

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: P332963-840

Luminaire Tested: **SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332963-840
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-C1020D590U840-4F0-1E-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: 6514.1 lumens
Efficiency: N/A
Efficacy: 133.5 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

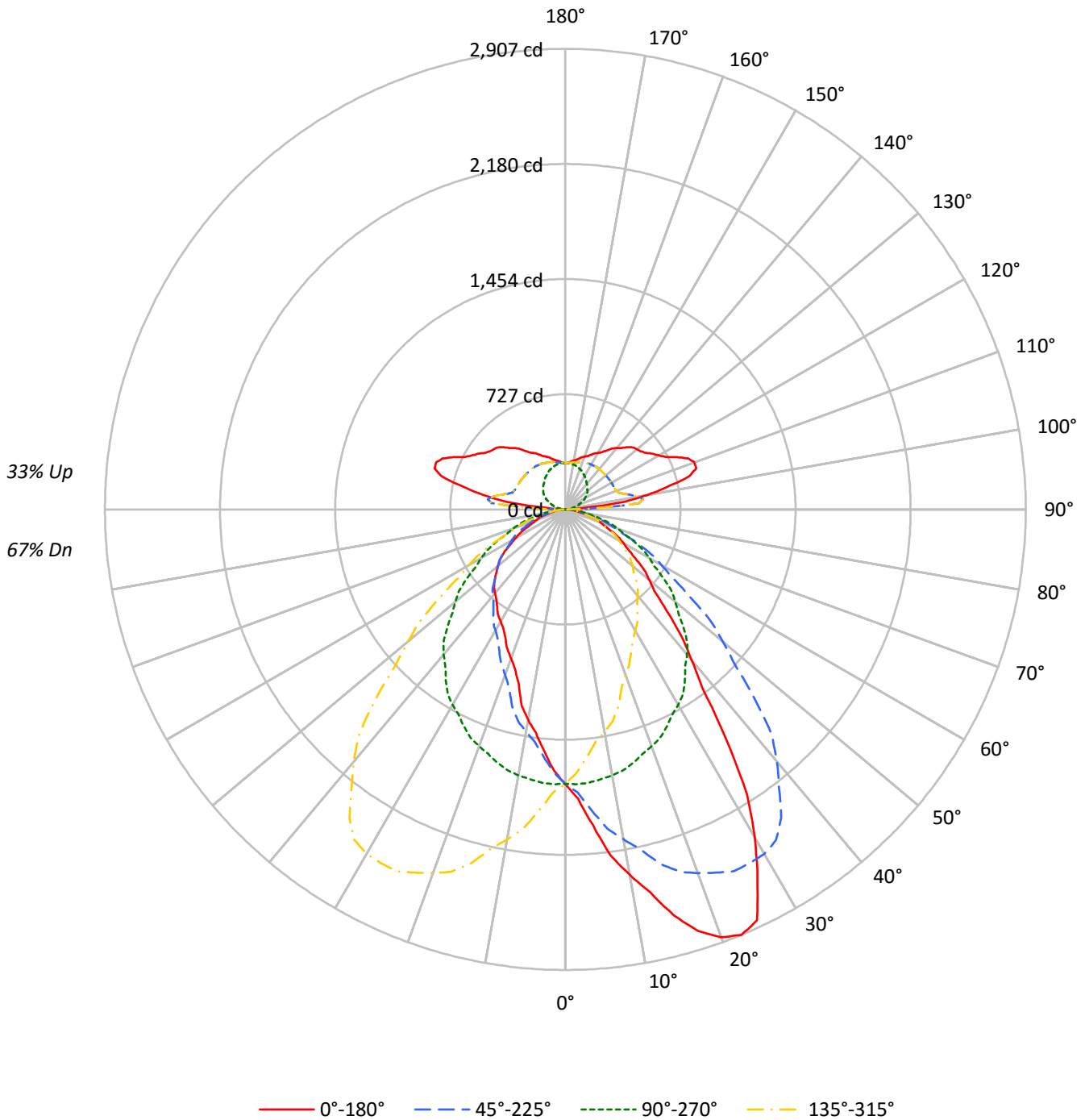
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	13988	13988	13988	13988
5°	16226	14030	12400	14030
10°	19194	13969	11068	13969
15°	22172	13840	9510	13840
20°	24686	13662	8600	13662
25°	25483	13488	7985	13488
30°	22309	13276	7614	13276
35°	17366	12962	7389	12962
40°	13022	12603	7268	12603
45°	10282	12028	7205	12028
50°	8681	11362	6997	11362
55°	7567	10632	6622	10632
60°	6807	9875	5861	9875
65°	6002	9054	5041	9054
70°	5403	8207	4548	8207
75°	4529	7274	3877	7274
80°	3831	6197	3636	6197
85°	3233	4844	3233	4844



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.9	2.6
10°-20°	506.4	7.8
20°-30°	792.1	12.2
30°-40°	880.6	13.5
40°-50°	781.3	12.0
50°-60°	608.8	9.3
60°-70°	398.6	6.1
70°-80°	196.0	3.0
80°-90°	50.0	0.8
90°-100°	211.8	3.3
100°-110°	440.8	6.8
110°-120°	394.8	6.1
120°-130°	332.1	5.1
130°-140°	276.9	4.3
140°-150°	211.5	3.2
150°-160°	148.7	2.3
160°-170°	87.5	1.3
170°-180°	28.5	0.4
0°-30°	1466.4	22.5
0°-40°	2347.0	36.0
0°-60°	3737.0	57.4
0°-90°	4381.6	67.3
90°-120°	1047.4	16.1
90°-150°	1868.0	28.7
90°-180°	2133.0	32.7
0°-180°	6514.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1733	1733	1733	1733	1733	
5°	2002	1731	1530	1731	2002	203
15°	2653	1656	1138	1656	2653	754
25°	2861	1514	896	1514	2861	1269
35°	1762	1315	750	1315	1762	1105
45°	901	1054	631	1054	901	713
55°	538	755	470	755	538	489
65°	314	474	264	474	314	316
75°	145	233	124	233	145	160
85°	35	52	35	52	35	40
90°	12	1	12	1	12	11
95°	141	19	141	19	141	218
105°	810	67	810	67	810	801
115°	778	119	778	119	778	773
125°	621	165	621	165	621	564
135°	555	196	555	196	555	429
145°	453	226	453	226	453	287
155°	380	258	380	258	380	177
165°	331	280	331	280	331	95
175°	298	293	298	293	298	29
180°	293	293	293	293	293	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1827.7	1832.7	1827.7	1827.1	1821.6	1819.9	1817.7	1810.4	1797.0	1789.2	1790.8
5°	2002.3	2019.6	2009.9	2008.5	1993.2	1977.8	1968.0	1945.7	1922.0	1905.9	1892.6
7.5°	2204.1	2214.1	2208.1	2198.3	2173.4	2159.3	2136.7	2107.2	2064.7	2032.1	2002.4
10°	2341.5	2349.9	2347.1	2329.0	2310.8	2273.8	2252.8	2211.7	2157.9	2115.4	2075.5
12.5°	2476.7	2485.6	2461.0	2461.8	2427.5	2398.3	2365.1	2313.3	2251.2	2196.3	2146.5
15°	2652.9	2641.7	2641.7	2627.8	2589.3	2548.9	2514.7	2460.2	2382.0	2316.3	2247.3
17.5°	2790.9	2794.7	2789.0	2756.0	2725.9	2684.0	2621.3	2557.8	2485.2	2397.1	2326.4
20°	2873.5	2873.5	2867.2	2844.9	2805.8	2761.1	2693.4	2624.2	2532.1	2443.5	2363.9
22.5°	2907.0	2909.2	2901.8	2883.4	2848.2	2804.6	2746.9	2676.7	2581.8	2481.9	2383.4
25°	2860.9	2874.2	2875.6	2870.6	2860.2	2833.7	2784.1	2712.2	2627.1	2518.8	2412.7
27.5°	2626.7	2643.4	2658.1	2682.2	2714.3	2731.1	2733.3	2696.7	2622.4	2518.3	2411.5
30°	2393.2	2407.1	2452.6	2511.8	2557.9	2599.8	2636.2	2645.8	2604.0	2510.4	2398.0
32.5°	2134.0	2153.0	2198.4	2262.2	2338.9	2409.9	2491.4	2533.0	2531.9	2475.8	2371.8
35°	1762.1	1776.0	1818.0	1884.9	1977.1	2082.5	2211.7	2312.2	2380.6	2375.7	2312.2
37.5°	1421.1	1436.8	1479.1	1534.8	1624.2	1754.6	1879.7	2018.1	2144.7	2215.7	2194.4
40°	1235.7	1236.4	1277.6	1334.8	1418.6	1532.4	1668.5	1822.1	1963.1	2078.3	2100.6
42.5°	1089.3	1089.4	1116.7	1178.4	1238.8	1345.8	1475.8	1628.3	1793.3	1926.4	1985.6
45°	900.6	906.9	929.2	966.2	1013.7	1104.4	1208.4	1350.2	1535.2	1692.9	1791.4
47.5°	762.7	771.8	786.1	816.3	854.0	914.5	1000.6	1127.9	1278.4	1452.0	1592.1
50°	691.2	692.6	710.6	727.4	760.2	808.4	883.8	990.0	1128.1	1295.1	1450.7
52.5°	629.8	629.4	640.4	661.6	688.2	725.8	786.7	883.2	1005.8	1155.4	1316.1
55°	537.6	541.1	549.5	566.1	586.4	613.0	661.2	733.8	830.1	957.9	1103.8
57.5°	467.5	469.3	475.8	482.9	501.5	520.8	556.9	607.3	688.6	793.2	929.2
60°	421.6	422.3	424.4	434.9	449.6	467.8	492.2	534.7	603.2	698.8	806.4
62.5°	377.0	378.2	381.4	389.1	400.4	413.0	438.6	472.8	529.5	611.2	708.0
65°	314.2	314.9	319.7	322.6	331.6	342.7	361.6	384.7	423.7	492.2	565.5
67.5°	262.5	262.5	262.8	266.5	272.9	280.2	291.5	309.9	339.4	381.4	446.1
70°	228.9	228.9	230.4	232.5	236.0	242.3	248.5	262.5	284.2	318.3	367.9
72.5°	197.7	198.2	199.7	200.1	201.9	207.0	211.7	220.7	236.7	262.5	302.6
75°	145.2	147.3	150.8	153.6	157.0	156.4	161.3	166.8	171.8	187.1	210.2
77.5°	108.1	106.9	107.3	109.8	110.2	110.9	114.3	118.7	122.3	129.6	137.8
80°	82.4	82.4	84.4	85.1	84.4	85.1	88.7	90.8	92.2	94.9	102.6
82.5°	62.3	63.4	62.7	63.4	63.8	64.5	67.5	67.9	69.3	70.4	73.6
85°	34.9	35.6	36.3	34.9	34.9	34.9	36.3	37.0	38.4	37.7	39.1
87.5°	14.7	14.1	14.8	14.7	15.1	14.5	15.0	16.1	14.8	15.5	15.2
90°	12.1	12.1	12.6	12.1	11.5	11.5	10.9	10.4	9.8	10.4	9.2
92.5°	44.3	44.3	46.4	49.4	56.2	67.8	85.1	113.1	152.2	182.7	160.0
95°	140.6	148.0	158.4	176.3	204.5	260.3	337.6	426.9	482.7	469.5	354.3
97.5°	375.7	387.7	405.0	439.7	481.0	541.2	597.5	630.7	606.5	494.5	331.6
100°	528.3	532.9	550.2	585.3	635.4	678.0	706.3	694.8	610.7	463.1	300.7
102.5°	661.0	664.7	682.9	708.3	739.1	756.9	748.7	691.6	576.0	424.0	279.9
105°	810.5	814.0	822.0	826.7	825.6	801.9	744.9	645.2	513.3	377.9	262.2
107.5°	866.1	864.5	858.8	845.7	817.2	765.9	685.5	579.5	462.6	352.1	258.9
110°	867.0	861.8	851.4	827.3	786.4	723.0	639.4	539.8	437.3	343.4	259.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	839.8	831.4	816.9	787.6	741.1	677.8	598.8	510.8	422.9	339.2	262.6
115°	778.3	773.7	755.3	720.6	675.2	619.9	552.5	481.6	409.6	337.0	267.9
117.5°	716.0	712.4	693.7	664.7	625.8	579.0	525.9	467.3	403.6	336.4	273.5
120°	681.0	674.6	659.6	634.3	601.4	560.5	514.4	460.9	400.4	336.4	277.7
122.5°	653.3	646.9	634.3	612.6	584.8	549.0	507.1	455.3	396.7	336.0	281.9
125°	621.0	617.5	606.6	589.9	566.8	535.1	495.4	445.9	390.6	335.3	288.0
127.5°	602.1	598.6	589.5	574.6	551.4	521.4	481.7	434.3	382.4	334.0	293.0
130°	591.1	587.6	578.3	564.0	540.4	509.8	470.7	425.2	377.3	333.6	296.7
132.5°	578.7	575.1	566.4	550.2	526.9	496.4	458.2	415.5	372.7	333.1	299.9
135°	555.3	551.9	542.7	526.5	503.5	474.6	439.6	402.1	365.8	332.3	304.8
137.5°	526.5	522.4	514.8	498.9	477.4	451.3	421.7	390.0	359.8	332.2	307.6
140°	505.8	501.2	493.1	480.5	460.3	436.1	410.2	383.0	356.6	331.8	309.9
142.5°	483.6	480.5	473.3	461.5	443.7	422.7	400.5	376.7	353.9	331.8	311.7
145°	453.3	450.5	444.7	434.9	420.5	404.5	387.1	367.5	349.1	330.6	312.9
147.5°	426.6	425.5	421.1	412.7	402.1	389.4	375.6	360.0	344.9	328.6	313.4
150°	411.3	410.7	407.3	399.8	390.6	380.2	368.7	355.5	341.6	327.2	313.4
152.5°	397.5	396.9	394.9	388.7	380.9	372.3	361.7	350.3	337.9	324.9	312.5
155°	379.6	379.6	377.9	373.3	367.5	360.6	351.9	342.7	332.3	321.4	311.0
157.5°	364.0	364.0	362.9	359.5	355.1	349.5	342.3	334.6	326.8	317.9	309.6
160°	354.3	354.3	353.8	350.2	346.8	342.1	335.9	329.5	322.7	315.1	308.2
162.5°	345.1	345.6	345.0	341.5	339.0	334.8	329.8	324.5	318.9	312.4	306.8
165°	331.2	331.8	332.3	330.1	327.8	324.9	320.8	317.4	312.9	308.2	304.2
167.5°	320.3	320.7	320.8	319.4	318.2	316.5	313.3	310.6	307.3	304.1	301.4
170°	313.4	313.4	314.0	313.4	312.3	310.5	308.2	306.5	303.6	301.2	299.5
172.5°	306.5	307.4	308.0	307.4	306.7	305.5	304.1	302.8	300.3	298.5	297.7
175°	298.4	299.5	300.7	299.5	299.5	299.5	298.4	297.8	296.7	295.5	295.5
177.5°	293.7	294.6	295.5	295.1	295.5	295.1	295.1	294.6	294.2	293.7	293.7
180°	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1785.2	1777.5	1773.5	1764.5	1753.9	1748.4	1743.3	1736.1	1726.6	1716.6	1709.3
5°	1875.8	1859.1	1838.2	1813.0	1790.7	1769.1	1750.2	1731.3	1709.7	1687.4	1665.1
7.5°	1968.8	1935.9	1900.3	1859.1	1819.1	1782.6	1749.1	1717.0	1680.6	1648.1	1618.5
10°	2033.7	1988.9	1939.3	1887.0	1834.6	1789.3	1744.6	1704.1	1659.4	1619.6	1586.1
12.5°	2086.2	2033.7	1974.0	1908.8	1845.8	1791.0	1739.6	1686.8	1636.0	1592.9	1548.1
15°	2173.2	2101.3	2021.0	1942.9	1861.2	1786.5	1717.4	1656.0	1598.0	1537.3	1494.7
17.5°	2233.1	2147.9	2050.2	1956.3	1859.8	1771.7	1691.9	1618.8	1552.0	1490.0	1439.3
20°	2268.9	2174.6	2066.5	1959.6	1851.4	1757.2	1671.3	1590.3	1521.3	1454.2	1401.8
22.5°	2289.0	2184.7	2066.5	1954.6	1842.5	1740.4	1646.2	1561.9	1486.6	1419.6	1361.6
25°	2295.4	2183.7	2063.0	1934.5	1811.6	1703.4	1605.7	1514.2	1430.5	1363.4	1302.0
27.5°	2286.5	2155.0	2031.2	1899.5	1772.7	1658.6	1556.0	1460.0	1376.0	1304.1	1241.1
30°	2273.1	2132.0	1999.4	1862.6	1734.1	1624.6	1516.3	1424.2	1336.9	1262.2	1198.7
32.5°	2244.0	2104.2	1961.5	1821.3	1691.1	1578.2	1475.5	1382.8	1297.3	1220.9	1153.5
35°	2186.6	2044.8	1889.9	1746.1	1618.2	1501.0	1404.6	1315.2	1233.6	1152.0	1080.7
37.5°	2110.7	1965.9	1811.8	1654.3	1526.4	1415.6	1327.3	1243.3	1163.7	1089.0	1010.2
40°	2039.2	1907.2	1748.1	1591.7	1460.5	1353.6	1272.0	1195.9	1115.6	1041.6	962.7
42.5°	1952.7	1840.3	1679.4	1522.5	1392.9	1290.0	1213.9	1139.4	1066.4	994.7	912.4
45°	1808.2	1722.9	1572.2	1421.4	1290.8	1188.9	1119.1	1053.5	989.3	920.8	843.3
47.5°	1642.5	1584.9	1454.7	1300.3	1179.5	1087.8	1020.4	966.7	912.4	844.0	776.1
50°	1527.5	1490.5	1364.8	1223.9	1108.6	1024.1	955.0	904.7	859.4	793.8	733.1
52.5°	1404.6	1384.9	1278.8	1144.0	1032.7	949.9	890.8	845.6	799.6	745.2	688.3
55°	1217.5	1228.0	1137.9	1021.4	916.7	846.9	793.0	755.4	716.3	670.2	626.2
57.5°	1026.2	1064.5	1004.0	901.7	803.5	739.0	698.5	666.8	634.0	595.8	558.3
60°	911.7	943.8	909.7	819.6	733.8	673.7	636.0	611.6	578.8	543.8	515.2
62.5°	800.0	834.4	814.2	741.4	661.7	610.1	576.8	554.0	529.6	499.2	469.4
65°	659.7	682.1	672.3	622.1	565.5	521.5	490.8	474.0	451.7	429.4	402.8
67.5°	505.3	548.5	542.7	516.0	467.2	432.8	412.7	397.9	377.6	360.9	343.0
70°	415.4	455.1	454.4	432.8	406.3	374.2	360.2	347.7	329.5	313.5	298.8
72.5°	340.0	376.5	381.8	365.3	347.1	322.9	309.4	300.7	283.2	272.2	260.2
75°	238.0	264.6	271.6	271.6	263.2	250.6	238.7	233.2	220.7	210.9	203.9
77.5°	156.1	172.9	183.8	186.2	187.5	183.3	173.6	169.7	160.0	156.5	149.9
80°	110.3	121.5	134.0	138.3	141.7	140.4	136.1	133.3	124.3	120.8	118.0
82.5°	76.2	82.4	92.7	101.9	101.0	104.6	101.0	98.8	91.9	90.6	87.9
85°	39.8	40.5	41.9	48.2	51.7	53.0	53.7	52.3	50.3	50.3	45.3
87.5°	15.0	14.4	14.8	14.8	15.3	17.5	18.8	19.1	17.7	16.4	14.7
90°	8.1	8.1	4.6	4.6	4.0	3.4	1.7	0.6	1.7	3.4	4.0
92.5°	116.3	71.7	42.4	30.4	22.0	14.9	9.6	6.6	9.6	14.9	22.0
95°	216.6	122.1	72.0	47.8	34.0	26.5	20.7	19.0	20.7	26.5	34.0
97.5°	194.7	116.7	78.2	57.9	45.9	39.1	34.1	34.1	34.1	39.1	45.9
100°	183.2	118.1	84.1	65.6	54.7	47.8	43.8	43.8	43.8	47.8	54.7
102.5°	180.0	122.7	91.9	74.4	63.9	57.5	53.9	53.0	53.9	57.5	63.9
105°	181.5	133.6	106.0	89.3	79.0	72.0	69.2	67.4	69.2	72.0	79.0
107.5°	190.0	146.4	121.1	104.6	94.7	87.4	84.4	83.3	84.4	87.4	94.7
110°	196.4	156.1	130.8	115.2	104.8	98.0	95.0	93.9	95.0	98.0	104.8



TEST NUMBER: P332963-840

CATALOG NUMBER: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	203.4	165.3	140.9	125.3	115.0	108.6	105.2	104.0	105.2	108.6	115.0
115°	214.3	179.8	156.7	141.2	130.2	124.4	120.4	118.7	120.4	124.4	130.2
117.5°	225.5	193.7	171.8	155.6	145.4	139.1	135.5	133.9	135.5	139.1	145.4
120°	233.3	203.4	181.5	165.3	155.5	149.2	145.2	144.0	145.2	149.2	155.5
122.5°	240.7	212.6	190.7	175.0	164.3	158.4	154.4	153.2	154.4	158.4	164.3
125°	251.8	225.2	204.5	188.3	177.4	171.1	167.6	165.3	167.6	171.1	177.4
127.5°	261.4	237.0	216.9	200.7	189.2	182.1	177.9	176.0	177.9	182.1	189.2
130°	267.3	244.8	225.2	208.5	197.6	188.9	184.3	182.1	184.3	188.9	197.6
132.5°	273.3	251.3	231.7	215.9	204.1	195.9	189.9	188.0	189.9	195.9	204.1
135°	281.1	260.3	241.4	226.4	214.3	204.5	198.7	196.4	198.7	204.5	214.3
137.5°	286.7	267.3	249.5	235.3	222.7	213.4	207.0	204.9	207.0	213.4	222.7
140°	290.3	272.0	254.6	240.8	228.7	218.9	212.6	210.9	212.6	218.9	228.7
142.5°	293.1	276.1	259.2	245.9	234.2	224.9	219.0	217.3	219.0	224.9	234.2
145°	296.1	280.5	265.6	252.9	242.0	233.9	228.1	226.4	228.1	233.9	242.0
147.5°	298.7	285.2	271.1	259.7	250.5	242.3	237.2	236.6	237.2	242.3	250.5
150°	300.1	287.5	274.8	263.9	255.2	248.3	243.7	243.1	243.7	248.3	255.2
152.5°	301.0	289.3	278.0	268.0	260.2	253.8	249.2	249.1	249.2	253.8	260.2
155°	301.8	292.1	282.3	273.7	267.3	261.6	258.1	257.5	258.1	261.6	267.3
157.5°	301.8	294.1	285.7	278.9	273.4	268.9	265.7	265.7	265.7	268.9	273.4
160°	301.8	295.0	288.0	281.7	277.1	273.1	270.7	270.7	270.7	273.1	277.1
162.5°	301.8	295.9	289.4	284.5	280.3	276.7	274.9	275.4	274.9	276.7	280.3
165°	300.7	296.1	290.9	287.5	284.6	281.7	280.5	280.5	280.5	281.7	284.6
167.5°	299.3	296.0	292.2	289.5	287.9	285.7	285.2	285.7	285.2	285.7	287.9
170°	298.4	295.5	292.7	290.9	289.7	288.0	287.5	288.0	287.5	288.0	289.7
172.5°	297.5	295.1	293.1	291.9	291.1	289.8	289.7	290.3	289.7	289.8	291.1
175°	296.1	294.4	293.3	293.3	292.7	292.1	292.1	292.7	292.1	292.1	292.7
177.5°	294.6	293.7	293.3	293.3	293.3	292.8	293.3	293.7	293.3	292.8	293.3
180°	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3



TEST NUMBER: P332963-840

CATALOG NUMBER: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1701.4	1695.9	1688.6	1680.2	1670.2	1661.2	1657.4	1660.7	1662.3	1657.9	1657.4
5°	1649.7	1632.2	1618.2	1597.3	1580.5	1566.6	1556.8	1552.7	1554.0	1542.9	1540.0
7.5°	1591.4	1570.7	1547.9	1523.0	1499.9	1479.4	1468.5	1462.7	1450.9	1445.8	1437.3
10°	1554.0	1526.1	1503.8	1474.4	1447.9	1423.5	1411.6	1401.8	1390.0	1384.4	1372.5
12.5°	1515.5	1483.1	1458.5	1428.1	1401.0	1371.5	1360.2	1342.1	1323.5	1311.8	1296.6
15°	1461.2	1422.1	1392.1	1355.7	1323.6	1290.1	1260.1	1226.6	1214.1	1187.5	1172.2
17.5°	1397.7	1358.0	1320.8	1272.1	1222.5	1180.9	1148.9	1116.8	1097.6	1080.7	1072.9
20°	1355.7	1319.5	1267.8	1211.2	1156.1	1110.0	1084.2	1063.3	1042.3	1030.5	1022.1
22.5°	1316.1	1269.7	1209.7	1148.7	1093.6	1057.5	1035.6	1014.1	997.0	985.7	974.6
25°	1249.6	1188.9	1125.4	1055.6	1017.8	986.4	962.7	945.2	934.8	920.1	914.5
27.5°	1181.3	1107.8	1037.7	990.8	951.5	922.8	902.1	889.0	875.8	866.4	859.1
30°	1128.8	1054.2	991.4	946.6	906.9	883.1	866.4	851.0	840.5	832.8	827.3
32.5°	1076.9	1002.2	949.5	901.4	870.0	846.9	829.0	817.5	809.3	799.3	796.0
35°	1001.8	935.4	889.4	846.2	814.1	793.0	779.1	767.2	760.2	757.5	755.4
37.5°	929.6	875.4	825.8	790.3	761.6	745.2	728.7	722.9	718.1	713.1	715.3
40°	883.8	832.8	788.9	751.1	728.1	710.0	700.2	693.3	689.0	689.0	689.0
42.5°	844.1	794.4	751.4	717.7	694.6	679.2	668.4	662.5	661.2	660.6	663.9
45°	782.6	736.5	693.3	665.3	645.8	630.4	624.1	619.2	619.2	622.1	622.7
47.5°	721.5	678.4	643.7	612.4	594.5	584.9	579.5	576.9	577.2	580.0	583.2
50°	684.2	641.6	607.3	579.5	562.7	553.6	548.8	547.3	548.8	548.8	553.6
52.5°	643.4	605.3	571.6	548.2	529.2	520.7	518.0	516.0	516.8	519.2	521.2
55°	583.6	549.5	517.4	494.9	481.0	475.4	469.2	469.8	468.5	469.8	469.8
57.5°	523.7	493.0	463.1	445.5	433.1	425.1	418.2	420.1	418.1	417.8	416.7
60°	485.2	451.7	428.0	411.9	397.9	390.9	384.7	386.1	384.0	382.5	379.8
62.5°	443.3	415.4	392.7	377.3	366.1	358.0	351.7	350.3	345.5	340.7	334.6
65°	382.5	359.5	339.3	324.7	314.2	307.9	303.0	298.8	288.3	277.1	271.6
67.5°	323.6	306.9	288.0	275.6	267.1	258.8	249.5	242.4	232.6	226.5	223.0
70°	285.5	269.4	253.4	241.6	232.5	224.8	214.3	209.4	202.5	199.7	196.2
72.5°	249.2	234.3	219.3	208.6	198.9	193.0	184.7	179.9	176.7	175.6	172.2
75°	194.1	182.2	171.1	161.3	153.6	149.4	145.9	142.4	141.0	134.7	131.3
77.5°	141.6	133.8	126.7	119.8	114.3	111.6	104.8	100.8	98.5	95.5	94.8
80°	110.3	104.7	97.8	93.5	85.8	83.1	80.3	79.6	78.9	78.2	77.5
82.5°	82.9	77.4	70.4	67.9	65.7	64.1	62.4	61.7	61.0	61.4	61.3
85°	41.9	39.1	39.1	38.4	37.7	37.0	36.3	36.3	35.6	36.3	35.6
87.5°	14.8	14.3	15.0	13.9	14.6	14.9	14.2	14.3	15.0	14.0	14.0
90°	4.6	4.6	8.1	8.1	9.2	10.4	9.8	10.4	10.9	11.5	11.5
92.5°	30.4	42.4	71.7	116.3	160.0	182.7	152.2	113.1	85.1	67.8	56.2
95°	47.8	72.0	122.1	216.6	354.3	469.5	482.7	426.9	337.6	260.3	204.5
97.5°	57.9	78.2	116.7	194.7	331.6	494.5	606.5	630.7	597.5	541.2	481.0
100°	65.6	84.1	118.1	183.2	300.7	463.1	610.7	694.8	706.3	678.0	635.4
102.5°	74.4	91.9	122.7	180.0	279.9	424.0	576.0	691.6	748.7	756.9	739.1
105°	89.3	106.0	133.6	181.5	262.2	377.9	513.3	645.2	744.9	801.9	825.6
107.5°	104.6	121.1	146.4	190.0	258.9	352.1	462.6	579.5	685.5	765.9	817.2
110°	115.2	130.8	156.1	196.4	259.8	343.4	437.3	539.8	639.4	723.0	786.4



TEST NUMBER: P332963-840

CATALOG NUMBER: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	125.3	140.9	165.3	203.4	262.6	339.2	422.9	510.8	598.8	677.8	741.1
115°	141.2	156.7	179.8	214.3	267.9	337.0	409.6	481.6	552.5	619.9	675.2
117.5°	155.6	171.8	193.7	225.5	273.5	336.4	403.6	467.3	525.9	579.0	625.8
120°	165.3	181.5	203.4	233.3	277.7	336.4	400.4	460.9	514.4	560.5	601.4
122.5°	175.0	190.7	212.6	240.7	281.9	336.0	396.7	455.3	507.1	549.0	584.8
125°	188.3	204.5	225.2	251.8	288.0	335.3	390.6	445.9	495.4	535.1	566.8
127.5°	200.7	216.9	237.0	261.4	293.0	334.0	382.4	434.3	481.7	521.4	551.4
130°	208.5	225.2	244.8	267.3	296.7	333.6	377.3	425.2	470.7	509.8	540.4
132.5°	215.9	231.7	251.3	273.3	299.9	333.1	372.7	415.5	458.2	496.4	526.9
135°	226.4	241.4	260.3	281.1	304.8	332.3	365.8	402.1	439.6	474.6	503.5
137.5°	235.3	249.5	267.3	286.7	307.6	332.2	359.8	390.0	421.7	451.3	477.4
140°	240.8	254.6	272.0	290.3	309.9	331.8	356.6	383.0	410.2	436.1	460.3
142.5°	245.9	259.2	276.1	293.1	311.7	331.8	353.9	376.7	400.5	422.7	443.7
145°	252.9	265.6	280.5	296.1	312.9	330.6	349.1	367.5	387.1	404.5	420.5
147.5°	259.7	271.1	285.2	298.7	313.4	328.6	344.9	360.0	375.6	389.4	402.1
150°	263.9	274.8	287.5	300.1	313.4	327.2	341.6	355.5	368.7	380.2	390.6
152.5°	268.0	278.0	289.3	301.0	312.5	324.9	337.9	350.3	361.7	372.3	380.9
155°	273.7	282.3	292.1	301.8	311.0	321.4	332.3	342.7	351.9	360.6	367.5
157.5°	278.9	285.7	294.1	301.8	309.6	317.9	326.8	334.6	342.3	349.5	355.1
160°	281.7	288.0	295.0	301.8	308.2	315.1	322.7	329.5	335.9	342.1	346.8
162.5°	284.5	289.4	295.9	301.8	306.8	312.4	318.9	324.5	329.8	334.8	339.0
165°	287.5	290.9	296.1	300.7	304.2	308.2	312.9	317.4	320.8	324.9	327.8
167.5°	289.5	292.2	296.0	299.3	301.4	304.1	307.3	310.6	313.3	316.5	318.2
170°	290.9	292.7	295.5	298.4	299.5	301.2	303.6	306.5	308.2	310.5	312.3
172.5°	291.9	293.1	295.1	297.5	297.7	298.5	300.3	302.8	304.1	305.5	306.7
175°	293.3	293.3	294.4	296.1	295.5	295.5	296.7	297.8	298.4	299.5	299.5
177.5°	293.3	293.3	293.7	294.6	293.7	293.7	294.2	294.6	295.1	295.1	295.5
180°	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3



TEST NUMBER: P332963-840

CATALOG NUMBER: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1654.0	1655.1	1651.2	1650.1	1651.2	1655.1	1654.0	1657.4	1657.9	1662.3	1660.7
5°	1534.5	1533.1	1529.5	1530.2	1529.5	1533.1	1534.5	1540.0	1542.9	1554.0	1552.7
7.5°	1432.3	1426.8	1428.4	1422.8	1428.4	1426.8	1432.3	1437.3	1445.8	1450.9	1462.7
10°	1369.7	1362.0	1355.7	1350.2	1355.7	1362.0	1369.7	1372.5	1384.4	1390.0	1401.8
12.5°	1284.2	1277.7	1269.2	1270.9	1269.2	1277.7	1284.2	1296.6	1311.8	1323.5	1342.1
15°	1163.1	1152.6	1135.9	1137.9	1135.9	1152.6	1163.1	1172.2	1187.5	1214.1	1226.6
17.5°	1060.5	1060.6	1052.9	1054.7	1052.9	1060.6	1060.5	1072.9	1080.7	1097.6	1116.8
20°	1007.4	1002.5	1003.2	1001.1	1003.2	1002.5	1007.4	1022.1	1030.5	1042.3	1063.3
22.5°	970.6	964.5	959.7	955.3	959.7	964.5	970.6	974.6	985.7	997.0	1014.1
25°	908.3	904.0	897.8	896.4	897.8	904.0	908.3	914.5	920.1	934.8	945.2
27.5°	853.5	852.7	850.2	847.0	850.2	852.7	853.5	859.1	866.4	875.8	889.0
30°	821.7	820.3	818.9	816.8	818.9	820.3	821.7	827.3	832.8	840.5	851.0
32.5°	793.2	792.3	790.9	791.1	790.9	792.3	793.2	796.0	799.3	809.3	817.5
35°	752.6	751.8	750.5	749.8	750.5	751.8	752.6	755.4	757.5	760.2	767.2
37.5°	714.6	716.4	715.6	715.4	715.6	716.4	714.6	715.3	713.1	718.1	722.9
40°	688.3	689.0	690.4	689.7	690.4	689.0	688.3	689.0	689.0	689.0	693.3
42.5°	666.6	666.7	668.6	666.3	668.6	666.7	666.6	663.9	660.6	661.2	662.5
45°	627.6	631.8	631.1	631.1	631.1	631.8	627.6	622.7	622.1	619.2	619.2
47.5°	585.0	588.7	589.7	589.5	589.7	588.7	585.0	583.2	580.0	577.2	576.9
50°	557.1	555.7	557.8	557.1	557.8	555.7	557.1	553.6	548.8	548.8	547.3
52.5°	523.0	523.3	523.2	522.5	523.2	523.3	523.0	521.2	519.2	516.8	516.0
55°	470.5	471.2	469.8	470.5	469.8	471.2	470.5	469.8	469.8	468.5	469.8
57.5°	413.5	410.2	411.6	409.9	411.6	410.2	413.5	416.7	417.8	418.1	420.1
60°	372.8	367.2	365.8	363.0	365.8	367.2	372.8	379.8	382.5	384.0	386.1
62.5°	327.0	323.1	318.3	320.5	318.3	323.1	327.0	334.6	340.7	345.5	350.3
65°	266.0	263.2	261.1	263.9	261.1	263.2	266.0	271.6	277.1	288.3	298.8
67.5°	220.2	218.6	218.6	217.2	218.6	218.6	220.2	223.0	226.5	232.6	242.4
70°	196.2	194.1	194.1	192.7	194.1	194.1	196.2	196.2	199.7	202.5	209.4
72.5°	171.6	169.5	170.1	169.3	170.1	169.5	171.6	172.2	175.6	176.7	179.9
75°	127.0	123.6	123.6	124.3	123.6	123.6	127.0	131.3	134.7	141.0	142.4
77.5°	94.8	94.1	95.1	93.8	95.1	94.1	94.8	94.8	95.5	98.5	100.8
80°	77.5	76.7	76.1	78.2	76.1	76.7	77.5	77.5	78.2	78.9	79.6
82.5°	60.2	60.1	59.9	62.5	59.9	60.1	60.2	61.3	61.4	61.0	61.7
85°	36.3	34.9	36.3	34.9	36.3	34.9	36.3	35.6	36.3	35.6	36.3
87.5°	15.2	14.8	14.1	14.7	14.1	14.8	15.2	14.0	14.0	15.0	14.3
90°	12.1	12.6	12.1	12.1	12.1	12.6	12.1	11.5	11.5	10.9	10.4
92.5°	49.4	46.4	44.3	44.3	44.3	46.4	49.4	56.2	67.8	85.1	113.1
95°	176.3	158.4	148.0	140.6	148.0	158.4	176.3	204.5	260.3	337.6	426.9
97.5°	439.7	405.0	387.7	375.7	387.7	405.0	439.7	481.0	541.2	597.5	630.7
100°	585.3	550.2	532.9	528.3	532.9	550.2	585.3	635.4	678.0	706.3	694.8
102.5°	708.3	682.9	664.7	661.0	664.7	682.9	708.3	739.1	756.9	748.7	691.6
105°	826.7	822.0	814.0	810.5	814.0	822.0	826.7	825.6	801.9	744.9	645.2
107.5°	845.7	858.8	864.5	866.1	864.5	858.8	845.7	817.2	765.9	685.5	579.5
110°	827.3	851.4	861.8	867.0	861.8	851.4	827.3	786.4	723.0	639.4	539.8



TEST NUMBER: P332963-840

CATALOG NUMBER: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	787.6	816.9	831.4	839.8	831.4	816.9	787.6	741.1	677.8	598.8	510.8
115°	720.6	755.3	773.7	778.3	773.7	755.3	720.6	675.2	619.9	552.5	481.6
117.5°	664.7	693.7	712.4	716.0	712.4	693.7	664.7	625.8	579.0	525.9	467.3
120°	634.3	659.6	674.6	681.0	674.6	659.6	634.3	601.4	560.5	514.4	460.9
122.5°	612.6	634.3	646.9	653.3	646.9	634.3	612.6	584.8	549.0	507.1	455.3
125°	589.9	606.6	617.5	621.0	617.5	606.6	589.9	566.8	535.1	495.4	445.9
127.5°	574.6	589.5	598.6	602.1	598.6	589.5	574.6	551.4	521.4	481.7	434.3
130°	564.0	578.3	587.6	591.1	587.6	578.3	564.0	540.4	509.8	470.7	425.2
132.5°	550.2	566.4	575.1	578.7	575.1	566.4	550.2	526.9	496.4	458.2	415.5
135°	526.5	542.7	551.9	555.3	551.9	542.7	526.5	503.5	474.6	439.6	402.1
137.5°	498.9	514.8	522.4	526.5	522.4	514.8	498.9	477.4	451.3	421.7	390.0
140°	480.5	493.1	501.2	505.8	501.2	493.1	480.5	460.3	436.1	410.2	383.0
142.5°	461.5	473.3	480.5	483.6	480.5	473.3	461.5	443.7	422.7	400.5	376.7
145°	434.9	444.7	450.5	453.3	450.5	444.7	434.9	420.5	404.5	387.1	367.5
147.5°	412.7	421.1	425.5	426.6	425.5	421.1	412.7	402.1	389.4	375.6	360.0
150°	399.8	407.3	410.7	411.3	410.7	407.3	399.8	390.6	380.2	368.7	355.5
152.5°	388.7	394.9	396.9	397.5	396.9	394.9	388.7	380.9	372.3	361.7	350.3
155°	373.3	377.9	379.6	379.6	379.6	377.9	373.3	367.5	360.6	351.9	342.7
157.5°	359.5	362.9	364.0	364.0	364.0	362.9	359.5	355.1	349.5	342.3	334.6
160°	350.2	353.8	354.3	354.3	354.3	353.8	350.2	346.8	342.1	335.9	329.5
162.5°	341.5	345.0	345.6	345.1	345.6	345.0	341.5	339.0	334.8	329.8	324.5
165°	330.1	332.3	331.8	331.2	331.8	332.3	330.1	327.8	324.9	320.8	317.4
167.5°	319.4	320.8	320.7	320.3	320.7	320.8	319.4	318.2	316.5	313.3	310.6
170°	313.4	314.0	313.4	313.4	313.4	314.0	313.4	312.3	310.5	308.2	306.5
172.5°	307.4	308.0	307.4	306.5	307.4	308.0	307.4	306.7	305.5	304.1	302.8
175°	299.5	300.7	299.5	298.4	299.5	300.7	299.5	299.5	299.5	298.4	297.8
177.5°	295.1	295.5	294.6	293.7	294.6	295.5	295.1	295.5	295.1	295.1	294.6
180°	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3



TEST NUMBER: P332963-840

CATALOG NUMBER: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1657.4	1661.2	1670.2	1680.2	1688.6	1695.9	1701.4	1709.3	1716.6	1726.6	1736.1
5°	1556.8	1566.6	1580.5	1597.3	1618.2	1632.2	1649.7	1665.1	1687.4	1709.7	1731.3
7.5°	1468.5	1479.4	1499.9	1523.0	1547.9	1570.7	1591.4	1618.5	1648.1	1680.6	1717.0
10°	1411.6	1423.5	1447.9	1474.4	1503.8	1526.1	1554.0	1586.1	1619.6	1659.4	1704.1
12.5°	1360.2	1371.5	1401.0	1428.1	1458.5	1483.1	1515.5	1548.1	1592.9	1636.0	1686.8
15°	1260.1	1290.1	1323.6	1355.7	1392.1	1422.1	1461.2	1494.7	1537.3	1598.0	1656.0
17.5°	1148.9	1180.9	1222.5	1272.1	1320.8	1358.0	1397.7	1439.3	1490.0	1552.0	1618.8
20°	1084.2	1110.0	1156.1	1211.2	1267.8	1319.5	1355.7	1401.8	1454.2	1521.3	1590.3
22.5°	1035.6	1057.5	1093.6	1148.7	1209.7	1269.7	1316.1	1361.6	1419.6	1486.6	1561.9
25°	962.7	986.4	1017.8	1055.6	1125.4	1188.9	1249.6	1302.0	1363.4	1430.5	1514.2
27.5°	902.1	922.8	951.5	990.8	1037.7	1107.8	1181.3	1241.1	1304.1	1376.0	1460.0
30°	866.4	883.1	906.9	946.6	991.4	1054.2	1128.8	1198.7	1262.2	1336.9	1424.2
32.5°	829.0	846.9	870.0	901.4	949.5	1002.2	1076.9	1153.5	1220.9	1297.3	1382.8
35°	779.1	793.0	814.1	846.2	889.4	935.4	1001.8	1080.7	1152.0	1233.6	1315.2
37.5°	728.7	745.2	761.6	790.3	825.8	875.4	929.6	1010.2	1089.0	1163.7	1243.3
40°	700.2	710.0	728.1	751.1	788.9	832.8	883.8	962.7	1041.6	1115.6	1195.9
42.5°	668.4	679.2	694.6	717.7	751.4	794.4	844.1	912.4	994.7	1066.4	1139.4
45°	624.1	630.4	645.8	665.3	693.3	736.5	782.6	843.3	920.8	989.3	1053.5
47.5°	579.5	584.9	594.5	612.4	643.7	678.4	721.5	776.1	844.0	912.4	966.7
50°	548.8	553.6	562.7	579.5	607.3	641.6	684.2	733.1	793.8	859.4	904.7
52.5°	518.0	520.7	529.2	548.2	571.6	605.3	643.4	688.3	745.2	799.6	845.6
55°	469.2	475.4	481.0	494.9	517.4	549.5	583.6	626.2	670.2	716.3	755.4
57.5°	418.2	425.1	433.1	445.5	463.1	493.0	523.7	558.3	595.8	634.0	666.8
60°	384.7	390.9	397.9	411.9	428.0	451.7	485.2	515.2	543.8	578.8	611.6
62.5°	351.7	358.0	366.1	377.3	392.7	415.4	443.3	469.4	499.2	529.6	554.0
65°	303.0	307.9	314.2	324.7	339.3	359.5	382.5	402.8	429.4	451.7	474.0
67.5°	249.5	258.8	267.1	275.6	288.0	306.9	323.6	343.0	360.9	377.6	397.9
70°	214.3	224.8	232.5	241.6	253.4	269.4	285.5	298.8	313.5	329.5	347.7
72.5°	184.7	193.0	198.9	208.6	219.3	234.3	249.2	260.2	272.2	283.2	300.7
75°	145.9	149.4	153.6	161.3	171.1	182.2	194.1	203.9	210.9	220.7	233.2
77.5°	104.8	111.6	114.3	119.8	126.7	133.8	141.6	149.9	156.5	160.0	169.7
80°	80.3	83.1	85.8	93.5	97.8	104.7	110.3	118.0	120.8	124.3	133.3
82.5°	62.4	64.1	65.7	67.9	70.4	77.4	82.9	87.9	90.6	91.9	98.8
85°	36.3	37.0	37.7	38.4	39.1	39.1	41.9	45.3	50.3	50.3	52.3
87.5°	14.2	14.9	14.6	13.9	15.0	14.3	14.8	14.7	16.4	17.7	19.1
90°	9.8	10.4	9.2	8.1	8.1	4.6	4.6	4.0	3.4	1.7	0.6
92.5°	152.2	182.7	160.0	116.3	71.7	42.4	30.4	22.0	14.9	9.6	6.6
95°	482.7	469.5	354.3	216.6	122.1	72.0	47.8	34.0	26.5	20.7	19.0
97.5°	606.5	494.5	331.6	194.7	116.7	78.2	57.9	45.9	39.1	34.1	34.1
100°	610.7	463.1	300.7	183.2	118.1	84.1	65.6	54.7	47.8	43.8	43.8
102.5°	576.0	424.0	279.9	180.0	122.7	91.9	74.4	63.9	57.5	53.9	53.0
105°	513.3	377.9	262.2	181.5	133.6	106.0	89.3	79.0	72.0	69.2	67.4
107.5°	462.6	352.1	258.9	190.0	146.4	121.1	104.6	94.7	87.4	84.4	83.3
110°	437.3	343.4	259.8	196.4	156.1	130.8	115.2	104.8	98.0	95.0	93.9



TEST NUMBER: P332963-840

CATALOG NUMBER: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	422.9	339.2	262.6	203.4	165.3	140.9	125.3	115.0	108.6	105.2	104.0
115°	409.6	337.0	267.9	214.3	179.8	156.7	141.2	130.2	124.4	120.4	118.7
117.5°	403.6	336.4	273.5	225.5	193.7	171.8	155.6	145.4	139.1	135.5	133.9
120°	400.4	336.4	277.7	233.3	203.4	181.5	165.3	155.5	149.2	145.2	144.0
122.5°	396.7	336.0	281.9	240.7	212.6	190.7	175.0	164.3	158.4	154.4	153.2
125°	390.6	335.3	288.0	251.8	225.2	204.5	188.3	177.4	171.1	167.6	165.3
127.5°	382.4	334.0	293.0	261.4	237.0	216.9	200.7	189.2	182.1	177.9	176.0
130°	377.3	333.6	296.7	267.3	244.8	225.2	208.5	197.6	188.9	184.3	182.1
132.5°	372.7	333.1	299.9	273.3	251.3	231.7	215.9	204.1	195.9	189.9	188.0
135°	365.8	332.3	304.8	281.1	260.3	241.4	226.4	214.3	204.5	198.7	196.4
137.5°	359.8	332.2	307.6	286.7	267.3	249.5	235.3	222.7	213.4	207.0	204.9
140°	356.6	331.8	309.9	290.3	272.0	254.6	240.8	228.7	218.9	212.6	210.9
142.5°	353.9	331.8	311.7	293.1	276.1	259.2	245.9	234.2	224.9	219.0	217.3
145°	349.1	330.6	312.9	296.1	280.5	265.6	252.9	242.0	233.9	228.1	226.4
147.5°	344.9	328.6	313.4	298.7	285.2	271.1	259.7	250.5	242.3	237.2	236.6
150°	341.6	327.2	313.4	300.1	287.5	274.8	263.9	255.2	248.3	243.7	243.1
152.5°	337.9	324.9	312.5	301.0	289.3	278.0	268.0	260.2	253.8	249.2	249.1
155°	332.3	321.4	311.0	301.8	292.1	282.3	273.7	267.3	261.6	258.1	257.5
157.5°	326.8	317.9	309.6	301.8	294.1	285.7	278.9	273.4	268.9	265.7	265.7
160°	322.7	315.1	308.2	301.8	295.0	288.0	281.7	277.1	273.1	270.7	270.7
162.5°	318.9	312.4	306.8	301.8	295.9	289.4	284.5	280.3	276.7	274.9	275.4
165°	312.9	308.2	304.2	300.7	296.1	290.9	287.5	284.6	281.7	280.5	280.5
167.5°	307.3	304.1	301.4	299.3	296.0	292.2	289.5	287.9	285.7	285.2	285.7
170°	303.6	301.2	299.5	298.4	295.5	292.7	290.9	289.7	288.0	287.5	288.0
172.5°	300.3	298.5	297.7	297.5	295.1	293.1	291.9	291.1	289.8	289.7	290.3
175°	296.7	295.5	295.5	296.1	294.4	293.3	293.3	292.7	292.1	292.1	292.7
177.5°	294.2	293.7	293.7	294.6	293.7	293.3	293.3	293.3	292.8	293.3	293.7
180°	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3



TEST NUMBER: P332963-840

CATALOG NUMBER: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1743.3	1748.4	1753.9	1764.5	1773.5	1777.5	1785.2	1790.8	1789.2	1797.0	1810.4
5°	1750.2	1769.1	1790.7	1813.0	1838.2	1859.1	1875.8	1892.6	1905.9	1922.0	1945.7
7.5°	1749.1	1782.6	1819.1	1859.1	1900.3	1935.9	1968.8	2002.4	2032.1	2064.7	2107.2
10°	1744.6	1789.3	1834.6	1887.0	1939.3	1988.9	2033.7	2075.5	2115.4	2157.9	2211.7
12.5°	1739.6	1791.0	1845.8	1908.8	1974.0	2033.7	2086.2	2146.5	2196.3	2251.2	2313.3
15°	1717.4	1786.5	1861.2	1942.9	2021.0	2101.3	2173.2	2247.3	2316.3	2382.0	2460.2
17.5°	1691.9	1771.7	1859.8	1956.3	2050.2	2147.9	2233.1	2326.4	2397.1	2485.2	2557.8
20°	1671.3	1757.2	1851.4	1959.6	2066.5	2174.6	2268.9	2363.9	2443.5	2532.1	2624.2
22.5°	1646.2	1740.4	1842.5	1954.6	2066.5	2184.7	2289.0	2383.4	2481.9	2581.8	2676.7
25°	1605.7	1703.4	1811.6	1934.5	2063.0	2183.7	2295.4	2412.7	2518.8	2627.1	2712.2
27.5°	1556.0	1658.6	1772.7	1899.5	2031.2	2155.0	2286.5	2411.5	2518.3	2622.4	2696.7
30°	1516.3	1624.6	1734.1	1862.6	1999.4	2132.0	2273.1	2398.0	2510.4	2604.0	2645.8
32.5°	1475.5	1578.2	1691.1	1821.3	1961.5	2104.2	2244.0	2371.8	2475.8	2531.9	2533.0
35°	1404.6	1501.0	1618.2	1746.1	1889.9	2044.8	2186.6	2312.2	2375.7	2380.6	2312.2
37.5°	1327.3	1415.6	1526.4	1654.3	1811.8	1965.9	2110.7	2194.4	2215.7	2144.7	2018.1
40°	1272.0	1353.6	1460.5	1591.7	1748.1	1907.2	2039.2	2100.6	2078.3	1963.1	1822.1
42.5°	1213.9	1290.0	1392.9	1522.5	1679.4	1840.3	1952.7	1985.6	1926.4	1793.3	1628.3
45°	1119.1	1188.9	1290.8	1421.4	1572.2	1722.9	1808.2	1791.4	1692.9	1535.2	1350.2
47.5°	1020.4	1087.8	1179.5	1300.3	1454.7	1584.9	1642.5	1592.1	1452.0	1278.4	1127.9
50°	955.0	1024.1	1108.6	1223.9	1364.8	1490.5	1527.5	1450.7	1295.1	1128.1	990.0
52.5°	890.8	949.9	1032.7	1144.0	1278.8	1384.9	1404.6	1316.1	1155.4	1005.8	883.2
55°	793.0	846.9	916.7	1021.4	1137.9	1228.0	1217.5	1103.8	957.9	830.1	733.8
57.5°	698.5	739.0	803.5	901.7	1004.0	1064.5	1026.2	929.2	793.2	688.6	607.3
60°	636.0	673.7	733.8	819.6	909.7	943.8	911.7	806.4	698.8	603.2	534.7
62.5°	576.8	610.1	661.7	741.4	814.2	834.4	800.0	708.0	611.2	529.5	472.8
65°	490.8	521.5	565.5	622.1	672.3	682.1	659.7	565.5	492.2	423.7	384.7
67.5°	412.7	432.8	467.2	516.0	542.7	548.5	505.3	446.1	381.4	339.4	309.9
70°	360.2	374.2	406.3	432.8	454.4	455.1	415.4	367.9	318.3	284.2	262.5
72.5°	309.4	322.9	347.1	365.3	381.8	376.5	340.0	302.6	262.5	236.7	220.7
75°	238.7	250.6	263.2	271.6	271.6	264.6	238.0	210.2	187.1	171.8	166.8
77.5°	173.6	183.3	187.5	186.2	183.8	172.9	156.1	137.8	129.6	122.3	118.7
80°	136.1	140.4	141.7	138.3	134.0	121.5	110.3	102.6	94.9	92.2	90.8
82.5°	101.0	104.6	101.0	101.9	92.7	82.4	76.2	73.6	70.4	69.3	67.9
85°	53.7	53.0	51.7	48.2	41.9	40.5	39.8	39.1	37.7	38.4	37.0
87.5°	18.8	17.5	15.3	14.8	14.8	14.4	15.0	15.2	15.5	14.8	16.1
90°	1.7	3.4	4.0	4.6	4.6	8.1	8.1	9.2	10.4	9.8	10.4
92.5°	9.6	14.9	22.0	30.4	42.4	71.7	116.3	160.0	182.7	152.2	113.1
95°	20.7	26.5	34.0	47.8	72.0	122.1	216.6	354.3	469.5	482.7	426.9
97.5°	34.1	39.1	45.9	57.9	78.2	116.7	194.7	331.6	494.5	606.5	630.7
100°	43.8	47.8	54.7	65.6	84.1	118.1	183.2	300.7	463.1	610.7	694.8
102.5°	53.9	57.5	63.9	74.4	91.9	122.7	180.0	279.9	424.0	576.0	691.6
105°	69.2	72.0	79.0	89.3	106.0	133.6	181.5	262.2	377.9	513.3	645.2
107.5°	84.4	87.4	94.7	104.6	121.1	146.4	190.0	258.9	352.1	462.6	579.5
110°	95.0	98.0	104.8	115.2	130.8	156.1	196.4	259.8	343.4	437.3	539.8



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	105.2	108.6	115.0	125.3	140.9	165.3	203.4	262.6	339.2	422.9	510.8
115°	120.4	124.4	130.2	141.2	156.7	179.8	214.3	267.9	337.0	409.6	481.6
117.5°	135.5	139.1	145.4	155.6	171.8	193.7	225.5	273.5	336.4	403.6	467.3
120°	145.2	149.2	155.5	165.3	181.5	203.4	233.3	277.7	336.4	400.4	460.9
122.5°	154.4	158.4	164.3	175.0	190.7	212.6	240.7	281.9	336.0	396.7	455.3
125°	167.6	171.1	177.4	188.3	204.5	225.2	251.8	288.0	335.3	390.6	445.9
127.5°	177.9	182.1	189.2	200.7	216.9	237.0	261.4	293.0	334.0	382.4	434.3
130°	184.3	188.9	197.6	208.5	225.2	244.8	267.3	296.7	333.6	377.3	425.2
132.5°	189.9	195.9	204.1	215.9	231.7	251.3	273.3	299.9	333.1	372.7	415.5
135°	198.7	204.5	214.3	226.4	241.4	260.3	281.1	304.8	332.3	365.8	402.1
137.5°	207.0	213.4	222.7	235.3	249.5	267.3	286.7	307.6	332.2	359.8	390.0
140°	212.6	218.9	228.7	240.8	254.6	272.0	290.3	309.9	331.8	356.6	383.0
142.5°	219.0	224.9	234.2	245.9	259.2	276.1	293.1	311.7	331.8	353.9	376.7
145°	228.1	233.9	242.0	252.9	265.6	280.5	296.1	312.9	330.6	349.1	367.5
147.5°	237.2	242.3	250.5	259.7	271.1	285.2	298.7	313.4	328.6	344.9	360.0
150°	243.7	248.3	255.2	263.9	274.8	287.5	300.1	313.4	327.2	341.6	355.5
152.5°	249.2	253.8	260.2	268.0	278.0	289.3	301.0	312.5	324.9	337.9	350.3
155°	258.1	261.6	267.3	273.7	282.3	292.1	301.8	311.0	321.4	332.3	342.7
157.5°	265.7	268.9	273.4	278.9	285.7	294.1	301.8	309.6	317.9	326.8	334.6
160°	270.7	273.1	277.1	281.7	288.0	295.0	301.8	308.2	315.1	322.7	329.5
162.5°	274.9	276.7	280.3	284.5	289.4	295.9	301.8	306.8	312.4	318.9	324.5
165°	280.5	281.7	284.6	287.5	290.9	296.1	300.7	304.2	308.2	312.9	317.4
167.5°	285.2	285.7	287.9	289.5	292.2	296.0	299.3	301.4	304.1	307.3	310.6
170°	287.5	288.0	289.7	290.9	292.7	295.5	298.4	299.5	301.2	303.6	306.5
172.5°	289.7	289.8	291.1	291.9	293.1	295.1	297.5	297.7	298.5	300.3	302.8
175°	292.1	292.1	292.7	293.3	293.3	294.4	296.1	295.5	295.5	296.7	297.8
177.5°	293.3	292.8	293.3	293.3	293.3	293.7	294.6	293.7	293.7	294.2	294.6
180°	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1817.7	1819.9	1821.6	1827.1	1827.7	1832.7	1827.7
5°	1968.0	1977.8	1993.2	2008.5	2009.9	2019.6	2002.3
7.5°	2136.7	2159.3	2173.4	2198.3	2208.1	2214.1	2204.1
10°	2252.8	2273.8	2310.8	2329.0	2347.1	2349.9	2341.5
12.5°	2365.1	2398.3	2427.5	2461.8	2461.0	2485.6	2476.7
15°	2514.7	2548.9	2589.3	2627.8	2641.7	2641.7	2652.9
17.5°	2621.3	2684.0	2725.9	2756.0	2789.0	2794.7	2790.9
20°	2693.4	2761.1	2805.8	2844.9	2867.2	2873.5	2873.5
22.5°	2746.9	2804.6	2848.2	2883.4	2901.8	2909.2	2907.0
25°	2784.1	2833.7	2860.2	2870.6	2875.6	2874.2	2860.9
27.5°	2733.3	2731.1	2714.3	2682.2	2658.1	2643.4	2626.7
30°	2636.2	2599.8	2557.9	2511.8	2452.6	2407.1	2393.2
32.5°	2491.4	2409.9	2338.9	2262.2	2198.4	2153.0	2134.0
35°	2211.7	2082.5	1977.1	1884.9	1818.0	1776.0	1762.1
37.5°	1879.7	1754.6	1624.2	1534.8	1479.1	1436.8	1421.1
40°	1668.5	1532.4	1418.6	1334.8	1277.6	1236.4	1235.7
42.5°	1475.8	1345.8	1238.8	1178.4	1116.7	1089.4	1089.3
45°	1208.4	1104.4	1013.7	966.2	929.2	906.9	900.6
47.5°	1000.6	914.5	854.0	816.3	786.1	771.8	762.7
50°	883.8	808.4	760.2	727.4	710.6	692.6	691.2
52.5°	786.7	725.8	688.2	661.6	640.4	629.4	629.8
55°	661.2	613.0	586.4	566.1	549.5	541.1	537.6
57.5°	556.9	520.8	501.5	482.9	475.8	469.3	467.5
60°	492.2	467.8	449.6	434.9	424.4	422.3	421.6
62.5°	438.6	413.0	400.4	389.1	381.4	378.2	377.0
65°	361.6	342.7	331.6	322.6	319.7	314.9	314.2
67.5°	291.5	280.2	272.9	266.5	262.8	262.5	262.5
70°	248.5	242.3	236.0	232.5	230.4	228.9	228.9
72.5°	211.7	207.0	201.9	200.1	199.7	198.2	197.7
75°	161.3	156.4	157.0	153.6	150.8	147.3	145.2
77.5°	114.3	110.9	110.2	109.8	107.3	106.9	108.1
80°	88.7	85.1	84.4	85.1	84.4	82.4	82.4
82.5°	67.5	64.5	63.8	63.4	62.7	63.4	62.3
85°	36.3	34.9	34.9	34.9	36.3	35.6	34.9
87.5°	15.0	14.5	15.1	14.7	14.8	14.1	14.7
90°	10.9	11.5	11.5	12.1	12.6	12.1	12.1
92.5°	85.1	67.8	56.2	49.4	46.4	44.3	44.3
95°	337.6	260.3	204.5	176.3	158.4	148.0	140.6
97.5°	597.5	541.2	481.0	439.7	405.0	387.7	375.7
100°	706.3	678.0	635.4	585.3	550.2	532.9	528.3
102.5°	748.7	756.9	739.1	708.3	682.9	664.7	661.0
105°	744.9	801.9	825.6	826.7	822.0	814.0	810.5
107.5°	685.5	765.9	817.2	845.7	858.8	864.5	866.1
110°	639.4	723.0	786.4	827.3	851.4	861.8	867.0



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	598.8	677.8	741.1	787.6	816.9	831.4	839.8
115°	552.5	619.9	675.2	720.6	755.3	773.7	778.3
117.5°	525.9	579.0	625.8	664.7	693.7	712.4	716.0
120°	514.4	560.5	601.4	634.3	659.6	674.6	681.0
122.5°	507.1	549.0	584.8	612.6	634.3	646.9	653.3
125°	495.4	535.1	566.8	589.9	606.6	617.5	621.0
127.5°	481.7	521.4	551.4	574.6	589.5	598.6	602.1
130°	470.7	509.8	540.4	564.0	578.3	587.6	591.1
132.5°	458.2	496.4	526.9	550.2	566.4	575.1	578.7
135°	439.6	474.6	503.5	526.5	542.7	551.9	555.3
137.5°	421.7	451.3	477.4	498.9	514.8	522.4	526.5
140°	410.2	436.1	460.3	480.5	493.1	501.2	505.8
142.5°	400.5	422.7	443.7	461.5	473.3	480.5	483.6
145°	387.1	404.5	420.5	434.9	444.7	450.5	453.3
147.5°	375.6	389.4	402.1	412.7	421.1	425.5	426.6
150°	368.7	380.2	390.6	399.8	407.3	410.7	411.3
152.5°	361.7	372.3	380.9	388.7	394.9	396.9	397.5
155°	351.9	360.6	367.5	373.3	377.9	379.6	379.6
157.5°	342.3	349.5	355.1	359.5	362.9	364.0	364.0
160°	335.9	342.1	346.8	350.2	353.8	354.3	354.3
162.5°	329.8	334.8	339.0	341.5	345.0	345.6	345.1
165°	320.8	324.9	327.8	330.1	332.3	331.8	331.2
167.5°	313.3	316.5	318.2	319.4	320.8	320.7	320.3
170°	308.2	310.5	312.3	313.4	314.0	313.4	313.4
172.5°	304.1	305.5	306.7	307.4	308.0	307.4	306.5
175°	298.4	299.5	299.5	299.5	300.7	299.5	298.4
177.5°	295.1	295.1	295.5	295.1	295.5	294.6	293.7
180°	293.3	293.3	293.3	293.3	293.3	293.3	293.3

(END OF REPORT)