

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: P332072-830

Luminaire Tested: **S123DIP-S1165D1025U830-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332072-830
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: S123DIP-S1165D1025U830-4F0-1E-UDD-A
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 1025 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8479.8 lumens
Efficiency: N/A
Efficacy: 126.9 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

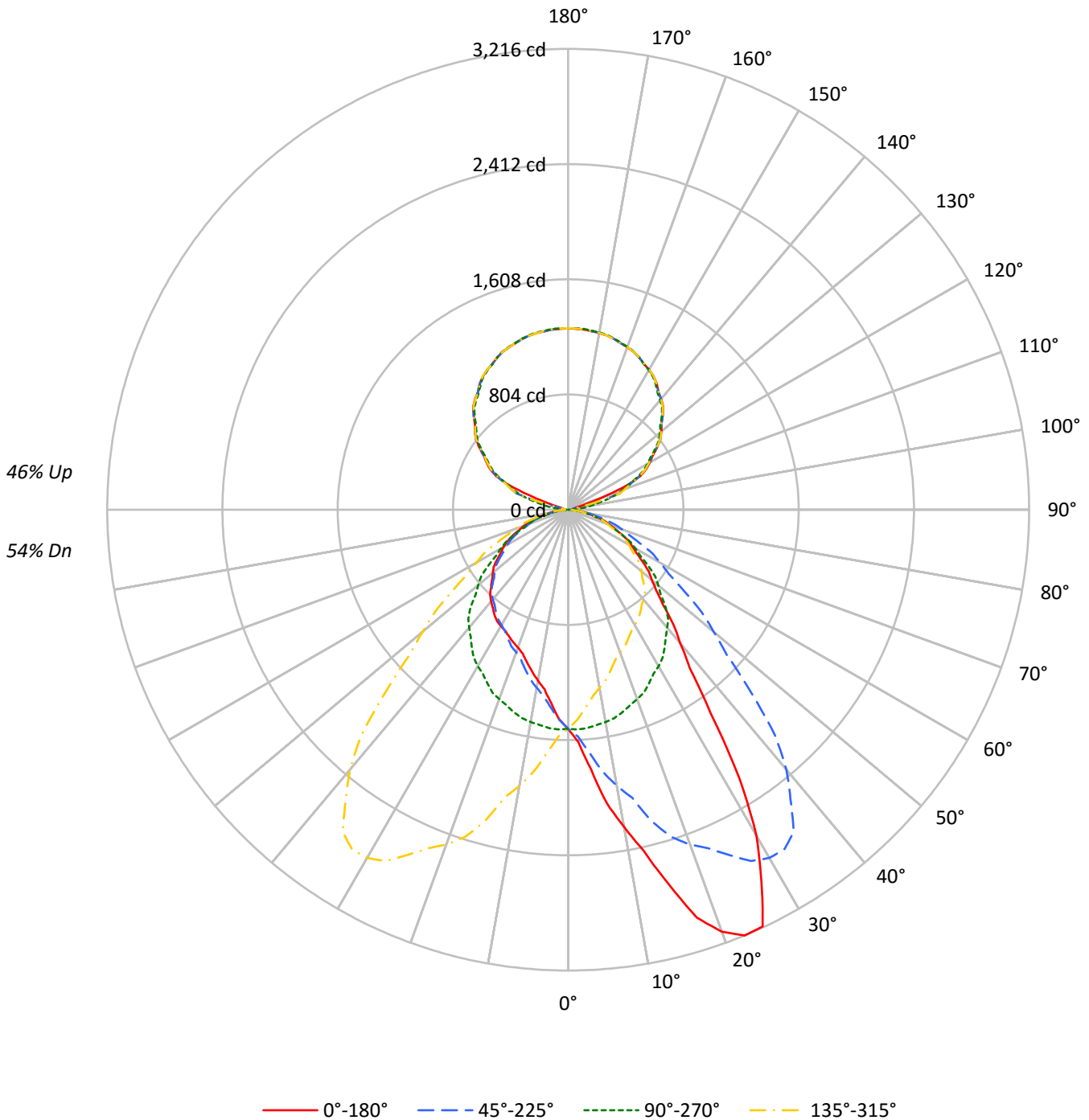
Input Watts (W): 66.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

Luminous Intensity Polar Plot





TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54	54	54	46	
1	99	95	91	88	92	88	85	82	76	73	71	64	63	61	54	53	51	46	46	46	39	
2	90	83	77	72	84	77	72	68	67	63	59	57	54	51	48	46	44	39	39	39	34	
3	83	73	66	60	76	68	62	57	59	54	50	50	47	44	42	40	38	34	34	34	29	
4	76	65	57	51	70	61	54	48	53	47	43	45	41	38	38	35	33	29	29	29	25	
5	70	58	50	44	64	54	47	42	47	42	37	41	36	33	34	31	28	25	25	25	22	
6	64	52	44	38	59	49	42	36	43	37	33	37	32	29	31	28	25	22	22	22	20	
7	59	47	39	34	55	44	37	32	39	33	29	33	29	26	29	25	22	20	20	20	18	
8	55	43	35	30	51	40	33	28	35	30	26	31	26	23	26	23	20	18	18	18	16	
9	51	39	32	27	48	37	30	25	32	27	23	28	24	21	24	21	18	16	16	16	15	
10	48	36	29	24	45	34	27	23	30	24	21	26	22	19	22	19	16	15	15	15	15	

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	16457	16457	16457	16457
5°	19626	16528	14647	16528
10°	24565	16444	13230	16444
15°	30130	16312	12316	16312
20°	35892	16105	11726	16105
25°	38112	15853	11595	15853
30°	32666	15669	11656	15669
35°	22718	15408	11779	15408
40°	17113	15104	11741	15104
45°	14209	14647	11592	14647
50°	12728	13720	11488	13720
55°	11898	12720	11344	12720
60°	11162	11672	11227	11672
65°	10491	10641	10868	10641
70°	9838	9467	10351	9467
75°	8813	8289	9491	8289
80°	7711	6794	8176	6794
85°	6039	4940	5496	4940



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.6	1.8
10°-20°	482.9	5.7
20°-30°	810.5	9.6
30°-40°	917.8	10.8
40°-50°	823.0	9.7
50°-60°	664.2	7.8
60°-70°	462.8	5.5
70°-80°	243.3	2.9
80°-90°	63.0	0.7
90°-100°	46.0	0.5
100°-110°	219.4	2.6
110°-120°	527.0	6.2
120°-130°	671.1	7.9
130°-140°	717.1	8.5
140°-150°	670.6	7.9
150°-160°	540.9	6.4
160°-170°	349.1	4.1
170°-180°	120.3	1.4
0°-30°	1444.1	17.0
0°-40°	2361.9	27.9
0°-60°	3849.1	45.4
0°-90°	4618.2	54.5
90°-120°	792.5	9.3
90°-150°	2851.3	33.6
90°-180°	3862.0	45.5
0°-180°	8479.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1529	1529	1529	1529	1529	
5°	1816	1530	1356	1530	1816	188
15°	2704	1464	1105	1464	2704	781
25°	3209	1335	976	1335	3209	1407
35°	1729	1173	896	1173	1729	1123
45°	933	962	762	962	933	739
55°	634	678	604	678	634	569
65°	412	418	427	418	412	410
75°	212	199	228	199	212	227
85°	49	40	44	40	49	59
90°	28	1	28	1	28	15
95°	36	57	36	57	36	30
105°	41	280	41	280	41	95
115°	553	526	553	526	553	511
125°	756	741	756	741	756	675
135°	932	923	932	923	932	719
145°	1075	1065	1075	1065	1075	671
155°	1171	1173	1171	1173	1171	540
165°	1234	1237	1234	1237	1234	349
175°	1262	1266	1262	1266	1262	120
180°	1266	1266	1266	1266	1266	



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1622.6	1621.4	1618.4	1620.8	1616.1	1609.5	1608.9	1603.0	1585.8	1584.6	1579.9
5°	1816.4	1810.4	1809.7	1808.9	1798.6	1784.5	1757.8	1755.6	1720.0	1702.2	1680.8
7.5°	2067.3	2070.4	2059.6	2050.1	2018.5	1997.5	1969.0	1932.4	1888.7	1844.4	1814.9
10°	2247.5	2271.9	2241.6	2220.8	2201.6	2165.2	2123.1	2070.4	2017.8	1956.3	1909.7
12.5°	2440.7	2452.7	2446.6	2427.0	2397.1	2341.8	2267.0	2209.1	2160.7	2058.3	2016.9
15°	2703.8	2749.0	2720.1	2653.4	2654.9	2602.3	2504.5	2397.1	2340.1	2250.4	2128.3
17.5°	2984.1	2989.7	2977.4	2921.9	2884.8	2812.5	2722.3	2619.3	2503.8	2395.4	2265.7
20°	3133.4	3129.0	3103.0	3074.2	3010.5	2954.2	2855.6	2740.8	2592.7	2486.1	2344.5
22.5°	3216.4	3209.0	3196.7	3172.5	3119.5	3059.0	2970.6	2845.2	2704.1	2557.1	2393.7
25°	3209.0	3218.6	3220.1	3213.4	3194.9	3158.6	3089.0	2989.0	2848.3	2659.4	2489.0
27.5°	2918.6	2932.2	2971.8	3006.9	3046.2	3086.2	3080.8	3031.2	2927.1	2763.9	2555.6
30°	2628.2	2598.6	2671.9	2764.6	2827.5	2938.6	3000.9	3004.5	2946.0	2806.0	2603.0
32.5°	2225.2	2257.9	2290.3	2404.2	2541.8	2666.6	2790.5	2890.2	2901.6	2808.4	2630.9
35°	1728.9	1769.7	1828.9	1888.2	2036.4	2163.8	2381.5	2571.2	2722.3	2742.3	2633.4
37.5°	1393.3	1413.3	1450.9	1510.2	1607.1	1758.3	1926.7	2166.4	2385.4	2548.3	2555.3
40°	1217.9	1223.7	1265.9	1311.2	1389.7	1514.1	1665.9	1877.8	2140.0	2367.5	2462.3
42.5°	1086.3	1099.3	1117.2	1160.6	1223.1	1316.8	1458.0	1633.0	1873.4	2135.1	2320.6
45°	933.4	948.2	959.3	988.2	1032.6	1095.6	1194.1	1354.2	1537.1	1807.4	2057.1
47.5°	832.4	833.5	841.8	863.6	893.8	941.0	1010.7	1113.5	1281.5	1500.8	1757.1
50°	760.1	771.8	774.9	791.8	815.6	850.4	908.1	995.6	1133.4	1326.0	1561.5
52.5°	709.1	712.7	721.0	733.2	753.9	781.1	831.1	899.6	1007.8	1171.9	1388.5
55°	634.0	634.0	642.2	651.9	663.7	688.2	721.5	771.8	854.1	981.5	1160.7
57.5°	564.8	568.4	574.2	577.2	587.3	603.4	631.3	669.5	730.8	828.9	971.5
60°	518.5	525.2	524.4	530.4	539.3	551.9	575.6	606.7	661.5	740.0	860.1
62.5°	478.2	477.8	477.7	484.7	493.6	505.7	521.0	548.0	594.6	664.2	766.4
65°	411.9	410.4	415.6	420.0	423.0	431.9	443.7	467.4	498.5	550.4	629.6
67.5°	352.9	348.6	351.4	352.9	358.0	364.9	376.0	390.7	415.4	457.0	516.8
70°	312.6	308.9	308.1	309.6	314.1	319.2	327.4	341.5	364.5	397.8	441.5
72.5°	271.1	268.6	268.4	271.7	273.8	277.2	283.0	295.9	314.1	339.1	379.8
75°	211.9	211.9	211.9	212.6	214.8	217.8	222.3	228.8	243.0	260.7	288.1
77.5°	158.8	158.6	157.8	157.6	160.9	162.2	163.2	169.5	177.3	189.4	209.3
80°	124.4	120.7	122.2	124.4	125.9	126.7	128.9	130.4	137.0	143.7	157.8
82.5°	92.5	89.4	89.6	93.0	93.3	94.1	96.3	98.4	100.9	107.0	114.5
85°	48.9	48.9	49.7	49.7	50.3	49.7	51.8	52.6	52.6	56.3	60.7
87.5°	23.5	22.1	22.6	23.2	22.5	23.0	23.4	23.8	24.2	24.7	24.7
90°	28.2	27.8	27.4	27.0	26.6	25.9	25.1	24.2	23.4	22.6	19.9
92.5°	31.2	31.0	30.7	30.4	30.3	29.4	28.1	26.8	25.4	24.1	22.1
95°	35.7	35.7	35.7	35.7	35.7	35.1	33.6	32.0	30.6	29.1	26.9
97.5°	38.7	38.5	38.4	38.2	37.9	36.9	35.3	33.6	32.0	30.3	45.3
100°	39.5	39.3	39.1	38.9	38.6	37.7	36.1	34.4	32.7	31.0	63.6
102.5°	40.2	39.9	39.5	39.1	38.7	41.2	46.4	51.6	56.7	61.9	97.6
105°	41.4	41.0	40.5	40.2	39.7	58.1	95.0	132.1	169.0	206.0	224.9
107.5°	130.0	157.9	185.8	213.7	241.6	269.1	296.2	323.4	350.5	377.7	374.7
110°	258.7	288.6	318.5	348.4	378.3	396.7	403.6	410.5	417.4	424.3	422.0



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	443.8	450.2	456.5	462.8	469.1	472.2	472.1	471.9	471.8	471.7	469.4
115°	553.2	552.3	551.5	550.6	549.9	548.4	546.3	544.2	542.2	540.0	538.1
117.5°	614.5	614.3	614.2	614.1	613.9	612.9	611.2	609.6	607.9	606.2	605.3
120°	656.7	656.7	656.7	656.7	656.7	655.8	654.1	652.5	650.8	649.1	648.6
122.5°	698.0	697.9	697.8	697.6	697.4	696.7	695.6	694.4	693.2	692.0	691.3
125°	756.4	756.0	755.5	755.2	754.7	754.3	753.8	753.5	753.1	752.6	751.8
127.5°	812.5	812.8	813.3	813.7	814.2	814.0	813.3	812.7	812.0	811.3	810.3
130°	848.6	849.0	849.4	849.9	850.3	850.1	849.2	848.4	847.5	846.7	845.8
132.5°	881.7	882.3	882.9	883.4	884.0	883.9	883.1	882.2	881.5	880.6	880.0
135°	932.4	932.9	933.6	934.2	934.8	934.8	934.2	933.6	932.9	932.4	931.5
137.5°	980.0	980.3	980.8	981.2	981.6	981.3	980.3	979.3	978.3	977.3	976.9
140°	1008.5	1009.0	1009.4	1009.7	1010.2	1010.0	1009.2	1008.3	1007.5	1006.6	1006.1
142.5°	1034.9	1035.5	1036.0	1036.6	1037.2	1037.2	1036.5	1035.9	1035.2	1034.5	1033.9
145°	1075.3	1075.3	1075.3	1075.3	1075.3	1075.2	1074.7	1074.3	1073.8	1073.5	1073.0
147.5°	1105.4	1106.4	1107.4	1108.3	1109.3	1109.6	1109.1	1108.7	1108.3	1107.9	1107.5
150°	1128.0	1128.6	1129.3	1129.9	1130.5	1130.7	1130.2	1129.8	1129.4	1129.0	1128.5
152.5°	1146.0	1147.1	1148.0	1149.0	1149.9	1150.0	1149.2	1148.5	1147.7	1147.0	1146.8
155°	1171.3	1172.5	1173.8	1175.1	1176.3	1176.4	1175.4	1174.3	1173.3	1172.2	1172.1
157.5°	1192.6	1194.2	1195.8	1197.4	1199.1	1199.3	1198.0	1196.7	1195.5	1194.2	1194.5
160°	1206.1	1207.6	1209.0	1210.5	1211.9	1212.0	1210.8	1209.6	1208.3	1207.0	1207.2
162.5°	1218.9	1220.2	1221.4	1222.8	1224.1	1224.0	1222.6	1221.2	1219.7	1218.3	1218.5
165°	1234.4	1235.8	1237.3	1238.7	1240.2	1240.1	1238.4	1236.7	1235.0	1233.4	1233.6
167.5°	1245.4	1247.1	1248.8	1250.5	1252.1	1252.1	1250.5	1248.8	1247.1	1245.4	1245.4
170°	1252.2	1253.9	1255.6	1257.3	1258.9	1258.9	1257.3	1255.6	1253.9	1252.2	1252.2
172.5°	1255.9	1257.8	1259.6	1261.5	1263.3	1263.4	1261.7	1260.1	1258.4	1256.7	1256.5
175°	1261.6	1263.3	1265.0	1266.6	1268.3	1268.4	1267.0	1265.5	1264.0	1262.5	1262.3
177.5°	1263.3	1265.0	1266.7	1268.3	1270.0	1270.2	1268.9	1267.4	1266.1	1264.8	1264.6
180°	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1576.3	1571.6	1566.9	1558.6	1551.4	1541.3	1538.4	1534.8	1524.2	1514.8	1507.6
5°	1672.6	1654.8	1628.9	1605.2	1586.0	1560.1	1545.2	1529.7	1507.4	1487.4	1471.1
7.5°	1773.4	1738.4	1698.1	1654.5	1614.0	1574.9	1543.3	1515.1	1484.0	1454.5	1431.6
10°	1853.4	1803.0	1746.7	1686.0	1634.1	1583.8	1541.5	1504.5	1464.5	1429.6	1400.8
12.5°	1944.7	1870.0	1792.3	1718.5	1657.3	1587.3	1536.2	1489.1	1443.8	1401.8	1369.4
15°	2052.7	1957.8	1866.0	1764.5	1671.1	1583.8	1523.1	1463.8	1411.2	1368.2	1326.7
17.5°	2151.1	2043.6	1922.6	1799.1	1686.6	1582.9	1497.8	1430.9	1365.1	1312.5	1271.1
20°	2206.8	2084.5	1947.5	1819.3	1694.9	1579.3	1486.0	1406.0	1334.8	1279.3	1232.7
22.5°	2254.8	2111.8	1970.0	1833.0	1694.3	1569.8	1464.1	1381.7	1304.7	1250.3	1200.6
25°	2304.5	2133.4	1991.2	1830.4	1675.7	1546.7	1428.2	1334.8	1257.8	1194.1	1143.0
27.5°	2347.2	2131.9	1963.1	1790.3	1646.2	1517.1	1390.5	1290.4	1208.6	1139.4	1087.6
30°	2375.6	2134.9	1934.1	1763.0	1617.9	1484.5	1361.5	1260.7	1174.9	1104.5	1055.6
32.5°	2393.4	2133.1	1907.4	1725.1	1572.8	1454.8	1330.1	1225.8	1137.6	1068.4	1021.2
35°	2403.8	2120.1	1861.5	1646.7	1500.1	1385.3	1280.8	1172.6	1080.1	1015.6	962.2
37.5°	2383.0	2092.6	1808.2	1571.1	1410.6	1297.5	1209.7	1117.5	1028.9	958.0	912.0
40°	2350.4	2074.9	1766.7	1517.9	1349.0	1240.0	1165.3	1074.9	987.4	920.0	877.0
42.5°	2288.2	2038.7	1721.1	1458.6	1285.0	1176.0	1107.1	1031.6	949.0	885.6	842.7
45°	2136.4	1960.0	1652.7	1369.7	1190.4	1077.8	1017.1	962.2	887.4	826.0	788.9
47.5°	1925.7	1841.7	1553.7	1275.9	1091.7	983.4	920.3	876.2	821.5	771.8	736.3
50°	1779.3	1744.5	1486.7	1211.9	1026.0	920.0	859.3	819.3	780.0	730.4	697.8
52.5°	1610.4	1631.9	1408.5	1145.5	959.0	854.9	797.7	765.9	730.3	689.5	661.1
55°	1372.6	1450.4	1273.4	1034.1	859.3	760.1	706.0	677.8	657.0	626.7	602.3
57.5°	1150.0	1249.0	1127.3	919.3	761.4	675.7	623.9	593.2	579.9	564.0	544.8
60°	1017.9	1115.6	1023.0	842.3	695.6	614.1	568.2	542.2	528.9	517.8	501.5
62.5°	899.8	998.8	921.1	764.0	630.9	555.4	515.4	490.1	479.8	473.9	460.1
65°	737.8	823.0	771.1	642.2	538.6	471.8	435.5	417.8	408.1	406.0	397.1
67.5°	600.5	665.3	627.5	532.7	451.1	393.5	362.7	347.6	340.2	339.4	332.7
70°	510.4	571.1	542.2	456.3	386.0	340.7	314.1	300.8	296.3	295.6	291.9
72.5°	440.5	482.9	459.9	388.1	333.8	292.8	273.1	259.3	254.2	255.2	252.8
75°	325.9	357.8	344.5	294.8	251.1	224.4	208.1	199.3	194.8	197.1	194.1
77.5°	234.5	254.7	242.7	208.3	181.3	162.1	150.1	144.6	140.6	140.4	139.1
80°	177.0	188.9	182.2	161.5	139.3	123.0	113.3	109.6	107.4	106.7	105.9
82.5°	126.1	136.2	128.3	114.0	99.0	89.2	83.7	78.8	77.2	77.7	76.9
85°	63.7	67.4	64.5	55.5	49.7	45.1	42.2	40.0	38.5	39.3	37.8
87.5°	25.4	25.4	23.1	20.3	18.7	16.4	16.0	14.4	13.7	14.0	13.9
90°	17.2	14.4	11.7	9.3	7.3	5.1	3.0	0.9	3.0	5.1	7.3
92.5°	20.0	17.9	15.9	15.2	15.7	16.3	16.9	17.5	16.9	16.3	15.7
95°	24.6	22.2	20.0	23.1	31.7	40.2	48.8	57.4	48.8	40.2	31.7
97.5°	60.4	75.5	90.5	99.9	103.8	107.6	111.5	115.4	111.5	107.6	103.8
100°	96.2	128.8	161.5	175.7	171.5	167.4	163.2	159.0	163.2	167.4	171.5
102.5°	133.2	168.8	204.4	220.7	217.7	214.7	211.7	208.7	211.7	214.7	217.7
105°	243.6	262.5	281.3	289.5	287.3	284.9	282.7	280.3	282.7	284.9	287.3
107.5°	371.7	368.7	365.8	363.4	361.6	359.7	357.9	356.0	357.9	359.7	361.6
110°	419.7	417.4	415.1	413.1	411.4	409.7	408.1	406.4	408.1	409.7	411.4



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	467.1	464.9	462.5	460.6	459.1	457.6	456.1	454.6	456.1	457.6	459.1
115°	536.2	534.3	532.5	530.9	529.7	528.4	527.2	525.9	527.2	528.4	529.7
117.5°	604.4	603.3	602.4	601.2	599.6	598.0	596.5	594.9	596.5	598.0	599.6
120°	647.9	647.2	646.7	645.4	643.5	641.6	639.7	637.8	639.7	641.6	643.5
122.5°	690.5	689.7	688.9	687.7	686.2	684.6	683.1	681.6	683.1	684.6	686.2
125°	750.9	750.2	749.3	748.0	746.4	744.7	743.0	741.3	743.0	744.7	746.4
127.5°	809.4	808.3	807.3	806.0	804.3	802.7	801.0	799.3	801.0	802.7	804.3
130°	845.1	844.2	843.4	842.2	840.5	838.8	837.1	835.5	837.1	838.8	840.5
132.5°	879.2	878.5	877.9	876.8	875.1	873.4	871.8	870.1	871.8	873.4	875.1
135°	930.7	929.8	929.0	927.9	926.7	925.4	924.2	922.9	924.2	925.4	926.7
137.5°	976.4	975.9	975.4	974.4	972.9	971.3	969.7	968.1	969.7	971.3	972.9
140°	1005.4	1004.8	1004.2	1003.2	1001.9	1000.7	999.5	998.2	999.5	1000.7	1001.9
142.5°	1033.2	1032.6	1032.0	1031.0	1029.8	1028.5	1027.3	1026.1	1027.3	1028.5	1029.8
145°	1072.6	1072.2	1071.8	1070.8	1069.4	1067.9	1066.5	1065.0	1066.5	1067.9	1069.4
147.5°	1107.0	1106.6	1106.2	1105.5	1104.6	1103.6	1102.7	1101.6	1102.7	1103.6	1104.6
150°	1128.1	1127.7	1127.3	1126.7	1126.1	1125.5	1124.9	1124.3	1124.9	1125.5	1126.1
152.5°	1146.5	1146.2	1146.0	1145.8	1145.5	1145.2	1144.9	1144.5	1144.9	1145.2	1145.5
155°	1171.8	1171.6	1171.4	1171.5	1172.0	1172.3	1172.7	1173.2	1172.7	1172.3	1172.0
157.5°	1194.7	1194.9	1195.0	1195.2	1195.2	1195.3	1195.3	1195.3	1195.3	1195.3	1195.2
160°	1207.5	1207.7	1207.9	1208.1	1208.3	1208.5	1208.7	1208.9	1208.7	1208.5	1208.3
162.5°	1218.7	1219.0	1219.2	1219.6	1220.1	1220.6	1221.2	1221.7	1221.2	1220.6	1220.1
165°	1233.8	1234.0	1234.3	1234.6	1235.3	1235.9	1236.5	1237.2	1236.5	1235.9	1235.3
167.5°	1245.4	1245.4	1245.4	1245.9	1246.7	1247.5	1248.4	1249.2	1248.4	1247.5	1246.7
170°	1252.2	1252.2	1252.2	1252.6	1253.5	1254.3	1255.1	1255.9	1255.1	1254.3	1253.5
172.5°	1256.4	1256.2	1256.0	1256.5	1257.4	1258.5	1259.5	1260.5	1259.5	1258.5	1257.4
175°	1262.2	1261.9	1261.7	1262.2	1263.2	1264.2	1265.3	1266.3	1265.3	1264.2	1263.2
177.5°	1264.5	1264.3	1264.1	1264.5	1265.3	1266.1	1267.0	1267.8	1267.0	1266.1	1265.3
180°	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1503.4	1499.3	1493.4	1484.5	1477.3	1466.1	1466.1	1467.9	1467.9	1467.4	1466.1
5°	1457.8	1446.7	1433.4	1417.9	1401.6	1385.3	1382.2	1376.3	1371.9	1368.9	1365.3
7.5°	1409.7	1390.0	1370.6	1348.8	1328.9	1312.5	1301.1	1291.6	1285.5	1279.0	1274.2
10°	1377.1	1352.6	1329.6	1306.7	1281.5	1261.5	1249.0	1240.0	1233.4	1227.5	1224.5
12.5°	1338.6	1310.6	1285.3	1263.5	1235.9	1215.3	1203.3	1199.1	1191.3	1178.8	1172.3
15°	1282.2	1256.3	1226.0	1192.6	1179.3	1154.1	1140.0	1133.4	1128.9	1119.3	1116.3
17.5°	1234.1	1200.1	1166.1	1141.2	1116.4	1096.0	1088.2	1079.9	1073.9	1066.1	1063.8
20°	1195.6	1165.3	1134.1	1107.5	1081.5	1059.3	1052.6	1046.7	1040.8	1037.1	1034.1
22.5°	1156.5	1126.1	1100.3	1075.4	1047.7	1033.2	1026.0	1019.5	1015.3	1012.8	1009.8
25°	1101.5	1074.9	1045.9	1023.7	1001.5	991.8	987.4	983.7	980.8	977.0	976.3
27.5°	1052.3	1023.3	999.8	979.1	963.2	955.2	950.8	949.0	949.7	951.0	951.9
30°	1015.6	988.9	969.7	951.9	937.1	929.6	928.9	928.9	931.9	932.6	934.1
32.5°	981.8	959.9	940.7	923.4	912.2	907.1	909.9	909.9	912.3	914.3	916.9
35°	932.6	913.3	898.5	883.7	874.1	876.3	877.8	879.3	883.0	887.4	890.4
37.5°	885.6	868.9	853.5	842.0	837.5	841.5	845.1	848.2	852.4	855.9	858.8
40°	851.9	839.2	824.4	814.1	815.6	817.8	820.8	824.4	828.2	830.4	833.4
42.5°	820.5	807.3	796.1	787.4	789.5	792.3	794.1	796.1	800.3	804.4	806.1
45°	772.6	762.2	751.9	746.7	748.2	749.7	751.1	753.4	757.1	760.1	760.7
47.5°	718.9	711.6	704.6	699.6	701.9	701.3	703.3	708.0	709.2	711.0	715.1
50°	684.5	677.8	669.7	668.2	668.2	668.2	668.9	674.9	674.9	677.8	680.8
52.5°	646.6	642.2	637.1	634.4	633.2	633.2	636.3	639.3	640.5	644.6	647.6
55°	590.4	586.0	581.5	579.3	577.8	579.3	585.2	586.6	590.4	592.6	594.8
57.5°	531.9	528.5	524.9	523.7	523.4	525.4	528.6	533.0	534.0	540.7	544.1
60°	493.3	488.1	485.2	485.2	483.7	490.4	488.9	496.3	497.8	502.3	507.5
62.5°	453.6	446.7	445.5	445.5	447.6	449.5	451.6	454.9	458.6	464.3	468.3
65°	389.6	386.0	391.2	390.4	388.9	393.3	393.3	397.1	401.5	406.7	414.8
67.5°	329.0	327.2	327.5	327.5	329.8	332.3	334.4	337.6	343.0	348.5	353.8
70°	288.1	290.4	286.7	289.6	291.9	292.6	294.1	298.5	304.4	308.1	314.1
72.5°	248.5	248.3	248.7	250.0	252.1	253.4	255.0	260.0	266.6	269.7	274.4
75°	191.1	190.4	192.6	192.6	196.3	197.7	199.3	201.5	207.5	211.9	215.6
77.5°	139.6	140.4	140.0	142.5	141.5	141.8	146.4	148.6	149.2	158.0	159.9
80°	105.2	106.7	107.4	108.1	108.9	107.4	112.6	114.8	114.8	120.0	123.7
82.5°	75.6	76.4	78.4	79.1	79.3	80.8	81.2	82.8	84.6	86.8	91.7
85°	37.8	40.0	40.7	40.0	40.7	39.3	41.5	42.2	43.0	43.0	43.0
87.5°	13.7	14.8	14.7	15.8	15.8	17.0	17.2	16.1	16.3	18.2	16.0
90°	9.3	11.7	14.4	17.2	19.9	22.6	23.4	24.2	25.1	25.9	26.6
92.5°	15.2	15.9	17.9	20.0	22.1	24.1	25.4	26.8	28.1	29.4	30.3
95°	23.1	20.0	22.2	24.6	26.9	29.1	30.6	32.0	33.6	35.1	35.7
97.5°	99.9	90.5	75.5	60.4	45.3	30.3	32.0	33.6	35.3	36.9	37.9
100°	175.7	161.5	128.8	96.2	63.6	31.0	32.7	34.4	36.1	37.7	38.6
102.5°	220.7	204.4	168.8	133.2	97.6	61.9	56.7	51.6	46.4	41.2	38.7
105°	289.5	281.3	262.5	243.6	224.9	206.0	169.0	132.1	95.0	58.1	39.7
107.5°	363.4	365.8	368.7	371.7	374.7	377.7	350.5	323.4	296.2	269.1	241.6
110°	413.1	415.1	417.4	419.7	422.0	424.3	417.4	410.5	403.6	396.7	378.3



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	460.6	462.5	464.9	467.1	469.4	471.7	471.8	471.9	472.1	472.2	469.1
115°	530.9	532.5	534.3	536.2	538.1	540.0	542.2	544.2	546.3	548.4	549.9
117.5°	601.2	602.4	603.3	604.4	605.3	606.2	607.9	609.6	611.2	612.9	613.9
120°	645.4	646.7	647.2	647.9	648.6	649.1	650.8	652.5	654.1	655.8	656.7
122.5°	687.7	688.9	689.7	690.5	691.3	692.0	693.2	694.4	695.6	696.7	697.4
125°	748.0	749.3	750.2	750.9	751.8	752.6	753.1	753.5	753.8	754.3	754.7
127.5°	806.0	807.3	808.3	809.4	810.3	811.3	812.0	812.7	813.3	814.0	814.2
130°	842.2	843.4	844.2	845.1	845.8	846.7	847.5	848.4	849.2	850.1	850.3
132.5°	876.8	877.9	878.5	879.2	880.0	880.6	881.5	882.2	883.1	883.9	884.0
135°	927.9	929.0	929.8	930.7	931.5	932.4	932.9	933.6	934.2	934.8	934.8
137.5°	974.4	975.4	975.9	976.4	976.9	977.3	978.3	979.3	980.3	981.3	981.6
140°	1003.2	1004.2	1004.8	1005.4	1006.1	1006.6	1007.5	1008.3	1009.2	1010.0	1010.2
142.5°	1031.0	1032.0	1032.6	1033.2	1033.9	1034.5	1035.2	1035.9	1036.5	1037.2	1037.2
145°	1070.8	1071.8	1072.2	1072.6	1073.0	1073.5	1073.8	1074.3	1074.7	1075.2	1075.3
147.5°	1105.5	1106.2	1106.6	1107.0	1107.5	1107.9	1108.3	1108.7	1109.1	1109.6	1109.3
150°	1126.7	1127.3	1127.7	1128.1	1128.5	1129.0	1129.4	1129.8	1130.2	1130.7	1130.5
152.5°	1145.8	1146.0	1146.2	1146.5	1146.8	1147.0	1147.7	1148.5	1149.2	1150.0	1149.9
155°	1171.5	1171.4	1171.6	1171.8	1172.1	1172.2	1173.3	1174.3	1175.4	1176.4	1176.3
157.5°	1195.2	1195.0	1194.9	1194.7	1194.5	1194.2	1195.5	1196.7	1198.0	1199.3	1199.1
160°	1208.1	1207.9	1207.7	1207.5	1207.2	1207.0	1208.3	1209.6	1210.8	1212.0	1211.9
162.5°	1219.6	1219.2	1219.0	1218.7	1218.5	1218.3	1219.7	1221.2	1222.6	1224.0	1224.1
165°	1234.6	1234.3	1234.0	1233.8	1233.6	1233.4	1235.0	1236.7	1238.4	1240.1	1240.2
167.5°	1245.9	1245.4	1245.4	1245.4	1245.4	1245.4	1247.1	1248.8	1250.5	1252.1	1252.1
170°	1252.6	1252.2	1252.2	1252.2	1252.2	1252.2	1253.9	1255.6	1257.3	1258.9	1258.9
172.5°	1256.5	1256.0	1256.2	1256.4	1256.5	1256.7	1258.4	1260.1	1261.7	1263.4	1263.3
175°	1262.2	1261.7	1261.9	1262.2	1262.3	1262.5	1264.0	1265.5	1267.0	1268.4	1268.3
177.5°	1264.5	1264.1	1264.3	1264.5	1264.6	1264.8	1266.1	1267.4	1268.9	1270.2	1270.0
180°	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1462.0	1461.4	1465.6	1462.5	1465.6	1461.4	1462.0	1466.1	1467.4	1467.9	1467.9
5°	1360.7	1363.0	1355.6	1355.6	1355.6	1363.0	1360.7	1365.3	1368.9	1371.9	1376.3
7.5°	1270.7	1267.4	1267.7	1263.8	1267.7	1267.4	1270.7	1274.2	1279.0	1285.5	1291.6
10°	1215.6	1211.2	1209.7	1210.4	1209.7	1211.2	1215.6	1224.5	1227.5	1233.4	1240.0
12.5°	1170.0	1169.0	1159.3	1159.4	1159.3	1169.0	1170.0	1172.3	1178.8	1191.3	1199.1
15°	1116.3	1102.3	1100.8	1105.2	1100.8	1102.3	1116.3	1116.3	1119.3	1128.9	1133.4
17.5°	1062.5	1055.2	1055.6	1053.4	1055.6	1055.2	1062.5	1063.8	1066.1	1073.9	1079.9
20°	1034.1	1029.6	1028.9	1023.7	1028.9	1029.6	1034.1	1034.1	1037.1	1040.8	1046.7
22.5°	1008.0	1006.5	1007.0	1001.3	1007.0	1006.5	1008.0	1009.8	1012.8	1015.3	1019.5
25°	975.6	979.3	976.3	976.3	976.3	979.3	975.6	976.3	977.0	980.8	983.7
27.5°	953.7	953.5	952.1	952.1	952.1	953.5	953.7	951.9	951.0	949.7	949.0
30°	937.1	936.3	937.8	937.8	937.8	936.3	937.1	934.1	932.6	931.9	928.9
32.5°	920.5	921.5	921.8	922.4	921.8	921.5	920.5	916.9	914.3	912.3	909.9
35°	894.8	895.6	897.8	896.4	897.8	895.6	894.8	890.4	887.4	883.0	879.3
37.5°	860.2	863.6	862.8	864.0	862.8	863.6	860.2	858.8	855.9	852.4	848.2
40°	834.1	836.3	835.6	835.6	835.6	836.3	834.1	833.4	830.4	828.2	824.4
42.5°	807.5	809.1	807.1	806.0	807.1	809.1	807.5	806.1	804.4	800.3	796.1
45°	763.7	762.2	764.5	761.5	764.5	762.2	763.7	760.7	760.1	757.1	753.4
47.5°	714.8	716.3	716.9	719.2	716.9	716.3	714.8	715.1	711.0	709.2	708.0
50°	682.2	686.6	686.6	686.0	686.6	686.6	682.2	680.8	677.8	674.9	674.9
52.5°	650.3	652.3	655.3	655.2	655.3	652.3	650.3	647.6	644.6	640.5	639.3
55°	600.8	602.3	603.7	604.5	603.7	602.3	600.8	594.8	592.6	590.4	586.6
57.5°	549.5	548.9	552.4	553.5	552.4	548.9	549.5	544.1	540.7	534.0	533.0
60°	513.3	513.3	519.2	521.5	519.2	513.3	513.3	507.5	502.3	497.8	496.3
62.5°	474.9	477.2	483.1	480.0	483.1	477.2	474.9	468.3	464.3	458.6	454.9
65°	418.5	424.4	423.7	426.7	423.7	424.4	418.5	414.8	406.7	401.5	397.1
67.5°	359.7	363.4	368.7	369.2	368.7	363.4	359.7	353.8	348.5	343.0	337.6
70°	320.0	323.7	326.7	328.9	326.7	323.7	320.0	314.1	308.1	304.4	298.5
72.5°	281.5	283.4	290.5	287.4	290.5	283.4	281.5	274.4	269.7	266.6	260.0
75°	220.7	225.9	230.4	228.2	230.4	225.9	220.7	215.6	211.9	207.5	201.5
77.5°	163.2	168.4	170.5	168.6	170.5	168.4	163.2	159.9	158.0	149.2	148.6
80°	128.9	128.2	132.6	131.9	132.6	128.2	128.9	123.7	120.0	114.8	114.8
82.5°	94.5	93.8	95.9	96.3	95.9	93.8	94.5	91.7	86.8	84.6	82.8
85°	45.9	48.2	45.1	44.5	45.1	48.2	45.9	43.0	43.0	43.0	42.2
87.5°	16.0	16.1	15.6	15.1	15.6	16.1	16.0	16.0	18.2	16.3	16.1
90°	27.0	27.4	27.8	28.2	27.8	27.4	27.0	26.6	25.9	25.1	24.2
92.5°	30.4	30.7	31.0	31.2	31.0	30.7	30.4	30.3	29.4	28.1	26.8
95°	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.1	33.6	32.0
97.5°	38.2	38.4	38.5	38.7	38.5	38.4	38.2	37.9	36.9	35.3	33.6
100°	38.9	39.1	39.3	39.5	39.3	39.1	38.9	38.6	37.7	36.1	34.4
102.5°	39.1	39.5	39.9	40.2	39.9	39.5	39.1	38.7	41.2	46.4	51.6
105°	40.2	40.5	41.0	41.4	41.0	40.5	40.2	39.7	58.1	95.0	132.1
107.5°	213.7	185.8	157.9	130.0	157.9	185.8	213.7	241.6	269.1	296.2	323.4
110°	348.4	318.5	288.6	258.7	288.6	318.5	348.4	378.3	396.7	403.6	410.5



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	462.8	456.5	450.2	443.8	450.2	456.5	462.8	469.1	472.2	472.1	471.9
115°	550.6	551.5	552.3	553.2	552.3	551.5	550.6	549.9	548.4	546.3	544.2
117.5°	614.1	614.2	614.3	614.5	614.3	614.2	614.1	613.9	612.9	611.2	609.6
120°	656.7	656.7	656.7	656.7	656.7	656.7	656.7	656.7	655.8	654.1	652.5
122.5°	697.6	697.8	697.9	698.0	697.9	697.8	697.6	697.4	696.7	695.6	694.4
125°	755.2	755.5	756.0	756.4	756.0	755.5	755.2	754.7	754.3	753.8	753.5
127.5°	813.7	813.3	812.8	812.5	812.8	813.3	813.7	814.2	814.0	813.3	812.7
130°	849.9	849.4	849.0	848.6	849.0	849.4	849.9	850.3	850.1	849.2	848.4
132.5°	883.4	882.9	882.3	881.7	882.3	882.9	883.4	884.0	883.9	883.1	882.2
135°	934.2	933.6	932.9	932.4	932.9	933.6	934.2	934.8	934.8	934.2	933.6
137.5°	981.2	980.8	980.3	980.0	980.3	980.8	981.2	981.6	981.3	980.3	979.3
140°	1009.7	1009.4	1009.0	1008.5	1009.0	1009.4	1009.7	1010.2	1010.0	1009.2	1008.3
142.5°	1036.6	1036.0	1035.5	1034.9	1035.5	1036.0	1036.6	1037.2	1037.2	1036.5	1035.9
145°	1075.3	1075.3	1075.3	1075.3	1075.3	1075.3	1075.3	1075.3	1075.2	1074.7	1074.3
147.5°	1108.3	1107.4	1106.4	1105.4	1106.4	1107.4	1108.3	1109.3	1109.6	1109.1	1108.7
150°	1129.9	1129.3	1128.6	1128.0	1128.6	1129.3	1129.9	1130.5	1130.7	1130.2	1129.8
152.5°	1149.0	1148.0	1147.1	1146.0	1147.1	1148.0	1149.0	1149.9	1150.0	1149.2	1148.5
155°	1175.1	1173.8	1172.5	1171.3	1172.5	1173.8	1175.1	1176.3	1176.4	1175.4	1174.3
157.5°	1197.4	1195.8	1194.2	1192.6	1194.2	1195.8	1197.4	1199.1	1199.3	1198.0	1196.7
160°	1210.5	1209.0	1207.6	1206.1	1207.6	1209.0	1210.5	1211.9	1212.0	1210.8	1209.6
162.5°	1222.8	1221.4	1220.2	1218.9	1220.2	1221.4	1222.8	1224.1	1224.0	1222.6	1221.2
165°	1238.7	1237.3	1235.8	1234.4	1235.8	1237.3	1238.7	1240.2	1240.1	1238.4	1236.7
167.5°	1250.5	1248.8	1247.1	1245.4	1247.1	1248.8	1250.5	1252.1	1252.1	1250.5	1248.8
170°	1257.3	1255.6	1253.9	1252.2	1253.9	1255.6	1257.3	1258.9	1258.9	1257.3	1255.6
172.5°	1261.5	1259.6	1257.8	1255.9	1257.8	1259.6	1261.5	1263.3	1263.4	1261.7	1260.1
175°	1266.6	1265.0	1263.3	1261.6	1263.3	1265.0	1266.6	1268.3	1268.4	1267.0	1265.5
177.5°	1268.3	1266.7	1265.0	1263.3	1265.0	1266.7	1268.3	1270.0	1270.2	1268.9	1267.4
180°	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1466.1	1466.1	1477.3	1484.5	1493.4	1499.3	1503.4	1507.6	1514.8	1524.2	1534.8
5°	1382.2	1385.3	1401.6	1417.9	1433.4	1446.7	1457.8	1471.1	1487.4	1507.4	1529.7
7.5°	1301.1	1312.5	1328.9	1348.8	1370.6	1390.0	1409.7	1431.6	1454.5	1484.0	1515.1
10°	1249.0	1261.5	1281.5	1306.7	1329.6	1352.6	1377.1	1400.8	1429.6	1464.5	1504.5
12.5°	1203.3	1215.3	1235.9	1263.5	1285.3	1310.6	1338.6	1369.4	1401.8	1443.8	1489.1
15°	1140.0	1154.1	1179.3	1192.6	1226.0	1256.3	1282.2	1326.7	1368.2	1411.2	1463.8
17.5°	1088.2	1096.0	1116.4	1141.2	1166.1	1200.1	1234.1	1271.1	1312.5	1365.1	1430.9
20°	1052.6	1059.3	1081.5	1107.5	1134.1	1165.3	1195.6	1232.7	1279.3	1334.8	1406.0
22.5°	1026.0	1033.2	1047.7	1075.4	1100.3	1126.1	1156.5	1200.6	1250.3	1304.7	1381.7
25°	987.4	991.8	1001.5	1023.7	1045.9	1074.9	1101.5	1143.0	1194.1	1257.8	1334.8
27.5°	950.8	955.2	963.2	979.1	999.8	1023.3	1052.3	1087.6	1139.4	1208.6	1290.4
30°	928.9	929.6	937.1	951.9	969.7	988.9	1015.6	1055.6	1104.5	1174.9	1260.7
32.5°	909.9	907.1	912.2	923.4	940.7	959.9	981.8	1021.2	1068.4	1137.6	1225.8
35°	877.8	876.3	874.1	883.7	898.5	913.3	932.6	962.2	1015.6	1080.1	1172.6
37.5°	845.1	841.5	837.5	842.0	853.5	868.9	885.6	912.0	958.0	1028.9	1117.5
40°	820.8	817.8	815.6	814.1	824.4	839.2	851.9	877.0	920.0	987.4	1074.9
42.5°	794.1	792.3	789.5	787.4	796.1	807.3	820.5	842.7	885.6	949.0	1031.6
45°	751.1	749.7	748.2	746.7	751.9	762.2	772.6	788.9	826.0	887.4	962.2
47.5°	703.3	701.3	701.9	699.6	704.6	711.6	718.9	736.3	771.8	821.5	876.2
50°	668.9	668.2	668.2	668.2	669.7	677.8	684.5	697.8	730.4	780.0	819.3
52.5°	636.3	633.2	633.2	634.4	637.1	642.2	646.6	661.1	689.5	730.3	765.9
55°	585.2	579.3	577.8	579.3	581.5	586.0	590.4	602.3	626.7	657.0	677.8
57.5°	528.6	525.4	523.4	523.7	524.9	528.5	531.9	544.8	564.0	579.9	593.2
60°	488.9	490.4	483.7	485.2	485.2	488.1	493.3	501.5	517.8	528.9	542.2
62.5°	451.6	449.5	447.6	445.5	445.5	446.7	453.6	460.1	473.9	479.8	490.1
65°	393.3	393.3	388.9	390.4	391.2	386.0	389.6	397.1	406.0	408.1	417.8
67.5°	334.4	332.3	329.8	327.5	327.5	327.2	329.0	332.7	339.4	340.2	347.6
70°	294.1	292.6	291.9	289.6	286.7	290.4	288.1	291.9	295.6	296.3	300.8
72.5°	255.0	253.4	252.1	250.0	248.7	248.3	248.5	252.8	255.2	254.2	259.3
75°	199.3	197.7	196.3	192.6	192.6	190.4	191.1	194.1	197.1	194.8	199.3
77.5°	146.4	141.8	141.5	142.5	140.0	140.4	139.6	139.1	140.4	140.6	144.6
80°	112.6	107.4	108.9	108.1	107.4	106.7	105.2	105.9	106.7	107.4	109.6
82.5°	81.2	80.8	79.3	79.1	78.4	76.4	75.6	76.9	77.7	77.2	78.8
85°	41.5	39.3	40.7	40.0	40.7	40.0	37.8	37.8	39.3	38.5	40.0
87.5°	17.2	17.0	15.8	15.8	14.7	14.8	13.7	13.9	14.0	13.7	14.4
90°	23.4	22.6	19.9	17.2	14.4	11.7	9.3	7.3	5.1	3.0	0.9
92.5°	25.4	24.1	22.1	20.0	17.9	15.9	15.2	15.7	16.3	16.9	17.5
95°	30.6	29.1	26.9	24.6	22.2	20.0	23.1	31.7	40.2	48.8	57.4
97.5°	32.0	30.3	45.3	60.4	75.5	90.5	99.9	103.8	107.6	111.5	115.4
100°	32.7	31.0	63.6	96.2	128.8	161.5	175.7	171.5	167.4	163.2	159.0
102.5°	56.7	61.9	97.6	133.2	168.8	204.4	220.7	217.7	214.7	211.7	208.7
105°	169.0	206.0	224.9	243.6	262.5	281.3	289.5	287.3	284.9	282.7	280.3
107.5°	350.5	377.7	374.7	371.7	368.7	365.8	363.4	361.6	359.7	357.9	356.0
110°	417.4	424.3	422.0	419.7	417.4	415.1	413.1	411.4	409.7	408.1	406.4



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	471.8	471.7	469.4	467.1	464.9	462.5	460.6	459.1	457.6	456.1	454.6
115°	542.2	540.0	538.1	536.2	534.3	532.5	530.9	529.7	528.4	527.2	525.9
117.5°	607.9	606.2	605.3	604.4	603.3	602.4	601.2	599.6	598.0	596.5	594.9
120°	650.8	649.1	648.6	647.9	647.2	646.7	645.4	643.5	641.6	639.7	637.8
122.5°	693.2	692.0	691.3	690.5	689.7	688.9	687.7	686.2	684.6	683.1	681.6
125°	753.1	752.6	751.8	750.9	750.2	749.3	748.0	746.4	744.7	743.0	741.3
127.5°	812.0	811.3	810.3	809.4	808.3	807.3	806.0	804.3	802.7	801.0	799.3
130°	847.5	846.7	845.8	845.1	844.2	843.4	842.2	840.5	838.8	837.1	835.5
132.5°	881.5	880.6	880.0	879.2	878.5	877.9	876.8	875.1	873.4	871.8	870.1
135°	932.9	932.4	931.5	930.7	929.8	929.0	927.9	926.7	925.4	924.2	922.9
137.5°	978.3	977.3	976.9	976.4	975.9	975.4	974.4	972.9	971.3	969.7	968.1
140°	1007.5	1006.6	1006.1	1005.4	1004.8	1004.2	1003.2	1001.9	1000.7	999.5	998.2
142.5°	1035.2	1034.5	1033.9	1033.2	1032.6	1032.0	1031.0	1029.8	1028.5	1027.3	1026.1
145°	1073.8	1073.5	1073.0	1072.6	1072.2	1071.8	1070.8	1069.4	1067.9	1066.5	1065.0
147.5°	1108.3	1107.9	1107.5	1107.0	1106.6	1106.2	1105.5	1104.6	1103.6	1102.7	1101.6
150°	1129.4	1129.0	1128.5	1128.1	1127.7	1127.3	1126.7	1126.1	1125.5	1124.9	1124.3
152.5°	1147.7	1147.0	1146.8	1146.5	1146.2	1146.0	1145.8	1145.5	1145.2	1144.9	1144.5
155°	1173.3	1172.2	1172.1	1171.8	1171.6	1171.4	1171.5	1172.0	1172.3	1172.7	1173.2
157.5°	1195.5	1194.2	1194.5	1194.7	1194.9	1195.0	1195.2	1195.2	1195.3	1195.3	1195.3
160°	1208.3	1207.0	1207.2	1207.5	1207.7	1207.9	1208.1	1208.3	1208.5	1208.7	1208.9
162.5°	1219.7	1218.3	1218.5	1218.7	1219.0	1219.2	1219.6	1220.1	1220.6	1221.2	1221.7
165°	1235.0	1233.4	1233.6	1233.8	1234.0	1234.3	1234.6	1235.3	1235.9	1236.5	1237.2
167.5°	1247.1	1245.4	1245.4	1245.4	1245.4	1245.4	1245.9	1246.7	1247.5	1248.4	1249.2
170°	1253.9	1252.2	1252.2	1252.2	1252.2	1252.2	1252.6	1253.5	1254.3	1255.1	1255.9
172.5°	1258.4	1256.7	1256.5	1256.4	1256.2	1256.0	1256.5	1257.4	1258.5	1259.5	1260.5
175°	1264.0	1262.5	1262.3	1262.2	1261.9	1261.7	1262.2	1263.2	1264.2	1265.3	1266.3
177.5°	1266.1	1264.8	1264.6	1264.5	1264.3	1264.1	1264.5	1265.3	1266.1	1267.0	1267.8
180°	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1538.4	1541.3	1551.4	1558.6	1566.9	1571.6	1576.3	1579.9	1584.6	1585.8	1603.0
5°	1545.2	1560.1	1586.0	1605.2	1628.9	1654.8	1672.6	1680.8	1702.2	1720.0	1755.6
7.5°	1543.3	1574.9	1614.0	1654.5	1698.1	1738.4	1773.4	1814.9	1844.4	1888.7	1932.4
10°	1541.5	1583.8	1634.1	1686.0	1746.7	1803.0	1853.4	1909.7	1956.3	2017.8	2070.4
12.5°	1536.2	1587.3	1657.3	1718.5	1792.3	1870.0	1944.7	2016.9	2058.3	2160.7	2209.1
15°	1523.1	1583.8	1671.1	1764.5	1866.0	1957.8	2052.7	2128.3	2250.4	2340.1	2397.1
17.5°	1497.8	1582.9	1686.6	1799.1	1922.6	2043.6	2151.1	2265.7	2395.4	2503.8	2619.3
20°	1486.0	1579.3	1694.9	1819.3	1947.5	2084.5	2206.8	2344.5	2486.1	2592.7	2740.8
22.5°	1464.1	1569.8	1694.3	1833.0	1970.0	2111.8	2254.8	2393.7	2557.1	2704.1	2845.2
25°	1428.2	1546.7	1675.7	1830.4	1991.2	2133.4	2304.5	2489.0	2659.4	2848.3	2989.0
27.5°	1390.5	1517.1	1646.2	1790.3	1963.1	2131.9	2347.2	2555.6	2763.9	2927.1	3031.2
30°	1361.5	1484.5	1617.9	1763.0	1934.1	2134.9	2375.6	2603.0	2806.0	2946.0	3004.5
32.5°	1330.1	1454.8	1572.8	1725.1	1907.4	2133.1	2393.4	2630.9	2808.4	2901.6	2890.2
35°	1280.8	1385.3	1500.1	1646.7	1861.5	2120.1	2403.8	2633.4	2742.3	2722.3	2571.2
37.5°	1209.7	1297.5	1410.6	1571.1	1808.2	2092.6	2383.0	2555.3	2548.3	2385.4	2166.4
40°	1165.3	1240.0	1349.0	1517.9	1766.7	2074.9	2350.4	2462.3	2367.5	2140.0	1877.8
42.5°	1107.1	1176.0	1285.0	1458.6	1721.1	2038.7	2288.2	2320.6	2135.1	1873.4	1633.0
45°	1017.1	1077.8	1190.4	1369.7	1652.7	1960.0	2136.4	2057.1	1807.4	1537.1	1354.2
47.5°	920.3	983.4	1091.7	1275.9	1553.7	1841.7	1925.7	1757.1	1500.8	1281.5	1113.5
50°	859.3	920.0	1026.0	1211.9	1486.7	1744.5	1779.3	1561.5	1326.0	1133.4	995.6
52.5°	797.7	854.9	959.0	1145.5	1408.5	1631.9	1610.4	1388.5	1171.9	1007.8	899.6
55°	706.0	760.1	859.3	1034.1	1273.4	1450.4	1372.6	1160.7	981.5	854.1	771.8
57.5°	623.9	675.7	761.4	919.3	1127.3	1249.0	1150.0	971.5	828.9	730.8	669.5
60°	568.2	614.1	695.6	842.3	1023.0	1115.6	1017.9	860.1	740.0	661.5	606.7
62.5°	515.4	555.4	630.9	764.0	921.1	998.8	899.8	766.4	664.2	594.6	548.0
65°	435.5	471.8	538.6	642.2	771.1	823.0	737.8	629.6	550.4	498.5	467.4
67.5°	362.7	393.5	451.1	532.7	627.5	665.3	600.5	516.8	457.0	415.4	390.7
70°	314.1	340.7	386.0	456.3	542.2	571.1	510.4	441.5	397.8	364.5	341.5
72.5°	273.1	292.8	333.8	388.1	459.9	482.9	440.5	379.8	339.1	314.1	295.9
75°	208.1	224.4	251.1	294.8	344.5	357.8	325.9	288.1	260.7	243.0	228.8
77.5°	150.1	162.1	181.3	208.3	242.7	254.7	234.5	209.3	189.4	177.3	169.5
80°	113.3	123.0	139.3	161.5	182.2	188.9	177.0	157.8	143.7	137.0	130.4
82.5°	83.7	89.2	99.0	114.0	128.3	136.2	126.1	114.5	107.0	100.9	98.4
85°	42.2	45.1	49.7	55.5	64.5	67.4	63.7	60.7	56.3	52.6	52.6
87.5°	16.0	16.4	18.7	20.3	23.1	25.4	25.4	24.7	24.7	24.2	23.8
90°	3.0	5.1	7.3	9.3	11.7	14.4	17.2	19.9	22.6	23.4	24.2
92.5°	16.9	16.3	15.7	15.2	15.9	17.9	20.0	22.1	24.1	25.4	26.8
95°	48.8	40.2	31.7	23.1	20.0	22.2	24.6	26.9	29.1	30.6	32.0
97.5°	111.5	107.6	103.8	99.9	90.5	75.5	60.4	45.3	30.3	32.0	33.6
100°	163.2	167.4	171.5	175.7	161.5	128.8	96.2	63.6	31.0	32.7	34.4
102.5°	211.7	214.7	217.7	220.7	204.4	168.8	133.2	97.6	61.9	56.7	51.6
105°	282.7	284.9	287.3	289.5	281.3	262.5	243.6	224.9	206.0	169.0	132.1
107.5°	357.9	359.7	361.6	363.4	365.8	368.7	371.7	374.7	377.7	350.5	323.4
110°	408.1	409.7	411.4	413.1	415.1	417.4	419.7	422.0	424.3	417.4	410.5



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	456.1	457.6	459.1	460.6	462.5	464.9	467.1	469.4	471.7	471.8	471.9
115°	527.2	528.4	529.7	530.9	532.5	534.3	536.2	538.1	540.0	542.2	544.2
117.5°	596.5	598.0	599.6	601.2	602.4	603.3	604.4	605.3	606.2	607.9	609.6
120°	639.7	641.6	643.5	645.4	646.7	647.2	647.9	648.6	649.1	650.8	652.5
122.5°	683.1	684.6	686.2	687.7	688.9	689.7	690.5	691.3	692.0	693.2	694.4
125°	743.0	744.7	746.4	748.0	749.3	750.2	750.9	751.8	752.6	753.1	753.5
127.5°	801.0	802.7	804.3	806.0	807.3	808.3	809.4	810.3	811.3	812.0	812.7
130°	837.1	838.8	840.5	842.2	843.4	844.2	845.1	845.8	846.7	847.5	848.4
132.5°	871.8	873.4	875.1	876.8	877.9	878.5	879.2	880.0	880.6	881.5	882.2
135°	924.2	925.4	926.7	927.9	929.0	929.8	930.7	931.5	932.4	932.9	933.6
137.5°	969.7	971.3	972.9	974.4	975.4	975.9	976.4	976.9	977.3	978.3	979.3
140°	999.5	1000.7	1001.9	1003.2	1004.2	1004.8	1005.4	1006.1	1006.6	1007.5	1008.3
142.5°	1027.3	1028.5	1029.8	1031.0	1032.0	1032.6	1033.2	1033.9	1034.5	1035.2	1035.9
145°	1066.5	1067.9	1069.4	1070.8	1071.8	1072.2	1072.6	1073.0	1073.5	1073.8	1074.3
147.5°	1102.7	1103.6	1104.6	1105.5	1106.2	1106.6	1107.0	1107.5	1107.9	1108.3	1108.7
150°	1124.9	1125.5	1126.1	1126.7	1127.3	1127.7	1128.1	1128.5	1129.0	1129.4	1129.8
152.5°	1144.9	1145.2	1145.5	1145.8	1146.0	1146.2	1146.5	1146.8	1147.0	1147.7	1148.5
155°	1172.7	1172.3	1172.0	1171.5	1171.4	1171.6	1171.8	1172.1	1172.2	1173.3	1174.3
157.5°	1195.3	1195.3	1195.2	1195.2	1195.0	1194.9	1194.7	1194.5	1194.2	1195.5	1196.7
160°	1208.7	1208.5	1208.3	1208.1	1207.9	1207.7	1207.5	1207.2	1207.0	1208.3	1209.6
162.5°	1221.2	1220.6	1220.1	1219.6	1219.2	1219.0	1218.7	1218.5	1218.3	1219.7	1221.2
165°	1236.5	1235.9	1235.3	1234.6	1234.3	1234.0	1233.8	1233.6	1233.4	1235.0	1236.7
167.5°	1248.4	1247.5	1246.7	1245.9	1245.4	1245.4	1245.4	1245.4	1245.4	1247.1	1248.8
170°	1255.1	1254.3	1253.5	1252.6	1252.2	1252.2	1252.2	1252.2	1252.2	1253.9	1255.6
172.5°	1259.5	1258.5	1257.4	1256.5	1256.0	1256.2	1256.4	1256.5	1256.7	1258.4	1260.1
175°	1265.3	1264.2	1263.2	1262.2	1261.7	1261.9	1262.2	1262.3	1262.5	1264.0	1265.5
177.5°	1267.0	1266.1	1265.3	1264.5	1264.1	1264.3	1264.5	1264.6	1264.8	1266.1	1267.4
180°	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1608.9	1609.5	1616.1	1620.8	1618.4	1621.4	1622.6
5°	1757.8	1784.5	1798.6	1808.9	1809.7	1810.4	1816.4
7.5°	1969.0	1997.5	2018.5	2050.1	2059.6	2070.4	2067.3
10°	2123.1	2165.2	2201.6	2220.8	2241.6	2271.9	2247.5
12.5°	2267.0	2341.8	2397.1	2427.0	2446.6	2452.7	2440.7
15°	2504.5	2602.3	2654.9	2653.4	2720.1	2749.0	2703.8
17.5°	2722.3	2812.5	2884.8	2921.9	2977.4	2989.7	2984.1
20°	2855.6	2954.2	3010.5	3074.2	3103.0	3129.0	3133.4
22.5°	2970.6	3059.0	3119.5	3172.5	3196.7	3209.0	3216.4
25°	3089.0	3158.6	3194.9	3213.4	3220.1	3218.6	3209.0
27.5°	3080.8	3086.2	3046.2	3006.9	2971.8	2932.2	2918.6
30°	3000.9	2938.6	2827.5	2764.6	2671.9	2598.6	2628.2
32.5°	2790.5	2666.6	2541.8	2404.2	2290.3	2257.9	2225.2
35°	2381.5	2163.8	2036.4	1888.2	1828.9	1769.7	1728.9
37.5°	1926.7	1758.3	1607.1	1510.2	1450.9	1413.3	1393.3
40°	1665.9	1514.1	1389.7	1311.2	1265.9	1223.7	1217.9
42.5°	1458.0	1316.8	1223.1	1160.6	1117.2	1099.3	1086.3
45°	1194.1	1095.6	1032.6	988.2	959.3	948.2	933.4
47.5°	1010.7	941.0	893.8	863.6	841.8	833.5	832.4
50°	908.1	850.4	815.6	791.8	774.9	771.8	760.1
52.5°	831.1	781.1	753.9	733.2	721.0	712.7	709.1
55°	721.5	688.2	663.7	651.9	642.2	634.0	634.0
57.5°	631.3	603.4	587.3	577.2	574.2	568.4	564.8
60°	575.6	551.9	539.3	530.4	524.4	525.2	518.5
62.5°	521.0	505.7	493.6	484.7	477.7	477.8	478.2
65°	443.7	431.9	423.0	420.0	415.6	410.4	411.9
67.5°	376.0	364.9	358.0	352.9	351.4	348.6	352.9
70°	327.4	319.2	314.1	309.6	308.1	308.9	312.6
72.5°	283.0	277.2	273.8	271.7	268.4	268.6	271.1
75°	222.3	217.8	214.8	212.6	211.9	211.9	211.9
77.5°	163.2	162.2	160.9	157.6	157.8	158.6	158.8
80°	128.9	126.7	125.9	124.4	122.2	120.7	124.4
82.5°	96.3	94.1	93.3	93.0	89.6	89.4	92.5
85°	51.8	49.7	50.3	49.7	49.7	48.9	48.9
87.5°	23.4	23.0	22.5	23.2	22.6	22.1	23.5
90°	25.1	25.9	26.6	27.0	27.4	27.8	28.2
92.5°	28.1	29.4	30.3	30.4	30.7	31.0	31.2
95°	33.6	35.1	35.7	35.7	35.7	35.7	35.7
97.5°	35.3	36.9	37.9	38.2	38.4	38.5	38.7
100°	36.1	37.7	38.6	38.9	39.1	39.3	39.5
102.5°	46.4	41.2	38.7	39.1	39.5	39.9	40.2
105°	95.0	58.1	39.7	40.2	40.5	41.0	41.4
107.5°	296.2	269.1	241.6	213.7	185.8	157.9	130.0
110°	403.6	396.7	378.3	348.4	318.5	288.6	258.7



TEST NUMBER: P332072-830

CATALOG NUMBER: S123DIP-S1165D1025U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	472.1	472.2	469.1	462.8	456.5	450.2	443.8
115°	546.3	548.4	549.9	550.6	551.5	552.3	553.2
117.5°	611.2	612.9	613.9	614.1	614.2	614.3	614.5
120°	654.1	655.8	656.7	656.7	656.7	656.7	656.7
122.5°	695.6	696.7	697.4	697.6	697.8	697.9	698.0
125°	753.8	754.3	754.7	755.2	755.5	756.0	756.4
127.5°	813.3	814.0	814.2	813.7	813.3	812.8	812.5
130°	849.2	850.1	850.3	849.9	849.4	849.0	848.6
132.5°	883.1	883.9	884.0	883.4	882.9	882.3	881.7
135°	934.2	934.8	934.8	934.2	933.6	932.9	932.4
137.5°	980.3	981.3	981.6	981.2	980.8	980.3	980.0
140°	1009.2	1010.0	1010.2	1009.7	1009.4	1009.0	1008.5
142.5°	1036.5	1037.2	1037.2	1036.6	1036.0	1035.5	1034.9
145°	1074.7	1075.2	1075.3	1075.3	1075.3	1075.3	1075.3
147.5°	1109.1	1109.6	1109.3	1108.3	1107.4	1106.4	1105.4
150°	1130.2	1130.7	1130.5	1129.9	1129.3	1128.6	1128.0
152.5°	1149.2	1150.0	1149.9	1149.0	1148.0	1147.1	1146.0
155°	1175.4	1176.4	1176.3	1175.1	1173.8	1172.5	1171.3
157.5°	1198.0	1199.3	1199.1	1197.4	1195.8	1194.2	1192.6
160°	1210.8	1212.0	1211.9	1210.5	1209.0	1207.6	1206.1
162.5°	1222.6	1224.0	1224.1	1222.8	1221.4	1220.2	1218.9
165°	1238.4	1240.1	1240.2	1238.7	1237.3	1235.8	1234.4
167.5°	1250.5	1252.1	1252.1	1250.5	1248.8	1247.1	1245.4
170°	1257.3	1258.9	1258.9	1257.3	1255.6	1253.9	1252.2
172.5°	1261.7	1263.4	1263.3	1261.5	1259.6	1257.8	1255.9
175°	1267.0	1268.4	1268.3	1266.6	1265.0	1263.3	1261.6
177.5°	1268.9	1270.2	1270.0	1268.3	1266.7	1265.0	1263.3
180°	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3	1266.3

(END OF REPORT)