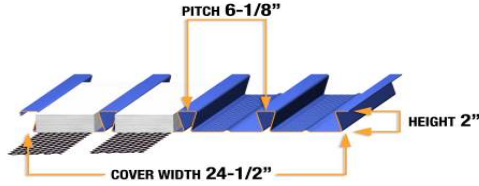


SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	Ip	In	Sp	Sn	Rbe			Rbi			Va
						2"	3"	4"	4"	5"	6"	
22	2.06	0.379	0.379	0.283	0.288	968	1115	1238	1832	1975	2105	3775
20	2.50	0.462	0.459	0.355	0.355	1378	1580	1750	2600	2797	2976	4559
18	3.31	0.616	0.602	0.474	0.480	2296	2615	2884	4317	4628	4908	5985
16	4.17	0.782	0.756	0.603	0.606	3500	3965	4357	6566	7017	7424	7481



LSD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LSD LOADS (psf)											
Span	Load Combinations	SINGLE SPAN				DOUBLE SPAN				TRIPLE SPAN			
		GAGE											
		22	20	18	16	22	20	18	16	22	20	18	16
8' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	91	115	153	195	87**	114**	154**	194**	109**	142**	192**	243**
	D+L (Deflection)	38	47	63	79	87	114	153	194	74	91	121	153
	L (Deflection)	27	33	44	56	64	78	104	133	51	62	83	105
9' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	81	102	136	173	78**	101**	137**	173**	98**	127**	171**	216**
	D+L (Deflection)	32	39	52	66	78	96	129	163	62	76	101	129
	L (Deflection)	23	28	37	47	54	66	88	112	43	52	70	88
9' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	73	91	122	155	70**	91**	122**	155**	88**	114**	154**	194**
	D+L (Deflection)	27	33	44	56	67	82	109	138	53	64	86	109
	L (Deflection)	19	24	31	40	46	56	75	95	36	44	59	75
10' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	65	82	110	140	64**	82**	110**	139**	80**	102**	138**	175**
	D+L (Deflection)	23	28	37	47	57	70	93	118	45	55	73	93
	L (Deflection)	17	20	27	34	39	48	64	81	31	38	51	65
10' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	59	74	99	126	58**	74**	100**	126**	72**	93**	125**	158**
	D+L (Deflection)	19	24	32	40	49	60	80	101	38	47	63	79
	L (Deflection)	14	17	23	30	34	42	55	70	27	33	44	56
11' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	54	67	90	114	53**	67**	90**	114**	66**	84**	114**	144**
	D+L (Deflection)	17	20	27	34	42	52	69	88	33	40	54	69
	L (Deflection)	12	15	20	26	30	36	48	61	23	29	38	48
11' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	49	61	82	104	48**	61**	82**	104**	60**	77**	104**	131**
	D+L (Deflection)	14	17	23	30	37	45	60	76	29	35	47	59
	L (Deflection)	11	13	18	23	26	32	42	54	21	25	33	42
12' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	45	56	75	95	44**	56**	75**	95**	55**	70**	95**	120**
	D+L (Deflection)	12	15	20	26	32	39	52	66	25	31	41	52
	L (Deflection)	10	12	16	20	23	28	37	47	18	22	29	37
12' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	41	51	69	87	40**	51**	69**	87**	51**	65**	87**	110**
	D+L (Deflection)	11	13	17	22	28	34	46	58	22	27	36	45
	L (Deflection)	8	10	14	18	20	25	33	42	16	20	26	33
13' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	38	47	63	80	37**	47**	64**	80**	47**	60**	81**	102**
	D+L (Deflection)	9	11	15	19	25	30	40	51	19	24	31	40
	L (Deflection)	8	9	12	16	18	22	29	37	14	17	23	29
13' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	35	44	58	74	34**	43**	59**	74**	44**	55**	74**	94**
	D+L (Deflection)	8	10	13	17	22	27	36	45	17	21	28	35
	L (Deflection)	7	8	11	14	16	20	26	33	13	15	21	26
14' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	32	40	54	69	32**	40**	54**	69**	40**	51**	69**	87**
	D+L (Deflection)	7	9	11	15	19	24	32	40	15	18	24	31
	L (Deflection)	6	7	10	12	14	18	23	30	11	14	19	24
14' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	30	37	50	64	30**	37**	50**	64**	38**	47**	64**	81**
	D+L (Deflection)	6	7	10	13	17	21	28	36	13	16	22	28
	L (Deflection)	5	7	9	11	13	16	21	27	10	12	17	21
15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	28	35	46	59	27**	35**	47**	59**	35**	44**	60**	75**
	D+L (Deflection)	5	6	9	11	15	19	25	32	12	14	19	25
	L (Deflection)	5	6	8	10	12	14	19	24	9	11	15	19

8' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	91	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	38	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	27	← 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, (in⁴)/ft
- In** Moment of inertia for negative bending per foot of deck width, (in⁴)/ft
- Sp** Section modulus for positive bending per foot of deck width, (in³)/ft
- Sn** Section modulus for negative bending per foot of deck width, (in³)/ft
- α_D, α_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 reactions (web crippling) assuming 4" of interior bearing.
- Loads marked with two asterisks (**) are governed by moment & shear or moment & reactions (web crippling) assuming 4" 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*.