

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: P331639-830

Luminaire Tested: **SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331639-830
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-C290D1080U830-4F0-1E-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: 5126.3 lumens
Efficiency: N/A
Efficacy: 121.5 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

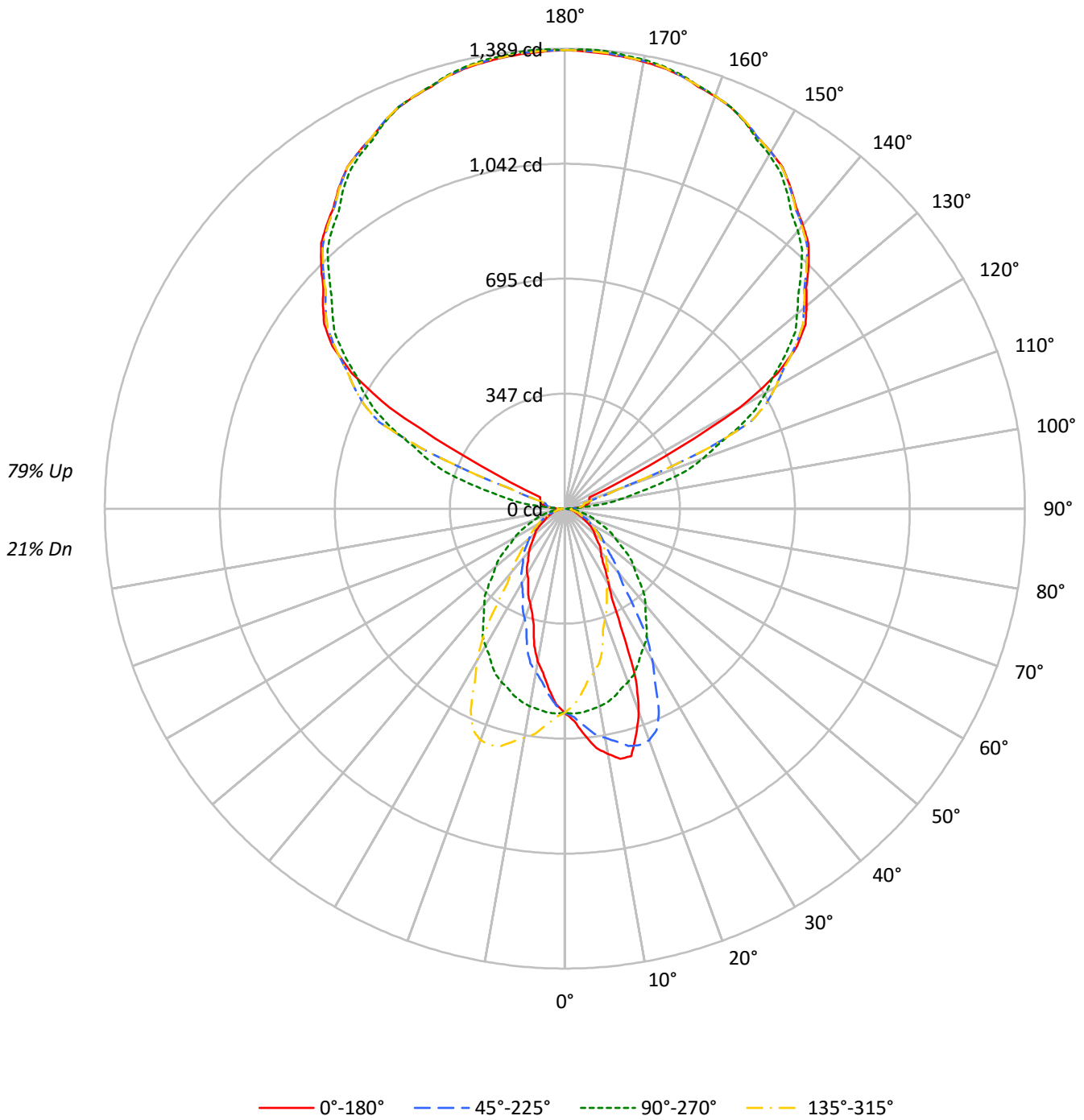
Input Watts (W): 42.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9947	9947	9947	9947
5°	11110	10010	8877	10010
10°	12329	9940	7694	9940
15°	12933	9795	6063	9795
20°	11213	9579	5246	9579
25°	7352	9283	4684	9283
30°	4950	8925	4238	8925
35°	4009	8474	3824	8474
40°	3564	7982	3539	7982
45°	3226	7405	3158	7405
50°	2936	6835	2926	6835
55°	2759	6201	2725	6201
60°	2309	5622	2283	5622
65°	1948	5104	2208	5104
70°	1799	4556	2082	4556
75°	1684	3968	1921	3968
80°	1553	3273	1711	3273
85°	1426	2575	1501	2575



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.4	1.1
10°-20°	162.8	3.2
20°-30°	209.7	4.1
30°-40°	199.3	3.9
40°-50°	170.7	3.3
50°-60°	130.0	2.5
60°-70°	82.2	1.6
70°-80°	41.0	0.8
80°-90°	14.1	0.3
90°-100°	46.2	0.9
100°-110°	169.4	3.3
110°-120°	452.8	8.8
120°-130°	747.4	14.6
130°-140°	794.9	15.5
140°-150°	738.8	14.4
150°-160°	594.0	11.6
160°-170°	382.8	7.5
170°-180°	131.8	2.6
0°-30°	430.9	8.4
0°-40°	630.2	12.3
0°-60°	931.0	18.2
0°-90°	1068.3	20.8
90°-120°	668.4	13.0
90°-150°	2949.4	57.5
90°-180°	4058.0	79.2
0°-180°	5126.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	616	616	616	616	616	
5°	686	618	548	618	686	68
15°	774	586	363	586	774	209
25°	413	521	263	521	413	196
35°	203	430	194	430	203	130
45°	141	324	138	324	141	109
55°	98	220	97	220	98	86
65°	51	134	58	134	51	52
75°	27	64	31	64	27	29
85°	8	14	8	14	8	9
90°	27	1	27	1	27	12
95°	43	65	43	65	43	40
105°	76	305	76	305	76	79
115°	82	576	82	576	82	206
125°	857	815	857	815	857	741
135°	1041	1008	1041	1008	1041	802
145°	1187	1169	1187	1169	1187	743
155°	1288	1288	1288	1288	1288	595
165°	1354	1357	1354	1357	1354	382
175°	1380	1388	1380	1388	1380	131
180°	1385	1385	1385	1385	1385	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	641.2	641.7	642.2	641.0	641.0	640.0	637.7	636.0	631.2	630.6	630.6
5°	685.5	685.1	686.0	683.2	679.4	678.4	674.4	669.0	663.5	657.3	656.0
7.5°	729.6	729.0	727.3	726.8	723.9	717.4	710.9	703.9	694.7	685.6	681.1
10°	752.0	759.0	754.7	747.2	748.7	738.7	733.3	724.1	716.3	702.9	699.9
12.5°	773.8	776.7	775.2	771.0	769.1	762.1	754.9	746.9	732.6	720.6	710.0
15°	773.7	777.8	778.9	777.6	778.6	778.3	774.4	767.8	755.4	742.1	730.5
17.5°	716.6	719.4	726.5	731.2	737.3	749.9	756.2	758.6	756.8	749.1	741.0
20°	652.6	647.9	667.6	677.6	686.2	707.6	726.0	733.1	744.4	744.2	742.1
22.5°	561.8	562.9	581.5	593.5	618.5	640.0	660.9	687.5	709.5	724.0	732.4
25°	412.7	420.9	439.5	455.8	483.6	523.5	559.7	601.6	641.2	672.5	702.3
27.5°	310.0	310.7	325.4	340.4	356.9	389.6	435.2	485.2	541.7	588.3	641.9
30°	265.5	264.2	270.4	279.7	293.8	319.1	353.3	402.5	458.8	529.0	591.5
32.5°	233.9	234.0	238.7	245.5	257.2	274.3	297.7	337.8	391.0	460.1	533.3
35°	203.4	203.2	206.6	211.5	216.4	227.3	243.5	264.4	301.0	365.4	440.4
37.5°	181.4	182.4	184.1	187.2	192.6	198.7	208.3	222.4	248.5	286.6	349.6
40°	169.1	169.6	171.9	174.5	177.7	182.4	190.3	201.7	220.7	251.1	297.2
42.5°	157.9	158.3	159.9	162.3	164.9	169.6	176.2	186.0	201.4	225.1	263.1
45°	141.3	141.3	142.8	143.8	146.7	150.9	156.3	164.5	175.1	192.7	217.9
47.5°	125.8	125.8	126.9	128.7	130.4	133.7	139.0	145.7	153.4	167.0	188.6
50°	116.9	117.2	117.7	119.2	120.4	123.3	127.4	133.2	141.3	151.8	169.8
52.5°	109.7	109.6	110.4	111.0	111.8	113.9	117.0	122.1	129.3	138.5	153.4
55°	98.0	97.2	98.5	99.5	100.2	101.0	102.7	105.9	112.2	119.9	131.0
57.5°	83.5	83.1	84.1	85.0	87.1	89.4	90.9	92.8	96.0	101.6	112.6
60°	71.5	71.5	73.4	74.1	76.4	79.5	82.5	84.2	87.4	91.0	99.2
62.5°	60.9	61.1	61.9	62.6	63.9	67.6	71.8	75.6	78.6	82.1	87.5
65°	51.0	51.4	51.4	51.8	52.7	53.5	55.2	58.2	63.6	68.5	72.6
67.5°	43.3	43.4	43.5	43.9	44.1	45.1	45.8	47.1	48.4	53.0	58.1
70°	38.1	38.7	38.5	38.9	39.2	39.6	40.4	41.1	43.1	44.1	47.1
72.5°	33.3	33.7	33.7	34.0	34.6	34.7	35.3	36.0	37.2	38.1	39.8
75°	27.0	26.8	27.0	27.4	27.6	27.8	27.8	28.7	29.3	30.2	31.3
77.5°	20.8	21.0	21.0	21.0	21.1	21.5	21.4	21.8	22.4	22.9	23.4
80°	16.7	16.9	16.7	16.9	17.2	17.3	17.2	17.3	18.0	18.4	18.4
82.5°	12.9	13.0	13.1	13.1	13.2	13.2	13.6	13.6	14.0	13.9	14.1
85°	7.7	7.5	7.5	7.5	7.7	7.9	7.7	7.7	7.9	7.9	7.9
87.5°	8.1	8.2	8.1	8.0	8.0	7.8	7.6	7.5	7.2	7.1	6.6
90°	27.1	26.6	26.2	25.7	25.3	24.5	23.4	22.2	21.1	20.1	18.3
92.5°	27.1	26.8	26.5	26.3	26.0	25.5	25.0	24.4	23.8	23.3	22.3
95°	43.1	43.3	43.5	43.7	44.0	43.5	42.4	41.3	40.2	39.1	37.5
97.5°	57.5	57.2	57.0	56.7	56.5	55.9	55.0	54.1	53.2	52.3	48.7
100°	67.1	66.7	66.3	65.8	65.3	64.3	62.5	60.7	58.9	57.1	53.3
102.5°	71.9	71.4	70.7	70.0	69.5	68.0	65.7	63.3	61.1	58.7	90.4
105°	76.2	75.2	74.4	73.5	72.6	70.9	68.4	66.0	63.5	61.1	121.9
107.5°	78.3	77.5	76.5	75.7	74.8	75.6	78.0	80.6	83.0	85.6	158.4
110°	79.2	78.2	77.4	76.4	75.6	86.2	108.6	130.8	153.1	175.3	239.7



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	79.9	79.3	78.5	77.9	77.1	117.3	198.6	279.8	361.1	442.2	458.2
115°	82.2	98.2	114.2	130.3	146.3	205.9	309.0	412.0	515.1	618.2	612.7
117.5°	335.5	388.1	440.8	493.5	546.2	585.0	609.9	634.9	659.8	684.8	680.9
120°	611.2	641.2	671.3	701.3	731.4	745.2	742.4	739.8	737.1	734.4	730.5
122.5°	762.7	768.5	774.4	780.2	786.0	788.2	786.6	784.9	783.3	781.7	777.4
125°	856.7	856.0	855.4	854.7	854.0	852.9	851.3	849.8	848.2	846.7	842.4
127.5°	916.0	915.9	915.8	915.6	915.5	914.3	912.0	909.7	907.5	905.2	902.0
130°	952.9	953.1	953.3	953.6	953.8	952.6	950.2	947.7	945.3	942.8	940.4
132.5°	988.9	989.2	989.4	989.6	989.9	988.9	986.8	984.7	982.6	980.5	978.1
135°	1041.0	1041.5	1041.9	1042.4	1042.8	1041.9	1039.7	1037.5	1035.3	1033.0	1031.0
137.5°	1088.5	1089.3	1090.1	1090.8	1091.6	1090.8	1088.6	1086.5	1084.3	1082.1	1079.9
140°	1118.2	1119.3	1120.4	1121.5	1122.7	1122.2	1120.2	1118.2	1116.2	1114.2	1111.7
142.5°	1147.1	1148.2	1149.2	1150.4	1151.5	1151.1	1149.3	1147.5	1145.7	1143.9	1141.0
145°	1187.3	1188.5	1189.6	1190.7	1191.8	1191.6	1190.0	1188.5	1186.8	1185.3	1181.6
147.5°	1222.8	1223.7	1224.6	1225.6	1226.5	1226.4	1225.3	1224.1	1222.9	1221.8	1218.0
150°	1244.4	1245.6	1246.7	1247.7	1248.9	1248.8	1247.5	1246.1	1244.8	1243.4	1239.9
152.5°	1262.9	1264.3	1265.8	1267.2	1268.8	1268.9	1267.5	1266.1	1264.8	1263.5	1260.1
155°	1288.5	1290.3	1292.1	1293.8	1295.6	1295.9	1294.6	1293.2	1291.8	1290.5	1287.9
157.5°	1311.9	1313.7	1315.4	1317.2	1318.9	1319.0	1317.5	1316.0	1314.5	1313.0	1311.1
160°	1325.6	1327.2	1328.7	1330.3	1331.8	1331.9	1330.6	1329.3	1327.9	1326.6	1325.3
162.5°	1336.8	1338.7	1340.7	1342.6	1344.4	1344.7	1343.1	1341.6	1340.1	1338.6	1337.5
165°	1353.7	1355.2	1356.8	1358.3	1359.9	1359.9	1358.3	1356.8	1355.2	1353.7	1353.0
167.5°	1364.2	1366.3	1368.3	1370.3	1372.2	1372.5	1370.9	1369.4	1367.8	1366.3	1365.6
170°	1370.6	1372.7	1374.7	1376.7	1378.7	1378.9	1377.3	1375.8	1374.2	1372.7	1372.2
172.5°	1375.5	1377.5	1379.5	1381.5	1383.6	1383.7	1382.1	1380.6	1379.0	1377.5	1377.1
175°	1379.7	1382.0	1384.1	1386.4	1388.6	1388.9	1387.4	1385.8	1384.3	1382.7	1382.2
177.5°	1382.3	1383.9	1385.5	1387.1	1388.7	1388.9	1387.6	1386.4	1385.2	1383.9	1383.7
180°	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	630.9	629.5	628.3	625.3	623.7	620.3	619.8	619.6	615.2	610.9	609.6
5°	652.6	649.1	644.0	638.0	631.8	625.4	621.1	617.6	609.1	601.0	596.3
7.5°	674.4	667.0	658.2	646.9	637.3	626.8	618.9	611.8	599.6	588.0	580.1
10°	690.7	678.7	666.9	651.3	639.0	627.1	616.0	606.3	592.7	577.2	566.3
12.5°	700.8	687.6	671.4	656.1	640.3	625.0	610.1	597.8	581.6	565.7	552.8
15°	714.4	700.3	680.6	658.7	638.5	618.5	601.4	586.0	565.1	545.9	530.1
17.5°	725.7	706.2	685.0	659.8	636.2	611.0	588.9	569.2	545.8	522.8	504.2
20°	729.2	709.9	685.5	660.3	632.4	602.7	578.9	557.5	532.4	507.4	486.0
22.5°	727.0	712.0	684.9	654.6	626.1	595.0	568.2	543.3	515.5	489.9	465.1
25°	711.9	706.7	681.1	648.1	615.6	579.4	548.3	521.1	489.5	462.0	435.1
27.5°	676.7	687.8	671.8	636.7	600.5	561.8	526.8	495.9	463.0	432.2	405.3
30°	642.7	668.2	661.4	628.8	588.3	550.3	511.0	478.7	443.7	411.9	385.4
32.5°	596.3	638.4	645.1	617.8	576.0	534.1	493.0	460.9	424.2	390.9	365.0
35°	522.4	585.3	614.3	596.9	555.0	509.7	467.4	429.9	393.0	360.1	334.4
37.5°	434.2	520.0	568.2	569.4	530.8	483.9	437.7	400.5	362.8	330.5	302.7
40°	377.0	470.0	532.7	546.6	514.1	463.4	416.6	378.7	342.0	310.2	278.3
42.5°	325.6	418.2	495.3	519.5	493.7	443.3	396.4	356.8	321.0	291.1	258.4
45°	263.3	344.3	429.2	472.5	458.2	411.5	362.0	324.3	290.8	264.9	233.6
47.5°	222.2	279.2	361.5	419.9	419.7	377.1	328.4	292.4	261.2	236.9	211.6
50°	198.7	248.4	317.9	384.3	389.8	354.1	307.8	272.1	243.0	217.5	197.2
52.5°	177.6	218.6	281.1	344.8	360.6	329.6	284.7	251.8	223.5	200.0	182.7
55°	150.1	181.8	229.3	288.8	312.8	291.0	251.1	220.3	197.4	177.7	162.7
57.5°	127.0	150.7	188.9	236.8	264.7	251.0	218.1	193.0	173.4	155.6	143.8
60°	112.4	131.9	164.2	204.2	235.1	225.5	197.4	174.1	157.4	141.9	130.8
62.5°	98.7	115.5	143.2	175.7	203.9	199.9	177.0	157.4	142.8	128.8	119.3
65°	79.5	91.6	113.3	138.7	161.5	163.3	146.8	133.6	120.6	109.4	101.0
67.5°	63.2	71.3	86.4	107.9	124.9	131.0	120.9	110.7	100.4	91.8	84.5
70°	53.3	59.8	70.9	88.2	103.9	110.3	104.4	96.5	87.6	80.5	74.3
72.5°	43.2	49.5	57.7	70.4	83.8	90.8	88.7	83.0	75.8	69.8	64.0
75°	32.5	34.5	40.1	48.6	59.1	65.1	66.5	63.6	57.8	53.3	49.9
77.5°	24.0	25.3	27.9	32.3	39.2	44.6	46.8	46.4	42.4	39.9	36.6
80°	19.2	19.9	21.2	23.1	28.3	33.6	35.2	35.2	32.3	31.3	28.1
82.5°	14.6	15.1	15.9	17.0	19.3	24.0	25.7	26.0	24.3	22.9	20.4
85°	8.4	8.1	8.6	9.2	9.6	10.9	13.5	13.9	13.5	11.8	11.1
87.5°	6.2	6.0	5.7	5.1	4.7	4.4	4.8	5.2	5.0	4.9	5.1
90°	16.5	14.7	12.9	10.8	8.4	5.9	3.5	1.0	3.5	5.9	8.4
92.5°	21.5	20.5	19.7	19.3	19.6	19.8	20.0	20.3	20.0	19.8	19.6
95°	36.0	34.4	32.8	35.7	43.1	50.4	57.8	65.1	57.8	50.4	43.1
97.5°	45.1	41.5	37.9	46.5	67.1	87.8	108.6	129.2	108.6	87.8	67.1
100°	49.6	45.7	41.9	55.3	85.9	116.3	146.8	177.4	146.8	116.3	85.9
102.5°	122.1	153.7	185.4	204.4	210.8	217.4	223.8	230.3	223.8	217.4	210.8
105°	182.7	243.5	304.3	331.3	324.6	317.9	311.3	304.6	311.3	317.9	324.6
107.5°	231.4	304.3	377.2	410.9	405.5	400.1	394.7	389.4	394.7	400.1	405.5
110°	304.1	368.3	432.7	462.6	457.9	453.3	448.6	443.8	448.6	453.3	457.9



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	474.1	489.9	505.9	511.7	507.6	503.4	499.4	495.2	499.4	503.4	507.6
115°	607.1	601.5	596.0	591.3	587.5	583.7	579.9	576.2	579.9	583.7	587.5
117.5°	677.1	673.3	669.4	665.4	661.2	657.0	652.7	648.5	652.7	657.0	661.2
120°	726.4	722.5	718.4	714.7	711.4	708.0	704.7	701.3	704.7	708.0	711.4
122.5°	773.0	768.6	764.3	760.3	756.9	753.3	749.8	746.3	749.8	753.3	756.9
125°	838.2	834.0	829.7	826.1	823.3	820.4	817.5	814.6	817.5	820.4	823.3
127.5°	898.8	895.7	892.5	889.4	886.2	883.0	879.8	876.6	879.8	883.0	886.2
130°	937.9	935.5	933.0	930.0	926.5	922.9	919.4	915.8	919.4	922.9	926.5
132.5°	975.6	973.2	970.7	968.0	965.0	962.0	958.9	955.8	958.9	962.0	965.0
135°	1029.0	1027.0	1025.0	1022.2	1018.7	1015.1	1011.5	1008.0	1011.5	1015.1	1018.7
137.5°	1077.6	1075.3	1073.0	1070.6	1068.2	1065.6	1063.2	1060.6	1063.2	1065.6	1068.2
140°	1109.3	1106.8	1104.4	1102.3	1100.5	1098.7	1096.9	1095.1	1096.9	1098.7	1100.5
142.5°	1138.2	1135.4	1132.7	1130.4	1128.8	1127.2	1125.6	1124.0	1125.6	1127.2	1128.8
145°	1177.7	1173.9	1170.2	1168.4	1168.7	1168.8	1169.0	1169.3	1169.0	1168.8	1168.7
147.5°	1214.3	1210.6	1206.8	1205.4	1206.3	1207.1	1208.0	1208.8	1208.0	1207.1	1206.3
150°	1236.3	1232.8	1229.2	1228.2	1229.7	1231.3	1232.8	1234.4	1232.8	1231.3	1229.7
152.5°	1256.7	1253.3	1249.9	1249.2	1250.8	1252.5	1254.3	1256.0	1254.3	1252.5	1250.8
155°	1285.2	1282.5	1279.9	1279.5	1281.5	1283.6	1285.5	1287.5	1285.5	1283.6	1281.5
157.5°	1309.2	1307.4	1305.5	1305.4	1307.1	1308.8	1310.5	1312.2	1310.5	1308.8	1307.1
160°	1323.9	1322.6	1321.3	1321.3	1322.6	1323.9	1325.3	1326.6	1325.3	1323.9	1322.6
162.5°	1336.3	1335.1	1334.0	1334.1	1335.4	1336.7	1338.1	1339.4	1338.1	1336.7	1335.4
165°	1352.4	1351.6	1350.9	1351.3	1352.6	1354.0	1355.3	1356.7	1355.3	1354.0	1352.6
167.5°	1365.0	1364.4	1363.8	1364.1	1365.5	1366.8	1368.2	1369.5	1368.2	1366.8	1365.5
170°	1371.8	1371.4	1370.9	1371.4	1372.7	1374.0	1375.4	1376.7	1375.4	1374.0	1372.7
172.5°	1376.6	1376.2	1375.7	1376.2	1377.5	1378.8	1380.2	1381.5	1380.2	1378.8	1377.5
175°	1381.9	1381.4	1380.9	1381.5	1383.1	1384.6	1386.2	1387.7	1386.2	1384.6	1383.1
177.5°	1383.6	1383.4	1383.2	1383.7	1385.0	1386.2	1387.5	1388.7	1387.5	1386.2	1385.0
180°	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	607.5	606.2	604.0	600.6	598.5	594.9	592.6	593.9	594.3	593.9	593.6
5°	591.2	586.6	580.4	574.4	568.8	562.9	559.4	558.0	555.0	553.3	552.3
7.5°	571.4	563.6	554.9	544.4	535.6	526.2	521.5	519.2	513.0	509.7	506.8
10°	556.7	544.4	535.6	522.0	513.6	501.4	493.0	493.3	484.9	480.2	476.8
12.5°	540.4	527.0	512.4	500.0	488.4	478.6	468.5	464.5	455.6	451.1	441.9
15°	513.4	497.8	482.4	465.7	453.9	438.7	424.1	406.3	392.0	379.6	376.2
17.5°	484.0	464.6	449.1	429.5	409.3	383.8	366.9	356.6	348.0	341.4	336.5
20°	463.7	444.0	427.5	398.0	370.8	353.5	341.1	333.1	324.1	317.1	313.2
22.5°	442.5	422.0	399.4	366.5	345.3	331.4	320.4	311.2	305.1	299.6	296.1
25°	412.4	389.8	352.8	330.2	313.0	298.4	290.8	285.2	278.8	271.3	267.9
27.5°	380.5	344.8	318.1	301.2	284.9	275.5	268.5	260.2	254.5	251.1	247.5
30°	356.7	320.9	300.2	281.7	270.2	259.7	251.6	246.9	241.3	235.5	233.2
32.5°	330.2	301.6	281.6	266.4	254.6	245.6	239.2	231.6	227.6	224.0	219.1
35°	297.2	275.5	257.3	245.0	233.8	226.5	219.0	214.5	207.3	204.2	202.4
37.5°	269.3	250.5	237.0	223.9	215.0	207.0	202.4	195.2	192.1	187.8	183.8
40°	253.4	235.1	222.1	211.3	201.4	195.5	189.7	183.9	179.2	177.3	172.4
42.5°	237.4	222.4	209.3	197.7	191.1	184.6	177.4	173.1	168.2	165.1	162.1
45°	215.2	201.9	190.8	181.2	173.8	167.2	162.5	155.4	152.7	146.5	143.8
47.5°	195.7	183.3	172.7	163.5	156.5	152.1	145.2	139.7	135.3	131.4	128.1
50°	181.8	171.4	161.2	153.1	146.7	140.4	133.4	130.6	123.8	121.8	119.9
52.5°	169.1	159.3	150.0	141.9	135.5	129.5	123.3	119.6	115.0	113.1	111.7
55°	151.4	141.9	133.0	125.9	119.5	113.3	109.4	104.9	102.7	101.2	99.5
57.5°	133.6	125.1	118.2	111.0	104.5	99.6	95.2	92.5	90.3	88.3	86.2
60°	122.2	114.1	107.9	101.2	94.6	90.6	87.2	83.9	81.3	78.3	77.5
62.5°	110.3	103.1	97.5	91.0	85.2	81.5	78.2	75.2	72.1	67.8	66.5
65°	93.8	88.2	82.2	76.8	71.7	68.1	63.3	59.9	58.6	58.2	58.1
67.5°	78.9	73.6	68.4	63.0	58.3	55.0	52.5	52.0	51.1	50.9	50.2
70°	68.9	64.0	58.9	53.7	49.2	48.6	47.8	46.8	45.8	45.4	45.0
72.5°	60.0	55.0	49.8	45.7	43.7	43.0	42.1	41.2	40.5	40.1	39.9
75°	46.0	41.3	37.9	36.4	35.3	34.7	33.4	32.8	32.3	31.7	31.5
77.5°	33.2	30.4	28.9	28.0	26.9	26.2	25.4	24.8	24.3	24.2	23.8
80°	25.3	23.9	22.9	21.6	21.2	20.4	20.2	19.5	19.7	19.0	19.0
82.5°	19.6	18.0	17.1	16.5	16.0	15.4	15.2	14.9	14.9	14.4	14.4
85°	10.1	9.6	9.2	8.8	8.8	8.1	8.4	8.1	8.1	7.7	7.5
87.5°	5.4	5.7	5.7	6.0	6.4	6.6	6.8	6.9	7.1	7.3	7.3
90°	10.8	12.9	14.7	16.5	18.3	20.1	21.1	22.2	23.4	24.5	25.3
92.5°	19.3	19.7	20.5	21.5	22.3	23.3	23.8	24.4	25.0	25.5	26.0
95°	35.7	32.8	34.4	36.0	37.5	39.1	40.2	41.3	42.4	43.5	44.0
97.5°	46.5	37.9	41.5	45.1	48.7	52.3	53.2	54.1	55.0	55.9	56.5
100°	55.3	41.9	45.7	49.6	53.3	57.1	58.9	60.7	62.5	64.3	65.3
102.5°	204.4	185.4	153.7	122.1	90.4	58.7	61.1	63.3	65.7	68.0	69.5
105°	331.3	304.3	243.5	182.7	121.9	61.1	63.5	66.0	68.4	70.9	72.6
107.5°	410.9	377.2	304.3	231.4	158.4	85.6	83.0	80.6	78.0	75.6	74.8
110°	462.6	432.7	368.3	304.1	239.7	175.3	153.1	130.8	108.6	86.2	75.6



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	511.7	505.9	489.9	474.1	458.2	442.2	361.1	279.8	198.6	117.3	77.1
115°	591.3	596.0	601.5	607.1	612.7	618.2	515.1	412.0	309.0	205.9	146.3
117.5°	665.4	669.4	673.3	677.1	680.9	684.8	659.8	634.9	609.9	585.0	546.2
120°	714.7	718.4	722.5	726.4	730.5	734.4	737.1	739.8	742.4	745.2	731.4
122.5°	760.3	764.3	768.6	773.0	777.4	781.7	783.3	784.9	786.6	788.2	786.0
125°	826.1	829.7	834.0	838.2	842.4	846.7	848.2	849.8	851.3	852.9	854.0
127.5°	889.4	892.5	895.7	898.8	902.0	905.2	907.5	909.7	912.0	914.3	915.5
130°	930.0	933.0	935.5	937.9	940.4	942.8	945.3	947.7	950.2	952.6	953.8
132.5°	968.0	970.7	973.2	975.6	978.1	980.5	982.6	984.7	986.8	988.9	989.9
135°	1022.2	1025.0	1027.0	1029.0	1031.0	1033.0	1035.3	1037.5	1039.7	1041.9	1042.8
137.5°	1070.6	1073.0	1075.3	1077.6	1079.9	1082.1	1084.3	1086.5	1088.6	1090.8	1091.6
140°	1102.3	1104.4	1106.8	1109.3	1111.7	1114.2	1116.2	1118.2	1120.2	1122.2	1122.7
142.5°	1130.4	1132.7	1135.4	1138.2	1141.0	1143.9	1145.7	1147.5	1149.3	1151.1	1151.5
145°	1168.4	1170.2	1173.9	1177.7	1181.6	1185.3	1186.8	1188.5	1190.0	1191.6	1191.8
147.5°	1205.4	1206.8	1210.6	1214.3	1218.0	1221.8	1222.9	1224.1	1225.3	1226.4	1226.5
150°	1228.2	1229.2	1232.8	1236.3	1239.9	1243.4	1244.8	1246.1	1247.5	1248.8	1248.9
152.5°	1249.2	1249.9	1253.3	1256.7	1260.1	1263.5	1264.8	1266.1	1267.5	1268.9	1268.8
155°	1279.5	1279.9	1282.5	1285.2	1287.9	1290.5	1291.8	1293.2	1294.6	1295.9	1295.6
157.5°	1305.4	1305.5	1307.4	1309.2	1311.1	1313.0	1314.5	1316.0	1317.5	1319.0	1318.9
160°	1321.3	1321.3	1322.6	1323.9	1325.3	1326.6	1327.9	1329.3	1330.6	1331.9	1331.8
162.5°	1334.1	1334.0	1335.1	1336.3	1337.5	1338.6	1340.1	1341.6	1343.1	1344.7	1344.4
165°	1351.3	1350.9	1351.6	1352.4	1353.0	1353.7	1355.2	1356.8	1358.3	1359.9	1359.9
167.5°	1364.1	1363.8	1364.4	1365.0	1365.6	1366.3	1367.8	1369.4	1370.9	1372.5	1372.2
170°	1371.4	1370.9	1371.4	1371.8	1372.2	1372.7	1374.2	1375.8	1377.3	1378.9	1378.7
172.5°	1376.2	1375.7	1376.2	1376.6	1377.1	1377.5	1379.0	1380.6	1382.1	1383.7	1383.6
175°	1381.5	1380.9	1381.4	1381.9	1382.2	1382.7	1384.3	1385.8	1387.4	1388.9	1388.6
177.5°	1383.7	1383.2	1383.4	1383.6	1383.7	1383.9	1385.2	1386.4	1387.6	1388.9	1388.7
180°	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	591.7	592.0	591.5	591.8	591.5	592.0	591.7	593.6	593.9	594.3	593.9
5°	551.3	548.7	548.3	547.7	548.3	548.7	551.3	552.3	553.3	555.0	558.0
7.5°	503.1	502.8	501.6	500.1	501.6	502.8	503.1	506.8	509.7	513.0	519.2
10°	472.1	471.0	470.8	469.3	470.8	471.0	472.1	476.8	480.2	484.9	493.3
12.5°	435.7	428.9	428.2	424.4	428.2	428.9	435.7	441.9	451.1	455.6	464.5
15°	371.1	369.8	365.4	362.7	365.4	369.8	371.1	376.2	379.6	392.0	406.3
17.5°	334.0	329.8	328.5	327.9	328.5	329.8	334.0	336.5	341.4	348.0	356.6
20°	310.2	306.4	305.8	305.3	305.8	306.4	310.2	313.2	317.1	324.1	333.1
22.5°	293.8	289.7	288.1	286.8	288.1	289.7	293.8	296.1	299.6	305.1	311.2
25°	265.7	264.2	263.3	262.9	263.3	264.2	265.7	267.9	271.3	278.8	285.2
27.5°	243.7	240.4	239.8	238.7	239.8	240.4	243.7	247.5	251.1	254.5	260.2
30°	231.2	230.2	228.7	227.3	228.7	230.2	231.2	233.2	235.5	241.3	246.9
32.5°	216.5	215.6	214.2	213.7	214.2	215.6	216.5	219.1	224.0	227.6	231.6
35°	200.2	197.2	195.9	194.0	195.9	197.2	200.2	202.4	204.2	207.3	214.5
37.5°	182.9	181.3	179.6	180.2	179.6	181.3	182.9	183.8	187.8	192.1	195.2
40°	169.6	168.5	168.1	167.9	168.1	168.5	169.6	172.4	177.3	179.2	183.9
42.5°	158.9	156.0	154.9	154.9	154.9	156.0	158.9	162.1	165.1	168.2	173.1
45°	142.8	140.1	138.1	138.3	138.1	140.1	142.8	143.8	146.5	152.7	155.4
47.5°	126.3	126.2	125.0	125.4	125.0	126.2	126.3	128.1	131.4	135.3	139.7
50°	118.4	117.2	116.2	116.5	116.2	117.2	118.4	119.9	121.8	123.8	130.6
52.5°	110.8	109.7	109.1	110.0	109.1	109.7	110.8	111.7	113.1	115.0	119.6
55°	98.5	97.2	97.0	96.8	97.0	97.2	98.5	99.5	101.2	102.7	104.9
57.5°	84.6	83.8	82.5	82.0	82.5	83.8	84.6	86.2	88.3	90.3	92.5
60°	74.7	73.0	70.9	70.7	70.9	73.0	74.7	77.5	78.3	81.3	83.9
62.5°	65.6	65.3	64.8	64.8	64.8	65.3	65.6	66.5	67.8	72.1	75.2
65°	57.6	57.4	57.6	57.8	57.6	57.4	57.6	58.1	58.2	58.6	59.9
67.5°	50.1	49.8	49.4	49.6	49.4	49.8	50.1	50.2	50.9	51.1	52.0
70°	44.5	44.3	44.1	44.1	44.1	44.3	44.5	45.0	45.4	45.8	46.8
72.5°	39.0	39.0	38.8	38.6	38.8	39.0	39.0	39.9	40.1	40.5	41.2
75°	31.3	30.8	30.8	30.8	30.8	30.8	31.3	31.5	31.7	32.3	32.8
77.5°	23.8	23.6	23.4	23.2	23.4	23.6	23.8	23.8	24.2	24.3	24.8
80°	18.9	18.7	18.4	18.4	18.4	18.7	18.9	19.0	19.0	19.7	19.5
82.5°	14.4	14.1	14.1	13.9	14.1	14.1	14.4	14.4	14.4	14.9	14.9
85°	7.7	7.9	7.7	8.1	7.7	7.9	7.7	7.5	7.7	8.1	8.1
87.5°	7.4	7.3	7.5	7.4	7.5	7.3	7.4	7.3	7.3	7.1	6.9
90°	25.7	26.2	26.6	27.1	26.6	26.2	25.7	25.3	24.5	23.4	22.2
92.5°	26.3	26.5	26.8	27.1	26.8	26.5	26.3	26.0	25.5	25.0	24.4
95°	43.7	43.5	43.3	43.1	43.3	43.5	43.7	44.0	43.5	42.4	41.3
97.5°	56.7	57.0	57.2	57.5	57.2	57.0	56.7	56.5	55.9	55.0	54.1
100°	65.8	66.3	66.7	67.1	66.7	66.3	65.8	65.3	64.3	62.5	60.7
102.5°	70.0	70.7	71.4	71.9	71.4	70.7	70.0	69.5	68.0	65.7	63.3
105°	73.5	74.4	75.2	76.2	75.2	74.4	73.5	72.6	70.9	68.4	66.0
107.5°	75.7	76.5	77.5	78.3	77.5	76.5	75.7	74.8	75.6	78.0	80.6
110°	76.4	77.4	78.2	79.2	78.2	77.4	76.4	75.6	86.2	108.6	130.8



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	77.9	78.5	79.3	79.9	79.3	78.5	77.9	77.1	117.3	198.6	279.8
115°	130.3	114.2	98.2	82.2	98.2	114.2	130.3	146.3	205.9	309.0	412.0
117.5°	493.5	440.8	388.1	335.5	388.1	440.8	493.5	546.2	585.0	609.9	634.9
120°	701.3	671.3	641.2	611.2	641.2	671.3	701.3	731.4	745.2	742.4	739.8
122.5°	780.2	774.4	768.5	762.7	768.5	774.4	780.2	786.0	788.2	786.6	784.9
125°	854.7	855.4	856.0	856.7	856.0	855.4	854.7	854.0	852.9	851.3	849.8
127.5°	915.6	915.8	915.9	916.0	915.9	915.8	915.6	915.5	914.3	912.0	909.7
130°	953.6	953.3	953.1	952.9	953.1	953.3	953.6	953.8	952.6	950.2	947.7
132.5°	989.6	989.4	989.2	988.9	989.2	989.4	989.6	989.9	988.9	986.8	984.7
135°	1042.4	1041.9	1041.5	1041.0	1041.5	1041.9	1042.4	1042.8	1041.9	1039.7	1037.5
137.5°	1090.8	1090.1	1089.3	1088.5	1089.3	1090.1	1090.8	1091.6	1090.8	1088.6	1086.5
140°	1121.5	1120.4	1119.3	1118.2	1119.3	1120.4	1121.5	1122.7	1122.2	1120.2	1118.2
142.5°	1150.4	1149.2	1148.2	1147.1	1148.2	1149.2	1150.4	1151.5	1151.1	1149.3	1147.5
145°	1190.7	1189.6	1188.5	1187.3	1188.5	1189.6	1190.7	1191.8	1191.6	1190.0	1188.5
147.5°	1225.6	1224.6	1223.7	1222.8	1223.7	1224.6	1225.6	1226.5	1226.4	1225.3	1224.1
150°	1247.7	1246.7	1245.6	1244.4	1245.6	1246.7	1247.7	1248.9	1248.8	1247.5	1246.1
152.5°	1267.2	1265.8	1264.3	1262.9	1264.3	1265.8	1267.2	1268.8	1268.9	1267.5	1266.1
155°	1293.8	1292.1	1290.3	1288.5	1290.3	1292.1	1293.8	1295.6	1295.9	1294.6	1293.2
157.5°	1317.2	1315.4	1313.7	1311.9	1313.7	1315.4	1317.2	1318.9	1319.0	1317.5	1316.0
160°	1330.3	1328.7	1327.2	1325.6	1327.2	1328.7	1330.3	1331.8	1331.9	1330.6	1329.3
162.5°	1342.6	1340.7	1338.7	1336.8	1338.7	1340.7	1342.6	1344.4	1344.7	1343.1	1341.6
165°	1358.3	1356.8	1355.2	1353.7	1355.2	1356.8	1358.3	1359.9	1359.9	1358.3	1356.8
167.5°	1370.3	1368.3	1366.3	1364.2	1366.3	1368.3	1370.3	1372.2	1372.5	1370.9	1369.4
170°	1376.7	1374.7	1372.7	1370.6	1372.7	1374.7	1376.7	1378.7	1378.9	1377.3	1375.8
172.5°	1381.5	1379.5	1377.5	1375.5	1377.5	1379.5	1381.5	1383.6	1383.7	1382.1	1380.6
175°	1386.4	1384.1	1382.0	1379.7	1382.0	1384.1	1386.4	1388.6	1388.9	1387.4	1385.8
177.5°	1387.1	1385.5	1383.9	1382.3	1383.9	1385.5	1387.1	1388.7	1388.9	1387.6	1386.4
180°	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	592.6	594.9	598.5	600.6	604.0	606.2	607.5	609.6	610.9	615.2	619.6
5°	559.4	562.9	568.8	574.4	580.4	586.6	591.2	596.3	601.0	609.1	617.6
7.5°	521.5	526.2	535.6	544.4	554.9	563.6	571.4	580.1	588.0	599.6	611.8
10°	493.0	501.4	513.6	522.0	535.6	544.4	556.7	566.3	577.2	592.7	606.3
12.5°	468.5	478.6	488.4	500.0	512.4	527.0	540.4	552.8	565.7	581.6	597.8
15°	424.1	438.7	453.9	465.7	482.4	497.8	513.4	530.1	545.9	565.1	586.0
17.5°	366.9	383.8	409.3	429.5	449.1	464.6	484.0	504.2	522.8	545.8	569.2
20°	341.1	353.5	370.8	398.0	427.5	444.0	463.7	486.0	507.4	532.4	557.5
22.5°	320.4	331.4	345.3	366.5	399.4	422.0	442.5	465.1	489.9	515.5	543.3
25°	290.8	298.4	313.0	330.2	352.8	389.8	412.4	435.1	462.0	489.5	521.1
27.5°	268.5	275.5	284.9	301.2	318.1	344.8	380.5	405.3	432.2	463.0	495.9
30°	251.6	259.7	270.2	281.7	300.2	320.9	356.7	385.4	411.9	443.7	478.7
32.5°	239.2	245.6	254.6	266.4	281.6	301.6	330.2	365.0	390.9	424.2	460.9
35°	219.0	226.5	233.8	245.0	257.3	275.5	297.2	334.4	360.1	393.0	429.9
37.5°	202.4	207.0	215.0	223.9	237.0	250.5	269.3	302.7	330.5	362.8	400.5
40°	189.7	195.5	201.4	211.3	222.1	235.1	253.4	278.3	310.2	342.0	378.7
42.5°	177.4	184.6	191.1	197.7	209.3	222.4	237.4	258.4	291.1	321.0	356.8
45°	162.5	167.2	173.8	181.2	190.8	201.9	215.2	233.6	264.9	290.8	324.3
47.5°	145.2	152.1	156.5	163.5	172.7	183.3	195.7	211.6	236.9	261.2	292.4
50°	133.4	140.4	146.7	153.1	161.2	171.4	181.8	197.2	217.5	243.0	272.1
52.5°	123.3	129.5	135.5	141.9	150.0	159.3	169.1	182.7	200.0	223.5	251.8
55°	109.4	113.3	119.5	125.9	133.0	141.9	151.4	162.7	177.7	197.4	220.3
57.5°	95.2	99.6	104.5	111.0	118.2	125.1	133.6	143.8	155.6	173.4	193.0
60°	87.2	90.6	94.6	101.2	107.9	114.1	122.2	130.8	141.9	157.4	174.1
62.5°	78.2	81.5	85.2	91.0	97.5	103.1	110.3	119.3	128.8	142.8	157.4
65°	63.3	68.1	71.7	76.8	82.2	88.2	93.8	101.0	109.4	120.6	133.6
67.5°	52.5	55.0	58.3	63.0	68.4	73.6	78.9	84.5	91.8	100.4	110.7
70°	47.8	48.6	49.2	53.7	58.9	64.0	68.9	74.3	80.5	87.6	96.5
72.5°	42.1	43.0	43.7	45.7	49.8	55.0	60.0	64.0	69.8	75.8	83.0
75°	33.4	34.7	35.3	36.4	37.9	41.3	46.0	49.9	53.3	57.8	63.6
77.5°	25.4	26.2	26.9	28.0	28.9	30.4	33.2	36.6	39.9	42.4	46.4
80°	20.2	20.4	21.2	21.6	22.9	23.9	25.3	28.1	31.3	32.3	35.2
82.5°	15.2	15.4	16.0	16.5	17.1	18.0	19.6	20.4	22.9	24.3	26.0
85°	8.4	8.1	8.8	8.8	9.2	9.6	10.1	11.1	11.8	13.5	13.9
87.5°	6.8	6.6	6.4	6.0	5.7	5.7	5.4	5.1	4.9	5.0	5.2
90°	21.1	20.1	18.3	16.5	14.7	12.9	10.8	8.4	5.9	3.5	1.0
92.5°	23.8	23.3	22.3	21.5	20.5	19.7	19.3	19.6	19.8	20.0	20.3
95°	40.2	39.1	37.5	36.0	34.4	32.8	35.7	43.1	50.4	57.8	65.1
97.5°	53.2	52.3	48.7	45.1	41.5	37.9	46.5	67.1	87.8	108.6	129.2
100°	58.9	57.1	53.3	49.6	45.7	41.9	55.3	85.9	116.3	146.8	177.4
102.5°	61.1	58.7	90.4	122.1	153.7	185.4	204.4	210.8	217.4	223.8	230.3
105°	63.5	61.1	121.9	182.7	243.5	304.3	331.3	324.6	317.9	311.3	304.6
107.5°	83.0	85.6	158.4	231.4	304.3	377.2	410.9	405.5	400.1	394.7	389.4
110°	153.1	175.3	239.7	304.1	368.3	432.7	462.6	457.9	453.3	448.6	443.8



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	361.1	442.2	458.2	474.1	489.9	505.9	511.7	507.6	503.4	499.4	495.2
115°	515.1	618.2	612.7	607.1	601.5	596.0	591.3	587.5	583.7	579.9	576.2
117.5°	659.8	684.8	680.9	677.1	673.3	669.4	665.4	661.2	657.0	652.7	648.5
120°	737.1	734.4	730.5	726.4	722.5	718.4	714.7	711.4	708.0	704.7	701.3
122.5°	783.3	781.7	777.4	773.0	768.6	764.3	760.3	756.9	753.3	749.8	746.3
125°	848.2	846.7	842.4	838.2	834.0	829.7	826.1	823.3	820.4	817.5	814.6
127.5°	907.5	905.2	902.0	898.8	895.7	892.5	889.4	886.2	883.0	879.8	876.6
130°	945.3	942.8	940.4	937.9	935.5	933.0	930.0	926.5	922.9	919.4	915.8
132.5°	982.6	980.5	978.1	975.6	973.2	970.7	968.0	965.0	962.0	958.9	955.8
135°	1035.3	1033.0	1031.0	1029.0	1027.0	1025.0	1022.2	1018.7	1015.1	1011.5	1008.0
137.5°	1084.3	1082.1	1079.9	1077.6	1075.3	1073.0	1070.6	1068.2	1065.6	1063.2	1060.6
140°	1116.2	1114.2	1111.7	1109.3	1106.8	1104.4	1102.3	1100.5	1098.7	1096.9	1095.1
142.5°	1145.7	1143.9	1141.0	1138.2	1135.4	1132.7	1130.4	1128.8	1127.2	1125.6	1124.0
145°	1186.8	1185.3	1181.6	1177.7	1173.9	1170.2	1168.4	1168.7	1168.8	1169.0	1169.3
147.5°	1222.9	1221.8	1218.0	1214.3	1210.6	1206.8	1205.4	1206.3	1207.1	1208.0	1208.8
150°	1244.8	1243.4	1239.9	1236.3	1232.8	1229.2	1228.2	1229.7	1231.3	1232.8	1234.4
152.5°	1264.8	1263.5	1260.1	1256.7	1253.3	1249.9	1249.2	1250.8	1252.5	1254.3	1256.0
155°	1291.8	1290.5	1287.9	1285.2	1282.5	1279.9	1279.5	1281.5	1283.6	1285.5	1287.5
157.5°	1314.5	1313.0	1311.1	1309.2	1307.4	1305.5	1305.4	1307.1	1308.8	1310.5	1312.2
160°	1327.9	1326.6	1325.3	1323.9	1322.6	1321.3	1321.3	1322.6	1323.9	1325.3	1326.6
162.5°	1340.1	1338.6	1337.5	1336.3	1335.1	1334.0	1334.1	1335.4	1336.7	1338.1	1339.4
165°	1355.2	1353.7	1353.0	1352.4	1351.6	1350.9	1351.3	1352.6	1354.0	1355.3	1356.7
167.5°	1367.8	1366.3	1365.6	1365.0	1364.4	1363.8	1364.1	1365.5	1366.8	1368.2	1369.5
170°	1374.2	1372.7	1372.2	1371.8	1371.4	1370.9	1371.4	1372.7	1374.0	1375.4	1376.7
172.5°	1379.0	1377.5	1377.1	1376.6	1376.2	1375.7	1376.2	1377.5	1378.8	1380.2	1381.5
175°	1384.3	1382.7	1382.2	1381.9	1381.4	1380.9	1381.5	1383.1	1384.6	1386.2	1387.7
177.5°	1385.2	1383.9	1383.7	1383.6	1383.4	1383.2	1383.7	1385.0	1386.2	1387.5	1388.7
180°	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	619.8	620.3	623.7	625.3	628.3	629.5	630.9	630.6	630.6	631.2	636.0
5°	621.1	625.4	631.8	638.0	644.0	649.1	652.6	656.0	657.3	663.5	669.0
7.5°	618.9	626.8	637.3	646.9	658.2	667.0	674.4	681.1	685.6	694.7	703.9
10°	616.0	627.1	639.0	651.3	666.9	678.7	690.7	699.9	702.9	716.3	724.1
12.5°	610.1	625.0	640.3	656.1	671.4	687.6	700.8	710.0	720.6	732.6	746.9
15°	601.4	618.5	638.5	658.7	680.6	700.3	714.4	730.5	742.1	755.4	767.8
17.5°	588.9	611.0	636.2	659.8	685.0	706.2	725.7	741.0	749.1	756.8	758.6
20°	578.9	602.7	632.4	660.3	685.5	709.9	729.2	742.1	744.2	744.4	733.1
22.5°	568.2	595.0	626.1	654.6	684.9	712.0	727.0	732.4	724.0	709.5	687.5
25°	548.3	579.4	615.6	648.1	681.1	706.7	711.9	702.3	672.5	641.2	601.6
27.5°	526.8	561.8	600.5	636.7	671.8	687.8	676.7	641.9	588.3	541.7	485.2
30°	511.0	550.3	588.3	628.8	661.4	668.2	642.7	591.5	529.0	458.8	402.5
32.5°	493.0	534.1	576.0	617.8	645.1	638.4	596.3	533.3	460.1	391.0	337.8
35°	467.4	509.7	555.0	596.9	614.3	585.3	522.4	440.4	365.4	301.0	264.4
37.5°	437.7	483.9	530.8	569.4	568.2	520.0	434.2	349.6	286.6	248.5	222.4
40°	416.6	463.4	514.1	546.6	532.7	470.0	377.0	297.2	251.1	220.7	201.7
42.5°	396.4	443.3	493.7	519.5	495.3	418.2	325.6	263.1	225.1	201.4	186.0
45°	362.0	411.5	458.2	472.5	429.2	344.3	263.3	217.9	192.7	175.1	164.5
47.5°	328.4	377.1	419.7	419.9	361.5	279.2	222.2	188.6	167.0	153.4	145.7
50°	307.8	354.1	389.8	384.3	317.9	248.4	198.7	169.8	151.8	141.3	133.2
52.5°	284.7	329.6	360.6	344.8	281.1	218.6	177.6	153.4	138.5	129.3	122.1
55°	251.1	291.0	312.8	288.8	229.3	181.8	150.1	131.0	119.9	112.2	105.9
57.5°	218.1	251.0	264.7	236.8	188.9	150.7	127.0	112.6	101.6	96.0	92.8
60°	197.4	225.5	235.1	204.2	164.2	131.9	112.4	99.2	91.0	87.4	84.2
62.5°	177.0	199.9	203.9	175.7	143.2	115.5	98.7	87.5	82.1	78.6	75.6
65°	146.8	163.3	161.5	138.7	113.3	91.6	79.5	72.6	68.5	63.6	58.2
67.5°	120.9	131.0	124.9	107.9	86.4	71.3	63.2	58.1	53.0	48.4	47.1
70°	104.4	110.3	103.9	88.2	70.9	59.8	53.3	47.1	44.1	43.1	41.1
72.5°	88.7	90.8	83.8	70.4	57.7	49.5	43.2	39.8	38.1	37.2	36.0
75°	66.5	65.1	59.1	48.6	40.1	34.5	32.5	31.3	30.2	29.3	28.7
77.5°	46.8	44.6	39.2	32.3	27.9	25.3	24.0	23.4	22.9	22.4	21.8
80°	35.2	33.6	28.3	23.1	21.2	19.9	19.2	18.4	18.4	18.0	17.3
82.5°	25.7	24.0	19.3	17.0	15.9	15.1	14.6	14.1	13.9	14.0	13.6
85°	13.5	10.9	9.6	9.2	8.6	8.1	8.4	7.9	7.9	7.9	7.7
87.5°	4.8	4.4	4.7	5.1	5.7	6.0	6.2	6.6	7.1	7.2	7.5
90°	3.5	5.9	8.4	10.8	12.9	14.7	16.5	18.3	20.1	21.1	22.2
92.5°	20.0	19.8	19.6	19.3	19.7	20.5	21.5	22.3	23.3	23.8	24.4
95°	57.8	50.4	43.1	35.7	32.8	34.4	36.0	37.5	39.1	40.2	41.3
97.5°	108.6	87.8	67.1	46.5	37.9	41.5	45.1	48.7	52.3	53.2	54.1
100°	146.8	116.3	85.9	55.3	41.9	45.7	49.6	53.3	57.1	58.9	60.7
102.5°	223.8	217.4	210.8	204.4	185.4	153.7	122.1	90.4	58.7	61.1	63.3
105°	311.3	317.9	324.6	331.3	304.3	243.5	182.7	121.9	61.1	63.5	66.0
107.5°	394.7	400.1	405.5	410.9	377.2	304.3	231.4	158.4	85.6	83.0	80.6
110°	448.6	453.3	457.9	462.6	432.7	368.3	304.1	239.7	175.3	153.1	130.8



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	499.4	503.4	507.6	511.7	505.9	489.9	474.1	458.2	442.2	361.1	279.8
115°	579.9	583.7	587.5	591.3	596.0	601.5	607.1	612.7	618.2	515.1	412.0
117.5°	652.7	657.0	661.2	665.4	669.4	673.3	677.1	680.9	684.8	659.8	634.9
120°	704.7	708.0	711.4	714.7	718.4	722.5	726.4	730.5	734.4	737.1	739.8
122.5°	749.8	753.3	756.9	760.3	764.3	768.6	773.0	777.4	781.7	783.3	784.9
125°	817.5	820.4	823.3	826.1	829.7	834.0	838.2	842.4	846.7	848.2	849.8
127.5°	879.8	883.0	886.2	889.4	892.5	895.7	898.8	902.0	905.2	907.5	909.7
130°	919.4	922.9	926.5	930.0	933.0	935.5	937.9	940.4	942.8	945.3	947.7
132.5°	958.9	962.0	965.0	968.0	970.7	973.2	975.6	978.1	980.5	982.6	984.7
135°	1011.5	1015.1	1018.7	1022.2	1025.0	1027.0	1029.0	1031.0	1033.0	1035.3	1037.5
137.5°	1063.2	1065.6	1068.2	1070.6	1073.0	1075.3	1077.6	1079.9	1082.1	1084.3	1086.5
140°	1096.9	1098.7	1100.5	1102.3	1104.4	1106.8	1109.3	1111.7	1114.2	1116.2	1118.2
142.5°	1125.6	1127.2	1128.8	1130.4	1132.7	1135.4	1138.2	1141.0	1143.9	1145.7	1147.5
145°	1169.0	1168.8	1168.7	1168.4	1170.2	1173.9	1177.7	1181.6	1185.3	1186.8	1188.5
147.5°	1208.0	1207.1	1206.3	1205.4	1206.8	1210.6	1214.3	1218.0	1221.8	1222.9	1224.1
150°	1232.8	1231.3	1229.7	1228.2	1229.2	1232.8	1236.3	1239.9	1243.4	1244.8	1246.1
152.5°	1254.3	1252.5	1250.8	1249.2	1249.9	1253.3	1256.7	1260.1	1263.5	1264.8	1266.1
155°	1285.5	1283.6	1281.5	1279.5	1279.9	1282.5	1285.2	1287.9	1290.5	1291.8	1293.2
157.5°	1310.5	1308.8	1307.1	1305.4	1305.5	1307.4	1309.2	1311.1	1313.0	1314.5	1316.0
160°	1325.3	1323.9	1322.6	1321.3	1321.3	1322.6	1323.9	1325.3	1326.6	1327.9	1329.3
162.5°	1338.1	1336.7	1335.4	1334.1	1334.0	1335.1	1336.3	1337.5	1338.6	1340.1	1341.6
165°	1355.3	1354.0	1352.6	1351.3	1350.9	1351.6	1352.4	1353.0	1353.7	1355.2	1356.8
167.5°	1368.2	1366.8	1365.5	1364.1	1363.8	1364.4	1365.0	1365.6	1366.3	1367.8	1369.4
170°	1375.4	1374.0	1372.7	1371.4	1370.9	1371.4	1371.8	1372.2	1372.7	1374.2	1375.8
172.5°	1380.2	1378.8	1377.5	1376.2	1375.7	1376.2	1376.6	1377.1	1377.5	1379.0	1380.6
175°	1386.2	1384.6	1383.1	1381.5	1380.9	1381.4	1381.9	1382.2	1382.7	1384.3	1385.8
177.5°	1387.5	1386.2	1385.0	1383.7	1383.2	1383.4	1383.6	1383.7	1383.9	1385.2	1386.4
180°	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	637.7	640.0	641.0	641.0	642.2	641.7	641.2
5°	674.4	678.4	679.4	683.2	686.0	685.1	685.5
7.5°	710.9	717.4	723.9	726.8	727.3	729.0	729.6
10°	733.3	738.7	748.7	747.2	754.7	759.0	752.0
12.5°	754.9	762.1	769.1	771.0	775.2	776.7	773.8
15°	774.4	778.3	778.6	777.6	778.9	777.8	773.7
17.5°	756.2	749.9	737.3	731.2	726.5	719.4	716.6
20°	726.0	707.6	686.2	677.6	667.6	647.9	652.6
22.5°	660.9	640.0	618.5	593.5	581.5	562.9	561.8
25°	559.7	523.5	483.6	455.8	439.5	420.9	412.7
27.5°	435.2	389.6	356.9	340.4	325.4	310.7	310.0
30°	353.3	319.1	293.8	279.7	270.4	264.2	265.5
32.5°	297.7	274.3	257.2	245.5	238.7	234.0	233.9
35°	243.5	227.3	216.4	211.5	206.6	203.2	203.4
37.5°	208.3	198.7	192.6	187.2	184.1	182.4	181.4
40°	190.3	182.4	177.7	174.5	171.9	169.6	169.1
42.5°	176.2	169.6	164.9	162.3	159.9	158.3	157.9
45°	156.3	150.9	146.7	143.8	142.8	141.3	141.3
47.5°	139.0	133.7	130.4	128.7	126.9	125.8	125.8
50°	127.4	123.3	120.4	119.2	117.7	117.2	116.9
52.5°	117.0	113.9	111.8	111.0	110.4	109.6	109.7
55°	102.7	101.0	100.2	99.5	98.5	97.2	98.0
57.5°	90.9	89.4	87.1	85.0	84.1	83.1	83.5
60°	82.5	79.5	76.4	74.1	73.4	71.5	71.5
62.5°	71.8	67.6	63.9	62.6	61.9	61.1	60.9
65°	55.2	53.5	52.7	51.8	51.4	51.4	51.0
67.5°	45.8	45.1	44.1	43.9	43.5	43.4	43.3
70°	40.4	39.6	39.2	38.9	38.5	38.7	38.1
72.5°	35.3	34.7	34.6	34.0	33.7	33.7	33.3
75°	27.8	27.8	27.6	27.4	27.0	26.8	27.0
77.5°	21.4	21.5	21.1	21.0	21.0	21.0	20.8
80°	17.2	17.3	17.2	16.9	16.7	16.9	16.7
82.5°	13.6	13.2	13.2	13.1	13.1	13.0	12.9
85°	7.7	7.9	7.7	7.5	7.5	7.5	7.7
87.5°	7.6	7.8	8.0	8.0	8.1	8.2	8.1
90°	23.4	24.5	25.3	25.7	26.2	26.6	27.1
92.5°	25.0	25.5	26.0	26.3	26.5	26.8	27.1
95°	42.4	43.5	44.0	43.7	43.5	43.3	43.1
97.5°	55.0	55.9	56.5	56.7	57.0	57.2	57.5
100°	62.5	64.3	65.3	65.8	66.3	66.7	67.1
102.5°	65.7	68.0	69.5	70.0	70.7	71.4	71.9
105°	68.4	70.9	72.6	73.5	74.4	75.2	76.2
107.5°	78.0	75.6	74.8	75.7	76.5	77.5	78.3
110°	108.6	86.2	75.6	76.4	77.4	78.2	79.2



TEST NUMBER: P331639-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	198.6	117.3	77.1	77.9	78.5	79.3	79.9
115°	309.0	205.9	146.3	130.3	114.2	98.2	82.2
117.5°	609.9	585.0	546.2	493.5	440.8	388.1	335.5
120°	742.4	745.2	731.4	701.3	671.3	641.2	611.2
122.5°	786.6	788.2	786.0	780.2	774.4	768.5	762.7
125°	851.3	852.9	854.0	854.7	855.4	856.0	856.7
127.5°	912.0	914.3	915.5	915.6	915.8	915.9	916.0
130°	950.2	952.6	953.8	953.6	953.3	953.1	952.9
132.5°	986.8	988.9	989.9	989.6	989.4	989.2	988.9
135°	1039.7	1041.9	1042.8	1042.4	1041.9	1041.5	1041.0
137.5°	1088.6	1090.8	1091.6	1090.8	1090.1	1089.3	1088.5
140°	1120.2	1122.2	1122.7	1121.5	1120.4	1119.3	1118.2
142.5°	1149.3	1151.1	1151.5	1150.4	1149.2	1148.2	1147.1
145°	1190.0	1191.6	1191.8	1190.7	1189.6	1188.5	1187.3
147.5°	1225.3	1226.4	1226.5	1225.6	1224.6	1223.7	1222.8
150°	1247.5	1248.8	1248.9	1247.7	1246.7	1245.6	1244.4
152.5°	1267.5	1268.9	1268.8	1267.2	1265.8	1264.3	1262.9
155°	1294.6	1295.9	1295.6	1293.8	1292.1	1290.3	1288.5
157.5°	1317.5	1319.0	1318.9	1317.2	1315.4	1313.7	1311.9
160°	1330.6	1331.9	1331.8	1330.3	1328.7	1327.2	1325.6
162.5°	1343.1	1344.7	1344.4	1342.6	1340.7	1338.7	1336.8
165°	1358.3	1359.9	1359.9	1358.3	1356.8	1355.2	1353.7
167.5°	1370.9	1372.5	1372.2	1370.3	1368.3	1366.3	1364.2
170°	1377.3	1378.9	1378.7	1376.7	1374.7	1372.7	1370.6
172.5°	1382.1	1383.7	1383.6	1381.5	1379.5	1377.5	1375.5
175°	1387.4	1388.9	1388.6	1386.4	1384.1	1382.0	1379.7
177.5°	1387.6	1388.9	1388.7	1387.1	1385.5	1383.9	1382.3
180°	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7

(END OF REPORT)