

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: P332223-830

Luminaire Tested: **S123DIW-S1165D1030U830-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332223-830  
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-S1165D1030U830-4F0-1E-UDD-A1  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER  
UPLIGHT 1030 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7986.2 lumens  
Efficiency: N/A  
Efficacy: 118.5 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

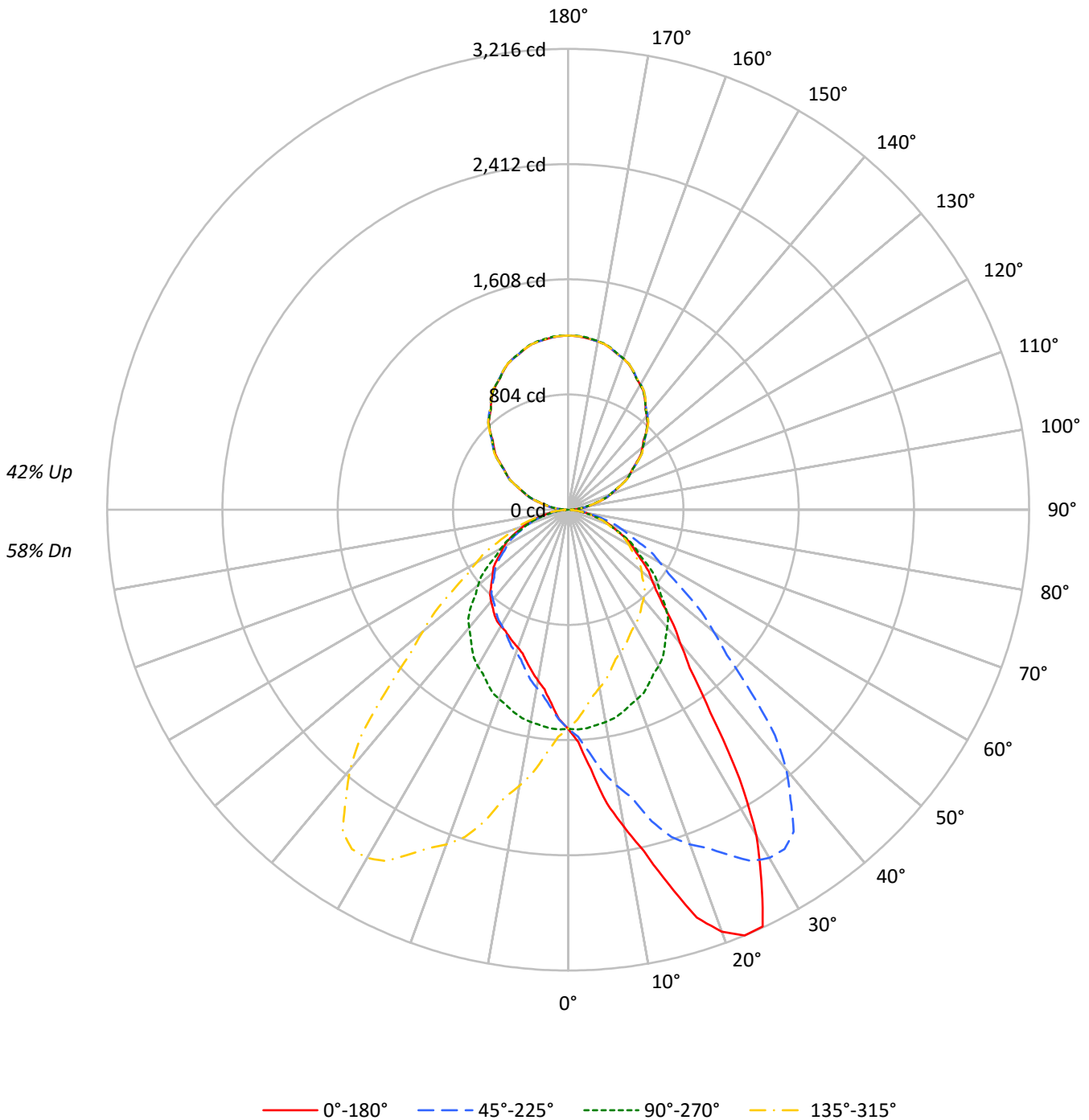
Input Watts (W): 67.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58
1	100	96	92	88	93	89	86	83	77	75	73	67	65	63	56	55	54	49
2	91	84	78	73	85	78	73	69	68	64	61	59	56	53	50	48	46	42
3	83	74	67	61	77	69	63	58	60	55	51	52	48	45	45	42	39	36
4	76	66	58	52	71	62	55	49	54	48	44	47	42	39	40	37	34	31
5	70	59	51	45	65	55	48	42	48	43	38	42	38	34	36	33	30	27
6	65	53	45	39	60	50	42	37	44	38	33	38	33	30	33	29	26	24
7	60	48	40	34	56	45	38	33	40	34	29	35	30	27	30	26	24	21
8	56	43	36	30	52	41	34	29	36	30	26	32	27	24	28	24	21	19
9	52	40	32	27	48	37	31	26	33	28	24	29	25	21	25	22	19	17
10	48	36	29	24	45	34	28	23	31	25	21	27	22	19	24	20	17	15

**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	1.9
10°-20°	482.9	6.0
20°-30°	810.5	10.1
30°-40°	917.8	11.5
40°-50°	823.0	10.3
50°-60°	664.2	8.3
60°-70°	462.8	5.8
70°-80°	243.3	3.0
80°-90°	63.1	0.8
90°-100°	79.2	1.0
100°-110°	237.0	3.0
110°-120°	403.1	5.0
120°-130°	530.3	6.6
130°-140°	596.0	7.5
140°-150°	585.8	7.3
150°-160°	493.2	6.2
160°-170°	328.3	4.1
170°-180°	115.0	1.4
0°-30°	1444.1	18.1
0°-40°	2361.9	29.6
0°-60°	3849.1	48.2
0°-90°	4618.2	57.8
90°-120°	719.4	9.0
90°-150°	2431.5	30.4
90°-180°	3368.0	42.2
0°-180°	7986.2	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°	29	1	29	1	29	16
95°	74	56	74	56	74	76
105°	227	215	227	215	227	241
115°	407	406	407	406	407	403
125°	587	594	587	594	587	525
135°	770	771	770	771	770	592
145°	935	935	935	935	935	584
155°	1069	1070	1069	1070	1069	492
165°	1162	1166	1162	1166	1162	328
175°	1208	1213	1208	1213	1208	115
180°	1216	1216	1216	1216	1216	



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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	22.2	22.7	23.3	22.6	23.0	23.5	23.8	24.3	24.7	24.8
90°	28.7	28.2	27.8	27.3	27.0	26.3	25.4	24.6	23.8	22.9	20.2
92.5°	38.5	38.8	39.1	39.3	39.6	39.4	38.7	38.0	37.3	36.7	35.1
95°	74.5	74.5	74.5	74.5	74.5	74.1	73.2	72.4	71.5	70.7	69.0
97.5°	114.6	114.7	114.8	114.8	114.9	114.5	113.5	112.5	111.6	110.6	109.3
100°	145.2	144.7	144.3	143.8	143.5	142.9	142.3	141.7	141.0	140.3	139.3
102.5°	176.4	176.5	176.6	176.7	176.8	176.5	175.9	175.2	174.7	174.0	172.6
105°	227.2	226.9	226.4	226.0	225.6	225.4	225.4	225.4	225.4	225.4	223.5
107.5°	280.1	280.4	280.7	281.0	281.2	281.0	280.3	279.7	278.9	278.2	277.5
110°	316.0	316.5	316.9	317.4	317.7	317.5	316.7	315.8	315.0	314.1	313.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	354.3	354.4	354.4	354.5	354.6	354.1	353.1	352.1	351.1	350.1	350.0
115°	406.8	407.0	407.2	407.5	407.6	407.6	407.5	407.2	407.0	406.8	407.2
117.5°	460.1	460.6	461.3	461.8	462.4	462.8	462.8	462.9	462.9	463.0	463.4
120°	497.5	497.9	498.3	498.8	499.2	499.5	499.7	499.9	500.1	500.4	501.4
122.5°	533.4	534.0	534.6	535.2	535.7	536.4	536.9	537.4	538.0	538.6	539.1
125°	587.3	588.1	589.0	589.8	590.7	591.5	592.4	593.2	594.1	594.9	595.3
127.5°	640.9	641.9	642.9	643.9	644.8	645.9	647.1	648.3	649.5	650.6	651.1
130°	676.1	677.6	679.0	680.5	682.0	683.2	684.0	684.9	685.7	686.5	687.2
132.5°	712.8	713.9	715.0	716.1	717.4	718.4	719.4	720.5	721.4	722.5	722.9
135°	769.7	770.1	770.5	770.9	771.4	771.9	772.8	773.6	774.5	775.3	775.6
137.5°	819.9	820.7	821.5	822.3	823.1	824.0	824.8	825.8	826.6	827.6	827.0
140°	852.7	854.2	855.7	857.1	858.7	859.5	859.7	860.0	860.2	860.4	860.2
142.5°	886.4	887.5	888.6	889.8	890.9	891.6	891.8	892.0	892.2	892.5	892.1
145°	934.8	935.7	936.5	937.4	938.2	938.8	939.0	939.2	939.4	939.6	939.0
147.5°	978.0	979.3	980.5	981.8	983.1	983.7	983.7	983.7	983.7	983.7	983.2
150°	1005.5	1006.8	1008.0	1009.4	1010.6	1011.3	1011.3	1011.3	1011.3	1011.3	1010.8
152.5°	1032.3	1033.3	1034.4	1035.6	1036.7	1037.1	1036.7	1036.3	1036.0	1035.7	1035.5
155°	1068.6	1070.1	1071.5	1073.0	1074.5	1074.8	1073.9	1073.1	1072.2	1071.4	1071.2
157.5°	1101.5	1102.8	1104.0	1105.1	1106.4	1106.5	1105.6	1104.7	1103.8	1102.9	1102.8
160°	1122.9	1123.8	1124.6	1125.5	1126.3	1126.2	1125.2	1124.2	1123.0	1122.0	1122.0
162.5°	1139.0	1140.4	1141.7	1143.1	1144.4	1144.6	1143.5	1142.5	1141.4	1140.4	1140.2
165°	1162.2	1163.6	1165.1	1166.6	1168.1	1168.2	1166.9	1165.6	1164.3	1163.1	1163.1
167.5°	1181.8	1183.1	1184.4	1185.7	1187.0	1187.0	1185.7	1184.4	1183.1	1181.8	1181.7
170°	1191.8	1193.2	1194.7	1196.2	1197.7	1197.7	1196.2	1194.7	1193.2	1191.8	1191.8
172.5°	1199.4	1200.8	1202.3	1203.8	1205.3	1205.4	1204.1	1202.8	1201.5	1200.1	1200.1
175°	1208.0	1209.5	1210.9	1212.4	1213.9	1214.0	1212.8	1211.4	1210.2	1208.9	1208.9
177.5°	1212.6	1213.7	1214.9	1216.1	1217.3	1217.4	1216.4	1215.3	1214.3	1213.3	1213.3
180°	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6



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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	16.5	16.0	14.4	13.7	14.0	13.9
90°	17.4	14.6	11.9	9.4	7.4	5.2	3.1	0.9	3.1	5.2	7.4
92.5°	33.6	32.0	30.3	28.8	27.4	26.0	24.5	23.1	24.5	26.0	27.4
95°	67.3	65.6	63.9	62.3	60.8	59.3	57.8	56.4	57.8	59.3	60.8
97.5°	108.1	106.9	105.7	104.5	103.4	102.3	101.1	100.1	101.1	102.3	103.4
100°	138.3	137.2	136.1	135.0	133.7	132.4	131.1	129.9	131.1	132.4	133.7
102.5°	171.2	169.8	168.3	167.3	166.5	165.8	165.0	164.3	165.0	165.8	166.5
105°	221.5	219.6	217.7	216.6	216.1	215.7	215.3	214.9	215.3	215.7	216.1
107.5°	276.7	276.0	275.2	274.7	274.5	274.2	273.9	273.7	273.9	274.2	274.5
110°	313.3	312.9	312.5	312.1	311.6	311.2	310.8	310.4	310.8	311.2	311.6





TEST NUMBER: P332223-830

CATALOG NUMBER: S123DIW-S1165D1030U830-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	349.9	349.8	349.7	349.6	349.3	349.0	348.8	348.6	348.8	349.0	349.3
115°	407.6	408.0	408.5	408.4	407.7	407.1	406.4	405.9	406.4	407.1	407.7
117.5°	464.0	464.6	465.1	465.2	464.8	464.4	463.9	463.5	463.9	464.4	464.8
120°	502.5	503.5	504.6	504.5	503.2	502.0	500.7	499.5	500.7	502.0	503.2
122.5°	539.7	540.3	540.7	540.5	539.6	538.8	537.8	536.9	537.8	538.8	539.6
125°	595.8	596.2	596.6	596.5	595.9	595.2	594.6	594.0	594.6	595.2	595.9
127.5°	651.6	652.1	652.5	652.1	650.7	649.4	648.0	646.7	648.0	649.4	650.7
130°	687.9	688.5	689.1	688.6	686.9	685.2	683.5	681.8	683.5	685.2	686.9
132.5°	723.4	723.9	724.3	723.8	722.1	720.3	718.6	716.9	718.6	720.3	722.1
135°	775.8	776.0	776.2	775.7	774.4	773.2	771.8	770.6	771.8	773.2	774.4
137.5°	826.4	825.9	825.3	824.5	823.4	822.4	821.3	820.3	821.3	822.4	823.4
140°	860.0	859.7	859.5	858.8	857.8	856.8	855.7	854.6	855.7	856.8	857.8
142.5°	891.6	891.3	890.9	890.2	889.1	888.1	887.0	886.0	887.0	888.1	889.1
145°	938.4	937.7	937.1	936.5	936.1	935.7	935.3	934.8	935.3	935.7	936.1
147.5°	982.6	981.9	981.4	980.7	980.0	979.1	978.4	977.6	978.4	979.1	980.0
150°	1010.4	1009.9	1009.6	1009.1	1008.7	1008.2	1007.9	1007.4	1007.9	1008.2	1008.7
152.5°	1035.2	1034.9	1034.6	1034.3	1033.7	1033.0	1032.5	1031.9	1032.5	1033.0	1033.7
155°	1071.0	1070.7	1070.5	1070.4	1070.4	1070.4	1070.4	1070.4	1070.4	1070.4	1070.4
157.5°	1102.6	1102.4	1102.2	1102.3	1102.5	1102.8	1103.1	1103.3	1103.1	1102.8	1102.5
160°	1122.0	1122.0	1122.0	1122.2	1122.7	1123.0	1123.5	1123.9	1123.5	1123.0	1122.7
162.5°	1140.0	1139.8	1139.6	1139.9	1140.5	1141.0	1141.7	1142.3	1141.7	1141.0	1140.5
165°	1163.1	1163.1	1163.1	1163.4	1164.0	1164.7	1165.3	1165.9	1165.3	1164.7	1164.0
167.5°	1181.5	1181.3	1181.1	1181.5	1182.3	1183.2	1184.0	1184.9	1184.0	1183.2	1182.3
170°	1191.8	1191.8	1191.8	1192.1	1193.0	1193.8	1194.7	1195.5	1194.7	1193.8	1193.0
172.5°	1200.1	1200.1	1200.1	1200.5	1201.4	1202.2	1203.1	1203.9	1203.1	1202.2	1201.4
175°	1208.9	1208.9	1208.9	1209.4	1210.2	1211.1	1211.9	1212.8	1211.9	1211.1	1210.2
177.5°	1213.3	1213.3	1213.3	1213.6	1214.3	1215.0	1215.7	1216.4	1215.7	1215.0	1214.3
180°	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6



TEST NUMBER: P332223-830

CATALOG NUMBER: S123DIW-S1165D1030U830-4F0-1E-UDD-A1

**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	15.9	17.1	17.2	16.2	16.3	18.3	16.0
90°	9.4	11.9	14.6	17.4	20.2	22.9	23.8	24.6	25.4	26.3	27.0
92.5°	28.8	30.3	32.0	33.6	35.1	36.7	37.3	38.0	38.7	39.4	39.6
95°	62.3	63.9	65.6	67.3	69.0	70.7	71.5	72.4	73.2	74.1	74.5
97.5°	104.5	105.7	106.9	108.1	109.3	110.6	111.6	112.5	113.5	114.5	114.9
100°	135.0	136.1	137.2	138.3	139.3	140.3	141.0	141.7	142.3	142.9	143.5
102.5°	167.3	168.3	169.8	171.2	172.6	174.0	174.7	175.2	175.9	176.5	176.8
105°	216.6	217.7	219.6	221.5	223.5	225.4	225.4	225.4	225.4	225.4	225.6
107.5°	274.7	275.2	276.0	276.7	277.5	278.2	278.9	279.7	280.3	281.0	281.2
110°	312.1	312.5	312.9	313.3	313.8	314.1	315.0	315.8	316.7	317.5	317.7



TEST NUMBER: P332223-830

CATALOG NUMBER: S123DIW-S1165D1030U830-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	349.6	349.7	349.8	349.9	350.0	350.1	351.1	352.1	353.1	354.1	354.6
115°	408.4	408.5	408.0	407.6	407.2	406.8	407.0	407.2	407.5	407.6	407.6
117.5°	465.2	465.1	464.6	464.0	463.4	463.0	462.9	462.9	462.8	462.8	462.4
120°	504.5	504.6	503.5	502.5	501.4	500.4	500.1	499.9	499.7	499.5	499.2
122.5°	540.5	540.7	540.3	539.7	539.1	538.6	538.0	537.4	536.9	536.4	535.7
125°	596.5	596.6	596.2	595.8	595.3	594.9	594.1	593.2	592.4	591.5	590.7
127.5°	652.1	652.5	652.1	651.6	651.1	650.6	649.5	648.3	647.1	645.9	644.8
130°	688.6	689.1	688.5	687.9	687.2	686.5	685.7	684.9	684.0	683.2	682.0
132.5°	723.8	724.3	723.9	723.4	722.9	722.5	721.4	720.5	719.4	718.4	717.4
135°	775.7	776.2	776.0	775.8	775.6	775.3	774.5	773.6	772.8	771.9	771.4
137.5°	824.5	825.3	825.9	826.4	827.0	827.6	826.6	825.8	824.8	824.0	823.1
140°	858.8	859.5	859.7	860.0	860.2	860.4	860.2	860.0	859.7	859.5	858.7
142.5°	890.2	890.9	891.3	891.6	892.1	892.5	892.2	892.0	891.8	891.6	890.9
145°	936.5	937.1	937.7	938.4	939.0	939.6	939.4	939.2	939.0	938.8	938.2
147.5°	980.7	981.4	981.9	982.6	983.2	983.7	983.7	983.7	983.7	983.7	983.1
150°	1009.1	1009.6	1009.9	1010.4	1010.8	1011.3	1011.3	1011.3	1011.3	1011.3	1010.6
152.5°	1034.3	1034.6	1034.9	1035.2	1035.5	1035.7	1036.0	1036.3	1036.7	1037.1	1036.7
155°	1070.4	1070.5	1070.7	1071.0	1071.2	1071.4	1072.2	1073.1	1073.9	1074.8	1074.5
157.5°	1102.3	1102.2	1102.4	1102.6	1102.8	1102.9	1103.8	1104.7	1105.6	1106.5	1106.4
160°	1122.2	1122.0	1122.0	1122.0	1122.0	1122.0	1123.0	1124.2	1125.2	1126.2	1126.3
162.5°	1139.9	1139.6	1139.8	1140.0	1140.2	1140.4	1141.4	1142.5	1143.5	1144.6	1144.4
165°	1163.4	1163.1	1163.1	1163.1	1163.1	1163.1	1164.3	1165.6	1166.9	1168.2	1168.1
167.5°	1181.5	1181.1	1181.3	1181.5	1181.7	1181.8	1183.1	1184.4	1185.7	1187.0	1187.0
170°	1192.1	1191.8	1191.8	1191.8	1191.8	1191.8	1193.2	1194.7	1196.2	1197.7	1197.7
172.5°	1200.5	1200.1	1200.1	1200.1	1200.1	1200.1	1201.5	1202.8	1204.1	1205.4	1205.3
175°	1209.4	1208.9	1208.9	1208.9	1208.9	1208.9	1210.2	1211.4	1212.8	1214.0	1213.9
177.5°	1213.6	1213.3	1213.3	1213.3	1213.3	1213.3	1214.3	1215.3	1216.4	1217.4	1217.3
180°	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6



TEST NUMBER: P332223-830

CATALOG NUMBER: S123DIW-S1165D1030U830-4F0-1E-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°	16.1	16.2	15.7	15.2	15.7	16.2	16.1	16.0	18.3	16.3	16.2
90°	27.3	27.8	28.2	28.7	28.2	27.8	27.3	27.0	26.3	25.4	24.6
92.5°	39.3	39.1	38.8	38.5	38.8	39.1	39.3	39.6	39.4	38.7	38.0
95°	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.1	73.2	72.4
97.5°	114.8	114.8	114.7	114.6	114.7	114.8	114.8	114.9	114.5	113.5	112.5
100°	143.8	144.3	144.7	145.2	144.7	144.3	143.8	143.5	142.9	142.3	141.7
102.5°	176.7	176.6	176.5	176.4	176.5	176.6	176.7	176.8	176.5	175.9	175.2
105°	226.0	226.4	226.9	227.2	226.9	226.4	226.0	225.6	225.4	225.4	225.4
107.5°	281.0	280.7	280.4	280.1	280.4	280.7	281.0	281.2	281.0	280.3	279.7
110°	317.4	316.9	316.5	316.0	316.5	316.9	317.4	317.7	317.5	316.7	315.8



TEST NUMBER: P332223-830

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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	354.5	354.4	354.4	354.3	354.4	354.4	354.5	354.6	354.1	353.1	352.1
115°	407.5	407.2	407.0	406.8	407.0	407.2	407.5	407.6	407.6	407.5	407.2
117.5°	461.8	461.3	460.6	460.1	460.6	461.3	461.8	462.4	462.8	462.8	462.9
120°	498.8	498.3	497.9	497.5	497.9	498.3	498.8	499.2	499.5	499.7	499.9
122.5°	535.2	534.6	534.0	533.4	534.0	534.6	535.2	535.7	536.4	536.9	537.4
125°	589.8	589.0	588.1	587.3	588.1	589.0	589.8	590.7	591.5	592.4	593.2
127.5°	643.9	642.9	641.9	640.9	641.9	642.9	643.9	644.8	645.9	647.1	648.3
130°	680.5	679.0	677.6	676.1	677.6	679.0	680.5	682.0	683.2	684.0	684.9
132.5°	716.1	715.0	713.9	712.8	713.9	715.0	716.1	717.4	718.4	719.4	720.5
135°	770.9	770.5	770.1	769.7	770.1	770.5	770.9	771.4	771.9	772.8	773.6
137.5°	822.3	821.5	820.7	819.9	820.7	821.5	822.3	823.1	824.0	824.8	825.8
140°	857.1	855.7	854.2	852.7	854.2	855.7	857.1	858.7	859.5	859.7	860.0
142.5°	889.8	888.6	887.5	886.4	887.5	888.6	889.8	890.9	891.6	891.8	892.0
145°	937.4	936.5	935.7	934.8	935.7	936.5	937.4	938.2	938.8	939.0	939.2
147.5°	981.8	980.5	979.3	978.0	979.3	980.5	981.8	983.1	983.7	983.7	983.7
150°	1009.4	1008.0	1006.8	1005.5	1006.8	1008.0	1009.4	1010.6	1011.3	1011.3	1011.3
152.5°	1035.6	1034.4	1033.3	1032.3	1033.3	1034.4	1035.6	1036.7	1037.1	1036.7	1036.3
155°	1073.0	1071.5	1070.1	1068.6	1070.1	1071.5	1073.0	1074.5	1074.8	1073.9	1073.1
157.5°	1105.1	1104.0	1102.8	1101.5	1102.8	1104.0	1105.1	1106.4	1106.5	1105.6	1104.7
160°	1125.5	1124.6	1123.8	1122.9	1123.8	1124.6	1125.5	1126.3	1126.2	1125.2	1124.2
162.5°	1143.1	1141.7	1140.4	1139.0	1140.4	1141.7	1143.1	1144.4	1144.6	1143.5	1142.5
165°	1166.6	1165.1	1163.6	1162.2	1163.6	1165.1	1166.6	1168.1	1168.2	1166.9	1165.6
167.5°	1185.7	1184.4	1183.1	1181.8	1183.1	1184.4	1185.7	1187.0	1187.0	1185.7	1184.4
170°	1196.2	1194.7	1193.2	1191.8	1193.2	1194.7	1196.2	1197.7	1197.7	1196.2	1194.7
172.5°	1203.8	1202.3	1200.8	1199.4	1200.8	1202.3	1203.8	1205.3	1205.4	1204.1	1202.8
175°	1212.4	1210.9	1209.5	1208.0	1209.5	1210.9	1212.4	1213.9	1214.0	1212.8	1211.4
177.5°	1216.1	1214.9	1213.7	1212.6	1213.7	1214.9	1216.1	1217.3	1217.4	1216.4	1215.3
180°	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6



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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	17.1	15.9	15.9	14.8	14.8	13.8	13.9	14.0	13.7	14.4
90°	23.8	22.9	20.2	17.4	14.6	11.9	9.4	7.4	5.2	3.1	0.9
92.5°	37.3	36.7	35.1	33.6	32.0	30.3	28.8	27.4	26.0	24.5	23.1
95°	71.5	70.7	69.0	67.3	65.6	63.9	62.3	60.8	59.3	57.8	56.4
97.5°	111.6	110.6	109.3	108.1	106.9	105.7	104.5	103.4	102.3	101.1	100.1
100°	141.0	140.3	139.3	138.3	137.2	136.1	135.0	133.7	132.4	131.1	129.9
102.5°	174.7	174.0	172.6	171.2	169.8	168.3	167.3	166.5	165.8	165.0	164.3
105°	225.4	225.4	223.5	221.5	219.6	217.7	216.6	216.1	215.7	215.3	214.9
107.5°	278.9	278.2	277.5	276.7	276.0	275.2	274.7	274.5	274.2	273.9	273.7
110°	315.0	314.1	313.8	313.3	312.9	312.5	312.1	311.6	311.2	310.8	310.4



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**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	351.1	350.1	350.0	349.9	349.8	349.7	349.6	349.3	349.0	348.8	348.6
115°	407.0	406.8	407.2	407.6	408.0	408.5	408.4	407.7	407.1	406.4	405.9
117.5°	462.9	463.0	463.4	464.0	464.6	465.1	465.2	464.8	464.4	463.9	463.5
120°	500.1	500.4	501.4	502.5	503.5	504.6	504.5	503.2	502.0	500.7	499.5
122.5°	538.0	538.6	539.1	539.7	540.3	540.7	540.5	539.6	538.8	537.8	536.9
125°	594.1	594.9	595.3	595.8	596.2	596.6	596.5	595.9	595.2	594.6	594.0
127.5°	649.5	650.6	651.1	651.6	652.1	652.5	652.1	650.7	649.4	648.0	646.7
130°	685.7	686.5	687.2	687.9	688.5	689.1	688.6	686.9	685.2	683.5	681.8
132.5°	721.4	722.5	722.9	723.4	723.9	724.3	723.8	722.1	720.3	718.6	716.9
135°	774.5	775.3	775.6	775.8	776.0	776.2	775.7	774.4	773.2	771.8	770.6
137.5°	826.6	827.6	827.0	826.4	825.9	825.3	824.5	823.4	822.4	821.3	820.3
140°	860.2	860.4	860.2	860.0	859.7	859.5	858.8	857.8	856.8	855.7	854.6
142.5°	892.2	892.5	892.1	891.6	891.3	890.9	890.2	889.1	888.1	887.0	886.0
145°	939.4	939.6	939.0	938.4	937.7	937.1	936.5	936.1	935.7	935.3	934.8
147.5°	983.7	983.7	983.2	982.6	981.9	981.4	980.7	980.0	979.1	978.4	977.6
150°	1011.3	1011.3	1010.8	1010.4	1009.9	1009.6	1009.1	1008.7	1008.2	1007.9	1007.4
152.5°	1036.0	1035.7	1035.5	1035.2	1034.9	1034.6	1034.3	1033.7	1033.0	1032.5	1031.9
155°	1072.2	1071.4	1071.2	1071.0	1070.7	1070.5	1070.4	1070.4	1070.4	1070.4	1070.4
157.5°	1103.8	1102.9	1102.8	1102.6	1102.4	1102.2	1102.3	1102.5	1102.8	1103.1	1103.3
160°	1123.0	1122.0	1122.0	1122.0	1122.0	1122.0	1122.2	1122.7	1123.0	1123.5	1123.9
162.5°	1141.4	1140.4	1140.2	1140.0	1139.8	1139.6	1139.9	1140.5	1141.0	1141.7	1142.3
165°	1164.3	1163.1	1163.1	1163.1	1163.1	1163.1	1163.4	1164.0	1164.7	1165.3	1165.9
167.5°	1183.1	1181.8	1181.7	1181.5	1181.3	1181.1	1181.5	1182.3	1183.2	1184.0	1184.9
170°	1193.2	1191.8	1191.8	1191.8	1191.8	1191.8	1192.1	1193.0	1193.8	1194.7	1195.5
172.5°	1201.5	1200.1	1200.1	1200.1	1200.1	1200.1	1200.5	1201.4	1202.2	1203.1	1203.9
175°	1210.2	1208.9	1208.9	1208.9	1208.9	1208.9	1209.4	1210.2	1211.1	1211.9	1212.8
177.5°	1214.3	1213.3	1213.3	1213.3	1213.3	1213.3	1213.6	1214.3	1215.0	1215.7	1216.4
180°	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6



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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°	16.0	16.5	18.7	20.3	23.1	25.4	25.4	24.8	24.7	24.3	23.8
90°	3.1	5.2	7.4	9.4	11.9	14.6	17.4	20.2	22.9	23.8	24.6
92.5°	24.5	26.0	27.4	28.8	30.3	32.0	33.6	35.1	36.7	37.3	38.0
95°	57.8	59.3	60.8	62.3	63.9	65.6	67.3	69.0	70.7	71.5	72.4
97.5°	101.1	102.3	103.4	104.5	105.7	106.9	108.1	109.3	110.6	111.6	112.5
100°	131.1	132.4	133.7	135.0	136.1	137.2	138.3	139.3	140.3	141.0	141.7
102.5°	165.0	165.8	166.5	167.3	168.3	169.8	171.2	172.6	174.0	174.7	175.2
105°	215.3	215.7	216.1	216.6	217.7	219.6	221.5	223.5	225.4	225.4	225.4
107.5°	273.9	274.2	274.5	274.7	275.2	276.0	276.7	277.5	278.2	278.9	279.7
110°	310.8	311.2	311.6	312.1	312.5	312.9	313.3	313.8	314.1	315.0	315.8





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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	348.8	349.0	349.3	349.6	349.7	349.8	349.9	350.0	350.1	351.1	352.1
115°	406.4	407.1	407.7	408.4	408.5	408.0	407.6	407.2	406.8	407.0	407.2
117.5°	463.9	464.4	464.8	465.2	465.1	464.6	464.0	463.4	463.0	462.9	462.9
120°	500.7	502.0	503.2	504.5	504.6	503.5	502.5	501.4	500.4	500.1	499.9
122.5°	537.8	538.8	539.6	540.5	540.7	540.3	539.7	539.1	538.6	538.0	537.4
125°	594.6	595.2	595.9	596.5	596.6	596.2	595.8	595.3	594.9	594.1	593.2
127.5°	648.0	649.4	650.7	652.1	652.5	652.1	651.6	651.1	650.6	649.5	648.3
130°	683.5	685.2	686.9	688.6	689.1	688.5	687.9	687.2	686.5	685.7	684.9
132.5°	718.6	720.3	722.1	723.8	724.3	723.9	723.4	722.9	722.5	721.4	720.5
135°	771.8	773.2	774.4	775.7	776.2	776.0	775.8	775.6	775.3	774.5	773.6
137.5°	821.3	822.4	823.4	824.5	825.3	825.9	826.4	827.0	827.6	826.6	825.8
140°	855.7	856.8	857.8	858.8	859.5	859.7	860.0	860.2	860.4	860.2	860.0
142.5°	887.0	888.1	889.1	890.2	890.9	891.3	891.6	892.1	892.5	892.2	892.0
145°	935.3	935.7	936.1	936.5	937.1	937.7	938.4	939.0	939.6	939.4	939.2
147.5°	978.4	979.1	980.0	980.7	981.4	981.9	982.6	983.2	983.7	983.7	983.7
150°	1007.9	1008.2	1008.7	1009.1	1009.6	1009.9	1010.4	1010.8	1011.3	1011.3	1011.3
152.5°	1032.5	1033.0	1033.7	1034.3	1034.6	1034.9	1035.2	1035.5	1035.7	1036.0	1036.3
155°	1070.4	1070.4	1070.4	1070.4	1070.5	1070.7	1071.0	1071.2	1071.4	1072.2	1073.1
157.5°	1103.1	1102.8	1102.5	1102.3	1102.2	1102.4	1102.6	1102.8	1102.9	1103.8	1104.7
160°	1123.5	1123.0	1122.7	1122.2	1122.0	1122.0	1122.0	1122.0	1122.0	1123.0	1124.2
162.5°	1141.7	1141.0	1140.5	1139.9	1139.6	1139.8	1140.0	1140.2	1140.4	1141.4	1142.5
165°	1165.3	1164.7	1164.0	1163.4	1163.1	1163.1	1163.1	1163.1	1163.1	1164.3	1165.6
167.5°	1184.0	1183.2	1182.3	1181.5	1181.1	1181.3	1181.5	1181.7	1181.8	1183.1	1184.4
170°	1194.7	1193.8	1193.0	1192.1	1191.8	1191.8	1191.8	1191.8	1191.8	1193.2	1194.7
172.5°	1203.1	1202.2	1201.4	1200.5	1200.1	1200.1	1200.1	1200.1	1200.1	1201.5	1202.8
175°	1211.9	1211.1	1210.2	1209.4	1208.9	1208.9	1208.9	1208.9	1208.9	1210.2	1211.4
177.5°	1215.7	1215.0	1214.3	1213.6	1213.3	1213.3	1213.3	1213.3	1213.3	1214.3	1215.3
180°	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6



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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°	23.5	23.0	22.6	23.3	22.7	22.2	23.5
90°	25.4	26.3	27.0	27.3	27.8	28.2	28.7
92.5°	38.7	39.4	39.6	39.3	39.1	38.8	38.5
95°	73.2	74.1	74.5	74.5	74.5	74.5	74.5
97.5°	113.5	114.5	114.9	114.8	114.8	114.7	114.6
100°	142.3	142.9	143.5	143.8	144.3	144.7	145.2
102.5°	175.9	176.5	176.8	176.7	176.6	176.5	176.4
105°	225.4	225.4	225.6	226.0	226.4	226.9	227.2
107.5°	280.3	281.0	281.2	281.0	280.7	280.4	280.1
110°	316.7	317.5	317.7	317.4	316.9	316.5	316.0



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	353.1	354.1	354.6	354.5	354.4	354.4	354.3
115°	407.5	407.6	407.6	407.5	407.2	407.0	406.8
117.5°	462.8	462.8	462.4	461.8	461.3	460.6	460.1
120°	499.7	499.5	499.2	498.8	498.3	497.9	497.5
122.5°	536.9	536.4	535.7	535.2	534.6	534.0	533.4
125°	592.4	591.5	590.7	589.8	589.0	588.1	587.3
127.5°	647.1	645.9	644.8	643.9	642.9	641.9	640.9
130°	684.0	683.2	682.0	680.5	679.0	677.6	676.1
132.5°	719.4	718.4	717.4	716.1	715.0	713.9	712.8
135°	772.8	771.9	771.4	770.9	770.5	770.1	769.7
137.5°	824.8	824.0	823.1	822.3	821.5	820.7	819.9
140°	859.7	859.5	858.7	857.1	855.7	854.2	852.7
142.5°	891.8	891.6	890.9	889.8	888.6	887.5	886.4
145°	939.0	938.8	938.2	937.4	936.5	935.7	934.8
147.5°	983.7	983.7	983.1	981.8	980.5	979.3	978.0
150°	1011.3	1011.3	1010.6	1009.4	1008.0	1006.8	1005.5
152.5°	1036.7	1037.1	1036.7	1035.6	1034.4	1033.3	1032.3
155°	1073.9	1074.8	1074.5	1073.0	1071.5	1070.1	1068.6
157.5°	1105.6	1106.5	1106.4	1105.1	1104.0	1102.8	1101.5
160°	1125.2	1126.2	1126.3	1125.5	1124.6	1123.8	1122.9
162.5°	1143.5	1144.6	1144.4	1143.1	1141.7	1140.4	1139.0
165°	1166.9	1168.2	1168.1	1166.6	1165.1	1163.6	1162.2
167.5°	1185.7	1187.0	1187.0	1185.7	1184.4	1183.1	1181.8
170°	1196.2	1197.7	1197.7	1196.2	1194.7	1193.2	1191.8
172.5°	1204.1	1205.4	1205.3	1203.8	1202.3	1200.8	1199.4
175°	1212.8	1214.0	1213.9	1212.4	1210.9	1209.5	1208.0
177.5°	1216.4	1217.4	1217.3	1216.1	1214.9	1213.7	1212.6
180°	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6

(END OF REPORT)