

APPENDIX A

APR1400 HRHF RESPONSE SPECTRA FOR 2, 3, 4, 5, 7, AND 10% DAMPING RATIOS

Table A-1 HRHF Horizontal Target Response Spectrum for 2, 3, 4, 5, 7 and 10% Damping Ratios

| HRHF Horizontal Target Response Spectra (g) | | | | | | |
|---|------------|------------|------------|------------|------------|-------------|
| Frequency (Hz) | 2% Damping | 3% Damping | 4% Damping | 5% Damping | 7% Damping | 10% Damping |
| 0.5 | 0.1249 | 0.1168 | 0.1117 | 0.1078 | 0.1037 | 0.1024 |
| 0.6 | 0.1530 | 0.1412 | 0.1333 | 0.1271 | 0.1192 | 0.1135 |
| 0.7 | 0.1786 | 0.1635 | 0.1532 | 0.1452 | 0.1345 | 0.1256 |
| 0.8 | 0.2025 | 0.1844 | 0.1719 | 0.1622 | 0.1491 | 0.1375 |
| 0.9 | 0.2248 | 0.2037 | 0.1892 | 0.1780 | 0.1626 | 0.1488 |
| 1 | 0.2499 | 0.2255 | 0.2089 | 0.1960 | 0.1783 | 0.1620 |
| 1.1 | 0.2764 | 0.2486 | 0.2298 | 0.2153 | 0.1951 | 0.1764 |
| 1.2 | 0.3023 | 0.2714 | 0.2507 | 0.2346 | 0.2122 | 0.1911 |
| 1.25 | 0.3151 | 0.2828 | 0.2610 | 0.2442 | 0.2208 | 0.1986 |
| 1.3 | 0.3274 | 0.2937 | 0.2711 | 0.2535 | 0.2291 | 0.2059 |
| 1.4 | 0.3520 | 0.3156 | 0.2911 | 0.2720 | 0.2456 | 0.2202 |
| 1.5 | 0.3774 | 0.3376 | 0.3111 | 0.2905 | 0.2621 | 0.2348 |
| 1.6 | 0.3991 | 0.3562 | 0.3277 | 0.3056 | 0.2753 | 0.2463 |
| 1.7 | 0.4198 | 0.3741 | 0.3439 | 0.3205 | 0.2884 | 0.2577 |
| 1.8 | 0.4405 | 0.3921 | 0.3600 | 0.3351 | 0.3012 | 0.2687 |
| 1.9 | 0.4606 | 0.4098 | 0.3759 | 0.3497 | 0.3137 | 0.2795 |
| 2 | 0.4810 | 0.4275 | 0.3917 | 0.3640 | 0.3263 | 0.2905 |
| 2.1 | 0.4979 | 0.4416 | 0.4039 | 0.3747 | 0.3351 | 0.2978 |
| 2.2 | 0.5144 | 0.4552 | 0.4158 | 0.3852 | 0.3437 | 0.3048 |
| 2.3 | 0.5295 | 0.4678 | 0.4271 | 0.3955 | 0.3526 | 0.3125 |
| 2.4 | 0.5436 | 0.4799 | 0.4381 | 0.4056 | 0.3618 | 0.3208 |
| 2.5 | 0.5565 | 0.4914 | 0.4487 | 0.4156 | 0.3707 | 0.3287 |
| 2.6 | 0.5743 | 0.5073 | 0.4631 | 0.4288 | 0.3823 | 0.3389 |
| 2.7 | 0.5919 | 0.5227 | 0.4772 | 0.4420 | 0.3941 | 0.3492 |
| 2.8 | 0.6091 | 0.5378 | 0.4912 | 0.4550 | 0.4058 | 0.3598 |
| 2.9 | 0.6249 | 0.5520 | 0.5047 | 0.4679 | 0.4179 | 0.3708 |
| 3 | 0.6409 | 0.5664 | 0.5182 | 0.4808 | 0.4300 | 0.3820 |
| 3.15 | 0.6613 | 0.5843 | 0.5346 | 0.4961 | 0.4441 | 0.3948 |
| 3.3 | 0.6819 | 0.6021 | 0.5509 | 0.5111 | 0.4576 | 0.4071 |
| 3.45 | 0.7000 | 0.6187 | 0.5664 | 0.5259 | 0.4709 | 0.4189 |
| 3.6 | 0.7177 | 0.6350 | 0.5818 | 0.5405 | 0.4844 | 0.4313 |
| 3.8 | 0.7408 | 0.6559 | 0.6016 | 0.5596 | 0.5024 | 0.4479 |
| 4 | 0.7656 | 0.6777 | 0.6217 | 0.5783 | 0.5196 | 0.4634 |
| 4.2 | 0.7866 | 0.6962 | 0.6387 | 0.5942 | 0.5341 | 0.4763 |
| 4.4 | 0.8114 | 0.7165 | 0.6564 | 0.6097 | 0.5471 | 0.4871 |

Table A-1 HRHF Horizontal Target Response Spectrum for 2, 3, 4, 5, 7 and 10% Damping Ratios (Cont'd)

| HRHF Horizontal Target Response Spectra (g) | | | | | | |
|---|------------|------------|------------|------------|------------|-------------|
| Frequency (Hz) | 2% Damping | 3% Damping | 4% Damping | 5% Damping | 7% Damping | 10% Damping |
| 4.6 | 0.8347 | 0.7357 | 0.6733 | 0.6249 | 0.5599 | 0.4977 |
| 4.8 | 0.8566 | 0.7544 | 0.6899 | 0.6398 | 0.5725 | 0.5079 |
| 5 | 0.8788 | 0.7732 | 0.7063 | 0.6545 | 0.5850 | 0.5180 |
| 5.25 | 0.9068 | 0.7954 | 0.7254 | 0.6711 | 0.5990 | 0.5294 |
| 5.5 | 0.9345 | 0.8174 | 0.7441 | 0.6873 | 0.6121 | 0.5397 |
| 5.75 | 0.9652 | 0.8411 | 0.7634 | 0.7032 | 0.6240 | 0.5488 |
| 6 | 0.9918 | 0.8626 | 0.7816 | 0.7187 | 0.6358 | 0.5580 |
| 6.25 | 1.0154 | 0.8812 | 0.7976 | 0.7328 | 0.6478 | 0.5680 |
| 6.5 | 1.0333 | 0.8968 | 0.8123 | 0.7467 | 0.6604 | 0.5794 |
| 6.75 | 1.0503 | 0.9120 | 0.8265 | 0.7603 | 0.6728 | 0.5911 |
| 7 | 1.0657 | 0.9262 | 0.8403 | 0.7736 | 0.6856 | 0.6034 |
| 7.25 | 1.0780 | 0.9383 | 0.8523 | 0.7855 | 0.6974 | 0.6155 |
| 7.5 | 1.0892 | 0.9501 | 0.8640 | 0.7972 | 0.7089 | 0.6272 |
| 7.75 | 1.1003 | 0.9613 | 0.8754 | 0.8087 | 0.7203 | 0.6385 |
| 8 | 1.1131 | 0.9728 | 0.8867 | 0.8200 | 0.7315 | 0.6495 |
| 8.5 | 1.1393 | 0.9957 | 0.9079 | 0.8398 | 0.7500 | 0.6668 |
| 9 | 1.1681 | 1.0201 | 0.9293 | 0.8589 | 0.7668 | 0.6821 |
| 9.5 | 1.2021 | 1.0492 | 0.9552 | 0.8823 | 0.7880 | 0.7017 |
| 10 | 1.2356 | 1.0775 | 0.9803 | 0.9050 | 0.8093 | 0.7215 |
| 10.5 | 1.2661 | 1.1033 | 1.0036 | 0.9263 | 0.8291 | 0.7404 |
| 11 | 1.2966 | 1.1290 | 1.0266 | 0.9471 | 0.8478 | 0.7571 |
| 11.5 | 1.3288 | 1.1552 | 1.0495 | 0.9674 | 0.8656 | 0.7729 |
| 12 | 1.3586 | 1.1801 | 1.0715 | 0.9873 | 0.8831 | 0.7886 |
| 12.5 | 1.3850 | 1.2032 | 1.0925 | 1.0067 | 0.9008 | 0.8048 |
| 13 | 1.4096 | 1.2239 | 1.1116 | 1.0245 | 0.9178 | 0.8208 |
| 13.5 | 1.4299 | 1.2425 | 1.1296 | 1.0420 | 0.9343 | 0.8366 |
| 14 | 1.4491 | 1.2604 | 1.1471 | 1.0591 | 0.9508 | 0.8525 |
| 14.5 | 1.4656 | 1.2769 | 1.1637 | 1.0759 | 0.9664 | 0.8670 |
| 15 | 1.4872 | 1.2962 | 1.1814 | 1.0924 | 0.9808 | 0.8797 |
| 16 | 1.5145 | 1.3207 | 1.2049 | 1.1150 | 1.0026 | 0.9008 |
| 17 | 1.5386 | 1.3435 | 1.2270 | 1.1367 | 1.0234 | 0.9205 |
| 18 | 1.5628 | 1.3660 | 1.2486 | 1.1575 | 1.0438 | 0.9407 |
| 20 | 1.6146 | 1.4119 | 1.2908 | 1.1969 | 1.0798 | 0.9737 |
| 22 | 1.6374 | 1.4336 | 1.3115 | 1.2168 | 1.0982 | 0.9907 |
| 25 | 1.6687 | 1.4629 | 1.3397 | 1.2441 | 1.1247 | 1.0162 |
| 28 | 1.6586 | 1.4548 | 1.3324 | 1.2376 | 1.1186 | 1.0106 |
| 30 | 1.6541 | 1.4508 | 1.3285 | 1.2336 | 1.1149 | 1.0073 |

Table A-1 HRHF Horizontal Target Response Spectrum for 2, 3, 4, 5, 7 and 10% Damping Ratios (Cont'd)

| HRHF Horizontal Target Response Spectra (g) | | | | | | |
|---|------------|------------|------------|------------|------------|-------------|
| Frequency (Hz) | 2% Damping | 3% Damping | 4% Damping | 5% Damping | 7% Damping | 10% Damping |
| 31 | 1.6462 | 1.4439 | 1.3220 | 1.2274 | 1.1092 | 1.0022 |
| 34 | 1.6199 | 1.4213 | 1.3024 | 1.2102 | 1.0957 | 0.9919 |
| 35 | 1.6118 | 1.4146 | 1.2964 | 1.2048 | 1.0911 | 0.9879 |
| 37 | 1.5858 | 1.3923 | 1.2765 | 1.1866 | 1.0751 | 0.9740 |
| 40 | 1.5499 | 1.3616 | 1.2489 | 1.1615 | 1.0530 | 0.9546 |
| 43 | 1.4956 | 1.3166 | 1.2094 | 1.1262 | 1.0230 | 0.9294 |
| 45 | 1.4625 | 1.2892 | 1.1852 | 1.1046 | 1.0046 | 0.9139 |
| 46 | 1.4392 | 1.2699 | 1.1683 | 1.0896 | 0.9919 | 0.9033 |
| 49 | 1.3742 | 1.2160 | 1.1211 | 1.0476 | 0.9561 | 0.8732 |
| 50 | 1.3541 | 1.1992 | 1.1064 | 1.0345 | 0.9449 | 0.8638 |
| 52 | 1.2952 | 1.1505 | 1.0641 | 0.9970 | 0.9134 | 0.8375 |
| 55 | 1.2155 | 1.0844 | 1.0063 | 0.9458 | 0.8702 | 0.8014 |
| 58 | 1.1405 | 1.0233 | 0.9537 | 0.8997 | 0.8321 | 0.7704 |
| 60 | 1.0951 | 0.9862 | 0.9216 | 0.8715 | 0.8087 | 0.7513 |
| 61 | 1.0670 | 0.9627 | 0.9009 | 0.8530 | 0.7929 | 0.7380 |
| 64 | 0.9892 | 0.8976 | 0.8435 | 0.8015 | 0.7489 | 0.7007 |
| 65 | 0.9654 | 0.8776 | 0.8258 | 0.7856 | 0.7352 | 0.6890 |
| 67 | 0.9186 | 0.8387 | 0.7917 | 0.7553 | 0.7097 | 0.6678 |
| 70 | 0.8549 | 0.7856 | 0.7451 | 0.7136 | 0.6743 | 0.6382 |
| 73 | 0.7930 | 0.7338 | 0.6993 | 0.6726 | 0.6393 | 0.6087 |
| 75 | 0.7556 | 0.7023 | 0.6714 | 0.6474 | 0.6176 | 0.5904 |
| 76 | 0.7374 | 0.6872 | 0.6580 | 0.6354 | 0.6072 | 0.5814 |
| 79 | 0.6872 | 0.6451 | 0.6207 | 0.6017 | 0.5779 | 0.5562 |
| 80 | 0.6715 | 0.6319 | 0.6089 | 0.5911 | 0.5687 | 0.5482 |

Table A-2 HRHF Vertical Target Response Spectrum for 2, 3, 4, 5, 7, and 10% Damping ratio

| HRHF Vertical Target Response Spectra (g) | | | | | | | |
|---|------|------------|------------|------------|------------|------------|-------------|
| Frequency (Hz) | V/H | 2% Damping | 3% Damping | 4% Damping | 5% Damping | 7% Damping | 10% Damping |
| 0.5 | 0.75 | 0.0937 | 0.0876 | 0.0838 | 0.0809 | 0.0778 | 0.0768 |
| 0.6 | 0.75 | 0.1148 | 0.1059 | 0.1000 | 0.0953 | 0.0894 | 0.0851 |
| 0.7 | 0.75 | 0.1339 | 0.1227 | 0.1149 | 0.1089 | 0.1009 | 0.0942 |
| 0.8 | 0.75 | 0.1519 | 0.1383 | 0.1289 | 0.1217 | 0.1118 | 0.1032 |
| 0.9 | 0.75 | 0.1686 | 0.1528 | 0.1419 | 0.1335 | 0.1220 | 0.1116 |
| 1 | 0.75 | 0.1874 | 0.1691 | 0.1567 | 0.1470 | 0.1337 | 0.1215 |
| 1.1 | 0.75 | 0.2073 | 0.1864 | 0.1724 | 0.1615 | 0.1463 | 0.1323 |
| 1.2 | 0.75 | 0.2268 | 0.2036 | 0.1880 | 0.1759 | 0.1591 | 0.1433 |
| 1.25 | 0.75 | 0.2363 | 0.2121 | 0.1958 | 0.1832 | 0.1656 | 0.1490 |
| 1.3 | 0.75 | 0.2455 | 0.2203 | 0.2033 | 0.1901 | 0.1718 | 0.1544 |
| 1.4 | 0.75 | 0.2640 | 0.2367 | 0.2183 | 0.2040 | 0.1842 | 0.1652 |
| 1.5 | 0.75 | 0.2830 | 0.2532 | 0.2333 | 0.2179 | 0.1966 | 0.1761 |
| 1.6 | 0.75 | 0.2993 | 0.2672 | 0.2458 | 0.2292 | 0.2064 | 0.1847 |
| 1.7 | 0.75 | 0.3148 | 0.2806 | 0.2579 | 0.2403 | 0.2163 | 0.1933 |
| 1.8 | 0.75 | 0.3304 | 0.2941 | 0.2700 | 0.2514 | 0.2259 | 0.2015 |
| 1.9 | 0.75 | 0.3454 | 0.3073 | 0.2819 | 0.2622 | 0.2353 | 0.2096 |
| 2 | 0.75 | 0.3608 | 0.3206 | 0.2938 | 0.2730 | 0.2447 | 0.2179 |
| 2.1 | 0.75 | 0.3734 | 0.3312 | 0.3029 | 0.2810 | 0.2513 | 0.2233 |
| 2.2 | 0.75 | 0.3858 | 0.3414 | 0.3118 | 0.2889 | 0.2578 | 0.2286 |
| 2.3 | 0.75 | 0.3971 | 0.3509 | 0.3203 | 0.2966 | 0.2645 | 0.2344 |
| 2.4 | 0.75 | 0.4077 | 0.3599 | 0.3286 | 0.3042 | 0.2713 | 0.2406 |
| 2.5 | 0.75 | 0.4174 | 0.3686 | 0.3365 | 0.3117 | 0.2780 | 0.2465 |
| 2.6 | 0.75 | 0.4307 | 0.3805 | 0.3473 | 0.3216 | 0.2867 | 0.2541 |
| 2.7 | 0.75 | 0.4439 | 0.3920 | 0.3579 | 0.3315 | 0.2955 | 0.2619 |
| 2.8 | 0.75 | 0.4568 | 0.4034 | 0.3684 | 0.3413 | 0.3044 | 0.2699 |
| 2.9 | 0.75 | 0.4687 | 0.4140 | 0.3785 | 0.3510 | 0.3134 | 0.2781 |
| 3 | 0.75 | 0.4807 | 0.4248 | 0.3887 | 0.3606 | 0.3225 | 0.2865 |
| 3.15 | 0.75 | 0.4960 | 0.4382 | 0.4010 | 0.3721 | 0.3330 | 0.2961 |
| 3.3 | 0.75 | 0.5114 | 0.4515 | 0.4131 | 0.3833 | 0.3432 | 0.3053 |
| 3.45 | 0.75 | 0.5250 | 0.4640 | 0.4248 | 0.3944 | 0.3532 | 0.3142 |
| 3.6 | 0.75 | 0.5383 | 0.4762 | 0.4363 | 0.4054 | 0.3633 | 0.3235 |
| 3.8 | 0.75 | 0.5556 | 0.4919 | 0.4512 | 0.4197 | 0.3768 | 0.3359 |
| 4 | 0.75 | 0.5742 | 0.5083 | 0.4663 | 0.4337 | 0.3897 | 0.3476 |
| 4.2 | 0.75 | 0.5899 | 0.5221 | 0.4790 | 0.4456 | 0.4006 | 0.3572 |
| 4.4 | 0.75 | 0.6085 | 0.5374 | 0.4923 | 0.4573 | 0.4103 | 0.3653 |
| 4.6 | 0.75 | 0.6260 | 0.5518 | 0.5050 | 0.4687 | 0.4199 | 0.3733 |
| 4.8 | 0.75 | 0.6424 | 0.5658 | 0.5174 | 0.4799 | 0.4294 | 0.3809 |

Table A-2 HRHF Vertical Target Response Spectrum for 2, 3, 4, 5, 7, and 10% Damping Ratio (Cont'd)

| HRHF Vertical Target Response Spectra (g) | | | | | | | |
|---|--------|------------|------------|------------|------------|------------|-------------|
| Frequency (Hz) | V/H | 2% Damping | 3% Damping | 4% Damping | 5% Damping | 7% Damping | 10% Damping |
| 5 | 0.75 | 0.6591 | 0.5799 | 0.5298 | 0.4909 | 0.4387 | 0.3885 |
| 5.25 | 0.75 | 0.6801 | 0.5966 | 0.5441 | 0.5033 | 0.4492 | 0.3971 |
| 5.5 | 0.75 | 0.7009 | 0.6130 | 0.5581 | 0.5155 | 0.4591 | 0.4048 |
| 5.75 | 0.75 | 0.7239 | 0.6308 | 0.5726 | 0.5274 | 0.4680 | 0.4116 |
| 6 | 0.75 | 0.7439 | 0.6469 | 0.5862 | 0.5390 | 0.4769 | 0.4185 |
| 6.25 | 0.75 | 0.7616 | 0.6609 | 0.5982 | 0.5496 | 0.4858 | 0.4260 |
| 6.5 | 0.75 | 0.7750 | 0.6726 | 0.6092 | 0.5600 | 0.4953 | 0.4346 |
| 6.75 | 0.75 | 0.7877 | 0.6840 | 0.6199 | 0.5702 | 0.5046 | 0.4433 |
| 7 | 0.75 | 0.7993 | 0.6947 | 0.6302 | 0.5802 | 0.5142 | 0.4526 |
| 7.25 | 0.75 | 0.8085 | 0.7037 | 0.6392 | 0.5891 | 0.5230 | 0.4616 |
| 7.5 | 0.75 | 0.8169 | 0.7125 | 0.6480 | 0.5979 | 0.5317 | 0.4704 |
| 7.75 | 0.75 | 0.8252 | 0.7210 | 0.6565 | 0.6065 | 0.5402 | 0.4789 |
| 8 | 0.75 | 0.8348 | 0.7296 | 0.6650 | 0.6150 | 0.5486 | 0.4871 |
| 8.5 | 0.75 | 0.8545 | 0.7468 | 0.6809 | 0.6298 | 0.5625 | 0.5001 |
| 9 | 0.75 | 0.8761 | 0.7651 | 0.6970 | 0.6442 | 0.5751 | 0.5116 |
| 9.5 | 0.75 | 0.9016 | 0.7869 | 0.7164 | 0.6617 | 0.5910 | 0.5262 |
| 10 | 0.75 | 0.9267 | 0.8081 | 0.7353 | 0.6788 | 0.6069 | 0.5411 |
| 10.5 | 0.7545 | 0.9553 | 0.8325 | 0.7572 | 0.6989 | 0.6256 | 0.5586 |
| 11 | 0.7588 | 0.9839 | 0.8567 | 0.7790 | 0.7187 | 0.6433 | 0.5745 |
| 11.5 | 0.7629 | 1.0138 | 0.8814 | 0.8007 | 0.7381 | 0.6604 | 0.5897 |
| 12 | 0.7669 | 1.0419 | 0.9050 | 0.8218 | 0.7572 | 0.6773 | 0.6048 |
| 12.5 | 0.7708 | 1.0675 | 0.9274 | 0.8421 | 0.7759 | 0.6943 | 0.6203 |
| 13 | 0.7745 | 1.0917 | 0.9479 | 0.8609 | 0.7935 | 0.7108 | 0.6357 |
| 13.5 | 0.7781 | 1.1125 | 0.9668 | 0.8789 | 0.8108 | 0.7269 | 0.6510 |
| 14 | 0.7815 | 1.1325 | 0.9850 | 0.8965 | 0.8278 | 0.7431 | 0.6663 |
| 14.5 | 0.7849 | 1.1504 | 1.0023 | 0.9134 | 0.8445 | 0.7585 | 0.6805 |
| 15 | 0.7882 | 1.1722 | 1.0217 | 0.9312 | 0.8610 | 0.7730 | 0.6934 |
| 16 | 0.7944 | 1.2032 | 1.0492 | 0.9572 | 0.8858 | 0.7965 | 0.7156 |
| 17 | 0.8003 | 1.2314 | 1.0752 | 0.9820 | 0.9097 | 0.8190 | 0.7367 |
| 18 | 0.8060 | 1.2595 | 1.1009 | 1.0063 | 0.9329 | 0.8413 | 0.7582 |
| 20 | 0.8256 | 1.3331 | 1.1657 | 1.0657 | 0.9882 | 0.8916 | 0.8039 |
| 22 | 0.8493 | 1.3906 | 1.2175 | 1.1139 | 1.0335 | 0.9327 | 0.8415 |
| 25 | 0.8800 | 1.4685 | 1.2874 | 1.1789 | 1.0948 | 0.9897 | 0.8942 |
| 28 | 0.9149 | 1.5174 | 1.3309 | 1.2190 | 1.1322 | 1.0234 | 0.9246 |
| 30 | 0.9368 | 1.5496 | 1.3591 | 1.2445 | 1.1556 | 1.0444 | 0.9436 |
| 31 | 0.9474 | 1.5596 | 1.3680 | 1.2524 | 1.1628 | 1.0509 | 0.9495 |
| 34 | 0.9818 | 1.5904 | 1.3954 | 1.2787 | 1.1881 | 1.0757 | 0.9738 |

Table A-2 HRHF Vertical Target Response Spectrum for 2, 3, 4, 5, 7, and 10% Damping Ratio
(Cont'd)

| HRHF Vertical Target Response Spectra (g) | | | | | | | |
|---|--------|---------------|---------------|---------------|---------------|---------------|----------------|
| Frequency (Hz) | V/H | 2% Damping | 3% Damping | 4% Damping | 5% Damping | 7% Damping | 10% Damping |
| 35 | 0.9929 | 1.6004 | 1.4046 | 1.2873 | 1.1963 | 1.0834 | 0.9810 |
| 37 | 1.0147 | 1.6091 | 1.4127 | 1.2952 | 1.2040 | 1.0909 | 0.9882 |
| 40 | 1.0503 | 1.6279 | 1.4301 | 1.3118 | 1.2199 | 1.1060 | 1.0027 |
| 43 | 1.0831 | 1.6199 | 1.4261 | 1.3099 | 1.2198 | 1.1080 | 1.0067 |
| 45 | 1.1024 | 1.6122 | 1.4212 | 1.3066 | 1.2177 | 1.1075 | 1.0075 |
| 46 | 1.1118 | 1.6001 | 1.4118 | 1.2990 | 1.2114 | 1.1028 | 1.0042 |
| 49 | 1.1231 | 1.5433 | 1.3656 | 1.2591 | 1.1765 | 1.0737 | 0.9807 |
| 50 | 1.1245 | 1.5226 | 1.3484 | 1.2441 | 1.1632 | 1.0625 | 0.9713 |
| 52 | 1.1272 | 1.4599 | 1.2968 | 1.1994 | 1.1238 | 1.0296 | 0.9440 |
| 55 | 1.1311 | 1.3748 | 1.2265 | 1.1382 | 1.0698 | 0.9843 | 0.9064 |
| 58 | 1.1348 | 1.2942 | 1.1612 | 1.0822 | 1.0210 | 0.9442 | 0.8742 |
| 60 | 1.1371 | 1.2453 | 1.1214 | 1.0480 | 0.9910 | 0.9196 | 0.8544 |
| 61 | 1.1383 | 1.2145 | 1.0958 | 1.0255 | 0.9710 | 0.9026 | 0.8401 |
| 64 | 1.1374 | 1.1251 | 1.0209 | 0.9594 | 0.9116 | 0.8518 | 0.7969 |
| 65 | 1.1357 | 1.0964 | 0.9966 | 0.9378 | 0.8922 | 0.8350 | 0.7825 |
| 67 | 1.1323 | 1.0401 | 0.9497 | 0.8965 | 0.8552 | 0.8036 | 0.7562 |
| 70 | 1.1275 | 0.9639 | 0.8858 | 0.8401 | 0.8046 | 0.7603 | 0.7196 |
| 73 | 1.1229 | 0.8905 | 0.8240 | 0.7853 | 0.7553 | 0.7178 | 0.6835 |
| 75 | 1.1200 | 0.8462 | 0.7865 | 0.7520 | 0.7251 | 0.6918 | 0.6612 |
| 76 | 1.1138 | 0.8214 | 0.7654 | 0.7329 | 0.7077 | 0.6763 | 0.6476 |
| 79 | 1.0959 | 0.7531 | 0.7069 | 0.6802 | 0.6594 | 0.6334 | 0.6095 |
| 80 | 1.0901 | 0.7321 | 0.6889 | 0.6638 | 0.6444 | 0.6199 | 0.5976 |