

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: P239137

Luminaire Tested: **ARCH-AF24-70-D-U-T2U-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239137
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-AF24-70-D-U-T2U-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8492 lumens
Efficiency: N/A
Efficacy: 114.8 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

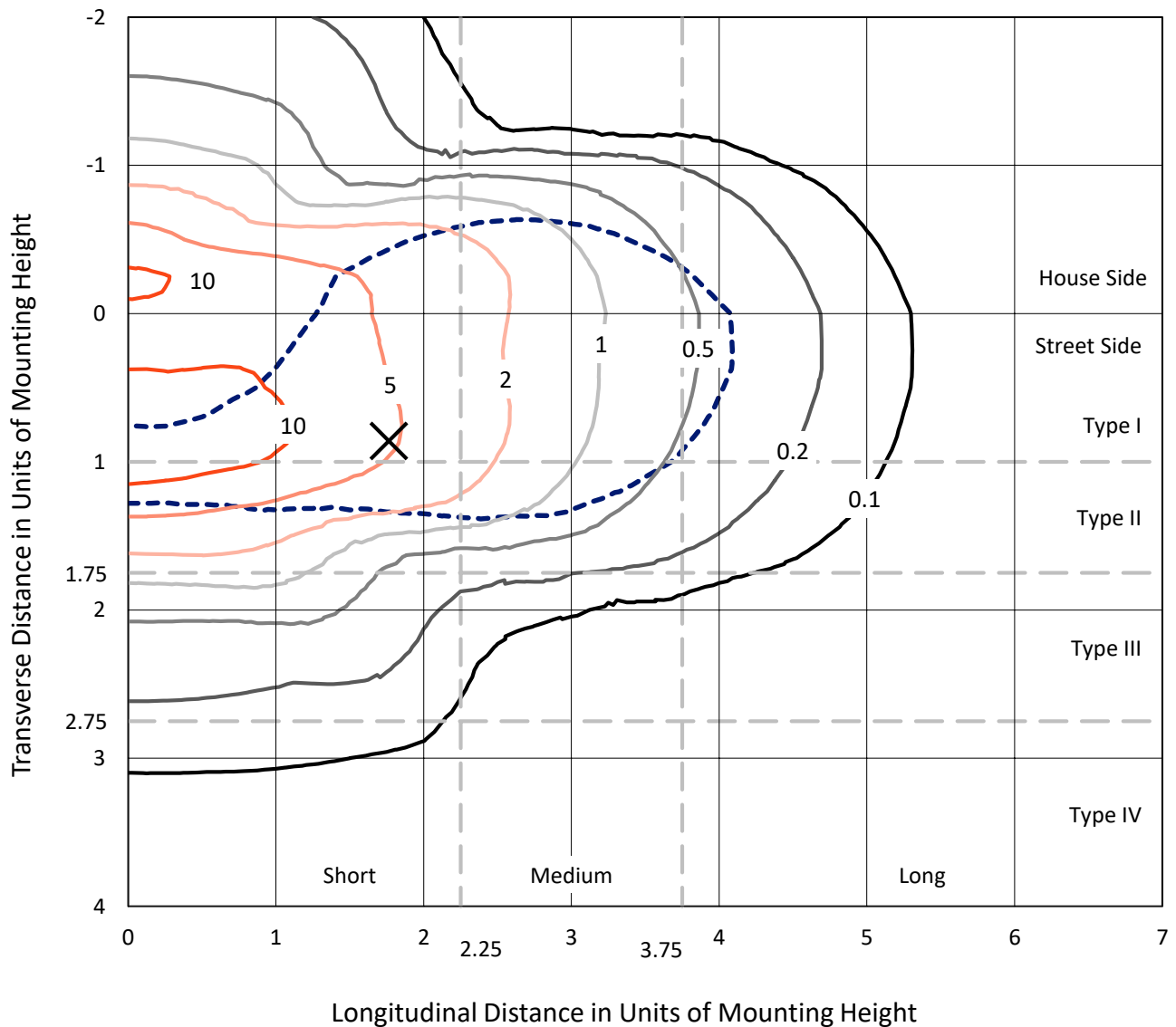
Input Watts (W): 74
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

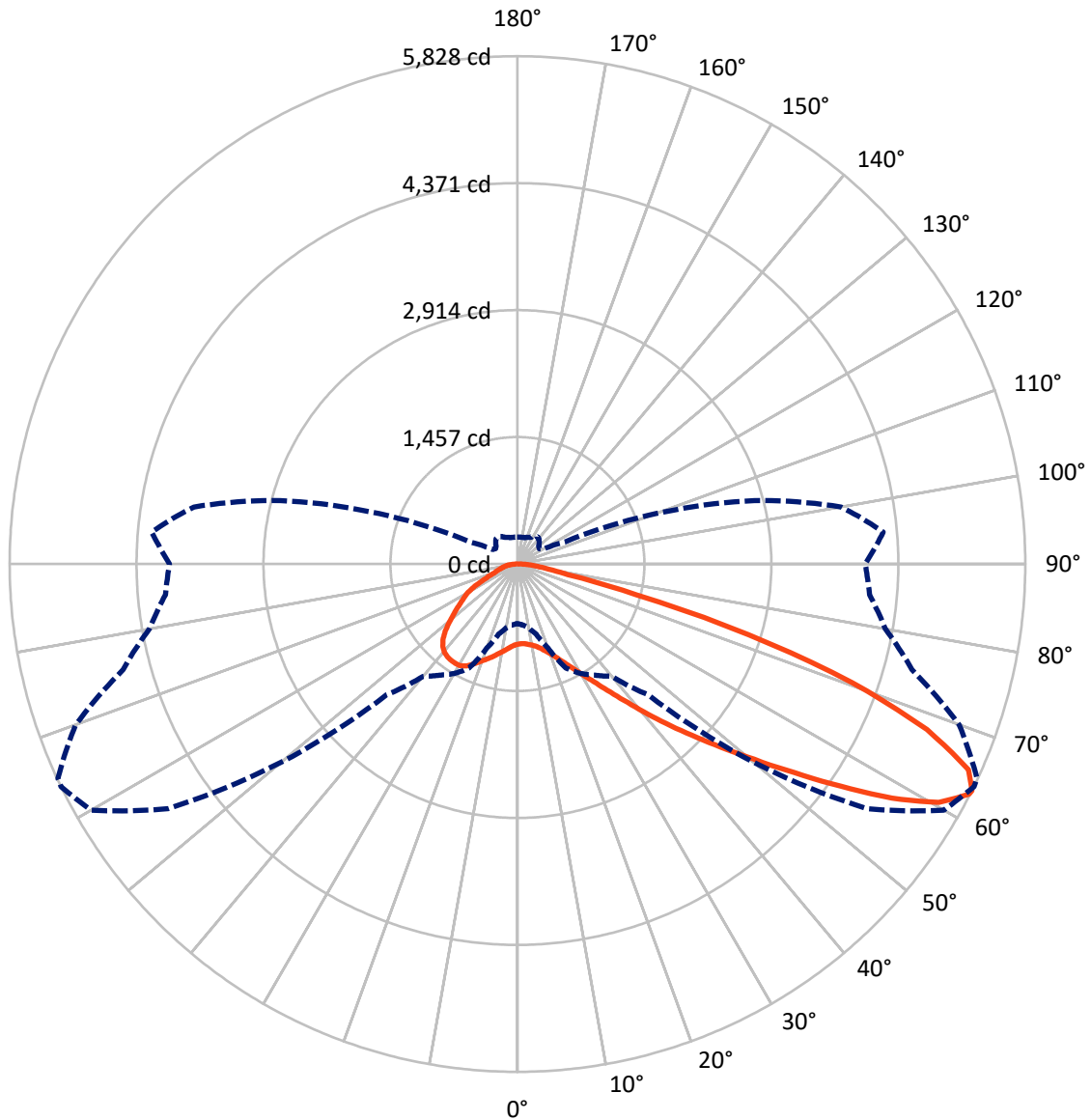
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.9 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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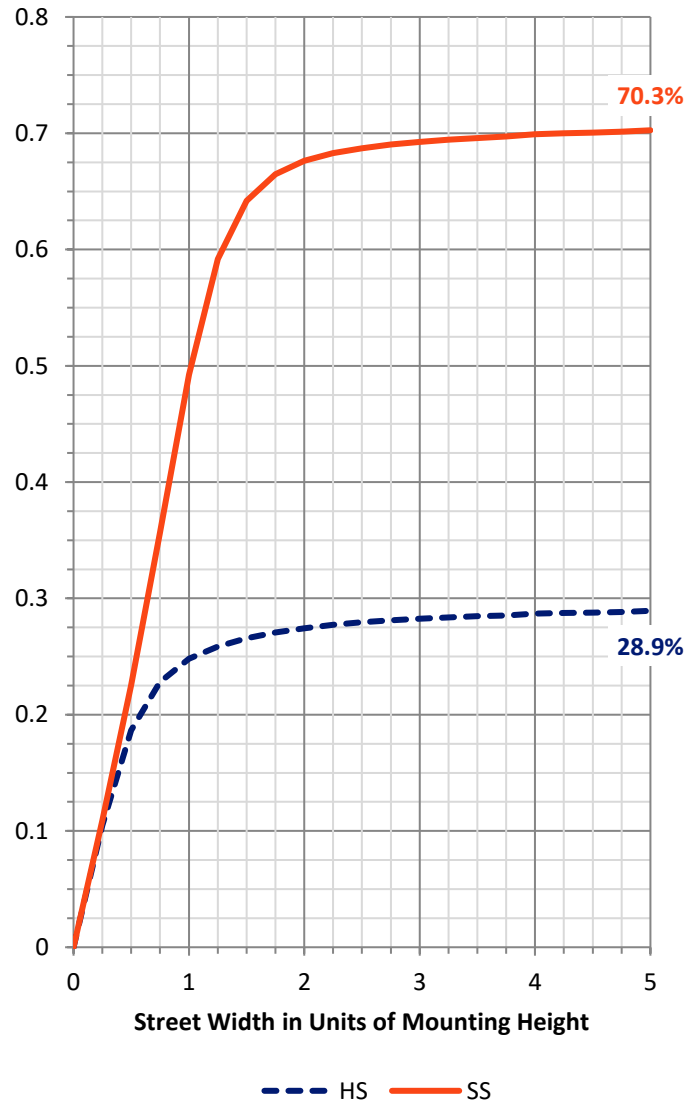
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2496.3	0.0	2496.3
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	5995.7	0.0	5995.7
	% Fixture	70.6	0.0	70.6
Total	Lumens	8492.0	0.0	8492.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.8	1.1
10°-20°	305.8	3.6
20°-30°	574.1	6.8
30°-40°	962.3	11.3
40°-50°	1614.4	19.0
50°-60°	2046.6	24.1
60°-70°	1805.4	21.3
70°-80°	932.0	11.0
80°-90°	159.5	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°	8492.0	100.0
0°-180°	8492.0	100.0



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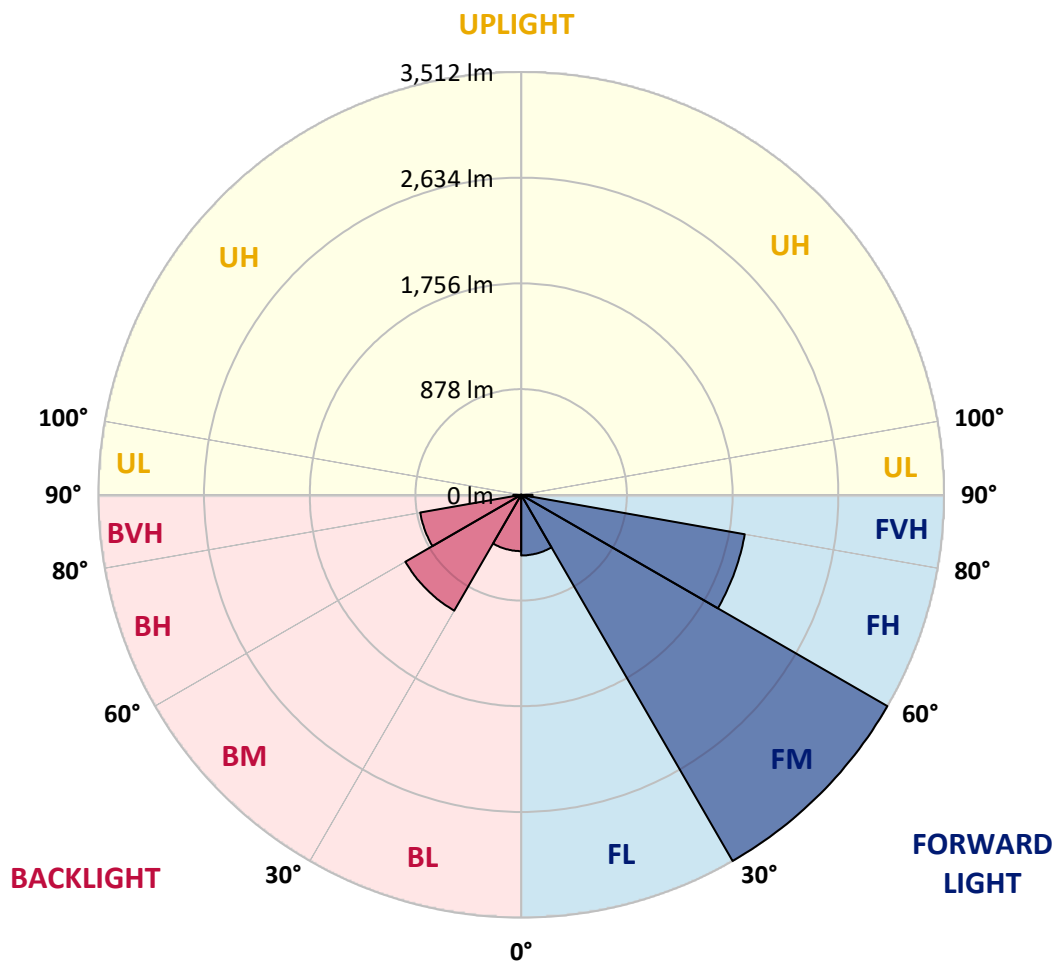
CATALOG NUMBER: ARCH-AF24-70-D-U-T2U-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	504.0	5.9			
FM	(30°-60°)	3512.1	41.4			
FH	(60°-80°)	1885.7	22.2			G2/5000
FVH	(80°-90°)	93.9	1.1			G1/100
BL	(0°-30°)	467.7	5.5	B1/500		
BM	(30°-60°)	1111.3	13.1	B2/2500		
BH	(60°-80°)	851.7	10.0	B2/1000		G2/1000
BVH	(80°-90°)	65.6	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°	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7
2.5°	914.0	912.6	912.6	912.6	912.6	911.2	912.6	915.4	914.0	912.6	915.4
5°	916.8	915.4	915.4	915.4	916.8	915.4	916.8	921.1	918.3	918.3	921.1
7.5°	923.9	922.5	923.9	922.5	922.5	922.5	923.9	928.2	926.8	928.2	932.5
10°	932.5	932.5	932.5	932.5	932.5	932.5	935.3	938.2	939.6	941.0	946.7
12.5°	958.1	958.1	958.1	956.6	956.6	952.4	958.1	960.9	963.7	966.6	970.9
15°	1012.1	1012.1	1010.7	1005.0	1005.0	996.4	997.9	999.3	999.3	1002.1	1005.0
17.5°	1083.1	1081.7	1078.9	1074.6	1068.9	1059.0	1056.1	1053.3	1049.0	1047.6	1047.6
20°	1182.6	1181.2	1175.5	1164.2	1157.1	1141.4	1130.1	1118.7	1114.4	1107.3	1105.9
22.5°	1324.8	1324.8	1313.4	1296.4	1290.7	1258.0	1225.3	1201.1	1192.6	1182.6	1182.6
25°	1496.8	1495.4	1479.7	1459.8	1435.7	1401.6	1361.8	1329.1	1307.7	1285.0	1276.5
27.5°	1702.9	1698.6	1677.3	1653.1	1607.7	1565.0	1518.1	1484.0	1447.0	1418.6	1393.0
30°	1944.5	1940.3	1903.3	1857.8	1810.9	1768.3	1700.1	1658.8	1600.6	1566.4	1538.0
32.5°	2224.6	2220.3	2153.5	2109.4	2059.7	2007.1	1926.1	1860.7	1786.8	1738.4	1698.6
35°	2581.4	2564.3	2469.1	2407.9	2329.8	2277.2	2191.9	2103.8	2017.0	1948.8	1890.5
37.5°	2966.6	2946.7	2862.8	2771.8	2695.1	2631.1	2510.3	2399.4	2297.1	2203.3	2130.8
40°	3368.8	3316.2	3226.7	3159.9	3107.3	3046.2	2919.7	2803.1	2642.5	2537.3	2427.8
42.5°	3647.4	3596.3	3533.7	3489.7	3464.1	3417.2	3346.1	3245.2	3101.6	3104.5	2815.9
45°	3830.8	3755.5	3712.8	3715.7	3725.6	3725.6	3712.8	3697.2	3634.7	3677.3	3435.7
47.5°	3765.4	3715.7	3688.7	3745.5	3816.6	3887.7	3970.1	4059.7	4162.0	4282.8	3985.8
50°	3381.6	3400.1	3412.9	3533.7	3685.8	3847.9	4036.9	4281.4	4567.1	4622.6	4479.0
52.5°	2769.0	2808.8	2851.4	3036.2	3236.6	3516.7	3847.9	4251.6	4635.4	4861.4	4847.2
55°	2150.7	2200.4	2291.4	2429.3	2588.5	2852.9	3262.2	3884.8	4483.3	4842.9	5061.8
57.5°	1530.9	1603.4	1722.8	1914.7	2055.4	2204.7	2507.4	3198.3	3853.6	4523.1	5026.3
60°	1017.8	1051.9	1130.1	1368.9	1606.2	1762.6	1977.2	2227.4	2763.3	3685.8	4659.5
62.5°	722.1	744.8	793.2	901.2	1115.8	1398.7	1528.1	1643.2	1815.2	2371.0	3741.3
63°	682.3	702.2	742.0	833.0	1026.3	1319.1	1451.3	1556.5	1681.6	2120.8	3539.4
65°	565.7	574.3	595.6	639.7	743.4	986.5	1202.5	1266.5	1287.8	1363.2	2217.5
67.5°	477.6	483.3	490.4	503.2	544.4	656.7	896.9	978.0	953.8	902.6	1095.9
70°	415.1	419.3	430.7	446.3	460.6	489.0	616.9	737.7	710.7	641.1	670.9
72.5°	331.2	338.3	351.1	378.1	406.5	443.5	474.8	550.1	533.0	466.2	473.3
75°	261.5	265.8	277.2	297.1	324.1	366.7	427.9	453.4	406.5	344.0	344.0
77.5°	207.5	211.8	221.7	237.4	254.4	284.3	326.9	393.7	365.3	258.7	257.3
80°	156.4	160.6	170.6	184.8	201.8	223.2	248.8	278.6	335.5	241.6	193.3
82.5°	115.1	116.6	133.6	143.6	149.3	166.3	187.6	204.7	230.3	223.2	172.0
85°	86.7	85.3	96.7	103.8	105.2	109.5	122.2	139.3	150.7	145.0	133.6
87.5°	48.3	42.6	49.8	56.9	56.9	58.3	61.1	71.1	81.0	78.2	71.1
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7
2.5°	915.4	915.4	914.0	914.0	915.4	915.4	914.0	918.3	921.1	921.1	922.5
5°	919.7	921.1	919.7	919.7	921.1	921.1	922.5	926.8	931.1	933.9	938.2
7.5°	932.5	933.9	932.5	932.5	933.9	935.3	938.2	943.8	946.7	952.4	959.5
10°	946.7	948.1	946.7	948.1	949.5	951.0	955.2	959.5	963.7	969.4	980.8
12.5°	972.3	973.7	970.9	972.3	976.5	976.5	979.4	982.2	989.3	996.4	1007.8
15°	1007.8	1007.8	1005.0	1006.4	1010.7	1010.7	1012.1	1014.9	1023.4	1032.0	1043.3
17.5°	1049.0	1051.9	1050.5	1051.9	1054.7	1056.1	1056.1	1059.0	1064.7	1070.4	1081.7
20°	1104.5	1105.9	1103.0	1105.9	1108.7	1105.9	1103.0	1101.6	1104.5	1107.3	1120.1
22.5°	1179.8	1178.4	1171.3	1171.3	1171.3	1165.6	1158.5	1150.0	1150.0	1145.7	1155.6
25°	1269.4	1265.1	1255.1	1256.6	1246.6	1238.1	1225.3	1212.5	1201.1	1196.9	1198.3
27.5°	1374.5	1366.0	1356.1	1353.2	1343.3	1327.6	1306.3	1282.2	1263.7	1249.5	1246.6
30°	1506.7	1488.3	1471.2	1468.4	1452.7	1427.1	1393.0	1360.3	1329.1	1304.9	1296.4
32.5°	1663.1	1634.7	1607.7	1604.8	1579.2	1545.1	1503.9	1458.4	1412.9	1374.5	1356.1
35°	1846.5	1803.8	1778.2	1771.1	1734.2	1691.5	1646.0	1587.8	1523.8	1469.8	1435.7
37.5°	2069.6	2025.6	1981.5	1982.9	1931.8	1882.0	1820.9	1749.8	1668.8	1593.4	1545.1
40°	2345.4	2282.9	2226.0	2213.2	2169.1	2099.5	2032.7	1950.2	1850.7	1751.2	1681.6
42.5°	2679.4	2577.1	2498.9	2487.5	2429.3	2344.0	2263.0	2153.5	2052.6	1931.8	1847.9
45°	3059.0	2895.5	2801.7	2784.6	2690.8	2604.1	2506.0	2389.5	2265.8	2129.3	2029.8
47.5°	3530.9	3297.8	3138.6	3110.1	2980.8	2867.1	2764.7	2635.4	2487.5	2335.4	2226.0
50°	4081.0	3737.0	3522.4	3478.3	3304.9	3171.3	3040.5	2878.4	2720.7	2561.5	2434.9
52.5°	4632.5	4262.9	3977.2	3923.2	3667.3	3488.2	3316.2	3154.2	2968.0	2810.2	2666.6
55°	5076.0	4830.1	4498.9	4423.6	4056.8	3813.8	3587.7	3403.0	3218.2	3093.1	2923.9
57.5°	5343.2	5330.4	5068.9	4965.1	4463.4	4103.7	3852.1	3641.8	3462.7	3410.1	3185.5
60°	5336.1	5667.3	5555.0	5476.9	4874.2	4400.8	4073.9	3846.5	3698.6	3758.3	3448.4
62.5°	5010.6	5681.5	5816.6	5795.3	5312.0	4639.6	4255.8	4021.3	3943.1	4120.8	3721.4
63°	4892.6	5648.9	5828.0	5819.4	5395.8	4685.1	4287.1	4055.4	3991.4	4213.2	3771.1
65°	4135.0	5363.1	5690.1	5728.5	5576.4	4841.5	4359.6	4142.1	4135.0	4419.3	3889.1
67.5°	2520.2	4531.6	5068.9	5142.8	5321.9	4891.2	4318.4	4112.3	4214.6	4449.1	3853.6
70°	1077.5	2990.7	4073.9	4193.3	4631.1	4643.9	4200.4	3990.0	4196.1	4216.0	3600.5
72.5°	638.2	1410.1	2773.3	3033.4	3664.5	3995.7	3930.3	3776.8	3953.1	3702.9	3066.1
75°	452.0	659.6	1408.7	1685.8	2551.5	3050.4	3302.0	3373.1	3366.0	2936.7	2301.3
77.5°	324.1	423.6	594.2	700.8	1424.3	1958.8	2265.8	2473.3	2406.5	1965.9	1418.6
80°	226.0	292.8	363.9	386.6	661.0	1006.4	1194.0	1285.0	1245.2	982.2	635.4
82.5°	163.5	191.9	234.5	248.8	332.6	464.8	552.9	487.6	467.7	362.5	274.3
85°	126.5	123.7	146.4	152.1	194.7	243.1	248.8	193.3	169.2	150.7	153.5
87.5°	89.6	76.8	78.2	81.0	100.9	129.4	126.5	79.6	68.2	72.5	82.4
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7
2.5°	925.4	926.8	929.6	931.1	933.9	933.9	936.7	938.2	941.0	943.8	945.3
5°	942.4	946.7	952.4	955.2	960.9	965.2	970.9	973.7	979.4	983.6	989.3
7.5°	968.0	975.1	982.2	990.8	999.3	1006.4	1012.1	1019.2	1029.1	1036.2	1040.5
10°	992.2	1002.1	1014.9	1024.9	1037.7	1047.6	1056.1	1068.9	1080.3	1090.3	1095.9
12.5°	1023.4	1036.2	1049.0	1064.7	1081.7	1094.5	1107.3	1124.4	1140.0	1151.4	1157.1
15°	1060.4	1076.0	1090.3	1108.7	1128.6	1145.7	1164.2	1182.6	1194.0	1194.0	1191.2
17.5°	1098.8	1111.6	1128.6	1150.0	1177.0	1198.3	1208.2	1211.1	1206.8	1196.9	1189.8
20°	1137.2	1148.5	1167.0	1192.6	1221.0	1225.3	1215.3	1202.5	1189.8	1172.7	1161.3
22.5°	1168.4	1184.1	1212.5	1242.3	1243.8	1219.6	1192.6	1171.3	1151.4	1131.5	1110.2
25°	1205.4	1226.7	1265.1	1276.5	1239.5	1194.0	1155.6	1124.4	1091.7	1059.0	1034.8
27.5°	1250.9	1282.2	1320.5	1287.8	1215.3	1151.4	1098.8	1051.9	1009.2	963.7	936.7
30°	1299.2	1347.5	1356.1	1270.8	1174.1	1091.7	1020.6	949.5	895.5	854.3	838.7
32.5°	1357.5	1420.0	1368.9	1240.9	1118.7	1010.7	915.4	830.1	784.6	759.1	751.9
35°	1445.6	1496.8	1376.0	1209.7	1054.7	914.0	794.6	726.4	697.9	680.9	672.3
37.5°	1572.1	1570.7	1374.5	1171.3	980.8	808.8	697.9	649.6	626.9	612.6	597.0
40°	1720.0	1627.6	1366.0	1115.8	881.3	707.9	631.1	585.6	564.3	547.3	528.8
42.5°	1866.4	1665.9	1341.9	1033.4	757.6	635.4	582.8	541.6	518.8	500.4	474.8
45°	1992.9	1681.6	1294.9	919.7	646.8	578.5	551.5	516.0	489.0	460.6	440.7
47.5°	2092.4	1678.7	1219.6	786.1	572.8	538.7	525.9	501.8	469.1	433.5	408.0
50°	2176.2	1657.4	1117.3	668.1	523.1	503.2	498.9	491.8	439.2	409.4	393.7
52.5°	2253.0	1626.1	1007.8	588.5	480.5	463.4	471.9	464.8	427.9	402.3	386.6
55°	2358.2	1604.8	899.8	527.4	430.7	426.4	433.5	443.5	420.8	396.6	379.5
57.5°	2481.9	1616.2	817.3	459.1	383.8	386.6	410.8	425.0	413.6	388.1	371.0
60°	2624.0	1650.3	744.8	393.7	345.4	352.5	388.1	408.0	406.5	376.7	356.8
62.5°	2783.2	1685.8	629.7	344.0	312.7	324.1	361.0	386.6	390.9	365.3	341.1
63°	2814.5	1688.7	599.9	334.0	307.0	319.8	353.9	380.9	386.6	362.5	338.3
65°	2891.2	1663.1	483.3	307.0	284.3	298.5	332.6	356.8	368.2	346.8	326.9
67.5°	2827.3	1454.1	363.9	274.3	265.8	275.8	305.6	328.4	338.3	328.4	308.5
70°	2585.6	1057.6	284.3	244.5	245.9	253.0	275.8	297.1	308.5	305.6	287.1
72.5°	2082.4	599.9	237.4	218.9	223.2	231.7	247.3	267.2	277.2	275.8	263.0
75°	1371.7	307.0	200.4	196.2	199.0	206.1	217.5	233.1	244.5	243.1	237.4
77.5°	679.5	213.2	172.0	173.4	174.8	180.5	189.1	203.3	210.4	211.8	210.4
80°	280.0	166.3	147.8	149.3	150.7	154.9	160.6	173.4	177.7	180.5	181.9
82.5°	167.7	126.5	118.0	120.8	122.2	126.5	130.8	142.1	146.4	150.7	150.7
85°	110.9	88.1	85.3	88.1	91.0	93.8	95.2	102.3	109.5	115.1	118.0
87.5°	59.7	52.6	51.2	52.6	52.6	55.4	58.3	65.4	73.9	79.6	82.4
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):

	160°	165°	170°	175°	180°
0°	919.7	919.7	919.7	919.7	919.7
2.5°	942.4	943.8	942.4	943.8	945.3
5°	989.3	992.2	990.8	990.8	996.4
7.5°	1043.3	1049.0	1049.0	1051.9	1054.7
10°	1101.6	1107.3	1111.6	1111.6	1115.8
12.5°	1159.9	1162.7	1167.0	1167.0	1167.0
15°	1189.8	1188.3	1186.9	1185.5	1185.5
17.5°	1185.5	1179.8	1177.0	1174.1	1175.5
20°	1154.2	1144.3	1141.4	1137.2	1140.0
22.5°	1100.2	1086.0	1080.3	1073.2	1076.0
25°	1019.2	1002.1	999.3	990.8	995.0
27.5°	925.4	916.8	915.4	914.0	921.1
30°	837.2	840.1	841.5	844.3	851.5
32.5°	756.2	761.9	763.3	764.7	774.7
35°	676.6	669.5	676.6	673.8	682.3
37.5°	589.9	584.2	578.5	571.4	577.1
40°	517.4	507.5	490.4	481.9	483.3
42.5°	460.6	447.8	433.5	425.0	425.0
45°	423.6	408.0	395.2	389.5	389.5
47.5°	395.2	388.1	380.9	376.7	376.7
50°	383.8	375.3	371.0	368.2	368.2
52.5°	375.3	366.7	362.5	359.6	356.8
55°	368.2	355.4	351.1	349.7	349.7
57.5°	358.2	346.8	341.1	339.7	339.7
60°	342.6	334.0	328.4	326.9	326.9
62.5°	326.9	318.4	312.7	312.7	312.7
63°	324.1	314.1	309.9	309.9	309.9
65°	311.3	301.3	297.1	297.1	295.7
67.5°	294.2	284.3	281.4	281.4	278.6
70°	274.3	265.8	263.0	264.4	258.7
72.5°	254.4	245.9	241.6	241.6	236.0
75°	231.7	223.2	217.5	216.1	210.4
77.5°	206.1	199.0	193.3	187.6	184.8
80°	179.1	173.4	166.3	162.0	157.8
82.5°	150.7	145.0	140.7	146.4	125.1
85°	118.0	112.3	106.6	115.1	89.6
87.5°	86.7	83.9	78.2	68.2	59.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)