

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: P239124

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239124
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
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 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: 9387.6 lumens
Efficiency: N/A
Efficacy: 113.1 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

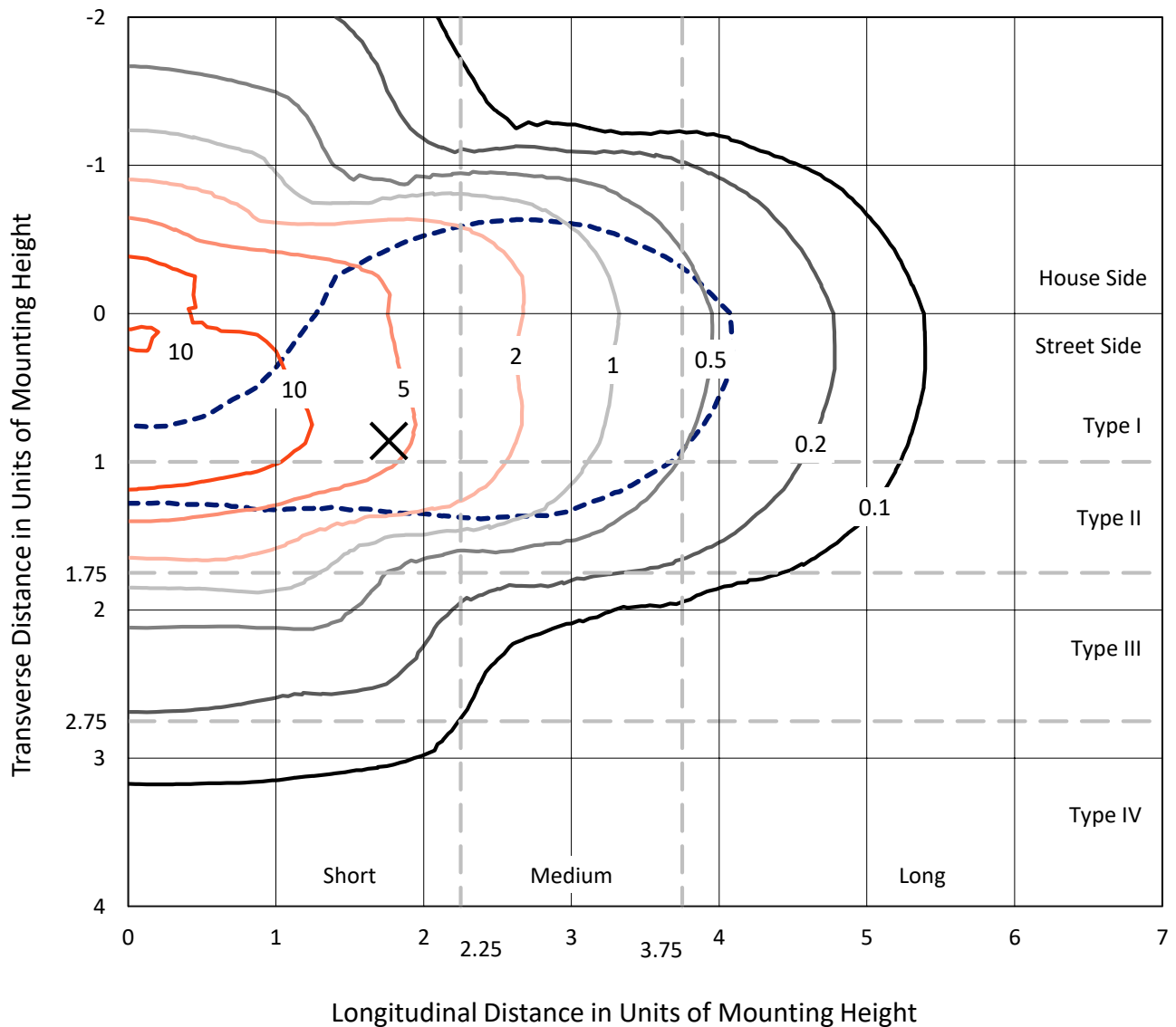


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

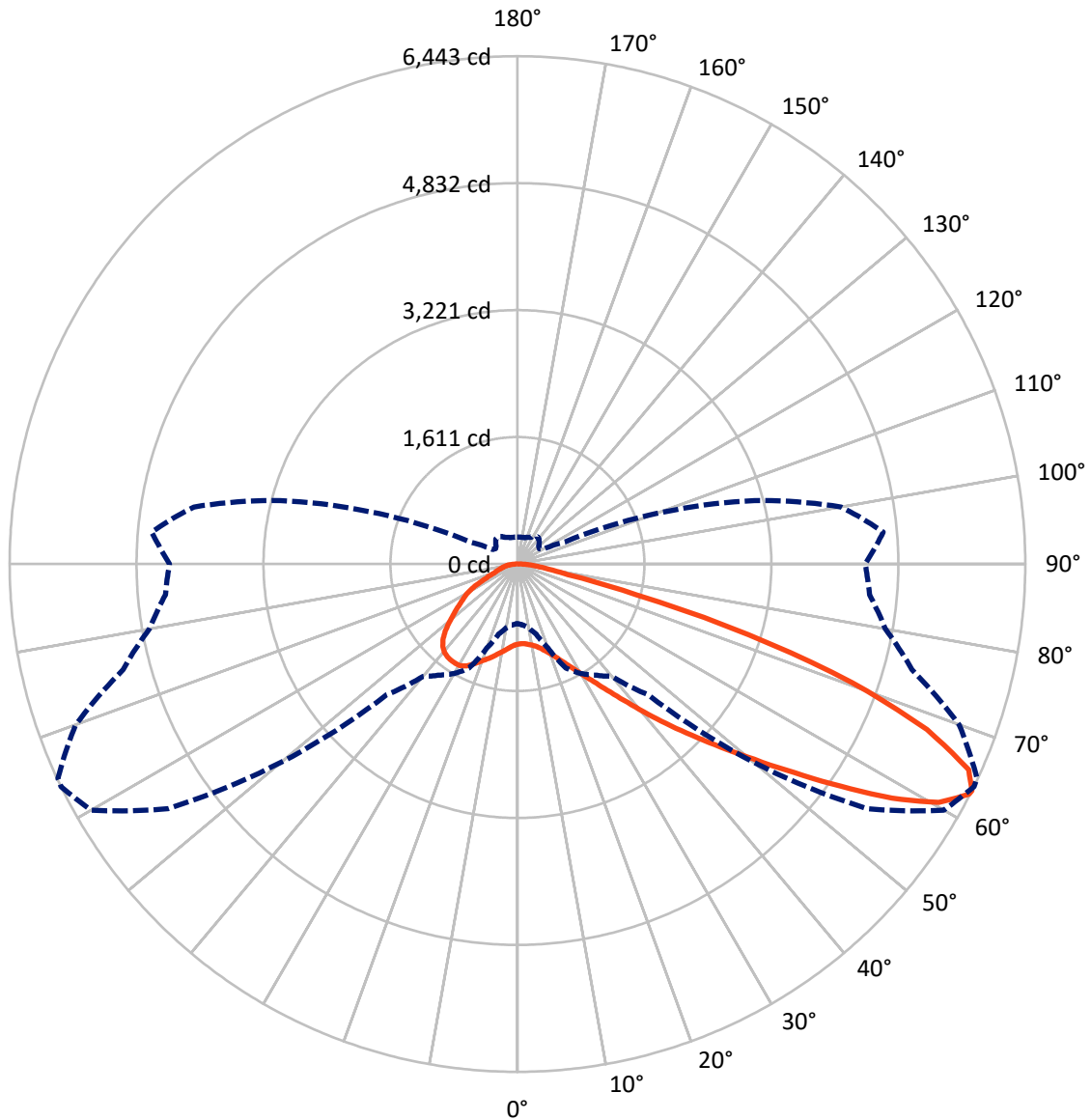


Based on 10 foot mounting height. Maximum calculated value = 16.5 fc
 Type II - Short - Semi-Cutoff

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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	2759.6	0.0	2759.6
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	6628.0	0.0	6628.0
	% Fixture	70.6	0.0	70.6
Total	Lumens	9387.6	0.0	9387.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.5	1.1
10°-20°	338.1	3.6
20°-30°	634.7	6.8
30°-40°	1063.7	11.3
40°-50°	1784.7	19.0
50°-60°	2262.5	24.1
60°-70°	1995.8	21.3
70°-80°	1030.3	11.0
80°-90°	176.3	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°	9387.6	100.0
0°-180°	9387.6	100.0



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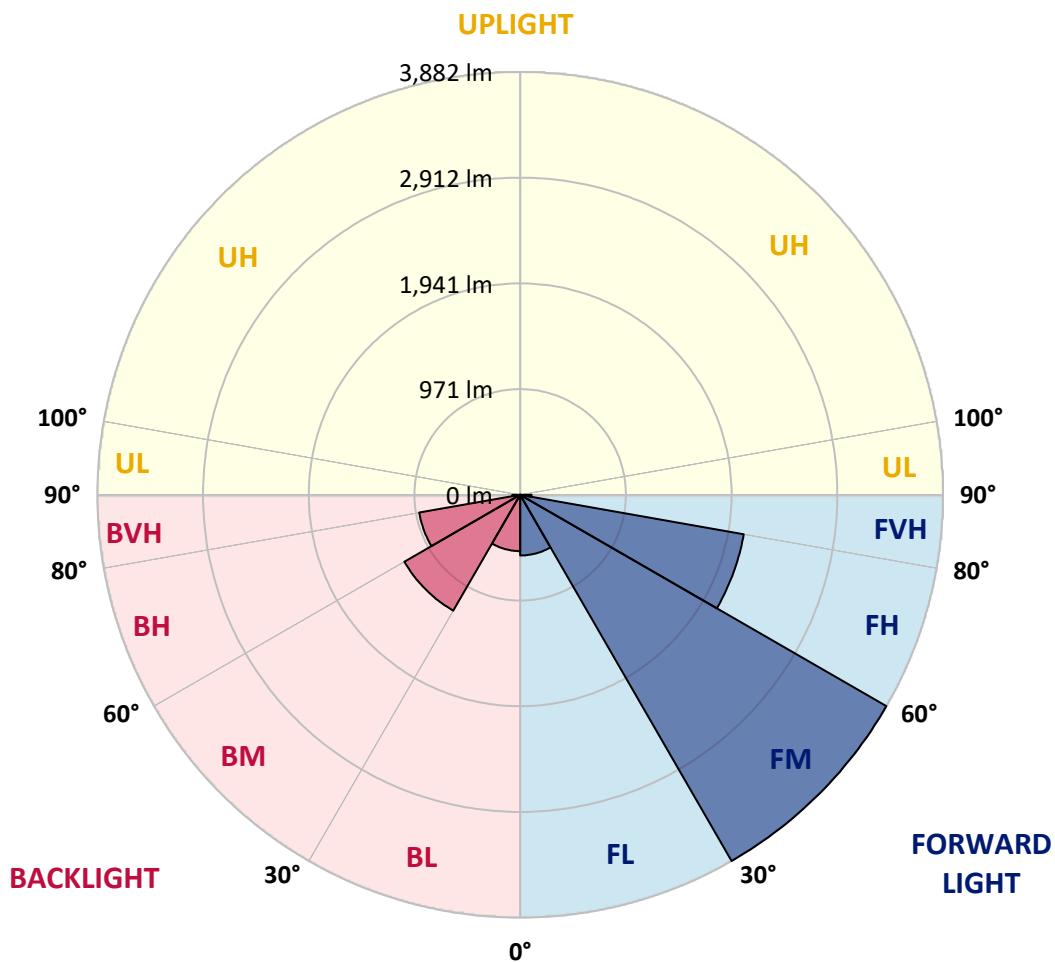
CATALOG NUMBER: ARCH-AF24-80-D-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	557.2	5.9			
FM (30°-60°)	3882.5	41.4			
FH (60°-80°)	2084.6	22.2			G2/5000
FVH (80°-90°)	103.8	1.1			G2/225
BL (0°-30°)	517.1	5.5	B2/1000		
BM (30°-60°)	1228.5	13.1	B2/2500		
BH (60°-80°)	941.6	10.0	B2/1000		G2/1000
BVH (80°-90°)	72.5	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°	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7
2.5°	1010.4	1008.8	1008.8	1008.8	1008.8	1007.2	1008.8	1012.0	1010.4	1008.8	1012.0
5°	1013.5	1012.0	1012.0	1012.0	1013.5	1012.0	1013.5	1018.2	1015.1	1015.1	1018.2
7.5°	1021.4	1019.8	1021.4	1019.8	1019.8	1019.8	1021.4	1026.1	1024.5	1026.1	1030.8
10°	1030.8	1030.8	1030.8	1030.8	1030.8	1030.8	1034.0	1037.1	1038.7	1040.2	1046.6
12.5°	1059.1	1059.1	1059.1	1057.5	1057.5	1052.8	1059.1	1062.2	1065.4	1068.6	1073.3
15°	1118.8	1118.8	1117.3	1110.9	1110.9	1101.5	1103.2	1104.7	1104.7	1107.9	1110.9
17.5°	1197.4	1195.8	1192.7	1188.0	1181.7	1170.7	1167.5	1164.4	1159.7	1158.1	1158.1
20°	1307.3	1305.8	1299.6	1287.0	1279.1	1261.8	1249.2	1236.6	1231.9	1224.1	1222.5
22.5°	1464.6	1464.6	1452.0	1433.1	1426.8	1390.7	1354.5	1327.8	1318.4	1307.3	1307.3
25°	1654.6	1653.1	1635.8	1613.8	1587.1	1549.4	1505.4	1469.3	1445.6	1420.5	1411.1
27.5°	1882.5	1877.8	1854.2	1827.5	1777.2	1730.1	1678.3	1640.5	1599.7	1568.2	1540.0
30°	2149.6	2144.9	2104.1	2053.8	2001.9	1954.8	1879.4	1833.7	1769.4	1731.7	1700.2
32.5°	2459.2	2454.5	2380.6	2331.9	2276.9	2218.8	2129.2	2056.9	1975.2	1921.8	1877.8
35°	2853.6	2834.7	2729.4	2661.9	2575.5	2517.4	2423.1	2325.6	2229.7	2154.3	2089.9
37.5°	3279.5	3257.5	3164.7	3064.1	2979.3	2908.6	2775.1	2652.5	2539.4	2435.6	2355.4
40°	3724.2	3666.1	3567.0	3493.2	3435.0	3367.5	3227.6	3098.7	2921.1	2804.9	2683.9
42.5°	4032.2	3975.6	3906.4	3857.8	3829.4	3777.6	3699.0	3587.4	3428.7	3431.9	3112.8
45°	4234.8	4151.5	4104.4	4107.6	4118.6	4118.6	4104.4	4087.1	4017.9	4065.1	3798.0
47.5°	4162.6	4107.6	4077.7	4140.6	4219.2	4297.7	4388.9	4487.8	4600.9	4734.5	4406.2
50°	3738.3	3758.7	3772.8	3906.4	4074.5	4253.7	4462.7	4733.0	5048.8	5110.0	4951.4
52.5°	3061.0	3105.1	3152.1	3356.4	3578.0	3887.5	4253.7	4699.9	5124.3	5374.1	5358.3
55°	2377.4	2432.5	2533.0	2685.5	2861.5	3153.8	3606.3	4294.6	4956.1	5353.6	5595.6
57.5°	1692.4	1772.5	1904.5	2116.6	2272.2	2437.2	2771.9	3535.6	4260.0	5000.1	5556.4
60°	1125.1	1162.8	1249.2	1513.3	1775.6	1948.5	2185.7	2462.3	3054.7	4074.5	5151.0
62.5°	798.2	823.4	876.9	996.3	1233.5	1546.2	1689.2	1816.5	2006.6	2621.0	4135.9
63°	754.2	776.2	820.3	920.9	1134.6	1458.2	1604.4	1720.6	1858.9	2344.5	3912.7
65°	625.4	634.8	658.4	707.2	821.8	1090.6	1329.4	1400.1	1423.6	1506.9	2451.3
67.5°	527.9	534.3	542.2	556.3	601.8	726.0	991.5	1081.1	1054.4	997.8	1211.5
70°	458.8	463.6	476.1	493.4	509.1	540.5	682.0	815.5	785.7	708.7	741.6
72.5°	366.1	374.0	388.1	418.0	449.4	490.3	524.9	608.1	589.2	515.4	523.2
75°	289.1	293.9	306.4	328.4	358.2	405.4	473.0	501.2	449.4	380.2	380.2
77.5°	229.4	234.2	245.1	262.4	281.3	314.3	361.4	435.3	403.9	286.0	284.4
80°	172.9	177.6	188.5	204.3	223.1	246.7	275.0	308.0	370.8	267.1	213.7
82.5°	127.3	128.9	147.7	158.7	165.0	183.8	207.5	226.3	254.6	246.7	190.2
85°	95.9	94.3	106.9	114.7	116.3	121.0	135.1	154.0	166.5	160.3	147.7
87.5°	53.4	47.2	55.0	62.8	62.8	64.4	67.6	78.6	89.6	86.4	78.6
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7
2.5°	1012.0	1012.0	1010.4	1010.4	1012.0	1012.0	1010.4	1015.1	1018.2	1018.2	1019.8
5°	1016.7	1018.2	1016.7	1016.7	1018.2	1018.2	1019.8	1024.5	1029.3	1032.4	1037.1
7.5°	1030.8	1032.4	1030.8	1030.8	1032.4	1034.0	1037.1	1043.4	1046.6	1052.8	1060.7
10°	1046.6	1048.1	1046.6	1048.1	1049.6	1051.3	1056.0	1060.7	1065.4	1071.6	1084.2
12.5°	1074.8	1076.3	1073.3	1074.8	1079.5	1079.5	1082.7	1085.9	1093.6	1101.5	1114.1
15°	1114.1	1114.1	1110.9	1112.6	1117.3	1117.3	1118.8	1122.0	1131.4	1140.8	1153.4
17.5°	1159.7	1162.8	1161.3	1162.8	1166.0	1167.5	1167.5	1170.7	1176.9	1183.2	1195.8
20°	1221.0	1222.5	1219.4	1222.5	1225.7	1222.5	1219.4	1217.8	1221.0	1224.1	1238.3
22.5°	1304.3	1302.6	1294.9	1294.9	1294.9	1288.5	1280.6	1271.2	1271.2	1266.5	1277.6
25°	1403.2	1398.5	1387.5	1389.1	1378.1	1368.7	1354.5	1340.4	1327.8	1323.1	1324.6
27.5°	1519.5	1510.1	1499.1	1496.0	1484.9	1467.6	1444.1	1417.4	1396.9	1381.2	1378.1
30°	1665.7	1645.2	1626.4	1623.2	1605.9	1577.7	1540.0	1503.8	1469.3	1442.6	1433.1
32.5°	1838.5	1807.0	1777.2	1774.1	1745.8	1708.1	1662.5	1612.3	1561.9	1519.5	1499.1
35°	2041.2	1994.0	1965.8	1957.9	1917.1	1870.0	1819.6	1755.2	1684.5	1624.8	1587.1
37.5°	2287.9	2239.2	2190.4	2192.1	2135.5	2080.5	2013.0	1934.4	1844.8	1761.5	1708.1
40°	2592.8	2523.6	2460.8	2446.6	2397.9	2320.9	2247.0	2155.9	2045.9	1935.9	1858.9
42.5°	2962.1	2848.9	2762.5	2749.9	2685.5	2591.2	2501.6	2380.6	2269.0	2135.5	2042.7
45°	3381.6	3200.9	3097.2	3078.3	2974.6	2878.8	2770.4	2641.5	2504.8	2353.9	2243.9
47.5°	3903.3	3645.6	3469.5	3438.1	3295.1	3169.4	3056.3	2913.4	2749.9	2581.7	2460.8
50°	4511.4	4131.1	3893.9	3845.2	3653.5	3505.8	3361.1	3182.0	3007.6	2831.6	2691.8
52.5°	5121.1	4712.5	4396.6	4337.0	4054.2	3856.1	3666.1	3486.8	3281.0	3106.6	2947.8
55°	5611.4	5339.5	4973.4	4890.1	4484.7	4216.0	3966.1	3761.9	3557.6	3419.3	3232.3
57.5°	5906.7	5892.6	5603.5	5488.7	4934.1	4536.6	4258.4	4025.8	3827.9	3769.7	3521.4
60°	5898.9	6265.1	6140.9	6054.4	5388.2	4864.9	4503.5	4252.1	4088.7	4154.7	3812.1
62.5°	5539.1	6280.7	6430.1	6406.4	5872.2	5129.0	4704.7	4445.4	4359.0	4555.4	4113.8
63°	5408.6	6244.6	6442.6	6433.1	5964.9	5179.2	4739.2	4483.1	4412.4	4657.5	4168.8
65°	4571.2	5928.8	6290.2	6332.6	6164.5	5352.1	4819.4	4578.9	4571.2	4885.4	4299.3
67.5°	2786.0	5009.5	5603.5	5685.3	5883.2	5407.1	4773.8	4546.0	4659.1	4918.3	4260.0
70°	1191.1	3306.2	4503.5	4635.5	5119.6	5133.7	4643.4	4410.9	4638.7	4660.7	3980.3
72.5°	705.5	1558.8	3065.8	3353.3	4051.0	4417.1	4344.9	4175.2	4369.9	4093.4	3389.4
75°	499.7	729.2	1557.2	1863.6	2820.6	3372.2	3650.3	3728.9	3721.0	3246.4	2544.1
77.5°	358.2	468.3	656.8	774.7	1574.5	2165.4	2504.8	2734.1	2660.3	2173.2	1568.2
80°	249.8	323.7	402.2	427.4	730.7	1112.6	1319.9	1420.5	1376.5	1085.9	702.4
82.5°	180.8	212.2	259.3	275.0	367.8	513.8	611.2	539.0	517.0	400.7	303.3
85°	139.8	136.7	161.8	168.2	215.2	268.7	275.0	213.7	187.0	166.5	169.7
87.5°	99.0	84.9	86.4	89.6	111.6	143.0	139.8	88.0	75.4	80.1	91.1
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7	1016.7
2.5°	1023.0	1024.5	1027.7	1029.3	1032.4	1032.4	1035.5	1037.1	1040.2	1043.4	1044.9
5°	1041.8	1046.6	1052.8	1056.0	1062.2	1066.9	1073.3	1076.3	1082.7	1087.4	1093.6
7.5°	1070.1	1078.0	1085.9	1095.3	1104.7	1112.6	1118.8	1126.7	1137.6	1145.5	1150.2
10°	1096.8	1107.9	1122.0	1132.9	1147.1	1158.1	1167.5	1181.7	1194.2	1205.2	1211.5
12.5°	1131.4	1145.5	1159.7	1176.9	1195.8	1209.9	1224.1	1243.0	1260.3	1272.9	1279.1
15°	1172.2	1189.5	1205.2	1225.7	1247.7	1266.5	1287.0	1307.3	1319.9	1319.9	1316.8
17.5°	1214.7	1228.8	1247.7	1271.2	1301.1	1324.6	1335.7	1338.8	1334.1	1323.1	1315.2
20°	1257.1	1269.7	1290.0	1318.4	1349.8	1354.5	1343.5	1329.4	1315.2	1296.4	1283.8
22.5°	1291.7	1309.0	1340.4	1373.4	1374.9	1348.2	1318.4	1294.9	1272.9	1250.8	1227.2
25°	1332.5	1356.1	1398.5	1411.1	1370.2	1319.9	1277.6	1243.0	1206.8	1170.7	1144.0
27.5°	1382.8	1417.4	1459.8	1423.6	1343.5	1272.9	1214.7	1162.8	1115.6	1065.4	1035.5
30°	1436.2	1489.6	1499.1	1404.8	1297.9	1206.8	1128.2	1049.6	990.0	944.4	927.1
32.5°	1500.7	1569.8	1513.3	1371.8	1236.6	1117.3	1012.0	917.7	867.4	839.1	831.2
35°	1598.1	1654.6	1521.1	1337.2	1166.0	1010.4	878.4	803.0	771.5	752.7	743.3
37.5°	1737.9	1736.4	1519.5	1294.9	1084.2	894.1	771.5	718.1	692.9	677.3	660.0
40°	1901.4	1799.2	1510.1	1233.5	974.3	782.6	697.7	647.4	623.8	605.0	584.5
42.5°	2063.2	1841.6	1483.4	1142.4	837.5	702.4	644.3	598.7	573.6	553.1	524.9
45°	2203.0	1858.9	1431.5	1016.7	714.9	639.5	609.7	570.4	540.5	509.1	487.1
47.5°	2313.1	1855.7	1348.2	869.0	633.3	595.6	581.4	554.6	518.5	479.3	451.0
50°	2405.8	1832.2	1235.1	738.6	578.3	556.3	551.6	543.7	485.6	452.6	435.3
52.5°	2490.6	1797.6	1114.1	650.6	531.1	512.3	521.7	513.8	473.0	444.7	427.4
55°	2606.9	1774.1	994.7	583.0	476.1	471.4	479.3	490.3	465.1	438.4	419.5
57.5°	2743.7	1786.7	903.6	507.6	424.3	427.4	454.1	469.8	457.3	429.0	410.1
60°	2900.8	1824.3	823.4	435.3	381.9	389.7	429.0	451.0	449.4	416.4	394.4
62.5°	3076.7	1863.6	696.1	380.2	345.7	358.2	399.2	427.4	432.1	403.9	377.2
63°	3111.3	1866.8	663.1	369.3	339.4	353.5	391.3	421.1	427.4	400.7	374.0
65°	3196.2	1838.5	534.3	339.4	314.3	330.0	367.8	394.4	407.0	383.4	361.4
67.5°	3125.4	1607.5	402.2	303.3	293.9	304.8	337.9	362.9	374.0	362.9	340.9
70°	2858.3	1169.1	314.3	270.3	271.8	279.7	304.8	328.4	340.9	337.9	317.4
72.5°	2302.0	663.1	262.4	242.0	246.7	256.1	273.4	295.4	306.4	304.8	290.7
75°	1516.3	339.4	221.6	216.9	220.0	227.8	240.4	257.7	270.3	268.7	262.4
77.5°	751.2	235.7	190.2	191.7	193.2	199.6	209.0	224.7	232.5	234.2	232.5
80°	309.5	183.8	163.5	165.0	166.5	171.2	177.6	191.7	196.4	199.6	201.1
82.5°	185.5	139.8	130.4	133.6	135.1	139.8	144.5	157.1	161.8	166.5	166.5
85°	122.5	97.4	94.3	97.4	100.6	103.7	105.3	113.1	121.0	127.3	130.4
87.5°	66.0	58.1	56.6	58.1	58.1	61.3	64.4	72.3	81.7	88.0	91.1
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):

	160°	165°	170°	175°	180°
0°	1016.7	1016.7	1016.7	1016.7	1016.7
2.5°	1041.8	1043.4	1041.8	1043.4	1044.9
5°	1093.6	1096.8	1095.3	1095.3	1101.5
7.5°	1153.4	1159.7	1159.7	1162.8	1166.0
10°	1217.8	1224.1	1228.8	1228.8	1233.5
12.5°	1282.3	1285.3	1290.0	1290.0	1290.0
15°	1315.2	1313.7	1312.1	1310.5	1310.5
17.5°	1310.5	1304.3	1301.1	1297.9	1299.6
20°	1275.9	1265.0	1261.8	1257.1	1260.3
22.5°	1216.3	1200.5	1194.2	1186.4	1189.5
25°	1126.7	1107.9	1104.7	1095.3	1100.0
27.5°	1023.0	1013.5	1012.0	1010.4	1018.2
30°	925.6	928.6	930.3	933.4	941.2
32.5°	836.0	842.3	843.8	845.4	856.4
35°	748.0	740.1	748.0	744.8	754.2
37.5°	652.1	645.8	639.5	631.7	638.0
40°	571.9	561.0	542.2	532.7	534.3
42.5°	509.1	495.0	479.3	469.8	469.8
45°	468.3	451.0	436.8	430.6	430.6
47.5°	436.8	429.0	421.1	416.4	416.4
50°	424.3	414.8	410.1	407.0	407.0
52.5°	414.8	405.4	400.7	397.5	394.4
55°	407.0	392.8	388.1	386.6	386.6
57.5°	396.0	383.4	377.2	375.5	375.5
60°	378.7	369.3	362.9	361.4	361.4
62.5°	361.4	352.0	345.7	345.7	345.7
63°	358.2	347.3	342.6	342.6	342.6
65°	344.1	333.2	328.4	328.4	326.8
67.5°	325.3	314.3	311.2	311.2	308.0
70°	303.3	293.9	290.7	292.3	286.0
72.5°	281.3	271.8	267.1	267.1	260.9
75°	256.1	246.7	240.4	238.9	232.5
77.5°	227.8	220.0	213.7	207.5	204.3
80°	198.0	191.7	183.8	179.1	174.4
82.5°	166.5	160.3	155.6	161.8	138.3
85°	130.4	124.2	117.8	127.3	99.0
87.5°	95.9	92.7	86.4	75.4	66.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)