

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: P332102-830

Luminaire Tested: **S123DIW-S340D1030U830-4F0-1E-UDD-A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332102-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DIW-S340D1030U830-4F0-1E-UDD-A  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 340 LUMENS PER FOOT, ASYMMETRIC DIFFUSER  
UPLIGHT 1030 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5257.3 lumens  
Efficiency: N/A  
Efficacy: 138.4 lumens/watt  
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.49  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: Semi-Indirect

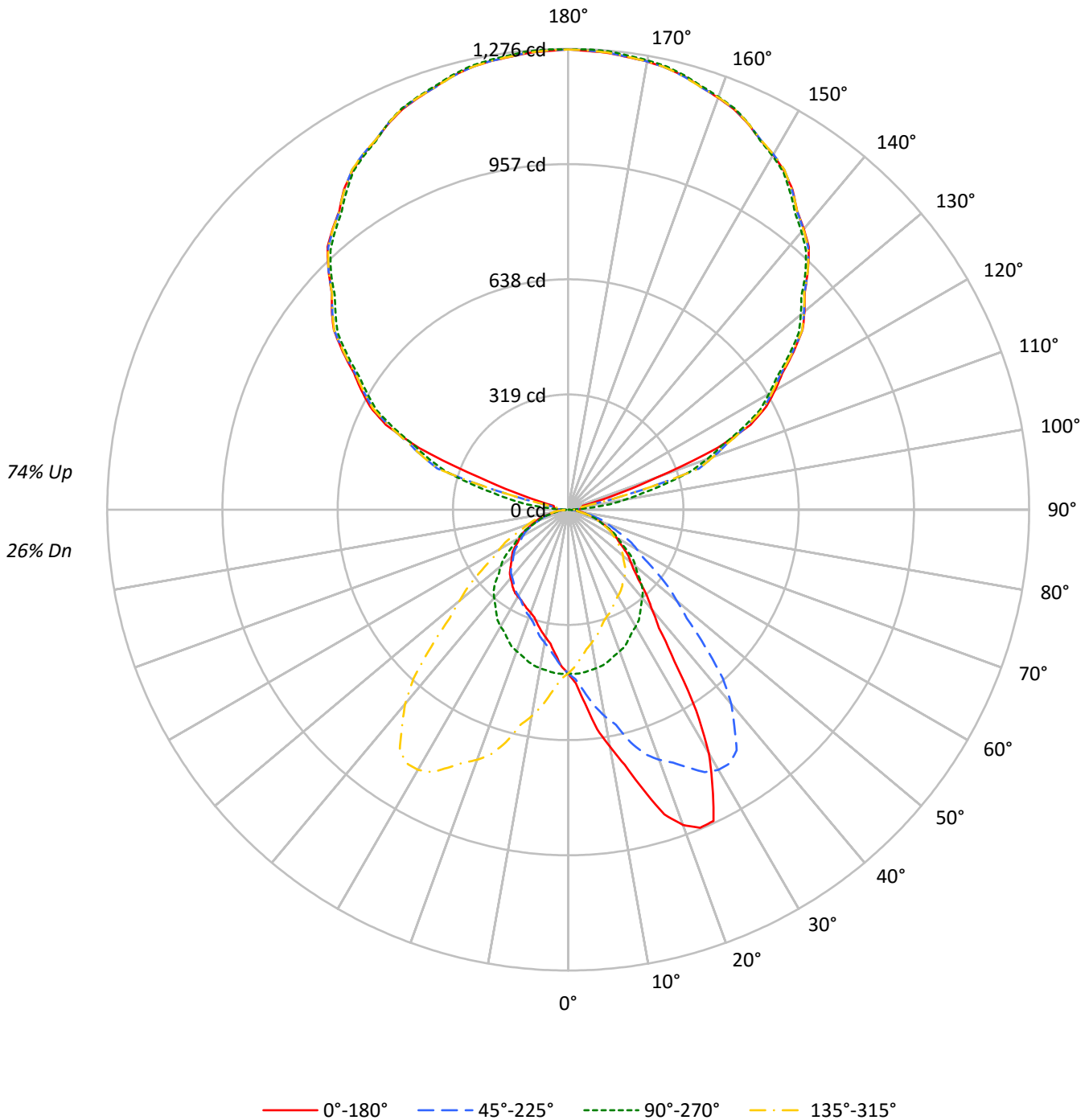
Input Watts (W): 38  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34	26				
1	93	88	85	81	82	79	76	73	61	59	58	45	44	43	30	30	29	22				
2	84	77	72	67	75	69	64	60	54	51	48	40	38	36	27	26	25	19				
3	77	68	61	56	68	61	55	50	48	44	40	35	33	30	24	22	21	16				
4	70	60	53	47	63	54	48	43	42	38	34	31	29	26	21	20	18	14				
5	64	53	46	40	57	48	41	36	38	33	29	28	25	23	19	17	16	12				
6	59	48	40	35	53	43	36	32	34	29	26	25	22	20	17	16	14	11				
7	55	43	35	30	49	39	32	28	31	26	22	23	20	17	16	14	12	9				
8	51	39	31	26	45	35	29	24	28	23	20	21	18	15	15	13	11	8				
9	47	35	28	23	42	32	26	21	25	21	18	19	16	14	13	11	10	8				
10	44	32	25	21	39	29	23	19	23	19	16	18	15	12	12	10	9	7				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	4878	4878	4878	4878
5°	5817	4900	4341	4900
10°	7282	4875	3922	4875
15°	8931	4835	3651	4835
20°	10639	4774	3477	4774
25°	11297	4700	3437	4700
30°	9684	4645	3455	4645
35°	6734	4568	3491	4568
40°	5073	4477	3481	4477
45°	4211	4341	3436	4341
50°	3773	4068	3404	4068
55°	3526	3772	3363	3772
60°	3309	3460	3328	3460
65°	3110	3156	3222	3156
70°	2917	2807	3068	2807
75°	2612	2458	2816	2458
80°	2287	2015	2424	2015
85°	1791	1470	1630	1470



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.6	0.8
10°-20°	143.2	2.7
20°-30°	240.3	4.6
30°-40°	272.0	5.2
40°-50°	244.0	4.6
50°-60°	196.9	3.7
60°-70°	137.2	2.6
70°-80°	72.1	1.4
80°-90°	21.2	0.4
90°-100°	46.3	0.9
100°-110°	220.8	4.2
110°-120°	530.4	10.1
120°-130°	675.4	12.8
130°-140°	721.6	13.7
140°-150°	674.8	12.8
150°-160°	544.3	10.4
160°-170°	351.3	6.7
170°-180°	121.1	2.3
0°-30°	428.1	8.1
0°-40°	700.1	13.3
0°-60°	1140.9	21.7
0°-90°	1371.5	26.1
90°-120°	797.5	15.2
90°-150°	2869.2	54.6
90°-180°	3886.0	73.9
0°-180°	5257.3	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	453	453	453	453	453	
5°	538	454	402	454	538	56
15°	801	434	328	434	801	231
25°	951	396	289	396	951	417
35°	512	348	266	348	512	333
45°	277	285	226	285	277	219
55°	188	201	179	201	188	169
65°	122	124	126	124	122	122
75°	63	59	68	59	63	67
85°	14	12	13	12	14	18
90°	28	1	28	1	28	14
95°	36	58	36	58	36	30
105°	42	282	42	282	42	95
115°	557	529	557	529	557	514
125°	761	746	761	746	761	680
135°	938	929	938	929	938	723
145°	1082	1072	1082	1072	1082	675
155°	1179	1180	1179	1180	1179	543
165°	1242	1245	1242	1245	1242	351
175°	1270	1274	1270	1274	1270	121
180°	1274	1274	1274	1274	1274	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2
2.5°	481.0	480.6	479.8	480.4	479.0	477.1	476.9	475.1	470.0	469.8	468.3
5°	538.4	536.7	536.4	536.2	533.1	529.0	521.0	520.4	509.8	504.6	498.2
7.5°	612.8	613.7	610.5	607.8	598.3	592.1	583.6	572.8	559.9	546.7	538.0
10°	666.2	673.4	664.5	658.3	652.6	641.9	629.3	613.7	598.1	579.9	566.1
12.5°	723.5	727.0	725.2	719.4	710.6	694.2	672.0	654.8	640.5	610.1	597.9
15°	801.4	814.8	806.3	786.6	786.9	771.4	742.4	710.6	693.6	667.0	630.8
17.5°	884.6	886.2	882.6	866.1	855.2	833.7	806.9	776.5	742.2	710.0	671.6
20°	928.8	927.5	919.8	911.3	892.4	875.7	846.5	812.5	768.5	736.9	694.9
22.5°	953.4	951.2	947.5	940.4	924.7	906.8	880.5	843.4	801.5	758.0	709.5
25°	951.2	954.0	954.5	952.5	947.1	936.3	915.7	886.0	844.3	788.2	737.8
27.5°	865.2	869.2	880.9	891.4	903.0	914.8	913.2	898.5	867.6	819.3	757.5
30°	779.1	770.2	792.0	819.4	838.1	871.1	889.5	890.6	873.3	831.8	771.6
32.5°	659.6	669.3	678.9	712.7	753.5	790.4	827.2	856.7	860.1	832.5	779.9
35°	512.5	524.6	542.2	559.7	603.6	641.4	706.0	762.1	806.9	812.8	780.6
37.5°	413.0	419.0	430.1	447.7	476.4	521.2	571.1	642.2	707.1	755.4	757.4
40°	361.0	362.8	375.2	388.6	411.9	448.8	493.8	556.7	634.3	701.8	729.9
42.5°	322.0	325.8	331.2	344.0	362.6	390.3	432.2	484.1	555.3	632.9	687.9
45°	276.6	281.1	284.4	292.9	306.1	324.8	353.9	401.4	455.6	535.7	609.7
47.5°	246.8	247.0	249.5	256.0	264.9	279.0	299.6	330.1	379.8	444.9	520.8
50°	225.3	228.8	229.7	234.7	241.8	252.0	269.2	295.1	335.9	393.0	462.9
52.5°	210.2	211.2	213.7	217.4	223.5	231.5	246.4	266.6	298.7	347.4	411.6
55°	187.9	187.9	190.4	193.2	196.7	204.0	213.9	228.8	253.2	291.0	344.1
57.5°	167.4	168.5	170.2	171.1	174.1	178.9	187.1	198.5	216.6	245.7	287.9
60°	153.7	155.7	155.4	157.2	159.9	163.6	170.6	179.8	196.0	219.3	255.0
62.5°	141.8	141.7	141.6	143.7	146.3	149.9	154.5	162.4	176.3	196.9	227.2
65°	122.1	121.7	123.2	124.5	125.4	128.0	131.5	138.6	147.8	163.2	186.6
67.5°	104.6	103.3	104.2	104.6	106.1	108.2	111.5	115.8	123.1	135.4	153.2
70°	92.7	91.5	91.3	91.8	93.1	94.6	97.1	101.2	108.0	117.9	130.8
72.5°	80.4	79.6	79.6	80.6	81.2	82.2	83.9	87.7	93.1	100.6	112.6
75°	62.8	62.8	62.8	63.1	63.7	64.6	65.9	67.9	72.0	77.3	85.4
77.5°	47.0	47.0	46.8	46.8	47.7	48.1	48.4	50.2	52.6	56.1	62.0
80°	36.9	35.8	36.2	36.9	37.3	37.5	38.2	38.6	40.6	42.6	46.8
82.5°	27.4	26.5	26.6	27.6	27.7	27.9	28.6	29.1	29.9	31.7	33.9
85°	14.5	14.5	14.7	14.7	14.9	14.7	15.4	15.6	15.6	16.7	18.0
87.5°	10.9	10.6	10.7	10.7	10.5	10.5	10.5	10.5	10.5	10.6	10.2
90°	28.4	28.0	27.5	27.1	26.7	26.1	25.3	24.4	23.6	22.7	20.0
92.5°	31.4	31.2	30.9	30.6	30.4	29.6	28.3	27.0	25.5	24.2	22.1
95°	36.0	36.0	36.0	36.0	36.0	35.3	33.7	32.3	30.8	29.3	27.1
97.5°	39.0	38.8	38.5	38.4	38.2	37.2	35.5	33.8	32.1	30.4	45.6
100°	39.8	39.6	39.3	39.1	38.9	38.0	36.3	34.6	32.9	31.2	64.1
102.5°	40.5	40.2	39.8	39.4	39.0	41.4	46.7	51.8	57.1	62.3	98.1
105°	41.7	41.2	40.8	40.4	40.0	58.3	95.6	132.9	170.1	207.4	226.3
107.5°	130.8	158.9	187.0	215.0	243.1	270.8	298.1	325.4	352.7	380.0	377.0
110°	260.3	290.4	320.5	350.6	380.7	399.2	406.1	413.1	420.0	427.0	424.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	446.7	453.0	459.4	465.7	472.0	475.1	475.0	474.9	474.8	474.7	472.4
115°	556.7	555.8	555.0	554.1	553.3	551.9	549.7	547.6	545.5	543.4	541.5
117.5°	618.4	618.2	618.0	617.8	617.7	616.8	615.1	613.4	611.7	610.0	609.1
120°	660.8	660.8	660.8	660.8	660.8	660.0	658.3	656.6	654.9	653.2	652.6
122.5°	702.5	702.3	702.1	701.9	701.8	701.1	699.9	698.7	697.6	696.4	695.6
125°	761.1	760.7	760.3	759.9	759.5	759.0	758.7	758.2	757.8	757.3	756.5
127.5°	817.6	818.0	818.4	818.8	819.3	819.2	818.4	817.7	817.1	816.4	815.4
130°	853.9	854.3	854.8	855.2	855.6	855.4	854.5	853.8	852.9	852.1	851.2
132.5°	887.2	887.9	888.4	889.0	889.6	889.5	888.6	887.8	886.9	886.1	885.4
135°	938.2	938.8	939.4	940.1	940.7	940.7	940.1	939.4	938.8	938.2	937.4
137.5°	986.1	986.5	986.9	987.3	987.8	987.5	986.5	985.4	984.4	983.4	983.0
140°	1014.8	1015.3	1015.7	1016.2	1016.5	1016.3	1015.5	1014.6	1013.8	1013.0	1012.3
142.5°	1041.3	1042.0	1042.5	1043.1	1043.7	1043.7	1043.0	1042.4	1041.7	1040.9	1040.4
145°	1082.0	1082.0	1082.0	1082.0	1082.0	1081.9	1081.5	1081.0	1080.6	1080.2	1079.8
147.5°	1112.4	1113.3	1114.3	1115.3	1116.3	1116.5	1116.1	1115.7	1115.2	1114.8	1114.4
150°	1135.1	1135.8	1136.3	1137.0	1137.6	1137.7	1137.3	1136.9	1136.4	1136.0	1135.6
152.5°	1153.3	1154.2	1155.2	1156.1	1157.2	1157.3	1156.5	1155.7	1155.0	1154.2	1154.0
155°	1178.6	1179.9	1181.2	1182.4	1183.6	1183.8	1182.7	1181.7	1180.6	1179.6	1179.4
157.5°	1200.0	1201.6	1203.3	1204.9	1206.5	1206.7	1205.5	1204.3	1203.0	1201.7	1201.9
160°	1213.6	1215.1	1216.6	1218.0	1219.6	1219.7	1218.4	1217.1	1215.9	1214.7	1214.8
162.5°	1226.5	1227.9	1229.2	1230.5	1231.7	1231.7	1230.3	1228.8	1227.4	1226.0	1226.2
165°	1242.1	1243.5	1245.0	1246.5	1247.9	1247.8	1246.1	1244.4	1242.8	1241.1	1241.3
167.5°	1253.2	1254.9	1256.6	1258.3	1260.0	1260.0	1258.3	1256.6	1254.9	1253.2	1253.2
170°	1260.1	1261.7	1263.4	1265.1	1266.8	1266.8	1265.1	1263.4	1261.7	1260.1	1260.1
172.5°	1263.9	1265.6	1267.5	1269.4	1271.2	1271.3	1269.6	1268.0	1266.3	1264.6	1264.4
175°	1269.5	1271.2	1272.9	1274.6	1276.3	1276.4	1274.9	1273.4	1272.0	1270.5	1270.3
177.5°	1271.2	1272.9	1274.6	1276.3	1278.0	1278.1	1276.8	1275.4	1274.1	1272.7	1272.5
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2
2.5°	467.2	465.9	464.5	462.0	459.9	456.9	456.0	455.0	451.8	449.0	446.9
5°	495.8	490.5	482.9	475.8	470.1	462.4	458.1	453.5	446.9	440.9	436.1
7.5°	525.7	515.3	503.3	490.5	478.4	466.8	457.5	449.1	439.9	431.2	424.3
10°	549.4	534.4	517.7	499.7	484.4	469.5	456.9	446.0	434.1	423.8	415.2
12.5°	576.5	554.3	531.3	509.4	491.3	470.5	455.3	441.4	427.9	415.6	406.0
15°	608.4	580.3	553.1	523.0	495.4	469.5	451.5	433.9	418.3	405.6	393.2
17.5°	637.6	605.8	569.9	533.3	499.9	469.2	444.0	424.1	404.6	389.1	376.8
20°	654.1	617.9	577.3	539.3	502.4	468.2	440.5	416.8	395.7	379.2	365.4
22.5°	668.4	625.9	583.9	543.3	502.2	465.3	433.9	409.5	386.7	370.6	355.9
25°	683.2	632.4	590.2	542.6	496.7	458.5	423.4	395.7	372.9	353.9	338.8
27.5°	695.8	632.0	581.9	530.7	488.0	449.7	412.2	382.5	358.3	337.7	322.3
30°	704.2	632.8	573.3	522.6	479.6	440.1	403.6	373.7	348.3	327.4	312.9
32.5°	709.5	632.3	565.4	511.3	466.2	431.2	394.3	363.4	337.1	316.7	302.7
35°	712.6	628.4	551.8	488.1	444.7	410.6	379.7	347.6	320.2	301.0	285.2
37.5°	706.3	620.3	536.0	465.7	418.1	384.7	358.5	331.3	305.0	284.0	270.3
40°	696.7	615.0	523.7	449.9	399.8	367.6	345.4	318.6	292.7	272.7	260.0
42.5°	678.3	604.4	510.2	432.3	380.9	348.6	328.2	305.8	281.3	262.5	249.8
45°	633.3	581.0	489.8	406.0	352.9	319.5	301.5	285.2	263.1	244.9	233.8
47.5°	570.8	545.9	460.5	378.2	323.6	291.5	272.8	259.8	243.6	228.8	218.3
50°	527.4	517.1	440.7	359.2	304.2	272.7	254.7	242.9	231.2	216.5	206.9
52.5°	477.4	483.7	417.5	339.6	284.3	253.4	236.5	227.1	216.5	204.3	196.0
55°	406.9	429.9	377.5	306.5	254.7	225.3	209.2	201.0	194.7	185.8	178.5
57.5°	340.9	370.2	334.1	272.5	225.6	200.3	184.9	175.9	171.9	167.2	161.5
60°	301.7	330.6	303.2	249.7	206.2	182.0	168.4	160.7	156.7	153.4	148.6
62.5°	266.7	296.1	273.1	226.5	187.0	164.7	152.8	145.2	142.2	140.5	136.4
65°	218.7	243.9	228.6	190.4	159.7	139.9	129.1	123.9	121.0	120.4	117.7
67.5°	178.0	197.2	186.1	157.9	133.7	116.7	107.5	103.0	100.9	100.6	98.6
70°	151.3	169.3	160.7	135.3	114.4	101.0	93.1	89.2	87.8	87.7	86.5
72.5°	130.5	143.1	136.3	115.1	99.0	86.8	81.0	76.8	75.4	75.7	74.9
75°	96.6	106.0	102.1	87.4	74.5	66.5	61.7	59.1	57.8	58.4	57.5
77.5°	69.6	75.5	71.9	61.7	53.7	48.1	44.5	42.9	41.7	41.7	41.3
80°	52.5	56.0	54.0	47.9	41.3	36.5	33.6	32.5	31.9	31.6	31.4
82.5°	37.4	40.3	38.0	33.8	29.3	26.4	24.8	23.4	22.9	23.0	22.8
85°	18.9	20.0	19.1	16.5	14.7	13.4	12.5	11.9	11.4	11.6	11.2
87.5°	10.0	9.6	8.5	7.4	6.5	5.6	5.2	4.4	4.4	4.9	5.2
90°	17.2	14.5	11.8	9.3	7.3	5.2	3.0	0.9	3.0	5.2	7.3
92.5°	20.1	18.1	16.0	15.3	15.8	16.4	17.1	17.6	17.1	16.4	15.8
95°	24.7	22.4	20.1	23.3	31.9	40.5	49.1	57.8	49.1	40.5	31.9
97.5°	60.8	76.0	91.0	100.6	104.4	108.3	112.2	116.0	112.2	108.3	104.4
100°	96.9	129.7	162.5	176.8	172.6	168.4	164.2	159.9	164.2	168.4	172.6
102.5°	134.0	169.8	205.7	222.1	219.0	216.0	213.0	210.0	213.0	216.0	219.0
105°	245.2	264.1	283.0	291.3	289.1	286.7	284.5	282.1	284.5	286.7	289.1
107.5°	374.0	371.1	368.1	365.6	363.8	361.9	360.1	358.3	360.1	361.9	363.8
110°	422.4	420.0	417.7	415.7	414.1	412.4	410.7	409.0	410.7	412.4	414.1





TEST NUMBER: P332102-830

CATALOG NUMBER: S123DIW-S340D1030U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	470.0	467.7	465.4	463.5	462.0	460.4	458.9	457.4	458.9	460.4	462.0
115°	539.6	537.7	535.8	534.2	533.0	531.7	530.5	529.2	530.5	531.7	533.0
117.5°	608.1	607.2	606.1	604.9	603.3	601.8	600.2	598.7	600.2	601.8	603.3
120°	652.0	651.3	650.7	649.4	647.5	645.6	643.8	641.9	643.8	645.6	647.5
122.5°	694.7	694.0	693.1	692.0	690.4	688.9	687.3	685.8	687.3	688.9	690.4
125°	755.6	754.8	754.0	752.7	751.0	749.3	747.7	746.0	747.7	749.3	751.0
127.5°	814.5	813.4	812.4	811.1	809.4	807.7	806.0	804.3	806.0	807.7	809.4
130°	850.4	849.5	848.7	847.4	845.7	844.0	842.4	840.7	842.4	844.0	845.7
132.5°	884.8	884.1	883.4	882.2	880.5	878.8	877.2	875.5	877.2	878.8	880.5
135°	936.5	935.7	934.8	933.8	932.5	931.2	930.0	928.7	930.0	931.2	932.5
137.5°	982.5	982.0	981.6	980.5	978.9	977.3	975.7	974.1	975.7	977.3	978.9
140°	1011.7	1011.1	1010.4	1009.5	1008.2	1007.0	1005.7	1004.5	1005.7	1007.0	1008.2
142.5°	1039.7	1039.1	1038.5	1037.6	1036.2	1035.0	1033.7	1032.5	1033.7	1035.0	1036.2
145°	1079.3	1078.9	1078.5	1077.5	1076.1	1074.6	1073.1	1071.7	1073.1	1074.6	1076.1
147.5°	1114.0	1113.5	1113.1	1112.5	1111.4	1110.5	1109.6	1108.6	1109.6	1110.5	1111.4
150°	1135.2	1134.7	1134.3	1133.8	1133.2	1132.6	1131.9	1131.3	1131.9	1132.6	1133.2
152.5°	1153.7	1153.5	1153.2	1152.9	1152.6	1152.4	1152.1	1151.8	1152.1	1152.4	1152.6
155°	1179.1	1178.9	1178.7	1178.8	1179.3	1179.7	1180.1	1180.5	1180.1	1179.7	1179.3
157.5°	1202.1	1202.4	1202.6	1202.7	1202.8	1202.8	1202.9	1202.9	1202.9	1202.8	1202.8
160°	1215.0	1215.2	1215.4	1215.7	1215.9	1216.1	1216.3	1216.5	1216.3	1216.1	1215.9
162.5°	1226.4	1226.6	1226.8	1227.2	1227.8	1228.3	1228.8	1229.4	1228.8	1228.3	1227.8
165°	1241.5	1241.7	1242.0	1242.4	1243.0	1243.7	1244.3	1244.9	1244.3	1243.7	1243.0
167.5°	1253.2	1253.2	1253.2	1253.7	1254.5	1255.4	1256.2	1257.0	1256.2	1255.4	1254.5
170°	1260.1	1260.1	1260.1	1260.5	1261.3	1262.2	1263.0	1263.9	1263.0	1262.2	1261.3
172.5°	1264.2	1264.0	1263.9	1264.3	1265.4	1266.4	1267.3	1268.4	1267.3	1266.4	1265.4
175°	1270.1	1269.8	1269.6	1270.1	1271.1	1272.1	1273.2	1274.2	1273.2	1272.1	1271.1
177.5°	1272.4	1272.2	1272.1	1272.4	1273.3	1274.1	1274.9	1275.7	1274.9	1274.1	1273.3
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2



TEST NUMBER: P332102-830

CATALOG NUMBER: S123DIW-S340D1030U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2
2.5°	445.6	444.4	442.7	440.1	437.9	434.6	434.6	435.1	435.1	435.0	434.6
5°	432.2	428.9	424.9	420.3	415.5	410.6	409.7	407.9	406.7	405.8	404.7
7.5°	417.8	412.0	406.2	399.8	393.9	389.1	385.7	382.9	381.1	379.1	377.7
10°	408.2	401.0	394.2	387.4	379.8	373.9	370.2	367.6	365.6	363.8	363.0
12.5°	396.8	388.5	381.0	374.5	366.4	360.2	356.7	355.4	353.2	349.4	347.5
15°	380.1	372.4	363.4	353.5	349.6	342.1	337.9	335.9	334.6	331.8	330.9
17.5°	365.8	355.8	345.6	338.3	330.9	324.9	322.5	320.1	318.4	316.0	315.3
20°	354.4	345.4	336.2	328.3	320.6	314.0	312.0	310.3	308.5	307.5	306.5
22.5°	342.8	333.8	326.1	318.8	310.6	306.2	304.2	302.2	301.0	300.2	299.4
25°	326.5	318.6	310.0	303.5	296.9	294.0	292.7	291.6	290.7	289.6	289.4
27.5°	312.0	303.3	296.4	290.2	285.5	283.1	281.8	281.3	281.5	281.9	282.2
30°	301.0	293.1	287.5	282.2	277.8	275.6	275.3	275.3	276.3	276.4	276.9
32.5°	291.1	284.6	278.8	273.7	270.4	268.9	269.8	269.8	270.4	271.0	271.8
35°	276.4	270.7	266.4	261.9	259.1	259.8	260.2	260.6	261.7	263.1	263.9
37.5°	262.5	257.6	253.0	249.6	248.3	249.4	250.5	251.4	252.7	253.7	254.6
40°	252.5	248.7	244.4	241.3	241.8	242.4	243.3	244.4	245.5	246.2	247.0
42.5°	243.2	239.3	235.9	233.4	234.0	234.9	235.4	235.9	237.2	238.5	238.9
45°	229.0	225.9	222.9	221.3	221.8	222.3	222.6	223.3	224.4	225.3	225.6
47.5°	213.1	210.9	208.9	207.4	208.1	207.9	208.5	209.9	210.2	210.8	212.0
50°	202.9	201.0	198.5	198.0	198.0	198.0	198.3	200.0	200.0	201.0	201.8
52.5°	191.6	190.4	188.9	188.0	187.7	187.7	188.6	189.5	189.8	191.1	192.0
55°	175.0	173.7	172.4	171.7	171.3	171.7	173.4	173.9	175.0	175.7	176.3
57.5°	157.7	156.7	155.6	155.2	155.1	155.7	156.7	158.0	158.3	160.3	161.3
60°	146.3	144.7	143.8	143.8	143.4	145.3	145.0	147.1	147.6	148.9	150.4
62.5°	134.5	132.4	132.1	132.1	132.7	133.3	133.8	134.8	136.0	137.6	138.8
65°	115.5	114.4	115.9	115.7	115.3	116.6	116.6	117.7	119.0	120.6	123.0
67.5°	97.6	97.0	97.1	97.1	97.7	98.5	99.2	100.1	101.7	103.3	104.9
70°	85.4	86.1	85.0	85.9	86.5	86.7	87.2	88.5	90.2	91.3	93.1
72.5°	73.6	73.6	73.7	74.1	74.7	75.1	75.6	77.1	79.0	79.9	81.3
75°	56.6	56.5	57.1	57.1	58.2	58.6	59.1	59.8	61.5	62.8	63.9
77.5°	41.4	41.7	41.5	42.2	41.9	42.0	43.4	44.0	44.2	46.8	47.4
80°	31.2	31.6	31.9	32.0	32.2	31.9	33.4	34.0	34.0	35.5	36.7
82.5°	22.4	22.6	23.2	23.5	23.5	23.9	24.0	24.5	25.1	25.7	27.1
85°	11.2	11.9	12.1	11.9	12.1	11.6	12.3	12.5	12.7	12.7	12.7
87.5°	5.4	6.0	6.4	7.2	7.5	8.2	8.4	8.2	8.4	9.0	8.5
90°	9.3	11.8	14.5	17.2	20.0	22.7	23.6	24.4	25.3	26.1	26.7
92.5°	15.3	16.0	18.1	20.1	22.1	24.2	25.5	27.0	28.3	29.6	30.4
95°	23.3	20.1	22.4	24.7	27.1	29.3	30.8	32.3	33.7	35.3	36.0
97.5°	100.6	91.0	76.0	60.8	45.6	30.4	32.1	33.8	35.5	37.2	38.2
100°	176.8	162.5	129.7	96.9	64.1	31.2	32.9	34.6	36.3	38.0	38.9
102.5°	222.1	205.7	169.8	134.0	98.1	62.3	57.1	51.8	46.7	41.4	39.0
105°	291.3	283.0	264.1	245.2	226.3	207.4	170.1	132.9	95.6	58.3	40.0
107.5°	365.6	368.1	371.1	374.0	377.0	380.0	352.7	325.4	298.1	270.8	243.1
110°	415.7	417.7	420.0	422.4	424.6	427.0	420.0	413.1	406.1	399.2	380.7



TEST NUMBER: P332102-830

CATALOG NUMBER: S123DIW-S340D1030U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	463.5	465.4	467.7	470.0	472.4	474.7	474.8	474.9	475.0	475.1	472.0
115°	534.2	535.8	537.7	539.6	541.5	543.4	545.5	547.6	549.7	551.9	553.3
117.5°	604.9	606.1	607.2	608.1	609.1	610.0	611.7	613.4	615.1	616.8	617.7
120°	649.4	650.7	651.3	652.0	652.6	653.2	654.9	656.6	658.3	660.0	660.8
122.5°	692.0	693.1	694.0	694.7	695.6	696.4	697.6	698.7	699.9	701.1	701.8
125°	752.7	754.0	754.8	755.6	756.5	757.3	757.8	758.2	758.7	759.0	759.5
127.5°	811.1	812.4	813.4	814.5	815.4	816.4	817.1	817.7	818.4	819.2	819.3
130°	847.4	848.7	849.5	850.4	851.2	852.1	852.9	853.8	854.5	855.4	855.6
132.5°	882.2	883.4	884.1	884.8	885.4	886.1	886.9	887.8	888.6	889.5	889.6
135°	933.8	934.8	935.7	936.5	937.4	938.2	938.8	939.4	940.1	940.7	940.7
137.5°	980.5	981.6	982.0	982.5	983.0	983.4	984.4	985.4	986.5	987.5	987.8
140°	1009.5	1010.4	1011.1	1011.7	1012.3	1013.0	1013.8	1014.6	1015.5	1016.3	1016.5
142.5°	1037.6	1038.5	1039.1	1039.7	1040.4	1040.9	1041.7	1042.4	1043.0	1043.7	1043.7
145°	1077.5	1078.5	1078.9	1079.3	1079.8	1080.2	1080.6	1081.0	1081.5	1081.9	1082.0
147.5°	1112.5	1113.1	1113.5	1114.0	1114.4	1114.8	1115.2	1115.7	1116.1	1116.5	1116.3
150°	1133.8	1134.3	1134.7	1135.2	1135.6	1136.0	1136.4	1136.9	1137.3	1137.7	1137.6
152.5°	1152.9	1153.2	1153.5	1153.7	1154.0	1154.2	1155.0	1155.7	1156.5	1157.3	1157.2
155°	1178.8	1178.7	1178.9	1179.1	1179.4	1179.6	1180.6	1181.7	1182.7	1183.8	1183.6
157.5°	1202.7	1202.6	1202.4	1202.1	1201.9	1201.7	1203.0	1204.3	1205.5	1206.7	1206.5
160°	1215.7	1215.4	1215.2	1215.0	1214.8	1214.7	1215.9	1217.1	1218.4	1219.7	1219.6
162.5°	1227.2	1226.8	1226.6	1226.4	1226.2	1226.0	1227.4	1228.8	1230.3	1231.7	1231.7
165°	1242.4	1242.0	1241.7	1241.5	1241.3	1241.1	1242.8	1244.4	1246.1	1247.8	1247.9
167.5°	1253.7	1253.2	1253.2	1253.2	1253.2	1253.2	1254.9	1256.6	1258.3	1260.0	1260.0
170°	1260.5	1260.1	1260.1	1260.1	1260.1	1260.1	1261.7	1263.4	1265.1	1266.8	1266.8
172.5°	1264.3	1263.9	1264.0	1264.2	1264.4	1264.6	1266.3	1268.0	1269.6	1271.3	1271.2
175°	1270.1	1269.6	1269.8	1270.1	1270.3	1270.5	1272.0	1273.4	1274.9	1276.4	1276.3
177.5°	1272.4	1272.1	1272.2	1272.4	1272.5	1272.7	1274.1	1275.4	1276.8	1278.1	1278.0
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2



TEST NUMBER: P332102-830

CATALOG NUMBER: S123DIW-S340D1030U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2
2.5°	433.4	433.2	434.4	433.6	434.4	433.2	433.4	434.6	435.0	435.1	435.1
5°	403.4	404.1	401.8	401.8	401.8	404.1	403.4	404.7	405.8	406.7	407.9
7.5°	376.6	375.7	375.8	374.6	375.8	375.7	376.6	377.7	379.1	381.1	382.9
10°	360.3	359.0	358.5	358.8	358.5	359.0	360.3	363.0	363.8	365.6	367.6
12.5°	346.8	346.6	343.7	343.7	343.7	346.6	346.8	347.5	349.4	353.2	355.4
15°	330.9	326.8	326.3	327.6	326.3	326.8	330.9	330.9	331.8	334.6	335.9
17.5°	315.0	312.7	312.9	312.3	312.9	312.7	315.0	315.3	316.0	318.4	320.1
20°	306.5	305.2	305.0	303.5	305.0	305.2	306.5	306.5	307.5	308.5	310.3
22.5°	298.8	298.4	298.5	296.8	298.5	298.4	298.8	299.4	300.2	301.0	302.2
25°	289.2	290.3	289.4	289.4	289.4	290.3	289.2	289.4	289.6	290.7	291.6
27.5°	282.7	282.7	282.2	282.2	282.2	282.7	282.7	282.2	281.9	281.5	281.3
30°	277.8	277.6	278.0	278.0	278.0	277.6	277.8	276.9	276.4	276.3	275.3
32.5°	272.9	273.1	273.2	273.4	273.2	273.1	272.9	271.8	271.0	270.4	269.8
35°	265.2	265.5	266.2	265.7	266.2	265.5	265.2	263.9	263.1	261.7	260.6
37.5°	255.0	256.0	255.8	256.1	255.8	256.0	255.0	254.6	253.7	252.7	251.4
40°	247.2	247.9	247.7	247.7	247.7	247.9	247.2	247.0	246.2	245.5	244.4
42.5°	239.3	239.8	239.2	238.9	239.2	239.8	239.3	238.9	238.5	237.2	235.9
45°	226.4	225.9	226.6	225.7	226.6	225.9	226.4	225.6	225.3	224.4	223.3
47.5°	211.9	212.4	212.5	213.2	212.5	212.4	211.9	212.0	210.8	210.2	209.9
50°	202.3	203.6	203.6	203.3	203.6	203.6	202.3	201.8	201.0	200.0	200.0
52.5°	192.7	193.3	194.3	194.2	194.3	193.3	192.7	192.0	191.1	189.8	189.5
55°	178.0	178.5	179.0	179.2	179.0	178.5	178.0	176.3	175.7	175.0	173.9
57.5°	162.9	162.7	163.7	164.1	163.7	162.7	162.9	161.3	160.3	158.3	158.0
60°	152.1	152.1	153.9	154.6	153.9	152.1	152.1	150.4	148.9	147.6	147.1
62.5°	140.7	141.5	143.2	142.3	143.2	141.5	140.7	138.8	137.6	136.0	134.8
65°	124.0	125.8	125.6	126.5	125.6	125.8	124.0	123.0	120.6	119.0	117.7
67.5°	106.6	107.7	109.3	109.4	109.3	107.7	106.6	104.9	103.3	101.7	100.1
70°	94.8	96.0	96.8	97.5	96.8	96.0	94.8	93.1	91.3	90.2	88.5
72.5°	83.4	84.0	86.1	85.2	86.1	84.0	83.4	81.3	79.9	79.0	77.1
75°	65.4	67.0	68.3	67.7	68.3	67.0	65.4	63.9	62.8	61.5	59.8
77.5°	48.4	50.0	50.5	50.0	50.5	50.0	48.4	47.4	46.8	44.2	44.0
80°	38.2	38.0	39.3	39.1	39.3	38.0	38.2	36.7	35.5	34.0	34.0
82.5°	28.0	27.8	28.4	28.6	28.4	27.8	28.0	27.1	25.7	25.1	24.5
85°	13.6	14.2	13.4	13.2	13.4	14.2	13.6	12.7	12.7	12.7	12.5
87.5°	8.6	8.7	8.6	8.5	8.6	8.7	8.6	8.5	9.0	8.4	8.2
90°	27.1	27.5	28.0	28.4	28.0	27.5	27.1	26.7	26.1	25.3	24.4
92.5°	30.6	30.9	31.2	31.4	31.2	30.9	30.6	30.4	29.6	28.3	27.0
95°	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	35.3	33.7	32.3
97.5°	38.4	38.5	38.8	39.0	38.8	38.5	38.4	38.2	37.2	35.5	33.8
100°	39.1	39.3	39.6	39.8	39.6	39.3	39.1	38.9	38.0	36.3	34.6
102.5°	39.4	39.8	40.2	40.5	40.2	39.8	39.4	39.0	41.4	46.7	51.8
105°	40.4	40.8	41.2	41.7	41.2	40.8	40.4	40.0	58.3	95.6	132.9
107.5°	215.0	187.0	158.9	130.8	158.9	187.0	215.0	243.1	270.8	298.1	325.4
110°	350.6	320.5	290.4	260.3	290.4	320.5	350.6	380.7	399.2	406.1	413.1



TEST NUMBER: P332102-830

CATALOG NUMBER: S123DIW-S340D1030U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	465.7	459.4	453.0	446.7	453.0	459.4	465.7	472.0	475.1	475.0	474.9
115°	554.1	555.0	555.8	556.7	555.8	555.0	554.1	553.3	551.9	549.7	547.6
117.5°	617.8	618.0	618.2	618.4	618.2	618.0	617.8	617.7	616.8	615.1	613.4
120°	660.8	660.8	660.8	660.8	660.8	660.8	660.8	660.8	660.0	658.3	656.6
122.5°	701.9	702.1	702.3	702.5	702.3	702.1	701.9	701.8	701.1	699.9	698.7
125°	759.9	760.3	760.7	761.1	760.7	760.3	759.9	759.5	759.0	758.7	758.2
127.5°	818.8	818.4	818.0	817.6	818.0	818.4	818.8	819.3	819.2	818.4	817.7
130°	855.2	854.8	854.3	853.9	854.3	854.8	855.2	855.6	855.4	854.5	853.8
132.5°	889.0	888.4	887.9	887.2	887.9	888.4	889.0	889.6	889.5	888.6	887.8
135°	940.1	939.4	938.8	938.2	938.8	939.4	940.1	940.7	940.7	940.1	939.4
137.5°	987.3	986.9	986.5	986.1	986.5	986.9	987.3	987.8	987.5	986.5	985.4
140°	1016.2	1015.7	1015.3	1014.8	1015.3	1015.7	1016.2	1016.5	1016.3	1015.5	1014.6
142.5°	1043.1	1042.5	1042.0	1041.3	1042.0	1042.5	1043.1	1043.7	1043.7	1043.0	1042.4
145°	1082.0	1082.0	1082.0	1082.0	1082.0	1082.0	1082.0	1082.0	1081.9	1081.5	1081.0
147.5°	1115.3	1114.3	1113.3	1112.4	1113.3	1114.3	1115.3	1116.3	1116.5	1116.1	1115.7
150°	1137.0	1136.3	1135.8	1135.1	1135.8	1136.3	1137.0	1137.6	1137.7	1137.3	1136.9
152.5°	1156.1	1155.2	1154.2	1153.3	1154.2	1155.2	1156.1	1157.2	1157.3	1156.5	1155.7
155°	1182.4	1181.2	1179.9	1178.6	1179.9	1181.2	1182.4	1183.6	1183.8	1182.7	1181.7
157.5°	1204.9	1203.3	1201.6	1200.0	1201.6	1203.3	1204.9	1206.5	1206.7	1205.5	1204.3
160°	1218.0	1216.6	1215.1	1213.6	1215.1	1216.6	1218.0	1219.6	1219.7	1218.4	1217.1
162.5°	1230.5	1229.2	1227.9	1226.5	1227.9	1229.2	1230.5	1231.7	1231.7	1230.3	1228.8
165°	1246.5	1245.0	1243.5	1242.1	1243.5	1245.0	1246.5	1247.9	1247.8	1246.1	1244.4
167.5°	1258.3	1256.6	1254.9	1253.2	1254.9	1256.6	1258.3	1260.0	1260.0	1258.3	1256.6
170°	1265.1	1263.4	1261.7	1260.1	1261.7	1263.4	1265.1	1266.8	1266.8	1265.1	1263.4
172.5°	1269.4	1267.5	1265.6	1263.9	1265.6	1267.5	1269.4	1271.2	1271.3	1269.6	1268.0
175°	1274.6	1272.9	1271.2	1269.5	1271.2	1272.9	1274.6	1276.3	1276.4	1274.9	1273.4
177.5°	1276.3	1274.6	1272.9	1271.2	1272.9	1274.6	1276.3	1278.0	1278.1	1276.8	1275.4
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2



TEST NUMBER: P332102-830

CATALOG NUMBER: S123DIW-S340D1030U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2
2.5°	434.6	434.6	437.9	440.1	442.7	444.4	445.6	446.9	449.0	451.8	455.0
5°	409.7	410.6	415.5	420.3	424.9	428.9	432.2	436.1	440.9	446.9	453.5
7.5°	385.7	389.1	393.9	399.8	406.2	412.0	417.8	424.3	431.2	439.9	449.1
10°	370.2	373.9	379.8	387.4	394.2	401.0	408.2	415.2	423.8	434.1	446.0
12.5°	356.7	360.2	366.4	374.5	381.0	388.5	396.8	406.0	415.6	427.9	441.4
15°	337.9	342.1	349.6	353.5	363.4	372.4	380.1	393.2	405.6	418.3	433.9
17.5°	322.5	324.9	330.9	338.3	345.6	355.8	365.8	376.8	389.1	404.6	424.1
20°	312.0	314.0	320.6	328.3	336.2	345.4	354.4	365.4	379.2	395.7	416.8
22.5°	304.2	306.2	310.6	318.8	326.1	333.8	342.8	355.9	370.6	386.7	409.5
25°	292.7	294.0	296.9	303.5	310.0	318.6	326.5	338.8	353.9	372.9	395.7
27.5°	281.8	283.1	285.5	290.2	296.4	303.3	312.0	322.3	337.7	358.3	382.5
30°	275.3	275.6	277.8	282.2	287.5	293.1	301.0	312.9	327.4	348.3	373.7
32.5°	269.8	268.9	270.4	273.7	278.8	284.6	291.1	302.7	316.7	337.1	363.4
35°	260.2	259.8	259.1	261.9	266.4	270.7	276.4	285.2	301.0	320.2	347.6
37.5°	250.5	249.4	248.3	249.6	253.0	257.6	262.5	270.3	284.0	305.0	331.3
40°	243.3	242.4	241.8	241.3	244.4	248.7	252.5	260.0	272.7	292.7	318.6
42.5°	235.4	234.9	234.0	233.4	235.9	239.3	243.2	249.8	262.5	281.3	305.8
45°	222.6	222.3	221.8	221.3	222.9	225.9	229.0	233.8	244.9	263.1	285.2
47.5°	208.5	207.9	208.1	207.4	208.9	210.9	213.1	218.3	228.8	243.6	259.8
50°	198.3	198.0	198.0	198.0	198.5	201.0	202.9	206.9	216.5	231.2	242.9
52.5°	188.6	187.7	187.7	188.0	188.9	190.4	191.6	196.0	204.3	216.5	227.1
55°	173.4	171.7	171.3	171.7	172.4	173.7	175.0	178.5	185.8	194.7	201.0
57.5°	156.7	155.7	155.1	155.2	155.6	156.7	157.7	161.5	167.2	171.9	175.9
60°	145.0	145.3	143.4	143.8	143.8	144.7	146.3	148.6	153.4	156.7	160.7
62.5°	133.8	133.3	132.7	132.1	132.1	132.4	134.5	136.4	140.5	142.2	145.2
65°	116.6	116.6	115.3	115.7	115.9	114.4	115.5	117.7	120.4	121.0	123.9
67.5°	99.2	98.5	97.7	97.1	97.1	97.0	97.6	98.6	100.6	100.9	103.0
70°	87.2	86.7	86.5	85.9	85.0	86.1	85.4	86.5	87.7	87.8	89.2
72.5°	75.6	75.1	74.7	74.1	73.7	73.6	73.6	74.9	75.7	75.4	76.8
75°	59.1	58.6	58.2	57.1	57.1	56.5	56.6	57.5	58.4	57.8	59.1
77.5°	43.4	42.0	41.9	42.2	41.5	41.7	41.4	41.3	41.7	41.7	42.9
80°	33.4	31.9	32.2	32.0	31.9	31.6	31.2	31.4	31.6	31.9	32.5
82.5°	24.0	23.9	23.5	23.5	23.2	22.6	22.4	22.8	23.0	22.9	23.4
85°	12.3	11.6	12.1	11.9	12.1	11.9	11.2	11.2	11.6	11.4	11.9
87.5°	8.4	8.2	7.5	7.2	6.4	6.0	5.4	5.2	4.9	4.4	4.4
90°	23.6	22.7	20.0	17.2	14.5	11.8	9.3	7.3	5.2	3.0	0.9
92.5°	25.5	24.2	22.1	20.1	18.1	16.0	15.3	15.8	16.4	17.1	17.6
95°	30.8	29.3	27.1	24.7	22.4	20.1	23.3	31.9	40.5	49.1	57.8
97.5°	32.1	30.4	45.6	60.8	76.0	91.0	100.6	104.4	108.3	112.2	116.0
100°	32.9	31.2	64.1	96.9	129.7	162.5	176.8	172.6	168.4	164.2	159.9
102.5°	57.1	62.3	98.1	134.0	169.8	205.7	222.1	219.0	216.0	213.0	210.0
105°	170.1	207.4	226.3	245.2	264.1	283.0	291.3	289.1	286.7	284.5	282.1
107.5°	352.7	380.0	377.0	374.0	371.1	368.1	365.6	363.8	361.9	360.1	358.3
110°	420.0	427.0	424.6	422.4	420.0	417.7	415.7	414.1	412.4	410.7	409.0



TEST NUMBER: P332102-830

CATALOG NUMBER: S123DIW-S340D1030U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	474.8	474.7	472.4	470.0	467.7	465.4	463.5	462.0	460.4	458.9	457.4
115°	545.5	543.4	541.5	539.6	537.7	535.8	534.2	533.0	531.7	530.5	529.2
117.5°	611.7	610.0	609.1	608.1	607.2	606.1	604.9	603.3	601.8	600.2	598.7
120°	654.9	653.2	652.6	652.0	651.3	650.7	649.4	647.5	645.6	643.8	641.9
122.5°	697.6	696.4	695.6	694.7	694.0	693.1	692.0	690.4	688.9	687.3	685.8
125°	757.8	757.3	756.5	755.6	754.8	754.0	752.7	751.0	749.3	747.7	746.0
127.5°	817.1	816.4	815.4	814.5	813.4	812.4	811.1	809.4	807.7	806.0	804.3
130°	852.9	852.1	851.2	850.4	849.5	848.7	847.4	845.7	844.0	842.4	840.7
132.5°	886.9	886.1	885.4	884.8	884.1	883.4	882.2	880.5	878.8	877.2	875.5
135°	938.8	938.2	937.4	936.5	935.7	934.8	933.8	932.5	931.2	930.0	928.7
137.5°	984.4	983.4	983.0	982.5	982.0	981.6	980.5	978.9	977.3	975.7	974.1
140°	1013.8	1013.0	1012.3	1011.7	1011.1	1010.4	1009.5	1008.2	1007.0	1005.7	1004.5
142.5°	1041.7	1040.9	1040.4	1039.7	1039.1	1038.5	1037.6	1036.2	1035.0	1033.7	1032.5
145°	1080.6	1080.2	1079.8	1079.3	1078.9	1078.5	1077.5	1076.1	1074.6	1073.1	1071.7
147.5°	1115.2	1114.8	1114.4	1114.0	1113.5	1113.1	1112.5	1111.4	1110.5	1109.6	1108.6
150°	1136.4	1136.0	1135.6	1135.2	1134.7	1134.3	1133.8	1133.2	1132.6	1131.9	1131.3
152.5°	1155.0	1154.2	1154.0	1153.7	1153.5	1153.2	1152.9	1152.6	1152.4	1152.1	1151.8
155°	1180.6	1179.6	1179.4	1179.1	1178.9	1178.7	1178.8	1179.3	1179.7	1180.1	1180.5
157.5°	1203.0	1201.7	1201.9	1202.1	1202.4	1202.6	1202.7	1202.8	1202.8	1202.9	1202.9
160°	1215.9	1214.7	1214.8	1215.0	1215.2	1215.4	1215.7	1215.9	1216.1	1216.3	1216.5
162.5°	1227.4	1226.0	1226.2	1226.4	1226.6	1226.8	1227.2	1227.8	1228.3	1228.8	1229.4
165°	1242.8	1241.1	1241.3	1241.5	1241.7	1242.0	1242.4	1243.0	1243.7	1244.3	1244.9
167.5°	1254.9	1253.2	1253.2	1253.2	1253.2	1253.2	1253.7	1254.5	1255.4	1256.2	1257.0
170°	1261.7	1260.1	1260.1	1260.1	1260.1	1260.1	1260.5	1261.3	1262.2	1263.0	1263.9
172.5°	1266.3	1264.6	1264.4	1264.2	1264.0	1263.9	1264.3	1265.4	1266.4	1267.3	1268.4
175°	1272.0	1270.5	1270.3	1270.1	1269.8	1269.6	1270.1	1271.1	1272.1	1273.2	1274.2
177.5°	1274.1	1272.7	1272.5	1272.4	1272.2	1272.1	1272.4	1273.3	1274.1	1274.9	1275.7
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2



TEST NUMBER: P332102-830

CATALOG NUMBER: S123DIW-S340D1030U830-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2
2.5°	456.0	456.9	459.9	462.0	464.5	465.9	467.2	468.3	469.8	470.0	475.1
5°	458.1	462.4	470.1	475.8	482.9	490.5	495.8	498.2	504.6	509.8	520.4
7.5°	457.5	466.8	478.4	490.5	503.3	515.3	525.7	538.0	546.7	559.9	572.8
10°	456.9	469.5	484.4	499.7	517.7	534.4	549.4	566.1	579.9	598.1	613.7
12.5°	455.3	470.5	491.3	509.4	531.3	554.3	576.5	597.9	610.1	640.5	654.8
15°	451.5	469.5	495.4	523.0	553.1	580.3	608.4	630.8	667.0	693.6	710.6
17.5°	444.0	469.2	499.9	533.3	569.9	605.8	637.6	671.6	710.0	742.2	776.5
20°	440.5	468.2	502.4	539.3	577.3	617.9	654.1	694.9	736.9	768.5	812.5
22.5°	433.9	465.3	502.2	543.3	583.9	625.9	668.4	709.5	758.0	801.5	843.4
25°	423.4	458.5	496.7	542.6	590.2	632.4	683.2	737.8	788.2	844.3	886.0
27.5°	412.2	449.7	488.0	530.7	581.9	632.0	695.8	757.5	819.3	867.6	898.5
30°	403.6	440.1	479.6	522.6	573.3	632.8	704.2	771.6	831.8	873.3	890.6
32.5°	394.3	431.2	466.2	511.3	565.4	632.3	709.5	779.9	832.5	860.1	856.7
35°	379.7	410.6	444.7	488.1	551.8	628.4	712.6	780.6	812.8	806.9	762.1
37.5°	358.5	384.7	418.1	465.7	536.0	620.3	706.3	757.4	755.4	707.1	642.2
40°	345.4	367.6	399.8	449.9	523.7	615.0	696.7	729.9	701.8	634.3	556.7
42.5°	328.2	348.6	380.9	432.3	510.2	604.4	678.3	687.9	632.9	555.3	484.1
45°	301.5	319.5	352.9	406.0	489.8	581.0	633.3	609.7	535.7	455.6	401.4
47.5°	272.8	291.5	323.6	378.2	460.5	545.9	570.8	520.8	444.9	379.8	330.1
50°	254.7	272.7	304.2	359.2	440.7	517.1	527.4	462.9	393.0	335.9	295.1
52.5°	236.5	253.4	284.3	339.6	417.5	483.7	477.4	411.6	347.4	298.7	266.6
55°	209.2	225.3	254.7	306.5	377.5	429.9	406.9	344.1	291.0	253.2	228.8
57.5°	184.9	200.3	225.6	272.5	334.1	370.2	340.9	287.9	245.7	216.6	198.5
60°	168.4	182.0	206.2	249.7	303.2	330.6	301.7	255.0	219.3	196.0	179.8
62.5°	152.8	164.7	187.0	226.5	273.1	296.1	266.7	227.2	196.9	176.3	162.4
65°	129.1	139.9	159.7	190.4	228.6	243.9	218.7	186.6	163.2	147.8	138.6
67.5°	107.5	116.7	133.7	157.9	186.1	197.2	178.0	153.2	135.4	123.1	115.8
70°	93.1	101.0	114.4	135.3	160.7	169.3	151.3	130.8	117.9	108.0	101.2
72.5°	81.0	86.8	99.0	115.1	136.3	143.1	130.5	112.6	100.6	93.1	87.7
75°	61.7	66.5	74.5	87.4	102.1	106.0	96.6	85.4	77.3	72.0	67.9
77.5°	44.5	48.1	53.7	61.7	71.9	75.5	69.6	62.0	56.1	52.6	50.2
80°	33.6	36.5	41.3	47.9	54.0	56.0	52.5	46.8	42.6	40.6	38.6
82.5°	24.8	26.4	29.3	33.8	38.0	40.3	37.4	33.9	31.7	29.9	29.1
85°	12.5	13.4	14.7	16.5	19.1	20.0	18.9	18.0	16.7	15.6	15.6
87.5°	5.2	5.6	6.5	7.4	8.5	9.6	10.0	10.2	10.6	10.5	10.5
90°	3.0	5.2	7.3	9.3	11.8	14.5	17.2	20.0	22.7	23.6	24.4
92.5°	17.1	16.4	15.8	15.3	16.0	18.1	20.1	22.1	24.2	25.5	27.0
95°	49.1	40.5	31.9	23.3	20.1	22.4	24.7	27.1	29.3	30.8	32.3
97.5°	112.2	108.3	104.4	100.6	91.0	76.0	60.8	45.6	30.4	32.1	33.8
100°	164.2	168.4	172.6	176.8	162.5	129.7	96.9	64.1	31.2	32.9	34.6
102.5°	213.0	216.0	219.0	222.1	205.7	169.8	134.0	98.1	62.3	57.1	51.8
105°	284.5	286.7	289.1	291.3	283.0	264.1	245.2	226.3	207.4	170.1	132.9
107.5°	360.1	361.9	363.8	365.6	368.1	371.1	374.0	377.0	380.0	352.7	325.4
110°	410.7	412.4	414.1	415.7	417.7	420.0	422.4	424.6	427.0	420.0	413.1





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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	458.9	460.4	462.0	463.5	465.4	467.7	470.0	472.4	474.7	474.8	474.9
115°	530.5	531.7	533.0	534.2	535.8	537.7	539.6	541.5	543.4	545.5	547.6
117.5°	600.2	601.8	603.3	604.9	606.1	607.2	608.1	609.1	610.0	611.7	613.4
120°	643.8	645.6	647.5	649.4	650.7	651.3	652.0	652.6	653.2	654.9	656.6
122.5°	687.3	688.9	690.4	692.0	693.1	694.0	694.7	695.6	696.4	697.6	698.7
125°	747.7	749.3	751.0	752.7	754.0	754.8	755.6	756.5	757.3	757.8	758.2
127.5°	806.0	807.7	809.4	811.1	812.4	813.4	814.5	815.4	816.4	817.1	817.7
130°	842.4	844.0	845.7	847.4	848.7	849.5	850.4	851.2	852.1	852.9	853.8
132.5°	877.2	878.8	880.5	882.2	883.4	884.1	884.8	885.4	886.1	886.9	887.8
135°	930.0	931.2	932.5	933.8	934.8	935.7	936.5	937.4	938.2	938.8	939.4
137.5°	975.7	977.3	978.9	980.5	981.6	982.0	982.5	983.0	983.4	984.4	985.4
140°	1005.7	1007.0	1008.2	1009.5	1010.4	1011.1	1011.7	1012.3	1013.0	1013.8	1014.6
142.5°	1033.7	1035.0	1036.2	1037.6	1038.5	1039.1	1039.7	1040.4	1040.9	1041.7	1042.4
145°	1073.1	1074.6	1076.1	1077.5	1078.5	1078.9	1079.3	1079.8	1080.2	1080.6	1081.0
147.5°	1109.6	1110.5	1111.4	1112.5	1113.1	1113.5	1114.0	1114.4	1114.8	1115.2	1115.7
150°	1131.9	1132.6	1133.2	1133.8	1134.3	1134.7	1135.2	1135.6	1136.0	1136.4	1136.9
152.5°	1152.1	1152.4	1152.6	1152.9	1153.2	1153.5	1153.7	1154.0	1154.2	1155.0	1155.7
155°	1180.1	1179.7	1179.3	1178.8	1178.7	1178.9	1179.1	1179.4	1179.6	1180.6	1181.7
157.5°	1202.9	1202.8	1202.8	1202.7	1202.6	1202.4	1202.1	1201.9	1201.7	1203.0	1204.3
160°	1216.3	1216.1	1215.9	1215.7	1215.4	1215.2	1215.0	1214.8	1214.7	1215.9	1217.1
162.5°	1228.8	1228.3	1227.8	1227.2	1226.8	1226.6	1226.4	1226.2	1226.0	1227.4	1228.8
165°	1244.3	1243.7	1243.0	1242.4	1242.0	1241.7	1241.5	1241.3	1241.1	1242.8	1244.4
167.5°	1256.2	1255.4	1254.5	1253.7	1253.2	1253.2	1253.2	1253.2	1253.2	1254.9	1256.6
170°	1263.0	1262.2	1261.3	1260.5	1260.1	1260.1	1260.1	1260.1	1260.1	1261.7	1263.4
172.5°	1267.3	1266.4	1265.4	1264.3	1263.9	1264.0	1264.2	1264.4	1264.6	1266.3	1268.0
175°	1273.2	1272.1	1271.1	1270.1	1269.6	1269.8	1270.1	1270.3	1270.5	1272.0	1273.4
177.5°	1274.9	1274.1	1273.3	1272.4	1272.1	1272.2	1272.4	1272.5	1272.7	1274.1	1275.4
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	453.2	453.2	453.2	453.2	453.2	453.2	453.2
2.5°	476.9	477.1	479.0	480.4	479.8	480.6	481.0
5°	521.0	529.0	533.1	536.2	536.4	536.7	538.4
7.5°	583.6	592.1	598.3	607.8	610.5	613.7	612.8
10°	629.3	641.9	652.6	658.3	664.5	673.4	666.2
12.5°	672.0	694.2	710.6	719.4	725.2	727.0	723.5
15°	742.4	771.4	786.9	786.6	806.3	814.8	801.4
17.5°	806.9	833.7	855.2	866.1	882.6	886.2	884.6
20°	846.5	875.7	892.4	911.3	919.8	927.5	928.8
22.5°	880.5	906.8	924.7	940.4	947.5	951.2	953.4
25°	915.7	936.3	947.1	952.5	954.5	954.0	951.2
27.5°	913.2	914.8	903.0	891.4	880.9	869.2	865.2
30°	889.5	871.1	838.1	819.4	792.0	770.2	779.1
32.5°	827.2	790.4	753.5	712.7	678.9	669.3	659.6
35°	706.0	641.4	603.6	559.7	542.2	524.6	512.5
37.5°	571.1	521.2	476.4	447.7	430.1	419.0	413.0
40°	493.8	448.8	411.9	388.6	375.2	362.8	361.0
42.5°	432.2	390.3	362.6	344.0	331.2	325.8	322.0
45°	353.9	324.8	306.1	292.9	284.4	281.1	276.6
47.5°	299.6	279.0	264.9	256.0	249.5	247.0	246.8
50°	269.2	252.0	241.8	234.7	229.7	228.8	225.3
52.5°	246.4	231.5	223.5	217.4	213.7	211.2	210.2
55°	213.9	204.0	196.7	193.2	190.4	187.9	187.9
57.5°	187.1	178.9	174.1	171.1	170.2	168.5	167.4
60°	170.6	163.6	159.9	157.2	155.4	155.7	153.7
62.5°	154.5	149.9	146.3	143.7	141.6	141.7	141.8
65°	131.5	128.0	125.4	124.5	123.2	121.7	122.1
67.5°	111.5	108.2	106.1	104.6	104.2	103.3	104.6
70°	97.1	94.6	93.1	91.8	91.3	91.5	92.7
72.5°	83.9	82.2	81.2	80.6	79.6	79.6	80.4
75°	65.9	64.6	63.7	63.1	62.8	62.8	62.8
77.5°	48.4	48.1	47.7	46.8	46.8	47.0	47.0
80°	38.2	37.5	37.3	36.9	36.2	35.8	36.9
82.5°	28.6	27.9	27.7	27.6	26.6	26.5	27.4
85°	15.4	14.7	14.9	14.7	14.7	14.5	14.5
87.5°	10.5	10.5	10.5	10.7	10.7	10.6	10.9
90°	25.3	26.1	26.7	27.1	27.5	28.0	28.4
92.5°	28.3	29.6	30.4	30.6	30.9	31.2	31.4
95°	33.7	35.3	36.0	36.0	36.0	36.0	36.0
97.5°	35.5	37.2	38.2	38.4	38.5	38.8	39.0
100°	36.3	38.0	38.9	39.1	39.3	39.6	39.8
102.5°	46.7	41.4	39.0	39.4	39.8	40.2	40.5
105°	95.6	58.3	40.0	40.4	40.8	41.2	41.7
107.5°	298.1	270.8	243.1	215.0	187.0	158.9	130.8
110°	406.1	399.2	380.7	350.6	320.5	290.4	260.3



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	475.0	475.1	472.0	465.7	459.4	453.0	446.7
115°	549.7	551.9	553.3	554.1	555.0	555.8	556.7
117.5°	615.1	616.8	617.7	617.8	618.0	618.2	618.4
120°	658.3	660.0	660.8	660.8	660.8	660.8	660.8
122.5°	699.9	701.1	701.8	701.9	702.1	702.3	702.5
125°	758.7	759.0	759.5	759.9	760.3	760.7	761.1
127.5°	818.4	819.2	819.3	818.8	818.4	818.0	817.6
130°	854.5	855.4	855.6	855.2	854.8	854.3	853.9
132.5°	888.6	889.5	889.6	889.0	888.4	887.9	887.2
135°	940.1	940.7	940.7	940.1	939.4	938.8	938.2
137.5°	986.5	987.5	987.8	987.3	986.9	986.5	986.1
140°	1015.5	1016.3	1016.5	1016.2	1015.7	1015.3	1014.8
142.5°	1043.0	1043.7	1043.7	1043.1	1042.5	1042.0	1041.3
145°	1081.5	1081.9	1082.0	1082.0	1082.0	1082.0	1082.0
147.5°	1116.1	1116.5	1116.3	1115.3	1114.3	1113.3	1112.4
150°	1137.3	1137.7	1137.6	1137.0	1136.3	1135.8	1135.1
152.5°	1156.5	1157.3	1157.2	1156.1	1155.2	1154.2	1153.3
155°	1182.7	1183.8	1183.6	1182.4	1181.2	1179.9	1178.6
157.5°	1205.5	1206.7	1206.5	1204.9	1203.3	1201.6	1200.0
160°	1218.4	1219.7	1219.6	1218.0	1216.6	1215.1	1213.6
162.5°	1230.3	1231.7	1231.7	1230.5	1229.2	1227.9	1226.5
165°	1246.1	1247.8	1247.9	1246.5	1245.0	1243.5	1242.1
167.5°	1258.3	1260.0	1260.0	1258.3	1256.6	1254.9	1253.2
170°	1265.1	1266.8	1266.8	1265.1	1263.4	1261.7	1260.1
172.5°	1269.6	1271.3	1271.2	1269.4	1267.5	1265.6	1263.9
175°	1274.9	1276.4	1276.3	1274.6	1272.9	1271.2	1269.5
177.5°	1276.8	1278.1	1278.0	1276.3	1274.6	1272.9	1271.2
180°	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2	1274.2

(END OF REPORT)