

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: NEO-RAY

Report Number: P332478-840

Luminaire Tested: **S123RDIW-S1165D1030U840-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332478-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDIW-S1165D1030U840-4F0-1E-UDD-A
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 1030 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8783.7 lumens
Efficiency: N/A
Efficacy: 130.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.36
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

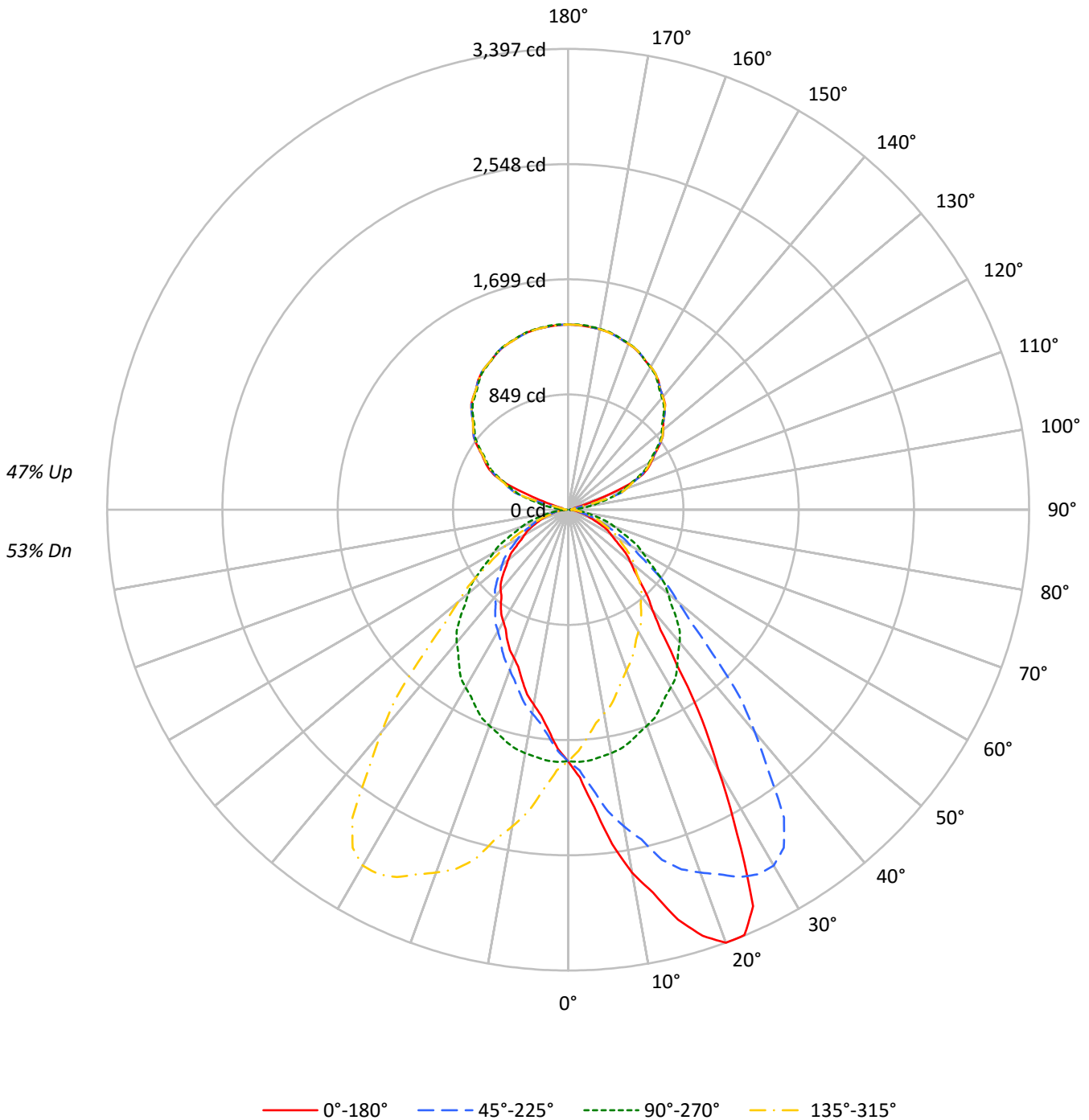
Input Watts (W): 67.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	99	95	91	88	92	88	85	82	75	73	71	63	62	60	53	52	51	46
2	91	84	78	73	84	78	73	68	67	63	60	57	54	51	47	45	44	39
3	83	74	67	61	77	69	63	58	59	55	51	50	47	44	42	40	38	34
4	76	66	58	52	70	61	55	50	53	48	44	45	42	38	38	35	33	30
5	70	59	51	45	65	55	48	43	48	42	38	41	37	34	35	32	29	26
6	65	53	45	40	60	50	43	38	43	38	34	37	33	30	32	28	26	23
7	60	48	40	35	56	45	38	33	39	34	30	34	30	27	29	26	23	21
8	56	44	36	31	52	41	34	30	36	31	27	31	27	24	27	23	21	19
9	52	40	33	28	48	38	31	27	33	28	24	29	25	22	25	21	19	17
10	49	37	30	25	45	35	28	24	31	25	22	27	23	20	23	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	19957	19957	19957	19957
5°	23791	20042	17650	20042
10°	29704	19928	15946	19928
15°	34867	19724	14540	19724
20°	38913	19420	13347	19420
25°	38292	19099	12613	19099
30°	27524	18804	11857	18804
35°	18378	18419	11369	18419
40°	13540	17956	10863	17956
45°	11357	17145	10368	17145
50°	10021	16083	9676	16083
55°	8788	14865	8728	14865
60°	7828	13702	7995	13702
65°	6872	12455	7440	12455
70°	5397	11339	6795	11339
75°	4754	9902	6209	9902
80°	4135	8412	6106	8412
85°	3335	6756	6472	6756



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.3	2.1
10°-20°	569.6	6.5
20°-30°	894.9	10.2
30°-40°	933.7	10.6
40°-50°	799.0	9.1
50°-60°	609.0	6.9
60°-70°	390.4	4.4
70°-80°	187.8	2.1
80°-90°	53.5	0.6
90°-100°	49.6	0.6
100°-110°	236.6	2.7
110°-120°	568.2	6.5
120°-130°	723.6	8.2
130°-140°	773.1	8.8
140°-150°	723.0	8.2
150°-160°	583.2	6.6
160°-170°	376.4	4.3
170°-180°	129.7	1.5
0°-30°	1646.9	18.7
0°-40°	2580.6	29.4
0°-60°	3988.6	45.4
0°-90°	4620.3	52.6
90°-120°	854.5	9.7
90°-150°	3074.2	35.0
90°-180°	4163.0	47.4
0°-180°	8783.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1854	1854	1854	1854	1854	
5°	2202	1855	1634	1855	2202	227
15°	3129	1770	1305	1770	3129	887
25°	3224	1608	1062	1608	3224	1386
35°	1399	1402	865	1402	1399	917
45°	746	1126	681	1126	746	587
55°	468	792	465	792	468	423
65°	270	489	292	489	270	265
75°	114	238	149	238	114	123
85°	27	55	52	55	27	32
90°	30	1	30	1	30	15
95°	39	62	39	62	39	32
105°	45	302	45	302	45	102
115°	596	567	596	567	596	551
125°	816	799	816	799	816	728
135°	1005	995	1005	995	1005	775
145°	1159	1148	1159	1148	1159	724
155°	1263	1265	1263	1265	1263	582
165°	1331	1334	1331	1334	1331	376
175°	1360	1365	1360	1365	1360	129
180°	1365	1365	1365	1365	1365	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1
2.5°	1974.8	1977.3	1969.0	1967.8	1958.2	1955.7	1955.7	1942.4	1934.1	1923.4	1917.0
5°	2201.8	2214.5	2208.2	2193.8	2170.0	2164.4	2149.4	2125.6	2098.6	2065.3	2049.4
7.5°	2485.3	2502.6	2496.0	2473.9	2448.9	2428.8	2386.2	2346.7	2291.3	2242.7	2201.1
10°	2717.7	2699.5	2685.1	2663.7	2640.7	2603.4	2559.0	2497.8	2427.2	2371.7	2309.8
12.5°	2891.6	2888.7	2870.5	2848.5	2816.0	2780.6	2725.9	2651.5	2569.4	2489.1	2418.3
15°	3128.9	3133.6	3121.7	3098.7	3052.6	2989.9	2907.4	2876.5	2759.0	2671.7	2584.3
17.5°	3293.0	3292.1	3290.4	3258.5	3211.6	3166.9	3090.4	3009.0	2902.7	2779.7	2662.0
20°	3397.1	3389.2	3390.8	3355.1	3320.1	3268.5	3193.9	3075.6	2988.4	2846.3	2724.8
22.5°	3394.6	3393.0	3399.0	3386.8	3361.4	3321.8	3263.2	3163.3	3051.9	2908.5	2771.9
25°	3224.1	3217.7	3255.1	3265.4	3305.9	3313.0	3295.5	3240.8	3135.2	2987.6	2818.5
27.5°	2698.4	2694.8	2764.1	2850.7	2960.6	3046.0	3128.6	3168.4	3135.2	3029.5	2860.1
30°	2214.5	2289.1	2324.0	2449.4	2589.1	2755.8	2901.8	3040.7	3074.8	3028.9	2889.9
32.5°	1838.6	1903.7	1932.9	2040.5	2170.7	2365.9	2585.0	2781.7	2920.6	2955.8	2872.2
35°	1398.6	1399.4	1466.0	1513.6	1634.3	1835.1	2047.8	2311.3	2573.2	2771.7	2792.3
37.5°	1116.0	1119.9	1160.2	1207.7	1298.2	1404.4	1591.7	1810.8	2113.3	2418.0	2596.6
40°	963.6	970.7	1000.9	1047.7	1112.8	1193.0	1339.0	1545.4	1797.8	2136.7	2413.7
42.5°	865.8	877.4	892.9	929.0	969.3	1044.4	1162.5	1321.9	1551.5	1871.9	2191.5
45°	746.1	752.5	764.4	781.0	817.5	869.9	949.3	1056.4	1247.0	1504.9	1824.7
47.5°	658.1	654.8	667.3	680.9	705.2	740.8	794.1	881.5	1017.4	1224.4	1495.7
50°	598.4	597.6	606.4	616.7	639.7	665.9	709.6	775.5	883.4	1054.9	1303.3
52.5°	542.6	545.6	551.8	564.6	581.3	602.5	641.7	689.1	781.8	929.8	1136.9
55°	468.3	470.7	479.4	486.6	498.5	519.9	544.5	584.2	647.7	750.8	921.5
57.5°	405.5	404.3	412.7	414.4	428.0	445.5	464.4	495.2	541.3	618.0	733.0
60°	363.6	361.1	368.3	373.9	381.0	395.3	411.1	441.3	477.9	534.2	632.6
62.5°	325.4	324.3	329.5	335.1	341.0	354.0	367.3	390.5	419.4	466.9	544.9
65°	269.8	272.3	274.6	277.0	280.1	288.1	300.8	316.7	336.6	369.9	426.3
67.5°	212.1	214.5	215.3	220.2	227.0	232.0	239.7	253.9	267.6	295.8	327.8
70°	171.5	170.7	171.5	173.8	182.6	191.3	201.6	212.0	220.7	240.4	267.5
72.5°	147.3	145.9	147.9	148.5	152.7	155.1	161.6	171.3	182.6	196.0	215.4
75°	114.3	114.3	114.3	114.3	117.4	119.1	121.5	123.8	127.7	134.1	148.5
77.5°	84.4	84.6	85.7	86.5	87.2	88.1	89.6	91.9	93.3	96.6	102.9
80°	66.7	67.5	66.7	67.5	67.5	69.1	69.9	72.2	73.0	77.0	79.4
82.5°	50.2	49.7	50.2	51.0	51.0	52.5	52.7	54.4	54.6	56.7	59.1
85°	27.0	25.4	27.0	26.2	27.8	26.2	27.0	28.6	28.6	29.4	32.5
87.5°	12.4	13.6	12.2	12.8	12.7	13.2	13.0	12.8	13.9	13.1	13.1
90°	30.4	30.0	29.5	29.1	28.6	28.0	27.1	26.2	25.2	24.3	21.4
92.5°	33.6	33.4	33.1	32.8	32.6	31.7	30.3	28.9	27.4	26.0	23.7
95°	38.6	38.6	38.6	38.6	38.6	37.8	36.2	34.6	33.0	31.4	29.0
97.5°	41.8	41.6	41.3	41.1	40.9	39.9	38.1	36.3	34.4	32.6	48.9
100°	42.6	42.4	42.1	41.9	41.7	40.7	38.9	37.1	35.2	33.4	68.7
102.5°	43.4	43.0	42.6	42.2	41.8	44.3	50.0	55.5	61.2	66.8	105.1
105°	44.6	44.1	43.7	43.3	42.8	62.5	102.4	142.4	182.3	222.2	242.5
107.5°	140.2	170.3	200.4	230.4	260.4	290.1	319.4	348.6	377.9	407.2	403.9
110°	278.9	311.1	343.4	375.7	407.9	427.7	435.2	442.6	450.0	457.5	454.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	478.6	485.3	492.2	499.0	505.7	509.1	509.0	508.9	508.7	508.6	506.1
115°	596.4	595.5	594.6	593.7	592.8	591.3	589.0	586.7	584.5	582.2	580.2
117.5°	662.6	662.4	662.2	662.0	661.9	660.9	659.0	657.2	655.4	653.6	652.6
120°	708.0	708.0	708.0	708.0	708.0	707.1	705.3	703.5	701.7	699.8	699.2
122.5°	752.7	752.5	752.2	752.0	751.9	751.1	749.9	748.6	747.4	746.1	745.3
125°	815.5	815.1	814.6	814.2	813.7	813.2	812.8	812.3	811.9	811.4	810.5
127.5°	876.0	876.5	876.9	877.3	877.8	877.7	876.9	876.2	875.5	874.7	873.6
130°	914.9	915.3	915.8	916.3	916.8	916.5	915.5	914.7	913.8	912.9	912.0
132.5°	950.6	951.3	951.9	952.5	953.1	953.0	952.1	951.2	950.3	949.4	948.7
135°	1005.2	1005.8	1006.5	1007.2	1007.8	1007.8	1007.2	1006.5	1005.8	1005.2	1004.3
137.5°	1056.5	1056.9	1057.4	1057.8	1058.3	1058.0	1056.9	1055.8	1054.7	1053.7	1053.2
140°	1087.3	1087.8	1088.2	1088.7	1089.1	1088.9	1088.0	1087.1	1086.2	1085.3	1084.6
142.5°	1115.7	1116.4	1117.0	1117.6	1118.2	1118.2	1117.5	1116.8	1116.1	1115.3	1114.7
145°	1159.3	1159.3	1159.3	1159.3	1159.3	1159.1	1158.7	1158.2	1157.8	1157.3	1156.9
147.5°	1191.8	1192.9	1193.9	1195.0	1196.0	1196.3	1195.8	1195.4	1194.9	1194.5	1194.0
150°	1216.2	1216.9	1217.5	1218.2	1218.9	1219.0	1218.5	1218.1	1217.6	1217.2	1216.7
152.5°	1235.7	1236.7	1237.7	1238.7	1239.8	1239.9	1239.1	1238.3	1237.5	1236.7	1236.4
155°	1262.8	1264.1	1265.6	1266.9	1268.2	1268.4	1267.2	1266.1	1265.0	1263.8	1263.6
157.5°	1285.8	1287.5	1289.3	1291.0	1292.7	1292.9	1291.6	1290.3	1288.9	1287.6	1287.8
160°	1300.3	1301.9	1303.5	1305.0	1306.7	1306.8	1305.5	1304.0	1302.7	1301.4	1301.6
162.5°	1314.1	1315.6	1317.0	1318.4	1319.7	1319.7	1318.2	1316.6	1315.0	1313.5	1313.7
165°	1330.8	1332.3	1333.9	1335.5	1337.1	1337.0	1335.1	1333.3	1331.6	1329.8	1330.0
167.5°	1342.7	1344.5	1346.4	1348.2	1350.0	1350.0	1348.2	1346.4	1344.5	1342.7	1342.7
170°	1350.1	1351.8	1353.6	1355.4	1357.3	1357.3	1355.4	1353.6	1351.8	1350.1	1350.1
172.5°	1354.1	1356.0	1358.1	1360.1	1362.0	1362.1	1360.3	1358.6	1356.8	1354.9	1354.7
175°	1360.2	1362.0	1363.8	1365.6	1367.5	1367.6	1365.9	1364.3	1362.8	1361.2	1361.0
177.5°	1362.0	1363.8	1365.6	1367.5	1369.3	1369.4	1368.0	1366.5	1365.1	1363.6	1363.4
180°	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1
2.5°	1914.5	1912.6	1903.7	1893.5	1880.2	1871.3	1864.3	1860.5	1849.1	1835.1	1825.5
5°	2032.8	2008.9	1983.5	1952.6	1924.0	1894.6	1876.3	1854.9	1828.8	1799.4	1778.8
7.5°	2159.4	2112.7	2062.4	2010.5	1959.2	1913.2	1872.6	1837.8	1796.0	1753.9	1724.4
10°	2256.5	2188.3	2117.7	2045.4	1979.5	1917.6	1870.0	1823.2	1773.2	1724.7	1688.3
12.5°	2344.8	2254.9	2173.5	2084.8	2000.5	1926.5	1857.9	1802.8	1742.7	1691.1	1649.5
15°	2456.6	2364.5	2266.0	2131.1	2019.2	1925.6	1842.2	1770.0	1697.0	1633.5	1593.0
17.5°	2561.0	2422.5	2290.2	2177.7	2032.3	1915.2	1813.5	1727.2	1647.0	1579.6	1529.8
20°	2604.2	2470.0	2326.4	2182.7	2039.8	1908.9	1790.6	1695.4	1612.0	1535.8	1489.9
22.5°	2630.2	2478.3	2327.0	2172.6	2020.8	1884.8	1767.8	1663.0	1572.7	1500.3	1443.5
25°	2660.6	2479.6	2312.9	2160.5	2005.7	1858.2	1719.2	1608.1	1510.5	1433.5	1373.1
27.5°	2680.6	2467.7	2270.7	2101.3	1944.3	1797.3	1670.0	1552.2	1453.2	1371.7	1307.0
30°	2684.3	2458.1	2238.3	2055.0	1895.4	1760.5	1625.6	1512.9	1408.1	1321.5	1261.2
32.5°	2689.5	2434.7	2194.4	1999.7	1836.3	1702.7	1580.4	1472.8	1365.5	1280.3	1218.7
35°	2668.5	2421.7	2128.0	1904.1	1740.6	1611.2	1501.0	1401.7	1296.2	1213.6	1150.9
37.5°	2578.3	2370.1	2059.1	1796.5	1625.6	1505.7	1415.8	1329.3	1232.5	1143.5	1084.4
40°	2487.5	2319.3	2005.7	1731.1	1552.6	1429.5	1348.6	1277.9	1184.3	1100.9	1037.4
42.5°	2352.3	2250.1	1954.9	1662.5	1470.0	1351.4	1283.1	1216.9	1134.7	1050.1	990.4
45°	2104.2	2117.7	1851.0	1553.3	1355.6	1236.6	1172.4	1126.3	1053.3	983.4	922.3
47.5°	1793.0	1919.2	1728.9	1436.9	1235.2	1123.5	1067.2	1027.0	977.9	909.3	853.5
50°	1589.8	1770.0	1631.1	1358.9	1159.6	1048.5	992.9	960.4	917.6	863.5	810.4
52.5°	1402.5	1596.0	1513.0	1271.8	1077.7	976.1	921.8	895.0	861.0	810.2	762.1
55°	1143.8	1339.8	1320.8	1140.5	954.8	863.5	822.3	792.1	769.1	731.0	693.0
57.5°	925.1	1111.1	1120.8	994.5	846.6	756.4	720.8	698.1	683.1	654.4	619.1
60°	787.4	958.1	991.4	896.2	769.1	689.7	654.8	636.5	624.7	601.7	574.6
62.5°	673.1	818.3	856.1	787.5	694.8	620.6	593.2	575.6	567.5	547.6	523.8
65°	515.1	635.8	672.3	634.2	585.7	526.2	504.0	489.0	481.8	470.7	453.2
67.5°	387.4	475.2	515.3	488.5	471.0	433.3	419.2	411.1	404.8	397.2	382.5
70°	311.1	376.2	417.5	410.3	396.1	376.2	365.9	360.3	354.0	347.7	335.0
72.5°	250.1	295.0	333.7	337.3	325.6	321.6	312.6	310.2	306.4	298.7	291.8
75°	165.9	196.8	223.8	234.2	238.9	242.9	238.9	238.1	237.3	231.0	227.0
77.5°	108.8	125.4	142.4	160.1	167.4	172.9	174.1	177.0	174.9	171.6	169.7
80°	83.3	87.4	99.2	114.3	126.2	131.0	134.1	135.7	134.9	134.1	131.0
82.5°	60.5	63.8	69.4	80.0	90.0	98.0	99.9	99.6	101.3	101.8	99.2
85°	32.5	33.3	34.9	36.6	42.1	50.8	53.2	54.7	56.4	56.4	51.6
87.5°	13.8	12.6	13.3	12.8	14.2	14.4	17.8	20.5	21.6	19.5	20.0
90°	18.5	15.6	12.6	10.0	7.8	5.6	3.2	1.0	3.2	5.6	7.8
92.5°	21.5	19.4	17.2	16.4	17.0	17.6	18.3	18.9	18.3	17.6	17.0
95°	26.5	24.0	21.5	24.9	34.1	43.4	52.6	61.9	52.6	43.4	34.1
97.5°	65.1	81.4	97.6	107.8	111.9	116.0	120.2	124.3	120.2	116.0	111.9
100°	103.8	139.0	174.1	189.5	184.9	180.5	175.9	171.4	175.9	180.5	184.9
102.5°	143.6	182.0	220.4	237.9	234.7	231.5	228.2	225.0	228.2	231.5	234.7
105°	262.7	283.0	303.3	312.1	309.7	307.2	304.8	302.3	304.8	307.2	309.7
107.5°	400.7	397.6	394.4	391.7	389.8	387.8	385.8	383.8	385.8	387.8	389.8
110°	452.5	450.0	447.6	445.4	443.6	441.8	440.0	438.2	440.0	441.8	443.6



TEST NUMBER: P332478-840

CATALOG NUMBER: S123RDIW-S1165D1030U840-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	503.6	501.1	498.7	496.7	495.0	493.3	491.7	490.1	491.7	493.3	495.0
115°	578.1	576.1	574.1	572.4	571.1	569.7	568.4	567.0	568.4	569.7	571.1
117.5°	651.6	650.6	649.4	648.1	646.4	644.8	643.1	641.5	643.1	644.8	646.4
120°	698.5	697.8	697.2	695.8	693.8	691.8	689.7	687.7	689.7	691.8	693.8
122.5°	744.4	743.6	742.7	741.4	739.7	738.1	736.4	734.8	736.4	738.1	739.7
125°	809.6	808.7	807.9	806.5	804.7	802.8	801.1	799.3	801.1	802.8	804.7
127.5°	872.6	871.5	870.4	869.0	867.2	865.4	863.5	861.7	863.5	865.4	867.2
130°	911.1	910.2	909.3	908.0	906.2	904.3	902.5	900.7	902.5	904.3	906.2
132.5°	948.0	947.3	946.5	945.2	943.4	941.6	939.9	938.1	939.9	941.6	943.4
135°	1003.4	1002.5	1001.6	1000.5	999.1	997.7	996.4	995.0	996.4	997.7	999.1
137.5°	1052.7	1052.2	1051.7	1050.6	1048.8	1047.1	1045.4	1043.7	1045.4	1047.1	1048.8
140°	1084.0	1083.3	1082.6	1081.6	1080.3	1078.9	1077.5	1076.2	1077.5	1078.9	1080.3
142.5°	1114.0	1113.3	1112.7	1111.7	1110.2	1108.9	1107.5	1106.2	1107.5	1108.9	1110.2
145°	1156.4	1156.0	1155.5	1154.5	1153.0	1151.3	1149.7	1148.2	1149.7	1151.3	1153.0
147.5°	1193.6	1193.1	1192.7	1191.9	1190.8	1189.8	1188.8	1187.8	1188.8	1189.8	1190.8
150°	1216.3	1215.8	1215.4	1214.8	1214.2	1213.5	1212.7	1212.1	1212.7	1213.5	1214.2
152.5°	1236.1	1235.9	1235.6	1235.3	1235.0	1234.7	1234.4	1234.1	1234.4	1234.7	1235.0
155°	1263.3	1263.1	1262.9	1263.0	1263.5	1263.9	1264.4	1264.9	1264.4	1263.9	1263.5
157.5°	1288.0	1288.3	1288.5	1288.6	1288.7	1288.7	1288.8	1288.8	1288.8	1288.7	1288.7
160°	1301.8	1302.0	1302.2	1302.5	1302.7	1302.9	1303.1	1303.4	1303.1	1302.9	1302.7
162.5°	1314.0	1314.2	1314.4	1314.8	1315.5	1316.1	1316.6	1317.2	1316.6	1316.1	1315.5
165°	1330.2	1330.4	1330.7	1331.1	1331.8	1332.5	1333.1	1333.8	1333.1	1332.5	1331.8
167.5°	1342.7	1342.7	1342.7	1343.2	1344.1	1345.0	1345.9	1346.8	1345.9	1345.0	1344.1
170°	1350.1	1350.1	1350.1	1350.5	1351.4	1352.3	1353.2	1354.1	1353.2	1352.3	1351.4
172.5°	1354.5	1354.3	1354.2	1354.6	1355.7	1356.9	1357.9	1359.0	1357.9	1356.9	1355.7
175°	1360.8	1360.5	1360.3	1360.8	1361.9	1363.0	1364.1	1365.2	1364.1	1363.0	1361.9
177.5°	1363.3	1363.1	1362.9	1363.3	1364.2	1365.1	1365.9	1366.9	1365.9	1365.1	1364.2
180°	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1
2.5°	1822.4	1814.1	1808.5	1795.7	1787.5	1778.6	1769.7	1775.4	1774.7	1774.1	1774.1
5°	1761.3	1743.0	1726.4	1705.0	1691.4	1674.8	1662.0	1660.4	1663.7	1652.5	1646.2
7.5°	1700.6	1675.7	1652.0	1628.4	1603.4	1583.4	1570.7	1564.9	1556.8	1549.9	1542.9
10°	1658.1	1628.7	1605.7	1576.3	1549.3	1525.5	1510.5	1500.2	1494.6	1489.0	1478.7
12.5°	1614.3	1585.6	1556.2	1523.0	1497.3	1469.7	1458.3	1446.8	1436.1	1430.0	1415.8
15°	1550.1	1512.9	1481.9	1446.9	1418.4	1391.4	1375.5	1352.5	1349.3	1341.4	1327.1
17.5°	1485.8	1445.3	1402.7	1376.7	1344.5	1316.5	1292.3	1284.5	1261.8	1253.2	1240.9
20°	1435.0	1397.8	1365.2	1331.1	1284.2	1258.1	1239.0	1228.7	1210.4	1199.3	1191.3
22.5°	1391.2	1353.3	1315.7	1275.9	1237.3	1207.9	1194.0	1177.9	1167.9	1152.4	1143.8
25°	1328.7	1287.4	1242.1	1199.3	1171.5	1149.3	1127.1	1112.8	1098.5	1091.4	1075.5
27.5°	1256.0	1212.8	1170.5	1138.0	1103.9	1082.0	1061.9	1049.1	1032.0	1020.0	1011.2
30°	1216.0	1165.2	1128.6	1099.3	1055.6	1035.0	1020.0	1004.1	991.4	978.7	970.0
32.5°	1169.6	1123.3	1088.6	1052.3	1018.9	996.2	976.7	962.8	952.0	939.9	931.2
35°	1096.9	1058.0	1022.3	985.8	961.2	938.2	915.1	903.2	892.9	881.8	873.9
37.5°	1031.2	994.8	960.9	926.2	895.8	877.1	858.5	849.4	835.5	828.0	819.9
40°	990.6	954.8	918.4	885.0	853.2	839.0	822.3	808.8	796.1	790.5	781.8
42.5°	946.1	910.4	879.6	843.7	817.7	798.3	782.9	768.2	758.6	750.5	745.6
45°	880.2	848.5	818.3	782.6	758.0	741.3	723.9	710.3	701.7	696.1	687.3
47.5°	816.3	784.6	753.9	722.8	698.9	679.9	662.5	653.1	641.5	634.7	628.7
50°	769.9	741.3	708.8	680.2	656.4	637.3	623.1	611.2	600.9	592.1	588.1
52.5°	727.4	696.9	668.8	642.1	617.0	595.4	582.4	569.9	562.1	552.1	547.5
55°	657.2	627.8	604.0	577.8	553.2	534.9	519.1	508.0	500.1	489.0	482.6
57.5°	591.3	565.0	536.5	513.8	488.5	473.0	459.9	444.8	435.2	426.4	420.2
60°	546.8	516.7	492.1	470.7	448.5	428.6	416.7	404.8	394.5	385.8	380.2
62.5°	500.5	474.1	450.8	427.5	407.2	389.9	376.1	366.1	357.0	351.4	345.9
65°	429.4	408.8	385.0	365.9	346.9	334.2	323.1	314.3	308.0	304.0	299.2
67.5°	364.0	344.0	323.2	304.5	291.8	282.1	274.8	267.3	264.2	259.0	255.9
70°	321.4	300.8	282.6	268.3	255.6	248.4	243.7	238.1	234.9	228.6	225.4
72.5°	275.1	260.1	247.0	235.3	225.1	218.6	212.6	205.7	200.7	193.7	190.5
75°	216.7	203.2	192.9	184.9	178.5	169.9	161.2	154.0	151.6	149.3	148.5
77.5°	160.5	151.9	144.4	137.7	129.9	123.5	121.6	120.0	119.6	118.3	118.3
80°	126.2	118.3	112.7	104.7	100.0	100.0	100.0	98.5	99.2	99.2	99.2
82.5°	93.8	86.5	83.5	80.7	79.7	80.3	80.3	80.7	80.2	81.4	80.8
85°	48.4	49.2	50.8	50.0	50.8	50.8	52.4	51.6	52.4	50.8	52.4
87.5°	19.8	22.2	23.4	24.6	25.9	25.9	26.7	26.9	27.7	27.8	28.0
90°	10.0	12.6	15.6	18.5	21.4	24.3	25.2	26.2	27.1	28.0	28.6
92.5°	16.4	17.2	19.4	21.5	23.7	26.0	27.4	28.9	30.3	31.7	32.6
95°	24.9	21.5	24.0	26.5	29.0	31.4	33.0	34.6	36.2	37.8	38.6
97.5°	107.8	97.6	81.4	65.1	48.9	32.6	34.4	36.3	38.1	39.9	40.9
100°	189.5	174.1	139.0	103.8	68.7	33.4	35.2	37.1	38.9	40.7	41.7
102.5°	237.9	220.4	182.0	143.6	105.1	66.8	61.2	55.5	50.0	44.3	41.8
105°	312.1	303.3	283.0	262.7	242.5	222.2	182.3	142.4	102.4	62.5	42.8
107.5°	391.7	394.4	397.6	400.7	403.9	407.2	377.9	348.6	319.4	290.1	260.4
110°	445.4	447.6	450.0	452.5	454.9	457.5	450.0	442.6	435.2	427.7	407.9



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CATALOG NUMBER: S123RDIW-S1165D1030U840-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	496.7	498.7	501.1	503.6	506.1	508.6	508.7	508.9	509.0	509.1	505.7
115°	572.4	574.1	576.1	578.1	580.2	582.2	584.5	586.7	589.0	591.3	592.8
117.5°	648.1	649.4	650.6	651.6	652.6	653.6	655.4	657.2	659.0	660.9	661.9
120°	695.8	697.2	697.8	698.5	699.2	699.8	701.7	703.5	705.3	707.1	708.0
122.5°	741.4	742.7	743.6	744.4	745.3	746.1	747.4	748.6	749.9	751.1	751.9
125°	806.5	807.9	808.7	809.6	810.5	811.4	811.9	812.3	812.8	813.2	813.7
127.5°	869.0	870.4	871.5	872.6	873.6	874.7	875.5	876.2	876.9	877.7	877.8
130°	908.0	909.3	910.2	911.1	912.0	912.9	913.8	914.7	915.5	916.5	916.8
132.5°	945.2	946.5	947.3	948.0	948.7	949.4	950.3	951.2	952.1	953.0	953.1
135°	1000.5	1001.6	1002.5	1003.4	1004.3	1005.2	1005.8	1006.5	1007.2	1007.8	1007.8
137.5°	1050.6	1051.7	1052.2	1052.7	1053.2	1053.7	1054.7	1055.8	1056.9	1058.0	1058.3
140°	1081.6	1082.6	1083.3	1084.0	1084.6	1085.3	1086.2	1087.1	1088.0	1088.9	1089.1
142.5°	1111.7	1112.7	1113.3	1114.0	1114.7	1115.3	1116.1	1116.8	1117.5	1118.2	1118.2
145°	1154.5	1155.5	1156.0	1156.4	1156.9	1157.3	1157.8	1158.2	1158.7	1159.1	1159.3
147.5°	1191.9	1192.7	1193.1	1193.6	1194.0	1194.5	1194.9	1195.4	1195.8	1196.3	1196.0
150°	1214.8	1215.4	1215.8	1216.3	1216.7	1217.2	1217.6	1218.1	1218.5	1219.0	1218.9
152.5°	1235.3	1235.6	1235.9	1236.1	1236.4	1236.7	1237.5	1238.3	1239.1	1239.9	1239.8
155°	1263.0	1262.9	1263.1	1263.3	1263.6	1263.8	1265.0	1266.1	1267.2	1268.4	1268.2
157.5°	1288.6	1288.5	1288.3	1288.0	1287.8	1287.6	1288.9	1290.3	1291.6	1292.9	1292.7
160°	1302.5	1302.2	1302.0	1301.8	1301.6	1301.4	1302.7	1304.0	1305.5	1306.8	1306.7
162.5°	1314.8	1314.4	1314.2	1314.0	1313.7	1313.5	1315.0	1316.6	1318.2	1319.7	1319.7
165°	1331.1	1330.7	1330.4	1330.2	1330.0	1329.8	1331.6	1333.3	1335.1	1337.0	1337.1
167.5°	1343.2	1342.7	1342.7	1342.7	1342.7	1342.7	1344.5	1346.4	1348.2	1350.0	1350.0
170°	1350.5	1350.1	1350.1	1350.1	1350.1	1350.1	1351.8	1353.6	1355.4	1357.3	1357.3
172.5°	1354.6	1354.2	1354.3	1354.5	1354.7	1354.9	1356.8	1358.6	1360.3	1362.1	1362.0
175°	1360.8	1360.3	1360.5	1360.8	1361.0	1361.2	1362.8	1364.3	1365.9	1367.6	1367.5
177.5°	1363.3	1362.9	1363.1	1363.3	1363.4	1363.6	1365.1	1366.5	1368.0	1369.4	1369.3
180°	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2



TEST NUMBER: P332478-840

CATALOG NUMBER: S123RDIW-S1165D1030U840-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1
2.5°	1766.6	1765.8	1766.6	1763.9	1766.6	1765.8	1766.6	1774.1	1774.1	1774.7	1775.4
5°	1643.8	1643.1	1640.6	1633.5	1640.6	1643.1	1643.8	1646.2	1652.5	1663.7	1660.4
7.5°	1536.6	1535.5	1528.5	1528.7	1528.5	1535.5	1536.6	1542.9	1549.9	1556.8	1564.9
10°	1473.2	1473.9	1464.4	1458.9	1464.4	1473.9	1473.2	1478.7	1489.0	1494.6	1500.2
12.5°	1411.6	1408.0	1400.3	1394.1	1400.3	1408.0	1411.6	1415.8	1430.0	1436.1	1446.8
15°	1330.3	1322.3	1303.3	1304.8	1303.3	1322.3	1330.3	1327.1	1341.4	1349.3	1352.5
17.5°	1234.6	1228.7	1228.4	1217.3	1228.4	1228.7	1234.6	1240.9	1253.2	1261.8	1284.5
20°	1178.7	1174.7	1176.3	1165.2	1176.3	1174.7	1178.7	1191.3	1199.3	1210.4	1228.7
22.5°	1134.9	1130.8	1124.2	1120.7	1124.2	1130.8	1134.9	1143.8	1152.4	1167.9	1177.9
25°	1070.8	1064.4	1058.0	1062.0	1058.0	1064.4	1070.8	1075.5	1091.4	1098.5	1112.8
27.5°	1006.6	1001.9	995.5	994.7	995.5	1001.9	1006.6	1011.2	1020.0	1032.0	1049.1
30°	965.9	961.2	958.1	954.0	958.1	961.2	965.9	970.0	978.7	991.4	1004.1
32.5°	924.7	923.7	918.1	917.3	918.1	923.7	924.7	931.2	939.9	952.0	962.8
35°	870.7	866.0	864.3	865.2	864.3	866.0	870.7	873.9	881.8	892.9	903.2
37.5°	819.4	813.0	810.2	807.4	810.2	813.0	819.4	819.9	828.0	835.5	849.4
40°	782.6	776.3	774.7	773.1	774.7	776.3	782.6	781.8	790.5	796.1	808.8
42.5°	741.3	738.8	737.8	735.0	737.8	738.8	741.3	745.6	750.5	758.6	768.2
45°	685.0	684.2	679.4	681.1	679.4	684.2	685.0	687.3	696.1	701.7	710.3
47.5°	625.6	622.1	618.7	621.0	618.7	622.1	625.6	628.7	634.7	641.5	653.1
50°	585.0	583.4	576.2	577.8	576.2	583.4	585.0	588.1	592.1	600.9	611.2
52.5°	544.3	538.3	535.6	534.6	535.6	538.3	544.3	547.5	552.1	562.1	569.9
55°	477.1	469.9	466.7	465.1	466.7	469.9	477.1	482.6	489.0	500.1	508.0
57.5°	411.0	409.1	406.6	408.3	406.6	409.1	411.0	420.2	426.4	435.2	444.8
60°	372.2	372.2	372.2	371.4	372.2	372.2	372.2	380.2	385.8	394.5	404.8
62.5°	342.4	340.5	339.9	341.0	339.9	340.5	342.4	345.9	351.4	357.0	366.1
65°	296.9	296.1	292.9	292.1	292.9	296.1	296.9	299.2	304.0	308.0	314.3
67.5°	253.9	251.0	250.0	248.9	250.0	251.0	253.9	255.9	259.0	264.2	267.3
70°	221.5	219.8	215.1	215.9	215.1	219.8	221.5	225.4	228.6	234.9	238.1
72.5°	186.5	184.9	184.0	182.9	184.0	184.9	186.5	190.5	193.7	200.7	205.7
75°	147.6	146.8	146.0	149.3	146.0	146.8	147.6	148.5	149.3	151.6	154.0
77.5°	118.3	118.3	118.8	117.4	118.8	118.3	118.3	118.3	118.3	119.6	120.0
80°	99.2	99.2	98.5	98.5	98.5	99.2	99.2	99.2	99.2	99.2	98.5
82.5°	79.6	80.2	80.7	79.4	80.7	80.2	79.6	80.8	81.4	80.2	80.7
85°	52.4	51.6	53.2	52.4	53.2	51.6	52.4	52.4	50.8	52.4	51.6
87.5°	29.3	28.2	28.2	29.0	28.2	28.2	29.3	28.0	27.8	27.7	26.9
90°	29.1	29.5	30.0	30.4	30.0	29.5	29.1	28.6	28.0	27.1	26.2
92.5°	32.8	33.1	33.4	33.6	33.4	33.1	32.8	32.6	31.7	30.3	28.9
95°	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	37.8	36.2	34.6
97.5°	41.1	41.3	41.6	41.8	41.6	41.3	41.1	40.9	39.9	38.1	36.3
100°	41.9	42.1	42.4	42.6	42.4	42.1	41.9	41.7	40.7	38.9	37.1
102.5°	42.2	42.6	43.0	43.4	43.0	42.6	42.2	41.8	44.3	50.0	55.5
105°	43.3	43.7	44.1	44.6	44.1	43.7	43.3	42.8	62.5	102.4	142.4
107.5°	230.4	200.4	170.3	140.2	170.3	200.4	230.4	260.4	290.1	319.4	348.6
110°	375.7	343.4	311.1	278.9	311.1	343.4	375.7	407.9	427.7	435.2	442.6



TEST NUMBER: P332478-840

CATALOG NUMBER: S123RDIW-S1165D1030U840-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	499.0	492.2	485.3	478.6	485.3	492.2	499.0	505.7	509.1	509.0	508.9
115°	593.7	594.6	595.5	596.4	595.5	594.6	593.7	592.8	591.3	589.0	586.7
117.5°	662.0	662.2	662.4	662.6	662.4	662.2	662.0	661.9	660.9	659.0	657.2
120°	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0	707.1	705.3	703.5
122.5°	752.0	752.2	752.5	752.7	752.5	752.2	752.0	751.9	751.1	749.9	748.6
125°	814.2	814.6	815.1	815.5	815.1	814.6	814.2	813.7	813.2	812.8	812.3
127.5°	877.3	876.9	876.5	876.0	876.5	876.9	877.3	877.8	877.7	876.9	876.2
130°	916.3	915.8	915.3	914.9	915.3	915.8	916.3	916.8	916.5	915.5	914.7
132.5°	952.5	951.9	951.3	950.6	951.3	951.9	952.5	953.1	953.0	952.1	951.2
135°	1007.2	1006.5	1005.8	1005.2	1005.8	1006.5	1007.2	1007.8	1007.8	1007.2	1006.5
137.5°	1057.8	1057.4	1056.9	1056.5	1056.9	1057.4	1057.8	1058.3	1058.0	1056.9	1055.8
140°	1088.7	1088.2	1087.8	1087.3	1087.8	1088.2	1088.7	1089.1	1088.9	1088.0	1087.1
142.5°	1117.6	1117.0	1116.4	1115.7	1116.4	1117.0	1117.6	1118.2	1118.2	1117.5	1116.8
145°	1159.3	1159.3	1159.3	1159.3	1159.3	1159.3	1159.3	1159.3	1159.1	1158.7	1158.2
147.5°	1195.0	1193.9	1192.9	1191.8	1192.9	1193.9	1195.0	1196.0	1196.3	1195.8	1195.4
150°	1218.2	1217.5	1216.9	1216.2	1216.9	1217.5	1218.2	1218.9	1219.0	1218.5	1218.1
152.5°	1238.7	1237.7	1236.7	1235.7	1236.7	1237.7	1238.7	1239.8	1239.9	1239.1	1238.3
155°	1266.9	1265.6	1264.1	1262.8	1264.1	1265.6	1266.9	1268.2	1268.4	1267.2	1266.1
157.5°	1291.0	1289.3	1287.5	1285.8	1287.5	1289.3	1291.0	1292.7	1292.9	1291.6	1290.3
160°	1305.0	1303.5	1301.9	1300.3	1301.9	1303.5	1305.0	1306.7	1306.8	1305.5	1304.0
162.5°	1318.4	1317.0	1315.6	1314.1	1315.6	1317.0	1318.4	1319.7	1319.7	1318.2	1316.6
165°	1335.5	1333.9	1332.3	1330.8	1332.3	1333.9	1335.5	1337.1	1337.0	1335.1	1333.3
167.5°	1348.2	1346.4	1344.5	1342.7	1344.5	1346.4	1348.2	1350.0	1350.0	1348.2	1346.4
170°	1355.4	1353.6	1351.8	1350.1	1351.8	1353.6	1355.4	1357.3	1357.3	1355.4	1353.6
172.5°	1360.1	1358.1	1356.0	1354.1	1356.0	1358.1	1360.1	1362.0	1362.1	1360.3	1358.6
175°	1365.6	1363.8	1362.0	1360.2	1362.0	1363.8	1365.6	1367.5	1367.6	1365.9	1364.3
177.5°	1367.5	1365.6	1363.8	1362.0	1363.8	1365.6	1367.5	1369.3	1369.4	1368.0	1366.5
180°	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2



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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1
2.5°	1769.7	1778.6	1787.5	1795.7	1808.5	1814.1	1822.4	1825.5	1835.1	1849.1	1860.5
5°	1662.0	1674.8	1691.4	1705.0	1726.4	1743.0	1761.3	1778.8	1799.4	1828.8	1854.9
7.5°	1570.7	1583.4	1603.4	1628.4	1652.0	1675.7	1700.6	1724.4	1753.9	1796.0	1837.8
10°	1510.5	1525.5	1549.3	1576.3	1605.7	1628.7	1658.1	1688.3	1724.7	1773.2	1823.2
12.5°	1458.3	1469.7	1497.3	1523.0	1556.2	1585.6	1614.3	1649.5	1691.1	1742.7	1802.8
15°	1375.5	1391.4	1418.4	1446.9	1481.9	1512.9	1550.1	1593.0	1633.5	1697.0	1770.0
17.5°	1292.3	1316.5	1344.5	1376.7	1402.7	1445.3	1485.8	1529.8	1579.6	1647.0	1727.2
20°	1239.0	1258.1	1284.2	1331.1	1365.2	1397.8	1435.0	1489.9	1535.8	1612.0	1695.4
22.5°	1194.0	1207.9	1237.3	1275.9	1315.7	1353.3	1391.2	1443.5	1500.3	1572.7	1663.0
25°	1127.1	1149.3	1171.5	1199.3	1242.1	1287.4	1328.7	1373.1	1433.5	1510.5	1608.1
27.5°	1061.9	1082.0	1103.9	1138.0	1170.5	1212.8	1256.0	1307.0	1371.7	1453.2	1552.2
30°	1020.0	1035.0	1055.6	1099.3	1128.6	1165.2	1216.0	1261.2	1321.5	1408.1	1512.9
32.5°	976.7	996.2	1018.9	1052.3	1088.6	1123.3	1169.6	1218.7	1280.3	1365.5	1472.8
35°	915.1	938.2	961.2	985.8	1022.3	1058.0	1096.9	1150.9	1213.6	1296.2	1401.7
37.5°	858.5	877.1	895.8	926.2	960.9	994.8	1031.2	1084.4	1143.5	1232.5	1329.3
40°	822.3	839.0	853.2	885.0	918.4	954.8	990.6	1037.4	1100.9	1184.3	1277.9
42.5°	782.9	798.3	817.7	843.7	879.6	910.4	946.1	990.4	1050.1	1134.7	1216.9
45°	723.9	741.3	758.0	782.6	818.3	848.5	880.2	922.3	983.4	1053.3	1126.3
47.5°	662.5	679.9	698.9	722.8	753.9	784.6	816.3	853.5	909.3	977.9	1027.0
50°	623.1	637.3	656.4	680.2	708.8	741.3	769.9	810.4	863.5	917.6	960.4
52.5°	582.4	595.4	617.0	642.1	668.8	696.9	727.4	762.1	810.2	861.0	895.0
55°	519.1	534.9	553.2	577.8	604.0	627.8	657.2	693.0	731.0	769.1	792.1
57.5°	459.9	473.0	488.5	513.8	536.5	565.0	591.3	619.1	654.4	683.1	698.1
60°	416.7	428.6	448.5	470.7	492.1	516.7	546.8	574.6	601.7	624.7	636.5
62.5°	376.1	389.9	407.2	427.5	450.8	474.1	500.5	523.8	547.6	567.5	575.6
65°	323.1	334.2	346.9	365.9	385.0	408.8	429.4	453.2	470.7	481.8	489.0
67.5°	274.8	282.1	291.8	304.5	323.2	344.0	364.0	382.5	397.2	404.8	411.1
70°	243.7	248.4	255.6	268.3	282.6	300.8	321.4	335.0	347.7	354.0	360.3
72.5°	212.6	218.6	225.1	235.3	247.0	260.1	275.1	291.8	298.7	306.4	310.2
75°	161.2	169.9	178.5	184.9	192.9	203.2	216.7	227.0	231.0	237.3	238.1
77.5°	121.6	123.5	129.9	137.7	144.4	151.9	160.5	169.7	171.6	174.9	177.0
80°	100.0	100.0	100.0	104.7	112.7	118.3	126.2	131.0	134.1	134.9	135.7
82.5°	80.3	80.3	79.7	80.7	83.5	86.5	93.8	99.2	101.8	101.3	99.6
85°	52.4	50.8	50.8	50.0	50.8	49.2	48.4	51.6	56.4	56.4	54.7
87.5°	26.7	25.9	25.9	24.6	23.4	22.2	19.8	20.0	19.5	21.6	20.5
90°	25.2	24.3	21.4	18.5	15.6	12.6	10.0	7.8	5.6	3.2	1.0
92.5°	27.4	26.0	23.7	21.5	19.4	17.2	16.4	17.0	17.6	18.3	18.9
95°	33.0	31.4	29.0	26.5	24.0	21.5	24.9	34.1	43.4	52.6	61.9
97.5°	34.4	32.6	48.9	65.1	81.4	97.6	107.8	111.9	116.0	120.2	124.3
100°	35.2	33.4	68.7	103.8	139.0	174.1	189.5	184.9	180.5	175.9	171.4
102.5°	61.2	66.8	105.1	143.6	182.0	220.4	237.9	234.7	231.5	228.2	225.0
105°	182.3	222.2	242.5	262.7	283.0	303.3	312.1	309.7	307.2	304.8	302.3
107.5°	377.9	407.2	403.9	400.7	397.6	394.4	391.7	389.8	387.8	385.8	383.8
110°	450.0	457.5	454.9	452.5	450.0	447.6	445.4	443.6	441.8	440.0	438.2



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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	508.7	508.6	506.1	503.6	501.1	498.7	496.7	495.0	493.3	491.7	490.1
115°	584.5	582.2	580.2	578.1	576.1	574.1	572.4	571.1	569.7	568.4	567.0
117.5°	655.4	653.6	652.6	651.6	650.6	649.4	648.1	646.4	644.8	643.1	641.5
120°	701.7	699.8	699.2	698.5	697.8	697.2	695.8	693.8	691.8	689.7	687.7
122.5°	747.4	746.1	745.3	744.4	743.6	742.7	741.4	739.7	738.1	736.4	734.8
125°	811.9	811.4	810.5	809.6	808.7	807.9	806.5	804.7	802.8	801.1	799.3
127.5°	875.5	874.7	873.6	872.6	871.5	870.4	869.0	867.2	865.4	863.5	861.7
130°	913.8	912.9	912.0	911.1	910.2	909.3	908.0	906.2	904.3	902.5	900.7
132.5°	950.3	949.4	948.7	948.0	947.3	946.5	945.2	943.4	941.6	939.9	938.1
135°	1005.8	1005.2	1004.3	1003.4	1002.5	1001.6	1000.5	999.1	997.7	996.4	995.0
137.5°	1054.7	1053.7	1053.2	1052.7	1052.2	1051.7	1050.6	1048.8	1047.1	1045.4	1043.7
140°	1086.2	1085.3	1084.6	1084.0	1083.3	1082.6	1081.6	1080.3	1078.9	1077.5	1076.2
142.5°	1116.1	1115.3	1114.7	1114.0	1113.3	1112.7	1111.7	1110.2	1108.9	1107.5	1106.2
145°	1157.8	1157.3	1156.9	1156.4	1156.0	1155.5	1154.5	1153.0	1151.3	1149.7	1148.2
147.5°	1194.9	1194.5	1194.0	1193.6	1193.1	1192.7	1191.9	1190.8	1189.8	1188.8	1187.8
150°	1217.6	1217.2	1216.7	1216.3	1215.8	1215.4	1214.8	1214.2	1213.5	1212.7	1212.1
152.5°	1237.5	1236.7	1236.4	1236.1	1235.9	1235.6	1235.3	1235.0	1234.7	1234.4	1234.1
155°	1265.0	1263.8	1263.6	1263.3	1263.1	1262.9	1263.0	1263.5	1263.9	1264.4	1264.9
157.5°	1288.9	1287.6	1287.8	1288.0	1288.3	1288.5	1288.6	1288.7	1288.7	1288.8	1288.8
160°	1302.7	1301.4	1301.6	1301.8	1302.0	1302.2	1302.5	1302.7	1302.9	1303.1	1303.4
162.5°	1315.0	1313.5	1313.7	1314.0	1314.2	1314.4	1314.8	1315.5	1316.1	1316.6	1317.2
165°	1331.6	1329.8	1330.0	1330.2	1330.4	1330.7	1331.1	1331.8	1332.5	1333.1	1333.8
167.5°	1344.5	1342.7	1342.7	1342.7	1342.7	1342.7	1343.2	1344.1	1345.0	1345.9	1346.8
170°	1351.8	1350.1	1350.1	1350.1	1350.1	1350.1	1350.5	1351.4	1352.3	1353.2	1354.1
172.5°	1356.8	1354.9	1354.7	1354.5	1354.3	1354.2	1354.6	1355.7	1356.9	1357.9	1359.0
175°	1362.8	1361.2	1361.0	1360.8	1360.5	1360.3	1360.8	1361.9	1363.0	1364.1	1365.2
177.5°	1365.1	1363.6	1363.4	1363.3	1363.1	1362.9	1363.3	1364.2	1365.1	1365.9	1366.9
180°	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1
2.5°	1864.3	1871.3	1880.2	1893.5	1903.7	1912.6	1914.5	1917.0	1923.4	1934.1	1942.4
5°	1876.3	1894.6	1924.0	1952.6	1983.5	2008.9	2032.8	2049.4	2065.3	2098.6	2125.6
7.5°	1872.6	1913.2	1959.2	2010.5	2062.4	2112.7	2159.4	2201.1	2242.7	2291.3	2346.7
10°	1870.0	1917.6	1979.5	2045.4	2117.7	2188.3	2256.5	2309.8	2371.7	2427.2	2497.8
12.5°	1857.9	1926.5	2000.5	2084.8	2173.5	2254.9	2344.8	2418.3	2489.1	2569.4	2651.5
15°	1842.2	1925.6	2019.2	2131.1	2266.0	2364.5	2456.6	2584.3	2671.7	2759.0	2876.5
17.5°	1813.5	1915.2	2032.3	2177.7	2290.2	2422.5	2561.0	2662.0	2779.7	2902.7	3009.0
20°	1790.6	1908.9	2039.8	2182.7	2326.4	2470.0	2604.2	2724.8	2846.3	2988.4	3075.6
22.5°	1767.8	1884.8	2020.8	2172.6	2327.0	2478.3	2630.2	2771.9	2908.5	3051.9	3163.3
25°	1719.2	1858.2	2005.7	2160.5	2312.9	2479.6	2660.6	2818.5	2987.6	3135.2	3240.8
27.5°	1670.0	1797.3	1944.3	2101.3	2270.7	2467.7	2680.6	2860.1	3029.5	3135.2	3168.4
30°	1625.6	1760.5	1895.4	2055.0	2238.3	2458.1	2684.3	2889.9	3028.9	3074.8	3040.7
32.5°	1580.4	1702.7	1836.3	1999.7	2194.4	2434.7	2689.5	2872.2	2955.8	2920.6	2781.7
35°	1501.0	1611.2	1740.6	1904.1	2128.0	2421.7	2668.5	2792.3	2771.7	2573.2	2311.3
37.5°	1415.8	1505.7	1625.6	1796.5	2059.1	2370.1	2578.3	2596.6	2418.0	2113.3	1810.8
40°	1348.6	1429.5	1552.6	1731.1	2005.7	2319.3	2487.5	2413.7	2136.7	1797.8	1545.4
42.5°	1283.1	1351.4	1470.0	1662.5	1954.9	2250.1	2352.3	2191.5	1871.9	1551.5	1321.9
45°	1172.4	1236.6	1355.6	1553.3	1851.0	2117.7	2104.2	1824.7	1504.9	1247.0	1056.4
47.5°	1067.2	1123.5	1235.2	1436.9	1728.9	1919.2	1793.0	1495.7	1224.4	1017.4	881.5
50°	992.9	1048.5	1159.6	1358.9	1631.1	1770.0	1589.8	1303.3	1054.9	883.4	775.5
52.5°	921.8	976.1	1077.7	1271.8	1513.0	1596.0	1402.5	1136.9	929.8	781.8	689.1
55°	822.3	863.5	954.8	1140.5	1320.8	1339.8	1143.8	921.5	750.8	647.7	584.2
57.5°	720.8	756.4	846.6	994.5	1120.8	1111.1	925.1	733.0	618.0	541.3	495.2
60°	654.8	689.7	769.1	896.2	991.4	958.1	787.4	632.6	534.2	477.9	441.3
62.5°	593.2	620.6	694.8	787.5	856.1	818.3	673.1	544.9	466.9	419.4	390.5
65°	504.0	526.2	585.7	634.2	672.3	635.8	515.1	426.3	369.9	336.6	316.7
67.5°	419.2	433.3	471.0	488.5	515.3	475.2	387.4	327.8	295.8	267.6	253.9
70°	365.9	376.2	396.1	410.3	417.5	376.2	311.1	267.5	240.4	220.7	212.0
72.5°	312.6	321.6	325.6	337.3	333.7	295.0	250.1	215.4	196.0	182.6	171.3
75°	238.9	242.9	238.9	234.2	223.8	196.8	165.9	148.5	134.1	127.7	123.8
77.5°	174.1	172.9	167.4	160.1	142.4	125.4	108.8	102.9	96.6	93.3	91.9
80°	134.1	131.0	126.2	114.3	99.2	87.4	83.3	79.4	77.0	73.0	72.2
82.5°	99.9	98.0	90.0	80.0	69.4	63.8	60.5	59.1	56.7	54.6	54.4
85°	53.2	50.8	42.1	36.6	34.9	33.3	32.5	32.5	29.4	28.6	28.6
87.5°	17.8	14.4	14.2	12.8	13.3	12.6	13.8	13.1	13.1	13.9	12.8
90°	3.2	5.6	7.8	10.0	12.6	15.6	18.5	21.4	24.3	25.2	26.2
92.5°	18.3	17.6	17.0	16.4	17.2	19.4	21.5	23.7	26.0	27.4	28.9
95°	52.6	43.4	34.1	24.9	21.5	24.0	26.5	29.0	31.4	33.0	34.6
97.5°	120.2	116.0	111.9	107.8	97.6	81.4	65.1	48.9	32.6	34.4	36.3
100°	175.9	180.5	184.9	189.5	174.1	139.0	103.8	68.7	33.4	35.2	37.1
102.5°	228.2	231.5	234.7	237.9	220.4	182.0	143.6	105.1	66.8	61.2	55.5
105°	304.8	307.2	309.7	312.1	303.3	283.0	262.7	242.5	222.2	182.3	142.4
107.5°	385.8	387.8	389.8	391.7	394.4	397.6	400.7	403.9	407.2	377.9	348.6
110°	440.0	441.8	443.6	445.4	447.6	450.0	452.5	454.9	457.5	450.0	442.6



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	491.7	493.3	495.0	496.7	498.7	501.1	503.6	506.1	508.6	508.7	508.9
115°	568.4	569.7	571.1	572.4	574.1	576.1	578.1	580.2	582.2	584.5	586.7
117.5°	643.1	644.8	646.4	648.1	649.4	650.6	651.6	652.6	653.6	655.4	657.2
120°	689.7	691.8	693.8	695.8	697.2	697.8	698.5	699.2	699.8	701.7	703.5
122.5°	736.4	738.1	739.7	741.4	742.7	743.6	744.4	745.3	746.1	747.4	748.6
125°	801.1	802.8	804.7	806.5	807.9	808.7	809.6	810.5	811.4	811.9	812.3
127.5°	863.5	865.4	867.2	869.0	870.4	871.5	872.6	873.6	874.7	875.5	876.2
130°	902.5	904.3	906.2	908.0	909.3	910.2	911.1	912.0	912.9	913.8	914.7
132.5°	939.9	941.6	943.4	945.2	946.5	947.3	948.0	948.7	949.4	950.3	951.2
135°	996.4	997.7	999.1	1000.5	1001.6	1002.5	1003.4	1004.3	1005.2	1005.8	1006.5
137.5°	1045.4	1047.1	1048.8	1050.6	1051.7	1052.2	1052.7	1053.2	1053.7	1054.7	1055.8
140°	1077.5	1078.9	1080.3	1081.6	1082.6	1083.3	1084.0	1084.6	1085.3	1086.2	1087.1
142.5°	1107.5	1108.9	1110.2	1111.7	1112.7	1113.3	1114.0	1114.7	1115.3	1116.1	1116.8
145°	1149.7	1151.3	1153.0	1154.5	1155.5	1156.0	1156.4	1156.9	1157.3	1157.8	1158.2
147.5°	1188.8	1189.8	1190.8	1191.9	1192.7	1193.1	1193.6	1194.0	1194.5	1194.9	1195.4
150°	1212.7	1213.5	1214.2	1214.8	1215.4	1215.8	1216.3	1216.7	1217.2	1217.6	1218.1
152.5°	1234.4	1234.7	1235.0	1235.3	1235.6	1235.9	1236.1	1236.4	1236.7	1237.5	1238.3
155°	1264.4	1263.9	1263.5	1263.0	1262.9	1263.1	1263.3	1263.6	1263.8	1265.0	1266.1
157.5°	1288.8	1288.7	1288.7	1288.6	1288.5	1288.3	1288.0	1287.8	1287.6	1288.9	1290.3
160°	1303.1	1302.9	1302.7	1302.5	1302.2	1302.0	1301.8	1301.6	1301.4	1302.7	1304.0
162.5°	1316.6	1316.1	1315.5	1314.8	1314.4	1314.2	1314.0	1313.7	1313.5	1315.0	1316.6
165°	1333.1	1332.5	1331.8	1331.1	1330.7	1330.4	1330.2	1330.0	1329.8	1331.6	1333.3
167.5°	1345.9	1345.0	1344.1	1343.2	1342.7	1342.7	1342.7	1342.7	1342.7	1344.5	1346.4
170°	1353.2	1352.3	1351.4	1350.5	1350.1	1350.1	1350.1	1350.1	1350.1	1351.8	1353.6
172.5°	1357.9	1356.9	1355.7	1354.6	1354.2	1354.3	1354.5	1354.7	1354.9	1356.8	1358.6
175°	1364.1	1363.0	1361.9	1360.8	1360.3	1360.5	1360.8	1361.0	1361.2	1362.8	1364.3
177.5°	1365.9	1365.1	1364.2	1363.3	1362.9	1363.1	1363.3	1363.4	1363.6	1365.1	1366.5
180°	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1	1854.1
2.5°	1955.7	1955.7	1958.2	1967.8	1969.0	1977.3	1974.8
5°	2149.4	2164.4	2170.0	2193.8	2208.2	2214.5	2201.8
7.5°	2386.2	2428.8	2448.9	2473.9	2496.0	2502.6	2485.3
10°	2559.0	2603.4	2640.7	2663.7	2685.1	2699.5	2717.7
12.5°	2725.9	2780.6	2816.0	2848.5	2870.5	2888.7	2891.6
15°	2907.4	2989.9	3052.6	3098.7	3121.7	3133.6	3128.9
17.5°	3090.4	3166.9	3211.6	3258.5	3290.4	3292.1	3293.0
20°	3193.9	3268.5	3320.1	3355.1	3390.8	3389.2	3397.1
22.5°	3263.2	3321.8	3361.4	3386.8	3399.0	3393.0	3394.6
25°	3295.5	3313.0	3305.9	3265.4	3255.1	3217.7	3224.1
27.5°	3128.6	3046.0	2960.6	2850.7	2764.1	2694.8	2698.4
30°	2901.8	2755.8	2589.1	2449.4	2324.0	2289.1	2214.5
32.5°	2585.0	2365.9	2170.7	2040.5	1932.9	1903.7	1838.6
35°	2047.8	1835.1	1634.3	1513.6	1466.0	1399.4	1398.6
37.5°	1591.7	1404.4	1298.2	1207.7	1160.2	1119.9	1116.0
40°	1339.0	1193.0	1112.8	1047.7	1000.9	970.7	963.6
42.5°	1162.5	1044.4	969.3	929.0	892.9	877.4	865.8
45°	949.3	869.9	817.5	781.0	764.4	752.5	746.1
47.5°	794.1	740.8	705.2	680.9	667.3	654.8	658.1
50°	709.6	665.9	639.7	616.7	606.4	597.6	598.4
52.5°	641.7	602.5	581.3	564.6	551.8	545.6	542.6
55°	544.5	519.9	498.5	486.6	479.4	470.7	468.3
57.5°	464.4	445.5	428.0	414.4	412.7	404.3	405.5
60°	411.1	395.3	381.0	373.9	368.3	361.1	363.6
62.5°	367.3	354.0	341.0	335.1	329.5	324.3	325.4
65°	300.8	288.1	280.1	277.0	274.6	272.3	269.8
67.5°	239.7	232.0	227.0	220.2	215.3	214.5	212.1
70°	201.6	191.3	182.6	173.8	171.5	170.7	171.5
72.5°	161.6	155.1	152.7	148.5	147.9	145.9	147.3
75°	121.5	119.1	117.4	114.3	114.3	114.3	114.3
77.5°	89.6	88.1	87.2	86.5	85.7	84.6	84.4
80°	69.9	69.1	67.5	67.5	66.7	67.5	66.7
82.5°	52.7	52.5	51.0	51.0	50.2	49.7	50.2
85°	27.0	26.2	27.8	26.2	27.0	25.4	27.0
87.5°	13.0	13.2	12.7	12.8	12.2	13.6	12.4
90°	27.1	28.0	28.6	29.1	29.5	30.0	30.4
92.5°	30.3	31.7	32.6	32.8	33.1	33.4	33.6
95°	36.2	37.8	38.6	38.6	38.6	38.6	38.6
97.5°	38.1	39.9	40.9	41.1	41.3	41.6	41.8
100°	38.9	40.7	41.7	41.9	42.1	42.4	42.6
102.5°	50.0	44.3	41.8	42.2	42.6	43.0	43.4
105°	102.4	62.5	42.8	43.3	43.7	44.1	44.6
107.5°	319.4	290.1	260.4	230.4	200.4	170.3	140.2
110°	435.2	427.7	407.9	375.7	343.4	311.1	278.9



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	509.0	509.1	505.7	499.0	492.2	485.3	478.6
115°	589.0	591.3	592.8	593.7	594.6	595.5	596.4
117.5°	659.0	660.9	661.9	662.0	662.2	662.4	662.6
120°	705.3	707.1	708.0	708.0	708.0	708.0	708.0
122.5°	749.9	751.1	751.9	752.0	752.2	752.5	752.7
125°	812.8	813.2	813.7	814.2	814.6	815.1	815.5
127.5°	876.9	877.7	877.8	877.3	876.9	876.5	876.0
130°	915.5	916.5	916.8	916.3	915.8	915.3	914.9
132.5°	952.1	953.0	953.1	952.5	951.9	951.3	950.6
135°	1007.2	1007.8	1007.8	1007.2	1006.5	1005.8	1005.2
137.5°	1056.9	1058.0	1058.3	1057.8	1057.4	1056.9	1056.5
140°	1088.0	1088.9	1089.1	1088.7	1088.2	1087.8	1087.3
142.5°	1117.5	1118.2	1118.2	1117.6	1117.0	1116.4	1115.7
145°	1158.7	1159.1	1159.3	1159.3	1159.3	1159.3	1159.3
147.5°	1195.8	1196.3	1196.0	1195.0	1193.9	1192.9	1191.8
150°	1218.5	1219.0	1218.9	1218.2	1217.5	1216.9	1216.2
152.5°	1239.1	1239.9	1239.8	1238.7	1237.7	1236.7	1235.7
155°	1267.2	1268.4	1268.2	1266.9	1265.6	1264.1	1262.8
157.5°	1291.6	1292.9	1292.7	1291.0	1289.3	1287.5	1285.8
160°	1305.5	1306.8	1306.7	1305.0	1303.5	1301.9	1300.3
162.5°	1318.2	1319.7	1319.7	1318.4	1317.0	1315.6	1314.1
165°	1335.1	1337.0	1337.1	1335.5	1333.9	1332.3	1330.8
167.5°	1348.2	1350.0	1350.0	1348.2	1346.4	1344.5	1342.7
170°	1355.4	1357.3	1357.3	1355.4	1353.6	1351.8	1350.1
172.5°	1360.3	1362.1	1362.0	1360.1	1358.1	1356.0	1354.1
175°	1365.9	1367.6	1367.5	1365.6	1363.8	1362.0	1360.2
177.5°	1368.0	1369.4	1369.3	1367.5	1365.6	1363.8	1362.0
180°	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2

(END OF REPORT)