

Standard Loading Table

OPEN WEB STEEL JOISTS, SHORTSPAN SERIES

Allowable Total Safe Loads in Pounds per Linear Foot of Open Web Standard and Nailer Steel Joists

The following table gives the TOTAL safe uniformly-distributed load-carrying capacities, in pounds per linear foot, of Open Web Steel Joists and Nailer Joists, adopted by the Steel Joist Institute. The weight of DEAD loads must in all cases be deducted to de-

termine the LIVE load-carrying capacities of the Joists. When Nailier Joists (those with suffix W) are used, they should not be spaced farther apart than the safe span of the wood deck or other material used over them.

Joist Designation SJ	The prefix letters "SJ" should precede Joist Designations given below, i.e. SJ81, SJ81W, SJ82, SJ82W, etc.																
	81 81W	82 82W	102 102W	103 103W	104 104W	123 123W	124 124W	125 125W	126 126W	145 145W	146 146W	147 147W	166 166W	167 167W	186 186W	187 187W	207 207W
* Depth in Inches	8	8	10	10	10	12	12	12	12	14	14	14	16	16	18	18	20
† Approximate Weights in Pounds per Linear Foot	3.5	4.0	4.0	4.75	5.75	5.0	5.75	7.0	8.0	7.0	8.0	10.0	8.5	10.0	9.0	10.5	10.5
Resisting Moment in Inch Kips	29.5	52.5	63.	82.	100.	92.	115.	142.	175.	156.	205.	246.	232.	281.	255.	310.	340.
Maximum End Reaction in Kips	1.60	1.90	1.90	1.95	2.20	2.20	2.30	2.50	2.70	2.90	3.10	3.40	3.20	3.60	3.60	3.80	3.90
Span in Feet																	
7	401																
8	307																
9	243																
10	197	350															
11	163	289															
12	137	243	292														
13	116	207	249														
14	100	179	214				313										
15	87	156	187	243			273										
16	77	137	164	214	260	240											
17			145	189	231	212	265										
18			130	169	206	189	237			321							
19			116	151	185	170	212	262		288							
20			105	137	167	153	192	237		260							
21						139	174	215		236							
22						127	158	196	241	215							
23						116	145	179	221	197	258						
24						106	133	164	203	181	237					295	
25										166	219	262	247			272	
26										154	202	243	229			251	
27										143	187	225	212	257	233		
28										133	174	209	197	239	217	264	
29													184	223	202	246	
30													172	208	189	230	252
31													161	195	177	215	236
32													151	183	166	202	221
33														156	190	208	
34														147	179	196	
35														139	169	185	
36														131	159	175	
37																	166
38																	157
39																	149
40																	142

LOAD TABLE FOR STANDARD EXTENDED ENDS

Total Allowable Uniform Load in Pounds per Linear Foot of Extended End.

Unsupported Length of Extended End	Type of Standard Extended End 2 1/2" Depth*			
	No. 1	No. 2	No. 3	No. 4
2'-6"	250	250	250	250
3'-0"	231	250	250	250
3'-6"	170	207	243	250
4'-0"	131	159	187	234
4'-6"	104	126	148	186
5'-0"		102	120	150
5'-6"			100	123

NOTE: The total allowable uniform load in pounds per linear foot of standard extended end shall not exceed 250 lbs. nor shall it exceed the total allowable uniform load in pounds per linear foot of the steel joist to which the extended end applies. This table is not a part of R-94-53.

* Indicates Nominal Depth of Standard Steel Joists only. See Manufacturers' Catalog for Depths of Nailier Steel Joists.

† Approximate Weights per Linear Foot of Joists includes accessories, but does not include wood nailer strip.

Adopted by the Steel Joist Institute August 20, 1929 and Revised to September 16, 1952.

This Table in accordance with Simplified Practice Recommendation No. R94-53 of the Bureau of Standards, U. S. Dept. of Commerce.