

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: P257777

Luminaire Tested: **ARCH-M-AF48-130-D-U-T2U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257777
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-AF48-130-D-U-T2U
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 845mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16422.4 lumens
Efficiency: N/A
Efficacy: 125.4 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): 131
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

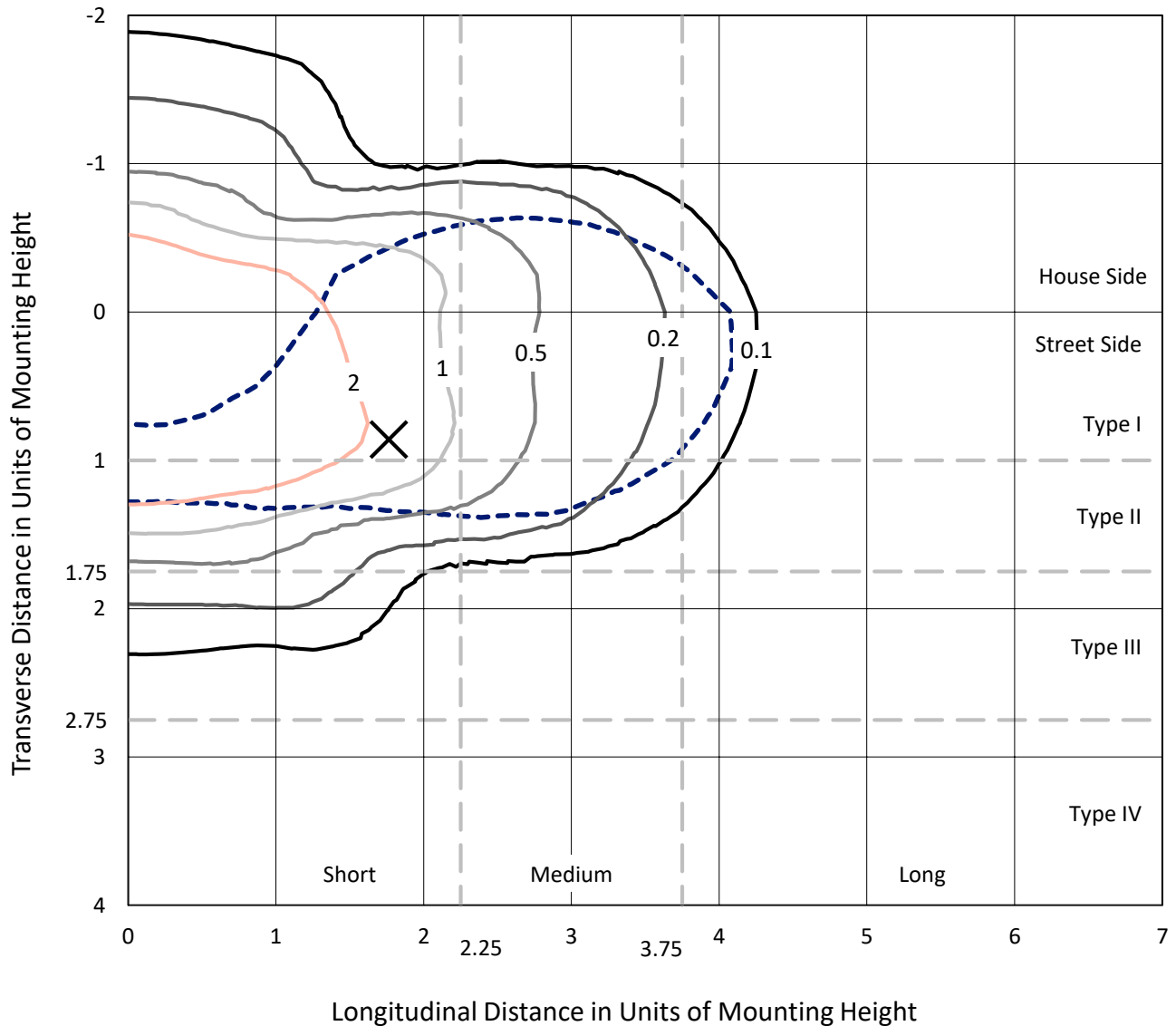


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

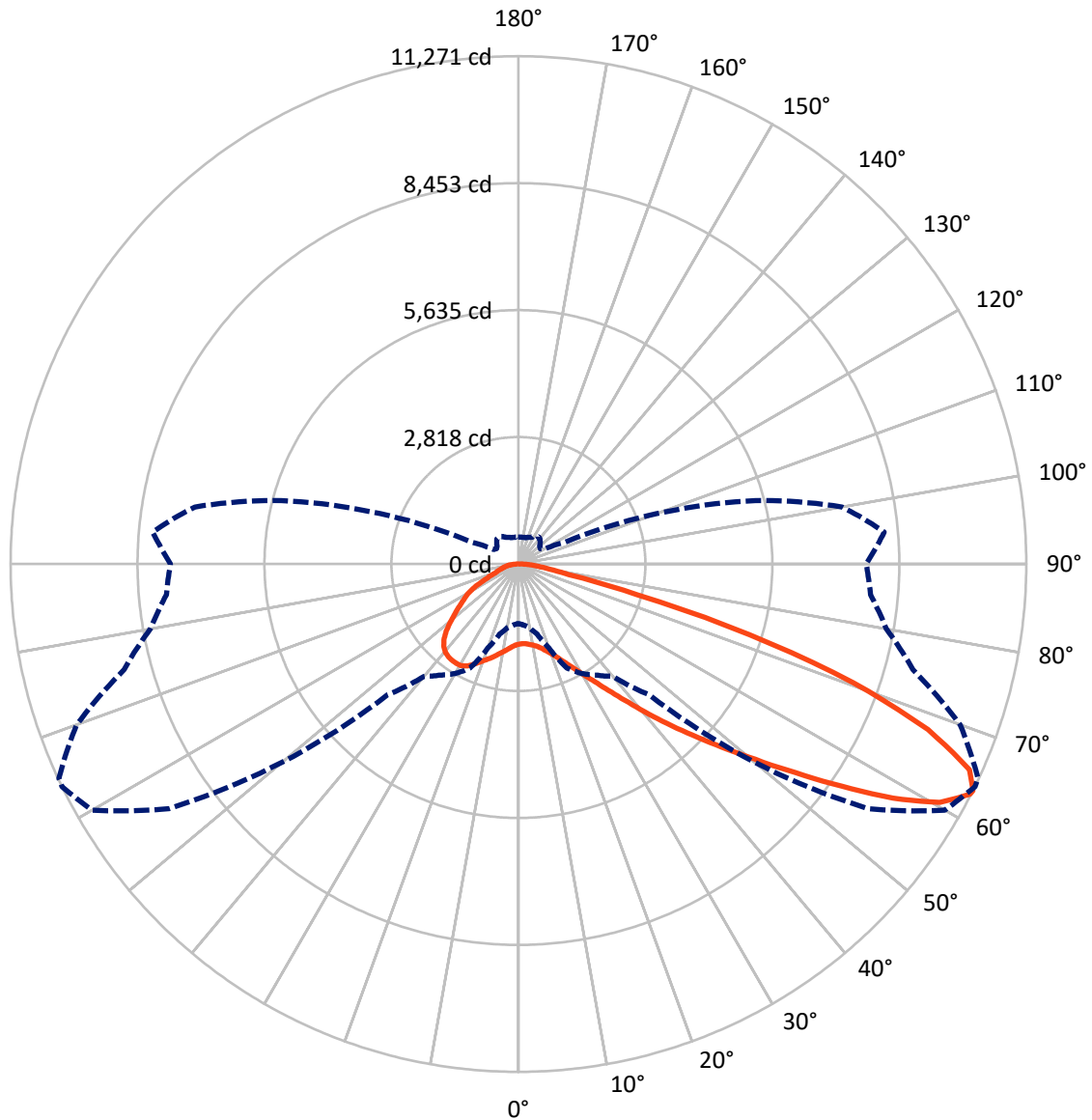


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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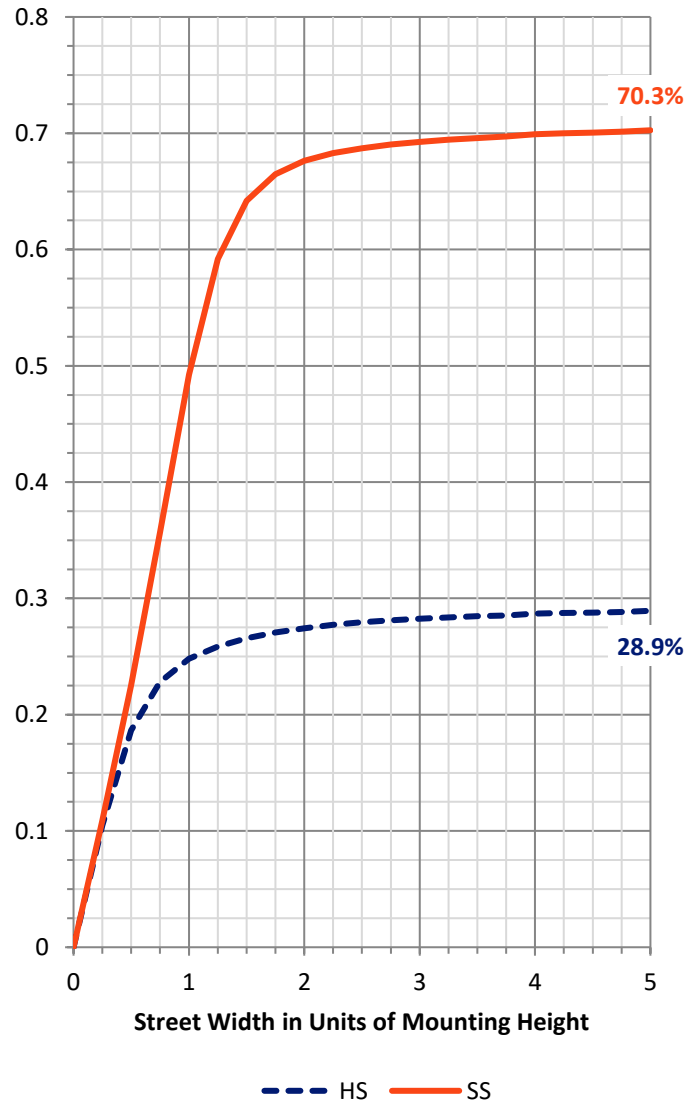
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4827.6	0.0	4827.6
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	11594.9	0.0	11594.9
	% Fixture	70.6	0.0	70.6
Total	Lumens	16422.4	0.0	16422.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.6	1.1
10°-20°	591.5	3.6
20°-30°	1110.2	6.8
30°-40°	1860.9	11.3
40°-50°	3122.1	19.0
50°-60°	3957.9	24.1
60°-70°	3491.5	21.3
70°-80°	1802.4	11.0
80°-90°	308.4	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°	16422.4	100.0
0°-180°	16422.4	100.0



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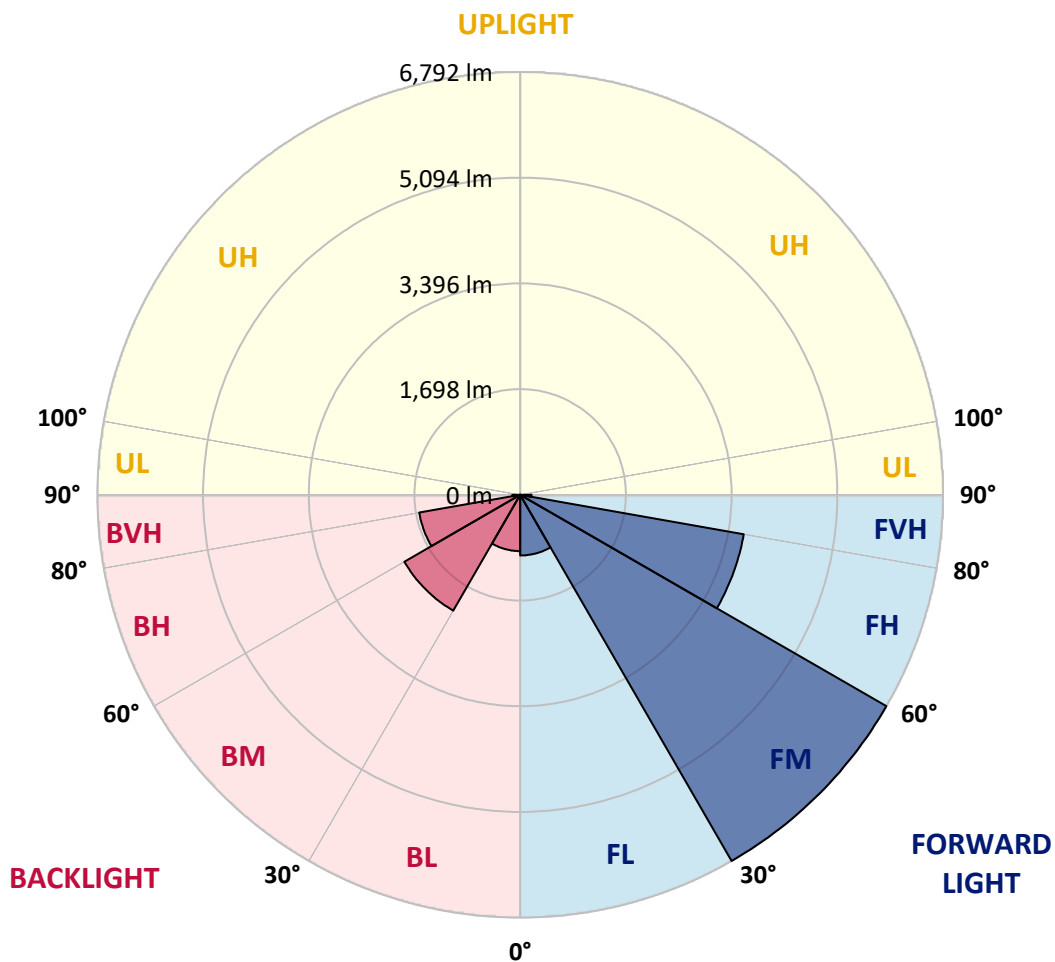
CATALOG NUMBER: ARCH-M-AF48-130-D-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	974.7	5.9			
FM (30°-60°)	6791.9	41.4			
FH (60°-80°)	3646.7	22.2			G2/5000
FVH (80°-90°)	181.5	1.1			G2/225
BL (0°-30°)	904.5	5.5	B2/1000		
BM (30°-60°)	2149.0	13.1	B2/2500		
BH (60°-80°)	1647.1	10.0	B3/2500		G3/2500
BVH (80°-90°)	126.9	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°	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5
2.5°	1767.6	1764.8	1764.8	1764.8	1764.8	1762.0	1764.8	1770.3	1767.6	1764.8	1770.3
5°	1773.1	1770.3	1770.3	1770.3	1773.1	1770.3	1773.1	1781.3	1775.8	1775.8	1781.3
7.5°	1786.8	1784.0	1786.8	1784.0	1784.0	1784.0	1786.8	1795.1	1792.3	1795.1	1803.3
10°	1803.3	1803.3	1803.3	1803.3	1803.3	1803.3	1808.8	1814.3	1817.1	1819.8	1830.8
12.5°	1852.8	1852.8	1852.8	1850.0	1850.0	1841.7	1852.8	1858.3	1863.7	1869.2	1877.5
15°	1957.2	1957.2	1954.4	1943.5	1943.5	1927.0	1929.7	1932.5	1932.5	1938.0	1943.5
17.5°	2094.7	2091.9	2086.4	2078.2	2067.2	2047.9	2042.4	2036.9	2028.7	2026.0	2026.0
20°	2287.1	2284.4	2273.3	2251.3	2237.6	2207.4	2185.4	2163.4	2155.2	2141.4	2138.7
22.5°	2562.0	2562.0	2540.0	2507.0	2496.0	2432.8	2369.6	2322.8	2306.3	2287.1	2287.1
25°	2894.6	2891.9	2861.6	2823.1	2776.4	2710.4	2633.5	2570.3	2529.0	2485.1	2468.5
27.5°	3293.2	3284.9	3243.7	3197.0	3109.1	3026.5	2935.9	2869.9	2798.4	2743.5	2693.9
30°	3760.5	3752.3	3680.8	3592.8	3502.1	3419.6	3287.7	3208.0	3095.2	3029.3	2974.3
32.5°	4302.0	4293.8	4164.6	4079.4	3983.2	3881.5	3724.8	3598.3	3455.4	3361.9	3284.9
35°	4992.0	4959.1	4774.8	4656.7	4505.5	4403.8	4238.8	4068.4	3900.7	3768.8	3656.0
37.5°	5737.0	5698.4	5536.3	5360.4	5211.9	5088.3	4854.6	4640.2	4442.3	4260.8	4120.7
40°	6514.9	6413.2	6240.0	6110.8	6009.1	5890.9	5646.3	5420.8	5110.3	4906.8	4695.1
42.5°	7053.7	6954.7	6833.8	6748.6	6699.1	6608.4	6471.0	6275.8	5998.1	6003.6	5445.6
45°	7408.3	7262.6	7180.2	7185.6	7204.8	7204.8	7180.2	7149.9	7029.0	7111.5	6644.1
47.5°	7281.9	7185.6	7133.4	7243.4	7380.8	7518.3	7677.7	7850.8	8048.8	8282.4	7707.9
50°	6539.6	6575.4	6600.2	6833.8	7127.9	7441.3	7806.9	8279.8	8832.3	8939.5	8661.8
52.5°	5354.8	5431.9	5514.3	5871.6	6259.2	6800.8	7441.3	8222.0	8964.2	9401.2	9373.8
55°	4159.1	4255.3	4431.2	4697.9	5005.8	5517.1	6308.7	7512.8	8670.0	9365.5	9788.8
57.5°	2960.6	3100.8	3331.6	3702.8	3974.9	4263.6	4849.1	6185.1	7452.3	8747.0	9720.2
60°	1968.3	2034.2	2185.4	2647.2	3106.3	3408.7	3823.7	4307.5	5343.9	7127.9	9011.0
62.5°	1396.4	1440.4	1533.9	1742.8	2157.9	2704.9	2955.1	3177.7	3510.4	4585.2	7235.1
63°	1319.5	1358.0	1434.9	1610.8	1984.7	2551.0	2806.7	3010.0	3252.0	4101.4	6844.8
65°	1094.0	1110.5	1151.8	1237.1	1437.7	1907.7	2325.6	2449.3	2490.5	2636.2	4288.3
67.5°	923.6	934.7	948.4	973.1	1052.8	1270.0	1734.5	1891.2	1844.5	1745.6	2119.5
70°	802.7	810.9	832.9	863.2	890.7	945.6	1193.1	1426.7	1374.4	1239.7	1297.5
72.5°	640.5	654.3	678.9	731.2	786.1	857.6	918.1	1063.9	1030.8	901.6	915.3
75°	505.8	514.0	536.0	574.5	626.8	709.2	827.5	876.9	786.1	665.2	665.2
77.5°	401.3	409.6	428.8	459.1	492.0	549.7	632.3	761.5	706.4	500.3	497.6
80°	302.4	310.7	329.9	357.3	390.4	431.6	481.1	538.8	648.8	467.3	373.9
82.5°	222.7	225.5	258.4	277.6	288.7	321.6	362.8	395.9	445.3	431.6	332.7
85°	167.7	164.9	186.9	200.7	203.5	211.6	236.4	269.3	291.3	280.4	258.4
87.5°	93.5	82.4	96.3	110.0	110.0	112.7	118.3	137.5	156.7	151.2	137.5
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5
2.5°	1770.3	1770.3	1767.6	1767.6	1770.3	1770.3	1767.6	1775.8	1781.3	1781.3	1784.0
5°	1778.5	1781.3	1778.5	1778.5	1781.3	1781.3	1784.0	1792.3	1800.5	1806.0	1814.3
7.5°	1803.3	1806.0	1803.3	1803.3	1806.0	1808.8	1814.3	1825.3	1830.8	1841.7	1855.5
10°	1830.8	1833.5	1830.8	1833.5	1836.3	1839.1	1847.2	1855.5	1863.7	1874.8	1896.8
12.5°	1880.3	1883.0	1877.5	1880.3	1888.5	1888.5	1894.0	1899.5	1913.2	1927.0	1949.0
15°	1949.0	1949.0	1943.5	1946.3	1954.4	1954.4	1957.2	1962.7	1979.2	1995.7	2017.7
17.5°	2028.7	2034.2	2031.5	2034.2	2039.7	2042.4	2042.4	2047.9	2058.9	2069.9	2091.9
20°	2135.9	2138.7	2133.2	2138.7	2144.1	2138.7	2133.2	2130.4	2135.9	2141.4	2166.1
22.5°	2281.6	2278.8	2265.1	2265.1	2265.1	2254.1	2240.4	2223.9	2223.9	2215.6	2234.8
25°	2454.8	2446.5	2427.3	2430.0	2410.8	2394.3	2369.6	2344.8	2322.8	2314.6	2317.3
27.5°	2658.2	2641.7	2622.4	2616.9	2597.7	2567.5	2526.3	2479.5	2443.8	2416.3	2410.8
30°	2913.9	2878.1	2845.1	2839.6	2809.4	2759.9	2693.9	2630.7	2570.3	2523.5	2507.0
32.5°	3216.3	3161.2	3109.1	3103.5	3054.0	2988.0	2908.4	2820.4	2732.4	2658.2	2622.4
35°	3570.8	3488.4	3438.9	3425.1	3353.6	3271.2	3183.2	3070.5	2946.8	2842.4	2776.4
37.5°	4002.4	3917.2	3832.0	3834.7	3735.8	3639.6	3521.3	3383.9	3227.2	3081.5	2988.0
40°	4535.7	4414.7	4304.8	4280.0	4194.8	4060.1	3930.9	3771.5	3579.1	3386.7	3252.0
42.5°	5181.7	4983.8	4832.6	4810.6	4697.9	4533.0	4376.3	4164.6	3969.5	3735.8	3573.6
45°	5915.6	5599.5	5418.1	5385.1	5203.6	5036.0	4846.3	4620.9	4381.8	4117.9	3925.5
47.5°	6828.3	6377.5	6069.6	6014.6	5764.4	5544.6	5346.7	5096.4	4810.6	4516.4	4304.8
50°	7892.2	7226.8	6811.8	6726.6	6391.2	6132.8	5879.9	5566.6	5261.4	4953.5	4708.8
52.5°	8958.7	8244.0	7691.5	7587.0	7092.2	6745.8	6413.2	6099.9	5739.7	5434.6	5157.0
55°	9816.3	9340.8	8700.3	8554.6	7845.4	7375.4	6938.3	6580.8	6223.5	5981.6	5654.5
57.5°	10333.1	10308.4	9802.6	9601.9	8631.6	7936.1	7449.5	7042.7	6696.3	6594.7	6160.3
60°	10319.4	10959.9	10742.7	10591.5	9426.0	8510.6	7878.4	7438.6	7152.7	7268.2	6668.8
62.5°	9689.9	10987.4	11248.6	11207.3	10272.7	8972.4	8230.3	7776.7	7625.5	7969.1	7196.7
63°	9461.8	10924.2	11270.6	11254.0	10434.8	9060.4	8290.7	7842.7	7719.0	8147.8	7292.8
65°	7996.6	10371.6	11003.9	11078.1	10783.9	9362.8	8431.0	8010.3	7996.6	8546.3	7521.0
67.5°	4873.8	8763.5	9802.6	9945.5	10291.9	9459.0	8351.2	7952.6	8150.6	8604.0	7452.3
70°	2083.6	5783.7	7878.4	8109.2	8955.9	8980.7	8123.0	7716.2	8114.8	8153.2	6963.0
72.5°	1234.3	2726.9	5363.1	5866.2	7086.7	7727.2	7600.7	7303.9	7644.7	7160.9	5929.4
75°	874.1	1275.5	2724.2	3260.2	4934.3	5899.2	6385.7	6523.2	6509.4	5679.2	4450.4
77.5°	626.8	819.2	1149.1	1355.2	2754.4	3788.0	4381.8	4783.1	4653.9	3801.7	2743.5
80°	437.1	566.3	703.7	747.7	1278.3	1946.3	2309.1	2485.1	2408.0	1899.5	1228.8
82.5°	316.1	371.1	453.6	481.1	643.2	898.9	1069.3	942.9	904.4	700.9	530.5
85°	244.7	239.2	283.2	294.1	376.7	470.0	481.1	373.9	327.1	291.3	296.9
87.5°	173.2	148.4	151.2	156.7	195.2	250.1	244.7	154.0	132.0	140.1	159.5
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5	1778.5
2.5°	1789.6	1792.3	1797.8	1800.5	1806.0	1806.0	1811.5	1814.3	1819.8	1825.3	1828.0
5°	1822.5	1830.8	1841.7	1847.2	1858.3	1866.5	1877.5	1883.0	1894.0	1902.3	1913.2
7.5°	1872.0	1885.7	1899.5	1916.0	1932.5	1946.3	1957.2	1970.9	1990.3	2004.0	2012.2
10°	1918.7	1938.0	1962.7	1982.0	2006.7	2026.0	2042.4	2067.2	2089.2	2108.4	2119.5
12.5°	1979.2	2004.0	2028.7	2058.9	2091.9	2116.7	2141.4	2174.4	2204.7	2226.7	2237.6
15°	2050.7	2080.9	2108.4	2144.1	2182.7	2215.6	2251.3	2287.1	2309.1	2309.1	2303.6
17.5°	2124.9	2149.6	2182.7	2223.9	2276.1	2317.3	2336.6	2342.0	2333.9	2314.6	2300.8
20°	2199.1	2221.1	2256.8	2306.3	2361.3	2369.6	2350.3	2325.6	2300.8	2267.9	2245.9
22.5°	2259.6	2289.9	2344.8	2402.5	2405.3	2358.5	2306.3	2265.1	2226.7	2188.1	2146.9
25°	2331.1	2372.3	2446.5	2468.5	2397.1	2309.1	2234.8	2174.4	2111.2	2047.9	2001.2
27.5°	2419.1	2479.5	2553.7	2490.5	2350.3	2226.7	2124.9	2034.2	1951.7	1863.7	1811.5
30°	2512.5	2606.0	2622.4	2457.5	2270.6	2111.2	1973.7	1836.3	1731.9	1652.1	1621.9
32.5°	2625.2	2746.1	2647.2	2399.8	2163.4	1954.4	1770.3	1605.3	1517.4	1467.9	1454.1
35°	2795.6	2894.6	2660.9	2339.3	2039.7	1767.6	1536.7	1404.7	1349.7	1316.7	1300.3
37.5°	3040.3	3037.6	2658.2	2265.1	1896.8	1564.1	1349.7	1256.3	1212.3	1184.8	1154.5
40°	3326.2	3147.5	2641.7	2157.9	1704.3	1368.9	1220.5	1132.5	1091.3	1058.3	1022.6
42.5°	3609.3	3221.7	2595.0	1998.4	1465.2	1228.8	1127.1	1047.3	1003.3	967.6	918.1
45°	3854.0	3252.0	2504.3	1778.5	1250.8	1118.8	1066.5	997.9	945.6	890.7	852.1
47.5°	4046.4	3246.4	2358.5	1520.1	1107.9	1041.9	1017.1	970.4	907.2	838.4	788.9
50°	4208.6	3205.2	2160.7	1292.0	1011.6	973.1	964.8	951.1	849.5	791.7	761.5
52.5°	4357.1	3144.8	1949.0	1138.0	929.1	896.1	912.7	898.9	827.5	778.0	747.7
55°	4560.4	3103.5	1740.0	1019.9	832.9	824.7	838.4	857.6	813.7	766.9	734.0
57.5°	4799.6	3125.5	1580.7	887.9	742.3	747.7	794.4	821.9	799.9	750.4	717.5
60°	5074.4	3191.5	1440.4	761.5	668.0	681.7	750.4	788.9	786.1	728.4	690.0
62.5°	5382.4	3260.2	1217.7	665.2	604.8	626.8	698.3	747.7	756.0	706.4	659.7
63°	5442.8	3265.7	1160.0	646.0	593.7	618.5	684.5	736.7	747.7	700.9	654.3
65°	5591.2	3216.3	934.7	593.7	549.7	577.3	643.2	690.0	712.0	670.7	632.3
67.5°	5467.6	2812.1	703.7	530.5	514.0	533.3	591.1	635.0	654.3	635.0	596.5
70°	5000.3	2045.2	549.7	472.8	475.6	489.3	533.3	574.5	596.5	591.1	555.3
72.5°	4027.2	1160.0	459.1	423.3	431.6	448.1	478.3	516.8	536.0	533.3	508.5
75°	2652.7	593.7	387.6	379.3	384.8	398.5	420.5	450.8	472.8	470.0	459.1
77.5°	1314.0	412.4	332.7	335.3	338.1	349.1	365.6	393.1	406.8	409.6	406.8
80°	541.6	321.6	285.9	288.7	291.3	299.6	310.7	335.3	343.6	349.1	351.9
82.5°	324.4	244.7	228.1	233.6	236.4	244.7	252.9	274.9	283.2	291.3	291.3
85°	214.4	170.4	164.9	170.4	175.9	181.5	184.1	197.9	211.6	222.7	228.1
87.5°	115.5	101.7	98.9	101.7	101.7	107.2	112.7	126.4	142.9	154.0	159.5
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):

	160°	165°	170°	175°	180°
0°	1778.5	1778.5	1778.5	1778.5	1778.5
2.5°	1822.5	1825.3	1822.5	1825.3	1828.0
5°	1913.2	1918.7	1916.0	1916.0	1927.0
7.5°	2017.7	2028.7	2028.7	2034.2	2039.7
10°	2130.4	2141.4	2149.6	2149.6	2157.9
12.5°	2243.1	2248.7	2256.8	2256.8	2256.8
15°	2300.8	2298.1	2295.3	2292.6	2292.6
17.5°	2292.6	2281.6	2276.1	2270.6	2273.3
20°	2232.1	2212.8	2207.4	2199.1	2204.7
22.5°	2127.6	2100.1	2089.2	2075.5	2080.9
25°	1970.9	1938.0	1932.5	1916.0	1924.3
27.5°	1789.6	1773.1	1770.3	1767.6	1781.3
30°	1619.1	1624.7	1627.3	1632.8	1646.6
32.5°	1462.4	1473.5	1476.1	1478.9	1498.1
35°	1308.5	1294.7	1308.5	1302.9	1319.5
37.5°	1140.8	1129.8	1118.8	1105.1	1116.0
40°	1000.7	981.3	948.4	931.9	934.7
42.5°	890.7	865.9	838.4	821.9	821.9
45°	819.2	788.9	764.2	753.2	753.2
47.5°	764.2	750.4	736.7	728.4	728.4
50°	742.3	725.7	717.5	712.0	712.0
52.5°	725.7	709.2	700.9	695.5	690.0
55°	712.0	687.2	678.9	676.3	676.3
57.5°	692.7	670.7	659.7	656.9	656.9
60°	662.5	646.0	635.0	632.3	632.3
62.5°	632.3	615.7	604.8	604.8	604.8
63°	626.8	607.5	599.2	599.2	599.2
65°	602.0	582.8	574.5	574.5	571.7
67.5°	569.1	549.7	544.3	544.3	538.8
70°	530.5	514.0	508.5	511.3	500.3
72.5°	492.0	475.6	467.3	467.3	456.3
75°	448.1	431.6	420.5	417.9	406.8
77.5°	398.5	384.8	373.9	362.8	357.3
80°	346.4	335.3	321.6	313.3	305.1
82.5°	291.3	280.4	272.1	283.2	241.9
85°	228.1	217.2	206.1	222.7	173.2
87.5°	167.7	162.1	151.2	132.0	115.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)