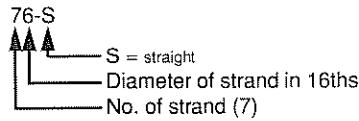


**Strand Pattern Designation**

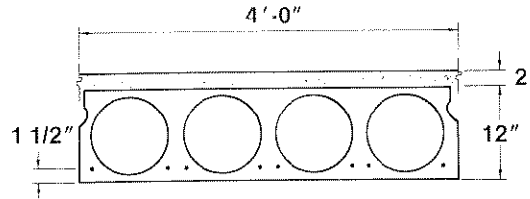


Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

Capacity of selections of other configurations are similar. For precise values, see local hollow-core manufacturer.

**HOLLOW-CORE**

**4'-0" x 12"**  
**Lightweight Concrete**



$f'_c = 5,000$  psi  
 $f'_{ci} = 3,500$  psi

**Section Properties**

	Untopped	Topped
A	= 262 in. <sup>2</sup>	—
I	= 4,949 in. <sup>4</sup>	8,800 in. <sup>4</sup>
y <sub>b</sub>	= 6.00 in.	8.08 in.
y <sub>t</sub>	= 6.00 in.	5.92 in.
Z <sub>b</sub>	= 825 in. <sup>3</sup>	1,089 in. <sup>3</sup>
Z <sub>t</sub>	= 825 in. <sup>3</sup>	1,486 in. <sup>3</sup>
b <sub>w</sub>	= 8.00 in.	8.00 in.
wt	= 209 plf	309 plf
	52 psf	77 psf
V/S	= 2.18 in.	

**Key**

- 140 — Safe superimposed service load, psf
- 0.6 — Estimated camber at erection, in.
- 0.7 — Estimated long-time camber, in.

**4LHC12**

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

**No Topping**

Strand Designation Code	Span, ft.																							
	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
76-S	140	128	117	107	98	90	82	75	69	63	57	52	48	43										
	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.3	0.2								
	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.4	0.3	0.2	0.0	-0.1	-0.3									
58-S	186	174	160	147	135	125	115	106	98	91	84	78	72	66	61	57	52	48	44					
	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.8	0.8	0.8	0.7	0.6	0.5	0.4					
	1.1	1.1	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.0	0.9	0.8	0.7	0.6	0.4	0.3	0.1	-0.1	-0.4				
68-S	192	183	175	170	163	156	144	134	124	115	107	100	93	86	80	75	69	65	60	56	51	48		
	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.1	1.0	0.9	0.8	0.8	0.8	
	1.4	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.4	1.4	1.3	1.1	1.0	0.8	0.6	0.4	0.2	-0.1		
78-S	198	189	181	173	166	162	155	149	144	138	130	121	113	106	99	92	86	81	76	71	65	61	57	
	1.4	1.5	1.5	1.6	1.7	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.7	1.7	1.6	1.5	
	1.8	1.8	1.9	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	1.9	1.8	1.7	1.6	1.4	1.2	1.0	0.7	
88-S	204	195	187	179	172	165	158	152	147	144	139	134	127	119	115	108	103	97	91	85	81	75	70	
	1.7	1.8	1.8	1.9	2.0	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.3	
	2.1	2.2	2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.7	2.7	2.6	2.5	2.4	2.3	2.1	2.0	1.8	

**4LHC12 + 2**

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

**2" Normal Weight Topping**

Strand Designation Code	Span, ft.																							
	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
76-S	254	228	206	186	168	152	137	124	112	102	92	83	75	68	61	54	49							
	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4							
	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.1	0.0	-0.1	-0.2	-0.4	-0.5	-0.7							
58-S	266	253	238	228	216	204	189	173	158	144	132	121	111	101	93	85	77	71	64	58	53			
	0.7	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.7			
	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.4	0.3	0.1	0.0	-0.2	-0.4	-0.6	-0.9			
68-S	275	259	244	234	222	210	203	193	183	175	167	154	142	131	120	111	102	94	87	80	73	67	62	
	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.2	
	0.9	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.4	0.3	0.1	-0.1	-0.3	-0.6	
78-S	281	265	253	240	228	216	209	199	189	181	173	165	161	154	147	136	126	117	108	100	93	86	80	
	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.5	1.6	1.7	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	
	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.2	1.2	1.1	0.9	0.8	0.6	0.4	0.2	
88-S	274	259	246	237	225	215	205	195	187	179	171	164	157	151	145	142	137	129	120	112	104	97		
	1.3	1.4	1.5	1.6	1.7	1.8	1.8	1.8	1.9	2.0	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	
	1.4	1.5	1.6	1.6	1.7	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.7	1.6	1.5	1.4	1.3	1.1	0.9	

Strength based on strain compatibility; bottom tension limited to  $6\sqrt{f'_c}$ ; see pages 2-3-2-6 for explanation.