

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: P332222-830

Luminaire Tested: **S123DIW-S1165D1030U830-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332222-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIW-S1165D1030U830-4F0-1E-UDD-A
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 1030 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8504.0 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.49
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

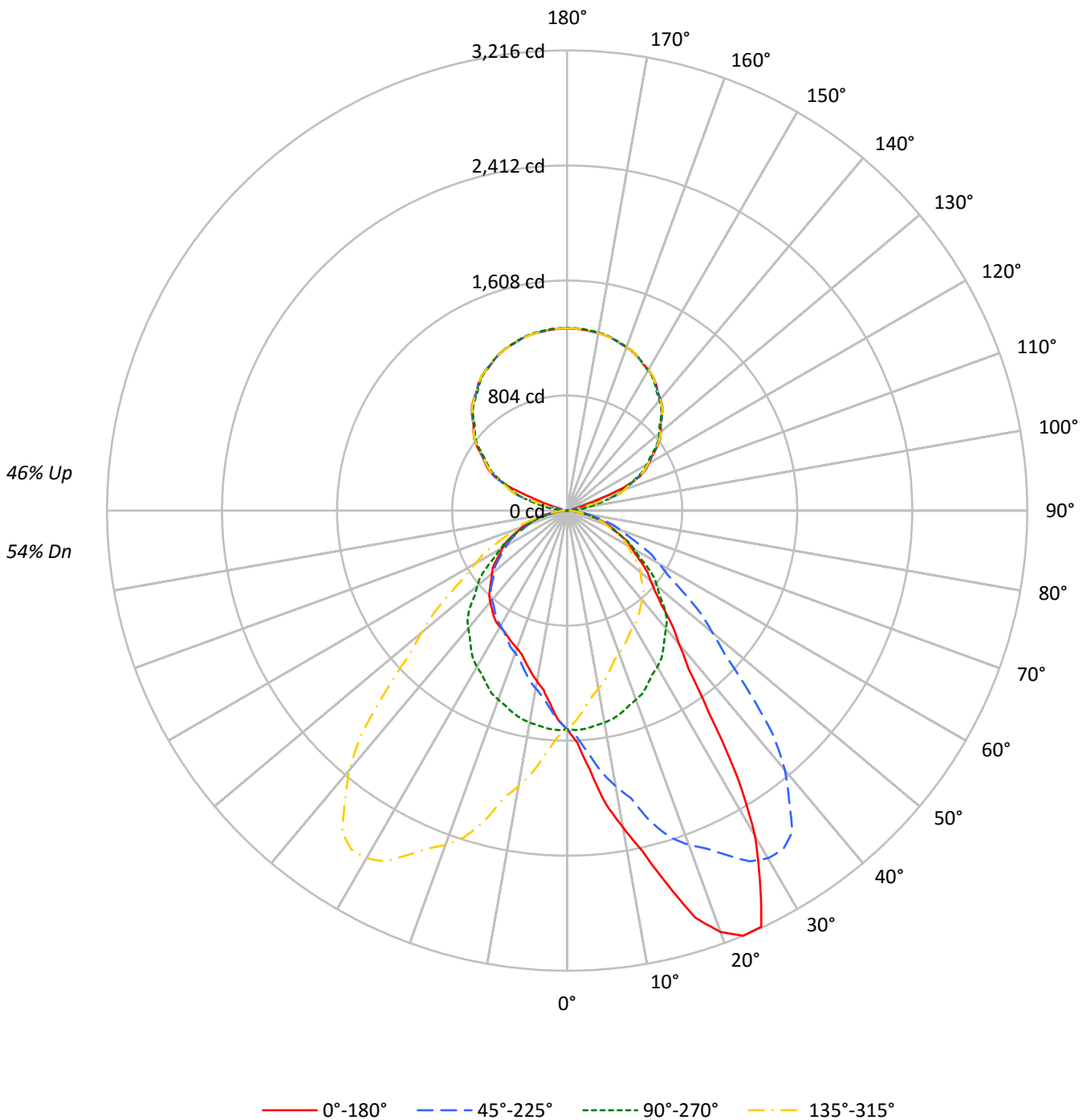
Input Watts (W): 67.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	86	86	86	72	72	72	60	60	60	54
1	99	95	91	88	92	88	85	82	76	73	71	64	62	61	54	52	51	46
2	90	83	77	72	84	77	72	68	67	63	59	57	54	51	47	45	44	39
3	83	73	66	60	76	68	62	57	59	54	50	50	47	44	42	40	37	34
4	76	65	57	51	70	61	54	48	53	47	43	45	41	38	38	35	32	29
5	70	58	50	44	64	54	47	42	47	41	37	40	36	33	34	31	28	25
6	64	52	44	38	59	49	42	36	43	37	33	37	32	29	31	28	25	22
7	59	47	39	34	55	44	37	32	39	33	29	33	29	25	28	25	22	20
8	55	43	35	30	51	40	33	28	35	30	26	31	26	23	26	23	20	18
9	51	39	32	27	48	37	30	25	32	27	23	28	24	20	24	21	18	16
10	48	36	29	24	45	34	27	23	30	24	21	26	22	19	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.6	1.8
10°-20°	482.9	5.7
20°-30°	810.5	9.5
30°-40°	917.8	10.8
40°-50°	823.0	9.7
50°-60°	664.2	7.8
60°-70°	462.8	5.4
70°-80°	243.3	2.9
80°-90°	63.1	0.7
90°-100°	46.3	0.5
100°-110°	220.8	2.6
110°-120°	530.4	6.2
120°-130°	675.4	7.9
130°-140°	721.6	8.5
140°-150°	674.8	7.9
150°-160°	544.3	6.4
160°-170°	351.3	4.1
170°-180°	121.1	1.4
0°-30°	1444.1	17.0
0°-40°	2361.9	27.8
0°-60°	3849.1	45.3
0°-90°	4618.2	54.3
90°-120°	797.5	9.4
90°-150°	2869.2	33.7
90°-180°	3886.0	45.7
0°-180°	8504.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1529	1529	1529	1529	1529	
5°	1816	1530	1356	1530	1816	188
15°	2704	1464	1105	1464	2704	781
25°	3209	1335	976	1335	3209	1407
35°	1729	1173	896	1173	1729	1123
45°	933	962	762	962	933	739
55°	634	678	604	678	634	569
65°	412	418	427	418	412	410
75°	212	199	228	199	212	227
85°	49	40	44	40	49	59
90°	28	1	28	1	28	15
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°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1622.6	1621.4	1618.4	1620.8	1616.1	1609.5	1608.9	1603.0	1585.8	1584.6	1579.9
5°	1816.4	1810.4	1809.7	1808.9	1798.6	1784.5	1757.8	1755.6	1720.0	1702.2	1680.8
7.5°	2067.3	2070.4	2059.6	2050.1	2018.5	1997.5	1969.0	1932.4	1888.7	1844.4	1814.9
10°	2247.5	2271.9	2241.6	2220.8	2201.6	2165.2	2123.1	2070.4	2017.8	1956.3	1909.7
12.5°	2440.7	2452.7	2446.6	2427.0	2397.1	2341.8	2267.0	2209.1	2160.7	2058.3	2016.9
15°	2703.8	2749.0	2720.1	2653.4	2654.9	2602.3	2504.5	2397.1	2340.1	2250.4	2128.3
17.5°	2984.1	2989.7	2977.4	2921.9	2884.8	2812.5	2722.3	2619.3	2503.8	2395.4	2265.7
20°	3133.4	3129.0	3103.0	3074.2	3010.5	2954.2	2855.6	2740.8	2592.7	2486.1	2344.5
22.5°	3216.4	3209.0	3196.7	3172.5	3119.5	3059.0	2970.6	2845.2	2704.1	2557.1	2393.7
25°	3209.0	3218.6	3220.1	3213.4	3194.9	3158.6	3089.0	2989.0	2848.3	2659.4	2489.0
27.5°	2918.6	2932.2	2971.8	3006.9	3046.2	3086.2	3080.8	3031.2	2927.1	2763.9	2555.6
30°	2628.2	2598.6	2671.9	2764.6	2827.5	2938.6	3000.9	3004.5	2946.0	2806.0	2603.0
32.5°	2225.2	2257.9	2290.3	2404.2	2541.8	2666.6	2790.5	2890.2	2901.6	2808.4	2630.9
35°	1728.9	1769.7	1828.9	1888.2	2036.4	2163.8	2381.5	2571.2	2722.3	2742.3	2633.4
37.5°	1393.3	1413.3	1450.9	1510.2	1607.1	1758.3	1926.7	2166.4	2385.4	2548.3	2555.3
40°	1217.9	1223.7	1265.9	1311.2	1389.7	1514.1	1665.9	1877.8	2140.0	2367.5	2462.3
42.5°	1086.3	1099.3	1117.2	1160.6	1223.1	1316.8	1458.0	1633.0	1873.4	2135.1	2320.6
45°	933.4	948.2	959.3	988.2	1032.6	1095.6	1194.1	1354.2	1537.1	1807.4	2057.1
47.5°	832.4	833.5	841.8	863.6	893.8	941.0	1010.7	1113.5	1281.5	1500.8	1757.1
50°	760.1	771.8	774.9	791.8	815.6	850.4	908.1	995.6	1133.4	1326.0	1561.5
52.5°	709.1	712.7	721.0	733.2	753.9	781.1	831.1	899.6	1007.8	1171.9	1388.5
55°	634.0	634.0	642.2	651.9	663.7	688.2	721.5	771.8	854.1	981.5	1160.7
57.5°	564.8	568.4	574.2	577.2	587.3	603.4	631.3	669.5	730.8	828.9	971.5
60°	518.5	525.2	524.4	530.4	539.3	551.9	575.6	606.7	661.5	740.0	860.1
62.5°	478.2	477.8	477.7	484.7	493.6	505.7	521.0	548.0	594.6	664.2	766.4
65°	411.9	410.4	415.6	420.0	423.0	431.9	443.7	467.4	498.5	550.4	629.6
67.5°	352.9	348.6	351.4	352.9	358.0	364.9	376.0	390.7	415.4	457.0	516.8
70°	312.6	308.9	308.1	309.6	314.1	319.2	327.4	341.5	364.5	397.8	441.5
72.5°	271.1	268.6	268.4	271.7	273.8	277.2	283.0	295.9	314.1	339.1	379.8
75°	211.9	211.9	211.9	212.6	214.8	217.8	222.3	228.8	243.0	260.7	288.1
77.5°	158.8	158.6	157.8	157.6	160.9	162.2	163.2	169.5	177.3	189.4	209.3
80°	124.4	120.7	122.2	124.4	125.9	126.7	128.9	130.4	137.0	143.7	157.8
82.5°	92.5	89.4	89.6	93.0	93.3	94.1	96.3	98.4	100.9	107.0	114.5
85°	48.9	48.9	49.7	49.7	50.3	49.7	51.8	52.6	52.6	56.3	60.7
87.5°	23.5	22.1	22.7	23.2	22.5	23.0	23.4	23.8	24.2	24.7	24.7
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°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1576.3	1571.6	1566.9	1558.6	1551.4	1541.3	1538.4	1534.8	1524.2	1514.8	1507.6
5°	1672.6	1654.8	1628.9	1605.2	1586.0	1560.1	1545.2	1529.7	1507.4	1487.4	1471.1
7.5°	1773.4	1738.4	1698.1	1654.5	1614.0	1574.9	1543.3	1515.1	1484.0	1454.5	1431.6
10°	1853.4	1803.0	1746.7	1686.0	1634.1	1583.8	1541.5	1504.5	1464.5	1429.6	1400.8
12.5°	1944.7	1870.0	1792.3	1718.5	1657.3	1587.3	1536.2	1489.1	1443.8	1401.8	1369.4
15°	2052.7	1957.8	1866.0	1764.5	1671.1	1583.8	1523.1	1463.8	1411.2	1368.2	1326.7
17.5°	2151.1	2043.6	1922.6	1799.1	1686.6	1582.9	1497.8	1430.9	1365.1	1312.5	1271.1
20°	2206.8	2084.5	1947.5	1819.3	1694.9	1579.3	1486.0	1406.0	1334.8	1279.3	1232.7
22.5°	2254.8	2111.8	1970.0	1833.0	1694.3	1569.8	1464.1	1381.7	1304.7	1250.3	1200.6
25°	2304.5	2133.4	1991.2	1830.4	1675.7	1546.7	1428.2	1334.8	1257.8	1194.1	1143.0
27.5°	2347.2	2131.9	1963.1	1790.3	1646.2	1517.1	1390.5	1290.4	1208.6	1139.4	1087.6
30°	2375.6	2134.9	1934.1	1763.0	1617.9	1484.5	1361.5	1260.7	1174.9	1104.5	1055.6
32.5°	2393.4	2133.1	1907.4	1725.1	1572.8	1454.8	1330.1	1225.8	1137.6	1068.4	1021.2
35°	2403.8	2120.1	1861.5	1646.7	1500.1	1385.3	1280.8	1172.6	1080.1	1015.6	962.2
37.5°	2383.0	2092.6	1808.2	1571.1	1410.6	1297.5	1209.7	1117.5	1028.9	958.0	912.0
40°	2350.4	2074.9	1766.7	1517.9	1349.0	1240.0	1165.3	1074.9	987.4	920.0	877.0
42.5°	2288.2	2038.7	1721.1	1458.6	1285.0	1176.0	1107.1	1031.6	949.0	885.6	842.7
45°	2136.4	1960.0	1652.7	1369.7	1190.4	1077.8	1017.1	962.2	887.4	826.0	788.9
47.5°	1925.7	1841.7	1553.7	1275.9	1091.7	983.4	920.3	876.2	821.5	771.8	736.3
50°	1779.3	1744.5	1486.7	1211.9	1026.0	920.0	859.3	819.3	780.0	730.4	697.8
52.5°	1610.4	1631.9	1408.5	1145.5	959.0	854.9	797.7	765.9	730.3	689.5	661.1
55°	1372.6	1450.4	1273.4	1034.1	859.3	760.1	706.0	677.8	657.0	626.7	602.3
57.5°	1150.0	1249.0	1127.3	919.3	761.4	675.7	623.9	593.2	579.9	564.0	544.8
60°	1017.9	1115.6	1023.0	842.3	695.6	614.1	568.2	542.2	528.9	517.8	501.5
62.5°	899.8	998.8	921.1	764.0	630.9	555.4	515.4	490.1	479.8	473.9	460.1
65°	737.8	823.0	771.1	642.2	538.6	471.8	435.5	417.8	408.1	406.0	397.1
67.5°	600.5	665.3	627.5	532.7	451.1	393.5	362.7	347.6	340.2	339.4	332.7
70°	510.4	571.1	542.2	456.3	386.0	340.7	314.1	300.8	296.3	295.6	291.9
72.5°	440.5	482.9	459.9	388.1	333.8	292.8	273.1	259.3	254.2	255.2	252.8
75°	325.9	357.8	344.5	294.8	251.1	224.4	208.1	199.3	194.8	197.1	194.1
77.5°	234.5	254.7	242.7	208.3	181.3	162.1	150.1	144.6	140.6	140.4	139.1
80°	177.0	188.9	182.2	161.5	139.3	123.0	113.3	109.6	107.4	106.7	105.9
82.5°	126.1	136.2	128.3	114.0	99.0	89.2	83.7	78.8	77.2	77.7	76.9
85°	63.7	67.4	64.5	55.5	49.7	45.1	42.2	40.0	38.5	39.3	37.8
87.5°	25.4	25.4	23.1	20.3	18.7	16.4	16.0	14.4	13.7	14.0	13.9
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: P332222-830

CATALOG NUMBER: S123DIW-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: P332222-830

CATALOG NUMBER: S123DIW-S1165D1030U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1503.4	1499.3	1493.4	1484.5	1477.3	1466.1	1466.1	1467.9	1467.9	1467.4	1466.1
5°	1457.8	1446.7	1433.4	1417.9	1401.6	1385.3	1382.2	1376.3	1371.9	1368.9	1365.3
7.5°	1409.7	1390.0	1370.6	1348.8	1328.9	1312.5	1301.1	1291.6	1285.5	1279.0	1274.2
10°	1377.1	1352.6	1329.6	1306.7	1281.5	1261.5	1249.0	1240.0	1233.4	1227.5	1224.5
12.5°	1338.6	1310.6	1285.3	1263.5	1235.9	1215.3	1203.3	1199.1	1191.3	1178.8	1172.3
15°	1282.2	1256.3	1226.0	1192.6	1179.3	1154.1	1140.0	1133.4	1128.9	1119.3	1116.3
17.5°	1234.1	1200.1	1166.1	1141.2	1116.4	1096.0	1088.2	1079.9	1073.9	1066.1	1063.8
20°	1195.6	1165.3	1134.1	1107.5	1081.5	1059.3	1052.6	1046.7	1040.8	1037.1	1034.1
22.5°	1156.5	1126.1	1100.3	1075.4	1047.7	1033.2	1026.0	1019.5	1015.3	1012.8	1009.8
25°	1101.5	1074.9	1045.9	1023.7	1001.5	991.8	987.4	983.7	980.8	977.0	976.3
27.5°	1052.3	1023.3	999.8	979.1	963.2	955.2	950.8	949.0	949.7	951.0	951.9
30°	1015.6	988.9	969.7	951.9	937.1	929.6	928.9	928.9	931.9	932.6	934.1
32.5°	981.8	959.9	940.7	923.4	912.2	907.1	909.9	909.9	912.3	914.3	916.9
35°	932.6	913.3	898.5	883.7	874.1	876.3	877.8	879.3	883.0	887.4	890.4
37.5°	885.6	868.9	853.5	842.0	837.5	841.5	845.1	848.2	852.4	855.9	858.8
40°	851.9	839.2	824.4	814.1	815.6	817.8	820.8	824.4	828.2	830.4	833.4
42.5°	820.5	807.3	796.1	787.4	789.5	792.3	794.1	796.1	800.3	804.4	806.1
45°	772.6	762.2	751.9	746.7	748.2	749.7	751.1	753.4	757.1	760.1	760.7
47.5°	718.9	711.6	704.6	699.6	701.9	701.3	703.3	708.0	709.2	711.0	715.1
50°	684.5	677.8	669.7	668.2	668.2	668.2	668.9	674.9	674.9	677.8	680.8
52.5°	646.6	642.2	637.1	634.4	633.2	633.2	636.3	639.3	640.5	644.6	647.6
55°	590.4	586.0	581.5	579.3	577.8	579.3	585.2	586.6	590.4	592.6	594.8
57.5°	531.9	528.5	524.9	523.7	523.4	525.4	528.6	533.0	534.0	540.7	544.1
60°	493.3	488.1	485.2	485.2	483.7	490.4	488.9	496.3	497.8	502.3	507.5
62.5°	453.6	446.7	445.5	445.5	447.6	449.5	451.6	454.9	458.6	464.3	468.3
65°	389.6	386.0	391.2	390.4	388.9	393.3	393.3	397.1	401.5	406.7	414.8
67.5°	329.0	327.2	327.5	327.5	329.8	332.3	334.4	337.6	343.0	348.5	353.8
70°	288.1	290.4	286.7	289.6	291.9	292.6	294.1	298.5	304.4	308.1	314.1
72.5°	248.5	248.3	248.7	250.0	252.1	253.4	255.0	260.0	266.6	269.7	274.4
75°	191.1	190.4	192.6	192.6	196.3	197.7	199.3	201.5	207.5	211.9	215.6
77.5°	139.6	140.4	140.0	142.5	141.5	141.8	146.4	148.6	149.2	158.0	159.9
80°	105.2	106.7	107.4	108.1	108.9	107.4	112.6	114.8	114.8	120.0	123.7
82.5°	75.6	76.4	78.4	79.1	79.3	80.8	81.2	82.8	84.6	86.8	91.7
85°	37.8	40.0	40.7	40.0	40.7	39.3	41.5	42.2	43.0	43.0	43.0
87.5°	13.8	14.8	14.8	15.9	15.8	17.0	17.2	16.1	16.3	18.3	16.0
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: P332222-830

CATALOG NUMBER: S123DIW-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: P332222-830

CATALOG NUMBER: S123DIW-S1165D1030U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1462.0	1461.4	1465.6	1462.5	1465.6	1461.4	1462.0	1466.1	1467.4	1467.9	1467.9
5°	1360.7	1363.0	1355.6	1355.6	1355.6	1363.0	1360.7	1365.3	1368.9	1371.9	1376.3
7.5°	1270.7	1267.4	1267.7	1263.8	1267.7	1267.4	1270.7	1274.2	1279.0	1285.5	1291.6
10°	1215.6	1211.2	1209.7	1210.4	1209.7	1211.2	1215.6	1224.5	1227.5	1233.4	1240.0
12.5°	1170.0	1169.0	1159.3	1159.4	1159.3	1169.0	1170.0	1172.3	1178.8	1191.3	1199.1
15°	1116.3	1102.3	1100.8	1105.2	1100.8	1102.3	1116.3	1116.3	1119.3	1128.9	1133.4
17.5°	1062.5	1055.2	1055.6	1053.4	1055.6	1055.2	1062.5	1063.8	1066.1	1073.9	1079.9
20°	1034.1	1029.6	1028.9	1023.7	1028.9	1029.6	1034.1	1034.1	1037.1	1040.8	1046.7
22.5°	1008.0	1006.5	1007.0	1001.3	1007.0	1006.5	1008.0	1009.8	1012.8	1015.3	1019.5
25°	975.6	979.3	976.3	976.3	976.3	979.3	975.6	976.3	977.0	980.8	983.7
27.5°	953.7	953.5	952.1	952.1	952.1	953.5	953.7	951.9	951.0	949.7	949.0
30°	937.1	936.3	937.8	937.8	937.8	936.3	937.1	934.1	932.6	931.9	928.9
32.5°	920.5	921.5	921.8	922.4	921.8	921.5	920.5	916.9	914.3	912.3	909.9
35°	894.8	895.6	897.8	896.4	897.8	895.6	894.8	890.4	887.4	883.0	879.3
37.5°	860.2	863.6	862.8	864.0	862.8	863.6	860.2	858.8	855.9	852.4	848.2
40°	834.1	836.3	835.6	835.6	835.6	836.3	834.1	833.4	830.4	828.2	824.4
42.5°	807.5	809.1	807.1	806.0	807.1	809.1	807.5	806.1	804.4	800.3	796.1
45°	763.7	762.2	764.5	761.5	764.5	762.2	763.7	760.7	760.1	757.1	753.4
47.5°	714.8	716.3	716.9	719.2	716.9	716.3	714.8	715.1	711.0	709.2	708.0
50°	682.2	686.6	686.6	686.0	686.6	686.6	682.2	680.8	677.8	674.9	674.9
52.5°	650.3	652.3	655.3	655.2	655.3	652.3	650.3	647.6	644.6	640.5	639.3
55°	600.8	602.3	603.7	604.5	603.7	602.3	600.8	594.8	592.6	590.4	586.6
57.5°	549.5	548.9	552.4	553.5	552.4	548.9	549.5	544.1	540.7	534.0	533.0
60°	513.3	513.3	519.2	521.5	519.2	513.3	513.3	507.5	502.3	497.8	496.3
62.5°	474.9	477.2	483.1	480.0	483.1	477.2	474.9	468.3	464.3	458.6	454.9
65°	418.5	424.4	423.7	426.7	423.7	424.4	418.5	414.8	406.7	401.5	397.1
67.5°	359.7	363.4	368.7	369.2	368.7	363.4	359.7	353.8	348.5	343.0	337.6
70°	320.0	323.7	326.7	328.9	326.7	323.7	320.0	314.1	308.1	304.4	298.5
72.5°	281.5	283.4	290.5	287.4	290.5	283.4	281.5	274.4	269.7	266.6	260.0
75°	220.7	225.9	230.4	228.2	230.4	225.9	220.7	215.6	211.9	207.5	201.5
77.5°	163.2	168.4	170.5	168.6	170.5	168.4	163.2	159.9	158.0	149.2	148.6
80°	128.9	128.2	132.6	131.9	132.6	128.2	128.9	123.7	120.0	114.8	114.8
82.5°	94.5	93.8	95.9	96.3	95.9	93.8	94.5	91.7	86.8	84.6	82.8
85°	45.9	48.2	45.1	44.5	45.1	48.2	45.9	43.0	43.0	43.0	42.2
87.5°	16.1	16.2	15.6	15.2	15.6	16.2	16.1	16.0	18.3	16.3	16.1
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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CATALOG NUMBER: S123DIW-S1165D1030U830-4F0-1E-UDD-A

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



TEST NUMBER: P332222-830

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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1466.1	1466.1	1477.3	1484.5	1493.4	1499.3	1503.4	1507.6	1514.8	1524.2	1534.8
5°	1382.2	1385.3	1401.6	1417.9	1433.4	1446.7	1457.8	1471.1	1487.4	1507.4	1529.7
7.5°	1301.1	1312.5	1328.9	1348.8	1370.6	1390.0	1409.7	1431.6	1454.5	1484.0	1515.1
10°	1249.0	1261.5	1281.5	1306.7	1329.6	1352.6	1377.1	1400.8	1429.6	1464.5	1504.5
12.5°	1203.3	1215.3	1235.9	1263.5	1285.3	1310.6	1338.6	1369.4	1401.8	1443.8	1489.1
15°	1140.0	1154.1	1179.3	1192.6	1226.0	1256.3	1282.2	1326.7	1368.2	1411.2	1463.8
17.5°	1088.2	1096.0	1116.4	1141.2	1166.1	1200.1	1234.1	1271.1	1312.5	1365.1	1430.9
20°	1052.6	1059.3	1081.5	1107.5	1134.1	1165.3	1195.6	1232.7	1279.3	1334.8	1406.0
22.5°	1026.0	1033.2	1047.7	1075.4	1100.3	1126.1	1156.5	1200.6	1250.3	1304.7	1381.7
25°	987.4	991.8	1001.5	1023.7	1045.9	1074.9	1101.5	1143.0	1194.1	1257.8	1334.8
27.5°	950.8	955.2	963.2	979.1	999.8	1023.3	1052.3	1087.6	1139.4	1208.6	1290.4
30°	928.9	929.6	937.1	951.9	969.7	988.9	1015.6	1055.6	1104.5	1174.9	1260.7
32.5°	909.9	907.1	912.2	923.4	940.7	959.9	981.8	1021.2	1068.4	1137.6	1225.8
35°	877.8	876.3	874.1	883.7	898.5	913.3	932.6	962.2	1015.6	1080.1	1172.6
37.5°	845.1	841.5	837.5	842.0	853.5	868.9	885.6	912.0	958.0	1028.9	1117.5
40°	820.8	817.8	815.6	814.1	824.4	839.2	851.9	877.0	920.0	987.4	1074.9
42.5°	794.1	792.3	789.5	787.4	796.1	807.3	820.5	842.7	885.6	949.0	1031.6
45°	751.1	749.7	748.2	746.7	751.9	762.2	772.6	788.9	826.0	887.4	962.2
47.5°	703.3	701.3	701.9	699.6	704.6	711.6	718.9	736.3	771.8	821.5	876.2
50°	668.9	668.2	668.2	668.2	669.7	677.8	684.5	697.8	730.4	780.0	819.3
52.5°	636.3	633.2	633.2	634.4	637.1	642.2	646.6	661.1	689.5	730.3	765.9
55°	585.2	579.3	577.8	579.3	581.5	586.0	590.4	602.3	626.7	657.0	677.8
57.5°	528.6	525.4	523.4	523.7	524.9	528.5	531.9	544.8	564.0	579.9	593.2
60°	488.9	490.4	483.7	485.2	485.2	488.1	493.3	501.5	517.8	528.9	542.2
62.5°	451.6	449.5	447.6	445.5	445.5	446.7	453.6	460.1	473.9	479.8	490.1
65°	393.3	393.3	388.9	390.4	391.2	386.0	389.6	397.1	406.0	408.1	417.8
67.5°	334.4	332.3	329.8	327.5	327.5	327.2	329.0	332.7	339.4	340.2	347.6
70°	294.1	292.6	291.9	289.6	286.7	290.4	288.1	291.9	295.6	296.3	300.8
72.5°	255.0	253.4	252.1	250.0	248.7	248.3	248.5	252.8	255.2	254.2	259.3
75°	199.3	197.7	196.3	192.6	192.6	190.4	191.1	194.1	197.1	194.8	199.3
77.5°	146.4	141.8	141.5	142.5	140.0	140.4	139.6	139.1	140.4	140.6	144.6
80°	112.6	107.4	108.9	108.1	107.4	106.7	105.2	105.9	106.7	107.4	109.6
82.5°	81.2	80.8	79.3	79.1	78.4	76.4	75.6	76.9	77.7	77.2	78.8
85°	41.5	39.3	40.7	40.0	40.7	40.0	37.8	37.8	39.3	38.5	40.0
87.5°	17.2	17.0	15.8	15.9	14.8	14.8	13.8	13.9	14.0	13.7	14.4
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



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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: P332222-830

CATALOG NUMBER: S123DIW-S1165D1030U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1538.4	1541.3	1551.4	1558.6	1566.9	1571.6	1576.3	1579.9	1584.6	1585.8	1603.0
5°	1545.2	1560.1	1586.0	1605.2	1628.9	1654.8	1672.6	1680.8	1702.2	1720.0	1755.6
7.5°	1543.3	1574.9	1614.0	1654.5	1698.1	1738.4	1773.4	1814.9	1844.4	1888.7	1932.4
10°	1541.5	1583.8	1634.1	1686.0	1746.7	1803.0	1853.4	1909.7	1956.3	2017.8	2070.4
12.5°	1536.2	1587.3	1657.3	1718.5	1792.3	1870.0	1944.7	2016.9	2058.3	2160.7	2209.1
15°	1523.1	1583.8	1671.1	1764.5	1866.0	1957.8	2052.7	2128.3	2250.4	2340.1	2397.1
17.5°	1497.8	1582.9	1686.6	1799.1	1922.6	2043.6	2151.1	2265.7	2395.4	2503.8	2619.3
20°	1486.0	1579.3	1694.9	1819.3	1947.5	2084.5	2206.8	2344.5	2486.1	2592.7	2740.8
22.5°	1464.1	1569.8	1694.3	1833.0	1970.0	2111.8	2254.8	2393.7	2557.1	2704.1	2845.2
25°	1428.2	1546.7	1675.7	1830.4	1991.2	2133.4	2304.5	2489.0	2659.4	2848.3	2989.0
27.5°	1390.5	1517.1	1646.2	1790.3	1963.1	2131.9	2347.2	2555.6	2763.9	2927.1	3031.2
30°	1361.5	1484.5	1617.9	1763.0	1934.1	2134.9	2375.6	2603.0	2806.0	2946.0	3004.5
32.5°	1330.1	1454.8	1572.8	1725.1	1907.4	2133.1	2393.4	2630.9	2808.4	2901.6	2890.2
35°	1280.8	1385.3	1500.1	1646.7	1861.5	2120.1	2403.8	2633.4	2742.3	2722.3	2571.2
37.5°	1209.7	1297.5	1410.6	1571.1	1808.2	2092.6	2383.0	2555.3	2548.3	2385.4	2166.4
40°	1165.3	1240.0	1349.0	1517.9	1766.7	2074.9	2350.4	2462.3	2367.5	2140.0	1877.8
42.5°	1107.1	1176.0	1285.0	1458.6	1721.1	2038.7	2288.2	2320.6	2135.1	1873.4	1633.0
45°	1017.1	1077.8	1190.4	1369.7	1652.7	1960.0	2136.4	2057.1	1807.4	1537.1	1354.2
47.5°	920.3	983.4	1091.7	1275.9	1553.7	1841.7	1925.7	1757.1	1500.8	1281.5	1113.5
50°	859.3	920.0	1026.0	1211.9	1486.7	1744.5	1779.3	1561.5	1326.0	1133.4	995.6
52.5°	797.7	854.9	959.0	1145.5	1408.5	1631.9	1610.4	1388.5	1171.9	1007.8	899.6
55°	706.0	760.1	859.3	1034.1	1273.4	1450.4	1372.6	1160.7	981.5	854.1	771.8
57.5°	623.9	675.7	761.4	919.3	1127.3	1249.0	1150.0	971.5	828.9	730.8	669.5
60°	568.2	614.1	695.6	842.3	1023.0	1115.6	1017.9	860.1	740.0	661.5	606.7
62.5°	515.4	555.4	630.9	764.0	921.1	998.8	899.8	766.4	664.2	594.6	548.0
65°	435.5	471.8	538.6	642.2	771.1	823.0	737.8	629.6	550.4	498.5	467.4
67.5°	362.7	393.5	451.1	532.7	627.5	665.3	600.5	516.8	457.0	415.4	390.7
70°	314.1	340.7	386.0	456.3	542.2	571.1	510.4	441.5	397.8	364.5	341.5
72.5°	273.1	292.8	333.8	388.1	459.9	482.9	440.5	379.8	339.1	314.1	295.9
75°	208.1	224.4	251.1	294.8	344.5	357.8	325.9	288.1	260.7	243.0	228.8
77.5°	150.1	162.1	181.3	208.3	242.7	254.7	234.5	209.3	189.4	177.3	169.5
80°	113.3	123.0	139.3	161.5	182.2	188.9	177.0	157.8	143.7	137.0	130.4
82.5°	83.7	89.2	99.0	114.0	128.3	136.2	126.1	114.5	107.0	100.9	98.4
85°	42.2	45.1	49.7	55.5	64.5	67.4	63.7	60.7	56.3	52.6	52.6
87.5°	16.0	16.4	18.7	20.3	23.1	25.4	25.4	24.7	24.7	24.2	23.8
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°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1608.9	1609.5	1616.1	1620.8	1618.4	1621.4	1622.6
5°	1757.8	1784.5	1798.6	1808.9	1809.7	1810.4	1816.4
7.5°	1969.0	1997.5	2018.5	2050.1	2059.6	2070.4	2067.3
10°	2123.1	2165.2	2201.6	2220.8	2241.6	2271.9	2247.5
12.5°	2267.0	2341.8	2397.1	2427.0	2446.6	2452.7	2440.7
15°	2504.5	2602.3	2654.9	2653.4	2720.1	2749.0	2703.8
17.5°	2722.3	2812.5	2884.8	2921.9	2977.4	2989.7	2984.1
20°	2855.6	2954.2	3010.5	3074.2	3103.0	3129.0	3133.4
22.5°	2970.6	3059.0	3119.5	3172.5	3196.7	3209.0	3216.4
25°	3089.0	3158.6	3194.9	3213.4	3220.1	3218.6	3209.0
27.5°	3080.8	3086.2	3046.2	3006.9	2971.8	2932.2	2918.6
30°	3000.9	2938.6	2827.5	2764.6	2671.9	2598.6	2628.2
32.5°	2790.5	2666.6	2541.8	2404.2	2290.3	2257.9	2225.2
35°	2381.5	2163.8	2036.4	1888.2	1828.9	1769.7	1728.9
37.5°	1926.7	1758.3	1607.1	1510.2	1450.9	1413.3	1393.3
40°	1665.9	1514.1	1389.7	1311.2	1265.9	1223.7	1217.9
42.5°	1458.0	1316.8	1223.1	1160.6	1117.2	1099.3	1086.3
45°	1194.1	1095.6	1032.6	988.2	959.3	948.2	933.4
47.5°	1010.7	941.0	893.8	863.6	841.8	833.5	832.4
50°	908.1	850.4	815.6	791.8	774.9	771.8	760.1
52.5°	831.1	781.1	753.9	733.2	721.0	712.7	709.1
55°	721.5	688.2	663.7	651.9	642.2	634.0	634.0
57.5°	631.3	603.4	587.3	577.2	574.2	568.4	564.8
60°	575.6	551.9	539.3	530.4	524.4	525.2	518.5
62.5°	521.0	505.7	493.6	484.7	477.7	477.8	478.2
65°	443.7	431.9	423.0	420.0	415.6	410.4	411.9
67.5°	376.0	364.9	358.0	352.9	351.4	348.6	352.9
70°	327.4	319.2	314.1	309.6	308.1	308.9	312.6
72.5°	283.0	277.2	273.8	271.7	268.4	268.6	271.1
75°	222.3	217.8	214.8	212.6	211.9	211.9	211.9
77.5°	163.2	162.2	160.9	157.6	157.8	158.6	158.8
80°	128.9	126.7	125.9	124.4	122.2	120.7	124.4
82.5°	96.3	94.1	93.3	93.0	89.6	89.4	92.5
85°	51.8	49.7	50.3	49.7	49.7	48.9	48.9
87.5°	23.4	23.0	22.5	23.2	22.7	22.1	23.5
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)