

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: P257769

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257769
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
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 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: 6856.8 lumens
Efficiency: N/A
Efficacy: 142.9 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

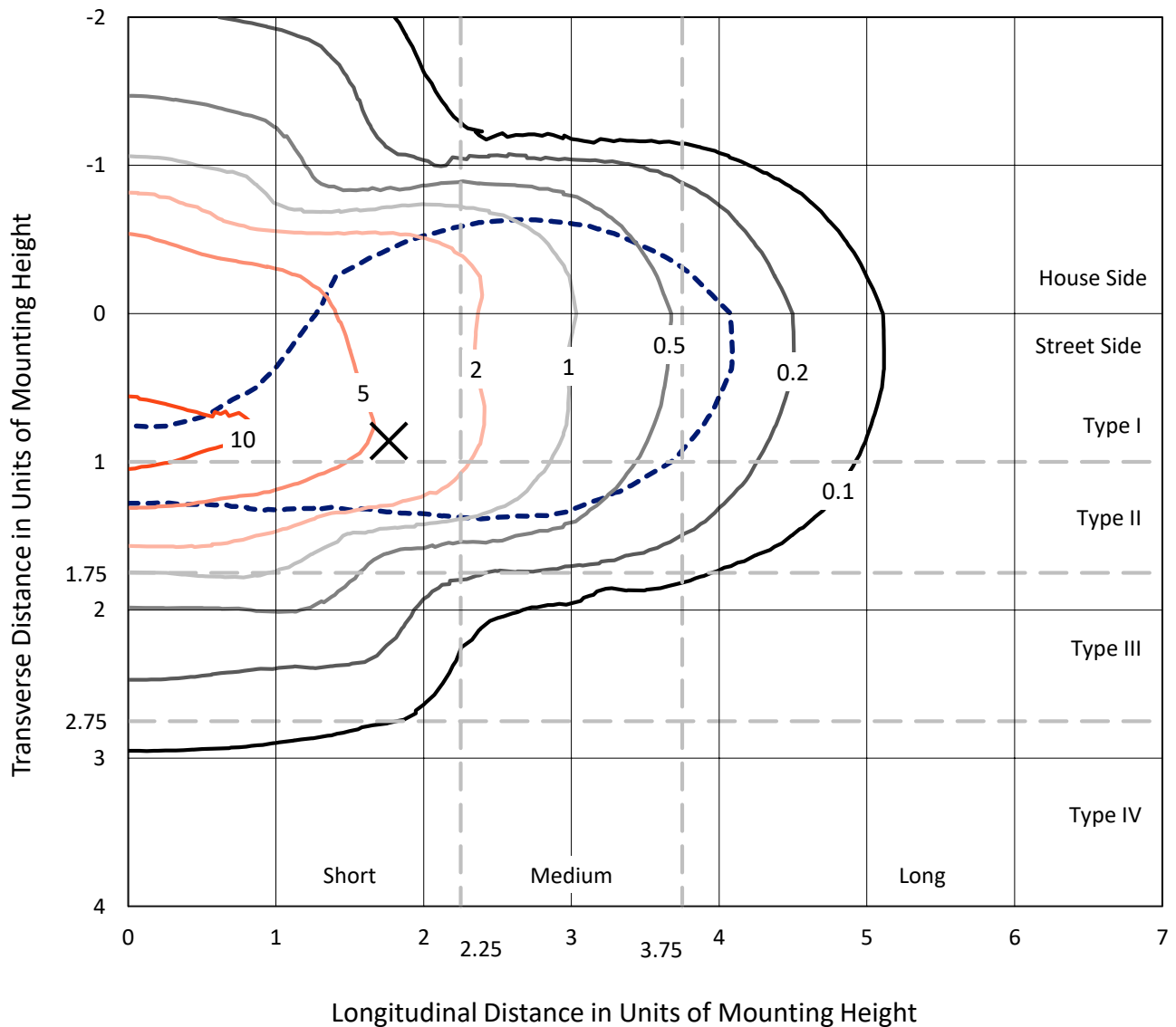


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

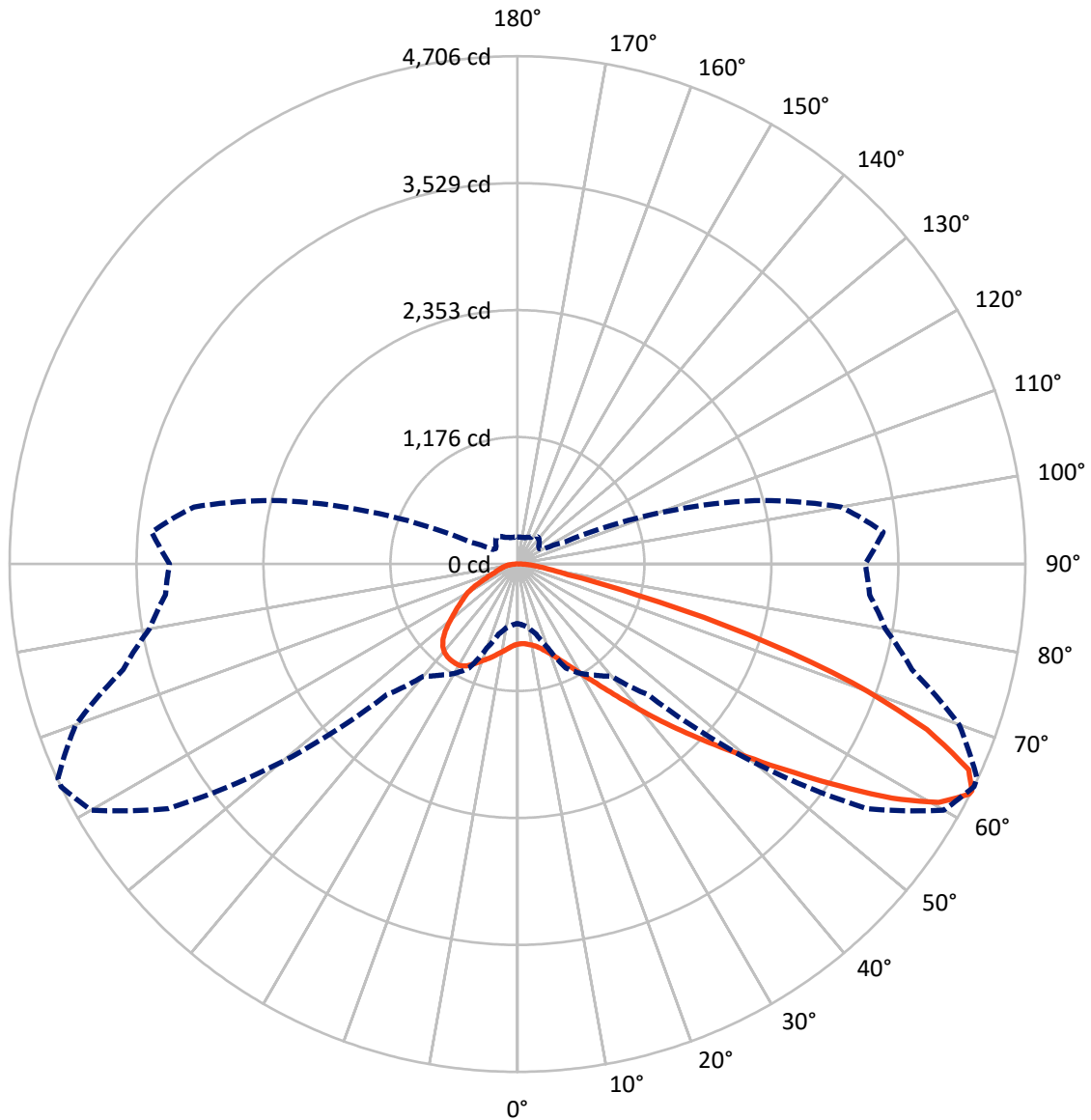


Based on 10 foot mounting height. Maximum calculated value = 12 fc
 Type II - Short - Semi-Cutoff

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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	2015.7	0.0	2015.7
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	4841.2	0.0	4841.2
	% Fixture	70.6	0.0	70.6
Total	Lumens	6856.8	0.0	6856.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.1	1.1
10°-20°	246.9	3.6
20°-30°	463.6	6.8
30°-40°	777.0	11.3
40°-50°	1303.6	19.0
50°-60°	1652.5	24.1
60°-70°	1457.8	21.3
70°-80°	752.5	11.0
80°-90°	128.8	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°	6856.8	100.0
0°-180°	6856.8	100.0



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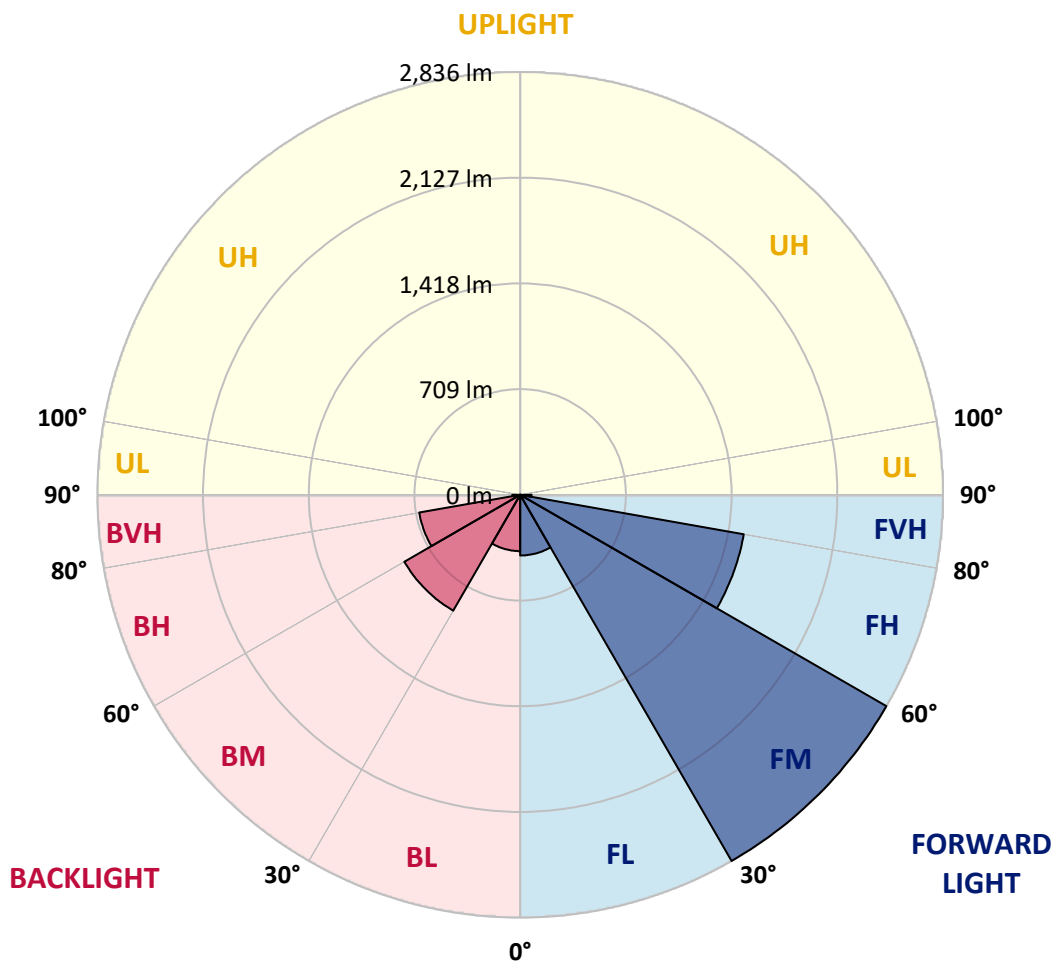
CATALOG NUMBER: ARCH-M-AF48-50-D-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	407.0	5.9			
FM	(30°-60°)	2835.8	41.4			
FH	(60°-80°)	1522.6	22.2			G1/1800
FVH	(80°-90°)	75.8	1.1			G1/100
BL	(0°-30°)	377.7	5.5	B1/500		
BM	(30°-60°)	897.3	13.1	B1/1000		
BH	(60°-80°)	687.7	10.0	B2/1000		G2/1000
BVH	(80°-90°)	53.0	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°	742.6	742.6	742.6	742.6	742.6	742.6	742.6	742.6	742.6	742.6	742.6
2.5°	738.0	736.8	736.8	736.8	736.8	735.7	736.8	739.2	738.0	736.8	739.2
5°	740.3	739.2	739.2	739.2	740.3	739.2	740.3	743.8	741.4	741.4	743.8
7.5°	746.0	744.9	746.0	744.9	744.9	744.9	746.0	749.5	748.3	749.5	752.9
10°	752.9	752.9	752.9	752.9	752.9	752.9	755.2	757.5	758.6	759.8	764.5
12.5°	773.6	773.6	773.6	772.4	772.4	769.0	773.6	775.9	778.2	780.5	783.9
15°	817.2	817.2	816.0	811.5	811.5	804.6	805.7	806.9	806.9	809.2	811.5
17.5°	874.6	873.4	871.1	867.7	863.1	855.1	852.7	850.5	847.0	845.9	845.9
20°	954.9	953.8	949.2	940.0	934.3	921.7	912.5	903.3	899.8	894.1	892.9
22.5°	1069.7	1069.7	1060.5	1046.8	1042.2	1015.8	989.4	969.9	963.0	954.9	954.9
25°	1208.6	1207.4	1194.8	1178.7	1159.2	1131.7	1099.6	1073.2	1055.9	1037.6	1030.7
27.5°	1375.1	1371.6	1354.4	1334.8	1298.1	1263.7	1225.8	1198.3	1168.4	1145.5	1124.8
30°	1570.1	1566.6	1536.9	1500.2	1462.2	1427.8	1372.7	1339.5	1292.4	1264.8	1241.9
32.5°	1796.2	1792.8	1738.8	1703.2	1663.1	1620.7	1555.2	1502.4	1442.8	1403.7	1371.6
35°	2084.3	2070.6	1993.6	1944.3	1881.2	1838.7	1769.8	1698.7	1628.6	1573.6	1526.5
37.5°	2395.3	2379.3	2311.6	2238.1	2176.1	2124.5	2026.9	1937.4	1854.7	1779.0	1720.5
40°	2720.1	2677.7	2605.4	2551.4	2509.0	2459.6	2357.5	2263.4	2133.7	2048.8	1960.4
42.5°	2945.1	2903.9	2853.3	2817.7	2797.1	2759.2	2701.8	2620.3	2504.4	2506.6	2273.7
45°	3093.2	3032.3	2998.0	3000.2	3008.3	3008.3	2998.0	2985.3	2934.7	2969.2	2774.1
47.5°	3040.4	3000.2	2978.4	3024.4	3081.7	3139.1	3205.6	3277.9	3360.6	3458.2	3218.3
50°	2730.5	2745.4	2755.7	2853.3	2976.1	3106.9	3259.6	3457.1	3687.7	3732.4	3616.5
52.5°	2235.9	2268.0	2302.4	2451.6	2613.4	2839.5	3106.9	3432.9	3742.8	3925.3	3913.8
55°	1736.6	1776.8	1850.2	1961.5	2090.1	2303.5	2634.1	3136.8	3620.0	3910.3	4087.1
57.5°	1236.1	1294.6	1391.1	1546.0	1659.6	1780.1	2024.6	2582.4	3111.5	3652.1	4058.5
60°	821.7	849.4	912.5	1105.3	1297.0	1423.2	1596.5	1798.6	2231.3	2976.1	3762.3
62.5°	583.1	601.4	640.5	727.6	901.0	1129.3	1233.8	1326.8	1465.7	1914.5	3020.9
63°	551.0	567.0	599.1	672.6	828.7	1065.1	1171.9	1256.8	1357.8	1712.4	2857.9
65°	456.8	463.7	480.9	516.5	600.3	796.6	971.0	1022.6	1039.8	1100.7	1790.5
67.5°	385.7	390.3	396.0	406.3	439.6	530.3	724.2	789.6	770.2	728.9	885.0
70°	335.1	338.6	347.8	360.4	371.8	394.9	498.1	595.7	573.9	517.6	541.8
72.5°	267.4	273.1	283.5	305.4	328.3	358.1	383.3	444.2	430.4	376.4	382.2
75°	211.1	214.6	223.8	239.9	261.7	296.1	345.5	366.1	328.3	277.7	277.7
77.5°	167.6	171.0	179.0	191.7	205.4	229.6	264.0	317.9	295.0	208.9	207.8
80°	126.2	129.7	137.7	149.2	163.0	180.2	200.8	224.9	270.9	195.1	156.1
82.5°	93.0	94.1	107.9	115.9	120.5	134.3	151.5	165.3	186.0	180.2	138.9
85°	70.0	68.8	78.1	83.8	84.9	88.4	98.7	112.5	121.6	117.0	107.9
87.5°	39.0	34.5	40.2	45.9	45.9	47.1	49.3	57.4	65.5	63.1	57.4
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°	742.6	742.6	742.6	742.6	742.6	742.6	742.6	742.6	742.6	742.6	742.6
2.5°	739.2	739.2	738.0	738.0	739.2	739.2	738.0	741.4	743.8	743.8	744.9
5°	742.6	743.8	742.6	742.6	743.8	743.8	744.9	748.3	751.8	754.1	757.5
7.5°	752.9	754.1	752.9	752.9	754.1	755.2	757.5	762.1	764.5	769.0	774.7
10°	764.5	765.6	764.5	765.6	766.7	767.8	771.3	774.7	778.2	782.8	792.0
12.5°	785.0	786.2	783.9	785.0	788.5	788.5	790.8	793.1	798.8	804.6	813.8
15°	813.8	813.8	811.5	812.6	816.0	816.0	817.2	819.5	826.3	833.3	842.4
17.5°	847.0	849.4	848.2	849.4	851.6	852.7	852.7	855.1	859.7	864.3	873.4
20°	891.8	892.9	890.7	892.9	895.3	892.9	890.7	889.5	891.8	894.1	904.4
22.5°	952.7	951.4	945.7	945.7	945.7	941.1	935.4	928.5	928.5	925.1	933.1
25°	1024.9	1021.5	1013.4	1014.6	1006.6	999.7	989.4	979.1	969.9	966.4	967.5
27.5°	1109.9	1102.9	1095.0	1092.6	1084.6	1072.0	1054.8	1035.2	1020.4	1008.8	1006.6
30°	1216.6	1201.7	1188.0	1185.6	1173.0	1152.4	1124.8	1098.4	1073.2	1053.6	1046.8
32.5°	1342.8	1319.9	1298.1	1295.8	1275.1	1247.6	1214.3	1177.6	1140.9	1109.9	1095.0
35°	1491.0	1456.5	1435.8	1430.1	1400.2	1365.8	1329.1	1282.1	1230.4	1186.7	1159.2
37.5°	1671.1	1635.5	1600.0	1601.1	1559.8	1519.6	1470.3	1412.9	1347.4	1286.7	1247.6
40°	1893.8	1843.3	1797.3	1787.0	1751.5	1695.2	1641.3	1574.7	1494.3	1414.0	1357.8
42.5°	2163.5	2080.9	2017.8	2008.6	1961.5	1892.7	1827.2	1738.8	1657.4	1559.8	1492.1
45°	2469.9	2338.0	2262.3	2248.4	2172.6	2102.7	2023.5	1929.4	1829.5	1719.4	1639.0
47.5°	2851.0	2662.7	2534.3	2511.2	2406.8	2315.0	2232.4	2127.9	2008.6	1885.7	1797.3
50°	3295.2	3017.4	2844.1	2808.5	2668.5	2560.7	2455.1	2324.1	2196.8	2068.2	1966.1
52.5°	3740.5	3442.1	3211.3	3167.8	2961.2	2816.6	2677.7	2546.8	2396.5	2269.1	2153.2
55°	4098.7	3900.0	3632.6	3571.8	3275.7	3079.4	2896.9	2747.7	2598.5	2497.5	2360.9
57.5°	4314.4	4304.1	4092.8	4009.0	3604.0	3313.5	3110.4	2940.6	2795.9	2753.5	2572.1
60°	4308.7	4576.1	4485.4	4422.3	3935.6	3553.4	3289.4	3105.8	2986.4	3034.7	2784.5
62.5°	4045.8	4587.5	4696.6	4679.4	4289.1	3746.3	3436.4	3246.9	3183.8	3327.4	3004.8
63°	3950.5	4561.1	4705.8	4698.9	4356.8	3783.0	3461.6	3274.6	3222.9	3401.9	3045.0
65°	3338.8	4330.5	4594.5	4625.4	4502.6	3909.2	3520.2	3344.5	3338.8	3568.4	3140.3
67.5°	2035.0	3659.0	4092.8	4152.6	4297.2	3949.4	3486.8	3320.4	3403.1	3592.5	3111.5
70°	870.0	2414.9	3289.4	3385.9	3739.4	3749.7	3391.6	3221.7	3388.1	3404.2	2907.2
72.5°	515.4	1138.5	2239.2	2449.3	2958.9	3226.3	3173.5	3049.5	3191.9	2989.9	2475.6
75°	365.0	532.5	1137.4	1361.2	2060.2	2463.1	2666.2	2723.6	2717.9	2371.2	1858.2
77.5°	261.7	342.1	479.8	565.8	1150.0	1581.6	1829.5	1997.1	1943.1	1587.3	1145.5
80°	182.5	236.4	293.8	312.2	533.7	812.6	964.1	1037.6	1005.5	793.1	513.0
82.5°	132.0	155.0	189.3	200.8	268.5	375.3	446.5	393.6	377.6	292.7	221.5
85°	102.2	99.8	118.3	122.9	157.2	196.3	200.8	156.1	136.6	121.6	124.0
87.5°	72.3	62.0	63.1	65.5	81.5	104.4	102.2	64.2	55.1	58.5	66.6
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°	742.6	742.6	742.6	742.6	742.6	742.6	742.6	742.6	742.6	742.6	742.6
2.5°	747.2	748.3	750.6	751.8	754.1	754.1	756.4	757.5	759.8	762.1	763.2
5°	761.0	764.5	769.0	771.3	775.9	779.3	783.9	786.2	790.8	794.2	798.8
7.5°	781.6	787.4	793.1	799.9	806.9	812.6	817.2	823.0	830.9	836.7	840.1
10°	801.2	809.2	819.5	827.6	837.9	845.9	852.7	863.1	872.3	880.4	885.0
12.5°	826.3	836.7	847.0	859.7	873.4	883.7	894.1	907.9	920.5	929.7	934.3
15°	856.2	868.9	880.4	895.3	911.3	925.1	940.0	954.9	964.1	964.1	961.8
17.5°	887.2	897.5	911.3	928.5	950.3	967.5	975.6	977.8	974.5	966.4	960.7
20°	918.2	927.4	942.3	963.0	985.9	989.4	981.3	971.0	960.7	946.8	937.7
22.5°	943.5	956.0	979.1	1003.1	1004.2	984.8	963.0	945.7	929.7	913.6	896.4
25°	973.3	990.5	1021.5	1030.7	1000.9	964.1	933.1	907.9	881.5	855.1	835.5
27.5°	1010.1	1035.2	1066.2	1039.8	981.3	929.7	887.2	849.4	814.9	778.2	756.4
30°	1049.0	1088.1	1095.0	1026.1	948.1	881.5	824.1	766.7	723.1	689.8	677.2
32.5°	1096.1	1146.6	1105.3	1002.0	903.3	816.0	739.2	670.2	633.5	612.8	607.1
35°	1167.3	1208.6	1111.0	976.7	851.6	738.0	641.6	586.5	563.5	549.7	542.9
37.5°	1269.4	1268.3	1109.9	945.7	792.0	653.1	563.5	524.6	506.2	494.7	482.0
40°	1388.8	1314.2	1102.9	901.0	711.6	571.6	509.6	472.9	455.6	441.9	427.0
42.5°	1507.0	1345.2	1083.5	834.4	611.7	513.0	470.6	437.3	418.9	404.0	383.3
45°	1609.1	1357.8	1045.6	742.6	522.2	467.2	445.3	416.6	394.9	371.8	355.8
47.5°	1689.5	1355.5	984.8	634.7	462.6	435.0	424.6	405.2	378.8	350.1	329.4
50°	1757.2	1338.2	902.1	539.4	422.4	406.3	402.8	397.1	354.7	330.5	317.9
52.5°	1819.2	1313.1	813.8	475.2	387.9	374.2	381.0	375.3	345.5	324.8	312.2
55°	1904.1	1295.8	726.5	425.9	347.8	344.3	350.1	358.1	339.7	320.2	306.5
57.5°	2004.0	1305.0	659.9	370.7	309.9	312.2	331.7	343.2	334.0	313.3	299.5
60°	2118.7	1332.5	601.4	317.9	278.9	284.7	313.3	329.4	328.3	304.1	288.1
62.5°	2247.3	1361.2	508.4	277.7	252.5	261.7	291.5	312.2	315.6	295.0	275.5
63°	2272.6	1363.5	484.4	269.8	248.0	258.2	285.8	307.6	312.2	292.7	273.1
65°	2334.5	1342.8	390.3	248.0	229.6	241.0	268.5	288.1	297.3	280.1	264.0
67.5°	2282.9	1174.1	293.8	221.5	214.6	222.7	246.7	265.1	273.1	265.1	249.1
70°	2087.7	854.0	229.6	197.4	198.6	204.3	222.7	239.9	249.1	246.7	231.8
72.5°	1681.4	484.4	191.7	176.8	180.2	187.1	199.7	215.7	223.8	222.7	212.4
75°	1107.5	248.0	161.8	158.4	160.7	166.4	175.6	188.2	197.4	196.3	191.7
77.5°	548.6	172.2	138.9	140.0	141.2	145.8	152.6	164.1	169.9	171.0	169.9
80°	226.1	134.3	119.4	120.5	121.6	125.1	129.7	140.0	143.4	145.8	146.9
82.5°	135.4	102.2	95.2	97.6	98.7	102.2	105.6	114.8	118.3	121.6	121.6
85°	89.5	71.2	68.8	71.2	73.4	75.8	76.9	82.7	88.4	93.0	95.2
87.5°	48.2	42.5	41.3	42.5	42.5	44.8	47.1	52.8	59.6	64.2	66.6
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°	742.6	742.6	742.6	742.6	742.6
2.5°	761.0	762.1	761.0	762.1	763.2
5°	798.8	801.2	799.9	799.9	804.6
7.5°	842.4	847.0	847.0	849.4	851.6
10°	889.5	894.1	897.5	897.5	901.0
12.5°	936.5	938.9	942.3	942.3	942.3
15°	960.7	959.5	958.4	957.2	957.2
17.5°	957.2	952.7	950.3	948.1	949.2
20°	932.0	923.9	921.7	918.2	920.5
22.5°	888.3	876.9	872.3	866.5	868.9
25°	823.0	809.2	806.9	799.9	803.4
27.5°	747.2	740.3	739.2	738.0	743.8
30°	676.1	678.3	679.4	681.8	687.5
32.5°	610.6	615.2	616.3	617.5	625.5
35°	546.4	540.6	546.4	544.0	551.0
37.5°	476.3	471.7	467.2	461.4	466.0
40°	417.8	409.8	396.0	389.1	390.3
42.5°	371.8	361.5	350.1	343.2	343.2
45°	342.1	329.4	319.1	314.5	314.5
47.5°	319.1	313.3	307.6	304.1	304.1
50°	309.9	303.0	299.5	297.3	297.3
52.5°	303.0	296.1	292.7	290.4	288.1
55°	297.3	286.9	283.5	282.3	282.3
57.5°	289.2	280.1	275.5	274.4	274.4
60°	276.6	269.8	265.1	264.0	264.0
62.5°	264.0	257.1	252.5	252.5	252.5
63°	261.7	253.7	250.2	250.2	250.2
65°	251.3	243.4	239.9	239.9	238.8
67.5°	237.6	229.6	227.3	227.3	224.9
70°	221.5	214.6	212.4	213.5	208.9
72.5°	205.4	198.6	195.1	195.1	190.6
75°	187.1	180.2	175.6	174.4	169.9
77.5°	166.4	160.7	156.1	151.5	149.2
80°	144.6	140.0	134.3	130.8	127.4
82.5°	121.6	117.0	113.6	118.3	101.0
85°	95.2	90.6	86.0	93.0	72.3
87.5°	70.0	67.7	63.1	55.1	48.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)