

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: P257770

Luminaire Tested: **ARCH-M-AF48-60-D-U-T2U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257770
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-AF48-60-D-U-T2U
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 405mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8872.1 lumens
Efficiency: N/A
Efficacy: 140.8 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): 63
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

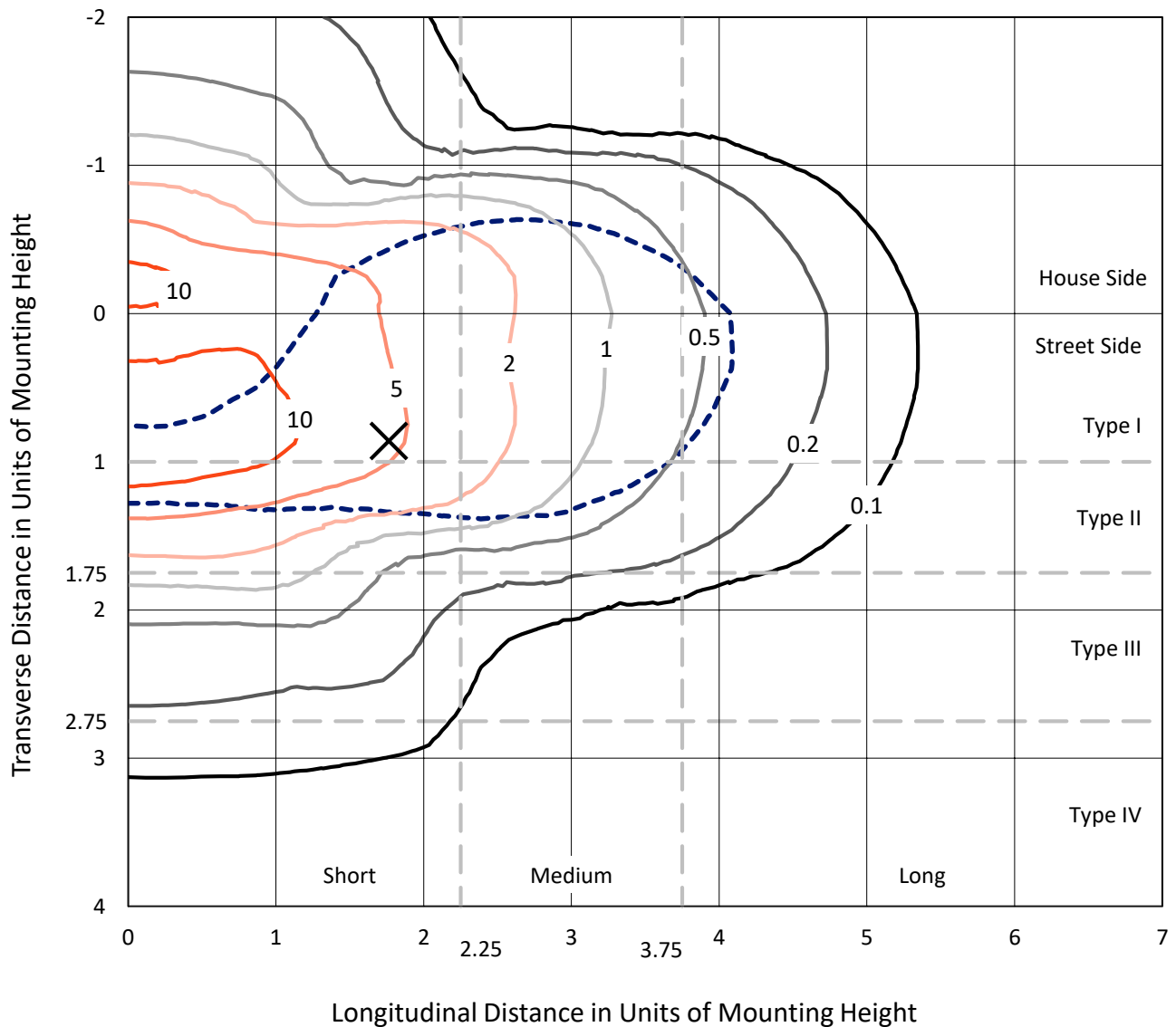


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

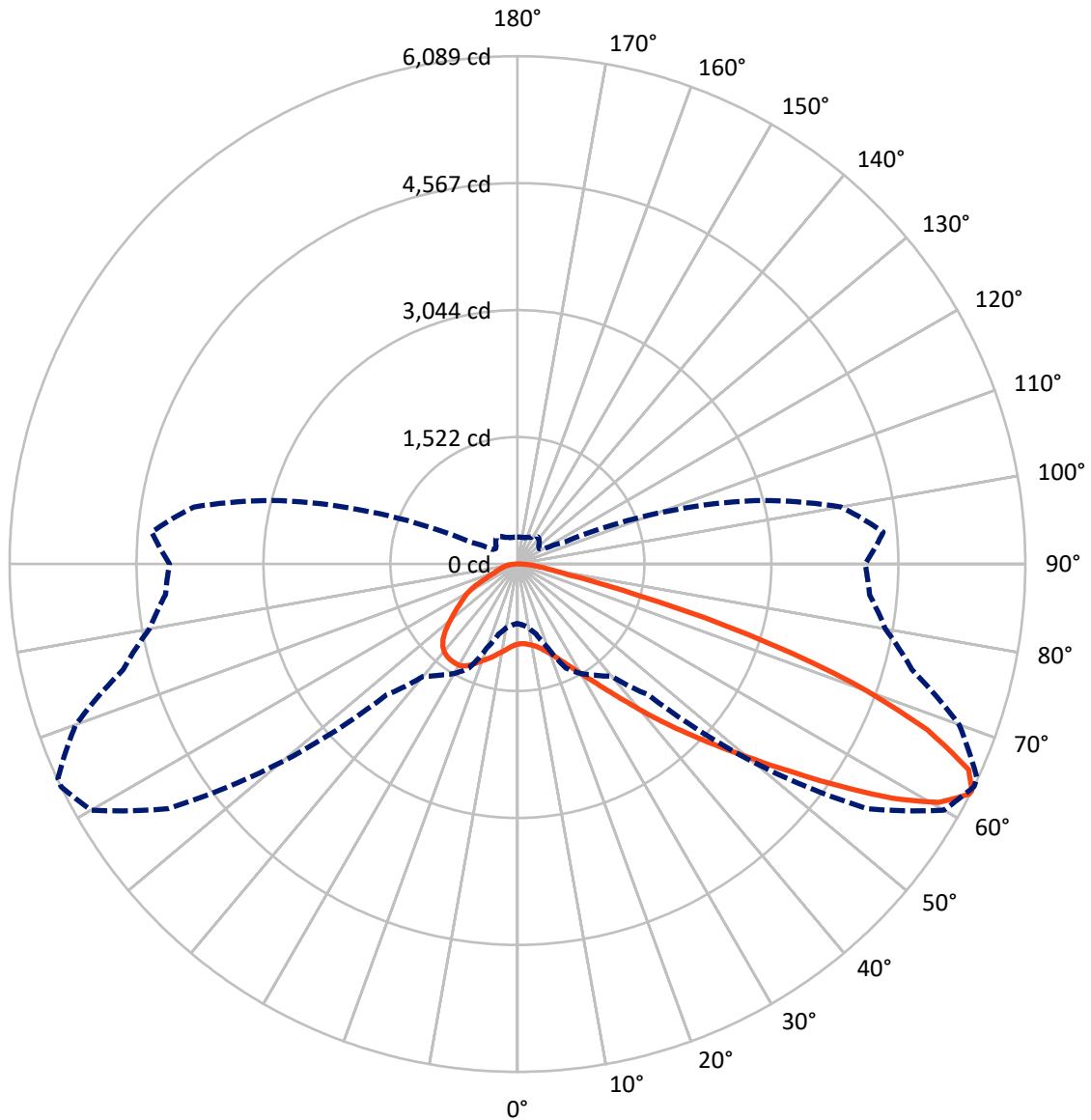


Based on 10 foot mounting height. Maximum calculated value = 15.6 fc
 Type II - Short - Semi-Cutoff

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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	2608.1	0.0	2608.1
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	6264.0	0.0	6264.0
	% Fixture	70.6	0.0	70.6
Total	Lumens	8872.1	0.0	8872.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.9	1.1
10°-20°	319.5	3.6
20°-30°	599.8	6.8
30°-40°	1005.3	11.3
40°-50°	1686.7	19.0
50°-60°	2138.2	24.1
60°-70°	1886.2	21.3
70°-80°	973.7	11.0
80°-90°	166.6	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°	8872.1	100.0
0°-180°	8872.1	100.0



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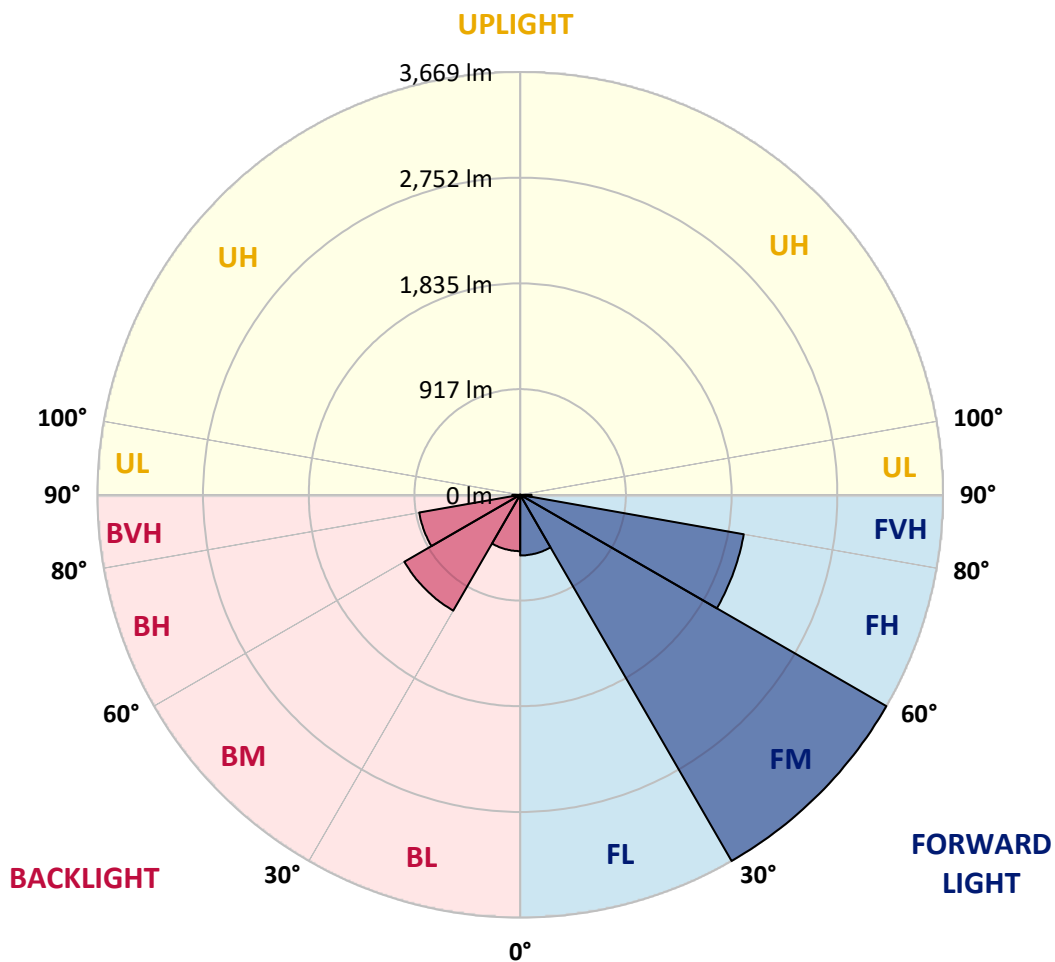
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	526.6	5.9			
FM (30°-60°)	3669.2	41.4			
FH (60°-80°)	1970.1	22.2			G2/5000
FVH (80°-90°)	98.1	1.1			G1/100
BL (0°-30°)	488.7	5.5	B1/500		
BM (30°-60°)	1161.0	13.1	B2/2500		
BH (60°-80°)	889.9	10.0	B2/1000		G2/1000
BVH (80°-90°)	68.6	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°	960.9	960.9	960.9	960.9	960.9	960.9	960.9	960.9	960.9	960.9	960.9
2.5°	954.9	953.4	953.4	953.4	953.4	952.0	953.4	956.4	954.9	953.4	956.4
5°	957.9	956.4	956.4	956.4	957.9	956.4	957.9	962.3	959.3	959.3	962.3
7.5°	965.3	963.8	965.3	963.8	963.8	963.8	965.3	969.8	968.2	969.8	974.2
10°	974.2	974.2	974.2	974.2	974.2	974.2	977.2	980.2	981.6	983.2	989.1
12.5°	1001.0	1001.0	1001.0	999.4	999.4	995.0	1001.0	1003.9	1006.9	1009.9	1014.3
15°	1057.3	1057.3	1055.9	1050.0	1050.0	1041.1	1042.5	1044.0	1044.0	1047.0	1050.0
17.5°	1131.6	1130.2	1127.2	1122.7	1116.8	1106.4	1103.5	1100.4	1096.0	1094.5	1094.5
20°	1235.6	1234.1	1228.2	1216.3	1208.8	1192.6	1180.6	1168.7	1164.3	1156.9	1155.4
22.5°	1384.1	1384.1	1372.2	1354.4	1348.5	1314.3	1280.1	1254.9	1246.0	1235.6	1235.6
25°	1563.8	1562.3	1546.0	1525.1	1500.0	1464.3	1422.7	1388.6	1366.3	1342.5	1333.6
27.5°	1779.1	1774.6	1752.4	1727.2	1679.6	1635.1	1586.1	1550.4	1511.8	1482.1	1455.4
30°	2031.6	2027.1	1988.5	1940.9	1891.9	1847.4	1776.1	1733.1	1672.2	1636.5	1606.9
32.5°	2324.1	2319.6	2249.9	2203.8	2151.9	2096.9	2012.2	1943.9	1866.7	1816.2	1774.6
35°	2696.9	2679.1	2579.6	2515.7	2434.0	2379.1	2290.0	2197.9	2107.3	2036.0	1975.1
37.5°	3099.3	3078.6	2990.9	2895.9	2815.7	2748.9	2622.6	2506.8	2399.8	2301.8	2226.1
40°	3519.6	3464.6	3371.1	3301.3	3246.3	3182.5	3050.3	2928.6	2760.7	2650.9	2536.5
42.5°	3810.7	3757.2	3691.9	3645.8	3619.1	3570.1	3495.8	3390.4	3240.4	3243.4	2941.9
45°	4002.3	3923.5	3879.0	3882.0	3892.3	3892.3	3879.0	3862.7	3797.3	3841.9	3589.4
47.5°	3934.0	3882.0	3853.8	3913.2	3987.4	4061.6	4147.8	4241.4	4348.3	4474.5	4164.1
50°	3533.0	3552.3	3565.7	3691.9	3850.8	4020.1	4217.6	4473.1	4771.6	4829.5	4679.5
52.5°	2892.9	2934.5	2979.0	3172.1	3381.5	3674.0	4020.1	4441.9	4842.9	5079.0	5064.1
55°	2246.9	2298.9	2393.9	2537.9	2704.3	2980.6	3408.3	4058.7	4683.9	5059.6	5288.3
57.5°	1599.4	1675.2	1799.9	2000.4	2147.4	2303.4	2619.7	3341.4	4026.0	4725.5	5251.2
60°	1063.4	1099.0	1180.6	1430.1	1678.2	1841.5	2065.7	2327.1	2887.0	3850.8	4868.0
62.5°	754.4	778.2	828.7	941.5	1165.8	1461.3	1596.4	1716.7	1896.4	2477.1	3908.7
63°	712.8	733.7	775.2	870.2	1072.3	1378.1	1516.2	1626.2	1756.8	2215.7	3697.9
65°	591.1	600.0	622.3	668.3	776.7	1030.6	1256.4	1323.2	1345.5	1424.2	2316.7
67.5°	499.0	504.9	512.4	525.7	568.8	686.1	937.1	1021.7	996.5	943.1	1145.0
70°	433.6	438.1	450.0	466.3	481.2	510.9	644.6	770.8	742.6	669.7	700.9
72.5°	346.1	353.4	366.8	395.1	424.7	463.3	496.0	574.7	556.9	487.1	494.5
75°	273.2	277.7	289.6	310.4	338.6	383.2	447.0	473.7	424.7	359.4	359.4
77.5°	216.9	221.3	231.7	248.0	265.9	297.1	341.6	411.3	381.7	270.3	268.8
80°	163.4	167.8	178.2	193.0	210.8	233.1	259.9	291.0	350.5	252.5	201.9
82.5°	120.3	121.7	139.6	150.0	155.9	173.8	196.0	213.9	240.6	233.1	179.7
85°	90.6	89.1	101.0	108.4	109.9	114.4	127.8	145.6	157.4	151.5	139.6
87.5°	50.5	44.6	52.0	59.4	59.4	60.9	63.8	74.3	84.6	81.6	74.3
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°	960.9	960.9	960.9	960.9	960.9	960.9	960.9	960.9	960.9	960.9	960.9
2.5°	956.4	956.4	954.9	954.9	956.4	956.4	954.9	959.3	962.3	962.3	963.8
5°	960.9	962.3	960.9	960.9	962.3	962.3	963.8	968.2	972.7	975.7	980.2
7.5°	974.2	975.7	974.2	974.2	975.7	977.2	980.2	986.1	989.1	995.0	1002.4
10°	989.1	990.5	989.1	990.5	992.1	993.5	998.0	1002.4	1006.9	1012.8	1024.7
12.5°	1015.8	1017.2	1014.3	1015.8	1020.3	1020.3	1023.3	1026.2	1033.6	1041.1	1052.9
15°	1052.9	1052.9	1050.0	1051.4	1055.9	1055.9	1057.3	1060.3	1069.3	1078.2	1090.1
17.5°	1096.0	1099.0	1097.4	1099.0	1101.9	1103.5	1103.5	1106.4	1112.4	1118.3	1130.2
20°	1153.9	1155.4	1152.5	1155.4	1158.4	1155.4	1152.5	1150.9	1153.9	1156.9	1170.3
22.5°	1232.7	1231.1	1223.7	1223.7	1223.7	1217.7	1210.4	1201.5	1201.5	1197.0	1207.4
25°	1326.2	1321.8	1311.3	1312.8	1302.4	1293.5	1280.1	1266.7	1254.9	1250.5	1251.9
27.5°	1436.0	1427.1	1416.8	1413.8	1403.4	1387.0	1364.8	1339.6	1320.2	1305.4	1302.4
30°	1574.2	1554.9	1537.1	1534.1	1517.8	1491.1	1455.4	1421.2	1388.6	1363.3	1354.4
32.5°	1737.5	1707.8	1679.6	1676.6	1649.9	1614.3	1571.3	1523.7	1476.1	1436.0	1416.8
35°	1929.1	1884.6	1857.8	1850.4	1811.7	1767.2	1719.7	1658.8	1592.0	1535.6	1500.0
37.5°	2162.2	2116.2	2070.1	2071.7	2018.2	1966.2	1902.4	1828.1	1743.5	1664.8	1614.3
40°	2450.4	2385.0	2325.6	2312.3	2266.2	2193.4	2123.6	2037.5	1933.6	1829.6	1756.8
42.5°	2799.3	2692.4	2610.8	2598.9	2537.9	2448.8	2364.2	2249.9	2144.4	2018.2	1930.6
45°	3195.9	3025.1	2927.1	2909.3	2811.3	2720.6	2618.1	2496.4	2367.2	2224.6	2120.7
47.5°	3688.9	3445.4	3279.1	3249.3	3114.2	2995.4	2888.5	2753.3	2598.9	2439.9	2325.6
50°	4263.7	3904.3	3680.0	3633.9	3452.8	3313.2	3176.6	3007.3	2842.4	2676.1	2543.9
52.5°	4839.9	4453.7	4155.2	4098.8	3831.5	3644.4	3464.6	3295.3	3100.9	2936.0	2786.0
55°	5303.2	5046.2	4700.3	4621.5	4238.4	3984.4	3748.3	3555.3	3362.2	3231.5	3054.7
57.5°	5582.3	5569.0	5295.7	5187.4	4663.1	4287.4	4024.5	3804.8	3617.7	3562.6	3328.1
60°	5575.0	5920.9	5803.6	5722.0	5092.4	4597.8	4256.2	4018.6	3864.2	3926.5	3602.7
62.5°	5234.8	5935.8	6076.9	6054.6	5549.7	4847.3	4446.3	4201.3	4119.6	4305.2	3887.9
63°	5111.6	5901.7	6088.8	6079.9	5637.3	4894.8	4479.0	4236.9	4170.1	4401.8	3939.9
65°	4320.0	5603.2	5944.8	5984.9	5825.9	5058.2	4554.7	4327.5	4320.0	4617.1	4063.2
67.5°	2633.1	4734.4	5295.7	5372.9	5560.1	5110.2	4511.6	4296.3	4403.2	4648.3	4026.0
70°	1125.7	3124.6	4256.2	4381.0	4838.4	4851.8	4388.4	4168.6	4384.0	4404.7	3761.7
72.5°	666.8	1473.2	2897.4	3169.1	3828.5	4174.6	4106.2	3945.8	4130.0	3868.6	3203.3
75°	472.3	689.1	1471.7	1761.3	2665.7	3187.0	3449.8	3524.1	3516.6	3068.1	2404.3
77.5°	338.6	442.5	620.7	732.1	1488.1	2046.4	2367.2	2584.0	2514.2	2053.9	1482.1
80°	236.1	306.0	380.1	404.0	690.6	1051.4	1247.5	1342.5	1300.9	1026.2	663.8
82.5°	170.8	200.5	245.0	259.9	347.5	485.6	577.7	509.4	488.6	378.7	286.6
85°	132.2	129.2	152.9	158.9	203.5	253.9	259.9	201.9	176.8	157.4	160.4
87.5°	93.6	80.2	81.6	84.6	105.5	135.1	132.2	83.2	71.3	75.7	86.1
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	960.9	960.9	960.9	960.9	960.9	960.9	960.9	960.9	960.9	960.9	960.9
2.5°	966.8	968.2	971.2	972.7	975.7	975.7	978.7	980.2	983.2	986.1	987.6
5°	984.6	989.1	995.0	998.0	1003.9	1008.3	1014.3	1017.2	1023.3	1027.7	1033.6
7.5°	1011.3	1018.8	1026.2	1035.1	1044.0	1051.4	1057.3	1064.8	1075.2	1082.6	1087.1
10°	1036.6	1047.0	1060.3	1070.7	1084.1	1094.5	1103.5	1116.8	1128.6	1139.1	1145.0
12.5°	1069.3	1082.6	1096.0	1112.4	1130.2	1143.5	1156.9	1174.7	1191.0	1202.9	1208.8
15°	1107.9	1124.2	1139.1	1158.4	1179.2	1197.0	1216.3	1235.6	1247.5	1247.5	1244.5
17.5°	1148.0	1161.4	1179.2	1201.5	1229.6	1251.9	1262.3	1265.3	1260.8	1250.5	1243.0
20°	1188.1	1199.9	1219.3	1246.0	1275.7	1280.1	1269.7	1256.4	1243.0	1225.2	1213.3
22.5°	1220.7	1237.1	1266.7	1297.9	1299.5	1274.2	1246.0	1223.7	1202.9	1182.1	1159.8
25°	1259.4	1281.7	1321.8	1333.6	1295.0	1247.5	1207.4	1174.7	1140.5	1106.4	1081.2
27.5°	1306.8	1339.6	1379.7	1345.5	1269.7	1202.9	1148.0	1099.0	1054.4	1006.9	978.7
30°	1357.4	1407.9	1416.8	1327.7	1226.6	1140.5	1066.3	992.1	935.6	892.5	876.2
32.5°	1418.2	1483.6	1430.1	1296.5	1168.7	1055.9	956.4	867.3	819.8	793.0	785.6
35°	1510.3	1563.8	1437.6	1263.8	1101.9	954.9	830.1	758.8	729.2	711.4	702.5
37.5°	1642.4	1641.0	1436.0	1223.7	1024.7	845.0	729.2	678.6	654.9	640.1	623.7
40°	1796.9	1700.5	1427.1	1165.8	920.8	739.6	659.4	611.8	589.5	571.7	552.5
42.5°	1949.8	1740.6	1402.0	1079.6	791.6	663.8	608.9	565.8	542.1	522.7	496.0
45°	2082.1	1756.8	1352.9	960.9	675.7	604.5	576.2	539.1	510.9	481.2	460.3
47.5°	2186.0	1753.8	1274.2	821.2	598.5	562.8	549.4	524.3	490.1	453.0	426.3
50°	2273.6	1731.5	1167.3	698.0	546.5	525.7	521.3	513.8	458.9	427.7	411.3
52.5°	2353.8	1698.9	1052.9	614.8	502.0	484.2	493.1	485.6	447.0	420.2	404.0
55°	2463.8	1676.6	940.1	551.0	450.0	445.5	453.0	463.3	439.6	414.3	396.5
57.5°	2593.0	1688.5	854.0	479.7	401.0	404.0	429.2	444.1	432.2	405.4	387.6
60°	2741.4	1724.2	778.2	411.3	360.9	368.3	405.4	426.3	424.7	393.5	372.8
62.5°	2907.7	1761.3	657.9	359.4	326.7	338.6	377.2	404.0	408.4	381.7	356.4
63°	2940.5	1764.3	626.7	349.0	320.8	334.1	369.8	398.0	404.0	378.7	353.4
65°	3020.7	1737.5	504.9	320.8	297.1	311.9	347.5	372.8	384.6	362.3	341.6
67.5°	2953.8	1519.2	380.1	286.6	277.7	288.1	319.3	343.1	353.4	343.1	322.2
70°	2701.3	1104.9	297.1	255.4	257.0	264.3	288.1	310.4	322.2	319.3	300.0
72.5°	2175.6	626.7	248.0	228.7	233.1	242.0	258.4	279.2	289.6	288.1	274.8
75°	1433.1	320.8	209.4	204.9	207.9	215.3	227.2	243.6	255.4	253.9	248.0
77.5°	709.8	222.8	179.7	181.2	182.7	188.6	197.5	212.4	219.8	221.3	219.8
80°	292.6	173.8	154.5	155.9	157.4	161.8	167.8	181.2	185.7	188.6	190.1
82.5°	175.2	132.2	123.3	126.2	127.8	132.2	136.7	148.5	152.9	157.4	157.4
85°	115.8	92.1	89.1	92.1	95.0	98.0	99.5	106.9	114.4	120.3	123.3
87.5°	62.4	54.9	53.5	54.9	54.9	57.9	60.9	68.3	77.2	83.2	86.1
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):

	160°	165°	170°	175°	180°
0°	960.9	960.9	960.9	960.9	960.9
2.5°	984.6	986.1	984.6	986.1	987.6
5°	1033.6	1036.6	1035.1	1035.1	1041.1
7.5°	1090.1	1096.0	1096.0	1099.0	1101.9
10°	1150.9	1156.9	1161.4	1161.4	1165.8
12.5°	1211.8	1214.8	1219.3	1219.3	1219.3
15°	1243.0	1241.6	1240.0	1238.6	1238.6
17.5°	1238.6	1232.7	1229.6	1226.6	1228.2
20°	1205.9	1195.5	1192.6	1188.1	1191.0
22.5°	1149.5	1134.6	1128.6	1121.3	1124.2
25°	1064.8	1047.0	1044.0	1035.1	1039.5
27.5°	966.8	957.9	956.4	954.9	962.3
30°	874.7	877.7	879.1	882.1	889.6
32.5°	790.0	796.0	797.5	798.9	809.4
35°	706.9	699.5	706.9	703.9	712.8
37.5°	616.3	610.4	604.5	597.0	602.9
40°	540.5	530.2	512.4	503.4	504.9
42.5°	481.2	467.8	453.0	444.1	444.1
45°	442.5	426.3	412.9	406.9	406.9
47.5°	412.9	405.4	398.0	393.5	393.5
50°	401.0	392.1	387.6	384.6	384.6
52.5°	392.1	383.2	378.7	375.7	372.8
55°	384.6	371.2	366.8	365.3	365.3
57.5°	374.2	362.3	356.4	355.0	355.0
60°	357.9	349.0	343.1	341.6	341.6
62.5°	341.6	332.7	326.7	326.7	326.7
63°	338.6	328.2	323.8	323.8	323.8
65°	325.2	314.9	310.4	310.4	308.9
67.5°	307.4	297.1	294.0	294.0	291.0
70°	286.6	277.7	274.8	276.2	270.3
72.5°	265.9	257.0	252.5	252.5	246.5
75°	242.0	233.1	227.2	225.8	219.8
77.5°	215.3	207.9	201.9	196.0	193.0
80°	187.1	181.2	173.8	169.3	164.8
82.5°	157.4	151.5	147.0	152.9	130.7
85°	123.3	117.3	111.4	120.3	93.6
87.5°	90.6	87.7	81.6	71.3	62.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)