

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: P331639

Luminaire Tested: **SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331639
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 290 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 1080 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5438.8 lumens
Efficiency: N/A
Efficacy: 128.9 lumens/watt
Spacing Criteria (0/90/45): 0.86 / 1.16 / 1.02
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Semi-Indirect

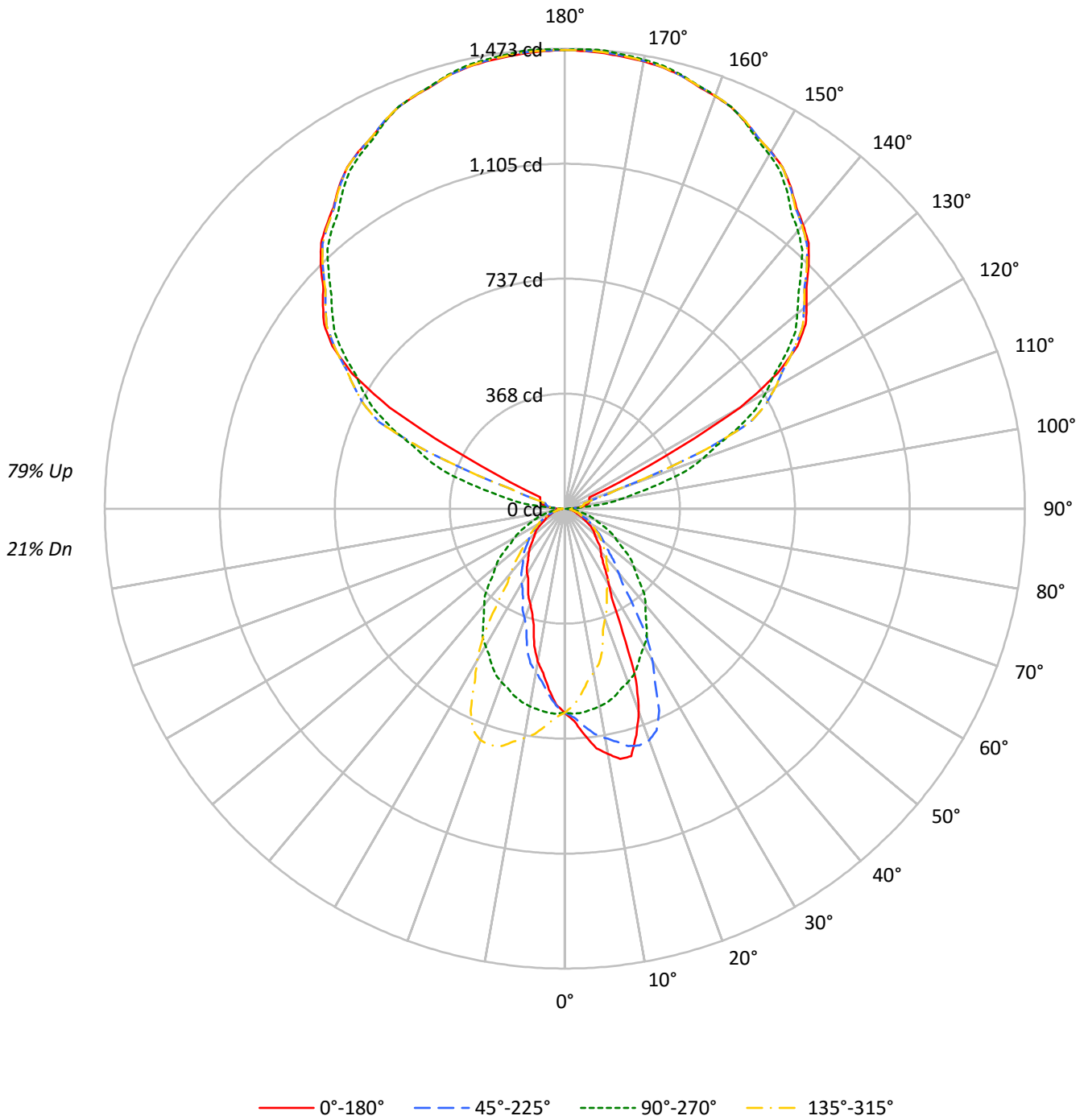
Input Watts (W): 42.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	100	100	100	89	89	89	89	67	67	67	47	47	47	29	29	29	21
1	92	88	84	81	81	78	75	72	59	57	55	42	41	40	26	26	25	18
2	84	77	71	66	74	68	64	60	52	49	46	37	35	34	24	23	22	16
3	76	68	61	56	67	60	55	50	46	42	39	33	31	29	21	20	19	14
4	70	60	53	47	62	54	47	43	41	37	34	30	27	25	19	18	17	12
5	64	53	46	40	57	48	41	37	37	33	29	27	24	22	17	16	15	11
6	59	48	40	35	52	43	36	32	33	29	25	24	21	19	16	14	13	10
7	55	43	36	31	48	39	32	28	30	26	22	22	19	17	15	13	12	9
8	51	39	32	27	45	35	29	25	27	23	20	20	17	15	13	12	11	8
9	47	36	29	24	42	32	26	22	25	21	18	19	16	14	13	11	10	7
10	44	33	26	21	39	29	24	20	23	19	16	17	14	12	12	10	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	10555	10555	10555	10555
5°	11788	10621	9418	10621
10°	13080	10547	8163	10547
15°	13722	10392	6432	10392
20°	11897	10163	5565	10163
25°	7801	9850	4969	9850
30°	5252	9469	4497	9469
35°	4254	8990	4056	8990
40°	3781	8469	3754	8469
45°	3423	7857	3350	7857
50°	3115	7252	3105	7252
55°	2928	6579	2891	6579
60°	2451	5964	2422	5964
65°	2067	5414	2342	5414
70°	1907	4834	2209	4834
75°	1784	4211	2040	4211
80°	1646	3468	1813	3468
85°	1519	2742	1593	2742



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	1.1
10°-20°	172.7	3.2
20°-30°	222.5	4.1
30°-40°	211.5	3.9
40°-50°	181.1	3.3
50°-60°	137.9	2.5
60°-70°	87.2	1.6
70°-80°	43.5	0.8
80°-90°	15.0	0.3
90°-100°	49.0	0.9
100°-110°	179.7	3.3
110°-120°	480.4	8.8
120°-130°	793.0	14.6
130°-140°	843.3	15.5
140°-150°	783.8	14.4
150°-160°	630.2	11.6
160°-170°	406.1	7.5
170°-180°	139.8	2.6
0°-30°	457.2	8.4
0°-40°	668.6	12.3
0°-60°	987.7	18.2
0°-90°	1133.4	20.8
90°-120°	709.1	13.0
90°-150°	3129.2	57.5
90°-180°	4305.0	79.2
0°-180°	5438.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	654	654	654	654	654	
5°	727	655	581	655	727	72
15°	821	622	385	622	821	221
25°	438	553	279	553	438	208
35°	216	456	206	456	216	138
45°	150	344	147	344	150	116
55°	104	234	103	234	104	91
65°	54	142	61	142	54	55
75°	29	68	33	68	29	30
85°	8	15	9	15	8	10
90°	29	1	29	1	29	13
95°	46	69	46	69	46	43
105°	81	323	81	323	81	84
115°	87	611	87	611	87	218
125°	909	864	909	864	909	786
135°	1104	1069	1104	1069	1104	851
145°	1260	1241	1260	1241	1260	788
155°	1367	1366	1367	1366	1367	631
165°	1436	1439	1436	1439	1436	405
175°	1464	1472	1464	1472	1464	139
180°	1469	1469	1469	1469	1469	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	680.3	680.8	681.4	680.1	680.1	679.0	676.6	674.8	669.7	669.0	669.0
5°	727.3	726.9	727.8	724.8	720.8	719.8	715.5	709.8	703.9	697.4	696.0
7.5°	774.1	773.4	771.6	771.1	768.0	761.1	754.2	746.8	737.0	727.4	722.6
10°	797.8	805.3	800.7	792.8	794.3	783.7	778.0	768.2	760.0	745.7	742.6
12.5°	821.0	824.0	822.5	818.0	816.0	808.6	800.9	792.4	777.3	764.5	753.3
15°	820.9	825.2	826.4	825.0	826.1	825.7	821.6	814.6	801.4	787.3	775.0
17.5°	760.3	763.3	770.8	775.8	782.2	795.6	802.3	804.8	802.9	794.8	786.2
20°	692.4	687.4	708.3	718.9	728.0	750.7	770.3	777.8	789.8	789.6	787.3
22.5°	596.0	597.2	617.0	629.7	656.2	679.0	701.2	729.4	752.7	768.1	777.1
25°	437.9	446.6	466.3	483.6	513.1	555.4	593.8	638.3	680.3	713.5	745.1
27.5°	328.9	329.6	345.2	361.2	378.7	413.3	461.7	514.8	574.7	624.2	681.0
30°	281.7	280.3	286.9	296.7	311.7	338.5	374.8	427.0	486.8	561.3	627.6
32.5°	248.2	248.3	253.3	260.5	272.9	291.0	315.9	358.4	414.8	488.1	565.8
35°	215.8	215.6	219.2	224.4	229.6	241.2	258.3	280.5	319.4	387.7	467.2
37.5°	192.5	193.5	195.3	198.6	204.3	210.8	221.0	236.0	263.6	304.1	370.9
40°	179.4	179.9	182.4	185.1	188.5	193.5	201.9	214.0	234.2	266.4	315.3
42.5°	167.5	167.9	169.7	172.2	174.9	179.9	186.9	197.3	213.7	238.8	279.1
45°	149.9	149.9	151.5	152.6	155.6	160.1	165.8	174.5	185.8	204.4	231.2
47.5°	133.5	133.5	134.6	136.5	138.4	141.9	147.5	154.6	162.8	177.2	200.1
50°	124.0	124.3	124.9	126.5	127.7	130.8	135.2	141.3	149.9	161.1	180.1
52.5°	116.4	116.3	117.1	117.8	118.6	120.8	124.1	129.5	137.2	146.9	162.7
55°	104.0	103.1	104.5	105.6	106.3	107.2	109.0	112.4	119.0	127.2	139.0
57.5°	88.6	88.2	89.2	90.2	92.4	94.8	96.4	98.5	101.9	107.8	119.5
60°	75.9	75.9	77.9	78.6	81.1	84.3	87.5	89.3	92.7	96.5	105.2
62.5°	64.6	64.8	65.7	66.4	67.8	71.7	76.2	80.2	83.4	87.1	92.8
65°	54.1	54.5	54.5	55.0	55.9	56.8	58.6	61.8	67.5	72.7	77.0
67.5°	45.9	46.0	46.2	46.6	46.8	47.8	48.6	50.0	51.3	56.2	61.6
70°	40.4	41.1	40.9	41.3	41.6	42.0	42.9	43.6	45.7	46.8	50.0
72.5°	35.3	35.8	35.8	36.1	36.7	36.8	37.5	38.2	39.5	40.4	42.2
75°	28.6	28.4	28.6	29.1	29.3	29.5	29.5	30.4	31.1	32.0	33.2
77.5°	22.1	22.3	22.3	22.3	22.4	22.8	22.7	23.1	23.8	24.3	24.8
80°	17.7	17.9	17.7	17.9	18.2	18.4	18.2	18.4	19.1	19.5	19.5
82.5°	13.7	13.8	13.9	13.9	14.0	14.0	14.4	14.4	14.9	14.8	15.0
85°	8.2	8.0	8.0	8.0	8.2	8.4	8.2	8.2	8.4	8.4	8.4
87.5°	8.6	8.7	8.6	8.5	8.5	8.3	8.1	8.0	7.6	7.5	7.0
90°	28.7	28.2	27.8	27.3	26.8	26.0	24.8	23.6	22.4	21.3	19.4
92.5°	28.7	28.4	28.1	27.9	27.6	27.1	26.5	25.9	25.3	24.7	23.7
95°	45.7	45.9	46.2	46.4	46.7	46.2	45.0	43.8	42.6	41.5	39.8
97.5°	61.0	60.7	60.5	60.2	59.9	59.3	58.3	57.4	56.4	55.5	51.7
100°	71.2	70.8	70.3	69.8	69.3	68.2	66.3	64.4	62.5	60.6	56.6
102.5°	76.3	75.7	75.0	74.3	73.7	72.1	69.7	67.2	64.8	62.3	95.9
105°	80.8	79.8	78.9	78.0	77.0	75.2	72.6	70.0	67.4	64.8	129.3
107.5°	83.1	82.2	81.2	80.3	79.4	80.2	82.8	85.5	88.1	90.8	168.1
110°	84.0	83.0	82.1	81.1	80.2	91.5	115.2	138.8	162.4	186.0	254.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	84.8	84.1	83.3	82.6	81.8	124.5	210.7	296.9	383.1	469.2	486.1
115°	87.2	104.2	121.2	138.2	155.2	218.4	327.8	437.1	546.5	655.9	650.0
117.5°	355.9	411.8	467.7	523.6	579.5	620.7	647.1	673.6	700.0	726.5	722.4
120°	648.5	680.3	712.2	744.1	776.0	790.6	787.7	784.9	782.0	779.2	775.0
122.5°	809.2	815.4	821.6	827.8	833.9	836.2	834.5	832.8	831.1	829.4	824.8
125°	908.9	908.2	907.5	906.8	906.1	904.9	903.2	901.6	899.9	898.3	893.8
127.5°	971.8	971.7	971.6	971.4	971.3	970.0	967.6	965.2	962.8	960.4	957.0
130°	1011.0	1011.2	1011.4	1011.7	1011.9	1010.7	1008.1	1005.5	1002.9	1000.3	997.7
132.5°	1049.2	1049.5	1049.7	1049.9	1050.2	1049.2	1047.0	1044.7	1042.5	1040.3	1037.7
135°	1104.5	1105.0	1105.4	1105.9	1106.4	1105.4	1103.1	1100.7	1098.4	1096.0	1093.9
137.5°	1154.9	1155.7	1156.5	1157.3	1158.1	1157.3	1155.0	1152.7	1150.4	1148.1	1145.7
140°	1186.4	1187.5	1188.7	1189.9	1191.1	1190.6	1188.5	1186.4	1184.2	1182.1	1179.5
142.5°	1217.0	1218.2	1219.3	1220.5	1221.7	1221.3	1219.4	1217.4	1215.5	1213.6	1210.6
145°	1259.7	1260.9	1262.1	1263.3	1264.4	1264.2	1262.5	1260.9	1259.2	1257.6	1253.6
147.5°	1297.3	1298.3	1299.3	1300.3	1301.3	1301.2	1300.0	1298.7	1297.5	1296.3	1292.3
150°	1320.3	1321.5	1322.7	1323.8	1325.0	1324.9	1323.5	1322.1	1320.7	1319.2	1315.5
152.5°	1339.9	1341.4	1343.0	1344.5	1346.1	1346.2	1344.8	1343.3	1341.9	1340.5	1336.9
155°	1367.1	1369.0	1370.9	1372.7	1374.6	1374.9	1373.5	1372.0	1370.6	1369.2	1366.4
157.5°	1391.9	1393.8	1395.6	1397.5	1399.3	1399.4	1397.8	1396.2	1394.6	1393.0	1391.0
160°	1406.4	1408.1	1409.7	1411.4	1413.0	1413.1	1411.7	1410.3	1408.9	1407.5	1406.1
162.5°	1418.3	1420.3	1422.4	1424.4	1426.4	1426.7	1425.0	1423.4	1421.8	1420.2	1419.0
165°	1436.2	1437.8	1439.5	1441.1	1442.8	1442.8	1441.1	1439.5	1437.8	1436.2	1435.5
167.5°	1447.4	1449.6	1451.7	1453.8	1455.9	1456.2	1454.5	1452.9	1451.2	1449.6	1448.9
170°	1454.2	1456.4	1458.5	1460.6	1462.7	1463.0	1461.3	1459.7	1458.0	1456.4	1455.9
172.5°	1459.3	1461.5	1463.6	1465.7	1467.9	1468.1	1466.4	1464.8	1463.1	1461.5	1461.0
175°	1463.8	1466.2	1468.5	1470.9	1473.3	1473.6	1472.0	1470.3	1468.7	1467.0	1466.5
177.5°	1466.6	1468.3	1470.0	1471.7	1473.4	1473.6	1472.2	1470.9	1469.6	1468.3	1468.1
180°	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	669.4	667.9	666.6	663.4	661.7	658.1	657.6	657.4	652.7	648.1	646.8
5°	692.4	688.7	683.3	676.9	670.3	663.5	659.0	655.3	646.2	637.6	632.6
7.5°	715.5	707.7	698.3	686.3	676.2	665.0	656.6	649.1	636.2	623.8	615.5
10°	732.8	720.1	707.6	691.0	678.0	665.3	653.5	643.3	628.8	612.4	600.8
12.5°	743.5	729.5	712.3	696.1	679.3	663.1	647.3	634.2	617.1	600.2	586.5
15°	758.0	743.0	722.1	698.9	677.4	656.2	638.1	621.7	599.5	579.2	562.4
17.5°	769.9	749.2	726.8	700.0	675.0	648.2	624.8	603.9	579.1	554.7	534.9
20°	773.7	753.2	727.3	700.5	671.0	639.4	614.2	591.5	564.9	538.3	515.6
22.5°	771.3	755.4	726.6	694.5	664.3	631.3	602.8	576.4	546.9	519.8	493.5
25°	755.3	749.8	722.6	687.6	653.1	614.7	581.7	552.9	519.3	490.2	461.6
27.5°	717.9	729.7	712.8	675.5	637.1	596.0	558.9	526.1	491.2	458.5	430.0
30°	681.9	708.9	701.7	667.1	624.2	583.8	542.2	507.9	470.7	437.0	408.9
32.5°	632.7	677.3	684.4	655.5	611.1	566.7	523.1	489.0	450.1	414.7	387.2
35°	554.2	621.0	651.7	633.3	588.8	540.8	495.9	456.1	417.0	382.1	354.8
37.5°	460.7	551.7	602.8	604.1	563.2	513.4	464.4	424.9	384.9	350.6	321.1
40°	400.0	498.6	565.2	579.9	545.4	491.6	442.0	401.8	362.8	329.1	295.3
42.5°	345.5	443.7	525.5	551.2	523.8	470.3	420.6	378.6	340.6	308.8	274.2
45°	279.4	365.3	455.4	501.3	486.1	436.6	384.1	344.1	308.5	281.0	247.8
47.5°	235.7	296.2	383.5	445.5	445.3	400.1	348.4	310.2	277.1	251.3	224.5
50°	210.8	263.5	337.3	407.7	413.6	375.7	326.6	288.7	257.8	230.8	209.2
52.5°	188.4	231.9	298.2	365.8	382.6	349.7	302.1	267.1	237.1	212.2	193.8
55°	159.2	192.9	243.3	306.4	331.9	308.7	266.4	233.7	209.4	188.5	172.6
57.5°	134.7	159.9	200.4	251.2	280.8	266.3	231.4	204.8	184.0	165.1	152.6
60°	119.3	139.9	174.2	216.7	249.4	239.2	209.4	184.7	167.0	150.6	138.8
62.5°	104.7	122.5	151.9	186.4	216.3	212.1	187.8	167.0	151.5	136.6	126.6
65°	84.3	97.2	120.2	147.2	171.3	173.3	155.8	141.7	127.9	116.1	107.2
67.5°	67.1	75.6	91.7	114.5	132.5	139.0	128.3	117.5	106.5	97.4	89.7
70°	56.6	63.4	75.2	93.6	110.2	117.0	110.8	102.4	92.9	85.4	78.8
72.5°	45.8	52.5	61.2	74.7	88.9	96.3	94.1	88.1	80.4	74.1	67.9
75°	34.5	36.6	42.5	51.6	62.7	69.1	70.6	67.5	61.3	56.6	52.9
77.5°	25.5	26.8	29.6	34.3	41.6	47.3	49.6	49.2	45.0	42.3	38.8
80°	20.4	21.1	22.5	24.5	30.0	35.7	37.3	37.3	34.3	33.2	29.8
82.5°	15.5	16.0	16.9	18.0	20.5	25.5	27.3	27.6	25.8	24.3	21.6
85°	8.9	8.6	9.1	9.8	10.2	11.6	14.3	14.8	14.3	12.5	11.8
87.5°	6.6	6.4	6.0	5.4	5.0	4.7	5.1	5.5	5.3	5.2	5.4
90°	17.5	15.6	13.7	11.5	8.9	6.3	3.7	1.1	3.7	6.3	8.9
92.5°	22.8	21.8	20.9	20.5	20.8	21.0	21.2	21.5	21.2	21.0	20.8
95°	38.2	36.5	34.8	37.9	45.7	53.5	61.3	69.1	61.3	53.5	45.7
97.5°	47.8	44.0	40.2	49.3	71.2	93.2	115.2	137.1	115.2	93.2	71.2
100°	52.6	48.5	44.5	58.7	91.1	123.4	155.8	188.2	155.8	123.4	91.1
102.5°	129.5	163.1	196.7	216.9	223.7	230.6	237.4	244.3	237.4	230.6	223.7
105°	193.8	258.3	322.8	351.5	344.4	337.3	330.3	323.2	330.3	337.3	344.4
107.5°	245.5	322.8	400.2	436.0	430.2	424.5	418.8	413.1	418.8	424.5	430.2
110°	322.6	390.8	459.1	490.8	485.8	480.9	475.9	470.9	475.9	480.9	485.8



TEST NUMBER: P331639

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	503.0	519.8	536.7	542.9	538.5	534.1	529.8	525.4	529.8	534.1	538.5
115°	644.1	638.2	632.3	627.3	623.3	619.3	615.3	611.3	615.3	619.3	623.3
117.5°	718.4	714.3	710.2	706.0	701.5	697.0	692.5	688.0	692.5	697.0	701.5
120°	770.7	766.5	762.2	758.3	754.8	751.2	747.7	744.1	747.7	751.2	754.8
122.5°	820.1	815.5	810.9	806.7	803.0	799.2	795.5	791.8	795.5	799.2	803.0
125°	889.3	884.8	880.3	876.5	873.5	870.4	867.3	864.3	867.3	870.4	873.5
127.5°	953.6	950.3	946.9	943.6	940.2	936.8	933.4	930.0	933.4	936.8	940.2
130°	995.1	992.5	989.9	986.7	983.0	979.2	975.4	971.6	975.4	979.2	983.0
132.5°	1035.1	1032.5	1029.9	1027.0	1023.8	1020.6	1017.4	1014.1	1017.4	1020.6	1023.8
135°	1091.7	1089.6	1087.5	1084.5	1080.8	1077.0	1073.2	1069.4	1073.2	1077.0	1080.8
137.5°	1143.3	1140.9	1138.4	1135.9	1133.3	1130.6	1128.0	1125.3	1128.0	1130.6	1133.3
140°	1176.9	1174.3	1171.7	1169.5	1167.6	1165.7	1163.8	1161.9	1163.8	1165.7	1167.6
142.5°	1207.6	1204.6	1201.7	1199.3	1197.6	1195.9	1194.2	1192.5	1194.2	1195.9	1197.6
145°	1249.5	1245.5	1241.5	1239.6	1239.9	1240.1	1240.3	1240.6	1240.3	1240.1	1239.9
147.5°	1288.3	1284.4	1280.4	1278.9	1279.8	1280.7	1281.6	1282.5	1281.6	1280.7	1279.8
150°	1311.7	1307.9	1304.1	1303.1	1304.7	1306.4	1308.0	1309.7	1308.0	1306.4	1304.7
152.5°	1333.3	1329.7	1326.1	1325.3	1327.1	1328.9	1330.8	1332.6	1330.8	1328.9	1327.1
155°	1363.5	1360.7	1357.9	1357.5	1359.6	1361.8	1363.9	1366.0	1363.9	1361.8	1359.6
157.5°	1389.0	1387.1	1385.1	1385.0	1386.8	1388.6	1390.4	1392.2	1390.4	1388.6	1386.8
160°	1404.6	1403.2	1401.8	1401.8	1403.2	1404.6	1406.1	1407.5	1406.1	1404.6	1403.2
162.5°	1417.8	1416.5	1415.3	1415.4	1416.8	1418.2	1419.7	1421.1	1419.7	1418.2	1416.8
165°	1434.8	1434.0	1433.3	1433.7	1435.1	1436.5	1437.9	1439.4	1437.9	1436.5	1435.1
167.5°	1448.2	1447.6	1446.9	1447.3	1448.7	1450.1	1451.6	1453.0	1451.6	1450.1	1448.7
170°	1455.4	1455.0	1454.5	1455.0	1456.4	1457.8	1459.2	1460.6	1459.2	1457.8	1456.4
172.5°	1460.5	1460.1	1459.6	1460.1	1461.5	1462.9	1464.3	1465.7	1464.3	1462.9	1461.5
175°	1466.1	1465.6	1465.1	1465.7	1467.4	1469.0	1470.7	1472.3	1470.7	1469.0	1467.4
177.5°	1467.9	1467.7	1467.5	1468.1	1469.4	1470.7	1472.1	1473.4	1472.1	1470.7	1469.4
180°	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1



TEST NUMBER: P331639

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	644.5	643.2	640.8	637.2	635.0	631.2	628.7	630.1	630.5	630.1	629.8
5°	627.2	622.4	615.8	609.4	603.5	597.2	593.5	592.0	588.8	587.0	586.0
7.5°	606.2	598.0	588.7	577.6	568.2	558.3	553.3	550.8	544.3	540.8	537.7
10°	590.6	577.6	568.3	553.8	544.9	532.0	523.1	523.4	514.5	509.5	505.9
12.5°	573.3	559.1	543.6	530.5	518.2	507.8	497.1	492.8	483.4	478.6	468.8
15°	544.7	528.1	511.8	494.1	481.6	465.4	450.0	431.1	415.9	402.7	399.1
17.5°	513.5	492.9	476.5	455.7	434.3	407.2	389.3	378.3	369.2	362.2	357.0
20°	492.0	471.1	453.6	422.3	393.4	375.0	361.9	353.4	343.9	336.4	332.3
22.5°	469.5	447.7	423.8	388.8	366.3	351.6	339.9	330.2	323.7	317.9	314.1
25°	437.5	413.6	374.3	350.3	332.1	316.6	308.5	302.6	295.8	287.8	284.2
27.5°	403.7	365.8	337.5	319.6	302.3	292.3	284.9	276.1	270.0	266.4	262.6
30°	378.4	340.5	318.5	298.9	286.7	275.5	266.9	261.9	256.0	249.9	247.4
32.5°	350.3	320.0	298.8	282.6	270.1	260.6	253.8	245.7	241.5	237.7	232.5
35°	315.3	292.3	273.0	259.9	248.0	240.3	232.4	227.6	219.9	216.7	214.7
37.5°	285.7	265.8	251.4	237.5	228.1	219.6	214.7	207.1	203.8	199.3	195.0
40°	268.9	249.4	235.6	224.2	213.7	207.4	201.3	195.1	190.1	188.1	182.9
42.5°	251.9	236.0	222.1	209.7	202.7	195.9	188.2	183.7	178.5	175.2	172.0
45°	228.3	214.2	202.4	192.2	184.4	177.4	172.4	164.9	162.0	155.4	152.6
47.5°	207.6	194.5	183.2	173.5	166.0	161.4	154.1	148.2	143.5	139.4	135.9
50°	192.9	181.9	171.0	162.4	155.6	149.0	141.5	138.6	131.3	129.2	127.2
52.5°	179.4	169.0	159.1	150.6	143.8	137.4	130.8	126.9	122.0	120.0	118.5
55°	160.6	150.6	141.1	133.6	126.8	120.2	116.1	111.3	109.0	107.4	105.6
57.5°	141.7	132.7	125.4	117.8	110.9	105.7	101.0	98.1	95.8	93.7	91.5
60°	129.7	121.1	114.5	107.4	100.4	96.1	92.5	89.0	86.3	83.1	82.2
62.5°	117.0	109.4	103.4	96.5	90.4	86.5	83.0	79.8	76.5	71.9	70.6
65°	99.5	93.6	87.2	81.5	76.1	72.2	67.2	63.6	62.2	61.8	61.6
67.5°	83.7	78.1	72.6	66.8	61.9	58.3	55.7	55.2	54.2	54.0	53.3
70°	73.1	67.9	62.5	57.0	52.2	51.6	50.7	49.7	48.6	48.2	47.7
72.5°	63.7	58.3	52.8	48.5	46.4	45.6	44.7	43.7	43.0	42.5	42.3
75°	48.8	43.8	40.2	38.6	37.5	36.8	35.4	34.8	34.3	33.6	33.4
77.5°	35.2	32.3	30.7	29.7	28.5	27.8	27.0	26.3	25.8	25.7	25.3
80°	26.8	25.4	24.3	22.9	22.5	21.6	21.4	20.7	20.9	20.2	20.2
82.5°	20.8	19.1	18.1	17.5	17.0	16.3	16.1	15.8	15.8	15.3	15.3
85°	10.7	10.2	9.8	9.3	9.3	8.6	8.9	8.6	8.6	8.2	8.0
87.5°	5.7	6.0	6.0	6.4	6.8	7.0	7.2	7.3	7.5	7.7	7.7
90°	11.5	13.7	15.6	17.5	19.4	21.3	22.4	23.6	24.8	26.0	26.8
92.5°	20.5	20.9	21.8	22.8	23.7	24.7	25.3	25.9	26.5	27.1	27.6
95°	37.9	34.8	36.5	38.2	39.8	41.5	42.6	43.8	45.0	46.2	46.7
97.5°	49.3	40.2	44.0	47.8	51.7	55.5	56.4	57.4	58.3	59.3	59.9
100°	58.7	44.5	48.5	52.6	56.6	60.6	62.5	64.4	66.3	68.2	69.3
102.5°	216.9	196.7	163.1	129.5	95.9	62.3	64.8	67.2	69.7	72.1	73.7
105°	351.5	322.8	258.3	193.8	129.3	64.8	67.4	70.0	72.6	75.2	77.0
107.5°	436.0	400.2	322.8	245.5	168.1	90.8	88.1	85.5	82.8	80.2	79.4
110°	490.8	459.1	390.8	322.6	254.3	186.0	162.4	138.8	115.2	91.5	80.2



TEST NUMBER: P331639

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	542.9	536.7	519.8	503.0	486.1	469.2	383.1	296.9	210.7	124.5	81.8
115°	627.3	632.3	638.2	644.1	650.0	655.9	546.5	437.1	327.8	218.4	155.2
117.5°	706.0	710.2	714.3	718.4	722.4	726.5	700.0	673.6	647.1	620.7	579.5
120°	758.3	762.2	766.5	770.7	775.0	779.2	782.0	784.9	787.7	790.6	776.0
122.5°	806.7	810.9	815.5	820.1	824.8	829.4	831.1	832.8	834.5	836.2	833.9
125°	876.5	880.3	884.8	889.3	893.8	898.3	899.9	901.6	903.2	904.9	906.1
127.5°	943.6	946.9	950.3	953.6	957.0	960.4	962.8	965.2	967.6	970.0	971.3
130°	986.7	989.9	992.5	995.1	997.7	1000.3	1002.9	1005.5	1008.1	1010.7	1011.9
132.5°	1027.0	1029.9	1032.5	1035.1	1037.7	1040.3	1042.5	1044.7	1047.0	1049.2	1050.2
135°	1084.5	1087.5	1089.6	1091.7	1093.9	1096.0	1098.4	1100.7	1103.1	1105.4	1106.4
137.5°	1135.9	1138.4	1140.9	1143.3	1145.7	1148.1	1150.4	1152.7	1155.0	1157.3	1158.1
140°	1169.5	1171.7	1174.3	1176.9	1179.5	1182.1	1184.2	1186.4	1188.5	1190.6	1191.1
142.5°	1199.3	1201.7	1204.6	1207.6	1210.6	1213.6	1215.5	1217.4	1219.4	1221.3	1221.7
145°	1239.6	1241.5	1245.5	1249.5	1253.6	1257.6	1259.2	1260.9	1262.5	1264.2	1264.4
147.5°	1278.9	1280.4	1284.4	1288.3	1292.3	1296.3	1297.5	1298.7	1300.0	1301.2	1301.3
150°	1303.1	1304.1	1307.9	1311.7	1315.5	1319.2	1320.7	1322.1	1323.5	1324.9	1325.0
152.5°	1325.3	1326.1	1329.7	1333.3	1336.9	1340.5	1341.9	1343.3	1344.8	1346.2	1346.1
155°	1357.5	1357.9	1360.7	1363.5	1366.4	1369.2	1370.6	1372.0	1373.5	1374.9	1374.6
157.5°	1385.0	1385.1	1387.1	1389.0	1391.0	1393.0	1394.6	1396.2	1397.8	1399.4	1399.3
160°	1401.8	1401.8	1403.2	1404.6	1406.1	1407.5	1408.9	1410.3	1411.7	1413.1	1413.0
162.5°	1415.4	1415.3	1416.5	1417.8	1419.0	1420.2	1421.8	1423.4	1425.0	1426.7	1426.4
165°	1433.7	1433.3	1434.0	1434.8	1435.5	1436.2	1437.8	1439.5	1441.1	1442.8	1442.8
167.5°	1447.3	1446.9	1447.6	1448.2	1448.9	1449.6	1451.2	1452.9	1454.5	1456.2	1455.9
170°	1455.0	1454.5	1455.0	1455.4	1455.9	1456.4	1458.0	1459.7	1461.3	1463.0	1462.7
172.5°	1460.1	1459.6	1460.1	1460.5	1461.0	1461.5	1463.1	1464.8	1466.4	1468.1	1467.9
175°	1465.7	1465.1	1465.6	1466.1	1466.5	1467.0	1468.7	1470.3	1472.0	1473.6	1473.3
177.5°	1468.1	1467.5	1467.7	1467.9	1468.1	1468.3	1469.6	1470.9	1472.2	1473.6	1473.4
180°	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1



TEST NUMBER: P331639

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	627.8	628.1	627.6	627.9	627.6	628.1	627.8	629.8	630.1	630.5	630.1
5°	584.9	582.2	581.7	581.1	581.7	582.2	584.9	586.0	587.0	588.8	592.0
7.5°	533.8	533.4	532.2	530.6	532.2	533.4	533.8	537.7	540.8	544.3	550.8
10°	500.9	499.7	499.5	497.9	499.5	499.7	500.9	505.9	509.5	514.5	523.4
12.5°	462.3	455.0	454.3	450.3	454.3	455.0	462.3	468.8	478.6	483.4	492.8
15°	393.7	392.3	387.7	384.8	387.7	392.3	393.7	399.1	402.7	415.9	431.1
17.5°	354.4	349.9	348.5	347.9	348.5	349.9	354.4	357.0	362.2	369.2	378.3
20°	329.1	325.1	324.4	323.9	324.4	325.1	329.1	332.3	336.4	343.9	353.4
22.5°	311.7	307.4	305.7	304.3	305.7	307.4	311.7	314.1	317.9	323.7	330.2
25°	281.9	280.3	279.4	278.9	279.4	280.3	281.9	284.2	287.8	295.8	302.6
27.5°	258.6	255.1	254.4	253.2	254.4	255.1	258.6	262.6	266.4	270.0	276.1
30°	245.3	244.2	242.6	241.2	242.6	244.2	245.3	247.4	249.9	256.0	261.9
32.5°	229.7	228.7	227.3	226.7	227.3	228.7	229.7	232.5	237.7	241.5	245.7
35°	212.4	209.2	207.8	205.8	207.8	209.2	212.4	214.7	216.7	219.9	227.6
37.5°	194.1	192.4	190.5	191.2	190.5	192.4	194.1	195.0	199.3	203.8	207.1
40°	179.9	178.8	178.3	178.1	178.3	178.8	179.9	182.9	188.1	190.1	195.1
42.5°	168.6	165.5	164.3	164.3	164.3	165.5	168.6	172.0	175.2	178.5	183.7
45°	151.5	148.6	146.5	146.7	146.5	148.6	151.5	152.6	155.4	162.0	164.9
47.5°	134.0	133.9	132.6	133.0	132.6	133.9	134.0	135.9	139.4	143.5	148.2
50°	125.6	124.3	123.3	123.6	123.3	124.3	125.6	127.2	129.2	131.3	138.6
52.5°	117.6	116.4	115.7	116.7	115.7	116.4	117.6	118.5	120.0	122.0	126.9
55°	104.5	103.1	102.9	102.7	102.9	103.1	104.5	105.6	107.4	109.0	111.3
57.5°	89.8	88.9	87.5	87.0	87.5	88.9	89.8	91.5	93.7	95.8	98.1
60°	79.3	77.5	75.2	75.0	75.2	77.5	79.3	82.2	83.1	86.3	89.0
62.5°	69.6	69.3	68.8	68.8	68.8	69.3	69.6	70.6	71.9	76.5	79.8
65°	61.1	60.9	61.1	61.3	61.1	60.9	61.1	61.6	61.8	62.2	63.6
67.5°	53.2	52.8	52.4	52.6	52.4	52.8	53.2	53.3	54.0	54.2	55.2
70°	47.2	47.0	46.8	46.8	46.8	47.0	47.2	47.7	48.2	48.6	49.7
72.5°	41.4	41.4	41.2	41.0	41.2	41.4	41.4	42.3	42.5	43.0	43.7
75°	33.2	32.7	32.7	32.7	32.7	32.7	33.2	33.4	33.6	34.3	34.8
77.5°	25.3	25.0	24.8	24.6	24.8	25.0	25.3	25.3	25.7	25.8	26.3
80°	20.0	19.8	19.5	19.5	19.5	19.8	20.0	20.2	20.2	20.9	20.7
82.5°	15.3	15.0	15.0	14.8	15.0	15.0	15.3	15.3	15.3	15.8	15.8
85°	8.2	8.4	8.2	8.6	8.2	8.4	8.2	8.0	8.2	8.6	8.6
87.5°	7.8	7.7	8.0	7.9	8.0	7.7	7.8	7.7	7.7	7.5	7.3
90°	27.3	27.8	28.2	28.7	28.2	27.8	27.3	26.8	26.0	24.8	23.6
92.5°	27.9	28.1	28.4	28.7	28.4	28.1	27.9	27.6	27.1	26.5	25.9
95°	46.4	46.2	45.9	45.7	45.9	46.2	46.4	46.7	46.2	45.0	43.8
97.5°	60.2	60.5	60.7	61.0	60.7	60.5	60.2	59.9	59.3	58.3	57.4
100°	69.8	70.3	70.8	71.2	70.8	70.3	69.8	69.3	68.2	66.3	64.4
102.5°	74.3	75.0	75.7	76.3	75.7	75.0	74.3	73.7	72.1	69.7	67.2
105°	78.0	78.9	79.8	80.8	79.8	78.9	78.0	77.0	75.2	72.6	70.0
107.5°	80.3	81.2	82.2	83.1	82.2	81.2	80.3	79.4	80.2	82.8	85.5
110°	81.1	82.1	83.0	84.0	83.0	82.1	81.1	80.2	91.5	115.2	138.8



TEST NUMBER: P331639

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	82.6	83.3	84.1	84.8	84.1	83.3	82.6	81.8	124.5	210.7	296.9
115°	138.2	121.2	104.2	87.2	104.2	121.2	138.2	155.2	218.4	327.8	437.1
117.5°	523.6	467.7	411.8	355.9	411.8	467.7	523.6	579.5	620.7	647.1	673.6
120°	744.1	712.2	680.3	648.5	680.3	712.2	744.1	776.0	790.6	787.7	784.9
122.5°	827.8	821.6	815.4	809.2	815.4	821.6	827.8	833.9	836.2	834.5	832.8
125°	906.8	907.5	908.2	908.9	908.2	907.5	906.8	906.1	904.9	903.2	901.6
127.5°	971.4	971.6	971.7	971.8	971.7	971.6	971.4	971.3	970.0	967.6	965.2
130°	1011.7	1011.4	1011.2	1011.0	1011.2	1011.4	1011.7	1011.9	1010.7	1008.1	1005.5
132.5°	1049.9	1049.7	1049.5	1049.2	1049.5	1049.7	1049.9	1050.2	1049.2	1047.0	1044.7
135°	1105.9	1105.4	1105.0	1104.5	1105.0	1105.4	1105.9	1106.4	1105.4	1103.1	1100.7
137.5°	1157.3	1156.5	1155.7	1154.9	1155.7	1156.5	1157.3	1158.1	1157.3	1155.0	1152.7
140°	1189.9	1188.7	1187.5	1186.4	1187.5	1188.7	1189.9	1191.1	1190.6	1188.5	1186.4
142.5°	1220.5	1219.3	1218.2	1217.0	1218.2	1219.3	1220.5	1221.7	1221.3	1219.4	1217.4
145°	1263.3	1262.1	1260.9	1259.7	1260.9	1262.1	1263.3	1264.4	1264.2	1262.5	1260.9
147.5°	1300.3	1299.3	1298.3	1297.3	1298.3	1299.3	1300.3	1301.3	1301.2	1300.0	1298.7
150°	1323.8	1322.7	1321.5	1320.3	1321.5	1322.7	1323.8	1325.0	1324.9	1323.5	1322.1
152.5°	1344.5	1343.0	1341.4	1339.9	1341.4	1343.0	1344.5	1346.1	1346.2	1344.8	1343.3
155°	1372.7	1370.9	1369.0	1367.1	1369.0	1370.9	1372.7	1374.6	1374.9	1373.5	1372.0
157.5°	1397.5	1395.6	1393.8	1391.9	1393.8	1395.6	1397.5	1399.3	1399.4	1397.8	1396.2
160°	1411.4	1409.7	1408.1	1406.4	1408.1	1409.7	1411.4	1413.0	1413.1	1411.7	1410.3
162.5°	1424.4	1422.4	1420.3	1418.3	1420.3	1422.4	1424.4	1426.4	1426.7	1425.0	1423.4
165°	1441.1	1439.5	1437.8	1436.2	1437.8	1439.5	1441.1	1442.8	1442.8	1441.1	1439.5
167.5°	1453.8	1451.7	1449.6	1447.4	1449.6	1451.7	1453.8	1455.9	1456.2	1454.5	1452.9
170°	1460.6	1458.5	1456.4	1454.2	1456.4	1458.5	1460.6	1462.7	1463.0	1461.3	1459.7
172.5°	1465.7	1463.6	1461.5	1459.3	1461.5	1463.6	1465.7	1467.9	1468.1	1466.4	1464.8
175°	1470.9	1468.5	1466.2	1463.8	1466.2	1468.5	1470.9	1473.3	1473.6	1472.0	1470.3
177.5°	1471.7	1470.0	1468.3	1466.6	1468.3	1470.0	1471.7	1473.4	1473.6	1472.2	1470.9
180°	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1



TEST NUMBER: P331639

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	628.7	631.2	635.0	637.2	640.8	643.2	644.5	646.8	648.1	652.7	657.4
5°	593.5	597.2	603.5	609.4	615.8	622.4	627.2	632.6	637.6	646.2	655.3
7.5°	553.3	558.3	568.2	577.6	588.7	598.0	606.2	615.5	623.8	636.2	649.1
10°	523.1	532.0	544.9	553.8	568.3	577.6	590.6	600.8	612.4	628.8	643.3
12.5°	497.1	507.8	518.2	530.5	543.6	559.1	573.3	586.5	600.2	617.1	634.2
15°	450.0	465.4	481.6	494.1	511.8	528.1	544.7	562.4	579.2	599.5	621.7
17.5°	389.3	407.2	434.3	455.7	476.5	492.9	513.5	534.9	554.7	579.1	603.9
20°	361.9	375.0	393.4	422.3	453.6	471.1	492.0	515.6	538.3	564.9	591.5
22.5°	339.9	351.6	366.3	388.8	423.8	447.7	469.5	493.5	519.8	546.9	576.4
25°	308.5	316.6	332.1	350.3	374.3	413.6	437.5	461.6	490.2	519.3	552.9
27.5°	284.9	292.3	302.3	319.6	337.5	365.8	403.7	430.0	458.5	491.2	526.1
30°	266.9	275.5	286.7	298.9	318.5	340.5	378.4	408.9	437.0	470.7	507.9
32.5°	253.8	260.6	270.1	282.6	298.8	320.0	350.3	387.2	414.7	450.1	489.0
35°	232.4	240.3	248.0	259.9	273.0	292.3	315.3	354.8	382.1	417.0	456.1
37.5°	214.7	219.6	228.1	237.5	251.4	265.8	285.7	321.1	350.6	384.9	424.9
40°	201.3	207.4	213.7	224.2	235.6	249.4	268.9	295.3	329.1	362.8	401.8
42.5°	188.2	195.9	202.7	209.7	222.1	236.0	251.9	274.2	308.8	340.6	378.6
45°	172.4	177.4	184.4	192.2	202.4	214.2	228.3	247.8	281.0	308.5	344.1
47.5°	154.1	161.4	166.0	173.5	183.2	194.5	207.6	224.5	251.3	277.1	310.2
50°	141.5	149.0	155.6	162.4	171.0	181.9	192.9	209.2	230.8	257.8	288.7
52.5°	130.8	137.4	143.8	150.6	159.1	169.0	179.4	193.8	212.2	237.1	267.1
55°	116.1	120.2	126.8	133.6	141.1	150.6	160.6	172.6	188.5	209.4	233.7
57.5°	101.0	105.7	110.9	117.8	125.4	132.7	141.7	152.6	165.1	184.0	204.8
60°	92.5	96.1	100.4	107.4	114.5	121.1	129.7	138.8	150.6	167.0	184.7
62.5°	83.0	86.5	90.4	96.5	103.4	109.4	117.0	126.6	136.6	151.5	167.0
65°	67.2	72.2	76.1	81.5	87.2	93.6	99.5	107.2	116.1	127.9	141.7
67.5°	55.7	58.3	61.9	66.8	72.6	78.1	83.7	89.7	97.4	106.5	117.5
70°	50.7	51.6	52.2	57.0	62.5	67.9	73.1	78.8	85.4	92.9	102.4
72.5°	44.7	45.6	46.4	48.5	52.8	58.3	63.7	67.9	74.1	80.4	88.1
75°	35.4	36.8	37.5	38.6	40.2	43.8	48.8	52.9	56.6	61.3	67.5
77.5°	27.0	27.8	28.5	29.7	30.7	32.3	35.2	38.8	42.3	45.0	49.2
80°	21.4	21.6	22.5	22.9	24.3	25.4	26.8	29.8	33.2	34.3	37.3
82.5°	16.1	16.3	17.0	17.5	18.1	19.1	20.8	21.6	24.3	25.8	27.6
85°	8.9	8.6	9.3	9.3	9.8	10.2	10.7	11.8	12.5	14.3	14.8
87.5°	7.2	7.0	6.8	6.4	6.0	6.0	5.7	5.4	5.2	5.3	5.5
90°	22.4	21.3	19.4	17.5	15.6	13.7	11.5	8.9	6.3	3.7	1.1
92.5°	25.3	24.7	23.7	22.8	21.8	20.9	20.5	20.8	21.0	21.2	21.5
95°	42.6	41.5	39.8	38.2	36.5	34.8	37.9	45.7	53.5	61.3	69.1
97.5°	56.4	55.5	51.7	47.8	44.0	40.2	49.3	71.2	93.2	115.2	137.1
100°	62.5	60.6	56.6	52.6	48.5	44.5	58.7	91.1	123.4	155.8	188.2
102.5°	64.8	62.3	95.9	129.5	163.1	196.7	216.9	223.7	230.6	237.4	244.3
105°	67.4	64.8	129.3	193.8	258.3	322.8	351.5	344.4	337.3	330.3	323.2
107.5°	88.1	90.8	168.1	245.5	322.8	400.2	436.0	430.2	424.5	418.8	413.1
110°	162.4	186.0	254.3	322.6	390.8	459.1	490.8	485.8	480.9	475.9	470.9



TEST NUMBER: P331639

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	383.1	469.2	486.1	503.0	519.8	536.7	542.9	538.5	534.1	529.8	525.4
115°	546.5	655.9	650.0	644.1	638.2	632.3	627.3	623.3	619.3	615.3	611.3
117.5°	700.0	726.5	722.4	718.4	714.3	710.2	706.0	701.5	697.0	692.5	688.0
120°	782.0	779.2	775.0	770.7	766.5	762.2	758.3	754.8	751.2	747.7	744.1
122.5°	831.1	829.4	824.8	820.1	815.5	810.9	806.7	803.0	799.2	795.5	791.8
125°	899.9	898.3	893.8	889.3	884.8	880.3	876.5	873.5	870.4	867.3	864.3
127.5°	962.8	960.4	957.0	953.6	950.3	946.9	943.6	940.2	936.8	933.4	930.0
130°	1002.9	1000.3	997.7	995.1	992.5	989.9	986.7	983.0	979.2	975.4	971.6
132.5°	1042.5	1040.3	1037.7	1035.1	1032.5	1029.9	1027.0	1023.8	1020.6	1017.4	1014.1
135°	1098.4	1096.0	1093.9	1091.7	1089.6	1087.5	1084.5	1080.8	1077.0	1073.2	1069.4
137.5°	1150.4	1148.1	1145.7	1143.3	1140.9	1138.4	1135.9	1133.3	1130.6	1128.0	1125.3
140°	1184.2	1182.1	1179.5	1176.9	1174.3	1171.7	1169.5	1167.6	1165.7	1163.8	1161.9
142.5°	1215.5	1213.6	1210.6	1207.6	1204.6	1201.7	1199.3	1197.6	1195.9	1194.2	1192.5
145°	1259.2	1257.6	1253.6	1249.5	1245.5	1241.5	1239.6	1239.9	1240.1	1240.3	1240.6
147.5°	1297.5	1296.3	1292.3	1288.3	1284.4	1280.4	1278.9	1279.8	1280.7	1281.6	1282.5
150°	1320.7	1319.2	1315.5	1311.7	1307.9	1304.1	1303.1	1304.7	1306.4	1308.0	1309.7
152.5°	1341.9	1340.5	1336.9	1333.3	1329.7	1326.1	1325.3	1327.1	1328.9	1330.8	1332.6
155°	1370.6	1369.2	1366.4	1363.5	1360.7	1357.9	1357.5	1359.6	1361.8	1363.9	1366.0
157.5°	1394.6	1393.0	1391.0	1389.0	1387.1	1385.1	1385.0	1386.8	1388.6	1390.4	1392.2
160°	1408.9	1407.5	1406.1	1404.6	1403.2	1401.8	1401.8	1403.2	1404.6	1406.1	1407.5
162.5°	1421.8	1420.2	1419.0	1417.8	1416.5	1415.3	1415.4	1416.8	1418.2	1419.7	1421.1
165°	1437.8	1436.2	1435.5	1434.8	1434.0	1433.3	1433.7	1435.1	1436.5	1437.9	1439.4
167.5°	1451.2	1449.6	1448.9	1448.2	1447.6	1446.9	1447.3	1448.7	1450.1	1451.6	1453.0
170°	1458.0	1456.4	1455.9	1455.4	1455.0	1454.5	1455.0	1456.4	1457.8	1459.2	1460.6
172.5°	1463.1	1461.5	1461.0	1460.5	1460.1	1459.6	1460.1	1461.5	1462.9	1464.3	1465.7
175°	1468.7	1467.0	1466.5	1466.1	1465.6	1465.1	1465.7	1467.4	1469.0	1470.7	1472.3
177.5°	1469.6	1468.3	1468.1	1467.9	1467.7	1467.5	1468.1	1469.4	1470.7	1472.1	1473.4
180°	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1



TEST NUMBER: P331639

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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	657.6	658.1	661.7	663.4	666.6	667.9	669.4	669.0	669.0	669.7	674.8
5°	659.0	663.5	670.3	676.9	683.3	688.7	692.4	696.0	697.4	703.9	709.8
7.5°	656.6	665.0	676.2	686.3	698.3	707.7	715.5	722.6	727.4	737.0	746.8
10°	653.5	665.3	678.0	691.0	707.6	720.1	732.8	742.6	745.7	760.0	768.2
12.5°	647.3	663.1	679.3	696.1	712.3	729.5	743.5	753.3	764.5	777.3	792.4
15°	638.1	656.2	677.4	698.9	722.1	743.0	758.0	775.0	787.3	801.4	814.6
17.5°	624.8	648.2	675.0	700.0	726.8	749.2	769.9	786.2	794.8	802.9	804.8
20°	614.2	639.4	671.0	700.5	727.3	753.2	773.7	787.3	789.6	789.8	777.8
22.5°	602.8	631.3	664.3	694.5	726.6	755.4	771.3	777.1	768.1	752.7	729.4
25°	581.7	614.7	653.1	687.6	722.6	749.8	755.3	745.1	713.5	680.3	638.3
27.5°	558.9	596.0	637.1	675.5	712.8	729.7	717.9	681.0	624.2	574.7	514.8
30°	542.2	583.8	624.2	667.1	701.7	708.9	681.9	627.6	561.3	486.8	427.0
32.5°	523.1	566.7	611.1	655.5	684.4	677.3	632.7	565.8	488.1	414.8	358.4
35°	495.9	540.8	588.8	633.3	651.7	621.0	554.2	467.2	387.7	319.4	280.5
37.5°	464.4	513.4	563.2	604.1	602.8	551.7	460.7	370.9	304.1	263.6	236.0
40°	442.0	491.6	545.4	579.9	565.2	498.6	400.0	315.3	266.4	234.2	214.0
42.5°	420.6	470.3	523.8	551.2	525.5	443.7	345.5	279.1	238.8	213.7	197.3
45°	384.1	436.6	486.1	501.3	455.4	365.3	279.4	231.2	204.4	185.8	174.5
47.5°	348.4	400.1	445.3	445.5	383.5	296.2	235.7	200.1	177.2	162.8	154.6
50°	326.6	375.7	413.6	407.7	337.3	263.5	210.8	180.1	161.1	149.9	141.3
52.5°	302.1	349.7	382.6	365.8	298.2	231.9	188.4	162.7	146.9	137.2	129.5
55°	266.4	308.7	331.9	306.4	243.3	192.9	159.2	139.0	127.2	119.0	112.4
57.5°	231.4	266.3	280.8	251.2	200.4	159.9	134.7	119.5	107.8	101.9	98.5
60°	209.4	239.2	249.4	216.7	174.2	139.9	119.3	105.2	96.5	92.7	89.3
62.5°	187.8	212.1	216.3	186.4	151.9	122.5	104.7	92.8	87.1	83.4	80.2
65°	155.8	173.3	171.3	147.2	120.2	97.2	84.3	77.0	72.7	67.5	61.8
67.5°	128.3	139.0	132.5	114.5	91.7	75.6	67.1	61.6	56.2	51.3	50.0
70°	110.8	117.0	110.2	93.6	75.2	63.4	56.6	50.0	46.8	45.7	43.6
72.5°	94.1	96.3	88.9	74.7	61.2	52.5	45.8	42.2	40.4	39.5	38.2
75°	70.6	69.1	62.7	51.6	42.5	36.6	34.5	33.2	32.0	31.1	30.4
77.5°	49.6	47.3	41.6	34.3	29.6	26.8	25.5	24.8	24.3	23.8	23.1
80°	37.3	35.7	30.0	24.5	22.5	21.1	20.4	19.5	19.5	19.1	18.4
82.5°	27.3	25.5	20.5	18.0	16.9	16.0	15.5	15.0	14.8	14.9	14.4
85°	14.3	11.6	10.2	9.8	9.1	8.6	8.9	8.4	8.4	8.4	8.2
87.5°	5.1	4.7	5.0	5.4	6.0	6.4	6.6	7.0	7.5	7.6	8.0
90°	3.7	6.3	8.9	11.5	13.7	15.6	17.5	19.4	21.3	22.4	23.6
92.5°	21.2	21.0	20.8	20.5	20.9	21.8	22.8	23.7	24.7	25.3	25.9
95°	61.3	53.5	45.7	37.9	34.8	36.5	38.2	39.8	41.5	42.6	43.8
97.5°	115.2	93.2	71.2	49.3	40.2	44.0	47.8	51.7	55.5	56.4	57.4
100°	155.8	123.4	91.1	58.7	44.5	48.5	52.6	56.6	60.6	62.5	64.4
102.5°	237.4	230.6	223.7	216.9	196.7	163.1	129.5	95.9	62.3	64.8	67.2
105°	330.3	337.3	344.4	351.5	322.8	258.3	193.8	129.3	64.8	67.4	70.0
107.5°	418.8	424.5	430.2	436.0	400.2	322.8	245.5	168.1	90.8	88.1	85.5
110°	475.9	480.9	485.8	490.8	459.1	390.8	322.6	254.3	186.0	162.4	138.8



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	529.8	534.1	538.5	542.9	536.7	519.8	503.0	486.1	469.2	383.1	296.9
115°	615.3	619.3	623.3	627.3	632.3	638.2	644.1	650.0	655.9	546.5	437.1
117.5°	692.5	697.0	701.5	706.0	710.2	714.3	718.4	722.4	726.5	700.0	673.6
120°	747.7	751.2	754.8	758.3	762.2	766.5	770.7	775.0	779.2	782.0	784.9
122.5°	795.5	799.2	803.0	806.7	810.9	815.5	820.1	824.8	829.4	831.1	832.8
125°	867.3	870.4	873.5	876.5	880.3	884.8	889.3	893.8	898.3	899.9	901.6
127.5°	933.4	936.8	940.2	943.6	946.9	950.3	953.6	957.0	960.4	962.8	965.2
130°	975.4	979.2	983.0	986.7	989.9	992.5	995.1	997.7	1000.3	1002.9	1005.5
132.5°	1017.4	1020.6	1023.8	1027.0	1029.9	1032.5	1035.1	1037.7	1040.3	1042.5	1044.7
135°	1073.2	1077.0	1080.8	1084.5	1087.5	1089.6	1091.7	1093.9	1096.0	1098.4	1100.7
137.5°	1128.0	1130.6	1133.3	1135.9	1138.4	1140.9	1143.3	1145.7	1148.1	1150.4	1152.7
140°	1163.8	1165.7	1167.6	1169.5	1171.7	1174.3	1176.9	1179.5	1182.1	1184.2	1186.4
142.5°	1194.2	1195.9	1197.6	1199.3	1201.7	1204.6	1207.6	1210.6	1213.6	1215.5	1217.4
145°	1240.3	1240.1	1239.9	1239.6	1241.5	1245.5	1249.5	1253.6	1257.6	1259.2	1260.9
147.5°	1281.6	1280.7	1279.8	1278.9	1280.4	1284.4	1288.3	1292.3	1296.3	1297.5	1298.7
150°	1308.0	1306.4	1304.7	1303.1	1304.1	1307.9	1311.7	1315.5	1319.2	1320.7	1322.1
152.5°	1330.8	1328.9	1327.1	1325.3	1326.1	1329.7	1333.3	1336.9	1340.5	1341.9	1343.3
155°	1363.9	1361.8	1359.6	1357.5	1357.9	1360.7	1363.5	1366.4	1369.2	1370.6	1372.0
157.5°	1390.4	1388.6	1386.8	1385.0	1385.1	1387.1	1389.0	1391.0	1393.0	1394.6	1396.2
160°	1406.1	1404.6	1403.2	1401.8	1401.8	1403.2	1404.6	1406.1	1407.5	1408.9	1410.3
162.5°	1419.7	1418.2	1416.8	1415.4	1415.3	1416.5	1417.8	1419.0	1420.2	1421.8	1423.4
165°	1437.9	1436.5	1435.1	1433.7	1433.3	1434.0	1434.8	1435.5	1436.2	1437.8	1439.5
167.5°	1451.6	1450.1	1448.7	1447.3	1446.9	1447.6	1448.2	1448.9	1449.6	1451.2	1452.9
170°	1459.2	1457.8	1456.4	1455.0	1454.5	1455.0	1455.4	1455.9	1456.4	1458.0	1459.7
172.5°	1464.3	1462.9	1461.5	1460.1	1459.6	1460.1	1460.5	1461.0	1461.5	1463.1	1464.8
175°	1470.7	1469.0	1467.4	1465.7	1465.1	1465.6	1466.1	1466.5	1467.0	1468.7	1470.3
177.5°	1472.1	1470.7	1469.4	1468.1	1467.5	1467.7	1467.9	1468.1	1468.3	1469.6	1470.9
180°	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	676.6	679.0	680.1	680.1	681.4	680.8	680.3
5°	715.5	719.8	720.8	724.8	727.8	726.9	727.3
7.5°	754.2	761.1	768.0	771.1	771.6	773.4	774.1
10°	778.0	783.7	794.3	792.8	800.7	805.3	797.8
12.5°	800.9	808.6	816.0	818.0	822.5	824.0	821.0
15°	821.6	825.7	826.1	825.0	826.4	825.2	820.9
17.5°	802.3	795.6	782.2	775.8	770.8	763.3	760.3
20°	770.3	750.7	728.0	718.9	708.3	687.4	692.4
22.5°	701.2	679.0	656.2	629.7	617.0	597.2	596.0
25°	593.8	555.4	513.1	483.6	466.3	446.6	437.9
27.5°	461.7	413.3	378.7	361.2	345.2	329.6	328.9
30°	374.8	338.5	311.7	296.7	286.9	280.3	281.7
32.5°	315.9	291.0	272.9	260.5	253.3	248.3	248.2
35°	258.3	241.2	229.6	224.4	219.2	215.6	215.8
37.5°	221.0	210.8	204.3	198.6	195.3	193.5	192.5
40°	201.9	193.5	188.5	185.1	182.4	179.9	179.4
42.5°	186.9	179.9	174.9	172.2	169.7	167.9	167.5
45°	165.8	160.1	155.6	152.6	151.5	149.9	149.9
47.5°	147.5	141.9	138.4	136.5	134.6	133.5	133.5
50°	135.2	130.8	127.7	126.5	124.9	124.3	124.0
52.5°	124.1	120.8	118.6	117.8	117.1	116.3	116.4
55°	109.0	107.2	106.3	105.6	104.5	103.1	104.0
57.5°	96.4	94.8	92.4	90.2	89.2	88.2	88.6
60°	87.5	84.3	81.1	78.6	77.9	75.9	75.9
62.5°	76.2	71.7	67.8	66.4	65.7	64.8	64.6
65°	58.6	56.8	55.9	55.0	54.5	54.5	54.1
67.5°	48.6	47.8	46.8	46.6	46.2	46.0	45.9
70°	42.9	42.0	41.6	41.3	40.9	41.1	40.4
72.5°	37.5	36.8	36.7	36.1	35.8	35.8	35.3
75°	29.5	29.5	29.3	29.1	28.6	28.4	28.6
77.5°	22.7	22.8	22.4	22.3	22.3	22.3	22.1
80°	18.2	18.4	18.2	17.9	17.7	17.9	17.7
82.5°	14.4	14.0	14.0	13.9	13.9	13.8	13.7
85°	8.2	8.4	8.2	8.0	8.0	8.0	8.2
87.5°	8.1	8.3	8.5	8.5	8.6	8.7	8.6
90°	24.8	26.0	26.8	27.3	27.8	28.2	28.7
92.5°	26.5	27.1	27.6	27.9	28.1	28.4	28.7
95°	45.0	46.2	46.7	46.4	46.2	45.9	45.7
97.5°	58.3	59.3	59.9	60.2	60.5	60.7	61.0
100°	66.3	68.2	69.3	69.8	70.3	70.8	71.2
102.5°	69.7	72.1	73.7	74.3	75.0	75.7	76.3
105°	72.6	75.2	77.0	78.0	78.9	79.8	80.8
107.5°	82.8	80.2	79.4	80.3	81.2	82.2	83.1
110°	115.2	91.5	80.2	81.1	82.1	83.0	84.0



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	210.7	124.5	81.8	82.6	83.3	84.1	84.8
115°	327.8	218.4	155.2	138.2	121.2	104.2	87.2
117.5°	647.1	620.7	579.5	523.6	467.7	411.8	355.9
120°	787.7	790.6	776.0	744.1	712.2	680.3	648.5
122.5°	834.5	836.2	833.9	827.8	821.6	815.4	809.2
125°	903.2	904.9	906.1	906.8	907.5	908.2	908.9
127.5°	967.6	970.0	971.3	971.4	971.6	971.7	971.8
130°	1008.1	1010.7	1011.9	1011.7	1011.4	1011.2	1011.0
132.5°	1047.0	1049.2	1050.2	1049.9	1049.7	1049.5	1049.2
135°	1103.1	1105.4	1106.4	1105.9	1105.4	1105.0	1104.5
137.5°	1155.0	1157.3	1158.1	1157.3	1156.5	1155.7	1154.9
140°	1188.5	1190.6	1191.1	1189.9	1188.7	1187.5	1186.4
142.5°	1219.4	1221.3	1221.7	1220.5	1219.3	1218.2	1217.0
145°	1262.5	1264.2	1264.4	1263.3	1262.1	1260.9	1259.7
147.5°	1300.0	1301.2	1301.3	1300.3	1299.3	1298.3	1297.3
150°	1323.5	1324.9	1325.0	1323.8	1322.7	1321.5	1320.3
152.5°	1344.8	1346.2	1346.1	1344.5	1343.0	1341.4	1339.9
155°	1373.5	1374.9	1374.6	1372.7	1370.9	1369.0	1367.1
157.5°	1397.8	1399.4	1399.3	1397.5	1395.6	1393.8	1391.9
160°	1411.7	1413.1	1413.0	1411.4	1409.7	1408.1	1406.4
162.5°	1425.0	1426.7	1426.4	1424.4	1422.4	1420.3	1418.3
165°	1441.1	1442.8	1442.8	1441.1	1439.5	1437.8	1436.2
167.5°	1454.5	1456.2	1455.9	1453.8	1451.7	1449.6	1447.4
170°	1461.3	1463.0	1462.7	1460.6	1458.5	1456.4	1454.2
172.5°	1466.4	1468.1	1467.9	1465.7	1463.6	1461.5	1459.3
175°	1472.0	1473.6	1473.3	1470.9	1468.5	1466.2	1463.8
177.5°	1472.2	1473.6	1473.4	1471.7	1470.0	1468.3	1466.6
180°	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1	1469.1

(END OF REPORT)