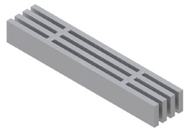
LOAD TABLES - HEELS FRIENDLY

Grating Type: 7W4
Design Code: NAAMM MBG 534-19
Material: ASTM A1011CS Type B
Surface: Smooth



U = Safe Uniform Load (lbs/ft^2)
D_u = Deflection Due to Safe Uniform Load (in)
C = Safe Concentrated Load (lbs/ft of grating width)
D_c = Deflection Due to Safe Concentrated Load (in)
Allowable Extreme Fiber Stress = 18 ksi

Bearing Bar Size (inches)	Approx. Weight (lbs/ft^2)	Ped. Span (inches)	Load / Deflection	Span (ft -in) 2' - 0"	2' - 6"	3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	6' - 6"	7' - 0"	7' - 6"	8' - 0"	Section Properties S_x (in^3)/ft	I_x (in^4)/ft
1" x 3/16"	18.19	73	U	2,571	1,646	1,143	840	643	508	411	340	286	243				0.857	
			D_u	0.07	0.12	0.17	0.23	0.30	0.38	0.47	0.56	0.67	0.79					
			C	2,571	2,057	1,714	1,469	1,286	1,143	1,029	935	857	791				0.429	
			D_c	0.06	0.09	0.13	0.18	0.24	0.30	0.37	0.45	0.54	0.63					
1 1/4" x 3/16"	22.57	86	U	4,018	2,571	1,786	1,312	1,004	794	643	531	446	380	328	286		1.339	
			D_u	0.06	0.09	0.13	0.18	0.24	0.30	0.37	0.45	0.54	0.63	0.73	0.84			
			C	4,018	3,214	2,679	2,296	2,009	1,786	1,607	1,461	1,339	1,236	1,148	1,071		0.837	
			D_c	0.05	0.07	0.11	0.15	0.19	0.24	0.30	0.36	0.43	0.50	0.58	0.67			
1 1/2" x 3/16"	26.94	99	U	5,786	3,703	2,571	1,889	1,446	1,143	926	765	643	548	472	411	362	1.929	
			D_u	0.05	0.08	0.11	0.15	0.20	0.25	0.31	0.38	0.45	0.52	0.61	0.70	0.79		
			C	5,786	4,629	3,857	3,306	2,893	2,571	2,314	2,104	1,929	1,780	1,653	1,543	1,446	1.446	
			D_c	0.04	0.06	0.09	0.12	0.16	0.20	0.25	0.30	0.36	0.42	0.49	0.56	0.64		

Spans and loads in red exceed a deflection of ¼" for uniform loads of 100 lbs./sq. ft. Experience has shown that ¼" deflection is the maximum deflection to give pedestrian comfort, but can be exceeded for other types of loads at the discretion of the specifying professional.

7W4 (in)

# of Bars	2	3	4	5	6	7	8	9	10	11
3/16" Bars	5/8	1-1/16	1-1/2	1-15/16	2-3/8	2-13/16	3-1/4	3-11/16	4-1/8	4-9/16
# of Bars	12	13	14	15	16	17	18	19	20	21
3/16" Bars	5	5-7/16	5-7/8	6-5/16	6-3/4	7-3/16	7-5/8	8-1/16	8-1/2	8-15/16
# of Bars	22	23	24	25	26	27	28	29	30	31
3/16" Bars	9-3/8	9-13/16	10-1/4	10-11/16	11-1/8	11-9/16	12	12-7/16	12-7/8	13-5/16
# of Bars	32	33	34	35	36	37	38	39	40	41
3/16" Bars	13-3/4	14-3/16	14-5/8	15-1/16	15-1/2	15-15/16	16-3/8	16-13/16	17-1/4	17-11/16
# of Bars	42	43	44	45	46	47	48	49	50	51
3/16" Bars	18-1/8	18-9/16	19	19-7/16	19-7/8	20-5/16	20-3/4	21-3/16	21-5/8	22-1/16
# of Bars	52	53	54	55	56	57	58	59	60	61
3/16" Bars	22-1/2	22-15/16	23-3/8	23-13/16	24-1/4	24-11/16	25-1/8	25-9/16	26	26-7/16
# of Bars	62	63	64	65	66	67	68	69	70	71
3/16" Bars	26-7/8	27-5/16	27-3/4	28-3/16	28-5/8	29-1/16	29-1/2	29-15/16	30-3/8	30-13/16