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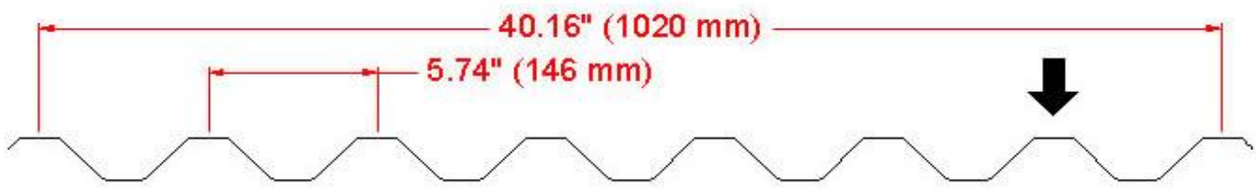
LC 31 ROOFING & SIDING



The load tables mentioned above do not necessarily represent the product availability. Please refer to the product catalogue.

SECTION PROPERTIES (PER FOOT OF WIDTH)

	Base Steel Thickness (in.)	Weight G90 (psf)	Yield Stress (ksi)	Sec. Modulus Midspan (in^3)	Sec. Modulus Support (in^3)	Deflection Moment of Inertia (in^4)	Specified Web Crippling Data P_{e1} End (lb)	P_{e2} End (lb)	P_{i1} Interior (lb)	P_{i2} Interior (lb)
IMPERIAL	0.018	0.987	33	0.0981	0.0981	0.0854	43.4	10.9	82.1	14.0
	0.024	1.30	33	0.142	0.142	0.116	82.5	20.6	156	26.6
	0.030	1.61	33	0.187	0.187	0.145	135	33.7	255	43.4
	0.036	1.92	33	0.226	0.226	0.174	200	50.0	379	64.4
	0.048	2.54	33	0.298	0.298	0.231	371	92.8	703	120

Live load factor = 1.5; Importance factor = 0.90; Importance Category = 1.0

MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOAD (PSF)

SPAN LENGTH (ft)		1-SPAN BASE STEEL THICKNESS (inches)					2-SPAN BASE STEEL THICKNESS (inches)					3-SPAN BASE STEEL THICKNESS (inches)				
		0.018	0.024	0.030	0.036	0.048	0.018	0.024	0.030	0.036	0.048	0.018	0.024	0.030	0.036	0.048
4.0	S	81	117	155	186	246	81	117	155	186	246	101	146	193	233	308
	D	129	176	219	263	350	311	422	527	631	839	245	332	415	497	661
4.5	S	64	92	122	147	194	64	92	122	147	194	80	115	153	184	243
	D	91	123	154	185	246	218	296	370	443	589	172	233	291	349	464
5.0	S	52	75	99	119	157	52	75	99	119	157	65	94	124	149	197
	D	66	90	112	135	179	159	216	270	323	430	125	170	212	254	338
5.5	S	43	62	82	99	130	43	62	82	99	130	54	77	102	123	163
	D	50	68	84	101	134	119	162	203	243	323	94	128	160	191	254
6.0	S	36	52	69	83	109	36	52	69	83	109	45	65	86	104	137
	D	38	52	65	78	104	92	125	156	187	249	72	98	123	147	196
6.5	S	31	44	59	71	93	31	44	59	71	93	38	55	73	88	116
	D	30	41	51	61	81	72	98	123	147	196	57	77	97	116	154
7.0	S	26	38	50	61	80	26	38	50	61	80	33	48	63	76	100
	D	24	33	41	49	65	58	79	98	118	157	46	62	77	93	123
7.5	S	23	33	44	53	70	23	33	44	53	70	29	42	55	66	87
	D	20	27	33	40	53	47	64	80	96	127	37	50	63	75	100
8.0	S	20	29	39	47	62	20	29	39	47	62	25	37	48	58	77
	D	16	22	27	33	44	39	53	66	79	105	31	42	52	62	83
8.5	S	18	26	34	41	54	18	26	34	41	54	22	32	43	52	68
	D	13	18	23	27	36	32	44	55	66	87	25	35	43	52	69
9.0	S	16	23	31	37	49	16	23	31	37	49	20	29	38	46	61
	D	11	15	19	23	31	27	37	46	55	74	21	29	36	44	58
9.5	S	14	21	27	33	44	14	21	27	33	44	18	26	34	41	55
	D	10	13	16	20	26	23	31	39	47	63	18	25	31	37	49
10.0	S	13	19	25	30	39	13	19	25	30	39	16	23	31	37	49
	D	8	11	14	17	22	20	27	34	40	54	16	21	27	32	42
10.5	S	12	17	22	27	36	12	17	22	27	36	15	21	28	34	45
	D	7	10	12	15	19	17	23	29	35	46	14	18	23	27	37
11.0	S	11	15	20	25	33	11	15	20	25	33	13	19	26	31	41
	D	6	8	11	13	17	15	20	25	30	40	12	16	20	24	32

Notes:

1. Based on ASTM A 653 Grade 33 structural steel.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of 1/180th span.
4. Web crippling not included in strength calculations. See Example.

Limit States Design principles were used in accordance with CSA Standard S136-07

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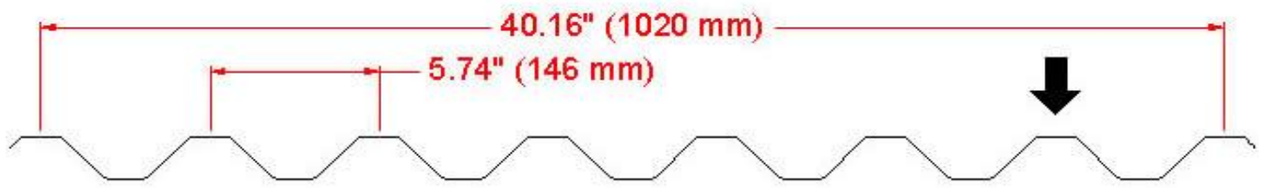

The load tables mentioned above do not necessarily represent the product availability. Please refer to the product catalogue.

SECTION PROPERTIES (PER METRE OF WIDTH)

METRIC	Base Steel Thickness (mm)	Mass Z275 (kg/m^2)	Yield Stress (MPa)	Sec. Modulus Midspan ($x10^3$ mm^3)	Sec. Modulus Support ($x10^3$ mm^3)	Deflection Moment of Inertia ($x10^6 mm^4$)	Specified Web Crippling Data P_{e1} End (kN)	P_{e2} End (kN)	P_{i1} Interior (kN)	P_{i2} Interior (kN)
	0.457	4.82	230	5.27	5.27	0.117	0.641	0.160	1.21	0.206
	0.610	6.33	230	7.61	7.61	0.159	1.22	0.304	2.30	0.392
	0.762	7.85	230	10.1	10.1	0.198	1.99	0.496	3.76	0.640
	0.914	9.36	230	12.2	12.2	0.237	2.95	0.738	5.59	0.951
	1.22	12.4	230	16.0	16.0	0.315	5.48	1.37	10.4	1.76

Live load factor = 1.5; Importance factor = 0.90; Importance Category = 1.0

MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOAD (kPa)

SPAN LENGTH (m)		1-SPAN BASE STEEL THICKNESS (mm)					2-SPAN BASE STEEL THICKNESS (mm)					3-SPAN BASE STEEL THICKNESS (mm)				
		0.457	0.610	0.762	0.914	1.22	0.457	0.610	0.762	0.914	1.22	0.457	0.610	0.762	0.914	1.22
1.2	S	4.04	5.83	7.71	9.32	12.3	4.04	5.83	7.71	9.32	12.3	5.05	7.29	9.64	11.7	15.4
	D	6.49	8.83	11.0	13.2	17.6	15.6	21.2	26.4	31.7	42.1	12.3	16.7	20.8	25.0	33.2
1.4	S	2.97	4.28	5.66	6.85	9.03	2.97	4.28	5.66	6.85	9.03	3.71	5.36	7.08	8.56	11.3
	D	4.09	5.56	6.94	8.31	11.1	9.81	13.3	16.7	20.0	26.5	7.73	10.5	13.1	15.7	20.9
1.5	S	2.58	3.73	4.93	5.96	7.87	2.58	3.73	4.93	5.96	7.87	3.23	4.66	6.17	7.45	9.83
	D	3.32	4.52	5.64	6.76	8.99	7.98	10.9	13.5	16.2	21.6	6.28	8.54	10.7	12.8	17.0
1.6	S	2.27	3.28	4.34	5.24	6.91	2.27	3.28	4.34	5.24	6.91	2.84	4.10	5.42	6.55	8.64
	D	2.74	3.72	4.65	5.57	7.41	6.57	8.94	11.2	13.4	17.8	5.18	7.04	8.79	10.5	14.0
1.8	S	1.79	2.59	3.43	4.14	5.46	1.79	2.59	3.43	4.14	5.46	2.24	3.24	4.28	5.18	6.83
	D	1.92	2.62	3.26	3.91	5.20	4.62	6.28	7.84	9.39	12.5	3.64	4.94	6.17	7.39	9.83
2.0	S	1.45	2.10	2.78	3.35	4.43	1.45	2.10	2.78	3.35	4.43	1.82	2.62	3.47	4.19	5.53
	D	1.40	1.91	2.38	2.85	3.79	3.37	4.58	5.71	6.84	9.10	2.65	3.60	4.50	5.39	7.17
2.2	S	1.20	1.73	2.29	2.77	3.66	1.20	1.73	2.29	2.77	3.66	1.50	2.17	2.87	3.47	4.57
	D	1.05	1.43	1.79	2.14	2.85	2.53	3.44	4.29	5.14	6.84	1.99	2.71	3.38	4.05	5.38
2.4	S	1.01	1.46	1.93	2.33	3.07	1.01	1.46	1.93	2.33	3.07	1.26	1.82	2.41	2.91	3.84
	D	0.81	1.10	1.38	1.65	2.19	1.95	2.65	3.31	3.96	5.27	1.53	2.09	2.60	3.12	4.15
2.5	S	0.93	1.34	1.78	2.15	2.83	0.93	1.34	1.78	2.15	2.83	1.16	1.68	2.22	2.68	3.54
	D	0.72	0.98	1.22	1.46	1.94	1.72	2.34	2.92	3.50	4.66	1.36	1.84	2.30	2.76	3.67
2.6	S	0.86	1.24	1.64	1.98	2.62	0.86	1.24	1.64	1.98	2.62	1.08	1.55	2.05	2.48	3.27
	D	0.64	0.87	1.08	1.30	1.73	1.53	2.08	2.60	3.12	4.14	1.21	1.64	2.05	2.45	3.26
2.8	S	0.74	1.07	1.42	1.71	2.26	0.74	1.07	1.42	1.71	2.26	0.93	1.34	1.77	2.14	2.82
	D	0.51	0.69	0.87	1.04	1.38	1.23	1.67	2.08	2.49	3.32	0.97	1.31	1.64	1.96	2.61
3.0	S	0.65	0.93	1.23	1.49	1.97	0.65	0.93	1.23	1.49	1.97	0.81	1.17	1.54	1.86	2.46
	D	0.42	0.56	0.71	0.85	1.12	1.00	1.36	1.69	2.03	2.70	0.79	1.07	1.33	1.60	2.12
3.2	S	0.57	0.82	1.08	1.31	1.73	0.57	0.82	1.08	1.31	1.73	0.71	1.02	1.36	1.64	2.16
	D	0.34	0.47	0.58	0.70	0.93	0.82	1.12	1.39	1.67	2.22	0.65	0.88	1.10	1.32	1.75
3.4	S	0.50	0.73	0.96	1.16	1.53	0.50	0.73	0.96	1.16	1.53	0.63	0.91	1.20	1.45	1.91
	D	0.29	0.39	0.48	0.58	0.77	0.69	0.93	1.16	1.39	1.85	0.54	0.73	0.92	1.10	1.46

Notes:

1. Based on ASTM A 653M Grade 230 structural steel.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of 1/180th span.
4. Web crippling not included in strength calculations. See Example.

Limit States Design principles were used in accordance with CSA Standard S136-07

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