

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: P332482-940

Luminaire Tested: **S123RDIW-S1165D1320U940-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332482-940
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-S1165D1320U940-4F0-1E-UDD-A
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 1320 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8787.0 lumens
Efficiency: N/A
Efficacy: 115.3 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

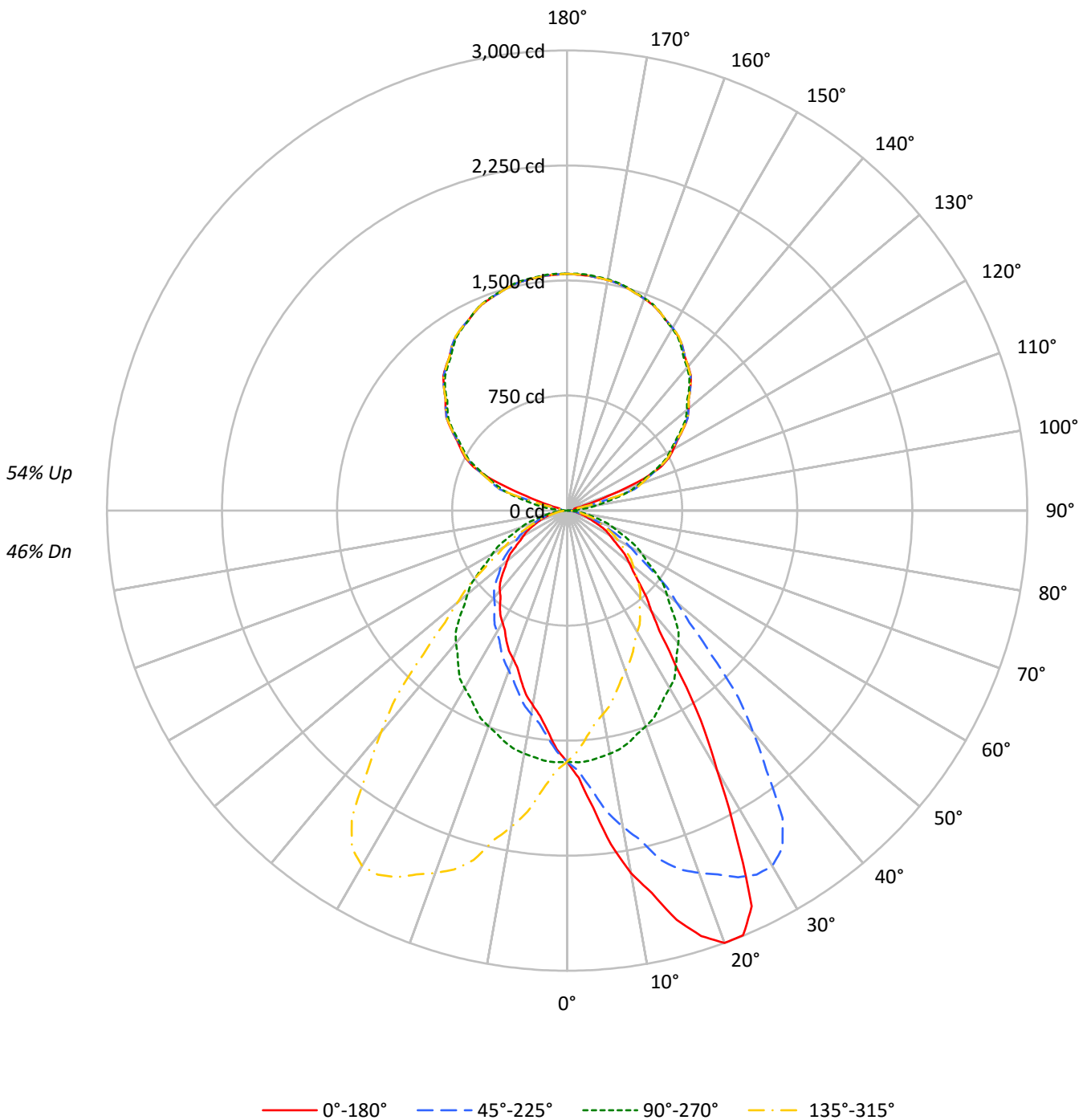
Input Watts (W): 76.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46
1	98	93	90	86	89	86	83	80	72	70	68	59	58	56	48	47	46	40
2	89	82	76	71	82	76	71	67	64	60	57	53	50	48	42	41	39	35
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	38	32	28	32	28	25	26	23	21	18
8	55	43	35	30	50	40	33	29	34	29	25	29	25	22	24	21	19	16
9	51	39	32	27	47	37	30	26	32	26	23	27	23	20	22	19	17	15
10	48	36	29	24	44	34	27	23	29	24	21	25	21	18	21	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17623	17623	17623	17623
5°	21007	17698	15584	17698
10°	26230	17596	14080	17596
15°	30788	17416	12840	17416
20°	34360	17148	11786	17148
25°	33812	16865	11137	16865
30°	24304	16604	10470	16604
35°	16227	16264	10038	16264
40°	11956	15855	9591	15855
45°	10029	15139	9155	15139
50°	8848	14200	8544	14200
55°	7760	13127	7707	13127
60°	6910	12099	7061	12099
65°	6069	10998	6569	10998
70°	4765	10014	5998	10014
75°	4196	8746	5481	8746
80°	3651	7426	5387	7426
85°	2939	5965	5718	5965



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.0	1.8
10°-20°	503.0	5.7
20°-30°	790.2	9.0
30°-40°	824.4	9.4
40°-50°	705.6	8.0
50°-60°	537.8	6.1
60°-70°	344.7	3.9
70°-80°	165.8	1.9
80°-90°	48.2	0.5
90°-100°	56.1	0.6
100°-110°	267.4	3.0
110°-120°	642.3	7.3
120°-130°	818.0	9.3
130°-140°	874.0	9.9
140°-150°	817.3	9.3
150°-160°	659.2	7.5
160°-170°	425.5	4.8
170°-180°	146.6	1.7
0°-30°	1454.2	16.5
0°-40°	2278.7	25.9
0°-60°	3522.0	40.1
0°-90°	4080.7	46.4
90°-120°	965.9	11.0
90°-150°	3475.0	39.5
90°-180°	4706.0	53.6
0°-180°	8787.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1637	1637	1637	1637	1637	
5°	1944	1638	1442	1638	1944	201
15°	2763	1563	1152	1563	2763	783
25°	2847	1420	938	1420	2847	1224
35°	1235	1238	764	1238	1235	810
45°	659	994	601	994	659	518
55°	414	700	411	700	414	374
65°	238	432	258	432	238	234
75°	101	210	132	210	101	108
85°	24	48	46	48	24	28
90°	34	1	34	1	34	16
95°	44	70	44	70	44	36
105°	50	342	50	342	50	115
115°	674	641	674	641	674	623
125°	922	904	922	904	922	823
135°	1136	1125	1136	1125	1136	876
145°	1310	1298	1310	1298	1310	818
155°	1428	1430	1428	1430	1428	658
165°	1504	1508	1504	1508	1504	425
175°	1538	1543	1538	1543	1538	146
180°	1543	1543	1543	1543	1543	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2
2.5°	1743.7	1746.0	1738.7	1737.6	1729.1	1726.9	1726.9	1715.1	1707.8	1698.4	1692.7
5°	1944.2	1955.4	1949.8	1937.2	1916.1	1911.2	1897.9	1876.9	1853.1	1823.6	1809.6
7.5°	2194.5	2209.8	2204.0	2184.4	2162.4	2144.7	2107.0	2072.2	2023.2	1980.3	1943.6
10°	2399.8	2383.6	2371.0	2352.1	2331.7	2298.8	2259.6	2205.6	2143.2	2094.2	2039.5
12.5°	2553.3	2550.7	2534.7	2515.2	2486.5	2455.2	2407.0	2341.3	2268.8	2197.9	2135.4
15°	2762.8	2767.0	2756.5	2736.1	2695.5	2640.1	2567.2	2539.9	2436.2	2359.1	2282.0
17.5°	2907.7	2906.9	2905.5	2877.3	2835.8	2796.4	2728.8	2656.9	2563.0	2454.4	2350.5
20°	2999.6	2992.7	2994.1	2962.5	2931.7	2886.1	2820.2	2715.8	2638.8	2513.3	2406.0
22.5°	2997.4	2996.1	3001.3	2990.5	2968.1	2933.2	2881.4	2793.2	2694.8	2568.2	2447.6
25°	2846.9	2841.3	2874.3	2883.3	2919.1	2925.3	2909.9	2861.6	2768.4	2638.0	2488.8
27.5°	2382.7	2379.5	2440.7	2517.2	2614.2	2689.6	2762.5	2797.7	2768.4	2675.0	2525.5
30°	1955.4	2021.2	2052.1	2162.8	2286.2	2433.4	2562.3	2684.9	2715.1	2674.5	2551.8
32.5°	1623.4	1681.0	1706.7	1801.8	1916.7	2089.1	2282.5	2456.2	2578.9	2609.9	2536.1
35°	1234.9	1235.6	1294.5	1336.5	1443.1	1620.4	1808.2	2040.9	2272.2	2447.4	2465.6
37.5°	985.4	988.9	1024.5	1066.4	1146.3	1240.1	1405.5	1598.9	1866.1	2135.1	2292.8
40°	850.9	857.1	883.8	925.1	982.6	1053.4	1182.3	1364.6	1587.4	1886.7	2131.3
42.5°	764.5	774.7	788.5	820.3	855.9	922.2	1026.4	1167.2	1369.9	1652.9	1935.1
45°	658.8	664.4	674.9	689.6	721.8	768.1	838.2	932.8	1101.1	1328.8	1611.2
47.5°	581.1	578.2	589.2	601.2	622.7	654.2	701.2	778.4	898.4	1081.1	1320.7
50°	528.4	527.7	535.5	544.6	564.9	588.0	626.6	684.7	780.1	931.5	1150.8
52.5°	479.1	481.8	487.2	498.6	513.3	532.0	566.6	608.5	690.4	821.0	1003.9
55°	413.5	415.6	423.3	429.6	440.1	459.1	480.8	515.9	571.9	663.0	813.7
57.5°	358.0	357.0	364.4	366.0	377.9	393.3	410.1	437.3	478.0	545.7	647.2
60°	321.0	318.9	325.2	330.1	336.4	349.0	363.0	389.7	422.0	471.7	558.6
62.5°	287.3	286.3	291.0	295.9	301.1	312.5	324.3	344.8	370.3	412.2	481.2
65°	238.3	240.4	242.5	244.6	247.4	254.4	265.6	279.6	297.2	326.6	376.4
67.5°	187.3	189.4	190.1	194.4	200.5	204.8	211.7	224.2	236.3	261.2	289.4
70°	151.4	150.7	151.4	153.5	161.2	168.9	178.0	187.2	194.8	212.3	236.2
72.5°	130.1	128.9	130.6	131.1	134.8	137.0	142.7	151.2	161.2	173.1	190.2
75°	100.9	100.9	100.9	100.9	103.7	105.1	107.3	109.3	112.8	118.4	131.1
77.5°	74.5	74.7	75.7	76.4	77.0	77.8	79.1	81.1	82.4	85.3	90.9
80°	58.9	59.6	58.9	59.6	59.6	61.0	61.7	63.8	64.5	67.9	70.1
82.5°	44.3	43.9	44.3	45.0	45.0	46.4	46.5	48.1	48.2	50.0	52.2
85°	23.8	22.5	23.8	23.1	24.5	23.1	23.8	25.2	25.2	25.9	28.7
87.5°	12.5	13.5	12.3	12.8	12.7	13.0	12.8	12.7	13.6	12.8	12.7
90°	34.4	33.9	33.3	32.9	32.4	31.6	30.6	29.5	28.5	27.6	24.2
92.5°	38.1	37.7	37.5	37.2	36.8	35.8	34.2	32.6	30.9	29.3	26.8
95°	43.6	43.6	43.6	43.6	43.6	42.7	40.9	39.1	37.4	35.6	32.7
97.5°	47.3	47.0	46.7	46.5	46.2	45.0	43.1	41.0	39.0	36.9	55.3
100°	48.2	47.9	47.6	47.3	47.2	46.0	44.0	41.9	39.9	37.8	77.6
102.5°	49.0	48.6	48.2	47.7	47.3	50.2	56.4	62.8	69.1	75.4	118.9
105°	50.5	49.9	49.4	49.0	48.4	70.7	115.8	160.9	206.0	251.1	274.0
107.5°	158.5	192.4	226.4	260.5	294.4	328.0	361.1	394.1	427.1	460.2	456.6
110°	315.3	351.8	388.2	424.6	461.0	483.5	491.9	500.2	508.7	517.1	514.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	541.0	548.7	556.3	564.0	571.8	575.5	575.3	575.2	575.1	574.9	572.1
115°	674.2	673.2	672.2	671.1	670.1	668.3	665.8	663.3	660.7	658.2	655.9
117.5°	748.9	748.8	748.5	748.3	748.1	747.0	744.9	743.0	740.9	738.9	737.7
120°	800.3	800.3	800.3	800.3	800.3	799.3	797.3	795.2	793.2	791.1	790.4
122.5°	850.8	850.6	850.3	850.2	850.0	849.2	847.7	846.3	844.9	843.5	842.5
125°	921.9	921.3	920.9	920.3	919.8	919.3	918.8	918.3	917.7	917.3	916.2
127.5°	990.2	990.7	991.2	991.8	992.2	992.1	991.2	990.4	989.6	988.8	987.6
130°	1034.2	1034.7	1035.3	1035.7	1036.3	1036.0	1035.0	1033.9	1033.0	1031.9	1030.9
132.5°	1074.6	1075.3	1076.0	1076.7	1077.5	1077.3	1076.3	1075.2	1074.2	1073.2	1072.4
135°	1136.3	1137.0	1137.8	1138.5	1139.3	1139.3	1138.5	1137.8	1137.0	1136.3	1135.2
137.5°	1194.3	1194.8	1195.3	1195.8	1196.3	1196.0	1194.7	1193.6	1192.3	1191.1	1190.5
140°	1229.1	1229.7	1230.1	1230.7	1231.2	1230.9	1229.9	1228.9	1227.9	1226.8	1226.1
142.5°	1261.2	1261.9	1262.7	1263.4	1264.1	1264.1	1263.2	1262.4	1261.6	1260.8	1260.0
145°	1310.5	1310.5	1310.5	1310.5	1310.5	1310.3	1309.7	1309.3	1308.8	1308.2	1307.8
147.5°	1347.2	1348.4	1349.6	1350.8	1351.9	1352.3	1351.7	1351.2	1350.8	1350.2	1349.7
150°	1374.8	1375.6	1376.3	1377.1	1377.8	1378.0	1377.4	1376.9	1376.4	1375.9	1375.4
152.5°	1396.8	1397.9	1399.1	1400.3	1401.5	1401.6	1400.7	1399.7	1398.8	1397.9	1397.6
155°	1427.5	1429.1	1430.6	1432.1	1433.6	1433.8	1432.4	1431.2	1429.9	1428.6	1428.4
157.5°	1453.4	1455.4	1457.4	1459.4	1461.3	1461.6	1460.1	1458.6	1457.0	1455.5	1455.7
160°	1469.9	1471.7	1473.5	1475.2	1477.0	1477.2	1475.7	1474.1	1472.6	1471.1	1471.3
162.5°	1485.5	1487.1	1488.7	1490.2	1491.8	1491.7	1490.0	1488.3	1486.6	1484.8	1485.1
165°	1504.3	1506.1	1507.9	1509.7	1511.4	1511.4	1509.3	1507.3	1505.2	1503.2	1503.4
167.5°	1517.9	1519.9	1522.0	1523.9	1526.0	1526.0	1523.9	1522.0	1519.9	1517.9	1517.9
170°	1526.1	1528.1	1530.2	1532.2	1534.3	1534.3	1532.2	1530.2	1528.1	1526.1	1526.1
172.5°	1530.7	1532.9	1535.2	1537.4	1539.6	1539.8	1537.8	1535.7	1533.7	1531.6	1531.4
175°	1537.6	1539.6	1541.7	1543.7	1545.7	1545.9	1544.1	1542.3	1540.5	1538.7	1538.5
177.5°	1539.6	1541.7	1543.7	1545.8	1547.8	1548.0	1546.4	1544.7	1543.1	1541.5	1541.2
180°	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2
2.5°	1690.5	1688.8	1681.0	1672.0	1660.2	1652.3	1646.2	1642.8	1632.7	1620.4	1611.9
5°	1794.9	1773.9	1751.4	1724.1	1698.9	1672.9	1656.8	1637.9	1614.8	1588.9	1570.7
7.5°	1906.7	1865.5	1821.1	1775.3	1730.0	1689.3	1653.5	1622.7	1585.9	1548.7	1522.7
10°	1992.5	1932.2	1869.9	1806.1	1747.9	1693.3	1651.2	1609.9	1565.8	1523.0	1490.8
12.5°	2070.5	1991.1	1919.2	1840.8	1766.5	1701.1	1640.6	1591.9	1538.8	1493.3	1456.5
15°	2169.2	2087.9	2000.9	1881.8	1783.0	1700.3	1626.7	1562.9	1498.4	1442.3	1406.6
17.5°	2261.4	2139.0	2022.2	1922.9	1794.5	1691.1	1601.3	1525.1	1454.3	1394.8	1350.9
20°	2299.5	2181.0	2054.2	1927.3	1801.2	1685.6	1581.1	1497.0	1423.4	1356.1	1315.5
22.5°	2322.5	2188.3	2054.8	1918.4	1784.4	1664.3	1560.9	1468.5	1388.7	1324.7	1274.6
25°	2349.3	2189.5	2042.3	1907.7	1771.0	1640.7	1518.0	1420.0	1333.7	1265.8	1212.5
27.5°	2367.0	2179.0	2005.0	1855.5	1716.8	1587.0	1474.6	1370.6	1283.2	1211.2	1154.1
30°	2370.3	2170.5	1976.4	1814.5	1673.7	1554.5	1435.4	1335.9	1243.3	1166.9	1113.7
32.5°	2374.8	2149.8	1937.7	1765.8	1621.5	1503.5	1395.5	1300.5	1205.8	1130.5	1076.1
35°	2356.3	2138.3	1879.0	1681.3	1537.0	1422.7	1325.3	1237.7	1144.5	1071.6	1016.3
37.5°	2276.6	2092.8	1818.2	1586.4	1435.4	1329.5	1250.2	1173.8	1088.3	1009.7	957.5
40°	2196.5	2047.9	1771.0	1528.6	1370.9	1262.2	1190.8	1128.4	1045.7	972.1	916.1
42.5°	2077.1	1986.8	1726.2	1468.0	1298.0	1193.3	1133.0	1074.5	1001.9	927.2	874.5
45°	1858.0	1869.9	1634.4	1371.5	1197.0	1091.9	1035.2	994.5	930.1	868.3	814.4
47.5°	1583.2	1694.7	1526.6	1268.8	1090.7	992.0	942.4	906.9	863.4	802.9	753.7
50°	1403.8	1562.9	1440.3	1199.9	1024.0	925.9	876.7	848.0	810.2	762.5	715.6
52.5°	1238.4	1409.3	1336.0	1123.0	951.6	861.9	814.0	790.3	760.3	715.4	673.0
55°	1010.0	1183.0	1166.3	1007.1	843.1	762.5	726.1	699.5	679.1	645.5	611.9
57.5°	816.9	981.1	989.7	878.2	747.5	667.9	636.5	616.4	603.2	577.8	546.7
60°	695.3	846.0	875.4	791.3	679.1	609.0	578.2	562.0	551.6	531.3	507.4
62.5°	594.3	722.6	755.9	695.4	613.5	548.0	523.8	508.3	501.1	483.6	462.5
65°	454.9	561.4	593.6	560.0	517.2	464.7	445.1	431.8	425.4	415.6	400.2
67.5°	342.1	419.6	455.0	431.3	415.9	382.6	370.1	363.0	357.4	350.7	337.8
70°	274.7	332.2	368.6	362.3	349.7	332.2	323.1	318.2	312.5	307.0	295.8
72.5°	220.9	260.5	294.6	297.8	287.5	284.0	276.0	273.9	270.5	263.8	257.6
75°	146.5	173.8	197.6	206.8	211.0	214.5	211.0	210.3	209.6	203.9	200.5
77.5°	96.0	110.8	125.7	141.3	147.8	152.7	153.7	156.3	154.4	151.5	149.8
80°	73.6	77.1	87.6	100.9	111.5	115.7	118.4	119.8	119.1	118.4	115.7
82.5°	53.4	56.4	61.3	70.6	79.5	86.5	88.2	87.9	89.4	89.9	87.6
85°	28.7	29.4	30.9	32.3	37.2	44.9	47.0	48.3	49.8	49.8	45.6
87.5°	13.1	11.9	12.4	11.8	12.9	13.0	15.9	18.2	19.3	17.5	18.0
90°	20.9	17.6	14.3	11.3	8.8	6.2	3.7	1.2	3.7	6.2	8.8
92.5°	24.3	21.8	19.4	18.5	19.2	19.9	20.6	21.3	20.6	19.9	19.2
95°	30.0	27.1	24.3	28.2	38.6	49.0	59.5	69.9	59.5	49.0	38.6
97.5°	73.7	91.9	110.3	121.8	126.5	131.2	135.9	140.5	135.9	131.2	126.5
100°	117.3	157.1	196.8	214.2	209.0	203.9	198.9	193.8	198.9	203.9	209.0
102.5°	162.3	205.7	249.1	269.0	265.3	261.6	258.0	254.3	258.0	261.6	265.3
105°	296.9	319.9	342.9	352.8	350.1	347.3	344.5	341.7	344.5	347.3	350.1
107.5°	453.0	449.4	445.8	442.8	440.6	438.4	436.1	433.9	436.1	438.4	440.6
110°	511.5	508.7	505.9	503.5	501.4	499.4	497.4	495.3	497.4	499.4	501.4



TEST NUMBER: P332482-940

CATALOG NUMBER: S123RDIW-S1165D1320U940-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	569.3	566.5	563.7	561.3	559.5	557.7	555.9	554.0	555.9	557.7	559.5
115°	653.5	651.2	649.0	647.0	645.5	644.0	642.5	641.0	642.5	644.0	645.5
117.5°	736.6	735.3	734.1	732.6	730.8	728.9	727.0	725.1	727.0	728.9	730.8
120°	789.6	788.8	788.1	786.6	784.3	781.9	779.7	777.4	779.7	781.9	784.3
122.5°	841.5	840.5	839.5	838.1	836.2	834.4	832.5	830.6	832.5	834.4	836.2
125°	915.3	914.2	913.2	911.7	909.6	907.6	905.5	903.5	905.5	907.6	909.6
127.5°	986.4	985.2	983.9	982.3	980.3	978.2	976.2	974.1	976.2	978.2	980.3
130°	1029.9	1028.9	1027.9	1026.4	1024.3	1022.3	1020.2	1018.2	1020.2	1022.3	1024.3
132.5°	1071.6	1070.8	1070.0	1068.5	1066.5	1064.4	1062.4	1060.3	1062.4	1064.4	1066.5
135°	1134.3	1133.2	1132.2	1131.0	1129.4	1127.8	1126.3	1124.8	1126.3	1127.8	1129.4
137.5°	1190.0	1189.4	1188.8	1187.6	1185.6	1183.7	1181.8	1179.8	1181.8	1183.7	1185.6
140°	1225.3	1224.6	1223.8	1222.6	1221.1	1219.6	1218.1	1216.6	1218.1	1219.6	1221.1
142.5°	1259.3	1258.5	1257.8	1256.6	1255.1	1253.6	1252.0	1250.4	1252.0	1253.6	1255.1
145°	1307.2	1306.7	1306.2	1305.1	1303.3	1301.5	1299.8	1298.0	1299.8	1301.5	1303.3
147.5°	1349.2	1348.7	1348.2	1347.4	1346.1	1345.0	1343.8	1342.6	1343.8	1345.0	1346.1
150°	1374.8	1374.4	1373.9	1373.2	1372.4	1371.7	1370.9	1370.2	1370.9	1371.7	1372.4
152.5°	1397.3	1397.0	1396.7	1396.3	1396.0	1395.6	1395.3	1394.9	1395.3	1395.6	1396.0
155°	1428.2	1427.9	1427.6	1427.7	1428.3	1428.8	1429.3	1429.8	1429.3	1428.8	1428.3
157.5°	1456.0	1456.3	1456.5	1456.6	1456.7	1456.8	1456.8	1456.9	1456.8	1456.8	1456.7
160°	1471.6	1471.9	1472.1	1472.3	1472.6	1472.8	1473.1	1473.4	1473.1	1472.8	1472.6
162.5°	1485.3	1485.6	1485.9	1486.3	1486.9	1487.6	1488.3	1489.0	1488.3	1487.6	1486.9
165°	1503.7	1504.0	1504.2	1504.7	1505.5	1506.2	1507.0	1507.8	1507.0	1506.2	1505.5
167.5°	1517.9	1517.9	1517.9	1518.3	1519.4	1520.4	1521.4	1522.4	1521.4	1520.4	1519.4
170°	1526.1	1526.1	1526.1	1526.6	1527.7	1528.7	1529.6	1530.7	1529.6	1528.7	1527.7
172.5°	1531.2	1531.0	1530.8	1531.3	1532.5	1533.7	1535.0	1536.2	1535.0	1533.7	1532.5
175°	1538.2	1537.9	1537.7	1538.2	1539.4	1540.8	1542.0	1543.3	1542.0	1540.8	1539.4
177.5°	1541.1	1540.9	1540.7	1541.1	1542.1	1543.1	1544.1	1545.2	1544.1	1543.1	1542.1
180°	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3



TEST NUMBER: P332482-940

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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2
2.5°	1609.2	1601.9	1596.9	1585.6	1578.3	1570.5	1562.6	1567.7	1567.1	1566.6	1566.6
5°	1555.2	1539.1	1524.4	1505.5	1493.5	1478.8	1467.6	1466.2	1469.0	1459.2	1453.6
7.5°	1501.6	1479.6	1458.7	1437.9	1415.8	1398.1	1387.0	1381.8	1374.7	1368.6	1362.4
10°	1464.1	1438.2	1417.8	1391.9	1368.1	1347.0	1333.7	1324.6	1319.7	1314.8	1305.7
12.5°	1425.4	1400.1	1374.1	1344.8	1322.1	1297.7	1287.7	1277.6	1268.1	1262.7	1250.2
15°	1368.8	1335.9	1308.5	1277.6	1252.4	1228.6	1214.6	1194.3	1191.4	1184.5	1171.8
17.5°	1312.0	1276.2	1238.6	1215.7	1187.2	1162.4	1141.1	1134.3	1114.2	1106.6	1095.7
20°	1267.1	1234.2	1205.5	1175.4	1134.0	1110.9	1094.0	1084.9	1068.8	1059.0	1052.0
22.5°	1228.4	1195.0	1161.7	1126.6	1092.5	1066.6	1054.3	1040.1	1031.3	1017.5	1010.0
25°	1173.2	1136.8	1096.8	1059.0	1034.5	1014.9	995.2	982.6	970.0	963.7	949.7
27.5°	1109.0	1070.9	1033.6	1004.9	974.7	955.4	937.6	926.4	911.2	900.6	892.9
30°	1073.7	1028.9	996.6	970.7	932.1	913.9	900.6	886.6	875.4	864.2	856.5
32.5°	1032.8	991.8	961.3	929.2	899.6	879.7	862.5	850.2	840.6	829.9	822.2
35°	968.6	934.2	902.7	870.5	848.7	828.4	808.1	797.5	788.5	778.6	771.7
37.5°	910.5	878.4	848.5	817.9	790.9	774.5	758.0	750.0	737.7	731.1	724.0
40°	874.7	843.1	810.9	781.5	753.4	740.8	726.1	714.2	702.9	698.0	690.4
42.5°	835.4	803.9	776.7	745.0	722.0	704.9	691.3	678.3	669.9	662.7	658.4
45°	777.2	749.2	722.6	691.1	669.3	654.6	639.2	627.2	619.6	614.7	606.9
47.5°	720.8	692.8	665.7	638.2	617.2	600.4	585.0	576.7	566.4	560.4	555.2
50°	679.8	654.6	625.9	600.7	579.6	562.8	550.2	539.7	530.6	522.8	519.3
52.5°	642.3	615.4	590.6	566.9	544.8	525.8	514.2	503.2	496.3	487.5	483.5
55°	580.3	554.4	533.3	510.2	488.5	472.3	458.3	448.5	441.6	431.8	426.1
57.5°	522.1	498.9	473.8	453.7	431.3	417.7	406.1	392.8	384.2	376.5	371.0
60°	482.9	456.3	434.5	415.6	396.0	378.4	367.9	357.4	348.3	340.6	335.7
62.5°	441.9	418.7	398.1	377.5	359.5	344.3	332.1	323.2	315.2	310.3	305.4
65°	379.2	361.0	339.9	323.1	306.3	295.1	285.3	277.5	272.0	268.4	264.2
67.5°	321.4	303.7	285.3	268.9	257.6	249.1	242.6	236.0	233.3	228.7	226.0
70°	283.8	265.6	249.5	236.9	225.7	219.4	215.2	210.3	207.4	201.9	199.0
72.5°	242.9	229.7	218.1	207.8	198.8	193.1	187.7	181.6	177.2	171.0	168.2
75°	191.4	179.4	170.3	163.3	157.7	150.0	142.3	136.0	133.8	131.8	131.1
77.5°	141.7	134.1	127.5	121.6	114.7	109.1	107.4	105.9	105.6	104.4	104.4
80°	111.5	104.4	99.5	92.5	88.3	88.3	88.3	86.9	87.6	87.6	87.6
82.5°	82.8	76.4	73.7	71.2	70.4	70.9	70.9	71.2	70.8	71.9	71.3
85°	42.7	43.4	44.9	44.1	44.9	44.9	46.3	45.6	46.3	44.9	46.3
87.5°	17.9	20.2	21.5	22.6	23.9	24.0	24.8	25.0	25.8	25.9	26.1
90°	11.3	14.3	17.6	20.9	24.2	27.6	28.5	29.5	30.6	31.6	32.4
92.5°	18.5	19.4	21.8	24.3	26.8	29.3	30.9	32.6	34.2	35.8	36.8
95°	28.2	24.3	27.1	30.0	32.7	35.6	37.4	39.1	40.9	42.7	43.6
97.5°	121.8	110.3	91.9	73.7	55.3	36.9	39.0	41.0	43.1	45.0	46.2
100°	214.2	196.8	157.1	117.3	77.6	37.8	39.9	41.9	44.0	46.0	47.2
102.5°	269.0	249.1	205.7	162.3	118.9	75.4	69.1	62.8	56.4	50.2	47.3
105°	352.8	342.9	319.9	296.9	274.0	251.1	206.0	160.9	115.8	70.7	48.4
107.5°	442.8	445.8	449.4	453.0	456.6	460.2	427.1	394.1	361.1	328.0	294.4
110°	503.5	505.9	508.7	511.5	514.3	517.1	508.7	500.2	491.9	483.5	461.0



TEST NUMBER: P332482-940

CATALOG NUMBER: S123RDIW-S1165D1320U940-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	561.3	563.7	566.5	569.3	572.1	574.9	575.1	575.2	575.3	575.5	571.8
115°	647.0	649.0	651.2	653.5	655.9	658.2	660.7	663.3	665.8	668.3	670.1
117.5°	732.6	734.1	735.3	736.6	737.7	738.9	740.9	743.0	744.9	747.0	748.1
120°	786.6	788.1	788.8	789.6	790.4	791.1	793.2	795.2	797.3	799.3	800.3
122.5°	838.1	839.5	840.5	841.5	842.5	843.5	844.9	846.3	847.7	849.2	850.0
125°	911.7	913.2	914.2	915.3	916.2	917.3	917.7	918.3	918.8	919.3	919.8
127.5°	982.3	983.9	985.2	986.4	987.6	988.8	989.6	990.4	991.2	992.1	992.2
130°	1026.4	1027.9	1028.9	1029.9	1030.9	1031.9	1033.0	1033.9	1035.0	1036.0	1036.3
132.5°	1068.5	1070.0	1070.8	1071.6	1072.4	1073.2	1074.2	1075.2	1076.3	1077.3	1077.5
135°	1131.0	1132.2	1133.2	1134.3	1135.2	1136.3	1137.0	1137.8	1138.5	1139.3	1139.3
137.5°	1187.6	1188.8	1189.4	1190.0	1190.5	1191.1	1192.3	1193.6	1194.7	1196.0	1196.3
140°	1222.6	1223.8	1224.6	1225.3	1226.1	1226.8	1227.9	1228.9	1229.9	1230.9	1231.2
142.5°	1256.6	1257.8	1258.5	1259.3	1260.0	1260.8	1261.6	1262.4	1263.2	1264.1	1264.1
145°	1305.1	1306.2	1306.7	1307.2	1307.8	1308.2	1308.8	1309.3	1309.7	1310.3	1310.5
147.5°	1347.4	1348.2	1348.7	1349.2	1349.7	1350.2	1350.8	1351.2	1351.7	1352.3	1351.9
150°	1373.2	1373.9	1374.4	1374.8	1375.4	1375.9	1376.4	1376.9	1377.4	1378.0	1377.8
152.5°	1396.3	1396.7	1397.0	1397.3	1397.6	1397.9	1398.8	1399.7	1400.7	1401.6	1401.5
155°	1427.7	1427.6	1427.9	1428.2	1428.4	1428.6	1429.9	1431.2	1432.4	1433.8	1433.6
157.5°	1456.6	1456.5	1456.3	1456.0	1455.7	1455.5	1457.0	1458.6	1460.1	1461.6	1461.3
160°	1472.3	1472.1	1471.9	1471.6	1471.3	1471.1	1472.6	1474.1	1475.7	1477.2	1477.0
162.5°	1486.3	1485.9	1485.6	1485.3	1485.1	1484.8	1486.6	1488.3	1490.0	1491.7	1491.8
165°	1504.7	1504.2	1504.0	1503.7	1503.4	1503.2	1505.2	1507.3	1509.3	1511.4	1511.4
167.5°	1518.3	1517.9	1517.9	1517.9	1517.9	1517.9	1519.9	1522.0	1523.9	1526.0	1526.0
170°	1526.6	1526.1	1526.1	1526.1	1526.1	1526.1	1528.1	1530.2	1532.2	1534.3	1534.3
172.5°	1531.3	1530.8	1531.0	1531.2	1531.4	1531.6	1533.7	1535.7	1537.8	1539.8	1539.6
175°	1538.2	1537.7	1537.9	1538.2	1538.5	1538.7	1540.5	1542.3	1544.1	1545.9	1545.7
177.5°	1541.1	1540.7	1540.9	1541.1	1541.2	1541.5	1543.1	1544.7	1546.4	1548.0	1547.8
180°	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3



TEST NUMBER: P332482-940

CATALOG NUMBER: S123RDIW-S1165D1320U940-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2
2.5°	1559.9	1559.2	1559.9	1557.6	1559.9	1559.2	1559.9	1566.6	1566.6	1567.1	1567.7
5°	1451.4	1450.8	1448.7	1442.3	1448.7	1450.8	1451.4	1453.6	1459.2	1469.0	1466.2
7.5°	1356.8	1355.8	1349.7	1349.9	1349.7	1355.8	1356.8	1362.4	1368.6	1374.7	1381.8
10°	1300.8	1301.5	1293.1	1288.2	1293.1	1301.5	1300.8	1305.7	1314.8	1319.7	1324.6
12.5°	1246.4	1243.2	1236.4	1231.0	1236.4	1243.2	1246.4	1250.2	1262.7	1268.1	1277.6
15°	1174.7	1167.6	1150.8	1152.2	1150.8	1167.6	1174.7	1171.8	1184.5	1191.4	1194.3
17.5°	1090.1	1084.9	1084.7	1074.9	1084.7	1084.9	1090.1	1095.7	1106.6	1114.2	1134.3
20°	1040.8	1037.2	1038.7	1028.9	1038.7	1037.2	1040.8	1052.0	1059.0	1068.8	1084.9
22.5°	1002.1	998.5	992.7	989.6	992.7	998.5	1002.1	1010.0	1017.5	1031.3	1040.1
25°	945.5	939.9	934.2	937.7	934.2	939.9	945.5	949.7	963.7	970.0	982.6
27.5°	888.9	884.7	879.0	878.3	879.0	884.7	888.9	892.9	900.6	911.2	926.4
30°	852.9	848.7	846.0	842.4	846.0	848.7	852.9	856.5	864.2	875.4	886.6
32.5°	816.5	815.6	810.7	809.9	810.7	815.6	816.5	822.2	829.9	840.6	850.2
35°	768.8	764.6	763.2	763.9	763.2	764.6	768.8	771.7	778.6	788.5	797.5
37.5°	723.5	717.9	715.4	712.9	715.4	717.9	723.5	724.0	731.1	737.7	750.0
40°	691.1	685.5	684.0	682.6	684.0	685.5	691.1	690.4	698.0	702.9	714.2
42.5°	654.6	652.4	651.5	649.0	651.5	652.4	654.6	658.4	662.7	669.9	678.3
45°	604.8	604.1	599.9	601.4	599.9	604.1	604.8	606.9	614.7	619.6	627.2
47.5°	552.4	549.3	546.4	548.3	546.4	549.3	552.4	555.2	560.4	566.4	576.7
50°	516.6	515.1	508.8	510.2	508.8	515.1	516.6	519.3	522.8	530.6	539.7
52.5°	480.6	475.3	473.0	472.1	473.0	475.3	480.6	483.5	487.5	496.3	503.2
55°	421.2	414.9	412.1	410.7	412.1	414.9	421.2	426.1	431.8	441.6	448.5
57.5°	362.9	361.2	359.0	360.5	359.0	361.2	362.9	371.0	376.5	384.2	392.8
60°	328.7	328.7	328.7	328.0	328.7	328.7	328.7	335.7	340.6	348.3	357.4
62.5°	302.4	300.7	300.1	301.1	300.1	300.7	302.4	305.4	310.3	315.2	323.2
65°	262.2	261.4	258.6	257.9	258.6	261.4	262.2	264.2	268.4	272.0	277.5
67.5°	224.2	221.6	220.8	219.8	220.8	221.6	224.2	226.0	228.7	233.3	236.0
70°	195.6	194.1	189.9	190.6	189.9	194.1	195.6	199.0	201.9	207.4	210.3
72.5°	164.7	163.3	162.5	161.5	162.5	163.3	164.7	168.2	171.0	177.2	181.6
75°	130.4	129.7	128.9	131.8	128.9	129.7	130.4	131.1	131.8	133.8	136.0
77.5°	104.4	104.4	104.9	103.7	104.9	104.4	104.4	104.4	104.4	105.6	105.9
80°	87.6	87.6	86.9	86.9	86.9	87.6	87.6	87.6	87.6	87.6	86.9
82.5°	70.3	70.8	71.2	70.1	71.2	70.8	70.3	71.3	71.9	70.8	71.2
85°	46.3	45.6	47.0	46.3	47.0	45.6	46.3	46.3	44.9	46.3	45.6
87.5°	27.3	26.3	26.4	27.1	26.4	26.3	27.3	26.1	25.9	25.8	25.0
90°	32.9	33.3	33.9	34.4	33.9	33.3	32.9	32.4	31.6	30.6	29.5
92.5°	37.2	37.5	37.7	38.1	37.7	37.5	37.2	36.8	35.8	34.2	32.6
95°	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	42.7	40.9	39.1
97.5°	46.5	46.7	47.0	47.3	47.0	46.7	46.5	46.2	45.0	43.1	41.0
100°	47.3	47.6	47.9	48.2	47.9	47.6	47.3	47.2	46.0	44.0	41.9
102.5°	47.7	48.2	48.6	49.0	48.6	48.2	47.7	47.3	50.2	56.4	62.8
105°	49.0	49.4	49.9	50.5	49.9	49.4	49.0	48.4	70.7	115.8	160.9
107.5°	260.5	226.4	192.4	158.5	192.4	226.4	260.5	294.4	328.0	361.1	394.1
110°	424.6	388.2	351.8	315.3	351.8	388.2	424.6	461.0	483.5	491.9	500.2



TEST NUMBER: P332482-940

CATALOG NUMBER: S123RDIW-S1165D1320U940-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	564.0	556.3	548.7	541.0	548.7	556.3	564.0	571.8	575.5	575.3	575.2
115°	671.1	672.2	673.2	674.2	673.2	672.2	671.1	670.1	668.3	665.8	663.3
117.5°	748.3	748.5	748.8	748.9	748.8	748.5	748.3	748.1	747.0	744.9	743.0
120°	800.3	800.3	800.3	800.3	800.3	800.3	800.3	800.3	799.3	797.3	795.2
122.5°	850.2	850.3	850.6	850.8	850.6	850.3	850.2	850.0	849.2	847.7	846.3
125°	920.3	920.9	921.3	921.9	921.3	920.9	920.3	919.8	919.3	918.8	918.3
127.5°	991.8	991.2	990.7	990.2	990.7	991.2	991.8	992.2	992.1	991.2	990.4
130°	1035.7	1035.3	1034.7	1034.2	1034.7	1035.3	1035.7	1036.3	1036.0	1035.0	1033.9
132.5°	1076.7	1076.0	1075.3	1074.6	1075.3	1076.0	1076.7	1077.5	1077.3	1076.3	1075.2
135°	1138.5	1137.8	1137.0	1136.3	1137.0	1137.8	1138.5	1139.3	1139.3	1138.5	1137.8
137.5°	1195.8	1195.3	1194.8	1194.3	1194.8	1195.3	1195.8	1196.3	1196.0	1194.7	1193.6
140°	1230.7	1230.1	1229.7	1229.1	1229.7	1230.1	1230.7	1231.2	1230.9	1229.9	1228.9
142.5°	1263.4	1262.7	1261.9	1261.2	1261.9	1262.7	1263.4	1264.1	1264.1	1263.2	1262.4
145°	1310.5	1310.5	1310.5	1310.5	1310.5	1310.5	1310.5	1310.5	1310.3	1309.7	1309.3
147.5°	1350.8	1349.6	1348.4	1347.2	1348.4	1349.6	1350.8	1351.9	1352.3	1351.7	1351.2
150°	1377.1	1376.3	1375.6	1374.8	1375.6	1376.3	1377.1	1377.8	1378.0	1377.4	1376.9
152.5°	1400.3	1399.1	1397.9	1396.8	1397.9	1399.1	1400.3	1401.5	1401.6	1400.7	1399.7
155°	1432.1	1430.6	1429.1	1427.5	1429.1	1430.6	1432.1	1433.6	1433.8	1432.4	1431.2
157.5°	1459.4	1457.4	1455.4	1453.4	1455.4	1457.4	1459.4	1461.3	1461.6	1460.1	1458.6
160°	1475.2	1473.5	1471.7	1469.9	1471.7	1473.5	1475.2	1477.0	1477.2	1475.7	1474.1
162.5°	1490.2	1488.7	1487.1	1485.5	1487.1	1488.7	1490.2	1491.8	1491.7	1490.0	1488.3
165°	1509.7	1507.9	1506.1	1504.3	1506.1	1507.9	1509.7	1511.4	1511.4	1509.3	1507.3
167.5°	1523.9	1522.0	1519.9	1517.9	1519.9	1522.0	1523.9	1526.0	1526.0	1523.9	1522.0
170°	1532.2	1530.2	1528.1	1526.1	1528.1	1530.2	1532.2	1534.3	1534.3	1532.2	1530.2
172.5°	1537.4	1535.2	1532.9	1530.7	1532.9	1535.2	1537.4	1539.6	1539.8	1537.8	1535.7
175°	1543.7	1541.7	1539.6	1537.6	1539.6	1541.7	1543.7	1545.7	1545.9	1544.1	1542.3
177.5°	1545.8	1543.7	1541.7	1539.6	1541.7	1543.7	1545.8	1547.8	1548.0	1546.4	1544.7
180°	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3



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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2
2.5°	1562.6	1570.5	1578.3	1585.6	1596.9	1601.9	1609.2	1611.9	1620.4	1632.7	1642.8
5°	1467.6	1478.8	1493.5	1505.5	1524.4	1539.1	1555.2	1570.7	1588.9	1614.8	1637.9
7.5°	1387.0	1398.1	1415.8	1437.9	1458.7	1479.6	1501.6	1522.7	1548.7	1585.9	1622.7
10°	1333.7	1347.0	1368.1	1391.9	1417.8	1438.2	1464.1	1490.8	1523.0	1565.8	1609.9
12.5°	1287.7	1297.7	1322.1	1344.8	1374.1	1400.1	1425.4	1456.5	1493.3	1538.8	1591.9
15°	1214.6	1228.6	1252.4	1277.6	1308.5	1335.9	1368.8	1406.6	1442.3	1498.4	1562.9
17.5°	1141.1	1162.4	1187.2	1215.7	1238.6	1276.2	1312.0	1350.9	1394.8	1454.3	1525.1
20°	1094.0	1110.9	1134.0	1175.4	1205.5	1234.2	1267.1	1315.5	1356.1	1423.4	1497.0
22.5°	1054.3	1066.6	1092.5	1126.6	1161.7	1195.0	1228.4	1274.6	1324.7	1388.7	1468.5
25°	995.2	1014.9	1034.5	1059.0	1096.8	1136.8	1173.2	1212.5	1265.8	1333.7	1420.0
27.5°	937.6	955.4	974.7	1004.9	1033.6	1070.9	1109.0	1154.1	1211.2	1283.2	1370.6
30°	900.6	913.9	932.1	970.7	996.6	1028.9	1073.7	1113.7	1166.9	1243.3	1335.9
32.5°	862.5	879.7	899.6	929.2	961.3	991.8	1032.8	1076.1	1130.5	1205.8	1300.5
35°	808.1	828.4	848.7	870.5	902.7	934.2	968.6	1016.3	1071.6	1144.5	1237.7
37.5°	758.0	774.5	790.9	817.9	848.5	878.4	910.5	957.5	1009.7	1088.3	1173.8
40°	726.1	740.8	753.4	781.5	810.9	843.1	874.7	916.1	972.1	1045.7	1128.4
42.5°	691.3	704.9	722.0	745.0	776.7	803.9	835.4	874.5	927.2	1001.9	1074.5
45°	639.2	654.6	669.3	691.1	722.6	749.2	777.2	814.4	868.3	930.1	994.5
47.5°	585.0	600.4	617.2	638.2	665.7	692.8	720.8	753.7	802.9	863.4	906.9
50°	550.2	562.8	579.6	600.7	625.9	654.6	679.8	715.6	762.5	810.2	848.0
52.5°	514.2	525.8	544.8	566.9	590.6	615.4	642.3	673.0	715.4	760.3	790.3
55°	458.3	472.3	488.5	510.2	533.3	554.4	580.3	611.9	645.5	679.1	699.5
57.5°	406.1	417.7	431.3	453.7	473.8	498.9	522.1	546.7	577.8	603.2	616.4
60°	367.9	378.4	396.0	415.6	434.5	456.3	482.9	507.4	531.3	551.6	562.0
62.5°	332.1	344.3	359.5	377.5	398.1	418.7	441.9	462.5	483.6	501.1	508.3
65°	285.3	295.1	306.3	323.1	339.9	361.0	379.2	400.2	415.6	425.4	431.8
67.5°	242.6	249.1	257.6	268.9	285.3	303.7	321.4	337.8	350.7	357.4	363.0
70°	215.2	219.4	225.7	236.9	249.5	265.6	283.8	295.8	307.0	312.5	318.2
72.5°	187.7	193.1	198.8	207.8	218.1	229.7	242.9	257.6	263.8	270.5	273.9
75°	142.3	150.0	157.7	163.3	170.3	179.4	191.4	200.5	203.9	209.6	210.3
77.5°	107.4	109.1	114.7	121.6	127.5	134.1	141.7	149.8	151.5	154.4	156.3
80°	88.3	88.3	88.3	92.5	99.5	104.4	111.5	115.7	118.4	119.1	119.8
82.5°	70.9	70.9	70.4	71.2	73.7	76.4	82.8	87.6	89.9	89.4	87.9
85°	46.3	44.9	44.9	44.1	44.9	43.4	42.7	45.6	49.8	49.8	48.3
87.5°	24.8	24.0	23.9	22.6	21.5	20.2	17.9	18.0	17.5	19.3	18.2
90°	28.5	27.6	24.2	20.9	17.6	14.3	11.3	8.8	6.2	3.7	1.2
92.5°	30.9	29.3	26.8	24.3	21.8	19.4	18.5	19.2	19.9	20.6	21.3
95°	37.4	35.6	32.7	30.0	27.1	24.3	28.2	38.6	49.0	59.5	69.9
97.5°	39.0	36.9	55.3	73.7	91.9	110.3	121.8	126.5	131.2	135.9	140.5
100°	39.9	37.8	77.6	117.3	157.1	196.8	214.2	209.0	203.9	198.9	193.8
102.5°	69.1	75.4	118.9	162.3	205.7	249.1	269.0	265.3	261.6	258.0	254.3
105°	206.0	251.1	274.0	296.9	319.9	342.9	352.8	350.1	347.3	344.5	341.7
107.5°	427.1	460.2	456.6	453.0	449.4	445.8	442.8	440.6	438.4	436.1	433.9
110°	508.7	517.1	514.3	511.5	508.7	505.9	503.5	501.4	499.4	497.4	495.3



TEST NUMBER: P332482-940

CATALOG NUMBER: S123RDIW-S1165D1320U940-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	575.1	574.9	572.1	569.3	566.5	563.7	561.3	559.5	557.7	555.9	554.0
115°	660.7	658.2	655.9	653.5	651.2	649.0	647.0	645.5	644.0	642.5	641.0
117.5°	740.9	738.9	737.7	736.6	735.3	734.1	732.6	730.8	728.9	727.0	725.1
120°	793.2	791.1	790.4	789.6	788.8	788.1	786.6	784.3	781.9	779.7	777.4
122.5°	844.9	843.5	842.5	841.5	840.5	839.5	838.1	836.2	834.4	832.5	830.6
125°	917.7	917.3	916.2	915.3	914.2	913.2	911.7	909.6	907.6	905.5	903.5
127.5°	989.6	988.8	987.6	986.4	985.2	983.9	982.3	980.3	978.2	976.2	974.1
130°	1033.0	1031.9	1030.9	1029.9	1028.9	1027.9	1026.4	1024.3	1022.3	1020.2	1018.2
132.5°	1074.2	1073.2	1072.4	1071.6	1070.8	1070.0	1068.5	1066.5	1064.4	1062.4	1060.3
135°	1137.0	1136.3	1135.2	1134.3	1133.2	1132.2	1131.0	1129.4	1127.8	1126.3	1124.8
137.5°	1192.3	1191.1	1190.5	1190.0	1189.4	1188.8	1187.6	1185.6	1183.7	1181.8	1179.8
140°	1227.9	1226.8	1226.1	1225.3	1224.6	1223.8	1222.6	1221.1	1219.6	1218.1	1216.6
142.5°	1261.6	1260.8	1260.0	1259.3	1258.5	1257.8	1256.6	1255.1	1253.6	1252.0	1250.4
145°	1308.8	1308.2	1307.8	1307.2	1306.7	1306.2	1305.1	1303.3	1301.5	1299.8	1298.0
147.5°	1350.8	1350.2	1349.7	1349.2	1348.7	1348.2	1347.4	1346.1	1345.0	1343.8	1342.6
150°	1376.4	1375.9	1375.4	1374.8	1374.4	1373.9	1373.2	1372.4	1371.7	1370.9	1370.2
152.5°	1398.8	1397.9	1397.6	1397.3	1397.0	1396.7	1396.3	1396.0	1395.6	1395.3	1394.9
155°	1429.9	1428.6	1428.4	1428.2	1427.9	1427.6	1427.7	1428.3	1428.8	1429.3	1429.8
157.5°	1457.0	1455.5	1455.7	1456.0	1456.3	1456.5	1456.6	1456.7	1456.8	1456.8	1456.9
160°	1472.6	1471.1	1471.3	1471.6	1471.9	1472.1	1472.3	1472.6	1472.8	1473.1	1473.4
162.5°	1486.6	1484.8	1485.1	1485.3	1485.6	1485.9	1486.3	1486.9	1487.6	1488.3	1489.0
165°	1505.2	1503.2	1503.4	1503.7	1504.0	1504.2	1504.7	1505.5	1506.2	1507.0	1507.8
167.5°	1519.9	1517.9	1517.9	1517.9	1517.9	1517.9	1518.3	1519.4	1520.4	1521.4	1522.4
170°	1528.1	1526.1	1526.1	1526.1	1526.1	1526.1	1526.6	1527.7	1528.7	1529.6	1530.7
172.5°	1533.7	1531.6	1531.4	1531.2	1531.0	1530.8	1531.3	1532.5	1533.7	1535.0	1536.2
175°	1540.5	1538.7	1538.5	1538.2	1537.9	1537.7	1538.2	1539.4	1540.8	1542.0	1543.3
177.5°	1543.1	1541.5	1541.2	1541.1	1540.9	1540.7	1541.1	1542.1	1543.1	1544.1	1545.2
180°	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3



TEST NUMBER: P332482-940

CATALOG NUMBER: S123RDIW-S1165D1320U940-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2
2.5°	1646.2	1652.3	1660.2	1672.0	1681.0	1688.8	1690.5	1692.7	1698.4	1707.8	1715.1
5°	1656.8	1672.9	1698.9	1724.1	1751.4	1773.9	1794.9	1809.6	1823.6	1853.1	1876.9
7.5°	1653.5	1689.3	1730.0	1775.3	1821.1	1865.5	1906.7	1943.6	1980.3	2023.2	2072.2
10°	1651.2	1693.3	1747.9	1806.1	1869.9	1932.2	1992.5	2039.5	2094.2	2143.2	2205.6
12.5°	1640.6	1701.1	1766.5	1840.8	1919.2	1991.1	2070.5	2135.4	2197.9	2268.8	2341.3
15°	1626.7	1700.3	1783.0	1881.8	2000.9	2087.9	2169.2	2282.0	2359.1	2436.2	2539.9
17.5°	1601.3	1691.1	1794.5	1922.9	2022.2	2139.0	2261.4	2350.5	2454.4	2563.0	2656.9
20°	1581.1	1685.6	1801.2	1927.3	2054.2	2181.0	2299.5	2406.0	2513.3	2638.8	2715.8
22.5°	1560.9	1664.3	1784.4	1918.4	2054.8	2188.3	2322.5	2447.6	2568.2	2694.8	2793.2
25°	1518.0	1640.7	1771.0	1907.7	2042.3	2189.5	2349.3	2488.8	2638.0	2768.4	2861.6
27.5°	1474.6	1587.0	1716.8	1855.5	2005.0	2179.0	2367.0	2525.5	2675.0	2768.4	2797.7
30°	1435.4	1554.5	1673.7	1814.5	1976.4	2170.5	2370.3	2551.8	2674.5	2715.1	2684.9
32.5°	1395.5	1503.5	1621.5	1765.8	1937.7	2149.8	2374.8	2536.1	2609.9	2578.9	2456.2
35°	1325.3	1422.7	1537.0	1681.3	1879.0	2138.3	2356.3	2465.6	2447.4	2272.2	2040.9
37.5°	1250.2	1329.5	1435.4	1586.4	1818.2	2092.8	2276.6	2292.8	2135.1	1866.1	1598.9
40°	1190.8	1262.2	1370.9	1528.6	1771.0	2047.9	2196.5	2131.3	1886.7	1587.4	1364.6
42.5°	1133.0	1193.3	1298.0	1468.0	1726.2	1986.8	2077.1	1935.1	1652.9	1369.9	1167.2
45°	1035.2	1091.9	1197.0	1371.5	1634.4	1869.9	1858.0	1611.2	1328.8	1101.1	932.8
47.5°	942.4	992.0	1090.7	1268.8	1526.6	1694.7	1583.2	1320.7	1081.1	898.4	778.4
50°	876.7	925.9	1024.0	1199.9	1440.3	1562.9	1403.8	1150.8	931.5	780.1	684.7
52.5°	814.0	861.9	951.6	1123.0	1336.0	1409.3	1238.4	1003.9	821.0	690.4	608.5
55°	726.1	762.5	843.1	1007.1	1166.3	1183.0	1010.0	813.7	663.0	571.9	515.9
57.5°	636.5	667.9	747.5	878.2	989.7	981.1	816.9	647.2	545.7	478.0	437.3
60°	578.2	609.0	679.1	791.3	875.4	846.0	695.3	558.6	471.7	422.0	389.7
62.5°	523.8	548.0	613.5	695.4	755.9	722.6	594.3	481.2	412.2	370.3	344.8
65°	445.1	464.7	517.2	560.0	593.6	561.4	454.9	376.4	326.6	297.2	279.6
67.5°	370.1	382.6	415.9	431.3	455.0	419.6	342.1	289.4	261.2	236.3	224.2
70°	323.1	332.2	349.7	362.3	368.6	332.2	274.7	236.2	212.3	194.8	187.2
72.5°	276.0	284.0	287.5	297.8	294.6	260.5	220.9	190.2	173.1	161.2	151.2
75°	211.0	214.5	211.0	206.8	197.6	173.8	146.5	131.1	118.4	112.8	109.3
77.5°	153.7	152.7	147.8	141.3	125.7	110.8	96.0	90.9	85.3	82.4	81.1
80°	118.4	115.7	111.5	100.9	87.6	77.1	73.6	70.1	67.9	64.5	63.8
82.5°	88.2	86.5	79.5	70.6	61.3	56.4	53.4	52.2	50.0	48.2	48.1
85°	47.0	44.9	37.2	32.3	30.9	29.4	28.7	28.7	25.9	25.2	25.2
87.5°	15.9	13.0	12.9	11.8	12.4	11.9	13.1	12.7	12.8	13.6	12.7
90°	3.7	6.2	8.8	11.3	14.3	17.6	20.9	24.2	27.6	28.5	29.5
92.5°	20.6	19.9	19.2	18.5	19.4	21.8	24.3	26.8	29.3	30.9	32.6
95°	59.5	49.0	38.6	28.2	24.3	27.1	30.0	32.7	35.6	37.4	39.1
97.5°	135.9	131.2	126.5	121.8	110.3	91.9	73.7	55.3	36.9	39.0	41.0
100°	198.9	203.9	209.0	214.2	196.8	157.1	117.3	77.6	37.8	39.9	41.9
102.5°	258.0	261.6	265.3	269.0	249.1	205.7	162.3	118.9	75.4	69.1	62.8
105°	344.5	347.3	350.1	352.8	342.9	319.9	296.9	274.0	251.1	206.0	160.9
107.5°	436.1	438.4	440.6	442.8	445.8	449.4	453.0	456.6	460.2	427.1	394.1
110°	497.4	499.4	501.4	503.5	505.9	508.7	511.5	514.3	517.1	508.7	500.2



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	555.9	557.7	559.5	561.3	563.7	566.5	569.3	572.1	574.9	575.1	575.2
115°	642.5	644.0	645.5	647.0	649.0	651.2	653.5	655.9	658.2	660.7	663.3
117.5°	727.0	728.9	730.8	732.6	734.1	735.3	736.6	737.7	738.9	740.9	743.0
120°	779.7	781.9	784.3	786.6	788.1	788.8	789.6	790.4	791.1	793.2	795.2
122.5°	832.5	834.4	836.2	838.1	839.5	840.5	841.5	842.5	843.5	844.9	846.3
125°	905.5	907.6	909.6	911.7	913.2	914.2	915.3	916.2	917.3	917.7	918.3
127.5°	976.2	978.2	980.3	982.3	983.9	985.2	986.4	987.6	988.8	989.6	990.4
130°	1020.2	1022.3	1024.3	1026.4	1027.9	1028.9	1029.9	1030.9	1031.9	1033.0	1033.9
132.5°	1062.4	1064.4	1066.5	1068.5	1070.0	1070.8	1071.6	1072.4	1073.2	1074.2	1075.2
135°	1126.3	1127.8	1129.4	1131.0	1132.2	1133.2	1134.3	1135.2	1136.3	1137.0	1137.8
137.5°	1181.8	1183.7	1185.6	1187.6	1188.8	1189.4	1190.0	1190.5	1191.1	1192.3	1193.6
140°	1218.1	1219.6	1221.1	1222.6	1223.8	1224.6	1225.3	1226.1	1226.8	1227.9	1228.9
142.5°	1252.0	1253.6	1255.1	1256.6	1257.8	1258.5	1259.3	1260.0	1260.8	1261.6	1262.4
145°	1299.8	1301.5	1303.3	1305.1	1306.2	1306.7	1307.2	1307.8	1308.2	1308.8	1309.3
147.5°	1343.8	1345.0	1346.1	1347.4	1348.2	1348.7	1349.2	1349.7	1350.2	1350.8	1351.2
150°	1370.9	1371.7	1372.4	1373.2	1373.9	1374.4	1374.8	1375.4	1375.9	1376.4	1376.9
152.5°	1395.3	1395.6	1396.0	1396.3	1396.7	1397.0	1397.3	1397.6	1397.9	1398.8	1399.7
155°	1429.3	1428.8	1428.3	1427.7	1427.6	1427.9	1428.2	1428.4	1428.6	1429.9	1431.2
157.5°	1456.8	1456.8	1456.7	1456.6	1456.5	1456.3	1456.0	1455.7	1455.5	1457.0	1458.6
160°	1473.1	1472.8	1472.6	1472.3	1472.1	1471.9	1471.6	1471.3	1471.1	1472.6	1474.1
162.5°	1488.3	1487.6	1486.9	1486.3	1485.9	1485.6	1485.3	1485.1	1484.8	1486.6	1488.3
165°	1507.0	1506.2	1505.5	1504.7	1504.2	1504.0	1503.7	1503.4	1503.2	1505.2	1507.3
167.5°	1521.4	1520.4	1519.4	1518.3	1517.9	1517.9	1517.9	1517.9	1517.9	1519.9	1522.0
170°	1529.6	1528.7	1527.7	1526.6	1526.1	1526.1	1526.1	1526.1	1526.1	1528.1	1530.2
172.5°	1535.0	1533.7	1532.5	1531.3	1530.8	1531.0	1531.2	1531.4	1531.6	1533.7	1535.7
175°	1542.0	1540.8	1539.4	1538.2	1537.7	1537.9	1538.2	1538.5	1538.7	1540.5	1542.3
177.5°	1544.1	1543.1	1542.1	1541.1	1540.7	1540.9	1541.1	1541.2	1541.5	1543.1	1544.7
180°	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2	1637.2
2.5°	1726.9	1726.9	1729.1	1737.6	1738.7	1746.0	1743.7
5°	1897.9	1911.2	1916.1	1937.2	1949.8	1955.4	1944.2
7.5°	2107.0	2144.7	2162.4	2184.4	2204.0	2209.8	2194.5
10°	2259.6	2298.8	2331.7	2352.1	2371.0	2383.6	2399.8
12.5°	2407.0	2455.2	2486.5	2515.2	2534.7	2550.7	2553.3
15°	2567.2	2640.1	2695.5	2736.1	2756.5	2767.0	2762.8
17.5°	2728.8	2796.4	2835.8	2877.3	2905.5	2906.9	2907.7
20°	2820.2	2886.1	2931.7	2962.5	2994.1	2992.7	2999.6
22.5°	2881.4	2933.2	2968.1	2990.5	3001.3	2996.1	2997.4
25°	2909.9	2925.3	2919.1	2883.3	2874.3	2841.3	2846.9
27.5°	2762.5	2689.6	2614.2	2517.2	2440.7	2379.5	2382.7
30°	2562.3	2433.4	2286.2	2162.8	2052.1	2021.2	1955.4
32.5°	2282.5	2089.1	1916.7	1801.8	1706.7	1681.0	1623.4
35°	1808.2	1620.4	1443.1	1336.5	1294.5	1235.6	1234.9
37.5°	1405.5	1240.1	1146.3	1066.4	1024.5	988.9	985.4
40°	1182.3	1053.4	982.6	925.1	883.8	857.1	850.9
42.5°	1026.4	922.2	855.9	820.3	788.5	774.7	764.5
45°	838.2	768.1	721.8	689.6	674.9	664.4	658.8
47.5°	701.2	654.2	622.7	601.2	589.2	578.2	581.1
50°	626.6	588.0	564.9	544.6	535.5	527.7	528.4
52.5°	566.6	532.0	513.3	498.6	487.2	481.8	479.1
55°	480.8	459.1	440.1	429.6	423.3	415.6	413.5
57.5°	410.1	393.3	377.9	366.0	364.4	357.0	358.0
60°	363.0	349.0	336.4	330.1	325.2	318.9	321.0
62.5°	324.3	312.5	301.1	295.9	291.0	286.3	287.3
65°	265.6	254.4	247.4	244.6	242.5	240.4	238.3
67.5°	211.7	204.8	200.5	194.4	190.1	189.4	187.3
70°	178.0	168.9	161.2	153.5	151.4	150.7	151.4
72.5°	142.7	137.0	134.8	131.1	130.6	128.9	130.1
75°	107.3	105.1	103.7	100.9	100.9	100.9	100.9
77.5°	79.1	77.8	77.0	76.4	75.7	74.7	74.5
80°	61.7	61.0	59.6	59.6	58.9	59.6	58.9
82.5°	46.5	46.4	45.0	45.0	44.3	43.9	44.3
85°	23.8	23.1	24.5	23.1	23.8	22.5	23.8
87.5°	12.8	13.0	12.7	12.8	12.3	13.5	12.5
90°	30.6	31.6	32.4	32.9	33.3	33.9	34.4
92.5°	34.2	35.8	36.8	37.2	37.5	37.7	38.1
95°	40.9	42.7	43.6	43.6	43.6	43.6	43.6
97.5°	43.1	45.0	46.2	46.5	46.7	47.0	47.3
100°	44.0	46.0	47.2	47.3	47.6	47.9	48.2
102.5°	56.4	50.2	47.3	47.7	48.2	48.6	49.0
105°	115.8	70.7	48.4	49.0	49.4	49.9	50.5
107.5°	361.1	328.0	294.4	260.5	226.4	192.4	158.5
110°	491.9	483.5	461.0	424.6	388.2	351.8	315.3



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	575.3	575.5	571.8	564.0	556.3	548.7	541.0
115°	665.8	668.3	670.1	671.1	672.2	673.2	674.2
117.5°	744.9	747.0	748.1	748.3	748.5	748.8	748.9
120°	797.3	799.3	800.3	800.3	800.3	800.3	800.3
122.5°	847.7	849.2	850.0	850.2	850.3	850.6	850.8
125°	918.8	919.3	919.8	920.3	920.9	921.3	921.9
127.5°	991.2	992.1	992.2	991.8	991.2	990.7	990.2
130°	1035.0	1036.0	1036.3	1035.7	1035.3	1034.7	1034.2
132.5°	1076.3	1077.3	1077.5	1076.7	1076.0	1075.3	1074.6
135°	1138.5	1139.3	1139.3	1138.5	1137.8	1137.0	1136.3
137.5°	1194.7	1196.0	1196.3	1195.8	1195.3	1194.8	1194.3
140°	1229.9	1230.9	1231.2	1230.7	1230.1	1229.7	1229.1
142.5°	1263.2	1264.1	1264.1	1263.4	1262.7	1261.9	1261.2
145°	1309.7	1310.3	1310.5	1310.5	1310.5	1310.5	1310.5
147.5°	1351.7	1352.3	1351.9	1350.8	1349.6	1348.4	1347.2
150°	1377.4	1378.0	1377.8	1377.1	1376.3	1375.6	1374.8
152.5°	1400.7	1401.6	1401.5	1400.3	1399.1	1397.9	1396.8
155°	1432.4	1433.8	1433.6	1432.1	1430.6	1429.1	1427.5
157.5°	1460.1	1461.6	1461.3	1459.4	1457.4	1455.4	1453.4
160°	1475.7	1477.2	1477.0	1475.2	1473.5	1471.7	1469.9
162.5°	1490.0	1491.7	1491.8	1490.2	1488.7	1487.1	1485.5
165°	1509.3	1511.4	1511.4	1509.7	1507.9	1506.1	1504.3
167.5°	1523.9	1526.0	1526.0	1523.9	1522.0	1519.9	1517.9
170°	1532.2	1534.3	1534.3	1532.2	1530.2	1528.1	1526.1
172.5°	1537.8	1539.8	1539.6	1537.4	1535.2	1532.9	1530.7
175°	1544.1	1545.9	1545.7	1543.7	1541.7	1539.6	1537.6
177.5°	1546.4	1548.0	1547.8	1545.8	1543.7	1541.7	1539.6
180°	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3	1543.3

(END OF REPORT)