

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

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P332229

Luminaire Tested: **S123DIW-S1165D1320U835-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332229
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-S1165D1320U835-4F0-1E-UDD-A1
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 1320 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9475.3 lumens
Efficiency: N/A
Efficacy: 124.3 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.49
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

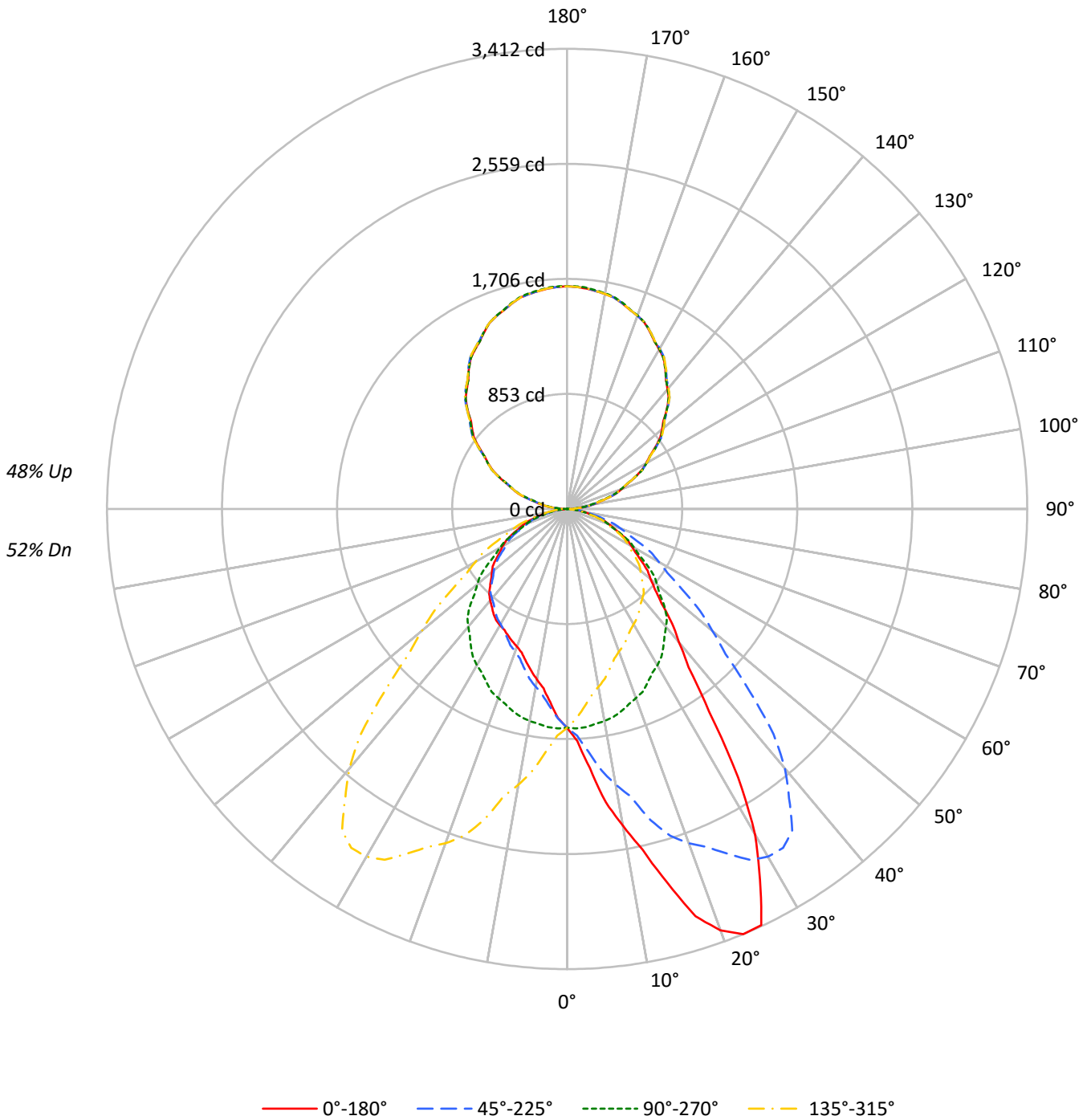
Input Watts (W): 76.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

Luminous Intensity Polar Plot





TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	98	94	90	87	91	87	84	81	74	72	70	62	61	59	51	50	49	44
2	90	83	77	72	83	77	71	67	65	62	58	55	52	50	46	44	42	37
3	82	73	66	60	76	68	61	56	58	53	49	49	45	42	41	38	36	32
4	75	65	57	51	69	60	53	48	52	46	42	44	40	37	36	34	31	28
5	69	58	50	44	64	54	47	41	46	41	36	39	35	32	33	30	27	24
6	64	52	44	38	59	48	41	36	42	36	32	36	31	28	30	27	24	21
7	59	47	39	33	54	44	37	32	38	32	28	32	28	25	27	24	21	19
8	55	42	35	29	51	40	33	28	35	29	25	30	25	22	25	22	19	17
9	51	39	31	26	47	36	30	25	32	26	22	27	23	20	23	20	17	15
10	48	36	28	24	44	33	27	22	29	24	20	25	21	18	21	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17460	17460	17460	17460
5°	20822	17535	15540	17535
10°	26063	17446	14036	17446
15°	31967	17306	13067	17306
20°	38080	17087	12441	17087
25°	40435	16820	12302	16820
30°	34657	16625	12367	16625
35°	24103	16348	12496	16348
40°	18156	16024	12456	16024
45°	15075	15541	12298	15541
50°	13504	14555	12188	14555
55°	12624	13495	12035	13495
60°	11842	12385	11911	12385
65°	11130	11291	11530	11291
70°	10439	10043	10980	10043
75°	9349	8792	10069	8792
80°	8182	7209	8672	7209
85°	6410	5236	5829	5236



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.8	1.7
10°-20°	512.4	5.4
20°-30°	859.9	9.1
30°-40°	973.7	10.3
40°-50°	873.2	9.2
50°-60°	704.7	7.4
60°-70°	491.0	5.2
70°-80°	258.1	2.7
80°-90°	68.0	0.7
90°-100°	107.6	1.1
100°-110°	321.9	3.4
110°-120°	547.5	5.8
120°-130°	720.2	7.6
130°-140°	809.5	8.5
140°-150°	795.7	8.4
150°-160°	669.9	7.1
160°-170°	445.9	4.7
170°-180°	156.2	1.6
0°-30°	1532.1	16.2
0°-40°	2505.8	26.4
0°-60°	4083.7	43.1
0°-90°	4900.8	51.7
90°-120°	977.1	10.3
90°-150°	3302.5	34.9
90°-180°	4574.0	48.3
0°-180°	9475.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1622	1622	1622	1622	1622	
5°	1927	1623	1438	1623	1927	200
15°	2869	1553	1173	1553	2869	828
25°	3405	1416	1036	1416	3405	1493
35°	1834	1244	951	1244	1834	1192
45°	990	1021	808	1021	990	784
55°	673	719	641	719	673	604
65°	437	443	453	443	437	435
75°	225	211	242	211	225	241
85°	52	42	47	42	52	62
90°	39	1	39	1	39	21
95°	101	76	101	76	101	104
105°	309	292	309	292	309	328
115°	552	551	552	551	552	547
125°	798	807	798	807	798	713
135°	1045	1047	1045	1047	1045	804
145°	1270	1270	1270	1270	1270	793
155°	1451	1454	1451	1454	1451	668
165°	1578	1584	1578	1584	1578	445
175°	1641	1647	1641	1647	1641	156
180°	1651	1651	1651	1651	1651	



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1721.5	1720.2	1717.1	1719.6	1714.6	1707.6	1707.0	1700.7	1682.5	1681.2	1676.2
5°	1927.1	1920.8	1920.0	1919.2	1908.2	1893.3	1865.0	1862.6	1824.9	1806.0	1783.3
7.5°	2193.3	2196.6	2185.2	2175.1	2141.5	2119.3	2089.0	2050.2	2003.8	1956.8	1925.5
10°	2384.5	2410.4	2378.2	2356.2	2335.8	2297.2	2252.5	2196.6	2140.8	2075.6	2026.1
12.5°	2589.5	2602.2	2595.7	2575.0	2543.2	2484.6	2405.2	2343.8	2292.4	2183.8	2139.9
15°	2868.6	2916.6	2885.9	2815.2	2816.7	2760.9	2657.2	2543.2	2482.7	2387.6	2258.0
17.5°	3166.0	3172.0	3158.9	3100.0	3060.7	2984.0	2888.3	2779.0	2656.4	2541.4	2403.8
20°	3324.4	3319.7	3292.2	3261.6	3194.0	3134.3	3029.7	2907.9	2750.7	2637.6	2487.4
22.5°	3412.5	3404.6	3391.6	3365.9	3309.7	3245.5	3151.7	3018.6	2868.9	2713.0	2539.6
25°	3404.6	3414.8	3416.4	3409.3	3389.7	3351.2	3277.3	3171.2	3021.9	2821.5	2640.7
27.5°	3096.5	3111.0	3153.0	3190.2	3231.9	3274.3	3268.6	3216.0	3105.5	2932.4	2711.4
30°	2788.4	2757.0	2834.8	2933.1	2999.9	3117.7	3183.8	3187.7	3125.6	2977.1	2761.7
32.5°	2360.9	2395.5	2429.9	2550.8	2696.8	2829.2	2960.6	3066.4	3078.5	2979.6	2791.3
35°	1834.3	1877.6	1940.4	2003.3	2160.5	2295.7	2526.7	2727.9	2888.3	2909.5	2793.9
37.5°	1478.2	1499.5	1539.3	1602.3	1705.1	1865.5	2044.2	2298.5	2530.8	2703.6	2711.1
40°	1292.1	1298.3	1343.1	1391.1	1474.4	1606.4	1767.5	1992.3	2270.5	2511.8	2612.4
42.5°	1152.5	1166.3	1185.3	1231.4	1297.7	1397.1	1546.9	1732.6	1987.6	2265.3	2462.1
45°	990.3	1006.0	1017.8	1048.4	1095.6	1162.4	1266.9	1436.7	1630.8	1917.6	2182.5
47.5°	883.1	884.3	893.1	916.2	948.3	998.4	1072.3	1181.4	1359.6	1592.3	1864.2
50°	806.4	818.9	822.1	840.1	865.3	902.2	963.5	1056.3	1202.5	1406.8	1656.7
52.5°	752.3	756.1	764.9	777.9	799.9	828.7	881.8	954.4	1069.2	1243.3	1473.1
55°	672.7	672.7	681.4	691.6	704.2	730.1	765.5	818.9	906.2	1041.3	1231.5
57.5°	599.2	603.1	609.2	612.4	623.1	640.2	669.8	710.3	775.4	879.4	1030.7
60°	550.1	557.2	556.4	562.7	572.2	585.5	610.7	643.7	701.8	785.1	912.5
62.5°	507.4	506.9	506.8	514.3	523.7	536.5	552.8	581.4	630.8	704.7	813.1
65°	437.0	435.4	440.9	445.6	448.8	458.2	470.8	495.9	528.9	583.9	668.0
67.5°	374.4	369.9	372.8	374.4	379.8	387.1	398.9	414.5	440.7	484.9	548.3
70°	331.7	327.7	326.9	328.5	333.2	338.7	347.4	362.3	386.7	422.0	468.4
72.5°	287.6	285.0	284.8	288.3	290.5	294.1	300.2	313.9	333.2	359.8	403.0
75°	224.8	224.8	224.8	225.6	227.9	231.1	235.8	242.8	257.8	276.6	305.7
77.5°	168.5	168.3	167.4	167.2	170.7	172.1	173.2	179.8	188.1	200.9	222.1
80°	132.0	128.1	129.7	132.0	133.6	134.4	136.8	138.3	145.4	152.5	167.4
82.5°	98.1	94.8	95.1	98.7	99.0	99.8	102.2	104.4	107.0	113.5	121.5
85°	51.9	51.9	52.7	52.7	53.4	52.7	55.0	55.8	55.8	59.7	64.4
87.5°	26.6	25.3	25.8	26.3	25.6	26.0	26.4	26.8	27.2	27.6	27.5
90°	38.9	38.3	37.8	37.2	36.6	35.7	34.6	33.4	32.3	31.1	27.4
92.5°	52.4	52.7	53.1	53.4	53.8	53.5	52.6	51.6	50.7	49.8	47.7
95°	101.2	101.2	101.2	101.2	101.2	100.6	99.4	98.3	97.1	96.0	93.7
97.5°	155.6	155.8	155.9	156.0	156.1	155.5	154.2	152.8	151.5	150.2	148.5
100°	197.1	196.6	196.0	195.4	194.8	194.1	193.2	192.4	191.5	190.7	189.2
102.5°	239.7	239.8	239.9	240.0	240.1	239.8	238.9	238.0	237.2	236.3	234.4
105°	308.7	308.1	307.5	307.0	306.4	306.1	306.1	306.1	306.1	306.1	303.5
107.5°	380.5	380.9	381.2	381.6	381.9	381.6	380.7	379.8	378.9	377.9	376.9
110°	429.3	429.9	430.5	431.0	431.6	431.3	430.2	429.0	427.9	426.7	426.1



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	481.2	481.3	481.4	481.5	481.6	481.0	479.6	478.2	476.9	475.5	475.4
115°	552.5	552.8	553.1	553.4	553.7	553.7	553.4	553.1	552.8	552.5	553.1
117.5°	624.9	625.7	626.5	627.3	628.1	628.5	628.6	628.7	628.7	628.8	629.5
120°	675.7	676.3	676.9	677.5	678.0	678.5	678.8	679.0	679.3	679.6	681.1
122.5°	724.5	725.3	726.1	726.9	727.7	728.5	729.2	730.0	730.7	731.5	732.2
125°	797.6	798.8	799.9	801.1	802.3	803.4	804.6	805.7	806.9	808.0	808.6
127.5°	870.5	871.9	873.2	874.5	875.8	877.3	878.9	880.5	882.1	883.8	884.4
130°	918.3	920.3	922.3	924.3	926.3	927.9	929.1	930.2	931.4	932.5	933.4
132.5°	968.1	969.6	971.2	972.7	974.3	975.8	977.1	978.5	979.9	981.3	981.9
135°	1045.4	1045.9	1046.5	1047.1	1047.7	1048.5	1049.7	1050.8	1052.0	1053.1	1053.4
137.5°	1113.6	1114.7	1115.8	1116.9	1118.0	1119.1	1120.3	1121.5	1122.7	1124.0	1123.2
140°	1158.2	1160.2	1162.2	1164.3	1166.3	1167.4	1167.7	1168.0	1168.3	1168.6	1168.3
142.5°	1203.9	1205.4	1207.0	1208.5	1210.1	1211.0	1211.3	1211.6	1211.9	1212.2	1211.6
145°	1269.7	1270.9	1272.0	1273.2	1274.4	1275.1	1275.4	1275.6	1275.9	1276.2	1275.4
147.5°	1328.4	1330.1	1331.8	1333.6	1335.3	1336.1	1336.1	1336.1	1336.1	1336.1	1335.3
150°	1365.7	1367.4	1369.2	1370.9	1372.6	1373.5	1373.5	1373.5	1373.5	1373.5	1372.9
152.5°	1402.0	1403.5	1405.0	1406.5	1408.0	1408.5	1408.1	1407.6	1407.2	1406.7	1406.4
155°	1451.3	1453.3	1455.4	1457.4	1459.4	1459.8	1458.7	1457.5	1456.4	1455.2	1454.9
157.5°	1496.2	1497.8	1499.4	1501.0	1502.6	1502.9	1501.6	1500.4	1499.2	1498.0	1497.8
160°	1525.2	1526.4	1527.6	1528.7	1529.9	1529.7	1528.3	1526.8	1525.4	1523.9	1523.9
162.5°	1547.0	1548.9	1550.7	1552.6	1554.4	1554.6	1553.2	1551.7	1550.3	1548.8	1548.6
165°	1578.4	1580.4	1582.5	1584.5	1586.5	1586.6	1584.9	1583.2	1581.4	1579.7	1579.7
167.5°	1605.1	1606.9	1608.7	1610.5	1612.3	1612.3	1610.5	1608.7	1606.9	1605.1	1604.9
170°	1618.6	1620.6	1622.7	1624.7	1626.7	1626.7	1624.7	1622.7	1620.6	1618.6	1618.6
172.5°	1629.0	1631.0	1633.0	1635.1	1637.1	1637.2	1635.4	1633.6	1631.8	1630.0	1630.0
175°	1640.7	1642.7	1644.7	1646.7	1648.7	1648.9	1647.2	1645.4	1643.7	1642.0	1642.0
177.5°	1646.9	1648.5	1650.1	1651.7	1653.4	1653.5	1652.1	1650.7	1649.3	1647.9	1647.9
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1672.4	1667.4	1662.4	1653.6	1646.0	1635.3	1632.2	1628.4	1617.1	1607.1	1599.5
5°	1774.6	1755.7	1728.2	1703.1	1682.7	1655.2	1639.4	1622.9	1599.3	1578.1	1560.8
7.5°	1881.5	1844.4	1801.6	1755.4	1712.4	1670.9	1637.4	1607.5	1574.5	1543.2	1518.9
10°	1966.4	1912.9	1853.2	1788.8	1733.7	1680.3	1635.5	1596.2	1553.8	1516.8	1486.2
12.5°	2063.2	1984.0	1901.6	1823.3	1758.3	1684.1	1629.8	1579.9	1531.8	1487.3	1452.9
15°	2177.8	2077.2	1979.7	1872.1	1773.0	1680.3	1615.9	1553.0	1497.2	1451.6	1407.6
17.5°	2282.2	2168.2	2039.8	1908.8	1789.4	1679.4	1589.1	1518.1	1448.3	1392.5	1348.6
20°	2341.3	2211.6	2066.2	1930.2	1798.2	1675.6	1576.6	1491.7	1416.2	1357.3	1307.8
22.5°	2392.2	2240.5	2090.1	1944.7	1797.6	1665.5	1553.3	1465.9	1384.2	1326.5	1273.8
25°	2445.0	2263.5	2112.6	1942.0	1777.8	1641.0	1515.3	1416.2	1334.5	1266.9	1212.7
27.5°	2490.3	2261.9	2082.8	1899.4	1746.6	1609.6	1475.3	1369.1	1282.3	1208.9	1153.9
30°	2520.4	2265.0	2052.0	1870.5	1716.5	1575.0	1444.5	1337.6	1246.5	1171.8	1119.9
32.5°	2539.3	2263.1	2023.7	1830.3	1668.7	1543.5	1411.2	1300.5	1206.9	1133.5	1083.5
35°	2550.3	2249.3	1975.0	1747.1	1591.5	1469.7	1358.9	1244.1	1145.9	1077.5	1020.9
37.5°	2528.3	2220.2	1918.4	1666.9	1496.6	1376.6	1283.4	1185.6	1091.6	1016.4	967.6
40°	2493.7	2201.4	1874.4	1610.4	1431.2	1315.6	1236.3	1140.4	1047.6	976.1	930.5
42.5°	2427.7	2163.0	1826.0	1547.5	1363.3	1247.7	1174.6	1094.5	1006.8	939.6	894.1
45°	2266.6	2079.5	1753.4	1453.2	1263.0	1143.5	1079.1	1020.9	941.5	876.3	837.0
47.5°	2043.1	1954.0	1648.4	1353.7	1158.3	1043.4	976.4	929.6	871.6	818.9	781.2
50°	1887.8	1850.8	1577.3	1285.8	1088.5	976.1	911.7	869.2	827.6	774.9	740.3
52.5°	1708.6	1731.4	1494.4	1215.3	1017.5	907.0	846.3	812.6	774.8	731.5	701.4
55°	1456.3	1538.8	1351.0	1097.1	911.7	806.4	749.0	719.1	697.1	664.9	639.0
57.5°	1220.1	1325.1	1196.0	975.3	807.8	716.9	661.9	629.4	615.2	598.4	578.0
60°	1079.9	1183.6	1085.4	893.6	738.0	651.5	602.8	575.3	561.1	549.4	532.1
62.5°	954.7	1059.7	977.2	810.6	669.4	589.3	546.8	520.0	509.0	502.8	488.1
65°	782.8	873.2	818.1	681.4	571.4	500.6	462.1	443.3	433.0	430.7	421.3
67.5°	637.1	705.9	665.8	565.2	478.6	417.5	384.8	368.8	360.9	360.1	353.0
70°	541.5	605.9	575.3	484.1	409.5	361.5	333.2	319.1	314.4	313.6	309.7
72.5°	467.3	512.3	487.9	411.8	354.1	310.6	289.8	275.1	269.7	270.8	268.2
75°	345.8	379.6	365.5	312.8	266.4	238.1	220.8	211.4	206.7	209.1	205.9
77.5°	248.8	270.2	257.5	221.0	192.4	172.0	159.2	153.4	149.2	149.0	147.6
80°	187.8	200.4	193.3	171.3	147.8	130.5	120.2	116.3	114.0	113.2	112.4
82.5°	133.8	144.5	136.1	121.0	105.0	94.6	88.8	83.6	81.9	82.4	81.6
85°	67.6	71.5	68.4	58.9	52.7	47.9	44.8	42.4	40.9	41.7	40.1
87.5°	28.0	27.9	25.2	22.1	20.2	17.8	17.2	15.3	14.7	15.2	15.2
90°	23.6	19.9	16.1	12.8	9.9	7.1	4.2	1.3	4.2	7.1	9.9
92.5°	45.5	43.4	41.3	39.2	37.3	35.3	33.3	31.4	33.3	35.3	37.3
95°	91.4	89.1	86.8	84.6	82.6	80.6	78.5	76.5	78.5	80.6	82.6
97.5°	146.8	145.2	143.5	141.9	140.4	138.9	137.4	135.9	137.4	138.9	140.4
100°	187.8	186.3	184.9	183.3	181.6	179.8	178.1	176.4	178.1	179.8	181.6
102.5°	232.5	230.6	228.7	227.2	226.2	225.2	224.1	223.1	224.1	225.2	226.2
105°	300.9	298.3	295.7	294.1	293.5	293.0	292.4	291.8	292.4	293.0	293.5
107.5°	375.9	374.8	373.8	373.1	372.8	372.4	372.1	371.7	372.1	372.4	372.8
110°	425.6	425.0	424.4	423.8	423.2	422.7	422.1	421.5	422.1	422.7	423.2



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	475.2	475.1	475.0	474.8	474.4	474.1	473.7	473.4	473.7	474.1	474.4
115°	553.7	554.2	554.8	554.7	553.8	552.9	552.1	551.2	552.1	552.9	553.8
117.5°	630.3	631.0	631.8	631.9	631.3	630.7	630.1	629.6	630.1	630.7	631.3
120°	682.5	683.9	685.4	685.2	683.5	681.8	680.0	678.3	680.0	681.8	683.5
122.5°	733.0	733.7	734.5	734.2	733.0	731.7	730.4	729.2	730.4	731.7	733.0
125°	809.2	809.7	810.3	810.2	809.3	808.4	807.6	806.7	807.6	808.4	809.3
127.5°	885.0	885.7	886.3	885.7	883.8	882.0	880.2	878.3	880.2	882.0	883.8
130°	934.3	935.1	936.0	935.3	933.0	930.7	928.3	926.0	928.3	930.7	933.0
132.5°	982.6	983.2	983.8	983.0	980.7	978.4	976.1	973.8	976.1	978.4	980.7
135°	1053.7	1054.0	1054.3	1053.6	1051.8	1050.1	1048.4	1046.7	1048.4	1050.1	1051.8
137.5°	1122.5	1121.7	1121.0	1119.9	1118.4	1117.0	1115.5	1114.1	1115.5	1117.0	1118.4
140°	1168.0	1167.7	1167.4	1166.6	1165.1	1163.7	1162.2	1160.8	1162.2	1163.7	1165.1
142.5°	1211.1	1210.6	1210.1	1209.1	1207.7	1206.2	1204.8	1203.3	1204.8	1206.2	1207.7
145°	1274.5	1273.6	1272.8	1272.0	1271.5	1270.9	1270.3	1269.7	1270.3	1270.9	1271.5
147.5°	1334.5	1333.7	1332.9	1332.0	1331.0	1329.9	1328.9	1327.8	1328.9	1329.9	1331.0
150°	1372.3	1371.8	1371.2	1370.6	1370.0	1369.5	1368.9	1368.3	1368.9	1369.5	1370.0
152.5°	1406.0	1405.7	1405.3	1404.7	1403.9	1403.1	1402.3	1401.5	1402.3	1403.1	1403.9
155°	1454.6	1454.3	1454.1	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9	1453.9
157.5°	1497.5	1497.3	1497.1	1497.1	1497.5	1497.8	1498.2	1498.5	1498.2	1497.8	1497.5
160°	1523.9	1523.9	1523.9	1524.2	1524.8	1525.4	1526.0	1526.5	1526.0	1525.4	1524.8
162.5°	1548.4	1548.2	1547.9	1548.2	1549.0	1549.8	1550.6	1551.4	1550.6	1549.8	1549.0
165°	1579.7	1579.7	1579.7	1580.2	1581.0	1581.9	1582.7	1583.6	1582.7	1581.9	1581.0
167.5°	1604.7	1604.4	1604.2	1604.7	1605.8	1607.0	1608.1	1609.3	1608.1	1607.0	1605.8
170°	1618.6	1618.6	1618.6	1619.2	1620.4	1621.5	1622.7	1623.8	1622.7	1621.5	1620.4
172.5°	1630.0	1630.0	1630.0	1630.6	1631.8	1632.9	1634.1	1635.2	1634.1	1632.9	1631.8
175°	1642.0	1642.0	1642.0	1642.5	1643.7	1644.9	1646.0	1647.2	1646.0	1644.9	1643.7
177.5°	1647.9	1647.9	1647.9	1648.4	1649.3	1650.2	1651.2	1652.1	1651.2	1650.2	1649.3
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1595.1	1590.7	1584.4	1575.0	1567.4	1555.5	1555.5	1557.4	1557.4	1556.8	1555.5
5°	1546.7	1534.9	1520.8	1504.3	1487.0	1469.7	1466.5	1460.2	1455.5	1452.4	1448.5
7.5°	1495.6	1474.7	1454.1	1431.0	1409.9	1392.5	1380.4	1370.3	1363.9	1357.0	1351.9
10°	1461.0	1435.1	1410.7	1386.4	1359.6	1338.4	1325.1	1315.6	1308.6	1302.3	1299.1
12.5°	1420.2	1390.5	1363.6	1340.5	1311.2	1289.4	1276.7	1272.2	1263.9	1250.7	1243.8
15°	1360.4	1332.9	1300.7	1265.3	1251.2	1224.5	1209.5	1202.5	1197.7	1187.5	1184.4
17.5°	1309.3	1273.3	1237.2	1210.8	1184.5	1162.8	1154.5	1145.7	1139.4	1131.1	1128.6
20°	1268.5	1236.3	1203.2	1175.0	1147.4	1123.9	1116.8	1110.5	1104.2	1100.3	1097.1
22.5°	1227.0	1194.8	1167.4	1141.0	1111.6	1096.2	1088.5	1081.6	1077.2	1074.5	1071.4
25°	1168.7	1140.4	1109.7	1086.1	1062.6	1052.3	1047.6	1043.7	1040.6	1036.6	1035.8
27.5°	1116.5	1085.7	1060.8	1038.8	1021.9	1013.4	1008.8	1006.9	1007.6	1009.0	1009.9
30°	1077.5	1049.2	1028.8	1009.9	994.2	986.3	985.5	985.5	988.7	989.5	991.0
32.5°	1041.7	1018.4	998.0	979.7	967.8	962.4	965.4	965.4	967.9	970.0	972.8
35°	989.5	969.0	953.3	937.6	927.4	929.7	931.3	932.9	936.8	941.5	944.7
37.5°	939.6	921.9	905.5	893.3	888.6	892.8	896.6	899.9	904.4	908.1	911.2
40°	903.8	890.4	874.7	863.7	865.3	867.7	870.8	874.7	878.7	881.0	884.2
42.5°	870.5	856.5	844.6	835.4	837.6	840.6	842.5	844.6	849.1	853.4	855.2
45°	819.7	808.7	797.7	792.2	793.8	795.4	796.9	799.3	803.2	806.4	807.1
47.5°	762.7	755.0	747.6	742.2	744.7	744.1	746.2	751.2	752.4	754.3	758.7
50°	726.2	719.1	710.5	708.9	708.9	708.9	709.7	716.0	716.0	719.1	722.3
52.5°	686.0	681.4	675.9	673.1	671.8	671.8	675.1	678.3	679.5	683.9	687.1
55°	626.4	621.7	616.9	614.6	613.0	614.6	620.9	622.4	626.4	628.7	631.1
57.5°	564.3	560.7	556.9	555.6	555.3	557.4	560.8	565.5	566.5	573.7	577.3
60°	523.4	517.9	514.8	514.8	513.2	520.3	518.7	526.6	528.1	532.9	538.4
62.5°	481.3	473.9	472.7	472.7	474.9	476.9	479.1	482.6	486.6	492.6	496.9
65°	413.4	409.5	415.0	414.2	412.6	417.3	417.3	421.3	426.0	431.5	440.1
67.5°	349.1	347.1	347.5	347.5	349.9	352.6	354.8	358.2	363.9	369.7	375.4
70°	305.7	308.1	304.2	307.3	309.7	310.4	312.0	316.7	323.0	326.9	333.2
72.5°	263.6	263.4	263.9	265.2	267.5	268.9	270.5	275.9	282.8	286.1	291.1
75°	202.8	202.0	204.3	204.3	208.3	209.8	211.4	213.8	220.1	224.8	228.7
77.5°	148.1	149.0	148.5	151.2	150.1	150.4	155.3	157.7	158.3	167.6	169.6
80°	111.6	113.2	114.0	114.7	115.5	114.0	119.5	121.8	121.8	127.3	131.2
82.5°	80.2	81.1	83.2	83.9	84.1	85.7	86.1	87.9	89.8	92.1	97.3
85°	40.1	42.4	43.2	42.4	43.2	41.7	44.0	44.8	45.6	45.6	45.6
87.5°	15.1	16.4	16.6	17.9	18.1	19.4	19.7	18.6	18.9	21.0	18.6
90°	12.8	16.1	19.9	23.6	27.4	31.1	32.3	33.4	34.6	35.7	36.6
92.5°	39.2	41.3	43.4	45.5	47.7	49.8	50.7	51.6	52.6	53.5	53.8
95°	84.6	86.8	89.1	91.4	93.7	96.0	97.1	98.3	99.4	100.6	101.2
97.5°	141.9	143.5	145.2	146.8	148.5	150.2	151.5	152.8	154.2	155.5	156.1
100°	183.3	184.9	186.3	187.8	189.2	190.7	191.5	192.4	193.2	194.1	194.8
102.5°	227.2	228.7	230.6	232.5	234.4	236.3	237.2	238.0	238.9	239.8	240.1
105°	294.1	295.7	298.3	300.9	303.5	306.1	306.1	306.1	306.1	306.1	306.4
107.5°	373.1	373.8	374.8	375.9	376.9	377.9	378.9	379.8	380.7	381.6	381.9
110°	423.8	424.4	425.0	425.6	426.1	426.7	427.9	429.0	430.2	431.3	431.6



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	474.8	475.0	475.1	475.2	475.4	475.5	476.9	478.2	479.6	481.0	481.6
115°	554.7	554.8	554.2	553.7	553.1	552.5	552.8	553.1	553.4	553.7	553.7
117.5°	631.9	631.8	631.0	630.3	629.5	628.8	628.7	628.7	628.6	628.5	628.1
120°	685.2	685.4	683.9	682.5	681.1	679.6	679.3	679.0	678.8	678.5	678.0
122.5°	734.2	734.5	733.7	733.0	732.2	731.5	730.7	730.0	729.2	728.5	727.7
125°	810.2	810.3	809.7	809.2	808.6	808.0	806.9	805.7	804.6	803.4	802.3
127.5°	885.7	886.3	885.7	885.0	884.4	883.8	882.1	880.5	878.9	877.3	875.8
130°	935.3	936.0	935.1	934.3	933.4	932.5	931.4	930.2	929.1	927.9	926.3
132.5°	983.0	983.8	983.2	982.6	981.9	981.3	979.9	978.5	977.1	975.8	974.3
135°	1053.6	1054.3	1054.0	1053.7	1053.4	1053.1	1052.0	1050.8	1049.7	1048.5	1047.7
137.5°	1119.9	1121.0	1121.7	1122.5	1123.2	1124.0	1122.7	1121.5	1120.3	1119.1	1118.0
140°	1166.6	1167.4	1167.7	1168.0	1168.3	1168.6	1168.3	1168.0	1167.7	1167.4	1166.3
142.5°	1209.1	1210.1	1210.6	1211.1	1211.6	1212.2	1211.9	1211.6	1211.3	1211.0	1210.1
145°	1272.0	1272.8	1273.6	1274.5	1275.4	1276.2	1275.9	1275.6	1275.4	1275.1	1274.4
147.5°	1332.0	1332.9	1333.7	1334.5	1335.3	1336.1	1336.1	1336.1	1336.1	1336.1	1335.3
150°	1370.6	1371.2	1371.8	1372.3	1372.9	1373.5	1373.5	1373.5	1373.5	1373.5	1372.6
152.5°	1404.7	1405.3	1405.7	1406.0	1406.4	1406.7	1407.2	1407.6	1408.1	1408.5	1408.0
155°	1453.9	1454.1	1454.3	1454.6	1454.9	1455.2	1456.4	1457.5	1458.7	1459.8	1459.4
157.5°	1497.1	1497.1	1497.3	1497.5	1497.8	1498.0	1499.2	1500.4	1501.6	1502.9	1502.6
160°	1524.2	1523.9	1523.9	1523.9	1523.9	1523.9	1525.4	1526.8	1528.3	1529.7	1529.9
162.5°	1548.2	1547.9	1548.2	1548.4	1548.6	1548.8	1550.3	1551.7	1553.2	1554.6	1554.4
165°	1580.2	1579.7	1579.7	1579.7	1579.7	1579.7	1581.4	1583.2	1584.9	1586.6	1586.5
167.5°	1604.7	1604.2	1604.4	1604.7	1604.9	1605.1	1606.9	1608.7	1610.5	1612.3	1612.3
170°	1619.2	1618.6	1618.6	1618.6	1618.6	1618.6	1620.6	1622.7	1624.7	1626.7	1626.7
172.5°	1630.6	1630.0	1630.0	1630.0	1630.0	1630.0	1631.8	1633.6	1635.4	1637.2	1637.1
175°	1642.5	1642.0	1642.0	1642.0	1642.0	1642.0	1643.7	1645.4	1647.2	1648.9	1648.7
177.5°	1648.4	1647.9	1647.9	1647.9	1647.9	1647.9	1649.3	1650.7	1652.1	1653.5	1653.4
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1551.1	1550.5	1554.9	1551.7	1554.9	1550.5	1551.1	1555.5	1556.8	1557.4	1557.4
5°	1443.7	1446.1	1438.2	1438.2	1438.2	1446.1	1443.7	1448.5	1452.4	1455.5	1460.2
7.5°	1348.2	1344.7	1345.0	1340.8	1345.0	1344.7	1348.2	1351.9	1357.0	1363.9	1370.3
10°	1289.7	1285.0	1283.4	1284.2	1283.4	1285.0	1289.7	1299.1	1302.3	1308.6	1315.6
12.5°	1241.3	1240.3	1230.0	1230.1	1230.0	1240.3	1241.3	1243.8	1250.7	1263.9	1272.2
15°	1184.4	1169.5	1167.9	1172.6	1167.9	1169.5	1184.4	1184.4	1187.5	1197.7	1202.5
17.5°	1127.3	1119.5	1119.9	1117.6	1119.9	1119.5	1127.3	1128.6	1131.1	1139.4	1145.7
20°	1097.1	1092.4	1091.6	1086.1	1091.6	1092.4	1097.1	1097.1	1100.3	1104.2	1110.5
22.5°	1069.5	1067.9	1068.4	1062.3	1068.4	1067.9	1069.5	1071.4	1074.5	1077.2	1081.6
25°	1035.1	1039.0	1035.8	1035.8	1035.8	1039.0	1035.1	1035.8	1036.6	1040.6	1043.7
27.5°	1011.8	1011.6	1010.1	1010.1	1010.1	1011.6	1011.8	1009.9	1009.0	1007.6	1006.9
30°	994.2	993.4	995.0	995.0	995.0	993.4	994.2	991.0	989.5	988.7	985.5
32.5°	976.6	977.7	978.0	978.6	978.0	977.7	976.6	972.8	970.0	967.9	965.4
35°	949.4	950.2	952.5	951.0	952.5	950.2	949.4	944.7	941.5	936.8	932.9
37.5°	912.6	916.2	915.4	916.7	915.4	916.2	912.6	911.2	908.1	904.4	899.9
40°	884.9	887.3	886.5	886.5	886.5	887.3	884.9	884.2	881.0	878.7	874.7
42.5°	856.7	858.4	856.3	855.1	856.3	858.4	856.7	855.2	853.4	849.1	844.6
45°	810.3	808.7	811.1	807.9	811.1	808.7	810.3	807.1	806.4	803.2	799.3
47.5°	758.4	760.0	760.6	763.0	760.6	760.0	758.4	758.7	754.3	752.4	751.2
50°	723.8	728.5	728.5	727.8	728.5	728.5	723.8	722.3	719.1	716.0	716.0
52.5°	689.9	692.1	695.2	695.1	695.2	692.1	689.9	687.1	683.9	679.5	678.3
55°	637.4	639.0	640.5	641.3	640.5	639.0	637.4	631.1	628.7	626.4	622.4
57.5°	583.0	582.4	586.1	587.2	586.1	582.4	583.0	577.3	573.7	566.5	565.5
60°	544.6	544.6	550.9	553.3	550.9	544.6	544.6	538.4	532.9	528.1	526.6
62.5°	503.8	506.3	512.6	509.3	512.6	506.3	503.8	496.9	492.6	486.6	482.6
65°	444.0	450.3	449.5	452.7	449.5	450.3	444.0	440.1	431.5	426.0	421.3
67.5°	381.6	385.6	391.2	391.7	391.2	385.6	381.6	375.4	369.7	363.9	358.2
70°	339.5	343.4	346.6	348.9	346.6	343.4	339.5	333.2	326.9	323.0	316.7
72.5°	298.7	300.7	308.2	304.9	308.2	300.7	298.7	291.1	286.1	282.8	275.9
75°	234.2	239.7	244.4	242.1	244.4	239.7	234.2	228.7	224.8	220.1	213.8
77.5°	173.2	178.7	180.9	178.9	180.9	178.7	173.2	169.6	167.6	158.3	157.7
80°	136.8	136.0	140.7	139.9	140.7	136.0	136.8	131.2	127.3	121.8	121.8
82.5°	100.3	99.5	101.7	102.2	101.7	99.5	100.3	97.3	92.1	89.8	87.9
85°	48.7	51.1	47.9	47.2	47.9	51.1	48.7	45.6	45.6	45.6	44.8
87.5°	18.8	18.9	18.4	17.8	18.4	18.9	18.8	18.6	21.0	18.9	18.6
90°	37.2	37.8	38.3	38.9	38.3	37.8	37.2	36.6	35.7	34.6	33.4
92.5°	53.4	53.1	52.7	52.4	52.7	53.1	53.4	53.8	53.5	52.6	51.6
95°	101.2	101.2	101.2	101.2	101.2	101.2	101.2	101.2	100.6	99.4	98.3
97.5°	156.0	155.9	155.8	155.6	155.8	155.9	156.0	156.1	155.5	154.2	152.8
100°	195.4	196.0	196.6	197.1	196.6	196.0	195.4	194.8	194.1	193.2	192.4
102.5°	240.0	239.9	239.8	239.7	239.8	239.9	240.0	240.1	239.8	238.9	238.0
105°	307.0	307.5	308.1	308.7	308.1	307.5	307.0	306.4	306.1	306.1	306.1
107.5°	381.6	381.2	380.9	380.5	380.9	381.2	381.6	381.9	381.6	380.7	379.8
110°	431.0	430.5	429.9	429.3	429.9	430.5	431.0	431.6	431.3	430.2	429.0



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	481.5	481.4	481.3	481.2	481.3	481.4	481.5	481.6	481.0	479.6	478.2
115°	553.4	553.1	552.8	552.5	552.8	553.1	553.4	553.7	553.7	553.4	553.1
117.5°	627.3	626.5	625.7	624.9	625.7	626.5	627.3	628.1	628.5	628.6	628.7
120°	677.5	676.9	676.3	675.7	676.3	676.9	677.5	678.0	678.5	678.8	679.0
122.5°	726.9	726.1	725.3	724.5	725.3	726.1	726.9	727.7	728.5	729.2	730.0
125°	801.1	799.9	798.8	797.6	798.8	799.9	801.1	802.3	803.4	804.6	805.7
127.5°	874.5	873.2	871.9	870.5	871.9	873.2	874.5	875.8	877.3	878.9	880.5
130°	924.3	922.3	920.3	918.3	920.3	922.3	924.3	926.3	927.9	929.1	930.2
132.5°	972.7	971.2	969.6	968.1	969.6	971.2	972.7	974.3	975.8	977.1	978.5
135°	1047.1	1046.5	1045.9	1045.4	1045.9	1046.5	1047.1	1047.7	1048.5	1049.7	1050.8
137.5°	1116.9	1115.8	1114.7	1113.6	1114.7	1115.8	1116.9	1118.0	1119.1	1120.3	1121.5
140°	1164.3	1162.2	1160.2	1158.2	1160.2	1162.2	1164.3	1166.3	1167.4	1167.7	1168.0
142.5°	1208.5	1207.0	1205.4	1203.9	1205.4	1207.0	1208.5	1210.1	1211.0	1211.3	1211.6
145°	1273.2	1272.0	1270.9	1269.7	1270.9	1272.0	1273.2	1274.4	1275.1	1275.4	1275.6
147.5°	1333.6	1331.8	1330.1	1328.4	1330.1	1331.8	1333.6	1335.3	1336.1	1336.1	1336.1
150°	1370.9	1369.2	1367.4	1365.7	1367.4	1369.2	1370.9	1372.6	1373.5	1373.5	1373.5
152.5°	1406.5	1405.0	1403.5	1402.0	1403.5	1405.0	1406.5	1408.0	1408.5	1408.1	1407.6
155°	1457.4	1455.4	1453.3	1451.3	1453.3	1455.4	1457.4	1459.4	1459.8	1458.7	1457.5
157.5°	1501.0	1499.4	1497.8	1496.2	1497.8	1499.4	1501.0	1502.6	1502.9	1501.6	1500.4
160°	1528.7	1527.6	1526.4	1525.2	1526.4	1527.6	1528.7	1529.9	1529.7	1528.3	1526.8
162.5°	1552.6	1550.7	1548.9	1547.0	1548.9	1550.7	1552.6	1554.4	1554.6	1553.2	1551.7
165°	1584.5	1582.5	1580.4	1578.4	1580.4	1582.5	1584.5	1586.5	1586.6	1584.9	1583.2
167.5°	1610.5	1608.7	1606.9	1605.1	1606.9	1608.7	1610.5	1612.3	1612.3	1610.5	1608.7
170°	1624.7	1622.7	1620.6	1618.6	1620.6	1622.7	1624.7	1626.7	1626.7	1624.7	1622.7
172.5°	1635.1	1633.0	1631.0	1629.0	1631.0	1633.0	1635.1	1637.1	1637.2	1635.4	1633.6
175°	1646.7	1644.7	1642.7	1640.7	1642.7	1644.7	1646.7	1648.7	1648.9	1647.2	1645.4
177.5°	1651.7	1650.1	1648.5	1646.9	1648.5	1650.1	1651.7	1653.4	1653.5	1652.1	1650.7
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1555.5	1555.5	1567.4	1575.0	1584.4	1590.7	1595.1	1599.5	1607.1	1617.1	1628.4
5°	1466.5	1469.7	1487.0	1504.3	1520.8	1534.9	1546.7	1560.8	1578.1	1599.3	1622.9
7.5°	1380.4	1392.5	1409.9	1431.0	1454.1	1474.7	1495.6	1518.9	1543.2	1574.5	1607.5
10°	1325.1	1338.4	1359.6	1386.4	1410.7	1435.1	1461.0	1486.2	1516.8	1553.8	1596.2
12.5°	1276.7	1289.4	1311.2	1340.5	1363.6	1390.5	1420.2	1452.9	1487.3	1531.8	1579.9
15°	1209.5	1224.5	1251.2	1265.3	1300.7	1332.9	1360.4	1407.6	1451.6	1497.2	1553.0
17.5°	1154.5	1162.8	1184.5	1210.8	1237.2	1273.3	1309.3	1348.6	1392.5	1448.3	1518.1
20°	1116.8	1123.9	1147.4	1175.0	1203.2	1236.3	1268.5	1307.8	1357.3	1416.2	1491.7
22.5°	1088.5	1096.2	1111.6	1141.0	1167.4	1194.8	1227.0	1273.8	1326.5	1384.2	1465.9
25°	1047.6	1052.3	1062.6	1086.1	1109.7	1140.4	1168.7	1212.7	1266.9	1334.5	1416.2
27.5°	1008.8	1013.4	1021.9	1038.8	1060.8	1085.7	1116.5	1153.9	1208.9	1282.3	1369.1
30°	985.5	986.3	994.2	1009.9	1028.8	1049.2	1077.5	1119.9	1171.8	1246.5	1337.6
32.5°	965.4	962.4	967.8	979.7	998.0	1018.4	1041.7	1083.5	1133.5	1206.9	1300.5
35°	931.3	929.7	927.4	937.6	953.3	969.0	989.5	1020.9	1077.5	1145.9	1244.1
37.5°	896.6	892.8	888.6	893.3	905.5	921.9	939.6	967.6	1016.4	1091.6	1185.6
40°	870.8	867.7	865.3	863.7	874.7	890.4	903.8	930.5	976.1	1047.6	1140.4
42.5°	842.5	840.6	837.6	835.4	844.6	856.5	870.5	894.1	939.6	1006.8	1094.5
45°	796.9	795.4	793.8	792.2	797.7	808.7	819.7	837.0	876.3	941.5	1020.9
47.5°	746.2	744.1	744.7	742.2	747.6	755.0	762.7	781.2	818.9	871.6	929.6
50°	709.7	708.9	708.9	708.9	710.5	719.1	726.2	740.3	774.9	827.6	869.2
52.5°	675.1	671.8	671.8	673.1	675.9	681.4	686.0	701.4	731.5	774.8	812.6
55°	620.9	614.6	613.0	614.6	616.9	621.7	626.4	639.0	664.9	697.1	719.1
57.5°	560.8	557.4	555.3	555.6	556.9	560.7	564.3	578.0	598.4	615.2	629.4
60°	518.7	520.3	513.2	514.8	514.8	517.9	523.4	532.1	549.4	561.1	575.3
62.5°	479.1	476.9	474.9	472.7	472.7	473.9	481.3	488.1	502.8	509.0	520.0
65°	417.3	417.3	412.6	414.2	415.0	409.5	413.4	421.3	430.7	433.0	443.3
67.5°	354.8	352.6	349.9	347.5	347.5	347.1	349.1	353.0	360.1	360.9	368.8
70°	312.0	310.4	309.7	307.3	304.2	308.1	305.7	309.7	313.6	314.4	319.1
72.5°	270.5	268.9	267.5	265.2	263.9	263.4	263.6	268.2	270.8	269.7	275.1
75°	211.4	209.8	208.3	204.3	204.3	202.0	202.8	205.9	209.1	206.7	211.4
77.5°	155.3	150.4	150.1	151.2	148.5	149.0	148.1	147.6	149.0	149.2	153.4
80°	119.5	114.0	115.5	114.7	114.0	113.2	111.6	112.4	113.2	114.0	116.3
82.5°	86.1	85.7	84.1	83.9	83.2	81.1	80.2	81.6	82.4	81.9	83.6
85°	44.0	41.7	43.2	42.4	43.2	42.4	40.1	40.1	41.7	40.9	42.4
87.5°	19.7	19.4	18.1	17.9	16.6	16.4	15.1	15.2	15.2	14.7	15.3
90°	32.3	31.1	27.4	23.6	19.9	16.1	12.8	9.9	7.1	4.2	1.3
92.5°	50.7	49.8	47.7	45.5	43.4	41.3	39.2	37.3	35.3	33.3	31.4
95°	97.1	96.0	93.7	91.4	89.1	86.8	84.6	82.6	80.6	78.5	76.5
97.5°	151.5	150.2	148.5	146.8	145.2	143.5	141.9	140.4	138.9	137.4	135.9
100°	191.5	190.7	189.2	187.8	186.3	184.9	183.3	181.6	179.8	178.1	176.4
102.5°	237.2	236.3	234.4	232.5	230.6	228.7	227.2	226.2	225.2	224.1	223.1
105°	306.1	306.1	303.5	300.9	298.3	295.7	294.1	293.5	293.0	292.4	291.8
107.5°	378.9	377.9	376.9	375.9	374.8	373.8	373.1	372.8	372.4	372.1	371.7
110°	427.9	426.7	426.1	425.6	425.0	424.4	423.8	423.2	422.7	422.1	421.5



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	476.9	475.5	475.4	475.2	475.1	475.0	474.8	474.4	474.1	473.7	473.4
115°	552.8	552.5	553.1	553.7	554.2	554.8	554.7	553.8	552.9	552.1	551.2
117.5°	628.7	628.8	629.5	630.3	631.0	631.8	631.9	631.3	630.7	630.1	629.6
120°	679.3	679.6	681.1	682.5	683.9	685.4	685.2	683.5	681.8	680.0	678.3
122.5°	730.7	731.5	732.2	733.0	733.7	734.5	734.2	733.0	731.7	730.4	729.2
125°	806.9	808.0	808.6	809.2	809.7	810.3	810.2	809.3	808.4	807.6	806.7
127.5°	882.1	883.8	884.4	885.0	885.7	886.3	885.7	883.8	882.0	880.2	878.3
130°	931.4	932.5	933.4	934.3	935.1	936.0	935.3	933.0	930.7	928.3	926.0
132.5°	979.9	981.3	981.9	982.6	983.2	983.8	983.0	980.7	978.4	976.1	973.8
135°	1052.0	1053.1	1053.4	1053.7	1054.0	1054.3	1053.6	1051.8	1050.1	1048.4	1046.7
137.5°	1122.7	1124.0	1123.2	1122.5	1121.7	1121.0	1119.9	1118.4	1117.0	1115.5	1114.1
140°	1168.3	1168.6	1168.3	1168.0	1167.7	1167.4	1166.6	1165.1	1163.7	1162.2	1160.8
142.5°	1211.9	1212.2	1211.6	1211.1	1210.6	1210.1	1209.1	1207.7	1206.2	1204.8	1203.3
145°	1275.9	1276.2	1275.4	1274.5	1273.6	1272.8	1272.0	1271.5	1270.9	1270.3	1269.7
147.5°	1336.1	1336.1	1335.3	1334.5	1333.7	1332.9	1332.0	1331.0	1329.9	1328.9	1327.8
150°	1373.5	1373.5	1372.9	1372.3	1371.8	1371.2	1370.6	1370.0	1369.5	1368.9	1368.3
152.5°	1407.2	1406.7	1406.4	1406.0	1405.7	1405.3	1404.7	1403.9	1403.1	1402.3	1401.5
155°	1456.4	1455.2	1454.9	1454.6	1454.3	1454.1	1453.9	1453.9	1453.9	1453.9	1453.9
157.5°	1499.2	1498.0	1497.8	1497.5	1497.3	1497.1	1497.1	1497.5	1497.8	1498.2	1498.5
160°	1525.4	1523.9	1523.9	1523.9	1523.9	1523.9	1524.2	1524.8	1525.4	1526.0	1526.5
162.5°	1550.3	1548.8	1548.6	1548.4	1548.2	1547.9	1548.2	1549.0	1549.8	1550.6	1551.4
165°	1581.4	1579.7	1579.7	1579.7	1579.7	1579.7	1580.2	1581.0	1581.9	1582.7	1583.6
167.5°	1606.9	1605.1	1604.9	1604.7	1604.4	1604.2	1604.7	1605.8	1607.0	1608.1	1609.3
170°	1620.6	1618.6	1618.6	1618.6	1618.6	1618.6	1619.2	1620.4	1621.5	1622.7	1623.8
172.5°	1631.8	1630.0	1630.0	1630.0	1630.0	1630.0	1630.6	1631.8	1632.9	1634.1	1635.2
175°	1643.7	1642.0	1642.0	1642.0	1642.0	1642.0	1642.5	1643.7	1644.9	1646.0	1647.2
177.5°	1649.3	1647.9	1647.9	1647.9	1647.9	1647.9	1648.4	1649.3	1650.2	1651.2	1652.1
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1632.2	1635.3	1646.0	1653.6	1662.4	1667.4	1672.4	1676.2	1681.2	1682.5	1700.7
5°	1639.4	1655.2	1682.7	1703.1	1728.2	1755.7	1774.6	1783.3	1806.0	1824.9	1862.6
7.5°	1637.4	1670.9	1712.4	1755.4	1801.6	1844.4	1881.5	1925.5	1956.8	2003.8	2050.2
10°	1635.5	1680.3	1733.7	1788.8	1853.2	1912.9	1966.4	2026.1	2075.6	2140.8	2196.6
12.5°	1629.8	1684.1	1758.3	1823.3	1901.6	1984.0	2063.2	2139.9	2183.8	2292.4	2343.8
15°	1615.9	1680.3	1773.0	1872.1	1979.7	2077.2	2177.8	2258.0	2387.6	2482.7	2543.2
17.5°	1589.1	1679.4	1789.4	1908.8	2039.8	2168.2	2282.2	2403.8	2541.4	2656.4	2779.0
20°	1576.6	1675.6	1798.2	1930.2	2066.2	2211.6	2341.3	2487.4	2637.6	2750.7	2907.9
22.5°	1553.3	1665.5	1797.6	1944.7	2090.1	2240.5	2392.2	2539.6	2713.0	2868.9	3018.6
25°	1515.3	1641.0	1777.8	1942.0	2112.6	2263.5	2445.0	2640.7	2821.5	3021.9	3171.2
27.5°	1475.3	1609.6	1746.6	1899.4	2082.8	2261.9	2490.3	2711.4	2932.4	3105.5	3216.0
30°	1444.5	1575.0	1716.5	1870.5	2052.0	2265.0	2520.4	2761.7	2977.1	3125.6	3187.7
32.5°	1411.2	1543.5	1668.7	1830.3	2023.7	2263.1	2539.3	2791.3	2979.6	3078.5	3066.4
35°	1358.9	1469.7	1591.5	1747.1	1975.0	2249.3	2550.3	2793.9	2909.5	2888.3	2727.9
37.5°	1283.4	1376.6	1496.6	1666.9	1918.4	2220.2	2528.3	2711.1	2703.6	2530.8	2298.5
40°	1236.3	1315.6	1431.2	1610.4	1874.4	2201.4	2493.7	2612.4	2511.8	2270.5	1992.3
42.5°	1174.6	1247.7	1363.3	1547.5	1826.0	2163.0	2427.7	2462.1	2265.3	1987.6	1732.6
45°	1079.1	1143.5	1263.0	1453.2	1753.4	2079.5	2266.6	2182.5	1917.6	1630.8	1436.7
47.5°	976.4	1043.4	1158.3	1353.7	1648.4	1954.0	2043.1	1864.2	1592.3	1359.6	1181.4
50°	911.7	976.1	1088.5	1285.8	1577.3	1850.8	1887.8	1656.7	1406.8	1202.5	1056.3
52.5°	846.3	907.0	1017.5	1215.3	1494.4	1731.4	1708.6	1473.1	1243.3	1069.2	954.4
55°	749.0	806.4	911.7	1097.1	1351.0	1538.8	1456.3	1231.5	1041.3	906.2	818.9
57.5°	661.9	716.9	807.8	975.3	1196.0	1325.1	1220.1	1030.7	879.4	775.4	710.3
60°	602.8	651.5	738.0	893.6	1085.4	1183.6	1079.9	912.5	785.1	701.8	643.7
62.5°	546.8	589.3	669.4	810.6	977.2	1059.7	954.7	813.1	704.7	630.8	581.4
65°	462.1	500.6	571.4	681.4	818.1	873.2	782.8	668.0	583.9	528.9	495.9
67.5°	384.8	417.5	478.6	565.2	665.8	705.9	637.1	548.3	484.9	440.7	414.5
70°	333.2	361.5	409.5	484.1	575.3	605.9	541.5	468.4	422.0	386.7	362.3
72.5°	289.8	310.6	354.1	411.8	487.9	512.3	467.3	403.0	359.8	333.2	313.9
75°	220.8	238.1	266.4	312.8	365.5	379.6	345.8	305.7	276.6	257.8	242.8
77.5°	159.2	172.0	192.4	221.0	257.5	270.2	248.8	222.1	200.9	188.1	179.8
80°	120.2	130.5	147.8	171.3	193.3	200.4	187.8	167.4	152.5	145.4	138.3
82.5°	88.8	94.6	105.0	121.0	136.1	144.5	133.8	121.5	113.5	107.0	104.4
85°	44.8	47.9	52.7	58.9	68.4	71.5	67.6	64.4	59.7	55.8	55.8
87.5°	17.2	17.8	20.2	22.1	25.2	27.9	28.0	27.5	27.6	27.2	26.8
90°	4.2	7.1	9.9	12.8	16.1	19.9	23.6	27.4	31.1	32.3	33.4
92.5°	33.3	35.3	37.3	39.2	41.3	43.4	45.5	47.7	49.8	50.7	51.6
95°	78.5	80.6	82.6	84.6	86.8	89.1	91.4	93.7	96.0	97.1	98.3
97.5°	137.4	138.9	140.4	141.9	143.5	145.2	146.8	148.5	150.2	151.5	152.8
100°	178.1	179.8	181.6	183.3	184.9	186.3	187.8	189.2	190.7	191.5	192.4
102.5°	224.1	225.2	226.2	227.2	228.7	230.6	232.5	234.4	236.3	237.2	238.0
105°	292.4	293.0	293.5	294.1	295.7	298.3	300.9	303.5	306.1	306.1	306.1
107.5°	372.1	372.4	372.8	373.1	373.8	374.8	375.9	376.9	377.9	378.9	379.8
110°	422.1	422.7	423.2	423.8	424.4	425.0	425.6	426.1	426.7	427.9	429.0



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	473.7	474.1	474.4	474.8	475.0	475.1	475.2	475.4	475.5	476.9	478.2
115°	552.1	552.9	553.8	554.7	554.8	554.2	553.7	553.1	552.5	552.8	553.1
117.5°	630.1	630.7	631.3	631.9	631.8	631.0	630.3	629.5	628.8	628.7	628.7
120°	680.0	681.8	683.5	685.2	685.4	683.9	682.5	681.1	679.6	679.3	679.0
122.5°	730.4	731.7	733.0	734.2	734.5	733.7	733.0	732.2	731.5	730.7	730.0
125°	807.6	808.4	809.3	810.2	810.3	809.7	809.2	808.6	808.0	806.9	805.7
127.5°	880.2	882.0	883.8	885.7	886.3	885.7	885.0	884.4	883.8	882.1	880.5
130°	928.3	930.7	933.0	935.3	936.0	935.1	934.3	933.4	932.5	931.4	930.2
132.5°	976.1	978.4	980.7	983.0	983.8	983.2	982.6	981.9	981.3	979.9	978.5
135°	1048.4	1050.1	1051.8	1053.6	1054.3	1054.0	1053.7	1053.4	1053.1	1052.0	1050.8
137.5°	1115.5	1117.0	1118.4	1119.9	1121.0	1121.7	1122.5	1123.2	1124.0	1122.7	1121.5
140°	1162.2	1163.7	1165.1	1166.6	1167.4	1167.7	1168.0	1168.3	1168.6	1168.3	1168.0
142.5°	1204.8	1206.2	1207.7	1209.1	1210.1	1210.6	1211.1	1211.6	1212.2	1211.9	1211.6
145°	1270.3	1270.9	1271.5	1272.0	1272.8	1273.6	1274.5	1275.4	1276.2	1275.9	1275.6
147.5°	1328.9	1329.9	1331.0	1332.0	1332.9	1333.7	1334.5	1335.3	1336.1	1336.1	1336.1
150°	1368.9	1369.5	1370.0	1370.6	1371.2	1371.8	1372.3	1372.9	1373.5	1373.5	1373.5
152.5°	1402.3	1403.1	1403.9	1404.7	1405.3	1405.7	1406.0	1406.4	1406.7	1407.2	1407.6
155°	1453.9	1453.9	1453.9	1453.9	1454.1	1454.3	1454.6	1454.9	1455.2	1456.4	1457.5
157.5°	1498.2	1497.8	1497.5	1497.1	1497.1	1497.3	1497.5	1497.8	1498.0	1499.2	1500.4
160°	1526.0	1525.4	1524.8	1524.2	1523.9	1523.9	1523.9	1523.9	1523.9	1525.4	1526.8
162.5°	1550.6	1549.8	1549.0	1548.2	1547.9	1548.2	1548.4	1548.6	1548.8	1550.3	1551.7
165°	1582.7	1581.9	1581.0	1580.2	1579.7	1579.7	1579.7	1579.7	1579.7	1581.4	1583.2
167.5°	1608.1	1607.0	1605.8	1604.7	1604.2	1604.4	1604.7	1604.9	1605.1	1606.9	1608.7
170°	1622.7	1621.5	1620.4	1619.2	1618.6	1618.6	1618.6	1618.6	1618.6	1620.6	1622.7
172.5°	1634.1	1632.9	1631.8	1630.6	1630.0	1630.0	1630.0	1630.0	1630.0	1631.8	1633.6
175°	1646.0	1644.9	1643.7	1642.5	1642.0	1642.0	1642.0	1642.0	1642.0	1643.7	1645.4
177.5°	1651.2	1650.2	1649.3	1648.4	1647.9	1647.9	1647.9	1647.9	1647.9	1649.3	1650.7
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1	1622.1
2.5°	1707.0	1707.6	1714.6	1719.6	1717.1	1720.2	1721.5
5°	1865.0	1893.3	1908.2	1919.2	1920.0	1920.8	1927.1
7.5°	2089.0	2119.3	2141.5	2175.1	2185.2	2196.6	2193.3
10°	2252.5	2297.2	2335.8	2356.2	2378.2	2410.4	2384.5
12.5°	2405.2	2484.6	2543.2	2575.0	2595.7	2602.2	2589.5
15°	2657.2	2760.9	2816.7	2815.2	2885.9	2916.6	2868.6
17.5°	2888.3	2984.0	3060.7	3100.0	3158.9	3172.0	3166.0
20°	3029.7	3134.3	3194.0	3261.6	3292.2	3319.7	3324.4
22.5°	3151.7	3245.5	3309.7	3365.9	3391.6	3404.6	3412.5
25°	3277.3	3351.2	3389.7	3409.3	3416.4	3414.8	3404.6
27.5°	3268.6	3274.3	3231.9	3190.2	3153.0	3111.0	3096.5
30°	3183.8	3117.7	2999.9	2933.1	2834.8	2757.0	2788.4
32.5°	2960.6	2829.2	2696.8	2550.8	2429.9	2395.5	2360.9
35°	2526.7	2295.7	2160.5	2003.3	1940.4	1877.6	1834.3
37.5°	2044.2	1865.5	1705.1	1602.3	1539.3	1499.5	1478.2
40°	1767.5	1606.4	1474.4	1391.1	1343.1	1298.3	1292.1
42.5°	1546.9	1397.1	1297.7	1231.4	1185.3	1166.3	1152.5
45°	1266.9	1162.4	1095.6	1048.4	1017.8	1006.0	990.3
47.5°	1072.3	998.4	948.3	916.2	893.1	884.3	883.1
50°	963.5	902.2	865.3	840.1	822.1	818.9	806.4
52.5°	881.8	828.7	799.9	777.9	764.9	756.1	752.3
55°	765.5	730.1	704.2	691.6	681.4	672.7	672.7
57.5°	669.8	640.2	623.1	612.4	609.2	603.1	599.2
60°	610.7	585.5	572.2	562.7	556.4	557.2	550.1
62.5°	552.8	536.5	523.7	514.3	506.8	506.9	507.4
65°	470.8	458.2	448.8	445.6	440.9	435.4	437.0
67.5°	398.9	387.1	379.8	374.4	372.8	369.9	374.4
70°	347.4	338.7	333.2	328.5	326.9	327.7	331.7
72.5°	300.2	294.1	290.5	288.3	284.8	285.0	287.6
75°	235.8	231.1	227.9	225.6	224.8	224.8	224.8
77.5°	173.2	172.1	170.7	167.2	167.4	168.3	168.5
80°	136.8	134.4	133.6	132.0	129.7	128.1	132.0
82.5°	102.2	99.8	99.0	98.7	95.1	94.8	98.1
85°	55.0	52.7	53.4	52.7	52.7	51.9	51.9
87.5°	26.4	26.0	25.6	26.3	25.8	25.3	26.6
90°	34.6	35.7	36.6	37.2	37.8	38.3	38.9
92.5°	52.6	53.5	53.8	53.4	53.1	52.7	52.4
95°	99.4	100.6	101.2	101.2	101.2	101.2	101.2
97.5°	154.2	155.5	156.1	156.0	155.9	155.8	155.6
100°	193.2	194.1	194.8	195.4	196.0	196.6	197.1
102.5°	238.9	239.8	240.1	240.0	239.9	239.8	239.7
105°	306.1	306.1	306.4	307.0	307.5	308.1	308.7
107.5°	380.7	381.6	381.9	381.6	381.2	380.9	380.5
110°	430.2	431.3	431.6	431.0	430.5	429.9	429.3



TEST NUMBER: P332229

CATALOG NUMBER: S123DIW-S1165D1320U835-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	479.6	481.0	481.6	481.5	481.4	481.3	481.2
115°	553.4	553.7	553.7	553.4	553.1	552.8	552.5
117.5°	628.6	628.5	628.1	627.3	626.5	625.7	624.9
120°	678.8	678.5	678.0	677.5	676.9	676.3	675.7
122.5°	729.2	728.5	727.7	726.9	726.1	725.3	724.5
125°	804.6	803.4	802.3	801.1	799.9	798.8	797.6
127.5°	878.9	877.3	875.8	874.5	873.2	871.9	870.5
130°	929.1	927.9	926.3	924.3	922.3	920.3	918.3
132.5°	977.1	975.8	974.3	972.7	971.2	969.6	968.1
135°	1049.7	1048.5	1047.7	1047.1	1046.5	1045.9	1045.4
137.5°	1120.3	1119.1	1118.0	1116.9	1115.8	1114.7	1113.6
140°	1167.7	1167.4	1166.3	1164.3	1162.2	1160.2	1158.2
142.5°	1211.3	1211.0	1210.1	1208.5	1207.0	1205.4	1203.9
145°	1275.4	1275.1	1274.4	1273.2	1272.0	1270.9	1269.7
147.5°	1336.1	1336.1	1335.3	1333.6	1331.8	1330.1	1328.4
150°	1373.5	1373.5	1372.6	1370.9	1369.2	1367.4	1365.7
152.5°	1408.1	1408.5	1408.0	1406.5	1405.0	1403.5	1402.0
155°	1458.7	1459.8	1459.4	1457.4	1455.4	1453.3	1451.3
157.5°	1501.6	1502.9	1502.6	1501.0	1499.4	1497.8	1496.2
160°	1528.3	1529.7	1529.9	1528.7	1527.6	1526.4	1525.2
162.5°	1553.2	1554.6	1554.4	1552.6	1550.7	1548.9	1547.0
165°	1584.9	1586.6	1586.5	1584.5	1582.5	1580.4	1578.4
167.5°	1610.5	1612.3	1612.3	1610.5	1608.7	1606.9	1605.1
170°	1624.7	1626.7	1626.7	1624.7	1622.7	1620.6	1618.6
172.5°	1635.4	1637.2	1637.1	1635.1	1633.0	1631.0	1629.0
175°	1647.2	1648.9	1648.7	1646.7	1644.7	1642.7	1640.7
177.5°	1652.1	1653.5	1653.4	1651.7	1650.1	1648.5	1646.9
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1

(END OF REPORT)