

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: P189148

Luminaire Tested: A12-SI-A-1-LED-35K-D-120-S

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P189148  
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-35K-D-120-S  
Description: ARROWLINEAR LED LUMINAIRE, EXTRA SMALL HOUSING  
12-FOOT LONG EXTRUDED HOUSING WITH WHITE REFLECTOR AND FROSTED LENS  
Light Source: (364) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

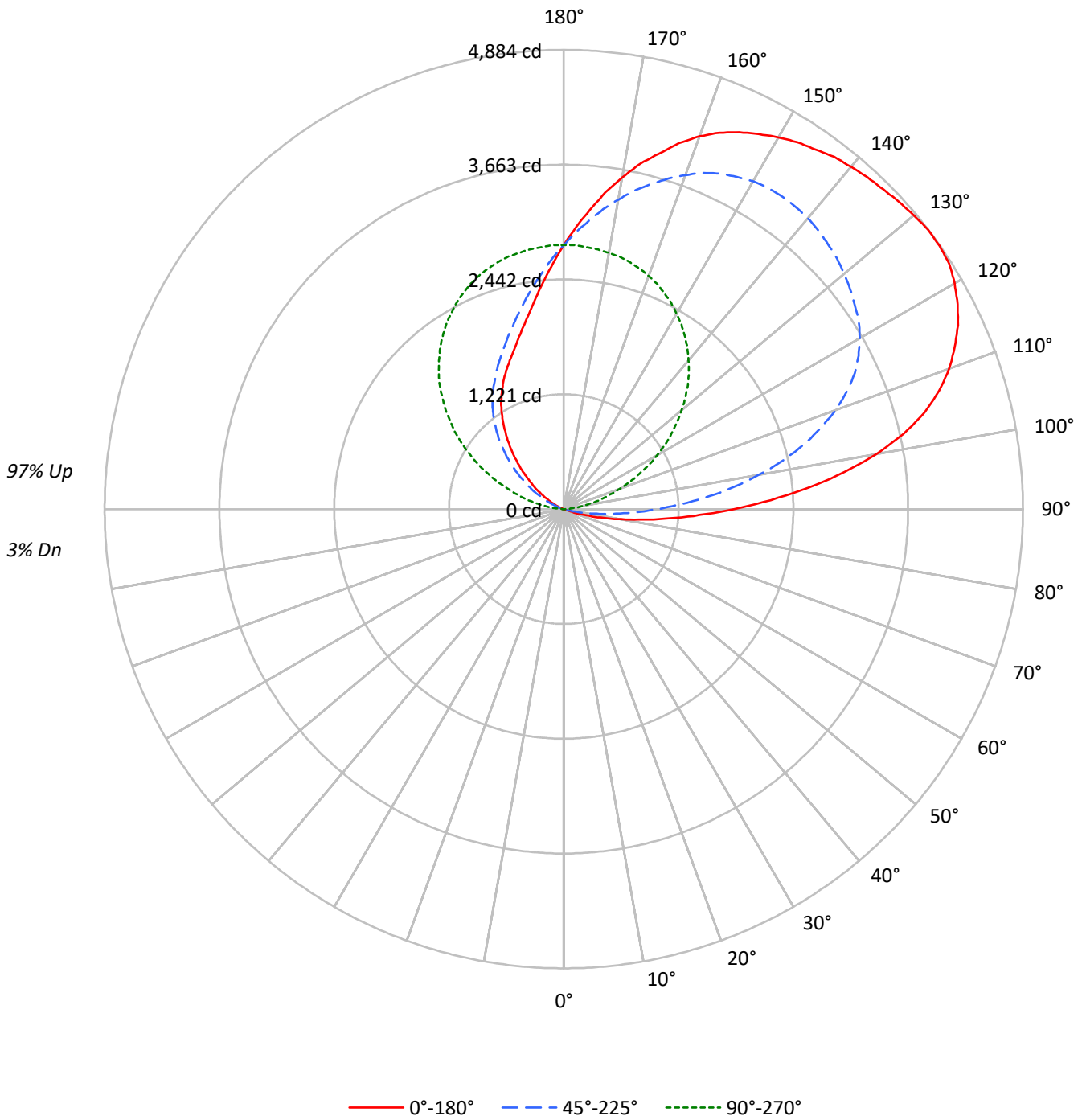
Lumens per Lamp: N/A  
Luminaire Lumens: 11940.0 lumens  
Efficiency: N/A  
Efficacy: 98.6 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular w/ Sides (W: 12.5' x L: 0.29' x H: 0.11')  
CIE Type: Indirect

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°	257	0	0	0	0
75°	1322	206	0	0	0
80°	3412	1578	0	0	0
85°	7252	4629	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 90°  
 Luminance: 14217 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°	59.6	0.5
80°-90°	309.8	2.6
90°-100°	801.2	6.7
100°-110°	1334.8	11.2
110°-120°	1699.9	14.2
120°-130°	1876.1	15.7
130°-140°	1853.9	15.5
140°-150°	1654.8	13.9
150°-160°	1283.8	10.8
160°-170°	797.0	6.7
170°-180°	268.1	2.2
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	370.3	3.1
90°-120°	3835.9	32.1
90°-150°	9220.8	77.2
90°-180°	11570.0	96.9
0°-180°	11940.0	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	8
75°	276	36	0	0	0	320
85°	1128	558	0	0	0	822
90°	1806	996	0	0	0	995
95°	2610	1548	72	6	6	2290
105°	3972	2640	420	18	24	4157
115°	4626	3414	888	192	72	4571
125°	4878	3780	1398	516	324	4363
135°	4806	3978	1866	918	690	3725
145°	4668	4056	2244	1320	1122	2935
155°	4422	3936	2532	1668	1512	2046
165°	3912	3576	2718	2046	1872	1119
175°	3192	3078	2796	2538	2436	317
180°	2808	2808	2808	2808	2808	



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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°	60.0	66.0	48.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	150.0	150.0	126.0	84.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	276.0	276.0	246.0	192.0	114.0	36.0	0.0	0.0	0.0	0.0	0.0
77.5°	432.0	426.0	390.0	324.0	228.0	120.0	18.0	0.0	0.0	0.0	0.0
80°	624.0	618.0	576.0	492.0	378.0	234.0	90.0	0.0	0.0	0.0	0.0
82.5°	852.1	846.1	792.1	696.0	558.0	384.0	192.0	42.0	0.0	0.0	0.0
85°	1128.1	1122.1	1056.1	942.1	780.1	558.0	318.0	126.0	12.0	0.0	0.0
87.5°	1446.1	1422.1	1362.1	1224.1	1014.1	762.1	474.0	228.0	54.0	0.0	0.0
90°	1806.1	1782.1	1710.1	1548.1	1296.1	996.1	660.0	354.0	126.0	12.0	0.0
92.5°	2202.1	2196.1	2088.1	1896.1	1602.1	1254.1	876.1	504.0	222.0	60.0	24.0
95°	2610.2	2604.2	2484.2	2262.2	1932.1	1548.1	1098.1	672.0	342.0	132.0	72.0
97.5°	3012.2	3006.2	2856.2	2628.2	2262.2	1836.1	1338.1	858.1	474.0	222.0	144.0
100°	3378.2	3366.2	3210.2	2970.2	2586.2	2112.1	1578.1	1044.1	612.0	318.0	222.0
102.5°	3702.3	3678.3	3528.2	3276.2	2886.2	2388.2	1812.1	1236.1	768.1	432.0	318.0
105°	3972.3	3942.3	3804.3	3546.2	3144.2	2640.2	2046.1	1434.1	924.1	552.0	420.0
107.5°	4188.3	4164.3	4020.3	3774.3	3378.2	2862.2	2268.2	1626.1	1086.1	678.0	522.0
110°	4362.3	4344.3	4212.3	3966.3	3576.2	3078.2	2472.2	1818.1	1254.1	816.1	642.0



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CATALOG NUMBER: A12-SI-A-1-LED-35K-D-120-S

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	4500.3	4488.3	4362.3	4116.3	3750.3	3258.2	2652.2	1998.1	1416.1	954.1	762.1
115°	4626.3	4614.3	4494.3	4260.3	3894.3	3414.2	2820.2	2172.1	1584.1	1092.1	888.1
117.5°	4722.3	4710.3	4590.3	4362.3	4008.3	3534.2	2958.2	2334.2	1758.1	1236.1	1020.1
120°	4800.3	4782.3	4674.3	4452.3	4104.3	3636.2	3078.2	2490.2	1920.1	1380.1	1146.1
122.5°	4860.3	4842.3	4740.3	4512.3	4176.3	3720.3	3192.2	2640.2	2076.1	1518.1	1278.1
125°	4878.3	4866.3	4770.3	4542.3	4212.3	3780.3	3294.2	2772.2	2214.2	1656.1	1398.1
127.5°	4884.3	4872.3	4776.3	4554.3	4242.3	3840.3	3384.2	2892.2	2346.2	1782.1	1518.1
130°	4860.3	4860.3	4764.3	4554.3	4260.3	3894.3	3468.2	3006.2	2460.2	1902.1	1638.1
132.5°	4836.3	4830.3	4746.3	4548.3	4278.3	3942.3	3546.2	3102.2	2568.2	2016.1	1752.1
135°	4806.3	4806.3	4728.3	4548.3	4296.3	3978.3	3612.2	3186.2	2658.2	2118.1	1866.1
137.5°	4782.3	4782.3	4710.3	4542.3	4308.3	4014.3	3672.2	3252.2	2748.2	2220.2	1968.1
140°	4752.3	4752.3	4680.3	4530.3	4314.3	4038.3	3708.3	3306.2	2808.2	2310.2	2064.1
142.5°	4722.3	4722.3	4650.3	4512.3	4314.3	4050.3	3744.3	3348.2	2874.2	2394.2	2160.1
145°	4668.3	4674.3	4614.3	4482.3	4296.3	4056.3	3756.3	3372.2	2922.2	2472.2	2244.2
147.5°	4626.3	4626.3	4572.3	4446.3	4272.3	4050.3	3756.3	3384.2	2964.2	2538.2	2328.2
150°	4566.3	4566.3	4512.3	4410.3	4248.3	4026.3	3750.3	3390.2	2994.2	2598.2	2400.2
152.5°	4494.3	4500.3	4446.3	4350.3	4194.3	3984.3	3714.3	3378.2	3012.2	2652.2	2472.2
155°	4422.3	4428.3	4380.3	4284.3	4134.3	3936.3	3678.3	3366.2	3030.2	2700.2	2532.2
157.5°	4332.3	4338.3	4290.3	4194.3	4056.3	3870.3	3618.2	3342.2	3042.2	2736.2	2592.2
160°	4218.3	4224.3	4170.3	4086.3	3954.3	3780.3	3558.2	3306.2	3036.2	2772.2	2640.2
162.5°	4080.3	4080.3	4038.3	3960.3	3834.3	3684.3	3486.2	3264.2	3030.2	2796.2	2682.2
165°	3912.3	3924.3	3888.3	3816.3	3708.3	3576.2	3402.2	3210.2	3012.2	2814.2	2718.2
167.5°	3762.3	3756.3	3726.3	3672.2	3576.2	3468.2	3318.2	3156.2	2994.2	2832.2	2748.2
170°	3582.2	3576.2	3552.2	3504.2	3432.2	3342.2	3222.2	3096.2	2970.2	2832.2	2766.2
172.5°	3396.2	3384.2	3366.2	3336.2	3282.2	3216.2	3126.2	3030.2	2934.2	2832.2	2784.2
175°	3192.2	3192.2	3180.2	3156.2	3120.2	3078.2	3018.2	2952.2	2892.2	2826.2	2796.2
177.5°	3000.2	3000.2	2994.2	2982.2	2964.2	2946.2	2916.2	2886.2	2856.2	2820.2	2808.2
180°	2808.2	2808.2	2808.2	2808.2	2808.2	2808.2	2808.2	2808.2	2808.2	2808.2	2808.2



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CATALOG NUMBER: A12-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	6.0	6.0
95°	0.0	6.0	6.0	6.0
97.5°	6.0	6.0	12.0	12.0
100°	18.0	12.0	12.0	12.0
102.5°	60.0	18.0	18.0	18.0
105°	108.0	18.0	24.0	24.0
107.5°	174.0	36.0	24.0	24.0
110°	246.0	72.0	30.0	30.0





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CATALOG NUMBER: A12-SI-A-1-LED-35K-D-120-S

**CANDELA DISTRIBUTION (continued):**

	112.5°	135°	157.5°	180°
112.5°	324.0	126.0	54.0	42.0
115°	408.0	192.0	96.0	72.0
117.5°	498.0	258.0	156.0	120.0
120°	594.0	336.0	216.0	180.0
122.5°	696.0	426.0	294.0	246.0
125°	792.1	516.0	372.0	324.0
127.5°	894.1	612.0	456.0	408.0
130°	996.1	714.0	546.0	492.0
132.5°	1098.1	816.1	648.0	588.0
135°	1200.1	918.1	750.1	690.0
137.5°	1296.1	1026.1	858.1	798.1
140°	1392.1	1122.1	966.1	906.1
142.5°	1494.1	1224.1	1074.1	1014.1
145°	1584.1	1320.1	1176.1	1122.1
147.5°	1680.1	1410.1	1284.1	1230.1
150°	1770.1	1494.1	1380.1	1332.1
152.5°	1860.1	1578.1	1464.1	1422.1
155°	1956.1	1668.1	1548.1	1512.1
157.5°	2046.1	1752.1	1632.1	1596.1
160°	2136.1	1842.1	1722.1	1680.1
162.5°	2226.2	1944.1	1812.1	1770.1
165°	2322.2	2046.1	1914.1	1872.1
167.5°	2406.2	2160.1	2028.1	1986.1
170°	2490.2	2280.2	2160.1	2118.1
172.5°	2568.2	2406.2	2310.2	2268.2
175°	2646.2	2538.2	2466.2	2436.2
177.5°	2730.2	2676.2	2628.2	2616.2
180°	2808.2	2808.2	2808.2	2808.2

(END OF REPORT)