

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: P332486-830

Luminaire Tested: **S123RDIW-S1165D1535U830-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332486-830
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-S1165D1535U830-4F0-1E-UDD-A
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 1535 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10097.9 lumens
Efficiency: N/A
Efficacy: 121.8 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

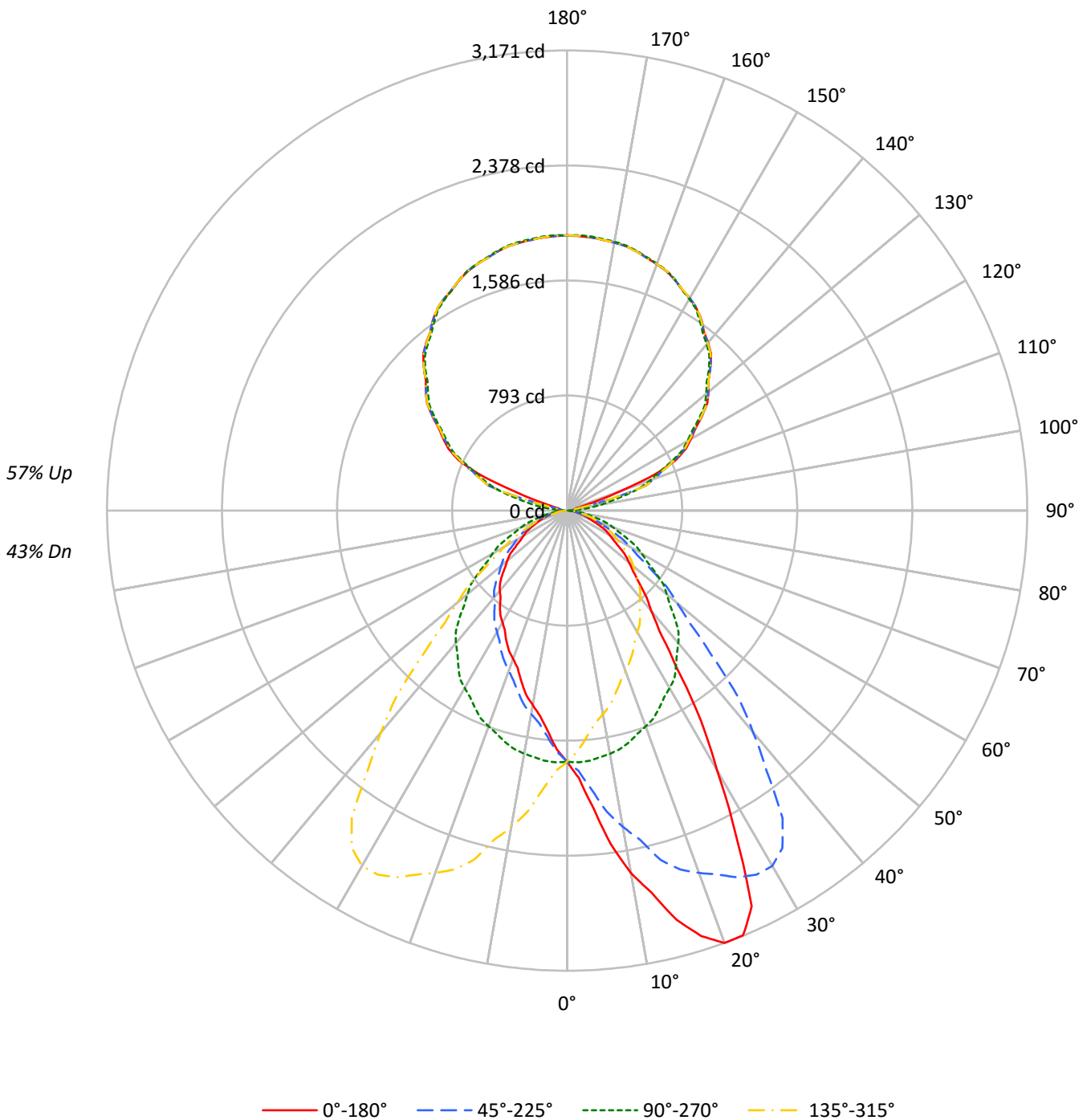
Input Watts (W): 82.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
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	50	30	10	50	30	10	0														
RCR																																						
0	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49	43																				
1	97	93	89	86	88	85	82	79	70	68	66	57	55	54	44	44	43	37																				
2	88	81	76	71	81	75	70	66	62	59	55	50	48	46	40	38	37	32																				
3	81	72	65	59	74	66	60	55	55	51	47	45	42	39	36	34	32	27																				
4	74	64	56	51	68	59	52	47	49	44	41	40	37	34	32	30	28	24																				
5	68	57	49	44	62	53	46	41	44	39	35	36	33	30	29	27	24	21																				
6	63	51	44	38	57	47	41	36	40	35	31	33	29	26	27	24	22	19																				
7	58	46	39	33	53	43	36	31	36	31	27	30	26	23	24	22	19	17																				
8	54	42	35	30	50	39	32	28	33	28	24	28	24	21	22	20	18	15																				
9	50	39	31	26	46	36	29	25	31	25	22	26	22	19	21	18	16	14																				
10	47	35	28	24	43	33	27	22	28	23	20	24	20	17	19	17	15	13																				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	18627	18627	18627	18627
5°	22204	18707	16473	18707
10°	27725	18600	14882	18600
15°	32543	18409	13572	18409
20°	36318	18125	12457	18125
25°	35739	17826	11772	17826
30°	25690	17550	11067	17550
35°	17152	17190	10611	17190
40°	12638	16759	10138	16759
45°	10601	16002	9677	16002
50°	9354	15011	9031	15011
55°	8203	13874	8146	13874
60°	7304	12790	7464	12790
65°	6413	11624	6943	11624
70°	5035	10584	6342	10584
75°	4438	9245	5793	9245
80°	3856	7854	5697	7854
85°	3112	6311	6039	6311



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.2	1.7
10°-20°	531.7	5.3
20°-30°	835.3	8.3
30°-40°	871.4	8.6
40°-50°	745.8	7.4
50°-60°	568.4	5.6
60°-70°	364.3	3.6
70°-80°	175.3	1.7
80°-90°	51.7	0.5
90°-100°	69.0	0.7
100°-110°	328.6	3.3
110°-120°	789.4	7.8
120°-130°	1005.2	10.0
130°-140°	1074.1	10.6
140°-150°	1004.4	9.9
150°-160°	810.1	8.0
160°-170°	522.9	5.2
170°-180°	180.2	1.8
0°-30°	1537.1	15.2
0°-40°	2408.6	23.9
0°-60°	3722.7	36.9
0°-90°	4314.0	42.7
90°-120°	1187.0	11.8
90°-150°	4270.6	42.3
90°-180°	5784.0	57.3
0°-180°	10097.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1730	1730	1730	1730	1730	
5°	2055	1731	1525	1731	2055	212
15°	2920	1652	1218	1652	2920	828
25°	3009	1501	991	1501	3009	1293
35°	1305	1308	808	1308	1305	856
45°	696	1051	636	1051	696	548
55°	437	739	434	739	437	395
65°	252	456	273	456	252	248
75°	107	222	139	222	107	114
85°	25	51	49	51	25	30
90°	42	1	42	1	42	20
95°	54	86	54	86	54	45
105°	62	420	62	420	62	142
115°	829	788	829	788	829	766
125°	1133	1110	1133	1110	1133	1012
135°	1396	1382	1396	1382	1396	1077
145°	1611	1595	1611	1595	1611	1005
155°	1754	1757	1754	1757	1754	809
165°	1849	1853	1849	1853	1849	522
175°	1890	1897	1890	1897	1890	180
180°	1897	1897	1897	1897	1897	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1843.1	1845.5	1837.8	1836.6	1827.7	1825.3	1825.3	1812.9	1805.2	1795.2	1789.2
5°	2055.0	2066.9	2061.0	2047.6	2025.3	2020.2	2006.1	1983.9	1958.7	1927.6	1912.8
7.5°	2319.6	2335.8	2329.6	2308.9	2285.7	2266.9	2227.1	2190.3	2138.5	2093.2	2054.4
10°	2536.6	2519.5	2506.1	2486.1	2464.7	2429.9	2388.4	2331.3	2265.4	2213.6	2155.8
12.5°	2698.9	2696.1	2679.2	2658.6	2628.3	2595.2	2544.2	2474.7	2398.1	2323.2	2257.1
15°	2920.3	2924.7	2913.6	2892.1	2849.1	2790.6	2713.6	2684.7	2575.0	2493.6	2412.1
17.5°	3073.4	3072.6	3071.1	3041.3	2997.5	2955.8	2884.4	2808.4	2709.2	2594.3	2484.5
20°	3170.6	3163.3	3164.8	3131.4	3098.8	3050.6	2981.0	2870.6	2789.2	2656.6	2543.2
22.5°	3168.3	3166.8	3172.4	3161.0	3137.3	3100.4	3045.6	2952.4	2848.5	2714.6	2587.1
25°	3009.2	3003.2	3038.1	3047.7	3085.5	3092.1	3075.8	3024.7	2926.2	2788.4	2630.6
27.5°	2518.5	2515.2	2579.8	2660.7	2763.3	2842.9	2920.0	2957.1	2926.2	2827.5	2669.5
30°	2066.9	2136.5	2169.1	2286.1	2416.5	2572.1	2708.4	2838.0	2869.9	2827.0	2697.3
32.5°	1716.0	1776.8	1804.0	1904.5	2026.0	2208.2	2412.6	2596.2	2725.9	2758.7	2680.7
35°	1305.3	1306.1	1368.3	1412.7	1525.3	1712.8	1911.3	2157.2	2401.7	2586.9	2606.1
37.5°	1041.6	1045.3	1082.9	1127.2	1211.6	1310.8	1485.6	1690.1	1972.5	2256.8	2423.5
40°	899.4	906.0	934.2	977.9	1038.6	1113.4	1249.7	1442.4	1677.9	1994.2	2252.8
42.5°	808.0	818.9	833.4	867.0	904.7	974.8	1085.0	1233.8	1448.0	1747.1	2045.4
45°	696.4	702.3	713.4	729.0	763.0	811.9	886.0	986.0	1163.9	1404.6	1703.1
47.5°	614.3	611.1	622.8	635.5	658.2	691.4	741.1	822.7	949.6	1142.7	1396.0
50°	558.6	557.8	566.0	575.6	597.1	621.5	662.3	723.8	824.5	984.6	1216.4
52.5°	506.4	509.3	515.0	527.0	542.5	562.3	598.9	643.2	729.7	867.8	1061.1
55°	437.1	439.3	447.4	454.1	465.2	485.2	508.2	545.3	604.5	700.8	860.1
57.5°	378.4	377.4	385.2	386.8	399.4	415.8	433.5	462.2	505.2	576.8	684.1
60°	339.3	337.1	343.7	348.9	355.6	368.9	383.7	411.9	446.0	498.6	590.4
62.5°	303.7	302.7	307.6	312.7	318.3	330.4	342.8	364.5	391.4	435.7	508.6
65°	251.8	254.1	256.3	258.5	261.5	268.9	280.8	295.6	314.1	345.3	397.8
67.5°	197.9	200.2	201.0	205.5	211.9	216.5	223.8	237.0	249.8	276.1	305.9
70°	160.0	159.3	160.0	162.2	170.4	178.5	188.1	197.8	205.9	224.4	249.7
72.5°	137.5	136.2	138.1	138.6	142.5	144.8	150.8	159.9	170.4	182.9	201.0
75°	106.7	106.7	106.7	106.7	109.6	111.1	113.4	115.6	119.2	125.2	138.6
77.5°	78.8	79.0	80.0	80.8	81.3	82.2	83.6	85.8	87.1	90.2	96.0
80°	62.2	63.0	62.2	63.0	63.0	64.5	65.2	67.4	68.1	71.8	74.1
82.5°	46.8	46.4	46.8	47.6	47.6	49.0	49.2	50.8	51.0	52.9	55.1
85°	25.2	23.8	25.2	24.4	25.9	24.4	25.2	26.7	26.7	27.4	30.3
87.5°	14.4	15.5	14.1	14.6	14.5	14.9	14.6	14.4	15.3	14.4	14.2
90°	42.2	41.7	41.0	40.4	39.8	38.8	37.6	36.3	35.1	33.8	29.8
92.5°	46.8	46.4	46.0	45.6	45.2	44.1	42.1	40.1	38.1	36.1	33.0
95°	53.5	53.5	53.5	53.5	53.5	52.4	50.2	48.1	45.9	43.6	40.2
97.5°	58.1	57.8	57.4	57.1	56.8	55.4	52.9	50.4	47.9	45.3	68.0
100°	59.2	58.9	58.5	58.2	58.0	56.6	54.0	51.5	49.0	46.5	95.4
102.5°	60.3	59.8	59.2	58.6	58.1	61.6	69.5	77.2	84.9	92.7	146.1
105°	62.0	61.4	60.8	60.1	59.5	86.9	142.3	197.7	253.2	308.6	336.8
107.5°	194.7	236.5	278.2	320.1	361.8	403.0	443.7	484.3	525.0	565.6	561.2
110°	387.5	432.3	477.0	521.8	566.6	594.2	604.5	614.8	625.2	635.5	632.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	664.8	674.3	683.7	693.1	702.7	707.3	707.1	706.9	706.7	706.5	703.0
115°	828.6	827.3	826.0	824.8	823.5	821.3	818.2	815.1	811.9	808.8	806.0
117.5°	920.4	920.2	919.9	919.6	919.5	918.0	915.5	913.0	910.5	908.0	906.5
120°	983.5	983.5	983.5	983.5	983.5	982.3	979.8	977.3	974.8	972.2	971.3
122.5°	1045.6	1045.3	1045.0	1044.8	1044.5	1043.6	1041.8	1040.0	1038.3	1036.5	1035.3
125°	1132.9	1132.3	1131.6	1131.1	1130.4	1129.7	1129.2	1128.5	1127.9	1127.3	1126.1
127.5°	1216.9	1217.5	1218.1	1218.8	1219.4	1219.2	1218.2	1217.2	1216.2	1215.2	1213.7
130°	1271.0	1271.6	1272.2	1272.9	1273.5	1273.2	1272.0	1270.6	1269.4	1268.2	1267.0
132.5°	1320.6	1321.4	1322.4	1323.2	1324.1	1323.9	1322.7	1321.4	1320.1	1318.9	1317.9
135°	1396.4	1397.3	1398.3	1399.2	1400.1	1400.1	1399.2	1398.3	1397.3	1396.4	1395.2
137.5°	1467.7	1468.3	1469.0	1469.6	1470.2	1469.8	1468.3	1466.8	1465.3	1463.8	1463.1
140°	1510.5	1511.2	1511.8	1512.4	1513.1	1512.7	1511.5	1510.2	1509.0	1507.7	1506.7
142.5°	1550.0	1550.9	1551.7	1552.7	1553.5	1553.4	1552.5	1551.4	1550.4	1549.4	1548.5
145°	1610.6	1610.6	1610.6	1610.6	1610.6	1610.2	1609.7	1609.0	1608.4	1607.8	1607.1
147.5°	1655.7	1657.1	1658.6	1660.0	1661.4	1661.9	1661.2	1660.6	1660.0	1659.3	1658.7
150°	1689.5	1690.5	1691.4	1692.3	1693.3	1693.4	1692.8	1692.1	1691.5	1690.9	1690.3
152.5°	1716.6	1718.0	1719.4	1720.9	1722.3	1722.5	1721.4	1720.2	1719.1	1718.0	1717.6
155°	1754.4	1756.1	1758.0	1759.9	1761.8	1762.0	1760.4	1758.9	1757.3	1755.7	1755.4
157.5°	1786.1	1788.6	1791.0	1793.5	1795.9	1796.2	1794.3	1792.4	1790.5	1788.7	1789.0
160°	1806.5	1808.6	1810.8	1813.0	1815.2	1815.3	1813.5	1811.7	1809.8	1807.9	1808.2
162.5°	1825.6	1827.6	1829.5	1831.5	1833.3	1833.2	1831.2	1829.0	1826.9	1824.8	1825.0
165°	1848.7	1850.9	1853.1	1855.3	1857.5	1857.4	1854.8	1852.3	1849.8	1847.3	1847.7
167.5°	1865.4	1867.8	1870.4	1872.8	1875.4	1875.4	1872.8	1870.4	1867.8	1865.4	1865.4
170°	1875.5	1878.0	1880.5	1883.0	1885.6	1885.6	1883.0	1880.5	1878.0	1875.5	1875.5
172.5°	1881.1	1883.9	1886.7	1889.4	1892.2	1892.2	1889.8	1887.3	1884.8	1882.3	1882.0
175°	1889.6	1892.1	1894.6	1897.1	1899.6	1899.8	1897.5	1895.4	1893.2	1891.0	1890.6
177.5°	1892.2	1894.6	1897.1	1899.6	1902.1	1902.4	1900.4	1898.4	1896.4	1894.4	1894.1
180°	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1786.9	1785.1	1776.8	1767.3	1754.8	1746.5	1740.0	1736.4	1725.8	1712.8	1703.8
5°	1897.2	1875.0	1851.2	1822.4	1795.7	1768.3	1751.2	1731.3	1706.9	1679.4	1660.2
7.5°	2015.4	1971.9	1925.0	1876.5	1828.6	1785.6	1747.8	1715.2	1676.3	1637.0	1609.5
10°	2106.1	2042.4	1976.5	1909.0	1847.6	1789.8	1745.3	1701.7	1655.0	1609.8	1575.7
12.5°	2188.5	2104.6	2028.6	1945.8	1867.2	1798.1	1734.1	1682.6	1626.5	1578.4	1539.5
15°	2292.8	2206.9	2115.0	1989.0	1884.6	1797.2	1719.4	1652.0	1583.8	1524.6	1486.8
17.5°	2390.3	2261.0	2137.5	2032.5	1896.8	1787.5	1692.6	1612.0	1537.2	1474.3	1427.9
20°	2430.6	2305.4	2171.3	2037.2	1903.8	1781.7	1671.2	1582.3	1504.6	1433.4	1390.5
22.5°	2454.9	2313.1	2171.9	2027.8	1886.1	1759.2	1649.9	1552.2	1467.8	1400.2	1347.3
25°	2483.2	2314.3	2158.7	2016.5	1872.0	1734.3	1604.6	1500.9	1409.8	1337.9	1281.6
27.5°	2501.9	2303.2	2119.3	1961.2	1814.7	1677.4	1558.7	1448.7	1356.3	1280.3	1219.8
30°	2505.4	2294.2	2089.1	1918.0	1769.1	1643.1	1517.2	1412.0	1314.2	1233.4	1177.1
32.5°	2510.2	2272.4	2048.1	1866.4	1713.9	1589.2	1475.1	1374.6	1274.5	1195.0	1137.5
35°	2490.6	2260.2	1986.1	1777.2	1624.6	1503.8	1400.9	1308.2	1209.8	1132.7	1074.2
37.5°	2406.4	2212.1	1921.8	1676.8	1517.2	1405.3	1321.4	1240.7	1150.4	1067.2	1012.1
40°	2321.7	2164.6	1872.0	1615.7	1449.1	1334.2	1258.7	1192.7	1105.3	1027.5	968.3
42.5°	2195.5	2100.1	1824.6	1551.7	1372.0	1261.3	1197.6	1135.8	1059.0	980.1	924.4
45°	1963.9	1976.5	1727.6	1449.7	1265.3	1154.1	1094.2	1051.2	983.1	917.8	860.8
47.5°	1673.5	1791.3	1613.6	1341.1	1152.8	1048.6	996.1	958.6	912.7	848.7	796.6
50°	1483.8	1652.0	1522.4	1268.3	1082.3	978.6	926.7	896.4	856.4	806.0	756.4
52.5°	1309.0	1489.6	1412.1	1187.0	1005.9	911.1	860.4	835.4	803.6	756.2	711.3
55°	1067.5	1250.5	1232.8	1064.5	891.2	806.0	767.5	739.3	717.8	682.3	646.8
57.5°	863.5	1037.0	1046.1	928.2	790.1	706.0	672.8	651.6	637.5	610.8	577.9
60°	734.9	894.2	925.3	836.4	717.8	643.8	611.1	594.1	583.1	561.6	536.3
62.5°	628.2	763.7	799.0	735.0	648.5	579.2	553.6	537.2	529.7	511.1	488.9
65°	480.8	593.4	627.5	591.9	546.7	491.2	470.4	456.4	449.7	439.3	423.0
67.5°	361.6	443.6	481.0	455.9	439.6	404.4	391.2	383.7	377.8	370.7	357.0
70°	290.4	351.1	389.6	383.0	369.7	351.1	341.5	336.3	330.4	324.5	312.6
72.5°	233.5	275.3	311.4	314.8	303.9	300.2	291.7	289.5	286.0	278.8	272.3
75°	154.9	183.7	208.9	218.6	223.0	226.7	223.0	222.3	221.5	215.6	211.9
77.5°	101.5	117.1	132.9	149.4	156.3	161.4	162.5	165.2	163.2	160.1	158.3
80°	77.8	81.5	92.6	106.7	117.8	122.2	125.2	126.7	125.9	125.2	122.2
82.5°	56.5	59.6	64.8	74.6	84.0	91.4	93.2	92.9	94.5	95.0	92.6
85°	30.3	31.1	32.6	34.1	39.3	47.4	49.7	51.1	52.6	52.6	48.2
87.5°	14.6	13.2	13.6	12.8	14.0	13.9	16.9	19.2	20.5	18.8	19.3
90°	25.6	21.6	17.5	13.9	10.8	7.6	4.5	1.4	4.5	7.6	10.8
92.5°	30.0	26.9	23.8	22.7	23.6	24.4	25.4	26.2	25.4	24.4	23.6
95°	36.8	33.4	29.9	34.6	47.4	60.3	73.1	86.0	73.1	60.3	47.4
97.5°	90.5	113.0	135.5	149.7	155.4	161.3	167.0	172.8	167.0	161.3	155.4
100°	144.2	193.0	241.9	263.2	256.9	250.6	244.4	238.2	244.4	250.6	256.9
102.5°	199.4	252.8	306.1	330.5	326.0	321.6	317.1	312.5	317.1	321.6	326.0
105°	365.0	393.1	421.3	433.7	430.3	426.8	423.4	419.9	423.4	426.8	430.3
107.5°	556.8	552.2	547.8	544.2	541.5	538.7	535.9	533.2	535.9	538.7	541.5
110°	628.6	625.2	621.7	618.8	616.2	613.7	611.2	608.7	611.2	613.7	616.2



TEST NUMBER: P332486-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	699.6	696.2	692.8	689.8	687.7	685.4	683.2	680.9	683.2	685.4	687.7
115°	803.1	800.4	797.6	795.2	793.3	791.5	789.6	787.7	789.6	791.5	793.3
117.5°	905.1	903.7	902.3	900.4	898.1	895.7	893.4	891.1	893.4	895.7	898.1
120°	970.3	969.4	968.6	966.7	963.8	961.0	958.2	955.4	958.2	961.0	963.8
122.5°	1034.2	1032.9	1031.8	1030.0	1027.7	1025.4	1023.0	1020.8	1023.0	1025.4	1027.7
125°	1124.7	1123.5	1122.3	1120.4	1117.9	1115.4	1112.9	1110.3	1112.9	1115.4	1117.9
127.5°	1212.2	1210.7	1209.2	1207.2	1204.7	1202.2	1199.7	1197.1	1199.7	1202.2	1204.7
130°	1265.6	1264.4	1263.2	1261.3	1258.8	1256.3	1253.8	1251.2	1253.8	1256.3	1258.8
132.5°	1316.9	1315.9	1314.9	1313.2	1310.6	1308.2	1305.6	1303.2	1305.6	1308.2	1310.6
135°	1393.9	1392.6	1391.4	1389.9	1388.0	1386.1	1384.2	1382.3	1384.2	1386.1	1388.0
137.5°	1462.4	1461.7	1461.0	1459.4	1457.1	1454.7	1452.4	1449.9	1452.4	1454.7	1457.1
140°	1505.8	1504.9	1503.9	1502.6	1500.7	1498.8	1496.9	1495.1	1496.9	1498.8	1500.7
142.5°	1547.6	1546.6	1545.7	1544.3	1542.4	1540.5	1538.6	1536.7	1538.6	1540.5	1542.4
145°	1606.5	1605.9	1605.2	1603.8	1601.7	1599.5	1597.2	1595.1	1597.2	1599.5	1601.7
147.5°	1658.1	1657.5	1656.8	1655.8	1654.4	1652.9	1651.5	1650.0	1651.5	1652.9	1654.4
150°	1689.7	1689.0	1688.4	1687.6	1686.7	1685.7	1684.8	1683.9	1684.8	1685.7	1686.7
152.5°	1717.2	1716.8	1716.5	1716.1	1715.6	1715.1	1714.8	1714.3	1714.8	1715.1	1715.6
155°	1755.1	1754.8	1754.4	1754.6	1755.3	1755.9	1756.5	1757.1	1756.5	1755.9	1755.3
157.5°	1789.3	1789.6	1790.0	1790.2	1790.2	1790.3	1790.4	1790.4	1790.4	1790.3	1790.2
160°	1808.5	1808.8	1809.1	1809.4	1809.8	1810.1	1810.3	1810.7	1810.3	1810.1	1809.8
162.5°	1825.4	1825.7	1826.0	1826.6	1827.4	1828.2	1829.0	1829.9	1829.0	1828.2	1827.4
165°	1847.9	1848.2	1848.6	1849.2	1850.1	1851.1	1852.0	1852.9	1852.0	1851.1	1850.1
167.5°	1865.4	1865.4	1865.4	1866.0	1867.3	1868.5	1869.7	1870.9	1869.7	1868.5	1867.3
170°	1875.5	1875.5	1875.5	1876.1	1877.4	1878.6	1879.9	1881.1	1879.9	1878.6	1877.4
172.5°	1881.8	1881.5	1881.2	1881.9	1883.4	1884.9	1886.4	1887.9	1886.4	1884.9	1883.4
175°	1890.4	1890.1	1889.7	1890.4	1892.0	1893.5	1895.1	1896.6	1895.1	1893.5	1892.0
177.5°	1893.9	1893.7	1893.4	1893.9	1895.2	1896.4	1897.6	1898.8	1897.6	1896.4	1895.2
180°	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6



TEST NUMBER: P332486-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1700.9	1693.2	1687.9	1676.0	1668.3	1660.0	1651.7	1657.1	1656.4	1655.9	1655.9
5°	1643.9	1626.8	1611.3	1591.3	1578.7	1563.1	1551.2	1549.7	1552.7	1542.4	1536.4
7.5°	1587.2	1564.0	1541.9	1519.8	1496.5	1477.8	1466.0	1460.6	1453.0	1446.6	1440.0
10°	1547.6	1520.1	1498.6	1471.2	1446.0	1423.8	1409.8	1400.1	1395.0	1389.8	1380.2
12.5°	1506.7	1479.9	1452.5	1421.4	1397.5	1371.7	1361.1	1350.4	1340.4	1334.6	1321.4
15°	1446.8	1412.0	1383.1	1350.5	1323.8	1298.6	1283.8	1262.3	1259.3	1252.0	1238.6
17.5°	1386.8	1349.0	1309.2	1285.0	1254.9	1228.7	1206.2	1198.9	1177.7	1169.7	1158.2
20°	1339.4	1304.6	1274.2	1242.4	1198.6	1174.2	1156.4	1146.8	1129.7	1119.4	1111.9
22.5°	1298.4	1263.1	1227.9	1190.8	1154.8	1127.4	1114.4	1099.4	1090.1	1075.5	1067.5
25°	1240.1	1201.6	1159.3	1119.4	1093.4	1072.7	1052.0	1038.6	1025.3	1018.6	1003.8
27.5°	1172.2	1132.0	1092.5	1062.2	1030.3	1009.8	991.1	979.2	963.2	952.0	943.8
30°	1134.9	1087.5	1053.4	1026.1	985.2	966.0	952.0	937.2	925.3	913.4	905.3
32.5°	1091.7	1048.4	1016.1	982.1	950.9	929.8	911.6	898.6	888.5	877.2	869.1
35°	1023.8	987.5	954.1	920.1	897.1	875.6	854.1	843.0	833.4	823.0	815.7
37.5°	962.4	928.5	896.8	864.5	836.0	818.6	801.3	792.8	779.8	772.8	765.3
40°	924.5	891.2	857.1	826.0	796.4	783.1	767.5	754.9	743.0	737.8	729.7
42.5°	883.1	849.7	821.0	787.5	763.2	745.1	730.8	717.0	708.0	700.5	695.9
45°	821.5	791.9	763.7	730.5	707.5	691.9	675.6	663.0	654.9	649.7	641.5
47.5°	761.9	732.3	703.6	674.6	652.3	634.6	618.3	609.5	598.7	592.4	586.8
50°	718.6	691.9	661.6	634.9	612.7	594.8	581.5	570.4	560.8	552.6	548.9
52.5°	678.9	650.4	624.2	599.3	575.9	555.7	543.6	531.9	524.6	515.3	511.0
55°	613.4	586.0	563.7	539.3	516.3	499.3	484.5	474.1	466.7	456.4	450.4
57.5°	551.9	527.4	500.8	479.6	455.9	441.5	429.2	415.2	406.1	397.9	392.2
60°	510.4	482.3	459.3	439.3	418.6	400.0	388.9	377.8	368.2	360.1	354.9
62.5°	467.1	442.5	420.8	399.0	380.0	363.9	351.0	341.7	333.2	328.0	322.8
65°	400.8	381.5	359.3	341.5	323.8	311.9	301.5	293.3	287.5	283.7	279.3
67.5°	339.7	321.0	301.6	284.2	272.3	263.3	256.5	249.5	246.6	241.8	238.8
70°	300.0	280.8	263.7	250.4	238.6	231.9	227.4	222.3	219.2	213.4	210.4
72.5°	256.7	242.8	230.5	219.6	210.1	204.1	198.4	192.0	187.3	180.8	177.8
75°	202.3	189.6	180.0	172.6	166.6	158.5	150.4	143.7	141.5	139.3	138.6
77.5°	149.8	141.8	134.8	128.6	121.2	115.3	113.5	112.0	111.6	110.4	110.4
80°	117.8	110.4	105.2	97.7	93.3	93.3	93.3	91.9	92.6	92.6	92.6
82.5°	87.6	80.8	77.9	75.3	74.4	74.9	74.9	75.3	74.8	76.0	75.4
85°	45.1	45.9	47.4	46.7	47.4	47.4	48.9	48.2	48.9	47.4	48.9
87.5°	19.4	21.9	23.3	24.7	26.1	26.3	27.1	27.4	28.3	28.5	28.7
90°	13.9	17.5	21.6	25.6	29.8	33.8	35.1	36.3	37.6	38.8	39.8
92.5°	22.7	23.8	26.9	30.0	33.0	36.1	38.1	40.1	42.1	44.1	45.2
95°	34.6	29.9	33.4	36.8	40.2	43.6	45.9	48.1	50.2	52.4	53.5
97.5°	149.7	135.5	113.0	90.5	68.0	45.3	47.9	50.4	52.9	55.4	56.8
100°	263.2	241.9	193.0	144.2	95.4	46.5	49.0	51.5	54.0	56.6	58.0
102.5°	330.5	306.1	252.8	199.4	146.1	92.7	84.9	77.2	69.5	61.6	58.1
105°	433.7	421.3	393.1	365.0	336.8	308.6	253.2	197.7	142.3	86.9	59.5
107.5°	544.2	547.8	552.2	556.8	561.2	565.6	525.0	484.3	443.7	403.0	361.8
110°	618.8	621.7	625.2	628.6	632.1	635.5	625.2	614.8	604.5	594.2	566.6



TEST NUMBER: P332486-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	689.8	692.8	696.2	699.6	703.0	706.5	706.7	706.9	707.1	707.3	702.7
115°	795.2	797.6	800.4	803.1	806.0	808.8	811.9	815.1	818.2	821.3	823.5
117.5°	900.4	902.3	903.7	905.1	906.5	908.0	910.5	913.0	915.5	918.0	919.5
120°	966.7	968.6	969.4	970.3	971.3	972.2	974.8	977.3	979.8	982.3	983.5
122.5°	1030.0	1031.8	1032.9	1034.2	1035.3	1036.5	1038.3	1040.0	1041.8	1043.6	1044.5
125°	1120.4	1122.3	1123.5	1124.7	1126.1	1127.3	1127.9	1128.5	1129.2	1129.7	1130.4
127.5°	1207.2	1209.2	1210.7	1212.2	1213.7	1215.2	1216.2	1217.2	1218.2	1219.2	1219.4
130°	1261.3	1263.2	1264.4	1265.6	1267.0	1268.2	1269.4	1270.6	1272.0	1273.2	1273.5
132.5°	1313.2	1314.9	1315.9	1316.9	1317.9	1318.9	1320.1	1321.4	1322.7	1323.9	1324.1
135°	1389.9	1391.4	1392.6	1393.9	1395.2	1396.4	1397.3	1398.3	1399.2	1400.1	1400.1
137.5°	1459.4	1461.0	1461.7	1462.4	1463.1	1463.8	1465.3	1466.8	1468.3	1469.8	1470.2
140°	1502.6	1503.9	1504.9	1505.8	1506.7	1507.7	1509.0	1510.2	1511.5	1512.7	1513.1
142.5°	1544.3	1545.7	1546.6	1547.6	1548.5	1549.4	1550.4	1551.4	1552.5	1553.4	1553.5
145°	1603.8	1605.2	1605.9	1606.5	1607.1	1607.8	1608.4	1609.0	1609.7	1610.2	1610.6
147.5°	1655.8	1656.8	1657.5	1658.1	1658.7	1659.3	1660.0	1660.6	1661.2	1661.9	1661.4
150°	1687.6	1688.4	1689.0	1689.7	1690.3	1690.9	1691.5	1692.1	1692.8	1693.4	1693.3
152.5°	1716.1	1716.5	1716.8	1717.2	1717.6	1718.0	1719.1	1720.2	1721.4	1722.5	1722.3
155°	1754.6	1754.4	1754.8	1755.1	1755.4	1755.7	1757.3	1758.9	1760.4	1762.0	1761.8
157.5°	1790.2	1790.0	1789.6	1789.3	1789.0	1788.7	1790.5	1792.4	1794.3	1796.2	1795.9
160°	1809.4	1809.1	1808.8	1808.5	1808.2	1807.9	1809.8	1811.7	1813.5	1815.3	1815.2
162.5°	1826.6	1826.0	1825.7	1825.4	1825.0	1824.8	1826.9	1829.0	1831.2	1833.2	1833.3
165°	1849.2	1848.6	1848.2	1847.9	1847.7	1847.3	1849.8	1852.3	1854.8	1857.4	1857.5
167.5°	1866.0	1865.4	1865.4	1865.4	1865.4	1865.4	1867.8	1870.4	1872.8	1875.4	1875.4
170°	1876.1	1875.5	1875.5	1875.5	1875.5	1875.5	1878.0	1880.5	1883.0	1885.6	1885.6
172.5°	1881.9	1881.2	1881.5	1881.8	1882.0	1882.3	1884.8	1887.3	1889.8	1892.2	1892.2
175°	1890.4	1889.7	1890.1	1890.4	1890.6	1891.0	1893.2	1895.4	1897.5	1899.8	1899.6
177.5°	1893.9	1893.4	1893.7	1893.9	1894.1	1894.4	1896.4	1898.4	1900.4	1902.4	1902.1
180°	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6



TEST NUMBER: P332486-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1648.8	1648.1	1648.8	1646.3	1648.8	1648.1	1648.8	1655.9	1655.9	1656.4	1657.1
5°	1534.2	1533.5	1531.3	1524.6	1531.3	1533.5	1534.2	1536.4	1542.4	1552.7	1549.7
7.5°	1434.2	1433.1	1426.6	1426.8	1426.6	1433.1	1434.2	1440.0	1446.6	1453.0	1460.6
10°	1375.0	1375.6	1366.8	1361.6	1366.8	1375.6	1375.0	1380.2	1389.8	1395.0	1400.1
12.5°	1317.5	1314.1	1306.9	1301.2	1306.9	1314.1	1317.5	1321.4	1334.6	1340.4	1350.4
15°	1241.6	1234.2	1216.4	1217.9	1216.4	1234.2	1241.6	1238.6	1252.0	1259.3	1262.3
17.5°	1152.3	1146.8	1146.5	1136.1	1146.5	1146.8	1152.3	1158.2	1169.7	1177.7	1198.9
20°	1100.1	1096.4	1097.9	1087.5	1097.9	1096.4	1100.1	1111.9	1119.4	1129.7	1146.8
22.5°	1059.2	1055.5	1049.2	1046.0	1049.2	1055.5	1059.2	1067.5	1075.5	1090.1	1099.4
25°	999.4	993.4	987.5	991.2	987.5	993.4	999.4	1003.8	1018.6	1025.3	1038.6
27.5°	939.5	935.1	929.2	928.4	929.2	935.1	939.5	943.8	952.0	963.2	979.2
30°	901.5	897.1	894.2	890.4	894.2	897.1	901.5	905.3	913.4	925.3	937.2
32.5°	863.1	862.1	856.9	856.1	856.9	862.1	863.1	869.1	877.2	888.5	898.6
35°	812.7	808.2	806.7	807.5	806.7	808.2	812.7	815.7	823.0	833.4	843.0
37.5°	764.8	758.8	756.2	753.6	756.2	758.8	764.8	765.3	772.8	779.8	792.8
40°	730.5	724.5	723.0	721.5	723.0	724.5	730.5	729.7	737.8	743.0	754.9
42.5°	691.9	689.6	688.6	686.0	688.6	689.6	691.9	695.9	700.5	708.0	717.0
45°	639.3	638.6	634.1	635.7	634.1	638.6	639.3	641.5	649.7	654.9	663.0
47.5°	583.9	580.6	577.5	579.6	577.5	580.6	583.9	586.8	592.4	598.7	609.5
50°	546.0	544.5	537.8	539.3	537.8	544.5	546.0	548.9	552.6	560.8	570.4
52.5°	508.0	502.4	499.9	499.0	499.9	502.4	508.0	511.0	515.3	524.6	531.9
55°	445.3	438.6	435.5	434.1	435.5	438.6	445.3	450.4	456.4	466.7	474.1
57.5°	383.6	381.8	379.5	381.1	379.5	381.8	383.6	392.2	397.9	406.1	415.2
60°	347.4	347.4	347.4	346.7	347.4	347.4	347.4	354.9	360.1	368.2	377.8
62.5°	319.6	317.8	317.3	318.3	317.3	317.8	319.6	322.8	328.0	333.2	341.7
65°	277.1	276.4	273.3	272.6	273.3	276.4	277.1	279.3	283.7	287.5	293.3
67.5°	237.0	234.2	233.4	232.3	233.4	234.2	237.0	238.8	241.8	246.6	249.5
70°	206.7	205.2	200.8	201.5	200.8	205.2	206.7	210.4	213.4	219.2	222.3
72.5°	174.1	172.6	171.7	170.7	171.7	172.6	174.1	177.8	180.8	187.3	192.0
75°	137.8	137.0	136.3	139.3	136.3	137.0	137.8	138.6	139.3	141.5	143.7
77.5°	110.4	110.4	110.8	109.6	110.8	110.4	110.4	110.4	110.4	111.6	112.0
80°	92.6	92.6	91.9	91.9	91.9	92.6	92.6	92.6	92.6	92.6	91.9
82.5°	74.3	74.8	75.3	74.1	75.3	74.8	74.3	75.4	76.0	74.8	75.3
85°	48.9	48.2	49.7	48.9	49.7	48.2	48.9	48.9	47.4	48.9	48.2
87.5°	30.0	28.9	29.0	29.8	29.0	28.9	30.0	28.7	28.5	28.3	27.4
90°	40.4	41.0	41.7	42.2	41.7	41.0	40.4	39.8	38.8	37.6	36.3
92.5°	45.6	46.0	46.4	46.8	46.4	46.0	45.6	45.2	44.1	42.1	40.1
95°	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	52.4	50.2	48.1
97.5°	57.1	57.4	57.8	58.1	57.8	57.4	57.1	56.8	55.4	52.9	50.4
100°	58.2	58.5	58.9	59.2	58.9	58.5	58.2	58.0	56.6	54.0	51.5
102.5°	58.6	59.2	59.8	60.3	59.8	59.2	58.6	58.1	61.6	69.5	77.2
105°	60.1	60.8	61.4	62.0	61.4	60.8	60.1	59.5	86.9	142.3	197.7
107.5°	320.1	278.2	236.5	194.7	236.5	278.2	320.1	361.8	403.0	443.7	484.3
110°	521.8	477.0	432.3	387.5	432.3	477.0	521.8	566.6	594.2	604.5	614.8



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CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	693.1	683.7	674.3	664.8	674.3	683.7	693.1	702.7	707.3	707.1	706.9
115°	824.8	826.0	827.3	828.6	827.3	826.0	824.8	823.5	821.3	818.2	815.1
117.5°	919.6	919.9	920.2	920.4	920.2	919.9	919.6	919.5	918.0	915.5	913.0
120°	983.5	983.5	983.5	983.5	983.5	983.5	983.5	983.5	982.3	979.8	977.3
122.5°	1044.8	1045.0	1045.3	1045.6	1045.3	1045.0	1044.8	1044.5	1043.6	1041.8	1040.0
125°	1131.1	1131.6	1132.3	1132.9	1132.3	1131.6	1131.1	1130.4	1129.7	1129.2	1128.5
127.5°	1218.8	1218.1	1217.5	1216.9	1217.5	1218.1	1218.8	1219.4	1219.2	1218.2	1217.2
130°	1272.9	1272.2	1271.6	1271.0	1271.6	1272.2	1272.9	1273.5	1273.2	1272.0	1270.6
132.5°	1323.2	1322.4	1321.4	1320.6	1321.4	1322.4	1323.2	1324.1	1323.9	1322.7	1321.4
135°	1399.2	1398.3	1397.3	1396.4	1397.3	1398.3	1399.2	1400.1	1400.1	1399.2	1398.3
137.5°	1469.6	1469.0	1468.3	1467.7	1468.3	1469.0	1469.6	1470.2	1469.8	1468.3	1466.8
140°	1512.4	1511.8	1511.2	1510.5	1511.2	1511.8	1512.4	1513.1	1512.7	1511.5	1510.2
142.5°	1552.7	1551.7	1550.9	1550.0	1550.9	1551.7	1552.7	1553.5	1553.4	1552.5	1551.4
145°	1610.6	1610.6	1610.6	1610.6	1610.6	1610.6	1610.6	1610.6	1610.2	1609.7	1609.0
147.5°	1660.0	1658.6	1657.1	1655.7	1657.1	1658.6	1660.0	1661.4	1661.9	1661.2	1660.6
150°	1692.3	1691.4	1690.5	1689.5	1690.5	1691.4	1692.3	1693.3	1693.4	1692.8	1692.1
152.5°	1720.9	1719.4	1718.0	1716.6	1718.0	1719.4	1720.9	1722.3	1722.5	1721.4	1720.2
155°	1759.9	1758.0	1756.1	1754.4	1756.1	1758.0	1759.9	1761.8	1762.0	1760.4	1758.9
157.5°	1793.5	1791.0	1788.6	1786.1	1788.6	1791.0	1793.5	1795.9	1796.2	1794.3	1792.4
160°	1813.0	1810.8	1808.6	1806.5	1808.6	1810.8	1813.0	1815.2	1815.3	1813.5	1811.7
162.5°	1831.5	1829.5	1827.6	1825.6	1827.6	1829.5	1831.5	1833.3	1833.2	1831.2	1829.0
165°	1855.3	1853.1	1850.9	1848.7	1850.9	1853.1	1855.3	1857.5	1857.4	1854.8	1852.3
167.5°	1872.8	1870.4	1867.8	1865.4	1867.8	1870.4	1872.8	1875.4	1875.4	1872.8	1870.4
170°	1883.0	1880.5	1878.0	1875.5	1878.0	1880.5	1883.0	1885.6	1885.6	1883.0	1880.5
172.5°	1889.4	1886.7	1883.9	1881.1	1883.9	1886.7	1889.4	1892.2	1892.2	1889.8	1887.3
175°	1897.1	1894.6	1892.1	1889.6	1892.1	1894.6	1897.1	1899.6	1899.8	1897.5	1895.4
177.5°	1899.6	1897.1	1894.6	1892.2	1894.6	1897.1	1899.6	1902.1	1902.4	1900.4	1898.4
180°	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6



TEST NUMBER: P332486-830

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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1651.7	1660.0	1668.3	1676.0	1687.9	1693.2	1700.9	1703.8	1712.8	1725.8	1736.4
5°	1551.2	1563.1	1578.7	1591.3	1611.3	1626.8	1643.9	1660.2	1679.4	1706.9	1731.3
7.5°	1466.0	1477.8	1496.5	1519.8	1541.9	1564.0	1587.2	1609.5	1637.0	1676.3	1715.2
10°	1409.8	1423.8	1446.0	1471.2	1498.6	1520.1	1547.6	1575.7	1609.8	1655.0	1701.7
12.5°	1361.1	1371.7	1397.5	1421.4	1452.5	1479.9	1506.7	1539.5	1578.4	1626.5	1682.6
15°	1283.8	1298.6	1323.8	1350.5	1383.1	1412.0	1446.8	1486.8	1524.6	1583.8	1652.0
17.5°	1206.2	1228.7	1254.9	1285.0	1309.2	1349.0	1386.8	1427.9	1474.3	1537.2	1612.0
20°	1156.4	1174.2	1198.6	1242.4	1274.2	1304.6	1339.4	1390.5	1433.4	1504.6	1582.3
22.5°	1114.4	1127.4	1154.8	1190.8	1227.9	1263.1	1298.4	1347.3	1400.2	1467.8	1552.2
25°	1052.0	1072.7	1093.4	1119.4	1159.3	1201.6	1240.1	1281.6	1337.9	1409.8	1500.9
27.5°	991.1	1009.8	1030.3	1062.2	1092.5	1132.0	1172.2	1219.8	1280.3	1356.3	1448.7
30°	952.0	966.0	985.2	1026.1	1053.4	1087.5	1134.9	1177.1	1233.4	1314.2	1412.0
32.5°	911.6	929.8	950.9	982.1	1016.1	1048.4	1091.7	1137.5	1195.0	1274.5	1374.6
35°	854.1	875.6	897.1	920.1	954.1	987.5	1023.8	1074.2	1132.7	1209.8	1308.2
37.5°	801.3	818.6	836.0	864.5	896.8	928.5	962.4	1012.1	1067.2	1150.4	1240.7
40°	767.5	783.1	796.4	826.0	857.1	891.2	924.5	968.3	1027.5	1105.3	1192.7
42.5°	730.8	745.1	763.2	787.5	821.0	849.7	883.1	924.4	980.1	1059.0	1135.8
45°	675.6	691.9	707.5	730.5	763.7	791.9	821.5	860.8	917.8	983.1	1051.2
47.5°	618.3	634.6	652.3	674.6	703.6	732.3	761.9	796.6	848.7	912.7	958.6
50°	581.5	594.8	612.7	634.9	661.6	691.9	718.6	756.4	806.0	856.4	896.4
52.5°	543.6	555.7	575.9	599.3	624.2	650.4	678.9	711.3	756.2	803.6	835.4
55°	484.5	499.3	516.3	539.3	563.7	586.0	613.4	646.8	682.3	717.8	739.3
57.5°	429.2	441.5	455.9	479.6	500.8	527.4	551.9	577.9	610.8	637.5	651.6
60°	388.9	400.0	418.6	439.3	459.3	482.3	510.4	536.3	561.6	583.1	594.1
62.5°	351.0	363.9	380.0	399.0	420.8	442.5	467.1	488.9	511.1	529.7	537.2
65°	301.5	311.9	323.8	341.5	359.3	381.5	400.8	423.0	439.3	449.7	456.4
67.5°	256.5	263.3	272.3	284.2	301.6	321.0	339.7	357.0	370.7	377.8	383.7
70°	227.4	231.9	238.6	250.4	263.7	280.8	300.0	312.6	324.5	330.4	336.3
72.5°	198.4	204.1	210.1	219.6	230.5	242.8	256.7	272.3	278.8	286.0	289.5
75°	150.4	158.5	166.6	172.6	180.0	189.6	202.3	211.9	215.6	221.5	222.3
77.5°	113.5	115.3	121.2	128.6	134.8	141.8	149.8	158.3	160.1	163.2	165.2
80°	93.3	93.3	93.3	97.7	105.2	110.4	117.8	122.2	125.2	125.9	126.7
82.5°	74.9	74.9	74.4	75.3	77.9	80.8	87.6	92.6	95.0	94.5	92.9
85°	48.9	47.4	47.4	46.7	47.4	45.9	45.1	48.2	52.6	52.6	51.1
87.5°	27.1	26.3	26.1	24.7	23.3	21.9	19.4	19.3	18.8	20.5	19.2
90°	35.1	33.8	29.8	25.6	21.6	17.5	13.9	10.8	7.6	4.5	1.4
92.5°	38.1	36.1	33.0	30.0	26.9	23.8	22.7	23.6	24.4	25.4	26.2
95°	45.9	43.6	40.2	36.8	33.4	29.9	34.6	47.4	60.3	73.1	86.0
97.5°	47.9	45.3	68.0	90.5	113.0	135.5	149.7	155.4	161.3	167.0	172.8
100°	49.0	46.5	95.4	144.2	193.0	241.9	263.2	256.9	250.6	244.4	238.2
102.5°	84.9	92.7	146.1	199.4	252.8	306.1	330.5	326.0	321.6	317.1	312.5
105°	253.2	308.6	336.8	365.0	393.1	421.3	433.7	430.3	426.8	423.4	419.9
107.5°	525.0	565.6	561.2	556.8	552.2	547.8	544.2	541.5	538.7	535.9	533.2
110°	625.2	635.5	632.1	628.6	625.2	621.7	618.8	616.2	613.7	611.2	608.7



TEST NUMBER: P332486-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	706.7	706.5	703.0	699.6	696.2	692.8	689.8	687.7	685.4	683.2	680.9
115°	811.9	808.8	806.0	803.1	800.4	797.6	795.2	793.3	791.5	789.6	787.7
117.5°	910.5	908.0	906.5	905.1	903.7	902.3	900.4	898.1	895.7	893.4	891.1
120°	974.8	972.2	971.3	970.3	969.4	968.6	966.7	963.8	961.0	958.2	955.4
122.5°	1038.3	1036.5	1035.3	1034.2	1032.9	1031.8	1030.0	1027.7	1025.4	1023.0	1020.8
125°	1127.9	1127.3	1126.1	1124.7	1123.5	1122.3	1120.4	1117.9	1115.4	1112.9	1110.3
127.5°	1216.2	1215.2	1213.7	1212.2	1210.7	1209.2	1207.2	1204.7	1202.2	1199.7	1197.1
130°	1269.4	1268.2	1267.0	1265.6	1264.4	1263.2	1261.3	1258.8	1256.3	1253.8	1251.2
132.5°	1320.1	1318.9	1317.9	1316.9	1315.9	1314.9	1313.2	1310.6	1308.2	1305.6	1303.2
135°	1397.3	1396.4	1395.2	1393.9	1392.6	1391.4	1389.9	1388.0	1386.1	1384.2	1382.3
137.5°	1465.3	1463.8	1463.1	1462.4	1461.7	1461.0	1459.4	1457.1	1454.7	1452.4	1449.9
140°	1509.0	1507.7	1506.7	1505.8	1504.9	1503.9	1502.6	1500.7	1498.8	1496.9	1495.1
142.5°	1550.4	1549.4	1548.5	1547.6	1546.6	1545.7	1544.3	1542.4	1540.5	1538.6	1536.7
145°	1608.4	1607.8	1607.1	1606.5	1605.9	1605.2	1603.8	1601.7	1599.5	1597.2	1595.1
147.5°	1660.0	1659.3	1658.7	1658.1	1657.5	1656.8	1655.8	1654.4	1652.9	1651.5	1650.0
150°	1691.5	1690.9	1690.3	1689.7	1689.0	1688.4	1687.6	1686.7	1685.7	1684.8	1683.9
152.5°	1719.1	1718.0	1717.6	1717.2	1716.8	1716.5	1716.1	1715.6	1715.1	1714.8	1714.3
155°	1757.3	1755.7	1755.4	1755.1	1754.8	1754.4	1754.6	1755.3	1755.9	1756.5	1757.1
157.5°	1790.5	1788.7	1789.0	1789.3	1789.6	1790.0	1790.2	1790.2	1790.3	1790.4	1790.4
160°	1809.8	1807.9	1808.2	1808.5	1808.8	1809.1	1809.4	1809.8	1810.1	1810.3	1810.7
162.5°	1826.9	1824.8	1825.0	1825.4	1825.7	1826.0	1826.6	1827.4	1828.2	1829.0	1829.9
165°	1849.8	1847.3	1847.7	1847.9	1848.2	1848.6	1849.2	1850.1	1851.1	1852.0	1852.9
167.5°	1867.8	1865.4	1865.4	1865.4	1865.4	1865.4	1866.0	1867.3	1868.5	1869.7	1870.9
170°	1878.0	1875.5	1875.5	1875.5	1875.5	1875.5	1876.1	1877.4	1878.6	1879.9	1881.1
172.5°	1884.8	1882.3	1882.0	1881.8	1881.5	1881.2	1881.9	1883.4	1884.9	1886.4	1887.9
175°	1893.2	1891.0	1890.6	1890.4	1890.1	1889.7	1890.4	1892.0	1893.5	1895.1	1896.6
177.5°	1896.4	1894.4	1894.1	1893.9	1893.7	1893.4	1893.9	1895.2	1896.4	1897.6	1898.8
180°	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6



TEST NUMBER: P332486-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1740.0	1746.5	1754.8	1767.3	1776.8	1785.1	1786.9	1789.2	1795.2	1805.2	1812.9
5°	1751.2	1768.3	1795.7	1822.4	1851.2	1875.0	1897.2	1912.8	1927.6	1958.7	1983.9
7.5°	1747.8	1785.6	1828.6	1876.5	1925.0	1971.9	2015.4	2054.4	2093.2	2138.5	2190.3
10°	1745.3	1789.8	1847.6	1909.0	1976.5	2042.4	2106.1	2155.8	2213.6	2265.4	2331.3
12.5°	1734.1	1798.1	1867.2	1945.8	2028.6	2104.6	2188.5	2257.1	2323.2	2398.1	2474.7
15°	1719.4	1797.2	1884.6	1989.0	2115.0	2206.9	2292.8	2412.1	2493.6	2575.0	2684.7
17.5°	1692.6	1787.5	1896.8	2032.5	2137.5	2261.0	2390.3	2484.5	2594.3	2709.2	2808.4
20°	1671.2	1781.7	1903.8	2037.2	2171.3	2305.4	2430.6	2543.2	2656.6	2789.2	2870.6
22.5°	1649.9	1759.2	1886.1	2027.8	2171.9	2313.1	2454.9	2587.1	2714.6	2848.5	2952.4
25°	1604.6	1734.3	1872.0	2016.5	2158.7	2314.3	2483.2	2630.6	2788.4	2926.2	3024.7
27.5°	1558.7	1677.4	1814.7	1961.2	2119.3	2303.2	2501.9	2669.5	2827.5	2926.2	2957.1
30°	1517.2	1643.1	1769.1	1918.0	2089.1	2294.2	2505.4	2697.3	2827.0	2869.9	2838.0
32.5°	1475.1	1589.2	1713.9	1866.4	2048.1	2272.4	2510.2	2680.7	2758.7	2725.9	2596.2
35°	1400.9	1503.8	1624.6	1777.2	1986.1	2260.2	2490.6	2606.1	2586.9	2401.7	2157.2
37.5°	1321.4	1405.3	1517.2	1676.8	1921.8	2212.1	2406.4	2423.5	2256.8	1972.5	1690.1
40°	1258.7	1334.2	1449.1	1615.7	1872.0	2164.6	2321.7	2252.8	1994.2	1677.9	1442.4
42.5°	1197.6	1261.3	1372.0	1551.7	1824.6	2100.1	2195.5	2045.4	1747.1	1448.0	1233.8
45°	1094.2	1154.1	1265.3	1449.7	1727.6	1976.5	1963.9	1703.1	1404.6	1163.9	986.0
47.5°	996.1	1048.6	1152.8	1341.1	1613.6	1791.3	1673.5	1396.0	1142.7	949.6	822.7
50°	926.7	978.6	1082.3	1268.3	1522.4	1652.0	1483.8	1216.4	984.6	824.5	723.8
52.5°	860.4	911.1	1005.9	1187.0	1412.1	1489.6	1309.0	1061.1	867.8	729.7	643.2
55°	767.5	806.0	891.2	1064.5	1232.8	1250.5	1067.5	860.1	700.8	604.5	545.3
57.5°	672.8	706.0	790.1	928.2	1046.1	1037.0	863.5	684.1	576.8	505.2	462.2
60°	611.1	643.8	717.8	836.4	925.3	894.2	734.9	590.4	498.6	446.0	411.9
62.5°	553.6	579.2	648.5	735.0	799.0	763.7	628.2	508.6	435.7	391.4	364.5
65°	470.4	491.2	546.7	591.9	627.5	593.4	480.8	397.8	345.3	314.1	295.6
67.5°	391.2	404.4	439.6	455.9	481.0	443.6	361.6	305.9	276.1	249.8	237.0
70°	341.5	351.1	369.7	383.0	389.6	351.1	290.4	249.7	224.4	205.9	197.8
72.5°	291.7	300.2	303.9	314.8	311.4	275.3	233.5	201.0	182.9	170.4	159.9
75°	223.0	226.7	223.0	218.6	208.9	183.7	154.9	138.6	125.2	119.2	115.6
77.5°	162.5	161.4	156.3	149.4	132.9	117.1	101.5	96.0	90.2	87.1	85.8
80°	125.2	122.2	117.8	106.7	92.6	81.5	77.8	74.1	71.8	68.1	67.4
82.5°	93.2	91.4	84.0	74.6	64.8	59.6	56.5	55.1	52.9	51.0	50.8
85°	49.7	47.4	39.3	34.1	32.6	31.1	30.3	30.3	27.4	26.7	26.7
87.5°	16.9	13.9	14.0	12.8	13.6	13.2	14.6	14.2	14.4	15.3	14.4
90°	4.5	7.6	10.8	13.9	17.5	21.6	25.6	29.8	33.8	35.1	36.3
92.5°	25.4	24.4	23.6	22.7	23.8	26.9	30.0	33.0	36.1	38.1	40.1
95°	73.1	60.3	47.4	34.6	29.9	33.4	36.8	40.2	43.6	45.9	48.1
97.5°	167.0	161.3	155.4	149.7	135.5	113.0	90.5	68.0	45.3	47.9	50.4
100°	244.4	250.6	256.9	263.2	241.9	193.0	144.2	95.4	46.5	49.0	51.5
102.5°	317.1	321.6	326.0	330.5	306.1	252.8	199.4	146.1	92.7	84.9	77.2
105°	423.4	426.8	430.3	433.7	421.3	393.1	365.0	336.8	308.6	253.2	197.7
107.5°	535.9	538.7	541.5	544.2	547.8	552.2	556.8	561.2	565.6	525.0	484.3
110°	611.2	613.7	616.2	618.8	621.7	625.2	628.6	632.1	635.5	625.2	614.8



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	683.2	685.4	687.7	689.8	692.8	696.2	699.6	703.0	706.5	706.7	706.9
115°	789.6	791.5	793.3	795.2	797.6	800.4	803.1	806.0	808.8	811.9	815.1
117.5°	893.4	895.7	898.1	900.4	902.3	903.7	905.1	906.5	908.0	910.5	913.0
120°	958.2	961.0	963.8	966.7	968.6	969.4	970.3	971.3	972.2	974.8	977.3
122.5°	1023.0	1025.4	1027.7	1030.0	1031.8	1032.9	1034.2	1035.3	1036.5	1038.3	1040.0
125°	1112.9	1115.4	1117.9	1120.4	1122.3	1123.5	1124.7	1126.1	1127.3	1127.9	1128.5
127.5°	1199.7	1202.2	1204.7	1207.2	1209.2	1210.7	1212.2	1213.7	1215.2	1216.2	1217.2
130°	1253.8	1256.3	1258.8	1261.3	1263.2	1264.4	1265.6	1267.0	1268.2	1269.4	1270.6
132.5°	1305.6	1308.2	1310.6	1313.2	1314.9	1315.9	1316.9	1317.9	1318.9	1320.1	1321.4
135°	1384.2	1386.1	1388.0	1389.9	1391.4	1392.6	1393.9	1395.2	1396.4	1397.3	1398.3
137.5°	1452.4	1454.7	1457.1	1459.4	1461.0	1461.7	1462.4	1463.1	1463.8	1465.3	1466.8
140°	1496.9	1498.8	1500.7	1502.6	1503.9	1504.9	1505.8	1506.7	1507.7	1509.0	1510.2
142.5°	1538.6	1540.5	1542.4	1544.3	1545.7	1546.6	1547.6	1548.5	1549.4	1550.4	1551.4
145°	1597.2	1599.5	1601.7	1603.8	1605.2	1605.9	1606.5	1607.1	1607.8	1608.4	1609.0
147.5°	1651.5	1652.9	1654.4	1655.8	1656.8	1657.5	1658.1	1658.7	1659.3	1660.0	1660.6
150°	1684.8	1685.7	1686.7	1687.6	1688.4	1689.0	1689.7	1690.3	1690.9	1691.5	1692.1
152.5°	1714.8	1715.1	1715.6	1716.1	1716.5	1716.8	1717.2	1717.6	1718.0	1719.1	1720.2
155°	1756.5	1755.9	1755.3	1754.6	1754.4	1754.8	1755.1	1755.4	1755.7	1757.3	1758.9
157.5°	1790.4	1790.3	1790.2	1790.2	1790.0	1789.6	1789.3	1789.0	1788.7	1790.5	1792.4
160°	1810.3	1810.1	1809.8	1809.4	1809.1	1808.8	1808.5	1808.2	1807.9	1809.8	1811.7
162.5°	1829.0	1828.2	1827.4	1826.6	1826.0	1825.7	1825.4	1825.0	1824.8	1826.9	1829.0
165°	1852.0	1851.1	1850.1	1849.2	1848.6	1848.2	1847.9	1847.7	1847.3	1849.8	1852.3
167.5°	1869.7	1868.5	1867.3	1866.0	1865.4	1865.4	1865.4	1865.4	1865.4	1867.8	1870.4
170°	1879.9	1878.6	1877.4	1876.1	1875.5	1875.5	1875.5	1875.5	1875.5	1878.0	1880.5
172.5°	1886.4	1884.9	1883.4	1881.9	1881.2	1881.5	1881.8	1882.0	1882.3	1884.8	1887.3
175°	1895.1	1893.5	1892.0	1890.4	1889.7	1890.1	1890.4	1890.6	1891.0	1893.2	1895.4
177.5°	1897.6	1896.4	1895.2	1893.9	1893.4	1893.7	1893.9	1894.1	1894.4	1896.4	1898.4
180°	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1825.3	1825.3	1827.7	1836.6	1837.8	1845.5	1843.1
5°	2006.1	2020.2	2025.3	2047.6	2061.0	2066.9	2055.0
7.5°	2227.1	2266.9	2285.7	2308.9	2329.6	2335.8	2319.6
10°	2388.4	2429.9	2464.7	2486.1	2506.1	2519.5	2536.6
12.5°	2544.2	2595.2	2628.3	2658.6	2679.2	2696.1	2698.9
15°	2713.6	2790.6	2849.1	2892.1	2913.6	2924.7	2920.3
17.5°	2884.4	2955.8	2997.5	3041.3	3071.1	3072.6	3073.4
20°	2981.0	3050.6	3098.8	3131.4	3164.8	3163.3	3170.6
22.5°	3045.6	3100.4	3137.3	3161.0	3172.4	3166.8	3168.3
25°	3075.8	3092.1	3085.5	3047.7	3038.1	3003.2	3009.2
27.5°	2920.0	2842.9	2763.3	2660.7	2579.8	2515.2	2518.5
30°	2708.4	2572.1	2416.5	2286.1	2169.1	2136.5	2066.9
32.5°	2412.6	2208.2	2026.0	1904.5	1804.0	1776.8	1716.0
35°	1911.3	1712.8	1525.3	1412.7	1368.3	1306.1	1305.3
37.5°	1485.6	1310.8	1211.6	1127.2	1082.9	1045.3	1041.6
40°	1249.7	1113.4	1038.6	977.9	934.2	906.0	899.4
42.5°	1085.0	974.8	904.7	867.0	833.4	818.9	808.0
45°	886.0	811.9	763.0	729.0	713.4	702.3	696.4
47.5°	741.1	691.4	658.2	635.5	622.8	611.1	614.3
50°	662.3	621.5	597.1	575.6	566.0	557.8	558.6
52.5°	598.9	562.3	542.5	527.0	515.0	509.3	506.4
55°	508.2	485.2	465.2	454.1	447.4	439.3	437.1
57.5°	433.5	415.8	399.4	386.8	385.2	377.4	378.4
60°	383.7	368.9	355.6	348.9	343.7	337.1	339.3
62.5°	342.8	330.4	318.3	312.7	307.6	302.7	303.7
65°	280.8	268.9	261.5	258.5	256.3	254.1	251.8
67.5°	223.8	216.5	211.9	205.5	201.0	200.2	197.9
70°	188.1	178.5	170.4	162.2	160.0	159.3	160.0
72.5°	150.8	144.8	142.5	138.6	138.1	136.2	137.5
75°	113.4	111.1	109.6	106.7	106.7	106.7	106.7
77.5°	83.6	82.2	81.3	80.8	80.0	79.0	78.8
80°	65.2	64.5	63.0	63.0	62.2	63.0	62.2
82.5°	49.2	49.0	47.6	47.6	46.8	46.4	46.8
85°	25.2	24.4	25.9	24.4	25.2	23.8	25.2
87.5°	14.6	14.9	14.5	14.6	14.1	15.5	14.4
90°	37.6	38.8	39.8	40.4	41.0	41.7	42.2
92.5°	42.1	44.1	45.2	45.6	46.0	46.4	46.8
95°	50.2	52.4	53.5	53.5	53.5	53.5	53.5
97.5°	52.9	55.4	56.8	57.1	57.4	57.8	58.1
100°	54.0	56.6	58.0	58.2	58.5	58.9	59.2
102.5°	69.5	61.6	58.1	58.6	59.2	59.8	60.3
105°	142.3	86.9	59.5	60.1	60.8	61.4	62.0
107.5°	443.7	403.0	361.8	320.1	278.2	236.5	194.7
110°	604.5	594.2	566.6	521.8	477.0	432.3	387.5



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	707.1	707.3	702.7	693.1	683.7	674.3	664.8
115°	818.2	821.3	823.5	824.8	826.0	827.3	828.6
117.5°	915.5	918.0	919.5	919.6	919.9	920.2	920.4
120°	979.8	982.3	983.5	983.5	983.5	983.5	983.5
122.5°	1041.8	1043.6	1044.5	1044.8	1045.0	1045.3	1045.6
125°	1129.2	1129.7	1130.4	1131.1	1131.6	1132.3	1132.9
127.5°	1218.2	1219.2	1219.4	1218.8	1218.1	1217.5	1216.9
130°	1272.0	1273.2	1273.5	1272.9	1272.2	1271.6	1271.0
132.5°	1322.7	1323.9	1324.1	1323.2	1322.4	1321.4	1320.6
135°	1399.2	1400.1	1400.1	1399.2	1398.3	1397.3	1396.4
137.5°	1468.3	1469.8	1470.2	1469.6	1469.0	1468.3	1467.7
140°	1511.5	1512.7	1513.1	1512.4	1511.8	1511.2	1510.5
142.5°	1552.5	1553.4	1553.5	1552.7	1551.7	1550.9	1550.0
145°	1609.7	1610.2	1610.6	1610.6	1610.6	1610.6	1610.6
147.5°	1661.2	1661.9	1661.4	1660.0	1658.6	1657.1	1655.7
150°	1692.8	1693.4	1693.3	1692.3	1691.4	1690.5	1689.5
152.5°	1721.4	1722.5	1722.3	1720.9	1719.4	1718.0	1716.6
155°	1760.4	1762.0	1761.8	1759.9	1758.0	1756.1	1754.4
157.5°	1794.3	1796.2	1795.9	1793.5	1791.0	1788.6	1786.1
160°	1813.5	1815.3	1815.2	1813.0	1810.8	1808.6	1806.5
162.5°	1831.2	1833.2	1833.3	1831.5	1829.5	1827.6	1825.6
165°	1854.8	1857.4	1857.5	1855.3	1853.1	1850.9	1848.7
167.5°	1872.8	1875.4	1875.4	1872.8	1870.4	1867.8	1865.4
170°	1883.0	1885.6	1885.6	1883.0	1880.5	1878.0	1875.5
172.5°	1889.8	1892.2	1892.2	1889.4	1886.7	1883.9	1881.1
175°	1897.5	1899.8	1899.6	1897.1	1894.6	1892.1	1889.6
177.5°	1900.4	1902.4	1902.1	1899.6	1897.1	1894.6	1892.2
180°	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6	1896.6

(END OF REPORT)