

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: P332961-830

Luminaire Tested: **SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332961-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1020 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

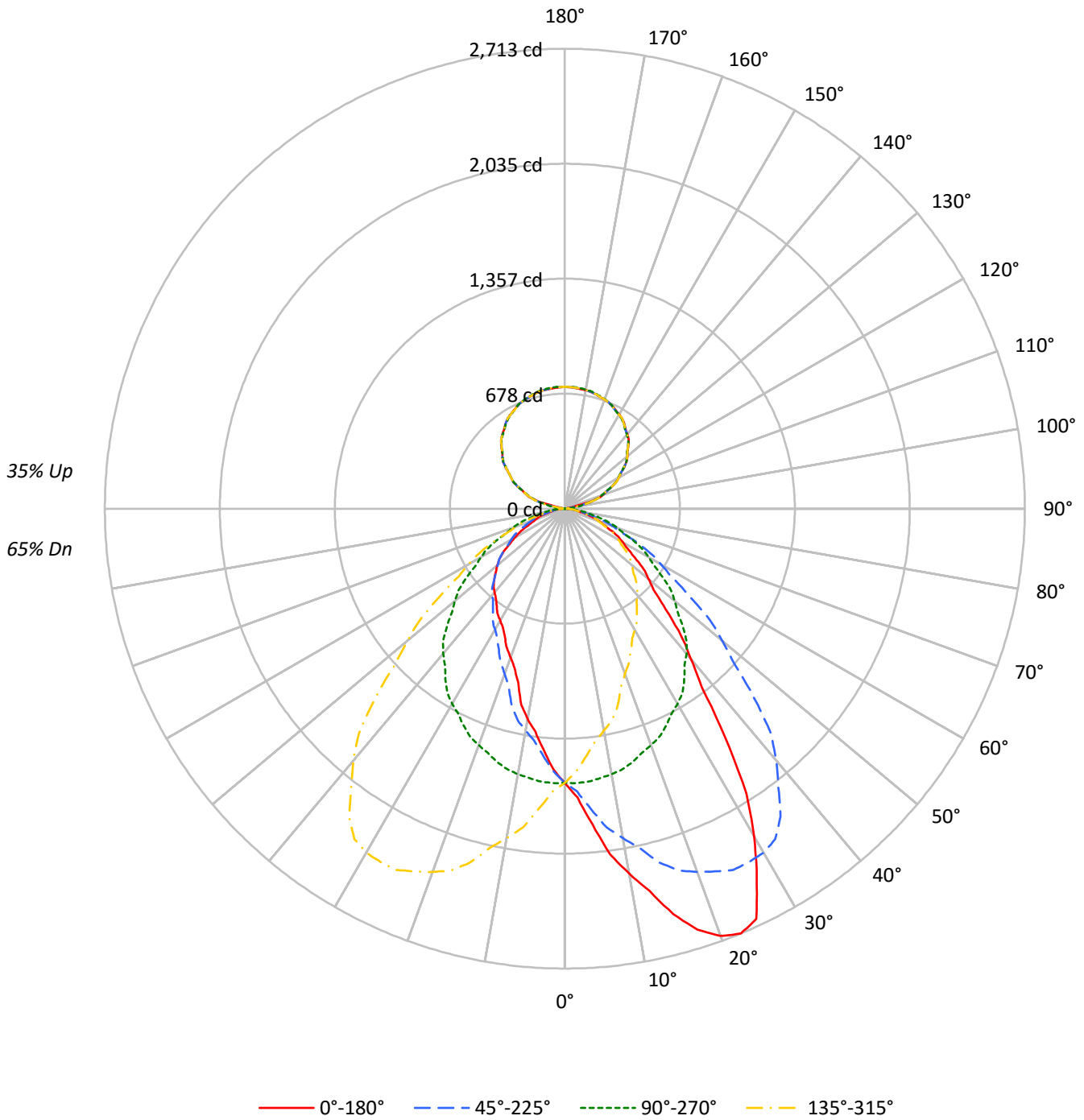
Lumens per Lamp: N/A
Luminaire Lumens: 6313.6 lumens
Efficiency: N/A
Efficacy: 129.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.23 / 1.39
Luminous Opening: Rectangular (W 4' x L: 0.33' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 48.8
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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65
1	102	98	94	90	95	92	89	86	81	79	77	72	70	68	63	61	60	56
2	93	86	80	75	87	81	76	71	72	68	64	64	60	58	56	54	52	48
3	85	76	69	63	80	72	65	60	64	59	55	57	53	50	50	47	44	41
4	78	68	60	54	73	64	57	52	57	52	47	51	46	43	45	42	39	36
5	72	61	53	47	68	57	50	45	52	46	41	46	41	38	41	37	34	31
6	67	55	47	41	63	52	45	39	47	41	36	42	37	33	37	33	30	28
7	62	50	42	36	58	47	40	35	42	36	32	38	33	30	34	30	27	25
8	58	45	37	32	54	43	36	31	39	33	29	35	30	27	31	27	24	22
9	54	41	34	29	51	39	33	28	36	30	26	32	27	24	29	25	22	20
10	50	38	31	26	47	36	30	25	33	27	23	30	25	22	27	23	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	13056	13056	13056	13056
5°	15144	13095	11574	13095
10°	17915	13038	10330	13038
15°	20695	12918	8877	12918
20°	23040	12752	8027	12752
25°	23785	12588	7452	12588
30°	20821	12392	7106	12392
35°	16208	12098	6897	12098
40°	12154	11763	6785	11763
45°	9597	11226	6725	11226
50°	8102	10605	6531	10605
55°	7061	9923	6180	9923
60°	6353	9216	5470	9216
65°	5601	8451	4705	8451
70°	5044	7659	4244	7659
75°	4226	6787	3618	6787
80°	3575	5783	3394	5783
85°	3020	4520	3020	4520



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.7	2.5
10°-20°	472.7	7.5
20°-30°	739.3	11.7
30°-40°	821.9	13.0
40°-50°	729.2	11.5
50°-60°	568.2	9.0
60°-70°	372.0	5.9
70°-80°	182.9	2.9
80°-90°	47.2	0.7
90°-100°	24.6	0.4
100°-110°	156.8	2.5
110°-120°	299.9	4.7
120°-130°	380.7	6.0
130°-140°	407.3	6.5
140°-150°	380.9	6.0
150°-160°	307.1	4.9
160°-170°	198.1	3.1
170°-180°	68.3	1.1
0°-30°	1368.7	21.7
0°-40°	2190.5	34.7
0°-60°	3487.9	55.2
0°-90°	4090.1	64.8
90°-120°	481.2	7.6
90°-150°	1650.1	26.1
90°-180°	2224.0	35.2
0°-180°	6313.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1617	1617	1617	1617	1617	
5°	1869	1616	1428	1616	1869	189
15°	2476	1546	1062	1546	2476	704
25°	2670	1413	837	1413	2670	1185
35°	1645	1228	700	1228	1645	1031
45°	841	983	589	983	841	666
55°	502	705	439	705	502	456
65°	293	442	246	442	293	295
75°	136	218	116	218	136	149
85°	33	49	33	49	33	37
90°	16	2	16	2	16	8
95°	16	30	16	30	16	12
105°	153	162	153	162	153	134
115°	304	302	304	302	304	301
125°	428	425	428	425	428	381
135°	531	527	531	527	531	408
145°	611	608	611	608	611	382
155°	666	666	666	666	666	307
165°	700	703	700	703	700	198
175°	714	719	714	719	714	68
180°	719	719	719	719	719	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1705.8	1710.5	1705.8	1705.3	1700.2	1698.6	1696.5	1689.7	1677.2	1669.9	1671.4
5°	1868.8	1885.0	1875.9	1874.6	1860.3	1846.0	1836.8	1816.0	1793.8	1778.9	1766.4
7.5°	2057.2	2066.5	2060.9	2051.7	2028.5	2015.3	1994.2	1966.7	1927.0	1896.6	1868.9
10°	2185.4	2193.2	2190.7	2173.7	2156.7	2122.2	2102.6	2064.3	2014.0	1974.3	1937.1
12.5°	2311.6	2319.9	2297.0	2297.7	2265.7	2238.4	2207.4	2159.1	2101.1	2049.8	2003.4
15°	2476.1	2465.6	2465.6	2452.6	2416.7	2379.0	2347.0	2296.2	2223.2	2161.9	2097.4
17.5°	2604.8	2608.4	2603.1	2572.3	2544.2	2505.1	2446.6	2387.3	2319.5	2237.3	2171.3
20°	2681.9	2681.9	2676.1	2655.2	2618.8	2577.0	2513.9	2449.3	2363.3	2280.6	2206.3
22.5°	2713.2	2715.3	2708.4	2691.1	2658.3	2617.6	2563.8	2498.3	2409.7	2316.5	2224.5
25°	2670.2	2682.6	2683.9	2679.3	2669.6	2644.8	2598.5	2531.4	2451.9	2350.9	2251.8
27.5°	2451.6	2467.2	2480.9	2503.4	2533.4	2549.0	2551.1	2517.0	2447.6	2350.4	2250.7
30°	2233.6	2246.6	2289.1	2344.4	2387.4	2426.5	2460.4	2469.5	2430.4	2343.1	2238.2
32.5°	1991.8	2009.5	2051.8	2111.4	2183.0	2249.3	2325.3	2364.2	2363.1	2310.7	2213.7
35°	1644.6	1657.6	1696.8	1759.3	1845.3	1943.7	2064.3	2158.0	2221.9	2217.3	2158.0
37.5°	1326.3	1341.0	1380.5	1432.5	1515.9	1637.7	1754.4	1883.6	2001.7	2068.0	2048.1
40°	1153.3	1154.0	1192.4	1245.9	1324.0	1430.2	1557.3	1700.6	1832.2	1939.8	1960.6
42.5°	1016.7	1016.8	1042.3	1099.9	1156.2	1256.1	1377.4	1519.8	1673.8	1798.0	1853.2
45°	840.6	846.4	867.2	901.8	946.1	1030.8	1127.8	1260.2	1432.9	1580.1	1672.0
47.5°	711.8	720.4	733.7	761.9	797.1	853.6	933.9	1052.7	1193.2	1355.2	1485.9
50°	645.1	646.4	663.3	678.9	709.5	754.5	824.9	924.0	1052.9	1208.7	1354.0
52.5°	587.8	587.5	597.7	617.5	642.3	677.4	734.2	824.3	938.8	1078.4	1228.3
55°	501.7	505.0	512.8	528.4	547.3	572.1	617.1	684.9	774.8	894.0	1030.2
57.5°	436.3	438.0	444.1	450.7	468.1	486.1	519.8	566.8	642.7	740.4	867.2
60°	393.5	394.2	396.2	406.0	419.6	436.6	459.4	499.1	563.0	652.2	752.6
62.5°	351.9	353.0	356.0	363.2	373.7	385.5	409.3	441.3	494.2	570.4	660.8
65°	293.2	293.9	298.4	301.0	309.5	319.9	337.5	359.0	395.5	459.4	527.8
67.5°	245.0	245.0	245.2	248.7	254.7	261.6	272.1	289.3	316.8	356.0	416.3
70°	213.7	213.7	215.0	217.0	220.3	226.1	232.0	245.0	265.2	297.1	343.4
72.5°	184.5	185.0	186.3	186.7	188.4	193.2	197.6	205.9	220.9	245.0	282.4
75°	135.5	137.5	140.7	143.4	146.6	146.0	150.5	155.7	160.3	174.7	196.1
77.5°	100.9	99.8	100.2	102.5	102.8	103.5	106.7	110.7	114.1	120.9	128.7
80°	76.9	76.9	78.8	79.5	78.8	79.5	82.8	84.7	86.1	88.6	95.8
82.5°	58.2	59.2	58.5	59.2	59.6	60.2	63.0	63.3	64.7	65.7	68.7
85°	32.6	33.3	33.8	32.6	32.6	32.6	33.8	34.5	35.8	35.2	36.5
87.5°	14.7	14.1	14.6	14.5	15.0	14.4	14.8	15.6	14.5	14.9	14.7
90°	16.1	15.9	15.6	15.5	15.2	14.7	13.9	13.3	12.5	11.8	10.8
92.5°	14.8	14.8	14.7	14.7	14.6	14.2	13.6	12.8	12.2	11.4	10.5
95°	15.6	15.5	15.4	15.3	15.1	14.7	13.9	13.3	12.5	11.8	11.7
97.5°	15.1	14.9	14.8	14.7	14.6	14.5	14.4	14.3	14.2	14.2	27.5
100°	15.1	14.9	14.8	14.7	14.6	15.6	17.5	19.6	21.6	23.7	40.2
102.5°	15.5	15.5	15.5	15.5	15.4	26.3	48.3	70.1	92.1	114.0	116.1
105°	153.3	157.5	161.8	166.2	170.4	172.0	171.0	169.9	168.8	167.8	167.1
107.5°	213.6	213.1	212.6	212.2	211.7	211.2	210.8	210.2	209.7	209.2	208.3
110°	239.8	239.4	239.0	238.7	238.4	238.1	237.8	237.6	237.3	237.1	236.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	266.0	265.6	265.1	264.7	264.2	264.0	264.1	264.1	264.2	264.2	263.9
115°	304.3	304.3	304.3	304.3	304.3	304.2	304.0	303.7	303.5	303.2	303.3
117.5°	343.3	343.3	343.4	343.4	343.5	343.5	343.6	343.6	343.7	343.7	343.4
120°	367.8	368.0	368.3	368.4	368.7	368.7	368.4	368.3	368.0	367.8	367.9
122.5°	391.8	392.1	392.3	392.6	392.8	392.9	392.7	392.6	392.4	392.3	392.1
125°	428.0	427.8	427.7	427.6	427.5	427.3	426.9	426.5	426.2	425.8	426.0
127.5°	459.7	459.8	459.9	460.0	460.1	460.1	460.2	460.3	460.3	460.4	459.9
130°	481.2	481.2	481.2	481.2	481.2	481.2	481.0	480.9	480.8	480.7	480.3
132.5°	501.0	501.1	501.1	501.2	501.3	501.3	501.2	501.1	501.0	500.9	500.4
135°	530.7	530.5	530.2	529.9	529.7	529.4	529.2	529.0	528.8	528.5	528.0
137.5°	556.0	556.1	556.2	556.3	556.3	556.2	556.0	555.7	555.4	555.2	554.7
140°	573.6	573.5	573.4	573.3	573.2	573.0	572.6	572.2	571.8	571.6	571.3
142.5°	588.3	588.2	588.2	588.2	588.2	588.1	587.8	587.5	587.3	587.0	586.8
145°	610.8	610.6	610.3	610.0	609.8	609.6	609.5	609.4	609.3	609.2	609.2
147.5°	629.3	629.2	629.1	629.1	628.9	628.8	628.7	628.6	628.5	628.4	628.5
150°	641.4	641.3	641.2	641.0	640.9	640.8	640.8	640.8	640.8	640.8	641.0
152.5°	651.8	651.8	651.9	652.0	652.1	652.0	651.8	651.6	651.4	651.2	651.4
155°	665.6	666.0	666.3	666.7	667.0	666.9	666.5	666.0	665.5	665.1	665.4
157.5°	677.2	677.9	678.4	679.1	679.7	679.7	679.1	678.4	677.9	677.2	677.6
160°	684.9	685.7	686.4	687.1	687.9	687.9	687.1	686.4	685.7	684.9	685.0
162.5°	691.0	691.8	692.6	693.4	694.3	694.3	693.5	692.9	692.1	691.4	691.5
165°	699.5	700.6	701.6	702.7	703.8	703.9	702.9	701.9	701.0	700.0	700.0
167.5°	705.9	707.0	708.2	709.5	710.6	710.7	709.6	708.6	707.6	706.4	706.5
170°	709.7	710.9	712.1	713.3	714.4	714.6	713.6	712.7	711.7	710.8	710.7
172.5°	711.8	713.1	714.4	715.8	717.0	717.2	716.2	715.3	714.4	713.3	713.2
175°	714.5	716.0	717.4	718.9	720.3	720.5	719.3	718.3	717.2	716.1	716.0
177.5°	716.2	717.4	718.6	719.7	720.9	721.0	720.3	719.5	718.8	717.9	717.7
180°	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1666.2	1659.0	1655.3	1646.9	1637.0	1631.8	1627.1	1620.3	1611.5	1602.1	1595.3
5°	1750.8	1735.1	1715.6	1692.1	1671.3	1651.1	1633.5	1615.9	1595.7	1574.9	1554.1
7.5°	1837.6	1806.9	1773.6	1735.1	1697.8	1663.8	1632.5	1602.5	1568.6	1538.2	1510.6
10°	1898.1	1856.3	1810.1	1761.2	1712.3	1670.0	1628.3	1590.5	1548.8	1511.6	1480.4
12.5°	1947.1	1898.1	1842.4	1781.6	1722.8	1671.6	1623.6	1574.3	1526.9	1486.7	1444.9
15°	2028.4	1961.2	1886.3	1813.4	1737.1	1667.4	1602.9	1545.6	1491.5	1434.8	1395.1
17.5°	2084.2	2004.7	1913.5	1825.9	1735.8	1653.6	1579.1	1510.9	1448.5	1390.6	1343.3
20°	2117.6	2029.7	1928.7	1829.0	1728.0	1640.0	1559.9	1484.3	1419.8	1357.3	1308.3
22.5°	2136.4	2039.1	1928.7	1824.3	1719.7	1624.4	1536.4	1457.7	1387.5	1324.9	1270.8
25°	2142.4	2038.2	1925.4	1805.5	1690.8	1589.9	1498.6	1413.2	1335.1	1272.5	1215.2
27.5°	2134.1	2011.3	1895.8	1772.8	1654.5	1548.0	1452.3	1362.6	1284.3	1217.2	1158.4
30°	2121.6	1989.9	1866.1	1738.4	1618.5	1516.3	1415.2	1329.3	1247.7	1178.1	1118.8
32.5°	2094.4	1963.9	1830.7	1699.9	1578.4	1473.0	1377.1	1290.6	1210.8	1139.5	1076.6
35°	2040.8	1908.5	1763.9	1629.7	1510.3	1400.9	1311.0	1227.6	1151.3	1075.2	1008.6
37.5°	1970.0	1834.8	1691.0	1544.0	1424.7	1321.3	1238.8	1160.5	1086.1	1016.4	942.8
40°	1903.3	1780.1	1631.5	1485.6	1363.1	1263.4	1187.2	1116.2	1041.2	972.1	898.5
42.5°	1822.5	1717.6	1567.4	1421.0	1300.0	1204.0	1132.9	1063.5	995.3	928.4	851.6
45°	1687.6	1608.1	1467.4	1326.6	1204.8	1109.7	1044.5	983.3	923.3	859.4	787.1
47.5°	1533.0	1479.2	1357.7	1213.6	1100.9	1015.3	952.3	902.3	851.6	787.8	724.3
50°	1425.7	1391.1	1273.8	1142.3	1034.7	955.8	891.4	844.4	802.1	740.8	684.2
52.5°	1311.0	1292.6	1193.5	1067.7	963.8	886.6	831.4	789.2	746.3	695.5	642.4
55°	1136.3	1146.1	1062.1	953.3	855.5	790.4	740.2	705.0	668.5	625.6	584.5
57.5°	957.8	993.5	937.1	841.6	750.0	689.8	652.0	622.4	591.7	556.1	521.0
60°	850.9	880.9	849.0	765.0	684.9	628.8	593.6	570.8	540.2	507.6	480.9
62.5°	746.7	778.7	759.9	692.0	617.6	569.4	538.4	517.1	494.3	465.9	438.1
65°	615.8	636.6	627.5	580.6	527.8	486.7	458.1	442.4	421.6	400.8	376.0
67.5°	471.6	511.9	506.5	481.6	436.0	404.0	385.2	371.4	352.4	336.9	320.1
70°	387.7	424.8	424.1	404.0	379.2	349.2	336.2	324.5	307.6	292.6	278.9
72.5°	317.4	351.4	356.4	340.9	324.0	301.3	288.8	280.7	264.3	254.0	242.9
75°	222.2	246.9	253.4	253.4	245.6	233.9	222.8	217.6	205.9	196.8	190.3
77.5°	145.7	161.4	171.5	173.8	175.0	171.1	162.0	158.3	149.3	146.1	139.9
80°	102.9	113.4	125.1	129.0	132.2	131.0	127.1	124.4	116.0	112.7	110.1
82.5°	71.2	76.9	86.5	95.1	94.3	97.6	94.3	92.2	85.8	84.5	82.0
85°	37.1	37.8	39.1	45.0	48.3	49.5	50.1	48.8	46.9	46.9	42.3
87.5°	14.5	13.8	14.6	14.4	14.7	16.5	17.8	18.0	16.8	15.5	14.1
90°	9.9	9.0	8.0	6.9	5.6	4.2	2.9	1.6	2.9	4.2	5.6
92.5°	9.5	8.6	7.5	7.1	7.0	6.9	6.9	6.8	6.9	6.9	7.0
95°	11.6	11.5	11.3	13.3	17.3	21.5	25.5	29.6	25.5	21.5	17.3
97.5°	40.9	54.2	67.5	73.0	70.4	67.9	65.3	62.8	65.3	67.9	70.4
100°	56.6	73.1	89.6	96.8	94.6	92.5	90.3	88.1	90.3	92.5	94.6
102.5°	118.3	120.5	122.6	122.9	121.3	119.7	118.1	116.6	118.1	119.7	121.3
105°	166.5	166.0	165.3	164.7	164.0	163.2	162.6	161.8	162.6	163.2	164.0
107.5°	207.5	206.7	205.9	205.3	204.9	204.6	204.2	203.9	204.2	204.6	204.9
110°	235.6	235.0	234.2	233.7	233.4	233.0	232.6	232.2	232.6	233.0	233.4



TEST NUMBER: P332961-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	263.5	263.2	262.9	262.4	261.7	261.1	260.4	259.8	260.4	261.1	261.7
115°	303.5	303.6	303.7	303.6	303.2	302.8	302.6	302.2	302.6	302.8	303.2
117.5°	343.2	342.9	342.6	342.2	341.8	341.3	340.8	340.4	340.8	341.3	341.8
120°	368.0	368.2	368.3	368.1	367.6	367.1	366.6	366.2	366.6	367.1	367.6
122.5°	391.9	391.8	391.6	391.3	391.1	390.8	390.5	390.2	390.5	390.8	391.1
125°	426.3	426.5	426.8	426.7	426.2	425.7	425.2	424.7	425.2	425.7	426.2
127.5°	459.3	458.8	458.3	457.9	457.8	457.7	457.5	457.4	457.5	457.7	457.8
130°	479.9	479.6	479.2	479.0	478.9	478.7	478.6	478.5	478.6	478.7	478.9
132.5°	499.9	499.5	499.1	498.7	498.5	498.3	498.0	497.9	498.0	498.3	498.5
135°	527.5	527.1	526.6	526.4	526.5	526.7	526.8	526.9	526.8	526.7	526.5
137.5°	554.1	553.6	553.1	552.8	552.7	552.7	552.6	552.6	552.6	552.7	552.7
140°	571.1	570.8	570.5	570.3	570.0	569.9	569.6	569.4	569.6	569.9	570.0
142.5°	586.7	586.5	586.4	586.2	585.7	585.3	584.8	584.5	584.8	585.3	585.7
145°	609.2	609.2	609.2	609.0	608.6	608.2	607.9	607.6	607.9	608.2	608.6
147.5°	628.7	628.8	628.9	628.6	627.9	627.3	626.6	625.9	626.6	627.3	627.9
150°	641.1	641.2	641.4	641.2	640.7	640.3	639.7	639.2	639.7	640.3	640.7
152.5°	651.7	651.9	652.1	652.0	651.6	651.2	650.8	650.4	650.8	651.2	651.6
155°	665.8	666.2	666.5	666.7	666.5	666.4	666.3	666.2	666.3	666.4	666.5
157.5°	678.1	678.4	678.8	679.1	679.2	679.2	679.3	679.4	679.3	679.2	679.2
160°	685.2	685.3	685.4	685.7	686.1	686.4	686.7	687.1	686.7	686.4	686.1
162.5°	691.6	691.7	691.9	692.2	692.7	693.1	693.5	694.0	693.5	693.1	692.7
165°	700.0	700.0	700.0	700.3	700.9	701.5	702.1	702.7	702.1	701.5	700.9
167.5°	706.6	706.7	706.7	707.1	707.8	708.3	709.0	709.5	709.0	708.3	707.8
170°	710.5	710.4	710.3	710.6	711.3	712.0	712.8	713.5	712.8	712.0	711.3
172.5°	713.1	713.0	712.8	713.2	713.9	714.6	715.3	716.0	715.3	714.6	713.9
175°	716.0	715.8	715.7	716.0	716.7	717.4	718.1	718.9	718.1	717.4	716.7
177.5°	717.6	717.4	717.2	717.5	718.1	718.8	719.4	720.1	719.4	718.8	718.1
180°	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9



TEST NUMBER: P332961-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1588.0	1582.8	1576.0	1568.2	1558.9	1550.5	1546.9	1550.0	1551.5	1547.4	1546.9
5°	1539.7	1523.4	1510.3	1490.8	1475.2	1462.2	1453.0	1449.2	1450.4	1440.0	1437.4
7.5°	1485.4	1466.0	1444.7	1421.4	1399.9	1380.7	1370.6	1365.2	1354.2	1349.4	1341.5
10°	1450.4	1424.4	1403.5	1376.1	1351.4	1328.6	1317.5	1308.3	1297.3	1292.1	1281.0
12.5°	1414.5	1384.2	1361.3	1332.8	1307.6	1280.1	1269.5	1252.6	1235.3	1224.4	1210.1
15°	1363.8	1327.3	1299.3	1265.4	1235.4	1204.1	1176.1	1144.8	1133.1	1108.3	1094.0
17.5°	1304.5	1267.4	1232.8	1187.3	1141.0	1102.2	1072.3	1042.4	1024.4	1008.6	1001.4
20°	1265.4	1231.5	1183.3	1130.5	1079.0	1036.0	1011.9	992.4	972.8	961.8	953.9
22.5°	1228.3	1185.1	1129.1	1072.1	1020.7	987.0	966.6	946.5	930.6	920.0	909.6
25°	1166.3	1109.7	1050.4	985.2	950.0	920.7	898.5	882.2	872.5	858.8	853.6
27.5°	1102.6	1034.0	968.6	924.7	888.1	861.3	842.0	829.7	817.4	808.6	801.8
30°	1053.6	983.9	925.3	883.5	846.4	824.3	808.6	794.3	784.5	777.3	772.1
32.5°	1005.1	935.4	886.2	841.3	812.0	790.4	773.7	763.0	755.4	746.0	742.9
35°	935.0	873.1	830.1	789.8	759.8	740.2	727.2	716.0	709.5	707.0	705.0
37.5°	867.6	817.0	770.7	737.6	710.9	695.5	680.1	674.7	670.2	665.5	667.6
40°	824.9	777.3	736.3	701.1	679.6	662.7	653.6	647.1	643.1	643.1	643.1
42.5°	787.9	741.4	701.3	669.9	648.3	634.0	623.9	618.3	617.1	616.5	619.6
45°	730.5	687.4	647.1	620.9	602.8	588.3	582.5	578.0	578.0	580.6	581.2
47.5°	673.4	633.2	600.8	571.6	554.9	545.9	540.8	538.5	538.8	541.3	544.3
50°	638.6	598.8	566.8	540.8	525.2	516.7	512.2	510.9	512.2	512.2	516.7
52.5°	600.5	565.0	533.5	511.6	493.9	486.0	483.4	481.6	482.4	484.6	486.4
55°	544.7	512.8	482.9	461.9	448.9	443.7	437.9	438.5	437.2	438.5	438.5
57.5°	488.8	460.1	432.3	415.8	404.3	396.7	390.3	392.1	390.2	389.9	388.9
60°	452.9	421.6	399.4	384.5	371.4	364.9	359.0	360.3	358.4	357.0	354.5
62.5°	413.8	387.7	366.6	352.1	341.7	334.1	328.3	327.0	322.4	318.0	312.3
65°	357.0	335.5	316.7	303.0	293.2	287.4	282.8	278.9	269.1	258.6	253.4
67.5°	302.0	286.4	268.8	257.2	249.3	241.6	232.9	226.2	217.1	211.4	208.1
70°	266.5	251.5	236.5	225.5	217.0	209.8	200.0	195.5	189.0	186.3	183.1
72.5°	232.6	218.7	204.7	194.7	185.7	180.1	172.4	167.9	164.9	163.9	160.7
75°	181.2	170.0	159.7	150.5	143.4	139.4	136.2	132.9	131.6	125.7	122.5
77.5°	132.1	124.9	118.3	111.8	106.7	104.2	97.8	94.1	91.9	89.2	88.5
80°	102.9	97.7	91.2	87.3	80.1	77.6	74.9	74.3	73.6	73.0	72.3
82.5°	77.4	72.2	65.7	63.3	61.4	59.9	58.2	57.6	56.9	57.3	57.2
85°	39.1	36.5	36.5	35.8	35.2	34.5	33.8	33.8	33.3	33.8	33.3
87.5°	14.4	14.1	14.3	13.5	14.1	14.3	13.9	14.1	14.8	13.9	13.9
90°	6.9	8.0	9.0	9.9	10.8	11.8	12.5	13.3	13.9	14.7	15.2
92.5°	7.1	7.5	8.6	9.5	10.5	11.4	12.2	12.8	13.6	14.2	14.6
95°	13.3	11.3	11.5	11.6	11.7	11.8	12.5	13.3	13.9	14.7	15.1
97.5°	73.0	67.5	54.2	40.9	27.5	14.2	14.2	14.3	14.4	14.5	14.6
100°	96.8	89.6	73.1	56.6	40.2	23.7	21.6	19.6	17.5	15.6	14.6
102.5°	122.9	122.6	120.5	118.3	116.1	114.0	92.1	70.1	48.3	26.3	15.4
105°	164.7	165.3	166.0	166.5	167.1	167.8	168.8	169.9	171.0	172.0	170.4
107.5°	205.3	205.9	206.7	207.5	208.3	209.2	209.7	210.2	210.8	211.2	211.7
110°	233.7	234.2	235.0	235.6	236.4	237.1	237.3	237.6	237.8	238.1	238.4



TEST NUMBER: P332961-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	262.4	262.9	263.2	263.5	263.9	264.2	264.2	264.1	264.1	264.0	264.2
115°	303.6	303.7	303.6	303.5	303.3	303.2	303.5	303.7	304.0	304.2	304.3
117.5°	342.2	342.6	342.9	343.2	343.4	343.7	343.7	343.6	343.6	343.5	343.5
120°	368.1	368.3	368.2	368.0	367.9	367.8	368.0	368.3	368.4	368.7	368.7
122.5°	391.3	391.6	391.8	391.9	392.1	392.3	392.4	392.6	392.7	392.9	392.8
125°	426.7	426.8	426.5	426.3	426.0	425.8	426.2	426.5	426.9	427.3	427.5
127.5°	457.9	458.3	458.8	459.3	459.9	460.4	460.3	460.3	460.2	460.1	460.1
130°	479.0	479.2	479.6	479.9	480.3	480.7	480.8	480.9	481.0	481.2	481.2
132.5°	498.7	499.1	499.5	499.9	500.4	500.9	501.0	501.1	501.2	501.3	501.3
135°	526.4	526.6	527.1	527.5	528.0	528.5	528.8	529.0	529.2	529.4	529.7
137.5°	552.8	553.1	553.6	554.1	554.7	555.2	555.4	555.7	556.0	556.2	556.3
140°	570.3	570.5	570.8	571.1	571.3	571.6	571.8	572.2	572.6	573.0	573.2
142.5°	586.2	586.4	586.5	586.7	586.8	587.0	587.3	587.5	587.8	588.1	588.2
145°	609.0	609.2	609.2	609.2	609.2	609.2	609.3	609.4	609.5	609.6	609.8
147.5°	628.6	628.9	628.8	628.7	628.5	628.4	628.5	628.6	628.7	628.8	628.9
150°	641.2	641.4	641.2	641.1	641.0	640.8	640.8	640.8	640.8	640.8	640.9
152.5°	652.0	652.1	651.9	651.7	651.4	651.2	651.4	651.6	651.8	652.0	652.1
155°	666.7	666.5	666.2	665.8	665.4	665.1	665.5	666.0	666.5	666.9	667.0
157.5°	679.1	678.8	678.4	678.1	677.6	677.2	677.9	678.4	679.1	679.7	679.7
160°	685.7	685.4	685.3	685.2	685.0	684.9	685.7	686.4	687.1	687.9	687.9
162.5°	692.2	691.9	691.7	691.6	691.5	691.4	692.1	692.9	693.5	694.3	694.3
165°	700.3	700.0	700.0	700.0	700.0	700.0	701.0	701.9	702.9	703.9	703.8
167.5°	707.1	706.7	706.7	706.6	706.5	706.4	707.6	708.6	709.6	710.7	710.6
170°	710.6	710.3	710.4	710.5	710.7	710.8	711.7	712.7	713.6	714.6	714.4
172.5°	713.2	712.8	713.0	713.1	713.2	713.3	714.4	715.3	716.2	717.2	717.0
175°	716.0	715.7	715.8	716.0	716.0	716.1	717.2	718.3	719.3	720.5	720.3
177.5°	717.5	717.2	717.4	717.6	717.7	717.9	718.8	719.5	720.3	721.0	720.9
180°	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9



TEST NUMBER: P332961-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1543.7	1544.7	1541.2	1540.1	1541.2	1544.7	1543.7	1546.9	1547.4	1551.5	1550.0
5°	1432.2	1430.9	1427.6	1428.2	1427.6	1430.9	1432.2	1437.4	1440.0	1450.4	1449.2
7.5°	1336.8	1331.7	1333.1	1327.9	1333.1	1331.7	1336.8	1341.5	1349.4	1354.2	1365.2
10°	1278.4	1271.2	1265.4	1260.2	1265.4	1271.2	1278.4	1281.0	1292.1	1297.3	1308.3
12.5°	1198.6	1192.5	1184.6	1186.2	1184.6	1192.5	1198.6	1210.1	1224.4	1235.3	1252.6
15°	1085.5	1075.7	1060.2	1062.1	1060.2	1075.7	1085.5	1094.0	1108.3	1133.1	1144.8
17.5°	989.8	989.9	982.7	984.4	982.7	989.9	989.8	1001.4	1008.6	1024.4	1042.4
20°	940.3	935.7	936.3	934.3	936.3	935.7	940.3	953.9	961.8	972.8	992.4
22.5°	905.9	900.2	895.7	891.6	895.7	900.2	905.9	909.6	920.0	930.6	946.5
25°	847.7	843.8	837.9	836.6	837.9	843.8	847.7	853.6	858.8	872.5	882.2
27.5°	796.6	795.9	793.5	790.5	793.5	795.9	796.6	801.8	808.6	817.4	829.7
30°	766.9	765.6	764.3	762.3	764.3	765.6	766.9	772.1	777.3	784.5	794.3
32.5°	740.4	739.5	738.2	738.4	738.2	739.5	740.4	742.9	746.0	755.4	763.0
35°	702.4	701.7	700.5	699.8	700.5	701.7	702.4	705.0	707.0	709.5	716.0
37.5°	666.9	668.6	667.9	667.7	667.9	668.6	666.9	667.6	665.5	670.2	674.7
40°	642.4	643.1	644.4	643.8	644.4	643.1	642.4	643.1	643.1	643.1	647.1
42.5°	622.2	622.3	624.1	621.9	624.1	622.3	622.2	619.6	616.5	617.1	618.3
45°	585.8	589.7	589.0	589.0	589.0	589.7	585.8	581.2	580.6	578.0	578.0
47.5°	546.0	549.4	550.4	550.2	550.4	549.4	546.0	544.3	541.3	538.8	538.5
50°	520.0	518.7	520.7	520.0	520.7	518.7	520.0	516.7	512.2	512.2	510.9
52.5°	488.1	488.4	488.3	487.7	488.3	488.4	488.1	486.4	484.6	482.4	481.6
55°	439.1	439.8	438.5	439.1	438.5	439.8	439.1	438.5	438.5	437.2	438.5
57.5°	386.0	382.9	384.2	382.6	384.2	382.9	386.0	388.9	389.9	390.2	392.1
60°	348.0	342.7	341.4	338.8	341.4	342.7	348.0	354.5	357.0	358.4	360.3
62.5°	305.2	301.5	297.1	299.2	297.1	301.5	305.2	312.3	318.0	322.4	327.0
65°	248.3	245.6	243.6	246.3	243.6	245.6	248.3	253.4	258.6	269.1	278.9
67.5°	205.5	204.1	204.1	202.7	204.1	204.1	205.5	208.1	211.4	217.1	226.2
70°	183.1	181.2	181.2	179.8	181.2	181.2	183.1	183.1	186.3	189.0	195.5
72.5°	160.1	158.2	158.7	158.0	158.7	158.2	160.1	160.7	163.9	164.9	167.9
75°	118.6	115.4	115.4	116.0	115.4	115.4	118.6	122.5	125.7	131.6	132.9
77.5°	88.5	87.8	88.8	87.6	88.8	87.8	88.5	88.5	89.2	91.9	94.1
80°	72.3	71.6	71.1	73.0	71.1	71.6	72.3	72.3	73.0	73.6	74.3
82.5°	56.2	56.1	55.9	58.3	55.9	56.1	56.2	57.2	57.3	56.9	57.6
85°	33.8	32.6	33.8	32.6	33.8	32.6	33.8	33.3	33.8	33.3	33.8
87.5°	15.1	14.6	14.1	14.7	14.1	14.6	15.1	13.9	13.9	14.8	14.1
90°	15.5	15.6	15.9	16.1	15.9	15.6	15.5	15.2	14.7	13.9	13.3
92.5°	14.7	14.7	14.8	14.8	14.8	14.7	14.7	14.6	14.2	13.6	12.8
95°	15.3	15.4	15.5	15.6	15.5	15.4	15.3	15.1	14.7	13.9	13.3
97.5°	14.7	14.8	14.9	15.1	14.9	14.8	14.7	14.6	14.5	14.4	14.3
100°	14.7	14.8	14.9	15.1	14.9	14.8	14.7	14.6	15.6	17.5	19.6
102.5°	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.4	26.3	48.3	70.1
105°	166.2	161.8	157.5	153.3	157.5	161.8	166.2	170.4	172.0	171.0	169.9
107.5°	212.2	212.6	213.1	213.6	213.1	212.6	212.2	211.7	211.2	210.8	210.2
110°	238.7	239.0	239.4	239.8	239.4	239.0	238.7	238.4	238.1	237.8	237.6



TEST NUMBER: P332961-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	264.7	265.1	265.6	266.0	265.6	265.1	264.7	264.2	264.0	264.1	264.1
115°	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.2	304.0	303.7
117.5°	343.4	343.4	343.3	343.3	343.3	343.4	343.4	343.5	343.5	343.6	343.6
120°	368.4	368.3	368.0	367.8	368.0	368.3	368.4	368.7	368.7	368.4	368.3
122.5°	392.6	392.3	392.1	391.8	392.1	392.3	392.6	392.8	392.9	392.7	392.6
125°	427.6	427.7	427.8	428.0	427.8	427.7	427.6	427.5	427.3	426.9	426.5
127.5°	460.0	459.9	459.8	459.7	459.8	459.9	460.0	460.1	460.1	460.2	460.3
130°	481.2	481.2	481.2	481.2	481.2	481.2	481.2	481.2	481.2	481.0	480.9
132.5°	501.2	501.1	501.1	501.0	501.1	501.1	501.2	501.3	501.3	501.2	501.1
135°	529.9	530.2	530.5	530.7	530.5	530.2	529.9	529.7	529.4	529.2	529.0
137.5°	556.3	556.2	556.1	556.0	556.1	556.2	556.3	556.3	556.2	556.0	555.7
140°	573.3	573.4	573.5	573.6	573.5	573.4	573.3	573.2	573.0	572.6	572.2
142.5°	588.2	588.2	588.2	588.3	588.2	588.2	588.2	588.2	588.1	587.8	587.5
145°	610.0	610.3	610.6	610.8	610.6	610.3	610.0	609.8	609.6	609.5	609.4
147.5°	629.1	629.1	629.2	629.3	629.2	629.1	629.1	628.9	628.8	628.7	628.6
150°	641.0	641.2	641.3	641.4	641.3	641.2	641.0	640.9	640.8	640.8	640.8
152.5°	652.0	651.9	651.8	651.8	651.8	651.9	652.0	652.1	652.0	651.8	651.6
155°	666.7	666.3	666.0	665.6	666.0	666.3	666.7	667.0	666.9	666.5	666.0
157.5°	679.1	678.4	677.9	677.2	677.9	678.4	679.1	679.7	679.7	679.1	678.4
160°	687.1	686.4	685.7	684.9	685.7	686.4	687.1	687.9	687.9	687.1	686.4
162.5°	693.4	692.6	691.8	691.0	691.8	692.6	693.4	694.3	694.3	693.5	692.9
165°	702.7	701.6	700.6	699.5	700.6	701.6	702.7	703.8	703.9	702.9	701.9
167.5°	709.5	708.2	707.0	705.9	707.0	708.2	709.5	710.6	710.7	709.6	708.6
170°	713.3	712.1	710.9	709.7	710.9	712.1	713.3	714.4	714.6	713.6	712.7
172.5°	715.8	714.4	713.1	711.8	713.1	714.4	715.8	717.0	717.2	716.2	715.3
175°	718.9	717.4	716.0	714.5	716.0	717.4	718.9	720.3	720.5	719.3	718.3
177.5°	719.7	718.6	717.4	716.2	717.4	718.6	719.7	720.9	721.0	720.3	719.5
180°	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9



TEST NUMBER: P332961-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1546.9	1550.5	1558.9	1568.2	1576.0	1582.8	1588.0	1595.3	1602.1	1611.5	1620.3
5°	1453.0	1462.2	1475.2	1490.8	1510.3	1523.4	1539.7	1554.1	1574.9	1595.7	1615.9
7.5°	1370.6	1380.7	1399.9	1421.4	1444.7	1466.0	1485.4	1510.6	1538.2	1568.6	1602.5
10°	1317.5	1328.6	1351.4	1376.1	1403.5	1424.4	1450.4	1480.4	1511.6	1548.8	1590.5
12.5°	1269.5	1280.1	1307.6	1332.8	1361.3	1384.2	1414.5	1444.9	1486.7	1526.9	1574.3
15°	1176.1	1204.1	1235.4	1265.4	1299.3	1327.3	1363.8	1395.1	1434.8	1491.5	1545.6
17.5°	1072.3	1102.2	1141.0	1187.3	1232.8	1267.4	1304.5	1343.3	1390.6	1448.5	1510.9
20°	1011.9	1036.0	1079.0	1130.5	1183.3	1231.5	1265.4	1308.3	1357.3	1419.8	1484.3
22.5°	966.6	987.0	1020.7	1072.1	1129.1	1185.1	1228.3	1270.8	1324.9	1387.5	1457.7
25°	898.5	920.7	950.0	985.2	1050.4	1109.7	1166.3	1215.2	1272.5	1335.1	1413.2
27.5°	842.0	861.3	888.1	924.7	968.6	1034.0	1102.6	1158.4	1217.2	1284.3	1362.6
30°	808.6	824.3	846.4	883.5	925.3	983.9	1053.6	1118.8	1178.1	1247.7	1329.3
32.5°	773.7	790.4	812.0	841.3	886.2	935.4	1005.1	1076.6	1139.5	1210.8	1290.6
35°	727.2	740.2	759.8	789.8	830.1	873.1	935.0	1008.6	1075.2	1151.3	1227.6
37.5°	680.1	695.5	710.9	737.6	770.7	817.0	867.6	942.8	1016.4	1086.1	1160.5
40°	653.6	662.7	679.6	701.1	736.3	777.3	824.9	898.5	972.1	1041.2	1116.2
42.5°	623.9	634.0	648.3	669.9	701.3	741.4	787.9	851.6	928.4	995.3	1063.5
45°	582.5	588.3	602.8	620.9	647.1	687.4	730.5	787.1	859.4	923.3	983.3
47.5°	540.8	545.9	554.9	571.6	600.8	633.2	673.4	724.3	787.8	851.6	902.3
50°	512.2	516.7	525.2	540.8	566.8	598.8	638.6	684.2	740.8	802.1	844.4
52.5°	483.4	486.0	493.9	511.6	533.5	565.0	600.5	642.4	695.5	746.3	789.2
55°	437.9	443.7	448.9	461.9	482.9	512.8	544.7	584.5	625.6	668.5	705.0
57.5°	390.3	396.7	404.3	415.8	432.3	460.1	488.8	521.0	556.1	591.7	622.4
60°	359.0	364.9	371.4	384.5	399.4	421.6	452.9	480.9	507.6	540.2	570.8
62.5°	328.3	334.1	341.7	352.1	366.6	387.7	413.8	438.1	465.9	494.3	517.1
65°	282.8	287.4	293.2	303.0	316.7	335.5	357.0	376.0	400.8	421.6	442.4
67.5°	232.9	241.6	249.3	257.2	268.8	286.4	302.0	320.1	336.9	352.4	371.4
70°	200.0	209.8	217.0	225.5	236.5	251.5	266.5	278.9	292.6	307.6	324.5
72.5°	172.4	180.1	185.7	194.7	204.7	218.7	232.6	242.9	254.0	264.3	280.7
75°	136.2	139.4	143.4	150.5	159.7	170.0	181.2	190.3	196.8	205.9	217.6
77.5°	97.8	104.2	106.7	111.8	118.3	124.9	132.1	139.9	146.1	149.3	158.3
80°	74.9	77.6	80.1	87.3	91.2	97.7	102.9	110.1	112.7	116.0	124.4
82.5°	58.2	59.9	61.4	63.3	65.7	72.2	77.4	82.0	84.5	85.8	92.2
85°	33.8	34.5	35.2	35.8	36.5	36.5	39.1	42.3	46.9	46.9	48.8
87.5°	13.9	14.3	14.1	13.5	14.3	14.1	14.4	14.1	15.5	16.8	18.0
90°	12.5	11.8	10.8	9.9	9.0	8.0	6.9	5.6	4.2	2.9	1.6
92.5°	12.2	11.4	10.5	9.5	8.6	7.5	7.1	7.0	6.9	6.9	6.8
95°	12.5	11.8	11.7	11.6	11.5	11.3	13.3	17.3	21.5	25.5	29.6
97.5°	14.2	14.2	27.5	40.9	54.2	67.5	73.0	70.4	67.9	65.3	62.8
100°	21.6	23.7	40.2	56.6	73.1	89.6	96.8	94.6	92.5	90.3	88.1
102.5°	92.1	114.0	116.1	118.3	120.5	122.6	122.9	121.3	119.7	118.1	116.6
105°	168.8	167.8	167.1	166.5	166.0	165.3	164.7	164.0	163.2	162.6	161.8
107.5°	209.7	209.2	208.3	207.5	206.7	205.9	205.3	204.9	204.6	204.2	203.9
110°	237.3	237.1	236.4	235.6	235.0	234.2	233.7	233.4	233.0	232.6	232.2



TEST NUMBER: P332961-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	264.2	264.2	263.9	263.5	263.2	262.9	262.4	261.7	261.1	260.4	259.8
115°	303.5	303.2	303.3	303.5	303.6	303.7	303.6	303.2	302.8	302.6	302.2
117.5°	343.7	343.7	343.4	343.2	342.9	342.6	342.2	341.8	341.3	340.8	340.4
120°	368.0	367.8	367.9	368.0	368.2	368.3	368.1	367.6	367.1	366.6	366.2
122.5°	392.4	392.3	392.1	391.9	391.8	391.6	391.3	391.1	390.8	390.5	390.2
125°	426.2	425.8	426.0	426.3	426.5	426.8	426.7	426.2	425.7	425.2	424.7
127.5°	460.3	460.4	459.9	459.3	458.8	458.3	457.9	457.8	457.7	457.5	457.4
130°	480.8	480.7	480.3	479.9	479.6	479.2	479.0	478.9	478.7	478.6	478.5
132.5°	501.0	500.9	500.4	499.9	499.5	499.1	498.7	498.5	498.3	498.0	497.9
135°	528.8	528.5	528.0	527.5	527.1	526.6	526.4	526.5	526.7	526.8	526.9
137.5°	555.4	555.2	554.7	554.1	553.6	553.1	552.8	552.7	552.7	552.6	552.6
140°	571.8	571.6	571.3	571.1	570.8	570.5	570.3	570.0	569.9	569.6	569.4
142.5°	587.3	587.0	586.8	586.7	586.5	586.4	586.2	585.7	585.3	584.8	584.5
145°	609.3	609.2	609.2	609.2	609.2	609.2	609.0	608.6	608.2	607.9	607.6
147.5°	628.5	628.4	628.5	628.7	628.8	628.9	628.6	627.9	627.3	626.6	625.9
150°	640.8	640.8	641.0	641.1	641.2	641.4	641.2	640.7	640.3	639.7	639.2
152.5°	651.4	651.2	651.4	651.7	651.9	652.1	652.0	651.6	651.2	650.8	650.4
155°	665.5	665.1	665.4	665.8	666.2	666.5	666.7	666.5	666.4	666.3	666.2
157.5°	677.9	677.2	677.6	678.1	678.4	678.8	679.1	679.2	679.2	679.3	679.4
160°	685.7	684.9	685.0	685.2	685.3	685.4	685.7	686.1	686.4	686.7	687.1
162.5°	692.1	691.4	691.5	691.6	691.7	691.9	692.2	692.7	693.1	693.5	694.0
165°	701.0	700.0	700.0	700.0	700.0	700.0	700.3	700.9	701.5	702.1	702.7
167.5°	707.6	706.4	706.5	706.6	706.7	706.7	707.1	707.8	708.3	709.0	709.5
170°	711.7	710.8	710.7	710.5	710.4	710.3	710.6	711.3	712.0	712.8	713.5
172.5°	714.4	713.3	713.2	713.1	713.0	712.8	713.2	713.9	714.6	715.3	716.0
175°	717.2	716.1	716.0	716.0	715.8	715.7	716.0	716.7	717.4	718.1	718.9
177.5°	718.8	717.9	717.7	717.6	717.4	717.2	717.5	718.1	718.8	719.4	720.1
180°	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9



TEST NUMBER: P332961-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1627.1	1631.8	1637.0	1646.9	1655.3	1659.0	1666.2	1671.4	1669.9	1677.2	1689.7
5°	1633.5	1651.1	1671.3	1692.1	1715.6	1735.1	1750.8	1766.4	1778.9	1793.8	1816.0
7.5°	1632.5	1663.8	1697.8	1735.1	1773.6	1806.9	1837.6	1868.9	1896.6	1927.0	1966.7
10°	1628.3	1670.0	1712.3	1761.2	1810.1	1856.3	1898.1	1937.1	1974.3	2014.0	2064.3
12.5°	1623.6	1671.6	1722.8	1781.6	1842.4	1898.1	1947.1	2003.4	2049.8	2101.1	2159.1
15°	1602.9	1667.4	1737.1	1813.4	1886.3	1961.2	2028.4	2097.4	2161.9	2223.2	2296.2
17.5°	1579.1	1653.6	1735.8	1825.9	1913.5	2004.7	2084.2	2171.3	2237.3	2319.5	2387.3
20°	1559.9	1640.0	1728.0	1829.0	1928.7	2029.7	2117.6	2206.3	2280.6	2363.3	2449.3
22.5°	1536.4	1624.4	1719.7	1824.3	1928.7	2039.1	2136.4	2224.5	2316.5	2409.7	2498.3
25°	1498.6	1589.9	1690.8	1805.5	1925.4	2038.2	2142.4	2251.8	2350.9	2451.9	2531.4
27.5°	1452.3	1548.0	1654.5	1772.8	1895.8	2011.3	2134.1	2250.7	2350.4	2447.6	2517.0
30°	1415.2	1516.3	1618.5	1738.4	1866.1	1989.9	2121.6	2238.2	2343.1	2430.4	2469.5
32.5°	1377.1	1473.0	1578.4	1699.9	1830.7	1963.9	2094.4	2213.7	2310.7	2363.1	2364.2
35°	1311.0	1400.9	1510.3	1629.7	1763.9	1908.5	2040.8	2158.0	2217.3	2221.9	2158.0
37.5°	1238.8	1321.3	1424.7	1544.0	1691.0	1834.8	1970.0	2048.1	2068.0	2001.7	1883.6
40°	1187.2	1263.4	1363.1	1485.6	1631.5	1780.1	1903.3	1960.6	1939.8	1832.2	1700.6
42.5°	1132.9	1204.0	1300.0	1421.0	1567.4	1717.6	1822.5	1853.2	1798.0	1673.8	1519.8
45°	1044.5	1109.7	1204.8	1326.6	1467.4	1608.1	1687.6	1672.0	1580.1	1432.9	1260.2
47.5°	952.3	1015.3	1100.9	1213.6	1357.7	1479.2	1533.0	1485.9	1355.2	1193.2	1052.7
50°	891.4	955.8	1034.7	1142.3	1273.8	1391.1	1425.7	1354.0	1208.7	1052.9	924.0
52.5°	831.4	886.6	963.8	1067.7	1193.5	1292.6	1311.0	1228.3	1078.4	938.8	824.3
55°	740.2	790.4	855.5	953.3	1062.1	1146.1	1136.3	1030.2	894.0	774.8	684.9
57.5°	652.0	689.8	750.0	841.6	937.1	993.5	957.8	867.2	740.4	642.7	566.8
60°	593.6	628.8	684.9	765.0	849.0	880.9	850.9	752.6	652.2	563.0	499.1
62.5°	538.4	569.4	617.6	692.0	759.9	778.7	746.7	660.8	570.4	494.2	441.3
65°	458.1	486.7	527.8	580.6	627.5	636.6	615.8	527.8	459.4	395.5	359.0
67.5°	385.2	404.0	436.0	481.6	506.5	511.9	471.6	416.3	356.0	316.8	289.3
70°	336.2	349.2	379.2	404.0	424.1	424.8	387.7	343.4	297.1	265.2	245.0
72.5°	288.8	301.3	324.0	340.9	356.4	351.4	317.4	282.4	245.0	220.9	205.9
75°	222.8	233.9	245.6	253.4	253.4	246.9	222.2	196.1	174.7	160.3	155.7
77.5°	162.0	171.1	175.0	173.8	171.5	161.4	145.7	128.7	120.9	114.1	110.7
80°	127.1	131.0	132.2	129.0	125.1	113.4	102.9	95.8	88.6	86.1	84.7
82.5°	94.3	97.6	94.3	95.1	86.5	76.9	71.2	68.7	65.7	64.7	63.3
85°	50.1	49.5	48.3	45.0	39.1	37.8	37.1	36.5	35.2	35.8	34.5
87.5°	17.8	16.5	14.7	14.4	14.6	13.8	14.5	14.7	14.9	14.5	15.6
90°	2.9	4.2	5.6	6.9	8.0	9.0	9.9	10.8	11.8	12.5	13.3
92.5°	6.9	6.9	7.0	7.1	7.5	8.6	9.5	10.5	11.4	12.2	12.8
95°	25.5	21.5	17.3	13.3	11.3	11.5	11.6	11.7	11.8	12.5	13.3
97.5°	65.3	67.9	70.4	73.0	67.5	54.2	40.9	27.5	14.2	14.2	14.3
100°	90.3	92.5	94.6	96.8	89.6	73.1	56.6	40.2	23.7	21.6	19.6
102.5°	118.1	119.7	121.3	122.9	122.6	120.5	118.3	116.1	114.0	92.1	70.1
105°	162.6	163.2	164.0	164.7	165.3	166.0	166.5	167.1	167.8	168.8	169.9
107.5°	204.2	204.6	204.9	205.3	205.9	206.7	207.5	208.3	209.2	209.7	210.2
110°	232.6	233.0	233.4	233.7	234.2	235.0	235.6	236.4	237.1	237.3	237.6



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	260.4	261.1	261.7	262.4	262.9	263.2	263.5	263.9	264.2	264.2	264.1
115°	302.6	302.8	303.2	303.6	303.7	303.6	303.5	303.3	303.2	303.5	303.7
117.5°	340.8	341.3	341.8	342.2	342.6	342.9	343.2	343.4	343.7	343.7	343.6
120°	366.6	367.1	367.6	368.1	368.3	368.2	368.0	367.9	367.8	368.0	368.3
122.5°	390.5	390.8	391.1	391.3	391.6	391.8	391.9	392.1	392.3	392.4	392.6
125°	425.2	425.7	426.2	426.7	426.8	426.5	426.3	426.0	425.8	426.2	426.5
127.5°	457.5	457.7	457.8	457.9	458.3	458.8	459.3	459.9	460.4	460.3	460.3
130°	478.6	478.7	478.9	479.0	479.2	479.6	479.9	480.3	480.7	480.8	480.9
132.5°	498.0	498.3	498.5	498.7	499.1	499.5	499.9	500.4	500.9	501.0	501.1
135°	526.8	526.7	526.5	526.4	526.6	527.1	527.5	528.0	528.5	528.8	529.0
137.5°	552.6	552.7	552.7	552.8	553.1	553.6	554.1	554.7	555.2	555.4	555.7
140°	569.6	569.9	570.0	570.3	570.5	570.8	571.1	571.3	571.6	571.8	572.2
142.5°	584.8	585.3	585.7	586.2	586.4	586.5	586.7	586.8	587.0	587.3	587.5
145°	607.9	608.2	608.6	609.0	609.2	609.2	609.2	609.2	609.2	609.3	609.4
147.5°	626.6	627.3	627.9	628.6	628.9	628.8	628.7	628.5	628.4	628.5	628.6
150°	639.7	640.3	640.7	641.2	641.4	641.2	641.1	641.0	640.8	640.8	640.8
152.5°	650.8	651.2	651.6	652.0	652.1	651.9	651.7	651.4	651.2	651.4	651.6
155°	666.3	666.4	666.5	666.7	666.5	666.2	665.8	665.4	665.1	665.5	666.0
157.5°	679.3	679.2	679.2	679.1	678.8	678.4	678.1	677.6	677.2	677.9	678.4
160°	686.7	686.4	686.1	685.7	685.4	685.3	685.2	685.0	684.9	685.7	686.4
162.5°	693.5	693.1	692.7	692.2	691.9	691.7	691.6	691.5	691.4	692.1	692.9
165°	702.1	701.5	700.9	700.3	700.0	700.0	700.0	700.0	700.0	701.0	701.9
167.5°	709.0	708.3	707.8	707.1	706.7	706.7	706.6	706.5	706.4	707.6	708.6
170°	712.8	712.0	711.3	710.6	710.3	710.4	710.5	710.7	710.8	711.7	712.7
172.5°	715.3	714.6	713.9	713.2	712.8	713.0	713.1	713.2	713.3	714.4	715.3
175°	718.1	717.4	716.7	716.0	715.7	715.8	716.0	716.0	716.1	717.2	718.3
177.5°	719.4	718.8	718.1	717.5	717.2	717.4	717.6	717.7	717.9	718.8	719.5
180°	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9	718.9



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2	1617.2
2.5°	1696.5	1698.6	1700.2	1705.3	1705.8	1710.5	1705.8
5°	1836.8	1846.0	1860.3	1874.6	1875.9	1885.0	1868.8
7.5°	1994.2	2015.3	2028.5	2051.7	2060.9	2066.5	2057.2
10°	2102.6	2122.2	2156.7	2173.7	2190.7	2193.2	2185.4
12.5°	2207.4	2238.4	2265.7	2297.7	2297.0	2319.9	2311.6
15°	2347.0	2379.0	2416.7	2452.6	2465.6	2465.6	2476.1
17.5°	2446.6	2505.1	2544.2	2572.3	2603.1	2608.4	2604.8
20°	2513.9	2577.0	2618.8	2655.2	2676.1	2681.9	2681.9
22.5°	2563.8	2617.6	2658.3	2691.1	2708.4	2715.3	2713.2
25°	2598.5	2644.8	2669.6	2679.3	2683.9	2682.6	2670.2
27.5°	2551.1	2549.0	2533.4	2503.4	2480.9	2467.2	2451.6
30°	2460.4	2426.5	2387.4	2344.4	2289.1	2246.6	2233.6
32.5°	2325.3	2249.3	2183.0	2111.4	2051.8	2009.5	1991.8
35°	2064.3	1943.7	1845.3	1759.3	1696.8	1657.6	1644.6
37.5°	1754.4	1637.7	1515.9	1432.5	1380.5	1341.0	1326.3
40°	1557.3	1430.2	1324.0	1245.9	1192.4	1154.0	1153.3
42.5°	1377.4	1256.1	1156.2	1099.9	1042.3	1016.8	1016.7
45°	1127.8	1030.8	946.1	901.8	867.2	846.4	840.6
47.5°	933.9	853.6	797.1	761.9	733.7	720.4	711.8
50°	824.9	754.5	709.5	678.9	663.3	646.4	645.1
52.5°	734.2	677.4	642.3	617.5	597.7	587.5	587.8
55°	617.1	572.1	547.3	528.4	512.8	505.0	501.7
57.5°	519.8	486.1	468.1	450.7	444.1	438.0	436.3
60°	459.4	436.6	419.6	406.0	396.2	394.2	393.5
62.5°	409.3	385.5	373.7	363.2	356.0	353.0	351.9
65°	337.5	319.9	309.5	301.0	298.4	293.9	293.2
67.5°	272.1	261.6	254.7	248.7	245.2	245.0	245.0
70°	232.0	226.1	220.3	217.0	215.0	213.7	213.7
72.5°	197.6	193.2	188.4	186.7	186.3	185.0	184.5
75°	150.5	146.0	146.6	143.4	140.7	137.5	135.5
77.5°	106.7	103.5	102.8	102.5	100.2	99.8	100.9
80°	82.8	79.5	78.8	79.5	78.8	76.9	76.9
82.5°	63.0	60.2	59.6	59.2	58.5	59.2	58.2
85°	33.8	32.6	32.6	32.6	33.8	33.3	32.6
87.5°	14.8	14.4	15.0	14.5	14.6	14.1	14.7
90°	13.9	14.7	15.2	15.5	15.6	15.9	16.1
92.5°	13.6	14.2	14.6	14.7	14.7	14.8	14.8
95°	13.9	14.7	15.1	15.3	15.4	15.5	15.6
97.5°	14.4	14.5	14.6	14.7	14.8	14.9	15.1
100°	17.5	15.6	14.6	14.7	14.8	14.9	15.1
102.5°	48.3	26.3	15.4	15.5	15.5	15.5	15.5
105°	171.0	172.0	170.4	166.2	161.8	157.5	153.3
107.5°	210.8	211.2	211.7	212.2	212.6	213.1	213.6
110°	237.8	238.1	238.4	238.7	239.0	239.4	239.8



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	264.1	264.0	264.2	264.7	265.1	265.6	266.0
115°	304.0	304.2	304.3	304.3	304.3	304.3	304.3
117.5°	343.6	343.5	343.5	343.4	343.4	343.3	343.3
120°	368.4	368.7	368.7	368.4	368.3	368.0	367.8
122.5°	392.7	392.9	392.8	392.6	392.3	392.1	391.8
125°	426.9	427.3	427.5	427.6	427.7	427.8	428.0
127.5°	460.2	460.1	460.1	460.0	459.9	459.8	459.7
130°	481.0	481.2	481.2	481.2	481.2	481.2	481.2
132.5°	501.2	501.3	501.3	501.2	501.1	501.1	501.0
135°	529.2	529.4	529.7	529.9	530.2	530.5	530.7
137.5°	556.0	556.2	556.3	556.3	556.2	556.1	556.0
140°	572.6	573.0	573.2	573.3	573.4	573.5	573.6
142.5°	587.8	588.1	588.2	588.2	588.2	588.2	588.3
145°	609.5	609.6	609.8	610.0	610.3	610.6	610.8
147.5°	628.7	628.8	628.9	629.1	629.1	629.2	629.3
150°	640.8	640.8	640.9	641.0	641.2	641.3	641.4
152.5°	651.8	652.0	652.1	652.0	651.9	651.8	651.8
155°	666.5	666.9	667.0	666.7	666.3	666.0	665.6
157.5°	679.1	679.7	679.7	679.1	678.4	677.9	677.2
160°	687.1	687.9	687.9	687.1	686.4	685.7	684.9
162.5°	693.5	694.3	694.3	693.4	692.6	691.8	691.0
165°	702.9	703.9	703.8	702.7	701.6	700.6	699.5
167.5°	709.6	710.7	710.6	709.5	708.2	707.0	705.9
170°	713.6	714.6	714.4	713.3	712.1	710.9	709.7
172.5°	716.2	717.2	717.0	715.8	714.4	713.1	711.8
175°	719.3	720.5	720.3	718.9	717.4	716.0	714.5
177.5°	720.3	721.0	720.9	719.7	718.6	717.4	716.2
180°	718.9	718.9	718.9	718.9	718.9	718.9	718.9

(END OF REPORT)