

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: AMETRIX

Report Number: P189137

Luminaire Tested: A03-SI-A-1-LED-40K-D-120-S

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P189137  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL87330-GONIOPHOTOMETRY)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: AMETRIX  
Catalog Number: A03-SI-A-1-LED-40K-D-120-S  
Description: ARROWLINEAR LED LUMINAIRE, EXTRA SMALL HOUSING  
3-FOOT LONG EXTRUDED HOUSING WITH WHITE REFLECTOR AND FROSTED LENS  
Light Source: (84) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

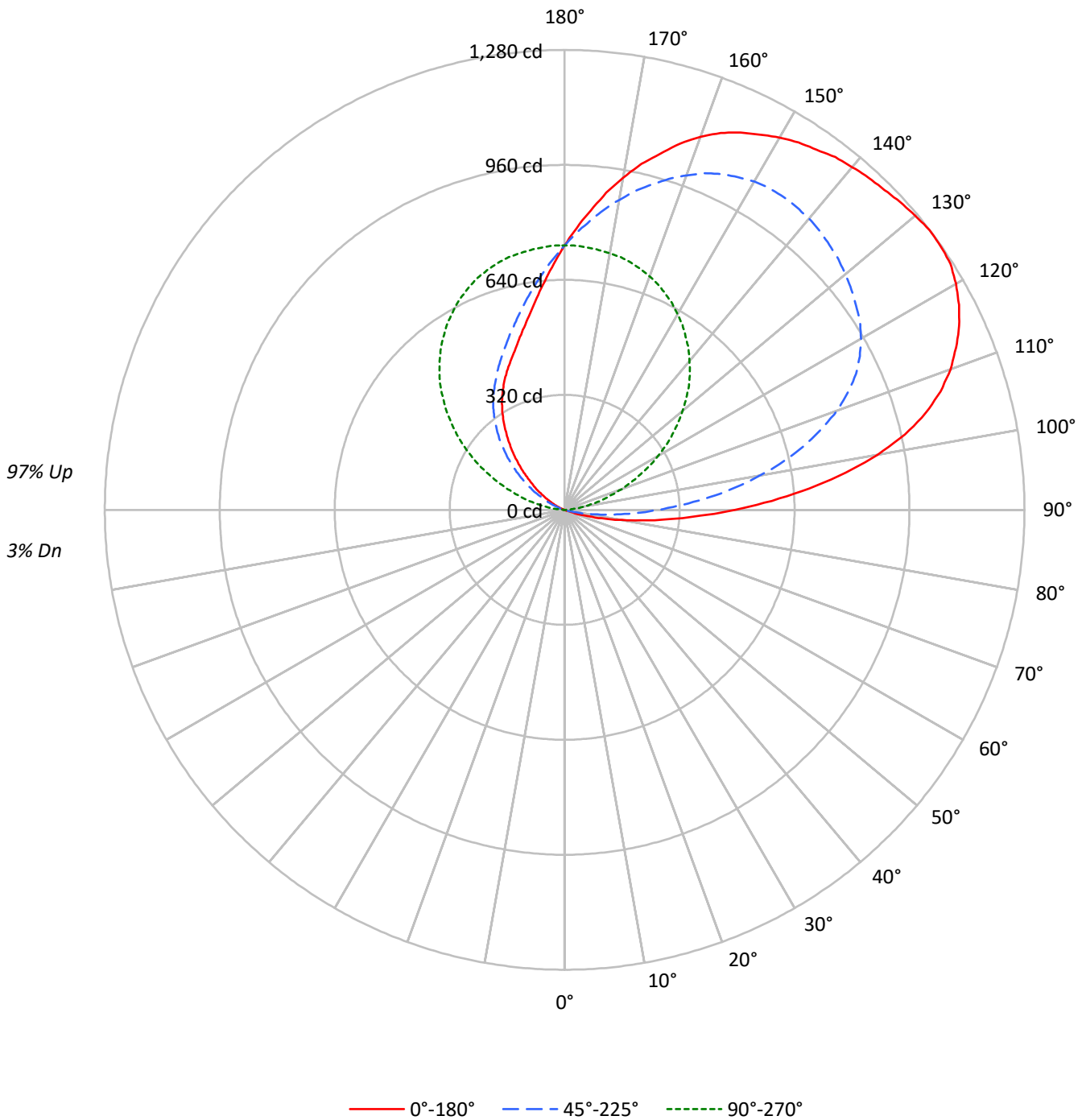
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3128.5 lumens  
Efficiency: N/A  
Efficacy: 101.9 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular w/ Sides (W: 3.16' x L: 0.29' x H: 0.11')  
CIE Type: Indirect  
  
Input Watts (W): 30.7  
Input Voltage (V): NR  
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: 24 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	96	96	96	96	82	82	82	82	57	57	57	34	34	34	13	13	13	3
1	86	82	78	74	74	70	67	64	48	46	45	28	27	26	10	9	9	1
2	78	71	65	60	67	61	56	52	42	39	36	25	23	21	8	8	7	0
3	71	62	55	50	61	54	48	43	37	33	30	22	20	18	7	7	6	0
4	65	55	47	42	55	47	41	36	33	29	26	19	17	15	7	6	5	0
5	59	49	41	35	51	42	36	31	29	25	22	17	15	13	6	5	4	0
6	55	43	36	30	46	37	31	26	26	22	19	15	13	11	5	4	4	0
7	50	39	31	26	43	33	27	23	23	19	16	14	11	10	5	4	3	0
8	46	35	28	23	40	30	24	20	21	17	14	12	10	8	4	3	3	0
9	43	32	25	20	37	27	21	17	19	15	12	11	9	7	4	3	2	0
10	40	29	22	17	34	25	19	15	17	13	11	10	8	7	4	3	2	0

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

	0°	45°	90°	135°	180°
0°	0	0	0	0	0
5°	0	0	0	0	0
10°	0	0	0	0	0
15°	0	0	0	0	0
20°	0	0	0	0	0
25°	0	0	0	0	0
30°	0	0	0	0	0
35°	0	0	0	0	0
40°	0	0	0	0	0
45°	0	0	0	0	0
50°	0	0	0	0	0
55°	0	0	0	0	0
60°	0	0	0	0	0
65°	0	0	0	0	0
70°	266	0	0	0	0
75°	1369	206	0	0	0
80°	3534	1571	0	0	0
85°	7513	4566	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 90°  
 Luminance: 14726 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	0.0	0.0
10°-20°	0.0	0.0
20°-30°	0.0	0.0
30°-40°	0.0	0.0
40°-50°	0.0	0.0
50°-60°	0.0	0.0
60°-70°	0.2	0.0
70°-80°	15.6	0.5
80°-90°	81.2	2.6
90°-100°	209.9	6.7
100°-110°	349.7	11.2
110°-120°	445.4	14.2
120°-130°	491.6	15.7
130°-140°	485.8	15.5
140°-150°	433.6	13.9
150°-160°	336.4	10.8
160°-170°	208.8	6.7
170°-180°	70.3	2.2
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	97.0	3.1
90°-120°	1005.1	32.1
90°-150°	2416.1	77.2
90°-180°	3032.0	96.9
0°-180°	3128.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	2
75°	72	9	0	0	0	84
85°	296	146	0	0	0	215
90°	473	261	0	0	0	261
95°	684	406	19	2	2	600
105°	1041	692	110	5	6	1089
115°	1212	895	233	50	19	1198
125°	1278	990	366	135	85	1143
135°	1259	1042	489	241	181	976
145°	1223	1063	588	346	294	769
155°	1159	1031	664	437	396	536
165°	1025	937	712	536	490	293
175°	836	807	733	665	638	83
180°	736	736	736	736	736	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	15.7	17.3	12.6	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	39.3	39.3	33.0	22.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0
75°	72.3	72.3	64.5	50.3	29.9	9.4	0.0	0.0	0.0	0.0	0.0
77.5°	113.2	111.6	102.2	84.9	59.7	31.4	4.7	0.0	0.0	0.0	0.0
80°	163.5	161.9	150.9	128.9	99.1	61.3	23.6	0.0	0.0	0.0	0.0
82.5°	223.3	221.7	207.5	182.4	146.2	100.6	50.3	11.0	0.0	0.0	0.0
85°	295.6	294.0	276.7	246.8	204.4	146.2	83.3	33.0	3.1	0.0	0.0
87.5°	378.9	372.6	356.9	320.7	265.7	199.7	124.2	59.7	14.2	0.0	0.0
90°	473.2	467.0	448.1	405.6	339.6	261.0	172.9	92.8	33.0	3.1	0.0
92.5°	577.0	575.4	547.1	496.8	419.8	328.6	229.5	132.1	58.2	15.7	6.3
95°	683.9	682.4	650.9	592.7	506.3	405.6	287.7	176.1	89.6	34.6	18.9
97.5°	789.3	787.7	748.4	688.6	592.7	481.1	350.6	224.8	124.2	58.2	37.7
100°	885.2	882.0	841.1	778.3	677.6	553.4	413.5	273.6	160.4	83.3	58.2
102.5°	970.1	963.8	924.5	858.4	756.2	625.8	474.8	323.9	201.2	113.2	83.3
105°	1040.8	1033.0	996.8	929.2	823.9	691.8	536.1	375.8	242.1	144.6	110.1
107.5°	1097.4	1091.1	1053.4	988.9	885.2	750.0	594.3	426.1	284.6	177.7	136.8
110°	1143.0	1138.3	1103.7	1039.3	937.1	806.6	647.8	476.4	328.6	213.8	168.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	1179.2	1176.0	1143.0	1078.6	982.7	853.7	694.9	523.6	371.0	250.0	199.7
115°	1212.2	1209.1	1177.6	1116.3	1020.4	894.6	739.0	569.2	415.1	286.1	232.7
117.5°	1237.4	1234.2	1202.8	1143.0	1050.3	926.0	775.1	611.6	460.7	323.9	267.3
120°	1257.8	1253.1	1224.8	1166.6	1075.4	952.8	806.6	652.5	503.1	361.6	300.3
122.5°	1273.5	1268.8	1242.1	1182.3	1094.3	974.8	836.4	691.8	544.0	397.8	334.9
125°	1278.2	1275.1	1249.9	1190.2	1103.7	990.5	863.2	726.4	580.2	433.9	366.3
127.5°	1279.8	1276.7	1251.5	1193.3	1111.6	1006.2	886.7	757.8	614.7	467.0	397.8
130°	1273.5	1273.5	1248.4	1193.3	1116.3	1020.4	908.8	787.7	644.6	498.4	429.2
132.5°	1267.2	1265.7	1243.6	1191.8	1121.0	1033.0	929.2	812.8	672.9	528.3	459.1
135°	1259.4	1259.4	1238.9	1191.8	1125.7	1042.4	946.5	834.9	696.5	555.0	489.0
137.5°	1253.1	1253.1	1234.2	1190.2	1128.9	1051.8	962.2	852.2	720.1	581.7	515.7
140°	1245.2	1245.2	1226.3	1187.0	1130.4	1058.1	971.6	866.3	735.8	605.3	540.9
142.5°	1237.4	1237.4	1218.5	1182.3	1130.4	1061.3	981.1	877.3	753.1	627.3	566.0
145°	1223.2	1224.8	1209.1	1174.5	1125.7	1062.8	984.2	883.6	765.7	647.8	588.0
147.5°	1212.2	1212.2	1198.0	1165.0	1119.4	1061.3	984.2	886.7	776.7	665.1	610.0
150°	1196.5	1196.5	1182.3	1155.6	1113.1	1055.0	982.7	888.3	784.5	680.8	628.9
152.5°	1177.6	1179.2	1165.0	1139.9	1099.0	1044.0	973.2	885.2	789.3	694.9	647.8
155°	1158.7	1160.3	1147.7	1122.6	1083.3	1031.4	963.8	882.0	794.0	707.5	663.5
157.5°	1135.2	1136.7	1124.2	1099.0	1062.8	1014.1	948.1	875.7	797.1	716.9	679.2
160°	1105.3	1106.9	1092.7	1070.7	1036.1	990.5	932.3	866.3	795.6	726.4	691.8
162.5°	1069.1	1069.1	1058.1	1037.7	1004.7	965.4	913.5	855.3	794.0	732.7	702.8
165°	1025.1	1028.2	1018.8	999.9	971.6	937.1	891.5	841.1	789.3	737.4	712.2
167.5°	985.8	984.2	976.4	962.2	937.1	908.8	869.4	827.0	784.5	742.1	720.1
170°	938.6	937.1	930.8	918.2	899.3	875.7	844.3	811.3	778.3	742.1	724.8
172.5°	889.9	886.7	882.0	874.2	860.0	842.7	819.1	794.0	768.8	742.1	729.5
175°	836.4	836.4	833.3	827.0	817.6	806.6	790.8	773.5	757.8	740.5	732.7
177.5°	786.1	786.1	784.5	781.4	776.7	772.0	764.1	756.2	748.4	739.0	735.8
180°	735.8	735.8	735.8	735.8	735.8	735.8	735.8	735.8	735.8	735.8	735.8



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**CANDELA DISTRIBUTION (continued):**

	112.5°	135°	157.5°	180°
0°	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	1.6	1.6
95°	0.0	1.6	1.6	1.6
97.5°	1.6	1.6	3.1	3.1
100°	4.7	3.1	3.1	3.1
102.5°	15.7	4.7	4.7	4.7
105°	28.3	4.7	6.3	6.3
107.5°	45.6	9.4	6.3	6.3
110°	64.5	18.9	7.9	7.9



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CATALOG NUMBER: A03-SI-A-1-LED-40K-D-120-S

**CANDELA DISTRIBUTION (continued):**

	112.5°	135°	157.5°	180°
112.5°	84.9	33.0	14.2	11.0
115°	106.9	50.3	25.2	18.9
117.5°	130.5	67.6	40.9	31.4
120°	155.7	88.0	56.6	47.2
122.5°	182.4	111.6	77.0	64.5
125°	207.5	135.2	97.5	84.9
127.5°	234.3	160.4	119.5	106.9
130°	261.0	187.1	143.1	128.9
132.5°	287.7	213.8	169.8	154.1
135°	314.4	240.6	196.5	180.8
137.5°	339.6	268.9	224.8	209.1
140°	364.8	294.0	253.1	237.4
142.5°	391.5	320.7	281.4	265.7
145°	415.1	345.9	308.2	294.0
147.5°	440.2	369.5	336.5	322.3
150°	463.8	391.5	361.6	349.0
152.5°	487.4	413.5	383.6	372.6
155°	512.6	437.1	405.6	396.2
157.5°	536.1	459.1	427.6	418.2
160°	559.7	482.7	451.2	440.2
162.5°	583.3	509.4	474.8	463.8
165°	608.5	536.1	501.5	490.5
167.5°	630.5	566.0	531.4	520.4
170°	652.5	597.5	566.0	555.0
172.5°	672.9	630.5	605.3	594.3
175°	693.4	665.1	646.2	638.3
177.5°	715.4	701.2	688.6	685.5
180°	735.8	735.8	735.8	735.8

(END OF REPORT)