

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: P189147

Luminaire Tested: A12-SI-A-1-LED-30K-D-120-S

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2019
Report Number: P189147
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: A12-SI-A-1-LED-30K-D-120-S
Description: ARROWLINEAR LED LUMINAIRE, EXTRA SMALL HOUSING
12-FOOT LONG EXTRUDED HOUSING WITH WHITE REFLECTOR AND FROSTED LENS
Light Source: (364) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

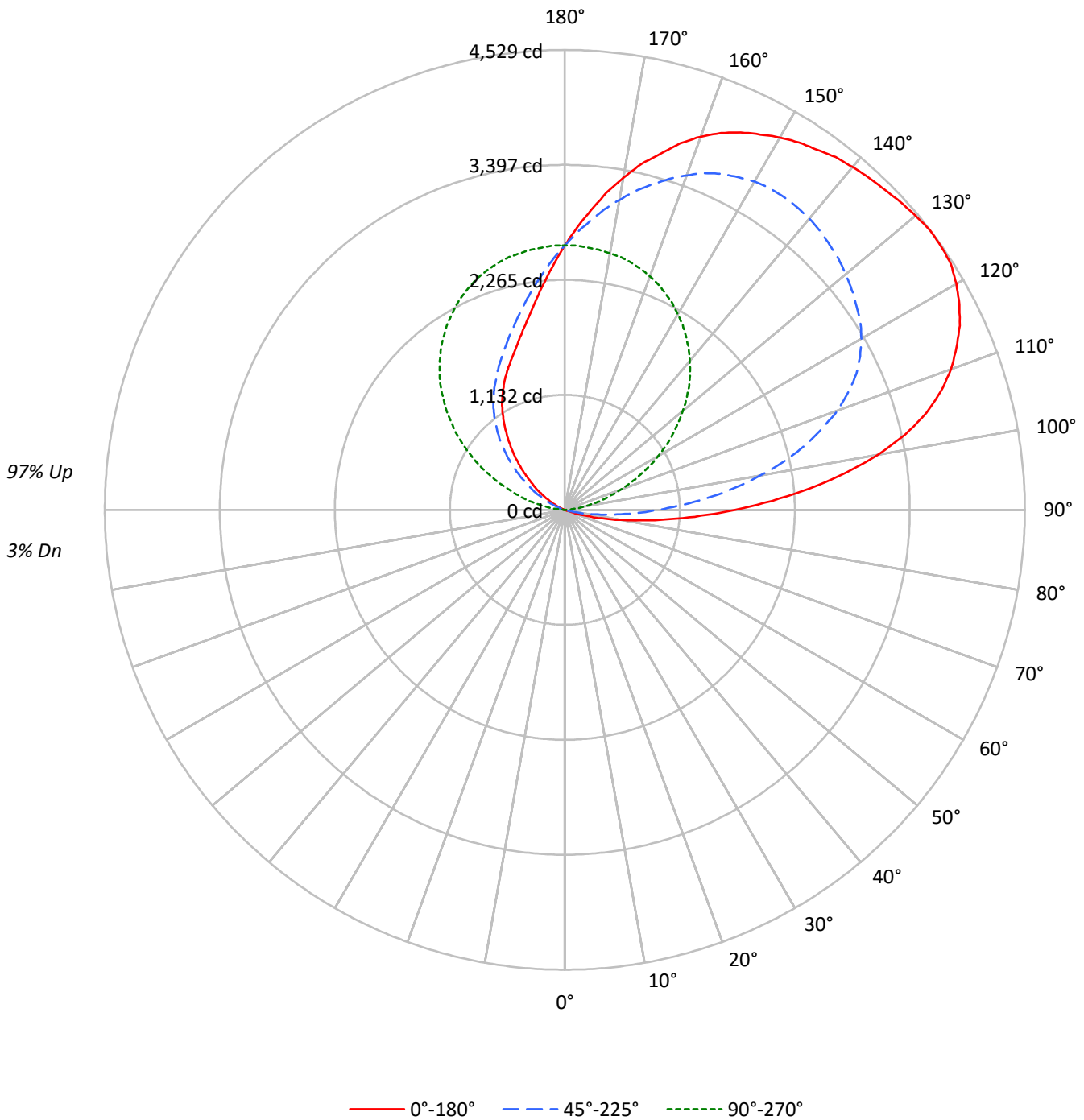
Lumens per Lamp: N/A
Luminaire Lumens: 11071.4 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular w/ Sides (W: 12.5' x L: 0.29' x H: 0.11')
CIE Type: Indirect

Input Watts (W): 121.1
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°	238	0	0	0	0
75°	1225	191	0	0	0
80°	3164	1464	0	0	0
85°	6724	4292	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 13183 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°	0.9	0.0
70°-80°	55.2	0.5
80°-90°	287.2	2.6
90°-100°	742.9	6.7
100°-110°	1237.7	11.2
110°-120°	1576.2	14.2
120°-130°	1739.6	15.7
130°-140°	1719.0	15.5
140°-150°	1534.5	13.9
150°-160°	1190.4	10.8
160°-170°	739.0	6.7
170°-180°	248.6	2.2
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	343.3	3.1
90°-120°	3556.8	32.1
90°-150°	8550.0	77.2
90°-180°	10728.0	96.9
0°-180°	11071.4	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	7
75°	256	33	0	0	0	296
85°	1046	517	0	0	0	762
90°	1675	924	0	0	0	923
95°	2420	1436	67	6	6	2123
105°	3683	2448	390	17	22	3855
115°	4290	3166	824	178	67	4238
125°	4523	3505	1296	478	300	4045
135°	4457	3689	1730	851	640	3454
145°	4329	3761	2081	1224	1040	2722
155°	4101	3650	2348	1547	1402	1897
165°	3628	3316	2520	1897	1736	1037
175°	2960	2854	2593	2354	2259	294
180°	2604	2604	2604	2604	2604	



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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°	55.6	61.2	44.5	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	139.1	139.1	116.8	77.9	27.8	0.0	0.0	0.0	0.0	0.0	0.0
75°	255.9	255.9	228.1	178.0	105.7	33.4	0.0	0.0	0.0	0.0	0.0
77.5°	400.6	395.0	361.7	300.4	211.4	111.3	16.7	0.0	0.0	0.0	0.0
80°	578.6	573.1	534.1	456.2	350.5	217.0	83.5	0.0	0.0	0.0	0.0
82.5°	790.1	784.5	734.4	645.4	517.4	356.1	178.0	38.9	0.0	0.0	0.0
85°	1046.0	1040.4	979.2	873.5	723.3	517.4	294.9	116.8	11.1	0.0	0.0
87.5°	1340.9	1318.6	1263.0	1135.0	940.3	706.6	439.5	211.4	50.1	0.0	0.0
90°	1674.7	1652.5	1585.7	1435.5	1201.8	923.6	612.0	328.3	116.8	11.1	0.0
92.5°	2041.9	2036.4	1936.2	1758.2	1485.6	1162.9	812.3	467.4	205.9	55.6	22.3
95°	2420.3	2414.7	2303.4	2097.6	1791.6	1435.5	1018.2	623.2	317.1	122.4	66.8
97.5°	2793.1	2787.5	2648.4	2437.0	2097.6	1702.5	1240.7	795.6	439.5	205.9	133.5
100°	3132.5	3121.3	2976.7	2754.1	2398.0	1958.5	1463.3	968.1	567.5	294.9	205.9
102.5°	3432.9	3410.7	3271.6	3037.9	2676.2	2214.4	1680.3	1146.2	712.2	400.6	294.9
105°	3683.3	3655.5	3527.5	3288.3	2915.5	2448.1	1897.3	1329.8	856.8	511.9	389.5
107.5°	3883.6	3861.3	3727.8	3499.7	3132.5	2654.0	2103.1	1507.8	1007.1	628.7	484.1
110°	4044.9	4028.2	3905.8	3677.7	3316.1	2854.3	2292.3	1685.9	1162.9	756.7	595.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	4172.9	4161.8	4044.9	3816.8	3477.4	3021.2	2459.2	1852.8	1313.1	884.7	706.6
115°	4289.8	4278.6	4167.3	3950.4	3611.0	3165.8	2615.0	2014.1	1468.9	1012.6	823.5
117.5°	4378.8	4367.6	4256.4	4044.9	3716.7	3277.1	2743.0	2164.3	1630.2	1146.2	945.9
120°	4451.1	4434.4	4334.3	4128.4	3805.7	3371.7	2854.3	2309.0	1780.4	1279.7	1062.7
122.5°	4506.7	4490.1	4395.5	4184.0	3872.5	3449.6	2960.0	2448.1	1925.1	1407.7	1185.1
125°	4523.4	4512.3	4423.3	4211.9	3905.8	3505.2	3054.6	2570.5	2053.1	1535.6	1296.4
127.5°	4529.0	4517.9	4428.8	4223.0	3933.7	3560.9	3138.0	2681.8	2175.5	1652.5	1407.7
130°	4506.7	4506.7	4417.7	4223.0	3950.4	3611.0	3215.9	2787.5	2281.2	1763.7	1518.9
132.5°	4484.5	4478.9	4401.0	4217.4	3967.0	3655.5	3288.3	2876.5	2381.3	1869.5	1624.7
135°	4456.7	4456.7	4384.3	4217.4	3983.7	3688.9	3349.5	2954.4	2464.8	1964.0	1730.4
137.5°	4434.4	4434.4	4367.6	4211.9	3994.9	3722.2	3405.1	3015.6	2548.3	2058.6	1825.0
140°	4406.6	4406.6	4339.8	4200.7	4000.4	3744.5	3438.5	3065.7	2603.9	2142.1	1914.0
142.5°	4378.8	4378.8	4312.0	4184.0	4000.4	3755.6	3471.9	3104.6	2665.1	2220.0	2003.0
145°	4328.7	4334.3	4278.6	4156.2	3983.7	3761.2	3483.0	3126.9	2709.6	2292.3	2080.9
147.5°	4289.8	4289.8	4239.7	4122.8	3961.5	3755.6	3483.0	3138.0	2748.6	2353.5	2158.8
150°	4234.1	4234.1	4184.0	4089.5	3939.2	3733.4	3477.4	3143.6	2776.4	2409.2	2225.6
152.5°	4167.3	4172.9	4122.8	4033.8	3889.2	3694.4	3444.0	3132.5	2793.1	2459.2	2292.3
155°	4100.6	4106.1	4061.6	3972.6	3833.5	3649.9	3410.7	3121.3	2809.8	2503.7	2348.0
157.5°	4017.1	4022.7	3978.2	3889.2	3761.2	3588.7	3355.0	3099.1	2820.9	2537.1	2403.6
160°	3911.4	3917.0	3866.9	3789.0	3666.6	3505.2	3299.4	3065.7	2815.3	2570.5	2448.1
162.5°	3783.4	3783.4	3744.5	3672.2	3555.3	3416.2	3232.6	3026.8	2809.8	2592.8	2487.1
165°	3627.6	3638.8	3605.4	3538.6	3438.5	3316.1	3154.7	2976.7	2793.1	2609.5	2520.4
167.5°	3488.6	3483.0	3455.2	3405.1	3316.1	3215.9	3076.8	2926.6	2776.4	2626.2	2548.3
170°	3321.6	3316.1	3293.8	3249.3	3182.5	3099.1	2987.8	2871.0	2754.1	2626.2	2564.9
172.5°	3149.2	3138.0	3121.3	3093.5	3043.4	2982.2	2898.8	2809.8	2720.7	2626.2	2581.6
175°	2960.0	2960.0	2948.9	2926.6	2893.2	2854.3	2798.6	2737.4	2681.8	2620.6	2592.8
177.5°	2781.9	2781.9	2776.4	2765.2	2748.6	2731.9	2704.0	2676.2	2648.4	2615.0	2603.9
180°	2603.9	2603.9	2603.9	2603.9	2603.9	2603.9	2603.9	2603.9	2603.9	2603.9	2603.9



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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	5.6	5.6
95°	0.0	5.6	5.6	5.6
97.5°	5.6	5.6	11.1	11.1
100°	16.7	11.1	11.1	11.1
102.5°	55.6	16.7	16.7	16.7
105°	100.1	16.7	22.3	22.3
107.5°	161.4	33.4	22.3	22.3
110°	228.1	66.8	27.8	27.8



TEST NUMBER: P189147

CATALOG NUMBER: A12-SI-A-1-LED-30K-D-120-S

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
112.5°	300.4	116.8	50.1	38.9
115°	378.3	178.0	89.0	66.8
117.5°	461.8	239.2	144.7	111.3
120°	550.8	311.6	200.3	166.9
122.5°	645.4	395.0	272.6	228.1
125°	734.4	478.5	345.0	300.4
127.5°	829.0	567.5	422.9	378.3
130°	923.6	662.1	506.3	456.2
132.5°	1018.2	756.7	600.9	545.3
135°	1112.8	851.3	695.5	639.8
137.5°	1201.8	951.4	795.6	740.0
140°	1290.8	1040.4	895.8	840.1
142.5°	1385.4	1135.0	995.9	940.3
145°	1468.9	1224.1	1090.5	1040.4
147.5°	1557.9	1307.5	1190.7	1140.6
150°	1641.3	1385.4	1279.7	1235.2
152.5°	1724.8	1463.3	1357.6	1318.6
155°	1813.8	1546.8	1435.5	1402.1
157.5°	1897.3	1624.7	1513.4	1480.0
160°	1980.7	1708.1	1596.8	1557.9
162.5°	2064.2	1802.7	1680.3	1641.3
165°	2153.2	1897.3	1774.9	1735.9
167.5°	2231.1	2003.0	1880.6	1841.6
170°	2309.0	2114.3	2003.0	1964.0
172.5°	2381.3	2231.1	2142.1	2103.1
175°	2453.7	2353.5	2286.8	2258.9
177.5°	2531.6	2481.5	2437.0	2425.9
180°	2603.9	2603.9	2603.9	2603.9

(END OF REPORT)