

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: P332483

Luminaire Tested: **S123RDIW-S1165D1320U835-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332483  
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-S1165D1320U835-4F0-1E-UDD-A1  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING  
UPLIGHT 1320 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

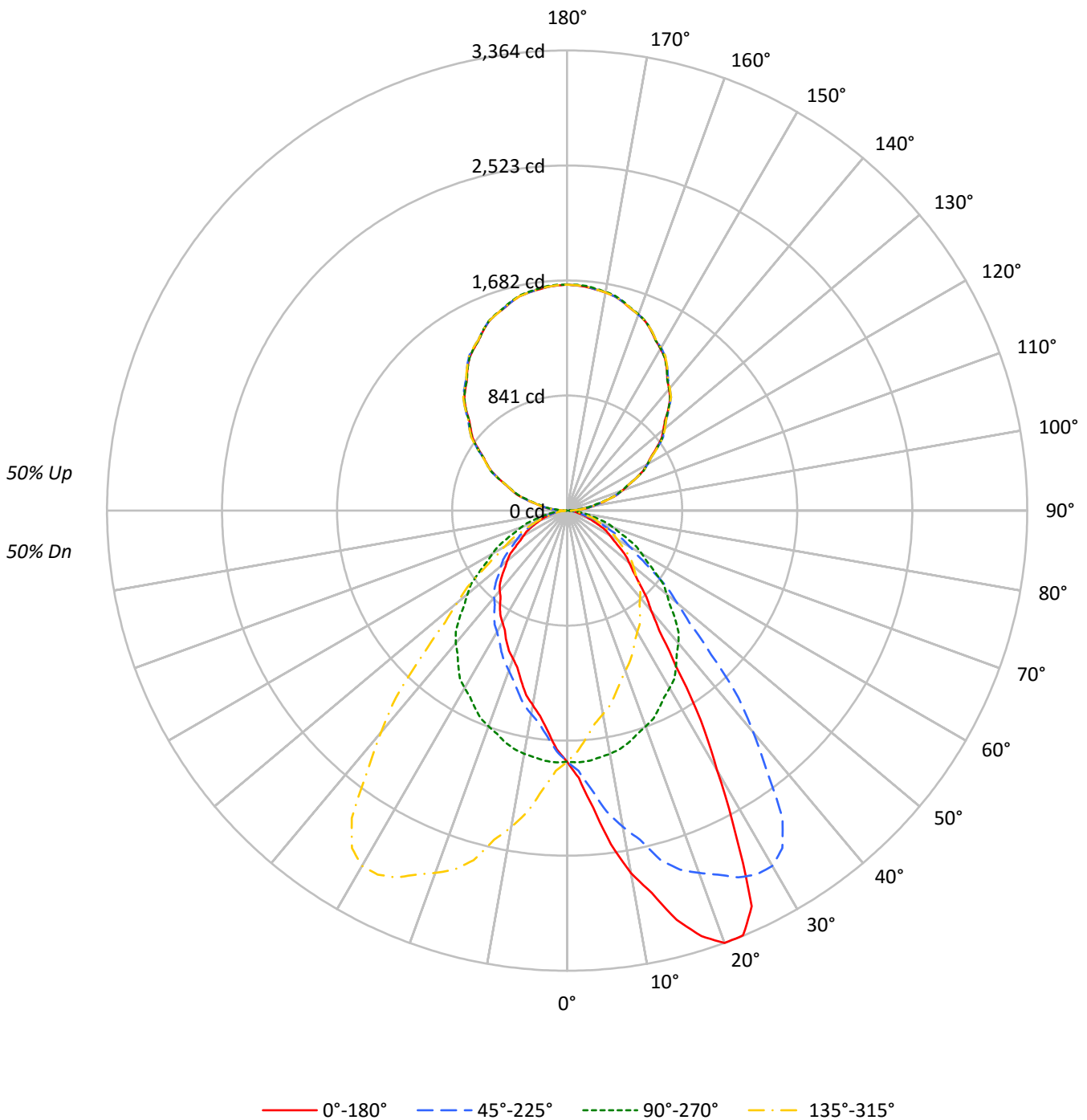
Lumens per Lamp: N/A  
Luminaire Lumens: 9150.8 lumens  
Efficiency: N/A  
Efficacy: 120.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.36  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 76.2  
Input Voltage (V): 120  
Input Current (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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	98	94	91	87	91	87	84	81	74	72	70	62	60	59	51	49	49	43
2	90	83	77	72	83	77	72	68	65	62	59	55	52	50	45	43	42	37
3	83	73	66	61	76	68	62	57	58	54	50	49	46	43	41	38	36	32
4	76	65	58	52	70	61	54	49	52	47	43	44	40	37	37	34	32	28
5	70	59	51	45	64	54	48	42	47	42	37	40	36	33	33	30	28	25
6	64	53	45	39	59	49	42	37	42	37	33	36	32	29	30	27	25	22
7	60	48	40	35	55	45	38	33	39	33	29	33	29	26	28	25	22	20
8	55	43	36	31	51	41	34	29	35	30	26	30	26	23	26	22	20	18
9	52	40	32	27	48	37	31	26	32	27	23	28	24	21	24	21	18	16
10	48	37	29	25	45	34	28	24	30	25	21	26	22	19	22	19	17	15

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

	0°	90°	180°	270°
0°	19763	19763	19763	19763
5°	23558	19847	17477	19847
10°	29415	19733	15789	19733
15°	34526	19531	14399	19531
20°	38533	19230	13216	19230
25°	37917	18912	12490	18912
30°	27256	18620	11742	18620
35°	18198	18239	11257	18239
40°	13408	17781	10756	17781
45°	11246	16978	10266	16978
50°	9923	15925	9582	15925
55°	8702	14720	8644	14720
60°	7750	13569	7918	13569
65°	6805	12332	7366	12332
70°	5344	11229	6729	11229
75°	4708	9807	6147	9807
80°	4091	8331	6044	8331
85°	3298	6694	6410	6694



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	180.6	2.0
10°-20°	564.1	6.2
20°-30°	886.2	9.7
30°-40°	924.6	10.1
40°-50°	791.2	8.6
50°-60°	603.1	6.6
60°-70°	386.5	4.2
70°-80°	186.0	2.0
80°-90°	54.1	0.6
90°-100°	107.6	1.2
100°-110°	321.9	3.5
110°-120°	547.5	6.0
120°-130°	720.2	7.9
130°-140°	809.5	8.8
140°-150°	795.7	8.7
150°-160°	669.9	7.3
160°-170°	445.9	4.9
170°-180°	156.2	1.7
0°-30°	1630.8	17.8
0°-40°	2555.4	27.9
0°-60°	3949.7	43.2
0°-90°	4576.3	50.0
90°-120°	977.1	10.7
90°-150°	3302.5	36.1
90°-180°	4574.0	50.0
0°-180°	9150.8	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1836	1836	1836	1836	1836	
5°	2180	1837	1618	1837	2180	225
15°	3098	1753	1292	1753	3098	879
25°	3193	1592	1052	1592	3193	1372
35°	1385	1388	857	1388	1385	908
45°	739	1115	674	1115	739	581
55°	464	784	461	784	464	419
65°	267	484	289	484	267	263
75°	113	236	148	236	113	121
85°	27	54	52	54	27	32
90°	39	1	39	1	39	20
95°	101	76	101	76	101	104
105°	309	292	309	292	309	328
115°	552	551	552	551	552	547
125°	798	807	798	807	798	713
135°	1045	1047	1045	1047	1045	804
145°	1270	1270	1270	1270	1270	793
155°	1451	1454	1451	1454	1451	668
165°	1578	1584	1578	1584	1578	445
175°	1641	1647	1641	1647	1641	156
180°	1651	1651	1651	1651	1651	



TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0
2.5°	1955.5	1958.0	1949.8	1948.6	1939.1	1936.6	1936.6	1923.4	1915.2	1904.6	1898.3
5°	2180.3	2192.9	2186.6	2172.4	2148.8	2143.3	2128.4	2104.8	2078.1	2045.1	2029.4
7.5°	2461.0	2478.2	2471.6	2449.7	2425.0	2405.1	2362.9	2323.8	2268.9	2220.8	2179.6
10°	2691.2	2673.1	2658.9	2637.7	2614.9	2578.0	2534.0	2473.4	2403.5	2348.5	2287.2
12.5°	2863.4	2860.5	2842.5	2820.7	2788.5	2753.4	2699.3	2625.6	2544.3	2464.8	2394.7
15°	3098.3	3103.0	3091.2	3068.4	3022.8	2960.7	2879.0	2848.4	2732.0	2645.6	2559.1
17.5°	3260.8	3259.9	3258.3	3226.7	3180.2	3136.0	3060.2	2979.6	2874.3	2752.5	2636.0
20°	3363.9	3356.1	3357.7	3322.3	3287.7	3236.6	3162.7	3045.6	2959.2	2818.5	2698.2
22.5°	3361.4	3359.9	3365.8	3353.7	3328.6	3289.4	3231.3	3132.4	3022.1	2880.1	2744.8
25°	3192.6	3186.3	3223.3	3233.5	3273.6	3280.6	3263.3	3209.1	3104.6	2958.4	2791.0
27.5°	2672.0	2668.5	2737.1	2822.9	2931.7	3016.2	3098.0	3137.4	3104.6	2999.9	2832.2
30°	2192.9	2266.7	2301.3	2425.5	2563.8	2728.9	2873.5	3011.0	3044.8	2999.3	2861.7
32.5°	1820.6	1885.1	1914.0	2020.6	2149.5	2342.8	2559.7	2754.5	2892.1	2926.9	2844.1
35°	1384.9	1385.7	1451.7	1498.8	1618.3	1817.2	2027.8	2288.7	2548.1	2744.6	2765.0
37.5°	1105.1	1109.0	1148.9	1195.9	1285.5	1390.7	1576.2	1793.1	2092.7	2394.4	2571.2
40°	954.2	961.2	991.1	1037.5	1101.9	1181.3	1325.9	1530.3	1780.2	2115.8	2390.1
42.5°	857.3	868.8	884.2	919.9	959.8	1034.2	1151.1	1309.0	1536.3	1853.6	2170.1
45°	738.8	745.1	756.9	773.4	809.5	861.4	940.0	1046.1	1234.8	1490.2	1806.9
47.5°	651.7	648.4	660.8	674.2	698.3	733.6	786.3	872.9	1007.5	1212.4	1481.1
50°	592.6	591.8	600.5	610.7	633.5	659.4	702.7	767.9	874.8	1044.6	1290.6
52.5°	537.3	540.3	546.4	559.1	575.6	596.6	635.4	682.4	774.2	920.7	1125.8
55°	463.7	466.1	474.7	481.8	493.6	514.8	539.2	578.5	641.4	743.5	912.5
57.5°	401.5	400.4	408.7	410.4	423.8	441.1	459.9	490.4	536.0	612.0	725.8
60°	360.0	357.6	364.7	370.2	377.3	391.4	407.1	437.0	473.2	529.0	626.4
62.5°	322.2	321.1	326.3	331.8	337.7	350.5	363.7	386.7	415.3	462.3	539.6
65°	267.2	269.6	271.9	274.3	277.4	285.3	297.9	313.6	333.3	366.3	422.1
67.5°	210.0	212.4	213.2	218.0	224.8	229.7	237.4	251.4	265.0	292.9	324.6
70°	169.8	169.0	169.8	172.1	180.8	189.4	199.6	209.9	218.5	238.1	264.9
72.5°	145.9	144.5	146.5	147.0	151.2	153.6	160.0	169.6	180.8	194.1	213.3
75°	113.2	113.2	113.2	113.2	116.3	117.9	120.3	122.6	126.5	132.8	147.0
77.5°	83.6	83.8	84.9	85.7	86.3	87.2	88.7	91.0	92.4	95.7	101.9
80°	66.0	66.8	66.0	66.8	66.8	68.4	69.2	71.5	72.3	76.2	78.6
82.5°	49.7	49.2	49.7	50.5	50.5	52.0	52.2	53.9	54.1	56.1	58.5
85°	26.7	25.2	26.7	25.9	27.5	25.9	26.7	28.3	28.3	29.1	32.2
87.5°	14.1	15.2	13.8	14.4	14.2	14.7	14.5	14.2	15.3	14.4	14.3
90°	38.9	38.3	37.8	37.2	36.6	35.7	34.6	33.4	32.3	31.1	27.4
92.5°	52.4	52.7	53.1	53.4	53.8	53.5	52.6	51.6	50.7	49.8	47.7
95°	101.2	101.2	101.2	101.2	101.2	100.6	99.4	98.3	97.1	96.0	93.7
97.5°	155.6	155.8	155.9	156.0	156.1	155.5	154.2	152.8	151.5	150.2	148.5
100°	197.1	196.6	196.0	195.4	194.8	194.1	193.2	192.4	191.5	190.7	189.2
102.5°	239.7	239.8	239.9	240.0	240.1	239.8	238.9	238.0	237.2	236.3	234.4
105°	308.7	308.1	307.5	307.0	306.4	306.1	306.1	306.1	306.1	306.1	303.5
107.5°	380.5	380.9	381.2	381.6	381.9	381.6	380.7	379.8	378.9	377.9	376.9
110°	429.3	429.9	430.5	431.0	431.6	431.3	430.2	429.0	427.9	426.7	426.1



TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	481.2	481.3	481.4	481.5	481.6	481.0	479.6	478.2	476.9	475.5	475.4
115°	552.5	552.8	553.1	553.4	553.7	553.7	553.4	553.1	552.8	552.5	553.1
117.5°	624.9	625.7	626.5	627.3	628.1	628.5	628.6	628.7	628.7	628.8	629.5
120°	675.7	676.3	676.9	677.5	678.0	678.5	678.8	679.0	679.3	679.6	681.1
122.5°	724.5	725.3	726.1	726.9	727.7	728.5	729.2	730.0	730.7	731.5	732.2
125°	797.6	798.8	799.9	801.1	802.3	803.4	804.6	805.7	806.9	808.0	808.6
127.5°	870.5	871.9	873.2	874.5	875.8	877.3	878.9	880.5	882.1	883.8	884.4
130°	918.3	920.3	922.3	924.3	926.3	927.9	929.1	930.2	931.4	932.5	933.4
132.5°	968.1	969.6	971.2	972.7	974.3	975.8	977.1	978.5	979.9	981.3	981.9
135°	1045.4	1045.9	1046.5	1047.1	1047.7	1048.5	1049.7	1050.8	1052.0	1053.1	1053.4
137.5°	1113.6	1114.7	1115.8	1116.9	1118.0	1119.1	1120.3	1121.5	1122.7	1124.0	1123.2
140°	1158.2	1160.2	1162.2	1164.3	1166.3	1167.4	1167.7	1168.0	1168.3	1168.6	1168.3
142.5°	1203.9	1205.4	1207.0	1208.5	1210.1	1211.0	1211.3	1211.6	1211.9	1212.2	1211.6
145°	1269.7	1270.9	1272.0	1273.2	1274.4	1275.1	1275.4	1275.6	1275.9	1276.2	1275.4
147.5°	1328.4	1330.1	1331.8	1333.6	1335.3	1336.1	1336.1	1336.1	1336.1	1336.1	1335.3
150°	1365.7	1367.4	1369.2	1370.9	1372.6	1373.5	1373.5	1373.5	1373.5	1373.5	1372.9
152.5°	1402.0	1403.5	1405.0	1406.5	1408.0	1408.5	1408.1	1407.6	1407.2	1406.7	1406.4
155°	1451.3	1453.3	1455.4	1457.4	1459.4	1459.8	1458.7	1457.5	1456.4	1455.2	1454.9
157.5°	1496.2	1497.8	1499.4	1501.0	1502.6	1502.9	1501.6	1500.4	1499.2	1498.0	1497.8
160°	1525.2	1526.4	1527.6	1528.7	1529.9	1529.7	1528.3	1526.8	1525.4	1523.9	1523.9
162.5°	1547.0	1548.9	1550.7	1552.6	1554.4	1554.6	1553.2	1551.7	1550.3	1548.8	1548.6
165°	1578.4	1580.4	1582.5	1584.5	1586.5	1586.6	1584.9	1583.2	1581.4	1579.7	1579.7
167.5°	1605.1	1606.9	1608.7	1610.5	1612.3	1612.3	1610.5	1608.7	1606.9	1605.1	1604.9
170°	1618.6	1620.6	1622.7	1624.7	1626.7	1626.7	1624.7	1622.7	1620.6	1618.6	1618.6
172.5°	1629.0	1631.0	1633.0	1635.1	1637.1	1637.2	1635.4	1633.6	1631.8	1630.0	1630.0
175°	1640.7	1642.7	1644.7	1646.7	1648.7	1648.9	1647.2	1645.4	1643.7	1642.0	1642.0
177.5°	1646.9	1648.5	1650.1	1651.7	1653.4	1653.5	1652.1	1650.7	1649.3	1647.9	1647.9
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0
2.5°	1895.8	1893.9	1885.1	1875.0	1861.8	1853.0	1846.1	1842.3	1831.0	1817.2	1807.7
5°	2012.9	1989.3	1964.1	1933.5	1905.2	1876.1	1858.0	1836.8	1810.9	1781.8	1761.4
7.5°	2138.3	2092.1	2042.3	1990.9	1940.1	1894.5	1854.3	1819.8	1778.5	1736.8	1707.6
10°	2234.5	2166.9	2097.0	2025.4	1960.2	1898.9	1851.7	1805.4	1755.9	1707.9	1671.8
12.5°	2321.9	2232.9	2152.3	2064.4	1981.0	1907.7	1839.8	1785.2	1725.7	1674.6	1633.4
15°	2432.6	2341.4	2243.9	2110.3	1999.5	1906.8	1824.2	1752.7	1680.4	1617.5	1577.4
17.5°	2536.0	2398.8	2267.8	2156.4	2012.4	1896.5	1795.8	1710.3	1630.9	1564.2	1514.9
20°	2578.8	2445.9	2303.7	2161.4	2019.9	1890.3	1773.1	1678.8	1596.3	1520.8	1475.3
22.5°	2604.5	2454.1	2304.3	2151.4	2001.1	1866.4	1750.5	1646.8	1557.3	1485.6	1429.4
25°	2634.6	2455.4	2290.3	2139.4	1986.1	1840.0	1702.4	1592.4	1495.7	1419.5	1359.7
27.5°	2654.4	2443.6	2248.5	2080.8	1925.3	1779.7	1653.7	1537.0	1439.0	1358.3	1294.2
30°	2658.1	2434.1	2216.4	2034.9	1876.9	1743.3	1609.7	1498.1	1394.3	1308.6	1248.9
32.5°	2663.2	2410.9	2173.0	1980.2	1818.4	1686.1	1565.0	1458.4	1352.2	1267.8	1206.8
35°	2642.4	2398.0	2107.2	1885.5	1723.6	1595.5	1486.3	1388.0	1283.5	1201.7	1139.7
37.5°	2553.1	2346.9	2039.0	1779.0	1609.7	1491.0	1402.0	1316.3	1220.5	1132.3	1073.8
40°	2463.2	2296.6	1986.1	1714.2	1537.4	1415.5	1335.4	1265.4	1172.7	1090.1	1027.3
42.5°	2329.3	2228.1	1935.8	1646.3	1455.6	1338.2	1270.6	1205.0	1123.6	1039.8	980.7
45°	2083.6	2097.0	1832.9	1538.1	1342.4	1224.5	1160.9	1115.3	1043.0	973.8	913.3
47.5°	1775.5	1900.5	1712.0	1422.9	1223.1	1112.5	1056.8	1017.0	968.3	900.4	845.2
50°	1574.3	1752.7	1615.2	1345.6	1148.3	1038.3	983.2	951.0	908.6	855.1	802.5
52.5°	1388.8	1580.4	1498.2	1259.4	1067.2	966.6	912.8	886.3	852.6	802.3	754.7
55°	1132.6	1326.7	1307.9	1129.4	945.5	855.1	814.3	784.4	761.6	723.9	686.2
57.5°	916.1	1100.2	1109.9	984.8	838.3	749.0	713.8	691.3	676.4	648.0	613.1
60°	779.7	948.7	981.7	887.4	761.6	683.0	648.4	630.3	618.6	595.8	569.0
62.5°	666.5	810.3	847.7	779.8	688.0	614.5	587.4	570.0	562.0	542.3	518.7
65°	510.1	629.6	665.7	628.0	580.0	521.1	499.1	484.2	477.1	466.1	448.8
67.5°	383.6	470.6	510.3	483.7	466.4	429.1	415.1	407.1	400.8	393.3	378.8
70°	308.1	372.5	413.4	406.3	392.2	372.5	362.3	356.8	350.5	344.3	331.7
72.5°	247.7	292.1	330.4	334.0	322.4	318.5	309.5	307.2	303.4	295.8	288.9
75°	164.3	194.9	221.6	231.9	236.6	240.5	236.6	235.8	235.0	228.7	224.8
77.5°	107.7	124.2	141.0	158.5	165.8	171.2	172.4	175.3	173.2	169.9	168.0
80°	82.5	86.5	98.2	113.2	125.0	129.7	132.8	134.4	133.6	132.8	129.7
82.5°	59.9	63.2	68.7	79.2	89.1	97.0	98.9	98.6	100.3	100.8	98.2
85°	32.2	33.0	34.6	36.2	41.7	50.3	52.7	54.2	55.8	55.8	51.1
87.5°	14.8	13.4	13.9	13.3	14.6	14.6	17.8	20.4	21.6	19.6	20.2
90°	23.6	19.9	16.1	12.8	9.9	7.1	4.2	1.3	4.2	7.1	9.9
92.5°	45.5	43.4	41.3	39.2	37.3	35.3	33.3	31.4	33.3	35.3	37.3
95°	91.4	89.1	86.8	84.6	82.6	80.6	78.5	76.5	78.5	80.6	82.6
97.5°	146.8	145.2	143.5	141.9	140.4	138.9	137.4	135.9	137.4	138.9	140.4
100°	187.8	186.3	184.9	183.3	181.6	179.8	178.1	176.4	178.1	179.8	181.6
102.5°	232.5	230.6	228.7	227.2	226.2	225.2	224.1	223.1	224.1	225.2	226.2
105°	300.9	298.3	295.7	294.1	293.5	293.0	292.4	291.8	292.4	293.0	293.5
107.5°	375.9	374.8	373.8	373.1	372.8	372.4	372.1	371.7	372.1	372.4	372.8
110°	425.6	425.0	424.4	423.8	423.2	422.7	422.1	421.5	422.1	422.7	423.2





TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	475.2	475.1	475.0	474.8	474.4	474.1	473.7	473.4	473.7	474.1	474.4
115°	553.7	554.2	554.8	554.7	553.8	552.9	552.1	551.2	552.1	552.9	553.8
117.5°	630.3	631.0	631.8	631.9	631.3	630.7	630.1	629.6	630.1	630.7	631.3
120°	682.5	683.9	685.4	685.2	683.5	681.8	680.0	678.3	680.0	681.8	683.5
122.5°	733.0	733.7	734.5	734.2	733.0	731.7	730.4	729.2	730.4	731.7	733.0
125°	809.2	809.7	810.3	810.2	809.3	808.4	807.6	806.7	807.6	808.4	809.3
127.5°	885.0	885.7	886.3	885.7	883.8	882.0	880.2	878.3	880.2	882.0	883.8
130°	934.3	935.1	936.0	935.3	933.0	930.7	928.3	926.0	928.3	930.7	933.0
132.5°	982.6	983.2	983.8	983.0	980.7	978.4	976.1	973.8	976.1	978.4	980.7
135°	1053.7	1054.0	1054.3	1053.6	1051.8	1050.1	1048.4	1046.7	1048.4	1050.1	1051.8
137.5°	1122.5	1121.7	1121.0	1119.9	1118.4	1117.0	1115.5	1114.1	1115.5	1117.0	1118.4
140°	1168.0	1167.7	1167.4	1166.6	1165.1	1163.7	1162.2	1160.8	1162.2	1163.7	1165.1
142.5°	1211.1	1210.6	1210.1	1209.1	1207.7	1206.2	1204.8	1203.3	1204.8	1206.2	1207.7
145°	1274.5	1273.6	1272.8	1272.0	1271.5	1270.9	1270.3	1269.7	1270.3	1270.9	1271.5
147.5°	1334.5	1333.7	1332.9	1332.0	1331.0	1329.9	1328.9	1327.8	1328.9	1329.9	1331.0
150°	1372.3	1371.8	1371.2	1370.6	1370.0	1369.5	1368.9	1368.3	1368.9	1369.5	1370.0
152.5°	1406.0	1405.7	1405.3	1404.7	1403.9	1403.1	1402.3	1401.5	1402.3	1403.1	1403.9
155°	1454.6	1454.3	1454.1	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9
157.5°	1497.5	1497.3	1497.1	1497.1	1497.5	1497.8	1498.2	1498.5	1498.2	1497.8	1497.5
160°	1523.9	1523.9	1523.9	1524.2	1524.8	1525.4	1526.0	1526.5	1526.0	1525.4	1524.8
162.5°	1548.4	1548.2	1547.9	1548.2	1549.0	1549.8	1550.6	1551.4	1550.6	1549.8	1549.0
165°	1579.7	1579.7	1579.7	1580.2	1581.0	1581.9	1582.7	1583.6	1582.7	1581.9	1581.0
167.5°	1604.7	1604.4	1604.2	1604.7	1605.8	1607.0	1608.1	1609.3	1608.1	1607.0	1605.8
170°	1618.6	1618.6	1618.6	1619.2	1620.4	1621.5	1622.7	1623.8	1622.7	1621.5	1620.4
172.5°	1630.0	1630.0	1630.0	1630.6	1631.8	1632.9	1634.1	1635.2	1634.1	1632.9	1631.8
175°	1642.0	1642.0	1642.0	1642.5	1643.7	1644.9	1646.0	1647.2	1646.0	1644.9	1643.7
177.5°	1647.9	1647.9	1647.9	1648.4	1649.3	1650.2	1651.2	1652.1	1651.2	1650.2	1649.3
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0
2.5°	1804.6	1796.4	1790.8	1778.2	1770.0	1761.2	1752.4	1758.1	1757.4	1756.8	1756.8
5°	1744.1	1726.0	1709.5	1688.3	1674.9	1658.4	1645.8	1644.2	1647.4	1636.4	1630.1
7.5°	1684.0	1659.3	1635.9	1612.5	1587.7	1567.9	1555.4	1549.6	1541.6	1534.8	1527.8
10°	1641.9	1612.8	1590.0	1560.9	1534.2	1510.6	1495.7	1485.5	1480.0	1474.5	1464.3
12.5°	1598.5	1570.1	1541.0	1508.1	1482.7	1455.3	1444.1	1432.7	1422.1	1416.0	1402.0
15°	1535.0	1498.1	1467.4	1432.8	1404.5	1377.8	1362.1	1339.3	1336.1	1328.3	1314.1
17.5°	1471.3	1431.2	1389.0	1363.3	1331.4	1303.6	1279.7	1272.0	1249.5	1241.0	1228.8
20°	1421.0	1384.1	1351.9	1318.1	1271.7	1245.8	1226.9	1216.7	1198.6	1187.6	1179.7
22.5°	1377.6	1340.1	1302.8	1263.4	1225.2	1196.1	1182.3	1166.4	1156.5	1141.1	1132.6
25°	1315.7	1274.8	1230.0	1187.6	1160.1	1138.1	1116.1	1101.9	1087.8	1080.7	1065.0
27.5°	1243.7	1201.0	1159.1	1126.9	1093.1	1071.4	1051.5	1038.9	1021.9	1010.0	1001.3
30°	1204.1	1153.8	1117.6	1088.6	1045.3	1024.9	1010.0	994.3	981.7	969.1	960.5
32.5°	1158.2	1112.3	1078.0	1042.0	1008.9	986.5	967.2	953.4	942.7	930.7	922.1
35°	1086.2	1047.7	1012.3	976.2	951.8	929.0	906.2	894.4	884.2	873.2	865.4
37.5°	1021.1	985.1	951.5	917.2	887.0	868.5	850.1	841.1	827.3	819.9	811.9
40°	980.9	945.5	909.4	876.4	844.9	830.8	814.3	800.9	788.3	782.8	774.2
42.5°	936.9	901.5	871.0	835.5	809.7	790.5	775.3	760.7	751.2	743.2	738.3
45°	871.6	840.2	810.3	775.0	750.6	734.1	716.8	703.4	694.8	689.3	680.6
47.5°	808.3	776.9	746.5	715.7	692.1	673.3	656.0	646.7	635.2	628.5	622.6
50°	762.4	734.1	701.9	673.6	650.0	631.1	617.0	605.2	595.0	586.3	582.4
52.5°	720.3	690.1	662.3	635.8	611.0	589.6	576.7	564.3	556.6	546.7	542.2
55°	650.8	621.7	598.1	572.2	547.8	529.7	514.0	503.0	495.2	484.2	477.9
57.5°	585.5	559.5	531.3	508.8	483.7	468.4	455.4	440.5	430.9	422.2	416.1
60°	541.5	511.7	487.3	466.1	444.1	424.4	412.6	400.8	390.6	382.0	376.5
62.5°	495.6	469.5	446.4	423.3	403.2	386.1	372.4	362.5	353.5	348.0	342.5
65°	425.2	404.8	381.2	362.3	343.5	330.9	319.9	311.2	305.0	301.0	296.3
67.5°	360.4	340.6	320.0	301.5	288.9	279.3	272.1	264.7	261.6	256.5	253.4
70°	318.3	297.9	279.8	265.7	253.1	246.0	241.3	235.8	232.6	226.4	223.2
72.5°	272.4	257.6	244.6	233.0	222.9	216.5	210.5	203.7	198.7	191.8	188.6
75°	214.6	201.2	191.0	183.1	176.8	168.2	159.6	152.5	150.1	147.8	147.0
77.5°	158.9	150.4	143.0	136.4	128.6	122.3	120.4	118.8	118.4	117.1	117.1
80°	125.0	117.1	111.6	103.7	99.0	99.0	99.0	97.5	98.2	98.2	98.2
82.5°	92.9	85.7	82.7	79.9	78.9	79.5	79.5	79.9	79.4	80.6	80.0
85°	47.9	48.7	50.3	49.5	50.3	50.3	51.9	51.1	51.9	50.3	51.9
87.5°	20.2	22.7	24.1	25.5	26.9	27.0	27.8	28.1	28.9	29.2	29.3
90°	12.8	16.1	19.9	23.6	27.4	31.1	32.3	33.4	34.6	35.7	36.6
92.5°	39.2	41.3	43.4	45.5	47.7	49.8	50.7	51.6	52.6	53.5	53.8
95°	84.6	86.8	89.1	91.4	93.7	96.0	97.1	98.3	99.4	100.6	101.2
97.5°	141.9	143.5	145.2	146.8	148.5	150.2	151.5	152.8	154.2	155.5	156.1
100°	183.3	184.9	186.3	187.8	189.2	190.7	191.5	192.4	193.2	194.1	194.8
102.5°	227.2	228.7	230.6	232.5	234.4	236.3	237.2	238.0	238.9	239.8	240.1
105°	294.1	295.7	298.3	300.9	303.5	306.1	306.1	306.1	306.1	306.1	306.4
107.5°	373.1	373.8	374.8	375.9	376.9	377.9	378.9	379.8	380.7	381.6	381.9
110°	423.8	424.4	425.0	425.6	426.1	426.7	427.9	429.0	430.2	431.3	431.6



TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	474.8	475.0	475.1	475.2	475.4	475.5	476.9	478.2	479.6	481.0	481.6
115°	554.7	554.8	554.2	553.7	553.1	552.5	552.8	553.1	553.4	553.7	553.7
117.5°	631.9	631.8	631.0	630.3	629.5	628.8	628.7	628.7	628.6	628.5	628.1
120°	685.2	685.4	683.9	682.5	681.1	679.6	679.3	679.0	678.8	678.5	678.0
122.5°	734.2	734.5	733.7	733.0	732.2	731.5	730.7	730.0	729.2	728.5	727.7
125°	810.2	810.3	809.7	809.2	808.6	808.0	806.9	805.7	804.6	803.4	802.3
127.5°	885.7	886.3	885.7	885.0	884.4	883.8	882.1	880.5	878.9	877.3	875.8
130°	935.3	936.0	935.1	934.3	933.4	932.5	931.4	930.2	929.1	927.9	926.3
132.5°	983.0	983.8	983.2	982.6	981.9	981.3	979.9	978.5	977.1	975.8	974.3
135°	1053.6	1054.3	1054.0	1053.7	1053.4	1053.1	1052.0	1050.8	1049.7	1048.5	1047.7
137.5°	1119.9	1121.0	1121.7	1122.5	1123.2	1124.0	1122.7	1121.5	1120.3	1119.1	1118.0
140°	1166.6	1167.4	1167.7	1168.0	1168.3	1168.6	1168.3	1168.0	1167.7	1167.4	1166.3
142.5°	1209.1	1210.1	1210.6	1211.1	1211.6	1212.2	1211.9	1211.6	1211.3	1211.0	1210.1
145°	1272.0	1272.8	1273.6	1274.5	1275.4	1276.2	1275.9	1275.6	1275.4	1275.1	1274.4
147.5°	1332.0	1332.9	1333.7	1334.5	1335.3	1336.1	1336.1	1336.1	1336.1	1336.1	1335.3
150°	1370.6	1371.2	1371.8	1372.3	1372.9	1373.5	1373.5	1373.5	1373.5	1373.5	1372.6
152.5°	1404.7	1405.3	1405.7	1406.0	1406.4	1406.7	1407.2	1407.6	1408.1	1408.5	1408.0
155°	1453.9	1454.1	1454.3	1454.6	1454.9	1455.2	1456.4	1457.5	1458.7	1459.8	1459.4
157.5°	1497.1	1497.1	1497.3	1497.5	1497.8	1498.0	1499.2	1500.4	1501.6	1502.9	1502.6
160°	1524.2	1523.9	1523.9	1523.9	1523.9	1523.9	1525.4	1526.8	1528.3	1529.7	1529.9
162.5°	1548.2	1547.9	1548.2	1548.4	1548.6	1548.8	1550.3	1551.7	1553.2	1554.6	1554.4
165°	1580.2	1579.7	1579.7	1579.7	1579.7	1579.7	1581.4	1583.2	1584.9	1586.6	1586.5
167.5°	1604.7	1604.2	1604.4	1604.7	1604.9	1605.1	1606.9	1608.7	1610.5	1612.3	1612.3
170°	1619.2	1618.6	1618.6	1618.6	1618.6	1618.6	1620.6	1622.7	1624.7	1626.7	1626.7
172.5°	1630.6	1630.0	1630.0	1630.0	1630.0	1630.0	1631.8	1633.6	1635.4	1637.2	1637.1
175°	1642.5	1642.0	1642.0	1642.0	1642.0	1642.0	1643.7	1645.4	1647.2	1648.9	1648.7
177.5°	1648.4	1647.9	1647.9	1647.9	1647.9	1647.9	1649.3	1650.7	1652.1	1653.5	1653.4
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0
2.5°	1749.3	1748.6	1749.3	1746.7	1749.3	1748.6	1749.3	1756.8	1756.8	1757.4	1758.1
5°	1627.7	1627.0	1624.6	1617.5	1624.6	1627.0	1627.7	1630.1	1636.4	1647.4	1644.2
7.5°	1521.6	1520.5	1513.6	1513.8	1513.6	1520.5	1521.6	1527.8	1534.8	1541.6	1549.6
10°	1458.8	1459.5	1450.1	1444.6	1450.1	1459.5	1458.8	1464.3	1474.5	1480.0	1485.5
12.5°	1397.8	1394.2	1386.6	1380.5	1386.6	1394.2	1397.8	1402.0	1416.0	1422.1	1432.7
15°	1317.3	1309.4	1290.6	1292.1	1290.6	1309.4	1317.3	1314.1	1328.3	1336.1	1339.3
17.5°	1222.5	1216.7	1216.4	1205.4	1216.4	1216.7	1222.5	1228.8	1241.0	1249.5	1272.0
20°	1167.2	1163.2	1164.8	1153.8	1164.8	1163.2	1167.2	1179.7	1187.6	1198.6	1216.7
22.5°	1123.8	1119.8	1113.2	1109.8	1113.2	1119.8	1123.8	1132.6	1141.1	1156.5	1166.4
25°	1060.3	1054.0	1047.7	1051.6	1047.7	1054.0	1060.3	1065.0	1080.7	1087.8	1101.9
27.5°	996.8	992.1	985.8	985.0	985.8	992.1	996.8	1001.3	1010.0	1021.9	1038.9
30°	956.5	951.8	948.7	944.7	948.7	951.8	956.5	960.5	969.1	981.7	994.3
32.5°	915.7	914.7	909.1	908.3	909.1	914.7	915.7	922.1	930.7	942.7	953.4
35°	862.2	857.5	855.9	856.7	855.9	857.5	862.2	865.4	873.2	884.2	894.4
37.5°	811.4	805.1	802.3	799.5	802.3	805.1	811.4	811.9	819.9	827.3	841.1
40°	775.0	768.7	767.1	765.5	767.1	768.7	775.0	774.2	782.8	788.3	800.9
42.5°	734.1	731.6	730.6	727.8	730.6	731.6	734.1	738.3	743.2	751.2	760.7
45°	678.3	677.5	672.8	674.4	672.8	677.5	678.3	680.6	689.3	694.8	703.4
47.5°	619.5	616.0	612.7	614.9	612.7	616.0	619.5	622.6	628.5	635.2	646.7
50°	579.3	577.7	570.6	572.2	570.6	577.7	579.3	582.4	586.3	595.0	605.2
52.5°	539.0	533.0	530.4	529.4	530.4	533.0	539.0	542.2	546.7	556.6	564.3
55°	472.4	465.3	462.1	460.6	462.1	465.3	472.4	477.9	484.2	495.2	503.0
57.5°	407.0	405.1	402.6	404.3	402.6	405.1	407.0	416.1	422.2	430.9	440.5
60°	368.6	368.6	368.6	367.8	368.6	368.6	368.6	376.5	382.0	390.6	400.8
62.5°	339.1	337.2	336.6	337.7	336.6	337.2	339.1	342.5	348.0	353.5	362.5
65°	294.0	293.2	290.0	289.2	290.0	293.2	294.0	296.3	301.0	305.0	311.2
67.5°	251.4	248.5	247.6	246.5	247.6	248.5	251.4	253.4	256.5	261.6	264.7
70°	219.3	217.7	213.0	213.8	213.0	217.7	219.3	223.2	226.4	232.6	235.8
72.5°	184.7	183.1	182.2	181.1	182.2	183.1	184.7	188.6	191.8	198.7	203.7
75°	146.2	145.4	144.6	147.8	144.6	145.4	146.2	147.0	147.8	150.1	152.5
77.5°	117.1	117.1	117.6	116.3	117.6	117.1	117.1	117.1	117.1	118.4	118.8
80°	98.2	98.2	97.5	97.5	97.5	98.2	98.2	98.2	98.2	98.2	97.5
82.5°	78.8	79.4	79.9	78.6	79.9	79.4	78.8	80.0	80.6	79.4	79.9
85°	51.9	51.1	52.7	51.9	52.7	51.1	51.9	51.9	50.3	51.9	51.1
87.5°	30.7	29.6	29.7	30.4	29.7	29.6	30.7	29.3	29.2	28.9	28.1
90°	37.2	37.8	38.3	38.9	38.3	37.8	37.2	36.6	35.7	34.6	33.4
92.5°	53.4	53.1	52.7	52.4	52.7	53.1	53.4	53.8	53.5	52.6	51.6
95°	101.2	101.2	101.2	101.2	101.2	101.2	101.2	101.2	100.6	99.4	98.3
97.5°	156.0	155.9	155.8	155.6	155.8	155.9	156.0	156.1	155.5	154.2	152.8
100°	195.4	196.0	196.6	197.1	196.6	196.0	195.4	194.8	194.1	193.2	192.4
102.5°	240.0	239.9	239.8	239.7	239.8	239.9	240.0	240.1	239.8	238.9	238.0
105°	307.0	307.5	308.1	308.7	308.1	307.5	307.0	306.4	306.1	306.1	306.1
107.5°	381.6	381.2	380.9	380.5	380.9	381.2	381.6	381.9	381.6	380.7	379.8
110°	431.0	430.5	429.9	429.3	429.9	430.5	431.0	431.6	431.3	430.2	429.0



TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	481.5	481.4	481.3	481.2	481.3	481.4	481.5	481.6	481.0	479.6	478.2
115°	553.4	553.1	552.8	552.5	552.8	553.1	553.4	553.7	553.7	553.4	553.1
117.5°	627.3	626.5	625.7	624.9	625.7	626.5	627.3	628.1	628.5	628.6	628.7
120°	677.5	676.9	676.3	675.7	676.3	676.9	677.5	678.0	678.5	678.8	679.0
122.5°	726.9	726.1	725.3	724.5	725.3	726.1	726.9	727.7	728.5	729.2	730.0
125°	801.1	799.9	798.8	797.6	798.8	799.9	801.1	802.3	803.4	804.6	805.7
127.5°	874.5	873.2	871.9	870.5	871.9	873.2	874.5	875.8	877.3	878.9	880.5
130°	924.3	922.3	920.3	918.3	920.3	922.3	924.3	926.3	927.9	929.1	930.2
132.5°	972.7	971.2	969.6	968.1	969.6	971.2	972.7	974.3	975.8	977.1	978.5
135°	1047.1	1046.5	1045.9	1045.4	1045.9	1046.5	1047.1	1047.7	1048.5	1049.7	1050.8
137.5°	1116.9	1115.8	1114.7	1113.6	1114.7	1115.8	1116.9	1118.0	1119.1	1120.3	1121.5
140°	1164.3	1162.2	1160.2	1158.2	1160.2	1162.2	1164.3	1166.3	1167.4	1167.7	1168.0
142.5°	1208.5	1207.0	1205.4	1203.9	1205.4	1207.0	1208.5	1210.1	1211.0	1211.3	1211.6
145°	1273.2	1272.0	1270.9	1269.7	1270.9	1272.0	1273.2	1274.4	1275.1	1275.4	1275.6
147.5°	1333.6	1331.8	1330.1	1328.4	1330.1	1331.8	1333.6	1335.3	1336.1	1336.1	1336.1
150°	1370.9	1369.2	1367.4	1365.7	1367.4	1369.2	1370.9	1372.6	1373.5	1373.5	1373.5
152.5°	1406.5	1405.0	1403.5	1402.0	1403.5	1405.0	1406.5	1408.0	1408.5	1408.1	1407.6
155°	1457.4	1455.4	1453.3	1451.3	1453.3	1455.4	1457.4	1459.4	1459.8	1458.7	1457.5
157.5°	1501.0	1499.4	1497.8	1496.2	1497.8	1499.4	1501.0	1502.6	1502.9	1501.6	1500.4
160°	1528.7	1527.6	1526.4	1525.2	1526.4	1527.6	1528.7	1529.9	1529.7	1528.3	1526.8
162.5°	1552.6	1550.7	1548.9	1547.0	1548.9	1550.7	1552.6	1554.4	1554.6	1553.2	1551.7
165°	1584.5	1582.5	1580.4	1578.4	1580.4	1582.5	1584.5	1586.5	1586.6	1584.9	1583.2
167.5°	1610.5	1608.7	1606.9	1605.1	1606.9	1608.7	1610.5	1612.3	1612.3	1610.5	1608.7
170°	1624.7	1622.7	1620.6	1618.6	1620.6	1622.7	1624.7	1626.7	1626.7	1624.7	1622.7
172.5°	1635.1	1633.0	1631.0	1629.0	1631.0	1633.0	1635.1	1637.1	1637.2	1635.4	1633.6
175°	1646.7	1644.7	1642.7	1640.7	1642.7	1644.7	1646.7	1648.7	1648.9	1647.2	1645.4
177.5°	1651.7	1650.1	1648.5	1646.9	1648.5	1650.1	1651.7	1653.4	1653.5	1652.1	1650.7
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0
2.5°	1752.4	1761.2	1770.0	1778.2	1790.8	1796.4	1804.6	1807.7	1817.2	1831.0	1842.3
5°	1645.8	1658.4	1674.9	1688.3	1709.5	1726.0	1744.1	1761.4	1781.8	1810.9	1836.8
7.5°	1555.4	1567.9	1587.7	1612.5	1635.9	1659.3	1684.0	1707.6	1736.8	1778.5	1819.8
10°	1495.7	1510.6	1534.2	1560.9	1590.0	1612.8	1641.9	1671.8	1707.9	1755.9	1805.4
12.5°	1444.1	1455.3	1482.7	1508.1	1541.0	1570.1	1598.5	1633.4	1674.6	1725.7	1785.2
15°	1362.1	1377.8	1404.5	1432.8	1467.4	1498.1	1535.0	1577.4	1617.5	1680.4	1752.7
17.5°	1279.7	1303.6	1331.4	1363.3	1389.0	1431.2	1471.3	1514.9	1564.2	1630.9	1710.3
20°	1226.9	1245.8	1271.7	1318.1	1351.9	1384.1	1421.0	1475.3	1520.8	1596.3	1678.8
22.5°	1182.3	1196.1	1225.2	1263.4	1302.8	1340.1	1377.6	1429.4	1485.6	1557.3	1646.8
25°	1116.1	1138.1	1160.1	1187.6	1230.0	1274.8	1315.7	1359.7	1419.5	1495.7	1592.4
27.5°	1051.5	1071.4	1093.1	1126.9	1159.1	1201.0	1243.7	1294.2	1358.3	1439.0	1537.0
30°	1010.0	1024.9	1045.3	1088.6	1117.6	1153.8	1204.1	1248.9	1308.6	1394.3	1498.1
32.5°	967.2	986.5	1008.9	1042.0	1078.0	1112.3	1158.2	1206.8	1267.8	1352.2	1458.4
35°	906.2	929.0	951.8	976.2	1012.3	1047.7	1086.2	1139.7	1201.7	1283.5	1388.0
37.5°	850.1	868.5	887.0	917.2	951.5	985.1	1021.1	1073.8	1132.3	1220.5	1316.3
40°	814.3	830.8	844.9	876.4	909.4	945.5	980.9	1027.3	1090.1	1172.7	1265.4
42.5°	775.3	790.5	809.7	835.5	871.0	901.5	936.9	980.7	1039.8	1123.6	1205.0
45°	716.8	734.1	750.6	775.0	810.3	840.2	871.6	913.3	973.8	1043.0	1115.3
47.5°	656.0	673.3	692.1	715.7	746.5	776.9	808.3	845.2	900.4	968.3	1017.0
50°	617.0	631.1	650.0	673.6	701.9	734.1	762.4	802.5	855.1	908.6	951.0
52.5°	576.7	589.6	611.0	635.8	662.3	690.1	720.3	754.7	802.3	852.6	886.3
55°	514.0	529.7	547.8	572.2	598.1	621.7	650.8	686.2	723.9	761.6	784.4
57.5°	455.4	468.4	483.7	508.8	531.3	559.5	585.5	613.1	648.0	676.4	691.3
60°	412.6	424.4	444.1	466.1	487.3	511.7	541.5	569.0	595.8	618.6	630.3
62.5°	372.4	386.1	403.2	423.3	446.4	469.5	495.6	518.7	542.3	562.0	570.0
65°	319.9	330.9	343.5	362.3	381.2	404.8	425.2	448.8	466.1	477.1	484.2
67.5°	272.1	279.3	288.9	301.5	320.0	340.6	360.4	378.8	393.3	400.8	407.1
70°	241.3	246.0	253.1	265.7	279.8	297.9	318.3	331.7	344.3	350.5	356.8
72.5°	210.5	216.5	222.9	233.0	244.6	257.6	272.4	288.9	295.8	303.4	307.2
75°	159.6	168.2	176.8	183.1	191.0	201.2	214.6	224.8	228.7	235.0	235.8
77.5°	120.4	122.3	128.6	136.4	143.0	150.4	158.9	168.0	169.9	173.2	175.3
80°	99.0	99.0	99.0	103.7	111.6	117.1	125.0	129.7	132.8	133.6	134.4
82.5°	79.5	79.5	78.9	79.9	82.7	85.7	92.9	98.2	100.8	100.3	98.6
85°	51.9	50.3	50.3	49.5	50.3	48.7	47.9	51.1	55.8	55.8	54.2
87.5°	27.8	27.0	26.9	25.5	24.1	22.7	20.2	20.2	19.6	21.6	20.4
90°	32.3	31.1	27.4	23.6	19.9	16.1	12.8	9.9	7.1	4.2	1.3
92.5°	50.7	49.8	47.7	45.5	43.4	41.3	39.2	37.3	35.3	33.3	31.4
95°	97.1	96.0	93.7	91.4	89.1	86.8	84.6	82.6	80.6	78.5	76.5
97.5°	151.5	150.2	148.5	146.8	145.2	143.5	141.9	140.4	138.9	137.4	135.9
100°	191.5	190.7	189.2	187.8	186.3	184.9	183.3	181.6	179.8	178.1	176.4
102.5°	237.2	236.3	234.4	232.5	230.6	228.7	227.2	226.2	225.2	224.1	223.1
105°	306.1	306.1	303.5	300.9	298.3	295.7	294.1	293.5	293.0	292.4	291.8
107.5°	378.9	377.9	376.9	375.9	374.8	373.8	373.1	372.8	372.4	372.1	371.7
110°	427.9	426.7	426.1	425.6	425.0	424.4	423.8	423.2	422.7	422.1	421.5



TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	476.9	475.5	475.4	475.2	475.1	475.0	474.8	474.4	474.1	473.7	473.4
115°	552.8	552.5	553.1	553.7	554.2	554.8	554.7	553.8	552.9	552.1	551.2
117.5°	628.7	628.8	629.5	630.3	631.0	631.8	631.9	631.3	630.7	630.1	629.6
120°	679.3	679.6	681.1	682.5	683.9	685.4	685.2	683.5	681.8	680.0	678.3
122.5°	730.7	731.5	732.2	733.0	733.7	734.5	734.2	733.0	731.7	730.4	729.2
125°	806.9	808.0	808.6	809.2	809.7	810.3	810.2	809.3	808.4	807.6	806.7
127.5°	882.1	883.8	884.4	885.0	885.7	886.3	885.7	883.8	882.0	880.2	878.3
130°	931.4	932.5	933.4	934.3	935.1	936.0	935.3	933.0	930.7	928.3	926.0
132.5°	979.9	981.3	981.9	982.6	983.2	983.8	983.0	980.7	978.4	976.1	973.8
135°	1052.0	1053.1	1053.4	1053.7	1054.0	1054.3	1053.6	1051.8	1050.1	1048.4	1046.7
137.5°	1122.7	1124.0	1123.2	1122.5	1121.7	1121.0	1119.9	1118.4	1117.0	1115.5	1114.1
140°	1168.3	1168.6	1168.3	1168.0	1167.7	1167.4	1166.6	1165.1	1163.7	1162.2	1160.8
142.5°	1211.9	1212.2	1211.6	1211.1	1210.6	1210.1	1209.1	1207.7	1206.2	1204.8	1203.3
145°	1275.9	1276.2	1275.4	1274.5	1273.6	1272.8	1272.0	1271.5	1270.9	1270.3	1269.7
147.5°	1336.1	1336.1	1335.3	1334.5	1333.7	1332.9	1332.0	1331.0	1329.9	1328.9	1327.8
150°	1373.5	1373.5	1372.9	1372.3	1371.8	1371.2	1370.6	1370.0	1369.5	1368.9	1368.3
152.5°	1407.2	1406.7	1406.4	1406.0	1405.7	1405.3	1404.7	1403.9	1403.1	1402.3	1401.5
155°	1456.4	1455.2	1454.9	1454.6	1454.3	1454.1	1453.9	1453.9	1453.9	1453.9	1453.9
157.5°	1499.2	1498.0	1497.8	1497.5	1497.3	1497.1	1497.1	1497.5	1497.8	1498.2	1498.5
160°	1525.4	1523.9	1523.9	1523.9	1523.9	1523.9	1524.2	1524.8	1525.4	1526.0	1526.5
162.5°	1550.3	1548.8	1548.6	1548.4	1548.2	1547.9	1548.2	1549.0	1549.8	1550.6	1551.4
165°	1581.4	1579.7	1579.7	1579.7	1579.7	1579.7	1580.2	1581.0	1581.9	1582.7	1583.6
167.5°	1606.9	1605.1	1604.9	1604.7	1604.4	1604.2	1604.7	1605.8	1607.0	1608.1	1609.3
170°	1620.6	1618.6	1618.6	1618.6	1618.6	1618.6	1619.2	1620.4	1621.5	1622.7	1623.8
172.5°	1631.8	1630.0	1630.0	1630.0	1630.0	1630.0	1630.6	1631.8	1632.9	1634.1	1635.2
175°	1643.7	1642.0	1642.0	1642.0	1642.0	1642.0	1642.5	1643.7	1644.9	1646.0	1647.2
177.5°	1649.3	1647.9	1647.9	1647.9	1647.9	1647.9	1648.4	1649.3	1650.2	1651.2	1652.1
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0
2.5°	1846.1	1853.0	1861.8	1875.0	1885.1	1893.9	1895.8	1898.3	1904.6	1915.2	1923.4
5°	1858.0	1876.1	1905.2	1933.5	1964.1	1989.3	2012.9	2029.4	2045.1	2078.1	2104.8
7.5°	1854.3	1894.5	1940.1	1990.9	2042.3	2092.1	2138.3	2179.6	2220.8	2268.9	2323.8
10°	1851.7	1898.9	1960.2	2025.4	2097.0	2166.9	2234.5	2287.2	2348.5	2403.5	2473.4
12.5°	1839.8	1907.7	1981.0	2064.4	2152.3	2232.9	2321.9	2394.7	2464.8	2544.3	2625.6
15°	1824.2	1906.8	1999.5	2110.3	2243.9	2341.4	2432.6	2559.1	2645.6	2732.0	2848.4
17.5°	1795.8	1896.5	2012.4	2156.4	2267.8	2398.8	2536.0	2636.0	2752.5	2874.3	2979.6
20°	1773.1	1890.3	2019.9	2161.4	2303.7	2445.9	2578.8	2698.2	2818.5	2959.2	3045.6
22.5°	1750.5	1866.4	2001.1	2151.4	2304.3	2454.1	2604.5	2744.8	2880.1	3022.1	3132.4
25°	1702.4	1840.0	1986.1	2139.4	2290.3	2455.4	2634.6	2791.0	2958.4	3104.6	3209.1
27.5°	1653.7	1779.7	1925.3	2080.8	2248.5	2443.6	2654.4	2832.2	2999.9	3104.6	3137.4
30°	1609.7	1743.3	1876.9	2034.9	2216.4	2434.1	2658.1	2861.7	2999.3	3044.8	3011.0
32.5°	1565.0	1686.1	1818.4	1980.2	2173.0	2410.9	2663.2	2844.1	2926.9	2892.1	2754.5
35°	1486.3	1595.5	1723.6	1885.5	2107.2	2398.0	2642.4	2765.0	2744.6	2548.1	2288.7
37.5°	1402.0	1491.0	1609.7	1779.0	2039.0	2346.9	2553.1	2571.2	2394.4	2092.7	1793.1
40°	1335.4	1415.5	1537.4	1714.2	1986.1	2296.6	2463.2	2390.1	2115.8	1780.2	1530.3
42.5°	1270.6	1338.2	1455.6	1646.3	1935.8	2228.1	2329.3	2170.1	1853.6	1536.3	1309.0
45°	1160.9	1224.5	1342.4	1538.1	1832.9	2097.0	2083.6	1806.9	1490.2	1234.8	1046.1
47.5°	1056.8	1112.5	1223.1	1422.9	1712.0	1900.5	1775.5	1481.1	1212.4	1007.5	872.9
50°	983.2	1038.3	1148.3	1345.6	1615.2	1752.7	1574.3	1290.6	1044.6	874.8	767.9
52.5°	912.8	966.6	1067.2	1259.4	1498.2	1580.4	1388.8	1125.8	920.7	774.2	682.4
55°	814.3	855.1	945.5	1129.4	1307.9	1326.7	1132.6	912.5	743.5	641.4	578.5
57.5°	713.8	749.0	838.3	984.8	1109.9	1100.2	916.1	725.8	612.0	536.0	490.4
60°	648.4	683.0	761.6	887.4	981.7	948.7	779.7	626.4	529.0	473.2	437.0
62.5°	587.4	614.5	688.0	779.8	847.7	810.3	666.5	539.6	462.3	415.3	386.7
65°	499.1	521.1	580.0	628.0	665.7	629.6	510.1	422.1	366.3	333.3	313.6
67.5°	415.1	429.1	466.4	483.7	510.3	470.6	383.6	324.6	292.9	265.0	251.4
70°	362.3	372.5	392.2	406.3	413.4	372.5	308.1	264.9	238.1	218.5	209.9
72.5°	309.5	318.5	322.4	334.0	330.4	292.1	247.7	213.3	194.1	180.8	169.6
75°	236.6	240.5	236.6	231.9	221.6	194.9	164.3	147.0	132.8	126.5	122.6
77.5°	172.4	171.2	165.8	158.5	141.0	124.2	107.7	101.9	95.7	92.4	91.0
80°	132.8	129.7	125.0	113.2	98.2	86.5	82.5	78.6	76.2	72.3	71.5
82.5°	98.9	97.0	89.1	79.2	68.7	63.2	59.9	58.5	56.1	54.1	53.9
85°	52.7	50.3	41.7	36.2	34.6	33.0	32.2	32.2	29.1	28.3	28.3
87.5°	17.8	14.6	14.6	13.3	13.9	13.4	14.8	14.3	14.4	15.3	14.2
90°	4.2	7.1	9.9	12.8	16.1	19.9	23.6	27.4	31.1	32.3	33.4
92.5°	33.3	35.3	37.3	39.2	41.3	43.4	45.5	47.7	49.8	50.7	51.6
95°	78.5	80.6	82.6	84.6	86.8	89.1	91.4	93.7	96.0	97.1	98.3
97.5°	137.4	138.9	140.4	141.9	143.5	145.2	146.8	148.5	150.2	151.5	152.8
100°	178.1	179.8	181.6	183.3	184.9	186.3	187.8	189.2	190.7	191.5	192.4
102.5°	224.1	225.2	226.2	227.2	228.7	230.6	232.5	234.4	236.3	237.2	238.0
105°	292.4	293.0	293.5	294.1	295.7	298.3	300.9	303.5	306.1	306.1	306.1
107.5°	372.1	372.4	372.8	373.1	373.8	374.8	375.9	376.9	377.9	378.9	379.8
110°	422.1	422.7	423.2	423.8	424.4	425.0	425.6	426.1	426.7	427.9	429.0





TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	473.7	474.1	474.4	474.8	475.0	475.1	475.2	475.4	475.5	476.9	478.2
115°	552.1	552.9	553.8	554.7	554.8	554.2	553.7	553.1	552.5	552.8	553.1
117.5°	630.1	630.7	631.3	631.9	631.8	631.0	630.3	629.5	628.8	628.7	628.7
120°	680.0	681.8	683.5	685.2	685.4	683.9	682.5	681.1	679.6	679.3	679.0
122.5°	730.4	731.7	733.0	734.2	734.5	733.7	733.0	732.2	731.5	730.7	730.0
125°	807.6	808.4	809.3	810.2	810.3	809.7	809.2	808.6	808.0	806.9	805.7
127.5°	880.2	882.0	883.8	885.7	886.3	885.7	885.0	884.4	883.8	882.1	880.5
130°	928.3	930.7	933.0	935.3	936.0	935.1	934.3	933.4	932.5	931.4	930.2
132.5°	976.1	978.4	980.7	983.0	983.8	983.2	982.6	981.9	981.3	979.9	978.5
135°	1048.4	1050.1	1051.8	1053.6	1054.3	1054.0	1053.7	1053.4	1053.1	1052.0	1050.8
137.5°	1115.5	1117.0	1118.4	1119.9	1121.0	1121.7	1122.5	1123.2	1124.0	1122.7	1121.5
140°	1162.2	1163.7	1165.1	1166.6	1167.4	1167.7	1168.0	1168.3	1168.6	1168.3	1168.0
142.5°	1204.8	1206.2	1207.7	1209.1	1210.1	1210.6	1211.1	1211.6	1212.2	1211.9	1211.6
145°	1270.3	1270.9	1271.5	1272.0	1272.8	1273.6	1274.5	1275.4	1276.2	1275.9	1275.6
147.5°	1328.9	1329.9	1331.0	1332.0	1332.9	1333.7	1334.5	1335.3	1336.1	1336.1	1336.1
150°	1368.9	1369.5	1370.0	1370.6	1371.2	1371.8	1372.3	1372.9	1373.5	1373.5	1373.5
152.5°	1402.3	1403.1	1403.9	1404.7	1405.3	1405.7	1406.0	1406.4	1406.7	1407.2	1407.6
155°	1453.9	1453.9	1453.9	1453.9	1454.1	1454.3	1454.6	1454.9	1455.2	1456.4	1457.5
157.5°	1498.2	1497.8	1497.5	1497.1	1497.1	1497.3	1497.5	1497.8	1498.0	1499.2	1500.4
160°	1526.0	1525.4	1524.8	1524.2	1523.9	1523.9	1523.9	1523.9	1523.9	1525.4	1526.8
162.5°	1550.6	1549.8	1549.0	1548.2	1547.9	1548.2	1548.4	1548.6	1548.8	1550.3	1551.7
165°	1582.7	1581.9	1581.0	1580.2	1579.7	1579.7	1579.7	1579.7	1579.7	1581.4	1583.2
167.5°	1608.1	1607.0	1605.8	1604.7	1604.2	1604.4	1604.7	1604.9	1605.1	1606.9	1608.7
170°	1622.7	1621.5	1620.4	1619.2	1618.6	1618.6	1618.6	1618.6	1618.6	1620.6	1622.7
172.5°	1634.1	1632.9	1631.8	1630.6	1630.0	1630.0	1630.0	1630.0	1630.0	1631.8	1633.6
175°	1646.0	1644.9	1643.7	1642.5	1642.0	1642.0	1642.0	1642.0	1642.0	1643.7	1645.4
177.5°	1651.2	1650.2	1649.3	1648.4	1647.9	1647.9	1647.9	1647.9	1647.9	1649.3	1650.7
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0	1836.0
2.5°	1936.6	1936.6	1939.1	1948.6	1949.8	1958.0	1955.5
5°	2128.4	2143.3	2148.8	2172.4	2186.6	2192.9	2180.3
7.5°	2362.9	2405.1	2425.0	2449.7	2471.6	2478.2	2461.0
10°	2534.0	2578.0	2614.9	2637.7	2658.9	2673.1	2691.2
12.5°	2699.3	2753.4	2788.5	2820.7	2842.5	2860.5	2863.4
15°	2879.0	2960.7	3022.8	3068.4	3091.2	3103.0	3098.3
17.5°	3060.2	3136.0	3180.2	3226.7	3258.3	3259.9	3260.8
20°	3162.7	3236.6	3287.7	3322.3	3357.7	3356.1	3363.9
22.5°	3231.3	3289.4	3328.6	3353.7	3365.8	3359.9	3361.4
25°	3263.3	3280.6	3273.6	3233.5	3223.3	3186.3	3192.6
27.5°	3098.0	3016.2	2931.7	2822.9	2737.1	2668.5	2672.0
30°	2873.5	2728.9	2563.8	2425.5	2301.3	2266.7	2192.9
32.5°	2559.7	2342.8	2149.5	2020.6	1914.0	1885.1	1820.6
35°	2027.8	1817.2	1618.3	1498.8	1451.7	1385.7	1384.9
37.5°	1576.2	1390.7	1285.5	1195.9	1148.9	1109.0	1105.1
40°	1325.9	1181.3	1101.9	1037.5	991.1	961.2	954.2
42.5°	1151.1	1034.2	959.8	919.9	884.2	868.8	857.3
45°	940.0	861.4	809.5	773.4	756.9	745.1	738.8
47.5°	786.3	733.6	698.3	674.2	660.8	648.4	651.7
50°	702.7	659.4	633.5	610.7	600.5	591.8	592.6
52.5°	635.4	596.6	575.6	559.1	546.4	540.3	537.3
55°	539.2	514.8	493.6	481.8	474.7	466.1	463.7
57.5°	459.9	441.1	423.8	410.4	408.7	400.4	401.5
60°	407.1	391.4	377.3	370.2	364.7	357.6	360.0
62.5°	363.7	350.5	337.7	331.8	326.3	321.1	322.2
65°	297.9	285.3	277.4	274.3	271.9	269.6	267.2
67.5°	237.4	229.7	224.8	218.0	213.2	212.4	210.0
70°	199.6	189.4	180.8	172.1	169.8	169.0	169.8
72.5°	160.0	153.6	151.2	147.0	146.5	144.5	145.9
75°	120.3	117.9	116.3	113.2	113.2	113.2	113.2
77.5°	88.7	87.2	86.3	85.7	84.9	83.8	83.6
80°	69.2	68.4	66.8	66.8	66.0	66.8	66.0
82.5°	52.2	52.0	50.5	50.5	49.7	49.2	49.7
85°	26.7	25.9	27.5	25.9	26.7	25.2	26.7
87.5°	14.5	14.7	14.2	14.4	13.8	15.2	14.1
90°	34.6	35.7	36.6	37.2	37.8	38.3	38.9
92.5°	52.6	53.5	53.8	53.4	53.1	52.7	52.4
95°	99.4	100.6	101.2	101.2	101.2	101.2	101.2
97.5°	154.2	155.5	156.1	156.0	155.9	155.8	155.6
100°	193.2	194.1	194.8	195.4	196.0	196.6	197.1
102.5°	238.9	239.8	240.1	240.0	239.9	239.8	239.7
105°	306.1	306.1	306.4	307.0	307.5	308.1	308.7
107.5°	380.7	381.6	381.9	381.6	381.2	380.9	380.5
110°	430.2	431.3	431.6	431.0	430.5	429.9	429.3



TEST NUMBER: P332483

CATALOG NUMBER: S123RDIW-S1165D1320U835-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	479.6	481.0	481.6	481.5	481.4	481.3	481.2
115°	553.4	553.7	553.7	553.4	553.1	552.8	552.5
117.5°	628.6	628.5	628.1	627.3	626.5	625.7	624.9
120°	678.8	678.5	678.0	677.5	676.9	676.3	675.7
122.5°	729.2	728.5	727.7	726.9	726.1	725.3	724.5
125°	804.6	803.4	802.3	801.1	799.9	798.8	797.6
127.5°	878.9	877.3	875.8	874.5	873.2	871.9	870.5
130°	929.1	927.9	926.3	924.3	922.3	920.3	918.3
132.5°	977.1	975.8	974.3	972.7	971.2	969.6	968.1
135°	1049.7	1048.5	1047.7	1047.1	1046.5	1045.9	1045.4
137.5°	1120.3	1119.1	1118.0	1116.9	1115.8	1114.7	1113.6
140°	1167.7	1167.4	1166.3	1164.3	1162.2	1160.2	1158.2
142.5°	1211.3	1211.0	1210.1	1208.5	1207.0	1205.4	1203.9
145°	1275.4	1275.1	1274.4	1273.2	1272.0	1270.9	1269.7
147.5°	1336.1	1336.1	1335.3	1333.6	1331.8	1330.1	1328.4
150°	1373.5	1373.5	1372.6	1370.9	1369.2	1367.4	1365.7
152.5°	1408.1	1408.5	1408.0	1406.5	1405.0	1403.5	1402.0
155°	1458.7	1459.8	1459.4	1457.4	1455.4	1453.3	1451.3
157.5°	1501.6	1502.9	1502.6	1501.0	1499.4	1497.8	1496.2
160°	1528.3	1529.7	1529.9	1528.7	1527.6	1526.4	1525.2
162.5°	1553.2	1554.6	1554.4	1552.6	1550.7	1548.9	1547.0
165°	1584.9	1586.6	1586.5	1584.5	1582.5	1580.4	1578.4
167.5°	1610.5	1612.3	1612.3	1610.5	1608.7	1606.9	1605.1
170°	1624.7	1626.7	1626.7	1624.7	1622.7	1620.6	1618.6
172.5°	1635.4	1637.2	1637.1	1635.1	1633.0	1631.0	1629.0
175°	1647.2	1648.9	1648.7	1646.7	1644.7	1642.7	1640.7
177.5°	1652.1	1653.5	1653.4	1651.7	1650.1	1648.5	1646.9
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1

(END OF REPORT)