

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P332478-830

Luminaire Tested: **S123RDIW-S1165D1030U830-4F0-1E-UDD-A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332478-830  
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-S1165D1030U830-4F0-1E-UDD-A  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING  
UPLIGHT 1030 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

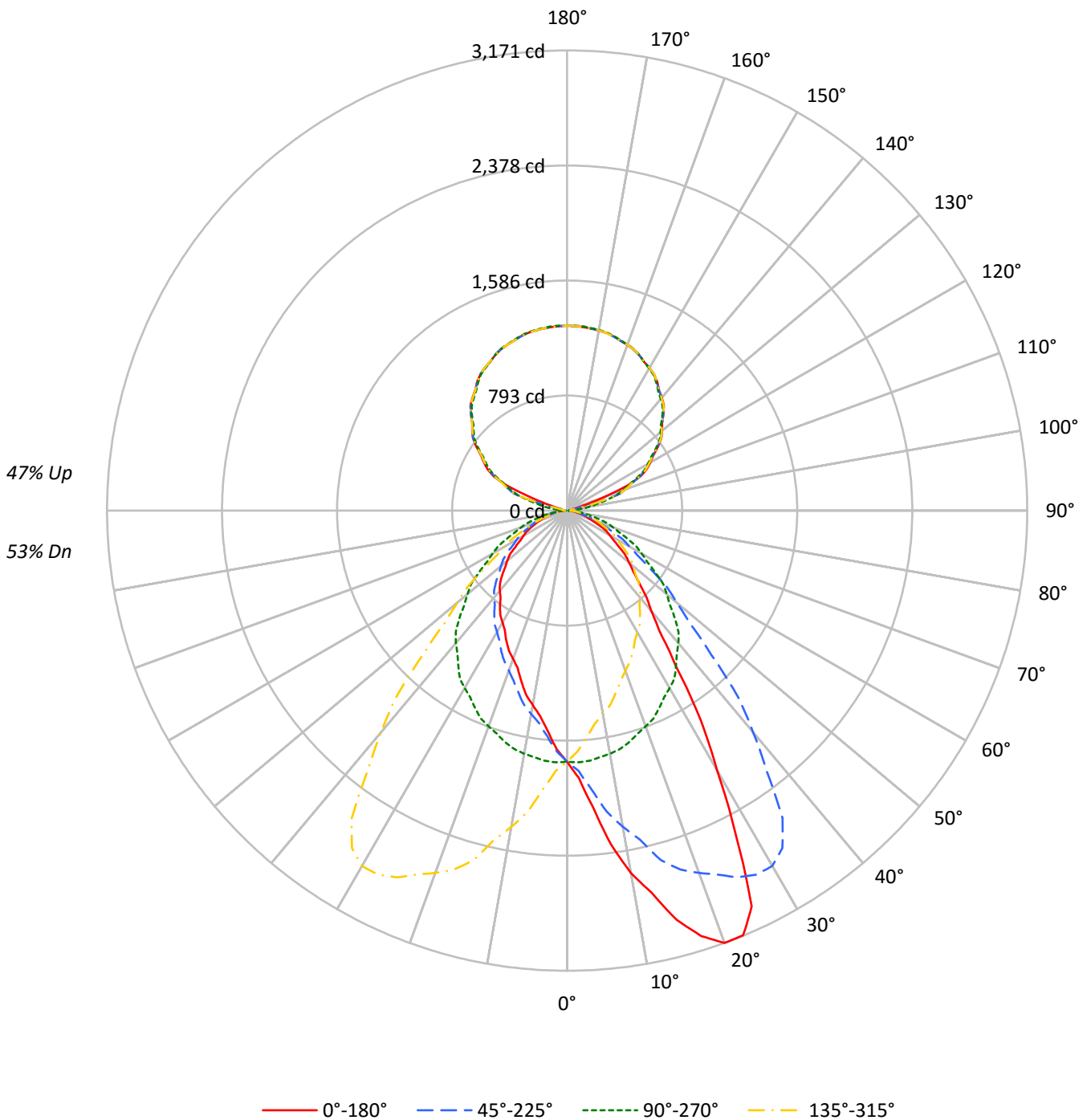
Lumens per Lamp: N/A  
Luminaire Lumens: 8198.1 lumens  
Efficiency: N/A  
Efficacy: 121.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.36  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 67.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	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	2.1
10°-20°	531.7	6.5
20°-30°	835.3	10.2
30°-40°	871.4	10.6
40°-50°	745.8	9.1
50°-60°	568.4	6.9
60°-70°	364.3	4.4
70°-80°	175.3	2.1
80°-90°	49.9	0.6
90°-100°	46.3	0.6
100°-110°	220.8	2.7
110°-120°	530.4	6.5
120°-130°	675.4	8.2
130°-140°	721.6	8.8
140°-150°	674.8	8.2
150°-160°	544.3	6.6
160°-170°	351.3	4.3
170°-180°	121.1	1.5
0°-30°	1537.1	18.7
0°-40°	2408.6	29.4
0°-60°	3722.7	45.4
0°-90°	4312.3	52.6
90°-120°	797.5	9.7
90°-150°	2869.2	35.0
90°-180°	3886.0	47.4
0°-180°	8198.1	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°	28	1	28	1	28	14
95°	36	58	36	58	36	30
105°	42	282	42	282	42	95
115°	557	529	557	529	557	514
125°	761	746	761	746	761	680
135°	938	929	938	929	938	723
145°	1082	1072	1082	1072	1082	675
155°	1179	1180	1179	1180	1179	543
165°	1242	1245	1242	1245	1242	351
175°	1270	1274	1270	1274	1270	121
180°	1274	1274	1274	1274	1274	



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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°	11.6	12.7	11.4	12.0	11.9	12.3	12.2	12.0	13.0	12.3	12.3
90°	28.4	28.0	27.5	27.1	26.7	26.1	25.3	24.4	23.6	22.7	20.0
92.5°	31.4	31.2	30.9	30.6	30.4	29.6	28.3	27.0	25.5	24.2	22.1
95°	36.0	36.0	36.0	36.0	36.0	35.3	33.7	32.3	30.8	29.3	27.1
97.5°	39.0	38.8	38.5	38.4	38.2	37.2	35.5	33.8	32.1	30.4	45.6
100°	39.8	39.6	39.3	39.1	38.9	38.0	36.3	34.6	32.9	31.2	64.1
102.5°	40.5	40.2	39.8	39.4	39.0	41.4	46.7	51.8	57.1	62.3	98.1
105°	41.7	41.2	40.8	40.4	40.0	58.3	95.6	132.9	170.1	207.4	226.3
107.5°	130.8	158.9	187.0	215.0	243.1	270.8	298.1	325.4	352.7	380.0	377.0
110°	260.3	290.4	320.5	350.6	380.7	399.2	406.1	413.1	420.0	427.0	424.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	446.7	453.0	459.4	465.7	472.0	475.1	475.0	474.9	474.8	474.7	472.4
115°	556.7	555.8	555.0	554.1	553.3	551.9	549.7	547.6	545.5	543.4	541.5
117.5°	618.4	618.2	618.0	617.8	617.7	616.8	615.1	613.4	611.7	610.0	609.1
120°	660.8	660.8	660.8	660.8	660.8	660.0	658.3	656.6	654.9	653.2	652.6
122.5°	702.5	702.3	702.1	701.9	701.8	701.1	699.9	698.7	697.6	696.4	695.6
125°	761.1	760.7	760.3	759.9	759.5	759.0	758.7	758.2	757.8	757.3	756.5
127.5°	817.6	818.0	818.4	818.8	819.3	819.2	818.4	817.7	817.1	816.4	815.4
130°	853.9	854.3	854.8	855.2	855.6	855.4	854.5	853.8	852.9	852.1	851.2
132.5°	887.2	887.9	888.4	889.0	889.6	889.5	888.6	887.8	886.9	886.1	885.4
135°	938.2	938.8	939.4	940.1	940.7	940.7	940.1	939.4	938.8	938.2	937.4
137.5°	986.1	986.5	986.9	987.3	987.8	987.5	986.5	985.4	984.4	983.4	983.0
140°	1014.8	1015.3	1015.7	1016.2	1016.5	1016.3	1015.5	1014.6	1013.8	1013.0	1012.3
142.5°	1041.3	1042.0	1042.5	1043.1	1043.7	1043.7	1043.0	1042.4	1041.7	1040.9	1040.4
145°	1082.0	1082.0	1082.0	1082.0	1082.0	1081.9	1081.5	1081.0	1080.6	1080.2	1079.8
147.5°	1112.4	1113.3	1114.3	1115.3	1116.3	1116.5	1116.1	1115.7	1115.2	1114.8	1114.4
150°	1135.1	1135.8	1136.3	1137.0	1137.6	1137.7	1137.3	1136.9	1136.4	1136.0	1135.6
152.5°	1153.3	1154.2	1155.2	1156.1	1157.2	1157.3	1156.5	1155.7	1155.0	1154.2	1154.0
155°	1178.6	1179.9	1181.2	1182.4	1183.6	1183.8	1182.7	1181.7	1180.6	1179.6	1179.4
157.5°	1200.0	1201.6	1203.3	1204.9	1206.5	1206.7	1205.5	1204.3	1203.0	1201.7	1201.9
160°	1213.6	1215.1	1216.6	1218.0	1219.6	1219.7	1218.4	1217.1	1215.9	1214.7	1214.8
162.5°	1226.5	1227.9	1229.2	1230.5	1231.7	1231.7	1230.3	1228.8	1227.4	1226.0	1226.2
165°	1242.1	1243.5	1245.0	1246.5	1247.9	1247.8	1246.1	1244.4	1242.8	1241.1	1241.3
167.5°	1253.2	1254.9	1256.6	1258.3	1260.0	1260.0	1258.3	1256.6	1254.9	1253.2	1253.2
170°	1260.1	1261.7	1263.4	1265.1	1266.8	1266.8	1265.1	1263.4	1261.7	1260.1	1260.1
172.5°	1263.9	1265.6	1267.5	1269.4	1271.2	1271.3	1269.6	1268.0	1266.3	1264.6	1264.4
175°	1269.5	1271.2	1272.9	1274.6	1276.3	1276.4	1274.9	1273.4	1272.0	1270.5	1270.3
177.5°	1271.2	1272.9	1274.6	1276.3	1278.0	1278.1	1276.8	1275.4	1274.1	1272.7	1272.5
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2



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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°	12.9	11.8	12.4	12.0	13.3	13.5	16.6	19.1	20.2	18.2	18.7
90°	17.2	14.5	11.8	9.3	7.3	5.2	3.0	0.9	3.0	5.2	7.3
92.5°	20.1	18.1	16.0	15.3	15.8	16.4	17.1	17.6	17.1	16.4	15.8
95°	24.7	22.4	20.1	23.3	31.9	40.5	49.1	57.8	49.1	40.5	31.9
97.5°	60.8	76.0	91.0	100.6	104.4	108.3	112.2	116.0	112.2	108.3	104.4
100°	96.9	129.7	162.5	176.8	172.6	168.4	164.2	159.9	164.2	168.4	172.6
102.5°	134.0	169.8	205.7	222.1	219.0	216.0	213.0	210.0	213.0	216.0	219.0
105°	245.2	264.1	283.0	291.3	289.1	286.7	284.5	282.1	284.5	286.7	289.1
107.5°	374.0	371.1	368.1	365.6	363.8	361.9	360.1	358.3	360.1	361.9	363.8
110°	422.4	420.0	417.7	415.7	414.1	412.4	410.7	409.0	410.7	412.4	414.1





TEST NUMBER: P332478-830

CATALOG NUMBER: S123RDIW-S1165D1030U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	470.0	467.7	465.4	463.5	462.0	460.4	458.9	457.4	458.9	460.4	462.0
115°	539.6	537.7	535.8	534.2	533.0	531.7	530.5	529.2	530.5	531.7	533.0
117.5°	608.1	607.2	606.1	604.9	603.3	601.8	600.2	598.7	600.2	601.8	603.3
120°	652.0	651.3	650.7	649.4	647.5	645.6	643.8	641.9	643.8	645.6	647.5
122.5°	694.7	694.0	693.1	692.0	690.4	688.9	687.3	685.8	687.3	688.9	690.4
125°	755.6	754.8	754.0	752.7	751.0	749.3	747.7	746.0	747.7	749.3	751.0
127.5°	814.5	813.4	812.4	811.1	809.4	807.7	806.0	804.3	806.0	807.7	809.4
130°	850.4	849.5	848.7	847.4	845.7	844.0	842.4	840.7	842.4	844.0	845.7
132.5°	884.8	884.1	883.4	882.2	880.5	878.8	877.2	875.5	877.2	878.8	880.5
135°	936.5	935.7	934.8	933.8	932.5	931.2	930.0	928.7	930.0	931.2	932.5
137.5°	982.5	982.0	981.6	980.5	978.9	977.3	975.7	974.1	975.7	977.3	978.9
140°	1011.7	1011.1	1010.4	1009.5	1008.2	1007.0	1005.7	1004.5	1005.7	1007.0	1008.2
142.5°	1039.7	1039.1	1038.5	1037.6	1036.2	1035.0	1033.7	1032.5	1033.7	1035.0	1036.2
145°	1079.3	1078.9	1078.5	1077.5	1076.1	1074.6	1073.1	1071.7	1073.1	1074.6	1076.1
147.5°	1114.0	1113.5	1113.1	1112.5	1111.4	1110.5	1109.6	1108.6	1109.6	1110.5	1111.4
150°	1135.2	1134.7	1134.3	1133.8	1133.2	1132.6	1131.9	1131.3	1131.9	1132.6	1133.2
152.5°	1153.7	1153.5	1153.2	1152.9	1152.6	1152.4	1152.1	1151.8	1152.1	1152.4	1152.6
155°	1179.1	1178.9	1178.7	1178.8	1179.3	1179.7	1180.1	1180.5	1180.1	1179.7	1179.3
157.5°	1202.1	1202.4	1202.6	1202.7	1202.8	1202.8	1202.9	1202.9	1202.9	1202.8	1202.8
160°	1215.0	1215.2	1215.4	1215.7	1215.9	1216.1	1216.3	1216.5	1216.3	1216.1	1215.9
162.5°	1226.4	1226.6	1226.8	1227.2	1227.8	1228.3	1228.8	1229.4	1228.8	1228.3	1227.8
165°	1241.5	1241.7	1242.0	1242.4	1243.0	1243.7	1244.3	1244.9	1244.3	1243.7	1243.0
167.5°	1253.2	1253.2	1253.2	1253.7	1254.5	1255.4	1256.2	1257.0	1256.2	1255.4	1254.5
170°	1260.1	1260.1	1260.1	1260.5	1261.3	1262.2	1263.0	1263.9	1263.0	1262.2	1261.3
172.5°	1264.2	1264.0	1263.9	1264.3	1265.4	1266.4	1267.3	1268.4	1267.3	1266.4	1265.4
175°	1270.1	1269.8	1269.6	1270.1	1271.1	1272.1	1273.2	1274.2	1273.2	1272.1	1271.1
177.5°	1272.4	1272.2	1272.1	1272.4	1273.3	1274.1	1274.9	1275.7	1274.9	1274.1	1273.3
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2



TEST NUMBER: P332478-830

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**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°	18.5	20.7	21.9	23.0	24.1	24.1	24.9	25.1	25.8	25.9	26.1
90°	9.3	11.8	14.5	17.2	20.0	22.7	23.6	24.4	25.3	26.1	26.7
92.5°	15.3	16.0	18.1	20.1	22.1	24.2	25.5	27.0	28.3	29.6	30.4
95°	23.3	20.1	22.4	24.7	27.1	29.3	30.8	32.3	33.7	35.3	36.0
97.5°	100.6	91.0	76.0	60.8	45.6	30.4	32.1	33.8	35.5	37.2	38.2
100°	176.8	162.5	129.7	96.9	64.1	31.2	32.9	34.6	36.3	38.0	38.9
102.5°	222.1	205.7	169.8	134.0	98.1	62.3	57.1	51.8	46.7	41.4	39.0
105°	291.3	283.0	264.1	245.2	226.3	207.4	170.1	132.9	95.6	58.3	40.0
107.5°	365.6	368.1	371.1	374.0	377.0	380.0	352.7	325.4	298.1	270.8	243.1
110°	415.7	417.7	420.0	422.4	424.6	427.0	420.0	413.1	406.1	399.2	380.7



TEST NUMBER: P332478-830

CATALOG NUMBER: S123RDIW-S1165D1030U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	463.5	465.4	467.7	470.0	472.4	474.7	474.8	474.9	475.0	475.1	472.0
115°	534.2	535.8	537.7	539.6	541.5	543.4	545.5	547.6	549.7	551.9	553.3
117.5°	604.9	606.1	607.2	608.1	609.1	610.0	611.7	613.4	615.1	616.8	617.7
120°	649.4	650.7	651.3	652.0	652.6	653.2	654.9	656.6	658.3	660.0	660.8
122.5°	692.0	693.1	694.0	694.7	695.6	696.4	697.6	698.7	699.9	701.1	701.8
125°	752.7	754.0	754.8	755.6	756.5	757.3	757.8	758.2	758.7	759.0	759.5
127.5°	811.1	812.4	813.4	814.5	815.4	816.4	817.1	817.7	818.4	819.2	819.3
130°	847.4	848.7	849.5	850.4	851.2	852.1	852.9	853.8	854.5	855.4	855.6
132.5°	882.2	883.4	884.1	884.8	885.4	886.1	886.9	887.8	888.6	889.5	889.6
135°	933.8	934.8	935.7	936.5	937.4	938.2	938.8	939.4	940.1	940.7	940.7
137.5°	980.5	981.6	982.0	982.5	983.0	983.4	984.4	985.4	986.5	987.5	987.8
140°	1009.5	1010.4	1011.1	1011.7	1012.3	1013.0	1013.8	1014.6	1015.5	1016.3	1016.5
142.5°	1037.6	1038.5	1039.1	1039.7	1040.4	1040.9	1041.7	1042.4	1043.0	1043.7	1043.7
145°	1077.5	1078.5	1078.9	1079.3	1079.8	1080.2	1080.6	1081.0	1081.5	1081.9	1082.0
147.5°	1112.5	1113.1	1113.5	1114.0	1114.4	1114.8	1115.2	1115.7	1116.1	1116.5	1116.3
150°	1133.8	1134.3	1134.7	1135.2	1135.6	1136.0	1136.4	1136.9	1137.3	1137.7	1137.6
152.5°	1152.9	1153.2	1153.5	1153.7	1154.0	1154.2	1155.0	1155.7	1156.5	1157.3	1157.2
155°	1178.8	1178.7	1178.9	1179.1	1179.4	1179.6	1180.6	1181.7	1182.7	1183.8	1183.6
157.5°	1202.7	1202.6	1202.4	1202.1	1201.9	1201.7	1203.0	1204.3	1205.5	1206.7	1206.5
160°	1215.7	1215.4	1215.2	1215.0	1214.8	1214.7	1215.9	1217.1	1218.4	1219.7	1219.6
162.5°	1227.2	1226.8	1226.6	1226.4	1226.2	1226.0	1227.4	1228.8	1230.3	1231.7	1231.7
165°	1242.4	1242.0	1241.7	1241.5	1241.3	1241.1	1242.8	1244.4	1246.1	1247.8	1247.9
167.5°	1253.7	1253.2	1253.2	1253.2	1253.2	1253.2	1254.9	1256.6	1258.3	1260.0	1260.0
170°	1260.5	1260.1	1260.1	1260.1	1260.1	1260.1	1261.7	1263.4	1265.1	1266.8	1266.8
172.5°	1264.3	1263.9	1264.0	1264.2	1264.4	1264.6	1266.3	1268.0	1269.6	1271.3	1271.2
175°	1270.1	1269.6	1269.8	1270.1	1270.3	1270.5	1272.0	1273.4	1274.9	1276.4	1276.3
177.5°	1272.4	1272.1	1272.2	1272.4	1272.5	1272.7	1274.1	1275.4	1276.8	1278.1	1278.0
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2



TEST NUMBER: P332478-830

CATALOG NUMBER: S123RDIW-S1165D1030U830-4F0-1E-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°	27.3	26.3	26.3	27.1	26.3	26.3	27.3	26.1	25.9	25.8	25.1
90°	27.1	27.5	28.0	28.4	28.0	27.5	27.1	26.7	26.1	25.3	24.4
92.5°	30.6	30.9	31.2	31.4	31.2	30.9	30.6	30.4	29.6	28.3	27.0
95°	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	35.3	33.7	32.3
97.5°	38.4	38.5	38.8	39.0	38.8	38.5	38.4	38.2	37.2	35.5	33.8
100°	39.1	39.3	39.6	39.8	39.6	39.3	39.1	38.9	38.0	36.3	34.6
102.5°	39.4	39.8	40.2	40.5	40.2	39.8	39.4	39.0	41.4	46.7	51.8
105°	40.4	40.8	41.2	41.7	41.2	40.8	40.4	40.0	58.3	95.6	132.9
107.5°	215.0	187.0	158.9	130.8	158.9	187.0	215.0	243.1	270.8	298.1	325.4
110°	350.6	320.5	290.4	260.3	290.4	320.5	350.6	380.7	399.2	406.1	413.1



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	465.7	459.4	453.0	446.7	453.0	459.4	465.7	472.0	475.1	475.0	474.9
115°	554.1	555.0	555.8	556.7	555.8	555.0	554.1	553.3	551.9	549.7	547.6
117.5°	617.8	618.0	618.2	618.4	618.2	618.0	617.8	617.7	616.8	615.1	613.4
120°	660.8	660.8	660.8	660.8	660.8	660.8	660.8	660.8	660.0	658.3	656.6
122.5°	701.9	702.1	702.3	702.5	702.3	702.1	701.9	701.8	701.1	699.9	698.7
125°	759.9	760.3	760.7	761.1	760.7	760.3	759.9	759.5	759.0	758.7	758.2
127.5°	818.8	818.4	818.0	817.6	818.0	818.4	818.8	819.3	819.2	818.4	817.7
130°	855.2	854.8	854.3	853.9	854.3	854.8	855.2	855.6	855.4	854.5	853.8
132.5°	889.0	888.4	887.9	887.2	887.9	888.4	889.0	889.6	889.5	888.6	887.8
135°	940.1	939.4	938.8	938.2	938.8	939.4	940.1	940.7	940.7	940.1	939.4
137.5°	987.3	986.9	986.5	986.1	986.5	986.9	987.3	987.8	987.5	986.5	985.4
140°	1016.2	1015.7	1015.3	1014.8	1015.3	1015.7	1016.2	1016.5	1016.3	1015.5	1014.6
142.5°	1043.1	1042.5	1042.0	1041.3	1042.0	1042.5	1043.1	1043.7	1043.7	1043.0	1042.4
145°	1082.0	1082.0	1082.0	1082.0	1082.0	1082.0	1082.0	1082.0	1081.9	1081.5	1081.0
147.5°	1115.3	1114.3	1113.3	1112.4	1113.3	1114.3	1115.3	1116.3	1116.5	1116.1	1115.7
150°	1137.0	1136.3	1135.8	1135.1	1135.8	1136.3	1137.0	1137.6	1137.7	1137.3	1136.9
152.5°	1156.1	1155.2	1154.2	1153.3	1154.2	1155.2	1156.1	1157.2	1157.3	1156.5	1155.7
155°	1182.4	1181.2	1179.9	1178.6	1179.9	1181.2	1182.4	1183.6	1183.8	1182.7	1181.7
157.5°	1204.9	1203.3	1201.6	1200.0	1201.6	1203.3	1204.9	1206.5	1206.7	1205.5	1204.3
160°	1218.0	1216.6	1215.1	1213.6	1215.1	1216.6	1218.0	1219.6	1219.7	1218.4	1217.1
162.5°	1230.5	1229.2	1227.9	1226.5	1227.9	1229.2	1230.5	1231.7	1231.7	1230.3	1228.8
165°	1246.5	1245.0	1243.5	1242.1	1243.5	1245.0	1246.5	1247.9	1247.8	1246.1	1244.4
167.5°	1258.3	1256.6	1254.9	1253.2	1254.9	1256.6	1258.3	1260.0	1260.0	1258.3	1256.6
170°	1265.1	1263.4	1261.7	1260.1	1261.7	1263.4	1265.1	1266.8	1266.8	1265.1	1263.4
172.5°	1269.4	1267.5	1265.6	1263.9	1265.6	1267.5	1269.4	1271.2	1271.3	1269.6	1268.0
175°	1274.6	1272.9	1271.2	1269.5	1271.2	1272.9	1274.6	1276.3	1276.4	1274.9	1273.4
177.5°	1276.3	1274.6	1272.9	1271.2	1272.9	1274.6	1276.3	1278.0	1278.1	1276.8	1275.4
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2



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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°	24.9	24.1	24.1	23.0	21.9	20.7	18.5	18.7	18.2	20.2	19.1
90°	23.6	22.7	20.0	17.2	14.5	11.8	9.3	7.3	5.2	3.0	0.9
92.5°	25.5	24.2	22.1	20.1	18.1	16.0	15.3	15.8	16.4	17.1	17.6
95°	30.8	29.3	27.1	24.7	22.4	20.1	23.3	31.9	40.5	49.1	57.8
97.5°	32.1	30.4	45.6	60.8	76.0	91.0	100.6	104.4	108.3	112.2	116.0
100°	32.9	31.2	64.1	96.9	129.7	162.5	176.8	172.6	168.4	164.2	159.9
102.5°	57.1	62.3	98.1	134.0	169.8	205.7	222.1	219.0	216.0	213.0	210.0
105°	170.1	207.4	226.3	245.2	264.1	283.0	291.3	289.1	286.7	284.5	282.1
107.5°	352.7	380.0	377.0	374.0	371.1	368.1	365.6	363.8	361.9	360.1	358.3
110°	420.0	427.0	424.6	422.4	420.0	417.7	415.7	414.1	412.4	410.7	409.0



TEST NUMBER: P332478-830

CATALOG NUMBER: S123RDIW-S1165D1030U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	474.8	474.7	472.4	470.0	467.7	465.4	463.5	462.0	460.4	458.9	457.4
115°	545.5	543.4	541.5	539.6	537.7	535.8	534.2	533.0	531.7	530.5	529.2
117.5°	611.7	610.0	609.1	608.1	607.2	606.1	604.9	603.3	601.8	600.2	598.7
120°	654.9	653.2	652.6	652.0	651.3	650.7	649.4	647.5	645.6	643.8	641.9
122.5°	697.6	696.4	695.6	694.7	694.0	693.1	692.0	690.4	688.9	687.3	685.8
125°	757.8	757.3	756.5	755.6	754.8	754.0	752.7	751.0	749.3	747.7	746.0
127.5°	817.1	816.4	815.4	814.5	813.4	812.4	811.1	809.4	807.7	806.0	804.3
130°	852.9	852.1	851.2	850.4	849.5	848.7	847.4	845.7	844.0	842.4	840.7
132.5°	886.9	886.1	885.4	884.8	884.1	883.4	882.2	880.5	878.8	877.2	875.5
135°	938.8	938.2	937.4	936.5	935.7	934.8	933.8	932.5	931.2	930.0	928.7
137.5°	984.4	983.4	983.0	982.5	982.0	981.6	980.5	978.9	977.3	975.7	974.1
140°	1013.8	1013.0	1012.3	1011.7	1011.1	1010.4	1009.5	1008.2	1007.0	1005.7	1004.5
142.5°	1041.7	1040.9	1040.4	1039.7	1039.1	1038.5	1037.6	1036.2	1035.0	1033.7	1032.5
145°	1080.6	1080.2	1079.8	1079.3	1078.9	1078.5	1077.5	1076.1	1074.6	1073.1	1071.7
147.5°	1115.2	1114.8	1114.4	1114.0	1113.5	1113.1	1112.5	1111.4	1110.5	1109.6	1108.6
150°	1136.4	1136.0	1135.6	1135.2	1134.7	1134.3	1133.8	1133.2	1132.6	1131.9	1131.3
152.5°	1155.0	1154.2	1154.0	1153.7	1153.5	1153.2	1152.9	1152.6	1152.4	1152.1	1151.8
155°	1180.6	1179.6	1179.4	1179.1	1178.9	1178.7	1178.8	1179.3	1179.7	1180.1	1180.5
157.5°	1203.0	1201.7	1201.9	1202.1	1202.4	1202.6	1202.7	1202.8	1202.8	1202.9	1202.9
160°	1215.9	1214.7	1214.8	1215.0	1215.2	1215.4	1215.7	1215.9	1216.1	1216.3	1216.5
162.5°	1227.4	1226.0	1226.2	1226.4	1226.6	1226.8	1227.2	1227.8	1228.3	1228.8	1229.4
165°	1242.8	1241.1	1241.3	1241.5	1241.7	1242.0	1242.4	1243.0	1243.7	1244.3	1244.9
167.5°	1254.9	1253.2	1253.2	1253.2	1253.2	1253.2	1253.7	1254.5	1255.4	1256.2	1257.0
170°	1261.7	1260.1	1260.1	1260.1	1260.1	1260.1	1260.5	1261.3	1262.2	1263.0	1263.9
172.5°	1266.3	1264.6	1264.4	1264.2	1264.0	1263.9	1264.3	1265.4	1266.4	1267.3	1268.4
175°	1272.0	1270.5	1270.3	1270.1	1269.8	1269.6	1270.1	1271.1	1272.1	1273.2	1274.2
177.5°	1274.1	1272.7	1272.5	1272.4	1272.2	1272.1	1272.4	1273.3	1274.1	1274.9	1275.7
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2



TEST NUMBER: P332478-830

CATALOG NUMBER: S123RDIW-S1165D1030U830-4F0-1E-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°	16.6	13.5	13.3	12.0	12.4	11.8	12.9	12.3	12.3	13.0	12.0
90°	3.0	5.2	7.3	9.3	11.8	14.5	17.2	20.0	22.7	23.6	24.4
92.5°	17.1	16.4	15.8	15.3	16.0	18.1	20.1	22.1	24.2	25.5	27.0
95°	49.1	40.5	31.9	23.3	20.1	22.4	24.7	27.1	29.3	30.8	32.3
97.5°	112.2	108.3	104.4	100.6	91.0	76.0	60.8	45.6	30.4	32.1	33.8
100°	164.2	168.4	172.6	176.8	162.5	129.7	96.9	64.1	31.2	32.9	34.6
102.5°	213.0	216.0	219.0	222.1	205.7	169.8	134.0	98.1	62.3	57.1	51.8
105°	284.5	286.7	289.1	291.3	283.0	264.1	245.2	226.3	207.4	170.1	132.9
107.5°	360.1	361.9	363.8	365.6	368.1	371.1	374.0	377.0	380.0	352.7	325.4
110°	410.7	412.4	414.1	415.7	417.7	420.0	422.4	424.6	427.0	420.0	413.1





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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	458.9	460.4	462.0	463.5	465.4	467.7	470.0	472.4	474.7	474.8	474.9
115°	530.5	531.7	533.0	534.2	535.8	537.7	539.6	541.5	543.4	545.5	547.6
117.5°	600.2	601.8	603.3	604.9	606.1	607.2	608.1	609.1	610.0	611.7	613.4
120°	643.8	645.6	647.5	649.4	650.7	651.3	652.0	652.6	653.2	654.9	656.6
122.5°	687.3	688.9	690.4	692.0	693.1	694.0	694.7	695.6	696.4	697.6	698.7
125°	747.7	749.3	751.0	752.7	754.0	754.8	755.6	756.5	757.3	757.8	758.2
127.5°	806.0	807.7	809.4	811.1	812.4	813.4	814.5	815.4	816.4	817.1	817.7
130°	842.4	844.0	845.7	847.4	848.7	849.5	850.4	851.2	852.1	852.9	853.8
132.5°	877.2	878.8	880.5	882.2	883.4	884.1	884.8	885.4	886.1	886.9	887.8
135°	930.0	931.2	932.5	933.8	934.8	935.7	936.5	937.4	938.2	938.8	939.4
137.5°	975.7	977.3	978.9	980.5	981.6	982.0	982.5	983.0	983.4	984.4	985.4
140°	1005.7	1007.0	1008.2	1009.5	1010.4	1011.1	1011.7	1012.3	1013.0	1013.8	1014.6
142.5°	1033.7	1035.0	1036.2	1037.6	1038.5	1039.1	1039.7	1040.4	1040.9	1041.7	1042.4
145°	1073.1	1074.6	1076.1	1077.5	1078.5	1078.9	1079.3	1079.8	1080.2	1080.6	1081.0
147.5°	1109.6	1110.5	1111.4	1112.5	1113.1	1113.5	1114.0	1114.4	1114.8	1115.2	1115.7
150°	1131.9	1132.6	1133.2	1133.8	1134.3	1134.7	1135.2	1135.6	1136.0	1136.4	1136.9
152.5°	1152.1	1152.4	1152.6	1152.9	1153.2	1153.5	1153.7	1154.0	1154.2	1155.0	1155.7
155°	1180.1	1179.7	1179.3	1178.8	1178.7	1178.9	1179.1	1179.4	1179.6	1180.6	1181.7
157.5°	1202.9	1202.8	1202.8	1202.7	1202.6	1202.4	1202.1	1201.9	1201.7	1203.0	1204.3
160°	1216.3	1216.1	1215.9	1215.7	1215.4	1215.2	1215.0	1214.8	1214.7	1215.9	1217.1
162.5°	1228.8	1228.3	1227.8	1227.2	1226.8	1226.6	1226.4	1226.2	1226.0	1227.4	1228.8
165°	1244.3	1243.7	1243.0	1242.4	1242.0	1241.7	1241.5	1241.3	1241.1	1242.8	1244.4
167.5°	1256.2	1255.4	1254.5	1253.7	1253.2	1253.2	1253.2	1253.2	1253.2	1254.9	1256.6
170°	1263.0	1262.2	1261.3	1260.5	1260.1	1260.1	1260.1	1260.1	1260.1	1261.7	1263.4
172.5°	1267.3	1266.4	1265.4	1264.3	1263.9	1264.0	1264.2	1264.4	1264.6	1266.3	1268.0
175°	1273.2	1272.1	1271.1	1270.1	1269.6	1269.8	1270.1	1270.3	1270.5	1272.0	1273.4
177.5°	1274.9	1274.1	1273.3	1272.4	1272.1	1272.2	1272.4	1272.5	1272.7	1274.1	1275.4
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2



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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°	12.2	12.3	11.9	12.0	11.4	12.7	11.6
90°	25.3	26.1	26.7	27.1	27.5	28.0	28.4
92.5°	28.3	29.6	30.4	30.6	30.9	31.2	31.4
95°	33.7	35.3	36.0	36.0	36.0	36.0	36.0
97.5°	35.5	37.2	38.2	38.4	38.5	38.8	39.0
100°	36.3	38.0	38.9	39.1	39.3	39.6	39.8
102.5°	46.7	41.4	39.0	39.4	39.8	40.2	40.5
105°	95.6	58.3	40.0	40.4	40.8	41.2	41.7
107.5°	298.1	270.8	243.1	215.0	187.0	158.9	130.8
110°	406.1	399.2	380.7	350.6	320.5	290.4	260.3



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	475.0	475.1	472.0	465.7	459.4	453.0	446.7
115°	549.7	551.9	553.3	554.1	555.0	555.8	556.7
117.5°	615.1	616.8	617.7	617.8	618.0	618.2	618.4
120°	658.3	660.0	660.8	660.8	660.8	660.8	660.8
122.5°	699.9	701.1	701.8	701.9	702.1	702.3	702.5
125°	758.7	759.0	759.5	759.9	760.3	760.7	761.1
127.5°	818.4	819.2	819.3	818.8	818.4	818.0	817.6
130°	854.5	855.4	855.6	855.2	854.8	854.3	853.9
132.5°	888.6	889.5	889.6	889.0	888.4	887.9	887.2
135°	940.1	940.7	940.7	940.1	939.4	938.8	938.2
137.5°	986.5	987.5	987.8	987.3	986.9	986.5	986.1
140°	1015.5	1016.3	1016.5	1016.2	1015.7	1015.3	1014.8
142.5°	1043.0	1043.7	1043.7	1043.1	1042.5	1042.0	1041.3
145°	1081.5	1081.9	1082.0	1082.0	1082.0	1082.0	1082.0
147.5°	1116.1	1116.5	1116.3	1115.3	1114.3	1113.3	1112.4
150°	1137.3	1137.7	1137.6	1137.0	1136.3	1135.8	1135.1
152.5°	1156.5	1157.3	1157.2	1156.1	1155.2	1154.2	1153.3
155°	1182.7	1183.8	1183.6	1182.4	1181.2	1179.9	1178.6
157.5°	1205.5	1206.7	1206.5	1204.9	1203.3	1201.6	1200.0
160°	1218.4	1219.7	1219.6	1218.0	1216.6	1215.1	1213.6
162.5°	1230.3	1231.7	1231.7	1230.5	1229.2	1227.9	1226.5
165°	1246.1	1247.8	1247.9	1246.5	1245.0	1243.5	1242.1
167.5°	1258.3	1260.0	1260.0	1258.3	1256.6	1254.9	1253.2
170°	1265.1	1266.8	1266.8	1265.1	1263.4	1261.7	1260.1
172.5°	1269.6	1271.3	1271.2	1269.4	1267.5	1265.6	1263.9
175°	1274.9	1276.4	1276.3	1274.6	1272.9	1271.2	1269.5
177.5°	1276.8	1278.1	1278.0	1276.3	1274.6	1272.9	1271.2
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2

(END OF REPORT)