

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: P332210-940

Luminaire Tested: **S123DIW-S1165D460U940-4F0-1E-UDD-A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332210-940  
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-S1165D460U940-4F0-1E-UDD-A  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER  
UPLIGHT 460 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6011.7 lumens  
Efficiency: N/A  
Efficacy: 114.7 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-Direct

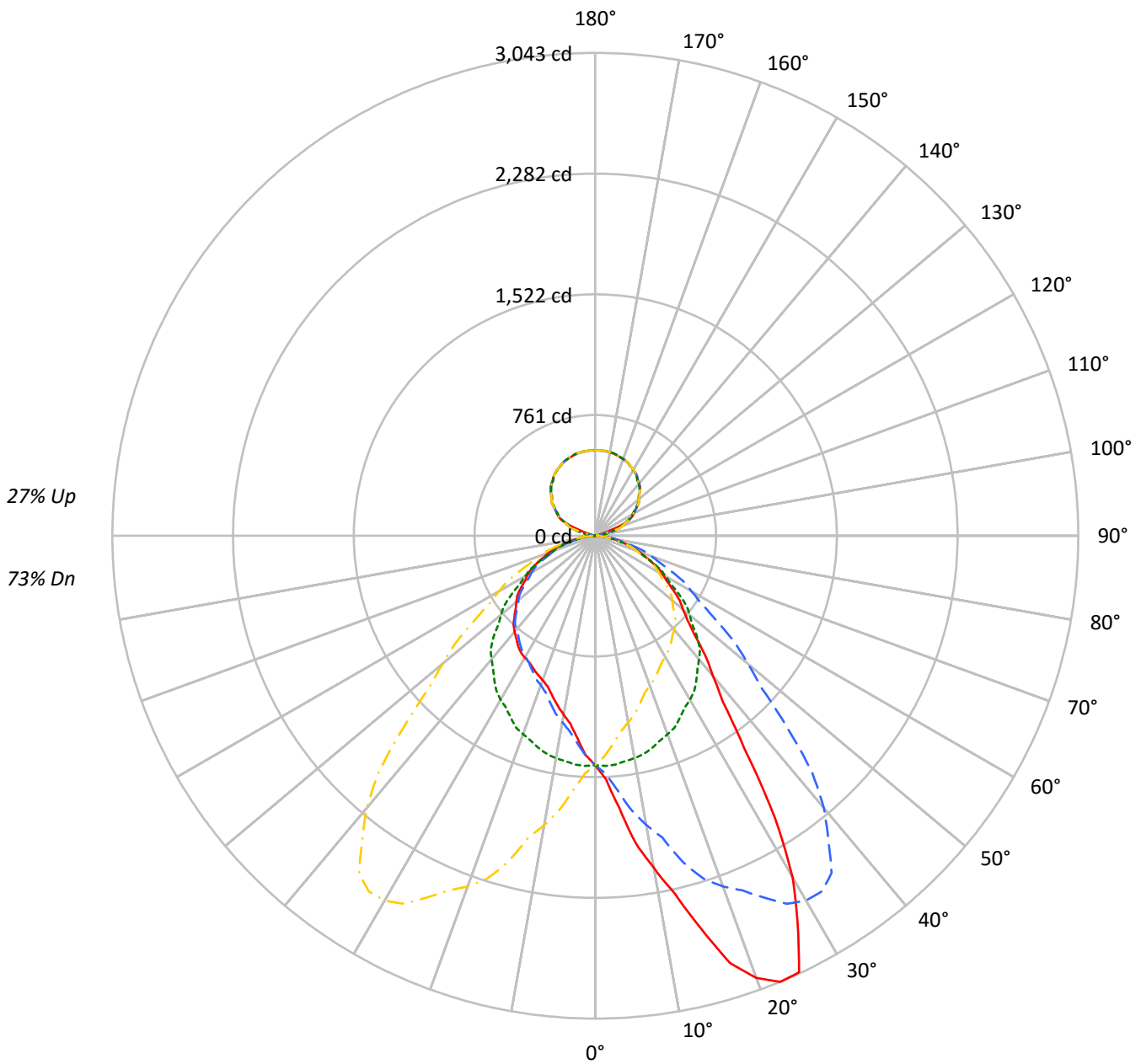
Input Watts (W): 52.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot



— 0°-180°    - - - 45°-225°    - · - · 90°-270°    - · - · 135°-315°



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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	50	30	10	0		
RCR																										
0	113	113	113	113	107	107	107	107	96	96	96	86	86	86	77	77	77	77	77	77	77	77	77	73		
1	103	99	95	92	98	94	91	88	85	82	80	76	74	73	69	67	66	66	66	66	66	66	66	62		
2	94	87	81	75	89	83	77	73	75	71	67	68	64	61	61	58	56	56	56	56	56	56	56	53		
3	86	77	69	63	82	73	66	61	66	61	57	60	56	52	54	51	48	48	48	48	48	48	48	45		
4	79	68	60	54	75	65	58	52	59	53	49	54	49	45	49	45	42	42	42	42	42	42	42	39		
5	73	61	53	47	69	58	51	45	53	47	42	48	43	39	44	40	37	37	37	37	37	37	37	34		
6	67	55	47	41	64	53	45	39	48	42	37	44	39	35	40	36	32	32	32	32	32	32	32	30		
7	62	50	42	36	59	48	40	35	44	37	33	40	35	31	37	32	29	29	29	29	29	29	29	26		
8	58	45	37	32	55	44	36	31	40	34	29	37	31	28	34	29	26	26	26	26	26	26	26	24		
9	54	42	34	29	51	40	33	28	37	31	26	34	29	25	31	27	23	23	23	23	23	23	23	21		
10	51	38	31	26	48	37	30	25	34	28	24	31	26	23	29	24	21	21	21	21	21	21	21	19		

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

	0°	90°	180°	270°
0°	15569	15569	15569	15569
5°	18567	15637	13857	15637
10°	23240	15557	12516	15557
15°	28505	15432	11652	15432
20°	33956	15237	11094	15237
25°	36056	14998	10969	14998
30°	30904	14825	11028	14825
35°	21494	14578	11143	14578
40°	16190	14289	11108	14289
45°	13443	13857	10966	13857
50°	12042	12980	10868	12980
55°	11258	12033	10732	12033
60°	10559	11044	10622	11044
65°	9926	10068	10282	10068
70°	9309	8954	9791	8954
75°	8339	7839	8979	7839
80°	7296	6428	7736	6428
85°	5718	4668	5199	4668



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.5	2.4
10°-20°	456.9	7.6
20°-30°	766.8	12.8
30°-40°	868.3	14.4
40°-50°	778.6	13.0
50°-60°	628.3	10.5
60°-70°	437.9	7.3
70°-80°	230.1	3.8
80°-90°	57.8	1.0
90°-100°	19.6	0.3
100°-110°	93.4	1.6
110°-120°	224.4	3.7
120°-130°	285.8	4.8
130°-140°	305.4	5.1
140°-150°	285.5	4.7
150°-160°	230.3	3.8
160°-170°	148.7	2.5
170°-180°	51.2	0.9
0°-30°	1366.2	22.7
0°-40°	2234.5	37.2
0°-60°	3641.5	60.6
0°-90°	4367.3	72.6
90°-120°	337.5	5.6
90°-150°	1214.2	20.2
90°-180°	1644.0	27.3
0°-180°	6011.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1446	1446	1446	1446	1446	
5°	1718	1447	1282	1447	1718	178
15°	2558	1385	1046	1385	2558	739
25°	3036	1263	924	1263	3036	1331
35°	1636	1109	848	1109	1636	1063
45°	883	910	720	910	883	699
55°	600	641	572	641	600	538
65°	390	395	404	395	390	388
75°	200	188	216	188	200	215
85°	46	38	42	38	46	55
90°	12	0	12	0	12	8
95°	15	24	15	24	15	13
105°	18	119	18	119	18	40
115°	236	224	236	224	236	218
125°	322	316	322	316	322	288
135°	397	393	397	393	397	306
145°	458	454	458	454	458	286
155°	499	500	499	500	499	230
165°	526	527	526	527	526	148
175°	537	539	537	539	537	51
180°	539	539	539	539	539	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1535.1	1533.9	1531.2	1533.4	1528.9	1522.7	1522.2	1516.5	1500.3	1499.1	1494.7
5°	1718.4	1712.8	1712.1	1711.4	1701.6	1688.3	1663.0	1660.9	1627.3	1610.4	1590.2
7.5°	1955.8	1958.7	1948.6	1939.6	1909.6	1889.8	1862.8	1828.2	1786.8	1744.9	1717.0
10°	2126.3	2149.4	2120.7	2101.0	2082.9	2048.4	2008.6	1958.7	1909.0	1850.8	1806.7
12.5°	2309.1	2320.4	2314.6	2296.2	2267.8	2215.5	2144.7	2090.0	2044.2	1947.3	1908.2
15°	2558.0	2600.8	2573.4	2510.3	2511.7	2461.9	2369.5	2267.8	2213.9	2129.0	2013.5
17.5°	2823.2	2828.5	2816.8	2764.3	2729.3	2660.9	2575.5	2478.1	2368.7	2266.2	2143.5
20°	2964.4	2960.2	2935.7	2908.4	2848.1	2794.9	2701.6	2593.0	2452.8	2352.0	2218.0
22.5°	3043.0	3035.9	3024.3	3001.4	2951.3	2894.0	2810.4	2691.7	2558.2	2419.2	2264.6
25°	3035.9	3045.0	3046.4	3040.1	3022.6	2988.3	2922.4	2827.8	2694.7	2516.0	2354.7
27.5°	2761.2	2774.1	2811.6	2844.7	2881.9	2919.7	2914.6	2867.7	2769.2	2614.9	2417.8
30°	2486.4	2458.4	2527.8	2615.5	2675.0	2780.1	2839.0	2842.5	2787.1	2654.7	2462.6
32.5°	2105.2	2136.1	2166.8	2274.6	2404.8	2522.8	2640.0	2734.3	2745.1	2656.9	2489.0
35°	1635.7	1674.3	1730.3	1786.4	1926.5	2047.1	2253.1	2432.5	2575.5	2594.4	2491.4
37.5°	1318.1	1337.1	1372.6	1428.8	1520.5	1663.5	1822.8	2049.6	2256.7	2410.8	2417.5
40°	1152.2	1157.7	1197.7	1240.5	1314.7	1432.4	1576.1	1776.6	2024.6	2239.8	2329.5
42.5°	1027.7	1040.0	1056.9	1098.1	1157.2	1245.8	1379.4	1545.0	1772.4	2020.0	2195.5
45°	883.1	897.1	907.6	934.9	977.0	1036.5	1129.7	1281.1	1454.2	1709.9	1946.2
47.5°	787.5	788.5	796.4	817.0	845.6	890.3	956.2	1053.5	1212.4	1419.9	1662.3
50°	719.1	730.2	733.1	749.1	771.6	804.5	859.2	941.9	1072.3	1254.5	1477.3
52.5°	670.8	674.2	682.1	693.7	713.3	739.0	786.3	851.0	953.4	1108.7	1313.6
55°	599.9	599.9	607.6	616.7	627.9	651.0	682.6	730.2	808.1	928.5	1098.1
57.5°	534.3	537.8	543.2	546.1	555.6	570.9	597.3	633.4	691.4	784.2	919.1
60°	490.5	496.9	496.1	501.8	510.2	522.1	544.6	574.0	625.8	700.1	813.7
62.5°	452.5	452.0	451.9	458.6	467.0	478.4	492.9	518.4	562.5	628.4	725.1
65°	389.7	388.3	393.2	397.3	400.2	408.6	419.8	442.2	471.6	520.7	595.7
67.5°	333.9	329.8	332.4	333.9	338.7	345.2	355.7	369.6	393.0	432.4	488.9
70°	295.8	292.2	291.5	292.9	297.1	302.0	309.8	323.1	344.8	376.3	417.7
72.5°	256.5	254.1	254.0	257.1	259.0	262.3	267.7	279.9	297.1	320.8	359.4
75°	200.5	200.5	200.5	201.2	203.2	206.1	210.3	216.5	229.9	246.6	272.6
77.5°	150.3	150.1	149.3	149.1	152.2	153.5	154.4	160.3	167.7	179.1	198.0
80°	117.7	114.2	115.7	117.7	119.1	119.8	122.0	123.3	129.7	136.0	149.3
82.5°	87.5	84.5	84.8	88.0	88.3	89.0	91.1	93.1	95.4	101.2	108.3
85°	46.3	46.3	47.0	47.0	47.6	47.0	49.0	49.8	49.8	53.2	57.4
87.5°	19.3	18.1	18.5	19.1	18.5	19.0	19.5	20.0	20.5	21.0	21.3
90°	12.0	11.9	11.7	11.5	11.3	11.1	10.7	10.3	10.0	9.6	8.5
92.5°	13.3	13.2	13.1	13.0	12.8	12.6	11.9	11.4	10.8	10.3	9.4
95°	15.2	15.2	15.2	15.2	15.2	14.9	14.3	13.6	13.0	12.4	11.4
97.5°	16.5	16.4	16.3	16.2	16.1	15.8	15.1	14.4	13.6	12.9	19.4
100°	16.9	16.8	16.7	16.6	16.5	16.1	15.3	14.6	13.9	13.2	27.1
102.5°	17.1	16.9	16.9	16.7	16.5	17.6	19.7	21.9	24.2	26.4	41.6
105°	17.7	17.5	17.3	17.1	16.9	24.7	40.5	56.2	72.0	87.7	95.8
107.5°	55.4	67.2	79.1	91.0	102.9	114.6	126.2	137.7	149.3	160.8	159.5
110°	110.2	122.9	135.6	148.4	161.1	168.9	171.8	174.8	177.7	180.7	179.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	189.0	191.7	194.4	197.1	199.7	201.1	201.0	201.0	200.9	200.9	199.9
115°	235.6	235.2	234.9	234.5	234.2	233.5	232.6	231.8	230.9	230.0	229.2
117.5°	261.7	261.6	261.5	261.4	261.4	261.0	260.3	259.6	258.9	258.2	257.8
120°	279.6	279.6	279.6	279.6	279.6	279.3	278.6	277.9	277.1	276.4	276.2
122.5°	297.3	297.2	297.1	297.0	296.9	296.7	296.2	295.7	295.2	294.7	294.4
125°	322.1	321.9	321.7	321.6	321.4	321.2	321.0	320.8	320.7	320.5	320.1
127.5°	346.0	346.2	346.3	346.5	346.7	346.6	346.3	346.1	345.8	345.5	345.1
130°	361.3	361.5	361.7	361.9	362.0	361.9	361.6	361.2	360.9	360.5	360.3
132.5°	375.5	375.7	375.9	376.2	376.5	376.4	376.0	375.7	375.3	375.0	374.7
135°	397.0	397.3	397.5	397.8	398.1	398.1	397.8	397.5	397.3	397.0	396.6
137.5°	417.3	417.5	417.7	417.9	418.0	417.9	417.4	417.1	416.6	416.2	416.0
140°	429.4	429.6	429.8	430.0	430.2	430.1	429.7	429.4	429.0	428.6	428.4
142.5°	440.7	441.0	441.2	441.4	441.7	441.7	441.4	441.1	440.8	440.5	440.2
145°	457.9	457.9	457.9	457.9	457.9	457.8	457.6	457.4	457.3	457.1	456.9
147.5°	470.7	471.2	471.5	472.0	472.3	472.5	472.3	472.2	472.0	471.8	471.6
150°	480.4	480.6	480.9	481.2	481.4	481.4	481.3	481.1	480.9	480.7	480.5
152.5°	488.0	488.5	488.8	489.3	489.6	489.7	489.4	489.1	488.7	488.5	488.3
155°	498.8	499.3	499.8	500.3	500.9	501.0	500.5	500.1	499.6	499.2	499.1
157.5°	507.8	508.5	509.3	509.9	510.6	510.7	510.1	509.6	509.1	508.5	508.6
160°	513.6	514.2	514.9	515.5	516.1	516.1	515.6	515.1	514.5	514.0	514.1
162.5°	519.1	519.6	520.1	520.7	521.3	521.2	520.7	520.0	519.4	518.8	518.9
165°	525.7	526.3	526.9	527.4	528.1	528.1	527.4	526.6	525.9	525.2	525.3
167.5°	530.4	531.1	531.8	532.4	533.2	533.2	532.4	531.8	531.1	530.4	530.4
170°	533.2	534.0	534.7	535.4	536.1	536.1	535.4	534.7	534.0	533.2	533.2
172.5°	534.8	535.7	536.4	537.2	538.0	538.0	537.3	536.5	535.8	535.1	535.1
175°	537.3	538.0	538.7	539.4	540.1	540.1	539.5	538.9	538.2	537.6	537.5
177.5°	538.0	538.7	539.4	540.1	540.8	540.9	540.3	539.8	539.1	538.6	538.5
180°	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1491.3	1486.8	1482.4	1474.5	1467.8	1458.2	1455.5	1452.1	1442.0	1433.1	1426.3
5°	1582.4	1565.6	1541.1	1518.7	1500.5	1476.0	1461.9	1447.2	1426.1	1407.2	1391.8
7.5°	1677.8	1644.7	1606.5	1565.3	1527.0	1490.0	1460.1	1433.4	1404.0	1376.1	1354.4
10°	1753.5	1705.8	1652.5	1595.1	1546.0	1498.3	1458.4	1423.3	1385.5	1352.5	1325.3
12.5°	1839.8	1769.2	1695.7	1625.9	1567.9	1501.7	1453.3	1408.8	1365.9	1326.2	1295.6
15°	1942.0	1852.3	1765.3	1669.4	1581.0	1498.3	1440.9	1384.8	1335.1	1294.4	1255.2
17.5°	2035.1	1933.4	1818.9	1702.1	1595.6	1497.5	1417.0	1353.7	1291.5	1241.7	1202.6
20°	2087.8	1972.1	1842.5	1721.2	1603.5	1494.2	1405.9	1330.2	1262.8	1210.3	1166.2
22.5°	2133.2	1997.9	1863.8	1734.1	1602.9	1485.1	1385.1	1307.2	1234.3	1182.9	1135.9
25°	2180.2	2018.4	1883.8	1731.7	1585.3	1463.3	1351.2	1262.8	1190.0	1129.7	1081.4
27.5°	2220.6	2017.0	1857.3	1693.7	1557.5	1435.3	1315.5	1220.8	1143.4	1078.0	1028.9
30°	2247.5	2019.7	1829.8	1667.9	1530.6	1404.4	1288.1	1192.8	1111.5	1044.9	998.6
32.5°	2264.3	2018.0	1804.6	1632.1	1488.0	1376.4	1258.4	1159.7	1076.2	1010.8	966.2
35°	2274.1	2005.7	1761.1	1557.9	1419.2	1310.5	1211.7	1109.4	1021.8	960.8	910.3
37.5°	2254.5	1979.8	1710.7	1486.4	1334.5	1227.5	1144.4	1057.2	973.4	906.3	862.8
40°	2223.7	1963.0	1671.4	1436.0	1276.2	1173.1	1102.4	1016.9	934.2	870.4	829.7
42.5°	2164.8	1928.8	1628.3	1379.9	1215.7	1112.6	1047.4	976.0	897.8	837.9	797.3
45°	2021.2	1854.3	1563.5	1295.8	1126.2	1019.7	962.2	910.3	839.5	781.4	746.4
47.5°	1821.9	1742.4	1469.9	1207.1	1032.9	930.4	870.7	828.9	777.2	730.2	696.6
50°	1683.4	1650.4	1406.5	1146.6	970.6	870.4	813.0	775.1	738.0	691.0	660.1
52.5°	1523.6	1543.9	1332.6	1083.7	907.3	808.8	754.7	724.6	690.9	652.3	625.4
55°	1298.6	1372.2	1204.7	978.3	813.0	719.1	667.9	641.2	621.6	592.9	569.8
57.5°	1088.0	1181.6	1066.5	869.7	720.3	639.3	590.2	561.2	548.6	533.6	515.4
60°	963.0	1055.4	967.9	796.8	658.1	580.9	537.5	513.0	500.3	489.9	474.5
62.5°	851.3	944.9	871.4	722.8	596.9	525.5	487.6	463.7	453.9	448.4	435.2
65°	698.0	778.6	729.5	607.6	509.5	446.4	412.1	395.3	386.1	384.1	375.7
67.5°	568.1	629.5	593.7	504.0	426.8	372.3	343.1	328.9	321.8	321.1	314.8
70°	482.9	540.3	513.0	431.7	365.2	322.4	297.1	284.5	280.4	279.6	276.2
72.5°	416.7	456.8	435.1	367.2	315.8	277.0	258.4	245.3	240.5	241.5	239.2
75°	308.4	338.5	325.9	278.9	237.6	212.3	196.9	188.5	184.3	186.5	183.6
77.5°	221.9	240.9	229.6	197.1	171.6	153.4	142.0	136.8	133.0	132.9	131.6
80°	167.5	178.7	172.4	152.8	131.8	116.4	107.2	103.7	101.7	100.9	100.2
82.5°	119.3	128.9	121.4	107.9	93.6	84.4	79.2	74.5	73.0	73.5	72.8
85°	60.3	63.8	61.0	52.5	47.0	42.7	39.9	37.8	36.5	37.2	35.8
87.5°	22.2	22.6	20.6	18.2	16.9	15.0	14.8	13.6	12.6	12.8	12.4
90°	7.3	6.2	5.0	3.9	3.0	2.1	1.2	0.4	1.2	2.1	3.0
92.5°	8.5	7.7	6.8	6.4	6.7	7.0	7.2	7.5	7.2	7.0	6.7
95°	10.4	9.5	8.5	9.8	13.5	17.1	20.8	24.4	20.8	17.1	13.5
97.5°	25.7	32.1	38.5	42.5	44.2	45.8	47.4	49.1	47.4	45.8	44.2
100°	41.0	54.9	68.8	74.8	73.0	71.2	69.5	67.7	69.5	71.2	73.0
102.5°	56.7	71.9	87.0	94.0	92.7	91.4	90.2	88.8	90.2	91.4	92.7
105°	103.8	111.7	119.8	123.3	122.3	121.4	120.4	119.4	120.4	121.4	122.3
107.5°	158.3	157.0	155.8	154.7	153.9	153.2	152.4	151.6	152.4	153.2	153.9
110°	178.7	177.7	176.7	175.9	175.2	174.5	173.8	173.1	173.8	174.5	175.2





TEST NUMBER: P332210-940

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	198.9	198.0	197.0	196.2	195.5	194.8	194.2	193.6	194.2	194.8	195.5
115°	228.4	227.6	226.8	226.0	225.5	225.0	224.4	223.9	224.4	225.0	225.5
117.5°	257.3	256.9	256.5	256.0	255.3	254.7	254.0	253.3	254.0	254.7	255.3
120°	275.9	275.6	275.4	274.8	274.0	273.2	272.4	271.6	272.4	273.2	274.0
122.5°	294.0	293.7	293.4	292.8	292.2	291.5	290.9	290.3	290.9	291.5	292.2
125°	319.8	319.4	319.1	318.5	317.8	317.1	316.4	315.7	316.4	317.1	317.8
127.5°	344.6	344.2	343.8	343.2	342.5	341.8	341.1	340.4	341.1	341.8	342.5
130°	359.9	359.5	359.2	358.6	357.9	357.2	356.5	355.8	356.5	357.2	357.9
132.5°	374.4	374.2	373.8	373.4	372.6	371.9	371.2	370.5	371.2	371.9	372.6
135°	396.3	395.9	395.6	395.1	394.6	394.0	393.5	393.0	393.5	394.0	394.6
137.5°	415.8	415.6	415.4	414.9	414.3	413.6	413.0	412.2	413.0	413.6	414.3
140°	428.1	427.8	427.6	427.2	426.7	426.1	425.6	425.1	425.6	426.1	426.7
142.5°	440.0	439.7	439.4	439.1	438.5	438.0	437.5	436.9	437.5	438.0	438.5
145°	456.7	456.6	456.4	456.0	455.4	454.8	454.1	453.5	454.1	454.8	455.4
147.5°	471.4	471.3	471.1	470.7	470.4	469.9	469.6	469.1	469.6	469.9	470.4
150°	480.4	480.2	480.0	479.8	479.6	479.3	479.0	478.8	479.0	479.3	479.6
152.5°	488.2	488.1	488.0	487.9	487.8	487.7	487.5	487.4	487.5	487.7	487.8
155°	499.0	498.9	498.8	498.9	499.1	499.2	499.4	499.5	499.4	499.2	499.1
157.5°	508.7	508.8	508.9	509.0	509.0	509.0	509.0	509.1	509.0	509.0	509.0
160°	514.2	514.2	514.3	514.4	514.5	514.6	514.7	514.8	514.7	514.6	514.5
162.5°	519.0	519.1	519.2	519.3	519.6	519.8	520.0	520.2	520.0	519.8	519.6
165°	525.4	525.5	525.6	525.8	526.0	526.3	526.6	526.8	526.6	526.3	526.0
167.5°	530.4	530.4	530.4	530.6	530.9	531.3	531.6	532.0	531.6	531.3	530.9
170°	533.2	533.2	533.2	533.4	533.8	534.1	534.5	534.8	534.5	534.1	533.8
172.5°	535.0	534.9	534.8	535.0	535.5	535.9	536.4	536.7	536.4	535.9	535.5
175°	537.4	537.3	537.3	537.4	537.9	538.3	538.8	539.2	538.8	538.3	537.9
177.5°	538.4	538.4	538.3	538.4	538.8	539.1	539.5	539.8	539.5	539.1	538.8
180°	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2



TEST NUMBER: P332210-940

CATALOG NUMBER: S123DIW-S1165D460U940-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1422.4	1418.4	1412.8	1404.4	1397.7	1387.1	1387.1	1388.8	1388.8	1388.2	1387.1
5°	1379.2	1368.7	1356.1	1341.4	1326.0	1310.5	1307.7	1302.1	1297.9	1295.1	1291.6
7.5°	1333.6	1315.0	1296.6	1276.0	1257.2	1241.7	1230.9	1221.9	1216.2	1210.1	1205.5
10°	1302.8	1279.7	1257.9	1236.3	1212.4	1193.5	1181.6	1173.1	1166.9	1161.3	1158.4
12.5°	1266.4	1239.9	1215.9	1195.3	1169.2	1149.8	1138.4	1134.4	1127.0	1115.3	1109.1
15°	1213.1	1188.6	1159.8	1128.3	1115.7	1091.9	1078.5	1072.3	1068.0	1058.9	1056.1
17.5°	1167.5	1135.4	1103.2	1079.7	1056.2	1036.9	1029.5	1021.6	1016.0	1008.6	1006.4
20°	1131.1	1102.4	1072.9	1047.8	1023.1	1002.2	995.9	990.2	984.6	981.1	978.3
22.5°	1094.1	1065.4	1041.0	1017.4	991.2	977.5	970.6	964.5	960.6	958.1	955.4
25°	1042.1	1016.9	989.5	968.5	947.5	938.3	934.2	930.7	927.9	924.3	923.6
27.5°	995.6	968.1	945.9	926.3	911.2	903.7	899.6	897.9	898.5	899.7	900.5
30°	960.8	935.6	917.4	900.5	886.5	879.5	878.8	878.8	881.6	882.3	883.7
32.5°	928.9	908.1	889.9	873.6	863.0	858.2	860.9	860.9	863.1	865.0	867.5
35°	882.3	864.1	850.1	836.1	827.0	829.0	830.5	831.9	835.4	839.5	842.4
37.5°	837.9	822.1	807.4	796.6	792.4	796.1	799.5	802.5	806.5	809.8	812.5
40°	805.9	794.0	780.0	770.2	771.6	773.7	776.5	780.0	783.5	785.6	788.5
42.5°	776.2	763.8	753.1	744.9	746.9	749.6	751.3	753.1	757.2	761.0	762.6
45°	730.9	721.1	711.3	706.4	707.8	709.3	710.6	712.7	716.2	719.1	719.7
47.5°	680.1	673.2	666.6	661.8	664.1	663.5	665.4	669.9	670.9	672.6	676.5
50°	647.6	641.2	633.6	632.1	632.1	632.1	632.8	638.5	638.5	641.2	644.1
52.5°	611.7	607.6	602.7	600.2	599.1	599.1	602.0	604.8	605.9	609.8	612.7
55°	558.6	554.4	550.1	548.0	546.6	548.0	553.7	555.0	558.6	560.6	562.8
57.5°	503.2	500.0	496.6	495.4	495.2	497.0	500.1	504.3	505.2	511.6	514.8
60°	466.7	461.8	459.1	459.1	457.6	464.0	462.5	469.6	470.9	475.2	480.1
62.5°	429.2	422.6	421.5	421.5	423.5	425.3	427.2	430.3	433.9	439.3	443.1
65°	368.6	365.2	370.1	369.3	367.9	372.1	372.1	375.7	379.9	384.8	392.4
67.5°	311.3	309.5	309.9	309.9	312.0	314.4	316.4	319.4	324.5	329.7	334.7
70°	272.6	274.7	271.3	274.0	276.2	276.8	278.2	282.4	288.0	291.5	297.1
72.5°	235.1	234.9	235.3	236.5	238.5	239.8	241.2	246.0	252.2	255.1	259.6
75°	180.8	180.1	182.2	182.2	185.7	187.1	188.5	190.6	196.3	200.5	203.9
77.5°	132.1	132.9	132.4	134.8	133.8	134.1	138.5	140.6	141.2	149.5	151.2
80°	99.5	100.9	101.7	102.3	103.0	101.7	106.6	108.6	108.6	113.5	117.0
82.5°	71.5	72.3	74.2	74.8	75.0	76.4	76.8	78.4	80.1	82.1	86.8
85°	35.8	37.8	38.5	37.8	38.5	37.2	39.2	39.9	40.7	40.7	40.7
87.5°	12.0	12.8	12.5	13.2	12.9	13.7	13.7	12.8	12.8	14.5	12.4
90°	3.9	5.0	6.2	7.3	8.5	9.6	10.0	10.3	10.7	11.1	11.3
92.5°	6.4	6.8	7.7	8.5	9.4	10.3	10.8	11.4	11.9	12.6	12.8
95°	9.8	8.5	9.5	10.4	11.4	12.4	13.0	13.6	14.3	14.9	15.2
97.5°	42.5	38.5	32.1	25.7	19.4	12.9	13.6	14.4	15.1	15.8	16.1
100°	74.8	68.8	54.9	41.0	27.1	13.2	13.9	14.6	15.3	16.1	16.5
102.5°	94.0	87.0	71.9	56.7	41.6	26.4	24.2	21.9	19.7	17.6	16.5
105°	123.3	119.8	111.7	103.8	95.8	87.7	72.0	56.2	40.5	24.7	16.9
107.5°	154.7	155.8	157.0	158.3	159.5	160.8	149.3	137.7	126.2	114.6	102.9
110°	175.9	176.7	177.7	178.7	179.7	180.7	177.7	174.8	171.8	168.9	161.1



TEST NUMBER: P332210-940

CATALOG NUMBER: S123DIW-S1165D460U940-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	196.2	197.0	198.0	198.9	199.9	200.9	200.9	201.0	201.0	201.1	199.7
115°	226.0	226.8	227.6	228.4	229.2	230.0	230.9	231.8	232.6	233.5	234.2
117.5°	256.0	256.5	256.9	257.3	257.8	258.2	258.9	259.6	260.3	261.0	261.4
120°	274.8	275.4	275.6	275.9	276.2	276.4	277.1	277.9	278.6	279.3	279.6
122.5°	292.8	293.4	293.7	294.0	294.4	294.7	295.2	295.7	296.2	296.7	296.9
125°	318.5	319.1	319.4	319.8	320.1	320.5	320.7	320.8	321.0	321.2	321.4
127.5°	343.2	343.8	344.2	344.6	345.1	345.5	345.8	346.1	346.3	346.6	346.7
130°	358.6	359.2	359.5	359.9	360.3	360.5	360.9	361.2	361.6	361.9	362.0
132.5°	373.4	373.8	374.2	374.4	374.7	375.0	375.3	375.7	376.0	376.4	376.5
135°	395.1	395.6	395.9	396.3	396.6	397.0	397.3	397.5	397.8	398.1	398.1
137.5°	414.9	415.4	415.6	415.8	416.0	416.2	416.6	417.1	417.4	417.9	418.0
140°	427.2	427.6	427.8	428.1	428.4	428.6	429.0	429.4	429.7	430.1	430.2
142.5°	439.1	439.4	439.7	440.0	440.2	440.5	440.8	441.1	441.4	441.7	441.7
145°	456.0	456.4	456.6	456.7	456.9	457.1	457.3	457.4	457.6	457.8	457.9
147.5°	470.7	471.1	471.3	471.4	471.6	471.8	472.0	472.2	472.3	472.5	472.3
150°	479.8	480.0	480.2	480.4	480.5	480.7	480.9	481.1	481.3	481.4	481.4
152.5°	487.9	488.0	488.1	488.2	488.3	488.5	488.7	489.1	489.4	489.7	489.6
155°	498.9	498.8	498.9	499.0	499.1	499.2	499.6	500.1	500.5	501.0	500.9
157.5°	509.0	508.9	508.8	508.7	508.6	508.5	509.1	509.6	510.1	510.7	510.6
160°	514.4	514.3	514.2	514.2	514.1	514.0	514.5	515.1	515.6	516.1	516.1
162.5°	519.3	519.2	519.1	519.0	518.9	518.8	519.4	520.0	520.7	521.2	521.3
165°	525.8	525.6	525.5	525.4	525.3	525.2	525.9	526.6	527.4	528.1	528.1
167.5°	530.6	530.4	530.4	530.4	530.4	530.4	531.1	531.8	532.4	533.2	533.2
170°	533.4	533.2	533.2	533.2	533.2	533.2	534.0	534.7	535.4	536.1	536.1
172.5°	535.0	534.8	534.9	535.0	535.1	535.1	535.8	536.5	537.3	538.0	538.0
175°	537.4	537.3	537.3	537.4	537.5	537.6	538.2	538.9	539.5	540.1	540.1
177.5°	538.4	538.3	538.4	538.4	538.5	538.6	539.1	539.8	540.3	540.9	540.8
180°	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2



TEST NUMBER: P332210-940

CATALOG NUMBER: S123DIW-S1165D460U940-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1383.1	1382.6	1386.5	1383.7	1386.5	1382.6	1383.1	1387.1	1388.2	1388.8	1388.8
5°	1287.4	1289.5	1282.5	1282.5	1282.5	1289.5	1287.4	1291.6	1295.1	1297.9	1302.1
7.5°	1202.2	1199.1	1199.4	1195.6	1199.4	1199.1	1202.2	1205.5	1210.1	1216.2	1221.9
10°	1150.0	1145.8	1144.4	1145.1	1144.4	1145.8	1150.0	1158.4	1161.3	1166.9	1173.1
12.5°	1106.9	1106.0	1096.8	1096.9	1096.8	1106.0	1106.9	1109.1	1115.3	1127.0	1134.4
15°	1056.1	1042.9	1041.4	1045.6	1041.4	1042.9	1056.1	1056.1	1058.9	1068.0	1072.3
17.5°	1005.2	998.3	998.6	996.6	998.6	998.3	1005.2	1006.4	1008.6	1016.0	1021.6
20°	978.3	974.1	973.4	968.5	973.4	974.1	978.3	978.3	981.1	984.6	990.2
22.5°	953.7	952.3	952.7	947.3	952.7	952.3	953.7	955.4	958.1	960.6	964.5
25°	923.0	926.5	923.6	923.6	923.6	926.5	923.0	923.6	924.3	927.9	930.7
27.5°	902.2	902.1	900.7	900.7	900.7	902.1	902.2	900.5	899.7	898.5	897.9
30°	886.5	885.8	887.3	887.3	887.3	885.8	886.5	883.7	882.3	881.6	878.8
32.5°	870.8	871.8	872.1	872.6	872.1	871.8	870.8	867.5	865.0	863.1	860.9
35°	846.6	847.3	849.4	848.0	849.4	847.3	846.6	842.4	839.5	835.4	831.9
37.5°	813.8	817.0	816.3	817.4	816.3	817.0	813.8	812.5	809.8	806.5	802.5
40°	789.1	791.2	790.5	790.5	790.5	791.2	789.1	788.5	785.6	783.5	780.0
42.5°	763.9	765.4	763.6	762.5	763.6	765.4	763.9	762.6	761.0	757.2	753.1
45°	722.6	721.1	723.3	720.4	723.3	721.1	722.6	719.7	719.1	716.2	712.7
47.5°	676.3	677.7	678.2	680.4	678.2	677.7	676.3	676.5	672.6	670.9	669.9
50°	645.4	649.6	649.6	649.0	649.6	649.6	645.4	644.1	641.2	638.5	638.5
52.5°	615.2	617.2	619.9	619.8	619.9	617.2	615.2	612.7	609.8	605.9	604.8
55°	568.4	569.8	571.1	571.9	571.1	569.8	568.4	562.8	560.6	558.6	555.0
57.5°	519.9	519.3	522.6	523.6	522.6	519.3	519.9	514.8	511.6	505.2	504.3
60°	485.6	485.6	491.2	493.4	491.2	485.6	485.6	480.1	475.2	470.9	469.6
62.5°	449.2	451.5	457.1	454.1	457.1	451.5	449.2	443.1	439.3	433.9	430.3
65°	395.9	401.5	400.8	403.7	400.8	401.5	395.9	392.4	384.8	379.9	375.7
67.5°	340.3	343.8	348.8	349.3	348.8	343.8	340.3	334.7	329.7	324.5	319.4
70°	302.7	306.2	309.1	311.1	309.1	306.2	302.7	297.1	291.5	288.0	282.4
72.5°	266.4	268.1	274.8	271.9	274.8	268.1	266.4	259.6	255.1	252.2	246.0
75°	208.8	213.7	217.9	215.9	217.9	213.7	208.8	203.9	200.5	196.3	190.6
77.5°	154.4	159.3	161.3	159.5	161.3	159.3	154.4	151.2	149.5	141.2	140.6
80°	122.0	121.3	125.5	124.8	125.5	121.3	122.0	117.0	113.5	108.6	108.6
82.5°	89.4	88.7	90.7	91.1	90.7	88.7	89.4	86.8	82.1	80.1	78.4
85°	43.4	45.6	42.7	42.1	42.7	45.6	43.4	40.7	40.7	40.7	39.9
87.5°	12.4	12.4	11.9	11.4	11.9	12.4	12.4	12.4	14.5	12.8	12.8
90°	11.5	11.7	11.9	12.0	11.9	11.7	11.5	11.3	11.1	10.7	10.3
92.5°	13.0	13.1	13.2	13.3	13.2	13.1	13.0	12.8	12.6	11.9	11.4
95°	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	14.9	14.3	13.6
97.5°	16.2	16.3	16.4	16.5	16.4	16.3	16.2	16.1	15.8	15.1	14.4
100°	16.6	16.7	16.8	16.9	16.8	16.7	16.6	16.5	16.1	15.3	14.6
102.5°	16.7	16.9	16.9	17.1	16.9	16.9	16.7	16.5	17.6	19.7	21.9
105°	17.1	17.3	17.5	17.7	17.5	17.3	17.1	16.9	24.7	40.5	56.2
107.5°	91.0	79.1	67.2	55.4	67.2	79.1	91.0	102.9	114.6	126.2	137.7
110°	148.4	135.6	122.9	110.2	122.9	135.6	148.4	161.1	168.9	171.8	174.8



TEST NUMBER: P332210-940

CATALOG NUMBER: S123DIW-S1165D460U940-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	197.1	194.4	191.7	189.0	191.7	194.4	197.1	199.7	201.1	201.0	201.0
115°	234.5	234.9	235.2	235.6	235.2	234.9	234.5	234.2	233.5	232.6	231.8
117.5°	261.4	261.5	261.6	261.7	261.6	261.5	261.4	261.4	261.0	260.3	259.6
120°	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.3	278.6	277.9
122.5°	297.0	297.1	297.2	297.3	297.2	297.1	297.0	296.9	296.7	296.2	295.7
125°	321.6	321.7	321.9	322.1	321.9	321.7	321.6	321.4	321.2	321.0	320.8
127.5°	346.5	346.3	346.2	346.0	346.2	346.3	346.5	346.7	346.6	346.3	346.1
130°	361.9	361.7	361.5	361.3	361.5	361.7	361.9	362.0	361.9	361.6	361.2
132.5°	376.2	375.9	375.7	375.5	375.7	375.9	376.2	376.5	376.4	376.0	375.7
135°	397.8	397.5	397.3	397.0	397.3	397.5	397.8	398.1	398.1	397.8	397.5
137.5°	417.9	417.7	417.5	417.3	417.5	417.7	417.9	418.0	417.9	417.4	417.1
140°	430.0	429.8	429.6	429.4	429.6	429.8	430.0	430.2	430.1	429.7	429.4
142.5°	441.4	441.2	441.0	440.7	441.0	441.2	441.4	441.7	441.7	441.4	441.1
145°	457.9	457.9	457.9	457.9	457.9	457.9	457.9	457.9	457.8	457.6	457.4
147.5°	472.0	471.5	471.2	470.7	471.2	471.5	472.0	472.3	472.5	472.3	472.2
150°	481.2	480.9	480.6	480.4	480.6	480.9	481.2	481.4	481.4	481.3	481.1
152.5°	489.3	488.8	488.5	488.0	488.5	488.8	489.3	489.6	489.7	489.4	489.1
155°	500.3	499.8	499.3	498.8	499.3	499.8	500.3	500.9	501.0	500.5	500.1
157.5°	509.9	509.3	508.5	507.8	508.5	509.3	509.9	510.6	510.7	510.1	509.6
160°	515.5	514.9	514.2	513.6	514.2	514.9	515.5	516.1	516.1	515.6	515.1
162.5°	520.7	520.1	519.6	519.1	519.6	520.1	520.7	521.3	521.2	520.7	520.0
165°	527.4	526.9	526.3	525.7	526.3	526.9	527.4	528.1	528.1	527.4	526.6
167.5°	532.4	531.8	531.1	530.4	531.1	531.8	532.4	533.2	533.2	532.4	531.8
170°	535.4	534.7	534.0	533.2	534.0	534.7	535.4	536.1	536.1	535.4	534.7
172.5°	537.2	536.4	535.7	534.8	535.7	536.4	537.2	538.0	538.0	537.3	536.5
175°	539.4	538.7	538.0	537.3	538.0	538.7	539.4	540.1	540.1	539.5	538.9
177.5°	540.1	539.4	538.7	538.0	538.7	539.4	540.1	540.8	540.9	540.3	539.8
180°	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2



TEST NUMBER: P332210-940

CATALOG NUMBER: S123DIW-S1165D460U940-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1387.1	1387.1	1397.7	1404.4	1412.8	1418.4	1422.4	1426.3	1433.1	1442.0	1452.1
5°	1307.7	1310.5	1326.0	1341.4	1356.1	1368.7	1379.2	1391.8	1407.2	1426.1	1447.2
7.5°	1230.9	1241.7	1257.2	1276.0	1296.6	1315.0	1333.6	1354.4	1376.1	1404.0	1433.4
10°	1181.6	1193.5	1212.4	1236.3	1257.9	1279.7	1302.8	1325.3	1352.5	1385.5	1423.3
12.5°	1138.4	1149.8	1169.2	1195.3	1215.9	1239.9	1266.4	1295.6	1326.2	1365.9	1408.8
15°	1078.5	1091.9	1115.7	1128.3	1159.8	1188.6	1213.1	1255.2	1294.4	1335.1	1384.8
17.5°	1029.5	1036.9	1056.2	1079.7	1103.2	1135.4	1167.5	1202.6	1241.7	1291.5	1353.7
20°	995.9	1002.2	1023.1	1047.8	1072.9	1102.4	1131.1	1166.2	1210.3	1262.8	1330.2
22.5°	970.6	977.5	991.2	1017.4	1041.0	1065.4	1094.1	1135.9	1182.9	1234.3	1307.2
25°	934.2	938.3	947.5	968.5	989.5	1016.9	1042.1	1081.4	1129.7	1190.0	1262.8
27.5°	899.6	903.7	911.2	926.3	945.9	968.1	995.6	1028.9	1078.0	1143.4	1220.8
30°	878.8	879.5	886.5	900.5	917.4	935.6	960.8	998.6	1044.9	1111.5	1192.8
32.5°	860.9	858.2	863.0	873.6	889.9	908.1	928.9	966.2	1010.8	1076.2	1159.7
35°	830.5	829.0	827.0	836.1	850.1	864.1	882.3	910.3	960.8	1021.8	1109.4
37.5°	799.5	796.1	792.4	796.6	807.4	822.1	837.9	862.8	906.3	973.4	1057.2
40°	776.5	773.7	771.6	770.2	780.0	794.0	805.9	829.7	870.4	934.2	1016.9
42.5°	751.3	749.6	746.9	744.9	753.1	763.8	776.2	797.3	837.9	897.8	976.0
45°	710.6	709.3	707.8	706.4	711.3	721.1	730.9	746.4	781.4	839.5	910.3
47.5°	665.4	663.5	664.1	661.8	666.6	673.2	680.1	696.6	730.2	777.2	828.9
50°	632.8	632.1	632.1	632.1	633.6	641.2	647.6	660.1	691.0	738.0	775.1
52.5°	602.0	599.1	599.1	600.2	602.7	607.6	611.7	625.4	652.3	690.9	724.6
55°	553.7	548.0	546.6	548.0	550.1	554.4	558.6	569.8	592.9	621.6	641.2
57.5°	500.1	497.0	495.2	495.4	496.6	500.0	503.2	515.4	533.6	548.6	561.2
60°	462.5	464.0	457.6	459.1	459.1	461.8	466.7	474.5	489.9	500.3	513.0
62.5°	427.2	425.3	423.5	421.5	421.5	422.6	429.2	435.2	448.4	453.9	463.7
65°	372.1	372.1	367.9	369.3	370.1	365.2	368.6	375.7	384.1	386.1	395.3
67.5°	316.4	314.4	312.0	309.9	309.9	309.5	311.3	314.8	321.1	321.8	328.9
70°	278.2	276.8	276.2	274.0	271.3	274.7	272.6	276.2	279.6	280.4	284.5
72.5°	241.2	239.8	238.5	236.5	235.3	234.9	235.1	239.2	241.5	240.5	245.3
75°	188.5	187.1	185.7	182.2	182.2	180.1	180.8	183.6	186.5	184.3	188.5
77.5°	138.5	134.1	133.8	134.8	132.4	132.9	132.1	131.6	132.9	133.0	136.8
80°	106.6	101.7	103.0	102.3	101.7	100.9	99.5	100.2	100.9	101.7	103.7
82.5°	76.8	76.4	75.0	74.8	74.2	72.3	71.5	72.8	73.5	73.0	74.5
85°	39.2	37.2	38.5	37.8	38.5	37.8	35.8	35.8	37.2	36.5	37.8
87.5°	13.7	13.7	12.9	13.2	12.5	12.8	12.0	12.4	12.8	12.6	13.6
90°	10.0	9.6	8.5	7.3	6.2	5.0	3.9	3.0	2.1	1.2	0.4
92.5°	10.8	10.3	9.4	8.5	7.7	6.8	6.4	6.7	7.0	7.2	7.5
95°	13.0	12.4	11.4	10.4	9.5	8.5	9.8	13.5	17.1	20.8	24.4
97.5°	13.6	12.9	19.4	25.7	32.1	38.5	42.5	44.2	45.8	47.4	49.1
100°	13.9	13.2	27.1	41.0	54.9	68.8	74.8	73.0	71.2	69.5	67.7
102.5°	24.2	26.4	41.6	56.7	71.9	87.0	94.0	92.7	91.4	90.2	88.8
105°	72.0	87.7	95.8	103.8	111.7	119.8	123.3	122.3	121.4	120.4	119.4
107.5°	149.3	160.8	159.5	158.3	157.0	155.8	154.7	153.9	153.2	152.4	151.6
110°	177.7	180.7	179.7	178.7	177.7	176.7	175.9	175.2	174.5	173.8	173.1



TEST NUMBER: P332210-940

CATALOG NUMBER: S123DIW-S1165D460U940-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	200.9	200.9	199.9	198.9	198.0	197.0	196.2	195.5	194.8	194.2	193.6
115°	230.9	230.0	229.2	228.4	227.6	226.8	226.0	225.5	225.0	224.4	223.9
117.5°	258.9	258.2	257.8	257.3	256.9	256.5	256.0	255.3	254.7	254.0	253.3
120°	277.1	276.4	276.2	275.9	275.6	275.4	274.8	274.0	273.2	272.4	271.6
122.5°	295.2	294.7	294.4	294.0	293.7	293.4	292.8	292.2	291.5	290.9	290.3
125°	320.7	320.5	320.1	319.8	319.4	319.1	318.5	317.8	317.1	316.4	315.7
127.5°	345.8	345.5	345.1	344.6	344.2	343.8	343.2	342.5	341.8	341.1	340.4
130°	360.9	360.5	360.3	359.9	359.5	359.2	358.6	357.9	357.2	356.5	355.8
132.5°	375.3	375.0	374.7	374.4	374.2	373.8	373.4	372.6	371.9	371.2	370.5
135°	397.3	397.0	396.6	396.3	395.9	395.6	395.1	394.6	394.0	393.5	393.0
137.5°	416.6	416.2	416.0	415.8	415.6	415.4	414.9	414.3	413.6	413.0	412.2
140°	429.0	428.6	428.4	428.1	427.8	427.6	427.2	426.7	426.1	425.6	425.1
142.5°	440.8	440.5	440.2	440.0	439.7	439.4	439.1	438.5	438.0	437.5	436.9
145°	457.3	457.1	456.9	456.7	456.6	456.4	456.0	455.4	454.8	454.1	453.5
147.5°	472.0	471.8	471.6	471.4	471.3	471.1	470.7	470.4	469.9	469.6	469.1
150°	480.9	480.7	480.5	480.4	480.2	480.0	479.8	479.6	479.3	479.0	478.8
152.5°	488.7	488.5	488.3	488.2	488.1	488.0	487.9	487.8	487.7	487.5	487.4
155°	499.6	499.2	499.1	499.0	498.9	498.8	498.9	499.1	499.2	499.4	499.5
157.5°	509.1	508.5	508.6	508.7	508.8	508.9	509.0	509.0	509.0	509.0	509.1
160°	514.5	514.0	514.1	514.2	514.2	514.3	514.4	514.5	514.6	514.7	514.8
162.5°	519.4	518.8	518.9	519.0	519.1	519.2	519.3	519.6	519.8	520.0	520.2
165°	525.9	525.2	525.3	525.4	525.5	525.6	525.8	526.0	526.3	526.6	526.8
167.5°	531.1	530.4	530.4	530.4	530.4	530.4	530.6	530.9	531.3	531.6	532.0
170°	534.0	533.2	533.2	533.2	533.2	533.2	533.4	533.8	534.1	534.5	534.8
172.5°	535.8	535.1	535.1	535.0	534.9	534.8	535.0	535.5	535.9	536.4	536.7
175°	538.2	537.6	537.5	537.4	537.3	537.3	537.4	537.9	538.3	538.8	539.2
177.5°	539.1	538.6	538.5	538.4	538.4	538.3	538.4	538.8	539.1	539.5	539.8
180°	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2



TEST NUMBER: P332210-940

CATALOG NUMBER: S123DIW-S1165D460U940-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1455.5	1458.2	1467.8	1474.5	1482.4	1486.8	1491.3	1494.7	1499.1	1500.3	1516.5
5°	1461.9	1476.0	1500.5	1518.7	1541.1	1565.6	1582.4	1590.2	1610.4	1627.3	1660.9
7.5°	1460.1	1490.0	1527.0	1565.3	1606.5	1644.7	1677.8	1717.0	1744.9	1786.8	1828.2
10°	1458.4	1498.3	1546.0	1595.1	1652.5	1705.8	1753.5	1806.7	1850.8	1909.0	1958.7
12.5°	1453.3	1501.7	1567.9	1625.9	1695.7	1769.2	1839.8	1908.2	1947.3	2044.2	2090.0
15°	1440.9	1498.3	1581.0	1669.4	1765.3	1852.3	1942.0	2013.5	2129.0	2213.9	2267.8
17.5°	1417.0	1497.5	1595.6	1702.1	1818.9	1933.4	2035.1	2143.5	2266.2	2368.7	2478.1
20°	1405.9	1494.2	1603.5	1721.2	1842.5	1972.1	2087.8	2218.0	2352.0	2452.8	2593.0
22.5°	1385.1	1485.1	1602.9	1734.1	1863.8	1997.9	2133.2	2264.6	2419.2	2558.2	2691.7
25°	1351.2	1463.3	1585.3	1731.7	1883.8	2018.4	2180.2	2354.7	2516.0	2694.7	2827.8
27.5°	1315.5	1435.3	1557.5	1693.7	1857.3	2017.0	2220.6	2417.8	2614.9	2769.2	2867.7
30°	1288.1	1404.4	1530.6	1667.9	1829.8	2019.7	2247.5	2462.6	2654.7	2787.1	2842.5
32.5°	1258.4	1376.4	1488.0	1632.1	1804.6	2018.0	2264.3	2489.0	2656.9	2745.1	2734.3
35°	1211.7	1310.5	1419.2	1557.9	1761.1	2005.7	2274.1	2491.4	2594.4	2575.5	2432.5
37.5°	1144.4	1227.5	1334.5	1486.4	1710.7	1979.8	2254.5	2417.5	2410.8	2256.7	2049.6
40°	1102.4	1173.1	1276.2	1436.0	1671.4	1963.0	2223.7	2329.5	2239.8	2024.6	1776.6
42.5°	1047.4	1112.6	1215.7	1379.9	1628.3	1928.8	2164.8	2195.5	2020.0	1772.4	1545.0
45°	962.2	1019.7	1126.2	1295.8	1563.5	1854.3	2021.2	1946.2	1709.9	1454.2	1281.1
47.5°	870.7	930.4	1032.9	1207.1	1469.9	1742.4	1821.9	1662.3	1419.9	1212.4	1053.5
50°	813.0	870.4	970.6	1146.6	1406.5	1650.4	1683.4	1477.3	1254.5	1072.3	941.9
52.5°	754.7	808.8	907.3	1083.7	1332.6	1543.9	1523.6	1313.6	1108.7	953.4	851.0
55°	667.9	719.1	813.0	978.3	1204.7	1372.2	1298.6	1098.1	928.5	808.1	730.2
57.5°	590.2	639.3	720.3	869.7	1066.5	1181.6	1088.0	919.1	784.2	691.4	633.4
60°	537.5	580.9	658.1	796.8	967.9	1055.4	963.0	813.7	700.1	625.8	574.0
62.5°	487.6	525.5	596.9	722.8	871.4	944.9	851.3	725.1	628.4	562.5	518.4
65°	412.1	446.4	509.5	607.6	729.5	778.6	698.0	595.7	520.7	471.6	442.2
67.5°	343.1	372.3	426.8	504.0	593.7	629.5	568.1	488.9	432.4	393.0	369.6
70°	297.1	322.4	365.2	431.7	513.0	540.3	482.9	417.7	376.3	344.8	323.1
72.5°	258.4	277.0	315.8	367.2	435.1	456.8	416.7	359.4	320.8	297.1	279.9
75°	196.9	212.3	237.6	278.9	325.9	338.5	308.4	272.6	246.6	229.9	216.5
77.5°	142.0	153.4	171.6	197.1	229.6	240.9	221.9	198.0	179.1	167.7	160.3
80°	107.2	116.4	131.8	152.8	172.4	178.7	167.5	149.3	136.0	129.7	123.3
82.5°	79.2	84.4	93.6	107.9	121.4	128.9	119.3	108.3	101.2	95.4	93.1
85°	39.9	42.7	47.0	52.5	61.0	63.8	60.3	57.4	53.2	49.8	49.8
87.5°	14.8	15.0	16.9	18.2	20.6	22.6	22.2	21.3	21.0	20.5	20.0
90°	1.2	2.1	3.0	3.9	5.0	6.2	7.3	8.5	9.6	10.0	10.3
92.5°	7.2	7.0	6.7	6.4	6.8	7.7	8.5	9.4	10.3	10.8	11.4
95°	20.8	17.1	13.5	9.8	8.5	9.5	10.4	11.4	12.4	13.0	13.6
97.5°	47.4	45.8	44.2	42.5	38.5	32.1	25.7	19.4	12.9	13.6	14.4
100°	69.5	71.2	73.0	74.8	68.8	54.9	41.0	27.1	13.2	13.9	14.6
102.5°	90.2	91.4	92.7	94.0	87.0	71.9	56.7	41.6	26.4	24.2	21.9
105°	120.4	121.4	122.3	123.3	119.8	111.7	103.8	95.8	87.7	72.0	56.2
107.5°	152.4	153.2	153.9	154.7	155.8	157.0	158.3	159.5	160.8	149.3	137.7
110°	173.8	174.5	175.2	175.9	176.7	177.7	178.7	179.7	180.7	177.7	174.8





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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	194.2	194.8	195.5	196.2	197.0	198.0	198.9	199.9	200.9	200.9	201.0
115°	224.4	225.0	225.5	226.0	226.8	227.6	228.4	229.2	230.0	230.9	231.8
117.5°	254.0	254.7	255.3	256.0	256.5	256.9	257.3	257.8	258.2	258.9	259.6
120°	272.4	273.2	274.0	274.8	275.4	275.6	275.9	276.2	276.4	277.1	277.9
122.5°	290.9	291.5	292.2	292.8	293.4	293.7	294.0	294.4	294.7	295.2	295.7
125°	316.4	317.1	317.8	318.5	319.1	319.4	319.8	320.1	320.5	320.7	320.8
127.5°	341.1	341.8	342.5	343.2	343.8	344.2	344.6	345.1	345.5	345.8	346.1
130°	356.5	357.2	357.9	358.6	359.2	359.5	359.9	360.3	360.5	360.9	361.2
132.5°	371.2	371.9	372.6	373.4	373.8	374.2	374.4	374.7	375.0	375.3	375.7
135°	393.5	394.0	394.6	395.1	395.6	395.9	396.3	396.6	397.0	397.3	397.5
137.5°	413.0	413.6	414.3	414.9	415.4	415.6	415.8	416.0	416.2	416.6	417.1
140°	425.6	426.1	426.7	427.2	427.6	427.8	428.1	428.4	428.6	429.0	429.4
142.5°	437.5	438.0	438.5	439.1	439.4	439.7	440.0	440.2	440.5	440.8	441.1
145°	454.1	454.8	455.4	456.0	456.4	456.6	456.7	456.9	457.1	457.3	457.4
147.5°	469.6	469.9	470.4	470.7	471.1	471.3	471.4	471.6	471.8	472.0	472.2
150°	479.0	479.3	479.6	479.8	480.0	480.2	480.4	480.5	480.7	480.9	481.1
152.5°	487.5	487.7	487.8	487.9	488.0	488.1	488.2	488.3	488.5	488.7	489.1
155°	499.4	499.2	499.1	498.9	498.8	498.9	499.0	499.1	499.2	499.6	500.1
157.5°	509.0	509.0	509.0	509.0	508.9	508.8	508.7	508.6	508.5	509.1	509.6
160°	514.7	514.6	514.5	514.4	514.3	514.2	514.2	514.1	514.0	514.5	515.1
162.5°	520.0	519.8	519.6	519.3	519.2	519.1	519.0	518.9	518.8	519.4	520.0
165°	526.6	526.3	526.0	525.8	525.6	525.5	525.4	525.3	525.2	525.9	526.6
167.5°	531.6	531.3	530.9	530.6	530.4	530.4	530.4	530.4	530.4	531.1	531.8
170°	534.5	534.1	533.8	533.4	533.2	533.2	533.2	533.2	533.2	534.0	534.7
172.5°	536.4	535.9	535.5	535.0	534.8	534.9	535.0	535.1	535.1	535.8	536.5
175°	538.8	538.3	537.9	537.4	537.3	537.3	537.4	537.5	537.6	538.2	538.9
177.5°	539.5	539.1	538.8	538.4	538.3	538.4	538.4	538.5	538.6	539.1	539.8
180°	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4	1446.4
2.5°	1522.2	1522.7	1528.9	1533.4	1531.2	1533.9	1535.1
5°	1663.0	1688.3	1701.6	1711.4	1712.1	1712.8	1718.4
7.5°	1862.8	1889.8	1909.6	1939.6	1948.6	1958.7	1955.8
10°	2008.6	2048.4	2082.9	2101.0	2120.7	2149.4	2126.3
12.5°	2144.7	2215.5	2267.8	2296.2	2314.6	2320.4	2309.1
15°	2369.5	2461.9	2511.7	2510.3	2573.4	2600.8	2558.0
17.5°	2575.5	2660.9	2729.3	2764.3	2816.8	2828.5	2823.2
20°	2701.6	2794.9	2848.1	2908.4	2935.7	2960.2	2964.4
22.5°	2810.4	2894.0	2951.3	3001.4	3024.3	3035.9	3043.0
25°	2922.4	2988.3	3022.6	3040.1	3046.4	3045.0	3035.9
27.5°	2914.6	2919.7	2881.9	2844.7	2811.6	2774.1	2761.2
30°	2839.0	2780.1	2675.0	2615.5	2527.8	2458.4	2486.4
32.5°	2640.0	2522.8	2404.8	2274.6	2166.8	2136.1	2105.2
35°	2253.1	2047.1	1926.5	1786.4	1730.3	1674.3	1635.7
37.5°	1822.8	1663.5	1520.5	1428.8	1372.6	1337.1	1318.1
40°	1576.1	1432.4	1314.7	1240.5	1197.7	1157.7	1152.2
42.5°	1379.4	1245.8	1157.2	1098.1	1056.9	1040.0	1027.7
45°	1129.7	1036.5	977.0	934.9	907.6	897.1	883.1
47.5°	956.2	890.3	845.6	817.0	796.4	788.5	787.5
50°	859.2	804.5	771.6	749.1	733.1	730.2	719.1
52.5°	786.3	739.0	713.3	693.7	682.1	674.2	670.8
55°	682.6	651.0	627.9	616.7	607.6	599.9	599.9
57.5°	597.3	570.9	555.6	546.1	543.2	537.8	534.3
60°	544.6	522.1	510.2	501.8	496.1	496.9	490.5
62.5°	492.9	478.4	467.0	458.6	451.9	452.0	452.5
65°	419.8	408.6	400.2	397.3	393.2	388.3	389.7
67.5°	355.7	345.2	338.7	333.9	332.4	329.8	333.9
70°	309.8	302.0	297.1	292.9	291.5	292.2	295.8
72.5°	267.7	262.3	259.0	257.1	254.0	254.1	256.5
75°	210.3	206.1	203.2	201.2	200.5	200.5	200.5
77.5°	154.4	153.5	152.2	149.1	149.3	150.1	150.3
80°	122.0	119.8	119.1	117.7	115.7	114.2	117.7
82.5°	91.1	89.0	88.3	88.0	84.8	84.5	87.5
85°	49.0	47.0	47.6	47.0	47.0	46.3	46.3
87.5°	19.5	19.0	18.5	19.1	18.5	18.1	19.3
90°	10.7	11.1	11.3	11.5	11.7	11.9	12.0
92.5°	11.9	12.6	12.8	13.0	13.1	13.2	13.3
95°	14.3	14.9	15.2	15.2	15.2	15.2	15.2
97.5°	15.1	15.8	16.1	16.2	16.3	16.4	16.5
100°	15.3	16.1	16.5	16.6	16.7	16.8	16.9
102.5°	19.7	17.6	16.5	16.7	16.9	16.9	17.1
105°	40.5	24.7	16.9	17.1	17.3	17.5	17.7
107.5°	126.2	114.6	102.9	91.0	79.1	67.2	55.4
110°	171.8	168.9	161.1	148.4	135.6	122.9	110.2



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	201.0	201.1	199.7	197.1	194.4	191.7	189.0
115°	232.6	233.5	234.2	234.5	234.9	235.2	235.6
117.5°	260.3	261.0	261.4	261.4	261.5	261.6	261.7
120°	278.6	279.3	279.6	279.6	279.6	279.6	279.6
122.5°	296.2	296.7	296.9	297.0	297.1	297.2	297.3
125°	321.0	321.2	321.4	321.6	321.7	321.9	322.1
127.5°	346.3	346.6	346.7	346.5	346.3	346.2	346.0
130°	361.6	361.9	362.0	361.9	361.7	361.5	361.3
132.5°	376.0	376.4	376.5	376.2	375.9	375.7	375.5
135°	397.8	398.1	398.1	397.8	397.5	397.3	397.0
137.5°	417.4	417.9	418.0	417.9	417.7	417.5	417.3
140°	429.7	430.1	430.2	430.0	429.8	429.6	429.4
142.5°	441.4	441.7	441.7	441.4	441.2	441.0	440.7
145°	457.6	457.8	457.9	457.9	457.9	457.9	457.9
147.5°	472.3	472.5	472.3	472.0	471.5	471.2	470.7
150°	481.3	481.4	481.4	481.2	480.9	480.6	480.4
152.5°	489.4	489.7	489.6	489.3	488.8	488.5	488.0
155°	500.5	501.0	500.9	500.3	499.8	499.3	498.8
157.5°	510.1	510.7	510.6	509.9	509.3	508.5	507.8
160°	515.6	516.1	516.1	515.5	514.9	514.2	513.6
162.5°	520.7	521.2	521.3	520.7	520.1	519.6	519.1
165°	527.4	528.1	528.1	527.4	526.9	526.3	525.7
167.5°	532.4	533.2	533.2	532.4	531.8	531.1	530.4
170°	535.4	536.1	536.1	535.4	534.7	534.0	533.2
172.5°	537.3	538.0	538.0	537.2	536.4	535.7	534.8
175°	539.5	540.1	540.1	539.4	538.7	538.0	537.3
177.5°	540.3	540.9	540.8	540.1	539.4	538.7	538.0
180°	539.2	539.2	539.2	539.2	539.2	539.2	539.2

(END OF REPORT)