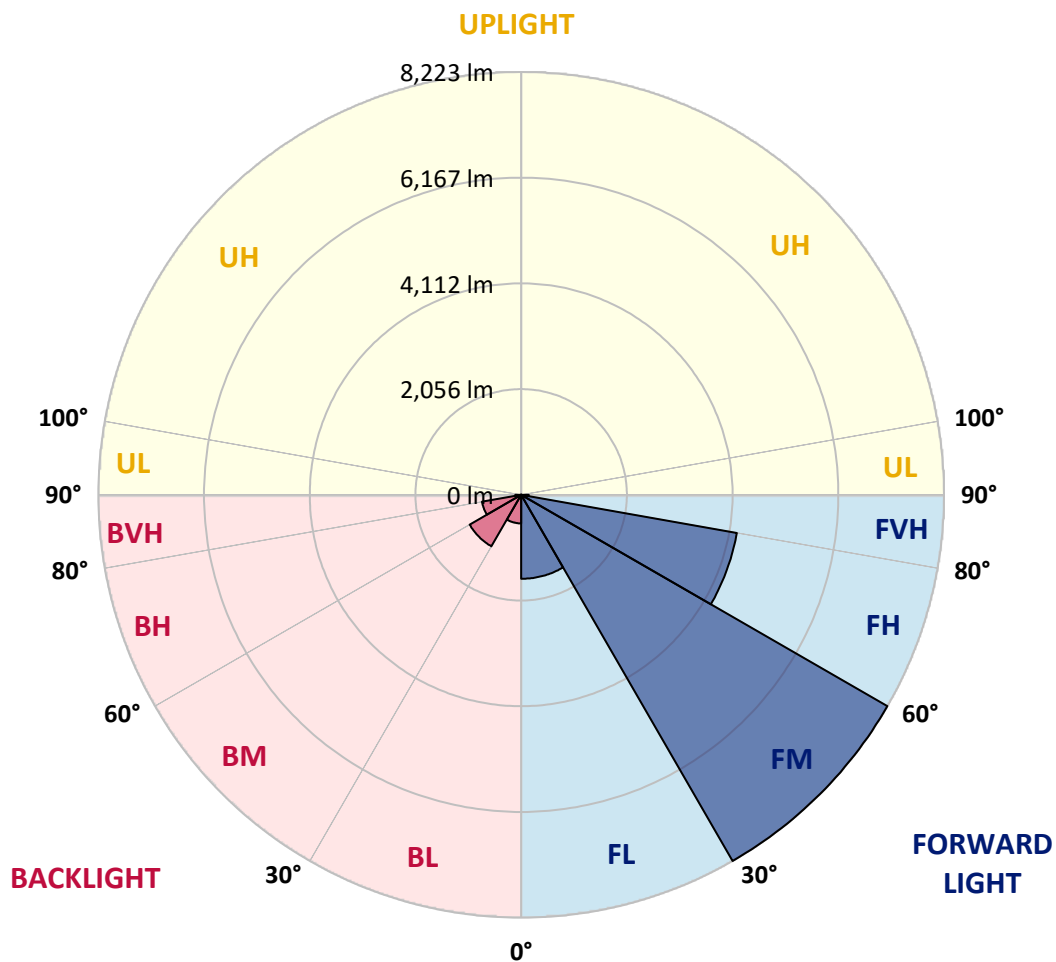
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1632.9	9.7			
FM (30°-60°)	8223.2	48.8			
FH (60°-80°)	4258.8	25.3			G2/5000
FVH (80°-90°)	145.9	0.9			G2/225
BL (0°-30°)	555.9	3.3	B2/1000		
BM (30°-60°)	1157.0	6.9	B2/2500		
BH (60°-80°)	772.8	4.6	B2/1000		G2/1000
BVH (80°-90°)	113.7	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-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2
2.5°	1739.7	1720.6	1725.3	1693.4	1654.3	1603.3	1546.6	1545.8	1546.6	1541.0	1520.2
5°	2412.4	2389.3	2380.5	2308.7	2203.3	2053.4	1890.5	1873.0	1865.8	1847.4	1805.1
7.5°	2903.2	2890.4	2876.9	2822.6	2726.9	2559.3	2340.6	2303.1	2267.2	2258.5	2210.6
10°	3220.0	3216.9	3188.1	3173.8	3114.0	2968.7	2755.6	2719.7	2680.5	2667.0	2616.7
12.5°	3470.7	3469.8	3456.2	3460.2	3408.4	3303.0	3119.5	3086.8	3058.0	3016.6	2980.7
15°	3643.9	3644.6	3664.5	3686.9	3678.9	3607.9	3435.5	3421.2	3396.4	3367.7	3325.4
17.5°	3785.8	3789.8	3810.6	3851.3	3895.2	3889.6	3753.1	3741.1	3719.7	3680.5	3658.2
20°	4106.6	4121.9	4081.9	4081.9	4086.7	4108.3	4042.8	4033.3	4002.9	3982.1	3964.7
22.5°	4648.5	4666.1	4575.9	4484.1	4394.0	4328.5	4263.0	4275.0	4254.4	4239.9	4229.6
25°	5352.4	5366.0	5219.9	5065.1	4881.5	4642.2	4480.1	4473.0	4461.8	4453.0	4448.2
27.5°	6014.7	6020.4	5882.3	5655.7	5442.6	5098.6	4700.4	4691.7	4678.1	4661.3	4647.0
30°	6581.4	6579.7	6437.7	6221.5	5993.3	5612.5	5034.8	5007.7	4967.8	4922.2	4887.1
32.5°	7072.2	7069.7	6914.1	6689.9	6450.5	6121.7	5492.8	5437.0	5374.8	5286.2	5232.7
35°	7458.4	7456.8	7310.0	7076.2	6801.6	6601.3	6017.9	5949.3	5870.3	5751.4	5669.2
37.5°	7604.4	7604.4	7522.3	7362.7	7120.0	6982.8	6601.3	6518.3	6433.7	6298.8	6206.2
40°	7519.1	7520.6	7538.2	7508.7	7390.6	7285.3	7145.6	7096.1	7023.5	6902.2	6805.6
42.5°	7232.6	7241.4	7357.9	7500.7	7559.7	7543.0	7628.3	7606.0	7555.0	7461.6	7385.0
45°	6869.4	6896.6	7024.3	7294.0	7606.9	7765.6	8033.0	8035.4	8025.8	7975.5	7916.5
47.5°	6370.7	6409.0	6577.4	6942.1	7496.7	7981.9	8443.9	8465.5	8485.5	8452.7	8425.6
50°	5708.3	5753.8	6005.9	6489.6	7272.5	8206.1	9220.5	9317.9	9408.8	9397.6	9416.0
52.5°	4998.9	5052.4	5361.2	5899.9	6887.0	8258.1	9716.8	9875.7	10034.4	10164.6	10302.5
55°	4358.9	4330.2	4639.0	5206.3	6253.4	8024.2	10162.9	10354.4	10531.6	10691.3	10855.7
57.5°	3491.4	3538.5	3848.1	4409.1	5414.7	7364.2	10470.2	10750.3	11004.8	11269.0	11502.1
60°	2552.1	2599.2	2935.2	3504.9	4504.1	6363.5	10235.5	10660.1	11067.9	11472.5	11788.5
62.5°	1541.0	1576.2	1872.2	2414.9	3473.0	5176.8	9190.1	9747.2	10347.2	10830.9	11315.3
65°	959.2	979.2	1088.5	1387.0	2230.5	3864.9	7508.7	8116.0	8762.4	9376.1	9879.7
67.5°	785.2	792.5	812.4	876.3	1225.0	2520.1	5588.6	6126.5	6709.8	7303.6	7863.8
70°	706.2	701.4	701.4	705.4	785.2	1355.1	3659.0	4009.4	4495.4	5011.6	5523.9
72.5°	637.6	632.8	624.1	612.1	640.8	826.7	1891.3	2155.5	2505.8	2964.7	3455.4
75°	573.0	566.6	556.2	541.0	561.0	624.1	908.2	1019.1	1189.9	1434.1	1707.8
77.5°	506.0	498.0	488.4	477.2	502.8	485.2	532.2	572.2	637.6	715.9	818.8
80°	430.2	423.0	419.7	414.2	444.5	369.5	375.8	400.6	438.9	481.2	529.1
82.5°	336.8	336.8	349.5	351.9	385.4	265.8	280.9	302.5	322.4	344.7	367.1
85°	221.9	223.4	266.6	283.3	304.0	178.7	210.7	217.9	233.8	246.6	256.1
87.5°	69.5	75.0	162.8	180.3	174.7	101.4	129.3	132.5	143.6	152.4	160.4
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°	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2
2.5°	1520.2	1510.7	1501.9	1501.1	1494.7	1485.9	1489.1	1475.6	1476.3	1469.2	1461.2
5°	1787.6	1781.2	1749.2	1740.6	1716.6	1701.4	1699.0	1667.1	1663.1	1644.7	1624.8
7.5°	2172.2	2151.5	2106.8	2085.3	2044.6	2014.2	1999.9	1957.6	1936.9	1889.0	1867.4
10°	2575.3	2548.9	2493.9	2463.6	2424.4	2375.7	2349.4	2287.9	2264.0	2220.1	2167.4
12.5°	2948.8	2922.4	2865.7	2842.6	2790.7	2738.8	2710.1	2640.6	2609.5	2539.4	2497.8
15°	3294.3	3267.9	3218.5	3194.5	3142.6	3100.4	3062.0	2993.5	2956.7	2891.3	2837.1
17.5°	3629.4	3601.5	3558.4	3536.9	3486.6	3443.5	3402.0	3337.4	3299.8	3234.5	3185.8
20°	3940.7	3919.9	3888.8	3860.1	3809.8	3770.7	3721.2	3665.3	3611.1	3563.2	3516.9
22.5°	4212.0	4204.0	4170.5	4157.8	4114.6	4081.2	4038.0	3983.0	3943.9	3883.2	3840.2
25°	4445.8	4443.4	4427.4	4423.4	4393.2	4361.2	4351.6	4306.2	4270.3	4216.8	4172.1
27.5°	4647.0	4649.3	4645.3	4656.5	4648.5	4634.2	4635.0	4619.9	4599.1	4554.4	4515.3
30°	4870.4	4857.6	4864.8	4880.8	4885.5	4887.1	4913.4	4922.2	4920.7	4891.1	4872.0
32.5°	5186.4	5156.1	5128.2	5125.8	5141.8	5148.1	5192.8	5215.9	5235.9	5243.0	5246.3
35°	5589.4	5528.7	5470.5	5439.3	5412.2	5419.4	5451.3	5488.8	5532.7	5563.1	5599.0
37.5°	6097.0	6022.7	5919.8	5846.4	5828.1	5788.2	5808.8	5838.4	5881.5	5928.6	5990.8
40°	6712.2	6599.7	6484.0	6386.7	6334.0	6260.6	6259.7	6254.2	6280.5	6324.4	6412.2
42.5°	7304.4	7204.6	7081.7	6979.6	6911.0	6812.8	6792.8	6740.9	6752.9	6791.3	6876.7
45°	7859.0	7776.8	7701.8	7583.6	7525.4	7419.3	7385.8	7324.3	7290.1	7307.6	7393.0
47.5°	8396.1	8343.4	8265.2	8188.6	8143.9	8049.0	8005.8	7961.9	7918.0	7916.5	8005.8
50°	9443.1	9415.1	9322.6	9242.8	9264.4	9147.8	9155.0	9037.0	9090.4	9096.8	9284.3
52.5°	10427.0	10524.4	10593.1	10676.8	10731.2	10741.5	10777.4	10830.9	10895.6	11023.2	11197.2
55°	10990.5	11112.6	11183.6	11247.4	11352.8	11375.1	11435.0	11506.0	11562.7	11706.3	11854.0
57.5°	11660.0	11886.7	11996.8	12098.1	12240.2	12294.4	12394.2	12471.6	12545.1	12715.1	12893.8
60°	12072.7	12348.8	12573.0	12733.4	12911.4	13039.0	13189.8	13311.1	13483.5	13687.1	13953.6
62.5°	11744.6	12150.0	12447.7	12723.1	12964.8	13209.1	13425.3	13651.9	13913.7	14221.7	14635.1
65°	10438.3	10850.8	11360.8	11646.5	11966.5	12343.1	12671.9	13039.0	13395.7	13844.2	14455.5
67.5°	8403.2	8882.9	9455.9	9743.9	10111.9	10532.4	10901.1	11349.6	11766.2	12309.7	13065.3
70°	6057.1	6677.1	7159.1	7460.0	7889.3	8322.6	8678.6	9200.5	9545.3	10102.3	10883.6
72.5°	3835.3	4324.5	4915.1	5294.2	5675.6	6114.5	6478.4	6928.5	7250.2	7757.6	8465.5
75°	2062.1	2422.9	2941.5	3301.5	3710.0	4085.2	4511.3	4812.9	5050.7	5452.1	6026.7
77.5°	966.4	1185.9	1448.4	1725.3	2002.2	2291.1	2572.0	2816.3	2918.4	3148.2	3487.4
80°	586.6	657.6	734.2	819.6	935.3	1028.7	1152.4	1241.8	1248.1	1320.7	1424.5
82.5°	391.8	418.2	441.3	462.9	492.3	515.6	541.9	573.0	585.7	602.5	636.1
85°	267.3	280.1	284.9	298.5	295.2	303.2	313.6	324.0	329.6	328.8	343.9
87.5°	164.4	170.7	174.0	177.2	174.7	171.5	176.4	182.0	183.5	178.7	180.3
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°	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2
2.5°	1462.8	1455.7	1448.4	1443.6	1442.1	1399.7	1381.4	1369.4	1343.9	1323.2	1306.4
5°	1613.6	1598.5	1586.5	1572.1	1564.1	1457.2	1418.1	1391.0	1346.3	1319.9	1296.0
7.5°	1856.2	1813.9	1789.1	1761.2	1737.3	1544.1	1479.6	1437.2	1375.1	1339.9	1312.8
10°	2131.5	2087.6	2048.6	2005.5	1968.0	1659.9	1565.7	1500.3	1418.1	1372.6	1336.7
12.5°	2438.8	2395.6	2346.2	2291.1	2243.2	1806.7	1675.9	1582.5	1470.0	1409.3	1359.1
15°	2801.9	2726.1	2666.2	2602.4	2546.5	1982.3	1804.4	1675.1	1525.0	1442.9	1375.8
17.5°	3139.4	3059.6	2978.2	2922.4	2857.7	2179.4	1933.6	1769.2	1570.5	1464.4	1379.0
20°	3469.0	3382.1	3311.8	3236.8	3169.0	2383.7	2071.7	1852.3	1600.1	1465.2	1359.1
22.5°	3759.5	3705.2	3627.1	3545.6	3477.0	2588.1	2201.0	1922.4	1611.2	1446.9	1323.9
25°	4090.0	4032.5	3936.7	3868.1	3791.5	2796.3	2327.8	1976.8	1604.8	1412.5	1269.7
27.5°	4442.7	4378.8	4280.6	4208.8	4116.3	3012.6	2444.3	2015.8	1580.9	1356.6	1197.1
30°	4810.5	4752.3	4655.8	4583.1	4489.7	3241.6	2574.5	2042.1	1533.0	1279.2	1112.5
32.5°	5205.6	5156.9	5061.2	4985.4	4885.5	3489.8	2695.8	2050.1	1460.4	1187.4	1023.1
35°	5580.6	5547.2	5466.5	5395.5	5291.7	3724.5	2824.3	2046.1	1374.2	1086.9	941.6
37.5°	6002.8	5982.8	5942.9	5852.8	5725.9	4042.8	2978.2	2029.4	1268.9	987.1	879.4
40°	6452.9	6454.5	6411.3	6350.0	6231.8	4429.1	3161.8	1996.7	1154.0	899.4	822.8
42.5°	6929.3	6954.0	6933.3	6889.4	6776.1	4818.5	3381.3	1956.8	1042.2	814.0	766.9
45°	7475.1	7505.5	7537.4	7472.8	7362.7	5332.4	3670.1	1904.9	921.7	743.0	728.6
47.5°	8104.8	8152.7	8181.5	8182.2	8072.1	5969.2	4139.4	1873.7	814.8	695.1	710.2
50°	9433.6	9448.7	9516.5	9634.7	9550.1	7443.2	4959.0	1854.6	742.2	665.5	696.7
52.5°	11348.0	11514.8	11632.1	11624.1	11509.2	8379.3	5410.7	1755.7	699.1	654.4	690.3
55°	12127.7	12336.0	12553.0	12610.5	12521.1	9178.1	5837.6	1656.7	678.3	662.4	692.7
57.5°	13166.7	13517.9	13815.6	13940.8	13811.6	10200.5	6399.4	1604.8	672.0	683.9	707.9
60°	14380.5	14814.7	15205.7	15430.7	15430.7	11375.1	6981.9	1583.3	663.2	715.9	733.4
62.5°	15160.2	15797.8	16388.4	16718.0	16708.4	12193.2	7240.5	1509.9	643.2	738.2	768.5
65°	15163.4	15921.5	16674.1	17044.3	17063.5	12092.6	6813.6	1333.5	606.5	741.3	803.6
67.5°	13899.3	14707.7	15584.8	15999.0	16094.7	11131.8	5898.2	1096.5	546.7	709.4	816.4
70°	11739.1	12528.3	13423.7	13830.7	14000.6	9489.4	4750.7	845.2	470.0	639.2	790.0
72.5°	9248.4	10022.5	10645.7	10943.4	11075.9	7253.3	3459.4	638.4	385.4	538.7	719.0
75°	6547.8	7128.8	7460.0	7526.3	7547.0	4372.4	2102.1	474.9	317.6	419.0	607.3
77.5°	3695.7	3944.7	3917.5	3947.1	3701.2	1687.9	915.3	339.9	261.8	318.4	470.9
80°	1442.9	1487.6	1397.4	1369.4	1256.1	628.1	403.8	237.0	209.1	241.0	329.6
82.5°	636.1	656.7	637.6	642.4	614.5	324.0	241.8	171.5	159.6	176.4	218.7
85°	350.4	356.7	355.2	365.5	350.4	129.3	114.9	105.4	111.7	119.7	140.5
87.5°	170.7	172.4	166.7	175.5	170.0	65.5	56.7	59.8	65.5	67.0	67.0
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°	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2
2.5°	1294.4	1288.0	1288.8	1287.2	1284.0	1284.0
5°	1283.2	1276.8	1276.8	1275.2	1271.2	1272.0
7.5°	1294.4	1284.0	1280.0	1274.5	1268.9	1268.9
10°	1307.1	1288.8	1277.7	1268.0	1260.9	1260.9
12.5°	1316.7	1288.0	1269.7	1256.9	1249.7	1249.7
15°	1319.9	1282.5	1256.9	1241.8	1235.3	1234.6
17.5°	1309.6	1260.9	1229.8	1212.2	1204.2	1201.9
20°	1277.7	1221.8	1184.3	1164.3	1153.2	1149.2
22.5°	1229.8	1166.0	1122.1	1101.3	1086.9	1084.5
25°	1162.7	1094.1	1051.0	1031.0	1023.1	1020.7
27.5°	1084.5	1020.7	984.0	971.2	964.0	963.2
30°	1010.3	956.0	928.9	919.3	910.5	909.0
32.5°	940.9	906.5	896.2	882.6	861.8	859.5
35°	891.4	888.2	881.1	850.7	825.2	818.0
37.5°	861.1	890.6	853.9	794.0	775.7	774.1
40°	843.5	865.8	802.8	782.0	783.7	782.0
42.5°	803.6	826.7	804.4	794.8	801.2	802.8
45°	763.7	789.2	816.4	810.0	825.2	825.2
47.5°	741.3	779.7	815.6	815.6	837.9	845.9
50°	715.9	771.7	802.8	814.0	831.6	825.2
52.5°	714.2	758.1	784.5	804.4	812.4	805.2
55°	716.7	747.0	766.1	788.5	798.0	798.8
57.5°	719.9	740.6	753.3	763.7	792.5	792.5
60°	727.8	735.0	742.2	747.8	785.2	786.0
62.5°	740.6	729.4	727.8	733.4	781.2	778.1
65°	760.6	721.4	709.4	715.0	777.2	767.7
67.5°	787.7	709.4	686.3	690.3	774.1	753.3
70°	812.4	690.3	657.6	653.6	743.8	707.1
72.5°	814.8	668.0	617.7	605.7	646.4	611.3
75°	774.9	652.7	573.8	538.7	533.9	529.1
77.5°	698.3	644.0	522.7	467.7	458.1	461.2
80°	584.2	611.3	461.2	395.8	447.7	442.1
82.5°	436.5	539.5	391.8	350.4	349.5	308.8
85°	242.6	420.5	319.3	262.6	182.7	177.2
87.5°	67.8	233.8	223.4	148.4	101.4	105.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)