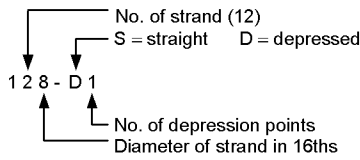


**Strand Pattern Designation**

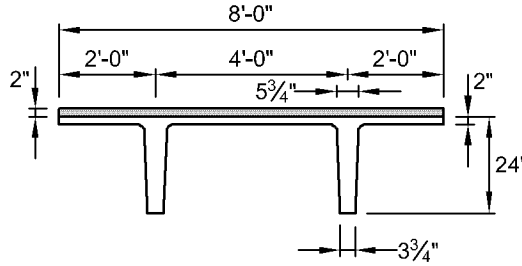


Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

**Key**

- 196 – Safe superimposed service load, psf
- 1.2 – Estimated camber at erection, in.
- 1.5 – Estimated long-time camber, in.

**DOUBLE TEE**  
**8'-0" x 24"**  
**Lightweight Concrete**



$f'_c = 5,000$  psi  
 $f_{pu} = 270,000$  psi

**Section Properties**  
**Untopped**      **Topped**

A = 401 in. <sup>2</sup>	–
I = 20,985 in. <sup>4</sup>	29,857 in. <sup>4</sup>
y <sub>b</sub> = 17.15 in.	19.94 in.
y <sub>t</sub> = 6.85 in.	6.06 in.
S <sub>b</sub> = 1,224 in. <sup>3</sup>	1,497 in. <sup>3</sup>
S <sub>t</sub> = 3,064 in. <sup>3</sup>	4,927 in. <sup>3</sup>
wt = 418 plf	520 plf
DL = 40 psf	65 psf
V/S = 1.41 in.	

**8LDT24**

**Table of safe superimposed service load (psf) and cambers (in.)**

**No Topping**

Strand Pattern	y <sub>s</sub> (end) in. y <sub>s</sub> (center) in.	Span, ft																											
		32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80			
68-S	4.00	196	170	149	131	115	102	90	80	72	64	57	51	45	40	36	32	28											
	4.00	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.7	1.6	1.4											
88-S	5.00			194	171	152	135	121	108	97	87	79	71	64	58	52	47	43	38	35	31	28							
	5.00			1.8	1.9	2.1	2.2	2.3	2.5	2.6	2.7	2.7	2.8	2.8	2.9	2.9	2.8	2.8	2.6	2.5	2.3	2.0							
108-S	6.00					183	164	147	132	119	107	97	87	78	70	64	58	53	48	44	40	36	33	29	26				
	6.00					2.4	2.5	2.7	2.9	3.0	3.2	3.3	3.4	3.5	3.6	3.6	3.7	3.7	3.6	3.6	3.5	3.3	3.1	2.9	2.5				
128-S	7.00											110	99	89	80	72	65	59	53	49	44	40	37	34	31	28			
	7.00											3.7	3.8	3.9	4.0	4.1	4.2	4.2	4.2	4.1	4.0	3.9	3.7	3.5	3.2				
128-D1	11.67																												
	3.25																												
148-D1	12.86																												
	3.50																												

**8LDT24 + 2**

**Table of safe superimposed service load (psf) and cambers (in.)**

**2 in. Normal Weight Topping**

Strand Pattern	y <sub>s</sub> (end) in. y <sub>s</sub> (center) in.	Span, ft																									
		28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74		
48-S	3.00	178	150	126	107	90	76	64	54	45	38	31	25														
	3.00	0.6	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9														
68-S	4.00			198	170	147	127	111	96	84	73	63	55	47	40	34	29										
	4.00			1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.8	1.9	1.9	1.9	1.9	1.9	1.8										
88-S	5.00					197	172	151	133	117	103	91	80	71	61	52	45	37	31	25							
	5.00					1.8	1.9	2.1	2.2	2.3	2.5	2.6	2.7	2.7	2.8	2.8	2.9	2.9	2.8	2.8							
108-S	6.00							186	164	146	129	115	102	89	76	65	56	48	41	34	29						
	6.00							2.4	2.5	2.7	2.9	3.0	3.2	3.3	3.4	3.5	3.6	3.6	3.7	3.7	3.7						
128-S	7.00																										
	7.00																										
128-D1	11.67																										
	3.25																										

Strength is based on strain compatibility; bottom tension is limited to  $12\sqrt{f'_c}$ ; see pages 2-7 through 2-10 for explanation. Shaded values require release strengths higher than 3500 psi.