

N830

Restrained Beam

**Fluted, Cellular or Corrugated Deck
Lightweight Concrete**

CAFCCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

Joist Designation	Depth (in.)	Approx. Wt (lbs./ft.)	1-Hour	1-1/2 Hour	2-Hour	3-Hour++
8K1	8	4.9	1 1/8+	1 5/16	2 1/16	NR
10K1	10	5.1	1 1/8+	1 5/16	2 1/16	NR
12K1	12	5.0	1 1/8+	1 5/16	2 1/16	NR
12K3	12	5.7	1 1/8+	1 5/16	2 1/16	NR
12K5	12	7.1	1 1/8+	1 5/16	2 1/16	3 1/4
14K1	14	5.2	1 1/8+	1 5/16	2 1/16	NR
14K3	14	6.0	1 1/8+	1 5/16	2 1/16	NR
14K4	14	6.7	1 1/8+	1 5/16	2 1/16	NR
14K6	14	7.7	1 1/8+	1 5/16	2 1/16	3 1/4
16K2	16	5.5	1 1/8+	1 5/16	2 1/16	NR
16K3	16	6.3	1 1/8+	1 5/16	2 1/16	NR
16K4	16	7.0	1 1/8+	1 5/16	2 1/16	NR
16K5	16	7.5	1 1/8+	1 5/16	2 1/16	3 1/4
16K6	16	8.1	1 1/8+	1 5/16	2 1/16	3 1/4
16K7	16	8.6	1 1/8+	1 5/16	2 1/16	3 1/4
16K9	16	10.0	1 1/8+	1 5/16	2 1/16	3 1/4
18K3	18	6.6	1 1/8+	1 5/16	2 1/16	NR
18K4	18	7.2	1 1/8+	1 5/16	2 1/16	3 1/4
18K5	18	7.7	1 1/8+	1 5/16	2 1/16	3 1/4
18K6	18	8.5	1 1/8+	1 5/16	2 1/16	3 1/4
18K7	18	9.0	1 1/8+	1 5/16	2 1/16	3 1/4
18K9	18	10.2	1 1/8+	1 5/16	2 1/16	3 1/4
18K10	18	11.7	1 1/8+	1 5/16	2 1/16	3 1/4
20K3	20	6.7	1 1/8+	1 5/16	2 1/16	NR
20K4	20	7.6	1 1/8+	1 5/16	2 1/16	3 1/4
20K5	20	8.2	1 1/8+	1 5/16	2 1/16	3 1/4
20K6	20	8.9	1 1/8+	1 5/16	2 1/16	3 1/4
20K7	20	9.3	1 1/8+	1 5/16	2 1/16	3 1/4
20K9	20	10.8	1 1/8+	1 5/16	2 1/16	3 1/4
20K10	20	12.2	1 1/8+	1 5/16	2 1/16	3 1/4

Maximum 30,000 psi (30 ksi joists)

+ Refer to Design N830 criteria for potential increased thickness on lower chord of joist

++3 hr. thickness from design N826

N830

Restrained Beam

Fluted, Cellular or Corrugated Deck

Lightweight Concrete

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

Joist Designation	Depth (in.)	Approx. Wt (lbs./ft.)	1-Hour	1-1/2 Hour	2-Hour	3-Hour++
22K4	22	8.0	1 1/8+	1 5/16	2 1/16	3 1/4
22K5	22	8.8	1 1/8+	1 5/16	2 1/16	3 1/4
22K6	22	9.2	1 1/8+	1 5/16	2 1/16	3 1/4
22K7	22	9.7	1 1/8+	1 5/16	2 1/16	3 1/4
22K9	22	11.9	1 1/8+	1 5/16	2 1/16	3 1/4
22K10	22	12.6	1 1/8+	1 5/16	2 1/16	3 1/4
22K11	22	13.8	1 1/8+	1 5/16	2 1/16	3 1/4
24K4	24	8.4	1 1/8+	1 5/16	2 1/16	3 1/4
24K5	24	9.3	1 1/8+	1 5/16	2 1/16	3 1/4
24K6	24	9.7	1 1/8+	1 5/16	2 1/16	3 1/4
24K7	24	10.1	1 1/8+	1 5/16	2 1/16	3 1/4
24K8	24	11.5	1 1/8+	1 5/16	2 1/16	3 1/4
24K9	24	12.0	1 1/8+	1 5/16	2 1/16	3 1/4
24K10	24	13.1	1 1/8+	1 5/16	2 1/16	3 1/4
24K12	24	16.0	1 1/8+	1 5/16	2 1/16	3 1/4
26K5	26	9.8	1 1/8+	1 5/16	2 1/16	3 1/4
26K6	26	10.6	1 1/8+	1 5/16	2 1/16	3 1/4
26K7	26	10.9	1 1/8+	1 5/16	2 1/16	3 1/4
26K8	26	12.1	1 1/8+	1 5/16	2 1/16	3 1/4
26K9	26	12.2	1 1/8+	1 5/16	2 1/16	3 1/4
26K10	26	13.8	1 1/8+	1 5/16	2 1/16	3 1/4
26K12	26	16.6	1 1/8+	1 5/16	2 1/16	3 1/4
28K6	28	11.4	1 1/8+	1 5/16	2 1/16	3 1/4
28K7	28	11.8	1 1/8+	1 5/16	2 1/16	3 1/4
28K8	28	12.7	1 1/8+	1 5/16	2 1/16	3 1/4
28K9	28	13.0	1 1/8+	1 5/16	2 1/16	3 1/4
28K10	28	14.3	1 1/8+	1 5/16	2 1/16	3 1/4
28K12	28	17.1	1 1/8+	1 5/16	2 1/16	3 1/4
30K7	30	12.3	1 1/8+	1 5/16	2 1/16	3 1/4
30K8	30	13.2	1 1/8+	1 5/16	2 1/16	3 1/4
30K9	30	13.4	1 1/8+	1 5/16	2 1/16	3 1/4
30K10	30	15.0	1 1/8+	1 5/16	2 1/16	3 1/4
30K11	30	16.4	1 1/8+	1 5/16	2 1/16	3 1/4
30K12	30	17.6	1 1/8+	1 5/16	2 1/16	3 1/4
18LH02	18	10	1 1/8+	1 5/16	2 1/16	3 1/4
18LH03	18	11	1 1/8+	1 5/16	2 1/16	3 1/4
18LH04	18	12	1 1/8+	1 5/16	2 1/16	3 1/4

Maximum 30,000 psi (30 ksi joists)

+ Refer to Design N830 criteria for potential increased thickness on lower chord of joist

++3 hr. thickness from design N826

N830

Restrained Beam

**Fluted, Cellular or Corrugated Deck
Lightweight Concrete**

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

Joist Designation	Depth (in.)	Approx. Wt (lbs./ft.)	1-Hour	1-1/2 Hour	2-Hour	3-Hour++
18LH05	18	15	1 1/8+	1 5/16	2 1/16	3 1/4
18LH06	18	15	1 1/8+	1 5/16	2 1/16	3 1/4
18LH07	18	17	1 1/8+	1 5/16	2 1/16	3 1/4
18LH08	18	19	1 1/8+	1 5/16	2 1/16	3 1/4
18LH09	18	21	1 1/8+	1 5/16	2 1/16	3 1/4
20LH02	20	10	1 1/8+	1 5/16	2 1/16	3 1/4
20LH03	20	11	1 1/8+	1 5/16	2 1/16	3 1/4
20LH04	20	12	1 1/8+	1 5/16	2 1/16	3 1/4
20LH05	20	14	1 1/8+	1 5/16	2 1/16	3 1/4
20LH06	20	15	1 1/8+	1 5/16	2 1/16	3 1/4
20LH07	20	17	1 1/8+	1 5/16	2 1/16	3 1/4
20LH08	20	19	1 1/8+	1 5/16	2 1/16	3 1/4
20LH09	20	21	1 1/8+	1 5/16	2 1/16	3 1/4
20LH10	20	23	1 1/8+	1 5/16	2 1/16	3 1/4
24LH03	24	11	1 1/8+	1 5/16	2 1/16	3 1/4
24LH04	24	12	1 1/8+	1 5/16	2 1/16	3 1/4
24LH05	24	13	1 1/8+	1 5/16	2 1/16	3 1/4
24LH06	24	16	1 1/8+	1 5/16	2 1/16	3 1/4
24LH07	24	17	1 1/8+	1 5/16	2 1/16	3 1/4
24LH08	24	18	1 1/8+	1 5/16	2 1/16	3 1/4
24LH09	24	21	1 1/8+	1 5/16	2 1/16	3 1/4
24LH10	24	23	1 1/8+	1 5/16	2 1/16	3 1/4
24LH11	24	25	1 1/8+	1 5/16	2 1/16	3 1/4
28LH05	28	13	1 1/8+	1 5/16	2 1/16	3 1/4
28LH06	28	16	1 1/8+	1 5/16	2 1/16	3 1/4
28LH07	28	17	1 1/8+	1 5/16	2 1/16	3 1/4
28LH08	28	18	1 1/8+	1 5/16	2 1/16	3 1/4
28LH09	28	21	1 1/8+	1 5/16	2 1/16	3 1/4
28LH10	28	23	1 1/8+	1 5/16	2 1/16	3 1/4
28LH11	28	25	1 1/8+	1 5/16	2 1/16	3 1/4
28LH12	28	27	1 1/8+	1 5/16	2 1/16	3 1/4
28LH13	28	30	1 1/8+	1 5/16	2 1/16	3 1/4
32LH06	32	14	1 1/8+	1 5/16	2 1/16	3 1/4
32LH07	32	16	1 1/8+	1 5/16	2 1/16	3 1/4
32LH08	32	17	1 1/8+	1 5/16	2 1/16	3 1/4
32LH09	32	21	1 1/8+	1 5/16	2 1/16	3 1/4
32LH10	32	21	1 1/8+	1 5/16	2 1/16	3 1/4
32LH11	32	24	1 1/8+	1 5/16	2 1/16	3 1/4

Maximum 30,000 psi (30 ksi joists)

+ Refer to Design N830 criteria for potential increased thickness on lower chord of joist

++3 hr. thickness from design N826

N830

Restrained Beam

**Fluted, Cellular or Corrugated Deck
Lightweight Concrete**

CAFCCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

Joist Designation	Depth (in.)	Approx. Wt (lbs./ft.)	1-Hour	1-1/2 Hour	2-Hour	3-Hour++
32LH12	32	27	1 1/8+	1 5/16	2 1/16	3 1/4
32LH13	32	30	1 1/8+	1 5/16	2 1/16	3 1/4
32LH14	32	33	1 1/8+	1 5/16	2 1/16	3 1/4
32LH15	32	35	1 1/8+	1 5/16	2 1/16	3 1/4
36LH07	36	16	1 1/8+	1 5/16	2 1/16	3 1/4
36LH08	36	18	1 1/8+	1 5/16	2 1/16	3 1/4
36LH09	36	21	1 1/8+	1 5/16	2 1/16	3 1/4
36LH10	36	21	1 1/8+	1 5/16	2 1/16	3 1/4
36LH11	36	23	1 1/8+	1 5/16	2 1/16	3 1/4
36LH12	36	25	1 1/8+	1 5/16	2 1/16	3 1/4
36LH13	36	30	1 1/8+	1 5/16	2 1/16	3 1/4
36LH14	36	36	1 1/8+	1 5/16	2 1/16	3 1/4
36LH15	36	36	1 1/8+	1 5/16	2 1/16	3 1/4
40LH08	40	16	1 1/8+	1 5/16	2 1/16	3 1/4
40LH09	40	21	1 1/8+	1 5/16	2 1/16	3 1/4
40LH10	40	21	1 1/8+	1 5/16	2 1/16	3 1/4
40LH11	40	22	1 1/8+	1 5/16	2 1/16	3 1/4
40LH12	40	25	1 1/8+	1 5/16	2 1/16	3 1/4
40LH13	40	30	1 1/8+	1 5/16	2 1/16	3 1/4
40LH14	40	35	1 1/8+	1 5/16	2 1/16	3 1/4
40LH15	40	36	1 1/8+	1 5/16	2 1/16	3 1/4
40LH16	40	42	1 1/8+	1 5/16	2 1/16	3 1/4
44LH09	44	19	1 1/8+	1 5/16	2 1/16	3 1/4
44LH10	44	21	1 1/8+	1 5/16	2 1/16	3 1/4
44LH11	44	22	1 1/8+	1 5/16	2 1/16	3 1/4
44LH12	44	25	1 1/8+	1 5/16	2 1/16	3 1/4
44LH13	44	30	1 1/8+	1 5/16	2 1/16	3 1/4
44LH14	44	31	1 1/8+	1 5/16	2 1/16	3 1/4
44LH15	44	36	1 1/8+	1 5/16	2 1/16	3 1/4
44LH16	44	42	1 1/8+	1 5/16	2 1/16	3 1/4
44LH17	44	47	1 1/8+	1 5/16	2 1/16	3 1/4
48LH10	48	21	1 1/8+	1 5/16	2 1/16	3 1/4
48LH11	48	22	1 1/8+	1 5/16	2 1/16	3 1/4
48LH12	48	25	1 1/8+	1 5/16	2 1/16	3 1/4
48LH13	48	29	1 1/8+	1 5/16	2 1/16	3 1/4
48LH14	48	32	1 1/8+	1 5/16	2 1/16	3 1/4
48LH15	48	36	1 1/8+	1 5/16	2 1/16	3 1/4
48LH16	48	42	1 1/8+	1 5/16	2 1/16	3 1/4
48LH17	48	47	1 1/8+	1 5/16	2 1/16	3 1/4
52DLH10	52	25	1 1/8+	1 5/16	2 1/16	3 1/4
52DLH11	52	26	1 1/8+	1 5/16	2 1/16	3 1/4

Maximum 30,000 psi (30 ksi joists)

+ Refer to Design N830 criteria for potential increased thickness on lower chord of joist

++3 hr. thickness from design N826

N830

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**Fluted, Cellular or Corrugated Deck
Lightweight Concrete**

CAFCO® BLAZE-SHIELD® II, HP & ISOLATEK® Type II, HP

Joist Designation	Depth (in.)	Approx. Wt (lbs./ft.)	1-Hour	1-1/2 Hour	2-Hour	3-Hour++
52DLH12	52	29	1 1/8+	1 5/16	2 1/16	3 1/4
52DLH13	52	34	1 1/8+	1 5/16	2 1/16	3 1/4
52DLH14	52	39	1 1/8+	1 5/16	2 1/16	3 1/4
52DLH15	52	42	1 1/8+	1 5/16	2 1/16	3 1/4
52DLH16	52	45	1 1/8+	1 5/16	2 1/16	3 1/4
52DLH17	52	52	1 1/8+	1 5/16	2 1/16	3 1/4
56DLH11	56	26	1 1/8+	1 5/16	2 1/16	3 1/4
56DLH12	56	30	1 1/8+	1 5/16	2 1/16	3 1/4
56DLH13	56	34	1 1/8+	1 5/16	2 1/16	3 1/4
56DLH14	56	39	1 1/8+	1 5/16	2 1/16	3 1/4
56DLH15	56	42	1 1/8+	1 5/16	2 1/16	3 1/4
56DLH16	56	46	1 1/8+	1 5/16	2 1/16	3 1/4
56DLH17	56	51	1 1/8+	1 5/16	2 1/16	3 1/4
60DLH12	60	29	1 1/8+	1 5/16	2 1/16	3 1/4
60DLH13	60	35	1 1/8+	1 5/16	2 1/16	3 1/4
60DLH14	60	40	1 1/8+	1 5/16	2 1/16	3 1/4
60DLH15	60	43	1 1/8+	1 5/16	2 1/16	3 1/4
60DLH16	60	46	1 1/8+	1 5/16	2 1/16	3 1/4
60DLH17	60	52	1 1/8+	1 5/16	2 1/16	3 1/4
60DLH18	60	59	1 1/8+	1 5/16	2 1/16	3 1/4
64DLH12	64	31	1 1/8+	1 5/16	2 1/16	3 1/4
64DLH13	64	34	1 1/8+	1 5/16	2 1/16	3 1/4
64DLH14	64	40	1 1/8+	1 5/16	2 1/16	3 1/4
64DLH15	64	43	1 1/8+	1 5/16	2 1/16	3 1/4
64DLH16	64	46	1 1/8+	1 5/16	2 1/16	3 1/4
64DLH17	64	52	1 1/8+	1 5/16	2 1/16	3 1/4
64DLH18	64	59	1 1/8+	1 5/16	2 1/16	3 1/4
68DLH13	68	37	1 1/8+	1 5/16	2 1/16	3 1/4
68DLH14	68	40	1 1/8+	1 5/16	2 1/16	3 1/4
68DLH15	68	44	1 1/8+	1 5/16	2 1/16	3 1/4
68DLH16	68	49	1 1/8+	1 5/16	2 1/16	3 1/4
68DLH17	68	55	1 1/8+	1 5/16	2 1/16	3 1/4
68DLH18	68	61	1 1/8+	1 5/16	2 1/16	3 1/4
68DLH19	68	67	1 1/8+	1 5/16	2 1/16	3 1/4
72DLH14	72	41	1 1/8+	1 5/16	2 1/16	3 1/4
72DLH15	72	44	1 1/8+	1 5/16	2 1/16	3 1/4
72DLH16	72	50	1 1/8+	1 5/16	2 1/16	3 1/4
72DLH17	72	56	1 1/8+	1 5/16	2 1/16	3 1/4
72DLH18	72	59	1 1/8+	1 5/16	2 1/16	3 1/4
72DLH19	72	70	1 1/8+	1 5/16	2 1/16	3 1/4

Maximum 30,000 psi (30 ksi joists)

+ Refer to Design N830 criteria for potential increased thickness on lower chord of joist

++3 hr. thickness from design N826