

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: P332980-830

Luminaire Tested: **SA4XXRDIP-C1020D1205U830-4F0-1E-UDD-A1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332980-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXRDIP-C1020D1205U830-4F0-1E-UDD-A1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1020 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

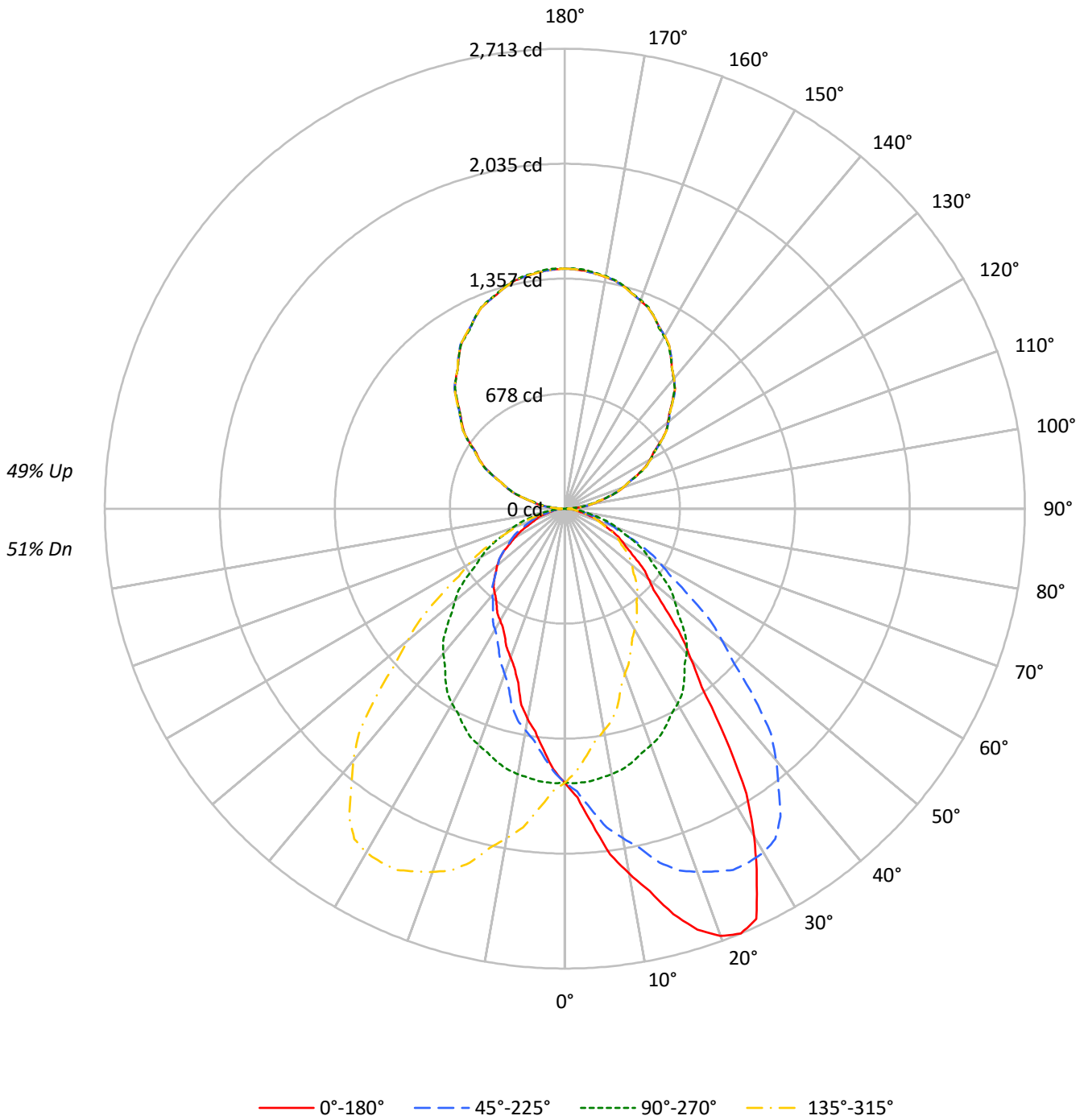
Lumens per Lamp: N/A
Luminaire Lumens: 8020.5 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.23 / 1.39
Luminous Opening: Rectangular (W 4' x L: 0.33' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	94	91	87	91	87	84	81	74	72	70	62	61	59	51	50	49	44
2	90	83	77	72	83	77	72	67	66	62	59	55	53	50	46	44	42	38
3	82	73	66	61	76	68	62	57	58	54	50	49	46	43	41	38	36	32
4	76	65	57	52	70	61	54	49	52	47	43	44	40	37	37	34	32	28
5	70	58	50	44	64	54	47	42	47	41	37	40	36	32	33	30	28	25
6	64	52	44	39	59	49	42	37	42	37	33	36	32	29	30	27	25	22
7	59	47	40	34	55	44	37	32	38	33	29	33	29	25	28	24	22	19
8	55	43	35	30	51	40	33	29	35	30	26	30	26	23	26	22	20	17
9	51	39	32	27	48	37	30	26	32	27	23	28	24	21	24	20	18	16
10	48	36	29	24	45	34	27	23	30	24	21	26	22	19	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	13056	13056	13056	13056
5°	15144	13095	11574	13095
10°	17915	13038	10330	13038
15°	20695	12918	8877	12918
20°	23040	12752	8027	12752
25°	23785	12588	7452	12588
30°	20821	12392	7106	12392
35°	16208	12098	6897	12098
40°	12154	11763	6785	11763
45°	9597	11226	6725	11226
50°	8102	10605	6531	10605
55°	7061	9923	6180	9923
60°	6353	9216	5470	9216
65°	5601	8451	4705	8451
70°	5044	7659	4244	7659
75°	4226	6787	3618	6787
80°	3575	5783	3394	5783
85°	3020	4520	3020	4520



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.7	2.0
10°-20°	472.7	5.9
20°-30°	739.3	9.2
30°-40°	821.9	10.2
40°-50°	729.2	9.1
50°-60°	568.2	7.1
60°-70°	372.0	4.6
70°-80°	182.9	2.3
80°-90°	49.4	0.6
90°-100°	93.4	1.2
100°-110°	276.7	3.4
110°-120°	469.6	5.9
120°-130°	619.1	7.7
130°-140°	695.3	8.7
140°-150°	683.3	8.5
150°-160°	574.7	7.2
160°-170°	382.4	4.8
170°-180°	133.9	1.7
0°-30°	1368.7	17.1
0°-40°	2190.5	27.3
0°-60°	3487.9	43.5
0°-90°	4092.2	51.0
90°-120°	839.6	10.5
90°-150°	2837.4	35.4
90°-180°	3928.0	49.0
0°-180°	8020.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1617	1617	1617	1617	1617	
5°	1869	1616	1428	1616	1869	189
15°	2476	1546	1062	1546	2476	704
25°	2670	1413	837	1413	2670	1185
35°	1645	1228	700	1228	1645	1031
45°	841	983	589	983	841	666
55°	502	705	439	705	502	456
65°	293	442	246	442	293	295
75°	136	218	116	218	136	149
85°	33	49	33	49	33	38
90°	33	3	33	3	33	18
95°	86	66	86	66	86	90
105°	267	255	267	255	267	282
115°	473	477	473	477	473	468
125°	690	695	690	695	690	615
135°	898	897	898	897	898	693
145°	1091	1090	1091	1090	1091	683
155°	1247	1248	1247	1248	1247	574
165°	1356	1359	1356	1359	1356	382
175°	1407	1414	1407	1414	1407	134
180°	1416	1416	1416	1416	1416	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1705.8	1710.5	1705.8	1705.3	1700.2	1698.6	1696.5	1689.7	1677.2	1669.9	1671.4
5°	1868.8	1885.0	1875.9	1874.6	1860.3	1846.0	1836.8	1816.0	1793.8	1778.9	1766.4
7.5°	2057.2	2066.5	2060.9	2051.7	2028.5	2015.3	1994.2	1966.7	1927.0	1896.6	1868.9
10°	2185.4	2193.2	2190.7	2173.7	2156.7	2122.2	2102.6	2064.3	2014.0	1974.3	1937.1
12.5°	2311.6	2319.9	2297.0	2297.7	2265.7	2238.4	2207.4	2159.1	2101.1	2049.8	2003.4
15°	2476.1	2465.6	2465.6	2452.6	2416.7	2379.0	2347.0	2296.2	2223.2	2161.9	2097.4
17.5°	2604.8	2608.4	2603.1	2572.3	2544.2	2505.1	2446.6	2387.3	2319.5	2237.3	2171.3
20°	2681.9	2681.9	2676.1	2655.2	2618.8	2577.0	2513.9	2449.3	2363.3	2280.6	2206.3
22.5°	2713.2	2715.3	2708.4	2691.1	2658.3	2617.6	2563.8	2498.3	2409.7	2316.5	2224.5
25°	2670.2	2682.6	2683.9	2679.3	2669.6	2644.8	2598.5	2531.4	2451.9	2350.9	2251.8
27.5°	2451.6	2467.2	2480.9	2503.4	2533.4	2549.0	2551.1	2517.0	2447.6	2350.4	2250.7
30°	2233.6	2246.6	2289.1	2344.4	2387.4	2426.5	2460.4	2469.5	2430.4	2343.1	2238.2
32.5°	1991.8	2009.5	2051.8	2111.4	2183.0	2249.3	2325.3	2364.2	2363.1	2310.7	2213.7
35°	1644.6	1657.6	1696.8	1759.3	1845.3	1943.7	2064.3	2158.0	2221.9	2217.3	2158.0
37.5°	1326.3	1341.0	1380.5	1432.5	1515.9	1637.7	1754.4	1883.6	2001.7	2068.0	2048.1
40°	1153.3	1154.0	1192.4	1245.9	1324.0	1430.2	1557.3	1700.6	1832.2	1939.8	1960.6
42.5°	1016.7	1016.8	1042.3	1099.9	1156.2	1256.1	1377.4	1519.8	1673.8	1798.0	1853.2
45°	840.6	846.4	867.2	901.8	946.1	1030.8	1127.8	1260.2	1432.9	1580.1	1672.0
47.5°	711.8	720.4	733.7	761.9	797.1	853.6	933.9	1052.7	1193.2	1355.2	1485.9
50°	645.1	646.4	663.3	678.9	709.5	754.5	824.9	924.0	1052.9	1208.7	1354.0
52.5°	587.8	587.5	597.7	617.5	642.3	677.4	734.2	824.3	938.8	1078.4	1228.3
55°	501.7	505.0	512.8	528.4	547.3	572.1	617.1	684.9	774.8	894.0	1030.2
57.5°	436.3	438.0	444.1	450.7	468.1	486.1	519.8	566.8	642.7	740.4	867.2
60°	393.5	394.2	396.2	406.0	419.6	436.6	459.4	499.1	563.0	652.2	752.6
62.5°	351.9	353.0	356.0	363.2	373.7	385.5	409.3	441.3	494.2	570.4	660.8
65°	293.2	293.9	298.4	301.0	309.5	319.9	337.5	359.0	395.5	459.4	527.8
67.5°	245.0	245.0	245.2	248.7	254.7	261.6	272.1	289.3	316.8	356.0	416.3
70°	213.7	213.7	215.0	217.0	220.3	226.1	232.0	245.0	265.2	297.1	343.4
72.5°	184.5	185.0	186.3	186.7	188.4	193.2	197.6	205.9	220.9	245.0	282.4
75°	135.5	137.5	140.7	143.4	146.6	146.0	150.5	155.7	160.3	174.7	196.1
77.5°	100.9	99.8	100.2	102.5	102.8	103.5	106.7	110.7	114.1	120.9	128.7
80°	76.9	76.9	78.8	79.5	78.8	79.5	82.8	84.7	86.1	88.6	95.8
82.5°	58.2	59.2	58.5	59.2	59.6	60.2	63.0	63.3	64.7	65.7	68.7
85°	32.6	33.3	33.8	32.6	32.6	32.6	33.8	34.5	35.8	35.2	36.5
87.5°	18.0	17.4	17.8	17.7	18.2	17.4	17.7	18.5	17.1	17.3	17.0
90°	32.9	32.3	31.9	31.4	30.9	30.0	28.5	27.1	25.5	24.1	22.1
92.5°	48.6	48.4	48.1	47.8	47.4	46.8	46.0	45.1	44.2	43.4	42.0
95°	86.5	86.5	86.5	86.5	86.5	86.1	85.4	84.6	84.0	83.2	81.5
97.5°	135.5	135.5	135.5	135.5	135.5	135.2	134.2	133.4	132.5	131.6	129.6
100°	169.8	169.8	169.8	169.8	169.8	169.5	169.0	168.5	168.1	167.6	165.3
102.5°	208.3	208.1	207.9	207.7	207.5	207.1	206.4	205.7	205.0	204.3	202.4
105°	267.2	266.5	265.7	265.0	264.3	263.5	262.8	262.1	261.4	260.6	259.7
107.5°	324.6	324.6	324.7	324.7	324.8	324.4	323.8	323.1	322.4	321.7	321.6
110°	365.7	365.0	364.3	363.5	362.8	362.7	363.2	363.6	364.2	364.7	364.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	407.8	407.6	407.5	407.4	407.2	407.2	407.3	407.4	407.5	407.6	408.0
115°	473.1	473.3	473.5	473.8	474.0	474.3	474.5	474.8	475.0	475.2	475.7
117.5°	535.3	535.7	536.2	536.7	537.2	537.8	538.7	539.5	540.4	541.2	541.5
120°	582.6	582.1	581.5	581.1	580.6	581.0	582.2	583.4	584.7	585.9	586.5
122.5°	622.0	622.8	623.8	624.6	625.5	626.3	627.2	628.0	628.9	629.6	630.0
125°	689.8	690.3	690.9	691.4	691.8	692.3	692.8	693.2	693.8	694.3	694.5
127.5°	752.7	753.1	753.5	753.9	754.3	754.7	755.3	755.7	756.2	756.7	757.1
130°	793.9	794.8	795.9	796.8	797.8	798.5	799.0	799.5	800.0	800.5	800.5
132.5°	837.7	838.1	838.5	838.9	839.2	839.7	840.2	840.7	841.1	841.7	841.9
135°	898.0	898.6	899.4	900.1	900.9	901.4	901.9	902.5	903.0	903.4	903.4
137.5°	961.2	961.1	960.9	960.8	960.6	960.9	961.5	962.1	962.8	963.4	963.0
140°	999.8	1000.0	1000.2	1000.5	1000.8	1001.0	1001.3	1001.5	1001.7	1001.9	1001.9
142.5°	1038.3	1038.4	1038.4	1038.5	1038.5	1038.6	1038.6	1038.7	1038.7	1038.8	1039.0
145°	1090.7	1091.4	1092.1	1092.9	1093.5	1094.1	1094.3	1094.6	1094.8	1095.0	1094.8
147.5°	1143.7	1143.9	1144.2	1144.4	1144.6	1144.8	1145.1	1145.3	1145.5	1145.7	1145.8
150°	1176.1	1176.3	1176.6	1176.8	1177.0	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1
152.5°	1205.9	1206.5	1207.1	1207.8	1208.4	1208.4	1207.9	1207.2	1206.6	1206.1	1205.9
155°	1247.3	1248.2	1249.2	1250.2	1251.1	1251.1	1250.2	1249.2	1248.2	1247.3	1247.5
157.5°	1284.3	1285.1	1285.9	1286.8	1287.6	1287.6	1286.9	1286.2	1285.4	1284.7	1284.8
160°	1305.3	1306.6	1307.7	1308.9	1310.1	1310.4	1309.7	1308.9	1308.2	1307.5	1307.7
162.5°	1327.2	1328.4	1329.6	1330.9	1332.1	1332.0	1330.7	1329.4	1328.0	1326.7	1327.0
165°	1355.7	1356.6	1357.6	1358.6	1359.5	1359.3	1357.8	1356.4	1354.9	1353.5	1354.0
167.5°	1376.0	1377.5	1379.0	1380.5	1382.1	1382.1	1380.6	1379.1	1377.7	1376.2	1376.2
170°	1387.4	1389.1	1390.8	1392.5	1394.2	1394.4	1392.9	1391.5	1390.0	1388.6	1388.3
172.5°	1397.0	1398.7	1400.4	1402.1	1403.9	1403.9	1402.2	1400.6	1398.9	1397.3	1397.2
175°	1407.1	1408.8	1410.5	1412.2	1413.9	1413.9	1412.2	1410.5	1408.8	1407.1	1407.4
177.5°	1412.4	1413.9	1415.5	1417.0	1418.6	1418.7	1417.4	1416.0	1414.7	1413.2	1413.2
180°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1666.2	1659.0	1655.3	1646.9	1637.0	1631.8	1627.1	1620.3	1611.5	1602.1	1595.3
5°	1750.8	1735.1	1715.6	1692.1	1671.3	1651.1	1633.5	1615.9	1595.7	1574.9	1554.1
7.5°	1837.6	1806.9	1773.6	1735.1	1697.8	1663.8	1632.5	1602.5	1568.6	1538.2	1510.6
10°	1898.1	1856.3	1810.1	1761.2	1712.3	1670.0	1628.3	1590.5	1548.8	1511.6	1480.4
12.5°	1947.1	1898.1	1842.4	1781.6	1722.8	1671.6	1623.6	1574.3	1526.9	1486.7	1444.9
15°	2028.4	1961.2	1886.3	1813.4	1737.1	1667.4	1602.9	1545.6	1491.5	1434.8	1395.1
17.5°	2084.2	2004.7	1913.5	1825.9	1735.8	1653.6	1579.1	1510.9	1448.5	1390.6	1343.3
20°	2117.6	2029.7	1928.7	1829.0	1728.0	1640.0	1559.9	1484.3	1419.8	1357.3	1308.3
22.5°	2136.4	2039.1	1928.7	1824.3	1719.7	1624.4	1536.4	1457.7	1387.5	1324.9	1270.8
25°	2142.4	2038.2	1925.4	1805.5	1690.8	1589.9	1498.6	1413.2	1335.1	1272.5	1215.2
27.5°	2134.1	2011.3	1895.8	1772.8	1654.5	1548.0	1452.3	1362.6	1284.3	1217.2	1158.4
30°	2121.6	1989.9	1866.1	1738.4	1618.5	1516.3	1415.2	1329.3	1247.7	1178.1	1118.8
32.5°	2094.4	1963.9	1830.7	1699.9	1578.4	1473.0	1377.1	1290.6	1210.8	1139.5	1076.6
35°	2040.8	1908.5	1763.9	1629.7	1510.3	1400.9	1311.0	1227.6	1151.3	1075.2	1008.6
37.5°	1970.0	1834.8	1691.0	1544.0	1424.7	1321.3	1238.8	1160.5	1086.1	1016.4	942.8
40°	1903.3	1780.1	1631.5	1485.6	1363.1	1263.4	1187.2	1116.2	1041.2	972.1	898.5
42.5°	1822.5	1717.6	1567.4	1421.0	1300.0	1204.0	1132.9	1063.5	995.3	928.4	851.6
45°	1687.6	1608.1	1467.4	1326.6	1204.8	1109.7	1044.5	983.3	923.3	859.4	787.1
47.5°	1533.0	1479.2	1357.7	1213.6	1100.9	1015.3	952.3	902.3	851.6	787.8	724.3
50°	1425.7	1391.1	1273.8	1142.3	1034.7	955.8	891.4	844.4	802.1	740.8	684.2
52.5°	1311.0	1292.6	1193.5	1067.7	963.8	886.6	831.4	789.2	746.3	695.5	642.4
55°	1136.3	1146.1	1062.1	953.3	855.5	790.4	740.2	705.0	668.5	625.6	584.5
57.5°	957.8	993.5	937.1	841.6	750.0	689.8	652.0	622.4	591.7	556.1	521.0
60°	850.9	880.9	849.0	765.0	684.9	628.8	593.6	570.8	540.2	507.6	480.9
62.5°	746.7	778.7	759.9	692.0	617.6	569.4	538.4	517.1	494.3	465.9	438.1
65°	615.8	636.6	627.5	580.6	527.8	486.7	458.1	442.4	421.6	400.8	376.0
67.5°	471.6	511.9	506.5	481.6	436.0	404.0	385.2	371.4	352.4	336.9	320.1
70°	387.7	424.8	424.1	404.0	379.2	349.2	336.2	324.5	307.6	292.6	278.9
72.5°	317.4	351.4	356.4	340.9	324.0	301.3	288.8	280.7	264.3	254.0	242.9
75°	222.2	246.9	253.4	253.4	245.6	233.9	222.8	217.6	205.9	196.8	190.3
77.5°	145.7	161.4	171.5	173.8	175.0	171.1	162.0	158.3	149.3	146.1	139.9
80°	102.9	113.4	125.1	129.0	132.2	131.0	127.1	124.4	116.0	112.7	110.1
82.5°	71.2	76.9	86.5	95.1	94.3	97.6	94.3	92.2	85.8	84.5	82.0
85°	37.1	37.8	39.1	45.0	48.3	49.5	50.1	48.8	46.9	46.9	42.3
87.5°	16.6	15.6	16.3	15.8	15.8	17.3	18.4	18.4	17.3	16.3	15.3
90°	20.2	18.3	16.3	13.9	11.3	8.7	5.9	3.3	5.9	8.7	11.3
92.5°	40.6	39.3	37.9	35.7	32.6	29.6	26.5	23.5	26.5	29.6	32.6
95°	79.8	78.1	76.4	74.5	72.3	70.1	67.9	65.7	67.9	70.1	72.3
97.5°	127.6	125.6	123.7	121.8	120.0	118.3	116.5	114.8	116.5	118.3	120.0
100°	163.2	161.0	158.8	157.2	156.2	155.2	154.3	153.4	154.3	155.2	156.2
102.5°	200.4	198.3	196.3	195.2	194.7	194.4	194.0	193.6	194.0	194.4	194.7
105°	258.6	257.7	256.7	256.1	255.9	255.6	255.4	255.1	255.4	255.6	255.9
107.5°	321.4	321.3	321.1	320.9	320.7	320.4	320.1	319.7	320.1	320.4	320.7
110°	365.1	365.4	365.6	365.5	365.0	364.5	364.0	363.5	364.0	364.5	365.0



TEST NUMBER: P332980-830

CATALOG NUMBER: SA4XXRDIP-C1020D1205U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	408.5	408.9	409.3	409.5	409.4	409.3	409.3	409.1	409.3	409.3	409.4
115°	476.3	476.7	477.2	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4
117.5°	541.9	542.2	542.5	542.6	542.4	542.2	542.1	541.9	542.1	542.2	542.4
120°	587.3	588.1	588.8	588.6	587.7	586.7	585.7	584.8	585.7	586.7	587.7
122.5°	630.4	630.7	631.0	631.0	630.6	630.2	629.8	629.4	629.8	630.2	630.6
125°	694.7	695.0	695.2	695.3	695.3	695.3	695.3	695.3	695.3	695.3	695.3
127.5°	757.4	757.8	758.3	758.1	757.3	756.6	755.9	755.2	755.9	756.6	757.3
130°	800.5	800.5	800.5	800.1	799.4	798.6	798.0	797.2	798.0	798.6	799.4
132.5°	842.1	842.3	842.4	842.3	841.7	841.2	840.7	840.1	840.7	841.2	841.7
135°	903.4	903.4	903.4	902.7	901.3	899.8	898.3	896.8	898.3	899.8	901.3
137.5°	962.6	962.2	961.9	961.3	960.6	960.0	959.3	958.6	959.3	960.0	960.6
140°	1001.9	1001.9	1001.9	1001.7	1001.3	1000.8	1000.2	999.8	1000.2	1000.8	1001.3
142.5°	1039.2	1039.3	1039.5	1039.4	1038.9	1038.4	1037.9	1037.5	1037.9	1038.4	1038.9
145°	1094.6	1094.3	1094.1	1093.4	1092.5	1091.6	1090.5	1089.6	1090.5	1091.6	1092.5
147.5°	1146.0	1146.2	1146.4	1145.9	1144.7	1143.6	1142.5	1141.2	1142.5	1143.6	1144.7
150°	1177.1	1177.1	1177.1	1176.7	1175.7	1174.8	1173.7	1172.8	1173.7	1174.8	1175.7
152.5°	1205.7	1205.5	1205.3	1204.9	1204.3	1203.7	1203.2	1202.6	1203.2	1203.7	1204.3
155°	1247.7	1248.0	1248.2	1248.3	1248.3	1248.3	1248.3	1248.3	1248.3	1248.3	1248.3
157.5°	1284.8	1284.9	1284.9	1285.2	1285.6	1286.0	1286.5	1286.9	1286.5	1286.0	1285.6
160°	1308.0	1308.2	1308.4	1308.7	1308.9	1309.2	1309.5	1309.7	1309.5	1309.2	1308.9
162.5°	1327.3	1327.5	1327.8	1328.1	1328.8	1329.5	1330.0	1330.7	1330.0	1329.5	1328.8
165°	1354.4	1354.9	1355.4	1356.0	1356.8	1357.4	1358.2	1359.0	1358.2	1357.4	1356.8
167.5°	1376.1	1376.1	1376.0	1376.6	1377.5	1378.6	1379.6	1380.6	1379.6	1378.6	1377.5
170°	1388.0	1387.8	1387.5	1388.0	1389.2	1390.4	1391.7	1392.9	1391.7	1390.4	1389.2
172.5°	1397.2	1397.1	1397.0	1397.6	1398.5	1399.6	1400.6	1401.7	1400.6	1399.6	1398.5
175°	1407.6	1407.9	1408.1	1408.8	1410.0	1411.3	1412.5	1413.7	1412.5	1411.3	1410.0
177.5°	1413.2	1413.2	1413.2	1413.7	1414.8	1415.7	1416.6	1417.7	1416.6	1415.7	1414.8
180°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9



TEST NUMBER: P332980-830
 CATALOG NUMBER: SA4XXRDIP-C1020D1205U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1588.0	1582.8	1576.0	1568.2	1558.9	1550.5	1546.9	1550.0	1551.5	1547.4	1546.9
5°	1539.7	1523.4	1510.3	1490.8	1475.2	1462.2	1453.0	1449.2	1450.4	1440.0	1437.4
7.5°	1485.4	1466.0	1444.7	1421.4	1399.9	1380.7	1370.6	1365.2	1354.2	1349.4	1341.5
10°	1450.4	1424.4	1403.5	1376.1	1351.4	1328.6	1317.5	1308.3	1297.3	1292.1	1281.0
12.5°	1414.5	1384.2	1361.3	1332.8	1307.6	1280.1	1269.5	1252.6	1235.3	1224.4	1210.1
15°	1363.8	1327.3	1299.3	1265.4	1235.4	1204.1	1176.1	1144.8	1133.1	1108.3	1094.0
17.5°	1304.5	1267.4	1232.8	1187.3	1141.0	1102.2	1072.3	1042.4	1024.4	1008.6	1001.4
20°	1265.4	1231.5	1183.3	1130.5	1079.0	1036.0	1011.9	992.4	972.8	961.8	953.9
22.5°	1228.3	1185.1	1129.1	1072.1	1020.7	987.0	966.6	946.5	930.6	920.0	909.6
25°	1166.3	1109.7	1050.4	985.2	950.0	920.7	898.5	882.2	872.5	858.8	853.6
27.5°	1102.6	1034.0	968.6	924.7	888.1	861.3	842.0	829.7	817.4	808.6	801.8
30°	1053.6	983.9	925.3	883.5	846.4	824.3	808.6	794.3	784.5	777.3	772.1
32.5°	1005.1	935.4	886.2	841.3	812.0	790.4	773.7	763.0	755.4	746.0	742.9
35°	935.0	873.1	830.1	789.8	759.8	740.2	727.2	716.0	709.5	707.0	705.0
37.5°	867.6	817.0	770.7	737.6	710.9	695.5	680.1	674.7	670.2	665.5	667.6
40°	824.9	777.3	736.3	701.1	679.6	662.7	653.6	647.1	643.1	643.1	643.1
42.5°	787.9	741.4	701.3	669.9	648.3	634.0	623.9	618.3	617.1	616.5	619.6
45°	730.5	687.4	647.1	620.9	602.8	588.3	582.5	578.0	578.0	580.6	581.2
47.5°	673.4	633.2	600.8	571.6	554.9	545.9	540.8	538.5	538.8	541.3	544.3
50°	638.6	598.8	566.8	540.8	525.2	516.7	512.2	510.9	512.2	512.2	516.7
52.5°	600.5	565.0	533.5	511.6	493.9	486.0	483.4	481.6	482.4	484.6	486.4
55°	544.7	512.8	482.9	461.9	448.9	443.7	437.9	438.5	437.2	438.5	438.5
57.5°	488.8	460.1	432.3	415.8	404.3	396.7	390.3	392.1	390.2	389.9	388.9
60°	452.9	421.6	399.4	384.5	371.4	364.9	359.0	360.3	358.4	357.0	354.5
62.5°	413.8	387.7	366.6	352.1	341.7	334.1	328.3	327.0	322.4	318.0	312.3
65°	357.0	335.5	316.7	303.0	293.2	287.4	282.8	278.9	269.1	258.6	253.4
67.5°	302.0	286.4	268.8	257.2	249.3	241.6	232.9	226.2	217.1	211.4	208.1
70°	266.5	251.5	236.5	225.5	217.0	209.8	200.0	195.5	189.0	186.3	183.1
72.5°	232.6	218.7	204.7	194.7	185.7	180.1	172.4	167.9	164.9	163.9	160.7
75°	181.2	170.0	159.7	150.5	143.4	139.4	136.2	132.9	131.6	125.7	122.5
77.5°	132.1	124.9	118.3	111.8	106.7	104.2	97.8	94.1	91.9	89.2	88.5
80°	102.9	97.7	91.2	87.3	80.1	77.6	74.9	74.3	73.6	73.0	72.3
82.5°	77.4	72.2	65.7	63.3	61.4	59.9	58.2	57.6	56.9	57.3	57.2
85°	39.1	36.5	36.5	35.8	35.2	34.5	33.8	33.8	33.3	33.8	33.3
87.5°	15.8	15.7	16.1	15.6	16.4	16.8	16.6	16.9	17.7	17.0	17.2
90°	13.9	16.3	18.3	20.2	22.1	24.1	25.5	27.1	28.5	30.0	30.9
92.5°	35.7	37.9	39.3	40.6	42.0	43.4	44.2	45.1	46.0	46.8	47.4
95°	74.5	76.4	78.1	79.8	81.5	83.2	84.0	84.6	85.4	86.1	86.5
97.5°	121.8	123.7	125.6	127.6	129.6	131.6	132.5	133.4	134.2	135.2	135.5
100°	157.2	158.8	161.0	163.2	165.3	167.6	168.1	168.5	169.0	169.5	169.8
102.5°	195.2	196.3	198.3	200.4	202.4	204.3	205.0	205.7	206.4	207.1	207.5
105°	256.1	256.7	257.7	258.6	259.7	260.6	261.4	262.1	262.8	263.5	264.3
107.5°	320.9	321.1	321.3	321.4	321.6	321.7	322.4	323.1	323.8	324.4	324.8
110°	365.5	365.6	365.4	365.1	364.9	364.7	364.2	363.6	363.2	362.7	362.8



TEST NUMBER: P332980-830

CATALOG NUMBER: SA4XXRDIP-C1020D1205U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	409.5	409.3	408.9	408.5	408.0	407.6	407.5	407.4	407.3	407.2	407.2
115°	477.4	477.2	476.7	476.3	475.7	475.2	475.0	474.8	474.5	474.3	474.0
117.5°	542.6	542.5	542.2	541.9	541.5	541.2	540.4	539.5	538.7	537.8	537.2
120°	588.6	588.8	588.1	587.3	586.5	585.9	584.7	583.4	582.2	581.0	580.6
122.5°	631.0	631.0	630.7	630.4	630.0	629.6	628.9	628.0	627.2	626.3	625.5
125°	695.3	695.2	695.0	694.7	694.5	694.3	693.8	693.2	692.8	692.3	691.8
127.5°	758.1	758.3	757.8	757.4	757.1	756.7	756.2	755.7	755.3	754.7	754.3
130°	800.1	800.5	800.5	800.5	800.5	800.5	800.0	799.5	799.0	798.5	797.8
132.5°	842.3	842.4	842.3	842.1	841.9	841.7	841.1	840.7	840.2	839.7	839.2
135°	902.7	903.4	903.4	903.4	903.4	903.4	903.0	902.5	901.9	901.4	900.9
137.5°	961.3	961.9	962.2	962.6	963.0	963.4	962.8	962.1	961.5	960.9	960.6
140°	1001.7	1001.9	1001.9	1001.9	1001.9	1001.9	1001.7	1001.5	1001.3	1001.0	1000.8
142.5°	1039.4	1039.5	1039.3	1039.2	1039.0	1038.8	1038.7	1038.7	1038.6	1038.6	1038.5
145°	1093.4	1094.1	1094.3	1094.6	1094.8	1095.0	1094.8	1094.6	1094.3	1094.1	1093.5
147.5°	1145.9	1146.4	1146.2	1146.0	1145.8	1145.7	1145.5	1145.3	1145.1	1144.8	1144.6
150°	1176.7	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.0
152.5°	1204.9	1205.3	1205.5	1205.7	1205.9	1206.1	1206.6	1207.2	1207.9	1208.4	1208.4
155°	1248.3	1248.2	1248.0	1247.7	1247.5	1247.3	1248.2	1249.2	1250.2	1251.1	1251.1
157.5°	1285.2	1284.9	1284.9	1284.8	1284.8	1284.7	1285.4	1286.2	1286.9	1287.6	1287.6
160°	1308.7	1308.4	1308.2	1308.0	1307.7	1307.5	1308.2	1308.9	1309.7	1310.4	1310.1
162.5°	1328.1	1327.8	1327.5	1327.3	1327.0	1326.7	1328.0	1329.4	1330.7	1332.0	1332.1
165°	1356.0	1355.4	1354.9	1354.4	1354.0	1353.5	1354.9	1356.4	1357.8	1359.3	1359.5
167.5°	1376.6	1376.0	1376.1	1376.1	1376.2	1376.2	1377.7	1379.1	1380.6	1382.1	1382.1
170°	1388.0	1387.5	1387.8	1388.0	1388.3	1388.6	1390.0	1391.5	1392.9	1394.4	1394.2
172.5°	1397.6	1397.0	1397.1	1397.2	1397.2	1397.3	1398.9	1400.6	1402.2	1403.9	1403.9
175°	1408.8	1408.1	1407.9	1407.6	1407.4	1407.1	1408.8	1410.5	1412.2	1413.9	1413.9
177.5°	1413.7	1413.2	1413.2	1413.2	1413.2	1413.2	1414.7	1416.0	1417.4	1418.7	1418.6
180°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9



TEST NUMBER: P332980-830
 CATALOG NUMBER: SA4XXRDIP-C1020D1205U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1543.7	1544.7	1541.2	1540.1	1541.2	1544.7	1543.7	1546.9	1547.4	1551.5	1550.0
5°	1432.2	1430.9	1427.6	1428.2	1427.6	1430.9	1432.2	1437.4	1440.0	1450.4	1449.2
7.5°	1336.8	1331.7	1333.1	1327.9	1333.1	1331.7	1336.8	1341.5	1349.4	1354.2	1365.2
10°	1278.4	1271.2	1265.4	1260.2	1265.4	1271.2	1278.4	1281.0	1292.1	1297.3	1308.3
12.5°	1198.6	1192.5	1184.6	1186.2	1184.6	1192.5	1198.6	1210.1	1224.4	1235.3	1252.6
15°	1085.5	1075.7	1060.2	1062.1	1060.2	1075.7	1085.5	1094.0	1108.3	1133.1	1144.8
17.5°	989.8	989.9	982.7	984.4	982.7	989.9	989.8	1001.4	1008.6	1024.4	1042.4
20°	940.3	935.7	936.3	934.3	936.3	935.7	940.3	953.9	961.8	972.8	992.4
22.5°	905.9	900.2	895.7	891.6	895.7	900.2	905.9	909.6	920.0	930.6	946.5
25°	847.7	843.8	837.9	836.6	837.9	843.8	847.7	853.6	858.8	872.5	882.2
27.5°	796.6	795.9	793.5	790.5	793.5	795.9	796.6	801.8	808.6	817.4	829.7
30°	766.9	765.6	764.3	762.3	764.3	765.6	766.9	772.1	777.3	784.5	794.3
32.5°	740.4	739.5	738.2	738.4	738.2	739.5	740.4	742.9	746.0	755.4	763.0
35°	702.4	701.7	700.5	699.8	700.5	701.7	702.4	705.0	707.0	709.5	716.0
37.5°	666.9	668.6	667.9	667.7	667.9	668.6	666.9	667.6	665.5	670.2	674.7
40°	642.4	643.1	644.4	643.8	644.4	643.1	642.4	643.1	643.1	643.1	647.1
42.5°	622.2	622.3	624.1	621.9	624.1	622.3	622.2	619.6	616.5	617.1	618.3
45°	585.8	589.7	589.0	589.0	589.0	589.7	585.8	581.2	580.6	578.0	578.0
47.5°	546.0	549.4	550.4	550.2	550.4	549.4	546.0	544.3	541.3	538.8	538.5
50°	520.0	518.7	520.7	520.0	520.7	518.7	520.0	516.7	512.2	512.2	510.9
52.5°	488.1	488.4	488.3	487.7	488.3	488.4	488.1	486.4	484.6	482.4	481.6
55°	439.1	439.8	438.5	439.1	438.5	439.8	439.1	438.5	438.5	437.2	438.5
57.5°	386.0	382.9	384.2	382.6	384.2	382.9	386.0	388.9	389.9	390.2	392.1
60°	348.0	342.7	341.4	338.8	341.4	342.7	348.0	354.5	357.0	358.4	360.3
62.5°	305.2	301.5	297.1	299.2	297.1	301.5	305.2	312.3	318.0	322.4	327.0
65°	248.3	245.6	243.6	246.3	243.6	245.6	248.3	253.4	258.6	269.1	278.9
67.5°	205.5	204.1	204.1	202.7	204.1	204.1	205.5	208.1	211.4	217.1	226.2
70°	183.1	181.2	181.2	179.8	181.2	181.2	183.1	183.1	186.3	189.0	195.5
72.5°	160.1	158.2	158.7	158.0	158.7	158.2	160.1	160.7	163.9	164.9	167.9
75°	118.6	115.4	115.4	116.0	115.4	115.4	118.6	122.5	125.7	131.6	132.9
77.5°	88.5	87.8	88.8	87.6	88.8	87.8	88.5	88.5	89.2	91.9	94.1
80°	72.3	71.6	71.1	73.0	71.1	71.6	72.3	72.3	73.0	73.6	74.3
82.5°	56.2	56.1	55.9	58.3	55.9	56.1	56.2	57.2	57.3	56.9	57.6
85°	33.8	32.6	33.8	32.6	33.8	32.6	33.8	33.3	33.8	33.3	33.8
87.5°	18.3	17.8	17.4	18.0	17.4	17.8	18.3	17.2	17.0	17.7	16.9
90°	31.4	31.9	32.3	32.9	32.3	31.9	31.4	30.9	30.0	28.5	27.1
92.5°	47.8	48.1	48.4	48.6	48.4	48.1	47.8	47.4	46.8	46.0	45.1
95°	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.1	85.4	84.6
97.5°	135.5	135.5	135.5	135.5	135.5	135.5	135.5	135.5	135.2	134.2	133.4
100°	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.5	169.0	168.5
102.5°	207.7	207.9	208.1	208.3	208.1	207.9	207.7	207.5	207.1	206.4	205.7
105°	265.0	265.7	266.5	267.2	266.5	265.7	265.0	264.3	263.5	262.8	262.1
107.5°	324.7	324.7	324.6	324.6	324.6	324.7	324.7	324.8	324.4	323.8	323.1
110°	363.5	364.3	365.0	365.7	365.0	364.3	363.5	362.8	362.7	363.2	363.6



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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	407.4	407.5	407.6	407.8	407.6	407.5	407.4	407.2	407.2	407.3	407.4
115°	473.8	473.5	473.3	473.1	473.3	473.5	473.8	474.0	474.3	474.5	474.8
117.5°	536.7	536.2	535.7	535.3	535.7	536.2	536.7	537.2	537.8	538.7	539.5
120°	581.1	581.5	582.1	582.6	582.1	581.5	581.1	580.6	581.0	582.2	583.4
122.5°	624.6	623.8	622.8	622.0	622.8	623.8	624.6	625.5	626.3	627.2	628.0
125°	691.4	690.9	690.3	689.8	690.3	690.9	691.4	691.8	692.3	692.8	693.2
127.5°	753.9	753.5	753.1	752.7	753.1	753.5	753.9	754.3	754.7	755.3	755.7
130°	796.8	795.9	794.8	793.9	794.8	795.9	796.8	797.8	798.5	799.0	799.5
132.5°	838.9	838.5	838.1	837.7	838.1	838.5	838.9	839.2	839.7	840.2	840.7
135°	900.1	899.4	898.6	898.0	898.6	899.4	900.1	900.9	901.4	901.9	902.5
137.5°	960.8	960.9	961.1	961.2	961.1	960.9	960.8	960.6	960.9	961.5	962.1
140°	1000.5	1000.2	1000.0	999.8	1000.0	1000.2	1000.5	1000.8	1001.0	1001.3	1001.5
142.5°	1038.5	1038.4	1038.4	1038.3	1038.4	1038.4	1038.5	1038.5	1038.6	1038.6	1038.7
145°	1092.9	1092.1	1091.4	1090.7	1091.4	1092.1	1092.9	1093.5	1094.1	1094.3	1094.6
147.5°	1144.4	1144.2	1143.9	1143.7	1143.9	1144.2	1144.4	1144.6	1144.8	1145.1	1145.3
150°	1176.8	1176.6	1176.3	1176.1	1176.3	1176.6	1176.8	1177.0	1177.1	1177.1	1177.1
152.5°	1207.8	1207.1	1206.5	1205.9	1206.5	1207.1	1207.8	1208.4	1208.4	1207.9	1207.2
155°	1250.2	1249.2	1248.2	1247.3	1248.2	1249.2	1250.2	1251.1	1251.1	1250.2	1249.2
157.5°	1286.8	1285.9	1285.1	1284.3	1285.1	1285.9	1286.8	1287.6	1287.6	1286.9	1286.2
160°	1308.9	1307.7	1306.6	1305.3	1306.6	1307.7	1308.9	1310.1	1310.4	1309.7	1308.9
162.5°	1330.9	1329.6	1328.4	1327.2	1328.4	1329.6	1330.9	1332.1	1332.0	1330.7	1329.4
165°	1358.6	1357.6	1356.6	1355.7	1356.6	1357.6	1358.6	1359.5	1359.3	1357.8	1356.4
167.5°	1380.5	1379.0	1377.5	1376.0	1377.5	1379.0	1380.5	1382.1	1382.1	1380.6	1379.1
170°	1392.5	1390.8	1389.1	1387.4	1389.1	1390.8	1392.5	1394.2	1394.4	1392.9	1391.5
172.5°	1402.1	1400.4	1398.7	1397.0	1398.7	1400.4	1402.1	1403.9	1403.9	1402.2	1400.6
175°	1412.2	1410.5	1408.8	1407.1	1408.8	1410.5	1412.2	1413.9	1413.9	1412.2	1410.5
177.5°	1417.0	1415.5	1413.9	1412.4	1413.9	1415.5	1417.0	1418.6	1418.7	1417.4	1416.0
180°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9



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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1546.9	1550.5	1558.9	1568.2	1576.0	1582.8	1588.0	1595.3	1602.1	1611.5	1620.3
5°	1453.0	1462.2	1475.2	1490.8	1510.3	1523.4	1539.7	1554.1	1574.9	1595.7	1615.9
7.5°	1370.6	1380.7	1399.9	1421.4	1444.7	1466.0	1485.4	1510.6	1538.2	1568.6	1602.5
10°	1317.5	1328.6	1351.4	1376.1	1403.5	1424.4	1450.4	1480.4	1511.6	1548.8	1590.5
12.5°	1269.5	1280.1	1307.6	1332.8	1361.3	1384.2	1414.5	1444.9	1486.7	1526.9	1574.3
15°	1176.1	1204.1	1235.4	1265.4	1299.3	1327.3	1363.8	1395.1	1434.8	1491.5	1545.6
17.5°	1072.3	1102.2	1141.0	1187.3	1232.8	1267.4	1304.5	1343.3	1390.6	1448.5	1510.9
20°	1011.9	1036.0	1079.0	1130.5	1183.3	1231.5	1265.4	1308.3	1357.3	1419.8	1484.3
22.5°	966.6	987.0	1020.7	1072.1	1129.1	1185.1	1228.3	1270.8	1324.9	1387.5	1457.7
25°	898.5	920.7	950.0	985.2	1050.4	1109.7	1166.3	1215.2	1272.5	1335.1	1413.2
27.5°	842.0	861.3	888.1	924.7	968.6	1034.0	1102.6	1158.4	1217.2	1284.3	1362.6
30°	808.6	824.3	846.4	883.5	925.3	983.9	1053.6	1118.8	1178.1	1247.7	1329.3
32.5°	773.7	790.4	812.0	841.3	886.2	935.4	1005.1	1076.6	1139.5	1210.8	1290.6
35°	727.2	740.2	759.8	789.8	830.1	873.1	935.0	1008.6	1075.2	1151.3	1227.6
37.5°	680.1	695.5	710.9	737.6	770.7	817.0	867.6	942.8	1016.4	1086.1	1160.5
40°	653.6	662.7	679.6	701.1	736.3	777.3	824.9	898.5	972.1	1041.2	1116.2
42.5°	623.9	634.0	648.3	669.9	701.3	741.4	787.9	851.6	928.4	995.3	1063.5
45°	582.5	588.3	602.8	620.9	647.1	687.4	730.5	787.1	859.4	923.3	983.3
47.5°	540.8	545.9	554.9	571.6	600.8	633.2	673.4	724.3	787.8	851.6	902.3
50°	512.2	516.7	525.2	540.8	566.8	598.8	638.6	684.2	740.8	802.1	844.4
52.5°	483.4	486.0	493.9	511.6	533.5	565.0	600.5	642.4	695.5	746.3	789.2
55°	437.9	443.7	448.9	461.9	482.9	512.8	544.7	584.5	625.6	668.5	705.0
57.5°	390.3	396.7	404.3	415.8	432.3	460.1	488.8	521.0	556.1	591.7	622.4
60°	359.0	364.9	371.4	384.5	399.4	421.6	452.9	480.9	507.6	540.2	570.8
62.5°	328.3	334.1	341.7	352.1	366.6	387.7	413.8	438.1	465.9	494.3	517.1
65°	282.8	287.4	293.2	303.0	316.7	335.5	357.0	376.0	400.8	421.6	442.4
67.5°	232.9	241.6	249.3	257.2	268.8	286.4	302.0	320.1	336.9	352.4	371.4
70°	200.0	209.8	217.0	225.5	236.5	251.5	266.5	278.9	292.6	307.6	324.5
72.5°	172.4	180.1	185.7	194.7	204.7	218.7	232.6	242.9	254.0	264.3	280.7
75°	136.2	139.4	143.4	150.5	159.7	170.0	181.2	190.3	196.8	205.9	217.6
77.5°	97.8	104.2	106.7	111.8	118.3	124.9	132.1	139.9	146.1	149.3	158.3
80°	74.9	77.6	80.1	87.3	91.2	97.7	102.9	110.1	112.7	116.0	124.4
82.5°	58.2	59.9	61.4	63.3	65.7	72.2	77.4	82.0	84.5	85.8	92.2
85°	33.8	34.5	35.2	35.8	36.5	36.5	39.1	42.3	46.9	46.9	48.8
87.5°	16.6	16.8	16.4	15.6	16.1	15.7	15.8	15.3	16.3	17.3	18.4
90°	25.5	24.1	22.1	20.2	18.3	16.3	13.9	11.3	8.7	5.9	3.3
92.5°	44.2	43.4	42.0	40.6	39.3	37.9	35.7	32.6	29.6	26.5	23.5
95°	84.0	83.2	81.5	79.8	78.1	76.4	74.5	72.3	70.1	67.9	65.7
97.5°	132.5	131.6	129.6	127.6	125.6	123.7	121.8	120.0	118.3	116.5	114.8
100°	168.1	167.6	165.3	163.2	161.0	158.8	157.2	156.2	155.2	154.3	153.4
102.5°	205.0	204.3	202.4	200.4	198.3	196.3	195.2	194.7	194.4	194.0	193.6
105°	261.4	260.6	259.7	258.6	257.7	256.7	256.1	255.9	255.6	255.4	255.1
107.5°	322.4	321.7	321.6	321.4	321.3	321.1	320.9	320.7	320.4	320.1	319.7
110°	364.2	364.7	364.9	365.1	365.4	365.6	365.5	365.0	364.5	364.0	363.5



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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	407.5	407.6	408.0	408.5	408.9	409.3	409.5	409.4	409.3	409.3	409.1
115°	475.0	475.2	475.7	476.3	476.7	477.2	477.4	477.4	477.4	477.4	477.4
117.5°	540.4	541.2	541.5	541.9	542.2	542.5	542.6	542.4	542.2	542.1	541.9
120°	584.7	585.9	586.5	587.3	588.1	588.8	588.6	587.7	586.7	585.7	584.8
122.5°	628.9	629.6	630.0	630.4	630.7	631.0	631.0	630.6	630.2	629.8	629.4
125°	693.8	694.3	694.5	694.7	695.0	695.2	695.3	695.3	695.3	695.3	695.3
127.5°	756.2	756.7	757.1	757.4	757.8	758.3	758.1	757.3	756.6	755.9	755.2
130°	800.0	800.5	800.5	800.5	800.5	800.5	800.1	799.4	798.6	798.0	797.2
132.5°	841.1	841.7	841.9	842.1	842.3	842.4	842.3	841.7	841.2	840.7	840.1
135°	903.0	903.4	903.4	903.4	903.4	903.4	902.7	901.3	899.8	898.3	896.8
137.5°	962.8	963.4	963.0	962.6	962.2	961.9	961.3	960.6	960.0	959.3	958.6
140°	1001.7	1001.9	1001.9	1001.9	1001.9	1001.9	1001.7	1001.3	1000.8	1000.2	999.8
142.5°	1038.7	1038.8	1039.0	1039.2	1039.3	1039.5	1039.4	1038.9	1038.4	1037.9	1037.5
145°	1094.8	1095.0	1094.8	1094.6	1094.3	1094.1	1093.4	1092.5	1091.6	1090.5	1089.6
147.5°	1145.5	1145.7	1145.8	1146.0	1146.2	1146.4	1145.9	1144.7	1143.6	1142.5	1141.2
150°	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1176.7	1175.7	1174.8	1173.7	1172.8
152.5°	1206.6	1206.1	1205.9	1205.7	1205.5	1205.3	1204.9	1204.3	1203.7	1203.2	1202.6
155°	1248.2	1247.3	1247.5	1247.7	1248.0	1248.2	1248.3	1248.3	1248.3	1248.3	1248.3
157.5°	1285.4	1284.7	1284.8	1284.8	1284.9	1284.9	1285.2	1285.6	1286.0	1286.5	1286.9
160°	1308.2	1307.5	1307.7	1308.0	1308.2	1308.4	1308.7	1308.9	1309.2	1309.5	1309.7
162.5°	1328.0	1326.7	1327.0	1327.3	1327.5	1327.8	1328.1	1328.8	1329.5	1330.0	1330.7
165°	1354.9	1353.5	1354.0	1354.4	1354.9	1355.4	1356.0	1356.8	1357.4	1358.2	1359.0
167.5°	1377.7	1376.2	1376.2	1376.1	1376.1	1376.0	1376.6	1377.5	1378.6	1379.6	1380.6
170°	1390.0	1388.6	1388.3	1388.0	1387.8	1387.5	1388.0	1389.2	1390.4	1391.7	1392.9
172.5°	1398.9	1397.3	1397.2	1397.2	1397.1	1397.0	1397.6	1398.5	1399.6	1400.6	1401.7
175°	1408.8	1407.1	1407.4	1407.6	1407.9	1408.1	1408.8	1410.0	1411.3	1412.5	1413.7
177.5°	1414.7	1413.2	1413.2	1413.2	1413.2	1413.2	1413.7	1414.8	1415.7	1416.6	1417.7
180°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1627.1	1631.8	1637.0	1646.9	1655.3	1659.0	1666.2	1671.4	1669.9	1677.2	1689.7
5°	1633.5	1651.1	1671.3	1692.1	1715.6	1735.1	1750.8	1766.4	1778.9	1793.8	1816.0
7.5°	1632.5	1663.8	1697.8	1735.1	1773.6	1806.9	1837.6	1868.9	1896.6	1927.0	1966.7
10°	1628.3	1670.0	1712.3	1761.2	1810.1	1856.3	1898.1	1937.1	1974.3	2014.0	2064.3
12.5°	1623.6	1671.6	1722.8	1781.6	1842.4	1898.1	1947.1	2003.4	2049.8	2101.1	2159.1
15°	1602.9	1667.4	1737.1	1813.4	1886.3	1961.2	2028.4	2097.4	2161.9	2223.2	2296.2
17.5°	1579.1	1653.6	1735.8	1825.9	1913.5	2004.7	2084.2	2171.3	2237.3	2319.5	2387.3
20°	1559.9	1640.0	1728.0	1829.0	1928.7	2029.7	2117.6	2206.3	2280.6	2363.3	2449.3
22.5°	1536.4	1624.4	1719.7	1824.3	1928.7	2039.1	2136.4	2224.5	2316.5	2409.7	2498.3
25°	1498.6	1589.9	1690.8	1805.5	1925.4	2038.2	2142.4	2251.8	2350.9	2451.9	2531.4
27.5°	1452.3	1548.0	1654.5	1772.8	1895.8	2011.3	2134.1	2250.7	2350.4	2447.6	2517.0
30°	1415.2	1516.3	1618.5	1738.4	1866.1	1989.9	2121.6	2238.2	2343.1	2430.4	2469.5
32.5°	1377.1	1473.0	1578.4	1699.9	1830.7	1963.9	2094.4	2213.7	2310.7	2363.1	2364.2
35°	1311.0	1400.9	1510.3	1629.7	1763.9	1908.5	2040.8	2158.0	2217.3	2221.9	2158.0
37.5°	1238.8	1321.3	1424.7	1544.0	1691.0	1834.8	1970.0	2048.1	2068.0	2001.7	1883.6
40°	1187.2	1263.4	1363.1	1485.6	1631.5	1780.1	1903.3	1960.6	1939.8	1832.2	1700.6
42.5°	1132.9	1204.0	1300.0	1421.0	1567.4	1717.6	1822.5	1853.2	1798.0	1673.8	1519.8
45°	1044.5	1109.7	1204.8	1326.6	1467.4	1608.1	1687.6	1672.0	1580.1	1432.9	1260.2
47.5°	952.3	1015.3	1100.9	1213.6	1357.7	1479.2	1533.0	1485.9	1355.2	1193.2	1052.7
50°	891.4	955.8	1034.7	1142.3	1273.8	1391.1	1425.7	1354.0	1208.7	1052.9	924.0
52.5°	831.4	886.6	963.8	1067.7	1193.5	1292.6	1311.0	1228.3	1078.4	938.8	824.3
55°	740.2	790.4	855.5	953.3	1062.1	1146.1	1136.3	1030.2	894.0	774.8	684.9
57.5°	652.0	689.8	750.0	841.6	937.1	993.5	957.8	867.2	740.4	642.7	566.8
60°	593.6	628.8	684.9	765.0	849.0	880.9	850.9	752.6	652.2	563.0	499.1
62.5°	538.4	569.4	617.6	692.0	759.9	778.7	746.7	660.8	570.4	494.2	441.3
65°	458.1	486.7	527.8	580.6	627.5	636.6	615.8	527.8	459.4	395.5	359.0
67.5°	385.2	404.0	436.0	481.6	506.5	511.9	471.6	416.3	356.0	316.8	289.3
70°	336.2	349.2	379.2	404.0	424.1	424.8	387.7	343.4	297.1	265.2	245.0
72.5°	288.8	301.3	324.0	340.9	356.4	351.4	317.4	282.4	245.0	220.9	205.9
75°	222.8	233.9	245.6	253.4	253.4	246.9	222.2	196.1	174.7	160.3	155.7
77.5°	162.0	171.1	175.0	173.8	171.5	161.4	145.7	128.7	120.9	114.1	110.7
80°	127.1	131.0	132.2	129.0	125.1	113.4	102.9	95.8	88.6	86.1	84.7
82.5°	94.3	97.6	94.3	95.1	86.5	76.9	71.2	68.7	65.7	64.7	63.3
85°	50.1	49.5	48.3	45.0	39.1	37.8	37.1	36.5	35.2	35.8	34.5
87.5°	18.4	17.3	15.8	15.8	16.3	15.6	16.6	17.0	17.3	17.1	18.5
90°	5.9	8.7	11.3	13.9	16.3	18.3	20.2	22.1	24.1	25.5	27.1
92.5°	26.5	29.6	32.6	35.7	37.9	39.3	40.6	42.0	43.4	44.2	45.1
95°	67.9	70.1	72.3	74.5	76.4	78.1	79.8	81.5	83.2	84.0	84.6
97.5°	116.5	118.3	120.0	121.8	123.7	125.6	127.6	129.6	131.6	132.5	133.4
100°	154.3	155.2	156.2	157.2	158.8	161.0	163.2	165.3	167.6	168.1	168.5
102.5°	194.0	194.4	194.7	195.2	196.3	198.3	200.4	202.4	204.3	205.0	205.7
105°	255.4	255.6	255.9	256.1	256.7	257.7	258.6	259.7	260.6	261.4	262.1
107.5°	320.1	320.4	320.7	320.9	321.1	321.3	321.4	321.6	321.7	322.4	323.1
110°	364.0	364.5	365.0	365.5	365.6	365.4	365.1	364.9	364.7	364.2	363.6



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	409.3	409.3	409.4	409.5	409.3	408.9	408.5	408.0	407.6	407.5	407.4
115°	477.4	477.4	477.4	477.4	477.2	476.7	476.3	475.7	475.2	475.0	474.8
117.5°	542.1	542.2	542.4	542.6	542.5	542.2	541.9	541.5	541.2	540.4	539.5
120°	585.7	586.7	587.7	588.6	588.8	588.1	587.3	586.5	585.9	584.7	583.4
122.5°	629.8	630.2	630.6	631.0	631.0	630.7	630.4	630.0	629.6	628.9	628.0
125°	695.3	695.3	695.3	695.3	695.2	695.0	694.7	694.5	694.3	693.8	693.2
127.5°	755.9	756.6	757.3	758.1	758.3	757.8	757.4	757.1	756.7	756.2	755.7
130°	798.0	798.6	799.4	800.1	800.5	800.5	800.5	800.5	800.5	800.0	799.5
132.5°	840.7	841.2	841.7	842.3	842.4	842.3	842.1	841.9	841.7	841.1	840.7
135°	898.3	899.8	901.3	902.7	903.4	903.4	903.4	903.4	903.4	903.0	902.5
137.5°	959.3	960.0	960.6	961.3	961.9	962.2	962.6	963.0	963.4	962.8	962.1
140°	1000.2	1000.8	1001.3	1001.7	1001.9	1001.9	1001.9	1001.9	1001.9	1001.7	1001.5
142.5°	1037.9	1038.4	1038.9	1039.4	1039.5	1039.3	1039.2	1039.0	1038.8	1038.7	1038.7
145°	1090.5	1091.6	1092.5	1093.4	1094.1	1094.3	1094.6	1094.8	1095.0	1094.8	1094.6
147.5°	1142.5	1143.6	1144.7	1145.9	1146.4	1146.2	1146.0	1145.8	1145.7	1145.5	1145.3
150°	1173.7	1174.8	1175.7	1176.7	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1
152.5°	1203.2	1203.7	1204.3	1204.9	1205.3	1205.5	1205.7	1205.9	1206.1	1206.6	1207.2
155°	1248.3	1248.3	1248.3	1248.3	1248.2	1248.0	1247.7	1247.5	1247.3	1248.2	1249.2
157.5°	1286.5	1286.0	1285.6	1285.2	1284.9	1284.9	1284.8	1284.8	1284.7	1285.4	1286.2
160°	1309.5	1309.2	1308.9	1308.7	1308.4	1308.2	1308.0	1307.7	1307.5	1308.2	1308.9
162.5°	1330.0	1329.5	1328.8	1328.1	1327.8	1327.5	1327.3	1327.0	1326.7	1328.0	1329.4
165°	1358.2	1357.4	1356.8	1356.0	1355.4	1354.9	1354.4	1354.0	1353.5	1354.9	1356.4
167.5°	1379.6	1378.6	1377.5	1376.6	1376.0	1376.1	1376.1	1376.2	1376.2	1377.7	1379.1
170°	1391.7	1390.4	1389.2	1388.0	1387.5	1387.8	1388.0	1388.3	1388.6	1390.0	1391.5
172.5°	1400.6	1399.6	1398.5	1397.6	1397.0	1397.1	1397.2	1397.2	1397.3	1398.9	1400.6
175°	1412.5	1411.3	1410.0	1408.8	1408.1	1407.9	1407.6	1407.4	1407.1	1408.8	1410.5
177.5°	1416.6	1415.7	1414.8	1413.7	1413.2	1413.2	1413.2	1413.2	1413.2	1414.7	1416.0
180°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1696.5	1698.6	1700.2	1705.3	1705.8	1710.5	1705.8
5°	1836.8	1846.0	1860.3	1874.6	1875.9	1885.0	1868.8
7.5°	1994.2	2015.3	2028.5	2051.7	2060.9	2066.5	2057.2
10°	2102.6	2122.2	2156.7	2173.7	2190.7	2193.2	2185.4
12.5°	2207.4	2238.4	2265.7	2297.7	2297.0	2319.9	2311.6
15°	2347.0	2379.0	2416.7	2452.6	2465.6	2465.6	2476.1
17.5°	2446.6	2505.1	2544.2	2572.3	2603.1	2608.4	2604.8
20°	2513.9	2577.0	2618.8	2655.2	2676.1	2681.9	2681.9
22.5°	2563.8	2617.6	2658.3	2691.1	2708.4	2715.3	2713.2
25°	2598.5	2644.8	2669.6	2679.3	2683.9	2682.6	2670.2
27.5°	2551.1	2549.0	2533.4	2503.4	2480.9	2467.2	2451.6
30°	2460.4	2426.5	2387.4	2344.4	2289.1	2246.6	2233.6
32.5°	2325.3	2249.3	2183.0	2111.4	2051.8	2009.5	1991.8
35°	2064.3	1943.7	1845.3	1759.3	1696.8	1657.6	1644.6
37.5°	1754.4	1637.7	1515.9	1432.5	1380.5	1341.0	1326.3
40°	1557.3	1430.2	1324.0	1245.9	1192.4	1154.0	1153.3
42.5°	1377.4	1256.1	1156.2	1099.9	1042.3	1016.8	1016.7
45°	1127.8	1030.8	946.1	901.8	867.2	846.4	840.6
47.5°	933.9	853.6	797.1	761.9	733.7	720.4	711.8
50°	824.9	754.5	709.5	678.9	663.3	646.4	645.1
52.5°	734.2	677.4	642.3	617.5	597.7	587.5	587.8
55°	617.1	572.1	547.3	528.4	512.8	505.0	501.7
57.5°	519.8	486.1	468.1	450.7	444.1	438.0	436.3
60°	459.4	436.6	419.6	406.0	396.2	394.2	393.5
62.5°	409.3	385.5	373.7	363.2	356.0	353.0	351.9
65°	337.5	319.9	309.5	301.0	298.4	293.9	293.2
67.5°	272.1	261.6	254.7	248.7	245.2	245.0	245.0
70°	232.0	226.1	220.3	217.0	215.0	213.7	213.7
72.5°	197.6	193.2	188.4	186.7	186.3	185.0	184.5
75°	150.5	146.0	146.6	143.4	140.7	137.5	135.5
77.5°	106.7	103.5	102.8	102.5	100.2	99.8	100.9
80°	82.8	79.5	78.8	79.5	78.8	76.9	76.9
82.5°	63.0	60.2	59.6	59.2	58.5	59.2	58.2
85°	33.8	32.6	32.6	32.6	33.8	33.3	32.6
87.5°	17.7	17.4	18.2	17.7	17.8	17.4	18.0
90°	28.5	30.0	30.9	31.4	31.9	32.3	32.9
92.5°	46.0	46.8	47.4	47.8	48.1	48.4	48.6
95°	85.4	86.1	86.5	86.5	86.5	86.5	86.5
97.5°	134.2	135.2	135.5	135.5	135.5	135.5	135.5
100°	169.0	169.5	169.8	169.8	169.8	169.8	169.8
102.5°	206.4	207.1	207.5	207.7	207.9	208.1	208.3
105°	262.8	263.5	264.3	265.0	265.7	266.5	267.2
107.5°	323.8	324.4	324.8	324.7	324.7	324.6	324.6
110°	363.2	362.7	362.8	363.5	364.3	365.0	365.7



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	407.3	407.2	407.2	407.4	407.5	407.6	407.8
115°	474.5	474.3	474.0	473.8	473.5	473.3	473.1
117.5°	538.7	537.8	537.2	536.7	536.2	535.7	535.3
120°	582.2	581.0	580.6	581.1	581.5	582.1	582.6
122.5°	627.2	626.3	625.5	624.6	623.8	622.8	622.0
125°	692.8	692.3	691.8	691.4	690.9	690.3	689.8
127.5°	755.3	754.7	754.3	753.9	753.5	753.1	752.7
130°	799.0	798.5	797.8	796.8	795.9	794.8	793.9
132.5°	840.2	839.7	839.2	838.9	838.5	838.1	837.7
135°	901.9	901.4	900.9	900.1	899.4	898.6	898.0
137.5°	961.5	960.9	960.6	960.8	960.9	961.1	961.2
140°	1001.3	1001.0	1000.8	1000.5	1000.2	1000.0	999.8
142.5°	1038.6	1038.6	1038.5	1038.5	1038.4	1038.4	1038.3
145°	1094.3	1094.1	1093.5	1092.9	1092.1	1091.4	1090.7
147.5°	1145.1	1144.8	1144.6	1144.4	1144.2	1143.9	1143.7
150°	1177.1	1177.1	1177.0	1176.8	1176.6	1176.3	1176.1
152.5°	1207.9	1208.4	1208.4	1207.8	1207.1	1206.5	1205.9
155°	1250.2	1251.1	1251.1	1250.2	1249.2	1248.2	1247.3
157.5°	1286.9	1287.6	1287.6	1286.8	1285.9	1285.1	1284.3
160°	1309.7	1310.4	1310.1	1308.9	1307.7	1306.6	1305.3
162.5°	1330.7	1332.0	1332.1	1330.9	1329.6	1328.4	1327.2
165°	1357.8	1359.3	1359.5	1358.6	1357.6	1356.6	1355.7
167.5°	1380.6	1382.1	1382.1	1380.5	1379.0	1377.5	1376.0
170°	1392.9	1394.4	1394.2	1392.5	1390.8	1389.1	1387.4
172.5°	1402.2	1403.9	1403.9	1402.1	1400.4	1398.7	1397.0
175°	1412.2	1413.9	1413.9	1412.2	1410.5	1408.8	1407.1
177.5°	1417.4	1418.7	1418.6	1417.0	1415.5	1413.9	1412.4
180°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9

(END OF REPORT)