

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: P332652-830

Luminaire Tested: **SA4XXDIP-C1020D1035U830-4F0-1E-UDD-A**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332652-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C1020D1035U830-4F0-1E-UDD-A
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1020 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

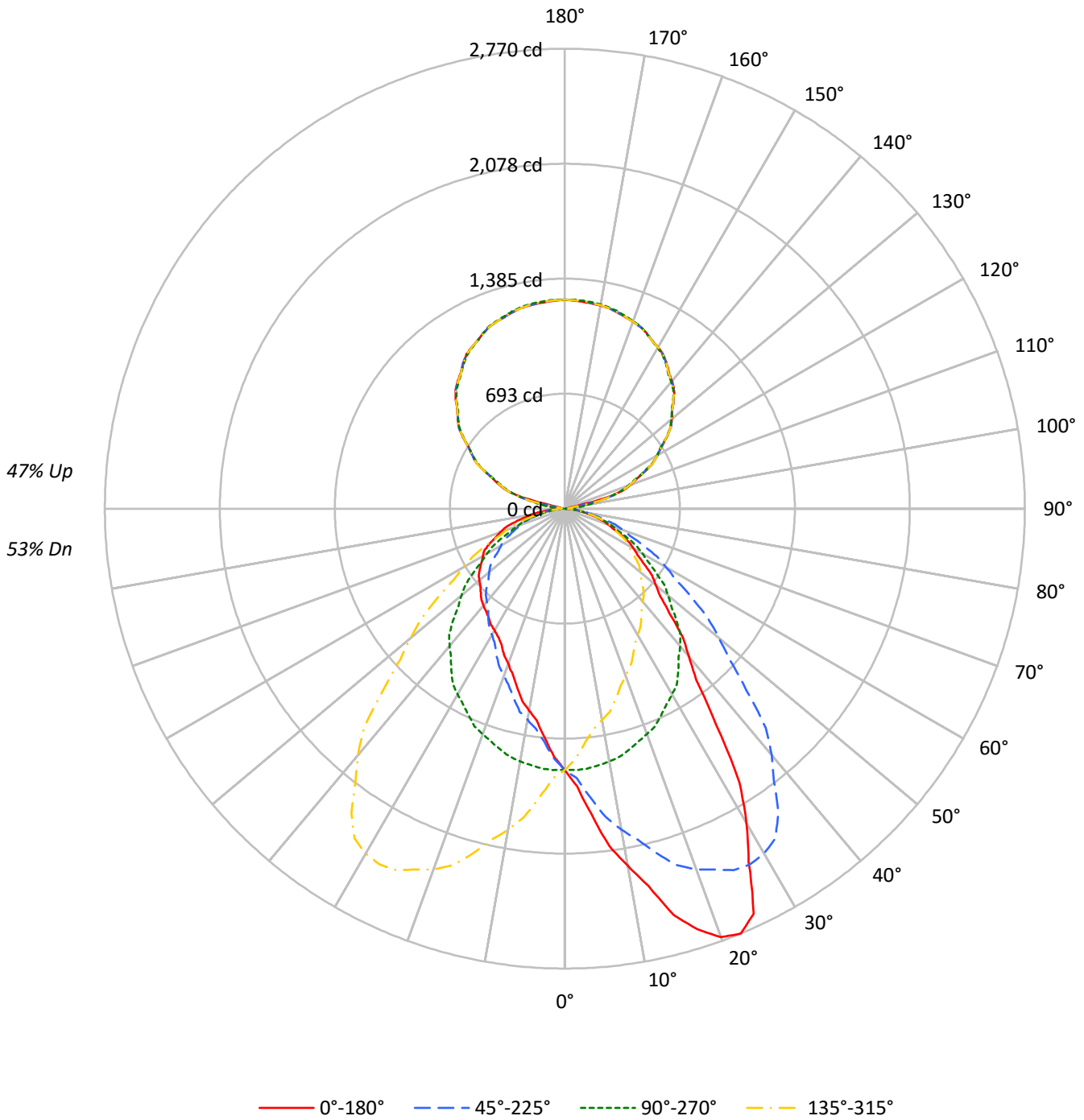
Lumens per Lamp: N/A
Luminaire Lumens: 8234.8 lumens
Efficiency: N/A
Efficacy: 136.1 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.23 / 1.41
Luminous Opening: Rectangular (W 4' x L: 0.33' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 60.5
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	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	99	94	91	87	91	88	84	81	75	72	70	63	61	60	52	51	50	45
2	90	83	77	72	83	77	72	67	66	62	58	56	53	50	46	44	42	38
3	82	73	66	60	76	68	61	56	58	53	49	49	46	43	41	39	36	32
4	75	65	57	51	70	60	53	48	52	47	42	44	40	37	37	34	32	28
5	69	58	50	44	64	54	47	41	47	41	37	40	35	32	33	30	28	24
6	64	52	44	38	59	48	41	36	42	36	32	36	32	28	30	27	24	22
7	59	47	39	33	55	44	37	32	38	32	28	33	28	25	28	24	22	19
8	55	43	35	30	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	32	26	47	37	30	25	32	27	23	28	23	20	24	20	18	16
10	48	36	29	24	44	34	27	23	29	24	20	26	21	18	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	12698	12698	12698	12698
5°	14954	12730	11237	12730
10°	17905	12675	10117	12675
15°	21184	12547	9290	12547
20°	23589	12416	8553	12416
25°	23971	12223	8044	12223
30°	20396	12039	7883	12039
35°	15682	11739	7885	11739
40°	12223	11385	8033	11385
45°	10192	10853	8169	10853
50°	8970	10206	8445	10206
55°	8217	9429	8785	9429
60°	7700	8732	9195	8732
65°	7169	7952	9534	7952
70°	6552	7183	9751	7183
75°	5855	6319	9635	6319
80°	4909	5179	9331	5179
85°	3622	3742	8929	3742



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	1.9
10°-20°	472.3	5.7
20°-30°	749.0	9.1
30°-40°	833.5	10.1
40°-50°	758.7	9.2
50°-60°	620.0	7.5
60°-70°	442.6	5.4
70°-80°	243.7	3.0
80°-90°	70.2	0.9
90°-100°	43.0	0.5
100°-110°	274.3	3.3
110°-120°	524.8	6.4
120°-130°	666.2	8.1
130°-140°	712.8	8.7
140°-150°	666.5	8.1
150°-160°	537.5	6.5
160°-170°	346.7	4.2
170°-180°	119.5	1.5
0°-30°	1374.6	16.7
0°-40°	2208.1	26.8
0°-60°	3586.8	43.6
0°-90°	4343.4	52.7
90°-120°	842.2	10.2
90°-150°	2887.7	35.1
90°-180°	3891.0	47.3
0°-180°	8234.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1573	1573	1573	1573	1573	
5°	1845	1571	1387	1571	1845	188
15°	2535	1501	1112	1501	2535	716
25°	2691	1372	903	1372	2691	1186
35°	1591	1191	800	1191	1591	1010
45°	893	951	716	951	893	703
55°	584	670	624	670	584	527
65°	375	416	499	416	375	372
75°	188	203	309	203	188	200
85°	39	40	96	40	39	48
90°	28	3	28	3	28	14
95°	27	52	27	52	27	22
105°	268	283	268	283	268	234
115°	532	529	532	529	532	527
125°	749	743	749	743	749	667
135°	929	922	929	922	929	715
145°	1069	1063	1069	1063	1069	668
155°	1165	1166	1165	1166	1165	537
165°	1224	1230	1224	1230	1224	346
175°	1250	1258	1250	1258	1250	119
180°	1258	1258	1258	1258	1258	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1674.0	1673.6	1668.3	1667.3	1663.6	1659.0	1657.9	1649.5	1632.9	1625.0	1623.0
5°	1845.3	1858.3	1841.4	1838.1	1836.2	1814.7	1803.6	1790.5	1760.6	1742.9	1729.3
7.5°	2049.7	2051.2	2043.8	2037.8	2021.2	2002.4	1974.3	1944.4	1908.6	1871.5	1843.4
10°	2184.2	2189.3	2180.9	2179.5	2146.4	2125.4	2083.8	2048.6	2008.2	1963.2	1922.2
12.5°	2325.9	2318.6	2314.3	2286.4	2280.3	2242.2	2193.8	2157.6	2095.3	2043.5	1988.9
15°	2534.7	2520.4	2511.2	2472.8	2453.9	2401.1	2349.6	2309.9	2228.5	2150.9	2092.3
17.5°	2657.1	2671.5	2650.4	2634.6	2585.8	2548.7	2496.1	2412.7	2349.0	2252.7	2178.7
20°	2745.8	2747.0	2735.4	2719.0	2680.6	2633.7	2576.3	2485.1	2409.0	2313.1	2211.5
22.5°	2769.8	2770.0	2765.0	2749.8	2720.7	2682.7	2624.9	2548.7	2456.4	2352.2	2250.6
25°	2691.1	2688.4	2694.4	2711.2	2700.2	2688.4	2655.2	2598.5	2512.5	2402.4	2292.9
27.5°	2398.6	2416.6	2449.7	2491.4	2531.6	2562.2	2570.8	2559.2	2505.8	2415.3	2300.7
30°	2188.0	2210.2	2235.0	2276.6	2357.4	2403.7	2454.6	2492.9	2471.4	2399.1	2292.3
32.5°	1956.6	1962.1	1998.8	2046.3	2120.2	2209.2	2289.8	2367.9	2393.8	2355.9	2266.7
35°	1591.2	1600.2	1640.0	1687.0	1777.5	1886.3	2007.5	2115.7	2205.0	2240.8	2195.2
37.5°	1298.4	1324.6	1352.7	1403.2	1482.9	1580.8	1706.8	1846.7	1979.8	2068.9	2084.1
40°	1159.8	1176.1	1196.3	1234.7	1302.5	1398.9	1507.1	1667.5	1808.8	1936.5	1978.2
42.5°	1050.4	1059.9	1072.2	1107.0	1158.7	1254.5	1353.3	1494.3	1636.3	1788.9	1858.9
45°	892.7	902.5	923.3	943.5	982.6	1049.0	1140.9	1256.9	1399.6	1546.9	1675.8
47.5°	778.7	785.0	797.4	819.1	852.2	896.1	970.8	1067.7	1200.0	1342.9	1480.4
50°	714.2	719.3	729.2	748.7	774.1	813.1	874.4	965.0	1068.6	1212.6	1347.5
52.5°	663.1	665.2	672.3	685.6	705.8	738.7	788.9	863.8	960.2	1088.5	1222.9
55°	583.8	586.4	593.0	602.8	620.3	641.1	679.6	735.7	819.7	931.1	1047.7
57.5°	518.7	520.5	525.9	529.7	544.2	561.2	590.7	630.7	694.5	788.9	893.1
60°	476.9	475.7	482.2	485.4	495.2	509.5	532.3	570.8	626.1	702.4	798.1
62.5°	436.3	434.5	440.0	444.2	449.9	462.1	480.7	510.9	555.8	624.7	707.5
65°	375.3	372.7	376.0	381.2	386.3	392.9	406.6	433.3	469.1	518.7	581.8
67.5°	314.1	316.8	317.4	319.9	322.9	331.8	341.2	360.1	385.3	425.0	478.5
70°	277.6	278.2	280.9	280.9	282.8	290.6	298.4	309.5	334.2	370.8	414.4
72.5°	241.1	243.8	242.8	244.9	246.3	251.5	257.2	267.8	288.9	316.0	352.9
75°	187.7	189.6	189.6	190.3	192.2	194.2	198.7	206.5	221.5	241.8	267.1
77.5°	136.9	137.1	138.0	140.3	140.3	143.5	146.8	153.2	160.5	174.4	189.8
80°	105.6	106.9	106.2	107.5	107.5	110.1	111.4	119.2	122.5	131.6	144.0
82.5°	77.4	78.7	78.6	80.4	81.4	82.0	83.8	86.9	90.2	98.2	103.3
85°	39.1	40.4	39.1	40.4	42.3	43.0	45.0	45.6	48.3	50.1	54.8
87.5°	17.2	18.6	18.5	18.9	19.9	20.3	20.5	19.8	21.6	21.9	23.7
90°	28.2	27.8	27.4	27.0	26.6	25.7	24.5	23.2	22.0	20.7	19.0
92.5°	26.0	25.9	25.8	25.7	25.6	25.0	23.8	22.4	21.2	20.0	18.3
95°	27.2	27.1	26.9	26.7	26.5	25.7	24.5	23.2	22.0	20.7	20.5
97.5°	26.4	26.1	25.9	25.7	25.5	25.4	25.3	25.1	25.0	24.9	48.2
100°	26.4	26.1	25.9	25.7	25.5	27.1	30.7	34.3	37.9	41.4	70.2
102.5°	27.1	27.1	27.1	27.0	27.0	46.1	84.5	122.8	161.1	199.4	203.2
105°	268.2	275.7	283.2	290.8	298.3	301.0	299.2	297.4	295.5	293.6	292.6
107.5°	373.7	373.0	372.1	371.4	370.5	369.7	368.8	367.9	366.9	366.0	364.6
110°	419.6	419.1	418.4	417.7	417.2	416.6	416.2	415.8	415.4	414.9	413.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	465.5	464.8	464.0	463.2	462.4	462.0	462.1	462.2	462.3	462.3	461.8
115°	532.5	532.5	532.5	532.5	532.5	532.3	532.0	531.5	531.1	530.7	530.8
117.5°	600.7	600.8	600.9	601.0	601.1	601.1	601.2	601.2	601.3	601.4	601.0
120°	643.6	644.0	644.4	644.8	645.3	645.3	644.8	644.4	644.0	643.6	643.8
122.5°	685.7	686.2	686.5	687.0	687.4	687.5	687.2	687.0	686.7	686.5	686.2
125°	748.9	748.8	748.6	748.4	748.1	747.7	747.1	746.5	745.8	745.2	745.6
127.5°	804.5	804.6	804.8	805.0	805.1	805.3	805.4	805.6	805.7	805.8	804.8
130°	842.2	842.2	842.2	842.2	842.2	842.0	841.8	841.6	841.4	841.2	840.6
132.5°	876.8	876.9	877.0	877.2	877.4	877.4	877.2	876.9	876.8	876.6	875.7
135°	928.7	928.2	927.8	927.5	927.0	926.6	926.1	925.8	925.3	924.9	924.1
137.5°	973.1	973.2	973.4	973.5	973.6	973.5	973.0	972.5	972.0	971.6	970.6
140°	1004.0	1003.7	1003.5	1003.3	1003.1	1002.7	1002.1	1001.5	1000.8	1000.2	999.8
142.5°	1029.5	1029.5	1029.4	1029.4	1029.4	1029.2	1028.7	1028.2	1027.7	1027.3	1027.0
145°	1068.8	1068.5	1068.0	1067.6	1067.2	1066.9	1066.7	1066.5	1066.3	1066.0	1066.0
147.5°	1101.5	1101.3	1101.0	1100.8	1100.6	1100.4	1100.2	1100.0	1099.9	1099.8	1099.9
150°	1122.5	1122.3	1122.1	1121.9	1121.6	1121.5	1121.5	1121.5	1121.5	1121.5	1121.8
152.5°	1140.6	1140.7	1140.9	1140.9	1141.0	1140.9	1140.7	1140.3	1140.0	1139.6	1140.0
155°	1164.9	1165.5	1166.1	1166.8	1167.3	1167.2	1166.4	1165.5	1164.7	1163.9	1164.5
157.5°	1185.2	1186.3	1187.3	1188.5	1189.5	1189.5	1188.5	1187.3	1186.3	1185.2	1185.9
160°	1198.7	1200.0	1201.3	1202.5	1203.7	1203.7	1202.5	1201.3	1200.0	1198.7	1198.9
162.5°	1209.3	1210.7	1212.1	1213.5	1214.9	1215.0	1213.8	1212.5	1211.3	1210.0	1210.2
165°	1224.1	1226.0	1227.9	1229.7	1231.6	1231.7	1230.1	1228.4	1226.7	1225.0	1225.0
167.5°	1235.2	1237.3	1239.4	1241.5	1243.6	1243.7	1241.9	1240.0	1238.2	1236.3	1236.5
170°	1242.0	1244.1	1246.2	1248.3	1250.4	1250.6	1248.9	1247.3	1245.6	1243.9	1243.7
172.5°	1245.8	1248.0	1250.3	1252.5	1254.8	1255.1	1253.4	1251.8	1250.1	1248.4	1248.2
175°	1250.5	1253.0	1255.5	1258.0	1260.5	1260.8	1259.0	1257.1	1255.2	1253.3	1253.1
177.5°	1253.5	1255.5	1257.5	1259.5	1261.5	1261.9	1260.5	1259.1	1257.8	1256.5	1256.1
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1623.5	1616.2	1611.0	1606.8	1595.3	1588.6	1583.4	1576.0	1567.7	1558.9	1547.9
5°	1715.6	1693.5	1677.2	1652.5	1629.0	1609.4	1589.2	1570.9	1548.8	1524.8	1507.1
7.5°	1812.4	1779.5	1737.3	1700.6	1659.4	1623.6	1591.6	1558.7	1524.6	1491.5	1461.1
10°	1874.0	1831.6	1784.7	1729.3	1677.2	1630.9	1587.9	1546.2	1505.8	1465.4	1430.9
12.5°	1940.1	1887.3	1818.1	1753.3	1694.9	1633.0	1581.1	1530.0	1481.3	1438.8	1398.5
15°	2029.0	1952.8	1872.6	1786.0	1709.1	1636.8	1565.8	1501.3	1446.5	1390.4	1351.4
17.5°	2083.7	1989.3	1897.7	1807.1	1714.0	1622.9	1546.2	1471.8	1403.3	1347.6	1298.4
20°	2119.6	2025.8	1911.8	1821.2	1710.4	1616.6	1528.0	1445.2	1373.6	1314.3	1263.4
22.5°	2150.9	2042.5	1928.4	1809.2	1698.9	1599.4	1502.4	1419.2	1346.0	1283.5	1234.7
25°	2167.8	2043.3	1919.6	1801.0	1675.8	1557.9	1470.0	1372.2	1294.0	1228.2	1176.1
27.5°	2169.6	2036.6	1896.5	1764.7	1635.6	1525.8	1414.8	1327.4	1246.2	1176.7	1126.6
30°	2163.9	2025.1	1874.6	1731.9	1602.2	1483.0	1386.6	1291.5	1208.7	1139.6	1087.5
32.5°	2145.7	2001.1	1846.4	1695.4	1561.0	1444.4	1344.9	1254.4	1173.7	1105.7	1051.0
35°	2092.9	1950.2	1785.4	1628.3	1490.8	1372.9	1283.0	1191.1	1110.3	1045.8	993.1
37.5°	2010.4	1881.4	1713.8	1551.3	1416.3	1297.8	1208.7	1125.7	1052.8	987.3	933.2
40°	1938.4	1825.0	1657.0	1498.6	1352.7	1240.0	1156.6	1080.3	1008.0	946.1	894.7
42.5°	1855.6	1756.8	1601.8	1434.0	1293.3	1180.1	1098.7	1030.3	962.1	904.9	853.5
45°	1707.8	1642.7	1496.7	1341.6	1195.0	1088.2	1010.6	950.6	893.3	837.3	794.3
47.5°	1537.9	1505.5	1382.7	1235.4	1096.3	990.9	923.7	868.3	818.0	770.5	732.6
50°	1423.7	1408.1	1301.8	1159.8	1026.9	927.8	860.1	812.6	769.5	727.8	692.0
52.5°	1311.1	1310.6	1214.8	1084.8	961.8	866.4	799.1	754.7	717.4	683.5	651.3
55°	1139.0	1157.3	1082.3	966.3	856.2	770.2	709.5	669.9	643.8	615.8	591.6
57.5°	980.9	1011.2	949.3	847.2	755.4	676.1	623.3	593.4	565.7	548.7	531.2
60°	877.7	906.3	858.2	772.1	685.5	617.7	567.5	540.8	516.7	505.0	492.6
62.5°	786.0	811.5	775.8	696.1	620.9	555.6	513.3	487.7	471.4	458.5	450.3
65°	654.9	676.4	645.7	587.8	523.2	471.1	436.6	416.3	400.8	395.5	386.3
67.5°	529.3	548.9	532.3	483.1	431.3	391.9	364.9	345.4	336.2	331.7	325.2
70°	454.8	474.4	456.8	413.8	374.0	340.8	315.4	304.3	294.5	292.6	283.4
72.5°	391.7	405.0	387.5	353.8	319.8	291.8	272.1	260.5	255.4	251.9	246.9
75°	293.9	305.6	293.9	267.8	243.6	224.1	207.2	202.6	196.8	194.8	191.5
77.5°	208.0	218.1	209.2	192.8	174.8	159.8	150.6	144.8	143.5	140.1	141.7
80°	159.0	165.5	157.0	146.0	131.6	121.2	114.7	111.4	107.5	106.2	108.8
82.5°	114.1	117.1	112.7	105.3	94.6	87.8	83.4	79.6	78.8	79.1	79.1
85°	59.3	58.6	58.0	51.5	48.3	43.6	41.1	40.4	39.8	41.1	42.3
87.5°	23.3	23.5	22.6	20.2	18.1	16.1	15.1	14.1	15.1	16.1	17.1
90°	17.3	15.6	14.0	12.1	9.7	7.4	5.1	2.8	5.1	7.4	9.7
92.5°	16.6	14.9	13.3	12.3	12.3	12.1	12.0	11.9	12.0	12.1	12.3
95°	20.3	20.1	19.9	23.3	30.4	37.5	44.7	51.7	44.7	37.5	30.4
97.5°	71.5	94.8	118.2	127.6	123.2	118.8	114.3	109.9	114.3	118.8	123.2
100°	99.2	128.0	156.8	169.4	165.6	161.8	158.1	154.3	158.1	161.8	165.6
102.5°	207.0	210.8	214.5	215.0	212.3	209.5	206.8	204.0	206.8	209.5	212.3
105°	291.4	290.4	289.4	288.2	287.0	285.7	284.5	283.2	284.5	285.7	287.0
107.5°	363.2	361.7	360.3	359.3	358.6	358.1	357.4	356.8	357.4	358.1	358.6
110°	412.5	411.1	409.9	409.0	408.3	407.7	407.1	406.5	407.1	407.7	408.3



TEST NUMBER: P332652-830

CATALOG NUMBER: SA4XXDIP-C1020D1035U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	461.2	460.6	460.1	459.2	458.1	456.9	455.8	454.7	455.8	456.9	458.1
115°	531.1	531.3	531.5	531.3	530.7	530.1	529.4	528.8	529.4	530.1	530.7
117.5°	600.5	600.0	599.6	599.0	598.1	597.3	596.4	595.6	596.4	597.3	598.1
120°	644.0	644.2	644.4	644.1	643.3	642.4	641.6	640.7	641.6	642.4	643.3
122.5°	685.9	685.6	685.3	684.9	684.4	683.9	683.4	682.9	683.4	683.9	684.4
125°	746.0	746.5	746.9	746.7	745.8	745.0	744.1	743.3	744.1	745.0	745.8
127.5°	803.9	803.0	801.9	801.3	801.2	801.0	800.7	800.5	800.7	801.0	801.2
130°	839.9	839.3	838.7	838.2	838.0	837.8	837.6	837.4	837.6	837.8	838.0
132.5°	875.0	874.2	873.4	872.8	872.4	872.0	871.7	871.3	871.7	872.0	872.4
135°	923.2	922.4	921.5	921.2	921.4	921.7	921.9	922.1	921.9	921.7	921.4
137.5°	969.8	968.8	967.9	967.4	967.3	967.2	967.1	967.0	967.1	967.2	967.3
140°	999.4	998.9	998.5	998.1	997.7	997.3	996.8	996.5	996.8	997.3	997.7
142.5°	1026.8	1026.5	1026.2	1025.8	1025.0	1024.3	1023.5	1022.8	1023.5	1024.3	1025.0
145°	1066.0	1066.0	1066.0	1065.7	1065.1	1064.5	1063.8	1063.2	1063.8	1064.5	1065.1
147.5°	1100.1	1100.3	1100.6	1100.1	1098.9	1097.8	1096.6	1095.4	1096.6	1097.8	1098.9
150°	1122.0	1122.2	1122.4	1122.1	1121.2	1120.4	1119.6	1118.7	1119.6	1120.4	1121.2
152.5°	1140.4	1140.8	1141.1	1140.9	1140.3	1139.6	1139.0	1138.3	1139.0	1139.6	1140.3
155°	1165.2	1165.8	1166.4	1166.6	1166.4	1166.2	1166.0	1165.8	1166.0	1166.2	1166.4
157.5°	1186.6	1187.3	1188.0	1188.5	1188.5	1188.6	1188.8	1188.9	1188.8	1188.6	1188.5
160°	1199.1	1199.4	1199.6	1200.0	1200.6	1201.3	1201.8	1202.5	1201.8	1201.3	1200.6
162.5°	1210.4	1210.6	1210.9	1211.4	1212.1	1213.0	1213.7	1214.6	1213.7	1213.0	1212.1
165°	1225.0	1225.0	1225.0	1225.6	1226.6	1227.7	1228.7	1229.7	1228.7	1227.7	1226.6
167.5°	1236.6	1236.7	1236.9	1237.5	1238.6	1239.6	1240.8	1241.8	1240.8	1239.6	1238.6
170°	1243.5	1243.2	1243.0	1243.6	1244.8	1246.0	1247.4	1248.6	1247.4	1246.0	1244.8
172.5°	1248.0	1247.7	1247.5	1248.1	1249.3	1250.6	1251.9	1253.1	1251.9	1250.6	1249.3
175°	1252.9	1252.6	1252.5	1253.0	1254.2	1255.5	1256.8	1258.0	1256.8	1255.5	1254.2
177.5°	1255.8	1255.5	1255.2	1255.6	1256.8	1257.9	1259.0	1260.3	1259.0	1257.9	1256.8
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0



TEST NUMBER: P332652-830

CATALOG NUMBER: SA4XXDIP-C1020D1035U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1542.7	1538.0	1531.3	1521.8	1514.0	1505.7	1503.6	1500.4	1506.7	1501.5	1500.0
5°	1492.1	1478.5	1460.8	1440.7	1428.9	1412.0	1408.7	1402.2	1395.7	1395.1	1388.6
7.5°	1438.6	1418.5	1395.4	1374.9	1355.8	1337.3	1325.2	1322.6	1313.0	1307.3	1300.8
10°	1404.2	1379.4	1352.7	1333.1	1311.0	1291.5	1277.8	1270.0	1263.4	1256.2	1249.7
12.5°	1363.5	1337.2	1315.1	1294.0	1267.7	1252.8	1230.3	1216.7	1215.5	1215.6	1198.6
15°	1316.2	1290.2	1256.2	1226.2	1211.9	1183.3	1170.9	1155.3	1145.5	1135.7	1127.9
17.5°	1262.2	1229.6	1203.2	1168.8	1141.4	1118.6	1102.4	1093.0	1078.3	1064.4	1054.4
20°	1228.2	1193.7	1165.6	1129.2	1099.2	1071.2	1057.5	1044.5	1033.4	1021.7	1010.6
22.5°	1193.8	1157.7	1123.4	1088.0	1060.2	1030.6	1017.4	999.7	989.1	982.6	971.5
25°	1139.6	1100.5	1061.4	1027.6	998.9	972.8	955.3	941.5	929.8	924.6	917.5
27.5°	1080.7	1041.9	1004.1	965.6	933.1	914.2	900.1	889.8	883.1	876.1	872.9
30°	1043.2	1002.8	962.4	926.5	896.5	877.7	864.7	857.5	852.2	849.0	845.7
32.5°	1005.1	965.3	922.7	890.0	863.2	846.4	836.5	829.3	826.7	825.6	824.3
35°	944.1	903.7	864.7	835.4	809.9	803.4	794.9	791.0	789.8	794.3	796.3
37.5°	885.1	847.6	811.6	783.2	766.6	757.1	754.1	754.3	758.9	763.0	767.7
40°	847.1	810.6	776.7	752.0	736.3	730.5	729.2	732.4	737.6	742.2	747.3
42.5°	810.0	774.1	743.3	720.1	709.2	703.8	704.6	707.8	715.2	720.8	728.6
45°	752.6	722.6	692.7	673.7	664.6	665.9	665.9	671.8	678.9	687.4	695.9
47.5°	698.5	668.3	643.7	627.7	623.0	621.9	625.6	633.2	643.5	653.9	665.8
50°	662.0	633.3	611.8	597.5	592.3	594.3	599.5	606.6	619.0	632.1	644.4
52.5°	625.0	598.9	579.0	565.7	562.0	565.6	570.8	582.1	593.0	607.0	622.0
55°	567.5	545.4	529.7	520.0	518.7	520.7	526.5	538.9	554.5	572.1	586.4
57.5°	510.3	491.8	477.5	470.7	471.4	473.2	482.9	497.6	514.3	533.0	551.5
60°	471.7	454.8	443.1	437.9	438.5	442.4	454.1	467.9	488.7	506.9	526.5
62.5°	435.3	420.4	409.2	404.5	403.6	412.2	423.4	437.6	458.5	478.8	499.9
65°	376.6	364.9	355.8	353.2	355.2	361.7	376.0	394.8	412.5	433.9	456.1
67.5°	319.2	309.6	303.4	304.5	306.9	316.5	328.6	344.8	364.8	387.0	409.0
70°	282.8	273.6	268.4	269.1	273.1	284.7	295.2	311.4	333.0	355.8	374.0
72.5°	245.2	239.2	234.6	237.3	241.2	249.3	262.3	278.6	297.6	318.8	338.0
75°	188.3	188.3	185.7	187.7	193.5	201.3	211.1	228.1	246.9	263.9	279.6
77.5°	139.7	138.3	140.0	142.3	145.7	155.0	166.2	178.2	192.5	209.4	222.3
80°	106.9	107.5	110.7	114.7	116.0	123.2	134.9	146.0	157.0	171.4	183.7
82.5°	80.3	81.0	82.7	87.6	88.9	96.6	104.2	115.2	125.3	134.9	145.2
85°	43.6	43.6	46.9	48.8	52.1	57.3	61.9	68.4	77.6	84.1	93.8
87.5°	19.0	19.5	21.9	23.3	25.2	28.1	29.4	35.4	37.7	40.6	45.4
90°	12.1	14.0	15.6	17.3	19.0	20.7	22.0	23.2	24.5	25.7	26.6
92.5°	12.3	13.3	14.9	16.6	18.3	20.0	21.2	22.4	23.8	25.0	25.6
95°	23.3	19.9	20.1	20.3	20.5	20.7	22.0	23.2	24.5	25.7	26.5
97.5°	127.6	118.2	94.8	71.5	48.2	24.9	25.0	25.1	25.3	25.4	25.5
100°	169.4	156.8	128.0	99.2	70.2	41.4	37.9	34.3	30.7	27.1	25.5
102.5°	215.0	214.5	210.8	207.0	203.2	199.4	161.1	122.8	84.5	46.1	27.0
105°	288.2	289.4	290.4	291.4	292.6	293.6	295.5	297.4	299.2	301.0	298.3
107.5°	359.3	360.3	361.7	363.2	364.6	366.0	366.9	367.9	368.8	369.7	370.5
110°	409.0	409.9	411.1	412.5	413.7	414.9	415.4	415.8	416.2	416.6	417.2



TEST NUMBER: P332652-830

CATALOG NUMBER: SA4XXDIP-C1020D1035U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	459.2	460.1	460.6	461.2	461.8	462.3	462.3	462.2	462.1	462.0	462.4
115°	531.3	531.5	531.3	531.1	530.8	530.7	531.1	531.5	532.0	532.3	532.5
117.5°	599.0	599.6	600.0	600.5	601.0	601.4	601.3	601.2	601.2	601.1	601.1
120°	644.1	644.4	644.2	644.0	643.8	643.6	644.0	644.4	644.8	645.3	645.3
122.5°	684.9	685.3	685.6	685.9	686.2	686.5	686.7	687.0	687.2	687.5	687.4
125°	746.7	746.9	746.5	746.0	745.6	745.2	745.8	746.5	747.1	747.7	748.1
127.5°	801.3	801.9	803.0	803.9	804.8	805.8	805.7	805.6	805.4	805.3	805.1
130°	838.2	838.7	839.3	839.9	840.6	841.2	841.4	841.6	841.8	842.0	842.2
132.5°	872.8	873.4	874.2	875.0	875.7	876.6	876.8	876.9	877.2	877.4	877.4
135°	921.2	921.5	922.4	923.2	924.1	924.9	925.3	925.8	926.1	926.6	927.0
137.5°	967.4	967.9	968.8	969.8	970.6	971.6	972.0	972.5	973.0	973.5	973.6
140°	998.1	998.5	998.9	999.4	999.8	1000.2	1000.8	1001.5	1002.1	1002.7	1003.1
142.5°	1025.8	1026.2	1026.5	1026.8	1027.0	1027.3	1027.7	1028.2	1028.7	1029.2	1029.4
145°	1065.7	1066.0	1066.0	1066.0	1066.0	1066.0	1066.3	1066.5	1066.7	1066.9	1067.2
147.5°	1100.1	1100.6	1100.3	1100.1	1099.9	1099.8	1099.9	1100.0	1100.2	1100.4	1100.6
150°	1122.1	1122.4	1122.2	1122.0	1121.8	1121.5	1121.5	1121.5	1121.5	1121.5	1121.6
152.5°	1140.9	1141.1	1140.8	1140.4	1140.0	1139.6	1140.0	1140.3	1140.7	1140.9	1141.0
155°	1166.6	1166.4	1165.8	1165.2	1164.5	1163.9	1164.7	1165.5	1166.4	1167.2	1167.3
157.5°	1188.5	1188.0	1187.3	1186.6	1185.9	1185.2	1186.3	1187.3	1188.5	1189.5	1189.5
160°	1200.0	1199.6	1199.4	1199.1	1198.9	1198.7	1200.0	1201.3	1202.5	1203.7	1203.7
162.5°	1211.4	1210.9	1210.6	1210.4	1210.2	1210.0	1211.3	1212.5	1213.8	1215.0	1214.9
165°	1225.6	1225.0	1225.0	1225.0	1225.0	1225.0	1226.7	1228.4	1230.1	1231.7	1231.6
167.5°	1237.5	1236.9	1236.7	1236.6	1236.5	1236.3	1238.2	1240.0	1241.9	1243.7	1243.6
170°	1243.6	1243.0	1243.2	1243.5	1243.7	1243.9	1245.6	1247.3	1248.9	1250.6	1250.4
172.5°	1248.1	1247.5	1247.7	1248.0	1248.2	1248.4	1250.1	1251.8	1253.4	1255.1	1254.8
175°	1253.0	1252.5	1252.6	1252.9	1253.1	1253.3	1255.2	1257.1	1259.0	1260.8	1260.5
177.5°	1255.6	1255.2	1255.5	1255.8	1256.1	1256.5	1257.8	1259.1	1260.5	1261.9	1261.5
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0



TEST NUMBER: P332652-830

CATALOG NUMBER: SA4XXDIP-C1020D1035U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1498.9	1497.9	1494.2	1493.7	1494.2	1497.9	1498.9	1500.0	1501.5	1506.7	1500.4
5°	1384.6	1381.4	1379.4	1386.6	1379.4	1381.4	1384.6	1388.6	1395.1	1395.7	1402.2
7.5°	1298.4	1295.9	1290.2	1288.4	1290.2	1295.9	1298.4	1300.8	1307.3	1313.0	1322.6
10°	1243.2	1240.6	1235.4	1234.1	1235.4	1240.6	1243.2	1249.7	1256.2	1263.4	1270.0
12.5°	1190.1	1184.9	1183.8	1185.1	1183.8	1184.9	1190.1	1198.6	1215.6	1215.5	1216.7
15°	1119.5	1116.8	1109.7	1111.6	1109.7	1116.8	1119.5	1127.9	1135.7	1145.5	1155.3
17.5°	1049.8	1046.7	1038.0	1045.7	1038.0	1046.7	1049.8	1054.4	1064.4	1078.3	1093.0
20°	1006.1	1000.8	996.3	995.6	996.3	1000.8	1006.1	1010.6	1021.7	1033.4	1044.5
22.5°	964.3	959.7	959.2	955.0	959.2	959.7	964.3	971.5	982.6	989.1	999.7
25°	912.2	907.7	906.3	903.1	906.3	907.7	912.2	917.5	924.6	929.8	941.5
27.5°	872.2	870.0	867.6	868.6	867.6	870.0	872.2	872.9	876.1	883.1	889.8
30°	847.7	847.1	845.7	845.7	845.7	847.1	847.7	845.7	849.0	852.2	857.5
32.5°	827.4	827.3	828.0	828.0	828.0	827.3	827.4	824.3	825.6	826.7	829.3
35°	798.8	800.8	802.1	800.1	802.1	800.8	798.8	796.3	794.3	789.8	791.0
37.5°	773.1	775.0	776.8	779.0	776.8	775.0	773.1	767.7	763.0	758.9	754.3
40°	753.2	757.8	759.1	762.3	759.1	757.8	753.2	747.3	742.2	737.6	732.4
42.5°	734.4	739.5	742.9	743.6	742.9	739.5	734.4	728.6	720.8	715.2	707.8
45°	705.7	710.9	715.5	715.5	715.5	710.9	705.7	695.9	687.4	678.9	671.8
47.5°	675.8	683.3	688.0	689.1	688.0	683.3	675.8	665.8	653.9	643.5	633.2
50°	655.5	664.6	669.2	672.4	669.2	664.6	655.5	644.4	632.1	619.0	606.6
52.5°	635.7	644.8	650.9	652.6	650.9	644.8	635.7	622.0	607.0	593.0	582.1
55°	601.4	614.4	621.6	624.2	621.6	614.4	601.4	586.4	572.1	554.5	538.9
57.5°	569.1	581.1	589.5	591.4	589.5	581.1	569.1	551.5	533.0	514.3	497.6
60°	544.0	557.1	567.5	569.5	567.5	557.1	544.0	526.5	506.9	488.7	467.9
62.5°	518.5	532.1	541.5	546.6	541.5	532.1	518.5	499.9	478.8	458.5	437.6
65°	474.4	488.0	497.2	499.1	497.2	488.0	474.4	456.1	433.9	412.5	394.8
67.5°	426.1	439.8	445.8	449.6	445.8	439.8	426.1	409.0	387.0	364.8	344.8
70°	392.3	403.3	409.8	413.1	409.8	403.3	392.3	374.0	355.8	333.0	311.4
72.5°	353.6	365.2	372.9	373.5	372.9	365.2	353.6	338.0	318.8	297.6	278.6
75°	294.5	304.9	308.9	308.9	308.9	304.9	294.5	279.6	263.9	246.9	228.1
77.5°	233.1	238.5	243.5	244.5	243.5	238.5	233.1	222.3	209.4	192.5	178.2
80°	193.5	196.8	200.7	200.7	200.7	196.8	193.5	183.7	171.4	157.0	146.0
82.5°	152.9	155.6	159.5	159.0	159.5	155.6	152.9	145.2	134.9	125.3	115.2
85°	92.6	98.4	97.7	96.4	97.7	98.4	92.6	93.8	84.1	77.6	68.4
87.5°	47.1	47.7	49.4	50.5	49.4	47.7	47.1	45.4	40.6	37.7	35.4
90°	27.0	27.4	27.8	28.2	27.8	27.4	27.0	26.6	25.7	24.5	23.2
92.5°	25.7	25.8	25.9	26.0	25.9	25.8	25.7	25.6	25.0	23.8	22.4
95°	26.7	26.9	27.1	27.2	27.1	26.9	26.7	26.5	25.7	24.5	23.2
97.5°	25.7	25.9	26.1	26.4	26.1	25.9	25.7	25.5	25.4	25.3	25.1
100°	25.7	25.9	26.1	26.4	26.1	25.9	25.7	25.5	27.1	30.7	34.3
102.5°	27.0	27.1	27.1	27.1	27.1	27.1	27.0	27.0	46.1	84.5	122.8
105°	290.8	283.2	275.7	268.2	275.7	283.2	290.8	298.3	301.0	299.2	297.4
107.5°	371.4	372.1	373.0	373.7	373.0	372.1	371.4	370.5	369.7	368.8	367.9
110°	417.7	418.4	419.1	419.6	419.1	418.4	417.7	417.2	416.6	416.2	415.8



TEST NUMBER: P332652-830

CATALOG NUMBER: SA4XXDIP-C1020D1035U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	463.2	464.0	464.8	465.5	464.8	464.0	463.2	462.4	462.0	462.1	462.2
115°	532.5	532.5	532.5	532.5	532.5	532.5	532.5	532.5	532.3	532.0	531.5
117.5°	601.0	600.9	600.8	600.7	600.8	600.9	601.0	601.1	601.1	601.2	601.2
120°	644.8	644.4	644.0	643.6	644.0	644.4	644.8	645.3	645.3	644.8	644.4
122.5°	687.0	686.5	686.2	685.7	686.2	686.5	687.0	687.4	687.5	687.2	687.0
125°	748.4	748.6	748.8	748.9	748.8	748.6	748.4	748.1	747.7	747.1	746.5
127.5°	805.0	804.8	804.6	804.5	804.6	804.8	805.0	805.1	805.3	805.4	805.6
130°	842.2	842.2	842.2	842.2	842.2	842.2	842.2	842.2	842.0	841.8	841.6
132.5°	877.2	877.0	876.9	876.8	876.9	877.0	877.2	877.4	877.4	877.2	876.9
135°	927.5	927.8	928.2	928.7	928.2	927.8	927.5	927.0	926.6	926.1	925.8
137.5°	973.5	973.4	973.2	973.1	973.2	973.4	973.5	973.6	973.5	973.0	972.5
140°	1003.3	1003.5	1003.7	1004.0	1003.7	1003.5	1003.3	1003.1	1002.7	1002.1	1001.5
142.5°	1029.4	1029.4	1029.5	1029.5	1029.5	1029.4	1029.4	1029.4	1029.2	1028.7	1028.2
145°	1067.6	1068.0	1068.5	1068.8	1068.5	1068.0	1067.6	1067.2	1066.9	1066.7	1066.5
147.5°	1100.8	1101.0	1101.3	1101.5	1101.3	1101.0	1100.8	1100.6	1100.4	1100.2	1100.0
150°	1121.9	1122.1	1122.3	1122.5	1122.3	1122.1	1121.9	1121.6	1121.5	1121.5	1121.5
152.5°	1140.9	1140.9	1140.7	1140.6	1140.7	1140.9	1140.9	1141.0	1140.9	1140.7	1140.3
155°	1166.8	1166.1	1165.5	1164.9	1165.5	1166.1	1166.8	1167.3	1167.2	1166.4	1165.5
157.5°	1188.5	1187.3	1186.3	1185.2	1186.3	1187.3	1188.5	1189.5	1189.5	1188.5	1187.3
160°	1202.5	1201.3	1200.0	1198.7	1200.0	1201.3	1202.5	1203.7	1203.7	1202.5	1201.3
162.5°	1213.5	1212.1	1210.7	1209.3	1210.7	1212.1	1213.5	1214.9	1215.0	1213.8	1212.5
165°	1229.7	1227.9	1226.0	1224.1	1226.0	1227.9	1229.7	1231.6	1231.7	1230.1	1228.4
167.5°	1241.5	1239.4	1237.3	1235.2	1237.3	1239.4	1241.5	1243.6	1243.7	1241.9	1240.0
170°	1248.3	1246.2	1244.1	1242.0	1244.1	1246.2	1248.3	1250.4	1250.6	1248.9	1247.3
172.5°	1252.5	1250.3	1248.0	1245.8	1248.0	1250.3	1252.5	1254.8	1255.1	1253.4	1251.8
175°	1258.0	1255.5	1253.0	1250.5	1253.0	1255.5	1258.0	1260.5	1260.8	1259.0	1257.1
177.5°	1259.5	1257.5	1255.5	1253.5	1255.5	1257.5	1259.5	1261.5	1261.9	1260.5	1259.1
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0



TEST NUMBER: P332652-830

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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1503.6	1505.7	1514.0	1521.8	1531.3	1538.0	1542.7	1547.9	1558.9	1567.7	1576.0
5°	1408.7	1412.0	1428.9	1440.7	1460.8	1478.5	1492.1	1507.1	1524.8	1548.8	1570.9
7.5°	1325.2	1337.3	1355.8	1374.9	1395.4	1418.5	1438.6	1461.1	1491.5	1524.6	1558.7
10°	1277.8	1291.5	1311.0	1333.1	1352.7	1379.4	1404.2	1430.9	1465.4	1505.8	1546.2
12.5°	1230.3	1252.8	1267.7	1294.0	1315.1	1337.2	1363.5	1398.5	1438.8	1481.3	1530.0
15°	1170.9	1183.3	1211.9	1226.2	1256.2	1290.2	1316.2	1351.4	1390.4	1446.5	1501.3
17.5°	1102.4	1118.6	1141.4	1168.8	1203.2	1229.6	1262.2	1298.4	1347.6	1403.3	1471.8
20°	1057.5	1071.2	1099.2	1129.2	1165.6	1193.7	1228.2	1263.4	1314.3	1373.6	1445.2
22.5°	1017.4	1030.6	1060.2	1088.0	1123.4	1157.7	1193.8	1234.7	1283.5	1346.0	1419.2
25°	955.3	972.8	998.9	1027.6	1061.4	1100.5	1139.6	1176.1	1228.2	1294.0	1372.2
27.5°	900.1	914.2	933.1	965.6	1004.1	1041.9	1080.7	1126.6	1176.7	1246.2	1327.4
30°	864.7	877.7	896.5	926.5	962.4	1002.8	1043.2	1087.5	1139.6	1208.7	1291.5
32.5°	836.5	846.4	863.2	890.0	922.7	965.3	1005.1	1051.0	1105.7	1173.7	1254.4
35°	794.9	803.4	809.9	835.4	864.7	903.7	944.1	993.1	1045.8	1110.3	1191.1
37.5°	754.1	757.1	766.6	783.2	811.6	847.6	885.1	933.2	987.3	1052.8	1125.7
40°	729.2	730.5	736.3	752.0	776.7	810.6	847.1	894.7	946.1	1008.0	1080.3
42.5°	704.6	703.8	709.2	720.1	743.3	774.1	810.0	853.5	904.9	962.1	1030.3
45°	665.9	665.9	664.6	673.7	692.7	722.6	752.6	794.3	837.3	893.3	950.6
47.5°	625.6	621.9	623.0	627.7	643.7	668.3	698.5	732.6	770.5	818.0	868.3
50°	599.5	594.3	592.3	597.5	611.8	633.3	662.0	692.0	727.8	769.5	812.6
52.5°	570.8	565.6	562.0	565.7	579.0	598.9	625.0	651.3	683.5	717.4	754.7
55°	526.5	520.7	518.7	520.0	529.7	545.4	567.5	591.6	615.8	643.8	669.9
57.5°	482.9	473.2	471.4	470.7	477.5	491.8	510.3	531.2	548.7	565.7	593.4
60°	454.1	442.4	438.5	437.9	443.1	454.8	471.7	492.6	505.0	516.7	540.8
62.5°	423.4	412.2	403.6	404.5	409.2	420.4	435.3	450.3	458.5	471.4	487.7
65°	376.0	361.7	355.2	353.2	355.8	364.9	376.6	386.3	395.5	400.8	416.3
67.5°	328.6	316.5	306.9	304.5	303.4	309.6	319.2	325.2	331.7	336.2	345.4
70°	295.2	284.7	273.1	269.1	268.4	273.6	282.8	283.4	292.6	294.5	304.3
72.5°	262.3	249.3	241.2	237.3	234.6	239.2	245.2	246.9	251.9	255.4	260.5
75°	211.1	201.3	193.5	187.7	185.7	188.3	188.3	191.5	194.8	196.8	202.6
77.5°	166.2	155.0	145.7	142.3	140.0	138.3	139.7	141.7	140.1	143.5	144.8
80°	134.9	123.2	116.0	114.7	110.7	107.5	106.9	108.8	106.2	107.5	111.4
82.5°	104.2	96.6	88.9	87.6	82.7	81.0	80.3	79.1	79.1	78.8	79.6
85°	61.9	57.3	52.1	48.8	46.9	43.6	43.6	42.3	41.1	39.8	40.4
87.5°	29.4	28.1	25.2	23.3	21.9	19.5	19.0	17.1	16.1	15.1	14.1
90°	22.0	20.7	19.0	17.3	15.6	14.0	12.1	9.7	7.4	5.1	2.8
92.5°	21.2	20.0	18.3	16.6	14.9	13.3	12.3	12.3	12.1	12.0	11.9
95°	22.0	20.7	20.5	20.3	20.1	19.9	23.3	30.4	37.5	44.7	51.7
97.5°	25.0	24.9	48.2	71.5	94.8	118.2	127.6	123.2	118.8	114.3	109.9
100°	37.9	41.4	70.2	99.2	128.0	156.8	169.4	165.6	161.8	158.1	154.3
102.5°	161.1	199.4	203.2	207.0	210.8	214.5	215.0	212.3	209.5	206.8	204.0
105°	295.5	293.6	292.6	291.4	290.4	289.4	288.2	287.0	285.7	284.5	283.2
107.5°	366.9	366.0	364.6	363.2	361.7	360.3	359.3	358.6	358.1	357.4	356.8
110°	415.4	414.9	413.7	412.5	411.1	409.9	409.0	408.3	407.7	407.1	406.5



TEST NUMBER: P332652-830

CATALOG NUMBER: SA4XXDIP-C1020D1035U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	462.3	462.3	461.8	461.2	460.6	460.1	459.2	458.1	456.9	455.8	454.7
115°	531.1	530.7	530.8	531.1	531.3	531.5	531.3	530.7	530.1	529.4	528.8
117.5°	601.3	601.4	601.0	600.5	600.0	599.6	599.0	598.1	597.3	596.4	595.6
120°	644.0	643.6	643.8	644.0	644.2	644.4	644.1	643.3	642.4	641.6	640.7
122.5°	686.7	686.5	686.2	685.9	685.6	685.3	684.9	684.4	683.9	683.4	682.9
125°	745.8	745.2	745.6	746.0	746.5	746.9	746.7	745.8	745.0	744.1	743.3
127.5°	805.7	805.8	804.8	803.9	803.0	801.9	801.3	801.2	801.0	800.7	800.5
130°	841.4	841.2	840.6	839.9	839.3	838.7	838.2	838.0	837.8	837.6	837.4
132.5°	876.8	876.6	875.7	875.0	874.2	873.4	872.8	872.4	872.0	871.7	871.3
135°	925.3	924.9	924.1	923.2	922.4	921.5	921.2	921.4	921.7	921.9	922.1
137.5°	972.0	971.6	970.6	969.8	968.8	967.9	967.4	967.3	967.2	967.1	967.0
140°	1000.8	1000.2	999.8	999.4	998.9	998.5	998.1	997.7	997.3	996.8	996.5
142.5°	1027.7	1027.3	1027.0	1026.8	1026.5	1026.2	1025.8	1025.0	1024.3	1023.5	1022.8
145°	1066.3	1066.0	1066.0	1066.0	1066.0	1066.0	1065.7	1065.1	1064.5	1063.8	1063.2
147.5°	1099.9	1099.8	1099.9	1100.1	1100.3	1100.6	1100.1	1098.9	1097.8	1096.6	1095.4
150°	1121.5	1121.5	1121.8	1122.0	1122.2	1122.4	1122.1	1121.2	1120.4	1119.6	1118.7
152.5°	1140.0	1139.6	1140.0	1140.4	1140.8	1141.1	1140.9	1140.3	1139.6	1139.0	1138.3
155°	1164.7	1163.9	1164.5	1165.2	1165.8	1166.4	1166.6	1166.4	1166.2	1166.0	1165.8
157.5°	1186.3	1185.2	1185.9	1186.6	1187.3	1188.0	1188.5	1188.5	1188.6	1188.8	1188.9
160°	1200.0	1198.7	1198.9	1199.1	1199.4	1199.6	1200.0	1200.6	1201.3	1201.8	1202.5
162.5°	1211.3	1210.0	1210.2	1210.4	1210.6	1210.9	1211.4	1212.1	1213.0	1213.7	1214.6
165°	1226.7	1225.0	1225.0	1225.0	1225.0	1225.0	1225.6	1226.6	1227.7	1228.7	1229.7
167.5°	1238.2	1236.3	1236.5	1236.6	1236.7	1236.9	1237.5	1238.6	1239.6	1240.8	1241.8
170°	1245.6	1243.9	1243.7	1243.5	1243.2	1243.0	1243.6	1244.8	1246.0	1247.4	1248.6
172.5°	1250.1	1248.4	1248.2	1248.0	1247.7	1247.5	1248.1	1249.3	1250.6	1251.9	1253.1
175°	1255.2	1253.3	1253.1	1252.9	1252.6	1252.5	1253.0	1254.2	1255.5	1256.8	1258.0
177.5°	1257.8	1256.5	1256.1	1255.8	1255.5	1255.2	1255.6	1256.8	1257.9	1259.0	1260.3
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0



TEST NUMBER: P332652-830

CATALOG NUMBER: SA4XXDIP-C1020D1035U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1583.4	1588.6	1595.3	1606.8	1611.0	1616.2	1623.5	1623.0	1625.0	1632.9	1649.5
5°	1589.2	1609.4	1629.0	1652.5	1677.2	1693.5	1715.6	1729.3	1742.9	1760.6	1790.5
7.5°	1591.6	1623.6	1659.4	1700.6	1737.3	1779.5	1812.4	1843.4	1871.5	1908.6	1944.4
10°	1587.9	1630.9	1677.2	1729.3	1784.7	1831.6	1874.0	1922.2	1963.2	2008.2	2048.6
12.5°	1581.1	1633.0	1694.9	1753.3	1818.1	1887.3	1940.1	1988.9	2043.5	2095.3	2157.6
15°	1565.8	1636.8	1709.1	1786.0	1872.6	1952.8	2029.0	2092.3	2150.9	2228.5	2309.9
17.5°	1546.2	1622.9	1714.0	1807.1	1897.7	1989.3	2083.7	2178.7	2252.7	2349.0	2412.7
20°	1528.0	1616.6	1710.4	1821.2	1911.8	2025.8	2119.6	2211.5	2313.1	2409.0	2485.1
22.5°	1502.4	1599.4	1698.9	1809.2	1928.4	2042.5	2150.9	2250.6	2352.2	2456.4	2548.7
25°	1470.0	1557.9	1675.8	1801.0	1919.6	2043.3	2167.8	2292.9	2402.4	2512.5	2598.5
27.5°	1414.8	1525.8	1635.6	1764.7	1896.5	2036.6	2169.6	2300.7	2415.3	2505.8	2559.2
30°	1386.6	1483.0	1602.2	1731.9	1874.6	2025.1	2163.9	2292.3	2399.1	2471.4	2492.9
32.5°	1344.9	1444.4	1561.0	1695.4	1846.4	2001.1	2145.7	2266.7	2355.9	2393.8	2367.9
35°	1283.0	1372.9	1490.8	1628.3	1785.4	1950.2	2092.9	2195.2	2240.8	2205.0	2115.7
37.5°	1208.7	1297.8	1416.3	1551.3	1713.8	1881.4	2010.4	2084.1	2068.9	1979.8	1846.7
40°	1156.6	1240.0	1352.7	1498.6	1657.0	1825.0	1938.4	1978.2	1936.5	1808.8	1667.5
42.5°	1098.7	1180.1	1293.3	1434.0	1601.8	1756.8	1855.6	1858.9	1788.9	1636.3	1494.3
45°	1010.6	1088.2	1195.0	1341.6	1496.7	1642.7	1707.8	1675.8	1546.9	1399.6	1256.9
47.5°	923.7	990.9	1096.3	1235.4	1382.7	1505.5	1537.9	1480.4	1342.9	1200.0	1067.7
50°	860.1	927.8	1026.9	1159.8	1301.8	1408.1	1423.7	1347.5	1212.6	1068.6	965.0
52.5°	799.1	866.4	961.8	1084.8	1214.8	1310.6	1311.1	1222.9	1088.5	960.2	863.8
55°	709.5	770.2	856.2	966.3	1082.3	1157.3	1139.0	1047.7	931.1	819.7	735.7
57.5°	623.3	676.1	755.4	847.2	949.3	1011.2	980.9	893.1	788.9	694.5	630.7
60°	567.5	617.7	685.5	772.1	858.2	906.3	877.7	798.1	702.4	626.1	570.8
62.5°	513.3	555.6	620.9	696.1	775.8	811.5	786.0	707.5	624.7	555.8	510.9
65°	436.6	471.1	523.2	587.8	645.7	676.4	654.9	581.8	518.7	469.1	433.3
67.5°	364.9	391.9	431.3	483.1	532.3	548.9	529.3	478.5	425.0	385.3	360.1
70°	315.4	340.8	374.0	413.8	456.8	474.4	454.8	414.4	370.8	334.2	309.5
72.5°	272.1	291.8	319.8	353.8	387.5	405.0	391.7	352.9	316.0	288.9	267.8
75°	207.2	224.1	243.6	267.8	293.9	305.6	293.9	267.1	241.8	221.5	206.5
77.5°	150.6	159.8	174.8	192.8	209.2	218.1	208.0	189.8	174.4	160.5	153.2
80°	114.7	121.2	131.6	146.0	157.0	165.5	159.0	144.0	131.6	122.5	119.2
82.5°	83.4	87.8	94.6	105.3	112.7	117.1	114.1	103.3	98.2	90.2	86.9
85°	41.1	43.6	48.3	51.5	58.0	58.6	59.3	54.8	50.1	48.3	45.6
87.5°	15.1	16.1	18.1	20.2	22.6	23.5	23.3	23.7	21.9	21.6	19.8
90°	5.1	7.4	9.7	12.1	14.0	15.6	17.3	19.0	20.7	22.0	23.2
92.5°	12.0	12.1	12.3	12.3	13.3	14.9	16.6	18.3	20.0	21.2	22.4
95°	44.7	37.5	30.4	23.3	19.9	20.1	20.3	20.5	20.7	22.0	23.2
97.5°	114.3	118.8	123.2	127.6	118.2	94.8	71.5	48.2	24.9	25.0	25.1
100°	158.1	161.8	165.6	169.4	156.8	128.0	99.2	70.2	41.4	37.9	34.3
102.5°	206.8	209.5	212.3	215.0	214.5	210.8	207.0	203.2	199.4	161.1	122.8
105°	284.5	285.7	287.0	288.2	289.4	290.4	291.4	292.6	293.6	295.5	297.4
107.5°	357.4	358.1	358.6	359.3	360.3	361.7	363.2	364.6	366.0	366.9	367.9
110°	407.1	407.7	408.3	409.0	409.9	411.1	412.5	413.7	414.9	415.4	415.8



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	455.8	456.9	458.1	459.2	460.1	460.6	461.2	461.8	462.3	462.3	462.2
115°	529.4	530.1	530.7	531.3	531.5	531.3	531.1	530.8	530.7	531.1	531.5
117.5°	596.4	597.3	598.1	599.0	599.6	600.0	600.5	601.0	601.4	601.3	601.2
120°	641.6	642.4	643.3	644.1	644.4	644.2	644.0	643.8	643.6	644.0	644.4
122.5°	683.4	683.9	684.4	684.9	685.3	685.6	685.9	686.2	686.5	686.7	687.0
125°	744.1	745.0	745.8	746.7	746.9	746.5	746.0	745.6	745.2	745.8	746.5
127.5°	800.7	801.0	801.2	801.3	801.9	803.0	803.9	804.8	805.8	805.7	805.6
130°	837.6	837.8	838.0	838.2	838.7	839.3	839.9	840.6	841.2	841.4	841.6
132.5°	871.7	872.0	872.4	872.8	873.4	874.2	875.0	875.7	876.6	876.8	876.9
135°	921.9	921.7	921.4	921.2	921.5	922.4	923.2	924.1	924.9	925.3	925.8
137.5°	967.1	967.2	967.3	967.4	967.9	968.8	969.8	970.6	971.6	972.0	972.5
140°	996.8	997.3	997.7	998.1	998.5	998.9	999.4	999.8	1000.2	1000.8	1001.5
142.5°	1023.5	1024.3	1025.0	1025.8	1026.2	1026.5	1026.8	1027.0	1027.3	1027.7	1028.2
145°	1063.8	1064.5	1065.1	1065.7	1066.0	1066.0	1066.0	1066.0	1066.0	1066.3	1066.5
147.5°	1096.6	1097.8	1098.9	1100.1	1100.6	1100.3	1100.1	1099.9	1099.8	1099.9	1100.0
150°	1119.6	1120.4	1121.2	1122.1	1122.4	1122.2	1122.0	1121.8	1121.5	1121.5	1121.5
152.5°	1139.0	1139.6	1140.3	1140.9	1141.1	1140.8	1140.4	1140.0	1139.6	1140.0	1140.3
155°	1166.0	1166.2	1166.4	1166.6	1166.4	1165.8	1165.2	1164.5	1163.9	1164.7	1165.5
157.5°	1188.8	1188.6	1188.5	1188.5	1188.0	1187.3	1186.6	1185.9	1185.2	1186.3	1187.3
160°	1201.8	1201.3	1200.6	1200.0	1199.6	1199.4	1199.1	1198.9	1198.7	1200.0	1201.3
162.5°	1213.7	1213.0	1212.1	1211.4	1210.9	1210.6	1210.4	1210.2	1210.0	1211.3	1212.5
165°	1228.7	1227.7	1226.6	1225.6	1225.0	1225.0	1225.0	1225.0	1225.0	1226.7	1228.4
167.5°	1240.8	1239.6	1238.6	1237.5	1236.9	1236.7	1236.6	1236.5	1236.3	1238.2	1240.0
170°	1247.4	1246.0	1244.8	1243.6	1243.0	1243.2	1243.5	1243.7	1243.9	1245.6	1247.3
172.5°	1251.9	1250.6	1249.3	1248.1	1247.5	1247.7	1248.0	1248.2	1248.4	1250.1	1251.8
175°	1256.8	1255.5	1254.2	1253.0	1252.5	1252.6	1252.9	1253.1	1253.3	1255.2	1257.1
177.5°	1259.0	1257.9	1256.8	1255.6	1255.2	1255.5	1255.8	1256.1	1256.5	1257.8	1259.1
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1657.9	1659.0	1663.6	1667.3	1668.3	1673.6	1674.0
5°	1803.6	1814.7	1836.2	1838.1	1841.4	1858.3	1845.3
7.5°	1974.3	2002.4	2021.2	2037.8	2043.8	2051.2	2049.7
10°	2083.8	2125.4	2146.4	2179.5	2180.9	2189.3	2184.2
12.5°	2193.8	2242.2	2280.3	2286.4	2314.3	2318.6	2325.9
15°	2349.6	2401.1	2453.9	2472.8	2511.2	2520.4	2534.7
17.5°	2496.1	2548.7	2585.8	2634.6	2650.4	2671.5	2657.1
20°	2576.3	2633.7	2680.6	2719.0	2735.4	2747.0	2745.8
22.5°	2624.9	2682.7	2720.7	2749.8	2765.0	2770.0	2769.8
25°	2655.2	2688.4	2700.2	2711.2	2694.4	2688.4	2691.1
27.5°	2570.8	2562.2	2531.6	2491.4	2449.7	2416.6	2398.6
30°	2454.6	2403.7	2357.4	2276.6	2235.0	2210.2	2188.0
32.5°	2289.8	2209.2	2120.2	2046.3	1998.8	1962.1	1956.6
35°	2007.5	1886.3	1777.5	1687.0	1640.0	1600.2	1591.2
37.5°	1706.8	1580.8	1482.9	1403.2	1352.7	1324.6	1298.4
40°	1507.1	1398.9	1302.5	1234.7	1196.3	1176.1	1159.8
42.5°	1353.3	1254.5	1158.7	1107.0	1072.2	1059.9	1050.4
45°	1140.9	1049.0	982.6	943.5	923.3	902.5	892.7
47.5°	970.8	896.1	852.2	819.1	797.4	785.0	778.7
50°	874.4	813.1	774.1	748.7	729.2	719.3	714.2
52.5°	788.9	738.7	705.8	685.6	672.3	665.2	663.1
55°	679.6	641.1	620.3	602.8	593.0	586.4	583.8
57.5°	590.7	561.2	544.2	529.7	525.9	520.5	518.7
60°	532.3	509.5	495.2	485.4	482.2	475.7	476.9
62.5°	480.7	462.1	449.9	444.2	440.0	434.5	436.3
65°	406.6	392.9	386.3	381.2	376.0	372.7	375.3
67.5°	341.2	331.8	322.9	319.9	317.4	316.8	314.1
70°	298.4	290.6	282.8	280.9	280.9	278.2	277.6
72.5°	257.2	251.5	246.3	244.9	242.8	243.8	241.1
75°	198.7	194.2	192.2	190.3	189.6	189.6	187.7
77.5°	146.8	143.5	140.3	140.3	138.0	137.1	136.9
80°	111.4	110.1	107.5	107.5	106.2	106.9	105.6
82.5°	83.8	82.0	81.4	80.4	78.6	78.7	77.4
85°	45.0	43.0	42.3	40.4	39.1	40.4	39.1
87.5°	20.5	20.3	19.9	18.9	18.5	18.6	17.2
90°	24.5	25.7	26.6	27.0	27.4	27.8	28.2
92.5°	23.8	25.0	25.6	25.7	25.8	25.9	26.0
95°	24.5	25.7	26.5	26.7	26.9	27.1	27.2
97.5°	25.3	25.4	25.5	25.7	25.9	26.1	26.4
100°	30.7	27.1	25.5	25.7	25.9	26.1	26.4
102.5°	84.5	46.1	27.0	27.0	27.1	27.1	27.1
105°	299.2	301.0	298.3	290.8	283.2	275.7	268.2
107.5°	368.8	369.7	370.5	371.4	372.1	373.0	373.7
110°	416.2	416.6	417.2	417.7	418.4	419.1	419.6



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	462.1	462.0	462.4	463.2	464.0	464.8	465.5
115°	532.0	532.3	532.5	532.5	532.5	532.5	532.5
117.5°	601.2	601.1	601.1	601.0	600.9	600.8	600.7
120°	644.8	645.3	645.3	644.8	644.4	644.0	643.6
122.5°	687.2	687.5	687.4	687.0	686.5	686.2	685.7
125°	747.1	747.7	748.1	748.4	748.6	748.8	748.9
127.5°	805.4	805.3	805.1	805.0	804.8	804.6	804.5
130°	841.8	842.0	842.2	842.2	842.2	842.2	842.2
132.5°	877.2	877.4	877.4	877.2	877.0	876.9	876.8
135°	926.1	926.6	927.0	927.5	927.8	928.2	928.7
137.5°	973.0	973.5	973.6	973.5	973.4	973.2	973.1
140°	1002.1	1002.7	1003.1	1003.3	1003.5	1003.7	1004.0
142.5°	1028.7	1029.2	1029.4	1029.4	1029.4	1029.5	1029.5
145°	1066.7	1066.9	1067.2	1067.6	1068.0	1068.5	1068.8
147.5°	1100.2	1100.4	1100.6	1100.8	1101.0	1101.3	1101.5
150°	1121.5	1121.5	1121.6	1121.9	1122.1	1122.3	1122.5
152.5°	1140.7	1140.9	1141.0	1140.9	1140.9	1140.7	1140.6
155°	1166.4	1167.2	1167.3	1166.8	1166.1	1165.5	1164.9
157.5°	1188.5	1189.5	1189.5	1188.5	1187.3	1186.3	1185.2
160°	1202.5	1203.7	1203.7	1202.5	1201.3	1200.0	1198.7
162.5°	1213.8	1215.0	1214.9	1213.5	1212.1	1210.7	1209.3
165°	1230.1	1231.7	1231.6	1229.7	1227.9	1226.0	1224.1
167.5°	1241.9	1243.7	1243.6	1241.5	1239.4	1237.3	1235.2
170°	1248.9	1250.6	1250.4	1248.3	1246.2	1244.1	1242.0
172.5°	1253.4	1255.1	1254.8	1252.5	1250.3	1248.0	1245.8
175°	1259.0	1260.8	1260.5	1258.0	1255.5	1253.0	1250.5
177.5°	1260.5	1261.9	1261.5	1259.5	1257.5	1255.5	1253.5
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0

(END OF REPORT)