

**Allowable Roof Construction Load ( $C_D = 1.25$ ) for EWS 22F-V/POC1 and 22F-V/POC2 in Dry-Service Conditions (lb/ft)**

Fb = 2,200 psi, Fv = 265 psi, E = 1,800,000 psi

3-1/8-INCH WIDTH		SPAN (ft)																				
Depth (in)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	
6	533	295	169	105	69	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-1/2	834	531	333	208	137	95	68	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	1202	767	530	362	240	167	120	88	66	51	---	---	---	---	---	---	---	---	---	---	---	---
10-1/2	1637	1045	723	529	385	268	193	143	108	84	65	52	---	---	---	---	---	---	---	---	---	---
12	2139	1366	946	692	528	402	291	216	164	127	100	80	64	52	---	---	---	---	---	---	---	---
13-1/2	2709	1730	1198	878	670	527	417	311	237	184	145	116	94	77	63	52	---	---	---	---	---	---
15	3346	2137	1481	1085	828	652	526	429	328	255	202	162	132	108	89	74	62	52	---	---	---	---
16-1/2	4049	2587	1793	1314	1003	790	637	525	439	342	272	219	178	146	121	101	85	72	61	52	---	---
18	4820	3080	2135	1565	1195	941	760	626	521	438	355	286	234	192	160	134	113	96	81	70	60	---
19-1/2	5651	3616	2507	1838	1403	1106	893	733	608	511	436	367	299	247	206	173	146	124	106	91	78	---
21	6425	4195	2908	2132	1629	1284	1035	844	701	590	503	433	376	311	260	218	185	158	135	116	100	---
22-1/2	7290	4817	3340	2449	1871	1475	1181	964	800	674	574	494	429	376	322	271	230	196	169	145	126	---
24	8263	5482	3801	2788	2130	1672	1336	1091	905	763	650	560	487	426	376	332	282	241	207	179	155	---
25-1/2	9366	6102	4292	3148	2406	1877	1501	1225	1017	857	730	629	547	479	423	375	335	291	251	217	189	---
27	10627	6755	4813	3531	2687	2093	1674	1366	1135	956	815	703	611	535	473	420	375	336	300	260	227	---

3-1/2-INCH WIDTH		SPAN (ft)																				
Depth (in)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	
6	596	331	189	117	77	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-1/2	934	595	373	233	154	106	76	55	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	1346	859	594	406	269	187	134	99	74	57	---	---	---	---	---	---	---	---	---	---	---	---
10-1/2	1833	1170	810	593	431	300	216	160	121	94	73	58	---	---	---	---	---	---	---	---	---	---
12	2396	1530	1059	776	591	451	326	242	184	143	112	89	72	58	---	---	---	---	---	---	---	---
13-1/2	3034	1938	1342	983	750	590	467	348	265	206	163	130	105	86	71	58	---	---	---	---	---	---
15	3747	2393	1658	1215	927	730	589	480	367	286	226	182	147	121	100	83	69	58	---	---	---	---
16-1/2	4535	2898	2008	1471	1123	885	714	588	488	384	304	245	199	164	136	113	95	80	68	58	---	---
18	5399	3450	2391	1753	1338	1054	851	696	577	485	398	321	262	216	179	150	126	107	91	78	67	---
19-1/2	6329	4050	2807	2058	1572	1239	994	811	673	566	482	411	335	277	231	194	164	139	119	102	88	---
21	7196	4698	3257	2388	1824	1434	1146	935	776	653	556	479	416	349	291	245	207	177	151	130	112	---
22-1/2	8165	5395	3741	2743	2096	1636	1308	1067	886	746	635	547	475	416	361	304	258	220	189	163	141	---
24	9255	6140	4257	3122	2376	1851	1480	1208	1002	844	720	620	539	472	416	369	316	270	232	201	174	---
25-1/2	10490	6834	4808	3526	2668	2078	1661	1356	1126	948	809	697	606	531	468	416	371	326	281	243	212	---
27	11902	7566	5391	3945	2975	2318	1853	1513	1256	1058	903	778	676	593	523	464	415	372	335	292	254	---

**Allowable Roof Construction Load ( $C_D = 1.25$ ) for EWS 22F-V/POC1 and 22F-V/POC2 in Dry-Service Conditions (lb/ft)**

Fb = 2,200 psi, Fv = 265 psi, E = 1,800,000 psi

5-1/8-INCH WIDTH		SPAN (ft)																			
Depth (in)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
12	3508	2240	1551	1136	866	660	477	355	270	209	164	131	105	85	69	57	---	---	---	---	---
13-1/2	4443	2837	1965	1439	1098	864	684	509	389	302	238	191	154	126	103	85	71	59	---	---	---
15	5487	3505	2428	1779	1358	1061	847	690	537	419	332	266	216	177	146	121	101	85	72	60	51
16-1/2	6641	4243	2940	2155	1637	1274	1017	829	687	562	446	358	292	240	199	166	139	118	100	85	72
18	7905	5051	3501	2566	1933	1505	1202	980	812	683	581	470	383	316	262	220	185	157	134	114	98
19-1/2	9268	5930	4111	2990	2253	1754	1401	1142	947	797	679	584	491	405	338	284	240	204	174	149	128
21	10537	6880	4770	3443	2595	2021	1614	1317	1092	919	783	674	585	511	426	358	303	259	221	191	165
22-1/2	11955	7900	5439	3927	2960	2305	1842	1503	1247	1050	895	770	669	586	516	445	377	322	277	239	207
24	13551	8990	6151	4442	3348	2608	2084	1701	1412	1189	1013	872	758	664	585	519	462	395	340	294	255
25-1/2	15360	10007	6904	4986	3759	2928	2341	1910	1586	1336	1139	981	852	747	659	585	522	468	412	356	310
27	17428	11078	7697	5559	4192	3266	2611	2131	1770	1491	1271	1095	952	834	736	653	583	523	471	426	372
28-1/2	19814	12252	8532	6163	4647	3621	2895	2364	1963	1654	1410	1215	1057	926	817	726	648	582	524	474	431
30	21984	13544	9407	6795	5124	3993	3193	2607	2166	1825	1556	1341	1167	1023	903	802	716	643	580	525	476
31-1/2	24239	14972	10323	7457	5624	4383	3505	2862	2378	2004	1709	1473	1282	1124	992	882	788	707	638	577	525
33	26481	16558	11278	8148	6145	4790	3831	3129	2599	2191	1869	1611	1402	1229	1086	965	862	774	698	632	575

5-1/2-INCH WIDTH		SPAN (ft)																			
Depth (in)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
12	3765	2404	1665	1219	929	708	512	381	290	224	176	140	113	91	74	61	---	---	---	---	---
13-1/2	4768	3045	2109	1545	1178	924	734	547	417	324	256	205	165	135	111	92	76	63	53	---	---
15	5888	3761	2606	1909	1454	1131	902	735	577	449	356	286	232	190	157	130	109	91	77	65	55
16-1/2	7127	4553	3155	2312	1744	1357	1084	883	732	603	478	385	313	257	213	178	150	126	107	91	77
18	8484	5421	3757	2734	2060	1603	1280	1044	865	728	619	504	411	339	281	236	199	168	143	122	105
19-1/2	9946	6364	4412	3186	2400	1869	1492	1217	1009	849	723	622	527	435	362	304	257	219	187	160	138
21	11308	7383	5082	3669	2765	2153	1720	1403	1164	980	834	718	623	546	457	384	326	277	238	205	177
22-1/2	12830	8478	5796	4185	3154	2456	1963	1601	1329	1119	953	821	713	624	550	477	405	346	297	256	222
24	14543	9627	6554	4733	3568	2779	2221	1812	1504	1267	1079	929	808	707	624	553	493	424	365	315	273
25-1/2	16484	10739	7356	5313	4005	3120	2494	2035	1690	1423	1213	1045	908	795	702	623	556	498	442	382	332
27	18703	11889	8202	5924	4467	3480	2782	2271	1886	1588	1354	1167	1014	889	784	696	621	557	502	454	399
28-1/2	21264	13149	9091	6567	4952	3858	3085	2518	2091	1762	1503	1295	1126	987	871	773	690	619	558	505	459
30	23541	14535	10024	7241	5460	4255	3403	2778	2307	1944	1658	1429	1243	1090	962	854	763	685	617	559	507
31-1/2	25830	16067	11000	7946	5993	4670	3735	3050	2533	2135	1821	1570	1366	1197	1057	939	839	753	679	615	559
33	28219	17645	12018	8682	6548	5104	4082	3334	2769	2334	1991	1717	1494	1310	1157	1028	918	825	744	674	612

**Allowable Roof Construction Load ( $C_D = 1.25$ ) for EWS 22F-V/POC1 and 22F-V/POC2 in Dry-Service Conditions (lb/ft)**

Fb = 2,200 psi, Fv = 265 psi, E = 1,800,000 psi

6-3/4-INCH WIDTH		SPAN (ft)																			
Depth (in)	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
18	6653	4555	3287	2476	1927	1539	1254	1040	874	744	618	504	416	345	289	244	207	176	150	129	110
19-1/2	7796	5306	3830	2885	2246	1794	1463	1213	1020	869	747	647	534	445	373	316	268	229	197	169	146
21	8977	6110	4411	3324	2588	2068	1686	1399	1177	1002	863	749	655	561	472	400	341	292	251	217	188
22-1/2	10237	6969	5031	3792	2953	2359	1925	1597	1344	1145	986	856	749	660	586	497	424	364	314	272	236
24	11574	7880	5690	4289	3341	2670	2178	1808	1522	1297	1117	970	850	749	664	593	520	447	387	336	292
25-1/2	12990	8844	6387	4815	3751	2998	2447	2031	1710	1458	1255	1091	956	843	748	667	598	539	469	408	356
27	14482	9861	7122	5370	4183	3344	2730	2266	1909	1627	1402	1219	1068	942	836	746	669	603	545	490	428
28-1/2	16051	10931	7895	5953	4638	3708	3027	2514	2118	1806	1556	1353	1185	1046	929	829	744	670	606	551	501
30	17697	12052	8705	6565	5115	4090	3339	2773	2337	1993	1717	1494	1309	1155	1026	916	822	741	671	609	555
31-1/2	19418	13225	9553	7205	5615	4490	3666	3045	2566	2189	1887	1641	1439	1270	1128	1008	905	816	738	671	611
33	21215	14449	10438	7873	6136	4907	4007	3329	2805	2393	2063	1795	1574	1390	1235	1103	990	893	809	735	670
34-1/2	23087	15725	11361	8569	6679	5342	4363	3625	3055	2607	2247	1955	1715	1514	1346	1203	1080	974	882	802	732
36	25034	17052	12320	9293	7244	5794	4732	3932	3315	2828	2439	2122	1862	1644	1461	1306	1173	1059	959	872	795
37-1/2	27055	18429	13316	10045	7830	6264	5116	4252	3584	3059	2638	2296	2014	1779	1582	1414	1270	1146	1039	945	862
39	29150	19857	14348	10824	8438	6750	5514	4583	3864	3298	2844	2476	2172	1919	1706	1526	1371	1237	1121	1020	931

8-3/4-INCH WIDTH		SPAN (ft)																			
Depth (in)	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52
24	9952	7186	5416	4218	3371	2750	2282	1921	1637	1409	1224	1072	945	838	747	669	580	501	435	379	331
25-1/2	11170	8066	6080	4736	3785	3089	2564	2159	1840	1584	1377	1206	1063	943	841	754	679	608	529	462	404
27	12454	8994	6781	5282	4222	3446	2861	2409	2054	1769	1538	1347	1188	1054	941	844	760	687	623	555	487
28-1/2	13805	9970	7517	5857	4682	3822	3174	2673	2279	1964	1707	1496	1320	1172	1046	938	845	764	694	632	577
30	15221	10994	8290	6459	5165	4216	3501	2950	2516	2168	1885	1652	1458	1294	1156	1037	935	846	768	700	639
31-1/2	16702	12065	9098	7090	5669	4629	3845	3239	2763	2381	2071	1815	1602	1423	1271	1141	1028	931	845	770	704
33	18249	13183	9942	7748	6196	5060	4203	3542	3021	2604	2265	1986	1753	1558	1392	1249	1126	1020	927	845	772
34-1/2	19860	14348	10821	8434	6745	5508	4576	3857	3290	2837	2468	2164	1911	1698	1517	1362	1229	1113	1011	922	843
36	21536	15559	11736	9147	7316	5975	4965	4185	3571	3079	2679	2349	2075	1844	1648	1480	1335	1209	1099	1003	917
37-1/2	23276	16817	12685	9888	7909	6460	5368	4525	3862	3330	2898	2542	2245	1996	1784	1602	1446	1310	1191	1087	994
39	25079	18121	13669	10656	8524	6963	5786	4878	4163	3591	3125	2741	2422	2153	1925	1729	1561	1414	1286	1174	1074
40-1/2	26947	19471	14689	11451	9161	7484	6219	5244	4476	3860	3360	2948	2605	2316	2071	1861	1680	1522	1385	1264	1157
42	28877	20867	15742	12273	9819	8022	6667	5622	4799	4140	3604	3162	2794	2485	2222	1997	1803	1634	1487	1357	1243
43-1/2	30871	22308	16831	13122	10499	8578	7130	6013	5133	4428	3855	3383	2990	2659	2378	2138	1930	1750	1592	1454	1332
45	32928	23796	17954	13998	11201	9152	7607	6416	5477	4726	4114	3611	3192	2839	2539	2283	2061	1869	1701	1553	1423

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = Dry
- (5) Tabulated values represent total loads and have taken the beam weight (assumed 35 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.