

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: P332830-830

Luminaire Tested: **S124DIW-S1020D1560U830-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332830-830
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-S1020D1560U830-4F0-1E-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: 9443.6 lumens
Efficiency: N/A
Efficacy: 123.3 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

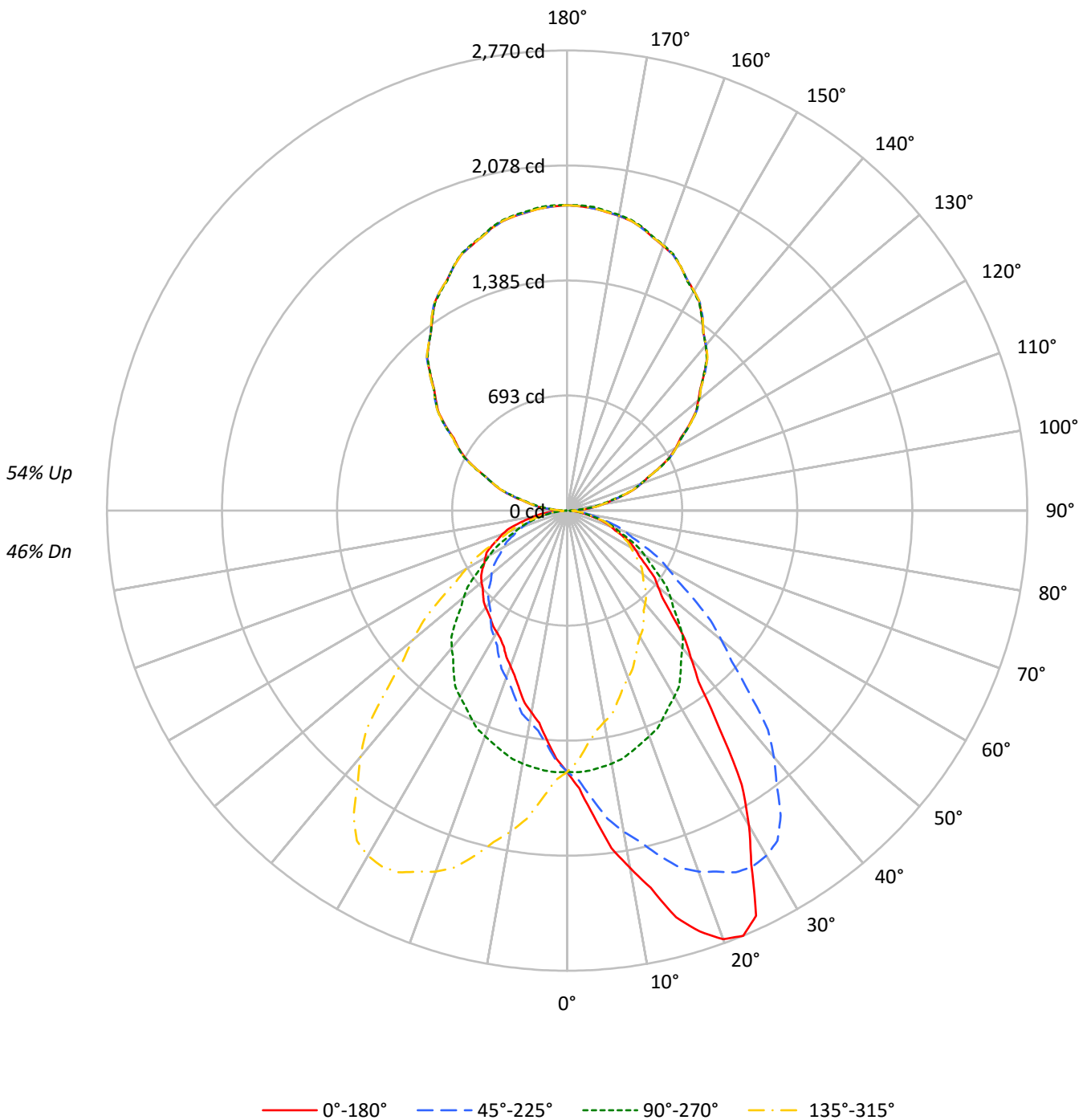
Input Watts (W): 76.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	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	1.6
10°-20°	472.3	5.0
20°-30°	749.0	7.9
30°-40°	833.5	8.8
40°-50°	758.7	8.0
50°-60°	620.0	6.6
60°-70°	442.6	4.7
70°-80°	243.7	2.6
80°-90°	72.0	0.8
90°-100°	121.2	1.3
100°-110°	359.1	3.8
110°-120°	609.4	6.5
120°-130°	803.6	8.5
130°-140°	902.4	9.6
140°-150°	886.8	9.4
150°-160°	745.9	7.9
160°-170°	496.2	5.3
170°-180°	173.8	1.8
0°-30°	1374.6	14.6
0°-40°	2208.1	23.4
0°-60°	3586.8	38.0
0°-90°	4345.2	46.0
90°-120°	1089.7	11.5
90°-150°	3682.5	39.0
90°-180°	5098.0	54.0
0°-180°	9443.6	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	23
95°	112	85	112	85	112	117
105°	347	331	347	331	347	365
115°	614	620	614	620	614	607
125°	895	902	895	902	895	799
135°	1165	1164	1165	1164	1165	900
145°	1416	1414	1416	1414	1416	886
155°	1619	1620	1619	1620	1619	745
165°	1759	1764	1759	1764	1759	495
175°	1826	1835	1826	1835	1826	173
180°	1838	1838	1838	1838	1838	



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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°	63.1	62.7	62.3	61.9	61.5	60.8	59.7	58.5	57.4	56.3	54.5
95°	112.3	112.3	112.3	112.3	112.3	111.8	110.8	109.9	109.0	108.0	105.8
97.5°	176.0	176.0	176.0	176.0	176.0	175.4	174.3	173.1	171.9	170.8	168.2
100°	220.3	220.3	220.3	220.3	220.3	220.0	219.3	218.7	218.1	217.4	214.6
102.5°	270.3	270.0	269.8	269.6	269.3	268.7	267.9	266.9	266.1	265.2	262.6
105°	346.8	345.8	344.9	343.9	343.0	342.0	341.1	340.2	339.2	338.3	337.0
107.5°	421.2	421.3	421.4	421.4	421.5	421.1	420.2	419.3	418.4	417.5	417.4
110°	474.7	473.7	472.8	471.8	470.9	470.7	471.4	472.0	472.6	473.3	473.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	529.2	529.0	528.9	528.7	528.5	528.5	528.6	528.7	528.9	529.0	529.5
115°	614.0	614.3	614.6	614.9	615.2	615.6	615.9	616.1	616.5	616.8	617.5
117.5°	694.7	695.3	696.0	696.5	697.2	698.0	699.2	700.2	701.3	702.4	702.8
120°	756.1	755.4	754.8	754.2	753.6	754.0	755.6	757.1	758.7	760.3	761.3
122.5°	807.3	808.4	809.5	810.7	811.8	812.9	814.0	815.0	816.1	817.2	817.7
125°	895.3	896.0	896.6	897.2	897.9	898.5	899.2	899.8	900.4	901.1	901.4
127.5°	976.9	977.4	978.0	978.5	978.9	979.5	980.1	980.8	981.4	982.0	982.6
130°	1030.4	1031.6	1032.9	1034.2	1035.4	1036.3	1037.0	1037.6	1038.3	1038.9	1038.9
132.5°	1087.2	1087.7	1088.3	1088.7	1089.2	1089.8	1090.4	1091.1	1091.7	1092.3	1092.6
135°	1165.4	1166.3	1167.2	1168.2	1169.1	1170.0	1170.6	1171.2	1171.9	1172.5	1172.5
137.5°	1247.5	1247.4	1247.2	1247.0	1246.8	1247.1	1247.9	1248.8	1249.5	1250.4	1249.9
140°	1297.6	1297.9	1298.2	1298.5	1298.8	1299.1	1299.5	1299.8	1300.0	1300.4	1300.4
142.5°	1347.6	1347.6	1347.7	1347.7	1347.8	1347.9	1347.9	1348.0	1348.1	1348.1	1348.4
145°	1415.5	1416.5	1417.4	1418.3	1419.3	1419.9	1420.2	1420.6	1420.9	1421.2	1420.9
147.5°	1484.3	1484.6	1485.0	1485.3	1485.5	1485.8	1486.1	1486.4	1486.6	1486.9	1487.1
150°	1526.4	1526.7	1527.0	1527.3	1527.7	1527.8	1527.8	1527.8	1527.8	1527.8	1527.8
152.5°	1565.0	1565.8	1566.7	1567.4	1568.3	1568.3	1567.5	1566.8	1566.0	1565.3	1565.1
155°	1618.7	1620.0	1621.3	1622.5	1623.8	1623.8	1622.5	1621.3	1620.0	1618.7	1619.1
157.5°	1666.8	1667.8	1669.0	1670.0	1671.0	1671.1	1670.2	1669.2	1668.3	1667.4	1667.5
160°	1694.0	1695.6	1697.2	1698.8	1700.3	1700.7	1699.8	1698.8	1697.9	1697.0	1697.2
162.5°	1722.5	1724.1	1725.7	1727.2	1728.8	1728.7	1727.0	1725.3	1723.6	1721.9	1722.2
165°	1759.4	1760.7	1762.0	1763.2	1764.5	1764.2	1762.3	1760.4	1758.5	1756.6	1757.3
167.5°	1785.8	1787.8	1789.8	1791.8	1793.8	1793.8	1791.9	1790.0	1788.1	1786.2	1786.1
170°	1800.6	1802.9	1805.1	1807.3	1809.5	1809.7	1807.8	1805.9	1803.9	1802.0	1801.8
172.5°	1813.2	1815.3	1817.6	1819.8	1822.0	1822.0	1819.9	1817.8	1815.6	1813.5	1813.4
175°	1826.3	1828.4	1830.7	1832.9	1835.1	1835.1	1832.9	1830.7	1828.4	1826.3	1826.6
177.5°	1833.1	1835.1	1837.1	1839.1	1841.2	1841.3	1839.5	1837.8	1836.0	1834.2	1834.2
180°	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6



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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°	52.8	51.0	49.2	46.4	42.3	38.4	34.4	30.4	34.4	38.4	42.3
95°	103.6	101.4	99.2	96.6	93.8	91.0	88.1	85.3	88.1	91.0	93.8
97.5°	165.6	163.1	160.5	158.1	155.8	153.4	151.2	148.9	151.2	153.4	155.8
100°	211.8	209.0	206.0	204.1	202.7	201.5	200.2	199.0	200.2	201.5	202.7
102.5°	260.0	257.4	254.9	253.3	252.8	252.3	251.8	251.3	251.8	252.3	252.8
105°	335.7	334.4	333.2	332.4	332.1	331.8	331.5	331.1	331.5	331.8	332.1
107.5°	417.2	417.0	416.8	416.5	416.1	415.8	415.4	415.0	415.4	415.8	416.1
110°	473.9	474.2	474.6	474.4	473.7	473.1	472.5	471.8	472.5	473.1	473.7



TEST NUMBER: P332830-830

CATALOG NUMBER: S124DIW-S1020D1560U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	530.1	530.7	531.2	531.5	531.3	531.2	531.1	530.9	531.1	531.2	531.3
115°	618.0	618.7	619.3	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6
117.5°	703.2	703.7	704.2	704.3	704.0	703.7	703.4	703.2	703.4	703.7	704.0
120°	762.2	763.2	764.1	763.9	762.7	761.5	760.2	758.9	760.2	761.5	762.7
122.5°	818.0	818.5	819.0	818.9	818.4	817.9	817.4	816.9	817.4	817.9	818.4
125°	901.6	902.0	902.3	902.5	902.5	902.5	902.5	902.5	902.5	902.5	902.5
127.5°	983.1	983.5	984.1	983.8	982.9	981.9	981.0	980.1	981.0	981.9	982.9
130°	1038.9	1038.9	1038.9	1038.4	1037.5	1036.5	1035.6	1034.6	1035.6	1036.5	1037.5
132.5°	1092.9	1093.1	1093.3	1093.2	1092.4	1091.7	1091.1	1090.3	1091.1	1091.7	1092.4
135°	1172.5	1172.5	1172.5	1171.6	1169.7	1167.7	1165.8	1163.9	1165.8	1167.7	1169.7
137.5°	1249.3	1248.9	1248.4	1247.6	1246.8	1245.9	1245.0	1244.2	1245.0	1245.9	1246.8
140°	1300.4	1300.4	1300.4	1300.0	1299.5	1298.8	1298.2	1297.6	1298.2	1298.8	1299.5
142.5°	1348.7	1348.9	1349.2	1349.0	1348.3	1347.7	1347.1	1346.4	1347.1	1347.7	1348.3
145°	1420.6	1420.2	1419.9	1419.2	1417.9	1416.6	1415.3	1414.1	1415.3	1416.6	1417.9
147.5°	1487.3	1487.6	1487.9	1487.2	1485.7	1484.2	1482.7	1481.2	1482.7	1484.2	1485.7
150°	1527.8	1527.8	1527.8	1527.2	1525.9	1524.7	1523.3	1522.1	1523.3	1524.7	1525.9
152.5°	1564.8	1564.5	1564.3	1563.8	1563.0	1562.3	1561.5	1560.8	1561.5	1562.3	1563.0
155°	1619.4	1619.7	1620.0	1620.1	1620.1	1620.1	1620.1	1620.1	1620.1	1620.1	1620.1
157.5°	1667.5	1667.5	1667.6	1667.9	1668.5	1669.1	1669.6	1670.2	1669.6	1669.1	1668.5
160°	1697.5	1697.9	1698.2	1698.5	1698.8	1699.1	1699.4	1699.8	1699.4	1699.1	1698.8
162.5°	1722.6	1722.9	1723.2	1723.7	1724.6	1725.4	1726.3	1727.0	1726.3	1725.4	1724.6
165°	1757.8	1758.5	1759.2	1759.9	1760.9	1761.8	1762.7	1763.7	1762.7	1761.8	1760.9
167.5°	1786.0	1786.0	1785.9	1786.6	1787.9	1789.2	1790.5	1791.9	1790.5	1789.2	1787.9
170°	1801.5	1801.1	1800.8	1801.5	1803.0	1804.6	1806.2	1807.8	1806.2	1804.6	1803.0
172.5°	1813.4	1813.3	1813.2	1813.8	1815.1	1816.5	1817.8	1819.1	1817.8	1816.5	1815.1
175°	1826.8	1827.2	1827.5	1828.4	1830.0	1831.6	1833.2	1834.8	1833.2	1831.6	1830.0
177.5°	1834.2	1834.2	1834.2	1834.8	1836.1	1837.4	1838.6	1839.8	1838.6	1837.4	1836.1
180°	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6



TEST NUMBER: P332830-830

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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	43.2	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°	46.4	49.2	51.0	52.8	54.5	56.3	57.4	58.5	59.7	60.8	61.5
95°	96.6	99.2	101.4	103.6	105.8	108.0	109.0	109.9	110.8	111.8	112.3
97.5°	158.1	160.5	163.1	165.6	168.2	170.8	171.9	173.1	174.3	175.4	176.0
100°	204.1	206.0	209.0	211.8	214.6	217.4	218.1	218.7	219.3	220.0	220.3
102.5°	253.3	254.9	257.4	260.0	262.6	265.2	266.1	266.9	267.9	268.7	269.3
105°	332.4	333.2	334.4	335.7	337.0	338.3	339.2	340.2	341.1	342.0	343.0
107.5°	416.5	416.8	417.0	417.2	417.4	417.5	418.4	419.3	420.2	421.1	421.5
110°	474.4	474.6	474.2	473.9	473.5	473.3	472.6	472.0	471.4	470.7	470.9



TEST NUMBER: P332830-830

CATALOG NUMBER: S124DIW-S1020D1560U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	531.5	531.2	530.7	530.1	529.5	529.0	528.9	528.7	528.6	528.5	528.5
115°	619.6	619.3	618.7	618.0	617.5	616.8	616.5	616.1	615.9	615.6	615.2
117.5°	704.3	704.2	703.7	703.2	702.8	702.4	701.3	700.2	699.2	698.0	697.2
120°	763.9	764.1	763.2	762.2	761.3	760.3	758.7	757.1	755.6	754.0	753.6
122.5°	818.9	819.0	818.5	818.0	817.7	817.2	816.1	815.0	814.0	812.9	811.8
125°	902.5	902.3	902.0	901.6	901.4	901.1	900.4	899.8	899.2	898.5	897.9
127.5°	983.8	984.1	983.5	983.1	982.6	982.0	981.4	980.8	980.1	979.5	978.9
130°	1038.4	1038.9	1038.9	1038.9	1038.9	1038.9	1038.3	1037.6	1037.0	1036.3	1035.4
132.5°	1093.2	1093.3	1093.1	1092.9	1092.6	1092.3	1091.7	1091.1	1090.4	1089.8	1089.2
135°	1171.6	1172.5	1172.5	1172.5	1172.5	1172.5	1171.9	1171.2	1170.6	1170.0	1169.1
137.5°	1247.6	1248.4	1248.9	1249.3	1249.9	1250.4	1249.5	1248.8	1247.9	1247.1	1246.8
140°	1300.0	1300.4	1300.4	1300.4	1300.4	1300.4	1300.0	1299.8	1299.5	1299.1	1298.8
142.5°	1349.0	1349.2	1348.9	1348.7	1348.4	1348.1	1348.1	1348.0	1347.9	1347.9	1347.8
145°	1419.2	1419.9	1420.2	1420.6	1420.9	1421.2	1420.9	1420.6	1420.2	1419.9	1419.3
147.5°	1487.2	1487.9	1487.6	1487.3	1487.1	1486.9	1486.6	1486.4	1486.1	1485.8	1485.5
150°	1527.2	1527.8	1527.8	1527.8	1527.8	1527.8	1527.8	1527.8	1527.8	1527.8	1527.7
152.5°	1563.8	1564.3	1564.5	1564.8	1565.1	1565.3	1566.0	1566.8	1567.5	1568.3	1568.3
155°	1620.1	1620.0	1619.7	1619.4	1619.1	1618.7	1620.0	1621.3	1622.5	1623.8	1623.8
157.5°	1667.9	1667.6	1667.5	1667.5	1667.5	1667.4	1668.3	1669.2	1670.2	1671.1	1671.0
160°	1698.5	1698.2	1697.9	1697.5	1697.2	1697.0	1697.9	1698.8	1699.8	1700.7	1700.3
162.5°	1723.7	1723.2	1722.9	1722.6	1722.2	1721.9	1723.6	1725.3	1727.0	1728.7	1728.8
165°	1759.9	1759.2	1758.5	1757.8	1757.3	1756.6	1758.5	1760.4	1762.3	1764.2	1764.5
167.5°	1786.6	1785.9	1786.0	1786.0	1786.1	1786.2	1788.1	1790.0	1791.9	1793.8	1793.8
170°	1801.5	1800.8	1801.1	1801.5	1801.8	1802.0	1803.9	1805.9	1807.8	1809.7	1809.5
172.5°	1813.8	1813.2	1813.3	1813.4	1813.4	1813.5	1815.6	1817.8	1819.9	1822.0	1822.0
175°	1828.4	1827.5	1827.2	1826.8	1826.6	1826.3	1828.4	1830.7	1832.9	1835.1	1835.1
177.5°	1834.8	1834.2	1834.2	1834.2	1834.2	1834.2	1836.0	1837.8	1839.5	1841.3	1841.2
180°	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6



TEST NUMBER: P332830-830

CATALOG NUMBER: S124DIW-S1020D1560U830-4F0-1E-UDD-A1

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	43.2	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°	61.9	62.3	62.7	63.1	62.7	62.3	61.9	61.5	60.8	59.7	58.5
95°	112.3	112.3	112.3	112.3	112.3	112.3	112.3	112.3	111.8	110.8	109.9
97.5°	176.0	176.0	176.0	176.0	176.0	176.0	176.0	176.0	175.4	174.3	173.1
100°	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.0	219.3	218.7
102.5°	269.6	269.8	270.0	270.3	270.0	269.8	269.6	269.3	268.7	267.9	266.9
105°	343.9	344.9	345.8	346.8	345.8	344.9	343.9	343.0	342.0	341.1	340.2
107.5°	421.4	421.4	421.3	421.2	421.3	421.4	421.4	421.5	421.1	420.2	419.3
110°	471.8	472.8	473.7	474.7	473.7	472.8	471.8	470.9	470.7	471.4	472.0



TEST NUMBER: P332830-830

CATALOG NUMBER: S124DIW-S1020D1560U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	528.7	528.9	529.0	529.2	529.0	528.9	528.7	528.5	528.5	528.6	528.7
115°	614.9	614.6	614.3	614.0	614.3	614.6	614.9	615.2	615.6	615.9	616.1
117.5°	696.5	696.0	695.3	694.7	695.3	696.0	696.5	697.2	698.0	699.2	700.2
120°	754.2	754.8	755.4	756.1	755.4	754.8	754.2	753.6	754.0	755.6	757.1
122.5°	810.7	809.5	808.4	807.3	808.4	809.5	810.7	811.8	812.9	814.0	815.0
125°	897.2	896.6	896.0	895.3	896.0	896.6	897.2	897.9	898.5	899.2	899.8
127.5°	978.5	978.0	977.4	976.9	977.4	978.0	978.5	978.9	979.5	980.1	980.8
130°	1034.2	1032.9	1031.6	1030.4	1031.6	1032.9	1034.2	1035.4	1036.3	1037.0	1037.6
132.5°	1088.7	1088.3	1087.7	1087.2	1087.7	1088.3	1088.7	1089.2	1089.8	1090.4	1091.1
135°	1168.2	1167.2	1166.3	1165.4	1166.3	1167.2	1168.2	1169.1	1170.0	1170.6	1171.2
137.5°	1247.0	1247.2	1247.4	1247.5	1247.4	1247.2	1247.0	1246.8	1247.1	1247.9	1248.8
140°	1298.5	1298.2	1297.9	1297.6	1297.9	1298.2	1298.5	1298.8	1299.1	1299.5	1299.8
142.5°	1347.7	1347.7	1347.6	1347.6	1347.6	1347.7	1347.7	1347.8	1347.9	1347.9	1348.0
145°	1418.3	1417.4	1416.5	1415.5	1416.5	1417.4	1418.3	1419.3	1419.9	1420.2	1420.6
147.5°	1485.3	1485.0	1484.6	1484.3	1484.6	1485.0	1485.3	1485.5	1485.8	1486.1	1486.4
150°	1527.3	1527.0	1526.7	1526.4	1526.7	1527.0	1527.3	1527.7	1527.8	1527.8	1527.8
152.5°	1567.4	1566.7	1565.8	1565.0	1565.8	1566.7	1567.4	1568.3	1568.3	1567.5	1566.8
155°	1622.5	1621.3	1620.0	1618.7	1620.0	1621.3	1622.5	1623.8	1623.8	1622.5	1621.3
157.5°	1670.0	1669.0	1667.8	1666.8	1667.8	1669.0	1670.0	1671.0	1671.1	1670.2	1669.2
160°	1698.8	1697.2	1695.6	1694.0	1695.6	1697.2	1698.8	1700.3	1700.7	1699.8	1698.8
162.5°	1727.2	1725.7	1724.1	1722.5	1724.1	1725.7	1727.2	1728.8	1728.7	1727.0	1725.3
165°	1763.2	1762.0	1760.7	1759.4	1760.7	1762.0	1763.2	1764.5	1764.2	1762.3	1760.4
167.5°	1791.8	1789.8	1787.8	1785.8	1787.8	1789.8	1791.8	1793.8	1793.8	1791.9	1790.0
170°	1807.3	1805.1	1802.9	1800.6	1802.9	1805.1	1807.3	1809.5	1809.7	1807.8	1805.9
172.5°	1819.8	1817.6	1815.3	1813.2	1815.3	1817.6	1819.8	1822.0	1822.0	1819.9	1817.8
175°	1832.9	1830.7	1828.4	1826.3	1828.4	1830.7	1832.9	1835.1	1835.1	1832.9	1830.7
177.5°	1839.1	1837.1	1835.1	1833.1	1835.1	1837.1	1839.1	1841.2	1841.3	1839.5	1837.8
180°	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6



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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°	57.4	56.3	54.5	52.8	51.0	49.2	46.4	42.3	38.4	34.4	30.4
95°	109.0	108.0	105.8	103.6	101.4	99.2	96.6	93.8	91.0	88.1	85.3
97.5°	171.9	170.8	168.2	165.6	163.1	160.5	158.1	155.8	153.4	151.2	148.9
100°	218.1	217.4	214.6	211.8	209.0	206.0	204.1	202.7	201.5	200.2	199.0
102.5°	266.1	265.2	262.6	260.0	257.4	254.9	253.3	252.8	252.3	251.8	251.3
105°	339.2	338.3	337.0	335.7	334.4	333.2	332.4	332.1	331.8	331.5	331.1
107.5°	418.4	417.5	417.4	417.2	417.0	416.8	416.5	416.1	415.8	415.4	415.0
110°	472.6	473.3	473.5	473.9	474.2	474.6	474.4	473.7	473.1	472.5	471.8



TEST NUMBER: P332830-830

CATALOG NUMBER: S124DIW-S1020D1560U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	528.9	529.0	529.5	530.1	530.7	531.2	531.5	531.3	531.2	531.1	530.9
115°	616.5	616.8	617.5	618.0	618.7	619.3	619.6	619.6	619.6	619.6	619.6
117.5°	701.3	702.4	702.8	703.2	703.7	704.2	704.3	704.0	703.7	703.4	703.2
120°	758.7	760.3	761.3	762.2	763.2	764.1	763.9	762.7	761.5	760.2	758.9
122.5°	816.1	817.2	817.7	818.0	818.5	819.0	818.9	818.4	817.9	817.4	816.9
125°	900.4	901.1	901.4	901.6	902.0	902.3	902.5	902.5	902.5	902.5	902.5
127.5°	981.4	982.0	982.6	983.1	983.5	984.1	983.8	982.9	981.9	981.0	980.1
130°	1038.3	1038.9	1038.9	1038.9	1038.9	1038.9	1038.4	1037.5	1036.5	1035.6	1034.6
132.5°	1091.7	1092.3	1092.6	1092.9	1093.1	1093.3	1093.2	1092.4	1091.7	1091.1	1090.3
135°	1171.9	1172.5	1172.5	1172.5	1172.5	1172.5	1171.6	1169.7	1167.7	1165.8	1163.9
137.5°	1249.5	1250.4	1249.9	1249.3	1248.9	1248.4	1247.6	1246.8	1245.9	1245.0	1244.2
140°	1300.0	1300.4	1300.4	1300.4	1300.4	1300.4	1300.0	1299.5	1298.8	1298.2	1297.6
142.5°	1348.1	1348.1	1348.4	1348.7	1348.9	1349.2	1349.0	1348.3	1347.7	1347.1	1346.4
145°	1420.9	1421.2	1420.9	1420.6	1420.2	1419.9	1419.2	1417.9	1416.6	1415.3	1414.1
147.5°	1486.6	1486.9	1487.1	1487.3	1487.6	1487.9	1487.2	1485.7	1484.2	1482.7	1481.2
150°	1527.8	1527.8	1527.8	1527.8	1527.8	1527.8	1527.2	1525.9	1524.7	1523.3	1522.1
152.5°	1566.0	1565.3	1565.1	1564.8	1564.5	1564.3	1563.8	1563.0	1562.3	1561.5	1560.8
155°	1620.0	1618.7	1619.1	1619.4	1619.7	1620.0	1620.1	1620.1	1620.1	1620.1	1620.1
157.5°	1668.3	1667.4	1667.5	1667.5	1667.5	1667.6	1667.9	1668.5	1669.1	1669.6	1670.2
160°	1697.9	1697.0	1697.2	1697.5	1697.9	1698.2	1698.5	1698.8	1699.1	1699.4	1699.8
162.5°	1723.6	1721.9	1722.2	1722.6	1722.9	1723.2	1723.7	1724.6	1725.4	1726.3	1727.0
165°	1758.5	1756.6	1757.3	1757.8	1758.5	1759.2	1759.9	1760.9	1761.8	1762.7	1763.7
167.5°	1788.1	1786.2	1786.1	1786.0	1786.0	1785.9	1786.6	1787.9	1789.2	1790.5	1791.9
170°	1803.9	1802.0	1801.8	1801.5	1801.1	1800.8	1801.5	1803.0	1804.6	1806.2	1807.8
172.5°	1815.6	1813.5	1813.4	1813.4	1813.3	1813.2	1813.8	1815.1	1816.5	1817.8	1819.1
175°	1828.4	1826.3	1826.6	1826.8	1827.2	1827.5	1828.4	1830.0	1831.6	1833.2	1834.8
177.5°	1836.0	1834.2	1834.2	1834.2	1834.2	1834.2	1834.8	1836.1	1837.4	1838.6	1839.8
180°	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6



TEST NUMBER: P332830-830

CATALOG NUMBER: S124DIW-S1020D1560U830-4F0-1E-UDD-A1

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°	34.4	38.4	42.3	46.4	49.2	51.0	52.8	54.5	56.3	57.4	58.5
95°	88.1	91.0	93.8	96.6	99.2	101.4	103.6	105.8	108.0	109.0	109.9
97.5°	151.2	153.4	155.8	158.1	160.5	163.1	165.6	168.2	170.8	171.9	173.1
100°	200.2	201.5	202.7	204.1	206.0	209.0	211.8	214.6	217.4	218.1	218.7
102.5°	251.8	252.3	252.8	253.3	254.9	257.4	260.0	262.6	265.2	266.1	266.9
105°	331.5	331.8	332.1	332.4	333.2	334.4	335.7	337.0	338.3	339.2	340.2
107.5°	415.4	415.8	416.1	416.5	416.8	417.0	417.2	417.4	417.5	418.4	419.3
110°	472.5	473.1	473.7	474.4	474.6	474.2	473.9	473.5	473.3	472.6	472.0



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	531.1	531.2	531.3	531.5	531.2	530.7	530.1	529.5	529.0	528.9	528.7
115°	619.6	619.6	619.6	619.6	619.3	618.7	618.0	617.5	616.8	616.5	616.1
117.5°	703.4	703.7	704.0	704.3	704.2	703.7	703.2	702.8	702.4	701.3	700.2
120°	760.2	761.5	762.7	763.9	764.1	763.2	762.2	761.3	760.3	758.7	757.1
122.5°	817.4	817.9	818.4	818.9	819.0	818.5	818.0	817.7	817.2	816.1	815.0
125°	902.5	902.5	902.5	902.5	902.3	902.0	901.6	901.4	901.1	900.4	899.8
127.5°	981.0	981.9	982.9	983.8	984.1	983.5	983.1	982.6	982.0	981.4	980.8
130°	1035.6	1036.5	1037.5	1038.4	1038.9	1038.9	1038.9	1038.9	1038.9	1038.3	1037.6
132.5°	1091.1	1091.7	1092.4	1093.2	1093.3	1093.1	1092.9	1092.6	1092.3	1091.7	1091.1
135°	1165.8	1167.7	1169.7	1171.6	1172.5	1172.5	1172.5	1172.5	1172.5	1171.9	1171.2
137.5°	1245.0	1245.9	1246.8	1247.6	1248.4	1248.9	1249.3	1249.9	1250.4	1249.5	1248.8
140°	1298.2	1298.8	1299.5	1300.0	1300.4	1300.4	1300.4	1300.4	1300.4	1300.0	1299.8
142.5°	1347.1	1347.7	1348.3	1349.0	1349.2	1348.9	1348.7	1348.4	1348.1	1348.1	1348.0
145°	1415.3	1416.6	1417.9	1419.2	1419.9	1420.2	1420.6	1420.9	1421.2	1420.9	1420.6
147.5°	1482.7	1484.2	1485.7	1487.2	1487.9	1487.6	1487.3	1487.1	1486.9	1486.6	1486.4
150°	1523.3	1524.7	1525.9	1527.2	1527.8	1527.8	1527.8	1527.8	1527.8	1527.8	1527.8
152.5°	1561.5	1562.3	1563.0	1563.8	1564.3	1564.5	1564.8	1565.1	1565.3	1566.0	1566.8
155°	1620.1	1620.1	1620.1	1620.1	1620.0	1619.7	1619.4	1619.1	1618.7	1620.0	1621.3
157.5°	1669.6	1669.1	1668.5	1667.9	1667.6	1667.5	1667.5	1667.5	1667.4	1668.3	1669.2
160°	1699.4	1699.1	1698.8	1698.5	1698.2	1697.9	1697.5	1697.2	1697.0	1697.9	1698.8
162.5°	1726.3	1725.4	1724.6	1723.7	1723.2	1722.9	1722.6	1722.2	1721.9	1723.6	1725.3
165°	1762.7	1761.8	1760.9	1759.9	1759.2	1758.5	1757.8	1757.3	1756.6	1758.5	1760.4
167.5°	1790.5	1789.2	1787.9	1786.6	1785.9	1786.0	1786.0	1786.1	1786.2	1788.1	1790.0
170°	1806.2	1804.6	1803.0	1801.5	1800.8	1801.1	1801.5	1801.8	1802.0	1803.9	1805.9
172.5°	1817.8	1816.5	1815.1	1813.8	1813.2	1813.3	1813.4	1813.4	1813.5	1815.6	1817.8
175°	1833.2	1831.6	1830.0	1828.4	1827.5	1827.2	1826.8	1826.6	1826.3	1828.4	1830.7
177.5°	1838.6	1837.4	1836.1	1834.8	1834.2	1834.2	1834.2	1834.2	1834.2	1836.0	1837.8
180°	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6



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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°	59.7	60.8	61.5	61.9	62.3	62.7	63.1
95°	110.8	111.8	112.3	112.3	112.3	112.3	112.3
97.5°	174.3	175.4	176.0	176.0	176.0	176.0	176.0
100°	219.3	220.0	220.3	220.3	220.3	220.3	220.3
102.5°	267.9	268.7	269.3	269.6	269.8	270.0	270.3
105°	341.1	342.0	343.0	343.9	344.9	345.8	346.8
107.5°	420.2	421.1	421.5	421.4	421.4	421.3	421.2
110°	471.4	470.7	470.9	471.8	472.8	473.7	474.7



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	528.6	528.5	528.5	528.7	528.9	529.0	529.2
115°	615.9	615.6	615.2	614.9	614.6	614.3	614.0
117.5°	699.2	698.0	697.2	696.5	696.0	695.3	694.7
120°	755.6	754.0	753.6	754.2	754.8	755.4	756.1
122.5°	814.0	812.9	811.8	810.7	809.5	808.4	807.3
125°	899.2	898.5	897.9	897.2	896.6	896.0	895.3
127.5°	980.1	979.5	978.9	978.5	978.0	977.4	976.9
130°	1037.0	1036.3	1035.4	1034.2	1032.9	1031.6	1030.4
132.5°	1090.4	1089.8	1089.2	1088.7	1088.3	1087.7	1087.2
135°	1170.6	1170.0	1169.1	1168.2	1167.2	1166.3	1165.4
137.5°	1247.9	1247.1	1246.8	1247.0	1247.2	1247.4	1247.5
140°	1299.5	1299.1	1298.8	1298.5	1298.2	1297.9	1297.6
142.5°	1347.9	1347.9	1347.8	1347.7	1347.7	1347.6	1347.6
145°	1420.2	1419.9	1419.3	1418.3	1417.4	1416.5	1415.5
147.5°	1486.1	1485.8	1485.5	1485.3	1485.0	1484.6	1484.3
150°	1527.8	1527.8	1527.7	1527.3	1527.0	1526.7	1526.4
152.5°	1567.5	1568.3	1568.3	1567.4	1566.7	1565.8	1565.0
155°	1622.5	1623.8	1623.8	1622.5	1621.3	1620.0	1618.7
157.5°	1670.2	1671.1	1671.0	1670.0	1669.0	1667.8	1666.8
160°	1699.8	1700.7	1700.3	1698.8	1697.2	1695.6	1694.0
162.5°	1727.0	1728.7	1728.8	1727.2	1725.7	1724.1	1722.5
165°	1762.3	1764.2	1764.5	1763.2	1762.0	1760.7	1759.4
167.5°	1791.9	1793.8	1793.8	1791.8	1789.8	1787.8	1785.8
170°	1807.8	1809.7	1809.5	1807.3	1805.1	1802.9	1800.6
172.5°	1819.9	1822.0	1822.0	1819.8	1817.6	1815.3	1813.2
175°	1832.9	1835.1	1835.1	1832.9	1830.7	1828.4	1826.3
177.5°	1839.5	1841.3	1841.2	1839.1	1837.1	1835.1	1833.1
180°	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6	1837.6

(END OF REPORT)