

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: P332229-940

Luminaire Tested: **S123DIW-S1165D1320U940-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332229-940  
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-S1165D1320U940-4F0-1E-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: 8449.2 lumens  
Efficiency: N/A  
Efficacy: 110.9 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

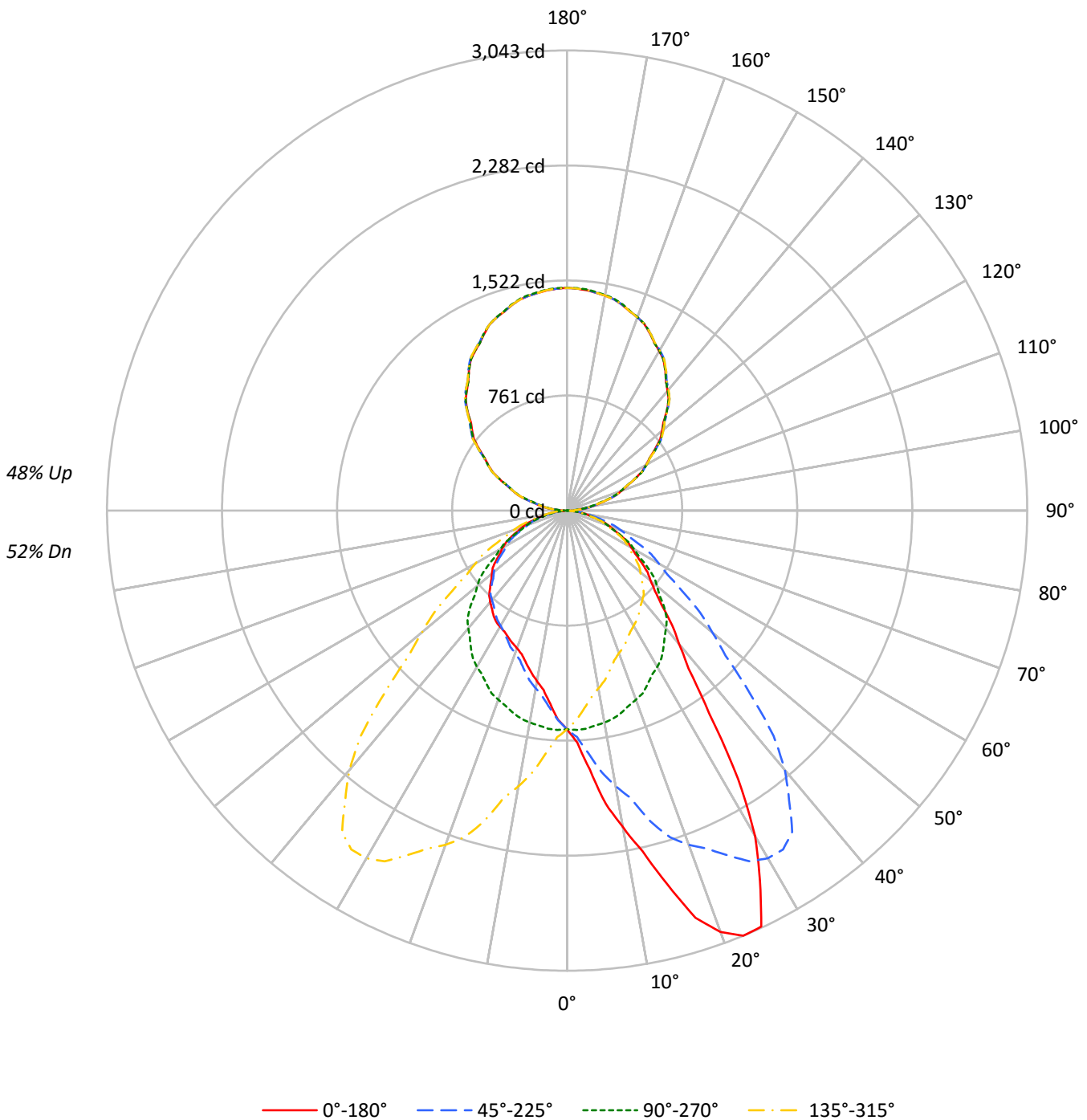
Input Watts (W): 76.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	15569	15569	15569	15569
5°	18567	15637	13857	15637
10°	23240	15557	12516	15557
15°	28505	15432	11652	15432
20°	33956	15237	11094	15237
25°	36056	14998	10969	14998
30°	30904	14825	11028	14825
35°	21494	14578	11143	14578
40°	16190	14289	11108	14289
45°	13443	13857	10966	13857
50°	12042	12980	10868	12980
55°	11258	12033	10732	12033
60°	10559	11044	10622	11044
65°	9926	10068	10282	10068
70°	9309	8954	9791	8954
75°	8339	7839	8979	7839
80°	7296	6428	7736	6428
85°	5718	4668	5199	4668



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.5	1.7
10°-20°	456.9	5.4
20°-30°	766.8	9.1
30°-40°	868.3	10.3
40°-50°	778.6	9.2
50°-60°	628.3	7.4
60°-70°	437.9	5.2
70°-80°	230.1	2.7
80°-90°	60.6	0.7
90°-100°	95.9	1.1
100°-110°	287.1	3.4
110°-120°	488.2	5.8
120°-130°	642.2	7.6
130°-140°	721.9	8.5
140°-150°	709.6	8.4
150°-160°	597.3	7.1
160°-170°	397.6	4.7
170°-180°	139.2	1.6
0°-30°	1366.2	16.2
0°-40°	2234.5	26.4
0°-60°	3641.5	43.1
0°-90°	4370.1	51.7
90°-120°	871.3	10.3
90°-150°	2944.9	34.9
90°-180°	4079.0	48.3
0°-180°	8449.2	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1446	1446	1446	1446	1446	
5°	1718	1447	1282	1447	1718	178
15°	2558	1385	1046	1385	2558	739
25°	3036	1263	924	1263	3036	1331
35°	1636	1109	848	1109	1636	1063
45°	883	910	720	910	883	699
55°	600	641	572	641	600	538
65°	390	395	404	395	390	388
75°	200	188	216	188	200	215
85°	46	38	42	38	46	56
90°	35	1	35	1	35	19
95°	90	68	90	68	90	93
105°	275	260	275	260	275	292
115°	493	492	493	492	493	488
125°	711	719	711	719	711	636
135°	932	933	932	933	932	717
145°	1132	1132	1132	1132	1132	707
155°	1294	1296	1294	1296	1294	596
165°	1408	1412	1408	1412	1408	397
175°	1463	1469	1463	1469	1463	139
180°	1472	1472	1472	1472	1472	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1535.1	1533.9	1531.2	1533.4	1528.9	1522.7	1522.2	1516.5	1500.3	1499.1	1494.7
5°	1718.4	1712.8	1712.1	1711.4	1701.6	1688.3	1663.0	1660.9	1627.3	1610.4	1590.2
7.5°	1955.8	1958.7	1948.6	1939.6	1909.6	1889.8	1862.8	1828.2	1786.8	1744.9	1717.0
10°	2126.3	2149.4	2120.7	2101.0	2082.9	2048.4	2008.6	1958.7	1909.0	1850.8	1806.7
12.5°	2309.1	2320.4	2314.6	2296.2	2267.8	2215.5	2144.7	2090.0	2044.2	1947.3	1908.2
15°	2558.0	2600.8	2573.4	2510.3	2511.7	2461.9	2369.5	2267.8	2213.9	2129.0	2013.5
17.5°	2823.2	2828.5	2816.8	2764.3	2729.3	2660.9	2575.5	2478.1	2368.7	2266.2	2143.5
20°	2964.4	2960.2	2935.7	2908.4	2848.1	2794.9	2701.6	2593.0	2452.8	2352.0	2218.0
22.5°	3043.0	3035.9	3024.3	3001.4	2951.3	2894.0	2810.4	2691.7	2558.2	2419.2	2264.6
25°	3035.9	3045.0	3046.4	3040.1	3022.6	2988.3	2922.4	2827.8	2694.7	2516.0	2354.7
27.5°	2761.2	2774.1	2811.6	2844.7	2881.9	2919.7	2914.6	2867.7	2769.2	2614.9	2417.8
30°	2486.4	2458.4	2527.8	2615.5	2675.0	2780.1	2839.0	2842.5	2787.1	2654.7	2462.6
32.5°	2105.2	2136.1	2166.8	2274.6	2404.8	2522.8	2640.0	2734.3	2745.1	2656.9	2489.0
35°	1635.7	1674.3	1730.3	1786.4	1926.5	2047.1	2253.1	2432.5	2575.5	2594.4	2491.4
37.5°	1318.1	1337.1	1372.6	1428.8	1520.5	1663.5	1822.8	2049.6	2256.7	2410.8	2417.5
40°	1152.2	1157.7	1197.7	1240.5	1314.7	1432.4	1576.1	1776.6	2024.6	2239.8	2329.5
42.5°	1027.7	1040.0	1056.9	1098.1	1157.2	1245.8	1379.4	1545.0	1772.4	2020.0	2195.5
45°	883.1	897.1	907.6	934.9	977.0	1036.5	1129.7	1281.1	1454.2	1709.9	1946.2
47.5°	787.5	788.5	796.4	817.0	845.6	890.3	956.2	1053.5	1212.4	1419.9	1662.3
50°	719.1	730.2	733.1	749.1	771.6	804.5	859.2	941.9	1072.3	1254.5	1477.3
52.5°	670.8	674.2	682.1	693.7	713.3	739.0	786.3	851.0	953.4	1108.7	1313.6
55°	599.9	599.9	607.6	616.7	627.9	651.0	682.6	730.2	808.1	928.5	1098.1
57.5°	534.3	537.8	543.2	546.1	555.6	570.9	597.3	633.4	691.4	784.2	919.1
60°	490.5	496.9	496.1	501.8	510.2	522.1	544.6	574.0	625.8	700.1	813.7
62.5°	452.5	452.0	451.9	458.6	467.0	478.4	492.9	518.4	562.5	628.4	725.1
65°	389.7	388.3	393.2	397.3	400.2	408.6	419.8	442.2	471.6	520.7	595.7
67.5°	333.9	329.8	332.4	333.9	338.7	345.2	355.7	369.6	393.0	432.4	488.9
70°	295.8	292.2	291.5	292.9	297.1	302.0	309.8	323.1	344.8	376.3	417.7
72.5°	256.5	254.1	254.0	257.1	259.0	262.3	267.7	279.9	297.1	320.8	359.4
75°	200.5	200.5	200.5	201.2	203.2	206.1	210.3	216.5	229.9	246.6	272.6
77.5°	150.3	150.1	149.3	149.1	152.2	153.5	154.4	160.3	167.7	179.1	198.0
80°	117.7	114.2	115.7	117.7	119.1	119.8	122.0	123.3	129.7	136.0	149.3
82.5°	87.5	84.5	84.8	88.0	88.3	89.0	91.1	93.1	95.4	101.2	108.3
85°	46.3	46.3	47.0	47.0	47.6	47.0	49.0	49.8	49.8	53.2	57.4
87.5°	23.7	22.6	23.0	23.5	22.8	23.2	23.5	23.9	24.3	24.6	24.5
90°	34.7	34.2	33.7	33.2	32.6	31.8	30.9	29.8	28.8	27.7	24.4
92.5°	46.7	47.0	47.3	47.6	48.0	47.7	46.9	46.0	45.2	44.4	42.5
95°	90.2	90.2	90.2	90.2	90.2	89.7	88.6	87.7	86.6	85.6	83.6
97.5°	138.8	138.9	139.0	139.1	139.2	138.7	137.5	136.3	135.1	133.9	132.4
100°	175.8	175.3	174.8	174.2	173.7	173.1	172.3	171.6	170.8	170.0	168.7
102.5°	213.7	213.8	213.9	214.0	214.1	213.8	213.0	212.2	211.5	210.7	209.0
105°	275.3	274.7	274.2	273.8	273.2	273.0	273.0	273.0	273.0	273.0	270.6
107.5°	339.3	339.7	339.9	340.3	340.5	340.3	339.5	338.7	337.9	337.0	336.1
110°	382.8	383.3	383.9	384.3	384.9	384.6	383.6	382.5	381.6	380.5	380.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	429.1	429.2	429.3	429.4	429.4	428.9	427.7	426.4	425.3	424.0	423.9
115°	492.7	492.9	493.2	493.5	493.7	493.7	493.5	493.2	492.9	492.7	493.2
117.5°	557.2	557.9	558.7	559.4	560.1	560.4	560.5	560.6	560.6	560.7	561.3
120°	602.5	603.1	603.6	604.1	604.6	605.0	605.3	605.5	605.7	606.0	607.3
122.5°	646.0	646.8	647.5	648.2	648.9	649.6	650.2	650.9	651.6	652.3	652.9
125°	711.2	712.3	713.3	714.3	715.4	716.4	717.5	718.5	719.5	720.5	721.0
127.5°	776.2	777.5	778.6	779.8	781.0	782.3	783.7	785.2	786.6	788.1	788.6
130°	818.9	820.6	822.4	824.2	826.0	827.4	828.5	829.5	830.5	831.5	832.3
132.5°	863.3	864.6	866.0	867.4	868.8	870.1	871.3	872.5	873.8	875.0	875.6
135°	932.2	932.6	933.2	933.7	934.2	935.0	936.0	937.0	938.1	939.1	939.3
137.5°	993.0	994.0	995.0	996.0	996.9	997.9	999.0	1000.1	1001.1	1002.3	1001.6
140°	1032.8	1034.6	1036.3	1038.2	1040.0	1041.0	1041.3	1041.5	1041.8	1042.1	1041.8
142.5°	1073.5	1074.9	1076.3	1077.6	1079.1	1079.9	1080.1	1080.4	1080.7	1080.9	1080.4
145°	1132.2	1133.3	1134.3	1135.3	1136.4	1137.0	1137.3	1137.5	1137.7	1138.0	1137.3
147.5°	1184.5	1186.1	1187.6	1189.2	1190.7	1191.4	1191.4	1191.4	1191.4	1191.4	1190.7
150°	1217.8	1219.3	1220.9	1222.4	1224.0	1224.8	1224.8	1224.8	1224.8	1224.8	1224.2
152.5°	1250.2	1251.5	1252.9	1254.2	1255.5	1256.0	1255.6	1255.2	1254.8	1254.4	1254.1
155°	1294.1	1295.9	1297.8	1299.6	1301.4	1301.7	1300.7	1299.7	1298.7	1297.6	1297.4
157.5°	1334.2	1335.6	1337.0	1338.5	1339.9	1340.2	1339.0	1337.9	1336.9	1335.8	1335.6
160°	1360.0	1361.1	1362.2	1363.2	1364.2	1364.1	1362.8	1361.5	1360.2	1358.9	1358.9
162.5°	1379.5	1381.2	1382.8	1384.5	1386.1	1386.3	1385.0	1383.7	1382.4	1381.1	1380.9
165°	1407.5	1409.3	1411.1	1412.9	1414.7	1414.8	1413.3	1411.8	1410.2	1408.6	1408.6
167.5°	1431.3	1432.9	1434.5	1436.1	1437.7	1437.7	1436.1	1434.5	1432.9	1431.3	1431.1
170°	1443.3	1445.1	1447.0	1448.8	1450.5	1450.5	1448.8	1447.0	1445.1	1443.3	1443.3
172.5°	1452.6	1454.4	1456.2	1458.0	1459.8	1459.9	1458.3	1456.7	1455.1	1453.5	1453.5
175°	1463.0	1464.8	1466.6	1468.4	1470.2	1470.3	1468.8	1467.2	1465.7	1464.2	1464.2
177.5°	1468.6	1470.0	1471.4	1472.8	1474.4	1474.4	1473.2	1471.9	1470.7	1469.5	1469.5
180°	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1491.3	1486.8	1482.4	1474.5	1467.8	1458.2	1455.5	1452.1	1442.0	1433.1	1426.3
5°	1582.4	1565.6	1541.1	1518.7	1500.5	1476.0	1461.9	1447.2	1426.1	1407.2	1391.8
7.5°	1677.8	1644.7	1606.5	1565.3	1527.0	1490.0	1460.1	1433.4	1404.0	1376.1	1354.4
10°	1753.5	1705.8	1652.5	1595.1	1546.0	1498.3	1458.4	1423.3	1385.5	1352.5	1325.3
12.5°	1839.8	1769.2	1695.7	1625.9	1567.9	1501.7	1453.3	1408.8	1365.9	1326.2	1295.6
15°	1942.0	1852.3	1765.3	1669.4	1581.0	1498.3	1440.9	1384.8	1335.1	1294.4	1255.2
17.5°	2035.1	1933.4	1818.9	1702.1	1595.6	1497.5	1417.0	1353.7	1291.5	1241.7	1202.6
20°	2087.8	1972.1	1842.5	1721.2	1603.5	1494.2	1405.9	1330.2	1262.8	1210.3	1166.2
22.5°	2133.2	1997.9	1863.8	1734.1	1602.9	1485.1	1385.1	1307.2	1234.3	1182.9	1135.9
25°	2180.2	2018.4	1883.8	1731.7	1585.3	1463.3	1351.2	1262.8	1190.0	1129.7	1081.4
27.5°	2220.6	2017.0	1857.3	1693.7	1557.5	1435.3	1315.5	1220.8	1143.4	1078.0	1028.9
30°	2247.5	2019.7	1829.8	1667.9	1530.6	1404.4	1288.1	1192.8	1111.5	1044.9	998.6
32.5°	2264.3	2018.0	1804.6	1632.1	1488.0	1376.4	1258.4	1159.7	1076.2	1010.8	966.2
35°	2274.1	2005.7	1761.1	1557.9	1419.2	1310.5	1211.7	1109.4	1021.8	960.8	910.3
37.5°	2254.5	1979.8	1710.7	1486.4	1334.5	1227.5	1144.4	1057.2	973.4	906.3	862.8
40°	2223.7	1963.0	1671.4	1436.0	1276.2	1173.1	1102.4	1016.9	934.2	870.4	829.7
42.5°	2164.8	1928.8	1628.3	1379.9	1215.7	1112.6	1047.4	976.0	897.8	837.9	797.3
45°	2021.2	1854.3	1563.5	1295.8	1126.2	1019.7	962.2	910.3	839.5	781.4	746.4
47.5°	1821.9	1742.4	1469.9	1207.1	1032.9	930.4	870.7	828.9	777.2	730.2	696.6
50°	1683.4	1650.4	1406.5	1146.6	970.6	870.4	813.0	775.1	738.0	691.0	660.1
52.5°	1523.6	1543.9	1332.6	1083.7	907.3	808.8	754.7	724.6	690.9	652.3	625.4
55°	1298.6	1372.2	1204.7	978.3	813.0	719.1	667.9	641.2	621.6	592.9	569.8
57.5°	1088.0	1181.6	1066.5	869.7	720.3	639.3	590.2	561.2	548.6	533.6	515.4
60°	963.0	1055.4	967.9	796.8	658.1	580.9	537.5	513.0	500.3	489.9	474.5
62.5°	851.3	944.9	871.4	722.8	596.9	525.5	487.6	463.7	453.9	448.4	435.2
65°	698.0	778.6	729.5	607.6	509.5	446.4	412.1	395.3	386.1	384.1	375.7
67.5°	568.1	629.5	593.7	504.0	426.8	372.3	343.1	328.9	321.8	321.1	314.8
70°	482.9	540.3	513.0	431.7	365.2	322.4	297.1	284.5	280.4	279.6	276.2
72.5°	416.7	456.8	435.1	367.2	315.8	277.0	258.4	245.3	240.5	241.5	239.2
75°	308.4	338.5	325.9	278.9	237.6	212.3	196.9	188.5	184.3	186.5	183.6
77.5°	221.9	240.9	229.6	197.1	171.6	153.4	142.0	136.8	133.0	132.9	131.6
80°	167.5	178.7	172.4	152.8	131.8	116.4	107.2	103.7	101.7	100.9	100.2
82.5°	119.3	128.9	121.4	107.9	93.6	84.4	79.2	74.5	73.0	73.5	72.8
85°	60.3	63.8	61.0	52.5	47.0	42.7	39.9	37.8	36.5	37.2	35.8
87.5°	25.0	24.9	22.5	19.7	18.0	15.9	15.3	13.6	13.1	13.6	13.6
90°	21.0	17.7	14.4	11.4	8.8	6.3	3.7	1.2	3.7	6.3	8.8
92.5°	40.6	38.7	36.8	35.0	33.3	31.5	29.7	28.0	29.7	31.5	33.3
95°	81.5	79.5	77.4	75.4	73.7	71.9	70.0	68.2	70.0	71.9	73.7
97.5°	130.9	129.5	128.0	126.5	125.2	123.9	122.5	121.2	122.5	123.9	125.2
100°	167.5	166.1	164.9	163.5	161.9	160.3	158.8	157.3	158.8	160.3	161.9
102.5°	207.3	205.6	203.9	202.6	201.7	200.8	199.8	198.9	199.8	200.8	201.7
105°	268.3	266.0	263.7	262.3	261.7	261.3	260.7	260.2	260.7	261.3	261.7
107.5°	335.2	334.2	333.3	332.7	332.4	332.1	331.8	331.4	331.8	332.1	332.4
110°	379.5	379.0	378.4	377.9	377.4	376.9	376.4	375.9	376.4	376.9	377.4





TEST NUMBER: P332229-940

CATALOG NUMBER: S123DIW-S1165D1320U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	423.7	423.7	423.6	423.4	423.0	422.8	422.4	422.1	422.4	422.8	423.0
115°	493.7	494.2	494.7	494.6	493.8	493.0	492.3	491.5	492.3	493.0	493.8
117.5°	562.0	562.7	563.4	563.5	562.9	562.4	561.9	561.4	561.9	562.4	562.9
120°	608.6	609.8	611.2	611.0	609.5	608.0	606.4	604.8	606.4	608.0	609.5
122.5°	653.6	654.2	655.0	654.7	653.6	652.5	651.3	650.2	651.3	652.5	653.6
125°	721.6	722.0	722.6	722.5	721.7	720.9	720.1	719.3	720.1	720.9	721.7
127.5°	789.2	789.8	790.3	789.8	788.1	786.5	784.9	783.2	784.9	786.5	788.1
130°	833.1	833.8	834.6	834.0	832.0	829.9	827.8	825.7	827.8	829.9	832.0
132.5°	876.2	876.7	877.3	876.6	874.5	872.4	870.4	868.3	870.4	872.4	874.5
135°	939.6	939.9	940.1	939.5	937.9	936.4	934.9	933.4	934.9	936.4	937.9
137.5°	1000.9	1000.2	999.6	998.6	997.3	996.0	994.7	993.5	994.7	996.0	997.3
140°	1041.5	1041.3	1041.0	1040.3	1038.9	1037.7	1036.3	1035.1	1036.3	1037.7	1038.9
142.5°	1080.0	1079.5	1079.1	1078.2	1076.9	1075.6	1074.3	1073.0	1074.3	1075.6	1076.9
145°	1136.5	1135.7	1135.0	1134.3	1133.8	1133.3	1132.7	1132.2	1132.7	1133.3	1133.8
147.5°	1190.0	1189.3	1188.6	1187.8	1186.9	1185.9	1185.0	1184.0	1185.0	1185.9	1186.9
150°	1223.7	1223.2	1222.7	1222.2	1221.6	1221.2	1220.7	1220.1	1220.7	1221.2	1221.6
152.5°	1253.7	1253.5	1253.1	1252.6	1251.9	1251.2	1250.4	1249.7	1250.4	1251.2	1251.9
155°	1297.1	1296.8	1296.6	1296.5	1296.5	1296.5	1296.5	1296.5	1296.5	1296.5	1296.5
157.5°	1335.3	1335.2	1335.0	1335.0	1335.3	1335.6	1336.0	1336.2	1336.0	1335.6	1335.3
160°	1358.9	1358.9	1358.9	1359.1	1359.7	1360.2	1360.8	1361.2	1360.8	1360.2	1359.7
162.5°	1380.7	1380.5	1380.3	1380.5	1381.3	1382.0	1382.7	1383.4	1382.7	1382.0	1381.3
165°	1408.6	1408.6	1408.6	1409.1	1409.8	1410.6	1411.3	1412.1	1411.3	1410.6	1409.8
167.5°	1430.9	1430.7	1430.5	1430.9	1431.9	1433.0	1434.0	1435.0	1434.0	1433.0	1431.9
170°	1443.3	1443.3	1443.3	1443.9	1444.9	1445.9	1447.0	1448.0	1447.0	1445.9	1444.9
172.5°	1453.5	1453.5	1453.5	1454.0	1455.1	1456.1	1457.1	1458.1	1457.1	1456.1	1455.1
175°	1464.2	1464.2	1464.2	1464.6	1465.7	1466.8	1467.8	1468.8	1467.8	1466.8	1465.7
177.5°	1469.5	1469.5	1469.5	1469.9	1470.7	1471.5	1472.4	1473.2	1472.4	1471.5	1470.7
180°	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3



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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1422.4	1418.4	1412.8	1404.4	1397.7	1387.1	1387.1	1388.8	1388.8	1388.2	1387.1
5°	1379.2	1368.7	1356.1	1341.4	1326.0	1310.5	1307.7	1302.1	1297.9	1295.1	1291.6
7.5°	1333.6	1315.0	1296.6	1276.0	1257.2	1241.7	1230.9	1221.9	1216.2	1210.1	1205.5
10°	1302.8	1279.7	1257.9	1236.3	1212.4	1193.5	1181.6	1173.1	1166.9	1161.3	1158.4
12.5°	1266.4	1239.9	1215.9	1195.3	1169.2	1149.8	1138.4	1134.4	1127.0	1115.3	1109.1
15°	1213.1	1188.6	1159.8	1128.3	1115.7	1091.9	1078.5	1072.3	1068.0	1058.9	1056.1
17.5°	1167.5	1135.4	1103.2	1079.7	1056.2	1036.9	1029.5	1021.6	1016.0	1008.6	1006.4
20°	1131.1	1102.4	1072.9	1047.8	1023.1	1002.2	995.9	990.2	984.6	981.1	978.3
22.5°	1094.1	1065.4	1041.0	1017.4	991.2	977.5	970.6	964.5	960.6	958.1	955.4
25°	1042.1	1016.9	989.5	968.5	947.5	938.3	934.2	930.7	927.9	924.3	923.6
27.5°	995.6	968.1	945.9	926.3	911.2	903.7	899.6	897.9	898.5	899.7	900.5
30°	960.8	935.6	917.4	900.5	886.5	879.5	878.8	878.8	881.6	882.3	883.7
32.5°	928.9	908.1	889.9	873.6	863.0	858.2	860.9	860.9	863.1	865.0	867.5
35°	882.3	864.1	850.1	836.1	827.0	829.0	830.5	831.9	835.4	839.5	842.4
37.5°	837.9	822.1	807.4	796.6	792.4	796.1	799.5	802.5	806.5	809.8	812.5
40°	805.9	794.0	780.0	770.2	771.6	773.7	776.5	780.0	783.5	785.6	788.5
42.5°	776.2	763.8	753.1	744.9	746.9	749.6	751.3	753.1	757.2	761.0	762.6
45°	730.9	721.1	711.3	706.4	707.8	709.3	710.6	712.7	716.2	719.1	719.7
47.5°	680.1	673.2	666.6	661.8	664.1	663.5	665.4	669.9	670.9	672.6	676.5
50°	647.6	641.2	633.6	632.1	632.1	632.1	632.8	638.5	638.5	641.2	644.1
52.5°	611.7	607.6	602.7	600.2	599.1	599.1	602.0	604.8	605.9	609.8	612.7
55°	558.6	554.4	550.1	548.0	546.6	548.0	553.7	555.0	558.6	560.6	562.8
57.5°	503.2	500.0	496.6	495.4	495.2	497.0	500.1	504.3	505.2	511.6	514.8
60°	466.7	461.8	459.1	459.1	457.6	464.0	462.5	469.6	470.9	475.2	480.1
62.5°	429.2	422.6	421.5	421.5	423.5	425.3	427.2	430.3	433.9	439.3	443.1
65°	368.6	365.2	370.1	369.3	367.9	372.1	372.1	375.7	379.9	384.8	392.4
67.5°	311.3	309.5	309.9	309.9	312.0	314.4	316.4	319.4	324.5	329.7	334.7
70°	272.6	274.7	271.3	274.0	276.2	276.8	278.2	282.4	288.0	291.5	297.1
72.5°	235.1	234.9	235.3	236.5	238.5	239.8	241.2	246.0	252.2	255.1	259.6
75°	180.8	180.1	182.2	182.2	185.7	187.1	188.5	190.6	196.3	200.5	203.9
77.5°	132.1	132.9	132.4	134.8	133.8	134.1	138.5	140.6	141.2	149.5	151.2
80°	99.5	100.9	101.7	102.3	103.0	101.7	106.6	108.6	108.6	113.5	117.0
82.5°	71.5	72.3	74.2	74.8	75.0	76.4	76.8	78.4	80.1	82.1	86.8
85°	35.8	37.8	38.5	37.8	38.5	37.2	39.2	39.9	40.7	40.7	40.7
87.5°	13.5	14.6	14.8	16.0	16.1	17.3	17.6	16.6	16.9	18.7	16.6
90°	11.4	14.4	17.7	21.0	24.4	27.7	28.8	29.8	30.9	31.8	32.6
92.5°	35.0	36.8	38.7	40.6	42.5	44.4	45.2	46.0	46.9	47.7	48.0
95°	75.4	77.4	79.5	81.5	83.6	85.6	86.6	87.7	88.6	89.7	90.2
97.5°	126.5	128.0	129.5	130.9	132.4	133.9	135.1	136.3	137.5	138.7	139.2
100°	163.5	164.9	166.1	167.5	168.7	170.0	170.8	171.6	172.3	173.1	173.7
102.5°	202.6	203.9	205.6	207.3	209.0	210.7	211.5	212.2	213.0	213.8	214.1
105°	262.3	263.7	266.0	268.3	270.6	273.0	273.0	273.0	273.0	273.0	273.2
107.5°	332.7	333.3	334.2	335.2	336.1	337.0	337.9	338.7	339.5	340.3	340.5
110°	377.9	378.4	379.0	379.5	380.0	380.5	381.6	382.5	383.6	384.6	384.9



TEST NUMBER: P332229-940

CATALOG NUMBER: S123DIW-S1165D1320U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	423.4	423.6	423.7	423.7	423.9	424.0	425.3	426.4	427.7	428.9	429.4
115°	494.6	494.7	494.2	493.7	493.2	492.7	492.9	493.2	493.5	493.7	493.7
117.5°	563.5	563.4	562.7	562.0	561.3	560.7	560.6	560.6	560.5	560.4	560.1
120°	611.0	611.2	609.8	608.6	607.3	606.0	605.7	605.5	605.3	605.0	604.6
122.5°	654.7	655.0	654.2	653.6	652.9	652.3	651.6	650.9	650.2	649.6	648.9
125°	722.5	722.6	722.0	721.6	721.0	720.5	719.5	718.5	717.5	716.4	715.4
127.5°	789.8	790.3	789.8	789.2	788.6	788.1	786.6	785.2	783.7	782.3	781.0
130°	834.0	834.6	833.8	833.1	832.3	831.5	830.5	829.5	828.5	827.4	826.0
132.5°	876.6	877.3	876.7	876.2	875.6	875.0	873.8	872.5	871.3	870.1	868.8
135°	939.5	940.1	939.9	939.6	939.3	939.1	938.1	937.0	936.0	935.0	934.2
137.5°	998.6	999.6	1000.2	1000.9	1001.6	1002.3	1001.1	1000.1	999.0	997.9	996.9
140°	1040.3	1041.0	1041.3	1041.5	1041.8	1042.1	1041.8	1041.5	1041.3	1041.0	1040.0
142.5°	1078.2	1079.1	1079.5	1080.0	1080.4	1080.9	1080.7	1080.4	1080.1	1079.9	1079.1
145°	1134.3	1135.0	1135.7	1136.5	1137.3	1138.0	1137.7	1137.5	1137.3	1137.0	1136.4
147.5°	1187.8	1188.6	1189.3	1190.0	1190.7	1191.4	1191.4	1191.4	1191.4	1191.4	1190.7
150°	1222.2	1222.7	1223.2	1223.7	1224.2	1224.8	1224.8	1224.8	1224.8	1224.8	1224.0
152.5°	1252.6	1253.1	1253.5	1253.7	1254.1	1254.4	1254.8	1255.2	1255.6	1256.0	1255.5
155°	1296.5	1296.6	1296.8	1297.1	1297.4	1297.6	1298.7	1299.7	1300.7	1301.7	1301.4
157.5°	1335.0	1335.0	1335.2	1335.3	1335.6	1335.8	1336.9	1337.9	1339.0	1340.2	1339.9
160°	1359.1	1358.9	1358.9	1358.9	1358.9	1358.9	1360.2	1361.5	1362.8	1364.1	1364.2
162.5°	1380.5	1380.3	1380.5	1380.7	1380.9	1381.1	1382.4	1383.7	1385.0	1386.3	1386.1
165°	1409.1	1408.6	1408.6	1408.6	1408.6	1408.6	1410.2	1411.8	1413.3	1414.8	1414.7
167.5°	1430.9	1430.5	1430.7	1430.9	1431.1	1431.3	1432.9	1434.5	1436.1	1437.7	1437.7
170°	1443.9	1443.3	1443.3	1443.3	1443.3	1443.3	1445.1	1447.0	1448.8	1450.5	1450.5
172.5°	1454.0	1453.5	1453.5	1453.5	1453.5	1453.5	1455.1	1456.7	1458.3	1459.9	1459.8
175°	1464.6	1464.2	1464.2	1464.2	1464.2	1464.2	1465.7	1467.2	1468.8	1470.3	1470.2
177.5°	1469.9	1469.5	1469.5	1469.5	1469.5	1469.5	1470.7	1471.9	1473.2	1474.4	1474.4
180°	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3



TEST NUMBER: P332229-940

CATALOG NUMBER: S123DIW-S1165D1320U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1383.1	1382.6	1386.5	1383.7	1386.5	1382.6	1383.1	1387.1	1388.2	1388.8	1388.8
5°	1287.4	1289.5	1282.5	1282.5	1282.5	1289.5	1287.4	1291.6	1295.1	1297.9	1302.1
7.5°	1202.2	1199.1	1199.4	1195.6	1199.4	1199.1	1202.2	1205.5	1210.1	1216.2	1221.9
10°	1150.0	1145.8	1144.4	1145.1	1144.4	1145.8	1150.0	1158.4	1161.3	1166.9	1173.1
12.5°	1106.9	1106.0	1096.8	1096.9	1096.8	1106.0	1106.9	1109.1	1115.3	1127.0	1134.4
15°	1056.1	1042.9	1041.4	1045.6	1041.4	1042.9	1056.1	1056.1	1058.9	1068.0	1072.3
17.5°	1005.2	998.3	998.6	996.6	998.6	998.3	1005.2	1006.4	1008.6	1016.0	1021.6
20°	978.3	974.1	973.4	968.5	973.4	974.1	978.3	978.3	981.1	984.6	990.2
22.5°	953.7	952.3	952.7	947.3	952.7	952.3	953.7	955.4	958.1	960.6	964.5
25°	923.0	926.5	923.6	923.6	923.6	926.5	923.0	923.6	924.3	927.9	930.7
27.5°	902.2	902.1	900.7	900.7	900.7	902.1	902.2	900.5	899.7	898.5	897.9
30°	886.5	885.8	887.3	887.3	887.3	885.8	886.5	883.7	882.3	881.6	878.8
32.5°	870.8	871.8	872.1	872.6	872.1	871.8	870.8	867.5	865.0	863.1	860.9
35°	846.6	847.3	849.4	848.0	849.4	847.3	846.6	842.4	839.5	835.4	831.9
37.5°	813.8	817.0	816.3	817.4	816.3	817.0	813.8	812.5	809.8	806.5	802.5
40°	789.1	791.2	790.5	790.5	790.5	791.2	789.1	788.5	785.6	783.5	780.0
42.5°	763.9	765.4	763.6	762.5	763.6	765.4	763.9	762.6	761.0	757.2	753.1
45°	722.6	721.1	723.3	720.4	723.3	721.1	722.6	719.7	719.1	716.2	712.7
47.5°	676.3	677.7	678.2	680.4	678.2	677.7	676.3	676.5	672.6	670.9	669.9
50°	645.4	649.6	649.6	649.0	649.6	649.6	645.4	644.1	641.2	638.5	638.5
52.5°	615.2	617.2	619.9	619.8	619.9	617.2	615.2	612.7	609.8	605.9	604.8
55°	568.4	569.8	571.1	571.9	571.1	569.8	568.4	562.8	560.6	558.6	555.0
57.5°	519.9	519.3	522.6	523.6	522.6	519.3	519.9	514.8	511.6	505.2	504.3
60°	485.6	485.6	491.2	493.4	491.2	485.6	485.6	480.1	475.2	470.9	469.6
62.5°	449.2	451.5	457.1	454.1	457.1	451.5	449.2	443.1	439.3	433.9	430.3
65°	395.9	401.5	400.8	403.7	400.8	401.5	395.9	392.4	384.8	379.9	375.7
67.5°	340.3	343.8	348.8	349.3	348.8	343.8	340.3	334.7	329.7	324.5	319.4
70°	302.7	306.2	309.1	311.1	309.1	306.2	302.7	297.1	291.5	288.0	282.4
72.5°	266.4	268.1	274.8	271.9	274.8	268.1	266.4	259.6	255.1	252.2	246.0
75°	208.8	213.7	217.9	215.9	217.9	213.7	208.8	203.9	200.5	196.3	190.6
77.5°	154.4	159.3	161.3	159.5	161.3	159.3	154.4	151.2	149.5	141.2	140.6
80°	122.0	121.3	125.5	124.8	125.5	121.3	122.0	117.0	113.5	108.6	108.6
82.5°	89.4	88.7	90.7	91.1	90.7	88.7	89.4	86.8	82.1	80.1	78.4
85°	43.4	45.6	42.7	42.1	42.7	45.6	43.4	40.7	40.7	40.7	39.9
87.5°	16.8	16.9	16.4	15.9	16.4	16.9	16.8	16.6	18.7	16.9	16.6
90°	33.2	33.7	34.2	34.7	34.2	33.7	33.2	32.6	31.8	30.9	29.8
92.5°	47.6	47.3	47.0	46.7	47.0	47.3	47.6	48.0	47.7	46.9	46.0
95°	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	89.7	88.6	87.7
97.5°	139.1	139.0	138.9	138.8	138.9	139.0	139.1	139.2	138.7	137.5	136.3
100°	174.2	174.8	175.3	175.8	175.3	174.8	174.2	173.7	173.1	172.3	171.6
102.5°	214.0	213.9	213.8	213.7	213.8	213.9	214.0	214.1	213.8	213.0	212.2
105°	273.8	274.2	274.7	275.3	274.7	274.2	273.8	273.2	273.0	273.0	273.0
107.5°	340.3	339.9	339.7	339.3	339.7	339.9	340.3	340.5	340.3	339.5	338.7
110°	384.3	383.9	383.3	382.8	383.3	383.9	384.3	384.9	384.6	383.6	382.5



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	429.4	429.3	429.2	429.1	429.2	429.3	429.4	429.4	428.9	427.7	426.4
115°	493.5	493.2	492.9	492.7	492.9	493.2	493.5	493.7	493.7	493.5	493.2
117.5°	559.4	558.7	557.9	557.2	557.9	558.7	559.4	560.1	560.4	560.5	560.6
120°	604.1	603.6	603.1	602.5	603.1	603.6	604.1	604.6	605.0	605.3	605.5
122.5°	648.2	647.5	646.8	646.0	646.8	647.5	648.2	648.9	649.6	650.2	650.9
125°	714.3	713.3	712.3	711.2	712.3	713.3	714.3	715.4	716.4	717.5	718.5
127.5°	779.8	778.6	777.5	776.2	777.5	778.6	779.8	781.0	782.3	783.7	785.2
130°	824.2	822.4	820.6	818.9	820.6	822.4	824.2	826.0	827.4	828.5	829.5
132.5°	867.4	866.0	864.6	863.3	864.6	866.0	867.4	868.8	870.1	871.3	872.5
135°	933.7	933.2	932.6	932.2	932.6	933.2	933.7	934.2	935.0	936.0	937.0
137.5°	996.0	995.0	994.0	993.0	994.0	995.0	996.0	996.9	997.9	999.0	1000.1
140°	1038.2	1036.3	1034.6	1032.8	1034.6	1036.3	1038.2	1040.0	1041.0	1041.3	1041.5
142.5°	1077.6	1076.3	1074.9	1073.5	1074.9	1076.3	1077.6	1079.1	1079.9	1080.1	1080.4
145°	1135.3	1134.3	1133.3	1132.2	1133.3	1134.3	1135.3	1136.4	1137.0	1137.3	1137.5
147.5°	1189.2	1187.6	1186.1	1184.5	1186.1	1187.6	1189.2	1190.7	1191.4	1191.4	1191.4
150°	1222.4	1220.9	1219.3	1217.8	1219.3	1220.9	1222.4	1224.0	1224.8	1224.8	1224.8
152.5°	1254.2	1252.9	1251.5	1250.2	1251.5	1252.9	1254.2	1255.5	1256.0	1255.6	1255.2
155°	1299.6	1297.8	1295.9	1294.1	1295.9	1297.8	1299.6	1301.4	1301.7	1300.7	1299.7
157.5°	1338.5	1337.0	1335.6	1334.2	1335.6	1337.0	1338.5	1339.9	1340.2	1339.0	1337.9
160°	1363.2	1362.2	1361.1	1360.0	1361.1	1362.2	1363.2	1364.2	1364.1	1362.8	1361.5
162.5°	1384.5	1382.8	1381.2	1379.5	1381.2	1382.8	1384.5	1386.1	1386.3	1385.0	1383.7
165°	1412.9	1411.1	1409.3	1407.5	1409.3	1411.1	1412.9	1414.7	1414.8	1413.3	1411.8
167.5°	1436.1	1434.5	1432.9	1431.3	1432.9	1434.5	1436.1	1437.7	1437.7	1436.1	1434.5
170°	1448.8	1447.0	1445.1	1443.3	1445.1	1447.0	1448.8	1450.5	1450.5	1448.8	1447.0
172.5°	1458.0	1456.2	1454.4	1452.6	1454.4	1456.2	1458.0	1459.8	1459.9	1458.3	1456.7
175°	1468.4	1466.6	1464.8	1463.0	1464.8	1466.6	1468.4	1470.2	1470.3	1468.8	1467.2
177.5°	1472.8	1471.4	1470.0	1468.6	1470.0	1471.4	1472.8	1474.4	1474.4	1473.2	1471.9
180°	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3



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**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1387.1	1387.1	1397.7	1404.4	1412.8	1418.4	1422.4	1426.3	1433.1	1442.0	1452.1
5°	1307.7	1310.5	1326.0	1341.4	1356.1	1368.7	1379.2	1391.8	1407.2	1426.1	1447.2
7.5°	1230.9	1241.7	1257.2	1276.0	1296.6	1315.0	1333.6	1354.4	1376.1	1404.0	1433.4
10°	1181.6	1193.5	1212.4	1236.3	1257.9	1279.7	1302.8	1325.3	1352.5	1385.5	1423.3
12.5°	1138.4	1149.8	1169.2	1195.3	1215.9	1239.9	1266.4	1295.6	1326.2	1365.9	1408.8
15°	1078.5	1091.9	1115.7	1128.3	1159.8	1188.6	1213.1	1255.2	1294.4	1335.1	1384.8
17.5°	1029.5	1036.9	1056.2	1079.7	1103.2	1135.4	1167.5	1202.6	1241.7	1291.5	1353.7
20°	995.9	1002.2	1023.1	1047.8	1072.9	1102.4	1131.1	1166.2	1210.3	1262.8	1330.2
22.5°	970.6	977.5	991.2	1017.4	1041.0	1065.4	1094.1	1135.9	1182.9	1234.3	1307.2
25°	934.2	938.3	947.5	968.5	989.5	1016.9	1042.1	1081.4	1129.7	1190.0	1262.8
27.5°	899.6	903.7	911.2	926.3	945.9	968.1	995.6	1028.9	1078.0	1143.4	1220.8
30°	878.8	879.5	886.5	900.5	917.4	935.6	960.8	998.6	1044.9	1111.5	1192.8
32.5°	860.9	858.2	863.0	873.6	889.9	908.1	928.9	966.2	1010.8	1076.2	1159.7
35°	830.5	829.0	827.0	836.1	850.1	864.1	882.3	910.3	960.8	1021.8	1109.4
37.5°	799.5	796.1	792.4	796.6	807.4	822.1	837.9	862.8	906.3	973.4	1057.2
40°	776.5	773.7	771.6	770.2	780.0	794.0	805.9	829.7	870.4	934.2	1016.9
42.5°	751.3	749.6	746.9	744.9	753.1	763.8	776.2	797.3	837.9	897.8	976.0
45°	710.6	709.3	707.8	706.4	711.3	721.1	730.9	746.4	781.4	839.5	910.3
47.5°	665.4	663.5	664.1	661.8	666.6	673.2	680.1	696.6	730.2	777.2	828.9
50°	632.8	632.1	632.1	632.1	633.6	641.2	647.6	660.1	691.0	738.0	775.1
52.5°	602.0	599.1	599.1	600.2	602.7	607.6	611.7	625.4	652.3	690.9	724.6
55°	553.7	548.0	546.6	548.0	550.1	554.4	558.6	569.8	592.9	621.6	641.2
57.5°	500.1	497.0	495.2	495.4	496.6	500.0	503.2	515.4	533.6	548.6	561.2
60°	462.5	464.0	457.6	459.1	459.1	461.8	466.7	474.5	489.9	500.3	513.0
62.5°	427.2	425.3	423.5	421.5	421.5	422.6	429.2	435.2	448.4	453.9	463.7
65°	372.1	372.1	367.9	369.3	370.1	365.2	368.6	375.7	384.1	386.1	395.3
67.5°	316.4	314.4	312.0	309.9	309.9	309.5	311.3	314.8	321.1	321.8	328.9
70°	278.2	276.8	276.2	274.0	271.3	274.7	272.6	276.2	279.6	280.4	284.5
72.5°	241.2	239.8	238.5	236.5	235.3	234.9	235.1	239.2	241.5	240.5	245.3
75°	188.5	187.1	185.7	182.2	182.2	180.1	180.8	183.6	186.5	184.3	188.5
77.5°	138.5	134.1	133.8	134.8	132.4	132.9	132.1	131.6	132.9	133.0	136.8
80°	106.6	101.7	103.0	102.3	101.7	100.9	99.5	100.2	100.9	101.7	103.7
82.5°	76.8	76.4	75.0	74.8	74.2	72.3	71.5	72.8	73.5	73.0	74.5
85°	39.2	37.2	38.5	37.8	38.5	37.8	35.8	35.8	37.2	36.5	37.8
87.5°	17.6	17.3	16.1	16.0	14.8	14.6	13.5	13.6	13.6	13.1	13.6
90°	28.8	27.7	24.4	21.0	17.7	14.4	11.4	8.8	6.3	3.7	1.2
92.5°	45.2	44.4	42.5	40.6	38.7	36.8	35.0	33.3	31.5	29.7	28.0
95°	86.6	85.6	83.6	81.5	79.5	77.4	75.4	73.7	71.9	70.0	68.2
97.5°	135.1	133.9	132.4	130.9	129.5	128.0	126.5	125.2	123.9	122.5	121.2
100°	170.8	170.0	168.7	167.5	166.1	164.9	163.5	161.9	160.3	158.8	157.3
102.5°	211.5	210.7	209.0	207.3	205.6	203.9	202.6	201.7	200.8	199.8	198.9
105°	273.0	273.0	270.6	268.3	266.0	263.7	262.3	261.7	261.3	260.7	260.2
107.5°	337.9	337.0	336.1	335.2	334.2	333.3	332.7	332.4	332.1	331.8	331.4
110°	381.6	380.5	380.0	379.5	379.0	378.4	377.9	377.4	376.9	376.4	375.9



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**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	425.3	424.0	423.9	423.7	423.7	423.6	423.4	423.0	422.8	422.4	422.1
115°	492.9	492.7	493.2	493.7	494.2	494.7	494.6	493.8	493.0	492.3	491.5
117.5°	560.6	560.7	561.3	562.0	562.7	563.4	563.5	562.9	562.4	561.9	561.4
120°	605.7	606.0	607.3	608.6	609.8	611.2	611.0	609.5	608.0	606.4	604.8
122.5°	651.6	652.3	652.9	653.6	654.2	655.0	654.7	653.6	652.5	651.3	650.2
125°	719.5	720.5	721.0	721.6	722.0	722.6	722.5	721.7	720.9	720.1	719.3
127.5°	786.6	788.1	788.6	789.2	789.8	790.3	789.8	788.1	786.5	784.9	783.2
130°	830.5	831.5	832.3	833.1	833.8	834.6	834.0	832.0	829.9	827.8	825.7
132.5°	873.8	875.0	875.6	876.2	876.7	877.3	876.6	874.5	872.4	870.4	868.3
135°	938.1	939.1	939.3	939.6	939.9	940.1	939.5	937.9	936.4	934.9	933.4
137.5°	1001.1	1002.3	1001.6	1000.9	1000.2	999.6	998.6	997.3	996.0	994.7	993.5
140°	1041.8	1042.1	1041.8	1041.5	1041.3	1041.0	1040.3	1038.9	1037.7	1036.3	1035.1
142.5°	1080.7	1080.9	1080.4	1080.0	1079.5	1079.1	1078.2	1076.9	1075.6	1074.3	1073.0
145°	1137.7	1138.0	1137.3	1136.5	1135.7	1135.0	1134.3	1133.8	1133.3	1132.7	1132.2
147.5°	1191.4	1191.4	1190.7	1190.0	1189.3	1188.6	1187.8	1186.9	1185.9	1185.0	1184.0
150°	1224.8	1224.8	1224.2	1223.7	1223.2	1222.7	1222.2	1221.6	1221.2	1220.7	1220.1
152.5°	1254.8	1254.4	1254.1	1253.7	1253.5	1253.1	1252.6	1251.9	1251.2	1250.4	1249.7
155°	1298.7	1297.6	1297.4	1297.1	1296.8	1296.6	1296.5	1296.5	1296.5	1296.5	1296.5
157.5°	1336.9	1335.8	1335.6	1335.3	1335.2	1335.0	1335.0	1335.3	1335.6	1336.0	1336.2
160°	1360.2	1358.9	1358.9	1358.9	1358.9	1358.9	1359.1	1359.7	1360.2	1360.8	1361.2
162.5°	1382.4	1381.1	1380.9	1380.7	1380.5	1380.3	1380.5	1381.3	1382.0	1382.7	1383.4
165°	1410.2	1408.6	1408.6	1408.6	1408.6	1408.6	1409.1	1409.8	1410.6	1411.3	1412.1
167.5°	1432.9	1431.3	1431.1	1430.9	1430.7	1430.5	1430.9	1431.9	1433.0	1434.0	1435.0
170°	1445.1	1443.3	1443.3	1443.3	1443.3	1443.3	1443.9	1444.9	1445.9	1447.0	1448.0
172.5°	1455.1	1453.5	1453.5	1453.5	1453.5	1453.5	1454.0	1455.1	1456.1	1457.1	1458.1
175°	1465.7	1464.2	1464.2	1464.2	1464.2	1464.2	1464.6	1465.7	1466.8	1467.8	1468.8
177.5°	1470.7	1469.5	1469.5	1469.5	1469.5	1469.5	1469.9	1470.7	1471.5	1472.4	1473.2
180°	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3



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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1455.5	1458.2	1467.8	1474.5	1482.4	1486.8	1491.3	1494.7	1499.1	1500.3	1516.5
5°	1461.9	1476.0	1500.5	1518.7	1541.1	1565.6	1582.4	1590.2	1610.4	1627.3	1660.9
7.5°	1460.1	1490.0	1527.0	1565.3	1606.5	1644.7	1677.8	1717.0	1744.9	1786.8	1828.2
10°	1458.4	1498.3	1546.0	1595.1	1652.5	1705.8	1753.5	1806.7	1850.8	1909.0	1958.7
12.5°	1453.3	1501.7	1567.9	1625.9	1695.7	1769.2	1839.8	1908.2	1947.3	2044.2	2090.0
15°	1440.9	1498.3	1581.0	1669.4	1765.3	1852.3	1942.0	2013.5	2129.0	2213.9	2267.8
17.5°	1417.0	1497.5	1595.6	1702.1	1818.9	1933.4	2035.1	2143.5	2266.2	2368.7	2478.1
20°	1405.9	1494.2	1603.5	1721.2	1842.5	1972.1	2087.8	2218.0	2352.0	2452.8	2593.0
22.5°	1385.1	1485.1	1602.9	1734.1	1863.8	1997.9	2133.2	2264.6	2419.2	2558.2	2691.7
25°	1351.2	1463.3	1585.3	1731.7	1883.8	2018.4	2180.2	2354.7	2516.0	2694.7	2827.8
27.5°	1315.5	1435.3	1557.5	1693.7	1857.3	2017.0	2220.6	2417.8	2614.9	2769.2	2867.7
30°	1288.1	1404.4	1530.6	1667.9	1829.8	2019.7	2247.5	2462.6	2654.7	2787.1	2842.5
32.5°	1258.4	1376.4	1488.0	1632.1	1804.6	2018.0	2264.3	2489.0	2656.9	2745.1	2734.3
35°	1211.7	1310.5	1419.2	1557.9	1761.1	2005.7	2274.1	2491.4	2594.4	2575.5	2432.5
37.5°	1144.4	1227.5	1334.5	1486.4	1710.7	1979.8	2254.5	2417.5	2410.8	2256.7	2049.6
40°	1102.4	1173.1	1276.2	1436.0	1671.4	1963.0	2223.7	2329.5	2239.8	2024.6	1776.6
42.5°	1047.4	1112.6	1215.7	1379.9	1628.3	1928.8	2164.8	2195.5	2020.0	1772.4	1545.0
45°	962.2	1019.7	1126.2	1295.8	1563.5	1854.3	2021.2	1946.2	1709.9	1454.2	1281.1
47.5°	870.7	930.4	1032.9	1207.1	1469.9	1742.4	1821.9	1662.3	1419.9	1212.4	1053.5
50°	813.0	870.4	970.6	1146.6	1406.5	1650.4	1683.4	1477.3	1254.5	1072.3	941.9
52.5°	754.7	808.8	907.3	1083.7	1332.6	1543.9	1523.6	1313.6	1108.7	953.4	851.0
55°	667.9	719.1	813.0	978.3	1204.7	1372.2	1298.6	1098.1	928.5	808.1	730.2
57.5°	590.2	639.3	720.3	869.7	1066.5	1181.6	1088.0	919.1	784.2	691.4	633.4
60°	537.5	580.9	658.1	796.8	967.9	1055.4	963.0	813.7	700.1	625.8	574.0
62.5°	487.6	525.5	596.9	722.8	871.4	944.9	851.3	725.1	628.4	562.5	518.4
65°	412.1	446.4	509.5	607.6	729.5	778.6	698.0	595.7	520.7	471.6	442.2
67.5°	343.1	372.3	426.8	504.0	593.7	629.5	568.1	488.9	432.4	393.0	369.6
70°	297.1	322.4	365.2	431.7	513.0	540.3	482.9	417.7	376.3	344.8	323.1
72.5°	258.4	277.0	315.8	367.2	435.1	456.8	416.7	359.4	320.8	297.1	279.9
75°	196.9	212.3	237.6	278.9	325.9	338.5	308.4	272.6	246.6	229.9	216.5
77.5°	142.0	153.4	171.6	197.1	229.6	240.9	221.9	198.0	179.1	167.7	160.3
80°	107.2	116.4	131.8	152.8	172.4	178.7	167.5	149.3	136.0	129.7	123.3
82.5°	79.2	84.4	93.6	107.9	121.4	128.9	119.3	108.3	101.2	95.4	93.1
85°	39.9	42.7	47.0	52.5	61.0	63.8	60.3	57.4	53.2	49.8	49.8
87.5°	15.3	15.9	18.0	19.7	22.5	24.9	25.0	24.5	24.6	24.3	23.9
90°	3.7	6.3	8.8	11.4	14.4	17.7	21.0	24.4	27.7	28.8	29.8
92.5°	29.7	31.5	33.3	35.0	36.8	38.7	40.6	42.5	44.4	45.2	46.0
95°	70.0	71.9	73.7	75.4	77.4	79.5	81.5	83.6	85.6	86.6	87.7
97.5°	122.5	123.9	125.2	126.5	128.0	129.5	130.9	132.4	133.9	135.1	136.3
100°	158.8	160.3	161.9	163.5	164.9	166.1	167.5	168.7	170.0	170.8	171.6
102.5°	199.8	200.8	201.7	202.6	203.9	205.6	207.3	209.0	210.7	211.5	212.2
105°	260.7	261.3	261.7	262.3	263.7	266.0	268.3	270.6	273.0	273.0	273.0
107.5°	331.8	332.1	332.4	332.7	333.3	334.2	335.2	336.1	337.0	337.9	338.7
110°	376.4	376.9	377.4	377.9	378.4	379.0	379.5	380.0	380.5	381.6	382.5





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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	422.4	422.8	423.0	423.4	423.6	423.7	423.7	423.9	424.0	425.3	426.4
115°	492.3	493.0	493.8	494.6	494.7	494.2	493.7	493.2	492.7	492.9	493.2
117.5°	561.9	562.4	562.9	563.5	563.4	562.7	562.0	561.3	560.7	560.6	560.6
120°	606.4	608.0	609.5	611.0	611.2	609.8	608.6	607.3	606.0	605.7	605.5
122.5°	651.3	652.5	653.6	654.7	655.0	654.2	653.6	652.9	652.3	651.6	650.9
125°	720.1	720.9	721.7	722.5	722.6	722.0	721.6	721.0	720.5	719.5	718.5
127.5°	784.9	786.5	788.1	789.8	790.3	789.8	789.2	788.6	788.1	786.6	785.2
130°	827.8	829.9	832.0	834.0	834.6	833.8	833.1	832.3	831.5	830.5	829.5
132.5°	870.4	872.4	874.5	876.6	877.3	876.7	876.2	875.6	875.0	873.8	872.5
135°	934.9	936.4	937.9	939.5	940.1	939.9	939.6	939.3	939.1	938.1	937.0
137.5°	994.7	996.0	997.3	998.6	999.6	1000.2	1000.9	1001.6	1002.3	1001.1	1000.1
140°	1036.3	1037.7	1038.9	1040.3	1041.0	1041.3	1041.5	1041.8	1042.1	1041.8	1041.5
142.5°	1074.3	1075.6	1076.9	1078.2	1079.1	1079.5	1080.0	1080.4	1080.9	1080.7	1080.4
145°	1132.7	1133.3	1133.8	1134.3	1135.0	1135.7	1136.5	1137.3	1138.0	1137.7	1137.5
147.5°	1185.0	1185.9	1186.9	1187.8	1188.6	1189.3	1190.0	1190.7	1191.4	1191.4	1191.4
150°	1220.7	1221.2	1221.6	1222.2	1222.7	1223.2	1223.7	1224.2	1224.8	1224.8	1224.8
152.5°	1250.4	1251.2	1251.9	1252.6	1253.1	1253.5	1253.7	1254.1	1254.4	1254.8	1255.2
155°	1296.5	1296.5	1296.5	1296.5	1296.6	1296.8	1297.1	1297.4	1297.6	1298.7	1299.7
157.5°	1336.0	1335.6	1335.3	1335.0	1335.0	1335.2	1335.3	1335.6	1335.8	1336.9	1337.9
160°	1360.8	1360.2	1359.7	1359.1	1358.9	1358.9	1358.9	1358.9	1358.9	1360.2	1361.5
162.5°	1382.7	1382.0	1381.3	1380.5	1380.3	1380.5	1380.7	1380.9	1381.1	1382.4	1383.7
165°	1411.3	1410.6	1409.8	1409.1	1408.6	1408.6	1408.6	1408.6	1408.6	1410.2	1411.8
167.5°	1434.0	1433.0	1431.9	1430.9	1430.5	1430.7	1430.9	1431.1	1431.3	1432.9	1434.5
170°	1447.0	1445.9	1444.9	1443.9	1443.3	1443.3	1443.3	1443.3	1443.3	1445.1	1447.0
172.5°	1457.1	1456.1	1455.1	1454.0	1453.5	1453.5	1453.5	1453.5	1453.5	1455.1	1456.7
175°	1467.8	1466.8	1465.7	1464.6	1464.2	1464.2	1464.2	1464.2	1464.2	1465.7	1467.2
177.5°	1472.4	1471.5	1470.7	1469.9	1469.5	1469.5	1469.5	1469.5	1469.5	1470.7	1471.9
180°	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1522.2	1522.7	1528.9	1533.4	1531.2	1533.9	1535.1
5°	1663.0	1688.3	1701.6	1711.4	1712.1	1712.8	1718.4
7.5°	1862.8	1889.8	1909.6	1939.6	1948.6	1958.7	1955.8
10°	2008.6	2048.4	2082.9	2101.0	2120.7	2149.4	2126.3
12.5°	2144.7	2215.5	2267.8	2296.2	2314.6	2320.4	2309.1
15°	2369.5	2461.9	2511.7	2510.3	2573.4	2600.8	2558.0
17.5°	2575.5	2660.9	2729.3	2764.3	2816.8	2828.5	2823.2
20°	2701.6	2794.9	2848.1	2908.4	2935.7	2960.2	2964.4
22.5°	2810.4	2894.0	2951.3	3001.4	3024.3	3035.9	3043.0
25°	2922.4	2988.3	3022.6	3040.1	3046.4	3045.0	3035.9
27.5°	2914.6	2919.7	2881.9	2844.7	2811.6	2774.1	2761.2
30°	2839.0	2780.1	2675.0	2615.5	2527.8	2458.4	2486.4
32.5°	2640.0	2522.8	2404.8	2274.6	2166.8	2136.1	2105.2
35°	2253.1	2047.1	1926.5	1786.4	1730.3	1674.3	1635.7
37.5°	1822.8	1663.5	1520.5	1428.8	1372.6	1337.1	1318.1
40°	1576.1	1432.4	1314.7	1240.5	1197.7	1157.7	1152.2
42.5°	1379.4	1245.8	1157.2	1098.1	1056.9	1040.0	1027.7
45°	1129.7	1036.5	977.0	934.9	907.6	897.1	883.1
47.5°	956.2	890.3	845.6	817.0	796.4	788.5	787.5
50°	859.2	804.5	771.6	749.1	733.1	730.2	719.1
52.5°	786.3	739.0	713.3	693.7	682.1	674.2	670.8
55°	682.6	651.0	627.9	616.7	607.6	599.9	599.9
57.5°	597.3	570.9	555.6	546.1	543.2	537.8	534.3
60°	544.6	522.1	510.2	501.8	496.1	496.9	490.5
62.5°	492.9	478.4	467.0	458.6	451.9	452.0	452.5
65°	419.8	408.6	400.2	397.3	393.2	388.3	389.7
67.5°	355.7	345.2	338.7	333.9	332.4	329.8	333.9
70°	309.8	302.0	297.1	292.9	291.5	292.2	295.8
72.5°	267.7	262.3	259.0	257.1	254.0	254.1	256.5
75°	210.3	206.1	203.2	201.2	200.5	200.5	200.5
77.5°	154.4	153.5	152.2	149.1	149.3	150.1	150.3
80°	122.0	119.8	119.1	117.7	115.7	114.2	117.7
82.5°	91.1	89.0	88.3	88.0	84.8	84.5	87.5
85°	49.0	47.0	47.6	47.0	47.0	46.3	46.3
87.5°	23.5	23.2	22.8	23.5	23.0	22.6	23.7
90°	30.9	31.8	32.6	33.2	33.7	34.2	34.7
92.5°	46.9	47.7	48.0	47.6	47.3	47.0	46.7
95°	88.6	89.7	90.2	90.2	90.2	90.2	90.2
97.5°	137.5	138.7	139.2	139.1	139.0	138.9	138.8
100°	172.3	173.1	173.7	174.2	174.8	175.3	175.8
102.5°	213.0	213.8	214.1	214.0	213.9	213.8	213.7
105°	273.0	273.0	273.2	273.8	274.2	274.7	275.3
107.5°	339.5	340.3	340.5	340.3	339.9	339.7	339.3
110°	383.6	384.6	384.9	384.3	383.9	383.3	382.8



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	427.7	428.9	429.4	429.4	429.3	429.2	429.1
115°	493.5	493.7	493.7	493.5	493.2	492.9	492.7
117.5°	560.5	560.4	560.1	559.4	558.7	557.9	557.2
120°	605.3	605.0	604.6	604.1	603.6	603.1	602.5
122.5°	650.2	649.6	648.9	648.2	647.5	646.8	646.0
125°	717.5	716.4	715.4	714.3	713.3	712.3	711.2
127.5°	783.7	782.3	781.0	779.8	778.6	777.5	776.2
130°	828.5	827.4	826.0	824.2	822.4	820.6	818.9
132.5°	871.3	870.1	868.8	867.4	866.0	864.6	863.3
135°	936.0	935.0	934.2	933.7	933.2	932.6	932.2
137.5°	999.0	997.9	996.9	996.0	995.0	994.0	993.0
140°	1041.3	1041.0	1040.0	1038.2	1036.3	1034.6	1032.8
142.5°	1080.1	1079.9	1079.1	1077.6	1076.3	1074.9	1073.5
145°	1137.3	1137.0	1136.4	1135.3	1134.3	1133.3	1132.2
147.5°	1191.4	1191.4	1190.7	1189.2	1187.6	1186.1	1184.5
150°	1224.8	1224.8	1224.0	1222.4	1220.9	1219.3	1217.8
152.5°	1255.6	1256.0	1255.5	1254.2	1252.9	1251.5	1250.2
155°	1300.7	1301.7	1301.4	1299.6	1297.8	1295.9	1294.1
157.5°	1339.0	1340.2	1339.9	1338.5	1337.0	1335.6	1334.2
160°	1362.8	1364.1	1364.2	1363.2	1362.2	1361.1	1360.0
162.5°	1385.0	1386.3	1386.1	1384.5	1382.8	1381.2	1379.5
165°	1413.3	1414.8	1414.7	1412.9	1411.1	1409.3	1407.5
167.5°	1436.1	1437.7	1437.7	1436.1	1434.5	1432.9	1431.3
170°	1448.8	1450.5	1450.5	1448.8	1447.0	1445.1	1443.3
172.5°	1458.3	1459.9	1459.8	1458.0	1456.2	1454.4	1452.6
175°	1468.8	1470.3	1470.2	1468.4	1466.6	1464.8	1463.0
177.5°	1473.2	1474.4	1474.4	1472.8	1471.4	1470.0	1468.6
180°	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3	1472.3

(END OF REPORT)