

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: P332470-830

Luminaire Tested: **S123RDIW-S1165D460U830-4F0-1E-UDD-A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332470-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123RDIW-S1165D460U830-4F0-1E-UDD-A  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING  
UPLIGHT 460 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6048.5 lumens  
Efficiency: N/A  
Efficacy: 115.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.36  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: Semi-Direct

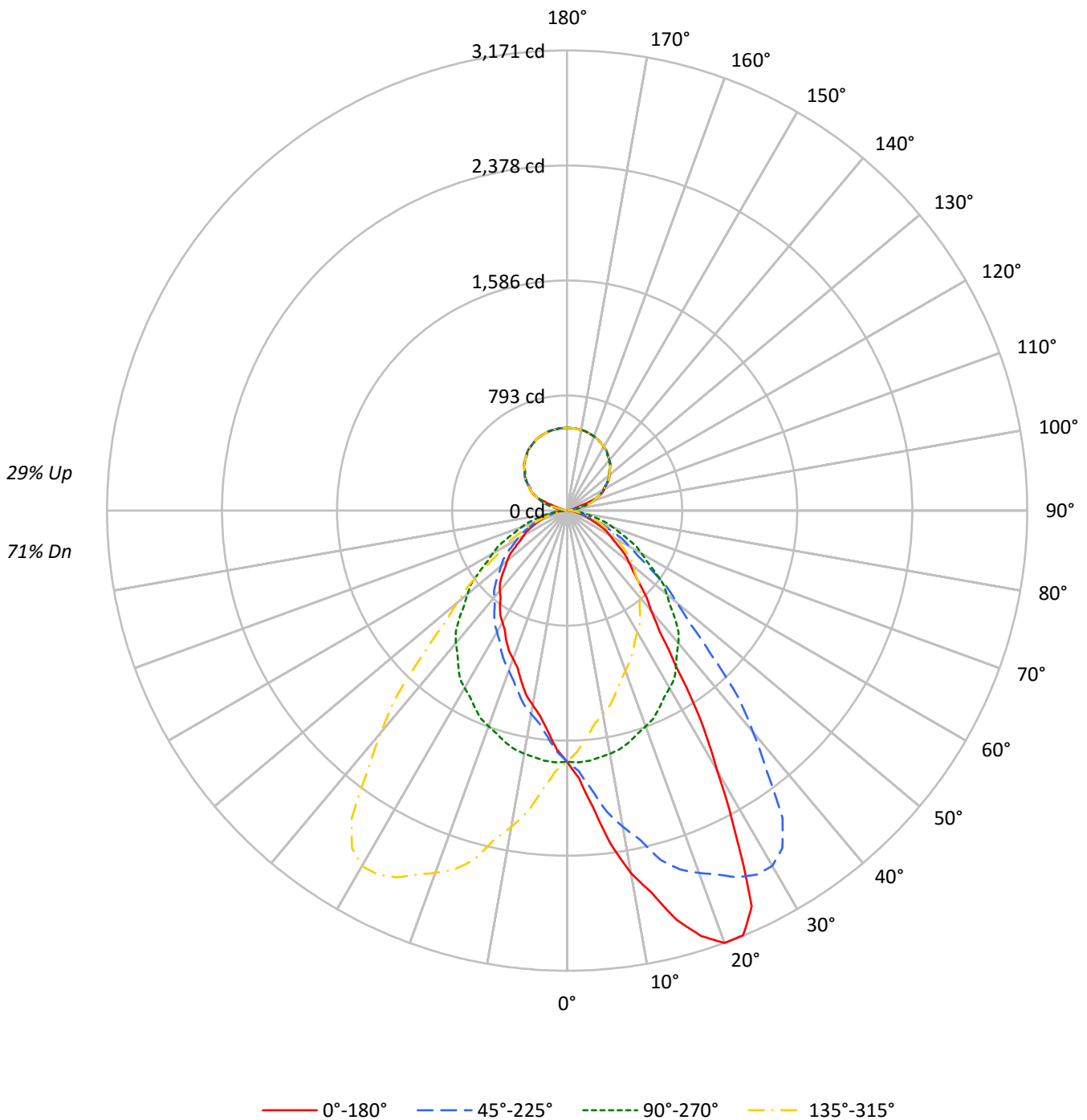
Input Watts (W): 52.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	71
1	103	99	96	92	98	94	91	88	85	82	80	76	74	73	68	67	66	62
2	95	88	82	77	90	83	78	74	75	71	68	68	65	62	61	59	57	53
3	87	78	71	65	82	74	68	63	67	62	58	61	57	53	55	52	49	46
4	80	70	62	56	76	66	59	54	60	55	50	55	50	47	50	46	43	40
5	74	62	54	49	70	60	52	47	54	48	44	50	45	41	45	41	38	35
6	68	56	48	43	65	54	47	41	49	43	39	45	40	36	41	37	34	31
7	64	51	43	38	60	49	42	37	45	39	35	41	36	32	38	34	30	28
8	59	47	39	34	56	45	38	33	41	35	31	38	33	29	35	31	27	25
9	55	43	36	31	53	41	34	30	38	32	28	35	30	27	32	28	25	23
10	52	40	32	28	49	38	31	27	35	30	26	33	28	24	30	26	23	21

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

	0°	90°	180°	270°
0°	18627	18627	18627	18627
5°	22204	18707	16473	18707
10°	27725	18600	14882	18600
15°	32543	18409	13572	18409
20°	36318	18125	12457	18125
25°	35739	17826	11772	17826
30°	25690	17550	11067	17550
35°	17152	17190	10611	17190
40°	12638	16759	10138	16759
45°	10601	16002	9677	16002
50°	9354	15011	9031	15011
55°	8203	13874	8146	13874
60°	7304	12790	7464	12790
65°	6413	11624	6943	11624
70°	5035	10584	6342	10584
75°	4438	9245	5793	9245
80°	3856	7854	5697	7854
85°	3112	6311	6039	6311



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.2	2.8
10°-20°	531.7	8.8
20°-30°	835.3	13.8
30°-40°	871.4	14.4
40°-50°	745.8	12.3
50°-60°	568.4	9.4
60°-70°	364.3	6.0
70°-80°	175.3	2.9
80°-90°	48.0	0.8
90°-100°	20.7	0.3
100°-110°	98.8	1.6
110°-120°	237.2	3.9
120°-130°	302.1	5.0
130°-140°	322.8	5.3
140°-150°	301.8	5.0
150°-160°	243.5	4.0
160°-170°	157.1	2.6
170°-180°	54.2	0.9
0°-30°	1537.1	25.4
0°-40°	2408.6	39.8
0°-60°	3722.7	61.5
0°-90°	4310.3	71.3
90°-120°	356.7	5.9
90°-150°	1283.4	21.2
90°-180°	1738.0	28.7
0°-180°	6048.5	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1730	1730	1730	1730	1730	
5°	2055	1731	1525	1731	2055	212
15°	2920	1652	1218	1652	2920	828
25°	3009	1501	991	1501	3009	1293
35°	1305	1308	808	1308	1305	856
45°	696	1051	636	1051	696	548
55°	437	739	434	739	437	395
65°	252	456	273	456	252	248
75°	107	222	139	222	107	114
85°	25	51	49	51	25	29
90°	13	0	13	0	13	7
95°	16	26	16	26	16	13
105°	19	126	19	126	19	43
115°	249	237	249	237	249	230
125°	340	334	340	334	340	304
135°	420	415	420	415	420	324
145°	484	479	484	479	484	302
155°	527	528	527	528	527	243
165°	556	557	556	557	556	157
175°	568	570	568	570	568	54
180°	570	570	570	570	570	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1843.1	1845.5	1837.8	1836.6	1827.7	1825.3	1825.3	1812.9	1805.2	1795.2	1789.2
5°	2055.0	2066.9	2061.0	2047.6	2025.3	2020.2	2006.1	1983.9	1958.7	1927.6	1912.8
7.5°	2319.6	2335.8	2329.6	2308.9	2285.7	2266.9	2227.1	2190.3	2138.5	2093.2	2054.4
10°	2536.6	2519.5	2506.1	2486.1	2464.7	2429.9	2388.4	2331.3	2265.4	2213.6	2155.8
12.5°	2698.9	2696.1	2679.2	2658.6	2628.3	2595.2	2544.2	2474.7	2398.1	2323.2	2257.1
15°	2920.3	2924.7	2913.6	2892.1	2849.1	2790.6	2713.6	2684.7	2575.0	2493.6	2412.1
17.5°	3073.4	3072.6	3071.1	3041.3	2997.5	2955.8	2884.4	2808.4	2709.2	2594.3	2484.5
20°	3170.6	3163.3	3164.8	3131.4	3098.8	3050.6	2981.0	2870.6	2789.2	2656.6	2543.2
22.5°	3168.3	3166.8	3172.4	3161.0	3137.3	3100.4	3045.6	2952.4	2848.5	2714.6	2587.1
25°	3009.2	3003.2	3038.1	3047.7	3085.5	3092.1	3075.8	3024.7	2926.2	2788.4	2630.6
27.5°	2518.5	2515.2	2579.8	2660.7	2763.3	2842.9	2920.0	2957.1	2926.2	2827.5	2669.5
30°	2066.9	2136.5	2169.1	2286.1	2416.5	2572.1	2708.4	2838.0	2869.9	2827.0	2697.3
32.5°	1716.0	1776.8	1804.0	1904.5	2026.0	2208.2	2412.6	2596.2	2725.9	2758.7	2680.7
35°	1305.3	1306.1	1368.3	1412.7	1525.3	1712.8	1911.3	2157.2	2401.7	2586.9	2606.1
37.5°	1041.6	1045.3	1082.9	1127.2	1211.6	1310.8	1485.6	1690.1	1972.5	2256.8	2423.5
40°	899.4	906.0	934.2	977.9	1038.6	1113.4	1249.7	1442.4	1677.9	1994.2	2252.8
42.5°	808.0	818.9	833.4	867.0	904.7	974.8	1085.0	1233.8	1448.0	1747.1	2045.4
45°	696.4	702.3	713.4	729.0	763.0	811.9	886.0	986.0	1163.9	1404.6	1703.1
47.5°	614.3	611.1	622.8	635.5	658.2	691.4	741.1	822.7	949.6	1142.7	1396.0
50°	558.6	557.8	566.0	575.6	597.1	621.5	662.3	723.8	824.5	984.6	1216.4
52.5°	506.4	509.3	515.0	527.0	542.5	562.3	598.9	643.2	729.7	867.8	1061.1
55°	437.1	439.3	447.4	454.1	465.2	485.2	508.2	545.3	604.5	700.8	860.1
57.5°	378.4	377.4	385.2	386.8	399.4	415.8	433.5	462.2	505.2	576.8	684.1
60°	339.3	337.1	343.7	348.9	355.6	368.9	383.7	411.9	446.0	498.6	590.4
62.5°	303.7	302.7	307.6	312.7	318.3	330.4	342.8	364.5	391.4	435.7	508.6
65°	251.8	254.1	256.3	258.5	261.5	268.9	280.8	295.6	314.1	345.3	397.8
67.5°	197.9	200.2	201.0	205.5	211.9	216.5	223.8	237.0	249.8	276.1	305.9
70°	160.0	159.3	160.0	162.2	170.4	178.5	188.1	197.8	205.9	224.4	249.7
72.5°	137.5	136.2	138.1	138.6	142.5	144.8	150.8	159.9	170.4	182.9	201.0
75°	106.7	106.7	106.7	106.7	109.6	111.1	113.4	115.6	119.2	125.2	138.6
77.5°	78.8	79.0	80.0	80.8	81.3	82.2	83.6	85.8	87.1	90.2	96.0
80°	62.2	63.0	62.2	63.0	63.0	64.5	65.2	67.4	68.1	71.8	74.1
82.5°	46.8	46.4	46.8	47.6	47.6	49.0	49.2	50.8	51.0	52.9	55.1
85°	25.2	23.8	25.2	24.4	25.9	24.4	25.2	26.7	26.7	27.4	30.3
87.5°	8.5	9.6	8.4	9.0	9.0	9.4	9.3	9.3	10.4	9.7	10.1
90°	12.7	12.5	12.3	12.2	12.0	11.7	11.3	10.9	10.6	10.2	9.0
92.5°	14.0	13.9	13.9	13.8	13.6	13.3	12.6	12.1	11.4	10.8	9.9
95°	16.1	16.1	16.1	16.1	16.1	15.7	15.1	14.4	13.8	13.1	12.1
97.5°	17.4	17.3	17.2	17.2	17.1	16.7	15.9	15.2	14.4	13.7	20.5
100°	17.8	17.7	17.6	17.5	17.4	17.0	16.2	15.5	14.7	13.9	28.7
102.5°	18.1	17.9	17.8	17.6	17.4	18.6	20.8	23.2	25.5	27.9	43.9
105°	18.7	18.5	18.3	18.1	17.9	26.1	42.8	59.4	76.1	92.7	101.2
107.5°	58.5	71.1	83.6	96.1	108.8	121.1	133.4	145.5	157.8	169.9	168.6
110°	116.5	129.9	143.4	156.8	170.3	178.5	181.6	184.7	187.8	191.0	189.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	199.8	202.6	205.5	208.3	211.1	212.5	212.4	212.4	212.4	212.4	211.3
115°	249.0	248.6	248.3	247.9	247.5	246.9	245.9	245.0	244.0	243.1	242.2
117.5°	276.6	276.5	276.4	276.4	276.3	275.9	275.1	274.4	273.6	272.9	272.5
120°	295.6	295.6	295.6	295.6	295.6	295.2	294.5	293.7	292.9	292.2	291.9
122.5°	314.2	314.1	314.1	314.0	313.9	313.6	313.1	312.5	312.0	311.5	311.1
125°	340.4	340.3	340.1	339.9	339.7	339.5	339.3	339.1	338.9	338.7	338.4
127.5°	365.7	365.9	366.1	366.3	366.5	366.4	366.1	365.8	365.5	365.2	364.8
130°	381.9	382.1	382.3	382.5	382.7	382.6	382.2	381.8	381.4	381.1	380.8
132.5°	396.9	397.1	397.4	397.7	397.9	397.8	397.5	397.1	396.7	396.3	396.1
135°	419.6	419.9	420.2	420.5	420.8	420.8	420.5	420.2	419.9	419.6	419.2
137.5°	441.1	441.3	441.5	441.7	441.9	441.7	441.2	440.8	440.4	439.9	439.7
140°	453.9	454.1	454.3	454.5	454.7	454.6	454.2	453.8	453.5	453.1	452.8
142.5°	465.8	466.1	466.4	466.6	466.8	466.8	466.6	466.3	465.9	465.6	465.3
145°	484.0	484.0	484.0	484.0	484.0	483.9	483.7	483.5	483.3	483.1	483.0
147.5°	497.6	498.0	498.4	498.9	499.3	499.5	499.3	499.1	498.9	498.7	498.5
150°	507.7	508.0	508.3	508.6	508.9	508.9	508.7	508.5	508.3	508.1	507.9
152.5°	515.9	516.3	516.7	517.2	517.6	517.6	517.3	517.0	516.6	516.3	516.1
155°	527.3	527.7	528.3	528.9	529.4	529.5	529.0	528.6	528.1	527.6	527.5
157.5°	536.8	537.5	538.3	538.9	539.7	539.8	539.2	538.7	538.1	537.5	537.6
160°	542.9	543.6	544.2	544.9	545.5	545.5	545.0	544.4	543.8	543.3	543.4
162.5°	548.7	549.2	549.8	550.4	551.0	550.9	550.4	549.7	549.0	548.4	548.5
165°	555.6	556.3	556.9	557.5	558.2	558.2	557.4	556.7	555.9	555.2	555.3
167.5°	560.6	561.4	562.1	562.8	563.5	563.5	562.8	562.1	561.4	560.6	560.6
170°	563.6	564.4	565.1	565.9	566.7	566.7	565.9	565.1	564.4	563.6	563.6
172.5°	565.3	566.2	566.9	567.8	568.6	568.6	567.9	567.1	566.4	565.6	565.6
175°	567.9	568.6	569.4	570.1	570.9	570.9	570.2	569.6	568.9	568.3	568.2
177.5°	568.6	569.4	570.1	570.9	571.7	571.7	571.1	570.5	569.9	569.3	569.2
180°	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1786.9	1785.1	1776.8	1767.3	1754.8	1746.5	1740.0	1736.4	1725.8	1712.8	1703.8
5°	1897.2	1875.0	1851.2	1822.4	1795.7	1768.3	1751.2	1731.3	1706.9	1679.4	1660.2
7.5°	2015.4	1971.9	1925.0	1876.5	1828.6	1785.6	1747.8	1715.2	1676.3	1637.0	1609.5
10°	2106.1	2042.4	1976.5	1909.0	1847.6	1789.8	1745.3	1701.7	1655.0	1609.8	1575.7
12.5°	2188.5	2104.6	2028.6	1945.8	1867.2	1798.1	1734.1	1682.6	1626.5	1578.4	1539.5
15°	2292.8	2206.9	2115.0	1989.0	1884.6	1797.2	1719.4	1652.0	1583.8	1524.6	1486.8
17.5°	2390.3	2261.0	2137.5	2032.5	1896.8	1787.5	1692.6	1612.0	1537.2	1474.3	1427.9
20°	2430.6	2305.4	2171.3	2037.2	1903.8	1781.7	1671.2	1582.3	1504.6	1433.4	1390.5
22.5°	2454.9	2313.1	2171.9	2027.8	1886.1	1759.2	1649.9	1552.2	1467.8	1400.2	1347.3
25°	2483.2	2314.3	2158.7	2016.5	1872.0	1734.3	1604.6	1500.9	1409.8	1337.9	1281.6
27.5°	2501.9	2303.2	2119.3	1961.2	1814.7	1677.4	1558.7	1448.7	1356.3	1280.3	1219.8
30°	2505.4	2294.2	2089.1	1918.0	1769.1	1643.1	1517.2	1412.0	1314.2	1233.4	1177.1
32.5°	2510.2	2272.4	2048.1	1866.4	1713.9	1589.2	1475.1	1374.6	1274.5	1195.0	1137.5
35°	2490.6	2260.2	1986.1	1777.2	1624.6	1503.8	1400.9	1308.2	1209.8	1132.7	1074.2
37.5°	2406.4	2212.1	1921.8	1676.8	1517.2	1405.3	1321.4	1240.7	1150.4	1067.2	1012.1
40°	2321.7	2164.6	1872.0	1615.7	1449.1	1334.2	1258.7	1192.7	1105.3	1027.5	968.3
42.5°	2195.5	2100.1	1824.6	1551.7	1372.0	1261.3	1197.6	1135.8	1059.0	980.1	924.4
45°	1963.9	1976.5	1727.6	1449.7	1265.3	1154.1	1094.2	1051.2	983.1	917.8	860.8
47.5°	1673.5	1791.3	1613.6	1341.1	1152.8	1048.6	996.1	958.6	912.7	848.7	796.6
50°	1483.8	1652.0	1522.4	1268.3	1082.3	978.6	926.7	896.4	856.4	806.0	756.4
52.5°	1309.0	1489.6	1412.1	1187.0	1005.9	911.1	860.4	835.4	803.6	756.2	711.3
55°	1067.5	1250.5	1232.8	1064.5	891.2	806.0	767.5	739.3	717.8	682.3	646.8
57.5°	863.5	1037.0	1046.1	928.2	790.1	706.0	672.8	651.6	637.5	610.8	577.9
60°	734.9	894.2	925.3	836.4	717.8	643.8	611.1	594.1	583.1	561.6	536.3
62.5°	628.2	763.7	799.0	735.0	648.5	579.2	553.6	537.2	529.7	511.1	488.9
65°	480.8	593.4	627.5	591.9	546.7	491.2	470.4	456.4	449.7	439.3	423.0
67.5°	361.6	443.6	481.0	455.9	439.6	404.4	391.2	383.7	377.8	370.7	357.0
70°	290.4	351.1	389.6	383.0	369.7	351.1	341.5	336.3	330.4	324.5	312.6
72.5°	233.5	275.3	311.4	314.8	303.9	300.2	291.7	289.5	286.0	278.8	272.3
75°	154.9	183.7	208.9	218.6	223.0	226.7	223.0	222.3	221.5	215.6	211.9
77.5°	101.5	117.1	132.9	149.4	156.3	161.4	162.5	165.2	163.2	160.1	158.3
80°	77.8	81.5	92.6	106.7	117.8	122.2	125.2	126.7	125.9	125.2	122.2
82.5°	56.5	59.6	64.8	74.6	84.0	91.4	93.2	92.9	94.5	95.0	92.6
85°	30.3	31.1	32.6	34.1	39.3	47.4	49.7	51.1	52.6	52.6	48.2
87.5°	11.0	10.2	11.1	10.9	12.5	12.9	16.3	19.0	19.8	17.6	17.8
90°	7.7	6.5	5.3	4.1	3.2	2.3	1.3	0.4	1.3	2.3	3.2
92.5°	9.0	8.1	7.2	6.8	7.1	7.4	7.6	7.9	7.6	7.4	7.1
95°	11.0	10.0	9.0	10.4	14.2	18.1	22.0	25.8	22.0	18.1	14.2
97.5°	27.1	33.9	40.7	45.0	46.8	48.4	50.1	51.9	50.1	48.4	46.8
100°	43.4	58.1	72.7	79.1	77.2	75.3	73.4	71.5	73.4	75.3	77.2
102.5°	59.9	76.0	92.0	99.3	98.0	96.6	95.3	93.9	95.3	96.6	98.0
105°	109.7	118.1	126.6	130.4	129.3	128.3	127.2	126.2	127.2	128.3	129.3
107.5°	167.3	166.0	164.7	163.5	162.7	161.9	161.1	160.2	161.1	161.9	162.7
110°	188.9	187.8	186.8	186.0	185.2	184.5	183.7	182.9	183.7	184.5	185.2





TEST NUMBER: P332470-830

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	210.3	209.2	208.2	207.4	206.6	205.9	205.3	204.6	205.3	205.9	206.6
115°	241.4	240.5	239.7	238.9	238.4	237.8	237.2	236.7	237.2	237.8	238.4
117.5°	272.0	271.5	271.2	270.6	269.8	269.2	268.5	267.8	268.5	269.2	269.8
120°	291.6	291.3	291.1	290.5	289.6	288.8	287.9	287.1	287.9	288.8	289.6
122.5°	310.8	310.5	310.1	309.5	308.9	308.1	307.5	306.8	307.5	308.1	308.9
125°	338.0	337.6	337.2	336.7	335.9	335.2	334.4	333.7	334.4	335.2	335.9
127.5°	364.3	363.8	363.4	362.8	362.0	361.3	360.5	359.8	360.5	361.3	362.0
130°	380.4	380.0	379.7	379.1	378.3	377.6	376.8	376.1	376.8	377.6	378.3
132.5°	395.8	395.5	395.1	394.6	393.9	393.1	392.4	391.6	392.4	393.1	393.9
135°	418.9	418.5	418.1	417.6	417.1	416.5	415.9	415.4	415.9	416.5	417.1
137.5°	439.5	439.3	439.0	438.6	437.9	437.2	436.5	435.7	436.5	437.2	437.9
140°	452.5	452.2	451.9	451.6	451.0	450.4	449.9	449.3	449.9	450.4	451.0
142.5°	465.1	464.8	464.5	464.1	463.5	463.0	462.4	461.8	462.4	463.0	463.5
145°	482.8	482.6	482.4	482.0	481.4	480.7	480.0	479.4	480.0	480.7	481.4
147.5°	498.3	498.1	497.9	497.6	497.2	496.7	496.3	495.9	496.3	496.7	497.2
150°	507.7	507.6	507.4	507.2	506.9	506.6	506.3	506.1	506.3	506.6	506.9
152.5°	516.0	515.9	515.9	515.8	515.6	515.5	515.3	515.2	515.3	515.5	515.6
155°	527.4	527.4	527.3	527.4	527.5	527.6	527.8	528.0	527.8	527.6	527.5
157.5°	537.7	537.8	537.9	538.0	538.0	538.0	538.0	538.1	538.0	538.0	538.0
160°	543.5	543.6	543.7	543.8	543.8	543.9	544.0	544.1	544.0	543.9	543.8
162.5°	548.6	548.7	548.7	548.9	549.2	549.4	549.7	549.9	549.7	549.4	549.2
165°	555.3	555.4	555.5	555.7	556.0	556.3	556.6	556.9	556.6	556.3	556.0
167.5°	560.6	560.6	560.6	560.8	561.2	561.6	561.9	562.3	561.9	561.6	561.2
170°	563.6	563.6	563.6	563.8	564.2	564.6	565.0	565.3	565.0	564.6	564.2
172.5°	565.5	565.4	565.3	565.5	566.0	566.5	566.9	567.3	566.9	566.5	566.0
175°	568.1	568.0	567.9	568.1	568.5	569.0	569.5	570.0	569.5	569.0	568.5
177.5°	569.1	569.1	569.0	569.1	569.5	569.9	570.2	570.6	570.2	569.9	569.5
180°	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0



TEST NUMBER: P332470-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1700.9	1693.2	1687.9	1676.0	1668.3	1660.0	1651.7	1657.1	1656.4	1655.9	1655.9
5°	1643.9	1626.8	1611.3	1591.3	1578.7	1563.1	1551.2	1549.7	1552.7	1542.4	1536.4
7.5°	1587.2	1564.0	1541.9	1519.8	1496.5	1477.8	1466.0	1460.6	1453.0	1446.6	1440.0
10°	1547.6	1520.1	1498.6	1471.2	1446.0	1423.8	1409.8	1400.1	1395.0	1389.8	1380.2
12.5°	1506.7	1479.9	1452.5	1421.4	1397.5	1371.7	1361.1	1350.4	1340.4	1334.6	1321.4
15°	1446.8	1412.0	1383.1	1350.5	1323.8	1298.6	1283.8	1262.3	1259.3	1252.0	1238.6
17.5°	1386.8	1349.0	1309.2	1285.0	1254.9	1228.7	1206.2	1198.9	1177.7	1169.7	1158.2
20°	1339.4	1304.6	1274.2	1242.4	1198.6	1174.2	1156.4	1146.8	1129.7	1119.4	1111.9
22.5°	1298.4	1263.1	1227.9	1190.8	1154.8	1127.4	1114.4	1099.4	1090.1	1075.5	1067.5
25°	1240.1	1201.6	1159.3	1119.4	1093.4	1072.7	1052.0	1038.6	1025.3	1018.6	1003.8
27.5°	1172.2	1132.0	1092.5	1062.2	1030.3	1009.8	991.1	979.2	963.2	952.0	943.8
30°	1134.9	1087.5	1053.4	1026.1	985.2	966.0	952.0	937.2	925.3	913.4	905.3
32.5°	1091.7	1048.4	1016.1	982.1	950.9	929.8	911.6	898.6	888.5	877.2	869.1
35°	1023.8	987.5	954.1	920.1	897.1	875.6	854.1	843.0	833.4	823.0	815.7
37.5°	962.4	928.5	896.8	864.5	836.0	818.6	801.3	792.8	779.8	772.8	765.3
40°	924.5	891.2	857.1	826.0	796.4	783.1	767.5	754.9	743.0	737.8	729.7
42.5°	883.1	849.7	821.0	787.5	763.2	745.1	730.8	717.0	708.0	700.5	695.9
45°	821.5	791.9	763.7	730.5	707.5	691.9	675.6	663.0	654.9	649.7	641.5
47.5°	761.9	732.3	703.6	674.6	652.3	634.6	618.3	609.5	598.7	592.4	586.8
50°	718.6	691.9	661.6	634.9	612.7	594.8	581.5	570.4	560.8	552.6	548.9
52.5°	678.9	650.4	624.2	599.3	575.9	555.7	543.6	531.9	524.6	515.3	511.0
55°	613.4	586.0	563.7	539.3	516.3	499.3	484.5	474.1	466.7	456.4	450.4
57.5°	551.9	527.4	500.8	479.6	455.9	441.5	429.2	415.2	406.1	397.9	392.2
60°	510.4	482.3	459.3	439.3	418.6	400.0	388.9	377.8	368.2	360.1	354.9
62.5°	467.1	442.5	420.8	399.0	380.0	363.9	351.0	341.7	333.2	328.0	322.8
65°	400.8	381.5	359.3	341.5	323.8	311.9	301.5	293.3	287.5	283.7	279.3
67.5°	339.7	321.0	301.6	284.2	272.3	263.3	256.5	249.5	246.6	241.8	238.8
70°	300.0	280.8	263.7	250.4	238.6	231.9	227.4	222.3	219.2	213.4	210.4
72.5°	256.7	242.8	230.5	219.6	210.1	204.1	198.4	192.0	187.3	180.8	177.8
75°	202.3	189.6	180.0	172.6	166.6	158.5	150.4	143.7	141.5	139.3	138.6
77.5°	149.8	141.8	134.8	128.6	121.2	115.3	113.5	112.0	111.6	110.4	110.4
80°	117.8	110.4	105.2	97.7	93.3	93.3	93.3	91.9	92.6	92.6	92.6
82.5°	87.6	80.8	77.9	75.3	74.4	74.9	74.9	75.3	74.8	76.0	75.4
85°	45.1	45.9	47.4	46.7	47.4	47.4	48.9	48.2	48.9	47.4	48.9
87.5°	17.4	19.4	20.3	21.1	22.0	21.6	22.2	22.3	23.0	23.1	23.1
90°	4.1	5.3	6.5	7.7	9.0	10.2	10.6	10.9	11.3	11.7	12.0
92.5°	6.8	7.2	8.1	9.0	9.9	10.8	11.4	12.1	12.6	13.3	13.6
95°	10.4	9.0	10.0	11.0	12.1	13.1	13.8	14.4	15.1	15.7	16.1
97.5°	45.0	40.7	33.9	27.1	20.5	13.7	14.4	15.2	15.9	16.7	17.1
100°	79.1	72.7	58.1	43.4	28.7	13.9	14.7	15.5	16.2	17.0	17.4
102.5°	99.3	92.0	76.0	59.9	43.9	27.9	25.5	23.2	20.8	18.6	17.4
105°	130.4	126.6	118.1	109.7	101.2	92.7	76.1	59.4	42.8	26.1	17.9
107.5°	163.5	164.7	166.0	167.3	168.6	169.9	157.8	145.5	133.4	121.1	108.8
110°	186.0	186.8	187.8	188.9	189.9	191.0	187.8	184.7	181.6	178.5	170.3



TEST NUMBER: P332470-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	207.4	208.2	209.2	210.3	211.3	212.4	212.4	212.4	212.4	212.5	211.1
115°	238.9	239.7	240.5	241.4	242.2	243.1	244.0	245.0	245.9	246.9	247.5
117.5°	270.6	271.2	271.5	272.0	272.5	272.9	273.6	274.4	275.1	275.9	276.3
120°	290.5	291.1	291.3	291.6	291.9	292.2	292.9	293.7	294.5	295.2	295.6
122.5°	309.5	310.1	310.5	310.8	311.1	311.5	312.0	312.5	313.1	313.6	313.9
125°	336.7	337.2	337.6	338.0	338.4	338.7	338.9	339.1	339.3	339.5	339.7
127.5°	362.8	363.4	363.8	364.3	364.8	365.2	365.5	365.8	366.1	366.4	366.5
130°	379.1	379.7	380.0	380.4	380.8	381.1	381.4	381.8	382.2	382.6	382.7
132.5°	394.6	395.1	395.5	395.8	396.1	396.3	396.7	397.1	397.5	397.8	397.9
135°	417.6	418.1	418.5	418.9	419.2	419.6	419.9	420.2	420.5	420.8	420.8
137.5°	438.6	439.0	439.3	439.5	439.7	439.9	440.4	440.8	441.2	441.7	441.9
140°	451.6	451.9	452.2	452.5	452.8	453.1	453.5	453.8	454.2	454.6	454.7
142.5°	464.1	464.5	464.8	465.1	465.3	465.6	465.9	466.3	466.6	466.8	466.8
145°	482.0	482.4	482.6	482.8	483.0	483.1	483.3	483.5	483.7	483.9	484.0
147.5°	497.6	497.9	498.1	498.3	498.5	498.7	498.9	499.1	499.3	499.5	499.3
150°	507.2	507.4	507.6	507.7	507.9	508.1	508.3	508.5	508.7	508.9	508.9
152.5°	515.8	515.9	515.9	516.0	516.1	516.3	516.6	517.0	517.3	517.6	517.6
155°	527.4	527.3	527.4	527.4	527.5	527.6	528.1	528.6	529.0	529.5	529.4
157.5°	538.0	537.9	537.8	537.7	537.6	537.5	538.1	538.7	539.2	539.8	539.7
160°	543.8	543.7	543.6	543.5	543.4	543.3	543.8	544.4	545.0	545.5	545.5
162.5°	548.9	548.7	548.7	548.6	548.5	548.4	549.0	549.7	550.4	550.9	551.0
165°	555.7	555.5	555.4	555.3	555.3	555.2	555.9	556.7	557.4	558.2	558.2
167.5°	560.8	560.6	560.6	560.6	560.6	560.6	561.4	562.1	562.8	563.5	563.5
170°	563.8	563.6	563.6	563.6	563.6	563.6	564.4	565.1	565.9	566.7	566.7
172.5°	565.5	565.3	565.4	565.5	565.6	565.6	566.4	567.1	567.9	568.6	568.6
175°	568.1	567.9	568.0	568.1	568.2	568.3	568.9	569.6	570.2	570.9	570.9
177.5°	569.1	569.0	569.1	569.1	569.2	569.3	569.9	570.5	571.1	571.7	571.7
180°	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0



TEST NUMBER: P332470-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1648.8	1648.1	1648.8	1646.3	1648.8	1648.1	1648.8	1655.9	1655.9	1656.4	1657.1
5°	1534.2	1533.5	1531.3	1524.6	1531.3	1533.5	1534.2	1536.4	1542.4	1552.7	1549.7
7.5°	1434.2	1433.1	1426.6	1426.8	1426.6	1433.1	1434.2	1440.0	1446.6	1453.0	1460.6
10°	1375.0	1375.6	1366.8	1361.6	1366.8	1375.6	1375.0	1380.2	1389.8	1395.0	1400.1
12.5°	1317.5	1314.1	1306.9	1301.2	1306.9	1314.1	1317.5	1321.4	1334.6	1340.4	1350.4
15°	1241.6	1234.2	1216.4	1217.9	1216.4	1234.2	1241.6	1238.6	1252.0	1259.3	1262.3
17.5°	1152.3	1146.8	1146.5	1136.1	1146.5	1146.8	1152.3	1158.2	1169.7	1177.7	1198.9
20°	1100.1	1096.4	1097.9	1087.5	1097.9	1096.4	1100.1	1111.9	1119.4	1129.7	1146.8
22.5°	1059.2	1055.5	1049.2	1046.0	1049.2	1055.5	1059.2	1067.5	1075.5	1090.1	1099.4
25°	999.4	993.4	987.5	991.2	987.5	993.4	999.4	1003.8	1018.6	1025.3	1038.6
27.5°	939.5	935.1	929.2	928.4	929.2	935.1	939.5	943.8	952.0	963.2	979.2
30°	901.5	897.1	894.2	890.4	894.2	897.1	901.5	905.3	913.4	925.3	937.2
32.5°	863.1	862.1	856.9	856.1	856.9	862.1	863.1	869.1	877.2	888.5	898.6
35°	812.7	808.2	806.7	807.5	806.7	808.2	812.7	815.7	823.0	833.4	843.0
37.5°	764.8	758.8	756.2	753.6	756.2	758.8	764.8	765.3	772.8	779.8	792.8
40°	730.5	724.5	723.0	721.5	723.0	724.5	730.5	729.7	737.8	743.0	754.9
42.5°	691.9	689.6	688.6	686.0	688.6	689.6	691.9	695.9	700.5	708.0	717.0
45°	639.3	638.6	634.1	635.7	634.1	638.6	639.3	641.5	649.7	654.9	663.0
47.5°	583.9	580.6	577.5	579.6	577.5	580.6	583.9	586.8	592.4	598.7	609.5
50°	546.0	544.5	537.8	539.3	537.8	544.5	546.0	548.9	552.6	560.8	570.4
52.5°	508.0	502.4	499.9	499.0	499.9	502.4	508.0	511.0	515.3	524.6	531.9
55°	445.3	438.6	435.5	434.1	435.5	438.6	445.3	450.4	456.4	466.7	474.1
57.5°	383.6	381.8	379.5	381.1	379.5	381.8	383.6	392.2	397.9	406.1	415.2
60°	347.4	347.4	347.4	346.7	347.4	347.4	347.4	354.9	360.1	368.2	377.8
62.5°	319.6	317.8	317.3	318.3	317.3	317.8	319.6	322.8	328.0	333.2	341.7
65°	277.1	276.4	273.3	272.6	273.3	276.4	277.1	279.3	283.7	287.5	293.3
67.5°	237.0	234.2	233.4	232.3	233.4	234.2	237.0	238.8	241.8	246.6	249.5
70°	206.7	205.2	200.8	201.5	200.8	205.2	206.7	210.4	213.4	219.2	222.3
72.5°	174.1	172.6	171.7	170.7	171.7	172.6	174.1	177.8	180.8	187.3	192.0
75°	137.8	137.0	136.3	139.3	136.3	137.0	137.8	138.6	139.3	141.5	143.7
77.5°	110.4	110.4	110.8	109.6	110.8	110.4	110.4	110.4	110.4	111.6	112.0
80°	92.6	92.6	91.9	91.9	91.9	92.6	92.6	92.6	92.6	92.6	91.9
82.5°	74.3	74.8	75.3	74.1	75.3	74.8	74.3	75.4	76.0	74.8	75.3
85°	48.9	48.2	49.7	48.9	49.7	48.2	48.9	48.9	47.4	48.9	48.2
87.5°	24.3	23.2	23.3	23.8	23.3	23.2	24.3	23.1	23.1	23.0	22.3
90°	12.2	12.3	12.5	12.7	12.5	12.3	12.2	12.0	11.7	11.3	10.9
92.5°	13.8	13.9	13.9	14.0	13.9	13.9	13.8	13.6	13.3	12.6	12.1
95°	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	15.7	15.1	14.4
97.5°	17.2	17.2	17.3	17.4	17.3	17.2	17.2	17.1	16.7	15.9	15.2
100°	17.5	17.6	17.7	17.8	17.7	17.6	17.5	17.4	17.0	16.2	15.5
102.5°	17.6	17.8	17.9	18.1	17.9	17.8	17.6	17.4	18.6	20.8	23.2
105°	18.1	18.3	18.5	18.7	18.5	18.3	18.1	17.9	26.1	42.8	59.4
107.5°	96.1	83.6	71.1	58.5	71.1	83.6	96.1	108.8	121.1	133.4	145.5
110°	156.8	143.4	129.9	116.5	129.9	143.4	156.8	170.3	178.5	181.6	184.7



TEST NUMBER: P332470-830

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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	208.3	205.5	202.6	199.8	202.6	205.5	208.3	211.1	212.5	212.4	212.4
115°	247.9	248.3	248.6	249.0	248.6	248.3	247.9	247.5	246.9	245.9	245.0
117.5°	276.4	276.4	276.5	276.6	276.5	276.4	276.4	276.3	275.9	275.1	274.4
120°	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.2	294.5	293.7
122.5°	314.0	314.1	314.1	314.2	314.1	314.1	314.0	313.9	313.6	313.1	312.5
125°	339.9	340.1	340.3	340.4	340.3	340.1	339.9	339.7	339.5	339.3	339.1
127.5°	366.3	366.1	365.9	365.7	365.9	366.1	366.3	366.5	366.4	366.1	365.8
130°	382.5	382.3	382.1	381.9	382.1	382.3	382.5	382.7	382.6	382.2	381.8
132.5°	397.7	397.4	397.1	396.9	397.1	397.4	397.7	397.9	397.8	397.5	397.1
135°	420.5	420.2	419.9	419.6	419.9	420.2	420.5	420.8	420.8	420.5	420.2
137.5°	441.7	441.5	441.3	441.1	441.3	441.5	441.7	441.9	441.7	441.2	440.8
140°	454.5	454.3	454.1	453.9	454.1	454.3	454.5	454.7	454.6	454.2	453.8
142.5°	466.6	466.4	466.1	465.8	466.1	466.4	466.6	466.8	466.8	466.6	466.3
145°	484.0	484.0	484.0	484.0	484.0	484.0	484.0	484.0	483.9	483.7	483.5
147.5°	498.9	498.4	498.0	497.6	498.0	498.4	498.9	499.3	499.5	499.3	499.1
150°	508.6	508.3	508.0	507.7	508.0	508.3	508.6	508.9	508.9	508.7	508.5
152.5°	517.2	516.7	516.3	515.9	516.3	516.7	517.2	517.6	517.6	517.3	517.0
155°	528.9	528.3	527.7	527.3	527.7	528.3	528.9	529.4	529.5	529.0	528.6
157.5°	538.9	538.3	537.5	536.8	537.5	538.3	538.9	539.7	539.8	539.2	538.7
160°	544.9	544.2	543.6	542.9	543.6	544.2	544.9	545.5	545.5	545.0	544.4
162.5°	550.4	549.8	549.2	548.7	549.2	549.8	550.4	551.0	550.9	550.4	549.7
165°	557.5	556.9	556.3	555.6	556.3	556.9	557.5	558.2	558.2	557.4	556.7
167.5°	562.8	562.1	561.4	560.6	561.4	562.1	562.8	563.5	563.5	562.8	562.1
170°	565.9	565.1	564.4	563.6	564.4	565.1	565.9	566.7	566.7	565.9	565.1
172.5°	567.8	566.9	566.2	565.3	566.2	566.9	567.8	568.6	568.6	567.9	567.1
175°	570.1	569.4	568.6	567.9	568.6	569.4	570.1	570.9	570.9	570.2	569.6
177.5°	570.9	570.1	569.4	568.6	569.4	570.1	570.9	571.7	571.7	571.1	570.5
180°	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0



TEST NUMBER: P332470-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1651.7	1660.0	1668.3	1676.0	1687.9	1693.2	1700.9	1703.8	1712.8	1725.8	1736.4
5°	1551.2	1563.1	1578.7	1591.3	1611.3	1626.8	1643.9	1660.2	1679.4	1706.9	1731.3
7.5°	1466.0	1477.8	1496.5	1519.8	1541.9	1564.0	1587.2	1609.5	1637.0	1676.3	1715.2
10°	1409.8	1423.8	1446.0	1471.2	1498.6	1520.1	1547.6	1575.7	1609.8	1655.0	1701.7
12.5°	1361.1	1371.7	1397.5	1421.4	1452.5	1479.9	1506.7	1539.5	1578.4	1626.5	1682.6
15°	1283.8	1298.6	1323.8	1350.5	1383.1	1412.0	1446.8	1486.8	1524.6	1583.8	1652.0
17.5°	1206.2	1228.7	1254.9	1285.0	1309.2	1349.0	1386.8	1427.9	1474.3	1537.2	1612.0
20°	1156.4	1174.2	1198.6	1242.4	1274.2	1304.6	1339.4	1390.5	1433.4	1504.6	1582.3
22.5°	1114.4	1127.4	1154.8	1190.8	1227.9	1263.1	1298.4	1347.3	1400.2	1467.8	1552.2
25°	1052.0	1072.7	1093.4	1119.4	1159.3	1201.6	1240.1	1281.6	1337.9	1409.8	1500.9
27.5°	991.1	1009.8	1030.3	1062.2	1092.5	1132.0	1172.2	1219.8	1280.3	1356.3	1448.7
30°	952.0	966.0	985.2	1026.1	1053.4	1087.5	1134.9	1177.1	1233.4	1314.2	1412.0
32.5°	911.6	929.8	950.9	982.1	1016.1	1048.4	1091.7	1137.5	1195.0	1274.5	1374.6
35°	854.1	875.6	897.1	920.1	954.1	987.5	1023.8	1074.2	1132.7	1209.8	1308.2
37.5°	801.3	818.6	836.0	864.5	896.8	928.5	962.4	1012.1	1067.2	1150.4	1240.7
40°	767.5	783.1	796.4	826.0	857.1	891.2	924.5	968.3	1027.5	1105.3	1192.7
42.5°	730.8	745.1	763.2	787.5	821.0	849.7	883.1	924.4	980.1	1059.0	1135.8
45°	675.6	691.9	707.5	730.5	763.7	791.9	821.5	860.8	917.8	983.1	1051.2
47.5°	618.3	634.6	652.3	674.6	703.6	732.3	761.9	796.6	848.7	912.7	958.6
50°	581.5	594.8	612.7	634.9	661.6	691.9	718.6	756.4	806.0	856.4	896.4
52.5°	543.6	555.7	575.9	599.3	624.2	650.4	678.9	711.3	756.2	803.6	835.4
55°	484.5	499.3	516.3	539.3	563.7	586.0	613.4	646.8	682.3	717.8	739.3
57.5°	429.2	441.5	455.9	479.6	500.8	527.4	551.9	577.9	610.8	637.5	651.6
60°	388.9	400.0	418.6	439.3	459.3	482.3	510.4	536.3	561.6	583.1	594.1
62.5°	351.0	363.9	380.0	399.0	420.8	442.5	467.1	488.9	511.1	529.7	537.2
65°	301.5	311.9	323.8	341.5	359.3	381.5	400.8	423.0	439.3	449.7	456.4
67.5°	256.5	263.3	272.3	284.2	301.6	321.0	339.7	357.0	370.7	377.8	383.7
70°	227.4	231.9	238.6	250.4	263.7	280.8	300.0	312.6	324.5	330.4	336.3
72.5°	198.4	204.1	210.1	219.6	230.5	242.8	256.7	272.3	278.8	286.0	289.5
75°	150.4	158.5	166.6	172.6	180.0	189.6	202.3	211.9	215.6	221.5	222.3
77.5°	113.5	115.3	121.2	128.6	134.8	141.8	149.8	158.3	160.1	163.2	165.2
80°	93.3	93.3	93.3	97.7	105.2	110.4	117.8	122.2	125.2	125.9	126.7
82.5°	74.9	74.9	74.4	75.3	77.9	80.8	87.6	92.6	95.0	94.5	92.9
85°	48.9	47.4	47.4	46.7	47.4	45.9	45.1	48.2	52.6	52.6	51.1
87.5°	22.2	21.6	22.0	21.1	20.3	19.4	17.4	17.8	17.6	19.8	19.0
90°	10.6	10.2	9.0	7.7	6.5	5.3	4.1	3.2	2.3	1.3	0.4
92.5°	11.4	10.8	9.9	9.0	8.1	7.2	6.8	7.1	7.4	7.6	7.9
95°	13.8	13.1	12.1	11.0	10.0	9.0	10.4	14.2	18.1	22.0	25.8
97.5°	14.4	13.7	20.5	27.1	33.9	40.7	45.0	46.8	48.4	50.1	51.9
100°	14.7	13.9	28.7	43.4	58.1	72.7	79.1	77.2	75.3	73.4	71.5
102.5°	25.5	27.9	43.9	59.9	76.0	92.0	99.3	98.0	96.6	95.3	93.9
105°	76.1	92.7	101.2	109.7	118.1	126.6	130.4	129.3	128.3	127.2	126.2
107.5°	157.8	169.9	168.6	167.3	166.0	164.7	163.5	162.7	161.9	161.1	160.2
110°	187.8	191.0	189.9	188.9	187.8	186.8	186.0	185.2	184.5	183.7	182.9



TEST NUMBER: P332470-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	212.4	212.4	211.3	210.3	209.2	208.2	207.4	206.6	205.9	205.3	204.6
115°	244.0	243.1	242.2	241.4	240.5	239.7	238.9	238.4	237.8	237.2	236.7
117.5°	273.6	272.9	272.5	272.0	271.5	271.2	270.6	269.8	269.2	268.5	267.8
120°	292.9	292.2	291.9	291.6	291.3	291.1	290.5	289.6	288.8	287.9	287.1
122.5°	312.0	311.5	311.1	310.8	310.5	310.1	309.5	308.9	308.1	307.5	306.8
125°	338.9	338.7	338.4	338.0	337.6	337.2	336.7	335.9	335.2	334.4	333.7
127.5°	365.5	365.2	364.8	364.3	363.8	363.4	362.8	362.0	361.3	360.5	359.8
130°	381.4	381.1	380.8	380.4	380.0	379.7	379.1	378.3	377.6	376.8	376.1
132.5°	396.7	396.3	396.1	395.8	395.5	395.1	394.6	393.9	393.1	392.4	391.6
135°	419.9	419.6	419.2	418.9	418.5	418.1	417.6	417.1	416.5	415.9	415.4
137.5°	440.4	439.9	439.7	439.5	439.3	439.0	438.6	437.9	437.2	436.5	435.7
140°	453.5	453.1	452.8	452.5	452.2	451.9	451.6	451.0	450.4	449.9	449.3
142.5°	465.9	465.6	465.3	465.1	464.8	464.5	464.1	463.5	463.0	462.4	461.8
145°	483.3	483.1	483.0	482.8	482.6	482.4	482.0	481.4	480.7	480.0	479.4
147.5°	498.9	498.7	498.5	498.3	498.1	497.9	497.6	497.2	496.7	496.3	495.9
150°	508.3	508.1	507.9	507.7	507.6	507.4	507.2	506.9	506.6	506.3	506.1
152.5°	516.6	516.3	516.1	516.0	515.9	515.9	515.8	515.6	515.5	515.3	515.2
155°	528.1	527.6	527.5	527.4	527.4	527.3	527.4	527.5	527.6	527.8	528.0
157.5°	538.1	537.5	537.6	537.7	537.8	537.9	538.0	538.0	538.0	538.0	538.1
160°	543.8	543.3	543.4	543.5	543.6	543.7	543.8	543.8	543.9	544.0	544.1
162.5°	549.0	548.4	548.5	548.6	548.7	548.7	548.9	549.2	549.4	549.7	549.9
165°	555.9	555.2	555.3	555.3	555.4	555.5	555.7	556.0	556.3	556.6	556.9
167.5°	561.4	560.6	560.6	560.6	560.6	560.6	560.8	561.2	561.6	561.9	562.3
170°	564.4	563.6	563.6	563.6	563.6	563.6	563.8	564.2	564.6	565.0	565.3
172.5°	566.4	565.6	565.6	565.5	565.4	565.3	565.5	566.0	566.5	566.9	567.3
175°	568.9	568.3	568.2	568.1	568.0	567.9	568.1	568.5	569.0	569.5	570.0
177.5°	569.9	569.3	569.2	569.1	569.1	569.0	569.1	569.5	569.9	570.2	570.6
180°	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0



TEST NUMBER: P332470-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1740.0	1746.5	1754.8	1767.3	1776.8	1785.1	1786.9	1789.2	1795.2	1805.2	1812.9
5°	1751.2	1768.3	1795.7	1822.4	1851.2	1875.0	1897.2	1912.8	1927.6	1958.7	1983.9
7.5°	1747.8	1785.6	1828.6	1876.5	1925.0	1971.9	2015.4	2054.4	2093.2	2138.5	2190.3
10°	1745.3	1789.8	1847.6	1909.0	1976.5	2042.4	2106.1	2155.8	2213.6	2265.4	2331.3
12.5°	1734.1	1798.1	1867.2	1945.8	2028.6	2104.6	2188.5	2257.1	2323.2	2398.1	2474.7
15°	1719.4	1797.2	1884.6	1989.0	2115.0	2206.9	2292.8	2412.1	2493.6	2575.0	2684.7
17.5°	1692.6	1787.5	1896.8	2032.5	2137.5	2261.0	2390.3	2484.5	2594.3	2709.2	2808.4
20°	1671.2	1781.7	1903.8	2037.2	2171.3	2305.4	2430.6	2543.2	2656.6	2789.2	2870.6
22.5°	1649.9	1759.2	1886.1	2027.8	2171.9	2313.1	2454.9	2587.1	2714.6	2848.5	2952.4
25°	1604.6	1734.3	1872.0	2016.5	2158.7	2314.3	2483.2	2630.6	2788.4	2926.2	3024.7
27.5°	1558.7	1677.4	1814.7	1961.2	2119.3	2303.2	2501.9	2669.5	2827.5	2926.2	2957.1
30°	1517.2	1643.1	1769.1	1918.0	2089.1	2294.2	2505.4	2697.3	2827.0	2869.9	2838.0
32.5°	1475.1	1589.2	1713.9	1866.4	2048.1	2272.4	2510.2	2680.7	2758.7	2725.9	2596.2
35°	1400.9	1503.8	1624.6	1777.2	1986.1	2260.2	2490.6	2606.1	2586.9	2401.7	2157.2
37.5°	1321.4	1405.3	1517.2	1676.8	1921.8	2212.1	2406.4	2423.5	2256.8	1972.5	1690.1
40°	1258.7	1334.2	1449.1	1615.7	1872.0	2164.6	2321.7	2252.8	1994.2	1677.9	1442.4
42.5°	1197.6	1261.3	1372.0	1551.7	1824.6	2100.1	2195.5	2045.4	1747.1	1448.0	1233.8
45°	1094.2	1154.1	1265.3	1449.7	1727.6	1976.5	1963.9	1703.1	1404.6	1163.9	986.0
47.5°	996.1	1048.6	1152.8	1341.1	1613.6	1791.3	1673.5	1396.0	1142.7	949.6	822.7
50°	926.7	978.6	1082.3	1268.3	1522.4	1652.0	1483.8	1216.4	984.6	824.5	723.8
52.5°	860.4	911.1	1005.9	1187.0	1412.1	1489.6	1309.0	1061.1	867.8	729.7	643.2
55°	767.5	806.0	891.2	1064.5	1232.8	1250.5	1067.5	860.1	700.8	604.5	545.3
57.5°	672.8	706.0	790.1	928.2	1046.1	1037.0	863.5	684.1	576.8	505.2	462.2
60°	611.1	643.8	717.8	836.4	925.3	894.2	734.9	590.4	498.6	446.0	411.9
62.5°	553.6	579.2	648.5	735.0	799.0	763.7	628.2	508.6	435.7	391.4	364.5
65°	470.4	491.2	546.7	591.9	627.5	593.4	480.8	397.8	345.3	314.1	295.6
67.5°	391.2	404.4	439.6	455.9	481.0	443.6	361.6	305.9	276.1	249.8	237.0
70°	341.5	351.1	369.7	383.0	389.6	351.1	290.4	249.7	224.4	205.9	197.8
72.5°	291.7	300.2	303.9	314.8	311.4	275.3	233.5	201.0	182.9	170.4	159.9
75°	223.0	226.7	223.0	218.6	208.9	183.7	154.9	138.6	125.2	119.2	115.6
77.5°	162.5	161.4	156.3	149.4	132.9	117.1	101.5	96.0	90.2	87.1	85.8
80°	125.2	122.2	117.8	106.7	92.6	81.5	77.8	74.1	71.8	68.1	67.4
82.5°	93.2	91.4	84.0	74.6	64.8	59.6	56.5	55.1	52.9	51.0	50.8
85°	49.7	47.4	39.3	34.1	32.6	31.1	30.3	30.3	27.4	26.7	26.7
87.5°	16.3	12.9	12.5	10.9	11.1	10.2	11.0	10.1	9.7	10.4	9.3
90°	1.3	2.3	3.2	4.1	5.3	6.5	7.7	9.0	10.2	10.6	10.9
92.5°	7.6	7.4	7.1	6.8	7.2	8.1	9.0	9.9	10.8	11.4	12.1
95°	22.0	18.1	14.2	10.4	9.0	10.0	11.0	12.1	13.1	13.8	14.4
97.5°	50.1	48.4	46.8	45.0	40.7	33.9	27.1	20.5	13.7	14.4	15.2
100°	73.4	75.3	77.2	79.1	72.7	58.1	43.4	28.7	13.9	14.7	15.5
102.5°	95.3	96.6	98.0	99.3	92.0	76.0	59.9	43.9	27.9	25.5	23.2
105°	127.2	128.3	129.3	130.4	126.6	118.1	109.7	101.2	92.7	76.1	59.4
107.5°	161.1	161.9	162.7	163.5	164.7	166.0	167.3	168.6	169.9	157.8	145.5
110°	183.7	184.5	185.2	186.0	186.8	187.8	188.9	189.9	191.0	187.8	184.7





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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	205.3	205.9	206.6	207.4	208.2	209.2	210.3	211.3	212.4	212.4	212.4
115°	237.2	237.8	238.4	238.9	239.7	240.5	241.4	242.2	243.1	244.0	245.0
117.5°	268.5	269.2	269.8	270.6	271.2	271.5	272.0	272.5	272.9	273.6	274.4
120°	287.9	288.8	289.6	290.5	291.1	291.3	291.6	291.9	292.2	292.9	293.7
122.5°	307.5	308.1	308.9	309.5	310.1	310.5	310.8	311.1	311.5	312.0	312.5
125°	334.4	335.2	335.9	336.7	337.2	337.6	338.0	338.4	338.7	338.9	339.1
127.5°	360.5	361.3	362.0	362.8	363.4	363.8	364.3	364.8	365.2	365.5	365.8
130°	376.8	377.6	378.3	379.1	379.7	380.0	380.4	380.8	381.1	381.4	381.8
132.5°	392.4	393.1	393.9	394.6	395.1	395.5	395.8	396.1	396.3	396.7	397.1
135°	415.9	416.5	417.1	417.6	418.1	418.5	418.9	419.2	419.6	419.9	420.2
137.5°	436.5	437.2	437.9	438.6	439.0	439.3	439.5	439.7	439.9	440.4	440.8
140°	449.9	450.4	451.0	451.6	451.9	452.2	452.5	452.8	453.1	453.5	453.8
142.5°	462.4	463.0	463.5	464.1	464.5	464.8	465.1	465.3	465.6	465.9	466.3
145°	480.0	480.7	481.4	482.0	482.4	482.6	482.8	483.0	483.1	483.3	483.5
147.5°	496.3	496.7	497.2	497.6	497.9	498.1	498.3	498.5	498.7	498.9	499.1
150°	506.3	506.6	506.9	507.2	507.4	507.6	507.7	507.9	508.1	508.3	508.5
152.5°	515.3	515.5	515.6	515.8	515.9	515.9	516.0	516.1	516.3	516.6	517.0
155°	527.8	527.6	527.5	527.4	527.3	527.4	527.4	527.5	527.6	528.1	528.6
157.5°	538.0	538.0	538.0	538.0	537.9	537.8	537.7	537.6	537.5	538.1	538.7
160°	544.0	543.9	543.8	543.8	543.7	543.6	543.5	543.4	543.3	543.8	544.4
162.5°	549.7	549.4	549.2	548.9	548.7	548.7	548.6	548.5	548.4	549.0	549.7
165°	556.6	556.3	556.0	555.7	555.5	555.4	555.3	555.3	555.2	555.9	556.7
167.5°	561.9	561.6	561.2	560.8	560.6	560.6	560.6	560.6	560.6	561.4	562.1
170°	565.0	564.6	564.2	563.8	563.6	563.6	563.6	563.6	563.6	564.4	565.1
172.5°	566.9	566.5	566.0	565.5	565.3	565.4	565.5	565.6	565.6	566.4	567.1
175°	569.5	569.0	568.5	568.1	567.9	568.0	568.1	568.2	568.3	568.9	569.6
177.5°	570.2	569.9	569.5	569.1	569.0	569.1	569.1	569.2	569.3	569.9	570.5
180°	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1825.3	1825.3	1827.7	1836.6	1837.8	1845.5	1843.1
5°	2006.1	2020.2	2025.3	2047.6	2061.0	2066.9	2055.0
7.5°	2227.1	2266.9	2285.7	2308.9	2329.6	2335.8	2319.6
10°	2388.4	2429.9	2464.7	2486.1	2506.1	2519.5	2536.6
12.5°	2544.2	2595.2	2628.3	2658.6	2679.2	2696.1	2698.9
15°	2713.6	2790.6	2849.1	2892.1	2913.6	2924.7	2920.3
17.5°	2884.4	2955.8	2997.5	3041.3	3071.1	3072.6	3073.4
20°	2981.0	3050.6	3098.8	3131.4	3164.8	3163.3	3170.6
22.5°	3045.6	3100.4	3137.3	3161.0	3172.4	3166.8	3168.3
25°	3075.8	3092.1	3085.5	3047.7	3038.1	3003.2	3009.2
27.5°	2920.0	2842.9	2763.3	2660.7	2579.8	2515.2	2518.5
30°	2708.4	2572.1	2416.5	2286.1	2169.1	2136.5	2066.9
32.5°	2412.6	2208.2	2026.0	1904.5	1804.0	1776.8	1716.0
35°	1911.3	1712.8	1525.3	1412.7	1368.3	1306.1	1305.3
37.5°	1485.6	1310.8	1211.6	1127.2	1082.9	1045.3	1041.6
40°	1249.7	1113.4	1038.6	977.9	934.2	906.0	899.4
42.5°	1085.0	974.8	904.7	867.0	833.4	818.9	808.0
45°	886.0	811.9	763.0	729.0	713.4	702.3	696.4
47.5°	741.1	691.4	658.2	635.5	622.8	611.1	614.3
50°	662.3	621.5	597.1	575.6	566.0	557.8	558.6
52.5°	598.9	562.3	542.5	527.0	515.0	509.3	506.4
55°	508.2	485.2	465.2	454.1	447.4	439.3	437.1
57.5°	433.5	415.8	399.4	386.8	385.2	377.4	378.4
60°	383.7	368.9	355.6	348.9	343.7	337.1	339.3
62.5°	342.8	330.4	318.3	312.7	307.6	302.7	303.7
65°	280.8	268.9	261.5	258.5	256.3	254.1	251.8
67.5°	223.8	216.5	211.9	205.5	201.0	200.2	197.9
70°	188.1	178.5	170.4	162.2	160.0	159.3	160.0
72.5°	150.8	144.8	142.5	138.6	138.1	136.2	137.5
75°	113.4	111.1	109.6	106.7	106.7	106.7	106.7
77.5°	83.6	82.2	81.3	80.8	80.0	79.0	78.8
80°	65.2	64.5	63.0	63.0	62.2	63.0	62.2
82.5°	49.2	49.0	47.6	47.6	46.8	46.4	46.8
85°	25.2	24.4	25.9	24.4	25.2	23.8	25.2
87.5°	9.3	9.4	9.0	9.0	8.4	9.6	8.5
90°	11.3	11.7	12.0	12.2	12.3	12.5	12.7
92.5°	12.6	13.3	13.6	13.8	13.9	13.9	14.0
95°	15.1	15.7	16.1	16.1	16.1	16.1	16.1
97.5°	15.9	16.7	17.1	17.2	17.2	17.3	17.4
100°	16.2	17.0	17.4	17.5	17.6	17.7	17.8
102.5°	20.8	18.6	17.4	17.6	17.8	17.9	18.1
105°	42.8	26.1	17.9	18.1	18.3	18.5	18.7
107.5°	133.4	121.1	108.8	96.1	83.6	71.1	58.5
110°	181.6	178.5	170.3	156.8	143.4	129.9	116.5



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	212.4	212.5	211.1	208.3	205.5	202.6	199.8
115°	245.9	246.9	247.5	247.9	248.3	248.6	249.0
117.5°	275.1	275.9	276.3	276.4	276.4	276.5	276.6
120°	294.5	295.2	295.6	295.6	295.6	295.6	295.6
122.5°	313.1	313.6	313.9	314.0	314.1	314.1	314.2
125°	339.3	339.5	339.7	339.9	340.1	340.3	340.4
127.5°	366.1	366.4	366.5	366.3	366.1	365.9	365.7
130°	382.2	382.6	382.7	382.5	382.3	382.1	381.9
132.5°	397.5	397.8	397.9	397.7	397.4	397.1	396.9
135°	420.5	420.8	420.8	420.5	420.2	419.9	419.6
137.5°	441.2	441.7	441.9	441.7	441.5	441.3	441.1
140°	454.2	454.6	454.7	454.5	454.3	454.1	453.9
142.5°	466.6	466.8	466.8	466.6	466.4	466.1	465.8
145°	483.7	483.9	484.0	484.0	484.0	484.0	484.0
147.5°	499.3	499.5	499.3	498.9	498.4	498.0	497.6
150°	508.7	508.9	508.9	508.6	508.3	508.0	507.7
152.5°	517.3	517.6	517.6	517.2	516.7	516.3	515.9
155°	529.0	529.5	529.4	528.9	528.3	527.7	527.3
157.5°	539.2	539.8	539.7	538.9	538.3	537.5	536.8
160°	545.0	545.5	545.5	544.9	544.2	543.6	542.9
162.5°	550.4	550.9	551.0	550.4	549.8	549.2	548.7
165°	557.4	558.2	558.2	557.5	556.9	556.3	555.6
167.5°	562.8	563.5	563.5	562.8	562.1	561.4	560.6
170°	565.9	566.7	566.7	565.9	565.1	564.4	563.6
172.5°	567.9	568.6	568.6	567.8	566.9	566.2	565.3
175°	570.2	570.9	570.9	570.1	569.4	568.6	567.9
177.5°	571.1	571.7	571.7	570.9	570.1	569.4	568.6
180°	570.0	570.0	570.0	570.0	570.0	570.0	570.0

(END OF REPORT)