

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: P258175

Luminaire Tested: **ARCH-M-AF48-150-D-U-T2U-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258175  
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-AF48-150-D-U-T2U-7030  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17143.9 lumens  
Efficiency: N/A  
Efficacy: 113.5 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): 151  
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

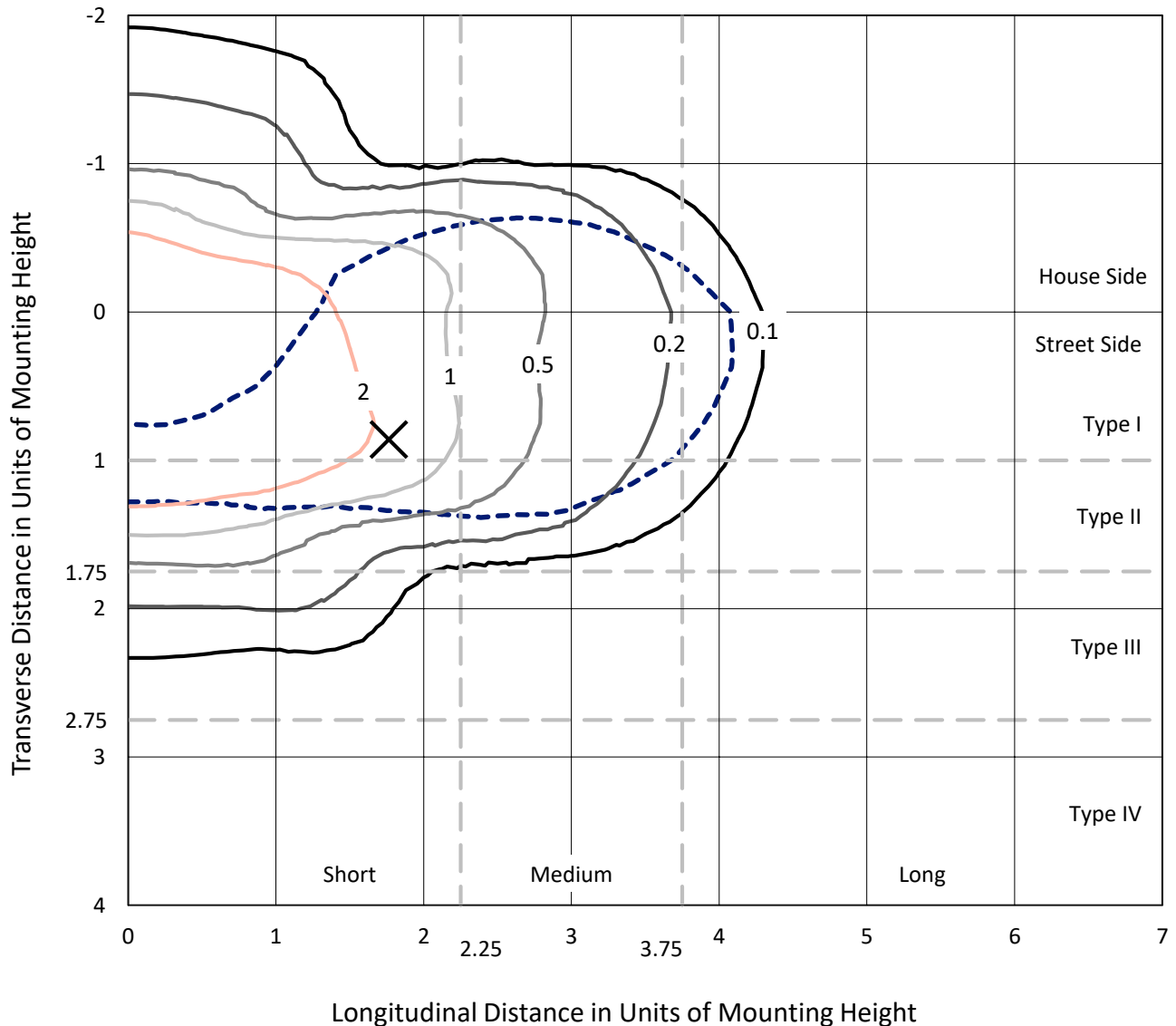


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

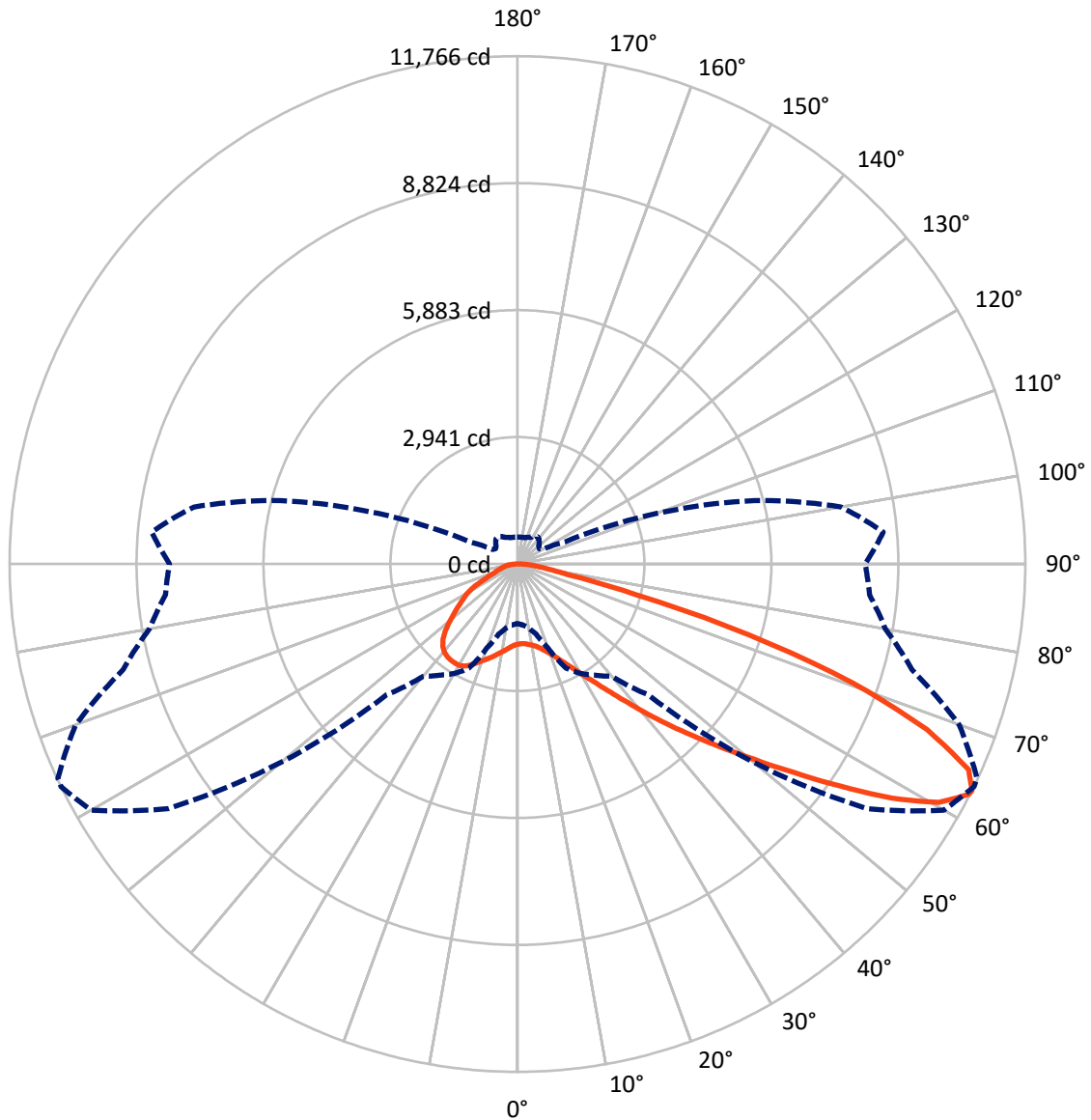


Based on 25 foot mounting height. Maximum calculated value = 4.8 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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



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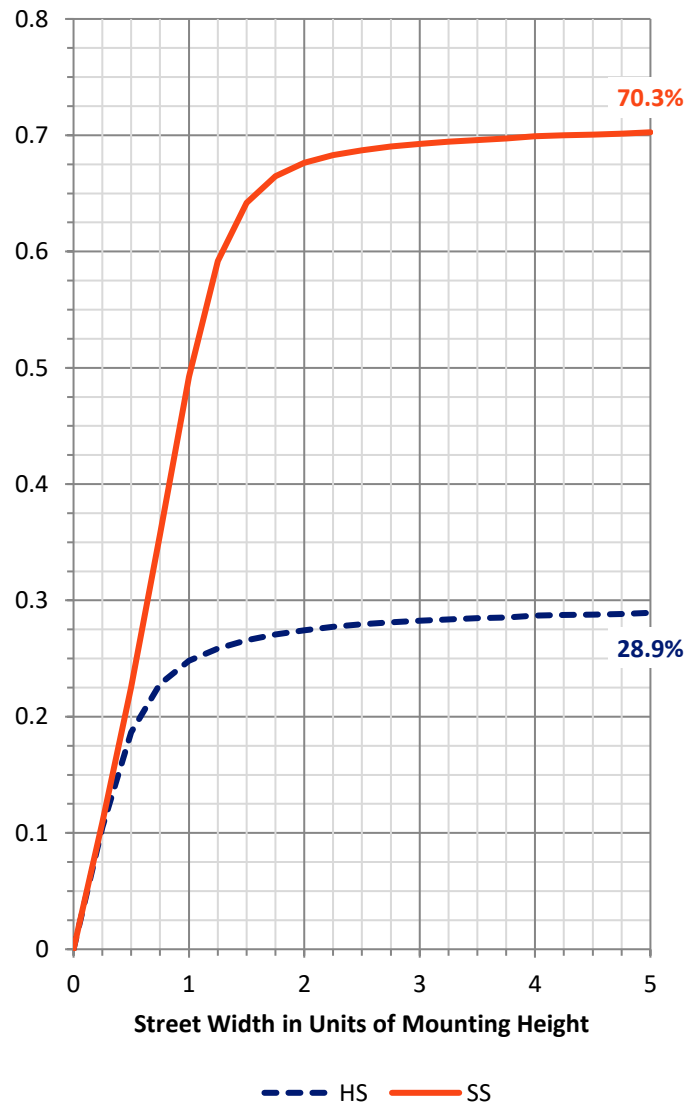
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5039.7	0.0	5039.7
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	12104.2	0.0	12104.2
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	17143.9	0.0	17143.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	185.4	1.1
10°-20°	617.4	3.6
20°-30°	1159.0	6.8
30°-40°	1942.6	11.3
40°-50°	3259.3	19.0
50°-60°	4131.8	24.1
60°-70°	3644.9	21.3
70°-80°	1881.5	11.0
80°-90°	322.0	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°	17143.9	100.0
0°-180°	17143.9	100.0



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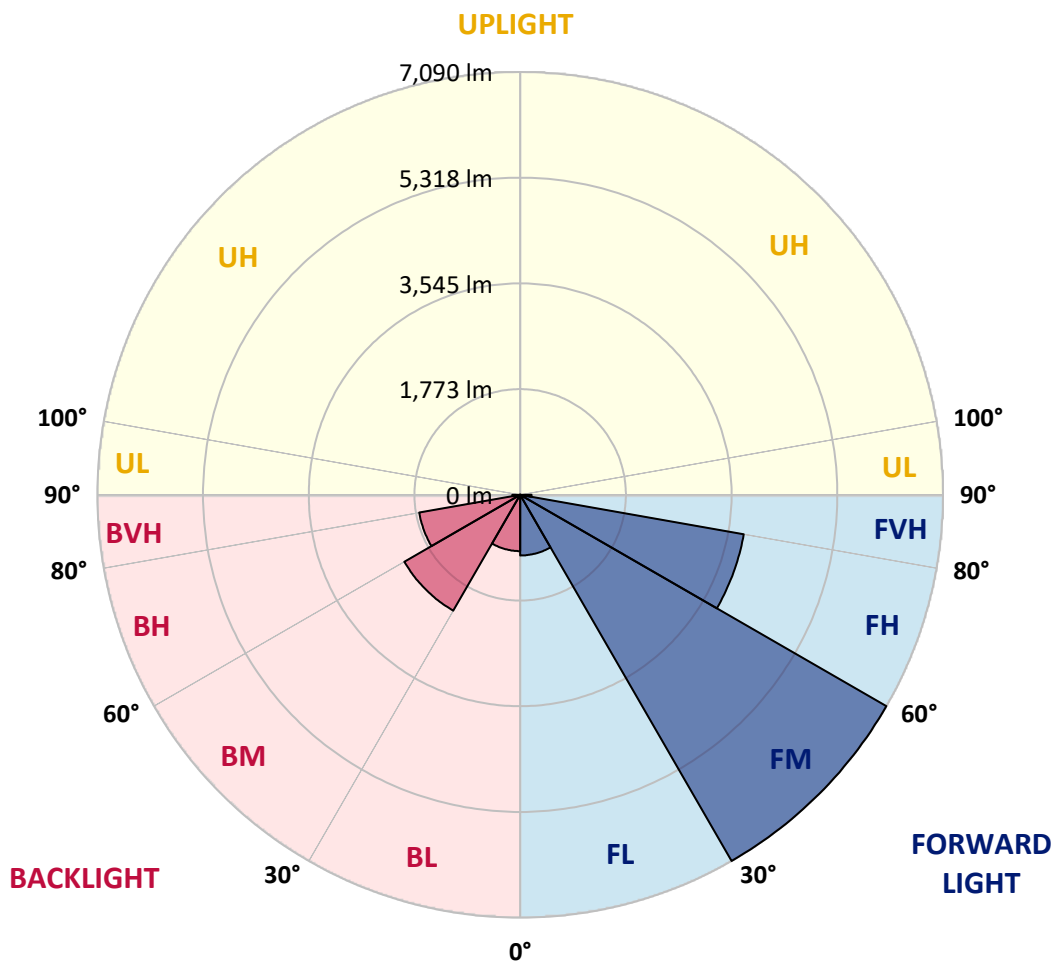
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1017.5	5.9			
FM (30°-60°)	7090.3	41.4			
FH (60°-80°)	3806.9	22.2			G2/5000
FVH (80°-90°)	189.5	1.1			G2/225
BL (0°-30°)	944.3	5.5	B2/1000		
BM (30°-60°)	2243.4	13.1	B2/2500		
BH (60°-80°)	1719.5	10.0	B3/2500		G3/2500
BVH (80°-90°)	132.5	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°	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7
2.5°	1845.2	1842.3	1842.3	1842.3	1842.3	1839.5	1842.3	1848.0	1845.2	1842.3	1848.0
5°	1851.0	1848.0	1848.0	1848.0	1851.0	1848.0	1851.0	1859.6	1853.8	1853.8	1859.6
7.5°	1865.3	1862.5	1865.3	1862.5	1862.5	1862.5	1865.3	1873.9	1871.1	1873.9	1882.5
10°	1882.5	1882.5	1882.5	1882.5	1882.5	1882.5	1888.2	1894.0	1896.8	1899.7	1911.2
12.5°	1934.1	1934.1	1934.1	1931.2	1931.2	1922.6	1934.1	1939.9	1945.6	1951.4	1960.0
15°	2043.1	2043.1	2040.3	2028.8	2028.8	2011.7	2014.5	2017.4	2017.4	2023.2	2028.8
17.5°	2186.8	2183.8	2178.1	2169.5	2158.0	2137.8	2132.2	2126.4	2117.8	2114.9	2114.9
20°	2387.6	2384.7	2373.2	2350.2	2335.9	2304.4	2281.4	2258.4	2249.8	2235.5	2232.6
22.5°	2674.5	2674.5	2651.6	2617.1	2605.7	2539.6	2473.6	2424.9	2407.6	2387.6	2387.6
25°	3021.8	3019.0	2987.3	2947.2	2898.3	2829.5	2749.2	2683.2	2640.1	2594.2	2577.0
27.5°	3437.9	3429.2	3386.2	3337.5	3245.5	3159.4	3064.8	2995.9	2921.4	2863.9	2812.3
30°	3925.6	3917.1	3842.4	3750.7	3656.0	3569.8	3432.2	3348.9	3231.3	3162.4	3104.9
32.5°	4491.0	4482.5	4347.5	4258.6	4158.2	4052.0	3888.4	3756.5	3607.2	3509.6	3429.2
35°	5211.3	5176.9	4984.6	4861.2	4703.4	4597.2	4425.0	4247.1	4072.1	3934.3	3816.7
37.5°	5989.0	5948.8	5779.5	5595.8	5440.9	5311.7	5067.9	4844.0	4637.4	4448.0	4301.6
40°	6801.1	6695.0	6514.1	6379.3	6273.1	6149.6	5894.3	5659.0	5334.7	5122.4	4901.4
42.5°	7363.5	7260.3	7134.0	7045.0	6993.3	6898.6	6755.2	6551.4	6261.6	6267.3	5684.8
45°	7733.7	7581.6	7495.6	7501.3	7521.4	7521.4	7495.6	7464.0	7337.8	7423.8	6936.0
47.5°	7601.7	7501.3	7446.8	7561.7	7705.1	7848.5	8014.9	8195.7	8402.4	8646.3	8046.5
50°	6826.9	6864.2	6890.1	7134.0	7441.0	7768.3	8149.8	8643.4	9220.3	9332.2	9042.3
52.5°	5590.1	5670.4	5756.6	6129.6	6534.2	7099.5	7768.3	8583.2	9357.9	9814.2	9785.6
55°	4341.9	4442.3	4625.9	4904.2	5225.7	5759.4	6585.9	7842.8	9050.9	9776.9	10218.9
57.5°	3090.6	3237.1	3478.0	3865.5	4149.5	4450.9	5062.1	6456.7	7779.7	9131.3	10147.1
60°	2054.7	2123.6	2281.4	2763.5	3242.7	3558.3	3991.7	4496.8	5578.7	7441.0	9406.7
62.5°	1457.7	1503.7	1601.3	1819.3	2252.7	2823.8	3084.9	3317.3	3664.5	4786.6	7553.0
63°	1377.4	1417.6	1498.0	1681.6	2071.9	2663.0	2929.9	3142.3	3394.8	4281.6	7145.4
65°	1142.1	1159.4	1202.4	1291.3	1500.7	1991.6	2427.7	2556.8	2600.0	2752.0	4476.7
67.5°	964.2	975.6	990.0	1015.9	1099.0	1325.8	1810.8	1974.4	1925.5	1822.2	2212.5
70°	837.9	846.5	869.4	901.1	929.8	987.1	1245.4	1489.3	1434.8	1294.1	1354.5
72.5°	668.6	683.0	708.8	763.2	820.7	895.4	958.4	1110.5	1076.1	941.3	955.6
75°	528.0	536.7	559.6	599.8	654.3	740.3	863.8	915.4	820.7	694.5	694.5
77.5°	419.0	427.5	447.6	479.2	513.6	573.9	660.0	794.9	737.5	522.3	519.4
80°	315.6	324.3	344.3	373.0	407.5	450.5	502.1	562.4	677.2	487.9	390.3
82.5°	232.4	235.4	269.8	289.9	301.3	335.8	378.8	413.2	464.9	450.5	347.2
85°	175.1	172.2	195.1	209.4	212.4	220.9	246.8	281.3	304.2	292.7	269.8
87.5°	97.6	86.1	100.4	114.8	114.8	117.7	123.4	143.4	163.6	157.9	143.4
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):**

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7
2.5°	1848.0	1848.0	1845.2	1845.2	1848.0	1848.0	1845.2	1853.8	1859.6	1859.6	1862.5
5°	1856.7	1859.6	1856.7	1856.7	1859.6	1859.6	1862.5	1871.1	1879.6	1885.4	1894.0
7.5°	1882.5	1885.4	1882.5	1882.5	1885.4	1888.2	1894.0	1905.5	1911.2	1922.6	1937.0
10°	1911.2	1914.1	1911.2	1914.1	1917.0	1919.8	1928.4	1937.0	1945.6	1957.2	1980.1
12.5°	1962.9	1965.7	1960.0	1962.9	1971.5	1971.5	1977.1	1982.9	1997.3	2011.7	2034.6
15°	2034.6	2034.6	2028.8	2031.6	2040.3	2040.3	2043.1	2048.9	2066.2	2083.3	2106.3
17.5°	2117.8	2123.6	2120.7	2123.6	2129.3	2132.2	2132.2	2137.8	2149.3	2160.8	2183.8
20°	2229.8	2232.6	2226.8	2232.6	2238.2	2232.6	2226.8	2224.0	2229.8	2235.5	2261.3
22.5°	2381.9	2378.9	2364.6	2364.6	2364.6	2353.1	2338.8	2321.5	2321.5	2312.9	2333.0
25°	2562.5	2554.1	2533.9	2536.8	2516.7	2499.6	2473.6	2447.9	2424.9	2416.3	2419.1
27.5°	2774.9	2757.7	2737.7	2731.9	2711.9	2680.2	2637.2	2588.5	2551.1	2522.5	2516.7
30°	3041.9	3004.5	2970.1	2964.3	2932.8	2881.1	2812.3	2746.2	2683.2	2634.3	2617.1
32.5°	3357.5	3300.0	3245.5	3239.9	3188.1	3119.4	3036.1	2944.3	2852.4	2774.9	2737.7
35°	3727.7	3641.6	3589.9	3575.6	3501.0	3414.9	3323.1	3205.4	3076.3	2967.3	2898.3
37.5°	4178.2	4089.2	4000.3	4003.2	3899.9	3799.5	3676.0	3532.6	3369.0	3216.9	3119.4
40°	4735.0	4608.7	4494.0	4468.0	4379.1	4238.5	4103.7	3937.1	3736.3	3535.4	3394.8
42.5°	5409.3	5202.7	5044.8	5021.9	4904.2	4732.1	4568.4	4347.5	4143.7	3899.9	3730.5
45°	6175.6	5845.5	5656.2	5621.7	5432.3	5257.2	5059.2	4823.9	4574.2	4298.8	4097.9
47.5°	7128.3	6657.6	6336.3	6278.8	6017.7	5788.1	5581.5	5320.4	5021.9	4714.9	4494.0
50°	8238.8	7544.4	7111.0	7022.1	6672.0	6402.3	6138.1	5811.1	5492.6	5171.1	4915.8
52.5°	9352.3	8606.2	8029.4	7920.3	7403.7	7042.2	6695.0	6367.7	5991.9	5673.3	5383.5
55°	10247.5	9751.2	9082.5	8930.5	8190.1	7699.3	7243.1	6870.0	6496.9	6244.3	5902.9
57.5°	10787.0	10761.3	10233.2	10023.8	9010.7	8284.7	7776.7	7352.0	6990.5	6884.3	6430.9
60°	10772.8	11441.4	11214.7	11056.8	9840.1	8884.5	8224.5	7765.3	7466.9	7587.4	6961.8
62.5°	10115.6	11470.0	11742.6	11699.6	10723.9	9366.6	8591.8	8118.3	7960.4	8319.1	7512.7
63°	9877.4	11404.1	11765.6	11748.4	10893.2	9458.5	8654.9	8187.2	8058.0	8505.8	7613.1
65°	8347.9	10827.3	11487.3	11564.8	11257.7	9774.2	8801.3	8362.1	8347.9	8921.8	7851.4
67.5°	5087.8	9148.5	10233.2	10382.5	10744.0	9874.6	8718.1	8301.9	8508.6	8982.1	7779.7
70°	2175.3	6037.7	8224.5	8465.5	9349.5	9375.2	8479.8	8055.1	8471.3	8511.4	7268.9
72.5°	1288.5	2846.8	5598.8	6123.9	7398.1	8066.6	7934.6	7624.6	7980.6	7475.5	6189.9
75°	912.6	1331.6	2843.8	3403.4	5151.0	6158.3	6666.2	6809.7	6795.4	5928.7	4646.0
77.5°	654.3	855.2	1199.5	1414.8	2875.3	3954.4	4574.2	4993.2	4858.3	3968.8	2863.9
80°	456.2	591.2	734.7	780.5	1334.4	2031.6	2410.5	2594.2	2513.8	1982.9	1282.7
82.5°	330.0	387.5	473.5	502.1	671.5	938.4	1116.3	984.3	944.1	731.8	553.8
85°	255.4	249.6	295.5	307.0	393.2	490.7	502.1	390.3	341.6	304.2	310.0
87.5°	180.9	154.9	157.9	163.6	203.8	261.1	255.4	160.7	137.7	146.4	166.4
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7	1856.7
2.5°	1868.2	1871.1	1876.7	1879.6	1885.4	1885.4	1891.1	1894.0	1899.7	1905.5	1908.3
5°	1902.6	1911.2	1922.6	1928.4	1939.9	1948.5	1960.0	1965.7	1977.1	1985.8	1997.3
7.5°	1954.2	1968.7	1982.9	2000.2	2017.4	2031.6	2043.1	2057.6	2077.7	2092.0	2100.6
10°	2003.0	2023.2	2048.9	2069.1	2094.8	2114.9	2132.2	2158.0	2181.0	2201.0	2212.5
12.5°	2066.2	2092.0	2117.8	2149.3	2183.8	2209.7	2235.5	2269.9	2301.4	2324.4	2335.9
15°	2140.7	2172.3	2201.0	2238.2	2278.5	2312.9	2350.2	2387.6	2410.5	2410.5	2404.8
17.5°	2218.3	2244.0	2278.5	2321.5	2376.1	2419.1	2439.2	2445.0	2436.4	2416.3	2401.9
20°	2295.7	2318.7	2355.9	2407.6	2465.0	2473.6	2453.5	2427.7	2401.9	2367.4	2344.4
22.5°	2358.9	2390.5	2447.9	2508.0	2511.0	2462.1	2407.6	2364.6	2324.4	2284.3	2241.2
25°	2433.5	2476.5	2554.1	2577.0	2502.4	2410.5	2333.0	2269.9	2203.9	2137.8	2089.1
27.5°	2525.3	2588.5	2665.9	2600.0	2453.5	2324.4	2218.3	2123.6	2037.4	1945.6	1891.1
30°	2622.9	2720.4	2737.7	2565.5	2370.4	2203.9	2060.4	1917.0	1807.9	1724.6	1693.1
32.5°	2740.5	2866.8	2763.5	2505.2	2258.4	2040.3	1848.0	1675.9	1584.0	1532.4	1518.0
35°	2918.5	3021.8	2777.8	2442.1	2129.3	1845.2	1604.2	1466.4	1409.0	1374.6	1357.3
37.5°	3173.9	3171.0	2774.9	2364.6	1980.1	1632.9	1409.0	1311.4	1265.5	1236.9	1205.2
40°	3472.3	3285.8	2757.7	2252.7	1779.2	1429.1	1274.2	1182.3	1139.2	1104.8	1067.5
42.5°	3768.0	3363.2	2709.0	2086.2	1529.5	1282.7	1176.6	1093.3	1047.5	1010.1	958.4
45°	4023.3	3394.8	2614.2	1856.7	1305.6	1168.0	1113.5	1041.7	987.1	929.8	889.6
47.5°	4224.2	3389.1	2462.1	1586.9	1156.5	1087.5	1061.8	1013.0	947.0	875.2	823.6
50°	4393.5	3346.1	2255.5	1348.7	1056.0	1015.9	1007.3	992.9	886.7	826.4	794.9
52.5°	4548.5	3282.9	2034.6	1188.0	969.9	935.5	952.7	938.4	863.8	812.2	780.5
55°	4760.8	3239.9	1816.6	1064.6	869.4	860.9	875.2	895.4	849.4	800.7	766.2
57.5°	5010.4	3262.8	1650.1	926.9	774.7	780.5	829.4	858.0	835.1	783.4	749.0
60°	5297.4	3331.7	1503.7	794.9	697.3	711.8	783.4	823.6	820.7	760.5	720.2
62.5°	5618.7	3403.4	1271.2	694.5	631.3	654.3	728.9	780.5	789.2	737.5	688.8
63°	5681.9	3409.2	1211.0	674.3	619.8	645.7	714.5	769.0	780.5	731.8	683.0
65°	5836.8	3357.5	975.6	619.8	573.9	602.7	671.5	720.2	743.3	700.3	660.0
67.5°	5707.8	2935.7	734.7	553.8	536.7	556.6	617.0	662.8	683.0	662.8	622.7
70°	5220.0	2135.0	573.9	493.7	496.5	510.8	556.6	599.8	622.7	617.0	579.6
72.5°	4204.1	1211.0	479.2	442.0	450.5	467.7	499.4	539.5	559.6	556.6	530.9
75°	2769.1	619.8	404.6	396.1	401.7	416.1	439.1	470.6	493.7	490.7	479.2
77.5°	1371.8	430.5	347.2	350.0	353.0	364.5	381.7	410.4	424.7	427.5	424.7
80°	565.3	335.8	298.5	301.3	304.2	312.8	324.3	350.0	358.7	364.5	367.3
82.5°	338.6	255.4	238.1	243.9	246.8	255.4	264.0	287.0	295.5	304.2	304.2
85°	223.9	177.9	172.2	177.9	183.7	189.3	192.3	206.6	220.9	232.4	238.1
87.5°	120.5	106.2	103.4	106.2	106.2	111.9	117.7	131.9	149.2	160.7	166.4
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):**

	160°	165°	170°	175°	180°
0°	1856.7	1856.7	1856.7	1856.7	1856.7
2.5°	1902.6	1905.5	1902.6	1905.5	1908.3
5°	1997.3	2003.0	2000.2	2000.2	2011.7
7.5°	2106.3	2117.8	2117.8	2123.6	2129.3
10°	2224.0	2235.5	2244.0	2244.0	2252.7
12.5°	2341.7	2347.4	2355.9	2355.9	2355.9
15°	2401.9	2399.0	2396.2	2393.4	2393.4
17.5°	2393.4	2381.9	2376.1	2370.4	2373.2
20°	2330.2	2310.1	2304.4	2295.7	2301.4
22.5°	2221.1	2192.4	2181.0	2166.6	2172.3
25°	2057.6	2023.2	2017.4	2000.2	2008.7
27.5°	1868.2	1851.0	1848.0	1845.2	1859.6
30°	1690.2	1695.9	1698.9	1704.6	1718.9
32.5°	1526.7	1538.2	1541.0	1543.9	1563.9
35°	1366.0	1351.6	1366.0	1360.2	1377.4
37.5°	1190.9	1179.5	1168.0	1153.6	1165.0
40°	1044.5	1024.6	990.0	972.9	975.6
42.5°	929.8	903.9	875.2	858.0	858.0
45°	855.2	823.6	797.8	786.3	786.3
47.5°	797.8	783.4	769.0	760.5	760.5
50°	774.7	757.6	749.0	743.3	743.3
52.5°	757.6	740.3	731.8	726.0	720.2
55°	743.3	717.4	708.8	706.0	706.0
57.5°	723.2	700.3	688.8	685.8	685.8
60°	691.6	674.3	662.8	660.0	660.0
62.5°	660.0	642.8	631.3	631.3	631.3
63°	654.3	634.2	625.6	625.6	625.6
65°	628.5	608.3	599.8	599.8	596.9
67.5°	594.1	573.9	568.1	568.1	562.4
70°	553.8	536.7	530.9	533.7	522.3
72.5°	513.6	496.5	487.9	487.9	476.4
75°	467.7	450.5	439.1	436.2	424.7
77.5°	416.1	401.7	390.3	378.8	373.0
80°	361.5	350.0	335.8	327.1	318.5
82.5°	304.2	292.7	284.1	295.5	252.5
85°	238.1	226.7	215.2	232.4	180.9
87.5°	175.1	169.4	157.9	137.7	120.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)