

Table 1: Bending Test Data for Design #1

<u>applied force</u> <u>(N)</u>	<u>moment arm</u> <u>(cm)</u>	<u>Bending moment</u> <u>(N-cm)</u>	<u>tower deflection</u> <u>(cm)</u>
0	24	0	0
2	24		
4	24		
6	24		
8	24		
10	24		
12	24		
14	24		
16	24		
18	24		
20	24		

Table 2: Bending Test Data for Design #2

<u>applied force</u> <u>(N)</u>	<u>moment arm</u> <u>(cm)</u>	<u>bending moment</u> <u>(N-cm)</u>	<u>tower deflection</u> <u>(cm)</u>
0	24	0	0
2	24		
4	24		
6	24		
8	24		
10	24		
12	24		
14	24		
16	24		
18	24		
20	24		

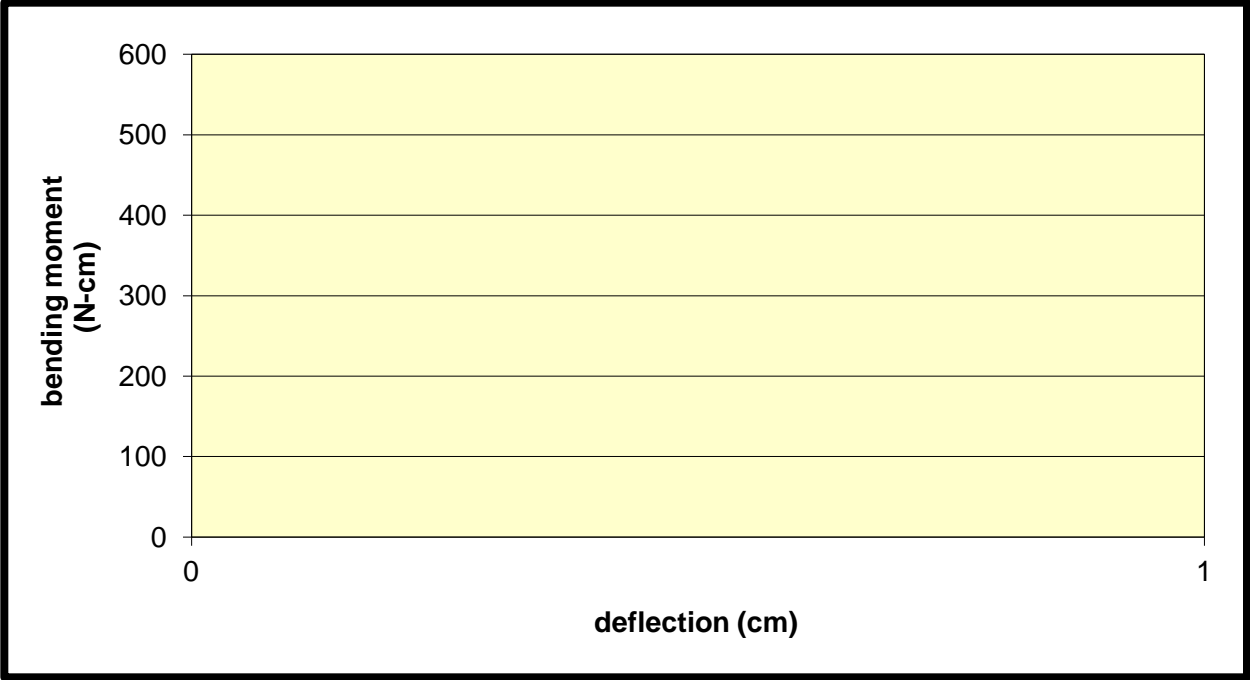
Table 3: Torsion Test Data for Design #1

<u>applied force</u> <u>(N)</u>	<u>moment arm</u> <u>(cm)</u>	<u>twisting moment</u> <u>(N-cm)</u>	<u>angular deflection</u> <u>of tower (degrees)</u>
0	14	0	0
2	14		
4	14		
6	14		
8	14		
10	14		
12	14		
14	14		
16	14		
18	14		
20	14		

Table 4: Torsion Test Data for Design #2

<u>applied force</u> <u>(N)</u>	<u>moment arm</u> <u>(cm)</u>	<u>twisting moment</u> <u>(N-cm)</u>	<u>angular deflection</u> <u>of tower (degrees)</u>
0	14	0	0
2	14		
4	14		
6	14		
8	14		
10	14		
12	14		
14	14		
16	14		
18	14		
20	14		

Graph #1: Bending Moment v. Deflection of Raytheon Radar Antenna Towers – Comparison of Designs #1 & #2



Graph #2: Twisting Moment v. Angular Deflection of Raytheon Radar Antenna Towers – Comparison of Designs #1 & #2

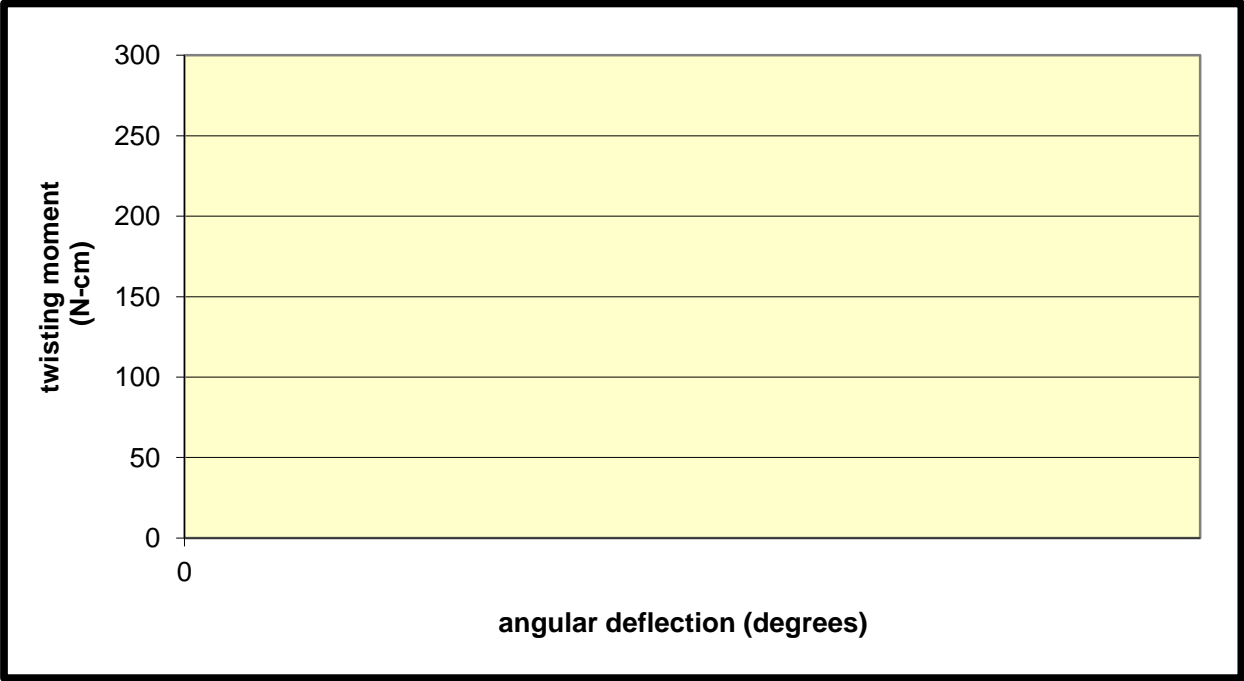


Table 5: Bending Test Data for Design #3

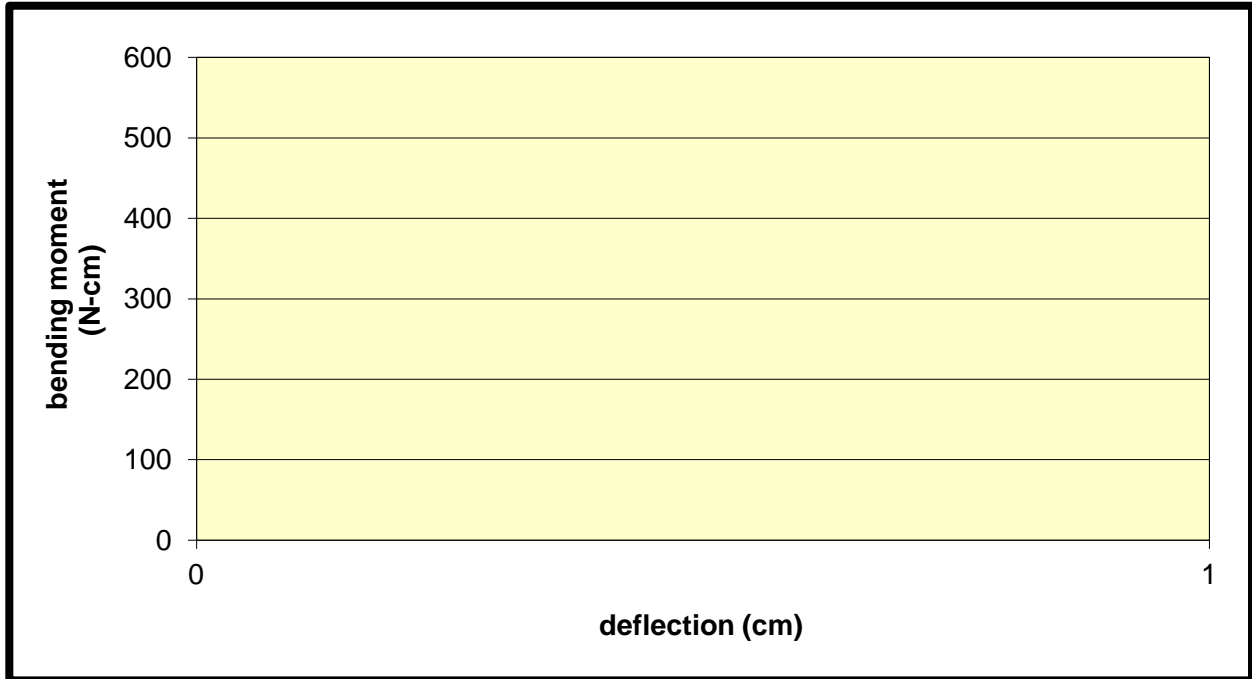
<u>applied force</u> <u>(N)</u>	<u>moment arm</u> <u>(cm)</u>	<u>bending moment</u> <u>(N-cm)</u>	<u>tower deflection</u> <u>(cm)</u>
0	24	0	0
2	24		
4	24		
6	24		
8	24		
10	24		
12	24		
14	24		
16	24		
18	24		
20	24		

Table 6: Torsion Test Data for Design #3

<u>applied force</u> <u>(N)</u>	<u>moment arm</u> <u>(cm)</u>	<u>twisting moment</u> <u>(N-cm)</u>	<u>angular deflection</u> <u>of tower (degrees)</u>
0	14	0	0
2	14		
4	14		
6	14		
8	14		
10	14		
12	14		
14	14		
16	14		
18	14		
20	14		

Graph #3: Bending Moment v. Deflection of Raytheoff Radar

Antenna Towers – Comparison of Designs #1 & #2 & #3



Graph #4: Twisting Moment v. Angular Deflection of Raytheon Radar Antenna Towers – Comparison of Designs #1 & #2 & #3

