

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: P332234

Luminaire Tested: **S123DIW-S1165D1535U835-4F0-1E-UDD-A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332234  
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-S1165D1535U835-4F0-1E-UDD-A  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER  
UPLIGHT 1535 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11038.0 lumens  
Efficiency: N/A  
Efficacy: 133.1 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

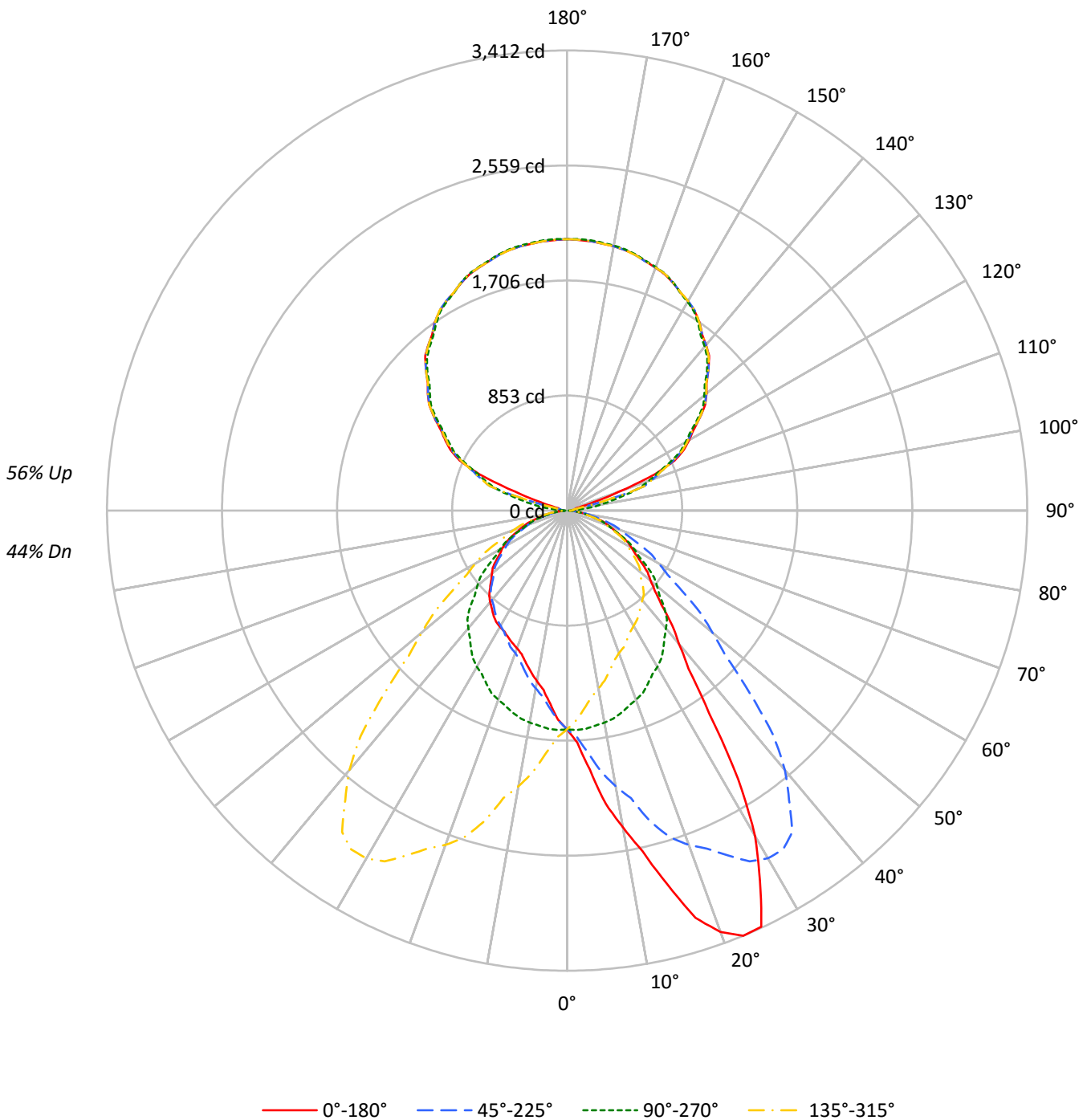
Input Watts (W): 82.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	97	93	89	85	88	85	82	79	71	68	66	58	56	55	45	44	44	38
2	88	81	75	70	81	75	69	65	62	58	55	51	48	46	40	39	37	32
3	81	71	64	59	74	66	60	55	55	50	47	45	42	39	36	34	32	27
4	74	63	56	50	67	58	52	46	49	44	40	40	37	34	32	30	27	24
5	68	56	48	43	62	52	45	40	44	39	34	36	32	29	29	26	24	21
6	62	51	43	37	57	47	40	35	40	34	30	33	29	26	26	23	21	18
7	58	46	38	32	53	42	35	30	36	30	26	30	26	23	24	21	19	16
8	54	41	34	29	49	38	32	27	33	27	24	27	23	20	22	19	17	14
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	20	17	15	13
10	47	35	28	23	43	32	26	21	27	22	19	23	19	16	19	16	14	12

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

	0°	90°	180°	270°
0°	17460	17460	17460	17460
5°	20822	17535	15540	17535
10°	26063	17446	14036	17446
15°	31967	17306	13067	17306
20°	38080	17087	12441	17087
25°	40435	16820	12302	16820
30°	34657	16625	12367	16625
35°	24103	16348	12496	16348
40°	18156	16024	12456	16024
45°	15075	15541	12298	15541
50°	13504	14555	12188	14555
55°	12624	13495	12035	13495
60°	11842	12385	11911	12385
65°	11130	11291	11530	11291
70°	10439	10043	10980	10043
75°	9349	8792	10069	8792
80°	8182	7209	8672	7209
85°	6410	5236	5829	5236



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.8	1.4
10°-20°	512.4	4.6
20°-30°	859.9	7.8
30°-40°	973.7	8.8
40°-50°	873.2	7.9
50°-60°	704.7	6.4
60°-70°	491.0	4.4
70°-80°	258.1	2.3
80°-90°	68.8	0.6
90°-100°	73.2	0.7
100°-110°	348.7	3.2
110°-120°	837.5	7.6
120°-130°	1066.5	9.7
130°-140°	1139.5	10.3
140°-150°	1065.6	9.7
150°-160°	859.5	7.8
160°-170°	554.7	5.0
170°-180°	191.2	1.7
0°-30°	1532.1	13.9
0°-40°	2505.8	22.7
0°-60°	4083.7	37.0
0°-90°	4901.6	44.4
90°-120°	1259.4	11.4
90°-150°	4531.0	41.0
90°-180°	6136.0	55.6
0°-180°	11038.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1622	1622	1622	1622	1622	
5°	1927	1623	1438	1623	1927	200
15°	2869	1553	1173	1553	2869	828
25°	3405	1416	1036	1416	3405	1493
35°	1834	1244	951	1244	1834	1192
45°	990	1021	808	1021	990	784
55°	673	719	641	719	673	604
65°	437	443	453	443	437	435
75°	225	211	242	211	225	241
85°	52	42	47	42	52	63
90°	45	2	45	2	45	23
95°	57	91	57	91	57	48
105°	66	446	66	446	66	150
115°	879	836	879	836	879	812
125°	1202	1178	1202	1178	1202	1073
135°	1482	1467	1482	1467	1482	1142
145°	1709	1692	1709	1692	1709	1067
155°	1861	1864	1861	1864	1861	858
165°	1961	1966	1961	1966	1961	554
175°	2005	2012	2005	2012	2005	191
180°	2012	2012	2012	2012	2012	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1721.5	1720.2	1717.1	1719.6	1714.6	1707.6	1707.0	1700.7	1682.5	1681.2	1676.2
5°	1927.1	1920.8	1920.0	1919.2	1908.2	1893.3	1865.0	1862.6	1824.9	1806.0	1783.3
7.5°	2193.3	2196.6	2185.2	2175.1	2141.5	2119.3	2089.0	2050.2	2003.8	1956.8	1925.5
10°	2384.5	2410.4	2378.2	2356.2	2335.8	2297.2	2252.5	2196.6	2140.8	2075.6	2026.1
12.5°	2589.5	2602.2	2595.7	2575.0	2543.2	2484.6	2405.2	2343.8	2292.4	2183.8	2139.9
15°	2868.6	2916.6	2885.9	2815.2	2816.7	2760.9	2657.2	2543.2	2482.7	2387.6	2258.0
17.5°	3166.0	3172.0	3158.9	3100.0	3060.7	2984.0	2888.3	2779.0	2656.4	2541.4	2403.8
20°	3324.4	3319.7	3292.2	3261.6	3194.0	3134.3	3029.7	2907.9	2750.7	2637.6	2487.4
22.5°	3412.5	3404.6	3391.6	3365.9	3309.7	3245.5	3151.7	3018.6	2868.9	2713.0	2539.6
25°	3404.6	3414.8	3416.4	3409.3	3389.7	3351.2	3277.3	3171.2	3021.9	2821.5	2640.7
27.5°	3096.5	3111.0	3153.0	3190.2	3231.9	3274.3	3268.6	3216.0	3105.5	2932.4	2711.4
30°	2788.4	2757.0	2834.8	2933.1	2999.9	3117.7	3183.8	3187.7	3125.6	2977.1	2761.7
32.5°	2360.9	2395.5	2429.9	2550.8	2696.8	2829.2	2960.6	3066.4	3078.5	2979.6	2791.3
35°	1834.3	1877.6	1940.4	2003.3	2160.5	2295.7	2526.7	2727.9	2888.3	2909.5	2793.9
37.5°	1478.2	1499.5	1539.3	1602.3	1705.1	1865.5	2044.2	2298.5	2530.8	2703.6	2711.1
40°	1292.1	1298.3	1343.1	1391.1	1474.4	1606.4	1767.5	1992.3	2270.5	2511.8	2612.4
42.5°	1152.5	1166.3	1185.3	1231.4	1297.7	1397.1	1546.9	1732.6	1987.6	2265.3	2462.1
45°	990.3	1006.0	1017.8	1048.4	1095.6	1162.4	1266.9	1436.7	1630.8	1917.6	2182.5
47.5°	883.1	884.3	893.1	916.2	948.3	998.4	1072.3	1181.4	1359.6	1592.3	1864.2
50°	806.4	818.9	822.1	840.1	865.3	902.2	963.5	1056.3	1202.5	1406.8	1656.7
52.5°	752.3	756.1	764.9	777.9	799.9	828.7	881.8	954.4	1069.2	1243.3	1473.1
55°	672.7	672.7	681.4	691.6	704.2	730.1	765.5	818.9	906.2	1041.3	1231.5
57.5°	599.2	603.1	609.2	612.4	623.1	640.2	669.8	710.3	775.4	879.4	1030.7
60°	550.1	557.2	556.4	562.7	572.2	585.5	610.7	643.7	701.8	785.1	912.5
62.5°	507.4	506.9	506.8	514.3	523.7	536.5	552.8	581.4	630.8	704.7	813.1
65°	437.0	435.4	440.9	445.6	448.8	458.2	470.8	495.9	528.9	583.9	668.0
67.5°	374.4	369.9	372.8	374.4	379.8	387.1	398.9	414.5	440.7	484.9	548.3
70°	331.7	327.7	326.9	328.5	333.2	338.7	347.4	362.3	386.7	422.0	468.4
72.5°	287.6	285.0	284.8	288.3	290.5	294.1	300.2	313.9	333.2	359.8	403.0
75°	224.8	224.8	224.8	225.6	227.9	231.1	235.8	242.8	257.8	276.6	305.7
77.5°	168.5	168.3	167.4	167.2	170.7	172.1	173.2	179.8	188.1	200.9	222.1
80°	132.0	128.1	129.7	132.0	133.6	134.4	136.8	138.3	145.4	152.5	167.4
82.5°	98.1	94.8	95.1	98.7	99.0	99.8	102.2	104.4	107.0	113.5	121.5
85°	51.9	51.9	52.7	52.7	53.4	52.7	55.0	55.8	55.8	59.7	64.4
87.5°	27.8	26.4	26.9	27.4	26.7	27.1	27.5	27.8	28.2	28.6	28.3
90°	44.8	44.2	43.5	42.9	42.2	41.2	39.9	38.5	37.2	35.9	31.6
92.5°	49.6	49.2	48.8	48.4	48.0	46.8	44.7	42.5	40.4	38.3	35.0
95°	56.8	56.8	56.8	56.8	56.8	55.6	53.3	51.0	48.7	46.3	42.7
97.5°	61.6	61.3	60.9	60.6	60.3	58.8	56.1	53.5	50.8	48.1	42.1
100°	62.8	62.5	62.1	61.8	61.5	60.0	57.3	54.6	52.0	49.3	41.2
102.5°	64.0	63.4	62.8	62.2	61.6	65.4	73.7	81.9	90.1	98.4	155.0
105°	65.8	65.1	64.5	63.8	63.1	92.2	151.0	209.8	268.6	327.4	357.3
107.5°	206.6	250.9	295.2	339.6	383.9	427.6	470.7	513.8	557.0	600.1	595.4
110°	411.1	458.6	506.1	553.6	601.1	630.4	641.3	652.3	663.3	674.2	670.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	705.3	715.4	725.4	735.4	745.5	750.4	750.2	750.0	749.8	749.6	745.9
115°	879.1	877.7	876.4	875.1	873.7	871.4	868.1	864.8	861.4	858.1	855.1
117.5°	976.5	976.3	976.0	975.7	975.5	974.0	971.3	968.7	966.0	963.4	961.8
120°	1043.5	1043.5	1043.5	1043.5	1043.5	1042.2	1039.5	1036.9	1034.2	1031.5	1030.5
122.5°	1109.3	1109.0	1108.7	1108.5	1108.2	1107.2	1105.3	1103.4	1101.6	1099.7	1098.4
125°	1202.0	1201.3	1200.6	1200.0	1199.3	1198.6	1198.0	1197.3	1196.7	1196.0	1194.7
127.5°	1291.1	1291.7	1292.4	1293.1	1293.7	1293.5	1292.5	1291.4	1290.3	1289.3	1287.7
130°	1348.5	1349.1	1349.8	1350.5	1351.1	1350.8	1349.5	1348.1	1346.8	1345.5	1344.2
132.5°	1401.1	1402.0	1403.0	1403.9	1404.8	1404.6	1403.3	1402.0	1400.6	1399.3	1398.2
135°	1481.5	1482.5	1483.5	1484.5	1485.5	1485.5	1484.5	1483.5	1482.5	1481.5	1480.2
137.5°	1557.2	1557.8	1558.5	1559.2	1559.8	1559.4	1557.8	1556.2	1554.6	1553.0	1552.3
140°	1602.6	1603.3	1604.0	1604.6	1605.3	1604.9	1603.6	1602.3	1601.0	1599.6	1598.6
142.5°	1644.5	1645.4	1646.3	1647.3	1648.2	1648.1	1647.1	1646.0	1644.9	1643.9	1642.9
145°	1708.8	1708.8	1708.8	1708.8	1708.8	1708.4	1707.8	1707.1	1706.4	1705.8	1705.1
147.5°	1756.6	1758.1	1759.7	1761.2	1762.7	1763.2	1762.5	1761.8	1761.2	1760.5	1759.8
150°	1792.5	1793.5	1794.5	1795.5	1796.5	1796.6	1796.0	1795.3	1794.6	1794.0	1793.3
152.5°	1821.2	1822.7	1824.2	1825.8	1827.3	1827.5	1826.3	1825.1	1823.9	1822.7	1822.3
155°	1861.3	1863.2	1865.2	1867.2	1869.2	1869.4	1867.7	1866.1	1864.4	1862.7	1862.4
157.5°	1895.0	1897.6	1900.2	1902.8	1905.4	1905.7	1903.7	1901.7	1899.7	1897.7	1898.1
160°	1916.6	1918.9	1921.2	1923.5	1925.9	1926.0	1924.0	1922.1	1920.1	1918.1	1918.4
162.5°	1936.9	1939.0	1941.0	1943.1	1945.1	1945.0	1942.8	1940.5	1938.3	1936.0	1936.3
165°	1961.4	1963.7	1966.1	1968.4	1970.7	1970.6	1967.9	1965.2	1962.6	1959.9	1960.3
167.5°	1979.1	1981.7	1984.4	1987.0	1989.7	1989.7	1987.0	1984.4	1981.7	1979.1	1979.1
170°	1989.8	1992.5	1995.1	1997.8	2000.5	2000.5	1997.8	1995.1	1992.5	1989.8	1989.8
172.5°	1995.8	1998.7	2001.7	2004.6	2007.5	2007.6	2005.0	2002.3	1999.7	1997.0	1996.7
175°	2004.8	2007.4	2010.1	2012.7	2015.4	2015.6	2013.2	2010.9	2008.6	2006.3	2005.9
177.5°	2007.5	2010.1	2012.8	2015.4	2018.1	2018.4	2016.2	2014.1	2012.0	2009.9	2009.6
180°	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1672.4	1667.4	1662.4	1653.6	1646.0	1635.3	1632.2	1628.4	1617.1	1607.1	1599.5
5°	1774.6	1755.7	1728.2	1703.1	1682.7	1655.2	1639.4	1622.9	1599.3	1578.1	1560.8
7.5°	1881.5	1844.4	1801.6	1755.4	1712.4	1670.9	1637.4	1607.5	1574.5	1543.2	1518.9
10°	1966.4	1912.9	1853.2	1788.8	1733.7	1680.3	1635.5	1596.2	1553.8	1516.8	1486.2
12.5°	2063.2	1984.0	1901.6	1823.3	1758.3	1684.1	1629.8	1579.9	1531.8	1487.3	1452.9
15°	2177.8	2077.2	1979.7	1872.1	1773.0	1680.3	1615.9	1553.0	1497.2	1451.6	1407.6
17.5°	2282.2	2168.2	2039.8	1908.8	1789.4	1679.4	1589.1	1518.1	1448.3	1392.5	1348.6
20°	2341.3	2211.6	2066.2	1930.2	1798.2	1675.6	1576.6	1491.7	1416.2	1357.3	1307.8
22.5°	2392.2	2240.5	2090.1	1944.7	1797.6	1665.5	1553.3	1465.9	1384.2	1326.5	1273.8
25°	2445.0	2263.5	2112.6	1942.0	1777.8	1641.0	1515.3	1416.2	1334.5	1266.9	1212.7
27.5°	2490.3	2261.9	2082.8	1899.4	1746.6	1609.6	1475.3	1369.1	1282.3	1208.9	1153.9
30°	2520.4	2265.0	2052.0	1870.5	1716.5	1575.0	1444.5	1337.6	1246.5	1171.8	1119.9
32.5°	2539.3	2263.1	2023.7	1830.3	1668.7	1543.5	1411.2	1300.5	1206.9	1133.5	1083.5
35°	2550.3	2249.3	1975.0	1747.1	1591.5	1469.7	1358.9	1244.1	1145.9	1077.5	1020.9
37.5°	2528.3	2220.2	1918.4	1666.9	1496.6	1376.6	1283.4	1185.6	1091.6	1016.4	967.6
40°	2493.7	2201.4	1874.4	1610.4	1431.2	1315.6	1236.3	1140.4	1047.6	976.1	930.5
42.5°	2427.7	2163.0	1826.0	1547.5	1363.3	1247.7	1174.6	1094.5	1006.8	939.6	894.1
45°	2266.6	2079.5	1753.4	1453.2	1263.0	1143.5	1079.1	1020.9	941.5	876.3	837.0
47.5°	2043.1	1954.0	1648.4	1353.7	1158.3	1043.4	976.4	929.6	871.6	818.9	781.2
50°	1887.8	1850.8	1577.3	1285.8	1088.5	976.1	911.7	869.2	827.6	774.9	740.3
52.5°	1708.6	1731.4	1494.4	1215.3	1017.5	907.0	846.3	812.6	774.8	731.5	701.4
55°	1456.3	1538.8	1351.0	1097.1	911.7	806.4	749.0	719.1	697.1	664.9	639.0
57.5°	1220.1	1325.1	1196.0	975.3	807.8	716.9	661.9	629.4	615.2	598.4	578.0
60°	1079.9	1183.6	1085.4	893.6	738.0	651.5	602.8	575.3	561.1	549.4	532.1
62.5°	954.7	1059.7	977.2	810.6	669.4	589.3	546.8	520.0	509.0	502.8	488.1
65°	782.8	873.2	818.1	681.4	571.4	500.6	462.1	443.3	433.0	430.7	421.3
67.5°	637.1	705.9	665.8	565.2	478.6	417.5	384.8	368.8	360.9	360.1	353.0
70°	541.5	605.9	575.3	484.1	409.5	361.5	333.2	319.1	314.4	313.6	309.7
72.5°	467.3	512.3	487.9	411.8	354.1	310.6	289.8	275.1	269.7	270.8	268.2
75°	345.8	379.6	365.5	312.8	266.4	238.1	220.8	211.4	206.7	209.1	205.9
77.5°	248.8	270.2	257.5	221.0	192.4	172.0	159.2	153.4	149.2	149.0	147.6
80°	187.8	200.4	193.3	171.3	147.8	130.5	120.2	116.3	114.0	113.2	112.4
82.5°	133.8	144.5	136.1	121.0	105.0	94.6	88.8	83.6	81.9	82.4	81.6
85°	67.6	71.5	68.4	58.9	52.7	47.9	44.8	42.4	40.9	41.7	40.1
87.5°	28.7	28.5	25.7	22.4	20.5	18.0	17.3	15.4	14.8	15.5	15.5
90°	27.2	22.9	18.6	14.8	11.5	8.1	4.8	1.5	4.8	8.1	11.5
92.5°	31.8	28.5	25.2	24.1	25.0	25.9	26.9	27.8	26.9	25.9	25.0
95°	39.0	35.4	31.7	36.7	50.3	64.0	77.6	91.2	77.6	64.0	50.3
97.5°	96.0	119.9	143.8	158.8	164.9	171.1	177.2	183.3	177.2	171.1	164.9
100°	153.0	204.8	256.6	279.2	272.6	265.9	259.3	252.7	259.3	265.9	272.6
102.5°	211.6	268.2	324.8	350.7	345.9	341.2	336.4	331.6	336.4	341.2	345.9
105°	387.2	417.1	447.0	460.1	456.5	452.8	449.2	445.5	449.2	452.8	456.5
107.5°	590.7	585.9	581.2	577.4	574.5	571.5	568.6	565.7	568.6	571.5	574.5
110°	666.9	663.3	659.6	656.5	653.8	651.1	648.5	645.8	648.5	651.1	653.8





TEST NUMBER: P332234

CATALOG NUMBER: S123DIW-S1165D1535U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	742.3	738.6	735.0	731.9	729.6	727.2	724.8	722.4	724.8	727.2	729.6
115°	852.1	849.2	846.2	843.7	841.7	839.7	837.7	835.7	837.7	839.7	841.7
117.5°	960.3	958.8	957.3	955.3	952.8	950.3	947.9	945.4	947.9	950.3	952.8
120°	1029.5	1028.5	1027.6	1025.6	1022.6	1019.6	1016.6	1013.6	1016.6	1019.6	1022.6
122.5°	1097.2	1095.9	1094.7	1092.8	1090.3	1087.9	1085.4	1083.0	1085.4	1087.9	1090.3
125°	1193.3	1192.0	1190.7	1188.7	1186.0	1183.4	1180.7	1178.0	1180.7	1183.4	1186.0
127.5°	1286.1	1284.5	1282.9	1280.8	1278.1	1275.5	1272.8	1270.1	1272.8	1275.5	1278.1
130°	1342.8	1341.5	1340.2	1338.2	1335.5	1332.9	1330.2	1327.5	1330.2	1332.9	1335.5
132.5°	1397.2	1396.1	1395.1	1393.2	1390.5	1387.9	1385.2	1382.6	1385.2	1387.9	1390.5
135°	1478.9	1477.5	1476.2	1474.6	1472.6	1470.6	1468.6	1466.6	1468.6	1470.6	1472.6
137.5°	1551.5	1550.8	1550.1	1548.4	1545.9	1543.4	1540.9	1538.3	1540.9	1543.4	1545.9
140°	1597.6	1596.6	1595.6	1594.2	1592.2	1590.2	1588.2	1586.2	1588.2	1590.2	1592.2
142.5°	1641.9	1640.9	1639.9	1638.4	1636.4	1634.4	1632.4	1630.4	1632.4	1634.4	1636.4
145°	1704.4	1703.8	1703.1	1701.6	1699.3	1697.0	1694.6	1692.3	1694.6	1697.0	1699.3
147.5°	1759.2	1758.5	1757.8	1756.7	1755.2	1753.7	1752.2	1750.6	1752.2	1753.7	1755.2
150°	1792.7	1792.0	1791.3	1790.5	1789.5	1788.5	1787.5	1786.5	1787.5	1788.5	1789.5
152.5°	1821.9	1821.5	1821.1	1820.7	1820.2	1819.7	1819.3	1818.8	1819.3	1819.7	1820.2
155°	1862.1	1861.8	1861.4	1861.6	1862.3	1862.9	1863.6	1864.2	1863.6	1862.9	1862.3
157.5°	1898.4	1898.7	1899.1	1899.3	1899.3	1899.4	1899.5	1899.5	1899.5	1899.4	1899.3
160°	1918.7	1919.1	1919.4	1919.7	1920.1	1920.4	1920.7	1921.1	1920.7	1920.4	1920.1
162.5°	1936.7	1937.0	1937.3	1937.9	1938.8	1939.7	1940.5	1941.4	1940.5	1939.7	1938.8
165°	1960.6	1960.9	1961.3	1961.9	1962.9	1963.9	1964.9	1965.9	1964.9	1963.9	1962.9
167.5°	1979.1	1979.1	1979.1	1979.7	1981.1	1982.4	1983.7	1985.0	1983.7	1982.4	1981.1
170°	1989.8	1989.8	1989.8	1990.5	1991.8	1993.1	1994.5	1995.8	1994.5	1993.1	1991.8
172.5°	1996.5	1996.2	1995.9	1996.6	1998.2	1999.8	2001.4	2003.0	2001.4	1999.8	1998.2
175°	2005.6	2005.3	2004.9	2005.6	2007.3	2008.9	2010.6	2012.2	2010.6	2008.9	2007.3
177.5°	2009.3	2009.1	2008.8	2009.3	2010.7	2012.0	2013.3	2014.6	2013.3	2012.0	2010.7
180°	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2



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CATALOG NUMBER: S123DIW-S1165D1535U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1595.1	1590.7	1584.4	1575.0	1567.4	1555.5	1555.5	1557.4	1557.4	1556.8	1555.5
5°	1546.7	1534.9	1520.8	1504.3	1487.0	1469.7	1466.5	1460.2	1455.5	1452.4	1448.5
7.5°	1495.6	1474.7	1454.1	1431.0	1409.9	1392.5	1380.4	1370.3	1363.9	1357.0	1351.9
10°	1461.0	1435.1	1410.7	1386.4	1359.6	1338.4	1325.1	1315.6	1308.6	1302.3	1299.1
12.5°	1420.2	1390.5	1363.6	1340.5	1311.2	1289.4	1276.7	1272.2	1263.9	1250.7	1243.8
15°	1360.4	1332.9	1300.7	1265.3	1251.2	1224.5	1209.5	1202.5	1197.7	1187.5	1184.4
17.5°	1309.3	1273.3	1237.2	1210.8	1184.5	1162.8	1154.5	1145.7	1139.4	1131.1	1128.6
20°	1268.5	1236.3	1203.2	1175.0	1147.4	1123.9	1116.8	1110.5	1104.2	1100.3	1097.1
22.5°	1227.0	1194.8	1167.4	1141.0	1111.6	1096.2	1088.5	1081.6	1077.2	1074.5	1071.4
25°	1168.7	1140.4	1109.7	1086.1	1062.6	1052.3	1047.6	1043.7	1040.6	1036.6	1035.8
27.5°	1116.5	1085.7	1060.8	1038.8	1021.9	1013.4	1008.8	1006.9	1007.6	1009.0	1009.9
30°	1077.5	1049.2	1028.8	1009.9	994.2	986.3	985.5	985.5	988.7	989.5	991.0
32.5°	1041.7	1018.4	998.0	979.7	967.8	962.4	965.4	965.4	967.9	970.0	972.8
35°	989.5	969.0	953.3	937.6	927.4	929.7	931.3	932.9	936.8	941.5	944.7
37.5°	939.6	921.9	905.5	893.3	888.6	892.8	896.6	899.9	904.4	908.1	911.2
40°	903.8	890.4	874.7	863.7	865.3	867.7	870.8	874.7	878.7	881.0	884.2
42.5°	870.5	856.5	844.6	835.4	837.6	840.6	842.5	844.6	849.1	853.4	855.2
45°	819.7	808.7	797.7	792.2	793.8	795.4	796.9	799.3	803.2	806.4	807.1
47.5°	762.7	755.0	747.6	742.2	744.7	744.1	746.2	751.2	752.4	754.3	758.7
50°	726.2	719.1	710.5	708.9	708.9	708.9	709.7	716.0	716.0	719.1	722.3
52.5°	686.0	681.4	675.9	673.1	671.8	671.8	675.1	678.3	679.5	683.9	687.1
55°	626.4	621.7	616.9	614.6	613.0	614.6	620.9	622.4	626.4	628.7	631.1
57.5°	564.3	560.7	556.9	555.6	555.3	557.4	560.8	565.5	566.5	573.7	577.3
60°	523.4	517.9	514.8	514.8	513.2	520.3	518.7	526.6	528.1	532.9	538.4
62.5°	481.3	473.9	472.7	472.7	474.9	476.9	479.1	482.6	486.6	492.6	496.9
65°	413.4	409.5	415.0	414.2	412.6	417.3	417.3	421.3	426.0	431.5	440.1
67.5°	349.1	347.1	347.5	347.5	349.9	352.6	354.8	358.2	363.9	369.7	375.4
70°	305.7	308.1	304.2	307.3	309.7	310.4	312.0	316.7	323.0	326.9	333.2
72.5°	263.6	263.4	263.9	265.2	267.5	268.9	270.5	275.9	282.8	286.1	291.1
75°	202.8	202.0	204.3	204.3	208.3	209.8	211.4	213.8	220.1	224.8	228.7
77.5°	148.1	149.0	148.5	151.2	150.1	150.4	155.3	157.7	158.3	167.6	169.6
80°	111.6	113.2	114.0	114.7	115.5	114.0	119.5	121.8	121.8	127.3	131.2
82.5°	80.2	81.1	83.2	83.9	84.1	85.7	86.1	87.9	89.8	92.1	97.3
85°	40.1	42.4	43.2	42.4	43.2	41.7	44.0	44.8	45.6	45.6	45.6
87.5°	15.5	16.9	17.2	18.7	18.9	20.4	20.6	19.7	19.9	22.1	19.8
90°	14.8	18.6	22.9	27.2	31.6	35.9	37.2	38.5	39.9	41.2	42.2
92.5°	24.1	25.2	28.5	31.8	35.0	38.3	40.4	42.5	44.7	46.8	48.0
95°	36.7	31.7	35.4	39.0	42.7	46.3	48.7	51.0	53.3	55.6	56.8
97.5°	158.8	143.8	119.9	96.0	72.1	48.1	50.8	53.5	56.1	58.8	60.3
100°	279.2	256.6	204.8	153.0	101.2	49.3	52.0	54.6	57.3	60.0	61.5
102.5°	350.7	324.8	268.2	211.6	155.0	98.4	90.1	81.9	73.7	65.4	61.6
105°	460.1	447.0	417.1	387.2	357.3	327.4	268.6	209.8	151.0	92.2	63.1
107.5°	577.4	581.2	585.9	590.7	595.4	600.1	557.0	513.8	470.7	427.6	383.9
110°	656.5	659.6	663.3	666.9	670.6	674.2	663.3	652.3	641.3	630.4	601.1



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CATALOG NUMBER: S123DIW-S1165D1535U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	731.9	735.0	738.6	742.3	745.9	749.6	749.8	750.0	750.2	750.4	745.5
115°	843.7	846.2	849.2	852.1	855.1	858.1	861.4	864.8	868.1	871.4	873.7
117.5°	955.3	957.3	958.8	960.3	961.8	963.4	966.0	968.7	971.3	974.0	975.5
120°	1025.6	1027.6	1028.5	1029.5	1030.5	1031.5	1034.2	1036.9	1039.5	1042.2	1043.5
122.5°	1092.8	1094.7	1095.9	1097.2	1098.4	1099.7	1101.6	1103.4	1105.3	1107.2	1108.2
125°	1188.7	1190.7	1192.0	1193.3	1194.7	1196.0	1196.7	1197.3	1198.0	1198.6	1199.3
127.5°	1280.8	1282.9	1284.5	1286.1	1287.7	1289.3	1290.3	1291.4	1292.5	1293.5	1293.7
130°	1338.2	1340.2	1341.5	1342.8	1344.2	1345.5	1346.8	1348.1	1349.5	1350.8	1351.1
132.5°	1393.2	1395.1	1396.1	1397.2	1398.2	1399.3	1400.6	1402.0	1403.3	1404.6	1404.8
135°	1474.6	1476.2	1477.5	1478.9	1480.2	1481.5	1482.5	1483.5	1484.5	1485.5	1485.5
137.5°	1548.4	1550.1	1550.8	1551.5	1552.3	1553.0	1554.6	1556.2	1557.8	1559.4	1559.8
140°	1594.2	1595.6	1596.6	1597.6	1598.6	1599.6	1601.0	1602.3	1603.6	1604.9	1605.3
142.5°	1638.4	1639.9	1640.9	1641.9	1642.9	1643.9	1644.9	1646.0	1647.1	1648.1	1648.2
145°	1701.6	1703.1	1703.8	1704.4	1705.1	1705.8	1706.4	1707.1	1707.8	1708.4	1708.8
147.5°	1756.7	1757.8	1758.5	1759.2	1759.8	1760.5	1761.2	1761.8	1762.5	1763.2	1762.7
150°	1790.5	1791.3	1792.0	1792.7	1793.3	1794.0	1794.6	1795.3	1796.0	1796.6	1796.5
152.5°	1820.7	1821.1	1821.5	1821.9	1822.3	1822.7	1823.9	1825.1	1826.3	1827.5	1827.3
155°	1861.6	1861.4	1861.8	1862.1	1862.4	1862.7	1864.4	1866.1	1867.7	1869.4	1869.2
157.5°	1899.3	1899.1	1898.7	1898.4	1898.1	1897.7	1899.7	1901.7	1903.7	1905.7	1905.4
160°	1919.7	1919.4	1919.1	1918.7	1918.4	1918.1	1920.1	1922.1	1924.0	1926.0	1925.9
162.5°	1937.9	1937.3	1937.0	1936.7	1936.3	1936.0	1938.3	1940.5	1942.8	1945.0	1945.1
165°	1961.9	1961.3	1960.9	1960.6	1960.3	1959.9	1962.6	1965.2	1967.9	1970.6	1970.7
167.5°	1979.7	1979.1	1979.1	1979.1	1979.1	1979.1	1981.7	1984.4	1987.0	1989.7	1989.7
170°	1990.5	1989.8	1989.8	1989.8	1989.8	1989.8	1992.5	1995.1	1997.8	2000.5	2000.5
172.5°	1996.6	1995.9	1996.2	1996.5	1996.7	1997.0	1999.7	2002.3	2005.0	2007.6	2007.5
175°	2005.6	2004.9	2005.3	2005.6	2005.9	2006.3	2008.6	2010.9	2013.2	2015.6	2015.4
177.5°	2009.3	2008.8	2009.1	2009.3	2009.6	2009.9	2012.0	2014.1	2016.2	2018.4	2018.1
180°	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2



TEST NUMBER: P332234

CATALOG NUMBER: S123DIW-S1165D1535U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1551.1	1550.5	1554.9	1551.7	1554.9	1550.5	1551.1	1555.5	1556.8	1557.4	1557.4
5°	1443.7	1446.1	1438.2	1438.2	1438.2	1446.1	1443.7	1448.5	1452.4	1455.5	1460.2
7.5°	1348.2	1344.7	1345.0	1340.8	1345.0	1344.7	1348.2	1351.9	1357.0	1363.9	1370.3
10°	1289.7	1285.0	1283.4	1284.2	1283.4	1285.0	1289.7	1299.1	1302.3	1308.6	1315.6
12.5°	1241.3	1240.3	1230.0	1230.1	1230.0	1240.3	1241.3	1243.8	1250.7	1263.9	1272.2
15°	1184.4	1169.5	1167.9	1172.6	1167.9	1169.5	1184.4	1184.4	1187.5	1197.7	1202.5
17.5°	1127.3	1119.5	1119.9	1117.6	1119.9	1119.5	1127.3	1128.6	1131.1	1139.4	1145.7
20°	1097.1	1092.4	1091.6	1086.1	1091.6	1092.4	1097.1	1097.1	1100.3	1104.2	1110.5
22.5°	1069.5	1067.9	1068.4	1062.3	1068.4	1067.9	1069.5	1071.4	1074.5	1077.2	1081.6
25°	1035.1	1039.0	1035.8	1035.8	1035.8	1039.0	1035.1	1035.8	1036.6	1040.6	1043.7
27.5°	1011.8	1011.6	1010.1	1010.1	1010.1	1011.6	1011.8	1009.9	1009.0	1007.6	1006.9
30°	994.2	993.4	995.0	995.0	995.0	993.4	994.2	991.0	989.5	988.7	985.5
32.5°	976.6	977.7	978.0	978.6	978.0	977.7	976.6	972.8	970.0	967.9	965.4
35°	949.4	950.2	952.5	951.0	952.5	950.2	949.4	944.7	941.5	936.8	932.9
37.5°	912.6	916.2	915.4	916.7	915.4	916.2	912.6	911.2	908.1	904.4	899.9
40°	884.9	887.3	886.5	886.5	886.5	887.3	884.9	884.2	881.0	878.7	874.7
42.5°	856.7	858.4	856.3	855.1	856.3	858.4	856.7	855.2	853.4	849.1	844.6
45°	810.3	808.7	811.1	807.9	811.1	808.7	810.3	807.1	806.4	803.2	799.3
47.5°	758.4	760.0	760.6	763.0	760.6	760.0	758.4	758.7	754.3	752.4	751.2
50°	723.8	728.5	728.5	727.8	728.5	728.5	723.8	722.3	719.1	716.0	716.0
52.5°	689.9	692.1	695.2	695.1	695.2	692.1	689.9	687.1	683.9	679.5	678.3
55°	637.4	639.0	640.5	641.3	640.5	639.0	637.4	631.1	628.7	626.4	622.4
57.5°	583.0	582.4	586.1	587.2	586.1	582.4	583.0	577.3	573.7	566.5	565.5
60°	544.6	544.6	550.9	553.3	550.9	544.6	544.6	538.4	532.9	528.1	526.6
62.5°	503.8	506.3	512.6	509.3	512.6	506.3	503.8	496.9	492.6	486.6	482.6
65°	444.0	450.3	449.5	452.7	449.5	450.3	444.0	440.1	431.5	426.0	421.3
67.5°	381.6	385.6	391.2	391.7	391.2	385.6	381.6	375.4	369.7	363.9	358.2
70°	339.5	343.4	346.6	348.9	346.6	343.4	339.5	333.2	326.9	323.0	316.7
72.5°	298.7	300.7	308.2	304.9	308.2	300.7	298.7	291.1	286.1	282.8	275.9
75°	234.2	239.7	244.4	242.1	244.4	239.7	234.2	228.7	224.8	220.1	213.8
77.5°	173.2	178.7	180.9	178.9	180.9	178.7	173.2	169.6	167.6	158.3	157.7
80°	136.8	136.0	140.7	139.9	140.7	136.0	136.8	131.2	127.3	121.8	121.8
82.5°	100.3	99.5	101.7	102.2	101.7	99.5	100.3	97.3	92.1	89.8	87.9
85°	48.7	51.1	47.9	47.2	47.9	51.1	48.7	45.6	45.6	45.6	44.8
87.5°	19.9	20.0	19.5	19.0	19.5	20.0	19.9	19.8	22.1	19.9	19.7
90°	42.9	43.5	44.2	44.8	44.2	43.5	42.9	42.2	41.2	39.9	38.5
92.5°	48.4	48.8	49.2	49.6	49.2	48.8	48.4	48.0	46.8	44.7	42.5
95°	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	55.6	53.3	51.0
97.5°	60.6	60.9	61.3	61.6	61.3	60.9	60.6	60.3	58.8	56.1	53.5
100°	61.8	62.1	62.5	62.8	62.5	62.1	61.8	61.5	60.0	57.3	54.6
102.5°	62.2	62.8	63.4	64.0	63.4	62.8	62.2	61.6	65.4	73.7	81.9
105°	63.8	64.5	65.1	65.8	65.1	64.5	63.8	63.1	92.2	151.0	209.8
107.5°	339.6	295.2	250.9	206.6	250.9	295.2	339.6	383.9	427.6	470.7	513.8
110°	553.6	506.1	458.6	411.1	458.6	506.1	553.6	601.1	630.4	641.3	652.3



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	735.4	725.4	715.4	705.3	715.4	725.4	735.4	745.5	750.4	750.2	750.0
115°	875.1	876.4	877.7	879.1	877.7	876.4	875.1	873.7	871.4	868.1	864.8
117.5°	975.7	976.0	976.3	976.5	976.3	976.0	975.7	975.5	974.0	971.3	968.7
120°	1043.5	1043.5	1043.5	1043.5	1043.5	1043.5	1043.5	1043.5	1042.2	1039.5	1036.9
122.5°	1108.5	1108.7	1109.0	1109.3	1109.0	1108.7	1108.5	1108.2	1107.2	1105.3	1103.4
125°	1200.0	1200.6	1201.3	1202.0	1201.3	1200.6	1200.0	1199.3	1198.6	1198.0	1197.3
127.5°	1293.1	1292.4	1291.7	1291.1	1291.7	1292.4	1293.1	1293.7	1293.5	1292.5	1291.4
130°	1350.5	1349.8	1349.1	1348.5	1349.1	1349.8	1350.5	1351.1	1350.8	1349.5	1348.1
132.5°	1403.9	1403.0	1402.0	1401.1	1402.0	1403.0	1403.9	1404.8	1404.6	1403.3	1402.0
135°	1484.5	1483.5	1482.5	1481.5	1482.5	1483.5	1484.5	1485.5	1485.5	1484.5	1483.5
137.5°	1559.2	1558.5	1557.8	1557.2	1557.8	1558.5	1559.2	1559.8	1559.4	1557.8	1556.2
140°	1604.6	1604.0	1603.3	1602.6	1603.3	1604.0	1604.6	1605.3	1604.9	1603.6	1602.3
142.5°	1647.3	1646.3	1645.4	1644.5	1645.4	1646.3	1647.3	1648.2	1648.1	1647.1	1646.0
145°	1708.8	1708.8	1708.8	1708.8	1708.8	1708.8	1708.8	1708.8	1708.4	1707.8	1707.1
147.5°	1761.2	1759.7	1758.1	1756.6	1758.1	1759.7	1761.2	1762.7	1763.2	1762.5	1761.8
150°	1795.5	1794.5	1793.5	1792.5	1793.5	1794.5	1795.5	1796.5	1796.6	1796.0	1795.3
152.5°	1825.8	1824.2	1822.7	1821.2	1822.7	1824.2	1825.8	1827.3	1827.5	1826.3	1825.1
155°	1867.2	1865.2	1863.2	1861.3	1863.2	1865.2	1867.2	1869.2	1869.4	1867.7	1866.1
157.5°	1902.8	1900.2	1897.6	1895.0	1897.6	1900.2	1902.8	1905.4	1905.7	1903.7	1901.7
160°	1923.5	1921.2	1918.9	1916.6	1918.9	1921.2	1923.5	1925.9	1926.0	1924.0	1922.1
162.5°	1943.1	1941.0	1939.0	1936.9	1939.0	1941.0	1943.1	1945.1	1945.0	1942.8	1940.5
165°	1968.4	1966.1	1963.7	1961.4	1963.7	1966.1	1968.4	1970.7	1970.6	1967.9	1965.2
167.5°	1987.0	1984.4	1981.7	1979.1	1981.7	1984.4	1987.0	1989.7	1989.7	1987.0	1984.4
170°	1997.8	1995.1	1992.5	1989.8	1992.5	1995.1	1997.8	2000.5	2000.5	1997.8	1995.1
172.5°	2004.6	2001.7	1998.7	1995.8	1998.7	2001.7	2004.6	2007.5	2007.6	2005.0	2002.3
175°	2012.7	2010.1	2007.4	2004.8	2007.4	2010.1	2012.7	2015.4	2015.6	2013.2	2010.9
177.5°	2015.4	2012.8	2010.1	2007.5	2010.1	2012.8	2015.4	2018.1	2018.4	2016.2	2014.1
180°	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2



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**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1555.5	1555.5	1567.4	1575.0	1584.4	1590.7	1595.1	1599.5	1607.1	1617.1	1628.4
5°	1466.5	1469.7	1487.0	1504.3	1520.8	1534.9	1546.7	1560.8	1578.1	1599.3	1622.9
7.5°	1380.4	1392.5	1409.9	1431.0	1454.1	1474.7	1495.6	1518.9	1543.2	1574.5	1607.5
10°	1325.1	1338.4	1359.6	1386.4	1410.7	1435.1	1461.0	1486.2	1516.8	1553.8	1596.2
12.5°	1276.7	1289.4	1311.2	1340.5	1363.6	1390.5	1420.2	1452.9	1487.3	1531.8	1579.9
15°	1209.5	1224.5	1251.2	1265.3	1300.7	1332.9	1360.4	1407.6	1451.6	1497.2	1553.0
17.5°	1154.5	1162.8	1184.5	1210.8	1237.2	1273.3	1309.3	1348.6	1392.5	1448.3	1518.1
20°	1116.8	1123.9	1147.4	1175.0	1203.2	1236.3	1268.5	1307.8	1357.3	1416.2	1491.7
22.5°	1088.5	1096.2	1111.6	1141.0	1167.4	1194.8	1227.0	1273.8	1326.5	1384.2	1465.9
25°	1047.6	1052.3	1062.6	1086.1	1109.7	1140.4	1168.7	1212.7	1266.9	1334.5	1416.2
27.5°	1008.8	1013.4	1021.9	1038.8	1060.8	1085.7	1116.5	1153.9	1208.9	1282.3	1369.1
30°	985.5	986.3	994.2	1009.9	1028.8	1049.2	1077.5	1119.9	1171.8	1246.5	1337.6
32.5°	965.4	962.4	967.8	979.7	998.0	1018.4	1041.7	1083.5	1133.5	1206.9	1300.5
35°	931.3	929.7	927.4	937.6	953.3	969.0	989.5	1020.9	1077.5	1145.9	1244.1
37.5°	896.6	892.8	888.6	893.3	905.5	921.9	939.6	967.6	1016.4	1091.6	1185.6
40°	870.8	867.7	865.3	863.7	874.7	890.4	903.8	930.5	976.1	1047.6	1140.4
42.5°	842.5	840.6	837.6	835.4	844.6	856.5	870.5	894.1	939.6	1006.8	1094.5
45°	796.9	795.4	793.8	792.2	797.7	808.7	819.7	837.0	876.3	941.5	1020.9
47.5°	746.2	744.1	744.7	742.2	747.6	755.0	762.7	781.2	818.9	871.6	929.6
50°	709.7	708.9	708.9	708.9	710.5	719.1	726.2	740.3	774.9	827.6	869.2
52.5°	675.1	671.8	671.8	673.1	675.9	681.4	686.0	701.4	731.5	774.8	812.6
55°	620.9	614.6	613.0	614.6	616.9	621.7	626.4	639.0	664.9	697.1	719.1
57.5°	560.8	557.4	555.3	555.6	556.9	560.7	564.3	578.0	598.4	615.2	629.4
60°	518.7	520.3	513.2	514.8	514.8	517.9	523.4	532.1	549.4	561.1	575.3
62.5°	479.1	476.9	474.9	472.7	472.7	473.9	481.3	488.1	502.8	509.0	520.0
65°	417.3	417.3	412.6	414.2	415.0	409.5	413.4	421.3	430.7	433.0	443.3
67.5°	354.8	352.6	349.9	347.5	347.5	347.1	349.1	353.0	360.1	360.9	368.8
70°	312.0	310.4	309.7	307.3	304.2	308.1	305.7	309.7	313.6	314.4	319.1
72.5°	270.5	268.9	267.5	265.2	263.9	263.4	263.6	268.2	270.8	269.7	275.1
75°	211.4	209.8	208.3	204.3	204.3	202.0	202.8	205.9	209.1	206.7	211.4
77.5°	155.3	150.4	150.1	151.2	148.5	149.0	148.1	147.6	149.0	149.2	153.4
80°	119.5	114.0	115.5	114.7	114.0	113.2	111.6	112.4	113.2	114.0	116.3
82.5°	86.1	85.7	84.1	83.9	83.2	81.1	80.2	81.6	82.4	81.9	83.6
85°	44.0	41.7	43.2	42.4	43.2	42.4	40.1	40.1	41.7	40.9	42.4
87.5°	20.6	20.4	18.9	18.7	17.2	16.9	15.5	15.5	15.5	14.8	15.4
90°	37.2	35.9	31.6	27.2	22.9	18.6	14.8	11.5	8.1	4.8	1.5
92.5°	40.4	38.3	35.0	31.8	28.5	25.2	24.1	25.0	25.9	26.9	27.8
95°	48.7	46.3	42.7	39.0	35.4	31.7	36.7	50.3	64.0	77.6	91.2
97.5°	50.8	48.1	72.1	96.0	119.9	143.8	158.8	164.9	171.1	177.2	183.3
100°	52.0	49.3	101.2	153.0	204.8	256.6	279.2	272.6	265.9	259.3	252.7
102.5°	90.1	98.4	155.0	211.6	268.2	324.8	350.7	345.9	341.2	336.4	331.6
105°	268.6	327.4	357.3	387.2	417.1	447.0	460.1	456.5	452.8	449.2	445.5
107.5°	557.0	600.1	595.4	590.7	585.9	581.2	577.4	574.5	571.5	568.6	565.7
110°	663.3	674.2	670.6	666.9	663.3	659.6	656.5	653.8	651.1	648.5	645.8



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**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	749.8	749.6	745.9	742.3	738.6	735.0	731.9	729.6	727.2	724.8	722.4
115°	861.4	858.1	855.1	852.1	849.2	846.2	843.7	841.7	839.7	837.7	835.7
117.5°	966.0	963.4	961.8	960.3	958.8	957.3	955.3	952.8	950.3	947.9	945.4
120°	1034.2	1031.5	1030.5	1029.5	1028.5	1027.6	1025.6	1022.6	1019.6	1016.6	1013.6
122.5°	1101.6	1099.7	1098.4	1097.2	1095.9	1094.7	1092.8	1090.3	1087.9	1085.4	1083.0
125°	1196.7	1196.0	1194.7	1193.3	1192.0	1190.7	1188.7	1186.0	1183.4	1180.7	1178.0
127.5°	1290.3	1289.3	1287.7	1286.1	1284.5	1282.9	1280.8	1278.1	1275.5	1272.8	1270.1
130°	1346.8	1345.5	1344.2	1342.8	1341.5	1340.2	1338.2	1335.5	1332.9	1330.2	1327.5
132.5°	1400.6	1399.3	1398.2	1397.2	1396.1	1395.1	1393.2	1390.5	1387.9	1385.2	1382.6
135°	1482.5	1481.5	1480.2	1478.9	1477.5	1476.2	1474.6	1472.6	1470.6	1468.6	1466.6
137.5°	1554.6	1553.0	1552.3	1551.5	1550.8	1550.1	1548.4	1545.9	1543.4	1540.9	1538.3
140°	1601.0	1599.6	1598.6	1597.6	1596.6	1595.6	1594.2	1592.2	1590.2	1588.2	1586.2
142.5°	1644.9	1643.9	1642.9	1641.9	1640.9	1639.9	1638.4	1636.4	1634.4	1632.4	1630.4
145°	1706.4	1705.8	1705.1	1704.4	1703.8	1703.1	1701.6	1699.3	1697.0	1694.6	1692.3
147.5°	1761.2	1760.5	1759.8	1759.2	1758.5	1757.8	1756.7	1755.2	1753.7	1752.2	1750.6
150°	1794.6	1794.0	1793.3	1792.7	1792.0	1791.3	1790.5	1789.5	1788.5	1787.5	1786.5
152.5°	1823.9	1822.7	1822.3	1821.9	1821.5	1821.1	1820.7	1820.2	1819.7	1819.3	1818.8
155°	1864.4	1862.7	1862.4	1862.1	1861.8	1861.4	1861.6	1862.3	1862.9	1863.6	1864.2
157.5°	1899.7	1897.7	1898.1	1898.4	1898.7	1899.1	1899.3	1899.3	1899.4	1899.5	1899.5
160°	1920.1	1918.1	1918.4	1918.7	1919.1	1919.4	1919.7	1920.1	1920.4	1920.7	1921.1
162.5°	1938.3	1936.0	1936.3	1936.7	1937.0	1937.3	1937.9	1938.8	1939.7	1940.5	1941.4
165°	1962.6	1959.9	1960.3	1960.6	1960.9	1961.3	1961.9	1962.9	1963.9	1964.9	1965.9
167.5°	1981.7	1979.1	1979.1	1979.1	1979.1	1979.1	1979.7	1981.1	1982.4	1983.7	1985.0
170°	1992.5	1989.8	1989.8	1989.8	1989.8	1989.8	1990.5	1991.8	1993.1	1994.5	1995.8
172.5°	1999.7	1997.0	1996.7	1996.5	1996.2	1995.9	1996.6	1998.2	1999.8	2001.4	2003.0
175°	2008.6	2006.3	2005.9	2005.6	2005.3	2004.9	2005.6	2007.3	2008.9	2010.6	2012.2
177.5°	2012.0	2009.9	2009.6	2009.3	2009.1	2008.8	2009.3	2010.7	2012.0	2013.3	2014.6
180°	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2



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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1632.2	1635.3	1646.0	1653.6	1662.4	1667.4	1672.4	1676.2	1681.2	1682.5	1700.7
5°	1639.4	1655.2	1682.7	1703.1	1728.2	1755.7	1774.6	1783.3	1806.0	1824.9	1862.6
7.5°	1637.4	1670.9	1712.4	1755.4	1801.6	1844.4	1881.5	1925.5	1956.8	2003.8	2050.2
10°	1635.5	1680.3	1733.7	1788.8	1853.2	1912.9	1966.4	2026.1	2075.6	2140.8	2196.6
12.5°	1629.8	1684.1	1758.3	1823.3	1901.6	1984.0	2063.2	2139.9	2183.8	2292.4	2343.8
15°	1615.9	1680.3	1773.0	1872.1	1979.7	2077.2	2177.8	2258.0	2387.6	2482.7	2543.2
17.5°	1589.1	1679.4	1789.4	1908.8	2039.8	2168.2	2282.2	2403.8	2541.4	2656.4	2779.0
20°	1576.6	1675.6	1798.2	1930.2	2066.2	2211.6	2341.3	2487.4	2637.6	2750.7	2907.9
22.5°	1553.3	1665.5	1797.6	1944.7	2090.1	2240.5	2392.2	2539.6	2713.0	2868.9	3018.6
25°	1515.3	1641.0	1777.8	1942.0	2112.6	2263.5	2445.0	2640.7	2821.5	3021.9	3171.2
27.5°	1475.3	1609.6	1746.6	1899.4	2082.8	2261.9	2490.3	2711.4	2932.4	3105.5	3216.0
30°	1444.5	1575.0	1716.5	1870.5	2052.0	2265.0	2520.4	2761.7	2977.1	3125.6	3187.7
32.5°	1411.2	1543.5	1668.7	1830.3	2023.7	2263.1	2539.3	2791.3	2979.6	3078.5	3066.4
35°	1358.9	1469.7	1591.5	1747.1	1975.0	2249.3	2550.3	2793.9	2909.5	2888.3	2727.9
37.5°	1283.4	1376.6	1496.6	1666.9	1918.4	2220.2	2528.3	2711.1	2703.6	2530.8	2298.5
40°	1236.3	1315.6	1431.2	1610.4	1874.4	2201.4	2493.7	2612.4	2511.8	2270.5	1992.3
42.5°	1174.6	1247.7	1363.3	1547.5	1826.0	2163.0	2427.7	2462.1	2265.3	1987.6	1732.6
45°	1079.1	1143.5	1263.0	1453.2	1753.4	2079.5	2266.6	2182.5	1917.6	1630.8	1436.7
47.5°	976.4	1043.4	1158.3	1353.7	1648.4	1954.0	2043.1	1864.2	1592.3	1359.6	1181.4
50°	911.7	976.1	1088.5	1285.8	1577.3	1850.8	1887.8	1656.7	1406.8	1202.5	1056.3
52.5°	846.3	907.0	1017.5	1215.3	1494.4	1731.4	1708.6	1473.1	1243.3	1069.2	954.4
55°	749.0	806.4	911.7	1097.1	1351.0	1538.8	1456.3	1231.5	1041.3	906.2	818.9
57.5°	661.9	716.9	807.8	975.3	1196.0	1325.1	1220.1	1030.7	879.4	775.4	710.3
60°	602.8	651.5	738.0	893.6	1085.4	1183.6	1079.9	912.5	785.1	701.8	643.7
62.5°	546.8	589.3	669.4	810.6	977.2	1059.7	954.7	813.1	704.7	630.8	581.4
65°	462.1	500.6	571.4	681.4	818.1	873.2	782.8	668.0	583.9	528.9	495.9
67.5°	384.8	417.5	478.6	565.2	665.8	705.9	637.1	548.3	484.9	440.7	414.5
70°	333.2	361.5	409.5	484.1	575.3	605.9	541.5	468.4	422.0	386.7	362.3
72.5°	289.8	310.6	354.1	411.8	487.9	512.3	467.3	403.0	359.8	333.2	313.9
75°	220.8	238.1	266.4	312.8	365.5	379.6	345.8	305.7	276.6	257.8	242.8
77.5°	159.2	172.0	192.4	221.0	257.5	270.2	248.8	222.1	200.9	188.1	179.8
80°	120.2	130.5	147.8	171.3	193.3	200.4	187.8	167.4	152.5	145.4	138.3
82.5°	88.8	94.6	105.0	121.0	136.1	144.5	133.8	121.5	113.5	107.0	104.4
85°	44.8	47.9	52.7	58.9	68.4	71.5	67.6	64.4	59.7	55.8	55.8
87.5°	17.3	18.0	20.5	22.4	25.7	28.5	28.7	28.3	28.6	28.2	27.8
90°	4.8	8.1	11.5	14.8	18.6	22.9	27.2	31.6	35.9	37.2	38.5
92.5°	26.9	25.9	25.0	24.1	25.2	28.5	31.8	35.0	38.3	40.4	42.5
95°	77.6	64.0	50.3	36.7	31.7	35.4	39.0	42.7	46.3	48.7	51.0
97.5°	177.2	171.1	164.9	158.8	143.8	119.9	96.0	72.1	48.1	50.8	53.5
100°	259.3	265.9	272.6	279.2	256.6	204.8	153.0	101.2	49.3	52.0	54.6
102.5°	336.4	341.2	345.9	350.7	324.8	268.2	211.6	155.0	98.4	90.1	81.9
105°	449.2	452.8	456.5	460.1	447.0	417.1	387.2	357.3	327.4	268.6	209.8
107.5°	568.6	571.5	574.5	577.4	581.2	585.9	590.7	595.4	600.1	557.0	513.8
110°	648.5	651.1	653.8	656.5	659.6	663.3	666.9	670.6	674.2	663.3	652.3





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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	724.8	727.2	729.6	731.9	735.0	738.6	742.3	745.9	749.6	749.8	750.0
115°	837.7	839.7	841.7	843.7	846.2	849.2	852.1	855.1	858.1	861.4	864.8
117.5°	947.9	950.3	952.8	955.3	957.3	958.8	960.3	961.8	963.4	966.0	968.7
120°	1016.6	1019.6	1022.6	1025.6	1027.6	1028.5	1029.5	1030.5	1031.5	1034.2	1036.9
122.5°	1085.4	1087.9	1090.3	1092.8	1094.7	1095.9	1097.2	1098.4	1099.7	1101.6	1103.4
125°	1180.7	1183.4	1186.0	1188.7	1190.7	1192.0	1193.3	1194.7	1196.0	1196.7	1197.3
127.5°	1272.8	1275.5	1278.1	1280.8	1282.9	1284.5	1286.1	1287.7	1289.3	1290.3	1291.4
130°	1330.2	1332.9	1335.5	1338.2	1340.2	1341.5	1342.8	1344.2	1345.5	1346.8	1348.1
132.5°	1385.2	1387.9	1390.5	1393.2	1395.1	1396.1	1397.2	1398.2	1399.3	1400.6	1402.0
135°	1468.6	1470.6	1472.6	1474.6	1476.2	1477.5	1478.9	1480.2	1481.5	1482.5	1483.5
137.5°	1540.9	1543.4	1545.9	1548.4	1550.1	1550.8	1551.5	1552.3	1553.0	1554.6	1556.2
140°	1588.2	1590.2	1592.2	1594.2	1595.6	1596.6	1597.6	1598.6	1599.6	1601.0	1602.3
142.5°	1632.4	1634.4	1636.4	1638.4	1639.9	1640.9	1641.9	1642.9	1643.9	1644.9	1646.0
145°	1694.6	1697.0	1699.3	1701.6	1703.1	1703.8	1704.4	1705.1	1705.8	1706.4	1707.1
147.5°	1752.2	1753.7	1755.2	1756.7	1757.8	1758.5	1759.2	1759.8	1760.5	1761.2	1761.8
150°	1787.5	1788.5	1789.5	1790.5	1791.3	1792.0	1792.7	1793.3	1794.0	1794.6	1795.3
152.5°	1819.3	1819.7	1820.2	1820.7	1821.1	1821.5	1821.9	1822.3	1822.7	1823.9	1825.1
155°	1863.6	1862.9	1862.3	1861.6	1861.4	1861.8	1862.1	1862.4	1862.7	1864.4	1866.1
157.5°	1899.5	1899.4	1899.3	1899.3	1899.1	1898.7	1898.4	1898.1	1897.7	1899.7	1901.7
160°	1920.7	1920.4	1920.1	1919.7	1919.4	1919.1	1918.7	1918.4	1918.1	1920.1	1922.1
162.5°	1940.5	1939.7	1938.8	1937.9	1937.3	1937.0	1936.7	1936.3	1936.0	1938.3	1940.5
165°	1964.9	1963.9	1962.9	1961.9	1961.3	1960.9	1960.6	1960.3	1959.9	1962.6	1965.2
167.5°	1983.7	1982.4	1981.1	1979.7	1979.1	1979.1	1979.1	1979.1	1979.1	1981.7	1984.4
170°	1994.5	1993.1	1991.8	1990.5	1989.8	1989.8	1989.8	1989.8	1989.8	1992.5	1995.1
172.5°	2001.4	1999.8	1998.2	1996.6	1995.9	1996.2	1996.5	1996.7	1997.0	1999.7	2002.3
175°	2010.6	2008.9	2007.3	2005.6	2004.9	2005.3	2005.6	2005.9	2006.3	2008.6	2010.9
177.5°	2013.3	2012.0	2010.7	2009.3	2008.8	2009.1	2009.3	2009.6	2009.9	2012.0	2014.1
180°	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1707.0	1707.6	1714.6	1719.6	1717.1	1720.2	1721.5
5°	1865.0	1893.3	1908.2	1919.2	1920.0	1920.8	1927.1
7.5°	2089.0	2119.3	2141.5	2175.1	2185.2	2196.6	2193.3
10°	2252.5	2297.2	2335.8	2356.2	2378.2	2410.4	2384.5
12.5°	2405.2	2484.6	2543.2	2575.0	2595.7	2602.2	2589.5
15°	2657.2	2760.9	2816.7	2815.2	2885.9	2916.6	2868.6
17.5°	2888.3	2984.0	3060.7	3100.0	3158.9	3172.0	3166.0
20°	3029.7	3134.3	3194.0	3261.6	3292.2	3319.7	3324.4
22.5°	3151.7	3245.5	3309.7	3365.9	3391.6	3404.6	3412.5
25°	3277.3	3351.2	3389.7	3409.3	3416.4	3414.8	3404.6
27.5°	3268.6	3274.3	3231.9	3190.2	3153.0	3111.0	3096.5
30°	3183.8	3117.7	2999.9	2933.1	2834.8	2757.0	2788.4
32.5°	2960.6	2829.2	2696.8	2550.8	2429.9	2395.5	2360.9
35°	2526.7	2295.7	2160.5	2003.3	1940.4	1877.6	1834.3
37.5°	2044.2	1865.5	1705.1	1602.3	1539.3	1499.5	1478.2
40°	1767.5	1606.4	1474.4	1391.1	1343.1	1298.3	1292.1
42.5°	1546.9	1397.1	1297.7	1231.4	1185.3	1166.3	1152.5
45°	1266.9	1162.4	1095.6	1048.4	1017.8	1006.0	990.3
47.5°	1072.3	998.4	948.3	916.2	893.1	884.3	883.1
50°	963.5	902.2	865.3	840.1	822.1	818.9	806.4
52.5°	881.8	828.7	799.9	777.9	764.9	756.1	752.3
55°	765.5	730.1	704.2	691.6	681.4	672.7	672.7
57.5°	669.8	640.2	623.1	612.4	609.2	603.1	599.2
60°	610.7	585.5	572.2	562.7	556.4	557.2	550.1
62.5°	552.8	536.5	523.7	514.3	506.8	506.9	507.4
65°	470.8	458.2	448.8	445.6	440.9	435.4	437.0
67.5°	398.9	387.1	379.8	374.4	372.8	369.9	374.4
70°	347.4	338.7	333.2	328.5	326.9	327.7	331.7
72.5°	300.2	294.1	290.5	288.3	284.8	285.0	287.6
75°	235.8	231.1	227.9	225.6	224.8	224.8	224.8
77.5°	173.2	172.1	170.7	167.2	167.4	168.3	168.5
80°	136.8	134.4	133.6	132.0	129.7	128.1	132.0
82.5°	102.2	99.8	99.0	98.7	95.1	94.8	98.1
85°	55.0	52.7	53.4	52.7	52.7	51.9	51.9
87.5°	27.5	27.1	26.7	27.4	26.9	26.4	27.8
90°	39.9	41.2	42.2	42.9	43.5	44.2	44.8
92.5°	44.7	46.8	48.0	48.4	48.8	49.2	49.6
95°	53.3	55.6	56.8	56.8	56.8	56.8	56.8
97.5°	56.1	58.8	60.3	60.6	60.9	61.3	61.6
100°	57.3	60.0	61.5	61.8	62.1	62.5	62.8
102.5°	73.7	65.4	61.6	62.2	62.8	63.4	64.0
105°	151.0	92.2	63.1	63.8	64.5	65.1	65.8
107.5°	470.7	427.6	383.9	339.6	295.2	250.9	206.6
110°	641.3	630.4	601.1	553.6	506.1	458.6	411.1



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	750.2	750.4	745.5	735.4	725.4	715.4	705.3
115°	868.1	871.4	873.7	875.1	876.4	877.7	879.1
117.5°	971.3	974.0	975.5	975.7	976.0	976.3	976.5
120°	1039.5	1042.2	1043.5	1043.5	1043.5	1043.5	1043.5
122.5°	1105.3	1107.2	1108.2	1108.5	1108.7	1109.0	1109.3
125°	1198.0	1198.6	1199.3	1200.0	1200.6	1201.3	1202.0
127.5°	1292.5	1293.5	1293.7	1293.1	1292.4	1291.7	1291.1
130°	1349.5	1350.8	1351.1	1350.5	1349.8	1349.1	1348.5
132.5°	1403.3	1404.6	1404.8	1403.9	1403.0	1402.0	1401.1
135°	1484.5	1485.5	1485.5	1484.5	1483.5	1482.5	1481.5
137.5°	1557.8	1559.4	1559.8	1559.2	1558.5	1557.8	1557.2
140°	1603.6	1604.9	1605.3	1604.6	1604.0	1603.3	1602.6
142.5°	1647.1	1648.1	1648.2	1647.3	1646.3	1645.4	1644.5
145°	1707.8	1708.4	1708.8	1708.8	1708.8	1708.8	1708.8
147.5°	1762.5	1763.2	1762.7	1761.2	1759.7	1758.1	1756.6
150°	1796.0	1796.6	1796.5	1795.5	1794.5	1793.5	1792.5
152.5°	1826.3	1827.5	1827.3	1825.8	1824.2	1822.7	1821.2
155°	1867.7	1869.4	1869.2	1867.2	1865.2	1863.2	1861.3
157.5°	1903.7	1905.7	1905.4	1902.8	1900.2	1897.6	1895.0
160°	1924.0	1926.0	1925.9	1923.5	1921.2	1918.9	1916.6
162.5°	1942.8	1945.0	1945.1	1943.1	1941.0	1939.0	1936.9
165°	1967.9	1970.6	1970.7	1968.4	1966.1	1963.7	1961.4
167.5°	1987.0	1989.7	1989.7	1987.0	1984.4	1981.7	1979.1
170°	1997.8	2000.5	2000.5	1997.8	1995.1	1992.5	1989.8
172.5°	2005.0	2007.6	2007.5	2004.6	2001.7	1998.7	1995.8
175°	2013.2	2015.6	2015.4	2012.7	2010.1	2007.4	2004.8
177.5°	2016.2	2018.4	2018.1	2015.4	2012.8	2010.1	2007.5
180°	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2	2012.2

(END OF REPORT)