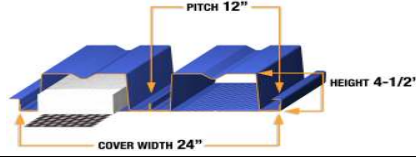


SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	Ip	In	Sp	Sn	Rbe			Rbi			Va
						4"	5"	6"	4"	5"	6"	
20/20	4.31	4.471	4.111	1.204	1.541	800	868	930	1336	1437	1528	2398
20/18	4.83	4.758	4.715	1.207	1.595	800	868	930	1336	1437	1528	2398
18/20	5.19	5.755	5.012	1.841	2.003	1347	1457	1557	2222	2382	2527	5414
18/18	5.71	6.216	5.681	1.860	2.067	1347	1457	1557	2222	2382	2527	5414
18/16	6.27	6.641	6.406	1.859	2.128	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
15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	101*	101*	173*	172*	172*	76*	75*	128*	128*	127*	87*	87*	147*	146*	145*
	D+L (Deflection)	83	88	107	115	123	76	75	128	128	127	87	87	147	146	145
	L (Deflection)	58	62	75	81	86	71	70	116	117	118	81	81	137*	136*	136*
16' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	95*	94*	162*	161*	160*	71*	70*	116**	117**	118**	81*	81*	137*	136*	136*
	D+L (Deflection)	67	71	87	94	100	71	70	116	117	118	81	81	137	136	136
	L (Deflection)	48	51	61	66	71	71	70	116	117	118	81	81	116	125	134
17' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	89*	88*	146	147	147	67*	66*	104**	105**	106**					
	D+L (Deflection)	55	59	72	77	82	67	66	104	105	106					
	L (Deflection)	40	42	51	55	59	67	66	104	105	106					
18' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	83*	83*	130	131	130	60**	61**	94**	95**	96**					
	D+L (Deflection)	46	49	60	64	68	60	61	94	95	96					
	L (Deflection)	34	36	43	47	50	60	61	94	95	96					
19' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	75	74	116	117	116	55**	55**	86**	87**	87**					
	D+L (Deflection)	38	41	50	54	57	55	55	86	87	87					
	L (Deflection)	29	30	37	40	42	55	55	86	87	87					
20' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	67	66	104	104	104	50**	51**	78**	79**	80**					
	D+L (Deflection)	32	34	42	45	48	50	51	78	79	80					
	L (Deflection)	24	26	31	34	36	50	51	75	79	80					
21' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	60	60	94	94	93	46**	46**	71**	72**	73**					
	D+L (Deflection)	27	29	36	38	41	46	46	71	72	73					
	L (Deflection)	21	22	27	29	31	46	46	65	70	73					
22' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	54	54	85	85	84	42**	43**	65**	66**	67**					
	D+L (Deflection)	23	25	30	33	35	42	43	65	66	67					
	L (Deflection)	18	20	24	26	27	42	43	56	61	65					
23' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	49	49	77	77	77	39**	39**	60**	61**	61**					
	D+L (Deflection)	20	21	26	28	30	39	39	60	61	61					
	L (Deflection)	16	17	21	22	24	38	39	49	53	57					
24' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	45	44	70	70	70	36**	36**	55**	56**	56**					
	D+L (Deflection)	17	18	22	24	25	36	36	55	56	56					
	L (Deflection)	14	15	18	20	21	34	36	43	47	50					
25' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	41	40	64	64	64										
	D+L (Deflection)	14	15	19	20	22										
	L (Deflection)	13	13	16	17	19										
26' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	37	37	59	59	58										
	D+L (Deflection)	12	13	16	18	19										
	L (Deflection)	11	12	14	15	17										
27' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	34	34	54	54	53										
	D+L (Deflection)	11	11	14	15	16										
	L (Deflection)	10	11	13	14	15										
28' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	31	31	50	50	49										
	D+L (Deflection)	9	9	12	13	14										
	L (Deflection)	9	9	11	12	13										

15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	101*	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	83	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	58	← Max. superimposed unfactored LSD live load (psf) (governed by deflection limitation of L/360)

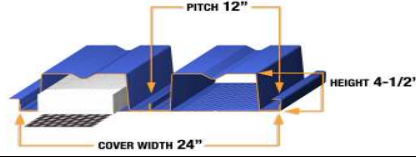
- Wd** Weight of deck (uncoated), psf
- Ip** Moment of inertia for positive bending per foot of deck width, (in⁴)/ft
- In** Moment of inertia for negative bending per foot of deck width, (in⁴)/ft
- Sp** Section modulus for positive bending per foot of deck width, (in³)/ft
- Sn** Section modulus for negative 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, 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	6.65	7.451	6.684	2.506	2.565	2064	2228	2376	3386	3618	3828	8618
16/16	7.20	7.956	7.427	2.551	2.636	2064	2228	2376	3386	3618	3828	8618
16/14	7.87	8.491	8.491	2.598	2.705	2064	2228	2376	3386	3618	3828	8618
14/16	8.33	9.360	8.624	3.338	3.237	3099	3336	3550	5067	5398	5698	12401
14/14	9.00	9.981	9.597	3.397	3.321	3099	3336	3550	5067	5398	5698	12401



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
15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	259	263	265*	346	351	187**	189**	191**	264**	268**	224*	223*	222*	324**	328**
	D+L (Deflection)	138	148	157	174	185	187	189	191	264	268	224	223	222	324	328
	L (Deflection)	97	103	110	121	129	187	189	191	264	268	182	194	207	229	244
16' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	227	230	234	302	307	167**	169**	171**	236**	239**	205**	207**	208*	289**	293**
	D+L (Deflection)	113	120	128	142	151	167	169	171	236	239	205	207	208	274	292
	L (Deflection)	80	85	91	100	107	167	169	171	236	239	150	160	171	188	201
17' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	200	203	206	267	271	150**	152**	154**	211**	214**					
	D+L (Deflection)	93	99	106	117	124	150	152	154	211	214					
	L (Deflection)	66	71	76	83	89	150	152	154	198	211					
18' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	177	180	183	237	240	136**	137**	139**	190**	193**					
	D+L (Deflection)	77	82	88	97	103	136	137	139	190	193					
	L (Deflection)	56	60	64	70	75	133	137	139	167	178					
19' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	158	161	163	211	215	123**	125**	126**	172**	175**					
	D+L (Deflection)	65	69	73	81	87	123	125	126	172	175					
	L (Deflection)	48	51	54	60	64	113	121	126	142	151					
20' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	142	144	146	190	193	112**	113**	114**	156**	159**					
	D+L (Deflection)	55	58	62	68	73	112	113	114	156	159					
	L (Deflection)	41	44	46	51	55	97	103	110	122	130					
21' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	128	130	132	171	174	102**	103**	104**	143**	145**					
	D+L (Deflection)	46	49	52	58	62	102	103	104	143	145					
	L (Deflection)	35	38	40	44	47	84	89	95	105	112					
22' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	116	117	119	155	157	94**	95**	96**	130**	132**					
	D+L (Deflection)	39	42	44	49	53	94	95	96	129	132					
	L (Deflection)	31	33	35	38	41	73	78	83	91	98					
23' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	105	107	108	141	143	86**	87**	88**	120**	121**					
	D+L (Deflection)	34	36	38	42	45	86	87	88	112	119					
	L (Deflection)	27	29	31	34	36	64	68	73	80	85					
24' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	96	97	98	129	130	79**	80**	81**	110**	111**					
	D+L (Deflection)	29	31	32	36	38	77	80	81	97	104					
	L (Deflection)	24	25	27	30	32	56	60	64	70	75					
25' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	88	89	90	118	119										
	D+L (Deflection)	25	26	28	31	33										
	L (Deflection)	21	22	24	26	28										
26' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	81	82	82	108	109										
	D+L (Deflection)	21	23	24	27	28										
	L (Deflection)	19	20	21	23	25										
27' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	74	75	76	99	101										
	D+L (Deflection)	18	19	20	23	24										
	L (Deflection)	17	18	19	21	22										
28' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	68	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)	259	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	138	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	97	← 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
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