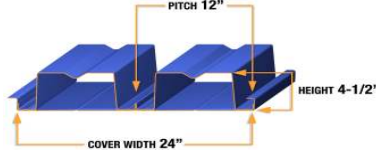


SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	Ip	In	Sp	Sn	Rbe			Rbi			Va
						4"	5"	6"	4"	5"	6"	
20/20	4.47	4.570	4.119	1.205	1.542	800	868	930	1336	1437	1528	2398
20/18	5.04	4.862	4.732	1.208	1.597	800	868	930	1336	1437	1528	2398
18/20	5.34	5.910	5.019	1.854	2.004	1347	1457	1557	2222	2382	2527	5414
18/18	5.91	6.389	5.697	1.860	2.069	1347	1457	1557	2222	2382	2527	5414
18/16	6.52	6.826	6.440	1.859	2.130	1347	1457	1557	2222	2382	2527	5414



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
11' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	140*	139*	238*	237*	237*	106*	105*	177*	176*	176*	121*	120*	202*	201*	201*
	D+L (Deflection)	140	139	238	237	237	106	105	177	176	176	121	120	202	201	201
	L (Deflection)	140	139	194	210	224	106	105	177	176	176	121	120	202	201	201
12' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	128*	127*	218*	217*	216*	96*	96*	162*	161*	160*	110*	109*	185*	184*	183*
	D+L (Deflection)	128	127	218	217	216	96	96	162	161	160	110	109	185	184	183
	L (Deflection)	116	123	150	162	173	96	96	162	161	160	110	109	185	184	183
13' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	117*	117*	200*	200*	199*	88*	88*	149*	148*	147*	101*	101*	170*	169*	169*
	D+L (Deflection)	117	117	171	185	197	88	88	149	148	147	101	101	170	169	169
	L (Deflection)	91	97	118	127	136	88	88	149	148	147	101	101	170	169	169
14' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	109*	108*	186*	185*	184*	82*	81*	138*	137*	136*	94*	93*	157*	157*	156*
	D+L (Deflection)	105	108	136	147	157	82	81	138	137	136	94	93	157	157	156
	L (Deflection)	73	78	94	102	109	82	81	138	137	136	94	93	157	157	156
15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	101*	100*	173*	172*	171*	76*	75*	128*	127*	127*	87*	86*	146*	146*	145*
	D+L (Deflection)	84	90	110	118	126	76	75	128	127	127	87	86	146	146	145
	L (Deflection)	59	63	77	83	89	76	75	128	127	127	87	86	144	146	145
16' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	94*	94*	162*	161*	160*	71*	70*	115**	117**	118**	81*	81*	137*	136*	135*
	D+L (Deflection)	69	73	89	96	103	71	70	115	117	118	81	81	137	136	135
	L (Deflection)	49	52	63	68	73	71	70	115	117	118	81	81	119	129	135
17' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	88*	88*	147	147	146	66*	66*	104**	105**	106**					
	D+L (Deflection)	57	60	74	79	85	66	66	104	105	106					
	L (Deflection)	41	43	53	57	61	66	66	104	105	106					
18' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	83*	83*	131	130	130	60**	61**	94**	95**	96**					
	D+L (Deflection)	47	50	61	66	70	60	61	94	95	96					
	L (Deflection)	34	36	44	48	51	60	61	94	95	96					
19' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	75	74	117	116	115	55**	55**	85**	86**	87**					
	D+L (Deflection)	39	42	51	55	59	55	55	85	86	87					
	L (Deflection)	29	31	38	41	44	55	55	85	86	87					
20' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	67	66	105	104	103	50**	50**	78**	79**	79**					
	D+L (Deflection)	33	35	43	47	49	50	50	78	79	79					
	L (Deflection)	25	27	32	35	37	50	50	77	79	79					
21' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	60	59	94	94	93	46**	46**	71**	72**	73**					
	D+L (Deflection)	28	29	37	39	42	46	46	71	72	73					
	L (Deflection)	22	23	28	30	32	46	46	66	72	73					
22' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	54	54	85	85	84	42**	42**	65**	66**	66**					
	D+L (Deflection)	24	25	31	33	36	42	42	65	66	66					
	L (Deflection)	19	20	24	26	28	42	42	58	62	66					
23' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	49	49	77	77	76	39**	39**	60**	61**	61**					
	D+L (Deflection)	20	21	27	29	30	39	39	60	61	61					
	L (Deflection)	16	17	21	23	25	39	39	51	55	58					
24' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	45	44	71	70	69	36**	36**	55**	56**	56**					
	D+L (Deflection)	17	18	23	24	26	36	36	55	56	56					
	L (Deflection)	14	15	19	20	22	34	36	44	48	51					

11' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	140*	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	140	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	140	← Max. superimposed unfactored LSD live load (psf) (governed by deflection limitation of L/360)

↑ Vertical load span (center to center spacing)

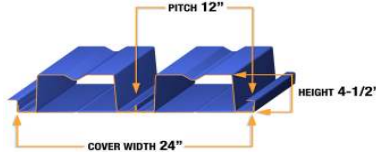
- | | | | |
|----------------------|---|------------|--|
| Wd | Weight of deck (uncoated), psf | Rbe | Allowable exterior web crippling value per foot of deck width, pif |
| Ip | Moment of inertia for positive bending per foot of deck width, (in ⁴)/ft | Rbi | Allowable interior web crippling value per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

- 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	6.85	7.655	6.699	2.525	2.566	2064	2228	2376	3386	3618	3828	8618
16/16	7.46	8.180	7.461	2.570	2.639	2064	2228	2376	3386	3618	3828	8618
16/14	8.19	8.730	8.410	2.617	2.709	2064	2228	2376	3386	3618	3828	8618
14/16	8.58	9.619	8.656	3.362	3.240	3099	3336	3550	5067	5398	5698	12401
14/14	9.32	10.264	9.661	3.422	3.326	3099	3336	3550	5067	5398	5698	12401



LSD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LSD LOADS (psf)														
Span	Load Combinations	SINGLE SPAN					DOUBLE SPAN					TRIPLE SPAN				
		GAGE														
		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
15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	261	265	265*	348	353	187**	189**	191**	264**	267**	223*	223*	222*	323**	327**
	D+L (Deflection)	142	152	162	179	190	187	189	191	264	267	223	223	222	323	327
	L (Deflection)	99	106	113	125	133	187	189	191	264	267	187	200	213	235	251
16' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	228	232	235	305	309	167**	169**	171**	235**	239**	204**	207**	207**	289**	293**
	D+L (Deflection)	116	124	132	146	155	167	169	171	235	239	204	207	207	282	293
	L (Deflection)	82	87	93	103	110	167	169	171	235	239	154	165	176	194	207
17' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	201	204	207	269	273	150**	152**	153**	211**	214**					
	D+L (Deflection)	95	102	108	120	128	150	152	153	211	214					
	L (Deflection)	68	73	78	86	91	150	152	153	204	214					
18' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	178	181	184	238	242	135**	137**	138**	190**	193**					
	D+L (Deflection)	79	85	90	100	106	135	137	138	190	193					
	L (Deflection)	57	61	66	72	77	135	137	138	172	183					
19' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	159	162	164	213	216	123**	124**	126**	172**	174**					
	D+L (Deflection)	66	71	75	83	89	123	124	126	172	174					
	L (Deflection)	49	52	56	61	66	116	124	126	146	156					
20' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	143	145	147	191	194	112**	113**	114**	156**	158**					
	D+L (Deflection)	56	60	63	70	75	112	113	114	156	158					
	L (Deflection)	42	45	48	53	56	100	106	114	125	134					
21' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	129	131	132	172	175	102**	103**	104**	142**	144**					
	D+L (Deflection)	47	51	54	60	63	102	103	104	142	144					
	L (Deflection)	36	39	41	45	49	86	92	98	108	115					
22' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	117	118	120	156	158	93**	94**	95**	130**	132**					
	D+L (Deflection)	40	43	46	51	54	93	94	95	130	132					
	L (Deflection)	31	34	36	40	42	75	80	85	94	100					
23' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	106	107	108	142	144	86**	87**	87**	119**	121**					
	D+L (Deflection)	34	37	39	43	46	86	87	87	115	121					
	L (Deflection)	28	29	31	35	37	65	70	75	82	88					
24' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	97	98	99	129	131	79**	80**	80**	110**	111**					
	D+L (Deflection)	30	31	33	37	39	79	80	80	100	107					
	L (Deflection)	24	26	28	30	33	58	62	66	72	77					
25' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	88	89	90	118	120										
	D+L (Deflection)	25	27	28	32	34										
	L (Deflection)	21	23	24	27	29										
26' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	81	82	83	109	110										
	D+L (Deflection)	22	23	24	27	29										
	L (Deflection)	19	20	22	24	26										
27' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	75	75	76	100	101										
	D+L (Deflection)	19	20	21	24	25										
	L (Deflection)	17	18	19	21	23										
28' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	69	69	70	92	93										
	D+L (Deflection)	16	17	18	20	21										
	L (Deflection)	15	16	17	19	20										

15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	261	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	142	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	99	← 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 | Rbe | Allowable exterior web crippling value per foot of deck width, pif |
| Ip | Moment of inertia for positive bending per foot of deck width, (in ⁴)/ft | Rbi | Allowable interior web crippling value per foot of deck width, pif |
| In | Moment of inertia for negative bending per foot of deck width, (in ⁴)/ft | Va | Allowable shear value per foot of deck width, pif |
| Sp | Section modulus for positive bending per foot of deck width, (in ³)/ft | D | Uniform dead load, psf |
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