

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: P332198-830

Luminaire Tested: **S123DIW-S1000D1320U830-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332198-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIW-S1000D1320U830-4F0-1E-UDD-A
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 1320 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8974.8 lumens
Efficiency: N/A
Efficacy: 128.6 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

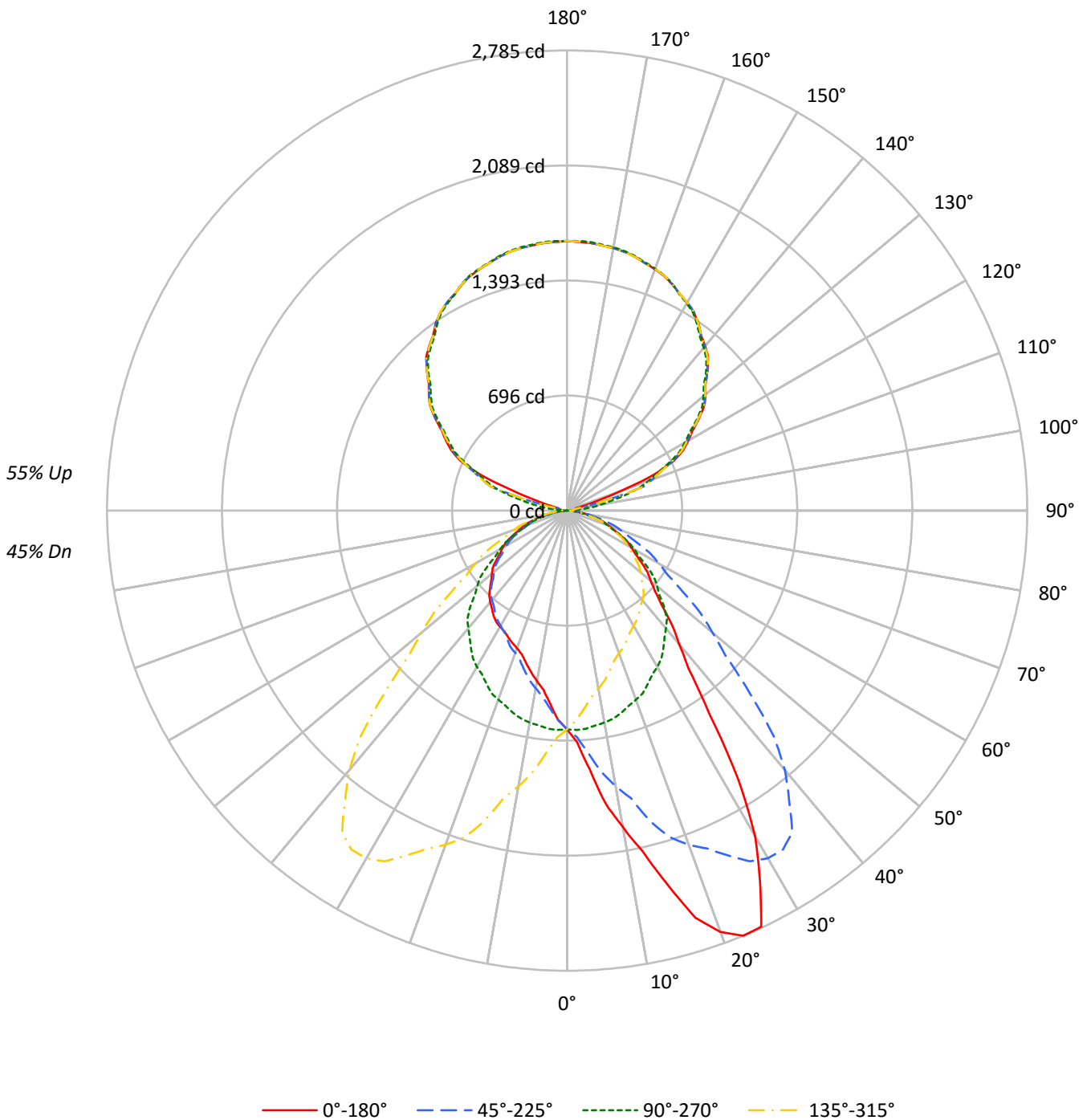
Input Watts (W): 69.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45				
1	97	93	89	85	89	85	82	79	71	68	66	58	56	55	46	45	44	38				
2	88	81	75	70	81	75	69	65	62	59	55	51	48	46	40	39	37	32				
3	81	71	64	59	74	66	60	55	55	50	47	45	42	39	36	34	32	28				
4	74	63	56	50	67	58	52	46	49	44	40	40	37	34	32	30	28	24				
5	68	56	49	43	62	52	45	40	44	39	35	36	32	29	29	26	24	21				
6	62	51	43	37	57	47	40	35	40	34	30	33	29	26	26	24	21	18				
7	58	46	38	32	53	42	35	30	36	30	27	30	26	23	24	21	19	16				
8	54	41	34	29	49	38	32	27	33	27	24	27	23	20	22	19	17	15				
9	50	38	30	25	46	35	29	24	30	25	21	25	21	18	20	17	15	13				
10	47	35	28	23	43	32	26	22	28	22	19	23	19	16	19	16	14	12				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	14249	14249	14249	14249
5°	16993	14311	12682	14311
10°	21270	14238	11455	14238
15°	26088	14123	10664	14123
20°	31078	13945	10153	13945
25°	32999	13726	10041	13726
30°	28285	13569	10092	13569
35°	19671	13341	10198	13341
40°	14816	13078	10166	13078
45°	12301	12683	10036	12683
50°	11020	11879	9945	11879
55°	10303	11012	9822	11012
60°	9664	10107	9722	10107
65°	9085	9212	9411	9212
70°	8519	8195	8960	8195
75°	7627	7178	8218	7178
80°	6676	5883	7073	5883
85°	5224	4273	4755	4273



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.4	1.5
10°-20°	418.2	4.7
20°-30°	701.8	7.8
30°-40°	794.6	8.9
40°-50°	712.6	7.9
50°-60°	575.1	6.4
60°-70°	400.7	4.5
70°-80°	210.6	2.3
80°-90°	56.1	0.6
90°-100°	59.3	0.7
100°-110°	282.7	3.1
110°-120°	679.0	7.6
120°-130°	864.6	9.6
130°-140°	923.8	10.3
140°-150°	863.8	9.6
150°-160°	696.8	7.8
160°-170°	449.7	5.0
170°-180°	155.0	1.7
0°-30°	1250.4	13.9
0°-40°	2045.0	22.8
0°-60°	3332.7	37.1
0°-90°	4000.2	44.6
90°-120°	1020.9	11.4
90°-150°	3673.1	40.9
90°-180°	4975.0	55.4
0°-180°	8974.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1324	1324	1324	1324	1324	
5°	1573	1324	1174	1324	1573	163
15°	2341	1267	957	1267	2341	676
25°	2778	1156	845	1156	2778	1219
35°	1497	1015	776	1015	1497	973
45°	808	833	659	833	808	640
55°	549	587	523	587	549	493
65°	357	362	370	362	357	355
75°	183	173	198	173	183	196
85°	42	35	38	35	42	51
90°	36	1	36	1	36	19
95°	46	74	46	74	46	39
105°	53	361	53	361	53	122
115°	713	678	713	678	713	658
125°	974	955	974	955	974	870
135°	1201	1189	1201	1189	1201	926
145°	1385	1372	1385	1372	1385	865
155°	1509	1511	1509	1511	1509	696
165°	1590	1594	1590	1594	1590	449
175°	1625	1631	1625	1631	1625	155
180°	1631	1631	1631	1631	1631	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8
2.5°	1404.9	1403.9	1401.3	1403.4	1399.3	1393.6	1393.1	1388.0	1373.1	1372.1	1368.0
5°	1572.7	1567.5	1566.9	1566.3	1557.3	1545.1	1522.0	1520.1	1489.3	1473.9	1455.3
7.5°	1790.0	1792.7	1783.3	1775.1	1747.7	1729.6	1704.8	1673.1	1635.3	1596.9	1571.4
10°	1946.0	1967.2	1940.9	1922.9	1906.2	1874.8	1838.2	1792.7	1747.2	1693.9	1653.5
12.5°	2113.3	2123.6	2118.4	2101.5	2075.6	2027.7	1962.9	1912.8	1870.9	1782.2	1746.3
15°	2341.1	2380.2	2355.2	2297.4	2298.8	2253.2	2168.5	2075.6	2026.2	1948.5	1842.8
17.5°	2583.8	2588.7	2578.0	2529.9	2497.8	2435.2	2357.1	2267.9	2167.9	2074.0	1961.8
20°	2713.1	2709.2	2686.8	2661.7	2606.6	2557.9	2472.6	2373.1	2244.9	2152.5	2030.0
22.5°	2784.9	2778.5	2767.9	2746.9	2701.0	2648.7	2572.1	2463.4	2341.4	2214.1	2072.6
25°	2778.5	2786.8	2788.1	2782.4	2766.4	2734.9	2674.6	2588.0	2466.2	2302.6	2155.1
27.5°	2527.1	2538.9	2573.1	2603.6	2637.5	2672.2	2667.6	2624.6	2534.4	2393.1	2212.8
30°	2275.7	2250.0	2313.5	2393.7	2448.2	2544.4	2598.3	2601.5	2550.8	2429.6	2253.8
32.5°	1926.7	1954.9	1983.0	2081.7	2200.8	2308.9	2416.1	2502.5	2512.3	2431.7	2277.9
35°	1497.0	1532.3	1583.6	1634.9	1763.2	1873.5	2062.1	2226.3	2357.1	2374.5	2280.1
37.5°	1206.4	1223.8	1256.2	1307.7	1391.6	1522.4	1668.3	1875.8	2065.4	2206.4	2212.5
40°	1054.4	1059.6	1096.2	1135.3	1203.2	1311.0	1442.5	1625.9	1852.9	2049.9	2132.0
42.5°	940.6	951.8	967.3	1004.9	1059.0	1140.1	1262.3	1414.0	1622.1	1848.7	2009.3
45°	808.1	821.0	830.6	855.6	894.1	948.6	1034.0	1172.4	1330.9	1565.0	1781.1
47.5°	720.7	721.7	728.9	747.7	773.9	814.8	875.2	964.1	1109.6	1299.5	1521.4
50°	658.1	668.4	670.9	685.6	706.2	736.3	786.4	862.0	981.4	1148.1	1352.1
52.5°	614.0	617.0	624.2	634.9	652.8	676.3	719.6	778.9	872.5	1014.6	1202.2
55°	549.0	549.0	556.1	564.4	574.7	595.9	624.7	668.4	739.5	849.9	1005.0
57.5°	489.0	492.2	497.2	499.7	508.5	522.5	546.6	579.7	632.8	717.7	841.1
60°	448.9	454.8	454.1	459.2	466.9	477.9	498.3	525.3	572.8	640.7	744.7
62.5°	414.1	413.7	413.6	419.7	427.4	437.8	451.2	474.5	514.8	575.0	663.5
65°	356.7	355.3	359.9	363.6	366.3	373.9	384.2	404.7	431.7	476.5	545.2
67.5°	305.6	301.8	304.3	305.6	309.9	315.9	325.6	338.3	359.7	395.8	447.4
70°	270.7	267.5	266.8	268.1	271.9	276.4	283.5	295.7	315.6	344.4	382.3
72.5°	234.8	232.5	232.4	235.3	237.0	240.0	245.0	256.2	271.9	293.6	328.9
75°	183.4	183.4	183.4	184.1	186.0	188.6	192.4	198.2	210.4	225.7	249.5
77.5°	137.5	137.4	136.6	136.5	139.3	140.4	141.4	146.8	153.5	163.9	181.3
80°	107.7	104.5	105.8	107.7	109.1	109.7	111.6	112.9	118.7	124.4	136.6
82.5°	80.0	77.4	77.6	80.6	80.8	81.4	83.4	85.2	87.4	92.7	99.2
85°	42.3	42.3	43.0	43.0	43.6	43.0	44.9	45.5	45.5	48.7	52.6
87.5°	22.6	21.5	22.0	22.3	21.7	22.1	22.3	22.6	23.0	23.3	23.1
90°	36.4	35.8	35.3	34.8	34.2	33.4	32.3	31.2	30.2	29.1	25.5
92.5°	40.2	39.9	39.6	39.3	38.9	37.9	36.2	34.5	32.7	31.0	28.4
95°	46.1	46.1	46.1	46.1	46.1	45.1	43.3	41.4	39.5	37.6	34.6
97.5°	50.0	49.7	49.4	49.1	48.8	47.6	45.5	43.4	41.2	39.0	58.4
100°	50.9	50.6	50.3	50.0	49.9	48.6	46.5	44.3	42.1	40.0	82.0
102.5°	51.8	51.4	50.9	50.4	50.0	53.1	59.7	66.4	73.0	79.7	125.6
105°	53.3	52.8	52.2	51.7	51.2	74.7	122.4	170.0	217.7	265.4	289.6
107.5°	167.5	203.4	239.3	275.3	311.2	346.7	381.6	416.6	451.5	486.4	482.7
110°	333.3	371.8	410.3	448.8	487.3	511.0	519.9	528.8	537.7	546.6	543.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	571.8	579.9	588.1	596.2	604.4	608.3	608.1	608.0	607.8	607.7	604.7
115°	712.7	711.5	710.5	709.4	708.3	706.4	703.7	701.1	698.3	695.7	693.2
117.5°	791.6	791.5	791.2	791.0	790.8	789.6	787.4	785.3	783.2	781.0	779.8
120°	845.9	845.9	845.9	845.9	845.9	844.9	842.7	840.6	838.4	836.2	835.5
122.5°	899.3	899.1	898.8	898.6	898.4	897.6	896.1	894.6	893.1	891.6	890.5
125°	974.4	973.8	973.4	972.8	972.2	971.7	971.2	970.6	970.1	969.6	968.5
127.5°	1046.6	1047.2	1047.7	1048.3	1048.8	1048.7	1047.7	1046.9	1046.0	1045.2	1043.9
130°	1093.2	1093.7	1094.3	1094.8	1095.3	1095.0	1094.0	1092.9	1091.8	1090.7	1089.7
132.5°	1135.9	1136.6	1137.4	1138.1	1138.9	1138.7	1137.6	1136.5	1135.5	1134.3	1133.5
135°	1201.1	1201.8	1202.7	1203.4	1204.3	1204.3	1203.4	1202.7	1201.8	1201.1	1200.0
137.5°	1262.3	1262.9	1263.5	1263.9	1264.5	1264.1	1262.8	1261.6	1260.3	1259.0	1258.4
140°	1299.2	1299.8	1300.2	1300.8	1301.4	1301.1	1300.0	1298.9	1297.9	1296.8	1296.0
142.5°	1333.1	1333.9	1334.6	1335.4	1336.1	1336.1	1335.2	1334.4	1333.5	1332.7	1331.8
145°	1385.3	1385.3	1385.3	1385.3	1385.3	1385.0	1384.4	1383.9	1383.4	1382.8	1382.3
147.5°	1424.0	1425.3	1426.5	1427.8	1429.0	1429.4	1428.8	1428.2	1427.8	1427.2	1426.6
150°	1453.1	1454.0	1454.7	1455.6	1456.3	1456.5	1455.9	1455.4	1454.9	1454.3	1453.8
152.5°	1476.4	1477.6	1478.8	1480.1	1481.4	1481.5	1480.5	1479.5	1478.6	1477.6	1477.2
155°	1508.9	1510.5	1512.1	1513.7	1515.3	1515.5	1514.1	1512.8	1511.5	1510.0	1509.9
157.5°	1536.3	1538.3	1540.5	1542.6	1544.6	1544.9	1543.3	1541.7	1540.0	1538.4	1538.7
160°	1553.7	1555.6	1557.5	1559.3	1561.2	1561.4	1559.8	1558.1	1556.5	1554.9	1555.2
162.5°	1570.2	1571.9	1573.6	1575.2	1576.9	1576.8	1575.0	1573.1	1571.3	1569.4	1569.7
165°	1590.1	1592.0	1593.8	1595.7	1597.6	1597.5	1595.3	1593.2	1591.0	1588.8	1589.1
167.5°	1604.4	1606.6	1608.7	1610.8	1613.0	1613.0	1610.8	1608.7	1606.6	1604.4	1604.4
170°	1613.1	1615.2	1617.4	1619.6	1621.7	1621.7	1619.6	1617.4	1615.2	1613.1	1613.1
172.5°	1618.0	1620.3	1622.7	1625.0	1627.4	1627.6	1625.4	1623.2	1621.1	1618.9	1618.7
175°	1625.2	1627.4	1629.6	1631.7	1633.8	1634.0	1632.1	1630.2	1628.3	1626.5	1626.2
177.5°	1627.4	1629.6	1631.7	1633.9	1636.1	1636.3	1634.6	1632.8	1631.1	1629.4	1629.1
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8
2.5°	1364.9	1360.7	1356.7	1349.5	1343.3	1334.6	1332.0	1329.0	1319.7	1311.5	1305.3
5°	1448.2	1432.9	1410.4	1389.9	1373.2	1350.8	1337.9	1324.5	1305.2	1287.9	1273.8
7.5°	1535.5	1505.2	1470.4	1432.6	1397.5	1363.6	1336.2	1311.9	1285.0	1259.4	1239.5
10°	1604.8	1561.1	1512.4	1459.8	1414.9	1371.3	1334.7	1302.7	1268.0	1237.8	1212.9
12.5°	1683.8	1619.1	1551.9	1488.0	1434.9	1374.4	1330.1	1289.3	1250.1	1213.8	1185.7
15°	1777.3	1695.2	1615.7	1527.8	1447.0	1371.3	1318.7	1267.4	1221.8	1184.7	1148.8
17.5°	1862.5	1769.4	1664.6	1557.8	1460.3	1370.6	1296.9	1238.9	1181.9	1136.4	1100.6
20°	1910.7	1804.9	1686.2	1575.3	1467.5	1367.4	1286.7	1217.4	1155.7	1107.7	1067.2
22.5°	1952.3	1828.4	1705.7	1587.1	1467.0	1359.2	1267.6	1196.4	1129.6	1082.5	1039.5
25°	1995.4	1847.2	1724.1	1584.9	1450.9	1339.3	1236.6	1155.7	1089.1	1034.0	989.7
27.5°	2032.3	1846.0	1699.8	1550.1	1425.4	1313.5	1204.0	1117.3	1046.5	986.6	941.7
30°	2056.9	1848.5	1674.7	1526.5	1400.8	1285.3	1178.8	1091.7	1017.3	956.3	914.0
32.5°	2072.4	1846.9	1651.6	1493.6	1361.8	1259.7	1151.7	1061.4	985.0	925.0	884.2
35°	2081.3	1835.7	1611.8	1425.8	1298.8	1199.4	1109.0	1015.3	935.2	879.4	833.2
37.5°	2063.3	1811.9	1565.7	1360.4	1221.3	1123.4	1047.4	967.6	890.9	829.4	789.7
40°	2035.1	1796.6	1529.7	1314.2	1168.0	1073.7	1008.9	930.7	855.0	796.6	759.4
42.5°	1981.2	1765.2	1490.3	1262.9	1112.6	1018.2	958.7	893.2	821.6	766.9	729.6
45°	1849.7	1697.1	1431.0	1185.9	1030.7	933.2	880.6	833.2	768.4	715.1	683.1
47.5°	1667.4	1594.6	1345.3	1104.8	945.3	851.5	796.8	758.7	711.3	668.4	637.5
50°	1540.6	1510.5	1287.2	1049.3	888.3	796.6	744.0	709.4	675.4	632.4	604.2
52.5°	1394.4	1413.0	1219.6	991.8	830.4	740.2	690.7	663.2	632.3	597.0	572.4
55°	1188.5	1255.8	1102.6	895.4	744.0	658.1	611.2	586.8	568.9	542.6	521.4
57.5°	995.7	1081.4	976.1	796.0	659.2	585.0	540.2	513.6	502.1	488.3	471.6
60°	881.3	965.9	885.8	729.2	602.3	531.7	491.9	469.5	458.0	448.4	434.2
62.5°	779.2	864.9	797.5	661.6	546.3	480.9	446.3	424.3	415.4	410.4	398.3
65°	638.9	712.6	667.7	556.1	466.3	408.6	377.1	361.7	353.5	351.5	343.7
67.5°	519.9	576.1	543.4	461.3	390.6	340.7	314.1	301.0	294.5	293.9	288.1
70°	442.0	494.6	469.5	395.1	334.1	295.0	271.9	260.4	256.6	255.9	252.7
72.5°	381.4	418.0	398.1	336.1	289.0	253.4	236.6	224.5	220.1	221.0	218.9
75°	282.2	309.8	298.2	255.2	217.4	194.4	180.2	172.6	168.7	170.6	168.1
77.5°	203.0	220.6	210.1	180.4	157.0	140.3	130.0	125.2	121.8	121.6	120.5
80°	153.3	163.5	157.8	139.8	120.6	106.5	98.1	94.9	93.0	92.4	91.7
82.5°	109.1	117.9	111.1	98.8	85.7	77.2	72.5	68.2	66.8	67.2	66.5
85°	55.1	58.3	55.8	48.1	43.0	39.1	36.6	34.6	33.4	34.0	32.7
87.5°	23.4	23.2	21.0	18.3	16.8	14.7	14.1	12.5	12.1	12.6	12.6
90°	22.1	18.6	15.1	12.0	9.3	6.6	3.9	1.2	3.9	6.6	9.3
92.5°	25.7	23.1	20.5	19.5	20.3	21.0	21.8	22.5	21.8	21.0	20.3
95°	31.7	28.7	25.7	29.8	40.8	51.8	62.9	73.9	62.9	51.8	40.8
97.5°	77.9	97.2	116.6	128.8	133.7	138.6	143.6	148.5	143.6	138.6	133.7
100°	124.0	166.1	208.0	226.4	220.9	215.6	210.2	204.8	210.2	215.6	220.9
102.5°	171.5	217.4	263.3	284.4	280.4	276.5	272.7	268.8	272.7	276.5	280.4
105°	313.9	338.1	362.4	373.0	370.0	367.1	364.1	361.2	364.1	367.1	370.0
107.5°	478.8	475.0	471.2	468.1	465.7	463.4	461.0	458.6	461.0	463.4	465.7
110°	540.6	537.7	534.7	532.2	530.0	527.8	525.8	523.6	525.8	527.8	530.0



TEST NUMBER: P332198-830

CATALOG NUMBER: S123DIW-S1000D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	601.7	598.8	595.8	593.3	591.4	589.5	587.6	585.6	587.6	589.5	591.4
115°	690.8	688.3	686.0	683.9	682.3	680.7	679.1	677.5	679.1	680.7	682.3
117.5°	778.5	777.2	776.0	774.4	772.4	770.4	768.5	766.5	768.5	770.4	772.4
120°	834.6	833.8	833.0	831.4	829.0	826.5	824.2	821.7	824.2	826.5	829.0
122.5°	889.5	888.4	887.4	885.9	883.9	881.9	880.0	878.0	880.0	881.9	883.9
125°	967.4	966.3	965.3	963.7	961.5	959.3	957.2	955.0	957.2	959.3	961.5
127.5°	1042.6	1041.3	1040.0	1038.3	1036.1	1034.0	1031.8	1029.6	1031.8	1034.0	1036.1
130°	1088.6	1087.5	1086.5	1084.9	1082.7	1080.5	1078.4	1076.2	1078.4	1080.5	1082.7
132.5°	1132.7	1131.8	1131.0	1129.4	1127.3	1125.1	1122.9	1120.8	1122.9	1125.1	1127.3
135°	1198.9	1197.8	1196.7	1195.4	1193.7	1192.1	1190.5	1188.9	1190.5	1192.1	1193.7
137.5°	1257.8	1257.2	1256.6	1255.3	1253.2	1251.2	1249.2	1247.1	1249.2	1251.2	1253.2
140°	1295.1	1294.4	1293.5	1292.3	1290.7	1289.1	1287.5	1285.9	1287.5	1289.1	1290.7
142.5°	1331.1	1330.2	1329.5	1328.2	1326.6	1325.0	1323.3	1321.7	1323.3	1325.0	1326.6
145°	1381.8	1381.2	1380.6	1379.5	1377.6	1375.7	1373.9	1372.0	1373.9	1375.7	1377.6
147.5°	1426.1	1425.6	1425.0	1424.2	1422.9	1421.6	1420.4	1419.2	1420.4	1421.6	1422.9
150°	1453.2	1452.7	1452.2	1451.5	1450.7	1449.9	1449.1	1448.3	1449.1	1449.9	1450.7
152.5°	1477.0	1476.7	1476.3	1475.9	1475.6	1475.2	1474.8	1474.4	1474.8	1475.2	1475.6
155°	1509.6	1509.3	1509.0	1509.1	1509.7	1510.2	1510.8	1511.3	1510.8	1510.2	1509.7
157.5°	1539.0	1539.3	1539.5	1539.6	1539.7	1539.8	1539.8	1539.9	1539.8	1539.8	1539.7
160°	1555.5	1555.8	1556.0	1556.2	1556.5	1556.8	1557.1	1557.4	1557.1	1556.8	1556.5
162.5°	1570.0	1570.3	1570.6	1571.0	1571.7	1572.4	1573.1	1573.9	1573.1	1572.4	1571.7
165°	1589.4	1589.7	1590.0	1590.4	1591.3	1592.0	1592.9	1593.7	1592.9	1592.0	1591.3
167.5°	1604.4	1604.4	1604.4	1604.9	1606.0	1607.0	1608.2	1609.2	1608.2	1607.0	1606.0
170°	1613.1	1613.1	1613.1	1613.6	1614.8	1615.8	1616.8	1618.0	1616.8	1615.8	1614.8
172.5°	1618.5	1618.3	1618.1	1618.6	1619.9	1621.2	1622.5	1623.8	1622.5	1621.2	1619.9
175°	1625.9	1625.6	1625.3	1625.9	1627.2	1628.6	1629.9	1631.3	1629.9	1628.6	1627.2
177.5°	1628.9	1628.7	1628.5	1628.9	1630.0	1631.1	1632.1	1633.2	1632.1	1631.1	1630.0
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3



TEST NUMBER: P332198-830

CATALOG NUMBER: S123DIW-S1000D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8
2.5°	1301.7	1298.2	1293.1	1285.3	1279.2	1269.4	1269.4	1271.0	1271.0	1270.5	1269.4
5°	1262.3	1252.6	1241.1	1227.7	1213.5	1199.4	1196.8	1191.8	1187.9	1185.2	1182.0
7.5°	1220.6	1203.5	1186.7	1167.8	1150.7	1136.4	1126.5	1118.3	1113.0	1107.4	1103.3
10°	1192.3	1171.2	1151.3	1131.4	1109.6	1092.3	1081.4	1073.7	1067.9	1062.8	1060.3
12.5°	1159.0	1134.7	1112.9	1093.9	1070.1	1052.3	1041.9	1038.3	1031.5	1020.7	1015.0
15°	1110.2	1087.8	1061.5	1032.6	1021.1	999.3	987.1	981.4	977.5	969.1	966.6
17.5°	1068.6	1039.2	1009.7	988.2	966.7	949.0	942.2	935.0	929.9	923.1	921.1
20°	1035.2	1008.9	981.9	958.8	936.4	917.2	911.4	906.3	901.2	898.0	895.4
22.5°	1001.4	975.1	952.7	931.1	907.2	894.6	888.3	882.7	879.1	876.9	874.3
25°	953.8	930.7	905.7	886.4	867.1	858.8	855.0	851.8	849.2	846.0	845.4
27.5°	911.2	886.0	865.7	847.8	834.0	827.0	823.3	821.7	822.3	823.4	824.2
30°	879.4	856.3	839.6	824.2	811.3	804.9	804.3	804.3	806.9	807.5	808.8
32.5°	850.1	831.1	814.5	799.6	789.9	785.4	787.9	787.9	789.9	791.6	793.9
35°	807.5	790.8	778.0	765.2	756.9	758.7	760.1	761.3	764.5	768.4	771.0
37.5°	766.9	752.3	739.0	729.0	725.2	728.6	731.7	734.4	738.1	741.0	743.7
40°	737.6	726.7	713.9	704.9	706.2	708.1	710.7	713.9	717.1	719.0	721.6
42.5°	710.4	699.0	689.3	681.8	683.6	686.1	687.6	689.3	693.0	696.4	698.0
45°	669.0	660.0	651.0	646.5	647.8	649.1	650.4	652.3	655.5	658.1	658.7
47.5°	622.4	616.1	610.1	605.8	607.8	607.3	609.0	613.0	614.1	615.6	619.2
50°	592.7	586.8	579.9	578.5	578.5	578.5	579.2	584.3	584.3	586.8	589.5
52.5°	559.8	556.1	551.6	549.3	548.3	548.3	550.9	553.6	554.6	558.2	560.7
55°	511.2	507.4	503.5	501.5	500.3	501.5	506.7	507.9	511.2	513.1	515.0
57.5°	460.5	457.6	454.5	453.5	453.2	454.9	457.7	461.6	462.3	468.3	471.2
60°	427.2	422.6	420.1	420.1	418.9	424.6	423.3	429.7	431.0	434.9	439.3
62.5°	392.8	386.7	385.7	385.7	387.6	389.2	391.0	393.8	397.2	402.0	405.5
65°	337.3	334.1	338.7	338.0	336.8	340.5	340.5	343.7	347.6	352.1	359.2
67.5°	284.9	283.2	283.6	283.6	285.6	287.8	289.5	292.4	297.0	301.7	306.3
70°	249.5	251.5	248.3	250.8	252.7	253.4	254.7	258.4	263.6	266.8	271.9
72.5°	215.1	215.0	215.4	216.4	218.3	219.5	220.7	225.2	230.7	233.5	237.6
75°	165.5	164.9	166.7	166.7	169.9	171.3	172.6	174.5	179.6	183.4	186.6
77.5°	120.8	121.6	121.2	123.4	122.5	122.7	126.8	128.7	129.2	136.8	138.5
80°	91.0	92.4	93.0	93.7	94.3	93.0	97.5	99.4	99.4	103.9	107.1
82.5°	65.4	66.2	67.9	68.5	68.6	69.9	70.3	71.7	73.2	75.2	79.4
85°	32.7	34.6	35.3	34.6	35.3	34.0	35.9	36.6	37.2	37.2	37.2
87.5°	12.6	13.8	13.9	15.2	15.4	16.6	16.8	16.0	16.2	18.0	16.1
90°	12.0	15.1	18.6	22.1	25.5	29.1	30.2	31.2	32.3	33.4	34.2
92.5°	19.5	20.5	23.1	25.7	28.4	31.0	32.7	34.5	36.2	37.9	38.9
95°	29.8	25.7	28.7	31.7	34.6	37.6	39.5	41.4	43.3	45.1	46.1
97.5°	128.8	116.6	97.2	77.9	58.4	39.0	41.2	43.4	45.5	47.6	48.8
100°	226.4	208.0	166.1	124.0	82.0	40.0	42.1	44.3	46.5	48.6	49.9
102.5°	284.4	263.3	217.4	171.5	125.6	79.7	73.0	66.4	59.7	53.1	50.0
105°	373.0	362.4	338.1	313.9	289.6	265.4	217.7	170.0	122.4	74.7	51.2
107.5°	468.1	471.2	475.0	478.8	482.7	486.4	451.5	416.6	381.6	346.7	311.2
110°	532.2	534.7	537.7	540.6	543.7	546.6	537.7	528.8	519.9	511.0	487.3



TEST NUMBER: P332198-830

CATALOG NUMBER: S123DIW-S1000D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	593.3	595.8	598.8	601.7	604.7	607.7	607.8	608.0	608.1	608.3	604.4
115°	683.9	686.0	688.3	690.8	693.2	695.7	698.3	701.1	703.7	706.4	708.3
117.5°	774.4	776.0	777.2	778.5	779.8	781.0	783.2	785.3	787.4	789.6	790.8
120°	831.4	833.0	833.8	834.6	835.5	836.2	838.4	840.6	842.7	844.9	845.9
122.5°	885.9	887.4	888.4	889.5	890.5	891.6	893.1	894.6	896.1	897.6	898.4
125°	963.7	965.3	966.3	967.4	968.5	969.6	970.1	970.6	971.2	971.7	972.2
127.5°	1038.3	1040.0	1041.3	1042.6	1043.9	1045.2	1046.0	1046.9	1047.7	1048.7	1048.8
130°	1084.9	1086.5	1087.5	1088.6	1089.7	1090.7	1091.8	1092.9	1094.0	1095.0	1095.3
132.5°	1129.4	1131.0	1131.8	1132.7	1133.5	1134.3	1135.5	1136.5	1137.6	1138.7	1138.9
135°	1195.4	1196.7	1197.8	1198.9	1200.0	1201.1	1201.8	1202.7	1203.4	1204.3	1204.3
137.5°	1255.3	1256.6	1257.2	1257.8	1258.4	1259.0	1260.3	1261.6	1262.8	1264.1	1264.5
140°	1292.3	1293.5	1294.4	1295.1	1296.0	1296.8	1297.9	1298.9	1300.0	1301.1	1301.4
142.5°	1328.2	1329.5	1330.2	1331.1	1331.8	1332.7	1333.5	1334.4	1335.2	1336.1	1336.1
145°	1379.5	1380.6	1381.2	1381.8	1382.3	1382.8	1383.4	1383.9	1384.4	1385.0	1385.3
147.5°	1424.2	1425.0	1425.6	1426.1	1426.6	1427.2	1427.8	1428.2	1428.8	1429.4	1429.0
150°	1451.5	1452.2	1452.7	1453.2	1453.8	1454.3	1454.9	1455.4	1455.9	1456.5	1456.3
152.5°	1475.9	1476.3	1476.7	1477.0	1477.2	1477.6	1478.6	1479.5	1480.5	1481.5	1481.4
155°	1509.1	1509.0	1509.3	1509.6	1509.9	1510.0	1511.5	1512.8	1514.1	1515.5	1515.3
157.5°	1539.6	1539.5	1539.3	1539.0	1538.7	1538.4	1540.0	1541.7	1543.3	1544.9	1544.6
160°	1556.2	1556.0	1555.8	1555.5	1555.2	1554.9	1556.5	1558.1	1559.8	1561.4	1561.2
162.5°	1571.0	1570.6	1570.3	1570.0	1569.7	1569.4	1571.3	1573.1	1575.0	1576.8	1576.9
165°	1590.4	1590.0	1589.7	1589.4	1589.1	1588.8	1591.0	1593.2	1595.3	1597.5	1597.6
167.5°	1604.9	1604.4	1604.4	1604.4	1604.4	1604.4	1606.6	1608.7	1610.8	1613.0	1613.0
170°	1613.6	1613.1	1613.1	1613.1	1613.1	1613.1	1615.2	1617.4	1619.6	1621.7	1621.7
172.5°	1618.6	1618.1	1618.3	1618.5	1618.7	1618.9	1621.1	1623.2	1625.4	1627.6	1627.4
175°	1625.9	1625.3	1625.6	1625.9	1626.2	1626.5	1628.3	1630.2	1632.1	1634.0	1633.8
177.5°	1628.9	1628.5	1628.7	1628.9	1629.1	1629.4	1631.1	1632.8	1634.6	1636.3	1636.1
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3



TEST NUMBER: P332198-830

CATALOG NUMBER: S123DIW-S1000D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8
2.5°	1265.8	1265.4	1268.9	1266.4	1268.9	1265.4	1265.8	1269.4	1270.5	1271.0	1271.0
5°	1178.3	1180.2	1173.7	1173.7	1173.7	1180.2	1178.3	1182.0	1185.2	1187.9	1191.8
7.5°	1100.2	1097.4	1097.7	1094.2	1097.7	1097.4	1100.2	1103.3	1107.4	1113.0	1118.3
10°	1052.5	1048.7	1047.4	1048.0	1047.4	1048.7	1052.5	1060.3	1062.8	1067.9	1073.7
12.5°	1013.0	1012.3	1003.8	1003.9	1003.8	1012.3	1013.0	1015.0	1020.7	1031.5	1038.3
15°	966.6	954.4	953.1	957.0	953.1	954.4	966.6	966.6	969.1	977.5	981.4
17.5°	920.0	913.6	914.0	912.1	914.0	913.6	920.0	921.1	923.1	929.9	935.0
20°	895.4	891.6	890.9	886.4	890.9	891.6	895.4	895.4	898.0	901.2	906.3
22.5°	872.8	871.6	871.9	867.0	871.9	871.6	872.8	874.3	876.9	879.1	882.7
25°	844.7	847.9	845.4	845.4	845.4	847.9	844.7	845.4	846.0	849.2	851.8
27.5°	825.8	825.6	824.3	824.3	824.3	825.6	825.8	824.2	823.4	822.3	821.7
30°	811.3	810.7	812.0	812.0	812.0	810.7	811.3	808.8	807.5	806.9	804.3
32.5°	797.0	797.9	798.1	798.6	798.1	797.9	797.0	793.9	791.6	789.9	787.9
35°	774.8	775.4	777.4	776.1	777.4	775.4	774.8	771.0	768.4	764.5	761.3
37.5°	744.8	747.7	747.1	748.1	747.1	747.7	744.8	743.7	741.0	738.1	734.4
40°	722.2	724.2	723.5	723.5	723.5	724.2	722.2	721.6	719.0	717.1	713.9
42.5°	699.1	700.5	698.9	697.9	698.9	700.5	699.1	698.0	696.4	693.0	689.3
45°	661.3	660.0	661.9	659.3	661.9	660.0	661.3	658.7	658.1	655.5	652.3
47.5°	619.0	620.2	620.8	622.6	620.8	620.2	619.0	619.2	615.6	614.1	613.0
50°	590.7	594.6	594.6	593.9	594.6	594.6	590.7	589.5	586.8	584.3	584.3
52.5°	563.0	564.8	567.4	567.2	567.4	564.8	563.0	560.7	558.2	554.6	553.6
55°	520.2	521.4	522.7	523.4	522.7	521.4	520.2	515.0	513.1	511.2	507.9
57.5°	475.8	475.2	478.3	479.3	478.3	475.2	475.8	471.2	468.3	462.3	461.6
60°	444.5	444.5	449.6	451.6	449.6	444.5	444.5	439.3	434.9	431.0	429.7
62.5°	411.1	413.2	418.3	415.7	418.3	413.2	411.1	405.5	402.0	397.2	393.8
65°	362.4	367.5	366.8	369.5	366.8	367.5	362.4	359.2	352.1	347.6	343.7
67.5°	311.4	314.6	319.2	319.7	319.2	314.6	311.4	306.3	301.7	297.0	292.4
70°	277.1	280.3	282.9	284.7	282.9	280.3	277.1	271.9	266.8	263.6	258.4
72.5°	243.7	245.4	251.6	248.8	251.6	245.4	243.7	237.6	233.5	230.7	225.2
75°	191.1	195.6	199.4	197.6	199.4	195.6	191.1	186.6	183.4	179.6	174.5
77.5°	141.4	145.8	147.6	146.0	147.6	145.8	141.4	138.5	136.8	129.2	128.7
80°	111.6	110.9	114.8	114.1	114.8	110.9	111.6	107.1	103.9	99.4	99.4
82.5°	81.8	81.2	83.0	83.4	83.0	81.2	81.8	79.4	75.2	73.2	71.7
85°	39.8	41.7	39.1	38.5	39.1	41.7	39.8	37.2	37.2	37.2	36.6
87.5°	16.2	16.3	15.9	15.5	15.9	16.3	16.2	16.1	18.0	16.2	16.0
90°	34.8	35.3	35.8	36.4	35.8	35.3	34.8	34.2	33.4	32.3	31.2
92.5°	39.3	39.6	39.9	40.2	39.9	39.6	39.3	38.9	37.9	36.2	34.5
95°	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1	45.1	43.3	41.4
97.5°	49.1	49.4	49.7	50.0	49.7	49.4	49.1	48.8	47.6	45.5	43.4
100°	50.0	50.3	50.6	50.9	50.6	50.3	50.0	49.9	48.6	46.5	44.3
102.5°	50.4	50.9	51.4	51.8	51.4	50.9	50.4	50.0	53.1	59.7	66.4
105°	51.7	52.2	52.8	53.3	52.8	52.2	51.7	51.2	74.7	122.4	170.0
107.5°	275.3	239.3	203.4	167.5	203.4	239.3	275.3	311.2	346.7	381.6	416.6
110°	448.8	410.3	371.8	333.3	371.8	410.3	448.8	487.3	511.0	519.9	528.8



TEST NUMBER: P332198-830

CATALOG NUMBER: S123DIW-S1000D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	596.2	588.1	579.9	571.8	579.9	588.1	596.2	604.4	608.3	608.1	608.0
115°	709.4	710.5	711.5	712.7	711.5	710.5	709.4	708.3	706.4	703.7	701.1
117.5°	791.0	791.2	791.5	791.6	791.5	791.2	791.0	790.8	789.6	787.4	785.3
120°	845.9	845.9	845.9	845.9	845.9	845.9	845.9	845.9	844.9	842.7	840.6
122.5°	898.6	898.8	899.1	899.3	899.1	898.8	898.6	898.4	897.6	896.1	894.6
125°	972.8	973.4	973.8	974.4	973.8	973.4	972.8	972.2	971.7	971.2	970.6
127.5°	1048.3	1047.7	1047.2	1046.6	1047.2	1047.7	1048.3	1048.8	1048.7	1047.7	1046.9
130°	1094.8	1094.3	1093.7	1093.2	1093.7	1094.3	1094.8	1095.3	1095.0	1094.0	1092.9
132.5°	1138.1	1137.4	1136.6	1135.9	1136.6	1137.4	1138.1	1138.9	1138.7	1137.6	1136.5
135°	1203.4	1202.7	1201.8	1201.1	1201.8	1202.7	1203.4	1204.3	1204.3	1203.4	1202.7
137.5°	1263.9	1263.5	1262.9	1262.3	1262.9	1263.5	1263.9	1264.5	1264.1	1262.8	1261.6
140°	1300.8	1300.2	1299.8	1299.2	1299.8	1300.2	1300.8	1301.4	1301.1	1300.0	1298.9
142.5°	1335.4	1334.6	1333.9	1333.1	1333.9	1334.6	1335.4	1336.1	1336.1	1335.2	1334.4
145°	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.0	1384.4	1383.9
147.5°	1427.8	1426.5	1425.3	1424.0	1425.3	1426.5	1427.8	1429.0	1429.4	1428.8	1428.2
150°	1455.6	1454.7	1454.0	1453.1	1454.0	1454.7	1455.6	1456.3	1456.5	1455.9	1455.4
152.5°	1480.1	1478.8	1477.6	1476.4	1477.6	1478.8	1480.1	1481.4	1481.5	1480.5	1479.5
155°	1513.7	1512.1	1510.5	1508.9	1510.5	1512.1	1513.7	1515.3	1515.5	1514.1	1512.8
157.5°	1542.6	1540.5	1538.3	1536.3	1538.3	1540.5	1542.6	1544.6	1544.9	1543.3	1541.7
160°	1559.3	1557.5	1555.6	1553.7	1555.6	1557.5	1559.3	1561.2	1561.4	1559.8	1558.1
162.5°	1575.2	1573.6	1571.9	1570.2	1571.9	1573.6	1575.2	1576.9	1576.8	1575.0	1573.1
165°	1595.7	1593.8	1592.0	1590.1	1592.0	1593.8	1595.7	1597.6	1597.5	1595.3	1593.2
167.5°	1610.8	1608.7	1606.6	1604.4	1606.6	1608.7	1610.8	1613.0	1613.0	1610.8	1608.7
170°	1619.6	1617.4	1615.2	1613.1	1615.2	1617.4	1619.6	1621.7	1621.7	1619.6	1617.4
172.5°	1625.0	1622.7	1620.3	1618.0	1620.3	1622.7	1625.0	1627.4	1627.6	1625.4	1623.2
175°	1631.7	1629.6	1627.4	1625.2	1627.4	1629.6	1631.7	1633.8	1634.0	1632.1	1630.2
177.5°	1633.9	1631.7	1629.6	1627.4	1629.6	1631.7	1633.9	1636.1	1636.3	1634.6	1632.8
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3



TEST NUMBER: P332198-830

CATALOG NUMBER: S123DIW-S1000D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8
2.5°	1269.4	1269.4	1279.2	1285.3	1293.1	1298.2	1301.7	1305.3	1311.5	1319.7	1329.0
5°	1196.8	1199.4	1213.5	1227.7	1241.1	1252.6	1262.3	1273.8	1287.9	1305.2	1324.5
7.5°	1126.5	1136.4	1150.7	1167.8	1186.7	1203.5	1220.6	1239.5	1259.4	1285.0	1311.9
10°	1081.4	1092.3	1109.6	1131.4	1151.3	1171.2	1192.3	1212.9	1237.8	1268.0	1302.7
12.5°	1041.9	1052.3	1070.1	1093.9	1112.9	1134.7	1159.0	1185.7	1213.8	1250.1	1289.3
15°	987.1	999.3	1021.1	1032.6	1061.5	1087.8	1110.2	1148.8	1184.7	1221.8	1267.4
17.5°	942.2	949.0	966.7	988.2	1009.7	1039.2	1068.6	1100.6	1136.4	1181.9	1238.9
20°	911.4	917.2	936.4	958.8	981.9	1008.9	1035.2	1067.2	1107.7	1155.7	1217.4
22.5°	888.3	894.6	907.2	931.1	952.7	975.1	1001.4	1039.5	1082.5	1129.6	1196.4
25°	855.0	858.8	867.1	886.4	905.7	930.7	953.8	989.7	1034.0	1089.1	1155.7
27.5°	823.3	827.0	834.0	847.8	865.7	886.0	911.2	941.7	986.6	1046.5	1117.3
30°	804.3	804.9	811.3	824.2	839.6	856.3	879.4	914.0	956.3	1017.3	1091.7
32.5°	787.9	785.4	789.9	799.6	814.5	831.1	850.1	884.2	925.0	985.0	1061.4
35°	760.1	758.7	756.9	765.2	778.0	790.8	807.5	833.2	879.4	935.2	1015.3
37.5°	731.7	728.6	725.2	729.0	739.0	752.3	766.9	789.7	829.4	890.9	967.6
40°	710.7	708.1	706.2	704.9	713.9	726.7	737.6	759.4	796.6	855.0	930.7
42.5°	687.6	686.1	683.6	681.8	689.3	699.0	710.4	729.6	766.9	821.6	893.2
45°	650.4	649.1	647.8	646.5	651.0	660.0	669.0	683.1	715.1	768.4	833.2
47.5°	609.0	607.3	607.8	605.8	610.1	616.1	622.4	637.5	668.4	711.3	758.7
50°	579.2	578.5	578.5	578.5	579.9	586.8	592.7	604.2	632.4	675.4	709.4
52.5°	550.9	548.3	548.3	549.3	551.6	556.1	559.8	572.4	597.0	632.3	663.2
55°	506.7	501.5	500.3	501.5	503.5	507.4	511.2	521.4	542.6	568.9	586.8
57.5°	457.7	454.9	453.2	453.5	454.5	457.6	460.5	471.6	488.3	502.1	513.6
60°	423.3	424.6	418.9	420.1	420.1	422.6	427.2	434.2	448.4	458.0	469.5
62.5°	391.0	389.2	387.6	385.7	385.7	386.7	392.8	398.3	410.4	415.4	424.3
65°	340.5	340.5	336.8	338.0	338.7	334.1	337.3	343.7	351.5	353.5	361.7
67.5°	289.5	287.8	285.6	283.6	283.6	283.2	284.9	288.1	293.9	294.5	301.0
70°	254.7	253.4	252.7	250.8	248.3	251.5	249.5	252.7	255.9	256.6	260.4
72.5°	220.7	219.5	218.3	216.4	215.4	215.0	215.1	218.9	221.0	220.1	224.5
75°	172.6	171.3	169.9	166.7	166.7	164.9	165.5	168.1	170.6	168.7	172.6
77.5°	126.8	122.7	122.5	123.4	121.2	121.6	120.8	120.5	121.6	121.8	125.2
80°	97.5	93.0	94.3	93.7	93.0	92.4	91.0	91.7	92.4	93.0	94.9
82.5°	70.3	69.9	68.6	68.5	67.9	66.2	65.4	66.5	67.2	66.8	68.2
85°	35.9	34.0	35.3	34.6	35.3	34.6	32.7	32.7	34.0	33.4	34.6
87.5°	16.8	16.6	15.4	15.2	13.9	13.8	12.6	12.6	12.6	12.1	12.5
90°	30.2	29.1	25.5	22.1	18.6	15.1	12.0	9.3	6.6	3.9	1.2
92.5°	32.7	31.0	28.4	25.7	23.1	20.5	19.5	20.3	21.0	21.8	22.5
95°	39.5	37.6	34.6	31.7	28.7	25.7	29.8	40.8	51.8	62.9	73.9
97.5°	41.2	39.0	58.4	77.9	97.2	116.6	128.8	133.7	138.6	143.6	148.5
100°	42.1	40.0	82.0	124.0	166.1	208.0	226.4	220.9	215.6	210.2	204.8
102.5°	73.0	79.7	125.6	171.5	217.4	263.3	284.4	280.4	276.5	272.7	268.8
105°	217.7	265.4	289.6	313.9	338.1	362.4	373.0	370.0	367.1	364.1	361.2
107.5°	451.5	486.4	482.7	478.8	475.0	471.2	468.1	465.7	463.4	461.0	458.6
110°	537.7	546.6	543.7	540.6	537.7	534.7	532.2	530.0	527.8	525.8	523.6



TEST NUMBER: P332198-830

CATALOG NUMBER: S123DIW-S1000D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	607.8	607.7	604.7	601.7	598.8	595.8	593.3	591.4	589.5	587.6	585.6
115°	698.3	695.7	693.2	690.8	688.3	686.0	683.9	682.3	680.7	679.1	677.5
117.5°	783.2	781.0	779.8	778.5	777.2	776.0	774.4	772.4	770.4	768.5	766.5
120°	838.4	836.2	835.5	834.6	833.8	833.0	831.4	829.0	826.5	824.2	821.7
122.5°	893.1	891.6	890.5	889.5	888.4	887.4	885.9	883.9	881.9	880.0	878.0
125°	970.1	969.6	968.5	967.4	966.3	965.3	963.7	961.5	959.3	957.2	955.0
127.5°	1046.0	1045.2	1043.9	1042.6	1041.3	1040.0	1038.3	1036.1	1034.0	1031.8	1029.6
130°	1091.8	1090.7	1089.7	1088.6	1087.5	1086.5	1084.9	1082.7	1080.5	1078.4	1076.2
132.5°	1135.5	1134.3	1133.5	1132.7	1131.8	1131.0	1129.4	1127.3	1125.1	1122.9	1120.8
135°	1201.8	1201.1	1200.0	1198.9	1197.8	1196.7	1195.4	1193.7	1192.1	1190.5	1188.9
137.5°	1260.3	1259.0	1258.4	1257.8	1257.2	1256.6	1255.3	1253.2	1251.2	1249.2	1247.1
140°	1297.9	1296.8	1296.0	1295.1	1294.4	1293.5	1292.3	1290.7	1289.1	1287.5	1285.9
142.5°	1333.5	1332.7	1331.8	1331.1	1330.2	1329.5	1328.2	1326.6	1325.0	1323.3	1321.7
145°	1383.4	1382.8	1382.3	1381.8	1381.2	1380.6	1379.5	1377.6	1375.7	1373.9	1372.0
147.5°	1427.8	1427.2	1426.6	1426.1	1425.6	1425.0	1424.2	1422.9	1421.6	1420.4	1419.2
150°	1454.9	1454.3	1453.8	1453.2	1452.7	1452.2	1451.5	1450.7	1449.9	1449.1	1448.3
152.5°	1478.6	1477.6	1477.2	1477.0	1476.7	1476.3	1475.9	1475.6	1475.2	1474.8	1474.4
155°	1511.5	1510.0	1509.9	1509.6	1509.3	1509.0	1509.1	1509.7	1510.2	1510.8	1511.3
157.5°	1540.0	1538.4	1538.7	1539.0	1539.3	1539.5	1539.6	1539.7	1539.8	1539.8	1539.9
160°	1556.5	1554.9	1555.2	1555.5	1555.8	1556.0	1556.2	1556.5	1556.8	1557.1	1557.4
162.5°	1571.3	1569.4	1569.7	1570.0	1570.3	1570.6	1571.0	1571.7	1572.4	1573.1	1573.9
165°	1591.0	1588.8	1589.1	1589.4	1589.7	1590.0	1590.4	1591.3	1592.0	1592.9	1593.7
167.5°	1606.6	1604.4	1604.4	1604.4	1604.4	1604.4	1604.9	1606.0	1607.0	1608.2	1609.2
170°	1615.2	1613.1	1613.1	1613.1	1613.1	1613.1	1613.6	1614.8	1615.8	1616.8	1618.0
172.5°	1621.1	1618.9	1618.7	1618.5	1618.3	1618.1	1618.6	1619.9	1621.2	1622.5	1623.8
175°	1628.3	1626.5	1626.2	1625.9	1625.6	1625.3	1625.9	1627.2	1628.6	1629.9	1631.3
177.5°	1631.1	1629.4	1629.1	1628.9	1628.7	1628.5	1628.9	1630.0	1631.1	1632.1	1633.2
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3



TEST NUMBER: P332198-830

CATALOG NUMBER: S123DIW-S1000D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8
2.5°	1332.0	1334.6	1343.3	1349.5	1356.7	1360.7	1364.9	1368.0	1372.1	1373.1	1388.0
5°	1337.9	1350.8	1373.2	1389.9	1410.4	1432.9	1448.2	1455.3	1473.9	1489.3	1520.1
7.5°	1336.2	1363.6	1397.5	1432.6	1470.4	1505.2	1535.5	1571.4	1596.9	1635.3	1673.1
10°	1334.7	1371.3	1414.9	1459.8	1512.4	1561.1	1604.8	1653.5	1693.9	1747.2	1792.7
12.5°	1330.1	1374.4	1434.9	1488.0	1551.9	1619.1	1683.8	1746.3	1782.2	1870.9	1912.8
15°	1318.7	1371.3	1447.0	1527.8	1615.7	1695.2	1777.3	1842.8	1948.5	2026.2	2075.6
17.5°	1296.9	1370.6	1460.3	1557.8	1664.6	1769.4	1862.5	1961.8	2074.0	2167.9	2267.9
20°	1286.7	1367.4	1467.5	1575.3	1686.2	1804.9	1910.7	2030.0	2152.5	2244.9	2373.1
22.5°	1267.6	1359.2	1467.0	1587.1	1705.7	1828.4	1952.3	2072.6	2214.1	2341.4	2463.4
25°	1236.6	1339.3	1450.9	1584.9	1724.1	1847.2	1995.4	2155.1	2302.6	2466.2	2588.0
27.5°	1204.0	1313.5	1425.4	1550.1	1699.8	1846.0	2032.3	2212.8	2393.1	2534.4	2624.6
30°	1178.8	1285.3	1400.8	1526.5	1674.7	1848.5	2056.9	2253.8	2429.6	2550.8	2601.5
32.5°	1151.7	1259.7	1361.8	1493.6	1651.6	1846.9	2072.4	2277.9	2431.7	2512.3	2502.5
35°	1109.0	1199.4	1298.8	1425.8	1611.8	1835.7	2081.3	2280.1	2374.5	2357.1	2226.3
37.5°	1047.4	1123.4	1221.3	1360.4	1565.7	1811.9	2063.3	2212.5	2206.4	2065.4	1875.8
40°	1008.9	1073.7	1168.0	1314.2	1529.7	1796.6	2035.1	2132.0	2049.9	1852.9	1625.9
42.5°	958.7	1018.2	1112.6	1262.9	1490.3	1765.2	1981.2	2009.3	1848.7	1622.1	1414.0
45°	880.6	933.2	1030.7	1185.9	1431.0	1697.1	1849.7	1781.1	1565.0	1330.9	1172.4
47.5°	796.8	851.5	945.3	1104.8	1345.3	1594.6	1667.4	1521.4	1299.5	1109.6	964.1
50°	744.0	796.6	888.3	1049.3	1287.2	1510.5	1540.6	1352.1	1148.1	981.4	862.0
52.5°	690.7	740.2	830.4	991.8	1219.6	1413.0	1394.4	1202.2	1014.6	872.5	778.9
55°	611.2	658.1	744.0	895.4	1102.6	1255.8	1188.5	1005.0	849.9	739.5	668.4
57.5°	540.2	585.0	659.2	796.0	976.1	1081.4	995.7	841.1	717.7	632.8	579.7
60°	491.9	531.7	602.3	729.2	885.8	965.9	881.3	744.7	640.7	572.8	525.3
62.5°	446.3	480.9	546.3	661.6	797.5	864.9	779.2	663.5	575.0	514.8	474.5
65°	377.1	408.6	466.3	556.1	667.7	712.6	638.9	545.2	476.5	431.7	404.7
67.5°	314.1	340.7	390.6	461.3	543.4	576.1	519.9	447.4	395.8	359.7	338.3
70°	271.9	295.0	334.1	395.1	469.5	494.6	442.0	382.3	344.4	315.6	295.7
72.5°	236.6	253.4	289.0	336.1	398.1	418.0	381.4	328.9	293.6	271.9	256.2
75°	180.2	194.4	217.4	255.2	298.2	309.8	282.2	249.5	225.7	210.4	198.2
77.5°	130.0	140.3	157.0	180.4	210.1	220.6	203.0	181.3	163.9	153.5	146.8
80°	98.1	106.5	120.6	139.8	157.8	163.5	153.3	136.6	124.4	118.7	112.9
82.5°	72.5	77.2	85.7	98.8	111.1	117.9	109.1	99.2	92.7	87.4	85.2
85°	36.6	39.1	43.0	48.1	55.8	58.3	55.1	52.6	48.7	45.5	45.5
87.5°	14.1	14.7	16.8	18.3	21.0	23.2	23.4	23.1	23.3	23.0	22.6
90°	3.9	6.6	9.3	12.0	15.1	18.6	22.1	25.5	29.1	30.2	31.2
92.5°	21.8	21.0	20.3	19.5	20.5	23.1	25.7	28.4	31.0	32.7	34.5
95°	62.9	51.8	40.8	29.8	25.7	28.7	31.7	34.6	37.6	39.5	41.4
97.5°	143.6	138.6	133.7	128.8	116.6	97.2	77.9	58.4	39.0	41.2	43.4
100°	210.2	215.6	220.9	226.4	208.0	166.1	124.0	82.0	40.0	42.1	44.3
102.5°	272.7	276.5	280.4	284.4	263.3	217.4	171.5	125.6	79.7	73.0	66.4
105°	364.1	367.1	370.0	373.0	362.4	338.1	313.9	289.6	265.4	217.7	170.0
107.5°	461.0	463.4	465.7	468.1	471.2	475.0	478.8	482.7	486.4	451.5	416.6
110°	525.8	527.8	530.0	532.2	534.7	537.7	540.6	543.7	546.6	537.7	528.8



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	587.6	589.5	591.4	593.3	595.8	598.8	601.7	604.7	607.7	607.8	608.0
115°	679.1	680.7	682.3	683.9	686.0	688.3	690.8	693.2	695.7	698.3	701.1
117.5°	768.5	770.4	772.4	774.4	776.0	777.2	778.5	779.8	781.0	783.2	785.3
120°	824.2	826.5	829.0	831.4	833.0	833.8	834.6	835.5	836.2	838.4	840.6
122.5°	880.0	881.9	883.9	885.9	887.4	888.4	889.5	890.5	891.6	893.1	894.6
125°	957.2	959.3	961.5	963.7	965.3	966.3	967.4	968.5	969.6	970.1	970.6
127.5°	1031.8	1034.0	1036.1	1038.3	1040.0	1041.3	1042.6	1043.9	1045.2	1046.0	1046.9
130°	1078.4	1080.5	1082.7	1084.9	1086.5	1087.5	1088.6	1089.7	1090.7	1091.8	1092.9
132.5°	1122.9	1125.1	1127.3	1129.4	1131.0	1131.8	1132.7	1133.5	1134.3	1135.5	1136.5
135°	1190.5	1192.1	1193.7	1195.4	1196.7	1197.8	1198.9	1200.0	1201.1	1201.8	1202.7
137.5°	1249.2	1251.2	1253.2	1255.3	1256.6	1257.2	1257.8	1258.4	1259.0	1260.3	1261.6
140°	1287.5	1289.1	1290.7	1292.3	1293.5	1294.4	1295.1	1296.0	1296.8	1297.9	1298.9
142.5°	1323.3	1325.0	1326.6	1328.2	1329.5	1330.2	1331.1	1331.8	1332.7	1333.5	1334.4
145°	1373.9	1375.7	1377.6	1379.5	1380.6	1381.2	1381.8	1382.3	1382.8	1383.4	1383.9
147.5°	1420.4	1421.6	1422.9	1424.2	1425.0	1425.6	1426.1	1426.6	1427.2	1427.8	1428.2
150°	1449.1	1449.9	1450.7	1451.5	1452.2	1452.7	1453.2	1453.8	1454.3	1454.9	1455.4
152.5°	1474.8	1475.2	1475.6	1475.9	1476.3	1476.7	1477.0	1477.2	1477.6	1478.6	1479.5
155°	1510.8	1510.2	1509.7	1509.1	1509.0	1509.3	1509.6	1509.9	1510.0	1511.5	1512.8
157.5°	1539.8	1539.8	1539.7	1539.6	1539.5	1539.3	1539.0	1538.7	1538.4	1540.0	1541.7
160°	1557.1	1556.8	1556.5	1556.2	1556.0	1555.8	1555.5	1555.2	1554.9	1556.5	1558.1
162.5°	1573.1	1572.4	1571.7	1571.0	1570.6	1570.3	1570.0	1569.7	1569.4	1571.3	1573.1
165°	1592.9	1592.0	1591.3	1590.4	1590.0	1589.7	1589.4	1589.1	1588.8	1591.0	1593.2
167.5°	1608.2	1607.0	1606.0	1604.9	1604.4	1604.4	1604.4	1604.4	1604.4	1606.6	1608.7
170°	1616.8	1615.8	1614.8	1613.6	1613.1	1613.1	1613.1	1613.1	1613.1	1615.2	1617.4
172.5°	1622.5	1621.2	1619.9	1618.6	1618.1	1618.3	1618.5	1618.7	1618.9	1621.1	1623.2
175°	1629.9	1628.6	1627.2	1625.9	1625.3	1625.6	1625.9	1626.2	1626.5	1628.3	1630.2
177.5°	1632.1	1631.1	1630.0	1628.9	1628.5	1628.7	1628.9	1629.1	1629.4	1631.1	1632.8
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8
2.5°	1393.1	1393.6	1399.3	1403.4	1401.3	1403.9	1404.9
5°	1522.0	1545.1	1557.3	1566.3	1566.9	1567.5	1572.7
7.5°	1704.8	1729.6	1747.7	1775.1	1783.3	1792.7	1790.0
10°	1838.2	1874.8	1906.2	1922.9	1940.9	1967.2	1946.0
12.5°	1962.9	2027.7	2075.6	2101.5	2118.4	2123.6	2113.3
15°	2168.5	2253.2	2298.8	2297.4	2355.2	2380.2	2341.1
17.5°	2357.1	2435.2	2497.8	2529.9	2578.0	2588.7	2583.8
20°	2472.6	2557.9	2606.6	2661.7	2686.8	2709.2	2713.1
22.5°	2572.1	2648.7	2701.0	2746.9	2767.9	2778.5	2784.9
25°	2674.6	2734.9	2766.4	2782.4	2788.1	2786.8	2778.5
27.5°	2667.6	2672.2	2637.5	2603.6	2573.1	2538.9	2527.1
30°	2598.3	2544.4	2448.2	2393.7	2313.5	2250.0	2275.7
32.5°	2416.1	2308.9	2200.8	2081.7	1983.0	1954.9	1926.7
35°	2062.1	1873.5	1763.2	1634.9	1583.6	1532.3	1497.0
37.5°	1668.3	1522.4	1391.6	1307.7	1256.2	1223.8	1206.4
40°	1442.5	1311.0	1203.2	1135.3	1096.2	1059.6	1054.4
42.5°	1262.3	1140.1	1059.0	1004.9	967.3	951.8	940.6
45°	1034.0	948.6	894.1	855.6	830.6	821.0	808.1
47.5°	875.2	814.8	773.9	747.7	728.9	721.7	720.7
50°	786.4	736.3	706.2	685.6	670.9	668.4	658.1
52.5°	719.6	676.3	652.8	634.9	624.2	617.0	614.0
55°	624.7	595.9	574.7	564.4	556.1	549.0	549.0
57.5°	546.6	522.5	508.5	499.7	497.2	492.2	489.0
60°	498.3	477.9	466.9	459.2	454.1	454.8	448.9
62.5°	451.2	437.8	427.4	419.7	413.6	413.7	414.1
65°	384.2	373.9	366.3	363.6	359.9	355.3	356.7
67.5°	325.6	315.9	309.9	305.6	304.3	301.8	305.6
70°	283.5	276.4	271.9	268.1	266.8	267.5	270.7
72.5°	245.0	240.0	237.0	235.3	232.4	232.5	234.8
75°	192.4	188.6	186.0	184.1	183.4	183.4	183.4
77.5°	141.4	140.4	139.3	136.5	136.6	137.4	137.5
80°	111.6	109.7	109.1	107.7	105.8	104.5	107.7
82.5°	83.4	81.4	80.8	80.6	77.6	77.4	80.0
85°	44.9	43.0	43.6	43.0	43.0	42.3	42.3
87.5°	22.3	22.1	21.7	22.3	22.0	21.5	22.6
90°	32.3	33.4	34.2	34.8	35.3	35.8	36.4
92.5°	36.2	37.9	38.9	39.3	39.6	39.9	40.2
95°	43.3	45.1	46.1	46.1	46.1	46.1	46.1
97.5°	45.5	47.6	48.8	49.1	49.4	49.7	50.0
100°	46.5	48.6	49.9	50.0	50.3	50.6	50.9
102.5°	59.7	53.1	50.0	50.4	50.9	51.4	51.8
105°	122.4	74.7	51.2	51.7	52.2	52.8	53.3
107.5°	381.6	346.7	311.2	275.3	239.3	203.4	167.5
110°	519.9	511.0	487.3	448.8	410.3	371.8	333.3



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	608.1	608.3	604.4	596.2	588.1	579.9	571.8
115°	703.7	706.4	708.3	709.4	710.5	711.5	712.7
117.5°	787.4	789.6	790.8	791.0	791.2	791.5	791.6
120°	842.7	844.9	845.9	845.9	845.9	845.9	845.9
122.5°	896.1	897.6	898.4	898.6	898.8	899.1	899.3
125°	971.2	971.7	972.2	972.8	973.4	973.8	974.4
127.5°	1047.7	1048.7	1048.8	1048.3	1047.7	1047.2	1046.6
130°	1094.0	1095.0	1095.3	1094.8	1094.3	1093.7	1093.2
132.5°	1137.6	1138.7	1138.9	1138.1	1137.4	1136.6	1135.9
135°	1203.4	1204.3	1204.3	1203.4	1202.7	1201.8	1201.1
137.5°	1262.8	1264.1	1264.5	1263.9	1263.5	1262.9	1262.3
140°	1300.0	1301.1	1301.4	1300.8	1300.2	1299.8	1299.2
142.5°	1335.2	1336.1	1336.1	1335.4	1334.6	1333.9	1333.1
145°	1384.4	1385.0	1385.3	1385.3	1385.3	1385.3	1385.3
147.5°	1428.8	1429.4	1429.0	1427.8	1426.5	1425.3	1424.0
150°	1455.9	1456.5	1456.3	1455.6	1454.7	1454.0	1453.1
152.5°	1480.5	1481.5	1481.4	1480.1	1478.8	1477.6	1476.4
155°	1514.1	1515.5	1515.3	1513.7	1512.1	1510.5	1508.9
157.5°	1543.3	1544.9	1544.6	1542.6	1540.5	1538.3	1536.3
160°	1559.8	1561.4	1561.2	1559.3	1557.5	1555.6	1553.7
162.5°	1575.0	1576.8	1576.9	1575.2	1573.6	1571.9	1570.2
165°	1595.3	1597.5	1597.6	1595.7	1593.8	1592.0	1590.1
167.5°	1610.8	1613.0	1613.0	1610.8	1608.7	1606.6	1604.4
170°	1619.6	1621.7	1621.7	1619.6	1617.4	1615.2	1613.1
172.5°	1625.4	1627.6	1627.4	1625.0	1622.7	1620.3	1618.0
175°	1632.1	1634.0	1633.8	1631.7	1629.6	1627.4	1625.2
177.5°	1634.6	1636.3	1636.1	1633.9	1631.7	1629.6	1627.4
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3

(END OF REPORT)