

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P332229-840

Luminaire Tested: **S123DIW-S1165D1320U840-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332229-840
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-S1165D1320U840-4F0-1E-UDD-A1
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 1320 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9568.8 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.49
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

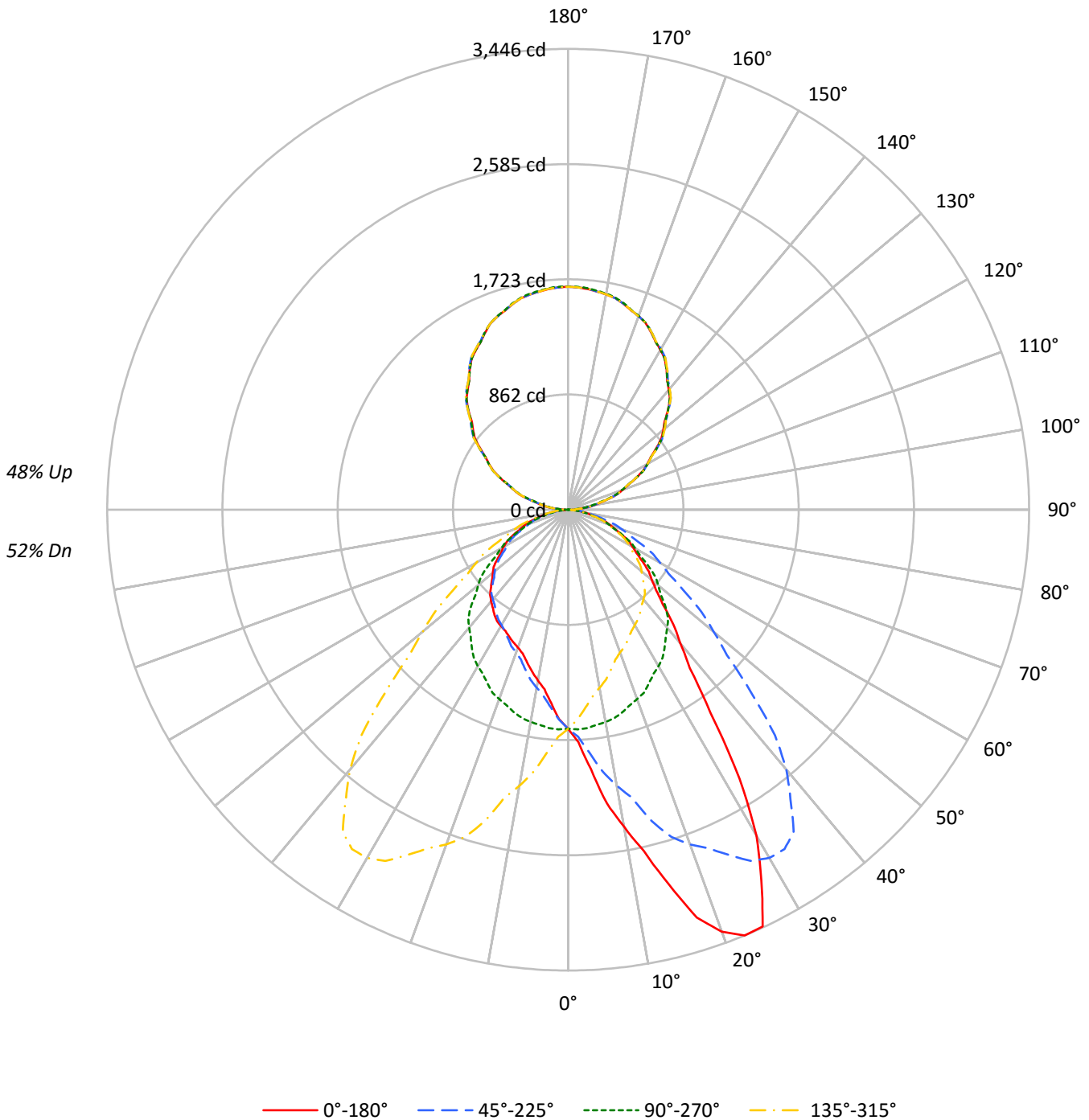
Input Watts (W): 76.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	98	94	90	87	91	87	84	81	74	72	70	62	61	59	51	50	49	44
2	90	83	77	72	83	77	71	67	65	62	58	55	52	50	46	44	42	37
3	82	73	66	60	76	68	61	56	58	53	49	49	45	42	41	38	36	32
4	75	65	57	51	69	60	53	48	52	46	42	44	40	37	36	34	31	28
5	69	58	50	44	64	54	47	41	46	41	36	39	35	32	33	30	27	24
6	64	52	44	38	59	48	41	36	42	36	32	36	31	28	30	27	24	21
7	59	47	39	33	54	44	37	32	38	32	28	32	28	25	27	24	21	19
8	55	42	35	29	51	40	33	28	35	29	25	30	25	22	25	22	19	17
9	51	39	31	26	47	36	30	25	32	26	22	27	23	20	23	20	17	15
10	48	36	28	24	44	33	27	22	29	24	20	25	21	18	21	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17632	17632	17632	17632
5°	21028	17708	15693	17708
10°	26319	17618	14175	17618
15°	32282	17477	13196	17477
20°	38456	17255	12564	17255
25°	40834	16986	12423	16986
30°	34999	16789	12489	16789
35°	24341	16509	12620	16509
40°	18334	16183	12579	16183
45°	15224	15694	12420	15694
50°	13638	14699	12308	14699
55°	12748	13628	12153	13628
60°	11959	12508	12030	12508
65°	11240	11403	11645	11403
70°	10543	10140	11087	10140
75°	9441	8879	10168	8879
80°	8263	7277	8759	7277
85°	6472	5286	5891	5286



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.4	1.7
10°-20°	517.4	5.4
20°-30°	868.4	9.1
30°-40°	983.3	10.3
40°-50°	881.8	9.2
50°-60°	711.6	7.4
60°-70°	495.9	5.2
70°-80°	260.6	2.7
80°-90°	68.7	0.7
90°-100°	108.6	1.1
100°-110°	325.1	3.4
110°-120°	553.0	5.8
120°-130°	727.3	7.6
130°-140°	817.5	8.5
140°-150°	803.6	8.4
150°-160°	676.5	7.1
160°-170°	450.3	4.7
170°-180°	157.7	1.6
0°-30°	1547.2	16.2
0°-40°	2530.6	26.4
0°-60°	4124.0	43.1
0°-90°	4949.2	51.7
90°-120°	986.7	10.3
90°-150°	3335.1	34.9
90°-180°	4620.0	48.3
0°-180°	9568.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1638	1638	1638	1638	1638	
5°	1946	1639	1452	1639	1946	202
15°	2897	1568	1184	1568	2897	836
25°	3438	1430	1046	1430	3438	1508
35°	1852	1256	960	1256	1852	1204
45°	1000	1031	816	1031	1000	791
55°	679	726	648	726	679	610
65°	441	448	457	448	441	439
75°	227	214	244	214	227	243
85°	52	43	48	43	52	63
90°	39	1	39	1	39	22
95°	102	77	102	77	102	105
105°	312	295	312	295	312	331
115°	558	557	558	557	558	552
125°	806	815	806	815	806	720
135°	1056	1057	1056	1057	1056	812
145°	1282	1282	1282	1282	1282	800
155°	1466	1468	1466	1468	1466	675
165°	1594	1599	1594	1599	1594	450
175°	1657	1663	1657	1663	1657	157
180°	1667	1667	1667	1667	1667	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1738.5	1737.2	1734.0	1736.6	1731.5	1724.4	1723.8	1717.5	1699.1	1697.8	1692.7
5°	1946.1	1939.7	1938.9	1938.1	1927.0	1912.0	1883.4	1881.0	1842.9	1823.8	1800.9
7.5°	2214.9	2218.3	2206.8	2196.6	2162.6	2140.2	2109.6	2070.4	2023.6	1976.1	1944.5
10°	2408.0	2434.2	2401.7	2379.4	2358.8	2319.9	2274.7	2218.3	2161.9	2096.1	2046.1
12.5°	2615.0	2627.9	2621.3	2600.4	2568.3	2509.1	2428.9	2366.9	2315.0	2205.3	2161.0
15°	2896.9	2945.4	2914.4	2843.0	2844.5	2788.1	2683.4	2568.3	2507.2	2411.2	2280.3
17.5°	3197.2	3203.3	3190.1	3130.6	3090.9	3013.4	2916.8	2806.4	2682.6	2566.5	2427.5
20°	3357.2	3352.4	3324.7	3293.8	3225.5	3165.2	3059.6	2936.6	2777.8	2663.6	2511.9
22.5°	3446.2	3438.2	3425.1	3399.1	3342.4	3277.5	3182.8	3048.4	2897.2	2739.8	2564.7
25°	3438.2	3448.5	3450.1	3442.9	3423.1	3384.3	3309.6	3202.5	3051.7	2849.3	2666.8
27.5°	3127.0	3141.7	3184.1	3221.7	3263.8	3306.6	3300.8	3247.7	3136.1	2961.3	2738.1
30°	2815.9	2784.2	2862.8	2962.0	3029.5	3148.5	3215.2	3219.1	3156.4	3006.5	2788.9
32.5°	2384.2	2419.1	2453.9	2576.0	2723.4	2857.1	2989.8	3096.7	3108.9	3009.0	2818.8
35°	1852.4	1896.1	1959.5	2023.1	2181.8	2318.3	2551.6	2754.8	2916.8	2938.2	2821.5
37.5°	1492.8	1514.3	1554.5	1618.1	1721.9	1883.9	2064.4	2321.2	2555.8	2730.3	2737.8
40°	1304.8	1311.1	1356.3	1404.8	1488.9	1622.2	1784.9	2012.0	2292.9	2536.6	2638.2
42.5°	1163.9	1177.8	1197.0	1243.5	1310.5	1410.9	1562.2	1749.7	2007.2	2287.6	2486.4
45°	1000.1	1015.9	1027.8	1058.7	1106.4	1173.9	1279.4	1450.9	1646.9	1936.5	2204.0
47.5°	891.8	893.0	901.9	925.2	957.7	1008.2	1082.9	1193.1	1373.0	1608.0	1882.6
50°	814.4	827.0	830.2	848.4	873.8	911.1	973.0	1066.7	1214.4	1420.7	1673.0
52.5°	759.7	763.6	772.4	785.6	807.8	836.9	890.5	963.8	1079.7	1255.6	1487.6
55°	679.3	679.3	688.1	698.4	711.1	737.3	773.1	827.0	915.1	1051.6	1243.6
57.5°	605.1	609.0	615.2	618.4	629.2	646.5	676.4	717.3	783.0	888.1	1040.9
60°	555.5	562.7	561.9	568.3	577.8	591.3	616.7	650.1	708.7	792.8	921.5
62.5°	512.4	511.9	511.8	519.4	528.9	541.8	558.3	587.1	637.0	711.7	821.1
65°	441.3	439.7	445.2	450.0	453.2	462.7	475.4	500.8	534.1	589.7	674.6
67.5°	378.1	373.5	376.5	378.1	383.5	390.9	402.8	418.6	445.0	489.7	553.7
70°	335.0	330.9	330.1	331.7	336.5	342.0	350.8	365.9	390.5	426.2	473.0
72.5°	290.4	287.8	287.6	291.1	293.4	297.0	303.2	317.0	336.5	363.3	407.0
75°	227.0	227.0	227.0	227.8	230.1	233.4	238.1	245.2	260.3	279.3	308.7
77.5°	170.2	170.0	169.1	168.8	172.4	173.8	174.9	181.6	190.0	202.9	224.3
80°	133.3	129.4	131.0	133.3	134.9	135.7	138.1	139.7	146.8	154.0	169.1
82.5°	99.1	95.7	96.0	99.7	100.0	100.8	103.2	105.4	108.1	114.6	122.7
85°	52.4	52.4	53.2	53.2	53.9	53.2	55.5	56.4	56.4	60.3	65.0
87.5°	26.9	25.5	26.1	26.6	25.9	26.3	26.7	27.1	27.5	27.9	27.8
90°	39.3	38.7	38.2	37.6	37.0	36.1	34.9	33.7	32.6	31.4	27.7
92.5°	52.9	53.2	53.6	53.9	54.3	54.0	53.1	52.1	51.2	50.3	48.2
95°	102.2	102.2	102.2	102.2	102.2	101.6	100.4	99.3	98.1	96.9	94.6
97.5°	157.1	157.3	157.4	157.5	157.6	157.0	155.7	154.3	153.0	151.7	150.0
100°	199.0	198.5	197.9	197.3	196.7	196.0	195.1	194.3	193.4	192.6	191.1
102.5°	242.1	242.2	242.3	242.4	242.5	242.2	241.3	240.3	239.5	238.6	236.7
105°	311.7	311.1	310.5	310.0	309.4	309.1	309.1	309.1	309.1	309.1	306.5
107.5°	384.3	384.7	385.0	385.4	385.7	385.4	384.5	383.5	382.6	381.6	380.6
110°	433.5	434.1	434.7	435.3	435.9	435.6	434.4	433.2	432.1	430.9	430.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	485.9	486.0	486.1	486.3	486.4	485.7	484.3	482.9	481.6	480.2	480.1
115°	558.0	558.3	558.6	558.9	559.2	559.2	558.9	558.6	558.3	558.0	558.6
117.5°	631.1	631.9	632.7	633.5	634.3	634.7	634.8	634.9	634.9	635.0	635.7
120°	682.4	683.0	683.6	684.2	684.7	685.2	685.5	685.7	686.0	686.3	687.8
122.5°	731.6	732.5	733.3	734.1	734.9	735.7	736.4	737.2	737.9	738.7	739.4
125°	805.5	806.7	807.8	809.0	810.2	811.3	812.5	813.6	814.9	816.0	816.6
127.5°	879.1	880.5	881.8	883.1	884.4	886.0	887.6	889.2	890.8	892.5	893.1
130°	927.4	929.4	931.4	933.4	935.4	937.1	938.3	939.4	940.6	941.7	942.6
132.5°	977.7	979.2	980.8	982.3	983.9	985.4	986.7	988.2	989.6	991.0	991.6
135°	1055.7	1056.2	1056.8	1057.4	1058.0	1058.8	1060.1	1061.2	1062.4	1063.5	1063.8
137.5°	1124.6	1125.7	1126.8	1127.9	1129.0	1130.1	1131.4	1132.6	1133.8	1135.1	1134.3
140°	1169.6	1171.6	1173.7	1175.8	1177.8	1178.9	1179.2	1179.5	1179.8	1180.1	1179.8
142.5°	1215.8	1217.3	1218.9	1220.4	1222.0	1222.9	1223.2	1223.6	1223.9	1224.2	1223.6
145°	1282.2	1283.4	1284.5	1285.8	1287.0	1287.7	1288.0	1288.2	1288.5	1288.8	1288.0
147.5°	1341.5	1343.2	1344.9	1346.8	1348.5	1349.3	1349.3	1349.3	1349.3	1349.3	1348.5
150°	1379.2	1380.9	1382.7	1384.4	1386.1	1387.0	1387.0	1387.0	1387.0	1387.0	1386.4
152.5°	1415.8	1417.3	1418.9	1420.4	1421.9	1422.4	1422.0	1421.5	1421.1	1420.6	1420.3
155°	1465.6	1467.6	1469.8	1471.8	1473.8	1474.2	1473.1	1471.9	1470.8	1469.6	1469.3
157.5°	1511.0	1512.6	1514.2	1515.8	1517.4	1517.7	1516.4	1515.2	1514.0	1512.8	1512.6
160°	1540.2	1541.5	1542.7	1543.8	1545.0	1544.8	1543.4	1541.9	1540.4	1538.9	1538.9
162.5°	1562.3	1564.2	1566.0	1567.9	1569.7	1569.9	1568.5	1567.0	1565.6	1564.1	1563.9
165°	1594.0	1596.0	1598.1	1600.1	1602.2	1602.3	1600.5	1598.8	1597.0	1595.3	1595.3
167.5°	1620.9	1622.8	1624.6	1626.4	1628.2	1628.2	1626.4	1624.6	1622.8	1620.9	1620.7
170°	1634.6	1636.6	1638.7	1640.7	1642.7	1642.7	1640.7	1638.7	1636.6	1634.6	1634.6
172.5°	1645.1	1647.1	1649.1	1651.2	1653.3	1653.4	1651.5	1649.7	1647.9	1646.1	1646.1
175°	1656.9	1658.9	1660.9	1662.9	1665.0	1665.2	1663.4	1661.6	1659.9	1658.2	1658.2
177.5°	1663.1	1664.8	1666.4	1668.0	1669.7	1669.8	1668.4	1667.0	1665.6	1664.2	1664.2
180°	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1688.9	1683.8	1678.8	1669.9	1662.2	1651.4	1648.3	1644.5	1633.1	1623.0	1615.3
5°	1792.1	1773.0	1745.2	1719.9	1699.3	1671.5	1655.6	1638.9	1615.1	1593.7	1576.2
7.5°	1900.1	1862.6	1819.4	1772.7	1729.3	1687.4	1653.6	1623.4	1590.0	1558.4	1533.9
10°	1985.8	1931.8	1871.5	1806.4	1750.8	1696.9	1651.6	1611.9	1569.1	1531.8	1500.9
12.5°	2083.6	2003.6	1920.4	1841.3	1775.6	1700.7	1645.9	1595.5	1546.9	1502.0	1467.2
15°	2199.3	2097.7	1999.2	1890.6	1790.5	1696.9	1631.8	1568.3	1512.0	1465.9	1421.5
17.5°	2304.7	2189.6	2059.9	1927.6	1807.1	1696.0	1604.8	1533.1	1462.6	1406.2	1361.9
20°	2364.4	2233.4	2086.6	1949.2	1815.9	1692.1	1592.2	1506.4	1430.2	1370.7	1320.7
22.5°	2415.8	2262.6	2110.7	1963.9	1815.3	1681.9	1568.6	1480.4	1397.9	1339.6	1286.4
25°	2469.1	2285.8	2133.4	1961.2	1795.3	1657.2	1530.2	1430.2	1347.7	1279.4	1224.7
27.5°	2514.9	2284.2	2103.3	1918.1	1763.8	1625.5	1489.9	1382.6	1294.9	1220.8	1165.3
30°	2545.3	2287.3	2072.2	1889.0	1733.4	1590.5	1458.8	1350.8	1258.8	1183.4	1130.9
32.5°	2564.4	2285.4	2043.7	1848.4	1685.2	1558.7	1425.1	1313.3	1218.8	1144.7	1094.2
35°	2575.5	2271.5	1994.5	1764.3	1607.2	1484.2	1372.3	1256.4	1157.2	1088.1	1031.0
37.5°	2553.2	2242.1	1937.3	1683.3	1511.4	1390.2	1296.1	1197.3	1102.4	1026.4	977.1
40°	2518.3	2223.1	1892.9	1626.3	1445.3	1328.6	1248.5	1151.7	1057.9	985.7	939.7
42.5°	2451.6	2184.3	1844.0	1562.8	1376.7	1260.0	1186.2	1105.3	1016.7	948.9	902.9
45°	2289.0	2100.0	1770.7	1467.5	1275.5	1154.8	1089.7	1031.0	950.8	884.9	845.3
47.5°	2063.3	1973.3	1664.7	1367.1	1169.7	1053.7	986.0	938.8	880.2	827.0	788.9
50°	1906.4	1869.1	1592.9	1298.5	1099.2	985.7	920.7	877.8	835.8	782.5	747.6
52.5°	1725.5	1748.5	1509.1	1227.3	1027.5	915.9	854.6	820.6	782.4	738.7	708.3
55°	1470.7	1554.0	1364.3	1107.9	920.7	814.4	756.4	726.2	704.0	671.5	645.3
57.5°	1232.1	1338.2	1207.8	984.9	815.8	724.0	668.4	635.6	621.3	604.3	583.7
60°	1090.6	1195.3	1096.1	902.4	745.3	657.9	608.7	581.0	566.6	554.8	537.3
62.5°	964.1	1070.2	986.8	818.6	676.0	595.1	552.2	525.1	514.0	507.8	492.9
65°	790.5	881.8	826.2	688.1	577.0	505.5	466.7	447.7	437.3	434.9	425.5
67.5°	643.4	712.9	672.4	570.8	483.3	421.6	388.6	372.4	364.5	363.7	356.5
70°	546.8	611.9	581.0	488.9	413.5	365.1	336.5	322.2	317.5	316.7	312.8
72.5°	471.9	517.4	492.7	415.9	357.6	313.7	292.7	277.8	272.4	273.5	270.8
75°	349.2	383.3	369.1	315.9	269.0	240.4	223.0	213.5	208.7	211.2	207.9
77.5°	251.3	272.9	260.0	223.2	194.3	173.7	160.8	154.9	150.7	150.5	149.1
80°	189.7	202.4	195.2	173.0	149.3	131.8	121.4	117.4	115.1	114.3	113.5
82.5°	135.1	145.9	137.4	122.2	106.0	95.5	89.7	84.4	82.7	83.2	82.4
85°	68.3	72.2	69.1	59.5	53.2	48.4	45.2	42.8	41.3	42.1	40.5
87.5°	28.3	28.2	25.4	22.3	20.4	18.0	17.4	15.5	14.8	15.3	15.3
90°	23.8	20.1	16.3	12.9	10.0	7.2	4.2	1.3	4.2	7.2	10.0
92.5°	45.9	43.8	41.7	39.6	37.7	35.6	33.6	31.7	33.6	35.6	37.7
95°	92.3	90.0	87.7	85.4	83.4	81.4	79.3	77.3	79.3	81.4	83.4
97.5°	148.2	146.6	144.9	143.3	141.8	140.3	138.8	137.2	138.8	140.3	141.8
100°	189.7	188.1	186.7	185.1	183.4	181.6	179.9	178.1	179.9	181.6	183.4
102.5°	234.8	232.9	231.0	229.4	228.4	227.4	226.3	225.3	226.3	227.4	228.4
105°	303.9	301.2	298.6	297.0	296.4	295.9	295.3	294.7	295.3	295.9	296.4
107.5°	379.6	378.5	377.5	376.8	376.5	376.1	375.8	375.4	375.8	376.1	376.5
110°	429.8	429.2	428.6	428.0	427.4	426.9	426.3	425.7	426.3	426.9	427.4



TEST NUMBER: P332229-840

CATALOG NUMBER: S123DIW-S1165D1320U840-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	479.9	479.8	479.7	479.5	479.1	478.8	478.4	478.1	478.4	478.8	479.1
115°	559.2	559.7	560.3	560.2	559.3	558.4	557.5	556.6	557.5	558.4	559.3
117.5°	636.5	637.2	638.0	638.1	637.5	636.9	636.3	635.8	636.3	636.9	637.5
120°	689.2	690.6	692.2	692.0	690.2	688.5	686.7	685.0	686.7	688.5	690.2
122.5°	740.2	740.9	741.7	741.4	740.2	738.9	737.6	736.4	737.6	738.9	740.2
125°	817.2	817.7	818.3	818.2	817.3	816.4	815.6	814.7	815.6	816.4	817.3
127.5°	893.7	894.4	895.0	894.4	892.5	890.7	888.9	887.0	888.9	890.7	892.5
130°	943.5	944.3	945.2	944.5	942.2	939.9	937.5	935.1	937.5	939.9	942.2
132.5°	992.3	992.9	993.5	992.7	990.4	988.1	985.7	983.4	985.7	988.1	990.4
135°	1064.1	1064.4	1064.7	1064.0	1062.2	1060.5	1058.7	1057.0	1058.7	1060.5	1062.2
137.5°	1133.6	1132.8	1132.1	1130.9	1129.4	1128.0	1126.5	1125.1	1126.5	1128.0	1129.4
140°	1179.5	1179.2	1178.9	1178.1	1176.6	1175.2	1173.7	1172.3	1173.7	1175.2	1176.6
142.5°	1223.0	1222.5	1222.0	1221.0	1219.6	1218.1	1216.7	1215.2	1216.7	1218.1	1219.6
145°	1287.1	1286.2	1285.4	1284.5	1284.0	1283.4	1282.8	1282.2	1282.8	1283.4	1284.0
147.5°	1347.7	1346.9	1346.0	1345.1	1344.1	1343.0	1342.0	1340.9	1342.0	1343.0	1344.1
150°	1385.8	1385.3	1384.7	1384.1	1383.5	1383.0	1382.4	1381.8	1382.4	1383.0	1383.5
152.5°	1419.9	1419.6	1419.2	1418.6	1417.7	1416.9	1416.1	1415.3	1416.1	1416.9	1417.7
155°	1468.9	1468.6	1468.4	1468.2	1468.2	1468.2	1468.2	1468.2	1468.2	1468.2	1468.2
157.5°	1512.3	1512.1	1511.9	1511.9	1512.3	1512.6	1513.0	1513.3	1513.0	1512.6	1512.3
160°	1538.9	1538.9	1538.9	1539.2	1539.8	1540.4	1541.1	1541.6	1541.1	1540.4	1539.8
162.5°	1563.7	1563.5	1563.2	1563.5	1564.3	1565.1	1565.9	1566.7	1565.9	1565.1	1564.3
165°	1595.3	1595.3	1595.3	1595.8	1596.6	1597.5	1598.3	1599.2	1598.3	1597.5	1596.6
167.5°	1620.5	1620.2	1620.0	1620.5	1621.6	1622.9	1624.0	1625.2	1624.0	1622.9	1621.6
170°	1634.6	1634.6	1634.6	1635.2	1636.4	1637.5	1638.7	1639.8	1638.7	1637.5	1636.4
172.5°	1646.1	1646.1	1646.1	1646.7	1647.9	1649.0	1650.2	1651.3	1650.2	1649.0	1647.9
175°	1658.2	1658.2	1658.2	1658.7	1659.9	1661.1	1662.2	1663.4	1662.2	1661.1	1659.9
177.5°	1664.2	1664.2	1664.2	1664.7	1665.6	1666.5	1667.5	1668.4	1667.5	1666.5	1665.6
180°	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1610.8	1606.4	1600.0	1590.5	1582.9	1570.8	1570.8	1572.8	1572.8	1572.2	1570.8
5°	1562.0	1550.0	1535.8	1519.1	1501.7	1484.2	1481.0	1474.6	1469.9	1466.7	1462.8
7.5°	1510.4	1489.2	1468.4	1445.1	1423.8	1406.2	1394.0	1383.8	1377.4	1370.4	1365.2
10°	1475.4	1449.3	1424.6	1400.1	1373.0	1351.6	1338.2	1328.6	1321.5	1315.1	1311.9
12.5°	1434.2	1404.2	1377.1	1353.7	1324.1	1302.1	1289.3	1284.8	1276.4	1263.0	1256.1
15°	1373.8	1346.0	1313.5	1277.8	1263.5	1236.6	1221.4	1214.4	1209.5	1199.2	1196.1
17.5°	1322.2	1285.9	1249.4	1222.7	1196.2	1174.3	1165.9	1157.0	1150.6	1142.3	1139.7
20°	1281.0	1248.5	1215.1	1186.6	1158.7	1135.0	1127.8	1121.5	1115.1	1111.2	1107.9
22.5°	1239.1	1206.6	1178.9	1152.3	1122.6	1107.0	1099.2	1092.3	1087.8	1085.1	1082.0
25°	1180.2	1151.7	1120.6	1096.8	1073.1	1062.7	1057.9	1054.0	1050.9	1046.8	1046.0
27.5°	1127.5	1096.4	1071.3	1049.0	1032.0	1023.4	1018.8	1016.8	1017.5	1019.0	1019.9
30°	1088.1	1059.6	1038.9	1019.9	1004.0	996.0	995.2	995.2	998.5	999.3	1000.8
32.5°	1052.0	1028.4	1007.8	989.4	977.3	971.9	974.9	974.9	977.4	979.6	982.4
35°	999.3	978.6	962.7	946.8	936.5	938.9	940.5	942.1	946.0	950.8	954.0
37.5°	948.9	931.0	914.4	902.1	897.4	901.6	905.4	908.8	913.3	917.1	920.2
40°	912.7	899.2	883.3	872.2	873.8	876.3	879.4	883.3	887.4	889.7	892.9
42.5°	879.1	864.9	852.9	843.6	845.9	848.9	850.8	852.9	857.5	861.8	863.6
45°	827.8	816.7	805.6	800.0	801.6	803.2	804.8	807.2	811.1	814.4	815.1
47.5°	770.2	762.4	755.0	749.5	752.0	751.4	753.6	758.6	759.8	761.7	766.2
50°	733.4	726.2	717.5	715.9	715.9	715.9	716.7	723.1	723.1	726.2	729.4
52.5°	692.8	688.1	682.6	679.7	678.4	678.4	681.8	685.0	686.2	690.6	693.9
55°	632.6	627.8	623.0	620.7	619.0	620.7	627.0	628.5	632.6	634.9	637.3
57.5°	569.9	566.2	562.4	561.1	560.8	562.9	566.3	571.1	572.1	579.4	583.0
60°	528.6	523.0	519.9	519.9	518.3	525.4	523.8	531.8	533.3	538.2	543.7
62.5°	486.0	478.6	477.4	477.4	479.6	481.6	483.8	487.4	491.4	497.5	501.8
65°	417.5	413.5	419.1	418.3	416.7	421.4	421.4	425.5	430.2	435.8	444.4
67.5°	352.5	350.5	350.9	350.9	353.4	356.1	358.3	361.7	367.5	373.3	379.1
70°	308.7	311.1	307.2	310.3	312.8	313.5	315.1	319.8	326.2	330.1	336.5
72.5°	266.2	266.0	266.5	267.8	270.1	271.6	273.2	278.6	285.6	288.9	294.0
75°	204.8	204.0	206.3	206.3	210.4	211.9	213.5	215.9	222.3	227.0	231.0
77.5°	149.6	150.5	150.0	152.7	151.6	151.9	156.8	159.3	159.9	169.3	171.3
80°	112.7	114.3	115.1	115.8	116.6	115.1	120.7	123.0	123.0	128.6	132.5
82.5°	81.0	81.9	84.0	84.7	84.9	86.5	86.9	88.8	90.7	93.0	98.3
85°	40.5	42.8	43.6	42.8	43.6	42.1	44.4	45.2	46.0	46.0	46.0
87.5°	15.2	16.6	16.8	18.1	18.3	19.6	19.9	18.8	19.1	21.2	18.8
90°	12.9	16.3	20.1	23.8	27.7	31.4	32.6	33.7	34.9	36.1	37.0
92.5°	39.6	41.7	43.8	45.9	48.2	50.3	51.2	52.1	53.1	54.0	54.3
95°	85.4	87.7	90.0	92.3	94.6	96.9	98.1	99.3	100.4	101.6	102.2
97.5°	143.3	144.9	146.6	148.2	150.0	151.7	153.0	154.3	155.7	157.0	157.6
100°	185.1	186.7	188.1	189.7	191.1	192.6	193.4	194.3	195.1	196.0	196.7
102.5°	229.4	231.0	232.9	234.8	236.7	238.6	239.5	240.3	241.3	242.2	242.5
105°	297.0	298.6	301.2	303.9	306.5	309.1	309.1	309.1	309.1	309.1	309.4
107.5°	376.8	377.5	378.5	379.6	380.6	381.6	382.6	383.5	384.5	385.4	385.7
110°	428.0	428.6	429.2	429.8	430.3	430.9	432.1	433.2	434.4	435.6	435.9



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	479.5	479.7	479.8	479.9	480.1	480.2	481.6	482.9	484.3	485.7	486.4
115°	560.2	560.3	559.7	559.2	558.6	558.0	558.3	558.6	558.9	559.2	559.2
117.5°	638.1	638.0	637.2	636.5	635.7	635.0	634.9	634.9	634.8	634.7	634.3
120°	692.0	692.2	690.6	689.2	687.8	686.3	686.0	685.7	685.5	685.2	684.7
122.5°	741.4	741.7	740.9	740.2	739.4	738.7	737.9	737.2	736.4	735.7	734.9
125°	818.2	818.3	817.7	817.2	816.6	816.0	814.9	813.6	812.5	811.3	810.2
127.5°	894.4	895.0	894.4	893.7	893.1	892.5	890.8	889.2	887.6	886.0	884.4
130°	944.5	945.2	944.3	943.5	942.6	941.7	940.6	939.4	938.3	937.1	935.4
132.5°	992.7	993.5	992.9	992.3	991.6	991.0	989.6	988.2	986.7	985.4	983.9
135°	1064.0	1064.7	1064.4	1064.1	1063.8	1063.5	1062.4	1061.2	1060.1	1058.8	1058.0
137.5°	1130.9	1132.1	1132.8	1133.6	1134.3	1135.1	1133.8	1132.6	1131.4	1130.1	1129.0
140°	1178.1	1178.9	1179.2	1179.5	1179.8	1180.1	1179.8	1179.5	1179.2	1178.9	1177.8
142.5°	1221.0	1222.0	1222.5	1223.0	1223.6	1224.2	1223.9	1223.6	1223.2	1222.9	1222.0
145°	1284.5	1285.4	1286.2	1287.1	1288.0	1288.8	1288.5	1288.2	1288.0	1287.7	1287.0
147.5°	1345.1	1346.0	1346.9	1347.7	1348.5	1349.3	1349.3	1349.3	1349.3	1349.3	1348.5
150°	1384.1	1384.7	1385.3	1385.8	1386.4	1387.0	1387.0	1387.0	1387.0	1387.0	1386.1
152.5°	1418.6	1419.2	1419.6	1419.9	1420.3	1420.6	1421.1	1421.5	1422.0	1422.4	1421.9
155°	1468.2	1468.4	1468.6	1468.9	1469.3	1469.6	1470.8	1471.9	1473.1	1474.2	1473.8
157.5°	1511.9	1511.9	1512.1	1512.3	1512.6	1512.8	1514.0	1515.2	1516.4	1517.7	1517.4
160°	1539.2	1538.9	1538.9	1538.9	1538.9	1538.9	1540.4	1541.9	1543.4	1544.8	1545.0
162.5°	1563.5	1563.2	1563.5	1563.7	1563.9	1564.1	1565.6	1567.0	1568.5	1569.9	1569.7
165°	1595.8	1595.3	1595.3	1595.3	1595.3	1595.3	1597.0	1598.8	1600.5	1602.3	1602.2
167.5°	1620.5	1620.0	1620.2	1620.5	1620.7	1620.9	1622.8	1624.6	1626.4	1628.2	1628.2
170°	1635.2	1634.6	1634.6	1634.6	1634.6	1634.6	1636.6	1638.7	1640.7	1642.7	1642.7
172.5°	1646.7	1646.1	1646.1	1646.1	1646.1	1646.1	1647.9	1649.7	1651.5	1653.4	1653.3
175°	1658.7	1658.2	1658.2	1658.2	1658.2	1658.2	1659.9	1661.6	1663.4	1665.2	1665.0
177.5°	1664.7	1664.2	1664.2	1664.2	1664.2	1664.2	1665.6	1667.0	1668.4	1669.8	1669.7
180°	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4



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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1566.4	1565.8	1570.2	1567.0	1570.2	1565.8	1566.4	1570.8	1572.2	1572.8	1572.8
5°	1457.9	1460.4	1452.4	1452.4	1452.4	1460.4	1457.9	1462.8	1466.7	1469.9	1474.6
7.5°	1361.5	1358.0	1358.3	1354.0	1358.3	1358.0	1361.5	1365.2	1370.4	1377.4	1383.8
10°	1302.4	1297.7	1296.1	1296.9	1296.1	1297.7	1302.4	1311.9	1315.1	1321.5	1328.6
12.5°	1253.5	1252.5	1242.1	1242.2	1242.1	1252.5	1253.5	1256.1	1263.0	1276.4	1284.8
15°	1196.1	1181.0	1179.4	1184.2	1179.4	1181.0	1196.1	1196.1	1199.2	1209.5	1214.4
17.5°	1138.4	1130.5	1130.9	1128.6	1130.9	1130.5	1138.4	1139.7	1142.3	1150.6	1157.0
20°	1107.9	1103.2	1102.4	1096.8	1102.4	1103.2	1107.9	1107.9	1111.2	1115.1	1121.5
22.5°	1080.1	1078.4	1078.9	1072.8	1078.9	1078.4	1080.1	1082.0	1085.1	1087.8	1092.3
25°	1045.3	1049.2	1046.0	1046.0	1046.0	1049.2	1045.3	1046.0	1046.8	1050.9	1054.0
27.5°	1021.8	1021.6	1020.1	1020.1	1020.1	1021.6	1021.8	1019.9	1019.0	1017.5	1016.8
30°	1004.0	1003.2	1004.8	1004.8	1004.8	1003.2	1004.0	1000.8	999.3	998.5	995.2
32.5°	986.2	987.3	987.6	988.3	987.6	987.3	986.2	982.4	979.6	977.4	974.9
35°	958.8	959.6	961.9	960.4	961.9	959.6	958.8	954.0	950.8	946.0	942.1
37.5°	921.6	925.2	924.4	925.7	924.4	925.2	921.6	920.2	917.1	913.3	908.8
40°	893.6	896.1	895.2	895.2	895.2	896.1	893.6	892.9	889.7	887.4	883.3
42.5°	865.2	866.9	864.7	863.5	864.7	866.9	865.2	863.6	861.8	857.5	852.9
45°	818.3	816.7	819.1	815.9	819.1	816.7	818.3	815.1	814.4	811.1	807.2
47.5°	765.9	767.5	768.1	770.5	768.1	767.5	765.9	766.2	761.7	759.8	758.6
50°	730.9	735.7	735.7	735.0	735.7	735.7	730.9	729.4	726.2	723.1	723.1
52.5°	696.7	698.9	702.1	702.0	702.1	698.9	696.7	693.9	690.6	686.2	685.0
55°	643.7	645.3	646.8	647.6	646.8	645.3	643.7	637.3	634.9	632.6	628.5
57.5°	588.8	588.1	591.9	593.0	591.9	588.1	588.8	583.0	579.4	572.1	571.1
60°	550.0	550.0	556.3	558.8	556.3	550.0	550.0	543.7	538.2	533.3	531.8
62.5°	508.8	511.3	517.7	514.3	517.7	511.3	508.8	501.8	497.5	491.4	487.4
65°	448.4	454.7	453.9	457.2	453.9	454.7	448.4	444.4	435.8	430.2	425.5
67.5°	385.4	389.4	395.1	395.6	395.1	389.4	385.4	379.1	373.3	367.5	361.7
70°	342.8	346.8	350.0	352.3	350.0	346.8	342.8	336.5	330.1	326.2	319.8
72.5°	301.6	303.7	311.2	307.9	311.2	303.7	301.6	294.0	288.9	285.6	278.6
75°	236.5	242.1	246.8	244.5	246.8	242.1	236.5	231.0	227.0	222.3	215.9
77.5°	174.9	180.5	182.7	180.7	182.7	180.5	174.9	171.3	169.3	159.9	159.3
80°	138.1	137.3	142.1	141.3	142.1	137.3	138.1	132.5	128.6	123.0	123.0
82.5°	101.3	100.5	102.7	103.2	102.7	100.5	101.3	98.3	93.0	90.7	88.8
85°	49.2	51.6	48.4	47.7	48.4	51.6	49.2	46.0	46.0	46.0	45.2
87.5°	19.0	19.1	18.6	18.0	18.6	19.1	19.0	18.8	21.2	19.1	18.8
90°	37.6	38.2	38.7	39.3	38.7	38.2	37.6	37.0	36.1	34.9	33.7
92.5°	53.9	53.6	53.2	52.9	53.2	53.6	53.9	54.3	54.0	53.1	52.1
95°	102.2	102.2	102.2	102.2	102.2	102.2	102.2	102.2	101.6	100.4	99.3
97.5°	157.5	157.4	157.3	157.1	157.3	157.4	157.5	157.6	157.0	155.7	154.3
100°	197.3	197.9	198.5	199.0	198.5	197.9	197.3	196.7	196.0	195.1	194.3
102.5°	242.4	242.3	242.2	242.1	242.2	242.3	242.4	242.5	242.2	241.3	240.3
105°	310.0	310.5	311.1	311.7	311.1	310.5	310.0	309.4	309.1	309.1	309.1
107.5°	385.4	385.0	384.7	384.3	384.7	385.0	385.4	385.7	385.4	384.5	383.5
110°	435.3	434.7	434.1	433.5	434.1	434.7	435.3	435.9	435.6	434.4	433.2



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CATALOG NUMBER: S123DIW-S1165D1320U840-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	486.3	486.1	486.0	485.9	486.0	486.1	486.3	486.4	485.7	484.3	482.9
115°	558.9	558.6	558.3	558.0	558.3	558.6	558.9	559.2	559.2	558.9	558.6
117.5°	633.5	632.7	631.9	631.1	631.9	632.7	633.5	634.3	634.7	634.8	634.9
120°	684.2	683.6	683.0	682.4	683.0	683.6	684.2	684.7	685.2	685.5	685.7
122.5°	734.1	733.3	732.5	731.6	732.5	733.3	734.1	734.9	735.7	736.4	737.2
125°	809.0	807.8	806.7	805.5	806.7	807.8	809.0	810.2	811.3	812.5	813.6
127.5°	883.1	881.8	880.5	879.1	880.5	881.8	883.1	884.4	886.0	887.6	889.2
130°	933.4	931.4	929.4	927.4	929.4	931.4	933.4	935.4	937.1	938.3	939.4
132.5°	982.3	980.8	979.2	977.7	979.2	980.8	982.3	983.9	985.4	986.7	988.2
135°	1057.4	1056.8	1056.2	1055.7	1056.2	1056.8	1057.4	1058.0	1058.8	1060.1	1061.2
137.5°	1127.9	1126.8	1125.7	1124.6	1125.7	1126.8	1127.9	1129.0	1130.1	1131.4	1132.6
140°	1175.8	1173.7	1171.6	1169.6	1171.6	1173.7	1175.8	1177.8	1178.9	1179.2	1179.5
142.5°	1220.4	1218.9	1217.3	1215.8	1217.3	1218.9	1220.4	1222.0	1222.9	1223.2	1223.6
145°	1285.8	1284.5	1283.4	1282.2	1283.4	1284.5	1285.8	1287.0	1287.7	1288.0	1288.2
147.5°	1346.8	1344.9	1343.2	1341.5	1343.2	1344.9	1346.8	1348.5	1349.3	1349.3	1349.3
150°	1384.4	1382.7	1380.9	1379.2	1380.9	1382.7	1384.4	1386.1	1387.0	1387.0	1387.0
152.5°	1420.4	1418.9	1417.3	1415.8	1417.3	1418.9	1420.4	1421.9	1422.4	1422.0	1421.5
155°	1471.8	1469.8	1467.6	1465.6	1467.6	1469.8	1471.8	1473.8	1474.2	1473.1	1471.9
157.5°	1515.8	1514.2	1512.6	1511.0	1512.6	1514.2	1515.8	1517.4	1517.7	1516.4	1515.2
160°	1543.8	1542.7	1541.5	1540.2	1541.5	1542.7	1543.8	1545.0	1544.8	1543.4	1541.9
162.5°	1567.9	1566.0	1564.2	1562.3	1564.2	1566.0	1567.9	1569.7	1569.9	1568.5	1567.0
165°	1600.1	1598.1	1596.0	1594.0	1596.0	1598.1	1600.1	1602.2	1602.3	1600.5	1598.8
167.5°	1626.4	1624.6	1622.8	1620.9	1622.8	1624.6	1626.4	1628.2	1628.2	1626.4	1624.6
170°	1640.7	1638.7	1636.6	1634.6	1636.6	1638.7	1640.7	1642.7	1642.7	1640.7	1638.7
172.5°	1651.2	1649.1	1647.1	1645.1	1647.1	1649.1	1651.2	1653.3	1653.4	1651.5	1649.7
175°	1662.9	1660.9	1658.9	1656.9	1658.9	1660.9	1662.9	1665.0	1665.2	1663.4	1661.6
177.5°	1668.0	1666.4	1664.8	1663.1	1664.8	1666.4	1668.0	1669.7	1669.8	1668.4	1667.0
180°	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4



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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1570.8	1570.8	1582.9	1590.5	1600.0	1606.4	1610.8	1615.3	1623.0	1633.1	1644.5
5°	1481.0	1484.2	1501.7	1519.1	1535.8	1550.0	1562.0	1576.2	1593.7	1615.1	1638.9
7.5°	1394.0	1406.2	1423.8	1445.1	1468.4	1489.2	1510.4	1533.9	1558.4	1590.0	1623.4
10°	1338.2	1351.6	1373.0	1400.1	1424.6	1449.3	1475.4	1500.9	1531.8	1569.1	1611.9
12.5°	1289.3	1302.1	1324.1	1353.7	1377.1	1404.2	1434.2	1467.2	1502.0	1546.9	1595.5
15°	1221.4	1236.6	1263.5	1277.8	1313.5	1346.0	1373.8	1421.5	1465.9	1512.0	1568.3
17.5°	1165.9	1174.3	1196.2	1222.7	1249.4	1285.9	1322.2	1361.9	1406.2	1462.6	1533.1
20°	1127.8	1135.0	1158.7	1186.6	1215.1	1248.5	1281.0	1320.7	1370.7	1430.2	1506.4
22.5°	1099.2	1107.0	1122.6	1152.3	1178.9	1206.6	1239.1	1286.4	1339.6	1397.9	1480.4
25°	1057.9	1062.7	1073.1	1096.8	1120.6	1151.7	1180.2	1224.7	1279.4	1347.7	1430.2
27.5°	1018.8	1023.4	1032.0	1049.0	1071.3	1096.4	1127.5	1165.3	1220.8	1294.9	1382.6
30°	995.2	996.0	1004.0	1019.9	1038.9	1059.6	1088.1	1130.9	1183.4	1258.8	1350.8
32.5°	974.9	971.9	977.3	989.4	1007.8	1028.4	1052.0	1094.2	1144.7	1218.8	1313.3
35°	940.5	938.9	936.5	946.8	962.7	978.6	999.3	1031.0	1088.1	1157.2	1256.4
37.5°	905.4	901.6	897.4	902.1	914.4	931.0	948.9	977.1	1026.4	1102.4	1197.3
40°	879.4	876.3	873.8	872.2	883.3	899.2	912.7	939.7	985.7	1057.9	1151.7
42.5°	850.8	848.9	845.9	843.6	852.9	864.9	879.1	902.9	948.9	1016.7	1105.3
45°	804.8	803.2	801.6	800.0	805.6	816.7	827.8	845.3	884.9	950.8	1031.0
47.5°	753.6	751.4	752.0	749.5	755.0	762.4	770.2	788.9	827.0	880.2	938.8
50°	716.7	715.9	715.9	715.9	717.5	726.2	733.4	747.6	782.5	835.8	877.8
52.5°	681.8	678.4	678.4	679.7	682.6	688.1	692.8	708.3	738.7	782.4	820.6
55°	627.0	620.7	619.0	620.7	623.0	627.8	632.6	645.3	671.5	704.0	726.2
57.5°	566.3	562.9	560.8	561.1	562.4	566.2	569.9	583.7	604.3	621.3	635.6
60°	523.8	525.4	518.3	519.9	519.9	523.0	528.6	537.3	554.8	566.6	581.0
62.5°	483.8	481.6	479.6	477.4	477.4	478.6	486.0	492.9	507.8	514.0	525.1
65°	421.4	421.4	416.7	418.3	419.1	413.5	417.5	425.5	434.9	437.3	447.7
67.5°	358.3	356.1	353.4	350.9	350.9	350.5	352.5	356.5	363.7	364.5	372.4
70°	315.1	313.5	312.8	310.3	307.2	311.1	308.7	312.8	316.7	317.5	322.2
72.5°	273.2	271.6	270.1	267.8	266.5	266.0	266.2	270.8	273.5	272.4	277.8
75°	213.5	211.9	210.4	206.3	206.3	204.0	204.8	207.9	211.2	208.7	213.5
77.5°	156.8	151.9	151.6	152.7	150.0	150.5	149.6	149.1	150.5	150.7	154.9
80°	120.7	115.1	116.6	115.8	115.1	114.3	112.7	113.5	114.3	115.1	117.4
82.5°	86.9	86.5	84.9	84.7	84.0	81.9	81.0	82.4	83.2	82.7	84.4
85°	44.4	42.1	43.6	42.8	43.6	42.8	40.5	40.5	42.1	41.3	42.8
87.5°	19.9	19.6	18.3	18.1	16.8	16.6	15.2	15.3	15.3	14.8	15.5
90°	32.6	31.4	27.7	23.8	20.1	16.3	12.9	10.0	7.2	4.2	1.3
92.5°	51.2	50.3	48.2	45.9	43.8	41.7	39.6	37.7	35.6	33.6	31.7
95°	98.1	96.9	94.6	92.3	90.0	87.7	85.4	83.4	81.4	79.3	77.3
97.5°	153.0	151.7	150.0	148.2	146.6	144.9	143.3	141.8	140.3	138.8	137.2
100°	193.4	192.6	191.1	189.7	188.1	186.7	185.1	183.4	181.6	179.9	178.1
102.5°	239.5	238.6	236.7	234.8	232.9	231.0	229.4	228.4	227.4	226.3	225.3
105°	309.1	309.1	306.5	303.9	301.2	298.6	297.0	296.4	295.9	295.3	294.7
107.5°	382.6	381.6	380.6	379.6	378.5	377.5	376.8	376.5	376.1	375.8	375.4
110°	432.1	430.9	430.3	429.8	429.2	428.6	428.0	427.4	426.9	426.3	425.7



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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	481.6	480.2	480.1	479.9	479.8	479.7	479.5	479.1	478.8	478.4	478.1
115°	558.3	558.0	558.6	559.2	559.7	560.3	560.2	559.3	558.4	557.5	556.6
117.5°	634.9	635.0	635.7	636.5	637.2	638.0	638.1	637.5	636.9	636.3	635.8
120°	686.0	686.3	687.8	689.2	690.6	692.2	692.0	690.2	688.5	686.7	685.0
122.5°	737.9	738.7	739.4	740.2	740.9	741.7	741.4	740.2	738.9	737.6	736.4
125°	814.9	816.0	816.6	817.2	817.7	818.3	818.2	817.3	816.4	815.6	814.7
127.5°	890.8	892.5	893.1	893.7	894.4	895.0	894.4	892.5	890.7	888.9	887.0
130°	940.6	941.7	942.6	943.5	944.3	945.2	944.5	942.2	939.9	937.5	935.1
132.5°	989.6	991.0	991.6	992.3	992.9	993.5	992.7	990.4	988.1	985.7	983.4
135°	1062.4	1063.5	1063.8	1064.1	1064.4	1064.7	1064.0	1062.2	1060.5	1058.7	1057.0
137.5°	1133.8	1135.1	1134.3	1133.6	1132.8	1132.1	1130.9	1129.4	1128.0	1126.5	1125.1
140°	1179.8	1180.1	1179.8	1179.5	1179.2	1178.9	1178.1	1176.6	1175.2	1173.7	1172.3
142.5°	1223.9	1224.2	1223.6	1223.0	1222.5	1222.0	1221.0	1219.6	1218.1	1216.7	1215.2
145°	1288.5	1288.8	1288.0	1287.1	1286.2	1285.4	1284.5	1284.0	1283.4	1282.8	1282.2
147.5°	1349.3	1349.3	1348.5	1347.7	1346.9	1346.0	1345.1	1344.1	1343.0	1342.0	1340.9
150°	1387.0	1387.0	1386.4	1385.8	1385.3	1384.7	1384.1	1383.5	1383.0	1382.4	1381.8
152.5°	1421.1	1420.6	1420.3	1419.9	1419.6	1419.2	1418.6	1417.7	1416.9	1416.1	1415.3
155°	1470.8	1469.6	1469.3	1468.9	1468.6	1468.4	1468.2	1468.2	1468.2	1468.2	1468.2
157.5°	1514.0	1512.8	1512.6	1512.3	1512.1	1511.9	1511.9	1512.3	1512.6	1513.0	1513.3
160°	1540.4	1538.9	1538.9	1538.9	1538.9	1538.9	1539.2	1539.8	1540.4	1541.1	1541.6
162.5°	1565.6	1564.1	1563.9	1563.7	1563.5	1563.2	1563.5	1564.3	1565.1	1565.9	1566.7
165°	1597.0	1595.3	1595.3	1595.3	1595.3	1595.3	1595.8	1596.6	1597.5	1598.3	1599.2
167.5°	1622.8	1620.9	1620.7	1620.5	1620.2	1620.0	1620.5	1621.6	1622.9	1624.0	1625.2
170°	1636.6	1634.6	1634.6	1634.6	1634.6	1634.6	1635.2	1636.4	1637.5	1638.7	1639.8
172.5°	1647.9	1646.1	1646.1	1646.1	1646.1	1646.1	1646.7	1647.9	1649.0	1650.2	1651.3
175°	1659.9	1658.2	1658.2	1658.2	1658.2	1658.2	1658.7	1659.9	1661.1	1662.2	1663.4
177.5°	1665.6	1664.2	1664.2	1664.2	1664.2	1664.2	1664.7	1665.6	1666.5	1667.5	1668.4
180°	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1648.3	1651.4	1662.2	1669.9	1678.8	1683.8	1688.9	1692.7	1697.8	1699.1	1717.5
5°	1655.6	1671.5	1699.3	1719.9	1745.2	1773.0	1792.1	1800.9	1823.8	1842.9	1881.0
7.5°	1653.6	1687.4	1729.3	1772.7	1819.4	1862.6	1900.1	1944.5	1976.1	2023.6	2070.4
10°	1651.6	1696.9	1750.8	1806.4	1871.5	1931.8	1985.8	2046.1	2096.1	2161.9	2218.3
12.5°	1645.9	1700.7	1775.6	1841.3	1920.4	2003.6	2083.6	2161.0	2205.3	2315.0	2366.9
15°	1631.8	1696.9	1790.5	1890.6	1999.2	2097.7	2199.3	2280.3	2411.2	2507.2	2568.3
17.5°	1604.8	1696.0	1807.1	1927.6	2059.9	2189.6	2304.7	2427.5	2566.5	2682.6	2806.4
20°	1592.2	1692.1	1815.9	1949.2	2086.6	2233.4	2364.4	2511.9	2663.6	2777.8	2936.6
22.5°	1568.6	1681.9	1815.3	1963.9	2110.7	2262.6	2415.8	2564.7	2739.8	2897.2	3048.4
25°	1530.2	1657.2	1795.3	1961.2	2133.4	2285.8	2469.1	2666.8	2849.3	3051.7	3202.5
27.5°	1489.9	1625.5	1763.8	1918.1	2103.3	2284.2	2514.9	2738.1	2961.3	3136.1	3247.7
30°	1458.8	1590.5	1733.4	1889.0	2072.2	2287.3	2545.3	2788.9	3006.5	3156.4	3219.1
32.5°	1425.1	1558.7	1685.2	1848.4	2043.7	2285.4	2564.4	2818.8	3009.0	3108.9	3096.7
35°	1372.3	1484.2	1607.2	1764.3	1994.5	2271.5	2575.5	2821.5	2938.2	2916.8	2754.8
37.5°	1296.1	1390.2	1511.4	1683.3	1937.3	2242.1	2553.2	2737.8	2730.3	2555.8	2321.2
40°	1248.5	1328.6	1445.3	1626.3	1892.9	2223.1	2518.3	2638.2	2536.6	2292.9	2012.0
42.5°	1186.2	1260.0	1376.7	1562.8	1844.0	2184.3	2451.6	2486.4	2287.6	2007.2	1749.7
45°	1089.7	1154.8	1275.5	1467.5	1770.7	2100.0	2289.0	2204.0	1936.5	1646.9	1450.9
47.5°	986.0	1053.7	1169.7	1367.1	1664.7	1973.3	2063.3	1882.6	1608.0	1373.0	1193.1
50°	920.7	985.7	1099.2	1298.5	1592.9	1869.1	1906.4	1673.0	1420.7	1214.4	1066.7
52.5°	854.6	915.9	1027.5	1227.3	1509.1	1748.5	1725.5	1487.6	1255.6	1079.7	963.8
55°	756.4	814.4	920.7	1107.9	1364.3	1554.0	1470.7	1243.6	1051.6	915.1	827.0
57.5°	668.4	724.0	815.8	984.9	1207.8	1338.2	1232.1	1040.9	888.1	783.0	717.3
60°	608.7	657.9	745.3	902.4	1096.1	1195.3	1090.6	921.5	792.8	708.7	650.1
62.5°	552.2	595.1	676.0	818.6	986.8	1070.2	964.1	821.1	711.7	637.0	587.1
65°	466.7	505.5	577.0	688.1	826.2	881.8	790.5	674.6	589.7	534.1	500.8
67.5°	388.6	421.6	483.3	570.8	672.4	712.9	643.4	553.7	489.7	445.0	418.6
70°	336.5	365.1	413.5	488.9	581.0	611.9	546.8	473.0	426.2	390.5	365.9
72.5°	292.7	313.7	357.6	415.9	492.7	517.4	471.9	407.0	363.3	336.5	317.0
75°	223.0	240.4	269.0	315.9	369.1	383.3	349.2	308.7	279.3	260.3	245.2
77.5°	160.8	173.7	194.3	223.2	260.0	272.9	251.3	224.3	202.9	190.0	181.6
80°	121.4	131.8	149.3	173.0	195.2	202.4	189.7	169.1	154.0	146.8	139.7
82.5°	89.7	95.5	106.0	122.2	137.4	145.9	135.1	122.7	114.6	108.1	105.4
85°	45.2	48.4	53.2	59.5	69.1	72.2	68.3	65.0	60.3	56.4	56.4
87.5°	17.4	18.0	20.4	22.3	25.4	28.2	28.3	27.8	27.9	27.5	27.1
90°	4.2	7.2	10.0	12.9	16.3	20.1	23.8	27.7	31.4	32.6	33.7
92.5°	33.6	35.6	37.7	39.6	41.7	43.8	45.9	48.2	50.3	51.2	52.1
95°	79.3	81.4	83.4	85.4	87.7	90.0	92.3	94.6	96.9	98.1	99.3
97.5°	138.8	140.3	141.8	143.3	144.9	146.6	148.2	150.0	151.7	153.0	154.3
100°	179.9	181.6	183.4	185.1	186.7	188.1	189.7	191.1	192.6	193.4	194.3
102.5°	226.3	227.4	228.4	229.4	231.0	232.9	234.8	236.7	238.6	239.5	240.3
105°	295.3	295.9	296.4	297.0	298.6	301.2	303.9	306.5	309.1	309.1	309.1
107.5°	375.8	376.1	376.5	376.8	377.5	378.5	379.6	380.6	381.6	382.6	383.5
110°	426.3	426.9	427.4	428.0	428.6	429.2	429.8	430.3	430.9	432.1	433.2



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	478.4	478.8	479.1	479.5	479.7	479.8	479.9	480.1	480.2	481.6	482.9
115°	557.5	558.4	559.3	560.2	560.3	559.7	559.2	558.6	558.0	558.3	558.6
117.5°	636.3	636.9	637.5	638.1	638.0	637.2	636.5	635.7	635.0	634.9	634.9
120°	686.7	688.5	690.2	692.0	692.2	690.6	689.2	687.8	686.3	686.0	685.7
122.5°	737.6	738.9	740.2	741.4	741.7	740.9	740.2	739.4	738.7	737.9	737.2
125°	815.6	816.4	817.3	818.2	818.3	817.7	817.2	816.6	816.0	814.9	813.6
127.5°	888.9	890.7	892.5	894.4	895.0	894.4	893.7	893.1	892.5	890.8	889.2
130°	937.5	939.9	942.2	944.5	945.2	944.3	943.5	942.6	941.7	940.6	939.4
132.5°	985.7	988.1	990.4	992.7	993.5	992.9	992.3	991.6	991.0	989.6	988.2
135°	1058.7	1060.5	1062.2	1064.0	1064.7	1064.4	1064.1	1063.8	1063.5	1062.4	1061.2
137.5°	1126.5	1128.0	1129.4	1130.9	1132.1	1132.8	1133.6	1134.3	1135.1	1133.8	1132.6
140°	1173.7	1175.2	1176.6	1178.1	1178.9	1179.2	1179.5	1179.8	1180.1	1179.8	1179.5
142.5°	1216.7	1218.1	1219.6	1221.0	1222.0	1222.5	1223.0	1223.6	1224.2	1223.9	1223.6
145°	1282.8	1283.4	1284.0	1284.5	1285.4	1286.2	1287.1	1288.0	1288.8	1288.5	1288.2
147.5°	1342.0	1343.0	1344.1	1345.1	1346.0	1346.9	1347.7	1348.5	1349.3	1349.3	1349.3
150°	1382.4	1383.0	1383.5	1384.1	1384.7	1385.3	1385.8	1386.4	1387.0	1387.0	1387.0
152.5°	1416.1	1416.9	1417.7	1418.6	1419.2	1419.6	1419.9	1420.3	1420.6	1421.1	1421.5
155°	1468.2	1468.2	1468.2	1468.2	1468.4	1468.6	1468.9	1469.3	1469.6	1470.8	1471.9
157.5°	1513.0	1512.6	1512.3	1511.9	1511.9	1512.1	1512.3	1512.6	1512.8	1514.0	1515.2
160°	1541.1	1540.4	1539.8	1539.2	1538.9	1538.9	1538.9	1538.9	1538.9	1540.4	1541.9
162.5°	1565.9	1565.1	1564.3	1563.5	1563.2	1563.5	1563.7	1563.9	1564.1	1565.6	1567.0
165°	1598.3	1597.5	1596.6	1595.8	1595.3	1595.3	1595.3	1595.3	1595.3	1597.0	1598.8
167.5°	1624.0	1622.9	1621.6	1620.5	1620.0	1620.2	1620.5	1620.7	1620.9	1622.8	1624.6
170°	1638.7	1637.5	1636.4	1635.2	1634.6	1634.6	1634.6	1634.6	1634.6	1636.6	1638.7
172.5°	1650.2	1649.0	1647.9	1646.7	1646.1	1646.1	1646.1	1646.1	1646.1	1647.9	1649.7
175°	1662.2	1661.1	1659.9	1658.7	1658.2	1658.2	1658.2	1658.2	1658.2	1659.9	1661.6
177.5°	1667.5	1666.5	1665.6	1664.7	1664.2	1664.2	1664.2	1664.2	1664.2	1665.6	1667.0
180°	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1723.8	1724.4	1731.5	1736.6	1734.0	1737.2	1738.5
5°	1883.4	1912.0	1927.0	1938.1	1938.9	1939.7	1946.1
7.5°	2109.6	2140.2	2162.6	2196.6	2206.8	2218.3	2214.9
10°	2274.7	2319.9	2358.8	2379.4	2401.7	2434.2	2408.0
12.5°	2428.9	2509.1	2568.3	2600.4	2621.3	2627.9	2615.0
15°	2683.4	2788.1	2844.5	2843.0	2914.4	2945.4	2896.9
17.5°	2916.8	3013.4	3090.9	3130.6	3190.1	3203.3	3197.2
20°	3059.6	3165.2	3225.5	3293.8	3324.7	3352.4	3357.2
22.5°	3182.8	3277.5	3342.4	3399.1	3425.1	3438.2	3446.2
25°	3309.6	3384.3	3423.1	3442.9	3450.1	3448.5	3438.2
27.5°	3300.8	3306.6	3263.8	3221.7	3184.1	3141.7	3127.0
30°	3215.2	3148.5	3029.5	2962.0	2862.8	2784.2	2815.9
32.5°	2989.8	2857.1	2723.4	2576.0	2453.9	2419.1	2384.2
35°	2551.6	2318.3	2181.8	2023.1	1959.5	1896.1	1852.4
37.5°	2064.4	1883.9	1721.9	1618.1	1554.5	1514.3	1492.8
40°	1784.9	1622.2	1488.9	1404.8	1356.3	1311.1	1304.8
42.5°	1562.2	1410.9	1310.5	1243.5	1197.0	1177.8	1163.9
45°	1279.4	1173.9	1106.4	1058.7	1027.8	1015.9	1000.1
47.5°	1082.9	1008.2	957.7	925.2	901.9	893.0	891.8
50°	973.0	911.1	873.8	848.4	830.2	827.0	814.4
52.5°	890.5	836.9	807.8	785.6	772.4	763.6	759.7
55°	773.1	737.3	711.1	698.4	688.1	679.3	679.3
57.5°	676.4	646.5	629.2	618.4	615.2	609.0	605.1
60°	616.7	591.3	577.8	568.3	561.9	562.7	555.5
62.5°	558.3	541.8	528.9	519.4	511.8	511.9	512.4
65°	475.4	462.7	453.2	450.0	445.2	439.7	441.3
67.5°	402.8	390.9	383.5	378.1	376.5	373.5	378.1
70°	350.8	342.0	336.5	331.7	330.1	330.9	335.0
72.5°	303.2	297.0	293.4	291.1	287.6	287.8	290.4
75°	238.1	233.4	230.1	227.8	227.0	227.0	227.0
77.5°	174.9	173.8	172.4	168.8	169.1	170.0	170.2
80°	138.1	135.7	134.9	133.3	131.0	129.4	133.3
82.5°	103.2	100.8	100.0	99.7	96.0	95.7	99.1
85°	55.5	53.2	53.9	53.2	53.2	52.4	52.4
87.5°	26.7	26.3	25.9	26.6	26.1	25.5	26.9
90°	34.9	36.1	37.0	37.6	38.2	38.7	39.3
92.5°	53.1	54.0	54.3	53.9	53.6	53.2	52.9
95°	100.4	101.6	102.2	102.2	102.2	102.2	102.2
97.5°	155.7	157.0	157.6	157.5	157.4	157.3	157.1
100°	195.1	196.0	196.7	197.3	197.9	198.5	199.0
102.5°	241.3	242.2	242.5	242.4	242.3	242.2	242.1
105°	309.1	309.1	309.4	310.0	310.5	311.1	311.7
107.5°	384.5	385.4	385.7	385.4	385.0	384.7	384.3
110°	434.4	435.6	435.9	435.3	434.7	434.1	433.5



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	484.3	485.7	486.4	486.3	486.1	486.0	485.9
115°	558.9	559.2	559.2	558.9	558.6	558.3	558.0
117.5°	634.8	634.7	634.3	633.5	632.7	631.9	631.1
120°	685.5	685.2	684.7	684.2	683.6	683.0	682.4
122.5°	736.4	735.7	734.9	734.1	733.3	732.5	731.6
125°	812.5	811.3	810.2	809.0	807.8	806.7	805.5
127.5°	887.6	886.0	884.4	883.1	881.8	880.5	879.1
130°	938.3	937.1	935.4	933.4	931.4	929.4	927.4
132.5°	986.7	985.4	983.9	982.3	980.8	979.2	977.7
135°	1060.1	1058.8	1058.0	1057.4	1056.8	1056.2	1055.7
137.5°	1131.4	1130.1	1129.0	1127.9	1126.8	1125.7	1124.6
140°	1179.2	1178.9	1177.8	1175.8	1173.7	1171.6	1169.6
142.5°	1223.2	1222.9	1222.0	1220.4	1218.9	1217.3	1215.8
145°	1288.0	1287.7	1287.0	1285.8	1284.5	1283.4	1282.2
147.5°	1349.3	1349.3	1348.5	1346.8	1344.9	1343.2	1341.5
150°	1387.0	1387.0	1386.1	1384.4	1382.7	1380.9	1379.2
152.5°	1422.0	1422.4	1421.9	1420.4	1418.9	1417.3	1415.8
155°	1473.1	1474.2	1473.8	1471.8	1469.8	1467.6	1465.6
157.5°	1516.4	1517.7	1517.4	1515.8	1514.2	1512.6	1511.0
160°	1543.4	1544.8	1545.0	1543.8	1542.7	1541.5	1540.2
162.5°	1568.5	1569.9	1569.7	1567.9	1566.0	1564.2	1562.3
165°	1600.5	1602.3	1602.2	1600.1	1598.1	1596.0	1594.0
167.5°	1626.4	1628.2	1628.2	1626.4	1624.6	1622.8	1620.9
170°	1640.7	1642.7	1642.7	1640.7	1638.7	1636.6	1634.6
172.5°	1651.5	1653.4	1653.3	1651.2	1649.1	1647.1	1645.1
175°	1663.4	1665.2	1665.0	1662.9	1660.9	1658.9	1656.9
177.5°	1668.4	1669.8	1669.7	1668.0	1666.4	1664.8	1663.1
180°	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4	1667.4

(END OF REPORT)