

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: STREETWORKS

Report Number: P257776

Luminaire Tested: **ARCH-M-AF48-120-D-U-T2U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P257776  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-1)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-120-D-U-T2U  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15543.7 lumens  
Efficiency: N/A  
Efficacy: 127.4 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

Input Watts (W): 122  
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: 28.75 FT

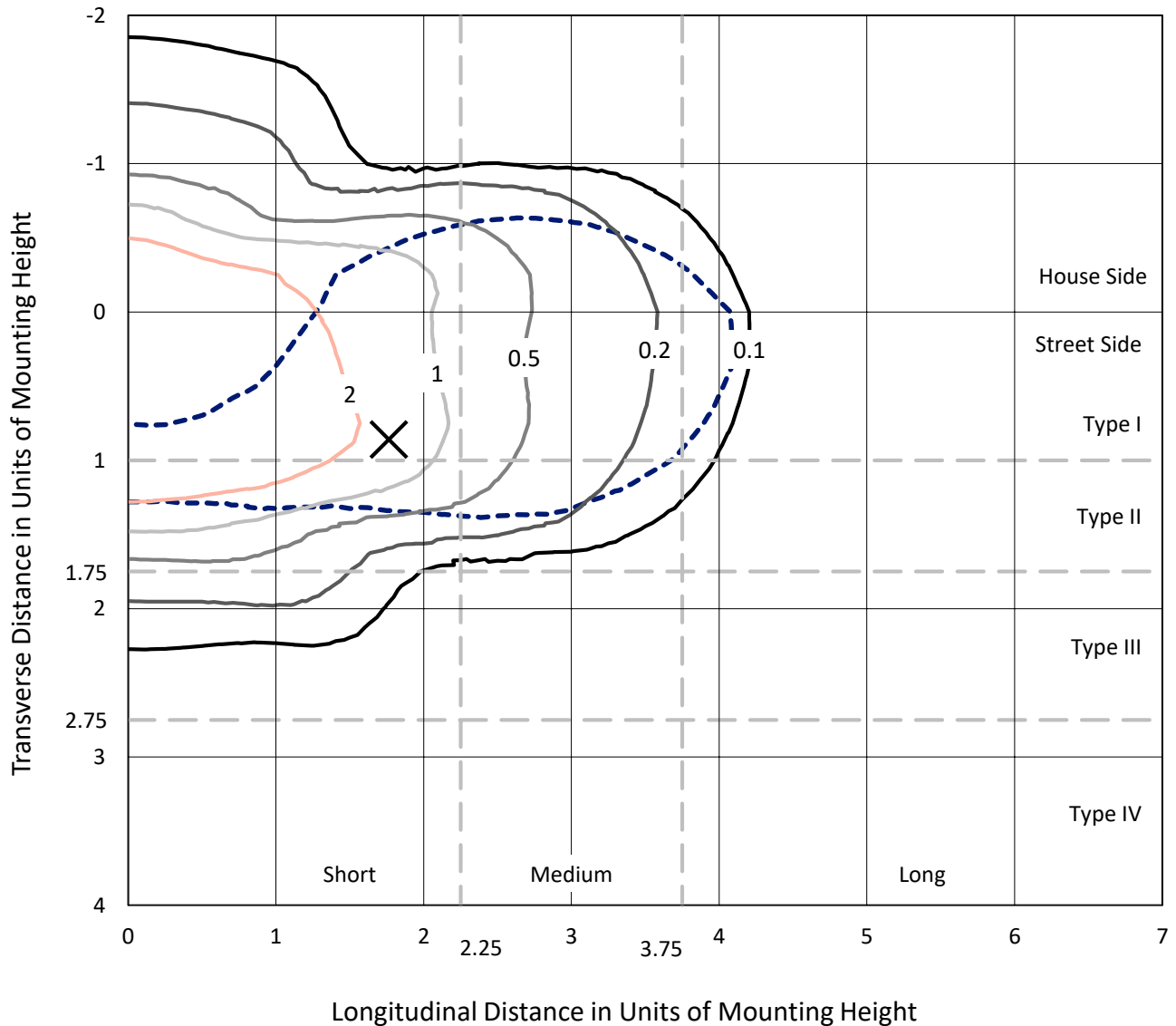


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

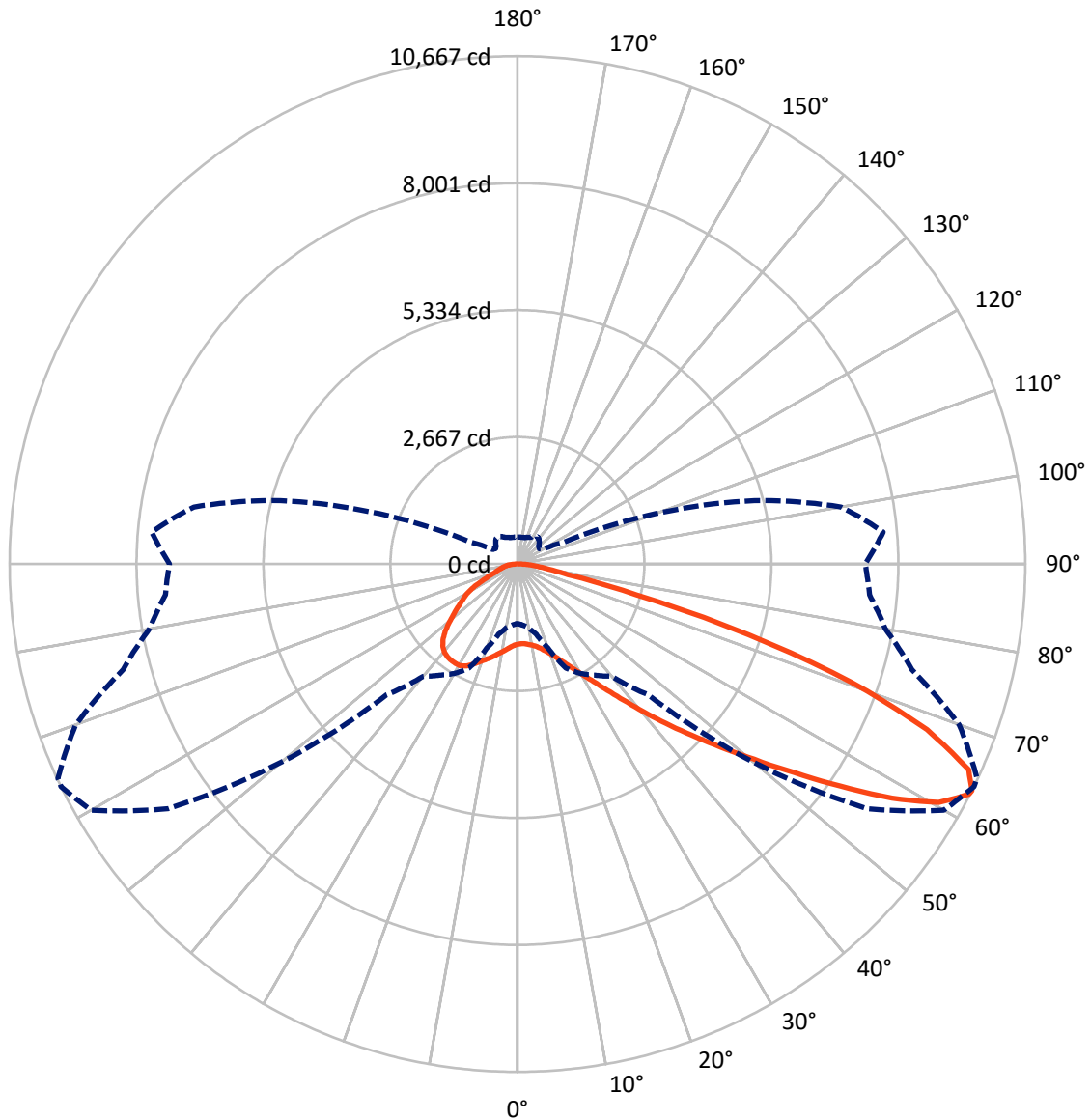


Based on 25 foot mounting height. Maximum calculated value = 4.4 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 63-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4569.3	0.0	4569.3
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	10974.4	0.0	10974.4
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	15543.7	0.0	15543.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.1	1.1
10°-20°	559.8	3.6
20°-30°	1050.8	6.8
30°-40°	1761.3	11.3
40°-50°	2955.1	19.0
50°-60°	3746.1	24.1
60°-70°	3304.7	21.3
70°-80°	1705.9	11.0
80°-90°	291.9	1.9
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°	15543.7	100.0
0°-180°	15543.7	100.0



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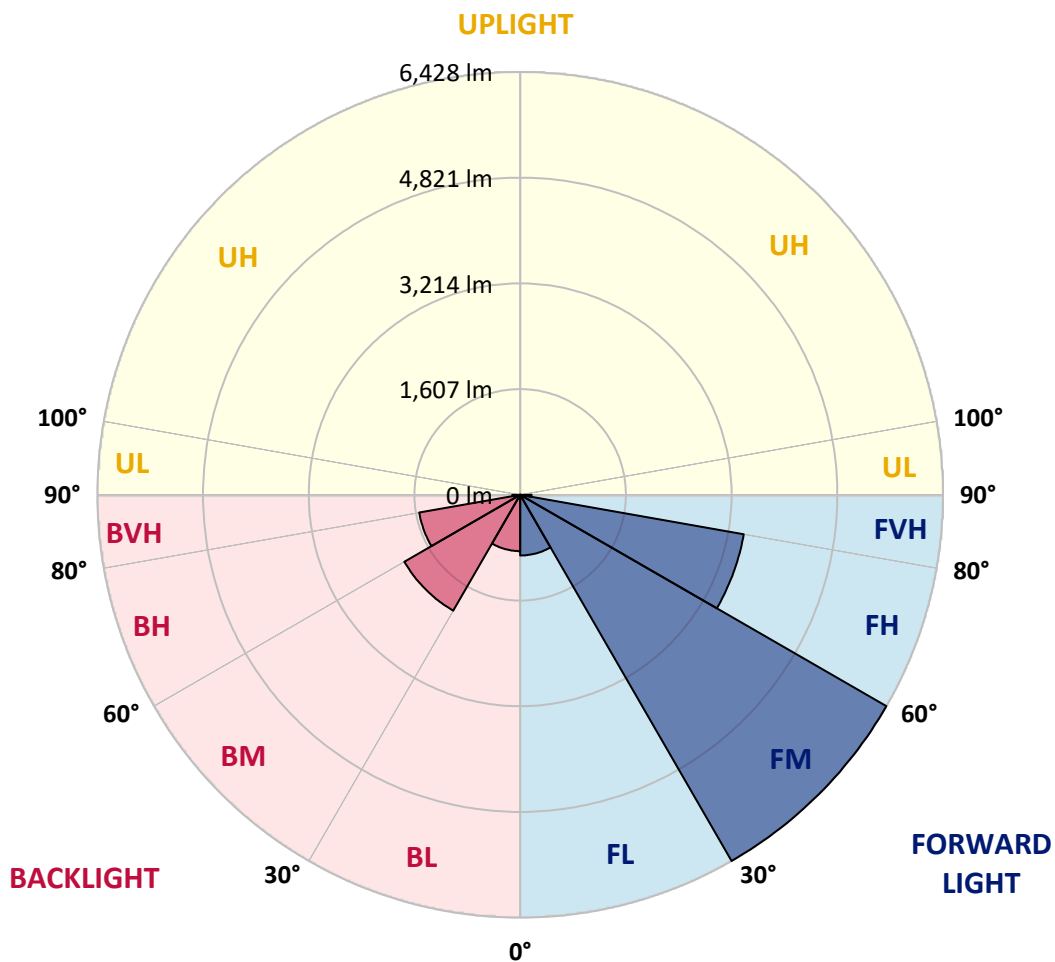
CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	922.6	5.9			
FM (30°-60°)	6428.5	41.4			
FH (60°-80°)	3451.6	22.2			G2/5000
FVH (80°-90°)	171.8	1.1			G2/225
BL (0°-30°)	856.1	5.5	B2/1000		
BM (30°-60°)	2034.0	13.1	B2/2500		
BH (60°-80°)	1559.0	10.0	B3/2500		G3/2500
BVH (80°-90°)	120.1	0.8			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°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4
2.5°	1672.9	1670.4	1670.4	1670.4	1670.4	1667.8	1670.4	1675.6	1672.9	1670.4	1675.6
5°	1678.2	1675.6	1675.6	1675.6	1678.2	1675.6	1678.2	1686.0	1680.8	1680.8	1686.0
7.5°	1691.1	1688.6	1691.1	1688.6	1688.6	1688.6	1691.1	1699.0	1696.4	1699.0	1706.8
10°	1706.8	1706.8	1706.8	1706.8	1706.8	1706.8	1712.0	1717.2	1719.8	1722.4	1732.8
12.5°	1753.6	1753.6	1753.6	1751.0	1751.0	1743.2	1753.6	1758.9	1764.1	1769.2	1777.1
15°	1852.5	1852.5	1849.9	1839.5	1839.5	1823.9	1826.5	1829.0	1829.0	1834.3	1839.5
17.5°	1982.6	1980.0	1974.8	1966.9	1956.6	1938.4	1933.2	1928.0	1920.2	1917.5	1917.5
20°	2164.8	2162.1	2151.7	2130.9	2117.9	2089.3	2068.4	2047.6	2039.9	2026.8	2024.2
22.5°	2424.9	2424.9	2404.0	2372.8	2362.5	2302.7	2242.8	2198.5	2183.0	2164.8	2164.8
25°	2739.8	2737.1	2708.5	2672.0	2627.9	2565.4	2492.5	2432.7	2393.7	2352.1	2336.4
27.5°	3117.0	3109.2	3070.2	3025.9	2942.6	2864.6	2778.7	2716.3	2648.6	2596.7	2549.8
30°	3559.3	3551.5	3483.9	3400.6	3314.8	3236.7	3111.8	3036.3	2929.6	2867.2	2815.2
32.5°	4071.9	4064.1	3941.7	3861.1	3770.1	3673.8	3525.5	3405.8	3270.5	3182.0	3109.2
35°	4724.9	4693.7	4519.4	4407.5	4264.4	4168.1	4012.0	3850.7	3692.0	3567.1	3460.4
37.5°	5430.0	5393.6	5240.1	5073.5	4933.1	4816.0	4594.8	4391.8	4204.5	4032.8	3900.1
40°	6166.3	6070.1	5906.1	5783.9	5687.6	5575.7	5344.1	5130.8	4836.8	4644.3	4443.9
42.5°	6676.3	6582.6	6468.1	6387.5	6340.7	6254.8	6124.7	5940.0	5677.2	5682.4	5154.2
45°	7011.9	6874.0	6796.0	6801.2	6819.4	6819.4	6796.0	6767.3	6652.9	6730.9	6288.6
47.5°	6892.2	6801.2	6751.8	6855.8	6985.9	7116.0	7266.9	7430.8	7618.1	7839.3	7295.5
50°	6189.8	6223.5	6247.0	6468.1	6746.6	7043.1	7389.2	7836.7	8359.7	8461.1	8198.3
52.5°	5068.3	5141.2	5219.3	5557.5	5924.3	6436.9	7043.1	7782.1	8484.6	8898.2	8872.3
55°	3936.5	4027.7	4194.1	4446.6	4737.9	5221.9	5971.2	7110.7	8206.1	8864.4	9265.1
57.5°	2802.2	2934.8	3153.5	3504.6	3762.2	4035.4	4589.6	5854.1	7053.6	8279.0	9200.0
60°	1862.9	1925.4	2068.4	2505.5	2940.1	3226.3	3619.1	4077.1	5058.0	6746.6	8528.8
62.5°	1321.8	1363.4	1451.8	1649.5	2042.4	2560.2	2797.0	3007.7	3322.5	4339.9	6848.0
63°	1248.9	1285.3	1358.2	1524.7	1878.5	2414.5	2656.5	2849.0	3078.0	3881.9	6478.6
65°	1035.5	1051.2	1090.2	1170.9	1360.7	1805.7	2201.2	2318.2	2357.3	2495.2	4058.9
67.5°	874.2	884.6	897.6	921.1	996.5	1202.1	1641.7	1790.1	1745.9	1652.2	2006.0
70°	759.7	767.5	788.4	816.9	843.0	895.0	1129.2	1350.4	1300.9	1173.4	1228.1
72.5°	606.2	619.2	642.6	692.1	744.1	811.8	869.0	1006.9	975.7	853.4	866.4
75°	478.7	486.5	507.4	543.8	593.2	671.3	783.2	830.0	744.1	629.6	629.6
77.5°	379.8	387.7	405.9	434.5	465.7	520.4	598.4	720.7	668.7	473.5	471.0
80°	286.2	294.0	312.2	338.2	369.5	408.5	455.3	509.9	614.1	442.3	353.8
82.5°	210.7	213.4	244.6	262.8	273.2	304.4	343.4	374.7	421.5	408.5	314.9
85°	158.8	156.1	177.0	190.0	192.5	200.3	223.7	255.0	275.8	265.4	244.6
87.5°	88.5	78.1	91.0	104.0	104.0	106.7	111.9	130.1	148.3	143.1	130.1
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):**

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4
2.5°	1675.6	1675.6	1672.9	1672.9	1675.6	1675.6	1672.9	1680.8	1686.0	1686.0	1688.6
5°	1683.4	1686.0	1683.4	1683.4	1686.0	1686.0	1688.6	1696.4	1704.2	1709.4	1717.2
7.5°	1706.8	1709.4	1706.8	1706.8	1709.4	1712.0	1717.2	1727.7	1732.8	1743.2	1756.2
10°	1732.8	1735.4	1732.8	1735.4	1738.0	1740.7	1748.4	1756.2	1764.1	1774.4	1795.3
12.5°	1779.6	1782.3	1777.1	1779.6	1787.5	1787.5	1792.6	1797.8	1810.8	1823.9	1844.7
15°	1844.7	1844.7	1839.5	1842.1	1849.9	1849.9	1852.5	1857.7	1873.3	1888.9	1909.7
17.5°	1920.2	1925.4	1922.7	1925.4	1930.5	1933.2	1933.2	1938.4	1948.7	1959.2	1980.0
20°	2021.7	2024.2	2019.0	2024.2	2029.4	2024.2	2019.0	2016.4	2021.7	2026.8	2050.2
22.5°	2159.6	2156.9	2143.9	2143.9	2143.9	2133.5	2120.5	2104.9	2104.9	2097.0	2115.3
25°	2323.4	2315.7	2297.4	2300.0	2281.8	2266.1	2242.8	2219.4	2198.5	2190.8	2193.3
27.5°	2515.9	2500.4	2482.2	2477.0	2458.8	2430.1	2391.0	2346.9	2313.0	2287.0	2281.8
30°	2758.0	2724.1	2692.9	2687.7	2659.1	2612.2	2549.8	2490.0	2432.7	2388.5	2372.8
32.5°	3044.1	2992.1	2942.6	2937.5	2890.7	2828.2	2752.8	2669.5	2586.2	2515.9	2482.2
35°	3379.7	3301.7	3254.9	3241.8	3174.2	3096.2	3012.9	2906.2	2789.2	2690.3	2627.9
37.5°	3788.3	3707.6	3627.0	3629.5	3535.8	3444.8	3333.0	3202.9	3054.5	2916.6	2828.2
40°	4293.0	4178.5	4074.4	4051.1	3970.4	3842.9	3720.6	3569.7	3387.6	3205.4	3078.0
42.5°	4904.4	4717.1	4574.0	4553.2	4446.6	4290.4	4142.1	3941.7	3757.0	3535.8	3382.4
45°	5599.1	5299.9	5128.2	5097.0	4925.3	4766.5	4587.0	4373.6	4147.3	3897.5	3715.4
47.5°	6462.9	6036.2	5744.8	5692.8	5456.0	5247.8	5060.5	4823.8	4553.2	4274.8	4074.4
50°	7469.8	6840.2	6447.4	6366.6	6049.2	5804.6	5565.3	5268.7	4979.9	4688.5	4456.9
52.5°	8479.3	7802.9	7279.9	7181.0	6712.7	6384.8	6070.1	5773.4	5432.6	5143.8	4881.0
55°	9291.2	8841.0	8234.8	8096.9	7425.6	6980.7	6567.0	6228.7	5890.6	5661.5	5352.0
57.5°	9780.2	9756.8	9278.1	9088.2	8169.7	7511.4	7050.9	6665.9	6338.0	6241.7	5830.7
60°	9767.2	10373.4	10167.9	10024.8	8921.7	8055.2	7456.8	7040.6	6770.0	6879.2	6312.0
62.5°	9171.5	10399.5	10646.7	10607.6	9723.0	8492.3	7789.9	7360.5	7217.4	7542.7	6811.6
63°	8955.5	10339.7	10667.4	10651.9	9876.5	8575.6	7847.1	7423.0	7305.9	7711.8	6902.7
65°	7568.7	9816.6	10415.1	10485.3	10207.0	8861.8	7979.8	7581.7	7568.7	8089.1	7118.6
67.5°	4613.0	8294.6	9278.1	9413.4	9741.3	8952.9	7904.3	7527.1	7714.4	8143.7	7053.6
70°	1972.1	5474.2	7456.8	7675.4	8476.8	8500.2	7688.4	7303.4	7680.6	7717.0	6590.5
72.5°	1168.2	2581.0	5076.2	5552.3	6707.5	7313.7	7194.0	6913.0	7235.6	6777.8	5612.1
75°	827.4	1207.3	2578.4	3085.7	4670.3	5583.5	6044.0	6174.1	6161.1	5375.4	4212.3
77.5°	593.2	775.3	1087.6	1282.7	2607.0	3585.3	4147.3	4527.2	4404.9	3598.3	2596.7
80°	413.7	536.0	666.0	707.7	1209.8	1842.1	2185.5	2352.1	2279.2	1797.8	1163.0
82.5°	299.2	351.3	429.3	455.3	608.9	850.8	1012.1	892.4	856.0	663.5	502.2
85°	231.6	226.4	268.0	278.3	356.5	444.9	455.3	353.8	309.6	275.8	281.0
87.5°	163.9	140.5	143.1	148.3	184.7	236.8	231.6	145.7	124.9	132.7	150.9
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4	1683.4
2.5°	1693.8	1696.4	1701.6	1704.2	1709.4	1709.4	1714.6	1717.2	1722.4	1727.7	1730.2
5°	1725.0	1732.8	1743.2	1748.4	1758.9	1766.6	1777.1	1782.3	1792.6	1800.5	1810.8
7.5°	1771.9	1784.8	1797.8	1813.5	1829.0	1842.1	1852.5	1865.6	1883.8	1896.8	1904.5
10°	1816.0	1834.3	1857.7	1875.9	1899.3	1917.5	1933.2	1956.6	1977.4	1995.6	2006.0
12.5°	1873.3	1896.8	1920.2	1948.7	1980.0	2003.4	2026.8	2058.1	2086.6	2107.5	2117.9
15°	1940.9	1969.6	1995.6	2029.4	2065.8	2097.0	2130.9	2164.8	2185.5	2185.5	2180.3
17.5°	2011.2	2034.6	2065.8	2104.9	2154.3	2193.3	2211.5	2216.7	2209.0	2190.8	2177.8
20°	2081.5	2102.3	2136.1	2183.0	2234.9	2242.8	2224.5	2201.2	2177.8	2146.5	2125.7
22.5°	2138.7	2167.3	2219.4	2274.0	2276.6	2232.4	2183.0	2143.9	2107.5	2071.1	2032.0
25°	2206.3	2245.4	2315.7	2336.4	2268.8	2185.5	2115.3	2058.1	1998.2	1938.4	1894.1
27.5°	2289.6	2346.9	2417.1	2357.3	2224.5	2107.5	2011.2	1925.4	1847.2	1764.1	1714.6
30°	2378.1	2466.5	2482.2	2326.0	2149.1	1998.2	1868.1	1738.0	1639.2	1563.7	1535.0
32.5°	2484.7	2599.2	2505.5	2271.4	2047.6	1849.9	1675.6	1519.5	1436.2	1389.4	1376.4
35°	2646.1	2739.8	2518.6	2214.2	1930.5	1672.9	1454.4	1329.5	1277.5	1246.3	1230.7
37.5°	2877.7	2875.0	2515.9	2143.9	1795.3	1480.4	1277.5	1189.1	1147.4	1121.4	1092.7
40°	3148.2	2979.1	2500.4	2042.4	1613.1	1295.7	1155.2	1072.0	1032.9	1001.7	967.9
42.5°	3416.1	3049.3	2456.1	1891.5	1386.8	1163.0	1066.7	991.3	949.7	915.8	869.0
45°	3647.7	3078.0	2370.3	1683.4	1183.9	1059.0	1009.6	944.5	895.0	843.0	806.6
47.5°	3829.9	3072.7	2232.4	1438.8	1048.5	986.1	962.7	918.4	858.6	793.6	746.8
50°	3983.4	3033.8	2045.1	1222.8	957.5	921.1	913.3	900.2	803.9	749.3	720.7
52.5°	4123.9	2976.5	1844.7	1077.2	879.4	848.2	863.8	850.8	783.2	736.3	707.7
55°	4316.4	2937.5	1647.0	965.3	788.4	780.5	793.6	811.8	770.2	725.9	694.7
57.5°	4542.8	2958.3	1496.1	840.4	702.5	707.7	752.0	778.0	757.1	710.3	679.0
60°	4803.0	3020.7	1363.4	720.7	632.3	645.3	710.3	746.8	744.1	689.5	653.1
62.5°	5094.4	3085.7	1152.6	629.6	572.4	593.2	660.8	707.7	715.5	668.7	624.4
63°	5151.6	3090.9	1097.9	611.4	562.0	585.4	647.8	697.2	707.7	663.5	619.2
65°	5292.1	3044.1	884.6	562.0	520.4	546.4	608.9	653.1	673.9	634.8	598.4
67.5°	5175.0	2661.6	666.0	502.2	486.5	504.7	559.3	601.0	619.2	601.0	564.6
70°	4732.7	1935.7	520.4	447.5	450.1	463.1	504.7	543.8	564.6	559.3	525.6
72.5°	3811.7	1097.9	434.5	400.7	408.5	424.1	452.8	489.2	507.4	504.7	481.3
75°	2510.7	562.0	366.8	359.1	364.3	377.3	398.0	426.7	447.5	444.9	434.5
77.5°	1243.7	390.3	314.9	317.4	320.0	330.4	346.1	372.0	385.0	387.7	385.0
80°	512.6	304.4	270.6	273.2	275.8	283.6	294.0	317.4	325.2	330.4	333.1
82.5°	307.0	231.6	215.9	221.2	223.7	231.6	239.4	260.1	268.0	275.8	275.8
85°	203.0	161.3	156.1	161.3	166.5	171.8	174.3	187.3	200.3	210.7	215.9
87.5°	109.3	96.3	93.7	96.3	96.3	101.5	106.7	119.7	135.3	145.7	150.9
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):**

	160°	165°	170°	175°	180°
0°	1683.4	1683.4	1683.4	1683.4	1683.4
2.5°	1725.0	1727.7	1725.0	1727.7	1730.2
5°	1810.8	1816.0	1813.5	1813.5	1823.9
7.5°	1909.7	1920.2	1920.2	1925.4	1930.5
10°	2016.4	2026.8	2034.6	2034.6	2042.4
12.5°	2123.1	2128.2	2136.1	2136.1	2136.1
15°	2177.8	2175.1	2172.5	2169.9	2169.9
17.5°	2169.9	2159.6	2154.3	2149.1	2151.7
20°	2112.7	2094.5	2089.3	2081.5	2086.6
22.5°	2013.8	1987.8	1977.4	1964.4	1969.6
25°	1865.6	1834.3	1829.0	1813.5	1821.3
27.5°	1693.8	1678.2	1675.6	1672.9	1686.0
30°	1532.5	1537.7	1540.3	1545.5	1558.5
32.5°	1384.2	1394.6	1397.1	1399.8	1418.0
35°	1238.5	1225.5	1238.5	1233.3	1248.9
37.5°	1079.7	1069.4	1059.0	1046.0	1056.3
40°	947.0	928.8	897.6	882.0	884.6
42.5°	843.0	819.6	793.6	778.0	778.0
45°	775.3	746.8	723.3	712.9	712.9
47.5°	723.3	710.3	697.2	689.5	689.5
50°	702.5	686.9	679.0	673.9	673.9
52.5°	686.9	671.3	663.5	658.3	653.1
55°	673.9	650.5	642.6	640.1	640.1
57.5°	655.6	634.8	624.4	621.9	621.9
60°	627.1	611.4	601.0	598.4	598.4
62.5°	598.4	582.8	572.4	572.4	572.4
63°	593.2	575.0	567.2	567.2	567.2
65°	569.8	551.6	543.8	543.8	541.1
67.5°	538.6	520.4	515.2	515.2	509.9
70°	502.2	486.5	481.3	484.0	473.5
72.5°	465.7	450.1	442.3	442.3	431.9
75°	424.1	408.5	398.0	395.5	385.0
77.5°	377.3	364.3	353.8	343.4	338.2
80°	327.9	317.4	304.4	296.7	288.8
82.5°	275.8	265.4	257.6	268.0	228.9
85°	215.9	205.5	195.2	210.7	163.9
87.5°	158.8	153.5	143.1	124.9	109.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)