

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: P332961-840

Luminaire Tested: **SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332961-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1020 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

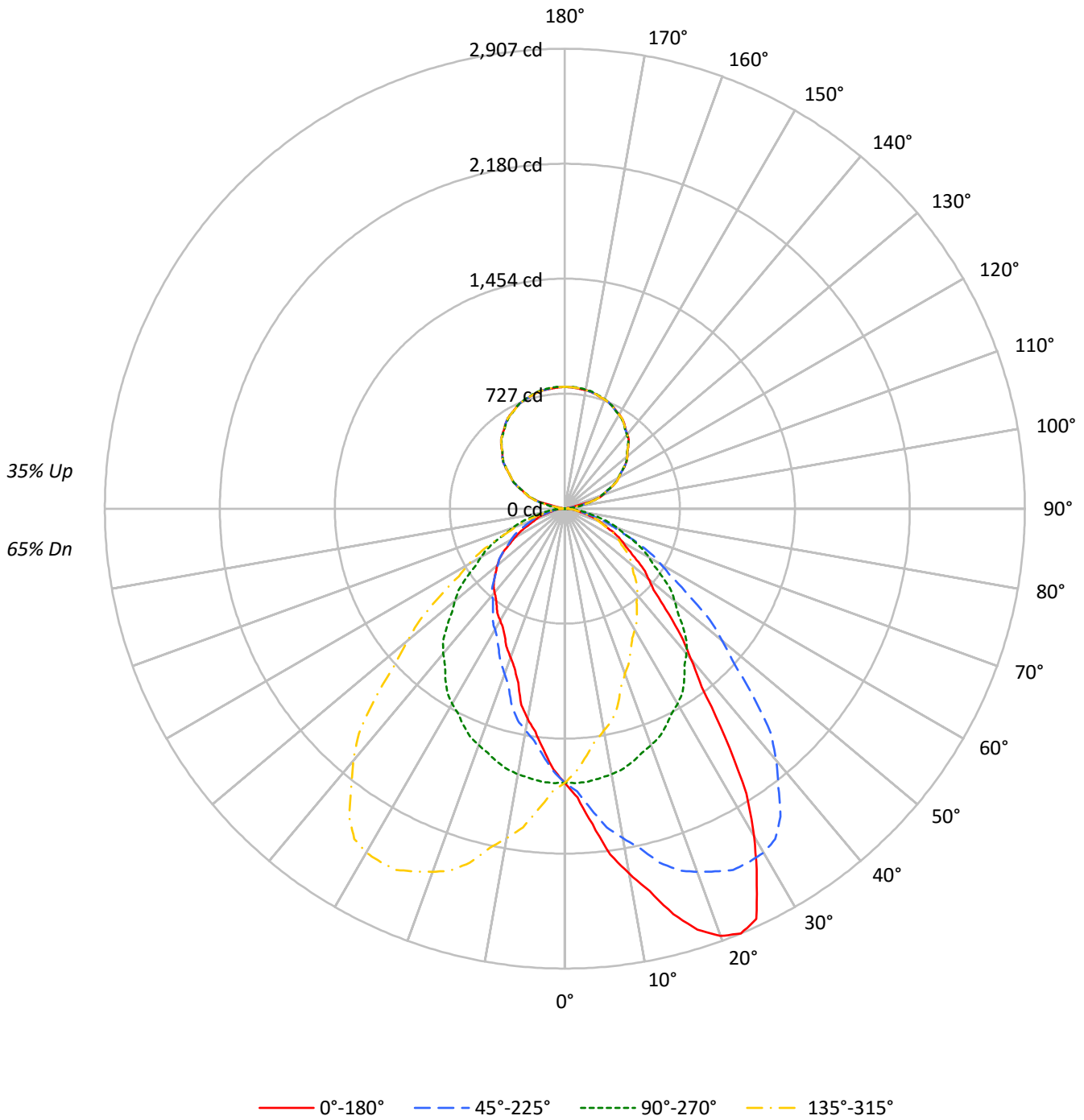
Lumens per Lamp: N/A  
Luminaire Lumens: 6764.6 lumens  
Efficiency: N/A  
Efficacy: 138.6 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.23 / 1.39  
Luminous Opening: Rectangular (W 4' x L: 0.33' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 48.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65				
1	102	98	94	90	95	92	89	86	81	79	77	72	70	68	63	61	60	56				
2	93	86	80	75	87	81	76	71	72	68	64	64	60	58	56	54	52	48				
3	85	76	69	63	80	72	65	60	64	59	55	57	53	50	50	47	44	41				
4	78	68	60	54	73	64	57	52	57	52	47	51	46	43	45	42	39	36				
5	72	61	53	47	68	57	50	45	52	46	41	46	41	38	41	37	34	31				
6	67	55	47	41	63	52	45	39	47	41	36	42	37	33	37	33	30	28				
7	62	50	42	36	58	47	40	35	42	36	32	38	33	30	34	30	27	25				
8	58	45	37	32	54	43	36	31	39	33	29	35	30	27	31	27	24	22				
9	54	41	34	29	51	39	33	28	36	30	26	32	27	24	29	25	22	20				
10	50	38	31	26	47	36	30	25	33	27	23	30	25	22	27	23	20	18				

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

	0°	90°	180°	270°
0°	13988	13988	13988	13988
5°	16226	14030	12400	14030
10°	19194	13969	11068	13969
15°	22172	13840	9510	13840
20°	24686	13662	8600	13662
25°	25483	13488	7985	13488
30°	22309	13276	7614	13276
35°	17366	12962	7389	12962
40°	13022	12603	7268	12603
45°	10282	12028	7205	12028
50°	8681	11362	6997	11362
55°	7567	10632	6622	10632
60°	6807	9875	5861	9875
65°	6002	9054	5041	9054
70°	5403	8207	4548	8207
75°	4529	7274	3877	7274
80°	3831	6197	3636	6197
85°	3233	4844	3233	4844



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	167.9	2.5
10°-20°	506.4	7.5
20°-30°	792.1	11.7
30°-40°	880.6	13.0
40°-50°	781.3	11.5
50°-60°	608.8	9.0
60°-70°	398.6	5.9
70°-80°	196.0	2.9
80°-90°	50.6	0.7
90°-100°	26.3	0.4
100°-110°	168.0	2.5
110°-120°	321.3	4.7
120°-130°	407.9	6.0
130°-140°	436.4	6.5
140°-150°	408.1	6.0
150°-160°	329.1	4.9
160°-170°	212.2	3.1
170°-180°	73.2	1.1
0°-30°	1466.4	21.7
0°-40°	2347.0	34.7
0°-60°	3737.0	55.2
0°-90°	4382.2	64.8
90°-120°	515.6	7.6
90°-150°	1767.9	26.1
90°-180°	2382.0	35.2
0°-180°	6764.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1733	1733	1733	1733	1733	
5°	2002	1731	1530	1731	2002	203
15°	2653	1656	1138	1656	2653	754
25°	2861	1514	896	1514	2861	1269
35°	1762	1315	750	1315	1762	1105
45°	901	1054	631	1054	901	713
55°	538	755	470	755	538	489
65°	314	474	264	474	314	316
75°	145	233	124	233	145	160
85°	35	52	35	52	35	40
90°	17	2	17	2	17	9
95°	17	32	17	32	17	13
105°	164	173	164	173	164	143
115°	326	324	326	324	326	323
125°	459	455	459	455	459	408
135°	569	564	569	564	569	438
145°	654	651	654	651	654	409
155°	713	714	713	714	713	329
165°	749	753	749	753	749	212
175°	766	770	766	770	766	73
180°	770	770	770	770	770	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1827.7	1832.7	1827.7	1827.1	1821.6	1819.9	1817.7	1810.4	1797.0	1789.2	1790.8
5°	2002.3	2019.6	2009.9	2008.5	1993.2	1977.8	1968.0	1945.7	1922.0	1905.9	1892.6
7.5°	2204.1	2214.1	2208.1	2198.3	2173.4	2159.3	2136.7	2107.2	2064.7	2032.1	2002.4
10°	2341.5	2349.9	2347.1	2329.0	2310.8	2273.8	2252.8	2211.7	2157.9	2115.4	2075.5
12.5°	2476.7	2485.6	2461.0	2461.8	2427.5	2398.3	2365.1	2313.3	2251.2	2196.3	2146.5
15°	2652.9	2641.7	2641.7	2627.8	2589.3	2548.9	2514.7	2460.2	2382.0	2316.3	2247.3
17.5°	2790.9	2794.7	2789.0	2756.0	2725.9	2684.0	2621.3	2557.8	2485.2	2397.1	2326.4
20°	2873.5	2873.5	2867.2	2844.9	2805.8	2761.1	2693.4	2624.2	2532.1	2443.5	2363.9
22.5°	2907.0	2909.2	2901.8	2883.4	2848.2	2804.6	2746.9	2676.7	2581.8	2481.9	2383.4
25°	2860.9	2874.2	2875.6	2870.6	2860.2	2833.7	2784.1	2712.2	2627.1	2518.8	2412.7
27.5°	2626.7	2643.4	2658.1	2682.2	2714.3	2731.1	2733.3	2696.7	2622.4	2518.3	2411.5
30°	2393.2	2407.1	2452.6	2511.8	2557.9	2599.8	2636.2	2645.8	2604.0	2510.4	2398.0
32.5°	2134.0	2153.0	2198.4	2262.2	2338.9	2409.9	2491.4	2533.0	2531.9	2475.8	2371.8
35°	1762.1	1776.0	1818.0	1884.9	1977.1	2082.5	2211.7	2312.2	2380.6	2375.7	2312.2
37.5°	1421.1	1436.8	1479.1	1534.8	1624.2	1754.6	1879.7	2018.1	2144.7	2215.7	2194.4
40°	1235.7	1236.4	1277.6	1334.8	1418.6	1532.4	1668.5	1822.1	1963.1	2078.3	2100.6
42.5°	1089.3	1089.4	1116.7	1178.4	1238.8	1345.8	1475.8	1628.3	1793.3	1926.4	1985.6
45°	900.6	906.9	929.2	966.2	1013.7	1104.4	1208.4	1350.2	1535.2	1692.9	1791.4
47.5°	762.7	771.8	786.1	816.3	854.0	914.5	1000.6	1127.9	1278.4	1452.0	1592.1
50°	691.2	692.6	710.6	727.4	760.2	808.4	883.8	990.0	1128.1	1295.1	1450.7
52.5°	629.8	629.4	640.4	661.6	688.2	725.8	786.7	883.2	1005.8	1155.4	1316.1
55°	537.6	541.1	549.5	566.1	586.4	613.0	661.2	733.8	830.1	957.9	1103.8
57.5°	467.5	469.3	475.8	482.9	501.5	520.8	556.9	607.3	688.6	793.2	929.2
60°	421.6	422.3	424.4	434.9	449.6	467.8	492.2	534.7	603.2	698.8	806.4
62.5°	377.0	378.2	381.4	389.1	400.4	413.0	438.6	472.8	529.5	611.2	708.0
65°	314.2	314.9	319.7	322.6	331.6	342.7	361.6	384.7	423.7	492.2	565.5
67.5°	262.5	262.5	262.8	266.5	272.9	280.2	291.5	309.9	339.4	381.4	446.1
70°	228.9	228.9	230.4	232.5	236.0	242.3	248.5	262.5	284.2	318.3	367.9
72.5°	197.7	198.2	199.7	200.1	201.9	207.0	211.7	220.7	236.7	262.5	302.6
75°	145.2	147.3	150.8	153.6	157.0	156.4	161.3	166.8	171.8	187.1	210.2
77.5°	108.1	106.9	107.3	109.8	110.2	110.9	114.3	118.7	122.3	129.6	137.8
80°	82.4	82.4	84.4	85.1	84.4	85.1	88.7	90.8	92.2	94.9	102.6
82.5°	62.3	63.4	62.7	63.4	63.8	64.5	67.5	67.9	69.3	70.4	73.6
85°	34.9	35.6	36.3	34.9	34.9	34.9	36.3	37.0	38.4	37.7	39.1
87.5°	15.8	15.1	15.7	15.6	16.1	15.5	15.9	16.8	15.6	16.0	15.8
90°	17.3	17.1	16.8	16.6	16.3	15.8	14.9	14.2	13.4	12.6	11.6
92.5°	15.9	15.9	15.8	15.8	15.7	15.2	14.5	13.7	13.0	12.2	11.2
95°	16.7	16.6	16.5	16.4	16.2	15.8	14.9	14.2	13.4	12.6	12.5
97.5°	16.2	16.0	15.9	15.8	15.7	15.6	15.5	15.3	15.2	15.2	29.5
100°	16.2	16.0	15.9	15.8	15.7	16.7	18.8	21.0	23.1	25.3	43.0
102.5°	16.6	16.6	16.6	16.6	16.5	28.2	51.7	75.1	98.7	122.1	124.4
105°	164.2	168.7	173.4	178.0	182.6	184.3	183.2	182.1	180.9	179.8	179.0
107.5°	228.8	228.3	227.8	227.3	226.8	226.3	225.8	225.2	224.7	224.1	223.2
110°	256.9	256.5	256.1	255.8	255.4	255.1	254.8	254.6	254.3	254.1	253.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	285.0	284.6	284.1	283.6	283.1	282.9	283.0	283.0	283.1	283.1	282.8
115°	326.1	326.1	326.1	326.1	326.1	325.9	325.7	325.4	325.2	324.9	325.0
117.5°	367.8	367.8	367.9	367.9	368.0	368.0	368.1	368.1	368.2	368.2	367.9
120°	394.0	394.3	394.6	394.8	395.1	395.1	394.8	394.6	394.3	394.0	394.2
122.5°	419.8	420.1	420.3	420.6	420.8	420.9	420.7	420.6	420.4	420.3	420.1
125°	458.6	458.4	458.3	458.2	458.1	457.8	457.4	457.0	456.7	456.3	456.5
127.5°	492.5	492.6	492.7	492.8	492.9	493.0	493.1	493.2	493.2	493.3	492.7
130°	515.5	515.5	515.5	515.5	515.5	515.5	515.3	515.2	515.1	515.0	514.6
132.5°	536.7	536.8	536.9	537.0	537.1	537.1	537.0	536.9	536.7	536.6	536.1
135°	568.6	568.4	568.0	567.7	567.5	567.2	567.0	566.7	566.5	566.2	565.7
137.5°	595.7	595.8	595.9	596.0	596.0	595.9	595.7	595.4	595.1	594.8	594.3
140°	614.6	614.5	614.4	614.3	614.1	613.9	613.5	613.1	612.7	612.4	612.1
142.5°	630.4	630.3	630.3	630.3	630.3	630.1	629.8	629.4	629.2	628.9	628.7
145°	654.4	654.2	653.9	653.6	653.4	653.2	653.1	652.9	652.8	652.7	652.7
147.5°	674.3	674.2	674.1	674.0	673.8	673.7	673.6	673.5	673.4	673.3	673.4
150°	687.2	687.1	687.0	686.8	686.7	686.6	686.6	686.6	686.6	686.6	686.8
152.5°	698.3	698.3	698.4	698.5	698.6	698.5	698.3	698.1	697.9	697.7	697.9
155°	713.2	713.6	713.9	714.3	714.7	714.6	714.1	713.6	713.1	712.6	713.0
157.5°	725.6	726.3	726.9	727.6	728.2	728.2	727.6	726.9	726.3	725.6	726.0
160°	733.9	734.7	735.4	736.2	737.0	737.0	736.2	735.4	734.7	733.9	734.0
162.5°	740.3	741.2	742.0	743.0	743.9	743.9	743.1	742.4	741.5	740.8	740.9
165°	749.4	750.6	751.7	752.9	754.1	754.2	753.1	752.0	751.0	750.0	750.0
167.5°	756.3	757.5	758.8	760.1	761.3	761.4	760.3	759.2	758.1	756.9	757.0
170°	760.4	761.6	763.0	764.3	765.5	765.7	764.6	763.6	762.5	761.5	761.4
172.5°	762.7	764.1	765.5	766.9	768.2	768.4	767.4	766.4	765.4	764.3	764.2
175°	765.6	767.1	768.6	770.2	771.7	771.9	770.7	769.6	768.4	767.3	767.2
177.5°	767.4	768.6	769.9	771.1	772.3	772.5	771.7	770.9	770.1	769.2	769.0
180°	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1785.2	1777.5	1773.5	1764.5	1753.9	1748.4	1743.3	1736.1	1726.6	1716.6	1709.3
5°	1875.8	1859.1	1838.2	1813.0	1790.7	1769.1	1750.2	1731.3	1709.7	1687.4	1665.1
7.5°	1968.8	1935.9	1900.3	1859.1	1819.1	1782.6	1749.1	1717.0	1680.6	1648.1	1618.5
10°	2033.7	1988.9	1939.3	1887.0	1834.6	1789.3	1744.6	1704.1	1659.4	1619.6	1586.1
12.5°	2086.2	2033.7	1974.0	1908.8	1845.8	1791.0	1739.6	1686.8	1636.0	1592.9	1548.1
15°	2173.2	2101.3	2021.0	1942.9	1861.2	1786.5	1717.4	1656.0	1598.0	1537.3	1494.7
17.5°	2233.1	2147.9	2050.2	1956.3	1859.8	1771.7	1691.9	1618.8	1552.0	1490.0	1439.3
20°	2268.9	2174.6	2066.5	1959.6	1851.4	1757.2	1671.3	1590.3	1521.3	1454.2	1401.8
22.5°	2289.0	2184.7	2066.5	1954.6	1842.5	1740.4	1646.2	1561.9	1486.6	1419.6	1361.6
25°	2295.4	2183.7	2063.0	1934.5	1811.6	1703.4	1605.7	1514.2	1430.5	1363.4	1302.0
27.5°	2286.5	2155.0	2031.2	1899.5	1772.7	1658.6	1556.0	1460.0	1376.0	1304.1	1241.1
30°	2273.1	2132.0	1999.4	1862.6	1734.1	1624.6	1516.3	1424.2	1336.9	1262.2	1198.7
32.5°	2244.0	2104.2	1961.5	1821.3	1691.1	1578.2	1475.5	1382.8	1297.3	1220.9	1153.5
35°	2186.6	2044.8	1889.9	1746.1	1618.2	1501.0	1404.6	1315.2	1233.6	1152.0	1080.7
37.5°	2110.7	1965.9	1811.8	1654.3	1526.4	1415.6	1327.3	1243.3	1163.7	1089.0	1010.2
40°	2039.2	1907.2	1748.1	1591.7	1460.5	1353.6	1272.0	1195.9	1115.6	1041.6	962.7
42.5°	1952.7	1840.3	1679.4	1522.5	1392.9	1290.0	1213.9	1139.4	1066.4	994.7	912.4
45°	1808.2	1722.9	1572.2	1421.4	1290.8	1188.9	1119.1	1053.5	989.3	920.8	843.3
47.5°	1642.5	1584.9	1454.7	1300.3	1179.5	1087.8	1020.4	966.7	912.4	844.0	776.1
50°	1527.5	1490.5	1364.8	1223.9	1108.6	1024.1	955.0	904.7	859.4	793.8	733.1
52.5°	1404.6	1384.9	1278.8	1144.0	1032.7	949.9	890.8	845.6	799.6	745.2	688.3
55°	1217.5	1228.0	1137.9	1021.4	916.7	846.9	793.0	755.4	716.3	670.2	626.2
57.5°	1026.2	1064.5	1004.0	901.7	803.5	739.0	698.5	666.8	634.0	595.8	558.3
60°	911.7	943.8	909.7	819.6	733.8	673.7	636.0	611.6	578.8	543.8	515.2
62.5°	800.0	834.4	814.2	741.4	661.7	610.1	576.8	554.0	529.6	499.2	469.4
65°	659.7	682.1	672.3	622.1	565.5	521.5	490.8	474.0	451.7	429.4	402.8
67.5°	505.3	548.5	542.7	516.0	467.2	432.8	412.7	397.9	377.6	360.9	343.0
70°	415.4	455.1	454.4	432.8	406.3	374.2	360.2	347.7	329.5	313.5	298.8
72.5°	340.0	376.5	381.8	365.3	347.1	322.9	309.4	300.7	283.2	272.2	260.2
75°	238.0	264.6	271.6	271.6	263.2	250.6	238.7	233.2	220.7	210.9	203.9
77.5°	156.1	172.9	183.8	186.2	187.5	183.3	173.6	169.7	160.0	156.5	149.9
80°	110.3	121.5	134.0	138.3	141.7	140.4	136.1	133.3	124.3	120.8	118.0
82.5°	76.2	82.4	92.7	101.9	101.0	104.6	101.0	98.8	91.9	90.6	87.9
85°	39.8	40.5	41.9	48.2	51.7	53.0	53.7	52.3	50.3	50.3	45.3
87.5°	15.6	14.7	15.7	15.5	15.8	17.7	19.1	19.3	18.0	16.6	15.1
90°	10.6	9.6	8.6	7.4	6.0	4.5	3.1	1.7	3.1	4.5	6.0
92.5°	10.2	9.2	8.1	7.6	7.5	7.4	7.4	7.3	7.4	7.4	7.5
95°	12.4	12.3	12.1	14.2	18.6	23.0	27.4	31.7	27.4	23.0	18.6
97.5°	43.8	58.1	72.3	78.2	75.4	72.7	70.0	67.3	70.0	72.7	75.4
100°	60.7	78.4	96.0	103.7	101.4	99.1	96.7	94.4	96.7	99.1	101.4
102.5°	126.7	129.1	131.4	131.7	130.0	128.3	126.5	124.9	126.5	128.3	130.0
105°	178.4	177.8	177.1	176.4	175.7	174.9	174.2	173.4	174.2	174.9	175.7
107.5°	222.4	221.5	220.6	219.9	219.5	219.2	218.8	218.4	218.8	219.2	219.5
110°	252.5	251.8	251.0	250.3	250.0	249.6	249.2	248.8	249.2	249.6	250.0





TEST NUMBER: P332961-840

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	282.4	282.0	281.7	281.1	280.4	279.7	279.0	278.3	279.0	279.7	280.4
115°	325.2	325.3	325.4	325.3	324.9	324.5	324.2	323.8	324.2	324.5	324.9
117.5°	367.7	367.4	367.1	366.7	366.2	365.7	365.2	364.7	365.2	365.7	366.2
120°	394.3	394.5	394.6	394.4	393.8	393.3	392.8	392.3	392.8	393.3	393.8
122.5°	419.9	419.8	419.6	419.3	419.0	418.7	418.4	418.1	418.4	418.7	419.0
125°	456.8	457.0	457.3	457.2	456.7	456.2	455.6	455.0	455.6	456.2	456.7
127.5°	492.1	491.6	491.0	490.6	490.5	490.4	490.2	490.1	490.2	490.4	490.5
130°	514.2	513.8	513.4	513.2	513.1	512.9	512.8	512.7	512.8	512.9	513.1
132.5°	535.6	535.2	534.7	534.3	534.1	533.9	533.6	533.4	533.6	533.9	534.1
135°	565.2	564.7	564.2	564.0	564.1	564.3	564.4	564.5	564.4	564.3	564.1
137.5°	593.7	593.1	592.6	592.3	592.2	592.2	592.1	592.1	592.1	592.2	592.2
140°	611.9	611.6	611.3	611.1	610.8	610.6	610.3	610.1	610.3	610.6	610.8
142.5°	628.6	628.4	628.3	628.0	627.5	627.1	626.6	626.2	626.6	627.1	627.5
145°	652.7	652.7	652.7	652.5	652.1	651.7	651.4	651.0	651.4	651.7	652.1
147.5°	673.6	673.7	673.8	673.5	672.8	672.1	671.4	670.7	671.4	672.1	672.8
150°	686.9	687.0	687.2	687.0	686.5	686.0	685.4	684.9	685.4	686.0	686.5
152.5°	698.2	698.4	698.6	698.5	698.1	697.7	697.3	696.9	697.3	697.7	698.1
155°	713.4	713.8	714.1	714.3	714.1	714.0	713.9	713.8	713.9	714.0	714.1
157.5°	726.5	726.9	727.3	727.6	727.7	727.7	727.8	727.9	727.8	727.7	727.7
160°	734.2	734.3	734.4	734.7	735.1	735.4	735.8	736.2	735.8	735.4	735.1
162.5°	741.0	741.1	741.3	741.6	742.1	742.6	743.1	743.6	743.1	742.6	742.1
165°	750.0	750.0	750.0	750.3	750.9	751.6	752.2	752.9	752.2	751.6	750.9
167.5°	757.1	757.2	757.2	757.6	758.3	758.9	759.6	760.2	759.6	758.9	758.3
170°	761.2	761.1	761.0	761.3	762.1	762.9	763.7	764.5	763.7	762.9	762.1
172.5°	764.1	764.0	763.8	764.2	764.9	765.7	766.4	767.2	766.4	765.7	764.9
175°	767.1	766.9	766.8	767.1	767.9	768.6	769.4	770.2	769.4	768.6	767.9
177.5°	768.8	768.6	768.4	768.7	769.4	770.1	770.8	771.5	770.8	770.1	769.4
180°	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2



TEST NUMBER: P332961-840

CATALOG NUMBER: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1701.4	1695.9	1688.6	1680.2	1670.2	1661.2	1657.4	1660.7	1662.3	1657.9	1657.4
5°	1649.7	1632.2	1618.2	1597.3	1580.5	1566.6	1556.8	1552.7	1554.0	1542.9	1540.0
7.5°	1591.4	1570.7	1547.9	1523.0	1499.9	1479.4	1468.5	1462.7	1450.9	1445.8	1437.3
10°	1554.0	1526.1	1503.8	1474.4	1447.9	1423.5	1411.6	1401.8	1390.0	1384.4	1372.5
12.5°	1515.5	1483.1	1458.5	1428.1	1401.0	1371.5	1360.2	1342.1	1323.5	1311.8	1296.6
15°	1461.2	1422.1	1392.1	1355.7	1323.6	1290.1	1260.1	1226.6	1214.1	1187.5	1172.2
17.5°	1397.7	1358.0	1320.8	1272.1	1222.5	1180.9	1148.9	1116.8	1097.6	1080.7	1072.9
20°	1355.7	1319.5	1267.8	1211.2	1156.1	1110.0	1084.2	1063.3	1042.3	1030.5	1022.1
22.5°	1316.1	1269.7	1209.7	1148.7	1093.6	1057.5	1035.6	1014.1	997.0	985.7	974.6
25°	1249.6	1188.9	1125.4	1055.6	1017.8	986.4	962.7	945.2	934.8	920.1	914.5
27.5°	1181.3	1107.8	1037.7	990.8	951.5	922.8	902.1	889.0	875.8	866.4	859.1
30°	1128.8	1054.2	991.4	946.6	906.9	883.1	866.4	851.0	840.5	832.8	827.3
32.5°	1076.9	1002.2	949.5	901.4	870.0	846.9	829.0	817.5	809.3	799.3	796.0
35°	1001.8	935.4	889.4	846.2	814.1	793.0	779.1	767.2	760.2	757.5	755.4
37.5°	929.6	875.4	825.8	790.3	761.6	745.2	728.7	722.9	718.1	713.1	715.3
40°	883.8	832.8	788.9	751.1	728.1	710.0	700.2	693.3	689.0	689.0	689.0
42.5°	844.1	794.4	751.4	717.7	694.6	679.2	668.4	662.5	661.2	660.6	663.9
45°	782.6	736.5	693.3	665.3	645.8	630.4	624.1	619.2	619.2	622.1	622.7
47.5°	721.5	678.4	643.7	612.4	594.5	584.9	579.5	576.9	577.2	580.0	583.2
50°	684.2	641.6	607.3	579.5	562.7	553.6	548.8	547.3	548.8	548.8	553.6
52.5°	643.4	605.3	571.6	548.2	529.2	520.7	518.0	516.0	516.8	519.2	521.2
55°	583.6	549.5	517.4	494.9	481.0	475.4	469.2	469.8	468.5	469.8	469.8
57.5°	523.7	493.0	463.1	445.5	433.1	425.1	418.2	420.1	418.1	417.8	416.7
60°	485.2	451.7	428.0	411.9	397.9	390.9	384.7	386.1	384.0	382.5	379.8
62.5°	443.3	415.4	392.7	377.3	366.1	358.0	351.7	350.3	345.5	340.7	334.6
65°	382.5	359.5	339.3	324.7	314.2	307.9	303.0	298.8	288.3	277.1	271.6
67.5°	323.6	306.9	288.0	275.6	267.1	258.8	249.5	242.4	232.6	226.5	223.0
70°	285.5	269.4	253.4	241.6	232.5	224.8	214.3	209.4	202.5	199.7	196.2
72.5°	249.2	234.3	219.3	208.6	198.9	193.0	184.7	179.9	176.7	175.6	172.2
75°	194.1	182.2	171.1	161.3	153.6	149.4	145.9	142.4	141.0	134.7	131.3
77.5°	141.6	133.8	126.7	119.8	114.3	111.6	104.8	100.8	98.5	95.5	94.8
80°	110.3	104.7	97.8	93.5	85.8	83.1	80.3	79.6	78.9	78.2	77.5
82.5°	82.9	77.4	70.4	67.9	65.7	64.1	62.4	61.7	61.0	61.4	61.3
85°	41.9	39.1	39.1	38.4	37.7	37.0	36.3	36.3	35.6	36.3	35.6
87.5°	15.5	15.1	15.3	14.4	15.1	15.3	14.9	15.1	15.9	14.8	14.9
90°	7.4	8.6	9.6	10.6	11.6	12.6	13.4	14.2	14.9	15.8	16.3
92.5°	7.6	8.1	9.2	10.2	11.2	12.2	13.0	13.7	14.5	15.2	15.7
95°	14.2	12.1	12.3	12.4	12.5	12.6	13.4	14.2	14.9	15.8	16.2
97.5°	78.2	72.3	58.1	43.8	29.5	15.2	15.2	15.3	15.5	15.6	15.7
100°	103.7	96.0	78.4	60.7	43.0	25.3	23.1	21.0	18.8	16.7	15.7
102.5°	131.7	131.4	129.1	126.7	124.4	122.1	98.7	75.1	51.7	28.2	16.5
105°	176.4	177.1	177.8	178.4	179.0	179.8	180.9	182.1	183.2	184.3	182.6
107.5°	219.9	220.6	221.5	222.4	223.2	224.1	224.7	225.2	225.8	226.3	226.8
110°	250.3	251.0	251.8	252.5	253.3	254.1	254.3	254.6	254.8	255.1	255.4



TEST NUMBER: P332961-840

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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	281.1	281.7	282.0	282.4	282.8	283.1	283.1	283.0	283.0	282.9	283.1
115°	325.3	325.4	325.3	325.2	325.0	324.9	325.2	325.4	325.7	325.9	326.1
117.5°	366.7	367.1	367.4	367.7	367.9	368.2	368.2	368.1	368.1	368.0	368.0
120°	394.4	394.6	394.5	394.3	394.2	394.0	394.3	394.6	394.8	395.1	395.1
122.5°	419.3	419.6	419.8	419.9	420.1	420.3	420.4	420.6	420.7	420.9	420.8
125°	457.2	457.3	457.0	456.8	456.5	456.3	456.7	457.0	457.4	457.8	458.1
127.5°	490.6	491.0	491.6	492.1	492.7	493.3	493.2	493.2	493.1	493.0	492.9
130°	513.2	513.4	513.8	514.2	514.6	515.0	515.1	515.2	515.3	515.5	515.5
132.5°	534.3	534.7	535.2	535.6	536.1	536.6	536.7	536.9	537.0	537.1	537.1
135°	564.0	564.2	564.7	565.2	565.7	566.2	566.5	566.7	567.0	567.2	567.5
137.5°	592.3	592.6	593.1	593.7	594.3	594.8	595.1	595.4	595.7	595.9	596.0
140°	611.1	611.3	611.6	611.9	612.1	612.4	612.7	613.1	613.5	613.9	614.1
142.5°	628.0	628.3	628.4	628.6	628.7	628.9	629.2	629.4	629.8	630.1	630.3
145°	652.5	652.7	652.7	652.7	652.7	652.7	652.8	652.9	653.1	653.2	653.4
147.5°	673.5	673.8	673.7	673.6	673.4	673.3	673.4	673.5	673.6	673.7	673.8
150°	687.0	687.2	687.0	686.9	686.8	686.6	686.6	686.6	686.6	686.6	686.7
152.5°	698.5	698.6	698.4	698.2	697.9	697.7	697.9	698.1	698.3	698.5	698.6
155°	714.3	714.1	713.8	713.4	713.0	712.6	713.1	713.6	714.1	714.6	714.7
157.5°	727.6	727.3	726.9	726.5	726.0	725.6	726.3	726.9	727.6	728.2	728.2
160°	734.7	734.4	734.3	734.2	734.0	733.9	734.7	735.4	736.2	737.0	737.0
162.5°	741.6	741.3	741.1	741.0	740.9	740.8	741.5	742.4	743.1	743.9	743.9
165°	750.3	750.0	750.0	750.0	750.0	750.0	751.0	752.0	753.1	754.2	754.1
167.5°	757.6	757.2	757.2	757.1	757.0	756.9	758.1	759.2	760.3	761.4	761.3
170°	761.3	761.0	761.1	761.2	761.4	761.5	762.5	763.6	764.6	765.7	765.5
172.5°	764.2	763.8	764.0	764.1	764.2	764.3	765.4	766.4	767.4	768.4	768.2
175°	767.1	766.8	766.9	767.1	767.2	767.3	768.4	769.6	770.7	771.9	771.7
177.5°	768.7	768.4	768.6	768.8	769.0	769.2	770.1	770.9	771.7	772.5	772.3
180°	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2



TEST NUMBER: P332961-840

CATALOG NUMBER: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1654.0	1655.1	1651.2	1650.1	1651.2	1655.1	1654.0	1657.4	1657.9	1662.3	1660.7
5°	1534.5	1533.1	1529.5	1530.2	1529.5	1533.1	1534.5	1540.0	1542.9	1554.0	1552.7
7.5°	1432.3	1426.8	1428.4	1422.8	1428.4	1426.8	1432.3	1437.3	1445.8	1450.9	1462.7
10°	1369.7	1362.0	1355.7	1350.2	1355.7	1362.0	1369.7	1372.5	1384.4	1390.0	1401.8
12.5°	1284.2	1277.7	1269.2	1270.9	1269.2	1277.7	1284.2	1296.6	1311.8	1323.5	1342.1
15°	1163.1	1152.6	1135.9	1137.9	1135.9	1152.6	1163.1	1172.2	1187.5	1214.1	1226.6
17.5°	1060.5	1060.6	1052.9	1054.7	1052.9	1060.6	1060.5	1072.9	1080.7	1097.6	1116.8
20°	1007.4	1002.5	1003.2	1001.1	1003.2	1002.5	1007.4	1022.1	1030.5	1042.3	1063.3
22.5°	970.6	964.5	959.7	955.3	959.7	964.5	970.6	974.6	985.7	997.0	1014.1
25°	908.3	904.0	897.8	896.4	897.8	904.0	908.3	914.5	920.1	934.8	945.2
27.5°	853.5	852.7	850.2	847.0	850.2	852.7	853.5	859.1	866.4	875.8	889.0
30°	821.7	820.3	818.9	816.8	818.9	820.3	821.7	827.3	832.8	840.5	851.0
32.5°	793.2	792.3	790.9	791.1	790.9	792.3	793.2	796.0	799.3	809.3	817.5
35°	752.6	751.8	750.5	749.8	750.5	751.8	752.6	755.4	757.5	760.2	767.2
37.5°	714.6	716.4	715.6	715.4	715.6	716.4	714.6	715.3	713.1	718.1	722.9
40°	688.3	689.0	690.4	689.7	690.4	689.0	688.3	689.0	689.0	689.0	693.3
42.5°	666.6	666.7	668.6	666.3	668.6	666.7	666.6	663.9	660.6	661.2	662.5
45°	627.6	631.8	631.1	631.1	631.1	631.8	627.6	622.7	622.1	619.2	619.2
47.5°	585.0	588.7	589.7	589.5	589.7	588.7	585.0	583.2	580.0	577.2	576.9
50°	557.1	555.7	557.8	557.1	557.8	555.7	557.1	553.6	548.8	548.8	547.3
52.5°	523.0	523.3	523.2	522.5	523.2	523.3	523.0	521.2	519.2	516.8	516.0
55°	470.5	471.2	469.8	470.5	469.8	471.2	470.5	469.8	469.8	468.5	469.8
57.5°	413.5	410.2	411.6	409.9	411.6	410.2	413.5	416.7	417.8	418.1	420.1
60°	372.8	367.2	365.8	363.0	365.8	367.2	372.8	379.8	382.5	384.0	386.1
62.5°	327.0	323.1	318.3	320.5	318.3	323.1	327.0	334.6	340.7	345.5	350.3
65°	266.0	263.2	261.1	263.9	261.1	263.2	266.0	271.6	277.1	288.3	298.8
67.5°	220.2	218.6	218.6	217.2	218.6	218.6	220.2	223.0	226.5	232.6	242.4
70°	196.2	194.1	194.1	192.7	194.1	194.1	196.2	196.2	199.7	202.5	209.4
72.5°	171.6	169.5	170.1	169.3	170.1	169.5	171.6	172.2	175.6	176.7	179.9
75°	127.0	123.6	123.6	124.3	123.6	123.6	127.0	131.3	134.7	141.0	142.4
77.5°	94.8	94.1	95.1	93.8	95.1	94.1	94.8	94.8	95.5	98.5	100.8
80°	77.5	76.7	76.1	78.2	76.1	76.7	77.5	77.5	78.2	78.9	79.6
82.5°	60.2	60.1	59.9	62.5	59.9	60.1	60.2	61.3	61.4	61.0	61.7
85°	36.3	34.9	36.3	34.9	36.3	34.9	36.3	35.6	36.3	35.6	36.3
87.5°	16.2	15.7	15.1	15.8	15.1	15.7	16.2	14.9	14.8	15.9	15.1
90°	16.6	16.8	17.1	17.3	17.1	16.8	16.6	16.3	15.8	14.9	14.2
92.5°	15.8	15.8	15.9	15.9	15.9	15.8	15.8	15.7	15.2	14.5	13.7
95°	16.4	16.5	16.6	16.7	16.6	16.5	16.4	16.2	15.8	14.9	14.2
97.5°	15.8	15.9	16.0	16.2	16.0	15.9	15.8	15.7	15.6	15.5	15.3
100°	15.8	15.9	16.0	16.2	16.0	15.9	15.8	15.7	16.7	18.8	21.0
102.5°	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.5	28.2	51.7	75.1
105°	178.0	173.4	168.7	164.2	168.7	173.4	178.0	182.6	184.3	183.2	182.1
107.5°	227.3	227.8	228.3	228.8	228.3	227.8	227.3	226.8	226.3	225.8	225.2
110°	255.8	256.1	256.5	256.9	256.5	256.1	255.8	255.4	255.1	254.8	254.6



TEST NUMBER: P332961-840

CATALOG NUMBER: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	283.6	284.1	284.6	285.0	284.6	284.1	283.6	283.1	282.9	283.0	283.0
115°	326.1	326.1	326.1	326.1	326.1	326.1	326.1	326.1	325.9	325.7	325.4
117.5°	367.9	367.9	367.8	367.8	367.8	367.9	367.9	368.0	368.0	368.1	368.1
120°	394.8	394.6	394.3	394.0	394.3	394.6	394.8	395.1	395.1	394.8	394.6
122.5°	420.6	420.3	420.1	419.8	420.1	420.3	420.6	420.8	420.9	420.7	420.6
125°	458.2	458.3	458.4	458.6	458.4	458.3	458.2	458.1	457.8	457.4	457.0
127.5°	492.8	492.7	492.6	492.5	492.6	492.7	492.8	492.9	493.0	493.1	493.2
130°	515.5	515.5	515.5	515.5	515.5	515.5	515.5	515.5	515.5	515.3	515.2
132.5°	537.0	536.9	536.8	536.7	536.8	536.9	537.0	537.1	537.1	537.0	536.9
135°	567.7	568.0	568.4	568.6	568.4	568.0	567.7	567.5	567.2	567.0	566.7
137.5°	596.0	595.9	595.8	595.7	595.8	595.9	596.0	596.0	595.9	595.7	595.4
140°	614.3	614.4	614.5	614.6	614.5	614.4	614.3	614.1	613.9	613.5	613.1
142.5°	630.3	630.3	630.3	630.4	630.3	630.3	630.3	630.3	630.1	629.8	629.4
145°	653.6	653.9	654.2	654.4	654.2	653.9	653.6	653.4	653.2	653.1	652.9
147.5°	674.0	674.1	674.2	674.3	674.2	674.1	674.0	673.8	673.7	673.6	673.5
150°	686.8	687.0	687.1	687.2	687.1	687.0	686.8	686.7	686.6	686.6	686.6
152.5°	698.5	698.4	698.3	698.3	698.3	698.4	698.5	698.6	698.5	698.3	698.1
155°	714.3	713.9	713.6	713.2	713.6	713.9	714.3	714.7	714.6	714.1	713.6
157.5°	727.6	726.9	726.3	725.6	726.3	726.9	727.6	728.2	728.2	727.6	726.9
160°	736.2	735.4	734.7	733.9	734.7	735.4	736.2	737.0	737.0	736.2	735.4
162.5°	743.0	742.0	741.2	740.3	741.2	742.0	743.0	743.9	743.9	743.1	742.4
165°	752.9	751.7	750.6	749.4	750.6	751.7	752.9	754.1	754.2	753.1	752.0
167.5°	760.1	758.8	757.5	756.3	757.5	758.8	760.1	761.3	761.4	760.3	759.2
170°	764.3	763.0	761.6	760.4	761.6	763.0	764.3	765.5	765.7	764.6	763.6
172.5°	766.9	765.5	764.1	762.7	764.1	765.5	766.9	768.2	768.4	767.4	766.4
175°	770.2	768.6	767.1	765.6	767.1	768.6	770.2	771.7	771.9	770.7	769.6
177.5°	771.1	769.9	768.6	767.4	768.6	769.9	771.1	772.3	772.5	771.7	770.9
180°	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2



TEST NUMBER: P332961-840

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**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1657.4	1661.2	1670.2	1680.2	1688.6	1695.9	1701.4	1709.3	1716.6	1726.6	1736.1
5°	1556.8	1566.6	1580.5	1597.3	1618.2	1632.2	1649.7	1665.1	1687.4	1709.7	1731.3
7.5°	1468.5	1479.4	1499.9	1523.0	1547.9	1570.7	1591.4	1618.5	1648.1	1680.6	1717.0
10°	1411.6	1423.5	1447.9	1474.4	1503.8	1526.1	1554.0	1586.1	1619.6	1659.4	1704.1
12.5°	1360.2	1371.5	1401.0	1428.1	1458.5	1483.1	1515.5	1548.1	1592.9	1636.0	1686.8
15°	1260.1	1290.1	1323.6	1355.7	1392.1	1422.1	1461.2	1494.7	1537.3	1598.0	1656.0
17.5°	1148.9	1180.9	1222.5	1272.1	1320.8	1358.0	1397.7	1439.3	1490.0	1552.0	1618.8
20°	1084.2	1110.0	1156.1	1211.2	1267.8	1319.5	1355.7	1401.8	1454.2	1521.3	1590.3
22.5°	1035.6	1057.5	1093.6	1148.7	1209.7	1269.7	1316.1	1361.6	1419.6	1486.6	1561.9
25°	962.7	986.4	1017.8	1055.6	1125.4	1188.9	1249.6	1302.0	1363.4	1430.5	1514.2
27.5°	902.1	922.8	951.5	990.8	1037.7	1107.8	1181.3	1241.1	1304.1	1376.0	1460.0
30°	866.4	883.1	906.9	946.6	991.4	1054.2	1128.8	1198.7	1262.2	1336.9	1424.2
32.5°	829.0	846.9	870.0	901.4	949.5	1002.2	1076.9	1153.5	1220.9	1297.3	1382.8
35°	779.1	793.0	814.1	846.2	889.4	935.4	1001.8	1080.7	1152.0	1233.6	1315.2
37.5°	728.7	745.2	761.6	790.3	825.8	875.4	929.6	1010.2	1089.0	1163.7	1243.3
40°	700.2	710.0	728.1	751.1	788.9	832.8	883.8	962.7	1041.6	1115.6	1195.9
42.5°	668.4	679.2	694.6	717.7	751.4	794.4	844.1	912.4	994.7	1066.4	1139.4
45°	624.1	630.4	645.8	665.3	693.3	736.5	782.6	843.3	920.8	989.3	1053.5
47.5°	579.5	584.9	594.5	612.4	643.7	678.4	721.5	776.1	844.0	912.4	966.7
50°	548.8	553.6	562.7	579.5	607.3	641.6	684.2	733.1	793.8	859.4	904.7
52.5°	518.0	520.7	529.2	548.2	571.6	605.3	643.4	688.3	745.2	799.6	845.6
55°	469.2	475.4	481.0	494.9	517.4	549.5	583.6	626.2	670.2	716.3	755.4
57.5°	418.2	425.1	433.1	445.5	463.1	493.0	523.7	558.3	595.8	634.0	666.8
60°	384.7	390.9	397.9	411.9	428.0	451.7	485.2	515.2	543.8	578.8	611.6
62.5°	351.7	358.0	366.1	377.3	392.7	415.4	443.3	469.4	499.2	529.6	554.0
65°	303.0	307.9	314.2	324.7	339.3	359.5	382.5	402.8	429.4	451.7	474.0
67.5°	249.5	258.8	267.1	275.6	288.0	306.9	323.6	343.0	360.9	377.6	397.9
70°	214.3	224.8	232.5	241.6	253.4	269.4	285.5	298.8	313.5	329.5	347.7
72.5°	184.7	193.0	198.9	208.6	219.3	234.3	249.2	260.2	272.2	283.2	300.7
75°	145.9	149.4	153.6	161.3	171.1	182.2	194.1	203.9	210.9	220.7	233.2
77.5°	104.8	111.6	114.3	119.8	126.7	133.8	141.6	149.9	156.5	160.0	169.7
80°	80.3	83.1	85.8	93.5	97.8	104.7	110.3	118.0	120.8	124.3	133.3
82.5°	62.4	64.1	65.7	67.9	70.4	77.4	82.9	87.9	90.6	91.9	98.8
85°	36.3	37.0	37.7	38.4	39.1	39.1	41.9	45.3	50.3	50.3	52.3
87.5°	14.9	15.3	15.1	14.4	15.3	15.1	15.5	15.1	16.6	18.0	19.3
90°	13.4	12.6	11.6	10.6	9.6	8.6	7.4	6.0	4.5	3.1	1.7
92.5°	13.0	12.2	11.2	10.2	9.2	8.1	7.6	7.5	7.4	7.4	7.3
95°	13.4	12.6	12.5	12.4	12.3	12.1	14.2	18.6	23.0	27.4	31.7
97.5°	15.2	15.2	29.5	43.8	58.1	72.3	78.2	75.4	72.7	70.0	67.3
100°	23.1	25.3	43.0	60.7	78.4	96.0	103.7	101.4	99.1	96.7	94.4
102.5°	98.7	122.1	124.4	126.7	129.1	131.4	131.7	130.0	128.3	126.5	124.9
105°	180.9	179.8	179.0	178.4	177.8	177.1	176.4	175.7	174.9	174.2	173.4
107.5°	224.7	224.1	223.2	222.4	221.5	220.6	219.9	219.5	219.2	218.8	218.4
110°	254.3	254.1	253.3	252.5	251.8	251.0	250.3	250.0	249.6	249.2	248.8



TEST NUMBER: P332961-840

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**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	283.1	283.1	282.8	282.4	282.0	281.7	281.1	280.4	279.7	279.0	278.3
115°	325.2	324.9	325.0	325.2	325.3	325.4	325.3	324.9	324.5	324.2	323.8
117.5°	368.2	368.2	367.9	367.7	367.4	367.1	366.7	366.2	365.7	365.2	364.7
120°	394.3	394.0	394.2	394.3	394.5	394.6	394.4	393.8	393.3	392.8	392.3
122.5°	420.4	420.3	420.1	419.9	419.8	419.6	419.3	419.0	418.7	418.4	418.1
125°	456.7	456.3	456.5	456.8	457.0	457.3	457.2	456.7	456.2	455.6	455.0
127.5°	493.2	493.3	492.7	492.1	491.6	491.0	490.6	490.5	490.4	490.2	490.1
130°	515.1	515.0	514.6	514.2	513.8	513.4	513.2	513.1	512.9	512.8	512.7
132.5°	536.7	536.6	536.1	535.6	535.2	534.7	534.3	534.1	533.9	533.6	533.4
135°	566.5	566.2	565.7	565.2	564.7	564.2	564.0	564.1	564.3	564.4	564.5
137.5°	595.1	594.8	594.3	593.7	593.1	592.6	592.3	592.2	592.2	592.1	592.1
140°	612.7	612.4	612.1	611.9	611.6	611.3	611.1	610.8	610.6	610.3	610.1
142.5°	629.2	628.9	628.7	628.6	628.4	628.3	628.0	627.5	627.1	626.6	626.2
145°	652.8	652.7	652.7	652.7	652.7	652.7	652.5	652.1	651.7	651.4	651.0
147.5°	673.4	673.3	673.4	673.6	673.7	673.8	673.5	672.8	672.1	671.4	670.7
150°	686.6	686.6	686.8	686.9	687.0	687.2	687.0	686.5	686.0	685.4	684.9
152.5°	697.9	697.7	697.9	698.2	698.4	698.6	698.5	698.1	697.7	697.3	696.9
155°	713.1	712.6	713.0	713.4	713.8	714.1	714.3	714.1	714.0	713.9	713.8
157.5°	726.3	725.6	726.0	726.5	726.9	727.3	727.6	727.7	727.7	727.8	727.9
160°	734.7	733.9	734.0	734.2	734.3	734.4	734.7	735.1	735.4	735.8	736.2
162.5°	741.5	740.8	740.9	741.0	741.1	741.3	741.6	742.1	742.6	743.1	743.6
165°	751.0	750.0	750.0	750.0	750.0	750.0	750.3	750.9	751.6	752.2	752.9
167.5°	758.1	756.9	757.0	757.1	757.2	757.2	757.6	758.3	758.9	759.6	760.2
170°	762.5	761.5	761.4	761.2	761.1	761.0	761.3	762.1	762.9	763.7	764.5
172.5°	765.4	764.3	764.2	764.1	764.0	763.8	764.2	764.9	765.7	766.4	767.2
175°	768.4	767.3	767.2	767.1	766.9	766.8	767.1	767.9	768.6	769.4	770.2
177.5°	770.1	769.2	769.0	768.8	768.6	768.4	768.7	769.4	770.1	770.8	771.5
180°	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2



TEST NUMBER: P332961-840

CATALOG NUMBER: SA4XXRDIP-C1020D590U840-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1743.3	1748.4	1753.9	1764.5	1773.5	1777.5	1785.2	1790.8	1789.2	1797.0	1810.4
5°	1750.2	1769.1	1790.7	1813.0	1838.2	1859.1	1875.8	1892.6	1905.9	1922.0	1945.7
7.5°	1749.1	1782.6	1819.1	1859.1	1900.3	1935.9	1968.8	2002.4	2032.1	2064.7	2107.2
10°	1744.6	1789.3	1834.6	1887.0	1939.3	1988.9	2033.7	2075.5	2115.4	2157.9	2211.7
12.5°	1739.6	1791.0	1845.8	1908.8	1974.0	2033.7	2086.2	2146.5	2196.3	2251.2	2313.3
15°	1717.4	1786.5	1861.2	1942.9	2021.0	2101.3	2173.2	2247.3	2316.3	2382.0	2460.2
17.5°	1691.9	1771.7	1859.8	1956.3	2050.2	2147.9	2233.1	2326.4	2397.1	2485.2	2557.8
20°	1671.3	1757.2	1851.4	1959.6	2066.5	2174.6	2268.9	2363.9	2443.5	2532.1	2624.2
22.5°	1646.2	1740.4	1842.5	1954.6	2066.5	2184.7	2289.0	2383.4	2481.9	2581.8	2676.7
25°	1605.7	1703.4	1811.6	1934.5	2063.0	2183.7	2295.4	2412.7	2518.8	2627.1	2712.2
27.5°	1556.0	1658.6	1772.7	1899.5	2031.2	2155.0	2286.5	2411.5	2518.3	2622.4	2696.7
30°	1516.3	1624.6	1734.1	1862.6	1999.4	2132.0	2273.1	2398.0	2510.4	2604.0	2645.8
32.5°	1475.5	1578.2	1691.1	1821.3	1961.5	2104.2	2244.0	2371.8	2475.8	2531.9	2533.0
35°	1404.6	1501.0	1618.2	1746.1	1889.9	2044.8	2186.6	2312.2	2375.7	2380.6	2312.2
37.5°	1327.3	1415.6	1526.4	1654.3	1811.8	1965.9	2110.7	2194.4	2215.7	2144.7	2018.1
40°	1272.0	1353.6	1460.5	1591.7	1748.1	1907.2	2039.2	2100.6	2078.3	1963.1	1822.1
42.5°	1213.9	1290.0	1392.9	1522.5	1679.4	1840.3	1952.7	1985.6	1926.4	1793.3	1628.3
45°	1119.1	1188.9	1290.8	1421.4	1572.2	1722.9	1808.2	1791.4	1692.9	1535.2	1350.2
47.5°	1020.4	1087.8	1179.5	1300.3	1454.7	1584.9	1642.5	1592.1	1452.0	1278.4	1127.9
50°	955.0	1024.1	1108.6	1223.9	1364.8	1490.5	1527.5	1450.7	1295.1	1128.1	990.0
52.5°	890.8	949.9	1032.7	1144.0	1278.8	1384.9	1404.6	1316.1	1155.4	1005.8	883.2
55°	793.0	846.9	916.7	1021.4	1137.9	1228.0	1217.5	1103.8	957.9	830.1	733.8
57.5°	698.5	739.0	803.5	901.7	1004.0	1064.5	1026.2	929.2	793.2	688.6	607.3
60°	636.0	673.7	733.8	819.6	909.7	943.8	911.7	806.4	698.8	603.2	534.7
62.5°	576.8	610.1	661.7	741.4	814.2	834.4	800.0	708.0	611.2	529.5	472.8
65°	490.8	521.5	565.5	622.1	672.3	682.1	659.7	565.5	492.2	423.7	384.7
67.5°	412.7	432.8	467.2	516.0	542.7	548.5	505.3	446.1	381.4	339.4	309.9
70°	360.2	374.2	406.3	432.8	454.4	455.1	415.4	367.9	318.3	284.2	262.5
72.5°	309.4	322.9	347.1	365.3	381.8	376.5	340.0	302.6	262.5	236.7	220.7
75°	238.7	250.6	263.2	271.6	271.6	264.6	238.0	210.2	187.1	171.8	166.8
77.5°	173.6	183.3	187.5	186.2	183.8	172.9	156.1	137.8	129.6	122.3	118.7
80°	136.1	140.4	141.7	138.3	134.0	121.5	110.3	102.6	94.9	92.2	90.8
82.5°	101.0	104.6	101.0	101.9	92.7	82.4	76.2	73.6	70.4	69.3	67.9
85°	53.7	53.0	51.7	48.2	41.9	40.5	39.8	39.1	37.7	38.4	37.0
87.5°	19.1	17.7	15.8	15.5	15.7	14.7	15.6	15.8	16.0	15.6	16.8
90°	3.1	4.5	6.0	7.4	8.6	9.6	10.6	11.6	12.6	13.4	14.2
92.5°	7.4	7.4	7.5	7.6	8.1	9.2	10.2	11.2	12.2	13.0	13.7
95°	27.4	23.0	18.6	14.2	12.1	12.3	12.4	12.5	12.6	13.4	14.2
97.5°	70.0	72.7	75.4	78.2	72.3	58.1	43.8	29.5	15.2	15.2	15.3
100°	96.7	99.1	101.4	103.7	96.0	78.4	60.7	43.0	25.3	23.1	21.0
102.5°	126.5	128.3	130.0	131.7	131.4	129.1	126.7	124.4	122.1	98.7	75.1
105°	174.2	174.9	175.7	176.4	177.1	177.8	178.4	179.0	179.8	180.9	182.1
107.5°	218.8	219.2	219.5	219.9	220.6	221.5	222.4	223.2	224.1	224.7	225.2
110°	249.2	249.6	250.0	250.3	251.0	251.8	252.5	253.3	254.1	254.3	254.6





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**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	279.0	279.7	280.4	281.1	281.7	282.0	282.4	282.8	283.1	283.1	283.0
115°	324.2	324.5	324.9	325.3	325.4	325.3	325.2	325.0	324.9	325.2	325.4
117.5°	365.2	365.7	366.2	366.7	367.1	367.4	367.7	367.9	368.2	368.2	368.1
120°	392.8	393.3	393.8	394.4	394.6	394.5	394.3	394.2	394.0	394.3	394.6
122.5°	418.4	418.7	419.0	419.3	419.6	419.8	419.9	420.1	420.3	420.4	420.6
125°	455.6	456.2	456.7	457.2	457.3	457.0	456.8	456.5	456.3	456.7	457.0
127.5°	490.2	490.4	490.5	490.6	491.0	491.6	492.1	492.7	493.3	493.2	493.2
130°	512.8	512.9	513.1	513.2	513.4	513.8	514.2	514.6	515.0	515.1	515.2
132.5°	533.6	533.9	534.1	534.3	534.7	535.2	535.6	536.1	536.6	536.7	536.9
135°	564.4	564.3	564.1	564.0	564.2	564.7	565.2	565.7	566.2	566.5	566.7
137.5°	592.1	592.2	592.2	592.3	592.6	593.1	593.7	594.3	594.8	595.1	595.4
140°	610.3	610.6	610.8	611.1	611.3	611.6	611.9	612.1	612.4	612.7	613.1
142.5°	626.6	627.1	627.5	628.0	628.3	628.4	628.6	628.7	628.9	629.2	629.4
145°	651.4	651.7	652.1	652.5	652.7	652.7	652.7	652.7	652.7	652.8	652.9
147.5°	671.4	672.1	672.8	673.5	673.8	673.7	673.6	673.4	673.3	673.4	673.5
150°	685.4	686.0	686.5	687.0	687.2	687.0	686.9	686.8	686.6	686.6	686.6
152.5°	697.3	697.7	698.1	698.5	698.6	698.4	698.2	697.9	697.7	697.9	698.1
155°	713.9	714.0	714.1	714.3	714.1	713.8	713.4	713.0	712.6	713.1	713.6
157.5°	727.8	727.7	727.7	727.6	727.3	726.9	726.5	726.0	725.6	726.3	726.9
160°	735.8	735.4	735.1	734.7	734.4	734.3	734.2	734.0	733.9	734.7	735.4
162.5°	743.1	742.6	742.1	741.6	741.3	741.1	741.0	740.9	740.8	741.5	742.4
165°	752.2	751.6	750.9	750.3	750.0	750.0	750.0	750.0	750.0	751.0	752.0
167.5°	759.6	758.9	758.3	757.6	757.2	757.2	757.1	757.0	756.9	758.1	759.2
170°	763.7	762.9	762.1	761.3	761.0	761.1	761.2	761.4	761.5	762.5	763.6
172.5°	766.4	765.7	764.9	764.2	763.8	764.0	764.1	764.2	764.3	765.4	766.4
175°	769.4	768.6	767.9	767.1	766.8	766.9	767.1	767.2	767.3	768.4	769.6
177.5°	770.8	770.1	769.4	768.7	768.4	768.6	768.8	769.0	769.2	770.1	770.9
180°	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1817.7	1819.9	1821.6	1827.1	1827.7	1832.7	1827.7
5°	1968.0	1977.8	1993.2	2008.5	2009.9	2019.6	2002.3
7.5°	2136.7	2159.3	2173.4	2198.3	2208.1	2214.1	2204.1
10°	2252.8	2273.8	2310.8	2329.0	2347.1	2349.9	2341.5
12.5°	2365.1	2398.3	2427.5	2461.8	2461.0	2485.6	2476.7
15°	2514.7	2548.9	2589.3	2627.8	2641.7	2641.7	2652.9
17.5°	2621.3	2684.0	2725.9	2756.0	2789.0	2794.7	2790.9
20°	2693.4	2761.1	2805.8	2844.9	2867.2	2873.5	2873.5
22.5°	2746.9	2804.6	2848.2	2883.4	2901.8	2909.2	2907.0
25°	2784.1	2833.7	2860.2	2870.6	2875.6	2874.2	2860.9
27.5°	2733.3	2731.1	2714.3	2682.2	2658.1	2643.4	2626.7
30°	2636.2	2599.8	2557.9	2511.8	2452.6	2407.1	2393.2
32.5°	2491.4	2409.9	2338.9	2262.2	2198.4	2153.0	2134.0
35°	2211.7	2082.5	1977.1	1884.9	1818.0	1776.0	1762.1
37.5°	1879.7	1754.6	1624.2	1534.8	1479.1	1436.8	1421.1
40°	1668.5	1532.4	1418.6	1334.8	1277.6	1236.4	1235.7
42.5°	1475.8	1345.8	1238.8	1178.4	1116.7	1089.4	1089.3
45°	1208.4	1104.4	1013.7	966.2	929.2	906.9	900.6
47.5°	1000.6	914.5	854.0	816.3	786.1	771.8	762.7
50°	883.8	808.4	760.2	727.4	710.6	692.6	691.2
52.5°	786.7	725.8	688.2	661.6	640.4	629.4	629.8
55°	661.2	613.0	586.4	566.1	549.5	541.1	537.6
57.5°	556.9	520.8	501.5	482.9	475.8	469.3	467.5
60°	492.2	467.8	449.6	434.9	424.4	422.3	421.6
62.5°	438.6	413.0	400.4	389.1	381.4	378.2	377.0
65°	361.6	342.7	331.6	322.6	319.7	314.9	314.2
67.5°	291.5	280.2	272.9	266.5	262.8	262.5	262.5
70°	248.5	242.3	236.0	232.5	230.4	228.9	228.9
72.5°	211.7	207.0	201.9	200.1	199.7	198.2	197.7
75°	161.3	156.4	157.0	153.6	150.8	147.3	145.2
77.5°	114.3	110.9	110.2	109.8	107.3	106.9	108.1
80°	88.7	85.1	84.4	85.1	84.4	82.4	82.4
82.5°	67.5	64.5	63.8	63.4	62.7	63.4	62.3
85°	36.3	34.9	34.9	34.9	36.3	35.6	34.9
87.5°	15.9	15.5	16.1	15.6	15.7	15.1	15.8
90°	14.9	15.8	16.3	16.6	16.8	17.1	17.3
92.5°	14.5	15.2	15.7	15.8	15.8	15.9	15.9
95°	14.9	15.8	16.2	16.4	16.5	16.6	16.7
97.5°	15.5	15.6	15.7	15.8	15.9	16.0	16.2
100°	18.8	16.7	15.7	15.8	15.9	16.0	16.2
102.5°	51.7	28.2	16.5	16.6	16.6	16.6	16.6
105°	183.2	184.3	182.6	178.0	173.4	168.7	164.2
107.5°	225.8	226.3	226.8	227.3	227.8	228.3	228.8
110°	254.8	255.1	255.4	255.8	256.1	256.5	256.9



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	283.0	282.9	283.1	283.6	284.1	284.6	285.0
115°	325.7	325.9	326.1	326.1	326.1	326.1	326.1
117.5°	368.1	368.0	368.0	367.9	367.9	367.8	367.8
120°	394.8	395.1	395.1	394.8	394.6	394.3	394.0
122.5°	420.7	420.9	420.8	420.6	420.3	420.1	419.8
125°	457.4	457.8	458.1	458.2	458.3	458.4	458.6
127.5°	493.1	493.0	492.9	492.8	492.7	492.6	492.5
130°	515.3	515.5	515.5	515.5	515.5	515.5	515.5
132.5°	537.0	537.1	537.1	537.0	536.9	536.8	536.7
135°	567.0	567.2	567.5	567.7	568.0	568.4	568.6
137.5°	595.7	595.9	596.0	596.0	595.9	595.8	595.7
140°	613.5	613.9	614.1	614.3	614.4	614.5	614.6
142.5°	629.8	630.1	630.3	630.3	630.3	630.3	630.4
145°	653.1	653.2	653.4	653.6	653.9	654.2	654.4
147.5°	673.6	673.7	673.8	674.0	674.1	674.2	674.3
150°	686.6	686.6	686.7	686.8	687.0	687.1	687.2
152.5°	698.3	698.5	698.6	698.5	698.4	698.3	698.3
155°	714.1	714.6	714.7	714.3	713.9	713.6	713.2
157.5°	727.6	728.2	728.2	727.6	726.9	726.3	725.6
160°	736.2	737.0	737.0	736.2	735.4	734.7	733.9
162.5°	743.1	743.9	743.9	743.0	742.0	741.2	740.3
165°	753.1	754.2	754.1	752.9	751.7	750.6	749.4
167.5°	760.3	761.4	761.3	760.1	758.8	757.5	756.3
170°	764.6	765.7	765.5	764.3	763.0	761.6	760.4
172.5°	767.4	768.4	768.2	766.9	765.5	764.1	762.7
175°	770.7	771.9	771.7	770.2	768.6	767.1	765.6
177.5°	771.7	772.5	772.3	771.1	769.9	768.6	767.4
180°	770.2	770.2	770.2	770.2	770.2	770.2	770.2

(END OF REPORT)