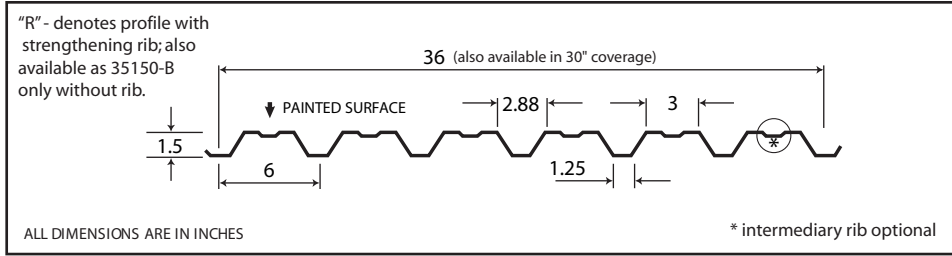


Cladding Specifications for MatrixAir™ Solar Air Heating Collector - imperial 35150-B



Section Properties

(Per Foot of Width)

Base Steel Thickness (in.)	Weight G90 (psf)	Yield Stress (ksi)	Section Modulus		Deflection Moment of Inertia Mid Span (in ⁴)	Specified Web Crippling Data (lb)			
			Mid Span (in ³)	Support (in ³)		End Pe1	End Pe2	Interior Pi1	Interior Pi2
0.018	1.04	33	0.0888	0.0940	0.0796	58.0	14.5	113	19.1
0.024	1.36	33	0.127	0.136	0.119	109	27.3	211	35.8
0.030	1.69	33	0.162	0.175	0.157	177	44.2	341	57.9
0.036	2.02	33	0.198	0.208	0.194	262	65.4	503	85.5

Notes:

- Steel conforms to ASTM A653.
- Section properties are in accordance with CSA-S136-07.
- Values in row "S" are based on strength.
- Values in row "D" are based on a deflection limit of 1/180 of the span.
- Web crippling not included in strength values. See example calculation in notes to designer.
- Contact the sales department for stocked colours and gauges.
- The load table contained on this data sheet was prepared by Dr. R.M. Schuster P.Eng. Professor Emeritus of Structural Engineering, University of Waterloo, Ontario, Canada.

Live Load Factor = 1.4; Importance Factor = 0.75; Importance Category = 1.0

Load Table

Maximum Specified Uniformly Distributed Loads in psf

Span (ft.)		1-Span Base Steel Thickness (in.)				2-Span Base Steel Thickness (in.)				3-Span Base Steel Thickness (in.)			
		0.018	0.024	0.030	0.036	0.018	0.024	0.030	0.036	0.018	0.024	0.030	0.036
4'-0"	S	79	112	144	175	83	120	154	184	104	150	193	230
	D	145	216	285	353	347	518	684	847	273	408	539	667
4'-6"	S	62	89	113	139	66	95	122	145	82	118	152	182
	D	102	152	200	248	244	364	481	595	192	287	379	468
5'-0"	S	50	72	92	112	53	77	99	118	67	96	123	147
	D	74	111	146	181	178	265	350	434	140	209	276	342
5'-6"	S	42	59	76	93	44	63	82	97	55	79	102	122
	D	56	83	110	136	133	199	263	326	105	157	207	257
6'-0"	S	35	50	64	78	37	53	69	82	46	67	86	102
	D	43	64	84	105	103	154	203	251	81	121	160	198
6'-6"	S	30	42	54	66	31	45	58	70	39	57	73	87
	D	34	50	66	82	81	121	159	197	64	95	126	155
7'-0"	S	26	37	47	57	27	39	50	60	34	49	63	75
	D	27	40	53	66	65	97	128	158	51	76	101	124
7'-6"	S	22	32	41	50	24	34	44	52	30	43	55	65
	D	22	33	43	54	53	79	104	128	41	62	82	101
8'-0"	S	20	28	36	44	21	30	39	46	26	37	48	58
	D	18	27	36	44	43	65	86	106	34	51	67	83
8'-6"	S	17	25	32	39	18	27	34	41	23	33	43	51
	D	15	22	30	37	36	54	71	88	28	43	56	70
9'-0"	S	16	22	28	35	16	24	30	36	21	30	38	45
	D	13	19	25	31	30	45	60	74	24	36	47	59