

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: P331489-930

Luminaire Tested: **S122DIW-S290D1440U930-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331489-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIW-S290D1440U930-4F0-1E-UDD-A
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 290 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 1440 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5763.3 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.16 / 1.23
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Semi-Indirect

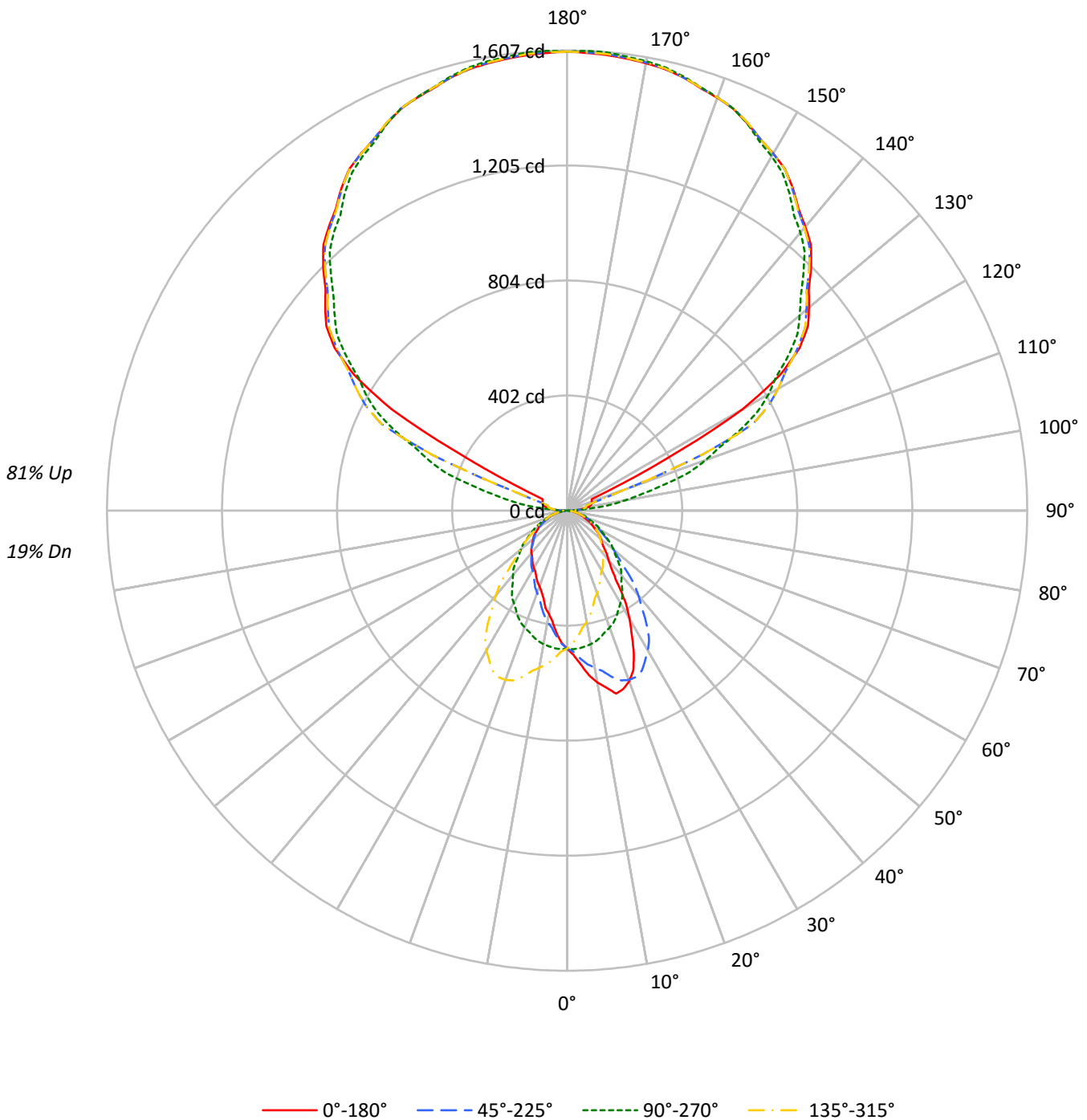
Input Watts (W): 53.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	88	88	88	66	66	66	46	46	46	27	27	27	19
1	91	87	83	80	80	77	74	71	58	56	54	40	39	38	24	24	23	16
2	83	76	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	76	67	60	55	66	59	54	49	45	41	38	32	29	27	19	18	17	12
4	69	59	52	46	61	52	46	41	40	36	32	28	26	23	17	16	15	10
5	63	53	45	39	56	47	40	35	36	31	28	25	22	20	16	14	13	9
6	58	47	39	34	51	42	35	31	32	27	24	23	20	18	14	13	11	8
7	54	42	35	30	47	38	31	27	29	24	21	21	18	16	13	11	10	7
8	50	38	31	26	44	34	28	24	26	22	19	19	16	14	12	10	9	6
9	46	35	28	23	41	31	25	21	24	20	17	17	14	12	11	9	8	6
10	43	32	25	20	38	28	22	19	22	18	15	16	13	11	10	9	7	5

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	7781	7781	7781	7781
5°	8723	7831	6940	7831
10°	9996	7768	6005	7768
15°	11057	7626	5307	7626
20°	10890	7472	4837	7472
25°	9818	7269	4541	7269
30°	8114	6943	4323	6943
35°	5913	6603	4169	6603
40°	4723	6203	4083	6203
45°	4128	5740	3966	5740
50°	3881	5290	3888	5290
55°	3575	4833	3783	4833
60°	3278	4346	3626	4346
65°	2988	3912	3465	3912
70°	2710	3489	3238	3489
75°	2408	3013	2863	3013
80°	2073	2492	2306	2492
85°	1853	1853	1371	1853



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.9	0.8
10°-20°	133.4	2.3
20°-30°	193.6	3.4
30°-40°	204.3	3.5
40°-50°	180.9	3.1
50°-60°	144.4	2.5
60°-70°	98.1	1.7
70°-80°	50.3	0.9
80°-90°	16.1	0.3
90°-100°	53.5	0.9
100°-110°	196.0	3.4
110°-120°	524.0	9.1
120°-130°	865.0	15.0
130°-140°	919.9	16.0
140°-150°	855.0	14.8
150°-160°	687.4	11.9
160°-170°	443.0	7.7
170°-180°	152.5	2.6
0°-30°	373.0	6.5
0°-40°	577.3	10.0
0°-60°	902.6	15.7
0°-90°	1067.1	18.5
90°-120°	773.5	13.4
90°-150°	3413.3	59.2
90°-180°	4696.0	81.5
0°-180°	5763.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	482	482	482	482	482	
5°	538	483	428	483	538	54
15°	662	456	318	456	662	183
25°	551	408	255	408	551	249
35°	300	335	212	335	300	195
45°	181	251	174	251	181	142
55°	127	172	134	172	127	114
65°	78	102	91	102	78	78
75°	39	48	46	48	39	41
85°	10	10	7	10	10	12
90°	31	1	31	1	31	14
95°	50	75	50	75	50	47
105°	88	352	88	352	88	92
115°	95	667	95	667	95	238
125°	991	943	991	943	991	858
135°	1205	1166	1205	1166	1205	929
145°	1374	1353	1374	1353	1374	859
155°	1491	1490	1491	1490	1491	688
165°	1566	1570	1566	1570	1566	442
175°	1597	1606	1597	1606	1597	152
180°	1602	1602	1602	1602	1602	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	504.1	504.3	504.6	502.2	501.9	501.9	499.9	498.1	495.9	493.2	493.5
5°	538.2	540.2	541.0	538.7	535.4	535.1	531.9	526.8	521.9	518.0	515.3
7.5°	578.9	579.7	577.9	574.9	572.5	568.0	562.1	556.4	548.4	541.0	535.6
10°	609.7	610.8	607.6	603.4	599.9	594.7	586.2	577.5	567.0	556.8	548.6
12.5°	633.1	635.9	631.8	631.3	625.3	618.1	608.0	603.6	588.7	574.5	565.7
15°	661.5	661.4	661.8	658.2	653.8	652.6	642.0	630.2	609.4	601.0	586.5
17.5°	653.3	656.2	657.5	657.4	657.3	656.6	653.1	645.8	635.3	621.7	605.1
20°	633.8	637.5	638.1	642.3	644.7	647.8	649.1	647.1	640.7	629.3	614.9
22.5°	603.6	604.6	606.3	612.9	618.2	626.1	630.1	637.1	634.5	629.0	616.9
25°	551.1	549.3	555.8	559.1	571.2	583.8	592.9	602.8	611.7	617.1	613.6
27.5°	488.3	485.5	495.2	504.1	513.8	527.5	541.6	558.3	572.2	589.6	595.6
30°	435.2	436.9	446.1	455.6	470.4	489.7	505.6	523.9	543.8	563.2	576.7
32.5°	378.1	384.4	390.3	404.8	417.8	439.3	462.7	485.6	510.3	532.4	553.3
35°	300.0	307.4	315.6	326.1	344.5	365.7	388.6	419.5	453.2	483.4	508.2
37.5°	252.6	251.4	256.0	263.7	278.5	295.7	322.0	352.5	392.2	427.6	462.7
40°	224.1	223.4	226.7	233.7	245.0	257.6	280.6	307.4	344.3	387.7	429.3
42.5°	204.6	205.0	206.8	211.8	219.6	229.9	247.1	269.9	303.7	344.5	389.3
45°	180.8	182.1	184.1	186.5	190.9	199.5	209.1	225.4	252.1	286.2	330.2
47.5°	163.6	163.7	165.8	167.9	170.5	175.3	183.2	193.4	212.2	239.9	277.9
50°	154.5	153.2	154.7	156.3	159.1	162.4	167.6	177.2	189.8	212.2	243.9
52.5°	143.2	143.2	144.6	145.2	147.7	151.0	155.7	162.4	173.8	191.4	217.4
55°	127.0	128.0	128.7	129.8	132.1	134.4	138.2	142.6	151.5	164.6	183.9
57.5°	111.9	112.2	112.9	115.0	116.4	118.6	122.1	126.2	132.0	141.7	156.2
60°	101.5	101.5	103.0	103.9	105.7	107.9	110.7	114.6	119.8	127.8	139.5
62.5°	92.0	91.9	92.5	94.0	95.4	97.4	100.2	103.5	108.4	115.5	125.1
65°	78.2	77.8	78.9	79.2	80.7	82.8	85.0	88.5	92.5	97.6	106.2
67.5°	64.8	65.3	65.9	66.5	67.3	69.5	71.0	73.5	76.8	81.1	86.8
70°	57.4	57.4	57.4	58.0	59.1	60.2	61.6	63.7	66.9	70.5	75.7
72.5°	49.1	49.7	50.3	50.0	51.4	52.0	53.8	55.0	58.0	60.3	64.9
75°	38.6	38.6	38.6	39.5	40.0	40.5	41.7	42.8	44.3	47.2	49.7
77.5°	28.8	28.7	28.9	29.1	29.7	30.3	30.7	31.6	33.0	34.4	36.4
80°	22.3	22.6	22.7	23.2	23.2	23.5	23.7	25.0	25.9	26.8	28.1
82.5°	17.2	17.3	17.3	17.4	17.5	17.8	18.3	18.7	19.0	19.7	20.7
85°	10.0	9.8	9.8	10.2	10.0	10.0	10.4	10.8	10.8	10.9	11.5
87.5°	10.1	10.0	10.0	9.8	9.7	9.7	9.4	9.0	8.9	8.8	8.6
90°	31.3	30.8	30.2	29.8	29.3	28.4	27.1	25.8	24.5	23.2	21.1
92.5°	31.3	31.0	30.7	30.4	30.1	29.6	28.9	28.2	27.6	26.9	25.8
95°	49.9	50.1	50.4	50.6	50.9	50.4	49.1	47.8	46.5	45.2	43.5
97.5°	66.5	66.3	66.0	65.6	65.3	64.7	63.6	62.6	61.6	60.5	56.3
100°	77.7	77.2	76.6	76.1	75.7	74.4	72.3	70.2	68.2	66.1	61.7
102.5°	83.2	82.5	81.8	81.1	80.4	78.7	76.0	73.3	70.6	67.9	104.6
105°	88.1	87.1	86.1	85.0	84.0	82.1	79.2	76.4	73.5	70.8	141.0
107.5°	90.7	89.7	88.6	87.6	86.6	87.5	90.3	93.3	96.1	99.1	183.4
110°	91.6	90.6	89.5	88.5	87.5	99.9	125.6	151.4	177.2	202.9	277.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	92.5	91.7	90.9	90.1	89.2	135.8	229.8	323.8	417.8	511.8	530.2
115°	95.1	113.7	132.2	150.7	169.3	238.2	357.5	476.9	596.1	715.4	709.0
117.5°	388.2	449.1	510.1	571.1	632.1	677.0	705.9	734.7	763.6	792.5	788.0
120°	707.4	742.1	776.9	811.7	846.4	862.3	859.2	856.1	853.0	849.9	845.3
122.5°	882.6	889.4	896.2	902.9	909.6	912.1	910.3	908.4	906.5	904.7	899.6
125°	991.4	990.7	989.9	989.1	988.3	987.0	985.2	983.4	981.6	979.8	974.9
127.5°	1060.1	1059.9	1059.7	1059.6	1059.5	1058.0	1055.4	1052.8	1050.2	1047.6	1043.9
130°	1102.7	1103.0	1103.3	1103.5	1103.8	1102.4	1099.7	1096.8	1094.0	1091.1	1088.3
132.5°	1144.4	1144.8	1145.0	1145.3	1145.5	1144.4	1142.0	1139.5	1137.2	1134.7	1131.9
135°	1204.8	1205.3	1205.8	1206.3	1206.8	1205.8	1203.2	1200.6	1198.1	1195.5	1193.2
137.5°	1259.7	1260.6	1261.5	1262.3	1263.2	1262.4	1259.9	1257.4	1254.8	1252.3	1249.7
140°	1294.0	1295.3	1296.7	1298.0	1299.2	1298.7	1296.4	1294.0	1291.8	1289.4	1286.6
142.5°	1327.5	1328.8	1330.0	1331.3	1332.6	1332.2	1330.1	1328.0	1325.8	1323.7	1320.5
145°	1374.1	1375.3	1376.6	1377.9	1379.2	1379.0	1377.1	1375.3	1373.5	1371.7	1367.3
147.5°	1415.1	1416.2	1417.3	1418.4	1419.4	1419.4	1418.0	1416.7	1415.3	1414.0	1409.7
150°	1440.1	1441.4	1442.8	1444.1	1445.3	1445.2	1443.7	1442.1	1440.6	1439.0	1434.8
152.5°	1461.5	1463.2	1464.9	1466.6	1468.3	1468.4	1466.8	1465.3	1463.7	1462.2	1458.2
155°	1491.2	1493.2	1495.3	1497.4	1499.4	1499.7	1498.1	1496.6	1495.0	1493.5	1490.4
157.5°	1518.3	1520.3	1522.3	1524.4	1526.3	1526.5	1524.7	1523.0	1521.3	1519.5	1517.3
160°	1534.1	1535.9	1537.7	1539.5	1541.3	1541.4	1539.9	1538.3	1536.8	1535.2	1533.7
162.5°	1547.1	1549.3	1551.5	1553.7	1555.9	1556.2	1554.4	1552.7	1550.9	1549.2	1547.8
165°	1566.5	1568.4	1570.2	1572.0	1573.8	1573.8	1572.0	1570.2	1568.4	1566.5	1565.8
167.5°	1578.8	1581.2	1583.5	1585.8	1588.1	1588.4	1586.6	1584.8	1583.0	1581.2	1580.5
170°	1586.2	1588.6	1590.9	1593.3	1595.5	1595.8	1594.0	1592.2	1590.4	1588.6	1588.0
172.5°	1591.8	1594.2	1596.4	1598.8	1601.1	1601.3	1599.5	1597.7	1595.9	1594.2	1593.7
175°	1596.7	1599.3	1601.8	1604.4	1607.0	1607.4	1605.6	1603.8	1602.0	1600.2	1599.7
177.5°	1599.7	1601.6	1603.4	1605.2	1607.1	1607.4	1605.9	1604.4	1603.0	1601.6	1601.3
180°	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	494.5	493.3	492.6	489.9	487.5	485.2	484.5	484.7	481.4	478.3	477.0
5°	513.8	510.1	506.5	501.6	495.6	489.1	485.8	483.2	476.7	469.7	465.6
7.5°	531.0	525.7	518.9	509.6	500.9	490.7	484.2	478.5	469.0	459.1	453.0
10°	541.5	534.3	525.6	514.1	503.6	491.1	482.5	473.8	462.7	450.8	443.4
12.5°	550.6	540.9	532.3	517.6	505.1	489.5	479.2	466.9	455.3	441.2	433.9
15°	572.1	554.2	537.9	521.1	505.8	484.1	472.6	456.2	440.8	423.4	415.1
17.5°	588.7	568.5	542.9	521.7	503.8	479.7	462.9	443.2	425.0	405.1	393.8
20°	598.2	575.0	547.5	522.3	500.8	473.4	455.0	434.9	413.6	391.2	379.0
22.5°	603.8	579.5	552.2	520.1	494.9	468.2	445.2	423.0	401.5	377.2	364.4
25°	605.6	583.4	554.5	518.2	487.5	457.3	429.5	408.0	381.9	359.3	340.6
27.5°	596.8	580.9	553.1	514.7	478.9	443.6	412.6	388.3	360.8	336.2	317.4
30°	586.0	576.7	549.7	511.2	472.1	434.1	400.1	372.4	345.0	320.2	300.9
32.5°	569.2	567.3	543.5	506.1	464.8	422.2	386.9	359.0	328.6	304.2	285.8
35°	536.4	545.3	530.3	494.9	451.2	405.0	366.9	335.0	303.5	280.2	263.0
37.5°	492.3	514.4	510.5	478.4	432.7	386.5	344.3	311.0	281.0	257.5	240.6
40°	461.9	490.1	494.2	465.8	419.7	372.1	327.4	294.3	265.1	243.5	226.5
42.5°	429.3	462.2	473.4	450.7	405.4	356.9	312.3	278.0	249.0	228.1	213.0
45°	374.7	418.2	438.4	425.4	381.7	332.1	286.2	251.4	225.0	205.4	193.7
47.5°	323.6	371.1	398.3	393.7	355.3	306.1	260.7	227.3	201.7	186.1	175.6
50°	287.5	336.3	369.1	370.6	336.3	287.6	242.1	210.6	187.0	172.4	163.9
52.5°	256.0	302.7	338.4	346.3	315.1	268.4	225.3	194.0	173.3	159.8	152.2
55°	215.0	254.5	294.1	308.6	283.6	239.1	199.3	171.7	152.2	143.0	136.3
57.5°	178.8	211.7	248.3	264.2	248.8	210.8	173.4	149.4	133.7	125.6	120.4
60°	159.6	185.6	218.2	237.3	223.9	190.0	157.4	134.6	121.6	114.5	109.7
62.5°	141.9	164.9	192.4	209.9	202.6	170.6	141.5	121.3	110.1	103.4	99.9
65°	117.1	135.2	156.5	172.6	167.8	143.6	119.6	102.4	93.5	88.1	85.4
67.5°	96.4	109.5	124.3	138.4	134.5	117.3	98.2	84.7	78.1	73.5	71.7
70°	83.3	93.4	106.5	117.8	114.6	100.6	85.4	73.9	68.2	64.2	62.6
72.5°	70.9	79.1	89.2	98.4	96.3	84.5	71.9	63.3	58.8	55.2	53.9
75°	53.6	59.8	66.0	72.1	71.5	62.5	55.0	48.3	44.8	42.1	41.5
77.5°	39.5	43.0	47.2	50.8	49.8	44.6	38.8	35.0	32.4	30.6	30.2
80°	30.2	32.2	35.2	37.7	36.5	34.2	29.6	26.8	25.0	23.2	22.4
82.5°	21.9	23.9	25.7	27.1	26.1	24.1	21.2	19.3	18.2	17.0	16.6
85°	11.5	12.6	13.4	13.7	13.4	12.1	10.8	10.0	9.0	8.5	8.3
87.5°	8.2	7.8	7.4	7.3	6.2	5.6	4.5	3.5	3.9	4.3	4.6
90°	19.1	17.0	14.9	12.5	9.7	6.8	4.0	1.1	4.0	6.8	9.7
92.5°	24.9	23.8	22.7	22.4	22.7	22.9	23.2	23.4	23.2	22.9	22.7
95°	41.6	39.8	38.0	41.3	49.9	58.4	66.9	75.3	66.9	58.4	49.9
97.5°	52.2	48.0	43.9	53.7	77.7	101.7	125.6	149.6	125.6	101.7	77.7
100°	57.3	52.9	48.6	64.0	99.3	134.6	169.9	205.2	169.9	134.6	99.3
102.5°	141.2	177.9	214.5	236.6	244.0	251.5	259.0	266.4	259.0	251.5	244.0
105°	211.4	281.8	352.1	383.4	375.7	367.9	360.2	352.5	360.2	367.9	375.7
107.5°	267.7	352.1	436.5	475.6	469.3	463.1	456.8	450.6	456.8	463.1	469.3
110°	351.9	426.3	500.8	535.3	529.9	524.5	519.1	513.7	519.1	524.5	529.9



TEST NUMBER: P331489-930

CATALOG NUMBER: S122DIW-S290D1440U930-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	548.6	567.0	585.4	592.2	587.4	582.6	577.8	573.1	577.8	582.6	587.4
115°	702.5	696.1	689.7	684.3	679.9	675.5	671.2	666.8	671.2	675.5	679.9
117.5°	783.6	779.1	774.7	770.1	765.2	760.3	755.4	750.5	755.4	760.3	765.2
120°	840.7	836.0	831.4	827.1	823.3	819.4	815.5	811.7	815.5	819.4	823.3
122.5°	894.5	889.5	884.5	880.0	875.9	871.8	867.7	863.6	867.7	871.8	875.9
125°	970.0	965.2	960.3	956.1	952.8	949.4	946.1	942.7	946.1	949.4	952.8
127.5°	1040.2	1036.6	1032.9	1029.2	1025.5	1021.8	1018.1	1014.4	1018.1	1021.8	1025.5
130°	1085.5	1082.6	1079.8	1076.4	1072.2	1068.0	1064.0	1059.8	1064.0	1068.0	1072.2
132.5°	1129.0	1126.3	1123.4	1120.2	1116.7	1113.2	1109.7	1106.2	1109.7	1113.2	1116.7
135°	1190.8	1188.5	1186.2	1183.0	1178.8	1174.8	1170.6	1166.5	1170.6	1174.8	1178.8
137.5°	1247.1	1244.4	1241.8	1239.0	1236.2	1233.3	1230.4	1227.5	1230.4	1233.3	1236.2
140°	1283.8	1280.9	1278.1	1275.6	1273.6	1271.5	1269.4	1267.4	1269.4	1271.5	1273.6
142.5°	1317.3	1314.0	1310.8	1308.2	1306.4	1304.5	1302.6	1300.8	1302.6	1304.5	1306.4
145°	1363.0	1358.6	1354.2	1352.2	1352.4	1352.7	1352.9	1353.2	1352.9	1352.7	1352.4
147.5°	1405.3	1400.9	1396.6	1395.0	1396.0	1396.9	1397.9	1398.9	1397.9	1396.9	1396.0
150°	1430.8	1426.6	1422.5	1421.3	1423.2	1425.0	1426.8	1428.6	1426.8	1425.0	1423.2
152.5°	1454.3	1450.4	1446.5	1445.6	1447.6	1449.6	1451.6	1453.6	1451.6	1449.6	1447.6
155°	1487.4	1484.3	1481.2	1480.7	1483.0	1485.4	1487.7	1490.0	1487.7	1485.4	1483.0
157.5°	1515.2	1513.0	1510.8	1510.7	1512.7	1514.7	1516.6	1518.6	1516.6	1514.7	1512.7
160°	1532.2	1530.6	1529.1	1529.1	1530.6	1532.2	1533.7	1535.2	1533.7	1532.2	1530.6
162.5°	1546.5	1545.2	1543.8	1543.9	1545.5	1547.0	1548.6	1550.0	1548.6	1547.0	1545.5
165°	1565.0	1564.2	1563.5	1563.8	1565.4	1566.9	1568.5	1570.0	1568.5	1566.9	1565.4
167.5°	1579.7	1579.0	1578.3	1578.7	1580.2	1581.8	1583.3	1584.9	1583.3	1581.8	1580.2
170°	1587.6	1587.1	1586.5	1587.1	1588.6	1590.2	1591.7	1593.3	1591.7	1590.2	1588.6
172.5°	1593.1	1592.6	1592.1	1592.6	1594.2	1595.7	1597.3	1598.8	1597.3	1595.7	1594.2
175°	1599.1	1598.6	1598.1	1598.8	1600.6	1602.4	1604.2	1606.0	1604.2	1602.4	1600.6
177.5°	1601.2	1600.9	1600.8	1601.3	1602.8	1604.3	1605.7	1607.1	1605.7	1604.3	1602.8
180°	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5



TEST NUMBER: P331489-930

CATALOG NUMBER: S122DIW-S290D1440U930-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	475.6	474.7	471.6	469.9	467.2	464.7	463.1	463.8	464.4	464.1	463.7
5°	461.9	458.4	453.0	448.4	445.1	439.0	436.3	435.0	433.9	432.7	431.4
7.5°	445.6	440.1	432.4	425.8	419.6	412.0	407.6	405.1	402.4	399.5	396.9
10°	434.1	426.3	418.2	409.0	401.5	394.7	388.6	384.5	380.7	377.2	374.7
12.5°	422.0	413.0	402.9	390.3	382.1	372.3	371.4	364.2	358.4	356.2	353.2
15°	402.7	390.0	377.2	362.2	355.8	346.9	341.4	335.7	330.8	327.3	326.4
17.5°	380.7	364.4	351.6	340.9	330.3	321.1	316.0	311.6	307.4	302.8	302.1
20°	363.9	349.8	336.0	326.5	315.6	306.3	300.0	295.6	292.0	289.3	286.9
22.5°	348.1	332.6	319.9	309.7	298.9	291.4	286.4	282.1	279.2	276.1	273.9
25°	322.6	310.6	296.7	285.0	276.1	271.3	267.3	263.6	261.7	259.7	257.1
27.5°	300.4	287.0	274.0	265.0	257.1	252.9	250.0	247.4	245.7	244.5	243.0
30°	284.7	271.2	261.0	252.1	245.6	241.3	239.5	238.0	235.9	235.2	234.5
32.5°	269.5	257.4	248.7	240.9	234.8	232.0	230.3	228.9	227.4	226.7	225.1
35°	248.2	238.0	229.5	225.2	220.2	217.8	216.5	214.7	213.2	212.5	212.2
37.5°	228.0	219.2	213.6	208.1	206.0	204.6	202.8	201.5	201.1	201.0	200.7
40°	215.0	207.8	202.8	198.4	197.5	195.2	193.7	192.7	192.7	192.8	192.7
42.5°	203.2	196.7	192.2	188.4	187.4	186.1	184.5	184.5	184.7	185.4	184.7
45°	185.2	180.6	177.4	175.6	173.6	172.3	172.0	172.6	172.8	173.0	173.6
47.5°	168.7	165.6	162.7	160.7	159.8	159.6	159.4	160.4	161.3	161.6	162.4
50°	158.9	155.4	153.0	151.6	150.9	150.6	150.9	152.1	152.8	153.7	154.3
52.5°	148.0	145.4	143.8	142.8	142.5	142.8	142.8	144.1	145.2	145.6	145.9
55°	132.8	130.9	130.6	128.9	129.6	129.5	130.4	131.1	132.2	133.4	133.5
57.5°	117.6	116.2	115.2	115.4	115.6	116.4	117.2	118.5	119.6	120.8	120.9
60°	107.6	106.9	106.3	106.3	106.6	107.8	108.7	110.0	110.7	111.5	112.0
62.5°	98.4	97.7	97.1	97.4	98.4	99.1	100.1	100.9	101.6	102.3	102.6
65°	83.9	83.6	84.1	84.5	84.6	85.5	86.8	87.4	88.1	88.5	89.8
67.5°	70.5	70.6	70.5	71.0	72.2	72.3	73.5	74.8	75.0	75.7	76.6
70°	61.5	61.9	62.2	62.6	63.5	63.9	64.8	65.4	66.1	66.7	67.3
72.5°	53.2	53.2	53.6	53.6	54.4	55.1	55.9	56.5	57.2	58.0	58.5
75°	40.9	40.9	41.3	41.5	42.4	43.4	43.1	43.5	44.3	45.0	45.4
77.5°	29.9	29.5	29.9	30.1	30.4	31.1	31.3	31.8	32.7	32.4	32.9
80°	22.7	22.3	22.7	23.0	23.0	23.9	23.9	24.3	24.8	24.3	24.8
82.5°	16.2	16.0	16.4	16.5	16.7	16.8	17.0	17.1	17.7	17.4	17.7
85°	8.2	8.0	8.2	8.0	8.2	8.3	8.3	8.2	8.2	8.5	8.0
87.5°	5.1	5.4	5.6	6.0	6.3	6.6	6.7	6.9	7.2	7.2	7.3
90°	12.5	14.9	17.0	19.1	21.1	23.2	24.5	25.8	27.1	28.4	29.3
92.5°	22.4	22.7	23.8	24.9	25.8	26.9	27.6	28.2	28.9	29.6	30.1
95°	41.3	38.0	39.8	41.6	43.5	45.2	46.5	47.8	49.1	50.4	50.9
97.5°	53.7	43.9	48.0	52.2	56.3	60.5	61.6	62.6	63.6	64.7	65.3
100°	64.0	48.6	52.9	57.3	61.7	66.1	68.2	70.2	72.3	74.4	75.7
102.5°	236.6	214.5	177.9	141.2	104.6	67.9	70.6	73.3	76.0	78.7	80.4
105°	383.4	352.1	281.8	211.4	141.0	70.8	73.5	76.4	79.2	82.1	84.0
107.5°	475.6	436.5	352.1	267.7	183.4	99.1	96.1	93.3	90.3	87.5	86.6
110°	535.3	500.8	426.3	351.9	277.4	202.9	177.2	151.4	125.6	99.9	87.5



TEST NUMBER: P331489-930

CATALOG NUMBER: S122DIW-S290D1440U930-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	592.2	585.4	567.0	548.6	530.2	511.8	417.8	323.8	229.8	135.8	89.2
115°	684.3	689.7	696.1	702.5	709.0	715.4	596.1	476.9	357.5	238.2	169.3
117.5°	770.1	774.7	779.1	783.6	788.0	792.5	763.6	734.7	705.9	677.0	632.1
120°	827.1	831.4	836.0	840.7	845.3	849.9	853.0	856.1	859.2	862.3	846.4
122.5°	880.0	884.5	889.5	894.5	899.6	904.7	906.5	908.4	910.3	912.1	909.6
125°	956.1	960.3	965.2	970.0	974.9	979.8	981.6	983.4	985.2	987.0	988.3
127.5°	1029.2	1032.9	1036.6	1040.2	1043.9	1047.6	1050.2	1052.8	1055.4	1058.0	1059.5
130°	1076.4	1079.8	1082.6	1085.5	1088.3	1091.1	1094.0	1096.8	1099.7	1102.4	1103.8
132.5°	1120.2	1123.4	1126.3	1129.0	1131.9	1134.7	1137.2	1139.5	1142.0	1144.4	1145.5
135°	1183.0	1186.2	1188.5	1190.8	1193.2	1195.5	1198.1	1200.6	1203.2	1205.8	1206.8
137.5°	1239.0	1241.8	1244.4	1247.1	1249.7	1252.3	1254.8	1257.4	1259.9	1262.4	1263.2
140°	1275.6	1278.1	1280.9	1283.8	1286.6	1289.4	1291.8	1294.0	1296.4	1298.7	1299.2
142.5°	1308.2	1310.8	1314.0	1317.3	1320.5	1323.7	1325.8	1328.0	1330.1	1332.2	1332.6
145°	1352.2	1354.2	1358.6	1363.0	1367.3	1371.7	1373.5	1375.3	1377.1	1379.0	1379.2
147.5°	1395.0	1396.6	1400.9	1405.3	1409.7	1414.0	1415.3	1416.7	1418.0	1419.4	1419.4
150°	1421.3	1422.5	1426.6	1430.8	1434.8	1439.0	1440.6	1442.1	1443.7	1445.2	1445.3
152.5°	1445.6	1446.5	1450.4	1454.3	1458.2	1462.2	1463.7	1465.3	1466.8	1468.4	1468.3
155°	1480.7	1481.2	1484.3	1487.4	1490.4	1493.5	1495.0	1496.6	1498.1	1499.7	1499.4
157.5°	1510.7	1510.8	1513.0	1515.2	1517.3	1519.5	1521.3	1523.0	1524.7	1526.5	1526.3
160°	1529.1	1529.1	1530.6	1532.2	1533.7	1535.2	1536.8	1538.3	1539.9	1541.4	1541.3
162.5°	1543.9	1543.8	1545.2	1546.5	1547.8	1549.2	1550.9	1552.7	1554.4	1556.2	1555.9
165°	1563.8	1563.5	1564.2	1565.0	1565.8	1566.5	1568.4	1570.2	1572.0	1573.8	1573.8
167.5°	1578.7	1578.3	1579.0	1579.7	1580.5	1581.2	1583.0	1584.8	1586.6	1588.4	1588.1
170°	1587.1	1586.5	1587.1	1587.6	1588.0	1588.6	1590.4	1592.2	1594.0	1595.8	1595.5
172.5°	1592.6	1592.1	1592.6	1593.1	1593.7	1594.2	1595.9	1597.7	1599.5	1601.3	1601.1
175°	1598.8	1598.1	1598.6	1599.1	1599.7	1600.2	1602.0	1603.8	1605.6	1607.4	1607.0
177.5°	1601.3	1600.8	1600.9	1601.2	1601.3	1601.6	1603.0	1604.4	1605.9	1607.4	1607.1
180°	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5



TEST NUMBER: P331489-930

CATALOG NUMBER: S122DIW-S290D1440U930-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	462.2	461.9	461.9	460.6	461.9	461.9	462.2	463.7	464.1	464.4	463.8
5°	428.8	428.2	427.3	428.2	427.3	428.2	428.8	431.4	432.7	433.9	435.0
7.5°	395.7	393.5	393.1	390.9	393.1	393.5	395.7	396.9	399.5	402.4	405.1
10°	371.5	370.1	369.8	366.3	369.8	370.1	371.5	374.7	377.2	380.7	384.5
12.5°	353.2	349.6	350.3	348.3	350.3	349.6	353.2	353.2	356.2	358.4	364.2
15°	321.3	321.3	320.6	317.5	320.6	321.3	321.3	326.4	327.3	330.8	335.7
17.5°	298.5	298.1	296.4	297.3	296.4	298.1	298.5	302.1	302.8	307.4	311.6
20°	284.9	283.7	281.5	281.5	281.5	283.7	284.9	286.9	289.3	292.0	295.6
22.5°	272.0	271.9	269.5	270.3	269.5	271.9	272.0	273.9	276.1	279.2	282.1
25°	256.9	255.4	254.3	254.9	254.3	255.4	256.9	257.1	259.7	261.7	263.6
27.5°	242.6	241.7	241.7	240.2	241.7	241.7	242.6	243.0	244.5	245.7	247.4
30°	234.3	232.4	232.8	231.9	232.8	232.4	234.3	234.5	235.2	235.9	238.0
32.5°	224.8	224.1	223.8	223.0	223.8	224.1	224.8	225.1	226.7	227.4	228.9
35°	211.9	212.1	211.2	211.5	211.2	212.1	211.9	212.2	212.5	213.2	214.7
37.5°	200.6	201.1	200.7	200.8	200.7	201.1	200.6	200.7	201.0	201.1	201.5
40°	193.1	193.1	193.1	193.7	193.1	193.1	193.1	192.7	192.8	192.7	192.7
42.5°	186.1	185.7	185.5	185.4	185.5	185.7	186.1	184.7	185.4	184.7	184.5
45°	173.9	174.5	174.6	173.7	174.6	174.5	173.9	173.6	173.0	172.8	172.6
47.5°	162.9	163.0	162.9	163.7	162.9	163.0	162.9	162.4	161.6	161.3	160.4
50°	155.2	154.8	155.2	154.8	155.2	154.8	155.2	154.3	153.7	152.8	152.1
52.5°	147.1	147.2	146.9	146.8	146.9	147.2	147.1	145.9	145.6	145.2	144.1
55°	134.3	134.6	134.4	134.4	134.4	134.6	134.3	133.5	133.4	132.2	131.1
57.5°	121.1	121.4	121.6	120.8	121.6	121.4	121.1	120.9	120.8	119.6	118.5
60°	111.9	112.8	112.6	112.3	112.6	112.8	111.9	112.0	111.5	110.7	110.0
62.5°	103.4	103.8	103.7	103.6	103.7	103.8	103.4	102.6	102.3	101.6	100.9
65°	90.4	90.7	90.2	90.7	90.2	90.7	90.4	89.8	88.5	88.1	87.4
67.5°	76.3	76.5	76.9	77.1	76.9	76.5	76.3	76.6	75.7	75.0	74.8
70°	67.6	67.4	68.0	68.6	68.0	67.4	67.6	67.3	66.7	66.1	65.4
72.5°	58.4	58.8	58.6	59.0	58.6	58.8	58.4	58.5	58.0	57.2	56.5
75°	45.0	45.6	45.4	45.9	45.4	45.6	45.0	45.4	45.0	44.3	43.5
77.5°	32.5	32.6	32.5	32.9	32.5	32.6	32.5	32.9	32.4	32.7	31.8
80°	24.8	24.5	24.1	24.8	24.1	24.5	24.8	24.8	24.3	24.8	24.3
82.5°	17.3	17.4	17.1	17.1	17.1	17.4	17.3	17.7	17.4	17.7	17.1
85°	8.0	7.7	7.4	7.4	7.4	7.7	8.0	8.0	8.5	8.2	8.2
87.5°	7.4	7.4	7.5	7.4	7.5	7.4	7.4	7.3	7.2	7.2	6.9
90°	29.8	30.2	30.8	31.3	30.8	30.2	29.8	29.3	28.4	27.1	25.8
92.5°	30.4	30.7	31.0	31.3	31.0	30.7	30.4	30.1	29.6	28.9	28.2
95°	50.6	50.4	50.1	49.9	50.1	50.4	50.6	50.9	50.4	49.1	47.8
97.5°	65.6	66.0	66.3	66.5	66.3	66.0	65.6	65.3	64.7	63.6	62.6
100°	76.1	76.6	77.2	77.7	77.2	76.6	76.1	75.7	74.4	72.3	70.2
102.5°	81.1	81.8	82.5	83.2	82.5	81.8	81.1	80.4	78.7	76.0	73.3
105°	85.0	86.1	87.1	88.1	87.1	86.1	85.0	84.0	82.1	79.2	76.4
107.5°	87.6	88.6	89.7	90.7	89.7	88.6	87.6	86.6	87.5	90.3	93.3
110°	88.5	89.5	90.6	91.6	90.6	89.5	88.5	87.5	99.9	125.6	151.4



TEST NUMBER: P331489-930

CATALOG NUMBER: S122DIW-S290D1440U930-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	90.1	90.9	91.7	92.5	91.7	90.9	90.1	89.2	135.8	229.8	323.8
115°	150.7	132.2	113.7	95.1	113.7	132.2	150.7	169.3	238.2	357.5	476.9
117.5°	571.1	510.1	449.1	388.2	449.1	510.1	571.1	632.1	677.0	705.9	734.7
120°	811.7	776.9	742.1	707.4	742.1	776.9	811.7	846.4	862.3	859.2	856.1
122.5°	902.9	896.2	889.4	882.6	889.4	896.2	902.9	909.6	912.1	910.3	908.4
125°	989.1	989.9	990.7	991.4	990.7	989.9	989.1	988.3	987.0	985.2	983.4
127.5°	1059.6	1059.7	1059.9	1060.1	1059.9	1059.7	1059.6	1059.5	1058.0	1055.4	1052.8
130°	1103.5	1103.3	1103.0	1102.7	1103.0	1103.3	1103.5	1103.8	1102.4	1099.7	1096.8
132.5°	1145.3	1145.0	1144.8	1144.4	1144.8	1145.0	1145.3	1145.5	1144.4	1142.0	1139.5
135°	1206.3	1205.8	1205.3	1204.8	1205.3	1205.8	1206.3	1206.8	1205.8	1203.2	1200.6
137.5°	1262.3	1261.5	1260.6	1259.7	1260.6	1261.5	1262.3	1263.2	1262.4	1259.9	1257.4
140°	1298.0	1296.7	1295.3	1294.0	1295.3	1296.7	1298.0	1299.2	1298.7	1296.4	1294.0
142.5°	1331.3	1330.0	1328.8	1327.5	1328.8	1330.0	1331.3	1332.6	1332.2	1330.1	1328.0
145°	1377.9	1376.6	1375.3	1374.1	1375.3	1376.6	1377.9	1379.2	1379.0	1377.1	1375.3
147.5°	1418.4	1417.3	1416.2	1415.1	1416.2	1417.3	1418.4	1419.4	1419.4	1418.0	1416.7
150°	1444.1	1442.8	1441.4	1440.1	1441.4	1442.8	1444.1	1445.3	1445.2	1443.7	1442.1
152.5°	1466.6	1464.9	1463.2	1461.5	1463.2	1464.9	1466.6	1468.3	1468.4	1466.8	1465.3
155°	1497.4	1495.3	1493.2	1491.2	1493.2	1495.3	1497.4	1499.4	1499.7	1498.1	1496.6
157.5°	1524.4	1522.3	1520.3	1518.3	1520.3	1522.3	1524.4	1526.3	1526.5	1524.7	1523.0
160°	1539.5	1537.7	1535.9	1534.1	1535.9	1537.7	1539.5	1541.3	1541.4	1539.9	1538.3
162.5°	1553.7	1551.5	1549.3	1547.1	1549.3	1551.5	1553.7	1555.9	1556.2	1554.4	1552.7
165°	1572.0	1570.2	1568.4	1566.5	1568.4	1570.2	1572.0	1573.8	1573.8	1572.0	1570.2
167.5°	1585.8	1583.5	1581.2	1578.8	1581.2	1583.5	1585.8	1588.1	1588.4	1586.6	1584.8
170°	1593.3	1590.9	1588.6	1586.2	1588.6	1590.9	1593.3	1595.5	1595.8	1594.0	1592.2
172.5°	1598.8	1596.4	1594.2	1591.8	1594.2	1596.4	1598.8	1601.1	1601.3	1599.5	1597.7
175°	1604.4	1601.8	1599.3	1596.7	1599.3	1601.8	1604.4	1607.0	1607.4	1605.6	1603.8
177.5°	1605.2	1603.4	1601.6	1599.7	1601.6	1603.4	1605.2	1607.1	1607.4	1605.9	1604.4
180°	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5



TEST NUMBER: P331489-930

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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	463.1	464.7	467.2	469.9	471.6	474.7	475.6	477.0	478.3	481.4	484.7
5°	436.3	439.0	445.1	448.4	453.0	458.4	461.9	465.6	469.7	476.7	483.2
7.5°	407.6	412.0	419.6	425.8	432.4	440.1	445.6	453.0	459.1	469.0	478.5
10°	388.6	394.7	401.5	409.0	418.2	426.3	434.1	443.4	450.8	462.7	473.8
12.5°	371.4	372.3	382.1	390.3	402.9	413.0	422.0	433.9	441.2	455.3	466.9
15°	341.4	346.9	355.8	362.2	377.2	390.0	402.7	415.1	423.4	440.8	456.2
17.5°	316.0	321.1	330.3	340.9	351.6	364.4	380.7	393.8	405.1	425.0	443.2
20°	300.0	306.3	315.6	326.5	336.0	349.8	363.9	379.0	391.2	413.6	434.9
22.5°	286.4	291.4	298.9	309.7	319.9	332.6	348.1	364.4	377.2	401.5	423.0
25°	267.3	271.3	276.1	285.0	296.7	310.6	322.6	340.6	359.3	381.9	408.0
27.5°	250.0	252.9	257.1	265.0	274.0	287.0	300.4	317.4	336.2	360.8	388.3
30°	239.5	241.3	245.6	252.1	261.0	271.2	284.7	300.9	320.2	345.0	372.4
32.5°	230.3	232.0	234.8	240.9	248.7	257.4	269.5	285.8	304.2	328.6	359.0
35°	216.5	217.8	220.2	225.2	229.5	238.0	248.2	263.0	280.2	303.5	335.0
37.5°	202.8	204.6	206.0	208.1	213.6	219.2	228.0	240.6	257.5	281.0	311.0
40°	193.7	195.2	197.5	198.4	202.8	207.8	215.0	226.5	243.5	265.1	294.3
42.5°	184.5	186.1	187.4	188.4	192.2	196.7	203.2	213.0	228.1	249.0	278.0
45°	172.0	172.3	173.6	175.6	177.4	180.6	185.2	193.7	205.4	225.0	251.4
47.5°	159.4	159.6	159.8	160.7	162.7	165.6	168.7	175.6	186.1	201.7	227.3
50°	150.9	150.6	150.9	151.6	153.0	155.4	158.9	163.9	172.4	187.0	210.6
52.5°	142.8	142.8	142.5	142.8	143.8	145.4	148.0	152.2	159.8	173.3	194.0
55°	130.4	129.5	129.6	128.9	130.6	130.9	132.8	136.3	143.0	152.2	171.7
57.5°	117.2	116.4	115.6	115.4	115.2	116.2	117.6	120.4	125.6	133.7	149.4
60°	108.7	107.8	106.6	106.3	106.3	106.9	107.6	109.7	114.5	121.6	134.6
62.5°	100.1	99.1	98.4	97.4	97.1	97.7	98.4	99.9	103.4	110.1	121.3
65°	86.8	85.5	84.6	84.5	84.1	83.6	83.9	85.4	88.1	93.5	102.4
67.5°	73.5	72.3	72.2	71.0	70.5	70.6	70.5	71.7	73.5	78.1	84.7
70°	64.8	63.9	63.5	62.6	62.2	61.9	61.5	62.6	64.2	68.2	73.9
72.5°	55.9	55.1	54.4	53.6	53.6	53.2	53.2	53.9	55.2	58.8	63.3
75°	43.1	43.4	42.4	41.5	41.3	40.9	40.9	41.5	42.1	44.8	48.3
77.5°	31.3	31.1	30.4	30.1	29.9	29.5	29.9	30.2	30.6	32.4	35.0
80°	23.9	23.9	23.0	23.0	22.7	22.3	22.7	22.4	23.2	25.0	26.8
82.5°	17.0	16.8	16.7	16.5	16.4	16.0	16.2	16.6	17.0	18.2	19.3
85°	8.3	8.3	8.2	8.0	8.2	8.0	8.2	8.3	8.5	9.0	10.0
87.5°	6.7	6.6	6.3	6.0	5.6	5.4	5.1	4.6	4.3	3.9	3.5
90°	24.5	23.2	21.1	19.1	17.0	14.9	12.5	9.7	6.8	4.0	1.1
92.5°	27.6	26.9	25.8	24.9	23.8	22.7	22.4	22.7	22.9	23.2	23.4
95°	46.5	45.2	43.5	41.6	39.8	38.0	41.3	49.9	58.4	66.9	75.3
97.5°	61.6	60.5	56.3	52.2	48.0	43.9	53.7	77.7	101.7	125.6	149.6
100°	68.2	66.1	61.7	57.3	52.9	48.6	64.0	99.3	134.6	169.9	205.2
102.5°	70.6	67.9	104.6	141.2	177.9	214.5	236.6	244.0	251.5	259.0	266.4
105°	73.5	70.8	141.0	211.4	281.8	352.1	383.4	375.7	367.9	360.2	352.5
107.5°	96.1	99.1	183.4	267.7	352.1	436.5	475.6	469.3	463.1	456.8	450.6
110°	177.2	202.9	277.4	351.9	426.3	500.8	535.3	529.9	524.5	519.1	513.7



TEST NUMBER: P331489-930

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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	417.8	511.8	530.2	548.6	567.0	585.4	592.2	587.4	582.6	577.8	573.1
115°	596.1	715.4	709.0	702.5	696.1	689.7	684.3	679.9	675.5	671.2	666.8
117.5°	763.6	792.5	788.0	783.6	779.1	774.7	770.1	765.2	760.3	755.4	750.5
120°	853.0	849.9	845.3	840.7	836.0	831.4	827.1	823.3	819.4	815.5	811.7
122.5°	906.5	904.7	899.6	894.5	889.5	884.5	880.0	875.9	871.8	867.7	863.6
125°	981.6	979.8	974.9	970.0	965.2	960.3	956.1	952.8	949.4	946.1	942.7
127.5°	1050.2	1047.6	1043.9	1040.2	1036.6	1032.9	1029.2	1025.5	1021.8	1018.1	1014.4
130°	1094.0	1091.1	1088.3	1085.5	1082.6	1079.8	1076.4	1072.2	1068.0	1064.0	1059.8
132.5°	1137.2	1134.7	1131.9	1129.0	1126.3	1123.4	1120.2	1116.7	1113.2	1109.7	1106.2
135°	1198.1	1195.5	1193.2	1190.8	1188.5	1186.2	1183.0	1178.8	1174.8	1170.6	1166.5
137.5°	1254.8	1252.3	1249.7	1247.1	1244.4	1241.8	1239.0	1236.2	1233.3	1230.4	1227.5
140°	1291.8	1289.4	1286.6	1283.8	1280.9	1278.1	1275.6	1273.6	1271.5	1269.4	1267.4
142.5°	1325.8	1323.7	1320.5	1317.3	1314.0	1310.8	1308.2	1306.4	1304.5	1302.6	1300.8
145°	1373.5	1371.7	1367.3	1363.0	1358.6	1354.2	1352.2	1352.4	1352.7	1352.9	1353.2
147.5°	1415.3	1414.0	1409.7	1405.3	1400.9	1396.6	1395.0	1396.0	1396.9	1397.9	1398.9
150°	1440.6	1439.0	1434.8	1430.8	1426.6	1422.5	1421.3	1423.2	1425.0	1426.8	1428.6
152.5°	1463.7	1462.2	1458.2	1454.3	1450.4	1446.5	1445.6	1447.6	1449.6	1451.6	1453.6
155°	1495.0	1493.5	1490.4	1487.4	1484.3	1481.2	1480.7	1483.0	1485.4	1487.7	1490.0
157.5°	1521.3	1519.5	1517.3	1515.2	1513.0	1510.8	1510.7	1512.7	1514.7	1516.6	1518.6
160°	1536.8	1535.2	1533.7	1532.2	1530.6	1529.1	1529.1	1530.6	1532.2	1533.7	1535.2
162.5°	1550.9	1549.2	1547.8	1546.5	1545.2	1543.8	1543.9	1545.5	1547.0	1548.6	1550.0
165°	1568.4	1566.5	1565.8	1565.0	1564.2	1563.5	1563.8	1565.4	1566.9	1568.5	1570.0
167.5°	1583.0	1581.2	1580.5	1579.7	1579.0	1578.3	1578.7	1580.2	1581.8	1583.3	1584.9
170°	1590.4	1588.6	1588.0	1587.6	1587.1	1586.5	1587.1	1588.6	1590.2	1591.7	1593.3
172.5°	1595.9	1594.2	1593.7	1593.1	1592.6	1592.1	1592.6	1594.2	1595.7	1597.3	1598.8
175°	1602.0	1600.2	1599.7	1599.1	1598.6	1598.1	1598.8	1600.6	1602.4	1604.2	1606.0
177.5°	1603.0	1601.6	1601.3	1601.2	1600.9	1600.8	1601.3	1602.8	1604.3	1605.7	1607.1
180°	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	484.5	485.2	487.5	489.9	492.6	493.3	494.5	493.5	493.2	495.9	498.1
5°	485.8	489.1	495.6	501.6	506.5	510.1	513.8	515.3	518.0	521.9	526.8
7.5°	484.2	490.7	500.9	509.6	518.9	525.7	531.0	535.6	541.0	548.4	556.4
10°	482.5	491.1	503.6	514.1	525.6	534.3	541.5	548.6	556.8	567.0	577.5
12.5°	479.2	489.5	505.1	517.6	532.3	540.9	550.6	565.7	574.5	588.7	603.6
15°	472.6	484.1	505.8	521.1	537.9	554.2	572.1	586.5	601.0	609.4	630.2
17.5°	462.9	479.7	503.8	521.7	542.9	568.5	588.7	605.1	621.7	635.3	645.8
20°	455.0	473.4	500.8	522.3	547.5	575.0	598.2	614.9	629.3	640.7	647.1
22.5°	445.2	468.2	494.9	520.1	552.2	579.5	603.8	616.9	629.0	634.5	637.1
25°	429.5	457.3	487.5	518.2	554.5	583.4	605.6	613.6	617.1	611.7	602.8
27.5°	412.6	443.6	478.9	514.7	553.1	580.9	596.8	595.6	589.6	572.2	558.3
30°	400.1	434.1	472.1	511.2	549.7	576.7	586.0	576.7	563.2	543.8	523.9
32.5°	386.9	422.2	464.8	506.1	543.5	567.3	569.2	553.3	532.4	510.3	485.6
35°	366.9	405.0	451.2	494.9	530.3	545.3	536.4	508.2	483.4	453.2	419.5
37.5°	344.3	386.5	432.7	478.4	510.5	514.4	492.3	462.7	427.6	392.2	352.5
40°	327.4	372.1	419.7	465.8	494.2	490.1	461.9	429.3	387.7	344.3	307.4
42.5°	312.3	356.9	405.4	450.7	473.4	462.2	429.3	389.3	344.5	303.7	269.9
45°	286.2	332.1	381.7	425.4	438.4	418.2	374.7	330.2	286.2	252.1	225.4
47.5°	260.7	306.1	355.3	393.7	398.3	371.1	323.6	277.9	239.9	212.2	193.4
50°	242.1	287.6	336.3	370.6	369.1	336.3	287.5	243.9	212.2	189.8	177.2
52.5°	225.3	268.4	315.1	346.3	338.4	302.7	256.0	217.4	191.4	173.8	162.4
55°	199.3	239.1	283.6	308.6	294.1	254.5	215.0	183.9	164.6	151.5	142.6
57.5°	173.4	210.8	248.8	264.2	248.3	211.7	178.8	156.2	141.7	132.0	126.2
60°	157.4	190.0	223.9	237.3	218.2	185.6	159.6	139.5	127.8	119.8	114.6
62.5°	141.5	170.6	202.6	209.9	192.4	164.9	141.9	125.1	115.5	108.4	103.5
65°	119.6	143.6	167.8	172.6	156.5	135.2	117.1	106.2	97.6	92.5	88.5
67.5°	98.2	117.3	134.5	138.4	124.3	109.5	96.4	86.8	81.1	76.8	73.5
70°	85.4	100.6	114.6	117.8	106.5	93.4	83.3	75.7	70.5	66.9	63.7
72.5°	71.9	84.5	96.3	98.4	89.2	79.1	70.9	64.9	60.3	58.0	55.0
75°	55.0	62.5	71.5	72.1	66.0	59.8	53.6	49.7	47.2	44.3	42.8
77.5°	38.8	44.6	49.8	50.8	47.2	43.0	39.5	36.4	34.4	33.0	31.6
80°	29.6	34.2	36.5	37.7	35.2	32.2	30.2	28.1	26.8	25.9	25.0
82.5°	21.2	24.1	26.1	27.1	25.7	23.9	21.9	20.7	19.7	19.0	18.7
85°	10.8	12.1	13.4	13.7	13.4	12.6	11.5	11.5	10.9	10.8	10.8
87.5°	4.5	5.6	6.2	7.3	7.4	7.8	8.2	8.6	8.8	8.9	9.0
90°	4.0	6.8	9.7	12.5	14.9	17.0	19.1	21.1	23.2	24.5	25.8
92.5°	23.2	22.9	22.7	22.4	22.7	23.8	24.9	25.8	26.9	27.6	28.2
95°	66.9	58.4	49.9	41.3	38.0	39.8	41.6	43.5	45.2	46.5	47.8
97.5°	125.6	101.7	77.7	53.7	43.9	48.0	52.2	56.3	60.5	61.6	62.6
100°	169.9	134.6	99.3	64.0	48.6	52.9	57.3	61.7	66.1	68.2	70.2
102.5°	259.0	251.5	244.0	236.6	214.5	177.9	141.2	104.6	67.9	70.6	73.3
105°	360.2	367.9	375.7	383.4	352.1	281.8	211.4	141.0	70.8	73.5	76.4
107.5°	456.8	463.1	469.3	475.6	436.5	352.1	267.7	183.4	99.1	96.1	93.3
110°	519.1	524.5	529.9	535.3	500.8	426.3	351.9	277.4	202.9	177.2	151.4



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	577.8	582.6	587.4	592.2	585.4	567.0	548.6	530.2	511.8	417.8	323.8
115°	671.2	675.5	679.9	684.3	689.7	696.1	702.5	709.0	715.4	596.1	476.9
117.5°	755.4	760.3	765.2	770.1	774.7	779.1	783.6	788.0	792.5	763.6	734.7
120°	815.5	819.4	823.3	827.1	831.4	836.0	840.7	845.3	849.9	853.0	856.1
122.5°	867.7	871.8	875.9	880.0	884.5	889.5	894.5	899.6	904.7	906.5	908.4
125°	946.1	949.4	952.8	956.1	960.3	965.2	970.0	974.9	979.8	981.6	983.4
127.5°	1018.1	1021.8	1025.5	1029.2	1032.9	1036.6	1040.2	1043.9	1047.6	1050.2	1052.8
130°	1064.0	1068.0	1072.2	1076.4	1079.8	1082.6	1085.5	1088.3	1091.1	1094.0	1096.8
132.5°	1109.7	1113.2	1116.7	1120.2	1123.4	1126.3	1129.0	1131.9	1134.7	1137.2	1139.5
135°	1170.6	1174.8	1178.8	1183.0	1186.2	1188.5	1190.8	1193.2	1195.5	1198.1	1200.6
137.5°	1230.4	1233.3	1236.2	1239.0	1241.8	1244.4	1247.1	1249.7	1252.3	1254.8	1257.4
140°	1269.4	1271.5	1273.6	1275.6	1278.1	1280.9	1283.8	1286.6	1289.4	1291.8	1294.0
142.5°	1302.6	1304.5	1306.4	1308.2	1310.8	1314.0	1317.3	1320.5	1323.7	1325.8	1328.0
145°	1352.9	1352.7	1352.4	1352.2	1354.2	1358.6	1363.0	1367.3	1371.7	1373.5	1375.3
147.5°	1397.9	1396.9	1396.0	1395.0	1396.6	1400.9	1405.3	1409.7	1414.0	1415.3	1416.7
150°	1426.8	1425.0	1423.2	1421.3	1422.5	1426.6	1430.8	1434.8	1439.0	1440.6	1442.1
152.5°	1451.6	1449.6	1447.6	1445.6	1446.5	1450.4	1454.3	1458.2	1462.2	1463.7	1465.3
155°	1487.7	1485.4	1483.0	1480.7	1481.2	1484.3	1487.4	1490.4	1493.5	1495.0	1496.6
157.5°	1516.6	1514.7	1512.7	1510.7	1510.8	1513.0	1515.2	1517.3	1519.5	1521.3	1523.0
160°	1533.7	1532.2	1530.6	1529.1	1529.1	1530.6	1532.2	1533.7	1535.2	1536.8	1538.3
162.5°	1548.6	1547.0	1545.5	1543.9	1543.8	1545.2	1546.5	1547.8	1549.2	1550.9	1552.7
165°	1568.5	1566.9	1565.4	1563.8	1563.5	1564.2	1565.0	1565.8	1566.5	1568.4	1570.2
167.5°	1583.3	1581.8	1580.2	1578.7	1578.3	1579.0	1579.7	1580.5	1581.2	1583.0	1584.8
170°	1591.7	1590.2	1588.6	1587.1	1586.5	1587.1	1587.6	1588.0	1588.6	1590.4	1592.2
172.5°	1597.3	1595.7	1594.2	1592.6	1592.1	1592.6	1593.1	1593.7	1594.2	1595.9	1597.7
175°	1604.2	1602.4	1600.6	1598.8	1598.1	1598.6	1599.1	1599.7	1600.2	1602.0	1603.8
177.5°	1605.7	1604.3	1602.8	1601.3	1600.8	1600.9	1601.2	1601.3	1601.6	1603.0	1604.4
180°	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	499.9	501.9	501.9	502.2	504.6	504.3	504.1
5°	531.9	535.1	535.4	538.7	541.0	540.2	538.2
7.5°	562.1	568.0	572.5	574.9	577.9	579.7	578.9
10°	586.2	594.7	599.9	603.4	607.6	610.8	609.7
12.5°	608.0	618.1	625.3	631.3	631.8	635.9	633.1
15°	642.0	652.6	653.8	658.2	661.8	661.4	661.5
17.5°	653.1	656.6	657.3	657.4	657.5	656.2	653.3
20°	649.1	647.8	644.7	642.3	638.1	637.5	633.8
22.5°	630.1	626.1	618.2	612.9	606.3	604.6	603.6
25°	592.9	583.8	571.2	559.1	555.8	549.3	551.1
27.5°	541.6	527.5	513.8	504.1	495.2	485.5	488.3
30°	505.6	489.7	470.4	455.6	446.1	436.9	435.2
32.5°	462.7	439.3	417.8	404.8	390.3	384.4	378.1
35°	388.6	365.7	344.5	326.1	315.6	307.4	300.0
37.5°	322.0	295.7	278.5	263.7	256.0	251.4	252.6
40°	280.6	257.6	245.0	233.7	226.7	223.4	224.1
42.5°	247.1	229.9	219.6	211.8	206.8	205.0	204.6
45°	209.1	199.5	190.9	186.5	184.1	182.1	180.8
47.5°	183.2	175.3	170.5	167.9	165.8	163.7	163.6
50°	167.6	162.4	159.1	156.3	154.7	153.2	154.5
52.5°	155.7	151.0	147.7	145.2	144.6	143.2	143.2
55°	138.2	134.4	132.1	129.8	128.7	128.0	127.0
57.5°	122.1	118.6	116.4	115.0	112.9	112.2	111.9
60°	110.7	107.9	105.7	103.9	103.0	101.5	101.5
62.5°	100.2	97.4	95.4	94.0	92.5	91.9	92.0
65°	85.0	82.8	80.7	79.2	78.9	77.8	78.2
67.5°	71.0	69.5	67.3	66.5	65.9	65.3	64.8
70°	61.6	60.2	59.1	58.0	57.4	57.4	57.4
72.5°	53.8	52.0	51.4	50.0	50.3	49.7	49.1
75°	41.7	40.5	40.0	39.5	38.6	38.6	38.6
77.5°	30.7	30.3	29.7	29.1	28.9	28.7	28.8
80°	23.7	23.5	23.2	23.2	22.7	22.6	22.3
82.5°	18.3	17.8	17.5	17.4	17.3	17.3	17.2
85°	10.4	10.0	10.0	10.2	9.8	9.8	10.0
87.5°	9.4	9.7	9.7	9.8	10.0	10.0	10.1
90°	27.1	28.4	29.3	29.8	30.2	30.8	31.3
92.5°	28.9	29.6	30.1	30.4	30.7	31.0	31.3
95°	49.1	50.4	50.9	50.6	50.4	50.1	49.9
97.5°	63.6	64.7	65.3	65.6	66.0	66.3	66.5
100°	72.3	74.4	75.7	76.1	76.6	77.2	77.7
102.5°	76.0	78.7	80.4	81.1	81.8	82.5	83.2
105°	79.2	82.1	84.0	85.0	86.1	87.1	88.1
107.5°	90.3	87.5	86.6	87.6	88.6	89.7	90.7
110°	125.6	99.9	87.5	88.5	89.5	90.6	91.6



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	229.8	135.8	89.2	90.1	90.9	91.7	92.5
115°	357.5	238.2	169.3	150.7	132.2	113.7	95.1
117.5°	705.9	677.0	632.1	571.1	510.1	449.1	388.2
120°	859.2	862.3	846.4	811.7	776.9	742.1	707.4
122.5°	910.3	912.1	909.6	902.9	896.2	889.4	882.6
125°	985.2	987.0	988.3	989.1	989.9	990.7	991.4
127.5°	1055.4	1058.0	1059.5	1059.6	1059.7	1059.9	1060.1
130°	1099.7	1102.4	1103.8	1103.5	1103.3	1103.0	1102.7
132.5°	1142.0	1144.4	1145.5	1145.3	1145.0	1144.8	1144.4
135°	1203.2	1205.8	1206.8	1206.3	1205.8	1205.3	1204.8
137.5°	1259.9	1262.4	1263.2	1262.3	1261.5	1260.6	1259.7
140°	1296.4	1298.7	1299.2	1298.0	1296.7	1295.3	1294.0
142.5°	1330.1	1332.2	1332.6	1331.3	1330.0	1328.8	1327.5
145°	1377.1	1379.0	1379.2	1377.9	1376.6	1375.3	1374.1
147.5°	1418.0	1419.4	1419.4	1418.4	1417.3	1416.2	1415.1
150°	1443.7	1445.2	1445.3	1444.1	1442.8	1441.4	1440.1
152.5°	1466.8	1468.4	1468.3	1466.6	1464.9	1463.2	1461.5
155°	1498.1	1499.7	1499.4	1497.4	1495.3	1493.2	1491.2
157.5°	1524.7	1526.5	1526.3	1524.4	1522.3	1520.3	1518.3
160°	1539.9	1541.4	1541.3	1539.5	1537.7	1535.9	1534.1
162.5°	1554.4	1556.2	1555.9	1553.7	1551.5	1549.3	1547.1
165°	1572.0	1573.8	1573.8	1572.0	1570.2	1568.4	1566.5
167.5°	1586.6	1588.4	1588.1	1585.8	1583.5	1581.2	1578.8
170°	1594.0	1595.8	1595.5	1593.3	1590.9	1588.6	1586.2
172.5°	1599.5	1601.3	1601.1	1598.8	1596.4	1594.2	1591.8
175°	1605.6	1607.4	1607.0	1604.4	1601.8	1599.3	1596.7
177.5°	1605.9	1607.4	1607.1	1605.2	1603.4	1601.6	1599.7
180°	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5	1602.5

(END OF REPORT)