

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: P332963-830

Luminaire Tested: **SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332963-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
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-A4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1020 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6079.9 lumens
Efficiency: N/A
Efficacy: 124.6 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

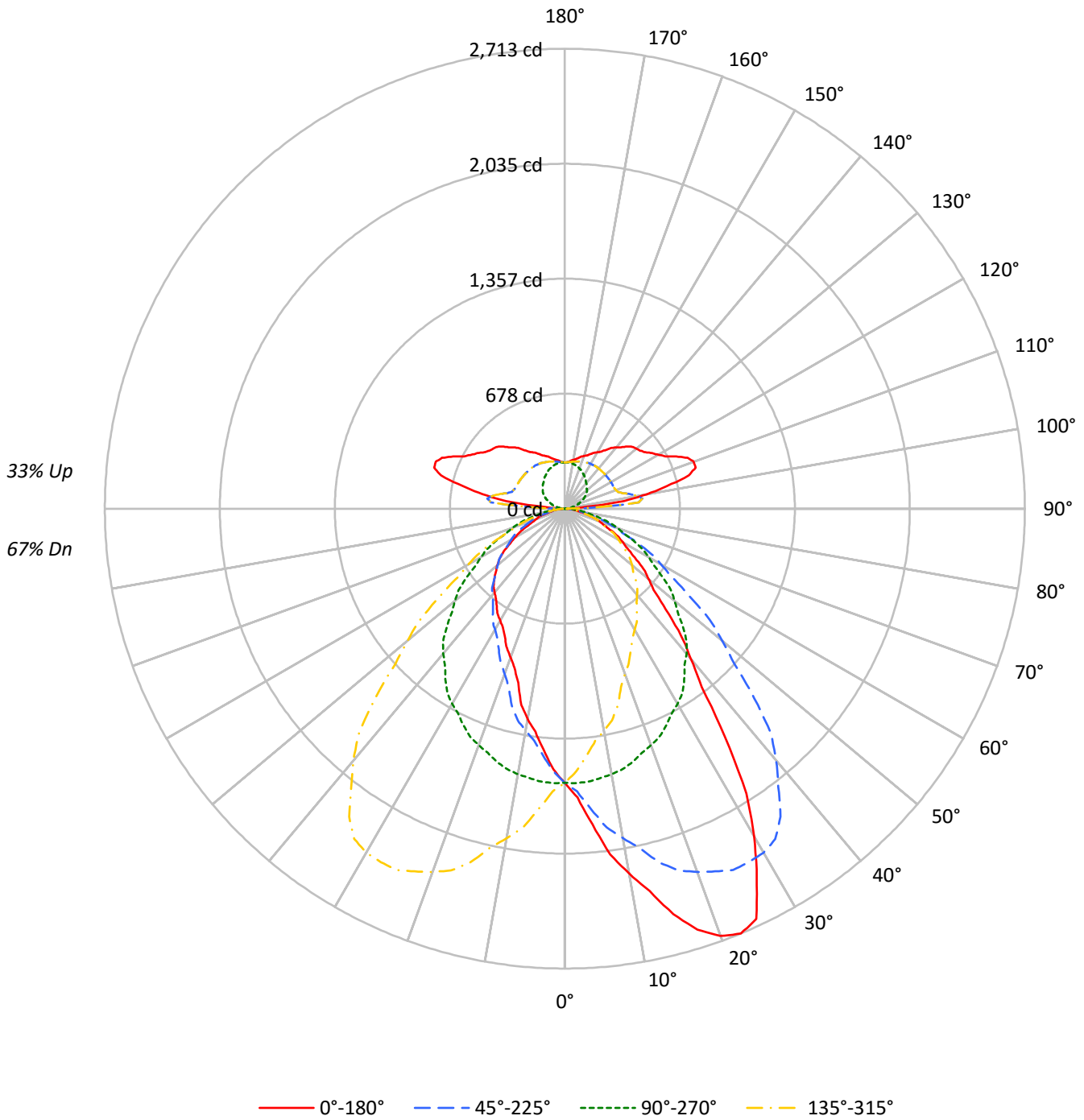
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67				
1	102	98	94	91	96	93	89	86	83	80	78	73	71	70	65	63	62	58				
2	94	86	80	75	88	82	76	72	73	69	65	65	62	59	58	55	53	50				
3	86	76	69	64	81	73	66	61	65	60	56	58	54	51	52	49	46	43				
4	79	68	60	54	74	65	58	52	58	53	48	52	48	44	46	43	40	37				
5	73	61	53	47	68	58	51	45	52	46	42	47	42	39	42	38	35	32				
6	67	55	47	41	63	52	45	40	47	41	37	43	38	34	38	34	31	29				
7	62	50	42	36	59	48	40	35	43	37	33	39	34	30	35	31	28	26				
8	58	46	38	32	55	44	36	31	40	34	29	36	31	27	32	28	25	23				
9	54	42	34	29	51	40	33	28	36	31	26	33	28	25	30	26	23	21				
10	51	38	31	26	48	37	30	26	34	28	24	31	26	22	28	24	21	19				

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	2.6
10°-20°	472.7	7.8
20°-30°	739.3	12.2
30°-40°	821.9	13.5
40°-50°	729.2	12.0
50°-60°	568.2	9.3
60°-70°	372.0	6.1
70°-80°	182.9	3.0
80°-90°	46.7	0.8
90°-100°	197.7	3.3
100°-110°	411.4	6.8
110°-120°	368.5	6.1
120°-130°	310.0	5.1
130°-140°	258.4	4.3
140°-150°	197.4	3.2
150°-160°	138.8	2.3
160°-170°	81.6	1.3
170°-180°	26.6	0.4
0°-30°	1368.7	22.5
0°-40°	2190.5	36.0
0°-60°	3487.9	57.4
0°-90°	4089.5	67.3
90°-120°	977.6	16.1
90°-150°	1743.4	28.7
90°-180°	1990.0	32.7
0°-180°	6079.9	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°	11	1	11	1	11	11
95°	131	18	131	18	131	204
105°	756	63	756	63	756	748
115°	726	111	726	111	726	721
125°	580	154	580	154	580	527
135°	518	183	518	183	518	400
145°	423	211	423	211	423	268
155°	354	240	354	240	354	165
165°	309	262	309	262	309	89
175°	278	273	278	273	278	27
180°	274	274	274	274	274	



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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°	13.8	13.2	13.9	13.8	14.1	13.6	14.0	15.0	13.9	14.4	14.2
90°	11.3	11.3	11.8	11.3	10.7	10.7	10.2	9.7	9.1	9.7	8.6
92.5°	41.4	41.4	43.3	46.1	52.5	63.2	79.5	105.6	142.0	170.5	149.3
95°	131.2	138.2	147.9	164.6	190.9	243.0	315.1	398.4	450.5	438.2	330.6
97.5°	350.6	361.8	378.0	410.4	448.9	505.1	557.7	588.6	566.1	461.6	309.5
100°	493.0	497.4	513.5	546.3	593.0	632.8	659.2	648.5	570.0	432.3	280.7
102.5°	616.9	620.4	637.3	661.1	689.8	706.4	698.8	645.5	537.6	395.8	261.3
105°	756.5	759.7	767.2	771.6	770.5	748.5	695.2	602.2	479.1	352.7	244.7
107.5°	808.3	806.9	801.5	789.3	762.7	714.8	639.8	540.8	431.8	328.7	241.7
110°	809.2	804.4	794.7	772.1	734.0	674.8	596.8	503.8	408.1	320.5	242.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	783.8	776.0	762.4	735.1	691.7	632.6	558.9	476.7	394.7	316.6	245.1
115°	726.4	722.1	704.9	672.6	630.2	578.5	515.7	449.5	382.3	314.5	250.1
117.5°	668.3	664.9	647.4	620.4	584.1	540.4	490.9	436.1	376.7	314.0	255.2
120°	635.6	629.6	615.7	592.0	561.3	523.1	480.1	430.2	373.7	314.0	259.2
122.5°	609.7	603.8	592.0	571.7	545.8	512.4	473.3	425.0	370.2	313.6	263.1
125°	579.6	576.4	566.2	550.5	529.0	499.5	462.4	416.1	364.6	312.9	268.8
127.5°	561.9	558.7	550.2	536.3	514.6	486.6	449.6	405.4	356.9	311.7	273.4
130°	551.7	548.5	539.8	526.4	504.4	475.8	439.3	396.8	352.1	311.3	276.9
132.5°	540.1	536.8	528.7	513.5	491.8	463.4	427.6	387.8	347.9	310.9	279.9
135°	518.3	515.1	506.5	491.4	470.0	443.0	410.3	375.3	341.4	310.2	284.5
137.5°	491.4	487.6	480.5	465.6	445.5	421.2	393.6	364.0	335.8	310.1	287.1
140°	472.1	467.8	460.2	448.5	429.6	407.0	382.9	357.5	332.8	309.7	289.3
142.5°	451.4	448.5	441.8	430.7	414.2	394.5	373.8	351.6	330.3	309.7	291.0
145°	423.1	420.5	415.1	406.0	392.5	377.5	361.3	343.0	325.8	308.6	292.0
147.5°	398.1	397.1	393.0	385.2	375.3	363.4	350.5	336.0	321.9	306.7	292.5
150°	383.9	383.3	380.1	373.2	364.6	354.9	344.1	331.8	318.9	305.4	292.5
152.5°	371.0	370.4	368.5	362.8	355.5	347.5	337.6	327.0	315.4	303.2	291.6
155°	354.3	354.3	352.7	348.5	343.0	336.6	328.5	319.9	310.2	300.0	290.3
157.5°	339.7	339.7	338.7	335.5	331.4	326.2	319.5	312.3	305.0	296.7	289.0
160°	330.6	330.6	330.2	326.9	323.7	319.3	313.5	307.6	301.1	294.1	287.7
162.5°	322.1	322.5	322.0	318.8	316.4	312.5	307.8	302.8	297.7	291.5	286.3
165°	309.2	309.7	310.2	308.1	305.9	303.2	299.4	296.2	292.0	287.7	283.9
167.5°	299.0	299.4	299.4	298.1	297.0	295.4	292.4	289.9	286.8	283.8	281.3
170°	292.5	292.5	293.0	292.5	291.4	289.8	287.7	286.1	283.3	281.2	279.6
172.5°	286.1	286.9	287.5	286.9	286.3	285.1	283.8	282.6	280.3	278.6	277.9
175°	278.5	279.6	280.7	279.6	279.6	279.6	278.5	278.0	276.9	275.8	275.8
177.5°	274.1	274.9	275.8	275.4	275.8	275.4	275.4	274.9	274.6	274.1	274.1
180°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7



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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°	14.0	13.5	13.9	13.9	14.3	16.3	17.5	17.8	16.5	15.3	13.8
90°	7.5	7.5	4.3	4.3	3.8	3.2	1.6	0.6	1.6	3.2	3.8
92.5°	108.6	66.9	39.6	28.4	20.5	13.9	9.0	6.1	9.0	13.9	20.5
95°	202.2	114.0	67.2	44.6	31.8	24.7	19.3	17.7	19.3	24.7	31.8
97.5°	181.7	109.0	73.0	54.0	42.9	36.5	31.9	31.9	31.9	36.5	42.9
100°	171.0	110.2	78.5	61.3	51.1	44.6	40.9	40.9	40.9	44.6	51.1
102.5°	168.0	114.5	85.8	69.5	59.7	53.6	50.3	49.5	50.3	53.6	59.7
105°	169.4	124.7	99.0	83.3	73.7	67.2	64.6	62.9	64.6	67.2	73.7
107.5°	177.3	136.7	113.0	97.6	88.4	81.5	78.8	77.8	78.8	81.5	88.4
110°	183.3	145.7	122.1	107.5	97.8	91.4	88.7	87.7	88.7	91.4	97.8



TEST NUMBER: P332963-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	189.8	154.3	131.5	117.0	107.4	101.3	98.2	97.1	98.2	101.3	107.4
115°	200.0	167.8	146.3	131.8	121.5	116.1	112.4	110.7	112.4	116.1	121.5
117.5°	210.5	180.8	160.3	145.2	135.7	129.8	126.5	125.0	126.5	129.8	135.7
120°	217.7	189.8	169.4	154.3	145.2	139.2	135.5	134.4	135.5	139.2	145.2
122.5°	224.6	198.4	178.0	163.3	153.4	147.9	144.1	143.0	144.1	147.9	153.4
125°	235.0	210.2	190.9	175.8	165.6	159.7	156.5	154.3	156.5	159.7	165.6
127.5°	243.9	221.2	202.5	187.3	176.6	169.9	166.1	164.3	166.1	169.9	176.6
130°	249.5	228.5	210.2	194.6	184.5	176.3	172.0	169.9	172.0	176.3	184.5
132.5°	255.1	234.5	216.2	201.5	190.5	182.9	177.2	175.5	177.2	182.9	190.5
135°	262.4	243.0	225.3	211.3	200.0	190.9	185.5	183.3	185.5	190.9	200.0
137.5°	267.6	249.5	232.9	219.6	207.8	199.2	193.2	191.2	193.2	199.2	207.8
140°	271.0	253.8	237.6	224.7	213.5	204.3	198.4	196.8	198.4	204.3	213.5
142.5°	273.5	257.7	242.0	229.5	218.6	209.9	204.4	202.8	204.4	209.9	218.6
145°	276.4	261.8	247.9	236.0	225.8	218.3	212.9	211.3	212.9	218.3	225.8
147.5°	278.8	266.2	253.1	242.4	233.8	226.1	221.4	220.8	221.4	226.1	233.8
150°	280.1	268.3	256.5	246.3	238.2	231.8	227.4	226.9	227.4	231.8	238.2
152.5°	281.0	270.0	259.5	250.2	242.9	236.9	232.6	232.5	232.6	236.9	242.9
155°	281.7	272.6	263.4	255.4	249.5	244.1	240.9	240.3	240.9	244.1	249.5
157.5°	281.7	274.5	266.6	260.3	255.1	251.0	248.0	248.0	248.0	251.0	255.1
160°	281.7	275.3	268.8	262.9	258.6	254.9	252.7	252.7	252.7	254.9	258.6
162.5°	281.7	276.2	270.1	265.5	261.6	258.3	256.6	257.0	256.6	258.3	261.6
165°	280.7	276.4	271.5	268.3	265.6	262.9	261.8	261.8	261.8	262.9	265.6
167.5°	279.4	276.3	272.7	270.2	268.7	266.6	266.2	266.6	266.2	266.6	268.7
170°	278.5	275.8	273.1	271.5	270.4	268.8	268.3	268.8	268.3	268.8	270.4
172.5°	277.7	275.4	273.5	272.4	271.7	270.5	270.4	271.0	270.4	270.5	271.7
175°	276.4	274.8	273.7	273.7	273.1	272.6	272.6	273.1	272.6	272.6	273.1
177.5°	274.9	274.1	273.7	273.7	273.7	273.2	273.7	274.1	273.7	273.2	273.7
180°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7



TEST NUMBER: P332963-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A4

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°	13.9	13.4	14.0	13.0	13.7	13.9	13.3	13.4	14.0	13.1	13.1
90°	4.3	4.3	7.5	7.5	8.6	9.7	9.1	9.7	10.2	10.7	10.7
92.5°	28.4	39.6	66.9	108.6	149.3	170.5	142.0	105.6	79.5	63.2	52.5
95°	44.6	67.2	114.0	202.2	330.6	438.2	450.5	398.4	315.1	243.0	190.9
97.5°	54.0	73.0	109.0	181.7	309.5	461.6	566.1	588.6	557.7	505.1	448.9
100°	61.3	78.5	110.2	171.0	280.7	432.3	570.0	648.5	659.2	632.8	593.0
102.5°	69.5	85.8	114.5	168.0	261.3	395.8	537.6	645.5	698.8	706.4	689.8
105°	83.3	99.0	124.7	169.4	244.7	352.7	479.1	602.2	695.2	748.5	770.5
107.5°	97.6	113.0	136.7	177.3	241.7	328.7	431.8	540.8	639.8	714.8	762.7
110°	107.5	122.1	145.7	183.3	242.5	320.5	408.1	503.8	596.8	674.8	734.0



TEST NUMBER: P332963-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	117.0	131.5	154.3	189.8	245.1	316.6	394.7	476.7	558.9	632.6	691.7
115°	131.8	146.3	167.8	200.0	250.1	314.5	382.3	449.5	515.7	578.5	630.2
117.5°	145.2	160.3	180.8	210.5	255.2	314.0	376.7	436.1	490.9	540.4	584.1
120°	154.3	169.4	189.8	217.7	259.2	314.0	373.7	430.2	480.1	523.1	561.3
122.5°	163.3	178.0	198.4	224.6	263.1	313.6	370.2	425.0	473.3	512.4	545.8
125°	175.8	190.9	210.2	235.0	268.8	312.9	364.6	416.1	462.4	499.5	529.0
127.5°	187.3	202.5	221.2	243.9	273.4	311.7	356.9	405.4	449.6	486.6	514.6
130°	194.6	210.2	228.5	249.5	276.9	311.3	352.1	396.8	439.3	475.8	504.4
132.5°	201.5	216.2	234.5	255.1	279.9	310.9	347.9	387.8	427.6	463.4	491.8
135°	211.3	225.3	243.0	262.4	284.5	310.2	341.4	375.3	410.3	443.0	470.0
137.5°	219.6	232.9	249.5	267.6	287.1	310.1	335.8	364.0	393.6	421.2	445.5
140°	224.7	237.6	253.8	271.0	289.3	309.7	332.8	357.5	382.9	407.0	429.6
142.5°	229.5	242.0	257.7	273.5	291.0	309.7	330.3	351.6	373.8	394.5	414.2
145°	236.0	247.9	261.8	276.4	292.0	308.6	325.8	343.0	361.3	377.5	392.5
147.5°	242.4	253.1	266.2	278.8	292.5	306.7	321.9	336.0	350.5	363.4	375.3
150°	246.3	256.5	268.3	280.1	292.5	305.4	318.9	331.8	344.1	354.9	364.6
152.5°	250.2	259.5	270.0	281.0	291.6	303.2	315.4	327.0	337.6	347.5	355.5
155°	255.4	263.4	272.6	281.7	290.3	300.0	310.2	319.9	328.5	336.6	343.0
157.5°	260.3	266.6	274.5	281.7	289.0	296.7	305.0	312.3	319.5	326.2	331.4
160°	262.9	268.8	275.3	281.7	287.7	294.1	301.1	307.6	313.5	319.3	323.7
162.5°	265.5	270.1	276.2	281.7	286.3	291.5	297.7	302.8	307.8	312.5	316.4
165°	268.3	271.5	276.4	280.7	283.9	287.7	292.0	296.2	299.4	303.2	305.9
167.5°	270.2	272.7	276.3	279.4	281.3	283.8	286.8	289.9	292.4	295.4	297.0
170°	271.5	273.1	275.8	278.5	279.6	281.2	283.3	286.1	287.7	289.8	291.4
172.5°	272.4	273.5	275.4	277.7	277.9	278.6	280.3	282.6	283.8	285.1	286.3
175°	273.7	273.7	274.8	276.4	275.8	275.8	276.9	278.0	278.5	279.6	279.6
177.5°	273.7	273.7	274.1	274.9	274.1	274.1	274.6	274.9	275.4	275.4	275.8
180°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7



TEST NUMBER: P332963-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A4

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°	14.2	13.9	13.2	13.8	13.2	13.9	14.2	13.1	13.1	14.0	13.4
90°	11.3	11.8	11.3	11.3	11.3	11.8	11.3	10.7	10.7	10.2	9.7
92.5°	46.1	43.3	41.4	41.4	41.4	43.3	46.1	52.5	63.2	79.5	105.6
95°	164.6	147.9	138.2	131.2	138.2	147.9	164.6	190.9	243.0	315.1	398.4
97.5°	410.4	378.0	361.8	350.6	361.8	378.0	410.4	448.9	505.1	557.7	588.6
100°	546.3	513.5	497.4	493.0	497.4	513.5	546.3	593.0	632.8	659.2	648.5
102.5°	661.1	637.3	620.4	616.9	620.4	637.3	661.1	689.8	706.4	698.8	645.5
105°	771.6	767.2	759.7	756.5	759.7	767.2	771.6	770.5	748.5	695.2	602.2
107.5°	789.3	801.5	806.9	808.3	806.9	801.5	789.3	762.7	714.8	639.8	540.8
110°	772.1	794.7	804.4	809.2	804.4	794.7	772.1	734.0	674.8	596.8	503.8



TEST NUMBER: P332963-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	735.1	762.4	776.0	783.8	776.0	762.4	735.1	691.7	632.6	558.9	476.7
115°	672.6	704.9	722.1	726.4	722.1	704.9	672.6	630.2	578.5	515.7	449.5
117.5°	620.4	647.4	664.9	668.3	664.9	647.4	620.4	584.1	540.4	490.9	436.1
120°	592.0	615.7	629.6	635.6	629.6	615.7	592.0	561.3	523.1	480.1	430.2
122.5°	571.7	592.0	603.8	609.7	603.8	592.0	571.7	545.8	512.4	473.3	425.0
125°	550.5	566.2	576.4	579.6	576.4	566.2	550.5	529.0	499.5	462.4	416.1
127.5°	536.3	550.2	558.7	561.9	558.7	550.2	536.3	514.6	486.6	449.6	405.4
130°	526.4	539.8	548.5	551.7	548.5	539.8	526.4	504.4	475.8	439.3	396.8
132.5°	513.5	528.7	536.8	540.1	536.8	528.7	513.5	491.8	463.4	427.6	387.8
135°	491.4	506.5	515.1	518.3	515.1	506.5	491.4	470.0	443.0	410.3	375.3
137.5°	465.6	480.5	487.6	491.4	487.6	480.5	465.6	445.5	421.2	393.6	364.0
140°	448.5	460.2	467.8	472.1	467.8	460.2	448.5	429.6	407.0	382.9	357.5
142.5°	430.7	441.8	448.5	451.4	448.5	441.8	430.7	414.2	394.5	373.8	351.6
145°	406.0	415.1	420.5	423.1	420.5	415.1	406.0	392.5	377.5	361.3	343.0
147.5°	385.2	393.0	397.1	398.1	397.1	393.0	385.2	375.3	363.4	350.5	336.0
150°	373.2	380.1	383.3	383.9	383.3	380.1	373.2	364.6	354.9	344.1	331.8
152.5°	362.8	368.5	370.4	371.0	370.4	368.5	362.8	355.5	347.5	337.6	327.0
155°	348.5	352.7	354.3	354.3	354.3	352.7	348.5	343.0	336.6	328.5	319.9
157.5°	335.5	338.7	339.7	339.7	339.7	338.7	335.5	331.4	326.2	319.5	312.3
160°	326.9	330.2	330.6	330.6	330.6	330.2	326.9	323.7	319.3	313.5	307.6
162.5°	318.8	322.0	322.5	322.1	322.5	322.0	318.8	316.4	312.5	307.8	302.8
165°	308.1	310.2	309.7	309.2	309.7	310.2	308.1	305.9	303.2	299.4	296.2
167.5°	298.1	299.4	299.4	299.0	299.4	299.4	298.1	297.0	295.4	292.4	289.9
170°	292.5	293.0	292.5	292.5	292.5	293.0	292.5	291.4	289.8	287.7	286.1
172.5°	286.9	287.5	286.9	286.1	286.9	287.5	286.9	286.3	285.1	283.8	282.6
175°	279.6	280.7	279.6	278.5	279.6	280.7	279.6	279.6	279.6	278.5	278.0
177.5°	275.4	275.8	274.9	274.1	274.9	275.8	275.4	275.8	275.4	275.4	274.9
180°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7



TEST NUMBER: P332963-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A4

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°	13.3	13.9	13.7	13.0	14.0	13.4	13.9	13.8	15.3	16.5	17.8
90°	9.1	9.7	8.6	7.5	7.5	4.3	4.3	3.8	3.2	1.6	0.6
92.5°	142.0	170.5	149.3	108.6	66.9	39.6	28.4	20.5	13.9	9.0	6.1
95°	450.5	438.2	330.6	202.2	114.0	67.2	44.6	31.8	24.7	19.3	17.7
97.5°	566.1	461.6	309.5	181.7	109.0	73.0	54.0	42.9	36.5	31.9	31.9
100°	570.0	432.3	280.7	171.0	110.2	78.5	61.3	51.1	44.6	40.9	40.9
102.5°	537.6	395.8	261.3	168.0	114.5	85.8	69.5	59.7	53.6	50.3	49.5
105°	479.1	352.7	244.7	169.4	124.7	99.0	83.3	73.7	67.2	64.6	62.9
107.5°	431.8	328.7	241.7	177.3	136.7	113.0	97.6	88.4	81.5	78.8	77.8
110°	408.1	320.5	242.5	183.3	145.7	122.1	107.5	97.8	91.4	88.7	87.7



TEST NUMBER: P332963-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	394.7	316.6	245.1	189.8	154.3	131.5	117.0	107.4	101.3	98.2	97.1
115°	382.3	314.5	250.1	200.0	167.8	146.3	131.8	121.5	116.1	112.4	110.7
117.5°	376.7	314.0	255.2	210.5	180.8	160.3	145.2	135.7	129.8	126.5	125.0
120°	373.7	314.0	259.2	217.7	189.8	169.4	154.3	145.2	139.2	135.5	134.4
122.5°	370.2	313.6	263.1	224.6	198.4	178.0	163.3	153.4	147.9	144.1	143.0
125°	364.6	312.9	268.8	235.0	210.2	190.9	175.8	165.6	159.7	156.5	154.3
127.5°	356.9	311.7	273.4	243.9	221.2	202.5	187.3	176.6	169.9	166.1	164.3
130°	352.1	311.3	276.9	249.5	228.5	210.2	194.6	184.5	176.3	172.0	169.9
132.5°	347.9	310.9	279.9	255.1	234.5	216.2	201.5	190.5	182.9	177.2	175.5
135°	341.4	310.2	284.5	262.4	243.0	225.3	211.3	200.0	190.9	185.5	183.3
137.5°	335.8	310.1	287.1	267.6	249.5	232.9	219.6	207.8	199.2	193.2	191.2
140°	332.8	309.7	289.3	271.0	253.8	237.6	224.7	213.5	204.3	198.4	196.8
142.5°	330.3	309.7	291.0	273.5	257.7	242.0	229.5	218.6	209.9	204.4	202.8
145°	325.8	308.6	292.0	276.4	261.8	247.9	236.0	225.8	218.3	212.9	211.3
147.5°	321.9	306.7	292.5	278.8	266.2	253.1	242.4	233.8	226.1	221.4	220.8
150°	318.9	305.4	292.5	280.1	268.3	256.5	246.3	238.2	231.8	227.4	226.9
152.5°	315.4	303.2	291.6	281.0	270.0	259.5	250.2	242.9	236.9	232.6	232.5
155°	310.2	300.0	290.3	281.7	272.6	263.4	255.4	249.5	244.1	240.9	240.3
157.5°	305.0	296.7	289.0	281.7	274.5	266.6	260.3	255.1	251.0	248.0	248.0
160°	301.1	294.1	287.7	281.7	275.3	268.8	262.9	258.6	254.9	252.7	252.7
162.5°	297.7	291.5	286.3	281.7	276.2	270.1	265.5	261.6	258.3	256.6	257.0
165°	292.0	287.7	283.9	280.7	276.4	271.5	268.3	265.6	262.9	261.8	261.8
167.5°	286.8	283.8	281.3	279.4	276.3	272.7	270.2	268.7	266.6	266.2	266.6
170°	283.3	281.2	279.6	278.5	275.8	273.1	271.5	270.4	268.8	268.3	268.8
172.5°	280.3	278.6	277.9	277.7	275.4	273.5	272.4	271.7	270.5	270.4	271.0
175°	276.9	275.8	275.8	276.4	274.8	273.7	273.7	273.1	272.6	272.6	273.1
177.5°	274.6	274.1	274.1	274.9	274.1	273.7	273.7	273.7	273.2	273.7	274.1
180°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7



TEST NUMBER: P332963-830

CATALOG NUMBER: SA4XXRDIP-C1020D590U830-4F0-1E-UDD-A4

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°	17.5	16.3	14.3	13.9	13.9	13.5	14.0	14.2	14.4	13.9	15.0
90°	1.6	3.2	3.8	4.3	4.3	7.5	7.5	8.6	9.7	9.1	9.7
92.5°	9.0	13.9	20.5	28.4	39.6	66.9	108.6	149.3	170.5	142.0	105.6
95°	19.3	24.7	31.8	44.6	67.2	114.0	202.2	330.6	438.2	450.5	398.4
97.5°	31.9	36.5	42.9	54.0	73.0	109.0	181.7	309.5	461.6	566.1	588.6
100°	40.9	44.6	51.1	61.3	78.5	110.2	171.0	280.7	432.3	570.0	648.5
102.5°	50.3	53.6	59.7	69.5	85.8	114.5	168.0	261.3	395.8	537.6	645.5
105°	64.6	67.2	73.7	83.3	99.0	124.7	169.4	244.7	352.7	479.1	602.2
107.5°	78.8	81.5	88.4	97.6	113.0	136.7	177.3	241.7	328.7	431.8	540.8
110°	88.7	91.4	97.8	107.5	122.1	145.7	183.3	242.5	320.5	408.1	503.8



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	98.2	101.3	107.4	117.0	131.5	154.3	189.8	245.1	316.6	394.7	476.7
115°	112.4	116.1	121.5	131.8	146.3	167.8	200.0	250.1	314.5	382.3	449.5
117.5°	126.5	129.8	135.7	145.2	160.3	180.8	210.5	255.2	314.0	376.7	436.1
120°	135.5	139.2	145.2	154.3	169.4	189.8	217.7	259.2	314.0	373.7	430.2
122.5°	144.1	147.9	153.4	163.3	178.0	198.4	224.6	263.1	313.6	370.2	425.0
125°	156.5	159.7	165.6	175.8	190.9	210.2	235.0	268.8	312.9	364.6	416.1
127.5°	166.1	169.9	176.6	187.3	202.5	221.2	243.9	273.4	311.7	356.9	405.4
130°	172.0	176.3	184.5	194.6	210.2	228.5	249.5	276.9	311.3	352.1	396.8
132.5°	177.2	182.9	190.5	201.5	216.2	234.5	255.1	279.9	310.9	347.9	387.8
135°	185.5	190.9	200.0	211.3	225.3	243.0	262.4	284.5	310.2	341.4	375.3
137.5°	193.2	199.2	207.8	219.6	232.9	249.5	267.6	287.1	310.1	335.8	364.0
140°	198.4	204.3	213.5	224.7	237.6	253.8	271.0	289.3	309.7	332.8	357.5
142.5°	204.4	209.9	218.6	229.5	242.0	257.7	273.5	291.0	309.7	330.3	351.6
145°	212.9	218.3	225.8	236.0	247.9	261.8	276.4	292.0	308.6	325.8	343.0
147.5°	221.4	226.1	233.8	242.4	253.1	266.2	278.8	292.5	306.7	321.9	336.0
150°	227.4	231.8	238.2	246.3	256.5	268.3	280.1	292.5	305.4	318.9	331.8
152.5°	232.6	236.9	242.9	250.2	259.5	270.0	281.0	291.6	303.2	315.4	327.0
155°	240.9	244.1	249.5	255.4	263.4	272.6	281.7	290.3	300.0	310.2	319.9
157.5°	248.0	251.0	255.1	260.3	266.6	274.5	281.7	289.0	296.7	305.0	312.3
160°	252.7	254.9	258.6	262.9	268.8	275.3	281.7	287.7	294.1	301.1	307.6
162.5°	256.6	258.3	261.6	265.5	270.1	276.2	281.7	286.3	291.5	297.7	302.8
165°	261.8	262.9	265.6	268.3	271.5	276.4	280.7	283.9	287.7	292.0	296.2
167.5°	266.2	266.6	268.7	270.2	272.7	276.3	279.4	281.3	283.8	286.8	289.9
170°	268.3	268.8	270.4	271.5	273.1	275.8	278.5	279.6	281.2	283.3	286.1
172.5°	270.4	270.5	271.7	272.4	273.5	275.4	277.7	277.9	278.6	280.3	282.6
175°	272.6	272.6	273.1	273.7	273.7	274.8	276.4	275.8	275.8	276.9	278.0
177.5°	273.7	273.2	273.7	273.7	273.7	274.1	274.9	274.1	274.1	274.6	274.9
180°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7



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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°	14.0	13.6	14.1	13.8	13.9	13.2	13.8
90°	10.2	10.7	10.7	11.3	11.8	11.3	11.3
92.5°	79.5	63.2	52.5	46.1	43.3	41.4	41.4
95°	315.1	243.0	190.9	164.6	147.9	138.2	131.2
97.5°	557.7	505.1	448.9	410.4	378.0	361.8	350.6
100°	659.2	632.8	593.0	546.3	513.5	497.4	493.0
102.5°	698.8	706.4	689.8	661.1	637.3	620.4	616.9
105°	695.2	748.5	770.5	771.6	767.2	759.7	756.5
107.5°	639.8	714.8	762.7	789.3	801.5	806.9	808.3
110°	596.8	674.8	734.0	772.1	794.7	804.4	809.2



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	558.9	632.6	691.7	735.1	762.4	776.0	783.8
115°	515.7	578.5	630.2	672.6	704.9	722.1	726.4
117.5°	490.9	540.4	584.1	620.4	647.4	664.9	668.3
120°	480.1	523.1	561.3	592.0	615.7	629.6	635.6
122.5°	473.3	512.4	545.8	571.7	592.0	603.8	609.7
125°	462.4	499.5	529.0	550.5	566.2	576.4	579.6
127.5°	449.6	486.6	514.6	536.3	550.2	558.7	561.9
130°	439.3	475.8	504.4	526.4	539.8	548.5	551.7
132.5°	427.6	463.4	491.8	513.5	528.7	536.8	540.1
135°	410.3	443.0	470.0	491.4	506.5	515.1	518.3
137.5°	393.6	421.2	445.5	465.6	480.5	487.6	491.4
140°	382.9	407.0	429.6	448.5	460.2	467.8	472.1
142.5°	373.8	394.5	414.2	430.7	441.8	448.5	451.4
145°	361.3	377.5	392.5	406.0	415.1	420.5	423.1
147.5°	350.5	363.4	375.3	385.2	393.0	397.1	398.1
150°	344.1	354.9	364.6	373.2	380.1	383.3	383.9
152.5°	337.6	347.5	355.5	362.8	368.5	370.4	371.0
155°	328.5	336.6	343.0	348.5	352.7	354.3	354.3
157.5°	319.5	326.2	331.4	335.5	338.7	339.7	339.7
160°	313.5	319.3	323.7	326.9	330.2	330.6	330.6
162.5°	307.8	312.5	316.4	318.8	322.0	322.5	322.1
165°	299.4	303.2	305.9	308.1	310.2	309.7	309.2
167.5°	292.4	295.4	297.0	298.1	299.4	299.4	299.0
170°	287.7	289.8	291.4	292.5	293.0	292.5	292.5
172.5°	283.8	285.1	286.3	286.9	287.5	286.9	286.1
175°	278.5	279.6	279.6	279.6	280.7	279.6	278.5
177.5°	275.4	275.4	275.8	275.4	275.8	274.9	274.1
180°	273.7	273.7	273.7	273.7	273.7	273.7	273.7

(END OF REPORT)