

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: P332223-940

Luminaire Tested: **S123DIW-S1165D1030U940-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332223-940  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DIW-S1165D1030U940-4F0-1E-UDD-A1  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER  
UPLIGHT 1030 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7555.5 lumens  
Efficiency: N/A  
Efficacy: 112.1 lumens/watt  
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.49  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: General Diffuse

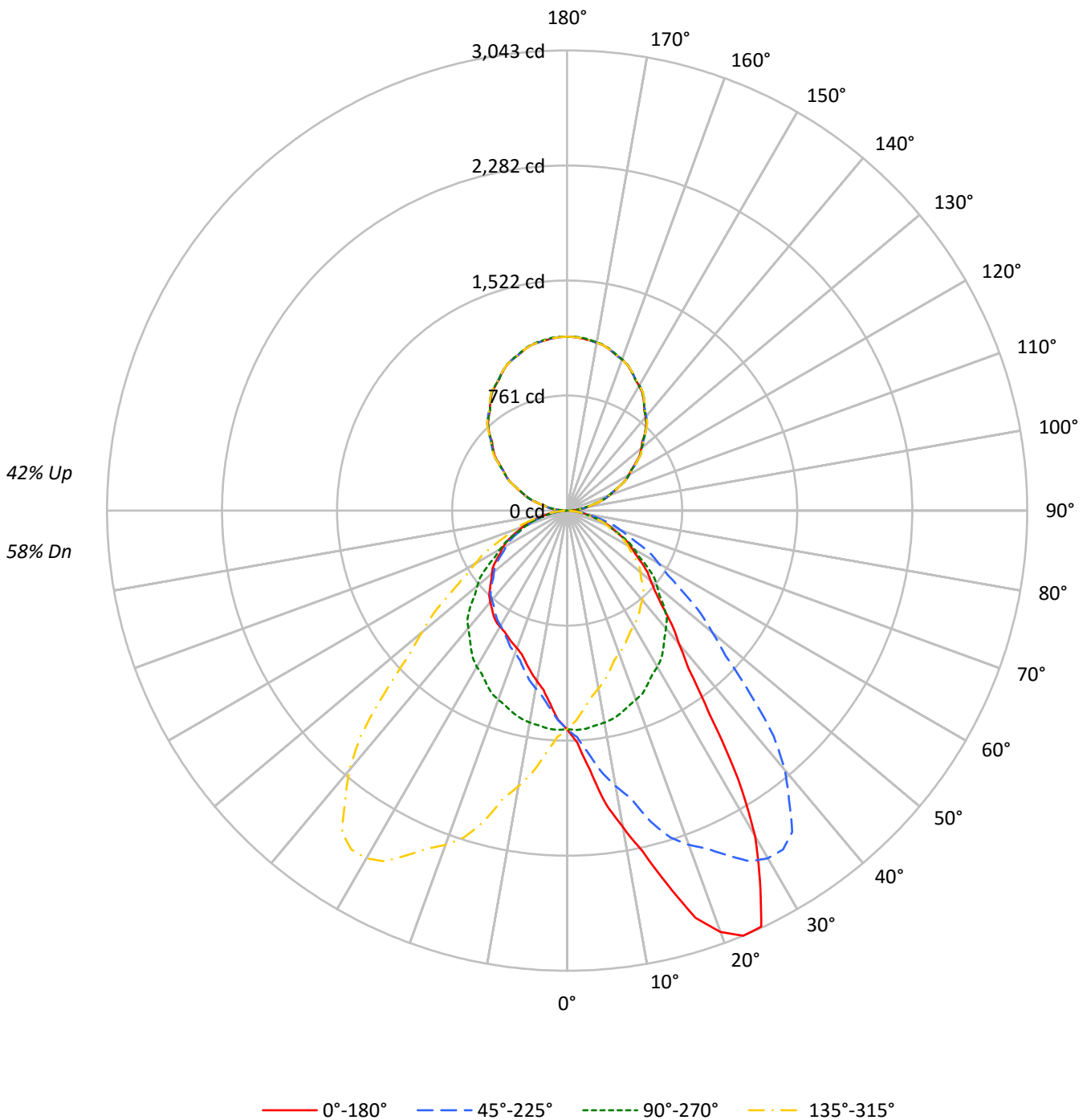
Input Watts (W): 67.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

### Luminous Intensity Polar Plot





TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58
1	100	96	92	88	93	89	86	83	77	75	73	67	65	63	56	55	54	49
2	91	84	78	73	85	78	73	69	68	64	61	59	56	53	50	48	46	42
3	83	74	67	61	77	69	63	58	60	55	51	52	48	45	45	42	39	36
4	76	66	58	52	71	62	55	49	54	48	44	47	42	39	40	37	34	31
5	70	59	51	45	65	55	48	42	48	43	38	42	38	34	36	33	30	27
6	65	53	45	39	60	50	42	37	44	38	33	38	33	30	33	29	26	24
7	60	48	40	34	56	45	38	33	40	34	29	35	30	27	30	26	24	21
8	56	43	36	30	52	41	34	29	36	30	26	32	27	24	28	24	21	19
9	52	40	32	27	48	37	31	26	33	28	24	29	25	21	25	22	19	17
10	48	36	29	24	45	34	28	23	31	25	21	27	22	19	24	20	17	15

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

	0°	90°	180°	270°
0°	15569	15569	15569	15569
5°	18567	15637	13857	15637
10°	23240	15557	12516	15557
15°	28505	15432	11652	15432
20°	33956	15237	11094	15237
25°	36056	14998	10969	14998
30°	30904	14825	11028	14825
35°	21494	14578	11143	14578
40°	16190	14289	11108	14289
45°	13443	13857	10966	13857
50°	12042	12980	10868	12980
55°	11258	12033	10732	12033
60°	10559	11044	10622	11044
65°	9926	10068	10282	10068
70°	9309	8954	9791	8954
75°	8339	7839	8979	7839
80°	7296	6428	7736	6428
85°	5718	4668	5199	4668



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.5	1.9
10°-20°	456.9	6.0
20°-30°	766.8	10.1
30°-40°	868.3	11.5
40°-50°	778.6	10.3
50°-60°	628.3	8.3
60°-70°	437.9	5.8
70°-80°	230.1	3.0
80°-90°	59.7	0.8
90°-100°	74.9	1.0
100°-110°	224.2	3.0
110°-120°	381.4	5.0
120°-130°	501.7	6.6
130°-140°	563.9	7.5
140°-150°	554.3	7.3
150°-160°	466.6	6.2
160°-170°	310.6	4.1
170°-180°	108.8	1.4
0°-30°	1366.2	18.1
0°-40°	2234.5	29.6
0°-60°	3641.5	48.2
0°-90°	4369.2	57.8
90°-120°	680.6	9.0
90°-150°	2300.3	30.4
90°-180°	3186.0	42.2
0°-180°	7555.5	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1446	1446	1446	1446	1446	
5°	1718	1447	1282	1447	1718	178
15°	2558	1385	1046	1385	2558	739
25°	3036	1263	924	1263	3036	1331
35°	1636	1109	848	1109	1636	1063
45°	883	910	720	910	883	699
55°	600	641	572	641	600	538
65°	390	395	404	395	390	388
75°	200	188	216	188	200	215
85°	46	38	42	38	46	55
90°	27	1	27	1	27	15
95°	70	53	70	53	70	72
105°	215	203	215	203	215	228
115°	385	384	385	384	385	381
125°	556	562	556	562	556	497
135°	728	729	728	729	728	560
145°	884	884	884	884	884	552
155°	1011	1013	1011	1013	1011	465
165°	1100	1103	1100	1103	1100	310
175°	1143	1147	1143	1147	1143	109
180°	1150	1150	1150	1150	1150	



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1535.1	1533.9	1531.2	1533.4	1528.9	1522.7	1522.2	1516.5	1500.3	1499.1	1494.7
5°	1718.4	1712.8	1712.1	1711.4	1701.6	1688.3	1663.0	1660.9	1627.3	1610.4	1590.2
7.5°	1955.8	1958.7	1948.6	1939.6	1909.6	1889.8	1862.8	1828.2	1786.8	1744.9	1717.0
10°	2126.3	2149.4	2120.7	2101.0	2082.9	2048.4	2008.6	1958.7	1909.0	1850.8	1806.7
12.5°	2309.1	2320.4	2314.6	2296.2	2267.8	2215.5	2144.7	2090.0	2044.2	1947.3	1908.2
15°	2558.0	2600.8	2573.4	2510.3	2511.7	2461.9	2369.5	2267.8	2213.9	2129.0	2013.5
17.5°	2823.2	2828.5	2816.8	2764.3	2729.3	2660.9	2575.5	2478.1	2368.7	2266.2	2143.5
20°	2964.4	2960.2	2935.7	2908.4	2848.1	2794.9	2701.6	2593.0	2452.8	2352.0	2218.0
22.5°	3043.0	3035.9	3024.3	3001.4	2951.3	2894.0	2810.4	2691.7	2558.2	2419.2	2264.6
25°	3035.9	3045.0	3046.4	3040.1	3022.6	2988.3	2922.4	2827.8	2694.7	2516.0	2354.7
27.5°	2761.2	2774.1	2811.6	2844.7	2881.9	2919.7	2914.6	2867.7	2769.2	2614.9	2417.8
30°	2486.4	2458.4	2527.8	2615.5	2675.0	2780.1	2839.0	2842.5	2787.1	2654.7	2462.6
32.5°	2105.2	2136.1	2166.8	2274.6	2404.8	2522.8	2640.0	2734.3	2745.1	2656.9	2489.0
35°	1635.7	1674.3	1730.3	1786.4	1926.5	2047.1	2253.1	2432.5	2575.5	2594.4	2491.4
37.5°	1318.1	1337.1	1372.6	1428.8	1520.5	1663.5	1822.8	2049.6	2256.7	2410.8	2417.5
40°	1152.2	1157.7	1197.7	1240.5	1314.7	1432.4	1576.1	1776.6	2024.6	2239.8	2329.5
42.5°	1027.7	1040.0	1056.9	1098.1	1157.2	1245.8	1379.4	1545.0	1772.4	2020.0	2195.5
45°	883.1	897.1	907.6	934.9	977.0	1036.5	1129.7	1281.1	1454.2	1709.9	1946.2
47.5°	787.5	788.5	796.4	817.0	845.6	890.3	956.2	1053.5	1212.4	1419.9	1662.3
50°	719.1	730.2	733.1	749.1	771.6	804.5	859.2	941.9	1072.3	1254.5	1477.3
52.5°	670.8	674.2	682.1	693.7	713.3	739.0	786.3	851.0	953.4	1108.7	1313.6
55°	599.9	599.9	607.6	616.7	627.9	651.0	682.6	730.2	808.1	928.5	1098.1
57.5°	534.3	537.8	543.2	546.1	555.6	570.9	597.3	633.4	691.4	784.2	919.1
60°	490.5	496.9	496.1	501.8	510.2	522.1	544.6	574.0	625.8	700.1	813.7
62.5°	452.5	452.0	451.9	458.6	467.0	478.4	492.9	518.4	562.5	628.4	725.1
65°	389.7	388.3	393.2	397.3	400.2	408.6	419.8	442.2	471.6	520.7	595.7
67.5°	333.9	329.8	332.4	333.9	338.7	345.2	355.7	369.6	393.0	432.4	488.9
70°	295.8	292.2	291.5	292.9	297.1	302.0	309.8	323.1	344.8	376.3	417.7
72.5°	256.5	254.1	254.0	257.1	259.0	262.3	267.7	279.9	297.1	320.8	359.4
75°	200.5	200.5	200.5	201.2	203.2	206.1	210.3	216.5	229.9	246.6	272.6
77.5°	150.3	150.1	149.3	149.1	152.2	153.5	154.4	160.3	167.7	179.1	198.0
80°	117.7	114.2	115.7	117.7	119.1	119.8	122.0	123.3	129.7	136.0	149.3
82.5°	87.5	84.5	84.8	88.0	88.3	89.0	91.1	93.1	95.4	101.2	108.3
85°	46.3	46.3	47.0	47.0	47.6	47.0	49.0	49.8	49.8	53.2	57.4
87.5°	22.2	21.0	21.5	22.0	21.4	21.8	22.2	22.6	23.0	23.4	23.5
90°	27.1	26.7	26.3	25.9	25.5	24.9	24.1	23.3	22.5	21.7	19.1
92.5°	36.5	36.7	37.0	37.2	37.5	37.3	36.6	35.9	35.3	34.7	33.2
95°	70.4	70.4	70.4	70.4	70.4	70.1	69.3	68.5	67.7	66.9	65.3
97.5°	108.4	108.5	108.6	108.6	108.7	108.3	107.4	106.5	105.6	104.6	103.4
100°	137.3	136.9	136.5	136.1	135.7	135.2	134.6	134.0	133.4	132.8	131.8
102.5°	166.9	167.0	167.1	167.2	167.3	167.0	166.4	165.8	165.2	164.6	163.3
105°	215.0	214.6	214.2	213.8	213.4	213.2	213.2	213.2	213.2	213.2	211.4
107.5°	265.0	265.3	265.6	265.8	266.0	265.8	265.2	264.6	263.9	263.2	262.5
110°	299.0	299.4	299.8	300.2	300.6	300.4	299.6	298.8	298.0	297.2	296.9



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	335.2	335.3	335.3	335.4	335.5	335.0	334.0	333.1	332.2	331.2	331.1
115°	384.9	385.0	385.2	385.5	385.7	385.7	385.5	385.2	385.0	384.9	385.2
117.5°	435.2	435.8	436.4	436.9	437.5	437.8	437.8	437.9	437.9	438.0	438.5
120°	470.6	471.1	471.4	471.9	472.3	472.6	472.8	473.0	473.1	473.4	474.4
122.5°	504.6	505.2	505.8	506.3	506.8	507.5	507.9	508.5	509.0	509.5	510.1
125°	555.6	556.4	557.2	558.0	558.8	559.6	560.4	561.2	562.0	562.8	563.2
127.5°	606.4	607.3	608.2	609.1	610.0	611.1	612.2	613.3	614.5	615.5	616.0
130°	639.6	641.1	642.4	643.8	645.2	646.3	647.1	647.9	648.7	649.5	650.1
132.5°	674.3	675.4	676.5	677.5	678.7	679.7	680.6	681.6	682.5	683.5	683.9
135°	728.2	728.5	729.0	729.3	729.8	730.3	731.1	731.9	732.7	733.5	733.8
137.5°	775.7	776.4	777.2	777.9	778.7	779.5	780.3	781.2	782.0	782.9	782.4
140°	806.7	808.2	809.6	810.9	812.3	813.2	813.3	813.6	813.8	814.0	813.8
142.5°	838.6	839.6	840.7	841.8	842.8	843.6	843.7	843.9	844.1	844.4	844.0
145°	884.4	885.2	886.0	886.8	887.6	888.1	888.3	888.6	888.8	888.9	888.3
147.5°	925.2	926.5	927.6	928.9	930.1	930.7	930.7	930.7	930.7	930.7	930.1
150°	951.3	952.5	953.7	954.9	956.1	956.7	956.7	956.7	956.7	956.7	956.3
152.5°	976.6	977.6	978.7	979.7	980.8	981.1	980.8	980.4	980.2	979.8	979.6
155°	1010.9	1012.4	1013.7	1015.1	1016.6	1016.8	1016.0	1015.2	1014.4	1013.6	1013.4
157.5°	1042.1	1043.3	1044.5	1045.5	1046.7	1046.8	1046.0	1045.1	1044.3	1043.4	1043.3
160°	1062.4	1063.2	1064.0	1064.8	1065.6	1065.5	1064.5	1063.5	1062.5	1061.5	1061.5
162.5°	1077.5	1078.9	1080.1	1081.5	1082.7	1082.9	1081.8	1080.8	1079.9	1078.9	1078.7
165°	1099.5	1100.8	1102.2	1103.7	1105.1	1105.2	1103.9	1102.8	1101.5	1100.4	1100.4
167.5°	1118.0	1119.3	1120.5	1121.8	1123.0	1123.0	1121.8	1120.5	1119.3	1118.0	1117.9
170°	1127.5	1128.8	1130.2	1131.7	1133.1	1133.1	1131.7	1130.2	1128.8	1127.5	1127.5
172.5°	1134.7	1136.0	1137.5	1138.9	1140.3	1140.4	1139.2	1137.9	1136.7	1135.4	1135.4
175°	1142.8	1144.2	1145.6	1147.0	1148.4	1148.5	1147.4	1146.1	1145.0	1143.7	1143.7
177.5°	1147.2	1148.3	1149.4	1150.5	1151.6	1151.7	1150.8	1149.8	1148.8	1147.9	1147.9
180°	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1491.3	1486.8	1482.4	1474.5	1467.8	1458.2	1455.5	1452.1	1442.0	1433.1	1426.3
5°	1582.4	1565.6	1541.1	1518.7	1500.5	1476.0	1461.9	1447.2	1426.1	1407.2	1391.8
7.5°	1677.8	1644.7	1606.5	1565.3	1527.0	1490.0	1460.1	1433.4	1404.0	1376.1	1354.4
10°	1753.5	1705.8	1652.5	1595.1	1546.0	1498.3	1458.4	1423.3	1385.5	1352.5	1325.3
12.5°	1839.8	1769.2	1695.7	1625.9	1567.9	1501.7	1453.3	1408.8	1365.9	1326.2	1295.6
15°	1942.0	1852.3	1765.3	1669.4	1581.0	1498.3	1440.9	1384.8	1335.1	1294.4	1255.2
17.5°	2035.1	1933.4	1818.9	1702.1	1595.6	1497.5	1417.0	1353.7	1291.5	1241.7	1202.6
20°	2087.8	1972.1	1842.5	1721.2	1603.5	1494.2	1405.9	1330.2	1262.8	1210.3	1166.2
22.5°	2133.2	1997.9	1863.8	1734.1	1602.9	1485.1	1385.1	1307.2	1234.3	1182.9	1135.9
25°	2180.2	2018.4	1883.8	1731.7	1585.3	1463.3	1351.2	1262.8	1190.0	1129.7	1081.4
27.5°	2220.6	2017.0	1857.3	1693.7	1557.5	1435.3	1315.5	1220.8	1143.4	1078.0	1028.9
30°	2247.5	2019.7	1829.8	1667.9	1530.6	1404.4	1288.1	1192.8	1111.5	1044.9	998.6
32.5°	2264.3	2018.0	1804.6	1632.1	1488.0	1376.4	1258.4	1159.7	1076.2	1010.8	966.2
35°	2274.1	2005.7	1761.1	1557.9	1419.2	1310.5	1211.7	1109.4	1021.8	960.8	910.3
37.5°	2254.5	1979.8	1710.7	1486.4	1334.5	1227.5	1144.4	1057.2	973.4	906.3	862.8
40°	2223.7	1963.0	1671.4	1436.0	1276.2	1173.1	1102.4	1016.9	934.2	870.4	829.7
42.5°	2164.8	1928.8	1628.3	1379.9	1215.7	1112.6	1047.4	976.0	897.8	837.9	797.3
45°	2021.2	1854.3	1563.5	1295.8	1126.2	1019.7	962.2	910.3	839.5	781.4	746.4
47.5°	1821.9	1742.4	1469.9	1207.1	1032.9	930.4	870.7	828.9	777.2	730.2	696.6
50°	1683.4	1650.4	1406.5	1146.6	970.6	870.4	813.0	775.1	738.0	691.0	660.1
52.5°	1523.6	1543.9	1332.6	1083.7	907.3	808.8	754.7	724.6	690.9	652.3	625.4
55°	1298.6	1372.2	1204.7	978.3	813.0	719.1	667.9	641.2	621.6	592.9	569.8
57.5°	1088.0	1181.6	1066.5	869.7	720.3	639.3	590.2	561.2	548.6	533.6	515.4
60°	963.0	1055.4	967.9	796.8	658.1	580.9	537.5	513.0	500.3	489.9	474.5
62.5°	851.3	944.9	871.4	722.8	596.9	525.5	487.6	463.7	453.9	448.4	435.2
65°	698.0	778.6	729.5	607.6	509.5	446.4	412.1	395.3	386.1	384.1	375.7
67.5°	568.1	629.5	593.7	504.0	426.8	372.3	343.1	328.9	321.8	321.1	314.8
70°	482.9	540.3	513.0	431.7	365.2	322.4	297.1	284.5	280.4	279.6	276.2
72.5°	416.7	456.8	435.1	367.2	315.8	277.0	258.4	245.3	240.5	241.5	239.2
75°	308.4	338.5	325.9	278.9	237.6	212.3	196.9	188.5	184.3	186.5	183.6
77.5°	221.9	240.9	229.6	197.1	171.6	153.4	142.0	136.8	133.0	132.9	131.6
80°	167.5	178.7	172.4	152.8	131.8	116.4	107.2	103.7	101.7	100.9	100.2
82.5°	119.3	128.9	121.4	107.9	93.6	84.4	79.2	74.5	73.0	73.5	72.8
85°	60.3	63.8	61.0	52.5	47.0	42.7	39.9	37.8	36.5	37.2	35.8
87.5°	24.1	24.1	21.8	19.2	17.7	15.6	15.2	13.6	12.9	13.3	13.2
90°	16.5	13.8	11.2	8.9	7.0	4.9	2.9	0.9	2.9	4.9	7.0
92.5°	31.7	30.2	28.7	27.3	25.9	24.6	23.2	21.8	23.2	24.6	25.9
95°	63.7	62.1	60.5	58.9	57.5	56.1	54.7	53.3	54.7	56.1	57.5
97.5°	102.3	101.1	100.0	98.9	97.8	96.8	95.7	94.7	95.7	96.8	97.8
100°	130.8	129.8	128.8	127.7	126.4	125.3	124.0	122.9	124.0	125.3	126.4
102.5°	161.9	160.6	159.3	158.3	157.6	156.9	156.1	155.4	156.1	156.9	157.6
105°	209.6	207.8	206.0	204.9	204.5	204.1	203.7	203.3	203.7	204.1	204.5
107.5°	261.8	261.1	260.4	259.8	259.7	259.4	259.1	259.0	259.1	259.4	259.7
110°	296.4	296.0	295.6	295.2	294.8	294.4	294.0	293.6	294.0	294.4	294.8





TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	331.0	330.9	330.8	330.7	330.5	330.2	330.0	329.8	330.0	330.2	330.5
115°	385.7	386.0	386.5	386.4	385.8	385.1	384.5	384.0	384.5	385.1	385.8
117.5°	439.0	439.5	440.1	440.1	439.7	439.3	438.9	438.5	438.9	439.3	439.7
120°	475.4	476.4	477.4	477.3	476.1	474.9	473.7	472.5	473.7	474.9	476.1
122.5°	510.6	511.1	511.6	511.4	510.5	509.7	508.8	507.9	508.8	509.7	510.5
125°	563.7	564.0	564.5	564.4	563.7	563.1	562.5	562.0	562.5	563.1	563.7
127.5°	616.4	616.9	617.3	616.9	615.6	614.4	613.1	611.8	613.1	614.4	615.6
130°	650.8	651.4	651.9	651.5	649.9	648.3	646.7	645.1	646.7	648.3	649.9
132.5°	684.4	684.8	685.3	684.7	683.1	681.4	679.8	678.2	679.8	681.4	683.1
135°	734.0	734.1	734.3	733.9	732.6	731.5	730.2	729.1	730.2	731.5	732.6
137.5°	781.9	781.3	780.8	780.1	779.0	778.0	777.0	776.1	777.0	778.0	779.0
140°	813.6	813.3	813.2	812.5	811.5	810.6	809.6	808.5	809.6	810.6	811.5
142.5°	843.6	843.2	842.8	842.2	841.2	840.2	839.2	838.2	839.2	840.2	841.2
145°	887.8	887.2	886.5	886.0	885.6	885.2	884.8	884.4	884.8	885.2	885.6
147.5°	929.6	929.0	928.4	927.8	927.1	926.3	925.6	924.9	925.6	926.3	927.1
150°	955.9	955.5	955.1	954.7	954.3	953.9	953.5	953.1	953.5	953.9	954.3
152.5°	979.4	979.1	978.8	978.5	977.9	977.3	976.8	976.2	976.8	977.3	977.9
155°	1013.3	1013.0	1012.8	1012.7	1012.7	1012.7	1012.7	1012.7	1012.7	1012.7	1012.7
157.5°	1043.1	1042.9	1042.8	1042.9	1043.0	1043.3	1043.6	1043.8	1043.6	1043.3	1043.0
160°	1061.5	1061.5	1061.5	1061.7	1062.1	1062.5	1062.9	1063.3	1062.9	1062.5	1062.1
162.5°	1078.5	1078.3	1078.2	1078.4	1079.0	1079.5	1080.1	1080.7	1080.1	1079.5	1079.0
165°	1100.4	1100.4	1100.4	1100.6	1101.3	1101.9	1102.4	1103.0	1102.4	1101.9	1101.3
167.5°	1117.8	1117.6	1117.4	1117.8	1118.6	1119.4	1120.2	1121.0	1120.2	1119.4	1118.6
170°	1127.5	1127.5	1127.5	1127.8	1128.6	1129.4	1130.2	1131.0	1130.2	1129.4	1128.6
172.5°	1135.4	1135.4	1135.4	1135.8	1136.6	1137.4	1138.2	1139.0	1138.2	1137.4	1136.6
175°	1143.7	1143.7	1143.7	1144.2	1145.0	1145.8	1146.6	1147.4	1146.6	1145.8	1145.0
177.5°	1147.9	1147.9	1147.9	1148.2	1148.8	1149.5	1150.1	1150.8	1150.1	1149.5	1148.8
180°	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1422.4	1418.4	1412.8	1404.4	1397.7	1387.1	1387.1	1388.8	1388.8	1388.2	1387.1
5°	1379.2	1368.7	1356.1	1341.4	1326.0	1310.5	1307.7	1302.1	1297.9	1295.1	1291.6
7.5°	1333.6	1315.0	1296.6	1276.0	1257.2	1241.7	1230.9	1221.9	1216.2	1210.1	1205.5
10°	1302.8	1279.7	1257.9	1236.3	1212.4	1193.5	1181.6	1173.1	1166.9	1161.3	1158.4
12.5°	1266.4	1239.9	1215.9	1195.3	1169.2	1149.8	1138.4	1134.4	1127.0	1115.3	1109.1
15°	1213.1	1188.6	1159.8	1128.3	1115.7	1091.9	1078.5	1072.3	1068.0	1058.9	1056.1
17.5°	1167.5	1135.4	1103.2	1079.7	1056.2	1036.9	1029.5	1021.6	1016.0	1008.6	1006.4
20°	1131.1	1102.4	1072.9	1047.8	1023.1	1002.2	995.9	990.2	984.6	981.1	978.3
22.5°	1094.1	1065.4	1041.0	1017.4	991.2	977.5	970.6	964.5	960.6	958.1	955.4
25°	1042.1	1016.9	989.5	968.5	947.5	938.3	934.2	930.7	927.9	924.3	923.6
27.5°	995.6	968.1	945.9	926.3	911.2	903.7	899.6	897.9	898.5	899.7	900.5
30°	960.8	935.6	917.4	900.5	886.5	879.5	878.8	878.8	881.6	882.3	883.7
32.5°	928.9	908.1	889.9	873.6	863.0	858.2	860.9	860.9	863.1	865.0	867.5
35°	882.3	864.1	850.1	836.1	827.0	829.0	830.5	831.9	835.4	839.5	842.4
37.5°	837.9	822.1	807.4	796.6	792.4	796.1	799.5	802.5	806.5	809.8	812.5
40°	805.9	794.0	780.0	770.2	771.6	773.7	776.5	780.0	783.5	785.6	788.5
42.5°	776.2	763.8	753.1	744.9	746.9	749.6	751.3	753.1	757.2	761.0	762.6
45°	730.9	721.1	711.3	706.4	707.8	709.3	710.6	712.7	716.2	719.1	719.7
47.5°	680.1	673.2	666.6	661.8	664.1	663.5	665.4	669.9	670.9	672.6	676.5
50°	647.6	641.2	633.6	632.1	632.1	632.1	632.8	638.5	638.5	641.2	644.1
52.5°	611.7	607.6	602.7	600.2	599.1	599.1	602.0	604.8	605.9	609.8	612.7
55°	558.6	554.4	550.1	548.0	546.6	548.0	553.7	555.0	558.6	560.6	562.8
57.5°	503.2	500.0	496.6	495.4	495.2	497.0	500.1	504.3	505.2	511.6	514.8
60°	466.7	461.8	459.1	459.1	457.6	464.0	462.5	469.6	470.9	475.2	480.1
62.5°	429.2	422.6	421.5	421.5	423.5	425.3	427.2	430.3	433.9	439.3	443.1
65°	368.6	365.2	370.1	369.3	367.9	372.1	372.1	375.7	379.9	384.8	392.4
67.5°	311.3	309.5	309.9	309.9	312.0	314.4	316.4	319.4	324.5	329.7	334.7
70°	272.6	274.7	271.3	274.0	276.2	276.8	278.2	282.4	288.0	291.5	297.1
72.5°	235.1	234.9	235.3	236.5	238.5	239.8	241.2	246.0	252.2	255.1	259.6
75°	180.8	180.1	182.2	182.2	185.7	187.1	188.5	190.6	196.3	200.5	203.9
77.5°	132.1	132.9	132.4	134.8	133.8	134.1	138.5	140.6	141.2	149.5	151.2
80°	99.5	100.9	101.7	102.3	103.0	101.7	106.6	108.6	108.6	113.5	117.0
82.5°	71.5	72.3	74.2	74.8	75.0	76.4	76.8	78.4	80.1	82.1	86.8
85°	35.8	37.8	38.5	37.8	38.5	37.2	39.2	39.9	40.7	40.7	40.7
87.5°	13.0	14.0	14.0	15.1	15.1	16.1	16.2	15.3	15.4	17.3	15.2
90°	8.9	11.2	13.8	16.5	19.1	21.7	22.5	23.3	24.1	24.9	25.5
92.5°	27.3	28.7	30.2	31.7	33.2	34.7	35.3	35.9	36.6	37.3	37.5
95°	58.9	60.5	62.1	63.7	65.3	66.9	67.7	68.5	69.3	70.1	70.4
97.5°	98.9	100.0	101.1	102.3	103.4	104.6	105.6	106.5	107.4	108.3	108.7
100°	127.7	128.8	129.8	130.8	131.8	132.8	133.4	134.0	134.6	135.2	135.7
102.5°	158.3	159.3	160.6	161.9	163.3	164.6	165.2	165.8	166.4	167.0	167.3
105°	204.9	206.0	207.8	209.6	211.4	213.2	213.2	213.2	213.2	213.2	213.4
107.5°	259.8	260.4	261.1	261.8	262.5	263.2	263.9	264.6	265.2	265.8	266.0
110°	295.2	295.6	296.0	296.4	296.9	297.2	298.0	298.8	299.6	300.4	300.6



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	330.7	330.8	330.9	331.0	331.1	331.2	332.2	333.1	334.0	335.0	335.5
115°	386.4	386.5	386.0	385.7	385.2	384.9	385.0	385.2	385.5	385.7	385.7
117.5°	440.1	440.1	439.5	439.0	438.5	438.0	437.9	437.9	437.8	437.8	437.5
120°	477.3	477.4	476.4	475.4	474.4	473.4	473.1	473.0	472.8	472.6	472.3
122.5°	511.4	511.6	511.1	510.6	510.1	509.5	509.0	508.5	507.9	507.5	506.8
125°	564.4	564.5	564.0	563.7	563.2	562.8	562.0	561.2	560.4	559.6	558.8
127.5°	616.9	617.3	616.9	616.4	616.0	615.5	614.5	613.3	612.2	611.1	610.0
130°	651.5	651.9	651.4	650.8	650.1	649.5	648.7	647.9	647.1	646.3	645.2
132.5°	684.7	685.3	684.8	684.4	683.9	683.5	682.5	681.6	680.6	679.7	678.7
135°	733.9	734.3	734.1	734.0	733.8	733.5	732.7	731.9	731.1	730.3	729.8
137.5°	780.1	780.8	781.3	781.9	782.4	782.9	782.0	781.2	780.3	779.5	778.7
140°	812.5	813.2	813.3	813.6	813.8	814.0	813.8	813.6	813.3	813.2	812.3
142.5°	842.2	842.8	843.2	843.6	844.0	844.4	844.1	843.9	843.7	843.6	842.8
145°	886.0	886.5	887.2	887.8	888.3	888.9	888.8	888.6	888.3	888.1	887.6
147.5°	927.8	928.4	929.0	929.6	930.1	930.7	930.7	930.7	930.7	930.7	930.1
150°	954.7	955.1	955.5	955.9	956.3	956.7	956.7	956.7	956.7	956.7	956.1
152.5°	978.5	978.8	979.1	979.4	979.6	979.8	980.2	980.4	980.8	981.1	980.8
155°	1012.7	1012.8	1013.0	1013.3	1013.4	1013.6	1014.4	1015.2	1016.0	1016.8	1016.6
157.5°	1042.9	1042.8	1042.9	1043.1	1043.3	1043.4	1044.3	1045.1	1046.0	1046.8	1046.7
160°	1061.7	1061.5	1061.5	1061.5	1061.5	1061.5	1062.5	1063.5	1064.5	1065.5	1065.6
162.5°	1078.4	1078.2	1078.3	1078.5	1078.7	1078.9	1079.9	1080.8	1081.8	1082.9	1082.7
165°	1100.6	1100.4	1100.4	1100.4	1100.4	1100.4	1101.5	1102.8	1103.9	1105.2	1105.1
167.5°	1117.8	1117.4	1117.6	1117.8	1117.9	1118.0	1119.3	1120.5	1121.8	1123.0	1123.0
170°	1127.8	1127.5	1127.5	1127.5	1127.5	1127.5	1128.8	1130.2	1131.7	1133.1	1133.1
172.5°	1135.8	1135.4	1135.4	1135.4	1135.4	1135.4	1136.7	1137.9	1139.2	1140.4	1140.3
175°	1144.2	1143.7	1143.7	1143.7	1143.7	1143.7	1145.0	1146.1	1147.4	1148.5	1148.4
177.5°	1148.2	1147.9	1147.9	1147.9	1147.9	1147.9	1148.8	1149.8	1150.8	1151.7	1151.6
180°	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1383.1	1382.6	1386.5	1383.7	1386.5	1382.6	1383.1	1387.1	1388.2	1388.8	1388.8
5°	1287.4	1289.5	1282.5	1282.5	1282.5	1289.5	1287.4	1291.6	1295.1	1297.9	1302.1
7.5°	1202.2	1199.1	1199.4	1195.6	1199.4	1199.1	1202.2	1205.5	1210.1	1216.2	1221.9
10°	1150.0	1145.8	1144.4	1145.1	1144.4	1145.8	1150.0	1158.4	1161.3	1166.9	1173.1
12.5°	1106.9	1106.0	1096.8	1096.9	1096.8	1106.0	1106.9	1109.1	1115.3	1127.0	1134.4
15°	1056.1	1042.9	1041.4	1045.6	1041.4	1042.9	1056.1	1056.1	1058.9	1068.0	1072.3
17.5°	1005.2	998.3	998.6	996.6	998.6	998.3	1005.2	1006.4	1008.6	1016.0	1021.6
20°	978.3	974.1	973.4	968.5	973.4	974.1	978.3	978.3	981.1	984.6	990.2
22.5°	953.7	952.3	952.7	947.3	952.7	952.3	953.7	955.4	958.1	960.6	964.5
25°	923.0	926.5	923.6	923.6	923.6	926.5	923.0	923.6	924.3	927.9	930.7
27.5°	902.2	902.1	900.7	900.7	900.7	902.1	902.2	900.5	899.7	898.5	897.9
30°	886.5	885.8	887.3	887.3	887.3	885.8	886.5	883.7	882.3	881.6	878.8
32.5°	870.8	871.8	872.1	872.6	872.1	871.8	870.8	867.5	865.0	863.1	860.9
35°	846.6	847.3	849.4	848.0	849.4	847.3	846.6	842.4	839.5	835.4	831.9
37.5°	813.8	817.0	816.3	817.4	816.3	817.0	813.8	812.5	809.8	806.5	802.5
40°	789.1	791.2	790.5	790.5	790.5	791.2	789.1	788.5	785.6	783.5	780.0
42.5°	763.9	765.4	763.6	762.5	763.6	765.4	763.9	762.6	761.0	757.2	753.1
45°	722.6	721.1	723.3	720.4	723.3	721.1	722.6	719.7	719.1	716.2	712.7
47.5°	676.3	677.7	678.2	680.4	678.2	677.7	676.3	676.5	672.6	670.9	669.9
50°	645.4	649.6	649.6	649.0	649.6	649.6	645.4	644.1	641.2	638.5	638.5
52.5°	615.2	617.2	619.9	619.8	619.9	617.2	615.2	612.7	609.8	605.9	604.8
55°	568.4	569.8	571.1	571.9	571.1	569.8	568.4	562.8	560.6	558.6	555.0
57.5°	519.9	519.3	522.6	523.6	522.6	519.3	519.9	514.8	511.6	505.2	504.3
60°	485.6	485.6	491.2	493.4	491.2	485.6	485.6	480.1	475.2	470.9	469.6
62.5°	449.2	451.5	457.1	454.1	457.1	451.5	449.2	443.1	439.3	433.9	430.3
65°	395.9	401.5	400.8	403.7	400.8	401.5	395.9	392.4	384.8	379.9	375.7
67.5°	340.3	343.8	348.8	349.3	348.8	343.8	340.3	334.7	329.7	324.5	319.4
70°	302.7	306.2	309.1	311.1	309.1	306.2	302.7	297.1	291.5	288.0	282.4
72.5°	266.4	268.1	274.8	271.9	274.8	268.1	266.4	259.6	255.1	252.2	246.0
75°	208.8	213.7	217.9	215.9	217.9	213.7	208.8	203.9	200.5	196.3	190.6
77.5°	154.4	159.3	161.3	159.5	161.3	159.3	154.4	151.2	149.5	141.2	140.6
80°	122.0	121.3	125.5	124.8	125.5	121.3	122.0	117.0	113.5	108.6	108.6
82.5°	89.4	88.7	90.7	91.1	90.7	88.7	89.4	86.8	82.1	80.1	78.4
85°	43.4	45.6	42.7	42.1	42.7	45.6	43.4	40.7	40.7	40.7	39.9
87.5°	15.2	15.3	14.9	14.4	14.9	15.3	15.2	15.2	17.3	15.4	15.3
90°	25.9	26.3	26.7	27.1	26.7	26.3	25.9	25.5	24.9	24.1	23.3
92.5°	37.2	37.0	36.7	36.5	36.7	37.0	37.2	37.5	37.3	36.6	35.9
95°	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.1	69.3	68.5
97.5°	108.6	108.6	108.5	108.4	108.5	108.6	108.6	108.7	108.3	107.4	106.5
100°	136.1	136.5	136.9	137.3	136.9	136.5	136.1	135.7	135.2	134.6	134.0
102.5°	167.2	167.1	167.0	166.9	167.0	167.1	167.2	167.3	167.0	166.4	165.8
105°	213.8	214.2	214.6	215.0	214.6	214.2	213.8	213.4	213.2	213.2	213.2
107.5°	265.8	265.6	265.3	265.0	265.3	265.6	265.8	266.0	265.8	265.2	264.6
110°	300.2	299.8	299.4	299.0	299.4	299.8	300.2	300.6	300.4	299.6	298.8



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	335.4	335.3	335.3	335.2	335.3	335.3	335.4	335.5	335.0	334.0	333.1
115°	385.5	385.2	385.0	384.9	385.0	385.2	385.5	385.7	385.7	385.5	385.2
117.5°	436.9	436.4	435.8	435.2	435.8	436.4	436.9	437.5	437.8	437.8	437.9
120°	471.9	471.4	471.1	470.6	471.1	471.4	471.9	472.3	472.6	472.8	473.0
122.5°	506.3	505.8	505.2	504.6	505.2	505.8	506.3	506.8	507.5	507.9	508.5
125°	558.0	557.2	556.4	555.6	556.4	557.2	558.0	558.8	559.6	560.4	561.2
127.5°	609.1	608.2	607.3	606.4	607.3	608.2	609.1	610.0	611.1	612.2	613.3
130°	643.8	642.4	641.1	639.6	641.1	642.4	643.8	645.2	646.3	647.1	647.9
132.5°	677.5	676.5	675.4	674.3	675.4	676.5	677.5	678.7	679.7	680.6	681.6
135°	729.3	729.0	728.5	728.2	728.5	729.0	729.3	729.8	730.3	731.1	731.9
137.5°	777.9	777.2	776.4	775.7	776.4	777.2	777.9	778.7	779.5	780.3	781.2
140°	810.9	809.6	808.2	806.7	808.2	809.6	810.9	812.3	813.2	813.3	813.6
142.5°	841.8	840.7	839.6	838.6	839.6	840.7	841.8	842.8	843.6	843.7	843.9
145°	886.8	886.0	885.2	884.4	885.2	886.0	886.8	887.6	888.1	888.3	888.6
147.5°	928.9	927.6	926.5	925.2	926.5	927.6	928.9	930.1	930.7	930.7	930.7
150°	954.9	953.7	952.5	951.3	952.5	953.7	954.9	956.1	956.7	956.7	956.7
152.5°	979.7	978.7	977.6	976.6	977.6	978.7	979.7	980.8	981.1	980.8	980.4
155°	1015.1	1013.7	1012.4	1010.9	1012.4	1013.7	1015.1	1016.6	1016.8	1016.0	1015.2
157.5°	1045.5	1044.5	1043.3	1042.1	1043.3	1044.5	1045.5	1046.7	1046.8	1046.0	1045.1
160°	1064.8	1064.0	1063.2	1062.4	1063.2	1064.0	1064.8	1065.6	1065.5	1064.5	1063.5
162.5°	1081.5	1080.1	1078.9	1077.5	1078.9	1080.1	1081.5	1082.7	1082.9	1081.8	1080.8
165°	1103.7	1102.2	1100.8	1099.5	1100.8	1102.2	1103.7	1105.1	1105.2	1103.9	1102.8
167.5°	1121.8	1120.5	1119.3	1118.0	1119.3	1120.5	1121.8	1123.0	1123.0	1121.8	1120.5
170°	1131.7	1130.2	1128.8	1127.5	1128.8	1130.2	1131.7	1133.1	1133.1	1131.7	1130.2
172.5°	1138.9	1137.5	1136.0	1134.7	1136.0	1137.5	1138.9	1140.3	1140.4	1139.2	1137.9
175°	1147.0	1145.6	1144.2	1142.8	1144.2	1145.6	1147.0	1148.4	1148.5	1147.4	1146.1
177.5°	1150.5	1149.4	1148.3	1147.2	1148.3	1149.4	1150.5	1151.6	1151.7	1150.8	1149.8
180°	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1387.1	1387.1	1397.7	1404.4	1412.8	1418.4	1422.4	1426.3	1433.1	1442.0	1452.1
5°	1307.7	1310.5	1326.0	1341.4	1356.1	1368.7	1379.2	1391.8	1407.2	1426.1	1447.2
7.5°	1230.9	1241.7	1257.2	1276.0	1296.6	1315.0	1333.6	1354.4	1376.1	1404.0	1433.4
10°	1181.6	1193.5	1212.4	1236.3	1257.9	1279.7	1302.8	1325.3	1352.5	1385.5	1423.3
12.5°	1138.4	1149.8	1169.2	1195.3	1215.9	1239.9	1266.4	1295.6	1326.2	1365.9	1408.8
15°	1078.5	1091.9	1115.7	1128.3	1159.8	1188.6	1213.1	1255.2	1294.4	1335.1	1384.8
17.5°	1029.5	1036.9	1056.2	1079.7	1103.2	1135.4	1167.5	1202.6	1241.7	1291.5	1353.7
20°	995.9	1002.2	1023.1	1047.8	1072.9	1102.4	1131.1	1166.2	1210.3	1262.8	1330.2
22.5°	970.6	977.5	991.2	1017.4	1041.0	1065.4	1094.1	1135.9	1182.9	1234.3	1307.2
25°	934.2	938.3	947.5	968.5	989.5	1016.9	1042.1	1081.4	1129.7	1190.0	1262.8
27.5°	899.6	903.7	911.2	926.3	945.9	968.1	995.6	1028.9	1078.0	1143.4	1220.8
30°	878.8	879.5	886.5	900.5	917.4	935.6	960.8	998.6	1044.9	1111.5	1192.8
32.5°	860.9	858.2	863.0	873.6	889.9	908.1	928.9	966.2	1010.8	1076.2	1159.7
35°	830.5	829.0	827.0	836.1	850.1	864.1	882.3	910.3	960.8	1021.8	1109.4
37.5°	799.5	796.1	792.4	796.6	807.4	822.1	837.9	862.8	906.3	973.4	1057.2
40°	776.5	773.7	771.6	770.2	780.0	794.0	805.9	829.7	870.4	934.2	1016.9
42.5°	751.3	749.6	746.9	744.9	753.1	763.8	776.2	797.3	837.9	897.8	976.0
45°	710.6	709.3	707.8	706.4	711.3	721.1	730.9	746.4	781.4	839.5	910.3
47.5°	665.4	663.5	664.1	661.8	666.6	673.2	680.1	696.6	730.2	777.2	828.9
50°	632.8	632.1	632.1	632.1	633.6	641.2	647.6	660.1	691.0	738.0	775.1
52.5°	602.0	599.1	599.1	600.2	602.7	607.6	611.7	625.4	652.3	690.9	724.6
55°	553.7	548.0	546.6	548.0	550.1	554.4	558.6	569.8	592.9	621.6	641.2
57.5°	500.1	497.0	495.2	495.4	496.6	500.0	503.2	515.4	533.6	548.6	561.2
60°	462.5	464.0	457.6	459.1	459.1	461.8	466.7	474.5	489.9	500.3	513.0
62.5°	427.2	425.3	423.5	421.5	421.5	422.6	429.2	435.2	448.4	453.9	463.7
65°	372.1	372.1	367.9	369.3	370.1	365.2	368.6	375.7	384.1	386.1	395.3
67.5°	316.4	314.4	312.0	309.9	309.9	309.5	311.3	314.8	321.1	321.8	328.9
70°	278.2	276.8	276.2	274.0	271.3	274.7	272.6	276.2	279.6	280.4	284.5
72.5°	241.2	239.8	238.5	236.5	235.3	234.9	235.1	239.2	241.5	240.5	245.3
75°	188.5	187.1	185.7	182.2	182.2	180.1	180.8	183.6	186.5	184.3	188.5
77.5°	138.5	134.1	133.8	134.8	132.4	132.9	132.1	131.6	132.9	133.0	136.8
80°	106.6	101.7	103.0	102.3	101.7	100.9	99.5	100.2	100.9	101.7	103.7
82.5°	76.8	76.4	75.0	74.8	74.2	72.3	71.5	72.8	73.5	73.0	74.5
85°	39.2	37.2	38.5	37.8	38.5	37.8	35.8	35.8	37.2	36.5	37.8
87.5°	16.2	16.1	15.1	15.1	14.0	14.0	13.0	13.2	13.3	12.9	13.6
90°	22.5	21.7	19.1	16.5	13.8	11.2	8.9	7.0	4.9	2.9	0.9
92.5°	35.3	34.7	33.2	31.7	30.2	28.7	27.3	25.9	24.6	23.2	21.8
95°	67.7	66.9	65.3	63.7	62.1	60.5	58.9	57.5	56.1	54.7	53.3
97.5°	105.6	104.6	103.4	102.3	101.1	100.0	98.9	97.8	96.8	95.7	94.7
100°	133.4	132.8	131.8	130.8	129.8	128.8	127.7	126.4	125.3	124.0	122.9
102.5°	165.2	164.6	163.3	161.9	160.6	159.3	158.3	157.6	156.9	156.1	155.4
105°	213.2	213.2	211.4	209.6	207.8	206.0	204.9	204.5	204.1	203.7	203.3
107.5°	263.9	263.2	262.5	261.8	261.1	260.4	259.8	259.7	259.4	259.1	259.0
110°	298.0	297.2	296.9	296.4	296.0	295.6	295.2	294.8	294.4	294.0	293.6



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	332.2	331.2	331.1	331.0	330.9	330.8	330.7	330.5	330.2	330.0	329.8
115°	385.0	384.9	385.2	385.7	386.0	386.5	386.4	385.8	385.1	384.5	384.0
117.5°	437.9	438.0	438.5	439.0	439.5	440.1	440.1	439.7	439.3	438.9	438.5
120°	473.1	473.4	474.4	475.4	476.4	477.4	477.3	476.1	474.9	473.7	472.5
122.5°	509.0	509.5	510.1	510.6	511.1	511.6	511.4	510.5	509.7	508.8	507.9
125°	562.0	562.8	563.2	563.7	564.0	564.5	564.4	563.7	563.1	562.5	562.0
127.5°	614.5	615.5	616.0	616.4	616.9	617.3	616.9	615.6	614.4	613.1	611.8
130°	648.7	649.5	650.1	650.8	651.4	651.9	651.5	649.9	648.3	646.7	645.1
132.5°	682.5	683.5	683.9	684.4	684.8	685.3	684.7	683.1	681.4	679.8	678.2
135°	732.7	733.5	733.8	734.0	734.1	734.3	733.9	732.6	731.5	730.2	729.1
137.5°	782.0	782.9	782.4	781.9	781.3	780.8	780.1	779.0	778.0	777.0	776.1
140°	813.8	814.0	813.8	813.6	813.3	813.2	812.5	811.5	810.6	809.6	808.5
142.5°	844.1	844.4	844.0	843.6	843.2	842.8	842.2	841.2	840.2	839.2	838.2
145°	888.8	888.9	888.3	887.8	887.2	886.5	886.0	885.6	885.2	884.8	884.4
147.5°	930.7	930.7	930.1	929.6	929.0	928.4	927.8	927.1	926.3	925.6	924.9
150°	956.7	956.7	956.3	955.9	955.5	955.1	954.7	954.3	953.9	953.5	953.1
152.5°	980.2	979.8	979.6	979.4	979.1	978.8	978.5	977.9	977.3	976.8	976.2
155°	1014.4	1013.6	1013.4	1013.3	1013.0	1012.8	1012.7	1012.7	1012.7	1012.7	1012.7
157.5°	1044.3	1043.4	1043.3	1043.1	1042.9	1042.8	1042.9	1043.0	1043.3	1043.6	1043.8
160°	1062.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.7	1062.1	1062.5	1062.9	1063.3
162.5°	1079.9	1078.9	1078.7	1078.5	1078.3	1078.2	1078.4	1079.0	1079.5	1080.1	1080.7
165°	1101.5	1100.4	1100.4	1100.4	1100.4	1100.4	1100.6	1101.3	1101.9	1102.4	1103.0
167.5°	1119.3	1118.0	1117.9	1117.8	1117.6	1117.4	1117.8	1118.6	1119.4	1120.2	1121.0
170°	1128.8	1127.5	1127.5	1127.5	1127.5	1127.5	1127.8	1128.6	1129.4	1130.2	1131.0
172.5°	1136.7	1135.4	1135.4	1135.4	1135.4	1135.4	1135.8	1136.6	1137.4	1138.2	1139.0
175°	1145.0	1143.7	1143.7	1143.7	1143.7	1143.7	1144.2	1145.0	1145.8	1146.6	1147.4
177.5°	1148.8	1147.9	1147.9	1147.9	1147.9	1147.9	1148.2	1148.8	1149.5	1150.1	1150.8
180°	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1455.5	1458.2	1467.8	1474.5	1482.4	1486.8	1491.3	1494.7	1499.1	1500.3	1516.5
5°	1461.9	1476.0	1500.5	1518.7	1541.1	1565.6	1582.4	1590.2	1610.4	1627.3	1660.9
7.5°	1460.1	1490.0	1527.0	1565.3	1606.5	1644.7	1677.8	1717.0	1744.9	1786.8	1828.2
10°	1458.4	1498.3	1546.0	1595.1	1652.5	1705.8	1753.5	1806.7	1850.8	1909.0	1958.7
12.5°	1453.3	1501.7	1567.9	1625.9	1695.7	1769.2	1839.8	1908.2	1947.3	2044.2	2090.0
15°	1440.9	1498.3	1581.0	1669.4	1765.3	1852.3	1942.0	2013.5	2129.0	2213.9	2267.8
17.5°	1417.0	1497.5	1595.6	1702.1	1818.9	1933.4	2035.1	2143.5	2266.2	2368.7	2478.1
20°	1405.9	1494.2	1603.5	1721.2	1842.5	1972.1	2087.8	2218.0	2352.0	2452.8	2593.0
22.5°	1385.1	1485.1	1602.9	1734.1	1863.8	1997.9	2133.2	2264.6	2419.2	2558.2	2691.7
25°	1351.2	1463.3	1585.3	1731.7	1883.8	2018.4	2180.2	2354.7	2516.0	2694.7	2827.8
27.5°	1315.5	1435.3	1557.5	1693.7	1857.3	2017.0	2220.6	2417.8	2614.9	2769.2	2867.7
30°	1288.1	1404.4	1530.6	1667.9	1829.8	2019.7	2247.5	2462.6	2654.7	2787.1	2842.5
32.5°	1258.4	1376.4	1488.0	1632.1	1804.6	2018.0	2264.3	2489.0	2656.9	2745.1	2734.3
35°	1211.7	1310.5	1419.2	1557.9	1761.1	2005.7	2274.1	2491.4	2594.4	2575.5	2432.5
37.5°	1144.4	1227.5	1334.5	1486.4	1710.7	1979.8	2254.5	2417.5	2410.8	2256.7	2049.6
40°	1102.4	1173.1	1276.2	1436.0	1671.4	1963.0	2223.7	2329.5	2239.8	2024.6	1776.6
42.5°	1047.4	1112.6	1215.7	1379.9	1628.3	1928.8	2164.8	2195.5	2020.0	1772.4	1545.0
45°	962.2	1019.7	1126.2	1295.8	1563.5	1854.3	2021.2	1946.2	1709.9	1454.2	1281.1
47.5°	870.7	930.4	1032.9	1207.1	1469.9	1742.4	1821.9	1662.3	1419.9	1212.4	1053.5
50°	813.0	870.4	970.6	1146.6	1406.5	1650.4	1683.4	1477.3	1254.5	1072.3	941.9
52.5°	754.7	808.8	907.3	1083.7	1332.6	1543.9	1523.6	1313.6	1108.7	953.4	851.0
55°	667.9	719.1	813.0	978.3	1204.7	1372.2	1298.6	1098.1	928.5	808.1	730.2
57.5°	590.2	639.3	720.3	869.7	1066.5	1181.6	1088.0	919.1	784.2	691.4	633.4
60°	537.5	580.9	658.1	796.8	967.9	1055.4	963.0	813.7	700.1	625.8	574.0
62.5°	487.6	525.5	596.9	722.8	871.4	944.9	851.3	725.1	628.4	562.5	518.4
65°	412.1	446.4	509.5	607.6	729.5	778.6	698.0	595.7	520.7	471.6	442.2
67.5°	343.1	372.3	426.8	504.0	593.7	629.5	568.1	488.9	432.4	393.0	369.6
70°	297.1	322.4	365.2	431.7	513.0	540.3	482.9	417.7	376.3	344.8	323.1
72.5°	258.4	277.0	315.8	367.2	435.1	456.8	416.7	359.4	320.8	297.1	279.9
75°	196.9	212.3	237.6	278.9	325.9	338.5	308.4	272.6	246.6	229.9	216.5
77.5°	142.0	153.4	171.6	197.1	229.6	240.9	221.9	198.0	179.1	167.7	160.3
80°	107.2	116.4	131.8	152.8	172.4	178.7	167.5	149.3	136.0	129.7	123.3
82.5°	79.2	84.4	93.6	107.9	121.4	128.9	119.3	108.3	101.2	95.4	93.1
85°	39.9	42.7	47.0	52.5	61.0	63.8	60.3	57.4	53.2	49.8	49.8
87.5°	15.2	15.6	17.7	19.2	21.8	24.1	24.1	23.5	23.4	23.0	22.6
90°	2.9	4.9	7.0	8.9	11.2	13.8	16.5	19.1	21.7	22.5	23.3
92.5°	23.2	24.6	25.9	27.3	28.7	30.2	31.7	33.2	34.7	35.3	35.9
95°	54.7	56.1	57.5	58.9	60.5	62.1	63.7	65.3	66.9	67.7	68.5
97.5°	95.7	96.8	97.8	98.9	100.0	101.1	102.3	103.4	104.6	105.6	106.5
100°	124.0	125.3	126.4	127.7	128.8	129.8	130.8	131.8	132.8	133.4	134.0
102.5°	156.1	156.9	157.6	158.3	159.3	160.6	161.9	163.3	164.6	165.2	165.8
105°	203.7	204.1	204.5	204.9	206.0	207.8	209.6	211.4	213.2	213.2	213.2
107.5°	259.1	259.4	259.7	259.8	260.4	261.1	261.8	262.5	263.2	263.9	264.6
110°	294.0	294.4	294.8	295.2	295.6	296.0	296.4	296.9	297.2	298.0	298.8





TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	330.0	330.2	330.5	330.7	330.8	330.9	331.0	331.1	331.2	332.2	333.1
115°	384.5	385.1	385.8	386.4	386.5	386.0	385.7	385.2	384.9	385.0	385.2
117.5°	438.9	439.3	439.7	440.1	440.1	439.5	439.0	438.5	438.0	437.9	437.9
120°	473.7	474.9	476.1	477.3	477.4	476.4	475.4	474.4	473.4	473.1	473.0
122.5°	508.8	509.7	510.5	511.4	511.6	511.1	510.6	510.1	509.5	509.0	508.5
125°	562.5	563.1	563.7	564.4	564.5	564.0	563.7	563.2	562.8	562.0	561.2
127.5°	613.1	614.4	615.6	616.9	617.3	616.9	616.4	616.0	615.5	614.5	613.3
130°	646.7	648.3	649.9	651.5	651.9	651.4	650.8	650.1	649.5	648.7	647.9
132.5°	679.8	681.4	683.1	684.7	685.3	684.8	684.4	683.9	683.5	682.5	681.6
135°	730.2	731.5	732.6	733.9	734.3	734.1	734.0	733.8	733.5	732.7	731.9
137.5°	777.0	778.0	779.0	780.1	780.8	781.3	781.9	782.4	782.9	782.0	781.2
140°	809.6	810.6	811.5	812.5	813.2	813.3	813.6	813.8	814.0	813.8	813.6
142.5°	839.2	840.2	841.2	842.2	842.8	843.2	843.6	844.0	844.4	844.1	843.9
145°	884.8	885.2	885.6	886.0	886.5	887.2	887.8	888.3	888.9	888.8	888.6
147.5°	925.6	926.3	927.1	927.8	928.4	929.0	929.6	930.1	930.7	930.7	930.7
150°	953.5	953.9	954.3	954.7	955.1	955.5	955.9	956.3	956.7	956.7	956.7
152.5°	976.8	977.3	977.9	978.5	978.8	979.1	979.4	979.6	979.8	980.2	980.4
155°	1012.7	1012.7	1012.7	1012.7	1012.8	1013.0	1013.3	1013.4	1013.6	1014.4	1015.2
157.5°	1043.6	1043.3	1043.0	1042.9	1042.8	1042.9	1043.1	1043.3	1043.4	1044.3	1045.1
160°	1062.9	1062.5	1062.1	1061.7	1061.5	1061.5	1061.5	1061.5	1061.5	1062.5	1063.5
162.5°	1080.1	1079.5	1079.0	1078.4	1078.2	1078.3	1078.5	1078.7	1078.9	1079.9	1080.8
165°	1102.4	1101.9	1101.3	1100.6	1100.4	1100.4	1100.4	1100.4	1100.4	1101.5	1102.8
167.5°	1120.2	1119.4	1118.6	1117.8	1117.4	1117.6	1117.8	1117.9	1118.0	1119.3	1120.5
170°	1130.2	1129.4	1128.6	1127.8	1127.5	1127.5	1127.5	1127.5	1127.5	1128.8	1130.2
172.5°	1138.2	1137.4	1136.6	1135.8	1135.4	1135.4	1135.4	1135.4	1135.4	1136.7	1137.9
175°	1146.6	1145.8	1145.0	1144.2	1143.7	1143.7	1143.7	1143.7	1143.7	1145.0	1146.1
177.5°	1150.1	1149.5	1148.8	1148.2	1147.9	1147.9	1147.9	1147.9	1147.9	1148.8	1149.8
180°	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1522.2	1522.7	1528.9	1533.4	1531.2	1533.9	1535.1
5°	1663.0	1688.3	1701.6	1711.4	1712.1	1712.8	1718.4
7.5°	1862.8	1889.8	1909.6	1939.6	1948.6	1958.7	1955.8
10°	2008.6	2048.4	2082.9	2101.0	2120.7	2149.4	2126.3
12.5°	2144.7	2215.5	2267.8	2296.2	2314.6	2320.4	2309.1
15°	2369.5	2461.9	2511.7	2510.3	2573.4	2600.8	2558.0
17.5°	2575.5	2660.9	2729.3	2764.3	2816.8	2828.5	2823.2
20°	2701.6	2794.9	2848.1	2908.4	2935.7	2960.2	2964.4
22.5°	2810.4	2894.0	2951.3	3001.4	3024.3	3035.9	3043.0
25°	2922.4	2988.3	3022.6	3040.1	3046.4	3045.0	3035.9
27.5°	2914.6	2919.7	2881.9	2844.7	2811.6	2774.1	2761.2
30°	2839.0	2780.1	2675.0	2615.5	2527.8	2458.4	2486.4
32.5°	2640.0	2522.8	2404.8	2274.6	2166.8	2136.1	2105.2
35°	2253.1	2047.1	1926.5	1786.4	1730.3	1674.3	1635.7
37.5°	1822.8	1663.5	1520.5	1428.8	1372.6	1337.1	1318.1
40°	1576.1	1432.4	1314.7	1240.5	1197.7	1157.7	1152.2
42.5°	1379.4	1245.8	1157.2	1098.1	1056.9	1040.0	1027.7
45°	1129.7	1036.5	977.0	934.9	907.6	897.1	883.1
47.5°	956.2	890.3	845.6	817.0	796.4	788.5	787.5
50°	859.2	804.5	771.6	749.1	733.1	730.2	719.1
52.5°	786.3	739.0	713.3	693.7	682.1	674.2	670.8
55°	682.6	651.0	627.9	616.7	607.6	599.9	599.9
57.5°	597.3	570.9	555.6	546.1	543.2	537.8	534.3
60°	544.6	522.1	510.2	501.8	496.1	496.9	490.5
62.5°	492.9	478.4	467.0	458.6	451.9	452.0	452.5
65°	419.8	408.6	400.2	397.3	393.2	388.3	389.7
67.5°	355.7	345.2	338.7	333.9	332.4	329.8	333.9
70°	309.8	302.0	297.1	292.9	291.5	292.2	295.8
72.5°	267.7	262.3	259.0	257.1	254.0	254.1	256.5
75°	210.3	206.1	203.2	201.2	200.5	200.5	200.5
77.5°	154.4	153.5	152.2	149.1	149.3	150.1	150.3
80°	122.0	119.8	119.1	117.7	115.7	114.2	117.7
82.5°	91.1	89.0	88.3	88.0	84.8	84.5	87.5
85°	49.0	47.0	47.6	47.0	47.0	46.3	46.3
87.5°	22.2	21.8	21.4	22.0	21.5	21.0	22.2
90°	24.1	24.9	25.5	25.9	26.3	26.7	27.1
92.5°	36.6	37.3	37.5	37.2	37.0	36.7	36.5
95°	69.3	70.1	70.4	70.4	70.4	70.4	70.4
97.5°	107.4	108.3	108.7	108.6	108.6	108.5	108.4
100°	134.6	135.2	135.7	136.1	136.5	136.9	137.3
102.5°	166.4	167.0	167.3	167.2	167.1	167.0	166.9
105°	213.2	213.2	213.4	213.8	214.2	214.6	215.0
107.5°	265.2	265.8	266.0	265.8	265.6	265.3	265.0
110°	299.6	300.4	300.6	300.2	299.8	299.4	299.0



TEST NUMBER: P332223-940

CATALOG NUMBER: S123DIW-S1165D1030U940-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	334.0	335.0	335.5	335.4	335.3	335.3	335.2
115°	385.5	385.7	385.7	385.5	385.2	385.0	384.9
117.5°	437.8	437.8	437.5	436.9	436.4	435.8	435.2
120°	472.8	472.6	472.3	471.9	471.4	471.1	470.6
122.5°	507.9	507.5	506.8	506.3	505.8	505.2	504.6
125°	560.4	559.6	558.8	558.0	557.2	556.4	555.6
127.5°	612.2	611.1	610.0	609.1	608.2	607.3	606.4
130°	647.1	646.3	645.2	643.8	642.4	641.1	639.6
132.5°	680.6	679.7	678.7	677.5	676.5	675.4	674.3
135°	731.1	730.3	729.8	729.3	729.0	728.5	728.2
137.5°	780.3	779.5	778.7	777.9	777.2	776.4	775.7
140°	813.3	813.2	812.3	810.9	809.6	808.2	806.7
142.5°	843.7	843.6	842.8	841.8	840.7	839.6	838.6
145°	888.3	888.1	887.6	886.8	886.0	885.2	884.4
147.5°	930.7	930.7	930.1	928.9	927.6	926.5	925.2
150°	956.7	956.7	956.1	954.9	953.7	952.5	951.3
152.5°	980.8	981.1	980.8	979.7	978.7	977.6	976.6
155°	1016.0	1016.8	1016.6	1015.1	1013.7	1012.4	1010.9
157.5°	1046.0	1046.8	1046.7	1045.5	1044.5	1043.3	1042.1
160°	1064.5	1065.5	1065.6	1064.8	1064.0	1063.2	1062.4
162.5°	1081.8	1082.9	1082.7	1081.5	1080.1	1078.9	1077.5
165°	1103.9	1105.2	1105.1	1103.7	1102.2	1100.8	1099.5
167.5°	1121.8	1123.0	1123.0	1121.8	1120.5	1119.3	1118.0
170°	1131.7	1133.1	1133.1	1131.7	1130.2	1128.8	1127.5
172.5°	1139.2	1140.4	1140.3	1138.9	1137.5	1136.0	1134.7
175°	1147.4	1148.5	1148.4	1147.0	1145.6	1144.2	1142.8
177.5°	1150.8	1151.7	1151.6	1150.5	1149.4	1148.3	1147.2
180°	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0	1150.0

(END OF REPORT)