

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: P332228-930

Luminaire Tested: **S123DIW-S1165D1320U930-4F0-1E-UDD-A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332228-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DIW-S1165D1320U930-4F0-1E-UDD-A  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER  
UPLIGHT 1320 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8298.7 lumens  
Efficiency: N/A  
Efficacy: 108.9 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

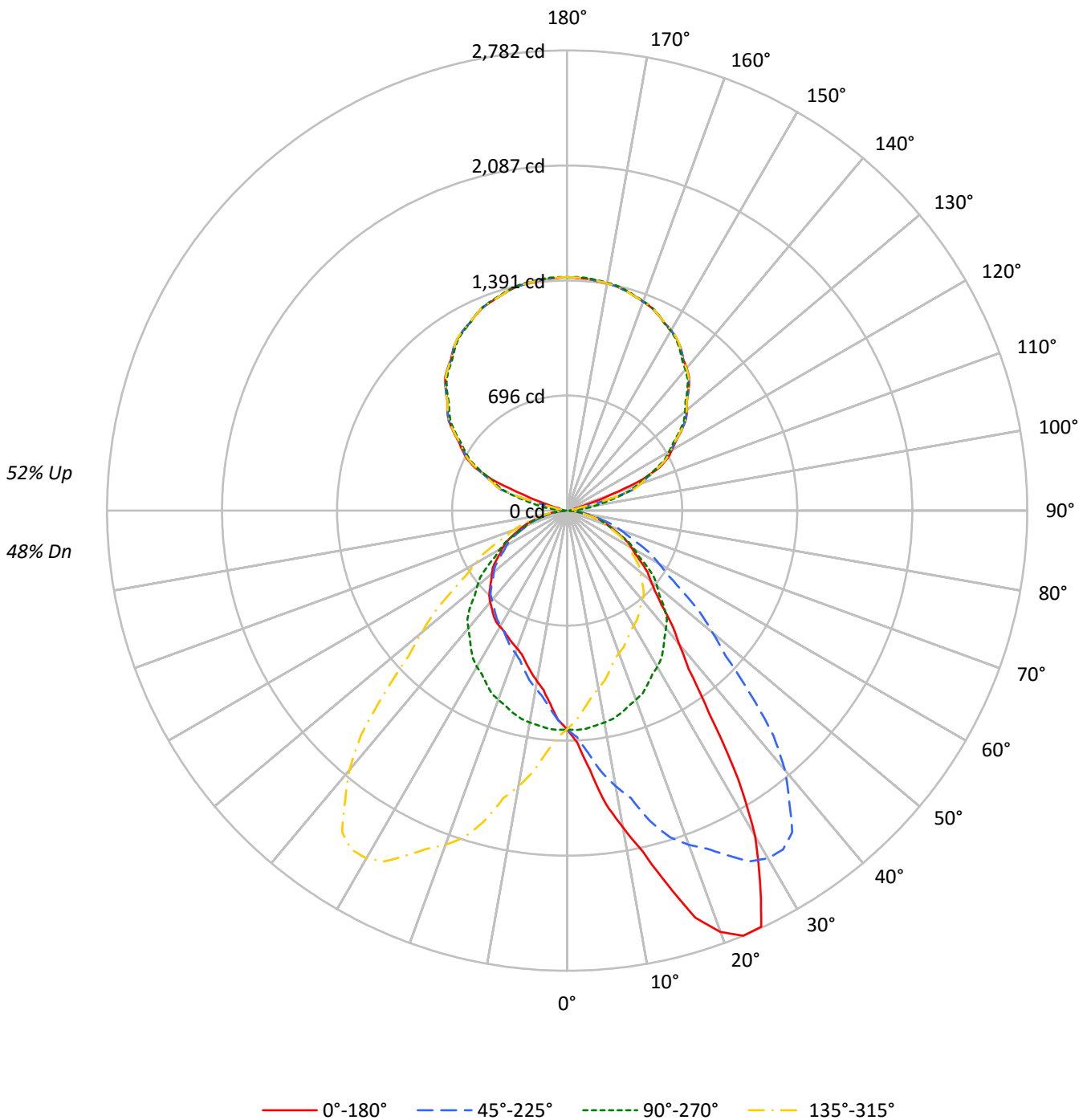
Input Watts (W): 76.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48				48
1	98	93	90	86	90	86	83	80	73	70	68	60	58	57	49	47	46				41	
2	89	82	76	71	82	76	70	66	64	60	57	53	50	48	43	41	40				35	
3	81	72	65	59	75	67	60	55	56	52	48	47	44	41	38	36	34				30	
4	75	64	56	50	68	59	52	47	50	45	41	42	38	35	34	32	29				26	
5	68	57	49	43	63	53	46	41	45	40	35	38	34	31	31	28	26				22	
6	63	51	43	37	58	48	40	35	41	35	31	34	30	27	28	25	23				20	
7	58	46	38	33	54	43	36	31	37	31	27	31	27	24	26	23	20				18	
8	54	42	34	29	50	39	32	27	34	28	24	28	24	21	24	20	18				16	
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	19	16				14	
10	47	35	28	23	43	33	26	22	28	23	20	24	20	17	20	17	15				13	

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	14235	14235	14235	14235
5°	16977	14296	12670	14296
10°	21249	14224	11444	14224
15°	26063	14110	10653	14110
20°	31047	13931	10143	13931
25°	32967	13713	10030	13713
30°	28256	13554	10082	13554
35°	19651	13328	10188	13328
40°	14802	13065	10156	13065
45°	12291	12670	10027	12670
50°	11010	11868	9937	11868
55°	10293	11003	9813	11003
60°	9655	10097	9711	10097
65°	9075	9205	9401	9205
70°	8510	8189	8954	8189
75°	7623	7170	8210	7170
80°	6670	5876	7073	5876
85°	5224	4273	4755	4273



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.3	1.6
10°-20°	417.7	5.0
20°-30°	701.1	8.4
30°-40°	793.9	9.6
40°-50°	711.9	8.6
50°-60°	574.5	6.9
60°-70°	400.3	4.8
70°-80°	210.4	2.5
80°-90°	55.4	0.7
90°-100°	51.3	0.6
100°-110°	244.5	2.9
110°-120°	587.3	7.1
120°-130°	747.9	9.0
130°-140°	799.1	9.6
140°-150°	747.2	9.0
150°-160°	602.7	7.3
160°-170°	389.0	4.7
170°-180°	134.1	1.6
0°-30°	1249.1	15.1
0°-40°	2043.0	24.6
0°-60°	3329.4	40.1
0°-90°	3995.6	48.1
90°-120°	883.1	10.6
90°-150°	3177.3	38.3
90°-180°	4303.0	51.9
0°-180°	8298.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1322	1322	1322	1322	1322	
5°	1571	1323	1173	1323	1571	163
15°	2339	1266	956	1266	2339	675
25°	2776	1155	844	1155	2776	1217
35°	1496	1014	775	1014	1496	972
45°	807	832	659	832	807	639
55°	548	586	523	586	548	492
65°	356	361	369	361	356	355
75°	183	172	197	172	183	196
85°	42	35	38	35	42	51
90°	32	1	32	1	32	16
95°	40	64	40	64	40	33
105°	46	312	46	312	46	105
115°	616	586	616	586	616	570
125°	843	826	843	826	843	753
135°	1039	1028	1039	1028	1039	801
145°	1198	1187	1198	1187	1198	748
155°	1305	1307	1305	1307	1305	602
165°	1375	1379	1375	1379	1375	388
175°	1406	1411	1406	1411	1406	134
180°	1411	1411	1411	1411	1411	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5
2.5°	1403.5	1402.5	1400.0	1402.0	1397.9	1392.2	1391.7	1386.6	1371.7	1370.7	1366.6
5°	1571.2	1566.0	1565.4	1564.7	1555.8	1543.6	1520.5	1518.6	1487.8	1472.4	1453.9
7.5°	1788.2	1790.9	1781.6	1773.4	1746.0	1727.9	1703.2	1671.5	1633.7	1595.4	1569.9
10°	1944.1	1965.2	1938.9	1921.0	1904.4	1872.9	1836.5	1790.9	1745.4	1692.2	1651.9
12.5°	2111.2	2121.6	2116.3	2099.4	2073.5	2025.7	1961.0	1910.9	1869.0	1780.5	1744.7
15°	2338.8	2377.9	2352.9	2295.2	2296.5	2251.0	2166.4	2073.5	2024.1	1946.6	1840.9
17.5°	2581.2	2586.1	2575.4	2527.4	2495.4	2432.9	2354.8	2265.7	2165.8	2072.0	1959.8
20°	2710.4	2706.5	2684.1	2659.2	2604.1	2555.4	2470.1	2370.8	2242.6	2150.4	2028.0
22.5°	2782.2	2775.8	2765.2	2744.2	2698.4	2646.1	2569.6	2461.1	2339.0	2211.9	2070.5
25°	2775.8	2784.1	2785.4	2779.6	2763.6	2732.2	2672.0	2585.5	2463.8	2300.4	2153.0
27.5°	2524.6	2536.4	2570.6	2601.0	2635.0	2669.5	2664.9	2622.0	2531.9	2390.8	2210.6
30°	2273.4	2247.8	2311.2	2391.4	2445.8	2541.9	2595.7	2598.9	2548.3	2427.2	2251.6
32.5°	1924.8	1953.0	1981.1	2079.7	2198.7	2306.6	2413.8	2500.0	2509.9	2429.3	2275.7
35°	1495.5	1530.8	1582.0	1633.3	1761.5	1871.7	2060.0	2224.1	2354.8	2372.1	2277.9
37.5°	1205.2	1222.5	1255.0	1306.4	1390.2	1520.9	1666.6	1874.0	2063.4	2204.2	2210.4
40°	1053.4	1058.5	1095.0	1134.2	1202.1	1309.7	1441.0	1624.3	1851.1	2047.9	2129.9
42.5°	939.6	950.9	966.4	1004.0	1058.0	1139.1	1261.2	1412.6	1620.5	1846.9	2007.3
45°	807.4	820.2	829.8	854.8	893.2	947.7	1032.9	1171.3	1329.6	1563.4	1779.4
47.5°	720.0	721.0	728.1	747.0	773.1	814.0	874.2	963.2	1108.5	1298.2	1519.9
50°	657.5	667.6	670.3	684.9	705.5	735.6	785.5	861.2	980.4	1147.0	1350.7
52.5°	613.3	616.4	623.6	634.2	652.2	675.6	718.9	778.1	871.7	1013.7	1201.0
55°	548.5	548.5	555.5	563.9	574.1	595.3	624.1	667.6	738.8	849.0	1004.0
57.5°	488.5	491.7	496.7	499.3	508.0	522.0	546.1	579.1	632.2	717.0	840.3
60°	448.5	454.3	453.6	458.8	466.5	477.4	497.9	524.8	572.2	640.1	744.0
62.5°	413.7	413.3	413.2	419.3	427.0	437.4	450.7	474.0	514.3	574.5	662.9
65°	356.3	355.0	359.5	363.3	365.9	373.6	383.8	404.3	431.2	476.1	544.6
67.5°	305.2	301.6	303.9	305.2	309.7	315.6	325.2	337.9	359.3	395.3	447.0
70°	270.4	267.2	266.5	267.8	271.7	276.1	283.2	295.4	315.3	344.1	381.9
72.5°	234.5	232.4	232.2	235.1	236.8	239.8	244.8	255.9	271.7	293.3	328.6
75°	183.3	183.3	183.3	183.9	185.8	188.4	192.2	198.0	210.2	225.5	249.2
77.5°	137.4	137.2	136.5	136.3	139.2	140.3	141.2	146.6	153.4	163.8	181.1
80°	107.6	104.4	105.7	107.6	108.9	109.6	111.5	112.8	118.5	124.3	136.5
82.5°	80.0	77.3	77.5	80.5	80.7	81.4	83.3	85.1	87.2	92.5	99.1
85°	42.3	42.3	43.0	43.0	43.5	43.0	44.8	45.5	45.5	48.7	52.5
87.5°	21.7	20.5	21.0	21.4	20.8	21.1	21.4	21.8	22.1	22.4	22.3
90°	31.5	31.0	30.5	30.1	29.6	28.9	28.0	27.0	26.1	25.2	22.1
92.5°	34.8	34.5	34.2	34.0	33.7	32.8	31.3	29.8	28.3	26.8	24.5
95°	39.9	39.9	39.9	39.9	39.9	39.1	37.4	35.8	34.2	32.5	29.9
97.5°	43.2	43.0	42.7	42.5	42.2	41.2	39.4	37.5	35.6	33.8	50.5
100°	44.0	43.8	43.5	43.3	43.1	42.1	40.2	38.3	36.4	34.6	70.9
102.5°	44.8	44.4	44.0	43.6	43.2	45.9	51.6	57.4	63.2	69.0	108.7
105°	46.1	45.7	45.2	44.8	44.3	64.7	105.9	147.1	188.3	229.6	250.5
107.5°	144.9	175.9	207.0	238.1	269.2	299.9	330.1	360.4	390.5	420.8	417.5
110°	288.3	321.6	354.9	388.2	421.5	442.1	449.7	457.4	465.1	472.8	470.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	494.6	501.7	508.7	515.7	522.8	526.2	526.0	525.9	525.8	525.6	523.1
115°	616.4	615.5	614.6	613.6	612.7	611.1	608.7	606.4	604.1	601.8	599.7
117.5°	684.8	684.6	684.4	684.2	684.0	683.0	681.1	679.3	677.4	675.6	674.5
120°	731.7	731.7	731.7	731.7	731.7	730.8	729.0	727.1	725.2	723.3	722.7
122.5°	777.9	777.7	777.5	777.3	777.1	776.4	775.1	773.8	772.5	771.2	770.3
125°	842.9	842.4	842.0	841.5	841.0	840.5	840.1	839.6	839.1	838.7	837.7
127.5°	905.3	905.8	906.3	906.8	907.2	907.1	906.3	905.6	904.8	904.1	902.9
130°	945.6	946.1	946.6	947.0	947.5	947.2	946.3	945.3	944.4	943.5	942.6
132.5°	982.5	983.2	983.8	984.5	985.1	985.0	984.1	983.1	982.2	981.2	980.5
135°	1038.9	1039.6	1040.3	1041.0	1041.7	1041.7	1041.0	1040.3	1039.6	1038.9	1038.0
137.5°	1091.9	1092.4	1092.9	1093.3	1093.8	1093.5	1092.3	1091.3	1090.1	1089.0	1088.5
140°	1123.8	1124.3	1124.7	1125.2	1125.7	1125.4	1124.5	1123.6	1122.7	1121.7	1121.0
142.5°	1153.2	1153.8	1154.5	1155.1	1155.8	1155.8	1155.0	1154.2	1153.5	1152.8	1152.0
145°	1198.2	1198.2	1198.2	1198.2	1198.2	1198.0	1197.5	1197.1	1196.6	1196.1	1195.7
147.5°	1231.8	1232.9	1234.0	1235.0	1236.1	1236.4	1235.9	1235.4	1235.0	1234.5	1234.0
150°	1256.9	1257.7	1258.3	1259.1	1259.7	1259.9	1259.4	1258.9	1258.5	1258.0	1257.5
152.5°	1277.1	1278.1	1279.2	1280.3	1281.4	1281.5	1280.7	1279.8	1279.0	1278.1	1277.8
155°	1305.2	1306.6	1308.0	1309.4	1310.8	1310.9	1309.7	1308.6	1307.4	1306.2	1306.0
157.5°	1328.9	1330.6	1332.5	1334.3	1336.1	1336.4	1335.0	1333.6	1332.1	1330.7	1331.0
160°	1343.9	1345.6	1347.2	1348.8	1350.5	1350.6	1349.2	1347.8	1346.4	1345.0	1345.2
162.5°	1358.2	1359.7	1361.1	1362.5	1364.0	1363.9	1362.4	1360.7	1359.2	1357.6	1357.8
165°	1375.4	1377.0	1378.7	1380.3	1381.9	1381.9	1380.0	1378.1	1376.2	1374.4	1374.6
167.5°	1387.8	1389.7	1391.6	1393.3	1395.2	1395.2	1393.3	1391.6	1389.7	1387.8	1387.8
170°	1395.3	1397.2	1399.1	1400.9	1402.8	1402.8	1400.9	1399.1	1397.2	1395.3	1395.3
172.5°	1399.5	1401.6	1403.6	1405.7	1407.7	1407.9	1406.0	1404.1	1402.2	1400.4	1400.2
175°	1405.8	1407.7	1409.6	1411.4	1413.2	1413.4	1411.8	1410.1	1408.5	1406.9	1406.6
177.5°	1407.7	1409.6	1411.4	1413.3	1415.2	1415.4	1413.9	1412.3	1410.9	1409.4	1409.2
180°	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5
2.5°	1363.5	1359.4	1355.4	1348.2	1342.0	1333.3	1330.7	1327.6	1318.4	1310.3	1304.1
5°	1446.8	1431.4	1409.0	1388.5	1371.9	1349.5	1336.6	1323.1	1303.9	1286.6	1272.5
7.5°	1534.0	1503.7	1468.8	1431.2	1396.1	1362.3	1335.0	1310.6	1283.7	1258.2	1238.4
10°	1603.2	1559.6	1510.9	1458.4	1413.5	1369.9	1333.4	1301.4	1266.8	1236.6	1211.7
12.5°	1682.1	1617.6	1550.4	1486.5	1433.5	1373.0	1328.8	1288.1	1248.9	1212.6	1184.5
15°	1775.6	1693.5	1614.0	1526.3	1445.5	1369.9	1317.4	1266.2	1220.7	1183.5	1147.6
17.5°	1860.7	1767.7	1663.0	1556.2	1458.9	1369.2	1295.6	1237.7	1180.8	1135.3	1099.5
20°	1908.9	1803.1	1684.6	1573.7	1466.1	1366.1	1285.4	1216.2	1154.6	1106.6	1066.2
22.5°	1950.4	1826.7	1704.1	1585.5	1465.6	1357.9	1266.4	1195.1	1128.5	1081.5	1038.5
25°	1993.4	1845.4	1722.4	1583.3	1449.4	1337.9	1235.4	1154.6	1088.0	1032.9	988.7
27.5°	2030.3	1844.1	1698.1	1548.6	1424.0	1312.3	1202.8	1116.2	1045.5	985.6	940.8
30°	2054.9	1846.7	1673.0	1525.0	1399.5	1284.1	1177.7	1090.5	1016.3	955.4	913.1
32.5°	2070.3	1845.1	1649.9	1492.2	1360.5	1258.4	1150.6	1060.3	984.0	924.1	883.4
35°	2079.3	1833.9	1610.2	1424.4	1297.5	1198.2	1107.9	1014.3	934.3	878.5	832.3
37.5°	2061.3	1810.1	1564.1	1359.0	1220.2	1122.3	1046.4	966.6	890.0	828.7	788.9
40°	2033.1	1794.8	1528.2	1313.0	1166.9	1072.6	1008.0	929.8	854.1	795.8	758.6
42.5°	1979.3	1763.5	1488.7	1261.7	1111.5	1017.2	957.7	892.3	820.8	766.1	729.0
45°	1848.0	1695.4	1429.5	1184.8	1029.7	932.3	879.8	832.3	767.6	714.4	682.4
47.5°	1665.7	1593.1	1343.9	1103.7	944.4	850.7	796.1	757.9	710.6	667.6	636.9
50°	1539.1	1509.0	1286.0	1048.3	887.5	795.8	743.3	708.7	674.7	631.8	603.6
52.5°	1393.0	1411.6	1218.4	990.8	829.6	739.5	690.0	662.5	631.7	596.4	571.9
55°	1187.3	1254.6	1101.5	894.5	743.3	657.5	610.7	586.3	568.3	542.1	521.0
57.5°	994.7	1080.4	975.1	795.2	658.6	584.5	539.6	513.1	501.6	487.9	471.2
60°	880.4	965.0	884.9	728.6	601.7	531.2	491.5	469.0	457.5	447.9	433.8
62.5°	778.4	864.0	796.7	660.9	545.8	480.5	445.8	424.0	415.0	409.9	397.9
65°	638.2	711.9	667.0	555.5	465.9	408.1	376.7	361.4	353.0	351.1	343.5
67.5°	519.4	575.5	542.8	460.8	390.2	340.4	313.7	300.7	294.2	293.6	287.8
70°	441.5	494.0	469.0	394.7	333.9	294.7	271.7	260.2	256.3	255.7	252.5
72.5°	381.0	417.7	397.8	335.7	288.7	253.2	236.3	224.3	219.9	220.8	218.7
75°	281.9	309.5	298.0	255.0	217.2	194.1	180.0	172.4	168.5	170.5	167.9
77.5°	202.8	220.3	209.9	180.2	156.9	140.2	129.8	125.1	121.6	121.5	120.3
80°	153.1	163.4	157.6	139.7	120.5	106.4	98.0	94.8	92.9	92.3	91.6
82.5°	109.1	117.8	111.0	98.7	85.6	77.1	72.4	68.2	66.8	67.2	66.5
85°	55.1	58.3	55.8	48.0	43.0	39.1	36.5	34.6	33.3	34.0	32.7
87.5°	22.7	22.7	20.5	17.9	16.5	14.4	14.0	12.5	12.0	12.4	12.4
90°	19.1	16.1	13.0	10.4	8.1	5.7	3.3	1.1	3.3	5.7	8.1
92.5°	22.3	20.0	17.7	16.9	17.5	18.2	18.8	19.5	18.8	18.2	17.5
95°	27.4	24.8	22.3	25.8	35.3	44.8	54.4	63.9	54.4	44.8	35.3
97.5°	67.3	84.1	100.9	111.4	115.7	119.9	124.3	128.5	124.3	119.9	115.7
100°	107.3	143.7	179.9	195.8	191.1	186.5	181.8	177.2	181.8	186.5	191.1
102.5°	148.4	188.1	227.8	246.0	242.6	239.2	235.9	232.5	235.9	239.2	242.6
105°	271.5	292.4	313.5	322.6	320.1	317.6	315.0	312.4	315.0	317.6	320.1
107.5°	414.2	410.9	407.6	404.9	402.8	400.8	398.8	396.7	398.8	400.8	402.8
110°	467.7	465.1	462.5	460.3	458.4	456.6	454.8	452.9	454.8	456.6	458.4





TEST NUMBER: P332228-930

CATALOG NUMBER: S123DIW-S1165D1320U930-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	520.5	518.0	515.4	513.2	511.6	509.9	508.3	506.5	508.3	509.9	511.6
115°	597.5	595.4	593.4	591.6	590.2	588.8	587.4	586.0	587.4	588.8	590.2
117.5°	673.4	672.3	671.2	669.8	668.1	666.4	664.7	663.0	664.7	666.4	668.1
120°	721.9	721.2	720.6	719.2	717.1	714.9	712.9	710.8	712.9	714.9	717.1
122.5°	769.4	768.5	767.6	766.3	764.6	762.9	761.2	759.5	761.2	762.9	764.6
125°	836.8	835.8	834.9	833.6	831.7	829.8	827.9	826.1	827.9	829.8	831.7
127.5°	901.9	900.7	899.6	898.1	896.3	894.4	892.5	890.6	892.5	894.4	896.3
130°	941.7	940.7	939.8	938.4	936.5	934.7	932.8	930.9	932.8	934.7	936.5
132.5°	979.7	979.0	978.3	977.0	975.1	973.2	971.3	969.5	971.3	973.2	975.1
135°	1037.1	1036.1	1035.2	1034.0	1032.6	1031.2	1029.8	1028.4	1029.8	1031.2	1032.6
137.5°	1088.0	1087.4	1087.0	1085.8	1084.0	1082.3	1080.5	1078.7	1080.5	1082.3	1084.0
140°	1120.3	1119.7	1118.9	1117.9	1116.5	1115.1	1113.7	1112.3	1113.7	1115.1	1116.5
142.5°	1151.4	1150.6	1150.0	1148.9	1147.5	1146.1	1144.7	1143.3	1144.7	1146.1	1147.5
145°	1195.2	1194.7	1194.3	1193.3	1191.6	1190.0	1188.4	1186.7	1188.4	1190.0	1191.6
147.5°	1233.5	1233.1	1232.7	1231.9	1230.8	1229.7	1228.7	1227.6	1228.7	1229.7	1230.8
150°	1257.0	1256.6	1256.1	1255.6	1254.8	1254.2	1253.4	1252.8	1253.4	1254.2	1254.8
152.5°	1277.6	1277.3	1277.0	1276.7	1276.4	1276.0	1275.7	1275.4	1275.7	1276.0	1276.4
155°	1305.8	1305.5	1305.3	1305.4	1305.9	1306.4	1306.8	1307.3	1306.8	1306.4	1305.9
157.5°	1331.2	1331.5	1331.7	1331.8	1331.9	1332.0	1332.0	1332.0	1332.0	1332.0	1331.9
160°	1345.5	1345.7	1346.0	1346.1	1346.4	1346.6	1346.9	1347.1	1346.9	1346.6	1346.4
162.5°	1358.0	1358.3	1358.5	1358.9	1359.5	1360.2	1360.7	1361.4	1360.7	1360.2	1359.5
165°	1374.8	1375.1	1375.3	1375.7	1376.5	1377.1	1377.9	1378.6	1377.9	1377.1	1376.5
167.5°	1387.8	1387.8	1387.8	1388.2	1389.2	1390.1	1391.1	1392.0	1391.1	1390.1	1389.2
170°	1395.3	1395.3	1395.3	1395.8	1396.8	1397.7	1398.6	1399.5	1398.6	1397.7	1396.8
172.5°	1400.0	1399.8	1399.6	1400.1	1401.2	1402.3	1403.5	1404.6	1403.5	1402.3	1401.2
175°	1406.4	1406.1	1405.9	1406.4	1407.5	1408.8	1409.9	1411.0	1409.9	1408.8	1407.5
177.5°	1409.0	1408.8	1408.7	1409.0	1410.0	1410.9	1411.8	1412.8	1411.8	1410.9	1410.0
180°	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0



TEST NUMBER: P332228-930

CATALOG NUMBER: S123DIW-S1165D1320U930-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5
2.5°	1300.5	1296.9	1291.8	1284.1	1277.9	1268.2	1268.2	1269.7	1269.7	1269.3	1268.2
5°	1261.0	1251.4	1239.9	1226.5	1212.4	1198.2	1195.6	1190.5	1186.7	1184.1	1181.0
7.5°	1219.4	1202.3	1185.5	1166.7	1149.5	1135.3	1125.4	1117.2	1112.0	1106.4	1102.2
10°	1191.2	1170.0	1150.1	1130.3	1108.5	1091.2	1080.4	1072.6	1066.9	1061.8	1059.2
12.5°	1157.9	1133.7	1111.7	1092.9	1069.0	1051.2	1040.9	1037.2	1030.5	1019.7	1014.1
15°	1109.1	1086.7	1060.5	1031.6	1020.1	998.3	986.1	980.4	976.5	968.2	965.6
17.5°	1067.5	1038.1	1008.7	987.2	965.7	948.0	941.3	934.1	929.0	922.2	920.1
20°	1034.2	1008.0	981.0	958.0	935.5	916.3	910.5	905.4	900.3	897.1	894.5
22.5°	1000.4	974.1	951.8	930.3	906.3	893.7	887.5	881.8	878.2	876.0	873.5
25°	952.8	929.8	904.7	885.5	866.3	857.9	854.1	850.9	848.4	845.1	844.5
27.5°	910.3	885.2	864.9	846.9	833.2	826.2	822.5	820.9	821.5	822.6	823.4
30°	878.5	855.4	838.8	823.4	810.6	804.1	803.5	803.5	806.1	806.7	808.0
32.5°	849.3	830.3	813.7	798.7	789.0	784.6	787.1	787.1	789.1	790.8	793.1
35°	806.7	790.0	777.2	764.4	756.1	758.0	759.3	760.6	763.8	767.6	770.2
37.5°	766.1	751.6	738.3	728.3	724.5	727.9	731.0	733.7	737.4	740.4	742.9
40°	736.9	725.9	713.1	704.2	705.5	707.4	710.0	713.1	716.4	718.3	720.9
42.5°	709.7	698.3	688.6	681.1	682.9	685.3	686.9	688.6	692.3	695.8	697.2
45°	668.3	659.3	650.4	645.9	647.2	648.5	649.7	651.7	654.8	657.5	658.0
47.5°	621.8	615.6	609.5	605.1	607.2	606.7	608.4	612.5	613.4	615.0	618.6
50°	592.1	586.3	579.3	578.0	578.0	578.0	578.6	583.8	583.8	586.3	588.9
52.5°	559.3	555.5	551.1	548.8	547.7	547.7	550.4	553.0	554.0	557.6	560.2
55°	510.7	506.9	503.0	501.1	499.8	501.1	506.2	507.4	510.7	512.6	514.5
57.5°	460.1	457.1	454.0	453.0	452.7	454.4	457.2	461.1	461.9	467.7	470.7
60°	426.7	422.2	419.7	419.7	418.4	424.2	422.9	429.3	430.6	434.5	439.0
62.5°	392.4	386.4	385.4	385.4	387.2	388.8	390.6	393.5	396.7	401.6	405.1
65°	337.0	333.9	338.3	337.7	336.4	340.2	340.2	343.5	347.3	351.8	358.8
67.5°	284.6	283.0	283.3	283.3	285.3	287.5	289.3	292.0	296.7	301.4	306.1
70°	249.2	251.2	248.0	250.5	252.5	253.1	254.4	258.2	263.3	266.5	271.7
72.5°	214.9	214.7	215.2	216.2	218.1	219.2	220.5	224.9	230.6	233.3	237.3
75°	165.3	164.7	166.6	166.6	169.8	171.0	172.4	174.3	179.4	183.3	186.5
77.5°	120.7	121.5	121.1	123.3	122.4	122.6	126.6	128.6	129.1	136.6	138.3
80°	91.0	92.3	92.9	93.5	94.2	92.9	97.4	99.3	99.3	103.8	107.0
82.5°	65.4	66.1	67.8	68.4	68.6	69.9	70.2	71.7	73.2	75.1	79.3
85°	32.7	34.6	35.2	34.6	35.2	34.0	35.9	36.5	37.2	37.2	37.2
87.5°	12.3	13.4	13.5	14.6	14.7	15.8	16.0	15.2	15.3	17.0	15.2
90°	10.4	13.0	16.1	19.1	22.1	25.2	26.1	27.0	28.0	28.9	29.6
92.5°	16.9	17.7	20.0	22.3	24.5	26.8	28.3	29.8	31.3	32.8	33.7
95°	25.8	22.3	24.8	27.4	29.9	32.5	34.2	35.8	37.4	39.1	39.9
97.5°	111.4	100.9	84.1	67.3	50.5	33.8	35.6	37.5	39.4	41.2	42.2
100°	195.8	179.9	143.7	107.3	70.9	34.6	36.4	38.3	40.2	42.1	43.1
102.5°	246.0	227.8	188.1	148.4	108.7	69.0	63.2	57.4	51.6	45.9	43.2
105°	322.6	313.5	292.4	271.5	250.5	229.6	188.3	147.1	105.9	64.7	44.3
107.5°	404.9	407.6	410.9	414.2	417.5	420.8	390.5	360.4	330.1	299.9	269.2
110°	460.3	462.5	465.1	467.7	470.3	472.8	465.1	457.4	449.7	442.1	421.5



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CATALOG NUMBER: S123DIW-S1165D1320U930-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	513.2	515.4	518.0	520.5	523.1	525.6	525.8	525.9	526.0	526.2	522.8
115°	591.6	593.4	595.4	597.5	599.7	601.8	604.1	606.4	608.7	611.1	612.7
117.5°	669.8	671.2	672.3	673.4	674.5	675.6	677.4	679.3	681.1	683.0	684.0
120°	719.2	720.6	721.2	721.9	722.7	723.3	725.2	727.1	729.0	730.8	731.7
122.5°	766.3	767.6	768.5	769.4	770.3	771.2	772.5	773.8	775.1	776.4	777.1
125°	833.6	834.9	835.8	836.8	837.7	838.7	839.1	839.6	840.1	840.5	841.0
127.5°	898.1	899.6	900.7	901.9	902.9	904.1	904.8	905.6	906.3	907.1	907.2
130°	938.4	939.8	940.7	941.7	942.6	943.5	944.4	945.3	946.3	947.2	947.5
132.5°	977.0	978.3	979.0	979.7	980.5	981.2	982.2	983.1	984.1	985.0	985.1
135°	1034.0	1035.2	1036.1	1037.1	1038.0	1038.9	1039.6	1040.3	1041.0	1041.7	1041.7
137.5°	1085.8	1087.0	1087.4	1088.0	1088.5	1089.0	1090.1	1091.3	1092.3	1093.5	1093.8
140°	1117.9	1118.9	1119.7	1120.3	1121.0	1121.7	1122.7	1123.6	1124.5	1125.4	1125.7
142.5°	1148.9	1150.0	1150.6	1151.4	1152.0	1152.8	1153.5	1154.2	1155.0	1155.8	1155.8
145°	1193.3	1194.3	1194.7	1195.2	1195.7	1196.1	1196.6	1197.1	1197.5	1198.0	1198.2
147.5°	1231.9	1232.7	1233.1	1233.5	1234.0	1234.5	1235.0	1235.4	1235.9	1236.4	1236.1
150°	1255.6	1256.1	1256.6	1257.0	1257.5	1258.0	1258.5	1258.9	1259.4	1259.9	1259.7
152.5°	1276.7	1277.0	1277.3	1277.6	1277.8	1278.1	1279.0	1279.8	1280.7	1281.5	1281.4
155°	1305.4	1305.3	1305.5	1305.8	1306.0	1306.2	1307.4	1308.6	1309.7	1310.9	1310.8
157.5°	1331.8	1331.7	1331.5	1331.2	1331.0	1330.7	1332.1	1333.6	1335.0	1336.4	1336.1
160°	1346.1	1346.0	1345.7	1345.5	1345.2	1345.0	1346.4	1347.8	1349.2	1350.6	1350.5
162.5°	1358.9	1358.5	1358.3	1358.0	1357.8	1357.6	1359.2	1360.7	1362.4	1363.9	1364.0
165°	1375.7	1375.3	1375.1	1374.8	1374.6	1374.4	1376.2	1378.1	1380.0	1381.9	1381.9
167.5°	1388.2	1387.8	1387.8	1387.8	1387.8	1387.8	1389.7	1391.6	1393.3	1395.2	1395.2
170°	1395.8	1395.3	1395.3	1395.3	1395.3	1395.3	1397.2	1399.1	1400.9	1402.8	1402.8
172.5°	1400.1	1399.6	1399.8	1400.0	1400.2	1400.4	1402.2	1404.1	1406.0	1407.9	1407.7
175°	1406.4	1405.9	1406.1	1406.4	1406.6	1406.9	1408.5	1410.1	1411.8	1413.4	1413.2
177.5°	1409.0	1408.7	1408.8	1409.0	1409.2	1409.4	1410.9	1412.3	1413.9	1415.4	1415.2
180°	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5
2.5°	1264.6	1264.1	1267.7	1265.1	1267.7	1264.1	1264.6	1268.2	1269.3	1269.7	1269.7
5°	1177.0	1179.0	1172.6	1172.6	1172.6	1179.0	1177.0	1181.0	1184.1	1186.7	1190.5
7.5°	1099.2	1096.3	1096.6	1093.2	1096.6	1096.3	1099.2	1102.2	1106.4	1112.0	1117.2
10°	1051.5	1047.7	1046.4	1047.0	1046.4	1047.7	1051.5	1059.2	1061.8	1066.9	1072.6
12.5°	1012.0	1011.2	1002.8	1002.9	1002.8	1011.2	1012.0	1014.1	1019.7	1030.5	1037.2
15°	965.6	953.5	952.2	956.0	952.2	953.5	965.6	965.6	968.2	976.5	980.4
17.5°	919.1	912.7	913.1	911.2	913.1	912.7	919.1	920.1	922.2	929.0	934.1
20°	894.5	890.6	890.0	885.5	890.0	890.6	894.5	894.5	897.1	900.3	905.4
22.5°	872.0	870.7	871.1	866.1	871.1	870.7	872.0	873.5	876.0	878.2	881.8
25°	843.9	847.1	844.5	844.5	844.5	847.1	843.9	844.5	845.1	848.4	850.9
27.5°	824.9	824.8	823.5	823.5	823.5	824.8	824.9	823.4	822.6	821.5	820.9
30°	810.6	809.9	811.2	811.2	811.2	809.9	810.6	808.0	806.7	806.1	803.5
32.5°	796.2	797.1	797.4	797.9	797.4	797.1	796.2	793.1	790.8	789.1	787.1
35°	774.0	774.7	776.6	775.3	776.6	774.7	774.0	770.2	767.6	763.8	760.6
37.5°	744.0	747.0	746.3	747.4	746.3	747.0	744.0	742.9	740.4	737.4	733.7
40°	721.5	723.4	722.8	722.8	722.8	723.4	721.5	720.9	718.3	716.4	713.1
42.5°	698.5	699.9	698.1	697.2	698.1	699.9	698.5	697.2	695.8	692.3	688.6
45°	660.6	659.3	661.3	658.7	661.3	659.3	660.6	658.0	657.5	654.8	651.7
47.5°	618.3	619.6	620.1	622.1	620.1	619.6	618.3	618.6	615.0	613.4	612.5
50°	590.1	593.9	593.9	593.4	593.9	593.9	590.1	588.9	586.3	583.8	583.8
52.5°	562.5	564.3	566.8	566.7	566.8	564.3	562.5	560.2	557.6	554.0	553.0
55°	519.7	521.0	522.2	522.9	522.2	521.0	519.7	514.5	512.6	510.7	507.4
57.5°	475.3	474.8	477.8	478.7	477.8	474.8	475.3	470.7	467.7	461.9	461.1
60°	444.0	444.0	449.1	451.1	449.1	444.0	444.0	439.0	434.5	430.6	429.3
62.5°	410.7	412.8	417.9	415.2	417.9	412.8	410.7	405.1	401.6	396.7	393.5
65°	362.0	367.1	366.5	369.1	366.5	367.1	362.0	358.8	351.8	347.3	343.5
67.5°	311.1	314.4	318.9	319.4	318.9	314.4	311.1	306.1	301.4	296.7	292.0
70°	276.8	280.0	282.6	284.5	282.6	280.0	276.8	271.7	266.5	263.3	258.2
72.5°	243.5	245.2	251.3	248.6	251.3	245.2	243.5	237.3	233.3	230.6	224.9
75°	190.9	195.4	199.3	197.4	199.3	195.4	190.9	186.5	183.3	179.4	174.3
77.5°	141.2	145.7	147.5	145.9	147.5	145.7	141.2	138.3	136.6	129.1	128.6
80°	111.5	110.9	114.7	114.1	114.7	110.9	111.5	107.0	103.8	99.3	99.3
82.5°	81.8	81.1	82.9	83.3	82.9	81.1	81.8	79.3	75.1	73.2	71.7
85°	39.7	41.7	39.1	38.5	39.1	41.7	39.7	37.2	37.2	37.2	36.5
87.5°	15.2	15.3	14.9	14.5	14.9	15.3	15.2	15.2	17.0	15.3	15.2
90°	30.1	30.5	31.0	31.5	31.0	30.5	30.1	29.6	28.9	28.0	27.0
92.5°	34.0	34.2	34.5	34.8	34.5	34.2	34.0	33.7	32.8	31.3	29.8
95°	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.1	37.4	35.8
97.5°	42.5	42.7	43.0	43.2	43.0	42.7	42.5	42.2	41.2	39.4	37.5
100°	43.3	43.5	43.8	44.0	43.8	43.5	43.3	43.1	42.1	40.2	38.3
102.5°	43.6	44.0	44.4	44.8	44.4	44.0	43.6	43.2	45.9	51.6	57.4
105°	44.8	45.2	45.7	46.1	45.7	45.2	44.8	44.3	64.7	105.9	147.1
107.5°	238.1	207.0	175.9	144.9	175.9	207.0	238.1	269.2	299.9	330.1	360.4
110°	388.2	354.9	321.6	288.3	321.6	354.9	388.2	421.5	442.1	449.7	457.4



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	515.7	508.7	501.7	494.6	501.7	508.7	515.7	522.8	526.2	526.0	525.9
115°	613.6	614.6	615.5	616.4	615.5	614.6	613.6	612.7	611.1	608.7	606.4
117.5°	684.2	684.4	684.6	684.8	684.6	684.4	684.2	684.0	683.0	681.1	679.3
120°	731.7	731.7	731.7	731.7	731.7	731.7	731.7	731.7	730.8	729.0	727.1
122.5°	777.3	777.5	777.7	777.9	777.7	777.5	777.3	777.1	776.4	775.1	773.8
125°	841.5	842.0	842.4	842.9	842.4	842.0	841.5	841.0	840.5	840.1	839.6
127.5°	906.8	906.3	905.8	905.3	905.8	906.3	906.8	907.2	907.1	906.3	905.6
130°	947.0	946.6	946.1	945.6	946.1	946.6	947.0	947.5	947.2	946.3	945.3
132.5°	984.5	983.8	983.2	982.5	983.2	983.8	984.5	985.1	985.0	984.1	983.1
135°	1041.0	1040.3	1039.6	1038.9	1039.6	1040.3	1041.0	1041.7	1041.7	1041.0	1040.3
137.5°	1093.3	1092.9	1092.4	1091.9	1092.4	1092.9	1093.3	1093.8	1093.5	1092.3	1091.3
140°	1125.2	1124.7	1124.3	1123.8	1124.3	1124.7	1125.2	1125.7	1125.4	1124.5	1123.6
142.5°	1155.1	1154.5	1153.8	1153.2	1153.8	1154.5	1155.1	1155.8	1155.8	1155.0	1154.2
145°	1198.2	1198.2	1198.2	1198.2	1198.2	1198.2	1198.2	1198.2	1198.0	1197.5	1197.1
147.5°	1235.0	1234.0	1232.9	1231.8	1232.9	1234.0	1235.0	1236.1	1236.4	1235.9	1235.4
150°	1259.1	1258.3	1257.7	1256.9	1257.7	1258.3	1259.1	1259.7	1259.9	1259.4	1258.9
152.5°	1280.3	1279.2	1278.1	1277.1	1278.1	1279.2	1280.3	1281.4	1281.5	1280.7	1279.8
155°	1309.4	1308.0	1306.6	1305.2	1306.6	1308.0	1309.4	1310.8	1310.9	1309.7	1308.6
157.5°	1334.3	1332.5	1330.6	1328.9	1330.6	1332.5	1334.3	1336.1	1336.4	1335.0	1333.6
160°	1348.8	1347.2	1345.6	1343.9	1345.6	1347.2	1348.8	1350.5	1350.6	1349.2	1347.8
162.5°	1362.5	1361.1	1359.7	1358.2	1359.7	1361.1	1362.5	1364.0	1363.9	1362.4	1360.7
165°	1380.3	1378.7	1377.0	1375.4	1377.0	1378.7	1380.3	1381.9	1381.9	1380.0	1378.1
167.5°	1393.3	1391.6	1389.7	1387.8	1389.7	1391.6	1393.3	1395.2	1395.2	1393.3	1391.6
170°	1400.9	1399.1	1397.2	1395.3	1397.2	1399.1	1400.9	1402.8	1402.8	1400.9	1399.1
172.5°	1405.7	1403.6	1401.6	1399.5	1401.6	1403.6	1405.7	1407.7	1407.9	1406.0	1404.1
175°	1411.4	1409.6	1407.7	1405.8	1407.7	1409.6	1411.4	1413.2	1413.4	1411.8	1410.1
177.5°	1413.3	1411.4	1409.6	1407.7	1409.6	1411.4	1413.3	1415.2	1415.4	1413.9	1412.3
180°	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0



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**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5
2.5°	1268.2	1268.2	1277.9	1284.1	1291.8	1296.9	1300.5	1304.1	1310.3	1318.4	1327.6
5°	1195.6	1198.2	1212.4	1226.5	1239.9	1251.4	1261.0	1272.5	1286.6	1303.9	1323.1
7.5°	1125.4	1135.3	1149.5	1166.7	1185.5	1202.3	1219.4	1238.4	1258.2	1283.7	1310.6
10°	1080.4	1091.2	1108.5	1130.3	1150.1	1170.0	1191.2	1211.7	1236.6	1266.8	1301.4
12.5°	1040.9	1051.2	1069.0	1092.9	1111.7	1133.7	1157.9	1184.5	1212.6	1248.9	1288.1
15°	986.1	998.3	1020.1	1031.6	1060.5	1086.7	1109.1	1147.6	1183.5	1220.7	1266.2
17.5°	941.3	948.0	965.7	987.2	1008.7	1038.1	1067.5	1099.5	1135.3	1180.8	1237.7
20°	910.5	916.3	935.5	958.0	981.0	1008.0	1034.2	1066.2	1106.6	1154.6	1216.2
22.5°	887.5	893.7	906.3	930.3	951.8	974.1	1000.4	1038.5	1081.5	1128.5	1195.1
25°	854.1	857.9	866.3	885.5	904.7	929.8	952.8	988.7	1032.9	1088.0	1154.6
27.5°	822.5	826.2	833.2	846.9	864.9	885.2	910.3	940.8	985.6	1045.5	1116.2
30°	803.5	804.1	810.6	823.4	838.8	855.4	878.5	913.1	955.4	1016.3	1090.5
32.5°	787.1	784.6	789.0	798.7	813.7	830.3	849.3	883.4	924.1	984.0	1060.3
35°	759.3	758.0	756.1	764.4	777.2	790.0	806.7	832.3	878.5	934.3	1014.3
37.5°	731.0	727.9	724.5	728.3	738.3	751.6	766.1	788.9	828.7	890.0	966.6
40°	710.0	707.4	705.5	704.2	713.1	725.9	736.9	758.6	795.8	854.1	929.8
42.5°	686.9	685.3	682.9	681.1	688.6	698.3	709.7	729.0	766.1	820.8	892.3
45°	649.7	648.5	647.2	645.9	650.4	659.3	668.3	682.4	714.4	767.6	832.3
47.5°	608.4	606.7	607.2	605.1	609.5	615.6	621.8	636.9	667.6	710.6	757.9
50°	578.6	578.0	578.0	578.0	579.3	586.3	592.1	603.6	631.8	674.7	708.7
52.5°	550.4	547.7	547.7	548.8	551.1	555.5	559.3	571.9	596.4	631.7	662.5
55°	506.2	501.1	499.8	501.1	503.0	506.9	510.7	521.0	542.1	568.3	586.3
57.5°	457.2	454.4	452.7	453.0	454.0	457.1	460.1	471.2	487.9	501.6	513.1
60°	422.9	424.2	418.4	419.7	419.7	422.2	426.7	433.8	447.9	457.5	469.0
62.5°	390.6	388.8	387.2	385.4	385.4	386.4	392.4	397.9	409.9	415.0	424.0
65°	340.2	340.2	336.4	337.7	338.3	333.9	337.0	343.5	351.1	353.0	361.4
67.5°	289.3	287.5	285.3	283.3	283.3	283.0	284.6	287.8	293.6	294.2	300.7
70°	254.4	253.1	252.5	250.5	248.0	251.2	249.2	252.5	255.7	256.3	260.2
72.5°	220.5	219.2	218.1	216.2	215.2	214.7	214.9	218.7	220.8	219.9	224.3
75°	172.4	171.0	169.8	166.6	166.6	164.7	165.3	167.9	170.5	168.5	172.4
77.5°	126.6	122.6	122.4	123.3	121.1	121.5	120.7	120.3	121.5	121.6	125.1
80°	97.4	92.9	94.2	93.5	92.9	92.3	91.0	91.6	92.3	92.9	94.8
82.5°	70.2	69.9	68.6	68.4	67.8	66.1	65.4	66.5	67.2	66.8	68.2
85°	35.9	34.0	35.2	34.6	35.2	34.6	32.7	32.7	34.0	33.3	34.6
87.5°	16.0	15.8	14.7	14.6	13.5	13.4	12.3	12.4	12.4	12.0	12.5
90°	26.1	25.2	22.1	19.1	16.1	13.0	10.4	8.1	5.7	3.3	1.1
92.5°	28.3	26.8	24.5	22.3	20.0	17.7	16.9	17.5	18.2	18.8	19.5
95°	34.2	32.5	29.9	27.4	24.8	22.3	25.8	35.3	44.8	54.4	63.9
97.5°	35.6	33.8	50.5	67.3	84.1	100.9	111.4	115.7	119.9	124.3	128.5
100°	36.4	34.6	70.9	107.3	143.7	179.9	195.8	191.1	186.5	181.8	177.2
102.5°	63.2	69.0	108.7	148.4	188.1	227.8	246.0	242.6	239.2	235.9	232.5
105°	188.3	229.6	250.5	271.5	292.4	313.5	322.6	320.1	317.6	315.0	312.4
107.5°	390.5	420.8	417.5	414.2	410.9	407.6	404.9	402.8	400.8	398.8	396.7
110°	465.1	472.8	470.3	467.7	465.1	462.5	460.3	458.4	456.6	454.8	452.9



TEST NUMBER: P332228-930

CATALOG NUMBER: S123DIW-S1165D1320U930-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	525.8	525.6	523.1	520.5	518.0	515.4	513.2	511.6	509.9	508.3	506.5
115°	604.1	601.8	599.7	597.5	595.4	593.4	591.6	590.2	588.8	587.4	586.0
117.5°	677.4	675.6	674.5	673.4	672.3	671.2	669.8	668.1	666.4	664.7	663.0
120°	725.2	723.3	722.7	721.9	721.2	720.6	719.2	717.1	714.9	712.9	710.8
122.5°	772.5	771.2	770.3	769.4	768.5	767.6	766.3	764.6	762.9	761.2	759.5
125°	839.1	838.7	837.7	836.8	835.8	834.9	833.6	831.7	829.8	827.9	826.1
127.5°	904.8	904.1	902.9	901.9	900.7	899.6	898.1	896.3	894.4	892.5	890.6
130°	944.4	943.5	942.6	941.7	940.7	939.8	938.4	936.5	934.7	932.8	930.9
132.5°	982.2	981.2	980.5	979.7	979.0	978.3	977.0	975.1	973.2	971.3	969.5
135°	1039.6	1038.9	1038.0	1037.1	1036.1	1035.2	1034.0	1032.6	1031.2	1029.8	1028.4
137.5°	1090.1	1089.0	1088.5	1088.0	1087.4	1087.0	1085.8	1084.0	1082.3	1080.5	1078.7
140°	1122.7	1121.7	1121.0	1120.3	1119.7	1118.9	1117.9	1116.5	1115.1	1113.7	1112.3
142.5°	1153.5	1152.8	1152.0	1151.4	1150.6	1150.0	1148.9	1147.5	1146.1	1144.7	1143.3
145°	1196.6	1196.1	1195.7	1195.2	1194.7	1194.3	1193.3	1191.6	1190.0	1188.4	1186.7
147.5°	1235.0	1234.5	1234.0	1233.5	1233.1	1232.7	1231.9	1230.8	1229.7	1228.7	1227.6
150°	1258.5	1258.0	1257.5	1257.0	1256.6	1256.1	1255.6	1254.8	1254.2	1253.4	1252.8
152.5°	1279.0	1278.1	1277.8	1277.6	1277.3	1277.0	1276.7	1276.4	1276.0	1275.7	1275.4
155°	1307.4	1306.2	1306.0	1305.8	1305.5	1305.3	1305.4	1305.9	1306.4	1306.8	1307.3
157.5°	1332.1	1330.7	1331.0	1331.2	1331.5	1331.7	1331.8	1331.9	1332.0	1332.0	1332.0
160°	1346.4	1345.0	1345.2	1345.5	1345.7	1346.0	1346.1	1346.4	1346.6	1346.9	1347.1
162.5°	1359.2	1357.6	1357.8	1358.0	1358.3	1358.5	1358.9	1359.5	1360.2	1360.7	1361.4
165°	1376.2	1374.4	1374.6	1374.8	1375.1	1375.3	1375.7	1376.5	1377.1	1377.9	1378.6
167.5°	1389.7	1387.8	1387.8	1387.8	1387.8	1387.8	1388.2	1389.2	1390.1	1391.1	1392.0
170°	1397.2	1395.3	1395.3	1395.3	1395.3	1395.3	1395.8	1396.8	1397.7	1398.6	1399.5
172.5°	1402.2	1400.4	1400.2	1400.0	1399.8	1399.6	1400.1	1401.2	1402.3	1403.5	1404.6
175°	1408.5	1406.9	1406.6	1406.4	1406.1	1405.9	1406.4	1407.5	1408.8	1409.9	1411.0
177.5°	1410.9	1409.4	1409.2	1409.0	1408.8	1408.7	1409.0	1410.0	1410.9	1411.8	1412.8
180°	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0



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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5
2.5°	1330.7	1333.3	1342.0	1348.2	1355.4	1359.4	1363.5	1366.6	1370.7	1371.7	1386.6
5°	1336.6	1349.5	1371.9	1388.5	1409.0	1431.4	1446.8	1453.9	1472.4	1487.8	1518.6
7.5°	1335.0	1362.3	1396.1	1431.2	1468.8	1503.7	1534.0	1569.9	1595.4	1633.7	1671.5
10°	1333.4	1369.9	1413.5	1458.4	1510.9	1559.6	1603.2	1651.9	1692.2	1745.4	1790.9
12.5°	1328.8	1373.0	1433.5	1486.5	1550.4	1617.6	1682.1	1744.7	1780.5	1869.0	1910.9
15°	1317.4	1369.9	1445.5	1526.3	1614.0	1693.5	1775.6	1840.9	1946.6	2024.1	2073.5
17.5°	1295.6	1369.2	1458.9	1556.2	1663.0	1767.7	1860.7	1959.8	2072.0	2165.8	2265.7
20°	1285.4	1366.1	1466.1	1573.7	1684.6	1803.1	1908.9	2028.0	2150.4	2242.6	2370.8
22.5°	1266.4	1357.9	1465.6	1585.5	1704.1	1826.7	1950.4	2070.5	2211.9	2339.0	2461.1
25°	1235.4	1337.9	1449.4	1583.3	1722.4	1845.4	1993.4	2153.0	2300.4	2463.8	2585.5
27.5°	1202.8	1312.3	1424.0	1548.6	1698.1	1844.1	2030.3	2210.6	2390.8	2531.9	2622.0
30°	1177.7	1284.1	1399.5	1525.0	1673.0	1846.7	2054.9	2251.6	2427.2	2548.3	2598.9
32.5°	1150.6	1258.4	1360.5	1492.2	1649.9	1845.1	2070.3	2275.7	2429.3	2509.9	2500.0
35°	1107.9	1198.2	1297.5	1424.4	1610.2	1833.9	2079.3	2277.9	2372.1	2354.8	2224.1
37.5°	1046.4	1122.3	1220.2	1359.0	1564.1	1810.1	2061.3	2210.4	2204.2	2063.4	1874.0
40°	1008.0	1072.6	1166.9	1313.0	1528.2	1794.8	2033.1	2129.9	2047.9	1851.1	1624.3
42.5°	957.7	1017.2	1111.5	1261.7	1488.7	1763.5	1979.3	2007.3	1846.9	1620.5	1412.6
45°	879.8	932.3	1029.7	1184.8	1429.5	1695.4	1848.0	1779.4	1563.4	1329.6	1171.3
47.5°	796.1	850.7	944.4	1103.7	1343.9	1593.1	1665.7	1519.9	1298.2	1108.5	963.2
50°	743.3	795.8	887.5	1048.3	1286.0	1509.0	1539.1	1350.7	1147.0	980.4	861.2
52.5°	690.0	739.5	829.6	990.8	1218.4	1411.6	1393.0	1201.0	1013.7	871.7	778.1
55°	610.7	657.5	743.3	894.5	1101.5	1254.6	1187.3	1004.0	849.0	738.8	667.6
57.5°	539.6	584.5	658.6	795.2	975.1	1080.4	994.7	840.3	717.0	632.2	579.1
60°	491.5	531.2	601.7	728.6	884.9	965.0	880.4	744.0	640.1	572.2	524.8
62.5°	445.8	480.5	545.8	660.9	796.7	864.0	778.4	662.9	574.5	514.3	474.0
65°	376.7	408.1	465.9	555.5	667.0	711.9	638.2	544.6	476.1	431.2	404.3
67.5°	313.7	340.4	390.2	460.8	542.8	575.5	519.4	447.0	395.3	359.3	337.9
70°	271.7	294.7	333.9	394.7	469.0	494.0	441.5	381.9	344.1	315.3	295.4
72.5°	236.3	253.2	288.7	335.7	397.8	417.7	381.0	328.6	293.3	271.7	255.9
75°	180.0	194.1	217.2	255.0	298.0	309.5	281.9	249.2	225.5	210.2	198.0
77.5°	129.8	140.2	156.9	180.2	209.9	220.3	202.8	181.1	163.8	153.4	146.6
80°	98.0	106.4	120.5	139.7	157.6	163.4	153.1	136.5	124.3	118.5	112.8
82.5°	72.4	77.1	85.6	98.7	111.0	117.8	109.1	99.1	92.5	87.2	85.1
85°	36.5	39.1	43.0	48.0	55.8	58.3	55.1	52.5	48.7	45.5	45.5
87.5°	14.0	14.4	16.5	17.9	20.5	22.7	22.7	22.3	22.4	22.1	21.8
90°	3.3	5.7	8.1	10.4	13.0	16.1	19.1	22.1	25.2	26.1	27.0
92.5°	18.8	18.2	17.5	16.9	17.7	20.0	22.3	24.5	26.8	28.3	29.8
95°	54.4	44.8	35.3	25.8	22.3	24.8	27.4	29.9	32.5	34.2	35.8
97.5°	124.3	119.9	115.7	111.4	100.9	84.1	67.3	50.5	33.8	35.6	37.5
100°	181.8	186.5	191.1	195.8	179.9	143.7	107.3	70.9	34.6	36.4	38.3
102.5°	235.9	239.2	242.6	246.0	227.8	188.1	148.4	108.7	69.0	63.2	57.4
105°	315.0	317.6	320.1	322.6	313.5	292.4	271.5	250.5	229.6	188.3	147.1
107.5°	398.8	400.8	402.8	404.9	407.6	410.9	414.2	417.5	420.8	390.5	360.4
110°	454.8	456.6	458.4	460.3	462.5	465.1	467.7	470.3	472.8	465.1	457.4





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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	508.3	509.9	511.6	513.2	515.4	518.0	520.5	523.1	525.6	525.8	525.9
115°	587.4	588.8	590.2	591.6	593.4	595.4	597.5	599.7	601.8	604.1	606.4
117.5°	664.7	666.4	668.1	669.8	671.2	672.3	673.4	674.5	675.6	677.4	679.3
120°	712.9	714.9	717.1	719.2	720.6	721.2	721.9	722.7	723.3	725.2	727.1
122.5°	761.2	762.9	764.6	766.3	767.6	768.5	769.4	770.3	771.2	772.5	773.8
125°	827.9	829.8	831.7	833.6	834.9	835.8	836.8	837.7	838.7	839.1	839.6
127.5°	892.5	894.4	896.3	898.1	899.6	900.7	901.9	902.9	904.1	904.8	905.6
130°	932.8	934.7	936.5	938.4	939.8	940.7	941.7	942.6	943.5	944.4	945.3
132.5°	971.3	973.2	975.1	977.0	978.3	979.0	979.7	980.5	981.2	982.2	983.1
135°	1029.8	1031.2	1032.6	1034.0	1035.2	1036.1	1037.1	1038.0	1038.9	1039.6	1040.3
137.5°	1080.5	1082.3	1084.0	1085.8	1087.0	1087.4	1088.0	1088.5	1089.0	1090.1	1091.3
140°	1113.7	1115.1	1116.5	1117.9	1118.9	1119.7	1120.3	1121.0	1121.7	1122.7	1123.6
142.5°	1144.7	1146.1	1147.5	1148.9	1150.0	1150.6	1151.4	1152.0	1152.8	1153.5	1154.2
145°	1188.4	1190.0	1191.6	1193.3	1194.3	1194.7	1195.2	1195.7	1196.1	1196.6	1197.1
147.5°	1228.7	1229.7	1230.8	1231.9	1232.7	1233.1	1233.5	1234.0	1234.5	1235.0	1235.4
150°	1253.4	1254.2	1254.8	1255.6	1256.1	1256.6	1257.0	1257.5	1258.0	1258.5	1258.9
152.5°	1275.7	1276.0	1276.4	1276.7	1277.0	1277.3	1277.6	1277.8	1278.1	1279.0	1279.8
155°	1306.8	1306.4	1305.9	1305.4	1305.3	1305.5	1305.8	1306.0	1306.2	1307.4	1308.6
157.5°	1332.0	1332.0	1331.9	1331.8	1331.7	1331.5	1331.2	1331.0	1330.7	1332.1	1333.6
160°	1346.9	1346.6	1346.4	1346.1	1346.0	1345.7	1345.5	1345.2	1345.0	1346.4	1347.8
162.5°	1360.7	1360.2	1359.5	1358.9	1358.5	1358.3	1358.0	1357.8	1357.6	1359.2	1360.7
165°	1377.9	1377.1	1376.5	1375.7	1375.3	1375.1	1374.8	1374.6	1374.4	1376.2	1378.1
167.5°	1391.1	1390.1	1389.2	1388.2	1387.8	1387.8	1387.8	1387.8	1387.8	1389.7	1391.6
170°	1398.6	1397.7	1396.8	1395.8	1395.3	1395.3	1395.3	1395.3	1395.3	1397.2	1399.1
172.5°	1403.5	1402.3	1401.2	1400.1	1399.6	1399.8	1400.0	1400.2	1400.4	1402.2	1404.1
175°	1409.9	1408.8	1407.5	1406.4	1405.9	1406.1	1406.4	1406.6	1406.9	1408.5	1410.1
177.5°	1411.8	1410.9	1410.0	1409.0	1408.7	1408.8	1409.0	1409.2	1409.4	1410.9	1412.3
180°	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5
2.5°	1391.7	1392.2	1397.9	1402.0	1400.0	1402.5	1403.5
5°	1520.5	1543.6	1555.8	1564.7	1565.4	1566.0	1571.2
7.5°	1703.2	1727.9	1746.0	1773.4	1781.6	1790.9	1788.2
10°	1836.5	1872.9	1904.4	1921.0	1938.9	1965.2	1944.1
12.5°	1961.0	2025.7	2073.5	2099.4	2116.3	2121.6	2111.2
15°	2166.4	2251.0	2296.5	2295.2	2352.9	2377.9	2338.8
17.5°	2354.8	2432.9	2495.4	2527.4	2575.4	2586.1	2581.2
20°	2470.1	2555.4	2604.1	2659.2	2684.1	2706.5	2710.4
22.5°	2569.6	2646.1	2698.4	2744.2	2765.2	2775.8	2782.2
25°	2672.0	2732.2	2763.6	2779.6	2785.4	2784.1	2775.8
27.5°	2664.9	2669.5	2635.0	2601.0	2570.6	2536.4	2524.6
30°	2595.7	2541.9	2445.8	2391.4	2311.2	2247.8	2273.4
32.5°	2413.8	2306.6	2198.7	2079.7	1981.1	1953.0	1924.8
35°	2060.0	1871.7	1761.5	1633.3	1582.0	1530.8	1495.5
37.5°	1666.6	1520.9	1390.2	1306.4	1255.0	1222.5	1205.2
40°	1441.0	1309.7	1202.1	1134.2	1095.0	1058.5	1053.4
42.5°	1261.2	1139.1	1058.0	1004.0	966.4	950.9	939.6
45°	1032.9	947.7	893.2	854.8	829.8	820.2	807.4
47.5°	874.2	814.0	773.1	747.0	728.1	721.0	720.0
50°	785.5	735.6	705.5	684.9	670.3	667.6	657.5
52.5°	718.9	675.6	652.2	634.2	623.6	616.4	613.3
55°	624.1	595.3	574.1	563.9	555.5	548.5	548.5
57.5°	546.1	522.0	508.0	499.3	496.7	491.7	488.5
60°	497.9	477.4	466.5	458.8	453.6	454.3	448.5
62.5°	450.7	437.4	427.0	419.3	413.2	413.3	413.7
65°	383.8	373.6	365.9	363.3	359.5	355.0	356.3
67.5°	325.2	315.6	309.7	305.2	303.9	301.6	305.2
70°	283.2	276.1	271.7	267.8	266.5	267.2	270.4
72.5°	244.8	239.8	236.8	235.1	232.2	232.4	234.5
75°	192.2	188.4	185.8	183.9	183.3	183.3	183.3
77.5°	141.2	140.3	139.2	136.3	136.5	137.2	137.4
80°	111.5	109.6	108.9	107.6	105.7	104.4	107.6
82.5°	83.3	81.4	80.7	80.5	77.5	77.3	80.0
85°	44.8	43.0	43.5	43.0	43.0	42.3	42.3
87.5°	21.4	21.1	20.8	21.4	21.0	20.5	21.7
90°	28.0	28.9	29.6	30.1	30.5	31.0	31.5
92.5°	31.3	32.8	33.7	34.0	34.2	34.5	34.8
95°	37.4	39.1	39.9	39.9	39.9	39.9	39.9
97.5°	39.4	41.2	42.2	42.5	42.7	43.0	43.2
100°	40.2	42.1	43.1	43.3	43.5	43.8	44.0
102.5°	51.6	45.9	43.2	43.6	44.0	44.4	44.8
105°	105.9	64.7	44.3	44.8	45.2	45.7	46.1
107.5°	330.1	299.9	269.2	238.1	207.0	175.9	144.9
110°	449.7	442.1	421.5	388.2	354.9	321.6	288.3



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	526.0	526.2	522.8	515.7	508.7	501.7	494.6
115°	608.7	611.1	612.7	613.6	614.6	615.5	616.4
117.5°	681.1	683.0	684.0	684.2	684.4	684.6	684.8
120°	729.0	730.8	731.7	731.7	731.7	731.7	731.7
122.5°	775.1	776.4	777.1	777.3	777.5	777.7	777.9
125°	840.1	840.5	841.0	841.5	842.0	842.4	842.9
127.5°	906.3	907.1	907.2	906.8	906.3	905.8	905.3
130°	946.3	947.2	947.5	947.0	946.6	946.1	945.6
132.5°	984.1	985.0	985.1	984.5	983.8	983.2	982.5
135°	1041.0	1041.7	1041.7	1041.0	1040.3	1039.6	1038.9
137.5°	1092.3	1093.5	1093.8	1093.3	1092.9	1092.4	1091.9
140°	1124.5	1125.4	1125.7	1125.2	1124.7	1124.3	1123.8
142.5°	1155.0	1155.8	1155.8	1155.1	1154.5	1153.8	1153.2
145°	1197.5	1198.0	1198.2	1198.2	1198.2	1198.2	1198.2
147.5°	1235.9	1236.4	1236.1	1235.0	1234.0	1232.9	1231.8
150°	1259.4	1259.9	1259.7	1259.1	1258.3	1257.7	1256.9
152.5°	1280.7	1281.5	1281.4	1280.3	1279.2	1278.1	1277.1
155°	1309.7	1310.9	1310.8	1309.4	1308.0	1306.6	1305.2
157.5°	1335.0	1336.4	1336.1	1334.3	1332.5	1330.6	1328.9
160°	1349.2	1350.6	1350.5	1348.8	1347.2	1345.6	1343.9
162.5°	1362.4	1363.9	1364.0	1362.5	1361.1	1359.7	1358.2
165°	1380.0	1381.9	1381.9	1380.3	1378.7	1377.0	1375.4
167.5°	1393.3	1395.2	1395.2	1393.3	1391.6	1389.7	1387.8
170°	1400.9	1402.8	1402.8	1400.9	1399.1	1397.2	1395.3
172.5°	1406.0	1407.9	1407.7	1405.7	1403.6	1401.6	1399.5
175°	1411.8	1413.4	1413.2	1411.4	1409.6	1407.7	1405.8
177.5°	1413.9	1415.4	1415.2	1413.3	1411.4	1409.6	1407.7
180°	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0	1411.0

(END OF REPORT)