

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: P332829-830

Luminaire Tested: **S124DIW-S1020D1560U830-4F0-1E-UDD-A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332829-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIW-S1020D1560U830-4F0-1E-UDD-A  
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1020 LUMENS PER FOOT, ASYMMETRIC DIFFUSER  
UPLIGHT 1560 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

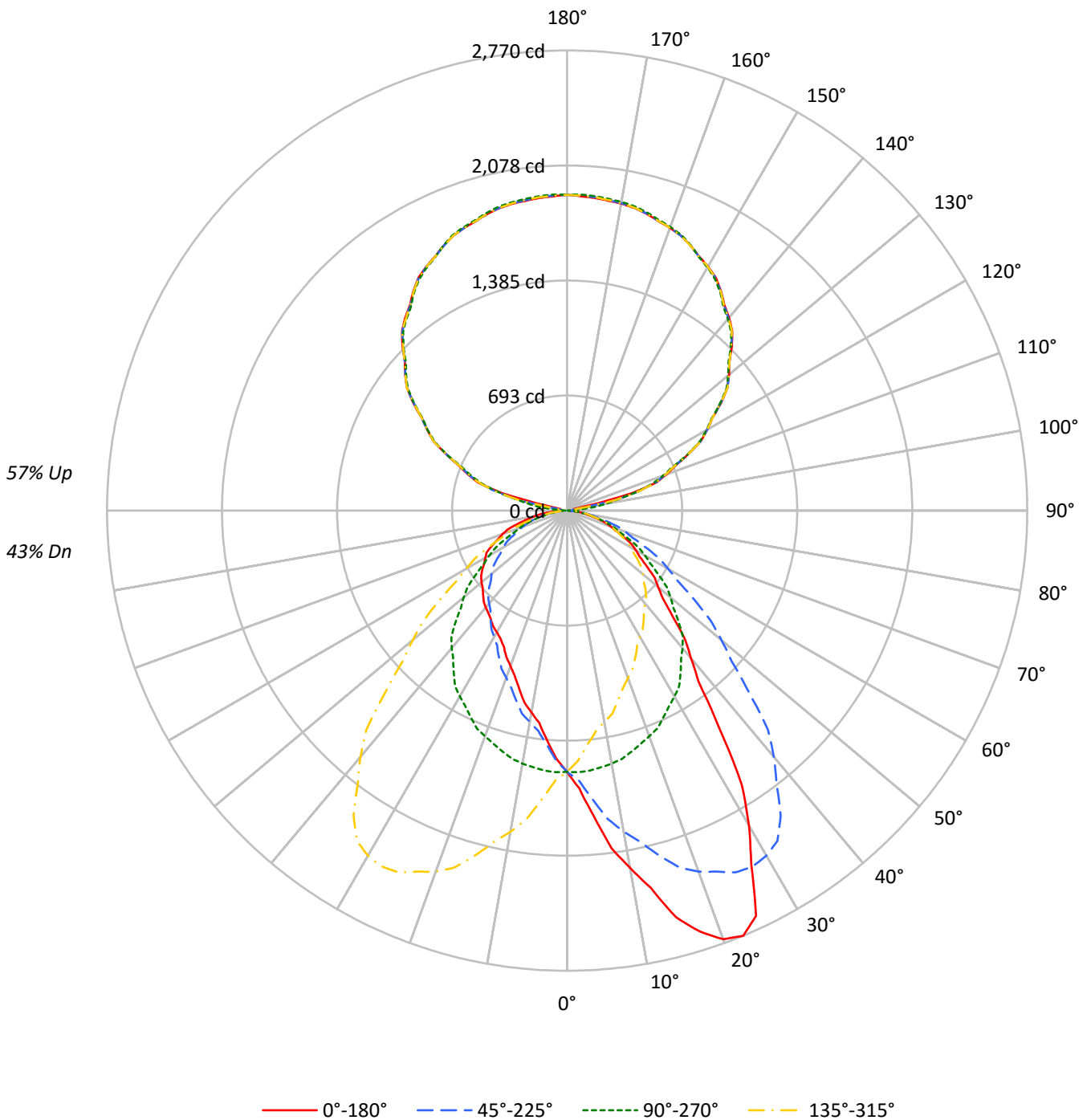
Lumens per Lamp: N/A  
Luminaire Lumens: 10223.8 lumens  
Efficiency: N/A  
Efficacy: 133.5 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.23 / 1.41  
Luminous Opening: Rectangular (W 4' x L: 0.33' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 76.6  
Input Voltage (V): 120  
Input Current (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



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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	50	30	10	50	30	10	0		
RCR																										
0	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49	43					43			
1	96	92	88	85	88	84	81	78	70	67	65	56	55	53	44	43	42	36					36			
2	88	81	75	70	80	74	69	64	61	58	54	50	47	45	39	37	36	31					31			
3	80	71	64	58	73	65	59	54	54	50	46	44	41	38	34	32	30	26					26			
4	73	63	55	49	67	58	51	46	48	43	39	39	36	33	31	28	26	23					23			
5	67	56	48	42	61	52	45	39	43	38	34	35	31	28	28	25	23	20					20			
6	62	50	42	37	57	46	39	34	39	34	30	32	28	25	25	23	20	17					17			
7	57	45	38	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15					15			
8	53	41	34	28	49	38	31	27	32	27	23	27	23	20	21	18	16	14					14			
9	50	38	30	25	45	35	28	24	29	24	21	24	21	18	20	17	15	13					13			
10	46	34	27	23	42	32	26	21	27	22	19	23	19	16	18	15	13	11					11			

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

	0°	90°	180°	270°
0°	12698	12698	12698	12698
5°	14954	12730	11237	12730
10°	17905	12675	10117	12675
15°	21184	12547	9290	12547
20°	23589	12416	8553	12416
25°	23971	12223	8044	12223
30°	20396	12039	7883	12039
35°	15682	11739	7885	11739
40°	12223	11385	8033	11385
45°	10192	10853	8169	10853
50°	8970	10206	8445	10206
55°	8217	9429	8785	9429
60°	7700	8732	9195	8732
65°	7169	7952	9534	7952
70°	6552	7183	9751	7183
75°	5855	6319	9635	6319
80°	4909	5179	9331	5179
85°	3622	3742	8929	3742



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.2	1.5
10°-20°	472.3	4.6
20°-30°	749.0	7.3
30°-40°	833.5	8.2
40°-50°	758.7	7.4
50°-60°	620.0	6.1
60°-70°	442.6	4.3
70°-80°	243.7	2.4
80°-90°	72.0	0.7
90°-100°	65.0	0.6
100°-110°	414.4	4.1
110°-120°	792.8	7.8
120°-130°	1006.4	9.8
130°-140°	1076.8	10.5
140°-150°	1006.9	9.8
150°-160°	812.0	7.9
160°-170°	523.7	5.1
170°-180°	180.5	1.8
0°-30°	1374.6	13.4
0°-40°	2208.1	21.6
0°-60°	3586.8	35.1
0°-90°	4345.2	42.5
90°-120°	1272.2	12.4
90°-150°	4362.3	42.7
90°-180°	5879.0	57.5
0°-180°	10223.8	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1573	1573	1573	1573	1573	
5°	1845	1571	1387	1571	1845	188
15°	2535	1501	1112	1501	2535	716
25°	2691	1372	903	1372	2691	1186
35°	1591	1191	800	1191	1591	1010
45°	893	951	716	951	893	703
55°	584	670	624	670	584	527
65°	375	416	499	416	375	372
75°	188	203	309	203	188	200
85°	39	40	96	40	39	49
90°	43	4	43	4	43	20
95°	41	78	41	78	41	33
105°	405	428	405	428	405	353
115°	805	799	805	799	805	796
125°	1131	1123	1131	1123	1131	1008
135°	1403	1393	1403	1393	1403	1080
145°	1615	1606	1615	1606	1615	1009
155°	1760	1761	1760	1761	1760	811
165°	1849	1858	1849	1858	1849	522
175°	1889	1900	1889	1900	1889	180
180°	1900	1900	1900	1900	1900	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1674.0	1673.6	1668.3	1667.3	1663.6	1659.0	1657.9	1649.5	1632.9	1625.0	1623.0
5°	1845.3	1858.3	1841.4	1838.1	1836.2	1814.7	1803.6	1790.5	1760.6	1742.9	1729.3
7.5°	2049.7	2051.2	2043.8	2037.8	2021.2	2002.4	1974.3	1944.4	1908.6	1871.5	1843.4
10°	2184.2	2189.3	2180.9	2179.5	2146.4	2125.4	2083.8	2048.6	2008.2	1963.2	1922.2
12.5°	2325.9	2318.6	2314.3	2286.4	2280.3	2242.2	2193.8	2157.6	2095.3	2043.5	1988.9
15°	2534.7	2520.4	2511.2	2472.8	2453.9	2401.1	2349.6	2309.9	2228.5	2150.9	2092.3
17.5°	2657.1	2671.5	2650.4	2634.6	2585.8	2548.7	2496.1	2412.7	2349.0	2252.7	2178.7
20°	2745.8	2747.0	2735.4	2719.0	2680.6	2633.7	2576.3	2485.1	2409.0	2313.1	2211.5
22.5°	2769.8	2770.0	2765.0	2749.8	2720.7	2682.7	2624.9	2548.7	2456.4	2352.2	2250.6
25°	2691.1	2688.4	2694.4	2711.2	2700.2	2688.4	2655.2	2598.5	2512.5	2402.4	2292.9
27.5°	2398.6	2416.6	2449.7	2491.4	2531.6	2562.2	2570.8	2559.2	2505.8	2415.3	2300.7
30°	2188.0	2210.2	2235.0	2276.6	2357.4	2403.7	2454.6	2492.9	2471.4	2399.1	2292.3
32.5°	1956.6	1962.1	1998.8	2046.3	2120.2	2209.2	2289.8	2367.9	2393.8	2355.9	2266.7
35°	1591.2	1600.2	1640.0	1687.0	1777.5	1886.3	2007.5	2115.7	2205.0	2240.8	2195.2
37.5°	1298.4	1324.6	1352.7	1403.2	1482.9	1580.8	1706.8	1846.7	1979.8	2068.9	2084.1
40°	1159.8	1176.1	1196.3	1234.7	1302.5	1398.9	1507.1	1667.5	1808.8	1936.5	1978.2
42.5°	1050.4	1059.9	1072.2	1107.0	1158.7	1254.5	1353.3	1494.3	1636.3	1788.9	1858.9
45°	892.7	902.5	923.3	943.5	982.6	1049.0	1140.9	1256.9	1399.6	1546.9	1675.8
47.5°	778.7	785.0	797.4	819.1	852.2	896.1	970.8	1067.7	1200.0	1342.9	1480.4
50°	714.2	719.3	729.2	748.7	774.1	813.1	874.4	965.0	1068.6	1212.6	1347.5
52.5°	663.1	665.2	672.3	685.6	705.8	738.7	788.9	863.8	960.2	1088.5	1222.9
55°	583.8	586.4	593.0	602.8	620.3	641.1	679.6	735.7	819.7	931.1	1047.7
57.5°	518.7	520.5	525.9	529.7	544.2	561.2	590.7	630.7	694.5	788.9	893.1
60°	476.9	475.7	482.2	485.4	495.2	509.5	532.3	570.8	626.1	702.4	798.1
62.5°	436.3	434.5	440.0	444.2	449.9	462.1	480.7	510.9	555.8	624.7	707.5
65°	375.3	372.7	376.0	381.2	386.3	392.9	406.6	433.3	469.1	518.7	581.8
67.5°	314.1	316.8	317.4	319.9	322.9	331.8	341.2	360.1	385.3	425.0	478.5
70°	277.6	278.2	280.9	280.9	282.8	290.6	298.4	309.5	334.2	370.8	414.4
72.5°	241.1	243.8	242.8	244.9	246.3	251.5	257.2	267.8	288.9	316.0	352.9
75°	187.7	189.6	189.6	190.3	192.2	194.2	198.7	206.5	221.5	241.8	267.1
77.5°	136.9	137.1	138.0	140.3	140.3	143.5	146.8	153.2	160.5	174.4	189.8
80°	105.6	106.9	106.2	107.5	107.5	110.1	111.4	119.2	122.5	131.6	144.0
82.5°	77.4	78.7	78.6	80.4	81.4	82.0	83.8	86.9	90.2	98.2	103.3
85°	39.1	40.4	39.1	40.4	42.3	43.0	45.0	45.6	48.3	50.1	54.8
87.5°	20.0	21.4	21.3	21.7	22.6	22.9	23.0	22.1	23.8	23.9	25.5
90°	42.6	42.0	41.4	40.7	40.2	38.8	36.9	35.1	33.2	31.3	28.7
92.5°	39.2	39.1	39.0	38.8	38.7	37.7	35.8	33.9	32.0	30.2	27.6
95°	41.2	40.9	40.6	40.2	40.0	38.8	36.9	35.1	33.2	31.3	30.9
97.5°	39.8	39.5	39.2	38.8	38.5	38.3	38.1	37.9	37.7	37.5	72.8
100°	39.8	39.5	39.2	38.8	38.5	41.1	46.5	51.8	57.2	62.6	106.1
102.5°	40.9	40.9	40.8	40.7	40.7	69.7	127.5	185.5	243.4	301.3	307.0
105°	405.1	416.5	427.8	439.2	450.5	454.9	452.0	449.1	446.3	443.5	441.9
107.5°	564.6	563.4	562.1	561.0	559.8	558.5	557.1	555.7	554.3	552.9	550.7
110°	634.0	633.0	632.1	631.1	630.2	629.3	628.8	628.1	627.5	626.8	624.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	703.3	702.1	700.9	699.7	698.5	698.0	698.0	698.2	698.3	698.5	697.6
115°	804.6	804.6	804.6	804.6	804.6	804.2	803.5	803.0	802.3	801.6	802.0
117.5°	907.4	907.6	907.7	907.8	908.0	908.0	908.1	908.3	908.4	908.5	907.9
120°	972.2	972.9	973.5	974.1	974.8	974.8	974.1	973.5	972.9	972.2	972.5
122.5°	1035.9	1036.5	1037.2	1037.8	1038.4	1038.6	1038.2	1037.8	1037.5	1037.1	1036.6
125°	1131.4	1131.1	1130.8	1130.5	1130.2	1129.5	1128.6	1127.7	1126.7	1125.8	1126.3
127.5°	1215.3	1215.5	1215.8	1216.1	1216.3	1216.5	1216.7	1216.9	1217.1	1217.3	1215.8
130°	1272.1	1272.1	1272.1	1272.1	1272.1	1272.0	1271.7	1271.4	1271.0	1270.7	1269.8
132.5°	1324.5	1324.7	1324.9	1325.2	1325.5	1325.4	1325.1	1324.8	1324.5	1324.2	1323.0
135°	1402.9	1402.3	1401.7	1401.0	1400.4	1399.8	1399.1	1398.5	1397.9	1397.2	1396.0
137.5°	1470.0	1470.2	1470.4	1470.6	1470.7	1470.6	1469.8	1469.1	1468.4	1467.7	1466.3
140°	1516.6	1516.3	1516.0	1515.7	1515.3	1514.8	1513.8	1512.9	1511.9	1510.9	1510.3
142.5°	1555.3	1555.2	1555.2	1555.1	1555.0	1554.6	1554.0	1553.3	1552.6	1551.9	1551.5
145°	1614.7	1614.1	1613.4	1612.8	1612.2	1611.7	1611.4	1611.1	1610.7	1610.4	1610.4
147.5°	1663.9	1663.6	1663.2	1662.9	1662.6	1662.4	1662.1	1661.8	1661.6	1661.3	1661.6
150°	1695.7	1695.4	1695.1	1694.8	1694.5	1694.3	1694.3	1694.3	1694.3	1694.3	1694.6
152.5°	1723.0	1723.2	1723.3	1723.5	1723.7	1723.6	1723.1	1722.6	1722.1	1721.6	1722.1
155°	1759.7	1760.7	1761.6	1762.6	1763.5	1763.3	1762.1	1760.8	1759.5	1758.2	1759.3
157.5°	1790.4	1792.1	1793.7	1795.4	1797.0	1797.0	1795.4	1793.7	1792.1	1790.4	1791.5
160°	1810.8	1812.8	1814.7	1816.6	1818.4	1818.4	1816.6	1814.7	1812.8	1810.8	1811.2
162.5°	1826.7	1828.9	1831.1	1833.2	1835.3	1835.5	1833.6	1831.7	1829.8	1827.9	1828.2
165°	1849.3	1852.1	1854.9	1857.8	1860.6	1860.8	1858.2	1855.7	1853.1	1850.7	1850.7
167.5°	1866.0	1869.2	1872.4	1875.5	1878.7	1878.9	1876.0	1873.3	1870.5	1867.7	1867.9
170°	1876.2	1879.4	1882.5	1885.7	1888.9	1889.2	1886.7	1884.1	1881.6	1879.1	1878.8
172.5°	1881.9	1885.4	1888.8	1892.2	1895.5	1896.0	1893.5	1890.9	1888.4	1885.9	1885.6
175°	1889.0	1892.8	1896.6	1900.4	1904.2	1904.7	1901.9	1898.9	1896.1	1893.3	1893.0
177.5°	1893.6	1896.6	1899.6	1902.7	1905.7	1906.2	1904.2	1902.1	1900.2	1898.1	1897.6
180°	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1623.5	1616.2	1611.0	1606.8	1595.3	1588.6	1583.4	1576.0	1567.7	1558.9	1547.9
5°	1715.6	1693.5	1677.2	1652.5	1629.0	1609.4	1589.2	1570.9	1548.8	1524.8	1507.1
7.5°	1812.4	1779.5	1737.3	1700.6	1659.4	1623.6	1591.6	1558.7	1524.6	1491.5	1461.1
10°	1874.0	1831.6	1784.7	1729.3	1677.2	1630.9	1587.9	1546.2	1505.8	1465.4	1430.9
12.5°	1940.1	1887.3	1818.1	1753.3	1694.9	1633.0	1581.1	1530.0	1481.3	1438.8	1398.5
15°	2029.0	1952.8	1872.6	1786.0	1709.1	1636.8	1565.8	1501.3	1446.5	1390.4	1351.4
17.5°	2083.7	1989.3	1897.7	1807.1	1714.0	1622.9	1546.2	1471.8	1403.3	1347.6	1298.4
20°	2119.6	2025.8	1911.8	1821.2	1710.4	1616.6	1528.0	1445.2	1373.6	1314.3	1263.4
22.5°	2150.9	2042.5	1928.4	1809.2	1698.9	1599.4	1502.4	1419.2	1346.0	1283.5	1234.7
25°	2167.8	2043.3	1919.6	1801.0	1675.8	1557.9	1470.0	1372.2	1294.0	1228.2	1176.1
27.5°	2169.6	2036.6	1896.5	1764.7	1635.6	1525.8	1414.8	1327.4	1246.2	1176.7	1126.6
30°	2163.9	2025.1	1874.6	1731.9	1602.2	1483.0	1386.6	1291.5	1208.7	1139.6	1087.5
32.5°	2145.7	2001.1	1846.4	1695.4	1561.0	1444.4	1344.9	1254.4	1173.7	1105.7	1051.0
35°	2092.9	1950.2	1785.4	1628.3	1490.8	1372.9	1283.0	1191.1	1110.3	1045.8	993.1
37.5°	2010.4	1881.4	1713.8	1551.3	1416.3	1297.8	1208.7	1125.7	1052.8	987.3	933.2
40°	1938.4	1825.0	1657.0	1498.6	1352.7	1240.0	1156.6	1080.3	1008.0	946.1	894.7
42.5°	1855.6	1756.8	1601.8	1434.0	1293.3	1180.1	1098.7	1030.3	962.1	904.9	853.5
45°	1707.8	1642.7	1496.7	1341.6	1195.0	1088.2	1010.6	950.6	893.3	837.3	794.3
47.5°	1537.9	1505.5	1382.7	1235.4	1096.3	990.9	923.7	868.3	818.0	770.5	732.6
50°	1423.7	1408.1	1301.8	1159.8	1026.9	927.8	860.1	812.6	769.5	727.8	692.0
52.5°	1311.1	1310.6	1214.8	1084.8	961.8	866.4	799.1	754.7	717.4	683.5	651.3
55°	1139.0	1157.3	1082.3	966.3	856.2	770.2	709.5	669.9	643.8	615.8	591.6
57.5°	980.9	1011.2	949.3	847.2	755.4	676.1	623.3	593.4	565.7	548.7	531.2
60°	877.7	906.3	858.2	772.1	685.5	617.7	567.5	540.8	516.7	505.0	492.6
62.5°	786.0	811.5	775.8	696.1	620.9	555.6	513.3	487.7	471.4	458.5	450.3
65°	654.9	676.4	645.7	587.8	523.2	471.1	436.6	416.3	400.8	395.5	386.3
67.5°	529.3	548.9	532.3	483.1	431.3	391.9	364.9	345.4	336.2	331.7	325.2
70°	454.8	474.4	456.8	413.8	374.0	340.8	315.4	304.3	294.5	292.6	283.4
72.5°	391.7	405.0	387.5	353.8	319.8	291.8	272.1	260.5	255.4	251.9	246.9
75°	293.9	305.6	293.9	267.8	243.6	224.1	207.2	202.6	196.8	194.8	191.5
77.5°	208.0	218.1	209.2	192.8	174.8	159.8	150.6	144.8	143.5	140.1	141.7
80°	159.0	165.5	157.0	146.0	131.6	121.2	114.7	111.4	107.5	106.2	108.8
82.5°	114.1	117.1	112.7	105.3	94.6	87.8	83.4	79.6	78.8	79.1	79.1
85°	59.3	58.6	58.0	51.5	48.3	43.6	41.1	40.4	39.8	41.1	42.3
87.5°	25.1	25.1	24.0	21.4	19.1	16.9	15.6	14.4	15.6	16.9	18.1
90°	26.2	23.7	21.2	18.2	14.7	11.2	7.7	4.2	7.7	11.2	14.7
92.5°	25.1	22.5	20.0	18.7	18.5	18.3	18.1	17.9	18.1	18.3	18.5
95°	30.6	30.3	30.0	35.3	46.0	56.7	67.4	78.1	67.4	56.7	46.0
97.5°	108.0	143.3	178.5	192.8	186.2	179.4	172.7	166.0	172.7	179.4	186.2
100°	149.7	193.3	236.9	255.8	250.2	244.5	238.8	233.1	238.8	244.5	250.2
102.5°	312.7	318.4	324.0	324.8	320.7	316.5	312.4	308.1	312.4	316.5	320.7
105°	440.4	438.8	437.2	435.5	433.6	431.6	429.7	427.8	429.7	431.6	433.6
107.5°	548.7	546.5	544.3	542.8	541.9	540.9	540.0	538.9	540.0	540.9	541.9
110°	623.0	621.1	619.3	617.8	616.9	616.0	615.0	614.1	615.0	616.0	616.9





TEST NUMBER: P332829-830

CATALOG NUMBER: S124DIW-S1020D1560U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	696.7	695.8	694.9	693.6	691.9	690.2	688.5	686.8	688.5	690.2	691.9
115°	802.3	802.6	803.0	802.6	801.6	800.7	799.7	798.8	799.7	800.7	801.6
117.5°	907.2	906.4	905.8	904.8	903.5	902.3	901.0	899.8	901.0	902.3	903.5
120°	972.9	973.2	973.5	973.0	971.8	970.5	969.2	968.0	969.2	970.5	971.8
122.5°	1036.1	1035.8	1035.3	1034.7	1033.9	1033.1	1032.4	1031.6	1032.4	1033.1	1033.9
125°	1127.0	1127.7	1128.2	1127.9	1126.7	1125.4	1124.2	1122.9	1124.2	1125.4	1126.7
127.5°	1214.4	1213.0	1211.4	1210.6	1210.2	1209.9	1209.7	1209.3	1209.7	1209.9	1210.2
130°	1268.9	1267.9	1267.0	1266.3	1266.0	1265.6	1265.4	1265.1	1265.4	1265.6	1266.0
132.5°	1321.7	1320.6	1319.4	1318.5	1318.0	1317.4	1316.7	1316.2	1316.7	1317.4	1318.0
135°	1394.7	1393.5	1392.1	1391.7	1392.0	1392.3	1392.6	1393.0	1392.6	1392.3	1392.0
137.5°	1465.0	1463.6	1462.2	1461.4	1461.3	1461.1	1461.0	1460.9	1461.0	1461.1	1461.3
140°	1509.7	1509.0	1508.4	1507.8	1507.1	1506.6	1505.9	1505.2	1505.9	1506.6	1507.1
142.5°	1551.1	1550.8	1550.4	1549.6	1548.5	1547.4	1546.1	1545.0	1546.1	1547.4	1548.5
145°	1610.4	1610.4	1610.4	1610.0	1609.0	1608.1	1607.1	1606.2	1607.1	1608.1	1609.0
147.5°	1662.0	1662.3	1662.6	1661.9	1660.1	1658.3	1656.5	1654.8	1656.5	1658.3	1660.1
150°	1695.0	1695.3	1695.5	1695.1	1693.8	1692.5	1691.3	1690.1	1691.3	1692.5	1693.8
152.5°	1722.7	1723.3	1723.9	1723.6	1722.6	1721.6	1720.6	1719.6	1720.6	1721.6	1722.6
155°	1760.2	1761.1	1762.1	1762.4	1762.1	1761.7	1761.4	1761.1	1761.4	1761.7	1762.1
157.5°	1792.5	1793.6	1794.7	1795.4	1795.5	1795.7	1795.9	1796.1	1795.9	1795.7	1795.5
160°	1811.5	1811.8	1812.1	1812.8	1813.7	1814.7	1815.6	1816.6	1815.6	1814.7	1813.7
162.5°	1828.5	1828.8	1829.2	1829.9	1831.2	1832.3	1833.5	1834.8	1833.5	1832.3	1831.2
165°	1850.7	1850.7	1850.7	1851.4	1853.0	1854.6	1856.1	1857.8	1856.1	1854.6	1853.0
167.5°	1868.1	1868.3	1868.5	1869.3	1871.0	1872.6	1874.3	1875.9	1874.3	1872.6	1871.0
170°	1878.5	1878.1	1877.8	1878.6	1880.5	1882.4	1884.3	1886.2	1884.3	1882.4	1880.5
172.5°	1885.3	1885.0	1884.6	1885.5	1887.3	1889.2	1891.1	1893.0	1891.1	1889.2	1887.3
175°	1892.6	1892.3	1892.1	1892.8	1894.7	1896.6	1898.5	1900.4	1898.5	1896.6	1894.7
177.5°	1897.1	1896.6	1896.1	1896.8	1898.5	1900.3	1902.1	1903.8	1902.1	1900.3	1898.5
180°	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4



TEST NUMBER: P332829-830

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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1542.7	1538.0	1531.3	1521.8	1514.0	1505.7	1503.6	1500.4	1506.7	1501.5	1500.0
5°	1492.1	1478.5	1460.8	1440.7	1428.9	1412.0	1408.7	1402.2	1395.7	1395.1	1388.6
7.5°	1438.6	1418.5	1395.4	1374.9	1355.8	1337.3	1325.2	1322.6	1313.0	1307.3	1300.8
10°	1404.2	1379.4	1352.7	1333.1	1311.0	1291.5	1277.8	1270.0	1263.4	1256.2	1249.7
12.5°	1363.5	1337.2	1315.1	1294.0	1267.7	1252.8	1230.3	1216.7	1215.5	1215.6	1198.6
15°	1316.2	1290.2	1256.2	1226.2	1211.9	1183.3	1170.9	1155.3	1145.5	1135.7	1127.9
17.5°	1262.2	1229.6	1203.2	1168.8	1141.4	1118.6	1102.4	1093.0	1078.3	1064.4	1054.4
20°	1228.2	1193.7	1165.6	1129.2	1099.2	1071.2	1057.5	1044.5	1033.4	1021.7	1010.6
22.5°	1193.8	1157.7	1123.4	1088.0	1060.2	1030.6	1017.4	999.7	989.1	982.6	971.5
25°	1139.6	1100.5	1061.4	1027.6	998.9	972.8	955.3	941.5	929.8	924.6	917.5
27.5°	1080.7	1041.9	1004.1	965.6	933.1	914.2	900.1	889.8	883.1	876.1	872.9
30°	1043.2	1002.8	962.4	926.5	896.5	877.7	864.7	857.5	852.2	849.0	845.7
32.5°	1005.1	965.3	922.7	890.0	863.2	846.4	836.5	829.3	826.7	825.6	824.3
35°	944.1	903.7	864.7	835.4	809.9	803.4	794.9	791.0	789.8	794.3	796.3
37.5°	885.1	847.6	811.6	783.2	766.6	757.1	754.1	754.3	758.9	763.0	767.7
40°	847.1	810.6	776.7	752.0	736.3	730.5	729.2	732.4	737.6	742.2	747.3
42.5°	810.0	774.1	743.3	720.1	709.2	703.8	704.6	707.8	715.2	720.8	728.6
45°	752.6	722.6	692.7	673.7	664.6	665.9	665.9	671.8	678.9	687.4	695.9
47.5°	698.5	668.3	643.7	627.7	623.0	621.9	625.6	633.2	643.5	653.9	665.8
50°	662.0	633.3	611.8	597.5	592.3	594.3	599.5	606.6	619.0	632.1	644.4
52.5°	625.0	598.9	579.0	565.7	562.0	565.6	570.8	582.1	593.0	607.0	622.0
55°	567.5	545.4	529.7	520.0	518.7	520.7	526.5	538.9	554.5	572.1	586.4
57.5°	510.3	491.8	477.5	470.7	471.4	473.2	482.9	497.6	514.3	533.0	551.5
60°	471.7	454.8	443.1	437.9	438.5	442.4	454.1	467.9	488.7	506.9	526.5
62.5°	435.3	420.4	409.2	404.5	403.6	412.2	423.4	437.6	458.5	478.8	499.9
65°	376.6	364.9	355.8	353.2	355.2	361.7	376.0	394.8	412.5	433.9	456.1
67.5°	319.2	309.6	303.4	304.5	306.9	316.5	328.6	344.8	364.8	387.0	409.0
70°	282.8	273.6	268.4	269.1	273.1	284.7	295.2	311.4	333.0	355.8	374.0
72.5°	245.2	239.2	234.6	237.3	241.2	249.3	262.3	278.6	297.6	318.8	338.0
75°	188.3	188.3	185.7	187.7	193.5	201.3	211.1	228.1	246.9	263.9	279.6
77.5°	139.7	138.3	140.0	142.3	145.7	155.0	166.2	178.2	192.5	209.4	222.3
80°	106.9	107.5	110.7	114.7	116.0	123.2	134.9	146.0	157.0	171.4	183.7
82.5°	80.3	81.0	82.7	87.6	88.9	96.6	104.2	115.2	125.3	134.9	145.2
85°	43.6	43.6	46.9	48.8	52.1	57.3	61.9	68.4	77.6	84.1	93.8
87.5°	20.4	20.9	23.5	25.1	27.1	30.3	31.7	37.8	40.2	43.3	48.2
90°	18.2	21.2	23.7	26.2	28.7	31.3	33.2	35.1	36.9	38.8	40.2
92.5°	18.7	20.0	22.5	25.1	27.6	30.2	32.0	33.9	35.8	37.7	38.7
95°	35.3	30.0	30.3	30.6	30.9	31.3	33.2	35.1	36.9	38.8	40.0
97.5°	192.8	178.5	143.3	108.0	72.8	37.5	37.7	37.9	38.1	38.3	38.5
100°	255.8	236.9	193.3	149.7	106.1	62.6	57.2	51.8	46.5	41.1	38.5
102.5°	324.8	324.0	318.4	312.7	307.0	301.3	243.4	185.5	127.5	69.7	40.7
105°	435.5	437.2	438.8	440.4	441.9	443.5	446.3	449.1	452.0	454.9	450.5
107.5°	542.8	544.3	546.5	548.7	550.7	552.9	554.3	555.7	557.1	558.5	559.8
110°	617.8	619.3	621.1	623.0	624.9	626.8	627.5	628.1	628.8	629.3	630.2



TEST NUMBER: P332829-830

CATALOG NUMBER: S124DIW-S1020D1560U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	693.6	694.9	695.8	696.7	697.6	698.5	698.3	698.2	698.0	698.0	698.5
115°	802.6	803.0	802.6	802.3	802.0	801.6	802.3	803.0	803.5	804.2	804.6
117.5°	904.8	905.8	906.4	907.2	907.9	908.5	908.4	908.3	908.1	908.0	908.0
120°	973.0	973.5	973.2	972.9	972.5	972.2	972.9	973.5	974.1	974.8	974.8
122.5°	1034.7	1035.3	1035.8	1036.1	1036.6	1037.1	1037.5	1037.8	1038.2	1038.6	1038.4
125°	1127.9	1128.2	1127.7	1127.0	1126.3	1125.8	1126.7	1127.7	1128.6	1129.5	1130.2
127.5°	1210.6	1211.4	1213.0	1214.4	1215.8	1217.3	1217.1	1216.9	1216.7	1216.5	1216.3
130°	1266.3	1267.0	1267.9	1268.9	1269.8	1270.7	1271.0	1271.4	1271.7	1272.0	1272.1
132.5°	1318.5	1319.4	1320.6	1321.7	1323.0	1324.2	1324.5	1324.8	1325.1	1325.4	1325.5
135°	1391.7	1392.1	1393.5	1394.7	1396.0	1397.2	1397.9	1398.5	1399.1	1399.8	1400.4
137.5°	1461.4	1462.2	1463.6	1465.0	1466.3	1467.7	1468.4	1469.1	1469.8	1470.6	1470.7
140°	1507.8	1508.4	1509.0	1509.7	1510.3	1510.9	1511.9	1512.9	1513.8	1514.8	1515.3
142.5°	1549.6	1550.4	1550.8	1551.1	1551.5	1551.9	1552.6	1553.3	1554.0	1554.6	1555.0
145°	1610.0	1610.4	1610.4	1610.4	1610.4	1610.4	1610.7	1611.1	1611.4	1611.7	1612.2
147.5°	1661.9	1662.6	1662.3	1662.0	1661.6	1661.3	1661.6	1661.8	1662.1	1662.4	1662.6
150°	1695.1	1695.5	1695.3	1695.0	1694.6	1694.3	1694.3	1694.3	1694.3	1694.3	1694.5
152.5°	1723.6	1723.9	1723.3	1722.7	1722.1	1721.6	1722.1	1722.6	1723.1	1723.6	1723.7
155°	1762.4	1762.1	1761.1	1760.2	1759.3	1758.2	1759.5	1760.8	1762.1	1763.3	1763.5
157.5°	1795.4	1794.7	1793.6	1792.5	1791.5	1790.4	1792.1	1793.7	1795.4	1797.0	1797.0
160°	1812.8	1812.1	1811.8	1811.5	1811.2	1810.8	1812.8	1814.7	1816.6	1818.4	1818.4
162.5°	1829.9	1829.2	1828.8	1828.5	1828.2	1827.9	1829.8	1831.7	1833.6	1835.5	1835.3
165°	1851.4	1850.7	1850.7	1850.7	1850.7	1850.7	1853.1	1855.7	1858.2	1860.8	1860.6
167.5°	1869.3	1868.5	1868.3	1868.1	1867.9	1867.7	1870.5	1873.3	1876.0	1878.9	1878.7
170°	1878.6	1877.8	1878.1	1878.5	1878.8	1879.1	1881.6	1884.1	1886.7	1889.2	1888.9
172.5°	1885.5	1884.6	1885.0	1885.3	1885.6	1885.9	1888.4	1890.9	1893.5	1896.0	1895.5
175°	1892.8	1892.1	1892.3	1892.6	1893.0	1893.3	1896.1	1898.9	1901.9	1904.7	1904.2
177.5°	1896.8	1896.1	1896.6	1897.1	1897.6	1898.1	1900.2	1902.1	1904.2	1906.2	1905.7
180°	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4



TEST NUMBER: P332829-830

CATALOG NUMBER: S124DIW-S1020D1560U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1498.9	1497.9	1494.2	1493.7	1494.2	1497.9	1498.9	1500.0	1501.5	1506.7	1500.4
5°	1384.6	1381.4	1379.4	1386.6	1379.4	1381.4	1384.6	1388.6	1395.1	1395.7	1402.2
7.5°	1298.4	1295.9	1290.2	1288.4	1290.2	1295.9	1298.4	1300.8	1307.3	1313.0	1322.6
10°	1243.2	1240.6	1235.4	1234.1	1235.4	1240.6	1243.2	1249.7	1256.2	1263.4	1270.0
12.5°	1190.1	1184.9	1183.8	1185.1	1183.8	1184.9	1190.1	1198.6	1215.6	1215.5	1216.7
15°	1119.5	1116.8	1109.7	1111.6	1109.7	1116.8	1119.5	1127.9	1135.7	1145.5	1155.3
17.5°	1049.8	1046.7	1038.0	1045.7	1038.0	1046.7	1049.8	1054.4	1064.4	1078.3	1093.0
20°	1006.1	1000.8	996.3	995.6	996.3	1000.8	1006.1	1010.6	1021.7	1033.4	1044.5
22.5°	964.3	959.7	959.2	955.0	959.2	959.7	964.3	971.5	982.6	989.1	999.7
25°	912.2	907.7	906.3	903.1	906.3	907.7	912.2	917.5	924.6	929.8	941.5
27.5°	872.2	870.0	867.6	868.6	867.6	870.0	872.2	872.9	876.1	883.1	889.8
30°	847.7	847.1	845.7	845.7	845.7	847.1	847.7	845.7	849.0	852.2	857.5
32.5°	827.4	827.3	828.0	828.0	828.0	827.3	827.4	824.3	825.6	826.7	829.3
35°	798.8	800.8	802.1	800.1	802.1	800.8	798.8	796.3	794.3	789.8	791.0
37.5°	773.1	775.0	776.8	779.0	776.8	775.0	773.1	767.7	763.0	758.9	754.3
40°	753.2	757.8	759.1	762.3	759.1	757.8	753.2	747.3	742.2	737.6	732.4
42.5°	734.4	739.5	742.9	743.6	742.9	739.5	734.4	728.6	720.8	715.2	707.8
45°	705.7	710.9	715.5	715.5	715.5	710.9	705.7	695.9	687.4	678.9	671.8
47.5°	675.8	683.3	688.0	689.1	688.0	683.3	675.8	665.8	653.9	643.5	633.2
50°	655.5	664.6	669.2	672.4	669.2	664.6	655.5	644.4	632.1	619.0	606.6
52.5°	635.7	644.8	650.9	652.6	650.9	644.8	635.7	622.0	607.0	593.0	582.1
55°	601.4	614.4	621.6	624.2	621.6	614.4	601.4	586.4	572.1	554.5	538.9
57.5°	569.1	581.1	589.5	591.4	589.5	581.1	569.1	551.5	533.0	514.3	497.6
60°	544.0	557.1	567.5	569.5	567.5	557.1	544.0	526.5	506.9	488.7	467.9
62.5°	518.5	532.1	541.5	546.6	541.5	532.1	518.5	499.9	478.8	458.5	437.6
65°	474.4	488.0	497.2	499.1	497.2	488.0	474.4	456.1	433.9	412.5	394.8
67.5°	426.1	439.8	445.8	449.6	445.8	439.8	426.1	409.0	387.0	364.8	344.8
70°	392.3	403.3	409.8	413.1	409.8	403.3	392.3	374.0	355.8	333.0	311.4
72.5°	353.6	365.2	372.9	373.5	372.9	365.2	353.6	338.0	318.8	297.6	278.6
75°	294.5	304.9	308.9	308.9	308.9	304.9	294.5	279.6	263.9	246.9	228.1
77.5°	233.1	238.5	243.5	244.5	243.5	238.5	233.1	222.3	209.4	192.5	178.2
80°	193.5	196.8	200.7	200.7	200.7	196.8	193.5	183.7	171.4	157.0	146.0
82.5°	152.9	155.6	159.5	159.0	159.5	155.6	152.9	145.2	134.9	125.3	115.2
85°	92.6	98.4	97.7	96.4	97.7	98.4	92.6	93.8	84.1	77.6	68.4
87.5°	49.9	50.5	52.2	53.3	52.2	50.5	49.9	48.2	43.3	40.2	37.8
90°	40.7	41.4	42.0	42.6	42.0	41.4	40.7	40.2	38.8	36.9	35.1
92.5°	38.8	39.0	39.1	39.2	39.1	39.0	38.8	38.7	37.7	35.8	33.9
95°	40.2	40.6	40.9	41.2	40.9	40.6	40.2	40.0	38.8	36.9	35.1
97.5°	38.8	39.2	39.5	39.8	39.5	39.2	38.8	38.5	38.3	38.1	37.9
100°	38.8	39.2	39.5	39.8	39.5	39.2	38.8	38.5	41.1	46.5	51.8
102.5°	40.7	40.8	40.9	40.9	40.9	40.8	40.7	40.7	69.7	127.5	185.5
105°	439.2	427.8	416.5	405.1	416.5	427.8	439.2	450.5	454.9	452.0	449.1
107.5°	561.0	562.1	563.4	564.6	563.4	562.1	561.0	559.8	558.5	557.1	555.7
110°	631.1	632.1	633.0	634.0	633.0	632.1	631.1	630.2	629.3	628.8	628.1



TEST NUMBER: P332829-830

CATALOG NUMBER: S124DIW-S1020D1560U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	699.7	700.9	702.1	703.3	702.1	700.9	699.7	698.5	698.0	698.0	698.2
115°	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.2	803.5	803.0
117.5°	907.8	907.7	907.6	907.4	907.6	907.7	907.8	908.0	908.0	908.1	908.3
120°	974.1	973.5	972.9	972.2	972.9	973.5	974.1	974.8	974.8	974.1	973.5
122.5°	1037.8	1037.2	1036.5	1035.9	1036.5	1037.2	1037.8	1038.4	1038.6	1038.2	1037.8
125°	1130.5	1130.8	1131.1	1131.4	1131.1	1130.8	1130.5	1130.2	1129.5	1128.6	1127.7
127.5°	1216.1	1215.8	1215.5	1215.3	1215.5	1215.8	1216.1	1216.3	1216.5	1216.7	1216.9
130°	1272.1	1272.1	1272.1	1272.1	1272.1	1272.1	1272.1	1272.1	1272.0	1271.7	1271.4
132.5°	1325.2	1324.9	1324.7	1324.5	1324.7	1324.9	1325.2	1325.5	1325.4	1325.1	1324.8
135°	1401.0	1401.7	1402.3	1402.9	1402.3	1401.7	1401.0	1400.4	1399.8	1399.1	1398.5
137.5°	1470.6	1470.4	1470.2	1470.0	1470.2	1470.4	1470.6	1470.7	1470.6	1469.8	1469.1
140°	1515.7	1516.0	1516.3	1516.6	1516.3	1516.0	1515.7	1515.3	1514.8	1513.8	1512.9
142.5°	1555.1	1555.2	1555.2	1555.3	1555.2	1555.2	1555.1	1555.0	1554.6	1554.0	1553.3
145°	1612.8	1613.4	1614.1	1614.7	1614.1	1613.4	1612.8	1612.2	1611.7	1611.4	1611.1
147.5°	1662.9	1663.2	1663.6	1663.9	1663.6	1663.2	1662.9	1662.6	1662.4	1662.1	1661.8
150°	1694.8	1695.1	1695.4	1695.7	1695.4	1695.1	1694.8	1694.5	1694.3	1694.3	1694.3
152.5°	1723.5	1723.3	1723.2	1723.0	1723.2	1723.3	1723.5	1723.7	1723.6	1723.1	1722.6
155°	1762.6	1761.6	1760.7	1759.7	1760.7	1761.6	1762.6	1763.5	1763.3	1762.1	1760.8
157.5°	1795.4	1793.7	1792.1	1790.4	1792.1	1793.7	1795.4	1797.0	1797.0	1795.4	1793.7
160°	1816.6	1814.7	1812.8	1810.8	1812.8	1814.7	1816.6	1818.4	1818.4	1816.6	1814.7
162.5°	1833.2	1831.1	1828.9	1826.7	1828.9	1831.1	1833.2	1835.3	1835.5	1833.6	1831.7
165°	1857.8	1854.9	1852.1	1849.3	1852.1	1854.9	1857.8	1860.6	1860.8	1858.2	1855.7
167.5°	1875.5	1872.4	1869.2	1866.0	1869.2	1872.4	1875.5	1878.7	1878.9	1876.0	1873.3
170°	1885.7	1882.5	1879.4	1876.2	1879.4	1882.5	1885.7	1888.9	1889.2	1886.7	1884.1
172.5°	1892.2	1888.8	1885.4	1881.9	1885.4	1888.8	1892.2	1895.5	1896.0	1893.5	1890.9
175°	1900.4	1896.6	1892.8	1889.0	1892.8	1896.6	1900.4	1904.2	1904.7	1901.9	1898.9
177.5°	1902.7	1899.6	1896.6	1893.6	1896.6	1899.6	1902.7	1905.7	1906.2	1904.2	1902.1
180°	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4



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**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1503.6	1505.7	1514.0	1521.8	1531.3	1538.0	1542.7	1547.9	1558.9	1567.7	1576.0
5°	1408.7	1412.0	1428.9	1440.7	1460.8	1478.5	1492.1	1507.1	1524.8	1548.8	1570.9
7.5°	1325.2	1337.3	1355.8	1374.9	1395.4	1418.5	1438.6	1461.1	1491.5	1524.6	1558.7
10°	1277.8	1291.5	1311.0	1333.1	1352.7	1379.4	1404.2	1430.9	1465.4	1505.8	1546.2
12.5°	1230.3	1252.8	1267.7	1294.0	1315.1	1337.2	1363.5	1398.5	1438.8	1481.3	1530.0
15°	1170.9	1183.3	1211.9	1226.2	1256.2	1290.2	1316.2	1351.4	1390.4	1446.5	1501.3
17.5°	1102.4	1118.6	1141.4	1168.8	1203.2	1229.6	1262.2	1298.4	1347.6	1403.3	1471.8
20°	1057.5	1071.2	1099.2	1129.2	1165.6	1193.7	1228.2	1263.4	1314.3	1373.6	1445.2
22.5°	1017.4	1030.6	1060.2	1088.0	1123.4	1157.7	1193.8	1234.7	1283.5	1346.0	1419.2
25°	955.3	972.8	998.9	1027.6	1061.4	1100.5	1139.6	1176.1	1228.2	1294.0	1372.2
27.5°	900.1	914.2	933.1	965.6	1004.1	1041.9	1080.7	1126.6	1176.7	1246.2	1327.4
30°	864.7	877.7	896.5	926.5	962.4	1002.8	1043.2	1087.5	1139.6	1208.7	1291.5
32.5°	836.5	846.4	863.2	890.0	922.7	965.3	1005.1	1051.0	1105.7	1173.7	1254.4
35°	794.9	803.4	809.9	835.4	864.7	903.7	944.1	993.1	1045.8	1110.3	1191.1
37.5°	754.1	757.1	766.6	783.2	811.6	847.6	885.1	933.2	987.3	1052.8	1125.7
40°	729.2	730.5	736.3	752.0	776.7	810.6	847.1	894.7	946.1	1008.0	1080.3
42.5°	704.6	703.8	709.2	720.1	743.3	774.1	810.0	853.5	904.9	962.1	1030.3
45°	665.9	665.9	664.6	673.7	692.7	722.6	752.6	794.3	837.3	893.3	950.6
47.5°	625.6	621.9	623.0	627.7	643.7	668.3	698.5	732.6	770.5	818.0	868.3
50°	599.5	594.3	592.3	597.5	611.8	633.3	662.0	692.0	727.8	769.5	812.6
52.5°	570.8	565.6	562.0	565.7	579.0	598.9	625.0	651.3	683.5	717.4	754.7
55°	526.5	520.7	518.7	520.0	529.7	545.4	567.5	591.6	615.8	643.8	669.9
57.5°	482.9	473.2	471.4	470.7	477.5	491.8	510.3	531.2	548.7	565.7	593.4
60°	454.1	442.4	438.5	437.9	443.1	454.8	471.7	492.6	505.0	516.7	540.8
62.5°	423.4	412.2	403.6	404.5	409.2	420.4	435.3	450.3	458.5	471.4	487.7
65°	376.0	361.7	355.2	353.2	355.8	364.9	376.6	386.3	395.5	400.8	416.3
67.5°	328.6	316.5	306.9	304.5	303.4	309.6	319.2	325.2	331.7	336.2	345.4
70°	295.2	284.7	273.1	269.1	268.4	273.6	282.8	283.4	292.6	294.5	304.3
72.5°	262.3	249.3	241.2	237.3	234.6	239.2	245.2	246.9	251.9	255.4	260.5
75°	211.1	201.3	193.5	187.7	185.7	188.3	188.3	191.5	194.8	196.8	202.6
77.5°	166.2	155.0	145.7	142.3	140.0	138.3	139.7	141.7	140.1	143.5	144.8
80°	134.9	123.2	116.0	114.7	110.7	107.5	106.9	108.8	106.2	107.5	111.4
82.5°	104.2	96.6	88.9	87.6	82.7	81.0	80.3	79.1	79.1	78.8	79.6
85°	61.9	57.3	52.1	48.8	46.9	43.6	43.6	42.3	41.1	39.8	40.4
87.5°	31.7	30.3	27.1	25.1	23.5	20.9	20.4	18.1	16.9	15.6	14.4
90°	33.2	31.3	28.7	26.2	23.7	21.2	18.2	14.7	11.2	7.7	4.2
92.5°	32.0	30.2	27.6	25.1	22.5	20.0	18.7	18.5	18.3	18.1	17.9
95°	33.2	31.3	30.9	30.6	30.3	30.0	35.3	46.0	56.7	67.4	78.1
97.5°	37.7	37.5	72.8	108.0	143.3	178.5	192.8	186.2	179.4	172.7	166.0
100°	57.2	62.6	106.1	149.7	193.3	236.9	255.8	250.2	244.5	238.8	233.1
102.5°	243.4	301.3	307.0	312.7	318.4	324.0	324.8	320.7	316.5	312.4	308.1
105°	446.3	443.5	441.9	440.4	438.8	437.2	435.5	433.6	431.6	429.7	427.8
107.5°	554.3	552.9	550.7	548.7	546.5	544.3	542.8	541.9	540.9	540.0	538.9
110°	627.5	626.8	624.9	623.0	621.1	619.3	617.8	616.9	616.0	615.0	614.1



TEST NUMBER: P332829-830

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**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	698.3	698.5	697.6	696.7	695.8	694.9	693.6	691.9	690.2	688.5	686.8
115°	802.3	801.6	802.0	802.3	802.6	803.0	802.6	801.6	800.7	799.7	798.8
117.5°	908.4	908.5	907.9	907.2	906.4	905.8	904.8	903.5	902.3	901.0	899.8
120°	972.9	972.2	972.5	972.9	973.2	973.5	973.0	971.8	970.5	969.2	968.0
122.5°	1037.5	1037.1	1036.6	1036.1	1035.8	1035.3	1034.7	1033.9	1033.1	1032.4	1031.6
125°	1126.7	1125.8	1126.3	1127.0	1127.7	1128.2	1127.9	1126.7	1125.4	1124.2	1122.9
127.5°	1217.1	1217.3	1215.8	1214.4	1213.0	1211.4	1210.6	1210.2	1209.9	1209.7	1209.3
130°	1271.0	1270.7	1269.8	1268.9	1267.9	1267.0	1266.3	1266.0	1265.6	1265.4	1265.1
132.5°	1324.5	1324.2	1323.0	1321.7	1320.6	1319.4	1318.5	1318.0	1317.4	1316.7	1316.2
135°	1397.9	1397.2	1396.0	1394.7	1393.5	1392.1	1391.7	1392.0	1392.3	1392.6	1393.0
137.5°	1468.4	1467.7	1466.3	1465.0	1463.6	1462.2	1461.4	1461.3	1461.1	1461.0	1460.9
140°	1511.9	1510.9	1510.3	1509.7	1509.0	1508.4	1507.8	1507.1	1506.6	1505.9	1505.2
142.5°	1552.6	1551.9	1551.5	1551.1	1550.8	1550.4	1549.6	1548.5	1547.4	1546.1	1545.0
145°	1610.7	1610.4	1610.4	1610.4	1610.4	1610.4	1610.0	1609.0	1608.1	1607.1	1606.2
147.5°	1661.6	1661.3	1661.6	1662.0	1662.3	1662.6	1661.9	1660.1	1658.3	1656.5	1654.8
150°	1694.3	1694.3	1694.6	1695.0	1695.3	1695.5	1695.1	1693.8	1692.5	1691.3	1690.1
152.5°	1722.1	1721.6	1722.1	1722.7	1723.3	1723.9	1723.6	1722.6	1721.6	1720.6	1719.6
155°	1759.5	1758.2	1759.3	1760.2	1761.1	1762.1	1762.4	1762.1	1761.7	1761.4	1761.1
157.5°	1792.1	1790.4	1791.5	1792.5	1793.6	1794.7	1795.4	1795.5	1795.7	1795.9	1796.1
160°	1812.8	1810.8	1811.2	1811.5	1811.8	1812.1	1812.8	1813.7	1814.7	1815.6	1816.6
162.5°	1829.8	1827.9	1828.2	1828.5	1828.8	1829.2	1829.9	1831.2	1832.3	1833.5	1834.8
165°	1853.1	1850.7	1850.7	1850.7	1850.7	1850.7	1851.4	1853.0	1854.6	1856.1	1857.8
167.5°	1870.5	1867.7	1867.9	1868.1	1868.3	1868.5	1869.3	1871.0	1872.6	1874.3	1875.9
170°	1881.6	1879.1	1878.8	1878.5	1878.1	1877.8	1878.6	1880.5	1882.4	1884.3	1886.2
172.5°	1888.4	1885.9	1885.6	1885.3	1885.0	1884.6	1885.5	1887.3	1889.2	1891.1	1893.0
175°	1896.1	1893.3	1893.0	1892.6	1892.3	1892.1	1892.8	1894.7	1896.6	1898.5	1900.4
177.5°	1900.2	1898.1	1897.6	1897.1	1896.6	1896.1	1896.8	1898.5	1900.3	1902.1	1903.8
180°	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4



TEST NUMBER: P332829-830

CATALOG NUMBER: S124DIW-S1020D1560U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1583.4	1588.6	1595.3	1606.8	1611.0	1616.2	1623.5	1623.0	1625.0	1632.9	1649.5
5°	1589.2	1609.4	1629.0	1652.5	1677.2	1693.5	1715.6	1729.3	1742.9	1760.6	1790.5
7.5°	1591.6	1623.6	1659.4	1700.6	1737.3	1779.5	1812.4	1843.4	1871.5	1908.6	1944.4
10°	1587.9	1630.9	1677.2	1729.3	1784.7	1831.6	1874.0	1922.2	1963.2	2008.2	2048.6
12.5°	1581.1	1633.0	1694.9	1753.3	1818.1	1887.3	1940.1	1988.9	2043.5	2095.3	2157.6
15°	1565.8	1636.8	1709.1	1786.0	1872.6	1952.8	2029.0	2092.3	2150.9	2228.5	2309.9
17.5°	1546.2	1622.9	1714.0	1807.1	1897.7	1989.3	2083.7	2178.7	2252.7	2349.0	2412.7
20°	1528.0	1616.6	1710.4	1821.2	1911.8	2025.8	2119.6	2211.5	2313.1	2409.0	2485.1
22.5°	1502.4	1599.4	1698.9	1809.2	1928.4	2042.5	2150.9	2250.6	2352.2	2456.4	2548.7
25°	1470.0	1557.9	1675.8	1801.0	1919.6	2043.3	2167.8	2292.9	2402.4	2512.5	2598.5
27.5°	1414.8	1525.8	1635.6	1764.7	1896.5	2036.6	2169.6	2300.7	2415.3	2505.8	2559.2
30°	1386.6	1483.0	1602.2	1731.9	1874.6	2025.1	2163.9	2292.3	2399.1	2471.4	2492.9
32.5°	1344.9	1444.4	1561.0	1695.4	1846.4	2001.1	2145.7	2266.7	2355.9	2393.8	2367.9
35°	1283.0	1372.9	1490.8	1628.3	1785.4	1950.2	2092.9	2195.2	2240.8	2205.0	2115.7
37.5°	1208.7	1297.8	1416.3	1551.3	1713.8	1881.4	2010.4	2084.1	2068.9	1979.8	1846.7
40°	1156.6	1240.0	1352.7	1498.6	1657.0	1825.0	1938.4	1978.2	1936.5	1808.8	1667.5
42.5°	1098.7	1180.1	1293.3	1434.0	1601.8	1756.8	1855.6	1858.9	1788.9	1636.3	1494.3
45°	1010.6	1088.2	1195.0	1341.6	1496.7	1642.7	1707.8	1675.8	1546.9	1399.6	1256.9
47.5°	923.7	990.9	1096.3	1235.4	1382.7	1505.5	1537.9	1480.4	1342.9	1200.0	1067.7
50°	860.1	927.8	1026.9	1159.8	1301.8	1408.1	1423.7	1347.5	1212.6	1068.6	965.0
52.5°	799.1	866.4	961.8	1084.8	1214.8	1310.6	1311.1	1222.9	1088.5	960.2	863.8
55°	709.5	770.2	856.2	966.3	1082.3	1157.3	1139.0	1047.7	931.1	819.7	735.7
57.5°	623.3	676.1	755.4	847.2	949.3	1011.2	980.9	893.1	788.9	694.5	630.7
60°	567.5	617.7	685.5	772.1	858.2	906.3	877.7	798.1	702.4	626.1	570.8
62.5°	513.3	555.6	620.9	696.1	775.8	811.5	786.0	707.5	624.7	555.8	510.9
65°	436.6	471.1	523.2	587.8	645.7	676.4	654.9	581.8	518.7	469.1	433.3
67.5°	364.9	391.9	431.3	483.1	532.3	548.9	529.3	478.5	425.0	385.3	360.1
70°	315.4	340.8	374.0	413.8	456.8	474.4	454.8	414.4	370.8	334.2	309.5
72.5°	272.1	291.8	319.8	353.8	387.5	405.0	391.7	352.9	316.0	288.9	267.8
75°	207.2	224.1	243.6	267.8	293.9	305.6	293.9	267.1	241.8	221.5	206.5
77.5°	150.6	159.8	174.8	192.8	209.2	218.1	208.0	189.8	174.4	160.5	153.2
80°	114.7	121.2	131.6	146.0	157.0	165.5	159.0	144.0	131.6	122.5	119.2
82.5°	83.4	87.8	94.6	105.3	112.7	117.1	114.1	103.3	98.2	90.2	86.9
85°	41.1	43.6	48.3	51.5	58.0	58.6	59.3	54.8	50.1	48.3	45.6
87.5°	15.6	16.9	19.1	21.4	24.0	25.1	25.1	25.5	23.9	23.8	22.1
90°	7.7	11.2	14.7	18.2	21.2	23.7	26.2	28.7	31.3	33.2	35.1
92.5°	18.1	18.3	18.5	18.7	20.0	22.5	25.1	27.6	30.2	32.0	33.9
95°	67.4	56.7	46.0	35.3	30.0	30.3	30.6	30.9	31.3	33.2	35.1
97.5°	172.7	179.4	186.2	192.8	178.5	143.3	108.0	72.8	37.5	37.7	37.9
100°	238.8	244.5	250.2	255.8	236.9	193.3	149.7	106.1	62.6	57.2	51.8
102.5°	312.4	316.5	320.7	324.8	324.0	318.4	312.7	307.0	301.3	243.4	185.5
105°	429.7	431.6	433.6	435.5	437.2	438.8	440.4	441.9	443.5	446.3	449.1
107.5°	540.0	540.9	541.9	542.8	544.3	546.5	548.7	550.7	552.9	554.3	555.7
110°	615.0	616.0	616.9	617.8	619.3	621.1	623.0	624.9	626.8	627.5	628.1





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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	688.5	690.2	691.9	693.6	694.9	695.8	696.7	697.6	698.5	698.3	698.2
115°	799.7	800.7	801.6	802.6	803.0	802.6	802.3	802.0	801.6	802.3	803.0
117.5°	901.0	902.3	903.5	904.8	905.8	906.4	907.2	907.9	908.5	908.4	908.3
120°	969.2	970.5	971.8	973.0	973.5	973.2	972.9	972.5	972.2	972.9	973.5
122.5°	1032.4	1033.1	1033.9	1034.7	1035.3	1035.8	1036.1	1036.6	1037.1	1037.5	1037.8
125°	1124.2	1125.4	1126.7	1127.9	1128.2	1127.7	1127.0	1126.3	1125.8	1126.7	1127.7
127.5°	1209.7	1209.9	1210.2	1210.6	1211.4	1213.0	1214.4	1215.8	1217.3	1217.1	1216.9
130°	1265.4	1265.6	1266.0	1266.3	1267.0	1267.9	1268.9	1269.8	1270.7	1271.0	1271.4
132.5°	1316.7	1317.4	1318.0	1318.5	1319.4	1320.6	1321.7	1323.0	1324.2	1324.5	1324.8
135°	1392.6	1392.3	1392.0	1391.7	1392.1	1393.5	1394.7	1396.0	1397.2	1397.9	1398.5
137.5°	1461.0	1461.1	1461.3	1461.4	1462.2	1463.6	1465.0	1466.3	1467.7	1468.4	1469.1
140°	1505.9	1506.6	1507.1	1507.8	1508.4	1509.0	1509.7	1510.3	1510.9	1511.9	1512.9
142.5°	1546.1	1547.4	1548.5	1549.6	1550.4	1550.8	1551.1	1551.5	1551.9	1552.6	1553.3
145°	1607.1	1608.1	1609.0	1610.0	1610.4	1610.4	1610.4	1610.4	1610.4	1610.7	1611.1
147.5°	1656.5	1658.3	1660.1	1661.9	1662.6	1662.3	1662.0	1661.6	1661.3	1661.6	1661.8
150°	1691.3	1692.5	1693.8	1695.1	1695.5	1695.3	1695.0	1694.6	1694.3	1694.3	1694.3
152.5°	1720.6	1721.6	1722.6	1723.6	1723.9	1723.3	1722.7	1722.1	1721.6	1722.1	1722.6
155°	1761.4	1761.7	1762.1	1762.4	1762.1	1761.1	1760.2	1759.3	1758.2	1759.5	1760.8
157.5°	1795.9	1795.7	1795.5	1795.4	1794.7	1793.6	1792.5	1791.5	1790.4	1792.1	1793.7
160°	1815.6	1814.7	1813.7	1812.8	1812.1	1811.8	1811.5	1811.2	1810.8	1812.8	1814.7
162.5°	1833.5	1832.3	1831.2	1829.9	1829.2	1828.8	1828.5	1828.2	1827.9	1829.8	1831.7
165°	1856.1	1854.6	1853.0	1851.4	1850.7	1850.7	1850.7	1850.7	1850.7	1853.1	1855.7
167.5°	1874.3	1872.6	1871.0	1869.3	1868.5	1868.3	1868.1	1867.9	1867.7	1870.5	1873.3
170°	1884.3	1882.4	1880.5	1878.6	1877.8	1878.1	1878.5	1878.8	1879.1	1881.6	1884.1
172.5°	1891.1	1889.2	1887.3	1885.5	1884.6	1885.0	1885.3	1885.6	1885.9	1888.4	1890.9
175°	1898.5	1896.6	1894.7	1892.8	1892.1	1892.3	1892.6	1893.0	1893.3	1896.1	1898.9
177.5°	1902.1	1900.3	1898.5	1896.8	1896.1	1896.6	1897.1	1897.6	1898.1	1900.2	1902.1
180°	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1657.9	1659.0	1663.6	1667.3	1668.3	1673.6	1674.0
5°	1803.6	1814.7	1836.2	1838.1	1841.4	1858.3	1845.3
7.5°	1974.3	2002.4	2021.2	2037.8	2043.8	2051.2	2049.7
10°	2083.8	2125.4	2146.4	2179.5	2180.9	2189.3	2184.2
12.5°	2193.8	2242.2	2280.3	2286.4	2314.3	2318.6	2325.9
15°	2349.6	2401.1	2453.9	2472.8	2511.2	2520.4	2534.7
17.5°	2496.1	2548.7	2585.8	2634.6	2650.4	2671.5	2657.1
20°	2576.3	2633.7	2680.6	2719.0	2735.4	2747.0	2745.8
22.5°	2624.9	2682.7	2720.7	2749.8	2765.0	2770.0	2769.8
25°	2655.2	2688.4	2700.2	2711.2	2694.4	2688.4	2691.1
27.5°	2570.8	2562.2	2531.6	2491.4	2449.7	2416.6	2398.6
30°	2454.6	2403.7	2357.4	2276.6	2235.0	2210.2	2188.0
32.5°	2289.8	2209.2	2120.2	2046.3	1998.8	1962.1	1956.6
35°	2007.5	1886.3	1777.5	1687.0	1640.0	1600.2	1591.2
37.5°	1706.8	1580.8	1482.9	1403.2	1352.7	1324.6	1298.4
40°	1507.1	1398.9	1302.5	1234.7	1196.3	1176.1	1159.8
42.5°	1353.3	1254.5	1158.7	1107.0	1072.2	1059.9	1050.4
45°	1140.9	1049.0	982.6	943.5	923.3	902.5	892.7
47.5°	970.8	896.1	852.2	819.1	797.4	785.0	778.7
50°	874.4	813.1	774.1	748.7	729.2	719.3	714.2
52.5°	788.9	738.7	705.8	685.6	672.3	665.2	663.1
55°	679.6	641.1	620.3	602.8	593.0	586.4	583.8
57.5°	590.7	561.2	544.2	529.7	525.9	520.5	518.7
60°	532.3	509.5	495.2	485.4	482.2	475.7	476.9
62.5°	480.7	462.1	449.9	444.2	440.0	434.5	436.3
65°	406.6	392.9	386.3	381.2	376.0	372.7	375.3
67.5°	341.2	331.8	322.9	319.9	317.4	316.8	314.1
70°	298.4	290.6	282.8	280.9	280.9	278.2	277.6
72.5°	257.2	251.5	246.3	244.9	242.8	243.8	241.1
75°	198.7	194.2	192.2	190.3	189.6	189.6	187.7
77.5°	146.8	143.5	140.3	140.3	138.0	137.1	136.9
80°	111.4	110.1	107.5	107.5	106.2	106.9	105.6
82.5°	83.8	82.0	81.4	80.4	78.6	78.7	77.4
85°	45.0	43.0	42.3	40.4	39.1	40.4	39.1
87.5°	23.0	22.9	22.6	21.7	21.3	21.4	20.0
90°	36.9	38.8	40.2	40.7	41.4	42.0	42.6
92.5°	35.8	37.7	38.7	38.8	39.0	39.1	39.2
95°	36.9	38.8	40.0	40.2	40.6	40.9	41.2
97.5°	38.1	38.3	38.5	38.8	39.2	39.5	39.8
100°	46.5	41.1	38.5	38.8	39.2	39.5	39.8
102.5°	127.5	69.7	40.7	40.7	40.8	40.9	40.9
105°	452.0	454.9	450.5	439.2	427.8	416.5	405.1
107.5°	557.1	558.5	559.8	561.0	562.1	563.4	564.6
110°	628.8	629.3	630.2	631.1	632.1	633.0	634.0



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	698.0	698.0	698.5	699.7	700.9	702.1	703.3
115°	803.5	804.2	804.6	804.6	804.6	804.6	804.6
117.5°	908.1	908.0	908.0	907.8	907.7	907.6	907.4
120°	974.1	974.8	974.8	974.1	973.5	972.9	972.2
122.5°	1038.2	1038.6	1038.4	1037.8	1037.2	1036.5	1035.9
125°	1128.6	1129.5	1130.2	1130.5	1130.8	1131.1	1131.4
127.5°	1216.7	1216.5	1216.3	1216.1	1215.8	1215.5	1215.3
130°	1271.7	1272.0	1272.1	1272.1	1272.1	1272.1	1272.1
132.5°	1325.1	1325.4	1325.5	1325.2	1324.9	1324.7	1324.5
135°	1399.1	1399.8	1400.4	1401.0	1401.7	1402.3	1402.9
137.5°	1469.8	1470.6	1470.7	1470.6	1470.4	1470.2	1470.0
140°	1513.8	1514.8	1515.3	1515.7	1516.0	1516.3	1516.6
142.5°	1554.0	1554.6	1555.0	1555.1	1555.2	1555.2	1555.3
145°	1611.4	1611.7	1612.2	1612.8	1613.4	1614.1	1614.7
147.5°	1662.1	1662.4	1662.6	1662.9	1663.2	1663.6	1663.9
150°	1694.3	1694.3	1694.5	1694.8	1695.1	1695.4	1695.7
152.5°	1723.1	1723.6	1723.7	1723.5	1723.3	1723.2	1723.0
155°	1762.1	1763.3	1763.5	1762.6	1761.6	1760.7	1759.7
157.5°	1795.4	1797.0	1797.0	1795.4	1793.7	1792.1	1790.4
160°	1816.6	1818.4	1818.4	1816.6	1814.7	1812.8	1810.8
162.5°	1833.6	1835.5	1835.3	1833.2	1831.1	1828.9	1826.7
165°	1858.2	1860.8	1860.6	1857.8	1854.9	1852.1	1849.3
167.5°	1876.0	1878.9	1878.7	1875.5	1872.4	1869.2	1866.0
170°	1886.7	1889.2	1888.9	1885.7	1882.5	1879.4	1876.2
172.5°	1893.5	1896.0	1895.5	1892.2	1888.8	1885.4	1881.9
175°	1901.9	1904.7	1904.2	1900.4	1896.6	1892.8	1889.0
177.5°	1904.2	1906.2	1905.7	1902.7	1899.6	1896.6	1893.6
180°	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4	1900.4

(END OF REPORT)