

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: P332229-830

Luminaire Tested: **S123DIW-S1165D1320U830-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332229-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIW-S1165D1320U830-4F0-1E-UDD-A1
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 1320 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8930.9 lumens
Efficiency: N/A
Efficacy: 117.2 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

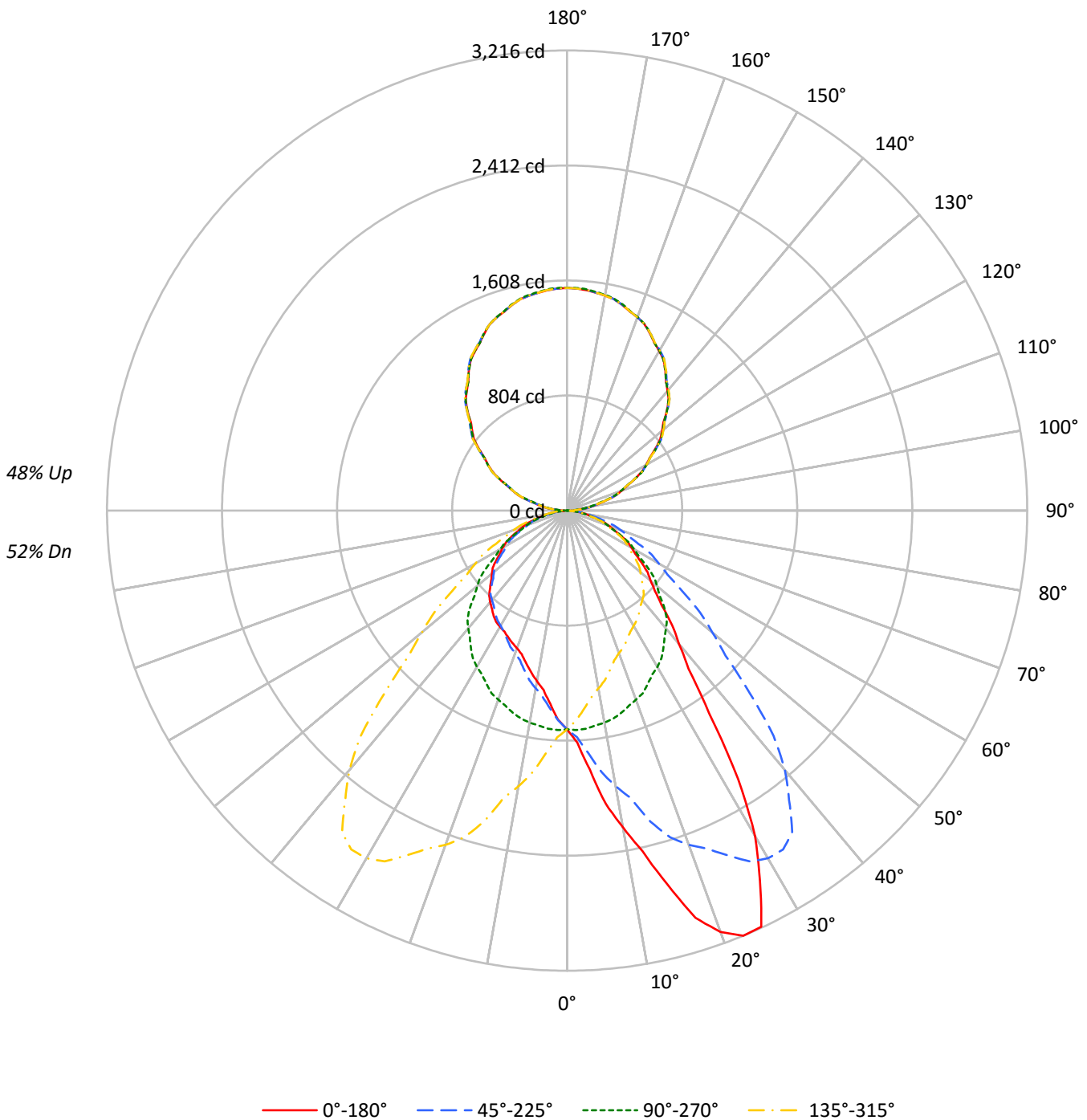
Input Watts (W): 76.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	52																												
1	98	94	90	87	91	87	84	81	74	72	70	62	61	59	51	50	49	44																												
2	90	83	77	72	83	77	71	67	65	62	58	55	52	50	46	44	42	37																												
3	82	73	66	60	76	68	61	56	58	53	49	49	45	42	41	38	36	32																												
4	75	65	57	51	69	60	53	48	52	46	42	44	40	37	36	34	31	28																												
5	69	58	50	44	64	54	47	41	46	41	36	39	35	32	33	30	27	24																												
6	64	52	44	38	59	48	41	36	42	36	32	36	31	28	30	27	24	21																												
7	59	47	39	33	54	44	37	32	38	32	28	32	28	25	27	24	21	19																												
8	55	42	35	29	51	40	33	28	35	29	25	30	25	22	25	22	19	17																												
9	51	39	31	26	47	36	30	25	32	26	22	27	23	20	23	20	17	15																												
10	48	36	28	24	44	33	27	22	29	24	20	25	21	18	21	18	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	1.7
10°-20°	482.9	5.4
20°-30°	810.5	9.1
30°-40°	917.8	10.3
40°-50°	823.0	9.2
50°-60°	664.2	7.4
60°-70°	462.8	5.2
70°-80°	243.3	2.7
80°-90°	64.1	0.7
90°-100°	101.4	1.1
100°-110°	303.4	3.4
110°-120°	516.1	5.8
120°-130°	678.8	7.6
130°-140°	763.0	8.5
140°-150°	750.0	8.4
150°-160°	631.4	7.1
160°-170°	420.3	4.7
170°-180°	147.2	1.6
0°-30°	1444.1	16.2
0°-40°	2361.9	26.4
0°-60°	3849.1	43.1
0°-90°	4619.2	51.7
90°-120°	920.9	10.3
90°-150°	3112.8	34.9
90°-180°	4312.0	48.3
0°-180°	8930.9	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°	37	1	37	1	37	20
95°	95	72	95	72	95	98
105°	291	275	291	275	291	309
115°	521	520	521	520	521	516
125°	752	760	752	760	752	672
135°	985	987	985	987	985	758
145°	1197	1197	1197	1197	1197	747
155°	1368	1370	1368	1370	1368	630
165°	1488	1493	1488	1493	1488	420
175°	1546	1553	1546	1553	1546	147
180°	1556	1556	1556	1556	1556	



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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°	25.1	23.8	24.3	24.8	24.1	24.5	24.9	25.3	25.6	26.0	25.9
90°	36.7	36.1	35.6	35.1	34.5	33.6	32.6	31.5	30.4	29.3	25.8
92.5°	49.4	49.7	50.0	50.3	50.7	50.4	49.6	48.6	47.8	46.9	45.0
95°	95.4	95.4	95.4	95.4	95.4	94.8	93.7	92.7	91.5	90.5	88.3
97.5°	146.7	146.8	146.9	147.0	147.1	146.6	145.3	144.0	142.8	141.6	140.0
100°	185.8	185.3	184.7	184.2	183.6	182.9	182.1	181.3	180.5	179.7	178.3
102.5°	225.9	226.0	226.1	226.2	226.3	226.0	225.2	224.3	223.6	222.7	220.9
105°	291.0	290.4	289.8	289.4	288.8	288.5	288.5	288.5	288.5	288.5	286.1
107.5°	358.6	359.0	359.3	359.7	360.0	359.7	358.8	358.0	357.1	356.2	355.2
110°	404.6	405.2	405.8	406.2	406.8	406.5	405.5	404.4	403.3	402.2	401.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	453.6	453.6	453.7	453.8	453.9	453.4	452.0	450.7	449.5	448.2	448.1
115°	520.8	521.0	521.3	521.6	521.9	521.9	521.6	521.3	521.0	520.8	521.3
117.5°	589.0	589.7	590.5	591.3	592.0	592.4	592.5	592.6	592.6	592.7	593.3
120°	636.9	637.4	638.0	638.6	639.0	639.5	639.8	640.0	640.3	640.6	642.0
122.5°	682.9	683.6	684.4	685.1	685.9	686.6	687.3	688.1	688.7	689.5	690.1
125°	751.8	752.9	753.9	755.1	756.2	757.2	758.4	759.4	760.5	761.6	762.1
127.5°	820.5	821.8	823.0	824.3	825.5	826.9	828.4	829.9	831.4	833.0	833.6
130°	865.5	867.4	869.3	871.2	873.1	874.6	875.7	876.8	877.9	878.9	879.8
132.5°	912.5	913.9	915.4	916.8	918.3	919.7	921.0	922.3	923.6	924.9	925.5
135°	985.3	985.8	986.4	986.9	987.5	988.3	989.4	990.4	991.6	992.6	992.9
137.5°	1049.6	1050.7	1051.7	1052.7	1053.8	1054.8	1055.9	1057.1	1058.2	1059.4	1058.7
140°	1091.7	1093.5	1095.4	1097.4	1099.3	1100.3	1100.6	1100.9	1101.2	1101.5	1101.2
142.5°	1134.7	1136.1	1137.6	1139.1	1140.6	1141.4	1141.7	1142.0	1142.3	1142.6	1142.0
145°	1196.7	1197.9	1198.9	1200.0	1201.2	1201.8	1202.1	1202.3	1202.6	1202.9	1202.1
147.5°	1252.1	1253.7	1255.3	1257.0	1258.6	1259.3	1259.3	1259.3	1259.3	1259.3	1258.6
150°	1287.2	1288.8	1290.5	1292.1	1293.7	1294.6	1294.6	1294.6	1294.6	1294.6	1294.0
152.5°	1321.4	1322.9	1324.3	1325.7	1327.1	1327.6	1327.2	1326.7	1326.3	1325.9	1325.6
155°	1367.9	1369.8	1371.8	1373.7	1375.5	1375.9	1374.9	1373.8	1372.7	1371.6	1371.3
157.5°	1410.2	1411.7	1413.2	1414.8	1416.3	1416.5	1415.3	1414.2	1413.1	1411.9	1411.7
160°	1437.6	1438.7	1439.8	1440.9	1442.0	1441.8	1440.5	1439.1	1437.8	1436.3	1436.3
162.5°	1458.1	1459.9	1461.6	1463.4	1465.1	1465.3	1464.0	1462.5	1461.2	1459.8	1459.6
165°	1487.7	1489.6	1491.6	1493.5	1495.3	1495.4	1493.8	1492.2	1490.5	1488.9	1488.9
167.5°	1512.9	1514.6	1516.3	1518.0	1519.7	1519.7	1518.0	1516.3	1514.6	1512.9	1512.7
170°	1525.6	1527.5	1529.5	1531.3	1533.2	1533.2	1531.3	1529.5	1527.5	1525.6	1525.6
172.5°	1535.4	1537.3	1539.2	1541.2	1543.0	1543.1	1541.4	1539.7	1538.0	1536.3	1536.3
175°	1546.4	1548.3	1550.2	1552.1	1554.0	1554.2	1552.6	1550.9	1549.3	1547.7	1547.7
177.5°	1552.3	1553.8	1555.3	1556.8	1558.4	1558.5	1557.2	1555.9	1554.5	1553.2	1553.2
180°	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2



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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°	26.4	26.3	23.8	20.8	19.0	16.8	16.2	14.4	13.9	14.3	14.3
90°	22.2	18.8	15.2	12.1	9.3	6.7	4.0	1.2	4.0	6.7	9.3
92.5°	42.9	40.9	38.9	36.9	35.2	33.3	31.4	29.6	31.4	33.3	35.2
95°	86.1	84.0	81.8	79.7	77.9	76.0	74.0	72.1	74.0	76.0	77.9
97.5°	138.4	136.9	135.3	133.7	132.3	130.9	129.5	128.1	129.5	130.9	132.3
100°	177.0	175.6	174.3	172.8	171.2	169.5	167.9	166.3	167.9	169.5	171.2
102.5°	219.1	217.4	215.6	214.1	213.2	212.3	211.2	210.3	211.2	212.3	213.2
105°	283.6	281.2	278.7	277.2	276.6	276.2	275.6	275.0	275.6	276.2	276.6
107.5°	354.3	353.3	352.3	351.7	351.4	351.0	350.7	350.3	350.7	351.0	351.4
110°	401.1	400.6	400.0	399.4	398.9	398.4	397.8	397.3	397.8	398.4	398.9



TEST NUMBER: P332229-830

CATALOG NUMBER: S123DIW-S1165D1320U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	447.9	447.8	447.7	447.5	447.1	446.9	446.5	446.2	446.5	446.9	447.1
115°	521.9	522.4	522.9	522.8	522.0	521.1	520.4	519.5	520.4	521.1	522.0
117.5°	594.1	594.7	595.5	595.6	595.0	594.5	593.9	593.4	593.9	594.5	595.0
120°	643.3	644.6	646.0	645.8	644.2	642.6	640.9	639.3	640.9	642.6	644.2
122.5°	690.9	691.5	692.3	692.0	690.9	689.7	688.4	687.3	688.4	689.7	690.9
125°	762.7	763.2	763.7	763.6	762.8	762.0	761.2	760.3	761.2	762.0	762.8
127.5°	834.2	834.8	835.4	834.8	833.0	831.3	829.6	827.8	829.6	831.3	833.0
130°	880.6	881.4	882.2	881.6	879.4	877.2	875.0	872.8	875.0	877.2	879.4
132.5°	926.1	926.7	927.3	926.5	924.4	922.2	920.0	917.8	920.0	922.2	924.4
135°	993.2	993.4	993.7	993.1	991.4	989.8	988.2	986.6	988.2	989.8	991.4
137.5°	1058.0	1057.2	1056.6	1055.6	1054.1	1052.8	1051.4	1050.1	1051.4	1052.8	1054.1
140°	1100.9	1100.6	1100.3	1099.6	1098.2	1096.8	1095.4	1094.1	1095.4	1096.8	1098.2
142.5°	1141.5	1141.0	1140.6	1139.6	1138.3	1136.9	1135.6	1134.2	1135.6	1136.9	1138.3
145°	1201.3	1200.4	1199.7	1198.9	1198.4	1197.9	1197.3	1196.7	1197.3	1197.9	1198.4
147.5°	1257.8	1257.1	1256.3	1255.5	1254.5	1253.5	1252.5	1251.5	1252.5	1253.5	1254.5
150°	1293.5	1293.0	1292.4	1291.8	1291.3	1290.8	1290.2	1289.7	1290.2	1290.8	1291.3
152.5°	1325.2	1324.9	1324.6	1324.0	1323.2	1322.5	1321.7	1321.0	1321.7	1322.5	1323.2
155°	1371.0	1370.7	1370.6	1370.4	1370.4	1370.4	1370.4	1370.4	1370.4	1370.4	1370.4
157.5°	1411.5	1411.3	1411.1	1411.1	1411.5	1411.7	1412.1	1412.4	1412.1	1411.7	1411.5
160°	1436.3	1436.3	1436.3	1436.6	1437.2	1437.8	1438.3	1438.8	1438.3	1437.8	1437.2
162.5°	1459.4	1459.2	1459.0	1459.2	1460.0	1460.8	1461.5	1462.3	1461.5	1460.8	1460.0
165°	1488.9	1488.9	1488.9	1489.4	1490.2	1491.0	1491.8	1492.6	1491.8	1491.0	1490.2
167.5°	1512.5	1512.2	1512.0	1512.5	1513.5	1514.7	1515.7	1516.8	1515.7	1514.7	1513.5
170°	1525.6	1525.6	1525.6	1526.2	1527.3	1528.3	1529.5	1530.5	1529.5	1528.3	1527.3
172.5°	1536.3	1536.3	1536.3	1536.9	1538.0	1539.1	1540.2	1541.2	1540.2	1539.1	1538.0
175°	1547.7	1547.7	1547.7	1548.1	1549.3	1550.4	1551.4	1552.6	1551.4	1550.4	1549.3
177.5°	1553.2	1553.2	1553.2	1553.7	1554.5	1555.4	1556.3	1557.2	1556.3	1555.4	1554.5
180°	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2



TEST NUMBER: P332229-830

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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°	14.2	15.5	15.6	16.9	17.1	18.3	18.6	17.5	17.8	19.8	17.5
90°	12.1	15.2	18.8	22.2	25.8	29.3	30.4	31.5	32.6	33.6	34.5
92.5°	36.9	38.9	40.9	42.9	45.0	46.9	47.8	48.6	49.6	50.4	50.7
95°	79.7	81.8	84.0	86.1	88.3	90.5	91.5	92.7	93.7	94.8	95.4
97.5°	133.7	135.3	136.9	138.4	140.0	141.6	142.8	144.0	145.3	146.6	147.1
100°	172.8	174.3	175.6	177.0	178.3	179.7	180.5	181.3	182.1	182.9	183.6
102.5°	214.1	215.6	217.4	219.1	220.9	222.7	223.6	224.3	225.2	226.0	226.3
105°	277.2	278.7	281.2	283.6	286.1	288.5	288.5	288.5	288.5	288.5	288.8
107.5°	351.7	352.3	353.3	354.3	355.2	356.2	357.1	358.0	358.8	359.7	360.0
110°	399.4	400.0	400.6	401.1	401.6	402.2	403.3	404.4	405.5	406.5	406.8



TEST NUMBER: P332229-830

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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	447.5	447.7	447.8	447.9	448.1	448.2	449.5	450.7	452.0	453.4	453.9
115°	522.8	522.9	522.4	521.9	521.3	520.8	521.0	521.3	521.6	521.9	521.9
117.5°	595.6	595.5	594.7	594.1	593.3	592.7	592.6	592.6	592.5	592.4	592.0
120°	645.8	646.0	644.6	643.3	642.0	640.6	640.3	640.0	639.8	639.5	639.0
122.5°	692.0	692.3	691.5	690.9	690.1	689.5	688.7	688.1	687.3	686.6	685.9
125°	763.6	763.7	763.2	762.7	762.1	761.6	760.5	759.4	758.4	757.2	756.2
127.5°	834.8	835.4	834.8	834.2	833.6	833.0	831.4	829.9	828.4	826.9	825.5
130°	881.6	882.2	881.4	880.6	879.8	878.9	877.9	876.8	875.7	874.6	873.1
132.5°	926.5	927.3	926.7	926.1	925.5	924.9	923.6	922.3	921.0	919.7	918.3
135°	993.1	993.7	993.4	993.2	992.9	992.6	991.6	990.4	989.4	988.3	987.5
137.5°	1055.6	1056.6	1057.2	1058.0	1058.7	1059.4	1058.2	1057.1	1055.9	1054.8	1053.8
140°	1099.6	1100.3	1100.6	1100.9	1101.2	1101.5	1101.2	1100.9	1100.6	1100.3	1099.3
142.5°	1139.6	1140.6	1141.0	1141.5	1142.0	1142.6	1142.3	1142.0	1141.7	1141.4	1140.6
145°	1198.9	1199.7	1200.4	1201.3	1202.1	1202.9	1202.6	1202.3	1202.1	1201.8	1201.2
147.5°	1255.5	1256.3	1257.1	1257.8	1258.6	1259.3	1259.3	1259.3	1259.3	1259.3	1258.6
150°	1291.8	1292.4	1293.0	1293.5	1294.0	1294.6	1294.6	1294.6	1294.6	1294.6	1293.7
152.5°	1324.0	1324.6	1324.9	1325.2	1325.6	1325.9	1326.3	1326.7	1327.2	1327.6	1327.1
155°	1370.4	1370.6	1370.7	1371.0	1371.3	1371.6	1372.7	1373.8	1374.9	1375.9	1375.5
157.5°	1411.1	1411.1	1411.3	1411.5	1411.7	1411.9	1413.1	1414.2	1415.3	1416.5	1416.3
160°	1436.6	1436.3	1436.3	1436.3	1436.3	1436.3	1437.8	1439.1	1440.5	1441.8	1442.0
162.5°	1459.2	1459.0	1459.2	1459.4	1459.6	1459.8	1461.2	1462.5	1464.0	1465.3	1465.1
165°	1489.4	1488.9	1488.9	1488.9	1488.9	1488.9	1490.5	1492.2	1493.8	1495.4	1495.3
167.5°	1512.5	1512.0	1512.2	1512.5	1512.7	1512.9	1514.6	1516.3	1518.0	1519.7	1519.7
170°	1526.2	1525.6	1525.6	1525.6	1525.6	1525.6	1527.5	1529.5	1531.3	1533.2	1533.2
172.5°	1536.9	1536.3	1536.3	1536.3	1536.3	1536.3	1538.0	1539.7	1541.4	1543.1	1543.0
175°	1548.1	1547.7	1547.7	1547.7	1547.7	1547.7	1549.3	1550.9	1552.6	1554.2	1554.0
177.5°	1553.7	1553.2	1553.2	1553.2	1553.2	1553.2	1554.5	1555.9	1557.2	1558.5	1558.4
180°	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2



TEST NUMBER: P332229-830

CATALOG NUMBER: S123DIW-S1165D1320U830-4F0-1E-UDD-A1

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°	17.7	17.8	17.3	16.8	17.3	17.8	17.7	17.5	19.8	17.8	17.5
90°	35.1	35.6	36.1	36.7	36.1	35.6	35.1	34.5	33.6	32.6	31.5
92.5°	50.3	50.0	49.7	49.4	49.7	50.0	50.3	50.7	50.4	49.6	48.6
95°	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	94.8	93.7	92.7
97.5°	147.0	146.9	146.8	146.7	146.8	146.9	147.0	147.1	146.6	145.3	144.0
100°	184.2	184.7	185.3	185.8	185.3	184.7	184.2	183.6	182.9	182.1	181.3
102.5°	226.2	226.1	226.0	225.9	226.0	226.1	226.2	226.3	226.0	225.2	224.3
105°	289.4	289.8	290.4	291.0	290.4	289.8	289.4	288.8	288.5	288.5	288.5
107.5°	359.7	359.3	359.0	358.6	359.0	359.3	359.7	360.0	359.7	358.8	358.0
110°	406.2	405.8	405.2	404.6	405.2	405.8	406.2	406.8	406.5	405.5	404.4



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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	453.8	453.7	453.6	453.6	453.6	453.7	453.8	453.9	453.4	452.0	450.7
115°	521.6	521.3	521.0	520.8	521.0	521.3	521.6	521.9	521.9	521.6	521.3
117.5°	591.3	590.5	589.7	589.0	589.7	590.5	591.3	592.0	592.4	592.5	592.6
120°	638.6	638.0	637.4	636.9	637.4	638.0	638.6	639.0	639.5	639.8	640.0
122.5°	685.1	684.4	683.6	682.9	683.6	684.4	685.1	685.9	686.6	687.3	688.1
125°	755.1	753.9	752.9	751.8	752.9	753.9	755.1	756.2	757.2	758.4	759.4
127.5°	824.3	823.0	821.8	820.5	821.8	823.0	824.3	825.5	826.9	828.4	829.9
130°	871.2	869.3	867.4	865.5	867.4	869.3	871.2	873.1	874.6	875.7	876.8
132.5°	916.8	915.4	913.9	912.5	913.9	915.4	916.8	918.3	919.7	921.0	922.3
135°	986.9	986.4	985.8	985.3	985.8	986.4	986.9	987.5	988.3	989.4	990.4
137.5°	1052.7	1051.7	1050.7	1049.6	1050.7	1051.7	1052.7	1053.8	1054.8	1055.9	1057.1
140°	1097.4	1095.4	1093.5	1091.7	1093.5	1095.4	1097.4	1099.3	1100.3	1100.6	1100.9
142.5°	1139.1	1137.6	1136.1	1134.7	1136.1	1137.6	1139.1	1140.6	1141.4	1141.7	1142.0
145°	1200.0	1198.9	1197.9	1196.7	1197.9	1198.9	1200.0	1201.2	1201.8	1202.1	1202.3
147.5°	1257.0	1255.3	1253.7	1252.1	1253.7	1255.3	1257.0	1258.6	1259.3	1259.3	1259.3
150°	1292.1	1290.5	1288.8	1287.2	1288.8	1290.5	1292.1	1293.7	1294.6	1294.6	1294.6
152.5°	1325.7	1324.3	1322.9	1321.4	1322.9	1324.3	1325.7	1327.1	1327.6	1327.2	1326.7
155°	1373.7	1371.8	1369.8	1367.9	1369.8	1371.8	1373.7	1375.5	1375.9	1374.9	1373.8
157.5°	1414.8	1413.2	1411.7	1410.2	1411.7	1413.2	1414.8	1416.3	1416.5	1415.3	1414.2
160°	1440.9	1439.8	1438.7	1437.6	1438.7	1439.8	1440.9	1442.0	1441.8	1440.5	1439.1
162.5°	1463.4	1461.6	1459.9	1458.1	1459.9	1461.6	1463.4	1465.1	1465.3	1464.0	1462.5
165°	1493.5	1491.6	1489.6	1487.7	1489.6	1491.6	1493.5	1495.3	1495.4	1493.8	1492.2
167.5°	1518.0	1516.3	1514.6	1512.9	1514.6	1516.3	1518.0	1519.7	1519.7	1518.0	1516.3
170°	1531.3	1529.5	1527.5	1525.6	1527.5	1529.5	1531.3	1533.2	1533.2	1531.3	1529.5
172.5°	1541.2	1539.2	1537.3	1535.4	1537.3	1539.2	1541.2	1543.0	1543.1	1541.4	1539.7
175°	1552.1	1550.2	1548.3	1546.4	1548.3	1550.2	1552.1	1554.0	1554.2	1552.6	1550.9
177.5°	1556.8	1555.3	1553.8	1552.3	1553.8	1555.3	1556.8	1558.4	1558.5	1557.2	1555.9
180°	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2



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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°	18.6	18.3	17.1	16.9	15.6	15.5	14.2	14.3	14.3	13.9	14.4
90°	30.4	29.3	25.8	22.2	18.8	15.2	12.1	9.3	6.7	4.0	1.2
92.5°	47.8	46.9	45.0	42.9	40.9	38.9	36.9	35.2	33.3	31.4	29.6
95°	91.5	90.5	88.3	86.1	84.0	81.8	79.7	77.9	76.0	74.0	72.1
97.5°	142.8	141.6	140.0	138.4	136.9	135.3	133.7	132.3	130.9	129.5	128.1
100°	180.5	179.7	178.3	177.0	175.6	174.3	172.8	171.2	169.5	167.9	166.3
102.5°	223.6	222.7	220.9	219.1	217.4	215.6	214.1	213.2	212.3	211.2	210.3
105°	288.5	288.5	286.1	283.6	281.2	278.7	277.2	276.6	276.2	275.6	275.0
107.5°	357.1	356.2	355.2	354.3	353.3	352.3	351.7	351.4	351.0	350.7	350.3
110°	403.3	402.2	401.6	401.1	400.6	400.0	399.4	398.9	398.4	397.8	397.3



TEST NUMBER: P332229-830

CATALOG NUMBER: S123DIW-S1165D1320U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	449.5	448.2	448.1	447.9	447.8	447.7	447.5	447.1	446.9	446.5	446.2
115°	521.0	520.8	521.3	521.9	522.4	522.9	522.8	522.0	521.1	520.4	519.5
117.5°	592.6	592.7	593.3	594.1	594.7	595.5	595.6	595.0	594.5	593.9	593.4
120°	640.3	640.6	642.0	643.3	644.6	646.0	645.8	644.2	642.6	640.9	639.3
122.5°	688.7	689.5	690.1	690.9	691.5	692.3	692.0	690.9	689.7	688.4	687.3
125°	760.5	761.6	762.1	762.7	763.2	763.7	763.6	762.8	762.0	761.2	760.3
127.5°	831.4	833.0	833.6	834.2	834.8	835.4	834.8	833.0	831.3	829.6	827.8
130°	877.9	878.9	879.8	880.6	881.4	882.2	881.6	879.4	877.2	875.0	872.8
132.5°	923.6	924.9	925.5	926.1	926.7	927.3	926.5	924.4	922.2	920.0	917.8
135°	991.6	992.6	992.9	993.2	993.4	993.7	993.1	991.4	989.8	988.2	986.6
137.5°	1058.2	1059.4	1058.7	1058.0	1057.2	1056.6	1055.6	1054.1	1052.8	1051.4	1050.1
140°	1101.2	1101.5	1101.2	1100.9	1100.6	1100.3	1099.6	1098.2	1096.8	1095.4	1094.1
142.5°	1142.3	1142.6	1142.0	1141.5	1141.0	1140.6	1139.6	1138.3	1136.9	1135.6	1134.2
145°	1202.6	1202.9	1202.1	1201.3	1200.4	1199.7	1198.9	1198.4	1197.9	1197.3	1196.7
147.5°	1259.3	1259.3	1258.6	1257.8	1257.1	1256.3	1255.5	1254.5	1253.5	1252.5	1251.5
150°	1294.6	1294.6	1294.0	1293.5	1293.0	1292.4	1291.8	1291.3	1290.8	1290.2	1289.7
152.5°	1326.3	1325.9	1325.6	1325.2	1324.9	1324.6	1324.0	1323.2	1322.5	1321.7	1321.0
155°	1372.7	1371.6	1371.3	1371.0	1370.7	1370.6	1370.4	1370.4	1370.4	1370.4	1370.4
157.5°	1413.1	1411.9	1411.7	1411.5	1411.3	1411.1	1411.1	1411.5	1411.7	1412.1	1412.4
160°	1437.8	1436.3	1436.3	1436.3	1436.3	1436.3	1436.6	1437.2	1437.8	1438.3	1438.8
162.5°	1461.2	1459.8	1459.6	1459.4	1459.2	1459.0	1459.2	1460.0	1460.8	1461.5	1462.3
165°	1490.5	1488.9	1488.9	1488.9	1488.9	1488.9	1489.4	1490.2	1491.0	1491.8	1492.6
167.5°	1514.6	1512.9	1512.7	1512.5	1512.2	1512.0	1512.5	1513.5	1514.7	1515.7	1516.8
170°	1527.5	1525.6	1525.6	1525.6	1525.6	1525.6	1526.2	1527.3	1528.3	1529.5	1530.5
172.5°	1538.0	1536.3	1536.3	1536.3	1536.3	1536.3	1536.9	1538.0	1539.1	1540.2	1541.2
175°	1549.3	1547.7	1547.7	1547.7	1547.7	1547.7	1548.1	1549.3	1550.4	1551.4	1552.6
177.5°	1554.5	1553.2	1553.2	1553.2	1553.2	1553.2	1553.7	1554.5	1555.4	1556.3	1557.2
180°	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2



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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°	16.2	16.8	19.0	20.8	23.8	26.3	26.4	25.9	26.0	25.6	25.3
90°	4.0	6.7	9.3	12.1	15.2	18.8	22.2	25.8	29.3	30.4	31.5
92.5°	31.4	33.3	35.2	36.9	38.9	40.9	42.9	45.0	46.9	47.8	48.6
95°	74.0	76.0	77.9	79.7	81.8	84.0	86.1	88.3	90.5	91.5	92.7
97.5°	129.5	130.9	132.3	133.7	135.3	136.9	138.4	140.0	141.6	142.8	144.0
100°	167.9	169.5	171.2	172.8	174.3	175.6	177.0	178.3	179.7	180.5	181.3
102.5°	211.2	212.3	213.2	214.1	215.6	217.4	219.1	220.9	222.7	223.6	224.3
105°	275.6	276.2	276.6	277.2	278.7	281.2	283.6	286.1	288.5	288.5	288.5
107.5°	350.7	351.0	351.4	351.7	352.3	353.3	354.3	355.2	356.2	357.1	358.0
110°	397.8	398.4	398.9	399.4	400.0	400.6	401.1	401.6	402.2	403.3	404.4



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	446.5	446.9	447.1	447.5	447.7	447.8	447.9	448.1	448.2	449.5	450.7
115°	520.4	521.1	522.0	522.8	522.9	522.4	521.9	521.3	520.8	521.0	521.3
117.5°	593.9	594.5	595.0	595.6	595.5	594.7	594.1	593.3	592.7	592.6	592.6
120°	640.9	642.6	644.2	645.8	646.0	644.6	643.3	642.0	640.6	640.3	640.0
122.5°	688.4	689.7	690.9	692.0	692.3	691.5	690.9	690.1	689.5	688.7	688.1
125°	761.2	762.0	762.8	763.6	763.7	763.2	762.7	762.1	761.6	760.5	759.4
127.5°	829.6	831.3	833.0	834.8	835.4	834.8	834.2	833.6	833.0	831.4	829.9
130°	875.0	877.2	879.4	881.6	882.2	881.4	880.6	879.8	878.9	877.9	876.8
132.5°	920.0	922.2	924.4	926.5	927.3	926.7	926.1	925.5	924.9	923.6	922.3
135°	988.2	989.8	991.4	993.1	993.7	993.4	993.2	992.9	992.6	991.6	990.4
137.5°	1051.4	1052.8	1054.1	1055.6	1056.6	1057.2	1058.0	1058.7	1059.4	1058.2	1057.1
140°	1095.4	1096.8	1098.2	1099.6	1100.3	1100.6	1100.9	1101.2	1101.5	1101.2	1100.9
142.5°	1135.6	1136.9	1138.3	1139.6	1140.6	1141.0	1141.5	1142.0	1142.6	1142.3	1142.0
145°	1197.3	1197.9	1198.4	1198.9	1199.7	1200.4	1201.3	1202.1	1202.9	1202.6	1202.3
147.5°	1252.5	1253.5	1254.5	1255.5	1256.3	1257.1	1257.8	1258.6	1259.3	1259.3	1259.3
150°	1290.2	1290.8	1291.3	1291.8	1292.4	1293.0	1293.5	1294.0	1294.6	1294.6	1294.6
152.5°	1321.7	1322.5	1323.2	1324.0	1324.6	1324.9	1325.2	1325.6	1325.9	1326.3	1326.7
155°	1370.4	1370.4	1370.4	1370.4	1370.6	1370.7	1371.0	1371.3	1371.6	1372.7	1373.8
157.5°	1412.1	1411.7	1411.5	1411.1	1411.1	1411.3	1411.5	1411.7	1411.9	1413.1	1414.2
160°	1438.3	1437.8	1437.2	1436.6	1436.3	1436.3	1436.3	1436.3	1436.3	1437.8	1439.1
162.5°	1461.5	1460.8	1460.0	1459.2	1459.0	1459.2	1459.4	1459.6	1459.8	1461.2	1462.5
165°	1491.8	1491.0	1490.2	1489.4	1488.9	1488.9	1488.9	1488.9	1488.9	1490.5	1492.2
167.5°	1515.7	1514.7	1513.5	1512.5	1512.0	1512.2	1512.5	1512.7	1512.9	1514.6	1516.3
170°	1529.5	1528.3	1527.3	1526.2	1525.6	1525.6	1525.6	1525.6	1525.6	1527.5	1529.5
172.5°	1540.2	1539.1	1538.0	1536.9	1536.3	1536.3	1536.3	1536.3	1536.3	1538.0	1539.7
175°	1551.4	1550.4	1549.3	1548.1	1547.7	1547.7	1547.7	1547.7	1547.7	1549.3	1550.9
177.5°	1556.3	1555.4	1554.5	1553.7	1553.2	1553.2	1553.2	1553.2	1553.2	1554.5	1555.9
180°	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2



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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°	24.9	24.5	24.1	24.8	24.3	23.8	25.1
90°	32.6	33.6	34.5	35.1	35.6	36.1	36.7
92.5°	49.6	50.4	50.7	50.3	50.0	49.7	49.4
95°	93.7	94.8	95.4	95.4	95.4	95.4	95.4
97.5°	145.3	146.6	147.1	147.0	146.9	146.8	146.7
100°	182.1	182.9	183.6	184.2	184.7	185.3	185.8
102.5°	225.2	226.0	226.3	226.2	226.1	226.0	225.9
105°	288.5	288.5	288.8	289.4	289.8	290.4	291.0
107.5°	358.8	359.7	360.0	359.7	359.3	359.0	358.6
110°	405.5	406.5	406.8	406.2	405.8	405.2	404.6



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	452.0	453.4	453.9	453.8	453.7	453.6	453.6
115°	521.6	521.9	521.9	521.6	521.3	521.0	520.8
117.5°	592.5	592.4	592.0	591.3	590.5	589.7	589.0
120°	639.8	639.5	639.0	638.6	638.0	637.4	636.9
122.5°	687.3	686.6	685.9	685.1	684.4	683.6	682.9
125°	758.4	757.2	756.2	755.1	753.9	752.9	751.8
127.5°	828.4	826.9	825.5	824.3	823.0	821.8	820.5
130°	875.7	874.6	873.1	871.2	869.3	867.4	865.5
132.5°	921.0	919.7	918.3	916.8	915.4	913.9	912.5
135°	989.4	988.3	987.5	986.9	986.4	985.8	985.3
137.5°	1055.9	1054.8	1053.8	1052.7	1051.7	1050.7	1049.6
140°	1100.6	1100.3	1099.3	1097.4	1095.4	1093.5	1091.7
142.5°	1141.7	1141.4	1140.6	1139.1	1137.6	1136.1	1134.7
145°	1202.1	1201.8	1201.2	1200.0	1198.9	1197.9	1196.7
147.5°	1259.3	1259.3	1258.6	1257.0	1255.3	1253.7	1252.1
150°	1294.6	1294.6	1293.7	1292.1	1290.5	1288.8	1287.2
152.5°	1327.2	1327.6	1327.1	1325.7	1324.3	1322.9	1321.4
155°	1374.9	1375.9	1375.5	1373.7	1371.8	1369.8	1367.9
157.5°	1415.3	1416.5	1416.3	1414.8	1413.2	1411.7	1410.2
160°	1440.5	1441.8	1442.0	1440.9	1439.8	1438.7	1437.6
162.5°	1464.0	1465.3	1465.1	1463.4	1461.6	1459.9	1458.1
165°	1493.8	1495.4	1495.3	1493.5	1491.6	1489.6	1487.7
167.5°	1518.0	1519.7	1519.7	1518.0	1516.3	1514.6	1512.9
170°	1531.3	1533.2	1533.2	1531.3	1529.5	1527.5	1525.6
172.5°	1541.4	1543.1	1543.0	1541.2	1539.2	1537.3	1535.4
175°	1552.6	1554.2	1554.0	1552.1	1550.2	1548.3	1546.4
177.5°	1557.2	1558.5	1558.4	1556.8	1555.3	1553.8	1552.3
180°	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2	1556.2

(END OF REPORT)