

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: P332234-840

Luminaire Tested: **S123DIW-S1165D1535U840-4F0-1E-UDD-A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332234-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DIW-S1165D1535U840-4F0-1E-UDD-A  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER  
UPLIGHT 1535 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11146.9 lumens  
Efficiency: N/A  
Efficacy: 134.5 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

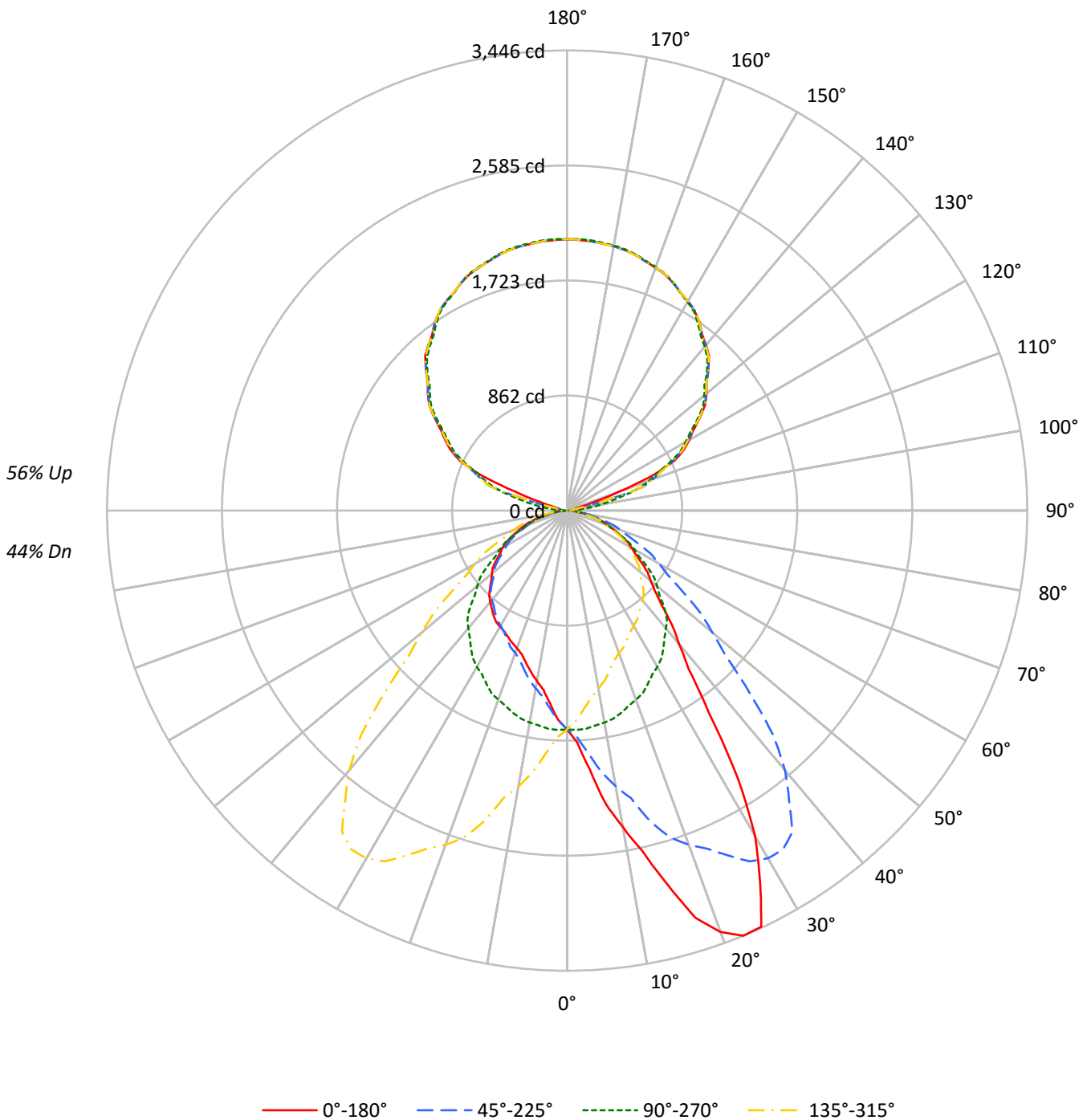
Input Watts (W): 82.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

### Luminous Intensity Polar Plot





TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44				
1	97	93	89	85	88	85	82	79	71	68	66	58	56	55	45	44	44	38				
2	88	81	75	70	81	75	69	65	62	58	55	51	48	46	40	39	37	32				
3	81	71	64	59	74	66	60	55	55	50	47	45	42	39	36	34	32	27				
4	74	63	56	50	67	58	52	46	49	44	40	40	37	34	32	30	27	24				
5	68	56	48	43	62	52	45	40	44	39	34	36	32	29	29	26	24	21				
6	62	51	43	37	57	47	40	35	40	34	30	33	29	26	26	23	21	18				
7	58	46	38	32	53	42	35	30	36	30	26	30	26	23	24	21	19	16				
8	54	41	34	29	49	38	32	27	33	27	24	27	23	20	22	19	17	14				
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	20	17	15	13				
10	47	35	28	23	43	32	26	21	27	22	19	23	19	16	19	16	14	12				

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

	0°	90°	180°	270°
0°	17632	17632	17632	17632
5°	21028	17708	15693	17708
10°	26319	17618	14175	17618
15°	32282	17477	13196	17477
20°	38456	17255	12564	17255
25°	40834	16986	12423	16986
30°	34999	16789	12489	16789
35°	24341	16509	12620	16509
40°	18334	16183	12579	16183
45°	15224	15694	12420	15694
50°	13638	14699	12308	14699
55°	12748	13628	12153	13628
60°	11959	12508	12030	12508
65°	11240	11403	11645	11403
70°	10543	10140	11087	10140
75°	9441	8879	10168	8879
80°	8263	7277	8759	7277
85°	6472	5286	5891	5286



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.4	1.4
10°-20°	517.4	4.6
20°-30°	868.4	7.8
30°-40°	983.3	8.8
40°-50°	881.8	7.9
50°-60°	711.6	6.4
60°-70°	495.9	4.4
70°-80°	260.6	2.3
80°-90°	69.4	0.6
90°-100°	73.9	0.7
100°-110°	352.1	3.2
110°-120°	845.8	7.6
120°-130°	1077.0	9.7
130°-140°	1150.8	10.3
140°-150°	1076.1	9.7
150°-160°	868.0	7.8
160°-170°	560.2	5.0
170°-180°	193.1	1.7
0°-30°	1547.2	13.9
0°-40°	2530.6	22.7
0°-60°	4124.0	37.0
0°-90°	4949.9	44.4
90°-120°	1271.8	11.4
90°-150°	4575.6	41.0
90°-180°	6197.0	55.6
0°-180°	11146.9	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1638	1638	1638	1638	1638	
5°	1946	1639	1452	1639	1946	202
15°	2897	1568	1184	1568	2897	836
25°	3438	1430	1046	1430	3438	1508
35°	1852	1256	960	1256	1852	1204
45°	1000	1031	816	1031	1000	791
55°	679	726	648	726	679	610
65°	441	448	457	448	441	439
75°	227	214	244	214	227	243
85°	52	43	48	43	52	63
90°	45	2	45	2	45	23
95°	57	92	57	92	57	48
105°	66	450	66	450	66	152
115°	888	844	888	844	888	820
125°	1214	1190	1214	1190	1214	1084
135°	1496	1481	1496	1481	1496	1154
145°	1726	1709	1726	1709	1726	1077
155°	1880	1883	1880	1883	1880	867
165°	1981	1985	1981	1985	1981	559
175°	2025	2032	2025	2032	2025	193
180°	2032	2032	2032	2032	2032	



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1738.5	1737.2	1734.0	1736.6	1731.5	1724.4	1723.8	1717.5	1699.1	1697.8	1692.7
5°	1946.1	1939.7	1938.9	1938.1	1927.0	1912.0	1883.4	1881.0	1842.9	1823.8	1800.9
7.5°	2214.9	2218.3	2206.8	2196.6	2162.6	2140.2	2109.6	2070.4	2023.6	1976.1	1944.5
10°	2408.0	2434.2	2401.7	2379.4	2358.8	2319.9	2274.7	2218.3	2161.9	2096.1	2046.1
12.5°	2615.0	2627.9	2621.3	2600.4	2568.3	2509.1	2428.9	2366.9	2315.0	2205.3	2161.0
15°	2896.9	2945.4	2914.4	2843.0	2844.5	2788.1	2683.4	2568.3	2507.2	2411.2	2280.3
17.5°	3197.2	3203.3	3190.1	3130.6	3090.9	3013.4	2916.8	2806.4	2682.6	2566.5	2427.5
20°	3357.2	3352.4	3324.7	3293.8	3225.5	3165.2	3059.6	2936.6	2777.8	2663.6	2511.9
22.5°	3446.2	3438.2	3425.1	3399.1	3342.4	3277.5	3182.8	3048.4	2897.2	2739.8	2564.7
25°	3438.2	3448.5	3450.1	3442.9	3423.1	3384.3	3309.6	3202.5	3051.7	2849.3	2666.8
27.5°	3127.0	3141.7	3184.1	3221.7	3263.8	3306.6	3300.8	3247.7	3136.1	2961.3	2738.1
30°	2815.9	2784.2	2862.8	2962.0	3029.5	3148.5	3215.2	3219.1	3156.4	3006.5	2788.9
32.5°	2384.2	2419.1	2453.9	2576.0	2723.4	2857.1	2989.8	3096.7	3108.9	3009.0	2818.8
35°	1852.4	1896.1	1959.5	2023.1	2181.8	2318.3	2551.6	2754.8	2916.8	2938.2	2821.5
37.5°	1492.8	1514.3	1554.5	1618.1	1721.9	1883.9	2064.4	2321.2	2555.8	2730.3	2737.8
40°	1304.8	1311.1	1356.3	1404.8	1488.9	1622.2	1784.9	2012.0	2292.9	2536.6	2638.2
42.5°	1163.9	1177.8	1197.0	1243.5	1310.5	1410.9	1562.2	1749.7	2007.2	2287.6	2486.4
45°	1000.1	1015.9	1027.8	1058.7	1106.4	1173.9	1279.4	1450.9	1646.9	1936.5	2204.0
47.5°	891.8	893.0	901.9	925.2	957.7	1008.2	1082.9	1193.1	1373.0	1608.0	1882.6
50°	814.4	827.0	830.2	848.4	873.8	911.1	973.0	1066.7	1214.4	1420.7	1673.0
52.5°	759.7	763.6	772.4	785.6	807.8	836.9	890.5	963.8	1079.7	1255.6	1487.6
55°	679.3	679.3	688.1	698.4	711.1	737.3	773.1	827.0	915.1	1051.6	1243.6
57.5°	605.1	609.0	615.2	618.4	629.2	646.5	676.4	717.3	783.0	888.1	1040.9
60°	555.5	562.7	561.9	568.3	577.8	591.3	616.7	650.1	708.7	792.8	921.5
62.5°	512.4	511.9	511.8	519.4	528.9	541.8	558.3	587.1	637.0	711.7	821.1
65°	441.3	439.7	445.2	450.0	453.2	462.7	475.4	500.8	534.1	589.7	674.6
67.5°	378.1	373.5	376.5	378.1	383.5	390.9	402.8	418.6	445.0	489.7	553.7
70°	335.0	330.9	330.1	331.7	336.5	342.0	350.8	365.9	390.5	426.2	473.0
72.5°	290.4	287.8	287.6	291.1	293.4	297.0	303.2	317.0	336.5	363.3	407.0
75°	227.0	227.0	227.0	227.8	230.1	233.4	238.1	245.2	260.3	279.3	308.7
77.5°	170.2	170.0	169.1	168.8	172.4	173.8	174.9	181.6	190.0	202.9	224.3
80°	133.3	129.4	131.0	133.3	134.9	135.7	138.1	139.7	146.8	154.0	169.1
82.5°	99.1	95.7	96.0	99.7	100.0	100.8	103.2	105.4	108.1	114.6	122.7
85°	52.4	52.4	53.2	53.2	53.9	53.2	55.5	56.4	56.4	60.3	65.0
87.5°	28.1	26.7	27.2	27.7	27.0	27.4	27.8	28.1	28.5	28.9	28.6
90°	45.2	44.6	43.9	43.3	42.6	41.6	40.3	38.9	37.6	36.3	31.9
92.5°	50.1	49.7	49.3	48.9	48.5	47.3	45.1	42.9	40.8	38.7	35.3
95°	57.4	57.4	57.4	57.4	57.4	56.1	53.8	51.5	49.2	46.8	43.1
97.5°	62.2	61.9	61.5	61.2	60.9	59.4	56.7	54.0	51.3	48.6	42.8
100°	63.4	63.1	62.7	62.4	62.1	60.6	57.9	55.1	52.5	49.8	42.2
102.5°	64.6	64.0	63.4	62.8	62.2	66.0	74.4	82.7	91.0	99.4	156.5
105°	66.4	65.7	65.1	64.4	63.7	93.1	152.5	211.9	271.2	330.6	360.8
107.5°	208.6	253.4	298.1	343.0	387.7	431.8	475.3	518.9	562.5	606.0	601.3
110°	415.2	463.1	511.1	559.1	607.0	636.6	647.6	658.7	669.8	680.9	677.2



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	712.3	722.5	732.6	742.7	752.9	757.8	757.6	757.4	757.2	757.0	753.3
115°	887.8	886.4	885.0	883.7	882.3	880.0	876.7	873.3	869.9	866.6	863.5
117.5°	986.1	985.9	985.6	985.3	985.1	983.6	980.9	978.3	975.5	972.9	971.3
120°	1053.8	1053.8	1053.8	1053.8	1053.8	1052.5	1049.8	1047.1	1044.4	1041.7	1040.7
122.5°	1120.2	1119.9	1119.6	1119.4	1119.1	1118.1	1116.2	1114.3	1112.5	1110.5	1109.2
125°	1213.9	1213.2	1212.4	1211.8	1211.1	1210.4	1209.8	1209.1	1208.5	1207.8	1206.5
127.5°	1303.8	1304.4	1305.1	1305.9	1306.5	1306.3	1305.3	1304.1	1303.0	1302.0	1300.4
130°	1361.8	1362.4	1363.1	1363.8	1364.4	1364.1	1362.8	1361.4	1360.1	1358.8	1357.5
132.5°	1414.9	1415.8	1416.8	1417.7	1418.7	1418.5	1417.1	1415.8	1414.4	1413.1	1412.0
135°	1496.1	1497.1	1498.1	1499.1	1500.2	1500.2	1499.1	1498.1	1497.1	1496.1	1494.8
137.5°	1572.6	1573.2	1573.9	1574.6	1575.2	1574.8	1573.2	1571.6	1569.9	1568.3	1567.6
140°	1618.4	1619.1	1619.8	1620.4	1621.1	1620.7	1619.4	1618.1	1616.8	1615.4	1614.4
142.5°	1660.7	1661.6	1662.5	1663.6	1664.5	1664.4	1663.3	1662.2	1661.1	1660.1	1659.1
145°	1725.7	1725.7	1725.7	1725.7	1725.7	1725.3	1724.6	1723.9	1723.2	1722.6	1721.9
147.5°	1773.9	1775.4	1777.1	1778.6	1780.1	1780.6	1779.9	1779.2	1778.6	1777.9	1777.2
150°	1810.2	1811.2	1812.2	1813.2	1814.2	1814.3	1813.7	1813.0	1812.3	1811.7	1811.0
152.5°	1839.2	1840.7	1842.2	1843.8	1845.3	1845.5	1844.3	1843.1	1841.9	1840.7	1840.3
155°	1879.7	1881.6	1883.6	1885.6	1887.6	1887.8	1886.1	1884.5	1882.8	1881.1	1880.8
157.5°	1913.7	1916.3	1918.9	1921.6	1924.2	1924.5	1922.5	1920.5	1918.4	1916.4	1916.8
160°	1935.5	1937.8	1940.2	1942.5	1944.9	1945.0	1943.0	1941.1	1939.0	1937.0	1937.3
162.5°	1956.0	1958.1	1960.1	1962.3	1964.3	1964.2	1962.0	1959.6	1957.4	1955.1	1955.4
165°	1980.7	1983.1	1985.5	1987.8	1990.1	1990.0	1987.3	1984.6	1982.0	1979.2	1979.6
167.5°	1998.6	2001.2	2004.0	2006.6	2009.3	2009.3	2006.6	2004.0	2001.2	1998.6	1998.6
170°	2009.4	2012.2	2014.8	2017.5	2020.2	2020.2	2017.5	2014.8	2012.2	2009.4	2009.4
172.5°	2015.5	2018.4	2021.4	2024.4	2027.3	2027.4	2024.8	2022.1	2019.4	2016.7	2016.4
175°	2024.6	2027.2	2029.9	2032.6	2035.3	2035.5	2033.1	2030.7	2028.4	2026.1	2025.7
177.5°	2027.3	2029.9	2032.7	2035.3	2038.0	2038.3	2036.1	2034.0	2031.8	2029.7	2029.4
180°	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1688.9	1683.8	1678.8	1669.9	1662.2	1651.4	1648.3	1644.5	1633.1	1623.0	1615.3
5°	1792.1	1773.0	1745.2	1719.9	1699.3	1671.5	1655.6	1638.9	1615.1	1593.7	1576.2
7.5°	1900.1	1862.6	1819.4	1772.7	1729.3	1687.4	1653.6	1623.4	1590.0	1558.4	1533.9
10°	1985.8	1931.8	1871.5	1806.4	1750.8	1696.9	1651.6	1611.9	1569.1	1531.8	1500.9
12.5°	2083.6	2003.6	1920.4	1841.3	1775.6	1700.7	1645.9	1595.5	1546.9	1502.0	1467.2
15°	2199.3	2097.7	1999.2	1890.6	1790.5	1696.9	1631.8	1568.3	1512.0	1465.9	1421.5
17.5°	2304.7	2189.6	2059.9	1927.6	1807.1	1696.0	1604.8	1533.1	1462.6	1406.2	1361.9
20°	2364.4	2233.4	2086.6	1949.2	1815.9	1692.1	1592.2	1506.4	1430.2	1370.7	1320.7
22.5°	2415.8	2262.6	2110.7	1963.9	1815.3	1681.9	1568.6	1480.4	1397.9	1339.6	1286.4
25°	2469.1	2285.8	2133.4	1961.2	1795.3	1657.2	1530.2	1430.2	1347.7	1279.4	1224.7
27.5°	2514.9	2284.2	2103.3	1918.1	1763.8	1625.5	1489.9	1382.6	1294.9	1220.8	1165.3
30°	2545.3	2287.3	2072.2	1889.0	1733.4	1590.5	1458.8	1350.8	1258.8	1183.4	1130.9
32.5°	2564.4	2285.4	2043.7	1848.4	1685.2	1558.7	1425.1	1313.3	1218.8	1144.7	1094.2
35°	2575.5	2271.5	1994.5	1764.3	1607.2	1484.2	1372.3	1256.4	1157.2	1088.1	1031.0
37.5°	2553.2	2242.1	1937.3	1683.3	1511.4	1390.2	1296.1	1197.3	1102.4	1026.4	977.1
40°	2518.3	2223.1	1892.9	1626.3	1445.3	1328.6	1248.5	1151.7	1057.9	985.7	939.7
42.5°	2451.6	2184.3	1844.0	1562.8	1376.7	1260.0	1186.2	1105.3	1016.7	948.9	902.9
45°	2289.0	2100.0	1770.7	1467.5	1275.5	1154.8	1089.7	1031.0	950.8	884.9	845.3
47.5°	2063.3	1973.3	1664.7	1367.1	1169.7	1053.7	986.0	938.8	880.2	827.0	788.9
50°	1906.4	1869.1	1592.9	1298.5	1099.2	985.7	920.7	877.8	835.8	782.5	747.6
52.5°	1725.5	1748.5	1509.1	1227.3	1027.5	915.9	854.6	820.6	782.4	738.7	708.3
55°	1470.7	1554.0	1364.3	1107.9	920.7	814.4	756.4	726.2	704.0	671.5	645.3
57.5°	1232.1	1338.2	1207.8	984.9	815.8	724.0	668.4	635.6	621.3	604.3	583.7
60°	1090.6	1195.3	1096.1	902.4	745.3	657.9	608.7	581.0	566.6	554.8	537.3
62.5°	964.1	1070.2	986.8	818.6	676.0	595.1	552.2	525.1	514.0	507.8	492.9
65°	790.5	881.8	826.2	688.1	577.0	505.5	466.7	447.7	437.3	434.9	425.5
67.5°	643.4	712.9	672.4	570.8	483.3	421.6	388.6	372.4	364.5	363.7	356.5
70°	546.8	611.9	581.0	488.9	413.5	365.1	336.5	322.2	317.5	316.7	312.8
72.5°	471.9	517.4	492.7	415.9	357.6	313.7	292.7	277.8	272.4	273.5	270.8
75°	349.2	383.3	369.1	315.9	269.0	240.4	223.0	213.5	208.7	211.2	207.9
77.5°	251.3	272.9	260.0	223.2	194.3	173.7	160.8	154.9	150.7	150.5	149.1
80°	189.7	202.4	195.2	173.0	149.3	131.8	121.4	117.4	115.1	114.3	113.5
82.5°	135.1	145.9	137.4	122.2	106.0	95.5	89.7	84.4	82.7	83.2	82.4
85°	68.3	72.2	69.1	59.5	53.2	48.4	45.2	42.8	41.3	42.1	40.5
87.5°	29.0	28.8	26.0	22.6	20.7	18.2	17.5	15.6	14.9	15.7	15.7
90°	27.5	23.1	18.8	14.9	11.6	8.2	4.8	1.5	4.8	8.2	11.6
92.5°	32.1	28.8	25.4	24.3	25.2	26.2	27.2	28.1	27.2	26.2	25.2
95°	39.4	35.7	32.0	37.1	50.8	64.6	78.4	92.1	78.4	64.6	50.8
97.5°	96.9	121.1	145.2	160.4	166.5	172.8	178.9	185.1	178.9	172.8	166.5
100°	154.5	206.8	259.1	282.0	275.3	268.5	261.9	255.2	261.9	268.5	275.3
102.5°	213.7	270.8	328.0	354.2	349.3	344.6	339.7	334.9	339.7	344.6	349.3
105°	391.0	421.2	451.4	464.6	461.0	457.3	453.6	449.9	453.6	457.3	461.0
107.5°	596.5	591.7	586.9	583.1	580.2	577.1	574.2	571.3	574.2	577.1	580.2
110°	673.5	669.8	666.1	663.0	660.2	657.5	654.9	652.2	654.9	657.5	660.2





TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	749.6	745.9	742.3	739.1	736.8	734.4	732.0	729.5	732.0	734.4	736.8
115°	860.5	857.6	854.5	852.0	850.0	848.0	846.0	843.9	846.0	848.0	850.0
117.5°	969.8	968.3	966.7	964.7	962.2	959.7	957.3	954.7	957.3	959.7	962.2
120°	1039.7	1038.6	1037.7	1035.7	1032.7	1029.7	1026.6	1023.6	1026.6	1029.7	1032.7
122.5°	1108.0	1106.7	1105.5	1103.6	1101.1	1098.6	1096.1	1093.7	1096.1	1098.6	1101.1
125°	1205.1	1203.8	1202.4	1200.4	1197.7	1195.1	1192.3	1189.6	1192.3	1195.1	1197.7
127.5°	1298.8	1297.2	1295.6	1293.4	1290.7	1288.1	1285.4	1282.6	1285.4	1288.1	1290.7
130°	1356.0	1354.7	1353.4	1351.4	1348.7	1346.0	1343.3	1340.6	1343.3	1346.0	1348.7
132.5°	1411.0	1409.9	1408.9	1406.9	1404.2	1401.6	1398.9	1396.2	1398.9	1401.6	1404.2
135°	1493.5	1492.1	1490.8	1489.1	1487.1	1485.1	1483.1	1481.1	1483.1	1485.1	1487.1
137.5°	1566.8	1566.1	1565.4	1563.7	1561.2	1558.6	1556.1	1553.5	1556.1	1558.6	1561.2
140°	1613.4	1612.4	1611.3	1609.9	1607.9	1605.9	1603.9	1601.8	1603.9	1605.9	1607.9
142.5°	1658.1	1657.1	1656.1	1654.6	1652.5	1650.5	1648.5	1646.5	1648.5	1650.5	1652.5
145°	1721.2	1720.6	1719.9	1718.4	1716.1	1713.7	1711.3	1709.0	1711.3	1713.7	1716.1
147.5°	1776.6	1775.8	1775.1	1774.0	1772.5	1771.0	1769.5	1767.9	1769.5	1771.0	1772.5
150°	1810.4	1809.7	1809.0	1808.2	1807.2	1806.1	1805.1	1804.1	1805.1	1806.1	1807.2
152.5°	1839.9	1839.5	1839.1	1838.7	1838.2	1837.7	1837.2	1836.7	1837.2	1837.7	1838.2
155°	1880.5	1880.2	1879.8	1880.0	1880.7	1881.3	1882.0	1882.6	1882.0	1881.3	1880.7
157.5°	1917.1	1917.4	1917.8	1918.0	1918.0	1918.1	1918.2	1918.2	1918.2	1918.1	1918.0
160°	1937.6	1938.0	1938.3	1938.6	1939.0	1939.3	1939.6	1940.1	1939.6	1939.3	1939.0
162.5°	1955.8	1956.1	1956.4	1957.0	1957.9	1958.8	1959.6	1960.6	1959.6	1958.8	1957.9
165°	1979.9	1980.2	1980.6	1981.3	1982.3	1983.3	1984.3	1985.3	1984.3	1983.3	1982.3
167.5°	1998.6	1998.6	1998.6	1999.2	2000.6	2002.0	2003.3	2004.6	2003.3	2002.0	2000.6
170°	2009.4	2009.4	2009.4	2010.1	2011.4	2012.8	2014.2	2015.5	2014.2	2012.8	2011.4
172.5°	2016.2	2015.9	2015.6	2016.3	2017.9	2019.5	2021.1	2022.8	2021.1	2019.5	2017.9
175°	2025.4	2025.1	2024.7	2025.4	2027.1	2028.7	2030.4	2032.1	2030.4	2028.7	2027.1
177.5°	2029.1	2028.9	2028.6	2029.1	2030.5	2031.8	2033.2	2034.5	2033.2	2031.8	2030.5
180°	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1610.8	1606.4	1600.0	1590.5	1582.9	1570.8	1570.8	1572.8	1572.8	1572.2	1570.8
5°	1562.0	1550.0	1535.8	1519.1	1501.7	1484.2	1481.0	1474.6	1469.9	1466.7	1462.8
7.5°	1510.4	1489.2	1468.4	1445.1	1423.8	1406.2	1394.0	1383.8	1377.4	1370.4	1365.2
10°	1475.4	1449.3	1424.6	1400.1	1373.0	1351.6	1338.2	1328.6	1321.5	1315.1	1311.9
12.5°	1434.2	1404.2	1377.1	1353.7	1324.1	1302.1	1289.3	1284.8	1276.4	1263.0	1256.1
15°	1373.8	1346.0	1313.5	1277.8	1263.5	1236.6	1221.4	1214.4	1209.5	1199.2	1196.1
17.5°	1322.2	1285.9	1249.4	1222.7	1196.2	1174.3	1165.9	1157.0	1150.6	1142.3	1139.7
20°	1281.0	1248.5	1215.1	1186.6	1158.7	1135.0	1127.8	1121.5	1115.1	1111.2	1107.9
22.5°	1239.1	1206.6	1178.9	1152.3	1122.6	1107.0	1099.2	1092.3	1087.8	1085.1	1082.0
25°	1180.2	1151.7	1120.6	1096.8	1073.1	1062.7	1057.9	1054.0	1050.9	1046.8	1046.0
27.5°	1127.5	1096.4	1071.3	1049.0	1032.0	1023.4	1018.8	1016.8	1017.5	1019.0	1019.9
30°	1088.1	1059.6	1038.9	1019.9	1004.0	996.0	995.2	995.2	998.5	999.3	1000.8
32.5°	1052.0	1028.4	1007.8	989.4	977.3	971.9	974.9	974.9	977.4	979.6	982.4
35°	999.3	978.6	962.7	946.8	936.5	938.9	940.5	942.1	946.0	950.8	954.0
37.5°	948.9	931.0	914.4	902.1	897.4	901.6	905.4	908.8	913.3	917.1	920.2
40°	912.7	899.2	883.3	872.2	873.8	876.3	879.4	883.3	887.4	889.7	892.9
42.5°	879.1	864.9	852.9	843.6	845.9	848.9	850.8	852.9	857.5	861.8	863.6
45°	827.8	816.7	805.6	800.0	801.6	803.2	804.8	807.2	811.1	814.4	815.1
47.5°	770.2	762.4	755.0	749.5	752.0	751.4	753.6	758.6	759.8	761.7	766.2
50°	733.4	726.2	717.5	715.9	715.9	715.9	716.7	723.1	723.1	726.2	729.4
52.5°	692.8	688.1	682.6	679.7	678.4	678.4	681.8	685.0	686.2	690.6	693.9
55°	632.6	627.8	623.0	620.7	619.0	620.7	627.0	628.5	632.6	634.9	637.3
57.5°	569.9	566.2	562.4	561.1	560.8	562.9	566.3	571.1	572.1	579.4	583.0
60°	528.6	523.0	519.9	519.9	518.3	525.4	523.8	531.8	533.3	538.2	543.7
62.5°	486.0	478.6	477.4	477.4	479.6	481.6	483.8	487.4	491.4	497.5	501.8
65°	417.5	413.5	419.1	418.3	416.7	421.4	421.4	425.5	430.2	435.8	444.4
67.5°	352.5	350.5	350.9	350.9	353.4	356.1	358.3	361.7	367.5	373.3	379.1
70°	308.7	311.1	307.2	310.3	312.8	313.5	315.1	319.8	326.2	330.1	336.5
72.5°	266.2	266.0	266.5	267.8	270.1	271.6	273.2	278.6	285.6	288.9	294.0
75°	204.8	204.0	206.3	206.3	210.4	211.9	213.5	215.9	222.3	227.0	231.0
77.5°	149.6	150.5	150.0	152.7	151.6	151.9	156.8	159.3	159.9	169.3	171.3
80°	112.7	114.3	115.1	115.8	116.6	115.1	120.7	123.0	123.0	128.6	132.5
82.5°	81.0	81.9	84.0	84.7	84.9	86.5	86.9	88.8	90.7	93.0	98.3
85°	40.5	42.8	43.6	42.8	43.6	42.1	44.4	45.2	46.0	46.0	46.0
87.5°	15.7	17.1	17.4	18.9	19.1	20.6	20.8	19.9	20.1	22.3	20.0
90°	14.9	18.8	23.1	27.5	31.9	36.3	37.6	38.9	40.3	41.6	42.6
92.5°	24.3	25.4	28.8	32.1	35.3	38.7	40.8	42.9	45.1	47.3	48.5
95°	37.1	32.0	35.7	39.4	43.1	46.8	49.2	51.5	53.8	56.1	57.4
97.5°	160.4	145.2	121.1	96.9	72.8	48.6	51.3	54.0	56.7	59.4	60.9
100°	282.0	259.1	206.8	154.5	102.2	49.8	52.5	55.1	57.9	60.6	62.1
102.5°	354.2	328.0	270.8	213.7	156.5	99.4	91.0	82.7	74.4	66.0	62.2
105°	464.6	451.4	421.2	391.0	360.8	330.6	271.2	211.9	152.5	93.1	63.7
107.5°	583.1	586.9	591.7	596.5	601.3	606.0	562.5	518.9	475.3	431.8	387.7
110°	663.0	666.1	669.8	673.5	677.2	680.9	669.8	658.7	647.6	636.6	607.0



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	739.1	742.3	745.9	749.6	753.3	757.0	757.2	757.4	757.6	757.8	752.9
115°	852.0	854.5	857.6	860.5	863.5	866.6	869.9	873.3	876.7	880.0	882.3
117.5°	964.7	966.7	968.3	969.8	971.3	972.9	975.5	978.3	980.9	983.6	985.1
120°	1035.7	1037.7	1038.6	1039.7	1040.7	1041.7	1044.4	1047.1	1049.8	1052.5	1053.8
122.5°	1103.6	1105.5	1106.7	1108.0	1109.2	1110.5	1112.5	1114.3	1116.2	1118.1	1119.1
125°	1200.4	1202.4	1203.8	1205.1	1206.5	1207.8	1208.5	1209.1	1209.8	1210.4	1211.1
127.5°	1293.4	1295.6	1297.2	1298.8	1300.4	1302.0	1303.0	1304.1	1305.3	1306.3	1306.5
130°	1351.4	1353.4	1354.7	1356.0	1357.5	1358.8	1360.1	1361.4	1362.8	1364.1	1364.4
132.5°	1406.9	1408.9	1409.9	1411.0	1412.0	1413.1	1414.4	1415.8	1417.1	1418.5	1418.7
135°	1489.1	1490.8	1492.1	1493.5	1494.8	1496.1	1497.1	1498.1	1499.1	1500.2	1500.2
137.5°	1563.7	1565.4	1566.1	1566.8	1567.6	1568.3	1569.9	1571.6	1573.2	1574.8	1575.2
140°	1609.9	1611.3	1612.4	1613.4	1614.4	1615.4	1616.8	1618.1	1619.4	1620.7	1621.1
142.5°	1654.6	1656.1	1657.1	1658.1	1659.1	1660.1	1661.1	1662.2	1663.3	1664.4	1664.5
145°	1718.4	1719.9	1720.6	1721.2	1721.9	1722.6	1723.2	1723.9	1724.6	1725.3	1725.7
147.5°	1774.0	1775.1	1775.8	1776.6	1777.2	1777.9	1778.6	1779.2	1779.9	1780.6	1780.1
150°	1808.2	1809.0	1809.7	1810.4	1811.0	1811.7	1812.3	1813.0	1813.7	1814.3	1814.2
152.5°	1838.7	1839.1	1839.5	1839.9	1840.3	1840.7	1841.9	1843.1	1844.3	1845.5	1845.3
155°	1880.0	1879.8	1880.2	1880.5	1880.8	1881.1	1882.8	1884.5	1886.1	1887.8	1887.6
157.5°	1918.0	1917.8	1917.4	1917.1	1916.8	1916.4	1918.4	1920.5	1922.5	1924.5	1924.2
160°	1938.6	1938.3	1938.0	1937.6	1937.3	1937.0	1939.0	1941.1	1943.0	1945.0	1944.9
162.5°	1957.0	1956.4	1956.1	1955.8	1955.4	1955.1	1957.4	1959.6	1962.0	1964.2	1964.3
165°	1981.3	1980.6	1980.2	1979.9	1979.6	1979.2	1982.0	1984.6	1987.3	1990.0	1990.1
167.5°	1999.2	1998.6	1998.6	1998.6	1998.6	1998.6	2001.2	2004.0	2006.6	2009.3	2009.3
170°	2010.1	2009.4	2009.4	2009.4	2009.4	2009.4	2012.2	2014.8	2017.5	2020.2	2020.2
172.5°	2016.3	2015.6	2015.9	2016.2	2016.4	2016.7	2019.4	2022.1	2024.8	2027.4	2027.3
175°	2025.4	2024.7	2025.1	2025.4	2025.7	2026.1	2028.4	2030.7	2033.1	2035.5	2035.3
177.5°	2029.1	2028.6	2028.9	2029.1	2029.4	2029.7	2031.8	2034.0	2036.1	2038.3	2038.0
180°	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1566.4	1565.8	1570.2	1567.0	1570.2	1565.8	1566.4	1570.8	1572.2	1572.8	1572.8
5°	1457.9	1460.4	1452.4	1452.4	1452.4	1460.4	1457.9	1462.8	1466.7	1469.9	1474.6
7.5°	1361.5	1358.0	1358.3	1354.0	1358.3	1358.0	1361.5	1365.2	1370.4	1377.4	1383.8
10°	1302.4	1297.7	1296.1	1296.9	1296.1	1297.7	1302.4	1311.9	1315.1	1321.5	1328.6
12.5°	1253.5	1252.5	1242.1	1242.2	1242.1	1252.5	1253.5	1256.1	1263.0	1276.4	1284.8
15°	1196.1	1181.0	1179.4	1184.2	1179.4	1181.0	1196.1	1196.1	1199.2	1209.5	1214.4
17.5°	1138.4	1130.5	1130.9	1128.6	1130.9	1130.5	1138.4	1139.7	1142.3	1150.6	1157.0
20°	1107.9	1103.2	1102.4	1096.8	1102.4	1103.2	1107.9	1107.9	1111.2	1115.1	1121.5
22.5°	1080.1	1078.4	1078.9	1072.8	1078.9	1078.4	1080.1	1082.0	1085.1	1087.8	1092.3
25°	1045.3	1049.2	1046.0	1046.0	1046.0	1049.2	1045.3	1046.0	1046.8	1050.9	1054.0
27.5°	1021.8	1021.6	1020.1	1020.1	1020.1	1021.6	1021.8	1019.9	1019.0	1017.5	1016.8
30°	1004.0	1003.2	1004.8	1004.8	1004.8	1003.2	1004.0	1000.8	999.3	998.5	995.2
32.5°	986.2	987.3	987.6	988.3	987.6	987.3	986.2	982.4	979.6	977.4	974.9
35°	958.8	959.6	961.9	960.4	961.9	959.6	958.8	954.0	950.8	946.0	942.1
37.5°	921.6	925.2	924.4	925.7	924.4	925.2	921.6	920.2	917.1	913.3	908.8
40°	893.6	896.1	895.2	895.2	895.2	896.1	893.6	892.9	889.7	887.4	883.3
42.5°	865.2	866.9	864.7	863.5	864.7	866.9	865.2	863.6	861.8	857.5	852.9
45°	818.3	816.7	819.1	815.9	819.1	816.7	818.3	815.1	814.4	811.1	807.2
47.5°	765.9	767.5	768.1	770.5	768.1	767.5	765.9	766.2	761.7	759.8	758.6
50°	730.9	735.7	735.7	735.0	735.7	735.7	730.9	729.4	726.2	723.1	723.1
52.5°	696.7	698.9	702.1	702.0	702.1	698.9	696.7	693.9	690.6	686.2	685.0
55°	643.7	645.3	646.8	647.6	646.8	645.3	643.7	637.3	634.9	632.6	628.5
57.5°	588.8	588.1	591.9	593.0	591.9	588.1	588.8	583.0	579.4	572.1	571.1
60°	550.0	550.0	556.3	558.8	556.3	550.0	550.0	543.7	538.2	533.3	531.8
62.5°	508.8	511.3	517.7	514.3	517.7	511.3	508.8	501.8	497.5	491.4	487.4
65°	448.4	454.7	453.9	457.2	453.9	454.7	448.4	444.4	435.8	430.2	425.5
67.5°	385.4	389.4	395.1	395.6	395.1	389.4	385.4	379.1	373.3	367.5	361.7
70°	342.8	346.8	350.0	352.3	350.0	346.8	342.8	336.5	330.1	326.2	319.8
72.5°	301.6	303.7	311.2	307.9	311.2	303.7	301.6	294.0	288.9	285.6	278.6
75°	236.5	242.1	246.8	244.5	246.8	242.1	236.5	231.0	227.0	222.3	215.9
77.5°	174.9	180.5	182.7	180.7	182.7	180.5	174.9	171.3	169.3	159.9	159.3
80°	138.1	137.3	142.1	141.3	142.1	137.3	138.1	132.5	128.6	123.0	123.0
82.5°	101.3	100.5	102.7	103.2	102.7	100.5	101.3	98.3	93.0	90.7	88.8
85°	49.2	51.6	48.4	47.7	48.4	51.6	49.2	46.0	46.0	46.0	45.2
87.5°	20.1	20.2	19.7	19.2	19.7	20.2	20.1	20.0	22.3	20.1	19.9
90°	43.3	43.9	44.6	45.2	44.6	43.9	43.3	42.6	41.6	40.3	38.9
92.5°	48.9	49.3	49.7	50.1	49.7	49.3	48.9	48.5	47.3	45.1	42.9
95°	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	56.1	53.8	51.5
97.5°	61.2	61.5	61.9	62.2	61.9	61.5	61.2	60.9	59.4	56.7	54.0
100°	62.4	62.7	63.1	63.4	63.1	62.7	62.4	62.1	60.6	57.9	55.1
102.5°	62.8	63.4	64.0	64.6	64.0	63.4	62.8	62.2	66.0	74.4	82.7
105°	64.4	65.1	65.7	66.4	65.7	65.1	64.4	63.7	93.1	152.5	211.9
107.5°	343.0	298.1	253.4	208.6	253.4	298.1	343.0	387.7	431.8	475.3	518.9
110°	559.1	511.1	463.1	415.2	463.1	511.1	559.1	607.0	636.6	647.6	658.7



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	742.7	732.6	722.5	712.3	722.5	732.6	742.7	752.9	757.8	757.6	757.4
115°	883.7	885.0	886.4	887.8	886.4	885.0	883.7	882.3	880.0	876.7	873.3
117.5°	985.3	985.6	985.9	986.1	985.9	985.6	985.3	985.1	983.6	980.9	978.3
120°	1053.8	1053.8	1053.8	1053.8	1053.8	1053.8	1053.8	1053.8	1052.5	1049.8	1047.1
122.5°	1119.4	1119.6	1119.9	1120.2	1119.9	1119.6	1119.4	1119.1	1118.1	1116.2	1114.3
125°	1211.8	1212.4	1213.2	1213.9	1213.2	1212.4	1211.8	1211.1	1210.4	1209.8	1209.1
127.5°	1305.9	1305.1	1304.4	1303.8	1304.4	1305.1	1305.9	1306.5	1306.3	1305.3	1304.1
130°	1363.8	1363.1	1362.4	1361.8	1362.4	1363.1	1363.8	1364.4	1364.1	1362.8	1361.4
132.5°	1417.7	1416.8	1415.8	1414.9	1415.8	1416.8	1417.7	1418.7	1418.5	1417.1	1415.8
135°	1499.1	1498.1	1497.1	1496.1	1497.1	1498.1	1499.1	1500.2	1500.2	1499.1	1498.1
137.5°	1574.6	1573.9	1573.2	1572.6	1573.2	1573.9	1574.6	1575.2	1574.8	1573.2	1571.6
140°	1620.4	1619.8	1619.1	1618.4	1619.1	1619.8	1620.4	1621.1	1620.7	1619.4	1618.1
142.5°	1663.6	1662.5	1661.6	1660.7	1661.6	1662.5	1663.6	1664.5	1664.4	1663.3	1662.2
145°	1725.7	1725.7	1725.7	1725.7	1725.7	1725.7	1725.7	1725.7	1725.3	1724.6	1723.9
147.5°	1778.6	1777.1	1775.4	1773.9	1775.4	1777.1	1778.6	1780.1	1780.6	1779.9	1779.2
150°	1813.2	1812.2	1811.2	1810.2	1811.2	1812.2	1813.2	1814.2	1814.3	1813.7	1813.0
152.5°	1843.8	1842.2	1840.7	1839.2	1840.7	1842.2	1843.8	1845.3	1845.5	1844.3	1843.1
155°	1885.6	1883.6	1881.6	1879.7	1881.6	1883.6	1885.6	1887.6	1887.8	1886.1	1884.5
157.5°	1921.6	1918.9	1916.3	1913.7	1916.3	1918.9	1921.6	1924.2	1924.5	1922.5	1920.5
160°	1942.5	1940.2	1937.8	1935.5	1937.8	1940.2	1942.5	1944.9	1945.0	1943.0	1941.1
162.5°	1962.3	1960.1	1958.1	1956.0	1958.1	1960.1	1962.3	1964.3	1964.2	1962.0	1959.6
165°	1987.8	1985.5	1983.1	1980.7	1983.1	1985.5	1987.8	1990.1	1990.0	1987.3	1984.6
167.5°	2006.6	2004.0	2001.2	1998.6	2001.2	2004.0	2006.6	2009.3	2009.3	2006.6	2004.0
170°	2017.5	2014.8	2012.2	2009.4	2012.2	2014.8	2017.5	2020.2	2020.2	2017.5	2014.8
172.5°	2024.4	2021.4	2018.4	2015.5	2018.4	2021.4	2024.4	2027.3	2027.4	2024.8	2022.1
175°	2032.6	2029.9	2027.2	2024.6	2027.2	2029.9	2032.6	2035.3	2035.5	2033.1	2030.7
177.5°	2035.3	2032.7	2029.9	2027.3	2029.9	2032.7	2035.3	2038.0	2038.3	2036.1	2034.0
180°	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1570.8	1570.8	1582.9	1590.5	1600.0	1606.4	1610.8	1615.3	1623.0	1633.1	1644.5
5°	1481.0	1484.2	1501.7	1519.1	1535.8	1550.0	1562.0	1576.2	1593.7	1615.1	1638.9
7.5°	1394.0	1406.2	1423.8	1445.1	1468.4	1489.2	1510.4	1533.9	1558.4	1590.0	1623.4
10°	1338.2	1351.6	1373.0	1400.1	1424.6	1449.3	1475.4	1500.9	1531.8	1569.1	1611.9
12.5°	1289.3	1302.1	1324.1	1353.7	1377.1	1404.2	1434.2	1467.2	1502.0	1546.9	1595.5
15°	1221.4	1236.6	1263.5	1277.8	1313.5	1346.0	1373.8	1421.5	1465.9	1512.0	1568.3
17.5°	1165.9	1174.3	1196.2	1222.7	1249.4	1285.9	1322.2	1361.9	1406.2	1462.6	1533.1
20°	1127.8	1135.0	1158.7	1186.6	1215.1	1248.5	1281.0	1320.7	1370.7	1430.2	1506.4
22.5°	1099.2	1107.0	1122.6	1152.3	1178.9	1206.6	1239.1	1286.4	1339.6	1397.9	1480.4
25°	1057.9	1062.7	1073.1	1096.8	1120.6	1151.7	1180.2	1224.7	1279.4	1347.7	1430.2
27.5°	1018.8	1023.4	1032.0	1049.0	1071.3	1096.4	1127.5	1165.3	1220.8	1294.9	1382.6
30°	995.2	996.0	1004.0	1019.9	1038.9	1059.6	1088.1	1130.9	1183.4	1258.8	1350.8
32.5°	974.9	971.9	977.3	989.4	1007.8	1028.4	1052.0	1094.2	1144.7	1218.8	1313.3
35°	940.5	938.9	936.5	946.8	962.7	978.6	999.3	1031.0	1088.1	1157.2	1256.4
37.5°	905.4	901.6	897.4	902.1	914.4	931.0	948.9	977.1	1026.4	1102.4	1197.3
40°	879.4	876.3	873.8	872.2	883.3	899.2	912.7	939.7	985.7	1057.9	1151.7
42.5°	850.8	848.9	845.9	843.6	852.9	864.9	879.1	902.9	948.9	1016.7	1105.3
45°	804.8	803.2	801.6	800.0	805.6	816.7	827.8	845.3	884.9	950.8	1031.0
47.5°	753.6	751.4	752.0	749.5	755.0	762.4	770.2	788.9	827.0	880.2	938.8
50°	716.7	715.9	715.9	715.9	717.5	726.2	733.4	747.6	782.5	835.8	877.8
52.5°	681.8	678.4	678.4	679.7	682.6	688.1	692.8	708.3	738.7	782.4	820.6
55°	627.0	620.7	619.0	620.7	623.0	627.8	632.6	645.3	671.5	704.0	726.2
57.5°	566.3	562.9	560.8	561.1	562.4	566.2	569.9	583.7	604.3	621.3	635.6
60°	523.8	525.4	518.3	519.9	519.9	523.0	528.6	537.3	554.8	566.6	581.0
62.5°	483.8	481.6	479.6	477.4	477.4	478.6	486.0	492.9	507.8	514.0	525.1
65°	421.4	421.4	416.7	418.3	419.1	413.5	417.5	425.5	434.9	437.3	447.7
67.5°	358.3	356.1	353.4	350.9	350.9	350.5	352.5	356.5	363.7	364.5	372.4
70°	315.1	313.5	312.8	310.3	307.2	311.1	308.7	312.8	316.7	317.5	322.2
72.5°	273.2	271.6	270.1	267.8	266.5	266.0	266.2	270.8	273.5	272.4	277.8
75°	213.5	211.9	210.4	206.3	206.3	204.0	204.8	207.9	211.2	208.7	213.5
77.5°	156.8	151.9	151.6	152.7	150.0	150.5	149.6	149.1	150.5	150.7	154.9
80°	120.7	115.1	116.6	115.8	115.1	114.3	112.7	113.5	114.3	115.1	117.4
82.5°	86.9	86.5	84.9	84.7	84.0	81.9	81.0	82.4	83.2	82.7	84.4
85°	44.4	42.1	43.6	42.8	43.6	42.8	40.5	40.5	42.1	41.3	42.8
87.5°	20.8	20.6	19.1	18.9	17.4	17.1	15.7	15.7	15.7	14.9	15.6
90°	37.6	36.3	31.9	27.5	23.1	18.8	14.9	11.6	8.2	4.8	1.5
92.5°	40.8	38.7	35.3	32.1	28.8	25.4	24.3	25.2	26.2	27.2	28.1
95°	49.2	46.8	43.1	39.4	35.7	32.0	37.1	50.8	64.6	78.4	92.1
97.5°	51.3	48.6	72.8	96.9	121.1	145.2	160.4	166.5	172.8	178.9	185.1
100°	52.5	49.8	102.2	154.5	206.8	259.1	282.0	275.3	268.5	261.9	255.2
102.5°	91.0	99.4	156.5	213.7	270.8	328.0	354.2	349.3	344.6	339.7	334.9
105°	271.2	330.6	360.8	391.0	421.2	451.4	464.6	461.0	457.3	453.6	449.9
107.5°	562.5	606.0	601.3	596.5	591.7	586.9	583.1	580.2	577.1	574.2	571.3
110°	669.8	680.9	677.2	673.5	669.8	666.1	663.0	660.2	657.5	654.9	652.2



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	757.2	757.0	753.3	749.6	745.9	742.3	739.1	736.8	734.4	732.0	729.5
115°	869.9	866.6	863.5	860.5	857.6	854.5	852.0	850.0	848.0	846.0	843.9
117.5°	975.5	972.9	971.3	969.8	968.3	966.7	964.7	962.2	959.7	957.3	954.7
120°	1044.4	1041.7	1040.7	1039.7	1038.6	1037.7	1035.7	1032.7	1029.7	1026.6	1023.6
122.5°	1112.5	1110.5	1109.2	1108.0	1106.7	1105.5	1103.6	1101.1	1098.6	1096.1	1093.7
125°	1208.5	1207.8	1206.5	1205.1	1203.8	1202.4	1200.4	1197.7	1195.1	1192.3	1189.6
127.5°	1303.0	1302.0	1300.4	1298.8	1297.2	1295.6	1293.4	1290.7	1288.1	1285.4	1282.6
130°	1360.1	1358.8	1357.5	1356.0	1354.7	1353.4	1351.4	1348.7	1346.0	1343.3	1340.6
132.5°	1414.4	1413.1	1412.0	1411.0	1409.9	1408.9	1406.9	1404.2	1401.6	1398.9	1396.2
135°	1497.1	1496.1	1494.8	1493.5	1492.1	1490.8	1489.1	1487.1	1485.1	1483.1	1481.1
137.5°	1569.9	1568.3	1567.6	1566.8	1566.1	1565.4	1563.7	1561.2	1558.6	1556.1	1553.5
140°	1616.8	1615.4	1614.4	1613.4	1612.4	1611.3	1609.9	1607.9	1605.9	1603.9	1601.8
142.5°	1661.1	1660.1	1659.1	1658.1	1657.1	1656.1	1654.6	1652.5	1650.5	1648.5	1646.5
145°	1723.2	1722.6	1721.9	1721.2	1720.6	1719.9	1718.4	1716.1	1713.7	1711.3	1709.0
147.5°	1778.6	1777.9	1777.2	1776.6	1775.8	1775.1	1774.0	1772.5	1771.0	1769.5	1767.9
150°	1812.3	1811.7	1811.0	1810.4	1809.7	1809.0	1808.2	1807.2	1806.1	1805.1	1804.1
152.5°	1841.9	1840.7	1840.3	1839.9	1839.5	1839.1	1838.7	1838.2	1837.7	1837.2	1836.7
155°	1882.8	1881.1	1880.8	1880.5	1880.2	1879.8	1880.0	1880.7	1881.3	1882.0	1882.6
157.5°	1918.4	1916.4	1916.8	1917.1	1917.4	1917.8	1918.0	1918.0	1918.1	1918.2	1918.2
160°	1939.0	1937.0	1937.3	1937.6	1938.0	1938.3	1938.6	1939.0	1939.3	1939.6	1940.1
162.5°	1957.4	1955.1	1955.4	1955.8	1956.1	1956.4	1957.0	1957.9	1958.8	1959.6	1960.6
165°	1982.0	1979.2	1979.6	1979.9	1980.2	1980.6	1981.3	1982.3	1983.3	1984.3	1985.3
167.5°	2001.2	1998.6	1998.6	1998.6	1998.6	1998.6	1999.2	2000.6	2002.0	2003.3	2004.6
170°	2012.2	2009.4	2009.4	2009.4	2009.4	2009.4	2010.1	2011.4	2012.8	2014.2	2015.5
172.5°	2019.4	2016.7	2016.4	2016.2	2015.9	2015.6	2016.3	2017.9	2019.5	2021.1	2022.8
175°	2028.4	2026.1	2025.7	2025.4	2025.1	2024.7	2025.4	2027.1	2028.7	2030.4	2032.1
177.5°	2031.8	2029.7	2029.4	2029.1	2028.9	2028.6	2029.1	2030.5	2031.8	2033.2	2034.5
180°	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1648.3	1651.4	1662.2	1669.9	1678.8	1683.8	1688.9	1692.7	1697.8	1699.1	1717.5
5°	1655.6	1671.5	1699.3	1719.9	1745.2	1773.0	1792.1	1800.9	1823.8	1842.9	1881.0
7.5°	1653.6	1687.4	1729.3	1772.7	1819.4	1862.6	1900.1	1944.5	1976.1	2023.6	2070.4
10°	1651.6	1696.9	1750.8	1806.4	1871.5	1931.8	1985.8	2046.1	2096.1	2161.9	2218.3
12.5°	1645.9	1700.7	1775.6	1841.3	1920.4	2003.6	2083.6	2161.0	2205.3	2315.0	2366.9
15°	1631.8	1696.9	1790.5	1890.6	1999.2	2097.7	2199.3	2280.3	2411.2	2507.2	2568.3
17.5°	1604.8	1696.0	1807.1	1927.6	2059.9	2189.6	2304.7	2427.5	2566.5	2682.6	2806.4
20°	1592.2	1692.1	1815.9	1949.2	2086.6	2233.4	2364.4	2511.9	2663.6	2777.8	2936.6
22.5°	1568.6	1681.9	1815.3	1963.9	2110.7	2262.6	2415.8	2564.7	2739.8	2897.2	3048.4
25°	1530.2	1657.2	1795.3	1961.2	2133.4	2285.8	2469.1	2666.8	2849.3	3051.7	3202.5
27.5°	1489.9	1625.5	1763.8	1918.1	2103.3	2284.2	2514.9	2738.1	2961.3	3136.1	3247.7
30°	1458.8	1590.5	1733.4	1889.0	2072.2	2287.3	2545.3	2788.9	3006.5	3156.4	3219.1
32.5°	1425.1	1558.7	1685.2	1848.4	2043.7	2285.4	2564.4	2818.8	3009.0	3108.9	3096.7
35°	1372.3	1484.2	1607.2	1764.3	1994.5	2271.5	2575.5	2821.5	2938.2	2916.8	2754.8
37.5°	1296.1	1390.2	1511.4	1683.3	1937.3	2242.1	2553.2	2737.8	2730.3	2555.8	2321.2
40°	1248.5	1328.6	1445.3	1626.3	1892.9	2223.1	2518.3	2638.2	2536.6	2292.9	2012.0
42.5°	1186.2	1260.0	1376.7	1562.8	1844.0	2184.3	2451.6	2486.4	2287.6	2007.2	1749.7
45°	1089.7	1154.8	1275.5	1467.5	1770.7	2100.0	2289.0	2204.0	1936.5	1646.9	1450.9
47.5°	986.0	1053.7	1169.7	1367.1	1664.7	1973.3	2063.3	1882.6	1608.0	1373.0	1193.1
50°	920.7	985.7	1099.2	1298.5	1592.9	1869.1	1906.4	1673.0	1420.7	1214.4	1066.7
52.5°	854.6	915.9	1027.5	1227.3	1509.1	1748.5	1725.5	1487.6	1255.6	1079.7	963.8
55°	756.4	814.4	920.7	1107.9	1364.3	1554.0	1470.7	1243.6	1051.6	915.1	827.0
57.5°	668.4	724.0	815.8	984.9	1207.8	1338.2	1232.1	1040.9	888.1	783.0	717.3
60°	608.7	657.9	745.3	902.4	1096.1	1195.3	1090.6	921.5	792.8	708.7	650.1
62.5°	552.2	595.1	676.0	818.6	986.8	1070.2	964.1	821.1	711.7	637.0	587.1
65°	466.7	505.5	577.0	688.1	826.2	881.8	790.5	674.6	589.7	534.1	500.8
67.5°	388.6	421.6	483.3	570.8	672.4	712.9	643.4	553.7	489.7	445.0	418.6
70°	336.5	365.1	413.5	488.9	581.0	611.9	546.8	473.0	426.2	390.5	365.9
72.5°	292.7	313.7	357.6	415.9	492.7	517.4	471.9	407.0	363.3	336.5	317.0
75°	223.0	240.4	269.0	315.9	369.1	383.3	349.2	308.7	279.3	260.3	245.2
77.5°	160.8	173.7	194.3	223.2	260.0	272.9	251.3	224.3	202.9	190.0	181.6
80°	121.4	131.8	149.3	173.0	195.2	202.4	189.7	169.1	154.0	146.8	139.7
82.5°	89.7	95.5	106.0	122.2	137.4	145.9	135.1	122.7	114.6	108.1	105.4
85°	45.2	48.4	53.2	59.5	69.1	72.2	68.3	65.0	60.3	56.4	56.4
87.5°	17.5	18.2	20.7	22.6	26.0	28.8	29.0	28.6	28.9	28.5	28.1
90°	4.8	8.2	11.6	14.9	18.8	23.1	27.5	31.9	36.3	37.6	38.9
92.5°	27.2	26.2	25.2	24.3	25.4	28.8	32.1	35.3	38.7	40.8	42.9
95°	78.4	64.6	50.8	37.1	32.0	35.7	39.4	43.1	46.8	49.2	51.5
97.5°	178.9	172.8	166.5	160.4	145.2	121.1	96.9	72.8	48.6	51.3	54.0
100°	261.9	268.5	275.3	282.0	259.1	206.8	154.5	102.2	49.8	52.5	55.1
102.5°	339.7	344.6	349.3	354.2	328.0	270.8	213.7	156.5	99.4	91.0	82.7
105°	453.6	457.3	461.0	464.6	451.4	421.2	391.0	360.8	330.6	271.2	211.9
107.5°	574.2	577.1	580.2	583.1	586.9	591.7	596.5	601.3	606.0	562.5	518.9
110°	654.9	657.5	660.2	663.0	666.1	669.8	673.5	677.2	680.9	669.8	658.7





TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	732.0	734.4	736.8	739.1	742.3	745.9	749.6	753.3	757.0	757.2	757.4
115°	846.0	848.0	850.0	852.0	854.5	857.6	860.5	863.5	866.6	869.9	873.3
117.5°	957.3	959.7	962.2	964.7	966.7	968.3	969.8	971.3	972.9	975.5	978.3
120°	1026.6	1029.7	1032.7	1035.7	1037.7	1038.6	1039.7	1040.7	1041.7	1044.4	1047.1
122.5°	1096.1	1098.6	1101.1	1103.6	1105.5	1106.7	1108.0	1109.2	1110.5	1112.5	1114.3
125°	1192.3	1195.1	1197.7	1200.4	1202.4	1203.8	1205.1	1206.5	1207.8	1208.5	1209.1
127.5°	1285.4	1288.1	1290.7	1293.4	1295.6	1297.2	1298.8	1300.4	1302.0	1303.0	1304.1
130°	1343.3	1346.0	1348.7	1351.4	1353.4	1354.7	1356.0	1357.5	1358.8	1360.1	1361.4
132.5°	1398.9	1401.6	1404.2	1406.9	1408.9	1409.9	1411.0	1412.0	1413.1	1414.4	1415.8
135°	1483.1	1485.1	1487.1	1489.1	1490.8	1492.1	1493.5	1494.8	1496.1	1497.1	1498.1
137.5°	1556.1	1558.6	1561.2	1563.7	1565.4	1566.1	1566.8	1567.6	1568.3	1569.9	1571.6
140°	1603.9	1605.9	1607.9	1609.9	1611.3	1612.4	1613.4	1614.4	1615.4	1616.8	1618.1
142.5°	1648.5	1650.5	1652.5	1654.6	1656.1	1657.1	1658.1	1659.1	1660.1	1661.1	1662.2
145°	1711.3	1713.7	1716.1	1718.4	1719.9	1720.6	1721.2	1721.9	1722.6	1723.2	1723.9
147.5°	1769.5	1771.0	1772.5	1774.0	1775.1	1775.8	1776.6	1777.2	1777.9	1778.6	1779.2
150°	1805.1	1806.1	1807.2	1808.2	1809.0	1809.7	1810.4	1811.0	1811.7	1812.3	1813.0
152.5°	1837.2	1837.7	1838.2	1838.7	1839.1	1839.5	1839.9	1840.3	1840.7	1841.9	1843.1
155°	1882.0	1881.3	1880.7	1880.0	1879.8	1880.2	1880.5	1880.8	1881.1	1882.8	1884.5
157.5°	1918.2	1918.1	1918.0	1918.0	1917.8	1917.4	1917.1	1916.8	1916.4	1918.4	1920.5
160°	1939.6	1939.3	1939.0	1938.6	1938.3	1938.0	1937.6	1937.3	1937.0	1939.0	1941.1
162.5°	1959.6	1958.8	1957.9	1957.0	1956.4	1956.1	1955.8	1955.4	1955.1	1957.4	1959.6
165°	1984.3	1983.3	1982.3	1981.3	1980.6	1980.2	1979.9	1979.6	1979.2	1982.0	1984.6
167.5°	2003.3	2002.0	2000.6	1999.2	1998.6	1998.6	1998.6	1998.6	1998.6	2001.2	2004.0
170°	2014.2	2012.8	2011.4	2010.1	2009.4	2009.4	2009.4	2009.4	2009.4	2012.2	2014.8
172.5°	2021.1	2019.5	2017.9	2016.3	2015.6	2015.9	2016.2	2016.4	2016.7	2019.4	2022.1
175°	2030.4	2028.7	2027.1	2025.4	2024.7	2025.1	2025.4	2025.7	2026.1	2028.4	2030.7
177.5°	2033.2	2031.8	2030.5	2029.1	2028.6	2028.9	2029.1	2029.4	2029.7	2031.8	2034.0
180°	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1723.8	1724.4	1731.5	1736.6	1734.0	1737.2	1738.5
5°	1883.4	1912.0	1927.0	1938.1	1938.9	1939.7	1946.1
7.5°	2109.6	2140.2	2162.6	2196.6	2206.8	2218.3	2214.9
10°	2274.7	2319.9	2358.8	2379.4	2401.7	2434.2	2408.0
12.5°	2428.9	2509.1	2568.3	2600.4	2621.3	2627.9	2615.0
15°	2683.4	2788.1	2844.5	2843.0	2914.4	2945.4	2896.9
17.5°	2916.8	3013.4	3090.9	3130.6	3190.1	3203.3	3197.2
20°	3059.6	3165.2	3225.5	3293.8	3324.7	3352.4	3357.2
22.5°	3182.8	3277.5	3342.4	3399.1	3425.1	3438.2	3446.2
25°	3309.6	3384.3	3423.1	3442.9	3450.1	3448.5	3438.2
27.5°	3300.8	3306.6	3263.8	3221.7	3184.1	3141.7	3127.0
30°	3215.2	3148.5	3029.5	2962.0	2862.8	2784.2	2815.9
32.5°	2989.8	2857.1	2723.4	2576.0	2453.9	2419.1	2384.2
35°	2551.6	2318.3	2181.8	2023.1	1959.5	1896.1	1852.4
37.5°	2064.4	1883.9	1721.9	1618.1	1554.5	1514.3	1492.8
40°	1784.9	1622.2	1488.9	1404.8	1356.3	1311.1	1304.8
42.5°	1562.2	1410.9	1310.5	1243.5	1197.0	1177.8	1163.9
45°	1279.4	1173.9	1106.4	1058.7	1027.8	1015.9	1000.1
47.5°	1082.9	1008.2	957.7	925.2	901.9	893.0	891.8
50°	973.0	911.1	873.8	848.4	830.2	827.0	814.4
52.5°	890.5	836.9	807.8	785.6	772.4	763.6	759.7
55°	773.1	737.3	711.1	698.4	688.1	679.3	679.3
57.5°	676.4	646.5	629.2	618.4	615.2	609.0	605.1
60°	616.7	591.3	577.8	568.3	561.9	562.7	555.5
62.5°	558.3	541.8	528.9	519.4	511.8	511.9	512.4
65°	475.4	462.7	453.2	450.0	445.2	439.7	441.3
67.5°	402.8	390.9	383.5	378.1	376.5	373.5	378.1
70°	350.8	342.0	336.5	331.7	330.1	330.9	335.0
72.5°	303.2	297.0	293.4	291.1	287.6	287.8	290.4
75°	238.1	233.4	230.1	227.8	227.0	227.0	227.0
77.5°	174.9	173.8	172.4	168.8	169.1	170.0	170.2
80°	138.1	135.7	134.9	133.3	131.0	129.4	133.3
82.5°	103.2	100.8	100.0	99.7	96.0	95.7	99.1
85°	55.5	53.2	53.9	53.2	53.2	52.4	52.4
87.5°	27.8	27.4	27.0	27.7	27.2	26.7	28.1
90°	40.3	41.6	42.6	43.3	43.9	44.6	45.2
92.5°	45.1	47.3	48.5	48.9	49.3	49.7	50.1
95°	53.8	56.1	57.4	57.4	57.4	57.4	57.4
97.5°	56.7	59.4	60.9	61.2	61.5	61.9	62.2
100°	57.9	60.6	62.1	62.4	62.7	63.1	63.4
102.5°	74.4	66.0	62.2	62.8	63.4	64.0	64.6
105°	152.5	93.1	63.7	64.4	65.1	65.7	66.4
107.5°	475.3	431.8	387.7	343.0	298.1	253.4	208.6
110°	647.6	636.6	607.0	559.1	511.1	463.1	415.2



TEST NUMBER: P332234-840

CATALOG NUMBER: S123DIW-S1165D1535U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	757.6	757.8	752.9	742.7	732.6	722.5	712.3
115°	876.7	880.0	882.3	883.7	885.0	886.4	887.8
117.5°	980.9	983.6	985.1	985.3	985.6	985.9	986.1
120°	1049.8	1052.5	1053.8	1053.8	1053.8	1053.8	1053.8
122.5°	1116.2	1118.1	1119.1	1119.4	1119.6	1119.9	1120.2
125°	1209.8	1210.4	1211.1	1211.8	1212.4	1213.2	1213.9
127.5°	1305.3	1306.3	1306.5	1305.9	1305.1	1304.4	1303.8
130°	1362.8	1364.1	1364.4	1363.8	1363.1	1362.4	1361.8
132.5°	1417.1	1418.5	1418.7	1417.7	1416.8	1415.8	1414.9
135°	1499.1	1500.2	1500.2	1499.1	1498.1	1497.1	1496.1
137.5°	1573.2	1574.8	1575.2	1574.6	1573.9	1573.2	1572.6
140°	1619.4	1620.7	1621.1	1620.4	1619.8	1619.1	1618.4
142.5°	1663.3	1664.4	1664.5	1663.6	1662.5	1661.6	1660.7
145°	1724.6	1725.3	1725.7	1725.7	1725.7	1725.7	1725.7
147.5°	1779.9	1780.6	1780.1	1778.6	1777.1	1775.4	1773.9
150°	1813.7	1814.3	1814.2	1813.2	1812.2	1811.2	1810.2
152.5°	1844.3	1845.5	1845.3	1843.8	1842.2	1840.7	1839.2
155°	1886.1	1887.8	1887.6	1885.6	1883.6	1881.6	1879.7
157.5°	1922.5	1924.5	1924.2	1921.6	1918.9	1916.3	1913.7
160°	1943.0	1945.0	1944.9	1942.5	1940.2	1937.8	1935.5
162.5°	1962.0	1964.2	1964.3	1962.3	1960.1	1958.1	1956.0
165°	1987.3	1990.0	1990.1	1987.8	1985.5	1983.1	1980.7
167.5°	2006.6	2009.3	2009.3	2006.6	2004.0	2001.2	1998.6
170°	2017.5	2020.2	2020.2	2017.5	2014.8	2012.2	2009.4
172.5°	2024.8	2027.4	2027.3	2024.4	2021.4	2018.4	2015.5
175°	2033.1	2035.5	2035.3	2032.6	2029.9	2027.2	2024.6
177.5°	2036.1	2038.3	2038.0	2035.3	2032.7	2029.9	2027.3
180°	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1

(END OF REPORT)