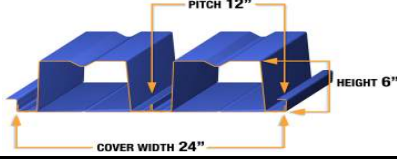


SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	Ip	In	Sp	Sn	Rbe			Rbi			Va
						4"	5"	6"	4"	5"	6"	
20/20	4.82	8.222	7.632	1.629	2.192	751	815	873	1326	1426	1517	1783
20/18	5.39	8.728	8.699	1.631	2.270	751	815	873	1326	1426	1517	1783
18/20	5.81	10.983	9.336	2.527	2.846	1279	1384	1479	2208	2367	2511	4147
18/18	6.38	11.822	10.505	2.517	2.939	1279	1384	1479	2208	2367	2511	4147
18/16	6.99	12.443	11.805	2.513	3.026	1279	1384	1479	2208	2367	2511	4147



LSD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LSD LOADS (psf)														
Span	Load Combinations	SINGLE SPAN					DOUBLE SPAN					TRIPLE SPAN				
		GAGE														
		20/20	20/18	18/20	18/18	18/16	20/20	20/18	18/20	18/18	18/16	20/20	20/18	18/20	18/18	18/16
15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	94*	93*	163*	163*	162*	75*	74*	127*	126*	125*	86*	85*	145*	144*	143*
	D+L (Deflection)	94	93	163	163	162	75	74	127	126	125	86	85	145	144	143
	L (Deflection)	94	93	142	153	161	75	74	127	126	125	86	85	145	144	143
16' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	88*	87*	153*	152*	151*	70*	69*	118*	118*	117*	80*	79*	135*	135*	134*
	D+L (Deflection)	88	87	153	152	151	70	69	118	118	117	80	79	135	135	134
	L (Deflection)	88	87	117	126	133	70	69	118	118	117	80	79	135	135	134
17' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	82*	82*	143*	142*	142*	65*	65*	111*	110*	109*					
	D+L (Deflection)	82	82	141	142	142	65	65	111	110	109					
	L (Deflection)	73	78	98	105	111	65	65	111	110	109					
18' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	77*	77*	135*	134*	133*	61*	61*	104*	104*	103*					
	D+L (Deflection)	77	77	118	127	133	61	61	104	104	103					
	L (Deflection)	62	66	82	89	93	61	61	104	104	103					
19' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	73*	72*	127*	127*	126*	58*	57*	98*	98*	97*					
	D+L (Deflection)	73	72	99	107	112	58	57	98	98	97					
	L (Deflection)	52	56	70	75	79	58	57	98	98	97					
20' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	69*	68*	121*	120*	119*	55*	54*	93*	92*	92*					
	D+L (Deflection)	63	66	84	91	95	55	54	93	92	92					
	L (Deflection)	45	48	60	65	68	55	54	93	92	92					
21' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	66*	65*	115*	114*	113*	52*	51*	87**	88**	87*					
	D+L (Deflection)	53	56	72	77	81	52	51	87	88	87					
	L (Deflection)	39	41	52	56	59	52	51	87	88	87					
22' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	62*	62*	109*	108*	108*	49*	48*	80**	81**	81**					
	D+L (Deflection)	46	48	62	67	70	49	48	80	81	81					
	L (Deflection)	34	36	45	49	51	49	48	80	81	81					
23' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	59*	59*	104*	103*	102*	47**	46*	74**	75**	75**					
	D+L (Deflection)	40	42	53	57	60	47	46	74	75	75					
	L (Deflection)	30	31	40	43	45	47	46	74	75	75					
24' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	57*	56*	98	97	96	43**	43**	69**	69**	70**					
	D+L (Deflection)	34	36	46	50	52	43	43	69	69	70					
	L (Deflection)	26	28	35	37	39	43	43	69	69	70					
25' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	54*	53*	90	89	88										
	D+L (Deflection)	30	31	40	43	45										
	L (Deflection)	23	24	31	33	35										
26' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	52*	51*	82	81	80										
	D+L (Deflection)	26	27	35	38	39										
	L (Deflection)	20	22	27	29	31										
27' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	48	47	76	75	74										
	D+L (Deflection)	23	24	31	33	35										
	L (Deflection)	18	19	24	26	28										
28' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	44	43	70	69	68										
	D+L (Deflection)	20	21	27	29	30										
	L (Deflection)	16	17	22	24	25										

15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	94*	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	94	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	94	← Max. superimposed unfactored LSD live load (psf) (governed by deflection limitation of L/360)

Vertical load span (center to center spacing)

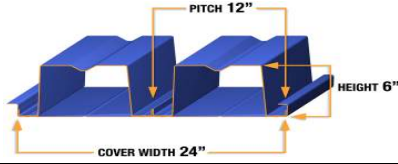
- Wd** Weight of deck (uncoated), psf
- Ip** Moment of inertia for positive bending per foot of deck width, (in⁴)/ft
- In** Moment of inertia for negative bending per foot of deck width, (in⁴)/ft
- Sp** Section modulus for positive bending per foot of deck width, (in³)/ft
- Sn** Section modulus for negative 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, pif
- Rbi** Allowable interior web crippling value per foot of deck width, pif
- Va** Allowable shear value per foot of deck width, pif
- 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*.
Acoustical profile is also available.

SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	Ip	In	Sp	Sn	Rbe			Rbi			Va
						4"	5"	6"	4"	5"	6"	
16/18	7.43	14.202	12.386	3.615	3.643	1975	2131	2273	3366	3598	3807	8344
16/16	8.05	15.165	13.712	3.616	3.746	1975	2131	2273	3366	3598	3807	8344
16/14	8.78	16.176	15.405	3.600	3.848	1975	2131	2273	3366	3598	3807	8344
14/16	9.31	17.829	15.957	4.787	4.598	2982	3210	3416	5041	5371	5669	13447
14/14	10.05	19.007	17.775	4.874	4.723	2982	3210	3416	5041	5371	5669	13447



LSD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LSD LOADS (psf)														
Span	Load Combinations	SINGLE SPAN					DOUBLE SPAN					TRIPLE SPAN				
		16/18	16/16	16/14	14/16	14/14	16/18	16/16	16/14	14/16	14/14	16/18	16/16	16/14	14/16	14/14
17' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	223*	222*	221*	339*	338*	170*	169*	168*	255*	254*					
	D+L (Deflection)	182	195	207	229	244	170	169	168	255	254					
	L (Deflection)	127	135	144	159	169	170	169	168	255	254					
18' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	210*	209*	208*	320*	319*	160*	159*	158*	235**	238**					
	D+L (Deflection)	152	163	173	191	204	160	159	158	235	238					
	L (Deflection)	107	114	121	134	143	160	159	158	235	238					
19' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	199*	198*	197*	302*	301*	151**	150*	149*	214**	217**					
	D+L (Deflection)	129	137	146	161	172	151	150	149	214	217					
	L (Deflection)	91	97	103	114	121	151	150	149	214	217					
20' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	188*	187*	186*	276	280	138**	139**	140**	196**	198**					
	D+L (Deflection)	109	116	124	137	146	138	139	140	196	198					
	L (Deflection)	78	83	89	98	104	138	139	140	196	198					
21' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	179*	178*	177*	249	253	126**	128**	129**	179**	182**					
	D+L (Deflection)	93	99	106	117	125	126	128	129	179	182					
	L (Deflection)	67	72	76	84	90	126	128	129	179	182					
22' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	170	169	168	226	229	116**	118**	119**	165**	167**					
	D+L (Deflection)	80	85	91	101	107	116	118	119	165	167					
	L (Deflection)	58	62	66	73	78	116	118	119	165	167					
23' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	155	154	152	206	209	108**	109**	109**	152**	154**					
	D+L (Deflection)	69	74	79	87	93	108	109	109	152	154					
	L (Deflection)	51	55	58	64	68	108	109	109	152	154					
24' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	141	141	139	188	191	99**	100**	101**	141**	142**					
	D+L (Deflection)	60	64	68	75	80	99	100	101	141	142					
	L (Deflection)	45	48	51	56	60	99	100	101	134	142					
25' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	130	129	127	172	175										
	D+L (Deflection)	52	56	59	66	70										
	L (Deflection)	40	42	45	50	53										
26' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	119	118	117	158	160										
	D+L (Deflection)	46	49	52	57	61										
	L (Deflection)	35	38	40	44	47										
27' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	110	109	108	146	148										
	D+L (Deflection)	40	43	45	50	53										
	L (Deflection)	32	34	36	40	42										
28' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	101	101	99	135	137										
	D+L (Deflection)	35	37	40	44	47										
	L (Deflection)	28	30	32	36	38										
29' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	94	93	92	125	127										
	D+L (Deflection)	31	33	35	39	41										
	L (Deflection)	25	27	29	32	34										
30' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	87	86	85	116	117										
	D+L (Deflection)	27	29	31	34	36										
	L (Deflection)	23	25	26	29	31										

17' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	223*	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	182	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	127	← 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
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Notes:

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