

Bar Size	Symbol / Approx. Weight*** Lbs/Sq. Ft.			Ped. Span	Sec. Mod. Per Ft. Of Width	Clear Span																																																						
						2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	8'-0"	9'-0"																																										
3/4" x 1/8"	19W4	19P4	19S4	41"	.118	U	355	227	158	116	89	70	<b>U=Safe uniform load, lb/sq ft</b> <b>C=Safe concentrated load, lb/ft of grating width, at mid-span</b> <b>D=Deflection in inches</b> <b>Data is theoretical and based on 18,000 psi.</b> <b>Install Cross Rods on Top.</b>																																															
	3.9#	4.3#	3.8#			D	.099	.155	.223	.304	.397	.503																																																
	19W2	19P2	19S2			C	355	284	237	203	178	158																																																
	4.4#	5.2#	4.4#			D	.079	.124	.179	.243	.318	.402																																																
3/4" x 3/16"	19W4	19P4	19S4	46"	.178	U	533	341	237	174	133	105												<b>U=Safe uniform load, lb/sq ft</b> <b>C=Safe concentrated load, lb/ft of grating width, at mid-span</b> <b>D=Deflection in inches</b> <b>Data is theoretical and based on 18,000 psi.</b> <b>Install Cross Rods on Top.</b>																																				
	5.6#	6.4#	5.5#			D	.099	.155	.223	.304	.397	.503																																																
	19W2	19P2	19S2			C	533	426	355	305	266	237																																																
	6.2#	7.8#	6.1#			D	.079	.124	.179	.243	.318	.402																																																
1" x 1/8"	19W4	19P4	19S4	51"	.211	U	632	404	281	206	158	125																							101	84	70	<table border="1"> <thead> <tr> <th colspan="3">% Open Area<sup>1</sup></th> </tr> <tr> <th>Bars</th> <th>1/8"</th> <th>3/16"</th> </tr> </thead> <tbody> <tr> <td>4"cc</td> <td>83%</td> <td>77%</td> </tr> <tr> <td>2"cc</td> <td>76%</td> <td>71%</td> </tr> </tbody> </table> <sup>1</sup> Open Area % for reference only - %'s will vary with material & mfg. process.											% Open Area <sup>1</sup>			Bars	1/8"	3/16"	4"cc	83%	77%	2"cc	76%	71%
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5.0#	5.4#	4.9#	D	.074	.116	.168	.228	.298	.377	.466	.563	.670																																																
19W2	19P2	19S2	C	632	505	421	361	316	281	253	230	211																																																
5.5#	6.3#	5.5#	D	.060	.093	.134	.182	.238	.302	.372	.451	.536																																																
1" x 3/16"	19W4	19P4	19S4	57"	.316	U	947	606	421	309	237	187	152	125	105	<table border="1"> <thead> <tr> <th colspan="3">% Open Area<sup>1</sup></th> </tr> <tr> <th>Bars</th> <th>1/8"</th> <th>3/16"</th> </tr> </thead> <tbody> <tr> <td>4"cc</td> <td>83%</td> <td>77%</td> </tr> <tr> <td>2"cc</td> <td>76%</td> <td>71%</td> </tr> </tbody> </table> <sup>1</sup> Open Area % for reference only - %'s will vary with material & mfg. process.											% Open Area <sup>1</sup>			Bars	1/8"	3/16"	4"cc	83%	77%	2"cc	76%												71%											
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19W2	19P2	19S2	C	947	758	632	541	474	421	379	344	316																																																
7.8#	9.5#	7.6#	D	.060	.093	.134	.182	.238	.302	.372	.451	.536																																																
1-1/4" x 1/8"	19W4	19P4	19S4	61"	.329	U	987	632	439	322	247	195	158	130	110												93	81	<table border="1"> <thead> <tr> <th colspan="3">% Open Area<sup>1</sup></th> </tr> <tr> <th>Bars</th> <th>1/8"</th> <th>3/16"</th> </tr> </thead> <tbody> <tr> <td>4"cc</td> <td>83%</td> <td>77%</td> </tr> <tr> <td>2"cc</td> <td>76%</td> <td>71%</td> </tr> </tbody> </table> <sup>1</sup> Open Area % for reference only - %'s will vary with material & mfg. process.											% Open Area <sup>1</sup>			Bars	1/8"	3/16"	4"cc	83%	77%	2"cc	76%	71%									
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6.1#	6.8#	6.0#	D	.060	.093	.134	.182	.238	.302	.372	.451	.536	.629	.730																																														
19W2	19P2	19S2	C	987	789	658	564	493	439	395	359	329	304	282																																														
6.6#	8.1#	6.6#	D	.048	.074	.107	.146	.191	.241	.298	.360	.429	.504	.584																																														
1-1/4" x 3/16"	19W4	19P4	19S4	67"	.493	U	1480	947	658	483	370	292	237	196	164	140	121	<table border="1"> <thead> <tr> <th colspan="3">% Open Area<sup>1</sup></th> </tr> <tr> <th>Bars</th> <th>1/8"</th> <th>3/16"</th> </tr> </thead> <tbody> <tr> <td>4"cc</td> <td>83%</td> <td>77%</td> </tr> <tr> <td>2"cc</td> <td>76%</td> <td>71%</td> </tr> </tbody> </table> <sup>1</sup> Open Area % for reference only - %'s will vary with material & mfg. process.																						% Open Area <sup>1</sup>			Bars	1/8"	3/16"	4"cc	83%	77%	2"cc	76%	71%									
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19W2	19P2	19S2	C	1480	1184	987	846	740	658	592	538	493	455	423																																														
9.5#	12.1#	9.3#	D	.048	.074	.107	.146	.191	.241	.298	.360	.429	.504	.584																																														
1-1/2" x 1/8"	19W4	19P4	19S4	70"	.474	U	1421	909	632	464	355	281	227	188	158	135	116												89	70	<table border="1"> <thead> <tr> <th colspan="3">% Open Area<sup>1</sup></th> </tr> <tr> <th>Bars</th> <th>1/8"</th> <th>3/16"</th> </tr> </thead> <tbody> <tr> <td>4"cc</td> <td>83%</td> <td>77%</td> </tr> <tr> <td>2"cc</td> <td>76%</td> <td>71%</td> </tr> </tbody> </table> <sup>1</sup> Open Area % for reference only - %'s will vary with material & mfg. process.											% Open Area <sup>1</sup>			Bars	1/8"	3/16"	4"cc	83%	77%	2"cc	76%	71%							
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7.2#	7.9#	7.0#	D	.050	.078	.112	.152	.199	.251	.310	.376	.447	.524	.608	.794	1.006																																												
19W2	19P2	19S2	C	1421	1137	947	812	711	632	568	517	474	437	406	355	316																																												
7.7#	9.2#	7.6#	D	.040	.062	.089	.122	.159	.201	.248	.300	.358	.420	.487	.636	.804																																												
1-1/2" x 3/16"	19W4	19P4	19S4	77"	.711	U	2132	1364	947	696	533	421	341	282	237	202	174	133	105	<table border="1"> <thead> <tr> <th colspan="3">% Open Area<sup>1</sup></th> </tr> <tr> <th>Bars</th> <th>1/8"</th> <th>3/16"</th> </tr> </thead> <tbody> <tr> <td>4"cc</td> <td>83%</td> <td>77%</td> </tr> <tr> <td>2"cc</td> <td>76%</td> <td>71%</td> </tr> </tbody> </table> <sup>1</sup> Open Area % for reference only - %'s will vary with material & mfg. process.																						% Open Area <sup>1</sup>			Bars	1/8"	3/16"	4"cc	83%	77%	2"cc	76%	71%							
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10.5#	11.8#	10.3#	D	.050	.078	.112	.152	.199	.251	.310	.376	.447	.524	.608	.794	1.006																																												
19W2	19P2	19S2	C	2132	1705	1421	1218	1066	947	853	775	711	656	609	533	474																																												
11.2#	13.8#	10.9#	D	.040	.062	.089	.122	.159	.201	.248	.300	.358	.420	.487	.636	.804																																												
1-3/4" x 3/16"	19W4	19P4	19S4	87"	.967	U	2901	1857	1289	947	725	573	464	384	322	275	237	181	143												<table border="1"> <thead> <tr> <th colspan="3">% Open Area<sup>1</sup></th> </tr> <tr> <th>Bars</th> <th>1/8"</th> <th>3/16"</th> </tr> </thead> <tbody> <tr> <td>4"cc</td> <td>83%</td> <td>77%</td> </tr> <tr> <td>2"cc</td> <td>76%</td> <td>71%</td> </tr> </tbody> </table> <sup>1</sup> Open Area % for reference only - %'s will vary with material & mfg. process.											% Open Area <sup>1</sup>			Bars	1/8"	3/16"	4"cc	83%	77%	2"cc	76%	71%							
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12.2#	13.5#	11.9#	D	.043	.067	.096	.130	.170	.215	.266	.322	.383	.450	.521	.681	.862																																												
19W2	19P2	19S2	C	2901	2321	1934	1658	1451	1289	1161	1055	967	893	829	725	645																																												
12.8#	15.4#	12.5#	D	.034	.053	.077	.104	.136	.172	.213	.257	.306	.360	.417	.545	.689																																												
2" x 3/16"	19W4	19P4	19S4	96"	1.263	U	3789	2425	1684	1237	947	749	606	501	421	359	309	237	187	<table border="1"> <thead> <tr> <th colspan="3">% Open Area<sup>1</sup></th> </tr> <tr> <th>Bars</th> <th>1/8"</th> <th>3/16"</th> </tr> </thead> <tbody> <tr> <td>4"cc</td> <td>83%</td> <td>77%</td> </tr> <tr> <td>2"cc</td> <td>76%</td> <td>71%</td> </tr> </tbody> </table> <sup>1</sup> Open Area % for reference only - %'s will vary with material & mfg. process.																						% Open Area <sup>1</sup>			Bars	1/8"	3/16"	4"cc	83%	77%	2"cc	76%	71%							
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13.9#	15.2#	13.6#	D	.037	.058	.084	.114	.149	.189	.233	.282	.335	.393	.456	.596	.754																																												
19W2	19P2	19S2	C	3789	3032	2526	2165	1895	1684	1516	1378	1263	1166	1083	947	842																																												
14.5#	17.1#	14.2#	D	.030	.047	.067	.091	.119	.151	.186	.225	.268	.315	.365	.477	.603																																												
2-1/4" x 3/16"	19W4	19P4	19S4	105"	1.599	U	4796	3069	2132	1566	1199	947	767	634	533	454	392	300	237												<table border="1"> <thead> <tr> <th colspan="3">% Open Area<sup>1</sup></th> </tr> <tr> <th>Bars</th> <th>1/8"</th> <th>3/16"</th> </tr> </thead> <tbody> <tr> <td>4"cc</td> <td>83%</td> <td>77%</td> </tr> <tr> <td>2"cc</td> <td>76%</td> <td>71%</td> </tr> </tbody> </table> <sup>1</sup> Open Area % for reference only - %'s will vary with material & mfg. process.											% Open Area <sup>1</sup>			Bars	1/8"	3/16"	4"cc	83%	77%	2"cc	76%	71%							
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15.5#	16.8#	15.2#	D	.033	.052	.074	.101	.132	.168	.207	.250	.298	.350	.406	.530	.670																																												
19W2	19P2	19S2	C	4796	3837	3197	2741	2398	2132	1918	1744	1599	1476	1370	1199	1066																																												
16.1#	18.7#	15.8#	D	.026	.041	.060	.081	.106	.134	.166	.200	.238	.280	.324	.424	.536																																												
2-1/2" x 3/16"	19W4	19P4	19S4	113"	1.974	U	5921	3789	2632	1933	1480	1170	947	783	658	561	483	370	292	<table border="1"> <thead> <tr> <th colspan="3">% Open Area<sup>1</sup></th> </tr> <tr> <th>Bars</th> <th>1/8"</th> <th>3/16"</th> </tr> </thead> <tbody> <tr> <td>4"cc</td> <td>83%</td> <td>77%</td> </tr> <tr> <td>2"cc</td> <td>76%</td> <td>71%</td> </tr> </tbody> </table> <sup>1</sup> Open Area % for reference only - %'s will vary with material & mfg. process.																						% Open Area <sup>1</sup>			Bars	1/8"	3/16"	4"cc	83%	77%	2"cc	76%	71%							
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17.2#	18.5#	16.8#	D	.030	.047	.067	.091	.119	.151	.186	.225	.268	.315	.365	.477	.603																																												
19W2	19P2	19S2	C	5921	4737	3947	3383	2961	2632	2368	2153	1974	1822	1692	1480	1316																																												
17.8#	20.4#	17.4#	D	.024	.037	.054	.073	.095	.121	.149	.180	.215	.252	.292	.381	.483																																												

\*\*\*Note: Weight depends on panel width, cross bar selection, mill tolerance and manufacturing tolerance.

**Deflection:** To ensure safe pedestrian comfort, maximum deflection (D) should be limited to 1/4" for uniform load of 100 psf (denoted by values to the left of heavy line in table above) however, this can be exceeded for non-pedestrian loading conditions at engineer's discretion.

**Serrated Grating:** For serrated grating, the depth of grating required for a specified load is 1/4" greater than shown in the above table.