

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: P332235-830

Luminaire Tested: **S123DIW-S1165D1535U830-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332235-830  
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-S1165D1535U830-4F0-1E-UDD-A1  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER  
UPLIGHT 1535 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9633.0 lumens  
Efficiency: N/A  
Efficacy: 116.2 lumens/watt  
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.49  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: General Diffuse

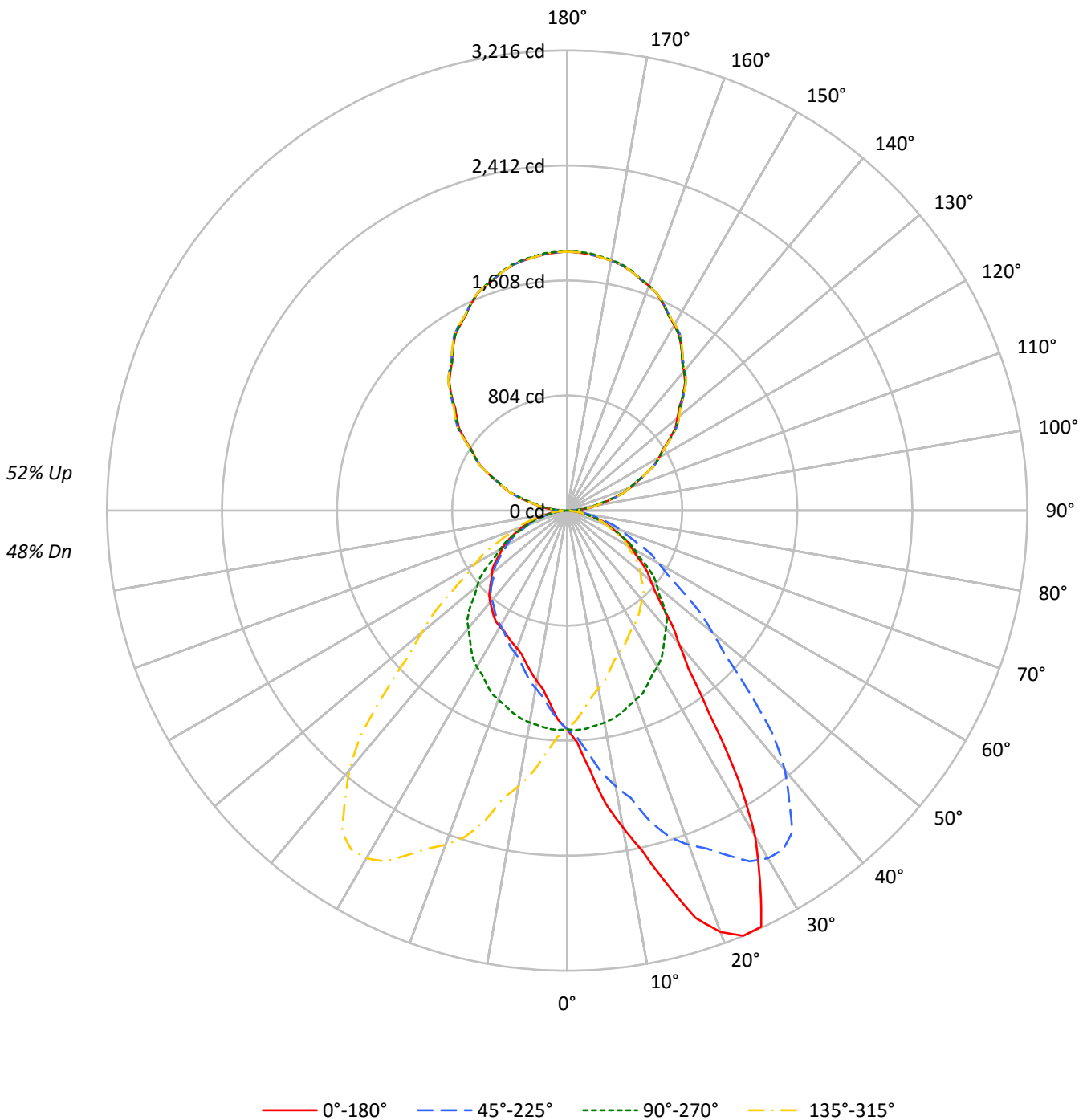
Input Watts (W): 82.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

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

**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	1.6
10°-20°	482.9	5.0
20°-30°	810.5	8.4
30°-40°	917.8	9.5
40°-50°	823.0	8.5
50°-60°	664.2	6.9
60°-70°	462.8	4.8
70°-80°	243.3	2.5
80°-90°	64.8	0.7
90°-100°	117.9	1.2
100°-110°	352.8	3.7
110°-120°	600.0	6.2
120°-130°	789.3	8.2
130°-140°	887.1	9.2
140°-150°	872.0	9.1
150°-160°	734.1	7.6
160°-170°	488.7	5.1
170°-180°	171.1	1.8
0°-30°	1444.1	15.0
0°-40°	2361.9	24.5
0°-60°	3849.1	40.0
0°-90°	4620.0	48.0
90°-120°	1070.7	11.1
90°-150°	3619.1	37.6
90°-180°	5013.0	52.0
0°-180°	9633.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1529	1529	1529	1529	1529	
5°	1816	1530	1356	1530	1816	188
15°	2704	1464	1105	1464	2704	781
25°	3209	1335	976	1335	3209	1407
35°	1729	1173	896	1173	1729	1123
45°	933	962	762	962	933	739
55°	634	678	604	678	634	569
65°	412	418	427	418	412	410
75°	212	199	228	199	212	227
85°	49	40	44	40	49	59
90°	43	1	43	1	43	23
95°	111	84	111	84	111	114
105°	338	320	338	320	338	359
115°	606	604	606	604	606	599
125°	874	884	874	884	874	781
135°	1146	1147	1146	1147	1146	881
145°	1392	1392	1392	1392	1392	869
155°	1590	1593	1590	1593	1590	732
165°	1730	1735	1730	1735	1730	488
175°	1798	1805	1798	1805	1798	171
180°	1809	1809	1809	1809	1809	



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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°	26.3	25.0	25.4	25.9	25.2	25.6	25.9	26.3	26.7	27.0	26.8
90°	42.6	42.0	41.4	40.7	40.2	39.2	37.9	36.7	35.3	34.1	30.0
92.5°	57.4	57.8	58.2	58.5	58.9	58.6	57.6	56.6	55.6	54.6	52.2
95°	110.8	110.8	110.8	110.8	110.8	110.2	109.0	107.7	106.4	105.2	102.6
97.5°	170.6	170.7	170.8	171.0	171.1	170.4	168.9	167.5	166.1	164.6	162.8
100°	216.0	215.4	214.8	214.1	213.5	212.7	211.8	210.8	209.9	209.0	207.4
102.5°	262.7	262.8	262.9	263.1	263.2	262.8	261.8	260.9	260.0	258.9	256.8
105°	338.3	337.6	337.1	336.4	335.7	335.5	335.5	335.5	335.5	335.5	332.6
107.5°	417.0	417.4	417.7	418.1	418.5	418.2	417.2	416.2	415.2	414.2	413.0
110°	470.4	471.1	471.7	472.3	473.0	472.7	471.4	470.1	468.9	467.6	466.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	527.3	527.4	527.5	527.7	527.8	527.1	525.6	524.1	522.5	521.0	520.9
115°	605.5	605.8	606.1	606.4	606.7	606.7	606.4	606.1	605.8	605.5	606.1
117.5°	684.8	685.7	686.5	687.4	688.3	688.8	688.9	688.9	689.0	689.1	689.8
120°	740.5	741.1	741.8	742.4	743.0	743.5	743.9	744.1	744.4	744.8	746.3
122.5°	793.9	794.8	795.7	796.6	797.5	798.3	799.2	799.9	800.8	801.6	802.5
125°	874.1	875.3	876.7	877.9	879.1	880.4	881.7	883.0	884.2	885.5	886.1
127.5°	953.9	955.5	956.9	958.4	959.8	961.4	963.2	965.0	966.7	968.5	969.2
130°	1006.3	1008.5	1010.7	1013.0	1015.1	1016.9	1018.1	1019.4	1020.7	1021.9	1022.8
132.5°	1060.8	1062.5	1064.3	1066.0	1067.7	1069.3	1070.8	1072.3	1073.8	1075.3	1076.0
135°	1145.6	1146.2	1146.8	1147.5	1148.1	1149.1	1150.3	1151.6	1152.8	1154.1	1154.4
137.5°	1220.3	1221.5	1222.8	1223.9	1225.1	1226.4	1227.8	1229.1	1230.4	1231.7	1230.9
140°	1269.2	1271.4	1273.7	1275.8	1278.1	1279.3	1279.7	1280.0	1280.3	1280.6	1280.3
142.5°	1319.3	1321.0	1322.7	1324.4	1326.1	1327.1	1327.4	1327.8	1328.0	1328.3	1327.8
145°	1391.5	1392.7	1394.0	1395.2	1396.5	1397.3	1397.6	1397.9	1398.3	1398.5	1397.6
147.5°	1455.7	1457.5	1459.5	1461.4	1463.3	1464.2	1464.2	1464.2	1464.2	1464.2	1463.3
150°	1496.7	1498.5	1500.4	1502.3	1504.2	1505.1	1505.1	1505.1	1505.1	1505.1	1504.5
152.5°	1536.4	1538.0	1539.7	1541.3	1543.0	1543.6	1543.0	1542.6	1542.1	1541.5	1541.2
155°	1590.4	1592.6	1594.9	1597.0	1599.3	1599.8	1598.5	1597.2	1596.0	1594.7	1594.4
157.5°	1639.6	1641.3	1643.1	1644.9	1646.7	1646.9	1645.6	1644.3	1642.9	1641.6	1641.3
160°	1671.4	1672.7	1674.0	1675.3	1676.5	1676.3	1674.8	1673.2	1671.6	1670.0	1670.0
162.5°	1695.4	1697.3	1699.4	1701.4	1703.5	1703.6	1702.0	1700.4	1698.9	1697.3	1697.0
165°	1729.8	1731.9	1734.2	1736.4	1738.6	1738.7	1736.8	1734.9	1733.1	1731.2	1731.2
167.5°	1759.0	1761.0	1762.9	1764.9	1766.8	1766.8	1764.9	1762.9	1761.0	1759.0	1758.8
170°	1773.8	1776.0	1778.2	1780.5	1782.6	1782.6	1780.5	1778.2	1776.0	1773.8	1773.8
172.5°	1785.2	1787.3	1789.6	1791.8	1794.0	1794.1	1792.2	1790.2	1788.3	1786.3	1786.3
175°	1798.0	1800.2	1802.3	1804.6	1806.8	1806.9	1805.1	1803.2	1801.3	1799.4	1799.4
177.5°	1804.8	1806.6	1808.3	1810.1	1811.8	1811.9	1810.4	1808.9	1807.4	1805.9	1805.9
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3



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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°	27.1	26.9	24.3	21.2	19.3	17.0	16.3	14.5	13.9	14.6	14.6
90°	25.9	21.8	17.7	14.0	10.9	7.7	4.6	1.4	4.6	7.7	10.9
92.5°	49.9	47.6	45.2	43.0	40.8	38.6	36.6	34.4	36.6	38.6	40.8
95°	100.1	97.6	95.1	92.7	90.5	88.3	86.1	83.9	86.1	88.3	90.5
97.5°	160.9	159.1	157.2	155.5	153.9	152.2	150.6	148.9	150.6	152.2	153.9
100°	205.8	204.2	202.6	200.9	199.0	197.1	195.2	193.3	195.2	197.1	199.0
102.5°	254.8	252.7	250.6	249.0	247.9	246.8	245.6	244.5	245.6	246.8	247.9
105°	329.7	326.9	324.0	322.3	321.7	321.0	320.5	319.8	320.5	321.0	321.7
107.5°	411.9	410.8	409.6	408.9	408.5	408.1	407.7	407.4	407.7	408.1	408.5
110°	466.4	465.7	465.1	464.5	463.8	463.2	462.6	461.9	462.6	463.2	463.8





TEST NUMBER: P332235-830

CATALOG NUMBER: S123DIW-S1165D1535U830-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	520.8	520.7	520.6	520.3	519.9	519.5	519.2	518.8	519.2	519.5	519.9
115°	606.7	607.4	608.0	607.8	606.9	606.0	605.0	604.1	605.0	606.0	606.9
117.5°	690.7	691.5	692.3	692.4	691.8	691.2	690.5	689.9	690.5	691.2	691.8
120°	747.9	749.5	751.1	750.9	749.0	747.2	745.3	743.4	745.3	747.2	749.0
122.5°	803.2	804.1	804.9	804.6	803.2	801.8	800.4	799.1	800.4	801.8	803.2
125°	886.7	887.4	888.0	887.9	886.9	886.0	885.0	884.0	885.0	886.0	886.9
127.5°	969.9	970.5	971.3	970.6	968.6	966.6	964.5	962.5	964.5	966.6	968.6
130°	1023.8	1024.7	1025.7	1024.9	1022.4	1019.8	1017.4	1014.8	1017.4	1019.8	1022.4
132.5°	1076.8	1077.4	1078.2	1077.2	1074.7	1072.1	1069.6	1067.1	1069.6	1072.1	1074.7
135°	1154.7	1155.1	1155.4	1154.6	1152.6	1150.8	1148.9	1147.0	1148.9	1150.8	1152.6
137.5°	1230.0	1229.3	1228.4	1227.2	1225.7	1224.1	1222.5	1220.9	1222.5	1224.1	1225.7
140°	1280.0	1279.7	1279.3	1278.4	1276.8	1275.3	1273.7	1272.1	1273.7	1275.3	1276.8
142.5°	1327.2	1326.6	1326.1	1325.0	1323.4	1321.8	1320.2	1318.7	1320.2	1321.8	1323.4
145°	1396.7	1395.7	1394.8	1394.0	1393.4	1392.7	1392.1	1391.5	1392.1	1392.7	1393.4
147.5°	1462.4	1461.6	1460.7	1459.7	1458.6	1457.4	1456.2	1455.1	1456.2	1457.4	1458.6
150°	1503.9	1503.3	1502.6	1502.0	1501.4	1500.7	1500.2	1499.5	1500.2	1500.7	1501.4
152.5°	1540.8	1540.4	1540.0	1539.4	1538.5	1537.7	1536.7	1535.9	1536.7	1537.7	1538.5
155°	1594.0	1593.7	1593.5	1593.3	1593.3	1593.3	1593.3	1593.3	1593.3	1593.3	1593.3
157.5°	1641.1	1640.9	1640.6	1640.7	1641.1	1641.4	1641.8	1642.2	1641.8	1641.4	1641.1
160°	1670.0	1670.0	1670.0	1670.4	1670.9	1671.6	1672.3	1672.9	1672.3	1671.6	1670.9
162.5°	1696.9	1696.6	1696.3	1696.7	1697.5	1698.4	1699.3	1700.2	1699.3	1698.4	1697.5
165°	1731.2	1731.2	1731.2	1731.6	1732.6	1733.5	1734.5	1735.4	1734.5	1733.5	1732.6
167.5°	1758.5	1758.2	1758.0	1758.5	1759.7	1761.0	1762.3	1763.6	1762.3	1761.0	1759.7
170°	1773.8	1773.8	1773.8	1774.4	1775.7	1777.0	1778.2	1779.4	1778.2	1777.0	1775.7
172.5°	1786.3	1786.3	1786.3	1787.0	1788.2	1789.4	1790.7	1792.0	1790.7	1789.4	1788.2
175°	1799.4	1799.4	1799.4	1800.0	1801.3	1802.5	1803.8	1805.1	1803.8	1802.5	1801.3
177.5°	1805.9	1805.9	1805.9	1806.4	1807.4	1808.5	1809.5	1810.4	1809.5	1808.5	1807.4
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3



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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1503.4	1499.3	1493.4	1484.5	1477.3	1466.1	1466.1	1467.9	1467.9	1467.4	1466.1
5°	1457.8	1446.7	1433.4	1417.9	1401.6	1385.3	1382.2	1376.3	1371.9	1368.9	1365.3
7.5°	1409.7	1390.0	1370.6	1348.8	1328.9	1312.5	1301.1	1291.6	1285.5	1279.0	1274.2
10°	1377.1	1352.6	1329.6	1306.7	1281.5	1261.5	1249.0	1240.0	1233.4	1227.5	1224.5
12.5°	1338.6	1310.6	1285.3	1263.5	1235.9	1215.3	1203.3	1199.1	1191.3	1178.8	1172.3
15°	1282.2	1256.3	1226.0	1192.6	1179.3	1154.1	1140.0	1133.4	1128.9	1119.3	1116.3
17.5°	1234.1	1200.1	1166.1	1141.2	1116.4	1096.0	1088.2	1079.9	1073.9	1066.1	1063.8
20°	1195.6	1165.3	1134.1	1107.5	1081.5	1059.3	1052.6	1046.7	1040.8	1037.1	1034.1
22.5°	1156.5	1126.1	1100.3	1075.4	1047.7	1033.2	1026.0	1019.5	1015.3	1012.8	1009.8
25°	1101.5	1074.9	1045.9	1023.7	1001.5	991.8	987.4	983.7	980.8	977.0	976.3
27.5°	1052.3	1023.3	999.8	979.1	963.2	955.2	950.8	949.0	949.7	951.0	951.9
30°	1015.6	988.9	969.7	951.9	937.1	929.6	928.9	928.9	931.9	932.6	934.1
32.5°	981.8	959.9	940.7	923.4	912.2	907.1	909.9	909.9	912.3	914.3	916.9
35°	932.6	913.3	898.5	883.7	874.1	876.3	877.8	879.3	883.0	887.4	890.4
37.5°	885.6	868.9	853.5	842.0	837.5	841.5	845.1	848.2	852.4	855.9	858.8
40°	851.9	839.2	824.4	814.1	815.6	817.8	820.8	824.4	828.2	830.4	833.4
42.5°	820.5	807.3	796.1	787.4	789.5	792.3	794.1	796.1	800.3	804.4	806.1
45°	772.6	762.2	751.9	746.7	748.2	749.7	751.1	753.4	757.1	760.1	760.7
47.5°	718.9	711.6	704.6	699.6	701.9	701.3	703.3	708.0	709.2	711.0	715.1
50°	684.5	677.8	669.7	668.2	668.2	668.2	668.9	674.9	674.9	677.8	680.8
52.5°	646.6	642.2	637.1	634.4	633.2	633.2	636.3	639.3	640.5	644.6	647.6
55°	590.4	586.0	581.5	579.3	577.8	579.3	585.2	586.6	590.4	592.6	594.8
57.5°	531.9	528.5	524.9	523.7	523.4	525.4	528.6	533.0	534.0	540.7	544.1
60°	493.3	488.1	485.2	485.2	483.7	490.4	488.9	496.3	497.8	502.3	507.5
62.5°	453.6	446.7	445.5	445.5	447.6	449.5	451.6	454.9	458.6	464.3	468.3
65°	389.6	386.0	391.2	390.4	388.9	393.3	393.3	397.1	401.5	406.7	414.8
67.5°	329.0	327.2	327.5	327.5	329.8	332.3	334.4	337.6	343.0	348.5	353.8
70°	288.1	290.4	286.7	289.6	291.9	292.6	294.1	298.5	304.4	308.1	314.1
72.5°	248.5	248.3	248.7	250.0	252.1	253.4	255.0	260.0	266.6	269.7	274.4
75°	191.1	190.4	192.6	192.6	196.3	197.7	199.3	201.5	207.5	211.9	215.6
77.5°	139.6	140.4	140.0	142.5	141.5	141.8	146.4	148.6	149.2	158.0	159.9
80°	105.2	106.7	107.4	108.1	108.9	107.4	112.6	114.8	114.8	120.0	123.7
82.5°	75.6	76.4	78.4	79.1	79.3	80.8	81.2	82.8	84.6	86.8	91.7
85°	37.8	40.0	40.7	40.0	40.7	39.3	41.5	42.2	43.0	43.0	43.0
87.5°	14.7	16.0	16.2	17.6	17.8	19.2	19.5	18.6	18.9	20.8	18.7
90°	14.0	17.7	21.8	25.9	30.0	34.1	35.3	36.7	37.9	39.2	40.2
92.5°	43.0	45.2	47.6	49.9	52.2	54.6	55.6	56.6	57.6	58.6	58.9
95°	92.7	95.1	97.6	100.1	102.6	105.2	106.4	107.7	109.0	110.2	110.8
97.5°	155.5	157.2	159.1	160.9	162.8	164.6	166.1	167.5	168.9	170.4	171.1
100°	200.9	202.6	204.2	205.8	207.4	209.0	209.9	210.8	211.8	212.7	213.5
102.5°	249.0	250.6	252.7	254.8	256.8	258.9	260.0	260.9	261.8	262.8	263.2
105°	322.3	324.0	326.9	329.7	332.6	335.5	335.5	335.5	335.5	335.5	335.7
107.5°	408.9	409.6	410.8	411.9	413.0	414.2	415.2	416.2	417.2	418.2	418.5
110°	464.5	465.1	465.7	466.4	466.9	467.6	468.9	470.1	471.4	472.7	473.0



TEST NUMBER: P332235-830

CATALOG NUMBER: S123DIW-S1165D1535U830-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	520.3	520.6	520.7	520.8	520.9	521.0	522.5	524.1	525.6	527.1	527.8
115°	607.8	608.0	607.4	606.7	606.1	605.5	605.8	606.1	606.4	606.7	606.7
117.5°	692.4	692.3	691.5	690.7	689.8	689.1	689.0	688.9	688.9	688.8	688.3
120°	750.9	751.1	749.5	747.9	746.3	744.8	744.4	744.1	743.9	743.5	743.0
122.5°	804.6	804.9	804.1	803.2	802.5	801.6	800.8	799.9	799.2	798.3	797.5
125°	887.9	888.0	887.4	886.7	886.1	885.5	884.2	883.0	881.7	880.4	879.1
127.5°	970.6	971.3	970.5	969.9	969.2	968.5	966.7	965.0	963.2	961.4	959.8
130°	1024.9	1025.7	1024.7	1023.8	1022.8	1021.9	1020.7	1019.4	1018.1	1016.9	1015.1
132.5°	1077.2	1078.2	1077.4	1076.8	1076.0	1075.3	1073.8	1072.3	1070.8	1069.3	1067.7
135°	1154.6	1155.4	1155.1	1154.7	1154.4	1154.1	1152.8	1151.6	1150.3	1149.1	1148.1
137.5°	1227.2	1228.4	1229.3	1230.0	1230.9	1231.7	1230.4	1229.1	1227.8	1226.4	1225.1
140°	1278.4	1279.3	1279.7	1280.0	1280.3	1280.6	1280.3	1280.0	1279.7	1279.3	1278.1
142.5°	1325.0	1326.1	1326.6	1327.2	1327.8	1328.3	1328.0	1327.8	1327.4	1327.1	1326.1
145°	1394.0	1394.8	1395.7	1396.7	1397.6	1398.5	1398.3	1397.9	1397.6	1397.3	1396.5
147.5°	1459.7	1460.7	1461.6	1462.4	1463.3	1464.2	1464.2	1464.2	1464.2	1464.2	1463.3
150°	1502.0	1502.6	1503.3	1503.9	1504.5	1505.1	1505.1	1505.1	1505.1	1505.1	1504.2
152.5°	1539.4	1540.0	1540.4	1540.8	1541.2	1541.5	1542.1	1542.6	1543.0	1543.6	1543.0
155°	1593.3	1593.5	1593.7	1594.0	1594.4	1594.7	1596.0	1597.2	1598.5	1599.8	1599.3
157.5°	1640.7	1640.6	1640.9	1641.1	1641.3	1641.6	1642.9	1644.3	1645.6	1646.9	1646.7
160°	1670.4	1670.0	1670.0	1670.0	1670.0	1670.0	1671.6	1673.2	1674.8	1676.3	1676.5
162.5°	1696.7	1696.3	1696.6	1696.9	1697.0	1697.3	1698.9	1700.4	1702.0	1703.6	1703.5
165°	1731.6	1731.2	1731.2	1731.2	1731.2	1731.2	1733.1	1734.9	1736.8	1738.7	1738.6
167.5°	1758.5	1758.0	1758.2	1758.5	1758.8	1759.0	1761.0	1762.9	1764.9	1766.8	1766.8
170°	1774.4	1773.8	1773.8	1773.8	1773.8	1773.8	1776.0	1778.2	1780.5	1782.6	1782.6
172.5°	1787.0	1786.3	1786.3	1786.3	1786.3	1786.3	1788.3	1790.2	1792.2	1794.1	1794.0
175°	1800.0	1799.4	1799.4	1799.4	1799.4	1799.4	1801.3	1803.2	1805.1	1806.9	1806.8
177.5°	1806.4	1805.9	1805.9	1805.9	1805.9	1805.9	1807.4	1808.9	1810.4	1811.9	1811.8
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3



TEST NUMBER: P332235-830

CATALOG NUMBER: S123DIW-S1165D1535U830-4F0-1E-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°	18.9	18.9	18.5	18.0	18.5	18.9	18.9	18.7	20.8	18.9	18.6
90°	40.7	41.4	42.0	42.6	42.0	41.4	40.7	40.2	39.2	37.9	36.7
92.5°	58.5	58.2	57.8	57.4	57.8	58.2	58.5	58.9	58.6	57.6	56.6
95°	110.8	110.8	110.8	110.8	110.8	110.8	110.8	110.8	110.2	109.0	107.7
97.5°	171.0	170.8	170.7	170.6	170.7	170.8	171.0	171.1	170.4	168.9	167.5
100°	214.1	214.8	215.4	216.0	215.4	214.8	214.1	213.5	212.7	211.8	210.8
102.5°	263.1	262.9	262.8	262.7	262.8	262.9	263.1	263.2	262.8	261.8	260.9
105°	336.4	337.1	337.6	338.3	337.6	337.1	336.4	335.7	335.5	335.5	335.5
107.5°	418.1	417.7	417.4	417.0	417.4	417.7	418.1	418.5	418.2	417.2	416.2
110°	472.3	471.7	471.1	470.4	471.1	471.7	472.3	473.0	472.7	471.4	470.1



TEST NUMBER: P332235-830

CATALOG NUMBER: S123DIW-S1165D1535U830-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	527.7	527.5	527.4	527.3	527.4	527.5	527.7	527.8	527.1	525.6	524.1
115°	606.4	606.1	605.8	605.5	605.8	606.1	606.4	606.7	606.7	606.4	606.1
117.5°	687.4	686.5	685.7	684.8	685.7	686.5	687.4	688.3	688.8	688.9	688.9
120°	742.4	741.8	741.1	740.5	741.1	741.8	742.4	743.0	743.5	743.9	744.1
122.5°	796.6	795.7	794.8	793.9	794.8	795.7	796.6	797.5	798.3	799.2	799.9
125°	877.9	876.7	875.3	874.1	875.3	876.7	877.9	879.1	880.4	881.7	883.0
127.5°	958.4	956.9	955.5	953.9	955.5	956.9	958.4	959.8	961.4	963.2	965.0
130°	1013.0	1010.7	1008.5	1006.3	1008.5	1010.7	1013.0	1015.1	1016.9	1018.1	1019.4
132.5°	1066.0	1064.3	1062.5	1060.8	1062.5	1064.3	1066.0	1067.7	1069.3	1070.8	1072.3
135°	1147.5	1146.8	1146.2	1145.6	1146.2	1146.8	1147.5	1148.1	1149.1	1150.3	1151.6
137.5°	1223.9	1222.8	1221.5	1220.3	1221.5	1222.8	1223.9	1225.1	1226.4	1227.8	1229.1
140°	1275.8	1273.7	1271.4	1269.2	1271.4	1273.7	1275.8	1278.1	1279.3	1279.7	1280.0
142.5°	1324.4	1322.7	1321.0	1319.3	1321.0	1322.7	1324.4	1326.1	1327.1	1327.4	1327.8
145°	1395.2	1394.0	1392.7	1391.5	1392.7	1394.0	1395.2	1396.5	1397.3	1397.6	1397.9
147.5°	1461.4	1459.5	1457.5	1455.7	1457.5	1459.5	1461.4	1463.3	1464.2	1464.2	1464.2
150°	1502.3	1500.4	1498.5	1496.7	1498.5	1500.4	1502.3	1504.2	1505.1	1505.1	1505.1
152.5°	1541.3	1539.7	1538.0	1536.4	1538.0	1539.7	1541.3	1543.0	1543.6	1543.0	1542.6
155°	1597.0	1594.9	1592.6	1590.4	1592.6	1594.9	1597.0	1599.3	1599.8	1598.5	1597.2
157.5°	1644.9	1643.1	1641.3	1639.6	1641.3	1643.1	1644.9	1646.7	1646.9	1645.6	1644.3
160°	1675.3	1674.0	1672.7	1671.4	1672.7	1674.0	1675.3	1676.5	1676.3	1674.8	1673.2
162.5°	1701.4	1699.4	1697.3	1695.4	1697.3	1699.4	1701.4	1703.5	1703.6	1702.0	1700.4
165°	1736.4	1734.2	1731.9	1729.8	1731.9	1734.2	1736.4	1738.6	1738.7	1736.8	1734.9
167.5°	1764.9	1762.9	1761.0	1759.0	1761.0	1762.9	1764.9	1766.8	1766.8	1764.9	1762.9
170°	1780.5	1778.2	1776.0	1773.8	1776.0	1778.2	1780.5	1782.6	1782.6	1780.5	1778.2
172.5°	1791.8	1789.6	1787.3	1785.2	1787.3	1789.6	1791.8	1794.0	1794.1	1792.2	1790.2
175°	1804.6	1802.3	1800.2	1798.0	1800.2	1802.3	1804.6	1806.8	1806.9	1805.1	1803.2
177.5°	1810.1	1808.3	1806.6	1804.8	1806.6	1808.3	1810.1	1811.8	1811.9	1810.4	1808.9
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3



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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°	19.5	19.2	17.8	17.6	16.2	16.0	14.7	14.6	14.6	13.9	14.5
90°	35.3	34.1	30.0	25.9	21.8	17.7	14.0	10.9	7.7	4.6	1.4
92.5°	55.6	54.6	52.2	49.9	47.6	45.2	43.0	40.8	38.6	36.6	34.4
95°	106.4	105.2	102.6	100.1	97.6	95.1	92.7	90.5	88.3	86.1	83.9
97.5°	166.1	164.6	162.8	160.9	159.1	157.2	155.5	153.9	152.2	150.6	148.9
100°	209.9	209.0	207.4	205.8	204.2	202.6	200.9	199.0	197.1	195.2	193.3
102.5°	260.0	258.9	256.8	254.8	252.7	250.6	249.0	247.9	246.8	245.6	244.5
105°	335.5	335.5	332.6	329.7	326.9	324.0	322.3	321.7	321.0	320.5	319.8
107.5°	415.2	414.2	413.0	411.9	410.8	409.6	408.9	408.5	408.1	407.7	407.4
110°	468.9	467.6	466.9	466.4	465.7	465.1	464.5	463.8	463.2	462.6	461.9



TEST NUMBER: P332235-830

CATALOG NUMBER: S123DIW-S1165D1535U830-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	522.5	521.0	520.9	520.8	520.7	520.6	520.3	519.9	519.5	519.2	518.8
115°	605.8	605.5	606.1	606.7	607.4	608.0	607.8	606.9	606.0	605.0	604.1
117.5°	689.0	689.1	689.8	690.7	691.5	692.3	692.4	691.8	691.2	690.5	689.9
120°	744.4	744.8	746.3	747.9	749.5	751.1	750.9	749.0	747.2	745.3	743.4
122.5°	800.8	801.6	802.5	803.2	804.1	804.9	804.6	803.2	801.8	800.4	799.1
125°	884.2	885.5	886.1	886.7	887.4	888.0	887.9	886.9	886.0	885.0	884.0
127.5°	966.7	968.5	969.2	969.9	970.5	971.3	970.6	968.6	966.6	964.5	962.5
130°	1020.7	1021.9	1022.8	1023.8	1024.7	1025.7	1024.9	1022.4	1019.8	1017.4	1014.8
132.5°	1073.8	1075.3	1076.0	1076.8	1077.4	1078.2	1077.2	1074.7	1072.1	1069.6	1067.1
135°	1152.8	1154.1	1154.4	1154.7	1155.1	1155.4	1154.6	1152.6	1150.8	1148.9	1147.0
137.5°	1230.4	1231.7	1230.9	1230.0	1229.3	1228.4	1227.2	1225.7	1224.1	1222.5	1220.9
140°	1280.3	1280.6	1280.3	1280.0	1279.7	1279.3	1278.4	1276.8	1275.3	1273.7	1272.1
142.5°	1328.0	1328.3	1327.8	1327.2	1326.6	1326.1	1325.0	1323.4	1321.8	1320.2	1318.7
145°	1398.3	1398.5	1397.6	1396.7	1395.7	1394.8	1394.0	1393.4	1392.7	1392.1	1391.5
147.5°	1464.2	1464.2	1463.3	1462.4	1461.6	1460.7	1459.7	1458.6	1457.4	1456.2	1455.1
150°	1505.1	1505.1	1504.5	1503.9	1503.3	1502.6	1502.0	1501.4	1500.7	1500.2	1499.5
152.5°	1542.1	1541.5	1541.2	1540.8	1540.4	1540.0	1539.4	1538.5	1537.7	1536.7	1535.9
155°	1596.0	1594.7	1594.4	1594.0	1593.7	1593.5	1593.3	1593.3	1593.3	1593.3	1593.3
157.5°	1642.9	1641.6	1641.3	1641.1	1640.9	1640.6	1640.7	1641.1	1641.4	1641.8	1642.2
160°	1671.6	1670.0	1670.0	1670.0	1670.0	1670.0	1670.4	1670.9	1671.6	1672.3	1672.9
162.5°	1698.9	1697.3	1697.0	1696.9	1696.6	1696.3	1696.7	1697.5	1698.4	1699.3	1700.2
165°	1733.1	1731.2	1731.2	1731.2	1731.2	1731.2	1731.6	1732.6	1733.5	1734.5	1735.4
167.5°	1761.0	1759.0	1758.8	1758.5	1758.2	1758.0	1758.5	1759.7	1761.0	1762.3	1763.6
170°	1776.0	1773.8	1773.8	1773.8	1773.8	1773.8	1774.4	1775.7	1777.0	1778.2	1779.4
172.5°	1788.3	1786.3	1786.3	1786.3	1786.3	1786.3	1787.0	1788.2	1789.4	1790.7	1792.0
175°	1801.3	1799.4	1799.4	1799.4	1799.4	1799.4	1800.0	1801.3	1802.5	1803.8	1805.1
177.5°	1807.4	1805.9	1805.9	1805.9	1805.9	1805.9	1806.4	1807.4	1808.5	1809.5	1810.4
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3



TEST NUMBER: P332235-830

CATALOG NUMBER: S123DIW-S1165D1535U830-4F0-1E-UDD-A1

**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°	16.3	17.0	19.3	21.2	24.3	26.9	27.1	26.8	27.0	26.7	26.3
90°	4.6	7.7	10.9	14.0	17.7	21.8	25.9	30.0	34.1	35.3	36.7
92.5°	36.6	38.6	40.8	43.0	45.2	47.6	49.9	52.2	54.6	55.6	56.6
95°	86.1	88.3	90.5	92.7	95.1	97.6	100.1	102.6	105.2	106.4	107.7
97.5°	150.6	152.2	153.9	155.5	157.2	159.1	160.9	162.8	164.6	166.1	167.5
100°	195.2	197.1	199.0	200.9	202.6	204.2	205.8	207.4	209.0	209.9	210.8
102.5°	245.6	246.8	247.9	249.0	250.6	252.7	254.8	256.8	258.9	260.0	260.9
105°	320.5	321.0	321.7	322.3	324.0	326.9	329.7	332.6	335.5	335.5	335.5
107.5°	407.7	408.1	408.5	408.9	409.6	410.8	411.9	413.0	414.2	415.2	416.2
110°	462.6	463.2	463.8	464.5	465.1	465.7	466.4	466.9	467.6	468.9	470.1





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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	519.2	519.5	519.9	520.3	520.6	520.7	520.8	520.9	521.0	522.5	524.1
115°	605.0	606.0	606.9	607.8	608.0	607.4	606.7	606.1	605.5	605.8	606.1
117.5°	690.5	691.2	691.8	692.4	692.3	691.5	690.7	689.8	689.1	689.0	688.9
120°	745.3	747.2	749.0	750.9	751.1	749.5	747.9	746.3	744.8	744.4	744.1
122.5°	800.4	801.8	803.2	804.6	804.9	804.1	803.2	802.5	801.6	800.8	799.9
125°	885.0	886.0	886.9	887.9	888.0	887.4	886.7	886.1	885.5	884.2	883.0
127.5°	964.5	966.6	968.6	970.6	971.3	970.5	969.9	969.2	968.5	966.7	965.0
130°	1017.4	1019.8	1022.4	1024.9	1025.7	1024.7	1023.8	1022.8	1021.9	1020.7	1019.4
132.5°	1069.6	1072.1	1074.7	1077.2	1078.2	1077.4	1076.8	1076.0	1075.3	1073.8	1072.3
135°	1148.9	1150.8	1152.6	1154.6	1155.4	1155.1	1154.7	1154.4	1154.1	1152.8	1151.6
137.5°	1222.5	1224.1	1225.7	1227.2	1228.4	1229.3	1230.0	1230.9	1231.7	1230.4	1229.1
140°	1273.7	1275.3	1276.8	1278.4	1279.3	1279.7	1280.0	1280.3	1280.6	1280.3	1280.0
142.5°	1320.2	1321.8	1323.4	1325.0	1326.1	1326.6	1327.2	1327.8	1328.3	1328.0	1327.8
145°	1392.1	1392.7	1393.4	1394.0	1394.8	1395.7	1396.7	1397.6	1398.5	1398.3	1397.9
147.5°	1456.2	1457.4	1458.6	1459.7	1460.7	1461.6	1462.4	1463.3	1464.2	1464.2	1464.2
150°	1500.2	1500.7	1501.4	1502.0	1502.6	1503.3	1503.9	1504.5	1505.1	1505.1	1505.1
152.5°	1536.7	1537.7	1538.5	1539.4	1540.0	1540.4	1540.8	1541.2	1541.5	1542.1	1542.6
155°	1593.3	1593.3	1593.3	1593.3	1593.5	1593.7	1594.0	1594.4	1594.7	1596.0	1597.2
157.5°	1641.8	1641.4	1641.1	1640.7	1640.6	1640.9	1641.1	1641.3	1641.6	1642.9	1644.3
160°	1672.3	1671.6	1670.9	1670.4	1670.0	1670.0	1670.0	1670.0	1670.0	1671.6	1673.2
162.5°	1699.3	1698.4	1697.5	1696.7	1696.3	1696.6	1696.9	1697.0	1697.3	1698.9	1700.4
165°	1734.5	1733.5	1732.6	1731.6	1731.2	1731.2	1731.2	1731.2	1731.2	1733.1	1734.9
167.5°	1762.3	1761.0	1759.7	1758.5	1758.0	1758.2	1758.5	1758.8	1759.0	1761.0	1762.9
170°	1778.2	1777.0	1775.7	1774.4	1773.8	1773.8	1773.8	1773.8	1773.8	1776.0	1778.2
172.5°	1790.7	1789.4	1788.2	1787.0	1786.3	1786.3	1786.3	1786.3	1786.3	1788.3	1790.2
175°	1803.8	1802.5	1801.3	1800.0	1799.4	1799.4	1799.4	1799.4	1799.4	1801.3	1803.2
177.5°	1809.5	1808.5	1807.4	1806.4	1805.9	1805.9	1805.9	1805.9	1805.9	1807.4	1808.9
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3



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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°	25.9	25.6	25.2	25.9	25.4	25.0	26.3
90°	37.9	39.2	40.2	40.7	41.4	42.0	42.6
92.5°	57.6	58.6	58.9	58.5	58.2	57.8	57.4
95°	109.0	110.2	110.8	110.8	110.8	110.8	110.8
97.5°	168.9	170.4	171.1	171.0	170.8	170.7	170.6
100°	211.8	212.7	213.5	214.1	214.8	215.4	216.0
102.5°	261.8	262.8	263.2	263.1	262.9	262.8	262.7
105°	335.5	335.5	335.7	336.4	337.1	337.6	338.3
107.5°	417.2	418.2	418.5	418.1	417.7	417.4	417.0
110°	471.4	472.7	473.0	472.3	471.7	471.1	470.4



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	525.6	527.1	527.8	527.7	527.5	527.4	527.3
115°	606.4	606.7	606.7	606.4	606.1	605.8	605.5
117.5°	688.9	688.8	688.3	687.4	686.5	685.7	684.8
120°	743.9	743.5	743.0	742.4	741.8	741.1	740.5
122.5°	799.2	798.3	797.5	796.6	795.7	794.8	793.9
125°	881.7	880.4	879.1	877.9	876.7	875.3	874.1
127.5°	963.2	961.4	959.8	958.4	956.9	955.5	953.9
130°	1018.1	1016.9	1015.1	1013.0	1010.7	1008.5	1006.3
132.5°	1070.8	1069.3	1067.7	1066.0	1064.3	1062.5	1060.8
135°	1150.3	1149.1	1148.1	1147.5	1146.8	1146.2	1145.6
137.5°	1227.8	1226.4	1225.1	1223.9	1222.8	1221.5	1220.3
140°	1279.7	1279.3	1278.1	1275.8	1273.7	1271.4	1269.2
142.5°	1327.4	1327.1	1326.1	1324.4	1322.7	1321.0	1319.3
145°	1397.6	1397.3	1396.5	1395.2	1394.0	1392.7	1391.5
147.5°	1464.2	1464.2	1463.3	1461.4	1459.5	1457.5	1455.7
150°	1505.1	1505.1	1504.2	1502.3	1500.4	1498.5	1496.7
152.5°	1543.0	1543.6	1543.0	1541.3	1539.7	1538.0	1536.4
155°	1598.5	1599.8	1599.3	1597.0	1594.9	1592.6	1590.4
157.5°	1645.6	1646.9	1646.7	1644.9	1643.1	1641.3	1639.6
160°	1674.8	1676.3	1676.5	1675.3	1674.0	1672.7	1671.4
162.5°	1702.0	1703.6	1703.5	1701.4	1699.4	1697.3	1695.4
165°	1736.8	1738.7	1738.6	1736.4	1734.2	1731.9	1729.8
167.5°	1764.9	1766.8	1766.8	1764.9	1762.9	1761.0	1759.0
170°	1780.5	1782.6	1782.6	1780.5	1778.2	1776.0	1773.8
172.5°	1792.2	1794.1	1794.0	1791.8	1789.6	1787.3	1785.2
175°	1805.1	1806.9	1806.8	1804.6	1802.3	1800.2	1798.0
177.5°	1810.4	1811.9	1811.8	1810.1	1808.3	1806.6	1804.8
180°	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3	1809.3

(END OF REPORT)