

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: P239140

Luminaire Tested: **ARCH-AF24-100-D-U-T2U-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239140
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-AF24-100-D-U-T2U-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9938 lumens
Efficiency: N/A
Efficacy: 103.5 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): 96
Input Voltage (V): NR
Input Current (A_{in}): 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

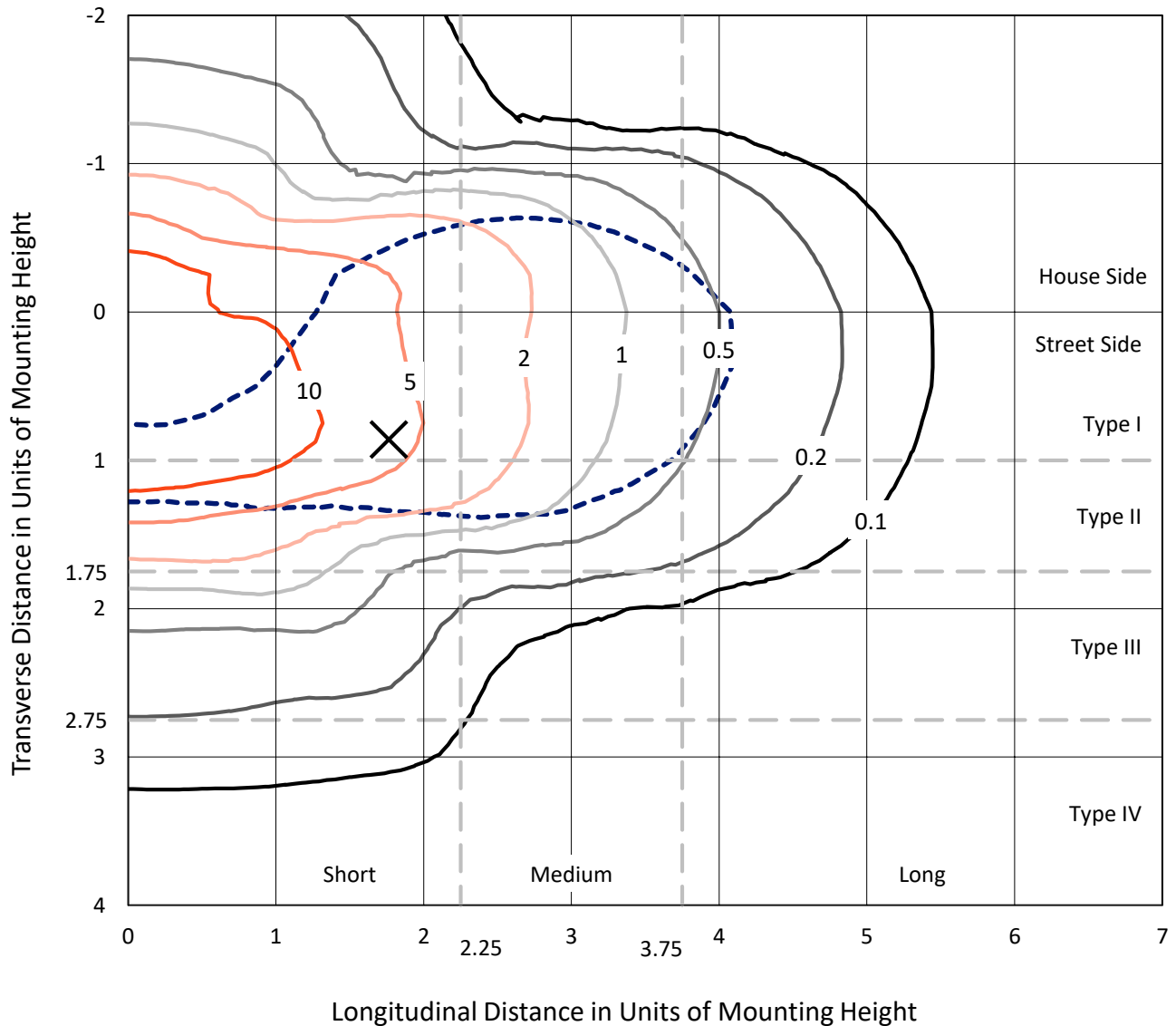


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Iso-Footcandle Lines of Horizontal Illumination

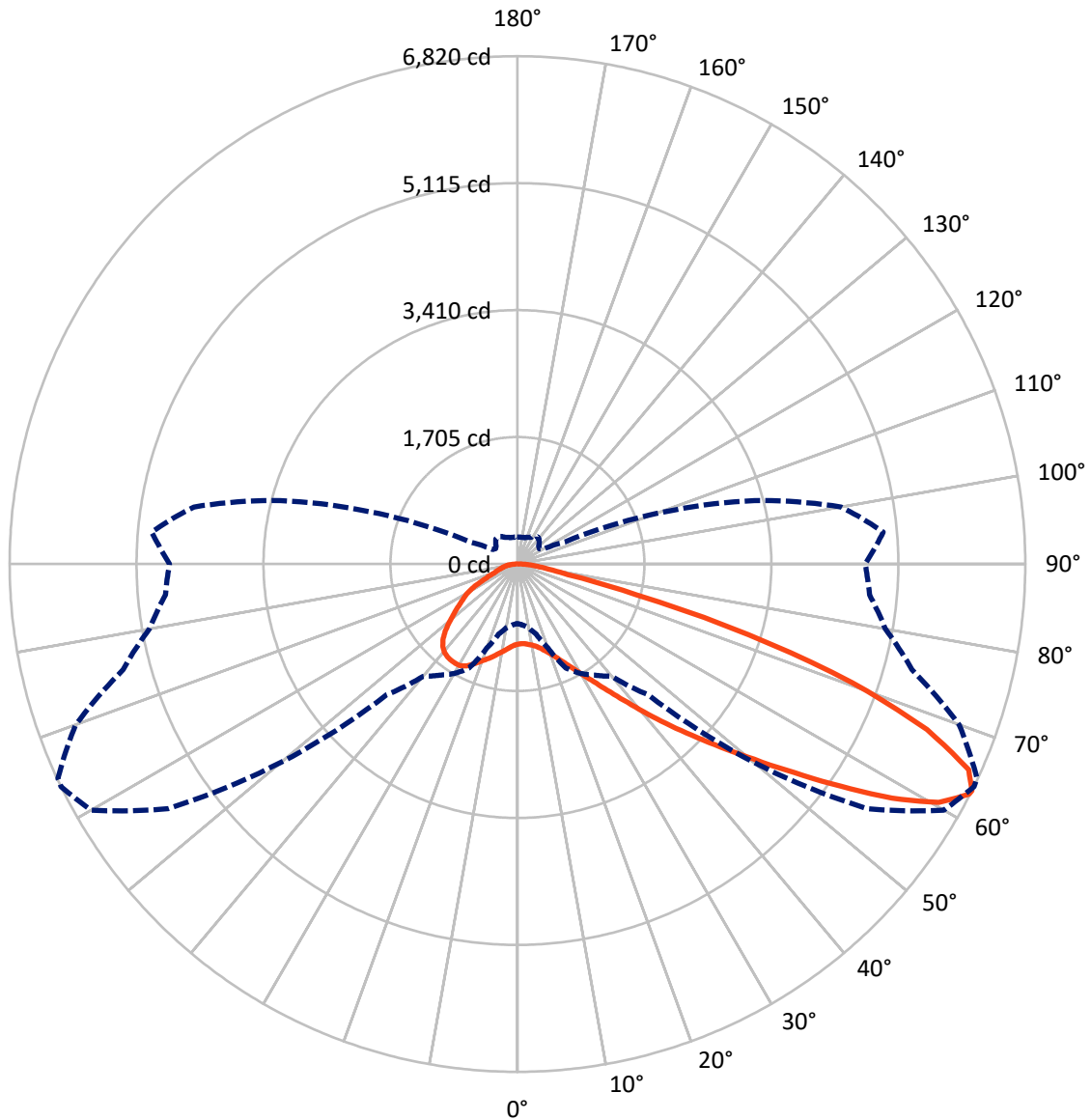
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 17.5 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	2921.4	0.0	2921.4
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	7016.6	0.0	7016.6
	% Fixture	70.6	0.0	70.6
Total	Lumens	9938.0	0.0	9938.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.5	1.1
10°-20°	357.9	3.6
20°-30°	671.9	6.8
30°-40°	1126.1	11.3
40°-50°	1889.3	19.0
50°-60°	2395.1	24.1
60°-70°	2112.9	21.3
70°-80°	1090.7	11.0
80°-90°	186.6	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°	9938.0	100.0
0°-180°	9938.0	100.0



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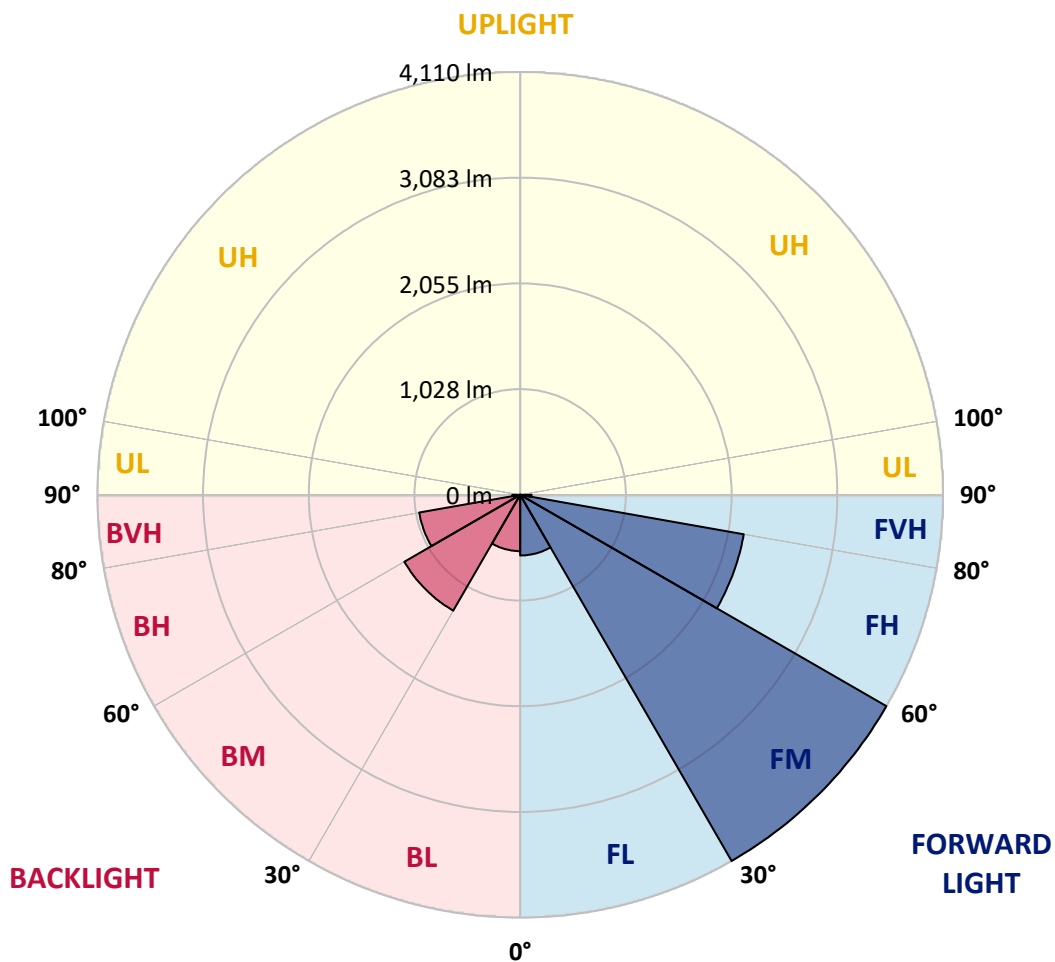
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	589.9	5.9			
FM (30°-60°)	4110.1	41.4			
FH (60°-80°)	2206.8	22.2			G2/5000
FVH (80°-90°)	109.8	1.1			G2/225
BL (0°-30°)	547.4	5.5	B2/1000		
BM (30°-60°)	1300.5	13.1	B2/2500		
BH (60°-80°)	996.8	10.0	B2/1000		G2/1000
BVH (80°-90°)	76.8	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°	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3
2.5°	1069.6	1068.0	1068.0	1068.0	1068.0	1066.3	1068.0	1071.3	1069.6	1068.0	1071.3
5°	1073.0	1071.3	1071.3	1071.3	1073.0	1071.3	1073.0	1077.9	1074.6	1074.6	1077.9
7.5°	1081.3	1079.6	1081.3	1079.6	1079.6	1079.6	1081.3	1086.3	1084.6	1086.3	1091.3
10°	1091.3	1091.3	1091.3	1091.3	1091.3	1091.3	1094.6	1097.9	1099.6	1101.2	1107.9
12.5°	1121.2	1121.2	1121.2	1119.5	1119.5	1114.5	1121.2	1124.5	1127.8	1131.2	1136.2
15°	1184.4	1184.4	1182.7	1176.1	1176.1	1166.1	1167.8	1169.4	1169.4	1172.8	1176.1
17.5°	1267.6	1265.9	1262.6	1257.6	1250.9	1239.3	1236.0	1232.6	1227.7	1226.0	1226.0
20°	1384.0	1382.4	1375.7	1362.4	1354.1	1335.8	1322.5	1309.2	1304.2	1295.9	1294.2
22.5°	1550.4	1550.4	1537.1	1517.1	1510.5	1472.2	1433.9	1405.7	1395.7	1384.0	1384.0
25°	1751.7	1750.0	1731.7	1708.4	1680.1	1640.2	1593.6	1555.4	1530.4	1503.8	1493.8
27.5°	1992.9	1987.9	1962.9	1934.6	1881.4	1831.5	1776.6	1736.7	1693.4	1660.2	1630.2
30°	2275.7	2270.7	2227.4	2174.2	2119.3	2069.4	1989.5	1941.3	1873.1	1833.2	1799.9
32.5°	2603.4	2598.4	2520.2	2468.6	2410.4	2348.9	2254.0	2177.5	2091.0	2034.5	1987.9
35°	3020.9	3000.9	2889.5	2818.0	2726.5	2664.9	2565.1	2462.0	2360.5	2280.7	2212.4
37.5°	3471.7	3448.4	3350.3	3243.8	3154.0	3079.1	2937.7	2808.0	2688.2	2578.4	2493.6
40°	3942.5	3880.9	3776.1	3697.9	3636.4	3564.9	3416.8	3280.4	3092.4	2969.3	2841.2
42.5°	4268.5	4208.6	4135.4	4083.9	4053.9	3999.0	3915.9	3797.8	3629.7	3633.1	3295.4
45°	4483.1	4395.0	4345.0	4348.4	4360.0	4360.0	4345.0	4326.8	4253.6	4303.5	4020.7
47.5°	4406.6	4348.4	4316.8	4383.3	4466.5	4549.7	4646.1	4750.9	4870.7	5012.1	4664.4
50°	3957.5	3979.1	3994.1	4135.4	4313.4	4503.1	4724.3	5010.4	5344.8	5409.7	5241.7
52.5°	3240.5	3287.1	3337.0	3553.2	3787.8	4115.5	4503.1	4975.5	5424.7	5689.2	5672.5
55°	2516.9	2575.1	2681.6	2842.9	3029.2	3338.6	3817.7	4546.3	5246.7	5667.5	5923.7
57.5°	1791.6	1876.4	2016.2	2240.7	2405.4	2580.1	2934.4	3742.9	4509.7	5293.2	5882.1
60°	1191.1	1231.0	1322.5	1601.9	1879.7	2062.7	2313.9	2606.7	3233.8	4313.4	5452.9
62.5°	845.1	871.7	928.2	1054.7	1305.8	1636.9	1788.3	1923.0	2124.3	2774.7	4378.3
63°	798.5	821.8	868.3	974.8	1201.0	1543.7	1698.4	1821.5	1967.9	2481.9	4142.1
65°	662.1	672.1	697.0	748.6	870.0	1154.5	1407.3	1482.2	1507.1	1595.3	2595.1
67.5°	558.9	565.6	573.9	588.9	637.1	768.5	1049.7	1144.5	1116.2	1056.3	1282.6
70°	485.7	490.7	504.0	522.3	539.0	572.2	722.0	863.4	831.7	750.2	785.2
72.5°	387.6	395.9	410.9	442.5	475.8	519.0	555.6	643.8	623.8	545.6	553.9
75°	306.1	311.1	324.4	347.7	379.3	429.2	500.7	530.7	475.8	402.6	402.6
77.5°	242.9	247.9	259.5	277.8	297.8	332.7	382.6	460.8	427.5	302.8	301.1
80°	183.0	188.0	199.6	216.3	236.2	261.2	291.1	326.0	392.6	282.8	226.2
82.5°	134.7	136.4	156.4	168.0	174.7	194.6	219.6	239.5	269.5	261.2	201.3
85°	101.5	99.8	113.1	121.4	123.1	128.1	143.1	163.0	176.3	169.7	156.4
87.5°	56.6	49.9	58.2	66.5	66.5	68.2	71.5	83.2	94.8	91.5	83.2
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°	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3
2.5°	1071.3	1071.3	1069.6	1069.6	1071.3	1071.3	1069.6	1074.6	1077.9	1077.9	1079.6
5°	1076.3	1077.9	1076.3	1076.3	1077.9	1077.9	1079.6	1084.6	1089.6	1092.9	1097.9
7.5°	1091.3	1092.9	1091.3	1091.3	1092.9	1094.6	1097.9	1104.6	1107.9	1114.5	1122.9
10°	1107.9	1109.6	1107.9	1109.6	1111.2	1112.9	1117.9	1122.9	1127.8	1134.5	1147.8
12.5°	1137.8	1139.5	1136.2	1137.8	1142.8	1142.8	1146.1	1149.5	1157.8	1166.1	1179.4
15°	1179.4	1179.4	1176.1	1177.8	1182.7	1182.7	1184.4	1187.7	1197.7	1207.7	1221.0
17.5°	1227.7	1231.0	1229.3	1231.0	1234.3	1236.0	1236.0	1239.3	1246.0	1252.6	1265.9
20°	1292.5	1294.2	1290.9	1294.2	1297.5	1294.2	1290.9	1289.2	1292.5	1295.9	1310.8
22.5°	1380.7	1379.0	1370.7	1370.7	1370.7	1364.1	1355.7	1345.8	1345.8	1340.8	1352.4
25°	1485.5	1480.5	1468.9	1470.5	1458.9	1448.9	1433.9	1419.0	1405.7	1400.7	1402.3
27.5°	1608.6	1598.6	1587.0	1583.6	1572.0	1553.7	1528.8	1500.5	1478.8	1462.2	1458.9
30°	1763.3	1741.7	1721.7	1718.4	1700.1	1670.1	1630.2	1592.0	1555.4	1527.1	1517.1
32.5°	1946.3	1913.0	1881.4	1878.1	1848.1	1808.2	1760.0	1706.7	1653.5	1608.6	1587.0
35°	2160.9	2111.0	2081.0	2072.7	2029.5	1979.6	1926.3	1858.1	1783.3	1720.1	1680.1
37.5°	2422.0	2370.5	2318.9	2320.6	2260.7	2202.5	2130.9	2047.8	1952.9	1864.8	1808.2
40°	2744.8	2671.6	2605.0	2590.1	2538.5	2457.0	2378.8	2282.3	2165.9	2049.4	1967.9
42.5°	3135.7	3015.9	2924.4	2911.1	2842.9	2743.1	2648.3	2520.2	2402.1	2260.7	2162.5
45°	3579.8	3388.5	3278.7	3258.8	3149.0	3047.5	2932.7	2796.3	2651.6	2491.9	2375.5
47.5°	4132.1	3859.3	3673.0	3639.7	3488.3	3355.3	3235.5	3084.1	2911.1	2733.1	2605.0
50°	4775.9	4373.3	4122.1	4070.6	3867.6	3711.3	3558.2	3368.6	3183.9	2997.6	2849.6
52.5°	5421.3	4988.8	4654.5	4591.2	4291.8	4082.2	3880.9	3691.3	3473.4	3288.7	3120.7
55°	5940.3	5652.6	5265.0	5176.8	4747.6	4463.2	4198.7	3982.4	3766.2	3619.8	3421.8
57.5°	6253.1	6238.1	5932.0	5810.6	5223.4	4802.5	4508.1	4261.9	4052.3	3990.7	3727.9
60°	6244.8	6632.4	6500.9	6409.4	5704.1	5150.2	4767.6	4501.4	4328.4	4398.3	4035.6
62.5°	5863.8	6649.0	6807.0	6782.1	6216.5	5429.6	4980.5	4706.0	4614.5	4822.5	4355.0
63°	5725.7	6610.7	6820.3	6810.3	6314.6	5482.9	5017.1	4746.0	4671.1	4930.6	4413.3
65°	4839.1	6276.4	6659.0	6703.9	6525.9	5665.9	5101.9	4847.4	4839.1	5171.8	4551.3
67.5°	2949.4	5303.2	5932.0	6018.5	6228.1	5724.1	5053.7	4812.5	4932.3	5206.7	4509.7
70°	1260.9	3500.0	4767.6	4907.3	5419.7	5434.6	4915.6	4669.4	4910.6	4933.9	4213.6
72.5°	746.9	1650.2	3245.5	3549.9	4288.5	4676.1	4599.6	4419.9	4626.2	4333.4	3588.2
75°	529.0	771.9	1648.5	1972.9	2986.0	3569.9	3864.3	3947.5	3939.2	3436.8	2693.2
77.5°	379.3	495.7	695.3	820.1	1666.8	2292.3	2651.6	2894.5	2816.3	2300.6	1660.2
80°	264.5	342.7	425.9	452.5	773.5	1177.8	1397.3	1503.8	1457.2	1149.5	743.6
82.5°	191.3	224.6	274.5	291.1	389.3	544.0	647.1	570.6	547.3	424.2	321.1
85°	148.1	144.7	171.3	178.0	227.9	284.5	291.1	226.2	198.0	176.3	179.7
87.5°	104.8	89.8	91.5	94.8	118.1	151.4	148.1	93.2	79.8	84.8	96.5
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°	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3
2.5°	1082.9	1084.6	1087.9	1089.6	1092.9	1092.9	1096.2	1097.9	1101.2	1104.6	1106.2
5°	1102.9	1107.9	1114.5	1117.9	1124.5	1129.5	1136.2	1139.5	1146.1	1151.1	1157.8
7.5°	1132.8	1141.2	1149.5	1159.5	1169.4	1177.8	1184.4	1192.7	1204.4	1212.7	1217.7
10°	1161.1	1172.8	1187.7	1199.4	1214.4	1226.0	1236.0	1250.9	1264.3	1275.9	1282.6
12.5°	1197.7	1212.7	1227.7	1246.0	1265.9	1280.9	1295.9	1315.8	1334.1	1347.4	1354.1
15°	1241.0	1259.3	1275.9	1297.5	1320.8	1340.8	1362.4	1384.0	1397.3	1397.3	1394.0
17.5°	1285.9	1300.9	1320.8	1345.8	1377.4	1402.3	1414.0	1417.3	1412.3	1400.7	1392.3
20°	1330.8	1344.1	1365.7	1395.7	1428.9	1433.9	1422.3	1407.3	1392.3	1372.4	1359.1
22.5°	1367.4	1385.7	1419.0	1453.9	1455.6	1427.3	1395.7	1370.7	1347.4	1324.1	1299.2
25°	1410.6	1435.6	1480.5	1493.8	1450.6	1397.3	1352.4	1315.8	1277.6	1239.3	1211.0
27.5°	1463.9	1500.5	1545.4	1507.1	1422.3	1347.4	1285.9	1231.0	1181.1	1127.8	1096.2
30°	1520.4	1577.0	1587.0	1487.2	1374.0	1277.6	1194.4	1111.2	1048.0	999.8	981.5
32.5°	1588.6	1661.8	1601.9	1452.2	1309.2	1182.7	1071.3	971.5	918.2	888.3	880.0
35°	1691.8	1751.7	1610.3	1415.6	1234.3	1069.6	929.9	850.0	816.8	796.8	786.8
37.5°	1839.8	1838.2	1608.6	1370.7	1147.8	946.5	816.8	760.2	733.6	717.0	698.7
40°	2012.8	1904.7	1598.6	1305.8	1031.4	828.4	738.6	685.4	660.4	640.4	618.8
42.5°	2184.2	1949.6	1570.3	1209.4	886.6	743.6	682.0	633.8	607.2	585.6	555.6
45°	2332.2	1967.9	1515.4	1076.3	756.9	677.0	645.4	603.8	572.2	539.0	515.7
47.5°	2448.7	1964.6	1427.3	919.9	670.4	630.5	615.5	587.2	549.0	507.4	477.4
50°	2546.8	1939.6	1307.5	781.8	612.2	588.9	583.9	575.6	514.0	479.1	460.8
52.5°	2636.6	1903.0	1179.4	688.7	562.3	542.3	552.3	544.0	500.7	470.8	452.5
55°	2759.7	1878.1	1053.0	617.2	504.0	499.0	507.4	519.0	492.4	464.1	444.2
57.5°	2904.5	1891.4	956.5	537.3	449.1	452.5	480.8	497.4	484.1	454.1	434.2
60°	3070.8	1931.3	871.7	460.8	404.2	412.5	454.1	477.4	475.8	440.8	417.5
62.5°	3257.1	1972.9	736.9	402.6	366.0	379.3	422.5	452.5	457.5	427.5	399.2
63°	3293.7	1976.2	702.0	390.9	359.3	374.3	414.2	445.8	452.5	424.2	395.9
65°	3383.5	1946.3	565.6	359.3	332.7	349.3	389.3	417.5	430.8	405.9	382.6
67.5°	3308.7	1701.8	425.9	321.1	311.1	322.7	357.7	384.3	395.9	384.3	361.0
70°	3025.9	1237.6	332.7	286.1	287.8	296.1	322.7	347.7	361.0	357.7	336.0
72.5°	2437.0	702.0	277.8	256.2	261.2	271.1	289.4	312.7	324.4	322.7	307.7
75°	1605.3	359.3	234.6	229.6	232.9	241.2	254.5	272.8	286.1	284.5	277.8
77.5°	795.2	249.5	201.3	202.9	204.6	211.3	221.2	237.9	246.2	247.9	246.2
80°	327.7	194.6	173.0	174.7	176.3	181.3	188.0	202.9	207.9	211.3	212.9
82.5°	196.3	148.1	138.1	141.4	143.1	148.1	153.0	166.3	171.3	176.3	176.3
85°	129.8	103.1	99.8	103.1	106.5	109.8	111.5	119.8	128.1	134.7	138.1
87.5°	69.9	61.5	59.9	61.5	61.5	64.9	68.2	76.5	86.5	93.2	96.5
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°	1076.3	1076.3	1076.3	1076.3	1076.3
2.5°	1102.9	1104.6	1102.9	1104.6	1106.2
5°	1157.8	1161.1	1159.5	1159.5	1166.1
7.5°	1221.0	1227.7	1227.7	1231.0	1234.3
10°	1289.2	1295.9	1300.9	1300.9	1305.8
12.5°	1357.4	1360.7	1365.7	1365.7	1365.7
15°	1392.3	1390.7	1389.0	1387.4	1387.4
17.5°	1387.4	1380.7	1377.4	1374.0	1375.7
20°	1350.8	1339.1	1335.8	1330.8	1334.1
22.5°	1287.5	1270.9	1264.3	1255.9	1259.3
25°	1192.7	1172.8	1169.4	1159.5	1164.4
27.5°	1082.9	1073.0	1071.3	1069.6	1077.9
30°	979.8	983.1	984.8	988.1	996.4
32.5°	885.0	891.6	893.3	895.0	906.6
35°	791.8	783.5	791.8	788.5	798.5
37.5°	690.4	683.7	677.0	668.7	675.4
40°	605.5	593.9	573.9	563.9	565.6
42.5°	539.0	524.0	507.4	497.4	497.4
45°	495.7	477.4	462.5	455.8	455.8
47.5°	462.5	454.1	445.8	440.8	440.8
50°	449.1	439.2	434.2	430.8	430.8
52.5°	439.2	429.2	424.2	420.9	417.5
55°	430.8	415.9	410.9	409.2	409.2
57.5°	419.2	405.9	399.2	397.6	397.6
60°	400.9	390.9	384.3	382.6	382.6
62.5°	382.6	372.6	366.0	366.0	366.0
63°	379.3	367.6	362.6	362.6	362.6
65°	364.3	352.7	347.7	347.7	346.0
67.5°	344.3	332.7	329.4	329.4	326.0
70°	321.1	311.1	307.7	309.4	302.8
72.5°	297.8	287.8	282.8	282.8	276.1
75°	271.1	261.2	254.5	252.9	246.2
77.5°	241.2	232.9	226.2	219.6	216.3
80°	209.6	202.9	194.6	189.6	184.6
82.5°	176.3	169.7	164.7	171.3	146.4
85°	138.1	131.4	124.8	134.7	104.8
87.5°	101.5	98.1	91.5	79.8	69.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)