

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: P332487-830

Luminaire Tested: **S123RDIW-S1165D1535U830-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332487-830
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-S1165D1535U830-4F0-1E-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: 9327.1 lumens
Efficiency: N/A
Efficacy: 112.5 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

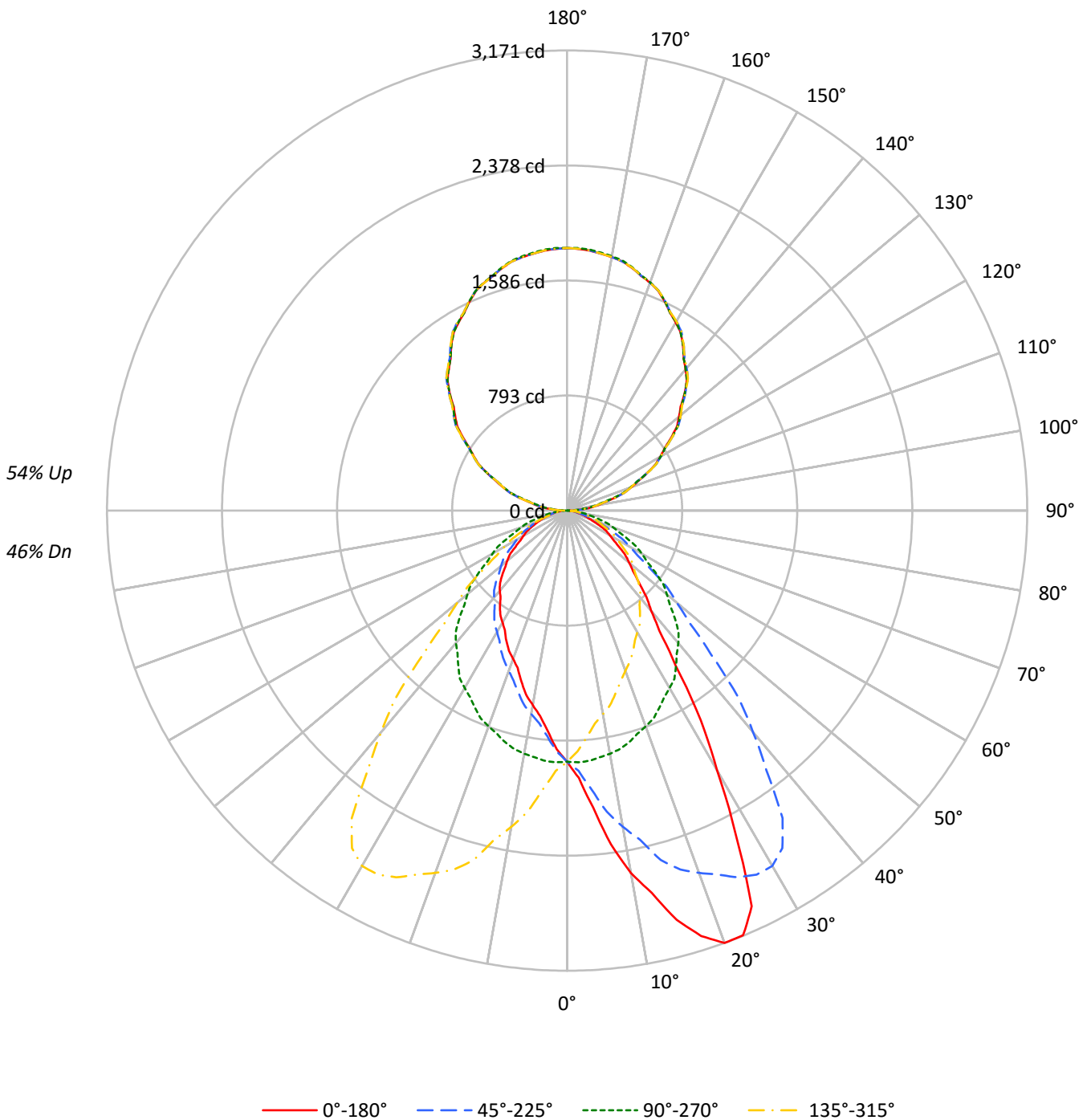
Input Watts (W): 82.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	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	1.8
10°-20°	531.7	5.7
20°-30°	835.3	9.0
30°-40°	871.4	9.3
40°-50°	745.8	8.0
50°-60°	568.4	6.1
60°-70°	364.3	3.9
70°-80°	175.3	1.9
80°-90°	51.7	0.6
90°-100°	117.9	1.3
100°-110°	352.8	3.8
110°-120°	600.0	6.4
120°-130°	789.3	8.5
130°-140°	887.1	9.5
140°-150°	872.0	9.3
150°-160°	734.1	7.9
160°-170°	488.7	5.2
170°-180°	171.1	1.8
0°-30°	1537.1	16.5
0°-40°	2408.6	25.8
0°-60°	3722.7	39.9
0°-90°	4314.1	46.3
90°-120°	1070.7	11.5
90°-150°	3619.1	38.8
90°-180°	5013.0	53.7
0°-180°	9327.1	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°	43	1	43	1	43	22
95°	111	84	111	84	111	114
105°	338	320	338	320	338	359
115°	606	604	606	604	606	599
125°	874	884	874	884	874	781
135°	1146	1147	1146	1147	1146	881
145°	1392	1392	1392	1392	1392	869
155°	1590	1593	1590	1593	1590	732
165°	1730	1735	1730	1735	1730	488
175°	1798	1805	1798	1805	1798	171
180°	1809	1809	1809	1809	1809	



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

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	15.6	14.2	14.7	14.5	15.0	14.7	14.4	15.4	14.5	14.3
90°	42.6	42.0	41.4	40.7	40.2	39.2	37.9	36.7	35.3	34.1	30.0
92.5°	57.4	57.8	58.2	58.5	58.9	58.6	57.6	56.6	55.6	54.6	52.2
95°	110.8	110.8	110.8	110.8	110.8	110.2	109.0	107.7	106.4	105.2	102.6
97.5°	170.6	170.7	170.8	171.0	171.1	170.4	168.9	167.5	166.1	164.6	162.8
100°	216.0	215.4	214.8	214.1	213.5	212.7	211.8	210.8	209.9	209.0	207.4
102.5°	262.7	262.8	262.9	263.1	263.2	262.8	261.8	260.9	260.0	258.9	256.8
105°	338.3	337.6	337.1	336.4	335.7	335.5	335.5	335.5	335.5	335.5	332.6
107.5°	417.0	417.4	417.7	418.1	418.5	418.2	417.2	416.2	415.2	414.2	413.0
110°	470.4	471.1	471.7	472.3	473.0	472.7	471.4	470.1	468.9	467.6	466.9



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	527.3	527.4	527.5	527.7	527.8	527.1	525.6	524.1	522.5	521.0	520.9
115°	605.5	605.8	606.1	606.4	606.7	606.7	606.4	606.1	605.8	605.5	606.1
117.5°	684.8	685.7	686.5	687.4	688.3	688.8	688.9	688.9	689.0	689.1	689.8
120°	740.5	741.1	741.8	742.4	743.0	743.5	743.9	744.1	744.4	744.8	746.3
122.5°	793.9	794.8	795.7	796.6	797.5	798.3	799.2	799.9	800.8	801.6	802.5
125°	874.1	875.3	876.7	877.9	879.1	880.4	881.7	883.0	884.2	885.5	886.1
127.5°	953.9	955.5	956.9	958.4	959.8	961.4	963.2	965.0	966.7	968.5	969.2
130°	1006.3	1008.5	1010.7	1013.0	1015.1	1016.9	1018.1	1019.4	1020.7	1021.9	1022.8
132.5°	1060.8	1062.5	1064.3	1066.0	1067.7	1069.3	1070.8	1072.3	1073.8	1075.3	1076.0
135°	1145.6	1146.2	1146.8	1147.5	1148.1	1149.1	1150.3	1151.6	1152.8	1154.1	1154.4
137.5°	1220.3	1221.5	1222.8	1223.9	1225.1	1226.4	1227.8	1229.1	1230.4	1231.7	1230.9
140°	1269.2	1271.4	1273.7	1275.8	1278.1	1279.3	1279.7	1280.0	1280.3	1280.6	1280.3
142.5°	1319.3	1321.0	1322.7	1324.4	1326.1	1327.1	1327.4	1327.8	1328.0	1328.3	1327.8
145°	1391.5	1392.7	1394.0	1395.2	1396.5	1397.3	1397.6	1397.9	1398.3	1398.5	1397.6
147.5°	1455.7	1457.5	1459.5	1461.4	1463.3	1464.2	1464.2	1464.2	1464.2	1464.2	1463.3
150°	1496.7	1498.5	1500.4	1502.3	1504.2	1505.1	1505.1	1505.1	1505.1	1505.1	1504.5
152.5°	1536.4	1538.0	1539.7	1541.3	1543.0	1543.6	1543.0	1542.6	1542.1	1541.5	1541.2
155°	1590.4	1592.6	1594.9	1597.0	1599.3	1599.8	1598.5	1597.2	1596.0	1594.7	1594.4
157.5°	1639.6	1641.3	1643.1	1644.9	1646.7	1646.9	1645.6	1644.3	1642.9	1641.6	1641.3
160°	1671.4	1672.7	1674.0	1675.3	1676.5	1676.3	1674.8	1673.2	1671.6	1670.0	1670.0
162.5°	1695.4	1697.3	1699.4	1701.4	1703.5	1703.6	1702.0	1700.4	1698.9	1697.3	1697.0
165°	1729.8	1731.9	1734.2	1736.4	1738.6	1738.7	1736.8	1734.9	1733.1	1731.2	1731.2
167.5°	1759.0	1761.0	1762.9	1764.9	1766.8	1766.8	1764.9	1762.9	1761.0	1759.0	1758.8
170°	1773.8	1776.0	1778.2	1780.5	1782.6	1782.6	1780.5	1778.2	1776.0	1773.8	1773.8
172.5°	1785.2	1787.3	1789.6	1791.8	1794.0	1794.1	1792.2	1790.2	1788.3	1786.3	1786.3
175°	1798.0	1800.2	1802.3	1804.6	1806.8	1806.9	1805.1	1803.2	1801.3	1799.4	1799.4
177.5°	1804.8	1806.6	1808.3	1810.1	1811.8	1811.9	1810.4	1808.9	1807.4	1805.9	1805.9
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

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°	14.7	13.3	13.6	12.9	14.0	13.9	16.9	19.2	20.5	18.8	19.3
90°	25.9	21.8	17.7	14.0	10.9	7.7	4.6	1.4	4.6	7.7	10.9
92.5°	49.9	47.6	45.2	43.0	40.8	38.6	36.6	34.4	36.6	38.6	40.8
95°	100.1	97.6	95.1	92.7	90.5	88.3	86.1	83.9	86.1	88.3	90.5
97.5°	160.9	159.1	157.2	155.5	153.9	152.2	150.6	148.9	150.6	152.2	153.9
100°	205.8	204.2	202.6	200.9	199.0	197.1	195.2	193.3	195.2	197.1	199.0
102.5°	254.8	252.7	250.6	249.0	247.9	246.8	245.6	244.5	245.6	246.8	247.9
105°	329.7	326.9	324.0	322.3	321.7	321.0	320.5	319.8	320.5	321.0	321.7
107.5°	411.9	410.8	409.6	408.9	408.5	408.1	407.7	407.4	407.7	408.1	408.5
110°	466.4	465.7	465.1	464.5	463.8	463.2	462.6	461.9	462.6	463.2	463.8



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	520.8	520.7	520.6	520.3	519.9	519.5	519.2	518.8	519.2	519.5	519.9
115°	606.7	607.4	608.0	607.8	606.9	606.0	605.0	604.1	605.0	606.0	606.9
117.5°	690.7	691.5	692.3	692.4	691.8	691.2	690.5	689.9	690.5	691.2	691.8
120°	747.9	749.5	751.1	750.9	749.0	747.2	745.3	743.4	745.3	747.2	749.0
122.5°	803.2	804.1	804.9	804.6	803.2	801.8	800.4	799.1	800.4	801.8	803.2
125°	886.7	887.4	888.0	887.9	886.9	886.0	885.0	884.0	885.0	886.0	886.9
127.5°	969.9	970.5	971.3	970.6	968.6	966.6	964.5	962.5	964.5	966.6	968.6
130°	1023.8	1024.7	1025.7	1024.9	1022.4	1019.8	1017.4	1014.8	1017.4	1019.8	1022.4
132.5°	1076.8	1077.4	1078.2	1077.2	1074.7	1072.1	1069.6	1067.1	1069.6	1072.1	1074.7
135°	1154.7	1155.1	1155.4	1154.6	1152.6	1150.8	1148.9	1147.0	1148.9	1150.8	1152.6
137.5°	1230.0	1229.3	1228.4	1227.2	1225.7	1224.1	1222.5	1220.9	1222.5	1224.1	1225.7
140°	1280.0	1279.7	1279.3	1278.4	1276.8	1275.3	1273.7	1272.1	1273.7	1275.3	1276.8
142.5°	1327.2	1326.6	1326.1	1325.0	1323.4	1321.8	1320.2	1318.7	1320.2	1321.8	1323.4
145°	1396.7	1395.7	1394.8	1394.0	1393.4	1392.7	1392.1	1391.5	1392.1	1392.7	1393.4
147.5°	1462.4	1461.6	1460.7	1459.7	1458.6	1457.4	1456.2	1455.1	1456.2	1457.4	1458.6
150°	1503.9	1503.3	1502.6	1502.0	1501.4	1500.7	1500.2	1499.5	1500.2	1500.7	1501.4
152.5°	1540.8	1540.4	1540.0	1539.4	1538.5	1537.7	1536.7	1535.9	1536.7	1537.7	1538.5
155°	1594.0	1593.7	1593.5	1593.3	1593.3	1593.3	1593.3	1593.3	1593.3	1593.3	1593.3
157.5°	1641.1	1640.9	1640.6	1640.7	1641.1	1641.4	1641.8	1642.2	1641.8	1641.4	1641.1
160°	1670.0	1670.0	1670.0	1670.4	1670.9	1671.6	1672.3	1672.9	1672.3	1671.6	1670.9
162.5°	1696.9	1696.6	1696.3	1696.7	1697.5	1698.4	1699.3	1700.2	1699.3	1698.4	1697.5
165°	1731.2	1731.2	1731.2	1731.6	1732.6	1733.5	1734.5	1735.4	1734.5	1733.5	1732.6
167.5°	1758.5	1758.2	1758.0	1758.5	1759.7	1761.0	1762.3	1763.6	1762.3	1761.0	1759.7
170°	1773.8	1773.8	1773.8	1774.4	1775.7	1777.0	1778.2	1779.4	1778.2	1777.0	1775.7
172.5°	1786.3	1786.3	1786.3	1787.0	1788.2	1789.4	1790.7	1792.0	1790.7	1789.4	1788.2
175°	1799.4	1799.4	1799.4	1800.0	1801.3	1802.5	1803.8	1805.1	1803.8	1802.5	1801.3
177.5°	1805.9	1805.9	1805.9	1806.4	1807.4	1808.5	1809.5	1810.4	1809.5	1808.5	1807.4
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

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	26.4	27.2	27.5	28.3	28.6	28.7
90°	14.0	17.7	21.8	25.9	30.0	34.1	35.3	36.7	37.9	39.2	40.2
92.5°	43.0	45.2	47.6	49.9	52.2	54.6	55.6	56.6	57.6	58.6	58.9
95°	92.7	95.1	97.6	100.1	102.6	105.2	106.4	107.7	109.0	110.2	110.8
97.5°	155.5	157.2	159.1	160.9	162.8	164.6	166.1	167.5	168.9	170.4	171.1
100°	200.9	202.6	204.2	205.8	207.4	209.0	209.9	210.8	211.8	212.7	213.5
102.5°	249.0	250.6	252.7	254.8	256.8	258.9	260.0	260.9	261.8	262.8	263.2
105°	322.3	324.0	326.9	329.7	332.6	335.5	335.5	335.5	335.5	335.5	335.7
107.5°	408.9	409.6	410.8	411.9	413.0	414.2	415.2	416.2	417.2	418.2	418.5
110°	464.5	465.1	465.7	466.4	466.9	467.6	468.9	470.1	471.4	472.7	473.0



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	520.3	520.6	520.7	520.8	520.9	521.0	522.5	524.1	525.6	527.1	527.8
115°	607.8	608.0	607.4	606.7	606.1	605.5	605.8	606.1	606.4	606.7	606.7
117.5°	692.4	692.3	691.5	690.7	689.8	689.1	689.0	688.9	688.9	688.8	688.3
120°	750.9	751.1	749.5	747.9	746.3	744.8	744.4	744.1	743.9	743.5	743.0
122.5°	804.6	804.9	804.1	803.2	802.5	801.6	800.8	799.9	799.2	798.3	797.5
125°	887.9	888.0	887.4	886.7	886.1	885.5	884.2	883.0	881.7	880.4	879.1
127.5°	970.6	971.3	970.5	969.9	969.2	968.5	966.7	965.0	963.2	961.4	959.8
130°	1024.9	1025.7	1024.7	1023.8	1022.8	1021.9	1020.7	1019.4	1018.1	1016.9	1015.1
132.5°	1077.2	1078.2	1077.4	1076.8	1076.0	1075.3	1073.8	1072.3	1070.8	1069.3	1067.7
135°	1154.6	1155.4	1155.1	1154.7	1154.4	1154.1	1152.8	1151.6	1150.3	1149.1	1148.1
137.5°	1227.2	1228.4	1229.3	1230.0	1230.9	1231.7	1230.4	1229.1	1227.8	1226.4	1225.1
140°	1278.4	1279.3	1279.7	1280.0	1280.3	1280.6	1280.3	1280.0	1279.7	1279.3	1278.1
142.5°	1325.0	1326.1	1326.6	1327.2	1327.8	1328.3	1328.0	1327.8	1327.4	1327.1	1326.1
145°	1394.0	1394.8	1395.7	1396.7	1397.6	1398.5	1398.3	1397.9	1397.6	1397.3	1396.5
147.5°	1459.7	1460.7	1461.6	1462.4	1463.3	1464.2	1464.2	1464.2	1464.2	1464.2	1463.3
150°	1502.0	1502.6	1503.3	1503.9	1504.5	1505.1	1505.1	1505.1	1505.1	1505.1	1504.2
152.5°	1539.4	1540.0	1540.4	1540.8	1541.2	1541.5	1542.1	1542.6	1543.0	1543.6	1543.0
155°	1593.3	1593.5	1593.7	1594.0	1594.4	1594.7	1596.0	1597.2	1598.5	1599.8	1599.3
157.5°	1640.7	1640.6	1640.9	1641.1	1641.3	1641.6	1642.9	1644.3	1645.6	1646.9	1646.7
160°	1670.4	1670.0	1670.0	1670.0	1670.0	1670.0	1671.6	1673.2	1674.8	1676.3	1676.5
162.5°	1696.7	1696.3	1696.6	1696.9	1697.0	1697.3	1698.9	1700.4	1702.0	1703.6	1703.5
165°	1731.6	1731.2	1731.2	1731.2	1731.2	1731.2	1733.1	1734.9	1736.8	1738.7	1738.6
167.5°	1758.5	1758.0	1758.2	1758.5	1758.8	1759.0	1761.0	1762.9	1764.9	1766.8	1766.8
170°	1774.4	1773.8	1773.8	1773.8	1773.8	1773.8	1776.0	1778.2	1780.5	1782.6	1782.6
172.5°	1787.0	1786.3	1786.3	1786.3	1786.3	1786.3	1788.3	1790.2	1792.2	1794.1	1794.0
175°	1800.0	1799.4	1799.4	1799.4	1799.4	1799.4	1801.3	1803.2	1805.1	1806.9	1806.8
177.5°	1806.4	1805.9	1805.9	1805.9	1805.9	1805.9	1807.4	1808.9	1810.4	1811.9	1811.8
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

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°	30.1	29.0	29.1	29.9	29.1	29.0	30.1	28.7	28.6	28.3	27.5
90°	40.7	41.4	42.0	42.6	42.0	41.4	40.7	40.2	39.2	37.9	36.7
92.5°	58.5	58.2	57.8	57.4	57.8	58.2	58.5	58.9	58.6	57.6	56.6
95°	110.8	110.8	110.8	110.8	110.8	110.8	110.8	110.8	110.2	109.0	107.7
97.5°	171.0	170.8	170.7	170.6	170.7	170.8	171.0	171.1	170.4	168.9	167.5
100°	214.1	214.8	215.4	216.0	215.4	214.8	214.1	213.5	212.7	211.8	210.8
102.5°	263.1	262.9	262.8	262.7	262.8	262.9	263.1	263.2	262.8	261.8	260.9
105°	336.4	337.1	337.6	338.3	337.6	337.1	336.4	335.7	335.5	335.5	335.5
107.5°	418.1	417.7	417.4	417.0	417.4	417.7	418.1	418.5	418.2	417.2	416.2
110°	472.3	471.7	471.1	470.4	471.1	471.7	472.3	473.0	472.7	471.4	470.1



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	527.7	527.5	527.4	527.3	527.4	527.5	527.7	527.8	527.1	525.6	524.1
115°	606.4	606.1	605.8	605.5	605.8	606.1	606.4	606.7	606.7	606.4	606.1
117.5°	687.4	686.5	685.7	684.8	685.7	686.5	687.4	688.3	688.8	688.9	688.9
120°	742.4	741.8	741.1	740.5	741.1	741.8	742.4	743.0	743.5	743.9	744.1
122.5°	796.6	795.7	794.8	793.9	794.8	795.7	796.6	797.5	798.3	799.2	799.9
125°	877.9	876.7	875.3	874.1	875.3	876.7	877.9	879.1	880.4	881.7	883.0
127.5°	958.4	956.9	955.5	953.9	955.5	956.9	958.4	959.8	961.4	963.2	965.0
130°	1013.0	1010.7	1008.5	1006.3	1008.5	1010.7	1013.0	1015.1	1016.9	1018.1	1019.4
132.5°	1066.0	1064.3	1062.5	1060.8	1062.5	1064.3	1066.0	1067.7	1069.3	1070.8	1072.3
135°	1147.5	1146.8	1146.2	1145.6	1146.2	1146.8	1147.5	1148.1	1149.1	1150.3	1151.6
137.5°	1223.9	1222.8	1221.5	1220.3	1221.5	1222.8	1223.9	1225.1	1226.4	1227.8	1229.1
140°	1275.8	1273.7	1271.4	1269.2	1271.4	1273.7	1275.8	1278.1	1279.3	1279.7	1280.0
142.5°	1324.4	1322.7	1321.0	1319.3	1321.0	1322.7	1324.4	1326.1	1327.1	1327.4	1327.8
145°	1395.2	1394.0	1392.7	1391.5	1392.7	1394.0	1395.2	1396.5	1397.3	1397.6	1397.9
147.5°	1461.4	1459.5	1457.5	1455.7	1457.5	1459.5	1461.4	1463.3	1464.2	1464.2	1464.2
150°	1502.3	1500.4	1498.5	1496.7	1498.5	1500.4	1502.3	1504.2	1505.1	1505.1	1505.1
152.5°	1541.3	1539.7	1538.0	1536.4	1538.0	1539.7	1541.3	1543.0	1543.6	1543.0	1542.6
155°	1597.0	1594.9	1592.6	1590.4	1592.6	1594.9	1597.0	1599.3	1599.8	1598.5	1597.2
157.5°	1644.9	1643.1	1641.3	1639.6	1641.3	1643.1	1644.9	1646.7	1646.9	1645.6	1644.3
160°	1675.3	1674.0	1672.7	1671.4	1672.7	1674.0	1675.3	1676.5	1676.3	1674.8	1673.2
162.5°	1701.4	1699.4	1697.3	1695.4	1697.3	1699.4	1701.4	1703.5	1703.6	1702.0	1700.4
165°	1736.4	1734.2	1731.9	1729.8	1731.9	1734.2	1736.4	1738.6	1738.7	1736.8	1734.9
167.5°	1764.9	1762.9	1761.0	1759.0	1761.0	1762.9	1764.9	1766.8	1766.8	1764.9	1762.9
170°	1780.5	1778.2	1776.0	1773.8	1776.0	1778.2	1780.5	1782.6	1782.6	1780.5	1778.2
172.5°	1791.8	1789.6	1787.3	1785.2	1787.3	1789.6	1791.8	1794.0	1794.1	1792.2	1790.2
175°	1804.6	1802.3	1800.2	1798.0	1800.2	1802.3	1804.6	1806.8	1806.9	1805.1	1803.2
177.5°	1810.1	1808.3	1806.6	1804.8	1806.6	1808.3	1810.1	1811.8	1811.9	1810.4	1808.9
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

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°	27.2	26.4	26.1	24.7	23.3	21.9	19.4	19.3	18.8	20.5	19.2
90°	35.3	34.1	30.0	25.9	21.8	17.7	14.0	10.9	7.7	4.6	1.4
92.5°	55.6	54.6	52.2	49.9	47.6	45.2	43.0	40.8	38.6	36.6	34.4
95°	106.4	105.2	102.6	100.1	97.6	95.1	92.7	90.5	88.3	86.1	83.9
97.5°	166.1	164.6	162.8	160.9	159.1	157.2	155.5	153.9	152.2	150.6	148.9
100°	209.9	209.0	207.4	205.8	204.2	202.6	200.9	199.0	197.1	195.2	193.3
102.5°	260.0	258.9	256.8	254.8	252.7	250.6	249.0	247.9	246.8	245.6	244.5
105°	335.5	335.5	332.6	329.7	326.9	324.0	322.3	321.7	321.0	320.5	319.8
107.5°	415.2	414.2	413.0	411.9	410.8	409.6	408.9	408.5	408.1	407.7	407.4
110°	468.9	467.6	466.9	466.4	465.7	465.1	464.5	463.8	463.2	462.6	461.9



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	522.5	521.0	520.9	520.8	520.7	520.6	520.3	519.9	519.5	519.2	518.8
115°	605.8	605.5	606.1	606.7	607.4	608.0	607.8	606.9	606.0	605.0	604.1
117.5°	689.0	689.1	689.8	690.7	691.5	692.3	692.4	691.8	691.2	690.5	689.9
120°	744.4	744.8	746.3	747.9	749.5	751.1	750.9	749.0	747.2	745.3	743.4
122.5°	800.8	801.6	802.5	803.2	804.1	804.9	804.6	803.2	801.8	800.4	799.1
125°	884.2	885.5	886.1	886.7	887.4	888.0	887.9	886.9	886.0	885.0	884.0
127.5°	966.7	968.5	969.2	969.9	970.5	971.3	970.6	968.6	966.6	964.5	962.5
130°	1020.7	1021.9	1022.8	1023.8	1024.7	1025.7	1024.9	1022.4	1019.8	1017.4	1014.8
132.5°	1073.8	1075.3	1076.0	1076.8	1077.4	1078.2	1077.2	1074.7	1072.1	1069.6	1067.1
135°	1152.8	1154.1	1154.4	1154.7	1155.1	1155.4	1154.6	1152.6	1150.8	1148.9	1147.0
137.5°	1230.4	1231.7	1230.9	1230.0	1229.3	1228.4	1227.2	1225.7	1224.1	1222.5	1220.9
140°	1280.3	1280.6	1280.3	1280.0	1279.7	1279.3	1278.4	1276.8	1275.3	1273.7	1272.1
142.5°	1328.0	1328.3	1327.8	1327.2	1326.6	1326.1	1325.0	1323.4	1321.8	1320.2	1318.7
145°	1398.3	1398.5	1397.6	1396.7	1395.7	1394.8	1394.0	1393.4	1392.7	1392.1	1391.5
147.5°	1464.2	1464.2	1463.3	1462.4	1461.6	1460.7	1459.7	1458.6	1457.4	1456.2	1455.1
150°	1505.1	1505.1	1504.5	1503.9	1503.3	1502.6	1502.0	1501.4	1500.7	1500.2	1499.5
152.5°	1542.1	1541.5	1541.2	1540.8	1540.4	1540.0	1539.4	1538.5	1537.7	1536.7	1535.9
155°	1596.0	1594.7	1594.4	1594.0	1593.7	1593.5	1593.3	1593.3	1593.3	1593.3	1593.3
157.5°	1642.9	1641.6	1641.3	1641.1	1640.9	1640.6	1640.7	1641.1	1641.4	1641.8	1642.2
160°	1671.6	1670.0	1670.0	1670.0	1670.0	1670.0	1670.4	1670.9	1671.6	1672.3	1672.9
162.5°	1698.9	1697.3	1697.0	1696.9	1696.6	1696.3	1696.7	1697.5	1698.4	1699.3	1700.2
165°	1733.1	1731.2	1731.2	1731.2	1731.2	1731.2	1731.6	1732.6	1733.5	1734.5	1735.4
167.5°	1761.0	1759.0	1758.8	1758.5	1758.2	1758.0	1758.5	1759.7	1761.0	1762.3	1763.6
170°	1776.0	1773.8	1773.8	1773.8	1773.8	1773.8	1774.4	1775.7	1777.0	1778.2	1779.4
172.5°	1788.3	1786.3	1786.3	1786.3	1786.3	1786.3	1787.0	1788.2	1789.4	1790.7	1792.0
175°	1801.3	1799.4	1799.4	1799.4	1799.4	1799.4	1800.0	1801.3	1802.5	1803.8	1805.1
177.5°	1807.4	1805.9	1805.9	1805.9	1805.9	1805.9	1806.4	1807.4	1808.5	1809.5	1810.4
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

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	12.9	13.6	13.3	14.7	14.3	14.5	15.4	14.4
90°	4.6	7.7	10.9	14.0	17.7	21.8	25.9	30.0	34.1	35.3	36.7
92.5°	36.6	38.6	40.8	43.0	45.2	47.6	49.9	52.2	54.6	55.6	56.6
95°	86.1	88.3	90.5	92.7	95.1	97.6	100.1	102.6	105.2	106.4	107.7
97.5°	150.6	152.2	153.9	155.5	157.2	159.1	160.9	162.8	164.6	166.1	167.5
100°	195.2	197.1	199.0	200.9	202.6	204.2	205.8	207.4	209.0	209.9	210.8
102.5°	245.6	246.8	247.9	249.0	250.6	252.7	254.8	256.8	258.9	260.0	260.9
105°	320.5	321.0	321.7	322.3	324.0	326.9	329.7	332.6	335.5	335.5	335.5
107.5°	407.7	408.1	408.5	408.9	409.6	410.8	411.9	413.0	414.2	415.2	416.2
110°	462.6	463.2	463.8	464.5	465.1	465.7	466.4	466.9	467.6	468.9	470.1



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	519.2	519.5	519.9	520.3	520.6	520.7	520.8	520.9	521.0	522.5	524.1
115°	605.0	606.0	606.9	607.8	608.0	607.4	606.7	606.1	605.5	605.8	606.1
117.5°	690.5	691.2	691.8	692.4	692.3	691.5	690.7	689.8	689.1	689.0	688.9
120°	745.3	747.2	749.0	750.9	751.1	749.5	747.9	746.3	744.8	744.4	744.1
122.5°	800.4	801.8	803.2	804.6	804.9	804.1	803.2	802.5	801.6	800.8	799.9
125°	885.0	886.0	886.9	887.9	888.0	887.4	886.7	886.1	885.5	884.2	883.0
127.5°	964.5	966.6	968.6	970.6	971.3	970.5	969.9	969.2	968.5	966.7	965.0
130°	1017.4	1019.8	1022.4	1024.9	1025.7	1024.7	1023.8	1022.8	1021.9	1020.7	1019.4
132.5°	1069.6	1072.1	1074.7	1077.2	1078.2	1077.4	1076.8	1076.0	1075.3	1073.8	1072.3
135°	1148.9	1150.8	1152.6	1154.6	1155.4	1155.1	1154.7	1154.4	1154.1	1152.8	1151.6
137.5°	1222.5	1224.1	1225.7	1227.2	1228.4	1229.3	1230.0	1230.9	1231.7	1230.4	1229.1
140°	1273.7	1275.3	1276.8	1278.4	1279.3	1279.7	1280.0	1280.3	1280.6	1280.3	1280.0
142.5°	1320.2	1321.8	1323.4	1325.0	1326.1	1326.6	1327.2	1327.8	1328.3	1328.0	1327.8
145°	1392.1	1392.7	1393.4	1394.0	1394.8	1395.7	1396.7	1397.6	1398.5	1398.3	1397.9
147.5°	1456.2	1457.4	1458.6	1459.7	1460.7	1461.6	1462.4	1463.3	1464.2	1464.2	1464.2
150°	1500.2	1500.7	1501.4	1502.0	1502.6	1503.3	1503.9	1504.5	1505.1	1505.1	1505.1
152.5°	1536.7	1537.7	1538.5	1539.4	1540.0	1540.4	1540.8	1541.2	1541.5	1542.1	1542.6
155°	1593.3	1593.3	1593.3	1593.3	1593.5	1593.7	1594.0	1594.4	1594.7	1596.0	1597.2
157.5°	1641.8	1641.4	1641.1	1640.7	1640.6	1640.9	1641.1	1641.3	1641.6	1642.9	1644.3
160°	1672.3	1671.6	1670.9	1670.4	1670.0	1670.0	1670.0	1670.0	1670.0	1671.6	1673.2
162.5°	1699.3	1698.4	1697.5	1696.7	1696.3	1696.6	1696.9	1697.0	1697.3	1698.9	1700.4
165°	1734.5	1733.5	1732.6	1731.6	1731.2	1731.2	1731.2	1731.2	1731.2	1733.1	1734.9
167.5°	1762.3	1761.0	1759.7	1758.5	1758.0	1758.2	1758.5	1758.8	1759.0	1761.0	1762.9
170°	1778.2	1777.0	1775.7	1774.4	1773.8	1773.8	1773.8	1773.8	1773.8	1776.0	1778.2
172.5°	1790.7	1789.4	1788.2	1787.0	1786.3	1786.3	1786.3	1786.3	1786.3	1788.3	1790.2
175°	1803.8	1802.5	1801.3	1800.0	1799.4	1799.4	1799.4	1799.4	1799.4	1801.3	1803.2
177.5°	1809.5	1808.5	1807.4	1806.4	1805.9	1805.9	1805.9	1805.9	1805.9	1807.4	1808.9
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

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°	14.7	15.0	14.5	14.7	14.2	15.6	14.4
90°	37.9	39.2	40.2	40.7	41.4	42.0	42.6
92.5°	57.6	58.6	58.9	58.5	58.2	57.8	57.4
95°	109.0	110.2	110.8	110.8	110.8	110.8	110.8
97.5°	168.9	170.4	171.1	171.0	170.8	170.7	170.6
100°	211.8	212.7	213.5	214.1	214.8	215.4	216.0
102.5°	261.8	262.8	263.2	263.1	262.9	262.8	262.7
105°	335.5	335.5	335.7	336.4	337.1	337.6	338.3
107.5°	417.2	418.2	418.5	418.1	417.7	417.4	417.0
110°	471.4	472.7	473.0	472.3	471.7	471.1	470.4



TEST NUMBER: P332487-830

CATALOG NUMBER: S123RDIW-S1165D1535U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	525.6	527.1	527.8	527.7	527.5	527.4	527.3
115°	606.4	606.7	606.7	606.4	606.1	605.8	605.5
117.5°	688.9	688.8	688.3	687.4	686.5	685.7	684.8
120°	743.9	743.5	743.0	742.4	741.8	741.1	740.5
122.5°	799.2	798.3	797.5	796.6	795.7	794.8	793.9
125°	881.7	880.4	879.1	877.9	876.7	875.3	874.1
127.5°	963.2	961.4	959.8	958.4	956.9	955.5	953.9
130°	1018.1	1016.9	1015.1	1013.0	1010.7	1008.5	1006.3
132.5°	1070.8	1069.3	1067.7	1066.0	1064.3	1062.5	1060.8
135°	1150.3	1149.1	1148.1	1147.5	1146.8	1146.2	1145.6
137.5°	1227.8	1226.4	1225.1	1223.9	1222.8	1221.5	1220.3
140°	1279.7	1279.3	1278.1	1275.8	1273.7	1271.4	1269.2
142.5°	1327.4	1327.1	1326.1	1324.4	1322.7	1321.0	1319.3
145°	1397.6	1397.3	1396.5	1395.2	1394.0	1392.7	1391.5
147.5°	1464.2	1464.2	1463.3	1461.4	1459.5	1457.5	1455.7
150°	1505.1	1505.1	1504.2	1502.3	1500.4	1498.5	1496.7
152.5°	1543.0	1543.6	1543.0	1541.3	1539.7	1538.0	1536.4
155°	1598.5	1599.8	1599.3	1597.0	1594.9	1592.6	1590.4
157.5°	1645.6	1646.9	1646.7	1644.9	1643.1	1641.3	1639.6
160°	1674.8	1676.3	1676.5	1675.3	1674.0	1672.7	1671.4
162.5°	1702.0	1703.6	1703.5	1701.4	1699.4	1697.3	1695.4
165°	1736.8	1738.7	1738.6	1736.4	1734.2	1731.9	1729.8
167.5°	1764.9	1766.8	1766.8	1764.9	1762.9	1761.0	1759.0
170°	1780.5	1782.6	1782.6	1780.5	1778.2	1776.0	1773.8
172.5°	1792.2	1794.1	1794.0	1791.8	1789.6	1787.3	1785.2
175°	1805.1	1806.9	1806.8	1804.6	1802.3	1800.2	1798.0
177.5°	1810.4	1811.9	1811.8	1810.1	1808.3	1806.6	1804.8
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3

(END OF REPORT)