

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: P191393

Luminaire Tested: **GLEON-AF-05-LED-E1-T2R-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P191393  
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-05-LED-E1-T2R-600  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 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: 20889.7 lumens  
Efficiency: N/A  
Efficacy: 128.9 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G3

Input Watts (W): 162  
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

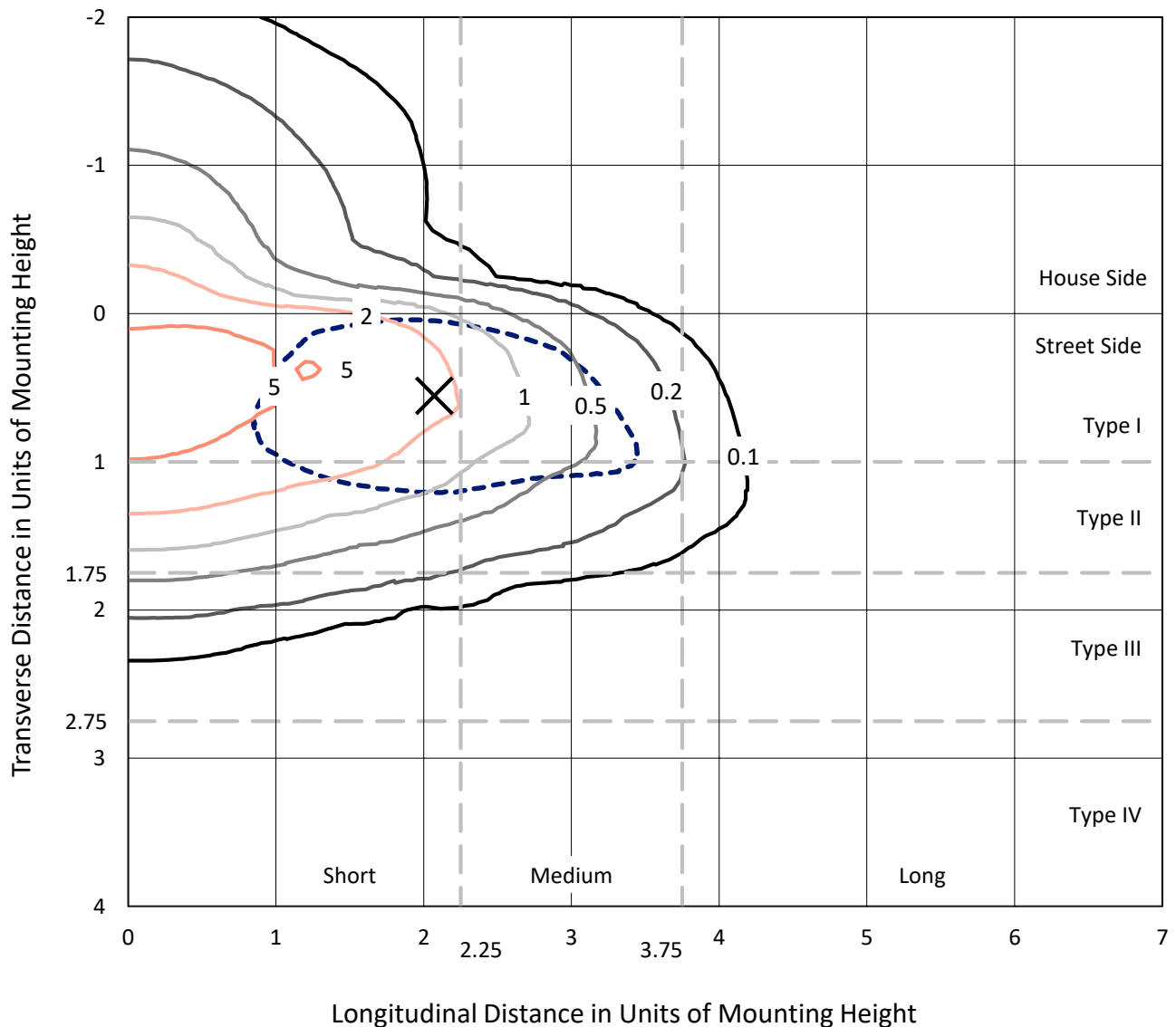


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### Iso-Footcandle Lines of Horizontal Illumination

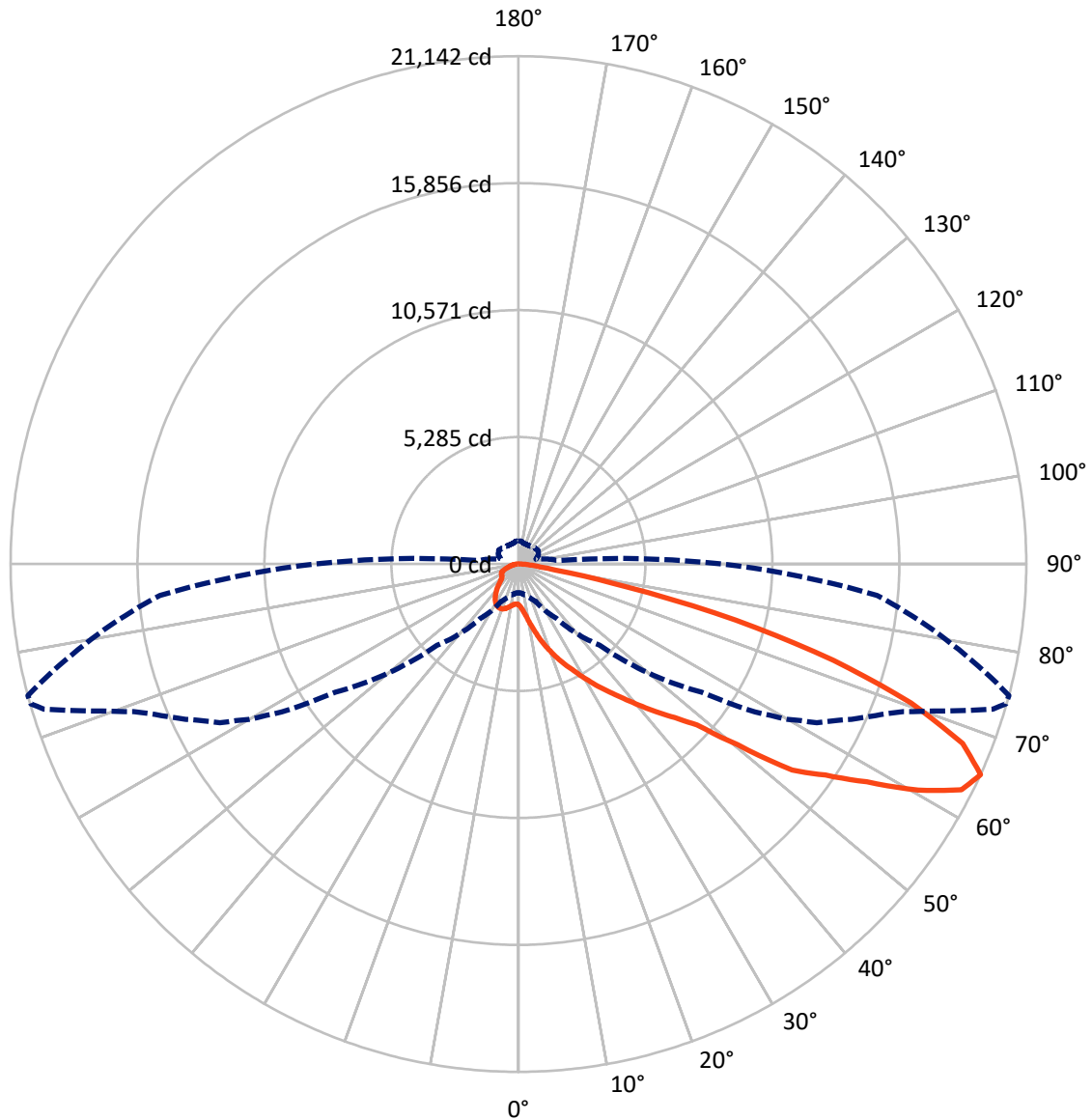
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.4 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	3220.7	0.0	3220.7
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	17669.0	0.0	17669.0
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	20889.7	0.0	20889.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	209.8	1.0
10°-20°	819.9	3.9
20°-30°	1682.2	8.1
30°-40°	2830.1	13.5
40°-50°	3910.4	18.7
50°-60°	4881.4	23.4
60°-70°	4392.7	21.0
70°-80°	1841.4	8.8
80°-90°	321.7	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°	20889.7	100.0
0°-180°	20889.7	100.0



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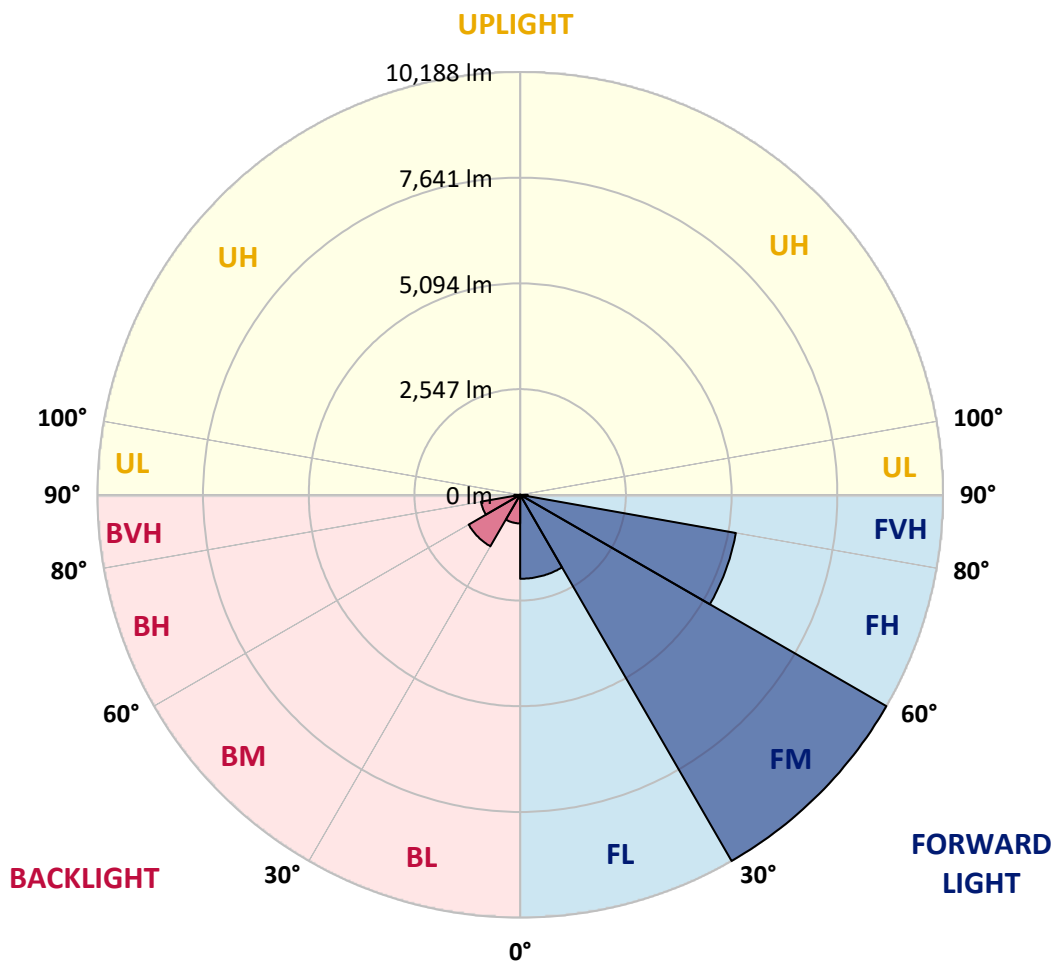
CATALOG NUMBER: GLEON-AF-05-LED-E1-T2R-600

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2023.1	9.7			
FM	(30°-60°)	10188.4	48.8			
FH	(60°-80°)	5276.7	25.3			G3/7500
FVH	(80°-90°)	180.8	0.9			G2/225
BL	(0°-30°)	688.8	3.3	B2/1000		
BM	(30°-60°)	1433.6	6.9	B2/2500		
BH	(60°-80°)	957.5	4.6	B2/1000		G2/1000
BVH	(80°-90°)	140.9	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°	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7
2.5°	2155.5	2131.7	2137.7	2098.2	2049.7	1986.4	1916.2	1915.2	1916.2	1909.2	1883.6
5°	2989.0	2960.3	2949.5	2860.5	2729.9	2544.1	2342.4	2320.6	2311.7	2289.0	2236.6
7.5°	3597.1	3581.2	3564.5	3497.3	3378.6	3170.9	2900.0	2853.5	2809.0	2798.2	2738.8
10°	3989.6	3985.6	3950.0	3932.2	3858.1	3678.1	3414.2	3369.7	3321.2	3304.4	3242.1
12.5°	4300.1	4299.1	4282.3	4287.2	4222.9	4092.4	3865.0	3824.5	3788.9	3737.5	3693.0
15°	4514.6	4515.6	4540.4	4568.0	4558.2	4470.2	4256.6	4238.8	4208.1	4172.5	4120.1
17.5°	4690.6	4695.5	4721.3	4771.8	4826.1	4819.2	4650.1	4635.3	4608.6	4560.1	4532.4
20°	5088.2	5106.9	5057.5	5057.5	5063.4	5090.1	5009.0	4997.1	4959.6	4933.9	4912.1
22.5°	5759.5	5781.2	5669.5	5555.7	5444.0	5363.0	5281.9	5296.7	5271.1	5253.3	5240.4
25°	6631.6	6648.4	6467.4	6275.6	6048.2	5751.5	5550.8	5541.9	5528.1	5517.2	5511.2
27.5°	7452.2	7459.2	7288.1	7007.3	6743.3	6317.1	5823.8	5812.9	5796.0	5775.3	5757.5
30°	8154.2	8152.3	7976.3	7708.3	7425.5	6953.9	6238.1	6204.4	6155.0	6098.6	6055.2
32.5°	8762.3	8759.3	8566.5	8288.7	7992.1	7584.7	6805.6	6736.3	6659.2	6549.4	6483.3
35°	9240.8	9238.9	9057.0	8767.3	8427.2	8178.9	7456.2	7371.2	7273.3	7126.0	7024.1
37.5°	9421.8	9421.8	9320.0	9122.3	8821.6	8651.6	8178.9	8076.1	7971.3	7804.2	7689.5
40°	9316.0	9318.0	9339.7	9303.1	9156.8	9026.3	8853.2	8792.0	8702.0	8551.7	8432.1
42.5°	8961.0	8971.9	9116.3	9293.3	9366.4	9345.7	9451.5	9423.8	9360.5	9244.8	9149.9
45°	8511.2	8544.8	8703.0	9037.2	9424.8	9621.6	9952.8	9955.8	9943.9	9881.6	9808.5
47.5°	7893.2	7940.7	8149.3	8601.2	9288.3	9889.5	10462.0	10488.7	10513.4	10472.9	10439.2
50°	7072.6	7128.9	7441.4	8040.5	9010.5	10167.3	11424.0	11544.6	11657.3	11643.5	11666.2
52.5°	6193.6	6259.7	6642.4	7309.8	8532.9	10231.6	12039.0	12235.8	12432.5	12593.8	12764.8
55°	5400.6	5365.0	5747.7	6450.6	7747.8	9941.9	12591.7	12829.0	13048.6	13246.3	13450.0
57.5°	4325.8	4384.2	4767.8	5462.9	6708.7	9124.2	12972.4	13319.4	13634.9	13962.2	14250.8
60°	3162.0	3220.4	3636.6	4342.6	5580.5	7884.3	12681.7	13207.7	13713.0	14214.3	14605.8
62.5°	1909.2	1952.8	2319.6	2991.9	4303.0	6414.0	11386.5	12076.7	12820.1	13419.4	14019.5
65°	1188.5	1213.2	1348.7	1718.5	2763.6	4788.5	9303.1	10055.6	10856.5	11616.8	12240.7
67.5°	972.9	981.8	1006.6	1085.7	1517.8	3122.5	6924.3	7590.6	8313.4	9049.0	9743.2
70°	875.0	869.1	869.1	874.0	972.9	1678.9	4533.4	4967.4	5569.7	6209.3	6844.2
72.5°	790.0	784.1	773.2	758.4	794.0	1024.4	2343.4	2670.6	3104.7	3673.2	4281.3
75°	709.9	702.1	689.2	670.3	695.1	773.2	1125.2	1262.6	1474.3	1776.8	2116.0
77.5°	626.9	616.9	605.1	591.3	622.9	601.2	659.5	708.9	790.0	886.9	1014.5
80°	533.0	524.1	520.1	513.1	550.8	457.8	465.7	496.3	543.8	596.2	655.5
82.5°	417.3	417.3	433.1	436.1	477.6	329.3	348.0	374.7	399.5	427.2	454.8
85°	274.9	276.8	330.2	351.0	376.8	221.5	261.1	270.0	289.7	305.6	317.4
87.5°	86.0	93.0	201.7	223.4	216.6	125.6	160.2	164.2	178.0	188.8	198.8
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°	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7
2.5°	1883.6	1871.7	1860.8	1859.8	1852.0	1841.0	1845.0	1828.2	1829.2	1820.3	1810.4
5°	2214.8	2206.9	2167.3	2156.5	2126.8	2108.0	2105.0	2065.5	2060.5	2037.8	2013.1
7.5°	2691.4	2665.7	2610.3	2583.6	2533.1	2495.6	2477.8	2425.4	2399.7	2340.4	2313.7
10°	3190.7	3158.1	3089.8	3052.3	3003.8	2943.5	2910.9	2834.7	2805.1	2750.7	2685.5
12.5°	3653.5	3620.8	3550.6	3521.9	3457.7	3393.4	3357.8	3271.8	3233.2	3146.2	3094.8
15°	4081.6	4048.9	3987.7	3958.0	3893.7	3841.3	3793.8	3708.8	3663.3	3582.3	3515.0
17.5°	4496.9	4462.2	4408.8	4382.1	4319.8	4266.4	4215.1	4135.0	4088.5	4007.4	3947.1
20°	4882.4	4856.8	4818.2	4782.6	4720.3	4671.8	4610.5	4541.3	4474.1	4414.7	4357.5
22.5°	5218.6	5208.8	5167.2	5151.4	5098.0	5056.4	5003.0	4934.8	4886.4	4811.2	4757.8
25°	5508.3	5505.3	5485.6	5480.7	5443.1	5403.5	5391.7	5335.3	5290.8	5224.5	5169.2
27.5°	5757.5	5760.4	5755.5	5769.3	5759.5	5741.7	5742.6	5723.9	5698.1	5642.8	5594.3
30°	6034.4	6018.5	6027.4	6047.2	6053.1	6055.2	6087.8	6098.6	6096.7	6060.1	6036.3
32.5°	6425.9	6388.3	6353.8	6350.8	6370.5	6378.4	6433.8	6462.5	6487.2	6496.1	6500.0
35°	6925.2	6850.1	6777.9	6739.3	6705.7	6714.6	6754.1	6800.7	6855.0	6892.5	6937.0
37.5°	7554.1	7462.1	7334.6	7243.6	7220.8	7171.4	7197.1	7233.7	7287.1	7345.4	7422.5
40°	8316.4	8177.0	8033.6	7912.9	7847.7	7756.7	7755.8	7748.9	7781.5	7835.8	7944.6
42.5°	9050.0	8926.5	8774.2	8647.6	8562.6	8441.0	8416.2	8352.0	8366.8	8414.3	8520.1
45°	9737.3	9635.4	9542.4	9396.1	9323.9	9192.4	9150.9	9074.8	9032.2	9054.0	9159.8
47.5°	10402.7	10337.4	10240.5	10145.6	10090.2	9972.5	9919.1	9864.7	9810.4	9808.5	9919.1
50°	11699.9	11665.3	11550.5	11451.7	11478.4	11334.1	11343.0	11196.6	11262.9	11270.8	11503.1
52.5°	12919.1	13039.7	13124.7	13228.5	13295.7	13308.6	13353.1	13419.4	13499.4	13657.6	13873.2
55°	13617.1	13768.4	13856.4	13935.5	14066.0	14093.7	14167.8	14255.8	14326.0	14504.0	14686.9
57.5°	14446.6	14727.4	14863.9	14989.5	15165.5	15232.7	15356.3	15452.2	15543.1	15753.7	15975.2
60°	14957.8	15300.0	15577.8	15776.6	15997.0	16155.3	16342.0	16492.4	16705.9	16958.1	17288.3
62.5°	14551.5	15053.7	15422.5	15763.7	16063.3	16365.8	16633.8	16914.6	17238.9	17620.5	18132.7
65°	12932.9	13444.0	14075.9	14429.8	14826.3	15293.0	15700.4	16155.3	16597.2	17152.8	17910.2
67.5°	10411.6	11005.8	11715.8	12072.7	12528.5	13049.6	13506.3	14062.0	14578.2	15251.5	16187.8
70°	7504.6	8272.9	8870.1	9242.9	9774.8	10311.7	10752.6	11399.4	11826.4	12516.6	13484.6
72.5°	4751.9	5358.0	6089.7	6559.4	7032.0	7575.8	8026.7	8584.3	8982.8	9611.6	10488.7
75°	2554.9	3001.8	3644.6	4090.5	4596.7	5061.5	5589.4	5963.2	6257.8	6755.2	7467.0
77.5°	1197.4	1469.3	1794.6	2137.7	2480.8	2838.7	3186.7	3489.3	3615.8	3900.6	4320.8
80°	726.7	814.8	909.6	1015.5	1158.8	1274.5	1427.7	1538.5	1546.4	1636.4	1764.9
82.5°	485.5	518.1	546.8	573.5	610.1	638.7	671.4	709.9	725.8	746.5	788.1
85°	331.2	347.1	353.0	369.8	365.8	375.7	388.6	401.4	408.4	407.3	426.2
87.5°	203.7	211.5	215.5	219.5	216.6	212.6	218.5	225.5	227.4	221.5	223.4
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):**

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7
2.5°	1812.4	1803.5	1794.6	1788.6	1786.7	1734.3	1711.5	1696.7	1665.1	1639.4	1618.6
5°	1999.3	1980.4	1965.6	1947.8	1938.0	1805.5	1757.0	1723.4	1668.0	1635.4	1605.7
7.5°	2299.8	2247.4	2216.7	2182.2	2152.5	1913.2	1833.1	1780.8	1703.6	1660.1	1626.5
10°	2641.0	2586.5	2538.1	2484.7	2438.3	2056.6	1939.9	1858.8	1757.0	1700.7	1656.2
12.5°	3021.6	2968.2	2906.9	2838.7	2779.4	2238.5	2076.4	1960.7	1821.3	1746.2	1683.9
15°	3471.5	3377.6	3303.4	3224.3	3155.1	2456.1	2235.6	2075.4	1889.5	1787.7	1704.6
17.5°	3889.8	3790.9	3690.0	3620.8	3540.7	2700.3	2395.8	2192.1	1945.9	1814.4	1708.5
20°	4298.1	4190.3	4103.4	4010.4	3926.3	2953.4	2566.8	2294.9	1982.5	1815.3	1683.9
22.5°	4658.0	4590.8	4493.9	4393.1	4308.0	3206.5	2727.0	2381.9	1996.3	1792.6	1640.3
25°	5067.4	4996.2	4877.5	4792.5	4697.6	3464.6	2884.2	2449.1	1988.4	1750.1	1573.1
27.5°	5504.4	5425.3	5303.7	5214.7	5100.0	3732.5	3028.5	2497.6	1958.7	1680.9	1483.2
30°	5960.2	5888.0	5768.4	5678.4	5562.7	4016.3	3189.7	2530.2	1899.4	1585.0	1378.3
32.5°	6449.6	6389.4	6270.7	6176.7	6053.1	4323.8	3340.0	2540.1	1809.4	1471.3	1267.5
35°	6914.3	6872.8	6773.0	6685.0	6556.4	4614.5	3499.2	2535.2	1702.6	1346.7	1166.7
37.5°	7437.4	7412.7	7363.2	7251.5	7094.3	5009.0	3690.0	2514.4	1572.1	1223.0	1089.6
40°	7995.1	7997.0	7943.6	7867.5	7721.1	5487.6	3917.4	2473.9	1429.8	1114.3	1019.4
42.5°	8585.3	8616.0	8590.2	8535.9	8395.5	5970.0	4189.3	2424.4	1291.3	1008.5	950.2
45°	9261.6	9299.2	9338.7	9258.6	9122.3	6606.8	4547.2	2360.2	1142.0	920.6	902.8
47.5°	10041.8	10101.1	10136.7	10137.6	10001.2	7395.8	5128.7	2321.6	1009.6	861.2	879.9
50°	11688.0	11706.9	11790.8	11937.2	11832.4	9222.1	6144.1	2297.9	919.5	824.6	863.2
52.5°	14060.0	14266.7	14412.0	14402.1	14259.7	10381.9	6703.7	2175.2	866.1	810.8	855.3
55°	15026.0	15284.1	15553.0	15624.2	15513.5	11371.6	7232.7	2052.7	840.5	820.7	858.3
57.5°	16313.4	16748.5	17117.2	17272.5	17112.3	12638.3	7928.8	1988.4	832.6	847.3	877.0
60°	17817.3	18355.2	18839.7	19118.5	19118.5	14093.7	8650.6	1961.7	821.6	886.9	908.7
62.5°	18783.3	19573.3	20305.0	20713.3	20701.5	15107.1	8971.0	1870.7	797.0	914.6	952.2
65°	18787.3	19726.6	20659.0	21117.8	21141.5	14982.5	8442.0	1652.2	751.5	918.5	995.6
67.5°	17221.1	18222.6	19309.3	19822.5	19941.1	13792.1	7307.9	1358.6	677.3	879.0	1011.5
70°	14544.5	15522.4	16631.7	17136.1	17346.7	11757.3	5886.1	1047.1	582.4	792.0	978.9
72.5°	11458.7	12417.7	13189.9	13558.7	13722.9	8986.7	4286.3	791.0	477.6	667.4	890.9
75°	8112.7	8832.5	9242.9	9324.9	9350.6	5417.3	2604.3	588.3	393.5	519.0	752.5
77.5°	4578.9	4887.4	4853.8	4890.3	4585.8	2091.2	1134.1	421.3	324.3	394.6	583.4
80°	1787.7	1843.1	1731.3	1696.7	1556.3	778.2	500.3	293.7	259.0	298.6	408.4
82.5°	788.1	813.8	790.0	796.0	761.4	401.4	299.6	212.6	197.7	218.5	270.9
85°	434.0	442.0	440.0	452.9	434.0	160.2	142.4	130.5	138.4	148.3	174.0
87.5°	211.5	213.6	206.6	217.5	210.6	81.1	70.2	74.2	81.1	83.1	83.1
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):**

	135°	145°	155°	165°	175°	180°
0°	1697.7	1697.7	1697.7	1697.7	1697.7	1697.7
2.5°	1603.8	1595.8	1596.8	1594.9	1590.9	1590.9
5°	1589.9	1582.0	1582.0	1580.0	1575.0	1576.1
7.5°	1603.8	1590.9	1586.0	1579.0	1572.1	1572.1
10°	1619.5	1596.8	1583.0	1571.2	1562.3	1562.3
12.5°	1631.4	1595.8	1573.1	1557.2	1548.3	1548.3
15°	1635.4	1588.9	1557.2	1538.5	1530.5	1529.6
17.5°	1622.5	1562.3	1523.7	1501.9	1492.1	1489.1
20°	1583.0	1513.8	1467.3	1442.6	1428.8	1423.8
22.5°	1523.7	1444.6	1390.2	1364.5	1346.7	1343.7
25°	1440.6	1355.6	1302.2	1277.5	1267.5	1264.6
27.5°	1343.7	1264.6	1219.2	1203.3	1194.4	1193.4
30°	1251.8	1184.5	1150.9	1139.1	1128.2	1126.2
32.5°	1165.8	1123.2	1110.4	1093.5	1067.9	1064.9
35°	1104.5	1100.5	1091.6	1054.0	1022.3	1013.4
37.5°	1066.8	1103.5	1057.9	983.8	961.1	959.1
40°	1045.1	1072.8	994.7	968.9	971.0	968.9
42.5°	995.6	1024.4	996.7	984.8	992.7	994.7
45°	946.2	977.8	1011.5	1003.6	1022.3	1022.3
47.5°	918.5	966.0	1010.5	1010.5	1038.2	1048.1
50°	886.9	956.2	994.7	1008.5	1030.3	1022.3
52.5°	885.0	939.3	971.9	996.7	1006.6	997.7
55°	887.9	925.5	949.2	976.9	988.8	989.7
57.5°	891.8	917.6	933.3	946.2	981.8	981.8
60°	901.7	910.6	919.5	926.5	972.9	974.0
62.5°	917.6	903.7	901.7	908.7	968.0	964.0
65°	942.2	893.9	879.0	885.9	963.0	951.1
67.5°	975.9	879.0	850.3	855.3	959.1	933.3
70°	1006.6	855.3	814.8	809.8	921.5	876.1
72.5°	1009.6	827.6	765.3	750.4	800.9	757.4
75°	960.0	808.8	711.0	667.4	661.4	655.5
77.5°	865.1	797.9	647.6	579.4	567.5	571.5
80°	723.7	757.4	571.5	490.4	554.6	547.8
82.5°	540.8	668.4	485.5	434.0	433.1	382.7
85°	300.5	521.1	395.5	325.3	226.4	219.5
87.5°	84.1	289.7	276.8	183.9	125.6	130.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)