

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: P332138-830

Luminaire Tested: **S123DIW-S560D1320U830-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332138-830
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-S560D1320U830-4F0-1E-UDD-A
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 560 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 1320 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7228.0 lumens
Efficiency: N/A
Efficacy: 134.3 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

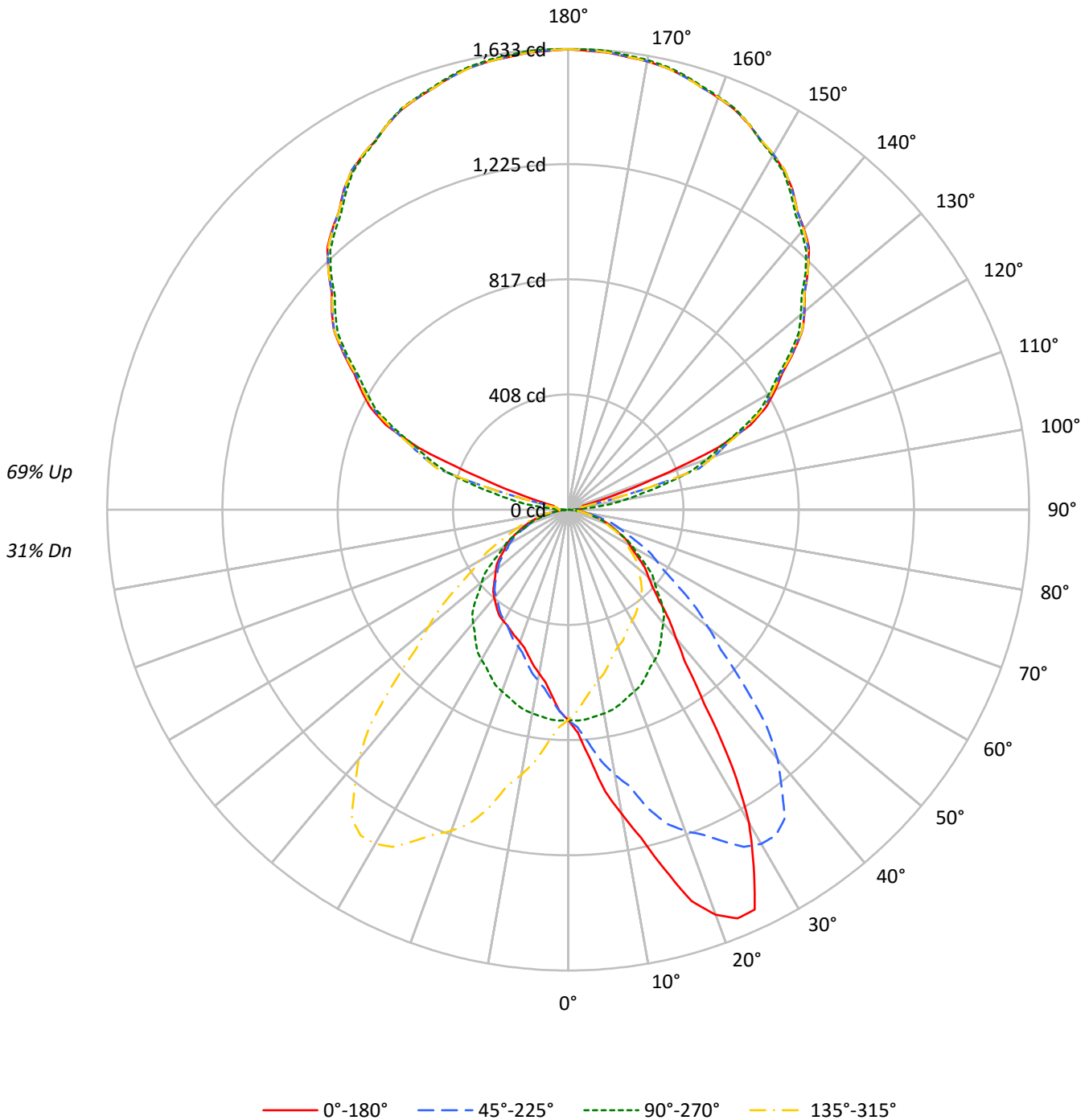
Input Watts (W): 53.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	31
1	94	90	86	83	84	81	78	75	64	62	60	49	47	46	35	34	33	27
2	85	78	73	68	77	71	66	62	56	53	50	43	41	39	31	29	28	23
3	78	69	62	56	70	62	56	52	50	45	42	38	35	33	27	25	24	19
4	71	61	53	48	64	55	49	44	44	39	36	34	31	28	24	22	21	17
5	65	54	46	41	59	49	42	37	39	35	31	30	27	24	22	20	18	14
6	60	49	41	35	54	44	37	32	35	31	27	27	24	21	20	18	16	13
7	56	44	36	31	50	40	33	28	32	27	24	25	21	19	18	16	14	11
8	51	40	32	27	46	36	29	25	29	24	21	23	19	17	17	14	13	10
9	48	36	29	24	43	33	26	22	27	22	19	21	17	15	15	13	11	9
10	45	33	26	21	40	30	24	20	24	20	17	19	16	13	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	8020	8020	8020	8020
5°	9564	8055	7138	8055
10°	11970	8014	6446	8014
15°	14683	7949	6002	7949
20°	17491	7848	5715	7848
25°	18573	7726	5651	7726
30°	15919	7636	5680	7636
35°	11071	7510	5740	7510
40°	8338	7360	5722	7360
45°	6925	7138	5649	7138
50°	6203	6687	5598	6687
55°	5799	6199	5527	6199
60°	5440	5690	5470	5690
65°	5112	5186	5295	5186
70°	4793	4614	5042	4614
75°	4292	4038	4625	4038
80°	3756	3310	3986	3310
85°	2939	2408	2680	2408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	1.0
10°-20°	235.3	3.3
20°-30°	395.0	5.5
30°-40°	447.2	6.2
40°-50°	401.1	5.5
50°-60°	323.7	4.5
60°-70°	225.5	3.1
70°-80°	118.5	1.6
80°-90°	33.6	0.5
90°-100°	59.3	0.8
100°-110°	282.7	3.9
110°-120°	679.0	9.4
120°-130°	864.6	12.0
130°-140°	923.8	12.8
140°-150°	863.8	12.0
150°-160°	696.8	9.6
160°-170°	449.7	6.2
170°-180°	155.0	2.1
0°-30°	703.7	9.7
0°-40°	1151.0	15.9
0°-60°	1875.7	26.0
0°-90°	2253.4	31.2
90°-120°	1020.9	14.1
90°-150°	3673.1	50.8
90°-180°	4975.0	68.8
0°-180°	7228.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	745	745	745	745	745	
5°	885	746	661	746	885	92
15°	1318	713	539	713	1318	380
25°	1564	650	476	650	1564	686
35°	842	572	437	572	842	547
45°	455	469	371	469	455	360
55°	309	330	294	330	309	277
65°	201	204	208	204	201	200
75°	103	97	111	97	103	110
85°	24	20	22	20	24	29
90°	36	1	36	1	36	18
95°	46	74	46	74	46	39
105°	53	361	53	361	53	122
115°	713	678	713	678	713	658
125°	974	955	974	955	974	870
135°	1201	1189	1201	1189	1201	926
145°	1385	1372	1385	1372	1385	865
155°	1509	1511	1509	1511	1509	696
165°	1590	1594	1590	1594	1590	449
175°	1625	1631	1625	1631	1625	155
180°	1631	1631	1631	1631	1631	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1
2.5°	790.7	790.1	788.7	789.9	787.5	784.4	784.1	781.2	772.8	772.2	770.0
5°	885.1	882.2	881.9	881.6	876.5	869.6	856.6	855.5	838.2	829.5	819.1
7.5°	1007.5	1009.0	1003.7	999.1	983.6	973.5	959.5	941.7	920.4	898.8	884.4
10°	1095.2	1107.1	1092.3	1082.2	1072.9	1055.2	1034.6	1009.0	983.4	953.4	930.7
12.5°	1189.4	1195.2	1192.3	1182.7	1168.2	1141.2	1104.8	1076.6	1052.9	1003.1	982.9
15°	1317.6	1339.6	1325.6	1293.1	1293.8	1268.2	1220.5	1168.2	1140.4	1096.6	1037.1
17.5°	1454.2	1457.0	1451.0	1423.9	1405.8	1370.6	1326.6	1276.5	1220.1	1167.3	1104.1
20°	1527.0	1524.8	1512.2	1498.1	1467.1	1439.6	1391.6	1335.7	1263.5	1211.4	1142.6
22.5°	1567.4	1563.8	1557.8	1546.1	1520.2	1490.7	1447.7	1386.5	1317.8	1246.1	1166.5
25°	1563.8	1568.5	1569.2	1565.9	1557.0	1539.3	1505.3	1456.6	1388.0	1296.0	1213.0
27.5°	1422.3	1428.9	1448.2	1465.4	1484.5	1503.9	1501.4	1477.2	1426.4	1346.9	1245.4
30°	1280.8	1266.3	1302.1	1347.2	1377.9	1432.0	1462.4	1464.1	1435.7	1367.4	1268.5
32.5°	1084.4	1100.3	1116.1	1171.6	1238.7	1299.5	1359.8	1408.4	1414.0	1368.6	1282.0
35°	842.5	862.4	891.3	920.2	992.4	1054.4	1160.6	1253.0	1326.6	1336.3	1283.3
37.5°	678.9	688.8	707.0	735.9	783.2	856.9	939.0	1055.7	1162.4	1241.8	1245.3
40°	593.4	596.3	616.9	638.9	677.2	737.8	811.9	915.1	1042.9	1153.8	1200.0
42.5°	529.3	535.7	544.4	565.6	596.1	641.7	710.5	795.9	912.9	1040.5	1130.9
45°	454.9	462.0	467.5	481.5	503.2	533.9	581.9	659.9	749.0	880.8	1002.5
47.5°	405.6	406.1	410.2	420.8	435.5	458.6	492.6	542.6	624.5	731.3	856.3
50°	370.4	376.2	377.6	385.9	397.5	414.4	442.6	485.1	552.3	646.2	761.0
52.5°	345.5	347.2	351.3	357.3	367.4	380.6	405.0	438.4	491.1	571.1	676.7
55°	309.0	309.0	313.0	317.6	323.5	335.4	351.6	376.2	416.2	478.3	565.7
57.5°	275.2	277.0	279.8	281.3	286.2	294.1	307.6	326.3	356.2	404.0	473.4
60°	252.7	255.9	255.6	258.4	262.8	268.9	280.5	295.7	322.3	360.6	419.1
62.5°	233.1	232.8	232.8	236.2	240.5	246.4	253.9	267.0	289.7	323.7	373.4
65°	200.7	200.0	202.6	204.7	206.1	210.5	216.2	227.8	243.0	268.2	306.8
67.5°	172.0	169.8	171.3	172.0	174.5	177.9	183.2	190.4	202.5	222.7	251.8
70°	152.3	150.5	150.1	150.9	153.1	155.6	159.6	166.5	177.6	193.9	215.2
72.5°	132.1	130.9	130.8	132.4	133.5	135.1	137.9	144.2	153.1	165.2	185.1
75°	103.2	103.2	103.2	103.6	104.7	106.1	108.3	111.5	118.4	127.1	140.4
77.5°	77.4	77.3	76.9	76.8	78.4	79.1	79.6	82.6	86.4	92.3	102.0
80°	60.6	58.8	59.6	60.6	61.4	61.7	62.8	63.5	66.8	70.0	76.9
82.5°	45.1	43.5	43.6	45.3	45.5	45.8	46.9	48.0	49.2	52.1	55.8
85°	23.8	23.8	24.2	24.2	24.5	24.2	25.3	25.6	25.6	27.4	29.6
87.5°	15.9	15.3	15.5	15.6	15.2	15.4	15.5	15.5	15.6	15.6	15.3
90°	36.4	35.8	35.3	34.8	34.2	33.4	32.3	31.2	30.2	29.1	25.5
92.5°	40.2	39.9	39.6	39.3	38.9	37.9	36.2	34.5	32.7	31.0	28.4
95°	46.1	46.1	46.1	46.1	46.1	45.1	43.3	41.4	39.5	37.6	34.6
97.5°	50.0	49.7	49.4	49.1	48.8	47.6	45.5	43.4	41.2	39.0	58.4
100°	50.9	50.6	50.3	50.0	49.9	48.6	46.5	44.3	42.1	40.0	82.0
102.5°	51.8	51.4	50.9	50.4	50.0	53.1	59.7	66.4	73.0	79.7	125.6
105°	53.3	52.8	52.2	51.7	51.2	74.7	122.4	170.0	217.7	265.4	289.6
107.5°	167.5	203.4	239.3	275.3	311.2	346.7	381.6	416.6	451.5	486.4	482.7
110°	333.3	371.8	410.3	448.8	487.3	511.0	519.9	528.8	537.7	546.6	543.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	571.8	579.9	588.1	596.2	604.4	608.3	608.1	608.0	607.8	607.7	604.7
115°	712.7	711.5	710.5	709.4	708.3	706.4	703.7	701.1	698.3	695.7	693.2
117.5°	791.6	791.5	791.2	791.0	790.8	789.6	787.4	785.3	783.2	781.0	779.8
120°	845.9	845.9	845.9	845.9	845.9	844.9	842.7	840.6	838.4	836.2	835.5
122.5°	899.3	899.1	898.8	898.6	898.4	897.6	896.1	894.6	893.1	891.6	890.5
125°	974.4	973.8	973.4	972.8	972.2	971.7	971.2	970.6	970.1	969.6	968.5
127.5°	1046.6	1047.2	1047.7	1048.3	1048.8	1048.7	1047.7	1046.9	1046.0	1045.2	1043.9
130°	1093.2	1093.7	1094.3	1094.8	1095.3	1095.0	1094.0	1092.9	1091.8	1090.7	1089.7
132.5°	1135.9	1136.6	1137.4	1138.1	1138.9	1138.7	1137.6	1136.5	1135.5	1134.3	1133.5
135°	1201.1	1201.8	1202.7	1203.4	1204.3	1204.3	1203.4	1202.7	1201.8	1201.1	1200.0
137.5°	1262.3	1262.9	1263.5	1263.9	1264.5	1264.1	1262.8	1261.6	1260.3	1259.0	1258.4
140°	1299.2	1299.8	1300.2	1300.8	1301.4	1301.1	1300.0	1298.9	1297.9	1296.8	1296.0
142.5°	1333.1	1333.9	1334.6	1335.4	1336.1	1336.1	1335.2	1334.4	1333.5	1332.7	1331.8
145°	1385.3	1385.3	1385.3	1385.3	1385.3	1385.0	1384.4	1383.9	1383.4	1382.8	1382.3
147.5°	1424.0	1425.3	1426.5	1427.8	1429.0	1429.4	1428.8	1428.2	1427.8	1427.2	1426.6
150°	1453.1	1454.0	1454.7	1455.6	1456.3	1456.5	1455.9	1455.4	1454.9	1454.3	1453.8
152.5°	1476.4	1477.6	1478.8	1480.1	1481.4	1481.5	1480.5	1479.5	1478.6	1477.6	1477.2
155°	1508.9	1510.5	1512.1	1513.7	1515.3	1515.5	1514.1	1512.8	1511.5	1510.0	1509.9
157.5°	1536.3	1538.3	1540.5	1542.6	1544.6	1544.9	1543.3	1541.7	1540.0	1538.4	1538.7
160°	1553.7	1555.6	1557.5	1559.3	1561.2	1561.4	1559.8	1558.1	1556.5	1554.9	1555.2
162.5°	1570.2	1571.9	1573.6	1575.2	1576.9	1576.8	1575.0	1573.1	1571.3	1569.4	1569.7
165°	1590.1	1592.0	1593.8	1595.7	1597.6	1597.5	1595.3	1593.2	1591.0	1588.8	1589.1
167.5°	1604.4	1606.6	1608.7	1610.8	1613.0	1613.0	1610.8	1608.7	1606.6	1604.4	1604.4
170°	1613.1	1615.2	1617.4	1619.6	1621.7	1621.7	1619.6	1617.4	1615.2	1613.1	1613.1
172.5°	1618.0	1620.3	1622.7	1625.0	1627.4	1627.6	1625.4	1623.2	1621.1	1618.9	1618.7
175°	1625.2	1627.4	1629.6	1631.7	1633.8	1634.0	1632.1	1630.2	1628.3	1626.5	1626.2
177.5°	1627.4	1629.6	1631.7	1633.9	1636.1	1636.3	1634.6	1632.8	1631.1	1629.4	1629.1
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1
2.5°	768.2	765.9	763.6	759.5	756.0	751.1	749.7	748.0	742.8	738.1	734.7
5°	815.1	806.4	793.8	782.2	772.9	760.3	753.0	745.5	734.6	724.9	716.9
7.5°	864.2	847.2	827.6	806.3	786.6	767.4	752.1	738.4	723.2	708.8	697.7
10°	903.2	878.6	851.2	821.6	796.4	771.8	751.2	733.2	713.7	696.7	682.6
12.5°	947.6	911.3	873.5	837.4	807.6	773.5	748.7	725.7	703.6	683.2	667.3
15°	1000.3	954.1	909.4	859.9	814.4	771.8	742.2	713.3	687.7	666.8	646.5
17.5°	1048.2	995.9	936.9	876.8	821.9	771.4	729.9	697.3	665.2	639.6	619.4
20°	1075.3	1015.8	949.0	886.6	826.0	769.6	724.2	685.1	650.5	623.4	600.7
22.5°	1098.8	1029.1	960.0	893.2	825.7	765.0	713.5	673.4	635.7	609.3	585.1
25°	1123.0	1039.6	970.3	892.0	816.5	753.8	696.0	650.5	612.9	581.9	557.0
27.5°	1143.9	1039.0	956.7	872.4	802.3	739.3	677.7	628.9	589.0	555.3	530.0
30°	1157.7	1040.4	942.5	859.1	788.4	723.4	663.5	614.4	572.5	538.2	514.4
32.5°	1166.4	1039.5	929.5	840.7	766.5	709.0	648.2	597.4	554.3	520.7	497.7
35°	1171.4	1033.1	907.2	802.5	731.0	675.0	624.2	571.5	526.3	494.9	468.9
37.5°	1161.3	1019.8	881.2	765.6	687.4	632.4	589.5	544.6	501.4	466.8	444.4
40°	1145.4	1011.2	860.9	739.7	657.3	604.3	567.9	523.8	481.2	448.4	427.4
42.5°	1115.1	993.5	838.8	710.8	626.1	573.1	539.5	502.8	462.4	431.6	410.7
45°	1041.1	955.2	805.4	667.5	580.1	525.3	495.7	468.9	432.4	402.5	384.5
47.5°	938.4	897.5	757.1	621.8	532.1	479.3	448.5	427.0	400.3	376.2	358.8
50°	867.1	850.2	724.5	590.6	499.9	448.4	418.8	399.3	380.1	355.9	340.1
52.5°	784.8	795.2	686.4	558.3	467.3	416.6	388.7	373.2	355.9	336.0	322.2
55°	668.9	706.8	620.6	504.0	418.8	370.4	344.0	330.3	320.2	305.4	293.5
57.5°	560.4	608.6	549.3	448.0	371.0	329.3	304.1	289.1	282.6	274.8	265.5
60°	496.0	543.7	498.5	410.5	338.9	299.3	276.9	264.3	257.8	252.3	244.4
62.5°	438.6	486.7	448.8	372.3	307.5	270.7	251.2	238.8	233.8	230.9	224.1
65°	359.6	401.1	375.8	313.0	262.4	230.0	212.3	203.6	198.9	197.8	193.5
67.5°	292.7	324.2	305.9	259.6	219.8	191.7	176.7	169.4	165.8	165.4	162.1
70°	248.7	278.3	264.3	222.3	188.0	166.1	153.1	146.6	144.4	144.0	142.2
72.5°	214.6	235.3	224.1	189.2	162.7	142.7	133.1	126.3	123.9	124.4	123.2
75°	158.8	174.4	167.9	143.6	122.3	109.3	101.4	97.1	94.9	96.0	94.5
77.5°	114.3	124.1	118.3	101.5	88.4	79.0	73.1	70.5	68.5	68.4	67.8
80°	86.2	92.1	88.8	78.7	67.9	59.9	55.2	53.4	52.3	52.0	51.7
82.5°	61.5	66.4	62.5	55.6	48.3	43.5	40.8	38.5	37.6	37.8	37.5
85°	31.0	32.9	31.4	27.1	24.2	22.1	20.5	19.5	18.8	19.1	18.4
87.5°	15.1	14.7	13.1	11.3	10.3	8.9	8.3	7.2	7.2	7.6	7.9
90°	22.1	18.6	15.1	12.0	9.3	6.6	3.9	1.2	3.9	6.6	9.3
92.5°	25.7	23.1	20.5	19.5	20.3	21.0	21.8	22.5	21.8	21.0	20.3
95°	31.7	28.7	25.7	29.8	40.8	51.8	62.9	73.9	62.9	51.8	40.8
97.5°	77.9	97.2	116.6	128.8	133.7	138.6	143.6	148.5	143.6	138.6	133.7
100°	124.0	166.1	208.0	226.4	220.9	215.6	210.2	204.8	210.2	215.6	220.9
102.5°	171.5	217.4	263.3	284.4	280.4	276.5	272.7	268.8	272.7	276.5	280.4
105°	313.9	338.1	362.4	373.0	370.0	367.1	364.1	361.2	364.1	367.1	370.0
107.5°	478.8	475.0	471.2	468.1	465.7	463.4	461.0	458.6	461.0	463.4	465.7
110°	540.6	537.7	534.7	532.2	530.0	527.8	525.8	523.6	525.8	527.8	530.0



TEST NUMBER: P332138-830

CATALOG NUMBER: S123DIW-S560D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	601.7	598.8	595.8	593.3	591.4	589.5	587.6	585.6	587.6	589.5	591.4
115°	690.8	688.3	686.0	683.9	682.3	680.7	679.1	677.5	679.1	680.7	682.3
117.5°	778.5	777.2	776.0	774.4	772.4	770.4	768.5	766.5	768.5	770.4	772.4
120°	834.6	833.8	833.0	831.4	829.0	826.5	824.2	821.7	824.2	826.5	829.0
122.5°	889.5	888.4	887.4	885.9	883.9	881.9	880.0	878.0	880.0	881.9	883.9
125°	967.4	966.3	965.3	963.7	961.5	959.3	957.2	955.0	957.2	959.3	961.5
127.5°	1042.6	1041.3	1040.0	1038.3	1036.1	1034.0	1031.8	1029.6	1031.8	1034.0	1036.1
130°	1088.6	1087.5	1086.5	1084.9	1082.7	1080.5	1078.4	1076.2	1078.4	1080.5	1082.7
132.5°	1132.7	1131.8	1131.0	1129.4	1127.3	1125.1	1122.9	1120.8	1122.9	1125.1	1127.3
135°	1198.9	1197.8	1196.7	1195.4	1193.7	1192.1	1190.5	1188.9	1190.5	1192.1	1193.7
137.5°	1257.8	1257.2	1256.6	1255.3	1253.2	1251.2	1249.2	1247.1	1249.2	1251.2	1253.2
140°	1295.1	1294.4	1293.5	1292.3	1290.7	1289.1	1287.5	1285.9	1287.5	1289.1	1290.7
142.5°	1331.1	1330.2	1329.5	1328.2	1326.6	1325.0	1323.3	1321.7	1323.3	1325.0	1326.6
145°	1381.8	1381.2	1380.6	1379.5	1377.6	1375.7	1373.9	1372.0	1373.9	1375.7	1377.6
147.5°	1426.1	1425.6	1425.0	1424.2	1422.9	1421.6	1420.4	1419.2	1420.4	1421.6	1422.9
150°	1453.2	1452.7	1452.2	1451.5	1450.7	1449.9	1449.1	1448.3	1449.1	1449.9	1450.7
152.5°	1477.0	1476.7	1476.3	1475.9	1475.6	1475.2	1474.8	1474.4	1474.8	1475.2	1475.6
155°	1509.6	1509.3	1509.0	1509.1	1509.7	1510.2	1510.8	1511.3	1510.8	1510.2	1509.7
157.5°	1539.0	1539.3	1539.5	1539.6	1539.7	1539.8	1539.8	1539.9	1539.8	1539.8	1539.7
160°	1555.5	1555.8	1556.0	1556.2	1556.5	1556.8	1557.1	1557.4	1557.1	1556.8	1556.5
162.5°	1570.0	1570.3	1570.6	1571.0	1571.7	1572.4	1573.1	1573.9	1573.1	1572.4	1571.7
165°	1589.4	1589.7	1590.0	1590.4	1591.3	1592.0	1592.9	1593.7	1592.9	1592.0	1591.3
167.5°	1604.4	1604.4	1604.4	1604.9	1606.0	1607.0	1608.2	1609.2	1608.2	1607.0	1606.0
170°	1613.1	1613.1	1613.1	1613.6	1614.8	1615.8	1616.8	1618.0	1616.8	1615.8	1614.8
172.5°	1618.5	1618.3	1618.1	1618.6	1619.9	1621.2	1622.5	1623.8	1622.5	1621.2	1619.9
175°	1625.9	1625.6	1625.3	1625.9	1627.2	1628.6	1629.9	1631.3	1629.9	1628.6	1627.2
177.5°	1628.9	1628.7	1628.5	1628.9	1630.0	1631.1	1632.1	1633.2	1632.1	1631.1	1630.0
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3



TEST NUMBER: P332138-830

CATALOG NUMBER: S123DIW-S560D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1
2.5°	732.6	730.7	727.7	723.4	719.9	714.4	714.4	715.3	715.3	715.0	714.4
5°	710.4	705.0	698.5	691.0	683.0	675.0	673.6	670.7	668.5	667.1	665.3
7.5°	686.9	677.4	667.9	657.3	647.6	639.6	634.0	629.4	626.4	623.3	620.9
10°	671.1	659.1	648.0	636.8	624.5	614.7	608.6	604.3	601.1	598.1	596.7
12.5°	652.3	638.7	626.3	615.7	602.3	592.2	586.4	584.4	580.5	574.5	571.3
15°	624.9	612.3	597.5	581.2	574.7	562.4	555.5	552.3	550.2	545.4	544.0
17.5°	601.4	584.8	568.3	556.1	544.0	534.1	530.3	526.2	523.4	519.5	518.4
20°	582.7	567.9	552.7	539.7	527.1	516.2	512.9	510.1	507.2	505.4	504.0
22.5°	563.5	548.7	536.2	524.1	510.6	503.5	499.9	496.8	494.7	493.5	492.1
25°	536.8	523.8	509.7	498.9	488.0	483.3	481.2	479.4	478.0	476.2	475.8
27.5°	512.8	498.7	487.3	477.1	469.4	465.4	463.4	462.5	462.8	463.4	463.8
30°	494.9	481.9	472.5	463.8	456.7	453.1	452.7	452.7	454.1	454.5	455.2
32.5°	478.4	467.8	458.4	450.0	444.5	442.1	443.5	443.5	444.6	445.5	446.9
35°	454.5	445.1	437.9	430.6	425.9	427.1	427.7	428.5	430.3	432.4	433.9
37.5°	431.6	423.5	415.9	410.3	408.1	410.1	411.8	413.3	415.5	417.1	418.5
40°	415.1	409.0	401.8	396.7	397.5	398.5	400.0	401.8	403.6	404.6	406.1
42.5°	399.8	393.4	388.0	383.7	384.7	386.2	387.0	388.0	390.0	392.0	392.9
45°	376.5	371.5	366.4	363.9	364.6	365.3	366.1	367.1	368.9	370.4	370.7
47.5°	350.3	346.8	343.4	340.9	342.0	341.8	342.7	345.1	345.6	346.5	348.5
50°	333.6	330.3	326.3	325.6	325.6	325.6	325.9	328.9	328.9	330.3	331.8
52.5°	315.1	313.0	310.5	309.2	308.6	308.6	310.1	311.5	312.1	314.1	315.6
55°	287.7	285.5	283.4	282.3	281.5	282.3	285.2	285.9	287.7	288.8	289.8
57.5°	259.2	257.5	255.8	255.2	255.1	256.0	257.6	259.8	260.2	263.5	265.1
60°	240.4	237.9	236.5	236.5	235.7	238.9	238.3	241.9	242.6	244.8	247.3
62.5°	221.0	217.6	217.1	217.1	218.1	219.0	220.1	221.7	223.6	226.3	228.2
65°	189.9	188.0	190.6	190.2	189.5	191.7	191.7	193.5	195.7	198.2	202.2
67.5°	160.3	159.4	159.7	159.7	160.7	161.9	163.0	164.6	167.1	169.8	172.4
70°	140.4	141.5	139.7	141.2	142.2	142.6	143.3	145.4	148.4	150.1	153.1
72.5°	121.1	121.0	121.2	121.8	122.9	123.6	124.2	126.7	129.9	131.4	133.7
75°	93.1	92.7	93.9	93.9	95.7	96.4	97.1	98.2	101.0	103.2	105.1
77.5°	68.1	68.4	68.2	69.5	69.0	69.1	71.4	72.4	72.7	77.0	77.9
80°	51.3	52.0	52.3	52.7	53.1	52.3	54.9	56.0	56.0	58.4	60.3
82.5°	36.9	37.2	38.2	38.5	38.6	39.3	39.6	40.3	41.2	42.3	44.7
85°	18.4	19.5	19.9	19.5	19.9	19.1	20.2	20.5	20.9	20.9	20.9
87.5°	8.2	9.0	9.5	10.5	10.9	11.9	12.1	11.8	12.0	13.0	12.1
90°	12.0	15.1	18.6	22.1	25.5	29.1	30.2	31.2	32.3	33.4	34.2
92.5°	19.5	20.5	23.1	25.7	28.4	31.0	32.7	34.5	36.2	37.9	38.9
95°	29.8	25.7	28.7	31.7	34.6	37.6	39.5	41.4	43.3	45.1	46.1
97.5°	128.8	116.6	97.2	77.9	58.4	39.0	41.2	43.4	45.5	47.6	48.8
100°	226.4	208.0	166.1	124.0	82.0	40.0	42.1	44.3	46.5	48.6	49.9
102.5°	284.4	263.3	217.4	171.5	125.6	79.7	73.0	66.4	59.7	53.1	50.0
105°	373.0	362.4	338.1	313.9	289.6	265.4	217.7	170.0	122.4	74.7	51.2
107.5°	468.1	471.2	475.0	478.8	482.7	486.4	451.5	416.6	381.6	346.7	311.2
110°	532.2	534.7	537.7	540.6	543.7	546.6	537.7	528.8	519.9	511.0	487.3



TEST NUMBER: P332138-830

CATALOG NUMBER: S123DIW-S560D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	593.3	595.8	598.8	601.7	604.7	607.7	607.8	608.0	608.1	608.3	604.4
115°	683.9	686.0	688.3	690.8	693.2	695.7	698.3	701.1	703.7	706.4	708.3
117.5°	774.4	776.0	777.2	778.5	779.8	781.0	783.2	785.3	787.4	789.6	790.8
120°	831.4	833.0	833.8	834.6	835.5	836.2	838.4	840.6	842.7	844.9	845.9
122.5°	885.9	887.4	888.4	889.5	890.5	891.6	893.1	894.6	896.1	897.6	898.4
125°	963.7	965.3	966.3	967.4	968.5	969.6	970.1	970.6	971.2	971.7	972.2
127.5°	1038.3	1040.0	1041.3	1042.6	1043.9	1045.2	1046.0	1046.9	1047.7	1048.7	1048.8
130°	1084.9	1086.5	1087.5	1088.6	1089.7	1090.7	1091.8	1092.9	1094.0	1095.0	1095.3
132.5°	1129.4	1131.0	1131.8	1132.7	1133.5	1134.3	1135.5	1136.5	1137.6	1138.7	1138.9
135°	1195.4	1196.7	1197.8	1198.9	1200.0	1201.1	1201.8	1202.7	1203.4	1204.3	1204.3
137.5°	1255.3	1256.6	1257.2	1257.8	1258.4	1259.0	1260.3	1261.6	1262.8	1264.1	1264.5
140°	1292.3	1293.5	1294.4	1295.1	1296.0	1296.8	1297.9	1298.9	1300.0	1301.1	1301.4
142.5°	1328.2	1329.5	1330.2	1331.1	1331.8	1332.7	1333.5	1334.4	1335.2	1336.1	1336.1
145°	1379.5	1380.6	1381.2	1381.8	1382.3	1382.8	1383.4	1383.9	1384.4	1385.0	1385.3
147.5°	1424.2	1425.0	1425.6	1426.1	1426.6	1427.2	1427.8	1428.2	1428.8	1429.4	1429.0
150°	1451.5	1452.2	1452.7	1453.2	1453.8	1454.3	1454.9	1455.4	1455.9	1456.5	1456.3
152.5°	1475.9	1476.3	1476.7	1477.0	1477.2	1477.6	1478.6	1479.5	1480.5	1481.5	1481.4
155°	1509.1	1509.0	1509.3	1509.6	1509.9	1510.0	1511.5	1512.8	1514.1	1515.5	1515.3
157.5°	1539.6	1539.5	1539.3	1539.0	1538.7	1538.4	1540.0	1541.7	1543.3	1544.9	1544.6
160°	1556.2	1556.0	1555.8	1555.5	1555.2	1554.9	1556.5	1558.1	1559.8	1561.4	1561.2
162.5°	1571.0	1570.6	1570.3	1570.0	1569.7	1569.4	1571.3	1573.1	1575.0	1576.8	1576.9
165°	1590.4	1590.0	1589.7	1589.4	1589.1	1588.8	1591.0	1593.2	1595.3	1597.5	1597.6
167.5°	1604.9	1604.4	1604.4	1604.4	1604.4	1604.4	1606.6	1608.7	1610.8	1613.0	1613.0
170°	1613.6	1613.1	1613.1	1613.1	1613.1	1613.1	1615.2	1617.4	1619.6	1621.7	1621.7
172.5°	1618.6	1618.1	1618.3	1618.5	1618.7	1618.9	1621.1	1623.2	1625.4	1627.6	1627.4
175°	1625.9	1625.3	1625.6	1625.9	1626.2	1626.5	1628.3	1630.2	1632.1	1634.0	1633.8
177.5°	1628.9	1628.5	1628.7	1628.9	1629.1	1629.4	1631.1	1632.8	1634.6	1636.3	1636.1
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3



TEST NUMBER: P332138-830

CATALOG NUMBER: S123DIW-S560D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1
2.5°	712.5	712.2	714.2	712.8	714.2	712.2	712.5	714.4	715.0	715.3	715.3
5°	663.2	664.2	660.6	660.6	660.6	664.2	663.2	665.3	667.1	668.5	670.7
7.5°	619.3	617.6	617.8	615.9	617.8	617.6	619.3	620.9	623.3	626.4	629.4
10°	592.4	590.2	589.5	589.8	589.5	590.2	592.4	596.7	598.1	601.1	604.3
12.5°	570.1	569.7	565.0	565.1	565.0	569.7	570.1	571.3	574.5	580.5	584.4
15°	544.0	537.2	536.4	538.6	536.4	537.2	544.0	544.0	545.4	550.2	552.3
17.5°	517.8	514.2	514.4	513.3	514.4	514.2	517.8	518.4	519.5	523.4	526.2
20°	504.0	501.8	501.4	498.9	501.4	501.8	504.0	504.0	505.4	507.2	510.1
22.5°	491.3	490.5	490.7	488.0	490.7	490.5	491.3	492.1	493.5	494.7	496.8
25°	475.4	477.2	475.8	475.8	475.8	477.2	475.4	475.8	476.2	478.0	479.4
27.5°	464.8	464.7	463.9	463.9	463.9	464.7	464.8	463.8	463.4	462.8	462.5
30°	456.7	456.3	457.0	457.0	457.0	456.3	456.7	455.2	454.5	454.1	452.7
32.5°	448.6	449.0	449.2	449.5	449.2	449.0	448.6	446.9	445.5	444.6	443.5
35°	436.1	436.4	437.5	436.8	437.5	436.4	436.1	433.9	432.4	430.3	428.5
37.5°	419.1	420.8	420.5	421.0	420.5	420.8	419.1	418.5	417.1	415.5	413.3
40°	406.5	407.6	407.2	407.2	407.2	407.6	406.5	406.1	404.6	403.6	401.8
42.5°	393.5	394.3	393.3	392.8	393.3	394.3	393.5	392.9	392.0	390.0	388.0
45°	372.2	371.5	372.6	371.1	372.6	371.5	372.2	370.7	370.4	368.9	367.1
47.5°	348.4	349.1	349.4	350.4	349.4	349.1	348.4	348.5	346.5	345.6	345.1
50°	332.4	334.6	334.6	334.3	334.6	334.6	332.4	331.8	330.3	328.9	328.9
52.5°	316.9	317.9	319.3	319.2	319.3	317.9	316.9	315.6	314.1	312.1	311.5
55°	292.8	293.5	294.2	294.5	294.2	293.5	292.8	289.8	288.8	287.7	285.9
57.5°	267.8	267.5	269.2	269.8	269.2	267.5	267.8	265.1	263.5	260.2	259.8
60°	250.2	250.2	253.1	254.1	253.1	250.2	250.2	247.3	244.8	242.6	241.9
62.5°	231.4	232.5	235.4	233.9	235.4	232.5	231.4	228.2	226.3	223.6	221.7
65°	204.0	206.9	206.5	207.9	206.5	206.9	204.0	202.2	198.2	195.7	193.5
67.5°	175.3	177.1	179.7	179.9	179.7	177.1	175.3	172.4	169.8	167.1	164.6
70°	156.0	157.8	159.2	160.2	159.2	157.8	156.0	153.1	150.1	148.4	145.4
72.5°	137.1	138.1	141.6	140.1	141.6	138.1	137.1	133.7	131.4	129.9	126.7
75°	107.5	110.1	112.3	111.2	112.3	110.1	107.5	105.1	103.2	101.0	98.2
77.5°	79.6	82.1	83.1	82.2	83.1	82.1	79.6	77.9	77.0	72.7	72.4
80°	62.8	62.5	64.7	64.3	64.7	62.5	62.8	60.3	58.4	56.0	56.0
82.5°	46.1	45.7	46.8	46.9	46.8	45.7	46.1	44.7	42.3	41.2	40.3
85°	22.3	23.5	22.1	21.7	22.1	23.5	22.3	20.9	20.9	20.9	20.5
87.5°	12.2	12.3	12.1	11.9	12.1	12.3	12.2	12.1	13.0	12.0	11.8
90°	34.8	35.3	35.8	36.4	35.8	35.3	34.8	34.2	33.4	32.3	31.2
92.5°	39.3	39.6	39.9	40.2	39.9	39.6	39.3	38.9	37.9	36.2	34.5
95°	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1	45.1	43.3	41.4
97.5°	49.1	49.4	49.7	50.0	49.7	49.4	49.1	48.8	47.6	45.5	43.4
100°	50.0	50.3	50.6	50.9	50.6	50.3	50.0	49.9	48.6	46.5	44.3
102.5°	50.4	50.9	51.4	51.8	51.4	50.9	50.4	50.0	53.1	59.7	66.4
105°	51.7	52.2	52.8	53.3	52.8	52.2	51.7	51.2	74.7	122.4	170.0
107.5°	275.3	239.3	203.4	167.5	203.4	239.3	275.3	311.2	346.7	381.6	416.6
110°	448.8	410.3	371.8	333.3	371.8	410.3	448.8	487.3	511.0	519.9	528.8



TEST NUMBER: P332138-830

CATALOG NUMBER: S123DIW-S560D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	596.2	588.1	579.9	571.8	579.9	588.1	596.2	604.4	608.3	608.1	608.0
115°	709.4	710.5	711.5	712.7	711.5	710.5	709.4	708.3	706.4	703.7	701.1
117.5°	791.0	791.2	791.5	791.6	791.5	791.2	791.0	790.8	789.6	787.4	785.3
120°	845.9	845.9	845.9	845.9	845.9	845.9	845.9	845.9	844.9	842.7	840.6
122.5°	898.6	898.8	899.1	899.3	899.1	898.8	898.6	898.4	897.6	896.1	894.6
125°	972.8	973.4	973.8	974.4	973.8	973.4	972.8	972.2	971.7	971.2	970.6
127.5°	1048.3	1047.7	1047.2	1046.6	1047.2	1047.7	1048.3	1048.8	1048.7	1047.7	1046.9
130°	1094.8	1094.3	1093.7	1093.2	1093.7	1094.3	1094.8	1095.3	1095.0	1094.0	1092.9
132.5°	1138.1	1137.4	1136.6	1135.9	1136.6	1137.4	1138.1	1138.9	1138.7	1137.6	1136.5
135°	1203.4	1202.7	1201.8	1201.1	1201.8	1202.7	1203.4	1204.3	1204.3	1203.4	1202.7
137.5°	1263.9	1263.5	1262.9	1262.3	1262.9	1263.5	1263.9	1264.5	1264.1	1262.8	1261.6
140°	1300.8	1300.2	1299.8	1299.2	1299.8	1300.2	1300.8	1301.4	1301.1	1300.0	1298.9
142.5°	1335.4	1334.6	1333.9	1333.1	1333.9	1334.6	1335.4	1336.1	1336.1	1335.2	1334.4
145°	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.3	1385.0	1384.4	1383.9
147.5°	1427.8	1426.5	1425.3	1424.0	1425.3	1426.5	1427.8	1429.0	1429.4	1428.8	1428.2
150°	1455.6	1454.7	1454.0	1453.1	1454.0	1454.7	1455.6	1456.3	1456.5	1455.9	1455.4
152.5°	1480.1	1478.8	1477.6	1476.4	1477.6	1478.8	1480.1	1481.4	1481.5	1480.5	1479.5
155°	1513.7	1512.1	1510.5	1508.9	1510.5	1512.1	1513.7	1515.3	1515.5	1514.1	1512.8
157.5°	1542.6	1540.5	1538.3	1536.3	1538.3	1540.5	1542.6	1544.6	1544.9	1543.3	1541.7
160°	1559.3	1557.5	1555.6	1553.7	1555.6	1557.5	1559.3	1561.2	1561.4	1559.8	1558.1
162.5°	1575.2	1573.6	1571.9	1570.2	1571.9	1573.6	1575.2	1576.9	1576.8	1575.0	1573.1
165°	1595.7	1593.8	1592.0	1590.1	1592.0	1593.8	1595.7	1597.6	1597.5	1595.3	1593.2
167.5°	1610.8	1608.7	1606.6	1604.4	1606.6	1608.7	1610.8	1613.0	1613.0	1610.8	1608.7
170°	1619.6	1617.4	1615.2	1613.1	1615.2	1617.4	1619.6	1621.7	1621.7	1619.6	1617.4
172.5°	1625.0	1622.7	1620.3	1618.0	1620.3	1622.7	1625.0	1627.4	1627.6	1625.4	1623.2
175°	1631.7	1629.6	1627.4	1625.2	1627.4	1629.6	1631.7	1633.8	1634.0	1632.1	1630.2
177.5°	1633.9	1631.7	1629.6	1627.4	1629.6	1631.7	1633.9	1636.1	1636.3	1634.6	1632.8
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3



TEST NUMBER: P332138-830

CATALOG NUMBER: S123DIW-S560D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1
2.5°	714.4	714.4	719.9	723.4	727.7	730.7	732.6	734.7	738.1	742.8	748.0
5°	673.6	675.0	683.0	691.0	698.5	705.0	710.4	716.9	724.9	734.6	745.5
7.5°	634.0	639.6	647.6	657.3	667.9	677.4	686.9	697.7	708.8	723.2	738.4
10°	608.6	614.7	624.5	636.8	648.0	659.1	671.1	682.6	696.7	713.7	733.2
12.5°	586.4	592.2	602.3	615.7	626.3	638.7	652.3	667.3	683.2	703.6	725.7
15°	555.5	562.4	574.7	581.2	597.5	612.3	624.9	646.5	666.8	687.7	713.3
17.5°	530.3	534.1	544.0	556.1	568.3	584.8	601.4	619.4	639.6	665.2	697.3
20°	512.9	516.2	527.1	539.7	552.7	567.9	582.7	600.7	623.4	650.5	685.1
22.5°	499.9	503.5	510.6	524.1	536.2	548.7	563.5	585.1	609.3	635.7	673.4
25°	481.2	483.3	488.0	498.9	509.7	523.8	536.8	557.0	581.9	612.9	650.5
27.5°	463.4	465.4	469.4	477.1	487.3	498.7	512.8	530.0	555.3	589.0	628.9
30°	452.7	453.1	456.7	463.8	472.5	481.9	494.9	514.4	538.2	572.5	614.4
32.5°	443.5	442.1	444.5	450.0	458.4	467.8	478.4	497.7	520.7	554.3	597.4
35°	427.7	427.1	425.9	430.6	437.9	445.1	454.5	468.9	494.9	526.3	571.5
37.5°	411.8	410.1	408.1	410.3	415.9	423.5	431.6	444.4	466.8	501.4	544.6
40°	400.0	398.5	397.5	396.7	401.8	409.0	415.1	427.4	448.4	481.2	523.8
42.5°	387.0	386.2	384.7	383.7	388.0	393.4	399.8	410.7	431.6	462.4	502.8
45°	366.1	365.3	364.6	363.9	366.4	371.5	376.5	384.5	402.5	432.4	468.9
47.5°	342.7	341.8	342.0	340.9	343.4	346.8	350.3	358.8	376.2	400.3	427.0
50°	325.9	325.6	325.6	325.6	326.3	330.3	333.6	340.1	355.9	380.1	399.3
52.5°	310.1	308.6	308.6	309.2	310.5	313.0	315.1	322.2	336.0	355.9	373.2
55°	285.2	282.3	281.5	282.3	283.4	285.5	287.7	293.5	305.4	320.2	330.3
57.5°	257.6	256.0	255.1	255.2	255.8	257.5	259.2	265.5	274.8	282.6	289.1
60°	238.3	238.9	235.7	236.5	236.5	237.9	240.4	244.4	252.3	257.8	264.3
62.5°	220.1	219.0	218.1	217.1	217.1	217.6	221.0	224.1	230.9	233.8	238.8
65°	191.7	191.7	189.5	190.2	190.6	188.0	189.9	193.5	197.8	198.9	203.6
67.5°	163.0	161.9	160.7	159.7	159.7	159.4	160.3	162.1	165.4	165.8	169.4
70°	143.3	142.6	142.2	141.2	139.7	141.5	140.4	142.2	144.0	144.4	146.6
72.5°	124.2	123.6	122.9	121.8	121.2	121.0	121.1	123.2	124.4	123.9	126.3
75°	97.1	96.4	95.7	93.9	93.9	92.7	93.1	94.5	96.0	94.9	97.1
77.5°	71.4	69.1	69.0	69.5	68.2	68.4	68.1	67.8	68.4	68.5	70.5
80°	54.9	52.3	53.1	52.7	52.3	52.0	51.3	51.7	52.0	52.3	53.4
82.5°	39.6	39.3	38.6	38.5	38.2	37.2	36.9	37.5	37.8	37.6	38.5
85°	20.2	19.1	19.9	19.5	19.9	19.5	18.4	18.4	19.1	18.8	19.5
87.5°	12.1	11.9	10.9	10.5	9.5	9.0	8.2	7.9	7.6	7.2	7.2
90°	30.2	29.1	25.5	22.1	18.6	15.1	12.0	9.3	6.6	3.9	1.2
92.5°	32.7	31.0	28.4	25.7	23.1	20.5	19.5	20.3	21.0	21.8	22.5
95°	39.5	37.6	34.6	31.7	28.7	25.7	29.8	40.8	51.8	62.9	73.9
97.5°	41.2	39.0	58.4	77.9	97.2	116.6	128.8	133.7	138.6	143.6	148.5
100°	42.1	40.0	82.0	124.0	166.1	208.0	226.4	220.9	215.6	210.2	204.8
102.5°	73.0	79.7	125.6	171.5	217.4	263.3	284.4	280.4	276.5	272.7	268.8
105°	217.7	265.4	289.6	313.9	338.1	362.4	373.0	370.0	367.1	364.1	361.2
107.5°	451.5	486.4	482.7	478.8	475.0	471.2	468.1	465.7	463.4	461.0	458.6
110°	537.7	546.6	543.7	540.6	537.7	534.7	532.2	530.0	527.8	525.8	523.6



TEST NUMBER: P332138-830

CATALOG NUMBER: S123DIW-S560D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	607.8	607.7	604.7	601.7	598.8	595.8	593.3	591.4	589.5	587.6	585.6
115°	698.3	695.7	693.2	690.8	688.3	686.0	683.9	682.3	680.7	679.1	677.5
117.5°	783.2	781.0	779.8	778.5	777.2	776.0	774.4	772.4	770.4	768.5	766.5
120°	838.4	836.2	835.5	834.6	833.8	833.0	831.4	829.0	826.5	824.2	821.7
122.5°	893.1	891.6	890.5	889.5	888.4	887.4	885.9	883.9	881.9	880.0	878.0
125°	970.1	969.6	968.5	967.4	966.3	965.3	963.7	961.5	959.3	957.2	955.0
127.5°	1046.0	1045.2	1043.9	1042.6	1041.3	1040.0	1038.3	1036.1	1034.0	1031.8	1029.6
130°	1091.8	1090.7	1089.7	1088.6	1087.5	1086.5	1084.9	1082.7	1080.5	1078.4	1076.2
132.5°	1135.5	1134.3	1133.5	1132.7	1131.8	1131.0	1129.4	1127.3	1125.1	1122.9	1120.8
135°	1201.8	1201.1	1200.0	1198.9	1197.8	1196.7	1195.4	1193.7	1192.1	1190.5	1188.9
137.5°	1260.3	1259.0	1258.4	1257.8	1257.2	1256.6	1255.3	1253.2	1251.2	1249.2	1247.1
140°	1297.9	1296.8	1296.0	1295.1	1294.4	1293.5	1292.3	1290.7	1289.1	1287.5	1285.9
142.5°	1333.5	1332.7	1331.8	1331.1	1330.2	1329.5	1328.2	1326.6	1325.0	1323.3	1321.7
145°	1383.4	1382.8	1382.3	1381.8	1381.2	1380.6	1379.5	1377.6	1375.7	1373.9	1372.0
147.5°	1427.8	1427.2	1426.6	1426.1	1425.6	1425.0	1424.2	1422.9	1421.6	1420.4	1419.2
150°	1454.9	1454.3	1453.8	1453.2	1452.7	1452.2	1451.5	1450.7	1449.9	1449.1	1448.3
152.5°	1478.6	1477.6	1477.2	1477.0	1476.7	1476.3	1475.9	1475.6	1475.2	1474.8	1474.4
155°	1511.5	1510.0	1509.9	1509.6	1509.3	1509.0	1509.1	1509.7	1510.2	1510.8	1511.3
157.5°	1540.0	1538.4	1538.7	1539.0	1539.3	1539.5	1539.6	1539.7	1539.8	1539.8	1539.9
160°	1556.5	1554.9	1555.2	1555.5	1555.8	1556.0	1556.2	1556.5	1556.8	1557.1	1557.4
162.5°	1571.3	1569.4	1569.7	1570.0	1570.3	1570.6	1571.0	1571.7	1572.4	1573.1	1573.9
165°	1591.0	1588.8	1589.1	1589.4	1589.7	1590.0	1590.4	1591.3	1592.0	1592.9	1593.7
167.5°	1606.6	1604.4	1604.4	1604.4	1604.4	1604.4	1604.9	1606.0	1607.0	1608.2	1609.2
170°	1615.2	1613.1	1613.1	1613.1	1613.1	1613.1	1613.6	1614.8	1615.8	1616.8	1618.0
172.5°	1621.1	1618.9	1618.7	1618.5	1618.3	1618.1	1618.6	1619.9	1621.2	1622.5	1623.8
175°	1628.3	1626.5	1626.2	1625.9	1625.6	1625.3	1625.9	1627.2	1628.6	1629.9	1631.3
177.5°	1631.1	1629.4	1629.1	1628.9	1628.7	1628.5	1628.9	1630.0	1631.1	1632.1	1633.2
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3



TEST NUMBER: P332138-830

CATALOG NUMBER: S123DIW-S560D1320U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1	745.1
2.5°	749.7	751.1	756.0	759.5	763.6	765.9	768.2	770.0	772.2	772.8	781.2
5°	753.0	760.3	772.9	782.2	793.8	806.4	815.1	819.1	829.5	838.2	855.5
7.5°	752.1	767.4	786.6	806.3	827.6	847.2	864.2	884.4	898.8	920.4	941.7
10°	751.2	771.8	796.4	821.6	851.2	878.6	903.2	930.7	953.4	983.4	1009.0
12.5°	748.7	773.5	807.6	837.4	873.5	911.3	947.6	982.9	1003.1	1052.9	1076.6
15°	742.2	771.8	814.4	859.9	909.4	954.1	1000.3	1037.1	1096.6	1140.4	1168.2
17.5°	729.9	771.4	821.9	876.8	936.9	995.9	1048.2	1104.1	1167.3	1220.1	1276.5
20°	724.2	769.6	826.0	886.6	949.0	1015.8	1075.3	1142.6	1211.4	1263.5	1335.7
22.5°	713.5	765.0	825.7	893.2	960.0	1029.1	1098.8	1166.5	1246.1	1317.8	1386.5
25°	696.0	753.8	816.5	892.0	970.3	1039.6	1123.0	1213.0	1296.0	1388.0	1456.6
27.5°	677.7	739.3	802.3	872.4	956.7	1039.0	1143.9	1245.4	1346.9	1426.4	1477.2
30°	663.5	723.4	788.4	859.1	942.5	1040.4	1157.7	1268.5	1367.4	1435.7	1464.1
32.5°	648.2	709.0	766.5	840.7	929.5	1039.5	1166.4	1282.0	1368.6	1414.0	1408.4
35°	624.2	675.0	731.0	802.5	907.2	1033.1	1171.4	1283.3	1336.3	1326.6	1253.0
37.5°	589.5	632.4	687.4	765.6	881.2	1019.8	1161.3	1245.3	1241.8	1162.4	1055.7
40°	567.9	604.3	657.3	739.7	860.9	1011.2	1145.4	1200.0	1153.8	1042.9	915.1
42.5°	539.5	573.1	626.1	710.8	838.8	993.5	1115.1	1130.9	1040.5	912.9	795.9
45°	495.7	525.3	580.1	667.5	805.4	955.2	1041.1	1002.5	880.8	749.0	659.9
47.5°	448.5	479.3	532.1	621.8	757.1	897.5	938.4	856.3	731.3	624.5	542.6
50°	418.8	448.4	499.9	590.6	724.5	850.2	867.1	761.0	646.2	552.3	485.1
52.5°	388.7	416.6	467.3	558.3	686.4	795.2	784.8	676.7	571.1	491.1	438.4
55°	344.0	370.4	418.8	504.0	620.6	706.8	668.9	565.7	478.3	416.2	376.2
57.5°	304.1	329.3	371.0	448.0	549.3	608.6	560.4	473.4	404.0	356.2	326.3
60°	276.9	299.3	338.9	410.5	498.5	543.7	496.0	419.1	360.6	322.3	295.7
62.5°	251.2	270.7	307.5	372.3	448.8	486.7	438.6	373.4	323.7	289.7	267.0
65°	212.3	230.0	262.4	313.0	375.8	401.1	359.6	306.8	268.2	243.0	227.8
67.5°	176.7	191.7	219.8	259.6	305.9	324.2	292.7	251.8	222.7	202.5	190.4
70°	153.1	166.1	188.0	222.3	264.3	278.3	248.7	215.2	193.9	177.6	166.5
72.5°	133.1	142.7	162.7	189.2	224.1	235.3	214.6	185.1	165.2	153.1	144.2
75°	101.4	109.3	122.3	143.6	167.9	174.4	158.8	140.4	127.1	118.4	111.5
77.5°	73.1	79.0	88.4	101.5	118.3	124.1	114.3	102.0	92.3	86.4	82.6
80°	55.2	59.9	67.9	78.7	88.8	92.1	86.2	76.9	70.0	66.8	63.5
82.5°	40.8	43.5	48.3	55.6	62.5	66.4	61.5	55.8	52.1	49.2	48.0
85°	20.5	22.1	24.2	27.1	31.4	32.9	31.0	29.6	27.4	25.6	25.6
87.5°	8.3	8.9	10.3	11.3	13.1	14.7	15.1	15.3	15.6	15.6	15.5
90°	3.9	6.6	9.3	12.0	15.1	18.6	22.1	25.5	29.1	30.2	31.2
92.5°	21.8	21.0	20.3	19.5	20.5	23.1	25.7	28.4	31.0	32.7	34.5
95°	62.9	51.8	40.8	29.8	25.7	28.7	31.7	34.6	37.6	39.5	41.4
97.5°	143.6	138.6	133.7	128.8	116.6	97.2	77.9	58.4	39.0	41.2	43.4
100°	210.2	215.6	220.9	226.4	208.0	166.1	124.0	82.0	40.0	42.1	44.3
102.5°	272.7	276.5	280.4	284.4	263.3	217.4	171.5	125.6	79.7	73.0	66.4
105°	364.1	367.1	370.0	373.0	362.4	338.1	313.9	289.6	265.4	217.7	170.0
107.5°	461.0	463.4	465.7	468.1	471.2	475.0	478.8	482.7	486.4	451.5	416.6
110°	525.8	527.8	530.0	532.2	534.7	537.7	540.6	543.7	546.6	537.7	528.8



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	587.6	589.5	591.4	593.3	595.8	598.8	601.7	604.7	607.7	607.8	608.0
115°	679.1	680.7	682.3	683.9	686.0	688.3	690.8	693.2	695.7	698.3	701.1
117.5°	768.5	770.4	772.4	774.4	776.0	777.2	778.5	779.8	781.0	783.2	785.3
120°	824.2	826.5	829.0	831.4	833.0	833.8	834.6	835.5	836.2	838.4	840.6
122.5°	880.0	881.9	883.9	885.9	887.4	888.4	889.5	890.5	891.6	893.1	894.6
125°	957.2	959.3	961.5	963.7	965.3	966.3	967.4	968.5	969.6	970.1	970.6
127.5°	1031.8	1034.0	1036.1	1038.3	1040.0	1041.3	1042.6	1043.9	1045.2	1046.0	1046.9
130°	1078.4	1080.5	1082.7	1084.9	1086.5	1087.5	1088.6	1089.7	1090.7	1091.8	1092.9
132.5°	1122.9	1125.1	1127.3	1129.4	1131.0	1131.8	1132.7	1133.5	1134.3	1135.5	1136.5
135°	1190.5	1192.1	1193.7	1195.4	1196.7	1197.8	1198.9	1200.0	1201.1	1201.8	1202.7
137.5°	1249.2	1251.2	1253.2	1255.3	1256.6	1257.2	1257.8	1258.4	1259.0	1260.3	1261.6
140°	1287.5	1289.1	1290.7	1292.3	1293.5	1294.4	1295.1	1296.0	1296.8	1297.9	1298.9
142.5°	1323.3	1325.0	1326.6	1328.2	1329.5	1330.2	1331.1	1331.8	1332.7	1333.5	1334.4
145°	1373.9	1375.7	1377.6	1379.5	1380.6	1381.2	1381.8	1382.3	1382.8	1383.4	1383.9
147.5°	1420.4	1421.6	1422.9	1424.2	1425.0	1425.6	1426.1	1426.6	1427.2	1427.8	1428.2
150°	1449.1	1449.9	1450.7	1451.5	1452.2	1452.7	1453.2	1453.8	1454.3	1454.9	1455.4
152.5°	1474.8	1475.2	1475.6	1475.9	1476.3	1476.7	1477.0	1477.2	1477.6	1478.6	1479.5
155°	1510.8	1510.2	1509.7	1509.1	1509.0	1509.3	1509.6	1509.9	1510.0	1511.5	1512.8
157.5°	1539.8	1539.8	1539.7	1539.6	1539.5	1539.3	1539.0	1538.7	1538.4	1540.0	1541.7
160°	1557.1	1556.8	1556.5	1556.2	1556.0	1555.8	1555.5	1555.2	1554.9	1556.5	1558.1
162.5°	1573.1	1572.4	1571.7	1571.0	1570.6	1570.3	1570.0	1569.7	1569.4	1571.3	1573.1
165°	1592.9	1592.0	1591.3	1590.4	1590.0	1589.7	1589.4	1589.1	1588.8	1591.0	1593.2
167.5°	1608.2	1607.0	1606.0	1604.9	1604.4	1604.4	1604.4	1604.4	1604.4	1606.6	1608.7
170°	1616.8	1615.8	1614.8	1613.6	1613.1	1613.1	1613.1	1613.1	1613.1	1615.2	1617.4
172.5°	1622.5	1621.2	1619.9	1618.6	1618.1	1618.3	1618.5	1618.7	1618.9	1621.1	1623.2
175°	1629.9	1628.6	1627.2	1625.9	1625.3	1625.6	1625.9	1626.2	1626.5	1628.3	1630.2
177.5°	1632.1	1631.1	1630.0	1628.9	1628.5	1628.7	1628.9	1629.1	1629.4	1631.1	1632.8
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	745.1	745.1	745.1	745.1	745.1	745.1	745.1
2.5°	784.1	784.4	787.5	789.9	788.7	790.1	790.7
5°	856.6	869.6	876.5	881.6	881.9	882.2	885.1
7.5°	959.5	973.5	983.6	999.1	1003.7	1009.0	1007.5
10°	1034.6	1055.2	1072.9	1082.2	1092.3	1107.1	1095.2
12.5°	1104.8	1141.2	1168.2	1182.7	1192.3	1195.2	1189.4
15°	1220.5	1268.2	1293.8	1293.1	1325.6	1339.6	1317.6
17.5°	1326.6	1370.6	1405.8	1423.9	1451.0	1457.0	1454.2
20°	1391.6	1439.6	1467.1	1498.1	1512.2	1524.8	1527.0
22.5°	1447.7	1490.7	1520.2	1546.1	1557.8	1563.8	1567.4
25°	1505.3	1539.3	1557.0	1565.9	1569.2	1568.5	1563.8
27.5°	1501.4	1503.9	1484.5	1465.4	1448.2	1428.9	1422.3
30°	1462.4	1432.0	1377.9	1347.2	1302.1	1266.3	1280.8
32.5°	1359.8	1299.5	1238.7	1171.6	1116.1	1100.3	1084.4
35°	1160.6	1054.4	992.4	920.2	891.3	862.4	842.5
37.5°	939.0	856.9	783.2	735.9	707.0	688.8	678.9
40°	811.9	737.8	677.2	638.9	616.9	596.3	593.4
42.5°	710.5	641.7	596.1	565.6	544.4	535.7	529.3
45°	581.9	533.9	503.2	481.5	467.5	462.0	454.9
47.5°	492.6	458.6	435.5	420.8	410.2	406.1	405.6
50°	442.6	414.4	397.5	385.9	377.6	376.2	370.4
52.5°	405.0	380.6	367.4	357.3	351.3	347.2	345.5
55°	351.6	335.4	323.5	317.6	313.0	309.0	309.0
57.5°	307.6	294.1	286.2	281.3	279.8	277.0	275.2
60°	280.5	268.9	262.8	258.4	255.6	255.9	252.7
62.5°	253.9	246.4	240.5	236.2	232.8	232.8	233.1
65°	216.2	210.5	206.1	204.7	202.6	200.0	200.7
67.5°	183.2	177.9	174.5	172.0	171.3	169.8	172.0
70°	159.6	155.6	153.1	150.9	150.1	150.5	152.3
72.5°	137.9	135.1	133.5	132.4	130.8	130.9	132.1
75°	108.3	106.1	104.7	103.6	103.2	103.2	103.2
77.5°	79.6	79.1	78.4	76.8	76.9	77.3	77.4
80°	62.8	61.7	61.4	60.6	59.6	58.8	60.6
82.5°	46.9	45.8	45.5	45.3	43.6	43.5	45.1
85°	25.3	24.2	24.5	24.2	24.2	23.8	23.8
87.5°	15.5	15.4	15.2	15.6	15.5	15.3	15.9
90°	32.3	33.4	34.2	34.8	35.3	35.8	36.4
92.5°	36.2	37.9	38.9	39.3	39.6	39.9	40.2
95°	43.3	45.1	46.1	46.1	46.1	46.1	46.1
97.5°	45.5	47.6	48.8	49.1	49.4	49.7	50.0
100°	46.5	48.6	49.9	50.0	50.3	50.6	50.9
102.5°	59.7	53.1	50.0	50.4	50.9	51.4	51.8
105°	122.4	74.7	51.2	51.7	52.2	52.8	53.3
107.5°	381.6	346.7	311.2	275.3	239.3	203.4	167.5
110°	519.9	511.0	487.3	448.8	410.3	371.8	333.3



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	608.1	608.3	604.4	596.2	588.1	579.9	571.8
115°	703.7	706.4	708.3	709.4	710.5	711.5	712.7
117.5°	787.4	789.6	790.8	791.0	791.2	791.5	791.6
120°	842.7	844.9	845.9	845.9	845.9	845.9	845.9
122.5°	896.1	897.6	898.4	898.6	898.8	899.1	899.3
125°	971.2	971.7	972.2	972.8	973.4	973.8	974.4
127.5°	1047.7	1048.7	1048.8	1048.3	1047.7	1047.2	1046.6
130°	1094.0	1095.0	1095.3	1094.8	1094.3	1093.7	1093.2
132.5°	1137.6	1138.7	1138.9	1138.1	1137.4	1136.6	1135.9
135°	1203.4	1204.3	1204.3	1203.4	1202.7	1201.8	1201.1
137.5°	1262.8	1264.1	1264.5	1263.9	1263.5	1262.9	1262.3
140°	1300.0	1301.1	1301.4	1300.8	1300.2	1299.8	1299.2
142.5°	1335.2	1336.1	1336.1	1335.4	1334.6	1333.9	1333.1
145°	1384.4	1385.0	1385.3	1385.3	1385.3	1385.3	1385.3
147.5°	1428.8	1429.4	1429.0	1427.8	1426.5	1425.3	1424.0
150°	1455.9	1456.5	1456.3	1455.6	1454.7	1454.0	1453.1
152.5°	1480.5	1481.5	1481.4	1480.1	1478.8	1477.6	1476.4
155°	1514.1	1515.5	1515.3	1513.7	1512.1	1510.5	1508.9
157.5°	1543.3	1544.9	1544.6	1542.6	1540.5	1538.3	1536.3
160°	1559.8	1561.4	1561.2	1559.3	1557.5	1555.6	1553.7
162.5°	1575.0	1576.8	1576.9	1575.2	1573.6	1571.9	1570.2
165°	1595.3	1597.5	1597.6	1595.7	1593.8	1592.0	1590.1
167.5°	1610.8	1613.0	1613.0	1610.8	1608.7	1606.6	1604.4
170°	1619.6	1621.7	1621.7	1619.6	1617.4	1615.2	1613.1
172.5°	1625.4	1627.6	1627.4	1625.0	1622.7	1620.3	1618.0
175°	1632.1	1634.0	1633.8	1631.7	1629.6	1627.4	1625.2
177.5°	1634.6	1636.3	1636.1	1633.9	1631.7	1629.6	1627.4
180°	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3	1631.3

(END OF REPORT)