

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: P189138

Luminaire Tested: A04-SI-A-1-LED-30K-D-120-S

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2019
Report Number: P189138
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: A04-SI-A-1-LED-30K-D-120-S
Description: ARROWLINEAR LED LUMINAIRE, EXTRA SMALL HOUSING
4-FOOT LONG EXTRUDED HOUSING WITH WHITE REFLECTOR AND FROSTED LENS
Light Source: (119) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

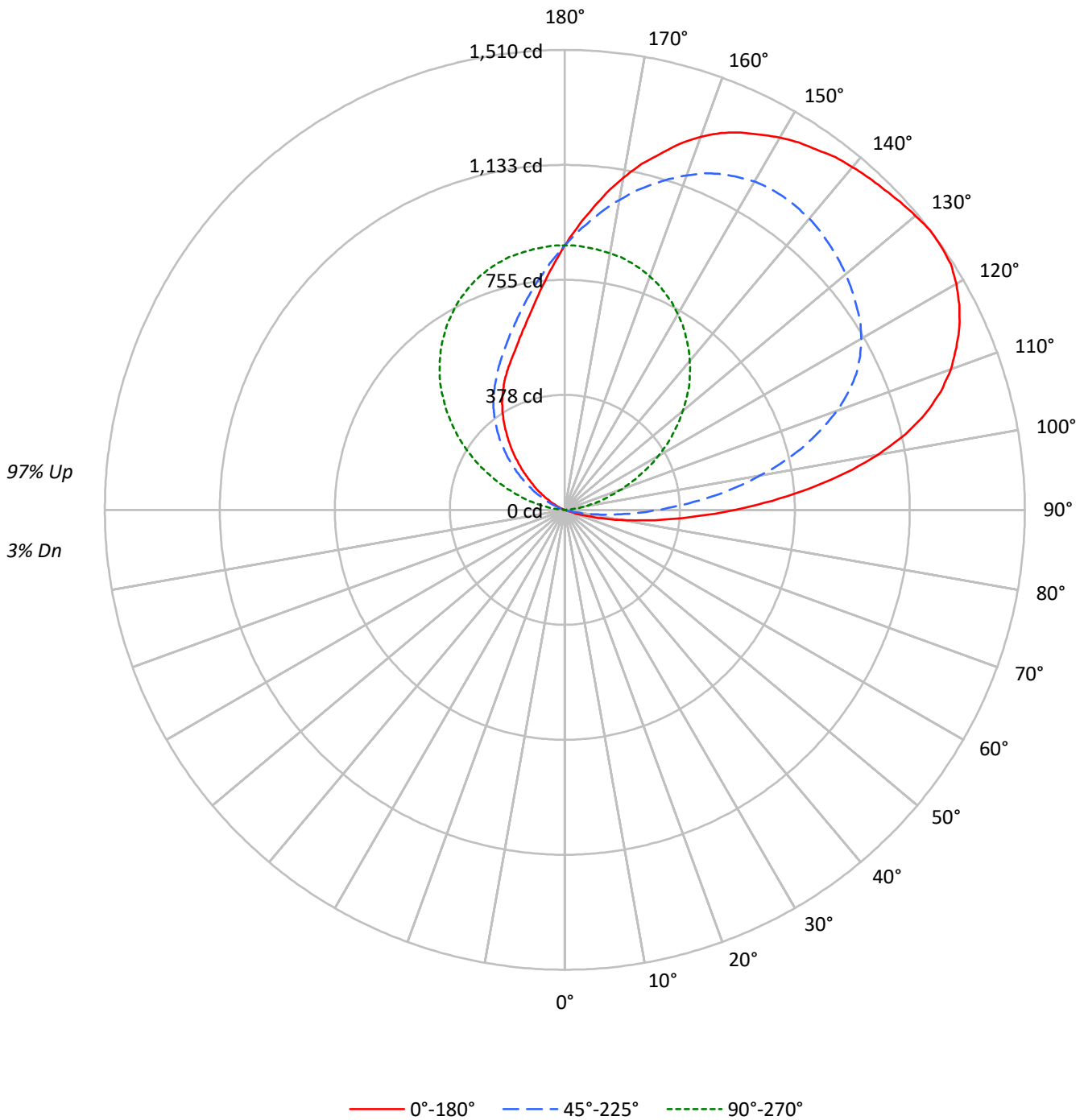
Lumens per Lamp: N/A
Luminaire Lumens: 3690.5 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular w/ Sides (W: 4.15' x L: 0.29' x H: 0.11')
CIE Type: Indirect

Input Watts (W): 40.5
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



TEST NUMBER: P189138
CATALOG NUMBER: A04-SI-A-1-LED-30K-D-120-S

Luminous Intensity Polar Plot





TEST NUMBER: P189138

CATALOG NUMBER: A04-SI-A-1-LED-30K-D-120-S

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°	239	0	0	0	0
75°	1230	187	0	0	0
80°	3176	1429	0	0	0
85°	6750	4166	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 13230 cd/sqm



TEST NUMBER: P189138

CATALOG NUMBER: A04-SI-A-1-LED-30K-D-120-S

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°	0.3	0.0
70°-80°	18.4	0.5
80°-90°	95.7	2.6
90°-100°	247.6	6.7
100°-110°	412.6	11.2
110°-120°	525.4	14.2
120°-130°	579.9	15.7
130°-140°	573.0	15.5
140°-150°	511.5	13.9
150°-160°	396.8	10.8
160°-170°	246.3	6.7
170°-180°	82.9	2.2
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	114.4	3.1
90°-120°	1185.6	32.1
90°-150°	2850.0	77.2
90°-180°	3576.0	96.9
0°-180°	3690.5	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°	85	11	0	0	0	99
85°	349	172	0	0	0	254
90°	558	308	0	0	0	308
95°	807	478	22	2	2	708
105°	1228	816	130	6	7	1285
115°	1430	1055	274	59	22	1413
125°	1508	1168	432	160	100	1348
135°	1486	1230	577	284	213	1151
145°	1443	1254	694	408	347	907
155°	1367	1217	783	516	467	632
165°	1209	1105	840	632	579	346
175°	987	951	864	784	753	98
180°	868	868	868	868	868	



TEST NUMBER: P189138

CATALOG NUMBER: A04-SI-A-1-LED-30K-D-120-S

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°	18.5	20.4	14.8	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	46.4	46.4	38.9	26.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	85.3	85.3	76.0	59.3	35.2	11.1	0.0	0.0	0.0	0.0	0.0
77.5°	133.5	131.7	120.6	100.1	70.5	37.1	5.6	0.0	0.0	0.0	0.0
80°	192.9	191.0	178.0	152.1	116.8	72.3	27.8	0.0	0.0	0.0	0.0
82.5°	263.4	261.5	244.8	215.1	172.5	118.7	59.3	13.0	0.0	0.0	0.0
85°	348.7	346.8	326.4	291.2	241.1	172.5	98.3	38.9	3.7	0.0	0.0
87.5°	447.0	439.5	421.0	378.3	313.4	235.5	146.5	70.5	16.7	0.0	0.0
90°	558.2	550.8	528.6	478.5	400.6	307.9	204.0	109.4	38.9	3.7	0.0
92.5°	680.6	678.8	645.4	586.1	495.2	387.6	270.8	155.8	68.6	18.5	7.4
95°	806.8	804.9	767.8	699.2	597.2	478.5	339.4	207.7	105.7	40.8	22.3
97.5°	931.0	929.2	882.8	812.3	699.2	567.5	413.6	265.2	146.5	68.6	44.5
100°	1044.2	1040.4	992.2	918.0	799.3	652.8	487.8	322.7	189.2	98.3	68.6
102.5°	1144.3	1136.9	1090.5	1012.6	892.1	738.1	560.1	382.1	237.4	133.5	98.3
105°	1227.8	1218.5	1175.8	1096.1	971.8	816.0	632.4	443.3	285.6	170.6	129.8
107.5°	1294.5	1287.1	1242.6	1166.6	1044.2	884.7	701.0	502.6	335.7	209.6	161.4
110°	1348.3	1342.7	1301.9	1225.9	1105.4	951.4	764.1	562.0	387.6	252.2	198.4



TEST NUMBER: P189138

CATALOG NUMBER: A04-SI-A-1-LED-30K-D-120-S

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	1391.0	1387.3	1348.3	1272.3	1159.1	1007.1	819.7	617.6	437.7	294.9	235.5
115°	1429.9	1426.2	1389.1	1316.8	1203.7	1055.3	871.7	671.4	489.6	337.5	274.5
117.5°	1459.6	1455.9	1418.8	1348.3	1238.9	1092.4	914.3	721.4	543.4	382.1	315.3
120°	1483.7	1478.1	1444.8	1376.1	1268.6	1123.9	951.4	769.7	593.5	426.6	354.2
122.5°	1502.2	1496.7	1465.2	1394.7	1290.8	1149.9	986.7	816.0	641.7	469.2	395.0
125°	1507.8	1504.1	1474.4	1404.0	1301.9	1168.4	1018.2	856.8	684.4	511.9	432.1
127.5°	1509.7	1506.0	1476.3	1407.7	1311.2	1187.0	1046.0	893.9	725.2	550.8	469.2
130°	1502.2	1502.2	1472.6	1407.7	1316.8	1203.7	1072.0	929.2	760.4	587.9	506.3
132.5°	1494.8	1493.0	1467.0	1405.8	1322.3	1218.5	1096.1	958.8	793.8	623.2	541.6
135°	1485.6	1485.6	1461.4	1405.8	1327.9	1229.6	1116.5	984.8	821.6	654.7	576.8
137.5°	1478.1	1478.1	1455.9	1404.0	1331.6	1240.7	1135.0	1005.2	849.4	686.2	608.3
140°	1468.9	1468.9	1446.6	1400.2	1333.5	1248.2	1146.2	1021.9	868.0	714.0	638.0
142.5°	1459.6	1459.6	1437.3	1394.7	1333.5	1251.9	1157.3	1034.9	888.4	740.0	667.7
145°	1442.9	1444.8	1426.2	1385.4	1327.9	1253.7	1161.0	1042.3	903.2	764.1	693.6
147.5°	1429.9	1429.9	1413.2	1374.3	1320.5	1251.9	1161.0	1046.0	916.2	784.5	719.6
150°	1411.4	1411.4	1394.7	1363.2	1313.1	1244.5	1159.1	1047.9	925.5	803.1	741.9
152.5°	1389.1	1391.0	1374.3	1344.6	1296.4	1231.5	1148.0	1044.2	931.0	819.7	764.1
155°	1366.9	1368.7	1353.9	1324.2	1277.8	1216.6	1136.9	1040.4	936.6	834.6	782.7
157.5°	1339.0	1340.9	1326.1	1296.4	1253.7	1196.2	1118.3	1033.0	940.3	845.7	801.2
160°	1303.8	1305.7	1289.0	1263.0	1222.2	1168.4	1099.8	1021.9	938.4	856.8	816.0
162.5°	1261.1	1261.1	1248.2	1224.1	1185.1	1138.7	1077.5	1008.9	936.6	864.3	829.0
165°	1209.2	1212.9	1201.8	1179.5	1146.2	1105.4	1051.6	992.2	931.0	869.8	840.1
167.5°	1162.9	1161.0	1151.7	1135.0	1105.4	1072.0	1025.6	975.5	925.5	875.4	849.4
170°	1107.2	1105.4	1097.9	1083.1	1060.8	1033.0	995.9	957.0	918.0	875.4	855.0
172.5°	1049.7	1046.0	1040.4	1031.2	1014.5	994.1	966.3	936.6	906.9	875.4	860.5
175°	986.7	986.7	983.0	975.5	964.4	951.4	932.9	912.5	893.9	873.5	864.3
177.5°	927.3	927.3	925.5	921.7	916.2	910.6	901.3	892.1	882.8	871.7	868.0
180°	868.0	868.0	868.0	868.0	868.0	868.0	868.0	868.0	868.0	868.0	868.0



TEST NUMBER: P189138

CATALOG NUMBER: A04-SI-A-1-LED-30K-D-120-S

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	1.9	1.9
95°	0.0	1.9	1.9	1.9
97.5°	1.9	1.9	3.7	3.7
100°	5.6	3.7	3.7	3.7
102.5°	18.5	5.6	5.6	5.6
105°	33.4	5.6	7.4	7.4
107.5°	53.8	11.1	7.4	7.4
110°	76.0	22.3	9.3	9.3



TEST NUMBER: P189138

CATALOG NUMBER: A04-SI-A-1-LED-30K-D-120-S

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
112.5°	100.1	38.9	16.7	13.0
115°	126.1	59.3	29.7	22.3
117.5°	153.9	79.7	48.2	37.1
120°	183.6	103.9	66.8	55.6
122.5°	215.1	131.7	90.9	76.0
125°	244.8	159.5	115.0	100.1
127.5°	276.3	189.2	141.0	126.1
130°	307.9	220.7	168.8	152.1
132.5°	339.4	252.2	200.3	181.8
135°	370.9	283.8	231.8	213.3
137.5°	400.6	317.1	265.2	246.7
140°	430.3	346.8	298.6	280.0
142.5°	461.8	378.3	332.0	313.4
145°	489.6	408.0	363.5	346.8
147.5°	519.3	435.8	396.9	380.2
150°	547.1	461.8	426.6	411.7
152.5°	574.9	487.8	452.5	439.5
155°	604.6	515.6	478.5	467.4
157.5°	632.4	541.6	504.5	493.3
160°	660.2	569.4	532.3	519.3
162.5°	688.1	600.9	560.1	547.1
165°	717.7	632.4	591.6	578.6
167.5°	743.7	667.7	626.9	613.9
170°	769.7	704.8	667.7	654.7
172.5°	793.8	743.7	714.0	701.0
175°	817.9	784.5	762.3	753.0
177.5°	843.9	827.2	812.3	808.6
180°	868.0	868.0	868.0	868.0

(END OF REPORT)