

**S812 (Spacing ≤ 4' OC)
Protected Roof Deck**

**Restrained Beam
LRFD**

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 |
|-------------------|-------------|-----------------------|--------|------------|--------|--------|
| 8K1 | 8 | 4.9 | NR | NR | NR | NR |
| 10K1 | 10 | 5.1 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 12K1 | 12 | 5.0 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 12K3 | 12 | 5.7 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 12K5 | 12 | 7.1 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 14K1 | 14 | 5.2 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 14K3 | 14 | 6.0 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 14K4 | 14 | 6.7 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 14K6 | 14 | 7.7 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 16K2 | 16 | 5.5 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 16K3 | 16 | 6.3 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 16K4 | 16 | 7.0 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 16K5 | 16 | 7.5 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 16K6 | 16 | 8.1 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 16K7 | 16 | 8.6 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 16K9 | 16 | 10.0 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18K3 | 18 | 6.6 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18K4 | 18 | 7.2 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18K5 | 18 | 7.7 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18K6 | 18 | 8.5 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18K7 | 18 | 9.0 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18K9 | 18 | 10.2 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18K10 | 18 | 11.7 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20K3 | 20 | 6.7 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20K4 | 20 | 7.6 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20K5 | 20 | 8.2 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20K6 | 20 | 8.9 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20K7 | 20 | 9.3 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20K9 | 20 | 10.8 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20K10 | 20 | 12.2 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |

Maximum 50,000 psi (50 ksi joists)

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| Joist Designation | Depth (in.) | Approx. Wt (lbs./ft.) | 1-Hour | 1-1/2 Hour | 2-Hour | 3-Hour |
|-------------------|-------------|-----------------------|--------|------------|--------|--------|
| 22K4 | 22 | 8.0 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 22K5 | 22 | 8.8 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 22K6 | 22 | 9.2 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 22K7 | 22 | 9.7 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 22K9 | 22 | 11.9 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 22K10 | 22 | 12.6 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 22K11 | 22 | 13.8 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24K4 | 24 | 8.4 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24K5 | 24 | 9.3 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24K6 | 24 | 9.7 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24K7 | 24 | 10.1 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24K8 | 24 | 11.5 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24K9 | 24 | 12.0 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24K10 | 24 | 13.1 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24K12 | 24 | 16.0 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 26K5 | 26 | 9.8 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 26K6 | 26 | 10.6 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 26K7 | 26 | 10.9 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 26K8 | 26 | 12.1 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 26K9 | 26 | 12.2 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 26K10 | 26 | 13.8 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 26K12 | 26 | 16.6 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28K6 | 28 | 11.4 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28K7 | 28 | 11.8 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28K8 | 28 | 12.7 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28K9 | 28 | 13.0 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28K10 | 28 | 14.3 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28K12 | 28 | 17.1 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 30K7 | 30 | 12.3 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 30K8 | 30 | 13.2 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 30K9 | 30 | 13.4 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 30K10 | 30 | 15.0 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 30K11 | 30 | 16.4 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 30K12 | 30 | 17.6 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18LH02 | 18 | 10 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18LH03 | 18 | 11 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18LH04 | 18 | 12 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |

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| Joist Designation | Depth (in.) | Approx. Wt (lbs./ft.) | 1-Hour | 1-1/2 Hour | 2-Hour | 3-Hour |
|-------------------|-------------|-----------------------|--------|------------|--------|--------|
| 18LH05 | 18 | 15 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18LH06 | 18 | 15 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18LH07 | 18 | 17 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18LH08 | 18 | 19 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 18LH09 | 18 | 21 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20LH02 | 20 | 10 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20LH03 | 20 | 11 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20LH04 | 20 | 12 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20LH05 | 20 | 14 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20LH06 | 20 | 15 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20LH07 | 20 | 17 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20LH08 | 20 | 19 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20LH09 | 20 | 21 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 20LH10 | 20 | 23 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24LH03 | 24 | 11 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24LH04 | 24 | 12 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24LH05 | 24 | 13 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24LH06 | 24 | 16 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24LH07 | 24 | 17 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24LH08 | 24 | 18 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24LH09 | 24 | 21 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24LH10 | 24 | 23 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 24LH11 | 24 | 25 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28LH05 | 28 | 13 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28LH06 | 28 | 16 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28LH07 | 28 | 17 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28LH08 | 28 | 18 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28LH09 | 28 | 21 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28LH10 | 28 | 23 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28LH11 | 28 | 25 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28LH12 | 28 | 27 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 28LH13 | 28 | 30 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 32LH06 | 32 | 14 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 32LH07 | 32 | 16 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 32LH08 | 32 | 17 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 32LH09 | 32 | 21 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 32LH10 | 32 | 21 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 32LH11 | 32 | 24 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |

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|----------------------|----------------|--------------------------|--------|------------|--------|--------|
| 32LH12 | 32 | 27 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 32LH13 | 32 | 30 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 32LH14 | 32 | 33 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 32LH15 | 32 | 35 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 36LH07 | 36 | 16 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 36LH08 | 36 | 18 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 36LH09 | 36 | 21 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 36LH10 | 36 | 21 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 36LH11 | 36 | 23 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 36LH12 | 36 | 25 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 36LH13 | 36 | 30 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 36LH14 | 36 | 36 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 36LH15 | 36 | 36 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 40LH08 | 40 | 16 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 40LH09 | 40 | 21 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 40LH10 | 40 | 21 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 40LH11 | 40 | 22 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 40LH12 | 40 | 25 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 40LH13 | 40 | 30 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 40LH14 | 40 | 35 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 40LH15 | 40 | 36 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 40LH16 | 40 | 42 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 44LH09 | 44 | 19 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 44LH10 | 44 | 21 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 44LH11 | 44 | 22 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 44LH12 | 44 | 25 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 44LH13 | 44 | 30 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 44LH14 | 44 | 31 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 44LH15 | 44 | 36 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 44LH16 | 44 | 42 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 44LH17 | 44 | 47 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 48LH10 | 48 | 21 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 48LH11 | 48 | 22 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 48LH12 | 48 | 25 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 48LH13 | 48 | 29 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 48LH14 | 48 | 32 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 48LH15 | 48 | 36 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 48LH16 | 48 | 42 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 48LH17 | 48 | 47 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 52DLH10 | 52 | 25 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 52DLH11 | 52 | 26 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |

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| Joist Designation | Depth (in.) | Approx. Wt (lbs./ft.) | 1-Hour | 1-1/2 Hour | 2-Hour | 3-Hour |
|-------------------|-------------|-----------------------|--------|------------|--------|--------|
| 52DLH12 | 52 | 29 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 52DLH13 | 52 | 34 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 52DLH14 | 52 | 39 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 52DLH15 | 52 | 42 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 52DLH16 | 52 | 45 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 52DLH17 | 52 | 52 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 56DLH11 | 56 | 26 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 56DLH12 | 56 | 30 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 56DLH13 | 56 | 34 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 56DLH14 | 56 | 39 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 56DLH15 | 56 | 42 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 56DLH16 | 56 | 46 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 56DLH17 | 56 | 51 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 60DLH12 | 60 | 29 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 60DLH13 | 60 | 35 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 60DLH14 | 60 | 40 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 60DLH15 | 60 | 43 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 60DLH16 | 60 | 46 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 60DLH17 | 60 | 52 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 60DLH18 | 60 | 59 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 64DLH12 | 64 | 31 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 64DLH13 | 64 | 34 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 64DLH14 | 64 | 40 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 64DLH15 | 64 | 43 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 64DLH16 | 64 | 46 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 64DLH17 | 64 | 52 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 64DLH18 | 64 | 59 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 68DLH13 | 68 | 37 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 68DLH14 | 68 | 40 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 68DLH15 | 68 | 44 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 68DLH16 | 68 | 49 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 68DLH17 | 68 | 55 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 68DLH18 | 68 | 61 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 68DLH19 | 68 | 67 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 72DLH14 | 72 | 41 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 72DLH15 | 72 | 44 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 72DLH16 | 72 | 50 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 72DLH17 | 72 | 56 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 72DLH18 | 72 | 59 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |
| 72DLH19 | 72 | 70 | 3/4 | 1 3/16 | 1 5/8 | 1 9/16 |

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