

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: P189139

Luminaire Tested: A04-SI-A-1-LED-35K-D-120-S

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2019
Report Number: P189139
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-35K-D-120-S
Description: ARROWLINEAR LED LUMINAIRE, EXTRA SMALL HOUSING
4-FOOT LONG EXTRUDED HOUSING WITH WHITE REFLECTOR AND FROSTED LENS
Light Source: (119) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

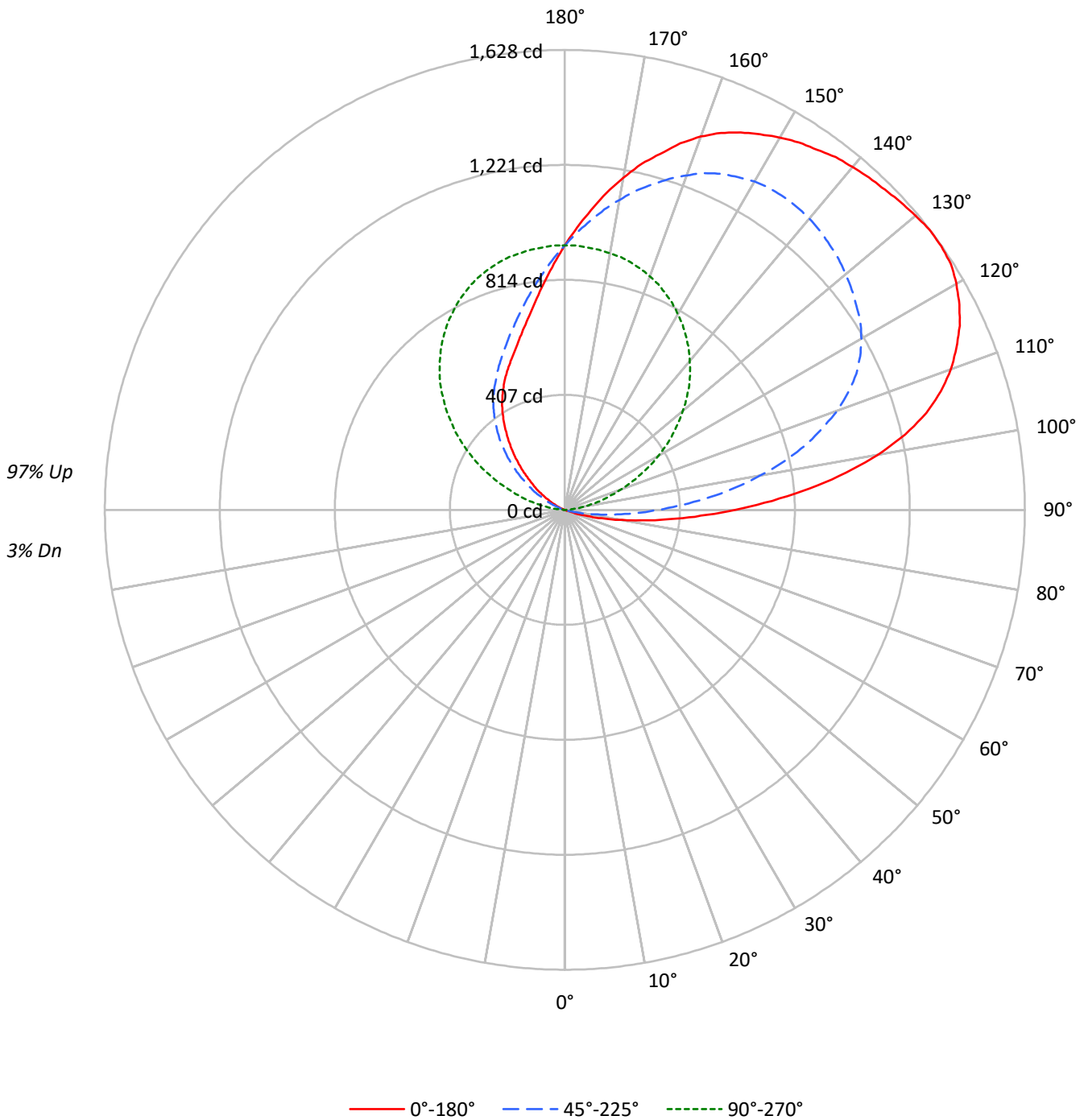
Lumens per Lamp: N/A
Luminaire Lumens: 3980.0 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular w/ Sides (W: 4.15' x L: 0.29' x H: 0.11')
CIE Type: Indirect

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



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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°	258	0	0	0	0
75°	1327	202	0	0	0
80°	3424	1542	0	0	0
85°	7278	4492	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 14268 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°	0.3	0.0
70°-80°	19.9	0.5
80°-90°	103.2	2.6
90°-100°	267.1	6.7
100°-110°	444.9	11.2
110°-120°	566.6	14.2
120°-130°	625.4	15.7
130°-140°	618.0	15.5
140°-150°	551.6	13.9
150°-160°	427.9	10.8
160°-170°	265.7	6.7
170°-180°	89.4	2.2
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	123.4	3.1
90°-120°	1278.6	32.1
90°-150°	3073.6	77.2
90°-180°	3857.0	96.9
0°-180°	3980.0	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	3
75°	92	12	0	0	0	107
85°	376	186	0	0	0	274
90°	602	332	0	0	0	332
95°	870	516	24	2	2	763
105°	1324	880	140	6	8	1386
115°	1542	1138	296	64	24	1524
125°	1626	1260	466	172	108	1454
135°	1602	1326	622	306	230	1242
145°	1556	1352	748	440	374	978
155°	1474	1312	844	556	504	682
165°	1304	1192	906	682	624	373
175°	1064	1026	932	846	812	106
180°	936	936	936	936	936	



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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°	20.0	22.0	16.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	50.0	50.0	42.0	28.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	92.0	92.0	82.0	64.0	38.0	12.0	0.0	0.0	0.0	0.0	0.0
77.5°	144.0	142.0	130.0	108.0	76.0	40.0	6.0	0.0	0.0	0.0	0.0
80°	208.0	206.0	192.0	164.0	126.0	78.0	30.0	0.0	0.0	0.0	0.0
82.5°	284.0	282.0	264.0	232.0	186.0	128.0	64.0	14.0	0.0	0.0	0.0
85°	376.0	374.0	352.0	314.0	260.0	186.0	106.0	42.0	4.0	0.0	0.0
87.5°	482.0	474.0	454.0	408.0	338.0	254.0	158.0	76.0	18.0	0.0	0.0
90°	602.0	594.0	570.0	516.0	432.0	332.0	220.0	118.0	42.0	4.0	0.0
92.5°	734.0	732.0	696.0	632.0	534.0	418.0	292.0	168.0	74.0	20.0	8.0
95°	870.1	868.1	828.1	754.1	644.0	516.0	366.0	224.0	114.0	44.0	24.0
97.5°	1004.1	1002.1	952.1	876.1	754.1	612.0	446.0	286.0	158.0	74.0	48.0
100°	1126.1	1122.1	1070.1	990.1	862.1	704.0	526.0	348.0	204.0	106.0	74.0
102.5°	1234.1	1226.1	1176.1	1092.1	962.1	796.1	604.0	412.0	256.0	144.0	106.0
105°	1324.1	1314.1	1268.1	1182.1	1048.1	880.1	682.0	478.0	308.0	184.0	140.0
107.5°	1396.1	1388.1	1340.1	1258.1	1126.1	954.1	756.1	542.0	362.0	226.0	174.0
110°	1454.1	1448.1	1404.1	1322.1	1192.1	1026.1	824.1	606.0	418.0	272.0	214.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	1500.1	1496.1	1454.1	1372.1	1250.1	1086.1	884.1	666.0	472.0	318.0	254.0
115°	1542.1	1538.1	1498.1	1420.1	1298.1	1138.1	940.1	724.0	528.0	364.0	296.0
117.5°	1574.1	1570.1	1530.1	1454.1	1336.1	1178.1	986.1	778.1	586.0	412.0	340.0
120°	1600.1	1594.1	1558.1	1484.1	1368.1	1212.1	1026.1	830.1	640.0	460.0	382.0
122.5°	1620.1	1614.1	1580.1	1504.1	1392.1	1240.1	1064.1	880.1	692.0	506.0	426.0
125°	1626.1	1622.1	1590.1	1514.1	1404.1	1260.1	1098.1	924.1	738.1	552.0	466.0
127.5°	1628.1	1624.1	1592.1	1518.1	1414.1	1280.1	1128.1	964.1	782.1	594.0	506.0
130°	1620.1	1620.1	1588.1	1518.1	1420.1	1298.1	1156.1	1002.1	820.1	634.0	546.0
132.5°	1612.1	1610.1	1582.1	1516.1	1426.1	1314.1	1182.1	1034.1	856.1	672.0	584.0
135°	1602.1	1602.1	1576.1	1516.1	1432.1	1326.1	1204.1	1062.1	886.1	706.0	622.0
137.5°	1594.1	1594.1	1570.1	1514.1	1436.1	1338.1	1224.1	1084.1	916.1	740.1	656.0
140°	1584.1	1584.1	1560.1	1510.1	1438.1	1346.1	1236.1	1102.1	936.1	770.1	688.0
142.5°	1574.1	1574.1	1550.1	1504.1	1438.1	1350.1	1248.1	1116.1	958.1	798.1	720.0
145°	1556.1	1558.1	1538.1	1494.1	1432.1	1352.1	1252.1	1124.1	974.1	824.1	748.1
147.5°	1542.1	1542.1	1524.1	1482.1	1424.1	1350.1	1252.1	1128.1	988.1	846.1	776.1
150°	1522.1	1522.1	1504.1	1470.1	1416.1	1342.1	1250.1	1130.1	998.1	866.1	800.1
152.5°	1498.1	1500.1	1482.1	1450.1	1398.1	1328.1	1238.1	1126.1	1004.1	884.1	824.1
155°	1474.1	1476.1	1460.1	1428.1	1378.1	1312.1	1226.1	1122.1	1010.1	900.1	844.1
157.5°	1444.1	1446.1	1430.1	1398.1	1352.1	1290.1	1206.1	1114.1	1014.1	912.1	864.1
160°	1406.1	1408.1	1390.1	1362.1	1318.1	1260.1	1186.1	1102.1	1012.1	924.1	880.1
162.5°	1360.1	1360.1	1346.1	1320.1	1278.1	1228.1	1162.1	1088.1	1010.1	932.1	894.1
165°	1304.1	1308.1	1296.1	1272.1	1236.1	1192.1	1134.1	1070.1	1004.1	938.1	906.1
167.5°	1254.1	1252.1	1242.1	1224.1	1192.1	1156.1	1106.1	1052.1	998.1	944.1	916.1
170°	1194.1	1192.1	1184.1	1168.1	1144.1	1114.1	1074.1	1032.1	990.1	944.1	922.1
172.5°	1132.1	1128.1	1122.1	1112.1	1094.1	1072.1	1042.1	1010.1	978.1	944.1	928.1
175°	1064.1	1064.1	1060.1	1052.1	1040.1	1026.1	1006.1	984.1	964.1	942.1	932.1
177.5°	1000.1	1000.1	998.1	994.1	988.1	982.1	972.1	962.1	952.1	940.1	936.1
180°	936.1	936.1	936.1	936.1	936.1	936.1	936.1	936.1	936.1	936.1	936.1



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CATALOG NUMBER: A04-SI-A-1-LED-35K-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	2.0	2.0
95°	0.0	2.0	2.0	2.0
97.5°	2.0	2.0	4.0	4.0
100°	6.0	4.0	4.0	4.0
102.5°	20.0	6.0	6.0	6.0
105°	36.0	6.0	8.0	8.0
107.5°	58.0	12.0	8.0	8.0
110°	82.0	24.0	10.0	10.0



TEST NUMBER: P189139

CATALOG NUMBER: A04-SI-A-1-LED-35K-D-120-S

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
112.5°	108.0	42.0	18.0	14.0
115°	136.0	64.0	32.0	24.0
117.5°	166.0	86.0	52.0	40.0
120°	198.0	112.0	72.0	60.0
122.5°	232.0	142.0	98.0	82.0
125°	264.0	172.0	124.0	108.0
127.5°	298.0	204.0	152.0	136.0
130°	332.0	238.0	182.0	164.0
132.5°	366.0	272.0	216.0	196.0
135°	400.0	306.0	250.0	230.0
137.5°	432.0	342.0	286.0	266.0
140°	464.0	374.0	322.0	302.0
142.5°	498.0	408.0	358.0	338.0
145°	528.0	440.0	392.0	374.0
147.5°	560.0	470.0	428.0	410.0
150°	590.0	498.0	460.0	444.0
152.5°	620.0	526.0	488.0	474.0
155°	652.0	556.0	516.0	504.0
157.5°	682.0	584.0	544.0	532.0
160°	712.0	614.0	574.0	560.0
162.5°	742.1	648.0	604.0	590.0
165°	774.1	682.0	638.0	624.0
167.5°	802.1	720.0	676.0	662.0
170°	830.1	760.1	720.0	706.0
172.5°	856.1	802.1	770.1	756.1
175°	882.1	846.1	822.1	812.1
177.5°	910.1	892.1	876.1	872.1
180°	936.1	936.1	936.1	936.1

(END OF REPORT)