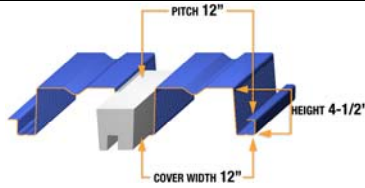


SECTION PROPERTIES fy=40 ksi

GAGE	Wd	Ip	In	Sp	Sn	Rbe			Rbi			Va
						4"	5"	6"	4"	5"	6"	
20	2.94	2.679	2.791	1.020	1.129	800	868	930	968	1042	1110	2398
18	3.89	3.675	3.692	1.443	1.493	1347	1457	1557	1602	1719	1825	5414
16	4.91	4.655	4.655	1.859	1.882	2064	2228	2376	2432	2601	2755	8618
14	6.13	5.810	5.810	2.347	2.347	3099	3336	3550	3627	3868	4086	12401



LSD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LSD LOADS (psf)											
Span	Load Combinations	SINGLE SPAN				DOUBLE SPAN				TRIPLE SPAN			
		GAGE											
		20	18	16	14	20	18	16	14	20	18	16	14
11' - 0"	$\alpha_D + \alpha_L$ (Strength)	142*	240*	363	400	77*	128*	194*	290*	88*	146*	222*	330*
	D+L (Deflection)	129	177	225	280	77	128	194	290	88	146	222	330
	L (Deflection)	88	121	153	191	77	128	194	290	88	146	222	330
12' - 0"	$\alpha_D + \alpha_L$ (Strength)	130*	220*	304	384	70*	117*	178*	265*	80*	133*	203*	302*
	D+L (Deflection)	99	136	172	215	70	117	178	265	80	133	203	302
	L (Deflection)	68	93	118	147	70	117	178	265	80	133	203	277
13' - 0"	$\alpha_D + \alpha_L$ (Strength)	119*	200	258	326	65*	107*	163*	236**	74*	123*	186*	278*
	D+L (Deflection)	77	106	134	168	65	107	163	236	74	123	186	278
	L (Deflection)	53	73	93	116	65	107	163	236	74	123	175	218
14' - 0"	$\alpha_D + \alpha_L$ (Strength)	111*	172	221	280	60*	99*	148**	208**	68*	114*	173*	254**
	D+L (Deflection)	61	84	106	133	60	99	148	208	68	114	173	254
	L (Deflection)	43	59	74	93	60	99	148	208	68	110	140	175
15' - 0"	$\alpha_D + \alpha_L$ (Strength)	103*	149	192	243	55*	92**	132**	184**	64*	106*	160**	226**
	D+L (Deflection)	49	68	86	107	55	92	132	184	64	106	160	207
	L (Deflection)	35	48	60	75	55	92	132	179	64	90	114	142
16' - 0"	$\alpha_D + \alpha_L$ (Strength)	92	130	168	212	52*	82**	118**	164**	59*	99*	144**	202**
	D+L (Deflection)	40	55	70	87	52	82	118	164	59	99	136	169
	L (Deflection)	29	39	50	62	52	82	118	148	54	74	94	117
17' - 0"	$\alpha_D + \alpha_L$ (Strength)	81	115	148	187	47**	74**	106**	147**				
	D+L (Deflection)	33	45	57	72	47	74	106	147				
	L (Deflection)	24	33	41	52	47	74	99	123				
18' - 0"	$\alpha_D + \alpha_L$ (Strength)	72	102	132	166	43**	67**	95**	133**				
	D+L (Deflection)	27	37	48	59	43	67	95	133				
	L (Deflection)	20	28	35	44	43	66	83	104				
19' - 0"	$\alpha_D + \alpha_L$ (Strength)	64	91	117	148	39**	61**	87**	120**				
	D+L (Deflection)	23	31	40	49	39	61	87	120				
	L (Deflection)	17	23	30	37	39	56	71	88				
20' - 0"	$\alpha_D + \alpha_L$ (Strength)	58	82	105	133	36**	55**	79**	109**				
	D+L (Deflection)	19	26	33	42	36	55	79	107				
	L (Deflection)	15	20	25	32	35	48	61	76				
21' - 0"	$\alpha_D + \alpha_L$ (Strength)	52	74	95	120	33**	51**	72**	99**				
	D+L (Deflection)	16	22	28	35	33	51	72	92				
	L (Deflection)	13	17	22	27	30	41	52	65				
22' - 0"	$\alpha_D + \alpha_L$ (Strength)	47	67	86	109	30**	46**	66**	91**				
	D+L (Deflection)	14	19	24	30	30	46	63	79				
	L (Deflection)	11	15	19	24	26	36	45	57				
23' - 0"	$\alpha_D + \alpha_L$ (Strength)	43	61	78	99	28**	43**	60**	83**				
	D+L (Deflection)	12	16	20	25	28	43	55	68				
	L (Deflection)	10	13	17	21	23	31	40	50				
24' - 0"	$\alpha_D + \alpha_L$ (Strength)	39	55	71	90	26**	39**	56**	77**				
	D+L (Deflection)	10	14	17	21	26	38	48	59				
	L (Deflection)	8	12	15	18	20	28	35	44				

11' - 0"	$\alpha_D + \alpha_L$ (Strength)	142*	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	129	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	88	← Max. superimposed unfactored LSD live load (psf) (governed by deflection limitation of L/360)
			← Vertical load span (center to center spacing)

- Wd Weight of deck (uncoated), psf
- Ip Moment of inertia for positive bending per foot of deck width, (in<sup>4</sup>)/ft
- In Moment of inertia for negative bending per foot of deck width, (in<sup>4</sup>)/ft
- Sp Section modulus for positive bending per foot of deck width, (in<sup>3</sup>)/ft
- Sn Section modulus for negative bending per foot of deck width, (in<sup>3</sup>)/ft
- $\alpha_D, \alpha_L$  Load factors for D & L loads to be applied by Engineer in accordance with Building Codes.
- Rbe Allowable exterior web crippling value per foot of deck width, plf
- Rbi Allowable interior web crippling value per foot of deck width, plf
- Va Allowable shear value per foot of deck width, plf
- D Uniform dead load, psf
- L Uniform live load, psf

- Notes:
- Bending strength based on allowable flexural stress of 36 ksi.
  - Loads marked with asterisk (\*) are governed by interior (6" bearing) or exterior (4" bearing) reactions (web crippling).
  - Loads marked with two asterisks (\*\*) are governed by moment & shear or moment & reactions (web crippling) assuming 6" of interior bearing.
  - An upper limit of 400 psf has been applied to the loads.
  - Deck length over 45'-0" require inquiry and special accommodations. Please contact the Metal-Dek Group® for further information.

The section properties table is based on 2001 AISI's North American Specification for the Design of Cold-Formed Steel Structural Members (2004 Supplement). Loads are calculated in accordance with requirements of CSSBI 10M-06. Standard for Steel Roof Deck.