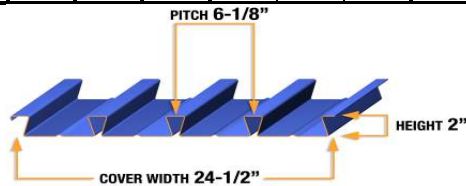


SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	Ip	In	Sp	Sn	Rbe			Rbi			Va
						2"	3"	4"	4"	5"	6"	
22	2.23	0.402	0.399	0.288	0.281	968	1115	1238	1832	1975	2105	3775
20	2.71	0.490	0.488	0.361	0.347	1378	1580	1750	2600	2797	2976	4559
18	3.58	0.654	0.644	0.483	0.484	2296	2615	2884	4317	4628	4908	5985
16	4.51	0.830	0.808	0.614	0.617	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)	93	117	156	198	85**	111**	155**	197**	107**	139**	194**	247**
	D+L (Deflection)	41	50	66	84	85	111	155	197	79	96	128	163
	L (Deflection)	29	35	47	59	68	83	111	141	54	66	88	111
9' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	83	104	139	176	76**	99**	138**	176**	95**	124**	173**	220**
	D+L (Deflection)	34	41	55	70	76	99	136	173	66	80	107	136
	L (Deflection)	24	29	39	50	57	70	93	118	45	55	74	94
9' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	74	93	124	158	69**	88**	123**	157**	86**	111**	155**	197**
	D+L (Deflection)	29	35	47	59	69	87	115	147	56	68	91	115
	L (Deflection)	21	25	33	42	49	60	79	101	39	47	63	80
10' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	66	83	111	142	62**	79**	111**	141**	78**	100**	139**	178**
	D+L (Deflection)	24	29	39	50	61	74	99	125	48	58	77	98
	L (Deflection)	18	21	29	36	42	51	68	86	33	40	54	68
10' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	60	75	101	128	56**	72**	100**	128**	71**	90**	126**	161**
	D+L (Deflection)	21	25	34	43	52	63	85	107	41	50	66	84
	L (Deflection)	15	19	25	31	36	44	59	75	29	35	47	59
11' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	54	68	91	116	51**	65**	91**	116**	64**	82**	115**	146**
	D+L (Deflection)	18	21	29	36	45	55	73	93	35	43	57	73
	L (Deflection)	13	16	22	27	31	38	51	65	25	30	41	51
11' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	49	62	83	106	47**	59**	83**	106**	59**	75**	105**	133**
	D+L (Deflection)	15	18	25	31	39	48	64	81	30	37	50	63
	L (Deflection)	12	14	19	24	28	34	45	57	22	27	35	45
12' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	45	57	76	97	43**	54**	76**	97**	54**	68**	96**	122**
	D+L (Deflection)	13	16	21	27	34	42	56	70	27	32	43	55
	L (Deflection)	10	12	17	21	24	30	39	50	19	23	31	40
12' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	41	52	70	89	39**	50**	70**	89**	50**	63**	88**	112**
	D+L (Deflection)	11	14	18	23	30	36	49	62	23	28	38	48
	L (Deflection)	9	11	15	19	21	26	35	44	17	21	28	35
13' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	38	48	64	82	36**	46**	64**	82**	46**	58**	81**	103**
	D+L (Deflection)	10	12	16	20	26	32	43	54	20	25	33	42
	L (Deflection)	8	10	13	17	19	23	31	39	15	18	25	31
13' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	35	44	59	75	33**	42**	59**	75**	42**	53**	75**	95**
	D+L (Deflection)	8	10	14	18	23	28	38	48	18	22	29	37
	L (Deflection)	7	9	12	15	17	21	28	35	13	16	22	28
14' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	32	41	55	70	31**	39**	55**	70**	39**	49**	69**	88**
	D+L (Deflection)	7	9	12	15	21	25	34	43	16	19	26	33
	L (Deflection)	6	8	10	13	15	19	25	31	12	15	20	25
14' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	30	38	51	64	29**	36**	51**	65**	37**	46**	64**	82**
	D+L (Deflection)	6	8	11	13	18	22	30	38	14	17	23	29
	L (Deflection)	6	7	9	12	14	17	22	28	11	13	18	22
15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	28	35	47	60	27**	34**	47**	60**	34**	43**	60**	76**
	D+L (Deflection)	6	7	9	12	16	20	27	34	13	15	20	26
	L (Deflection)	5	6	8	11	12	15	20	26	10	12	16	20

8' - 6"	$\alpha_D D + \alpha_L L$ (Strength)	93	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	41	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	29	← Max. superimposed unfactored LSD live load (psf) (governed by deflection limitation of L/360)

- 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*. Acoustical profile is also available.