

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: P257779

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257779
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
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 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: 18132.8 lumens
Efficiency: N/A
Efficacy: 120.1 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

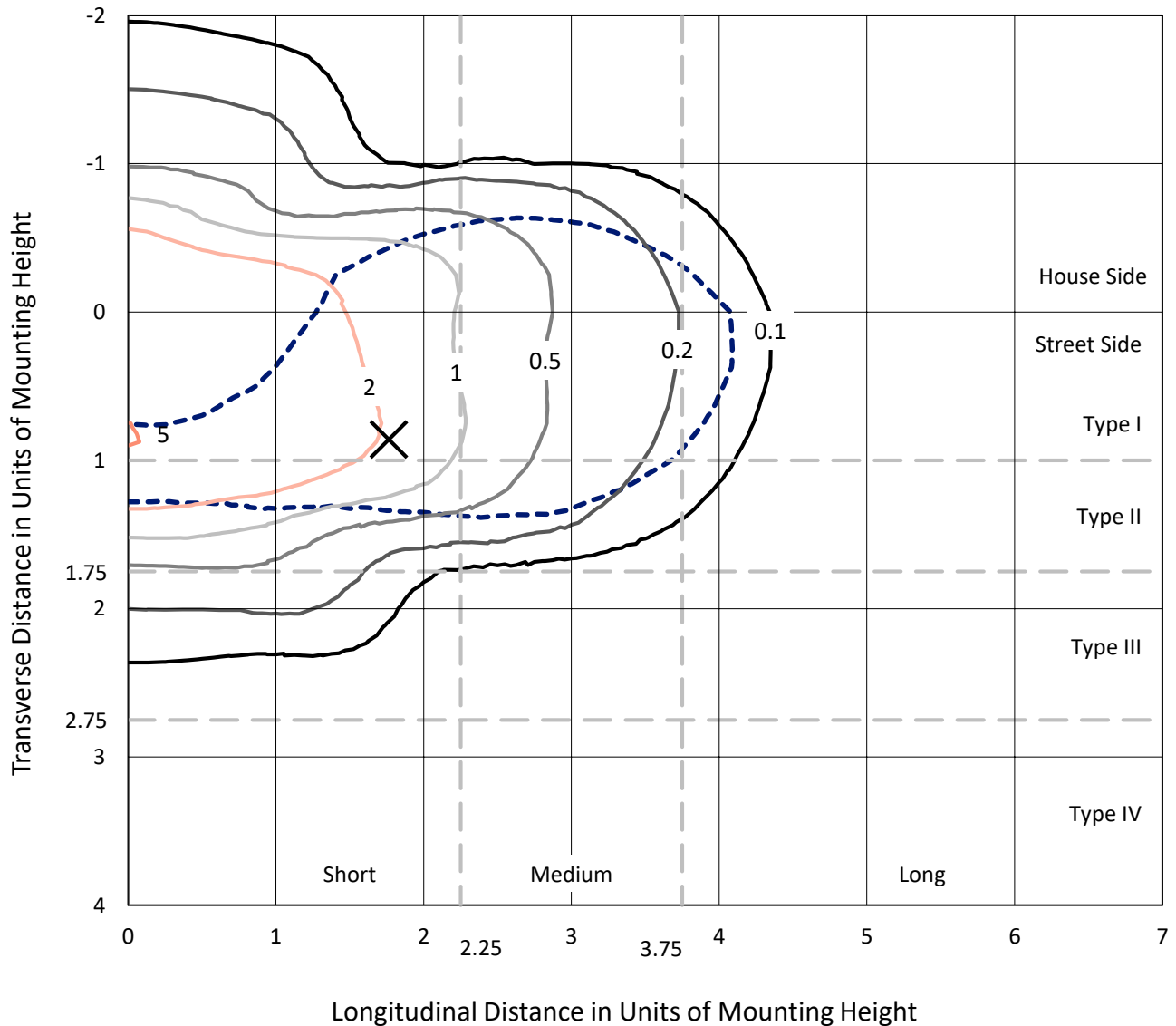


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

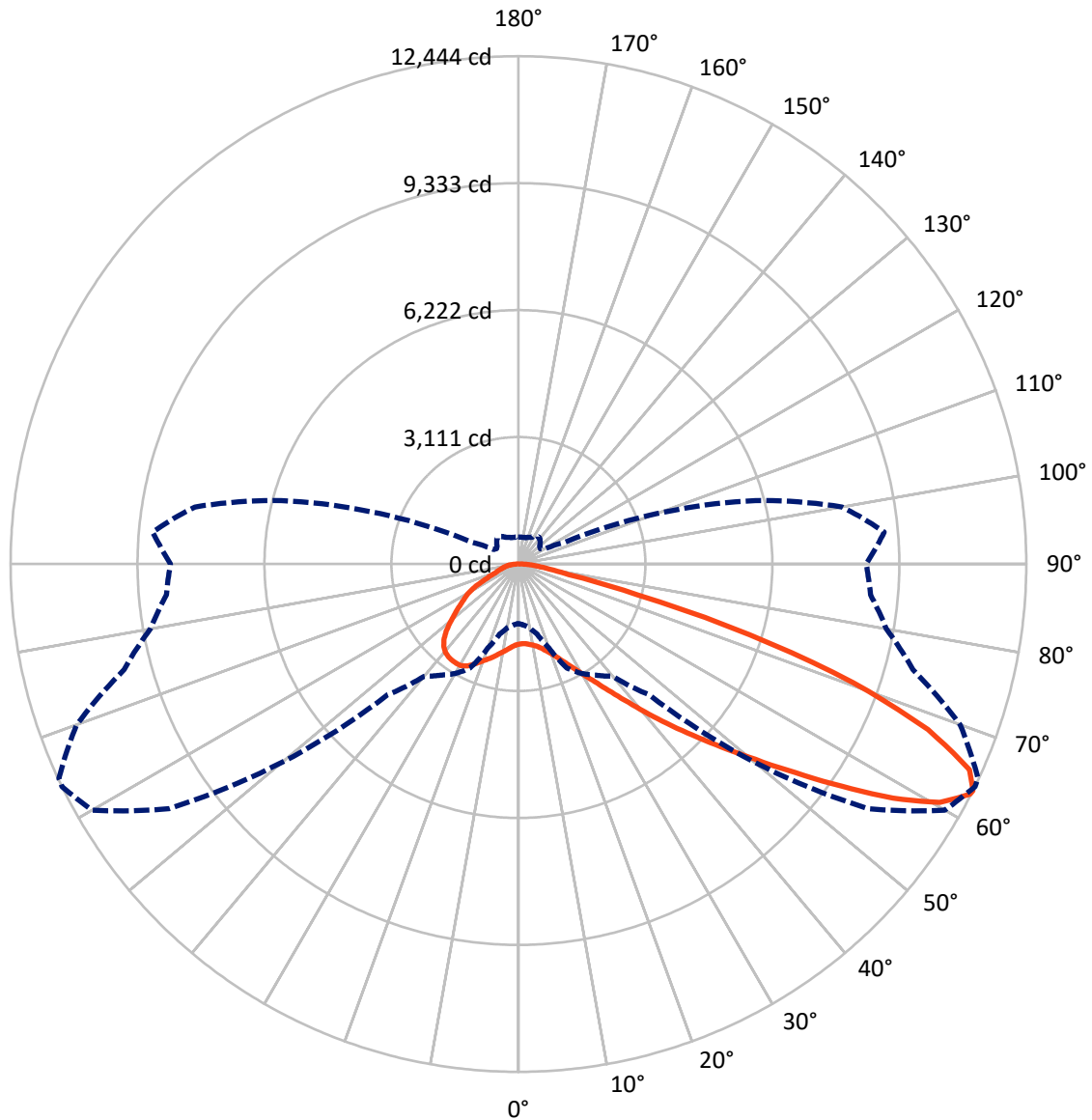


Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
 Type II - Short - Semi-Cutoff

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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	5330.4	0.0	5330.4
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	12802.4	0.0	12802.4
	% Fixture	70.6	0.0	70.6
Total	Lumens	18132.8	0.0	18132.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.1	1.1
10°-20°	653.1	3.6
20°-30°	1225.9	6.8
30°-40°	2054.7	11.3
40°-50°	3447.3	19.0
50°-60°	4370.1	24.1
60°-70°	3855.1	21.3
70°-80°	1990.1	11.0
80°-90°	340.5	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°	18132.8	100.0
0°-180°	18132.8	100.0



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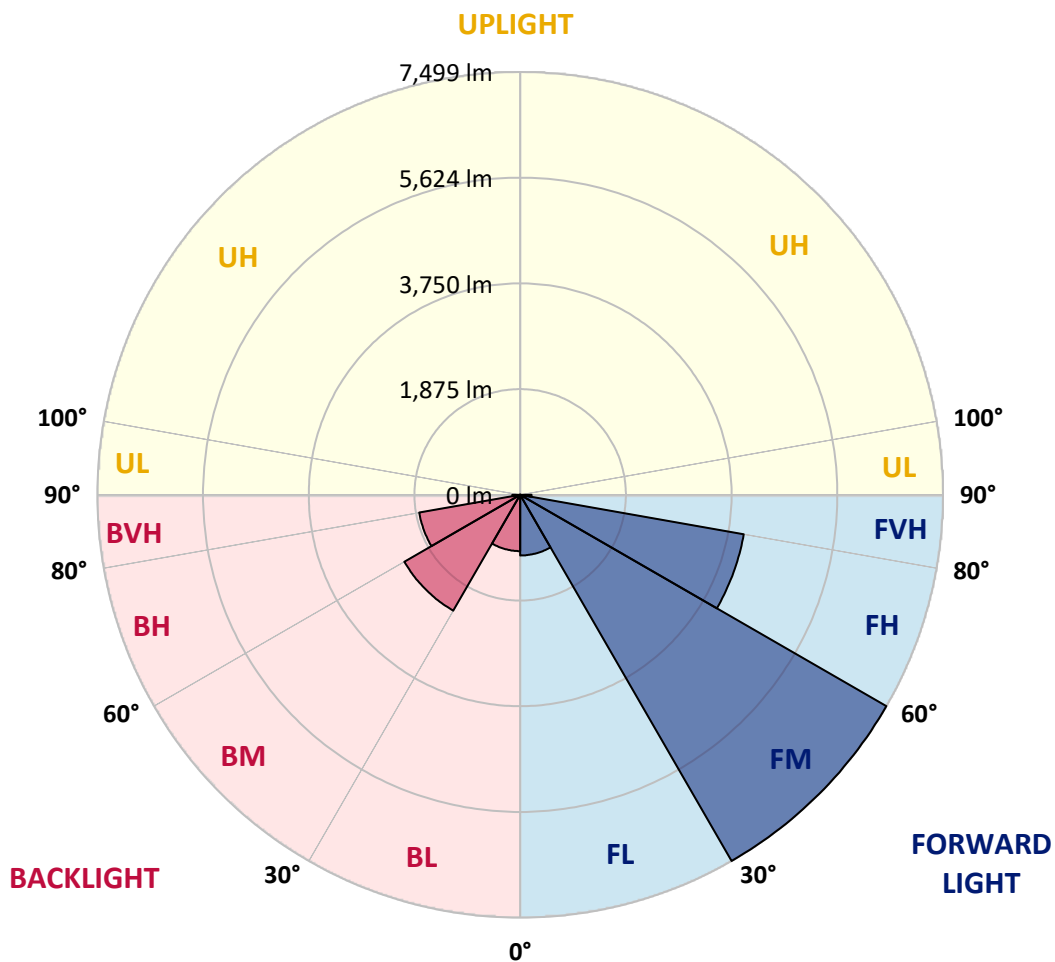
CATALOG NUMBER: ARCH-M-AF48-150-D-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1076.2	5.9			
FM	(30°-60°)	7499.3	41.4			
FH	(60°-80°)	4026.5	22.2			G2/5000
FVH	(80°-90°)	200.4	1.1			G2/225
BL	(0°-30°)	998.7	5.5	B2/1000		
BM	(30°-60°)	2372.8	13.1	B2/2500		
BH	(60°-80°)	1818.7	10.0	B3/2500		G3/2500
BVH	(80°-90°)	140.1	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°	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8
2.5°	1951.6	1948.6	1948.6	1948.6	1948.6	1945.6	1948.6	1954.7	1951.6	1948.6	1954.7
5°	1957.7	1954.7	1954.7	1954.7	1957.7	1954.7	1957.7	1966.8	1960.8	1960.8	1966.8
7.5°	1972.9	1969.9	1972.9	1969.9	1969.9	1969.9	1972.9	1982.0	1979.0	1982.0	1991.1
10°	1991.1	1991.1	1991.1	1991.1	1991.1	1991.1	1997.2	2003.2	2006.3	2009.3	2021.5
12.5°	2045.7	2045.7	2045.7	2042.7	2042.7	2033.6	2045.7	2051.8	2057.9	2063.9	2073.0
15°	2161.1	2161.1	2158.0	2145.8	2145.8	2127.6	2130.7	2133.8	2133.8	2139.8	2145.8
17.5°	2312.8	2309.8	2303.7	2294.6	2282.5	2261.2	2255.2	2249.1	2240.0	2237.0	2237.0
20°	2525.3	2522.3	2510.1	2485.9	2470.6	2437.3	2413.0	2388.7	2379.6	2364.4	2361.4
22.5°	2828.8	2828.8	2804.5	2768.1	2755.9	2686.2	2616.3	2564.7	2546.5	2525.3	2525.3
25°	3196.1	3193.0	3159.7	3117.1	3065.6	2992.7	2907.7	2837.9	2792.3	2743.9	2725.7
27.5°	3636.2	3627.1	3581.6	3529.9	3432.8	3341.8	3241.6	3168.8	3089.8	3029.2	2974.5
30°	4152.2	4143.1	4064.2	3967.0	3866.9	3775.8	3630.1	3542.1	3417.7	3344.8	3284.1
32.5°	4750.1	4741.0	4598.4	4504.3	4398.0	4285.8	4112.7	3973.0	3815.3	3712.1	3627.1
35°	5512.0	5475.5	5272.2	5141.7	4974.7	4862.4	4680.3	4492.1	4306.9	4161.3	4036.9
37.5°	6334.5	6292.0	6112.9	5918.7	5754.7	5618.1	5360.2	5123.4	4904.8	4704.6	4549.8
40°	7193.4	7081.2	6889.9	6747.3	6635.0	6504.4	6234.3	5985.4	5642.5	5417.9	5184.1
42.5°	7788.3	7679.1	7545.5	7451.4	7396.8	7296.6	7144.9	6929.4	6622.8	6628.9	6012.7
45°	8179.9	8019.0	7928.0	7934.0	7955.3	7955.3	7928.0	7894.5	7761.0	7852.1	7336.1
47.5°	8040.3	7934.0	7876.3	7997.7	8149.5	8301.2	8477.3	8668.6	8887.1	9145.1	8510.7
50°	7220.7	7260.2	7287.5	7545.5	7870.3	8216.3	8620.0	9142.0	9752.1	9870.5	9564.0
52.5°	5912.6	5997.6	6088.6	6483.2	6911.2	7509.1	8216.3	9078.3	9897.8	10380.4	10350.0
55°	4592.2	4698.5	4892.8	5187.2	5527.1	6091.7	6965.8	8295.2	9573.1	10340.9	10808.4
57.5°	3268.9	3423.7	3678.6	4088.4	4388.9	4707.6	5354.1	6829.2	8228.4	9658.0	10732.5
60°	2173.2	2246.1	2413.0	2922.9	3429.7	3763.6	4221.9	4756.2	5900.5	7870.3	9949.4
62.5°	1541.9	1590.5	1693.6	1924.3	2382.7	2986.6	3262.8	3508.7	3876.0	5062.7	7988.6
63°	1456.9	1499.4	1584.3	1778.6	2191.5	2816.7	3098.9	3323.6	3590.7	4528.5	7557.7
65°	1208.0	1226.2	1271.7	1365.8	1587.4	2106.5	2567.8	2704.4	2749.9	2910.8	4734.9
67.5°	1019.8	1032.0	1047.2	1074.5	1162.5	1402.3	1915.2	2088.3	2036.6	1927.3	2340.1
70°	886.3	895.4	919.6	953.1	983.4	1044.1	1317.3	1575.2	1517.6	1368.9	1432.6
72.5°	707.2	722.4	749.7	807.4	868.1	946.9	1013.7	1174.7	1138.2	995.5	1010.7
75°	558.4	567.5	591.9	634.3	692.0	783.1	913.6	968.2	868.1	734.5	734.5
77.5°	443.1	452.2	473.5	506.9	543.3	607.0	698.1	840.8	780.0	552.4	549.3
80°	333.9	343.0	364.3	394.6	431.0	476.5	531.1	594.9	716.3	516.0	412.8
82.5°	245.8	248.9	285.3	306.6	318.6	355.2	400.7	437.1	491.7	476.5	367.2
85°	185.2	182.1	206.4	221.6	224.6	233.7	261.1	297.5	321.7	309.5	285.3
87.5°	103.2	91.0	106.2	121.4	121.4	124.5	130.5	151.8	173.0	166.9	151.8
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8
2.5°	1954.7	1954.7	1951.6	1951.6	1954.7	1954.7	1951.6	1960.8	1966.8	1966.8	1969.9
5°	1963.8	1966.8	1963.8	1963.8	1966.8	1966.8	1969.9	1979.0	1988.1	1994.1	2003.2
7.5°	1991.1	1994.1	1991.1	1991.1	1994.1	1997.2	2003.2	2015.4	2021.5	2033.6	2048.8
10°	2021.5	2024.5	2021.5	2024.5	2027.5	2030.6	2039.7	2048.8	2057.9	2070.0	2094.3
12.5°	2076.1	2079.1	2073.0	2076.1	2085.2	2085.2	2091.2	2097.4	2112.5	2127.6	2152.0
15°	2152.0	2152.0	2145.8	2148.9	2158.0	2158.0	2161.1	2167.1	2185.3	2203.5	2227.9
17.5°	2240.0	2246.1	2243.0	2246.1	2252.1	2255.2	2255.2	2261.2	2273.4	2285.5	2309.8
20°	2358.3	2361.4	2355.3	2361.4	2367.4	2361.4	2355.3	2352.3	2358.3	2364.4	2391.8
22.5°	2519.2	2516.2	2501.0	2501.0	2501.0	2488.8	2473.7	2455.5	2455.5	2446.4	2467.7
25°	2710.4	2701.3	2680.1	2683.1	2661.9	2643.7	2616.3	2589.0	2564.7	2555.6	2558.7
27.5°	2935.1	2916.8	2895.6	2889.5	2868.3	2834.9	2789.4	2737.7	2698.3	2668.0	2661.9
30°	3217.3	3177.9	3141.5	3135.3	3102.0	3047.4	2974.5	2904.7	2837.9	2786.3	2768.1
32.5°	3551.2	3490.5	3432.8	3426.8	3372.2	3299.2	3211.2	3114.2	3017.0	2935.1	2895.6
35°	3942.8	3851.7	3797.1	3781.8	3703.0	3611.9	3514.8	3390.4	3253.7	3138.4	3065.6
37.5°	4419.2	4325.1	4231.0	4234.1	4124.8	4018.6	3888.1	3736.3	3563.3	3402.4	3299.2
40°	5008.1	4874.6	4753.1	4725.8	4631.7	4483.0	4340.4	4164.3	3951.9	3739.4	3590.7
42.5°	5721.4	5502.9	5335.9	5311.6	5187.2	5005.1	4832.0	4598.4	4382.8	4124.8	3945.7
45°	6531.7	6182.7	5982.4	5946.0	5745.6	5560.5	5351.1	5102.2	4838.1	4546.7	4334.2
47.5°	7539.5	7041.7	6701.8	6641.0	6364.8	6122.1	5903.4	5627.3	5311.6	4986.9	4753.1
50°	8714.1	7979.5	7521.2	7427.1	7056.8	6771.5	6492.3	6146.3	5809.3	5469.4	5199.4
52.5°	9891.7	9102.6	8492.5	8377.1	7830.8	7448.4	7081.2	6735.1	6337.5	6000.6	5694.1
55°	10838.7	10313.6	9606.4	9445.5	8662.4	8143.4	7660.9	7266.3	6871.7	6604.6	6243.4
57.5°	11409.4	11382.1	10823.5	10602.0	9530.5	8762.6	8225.4	7776.2	7393.8	7281.5	6801.9
60°	11394.1	12101.4	11861.6	11694.7	10407.7	9397.0	8698.9	8213.3	7897.6	8025.0	7363.4
62.5°	10699.1	12131.7	12420.1	12374.5	11342.6	9906.9	9087.4	8586.5	8419.7	8799.0	7946.2
63°	10447.2	12061.9	12444.3	12426.1	11521.6	10004.0	9154.2	8659.5	8522.8	8996.3	8052.4
65°	8829.4	11451.8	12149.9	12231.8	11907.1	10337.9	9309.0	8844.6	8829.4	9436.4	8304.3
67.5°	5381.4	9676.2	10823.5	10981.4	11363.8	10444.1	9221.0	8780.8	8999.4	9500.1	8228.4
70°	2300.7	6386.1	8698.9	8953.9	9888.7	9916.0	8969.0	8519.9	8959.9	9002.4	7688.2
72.5°	1362.8	3011.0	5921.7	6477.1	7824.8	8531.9	8392.4	8064.5	8440.9	7906.7	6547.0
75°	965.2	1408.3	3007.9	3599.8	5448.2	6513.5	7050.8	7202.5	7187.4	6270.7	4913.9
77.5°	692.0	904.5	1268.8	1496.4	3041.2	4182.5	4838.1	5281.3	5138.6	4197.7	3029.2
80°	482.6	625.2	777.0	825.6	1411.4	2148.9	2549.6	2743.9	2658.9	2097.4	1356.7
82.5°	349.0	409.8	500.8	531.1	710.2	992.5	1180.7	1041.1	998.6	774.0	585.8
85°	270.2	264.0	312.6	324.8	415.8	519.0	531.1	412.8	361.2	321.7	327.8
87.5°	191.2	163.9	166.9	173.0	215.5	276.2	270.2	170.0	145.7	154.8	176.0
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8	1963.8
2.5°	1975.9	1979.0	1985.0	1988.1	1994.1	1994.1	2000.2	2003.2	2009.3	2015.4	2018.4
5°	2012.3	2021.5	2033.6	2039.7	2051.8	2060.9	2073.0	2079.1	2091.2	2100.3	2112.5
7.5°	2067.0	2082.1	2097.4	2115.6	2133.8	2148.9	2161.1	2176.2	2197.5	2212.6	2221.7
10°	2118.5	2139.8	2167.1	2188.4	2215.7	2237.0	2255.2	2282.5	2306.8	2328.0	2340.1
12.5°	2185.3	2212.6	2240.0	2273.4	2309.8	2337.1	2364.4	2400.9	2434.2	2458.6	2470.6
15°	2264.3	2297.6	2328.0	2367.4	2410.0	2446.4	2485.9	2525.3	2549.6	2549.6	2543.5
17.5°	2346.2	2373.6	2410.0	2455.5	2513.2	2558.7	2579.9	2586.0	2576.9	2555.6	2540.5
20°	2428.2	2452.4	2491.9	2546.5	2607.2	2616.3	2595.1	2567.8	2540.5	2504.1	2479.7
22.5°	2495.0	2528.3	2589.0	2652.8	2655.8	2604.2	2546.5	2501.0	2458.6	2416.0	2370.5
25°	2573.8	2619.4	2701.3	2725.7	2646.7	2549.6	2467.7	2400.9	2331.0	2261.2	2209.7
27.5°	2671.0	2737.7	2819.7	2749.9	2595.1	2458.6	2346.2	2246.1	2154.9	2057.9	2000.2
30°	2774.1	2877.4	2895.6	2713.5	2507.0	2331.0	2179.3	2027.5	1912.2	1824.1	1790.8
32.5°	2898.6	3032.1	2922.9	2649.7	2388.7	2158.0	1954.7	1772.6	1675.4	1620.8	1605.6
35°	3086.8	3196.1	2938.1	2583.0	2252.1	1951.6	1696.7	1551.0	1490.2	1453.8	1435.6
37.5°	3356.9	3353.9	2935.1	2501.0	2094.3	1727.0	1490.2	1387.1	1338.5	1308.1	1274.8
40°	3672.6	3475.3	2916.8	2382.7	1881.8	1511.5	1347.6	1250.5	1204.9	1168.5	1129.1
42.5°	3985.2	3557.2	2865.2	2206.6	1617.8	1356.7	1244.4	1156.4	1107.9	1068.4	1013.7
45°	4255.4	3590.7	2765.0	1963.8	1381.0	1235.3	1177.6	1101.8	1044.1	983.4	940.9
47.5°	4467.8	3584.6	2604.2	1678.5	1223.1	1150.3	1123.0	1071.4	1001.6	925.8	871.1
50°	4646.9	3539.0	2385.6	1426.5	1117.0	1074.5	1065.4	1050.2	937.8	874.1	840.8
52.5°	4810.8	3472.3	2152.0	1256.6	1025.9	989.5	1007.7	992.5	913.6	859.0	825.6
55°	5035.4	3426.8	1921.3	1126.1	919.6	910.5	925.8	946.9	898.5	846.8	810.4
57.5°	5299.5	3451.0	1745.3	980.4	819.5	825.6	877.2	907.6	883.2	828.6	792.2
60°	5603.0	3523.9	1590.5	840.8	737.5	752.7	828.6	871.1	868.1	804.3	761.8
62.5°	5942.9	3599.8	1344.6	734.5	667.8	692.0	770.9	825.6	834.7	780.0	728.4
63°	6009.7	3605.8	1280.8	713.3	655.6	682.9	755.8	813.5	825.6	774.0	722.4
65°	6173.6	3551.2	1032.0	655.6	607.0	637.4	710.2	761.8	786.1	740.6	698.1
67.5°	6037.0	3105.1	777.0	585.8	567.5	588.8	652.5	701.1	722.4	701.1	658.7
70°	5521.1	2258.2	607.0	522.0	525.1	540.2	588.8	634.3	658.7	652.5	613.2
72.5°	4446.6	1280.8	506.9	467.4	476.5	494.7	528.1	570.6	591.9	588.8	561.5
75°	2929.0	655.6	428.0	418.9	424.9	440.1	464.4	497.8	522.0	519.0	506.9
77.5°	1450.9	455.3	367.2	370.3	373.4	385.4	403.7	434.0	449.2	452.2	449.2
80°	597.9	355.2	315.7	318.6	321.7	330.8	343.0	370.3	379.4	385.4	388.5
82.5°	358.1	270.2	252.0	258.0	261.1	270.2	279.3	303.5	312.6	321.7	321.7
85°	236.7	188.2	182.1	188.2	194.3	200.3	203.4	218.5	233.7	245.8	252.0
87.5°	127.5	112.3	109.3	112.3	112.3	118.4	124.5	139.6	157.8	170.0	176.0
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):

	160°	165°	170°	175°	180°
0°	1963.8	1963.8	1963.8	1963.8	1963.8
2.5°	2012.3	2015.4	2012.3	2015.4	2018.4
5°	2112.5	2118.5	2115.6	2115.6	2127.6
7.5°	2227.9	2240.0	2240.0	2246.1	2252.1
10°	2352.3	2364.4	2373.6	2373.6	2382.7
12.5°	2476.8	2482.8	2491.9	2491.9	2491.9
15°	2540.5	2537.4	2534.4	2531.4	2531.4
17.5°	2531.4	2519.2	2513.2	2507.0	2510.1
20°	2464.6	2443.3	2437.3	2428.2	2434.2
22.5°	2349.2	2318.9	2306.8	2291.6	2297.6
25°	2176.2	2139.8	2133.8	2115.6	2124.7
27.5°	1975.9	1957.7	1954.7	1951.6	1966.8
30°	1787.7	1793.8	1796.8	1803.0	1818.1
32.5°	1614.7	1626.9	1629.9	1632.9	1654.2
35°	1444.7	1429.6	1444.7	1438.7	1456.9
37.5°	1259.6	1247.5	1235.3	1220.2	1232.2
40°	1104.8	1083.6	1047.2	1028.9	1032.0
42.5°	983.4	956.0	925.8	907.6	907.6
45°	904.5	871.1	843.8	831.7	831.7
47.5°	843.8	828.6	813.5	804.3	804.3
50°	819.5	801.3	792.2	786.1	786.1
52.5°	801.3	783.1	774.0	767.9	761.8
55°	786.1	758.8	749.7	746.7	746.7
57.5°	764.9	740.6	728.4	725.4	725.4
60°	731.5	713.3	701.1	698.1	698.1
62.5°	698.1	679.9	667.8	667.8	667.8
63°	692.0	670.7	661.6	661.6	661.6
65°	664.7	643.4	634.3	634.3	631.4
67.5°	628.3	607.0	601.0	601.0	594.9
70°	585.8	567.5	561.5	564.6	552.4
72.5°	543.3	525.1	516.0	516.0	503.8
75°	494.7	476.5	464.4	461.4	449.2
77.5°	440.1	424.9	412.8	400.7	394.6
80°	382.5	370.3	355.2	346.1	336.9
82.5°	321.7	309.5	300.4	312.6	267.1
85°	252.0	239.8	227.6	245.8	191.2
87.5°	185.2	179.1	166.9	145.7	127.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)