

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: P239110

Luminaire Tested: **ARCH-AF24-80-D-U-T2U-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239110
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-AF24-80-D-U-T2U-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8123 lumens
Efficiency: N/A
Efficacy: 97.9 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

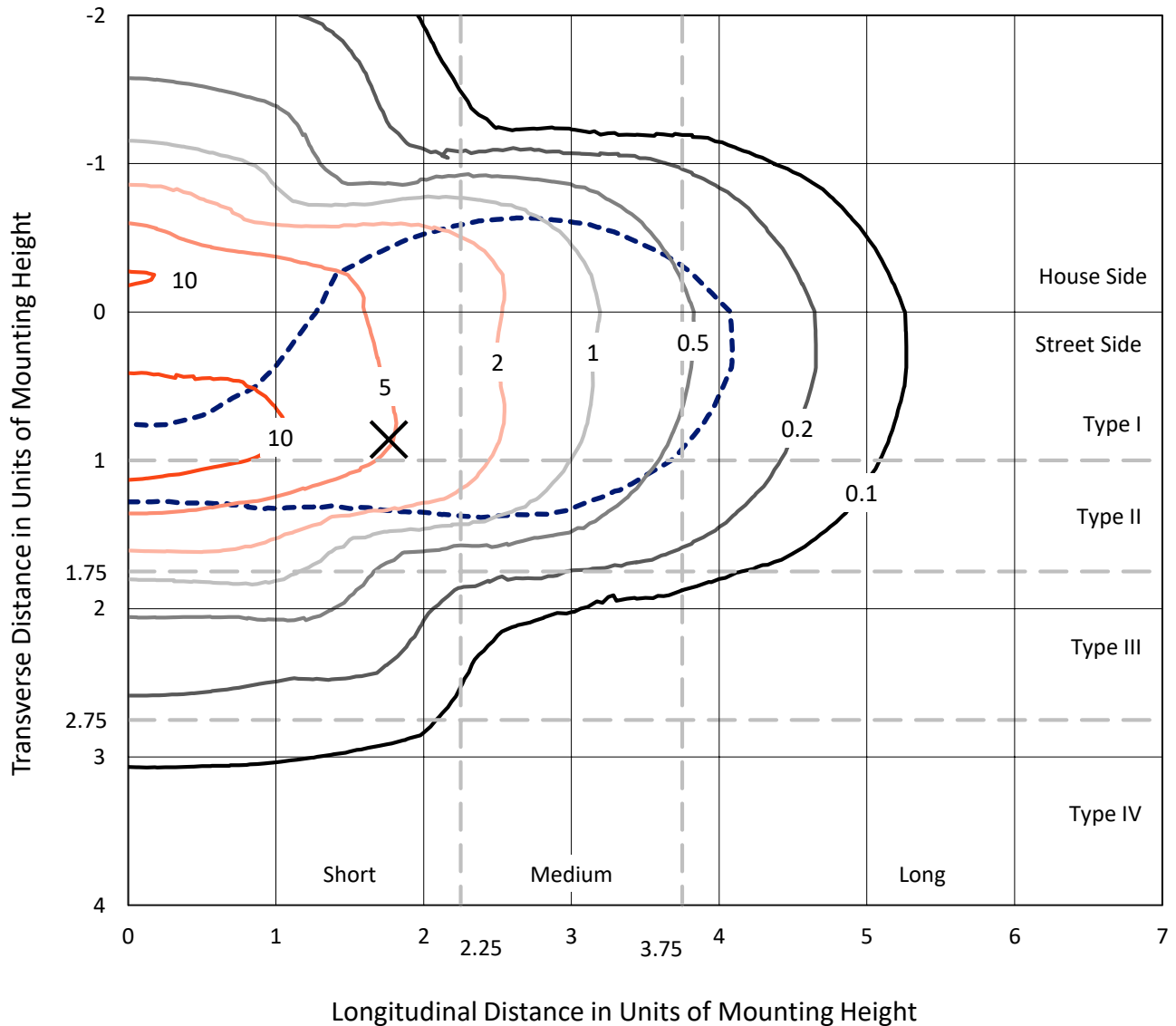
Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

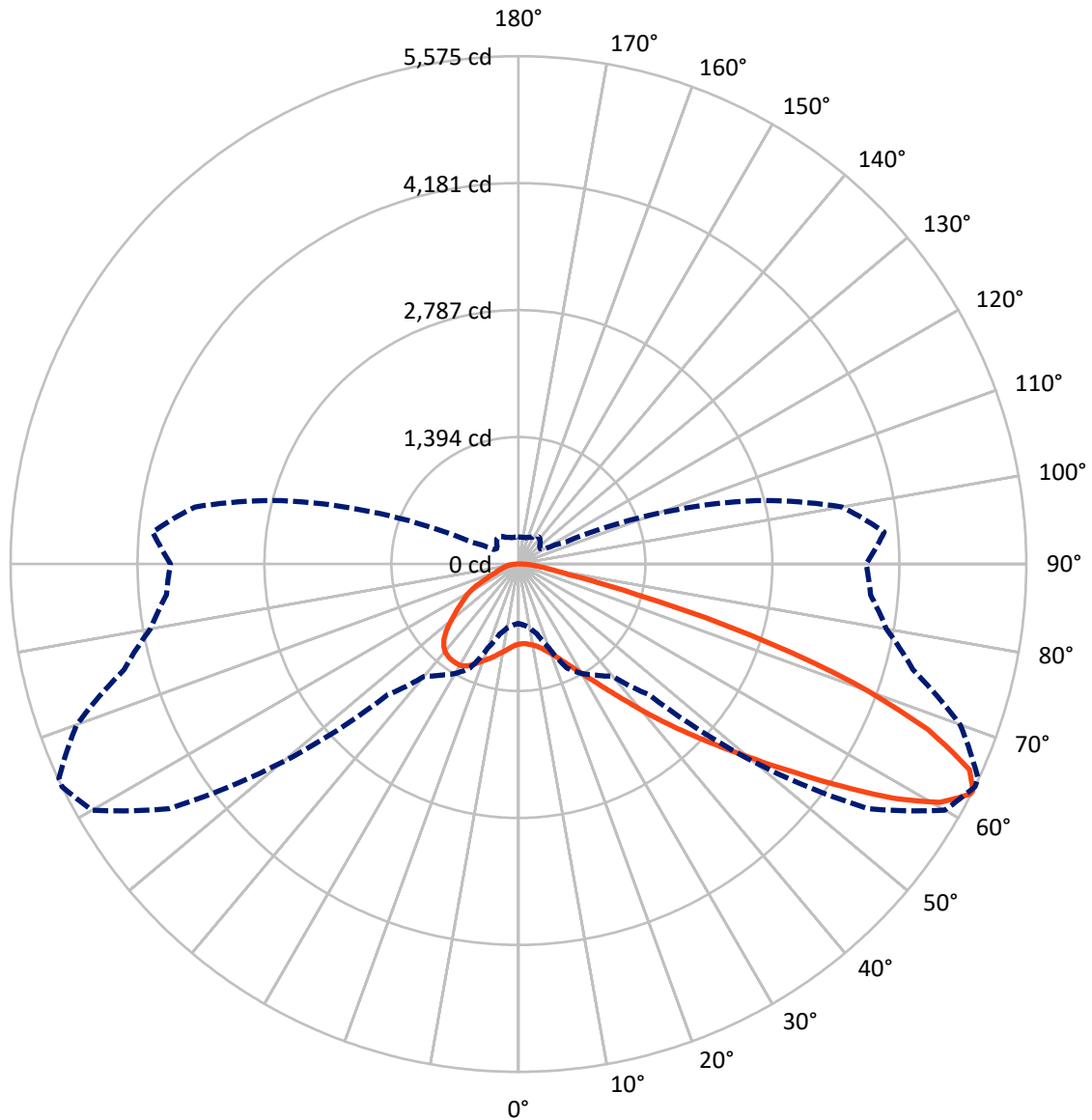
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.3 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	2387.9	0.0	2387.9
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	5735.1	0.0	5735.1
	% Fixture	70.6	0.0	70.6
Total	Lumens	8123.0	0.0	8123.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.8	1.1
10°-20°	292.5	3.6
20°-30°	549.2	6.8
30°-40°	920.4	11.3
40°-50°	1544.3	19.0
50°-60°	1957.7	24.1
60°-70°	1727.0	21.3
70°-80°	891.5	11.0
80°-90°	152.5	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°	8123.0	100.0
0°-180°	8123.0	100.0



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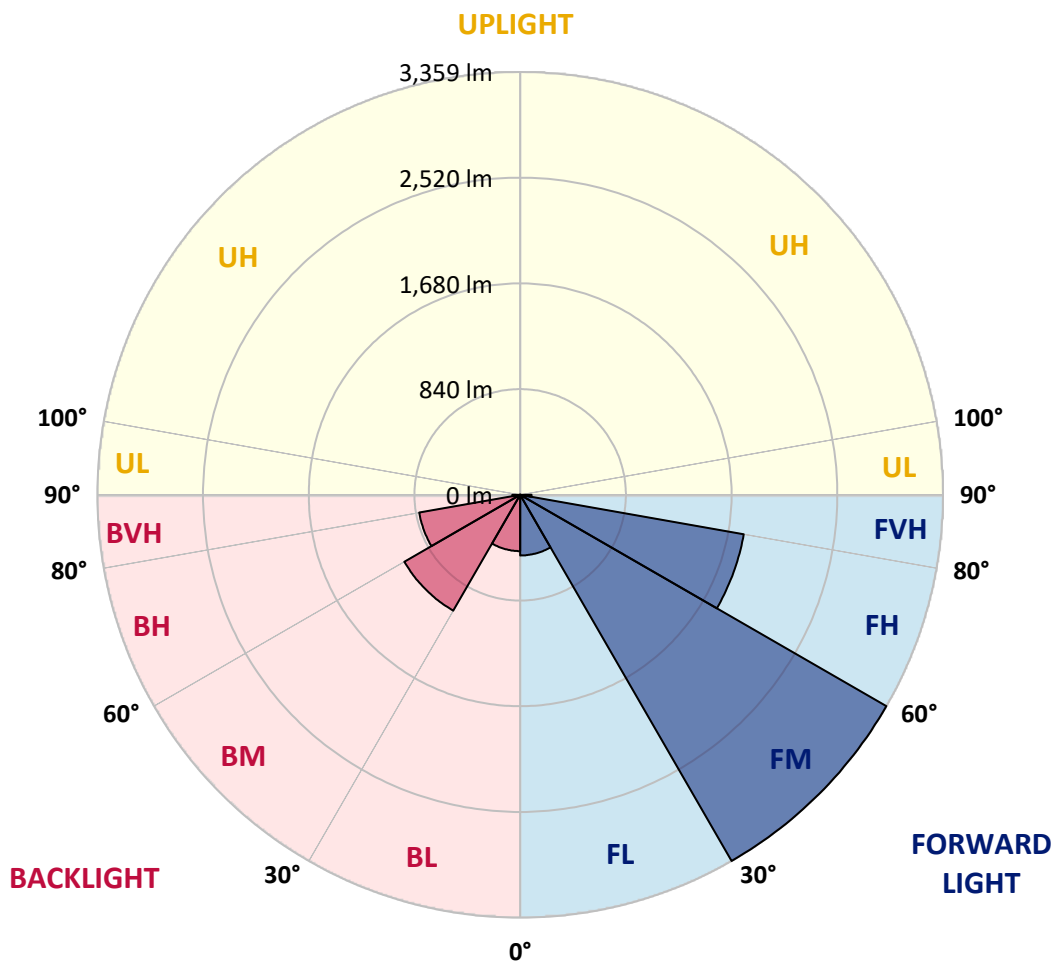
CATALOG NUMBER: ARCH-AF24-80-D-U-T2U-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	482.1	5.9			
FM	(30°-60°)	3359.5	41.4			
FH	(60°-80°)	1803.8	22.2			G2/5000
FVH	(80°-90°)	89.8	1.1			G1/100
BL	(0°-30°)	447.4	5.5	B1/500		
BM	(30°-60°)	1063.0	13.1	B2/2500		
BH	(60°-80°)	814.7	10.0	B2/1000		G2/1000
BVH	(80°-90°)	62.8	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°	879.7	879.7	879.7	879.7	879.7	879.7	879.7	879.7	879.7	879.7	879.7
2.5°	874.3	872.9	872.9	872.9	872.9	871.6	872.9	875.6	874.3	872.9	875.6
5°	877.0	875.6	875.6	875.6	877.0	875.6	877.0	881.1	878.4	878.4	881.1
7.5°	883.8	882.4	883.8	882.4	882.4	882.4	883.8	887.9	886.5	887.9	892.0
10°	892.0	892.0	892.0	892.0	892.0	892.0	894.7	897.4	898.8	900.1	905.6
12.5°	916.4	916.4	916.4	915.1	915.1	911.0	916.4	919.1	921.9	924.6	928.7
15°	968.1	968.1	966.7	961.3	961.3	953.1	954.5	955.9	955.9	958.6	961.3
17.5°	1036.1	1034.7	1032.0	1027.9	1022.5	1013.0	1010.2	1007.5	1003.4	1002.1	1002.1
20°	1131.3	1129.9	1124.5	1113.6	1106.8	1091.8	1081.0	1070.1	1066.0	1059.2	1057.8
22.5°	1267.2	1267.2	1256.4	1240.0	1234.6	1203.3	1172.1	1148.9	1140.8	1131.3	1131.3
25°	1431.8	1430.4	1415.4	1396.4	1373.3	1340.7	1302.6	1271.3	1250.9	1229.2	1221.0
27.5°	1628.9	1624.8	1604.4	1581.3	1537.8	1497.0	1452.1	1419.5	1384.2	1357.0	1332.5
30°	1860.1	1856.0	1820.6	1777.1	1732.2	1691.5	1626.2	1586.8	1531.0	1498.4	1471.2
32.5°	2127.9	2123.8	2059.9	2017.8	1970.2	1919.9	1842.4	1779.8	1709.1	1662.9	1624.8
35°	2469.2	2452.9	2361.8	2303.3	2228.5	2178.2	2096.6	2012.3	1929.4	1864.1	1808.4
37.5°	2837.7	2818.6	2738.4	2651.4	2578.0	2516.8	2401.2	2295.2	2197.3	2107.5	2038.2
40°	3222.5	3172.1	3086.5	3022.6	2972.3	2913.8	2792.8	2681.3	2527.7	2427.0	2322.3
42.5°	3489.0	3440.0	3380.2	3338.0	3313.6	3268.7	3200.7	3104.2	2966.8	2969.6	2693.5
45°	3664.4	3592.3	3551.5	3554.2	3563.7	3563.7	3551.5	3536.5	3476.7	3517.5	3286.4
47.5°	3601.8	3554.2	3528.4	3582.8	3650.8	3718.7	3797.6	3883.3	3981.2	4096.7	3812.6
50°	3234.7	3252.4	3264.6	3380.2	3525.7	3680.7	3861.5	4095.4	4368.7	4421.7	4284.4
52.5°	2648.7	2686.7	2727.5	2904.3	3096.0	3363.9	3680.7	4066.8	4433.9	4650.1	4636.5
55°	2057.2	2104.8	2191.8	2323.7	2476.0	2728.9	3120.5	3716.0	4288.5	4632.5	4841.8
57.5°	1464.4	1533.7	1647.9	1831.5	1966.1	2108.9	2398.5	3059.3	3686.1	4326.5	4807.9
60°	973.5	1006.2	1081.0	1309.4	1536.4	1686.0	1891.3	2130.6	2643.2	3525.7	4457.1
62.5°	690.7	712.5	758.7	862.0	1067.4	1337.9	1461.7	1571.8	1736.3	2268.0	3578.7
63°	652.6	671.7	709.8	796.8	981.7	1261.8	1388.2	1488.9	1608.5	2028.7	3385.6
65°	541.2	549.3	569.7	611.9	711.1	943.6	1150.3	1211.5	1231.9	1303.9	2121.1
67.5°	456.9	462.3	469.1	481.3	520.8	628.2	858.0	935.5	912.3	863.4	1048.3
70°	397.0	401.1	412.0	426.9	440.5	467.7	590.1	705.7	679.8	613.2	641.8
72.5°	316.8	323.6	335.8	361.7	388.9	424.2	454.1	526.2	509.9	446.0	452.8
75°	250.2	254.3	265.1	284.2	310.0	350.8	409.3	433.7	388.9	329.0	329.0
77.5°	198.5	202.6	212.1	227.1	243.4	271.9	312.7	376.6	349.4	247.5	246.1
80°	149.6	153.6	163.2	176.8	193.1	213.5	237.9	266.5	320.9	231.1	184.9
82.5°	110.1	111.5	127.8	137.3	142.8	159.1	179.5	195.8	220.3	213.5	164.5
85°	82.9	81.6	92.5	99.3	100.6	104.7	116.9	133.2	144.1	138.7	127.8
87.5°	46.2	40.8	47.6	54.4	54.4	55.7	58.5	68.0	77.5	74.8	68.0
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	879.7	879.7	879.7	879.7	879.7	879.7	879.7	879.7	879.7	879.7	879.7
2.5°	875.6	875.6	874.3	874.3	875.6	875.6	874.3	878.4	881.1	881.1	882.4
5°	879.7	881.1	879.7	879.7	881.1	881.1	882.4	886.5	890.6	893.3	897.4
7.5°	892.0	893.3	892.0	892.0	893.3	894.7	897.4	902.8	905.6	911.0	917.8
10°	905.6	906.9	905.6	906.9	908.3	909.6	913.7	917.8	921.9	927.3	938.2
12.5°	930.0	931.4	928.7	930.0	934.1	934.1	936.8	939.5	946.3	953.1	964.0
15°	964.0	964.0	961.3	962.7	966.7	966.7	968.1	970.8	979.0	987.1	998.0
17.5°	1003.4	1006.2	1004.8	1006.2	1008.9	1010.2	1010.2	1013.0	1018.4	1023.8	1034.7
20°	1056.5	1057.8	1055.1	1057.8	1060.6	1057.8	1055.1	1053.8	1056.5	1059.2	1071.4
22.5°	1128.5	1127.2	1120.4	1120.4	1120.4	1114.9	1108.1	1100.0	1100.0	1095.9	1105.4
25°	1214.2	1210.1	1200.6	1202.0	1192.4	1184.3	1172.1	1159.8	1148.9	1144.9	1146.2
27.5°	1314.8	1306.7	1297.1	1294.4	1284.9	1269.9	1249.6	1226.4	1208.8	1195.2	1192.4
30°	1441.3	1423.6	1407.3	1404.6	1389.6	1365.1	1332.5	1301.2	1271.3	1248.2	1240.0
32.5°	1590.8	1563.6	1537.8	1535.1	1510.6	1478.0	1438.5	1395.0	1351.5	1314.8	1297.1
35°	1766.2	1725.4	1701.0	1694.2	1658.8	1618.0	1574.5	1518.8	1457.6	1405.9	1373.3
37.5°	1979.7	1937.6	1895.4	1896.8	1847.8	1800.2	1741.8	1673.8	1596.3	1524.2	1478.0
40°	2243.5	2183.7	2129.3	2117.0	2074.9	2008.3	1944.4	1865.5	1770.3	1675.1	1608.5
42.5°	2563.0	2465.1	2390.3	2379.5	2323.7	2242.1	2164.6	2059.9	1963.4	1847.8	1767.6
45°	2926.0	2769.7	2679.9	2663.6	2573.9	2490.9	2397.1	2285.6	2167.3	2036.8	1941.6
47.5°	3377.5	3154.5	3002.2	2975.0	2851.3	2742.5	2644.6	2520.9	2379.5	2234.0	2129.3
50°	3903.7	3574.6	3369.3	3327.2	3161.3	3033.5	2908.4	2753.4	2602.4	2450.2	2329.1
52.5°	4431.2	4077.7	3804.4	3752.7	3508.0	3336.7	3172.1	3017.1	2839.0	2688.1	2550.8
55°	4855.4	4620.2	4303.4	4231.3	3880.5	3648.0	3431.9	3255.1	3078.3	2958.7	2796.9
57.5°	5111.1	5098.8	4848.6	4749.4	4269.4	3925.4	3684.8	3483.5	3312.2	3261.9	3047.1
60°	5104.3	5421.1	5313.7	5238.9	4662.4	4209.6	3896.9	3679.3	3537.9	3595.0	3298.6
62.5°	4792.9	5434.7	5563.8	5543.4	5081.2	4438.0	4070.9	3846.6	3771.8	3941.7	3559.7
63°	4680.0	5403.4	5574.7	5566.6	5161.4	4481.5	4100.8	3879.2	3818.0	4030.1	3607.2
65°	3955.3	5130.1	5442.8	5479.5	5334.1	4631.1	4170.2	3962.1	3955.3	4227.3	3720.1
67.5°	2410.7	4334.7	4848.6	4919.3	5090.7	4678.7	4130.7	3933.6	4031.5	4255.8	3686.1
70°	1030.6	2860.8	3896.9	4011.1	4429.9	4442.1	4017.9	3816.6	4013.8	4032.8	3444.1
72.5°	610.5	1348.8	2652.7	2901.6	3505.3	3822.1	3759.5	3612.7	3781.3	3542.0	2932.8
75°	432.4	630.9	1347.4	1612.6	2440.6	2917.9	3158.6	3226.5	3219.7	2809.1	2201.3
77.5°	310.0	405.2	568.3	670.3	1362.4	1873.6	2167.3	2365.9	2302.0	1880.4	1357.0
80°	216.2	280.1	348.1	369.8	632.3	962.7	1142.1	1229.2	1191.1	939.5	607.8
82.5°	156.4	183.6	224.3	237.9	318.2	444.6	528.9	466.4	447.3	346.7	262.4
85°	121.0	118.3	140.0	145.5	186.3	232.5	237.9	184.9	161.8	144.1	146.8
87.5°	85.7	73.4	74.8	77.5	96.5	123.7	121.0	76.1	65.3	69.3	78.9
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	879.7	879.7	879.7	879.7	879.7	879.7	879.7	879.7	879.7	879.7	879.7
2.5°	885.2	886.5	889.2	890.6	893.3	893.3	896.0	897.4	900.1	902.8	904.2
5°	901.5	905.6	911.0	913.7	919.1	923.2	928.7	931.4	936.8	940.9	946.3
7.5°	925.9	932.7	939.5	947.7	955.9	962.7	968.1	974.9	984.4	991.2	995.3
10°	949.1	958.6	970.8	980.3	992.6	1002.1	1010.2	1022.5	1033.4	1042.9	1048.3
12.5°	979.0	991.2	1003.4	1018.4	1034.7	1047.0	1059.2	1075.5	1090.5	1101.3	1106.8
15°	1014.3	1029.3	1042.9	1060.6	1079.6	1095.9	1113.6	1131.3	1142.1	1142.1	1139.4
17.5°	1051.0	1063.3	1079.6	1100.0	1125.8	1146.2	1155.7	1158.5	1154.4	1144.9	1138.1
20°	1087.7	1098.6	1116.3	1140.8	1168.0	1172.1	1162.5	1150.3	1138.1	1121.7	1110.9
22.5°	1117.7	1132.6	1159.8	1188.4	1189.7	1166.6	1140.8	1120.4	1101.3	1082.3	1061.9
25°	1153.0	1173.4	1210.1	1221.0	1185.6	1142.1	1105.4	1075.5	1044.2	1013.0	989.9
27.5°	1196.5	1226.4	1263.1	1231.9	1162.5	1101.3	1051.0	1006.2	965.4	921.9	896.0
30°	1242.8	1289.0	1297.1	1215.6	1123.1	1044.2	976.3	908.3	856.6	817.2	802.2
32.5°	1298.5	1358.3	1309.4	1187.0	1070.1	966.7	875.6	794.1	750.5	726.1	719.3
35°	1382.8	1431.8	1316.2	1157.1	1008.9	874.3	760.1	694.8	667.6	651.3	643.1
37.5°	1503.8	1502.5	1314.8	1120.4	938.2	773.7	667.6	621.4	599.6	586.0	571.1
40°	1645.2	1556.8	1306.7	1067.4	843.0	677.1	603.7	560.2	539.8	523.5	505.8
42.5°	1785.3	1593.6	1283.5	988.5	724.7	607.8	557.5	518.0	496.3	478.6	454.1
45°	1906.3	1608.5	1238.7	879.7	618.7	553.4	527.6	493.6	467.7	440.5	421.5
47.5°	2001.5	1605.8	1166.6	751.9	548.0	515.3	503.1	480.0	448.7	414.7	390.2
50°	2081.7	1585.4	1068.7	639.1	500.4	481.3	477.3	470.5	420.1	391.6	376.6
52.5°	2155.1	1555.5	964.0	562.9	459.6	443.3	451.4	444.6	409.3	384.8	369.8
55°	2255.7	1535.1	860.7	504.4	412.0	407.9	414.7	424.2	402.5	379.4	363.0
57.5°	2374.0	1546.0	781.8	439.2	367.1	369.8	392.9	406.5	395.7	371.2	354.9
60°	2510.0	1578.6	712.5	376.6	330.4	337.2	371.2	390.2	388.9	360.3	341.3
62.5°	2662.3	1612.6	602.3	329.0	299.1	310.0	345.4	369.8	373.9	349.4	326.3
63°	2692.2	1615.3	573.8	319.5	293.7	305.9	338.6	364.4	369.8	346.7	323.6
65°	2765.6	1590.8	462.3	293.7	271.9	285.5	318.2	341.3	352.2	331.8	312.7
67.5°	2704.4	1391.0	348.1	262.4	254.3	263.8	292.3	314.1	323.6	314.1	295.1
70°	2473.3	1011.6	271.9	233.9	235.2	242.0	263.8	284.2	295.1	292.3	274.7
72.5°	1991.9	573.8	227.1	209.4	213.5	221.6	236.6	255.6	265.1	263.8	251.5
75°	1312.1	293.7	191.7	187.6	190.4	197.2	208.0	223.0	233.9	232.5	227.1
77.5°	649.9	204.0	164.5	165.9	167.2	172.7	180.8	194.4	201.2	202.6	201.2
80°	267.9	159.1	141.4	142.8	144.1	148.2	153.6	165.9	170.0	172.7	174.0
82.5°	160.4	121.0	112.9	115.6	116.9	121.0	125.1	136.0	140.0	144.1	144.1
85°	106.1	84.3	81.6	84.3	87.0	89.7	91.1	97.9	104.7	110.1	112.9
87.5°	57.1	50.3	48.9	50.3	50.3	53.0	55.7	62.5	70.7	76.1	78.9
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):

	160°	165°	170°	175°	180°
0°	879.7	879.7	879.7	879.7	879.7
2.5°	901.5	902.8	901.5	902.8	904.2
5°	946.3	949.1	947.7	947.7	953.1
7.5°	998.0	1003.4	1003.4	1006.2	1008.9
10°	1053.8	1059.2	1063.3	1063.3	1067.4
12.5°	1109.5	1112.2	1116.3	1116.3	1116.3
15°	1138.1	1136.7	1135.3	1134.0	1134.0
17.5°	1134.0	1128.5	1125.8	1123.1	1124.5
20°	1104.1	1094.5	1091.8	1087.7	1090.5
22.5°	1052.4	1038.8	1033.4	1026.6	1029.3
25°	974.9	958.6	955.9	947.7	951.8
27.5°	885.2	877.0	875.6	874.3	881.1
30°	800.9	803.6	804.9	807.7	814.5
32.5°	723.4	728.8	730.2	731.5	741.0
35°	647.2	640.4	647.2	644.5	652.6
37.5°	564.3	558.8	553.4	546.6	552.0
40°	494.9	485.4	469.1	460.9	462.3
42.5°	440.5	428.3	414.7	406.5	406.5
45°	405.2	390.2	378.0	372.6	372.6
47.5°	378.0	371.2	364.4	360.3	360.3
50°	367.1	359.0	354.9	352.2	352.2
52.5°	359.0	350.8	346.7	344.0	341.3
55°	352.2	339.9	335.8	334.5	334.5
57.5°	342.6	331.8	326.3	325.0	325.0
60°	327.7	319.5	314.1	312.7	312.7
62.5°	312.7	304.6	299.1	299.1	299.1
63°	310.0	300.5	296.4	296.4	296.4
65°	297.8	288.3	284.2	284.2	282.8
67.5°	281.5	271.9	269.2	269.2	266.5
70°	262.4	254.3	251.5	252.9	247.5
72.5°	243.4	235.2	231.1	231.1	225.7
75°	221.6	213.5	208.0	206.7	201.2
77.5°	197.2	190.4	184.9	179.5	176.8
80°	171.3	165.9	159.1	155.0	150.9
82.5°	144.1	138.7	134.6	140.0	119.7
85°	112.9	107.4	102.0	110.1	85.7
87.5°	82.9	80.2	74.8	65.3	57.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)