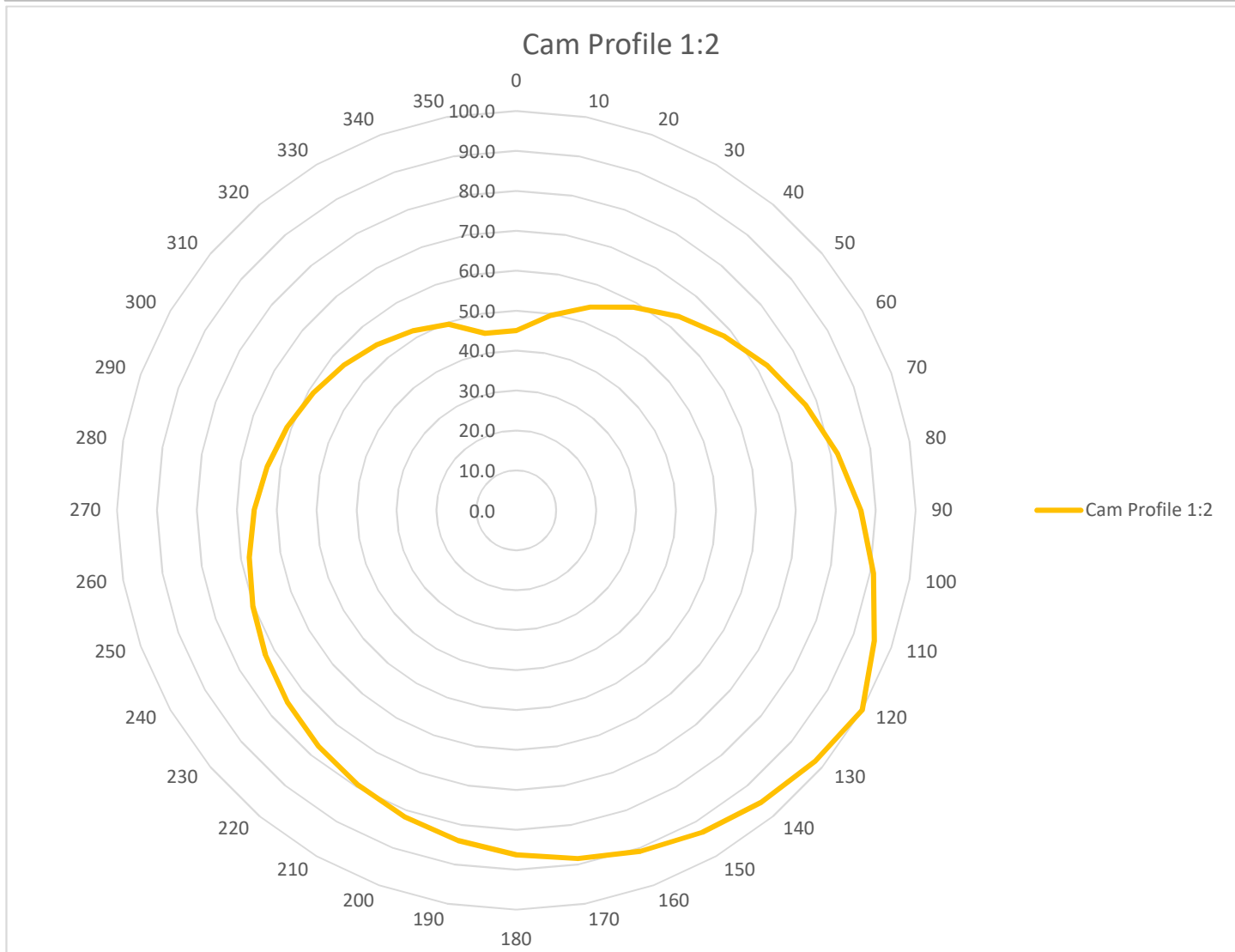


Inspiration Radius 100  
 Expiration Radius 45  
 Ratio I:E 1 2  
 Angle of Max Inspiration 120  
 Angle

Cam Profile 1:2

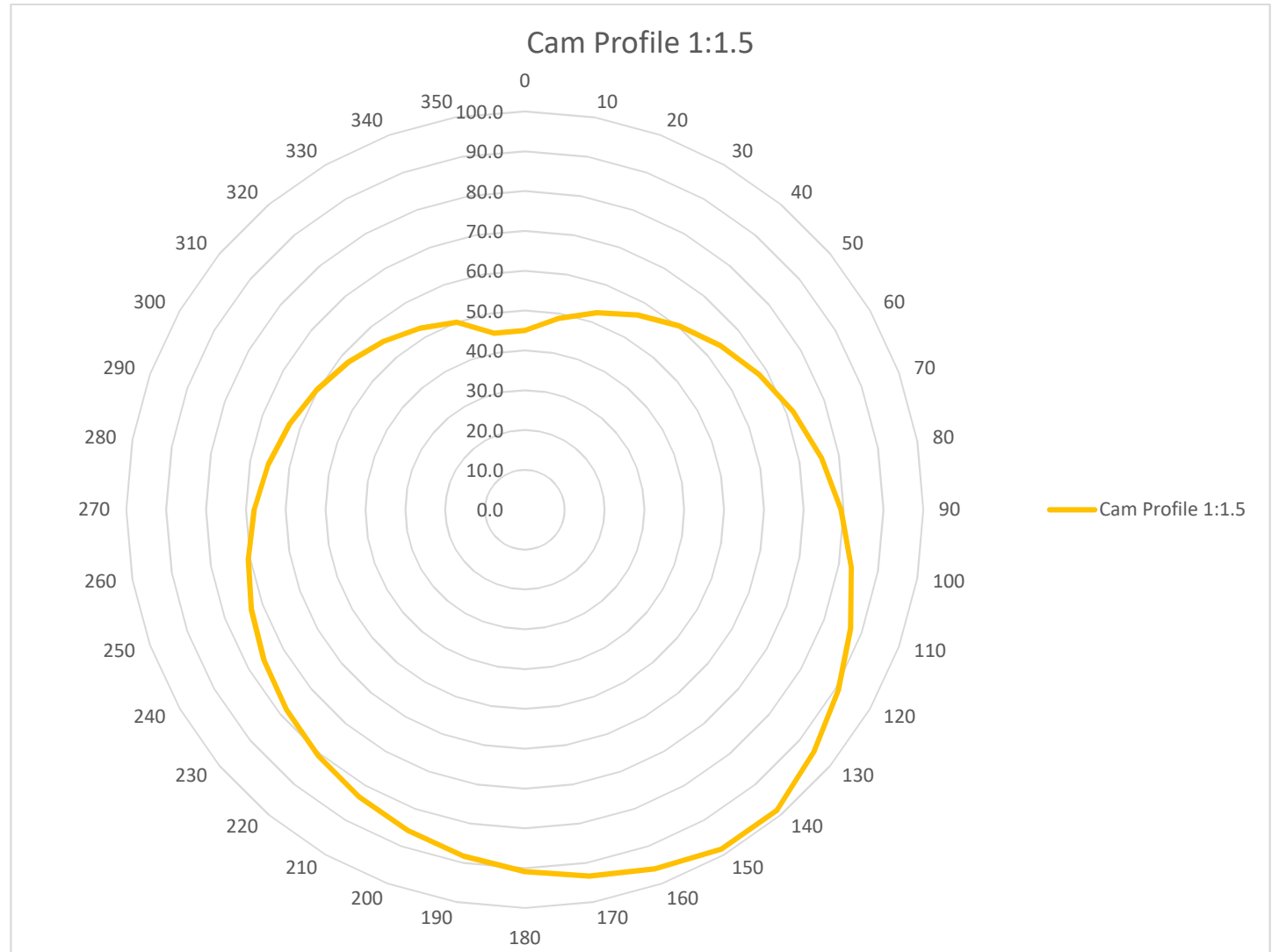
Change the Inspiration and Expiration Radius to control the minimum and maximum movement of the arm.  
 Change the ratio of the I:E to change the profile  
 This is for a linear ramp up and down, needs modification for non-linear ramping.  
 To make the cam, mark the centre on a piece of wood and draw the length (in mm) for the profile at each angle then connect them all and cut out.

0	45.0
10	49.6
20	54.2
30	58.8
40	63.3
50	67.9
60	72.5
70	77.1
80	81.7
90	86.3
100	90.8
110	95.4
120	100.0
130	97.7
140	95.4
150	93.1
160	90.8
170	88.5
180	86.3
190	84.0
200	81.7
210	79.4
220	77.1
230	74.8
240	72.5
250	70.2
260	67.9
270	65.6
280	63.3
290	61.0
300	58.8
310	56.5
320	54.2
330	51.9
340	49.6
350	45.0



Inspiration Radius 100  
 Expiration Radius 45  
 Ratio I:E 1 1.5  
 Angle of Max Inspiration 144  
 Angle Cam Profile 1:1.5

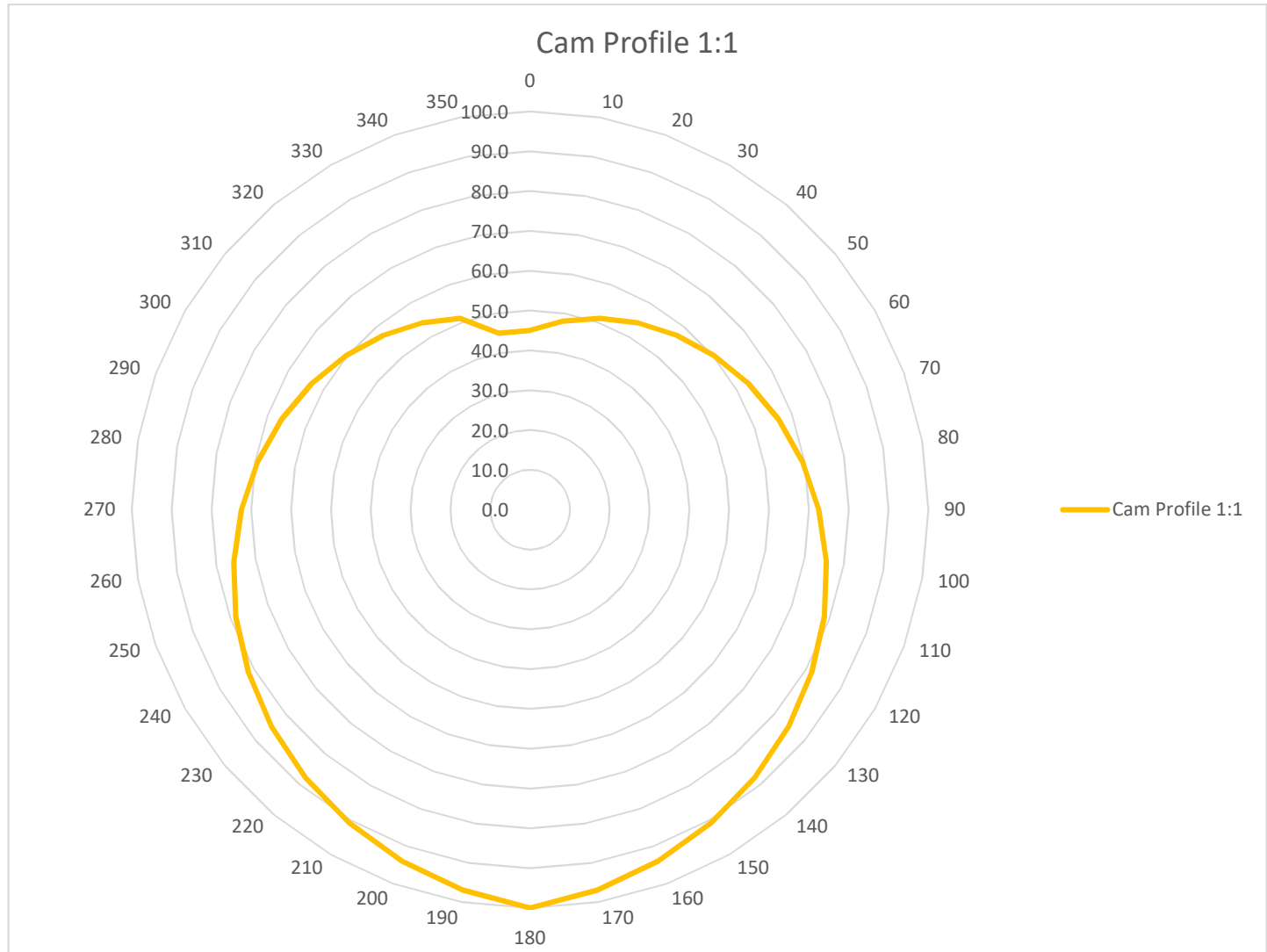
Angle	Cam Profile 1:1.5
0	45.0
10	48.8
20	52.6
30	56.5
40	60.3
50	64.1
60	67.9
70	71.7
80	75.6
90	79.4
100	83.2
110	87.0
120	90.8
130	94.7
140	98.5
150	98.5
160	95.9
170	93.4
180	90.8
190	88.3
200	85.7
210	83.2
220	80.6
230	78.1
240	75.6
250	73.0
260	70.5
270	67.9
280	65.4
290	62.8
300	60.3
310	57.7
320	55.2
330	52.6
340	50.1
350	45.0



Inspiration Radius 100  
 Expiration Radius 45  
 Ratio I:E 1 1  
 Angle of Max Inspiration 180  
 Angle

Cam Profile 1:1

0	45.0
10	48.1
20	51.1
30	54.2
40	57.2
50	60.3
60	63.3
70	66.4
80	69.4
90	72.5
100	75.6
110	78.6
120	81.7
130	84.7
140	87.8
150	90.8
160	93.9
170	96.9
180	100.0
190	96.9
200	93.9
210	90.8
220	87.8
230	84.7
240	81.7
250	78.6
260	75.6
270	72.5
280	69.4
290	66.4
300	63.3
310	60.3
320	57.2
330	54.2
340	51.1
350	45.0



Inspiration Radius 100  
 Expiration Radius 45  
 Ratio I:E 1 3  
 Angle of Max Inspiration 90  
 Angle

Cam Profile 1:3

0	45.0
10	51.1
20	57.2
30	63.3
40	69.4
50	75.6
60	81.7
70	87.8
80	93.9
90	100.0
100	98.0
110	95.9
120	93.9
130	91.9
140	89.8
150	87.8
160	85.7
170	83.7
180	81.7
190	79.6
200	77.6
210	75.6
220	73.5
230	71.5
240	69.4
250	67.4
260	65.4
270	63.3
280	61.3
290	59.3
300	57.2
310	55.2
320	53.1
330	51.1
340	49.1
350	45.0

