

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: P332830-930

Luminaire Tested: **S124DIW-S1020D1560U930-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332830-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIW-S1020D1560U930-4F0-1E-UDD-A1  
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1020 LUMENS PER FOOT, ASYMMETRIC DIFFUSER  
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8168.7 lumens  
Efficiency: N/A  
Efficacy: 106.6 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.23 / 1.41  
Luminous Opening: Rectangular (W 4' x L: 0.33' x H: 0')  
CIE Type: General Diffuse

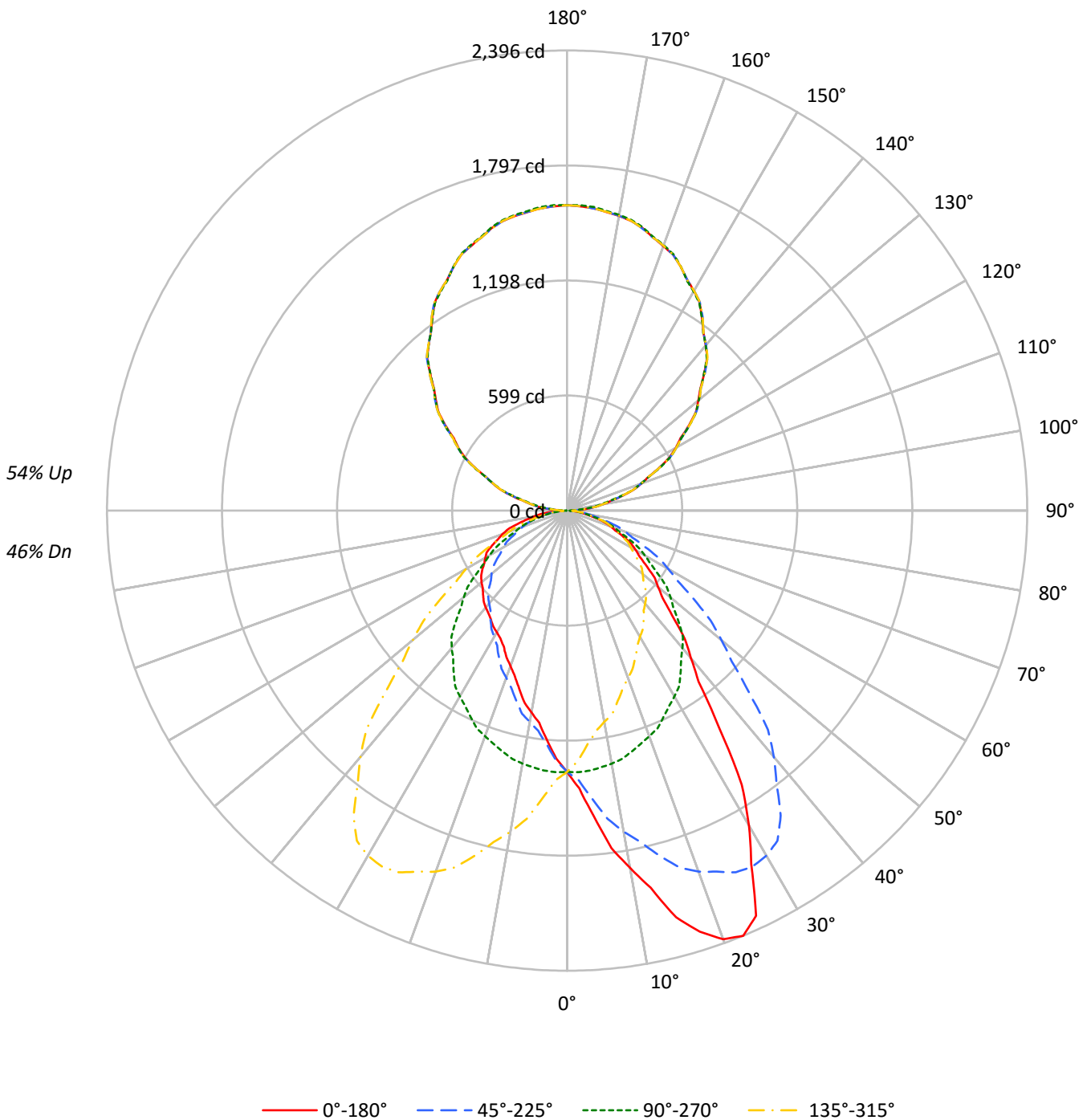
Input Watts (W): 76.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332830-930

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46
1	97	93	89	86	89	85	82	79	71	69	67	58	57	55	47	46	45	39
2	89	81	75	70	81	75	70	65	63	59	56	52	49	47	41	40	38	33
3	81	72	64	59	74	66	60	55	56	51	47	46	42	40	37	34	33	28
4	74	64	56	50	68	59	52	47	49	44	40	41	37	34	33	30	28	24
5	68	57	49	43	62	52	45	40	44	39	35	37	33	30	30	27	25	21
6	63	51	43	37	57	47	40	35	40	35	30	33	29	26	27	24	22	19
7	58	46	38	33	53	43	36	31	36	31	27	30	26	23	25	22	19	17
8	54	42	34	29	49	39	32	27	33	28	24	28	24	21	23	20	17	15
9	50	38	31	26	46	35	29	24	30	25	21	26	21	19	21	18	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	16	14	12

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

	0°	90°	180°	270°
0°	10984	10984	10984	10984
5°	12935	11012	9720	11012
10°	15488	10964	8751	10964
15°	18324	10853	8037	10853
20°	20405	10740	7399	10740
25°	20735	10573	6959	10573
30°	17643	10413	6820	10413
35°	13565	10154	6821	10154
40°	10572	9848	6949	9848
45°	8816	9388	7066	9388
50°	7759	8828	7304	8828
55°	7108	8155	7600	8155
60°	6660	7553	7953	7553
65°	6202	6879	8246	6879
70°	5667	6212	8434	6212
75°	5062	5468	8334	5468
80°	4245	4482	8071	4482
85°	3131	3242	7725	3242



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.5	1.6
10°-20°	408.6	5.0
20°-30°	647.9	7.9
30°-40°	721.0	8.8
40°-50°	656.3	8.0
50°-60°	536.3	6.6
60°-70°	382.9	4.7
70°-80°	210.8	2.6
80°-90°	62.3	0.8
90°-100°	104.8	1.3
100°-110°	310.6	3.8
110°-120°	527.1	6.5
120°-130°	695.1	8.5
130°-140°	780.6	9.6
140°-150°	767.1	9.4
150°-160°	645.2	7.9
160°-170°	429.2	5.3
170°-180°	150.3	1.8
0°-30°	1189.0	14.6
0°-40°	1910.0	23.4
0°-60°	3102.6	38.0
0°-90°	3758.6	46.0
90°-120°	942.5	11.5
90°-150°	3185.3	39.0
90°-180°	4410.0	54.0
0°-180°	8168.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1361	1361	1361	1361	1361	
5°	1596	1359	1199	1359	1596	162
15°	2192	1299	962	1299	2192	619
25°	2328	1187	781	1187	2328	1026
35°	1376	1030	692	1030	1376	874
45°	772	822	619	822	772	608
55°	505	579	540	579	505	456
65°	325	360	432	360	325	321
75°	162	175	267	175	162	173
85°	34	35	83	35	34	42
90°	37	4	37	4	37	20
95°	97	74	97	74	97	101
105°	300	286	300	286	300	316
115°	531	536	531	536	531	525
125°	774	781	774	781	774	691
135°	1008	1007	1008	1007	1008	778
145°	1224	1223	1224	1223	1224	766
155°	1400	1401	1400	1401	1400	645
165°	1522	1526	1522	1526	1522	429
175°	1580	1587	1580	1587	1580	150
180°	1590	1590	1590	1590	1590	



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6
2.5°	1448.1	1447.6	1443.1	1442.2	1439.0	1435.0	1434.1	1426.9	1412.4	1405.7	1403.9
5°	1596.2	1607.4	1592.8	1590.0	1588.3	1569.7	1560.1	1548.8	1522.9	1507.7	1495.8
7.5°	1772.9	1774.3	1767.9	1762.7	1748.3	1732.1	1707.8	1681.9	1651.0	1618.9	1594.6
10°	1889.3	1893.8	1886.4	1885.3	1856.6	1838.5	1802.5	1772.1	1737.1	1698.2	1662.7
12.5°	2011.9	2005.6	2001.9	1977.8	1972.5	1939.5	1897.6	1866.3	1812.4	1767.7	1720.4
15°	2192.5	2180.1	2172.2	2138.9	2122.6	2077.0	2032.4	1998.1	1927.6	1860.5	1809.8
17.5°	2298.4	2310.9	2292.6	2278.9	2236.7	2204.7	2159.2	2087.0	2031.9	1948.6	1884.6
20°	2375.1	2376.2	2366.1	2352.0	2318.7	2278.2	2228.5	2149.6	2083.7	2000.8	1912.9
22.5°	2395.8	2396.1	2391.8	2378.6	2353.4	2320.5	2270.5	2204.7	2124.8	2034.7	1946.8
25°	2327.8	2325.5	2330.6	2345.2	2335.7	2325.5	2296.8	2247.7	2173.3	2078.0	1983.4
27.5°	2074.8	2090.3	2119.0	2155.1	2189.8	2216.3	2223.7	2213.7	2167.6	2089.2	1990.1
30°	1892.6	1911.8	1933.2	1969.3	2039.1	2079.2	2123.2	2156.4	2137.8	2075.3	1982.8
32.5°	1692.5	1697.2	1729.0	1770.0	1834.0	1911.0	1980.7	2048.2	2070.6	2037.8	1960.7
35°	1376.4	1384.2	1418.6	1459.2	1537.6	1631.7	1736.5	1830.1	1907.3	1938.3	1898.8
37.5°	1123.2	1145.8	1170.1	1213.7	1282.7	1367.4	1476.3	1597.4	1712.5	1789.6	1802.7
40°	1003.2	1017.3	1034.8	1068.0	1126.7	1210.1	1303.7	1442.3	1564.6	1675.1	1711.2
42.5°	908.6	916.8	927.5	957.6	1002.2	1085.2	1170.6	1292.6	1415.4	1547.4	1607.9
45°	772.2	780.6	798.7	816.1	849.9	907.4	986.9	1087.2	1210.6	1338.1	1449.6
47.5°	673.6	679.1	689.7	708.5	737.2	775.1	839.8	923.6	1038.0	1161.6	1280.5
50°	617.8	622.2	630.7	647.6	669.6	703.4	756.4	834.7	924.3	1048.9	1165.6
52.5°	573.6	575.4	581.6	593.0	610.5	639.0	682.4	747.2	830.5	941.6	1057.8
55°	505.0	507.3	512.9	521.4	536.5	554.6	587.8	636.3	709.1	805.4	906.3
57.5°	448.7	450.2	454.9	458.2	470.8	485.4	510.9	545.6	600.7	682.4	772.5
60°	412.5	411.5	417.1	419.9	428.4	440.8	460.5	493.7	541.6	607.6	690.4
62.5°	377.4	375.9	380.6	384.3	389.1	399.7	415.8	441.9	480.8	540.4	612.0
65°	324.7	322.4	325.2	329.7	334.2	339.9	351.7	374.8	405.8	448.7	503.3
67.5°	271.7	274.0	274.5	276.7	279.3	287.0	295.1	311.4	333.3	367.6	413.9
70°	240.1	240.7	243.0	243.0	244.6	251.4	258.1	267.7	289.1	320.7	358.5
72.5°	208.6	210.9	210.0	211.8	213.0	217.5	222.5	231.6	249.9	273.4	305.2
75°	162.3	164.0	164.0	164.6	166.2	168.0	171.9	178.6	191.6	209.1	231.1
77.5°	118.4	118.6	119.4	121.4	121.4	124.1	127.0	132.5	138.8	150.8	164.2
80°	91.3	92.5	91.9	93.0	93.0	95.2	96.4	103.1	106.0	113.8	124.6
82.5°	66.9	68.1	68.0	69.5	70.4	70.9	72.5	75.2	78.0	85.0	89.4
85°	33.8	35.0	33.8	35.0	36.6	37.2	38.9	39.5	41.7	43.4	47.4
87.5°	17.3	18.5	18.4	18.8	19.6	19.8	19.9	19.2	20.6	20.7	22.1
90°	36.9	36.4	35.8	35.2	34.7	33.6	32.0	30.3	28.7	27.1	24.9
92.5°	54.5	54.2	53.9	53.6	53.2	52.6	51.6	50.6	49.7	48.7	47.1
95°	97.1	97.1	97.1	97.1	97.1	96.7	95.9	95.1	94.2	93.4	91.6
97.5°	152.2	152.2	152.2	152.2	152.2	151.7	150.7	149.8	148.7	147.7	145.5
100°	190.5	190.5	190.5	190.5	190.5	190.3	189.7	189.1	188.7	188.1	185.6
102.5°	233.8	233.6	233.4	233.2	232.9	232.4	231.7	230.9	230.2	229.4	227.1
105°	299.9	299.1	298.3	297.5	296.7	295.9	295.1	294.2	293.4	292.6	291.5
107.5°	364.4	364.4	364.5	364.5	364.6	364.3	363.5	362.7	361.9	361.2	361.0
110°	410.6	409.8	409.0	408.1	407.3	407.2	407.7	408.3	408.8	409.4	409.6



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	457.8	457.6	457.5	457.3	457.1	457.1	457.2	457.3	457.5	457.5	458.0
115°	531.1	531.3	531.7	531.9	532.1	532.5	532.7	533.0	533.3	533.5	534.1
117.5°	600.9	601.4	602.0	602.5	603.1	603.8	604.8	605.7	606.6	607.6	607.9
120°	654.0	653.5	652.9	652.4	651.8	652.2	653.6	654.9	656.3	657.7	658.5
122.5°	698.3	699.3	700.3	701.2	702.2	703.2	704.1	705.0	706.0	706.9	707.3
125°	774.5	775.0	775.6	776.1	776.7	777.2	777.8	778.3	778.9	779.4	779.7
127.5°	845.1	845.5	846.0	846.4	846.8	847.3	847.8	848.4	848.9	849.5	849.9
130°	891.3	892.3	893.5	894.5	895.6	896.4	897.0	897.6	898.1	898.6	898.6
132.5°	940.4	940.9	941.3	941.8	942.2	942.6	943.2	943.8	944.4	944.9	945.1
135°	1008.0	1008.9	1009.7	1010.5	1011.3	1012.0	1012.6	1013.1	1013.7	1014.2	1014.2
137.5°	1079.1	1079.0	1078.8	1078.6	1078.5	1078.7	1079.5	1080.2	1080.8	1081.6	1081.2
140°	1122.4	1122.7	1122.9	1123.2	1123.5	1123.7	1124.1	1124.3	1124.5	1124.9	1124.9
142.5°	1165.6	1165.7	1165.8	1165.8	1165.9	1166.0	1166.0	1166.0	1166.1	1166.1	1166.4
145°	1224.4	1225.2	1226.0	1226.9	1227.7	1228.2	1228.5	1228.8	1229.1	1229.3	1229.1
147.5°	1283.9	1284.2	1284.5	1284.7	1285.0	1285.2	1285.5	1285.7	1285.9	1286.1	1286.4
150°	1320.3	1320.6	1320.9	1321.1	1321.4	1321.5	1321.5	1321.5	1321.5	1321.5	1321.5
152.5°	1353.7	1354.5	1355.2	1355.8	1356.6	1356.6	1355.9	1355.3	1354.6	1354.0	1353.8
155°	1400.2	1401.3	1402.4	1403.5	1404.6	1404.6	1403.5	1402.4	1401.3	1400.2	1400.5
157.5°	1441.8	1442.7	1443.7	1444.5	1445.4	1445.5	1444.7	1443.9	1443.1	1442.3	1442.3
160°	1465.3	1466.7	1468.1	1469.5	1470.8	1471.1	1470.3	1469.5	1468.7	1467.9	1468.1
162.5°	1490.0	1491.3	1492.7	1494.0	1495.4	1495.3	1493.9	1492.4	1490.9	1489.5	1489.7
165°	1521.9	1523.0	1524.1	1525.2	1526.3	1526.0	1524.4	1522.7	1521.1	1519.5	1520.0
167.5°	1544.7	1546.5	1548.2	1549.9	1551.6	1551.6	1550.0	1548.3	1546.7	1545.1	1545.0
170°	1557.5	1559.5	1561.4	1563.3	1565.2	1565.4	1563.7	1562.1	1560.4	1558.8	1558.5
172.5°	1568.4	1570.3	1572.2	1574.1	1576.1	1576.1	1574.2	1572.4	1570.5	1568.6	1568.6
175°	1579.7	1581.6	1583.6	1585.4	1587.4	1587.4	1585.4	1583.6	1581.6	1579.7	1580.0
177.5°	1585.6	1587.4	1589.1	1590.8	1592.6	1592.7	1591.1	1589.7	1588.1	1586.6	1586.6
180°	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6
2.5°	1404.4	1398.0	1393.5	1389.9	1380.0	1374.1	1369.6	1363.3	1356.1	1348.4	1339.0
5°	1484.0	1464.8	1450.7	1429.4	1409.1	1392.1	1374.7	1358.9	1339.7	1318.9	1303.7
7.5°	1567.7	1539.3	1502.8	1471.0	1435.4	1404.4	1376.7	1348.3	1318.7	1290.1	1263.9
10°	1621.0	1584.4	1543.8	1495.8	1450.7	1410.7	1373.5	1337.5	1302.5	1267.5	1237.7
12.5°	1678.2	1632.6	1572.6	1516.6	1466.1	1412.6	1367.7	1323.5	1281.3	1244.6	1209.7
15°	1755.1	1689.1	1619.8	1544.9	1478.4	1415.8	1354.4	1298.6	1251.2	1202.7	1169.0
17.5°	1802.4	1720.8	1641.5	1563.2	1482.6	1403.8	1337.5	1273.1	1213.8	1165.7	1123.1
20°	1833.4	1752.3	1653.7	1575.3	1479.5	1398.3	1321.7	1250.1	1188.1	1136.9	1092.8
22.5°	1860.5	1766.8	1668.1	1565.0	1469.6	1383.5	1299.6	1227.6	1164.2	1110.2	1068.0
25°	1875.2	1767.5	1660.4	1557.9	1449.6	1347.6	1271.5	1187.0	1119.3	1062.4	1017.3
27.5°	1876.7	1761.6	1640.5	1526.5	1414.8	1319.8	1223.8	1148.2	1078.0	1017.8	974.5
30°	1871.8	1751.8	1621.5	1498.1	1385.9	1282.8	1199.4	1117.1	1045.5	985.8	940.7
32.5°	1856.0	1731.0	1597.2	1466.6	1350.3	1249.4	1163.4	1085.1	1015.3	956.4	909.1
35°	1810.4	1686.9	1544.3	1408.5	1289.6	1187.6	1109.8	1030.3	960.4	904.6	859.0
37.5°	1739.0	1627.4	1482.5	1341.9	1225.1	1122.6	1045.5	973.7	910.7	854.0	807.2
40°	1676.7	1578.7	1433.3	1296.3	1170.1	1072.6	1000.5	934.5	872.0	818.4	773.9
42.5°	1605.1	1519.6	1385.5	1240.4	1118.7	1020.8	950.4	891.2	832.3	782.8	738.3
45°	1477.2	1420.9	1294.6	1160.5	1033.7	941.3	874.2	822.3	772.7	724.2	687.1
47.5°	1330.2	1302.3	1196.0	1068.6	948.3	857.1	799.0	751.1	707.6	666.5	633.7
50°	1231.5	1218.0	1126.1	1003.2	888.3	802.6	744.0	702.9	665.6	629.6	598.6
52.5°	1134.1	1133.7	1050.8	938.3	831.9	749.4	691.2	652.8	620.5	591.3	563.4
55°	985.2	1001.0	936.2	835.8	740.6	666.2	613.8	579.4	556.8	532.6	511.8
57.5°	848.5	874.7	821.2	732.8	653.4	584.8	539.2	513.3	489.3	474.7	459.5
60°	759.2	784.0	742.3	667.9	593.0	534.3	490.9	467.8	446.9	436.8	426.1
62.5°	679.9	702.0	671.1	602.1	537.0	480.6	444.0	421.8	407.7	396.6	389.6
65°	566.5	585.1	558.6	508.4	452.6	407.5	377.6	360.1	346.7	342.1	334.2
67.5°	457.9	474.8	460.5	417.8	373.1	339.0	315.6	298.8	290.8	286.9	281.3
70°	393.4	410.3	395.1	357.9	323.5	294.8	272.8	263.2	254.8	253.1	245.2
72.5°	338.8	350.3	335.2	306.1	276.6	252.4	235.4	225.3	220.9	217.9	213.6
75°	254.2	264.3	254.2	231.6	210.8	193.9	179.2	175.3	170.2	168.5	165.7
77.5°	179.9	188.7	180.9	166.8	151.2	138.2	130.3	125.2	124.1	121.2	122.5
80°	137.5	143.2	135.8	126.3	113.8	104.8	99.2	96.4	93.0	91.9	94.1
82.5°	98.7	101.3	97.5	91.1	81.9	76.0	72.2	68.9	68.2	68.4	68.4
85°	51.3	50.7	50.1	44.5	41.7	37.7	35.5	35.0	34.4	35.5	36.6
87.5°	21.7	21.7	20.8	18.5	16.6	14.6	13.5	12.5	13.5	14.6	15.7
90°	22.7	20.5	18.3	15.7	12.7	9.7	6.7	3.7	6.7	9.7	12.7
92.5°	45.7	44.1	42.6	40.1	36.6	33.2	29.8	26.3	29.8	33.2	36.6
95°	89.6	87.7	85.8	83.6	81.1	78.7	76.2	73.8	76.2	78.7	81.1
97.5°	143.2	141.0	138.8	136.7	134.8	132.7	130.8	128.8	130.8	132.7	134.8
100°	183.2	180.8	178.2	176.5	175.4	174.3	173.2	172.1	173.2	174.3	175.4
102.5°	224.9	222.7	220.5	219.1	218.7	218.3	217.8	217.4	217.8	218.3	218.7
105°	290.4	289.3	288.2	287.6	287.2	287.0	286.7	286.4	286.7	287.0	287.2
107.5°	360.9	360.7	360.5	360.3	360.0	359.6	359.3	359.0	359.3	359.6	360.0
110°	409.9	410.2	410.5	410.3	409.8	409.2	408.7	408.1	408.7	409.2	409.8





TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	458.5	459.0	459.5	459.7	459.6	459.5	459.4	459.3	459.4	459.5	459.6
115°	534.6	535.2	535.7	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0
117.5°	608.3	608.7	609.1	609.2	608.9	608.7	608.5	608.3	608.5	608.7	608.9
120°	659.3	660.1	661.0	660.8	659.7	658.7	657.5	656.5	657.5	658.7	659.7
122.5°	707.6	708.0	708.4	708.3	707.9	707.5	707.0	706.6	707.0	707.5	707.9
125°	779.9	780.2	780.5	780.6	780.6	780.6	780.6	780.6	780.6	780.6	780.6
127.5°	850.4	850.8	851.3	851.0	850.2	849.4	848.6	847.7	848.6	849.4	850.2
130°	898.6	898.6	898.6	898.2	897.4	896.6	895.8	895.0	895.8	896.6	897.4
132.5°	945.3	945.5	945.7	945.6	944.9	944.4	943.8	943.1	943.8	944.4	944.9
135°	1014.2	1014.2	1014.2	1013.4	1011.8	1010.1	1008.4	1006.8	1008.4	1010.1	1011.8
137.5°	1080.7	1080.3	1079.9	1079.2	1078.5	1077.7	1076.9	1076.2	1076.9	1077.7	1078.5
140°	1124.9	1124.9	1124.9	1124.5	1124.1	1123.5	1122.9	1122.4	1122.9	1123.5	1124.1
142.5°	1166.6	1166.8	1167.0	1166.9	1166.3	1165.8	1165.2	1164.7	1165.2	1165.8	1166.3
145°	1228.8	1228.5	1228.2	1227.6	1226.5	1225.4	1224.3	1223.2	1224.3	1225.4	1226.5
147.5°	1286.5	1286.8	1287.0	1286.5	1285.2	1283.9	1282.5	1281.2	1282.5	1283.9	1285.2
150°	1321.5	1321.5	1321.5	1321.0	1319.9	1318.8	1317.7	1316.6	1317.7	1318.8	1319.9
152.5°	1353.6	1353.3	1353.2	1352.7	1352.0	1351.4	1350.7	1350.1	1350.7	1351.4	1352.0
155°	1400.8	1401.0	1401.3	1401.4	1401.4	1401.4	1401.4	1401.4	1401.4	1401.4	1401.4
157.5°	1442.3	1442.4	1442.5	1442.8	1443.2	1443.7	1444.2	1444.7	1444.2	1443.7	1443.2
160°	1468.4	1468.7	1468.9	1469.2	1469.5	1469.7	1470.0	1470.3	1470.0	1469.7	1469.5
162.5°	1490.0	1490.3	1490.5	1491.0	1491.8	1492.5	1493.2	1493.9	1493.2	1492.5	1491.8
165°	1520.5	1521.1	1521.7	1522.3	1523.1	1524.0	1524.8	1525.6	1524.8	1524.0	1523.1
167.5°	1544.9	1544.9	1544.8	1545.4	1546.5	1547.7	1548.8	1550.0	1548.8	1547.7	1546.5
170°	1558.3	1558.0	1557.7	1558.3	1559.6	1561.0	1562.4	1563.7	1562.4	1561.0	1559.6
172.5°	1568.6	1568.5	1568.4	1569.0	1570.1	1571.2	1572.4	1573.5	1572.4	1571.2	1570.1
175°	1580.2	1580.5	1580.8	1581.6	1583.0	1584.4	1585.7	1587.1	1585.7	1584.4	1583.0
177.5°	1586.6	1586.6	1586.6	1587.1	1588.2	1589.3	1590.4	1591.5	1590.4	1589.3	1588.2
180°	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6
2.5°	1334.4	1330.4	1324.5	1316.4	1309.6	1302.4	1300.6	1297.9	1303.3	1298.8	1297.5
5°	1290.7	1278.9	1263.6	1246.2	1236.0	1221.4	1218.5	1212.9	1207.3	1206.7	1201.1
7.5°	1244.4	1227.0	1207.1	1189.3	1172.8	1156.7	1146.3	1144.0	1135.7	1130.8	1125.2
10°	1214.6	1193.2	1170.1	1153.2	1134.0	1117.1	1105.3	1098.5	1092.8	1086.6	1081.0
12.5°	1179.4	1156.7	1137.6	1119.3	1096.6	1083.7	1064.2	1052.5	1051.4	1051.5	1036.8
15°	1138.5	1116.0	1086.6	1060.7	1048.3	1023.5	1012.8	999.3	990.8	982.4	975.7
17.5°	1091.8	1063.6	1040.8	1011.1	987.3	967.6	953.6	945.4	932.7	920.7	912.1
20°	1062.4	1032.6	1008.3	976.7	950.8	926.6	914.8	903.5	893.9	883.8	874.2
22.5°	1032.7	1001.4	971.8	941.1	917.0	891.4	880.0	864.7	855.6	849.9	840.3
25°	985.8	951.9	918.1	888.8	864.1	841.5	826.3	814.4	804.3	799.8	793.6
27.5°	934.8	901.2	868.5	835.3	807.1	790.8	778.6	769.6	763.9	757.8	755.0
30°	902.4	867.4	832.5	801.4	775.5	759.2	748.0	741.8	737.2	734.4	731.6
32.5°	869.4	834.9	798.2	769.9	746.7	732.1	723.6	717.4	715.1	714.1	713.1
35°	816.7	781.7	748.0	722.6	700.6	695.0	687.6	684.2	683.1	687.1	688.8
37.5°	765.6	733.2	702.1	677.4	663.1	654.8	652.3	652.5	656.5	660.0	664.1
40°	732.7	701.2	671.8	650.4	636.9	631.9	630.7	633.5	638.1	642.0	646.5
42.5°	700.7	669.6	642.9	622.9	613.4	608.8	609.5	612.3	618.6	623.5	630.2
45°	651.0	625.1	599.2	582.8	574.9	576.0	576.0	581.1	587.3	594.6	601.9
47.5°	604.2	578.0	556.8	543.0	538.9	537.9	541.1	547.7	556.6	565.7	575.9
50°	572.7	547.8	529.2	516.8	512.3	514.0	518.5	524.7	535.4	546.7	557.4
52.5°	540.6	518.0	500.8	489.3	486.2	489.3	493.7	503.5	512.9	525.1	538.0
55°	490.9	471.7	458.2	449.8	448.7	450.4	455.4	466.1	479.6	494.9	507.3
57.5°	441.4	425.4	413.0	407.2	407.7	409.3	417.7	430.4	444.8	461.1	477.0
60°	408.1	393.4	383.3	378.8	379.3	382.7	392.8	404.7	422.7	438.5	455.4
62.5°	376.5	363.6	353.9	349.9	349.1	356.5	366.2	378.5	396.6	414.2	432.4
65°	325.8	315.6	307.8	305.5	307.2	312.8	325.2	341.5	356.8	375.4	394.5
67.5°	276.1	267.8	262.4	263.4	265.5	273.8	284.2	298.2	315.5	334.8	353.8
70°	244.6	236.7	232.2	232.8	236.2	246.3	255.4	269.4	288.0	307.8	323.5
72.5°	212.1	206.9	202.9	205.3	208.6	215.6	226.9	241.0	257.4	275.7	292.4
75°	162.9	162.9	160.6	162.3	167.4	174.1	182.6	197.3	213.6	228.3	241.8
77.5°	120.8	119.6	121.1	123.1	126.0	134.0	143.7	154.2	166.5	181.2	192.3
80°	92.5	93.0	95.8	99.2	100.4	106.6	116.7	126.3	135.8	148.2	158.9
82.5°	69.5	70.0	71.5	75.7	76.9	83.6	90.1	99.6	108.4	116.7	125.6
85°	37.7	37.7	40.6	42.2	45.1	49.6	53.6	59.2	67.1	72.7	81.1
87.5°	17.6	18.1	20.3	21.7	23.5	26.2	27.4	32.7	34.8	37.3	41.7
90°	15.7	18.3	20.5	22.7	24.9	27.1	28.7	30.3	32.0	33.6	34.7
92.5°	40.1	42.6	44.1	45.7	47.1	48.7	49.7	50.6	51.6	52.6	53.2
95°	83.6	85.8	87.7	89.6	91.6	93.4	94.2	95.1	95.9	96.7	97.1
97.5°	136.7	138.8	141.0	143.2	145.5	147.7	148.7	149.8	150.7	151.7	152.2
100°	176.5	178.2	180.8	183.2	185.6	188.1	188.7	189.1	189.7	190.3	190.5
102.5°	219.1	220.5	222.7	224.9	227.1	229.4	230.2	230.9	231.7	232.4	232.9
105°	287.6	288.2	289.3	290.4	291.5	292.6	293.4	294.2	295.1	295.9	296.7
107.5°	360.3	360.5	360.7	360.9	361.0	361.2	361.9	362.7	363.5	364.3	364.6
110°	410.3	410.5	410.2	409.9	409.6	409.4	408.8	408.3	407.7	407.2	407.3



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	459.7	459.5	459.0	458.5	458.0	457.5	457.5	457.3	457.2	457.1	457.1
115°	536.0	535.7	535.2	534.6	534.1	533.5	533.3	533.0	532.7	532.5	532.1
117.5°	609.2	609.1	608.7	608.3	607.9	607.6	606.6	605.7	604.8	603.8	603.1
120°	660.8	661.0	660.1	659.3	658.5	657.7	656.3	654.9	653.6	652.2	651.8
122.5°	708.3	708.4	708.0	707.6	707.3	706.9	706.0	705.0	704.1	703.2	702.2
125°	780.6	780.5	780.2	779.9	779.7	779.4	778.9	778.3	777.8	777.2	776.7
127.5°	851.0	851.3	850.8	850.4	849.9	849.5	848.9	848.4	847.8	847.3	846.8
130°	898.2	898.6	898.6	898.6	898.6	898.6	898.1	897.6	897.0	896.4	895.6
132.5°	945.6	945.7	945.5	945.3	945.1	944.9	944.4	943.8	943.2	942.6	942.2
135°	1013.4	1014.2	1014.2	1014.2	1014.2	1014.2	1013.7	1013.1	1012.6	1012.0	1011.3
137.5°	1079.2	1079.9	1080.3	1080.7	1081.2	1081.6	1080.8	1080.2	1079.5	1078.7	1078.5
140°	1124.5	1124.9	1124.9	1124.9	1124.9	1124.9	1124.5	1124.3	1124.1	1123.7	1123.5
142.5°	1166.9	1167.0	1166.8	1166.6	1166.4	1166.1	1166.1	1166.0	1166.0	1166.0	1165.9
145°	1227.6	1228.2	1228.5	1228.8	1229.1	1229.3	1229.1	1228.8	1228.5	1228.2	1227.7
147.5°	1286.5	1287.0	1286.8	1286.5	1286.4	1286.1	1285.9	1285.7	1285.5	1285.2	1285.0
150°	1321.0	1321.5	1321.5	1321.5	1321.5	1321.5	1321.5	1321.5	1321.5	1321.5	1321.4
152.5°	1352.7	1353.2	1353.3	1353.6	1353.8	1354.0	1354.6	1355.3	1355.9	1356.6	1356.6
155°	1401.4	1401.3	1401.0	1400.8	1400.5	1400.2	1401.3	1402.4	1403.5	1404.6	1404.6
157.5°	1442.8	1442.5	1442.4	1442.3	1442.3	1442.3	1443.1	1443.9	1444.7	1445.5	1445.4
160°	1469.2	1468.9	1468.7	1468.4	1468.1	1467.9	1468.7	1469.5	1470.3	1471.1	1470.8
162.5°	1491.0	1490.5	1490.3	1490.0	1489.7	1489.5	1490.9	1492.4	1493.9	1495.3	1495.4
165°	1522.3	1521.7	1521.1	1520.5	1520.0	1519.5	1521.1	1522.7	1524.4	1526.0	1526.3
167.5°	1545.4	1544.8	1544.9	1544.9	1545.0	1545.1	1546.7	1548.3	1550.0	1551.6	1551.6
170°	1558.3	1557.7	1558.0	1558.3	1558.5	1558.8	1560.4	1562.1	1563.7	1565.4	1565.2
172.5°	1569.0	1568.4	1568.5	1568.6	1568.6	1568.6	1570.5	1572.4	1574.2	1576.1	1576.1
175°	1581.6	1580.8	1580.5	1580.2	1580.0	1579.7	1581.6	1583.6	1585.4	1587.4	1587.4
177.5°	1587.1	1586.6	1586.6	1586.6	1586.6	1586.6	1588.1	1589.7	1591.1	1592.7	1592.6
180°	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6
2.5°	1296.6	1295.7	1292.5	1292.1	1292.5	1295.7	1296.6	1297.5	1298.8	1303.3	1297.9
5°	1197.7	1194.9	1193.2	1199.4	1193.2	1194.9	1197.7	1201.1	1206.7	1207.3	1212.9
7.5°	1123.2	1121.0	1116.0	1114.4	1116.0	1121.0	1123.2	1125.2	1130.8	1135.7	1144.0
10°	1075.4	1073.1	1068.6	1067.5	1068.6	1073.1	1075.4	1081.0	1086.6	1092.8	1098.5
12.5°	1029.4	1024.9	1024.0	1025.1	1024.0	1024.9	1029.4	1036.8	1051.5	1051.4	1052.5
15°	968.3	966.0	959.9	961.6	959.9	966.0	968.3	975.7	982.4	990.8	999.3
17.5°	908.1	905.4	897.9	904.5	897.9	905.4	908.1	912.1	920.7	932.7	945.4
20°	870.3	865.7	861.8	861.2	861.8	865.7	870.3	874.2	883.8	893.9	903.5
22.5°	834.1	830.1	829.7	826.1	829.7	830.1	834.1	840.3	849.9	855.6	864.7
25°	789.0	785.1	784.0	781.2	784.0	785.1	789.0	793.6	799.8	804.3	814.4
27.5°	754.5	752.5	750.5	751.4	750.5	752.5	754.5	755.0	757.8	763.9	769.6
30°	733.3	732.7	731.6	731.6	731.6	732.7	733.3	731.6	734.4	737.2	741.8
32.5°	715.7	715.6	716.2	716.2	716.2	715.6	715.7	713.1	714.1	715.1	717.4
35°	691.0	692.7	693.8	692.1	693.8	692.7	691.0	688.8	687.1	683.1	684.2
37.5°	668.7	670.3	672.0	673.8	672.0	670.3	668.7	664.1	660.0	656.5	652.5
40°	651.5	655.5	656.6	659.4	656.6	655.5	651.5	646.5	642.0	638.1	633.5
42.5°	635.3	639.7	642.6	643.2	642.6	639.7	635.3	630.2	623.5	618.6	612.3
45°	610.4	614.9	618.9	618.9	618.9	614.9	610.4	601.9	594.6	587.3	581.1
47.5°	584.6	591.1	595.1	596.1	595.1	591.1	584.6	575.9	565.7	556.6	547.7
50°	567.0	574.9	578.9	581.6	578.9	574.9	567.0	557.4	546.7	535.4	524.7
52.5°	549.8	557.7	563.0	564.5	563.0	557.7	549.8	538.0	525.1	512.9	503.5
55°	520.2	531.5	537.7	540.0	537.7	531.5	520.2	507.3	494.9	479.6	466.1
57.5°	492.3	502.6	509.9	511.5	509.9	502.6	492.3	477.0	461.1	444.8	430.4
60°	470.6	481.9	490.9	492.6	490.9	481.9	470.6	455.4	438.5	422.7	404.7
62.5°	448.5	460.2	468.4	472.8	468.4	460.2	448.5	432.4	414.2	396.6	378.5
65°	410.3	422.2	430.1	431.7	430.1	422.2	410.3	394.5	375.4	356.8	341.5
67.5°	368.6	380.4	385.6	388.9	385.6	380.4	368.6	353.8	334.8	315.5	298.2
70°	339.3	348.9	354.5	357.3	354.5	348.9	339.3	323.5	307.8	288.0	269.4
72.5°	305.9	315.9	322.5	323.1	322.5	315.9	305.9	292.4	275.7	257.4	241.0
75°	254.8	263.7	267.2	267.2	267.2	263.7	254.8	241.8	228.3	213.6	197.3
77.5°	201.6	206.3	210.6	211.5	210.6	206.3	201.6	192.3	181.2	166.5	154.2
80°	167.4	170.2	173.6	173.6	173.6	170.2	167.4	158.9	148.2	135.8	126.3
82.5°	132.2	134.6	137.9	137.5	137.9	134.6	132.2	125.6	116.7	108.4	99.6
85°	80.1	85.1	84.5	83.4	84.5	85.1	80.1	81.1	72.7	67.1	59.2
87.5°	43.1	43.7	45.2	46.1	45.2	43.7	43.1	41.7	37.3	34.8	32.7
90°	35.2	35.8	36.4	36.9	36.4	35.8	35.2	34.7	33.6	32.0	30.3
92.5°	53.6	53.9	54.2	54.5	54.2	53.9	53.6	53.2	52.6	51.6	50.6
95°	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	96.7	95.9	95.1
97.5°	152.2	152.2	152.2	152.2	152.2	152.2	152.2	152.2	151.7	150.7	149.8
100°	190.5	190.5	190.5	190.5	190.5	190.5	190.5	190.5	190.3	189.7	189.1
102.5°	233.2	233.4	233.6	233.8	233.6	233.4	233.2	232.9	232.4	231.7	230.9
105°	297.5	298.3	299.1	299.9	299.1	298.3	297.5	296.7	295.9	295.1	294.2
107.5°	364.5	364.5	364.4	364.4	364.4	364.5	364.5	364.6	364.3	363.5	362.7
110°	408.1	409.0	409.8	410.6	409.8	409.0	408.1	407.3	407.2	407.7	408.3



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	457.3	457.5	457.6	457.8	457.6	457.5	457.3	457.1	457.1	457.2	457.3
115°	531.9	531.7	531.3	531.1	531.3	531.7	531.9	532.1	532.5	532.7	533.0
117.5°	602.5	602.0	601.4	600.9	601.4	602.0	602.5	603.1	603.8	604.8	605.7
120°	652.4	652.9	653.5	654.0	653.5	652.9	652.4	651.8	652.2	653.6	654.9
122.5°	701.2	700.3	699.3	698.3	699.3	700.3	701.2	702.2	703.2	704.1	705.0
125°	776.1	775.6	775.0	774.5	775.0	775.6	776.1	776.7	777.2	777.8	778.3
127.5°	846.4	846.0	845.5	845.1	845.5	846.0	846.4	846.8	847.3	847.8	848.4
130°	894.5	893.5	892.3	891.3	892.3	893.5	894.5	895.6	896.4	897.0	897.6
132.5°	941.8	941.3	940.9	940.4	940.9	941.3	941.8	942.2	942.6	943.2	943.8
135°	1010.5	1009.7	1008.9	1008.0	1008.9	1009.7	1010.5	1011.3	1012.0	1012.6	1013.1
137.5°	1078.6	1078.8	1079.0	1079.1	1079.0	1078.8	1078.6	1078.5	1078.7	1079.5	1080.2
140°	1123.2	1122.9	1122.7	1122.4	1122.7	1122.9	1123.2	1123.5	1123.7	1124.1	1124.3
142.5°	1165.8	1165.8	1165.7	1165.6	1165.7	1165.8	1165.8	1165.9	1166.0	1166.0	1166.0
145°	1226.9	1226.0	1225.2	1224.4	1225.2	1226.0	1226.9	1227.7	1228.2	1228.5	1228.8
147.5°	1284.7	1284.5	1284.2	1283.9	1284.2	1284.5	1284.7	1285.0	1285.2	1285.5	1285.7
150°	1321.1	1320.9	1320.6	1320.3	1320.6	1320.9	1321.1	1321.4	1321.5	1321.5	1321.5
152.5°	1355.8	1355.2	1354.5	1353.7	1354.5	1355.2	1355.8	1356.6	1356.6	1355.9	1355.3
155°	1403.5	1402.4	1401.3	1400.2	1401.3	1402.4	1403.5	1404.6	1404.6	1403.5	1402.4
157.5°	1444.5	1443.7	1442.7	1441.8	1442.7	1443.7	1444.5	1445.4	1445.5	1444.7	1443.9
160°	1469.5	1468.1	1466.7	1465.3	1466.7	1468.1	1469.5	1470.8	1471.1	1470.3	1469.5
162.5°	1494.0	1492.7	1491.3	1490.0	1491.3	1492.7	1494.0	1495.4	1495.3	1493.9	1492.4
165°	1525.2	1524.1	1523.0	1521.9	1523.0	1524.1	1525.2	1526.3	1526.0	1524.4	1522.7
167.5°	1549.9	1548.2	1546.5	1544.7	1546.5	1548.2	1549.9	1551.6	1551.6	1550.0	1548.3
170°	1563.3	1561.4	1559.5	1557.5	1559.5	1561.4	1563.3	1565.2	1565.4	1563.7	1562.1
172.5°	1574.1	1572.2	1570.3	1568.4	1570.3	1572.2	1574.1	1576.1	1576.1	1574.2	1572.4
175°	1585.4	1583.6	1581.6	1579.7	1581.6	1583.6	1585.4	1587.4	1587.4	1585.4	1583.6
177.5°	1590.8	1589.1	1587.4	1585.6	1587.4	1589.1	1590.8	1592.6	1592.7	1591.1	1589.7
180°	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6
2.5°	1300.6	1302.4	1309.6	1316.4	1324.5	1330.4	1334.4	1339.0	1348.4	1356.1	1363.3
5°	1218.5	1221.4	1236.0	1246.2	1263.6	1278.9	1290.7	1303.7	1318.9	1339.7	1358.9
7.5°	1146.3	1156.7	1172.8	1189.3	1207.1	1227.0	1244.4	1263.9	1290.1	1318.7	1348.3
10°	1105.3	1117.1	1134.0	1153.2	1170.1	1193.2	1214.6	1237.7	1267.5	1302.5	1337.5
12.5°	1064.2	1083.7	1096.6	1119.3	1137.6	1156.7	1179.4	1209.7	1244.6	1281.3	1323.5
15°	1012.8	1023.5	1048.3	1060.7	1086.6	1116.0	1138.5	1169.0	1202.7	1251.2	1298.6
17.5°	953.6	967.6	987.3	1011.1	1040.8	1063.6	1091.8	1123.1	1165.7	1213.8	1273.1
20°	914.8	926.6	950.8	976.7	1008.3	1032.6	1062.4	1092.8	1136.9	1188.1	1250.1
22.5°	880.0	891.4	917.0	941.1	971.8	1001.4	1032.7	1068.0	1110.2	1164.2	1227.6
25°	826.3	841.5	864.1	888.8	918.1	951.9	985.8	1017.3	1062.4	1119.3	1187.0
27.5°	778.6	790.8	807.1	835.3	868.5	901.2	934.8	974.5	1017.8	1078.0	1148.2
30°	748.0	759.2	775.5	801.4	832.5	867.4	902.4	940.7	985.8	1045.5	1117.1
32.5°	723.6	732.1	746.7	769.9	798.2	834.9	869.4	909.1	956.4	1015.3	1085.1
35°	687.6	695.0	700.6	722.6	748.0	781.7	816.7	859.0	904.6	960.4	1030.3
37.5°	652.3	654.8	663.1	677.4	702.1	733.2	765.6	807.2	854.0	910.7	973.7
40°	630.7	631.9	636.9	650.4	671.8	701.2	732.7	773.9	818.4	872.0	934.5
42.5°	609.5	608.8	613.4	622.9	642.9	669.6	700.7	738.3	782.8	832.3	891.2
45°	576.0	576.0	574.9	582.8	599.2	625.1	651.0	687.1	724.2	772.7	822.3
47.5°	541.1	537.9	538.9	543.0	556.8	578.0	604.2	633.7	666.5	707.6	751.1
50°	518.5	514.0	512.3	516.8	529.2	547.8	572.7	598.6	629.6	665.6	702.9
52.5°	493.7	489.3	486.2	489.3	500.8	518.0	540.6	563.4	591.3	620.5	652.8
55°	455.4	450.4	448.7	449.8	458.2	471.7	490.9	511.8	532.6	556.8	579.4
57.5°	417.7	409.3	407.7	407.2	413.0	425.4	441.4	459.5	474.7	489.3	513.3
60°	392.8	382.7	379.3	378.8	383.3	393.4	408.1	426.1	436.8	446.9	467.8
62.5°	366.2	356.5	349.1	349.9	353.9	363.6	376.5	389.6	396.6	407.7	421.8
65°	325.2	312.8	307.2	305.5	307.8	315.6	325.8	334.2	342.1	346.7	360.1
67.5°	284.2	273.8	265.5	263.4	262.4	267.8	276.1	281.3	286.9	290.8	298.8
70°	255.4	246.3	236.2	232.8	232.2	236.7	244.6	245.2	253.1	254.8	263.2
72.5°	226.9	215.6	208.6	205.3	202.9	206.9	212.1	213.6	217.9	220.9	225.3
75°	182.6	174.1	167.4	162.3	160.6	162.9	162.9	165.7	168.5	170.2	175.3
77.5°	143.7	134.0	126.0	123.1	121.1	119.6	120.8	122.5	121.2	124.1	125.2
80°	116.7	106.6	100.4	99.2	95.8	93.0	92.5	94.1	91.9	93.0	96.4
82.5°	90.1	83.6	76.9	75.7	71.5	70.0	69.5	68.4	68.4	68.2	68.9
85°	53.6	49.6	45.1	42.2	40.6	37.7	37.7	36.6	35.5	34.4	35.0
87.5°	27.4	26.2	23.5	21.7	20.3	18.1	17.6	15.7	14.6	13.5	12.5
90°	28.7	27.1	24.9	22.7	20.5	18.3	15.7	12.7	9.7	6.7	3.7
92.5°	49.7	48.7	47.1	45.7	44.1	42.6	40.1	36.6	33.2	29.8	26.3
95°	94.2	93.4	91.6	89.6	87.7	85.8	83.6	81.1	78.7	76.2	73.8
97.5°	148.7	147.7	145.5	143.2	141.0	138.8	136.7	134.8	132.7	130.8	128.8
100°	188.7	188.1	185.6	183.2	180.8	178.2	176.5	175.4	174.3	173.2	172.1
102.5°	230.2	229.4	227.1	224.9	222.7	220.5	219.1	218.7	218.3	217.8	217.4
105°	293.4	292.6	291.5	290.4	289.3	288.2	287.6	287.2	287.0	286.7	286.4
107.5°	361.9	361.2	361.0	360.9	360.7	360.5	360.3	360.0	359.6	359.3	359.0
110°	408.8	409.4	409.6	409.9	410.2	410.5	410.3	409.8	409.2	408.7	408.1



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	457.5	457.5	458.0	458.5	459.0	459.5	459.7	459.6	459.5	459.4	459.3
115°	533.3	533.5	534.1	534.6	535.2	535.7	536.0	536.0	536.0	536.0	536.0
117.5°	606.6	607.6	607.9	608.3	608.7	609.1	609.2	608.9	608.7	608.5	608.3
120°	656.3	657.7	658.5	659.3	660.1	661.0	660.8	659.7	658.7	657.5	656.5
122.5°	706.0	706.9	707.3	707.6	708.0	708.4	708.3	707.9	707.5	707.0	706.6
125°	778.9	779.4	779.7	779.9	780.2	780.5	780.6	780.6	780.6	780.6	780.6
127.5°	848.9	849.5	849.9	850.4	850.8	851.3	851.0	850.2	849.4	848.6	847.7
130°	898.1	898.6	898.6	898.6	898.6	898.6	898.2	897.4	896.6	895.8	895.0
132.5°	944.4	944.9	945.1	945.3	945.5	945.7	945.6	944.9	944.4	943.8	943.1
135°	1013.7	1014.2	1014.2	1014.2	1014.2	1014.2	1013.4	1011.8	1010.1	1008.4	1006.8
137.5°	1080.8	1081.6	1081.2	1080.7	1080.3	1079.9	1079.2	1078.5	1077.7	1076.9	1076.2
140°	1124.5	1124.9	1124.9	1124.9	1124.9	1124.9	1124.5	1124.1	1123.5	1122.9	1122.4
142.5°	1166.1	1166.1	1166.4	1166.6	1166.8	1167.0	1166.9	1166.3	1165.8	1165.2	1164.7
145°	1229.1	1229.3	1229.1	1228.8	1228.5	1228.2	1227.6	1226.5	1225.4	1224.3	1223.2
147.5°	1285.9	1286.1	1286.4	1286.5	1286.8	1287.0	1286.5	1285.2	1283.9	1282.5	1281.2
150°	1321.5	1321.5	1321.5	1321.5	1321.5	1321.5	1321.0	1319.9	1318.8	1317.7	1316.6
152.5°	1354.6	1354.0	1353.8	1353.6	1353.3	1353.2	1352.7	1352.0	1351.4	1350.7	1350.1
155°	1401.3	1400.2	1400.5	1400.8	1401.0	1401.3	1401.4	1401.4	1401.4	1401.4	1401.4
157.5°	1443.1	1442.3	1442.3	1442.3	1442.4	1442.5	1442.8	1443.2	1443.7	1444.2	1444.7
160°	1468.7	1467.9	1468.1	1468.4	1468.7	1468.9	1469.2	1469.5	1469.7	1470.0	1470.3
162.5°	1490.9	1489.5	1489.7	1490.0	1490.3	1490.5	1491.0	1491.8	1492.5	1493.2	1493.9
165°	1521.1	1519.5	1520.0	1520.5	1521.1	1521.7	1522.3	1523.1	1524.0	1524.8	1525.6
167.5°	1546.7	1545.1	1545.0	1544.9	1544.9	1544.8	1545.4	1546.5	1547.7	1548.8	1550.0
170°	1560.4	1558.8	1558.5	1558.3	1558.0	1557.7	1558.3	1559.6	1561.0	1562.4	1563.7
172.5°	1570.5	1568.6	1568.6	1568.6	1568.5	1568.4	1569.0	1570.1	1571.2	1572.4	1573.5
175°	1581.6	1579.7	1580.0	1580.2	1580.5	1580.8	1581.6	1583.0	1584.4	1585.7	1587.1
177.5°	1588.1	1586.6	1586.6	1586.6	1586.6	1586.6	1587.1	1588.2	1589.3	1590.4	1591.5
180°	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6
2.5°	1369.6	1374.1	1380.0	1389.9	1393.5	1398.0	1404.4	1403.9	1405.7	1412.4	1426.9
5°	1374.7	1392.1	1409.1	1429.4	1450.7	1464.8	1484.0	1495.8	1507.7	1522.9	1548.8
7.5°	1376.7	1404.4	1435.4	1471.0	1502.8	1539.3	1567.7	1594.6	1618.9	1651.0	1681.9
10°	1373.5	1410.7	1450.7	1495.8	1543.8	1584.4	1621.0	1662.7	1698.2	1737.1	1772.1
12.5°	1367.7	1412.6	1466.1	1516.6	1572.6	1632.6	1678.2	1720.4	1767.7	1812.4	1866.3
15°	1354.4	1415.8	1478.4	1544.9	1619.8	1689.1	1755.1	1809.8	1860.5	1927.6	1998.1
17.5°	1337.5	1403.8	1482.6	1563.2	1641.5	1720.8	1802.4	1884.6	1948.6	2031.9	2087.0
20°	1321.7	1398.3	1479.5	1575.3	1653.7	1752.3	1833.4	1912.9	2000.8	2083.7	2149.6
22.5°	1299.6	1383.5	1469.6	1565.0	1668.1	1766.8	1860.5	1946.8	2034.7	2124.8	2204.7
25°	1271.5	1347.6	1449.6	1557.9	1660.4	1767.5	1875.2	1983.4	2078.0	2173.3	2247.7
27.5°	1223.8	1319.8	1414.8	1526.5	1640.5	1761.6	1876.7	1990.1	2089.2	2167.6	2213.7
30°	1199.4	1282.8	1385.9	1498.1	1621.5	1751.8	1871.8	1982.8	2075.3	2137.8	2156.4
32.5°	1163.4	1249.4	1350.3	1466.6	1597.2	1731.0	1856.0	1960.7	2037.8	2070.6	2048.2
35°	1109.8	1187.6	1289.6	1408.5	1544.3	1686.9	1810.4	1898.8	1938.3	1907.3	1830.1
37.5°	1045.5	1122.6	1225.1	1341.9	1482.5	1627.4	1739.0	1802.7	1789.6	1712.5	1597.4
40°	1000.5	1072.6	1170.1	1296.3	1433.3	1578.7	1676.7	1711.2	1675.1	1564.6	1442.3
42.5°	950.4	1020.8	1118.7	1240.4	1385.5	1519.6	1605.1	1607.9	1547.4	1415.4	1292.6
45°	874.2	941.3	1033.7	1160.5	1294.6	1420.9	1477.2	1449.6	1338.1	1210.6	1087.2
47.5°	799.0	857.1	948.3	1068.6	1196.0	1302.3	1330.2	1280.5	1161.6	1038.0	923.6
50°	744.0	802.6	888.3	1003.2	1126.1	1218.0	1231.5	1165.6	1048.9	924.3	834.7
52.5°	691.2	749.4	831.9	938.3	1050.8	1133.7	1134.1	1057.8	941.6	830.5	747.2
55°	613.8	666.2	740.6	835.8	936.2	1001.0	985.2	906.3	805.4	709.1	636.3
57.5°	539.2	584.8	653.4	732.8	821.2	874.7	848.5	772.5	682.4	600.7	545.6
60°	490.9	534.3	593.0	667.9	742.3	784.0	759.2	690.4	607.6	541.6	493.7
62.5°	444.0	480.6	537.0	602.1	671.1	702.0	679.9	612.0	540.4	480.8	441.9
65°	377.6	407.5	452.6	508.4	558.6	585.1	566.5	503.3	448.7	405.8	374.8
67.5°	315.6	339.0	373.1	417.8	460.5	474.8	457.9	413.9	367.6	333.3	311.4
70°	272.8	294.8	323.5	357.9	395.1	410.3	393.4	358.5	320.7	289.1	267.7
72.5°	235.4	252.4	276.6	306.1	335.2	350.3	338.8	305.2	273.4	249.9	231.6
75°	179.2	193.9	210.8	231.6	254.2	264.3	254.2	231.1	209.1	191.6	178.6
77.5°	130.3	138.2	151.2	166.8	180.9	188.7	179.9	164.2	150.8	138.8	132.5
80°	99.2	104.8	113.8	126.3	135.8	143.2	137.5	124.6	113.8	106.0	103.1
82.5°	72.2	76.0	81.9	91.1	97.5	101.3	98.7	89.4	85.0	78.0	75.2
85°	35.5	37.7	41.7	44.5	50.1	50.7	51.3	47.4	43.4	41.7	39.5
87.5°	13.5	14.6	16.6	18.5	20.8	21.7	21.7	22.1	20.7	20.6	19.2
90°	6.7	9.7	12.7	15.7	18.3	20.5	22.7	24.9	27.1	28.7	30.3
92.5°	29.8	33.2	36.6	40.1	42.6	44.1	45.7	47.1	48.7	49.7	50.6
95°	76.2	78.7	81.1	83.6	85.8	87.7	89.6	91.6	93.4	94.2	95.1
97.5°	130.8	132.7	134.8	136.7	138.8	141.0	143.2	145.5	147.7	148.7	149.8
100°	173.2	174.3	175.4	176.5	178.2	180.8	183.2	185.6	188.1	188.7	189.1
102.5°	217.8	218.3	218.7	219.1	220.5	222.7	224.9	227.1	229.4	230.2	230.9
105°	286.7	287.0	287.2	287.6	288.2	289.3	290.4	291.5	292.6	293.4	294.2
107.5°	359.3	359.6	360.0	360.3	360.5	360.7	360.9	361.0	361.2	361.9	362.7
110°	408.7	409.2	409.8	410.3	410.5	410.2	409.9	409.6	409.4	408.8	408.3





TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	459.4	459.5	459.6	459.7	459.5	459.0	458.5	458.0	457.5	457.5	457.3
115°	536.0	536.0	536.0	536.0	535.7	535.2	534.6	534.1	533.5	533.3	533.0
117.5°	608.5	608.7	608.9	609.2	609.1	608.7	608.3	607.9	607.6	606.6	605.7
120°	657.5	658.7	659.7	660.8	661.0	660.1	659.3	658.5	657.7	656.3	654.9
122.5°	707.0	707.5	707.9	708.3	708.4	708.0	707.6	707.3	706.9	706.0	705.0
125°	780.6	780.6	780.6	780.6	780.5	780.2	779.9	779.7	779.4	778.9	778.3
127.5°	848.6	849.4	850.2	851.0	851.3	850.8	850.4	849.9	849.5	848.9	848.4
130°	895.8	896.6	897.4	898.2	898.6	898.6	898.6	898.6	898.6	898.1	897.6
132.5°	943.8	944.4	944.9	945.6	945.7	945.5	945.3	945.1	944.9	944.4	943.8
135°	1008.4	1010.1	1011.8	1013.4	1014.2	1014.2	1014.2	1014.2	1014.2	1013.7	1013.1
137.5°	1076.9	1077.7	1078.5	1079.2	1079.9	1080.3	1080.7	1081.2	1081.6	1080.8	1080.2
140°	1122.9	1123.5	1124.1	1124.5	1124.9	1124.9	1124.9	1124.9	1124.9	1124.5	1124.3
142.5°	1165.2	1165.8	1166.3	1166.9	1167.0	1166.8	1166.6	1166.4	1166.1	1166.1	1166.0
145°	1224.3	1225.4	1226.5	1227.6	1228.2	1228.5	1228.8	1229.1	1229.3	1229.1	1228.8
147.5°	1282.5	1283.9	1285.2	1286.5	1287.0	1286.8	1286.5	1286.4	1286.1	1285.9	1285.7
150°	1317.7	1318.8	1319.9	1321.0	1321.5	1321.5	1321.5	1321.5	1321.5	1321.5	1321.5
152.5°	1350.7	1351.4	1352.0	1352.7	1353.2	1353.3	1353.6	1353.8	1354.0	1354.6	1355.3
155°	1401.4	1401.4	1401.4	1401.4	1401.3	1401.0	1400.8	1400.5	1400.2	1401.3	1402.4
157.5°	1444.2	1443.7	1443.2	1442.8	1442.5	1442.4	1442.3	1442.3	1442.3	1443.1	1443.9
160°	1470.0	1469.7	1469.5	1469.2	1468.9	1468.7	1468.4	1468.1	1467.9	1468.7	1469.5
162.5°	1493.2	1492.5	1491.8	1491.0	1490.5	1490.3	1490.0	1489.7	1489.5	1490.9	1492.4
165°	1524.8	1524.0	1523.1	1522.3	1521.7	1521.1	1520.5	1520.0	1519.5	1521.1	1522.7
167.5°	1548.8	1547.7	1546.5	1545.4	1544.8	1544.9	1544.9	1545.0	1545.1	1546.7	1548.3
170°	1562.4	1561.0	1559.6	1558.3	1557.7	1558.0	1558.3	1558.5	1558.8	1560.4	1562.1
172.5°	1572.4	1571.2	1570.1	1569.0	1568.4	1568.5	1568.6	1568.6	1568.6	1570.5	1572.4
175°	1585.7	1584.4	1583.0	1581.6	1580.8	1580.5	1580.2	1580.0	1579.7	1581.6	1583.6
177.5°	1590.4	1589.3	1588.2	1587.1	1586.6	1586.6	1586.6	1586.6	1586.6	1588.1	1589.7
180°	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6	1360.6
2.5°	1434.1	1435.0	1439.0	1442.2	1443.1	1447.6	1448.1
5°	1560.1	1569.7	1588.3	1590.0	1592.8	1607.4	1596.2
7.5°	1707.8	1732.1	1748.3	1762.7	1767.9	1774.3	1772.9
10°	1802.5	1838.5	1856.6	1885.3	1886.4	1893.8	1889.3
12.5°	1897.6	1939.5	1972.5	1977.8	2001.9	2005.6	2011.9
15°	2032.4	2077.0	2122.6	2138.9	2172.2	2180.1	2192.5
17.5°	2159.2	2204.7	2236.7	2278.9	2292.6	2310.9	2298.4
20°	2228.5	2278.2	2318.7	2352.0	2366.1	2376.2	2375.1
22.5°	2270.5	2320.5	2353.4	2378.6	2391.8	2396.1	2395.8
25°	2296.8	2325.5	2335.7	2345.2	2330.6	2325.5	2327.8
27.5°	2223.7	2216.3	2189.8	2155.1	2119.0	2090.3	2074.8
30°	2123.2	2079.2	2039.1	1969.3	1933.2	1911.8	1892.6
32.5°	1980.7	1911.0	1834.0	1770.0	1729.0	1697.2	1692.5
35°	1736.5	1631.7	1537.6	1459.2	1418.6	1384.2	1376.4
37.5°	1476.3	1367.4	1282.7	1213.7	1170.1	1145.8	1123.2
40°	1303.7	1210.1	1126.7	1068.0	1034.8	1017.3	1003.2
42.5°	1170.6	1085.2	1002.2	957.6	927.5	916.8	908.6
45°	986.9	907.4	849.9	816.1	798.7	780.6	772.2
47.5°	839.8	775.1	737.2	708.5	689.7	679.1	673.6
50°	756.4	703.4	669.6	647.6	630.7	622.2	617.8
52.5°	682.4	639.0	610.5	593.0	581.6	575.4	573.6
55°	587.8	554.6	536.5	521.4	512.9	507.3	505.0
57.5°	510.9	485.4	470.8	458.2	454.9	450.2	448.7
60°	460.5	440.8	428.4	419.9	417.1	411.5	412.5
62.5°	415.8	399.7	389.1	384.3	380.6	375.9	377.4
65°	351.7	339.9	334.2	329.7	325.2	322.4	324.7
67.5°	295.1	287.0	279.3	276.7	274.5	274.0	271.7
70°	258.1	251.4	244.6	243.0	243.0	240.7	240.1
72.5°	222.5	217.5	213.0	211.8	210.0	210.9	208.6
75°	171.9	168.0	166.2	164.6	164.0	164.0	162.3
77.5°	127.0	124.1	121.4	121.4	119.4	118.6	118.4
80°	96.4	95.2	93.0	93.0	91.9	92.5	91.3
82.5°	72.5	70.9	70.4	69.5	68.0	68.1	66.9
85°	38.9	37.2	36.6	35.0	33.8	35.0	33.8
87.5°	19.9	19.8	19.6	18.8	18.4	18.5	17.3
90°	32.0	33.6	34.7	35.2	35.8	36.4	36.9
92.5°	51.6	52.6	53.2	53.6	53.9	54.2	54.5
95°	95.9	96.7	97.1	97.1	97.1	97.1	97.1
97.5°	150.7	151.7	152.2	152.2	152.2	152.2	152.2
100°	189.7	190.3	190.5	190.5	190.5	190.5	190.5
102.5°	231.7	232.4	232.9	233.2	233.4	233.6	233.8
105°	295.1	295.9	296.7	297.5	298.3	299.1	299.9
107.5°	363.5	364.3	364.6	364.5	364.5	364.4	364.4
110°	407.7	407.2	407.3	408.1	409.0	409.8	410.6



TEST NUMBER: P332830-930

CATALOG NUMBER: S124DIW-S1020D1560U930-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	457.2	457.1	457.1	457.3	457.5	457.6	457.8
115°	532.7	532.5	532.1	531.9	531.7	531.3	531.1
117.5°	604.8	603.8	603.1	602.5	602.0	601.4	600.9
120°	653.6	652.2	651.8	652.4	652.9	653.5	654.0
122.5°	704.1	703.2	702.2	701.2	700.3	699.3	698.3
125°	777.8	777.2	776.7	776.1	775.6	775.0	774.5
127.5°	847.8	847.3	846.8	846.4	846.0	845.5	845.1
130°	897.0	896.4	895.6	894.5	893.5	892.3	891.3
132.5°	943.2	942.6	942.2	941.8	941.3	940.9	940.4
135°	1012.6	1012.0	1011.3	1010.5	1009.7	1008.9	1008.0
137.5°	1079.5	1078.7	1078.5	1078.6	1078.8	1079.0	1079.1
140°	1124.1	1123.7	1123.5	1123.2	1122.9	1122.7	1122.4
142.5°	1166.0	1166.0	1165.9	1165.8	1165.8	1165.7	1165.6
145°	1228.5	1228.2	1227.7	1226.9	1226.0	1225.2	1224.4
147.5°	1285.5	1285.2	1285.0	1284.7	1284.5	1284.2	1283.9
150°	1321.5	1321.5	1321.4	1321.1	1320.9	1320.6	1320.3
152.5°	1355.9	1356.6	1356.6	1355.8	1355.2	1354.5	1353.7
155°	1403.5	1404.6	1404.6	1403.5	1402.4	1401.3	1400.2
157.5°	1444.7	1445.5	1445.4	1444.5	1443.7	1442.7	1441.8
160°	1470.3	1471.1	1470.8	1469.5	1468.1	1466.7	1465.3
162.5°	1493.9	1495.3	1495.4	1494.0	1492.7	1491.3	1490.0
165°	1524.4	1526.0	1526.3	1525.2	1524.1	1523.0	1521.9
167.5°	1550.0	1551.6	1551.6	1549.9	1548.2	1546.5	1544.7
170°	1563.7	1565.4	1565.2	1563.3	1561.4	1559.5	1557.5
172.5°	1574.2	1576.1	1576.1	1574.1	1572.2	1570.3	1568.4
175°	1585.4	1587.4	1587.4	1585.4	1583.6	1581.6	1579.7
177.5°	1591.1	1592.7	1592.6	1590.8	1589.1	1587.4	1585.6
180°	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5

(END OF REPORT)