

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: P332470-935

Luminaire Tested: **S123RDIW-S1165D460U935-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332470-935
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: S123RDIW-S1165D460U935-4F0-1E-UDD-A
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 460 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5525.2 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.36
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Direct

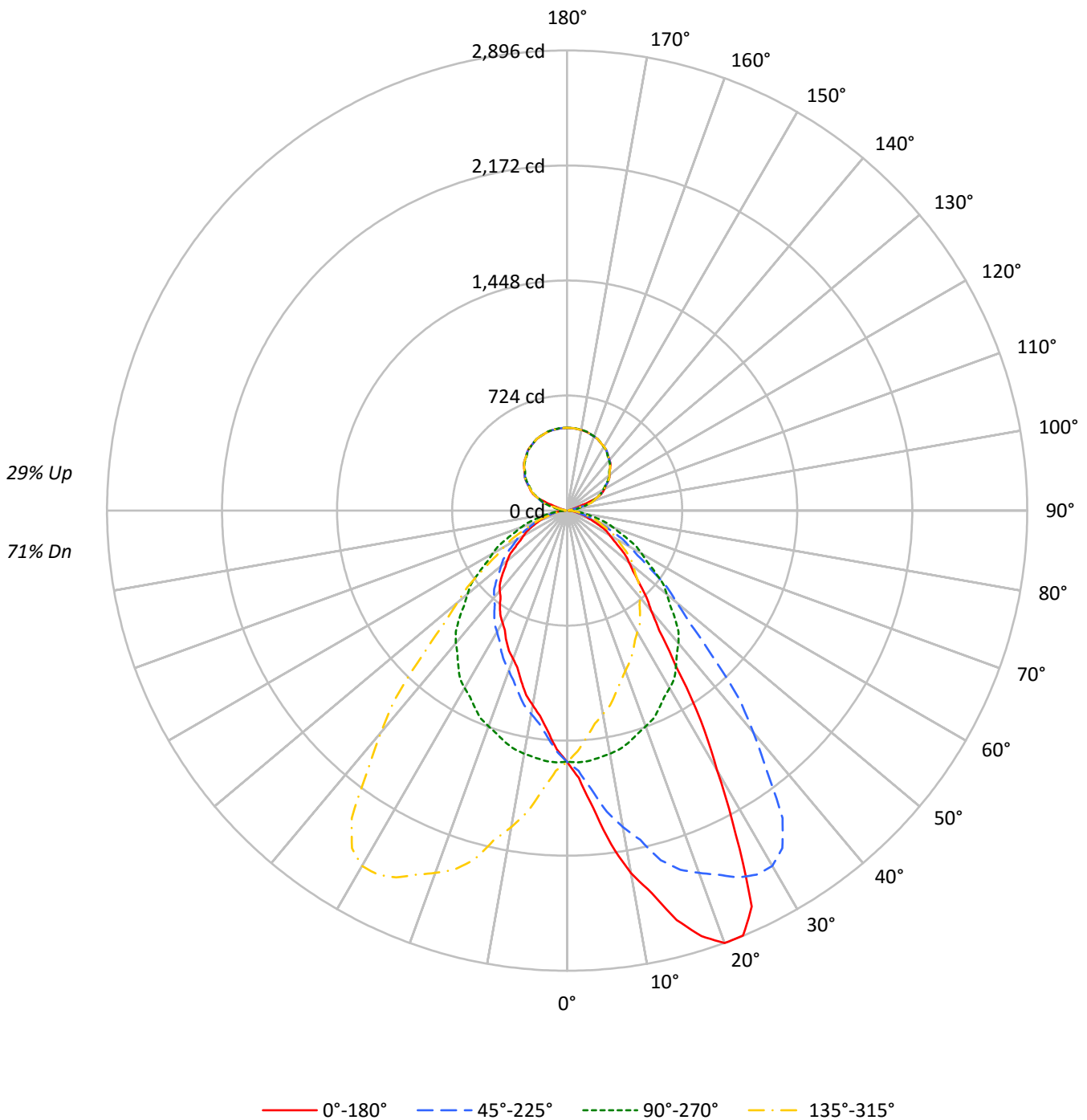
Input Watts (W): 52.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	50	30	10	50	30	10	0																
RCR																																														
0	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	71																
1	103	99	96	92	98	94	91	88	85	82	80	76	74	73	68	67	66	66	66	66	66	66	66	66	66	66	66	66	66	62																
2	95	88	82	77	90	83	78	74	75	71	68	68	65	62	61	59	57	57	57	57	57	57	57	57	57	57	57	57	57	53																
3	87	78	71	65	82	74	68	63	67	62	58	61	57	53	55	52	49	49	49	49	49	49	49	49	49	49	49	49	49	46																
4	80	70	62	56	76	66	59	54	60	55	50	55	50	47	50	46	43	43	43	43	43	43	43	43	43	43	43	43	43	40																
5	74	62	54	49	70	60	52	47	54	48	44	50	45	41	45	41	38	38	38	38	38	38	38	38	38	38	38	38	38	35																
6	68	56	48	43	65	54	47	41	49	43	39	45	40	36	41	37	34	34	34	34	34	34	34	34	34	34	34	34	34	31																
7	64	51	43	38	60	49	42	37	45	39	35	41	36	32	38	34	30	30	30	30	30	30	30	30	30	30	30	30	30	28																
8	59	47	39	34	56	45	38	33	41	35	31	38	33	29	35	31	27	27	27	27	27	27	27	27	27	27	27	27	27	25																
9	55	43	36	31	53	41	34	30	38	32	28	35	30	27	32	28	25	25	25	25	25	25	25	25	25	25	25	25	25	23																
10	52	40	32	28	49	38	31	27	35	30	26	33	28	24	30	26	23	23	23	23	23	23	23	23	23	23	23	23	23	21																

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17016	17016	17016	17016
5°	20283	17088	15048	17088
10°	25326	16990	13595	16990
15°	29727	16817	12397	16817
20°	33176	16557	11379	16557
25°	32647	16284	10753	16284
30°	23467	16032	10110	16032
35°	15669	15704	9692	15704
40°	11545	15309	9261	15309
45°	9683	14618	8840	14618
50°	8544	13711	8251	13711
55°	7492	12675	7443	12675
60°	6674	11683	6818	11683
65°	5861	10618	6342	10618
70°	4601	9668	5794	9668
75°	4055	8442	5294	8442
80°	3521	7172	5201	7172
85°	2841	5768	5521	5768



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.5	2.8
10°-20°	485.7	8.8
20°-30°	763.0	13.8
30°-40°	796.1	14.4
40°-50°	681.2	12.3
50°-60°	519.2	9.4
60°-70°	332.8	6.0
70°-80°	160.1	2.9
80°-90°	43.8	0.8
90°-100°	18.9	0.3
100°-110°	90.2	1.6
110°-120°	216.7	3.9
120°-130°	276.0	5.0
130°-140°	294.8	5.3
140°-150°	275.7	5.0
150°-160°	222.4	4.0
160°-170°	143.5	2.6
170°-180°	49.5	0.9
0°-30°	1404.1	25.4
0°-40°	2200.2	39.8
0°-60°	3400.7	61.5
0°-90°	3937.4	71.3
90°-120°	325.9	5.9
90°-150°	1172.4	21.2
90°-180°	1588.0	28.7
0°-180°	5525.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1581	1581	1581	1581	1581	
5°	1877	1582	1393	1582	1877	194
15°	2668	1509	1112	1509	2668	756
25°	2749	1371	905	1371	2749	1181
35°	1192	1195	738	1195	1192	782
45°	636	960	581	960	636	500
55°	399	675	397	675	399	361
65°	230	417	249	417	230	226
75°	98	203	127	203	98	105
85°	23	47	45	47	23	27
90°	12	0	12	0	12	6
95°	15	24	15	24	15	12
105°	17	115	17	115	17	39
115°	228	216	228	216	228	210
125°	311	305	311	305	311	278
135°	383	379	383	379	383	296
145°	442	438	442	438	442	276
155°	482	482	482	482	482	222
165°	508	509	508	509	508	143
175°	519	521	519	521	519	49
180°	521	521	521	521	521	



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8
2.5°	1683.7	1685.8	1678.8	1677.7	1669.6	1667.4	1667.4	1656.0	1649.0	1639.9	1634.4
5°	1877.2	1888.1	1882.7	1870.4	1850.1	1845.4	1832.6	1812.2	1789.2	1760.8	1747.3
7.5°	2118.9	2133.7	2128.0	2109.2	2087.9	2070.8	2034.5	2000.8	1953.5	1912.1	1876.6
10°	2317.1	2301.5	2289.3	2271.1	2251.4	2219.7	2181.8	2129.6	2069.4	2022.1	1969.3
12.5°	2465.4	2462.9	2447.4	2428.6	2400.9	2370.7	2324.1	2260.6	2190.6	2122.2	2061.8
15°	2667.6	2671.7	2661.5	2641.9	2602.6	2549.2	2478.8	2452.5	2352.3	2277.9	2203.4
17.5°	2807.5	2806.8	2805.4	2778.2	2738.2	2700.1	2634.8	2565.4	2474.8	2369.9	2269.6
20°	2896.3	2889.6	2891.0	2860.5	2830.7	2786.7	2723.1	2622.3	2547.9	2426.7	2323.2
22.5°	2894.2	2892.9	2898.0	2887.5	2865.9	2832.2	2782.1	2697.0	2602.0	2479.8	2363.3
25°	2748.8	2743.4	2775.3	2784.0	2818.6	2824.6	2809.7	2763.0	2673.1	2547.2	2403.1
27.5°	2300.6	2297.6	2356.6	2430.5	2524.2	2596.9	2667.4	2701.3	2673.1	2582.9	2438.5
30°	1888.1	1951.6	1981.4	2088.4	2207.4	2349.6	2474.1	2592.5	2621.6	2582.4	2463.9
32.5°	1567.5	1623.1	1648.0	1739.7	1850.7	2017.2	2203.9	2371.6	2490.1	2520.1	2448.8
35°	1192.4	1193.1	1249.9	1290.5	1393.4	1564.6	1745.9	1970.6	2193.9	2363.1	2380.7
37.5°	951.5	954.8	989.2	1029.7	1106.8	1197.4	1357.1	1543.9	1801.8	2061.6	2213.8
40°	821.6	827.6	853.3	893.3	948.7	1017.1	1141.6	1317.6	1532.8	1821.7	2057.9
42.5°	738.1	748.0	761.3	792.0	826.4	890.4	991.1	1127.0	1322.8	1595.9	1868.5
45°	636.1	641.5	651.7	665.9	697.0	741.7	809.3	900.7	1063.2	1283.1	1555.7
47.5°	561.1	558.3	568.9	580.5	601.2	631.6	677.0	751.6	867.5	1043.9	1275.2
50°	510.2	509.5	517.0	525.8	545.4	567.7	605.0	661.2	753.2	899.4	1111.2
52.5°	462.6	465.2	470.5	481.4	495.6	513.7	547.1	587.5	666.6	792.7	969.3
55°	399.2	401.3	408.7	414.8	425.0	443.2	464.3	498.1	552.2	640.2	785.7
57.5°	345.7	344.7	351.9	353.4	364.9	379.8	396.0	422.2	461.5	526.9	624.9
60°	310.0	307.9	314.0	318.7	324.9	337.0	350.5	376.3	407.4	455.5	539.3
62.5°	277.4	276.5	280.9	285.7	290.8	301.8	313.1	332.9	357.6	398.0	464.6
65°	230.1	232.1	234.1	236.2	238.8	245.6	256.5	270.0	287.0	315.4	363.4
67.5°	180.8	182.9	183.6	187.7	193.6	197.8	204.4	216.5	228.2	252.2	279.5
70°	146.2	145.5	146.2	148.2	155.7	163.1	171.9	180.7	188.1	205.0	228.1
72.5°	125.6	124.4	126.1	126.6	130.2	132.2	137.8	146.0	155.7	167.1	183.7
75°	97.5	97.5	97.5	97.5	100.1	101.5	103.6	105.6	108.9	114.3	126.6
77.5°	72.0	72.2	73.1	73.8	74.3	75.1	76.4	78.4	79.6	82.4	87.7
80°	56.8	57.5	56.8	57.5	57.5	58.9	59.6	61.6	62.3	65.6	67.7
82.5°	42.8	42.4	42.8	43.5	43.5	44.8	44.9	46.4	46.6	48.3	50.4
85°	23.0	21.7	23.0	22.3	23.7	22.3	23.0	24.4	24.4	25.1	27.7
87.5°	7.7	8.8	7.7	8.2	8.2	8.6	8.5	8.5	9.5	8.9	9.2
90°	11.6	11.5	11.3	11.1	10.9	10.7	10.3	10.0	9.6	9.3	8.2
92.5°	12.8	12.7	12.7	12.6	12.4	12.1	11.5	11.0	10.4	9.9	9.0
95°	14.7	14.7	14.7	14.7	14.7	14.4	13.8	13.2	12.6	12.0	11.0
97.5°	15.9	15.8	15.8	15.7	15.6	15.2	14.6	13.9	13.2	12.5	18.7
100°	16.3	16.2	16.1	16.0	15.9	15.5	14.8	14.1	13.4	12.7	26.2
102.5°	16.5	16.4	16.3	16.1	15.9	17.0	19.0	21.2	23.3	25.5	40.1
105°	17.0	16.9	16.7	16.5	16.4	23.8	39.1	54.2	69.5	84.7	92.5
107.5°	53.5	64.9	76.4	87.8	99.4	110.6	121.8	132.9	144.1	155.2	154.0
110°	106.4	118.6	131.0	143.3	155.6	163.1	165.9	168.8	171.6	174.4	173.5



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	182.5	185.1	187.7	190.3	192.9	194.2	194.1	194.1	194.0	194.0	193.0
115°	227.5	227.1	226.8	226.4	226.1	225.5	224.6	223.8	222.9	222.1	221.3
117.5°	252.7	252.6	252.5	252.4	252.4	252.0	251.3	250.6	249.9	249.3	248.9
120°	270.0	270.0	270.0	270.0	270.0	269.7	269.0	268.3	267.6	266.9	266.7
122.5°	287.1	287.0	286.9	286.8	286.7	286.5	286.0	285.5	285.0	284.6	284.2
125°	311.0	310.8	310.6	310.5	310.3	310.1	310.0	309.8	309.6	309.4	309.1
127.5°	334.1	334.2	334.4	334.6	334.8	334.7	334.4	334.2	333.9	333.6	333.2
130°	348.9	349.0	349.2	349.4	349.6	349.5	349.1	348.8	348.4	348.1	347.8
132.5°	362.6	362.7	363.0	363.3	363.5	363.4	363.1	362.7	362.4	362.1	361.8
135°	383.3	383.6	383.8	384.1	384.4	384.4	384.1	383.8	383.6	383.3	383.0
137.5°	402.9	403.1	403.3	403.5	403.6	403.5	403.0	402.7	402.3	401.8	401.7
140°	414.7	414.8	415.0	415.2	415.3	415.3	414.9	414.6	414.2	413.9	413.6
142.5°	425.5	425.8	426.0	426.2	426.5	426.5	426.2	425.9	425.6	425.3	425.1
145°	442.1	442.1	442.1	442.1	442.1	442.0	441.9	441.7	441.5	441.3	441.2
147.5°	454.5	455.0	455.3	455.7	456.1	456.2	456.1	455.9	455.7	455.6	455.4
150°	463.8	464.1	464.3	464.6	464.9	464.9	464.7	464.5	464.3	464.2	464.0
152.5°	471.2	471.7	472.0	472.4	472.8	472.9	472.5	472.3	471.9	471.7	471.5
155°	481.6	482.1	482.6	483.1	483.6	483.7	483.3	482.8	482.4	482.0	481.9
157.5°	490.3	491.0	491.7	492.3	493.0	493.1	492.6	492.1	491.5	491.0	491.1
160°	495.9	496.5	497.1	497.7	498.3	498.3	497.8	497.3	496.8	496.3	496.4
162.5°	501.2	501.7	502.2	502.7	503.3	503.3	502.7	502.1	501.5	500.9	501.0
165°	507.6	508.2	508.8	509.3	509.9	509.9	509.2	508.5	507.8	507.1	507.2
167.5°	512.1	512.8	513.5	514.1	514.8	514.8	514.1	513.5	512.8	512.1	512.1
170°	514.9	515.6	516.3	516.9	517.6	517.6	516.9	516.3	515.6	514.9	514.9
172.5°	516.4	517.2	517.9	518.7	519.4	519.4	518.8	518.1	517.4	516.7	516.7
175°	518.8	519.4	520.1	520.8	521.5	521.5	520.9	520.3	519.7	519.1	519.0
177.5°	519.4	520.1	520.8	521.5	522.2	522.3	521.7	521.2	520.6	520.0	520.0
180°	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8
2.5°	1632.3	1630.6	1623.1	1614.4	1603.0	1595.4	1589.5	1586.2	1576.5	1564.6	1556.4
5°	1733.1	1712.8	1691.1	1664.7	1640.4	1615.3	1599.7	1581.5	1559.2	1534.1	1516.6
7.5°	1841.1	1801.3	1758.4	1714.2	1670.4	1631.2	1596.6	1566.8	1531.3	1495.4	1470.2
10°	1923.9	1865.7	1805.5	1743.9	1687.7	1635.0	1594.3	1554.4	1511.8	1470.5	1439.4
12.5°	1999.2	1922.5	1853.1	1777.4	1705.6	1642.5	1584.1	1537.1	1485.8	1441.8	1406.4
15°	2094.5	2015.9	1932.0	1817.0	1721.6	1641.8	1570.6	1509.1	1446.8	1392.7	1358.1
17.5°	2183.5	2065.4	1952.6	1856.7	1732.7	1632.9	1546.2	1472.6	1404.2	1346.8	1304.3
20°	2220.3	2105.9	1983.5	1861.0	1739.1	1627.5	1526.6	1445.4	1374.4	1309.4	1270.2
22.5°	2242.5	2113.0	1984.0	1852.4	1722.9	1607.0	1507.2	1417.9	1340.8	1279.1	1230.7
25°	2268.4	2114.1	1971.9	1842.0	1710.0	1584.2	1465.8	1371.1	1287.8	1222.2	1170.7
27.5°	2285.4	2103.9	1936.0	1791.6	1657.7	1532.3	1423.8	1323.4	1239.0	1169.5	1114.3
30°	2288.6	2095.8	1908.3	1752.0	1616.0	1501.0	1386.0	1289.9	1200.5	1126.7	1075.3
32.5°	2293.0	2075.8	1871.0	1705.0	1565.6	1451.7	1347.5	1255.7	1164.2	1091.6	1039.1
35°	2275.1	2064.7	1814.3	1623.4	1484.0	1373.7	1279.7	1195.1	1105.1	1034.7	981.3
37.5°	2198.2	2020.7	1755.6	1531.7	1386.0	1283.8	1207.1	1133.3	1050.9	974.9	924.5
40°	2120.8	1977.4	1710.0	1475.9	1323.7	1218.7	1149.8	1089.5	1009.7	938.6	884.5
42.5°	2005.5	1918.4	1666.7	1417.5	1253.3	1152.2	1094.0	1037.5	967.4	895.3	844.4
45°	1794.0	1805.5	1578.1	1324.3	1155.8	1054.3	999.5	960.3	898.0	838.4	786.4
47.5°	1528.7	1636.3	1474.0	1225.1	1053.1	957.9	909.9	875.6	833.7	775.2	727.7
50°	1355.5	1509.1	1390.7	1158.6	988.7	894.0	846.5	818.8	782.3	736.2	691.0
52.5°	1195.8	1360.7	1290.0	1084.3	918.9	832.2	785.9	763.1	734.1	690.8	649.8
55°	975.2	1142.3	1126.1	972.4	814.1	736.2	701.1	675.4	655.7	623.3	590.8
57.5°	788.8	947.3	955.6	847.9	721.8	644.9	614.6	595.2	582.4	557.9	527.9
60°	671.3	816.8	845.2	764.1	655.7	588.1	558.3	542.7	532.6	513.0	489.9
62.5°	573.9	697.7	729.9	671.4	592.4	529.1	505.8	490.8	483.9	466.9	446.6
65°	439.2	542.1	573.2	540.7	499.4	448.7	429.7	416.9	410.8	401.3	386.4
67.5°	330.3	405.2	439.4	416.5	401.6	369.5	357.4	350.5	345.1	338.6	326.1
70°	265.3	320.7	355.9	349.8	337.7	320.7	311.9	307.2	301.8	296.4	285.6
72.5°	213.3	251.5	284.5	287.6	277.6	274.2	266.5	264.5	261.2	254.7	248.7
75°	141.5	167.8	190.8	199.7	203.7	207.1	203.7	203.0	202.3	196.9	193.6
77.5°	92.7	106.9	121.4	136.5	142.8	147.4	148.4	150.9	149.1	146.3	144.6
80°	71.0	74.5	84.6	97.5	107.6	111.7	114.3	115.7	115.0	114.3	111.7
82.5°	51.6	54.4	59.2	68.2	76.7	83.5	85.2	84.9	86.4	86.8	84.6
85°	27.7	28.4	29.8	31.2	35.9	43.3	45.4	46.7	48.0	48.0	44.0
87.5°	10.1	9.3	10.2	10.0	11.5	11.8	14.9	17.4	18.1	16.1	16.3
90°	7.1	5.9	4.8	3.8	2.9	2.1	1.2	0.3	1.2	2.1	2.9
92.5°	8.2	7.4	6.5	6.2	6.5	6.7	7.0	7.2	7.0	6.7	6.5
95°	10.1	9.1	8.2	9.5	13.0	16.5	20.1	23.6	20.1	16.5	13.0
97.5°	24.8	31.0	37.2	41.1	42.7	44.3	45.8	47.4	45.8	44.3	42.7
100°	39.6	53.0	66.4	72.2	70.5	68.8	67.1	65.3	67.1	68.8	70.5
102.5°	54.8	69.4	84.0	90.7	89.5	88.3	87.0	85.8	87.0	88.3	89.5
105°	100.2	107.9	115.6	119.1	118.1	117.2	116.2	115.3	116.2	117.2	118.1
107.5°	152.8	151.6	150.4	149.4	148.6	147.9	147.1	146.4	147.1	147.9	148.6
110°	172.5	171.6	170.7	169.9	169.2	168.5	167.8	167.1	167.8	168.5	169.2



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	192.1	191.1	190.2	189.4	188.7	188.1	187.5	186.9	187.5	188.1	188.7
115°	220.5	219.7	219.0	218.3	217.7	217.2	216.7	216.2	216.7	217.2	217.7
117.5°	248.5	248.1	247.7	247.2	246.5	245.9	245.3	244.6	245.3	245.9	246.5
120°	266.4	266.1	265.9	265.4	264.6	263.8	263.0	262.3	263.0	263.8	264.6
122.5°	283.9	283.6	283.3	282.8	282.1	281.5	280.9	280.3	280.9	281.5	282.1
125°	308.8	308.4	308.1	307.5	306.9	306.2	305.5	304.8	305.5	306.2	306.9
127.5°	332.8	332.3	331.9	331.4	330.7	330.0	329.3	328.6	329.3	330.0	330.7
130°	347.5	347.2	346.8	346.3	345.6	344.9	344.2	343.5	344.2	344.9	345.6
132.5°	361.5	361.3	360.9	360.5	359.8	359.1	358.4	357.7	358.4	359.1	359.8
135°	382.6	382.3	381.9	381.5	381.0	380.5	380.0	379.4	380.0	380.5	381.0
137.5°	401.5	401.3	401.1	400.6	400.0	399.3	398.7	398.0	398.7	399.3	400.0
140°	413.4	413.1	412.8	412.5	412.0	411.5	411.0	410.4	411.0	411.5	412.0
142.5°	424.8	424.6	424.3	424.0	423.4	422.9	422.4	421.9	422.4	422.9	423.4
145°	441.0	440.8	440.7	440.3	439.7	439.1	438.5	437.9	438.5	439.1	439.7
147.5°	455.2	455.0	454.9	454.5	454.2	453.7	453.4	453.0	453.4	453.7	454.2
150°	463.8	463.6	463.5	463.3	463.0	462.8	462.5	462.3	462.5	462.8	463.0
152.5°	471.4	471.3	471.2	471.1	471.0	470.9	470.7	470.6	470.7	470.9	471.0
155°	481.8	481.7	481.6	481.7	481.9	482.0	482.2	482.3	482.2	482.0	481.9
157.5°	491.2	491.3	491.4	491.5	491.5	491.5	491.5	491.5	491.5	491.5	491.5
160°	496.5	496.5	496.6	496.7	496.8	496.9	497.0	497.1	497.0	496.9	496.8
162.5°	501.1	501.2	501.3	501.4	501.7	501.9	502.1	502.3	502.1	501.9	501.7
165°	507.3	507.4	507.5	507.6	507.9	508.2	508.4	508.7	508.4	508.2	507.9
167.5°	512.1	512.1	512.1	512.3	512.6	513.0	513.3	513.7	513.3	513.0	512.6
170°	514.9	514.9	514.9	515.1	515.4	515.7	516.1	516.4	516.1	515.7	515.4
172.5°	516.6	516.5	516.4	516.6	517.0	517.5	517.9	518.2	517.9	517.5	517.0
175°	518.9	518.8	518.8	518.9	519.4	519.8	520.2	520.6	520.2	519.8	519.4
177.5°	519.9	519.9	519.8	519.9	520.2	520.6	520.9	521.2	520.9	520.6	520.2
180°	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8
2.5°	1553.8	1546.7	1541.9	1531.0	1524.0	1516.4	1508.8	1513.7	1513.1	1512.6	1512.6
5°	1501.7	1486.1	1471.9	1453.6	1442.1	1427.9	1417.0	1415.7	1418.4	1408.9	1403.5
7.5°	1449.9	1428.7	1408.5	1388.4	1367.0	1350.0	1339.2	1334.2	1327.3	1321.5	1315.4
10°	1413.7	1388.6	1369.0	1343.9	1320.9	1300.6	1287.8	1279.0	1274.3	1269.5	1260.8
12.5°	1376.3	1351.9	1326.8	1298.5	1276.6	1253.0	1243.4	1233.6	1224.4	1219.2	1207.1
15°	1321.6	1289.9	1263.4	1233.6	1209.3	1186.3	1172.8	1153.1	1150.4	1143.7	1131.4
17.5°	1266.8	1232.3	1195.9	1173.8	1146.3	1122.4	1101.8	1095.2	1075.8	1068.5	1058.0
20°	1223.5	1191.7	1164.0	1134.9	1094.9	1072.6	1056.4	1047.6	1032.0	1022.5	1015.7
22.5°	1186.1	1153.8	1121.7	1087.8	1054.9	1029.8	1018.0	1004.3	995.7	982.5	975.2
25°	1132.8	1097.6	1059.0	1022.5	998.8	979.9	961.0	948.7	936.6	930.5	917.0
27.5°	1070.8	1034.1	998.0	970.3	941.2	922.5	905.3	894.5	879.9	869.6	862.1
30°	1036.7	993.4	962.3	937.3	900.0	882.4	869.6	856.1	845.2	834.4	827.0
32.5°	997.2	957.7	928.2	897.2	868.7	849.4	832.8	820.9	811.7	801.3	793.9
35°	935.2	902.1	871.6	840.5	819.5	799.9	780.2	770.1	761.3	751.8	745.1
37.5°	879.2	848.2	819.2	789.7	763.7	747.8	731.9	724.2	712.3	705.9	699.0
40°	844.6	814.1	783.0	754.6	727.5	715.3	701.1	689.6	678.7	674.0	666.6
42.5°	806.7	776.2	749.9	719.4	697.2	680.6	667.5	655.0	646.8	639.9	635.7
45°	750.4	723.4	697.7	667.3	646.3	632.1	617.2	605.6	598.2	593.5	586.0
47.5°	695.9	668.9	642.7	616.2	595.9	579.7	564.8	556.8	546.9	541.1	536.1
50°	656.4	632.1	604.3	580.0	559.6	543.4	531.2	521.1	512.3	504.8	501.4
52.5°	620.2	594.2	570.2	547.4	526.1	507.6	496.5	485.9	479.2	470.7	466.8
55°	560.3	535.3	515.0	492.7	471.7	456.1	442.6	433.1	426.4	416.9	411.5
57.5°	504.1	481.7	457.4	438.1	416.5	403.3	392.1	379.3	371.0	363.5	358.3
60°	466.2	440.6	419.6	401.3	382.4	365.4	355.2	345.1	336.3	328.9	324.2
62.5°	426.7	404.2	384.4	364.5	347.2	332.4	320.6	312.1	304.4	299.6	294.9
65°	366.1	348.5	328.2	311.9	295.8	284.9	275.4	267.9	262.6	259.2	255.1
67.5°	310.3	293.3	275.5	259.6	248.7	240.5	234.3	227.9	225.2	220.8	218.2
70°	274.1	256.5	240.9	228.8	217.9	211.8	207.8	203.0	200.3	194.9	192.2
72.5°	234.5	221.8	210.6	200.6	191.9	186.4	181.2	175.4	171.1	165.1	162.4
75°	184.8	173.2	164.5	157.6	152.2	144.8	137.4	131.3	129.2	127.3	126.6
77.5°	136.8	129.5	123.1	117.4	110.7	105.3	103.7	102.3	101.9	100.8	100.8
80°	107.6	100.8	96.1	89.3	85.2	85.2	85.2	83.9	84.6	84.6	84.6
82.5°	80.0	73.8	71.2	68.8	67.9	68.4	68.4	68.8	68.4	69.4	68.9
85°	41.2	41.9	43.3	42.6	43.3	43.3	44.7	44.0	44.7	43.3	44.7
87.5°	15.9	17.7	18.5	19.3	20.1	19.7	20.3	20.4	21.0	21.1	21.1
90°	3.8	4.8	5.9	7.1	8.2	9.3	9.6	10.0	10.3	10.7	10.9
92.5°	6.2	6.5	7.4	8.2	9.0	9.9	10.4	11.0	11.5	12.1	12.4
95°	9.5	8.2	9.1	10.1	11.0	12.0	12.6	13.2	13.8	14.4	14.7
97.5°	41.1	37.2	31.0	24.8	18.7	12.5	13.2	13.9	14.6	15.2	15.6
100°	72.2	66.4	53.0	39.6	26.2	12.7	13.4	14.1	14.8	15.5	15.9
102.5°	90.7	84.0	69.4	54.8	40.1	25.5	23.3	21.2	19.0	17.0	15.9
105°	119.1	115.6	107.9	100.2	92.5	84.7	69.5	54.2	39.1	23.8	16.4
107.5°	149.4	150.4	151.6	152.8	154.0	155.2	144.1	132.9	121.8	110.6	99.4
110°	169.9	170.7	171.6	172.5	173.5	174.4	171.6	168.8	165.9	163.1	155.6



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	189.4	190.2	191.1	192.1	193.0	194.0	194.0	194.1	194.1	194.2	192.9
115°	218.3	219.0	219.7	220.5	221.3	222.1	222.9	223.8	224.6	225.5	226.1
117.5°	247.2	247.7	248.1	248.5	248.9	249.3	249.9	250.6	251.3	252.0	252.4
120°	265.4	265.9	266.1	266.4	266.7	266.9	267.6	268.3	269.0	269.7	270.0
122.5°	282.8	283.3	283.6	283.9	284.2	284.6	285.0	285.5	286.0	286.5	286.7
125°	307.5	308.1	308.4	308.8	309.1	309.4	309.6	309.8	310.0	310.1	310.3
127.5°	331.4	331.9	332.3	332.8	333.2	333.6	333.9	334.2	334.4	334.7	334.8
130°	346.3	346.8	347.2	347.5	347.8	348.1	348.4	348.8	349.1	349.5	349.6
132.5°	360.5	360.9	361.3	361.5	361.8	362.1	362.4	362.7	363.1	363.4	363.5
135°	381.5	381.9	382.3	382.6	383.0	383.3	383.6	383.8	384.1	384.4	384.4
137.5°	400.6	401.1	401.3	401.5	401.7	401.8	402.3	402.7	403.0	403.5	403.6
140°	412.5	412.8	413.1	413.4	413.6	413.9	414.2	414.6	414.9	415.3	415.3
142.5°	424.0	424.3	424.6	424.8	425.1	425.3	425.6	425.9	426.2	426.5	426.5
145°	440.3	440.7	440.8	441.0	441.2	441.3	441.5	441.7	441.9	442.0	442.1
147.5°	454.5	454.9	455.0	455.2	455.4	455.6	455.7	455.9	456.1	456.2	456.1
150°	463.3	463.5	463.6	463.8	464.0	464.2	464.3	464.5	464.7	464.9	464.9
152.5°	471.1	471.2	471.3	471.4	471.5	471.7	471.9	472.3	472.5	472.9	472.8
155°	481.7	481.6	481.7	481.8	481.9	482.0	482.4	482.8	483.3	483.7	483.6
157.5°	491.5	491.4	491.3	491.2	491.1	491.0	491.5	492.1	492.6	493.1	493.0
160°	496.7	496.6	496.5	496.5	496.4	496.3	496.8	497.3	497.8	498.3	498.3
162.5°	501.4	501.3	501.2	501.1	501.0	500.9	501.5	502.1	502.7	503.3	503.3
165°	507.6	507.5	507.4	507.3	507.2	507.1	507.8	508.5	509.2	509.9	509.9
167.5°	512.3	512.1	512.1	512.1	512.1	512.1	512.8	513.5	514.1	514.8	514.8
170°	515.1	514.9	514.9	514.9	514.9	514.9	515.6	516.3	516.9	517.6	517.6
172.5°	516.6	516.4	516.5	516.6	516.7	516.7	517.4	518.1	518.8	519.4	519.4
175°	518.9	518.8	518.8	518.9	519.0	519.1	519.7	520.3	520.9	521.5	521.5
177.5°	519.9	519.8	519.9	519.9	520.0	520.0	520.6	521.2	521.7	522.3	522.2
180°	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8
2.5°	1506.1	1505.5	1506.1	1503.9	1506.1	1505.5	1506.1	1512.6	1512.6	1513.1	1513.7
5°	1401.4	1400.8	1398.8	1392.7	1398.8	1400.8	1401.4	1403.5	1408.9	1418.4	1415.7
7.5°	1310.1	1309.2	1303.2	1303.4	1303.2	1309.2	1310.1	1315.4	1321.5	1327.3	1334.2
10°	1256.0	1256.6	1248.5	1243.8	1248.5	1256.6	1256.0	1260.8	1269.5	1274.3	1279.0
12.5°	1203.5	1200.4	1193.9	1188.6	1193.9	1200.4	1203.5	1207.1	1219.2	1224.4	1233.6
15°	1134.2	1127.4	1111.2	1112.5	1111.2	1127.4	1134.2	1131.4	1143.7	1150.4	1153.1
17.5°	1052.6	1047.6	1047.3	1037.8	1047.3	1047.6	1052.6	1058.0	1068.5	1075.8	1095.2
20°	1005.0	1001.5	1002.9	993.4	1002.9	1001.5	1005.0	1015.7	1022.5	1032.0	1047.6
22.5°	967.6	964.1	958.5	955.5	958.5	964.1	967.6	975.2	982.5	995.7	1004.3
25°	912.9	907.5	902.1	905.4	902.1	907.5	912.9	917.0	930.5	936.6	948.7
27.5°	858.2	854.2	848.8	848.1	848.8	854.2	858.2	862.1	869.6	879.9	894.5
30°	823.5	819.5	816.8	813.4	816.8	819.5	823.5	827.0	834.4	845.2	856.1
32.5°	788.4	787.6	782.7	782.0	782.7	787.6	788.4	793.9	801.3	811.7	820.9
35°	742.4	738.3	736.9	737.6	736.9	738.3	742.4	745.1	751.8	761.3	770.1
37.5°	698.6	693.2	690.8	688.4	690.8	693.2	698.6	699.0	705.9	712.3	724.2
40°	667.3	661.9	660.5	659.1	660.5	661.9	667.3	666.6	674.0	678.7	689.6
42.5°	632.1	629.9	629.0	626.6	629.0	629.9	632.1	635.7	639.9	646.8	655.0
45°	584.0	583.3	579.3	580.7	579.3	583.3	584.0	586.0	593.5	598.2	605.6
47.5°	533.4	530.4	527.5	529.4	527.5	530.4	533.4	536.1	541.1	546.9	556.8
50°	498.8	497.4	491.3	492.7	491.3	497.4	498.8	501.4	504.8	512.3	521.1
52.5°	464.1	458.9	456.7	455.8	456.7	458.9	464.1	466.8	470.7	479.2	485.9
55°	406.7	400.6	397.9	396.6	397.9	400.6	406.7	411.5	416.9	426.4	433.1
57.5°	350.4	348.8	346.6	348.1	346.6	348.8	350.4	358.3	363.5	371.0	379.3
60°	317.4	317.4	317.4	316.7	317.4	317.4	317.4	324.2	328.9	336.3	345.1
62.5°	292.0	290.3	289.8	290.8	289.8	290.3	292.0	294.9	299.6	304.4	312.1
65°	253.1	252.4	249.7	249.0	249.7	252.4	253.1	255.1	259.2	262.6	267.9
67.5°	216.5	214.0	213.2	212.2	213.2	214.0	216.5	218.2	220.8	225.2	227.9
70°	188.8	187.4	183.4	184.1	183.4	187.4	188.8	192.2	194.9	200.3	203.0
72.5°	159.0	157.6	156.9	155.9	156.9	157.6	159.0	162.4	165.1	171.1	175.4
75°	125.9	125.2	124.5	127.3	124.5	125.2	125.9	126.6	127.3	129.2	131.3
77.5°	100.8	100.8	101.3	100.1	101.3	100.8	100.8	100.8	100.8	101.9	102.3
80°	84.6	84.6	83.9	83.9	83.9	84.6	84.6	84.6	84.6	84.6	83.9
82.5°	67.8	68.4	68.8	67.7	68.8	68.4	67.8	68.9	69.4	68.4	68.8
85°	44.7	44.0	45.4	44.7	45.4	44.0	44.7	44.7	43.3	44.7	44.0
87.5°	22.2	21.2	21.3	21.8	21.3	21.2	22.2	21.1	21.1	21.0	20.4
90°	11.1	11.3	11.5	11.6	11.5	11.3	11.1	10.9	10.7	10.3	10.0
92.5°	12.6	12.7	12.7	12.8	12.7	12.7	12.6	12.4	12.1	11.5	11.0
95°	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.4	13.8	13.2
97.5°	15.7	15.8	15.8	15.9	15.8	15.8	15.7	15.6	15.2	14.6	13.9
100°	16.0	16.1	16.2	16.3	16.2	16.1	16.0	15.9	15.5	14.8	14.1
102.5°	16.1	16.3	16.4	16.5	16.4	16.3	16.1	15.9	17.0	19.0	21.2
105°	16.5	16.7	16.9	17.0	16.9	16.7	16.5	16.4	23.8	39.1	54.2
107.5°	87.8	76.4	64.9	53.5	64.9	76.4	87.8	99.4	110.6	121.8	132.9
110°	143.3	131.0	118.6	106.4	118.6	131.0	143.3	155.6	163.1	165.9	168.8



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	190.3	187.7	185.1	182.5	185.1	187.7	190.3	192.9	194.2	194.1	194.1
115°	226.4	226.8	227.1	227.5	227.1	226.8	226.4	226.1	225.5	224.6	223.8
117.5°	252.4	252.5	252.6	252.7	252.6	252.5	252.4	252.4	252.0	251.3	250.6
120°	270.0	270.0	270.0	270.0	270.0	270.0	270.0	270.0	269.7	269.0	268.3
122.5°	286.8	286.9	287.0	287.1	287.0	286.9	286.8	286.7	286.5	286.0	285.5
125°	310.5	310.6	310.8	311.0	310.8	310.6	310.5	310.3	310.1	310.0	309.8
127.5°	334.6	334.4	334.2	334.1	334.2	334.4	334.6	334.8	334.7	334.4	334.2
130°	349.4	349.2	349.0	348.9	349.0	349.2	349.4	349.6	349.5	349.1	348.8
132.5°	363.3	363.0	362.7	362.6	362.7	363.0	363.3	363.5	363.4	363.1	362.7
135°	384.1	383.8	383.6	383.3	383.6	383.8	384.1	384.4	384.4	384.1	383.8
137.5°	403.5	403.3	403.1	402.9	403.1	403.3	403.5	403.6	403.5	403.0	402.7
140°	415.2	415.0	414.8	414.7	414.8	415.0	415.2	415.3	415.3	414.9	414.6
142.5°	426.2	426.0	425.8	425.5	425.8	426.0	426.2	426.5	426.5	426.2	425.9
145°	442.1	442.1	442.1	442.1	442.1	442.1	442.1	442.1	442.0	441.9	441.7
147.5°	455.7	455.3	455.0	454.5	455.0	455.3	455.7	456.1	456.2	456.1	455.9
150°	464.6	464.3	464.1	463.8	464.1	464.3	464.6	464.9	464.9	464.7	464.5
152.5°	472.4	472.0	471.7	471.2	471.7	472.0	472.4	472.8	472.9	472.5	472.3
155°	483.1	482.6	482.1	481.6	482.1	482.6	483.1	483.6	483.7	483.3	482.8
157.5°	492.3	491.7	491.0	490.3	491.0	491.7	492.3	493.0	493.1	492.6	492.1
160°	497.7	497.1	496.5	495.9	496.5	497.1	497.7	498.3	498.3	497.8	497.3
162.5°	502.7	502.2	501.7	501.2	501.7	502.2	502.7	503.3	503.3	502.7	502.1
165°	509.3	508.8	508.2	507.6	508.2	508.8	509.3	509.9	509.9	509.2	508.5
167.5°	514.1	513.5	512.8	512.1	512.8	513.5	514.1	514.8	514.8	514.1	513.5
170°	516.9	516.3	515.6	514.9	515.6	516.3	516.9	517.6	517.6	516.9	516.3
172.5°	518.7	517.9	517.2	516.4	517.2	517.9	518.7	519.4	519.4	518.8	518.1
175°	520.8	520.1	519.4	518.8	519.4	520.1	520.8	521.5	521.5	520.9	520.3
177.5°	521.5	520.8	520.1	519.4	520.1	520.8	521.5	522.2	522.3	521.7	521.2
180°	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8
2.5°	1508.8	1516.4	1524.0	1531.0	1541.9	1546.7	1553.8	1556.4	1564.6	1576.5	1586.2
5°	1417.0	1427.9	1442.1	1453.6	1471.9	1486.1	1501.7	1516.6	1534.1	1559.2	1581.5
7.5°	1339.2	1350.0	1367.0	1388.4	1408.5	1428.7	1449.9	1470.2	1495.4	1531.3	1566.8
10°	1287.8	1300.6	1320.9	1343.9	1369.0	1388.6	1413.7	1439.4	1470.5	1511.8	1554.4
12.5°	1243.4	1253.0	1276.6	1298.5	1326.8	1351.9	1376.3	1406.4	1441.8	1485.8	1537.1
15°	1172.8	1186.3	1209.3	1233.6	1263.4	1289.9	1321.6	1358.1	1392.7	1446.8	1509.1
17.5°	1101.8	1122.4	1146.3	1173.8	1195.9	1232.3	1266.8	1304.3	1346.8	1404.2	1472.6
20°	1056.4	1072.6	1094.9	1134.9	1164.0	1191.7	1223.5	1270.2	1309.4	1374.4	1445.4
22.5°	1018.0	1029.8	1054.9	1087.8	1121.7	1153.8	1186.1	1230.7	1279.1	1340.8	1417.9
25°	961.0	979.9	998.8	1022.5	1059.0	1097.6	1132.8	1170.7	1222.2	1287.8	1371.1
27.5°	905.3	922.5	941.2	970.3	998.0	1034.1	1070.8	1114.3	1169.5	1239.0	1323.4
30°	869.6	882.4	900.0	937.3	962.3	993.4	1036.7	1075.3	1126.7	1200.5	1289.9
32.5°	832.8	849.4	868.7	897.2	928.2	957.7	997.2	1039.1	1091.6	1164.2	1255.7
35°	780.2	799.9	819.5	840.5	871.6	902.1	935.2	981.3	1034.7	1105.1	1195.1
37.5°	731.9	747.8	763.7	789.7	819.2	848.2	879.2	924.5	974.9	1050.9	1133.3
40°	701.1	715.3	727.5	754.6	783.0	814.1	844.6	884.5	938.6	1009.7	1089.5
42.5°	667.5	680.6	697.2	719.4	749.9	776.2	806.7	844.4	895.3	967.4	1037.5
45°	617.2	632.1	646.3	667.3	697.7	723.4	750.4	786.4	838.4	898.0	960.3
47.5°	564.8	579.7	595.9	616.2	642.7	668.9	695.9	727.7	775.2	833.7	875.6
50°	531.2	543.4	559.6	580.0	604.3	632.1	656.4	691.0	736.2	782.3	818.8
52.5°	496.5	507.6	526.1	547.4	570.2	594.2	620.2	649.8	690.8	734.1	763.1
55°	442.6	456.1	471.7	492.7	515.0	535.3	560.3	590.8	623.3	655.7	675.4
57.5°	392.1	403.3	416.5	438.1	457.4	481.7	504.1	527.9	557.9	582.4	595.2
60°	355.2	365.4	382.4	401.3	419.6	440.6	466.2	489.9	513.0	532.6	542.7
62.5°	320.6	332.4	347.2	364.5	384.4	404.2	426.7	446.6	466.9	483.9	490.8
65°	275.4	284.9	295.8	311.9	328.2	348.5	366.1	386.4	401.3	410.8	416.9
67.5°	234.3	240.5	248.7	259.6	275.5	293.3	310.3	326.1	338.6	345.1	350.5
70°	207.8	211.8	217.9	228.8	240.9	256.5	274.1	285.6	296.4	301.8	307.2
72.5°	181.2	186.4	191.9	200.6	210.6	221.8	234.5	248.7	254.7	261.2	264.5
75°	137.4	144.8	152.2	157.6	164.5	173.2	184.8	193.6	196.9	202.3	203.0
77.5°	103.7	105.3	110.7	117.4	123.1	129.5	136.8	144.6	146.3	149.1	150.9
80°	85.2	85.2	85.2	89.3	96.1	100.8	107.6	111.7	114.3	115.0	115.7
82.5°	68.4	68.4	67.9	68.8	71.2	73.8	80.0	84.6	86.8	86.4	84.9
85°	44.7	43.3	43.3	42.6	43.3	41.9	41.2	44.0	48.0	48.0	46.7
87.5°	20.3	19.7	20.1	19.3	18.5	17.7	15.9	16.3	16.1	18.1	17.4
90°	9.6	9.3	8.2	7.1	5.9	4.8	3.8	2.9	2.1	1.2	0.3
92.5°	10.4	9.9	9.0	8.2	7.4	6.5	6.2	6.5	6.7	7.0	7.2
95°	12.6	12.0	11.0	10.1	9.1	8.2	9.5	13.0	16.5	20.1	23.6
97.5°	13.2	12.5	18.7	24.8	31.0	37.2	41.1	42.7	44.3	45.8	47.4
100°	13.4	12.7	26.2	39.6	53.0	66.4	72.2	70.5	68.8	67.1	65.3
102.5°	23.3	25.5	40.1	54.8	69.4	84.0	90.7	89.5	88.3	87.0	85.8
105°	69.5	84.7	92.5	100.2	107.9	115.6	119.1	118.1	117.2	116.2	115.3
107.5°	144.1	155.2	154.0	152.8	151.6	150.4	149.4	148.6	147.9	147.1	146.4
110°	171.6	174.4	173.5	172.5	171.6	170.7	169.9	169.2	168.5	167.8	167.1



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	194.0	194.0	193.0	192.1	191.1	190.2	189.4	188.7	188.1	187.5	186.9
115°	222.9	222.1	221.3	220.5	219.7	219.0	218.3	217.7	217.2	216.7	216.2
117.5°	249.9	249.3	248.9	248.5	248.1	247.7	247.2	246.5	245.9	245.3	244.6
120°	267.6	266.9	266.7	266.4	266.1	265.9	265.4	264.6	263.8	263.0	262.3
122.5°	285.0	284.6	284.2	283.9	283.6	283.3	282.8	282.1	281.5	280.9	280.3
125°	309.6	309.4	309.1	308.8	308.4	308.1	307.5	306.9	306.2	305.5	304.8
127.5°	333.9	333.6	333.2	332.8	332.3	331.9	331.4	330.7	330.0	329.3	328.6
130°	348.4	348.1	347.8	347.5	347.2	346.8	346.3	345.6	344.9	344.2	343.5
132.5°	362.4	362.1	361.8	361.5	361.3	360.9	360.5	359.8	359.1	358.4	357.7
135°	383.6	383.3	383.0	382.6	382.3	381.9	381.5	381.0	380.5	380.0	379.4
137.5°	402.3	401.8	401.7	401.5	401.3	401.1	400.6	400.0	399.3	398.7	398.0
140°	414.2	413.9	413.6	413.4	413.1	412.8	412.5	412.0	411.5	411.0	410.4
142.5°	425.6	425.3	425.1	424.8	424.6	424.3	424.0	423.4	422.9	422.4	421.9
145°	441.5	441.3	441.2	441.0	440.8	440.7	440.3	439.7	439.1	438.5	437.9
147.5°	455.7	455.6	455.4	455.2	455.0	454.9	454.5	454.2	453.7	453.4	453.0
150°	464.3	464.2	464.0	463.8	463.6	463.5	463.3	463.0	462.8	462.5	462.3
152.5°	471.9	471.7	471.5	471.4	471.3	471.2	471.1	471.0	470.9	470.7	470.6
155°	482.4	482.0	481.9	481.8	481.7	481.6	481.7	481.9	482.0	482.2	482.3
157.5°	491.5	491.0	491.1	491.2	491.3	491.4	491.5	491.5	491.5	491.5	491.5
160°	496.8	496.3	496.4	496.5	496.5	496.6	496.7	496.8	496.9	497.0	497.1
162.5°	501.5	500.9	501.0	501.1	501.2	501.3	501.4	501.7	501.9	502.1	502.3
165°	507.8	507.1	507.2	507.3	507.4	507.5	507.6	507.9	508.2	508.4	508.7
167.5°	512.8	512.1	512.1	512.1	512.1	512.1	512.3	512.6	513.0	513.3	513.7
170°	515.6	514.9	514.9	514.9	514.9	514.9	515.1	515.4	515.7	516.1	516.4
172.5°	517.4	516.7	516.7	516.6	516.5	516.4	516.6	517.0	517.5	517.9	518.2
175°	519.7	519.1	519.0	518.9	518.8	518.8	518.9	519.4	519.8	520.2	520.6
177.5°	520.6	520.0	520.0	519.9	519.9	519.8	519.9	520.2	520.6	520.9	521.2
180°	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8
2.5°	1589.5	1595.4	1603.0	1614.4	1623.1	1630.6	1632.3	1634.4	1639.9	1649.0	1656.0
5°	1599.7	1615.3	1640.4	1664.7	1691.1	1712.8	1733.1	1747.3	1760.8	1789.2	1812.2
7.5°	1596.6	1631.2	1670.4	1714.2	1758.4	1801.3	1841.1	1876.6	1912.1	1953.5	2000.8
10°	1594.3	1635.0	1687.7	1743.9	1805.5	1865.7	1923.9	1969.3	2022.1	2069.4	2129.6
12.5°	1584.1	1642.5	1705.6	1777.4	1853.1	1922.5	1999.2	2061.8	2122.2	2190.6	2260.6
15°	1570.6	1641.8	1721.6	1817.0	1932.0	2015.9	2094.5	2203.4	2277.9	2352.3	2452.5
17.5°	1546.2	1632.9	1732.7	1856.7	1952.6	2065.4	2183.5	2269.6	2369.9	2474.8	2565.4
20°	1526.6	1627.5	1739.1	1861.0	1983.5	2105.9	2220.3	2323.2	2426.7	2547.9	2622.3
22.5°	1507.2	1607.0	1722.9	1852.4	1984.0	2113.0	2242.5	2363.3	2479.8	2602.0	2697.0
25°	1465.8	1584.2	1710.0	1842.0	1971.9	2114.1	2268.4	2403.1	2547.2	2673.1	2763.0
27.5°	1423.8	1532.3	1657.7	1791.6	1936.0	2103.9	2285.4	2438.5	2582.9	2673.1	2701.3
30°	1386.0	1501.0	1616.0	1752.0	1908.3	2095.8	2288.6	2463.9	2582.4	2621.6	2592.5
32.5°	1347.5	1451.7	1565.6	1705.0	1871.0	2075.8	2293.0	2448.8	2520.1	2490.1	2371.6
35°	1279.7	1373.7	1484.0	1623.4	1814.3	2064.7	2275.1	2380.7	2363.1	2193.9	1970.6
37.5°	1207.1	1283.8	1386.0	1531.7	1755.6	2020.7	2198.2	2213.8	2061.6	1801.8	1543.9
40°	1149.8	1218.7	1323.7	1475.9	1710.0	1977.4	2120.8	2057.9	1821.7	1532.8	1317.6
42.5°	1094.0	1152.2	1253.3	1417.5	1666.7	1918.4	2005.5	1868.5	1595.9	1322.8	1127.0
45°	999.5	1054.3	1155.8	1324.3	1578.1	1805.5	1794.0	1555.7	1283.1	1063.2	900.7
47.5°	909.9	957.9	1053.1	1225.1	1474.0	1636.3	1528.7	1275.2	1043.9	867.5	751.6
50°	846.5	894.0	988.7	1158.6	1390.7	1509.1	1355.5	1111.2	899.4	753.2	661.2
52.5°	785.9	832.2	918.9	1084.3	1290.0	1360.7	1195.8	969.3	792.7	666.6	587.5
55°	701.1	736.2	814.1	972.4	1126.1	1142.3	975.2	785.7	640.2	552.2	498.1
57.5°	614.6	644.9	721.8	847.9	955.6	947.3	788.8	624.9	526.9	461.5	422.2
60°	558.3	588.1	655.7	764.1	845.2	816.8	671.3	539.3	455.5	407.4	376.3
62.5°	505.8	529.1	592.4	671.4	729.9	697.7	573.9	464.6	398.0	357.6	332.9
65°	429.7	448.7	499.4	540.7	573.2	542.1	439.2	363.4	315.4	287.0	270.0
67.5°	357.4	369.5	401.6	416.5	439.4	405.2	330.3	279.5	252.2	228.2	216.5
70°	311.9	320.7	337.7	349.8	355.9	320.7	265.3	228.1	205.0	188.1	180.7
72.5°	266.5	274.2	277.6	287.6	284.5	251.5	213.3	183.7	167.1	155.7	146.0
75°	203.7	207.1	203.7	199.7	190.8	167.8	141.5	126.6	114.3	108.9	105.6
77.5°	148.4	147.4	142.8	136.5	121.4	106.9	92.7	87.7	82.4	79.6	78.4
80°	114.3	111.7	107.6	97.5	84.6	74.5	71.0	67.7	65.6	62.3	61.6
82.5°	85.2	83.5	76.7	68.2	59.2	54.4	51.6	50.4	48.3	46.6	46.4
85°	45.4	43.3	35.9	31.2	29.8	28.4	27.7	27.7	25.1	24.4	24.4
87.5°	14.9	11.8	11.5	10.0	10.2	9.3	10.1	9.2	8.9	9.5	8.5
90°	1.2	2.1	2.9	3.8	4.8	5.9	7.1	8.2	9.3	9.6	10.0
92.5°	7.0	6.7	6.5	6.2	6.5	7.4	8.2	9.0	9.9	10.4	11.0
95°	20.1	16.5	13.0	9.5	8.2	9.1	10.1	11.0	12.0	12.6	13.2
97.5°	45.8	44.3	42.7	41.1	37.2	31.0	24.8	18.7	12.5	13.2	13.9
100°	67.1	68.8	70.5	72.2	66.4	53.0	39.6	26.2	12.7	13.4	14.1
102.5°	87.0	88.3	89.5	90.7	84.0	69.4	54.8	40.1	25.5	23.3	21.2
105°	116.2	117.2	118.1	119.1	115.6	107.9	100.2	92.5	84.7	69.5	54.2
107.5°	147.1	147.9	148.6	149.4	150.4	151.6	152.8	154.0	155.2	144.1	132.9
110°	167.8	168.5	169.2	169.9	170.7	171.6	172.5	173.5	174.4	171.6	168.8



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	187.5	188.1	188.7	189.4	190.2	191.1	192.1	193.0	194.0	194.0	194.1
115°	216.7	217.2	217.7	218.3	219.0	219.7	220.5	221.3	222.1	222.9	223.8
117.5°	245.3	245.9	246.5	247.2	247.7	248.1	248.5	248.9	249.3	249.9	250.6
120°	263.0	263.8	264.6	265.4	265.9	266.1	266.4	266.7	266.9	267.6	268.3
122.5°	280.9	281.5	282.1	282.8	283.3	283.6	283.9	284.2	284.6	285.0	285.5
125°	305.5	306.2	306.9	307.5	308.1	308.4	308.8	309.1	309.4	309.6	309.8
127.5°	329.3	330.0	330.7	331.4	331.9	332.3	332.8	333.2	333.6	333.9	334.2
130°	344.2	344.9	345.6	346.3	346.8	347.2	347.5	347.8	348.1	348.4	348.8
132.5°	358.4	359.1	359.8	360.5	360.9	361.3	361.5	361.8	362.1	362.4	362.7
135°	380.0	380.5	381.0	381.5	381.9	382.3	382.6	383.0	383.3	383.6	383.8
137.5°	398.7	399.3	400.0	400.6	401.1	401.3	401.5	401.7	401.8	402.3	402.7
140°	411.0	411.5	412.0	412.5	412.8	413.1	413.4	413.6	413.9	414.2	414.6
142.5°	422.4	422.9	423.4	424.0	424.3	424.6	424.8	425.1	425.3	425.6	425.9
145°	438.5	439.1	439.7	440.3	440.7	440.8	441.0	441.2	441.3	441.5	441.7
147.5°	453.4	453.7	454.2	454.5	454.9	455.0	455.2	455.4	455.6	455.7	455.9
150°	462.5	462.8	463.0	463.3	463.5	463.6	463.8	464.0	464.2	464.3	464.5
152.5°	470.7	470.9	471.0	471.1	471.2	471.3	471.4	471.5	471.7	471.9	472.3
155°	482.2	482.0	481.9	481.7	481.6	481.7	481.8	481.9	482.0	482.4	482.8
157.5°	491.5	491.5	491.5	491.5	491.4	491.3	491.2	491.1	491.0	491.5	492.1
160°	497.0	496.9	496.8	496.7	496.6	496.5	496.5	496.4	496.3	496.8	497.3
162.5°	502.1	501.9	501.7	501.4	501.3	501.2	501.1	501.0	500.9	501.5	502.1
165°	508.4	508.2	507.9	507.6	507.5	507.4	507.3	507.2	507.1	507.8	508.5
167.5°	513.3	513.0	512.6	512.3	512.1	512.1	512.1	512.1	512.1	512.8	513.5
170°	516.1	515.7	515.4	515.1	514.9	514.9	514.9	514.9	514.9	515.6	516.3
172.5°	517.9	517.5	517.0	516.6	516.4	516.5	516.6	516.7	516.7	517.4	518.1
175°	520.2	519.8	519.4	518.9	518.8	518.8	518.9	519.0	519.1	519.7	520.3
177.5°	520.9	520.6	520.2	519.9	519.8	519.9	519.9	520.0	520.0	520.6	521.2
180°	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8	1580.8
2.5°	1667.4	1667.4	1669.6	1677.7	1678.8	1685.8	1683.7
5°	1832.6	1845.4	1850.1	1870.4	1882.7	1888.1	1877.2
7.5°	2034.5	2070.8	2087.9	2109.2	2128.0	2133.7	2118.9
10°	2181.8	2219.7	2251.4	2271.1	2289.3	2301.5	2317.1
12.5°	2324.1	2370.7	2400.9	2428.6	2447.4	2462.9	2465.4
15°	2478.8	2549.2	2602.6	2641.9	2661.5	2671.7	2667.6
17.5°	2634.8	2700.1	2738.2	2778.2	2805.4	2806.8	2807.5
20°	2723.1	2786.7	2830.7	2860.5	2891.0	2889.6	2896.3
22.5°	2782.1	2832.2	2865.9	2887.5	2898.0	2892.9	2894.2
25°	2809.7	2824.6	2818.6	2784.0	2775.3	2743.4	2748.8
27.5°	2667.4	2596.9	2524.2	2430.5	2356.6	2297.6	2300.6
30°	2474.1	2349.6	2207.4	2088.4	1981.4	1951.6	1888.1
32.5°	2203.9	2017.2	1850.7	1739.7	1648.0	1623.1	1567.5
35°	1745.9	1564.6	1393.4	1290.5	1249.9	1193.1	1192.4
37.5°	1357.1	1197.4	1106.8	1029.7	989.2	954.8	951.5
40°	1141.6	1017.1	948.7	893.3	853.3	827.6	821.6
42.5°	991.1	890.4	826.4	792.0	761.3	748.0	738.1
45°	809.3	741.7	697.0	665.9	651.7	641.5	636.1
47.5°	677.0	631.6	601.2	580.5	568.9	558.3	561.1
50°	605.0	567.7	545.4	525.8	517.0	509.5	510.2
52.5°	547.1	513.7	495.6	481.4	470.5	465.2	462.6
55°	464.3	443.2	425.0	414.8	408.7	401.3	399.2
57.5°	396.0	379.8	364.9	353.4	351.9	344.7	345.7
60°	350.5	337.0	324.9	318.7	314.0	307.9	310.0
62.5°	313.1	301.8	290.8	285.7	280.9	276.5	277.4
65°	256.5	245.6	238.8	236.2	234.1	232.1	230.1
67.5°	204.4	197.8	193.6	187.7	183.6	182.9	180.8
70°	171.9	163.1	155.7	148.2	146.2	145.5	146.2
72.5°	137.8	132.2	130.2	126.6	126.1	124.4	125.6
75°	103.6	101.5	100.1	97.5	97.5	97.5	97.5
77.5°	76.4	75.1	74.3	73.8	73.1	72.2	72.0
80°	59.6	58.9	57.5	57.5	56.8	57.5	56.8
82.5°	44.9	44.8	43.5	43.5	42.8	42.4	42.8
85°	23.0	22.3	23.7	22.3	23.0	21.7	23.0
87.5°	8.5	8.6	8.2	8.2	7.7	8.8	7.7
90°	10.3	10.7	10.9	11.1	11.3	11.5	11.6
92.5°	11.5	12.1	12.4	12.6	12.7	12.7	12.8
95°	13.8	14.4	14.7	14.7	14.7	14.7	14.7
97.5°	14.6	15.2	15.6	15.7	15.8	15.8	15.9
100°	14.8	15.5	15.9	16.0	16.1	16.2	16.3
102.5°	19.0	17.0	15.9	16.1	16.3	16.4	16.5
105°	39.1	23.8	16.4	16.5	16.7	16.9	17.0
107.5°	121.8	110.6	99.4	87.8	76.4	64.9	53.5
110°	165.9	163.1	155.6	143.3	131.0	118.6	106.4



TEST NUMBER: P332470-935

CATALOG NUMBER: S123RDIW-S1165D460U935-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	194.1	194.2	192.9	190.3	187.7	185.1	182.5
115°	224.6	225.5	226.1	226.4	226.8	227.1	227.5
117.5°	251.3	252.0	252.4	252.4	252.5	252.6	252.7
120°	269.0	269.7	270.0	270.0	270.0	270.0	270.0
122.5°	286.0	286.5	286.7	286.8	286.9	287.0	287.1
125°	310.0	310.1	310.3	310.5	310.6	310.8	311.0
127.5°	334.4	334.7	334.8	334.6	334.4	334.2	334.1
130°	349.1	349.5	349.6	349.4	349.2	349.0	348.9
132.5°	363.1	363.4	363.5	363.3	363.0	362.7	362.6
135°	384.1	384.4	384.4	384.1	383.8	383.6	383.3
137.5°	403.0	403.5	403.6	403.5	403.3	403.1	402.9
140°	414.9	415.3	415.3	415.2	415.0	414.8	414.7
142.5°	426.2	426.5	426.5	426.2	426.0	425.8	425.5
145°	441.9	442.0	442.1	442.1	442.1	442.1	442.1
147.5°	456.1	456.2	456.1	455.7	455.3	455.0	454.5
150°	464.7	464.9	464.9	464.6	464.3	464.1	463.8
152.5°	472.5	472.9	472.8	472.4	472.0	471.7	471.2
155°	483.3	483.7	483.6	483.1	482.6	482.1	481.6
157.5°	492.6	493.1	493.0	492.3	491.7	491.0	490.3
160°	497.8	498.3	498.3	497.7	497.1	496.5	495.9
162.5°	502.7	503.3	503.3	502.7	502.2	501.7	501.2
165°	509.2	509.9	509.9	509.3	508.8	508.2	507.6
167.5°	514.1	514.8	514.8	514.1	513.5	512.8	512.1
170°	516.9	517.6	517.6	516.9	516.3	515.6	514.9
172.5°	518.8	519.4	519.4	518.7	517.9	517.2	516.4
175°	520.9	521.5	521.5	520.8	520.1	519.4	518.8
177.5°	521.7	522.3	522.2	521.5	520.8	520.1	519.4
180°	520.6	520.6	520.6	520.6	520.6	520.6	520.6

(END OF REPORT)