

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: P239111

Luminaire Tested: **ARCH-AF24-90-D-U-T2U-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239111
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-AF24-90-D-U-T2U-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8707 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

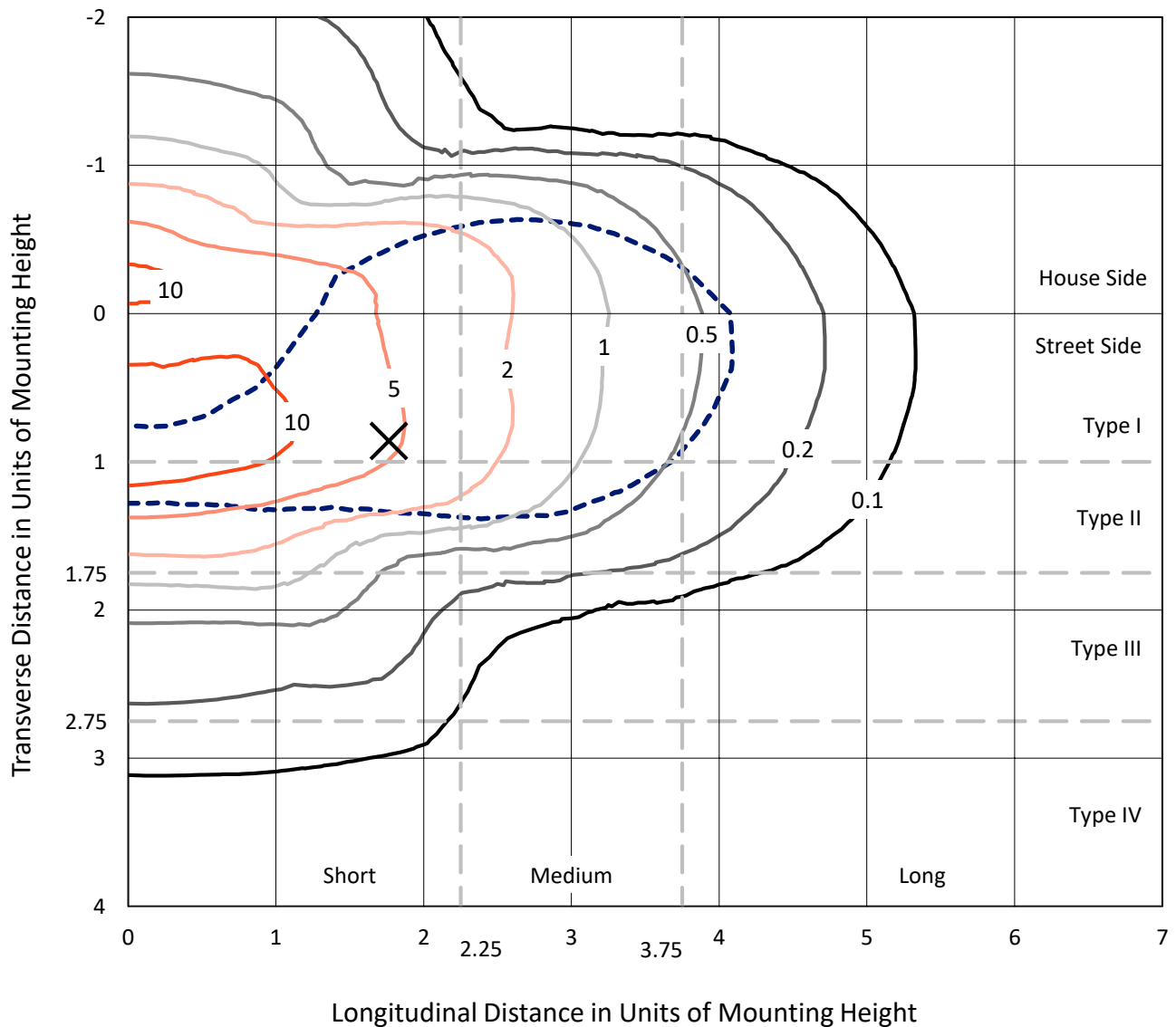
Input Watts (W): 94
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

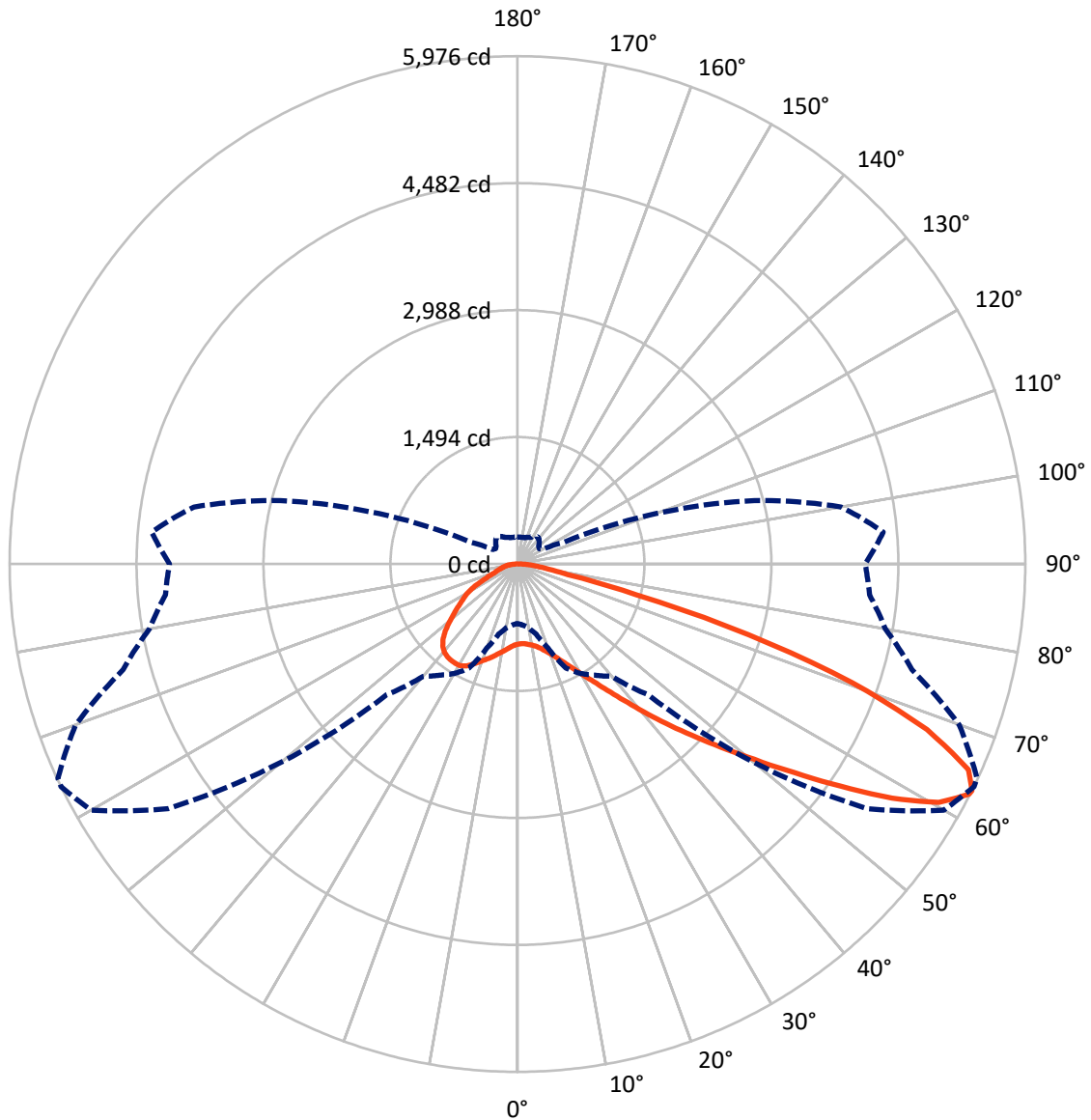
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.3 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	2559.5	0.0	2559.5
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	6147.5	0.0	6147.5
	% Fixture	70.6	0.0	70.6
Total	Lumens	8707.0	0.0	8707.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.1	1.1
10°-20°	313.6	3.6
20°-30°	588.6	6.8
30°-40°	986.6	11.3
40°-50°	1655.3	19.0
50°-60°	2098.4	24.1
60°-70°	1851.1	21.3
70°-80°	955.6	11.0
80°-90°	163.5	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°	8707.0	100.0
0°-180°	8707.0	100.0



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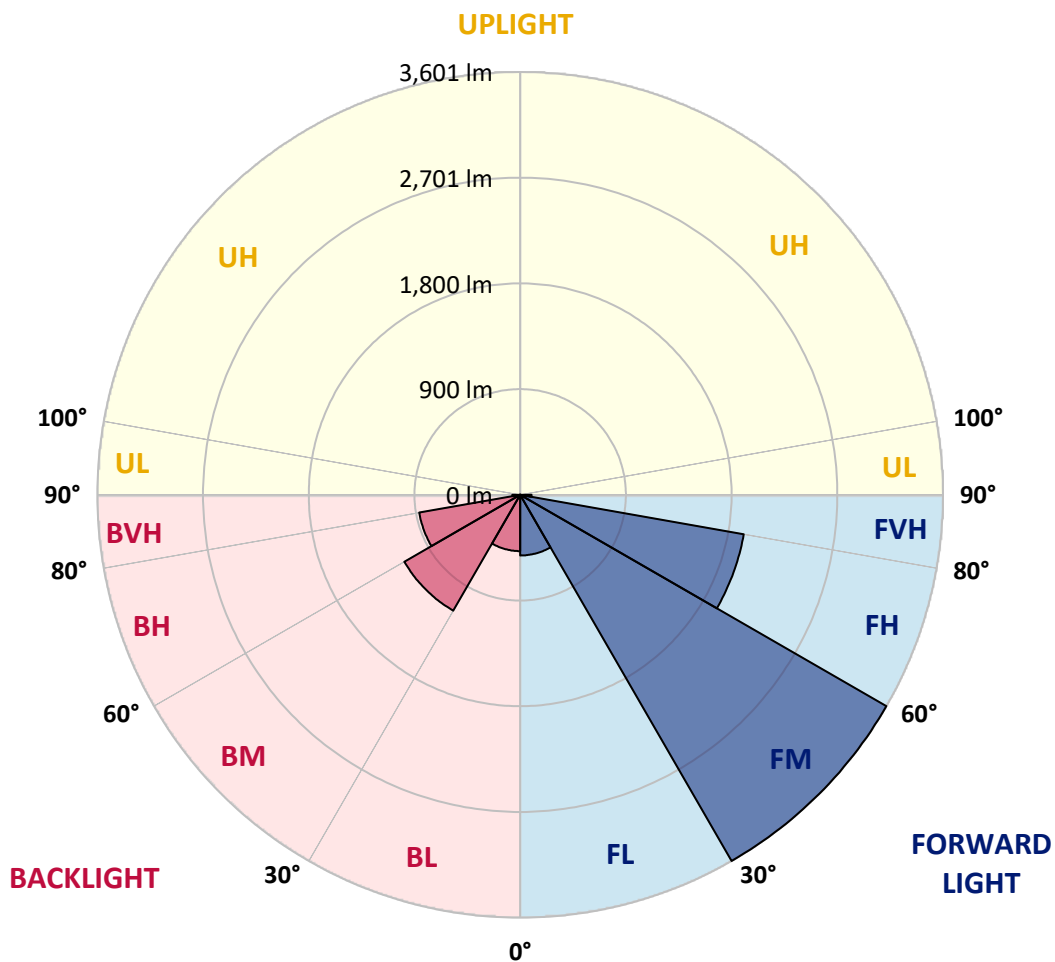
CATALOG NUMBER: ARCH-AF24-90-D-U-T2U-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	516.8	5.9			
FM (30°-60°)	3601.0	41.4			
FH (60°-80°)	1933.4	22.2			G2/5000
FVH (80°-90°)	96.2	1.1			G1/100
BL (0°-30°)	479.6	5.5	B1/500		
BM (30°-60°)	1139.4	13.1	B2/2500		
BH (60°-80°)	873.3	10.0	B2/1000		G2/1000
BVH (80°-90°)	67.3	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°	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0
2.5°	937.1	935.7	935.7	935.7	935.7	934.2	935.7	938.6	937.1	935.7	938.6
5°	940.0	938.6	938.6	938.6	940.0	938.6	940.0	944.4	941.5	941.5	944.4
7.5°	947.3	945.9	947.3	945.9	945.9	945.9	947.3	951.7	950.3	951.7	956.1
10°	956.1	956.1	956.1	956.1	956.1	956.1	959.0	961.9	963.4	964.8	970.7
12.5°	982.3	982.3	982.3	980.9	980.9	976.5	982.3	985.2	988.1	991.1	995.4
15°	1037.7	1037.7	1036.2	1030.4	1030.4	1021.7	1023.1	1024.6	1024.6	1027.5	1030.4
17.5°	1110.6	1109.1	1106.2	1101.8	1096.0	1085.8	1082.9	1080.0	1075.6	1074.1	1074.1
20°	1212.6	1211.1	1205.3	1193.6	1186.4	1170.3	1158.7	1147.0	1142.6	1135.3	1133.9
22.5°	1358.3	1358.3	1346.7	1329.2	1323.4	1289.8	1256.3	1231.5	1222.8	1212.6	1212.6
25°	1534.7	1533.2	1517.2	1496.8	1472.0	1437.0	1396.2	1362.7	1340.8	1317.5	1308.8
27.5°	1746.0	1741.6	1719.8	1695.0	1648.4	1604.6	1556.5	1521.6	1483.7	1454.5	1428.3
30°	1993.8	1989.4	1951.5	1904.9	1856.8	1813.1	1743.1	1700.8	1641.1	1606.1	1577.0
32.5°	2280.9	2276.5	2208.0	2162.8	2111.8	2057.9	1974.8	1907.8	1832.0	1782.5	1741.6
35°	2646.7	2629.2	2531.6	2468.9	2388.7	2334.8	2247.4	2157.0	2068.1	1998.2	1938.4
37.5°	3041.7	3021.3	2935.3	2842.0	2763.3	2697.7	2573.8	2460.2	2355.2	2259.0	2184.7
40°	3454.1	3400.2	3308.4	3239.9	3186.0	3123.3	2993.6	2874.1	2709.4	2601.5	2489.3
42.5°	3739.8	3687.3	3623.2	3578.0	3551.8	3503.7	3430.8	3327.3	3180.1	3183.1	2887.2
45°	3927.8	3850.6	3806.8	3809.8	3820.0	3820.0	3806.8	3790.8	3726.7	3770.4	3522.6
47.5°	3860.8	3809.8	3782.1	3840.4	3913.2	3986.1	4070.6	4162.5	4267.4	4391.3	4086.7
50°	3467.3	3486.2	3499.3	3623.2	3779.1	3945.3	4139.1	4389.8	4682.8	4739.6	4592.4
52.5°	2839.1	2879.9	2923.6	3113.1	3318.6	3605.7	3945.3	4359.2	4752.7	4984.4	4969.9
55°	2205.1	2256.1	2349.4	2490.8	2654.0	2925.1	3344.8	3983.2	4596.8	4965.5	5189.9
57.5°	1569.7	1644.0	1766.4	1963.2	2107.5	2260.5	2570.9	3279.2	3951.1	4637.6	5153.5
60°	1043.5	1078.5	1158.7	1403.5	1646.9	1807.2	2027.3	2283.8	2833.3	3779.1	4777.5
62.5°	740.4	763.7	813.3	924.0	1144.1	1434.1	1566.7	1684.8	1861.2	2431.0	3836.0
63°	699.6	720.0	760.8	854.1	1052.3	1352.5	1488.0	1595.9	1724.2	2174.5	3629.0
65°	580.1	588.8	610.7	655.8	762.2	1011.5	1233.0	1298.6	1320.4	1397.7	2273.6
67.5°	489.7	495.5	502.8	515.9	558.2	673.3	919.6	1002.7	977.9	925.5	1123.7
70°	425.6	429.9	441.6	457.6	472.2	501.4	632.5	756.4	728.7	657.3	687.9
72.5°	339.6	346.9	360.0	387.7	416.8	454.7	486.8	564.0	546.5	478.0	485.3
75°	268.2	272.5	284.2	304.6	332.3	376.0	438.7	464.9	416.8	352.7	352.7
77.5°	212.8	217.2	227.4	243.4	260.9	291.5	335.2	403.7	374.6	265.3	263.8
80°	160.3	164.7	174.9	189.5	207.0	228.8	255.1	285.7	344.0	247.8	198.2
82.5°	118.1	119.5	137.0	147.2	153.0	170.5	192.4	209.9	236.1	228.8	176.4
85°	88.9	87.4	99.1	106.4	107.9	112.2	125.3	142.8	154.5	148.7	137.0
87.5°	49.6	43.7	51.0	58.3	58.3	59.8	62.7	72.9	83.1	80.2	72.9
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°	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0
2.5°	938.6	938.6	937.1	937.1	938.6	938.6	937.1	941.5	944.4	944.4	945.9
5°	943.0	944.4	943.0	943.0	944.4	944.4	945.9	950.3	954.6	957.5	961.9
7.5°	956.1	957.5	956.1	956.1	957.5	959.0	961.9	967.7	970.7	976.5	983.8
10°	970.7	972.1	970.7	972.1	973.6	975.0	979.4	983.8	988.1	994.0	1005.6
12.5°	996.9	998.3	995.4	996.9	1001.3	1001.3	1004.2	1007.1	1014.4	1021.7	1033.3
15°	1033.3	1033.3	1030.4	1031.9	1036.2	1036.2	1037.7	1040.6	1049.4	1058.1	1069.8
17.5°	1075.6	1078.5	1077.0	1078.5	1081.4	1082.9	1082.9	1085.8	1091.6	1097.5	1109.1
20°	1132.4	1133.9	1131.0	1133.9	1136.8	1133.9	1131.0	1129.5	1132.4	1135.3	1148.5
22.5°	1209.7	1208.2	1200.9	1200.9	1200.9	1195.1	1187.8	1179.1	1179.1	1174.7	1184.9
25°	1301.5	1297.1	1286.9	1288.4	1278.2	1269.4	1256.3	1243.2	1231.5	1227.2	1228.6
27.5°	1409.3	1400.6	1390.4	1387.5	1377.3	1361.3	1339.4	1314.6	1295.7	1281.1	1278.2
30°	1544.9	1525.9	1508.5	1505.5	1489.5	1463.3	1428.3	1394.8	1362.7	1337.9	1329.2
32.5°	1705.2	1676.1	1648.4	1645.5	1619.2	1584.2	1542.0	1495.3	1448.7	1409.3	1390.4
35°	1893.2	1849.5	1823.3	1816.0	1778.1	1734.4	1687.7	1628.0	1562.4	1507.0	1472.0
37.5°	2122.0	2076.9	2031.7	2033.1	1980.7	1929.7	1867.0	1794.1	1711.0	1633.8	1584.2
40°	2404.8	2340.7	2282.4	2269.2	2224.1	2152.6	2084.1	1999.6	1897.6	1795.6	1724.2
42.5°	2747.3	2642.3	2562.2	2550.5	2490.8	2403.3	2320.2	2208.0	2104.5	1980.7	1894.7
45°	3136.4	2968.8	2872.6	2855.1	2758.9	2670.0	2569.5	2450.0	2323.2	2183.2	2081.2
47.5°	3620.3	3381.3	3218.0	3188.9	3056.3	2939.7	2834.7	2702.1	2550.5	2394.6	2282.4
50°	4184.3	3831.6	3611.5	3566.4	3388.6	3251.6	3117.5	2951.3	2789.5	2626.3	2496.6
52.5°	4749.8	4370.9	4077.9	4022.5	3760.2	3576.6	3400.2	3234.1	3043.1	2881.4	2734.2
55°	5204.5	4952.4	4612.8	4535.6	4159.5	3910.3	3678.6	3489.1	3299.6	3171.4	2998.0
57.5°	5478.5	5465.4	5197.2	5090.8	4576.4	4207.6	3949.7	3734.0	3550.3	3496.4	3266.1
60°	5471.2	5810.8	5695.7	5615.5	4997.6	4512.2	4177.0	3943.8	3792.3	3853.5	3535.8
62.5°	5137.5	5825.4	5963.8	5942.0	5446.5	4757.1	4363.6	4123.1	4042.9	4225.1	3815.6
63°	5016.5	5791.9	5975.5	5966.8	5532.4	4803.7	4395.6	4158.1	4092.5	4319.9	3866.6
65°	4239.7	5498.9	5834.1	5873.5	5717.5	4964.0	4470.0	4247.0	4239.7	4531.2	3987.6
67.5°	2584.0	4646.3	5197.2	5273.0	5456.7	5015.1	4427.7	4216.4	4321.3	4561.8	3951.1
70°	1104.7	3066.5	4177.0	4299.5	4748.3	4761.5	4306.7	4091.0	4302.4	4322.8	3691.7
72.5°	654.4	1445.8	2843.5	3110.2	3757.3	4096.9	4029.8	3872.4	4053.1	3796.6	3143.7
75°	463.5	676.3	1444.3	1728.5	2616.1	3127.7	3385.6	3458.5	3451.2	3011.1	2359.6
77.5°	332.3	434.3	609.2	718.5	1460.4	2008.4	2323.2	2535.9	2467.4	2015.6	1454.5
80°	231.7	300.2	373.1	396.4	677.7	1031.9	1224.3	1317.5	1276.7	1007.1	651.5
82.5°	167.6	196.8	240.5	255.1	341.0	476.6	566.9	499.9	479.5	371.6	281.3
85°	129.7	126.8	150.1	155.9	199.7	249.2	255.1	198.2	173.4	154.5	157.4
87.5°	91.8	78.7	80.2	83.1	103.5	132.6	129.7	81.6	70.0	74.3	84.5
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°	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0
2.5°	948.8	950.3	953.2	954.6	957.5	957.5	960.5	961.9	964.8	967.7	969.2
5°	966.3	970.7	976.5	979.4	985.2	989.6	995.4	998.3	1004.2	1008.5	1014.4
7.5°	992.5	999.8	1007.1	1015.8	1024.6	1031.9	1037.7	1045.0	1055.2	1062.5	1066.8
10°	1017.3	1027.5	1040.6	1050.8	1063.9	1074.1	1082.9	1096.0	1107.7	1117.9	1123.7
12.5°	1049.4	1062.5	1075.6	1091.6	1109.1	1122.2	1135.3	1152.8	1168.9	1180.5	1186.4
15°	1087.3	1103.3	1117.9	1136.8	1157.2	1174.7	1193.6	1212.6	1224.3	1224.3	1221.3
17.5°	1126.6	1139.7	1157.2	1179.1	1206.8	1228.6	1238.8	1241.7	1237.4	1227.2	1219.9
20°	1166.0	1177.6	1196.6	1222.8	1251.9	1256.3	1246.1	1233.0	1219.9	1202.4	1190.7
22.5°	1198.0	1214.0	1243.2	1273.8	1275.3	1250.5	1222.8	1200.9	1180.5	1160.1	1138.3
25°	1235.9	1257.8	1297.1	1308.8	1270.9	1224.3	1184.9	1152.8	1119.3	1085.8	1061.0
27.5°	1282.5	1314.6	1354.0	1320.4	1246.1	1180.5	1126.6	1078.5	1034.8	988.1	960.5
30°	1332.1	1381.7	1390.4	1303.0	1203.8	1119.3	1046.4	973.6	918.2	875.9	859.9
32.5°	1391.9	1456.0	1403.5	1272.3	1147.0	1036.2	938.6	851.1	804.5	778.3	771.0
35°	1482.2	1534.7	1410.8	1240.3	1081.4	937.1	814.7	744.8	715.6	698.1	689.4
37.5°	1611.9	1610.5	1409.3	1200.9	1005.6	829.3	715.6	666.1	642.7	628.2	612.1
40°	1763.5	1668.8	1400.6	1144.1	903.6	725.8	647.1	600.5	578.6	561.1	542.2
42.5°	1913.6	1708.1	1375.8	1059.6	776.8	651.5	597.6	555.3	532.0	513.0	486.8
45°	2043.3	1724.2	1327.7	943.0	663.1	593.2	565.5	529.1	501.4	472.2	451.8
47.5°	2145.4	1721.2	1250.5	806.0	587.3	552.4	539.3	514.5	481.0	444.5	418.3
50°	2231.3	1699.4	1145.5	685.0	536.3	515.9	511.6	504.3	450.3	419.7	403.7
52.5°	2310.0	1667.3	1033.3	603.4	492.6	475.1	483.9	476.6	438.7	412.5	396.4
55°	2417.9	1645.5	922.6	540.7	441.6	437.2	444.5	454.7	431.4	406.6	389.1
57.5°	2544.7	1657.1	838.0	470.8	393.5	396.4	421.2	435.8	424.1	397.9	380.4
60°	2690.4	1692.1	763.7	403.7	354.2	361.4	397.9	418.3	416.8	386.2	365.8
62.5°	2853.7	1728.5	645.6	352.7	320.6	332.3	370.2	396.4	400.8	374.6	349.8
63°	2885.7	1731.4	615.0	342.5	314.8	327.9	362.9	390.6	396.4	371.6	346.9
65°	2964.4	1705.2	495.5	314.8	291.5	306.1	341.0	365.8	377.5	355.6	335.2
67.5°	2898.9	1491.0	373.1	281.3	272.5	282.7	313.3	336.7	346.9	336.7	316.3
70°	2651.1	1084.3	291.5	250.7	252.1	259.4	282.7	304.6	316.3	313.3	294.4
72.5°	2135.2	615.0	243.4	224.4	228.8	237.6	253.6	274.0	284.2	282.7	269.6
75°	1406.4	314.8	205.5	201.1	204.0	211.3	223.0	239.0	250.7	249.2	243.4
77.5°	696.7	218.6	176.4	177.8	179.3	185.1	193.8	208.4	215.7	217.2	215.7
80°	287.1	170.5	151.6	153.0	154.5	158.9	164.7	177.8	182.2	185.1	186.6
82.5°	172.0	129.7	121.0	123.9	125.3	129.7	134.1	145.7	150.1	154.5	154.5
85°	113.7	90.4	87.4	90.4	93.3	96.2	97.6	104.9	112.2	118.1	121.0
87.5°	61.2	53.9	52.5	53.9	53.9	56.8	59.8	67.0	75.8	81.6	84.5
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°	943.0	943.0	943.0	943.0	943.0
2.5°	966.3	967.7	966.3	967.7	969.2
5°	1014.4	1017.3	1015.8	1015.8	1021.7
7.5°	1069.8	1075.6	1075.6	1078.5	1081.4
10°	1129.5	1135.3	1139.7	1139.7	1144.1
12.5°	1189.3	1192.2	1196.6	1196.6	1196.6
15°	1219.9	1218.4	1217.0	1215.5	1215.5
17.5°	1215.5	1209.7	1206.8	1203.8	1205.3
20°	1183.4	1173.2	1170.3	1166.0	1168.9
22.5°	1128.1	1113.5	1107.7	1100.4	1103.3
25°	1045.0	1027.5	1024.6	1015.8	1020.2
27.5°	948.8	940.0	938.6	937.1	944.4
30°	858.4	861.3	862.8	865.7	873.0
32.5°	775.4	781.2	782.6	784.1	794.3
35°	693.7	686.5	693.7	690.8	699.6
37.5°	604.8	599.0	593.2	585.9	591.7
40°	530.5	520.3	502.8	494.1	495.5
42.5°	472.2	459.1	444.5	435.8	435.8
45°	434.3	418.3	405.2	399.3	399.3
47.5°	405.2	397.9	390.6	386.2	386.2
50°	393.5	384.8	380.4	377.5	377.5
52.5°	384.8	376.0	371.6	368.7	365.8
55°	377.5	364.4	360.0	358.5	358.5
57.5°	367.3	355.6	349.8	348.3	348.3
60°	351.2	342.5	336.7	335.2	335.2
62.5°	335.2	326.5	320.6	320.6	320.6
63°	332.3	322.1	317.7	317.7	317.7
65°	319.2	309.0	304.6	304.6	303.1
67.5°	301.7	291.5	288.6	288.6	285.7
70°	281.3	272.5	269.6	271.1	265.3
72.5°	260.9	252.1	247.8	247.8	241.9
75°	237.6	228.8	223.0	221.5	215.7
77.5°	211.3	204.0	198.2	192.4	189.5
80°	183.6	177.8	170.5	166.1	161.8
82.5°	154.5	148.7	144.3	150.1	128.3
85°	121.0	115.1	109.3	118.1	91.8
87.5°	88.9	86.0	80.2	70.0	61.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)