

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: P332210-840

Luminaire Tested: **S123DIW-S1165D460U840-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332210-840
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-S1165D460U840-4F0-1E-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: 6808.2 lumens
Efficiency: N/A
Efficacy: 129.9 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

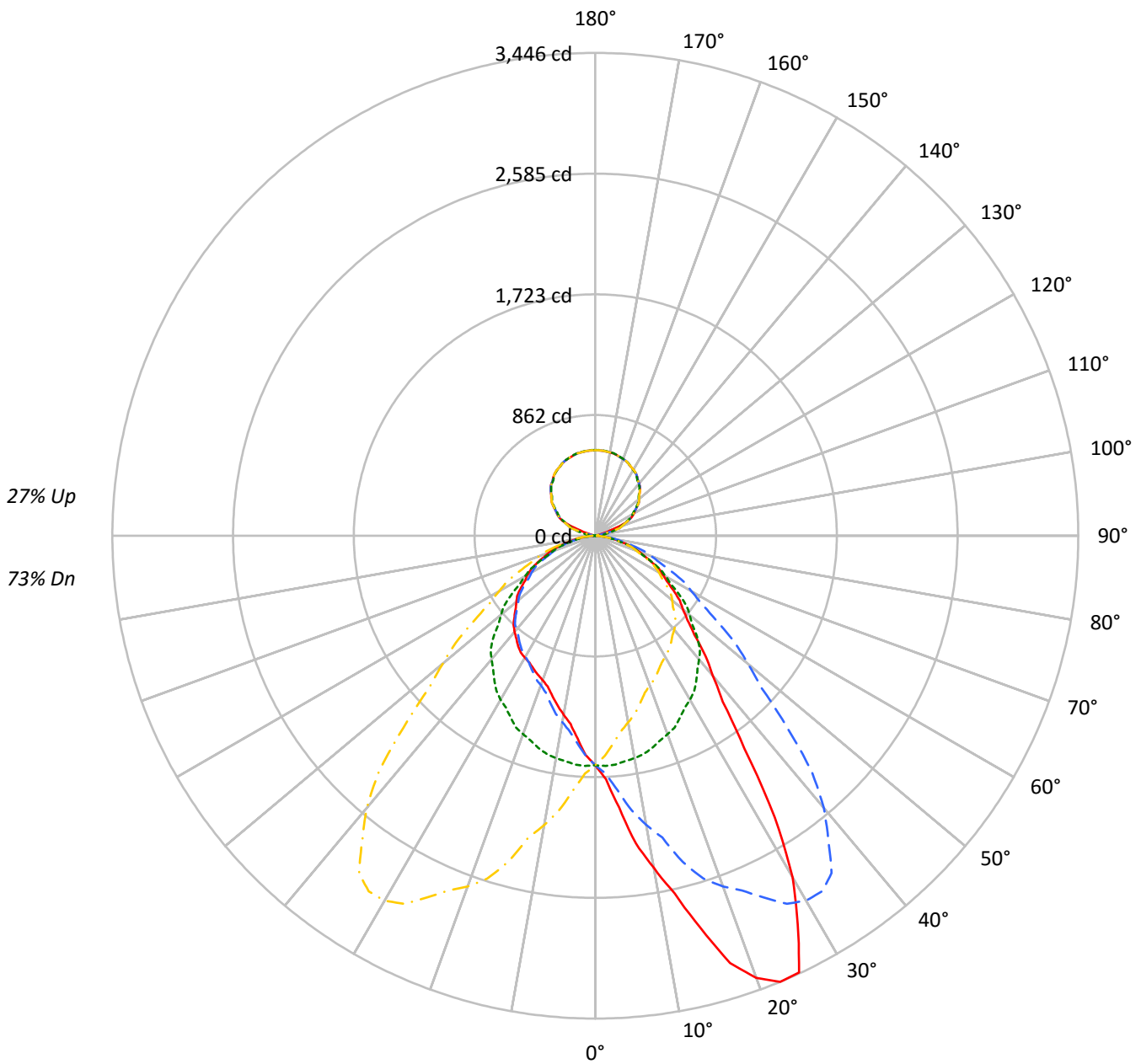
Input Watts (W): 52.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	17632	17632	17632	17632
5°	21028	17708	15693	17708
10°	26319	17618	14175	17618
15°	32282	17477	13196	17477
20°	38456	17255	12564	17255
25°	40834	16986	12423	16986
30°	34999	16789	12489	16789
35°	24341	16509	12620	16509
40°	18334	16183	12579	16183
45°	15224	15694	12420	15694
50°	13638	14699	12308	14699
55°	12748	13628	12153	13628
60°	11959	12508	12030	12508
65°	11240	11403	11645	11403
70°	10543	10140	11087	10140
75°	9441	8879	10168	8879
80°	8263	7277	8759	7277
85°	6472	5286	5891	5286



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.4	2.4
10°-20°	517.4	7.6
20°-30°	868.4	12.8
30°-40°	983.3	14.4
40°-50°	881.8	13.0
50°-60°	711.6	10.5
60°-70°	495.9	7.3
70°-80°	260.6	3.8
80°-90°	65.4	1.0
90°-100°	22.2	0.3
100°-110°	105.8	1.6
110°-120°	254.2	3.7
120°-130°	323.7	4.8
130°-140°	345.8	5.1
140°-150°	323.4	4.7
150°-160°	260.8	3.8
160°-170°	168.4	2.5
170°-180°	58.0	0.9
0°-30°	1547.2	22.7
0°-40°	2530.6	37.2
0°-60°	4124.0	60.6
0°-90°	4945.9	72.6
90°-120°	382.2	5.6
90°-150°	1375.1	20.2
90°-180°	1862.0	27.3
0°-180°	6808.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1638	1638	1638	1638	1638	
5°	1946	1639	1452	1639	1946	202
15°	2897	1568	1184	1568	2897	836
25°	3438	1430	1046	1430	3438	1508
35°	1852	1256	960	1256	1852	1204
45°	1000	1031	816	1031	1000	791
55°	679	726	648	726	679	610
65°	441	448	457	448	441	439
75°	227	214	244	214	227	243
85°	52	43	48	43	52	62
90°	14	0	14	0	14	9
95°	17	28	17	28	17	14
105°	20	135	20	135	20	46
115°	267	254	267	254	267	247
125°	365	358	365	358	365	326
135°	450	445	450	445	450	347
145°	519	514	519	514	519	324
155°	565	566	565	566	565	260
165°	595	597	595	597	595	168
175°	608	611	608	611	608	58
180°	611	611	611	611	611	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1738.5	1737.2	1734.0	1736.6	1731.5	1724.4	1723.8	1717.5	1699.1	1697.8	1692.7
5°	1946.1	1939.7	1938.9	1938.1	1927.0	1912.0	1883.4	1881.0	1842.9	1823.8	1800.9
7.5°	2214.9	2218.3	2206.8	2196.6	2162.6	2140.2	2109.6	2070.4	2023.6	1976.1	1944.5
10°	2408.0	2434.2	2401.7	2379.4	2358.8	2319.9	2274.7	2218.3	2161.9	2096.1	2046.1
12.5°	2615.0	2627.9	2621.3	2600.4	2568.3	2509.1	2428.9	2366.9	2315.0	2205.3	2161.0
15°	2896.9	2945.4	2914.4	2843.0	2844.5	2788.1	2683.4	2568.3	2507.2	2411.2	2280.3
17.5°	3197.2	3203.3	3190.1	3130.6	3090.9	3013.4	2916.8	2806.4	2682.6	2566.5	2427.5
20°	3357.2	3352.4	3324.7	3293.8	3225.5	3165.2	3059.6	2936.6	2777.8	2663.6	2511.9
22.5°	3446.2	3438.2	3425.1	3399.1	3342.4	3277.5	3182.8	3048.4	2897.2	2739.8	2564.7
25°	3438.2	3448.5	3450.1	3442.9	3423.1	3384.3	3309.6	3202.5	3051.7	2849.3	2666.8
27.5°	3127.0	3141.7	3184.1	3221.7	3263.8	3306.6	3300.8	3247.7	3136.1	2961.3	2738.1
30°	2815.9	2784.2	2862.8	2962.0	3029.5	3148.5	3215.2	3219.1	3156.4	3006.5	2788.9
32.5°	2384.2	2419.1	2453.9	2576.0	2723.4	2857.1	2989.8	3096.7	3108.9	3009.0	2818.8
35°	1852.4	1896.1	1959.5	2023.1	2181.8	2318.3	2551.6	2754.8	2916.8	2938.2	2821.5
37.5°	1492.8	1514.3	1554.5	1618.1	1721.9	1883.9	2064.4	2321.2	2555.8	2730.3	2737.8
40°	1304.8	1311.1	1356.3	1404.8	1488.9	1622.2	1784.9	2012.0	2292.9	2536.6	2638.2
42.5°	1163.9	1177.8	1197.0	1243.5	1310.5	1410.9	1562.2	1749.7	2007.2	2287.6	2486.4
45°	1000.1	1015.9	1027.8	1058.7	1106.4	1173.9	1279.4	1450.9	1646.9	1936.5	2204.0
47.5°	891.8	893.0	901.9	925.2	957.7	1008.2	1082.9	1193.1	1373.0	1608.0	1882.6
50°	814.4	827.0	830.2	848.4	873.8	911.1	973.0	1066.7	1214.4	1420.7	1673.0
52.5°	759.7	763.6	772.4	785.6	807.8	836.9	890.5	963.8	1079.7	1255.6	1487.6
55°	679.3	679.3	688.1	698.4	711.1	737.3	773.1	827.0	915.1	1051.6	1243.6
57.5°	605.1	609.0	615.2	618.4	629.2	646.5	676.4	717.3	783.0	888.1	1040.9
60°	555.5	562.7	561.9	568.3	577.8	591.3	616.7	650.1	708.7	792.8	921.5
62.5°	512.4	511.9	511.8	519.4	528.9	541.8	558.3	587.1	637.0	711.7	821.1
65°	441.3	439.7	445.2	450.0	453.2	462.7	475.4	500.8	534.1	589.7	674.6
67.5°	378.1	373.5	376.5	378.1	383.5	390.9	402.8	418.6	445.0	489.7	553.7
70°	335.0	330.9	330.1	331.7	336.5	342.0	350.8	365.9	390.5	426.2	473.0
72.5°	290.4	287.8	287.6	291.1	293.4	297.0	303.2	317.0	336.5	363.3	407.0
75°	227.0	227.0	227.0	227.8	230.1	233.4	238.1	245.2	260.3	279.3	308.7
77.5°	170.2	170.0	169.1	168.8	172.4	173.8	174.9	181.6	190.0	202.9	224.3
80°	133.3	129.4	131.0	133.3	134.9	135.7	138.1	139.7	146.8	154.0	169.1
82.5°	99.1	95.7	96.0	99.7	100.0	100.8	103.2	105.4	108.1	114.6	122.7
85°	52.4	52.4	53.2	53.2	53.9	53.2	55.5	56.4	56.4	60.3	65.0
87.5°	21.8	20.5	21.0	21.6	21.0	21.5	22.1	22.6	23.2	23.7	24.1
90°	13.6	13.4	13.2	13.0	12.8	12.5	12.1	11.7	11.3	10.9	9.6
92.5°	15.0	14.9	14.8	14.7	14.5	14.2	13.5	12.9	12.2	11.6	10.6
95°	17.3	17.3	17.3	17.3	17.3	16.9	16.2	15.5	14.7	14.0	12.9
97.5°	18.7	18.6	18.5	18.4	18.3	17.9	17.1	16.3	15.5	14.6	21.9
100°	19.1	19.0	18.9	18.8	18.7	18.2	17.4	16.6	15.8	14.9	30.7
102.5°	19.4	19.2	19.1	18.9	18.7	19.9	22.3	24.8	27.4	29.9	47.1
105°	20.0	19.8	19.6	19.4	19.2	28.0	45.8	63.6	81.5	99.4	108.5
107.5°	62.7	76.1	89.6	103.0	116.5	129.8	142.9	155.9	169.1	182.1	180.7
110°	124.8	139.2	153.6	168.0	182.5	191.3	194.6	197.9	201.3	204.6	203.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	214.1	217.1	220.2	223.2	226.2	227.7	227.6	227.6	227.5	227.5	226.4
115°	266.8	266.4	266.0	265.6	265.2	264.5	263.5	262.5	261.5	260.4	259.5
117.5°	296.4	296.3	296.2	296.1	296.0	295.6	294.8	294.0	293.2	292.4	292.0
120°	316.7	316.7	316.7	316.7	316.7	316.3	315.5	314.7	313.9	313.1	312.8
122.5°	336.7	336.6	336.5	336.4	336.3	336.0	335.5	334.9	334.3	333.8	333.4
125°	364.8	364.6	364.4	364.2	364.0	363.8	363.6	363.3	363.1	362.9	362.5
127.5°	391.8	392.0	392.2	392.4	392.6	392.5	392.2	391.9	391.6	391.3	390.8
130°	409.2	409.4	409.6	409.8	410.0	409.9	409.5	409.1	408.7	408.3	408.0
132.5°	425.3	425.5	425.8	426.1	426.4	426.3	425.9	425.5	425.1	424.6	424.3
135°	449.6	449.9	450.2	450.5	450.8	450.8	450.5	450.2	449.9	449.6	449.2
137.5°	472.6	472.8	473.0	473.2	473.4	473.2	472.7	472.3	471.8	471.3	471.1
140°	486.4	486.6	486.8	487.0	487.2	487.1	486.7	486.3	485.8	485.4	485.1
142.5°	499.1	499.4	499.7	499.9	500.2	500.2	499.9	499.6	499.2	498.9	498.6
145°	518.6	518.6	518.6	518.6	518.6	518.5	518.3	518.1	517.9	517.7	517.5
147.5°	533.1	533.6	534.0	534.5	534.9	535.1	534.9	534.7	534.5	534.3	534.1
150°	544.0	544.3	544.6	544.9	545.2	545.2	545.0	544.8	544.6	544.4	544.2
152.5°	552.7	553.2	553.6	554.1	554.5	554.6	554.2	553.9	553.5	553.2	553.0
155°	564.9	565.4	566.0	566.6	567.2	567.3	566.8	566.3	565.8	565.3	565.2
157.5°	575.1	575.9	576.7	577.4	578.2	578.3	577.7	577.1	576.5	575.9	576.0
160°	581.7	582.4	583.1	583.8	584.5	584.5	583.9	583.3	582.7	582.1	582.2
162.5°	587.8	588.4	589.1	589.7	590.4	590.3	589.7	589.0	588.2	587.5	587.6
165°	595.3	596.0	596.7	597.3	598.0	598.0	597.2	596.4	595.6	594.8	594.9
167.5°	600.7	601.5	602.3	603.0	603.8	603.8	603.0	602.3	601.5	600.7	600.7
170°	603.9	604.7	605.5	606.3	607.1	607.1	606.3	605.5	604.7	603.9	603.9
172.5°	605.7	606.6	607.4	608.3	609.3	609.3	608.4	607.6	606.8	606.0	606.0
175°	608.4	609.3	610.1	610.9	611.7	611.7	611.0	610.3	609.6	608.8	608.7
177.5°	609.3	610.1	610.9	611.7	612.5	612.6	611.9	611.3	610.6	610.0	609.9
180°	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1688.9	1683.8	1678.8	1669.9	1662.2	1651.4	1648.3	1644.5	1633.1	1623.0	1615.3
5°	1792.1	1773.0	1745.2	1719.9	1699.3	1671.5	1655.6	1638.9	1615.1	1593.7	1576.2
7.5°	1900.1	1862.6	1819.4	1772.7	1729.3	1687.4	1653.6	1623.4	1590.0	1558.4	1533.9
10°	1985.8	1931.8	1871.5	1806.4	1750.8	1696.9	1651.6	1611.9	1569.1	1531.8	1500.9
12.5°	2083.6	2003.6	1920.4	1841.3	1775.6	1700.7	1645.9	1595.5	1546.9	1502.0	1467.2
15°	2199.3	2097.7	1999.2	1890.6	1790.5	1696.9	1631.8	1568.3	1512.0	1465.9	1421.5
17.5°	2304.7	2189.6	2059.9	1927.6	1807.1	1696.0	1604.8	1533.1	1462.6	1406.2	1361.9
20°	2364.4	2233.4	2086.6	1949.2	1815.9	1692.1	1592.2	1506.4	1430.2	1370.7	1320.7
22.5°	2415.8	2262.6	2110.7	1963.9	1815.3	1681.9	1568.6	1480.4	1397.9	1339.6	1286.4
25°	2469.1	2285.8	2133.4	1961.2	1795.3	1657.2	1530.2	1430.2	1347.7	1279.4	1224.7
27.5°	2514.9	2284.2	2103.3	1918.1	1763.8	1625.5	1489.9	1382.6	1294.9	1220.8	1165.3
30°	2545.3	2287.3	2072.2	1889.0	1733.4	1590.5	1458.8	1350.8	1258.8	1183.4	1130.9
32.5°	2564.4	2285.4	2043.7	1848.4	1685.2	1558.7	1425.1	1313.3	1218.8	1144.7	1094.2
35°	2575.5	2271.5	1994.5	1764.3	1607.2	1484.2	1372.3	1256.4	1157.2	1088.1	1031.0
37.5°	2553.2	2242.1	1937.3	1683.3	1511.4	1390.2	1296.1	1197.3	1102.4	1026.4	977.1
40°	2518.3	2223.1	1892.9	1626.3	1445.3	1328.6	1248.5	1151.7	1057.9	985.7	939.7
42.5°	2451.6	2184.3	1844.0	1562.8	1376.7	1260.0	1186.2	1105.3	1016.7	948.9	902.9
45°	2289.0	2100.0	1770.7	1467.5	1275.5	1154.8	1089.7	1031.0	950.8	884.9	845.3
47.5°	2063.3	1973.3	1664.7	1367.1	1169.7	1053.7	986.0	938.8	880.2	827.0	788.9
50°	1906.4	1869.1	1592.9	1298.5	1099.2	985.7	920.7	877.8	835.8	782.5	747.6
52.5°	1725.5	1748.5	1509.1	1227.3	1027.5	915.9	854.6	820.6	782.4	738.7	708.3
55°	1470.7	1554.0	1364.3	1107.9	920.7	814.4	756.4	726.2	704.0	671.5	645.3
57.5°	1232.1	1338.2	1207.8	984.9	815.8	724.0	668.4	635.6	621.3	604.3	583.7
60°	1090.6	1195.3	1096.1	902.4	745.3	657.9	608.7	581.0	566.6	554.8	537.3
62.5°	964.1	1070.2	986.8	818.6	676.0	595.1	552.2	525.1	514.0	507.8	492.9
65°	790.5	881.8	826.2	688.1	577.0	505.5	466.7	447.7	437.3	434.9	425.5
67.5°	643.4	712.9	672.4	570.8	483.3	421.6	388.6	372.4	364.5	363.7	356.5
70°	546.8	611.9	581.0	488.9	413.5	365.1	336.5	322.2	317.5	316.7	312.8
72.5°	471.9	517.4	492.7	415.9	357.6	313.7	292.7	277.8	272.4	273.5	270.8
75°	349.2	383.3	369.1	315.9	269.0	240.4	223.0	213.5	208.7	211.2	207.9
77.5°	251.3	272.9	260.0	223.2	194.3	173.7	160.8	154.9	150.7	150.5	149.1
80°	189.7	202.4	195.2	173.0	149.3	131.8	121.4	117.4	115.1	114.3	113.5
82.5°	135.1	145.9	137.4	122.2	106.0	95.5	89.7	84.4	82.7	83.2	82.4
85°	68.3	72.2	69.1	59.5	53.2	48.4	45.2	42.8	41.3	42.1	40.5
87.5°	25.1	25.5	23.3	20.6	19.1	17.0	16.8	15.3	14.2	14.4	14.0
90°	8.3	7.0	5.7	4.4	3.4	2.4	1.4	0.4	1.4	2.4	3.4
92.5°	9.6	8.7	7.7	7.3	7.6	7.9	8.2	8.5	8.2	7.9	7.6
95°	11.8	10.7	9.6	11.1	15.2	19.4	23.5	27.7	23.5	19.4	15.2
97.5°	29.1	36.4	43.6	48.2	50.1	51.9	53.7	55.6	53.7	51.9	50.1
100°	46.5	62.2	77.9	84.7	82.7	80.7	78.7	76.6	78.7	80.7	82.7
102.5°	64.2	81.4	98.6	106.4	105.0	103.5	102.1	100.6	102.1	103.5	105.0
105°	117.5	126.5	135.6	139.7	138.6	137.4	136.3	135.2	136.3	137.4	138.6
107.5°	179.3	177.8	176.4	175.2	174.3	173.5	172.6	171.7	172.6	173.5	174.3
110°	202.4	201.3	200.2	199.2	198.4	197.6	196.8	196.0	196.8	197.6	198.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	225.3	224.2	223.1	222.2	221.4	220.7	219.9	219.2	219.9	220.7	221.4
115°	258.6	257.7	256.8	256.0	255.4	254.8	254.2	253.6	254.2	254.8	255.4
117.5°	291.4	290.9	290.5	289.9	289.1	288.4	287.7	286.9	287.7	288.4	289.1
120°	312.5	312.1	311.8	311.2	310.3	309.4	308.5	307.6	308.5	309.4	310.3
122.5°	333.0	332.6	332.2	331.6	330.9	330.1	329.4	328.7	329.4	330.1	330.9
125°	362.1	361.7	361.3	360.7	359.9	359.1	358.3	357.5	358.3	359.1	359.9
127.5°	390.3	389.8	389.3	388.7	387.9	387.1	386.3	385.5	386.3	387.1	387.9
130°	407.6	407.2	406.8	406.2	405.4	404.6	403.7	402.9	403.7	404.6	405.4
132.5°	424.0	423.7	423.3	422.8	422.0	421.2	420.4	419.6	420.4	421.2	422.0
135°	448.8	448.4	448.0	447.5	446.9	446.3	445.7	445.0	445.7	446.3	446.9
137.5°	470.9	470.7	470.4	469.9	469.2	468.4	467.7	466.9	467.7	468.4	469.2
140°	484.8	484.5	484.2	483.8	483.2	482.6	482.0	481.4	482.0	482.6	483.2
142.5°	498.3	498.0	497.7	497.3	496.7	496.0	495.4	494.8	495.4	496.0	496.7
145°	517.3	517.1	516.8	516.4	515.7	515.0	514.3	513.6	514.3	515.0	515.7
147.5°	533.9	533.7	533.5	533.1	532.7	532.2	531.8	531.3	531.8	532.2	532.7
150°	544.0	543.8	543.6	543.4	543.1	542.8	542.5	542.2	542.5	542.8	543.1
152.5°	552.9	552.8	552.7	552.6	552.4	552.3	552.1	552.0	552.1	552.3	552.4
155°	565.1	565.0	564.9	565.0	565.2	565.3	565.5	565.7	565.5	565.3	565.2
157.5°	576.1	576.2	576.3	576.4	576.4	576.4	576.4	576.5	576.4	576.4	576.4
160°	582.3	582.4	582.5	582.6	582.7	582.8	582.9	583.0	582.9	582.8	582.7
162.5°	587.7	587.8	587.9	588.1	588.4	588.7	589.0	589.2	589.0	588.7	588.4
165°	595.0	595.1	595.2	595.4	595.7	596.0	596.3	596.6	596.3	596.0	595.7
167.5°	600.7	600.7	600.7	600.9	601.3	601.7	602.1	602.5	602.1	601.7	601.3
170°	603.9	603.9	603.9	604.1	604.5	604.9	605.3	605.7	605.3	604.9	604.5
172.5°	605.9	605.8	605.7	605.9	606.4	606.9	607.4	607.8	607.4	606.9	606.4
175°	608.6	608.5	608.4	608.6	609.2	609.7	610.2	610.7	610.2	609.7	609.2
177.5°	609.8	609.8	609.7	609.8	610.2	610.6	611.0	611.4	611.0	610.6	610.2
180°	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1610.8	1606.4	1600.0	1590.5	1582.9	1570.8	1570.8	1572.8	1572.8	1572.2	1570.8
5°	1562.0	1550.0	1535.8	1519.1	1501.7	1484.2	1481.0	1474.6	1469.9	1466.7	1462.8
7.5°	1510.4	1489.2	1468.4	1445.1	1423.8	1406.2	1394.0	1383.8	1377.4	1370.4	1365.2
10°	1475.4	1449.3	1424.6	1400.1	1373.0	1351.6	1338.2	1328.6	1321.5	1315.1	1311.9
12.5°	1434.2	1404.2	1377.1	1353.7	1324.1	1302.1	1289.3	1284.8	1276.4	1263.0	1256.1
15°	1373.8	1346.0	1313.5	1277.8	1263.5	1236.6	1221.4	1214.4	1209.5	1199.2	1196.1
17.5°	1322.2	1285.9	1249.4	1222.7	1196.2	1174.3	1165.9	1157.0	1150.6	1142.3	1139.7
20°	1281.0	1248.5	1215.1	1186.6	1158.7	1135.0	1127.8	1121.5	1115.1	1111.2	1107.9
22.5°	1239.1	1206.6	1178.9	1152.3	1122.6	1107.0	1099.2	1092.3	1087.8	1085.1	1082.0
25°	1180.2	1151.7	1120.6	1096.8	1073.1	1062.7	1057.9	1054.0	1050.9	1046.8	1046.0
27.5°	1127.5	1096.4	1071.3	1049.0	1032.0	1023.4	1018.8	1016.8	1017.5	1019.0	1019.9
30°	1088.1	1059.6	1038.9	1019.9	1004.0	996.0	995.2	995.2	998.5	999.3	1000.8
32.5°	1052.0	1028.4	1007.8	989.4	977.3	971.9	974.9	974.9	977.4	979.6	982.4
35°	999.3	978.6	962.7	946.8	936.5	938.9	940.5	942.1	946.0	950.8	954.0
37.5°	948.9	931.0	914.4	902.1	897.4	901.6	905.4	908.8	913.3	917.1	920.2
40°	912.7	899.2	883.3	872.2	873.8	876.3	879.4	883.3	887.4	889.7	892.9
42.5°	879.1	864.9	852.9	843.6	845.9	848.9	850.8	852.9	857.5	861.8	863.6
45°	827.8	816.7	805.6	800.0	801.6	803.2	804.8	807.2	811.1	814.4	815.1
47.5°	770.2	762.4	755.0	749.5	752.0	751.4	753.6	758.6	759.8	761.7	766.2
50°	733.4	726.2	717.5	715.9	715.9	715.9	716.7	723.1	723.1	726.2	729.4
52.5°	692.8	688.1	682.6	679.7	678.4	678.4	681.8	685.0	686.2	690.6	693.9
55°	632.6	627.8	623.0	620.7	619.0	620.7	627.0	628.5	632.6	634.9	637.3
57.5°	569.9	566.2	562.4	561.1	560.8	562.9	566.3	571.1	572.1	579.4	583.0
60°	528.6	523.0	519.9	519.9	518.3	525.4	523.8	531.8	533.3	538.2	543.7
62.5°	486.0	478.6	477.4	477.4	479.6	481.6	483.8	487.4	491.4	497.5	501.8
65°	417.5	413.5	419.1	418.3	416.7	421.4	421.4	425.5	430.2	435.8	444.4
67.5°	352.5	350.5	350.9	350.9	353.4	356.1	358.3	361.7	367.5	373.3	379.1
70°	308.7	311.1	307.2	310.3	312.8	313.5	315.1	319.8	326.2	330.1	336.5
72.5°	266.2	266.0	266.5	267.8	270.1	271.6	273.2	278.6	285.6	288.9	294.0
75°	204.8	204.0	206.3	206.3	210.4	211.9	213.5	215.9	222.3	227.0	231.0
77.5°	149.6	150.5	150.0	152.7	151.6	151.9	156.8	159.3	159.9	169.3	171.3
80°	112.7	114.3	115.1	115.8	116.6	115.1	120.7	123.0	123.0	128.6	132.5
82.5°	81.0	81.9	84.0	84.7	84.9	86.5	86.9	88.8	90.7	93.0	98.3
85°	40.5	42.8	43.6	42.8	43.6	42.1	44.4	45.2	46.0	46.0	46.0
87.5°	13.6	14.4	14.1	14.9	14.6	15.6	15.6	14.4	14.4	16.5	14.0
90°	4.4	5.7	7.0	8.3	9.6	10.9	11.3	11.7	12.1	12.5	12.8
92.5°	7.3	7.7	8.7	9.6	10.6	11.6	12.2	12.9	13.5	14.2	14.5
95°	11.1	9.6	10.7	11.8	12.9	14.0	14.7	15.5	16.2	16.9	17.3
97.5°	48.2	43.6	36.4	29.1	21.9	14.6	15.5	16.3	17.1	17.9	18.3
100°	84.7	77.9	62.2	46.5	30.7	14.9	15.8	16.6	17.4	18.2	18.7
102.5°	106.4	98.6	81.4	64.2	47.1	29.9	27.4	24.8	22.3	19.9	18.7
105°	139.7	135.6	126.5	117.5	108.5	99.4	81.5	63.6	45.8	28.0	19.2
107.5°	175.2	176.4	177.8	179.3	180.7	182.1	169.1	155.9	142.9	129.8	116.5
110°	199.2	200.2	201.3	202.4	203.5	204.6	201.3	197.9	194.6	191.3	182.5



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	222.2	223.1	224.2	225.3	226.4	227.5	227.5	227.6	227.6	227.7	226.2
115°	256.0	256.8	257.7	258.6	259.5	260.4	261.5	262.5	263.5	264.5	265.2
117.5°	289.9	290.5	290.9	291.4	292.0	292.4	293.2	294.0	294.8	295.6	296.0
120°	311.2	311.8	312.1	312.5	312.8	313.1	313.9	314.7	315.5	316.3	316.7
122.5°	331.6	332.2	332.6	333.0	333.4	333.8	334.3	334.9	335.5	336.0	336.3
125°	360.7	361.3	361.7	362.1	362.5	362.9	363.1	363.3	363.6	363.8	364.0
127.5°	388.7	389.3	389.8	390.3	390.8	391.3	391.6	391.9	392.2	392.5	392.6
130°	406.2	406.8	407.2	407.6	408.0	408.3	408.7	409.1	409.5	409.9	410.0
132.5°	422.8	423.3	423.7	424.0	424.3	424.6	425.1	425.5	425.9	426.3	426.4
135°	447.5	448.0	448.4	448.8	449.2	449.6	449.9	450.2	450.5	450.8	450.8
137.5°	469.9	470.4	470.7	470.9	471.1	471.3	471.8	472.3	472.7	473.2	473.4
140°	483.8	484.2	484.5	484.8	485.1	485.4	485.8	486.3	486.7	487.1	487.2
142.5°	497.3	497.7	498.0	498.3	498.6	498.9	499.2	499.6	499.9	500.2	500.2
145°	516.4	516.8	517.1	517.3	517.5	517.7	517.9	518.1	518.3	518.5	518.6
147.5°	533.1	533.5	533.7	533.9	534.1	534.3	534.5	534.7	534.9	535.1	534.9
150°	543.4	543.6	543.8	544.0	544.2	544.4	544.6	544.8	545.0	545.2	545.2
152.5°	552.6	552.7	552.8	552.9	553.0	553.2	553.5	553.9	554.2	554.6	554.5
155°	565.0	564.9	565.0	565.1	565.2	565.3	565.8	566.3	566.8	567.3	567.2
157.5°	576.4	576.3	576.2	576.1	576.0	575.9	576.5	577.1	577.7	578.3	578.2
160°	582.6	582.5	582.4	582.3	582.2	582.1	582.7	583.3	583.9	584.5	584.5
162.5°	588.1	587.9	587.8	587.7	587.6	587.5	588.2	589.0	589.7	590.3	590.4
165°	595.4	595.2	595.1	595.0	594.9	594.8	595.6	596.4	597.2	598.0	598.0
167.5°	600.9	600.7	600.7	600.7	600.7	600.7	601.5	602.3	603.0	603.8	603.8
170°	604.1	603.9	603.9	603.9	603.9	603.9	604.7	605.5	606.3	607.1	607.1
172.5°	605.9	605.7	605.8	605.9	606.0	606.0	606.8	607.6	608.4	609.3	609.3
175°	608.6	608.4	608.5	608.6	608.7	608.8	609.6	610.3	611.0	611.7	611.7
177.5°	609.8	609.7	609.8	609.8	609.9	610.0	610.6	611.3	611.9	612.6	612.5
180°	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7



TEST NUMBER: P332210-840

CATALOG NUMBER: S123DIW-S1165D460U840-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1566.4	1565.8	1570.2	1567.0	1570.2	1565.8	1566.4	1570.8	1572.2	1572.8	1572.8
5°	1457.9	1460.4	1452.4	1452.4	1452.4	1460.4	1457.9	1462.8	1466.7	1469.9	1474.6
7.5°	1361.5	1358.0	1358.3	1354.0	1358.3	1358.0	1361.5	1365.2	1370.4	1377.4	1383.8
10°	1302.4	1297.7	1296.1	1296.9	1296.1	1297.7	1302.4	1311.9	1315.1	1321.5	1328.6
12.5°	1253.5	1252.5	1242.1	1242.2	1242.1	1252.5	1253.5	1256.1	1263.0	1276.4	1284.8
15°	1196.1	1181.0	1179.4	1184.2	1179.4	1181.0	1196.1	1196.1	1199.2	1209.5	1214.4
17.5°	1138.4	1130.5	1130.9	1128.6	1130.9	1130.5	1138.4	1139.7	1142.3	1150.6	1157.0
20°	1107.9	1103.2	1102.4	1096.8	1102.4	1103.2	1107.9	1107.9	1111.2	1115.1	1121.5
22.5°	1080.1	1078.4	1078.9	1072.8	1078.9	1078.4	1080.1	1082.0	1085.1	1087.8	1092.3
25°	1045.3	1049.2	1046.0	1046.0	1046.0	1049.2	1045.3	1046.0	1046.8	1050.9	1054.0
27.5°	1021.8	1021.6	1020.1	1020.1	1020.1	1021.6	1021.8	1019.9	1019.0	1017.5	1016.8
30°	1004.0	1003.2	1004.8	1004.8	1004.8	1003.2	1004.0	1000.8	999.3	998.5	995.2
32.5°	986.2	987.3	987.6	988.3	987.6	987.3	986.2	982.4	979.6	977.4	974.9
35°	958.8	959.6	961.9	960.4	961.9	959.6	958.8	954.0	950.8	946.0	942.1
37.5°	921.6	925.2	924.4	925.7	924.4	925.2	921.6	920.2	917.1	913.3	908.8
40°	893.6	896.1	895.2	895.2	895.2	896.1	893.6	892.9	889.7	887.4	883.3
42.5°	865.2	866.9	864.7	863.5	864.7	866.9	865.2	863.6	861.8	857.5	852.9
45°	818.3	816.7	819.1	815.9	819.1	816.7	818.3	815.1	814.4	811.1	807.2
47.5°	765.9	767.5	768.1	770.5	768.1	767.5	765.9	766.2	761.7	759.8	758.6
50°	730.9	735.7	735.7	735.0	735.7	735.7	730.9	729.4	726.2	723.1	723.1
52.5°	696.7	698.9	702.1	702.0	702.1	698.9	696.7	693.9	690.6	686.2	685.0
55°	643.7	645.3	646.8	647.6	646.8	645.3	643.7	637.3	634.9	632.6	628.5
57.5°	588.8	588.1	591.9	593.0	591.9	588.1	588.8	583.0	579.4	572.1	571.1
60°	550.0	550.0	556.3	558.8	556.3	550.0	550.0	543.7	538.2	533.3	531.8
62.5°	508.8	511.3	517.7	514.3	517.7	511.3	508.8	501.8	497.5	491.4	487.4
65°	448.4	454.7	453.9	457.2	453.9	454.7	448.4	444.4	435.8	430.2	425.5
67.5°	385.4	389.4	395.1	395.6	395.1	389.4	385.4	379.1	373.3	367.5	361.7
70°	342.8	346.8	350.0	352.3	350.0	346.8	342.8	336.5	330.1	326.2	319.8
72.5°	301.6	303.7	311.2	307.9	311.2	303.7	301.6	294.0	288.9	285.6	278.6
75°	236.5	242.1	246.8	244.5	246.8	242.1	236.5	231.0	227.0	222.3	215.9
77.5°	174.9	180.5	182.7	180.7	182.7	180.5	174.9	171.3	169.3	159.9	159.3
80°	138.1	137.3	142.1	141.3	142.1	137.3	138.1	132.5	128.6	123.0	123.0
82.5°	101.3	100.5	102.7	103.2	102.7	100.5	101.3	98.3	93.0	90.7	88.8
85°	49.2	51.6	48.4	47.7	48.4	51.6	49.2	46.0	46.0	46.0	45.2
87.5°	14.0	14.0	13.4	12.9	13.4	14.0	14.0	14.0	16.5	14.4	14.4
90°	13.0	13.2	13.4	13.6	13.4	13.2	13.0	12.8	12.5	12.1	11.7
92.5°	14.7	14.8	14.9	15.0	14.9	14.8	14.7	14.5	14.2	13.5	12.9
95°	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	16.9	16.2	15.5
97.5°	18.4	18.5	18.6	18.7	18.6	18.5	18.4	18.3	17.9	17.1	16.3
100°	18.8	18.9	19.0	19.1	19.0	18.9	18.8	18.7	18.2	17.4	16.6
102.5°	18.9	19.1	19.2	19.4	19.2	19.1	18.9	18.7	19.9	22.3	24.8
105°	19.4	19.6	19.8	20.0	19.8	19.6	19.4	19.2	28.0	45.8	63.6
107.5°	103.0	89.6	76.1	62.7	76.1	89.6	103.0	116.5	129.8	142.9	155.9
110°	168.0	153.6	139.2	124.8	139.2	153.6	168.0	182.5	191.3	194.6	197.9



TEST NUMBER: P332210-840

CATALOG NUMBER: S123DIW-S1165D460U840-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	223.2	220.2	217.1	214.1	217.1	220.2	223.2	226.2	227.7	227.6	227.6
115°	265.6	266.0	266.4	266.8	266.4	266.0	265.6	265.2	264.5	263.5	262.5
117.5°	296.1	296.2	296.3	296.4	296.3	296.2	296.1	296.0	295.6	294.8	294.0
120°	316.7	316.7	316.7	316.7	316.7	316.7	316.7	316.7	316.3	315.5	314.7
122.5°	336.4	336.5	336.6	336.7	336.6	336.5	336.4	336.3	336.0	335.5	334.9
125°	364.2	364.4	364.6	364.8	364.6	364.4	364.2	364.0	363.8	363.6	363.3
127.5°	392.4	392.2	392.0	391.8	392.0	392.2	392.4	392.6	392.5	392.2	391.9
130°	409.8	409.6	409.4	409.2	409.4	409.6	409.8	410.0	409.9	409.5	409.1
132.5°	426.1	425.8	425.5	425.3	425.5	425.8	426.1	426.4	426.3	425.9	425.5
135°	450.5	450.2	449.9	449.6	449.9	450.2	450.5	450.8	450.8	450.5	450.2
137.5°	473.2	473.0	472.8	472.6	472.8	473.0	473.2	473.4	473.2	472.7	472.3
140°	487.0	486.8	486.6	486.4	486.6	486.8	487.0	487.2	487.1	486.7	486.3
142.5°	499.9	499.7	499.4	499.1	499.4	499.7	499.9	500.2	500.2	499.9	499.6
145°	518.6	518.6	518.6	518.6	518.6	518.6	518.6	518.6	518.5	518.3	518.1
147.5°	534.5	534.0	533.6	533.1	533.6	534.0	534.5	534.9	535.1	534.9	534.7
150°	544.9	544.6	544.3	544.0	544.3	544.6	544.9	545.2	545.2	545.0	544.8
152.5°	554.1	553.6	553.2	552.7	553.2	553.6	554.1	554.5	554.6	554.2	553.9
155°	566.6	566.0	565.4	564.9	565.4	566.0	566.6	567.2	567.3	566.8	566.3
157.5°	577.4	576.7	575.9	575.1	575.9	576.7	577.4	578.2	578.3	577.7	577.1
160°	583.8	583.1	582.4	581.7	582.4	583.1	583.8	584.5	584.5	583.9	583.3
162.5°	589.7	589.1	588.4	587.8	588.4	589.1	589.7	590.4	590.3	589.7	589.0
165°	597.3	596.7	596.0	595.3	596.0	596.7	597.3	598.0	598.0	597.2	596.4
167.5°	603.0	602.3	601.5	600.7	601.5	602.3	603.0	603.8	603.8	603.0	602.3
170°	606.3	605.5	604.7	603.9	604.7	605.5	606.3	607.1	607.1	606.3	605.5
172.5°	608.3	607.4	606.6	605.7	606.6	607.4	608.3	609.3	609.3	608.4	607.6
175°	610.9	610.1	609.3	608.4	609.3	610.1	610.9	611.7	611.7	611.0	610.3
177.5°	611.7	610.9	610.1	609.3	610.1	610.9	611.7	612.5	612.6	611.9	611.3
180°	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7



TEST NUMBER: P332210-840

CATALOG NUMBER: S123DIW-S1165D460U840-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1570.8	1570.8	1582.9	1590.5	1600.0	1606.4	1610.8	1615.3	1623.0	1633.1	1644.5
5°	1481.0	1484.2	1501.7	1519.1	1535.8	1550.0	1562.0	1576.2	1593.7	1615.1	1638.9
7.5°	1394.0	1406.2	1423.8	1445.1	1468.4	1489.2	1510.4	1533.9	1558.4	1590.0	1623.4
10°	1338.2	1351.6	1373.0	1400.1	1424.6	1449.3	1475.4	1500.9	1531.8	1569.1	1611.9
12.5°	1289.3	1302.1	1324.1	1353.7	1377.1	1404.2	1434.2	1467.2	1502.0	1546.9	1595.5
15°	1221.4	1236.6	1263.5	1277.8	1313.5	1346.0	1373.8	1421.5	1465.9	1512.0	1568.3
17.5°	1165.9	1174.3	1196.2	1222.7	1249.4	1285.9	1322.2	1361.9	1406.2	1462.6	1533.1
20°	1127.8	1135.0	1158.7	1186.6	1215.1	1248.5	1281.0	1320.7	1370.7	1430.2	1506.4
22.5°	1099.2	1107.0	1122.6	1152.3	1178.9	1206.6	1239.1	1286.4	1339.6	1397.9	1480.4
25°	1057.9	1062.7	1073.1	1096.8	1120.6	1151.7	1180.2	1224.7	1279.4	1347.7	1430.2
27.5°	1018.8	1023.4	1032.0	1049.0	1071.3	1096.4	1127.5	1165.3	1220.8	1294.9	1382.6
30°	995.2	996.0	1004.0	1019.9	1038.9	1059.6	1088.1	1130.9	1183.4	1258.8	1350.8
32.5°	974.9	971.9	977.3	989.4	1007.8	1028.4	1052.0	1094.2	1144.7	1218.8	1313.3
35°	940.5	938.9	936.5	946.8	962.7	978.6	999.3	1031.0	1088.1	1157.2	1256.4
37.5°	905.4	901.6	897.4	902.1	914.4	931.0	948.9	977.1	1026.4	1102.4	1197.3
40°	879.4	876.3	873.8	872.2	883.3	899.2	912.7	939.7	985.7	1057.9	1151.7
42.5°	850.8	848.9	845.9	843.6	852.9	864.9	879.1	902.9	948.9	1016.7	1105.3
45°	804.8	803.2	801.6	800.0	805.6	816.7	827.8	845.3	884.9	950.8	1031.0
47.5°	753.6	751.4	752.0	749.5	755.0	762.4	770.2	788.9	827.0	880.2	938.8
50°	716.7	715.9	715.9	715.9	717.5	726.2	733.4	747.6	782.5	835.8	877.8
52.5°	681.8	678.4	678.4	679.7	682.6	688.1	692.8	708.3	738.7	782.4	820.6
55°	627.0	620.7	619.0	620.7	623.0	627.8	632.6	645.3	671.5	704.0	726.2
57.5°	566.3	562.9	560.8	561.1	562.4	566.2	569.9	583.7	604.3	621.3	635.6
60°	523.8	525.4	518.3	519.9	519.9	523.0	528.6	537.3	554.8	566.6	581.0
62.5°	483.8	481.6	479.6	477.4	477.4	478.6	486.0	492.9	507.8	514.0	525.1
65°	421.4	421.4	416.7	418.3	419.1	413.5	417.5	425.5	434.9	437.3	447.7
67.5°	358.3	356.1	353.4	350.9	350.9	350.5	352.5	356.5	363.7	364.5	372.4
70°	315.1	313.5	312.8	310.3	307.2	311.1	308.7	312.8	316.7	317.5	322.2
72.5°	273.2	271.6	270.1	267.8	266.5	266.0	266.2	270.8	273.5	272.4	277.8
75°	213.5	211.9	210.4	206.3	206.3	204.0	204.8	207.9	211.2	208.7	213.5
77.5°	156.8	151.9	151.6	152.7	150.0	150.5	149.6	149.1	150.5	150.7	154.9
80°	120.7	115.1	116.6	115.8	115.1	114.3	112.7	113.5	114.3	115.1	117.4
82.5°	86.9	86.5	84.9	84.7	84.0	81.9	81.0	82.4	83.2	82.7	84.4
85°	44.4	42.1	43.6	42.8	43.6	42.8	40.5	40.5	42.1	41.3	42.8
87.5°	15.6	15.6	14.6	14.9	14.1	14.4	13.6	14.0	14.4	14.2	15.3
90°	11.3	10.9	9.6	8.3	7.0	5.7	4.4	3.4	2.4	1.4	0.4
92.5°	12.2	11.6	10.6	9.6	8.7	7.7	7.3	7.6	7.9	8.2	8.5
95°	14.7	14.0	12.9	11.8	10.7	9.6	11.1	15.2	19.4	23.5	27.7
97.5°	15.5	14.6	21.9	29.1	36.4	43.6	48.2	50.1	51.9	53.7	55.6
100°	15.8	14.9	30.7	46.5	62.2	77.9	84.7	82.7	80.7	78.7	76.6
102.5°	27.4	29.9	47.1	64.2	81.4	98.6	106.4	105.0	103.5	102.1	100.6
105°	81.5	99.4	108.5	117.5	126.5	135.6	139.7	138.6	137.4	136.3	135.2
107.5°	169.1	182.1	180.7	179.3	177.8	176.4	175.2	174.3	173.5	172.6	171.7
110°	201.3	204.6	203.5	202.4	201.3	200.2	199.2	198.4	197.6	196.8	196.0



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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	227.5	227.5	226.4	225.3	224.2	223.1	222.2	221.4	220.7	219.9	219.2
115°	261.5	260.4	259.5	258.6	257.7	256.8	256.0	255.4	254.8	254.2	253.6
117.5°	293.2	292.4	292.0	291.4	290.9	290.5	289.9	289.1	288.4	287.7	286.9
120°	313.9	313.1	312.8	312.5	312.1	311.8	311.2	310.3	309.4	308.5	307.6
122.5°	334.3	333.8	333.4	333.0	332.6	332.2	331.6	330.9	330.1	329.4	328.7
125°	363.1	362.9	362.5	362.1	361.7	361.3	360.7	359.9	359.1	358.3	357.5
127.5°	391.6	391.3	390.8	390.3	389.8	389.3	388.7	387.9	387.1	386.3	385.5
130°	408.7	408.3	408.0	407.6	407.2	406.8	406.2	405.4	404.6	403.7	402.9
132.5°	425.1	424.6	424.3	424.0	423.7	423.3	422.8	422.0	421.2	420.4	419.6
135°	449.9	449.6	449.2	448.8	448.4	448.0	447.5	446.9	446.3	445.7	445.0
137.5°	471.8	471.3	471.1	470.9	470.7	470.4	469.9	469.2	468.4	467.7	466.9
140°	485.8	485.4	485.1	484.8	484.5	484.2	483.8	483.2	482.6	482.0	481.4
142.5°	499.2	498.9	498.6	498.3	498.0	497.7	497.3	496.7	496.0	495.4	494.8
145°	517.9	517.7	517.5	517.3	517.1	516.8	516.4	515.7	515.0	514.3	513.6
147.5°	534.5	534.3	534.1	533.9	533.7	533.5	533.1	532.7	532.2	531.8	531.3
150°	544.6	544.4	544.2	544.0	543.8	543.6	543.4	543.1	542.8	542.5	542.2
152.5°	553.5	553.2	553.0	552.9	552.8	552.7	552.6	552.4	552.3	552.1	552.0
155°	565.8	565.3	565.2	565.1	565.0	564.9	565.0	565.2	565.3	565.5	565.7
157.5°	576.5	575.9	576.0	576.1	576.2	576.3	576.4	576.4	576.4	576.4	576.5
160°	582.7	582.1	582.2	582.3	582.4	582.5	582.6	582.7	582.8	582.9	583.0
162.5°	588.2	587.5	587.6	587.7	587.8	587.9	588.1	588.4	588.7	589.0	589.2
165°	595.6	594.8	594.9	595.0	595.1	595.2	595.4	595.7	596.0	596.3	596.6
167.5°	601.5	600.7	600.7	600.7	600.7	600.7	600.9	601.3	601.7	602.1	602.5
170°	604.7	603.9	603.9	603.9	603.9	603.9	604.1	604.5	604.9	605.3	605.7
172.5°	606.8	606.0	606.0	605.9	605.8	605.7	605.9	606.4	606.9	607.4	607.8
175°	609.6	608.8	608.7	608.6	608.5	608.4	608.6	609.2	609.7	610.2	610.7
177.5°	610.6	610.0	609.9	609.8	609.8	609.7	609.8	610.2	610.6	611.0	611.4
180°	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7



TEST NUMBER: P332210-840

CATALOG NUMBER: S123DIW-S1165D460U840-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1648.3	1651.4	1662.2	1669.9	1678.8	1683.8	1688.9	1692.7	1697.8	1699.1	1717.5
5°	1655.6	1671.5	1699.3	1719.9	1745.2	1773.0	1792.1	1800.9	1823.8	1842.9	1881.0
7.5°	1653.6	1687.4	1729.3	1772.7	1819.4	1862.6	1900.1	1944.5	1976.1	2023.6	2070.4
10°	1651.6	1696.9	1750.8	1806.4	1871.5	1931.8	1985.8	2046.1	2096.1	2161.9	2218.3
12.5°	1645.9	1700.7	1775.6	1841.3	1920.4	2003.6	2083.6	2161.0	2205.3	2315.0	2366.9
15°	1631.8	1696.9	1790.5	1890.6	1999.2	2097.7	2199.3	2280.3	2411.2	2507.2	2568.3
17.5°	1604.8	1696.0	1807.1	1927.6	2059.9	2189.6	2304.7	2427.5	2566.5	2682.6	2806.4
20°	1592.2	1692.1	1815.9	1949.2	2086.6	2233.4	2364.4	2511.9	2663.6	2777.8	2936.6
22.5°	1568.6	1681.9	1815.3	1963.9	2110.7	2262.6	2415.8	2564.7	2739.8	2897.2	3048.4
25°	1530.2	1657.2	1795.3	1961.2	2133.4	2285.8	2469.1	2666.8	2849.3	3051.7	3202.5
27.5°	1489.9	1625.5	1763.8	1918.1	2103.3	2284.2	2514.9	2738.1	2961.3	3136.1	3247.7
30°	1458.8	1590.5	1733.4	1889.0	2072.2	2287.3	2545.3	2788.9	3006.5	3156.4	3219.1
32.5°	1425.1	1558.7	1685.2	1848.4	2043.7	2285.4	2564.4	2818.8	3009.0	3108.9	3096.7
35°	1372.3	1484.2	1607.2	1764.3	1994.5	2271.5	2575.5	2821.5	2938.2	2916.8	2754.8
37.5°	1296.1	1390.2	1511.4	1683.3	1937.3	2242.1	2553.2	2737.8	2730.3	2555.8	2321.2
40°	1248.5	1328.6	1445.3	1626.3	1892.9	2223.1	2518.3	2638.2	2536.6	2292.9	2012.0
42.5°	1186.2	1260.0	1376.7	1562.8	1844.0	2184.3	2451.6	2486.4	2287.6	2007.2	1749.7
45°	1089.7	1154.8	1275.5	1467.5	1770.7	2100.0	2289.0	2204.0	1936.5	1646.9	1450.9
47.5°	986.0	1053.7	1169.7	1367.1	1664.7	1973.3	2063.3	1882.6	1608.0	1373.0	1193.1
50°	920.7	985.7	1099.2	1298.5	1592.9	1869.1	1906.4	1673.0	1420.7	1214.4	1066.7
52.5°	854.6	915.9	1027.5	1227.3	1509.1	1748.5	1725.5	1487.6	1255.6	1079.7	963.8
55°	756.4	814.4	920.7	1107.9	1364.3	1554.0	1470.7	1243.6	1051.6	915.1	827.0
57.5°	668.4	724.0	815.8	984.9	1207.8	1338.2	1232.1	1040.9	888.1	783.0	717.3
60°	608.7	657.9	745.3	902.4	1096.1	1195.3	1090.6	921.5	792.8	708.7	650.1
62.5°	552.2	595.1	676.0	818.6	986.8	1070.2	964.1	821.1	711.7	637.0	587.1
65°	466.7	505.5	577.0	688.1	826.2	881.8	790.5	674.6	589.7	534.1	500.8
67.5°	388.6	421.6	483.3	570.8	672.4	712.9	643.4	553.7	489.7	445.0	418.6
70°	336.5	365.1	413.5	488.9	581.0	611.9	546.8	473.0	426.2	390.5	365.9
72.5°	292.7	313.7	357.6	415.9	492.7	517.4	471.9	407.0	363.3	336.5	317.0
75°	223.0	240.4	269.0	315.9	369.1	383.3	349.2	308.7	279.3	260.3	245.2
77.5°	160.8	173.7	194.3	223.2	260.0	272.9	251.3	224.3	202.9	190.0	181.6
80°	121.4	131.8	149.3	173.0	195.2	202.4	189.7	169.1	154.0	146.8	139.7
82.5°	89.7	95.5	106.0	122.2	137.4	145.9	135.1	122.7	114.6	108.1	105.4
85°	45.2	48.4	53.2	59.5	69.1	72.2	68.3	65.0	60.3	56.4	56.4
87.5°	16.8	17.0	19.1	20.6	23.3	25.5	25.1	24.1	23.7	23.2	22.6
90°	1.4	2.4	3.4	4.4	5.7	7.0	8.3	9.6	10.9	11.3	11.7
92.5°	8.2	7.9	7.6	7.3	7.7	8.7	9.6	10.6	11.6	12.2	12.9
95°	23.5	19.4	15.2	11.1	9.6	10.7	11.8	12.9	14.0	14.7	15.5
97.5°	53.7	51.9	50.1	48.2	43.6	36.4	29.1	21.9	14.6	15.5	16.3
100°	78.7	80.7	82.7	84.7	77.9	62.2	46.5	30.7	14.9	15.8	16.6
102.5°	102.1	103.5	105.0	106.4	98.6	81.4	64.2	47.1	29.9	27.4	24.8
105°	136.3	137.4	138.6	139.7	135.6	126.5	117.5	108.5	99.4	81.5	63.6
107.5°	172.6	173.5	174.3	175.2	176.4	177.8	179.3	180.7	182.1	169.1	155.9
110°	196.8	197.6	198.4	199.2	200.2	201.3	202.4	203.5	204.6	201.3	197.9



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	219.9	220.7	221.4	222.2	223.1	224.2	225.3	226.4	227.5	227.5	227.6
115°	254.2	254.8	255.4	256.0	256.8	257.7	258.6	259.5	260.4	261.5	262.5
117.5°	287.7	288.4	289.1	289.9	290.5	290.9	291.4	292.0	292.4	293.2	294.0
120°	308.5	309.4	310.3	311.2	311.8	312.1	312.5	312.8	313.1	313.9	314.7
122.5°	329.4	330.1	330.9	331.6	332.2	332.6	333.0	333.4	333.8	334.3	334.9
125°	358.3	359.1	359.9	360.7	361.3	361.7	362.1	362.5	362.9	363.1	363.3
127.5°	386.3	387.1	387.9	388.7	389.3	389.8	390.3	390.8	391.3	391.6	391.9
130°	403.7	404.6	405.4	406.2	406.8	407.2	407.6	408.0	408.3	408.7	409.1
132.5°	420.4	421.2	422.0	422.8	423.3	423.7	424.0	424.3	424.6	425.1	425.5
135°	445.7	446.3	446.9	447.5	448.0	448.4	448.8	449.2	449.6	449.9	450.2
137.5°	467.7	468.4	469.2	469.9	470.4	470.7	470.9	471.1	471.3	471.8	472.3
140°	482.0	482.6	483.2	483.8	484.2	484.5	484.8	485.1	485.4	485.8	486.3
142.5°	495.4	496.0	496.7	497.3	497.7	498.0	498.3	498.6	498.9	499.2	499.6
145°	514.3	515.0	515.7	516.4	516.8	517.1	517.3	517.5	517.7	517.9	518.1
147.5°	531.8	532.2	532.7	533.1	533.5	533.7	533.9	534.1	534.3	534.5	534.7
150°	542.5	542.8	543.1	543.4	543.6	543.8	544.0	544.2	544.4	544.6	544.8
152.5°	552.1	552.3	552.4	552.6	552.7	552.8	552.9	553.0	553.2	553.5	553.9
155°	565.5	565.3	565.2	565.0	564.9	565.0	565.1	565.2	565.3	565.8	566.3
157.5°	576.4	576.4	576.4	576.4	576.3	576.2	576.1	576.0	575.9	576.5	577.1
160°	582.9	582.8	582.7	582.6	582.5	582.4	582.3	582.2	582.1	582.7	583.3
162.5°	589.0	588.7	588.4	588.1	587.9	587.8	587.7	587.6	587.5	588.2	589.0
165°	596.3	596.0	595.7	595.4	595.2	595.1	595.0	594.9	594.8	595.6	596.4
167.5°	602.1	601.7	601.3	600.9	600.7	600.7	600.7	600.7	600.7	601.5	602.3
170°	605.3	604.9	604.5	604.1	603.9	603.9	603.9	603.9	603.9	604.7	605.5
172.5°	607.4	606.9	606.4	605.9	605.7	605.8	605.9	606.0	606.0	606.8	607.6
175°	610.2	609.7	609.2	608.6	608.4	608.5	608.6	608.7	608.8	609.6	610.3
177.5°	611.0	610.6	610.2	609.8	609.7	609.8	609.8	609.9	610.0	610.6	611.3
180°	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7	610.7



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1	1638.1
2.5°	1723.8	1724.4	1731.5	1736.6	1734.0	1737.2	1738.5
5°	1883.4	1912.0	1927.0	1938.1	1938.9	1939.7	1946.1
7.5°	2109.6	2140.2	2162.6	2196.6	2206.8	2218.3	2214.9
10°	2274.7	2319.9	2358.8	2379.4	2401.7	2434.2	2408.0
12.5°	2428.9	2509.1	2568.3	2600.4	2621.3	2627.9	2615.0
15°	2683.4	2788.1	2844.5	2843.0	2914.4	2945.4	2896.9
17.5°	2916.8	3013.4	3090.9	3130.6	3190.1	3203.3	3197.2
20°	3059.6	3165.2	3225.5	3293.8	3324.7	3352.4	3357.2
22.5°	3182.8	3277.5	3342.4	3399.1	3425.1	3438.2	3446.2
25°	3309.6	3384.3	3423.1	3442.9	3450.1	3448.5	3438.2
27.5°	3300.8	3306.6	3263.8	3221.7	3184.1	3141.7	3127.0
30°	3215.2	3148.5	3029.5	2962.0	2862.8	2784.2	2815.9
32.5°	2989.8	2857.1	2723.4	2576.0	2453.9	2419.1	2384.2
35°	2551.6	2318.3	2181.8	2023.1	1959.5	1896.1	1852.4
37.5°	2064.4	1883.9	1721.9	1618.1	1554.5	1514.3	1492.8
40°	1784.9	1622.2	1488.9	1404.8	1356.3	1311.1	1304.8
42.5°	1562.2	1410.9	1310.5	1243.5	1197.0	1177.8	1163.9
45°	1279.4	1173.9	1106.4	1058.7	1027.8	1015.9	1000.1
47.5°	1082.9	1008.2	957.7	925.2	901.9	893.0	891.8
50°	973.0	911.1	873.8	848.4	830.2	827.0	814.4
52.5°	890.5	836.9	807.8	785.6	772.4	763.6	759.7
55°	773.1	737.3	711.1	698.4	688.1	679.3	679.3
57.5°	676.4	646.5	629.2	618.4	615.2	609.0	605.1
60°	616.7	591.3	577.8	568.3	561.9	562.7	555.5
62.5°	558.3	541.8	528.9	519.4	511.8	511.9	512.4
65°	475.4	462.7	453.2	450.0	445.2	439.7	441.3
67.5°	402.8	390.9	383.5	378.1	376.5	373.5	378.1
70°	350.8	342.0	336.5	331.7	330.1	330.9	335.0
72.5°	303.2	297.0	293.4	291.1	287.6	287.8	290.4
75°	238.1	233.4	230.1	227.8	227.0	227.0	227.0
77.5°	174.9	173.8	172.4	168.8	169.1	170.0	170.2
80°	138.1	135.7	134.9	133.3	131.0	129.4	133.3
82.5°	103.2	100.8	100.0	99.7	96.0	95.7	99.1
85°	55.5	53.2	53.9	53.2	53.2	52.4	52.4
87.5°	22.1	21.5	21.0	21.6	21.0	20.5	21.8
90°	12.1	12.5	12.8	13.0	13.2	13.4	13.6
92.5°	13.5	14.2	14.5	14.7	14.8	14.9	15.0
95°	16.2	16.9	17.3	17.3	17.3	17.3	17.3
97.5°	17.1	17.9	18.3	18.4	18.5	18.6	18.7
100°	17.4	18.2	18.7	18.8	18.9	19.0	19.1
102.5°	22.3	19.9	18.7	18.9	19.1	19.2	19.4
105°	45.8	28.0	19.2	19.4	19.6	19.8	20.0
107.5°	142.9	129.8	116.5	103.0	89.6	76.1	62.7
110°	194.6	191.3	182.5	168.0	153.6	139.2	124.8



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	227.6	227.7	226.2	223.2	220.2	217.1	214.1
115°	263.5	264.5	265.2	265.6	266.0	266.4	266.8
117.5°	294.8	295.6	296.0	296.1	296.2	296.3	296.4
120°	315.5	316.3	316.7	316.7	316.7	316.7	316.7
122.5°	335.5	336.0	336.3	336.4	336.5	336.6	336.7
125°	363.6	363.8	364.0	364.2	364.4	364.6	364.8
127.5°	392.2	392.5	392.6	392.4	392.2	392.0	391.8
130°	409.5	409.9	410.0	409.8	409.6	409.4	409.2
132.5°	425.9	426.3	426.4	426.1	425.8	425.5	425.3
135°	450.5	450.8	450.8	450.5	450.2	449.9	449.6
137.5°	472.7	473.2	473.4	473.2	473.0	472.8	472.6
140°	486.7	487.1	487.2	487.0	486.8	486.6	486.4
142.5°	499.9	500.2	500.2	499.9	499.7	499.4	499.1
145°	518.3	518.5	518.6	518.6	518.6	518.6	518.6
147.5°	534.9	535.1	534.9	534.5	534.0	533.6	533.1
150°	545.0	545.2	545.2	544.9	544.6	544.3	544.0
152.5°	554.2	554.6	554.5	554.1	553.6	553.2	552.7
155°	566.8	567.3	567.2	566.6	566.0	565.4	564.9
157.5°	577.7	578.3	578.2	577.4	576.7	575.9	575.1
160°	583.9	584.5	584.5	583.8	583.1	582.4	581.7
162.5°	589.7	590.3	590.4	589.7	589.1	588.4	587.8
165°	597.2	598.0	598.0	597.3	596.7	596.0	595.3
167.5°	603.0	603.8	603.8	603.0	602.3	601.5	600.7
170°	606.3	607.1	607.1	606.3	605.5	604.7	603.9
172.5°	608.4	609.3	609.3	608.3	607.4	606.6	605.7
175°	611.0	611.7	611.7	610.9	610.1	609.3	608.4
177.5°	611.9	612.6	612.5	611.7	610.9	610.1	609.3
180°	610.7	610.7	610.7	610.7	610.7	610.7	610.7

(END OF REPORT)