

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: P265781

Luminaire Tested: **ARCH-M-AF48-70-D-U-T2U-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265781
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-AF48-70-D-U-T2U-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8588.9 lumens
Efficiency: N/A
Efficacy: 117.7 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

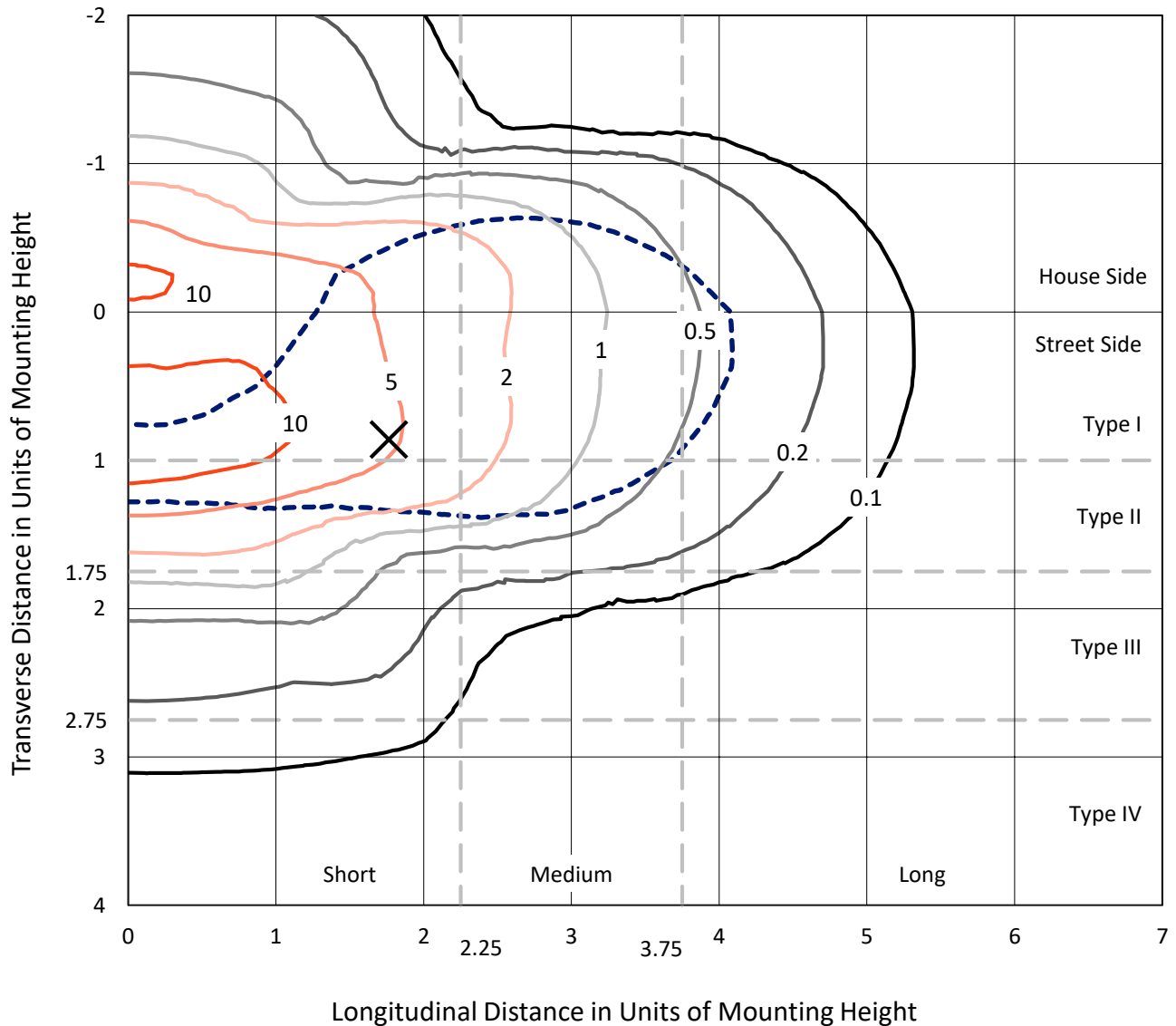
Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

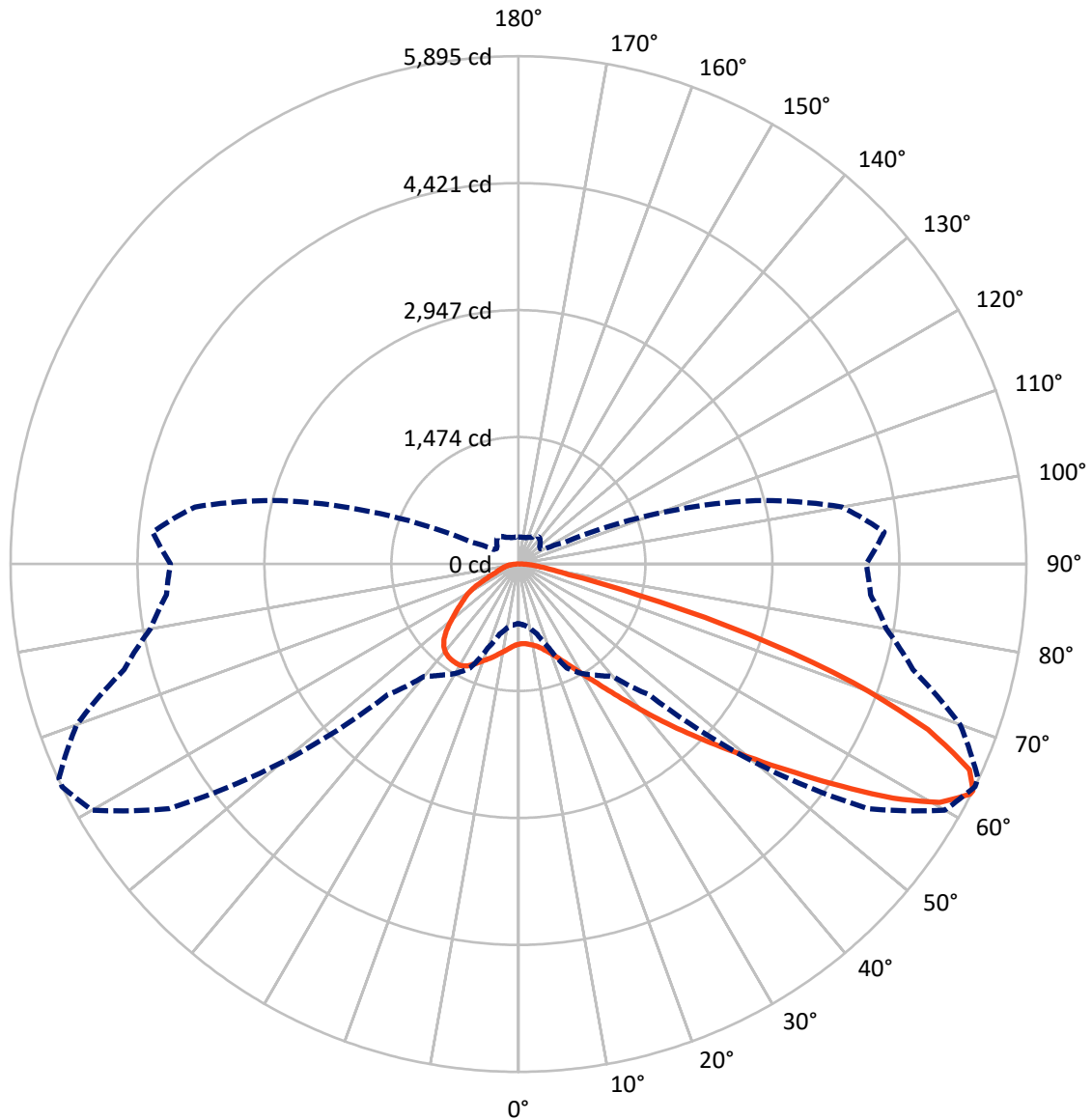


Based on 10 foot mounting height. Maximum calculated value = 15.1 fc
 Type II - Short - Semi-Cutoff

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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	2524.8	0.0	2524.8
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	6064.1	0.0	6064.1
	% Fixture	70.6	0.0	70.6
Total	Lumens	8588.9	0.0	8588.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.9	1.1
10°-20°	309.3	3.6
20°-30°	580.7	6.8
30°-40°	973.2	11.3
40°-50°	1632.9	19.0
50°-60°	2070.0	24.1
60°-70°	1826.0	21.3
70°-80°	942.6	11.0
80°-90°	161.3	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°	8588.9	100.0
0°-180°	8588.9	100.0

Coefficient of Utilization



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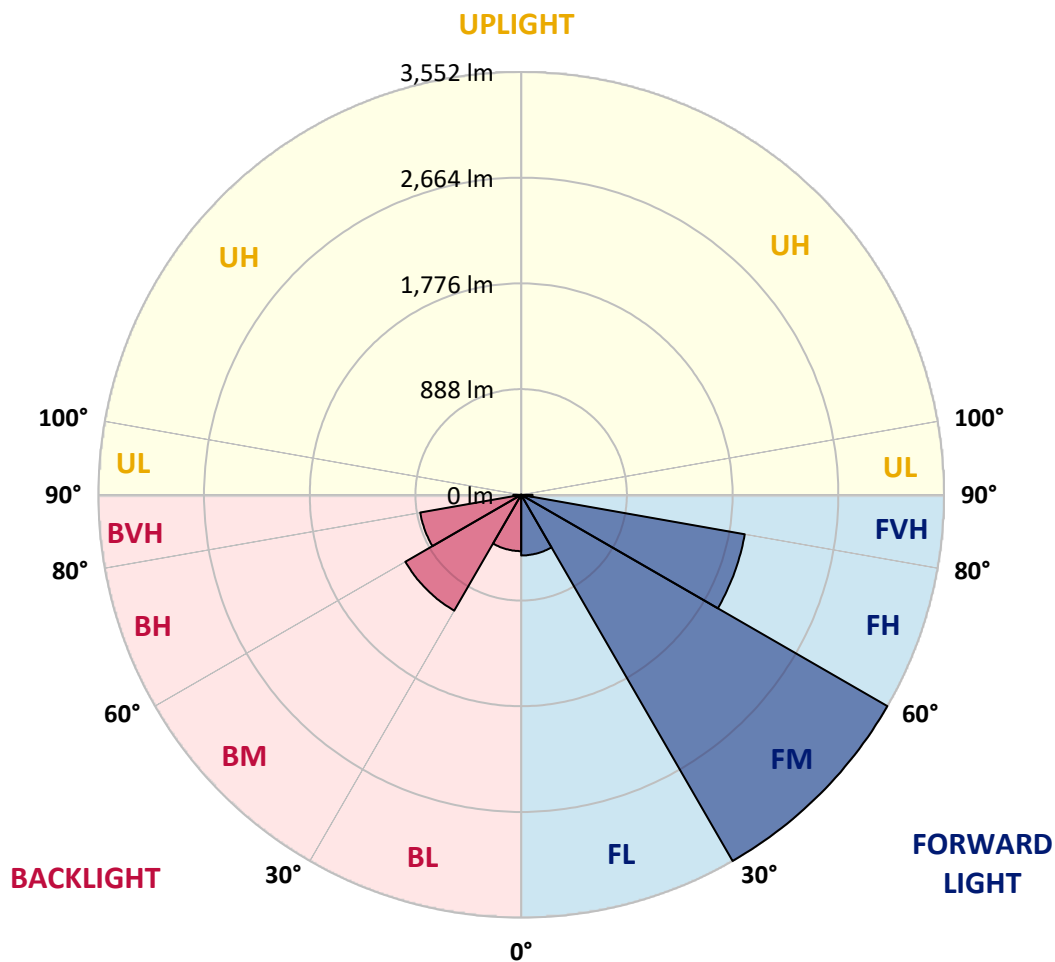
CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2U-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	509.8	5.9			
FM (30°-60°)	3552.2	41.4			
FH (60°-80°)	1907.2	22.2			G2/5000
FVH (80°-90°)	94.9	1.1			G1/100
BL (0°-30°)	473.1	5.5	B1/500		
BM (30°-60°)	1123.9	13.1	B2/2500		
BH (60°-80°)	861.5	10.0	B2/1000		G2/1000
BVH (80°-90°)	66.4	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°	930.1	930.1	930.1	930.1	930.1	930.1	930.1	930.1	930.1	930.1	930.1
2.5°	924.4	923.0	923.0	923.0	923.0	921.5	923.0	925.9	924.4	923.0	925.9
5°	927.3	925.9	925.9	925.9	927.3	925.9	927.3	931.6	928.8	928.8	931.6
7.5°	934.4	933.1	934.4	933.1	933.1	933.1	934.4	938.8	937.4	938.8	943.1
10°	943.1	943.1	943.1	943.1	943.1	943.1	945.9	948.9	950.2	951.8	957.6
12.5°	969.0	969.0	969.0	967.6	967.6	963.3	969.0	971.8	974.8	977.6	981.9
15°	1023.6	1023.6	1022.2	1016.4	1016.4	1007.8	1009.2	1010.8	1010.8	1013.6	1016.4
17.5°	1095.6	1094.0	1091.3	1086.9	1081.1	1071.0	1068.3	1065.3	1061.0	1059.6	1059.6
20°	1196.2	1194.7	1188.9	1177.5	1170.3	1154.4	1143.0	1131.4	1127.2	1119.9	1118.5
22.5°	1339.9	1339.9	1328.5	1311.2	1305.3	1272.4	1239.3	1214.9	1206.2	1196.2	1196.2
25°	1513.9	1512.4	1496.7	1476.5	1452.1	1417.5	1377.3	1344.3	1322.7	1299.7	1291.0
27.5°	1722.3	1718.0	1696.4	1672.0	1626.0	1583.0	1535.5	1501.0	1463.6	1434.9	1408.9
30°	1966.7	1962.4	1925.1	1879.1	1831.6	1788.4	1719.4	1677.8	1618.8	1584.3	1555.5
32.5°	2250.0	2245.7	2178.1	2133.6	2083.2	2030.0	1948.1	1881.9	1807.2	1758.3	1718.0
35°	2610.8	2593.5	2497.3	2435.5	2356.3	2303.2	2216.8	2127.7	2040.1	1971.1	1912.1
37.5°	3000.5	2980.2	2895.4	2803.5	2725.8	2661.1	2538.9	2426.9	2323.2	2228.3	2155.0
40°	3407.4	3354.1	3263.5	3196.0	3142.8	3080.9	2953.0	2835.1	2672.6	2566.3	2455.5
42.5°	3689.1	3637.3	3574.0	3529.5	3503.6	3456.1	3384.4	3282.2	3137.1	3139.8	2848.0
45°	3874.6	3798.4	3755.3	3758.1	3768.2	3768.2	3755.3	3739.5	3676.1	3719.3	3474.9
47.5°	3808.5	3758.1	3730.8	3788.3	3860.1	3932.1	4015.5	4106.1	4209.5	4331.7	4031.2
50°	3420.2	3438.9	3451.8	3574.0	3727.8	3891.7	4082.9	4330.3	4619.3	4675.3	4530.2
52.5°	2800.6	2840.9	2884.0	3070.9	3273.7	3556.7	3891.7	4300.0	4688.3	4916.9	4902.5
55°	2175.2	2225.6	2317.5	2457.0	2618.0	2885.4	3299.5	3929.1	4534.5	4898.2	5119.6
57.5°	1548.4	1621.7	1742.4	1936.6	2078.9	2229.9	2536.1	3234.7	3897.6	4574.7	5083.7
60°	1029.4	1064.0	1143.0	1384.5	1624.6	1782.7	1999.7	2252.9	2794.8	3727.8	4712.7
62.5°	730.3	753.4	802.2	911.5	1128.6	1414.7	1545.5	1662.0	1836.0	2398.0	3784.0
63°	690.1	710.2	750.4	842.5	1038.0	1334.2	1467.9	1574.3	1700.9	2145.1	3579.8
65°	572.2	580.8	602.5	647.0	751.9	997.7	1216.2	1281.0	1302.5	1378.7	2242.8
67.5°	483.1	488.8	496.0	508.9	550.7	664.1	907.2	989.2	964.7	912.9	1108.5
70°	419.8	424.1	435.6	451.4	465.9	494.5	624.0	746.1	718.9	648.3	678.6
72.5°	335.0	342.2	355.1	382.4	411.2	448.6	480.1	556.4	539.2	471.6	478.7
75°	264.6	268.9	280.4	300.5	327.8	370.9	432.8	458.7	411.2	348.0	348.0
77.5°	209.9	214.2	224.2	240.0	257.4	287.5	330.7	398.3	369.6	261.6	260.1
80°	158.1	162.5	172.6	186.8	204.2	225.7	251.5	281.8	339.3	244.3	195.6
82.5°	116.4	117.9	135.1	145.2	150.9	168.3	189.8	207.0	232.9	225.7	173.9
85°	87.8	86.2	97.7	104.9	106.4	110.8	123.6	140.9	152.4	146.7	135.1
87.5°	48.9	43.1	50.3	57.5	57.5	59.0	61.9	71.9	81.9	79.1	71.9
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°	930.1	930.1	930.1	930.1	930.1	930.1	930.1	930.1	930.1	930.1	930.1
2.5°	925.9	925.9	924.4	924.4	925.9	925.9	924.4	928.8	931.6	931.6	933.1
5°	930.1	931.6	930.1	930.1	931.6	931.6	933.1	937.4	941.7	944.6	948.9
7.5°	943.1	944.6	943.1	943.1	944.6	945.9	948.9	954.5	957.6	963.3	970.3
10°	957.6	958.9	957.6	958.9	960.4	961.8	966.0	970.3	974.8	980.5	992.0
12.5°	983.4	984.8	981.9	983.4	987.6	987.6	990.7	993.4	1000.6	1007.8	1019.2
15°	1019.2	1019.2	1016.4	1017.9	1022.2	1022.2	1023.6	1026.6	1035.1	1043.7	1055.2
17.5°	1061.0	1064.0	1062.4	1064.0	1066.7	1068.3	1068.3	1071.0	1076.8	1082.5	1094.0
20°	1117.1	1118.5	1115.7	1118.5	1121.4	1118.5	1115.7	1114.2	1117.1	1119.9	1132.9
22.5°	1193.3	1191.8	1184.7	1184.7	1184.7	1178.8	1171.7	1163.0	1163.0	1158.8	1168.9
25°	1283.9	1279.5	1269.5	1270.9	1260.9	1252.1	1239.3	1226.4	1214.9	1210.6	1212.0
27.5°	1390.2	1381.7	1371.5	1368.7	1358.5	1342.7	1321.2	1296.9	1278.1	1263.7	1260.9
30°	1524.0	1505.3	1488.0	1485.1	1469.3	1443.4	1408.9	1375.8	1344.3	1319.8	1311.2
32.5°	1682.0	1653.3	1626.0	1623.1	1597.2	1562.7	1521.1	1475.0	1429.1	1390.2	1371.5
35°	1867.5	1824.4	1798.5	1791.3	1754.0	1710.8	1664.7	1605.9	1541.2	1486.5	1452.1
37.5°	2093.3	2048.7	2004.1	2005.6	1953.9	1903.5	1841.6	1769.8	1687.8	1611.6	1562.7
40°	2372.2	2309.0	2251.4	2238.4	2193.9	2123.5	2056.0	1972.5	1871.9	1771.2	1700.9
42.5°	2710.0	2606.5	2527.4	2516.0	2457.0	2370.7	2288.8	2178.1	2076.1	1953.9	1869.0
45°	3093.9	2928.6	2833.7	2816.5	2721.5	2633.8	2534.7	2416.7	2291.7	2153.6	2052.9
47.5°	3571.2	3335.4	3174.4	3145.7	3014.8	2899.8	2796.2	2665.5	2516.0	2362.2	2251.4
50°	4127.6	3779.7	3562.6	3518.0	3342.7	3207.5	3075.2	2911.2	2751.7	2590.7	2462.8
52.5°	4685.4	4311.7	4022.6	3968.1	3709.2	3528.1	3354.1	3190.2	3001.9	2842.2	2697.2
55°	5134.0	4885.3	4550.3	4474.1	4103.2	3857.3	3628.8	3441.8	3254.9	3128.3	2957.3
57.5°	5404.3	5391.3	5126.7	5021.9	4514.3	4150.6	3896.0	3683.3	3502.2	3449.0	3221.9
60°	5397.0	5732.1	5618.4	5539.4	4929.8	4451.0	4120.3	3890.4	3740.8	3801.2	3487.8
62.5°	5067.8	5746.4	5883.0	5861.4	5372.7	4692.6	4304.4	4067.2	3988.1	4167.9	3763.9
63°	4948.6	5713.3	5894.5	5885.9	5457.5	4738.6	4336.1	4101.8	4037.1	4261.3	3814.2
65°	4182.1	5424.3	5755.0	5793.9	5640.0	4896.8	4409.4	4189.3	4182.1	4469.7	3933.5
67.5°	2549.0	4583.3	5126.7	5201.5	5382.6	4947.1	4367.6	4159.2	4262.7	4499.9	3897.6
70°	1089.7	3025.0	4120.3	4241.2	4683.9	4696.9	4248.4	4035.5	4244.0	4264.2	3641.6
72.5°	645.5	1426.1	2804.9	3068.0	3706.3	4041.4	3975.2	3820.0	3998.1	3745.2	3101.0
75°	457.1	667.1	1424.7	1705.2	2580.7	3085.3	3339.7	3411.7	3404.4	2970.2	2327.6
77.5°	327.8	428.4	601.0	708.8	1440.5	1981.1	2291.7	2501.6	2434.0	1988.3	1434.9
80°	228.6	296.3	368.0	391.0	668.5	1017.9	1207.6	1299.7	1259.5	993.4	642.6
82.5°	165.4	194.0	237.2	251.5	336.4	470.2	559.3	493.1	473.0	366.6	277.4
85°	128.0	125.0	148.1	153.8	197.0	245.9	251.5	195.6	171.0	152.4	155.2
87.5°	90.5	77.7	79.1	81.9	102.0	130.9	128.0	80.5	69.0	73.3	83.5
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°	930.1	930.1	930.1	930.1	930.1	930.1	930.1	930.1	930.1	930.1	930.1
2.5°	935.9	937.4	940.3	941.7	944.6	944.6	947.4	948.9	951.8	954.5	956.1
5°	953.2	957.6	963.3	966.0	971.8	976.2	981.9	984.8	990.7	994.9	1000.6
7.5°	979.1	986.2	993.4	1002.1	1010.8	1017.9	1023.6	1030.8	1040.9	1048.1	1052.4
10°	1003.4	1013.6	1026.6	1036.6	1049.5	1059.6	1068.3	1081.1	1092.7	1102.7	1108.5
12.5°	1035.1	1048.1	1061.0	1076.8	1094.0	1107.0	1119.9	1137.3	1153.1	1164.6	1170.3
15°	1072.4	1088.3	1102.7	1121.4	1141.6	1158.8	1177.5	1196.2	1207.6	1207.6	1204.7
17.5°	1111.4	1124.3	1141.6	1163.0	1190.4	1212.0	1222.1	1224.8	1220.5	1210.6	1203.3
20°	1150.1	1161.7	1180.4	1206.2	1235.0	1239.3	1229.2	1216.2	1203.3	1186.1	1174.5
22.5°	1181.8	1197.6	1226.4	1256.5	1257.9	1233.6	1206.2	1184.7	1164.6	1144.4	1122.8
25°	1219.2	1240.6	1279.5	1291.0	1253.7	1207.6	1168.9	1137.3	1104.1	1071.0	1046.6
27.5°	1265.2	1296.9	1335.6	1302.5	1229.2	1164.6	1111.4	1064.0	1020.7	974.8	947.4
30°	1314.0	1362.9	1371.5	1285.3	1187.5	1104.1	1032.2	960.4	905.8	864.0	848.2
32.5°	1373.0	1436.2	1384.5	1255.1	1131.4	1022.2	925.9	839.6	793.7	767.7	760.5
35°	1462.1	1513.9	1391.7	1223.5	1066.7	924.4	803.7	734.6	705.9	688.6	680.0
37.5°	1590.1	1588.7	1390.2	1184.7	992.0	818.0	705.9	657.0	634.1	619.7	603.8
40°	1739.6	1646.1	1381.7	1128.6	891.4	715.9	638.3	592.3	570.8	553.5	534.9
42.5°	1887.7	1685.0	1357.2	1045.2	766.3	642.6	589.5	547.7	524.8	506.0	480.1
45°	2015.6	1700.9	1309.6	930.1	654.1	585.2	557.8	521.8	494.5	465.9	445.6
47.5°	2116.2	1697.8	1233.6	795.0	579.3	544.9	531.9	507.5	474.5	438.6	412.6
50°	2201.0	1676.3	1130.0	675.7	529.0	508.9	504.6	497.4	444.2	414.1	398.3
52.5°	2278.7	1644.6	1019.2	595.1	486.0	468.6	477.3	470.2	432.8	406.8	391.0
55°	2385.1	1623.1	910.1	533.4	435.6	431.2	438.6	448.6	425.5	401.2	383.8
57.5°	2510.3	1634.6	826.7	464.3	388.2	391.0	415.5	429.8	418.4	392.5	375.2
60°	2654.0	1669.1	753.4	398.3	349.4	356.5	392.5	412.6	411.2	381.1	360.8
62.5°	2815.0	1705.2	636.9	348.0	316.4	327.8	365.3	391.0	395.3	369.6	345.0
63°	2846.5	1707.9	606.6	337.9	310.5	323.5	358.0	385.4	391.0	366.6	342.2
65°	2924.3	1682.0	488.8	310.5	287.5	301.9	336.4	360.8	372.3	350.8	330.7
67.5°	2859.6	1470.7	368.0	277.4	268.9	279.0	309.0	332.2	342.2	332.2	312.0
70°	2615.1	1069.6	287.5	247.3	248.7	255.8	279.0	300.5	312.0	309.0	290.4
72.5°	2106.2	606.6	240.0	221.4	225.7	234.4	250.2	270.3	280.4	279.0	266.0
75°	1387.3	310.5	202.7	198.3	201.3	208.4	219.9	235.7	247.3	245.9	240.0
77.5°	687.3	215.7	173.9	175.3	176.8	182.5	191.2	205.6	212.8	214.2	212.8
80°	283.2	168.3	149.5	150.9	152.4	156.8	162.5	175.3	179.8	182.5	184.1
82.5°	169.6	128.0	119.4	122.2	123.6	128.0	132.3	143.8	148.1	152.4	152.4
85°	112.2	89.1	86.2	89.1	91.9	95.0	96.3	103.6	110.8	116.4	119.4
87.5°	60.4	53.2	51.7	53.2	53.2	56.1	59.0	66.1	74.7	80.5	83.5
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°	930.1	930.1	930.1	930.1	930.1
2.5°	953.2	954.5	953.2	954.5	956.1
5°	1000.6	1003.4	1002.1	1002.1	1007.8
7.5°	1055.2	1061.0	1061.0	1064.0	1066.7
10°	1114.2	1119.9	1124.3	1124.3	1128.6
12.5°	1173.1	1176.1	1180.4	1180.4	1180.4
15°	1203.3	1201.9	1200.5	1199.0	1199.0
17.5°	1199.0	1193.3	1190.4	1187.5	1188.9
20°	1167.3	1157.3	1154.4	1150.1	1153.1
22.5°	1112.8	1098.4	1092.7	1085.4	1088.3
25°	1030.8	1013.6	1010.8	1002.1	1006.5
27.5°	935.9	927.3	925.9	924.4	931.6
30°	846.8	849.6	851.1	854.0	861.1
32.5°	764.8	770.6	772.1	773.5	783.5
35°	684.2	677.1	684.2	681.5	690.1
37.5°	596.7	590.8	585.2	578.0	583.7
40°	523.4	513.2	496.0	487.4	488.8
42.5°	465.9	452.8	438.6	429.8	429.8
45°	428.4	412.6	399.7	393.9	393.9
47.5°	399.7	392.5	385.4	381.1	381.1
50°	388.2	379.5	375.2	372.3	372.3
52.5°	379.5	370.9	366.6	363.8	360.8
55°	372.3	359.4	355.1	353.7	353.7
57.5°	362.2	350.8	345.0	343.6	343.6
60°	346.4	337.9	332.2	330.7	330.7
62.5°	330.7	322.0	316.4	316.4	316.4
63°	327.8	317.7	313.4	313.4	313.4
65°	314.9	304.7	300.5	300.5	299.0
67.5°	297.6	287.5	284.7	284.7	281.8
70°	277.4	268.9	266.0	267.4	261.6
72.5°	257.4	248.7	244.3	244.3	238.7
75°	234.4	225.7	219.9	218.6	212.8
77.5°	208.4	201.3	195.6	189.8	186.8
80°	181.2	175.3	168.3	163.9	159.5
82.5°	152.4	146.7	142.3	148.1	126.5
85°	119.4	113.5	107.8	116.4	90.5
87.5°	87.8	84.8	79.1	69.0	60.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)