

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: P332806-830

Luminaire Tested: **S124DIW-S1020D470U830-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332806-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S1020D470U830-4F0-1E-UDD-A1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1020 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5873.6 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.23 / 1.41
Luminous Opening: Rectangular (W 4' x L: 0.33' x H: 0')
CIE Type: Semi-Direct

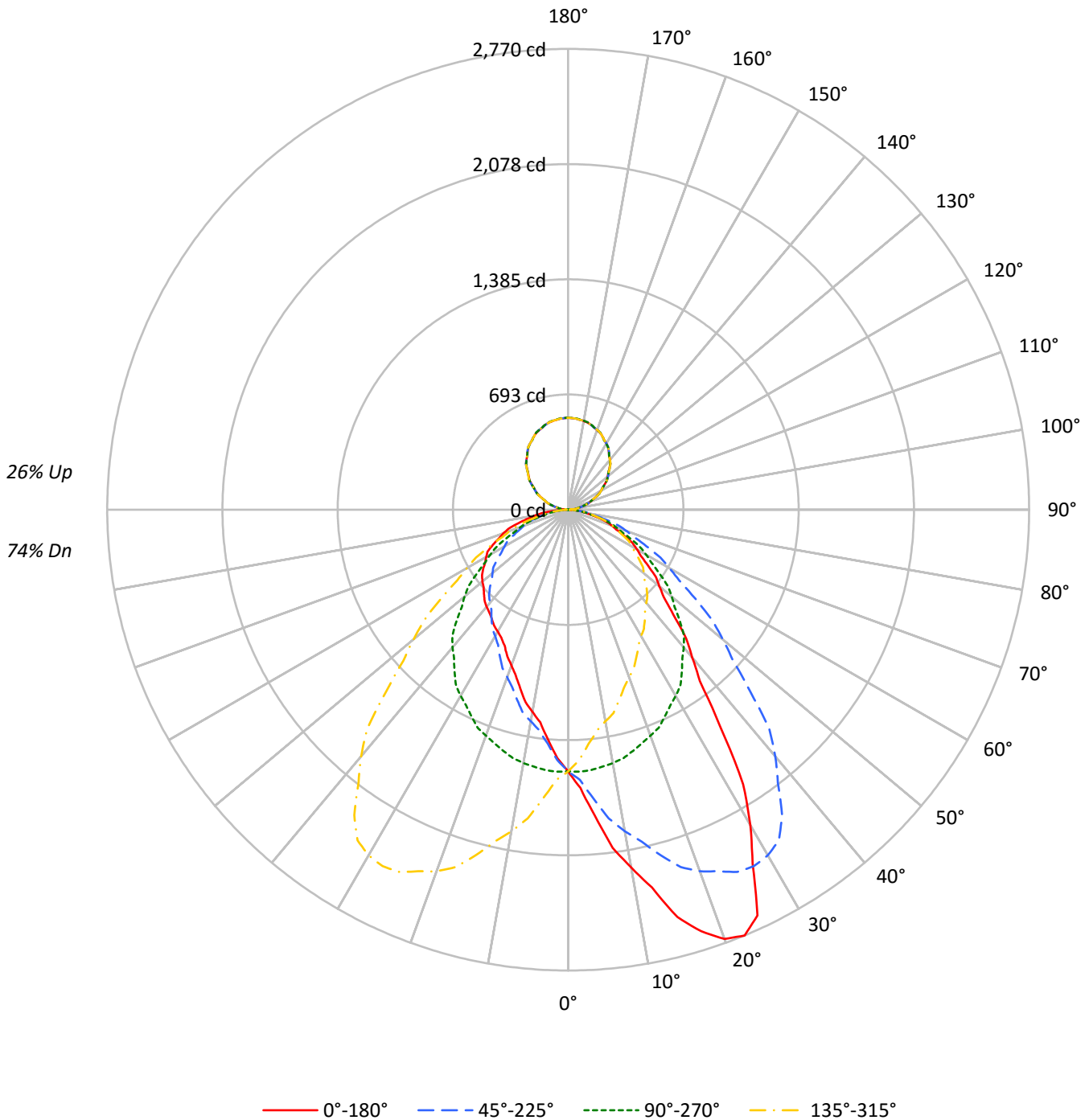
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0		
RCR																										
0	113	113	113	113	107	107	107	107	97	97	97	87	87	87	78	78	78	74					74			
1	103	99	95	92	98	94	91	88	85	83	80	77	75	73	70	68	67	63					63			
2	95	87	81	75	90	83	77	73	75	71	67	68	65	62	62	59	57	53					53			
3	86	77	69	63	82	73	67	61	67	61	57	61	56	53	55	52	49	45					45			
4	79	68	60	54	75	65	58	52	60	54	49	54	49	45	49	45	42	39					39			
5	73	61	53	47	69	59	51	45	54	47	42	49	44	40	45	40	37	34					34			
6	68	55	47	41	64	53	45	40	48	42	37	44	39	35	41	36	33	30					30			
7	63	50	42	36	59	48	40	35	44	38	33	41	35	31	37	33	29	27					27			
8	58	46	38	32	55	44	36	31	40	34	30	37	32	28	34	30	26	24					24			
9	54	42	34	29	52	40	33	28	37	31	27	34	29	25	32	27	24	22					22			
10	51	39	31	26	48	37	30	25	34	28	24	32	27	23	29	25	22	20					20			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	12698	12698	12698	12698
5°	14954	12730	11237	12730
10°	17905	12675	10117	12675
15°	21184	12547	9290	12547
20°	23589	12416	8553	12416
25°	23971	12223	8044	12223
30°	20396	12039	7883	12039
35°	15682	11739	7885	11739
40°	12223	11385	8033	11385
45°	10192	10853	8169	10853
50°	8970	10206	8445	10206
55°	8217	9429	8785	9429
60°	7700	8732	9195	8732
65°	7169	7952	9534	7952
70°	6552	7183	9751	7183
75°	5855	6319	9635	6319
80°	4909	5179	9331	5179
85°	3622	3742	8929	3742



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	2.6
10°-20°	472.3	8.0
20°-30°	749.0	12.8
30°-40°	833.5	14.2
40°-50°	758.7	12.9
50°-60°	620.0	10.6
60°-70°	442.6	7.5
70°-80°	243.7	4.1
80°-90°	68.2	1.2
90°-100°	36.4	0.6
100°-110°	107.9	1.8
110°-120°	183.1	3.1
120°-130°	241.5	4.1
130°-140°	271.2	4.6
140°-150°	266.5	4.5
150°-160°	224.1	3.8
160°-170°	149.1	2.5
170°-180°	52.2	0.9
0°-30°	1374.6	23.4
0°-40°	2208.1	37.6
0°-60°	3586.8	61.1
0°-90°	4341.4	73.9
90°-120°	327.5	5.6
90°-150°	1106.7	18.8
90°-180°	1532.0	26.1
0°-180°	5873.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1573	1573	1573	1573	1573	
5°	1845	1571	1387	1571	1845	188
15°	2535	1501	1112	1501	2535	716
25°	2691	1372	903	1372	2691	1186
35°	1591	1191	800	1191	1591	1010
45°	893	951	716	951	893	703
55°	584	670	624	670	584	527
65°	375	416	499	416	375	372
75°	188	203	309	203	188	200
85°	39	40	96	40	39	48
90°	13	1	13	1	13	8
95°	34	26	34	26	34	35
105°	104	100	104	100	104	110
115°	184	186	184	186	184	182
125°	269	271	269	271	269	240
135°	350	350	350	350	350	270
145°	425	425	425	425	425	266
155°	486	487	486	487	486	224
165°	529	530	529	530	529	149
175°	549	551	549	551	549	52
180°	552	552	552	552	552	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1674.0	1673.6	1668.3	1667.3	1663.6	1659.0	1657.9	1649.5	1632.9	1625.0	1623.0
5°	1845.3	1858.3	1841.4	1838.1	1836.2	1814.7	1803.6	1790.5	1760.6	1742.9	1729.3
7.5°	2049.7	2051.2	2043.8	2037.8	2021.2	2002.4	1974.3	1944.4	1908.6	1871.5	1843.4
10°	2184.2	2189.3	2180.9	2179.5	2146.4	2125.4	2083.8	2048.6	2008.2	1963.2	1922.2
12.5°	2325.9	2318.6	2314.3	2286.4	2280.3	2242.2	2193.8	2157.6	2095.3	2043.5	1988.9
15°	2534.7	2520.4	2511.2	2472.8	2453.9	2401.1	2349.6	2309.9	2228.5	2150.9	2092.3
17.5°	2657.1	2671.5	2650.4	2634.6	2585.8	2548.7	2496.1	2412.7	2349.0	2252.7	2178.7
20°	2745.8	2747.0	2735.4	2719.0	2680.6	2633.7	2576.3	2485.1	2409.0	2313.1	2211.5
22.5°	2769.8	2770.0	2765.0	2749.8	2720.7	2682.7	2624.9	2548.7	2456.4	2352.2	2250.6
25°	2691.1	2688.4	2694.4	2711.2	2700.2	2688.4	2655.2	2598.5	2512.5	2402.4	2292.9
27.5°	2398.6	2416.6	2449.7	2491.4	2531.6	2562.2	2570.8	2559.2	2505.8	2415.3	2300.7
30°	2188.0	2210.2	2235.0	2276.6	2357.4	2403.7	2454.6	2492.9	2471.4	2399.1	2292.3
32.5°	1956.6	1962.1	1998.8	2046.3	2120.2	2209.2	2289.8	2367.9	2393.8	2355.9	2266.7
35°	1591.2	1600.2	1640.0	1687.0	1777.5	1886.3	2007.5	2115.7	2205.0	2240.8	2195.2
37.5°	1298.4	1324.6	1352.7	1403.2	1482.9	1580.8	1706.8	1846.7	1979.8	2068.9	2084.1
40°	1159.8	1176.1	1196.3	1234.7	1302.5	1398.9	1507.1	1667.5	1808.8	1936.5	1978.2
42.5°	1050.4	1059.9	1072.2	1107.0	1158.7	1254.5	1353.3	1494.3	1636.3	1788.9	1858.9
45°	892.7	902.5	923.3	943.5	982.6	1049.0	1140.9	1256.9	1399.6	1546.9	1675.8
47.5°	778.7	785.0	797.4	819.1	852.2	896.1	970.8	1067.7	1200.0	1342.9	1480.4
50°	714.2	719.3	729.2	748.7	774.1	813.1	874.4	965.0	1068.6	1212.6	1347.5
52.5°	663.1	665.2	672.3	685.6	705.8	738.7	788.9	863.8	960.2	1088.5	1222.9
55°	583.8	586.4	593.0	602.8	620.3	641.1	679.6	735.7	819.7	931.1	1047.7
57.5°	518.7	520.5	525.9	529.7	544.2	561.2	590.7	630.7	694.5	788.9	893.1
60°	476.9	475.7	482.2	485.4	495.2	509.5	532.3	570.8	626.1	702.4	798.1
62.5°	436.3	434.5	440.0	444.2	449.9	462.1	480.7	510.9	555.8	624.7	707.5
65°	375.3	372.7	376.0	381.2	386.3	392.9	406.6	433.3	469.1	518.7	581.8
67.5°	314.1	316.8	317.4	319.9	322.9	331.8	341.2	360.1	385.3	425.0	478.5
70°	277.6	278.2	280.9	280.9	282.8	290.6	298.4	309.5	334.2	370.8	414.4
72.5°	241.1	243.8	242.8	244.9	246.3	251.5	257.2	267.8	288.9	316.0	352.9
75°	187.7	189.6	189.6	190.3	192.2	194.2	198.7	206.5	221.5	241.8	267.1
77.5°	136.9	137.1	138.0	140.3	140.3	143.5	146.8	153.2	160.5	174.4	189.8
80°	105.6	106.9	106.2	107.5	107.5	110.1	111.4	119.2	122.5	131.6	144.0
82.5°	77.4	78.7	78.6	80.4	81.4	82.0	83.8	86.9	90.2	98.2	103.3
85°	39.1	40.4	39.1	40.4	42.3	43.0	45.0	45.6	48.3	50.1	54.8
87.5°	14.0	15.6	15.6	16.0	17.0	17.4	17.8	17.2	19.2	19.6	21.5
90°	12.8	12.6	12.4	12.3	12.1	11.7	11.1	10.6	10.0	9.4	8.7
92.5°	18.9	18.9	18.8	18.7	18.5	18.3	17.9	17.6	17.2	16.9	16.4
95°	33.7	33.7	33.7	33.7	33.7	33.6	33.3	33.0	32.7	32.4	31.8
97.5°	52.9	52.9	52.9	52.9	52.9	52.7	52.4	52.0	51.7	51.4	50.5
100°	66.2	66.2	66.2	66.2	66.2	66.1	65.9	65.7	65.5	65.3	64.5
102.5°	81.2	81.2	81.1	81.0	81.0	80.8	80.5	80.2	79.9	79.7	78.9
105°	104.2	104.0	103.7	103.4	103.1	102.8	102.5	102.3	101.9	101.6	101.2
107.5°	126.6	126.6	126.7	126.7	126.7	126.6	126.3	126.0	125.7	125.5	125.5
110°	142.6	142.3	142.0	141.8	141.5	141.5	141.7	141.9	142.0	142.2	142.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	159.0	159.0	158.9	158.9	158.8	158.8	158.8	158.9	158.9	159.0	159.1
115°	184.5	184.6	184.7	184.8	184.9	185.0	185.1	185.2	185.3	185.4	185.6
117.5°	208.8	209.0	209.2	209.3	209.5	209.8	210.1	210.5	210.8	211.0	211.2
120°	227.2	227.1	226.9	226.7	226.5	226.6	227.1	227.5	228.0	228.5	228.8
122.5°	242.6	242.9	243.3	243.6	243.9	244.3	244.6	245.0	245.2	245.6	245.7
125°	269.1	269.3	269.5	269.7	269.8	270.0	270.2	270.4	270.6	270.8	270.9
127.5°	293.6	293.8	293.9	294.1	294.2	294.4	294.5	294.7	294.9	295.1	295.3
130°	309.6	310.0	310.4	310.8	311.1	311.4	311.6	311.8	312.0	312.2	312.2
132.5°	326.8	326.9	327.1	327.2	327.3	327.5	327.7	327.9	328.1	328.3	328.4
135°	350.2	350.5	350.8	351.1	351.4	351.6	351.8	351.9	352.1	352.3	352.3
137.5°	374.9	374.8	374.8	374.8	374.7	374.8	375.0	375.2	375.5	375.8	375.6
140°	389.9	390.0	390.1	390.2	390.3	390.4	390.5	390.6	390.7	390.8	390.8
142.5°	405.0	405.0	405.0	405.0	405.0	405.1	405.1	405.1	405.1	405.1	405.2
145°	425.4	425.7	425.9	426.2	426.5	426.7	426.8	426.9	427.0	427.1	427.0
147.5°	446.1	446.2	446.3	446.4	446.5	446.6	446.6	446.7	446.8	446.9	447.0
150°	458.7	458.8	458.9	459.0	459.1	459.1	459.1	459.1	459.1	459.1	459.1
152.5°	470.3	470.6	470.8	471.1	471.3	471.4	471.1	470.9	470.6	470.4	470.3
155°	486.4	486.8	487.2	487.6	488.0	488.0	487.6	487.2	486.8	486.4	486.5
157.5°	500.9	501.2	501.5	501.9	502.2	502.2	501.9	501.6	501.3	501.1	501.1
160°	509.1	509.5	510.1	510.6	511.0	511.1	510.9	510.6	510.3	510.0	510.1
162.5°	517.6	518.1	518.6	519.1	519.5	519.5	519.1	518.5	518.0	517.5	517.6
165°	528.8	529.1	529.5	529.9	530.3	530.2	529.6	529.0	528.5	527.9	528.1
167.5°	536.7	537.2	537.9	538.5	539.0	539.0	538.5	537.9	537.3	536.8	536.8
170°	541.1	541.8	542.4	543.1	543.8	543.8	543.3	542.7	542.2	541.6	541.5
172.5°	544.9	545.5	546.2	546.9	547.5	547.5	547.0	546.3	545.6	545.0	545.0
175°	548.8	549.5	550.2	550.8	551.5	551.5	550.8	550.2	549.5	548.8	548.9
177.5°	550.9	551.5	552.1	552.7	553.3	553.4	552.8	552.3	551.8	551.2	551.2
180°	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1623.5	1616.2	1611.0	1606.8	1595.3	1588.6	1583.4	1576.0	1567.7	1558.9	1547.9
5°	1715.6	1693.5	1677.2	1652.5	1629.0	1609.4	1589.2	1570.9	1548.8	1524.8	1507.1
7.5°	1812.4	1779.5	1737.3	1700.6	1659.4	1623.6	1591.6	1558.7	1524.6	1491.5	1461.1
10°	1874.0	1831.6	1784.7	1729.3	1677.2	1630.9	1587.9	1546.2	1505.8	1465.4	1430.9
12.5°	1940.1	1887.3	1818.1	1753.3	1694.9	1633.0	1581.1	1530.0	1481.3	1438.8	1398.5
15°	2029.0	1952.8	1872.6	1786.0	1709.1	1636.8	1565.8	1501.3	1446.5	1390.4	1351.4
17.5°	2083.7	1989.3	1897.7	1807.1	1714.0	1622.9	1546.2	1471.8	1403.3	1347.6	1298.4
20°	2119.6	2025.8	1911.8	1821.2	1710.4	1616.6	1528.0	1445.2	1373.6	1314.3	1263.4
22.5°	2150.9	2042.5	1928.4	1809.2	1698.9	1599.4	1502.4	1419.2	1346.0	1283.5	1234.7
25°	2167.8	2043.3	1919.6	1801.0	1675.8	1557.9	1470.0	1372.2	1294.0	1228.2	1176.1
27.5°	2169.6	2036.6	1896.5	1764.7	1635.6	1525.8	1414.8	1327.4	1246.2	1176.7	1126.6
30°	2163.9	2025.1	1874.6	1731.9	1602.2	1483.0	1386.6	1291.5	1208.7	1139.6	1087.5
32.5°	2145.7	2001.1	1846.4	1695.4	1561.0	1444.4	1344.9	1254.4	1173.7	1105.7	1051.0
35°	2092.9	1950.2	1785.4	1628.3	1490.8	1372.9	1283.0	1191.1	1110.3	1045.8	993.1
37.5°	2010.4	1881.4	1713.8	1551.3	1416.3	1297.8	1208.7	1125.7	1052.8	987.3	933.2
40°	1938.4	1825.0	1657.0	1498.6	1352.7	1240.0	1156.6	1080.3	1008.0	946.1	894.7
42.5°	1855.6	1756.8	1601.8	1434.0	1293.3	1180.1	1098.7	1030.3	962.1	904.9	853.5
45°	1707.8	1642.7	1496.7	1341.6	1195.0	1088.2	1010.6	950.6	893.3	837.3	794.3
47.5°	1537.9	1505.5	1382.7	1235.4	1096.3	990.9	923.7	868.3	818.0	770.5	732.6
50°	1423.7	1408.1	1301.8	1159.8	1026.9	927.8	860.1	812.6	769.5	727.8	692.0
52.5°	1311.1	1310.6	1214.8	1084.8	961.8	866.4	799.1	754.7	717.4	683.5	651.3
55°	1139.0	1157.3	1082.3	966.3	856.2	770.2	709.5	669.9	643.8	615.8	591.6
57.5°	980.9	1011.2	949.3	847.2	755.4	676.1	623.3	593.4	565.7	548.7	531.2
60°	877.7	906.3	858.2	772.1	685.5	617.7	567.5	540.8	516.7	505.0	492.6
62.5°	786.0	811.5	775.8	696.1	620.9	555.6	513.3	487.7	471.4	458.5	450.3
65°	654.9	676.4	645.7	587.8	523.2	471.1	436.6	416.3	400.8	395.5	386.3
67.5°	529.3	548.9	532.3	483.1	431.3	391.9	364.9	345.4	336.2	331.7	325.2
70°	454.8	474.4	456.8	413.8	374.0	340.8	315.4	304.3	294.5	292.6	283.4
72.5°	391.7	405.0	387.5	353.8	319.8	291.8	272.1	260.5	255.4	251.9	246.9
75°	293.9	305.6	293.9	267.8	243.6	224.1	207.2	202.6	196.8	194.8	191.5
77.5°	208.0	218.1	209.2	192.8	174.8	159.8	150.6	144.8	143.5	140.1	141.7
80°	159.0	165.5	157.0	146.0	131.6	121.2	114.7	111.4	107.5	106.2	108.8
82.5°	114.1	117.1	112.7	105.3	94.6	87.8	83.4	79.6	78.8	79.1	79.1
85°	59.3	58.6	58.0	51.5	48.3	43.6	41.1	40.4	39.8	41.1	42.3
87.5°	21.4	21.8	21.1	18.9	17.1	15.3	14.5	13.9	14.5	15.3	16.0
90°	7.9	7.2	6.3	5.5	4.4	3.4	2.4	1.3	2.4	3.4	4.4
92.5°	15.8	15.4	14.8	13.9	12.7	11.5	10.4	9.1	10.4	11.5	12.7
95°	31.1	30.4	29.8	29.0	28.2	27.3	26.5	25.6	26.5	27.3	28.2
97.5°	49.8	49.0	48.3	47.5	46.8	46.1	45.4	44.8	45.4	46.1	46.8
100°	63.6	62.8	61.9	61.4	60.9	60.5	60.1	59.8	60.1	60.5	60.9
102.5°	78.1	77.4	76.6	76.2	76.0	75.8	75.7	75.5	75.7	75.8	76.0
105°	100.9	100.5	100.1	99.9	99.8	99.7	99.6	99.5	99.6	99.7	99.8
107.5°	125.4	125.4	125.3	125.2	125.1	125.0	124.8	124.7	124.8	125.0	125.1
110°	142.4	142.5	142.6	142.5	142.3	142.1	141.9	141.8	141.9	142.1	142.3



TEST NUMBER: P332806-830

CATALOG NUMBER: S124DIW-S1020D470U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	159.3	159.5	159.7	159.8	159.7	159.7	159.6	159.6	159.6	159.7	159.7
115°	185.8	186.0	186.2	186.2	186.2	186.2	186.2	186.2	186.2	186.2	186.2
117.5°	211.3	211.5	211.6	211.6	211.6	211.5	211.4	211.3	211.4	211.5	211.6
120°	229.0	229.3	229.6	229.6	229.2	228.8	228.5	228.1	228.5	228.8	229.2
122.5°	245.8	246.0	246.1	246.1	245.9	245.8	245.6	245.5	245.6	245.8	245.9
125°	271.0	271.1	271.2	271.2	271.2	271.2	271.2	271.2	271.2	271.2	271.2
127.5°	295.4	295.6	295.8	295.7	295.4	295.1	294.8	294.5	294.8	295.1	295.4
130°	312.2	312.2	312.2	312.1	311.8	311.5	311.2	310.9	311.2	311.5	311.8
132.5°	328.4	328.5	328.6	328.5	328.3	328.1	327.9	327.6	327.9	328.1	328.3
135°	352.3	352.3	352.3	352.0	351.5	350.9	350.3	349.8	350.3	350.9	351.5
137.5°	375.5	375.3	375.1	374.9	374.7	374.4	374.2	373.9	374.2	374.4	374.7
140°	390.8	390.8	390.8	390.7	390.5	390.3	390.1	389.9	390.1	390.3	390.5
142.5°	405.3	405.4	405.5	405.4	405.2	405.0	404.8	404.6	404.8	405.0	405.2
145°	426.9	426.8	426.7	426.5	426.1	425.7	425.4	425.0	425.4	425.7	426.1
147.5°	447.0	447.0	447.1	447.0	446.5	446.0	445.5	445.2	445.5	446.0	446.5
150°	459.1	459.1	459.1	458.9	458.5	458.2	457.8	457.4	457.8	458.2	458.5
152.5°	470.2	470.1	470.1	470.0	469.8	469.5	469.3	469.0	469.3	469.5	469.8
155°	486.6	486.7	486.8	486.9	486.9	486.9	486.9	486.9	486.9	486.9	486.9
157.5°	501.1	501.1	501.1	501.2	501.4	501.6	501.7	501.9	501.7	501.6	501.4
160°	510.2	510.3	510.4	510.5	510.6	510.7	510.8	510.9	510.8	510.7	510.6
162.5°	517.6	517.7	517.8	518.0	518.3	518.5	518.8	519.1	518.8	518.5	518.3
165°	528.3	528.5	528.7	528.9	529.1	529.4	529.7	530.0	529.7	529.4	529.1
167.5°	536.8	536.7	536.7	536.9	537.3	537.7	538.1	538.5	538.1	537.7	537.3
170°	541.4	541.3	541.2	541.4	541.9	542.3	542.8	543.3	542.8	542.3	541.9
172.5°	545.0	544.9	544.9	545.1	545.5	545.9	546.3	546.7	546.3	545.9	545.5
175°	549.0	549.1	549.2	549.5	550.0	550.4	550.9	551.4	550.9	550.4	550.0
177.5°	551.2	551.2	551.2	551.4	551.8	552.1	552.5	552.9	552.5	552.1	551.8
180°	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2



TEST NUMBER: P332806-830

CATALOG NUMBER: S124DIW-S1020D470U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1542.7	1538.0	1531.3	1521.8	1514.0	1505.7	1503.6	1500.4	1506.7	1501.5	1500.0
5°	1492.1	1478.5	1460.8	1440.7	1428.9	1412.0	1408.7	1402.2	1395.7	1395.1	1388.6
7.5°	1438.6	1418.5	1395.4	1374.9	1355.8	1337.3	1325.2	1322.6	1313.0	1307.3	1300.8
10°	1404.2	1379.4	1352.7	1333.1	1311.0	1291.5	1277.8	1270.0	1263.4	1256.2	1249.7
12.5°	1363.5	1337.2	1315.1	1294.0	1267.7	1252.8	1230.3	1216.7	1215.5	1215.6	1198.6
15°	1316.2	1290.2	1256.2	1226.2	1211.9	1183.3	1170.9	1155.3	1145.5	1135.7	1127.9
17.5°	1262.2	1229.6	1203.2	1168.8	1141.4	1118.6	1102.4	1093.0	1078.3	1064.4	1054.4
20°	1228.2	1193.7	1165.6	1129.2	1099.2	1071.2	1057.5	1044.5	1033.4	1021.7	1010.6
22.5°	1193.8	1157.7	1123.4	1088.0	1060.2	1030.6	1017.4	999.7	989.1	982.6	971.5
25°	1139.6	1100.5	1061.4	1027.6	998.9	972.8	955.3	941.5	929.8	924.6	917.5
27.5°	1080.7	1041.9	1004.1	965.6	933.1	914.2	900.1	889.8	883.1	876.1	872.9
30°	1043.2	1002.8	962.4	926.5	896.5	877.7	864.7	857.5	852.2	849.0	845.7
32.5°	1005.1	965.3	922.7	890.0	863.2	846.4	836.5	829.3	826.7	825.6	824.3
35°	944.1	903.7	864.7	835.4	809.9	803.4	794.9	791.0	789.8	794.3	796.3
37.5°	885.1	847.6	811.6	783.2	766.6	757.1	754.1	754.3	758.9	763.0	767.7
40°	847.1	810.6	776.7	752.0	736.3	730.5	729.2	732.4	737.6	742.2	747.3
42.5°	810.0	774.1	743.3	720.1	709.2	703.8	704.6	707.8	715.2	720.8	728.6
45°	752.6	722.6	692.7	673.7	664.6	665.9	665.9	671.8	678.9	687.4	695.9
47.5°	698.5	668.3	643.7	627.7	623.0	621.9	625.6	633.2	643.5	653.9	665.8
50°	662.0	633.3	611.8	597.5	592.3	594.3	599.5	606.6	619.0	632.1	644.4
52.5°	625.0	598.9	579.0	565.7	562.0	565.6	570.8	582.1	593.0	607.0	622.0
55°	567.5	545.4	529.7	520.0	518.7	520.7	526.5	538.9	554.5	572.1	586.4
57.5°	510.3	491.8	477.5	470.7	471.4	473.2	482.9	497.6	514.3	533.0	551.5
60°	471.7	454.8	443.1	437.9	438.5	442.4	454.1	467.9	488.7	506.9	526.5
62.5°	435.3	420.4	409.2	404.5	403.6	412.2	423.4	437.6	458.5	478.8	499.9
65°	376.6	364.9	355.8	353.2	355.2	361.7	376.0	394.8	412.5	433.9	456.1
67.5°	319.2	309.6	303.4	304.5	306.9	316.5	328.6	344.8	364.8	387.0	409.0
70°	282.8	273.6	268.4	269.1	273.1	284.7	295.2	311.4	333.0	355.8	374.0
72.5°	245.2	239.2	234.6	237.3	241.2	249.3	262.3	278.6	297.6	318.8	338.0
75°	188.3	188.3	185.7	187.7	193.5	201.3	211.1	228.1	246.9	263.9	279.6
77.5°	139.7	138.3	140.0	142.3	145.7	155.0	166.2	178.2	192.5	209.4	222.3
80°	106.9	107.5	110.7	114.7	116.0	123.2	134.9	146.0	157.0	171.4	183.7
82.5°	80.3	81.0	82.7	87.6	88.9	96.6	104.2	115.2	125.3	134.9	145.2
85°	43.6	43.6	46.9	48.8	52.1	57.3	61.9	68.4	77.6	84.1	93.8
87.5°	17.8	17.9	20.2	21.4	23.1	25.8	27.1	32.9	35.1	37.8	42.5
90°	5.5	6.3	7.2	7.9	8.7	9.4	10.0	10.6	11.1	11.7	12.1
92.5°	13.9	14.8	15.4	15.8	16.4	16.9	17.2	17.6	17.9	18.3	18.5
95°	29.0	29.8	30.4	31.1	31.8	32.4	32.7	33.0	33.3	33.6	33.7
97.5°	47.5	48.3	49.0	49.8	50.5	51.4	51.7	52.0	52.4	52.7	52.9
100°	61.4	61.9	62.8	63.6	64.5	65.3	65.5	65.7	65.9	66.1	66.2
102.5°	76.2	76.6	77.4	78.1	78.9	79.7	79.9	80.2	80.5	80.8	81.0
105°	99.9	100.1	100.5	100.9	101.2	101.6	101.9	102.3	102.5	102.8	103.1
107.5°	125.2	125.3	125.4	125.4	125.5	125.5	125.7	126.0	126.3	126.6	126.7
110°	142.5	142.6	142.5	142.4	142.3	142.2	142.0	141.9	141.7	141.5	141.5



TEST NUMBER: P332806-830

CATALOG NUMBER: S124DIW-S1020D470U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	159.8	159.7	159.5	159.3	159.1	159.0	158.9	158.9	158.8	158.8	158.8
115°	186.2	186.2	186.0	185.8	185.6	185.4	185.3	185.2	185.1	185.0	184.9
117.5°	211.6	211.6	211.5	211.3	211.2	211.0	210.8	210.5	210.1	209.8	209.5
120°	229.6	229.6	229.3	229.0	228.8	228.5	228.0	227.5	227.1	226.6	226.5
122.5°	246.1	246.1	246.0	245.8	245.7	245.6	245.2	245.0	244.6	244.3	243.9
125°	271.2	271.2	271.1	271.0	270.9	270.8	270.6	270.4	270.2	270.0	269.8
127.5°	295.7	295.8	295.6	295.4	295.3	295.1	294.9	294.7	294.5	294.4	294.2
130°	312.1	312.2	312.2	312.2	312.2	312.2	312.0	311.8	311.6	311.4	311.1
132.5°	328.5	328.6	328.5	328.4	328.4	328.3	328.1	327.9	327.7	327.5	327.3
135°	352.0	352.3	352.3	352.3	352.3	352.3	352.1	351.9	351.8	351.6	351.4
137.5°	374.9	375.1	375.3	375.5	375.6	375.8	375.5	375.2	375.0	374.8	374.7
140°	390.7	390.8	390.8	390.8	390.8	390.8	390.7	390.6	390.5	390.4	390.3
142.5°	405.4	405.5	405.4	405.3	405.2	405.1	405.1	405.1	405.1	405.1	405.0
145°	426.5	426.7	426.8	426.9	427.0	427.1	427.0	426.9	426.8	426.7	426.5
147.5°	447.0	447.1	447.0	447.0	447.0	446.9	446.8	446.7	446.6	446.6	446.5
150°	458.9	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1
152.5°	470.0	470.1	470.1	470.2	470.3	470.4	470.6	470.9	471.1	471.4	471.3
155°	486.9	486.8	486.7	486.6	486.5	486.4	486.8	487.2	487.6	488.0	488.0
157.5°	501.2	501.1	501.1	501.1	501.1	501.1	501.3	501.6	501.9	502.2	502.2
160°	510.5	510.4	510.3	510.2	510.1	510.0	510.3	510.6	510.9	511.1	511.0
162.5°	518.0	517.8	517.7	517.6	517.6	517.5	518.0	518.5	519.1	519.5	519.5
165°	528.9	528.7	528.5	528.3	528.1	527.9	528.5	529.0	529.6	530.2	530.3
167.5°	536.9	536.7	536.7	536.8	536.8	536.8	537.3	537.9	538.5	539.0	539.0
170°	541.4	541.2	541.3	541.4	541.5	541.6	542.2	542.7	543.3	543.8	543.8
172.5°	545.1	544.9	544.9	545.0	545.0	545.0	545.6	546.3	547.0	547.5	547.5
175°	549.5	549.2	549.1	549.0	548.9	548.8	549.5	550.2	550.8	551.5	551.5
177.5°	551.4	551.2	551.2	551.2	551.2	551.2	551.8	552.3	552.8	553.4	553.3
180°	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2



TEST NUMBER: P332806-830

CATALOG NUMBER: S124DIW-S1020D470U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1498.9	1497.9	1494.2	1493.7	1494.2	1497.9	1498.9	1500.0	1501.5	1506.7	1500.4
5°	1384.6	1381.4	1379.4	1386.6	1379.4	1381.4	1384.6	1388.6	1395.1	1395.7	1402.2
7.5°	1298.4	1295.9	1290.2	1288.4	1290.2	1295.9	1298.4	1300.8	1307.3	1313.0	1322.6
10°	1243.2	1240.6	1235.4	1234.1	1235.4	1240.6	1243.2	1249.7	1256.2	1263.4	1270.0
12.5°	1190.1	1184.9	1183.8	1185.1	1183.8	1184.9	1190.1	1198.6	1215.6	1215.5	1216.7
15°	1119.5	1116.8	1109.7	1111.6	1109.7	1116.8	1119.5	1127.9	1135.7	1145.5	1155.3
17.5°	1049.8	1046.7	1038.0	1045.7	1038.0	1046.7	1049.8	1054.4	1064.4	1078.3	1093.0
20°	1006.1	1000.8	996.3	995.6	996.3	1000.8	1006.1	1010.6	1021.7	1033.4	1044.5
22.5°	964.3	959.7	959.2	955.0	959.2	959.7	964.3	971.5	982.6	989.1	999.7
25°	912.2	907.7	906.3	903.1	906.3	907.7	912.2	917.5	924.6	929.8	941.5
27.5°	872.2	870.0	867.6	868.6	867.6	870.0	872.2	872.9	876.1	883.1	889.8
30°	847.7	847.1	845.7	845.7	845.7	847.1	847.7	845.7	849.0	852.2	857.5
32.5°	827.4	827.3	828.0	828.0	828.0	827.3	827.4	824.3	825.6	826.7	829.3
35°	798.8	800.8	802.1	800.1	802.1	800.8	798.8	796.3	794.3	789.8	791.0
37.5°	773.1	775.0	776.8	779.0	776.8	775.0	773.1	767.7	763.0	758.9	754.3
40°	753.2	757.8	759.1	762.3	759.1	757.8	753.2	747.3	742.2	737.6	732.4
42.5°	734.4	739.5	742.9	743.6	742.9	739.5	734.4	728.6	720.8	715.2	707.8
45°	705.7	710.9	715.5	715.5	715.5	710.9	705.7	695.9	687.4	678.9	671.8
47.5°	675.8	683.3	688.0	689.1	688.0	683.3	675.8	665.8	653.9	643.5	633.2
50°	655.5	664.6	669.2	672.4	669.2	664.6	655.5	644.4	632.1	619.0	606.6
52.5°	635.7	644.8	650.9	652.6	650.9	644.8	635.7	622.0	607.0	593.0	582.1
55°	601.4	614.4	621.6	624.2	621.6	614.4	601.4	586.4	572.1	554.5	538.9
57.5°	569.1	581.1	589.5	591.4	589.5	581.1	569.1	551.5	533.0	514.3	497.6
60°	544.0	557.1	567.5	569.5	567.5	557.1	544.0	526.5	506.9	488.7	467.9
62.5°	518.5	532.1	541.5	546.6	541.5	532.1	518.5	499.9	478.8	458.5	437.6
65°	474.4	488.0	497.2	499.1	497.2	488.0	474.4	456.1	433.9	412.5	394.8
67.5°	426.1	439.8	445.8	449.6	445.8	439.8	426.1	409.0	387.0	364.8	344.8
70°	392.3	403.3	409.8	413.1	409.8	403.3	392.3	374.0	355.8	333.0	311.4
72.5°	353.6	365.2	372.9	373.5	372.9	365.2	353.6	338.0	318.8	297.6	278.6
75°	294.5	304.9	308.9	308.9	308.9	304.9	294.5	279.6	263.9	246.9	228.1
77.5°	233.1	238.5	243.5	244.5	243.5	238.5	233.1	222.3	209.4	192.5	178.2
80°	193.5	196.8	200.7	200.7	200.7	196.8	193.5	183.7	171.4	157.0	146.0
82.5°	152.9	155.6	159.5	159.0	159.5	155.6	152.9	145.2	134.9	125.3	115.2
85°	92.6	98.4	97.7	96.4	97.7	98.4	92.6	93.8	84.1	77.6	68.4
87.5°	44.1	44.7	46.3	47.4	46.3	44.7	44.1	42.5	37.8	35.1	32.9
90°	12.3	12.4	12.6	12.8	12.6	12.4	12.3	12.1	11.7	11.1	10.6
92.5°	18.7	18.8	18.9	18.9	18.9	18.8	18.7	18.5	18.3	17.9	17.6
95°	33.7	33.7	33.7	33.7	33.7	33.7	33.7	33.7	33.6	33.3	33.0
97.5°	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.7	52.4	52.0
100°	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.1	65.9	65.7
102.5°	81.0	81.1	81.2	81.2	81.2	81.1	81.0	81.0	80.8	80.5	80.2
105°	103.4	103.7	104.0	104.2	104.0	103.7	103.4	103.1	102.8	102.5	102.3
107.5°	126.7	126.7	126.6	126.6	126.6	126.7	126.7	126.7	126.6	126.3	126.0
110°	141.8	142.0	142.3	142.6	142.3	142.0	141.8	141.5	141.5	141.7	141.9



TEST NUMBER: P332806-830

CATALOG NUMBER: S124DIW-S1020D470U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	158.9	158.9	159.0	159.0	159.0	158.9	158.9	158.8	158.8	158.8	158.9
115°	184.8	184.7	184.6	184.5	184.6	184.7	184.8	184.9	185.0	185.1	185.2
117.5°	209.3	209.2	209.0	208.8	209.0	209.2	209.3	209.5	209.8	210.1	210.5
120°	226.7	226.9	227.1	227.2	227.1	226.9	226.7	226.5	226.6	227.1	227.5
122.5°	243.6	243.3	242.9	242.6	242.9	243.3	243.6	243.9	244.3	244.6	245.0
125°	269.7	269.5	269.3	269.1	269.3	269.5	269.7	269.8	270.0	270.2	270.4
127.5°	294.1	293.9	293.8	293.6	293.8	293.9	294.1	294.2	294.4	294.5	294.7
130°	310.8	310.4	310.0	309.6	310.0	310.4	310.8	311.1	311.4	311.6	311.8
132.5°	327.2	327.1	326.9	326.8	326.9	327.1	327.2	327.3	327.5	327.7	327.9
135°	351.1	350.8	350.5	350.2	350.5	350.8	351.1	351.4	351.6	351.8	351.9
137.5°	374.8	374.8	374.8	374.9	374.8	374.8	374.8	374.7	374.8	375.0	375.2
140°	390.2	390.1	390.0	389.9	390.0	390.1	390.2	390.3	390.4	390.5	390.6
142.5°	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.1	405.1	405.1
145°	426.2	425.9	425.7	425.4	425.7	425.9	426.2	426.5	426.7	426.8	426.9
147.5°	446.4	446.3	446.2	446.1	446.2	446.3	446.4	446.5	446.6	446.6	446.7
150°	459.0	458.9	458.8	458.7	458.8	458.9	459.0	459.1	459.1	459.1	459.1
152.5°	471.1	470.8	470.6	470.3	470.6	470.8	471.1	471.3	471.4	471.1	470.9
155°	487.6	487.2	486.8	486.4	486.8	487.2	487.6	488.0	488.0	487.6	487.2
157.5°	501.9	501.5	501.2	500.9	501.2	501.5	501.9	502.2	502.2	501.9	501.6
160°	510.6	510.1	509.5	509.1	509.5	510.1	510.6	511.0	511.1	510.9	510.6
162.5°	519.1	518.6	518.1	517.6	518.1	518.6	519.1	519.5	519.5	519.1	518.5
165°	529.9	529.5	529.1	528.8	529.1	529.5	529.9	530.3	530.2	529.6	529.0
167.5°	538.5	537.9	537.2	536.7	537.2	537.9	538.5	539.0	539.0	538.5	537.9
170°	543.1	542.4	541.8	541.1	541.8	542.4	543.1	543.8	543.8	543.3	542.7
172.5°	546.9	546.2	545.5	544.9	545.5	546.2	546.9	547.5	547.5	547.0	546.3
175°	550.8	550.2	549.5	548.8	549.5	550.2	550.8	551.5	551.5	550.8	550.2
177.5°	552.7	552.1	551.5	550.9	551.5	552.1	552.7	553.3	553.4	552.8	552.3
180°	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2



TEST NUMBER: P332806-830

CATALOG NUMBER: S124DIW-S1020D470U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1503.6	1505.7	1514.0	1521.8	1531.3	1538.0	1542.7	1547.9	1558.9	1567.7	1576.0
5°	1408.7	1412.0	1428.9	1440.7	1460.8	1478.5	1492.1	1507.1	1524.8	1548.8	1570.9
7.5°	1325.2	1337.3	1355.8	1374.9	1395.4	1418.5	1438.6	1461.1	1491.5	1524.6	1558.7
10°	1277.8	1291.5	1311.0	1333.1	1352.7	1379.4	1404.2	1430.9	1465.4	1505.8	1546.2
12.5°	1230.3	1252.8	1267.7	1294.0	1315.1	1337.2	1363.5	1398.5	1438.8	1481.3	1530.0
15°	1170.9	1183.3	1211.9	1226.2	1256.2	1290.2	1316.2	1351.4	1390.4	1446.5	1501.3
17.5°	1102.4	1118.6	1141.4	1168.8	1203.2	1229.6	1262.2	1298.4	1347.6	1403.3	1471.8
20°	1057.5	1071.2	1099.2	1129.2	1165.6	1193.7	1228.2	1263.4	1314.3	1373.6	1445.2
22.5°	1017.4	1030.6	1060.2	1088.0	1123.4	1157.7	1193.8	1234.7	1283.5	1346.0	1419.2
25°	955.3	972.8	998.9	1027.6	1061.4	1100.5	1139.6	1176.1	1228.2	1294.0	1372.2
27.5°	900.1	914.2	933.1	965.6	1004.1	1041.9	1080.7	1126.6	1176.7	1246.2	1327.4
30°	864.7	877.7	896.5	926.5	962.4	1002.8	1043.2	1087.5	1139.6	1208.7	1291.5
32.5°	836.5	846.4	863.2	890.0	922.7	965.3	1005.1	1051.0	1105.7	1173.7	1254.4
35°	794.9	803.4	809.9	835.4	864.7	903.7	944.1	993.1	1045.8	1110.3	1191.1
37.5°	754.1	757.1	766.6	783.2	811.6	847.6	885.1	933.2	987.3	1052.8	1125.7
40°	729.2	730.5	736.3	752.0	776.7	810.6	847.1	894.7	946.1	1008.0	1080.3
42.5°	704.6	703.8	709.2	720.1	743.3	774.1	810.0	853.5	904.9	962.1	1030.3
45°	665.9	665.9	664.6	673.7	692.7	722.6	752.6	794.3	837.3	893.3	950.6
47.5°	625.6	621.9	623.0	627.7	643.7	668.3	698.5	732.6	770.5	818.0	868.3
50°	599.5	594.3	592.3	597.5	611.8	633.3	662.0	692.0	727.8	769.5	812.6
52.5°	570.8	565.6	562.0	565.7	579.0	598.9	625.0	651.3	683.5	717.4	754.7
55°	526.5	520.7	518.7	520.0	529.7	545.4	567.5	591.6	615.8	643.8	669.9
57.5°	482.9	473.2	471.4	470.7	477.5	491.8	510.3	531.2	548.7	565.7	593.4
60°	454.1	442.4	438.5	437.9	443.1	454.8	471.7	492.6	505.0	516.7	540.8
62.5°	423.4	412.2	403.6	404.5	409.2	420.4	435.3	450.3	458.5	471.4	487.7
65°	376.0	361.7	355.2	353.2	355.8	364.9	376.6	386.3	395.5	400.8	416.3
67.5°	328.6	316.5	306.9	304.5	303.4	309.6	319.2	325.2	331.7	336.2	345.4
70°	295.2	284.7	273.1	269.1	268.4	273.6	282.8	283.4	292.6	294.5	304.3
72.5°	262.3	249.3	241.2	237.3	234.6	239.2	245.2	246.9	251.9	255.4	260.5
75°	211.1	201.3	193.5	187.7	185.7	188.3	188.3	191.5	194.8	196.8	202.6
77.5°	166.2	155.0	145.7	142.3	140.0	138.3	139.7	141.7	140.1	143.5	144.8
80°	134.9	123.2	116.0	114.7	110.7	107.5	106.9	108.8	106.2	107.5	111.4
82.5°	104.2	96.6	88.9	87.6	82.7	81.0	80.3	79.1	79.1	78.8	79.6
85°	61.9	57.3	52.1	48.8	46.9	43.6	43.6	42.3	41.1	39.8	40.4
87.5°	27.1	25.8	23.1	21.4	20.2	17.9	17.8	16.0	15.3	14.5	13.9
90°	10.0	9.4	8.7	7.9	7.2	6.3	5.5	4.4	3.4	2.4	1.3
92.5°	17.2	16.9	16.4	15.8	15.4	14.8	13.9	12.7	11.5	10.4	9.1
95°	32.7	32.4	31.8	31.1	30.4	29.8	29.0	28.2	27.3	26.5	25.6
97.5°	51.7	51.4	50.5	49.8	49.0	48.3	47.5	46.8	46.1	45.4	44.8
100°	65.5	65.3	64.5	63.6	62.8	61.9	61.4	60.9	60.5	60.1	59.8
102.5°	79.9	79.7	78.9	78.1	77.4	76.6	76.2	76.0	75.8	75.7	75.5
105°	101.9	101.6	101.2	100.9	100.5	100.1	99.9	99.8	99.7	99.6	99.5
107.5°	125.7	125.5	125.5	125.4	125.4	125.3	125.2	125.1	125.0	124.8	124.7
110°	142.0	142.2	142.3	142.4	142.5	142.6	142.5	142.3	142.1	141.9	141.8



TEST NUMBER: P332806-830

CATALOG NUMBER: S124DIW-S1020D470U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	158.9	159.0	159.1	159.3	159.5	159.7	159.8	159.7	159.7	159.6	159.6
115°	185.3	185.4	185.6	185.8	186.0	186.2	186.2	186.2	186.2	186.2	186.2
117.5°	210.8	211.0	211.2	211.3	211.5	211.6	211.6	211.6	211.5	211.4	211.3
120°	228.0	228.5	228.8	229.0	229.3	229.6	229.6	229.2	228.8	228.5	228.1
122.5°	245.2	245.6	245.7	245.8	246.0	246.1	246.1	245.9	245.8	245.6	245.5
125°	270.6	270.8	270.9	271.0	271.1	271.2	271.2	271.2	271.2	271.2	271.2
127.5°	294.9	295.1	295.3	295.4	295.6	295.8	295.7	295.4	295.1	294.8	294.5
130°	312.0	312.2	312.2	312.2	312.2	312.2	312.1	311.8	311.5	311.2	310.9
132.5°	328.1	328.3	328.4	328.4	328.5	328.6	328.5	328.3	328.1	327.9	327.6
135°	352.1	352.3	352.3	352.3	352.3	352.3	352.0	351.5	350.9	350.3	349.8
137.5°	375.5	375.8	375.6	375.5	375.3	375.1	374.9	374.7	374.4	374.2	373.9
140°	390.7	390.8	390.8	390.8	390.8	390.8	390.7	390.5	390.3	390.1	389.9
142.5°	405.1	405.1	405.2	405.3	405.4	405.5	405.4	405.2	405.0	404.8	404.6
145°	427.0	427.1	427.0	426.9	426.8	426.7	426.5	426.1	425.7	425.4	425.0
147.5°	446.8	446.9	447.0	447.0	447.0	447.1	447.0	446.5	446.0	445.5	445.2
150°	459.1	459.1	459.1	459.1	459.1	459.1	458.9	458.5	458.2	457.8	457.4
152.5°	470.6	470.4	470.3	470.2	470.1	470.1	470.0	469.8	469.5	469.3	469.0
155°	486.8	486.4	486.5	486.6	486.7	486.8	486.9	486.9	486.9	486.9	486.9
157.5°	501.3	501.1	501.1	501.1	501.1	501.1	501.2	501.4	501.6	501.7	501.9
160°	510.3	510.0	510.1	510.2	510.3	510.4	510.5	510.6	510.7	510.8	510.9
162.5°	518.0	517.5	517.6	517.6	517.7	517.8	518.0	518.3	518.5	518.8	519.1
165°	528.5	527.9	528.1	528.3	528.5	528.7	528.9	529.1	529.4	529.7	530.0
167.5°	537.3	536.8	536.8	536.8	536.7	536.7	536.9	537.3	537.7	538.1	538.5
170°	542.2	541.6	541.5	541.4	541.3	541.2	541.4	541.9	542.3	542.8	543.3
172.5°	545.6	545.0	545.0	545.0	544.9	544.9	545.1	545.5	545.9	546.3	546.7
175°	549.5	548.8	548.9	549.0	549.1	549.2	549.5	550.0	550.4	550.9	551.4
177.5°	551.8	551.2	551.2	551.2	551.2	551.2	551.4	551.8	552.1	552.5	552.9
180°	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2



TEST NUMBER: P332806-830

CATALOG NUMBER: S124DIW-S1020D470U830-4F0-1E-UDD-A1

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1583.4	1588.6	1595.3	1606.8	1611.0	1616.2	1623.5	1623.0	1625.0	1632.9	1649.5
5°	1589.2	1609.4	1629.0	1652.5	1677.2	1693.5	1715.6	1729.3	1742.9	1760.6	1790.5
7.5°	1591.6	1623.6	1659.4	1700.6	1737.3	1779.5	1812.4	1843.4	1871.5	1908.6	1944.4
10°	1587.9	1630.9	1677.2	1729.3	1784.7	1831.6	1874.0	1922.2	1963.2	2008.2	2048.6
12.5°	1581.1	1633.0	1694.9	1753.3	1818.1	1887.3	1940.1	1988.9	2043.5	2095.3	2157.6
15°	1565.8	1636.8	1709.1	1786.0	1872.6	1952.8	2029.0	2092.3	2150.9	2228.5	2309.9
17.5°	1546.2	1622.9	1714.0	1807.1	1897.7	1989.3	2083.7	2178.7	2252.7	2349.0	2412.7
20°	1528.0	1616.6	1710.4	1821.2	1911.8	2025.8	2119.6	2211.5	2313.1	2409.0	2485.1
22.5°	1502.4	1599.4	1698.9	1809.2	1928.4	2042.5	2150.9	2250.6	2352.2	2456.4	2548.7
25°	1470.0	1557.9	1675.8	1801.0	1919.6	2043.3	2167.8	2292.9	2402.4	2512.5	2598.5
27.5°	1414.8	1525.8	1635.6	1764.7	1896.5	2036.6	2169.6	2300.7	2415.3	2505.8	2559.2
30°	1386.6	1483.0	1602.2	1731.9	1874.6	2025.1	2163.9	2292.3	2399.1	2471.4	2492.9
32.5°	1344.9	1444.4	1561.0	1695.4	1846.4	2001.1	2145.7	2266.7	2355.9	2393.8	2367.9
35°	1283.0	1372.9	1490.8	1628.3	1785.4	1950.2	2092.9	2195.2	2240.8	2205.0	2115.7
37.5°	1208.7	1297.8	1416.3	1551.3	1713.8	1881.4	2010.4	2084.1	2068.9	1979.8	1846.7
40°	1156.6	1240.0	1352.7	1498.6	1657.0	1825.0	1938.4	1978.2	1936.5	1808.8	1667.5
42.5°	1098.7	1180.1	1293.3	1434.0	1601.8	1756.8	1855.6	1858.9	1788.9	1636.3	1494.3
45°	1010.6	1088.2	1195.0	1341.6	1496.7	1642.7	1707.8	1675.8	1546.9	1399.6	1256.9
47.5°	923.7	990.9	1096.3	1235.4	1382.7	1505.5	1537.9	1480.4	1342.9	1200.0	1067.7
50°	860.1	927.8	1026.9	1159.8	1301.8	1408.1	1423.7	1347.5	1212.6	1068.6	965.0
52.5°	799.1	866.4	961.8	1084.8	1214.8	1310.6	1311.1	1222.9	1088.5	960.2	863.8
55°	709.5	770.2	856.2	966.3	1082.3	1157.3	1139.0	1047.7	931.1	819.7	735.7
57.5°	623.3	676.1	755.4	847.2	949.3	1011.2	980.9	893.1	788.9	694.5	630.7
60°	567.5	617.7	685.5	772.1	858.2	906.3	877.7	798.1	702.4	626.1	570.8
62.5°	513.3	555.6	620.9	696.1	775.8	811.5	786.0	707.5	624.7	555.8	510.9
65°	436.6	471.1	523.2	587.8	645.7	676.4	654.9	581.8	518.7	469.1	433.3
67.5°	364.9	391.9	431.3	483.1	532.3	548.9	529.3	478.5	425.0	385.3	360.1
70°	315.4	340.8	374.0	413.8	456.8	474.4	454.8	414.4	370.8	334.2	309.5
72.5°	272.1	291.8	319.8	353.8	387.5	405.0	391.7	352.9	316.0	288.9	267.8
75°	207.2	224.1	243.6	267.8	293.9	305.6	293.9	267.1	241.8	221.5	206.5
77.5°	150.6	159.8	174.8	192.8	209.2	218.1	208.0	189.8	174.4	160.5	153.2
80°	114.7	121.2	131.6	146.0	157.0	165.5	159.0	144.0	131.6	122.5	119.2
82.5°	83.4	87.8	94.6	105.3	112.7	117.1	114.1	103.3	98.2	90.2	86.9
85°	41.1	43.6	48.3	51.5	58.0	58.6	59.3	54.8	50.1	48.3	45.6
87.5°	14.5	15.3	17.1	18.9	21.1	21.8	21.4	21.5	19.6	19.2	17.2
90°	2.4	3.4	4.4	5.5	6.3	7.2	7.9	8.7	9.4	10.0	10.6
92.5°	10.4	11.5	12.7	13.9	14.8	15.4	15.8	16.4	16.9	17.2	17.6
95°	26.5	27.3	28.2	29.0	29.8	30.4	31.1	31.8	32.4	32.7	33.0
97.5°	45.4	46.1	46.8	47.5	48.3	49.0	49.8	50.5	51.4	51.7	52.0
100°	60.1	60.5	60.9	61.4	61.9	62.8	63.6	64.5	65.3	65.5	65.7
102.5°	75.7	75.8	76.0	76.2	76.6	77.4	78.1	78.9	79.7	79.9	80.2
105°	99.6	99.7	99.8	99.9	100.1	100.5	100.9	101.2	101.6	101.9	102.3
107.5°	124.8	125.0	125.1	125.2	125.3	125.4	125.4	125.5	125.5	125.7	126.0
110°	141.9	142.1	142.3	142.5	142.6	142.5	142.4	142.3	142.2	142.0	141.9



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	159.6	159.7	159.7	159.8	159.7	159.5	159.3	159.1	159.0	158.9	158.9
115°	186.2	186.2	186.2	186.2	186.2	186.0	185.8	185.6	185.4	185.3	185.2
117.5°	211.4	211.5	211.6	211.6	211.6	211.5	211.3	211.2	211.0	210.8	210.5
120°	228.5	228.8	229.2	229.6	229.6	229.3	229.0	228.8	228.5	228.0	227.5
122.5°	245.6	245.8	245.9	246.1	246.1	246.0	245.8	245.7	245.6	245.2	245.0
125°	271.2	271.2	271.2	271.2	271.2	271.1	271.0	270.9	270.8	270.6	270.4
127.5°	294.8	295.1	295.4	295.7	295.8	295.6	295.4	295.3	295.1	294.9	294.7
130°	311.2	311.5	311.8	312.1	312.2	312.2	312.2	312.2	312.2	312.0	311.8
132.5°	327.9	328.1	328.3	328.5	328.6	328.5	328.4	328.4	328.3	328.1	327.9
135°	350.3	350.9	351.5	352.0	352.3	352.3	352.3	352.3	352.3	352.1	351.9
137.5°	374.2	374.4	374.7	374.9	375.1	375.3	375.5	375.6	375.8	375.5	375.2
140°	390.1	390.3	390.5	390.7	390.8	390.8	390.8	390.8	390.8	390.7	390.6
142.5°	404.8	405.0	405.2	405.4	405.5	405.4	405.3	405.2	405.1	405.1	405.1
145°	425.4	425.7	426.1	426.5	426.7	426.8	426.9	427.0	427.1	427.0	426.9
147.5°	445.5	446.0	446.5	447.0	447.1	447.0	447.0	447.0	446.9	446.8	446.7
150°	457.8	458.2	458.5	458.9	459.1	459.1	459.1	459.1	459.1	459.1	459.1
152.5°	469.3	469.5	469.8	470.0	470.1	470.1	470.2	470.3	470.4	470.6	470.9
155°	486.9	486.9	486.9	486.9	486.8	486.7	486.6	486.5	486.4	486.8	487.2
157.5°	501.7	501.6	501.4	501.2	501.1	501.1	501.1	501.1	501.1	501.3	501.6
160°	510.8	510.7	510.6	510.5	510.4	510.3	510.2	510.1	510.0	510.3	510.6
162.5°	518.8	518.5	518.3	518.0	517.8	517.7	517.6	517.6	517.5	518.0	518.5
165°	529.7	529.4	529.1	528.9	528.7	528.5	528.3	528.1	527.9	528.5	529.0
167.5°	538.1	537.7	537.3	536.9	536.7	536.7	536.8	536.8	536.8	537.3	537.9
170°	542.8	542.3	541.9	541.4	541.2	541.3	541.4	541.5	541.6	542.2	542.7
172.5°	546.3	545.9	545.5	545.1	544.9	544.9	545.0	545.0	545.0	545.6	546.3
175°	550.9	550.4	550.0	549.5	549.2	549.1	549.0	548.9	548.8	549.5	550.2
177.5°	552.5	552.1	551.8	551.4	551.2	551.2	551.2	551.2	551.2	551.8	552.3
180°	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2	552.2



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9	1572.9
2.5°	1657.9	1659.0	1663.6	1667.3	1668.3	1673.6	1674.0
5°	1803.6	1814.7	1836.2	1838.1	1841.4	1858.3	1845.3
7.5°	1974.3	2002.4	2021.2	2037.8	2043.8	2051.2	2049.7
10°	2083.8	2125.4	2146.4	2179.5	2180.9	2189.3	2184.2
12.5°	2193.8	2242.2	2280.3	2286.4	2314.3	2318.6	2325.9
15°	2349.6	2401.1	2453.9	2472.8	2511.2	2520.4	2534.7
17.5°	2496.1	2548.7	2585.8	2634.6	2650.4	2671.5	2657.1
20°	2576.3	2633.7	2680.6	2719.0	2735.4	2747.0	2745.8
22.5°	2624.9	2682.7	2720.7	2749.8	2765.0	2770.0	2769.8
25°	2655.2	2688.4	2700.2	2711.2	2694.4	2688.4	2691.1
27.5°	2570.8	2562.2	2531.6	2491.4	2449.7	2416.6	2398.6
30°	2454.6	2403.7	2357.4	2276.6	2235.0	2210.2	2188.0
32.5°	2289.8	2209.2	2120.2	2046.3	1998.8	1962.1	1956.6
35°	2007.5	1886.3	1777.5	1687.0	1640.0	1600.2	1591.2
37.5°	1706.8	1580.8	1482.9	1403.2	1352.7	1324.6	1298.4
40°	1507.1	1398.9	1302.5	1234.7	1196.3	1176.1	1159.8
42.5°	1353.3	1254.5	1158.7	1107.0	1072.2	1059.9	1050.4
45°	1140.9	1049.0	982.6	943.5	923.3	902.5	892.7
47.5°	970.8	896.1	852.2	819.1	797.4	785.0	778.7
50°	874.4	813.1	774.1	748.7	729.2	719.3	714.2
52.5°	788.9	738.7	705.8	685.6	672.3	665.2	663.1
55°	679.6	641.1	620.3	602.8	593.0	586.4	583.8
57.5°	590.7	561.2	544.2	529.7	525.9	520.5	518.7
60°	532.3	509.5	495.2	485.4	482.2	475.7	476.9
62.5°	480.7	462.1	449.9	444.2	440.0	434.5	436.3
65°	406.6	392.9	386.3	381.2	376.0	372.7	375.3
67.5°	341.2	331.8	322.9	319.9	317.4	316.8	314.1
70°	298.4	290.6	282.8	280.9	280.9	278.2	277.6
72.5°	257.2	251.5	246.3	244.9	242.8	243.8	241.1
75°	198.7	194.2	192.2	190.3	189.6	189.6	187.7
77.5°	146.8	143.5	140.3	140.3	138.0	137.1	136.9
80°	111.4	110.1	107.5	107.5	106.2	106.9	105.6
82.5°	83.8	82.0	81.4	80.4	78.6	78.7	77.4
85°	45.0	43.0	42.3	40.4	39.1	40.4	39.1
87.5°	17.8	17.4	17.0	16.0	15.6	15.6	14.0
90°	11.1	11.7	12.1	12.3	12.4	12.6	12.8
92.5°	17.9	18.3	18.5	18.7	18.8	18.9	18.9
95°	33.3	33.6	33.7	33.7	33.7	33.7	33.7
97.5°	52.4	52.7	52.9	52.9	52.9	52.9	52.9
100°	65.9	66.1	66.2	66.2	66.2	66.2	66.2
102.5°	80.5	80.8	81.0	81.0	81.1	81.2	81.2
105°	102.5	102.8	103.1	103.4	103.7	104.0	104.2
107.5°	126.3	126.6	126.7	126.7	126.7	126.6	126.6
110°	141.7	141.5	141.5	141.8	142.0	142.3	142.6



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	158.8	158.8	158.8	158.9	158.9	159.0	159.0
115°	185.1	185.0	184.9	184.8	184.7	184.6	184.5
117.5°	210.1	209.8	209.5	209.3	209.2	209.0	208.8
120°	227.1	226.6	226.5	226.7	226.9	227.1	227.2
122.5°	244.6	244.3	243.9	243.6	243.3	242.9	242.6
125°	270.2	270.0	269.8	269.7	269.5	269.3	269.1
127.5°	294.5	294.4	294.2	294.1	293.9	293.8	293.6
130°	311.6	311.4	311.1	310.8	310.4	310.0	309.6
132.5°	327.7	327.5	327.3	327.2	327.1	326.9	326.8
135°	351.8	351.6	351.4	351.1	350.8	350.5	350.2
137.5°	375.0	374.8	374.7	374.8	374.8	374.8	374.9
140°	390.5	390.4	390.3	390.2	390.1	390.0	389.9
142.5°	405.1	405.1	405.0	405.0	405.0	405.0	405.0
145°	426.8	426.7	426.5	426.2	425.9	425.7	425.4
147.5°	446.6	446.6	446.5	446.4	446.3	446.2	446.1
150°	459.1	459.1	459.1	459.0	458.9	458.8	458.7
152.5°	471.1	471.4	471.3	471.1	470.8	470.6	470.3
155°	487.6	488.0	488.0	487.6	487.2	486.8	486.4
157.5°	501.9	502.2	502.2	501.9	501.5	501.2	500.9
160°	510.9	511.1	511.0	510.6	510.1	509.5	509.1
162.5°	519.1	519.5	519.5	519.1	518.6	518.1	517.6
165°	529.6	530.2	530.3	529.9	529.5	529.1	528.8
167.5°	538.5	539.0	539.0	538.5	537.9	537.2	536.7
170°	543.3	543.8	543.8	543.1	542.4	541.8	541.1
172.5°	547.0	547.5	547.5	546.9	546.2	545.5	544.9
175°	550.8	551.5	551.5	550.8	550.2	549.5	548.8
177.5°	552.8	553.4	553.3	552.7	552.1	551.5	550.9
180°	552.2	552.2	552.2	552.2	552.2	552.2	552.2

(END OF REPORT)