

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: P258165

Luminaire Tested: **ARCH-M-AF48-50-D-U-T2U-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P258165
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-AF48-50-D-U-T2U-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 305mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6482.3 lumens
Efficiency: N/A
Efficacy: 135.0 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

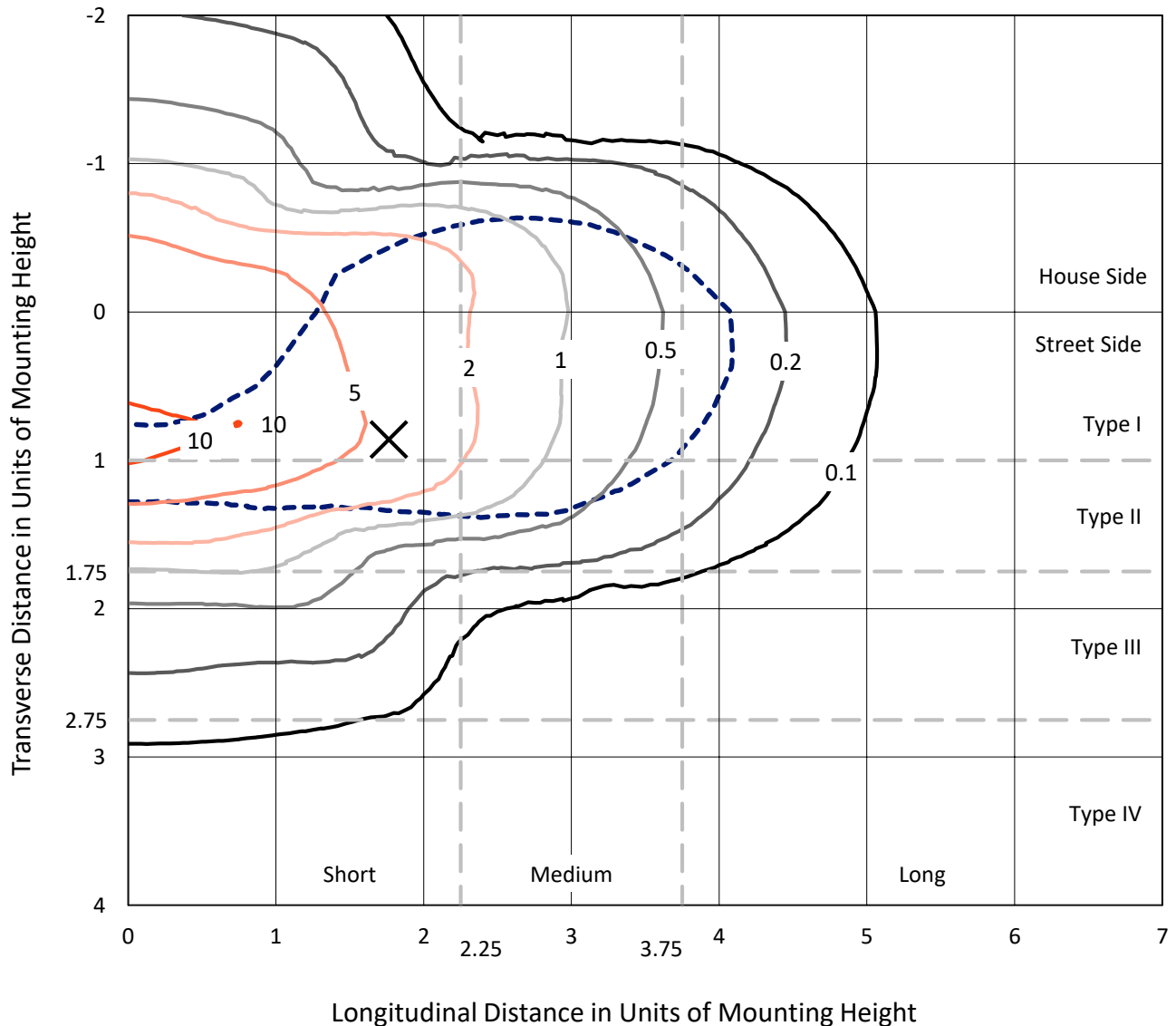
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

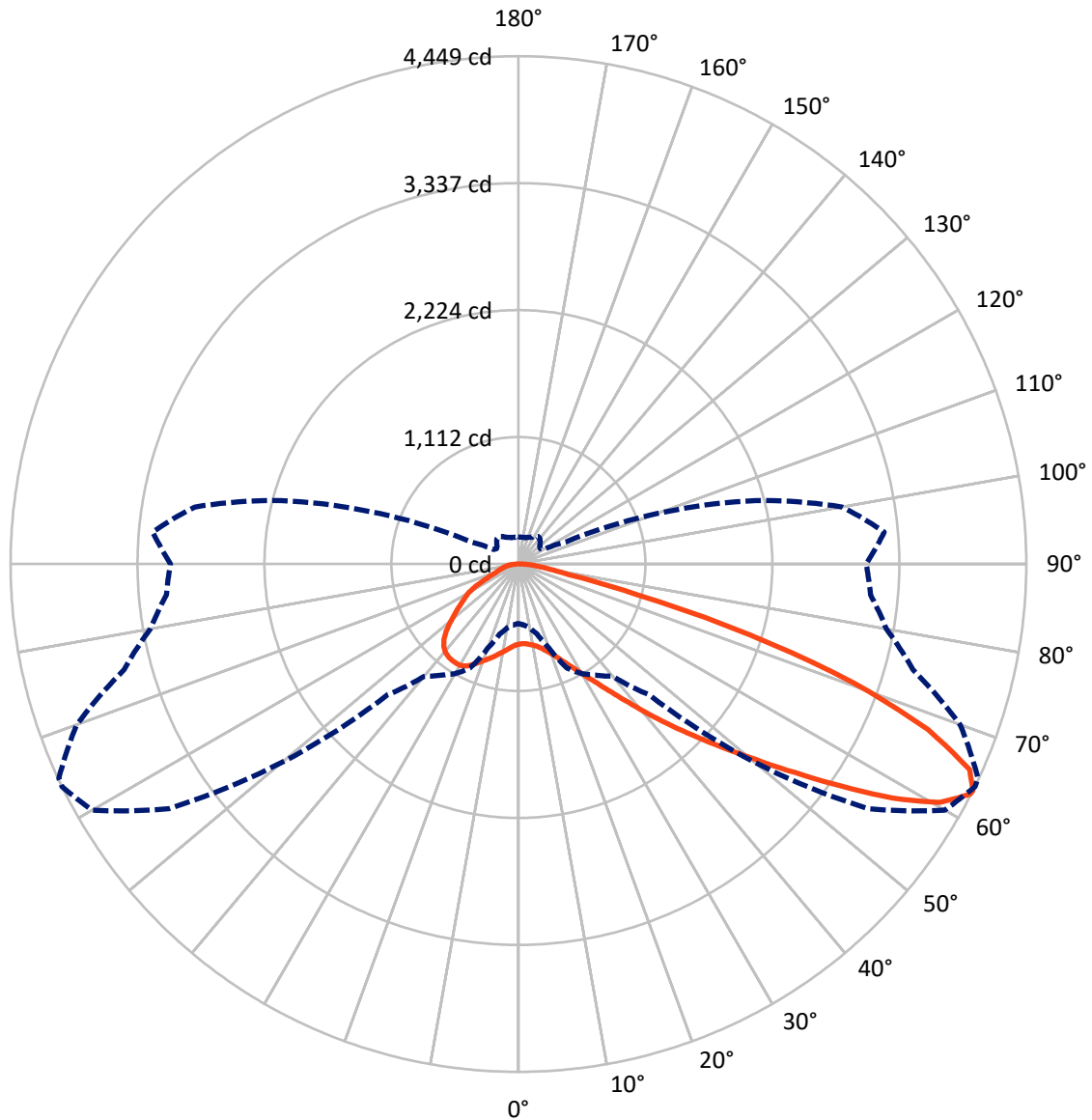
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.4 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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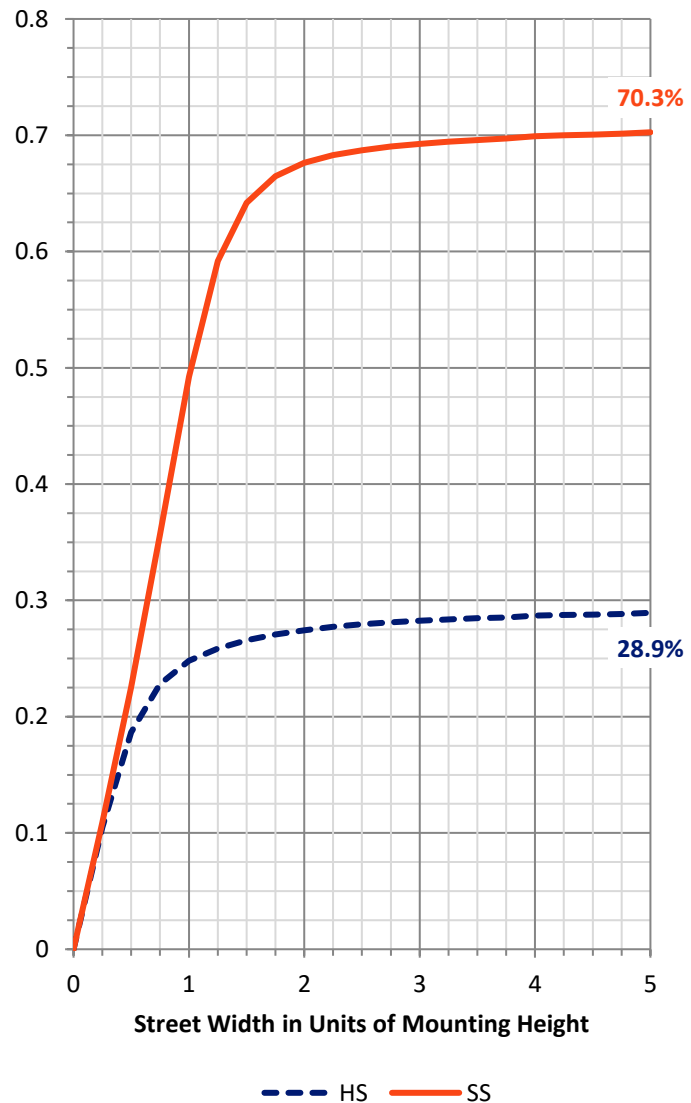
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1905.6	0.0	1905.6
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	4576.8	0.0	4576.8
	% Fixture	70.6	0.0	70.6
Total	Lumens	6482.3	0.0	6482.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.1	1.1
10°-20°	233.5	3.6
20°-30°	438.2	6.8
30°-40°	734.5	11.3
40°-50°	1232.4	19.0
50°-60°	1562.3	24.1
60°-70°	1378.2	21.3
70°-80°	711.4	11.0
80°-90°	121.7	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°	6482.3	100.0
0°-180°	6482.3	100.0



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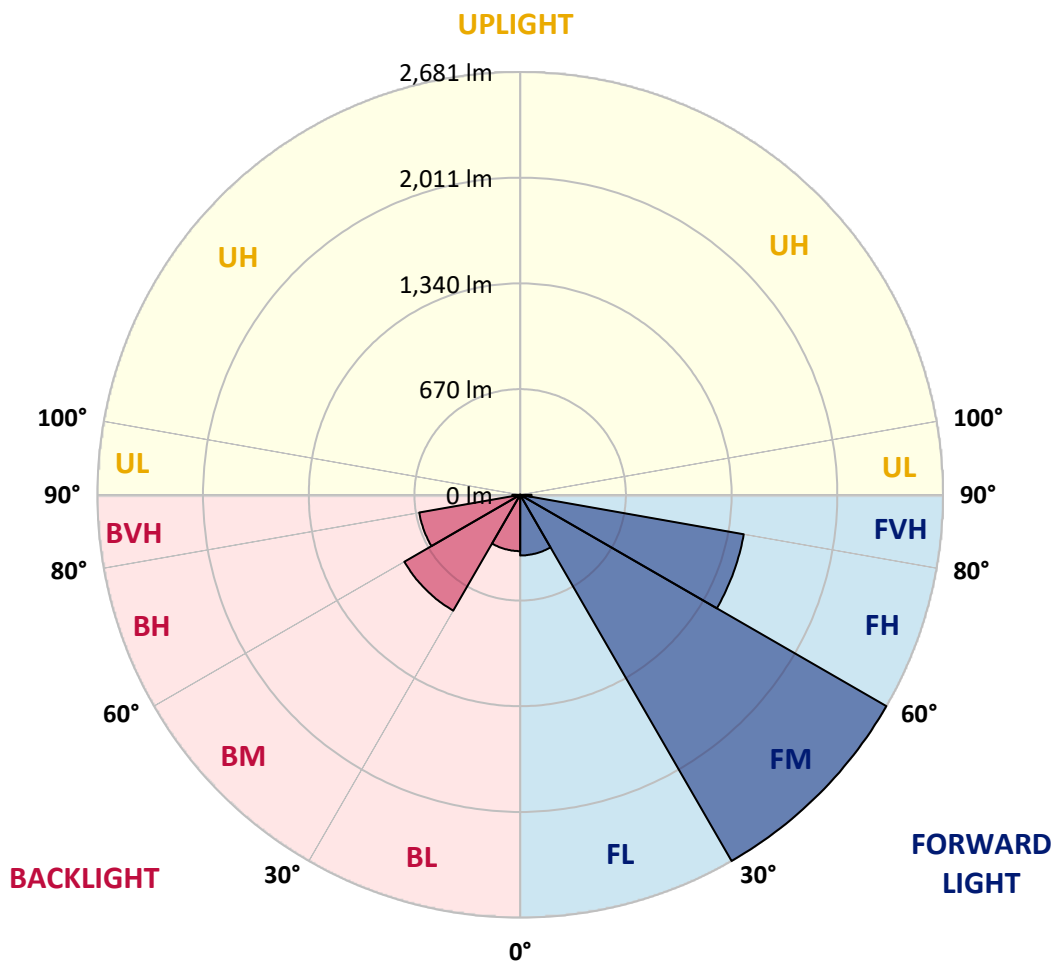
CATALOG NUMBER: ARCH-M-AF48-50-D-U-T2U-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	384.8	5.9			
FM (30°-60°)	2680.9	41.4			
FH (60°-80°)	1439.4	22.2			G1/1800
FVH (80°-90°)	71.6	1.1			G1/100
BL (0°-30°)	357.0	5.5	B1/500		
BM (30°-60°)	848.3	13.1	B1/1000		
BH (60°-80°)	650.2	10.0	B2/1000		G2/1000
BVH (80°-90°)	50.1	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
2.5°	697.7	696.6	696.6	696.6	696.6	695.6	696.6	698.8	697.7	696.6	698.8
5°	700.0	698.8	698.8	698.8	700.0	698.8	700.0	703.1	700.9	700.9	703.1
7.5°	705.3	704.1	705.3	704.1	704.1	704.1	705.3	708.5	707.5	708.5	711.9
10°	711.9	711.9	711.9	711.9	711.9	711.9	714.0	716.2	717.2	718.3	722.6
12.5°	731.4	731.4	731.4	730.3	730.3	727.0	731.4	733.4	735.7	737.8	741.1
15°	772.6	772.6	771.5	767.1	767.1	760.7	761.7	762.8	762.8	765.0	767.1
17.5°	826.8	825.8	823.6	820.3	815.9	808.4	806.3	804.0	800.8	799.7	799.7
20°	902.8	901.7	897.3	888.8	883.3	871.4	862.6	854.0	850.7	845.2	844.1
22.5°	1011.3	1011.3	1002.6	989.6	985.2	960.3	935.4	916.9	910.3	902.8	902.8
25°	1142.6	1141.5	1129.5	1114.3	1095.9	1069.8	1039.5	1014.6	998.3	980.9	974.4
27.5°	1299.8	1296.7	1280.4	1262.0	1227.2	1194.6	1158.8	1132.8	1104.6	1082.9	1063.3
30°	1484.4	1481.1	1452.9	1418.1	1382.3	1349.8	1297.8	1266.4	1221.7	1195.8	1174.0
32.5°	1698.1	1694.8	1644.0	1610.3	1572.2	1532.2	1470.3	1420.4	1363.9	1327.1	1296.7
35°	1970.5	1957.5	1884.7	1838.1	1778.4	1738.4	1673.2	1605.9	1539.7	1487.7	1443.1
37.5°	2264.5	2249.3	2185.3	2116.0	2057.3	2008.4	1916.2	1831.6	1753.5	1681.8	1626.6
40°	2571.6	2531.4	2463.1	2412.1	2371.9	2325.2	2228.7	2139.8	2017.2	1936.8	1853.2
42.5°	2784.3	2745.2	2697.5	2663.8	2644.3	2608.4	2554.3	2477.2	2367.6	2369.8	2149.4
45°	2924.3	2866.8	2834.1	2836.4	2843.9	2843.9	2834.1	2822.2	2774.5	2807.1	2622.5
47.5°	2874.3	2836.4	2815.7	2859.1	2913.4	2967.7	3030.7	3098.9	3177.0	3269.2	3042.6
50°	2581.4	2595.5	2605.3	2697.5	2813.5	2937.2	3081.5	3268.2	3486.4	3528.6	3419.0
52.5°	2113.7	2144.1	2176.7	2317.7	2470.7	2684.5	2937.2	3245.4	3538.4	3710.9	3700.1
55°	1641.7	1679.7	1749.1	1854.3	1976.0	2177.7	2490.2	2965.6	3422.3	3696.8	3864.0
57.5°	1168.6	1223.9	1315.1	1461.6	1569.0	1682.9	1914.0	2441.4	2941.6	3452.7	3836.7
60°	777.0	802.9	862.6	1044.9	1226.1	1345.5	1509.3	1700.3	2109.4	2813.5	3556.8
62.5°	551.2	568.5	605.6	687.9	851.7	1067.7	1166.5	1254.3	1385.6	1809.9	2855.9
63°	520.8	536.0	566.4	635.9	783.4	1007.0	1107.9	1188.2	1283.6	1618.9	2701.8
65°	431.9	438.3	454.6	488.3	567.5	753.1	918.0	966.8	983.2	1040.5	1692.7
67.5°	364.6	369.0	374.3	384.1	415.6	501.3	684.7	746.6	728.1	689.0	836.6
70°	316.9	320.1	328.8	340.7	351.6	373.2	470.9	563.1	542.6	489.4	512.1
72.5°	252.8	258.3	268.0	288.7	310.3	338.4	362.4	419.9	406.9	355.8	361.3
75°	199.6	202.9	211.6	226.8	247.4	279.9	326.5	346.2	310.3	262.6	262.6
77.5°	158.4	161.7	169.3	181.2	194.3	217.0	249.5	300.6	278.8	197.4	196.4
80°	119.3	122.6	130.2	141.1	154.0	170.3	189.9	212.6	256.1	184.4	147.6
82.5°	87.9	88.9	102.0	109.6	113.9	127.0	143.2	156.2	175.8	170.3	131.3
85°	66.2	65.1	73.8	79.2	80.3	83.6	93.3	106.3	115.0	110.7	102.0
87.5°	36.9	32.6	38.0	43.3	43.3	44.5	46.7	54.3	61.8	59.6	54.3
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°	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
2.5°	698.8	698.8	697.7	697.7	698.8	698.8	697.7	700.9	703.1	703.1	704.1
5°	702.0	703.1	702.0	702.0	703.1	703.1	704.1	707.5	710.7	712.9	716.2
7.5°	711.9	712.9	711.9	711.9	712.9	714.0	716.2	720.4	722.6	727.0	732.4
10°	722.6	723.8	722.6	723.8	724.8	725.9	729.2	732.4	735.7	740.0	748.7
12.5°	742.2	743.3	741.1	742.2	745.4	745.4	747.7	749.7	755.2	760.7	769.3
15°	769.3	769.3	767.1	768.2	771.5	771.5	772.6	774.7	781.2	787.8	796.4
17.5°	800.8	802.9	801.9	802.9	805.1	806.3	806.3	808.4	812.7	817.0	825.8
20°	843.1	844.1	842.1	844.1	846.3	844.1	842.1	841.0	843.1	845.2	855.1
22.5°	900.7	899.5	894.1	894.1	894.1	889.7	884.4	877.8	877.8	874.5	882.2
25°	968.9	965.8	958.1	959.2	951.6	945.1	935.4	925.5	916.9	913.6	914.7
27.5°	1049.2	1042.8	1035.1	1032.9	1025.4	1013.5	997.2	978.8	964.6	953.8	951.6
30°	1150.2	1136.1	1123.0	1120.9	1109.0	1089.5	1063.3	1038.4	1014.6	996.1	989.6
32.5°	1269.5	1247.8	1227.2	1225.1	1205.4	1179.5	1148.0	1113.3	1078.6	1049.2	1035.1
35°	1409.5	1377.0	1357.4	1352.0	1323.7	1291.2	1256.5	1212.0	1163.2	1122.0	1095.9
37.5°	1579.9	1546.2	1512.5	1513.7	1474.6	1436.6	1390.0	1335.7	1273.9	1216.4	1179.5
40°	1790.3	1742.5	1699.2	1689.4	1655.9	1602.7	1551.6	1488.6	1412.7	1336.8	1283.6
42.5°	2045.4	1967.2	1907.5	1898.8	1854.3	1789.2	1727.4	1644.0	1566.8	1474.6	1410.5
45°	2335.1	2210.4	2138.6	2125.6	2054.1	1987.9	1913.0	1824.0	1729.6	1625.4	1549.6
47.5°	2695.3	2517.4	2395.8	2374.1	2275.4	2188.6	2110.5	2011.7	1898.8	1782.8	1699.2
50°	3115.2	2852.6	2688.8	2655.1	2522.8	2420.7	2321.0	2197.2	2076.8	1955.3	1858.7
52.5°	3536.1	3254.1	3036.0	2994.8	2799.4	2662.7	2531.4	2407.7	2265.6	2145.2	2035.6
55°	3874.8	3687.1	3434.2	3376.7	3096.7	2911.2	2738.7	2597.6	2456.5	2361.1	2231.9
57.5°	4078.7	4069.1	3869.3	3790.1	3407.1	3132.6	2940.5	2779.9	2643.2	2603.1	2431.7
60°	4073.3	4326.1	4240.5	4180.7	3720.8	3359.4	3109.7	2936.3	2823.4	2868.9	2632.4
62.5°	3824.8	4337.0	4440.1	4423.8	4054.8	3541.6	3248.8	3069.6	3010.0	3145.6	2840.7
63°	3734.8	4312.0	4448.7	4442.3	4118.8	3576.4	3272.6	3095.7	3046.8	3216.1	2878.7
65°	3156.5	4094.0	4343.5	4372.8	4256.7	3695.7	3327.9	3161.9	3156.5	3373.5	2968.7
67.5°	1923.8	3459.1	3869.3	3925.8	4062.5	3733.7	3296.5	3139.1	3217.2	3396.3	2941.6
70°	822.5	2283.0	3109.7	3201.0	3535.1	3544.9	3206.3	3045.8	3203.2	3218.3	2748.4
72.5°	487.2	1076.4	2117.0	2315.5	2797.2	3050.1	3000.2	2883.1	3017.5	2826.5	2340.5
75°	345.0	503.4	1075.3	1286.8	1947.6	2328.6	2520.6	2574.8	2569.4	2241.8	1756.7
77.5°	247.4	323.3	453.5	535.0	1087.2	1495.2	1729.6	1888.0	1836.9	1500.6	1082.9
80°	172.5	223.6	277.7	295.1	504.6	768.2	911.4	980.9	950.5	749.7	485.0
82.5°	124.8	146.5	179.0	189.9	253.9	354.8	422.1	372.1	356.9	276.7	209.4
85°	96.5	94.4	111.8	116.2	148.7	185.5	189.9	147.6	129.2	115.0	117.2
87.5°	68.4	58.6	59.6	61.8	77.0	98.8	96.5	60.7	52.1	55.2	63.0
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°	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
2.5°	706.4	707.5	709.6	710.7	712.9	712.9	715.1	716.2	718.3	720.4	721.5
5°	719.4	722.6	727.0	729.2	733.4	736.7	741.1	743.3	747.7	750.8	755.2
7.5°	738.9	744.4	749.7	756.3	762.8	768.2	772.6	778.0	785.6	791.0	794.4
10°	757.3	765.0	774.7	782.3	792.1	799.7	806.3	815.9	824.7	832.2	836.6
12.5°	781.2	791.0	800.8	812.7	825.8	835.5	845.2	858.2	870.2	878.9	883.3
15°	809.5	821.4	832.2	846.3	861.5	874.5	888.8	902.8	911.4	911.4	909.2
17.5°	838.8	848.5	861.5	877.8	898.4	914.7	922.2	924.5	921.2	913.6	908.2
20°	868.1	876.7	890.8	910.3	932.1	935.4	927.7	918.0	908.2	895.2	886.5
22.5°	891.9	903.9	925.5	948.4	949.5	931.0	910.3	894.1	878.9	863.7	847.5
25°	920.2	936.5	965.8	974.4	946.1	911.4	882.2	858.2	833.3	808.4	790.0
27.5°	954.8	978.8	1008.0	983.2	927.7	878.9	838.8	802.9	770.4	735.7	715.1
30°	991.7	1028.6	1035.1	970.0	896.3	833.3	779.1	724.8	683.6	652.2	640.1
32.5°	1036.3	1084.0	1044.9	947.3	854.0	771.5	698.8	633.7	599.0	579.4	574.0
35°	1103.5	1142.6	1050.3	923.4	805.1	697.7	606.5	554.5	532.7	519.7	513.2
37.5°	1200.1	1199.0	1049.2	894.1	748.7	617.5	532.7	495.9	478.5	467.6	455.7
40°	1313.0	1242.4	1042.8	851.7	672.7	540.4	481.8	447.1	430.8	417.7	403.6
42.5°	1424.7	1271.7	1024.3	788.9	578.3	485.0	444.9	413.4	396.1	382.0	362.4
45°	1521.2	1283.6	988.5	702.0	493.8	441.6	420.9	393.9	373.2	351.6	336.4
47.5°	1597.3	1281.5	931.0	600.1	437.2	411.3	401.5	383.1	358.1	330.9	311.4
50°	1661.2	1265.2	852.9	510.0	399.4	384.1	380.9	375.5	335.3	312.5	300.6
52.5°	1719.8	1241.3	769.3	449.2	366.8	353.8	360.2	354.8	326.5	307.0	295.1
55°	1800.1	1225.1	686.8	402.5	328.8	325.5	330.9	338.4	321.2	302.7	289.7
57.5°	1894.5	1233.7	623.9	350.5	293.0	295.1	313.6	324.4	315.8	296.2	283.2
60°	2003.0	1259.8	568.5	300.6	263.7	269.1	296.2	311.4	310.3	287.6	272.4
62.5°	2124.5	1286.8	480.6	262.6	238.7	247.4	275.6	295.1	298.4	278.8	260.4
63°	2148.5	1289.0	457.9	255.0	234.4	244.0	270.2	290.8	295.1	276.7	258.3
65°	2207.0	1269.5	369.0	234.4	217.0	228.0	253.9	272.4	281.1	264.7	249.5
67.5°	2158.2	1110.1	277.7	209.4	202.9	210.6	233.3	250.6	258.3	250.6	235.5
70°	1973.8	807.3	217.0	186.7	187.7	193.2	210.6	226.8	235.5	233.3	219.2
72.5°	1589.6	457.9	181.2	167.0	170.3	176.9	188.8	204.0	211.6	210.6	200.7
75°	1047.1	234.4	153.0	149.6	151.9	157.4	166.0	178.0	186.7	185.5	181.2
77.5°	518.7	162.8	131.3	132.4	133.6	137.7	144.3	155.1	160.6	161.7	160.6
80°	213.7	127.0	112.9	113.9	115.0	118.2	122.6	132.4	135.6	137.7	138.9
82.5°	128.1	96.5	90.0	92.3	93.3	96.5	99.9	108.5	111.8	115.0	115.0
85°	84.6	67.3	65.1	67.3	69.5	71.6	72.6	78.1	83.6	87.9	90.0
87.5°	45.6	40.1	39.2	40.1	40.1	42.3	44.5	49.9	56.4	60.7	63.0
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°	702.0	702.0	702.0	702.0	702.0
2.5°	719.4	720.4	719.4	720.4	721.5
5°	755.2	757.3	756.3	756.3	760.7
7.5°	796.4	800.8	800.8	802.9	805.1
10°	841.0	845.2	848.5	848.5	851.7
12.5°	885.4	887.6	890.8	890.8	890.8
15°	908.2	907.1	906.0	905.0	905.0
17.5°	905.0	900.7	898.4	896.3	897.3
20°	881.0	873.5	871.4	868.1	870.2
22.5°	839.8	829.0	824.7	819.2	821.4
25°	778.0	765.0	762.8	756.3	759.6
27.5°	706.4	700.0	698.8	697.7	703.1
30°	639.0	641.3	642.3	644.5	650.0
32.5°	577.2	581.6	582.7	583.8	591.3
35°	516.5	511.2	516.5	514.3	520.8
37.5°	450.2	446.0	441.6	436.2	440.6
40°	395.0	387.4	374.3	367.8	369.0
42.5°	351.6	341.8	330.9	324.4	324.4
45°	323.3	311.4	301.7	297.3	297.3
47.5°	301.7	296.2	290.8	287.6	287.6
50°	293.0	286.5	283.2	281.1	281.1
52.5°	286.5	279.9	276.7	274.6	272.4
55°	281.1	271.3	268.0	266.9	266.9
57.5°	273.4	264.7	260.4	259.4	259.4
60°	261.4	255.0	250.6	249.5	249.5
62.5°	249.5	243.1	238.7	238.7	238.7
63°	247.4	239.9	236.5	236.5	236.5
65°	237.6	230.0	226.8	226.8	225.7
67.5°	224.6	217.0	214.8	214.8	212.6
70°	209.4	202.9	200.7	201.8	197.4
72.5°	194.3	187.7	184.4	184.4	180.2
75°	176.9	170.3	166.0	165.0	160.6
77.5°	157.4	151.9	147.6	143.2	141.1
80°	136.7	132.4	127.0	123.7	120.4
82.5°	115.0	110.7	107.4	111.8	95.5
85°	90.0	85.8	81.4	87.9	68.4
87.5°	66.2	64.0	59.6	52.1	45.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)