

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: P332471-830

Luminaire Tested: **S123RDIW-S1165D460U830-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332471-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
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-A1
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 460 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5816.9 lumens
Efficiency: N/A
Efficacy: 111.0 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

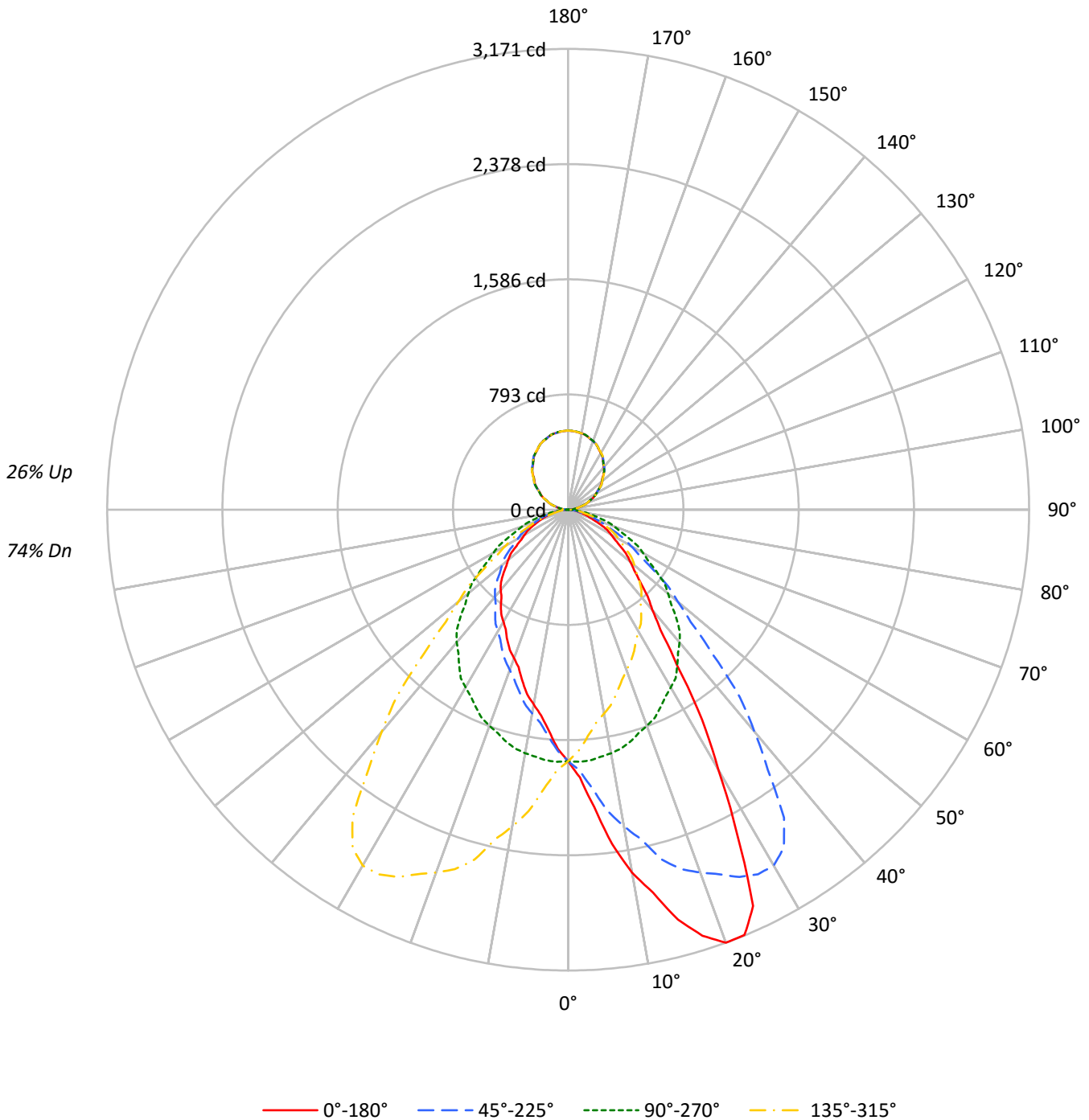
Input Watts (W): 52.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	113	113	113	113	107	107	107	107	97	97	97	87	87	87	78	78	78	74
1	104	100	96	93	99	95	92	89	86	84	81	78	76	74	71	69	68	64
2	95	88	82	77	91	84	79	74	77	72	69	70	66	64	63	61	58	55
3	88	78	71	66	83	75	69	63	68	63	59	62	58	55	57	54	51	48
4	81	70	62	56	77	67	60	55	61	56	51	56	52	48	51	48	44	42
5	75	63	55	49	71	60	53	48	55	49	45	51	46	42	47	43	39	37
6	69	57	49	43	66	55	47	42	50	44	40	46	41	37	43	38	35	33
7	64	52	44	38	61	50	42	37	46	40	35	42	37	33	39	35	31	29
8	60	47	40	34	57	46	38	33	42	36	32	39	34	30	36	32	28	26
9	56	44	36	31	53	42	35	30	39	33	29	36	31	27	33	29	26	24
10	52	40	33	28	50	39	32	27	36	30	26	34	28	25	31	27	24	22

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	2.9
10°-20°	531.7	9.1
20°-30°	835.3	14.4
30°-40°	871.4	15.0
40°-50°	745.8	12.8
50°-60°	568.4	9.8
60°-70°	364.3	6.3
70°-80°	175.3	3.0
80°-90°	48.0	0.8
90°-100°	35.4	0.6
100°-110°	106.0	1.8
110°-120°	180.3	3.1
120°-130°	237.2	4.1
130°-140°	266.6	4.6
140°-150°	262.1	4.5
150°-160°	220.6	3.8
160°-170°	146.9	2.5
170°-180°	51.4	0.9
0°-30°	1537.1	26.4
0°-40°	2408.6	41.4
0°-60°	3722.7	64.0
0°-90°	4310.3	74.1
90°-120°	321.8	5.5
90°-150°	1087.6	18.7
90°-180°	1507.0	25.9
0°-180°	5816.9	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°	33	25	33	25	33	34
105°	102	96	102	96	102	108
115°	182	182	182	182	182	180
125°	263	266	263	266	263	235
135°	344	345	344	345	344	265
145°	418	418	418	418	418	261
155°	478	479	478	479	478	220
165°	520	522	520	522	520	147
175°	540	542	540	542	540	51
180°	544	544	544	544	544	



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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	9.4	9.3	10.5	9.7	10.1
90°	12.8	12.6	12.4	12.3	12.1	11.8	11.4	11.0	10.7	10.3	9.0
92.5°	17.2	17.3	17.4	17.6	17.7	17.6	17.3	17.0	16.7	16.4	15.7
95°	33.3	33.3	33.3	33.3	33.3	33.1	32.7	32.3	32.0	31.6	30.8
97.5°	51.3	51.3	51.4	51.4	51.4	51.2	50.8	50.3	49.9	49.5	48.9
100°	64.9	64.8	64.6	64.4	64.2	63.9	63.6	63.3	63.1	62.8	62.3
102.5°	78.9	79.0	79.0	79.1	79.1	79.0	78.7	78.4	78.1	77.9	77.2
105°	101.7	101.5	101.3	101.1	100.9	100.8	100.8	100.8	100.8	100.8	99.9
107.5°	125.4	125.5	125.5	125.6	125.7	125.6	125.4	125.1	124.8	124.5	124.1
110°	141.4	141.6	141.8	141.9	142.1	142.0	141.7	141.3	140.9	140.5	140.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	158.4	158.5	158.5	158.5	158.6	158.4	158.0	157.5	157.0	156.6	156.6
115°	182.0	182.1	182.2	182.3	182.4	182.4	182.3	182.2	182.1	182.0	182.2
117.5°	205.8	206.0	206.3	206.6	206.9	207.0	207.0	207.1	207.1	207.1	207.4
120°	222.5	222.7	222.9	223.1	223.3	223.5	223.6	223.7	223.8	223.9	224.3
122.5°	238.6	238.8	239.1	239.4	239.7	239.9	240.2	240.4	240.6	240.9	241.2
125°	262.7	263.1	263.4	263.8	264.2	264.6	264.9	265.3	265.7	266.1	266.3
127.5°	286.7	287.1	287.6	288.0	288.4	288.9	289.5	290.0	290.5	291.1	291.2
130°	302.4	303.1	303.8	304.4	305.1	305.6	305.9	306.3	306.7	307.1	307.4
132.5°	318.8	319.3	319.8	320.4	320.8	321.3	321.8	322.3	322.7	323.2	323.4
135°	344.3	344.5	344.7	344.9	345.1	345.3	345.7	346.1	346.5	346.9	346.9
137.5°	366.7	367.1	367.5	367.8	368.2	368.5	369.0	369.4	369.8	370.1	369.9
140°	381.4	382.1	382.8	383.4	384.1	384.5	384.6	384.7	384.7	384.8	384.7
142.5°	396.4	397.0	397.5	398.0	398.5	398.8	398.9	399.0	399.1	399.2	399.1
145°	418.2	418.6	419.0	419.3	419.7	419.9	420.0	420.1	420.2	420.3	420.0
147.5°	437.4	438.0	438.6	439.2	439.8	440.1	440.1	440.1	440.1	440.1	439.8
150°	449.8	450.3	450.9	451.5	452.0	452.3	452.3	452.3	452.3	452.3	452.1
152.5°	461.8	462.2	462.7	463.3	463.7	463.9	463.7	463.5	463.4	463.3	463.2
155°	478.0	478.6	479.3	479.9	480.6	480.8	480.4	480.0	479.7	479.3	479.2
157.5°	492.8	493.2	493.8	494.4	494.8	494.9	494.6	494.2	493.7	493.3	493.2
160°	502.3	502.7	503.0	503.4	503.8	503.8	503.3	502.8	502.4	501.9	501.9
162.5°	509.4	510.1	510.7	511.3	511.9	512.0	511.5	511.0	510.6	510.1	510.0
165°	519.8	520.5	521.1	521.8	522.5	522.5	522.0	521.4	520.8	520.3	520.3
167.5°	528.6	529.2	529.8	530.4	530.9	530.9	530.4	529.8	529.2	528.6	528.6
170°	533.1	533.8	534.4	535.1	535.7	535.7	535.1	534.4	533.8	533.1	533.1
172.5°	536.5	537.2	537.8	538.5	539.1	539.1	538.6	538.0	537.4	536.8	536.8
175°	540.4	541.0	541.7	542.3	543.0	543.0	542.4	541.9	541.3	540.7	540.7
177.5°	542.3	542.9	543.5	543.9	544.5	544.5	544.1	543.7	543.2	542.7	542.7
180°	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8



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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°	7.8	6.5	5.3	4.2	3.3	2.4	1.4	0.5	1.4	2.4	3.3
92.5°	15.0	14.3	13.6	12.9	12.3	11.6	11.0	10.4	11.0	11.6	12.3
95°	30.1	29.3	28.6	27.9	27.2	26.5	25.8	25.2	25.8	26.5	27.2
97.5°	48.4	47.8	47.2	46.8	46.3	45.7	45.2	44.8	45.2	45.7	46.3
100°	61.8	61.4	60.9	60.3	59.8	59.2	58.6	58.1	58.6	59.2	59.8
102.5°	76.5	76.0	75.3	74.8	74.5	74.2	73.8	73.4	73.8	74.2	74.5
105°	99.1	98.2	97.4	96.9	96.7	96.5	96.3	96.1	96.3	96.5	96.7
107.5°	123.8	123.5	123.1	122.9	122.7	122.6	122.5	122.4	122.5	122.6	122.7
110°	140.2	140.0	139.8	139.6	139.4	139.2	139.0	138.8	139.0	139.2	139.4



TEST NUMBER: P332471-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	156.6	156.5	156.5	156.4	156.3	156.2	156.0	155.9	156.0	156.2	156.3
115°	182.4	182.6	182.8	182.7	182.4	182.1	181.8	181.5	181.8	182.1	182.4
117.5°	207.5	207.8	208.0	208.1	207.9	207.7	207.5	207.4	207.5	207.7	207.9
120°	224.8	225.3	225.7	225.6	225.1	224.5	223.9	223.4	223.9	224.5	225.1
122.5°	241.4	241.7	241.9	241.8	241.4	241.0	240.5	240.2	240.5	241.0	241.4
125°	266.5	266.6	266.8	266.8	266.6	266.3	266.0	265.7	266.0	266.3	266.6
127.5°	291.4	291.7	291.9	291.7	291.1	290.5	289.8	289.3	289.8	290.5	291.1
130°	307.6	307.9	308.2	308.0	307.3	306.5	305.8	305.0	305.8	306.5	307.3
132.5°	323.6	323.8	324.0	323.8	323.0	322.3	321.4	320.7	321.4	322.3	323.0
135°	347.0	347.1	347.2	346.9	346.4	345.8	345.3	344.7	345.3	345.8	346.4
137.5°	369.7	369.4	369.2	368.8	368.3	367.9	367.4	366.9	367.4	367.9	368.3
140°	384.7	384.6	384.5	384.2	383.7	383.2	382.8	382.3	382.8	383.2	383.7
142.5°	398.9	398.7	398.5	398.2	397.8	397.3	396.8	396.3	396.8	397.3	397.8
145°	419.7	419.4	419.1	419.0	418.8	418.6	418.4	418.2	418.4	418.6	418.8
147.5°	439.5	439.2	438.9	438.7	438.3	438.0	437.6	437.3	437.6	438.0	438.3
150°	451.9	451.8	451.6	451.4	451.2	451.0	450.8	450.6	450.8	451.0	451.2
152.5°	463.1	462.9	462.8	462.6	462.3	462.1	461.8	461.6	461.8	462.1	462.3
155°	479.1	479.0	478.9	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8
157.5°	493.2	493.1	493.0	493.0	493.1	493.3	493.4	493.5	493.4	493.3	493.1
160°	501.9	501.9	501.9	502.0	502.2	502.4	502.6	502.8	502.6	502.4	502.2
162.5°	509.9	509.8	509.8	509.9	510.1	510.4	510.7	511.0	510.7	510.4	510.1
165°	520.3	520.3	520.3	520.4	520.7	520.9	521.2	521.5	521.2	520.9	520.7
167.5°	528.5	528.4	528.3	528.5	528.9	529.2	529.6	530.0	529.6	529.2	528.9
170°	533.1	533.1	533.1	533.3	533.7	534.0	534.4	534.8	534.4	534.0	533.7
172.5°	536.8	536.8	536.8	537.0	537.4	537.8	538.2	538.6	538.2	537.8	537.4
175°	540.7	540.7	540.7	540.9	541.3	541.7	542.1	542.4	542.1	541.7	541.3
177.5°	542.7	542.7	542.7	542.9	543.2	543.5	543.8	544.1	543.8	543.5	543.2
180°	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8



TEST NUMBER: P332471-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A1

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	23.2
90°	4.2	5.3	6.5	7.8	9.0	10.3	10.7	11.0	11.4	11.8	12.1
92.5°	12.9	13.6	14.3	15.0	15.7	16.4	16.7	17.0	17.3	17.6	17.7
95°	27.9	28.6	29.3	30.1	30.8	31.6	32.0	32.3	32.7	33.1	33.3
97.5°	46.8	47.2	47.8	48.4	48.9	49.5	49.9	50.3	50.8	51.2	51.4
100°	60.3	60.9	61.4	61.8	62.3	62.8	63.1	63.3	63.6	63.9	64.2
102.5°	74.8	75.3	76.0	76.5	77.2	77.9	78.1	78.4	78.7	79.0	79.1
105°	96.9	97.4	98.2	99.1	99.9	100.8	100.8	100.8	100.8	100.8	100.9
107.5°	122.9	123.1	123.5	123.8	124.1	124.5	124.8	125.1	125.4	125.6	125.7
110°	139.6	139.8	140.0	140.2	140.3	140.5	140.9	141.3	141.7	142.0	142.1



TEST NUMBER: P332471-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	156.4	156.5	156.5	156.6	156.6	156.6	157.0	157.5	158.0	158.4	158.6
115°	182.7	182.8	182.6	182.4	182.2	182.0	182.1	182.2	182.3	182.4	182.4
117.5°	208.1	208.0	207.8	207.5	207.4	207.1	207.1	207.1	207.0	207.0	206.9
120°	225.6	225.7	225.3	224.8	224.3	223.9	223.8	223.7	223.6	223.5	223.3
122.5°	241.8	241.9	241.7	241.4	241.2	240.9	240.6	240.4	240.2	239.9	239.7
125°	266.8	266.8	266.6	266.5	266.3	266.1	265.7	265.3	264.9	264.6	264.2
127.5°	291.7	291.9	291.7	291.4	291.2	291.1	290.5	290.0	289.5	288.9	288.4
130°	308.0	308.2	307.9	307.6	307.4	307.1	306.7	306.3	305.9	305.6	305.1
132.5°	323.8	324.0	323.8	323.6	323.4	323.2	322.7	322.3	321.8	321.3	320.8
135°	346.9	347.2	347.1	347.0	346.9	346.9	346.5	346.1	345.7	345.3	345.1
137.5°	368.8	369.2	369.4	369.7	369.9	370.1	369.8	369.4	369.0	368.5	368.2
140°	384.2	384.5	384.6	384.7	384.7	384.8	384.7	384.7	384.6	384.5	384.1
142.5°	398.2	398.5	398.7	398.9	399.1	399.2	399.1	399.0	398.9	398.8	398.5
145°	419.0	419.1	419.4	419.7	420.0	420.3	420.2	420.1	420.0	419.9	419.7
147.5°	438.7	438.9	439.2	439.5	439.8	440.1	440.1	440.1	440.1	440.1	439.8
150°	451.4	451.6	451.8	451.9	452.1	452.3	452.3	452.3	452.3	452.3	452.0
152.5°	462.6	462.8	462.9	463.1	463.2	463.3	463.4	463.5	463.7	463.9	463.7
155°	478.8	478.9	479.0	479.1	479.2	479.3	479.7	480.0	480.4	480.8	480.6
157.5°	493.0	493.0	493.1	493.2	493.2	493.3	493.7	494.2	494.6	494.9	494.8
160°	502.0	501.9	501.9	501.9	501.9	501.9	502.4	502.8	503.3	503.8	503.8
162.5°	509.9	509.8	509.8	509.9	510.0	510.1	510.6	511.0	511.5	512.0	511.9
165°	520.4	520.3	520.3	520.3	520.3	520.3	520.8	521.4	522.0	522.5	522.5
167.5°	528.5	528.3	528.4	528.5	528.6	528.6	529.2	529.8	530.4	530.9	530.9
170°	533.3	533.1	533.1	533.1	533.1	533.1	533.8	534.4	535.1	535.7	535.7
172.5°	537.0	536.8	536.8	536.8	536.8	536.8	537.4	538.0	538.6	539.1	539.1
175°	540.9	540.7	540.7	540.7	540.7	540.7	541.3	541.9	542.4	543.0	543.0
177.5°	542.9	542.7	542.7	542.7	542.7	542.7	543.2	543.7	544.1	544.5	544.5
180°	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8



TEST NUMBER: P332471-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A1

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°	24.4	23.2	23.3	23.9	23.3	23.2	24.4	23.2	23.1	23.0	22.3
90°	12.3	12.4	12.6	12.8	12.6	12.4	12.3	12.1	11.8	11.4	11.0
92.5°	17.6	17.4	17.3	17.2	17.3	17.4	17.6	17.7	17.6	17.3	17.0
95°	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.1	32.7	32.3
97.5°	51.4	51.4	51.3	51.3	51.3	51.4	51.4	51.4	51.2	50.8	50.3
100°	64.4	64.6	64.8	64.9	64.8	64.6	64.4	64.2	63.9	63.6	63.3
102.5°	79.1	79.0	79.0	78.9	79.0	79.0	79.1	79.1	79.0	78.7	78.4
105°	101.1	101.3	101.5	101.7	101.5	101.3	101.1	100.9	100.8	100.8	100.8
107.5°	125.6	125.5	125.5	125.4	125.5	125.5	125.6	125.7	125.6	125.4	125.1
110°	141.9	141.8	141.6	141.4	141.6	141.8	141.9	142.1	142.0	141.7	141.3



TEST NUMBER: P332471-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	158.5	158.5	158.5	158.4	158.5	158.5	158.5	158.6	158.4	158.0	157.5
115°	182.3	182.2	182.1	182.0	182.1	182.2	182.3	182.4	182.4	182.3	182.2
117.5°	206.6	206.3	206.0	205.8	206.0	206.3	206.6	206.9	207.0	207.0	207.1
120°	223.1	222.9	222.7	222.5	222.7	222.9	223.1	223.3	223.5	223.6	223.7
122.5°	239.4	239.1	238.8	238.6	238.8	239.1	239.4	239.7	239.9	240.2	240.4
125°	263.8	263.4	263.1	262.7	263.1	263.4	263.8	264.2	264.6	264.9	265.3
127.5°	288.0	287.6	287.1	286.7	287.1	287.6	288.0	288.4	288.9	289.5	290.0
130°	304.4	303.8	303.1	302.4	303.1	303.8	304.4	305.1	305.6	305.9	306.3
132.5°	320.4	319.8	319.3	318.8	319.3	319.8	320.4	320.8	321.3	321.8	322.3
135°	344.9	344.7	344.5	344.3	344.5	344.7	344.9	345.1	345.3	345.7	346.1
137.5°	367.8	367.5	367.1	366.7	367.1	367.5	367.8	368.2	368.5	369.0	369.4
140°	383.4	382.8	382.1	381.4	382.1	382.8	383.4	384.1	384.5	384.6	384.7
142.5°	398.0	397.5	397.0	396.4	397.0	397.5	398.0	398.5	398.8	398.9	399.0
145°	419.3	419.0	418.6	418.2	418.6	419.0	419.3	419.7	419.9	420.0	420.1
147.5°	439.2	438.6	438.0	437.4	438.0	438.6	439.2	439.8	440.1	440.1	440.1
150°	451.5	450.9	450.3	449.8	450.3	450.9	451.5	452.0	452.3	452.3	452.3
152.5°	463.3	462.7	462.2	461.8	462.2	462.7	463.3	463.7	463.9	463.7	463.5
155°	479.9	479.3	478.6	478.0	478.6	479.3	479.9	480.6	480.8	480.4	480.0
157.5°	494.4	493.8	493.2	492.8	493.2	493.8	494.4	494.8	494.9	494.6	494.2
160°	503.4	503.0	502.7	502.3	502.7	503.0	503.4	503.8	503.8	503.3	502.8
162.5°	511.3	510.7	510.1	509.4	510.1	510.7	511.3	511.9	512.0	511.5	511.0
165°	521.8	521.1	520.5	519.8	520.5	521.1	521.8	522.5	522.5	522.0	521.4
167.5°	530.4	529.8	529.2	528.6	529.2	529.8	530.4	530.9	530.9	530.4	529.8
170°	535.1	534.4	533.8	533.1	533.8	534.4	535.1	535.7	535.7	535.1	534.4
172.5°	538.5	537.8	537.2	536.5	537.2	537.8	538.5	539.1	539.1	538.6	538.0
175°	542.3	541.7	541.0	540.4	541.0	541.7	542.3	543.0	543.0	542.4	541.9
177.5°	543.9	543.5	542.9	542.3	542.9	543.5	543.9	544.5	544.5	544.1	543.7
180°	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8



TEST NUMBER: P332471-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A1

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°	10.7	10.3	9.0	7.8	6.5	5.3	4.2	3.3	2.4	1.4	0.5
92.5°	16.7	16.4	15.7	15.0	14.3	13.6	12.9	12.3	11.6	11.0	10.4
95°	32.0	31.6	30.8	30.1	29.3	28.6	27.9	27.2	26.5	25.8	25.2
97.5°	49.9	49.5	48.9	48.4	47.8	47.2	46.8	46.3	45.7	45.2	44.8
100°	63.1	62.8	62.3	61.8	61.4	60.9	60.3	59.8	59.2	58.6	58.1
102.5°	78.1	77.9	77.2	76.5	76.0	75.3	74.8	74.5	74.2	73.8	73.4
105°	100.8	100.8	99.9	99.1	98.2	97.4	96.9	96.7	96.5	96.3	96.1
107.5°	124.8	124.5	124.1	123.8	123.5	123.1	122.9	122.7	122.6	122.5	122.4
110°	140.9	140.5	140.3	140.2	140.0	139.8	139.6	139.4	139.2	139.0	138.8



TEST NUMBER: P332471-830

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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	157.0	156.6	156.6	156.6	156.5	156.5	156.4	156.3	156.2	156.0	155.9
115°	182.1	182.0	182.2	182.4	182.6	182.8	182.7	182.4	182.1	181.8	181.5
117.5°	207.1	207.1	207.4	207.5	207.8	208.0	208.1	207.9	207.7	207.5	207.4
120°	223.8	223.9	224.3	224.8	225.3	225.7	225.6	225.1	224.5	223.9	223.4
122.5°	240.6	240.9	241.2	241.4	241.7	241.9	241.8	241.4	241.0	240.5	240.2
125°	265.7	266.1	266.3	266.5	266.6	266.8	266.8	266.6	266.3	266.0	265.7
127.5°	290.5	291.1	291.2	291.4	291.7	291.9	291.7	291.1	290.5	289.8	289.3
130°	306.7	307.1	307.4	307.6	307.9	308.2	308.0	307.3	306.5	305.8	305.0
132.5°	322.7	323.2	323.4	323.6	323.8	324.0	323.8	323.0	322.3	321.4	320.7
135°	346.5	346.9	346.9	347.0	347.1	347.2	346.9	346.4	345.8	345.3	344.7
137.5°	369.8	370.1	369.9	369.7	369.4	369.2	368.8	368.3	367.9	367.4	366.9
140°	384.7	384.8	384.7	384.7	384.6	384.5	384.2	383.7	383.2	382.8	382.3
142.5°	399.1	399.2	399.1	398.9	398.7	398.5	398.2	397.8	397.3	396.8	396.3
145°	420.2	420.3	420.0	419.7	419.4	419.1	419.0	418.8	418.6	418.4	418.2
147.5°	440.1	440.1	439.8	439.5	439.2	438.9	438.7	438.3	438.0	437.6	437.3
150°	452.3	452.3	452.1	451.9	451.8	451.6	451.4	451.2	451.0	450.8	450.6
152.5°	463.4	463.3	463.2	463.1	462.9	462.8	462.6	462.3	462.1	461.8	461.6
155°	479.7	479.3	479.2	479.1	479.0	478.9	478.8	478.8	478.8	478.8	478.8
157.5°	493.7	493.3	493.2	493.2	493.1	493.0	493.0	493.1	493.3	493.4	493.5
160°	502.4	501.9	501.9	501.9	501.9	501.9	502.0	502.2	502.4	502.6	502.8
162.5°	510.6	510.1	510.0	509.9	509.8	509.8	509.9	510.1	510.4	510.7	511.0
165°	520.8	520.3	520.3	520.3	520.3	520.3	520.4	520.7	520.9	521.2	521.5
167.5°	529.2	528.6	528.6	528.5	528.4	528.3	528.5	528.9	529.2	529.6	530.0
170°	533.8	533.1	533.1	533.1	533.1	533.1	533.3	533.7	534.0	534.4	534.8
172.5°	537.4	536.8	536.8	536.8	536.8	536.8	537.0	537.4	537.8	538.2	538.6
175°	541.3	540.7	540.7	540.7	540.7	540.7	540.9	541.3	541.7	542.1	542.4
177.5°	543.2	542.7	542.7	542.7	542.7	542.7	542.9	543.2	543.5	543.8	544.1
180°	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8



TEST NUMBER: P332471-830

CATALOG NUMBER: S123RDIW-S1165D460U830-4F0-1E-UDD-A1

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	10.5	9.3
90°	1.4	2.4	3.3	4.2	5.3	6.5	7.8	9.0	10.3	10.7	11.0
92.5°	11.0	11.6	12.3	12.9	13.6	14.3	15.0	15.7	16.4	16.7	17.0
95°	25.8	26.5	27.2	27.9	28.6	29.3	30.1	30.8	31.6	32.0	32.3
97.5°	45.2	45.7	46.3	46.8	47.2	47.8	48.4	48.9	49.5	49.9	50.3
100°	58.6	59.2	59.8	60.3	60.9	61.4	61.8	62.3	62.8	63.1	63.3
102.5°	73.8	74.2	74.5	74.8	75.3	76.0	76.5	77.2	77.9	78.1	78.4
105°	96.3	96.5	96.7	96.9	97.4	98.2	99.1	99.9	100.8	100.8	100.8
107.5°	122.5	122.6	122.7	122.9	123.1	123.5	123.8	124.1	124.5	124.8	125.1
110°	139.0	139.2	139.4	139.6	139.8	140.0	140.2	140.3	140.5	140.9	141.3



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	156.0	156.2	156.3	156.4	156.5	156.5	156.6	156.6	156.6	157.0	157.5
115°	181.8	182.1	182.4	182.7	182.8	182.6	182.4	182.2	182.0	182.1	182.2
117.5°	207.5	207.7	207.9	208.1	208.0	207.8	207.5	207.4	207.1	207.1	207.1
120°	223.9	224.5	225.1	225.6	225.7	225.3	224.8	224.3	223.9	223.8	223.7
122.5°	240.5	241.0	241.4	241.8	241.9	241.7	241.4	241.2	240.9	240.6	240.4
125°	266.0	266.3	266.6	266.8	266.8	266.6	266.5	266.3	266.1	265.7	265.3
127.5°	289.8	290.5	291.1	291.7	291.9	291.7	291.4	291.2	291.1	290.5	290.0
130°	305.8	306.5	307.3	308.0	308.2	307.9	307.6	307.4	307.1	306.7	306.3
132.5°	321.4	322.3	323.0	323.8	324.0	323.8	323.6	323.4	323.2	322.7	322.3
135°	345.3	345.8	346.4	346.9	347.2	347.1	347.0	346.9	346.9	346.5	346.1
137.5°	367.4	367.9	368.3	368.8	369.2	369.4	369.7	369.9	370.1	369.8	369.4
140°	382.8	383.2	383.7	384.2	384.5	384.6	384.7	384.7	384.8	384.7	384.7
142.5°	396.8	397.3	397.8	398.2	398.5	398.7	398.9	399.1	399.2	399.1	399.0
145°	418.4	418.6	418.8	419.0	419.1	419.4	419.7	420.0	420.3	420.2	420.1
147.5°	437.6	438.0	438.3	438.7	438.9	439.2	439.5	439.8	440.1	440.1	440.1
150°	450.8	451.0	451.2	451.4	451.6	451.8	451.9	452.1	452.3	452.3	452.3
152.5°	461.8	462.1	462.3	462.6	462.8	462.9	463.1	463.2	463.3	463.4	463.5
155°	478.8	478.8	478.8	478.8	478.9	479.0	479.1	479.2	479.3	479.7	480.0
157.5°	493.4	493.3	493.1	493.0	493.0	493.1	493.2	493.2	493.3	493.7	494.2
160°	502.6	502.4	502.2	502.0	501.9	501.9	501.9	501.9	501.9	502.4	502.8
162.5°	510.7	510.4	510.1	509.9	509.8	509.8	509.9	510.0	510.1	510.6	511.0
165°	521.2	520.9	520.7	520.4	520.3	520.3	520.3	520.3	520.3	520.8	521.4
167.5°	529.6	529.2	528.9	528.5	528.3	528.4	528.5	528.6	528.6	529.2	529.8
170°	534.4	534.0	533.7	533.3	533.1	533.1	533.1	533.1	533.1	533.8	534.4
172.5°	538.2	537.8	537.4	537.0	536.8	536.8	536.8	536.8	536.8	537.4	538.0
175°	542.1	541.7	541.3	540.9	540.7	540.7	540.7	540.7	540.7	541.3	541.9
177.5°	543.8	543.5	543.2	542.9	542.7	542.7	542.7	542.7	542.7	543.2	543.7
180°	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8



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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°	9.4	9.4	9.0	9.0	8.4	9.6	8.5
90°	11.4	11.8	12.1	12.3	12.4	12.6	12.8
92.5°	17.3	17.6	17.7	17.6	17.4	17.3	17.2
95°	32.7	33.1	33.3	33.3	33.3	33.3	33.3
97.5°	50.8	51.2	51.4	51.4	51.4	51.3	51.3
100°	63.6	63.9	64.2	64.4	64.6	64.8	64.9
102.5°	78.7	79.0	79.1	79.1	79.0	79.0	78.9
105°	100.8	100.8	100.9	101.1	101.3	101.5	101.7
107.5°	125.4	125.6	125.7	125.6	125.5	125.5	125.4
110°	141.7	142.0	142.1	141.9	141.8	141.6	141.4



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	158.0	158.4	158.6	158.5	158.5	158.5	158.4
115°	182.3	182.4	182.4	182.3	182.2	182.1	182.0
117.5°	207.0	207.0	206.9	206.6	206.3	206.0	205.8
120°	223.6	223.5	223.3	223.1	222.9	222.7	222.5
122.5°	240.2	239.9	239.7	239.4	239.1	238.8	238.6
125°	264.9	264.6	264.2	263.8	263.4	263.1	262.7
127.5°	289.5	288.9	288.4	288.0	287.6	287.1	286.7
130°	305.9	305.6	305.1	304.4	303.8	303.1	302.4
132.5°	321.8	321.3	320.8	320.4	319.8	319.3	318.8
135°	345.7	345.3	345.1	344.9	344.7	344.5	344.3
137.5°	369.0	368.5	368.2	367.8	367.5	367.1	366.7
140°	384.6	384.5	384.1	383.4	382.8	382.1	381.4
142.5°	398.9	398.8	398.5	398.0	397.5	397.0	396.4
145°	420.0	419.9	419.7	419.3	419.0	418.6	418.2
147.5°	440.1	440.1	439.8	439.2	438.6	438.0	437.4
150°	452.3	452.3	452.0	451.5	450.9	450.3	449.8
152.5°	463.7	463.9	463.7	463.3	462.7	462.2	461.8
155°	480.4	480.8	480.6	479.9	479.3	478.6	478.0
157.5°	494.6	494.9	494.8	494.4	493.8	493.2	492.8
160°	503.3	503.8	503.8	503.4	503.0	502.7	502.3
162.5°	511.5	512.0	511.9	511.3	510.7	510.1	509.4
165°	522.0	522.5	522.5	521.8	521.1	520.5	519.8
167.5°	530.4	530.9	530.9	530.4	529.8	529.2	528.6
170°	535.1	535.7	535.7	535.1	534.4	533.8	533.1
172.5°	538.6	539.1	539.1	538.5	537.8	537.2	536.5
175°	542.4	543.0	543.0	542.3	541.7	541.0	540.4
177.5°	544.1	544.5	544.5	543.9	543.5	542.9	542.3
180°	543.8	543.8	543.8	543.8	543.8	543.8	543.8

(END OF REPORT)