

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: P332487-840

Luminaire Tested: **S123RDIW-S1165D1535U840-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332487-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDIW-S1165D1535U840-4F0-1E-UDD-A1
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 1535 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9993.3 lumens
Efficiency: N/A
Efficacy: 120.5 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

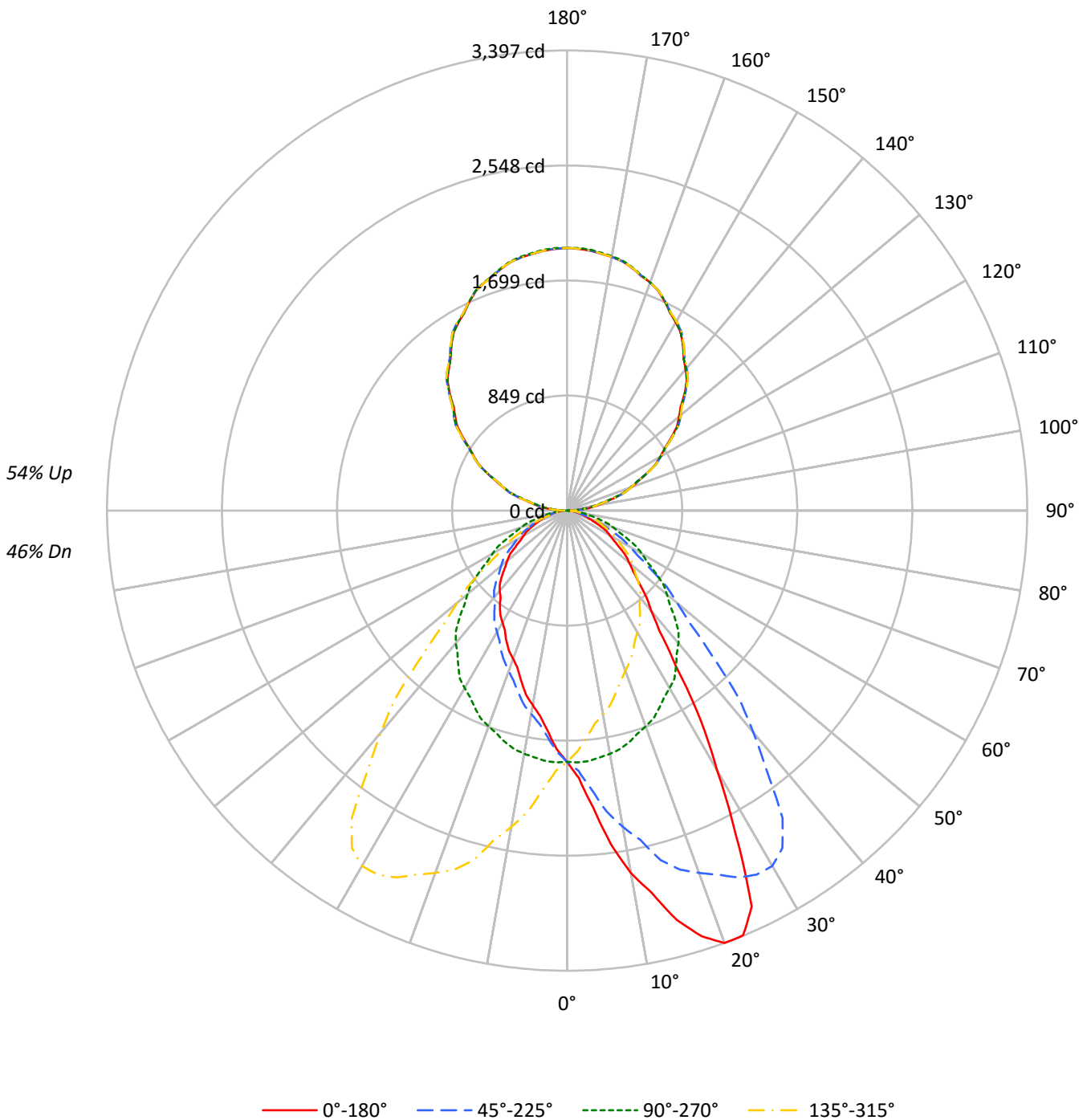
Input Watts (W): 82.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46
1	97	93	90	86	89	86	83	80	72	70	68	59	58	56	47	46	46	40
2	89	82	76	71	82	76	71	67	64	60	57	53	50	48	42	41	39	34
3	82	73	66	60	75	67	61	56	57	52	49	47	44	41	38	36	34	30
4	75	65	57	51	69	60	53	48	51	46	42	42	39	36	34	32	30	26
5	69	58	50	44	63	54	47	42	46	40	36	38	34	31	31	28	26	23
6	64	52	44	39	58	48	41	36	41	36	32	35	31	28	28	26	23	20
7	59	47	39	34	54	44	37	32	37	32	28	32	28	25	26	23	21	18
8	55	43	35	30	50	40	33	28	34	29	25	29	25	22	24	21	19	16
9	51	39	32	27	47	37	30	26	31	26	23	27	23	20	22	19	17	15
10	48	36	29	24	44	34	27	23	29	24	20	25	21	18	21	18	16	14

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	1.8
10°-20°	569.6	5.7
20°-30°	894.9	9.0
30°-40°	933.7	9.3
40°-50°	799.0	8.0
50°-60°	609.0	6.1
60°-70°	390.4	3.9
70°-80°	187.8	1.9
80°-90°	55.4	0.6
90°-100°	126.3	1.3
100°-110°	378.0	3.8
110°-120°	642.9	6.4
120°-130°	845.6	8.5
130°-140°	950.5	9.5
140°-150°	934.3	9.3
150°-160°	786.5	7.9
160°-170°	523.6	5.2
170°-180°	183.3	1.8
0°-30°	1646.9	16.5
0°-40°	2580.6	25.8
0°-60°	3988.6	39.9
0°-90°	4622.2	46.3
90°-120°	1147.2	11.5
90°-150°	3877.6	38.8
90°-180°	5371.0	53.7
0°-180°	9993.3	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°	46	2	46	2	46	23
95°	119	90	119	90	119	122
105°	362	343	362	343	362	385
115°	649	647	649	647	649	642
125°	936	947	936	947	936	837
135°	1227	1229	1227	1229	1227	944
145°	1491	1491	1491	1491	1491	931
155°	1704	1707	1704	1707	1704	785
165°	1853	1859	1853	1859	1853	523
175°	1926	1934	1926	1934	1926	183
180°	1938	1938	1938	1938	1938	



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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°	15.5	16.7	15.2	15.8	15.6	16.1	15.8	15.5	16.5	15.6	15.3
90°	45.6	45.0	44.3	43.6	43.0	42.0	40.6	39.3	37.9	36.6	32.1
92.5°	61.5	61.9	62.3	62.7	63.1	62.8	61.7	60.6	59.6	58.5	55.9
95°	118.8	118.8	118.8	118.8	118.8	118.1	116.7	115.4	114.0	112.7	110.0
97.5°	182.8	182.9	183.0	183.2	183.3	182.6	181.0	179.5	177.9	176.3	174.4
100°	231.5	230.8	230.1	229.4	228.7	227.9	226.9	225.9	224.9	223.9	222.2
102.5°	281.4	281.6	281.7	281.9	282.0	281.6	280.5	279.5	278.5	277.4	275.2
105°	362.4	361.7	361.1	360.4	359.7	359.4	359.4	359.4	359.4	359.4	356.4
107.5°	446.8	447.2	447.6	448.0	448.4	448.1	447.0	446.0	444.8	443.7	442.5
110°	504.0	504.7	505.4	506.0	506.8	506.4	505.0	503.7	502.4	501.0	500.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	564.9	565.1	565.2	565.4	565.5	564.7	563.1	561.5	559.9	558.3	558.2
115°	648.7	649.0	649.4	649.7	650.1	650.1	649.7	649.4	649.0	648.7	649.4
117.5°	733.7	734.7	735.6	736.5	737.5	738.0	738.1	738.1	738.2	738.3	739.1
120°	793.3	794.1	794.8	795.5	796.1	796.6	797.0	797.3	797.6	798.0	799.6
122.5°	850.6	851.6	852.5	853.5	854.4	855.4	856.3	857.1	858.0	858.9	859.8
125°	936.5	937.9	939.3	940.6	941.9	943.3	944.6	946.0	947.4	948.8	949.4
127.5°	1022.1	1023.7	1025.2	1026.8	1028.3	1030.1	1032.0	1033.9	1035.7	1037.6	1038.4
130°	1078.1	1080.6	1082.9	1085.3	1087.6	1089.5	1090.9	1092.2	1093.6	1094.9	1095.9
132.5°	1136.6	1138.4	1140.3	1142.2	1144.0	1145.7	1147.3	1148.9	1150.5	1152.2	1152.9
135°	1227.4	1228.1	1228.7	1229.4	1230.1	1231.1	1232.4	1233.9	1235.2	1236.6	1236.9
137.5°	1307.5	1308.8	1310.1	1311.3	1312.6	1314.0	1315.5	1316.9	1318.3	1319.7	1318.8
140°	1359.9	1362.2	1364.6	1367.0	1369.4	1370.7	1371.1	1371.4	1371.7	1372.1	1371.7
142.5°	1413.5	1415.3	1417.1	1419.0	1420.8	1421.9	1422.2	1422.6	1422.9	1423.2	1422.6
145°	1490.9	1492.2	1493.6	1494.9	1496.2	1497.1	1497.4	1497.7	1498.1	1498.4	1497.4
147.5°	1559.6	1561.7	1563.8	1565.8	1567.8	1568.8	1568.8	1568.8	1568.8	1568.8	1567.8
150°	1603.6	1605.6	1607.6	1609.6	1611.6	1612.7	1612.7	1612.7	1612.7	1612.7	1611.9
152.5°	1646.2	1647.9	1649.7	1651.4	1653.3	1653.9	1653.3	1652.7	1652.2	1651.6	1651.2
155°	1704.0	1706.4	1708.8	1711.1	1713.5	1714.0	1712.6	1711.3	1710.0	1708.6	1708.3
157.5°	1756.8	1758.6	1760.5	1762.4	1764.3	1764.5	1763.1	1761.7	1760.3	1758.9	1758.6
160°	1790.8	1792.2	1793.5	1794.9	1796.2	1796.0	1794.4	1792.7	1791.0	1789.3	1789.3
162.5°	1816.4	1818.6	1820.8	1822.9	1825.1	1825.3	1823.6	1821.9	1820.3	1818.6	1818.3
165°	1853.3	1855.6	1858.1	1860.4	1862.8	1862.9	1860.9	1858.9	1856.8	1854.8	1854.8
167.5°	1884.6	1886.7	1888.9	1891.0	1893.0	1893.0	1891.0	1888.9	1886.7	1884.6	1884.4
170°	1900.5	1902.9	1905.2	1907.6	1910.0	1910.0	1907.6	1905.2	1902.9	1900.5	1900.5
172.5°	1912.7	1915.0	1917.4	1919.8	1922.2	1922.3	1920.2	1918.0	1916.0	1913.9	1913.9
175°	1926.4	1928.7	1931.1	1933.5	1935.8	1936.0	1934.0	1932.0	1930.0	1927.9	1927.9
177.5°	1933.7	1935.6	1937.4	1939.3	1941.3	1941.4	1939.7	1938.1	1936.5	1934.9	1934.9
180°	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5



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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°	15.8	14.2	14.5	13.8	15.0	14.9	18.1	20.6	21.9	20.1	20.7
90°	27.8	23.3	19.0	15.0	11.7	8.3	4.9	1.5	4.9	8.3	11.7
92.5°	53.4	51.0	48.5	46.0	43.7	41.4	39.2	36.9	39.2	41.4	43.7
95°	107.2	104.5	101.9	99.4	96.9	94.6	92.2	89.9	92.2	94.6	96.9
97.5°	172.4	170.5	168.4	166.6	164.9	163.1	161.4	159.6	161.4	163.1	164.9
100°	220.5	218.7	217.1	215.2	213.2	211.2	209.1	207.1	209.1	211.2	213.2
102.5°	273.0	270.7	268.5	266.8	265.6	264.4	263.2	262.0	263.2	264.4	265.6
105°	353.3	350.2	347.2	345.4	344.7	344.0	343.4	342.6	343.4	344.0	344.7
107.5°	441.3	440.1	438.9	438.1	437.7	437.3	436.9	436.5	436.9	437.3	437.7
110°	499.7	499.0	498.3	497.7	497.0	496.2	495.6	494.9	495.6	496.2	497.0



TEST NUMBER: P332487-840

CATALOG NUMBER: S123RDIW-S1165D1535U840-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	558.0	557.8	557.7	557.4	557.0	556.6	556.2	555.8	556.2	556.6	557.0
115°	650.1	650.8	651.5	651.3	650.3	649.2	648.2	647.2	648.2	649.2	650.3
117.5°	740.0	740.9	741.7	741.8	741.2	740.5	739.8	739.2	739.8	740.5	741.2
120°	801.3	803.0	804.8	804.6	802.5	800.5	798.5	796.5	798.5	800.5	802.5
122.5°	860.6	861.5	862.4	862.1	860.6	859.1	857.6	856.2	857.6	859.1	860.6
125°	950.1	950.8	951.4	951.3	950.3	949.3	948.2	947.2	948.2	949.3	950.3
127.5°	1039.2	1039.9	1040.7	1040.0	1037.7	1035.6	1033.4	1031.3	1033.4	1035.6	1037.7
130°	1096.9	1097.9	1098.9	1098.1	1095.4	1092.7	1090.0	1087.3	1090.0	1092.7	1095.4
132.5°	1153.7	1154.4	1155.2	1154.2	1151.4	1148.7	1146.0	1143.4	1146.0	1148.7	1151.4
135°	1237.2	1237.6	1237.9	1237.1	1235.0	1232.9	1230.9	1228.9	1230.9	1232.9	1235.0
137.5°	1317.9	1317.1	1316.2	1314.8	1313.2	1311.5	1309.8	1308.1	1309.8	1311.5	1313.2
140°	1371.4	1371.1	1370.7	1369.7	1368.0	1366.3	1364.6	1362.9	1364.6	1366.3	1368.0
142.5°	1422.0	1421.4	1420.8	1419.7	1418.0	1416.2	1414.5	1412.9	1414.5	1416.2	1418.0
145°	1496.4	1495.4	1494.4	1493.6	1492.9	1492.2	1491.6	1490.9	1491.6	1492.2	1492.9
147.5°	1566.9	1566.0	1565.0	1564.0	1562.8	1561.5	1560.2	1559.0	1560.2	1561.5	1562.8
150°	1611.3	1610.6	1609.9	1609.3	1608.6	1607.9	1607.3	1606.6	1607.3	1607.9	1608.6
152.5°	1650.8	1650.4	1650.0	1649.3	1648.4	1647.5	1646.5	1645.6	1646.5	1647.5	1648.4
155°	1707.9	1707.6	1707.3	1707.1	1707.1	1707.1	1707.1	1707.1	1707.1	1707.1	1707.1
157.5°	1758.3	1758.1	1757.8	1757.9	1758.3	1758.7	1759.1	1759.5	1759.1	1758.7	1758.3
160°	1789.3	1789.3	1789.3	1789.7	1790.3	1791.0	1791.7	1792.4	1791.7	1791.0	1790.3
162.5°	1818.1	1817.8	1817.5	1817.9	1818.8	1819.7	1820.7	1821.6	1820.7	1819.7	1818.8
165°	1854.8	1854.8	1854.8	1855.3	1856.3	1857.3	1858.4	1859.4	1858.4	1857.3	1856.3
167.5°	1884.1	1883.8	1883.6	1884.1	1885.4	1886.8	1888.1	1889.6	1888.1	1886.8	1885.4
170°	1900.5	1900.5	1900.5	1901.2	1902.5	1903.9	1905.2	1906.5	1905.2	1903.9	1902.5
172.5°	1913.9	1913.9	1913.9	1914.6	1915.9	1917.2	1918.6	1920.0	1918.6	1917.2	1915.9
175°	1927.9	1927.9	1927.9	1928.5	1930.0	1931.3	1932.7	1934.0	1932.7	1931.3	1930.0
177.5°	1934.9	1934.9	1934.9	1935.4	1936.5	1937.6	1938.7	1939.7	1938.7	1937.6	1936.5
180°	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5



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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°	20.8	23.4	24.9	26.5	28.0	28.3	29.2	29.5	30.3	30.6	30.8
90°	15.0	19.0	23.3	27.8	32.1	36.6	37.9	39.3	40.6	42.0	43.0
92.5°	46.0	48.5	51.0	53.4	55.9	58.5	59.6	60.6	61.7	62.8	63.1
95°	99.4	101.9	104.5	107.2	110.0	112.7	114.0	115.4	116.7	118.1	118.8
97.5°	166.6	168.4	170.5	172.4	174.4	176.3	177.9	179.5	181.0	182.6	183.3
100°	215.2	217.1	218.7	220.5	222.2	223.9	224.9	225.9	226.9	227.9	228.7
102.5°	266.8	268.5	270.7	273.0	275.2	277.4	278.5	279.5	280.5	281.6	282.0
105°	345.4	347.2	350.2	353.3	356.4	359.4	359.4	359.4	359.4	359.4	359.7
107.5°	438.1	438.9	440.1	441.3	442.5	443.7	444.8	446.0	447.0	448.1	448.4
110°	497.7	498.3	499.0	499.7	500.3	501.0	502.4	503.7	505.0	506.4	506.8



TEST NUMBER: P332487-840

CATALOG NUMBER: S123RDIW-S1165D1535U840-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	557.4	557.7	557.8	558.0	558.2	558.3	559.9	561.5	563.1	564.7	565.5
115°	651.3	651.5	650.8	650.1	649.4	648.7	649.0	649.4	649.7	650.1	650.1
117.5°	741.8	741.7	740.9	740.0	739.1	738.3	738.2	738.1	738.1	738.0	737.5
120°	804.6	804.8	803.0	801.3	799.6	798.0	797.6	797.3	797.0	796.6	796.1
122.5°	862.1	862.4	861.5	860.6	859.8	858.9	858.0	857.1	856.3	855.4	854.4
125°	951.3	951.4	950.8	950.1	949.4	948.8	947.4	946.0	944.6	943.3	941.9
127.5°	1040.0	1040.7	1039.9	1039.2	1038.4	1037.6	1035.7	1033.9	1032.0	1030.1	1028.3
130°	1098.1	1098.9	1097.9	1096.9	1095.9	1094.9	1093.6	1092.2	1090.9	1089.5	1087.6
132.5°	1154.2	1155.2	1154.4	1153.7	1152.9	1152.2	1150.5	1148.9	1147.3	1145.7	1144.0
135°	1237.1	1237.9	1237.6	1237.2	1236.9	1236.6	1235.2	1233.9	1232.4	1231.1	1230.1
137.5°	1314.8	1316.2	1317.1	1317.9	1318.8	1319.7	1318.3	1316.9	1315.5	1314.0	1312.6
140°	1369.7	1370.7	1371.1	1371.4	1371.7	1372.1	1371.7	1371.4	1371.1	1370.7	1369.4
142.5°	1419.7	1420.8	1421.4	1422.0	1422.6	1423.2	1422.9	1422.6	1422.2	1421.9	1420.8
145°	1493.6	1494.4	1495.4	1496.4	1497.4	1498.4	1498.1	1497.7	1497.4	1497.1	1496.2
147.5°	1564.0	1565.0	1566.0	1566.9	1567.8	1568.8	1568.8	1568.8	1568.8	1568.8	1567.8
150°	1609.3	1609.9	1610.6	1611.3	1611.9	1612.7	1612.7	1612.7	1612.7	1612.7	1611.6
152.5°	1649.3	1650.0	1650.4	1650.8	1651.2	1651.6	1652.2	1652.7	1653.3	1653.9	1653.3
155°	1707.1	1707.3	1707.6	1707.9	1708.3	1708.6	1710.0	1711.3	1712.6	1714.0	1713.5
157.5°	1757.9	1757.8	1758.1	1758.3	1758.6	1758.9	1760.3	1761.7	1763.1	1764.5	1764.3
160°	1789.7	1789.3	1789.3	1789.3	1789.3	1789.3	1791.0	1792.7	1794.4	1796.0	1796.2
162.5°	1817.9	1817.5	1817.8	1818.1	1818.3	1818.6	1820.3	1821.9	1823.6	1825.3	1825.1
165°	1855.3	1854.8	1854.8	1854.8	1854.8	1854.8	1856.8	1858.9	1860.9	1862.9	1862.8
167.5°	1884.1	1883.6	1883.8	1884.1	1884.4	1884.6	1886.7	1888.9	1891.0	1893.0	1893.0
170°	1901.2	1900.5	1900.5	1900.5	1900.5	1900.5	1902.9	1905.2	1907.6	1910.0	1910.0
172.5°	1914.6	1913.9	1913.9	1913.9	1913.9	1913.9	1916.0	1918.0	1920.2	1922.3	1922.2
175°	1928.5	1927.9	1927.9	1927.9	1927.9	1927.9	1930.0	1932.0	1934.0	1936.0	1935.8
177.5°	1935.4	1934.9	1934.9	1934.9	1934.9	1934.9	1936.5	1938.1	1939.7	1941.4	1941.3
180°	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5



TEST NUMBER: P332487-840

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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°	32.2	31.1	31.2	32.0	31.2	31.1	32.2	30.8	30.6	30.3	29.5
90°	43.6	44.3	45.0	45.6	45.0	44.3	43.6	43.0	42.0	40.6	39.3
92.5°	62.7	62.3	61.9	61.5	61.9	62.3	62.7	63.1	62.8	61.7	60.6
95°	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.1	116.7	115.4
97.5°	183.2	183.0	182.9	182.8	182.9	183.0	183.2	183.3	182.6	181.0	179.5
100°	229.4	230.1	230.8	231.5	230.8	230.1	229.4	228.7	227.9	226.9	225.9
102.5°	281.9	281.7	281.6	281.4	281.6	281.7	281.9	282.0	281.6	280.5	279.5
105°	360.4	361.1	361.7	362.4	361.7	361.1	360.4	359.7	359.4	359.4	359.4
107.5°	448.0	447.6	447.2	446.8	447.2	447.6	448.0	448.4	448.1	447.0	446.0
110°	506.0	505.4	504.7	504.0	504.7	505.4	506.0	506.8	506.4	505.0	503.7



TEST NUMBER: P332487-840

CATALOG NUMBER: S123RDIW-S1165D1535U840-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	565.4	565.2	565.1	564.9	565.1	565.2	565.4	565.5	564.7	563.1	561.5
115°	649.7	649.4	649.0	648.7	649.0	649.4	649.7	650.1	650.1	649.7	649.4
117.5°	736.5	735.6	734.7	733.7	734.7	735.6	736.5	737.5	738.0	738.1	738.1
120°	795.5	794.8	794.1	793.3	794.1	794.8	795.5	796.1	796.6	797.0	797.3
122.5°	853.5	852.5	851.6	850.6	851.6	852.5	853.5	854.4	855.4	856.3	857.1
125°	940.6	939.3	937.9	936.5	937.9	939.3	940.6	941.9	943.3	944.6	946.0
127.5°	1026.8	1025.2	1023.7	1022.1	1023.7	1025.2	1026.8	1028.3	1030.1	1032.0	1033.9
130°	1085.3	1082.9	1080.6	1078.1	1080.6	1082.9	1085.3	1087.6	1089.5	1090.9	1092.2
132.5°	1142.2	1140.3	1138.4	1136.6	1138.4	1140.3	1142.2	1144.0	1145.7	1147.3	1148.9
135°	1229.4	1228.7	1228.1	1227.4	1228.1	1228.7	1229.4	1230.1	1231.1	1232.4	1233.9
137.5°	1311.3	1310.1	1308.8	1307.5	1308.8	1310.1	1311.3	1312.6	1314.0	1315.5	1316.9
140°	1367.0	1364.6	1362.2	1359.9	1362.2	1364.6	1367.0	1369.4	1370.7	1371.1	1371.4
142.5°	1419.0	1417.1	1415.3	1413.5	1415.3	1417.1	1419.0	1420.8	1421.9	1422.2	1422.6
145°	1494.9	1493.6	1492.2	1490.9	1492.2	1493.6	1494.9	1496.2	1497.1	1497.4	1497.7
147.5°	1565.8	1563.8	1561.7	1559.6	1561.7	1563.8	1565.8	1567.8	1568.8	1568.8	1568.8
150°	1609.6	1607.6	1605.6	1603.6	1605.6	1607.6	1609.6	1611.6	1612.7	1612.7	1612.7
152.5°	1651.4	1649.7	1647.9	1646.2	1647.9	1649.7	1651.4	1653.3	1653.9	1653.3	1652.7
155°	1711.1	1708.8	1706.4	1704.0	1706.4	1708.8	1711.1	1713.5	1714.0	1712.6	1711.3
157.5°	1762.4	1760.5	1758.6	1756.8	1758.6	1760.5	1762.4	1764.3	1764.5	1763.1	1761.7
160°	1794.9	1793.5	1792.2	1790.8	1792.2	1793.5	1794.9	1796.2	1796.0	1794.4	1792.7
162.5°	1822.9	1820.8	1818.6	1816.4	1818.6	1820.8	1822.9	1825.1	1825.3	1823.6	1821.9
165°	1860.4	1858.1	1855.6	1853.3	1855.6	1858.1	1860.4	1862.8	1862.9	1860.9	1858.9
167.5°	1891.0	1888.9	1886.7	1884.6	1886.7	1888.9	1891.0	1893.0	1893.0	1891.0	1888.9
170°	1907.6	1905.2	1902.9	1900.5	1902.9	1905.2	1907.6	1910.0	1910.0	1907.6	1905.2
172.5°	1919.8	1917.4	1915.0	1912.7	1915.0	1917.4	1919.8	1922.2	1922.3	1920.2	1918.0
175°	1933.5	1931.1	1928.7	1926.4	1928.7	1931.1	1933.5	1935.8	1936.0	1934.0	1932.0
177.5°	1939.3	1937.4	1935.6	1933.7	1935.6	1937.4	1939.3	1941.3	1941.4	1939.7	1938.1
180°	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5



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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°	29.2	28.3	28.0	26.5	24.9	23.4	20.8	20.7	20.1	21.9	20.6
90°	37.9	36.6	32.1	27.8	23.3	19.0	15.0	11.7	8.3	4.9	1.5
92.5°	59.6	58.5	55.9	53.4	51.0	48.5	46.0	43.7	41.4	39.2	36.9
95°	114.0	112.7	110.0	107.2	104.5	101.9	99.4	96.9	94.6	92.2	89.9
97.5°	177.9	176.3	174.4	172.4	170.5	168.4	166.6	164.9	163.1	161.4	159.6
100°	224.9	223.9	222.2	220.5	218.7	217.1	215.2	213.2	211.2	209.1	207.1
102.5°	278.5	277.4	275.2	273.0	270.7	268.5	266.8	265.6	264.4	263.2	262.0
105°	359.4	359.4	356.4	353.3	350.2	347.2	345.4	344.7	344.0	343.4	342.6
107.5°	444.8	443.7	442.5	441.3	440.1	438.9	438.1	437.7	437.3	436.9	436.5
110°	502.4	501.0	500.3	499.7	499.0	498.3	497.7	497.0	496.2	495.6	494.9



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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	559.9	558.3	558.2	558.0	557.8	557.7	557.4	557.0	556.6	556.2	555.8
115°	649.0	648.7	649.4	650.1	650.8	651.5	651.3	650.3	649.2	648.2	647.2
117.5°	738.2	738.3	739.1	740.0	740.9	741.7	741.8	741.2	740.5	739.8	739.2
120°	797.6	798.0	799.6	801.3	803.0	804.8	804.6	802.5	800.5	798.5	796.5
122.5°	858.0	858.9	859.8	860.6	861.5	862.4	862.1	860.6	859.1	857.6	856.2
125°	947.4	948.8	949.4	950.1	950.8	951.4	951.3	950.3	949.3	948.2	947.2
127.5°	1035.7	1037.6	1038.4	1039.2	1039.9	1040.7	1040.0	1037.7	1035.6	1033.4	1031.3
130°	1093.6	1094.9	1095.9	1096.9	1097.9	1098.9	1098.1	1095.4	1092.7	1090.0	1087.3
132.5°	1150.5	1152.2	1152.9	1153.7	1154.4	1155.2	1154.2	1151.4	1148.7	1146.0	1143.4
135°	1235.2	1236.6	1236.9	1237.2	1237.6	1237.9	1237.1	1235.0	1232.9	1230.9	1228.9
137.5°	1318.3	1319.7	1318.8	1317.9	1317.1	1316.2	1314.8	1313.2	1311.5	1309.8	1308.1
140°	1371.7	1372.1	1371.7	1371.4	1371.1	1370.7	1369.7	1368.0	1366.3	1364.6	1362.9
142.5°	1422.9	1423.2	1422.6	1422.0	1421.4	1420.8	1419.7	1418.0	1416.2	1414.5	1412.9
145°	1498.1	1498.4	1497.4	1496.4	1495.4	1494.4	1493.6	1492.9	1492.2	1491.6	1490.9
147.5°	1568.8	1568.8	1567.8	1566.9	1566.0	1565.0	1564.0	1562.8	1561.5	1560.2	1559.0
150°	1612.7	1612.7	1611.9	1611.3	1610.6	1609.9	1609.3	1608.6	1607.9	1607.3	1606.6
152.5°	1652.2	1651.6	1651.2	1650.8	1650.4	1650.0	1649.3	1648.4	1647.5	1646.5	1645.6
155°	1710.0	1708.6	1708.3	1707.9	1707.6	1707.3	1707.1	1707.1	1707.1	1707.1	1707.1
157.5°	1760.3	1758.9	1758.6	1758.3	1758.1	1757.8	1757.9	1758.3	1758.7	1759.1	1759.5
160°	1791.0	1789.3	1789.3	1789.3	1789.3	1789.3	1789.7	1790.3	1791.0	1791.7	1792.4
162.5°	1820.3	1818.6	1818.3	1818.1	1817.8	1817.5	1817.9	1818.8	1819.7	1820.7	1821.6
165°	1856.8	1854.8	1854.8	1854.8	1854.8	1854.8	1855.3	1856.3	1857.3	1858.4	1859.4
167.5°	1886.7	1884.6	1884.4	1884.1	1883.8	1883.6	1884.1	1885.4	1886.8	1888.1	1889.6
170°	1902.9	1900.5	1900.5	1900.5	1900.5	1900.5	1901.2	1902.5	1903.9	1905.2	1906.5
172.5°	1916.0	1913.9	1913.9	1913.9	1913.9	1913.9	1914.6	1915.9	1917.2	1918.6	1920.0
175°	1930.0	1927.9	1927.9	1927.9	1927.9	1927.9	1928.5	1930.0	1931.3	1932.7	1934.0
177.5°	1936.5	1934.9	1934.9	1934.9	1934.9	1934.9	1935.4	1936.5	1937.6	1938.7	1939.7
180°	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5



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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°	18.1	14.9	15.0	13.8	14.5	14.2	15.8	15.3	15.6	16.5	15.5
90°	4.9	8.3	11.7	15.0	19.0	23.3	27.8	32.1	36.6	37.9	39.3
92.5°	39.2	41.4	43.7	46.0	48.5	51.0	53.4	55.9	58.5	59.6	60.6
95°	92.2	94.6	96.9	99.4	101.9	104.5	107.2	110.0	112.7	114.0	115.4
97.5°	161.4	163.1	164.9	166.6	168.4	170.5	172.4	174.4	176.3	177.9	179.5
100°	209.1	211.2	213.2	215.2	217.1	218.7	220.5	222.2	223.9	224.9	225.9
102.5°	263.2	264.4	265.6	266.8	268.5	270.7	273.0	275.2	277.4	278.5	279.5
105°	343.4	344.0	344.7	345.4	347.2	350.2	353.3	356.4	359.4	359.4	359.4
107.5°	436.9	437.3	437.7	438.1	438.9	440.1	441.3	442.5	443.7	444.8	446.0
110°	495.6	496.2	497.0	497.7	498.3	499.0	499.7	500.3	501.0	502.4	503.7



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	556.2	556.6	557.0	557.4	557.7	557.8	558.0	558.2	558.3	559.9	561.5
115°	648.2	649.2	650.3	651.3	651.5	650.8	650.1	649.4	648.7	649.0	649.4
117.5°	739.8	740.5	741.2	741.8	741.7	740.9	740.0	739.1	738.3	738.2	738.1
120°	798.5	800.5	802.5	804.6	804.8	803.0	801.3	799.6	798.0	797.6	797.3
122.5°	857.6	859.1	860.6	862.1	862.4	861.5	860.6	859.8	858.9	858.0	857.1
125°	948.2	949.3	950.3	951.3	951.4	950.8	950.1	949.4	948.8	947.4	946.0
127.5°	1033.4	1035.6	1037.7	1040.0	1040.7	1039.9	1039.2	1038.4	1037.6	1035.7	1033.9
130°	1090.0	1092.7	1095.4	1098.1	1098.9	1097.9	1096.9	1095.9	1094.9	1093.6	1092.2
132.5°	1146.0	1148.7	1151.4	1154.2	1155.2	1154.4	1153.7	1152.9	1152.2	1150.5	1148.9
135°	1230.9	1232.9	1235.0	1237.1	1237.9	1237.6	1237.2	1236.9	1236.6	1235.2	1233.9
137.5°	1309.8	1311.5	1313.2	1314.8	1316.2	1317.1	1317.9	1318.8	1319.7	1318.3	1316.9
140°	1364.6	1366.3	1368.0	1369.7	1370.7	1371.1	1371.4	1371.7	1372.1	1371.7	1371.4
142.5°	1414.5	1416.2	1418.0	1419.7	1420.8	1421.4	1422.0	1422.6	1423.2	1422.9	1422.6
145°	1491.6	1492.2	1492.9	1493.6	1494.4	1495.4	1496.4	1497.4	1498.4	1498.1	1497.7
147.5°	1560.2	1561.5	1562.8	1564.0	1565.0	1566.0	1566.9	1567.8	1568.8	1568.8	1568.8
150°	1607.3	1607.9	1608.6	1609.3	1609.9	1610.6	1611.3	1611.9	1612.7	1612.7	1612.7
152.5°	1646.5	1647.5	1648.4	1649.3	1650.0	1650.4	1650.8	1651.2	1651.6	1652.2	1652.7
155°	1707.1	1707.1	1707.1	1707.1	1707.3	1707.6	1707.9	1708.3	1708.6	1710.0	1711.3
157.5°	1759.1	1758.7	1758.3	1757.9	1757.8	1758.1	1758.3	1758.6	1758.9	1760.3	1761.7
160°	1791.7	1791.0	1790.3	1789.7	1789.3	1789.3	1789.3	1789.3	1789.3	1791.0	1792.7
162.5°	1820.7	1819.7	1818.8	1817.9	1817.5	1817.8	1818.1	1818.3	1818.6	1820.3	1821.9
165°	1858.4	1857.3	1856.3	1855.3	1854.8	1854.8	1854.8	1854.8	1854.8	1856.8	1858.9
167.5°	1888.1	1886.8	1885.4	1884.1	1883.6	1883.8	1884.1	1884.4	1884.6	1886.7	1888.9
170°	1905.2	1903.9	1902.5	1901.2	1900.5	1900.5	1900.5	1900.5	1900.5	1902.9	1905.2
172.5°	1918.6	1917.2	1915.9	1914.6	1913.9	1913.9	1913.9	1913.9	1913.9	1916.0	1918.0
175°	1932.7	1931.3	1930.0	1928.5	1927.9	1927.9	1927.9	1927.9	1927.9	1930.0	1932.0
177.5°	1938.7	1937.6	1936.5	1935.4	1934.9	1934.9	1934.9	1934.9	1934.9	1936.5	1938.1
180°	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5



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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°	15.8	16.1	15.6	15.8	15.2	16.7	15.5
90°	40.6	42.0	43.0	43.6	44.3	45.0	45.6
92.5°	61.7	62.8	63.1	62.7	62.3	61.9	61.5
95°	116.7	118.1	118.8	118.8	118.8	118.8	118.8
97.5°	181.0	182.6	183.3	183.2	183.0	182.9	182.8
100°	226.9	227.9	228.7	229.4	230.1	230.8	231.5
102.5°	280.5	281.6	282.0	281.9	281.7	281.6	281.4
105°	359.4	359.4	359.7	360.4	361.1	361.7	362.4
107.5°	447.0	448.1	448.4	448.0	447.6	447.2	446.8
110°	505.0	506.4	506.8	506.0	505.4	504.7	504.0



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	563.1	564.7	565.5	565.4	565.2	565.1	564.9
115°	649.7	650.1	650.1	649.7	649.4	649.0	648.7
117.5°	738.1	738.0	737.5	736.5	735.6	734.7	733.7
120°	797.0	796.6	796.1	795.5	794.8	794.1	793.3
122.5°	856.3	855.4	854.4	853.5	852.5	851.6	850.6
125°	944.6	943.3	941.9	940.6	939.3	937.9	936.5
127.5°	1032.0	1030.1	1028.3	1026.8	1025.2	1023.7	1022.1
130°	1090.9	1089.5	1087.6	1085.3	1082.9	1080.6	1078.1
132.5°	1147.3	1145.7	1144.0	1142.2	1140.3	1138.4	1136.6
135°	1232.4	1231.1	1230.1	1229.4	1228.7	1228.1	1227.4
137.5°	1315.5	1314.0	1312.6	1311.3	1310.1	1308.8	1307.5
140°	1371.1	1370.7	1369.4	1367.0	1364.6	1362.2	1359.9
142.5°	1422.2	1421.9	1420.8	1419.0	1417.1	1415.3	1413.5
145°	1497.4	1497.1	1496.2	1494.9	1493.6	1492.2	1490.9
147.5°	1568.8	1568.8	1567.8	1565.8	1563.8	1561.7	1559.6
150°	1612.7	1612.7	1611.6	1609.6	1607.6	1605.6	1603.6
152.5°	1653.3	1653.9	1653.3	1651.4	1649.7	1647.9	1646.2
155°	1712.6	1714.0	1713.5	1711.1	1708.8	1706.4	1704.0
157.5°	1763.1	1764.5	1764.3	1762.4	1760.5	1758.6	1756.8
160°	1794.4	1796.0	1796.2	1794.9	1793.5	1792.2	1790.8
162.5°	1823.6	1825.3	1825.1	1822.9	1820.8	1818.6	1816.4
165°	1860.9	1862.9	1862.8	1860.4	1858.1	1855.6	1853.3
167.5°	1891.0	1893.0	1893.0	1891.0	1888.9	1886.7	1884.6
170°	1907.6	1910.0	1910.0	1907.6	1905.2	1902.9	1900.5
172.5°	1920.2	1922.3	1922.2	1919.8	1917.4	1915.0	1912.7
175°	1934.0	1936.0	1935.8	1933.5	1931.1	1928.7	1926.4
177.5°	1939.7	1941.4	1941.3	1939.3	1937.4	1935.6	1933.7
180°	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5	1938.5

(END OF REPORT)