

Steel Joist Institute
45th Edition
SJI 100-2020
Standard Specifications, Load Tables and
Weight Tables for Steel Joists and Joist Girders

First Printing – July 2020

This document containing the errata to the Steel Joist Institute 45th Edition Standard Specification will be periodically updated as needed and posted on the SJI website at www.steeljoist.org. The errata are organized by date in descending order (most recent to furthest past) hence regular users of this document need only review the errata posted since their previous use.

First Errata Posted on August 16, 2021

Corrected equation for calculating joist deflection on page 12.

As printed:

Compute Joist Deflection:

Increase deflection 15% to account for shear deformation in webs.

$$(1.15)(5WL_4/384EI)$$

$$(1.15)(5)(148/12) [(40-.33) \times 12]^4 / [(384)(29 \times 10^6) (247)] = 1.32''$$

Verify the RED number represents the joist loading that produces L/360 deflection

$$L/360 = (40-.33) \times 12/360 = 1.32''$$

As corrected:

Compute Joist Deflection:

Increase deflection 15% to account for shear deformation in webs.

$$(1.15)(5WL_4/384EI)$$

$$(1.15)(5)(148/12) [(40-.33) \times 12]^4 / [(384)(29 \times 10^6) (247)] = 1.32''$$

Verify the RED number represents the joist loading that produces L/360 deflection

$$L/360 = (40-.33) \times 12/360 = 1.32''$$

Corrected multiple load table cells on multiple pages.

| | | | |
|----------|--------|----------|----------------------------|
| Page 117 | 28LH07 | 54 ft | Total load changed to 474 |
| Page 118 | 32LH09 | 59 ft | Live load changed to 198 |
| Page 127 | 28LH07 | 16459 mm | Total load changed to 6.91 |
| Page 128 | 32LH09 | 17983 mm | Live load changed to 2.88 |
| Page 138 | 28LH07 | 54 ft | Total load changed to 316 |
| Page 139 | 32LH09 | 59 ft | Live load changed to 198 |
| Page 148 | 28LH07 | 16459 mm | Total load changed to 4.61 |
| Page 149 | 32LH09 | 17983 mm | Live load changed to 2.88 |

JOIST MOMENT OF INERTIA AND DEFLECTION

The moment of inertia of K-Series, LH-Series and DLH-Series joists in the load table can be estimated using the following equations:

$$I_j = 26.767 (W) (L^3) (10^{-6}) \text{ ASD, US Customary Units with } W \text{ in plf and } L = \text{Span} - 0.33 \text{ in feet}$$

$$I_j = 2.6953 (W) (L^3) (10^{-5}) \text{ ASD, Metric Units with } W \text{ in kN/m and } L = \text{Span} - 102 \text{ in mm}$$

The equations shown above provide an approximate “gross” moment of inertia, not including the effects of shear deformation. An open web steel joist can be expected to have approximately 15 percent more deformation than a solid web member. When a conventional beam formula is used to calculate joist deflection, a factor of 1.15 should be applied to account for the web shear deformation.

Example:

Find the Inertia for a 24K7 @ 40'-0”:

SJI tables 253 / 148

$I_j = 26.767 (W) (L^3) (10^{-6})$ where $W =$ RED figure in the Load Table and $L = (\text{Span} - 0.33)$ in feet.

$$I_j = 26.767(148) (40-0.33)^3(10^{-6}) = 247 \text{ in}^4$$

Compute Joist Deflection:

Increase deflection 15% to account for shear deformation in webs.

$$(1.15)(5WL^4/384EI)$$

$$(1.15)(5)(148/12) [(40-.33) \times 12]^4 / [(384)(29 \times 10^6) (247)] = 1.32''$$

Verify the RED number represents the joist loading that produces L/360 deflection

$$L/360 = (40-.33) \times 12/360 = 1.32''$$

The 15 percent approximation also applies to the deflection equations when using the Joist Girder moment of Inertia equations.

Having determined the moment of inertia and live load deflection requirements, it is not typically necessary to specify a total load deflection limit. K-Series, LH-Series, DLH Series and Joist Girders are fabricated with camber, (ref. SJI 100 sect 4.6), and since these are steel structural members, 2018 IBC Table 1604.3 note G states the dead load shall be taken as zero in determining the total load deflection.



STANDARD LOAD TABLE/OPEN WEB STEEL JOISTS, LH-SERIES
 Based on a 50 ksi Maximum Yield Strength - Loads Shown In Pounds Per Linear Foot (plf)

| Joist Designation | 28LH05 | 28LH06 | 28LH07 | 28LH08 | 28LH09 | 28LH10 | 28LH11 | 28LH12 | 28LH13 | 28LH14 | 28LH15 | 28LH16 | 28LH17 | 28LH18 | 28LH19 | 28LH20 | 28LH21 | 28LH22 | 28LH23 |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Depth (in.) | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| Approx. Wt. (lbs./ft.) | 13 | 16 | 17 | 18 | 21 | 23 | 25 | 27 | 30 | 35 | 38 | 42 | 49 | 56 | 63 | 79 | 88 | 102 | 111 |
| Span (ft.) | | | | | | | | | | | | | | | | | | | |
| 28 | 626 | 831 | 968 | 1036 | 1342 | 1438 | 1570 | 1839 | 2034 | 2459 | 2665 | | | | | | | | |
| 29 | 596 | 791 | 920 | 983 | 1271 | 1362 | 1487 | 1741 | 1922 | 2324 | 2518 | 2962 | | | | | | | |
| 30 | 568 | 755 | 874 | 934 | 1204 | 1291 | 1409 | 1651 | 1818 | 2199 | 2383 | 2798 | | | | | | | |
| 31 | 542 | 720 | 831 | 889 | 1143 | 1225 | 1337 | 1566 | 1722 | 2083 | 2257 | 2647 | | | | | | | |
| 32 | 517 | 687 | 791 | 846 | 1085 | 1163 | 1270 | 1488 | 1633 | 1975 | 2140 | 2507 | 2888 | | | | | | |
| 33 | 494 | 656 | 753 | 806 | 1032 | 1106 | 1207 | 1414 | 1550 | 1875 | 2032 | 2377 | 2738 | | | | | | |
| 34 | 472 | 627 | 718 | 768 | 982 | 1052 | 1149 | 1346 | 1474 | 1782 | 1931 | 2257 | 2592 | 2936 | | | | | |
| 35 | 451 | 600 | 685 | 733 | 935 | 1002 | 1094 | 1282 | 1402 | 1695 | 1837 | 2137 | 2445 | 2791 | | | | | |
| 36 | 432 | 574 | 654 | 700 | 892 | 956 | 1043 | 1223 | 1335 | 1614 | 1750 | 2018 | 2310 | 2655 | 2995 | | | | |
| 37 | 414 | 550 | 625 | 669 | 851 | 912 | 996 | 1166 | 1272 | 1539 | 1668 | 1910 | 2186 | 2527 | 2833 | | | | |
| 38 | 396 | 527 | 598 | 640 | 813 | 871 | 951 | 1113 | 1214 | 1468 | 1591 | 1810 | 2071 | 2395 | 2685 | | | | |
| 39 | 380 | 505 | 573 | 612 | 777 | 833 | 909 | 1065 | 1160 | 1402 | 1520 | 1717 | 1965 | 2273 | 2548 | | | | |
| 40 | 365 | 485 | 549 | 587 | 743 | 797 | 870 | 1019 | 1108 | 1340 | 1453 | 1632 | 1867 | 2159 | 2421 | | | | |
| 41 | 350 | 466 | 526 | 562 | 708 | 763 | 833 | 976 | 1060 | 1282 | 1390 | 1553 | 1777 | 2055 | 2303 | 2884 | | | |
| 42 | 337 | 448 | 505 | 540 | 667 | 729 | 780 | 857 | 895 | 1228 | 1331 | 1479 | 1692 | 1957 | 2194 | 2747 | | | |
| 43 | 323 | 429 | 484 | 517 | 639 | 704 | 762 | 837 | 874 | 1177 | 1275 | 1410 | 1614 | 1866 | 2092 | 2620 | 2925 | | |
| 44 | 310 | 412 | 464 | 496 | 612 | 679 | 736 | 818 | 854 | 1129 | 1223 | 1346 | 1541 | 1782 | 1998 | 2501 | 2793 | | |
| 45 | 297 | 395 | 445 | 475 | 586 | 651 | 711 | 800 | 835 | 1083 | 1174 | 1287 | 1473 | 1703 | 1909 | 2390 | 2669 | 2936 | |
| 46 | 286 | 379 | 427 | 456 | 563 | 625 | 682 | 782 | 816 | 1040 | 1128 | 1231 | 1409 | 1629 | 1827 | 2287 | 2553 | 2808 | |
| 47 | 275 | 364 | 410 | 438 | 540 | 600 | 655 | 766 | 799 | 999 | 1084 | 1179 | 1349 | 1560 | 1749 | 2190 | 2445 | 2689 | |
| 48 | 265 | 350 | 394 | 420 | 519 | 576 | 629 | 737 | 782 | 958 | 1043 | 1130 | 1293 | 1495 | 1676 | 2099 | 2344 | 2578 | 2950 |
| 49 | 255 | 337 | 379 | 403 | 499 | 554 | 605 | 709 | 766 | 919 | 1004 | 1084 | 1240 | 1434 | 1608 | 2014 | 2248 | 2473 | 2836 |
| 50 | 245 | 324 | 365 | 387 | 481 | 533 | 582 | 682 | 751 | 882 | 964 | 1041 | 1191 | 1377 | 1544 | 1933 | 2159 | 2374 | 2727 |
| 51 | 237 | 313 | 352 | 371 | 463 | 513 | 561 | 656 | 722 | 848 | 926 | 1000 | 1144 | 1323 | 1484 | 1858 | 2074 | 2281 | 2625 |
| 52 | 228 | 301 | 339 | 357 | 446 | 495 | 540 | 632 | 694 | 815 | 891 | 962 | 1101 | 1273 | 1427 | 1786 | 1995 | 2194 | 2529 |
| 53 | 220 | 291 | 327 | 344 | 430 | 477 | 521 | 609 | 668 | 784 | 857 | 925 | 1059 | 1225 | 1373 | 1719 | 1920 | 2111 | 2437 |
| 54 | 213 | 281 | 316 | 331 | 415 | 460 | 502 | 587 | 643 | 755 | 826 | 891 | 1020 | 1180 | 1322 | 1656 | 1849 | 2033 | 2351 |
| 55 | 206 | 271 | 305 | 319 | 401 | 444 | 485 | 566 | 620 | 728 | 796 | 859 | 983 | 1137 | 1275 | 1596 | 1782 | 1960 | 2269 |
| 56 | 199 | 262 | 295 | 308 | 387 | 429 | 468 | 546 | 598 | 702 | 767 | 828 | 948 | 1096 | 1229 | 1539 | 1718 | 1890 | 2191 |



ASD

| STANDARD LOAD TABLE/OPEN WEB STEEL JOISTS, LH-SERIES | | | | | | | | | | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Based on a 50 ksi Maximum Yield Strength - Loads Shown In Pounds Per Liner Foot (plf) | | | | | | | | | | | | | | | | | | | |
| Joist Designation | 32LH06 | 32LH07 | 32LH08 | 32LH09 | 32LH10 | 32LH11 | 32LH12 | 32LH13 | 32LH14 | 32LH15 | 32LH16 | 32LH17 | 32LH18 | 32LH19 | 32LH20 | 32LH21 | 32LH22 | 32LH23 | 32LH24 |
| Depth (in.) | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| Approx. Wt. (lbs./ft.) | 14 | 16 | 17 | 21 | 21 | 24 | 27 | 30 | 33 | 35 | 42 | 49 | 56 | 62 | 78 | 87 | 101 | 110 | 124 |
| Span (ft.) | | | | | | | | | | | | | | | | | | | |
| 32 | 655 | 735 | 829 | 1099 | 1184 | 1296 | 1522 | 1789 | 1916 | 2050 | 2691 | | | | | | | | |
| 33 | 629 | 705 | 793 | 1049 | 1131 | 1238 | 1453 | 1705 | 1827 | 1954 | 2561 | 2951 | | | | | | | |
| 34 | 605 | 678 | 760 | 1003 | 1080 | 1183 | 1388 | 1627 | 1742 | 1864 | 2440 | 2812 | | | | | | | |
| 35 | 581 | 651 | 728 | 959 | 1033 | 1131 | 1328 | 1553 | 1663 | 1779 | 2326 | 2681 | | | | | | | |
| 36 | 559 | 626 | 698 | 917 | 989 | 1082 | 1271 | 1484 | 1589 | 1700 | 2220 | 2558 | 2890 | | | | | | |
| 37 | 537 | 602 | 670 | 878 | 947 | 1036 | 1217 | 1419 | 1519 | 1626 | 2120 | 2443 | 2760 | | | | | | |
| 38 | 517 | 580 | 643 | 842 | 907 | 993 | 1166 | 1358 | 1454 | 1555 | 2026 | 2335 | 2638 | | | | | | |
| 39 | 498 | 558 | 617 | 807 | 870 | 952 | 1118 | 1300 | 1392 | 1490 | 1938 | 2234 | 2524 | 2890 | | | | | |
| 40 | 479 | 538 | 593 | 774 | 834 | 913 | 1073 | 1246 | 1334 | 1427 | 1856 | 2139 | 2416 | 2763 | | | | | |
| 41 | 462 | 518 | 570 | 743 | 801 | 877 | 1030 | 1195 | 1279 | 1369 | 1778 | 2049 | 2315 | 2644 | | | | | |
| 42 | 445 | 499 | 549 | 714 | 770 | 842 | 989 | 1146 | 1228 | 1314 | 1705 | 1956 | 2220 | 2532 | | | | | |
| 43 | 430 | 482 | 528 | 687 | 740 | 810 | 951 | 1101 | 1179 | 1262 | 1629 | 1865 | 2130 | 2422 | | | | | |
| 44 | 414 | 465 | 509 | 660 | 712 | 779 | 915 | 1058 | 1133 | 1212 | 1555 | 1781 | 2046 | 2312 | 2900 | | | | |
| 45 | 400 | 449 | 490 | 636 | 685 | 750 | 880 | 1017 | 1089 | 1166 | 1486 | 1702 | 1966 | 2210 | 2771 | | | | |
| 46 | 386 | 433 | 473 | 612 | 660 | 722 | 848 | 979 | 1048 | 1122 | 1422 | 1628 | 1883 | 2114 | 2651 | 2961 | | | |
| 47 | 373 | 419 | 456 | 590 | 636 | 696 | 817 | 943 | 1009 | 1080 | 1361 | 1559 | 1803 | 2025 | 2539 | 2835 | | | |
| 48 | 361 | 405 | 440 | 566 | 613 | 671 | 788 | 908 | 972 | 1040 | 1305 | 1494 | 1729 | 1940 | 2433 | 2718 | 2990 | | |
| 49 | 349 | 391 | 425 | 544 | 591 | 647 | 760 | 875 | 937 | 1003 | 1252 | 1434 | 1658 | 1862 | 2334 | 2607 | 2869 | | |
| 50 | 338 | 379 | 411 | 516 | 571 | 625 | 734 | 843 | 907 | 970 | 1202 | 1376 | 1592 | 1787 | 2241 | 2503 | 2754 | | |
| 51 | 326 | 366 | 397 | 498 | 550 | 602 | 712 | 801 | 826 | 853 | 1155 | 1323 | 1530 | 1717 | 2154 | 2405 | 2647 | 2985 | |
| 52 | 315 | 353 | 383 | 480 | 531 | 580 | 688 | 785 | 810 | 837 | 1111 | 1272 | 1471 | 1652 | 2071 | 2313 | 2545 | 2877 | |
| 53 | 304 | 341 | 369 | 463 | 512 | 560 | 664 | 771 | 795 | 821 | 1069 | 1224 | 1416 | 1589 | 1993 | 2226 | 2449 | 2775 | 2921 |
| 54 | 294 | 329 | 357 | 447 | 495 | 541 | 641 | 742 | 780 | 805 | 1029 | 1179 | 1364 | 1531 | 1920 | 2144 | 2359 | 2679 | 2813 |
| 55 | 284 | 318 | 345 | 432 | 478 | 522 | 619 | 715 | 766 | 791 | 992 | 1136 | 1314 | 1475 | 1850 | 2066 | 2273 | 2587 | 2711 |
| 56 | 275 | 308 | 333 | 418 | 462 | 505 | 598 | 690 | 738 | 776 | 957 | 1096 | 1267 | 1423 | 1784 | 1993 | 2192 | 2499 | 2614 |
| 57 | 266 | 298 | 322 | 404 | 445 | 488 | 578 | 666 | 713 | 763 | 923 | 1057 | 1223 | 1373 | 1722 | 1923 | 2116 | 2416 | 2523 |
| 58 | 257 | 288 | 312 | 391 | 430 | 473 | 559 | 643 | 688 | 750 | 891 | 1021 | 1181 | 1326 | 1662 | 1857 | 2043 | 2337 | 2436 |
| 59 | 249 | 279 | 302 | 379 | 416 | 458 | 541 | 621 | 665 | 725 | 861 | 986 | 1141 | 1281 | 1606 | 1794 | 1974 | 2262 | 2354 |
| 60 | 242 | 271 | 293 | 367 | 402 | 443 | 524 | 600 | 643 | 701 | 833 | 954 | 1103 | 1238 | 1553 | 1734 | 1908 | 2190 | 2275 |
| 61 | 234 | 262 | 284 | 356 | 389 | 429 | 508 | 581 | 622 | 678 | 805 | 922 | 1067 | 1198 | 1502 | 1678 | 1846 | 2122 | 2201 |
| 62 | 227 | 254 | 275 | 345 | 376 | 416 | 492 | 562 | 602 | 656 | 779 | 893 | 1033 | 1159 | 1454 | 1624 | 1786 | 2057 | 2130 |
| 63 | 220 | 247 | 267 | 335 | 364 | 403 | 477 | 544 | 583 | 635 | 755 | 864 | 1000 | 1123 | 1408 | 1572 | 1730 | 1994 | 2063 |
| 64 | 214 | 240 | 259 | 325 | 353 | 390 | 463 | 527 | 564 | 616 | 731 | 837 | 969 | 1088 | 1364 | 1523 | 1676 | 1934 | 1998 |



METRIC LOAD TABLE/OPEN WEB STEEL JOISTS, LH-SERIES

Based on a 345 MPa Maximum Yield Strength - Loads Shown in Kilonewtons Per Meter (kN/m)

| Joist Designation | 28LH05 | 28LH06 | 28LH07 | 28LH08 | 28LH09 | 28LH10 | 28LH11 | 28LH12 | 28LH13 | 28LH14 | 28LH15 | 28LH16 | 28LH17 | 28LH18 | 28LH19 | 28LH20 | 28LH21 | 28LH22 | 28LH23 |
|--------------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Depth (mm) | 711 | 711 | 711 | 711 | 711 | 711 | 711 | 711 | 711 | 711 | 711 | 711 | 711 | 711 | 711 | 711 | 711 | 711 | 711 |
| Approx. Wt. (kN/m) | 0.19 | 0.23 | 0.25 | 0.26 | 0.31 | 0.34 | 0.36 | 0.39 | 0.44 | 0.51 | 0.55 | 0.61 | 0.72 | 0.82 | 0.92 | 1.15 | 1.28 | 1.49 | 1.62 |
| Span (mm) | | | | | | | | | | | | | | | | | | | |
| ↓ | | | | | | | | | | | | | | | | | | | |
| 8534 | 9.13 9.13 | 12.12 12.12 | 14.12 14.12 | 15.11 15.11 | 19.58 19.58 | 20.98 20.98 | 22.91 22.91 | 26.83 26.83 | 29.68 28.37 | 35.88 35.88 | 38.89 38.89 | | | | | | | | |
| 8839 | 8.69 8.69 | 11.54 11.54 | 13.42 13.42 | 14.34 14.34 | 18.54 18.54 | 19.87 19.87 | 21.70 21.70 | 25.40 24.43 | 28.04 25.49 | 33.91 33.91 | 36.74 36.74 | 43.22 41.43 | | | | | | | |
| 9144 | 8.28 8.28 | 11.01 11.01 | 12.75 12.75 | 13.63 13.63 | 17.57 17.30 | 18.84 18.84 | 20.56 20.13 | 24.09 22.03 | 26.53 22.99 | 32.09 31.08 | 34.77 33.81 | 40.83 37.37 | | | | | | | |
| 9449 | 7.90 7.90 | 10.50 10.50 | 12.12 11.93 | 12.97 12.74 | 16.68 15.67 | 17.87 17.06 | 19.51 18.22 | 22.85 19.94 | 25.13 20.82 | 30.39 28.13 | 32.93 30.61 | 38.63 33.84 | | | | | | | |
| 9754 | 7.54 7.28 | 10.02 9.60 | 11.54 10.84 | 12.34 11.57 | 15.83 14.22 | 16.97 15.49 | 18.53 16.54 | 21.71 18.12 | 23.83 18.91 | 28.82 25.55 | 31.23 27.80 | 36.58 30.73 | 42.14 35.11 | | | | | | |
| 10058 | 7.20 6.62 | 9.57 8.75 | 10.98 9.88 | 11.76 10.53 | 15.06 12.95 | 16.14 14.11 | 17.61 15.07 | 20.63 16.50 | 22.62 17.23 | 27.36 23.27 | 29.65 25.32 | 34.68 27.99 | 39.95 31.98 | | | | | | |
| 10363 | 6.88 6.05 | 9.15 7.99 | 10.47 9.01 | 11.20 9.63 | 14.33 11.83 | 15.35 12.88 | 16.76 13.77 | 19.64 15.07 | 21.51 15.74 | 26.00 21.26 | 28.18 23.13 | 32.93 25.56 | 37.82 29.21 | 42.84 33.36 | | | | | |
| 10668 | 6.58 5.54 | 8.75 7.32 | 9.99 8.26 | 10.69 8.81 | 13.64 10.84 | 14.62 11.80 | 15.96 12.62 | 18.70 13.80 | 20.46 14.41 | 24.73 19.48 | 26.80 21.19 | 31.18 23.42 | 35.68 26.76 | 40.73 30.55 | | | | | |
| 10973 | 6.30 5.09 | 8.37 6.72 | 9.54 7.58 | 10.21 8.09 | 13.01 9.95 | 13.95 10.84 | 15.22 11.58 | 17.84 12.68 | 19.48 13.23 | 23.53 17.89 | 25.53 19.45 | 29.45 21.51 | 33.71 24.57 | 38.74 28.06 | 43.70 31.04 | | | | |
| 11278 | 6.04 4.68 | 8.02 6.18 | 9.12 6.97 | 9.76 7.45 | 12.41 9.16 | 13.30 9.98 | 14.53 10.66 | 17.01 11.67 | 18.56 12.18 | 22.46 16.46 | 24.34 17.90 | 27.87 19.78 | 31.90 22.62 | 36.87 25.83 | 41.34 28.57 | | | | |
| 11582 | 5.77 4.31 | 7.69 5.70 | 8.72 6.43 | 9.34 6.87 | 11.86 8.44 | 12.71 9.20 | 13.87 9.83 | 16.24 10.77 | 17.71 11.23 | 21.42 15.17 | 23.21 16.52 | 26.41 18.25 | 30.22 20.85 | 34.95 23.81 | 39.18 26.35 | | | | |
| 11887 | 5.54 3.99 | 7.36 5.28 | 8.36 5.95 | 8.93 6.34 | 11.33 7.82 | 12.15 8.50 | 13.26 9.09 | 15.54 9.95 | 16.92 10.39 | 20.46 14.03 | 22.18 15.26 | 25.05 16.88 | 28.67 19.27 | 33.17 22.02 | 37.18 24.37 | | | | |
| 12192 | 5.32 3.70 | 7.07 4.88 | 8.01 5.51 | 8.56 5.88 | 10.84 7.23 | 11.63 7.88 | 12.69 8.42 | 14.87 9.22 | 16.17 9.61 | 19.55 13.00 | 21.20 14.14 | 23.81 15.63 | 27.24 17.86 | 31.50 20.40 | 35.33 22.56 | | | | |
| 12497 | 5.10 3.44 | 6.80 4.53 | 7.67 5.12 | 8.20 5.45 | 10.33 6.71 | 11.13 7.31 | 12.15 7.82 | 14.24 8.55 | 15.46 8.93 | 18.70 12.06 | 20.28 13.11 | 22.66 14.50 | 25.93 16.57 | 29.99 18.92 | 33.60 20.94 | 42.08 26.00 | | | |
| 12802 | 4.91 3.19 | 6.53 4.21 | 7.36 4.75 | 7.88 5.07 | 9.73 6.24 | 10.63 6.80 | 11.38 7.26 | 12.50 7.95 | 13.06 8.30 | 17.92 11.22 | 19.42 12.20 | 21.58 13.48 | 24.69 15.41 | 28.56 17.60 | 32.01 19.46 | 40.08 24.18 | | | |
| 13106 | 4.71 2.99 | 6.26 3.94 | 7.06 4.45 | 7.54 4.74 | 9.32 5.83 | 10.27 6.40 | 11.12 6.93 | 12.21 7.58 | 12.75 7.92 | 17.17 10.44 | 18.60 11.36 | 20.57 12.56 | 23.55 14.34 | 27.23 16.38 | 30.53 18.14 | 38.23 22.51 | 42.68 24.92 | | |
| 13411 | 4.52 2.80 | 6.01 3.69 | 6.77 4.15 | 7.23 4.45 | 8.93 5.47 | 9.90 6.04 | 10.74 6.53 | 11.93 7.23 | 12.46 7.55 | 16.47 9.74 | 17.84 10.59 | 19.64 11.71 | 22.48 13.38 | 26.00 15.29 | 29.15 16.91 | 36.49 21.00 | 40.76 23.24 | | |
| 13716 | 4.33 2.62 | 5.76 3.47 | 6.49 3.89 | 6.93 4.15 | 8.55 5.12 | 9.50 5.66 | 10.37 6.17 | 11.67 6.94 | 12.18 7.22 | 15.80 9.10 | 17.13 9.90 | 18.78 10.94 | 21.49 12.50 | 24.85 14.28 | 27.85 15.80 | 34.87 19.62 | 38.95 21.73 | 42.84 24.63 | |
| 14021 | 4.17 2.46 | 5.53 3.25 | 6.23 3.66 | 6.65 3.91 | 8.21 4.80 | 9.12 5.31 | 9.95 5.79 | 11.41 6.62 | 11.90 6.88 | 15.17 8.52 | 16.46 9.26 | 17.96 10.24 | 20.56 11.70 | 23.77 13.36 | 26.66 14.78 | 33.37 18.35 | 37.25 20.32 | 40.97 23.04 | |
| 14326 | 4.01 2.32 | 5.31 3.05 | 5.98 3.44 | 6.39 3.67 | 7.88 4.50 | 8.75 4.99 | 9.55 5.44 | 11.17 6.34 | 11.66 6.59 | 14.57 7.98 | 15.81 8.68 | 17.20 9.60 | 19.68 10.96 | 22.76 12.52 | 25.52 13.86 | 31.96 17.20 | 35.68 19.04 | 39.24 21.59 | |
| 14630 | 3.86 2.18 | 5.10 2.87 | 5.74 3.23 | 6.12 3.44 | 7.57 4.24 | 8.40 4.69 | 9.17 5.12 | 10.75 5.95 | 11.41 6.31 | 13.98 7.48 | 15.22 8.14 | 16.49 9.00 | 18.86 10.28 | 21.81 11.74 | 24.45 13.00 | 30.63 16.14 | 34.20 17.87 | 37.62 20.27 | 43.05 22.03 |
| 14935 | 3.72 2.07 | 4.91 2.71 | 5.53 3.05 | 5.88 3.23 | 7.28 3.99 | 8.08 4.42 | 8.82 4.83 | 10.34 5.58 | 11.17 6.05 | 13.41 7.03 | 14.65 7.66 | 15.81 8.46 | 18.09 9.67 | 20.92 11.04 | 23.46 12.21 | 29.39 15.17 | 32.80 16.79 | 36.09 19.04 | 41.38 20.70 |
| 15240 | 3.57 1.94 | 4.72 2.55 | 5.32 2.87 | 5.64 3.05 | 7.01 3.76 | 7.77 4.15 | 8.49 4.55 | 9.95 5.26 | 10.96 5.77 | 12.87 6.62 | 14.06 7.19 | 15.19 7.96 | 17.38 9.09 | 20.09 10.39 | 22.53 11.49 | 28.21 14.27 | 31.50 15.80 | 34.64 17.92 | 39.79 19.48 |
| 15545 | 3.45 1.83 | 4.56 2.42 | 5.13 2.71 | 5.41 2.86 | 6.75 3.54 | 7.48 3.92 | 8.18 4.29 | 9.57 4.96 | 10.53 5.44 | 12.37 6.23 | 13.51 6.78 | 14.59 7.50 | 16.69 8.56 | 19.30 9.77 | 21.65 10.82 | 27.11 13.44 | 30.26 14.88 | 33.28 16.87 | 38.30 18.34 |
| 15850 | 3.32 1.73 | 4.39 2.27 | 4.94 2.56 | 5.21 2.69 | 6.50 3.32 | 7.22 3.72 | 7.88 4.05 | 9.22 4.68 | 10.12 5.13 | 11.89 5.88 | 13.00 6.39 | 14.03 7.07 | 16.06 8.08 | 18.57 9.22 | 20.82 10.21 | 26.06 12.68 | 29.11 14.03 | 32.01 15.90 | 36.90 17.30 |
| 16154 | 3.21 1.64 | 4.24 2.15 | 4.74 2.42 | 5.02 2.55 | 6.27 3.15 | 6.96 3.51 | 7.60 3.83 | 8.88 4.42 | 9.74 4.84 | 11.44 5.54 | 12.50 6.04 | 13.49 6.66 | 15.45 7.63 | 17.87 8.71 | 20.03 9.63 | 25.08 11.96 | 28.02 13.25 | 30.80 15.01 | 35.56 16.33 |
| 16459 | 3.10 1.56 | 4.10 2.04 | 4.61 2.30 | 4.83 2.40 | 6.05 2.97 | 6.71 3.32 | 7.32 3.63 | 8.56 4.15 | 9.38 4.58 | 11.01 5.23 | 12.05 5.70 | 13.00 6.30 | 14.88 7.20 | 17.22 8.23 | 19.29 9.10 | 24.16 11.31 | 26.98 12.52 | 29.66 14.19 | 34.31 15.44 |
| 16764 | 3.00 1.48 | 3.95 1.94 | 4.45 2.18 | 4.65 2.27 | 5.85 2.81 | 6.47 3.13 | 7.07 3.44 | 8.26 4.04 | 9.04 4.33 | 10.62 4.96 | 11.61 5.39 | 12.53 5.96 | 14.34 6.81 | 16.59 7.79 | 18.60 8.62 | 23.29 10.69 | 26.00 11.85 | 28.60 13.44 | 33.11 14.60 |
| 17069 | 2.90 1.41 | 3.82 1.83 | 4.30 2.07 | 4.49 2.15 | 5.64 2.67 | 6.26 2.97 | 6.82 3.25 | 7.96 3.73 | 8.72 4.10 | 10.24 4.69 | 11.19 5.10 | 12.08 5.64 | 13.83 6.46 | 15.99 7.36 | 17.93 8.15 | 22.46 10.14 | 25.07 11.22 | 27.58 12.72 | 31.97 13.83 |

