

SINGLE TEE

TYPE "A" LOAD TABLE

8LST 36+2

Table of safe superimposed live load (psf)

Lightweight Concrete

2" Normal Weight Topping

8'-0" x 36" Single Tee

Strand Pattern	Span, ft																							
	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	
68-S	55*	46*	38*	31*	24*																			
88-S	85*	74*	64*	55*	47*	39*	33*	27*																
108-S	116*	103*	91*	80*	70*	61*	54*	46*	40*	34*	28*													
88-D1	116*	102*	90*	80*	70*	61*	53*	46*	39*	33*	28*													
108-D1	158*	141*	127*	113*	102*	91*	81*	72*	64*	57*	50*	44*	38*	32*	27*									
128-D1	193*	174*	157*	142*	128*	116*	104*	94*	85*	76*	68*	61*	54*	48*	42*	37	31	25						
148-D1							127*	115*	105*	95*	86*	78*	70*	63*	57*	50	43	37	31	26				
168-D1															78*	70*	63	56	49	42	36	31	26	
188-D1																				47	41	35	30	
Dead Load	f_t	385	415	446	479	512	547	583	620	658	698	738	780	822	866	911	957	1005	1053	1103	1153	1205	1258	1312
	f_b	-1002	-1081	-1163	-1247	-1335	-1425	-1519	-1615	-1715	-1817	-1922	-2031	-2142	-2256	-2373	-2494	-2617	-2743	-2872	-3004	-3139	-3277	-3418
	a	0.617	0.718	0.830	0.955	1.094	1.247	1.416	1.602	1.805	2.027	2.269	2.531	2.816	3.125	3.458	3.817	4.203	4.618	5.062	5.539	6.048	6.591	7.170
100 plf Live Load	f_t	31	34	36	39	42	45	48	51	54	57	60	64	67	71	75	79	82	86	90	95	99	103	108
	f_b	-133	-144	-155	-166	-177	-190	-202	-215	-228	-242	-256	-270	-285	-300	-316	-332	-348	-365	-382	-400	-418	-436	-455
	a	0.065	0.075	0.087	0.100	0.115	0.131	0.149	0.168	0.189	0.213	0.238	0.266	0.296	0.328	0.363	0.401	0.441	0.485	0.531	0.581	0.635	0.692	0.752

*Capacity governed by ultimate strength

Values below heavy line require release strengths higher than 3500 psi

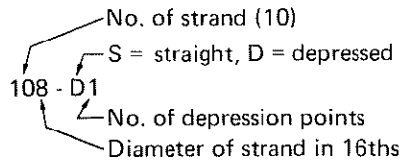
$f'_c = 5000$ psi

$f_{pu} = 270,000$ psi

Notation

- f_t = top fiber stress, psi (after assumed 25% loss) (precast section)
- f_b = bottom fiber stress, psi (after assumed 25% loss)
- a = center deflection, in.
- $0.001 l^2 \alpha$ = initial center camber, in. (after assumed 10% loss)
- l = span (ft)
- M_u = ult. moment capacity, in.-kips

Strand Pattern Designation



Section Properties

- I = 88,260 in.⁴
- y_b = 29.09 in.
- y_t = 8.91 in.
- Z_b = 3034 in.³
- Z_t = 9906 in.³
- wt = 655 plf
- 82 psf

See preceding page for untopped section properties.

Strand Pattern	Eccentricity in.		Prestress alone					M_u
			end		center		α	
	end	ctr	f_t	f_b	f_t	f_b		
68-S	19.34	19.34	-136	1179	-136	1179	0.328	6788
88-S	17.51	17.51	-148	1484	-148	1484	0.407	8415
108-S	16.81	16.81	-148	1757	-148	1757	0.475	10,148
88-D1	17.51	23.26	-148	1484	-280	1828	0.486	10,125
108-D1	16.81	23.01	-148	1757	-343	2265	0.592	12,452
128-D1	13.01	22.76	-34	1735	-402	2693	0.661	14,404
148-D1	10.58	22.51	67	1746	-458	3114	0.733	16,275
168-D1	8.76	22.26	168	1757	-511	3526	0.803	18,071
188-D1	7.12	22.01	282	1735	-560	3930	0.867	19,762

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