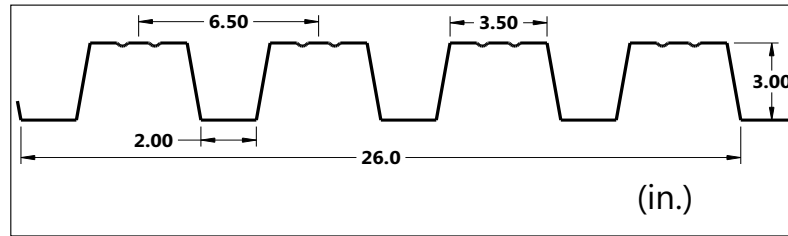


ACCUFORM METAL LTD.

AFRD 3-26 ROOF DECK



$F_y = 33 \text{ ksi}$

SECTION PROPERTIES (PER FOOT OF WIDTH)

IMPERIAL	Base Steel Thickness (in.)	Weight G90 (psf)	Yield Stress, F_y (ksi)	Sec. Modulus		Deflection Moment of Inertia (in ⁴)	Factored Web Crippling Data			
				Midspan	Support		P_{e1} End (lb/ft)	P_{e2} End (lb/ft)	P_{i1} Interior (lb/ft)	P_{i2} Interior (lb/ft)
				(in ³)	(in ³)					
	0.030	2.32	33	0.447	0.461	0.801	241	60.3	499	84.8
	0.036	2.77	33	0.573	0.582	1.00	360	90.0	737	125
	0.048	3.68	33	0.785	0.819	1.40	672	168	1356	231
	0.060	4.58	33	0.998	1.02	1.76	1084	271	2168	369

FACTORED STRENGTH AND SPECIFIED DEFLECTION UNIFORMLY DISTRIBUTED LOADS (psf)

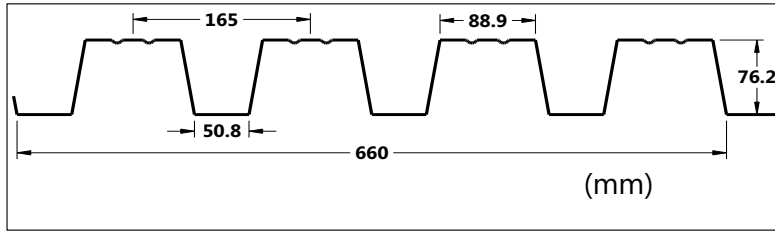
SPAN LENGTH (ft)		1-SPAN				2-SPAN				3-SPAN			
		BASE STEEL THICKNESS (in.)				BASE STEEL THICKNESS (in.)				BASE STEEL THICKNESS (in.)			
		0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060
6.0	S	246	315	432	549	254	320	450	559	317	400	563	698
	D	243	304	424	532	582	729	1017	1277	459	574	801	1005
6.5	S	210	268	368	468	216	273	384	476	270	341	480	595
	D	191	239	333	418	458	574	800	1004	361	452	630	791
7.0	S	181	231	317	403	186	235	331	410	233	294	414	513
	D	153	191	267	335	367	459	640	804	289	362	504	633
7.5	S	157	202	276	351	162	205	288	358	203	256	360	447
	D	124	156	217	272	298	373	521	654	235	294	410	515
8.0	S	138	177	243	309	143	180	253	314	178	225	317	393
	D	102	128	179	224	246	308	429	539	193	242	338	424
8.5	S	123	157	215	273	126	160	224	278	158	199	281	348
	D	85	107	149	187	205	257	358	449	161	202	282	354
9.0	S	109	140	192	244	113	142	200	248	141	178	250	310
	D	72	90	126	158	173	216	301	378	136	170	237	298
9.5	S	98	126	172	219	101	128	180	223	127	160	225	279
	D	61	77	107	134	147	184	256	322	116	145	202	253
10.0	S	89	113	155	198	91	115	162	201	114	144	203	251
	D	52	66	91	115	126	158	220	276	99	124	173	217
10.5	S	80	103	141	179	83	105	147	182	104	131	184	228
	D	45	57	79	99	109	136	190	238	86	107	149	188
11.0	S	73	94	128	163	75	95	134	166	94	119	168	208
	D	39	49	69	86	95	118	165	207	74	93	130	163
11.5	S	67	86	117	149	69	87	123	152	86	109	153	190
	D	34	43	60	76	83	104	144	181	65	82	114	143
12.0	S	61	79	108	137	63	80	113	140	79	100	141	175
	D	30	38	53	66	73	91	127	160	57	72	100	126
12.5	S	57	73	99	126	58	74	104	129	73	92	130	161
	D	27	34	47	59	64	81	112	141	51	64	89	111
13.0	S	52	67	92	117	54	68	96	119	68	85	120	149
	D	24	30	42	52	57	72	100	126	45	56	79	99
13.5	S	49	62	85	108	50	63	89	110	63	79	111	138
	D	21	27	37	47	51	64	89	112	40	50	70	88
14.0	S	45	58	79	101	47	59	83	103	58	74	103	128
	D	19	24	33	42	46	57	80	100	36	45	63	79

Notes:

- 1 Based on ASTM A653 Grade 33 structural steel.
- 2 Values in row "S" are based on factored strength.
- 3 Values in row "D" are based on deflection of L/240.
- 4 For L/180, multiply values in row "D" by 1.33.
- 5 Web crippling not included in strength calculations. See Example.
- 6 Limit States Design principles were used in accordance with CSA Standard S136-16.
- 7 Prepared by Dr. R.M. Schuster, P. Eng., Distinguished Professor Emeritus, University of Waterloo.

ACCUFORM METAL LTD.

AFRD 3-26 ROOF DECK



$F_y = 230 \text{ MPa}$

SECTION PROPERTIES (PER METRE OF WIDTH)

METRIC	Base Steel Thickness (mm)	Mass 2275 (kg/m ²)	Yield Stress, F_y (MPa)	Sec. Modulus		Deflection Moment of Inertia (x10 ⁶ mm ⁴)	Factored Web Crippling Data			
				Midspan	Support		P_{e1} End (kN/m)	P_{e2} End (kN/m)	P_{i1} Interior (kN/m)	P_{i2} Interior (kN/m)
				(x10 ³ mm ³)	(x10 ³ mm ³)					
	0.762	12.0	230	24.0	24.8	1.09	3.56	0.890	7.36	1.25
	0.914	14.3	230	30.8	31.3	1.37	5.31	1.33	10.9	1.85
	1.219	19.0	230	42.2	44.0	1.91	9.91	2.48	20.0	3.40
	1.524	23.7	230	53.6	54.6	2.40	16.0	4.00	32.0	5.44

FACTORED STRENGTH AND SPECIFIED DEFLECTION UNIFORMLY DISTRIBUTED LOADS (kPa)

SPAN LENGTH (mm)		1-SPAN				2-SPAN				3-SPAN			
		BASE STEEL THICKNESS (mm)				BASE STEEL THICKNESS (mm)				BASE STEEL THICKNESS (mm)			
		0.762	0.914	1.219	1.524	0.762	0.914	1.219	1.524	0.762	0.914	1.219	1.524
2000	S	9.93	12.7	17.5	22.2	10.3	12.9	18.2	22.6	12.8	16.2	22.8	28.3
	D	8.87	11.1	15.5	19.5	21.3	26.7	37.2	46.7	16.8	21.0	29.3	36.8
2200	S	8.21	10.5	14.4	18.4	8.47	10.7	15.1	18.7	10.6	13.4	18.8	23.4
	D	6.66	8.35	11.6	14.6	16.0	20.0	28.0	35.1	12.6	15.8	22.0	27.7
2400	S	6.90	8.84	12.1	15.4	7.12	8.99	12.7	15.7	8.90	11.2	15.8	19.6
	D	5.13	6.43	8.97	11.3	12.3	15.4	21.5	27.1	9.70	12.2	17.0	21.3
2500	S	6.36	8.15	11.2	14.2	6.56	8.28	11.7	14.5	8.20	10.4	14.6	18.1
	D	4.54	5.69	7.94	9.97	10.9	13.7	19.0	23.9	8.58	10.8	15.0	18.8
2600	S	5.88	7.54	10.3	13.1	6.07	7.66	10.8	13.4	7.58	9.57	13.5	16.7
	D	4.04	5.06	7.05	8.86	9.69	12.1	16.9	21.3	7.63	9.56	13.3	16.8
2800	S	5.07	6.50	8.91	11.3	5.23	6.60	9.30	11.5	6.54	8.25	11.6	14.4
	D	3.23	4.05	5.65	7.10	7.76	9.72	13.6	17.0	6.11	7.65	10.7	13.4
3000	S	4.41	5.66	7.76	9.87	4.56	5.75	8.10	10.1	5.70	7.19	10.1	12.6
	D	2.63	3.29	4.59	5.77	6.31	7.90	11.0	13.9	4.97	6.22	8.68	10.9
3200	S	3.88	4.98	6.82	8.67	4.00	5.06	7.12	8.83	5.01	6.32	8.90	11.0
	D	2.17	2.71	3.78	4.75	5.20	6.51	9.08	11.4	4.09	5.13	7.15	8.99
3400	S	3.44	4.41	6.04	7.68	3.55	4.48	6.31	7.82	4.43	5.60	7.88	9.78
	D	1.81	2.26	3.15	3.96	4.33	5.43	7.57	9.51	3.41	4.27	5.96	7.49
3500	S	3.24	4.16	5.70	7.25	3.35	4.23	5.95	7.38	4.18	5.28	7.44	9.23
	D	1.65	2.07	2.89	3.63	3.97	4.98	6.94	8.72	3.13	3.92	5.47	6.87
3600	S	3.07	3.93	5.39	6.85	3.16	3.99	5.63	6.98	3.96	4.99	7.03	8.72
	D	1.52	1.91	2.66	3.34	3.65	4.57	6.38	8.01	2.87	3.60	5.02	6.31
3800	S	2.75	3.53	4.84	6.15	2.84	3.59	5.05	6.26	3.55	4.48	6.31	7.83
	D	1.29	1.62	2.26	2.84	3.10	3.89	5.42	6.81	2.44	3.06	4.27	5.37
4000	S	2.48	3.18	4.36	5.55	2.56	3.24	4.56	5.65	3.20	4.04	5.70	7.06
	D	1.11	1.39	1.94	2.43	2.66	3.33	4.65	5.84	2.10	2.62	3.66	4.60

- Notes:**
- 1 Based on ASTM A653M Grade 230 structural steel.
 - 2 Values in row "S" are based on factored strength.
 - 3 Values in row "D" are based on deflection of L/240.
 - 4 For L/180, multiply values in row "D" by 1.33.
 - 5 Web crippling not included in strength calculations. See Example.
 - 6 Limit States Design principles were used in accordance with CSA Standard S136-16.
 - 7 Prepared by Dr. R.M. Schuster, P. Eng., Distinguished Professor Emeritus, University of Waterloo.