

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: P332234-830

Luminaire Tested: **S123DIW-S1165D1535U830-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332234-830
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: S123DIW-S1165D1535U830-4F0-1E-UDD-A
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 1535 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10403.8 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.49
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

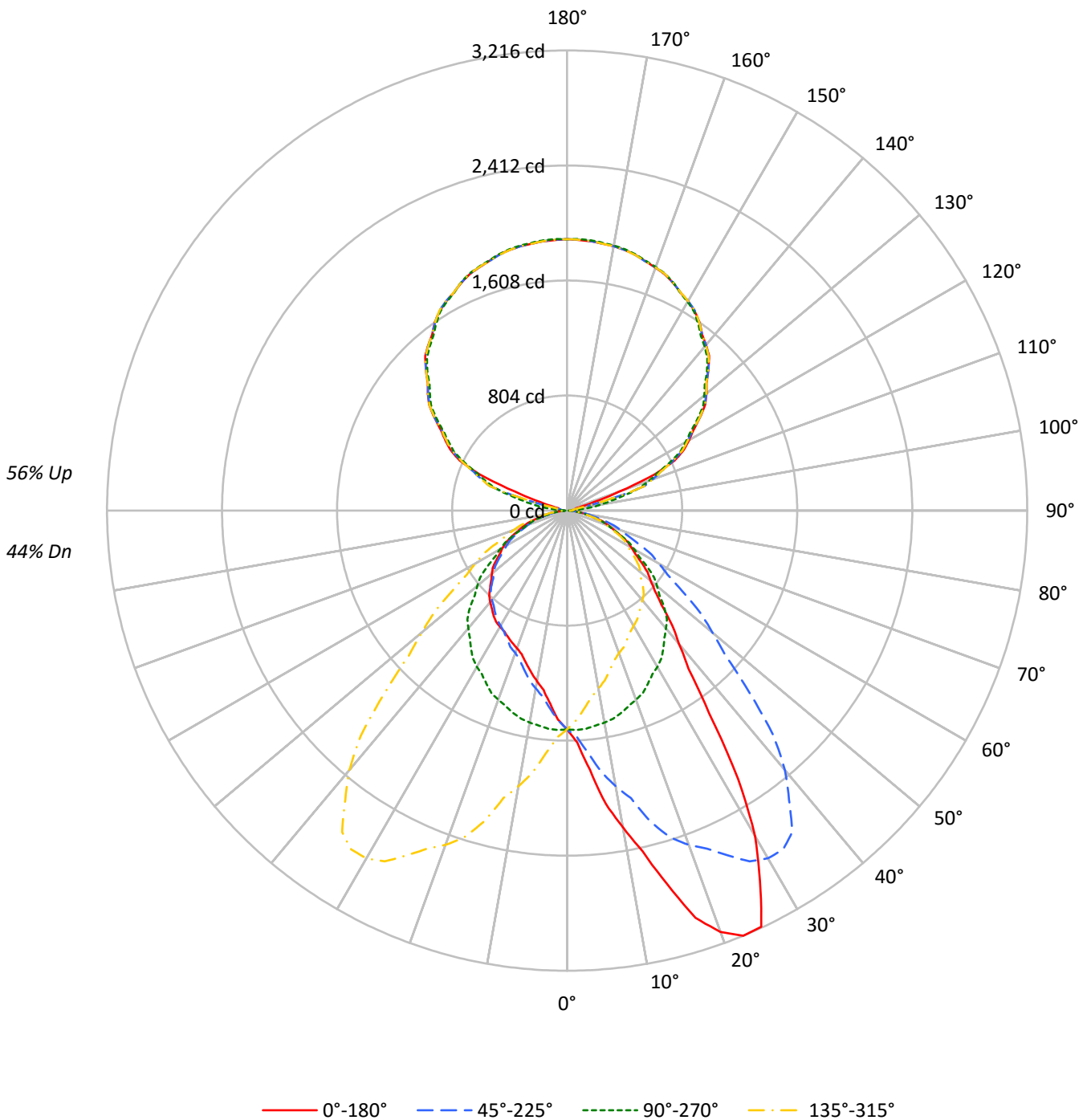
Input Watts (W): 82.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44				
1	97	93	89	85	88	85	82	79	71	68	66	58	56	55	45	44	44	38				
2	88	81	75	70	81	75	69	65	62	58	55	51	48	46	40	39	37	32				
3	81	71	64	59	74	66	60	55	55	50	47	45	42	39	36	34	32	27				
4	74	63	56	50	67	58	52	46	49	44	40	40	37	34	32	30	27	24				
5	68	56	48	43	62	52	45	40	44	39	34	36	32	29	29	26	24	21				
6	62	51	43	37	57	47	40	35	40	34	30	33	29	26	26	23	21	18				
7	58	46	38	32	53	42	35	30	36	30	26	30	26	23	24	21	19	16				
8	54	41	34	29	49	38	32	27	33	27	24	27	23	20	22	19	17	14				
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	20	17	15	13				
10	47	35	28	23	43	32	26	21	27	22	19	23	19	16	19	16	14	12				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	16457	16457	16457	16457
5°	19626	16528	14647	16528
10°	24565	16444	13230	16444
15°	30130	16312	12316	16312
20°	35892	16105	11726	16105
25°	38112	15853	11595	15853
30°	32666	15669	11656	15669
35°	22718	15408	11779	15408
40°	17113	15104	11741	15104
45°	14209	14647	11592	14647
50°	12728	13720	11488	13720
55°	11898	12720	11344	12720
60°	11162	11672	11227	11672
65°	10491	10641	10868	10641
70°	9838	9467	10351	9467
75°	8813	8289	9491	8289
80°	7711	6794	8176	6794
85°	6039	4940	5496	4940



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.6	1.4
10°-20°	482.9	4.6
20°-30°	810.5	7.8
30°-40°	917.8	8.8
40°-50°	823.0	7.9
50°-60°	664.2	6.4
60°-70°	462.8	4.4
70°-80°	243.3	2.3
80°-90°	64.8	0.6
90°-100°	69.0	0.7
100°-110°	328.6	3.2
110°-120°	789.4	7.6
120°-130°	1005.2	9.7
130°-140°	1074.1	10.3
140°-150°	1004.4	9.7
150°-160°	810.1	7.8
160°-170°	522.9	5.0
170°-180°	180.2	1.7
0°-30°	1444.1	13.9
0°-40°	2361.9	22.7
0°-60°	3849.1	37.0
0°-90°	4619.9	44.4
90°-120°	1187.0	11.4
90°-150°	4270.6	41.0
90°-180°	5784.0	55.6
0°-180°	10403.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1529	1529	1529	1529	1529	
5°	1816	1530	1356	1530	1816	188
15°	2704	1464	1105	1464	2704	781
25°	3209	1335	976	1335	3209	1407
35°	1729	1173	896	1173	1729	1123
45°	933	962	762	962	933	739
55°	634	678	604	678	634	569
65°	412	418	427	418	412	410
75°	212	199	228	199	212	227
85°	49	40	44	40	49	59
90°	42	1	42	1	42	22
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°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1622.6	1621.4	1618.4	1620.8	1616.1	1609.5	1608.9	1603.0	1585.8	1584.6	1579.9
5°	1816.4	1810.4	1809.7	1808.9	1798.6	1784.5	1757.8	1755.6	1720.0	1702.2	1680.8
7.5°	2067.3	2070.4	2059.6	2050.1	2018.5	1997.5	1969.0	1932.4	1888.7	1844.4	1814.9
10°	2247.5	2271.9	2241.6	2220.8	2201.6	2165.2	2123.1	2070.4	2017.8	1956.3	1909.7
12.5°	2440.7	2452.7	2446.6	2427.0	2397.1	2341.8	2267.0	2209.1	2160.7	2058.3	2016.9
15°	2703.8	2749.0	2720.1	2653.4	2654.9	2602.3	2504.5	2397.1	2340.1	2250.4	2128.3
17.5°	2984.1	2989.7	2977.4	2921.9	2884.8	2812.5	2722.3	2619.3	2503.8	2395.4	2265.7
20°	3133.4	3129.0	3103.0	3074.2	3010.5	2954.2	2855.6	2740.8	2592.7	2486.1	2344.5
22.5°	3216.4	3209.0	3196.7	3172.5	3119.5	3059.0	2970.6	2845.2	2704.1	2557.1	2393.7
25°	3209.0	3218.6	3220.1	3213.4	3194.9	3158.6	3089.0	2989.0	2848.3	2659.4	2489.0
27.5°	2918.6	2932.2	2971.8	3006.9	3046.2	3086.2	3080.8	3031.2	2927.1	2763.9	2555.6
30°	2628.2	2598.6	2671.9	2764.6	2827.5	2938.6	3000.9	3004.5	2946.0	2806.0	2603.0
32.5°	2225.2	2257.9	2290.3	2404.2	2541.8	2666.6	2790.5	2890.2	2901.6	2808.4	2630.9
35°	1728.9	1769.7	1828.9	1888.2	2036.4	2163.8	2381.5	2571.2	2722.3	2742.3	2633.4
37.5°	1393.3	1413.3	1450.9	1510.2	1607.1	1758.3	1926.7	2166.4	2385.4	2548.3	2555.3
40°	1217.9	1223.7	1265.9	1311.2	1389.7	1514.1	1665.9	1877.8	2140.0	2367.5	2462.3
42.5°	1086.3	1099.3	1117.2	1160.6	1223.1	1316.8	1458.0	1633.0	1873.4	2135.1	2320.6
45°	933.4	948.2	959.3	988.2	1032.6	1095.6	1194.1	1354.2	1537.1	1807.4	2057.1
47.5°	832.4	833.5	841.8	863.6	893.8	941.0	1010.7	1113.5	1281.5	1500.8	1757.1
50°	760.1	771.8	774.9	791.8	815.6	850.4	908.1	995.6	1133.4	1326.0	1561.5
52.5°	709.1	712.7	721.0	733.2	753.9	781.1	831.1	899.6	1007.8	1171.9	1388.5
55°	634.0	634.0	642.2	651.9	663.7	688.2	721.5	771.8	854.1	981.5	1160.7
57.5°	564.8	568.4	574.2	577.2	587.3	603.4	631.3	669.5	730.8	828.9	971.5
60°	518.5	525.2	524.4	530.4	539.3	551.9	575.6	606.7	661.5	740.0	860.1
62.5°	478.2	477.8	477.7	484.7	493.6	505.7	521.0	548.0	594.6	664.2	766.4
65°	411.9	410.4	415.6	420.0	423.0	431.9	443.7	467.4	498.5	550.4	629.6
67.5°	352.9	348.6	351.4	352.9	358.0	364.9	376.0	390.7	415.4	457.0	516.8
70°	312.6	308.9	308.1	309.6	314.1	319.2	327.4	341.5	364.5	397.8	441.5
72.5°	271.1	268.6	268.4	271.7	273.8	277.2	283.0	295.9	314.1	339.1	379.8
75°	211.9	211.9	211.9	212.6	214.8	217.8	222.3	228.8	243.0	260.7	288.1
77.5°	158.8	158.6	157.8	157.6	160.9	162.2	163.2	169.5	177.3	189.4	209.3
80°	124.4	120.7	122.2	124.4	125.9	126.7	128.9	130.4	137.0	143.7	157.8
82.5°	92.5	89.4	89.6	93.0	93.3	94.1	96.3	98.4	100.9	107.0	114.5
85°	48.9	48.9	49.7	49.7	50.3	49.7	51.8	52.6	52.6	56.3	60.7
87.5°	26.2	24.9	25.4	25.8	25.2	25.5	25.9	26.2	26.6	27.0	26.7
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°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1576.3	1571.6	1566.9	1558.6	1551.4	1541.3	1538.4	1534.8	1524.2	1514.8	1507.6
5°	1672.6	1654.8	1628.9	1605.2	1586.0	1560.1	1545.2	1529.7	1507.4	1487.4	1471.1
7.5°	1773.4	1738.4	1698.1	1654.5	1614.0	1574.9	1543.3	1515.1	1484.0	1454.5	1431.6
10°	1853.4	1803.0	1746.7	1686.0	1634.1	1583.8	1541.5	1504.5	1464.5	1429.6	1400.8
12.5°	1944.7	1870.0	1792.3	1718.5	1657.3	1587.3	1536.2	1489.1	1443.8	1401.8	1369.4
15°	2052.7	1957.8	1866.0	1764.5	1671.1	1583.8	1523.1	1463.8	1411.2	1368.2	1326.7
17.5°	2151.1	2043.6	1922.6	1799.1	1686.6	1582.9	1497.8	1430.9	1365.1	1312.5	1271.1
20°	2206.8	2084.5	1947.5	1819.3	1694.9	1579.3	1486.0	1406.0	1334.8	1279.3	1232.7
22.5°	2254.8	2111.8	1970.0	1833.0	1694.3	1569.8	1464.1	1381.7	1304.7	1250.3	1200.6
25°	2304.5	2133.4	1991.2	1830.4	1675.7	1546.7	1428.2	1334.8	1257.8	1194.1	1143.0
27.5°	2347.2	2131.9	1963.1	1790.3	1646.2	1517.1	1390.5	1290.4	1208.6	1139.4	1087.6
30°	2375.6	2134.9	1934.1	1763.0	1617.9	1484.5	1361.5	1260.7	1174.9	1104.5	1055.6
32.5°	2393.4	2133.1	1907.4	1725.1	1572.8	1454.8	1330.1	1225.8	1137.6	1068.4	1021.2
35°	2403.8	2120.1	1861.5	1646.7	1500.1	1385.3	1280.8	1172.6	1080.1	1015.6	962.2
37.5°	2383.0	2092.6	1808.2	1571.1	1410.6	1297.5	1209.7	1117.5	1028.9	958.0	912.0
40°	2350.4	2074.9	1766.7	1517.9	1349.0	1240.0	1165.3	1074.9	987.4	920.0	877.0
42.5°	2288.2	2038.7	1721.1	1458.6	1285.0	1176.0	1107.1	1031.6	949.0	885.6	842.7
45°	2136.4	1960.0	1652.7	1369.7	1190.4	1077.8	1017.1	962.2	887.4	826.0	788.9
47.5°	1925.7	1841.7	1553.7	1275.9	1091.7	983.4	920.3	876.2	821.5	771.8	736.3
50°	1779.3	1744.5	1486.7	1211.9	1026.0	920.0	859.3	819.3	780.0	730.4	697.8
52.5°	1610.4	1631.9	1408.5	1145.5	959.0	854.9	797.7	765.9	730.3	689.5	661.1
55°	1372.6	1450.4	1273.4	1034.1	859.3	760.1	706.0	677.8	657.0	626.7	602.3
57.5°	1150.0	1249.0	1127.3	919.3	761.4	675.7	623.9	593.2	579.9	564.0	544.8
60°	1017.9	1115.6	1023.0	842.3	695.6	614.1	568.2	542.2	528.9	517.8	501.5
62.5°	899.8	998.8	921.1	764.0	630.9	555.4	515.4	490.1	479.8	473.9	460.1
65°	737.8	823.0	771.1	642.2	538.6	471.8	435.5	417.8	408.1	406.0	397.1
67.5°	600.5	665.3	627.5	532.7	451.1	393.5	362.7	347.6	340.2	339.4	332.7
70°	510.4	571.1	542.2	456.3	386.0	340.7	314.1	300.8	296.3	295.6	291.9
72.5°	440.5	482.9	459.9	388.1	333.8	292.8	273.1	259.3	254.2	255.2	252.8
75°	325.9	357.8	344.5	294.8	251.1	224.4	208.1	199.3	194.8	197.1	194.1
77.5°	234.5	254.7	242.7	208.3	181.3	162.1	150.1	144.6	140.6	140.4	139.1
80°	177.0	188.9	182.2	161.5	139.3	123.0	113.3	109.6	107.4	106.7	105.9
82.5°	126.1	136.2	128.3	114.0	99.0	89.2	83.7	78.8	77.2	77.7	76.9
85°	63.7	67.4	64.5	55.5	49.7	45.1	42.2	40.0	38.5	39.3	37.8
87.5°	27.1	26.9	24.2	21.1	19.3	17.0	16.3	14.5	13.9	14.6	14.6
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: P332234-830

CATALOG NUMBER: S123DIW-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: P332234-830

CATALOG NUMBER: S123DIW-S1165D1535U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1503.4	1499.3	1493.4	1484.5	1477.3	1466.1	1466.1	1467.9	1467.9	1467.4	1466.1
5°	1457.8	1446.7	1433.4	1417.9	1401.6	1385.3	1382.2	1376.3	1371.9	1368.9	1365.3
7.5°	1409.7	1390.0	1370.6	1348.8	1328.9	1312.5	1301.1	1291.6	1285.5	1279.0	1274.2
10°	1377.1	1352.6	1329.6	1306.7	1281.5	1261.5	1249.0	1240.0	1233.4	1227.5	1224.5
12.5°	1338.6	1310.6	1285.3	1263.5	1235.9	1215.3	1203.3	1199.1	1191.3	1178.8	1172.3
15°	1282.2	1256.3	1226.0	1192.6	1179.3	1154.1	1140.0	1133.4	1128.9	1119.3	1116.3
17.5°	1234.1	1200.1	1166.1	1141.2	1116.4	1096.0	1088.2	1079.9	1073.9	1066.1	1063.8
20°	1195.6	1165.3	1134.1	1107.5	1081.5	1059.3	1052.6	1046.7	1040.8	1037.1	1034.1
22.5°	1156.5	1126.1	1100.3	1075.4	1047.7	1033.2	1026.0	1019.5	1015.3	1012.8	1009.8
25°	1101.5	1074.9	1045.9	1023.7	1001.5	991.8	987.4	983.7	980.8	977.0	976.3
27.5°	1052.3	1023.3	999.8	979.1	963.2	955.2	950.8	949.0	949.7	951.0	951.9
30°	1015.6	988.9	969.7	951.9	937.1	929.6	928.9	928.9	931.9	932.6	934.1
32.5°	981.8	959.9	940.7	923.4	912.2	907.1	909.9	909.9	912.3	914.3	916.9
35°	932.6	913.3	898.5	883.7	874.1	876.3	877.8	879.3	883.0	887.4	890.4
37.5°	885.6	868.9	853.5	842.0	837.5	841.5	845.1	848.2	852.4	855.9	858.8
40°	851.9	839.2	824.4	814.1	815.6	817.8	820.8	824.4	828.2	830.4	833.4
42.5°	820.5	807.3	796.1	787.4	789.5	792.3	794.1	796.1	800.3	804.4	806.1
45°	772.6	762.2	751.9	746.7	748.2	749.7	751.1	753.4	757.1	760.1	760.7
47.5°	718.9	711.6	704.6	699.6	701.9	701.3	703.3	708.0	709.2	711.0	715.1
50°	684.5	677.8	669.7	668.2	668.2	668.2	668.9	674.9	674.9	677.8	680.8
52.5°	646.6	642.2	637.1	634.4	633.2	633.2	636.3	639.3	640.5	644.6	647.6
55°	590.4	586.0	581.5	579.3	577.8	579.3	585.2	586.6	590.4	592.6	594.8
57.5°	531.9	528.5	524.9	523.7	523.4	525.4	528.6	533.0	534.0	540.7	544.1
60°	493.3	488.1	485.2	485.2	483.7	490.4	488.9	496.3	497.8	502.3	507.5
62.5°	453.6	446.7	445.5	445.5	447.6	449.5	451.6	454.9	458.6	464.3	468.3
65°	389.6	386.0	391.2	390.4	388.9	393.3	393.3	397.1	401.5	406.7	414.8
67.5°	329.0	327.2	327.5	327.5	329.8	332.3	334.4	337.6	343.0	348.5	353.8
70°	288.1	290.4	286.7	289.6	291.9	292.6	294.1	298.5	304.4	308.1	314.1
72.5°	248.5	248.3	248.7	250.0	252.1	253.4	255.0	260.0	266.6	269.7	274.4
75°	191.1	190.4	192.6	192.6	196.3	197.7	199.3	201.5	207.5	211.9	215.6
77.5°	139.6	140.4	140.0	142.5	141.5	141.8	146.4	148.6	149.2	158.0	159.9
80°	105.2	106.7	107.4	108.1	108.9	107.4	112.6	114.8	114.8	120.0	123.7
82.5°	75.6	76.4	78.4	79.1	79.3	80.8	81.2	82.8	84.6	86.8	91.7
85°	37.8	40.0	40.7	40.0	40.7	39.3	41.5	42.2	43.0	43.0	43.0
87.5°	14.6	15.9	16.2	17.6	17.8	19.2	19.4	18.6	18.8	20.8	18.7
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: P332234-830

CATALOG NUMBER: S123DIW-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: P332234-830

CATALOG NUMBER: S123DIW-S1165D1535U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1462.0	1461.4	1465.6	1462.5	1465.6	1461.4	1462.0	1466.1	1467.4	1467.9	1467.9
5°	1360.7	1363.0	1355.6	1355.6	1355.6	1363.0	1360.7	1365.3	1368.9	1371.9	1376.3
7.5°	1270.7	1267.4	1267.7	1263.8	1267.7	1267.4	1270.7	1274.2	1279.0	1285.5	1291.6
10°	1215.6	1211.2	1209.7	1210.4	1209.7	1211.2	1215.6	1224.5	1227.5	1233.4	1240.0
12.5°	1170.0	1169.0	1159.3	1159.4	1159.3	1169.0	1170.0	1172.3	1178.8	1191.3	1199.1
15°	1116.3	1102.3	1100.8	1105.2	1100.8	1102.3	1116.3	1116.3	1119.3	1128.9	1133.4
17.5°	1062.5	1055.2	1055.6	1053.4	1055.6	1055.2	1062.5	1063.8	1066.1	1073.9	1079.9
20°	1034.1	1029.6	1028.9	1023.7	1028.9	1029.6	1034.1	1034.1	1037.1	1040.8	1046.7
22.5°	1008.0	1006.5	1007.0	1001.3	1007.0	1006.5	1008.0	1009.8	1012.8	1015.3	1019.5
25°	975.6	979.3	976.3	976.3	976.3	979.3	975.6	976.3	977.0	980.8	983.7
27.5°	953.7	953.5	952.1	952.1	952.1	953.5	953.7	951.9	951.0	949.7	949.0
30°	937.1	936.3	937.8	937.8	937.8	936.3	937.1	934.1	932.6	931.9	928.9
32.5°	920.5	921.5	921.8	922.4	921.8	921.5	920.5	916.9	914.3	912.3	909.9
35°	894.8	895.6	897.8	896.4	897.8	895.6	894.8	890.4	887.4	883.0	879.3
37.5°	860.2	863.6	862.8	864.0	862.8	863.6	860.2	858.8	855.9	852.4	848.2
40°	834.1	836.3	835.6	835.6	835.6	836.3	834.1	833.4	830.4	828.2	824.4
42.5°	807.5	809.1	807.1	806.0	807.1	809.1	807.5	806.1	804.4	800.3	796.1
45°	763.7	762.2	764.5	761.5	764.5	762.2	763.7	760.7	760.1	757.1	753.4
47.5°	714.8	716.3	716.9	719.2	716.9	716.3	714.8	715.1	711.0	709.2	708.0
50°	682.2	686.6	686.6	686.0	686.6	686.6	682.2	680.8	677.8	674.9	674.9
52.5°	650.3	652.3	655.3	655.2	655.3	652.3	650.3	647.6	644.6	640.5	639.3
55°	600.8	602.3	603.7	604.5	603.7	602.3	600.8	594.8	592.6	590.4	586.6
57.5°	549.5	548.9	552.4	553.5	552.4	548.9	549.5	544.1	540.7	534.0	533.0
60°	513.3	513.3	519.2	521.5	519.2	513.3	513.3	507.5	502.3	497.8	496.3
62.5°	474.9	477.2	483.1	480.0	483.1	477.2	474.9	468.3	464.3	458.6	454.9
65°	418.5	424.4	423.7	426.7	423.7	424.4	418.5	414.8	406.7	401.5	397.1
67.5°	359.7	363.4	368.7	369.2	368.7	363.4	359.7	353.8	348.5	343.0	337.6
70°	320.0	323.7	326.7	328.9	326.7	323.7	320.0	314.1	308.1	304.4	298.5
72.5°	281.5	283.4	290.5	287.4	290.5	283.4	281.5	274.4	269.7	266.6	260.0
75°	220.7	225.9	230.4	228.2	230.4	225.9	220.7	215.6	211.9	207.5	201.5
77.5°	163.2	168.4	170.5	168.6	170.5	168.4	163.2	159.9	158.0	149.2	148.6
80°	128.9	128.2	132.6	131.9	132.6	128.2	128.9	123.7	120.0	114.8	114.8
82.5°	94.5	93.8	95.9	96.3	95.9	93.8	94.5	91.7	86.8	84.6	82.8
85°	45.9	48.2	45.1	44.5	45.1	48.2	45.9	43.0	43.0	43.0	42.2
87.5°	18.8	18.9	18.4	17.9	18.4	18.9	18.8	18.7	20.8	18.8	18.6
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: S123DIW-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: P332234-830

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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1466.1	1466.1	1477.3	1484.5	1493.4	1499.3	1503.4	1507.6	1514.8	1524.2	1534.8
5°	1382.2	1385.3	1401.6	1417.9	1433.4	1446.7	1457.8	1471.1	1487.4	1507.4	1529.7
7.5°	1301.1	1312.5	1328.9	1348.8	1370.6	1390.0	1409.7	1431.6	1454.5	1484.0	1515.1
10°	1249.0	1261.5	1281.5	1306.7	1329.6	1352.6	1377.1	1400.8	1429.6	1464.5	1504.5
12.5°	1203.3	1215.3	1235.9	1263.5	1285.3	1310.6	1338.6	1369.4	1401.8	1443.8	1489.1
15°	1140.0	1154.1	1179.3	1192.6	1226.0	1256.3	1282.2	1326.7	1368.2	1411.2	1463.8
17.5°	1088.2	1096.0	1116.4	1141.2	1166.1	1200.1	1234.1	1271.1	1312.5	1365.1	1430.9
20°	1052.6	1059.3	1081.5	1107.5	1134.1	1165.3	1195.6	1232.7	1279.3	1334.8	1406.0
22.5°	1026.0	1033.2	1047.7	1075.4	1100.3	1126.1	1156.5	1200.6	1250.3	1304.7	1381.7
25°	987.4	991.8	1001.5	1023.7	1045.9	1074.9	1101.5	1143.0	1194.1	1257.8	1334.8
27.5°	950.8	955.2	963.2	979.1	999.8	1023.3	1052.3	1087.6	1139.4	1208.6	1290.4
30°	928.9	929.6	937.1	951.9	969.7	988.9	1015.6	1055.6	1104.5	1174.9	1260.7
32.5°	909.9	907.1	912.2	923.4	940.7	959.9	981.8	1021.2	1068.4	1137.6	1225.8
35°	877.8	876.3	874.1	883.7	898.5	913.3	932.6	962.2	1015.6	1080.1	1172.6
37.5°	845.1	841.5	837.5	842.0	853.5	868.9	885.6	912.0	958.0	1028.9	1117.5
40°	820.8	817.8	815.6	814.1	824.4	839.2	851.9	877.0	920.0	987.4	1074.9
42.5°	794.1	792.3	789.5	787.4	796.1	807.3	820.5	842.7	885.6	949.0	1031.6
45°	751.1	749.7	748.2	746.7	751.9	762.2	772.6	788.9	826.0	887.4	962.2
47.5°	703.3	701.3	701.9	699.6	704.6	711.6	718.9	736.3	771.8	821.5	876.2
50°	668.9	668.2	668.2	668.2	669.7	677.8	684.5	697.8	730.4	780.0	819.3
52.5°	636.3	633.2	633.2	634.4	637.1	642.2	646.6	661.1	689.5	730.3	765.9
55°	585.2	579.3	577.8	579.3	581.5	586.0	590.4	602.3	626.7	657.0	677.8
57.5°	528.6	525.4	523.4	523.7	524.9	528.5	531.9	544.8	564.0	579.9	593.2
60°	488.9	490.4	483.7	485.2	485.2	488.1	493.3	501.5	517.8	528.9	542.2
62.5°	451.6	449.5	447.6	445.5	445.5	446.7	453.6	460.1	473.9	479.8	490.1
65°	393.3	393.3	388.9	390.4	391.2	386.0	389.6	397.1	406.0	408.1	417.8
67.5°	334.4	332.3	329.8	327.5	327.5	327.2	329.0	332.7	339.4	340.2	347.6
70°	294.1	292.6	291.9	289.6	286.7	290.4	288.1	291.9	295.6	296.3	300.8
72.5°	255.0	253.4	252.1	250.0	248.7	248.3	248.5	252.8	255.2	254.2	259.3
75°	199.3	197.7	196.3	192.6	192.6	190.4	191.1	194.1	197.1	194.8	199.3
77.5°	146.4	141.8	141.5	142.5	140.0	140.4	139.6	139.1	140.4	140.6	144.6
80°	112.6	107.4	108.9	108.1	107.4	106.7	105.2	105.9	106.7	107.4	109.6
82.5°	81.2	80.8	79.3	79.1	78.4	76.4	75.6	76.9	77.7	77.2	78.8
85°	41.5	39.3	40.7	40.0	40.7	40.0	37.8	37.8	39.3	38.5	40.0
87.5°	19.4	19.2	17.8	17.6	16.2	15.9	14.6	14.6	14.6	13.9	14.5
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: P332234-830

CATALOG NUMBER: S123DIW-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: P332234-830

CATALOG NUMBER: S123DIW-S1165D1535U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1538.4	1541.3	1551.4	1558.6	1566.9	1571.6	1576.3	1579.9	1584.6	1585.8	1603.0
5°	1545.2	1560.1	1586.0	1605.2	1628.9	1654.8	1672.6	1680.8	1702.2	1720.0	1755.6
7.5°	1543.3	1574.9	1614.0	1654.5	1698.1	1738.4	1773.4	1814.9	1844.4	1888.7	1932.4
10°	1541.5	1583.8	1634.1	1686.0	1746.7	1803.0	1853.4	1909.7	1956.3	2017.8	2070.4
12.5°	1536.2	1587.3	1657.3	1718.5	1792.3	1870.0	1944.7	2016.9	2058.3	2160.7	2209.1
15°	1523.1	1583.8	1671.1	1764.5	1866.0	1957.8	2052.7	2128.3	2250.4	2340.1	2397.1
17.5°	1497.8	1582.9	1686.6	1799.1	1922.6	2043.6	2151.1	2265.7	2395.4	2503.8	2619.3
20°	1486.0	1579.3	1694.9	1819.3	1947.5	2084.5	2206.8	2344.5	2486.1	2592.7	2740.8
22.5°	1464.1	1569.8	1694.3	1833.0	1970.0	2111.8	2254.8	2393.7	2557.1	2704.1	2845.2
25°	1428.2	1546.7	1675.7	1830.4	1991.2	2133.4	2304.5	2489.0	2659.4	2848.3	2989.0
27.5°	1390.5	1517.1	1646.2	1790.3	1963.1	2131.9	2347.2	2555.6	2763.9	2927.1	3031.2
30°	1361.5	1484.5	1617.9	1763.0	1934.1	2134.9	2375.6	2603.0	2806.0	2946.0	3004.5
32.5°	1330.1	1454.8	1572.8	1725.1	1907.4	2133.1	2393.4	2630.9	2808.4	2901.6	2890.2
35°	1280.8	1385.3	1500.1	1646.7	1861.5	2120.1	2403.8	2633.4	2742.3	2722.3	2571.2
37.5°	1209.7	1297.5	1410.6	1571.1	1808.2	2092.6	2383.0	2555.3	2548.3	2385.4	2166.4
40°	1165.3	1240.0	1349.0	1517.9	1766.7	2074.9	2350.4	2462.3	2367.5	2140.0	1877.8
42.5°	1107.1	1176.0	1285.0	1458.6	1721.1	2038.7	2288.2	2320.6	2135.1	1873.4	1633.0
45°	1017.1	1077.8	1190.4	1369.7	1652.7	1960.0	2136.4	2057.1	1807.4	1537.1	1354.2
47.5°	920.3	983.4	1091.7	1275.9	1553.7	1841.7	1925.7	1757.1	1500.8	1281.5	1113.5
50°	859.3	920.0	1026.0	1211.9	1486.7	1744.5	1779.3	1561.5	1326.0	1133.4	995.6
52.5°	797.7	854.9	959.0	1145.5	1408.5	1631.9	1610.4	1388.5	1171.9	1007.8	899.6
55°	706.0	760.1	859.3	1034.1	1273.4	1450.4	1372.6	1160.7	981.5	854.1	771.8
57.5°	623.9	675.7	761.4	919.3	1127.3	1249.0	1150.0	971.5	828.9	730.8	669.5
60°	568.2	614.1	695.6	842.3	1023.0	1115.6	1017.9	860.1	740.0	661.5	606.7
62.5°	515.4	555.4	630.9	764.0	921.1	998.8	899.8	766.4	664.2	594.6	548.0
65°	435.5	471.8	538.6	642.2	771.1	823.0	737.8	629.6	550.4	498.5	467.4
67.5°	362.7	393.5	451.1	532.7	627.5	665.3	600.5	516.8	457.0	415.4	390.7
70°	314.1	340.7	386.0	456.3	542.2	571.1	510.4	441.5	397.8	364.5	341.5
72.5°	273.1	292.8	333.8	388.1	459.9	482.9	440.5	379.8	339.1	314.1	295.9
75°	208.1	224.4	251.1	294.8	344.5	357.8	325.9	288.1	260.7	243.0	228.8
77.5°	150.1	162.1	181.3	208.3	242.7	254.7	234.5	209.3	189.4	177.3	169.5
80°	113.3	123.0	139.3	161.5	182.2	188.9	177.0	157.8	143.7	137.0	130.4
82.5°	83.7	89.2	99.0	114.0	128.3	136.2	126.1	114.5	107.0	100.9	98.4
85°	42.2	45.1	49.7	55.5	64.5	67.4	63.7	60.7	56.3	52.6	52.6
87.5°	16.3	17.0	19.3	21.1	24.2	26.9	27.1	26.7	27.0	26.6	26.2
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°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1608.9	1609.5	1616.1	1620.8	1618.4	1621.4	1622.6
5°	1757.8	1784.5	1798.6	1808.9	1809.7	1810.4	1816.4
7.5°	1969.0	1997.5	2018.5	2050.1	2059.6	2070.4	2067.3
10°	2123.1	2165.2	2201.6	2220.8	2241.6	2271.9	2247.5
12.5°	2267.0	2341.8	2397.1	2427.0	2446.6	2452.7	2440.7
15°	2504.5	2602.3	2654.9	2653.4	2720.1	2749.0	2703.8
17.5°	2722.3	2812.5	2884.8	2921.9	2977.4	2989.7	2984.1
20°	2855.6	2954.2	3010.5	3074.2	3103.0	3129.0	3133.4
22.5°	2970.6	3059.0	3119.5	3172.5	3196.7	3209.0	3216.4
25°	3089.0	3158.6	3194.9	3213.4	3220.1	3218.6	3209.0
27.5°	3080.8	3086.2	3046.2	3006.9	2971.8	2932.2	2918.6
30°	3000.9	2938.6	2827.5	2764.6	2671.9	2598.6	2628.2
32.5°	2790.5	2666.6	2541.8	2404.2	2290.3	2257.9	2225.2
35°	2381.5	2163.8	2036.4	1888.2	1828.9	1769.7	1728.9
37.5°	1926.7	1758.3	1607.1	1510.2	1450.9	1413.3	1393.3
40°	1665.9	1514.1	1389.7	1311.2	1265.9	1223.7	1217.9
42.5°	1458.0	1316.8	1223.1	1160.6	1117.2	1099.3	1086.3
45°	1194.1	1095.6	1032.6	988.2	959.3	948.2	933.4
47.5°	1010.7	941.0	893.8	863.6	841.8	833.5	832.4
50°	908.1	850.4	815.6	791.8	774.9	771.8	760.1
52.5°	831.1	781.1	753.9	733.2	721.0	712.7	709.1
55°	721.5	688.2	663.7	651.9	642.2	634.0	634.0
57.5°	631.3	603.4	587.3	577.2	574.2	568.4	564.8
60°	575.6	551.9	539.3	530.4	524.4	525.2	518.5
62.5°	521.0	505.7	493.6	484.7	477.7	477.8	478.2
65°	443.7	431.9	423.0	420.0	415.6	410.4	411.9
67.5°	376.0	364.9	358.0	352.9	351.4	348.6	352.9
70°	327.4	319.2	314.1	309.6	308.1	308.9	312.6
72.5°	283.0	277.2	273.8	271.7	268.4	268.6	271.1
75°	222.3	217.8	214.8	212.6	211.9	211.9	211.9
77.5°	163.2	162.2	160.9	157.6	157.8	158.6	158.8
80°	128.9	126.7	125.9	124.4	122.2	120.7	124.4
82.5°	96.3	94.1	93.3	93.0	89.6	89.4	92.5
85°	51.8	49.7	50.3	49.7	49.7	48.9	48.9
87.5°	25.9	25.5	25.2	25.8	25.4	24.9	26.2
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)