

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: P332968-840

Luminaire Tested: **SA4XXRDIP-C1020D810U840-4F0-1E-UDD-A1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332968-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXRDIP-C1020D810U840-4F0-1E-UDD-A1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1020 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7215.3 lumens
Efficiency: N/A
Efficacy: 132.6 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

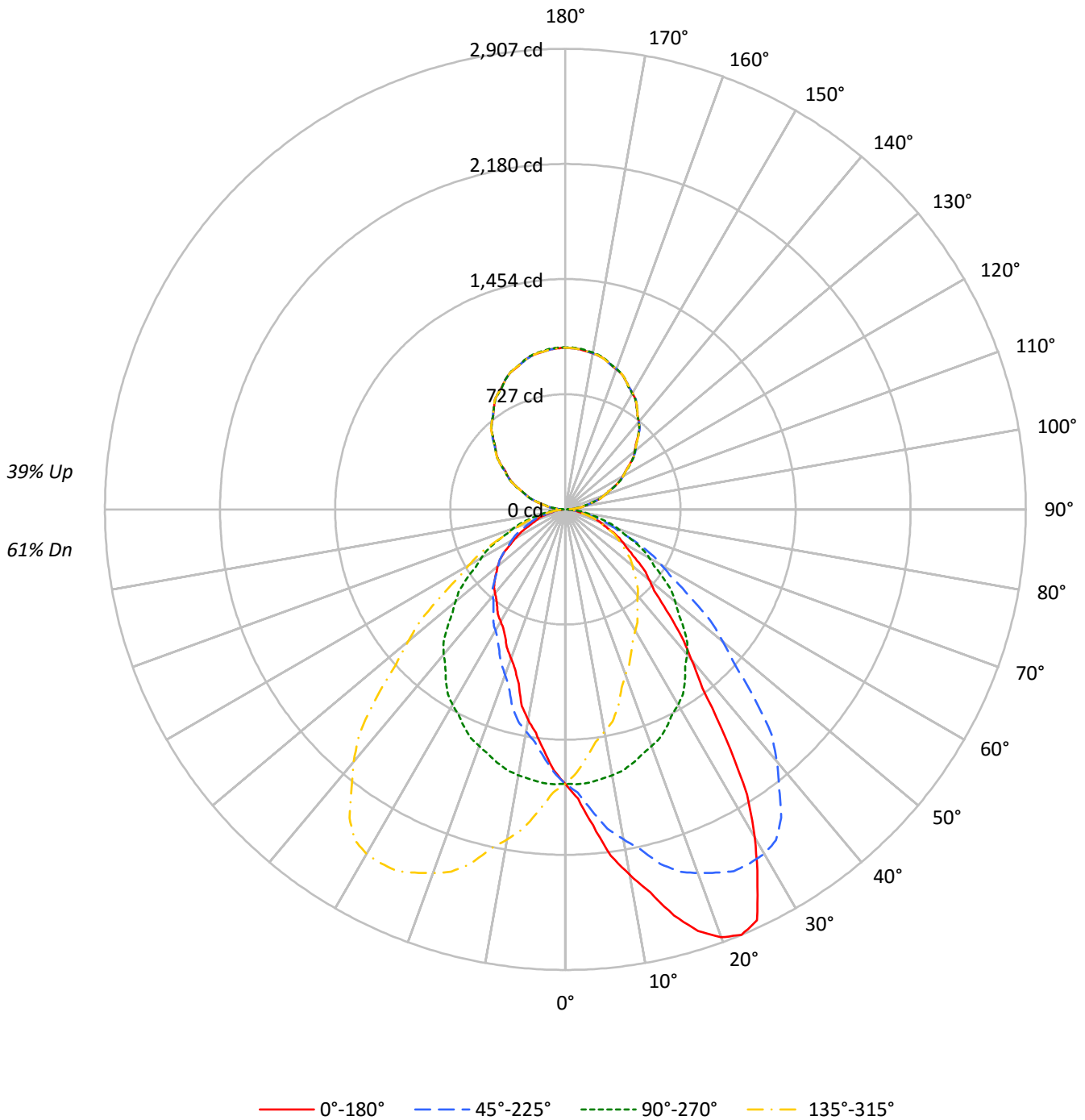
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61
1	101	97	93	89	94	91	87	84	79	77	75	69	67	65	59	58	57	52
2	92	85	79	74	86	80	75	70	70	66	63	61	58	56	53	51	49	45
3	84	75	68	62	79	71	64	59	62	57	53	54	51	48	47	44	42	38
4	78	67	59	53	72	63	56	51	56	50	46	49	45	41	43	39	37	33
5	71	60	52	46	67	57	49	44	50	44	40	44	40	36	39	35	32	29
6	66	54	46	40	62	51	44	38	45	39	35	40	35	32	35	31	29	26
7	61	49	41	35	57	46	39	34	41	35	31	37	32	28	32	28	26	23
8	57	45	37	32	53	42	35	30	38	32	28	34	29	25	30	26	23	21
9	53	41	33	28	50	39	32	27	35	29	25	31	26	23	27	24	21	19
10	50	38	30	26	47	36	29	25	32	27	23	29	24	21	25	22	19	17

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	2.3
10°-20°	506.4	7.0
20°-30°	792.1	11.0
30°-40°	880.6	12.2
40°-50°	781.3	10.8
50°-60°	608.8	8.4
60°-70°	398.6	5.5
70°-80°	196.0	2.7
80°-90°	51.4	0.7
90°-100°	67.3	0.9
100°-110°	199.5	2.8
110°-120°	338.5	4.7
120°-130°	446.4	6.2
130°-140°	501.3	6.9
140°-150°	492.6	6.8
150°-160°	414.3	5.7
160°-170°	275.7	3.8
170°-180°	96.5	1.3
0°-30°	1466.4	20.3
0°-40°	2347.0	32.5
0°-60°	3737.0	51.8
0°-90°	4383.0	60.7
90°-120°	605.4	8.4
90°-150°	2045.7	28.4
90°-180°	2832.0	39.3
0°-180°	7215.3	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°	24	2	24	2	24	14
95°	62	47	62	47	62	65
105°	193	184	193	184	193	203
115°	341	344	341	344	341	337
125°	497	501	497	501	497	444
135°	647	647	647	647	647	500
145°	786	786	786	786	786	492
155°	899	900	899	900	899	414
165°	977	980	977	980	977	275
175°	1014	1019	1014	1019	1014	96
180°	1021	1021	1021	1021	1021	



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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°	17.1	16.4	16.9	16.8	17.3	16.6	17.0	17.9	16.6	16.9	16.6
90°	23.7	23.3	23.0	22.6	22.3	21.6	20.5	19.5	18.4	17.4	16.0
92.5°	35.0	34.8	34.6	34.4	34.2	33.8	33.1	32.5	31.9	31.3	30.3
95°	62.4	62.4	62.4	62.4	62.4	62.1	61.6	61.1	60.5	60.0	58.8
97.5°	97.8	97.8	97.8	97.8	97.8	97.5	96.7	96.1	95.5	94.9	93.4
100°	122.4	122.4	122.4	122.4	122.4	122.2	121.9	121.5	121.2	120.8	119.2
102.5°	150.2	150.1	149.9	149.8	149.6	149.3	148.8	148.3	147.8	147.3	145.9
105°	192.7	192.1	191.6	191.1	190.6	190.0	189.5	188.9	188.4	187.9	187.2
107.5°	234.0	234.1	234.1	234.1	234.2	233.9	233.4	233.0	232.5	232.0	231.9
110°	263.7	263.2	262.7	262.2	261.6	261.5	261.9	262.2	262.6	262.9	263.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	294.0	293.9	293.8	293.7	293.6	293.6	293.7	293.7	293.8	293.9	294.2
115°	341.0	341.2	341.4	341.6	341.7	341.9	342.1	342.2	342.4	342.6	343.0
117.5°	385.9	386.3	386.6	387.0	387.3	387.8	388.4	389.0	389.6	390.2	390.4
120°	420.0	419.7	419.3	419.0	418.6	418.9	419.7	420.6	421.5	422.4	422.9
122.5°	448.5	449.1	449.7	450.3	451.0	451.6	452.2	452.7	453.3	453.9	454.2
125°	497.4	497.8	498.1	498.5	498.8	499.2	499.5	499.9	500.2	500.6	500.7
127.5°	542.7	543.0	543.3	543.5	543.8	544.1	544.5	544.8	545.2	545.5	545.8
130°	572.4	573.1	573.8	574.5	575.2	575.7	576.0	576.4	576.7	577.1	577.1
132.5°	604.0	604.2	604.5	604.8	605.1	605.4	605.7	606.1	606.4	606.8	606.9
135°	647.4	647.9	648.4	648.9	649.4	649.9	650.3	650.7	651.0	651.4	651.4
137.5°	693.1	692.9	692.8	692.7	692.6	692.8	693.3	693.7	694.2	694.6	694.3
140°	720.8	720.9	721.1	721.3	721.5	721.6	721.9	722.1	722.3	722.4	722.4
142.5°	748.6	748.6	748.7	748.7	748.7	748.8	748.8	748.8	748.9	748.9	749.0
145°	786.4	786.9	787.4	787.9	788.4	788.8	789.0	789.1	789.3	789.5	789.3
147.5°	824.6	824.8	824.9	825.1	825.3	825.4	825.6	825.7	825.9	826.0	826.1
150°	847.9	848.1	848.3	848.5	848.6	848.7	848.7	848.7	848.7	848.7	848.7
152.5°	869.4	869.9	870.3	870.8	871.2	871.2	870.8	870.4	870.0	869.6	869.4
155°	899.3	899.9	900.6	901.3	902.0	902.0	901.3	900.6	899.9	899.3	899.4
157.5°	925.9	926.6	927.2	927.8	928.3	928.4	927.9	927.3	926.8	926.2	926.2
160°	941.1	942.0	942.8	943.7	944.6	944.7	944.2	943.7	943.2	942.7	942.8
162.5°	956.8	957.8	958.7	959.5	960.4	960.4	959.4	958.5	957.6	956.5	956.7
165°	977.4	978.1	978.8	979.5	980.2	980.1	979.0	978.0	976.8	975.8	976.1
167.5°	992.1	993.2	994.2	995.3	996.4	996.4	995.4	994.3	993.3	992.2	992.2
170°	1000.3	1001.5	1002.8	1004.0	1005.2	1005.3	1004.2	1003.2	1002.1	1001.1	1000.9
172.5°	1007.2	1008.5	1009.7	1011.0	1012.2	1012.2	1011.0	1009.8	1008.6	1007.4	1007.3
175°	1014.5	1015.7	1016.9	1018.1	1019.5	1019.5	1018.1	1016.9	1015.7	1014.5	1014.7
177.5°	1018.2	1019.5	1020.6	1021.7	1022.8	1022.9	1021.9	1020.9	1019.9	1019.0	1019.0
180°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8



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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°	16.4	15.5	16.4	16.0	16.2	18.0	19.3	19.5	18.2	16.9	15.6
90°	14.5	13.1	11.7	10.1	8.2	6.3	4.3	2.3	4.3	6.3	8.2
92.5°	29.3	28.3	27.4	25.8	23.5	21.3	19.1	16.9	19.1	21.3	23.5
95°	57.6	56.4	55.1	53.7	52.1	50.5	49.0	47.4	49.0	50.5	52.1
97.5°	92.0	90.6	89.2	87.8	86.5	85.2	84.0	82.7	84.0	85.2	86.5
100°	117.6	116.0	114.5	113.3	112.6	111.9	111.2	110.6	111.2	111.9	112.6
102.5°	144.4	143.0	141.6	140.7	140.5	140.2	139.9	139.6	139.9	140.2	140.5
105°	186.5	185.8	185.1	184.7	184.5	184.3	184.1	184.0	184.1	184.3	184.5
107.5°	231.8	231.7	231.6	231.4	231.2	231.0	230.8	230.6	230.8	231.0	231.2
110°	263.3	263.5	263.6	263.5	263.2	262.8	262.5	262.2	262.5	262.8	263.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	294.5	294.8	295.1	295.3	295.2	295.1	295.0	295.0	295.0	295.1	295.2
115°	343.4	343.7	344.1	344.3	344.3	344.3	344.3	344.3	344.3	344.3	344.3
117.5°	390.6	390.9	391.1	391.2	391.0	390.9	390.8	390.6	390.8	390.9	391.0
120°	423.4	423.9	424.4	424.4	423.7	423.0	422.3	421.6	422.3	423.0	423.7
122.5°	454.4	454.7	454.9	454.9	454.6	454.3	454.0	453.8	454.0	454.3	454.6
125°	500.9	501.1	501.2	501.3	501.3	501.3	501.3	501.3	501.3	501.3	501.3
127.5°	546.1	546.3	546.6	546.5	546.0	545.5	544.9	544.4	544.9	545.5	546.0
130°	577.1	577.1	577.1	576.8	576.3	575.8	575.3	574.7	575.3	575.8	576.3
132.5°	607.1	607.2	607.3	607.2	606.8	606.5	606.1	605.7	606.1	606.5	606.8
135°	651.4	651.4	651.4	650.9	649.7	648.7	647.6	646.6	647.6	648.7	649.7
137.5°	694.1	693.8	693.5	693.1	692.6	692.1	691.7	691.2	691.7	692.1	692.6
140°	722.4	722.4	722.4	722.3	721.9	721.5	721.1	720.8	721.1	721.5	721.9
142.5°	749.2	749.3	749.5	749.4	749.0	748.7	748.3	748.0	748.3	748.7	749.0
145°	789.1	789.0	788.8	788.4	787.7	787.0	786.3	785.6	786.3	787.0	787.7
147.5°	826.3	826.4	826.6	826.2	825.4	824.5	823.6	822.8	823.6	824.5	825.4
150°	848.7	848.7	848.7	848.4	847.7	847.0	846.3	845.6	846.3	847.0	847.7
152.5°	869.3	869.1	869.0	868.7	868.3	867.9	867.5	867.1	867.5	867.9	868.3
155°	899.6	899.8	899.9	900.0	900.0	900.0	900.0	900.0	900.0	900.0	900.0
157.5°	926.3	926.3	926.3	926.6	926.9	927.2	927.5	927.9	927.5	927.2	926.9
160°	943.0	943.2	943.3	943.5	943.7	943.9	944.0	944.2	944.0	943.9	943.7
162.5°	956.9	957.0	957.3	957.6	958.1	958.5	959.0	959.4	959.0	958.5	958.1
165°	976.5	976.8	977.2	977.7	978.2	978.8	979.3	979.8	979.3	978.8	978.2
167.5°	992.2	992.1	992.1	992.5	993.2	993.9	994.6	995.4	994.6	993.9	993.2
170°	1000.8	1000.6	1000.4	1000.8	1001.6	1002.5	1003.4	1004.2	1003.4	1002.5	1001.6
172.5°	1007.3	1007.3	1007.2	1007.6	1008.4	1009.1	1009.9	1010.6	1009.9	1009.1	1008.4
175°	1014.8	1015.0	1015.2	1015.7	1016.6	1017.4	1018.3	1019.3	1018.3	1017.4	1016.6
177.5°	1019.0	1019.0	1019.0	1019.3	1020.0	1020.7	1021.4	1022.1	1021.4	1020.7	1020.0
180°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8



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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°	16.0	15.8	16.1	15.2	16.1	16.4	16.0	16.2	17.0	16.1	16.2
90°	10.1	11.7	13.1	14.5	16.0	17.4	18.4	19.5	20.5	21.6	22.3
92.5°	25.8	27.4	28.3	29.3	30.3	31.3	31.9	32.5	33.1	33.8	34.2
95°	53.7	55.1	56.4	57.6	58.8	60.0	60.5	61.1	61.6	62.1	62.4
97.5°	87.8	89.2	90.6	92.0	93.4	94.9	95.5	96.1	96.7	97.5	97.8
100°	113.3	114.5	116.0	117.6	119.2	120.8	121.2	121.5	121.9	122.2	122.4
102.5°	140.7	141.6	143.0	144.4	145.9	147.3	147.8	148.3	148.8	149.3	149.6
105°	184.7	185.1	185.8	186.5	187.2	187.9	188.4	188.9	189.5	190.0	190.6
107.5°	231.4	231.6	231.7	231.8	231.9	232.0	232.5	233.0	233.4	233.9	234.2
110°	263.5	263.6	263.5	263.3	263.1	262.9	262.6	262.2	261.9	261.5	261.6



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	295.3	295.1	294.8	294.5	294.2	293.9	293.8	293.7	293.7	293.6	293.6
115°	344.3	344.1	343.7	343.4	343.0	342.6	342.4	342.2	342.1	341.9	341.7
117.5°	391.2	391.1	390.9	390.6	390.4	390.2	389.6	389.0	388.4	387.8	387.3
120°	424.4	424.4	423.9	423.4	422.9	422.4	421.5	420.6	419.7	418.9	418.6
122.5°	454.9	454.9	454.7	454.4	454.2	453.9	453.3	452.7	452.2	451.6	451.0
125°	501.3	501.2	501.1	500.9	500.7	500.6	500.2	499.9	499.5	499.2	498.8
127.5°	546.5	546.6	546.3	546.1	545.8	545.5	545.2	544.8	544.5	544.1	543.8
130°	576.8	577.1	577.1	577.1	577.1	577.1	576.7	576.4	576.0	575.7	575.2
132.5°	607.2	607.3	607.2	607.1	606.9	606.8	606.4	606.1	605.7	605.4	605.1
135°	650.9	651.4	651.4	651.4	651.4	651.4	651.0	650.7	650.3	649.9	649.4
137.5°	693.1	693.5	693.8	694.1	694.3	694.6	694.2	693.7	693.3	692.8	692.6
140°	722.3	722.4	722.4	722.4	722.4	722.4	722.3	722.1	721.9	721.6	721.5
142.5°	749.4	749.5	749.3	749.2	749.0	748.9	748.9	748.8	748.8	748.8	748.7
145°	788.4	788.8	789.0	789.1	789.3	789.5	789.3	789.1	789.0	788.8	788.4
147.5°	826.2	826.6	826.4	826.3	826.1	826.0	825.9	825.7	825.6	825.4	825.3
150°	848.4	848.7	848.7	848.7	848.7	848.7	848.7	848.7	848.7	848.7	848.6
152.5°	868.7	869.0	869.1	869.3	869.4	869.6	870.0	870.4	870.8	871.2	871.2
155°	900.0	899.9	899.8	899.6	899.4	899.3	899.9	900.6	901.3	902.0	902.0
157.5°	926.6	926.3	926.3	926.3	926.2	926.2	926.8	927.3	927.9	928.4	928.3
160°	943.5	943.3	943.2	943.0	942.8	942.7	943.2	943.7	944.2	944.7	944.6
162.5°	957.6	957.3	957.0	956.9	956.7	956.5	957.6	958.5	959.4	960.4	960.4
165°	977.7	977.2	976.8	976.5	976.1	975.8	976.8	978.0	979.0	980.1	980.2
167.5°	992.5	992.1	992.1	992.2	992.2	992.2	993.3	994.3	995.4	996.4	996.4
170°	1000.8	1000.4	1000.6	1000.8	1000.9	1001.1	1002.1	1003.2	1004.2	1005.3	1005.2
172.5°	1007.6	1007.2	1007.3	1007.3	1007.3	1007.4	1008.6	1009.8	1011.0	1012.2	1012.2
175°	1015.7	1015.2	1015.0	1014.8	1014.7	1014.5	1015.7	1016.9	1018.1	1019.5	1019.5
177.5°	1019.3	1019.0	1019.0	1019.0	1019.0	1019.0	1019.9	1020.9	1021.9	1022.9	1022.8
180°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8



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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°	17.4	16.9	16.4	17.1	16.4	16.9	17.4	16.2	16.1	17.0	16.2
90°	22.6	23.0	23.3	23.7	23.3	23.0	22.6	22.3	21.6	20.5	19.5
92.5°	34.4	34.6	34.8	35.0	34.8	34.6	34.4	34.2	33.8	33.1	32.5
95°	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.1	61.6	61.1
97.5°	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.5	96.7	96.1
100°	122.4	122.4	122.4	122.4	122.4	122.4	122.4	122.4	122.2	121.9	121.5
102.5°	149.8	149.9	150.1	150.2	150.1	149.9	149.8	149.6	149.3	148.8	148.3
105°	191.1	191.6	192.1	192.7	192.1	191.6	191.1	190.6	190.0	189.5	188.9
107.5°	234.1	234.1	234.1	234.0	234.1	234.1	234.1	234.2	233.9	233.4	233.0
110°	262.2	262.7	263.2	263.7	263.2	262.7	262.2	261.6	261.5	261.9	262.2



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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	293.7	293.8	293.9	294.0	293.9	293.8	293.7	293.6	293.6	293.7	293.7
115°	341.6	341.4	341.2	341.0	341.2	341.4	341.6	341.7	341.9	342.1	342.2
117.5°	387.0	386.6	386.3	385.9	386.3	386.6	387.0	387.3	387.8	388.4	389.0
120°	419.0	419.3	419.7	420.0	419.7	419.3	419.0	418.6	418.9	419.7	420.6
122.5°	450.3	449.7	449.1	448.5	449.1	449.7	450.3	451.0	451.6	452.2	452.7
125°	498.5	498.1	497.8	497.4	497.8	498.1	498.5	498.8	499.2	499.5	499.9
127.5°	543.5	543.3	543.0	542.7	543.0	543.3	543.5	543.8	544.1	544.5	544.8
130°	574.5	573.8	573.1	572.4	573.1	573.8	574.5	575.2	575.7	576.0	576.4
132.5°	604.8	604.5	604.2	604.0	604.2	604.5	604.8	605.1	605.4	605.7	606.1
135°	648.9	648.4	647.9	647.4	647.9	648.4	648.9	649.4	649.9	650.3	650.7
137.5°	692.7	692.8	692.9	693.1	692.9	692.8	692.7	692.6	692.8	693.3	693.7
140°	721.3	721.1	720.9	720.8	720.9	721.1	721.3	721.5	721.6	721.9	722.1
142.5°	748.7	748.7	748.6	748.6	748.6	748.7	748.7	748.7	748.8	748.8	748.8
145°	787.9	787.4	786.9	786.4	786.9	787.4	787.9	788.4	788.8	789.0	789.1
147.5°	825.1	824.9	824.8	824.6	824.8	824.9	825.1	825.3	825.4	825.6	825.7
150°	848.5	848.3	848.1	847.9	848.1	848.3	848.5	848.6	848.7	848.7	848.7
152.5°	870.8	870.3	869.9	869.4	869.9	870.3	870.8	871.2	871.2	870.8	870.4
155°	901.3	900.6	899.9	899.3	899.9	900.6	901.3	902.0	902.0	901.3	900.6
157.5°	927.8	927.2	926.6	925.9	926.6	927.2	927.8	928.3	928.4	927.9	927.3
160°	943.7	942.8	942.0	941.1	942.0	942.8	943.7	944.6	944.7	944.2	943.7
162.5°	959.5	958.7	957.8	956.8	957.8	958.7	959.5	960.4	960.4	959.4	958.5
165°	979.5	978.8	978.1	977.4	978.1	978.8	979.5	980.2	980.1	979.0	978.0
167.5°	995.3	994.2	993.2	992.1	993.2	994.2	995.3	996.4	996.4	995.4	994.3
170°	1004.0	1002.8	1001.5	1000.3	1001.5	1002.8	1004.0	1005.2	1005.3	1004.2	1003.2
172.5°	1011.0	1009.7	1008.5	1007.2	1008.5	1009.7	1011.0	1012.2	1012.2	1011.0	1009.8
175°	1018.1	1016.9	1015.7	1014.5	1015.7	1016.9	1018.1	1019.5	1019.5	1018.1	1016.9
177.5°	1021.7	1020.6	1019.5	1018.2	1019.5	1020.6	1021.7	1022.8	1022.9	1021.9	1020.9
180°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8



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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°	16.0	16.4	16.1	15.2	16.1	15.8	16.0	15.6	16.9	18.2	19.5
90°	18.4	17.4	16.0	14.5	13.1	11.7	10.1	8.2	6.3	4.3	2.3
92.5°	31.9	31.3	30.3	29.3	28.3	27.4	25.8	23.5	21.3	19.1	16.9
95°	60.5	60.0	58.8	57.6	56.4	55.1	53.7	52.1	50.5	49.0	47.4
97.5°	95.5	94.9	93.4	92.0	90.6	89.2	87.8	86.5	85.2	84.0	82.7
100°	121.2	120.8	119.2	117.6	116.0	114.5	113.3	112.6	111.9	111.2	110.6
102.5°	147.8	147.3	145.9	144.4	143.0	141.6	140.7	140.5	140.2	139.9	139.6
105°	188.4	187.9	187.2	186.5	185.8	185.1	184.7	184.5	184.3	184.1	184.0
107.5°	232.5	232.0	231.9	231.8	231.7	231.6	231.4	231.2	231.0	230.8	230.6
110°	262.6	262.9	263.1	263.3	263.5	263.6	263.5	263.2	262.8	262.5	262.2



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CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	293.8	293.9	294.2	294.5	294.8	295.1	295.3	295.2	295.1	295.0	295.0
115°	342.4	342.6	343.0	343.4	343.7	344.1	344.3	344.3	344.3	344.3	344.3
117.5°	389.6	390.2	390.4	390.6	390.9	391.1	391.2	391.0	390.9	390.8	390.6
120°	421.5	422.4	422.9	423.4	423.9	424.4	424.4	423.7	423.0	422.3	421.6
122.5°	453.3	453.9	454.2	454.4	454.7	454.9	454.9	454.6	454.3	454.0	453.8
125°	500.2	500.6	500.7	500.9	501.1	501.2	501.3	501.3	501.3	501.3	501.3
127.5°	545.2	545.5	545.8	546.1	546.3	546.6	546.5	546.0	545.5	544.9	544.4
130°	576.7	577.1	577.1	577.1	577.1	577.1	576.8	576.3	575.8	575.3	574.7
132.5°	606.4	606.8	606.9	607.1	607.2	607.3	607.2	606.8	606.5	606.1	605.7
135°	651.0	651.4	651.4	651.4	651.4	651.4	650.9	649.7	648.7	647.6	646.6
137.5°	694.2	694.6	694.3	694.1	693.8	693.5	693.1	692.6	692.1	691.7	691.2
140°	722.3	722.4	722.4	722.4	722.4	722.4	722.3	721.9	721.5	721.1	720.8
142.5°	748.9	748.9	749.0	749.2	749.3	749.5	749.4	749.0	748.7	748.3	748.0
145°	789.3	789.5	789.3	789.1	789.0	788.8	788.4	787.7	787.0	786.3	785.6
147.5°	825.9	826.0	826.1	826.3	826.4	826.6	826.2	825.4	824.5	823.6	822.8
150°	848.7	848.7	848.7	848.7	848.7	848.7	848.4	847.7	847.0	846.3	845.6
152.5°	870.0	869.6	869.4	869.3	869.1	869.0	868.7	868.3	867.9	867.5	867.1
155°	899.9	899.3	899.4	899.6	899.8	899.9	900.0	900.0	900.0	900.0	900.0
157.5°	926.8	926.2	926.2	926.3	926.3	926.3	926.6	926.9	927.2	927.5	927.9
160°	943.2	942.7	942.8	943.0	943.2	943.3	943.5	943.7	943.9	944.0	944.2
162.5°	957.6	956.5	956.7	956.9	957.0	957.3	957.6	958.1	958.5	959.0	959.4
165°	976.8	975.8	976.1	976.5	976.8	977.2	977.7	978.2	978.8	979.3	979.8
167.5°	993.3	992.2	992.2	992.2	992.1	992.1	992.5	993.2	993.9	994.6	995.4
170°	1002.1	1001.1	1000.9	1000.8	1000.6	1000.4	1000.8	1001.6	1002.5	1003.4	1004.2
172.5°	1008.6	1007.4	1007.3	1007.3	1007.3	1007.2	1007.6	1008.4	1009.1	1009.9	1010.6
175°	1015.7	1014.5	1014.7	1014.8	1015.0	1015.2	1015.7	1016.6	1017.4	1018.3	1019.3
177.5°	1019.9	1019.0	1019.0	1019.0	1019.0	1019.0	1019.3	1020.0	1020.7	1021.4	1022.1
180°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8



TEST NUMBER: P332968-840

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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°	19.3	18.0	16.2	16.0	16.4	15.5	16.4	16.6	16.9	16.6	17.9
90°	4.3	6.3	8.2	10.1	11.7	13.1	14.5	16.0	17.4	18.4	19.5
92.5°	19.1	21.3	23.5	25.8	27.4	28.3	29.3	30.3	31.3	31.9	32.5
95°	49.0	50.5	52.1	53.7	55.1	56.4	57.6	58.8	60.0	60.5	61.1
97.5°	84.0	85.2	86.5	87.8	89.2	90.6	92.0	93.4	94.9	95.5	96.1
100°	111.2	111.9	112.6	113.3	114.5	116.0	117.6	119.2	120.8	121.2	121.5
102.5°	139.9	140.2	140.5	140.7	141.6	143.0	144.4	145.9	147.3	147.8	148.3
105°	184.1	184.3	184.5	184.7	185.1	185.8	186.5	187.2	187.9	188.4	188.9
107.5°	230.8	231.0	231.2	231.4	231.6	231.7	231.8	231.9	232.0	232.5	233.0
110°	262.5	262.8	263.2	263.5	263.6	263.5	263.3	263.1	262.9	262.6	262.2



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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	295.0	295.1	295.2	295.3	295.1	294.8	294.5	294.2	293.9	293.8	293.7
115°	344.3	344.3	344.3	344.3	344.1	343.7	343.4	343.0	342.6	342.4	342.2
117.5°	390.8	390.9	391.0	391.2	391.1	390.9	390.6	390.4	390.2	389.6	389.0
120°	422.3	423.0	423.7	424.4	424.4	423.9	423.4	422.9	422.4	421.5	420.6
122.5°	454.0	454.3	454.6	454.9	454.9	454.7	454.4	454.2	453.9	453.3	452.7
125°	501.3	501.3	501.3	501.3	501.2	501.1	500.9	500.7	500.6	500.2	499.9
127.5°	544.9	545.5	546.0	546.5	546.6	546.3	546.1	545.8	545.5	545.2	544.8
130°	575.3	575.8	576.3	576.8	577.1	577.1	577.1	577.1	577.1	576.7	576.4
132.5°	606.1	606.5	606.8	607.2	607.3	607.2	607.1	606.9	606.8	606.4	606.1
135°	647.6	648.7	649.7	650.9	651.4	651.4	651.4	651.4	651.4	651.0	650.7
137.5°	691.7	692.1	692.6	693.1	693.5	693.8	694.1	694.3	694.6	694.2	693.7
140°	721.1	721.5	721.9	722.3	722.4	722.4	722.4	722.4	722.4	722.3	722.1
142.5°	748.3	748.7	749.0	749.4	749.5	749.3	749.2	749.0	748.9	748.9	748.8
145°	786.3	787.0	787.7	788.4	788.8	789.0	789.1	789.3	789.5	789.3	789.1
147.5°	823.6	824.5	825.4	826.2	826.6	826.4	826.3	826.1	826.0	825.9	825.7
150°	846.3	847.0	847.7	848.4	848.7	848.7	848.7	848.7	848.7	848.7	848.7
152.5°	867.5	867.9	868.3	868.7	869.0	869.1	869.3	869.4	869.6	870.0	870.4
155°	900.0	900.0	900.0	900.0	899.9	899.8	899.6	899.4	899.3	899.9	900.6
157.5°	927.5	927.2	926.9	926.6	926.3	926.3	926.3	926.2	926.2	926.8	927.3
160°	944.0	943.9	943.7	943.5	943.3	943.2	943.0	942.8	942.7	943.2	943.7
162.5°	959.0	958.5	958.1	957.6	957.3	957.0	956.9	956.7	956.5	957.6	958.5
165°	979.3	978.8	978.2	977.7	977.2	976.8	976.5	976.1	975.8	976.8	978.0
167.5°	994.6	993.9	993.2	992.5	992.1	992.1	992.2	992.2	992.2	993.3	994.3
170°	1003.4	1002.5	1001.6	1000.8	1000.4	1000.6	1000.8	1000.9	1001.1	1002.1	1003.2
172.5°	1009.9	1009.1	1008.4	1007.6	1007.2	1007.3	1007.3	1007.3	1007.4	1008.6	1009.8
175°	1018.3	1017.4	1016.6	1015.7	1015.2	1015.0	1014.8	1014.7	1014.5	1015.7	1016.9
177.5°	1021.4	1020.7	1020.0	1019.3	1019.0	1019.0	1019.0	1019.0	1019.0	1019.9	1020.9
180°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8



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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°	17.0	16.6	17.3	16.8	16.9	16.4	17.1
90°	20.5	21.6	22.3	22.6	23.0	23.3	23.7
92.5°	33.1	33.8	34.2	34.4	34.6	34.8	35.0
95°	61.6	62.1	62.4	62.4	62.4	62.4	62.4
97.5°	96.7	97.5	97.8	97.8	97.8	97.8	97.8
100°	121.9	122.2	122.4	122.4	122.4	122.4	122.4
102.5°	148.8	149.3	149.6	149.8	149.9	150.1	150.2
105°	189.5	190.0	190.6	191.1	191.6	192.1	192.7
107.5°	233.4	233.9	234.2	234.1	234.1	234.1	234.0
110°	261.9	261.5	261.6	262.2	262.7	263.2	263.7



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	293.7	293.6	293.6	293.7	293.8	293.9	294.0
115°	342.1	341.9	341.7	341.6	341.4	341.2	341.0
117.5°	388.4	387.8	387.3	387.0	386.6	386.3	385.9
120°	419.7	418.9	418.6	419.0	419.3	419.7	420.0
122.5°	452.2	451.6	451.0	450.3	449.7	449.1	448.5
125°	499.5	499.2	498.8	498.5	498.1	497.8	497.4
127.5°	544.5	544.1	543.8	543.5	543.3	543.0	542.7
130°	576.0	575.7	575.2	574.5	573.8	573.1	572.4
132.5°	605.7	605.4	605.1	604.8	604.5	604.2	604.0
135°	650.3	649.9	649.4	648.9	648.4	647.9	647.4
137.5°	693.3	692.8	692.6	692.7	692.8	692.9	693.1
140°	721.9	721.6	721.5	721.3	721.1	720.9	720.8
142.5°	748.8	748.8	748.7	748.7	748.7	748.6	748.6
145°	789.0	788.8	788.4	787.9	787.4	786.9	786.4
147.5°	825.6	825.4	825.3	825.1	824.9	824.8	824.6
150°	848.7	848.7	848.6	848.5	848.3	848.1	847.9
152.5°	870.8	871.2	871.2	870.8	870.3	869.9	869.4
155°	901.3	902.0	902.0	901.3	900.6	899.9	899.3
157.5°	927.9	928.4	928.3	927.8	927.2	926.6	925.9
160°	944.2	944.7	944.6	943.7	942.8	942.0	941.1
162.5°	959.4	960.4	960.4	959.5	958.7	957.8	956.8
165°	979.0	980.1	980.2	979.5	978.8	978.1	977.4
167.5°	995.4	996.4	996.4	995.3	994.2	993.2	992.1
170°	1004.2	1005.3	1005.2	1004.0	1002.8	1001.5	1000.3
172.5°	1011.0	1012.2	1012.2	1011.0	1009.7	1008.5	1007.2
175°	1018.1	1019.5	1019.5	1018.1	1016.9	1015.7	1014.5
177.5°	1021.9	1022.9	1022.8	1021.7	1020.6	1019.5	1018.2
180°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8

(END OF REPORT)