**Table 2.** The best obtained values of the S12 at each point.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Dye** | **T(K)** | **P(bar)** | **y2Exp** | **y2Cal** | **S12** | **IARD (%)\*** | **AARD (%) \*** |
| 1-methyl amino anthraquinone |  |  | 107 | |  |  |  |
|  | 313.15 | 100 | 16.6 | 16.6034 | 0.137077 | 0.020903614 | 0.0227259 |
|  |  | 150 | 59.62 | 59.6376 | 0.022386 | 0.029567259 |
|  |  | 200 | 100.86 | 100.8362 | -0.06903 | 0.023513781 |
|  |  | 250 | 155.8 | 155.8263 | -0.14656 | 0.016919127 |
|  |  |  |  |  |  |  |  |
|  | 353.15 | 100 | 3.83 | 3.8290 | 0.258912 | 0.024203655 | 0.0212785 |
|  |  | 150 | 13.89 | 13.8928 | 0.160546 | 0.020806335 |
|  |  | 200 | 196.05 | 196.0244 | 0.080084 | 0.013039531 |
|  |  | 250 | 350.01 | 349.9152 | 0.014037 | 0.027064655 |
|  |  |  |  |  |  |  |  |
|  | 393.15 | 100 | 28.02 | 28.0176 | 0.363619 | 0.008522484 | 0.0158107 |
|  |  | 150 | 56.5 | 56.5100 | 0.281166 | 0.017784071 |
|  |  | 200 | 354.57 | 354.5401 | 0.212807 | 0.00841893 |
|  |  | 250 | 951.61 | 951.8813 | 0.155979 | 0.028517355 |
|  |  |  |  |  |  |  |  |
| 2-methyl-N-phenylacetamide |  |  | 104 | |  |  |  |
|  | 308.2 | 121.6 | 0.358 | 0.3579 | -0.2036 | 0.010335196 | 0.1055949 |
|  |  | 138.9 | 0.492 | 0.4928 | -0.2347 | 0.164837398 |
|  |  | 156.1 | 0.708 | 0.7091 | -0.2652 | 0.16059322 |
|  |  | 173.3 | 0.861 | 0.8605 | -0.2897 | 0.052264808 |
|  |  | 190.6 | 1.163 | 1.1623 | -0.316 | 0.05760963 |
|  |  | 207.8 | 1.354 | 1.3521 | -0.3375 | 0.139586411 |
|  |  | 225 | 1.676 | 1.6785 | -0.3598 | 0.153937947 |
|  |  |  |  |  |  |  |  |
|  | 318.2 | 123 | 0.301 | 0.3017 | -0.1191 | 0.245182724 | 0.1083837 |
|  |  | 138.8 | 0.525 | 0.5255 | -0.1571 | 0.107047619 |
|  |  | 156.1 | 0.931 | 0.9307 | -0.1946 | 0.031149302 |
|  |  | 173.3 | 1.455 | 1.4563 | -0.2262 | 0.09209622 |
|  |  | 190.5 | 1.997 | 1.9944 | -0.2527 | 0.130195293 |
|  |  | 207.8 | 2.278 | 2.2747 | -0.2736 | 0.141791045 |
|  |  | 225 | 2.762 | 2.7616 | -0.2952 | 0.011223751 |
|  |  |  |  |  |  |  |  |
|  | 328.2 | 123 | 0.197 | 0.1970 | -0.0233 | 0.039593909 | 0.0714865 |
|  |  | 140.2 | 0.548 | 0.5482 | -0.0824 | 0.052919708 |
|  |  | 157.5 | 1.042 | 1.0422 | -0.1235 | 0.024952015 |
|  |  | 174.7 | 2.022 | 2.022 | -0.1619 | 0 |
|  |  | 191.9 | 2.912 | 2.9121 | -0.1899 | 0.005494505 |
|  |  | 209.2 | 3.815 | 3.8049 | -0.2142 | 0.263695937 |
|  |  | 225 | 4.633 | 4.6382 | -0.2344 | 0.113749191 |
|  |  |  |  |  |  |  |  |
| 4-methyl-N-phenylacetamide |  |  | 104 | |  |  |  |
|  | 308.2 | 121.6 | 0.527 | 0.5272 | -0.2153 | 0.038709677 | 0.1087764 |
|  |  | 138.8 | 0.836 | 0.8358 | -0.2496 | 0.02284689 |
|  |  | 156.1 | 1.022 | 1.0224 | -0.2751 | 0.045009785 |
|  |  | 173.3 | 1.078 | 1.0795 | -0.2956 | 0.147495362 |
|  |  | 190.6 | 1.221 | 1.2243 | -0.3173 | 0.276003276 |
|  |  | 207.8 | 1.389 | 1.3860 | -0.3381 | 0.214542837 |
|  |  | 225 | 1.664 | 1.6642 | -0.3596 | 0.016826923 |
|  |  |  |  |  |  |  |  |
|  | 318.2 | 121.6 | 0.48 | 0.4811 | -0.1325 | 0.242083333 | 0.1338712 |
|  |  | 138.8 | 0.892 | 0.8935 | -0.1731 | 0.172085202 |
|  |  | 156.1 | 1.344 | 1.3450 | -0.205 | 0.080357143 |
|  |  | 173.3 | 1.482 | 1.4836 | -0.2267 | 0.109986505 |
|  |  | 190.6 | 1.997 | 1.9941 | -0.2528 | 0.143214822 |
|  |  | 207.8 | 2.236 | 2.2388 | -0.2732 | 0.126565295 |
|  |  | 225 | 2.452 | 2.4504 | -0.2923 | 0.062805873 |
|  |  |  |  |  |  |  |  |
|  | 328.2 | 121.6 | 0.384 | 0.3843 | -0.0457 | 0.096614583 | 0.1130883 |
|  |  | 138.9 | 0.966 | 0.9673 | -0.099 | 0.138509317 |
|  |  | 156.1 | 1.222 | 1.2249 | -0.1267 | 0.238952537 |
|  |  | 173.3 | 2.034 | 2.0373 | -0.1606 | 0.164700098 |
|  |  | 190.6 | 2.947 | 2.9482 | -0.1889 | 0.043094673 |
|  |  | 207.8 | 3.601 | 3.6007 | -0.2114 | 0.007497917 |
|  |  | 225 | 4.802 | 4.8069 | -0.2353 | 0.102249063 |
|  |  |  |  |  |  |  |  |
| AC03 |  |  | 109 | |  |  |  |
|  | 305 | 79 | 31 | 31.009 | 0.150167 | 0.032187097 | 0.030152 |
|  |  | 90 | 69 | 68.977 | 0.11832 | 0.032889855 |
|  |  | 101 | 98 | 97.965 | 0.089095 | 0.0348 |
|  |  | 110 | 123 | 123.06 | 0.066612 | 0.056563415 |
|  |  | 124 | 158 | 158.04 | 0.033814 | 0.028472785 |
|  |  | 140 | 192 | 192.01 | -0.967 | 0.000227604 |
|  |  | 154 | 224 | 223.90 | -0.02945 | 0.044059821 |
|  |  | 170 | 256 | 256.07 | -0.06008 | 0.030233984 |
|  |  | 188 | 289 | 289.03 | -0.09247 | 0.011929412 |
|  |  |  |  |  |  |  |  |
|  | 310 | 84 | 9 | 8.9982 | 0.151231 | 0.019644444 | 0.030629 |
|  |  | 89 | 37 | 37.005 | 0.13619 | 0.014472973 |
|  |  | 96 | 59 | 58.981 | 0.117415 | 0.030683051 |
|  |  | 100 | 83 | 83.025 | 0.106983 | 0.031219277 |
|  |  | 115 | 139 | 138.97 | 0.070605 | 0.016184892 |
|  |  | 123 | 174 | 173.96 | 0.052402 | 0.017940805 |
|  |  | 130 | 192 | 191.96 | 0.037128 | 0.016263021 |
|  |  | 141 | 227 | 227.07 | 0.01409 | 0.034015859 |
|  |  | 151 | 247 | 246.82 | -0.00587 | 0.070646964 |
|  |  | 161 | 289 | 288.90 | -0.02509 | 0.033995156 |
|  |  | 170 | 306 | 306.17 | -0.04172 | 0.056745425 |
|  |  | 181 | 328 | 327.90 | -0.06132 | 0.029263415 |
|  |  | 190 | 346 | 346.09 | -0.07681 | 0.027107225 |
|  |  |  |  |  |  |  |  |
|  | 315 | 92 | 6 | 9.0033 | 0.129579 | 50.0552 | 3.880853 |
|  |  | 95 | 13 | 12.995 | 0.121399 | 0.038123077 |
|  |  | 97 | 21 | 20.989 | 0.115816 | 0.050561905 |
|  |  | 103 | 43 | 43.003 | 0.115502 | 0.008153488 |
|  |  | 110 | 70 | 70.036 | 0.098563 | 0.052238571 |
|  |  | 120 | 108 | 108.01 | 0.075688 | 0.001062963 |
|  |  | 130 | 148 | 148.04 | 0.054034 | 0.030335135 |
|  |  | 140 | 183 | 183.05 | 0.033448 | 0.031921858 |
|  |  | 150 | 221 | 221.00 | 0.013755 | 0.004072398 |
|  |  | 159 | 257 | 257.09 | -0.00328 | 0.037949416 |
|  |  | 169 | 289 | 288.88 | -0.02149 | 0.03963218 |
|  |  | 180 | 319 | 319.10 | -0.04076 | 0.031612226 |
|  |  | 189 | 344 | 343.75 | -0.05598 | 0.07022093 |
|  |  |  |  |  |  |  |  |
|  | 320 | 102 | 11 | 11.000 | 0.13452 | 0.006981818 | 0.032295 |
|  |  | 105 | 22 | 22.009 | 0.126785 | 0.04175 |
|  |  | 111 | 42 | 41.983 | 0.112444 | 0.038619048 |
|  |  | 116 | 63 | 62.978 | 0.100977 | 0.034493651 |
|  |  | 121 | 87 | 86.975 | 0.089883 | 0.0282 |
|  |  | 131 | 131 | 130.95 | 0.06871 | 0.032351908 |
|  |  | 140 | 176 | 175.95 | 0.050538 | 0.027438068 |
|  |  | 151 | 224 | 224.06 | 0.029363 | 0.028352679 |
|  |  | 161 | 269 | 269.14 | 0.010942 | 0.055389219 |
|  |  | 171 | 310 | 310.14 | -0.00676 | 0.04780871 |
|  |  | 179 | 341 | 341.06 | -0.02046 | 0.020318768 |
|  |  | 183 | 351 | 350.90 | -0.02715 | 0.025830769 |
|  |  |  |  |  |  |  |  |
|  | 330 | 113 | 8 | 7.9962 | 0.109558 | 0.0463625 | 0.029631 |
|  |  | 118 | 15 | 14.995 | 0.097959 | 0.032786667 |
|  |  | 124 | 30 | 29.999 | 0.084494 | 0.001843333 |
|  |  | 129 | 50 | 49.986 | 0.07364 | 0.027364 |
|  |  | 131 | 61 | 61.018 | 0.069376 | 0.030698361 |
|  |  | 135 | 76 | 76.035 | 0.061121 | 0.046743421 |
|  |  | 141 | 108 | 107.96 | 0.048998 | 0.035774074 |
|  |  | 150 | 156 | 155.98 | 0.031522 | 0.012330128 |
|  |  | 160 | 217 | 216.91 | 0.012905 | 0.03930553 |
|  |  | 170 | 278 | 277.87 | -0.00495 | 0.043747482 |
|  |  | 180 | 331 | 331.06 | -0.02211 | 0.020240785 |
|  |  | 185 | 355 | 355.06 | -0.03046 | 0.018372676 |
|  |  |  |  |  |  |  |  |
|  | 340 | 119 | 4 | 3.9989 | 0.097019 | 0.02695 | 0.032705 |
|  |  | 124 | 9 | 9.0038 | 0.085582 | 0.042622222 |
|  |  | 129 | 16 | 16.007 | 0.074645 | 0.04531875 |
|  |  | 139 | 42 | 41.985 | 0.053691 | 0.035202381 |
|  |  | 148 | 76 | 76.002 | 0.035866 | 0.003480263 |
|  |  | 150 | 89 | 89.036 | 0.031973 | 0.041421348 |
|  |  | 161 | 147 | 146.96 | 0.011409 | 0.023768027 |
|  |  | 170 | 212 | 211.90 | 0.052619 | 0.042858491 |
|  |  | 181 | 292 | 292.04 | 0.049268 | 0.015071918 |
|  |  | 190 | 352 | 351.82 | 0.035586 | 0.050351705 |
|  |  |  |  |  |  |  |  |
| APAN |  |  | 105 | |  |  |  |
|  | 353.15 | 200 | 1.28 | 1.2796 | 0.0759 | 0.025 | 1.183598 |
|  |  | 250 | 3.24 | 3.1882 | 0.0077 | 1.596728395 |
|  |  | 300 | 5.76 | 5.8830 | -0.052 | 2.136979167 |
|  |  | 350 | 8.78 | 8.8656 | -0.1057 | 0.975683371 |
|  |  |  |  |  |  |  |  |
|  | 373.15 | 200 | 0.95 | 0.9523 | 0.1415 | 0.2518 | 1.200349 |
|  |  | 250 | 3.31 | 3.3539 | 0.0783 | 1.32694864 |
|  |  | 300 | 7.03 | 6.9364 | 0.0228 | 1.33056899 |
|  |  | 350 | 11.6 | 11.819 | -0.027 | 1.892077586 |
|  |  |  |  |  |  |  |  |
| Blue 3 |  |  | 106 | |  |  |  |
|  | 323.7 | 105.1 | 6.119 | 6.1152 | 0.161949 | 0.06067985 | 0.1059599 |
|  |  | 157.8 | 10.133 | 10.137 | 0.048105 | 0.046758117 |
|  |  | 216.1 | 16.081 | 16.111 | -0.05149 | 0.191300292 |
|  |  | 261.7 | 15.779 | 15.747 | -0.11743 | 0.199860574 |
|  |  | 301.5 | 14.317 | 14.312 | -0.16899 | 0.031200671 |
|  |  |  |  |  |  |  |  |
|  | 353.7 | 106.5 | 0.68 | 0.6801 | 0.240683 | 0.026029412 | 0.0644089 |
|  |  | 158.7 | 20.021 | 20.035 | 0.139593 | 0.069951551 |
|  |  | 216.8 | 35.76 | 35.764 | 0.051146 | 0.012100112 |
|  |  | 245.8 | 36.159 | 36.221 | 0.012896 | 0.17235543 |
|  |  | 275.9 | 30.068 | 30.039 | -0.02367 | 0.093676001 |
|  |  | 318.1 | 41.918 | 41.923 | -0.07113 | 0.012340761 |
|  |  |  |  |  |  |  |  |
|  | 383.7 | 106.2 | 0.821 | 0.8206 | 0.318861 | 0.045797808 | 0.045555 |
|  |  | 140.3 | 8.93 | 8.9318 | 0.257432 | 0.020884658 |
|  |  | 181.8 | 19.855 | 19.836 | 0.195542 | 0.092364644 |
|  |  | 226.5 | 23.336 | 23.33 | 0.138717 | 0.025711347 |
|  |  | 266 | 28.199 | 28.202 | 0.094265 | 0.011206071 |
|  |  | 318.1 | 38.189 | 38.218 | 0.041725 | 0.07736521 |
|  |  |  |  |  |  |  |  |
|  | 413.7 | 106.8 | 0.725 | 0.7248 | 0.389504 | 0.023724138 | 0.0489597 |
|  |  | 142.1 | 3.005 | 3.0048 | 0.333954 | 0.005856905 |
|  |  | 187.2 | 13.647 | 13.652 | 0.274852 | 0.041752766 |
|  |  | 227.2 | 27.638 | 27.612 | 0.230032 | 0.09243433 |
|  |  | 283.7 | 42.836 | 42.827 | 0.174949 | 0.019654029 |
|  |  | 329.8 | 63.575 | 63.504 | 0.134971 | 0.110335824 |
|  |  |  |  |  |  |  |  |
| Blue 14 |  |  | 107 | |  |  |  |
|  | 313.15 | 100 | 2.34 | 2.3418 | 0.142997 | 0.077393162 | 0.09482 |
|  |  | 150 | 7.97 | 7.9652 | 0.027113 | 0.06 |
|  |  | 200 | 13.39 | 13.409 | -0.06521 | 0.144174757 |
|  |  | 250 | 18.24 | 18.222 | -0.14328 | 0.097713816 |
|  |  |  |  |  |  |  |  |
|  | 353.15 | 100 | 0.79 | 0.7899 | 0.257815 | 0.01 | 0.042284 |
|  |  | 150 | 4.61 | 4.6097 | 0.158098 | 0.005813449 |
|  |  | 200 | 21.11 | 21.097 | 0.078502 | 0.057228802 |
|  |  | 250 | 32.15 | 32.119 | 0.011635 | 0.096093313 |
|  |  |  |  |  |  |  |  |
|  | 393.15 | 100 | 3.48 | 3.4802 | 0.361095 | 0.006091954 | 0.026045 |
|  |  | 150 | 10.09 | 10.089 | 0.276822 | 0.001883053 |
|  |  | 200 | 31.57 | 31.551 | 0.209177 | 0.057747862 |
|  |  | 250 | 77.24 | 77.269 | 0.151993 | 0.038455463 |
|  |  |  |  |  |  |  |  |
| Blue 60 |  |  | 106 | |  |  |  |
|  | 313.15 | 167.8 | 1.04 | 1.0392 | -0.00259 | 0.074711538 | 0.1370285 |
|  |  | 195.6 | 1.33 | 1.3310 | -0.0527 | 0.079398496 |
|  |  | 240.3 | 1.67 | 1.6681 | -0.12414 | 0.111556886 |
|  |  | 249.4 | 1.76 | 1.7634 | -0.13758 | 0.195 |
|  |  | 272.2 | 2.09 | 2.0870 | -0.16989 | 0.139330144 |
|  |  | 324.1 | 2.27 | 2.2718 | -0.23719 | 0.082202643 |
|  |  | 328.8 | 2.3 | 2.3063 | -0.24292 | 0.277 |
|  |  |  |  |  |  |  |  |
|  | 333.15 | 183.6 | 1.38 | 1.3785 | 0.038505 | 0.102536232 | 0.0961168 |
|  |  | 190.9 | 1.54 | 1.5393 | 0.02653 | 0.041818182 |
|  |  | 213.3 | 1.91 | 1.9081 | -0.00838 | 0.094397906 |
|  |  | 219.7 | 2.39 | 2.3918 | -0.01796 | 0.076610879 |
|  |  | 242.1 | 2.75 | 2.7493 | -0.04991 | 0.023890909 |
|  |  | 243.9 | 2.77 | 2.7667 | -0.05238 | 0.117292419 |
|  |  | 280.4 | 3.39 | 3.3953 | -0.10026 | 0.158141593 |
|  |  | 308.4 | 3.65 | 3.6443 | -0.13423 | 0.154246575 |
|  |  |  |  |  |  |  |  |
|  | 363.15 | 204.1 | 1.74 | 1.7414 | 0.109324 | 0.083103448 | 0.0706302 |
|  |  | 221.8 | 2.18 | 2.1790 | 0.085556 | 0.045412844 |
|  |  | 252.5 | 3.34 | 3.3368 | 0.047126 | 0.094580838 |
|  |  | 264.3 | 3.93 | 3.9295 | 0.033177 | 0.011068702 |
|  |  | 279.6 | 4.57 | 4.5653 | 0.015713 | 0.100875274 |
|  |  | 318.9 | 6.94 | 6.9297 | -0.02645 | 0.148400576 |
|  |  | 326.6 | 7.53 | 7.5308 | -0.0343 | 0.010969456 |
|  |  |  |  |  |  |  |  |
|  | 393.15 | 194.1 | 1.75 | 1.7505 | 0.219091 | 0.032171429 | 0.0403013 |
|  |  | 216 | 2.93 | 2.9297 | 0.192188 | 0.007064846 |
|  |  | 224 | 3.37 | 3.3681 | 0.182839 | 0.05495549 |
|  |  | 232.9 | 3.69 | 3.6925 | 0.172729 | 0.069593496 |
|  |  | 239 | 4.48 | 4.4815 | 0.165873 | 0.035022321 |
|  |  | 241.4 | 4.21 | 4.2105 | 0.163284 | 0.013942993 |
|  |  | 280 | 7.65 | 7.6541 | 0.122944 | 0.053607843 |
|  |  | 282.4 | 7.64 | 7.6346 | 0.120581 | 0.070235602 |
|  |  | 301.2 | 10.48 | 10.486 | 0.102334 | 0.061755725 |
|  |  | 310.7 | 11.48 | 11.471 | 0.093433 | 0.078101045 |
|  |  | 326.2 | 14.03 | 14.029 | 0.079255 | 0.000263721 |
|  |  | 337.6 | 16.39 | 16.391 | 0.0691 | 0.006900549 |
|  |  |  |  |  |  |  |  |
|  | 423.15 | 150.8 | 2.46 | 2.4597 | 0.358072 | 0.008455285 | 0.0387287 |
|  |  | 167 | 3.66 | 3.6601 | 0.337155 | 0.00295082 |
|  |  | 202.1 | 5.88 | 5.8837 | 0.296345 | 0.064251701 |
|  |  | 230.7 | 8.14 | 8.1397 | 0.266463 | 0.002948403 |
|  |  | 247.3 | 10.1 | 10.094 | 0.250203 | 0.050257426 |
|  |  | 249.6 | 10.69 | 10.687 | 0.247987 | 0.022974743 |
|  |  | 251.7 | 11.08 | 11.082 | 0.245987 | 0.01881769 |
|  |  | 273.9 | 15.7 | 15.710 | 0.225506 | 0.068248408 |
|  |  | 297.7 | 21.33 | 21.339 | 0.204764 | 0.044210033 |
|  |  | 319.5 | 29.04 | 29.065 | 0.186665 | 0.088171488 |
|  |  | 342 | 38.67 | 38.691 | 0.168819 | 0.054729765 |
|  |  |  |  |  |  |  |  |
| Blue 79 |  |  | 106 | |  |  |  |
|  | 353.2 | 150 | 0.0561 | 0.0560 | 0.1997 | 0.055258467 | 0.2075651 |
|  |  | 200 | 0.666 | 0.6651 | 0.119187 | 0.124024024 |
|  |  | 250 | 5.52 | 5.5436 | 0.051638 | 0.427753623 |
|  |  | 300 | 22.3 | 22.250 | -0.00781 | 0.223224215 |
|  |  |  |  |  |  |  |  |
|  | 373.2 | 150 | 0.0583 | 0.0585 | 0.228508 | 0.344768439 | 0.2787678 |
|  |  | 200 | 0.588 | 0.5897 | 0.151095 | 0.304081633 |
|  |  | 250 | 4.75 | 4.7712 | 0.086152 | 0.446757895 |
|  |  | 300 | 24.4 | 24.395 | 0.028913 | 0.019463115 |
|  |  |  |  |  |  |  |  |
|  | 393.2 | 150 | 0.0314 | 0.0313 | 0.266442 | 0.261146497 | 0.304234 |
|  |  | 200 | 0.773 | 0.7702 | 0.192853 | 0.358602846 |
|  |  | 250 | 5.52 | 5.5251 | 0.131121 | 0.093550725 |
|  |  | 300 | 21.7 | 21.590 | 0.076944 | 0.503635945 |
|  |  |  |  |  |  |  |  |
| Blue 79:1 |  |  | 105 | |  |  |  |
|  | 353.2 | 150 | 0.0328 | 0.0327 | 0.212634 | 0.18597561 | 0.2288687 |
|  |  | 200 | 0.324 | 0.3250 | 0.132917 | 0.335802469 |
|  |  | 250 | 1.14 | 1.1426 | 0.065997 | 0.234736842 |
|  |  | 300 | 2.5 | 2.5039 | 0.007345 | 0.15896 |
|  |  |  |  |  |  |  |  |
|  | 373.2 | 150 | 0.0151 | 0.0150 | 0.235278 | 0.052980132 | 0.2876163 |
|  |  | 200 | 0.171 | 0.1712 | 0.158211 | 0.13625731 |
|  |  | 250 | 0.697 | 0.7009 | 0.093591 | 0.569440459 |
|  |  | 300 | 2.07 | 2.0781 | 0.036931 | 0.39178744 |
|  |  |  |  |  |  |  |  |
|  | 393.2 | 150 | 0.0101 | 0.0100 | 0.269551 | 0.04950495 | 0.2379857 |
|  |  | 200 | 0.0944 | 0.0942 | 0.196043 | 0.193855932 |
|  |  | 250 | 0.489 | 0.4880 | 0.13444 | 0.190593047 |
|  |  | 300 | 1.79 | 1.7992 | 0.080483 | 0.517988827 |
|  |  |  |  |  |  |  |  |
| Blue 134 |  |  | 105 | |  |  |  |
|  | 323.15 | 100 | 0.1171 | 0.1170 | 0.178376 | 0.081127242 | 0.1440355 |
|  |  | 120 | 1.111 | 1.1124 | 0.128855 | 0.132313231 |
|  |  | 150 | 2.956 | 2.9528 | 0.064471 | 0.106630582 |
|  |  | 200 | 5.652 | 5.6432 | -0.02587 | 0.155378627 |
|  |  | 250 | 8.744 | 8.7653 | -0.10242 | 0.244727813 |
|  |  |  |  |  |  |  |  |
|  | 353.15 | 100 | 0.03 | 0.0301 | 0.260406 | 0.000476667 | 0.0580348 |
|  |  | 120 | 0.1445 | 0.1445 | 0.216207 | 0.024221453 |
|  |  | 150 | 0.9805 | 0.9815 | 0.158428 | 0.109026007 |
|  |  | 200 | 6.771 | 6.7794 | 0.077065 | 0.124752621 |
|  |  | 250 | 13.08 | 13.084 | 0.008198 | 0.031697248 |
|  |  |  |  |  |  |  |  |
|  | 383.15 | 100 | 0.05578 | 0.0558 | 0.337738 | 0.107565436 | 0.0503533 |
|  |  | 120 | 0.1741 | 0.1740 | 0.29851 | 0.054566341 |
|  |  | 150 | 0.7372 | 0.7370 | 0.247205 | 0.020075963 |
|  |  | 200 | 4.567 | 4.5659 | 0.175043 | 0.022859645 |
|  |  | 250 | 15.36 | 15.352 | 0.113326 | 0.046699219 |
|  |  |  |  |  |  |  |  |
| D1 |  |  | 106 | |  |  |  |
|  | 308 | 122 | 2.93 | 2.9307 | 0.076234 | 0.026860068 | 0.0743181 |
|  |  | 152 | 2.74 | 2.7407 | 0.009762 | 0.027335766 |
|  |  | 182 | 2.61 | 2.6070 | -0.04851 | 0.111149425 |
|  |  | 213 | 2.93 | 2.9267 | -0.10242 | 0.110204778 |
|  |  | 243 | 3.61 | 3.6102 | -0.14986 | 0.007451524 |
|  |  | 274 | 3.83 | 3.8355 | -0.19491 | 0.144751958 |
|  |  | 304 | 3.81 | 3.8077 | -0.23537 | 0.060052493 |
|  |  | 334 | 4.62 | 4.6215 | -0.27331 | 0.034155844 |
|  |  | 355 | 4.84 | 4.8328 | -0.29852 | 0.146900826 |
|  |  |  |  |  |  |  |  |
|  | 318 | 122 | 1.46 | 1.4613 | 0.107359 | 0.094452055 | 0.1096556 |
|  |  | 152 | 2.12 | 2.1224 | 0.043061 | 0.117783019 |
|  |  | 182 | 2.83 | 2.8299 | -0.01326 | 0.000459364 |
|  |  | 213 | 3.5 | 3.5034 | -0.06529 | 0.099971429 |
|  |  | 243 | 4.21 | 4.2041 | -0.11105 | 0.139501188 |
|  |  | 274 | 4.2 | 4.2001 | -0.15449 | 0.003261905 |
|  |  | 304 | 4.74 | 4.7470 | -0.19356 | 0.147848101 |
|  |  | 334 | 5.07 | 5.0600 | -0.23014 | 0.19678501 |
|  |  | 355 | 6.23 | 6.2183 | -0.25451 | 0.186837881 |
|  |  |  |  |  |  |  |  |
|  | 328 | 122 | 2 | 2.0015 | 0.138211 | 0.0794 | 0.0999155 |
|  |  | 152 | 2.05 | 2.0484 | 0.076486 | 0.074585366 |
|  |  | 182 | 2.89 | 2.8923 | 0.022216 | 0.080795848 |
|  |  | 213 | 4.23 | 4.2346 | -0.02797 | 0.110094563 |
|  |  | 243 | 4.61 | 4.6104 | -0.072 | 0.01021692 |
|  |  | 274 | 5.37 | 5.3625 | -0.1139 | 0.137988827 |
|  |  | 304 | 7.06 | 7.0543 | -0.1516 | 0.080141643 |
|  |  | 334 | 8.27 | 8.2566 | -0.18687 | 0.161620314 |
|  |  | 355 | 9.85 | 9.8661 | -0.21036 | 0.164395939 |
|  |  |  |  |  |  |  |  |
|  | 338 | 122 | 1.65 | 1.6490 | 0.169119 | 0.057030303 | 0.0407624 |
|  |  | 152 | 2.08 | 2.0807 | 0.109641 | 0.037067308 |
|  |  | 182 | 3.37 | 3.3697 | 0.057355 | 0.007388724 |
|  |  | 213 | 4.94 | 4.9429 | 0.009063 | 0.058724696 |
|  |  | 243 | 6.57 | 6.5664 | -0.03339 | 0.054322679 |
|  |  | 274 | 8.05 | 8.0484 | -0.07373 | 0.019093168 |
|  |  | 304 | 10.3 | 10.302 | -0.11001 | 0.020524272 |
|  |  | 334 | 11.99 | 11.998 | -0.14395 | 0.069899917 |
|  |  | 355 | 13.77 | 13.764 | -0.16655 | 0.042810458 |
|  |  |  |  |  |  |  |  |
|  | 348 | 122 | 1.59 | 1.5910 | 0.19946 | 0.063962264 | 0.0628086 |
|  |  | 152 | 2.03 | 2.0302 | 0.142281 | 0.01182266 |
|  |  | 182 | 3.71 | 3.7078 | 0.091926 | 0.057493261 |
|  |  | 213 | 6.22 | 6.2236 | 0.045415 | 0.058810289 |
|  |  | 243 | 8.01 | 8.0052 | 0.004608 | 0.059088639 |
|  |  | 274 | 9.78 | 9.7735 | -0.03418 | 0.066421268 |
|  |  | 304 | 12.62 | 12.636 | -0.06908 | 0.128969889 |
|  |  | 334 | 15.22 | 15.235 | -0.10174 | 0.09913929 |
|  |  | 355 | 18.37 | 18.373 | -0.12351 | 0.019569951 |
|  |  |  |  |  |  |  |  |
| D2 |  |  | 105 | |  |  |  |
|  | 308 | 122 | 0.98 | 0.9783 | 0.079881 | 0.173163265 | 0.2100668 |
|  |  | 152 | 1.12 | 1.1178 | 0.012989 | 0.189642857 |
|  |  | 182 | 1.51 | 1.5121 | -0.04565 | 0.145430464 |
|  |  | 213 | 1.76 | 1.7566 | -0.09976 | 0.192727273 |
|  |  | 243 | 2.11 | 2.1145 | -0.14735 | 0.217725118 |
|  |  | 274 | 2.36 | 2.3602 | -0.19256 | 0.010805085 |
|  |  | 304 | 2.6 | 2.5929 | -0.23317 | 0.270730769 |
|  |  | 334 | 2.91 | 2.9205 | -0.27122 | 0.36395189 |
|  |  | 355 | 3.16 | 3.1703 | -0.29653 | 0.326424051 |
|  |  |  |  |  |  |  |  |
|  | 318 | 122 | 0.8 | 0.8012 | 0.109622 | 0.16175 | 0.0937585 |
|  |  | 152 | 1.25 | 1.2478 | 0.044916 | 0.17096 |
|  |  | 182 | 1.66 | 1.6570 | -0.01171 | 0.17560241 |
|  |  | 213 | 1.97 | 1.9705 | -0.06399 | 0.025837563 |
|  |  | 243 | 2.73 | 2.7291 | -0.11006 | 0.03010989 |
|  |  | 274 | 2.88 | 2.8796 | -0.15371 | 0.013125 |
|  |  | 304 | 2.93 | 2.9303 | -0.1929 | 0.013242321 |
|  |  | 334 | 4.09 | 4.0863 | -0.22987 | 0.089437653 |
|  |  | 355 | 4.36 | 4.3528 | -0.25433 | 0.163761468 |
|  |  |  |  |  |  |  |  |
|  | 328 | 122 | 0.51 | 0.5104 | 0.139929 | 0.080392157 | 0.1277603 |
|  |  | 152 | 0.85 | 0.8501 | 0.077526 | 0.019764706 |
|  |  | 182 | 1.41 | 1.4091 | 0.022847 | 0.059361702 |
|  |  | 213 | 2.22 | 2.2231 | -0.02769 | 0.143018018 |
|  |  | 243 | 2.93 | 2.9293 | -0.07211 | 0.02225256 |
|  |  | 274 | 3.26 | 3.2532 | -0.11424 | 0.20595092 |
|  |  | 304 | 4.33 | 4.3199 | -0.15226 | 0.232193995 |
|  |  | 334 | 5.12 | 5.1292 | -0.18783 | 0.181230469 |
|  |  | 355 | 5.6 | 5.6115 | -0.21147 | 0.205678571 |
|  |  |  |  |  |  |  |  |
|  | 338 | 122 | 0.28 | 0.2797 | 0.170286 | 0.071785714 | 0.0929309 |
|  |  | 152 | 0.79 | 0.7904 | 0.109971 | 0.056202532 |
|  |  | 182 | 1.48 | 1.4817 | 0.057254 | 0.120135135 |
|  |  | 213 | 2.36 | 2.3610 | 0.008563 | 0.042415254 |
|  |  | 243 | 3.9 | 3.8957 | -0.03438 | 0.109179487 |
|  |  | 274 | 4.77 | 4.7655 | -0.07507 | 0.093060797 |
|  |  | 304 | 6.23 | 6.2419 | -0.11176 | 0.19117175 |
|  |  | 334 | 7.46 | 7.4527 | -0.1461 | 0.09766756 |
|  |  | 355 | 8.55 | 8.5453 | -0.16901 | 0.054760234 |
|  |  |  |  |  |  |  |  |
|  | 348 | 122 | 0.24 | 0.2400 | 0.20013 | 0.000833333 | 0.0847198 |
|  |  | 152 | 0.76 | 0.7593 | 0.142009 | 0.080921053 |
|  |  | 182 | 1.52 | 1.5190 | 0.091241 | 0.060065789 |
|  |  | 213 | 2.88 | 2.8847 | 0.044276 | 0.163680556 |
|  |  | 243 | 5.75 | 5.7411 | 0.002731 | 0.154747826 |
|  |  | 274 | 7.07 | 7.0802 | -0.03649 | 0.14476662 |
|  |  | 304 | 8.28 | 8.2726 | -0.07175 | 0.088611111 |
|  |  | 334 | 9.92 | 9.9255 | -0.10488 | 0.056068548 |
|  |  | 355 | 11.1 | 11.098 | -0.12693 | 0.012783784 |
|  |  |  |  |  |  |  |  |
| D3 |  |  | 106 | |  |  |  |
|  | 328 | 122 | 0.32 | 0.3197 | 0.141542 | 0.0834375 | 0.1843833 |
|  |  | 152 | 0.48 | 0.4802 | 0.078929 | 0.049791667 |
|  |  | 182 | 0.78 | 0.7800 | 0.024149 | 0.005512821 |
|  |  | 213 | 1.16 | 1.1585 | -0.0264 | 0.123103448 |
|  |  | 243 | 1.45 | 1.4525 | -0.07079 | 0.176413793 |
|  |  | 274 | 1.73 | 1.7237 | -0.11294 | 0.36416185 |
|  |  | 304 | 2.06 | 2.0676 | -0.1508 | 0.371796117 |
|  |  | 334 | 2.46 | 2.4681 | -0.18624 | 0.32995935 |
|  |  | 355 | 2.75 | 2.7542 | -0.2098 | 0.155272727 |
|  |  |  |  |  |  |  |  |
|  | 338 | 122 | 0.44 | 0.4401 | 0.168417 | 0.029090909 | 0.146682 |
|  |  | 152 | 0.5 | 0.5011 | 0.107963 | 0.2252 |
|  |  | 182 | 0.75 | 0.7491 | 0.055017 | 0.112933333 |
|  |  | 213 | 1.43 | 1.4321 | 0.006101 | 0.148251748 |
|  |  | 243 | 1.77 | 1.7735 | -0.03682 | 0.201864407 |
|  |  | 274 | 2.43 | 2.4371 | -0.07761 | 0.294403292 |
|  |  | 304 | 3.08 | 3.0791 | -0.11423 | 0.026428571 |
|  |  | 334 | 3.51 | 3.5152 | -0.1485 | 0.150598291 |
|  |  | 355 | 3.95 | 3.9551 | -0.17129 | 0.131367089 |
|  |  |  |  |  |  |  |  |
|  | 348 | 122 | - | - | - | - | 0.1815155 |
|  |  | 152 | 0.41 | 0.4092 | 0.137389 | 0.18 |
|  |  | 182 | 1.06 | 1.0623 | 0.086164 | 0.223113208 |
|  |  | 213 | 1.25 | 1.2506 | 0.039028 | 0.05064 |
|  |  | 243 | 1.95 | 1.9537 | -0.00245 | 0.193076923 |
|  |  | 274 | 2.9 | 2.8964 | -0.04185 | 0.120931034 |
|  |  | 304 | 3.5 | 3.4965 | -0.07721 | 0.098 |
|  |  | 334 | 4.35 | 4.3374 | -0.11032 | 0.288436782 |
|  |  | 355 | 5.16 | 5.1753 | -0.13234 | 0.297926357 |
|  |  |  |  |  |  |  |  |
|  | 358 | 122 | 0.22 | 0.2201 | 0.223082 | 0.085 | 0.1608628 |
|  |  | 152 | 0.47 | 0.4698 | 0.166676 | 0.028085106 |
|  |  | 182 | 1.27 | 1.2696 | 0.117259 | 0.024488189 |
|  |  | 213 | 2.22 | 2.2249 | 0.071728 | 0.221891892 |
|  |  | 243 | 2.85 | 2.8429 | 0.031766 | 0.24845614 |
|  |  | 274 | 3.8 | 3.7971 | -0.00622 | 0.074342105 |
|  |  | 304 | 4.76 | 4.7709 | -0.04033 | 0.23092437 |
|  |  | 334 | 5.91 | 5.9237 | -0.07226 | 0.23285956 |
|  |  | 355 | 6.46 | 6.4405 | -0.09348 | 0.301718266 |
|  |  |  |  |  |  |  |  |
| DY82 |  |  | 106 | |  |  |  |
|  | 353.15 | 200 | 0.6 | 0.6211 | 0.0769 | 3.404663623 | 2.162773 |
|  |  | 250 | 1.66 | 1.6940 | 0.0088 | 2.050542169 |
|  |  | 300 | 2.38 | 2.3582 | -0.0506 | 0.913109244 |
|  |  |  |  |  |  |  |  |
|  | 373.15 | 200 | 0.79 | 0.7932 | 0.1425 | 0.407721519 | 0.666874 |
|  |  | 250 | 2.41 | 2.4437 | 0.0794 | 1.40219917 |
|  |  | 300 | 4.14 | 4.1478 | 0.0243 | 0.190700483 |
|  |  |  |  |  |  |  |  |
| Modified Yellow 119 |  |  | 105 | |  |  |  |
|  | 353.2 | 150 | 0.0103 | 0.0103 | 0.159189 | 0.398058252 | 0.3237838 |
|  |  | 200 | 0.144 | 0.1448 | 0.07681 | 0.565972222 |
|  |  | 250 | 0.399 | 0.4002 | 0.007527 | 0.317293233 |
|  |  | 300 | 0.753 | 0.7528 | -0.05294 | 0.013811421 |
|  |  |  |  |  |  |  |  |
|  | 373.2 | 150 | 0.006 | 0.0060 | 0.211905 | 0.35 | 0.5653108 |
|  |  | 200 | 0.0871 | 0.0864 | 0.134792 | 0.71641791 |
|  |  | 250 | 0.36 | 0.3593 | 0.069929 | 0.183333333 |
|  |  | 300 | 0.992 | 0.9819 | 0.013275 | 1.011491935 |
|  |  |  |  |  |  |  |  |
|  | 393.2 | 150 | 0.0038 | 0.0038 | 0.264356 | 0.131578947 | 0.2553443 |
|  |  | 200 | 0.0346 | 0.0346 | 0.192483 | 0.205202312 |
|  |  | 250 | 0.331 | 0.3294 | 0.131953 | 0.45347432 |
|  |  | 300 | 1.07 | 1.0675 | 0.079127 | 0.231121495 |
|  |  |  |  |  |  |  |  |
| Mordant Brown |  |  | 104 | |  |  |  |
|  | 333.15 | 132 | 2.2 | 2.1999 | 0.107926 | 0.000545455 | 0.0031089 |
|  |  | 155 | 3.17 | 3.1702 | 0.066391 | 0.007444795 |
|  |  | 175 | 4.23 | 4.2298 | 0.033162 | 0.003049645 |
|  |  | 195 | 4.8 | 4.7999 | 0.003107 | 0.001395833 |
|  |  |  |  |  |  |  |  |
|  | 353.15 | 134 | 1.29 | 1.2899 | 0.182609 | 0.002403101 | 0.0016027 |
|  |  | 154 | 2.56 | 2.5600 | 0.14567 | 0.001796875 |
|  |  | 176 | 4.16 | 4.1599 | 0.110285 | 0.001802885 |
|  |  | 195 | 5.15 | 5.1500 | 0.083285 | 0.000407767 |
|  |  |  |  |  |  |  |  |
| Mordant Red 11 |  |  | 106 | |  |  |  |
|  | 333.15 | 132 | 2.66 | 2.6607 | 0.117235 | 0.028458647 | 0.0291368 |
|  |  | 155 | 3.91 | 3.9094 | 0.07334 | 0.013120205 |
|  |  | 176 | 5.19 | 5.1869 | 0.036783 | 0.059633911 |
|  |  | 189 | 6.28 | 6.2809 | 0.015516 | 0.015334395 |
|  |  |  |  |  |  |  |  |
|  | 353.15 | 132 | 1.76 | 1.7604 | 0.177318 | 0.027897727 | 0.0383298 |
|  |  | 154 | 3.16 | 3.1611 | 0.138361 | 0.037436709 |
|  |  | 175 | 5.16 | 5.1618 | 0.104378 | 0.036414729 |
|  |  | 192 | 6.56 | 6.5566 | 0.078837 | 0.051570122 |
|  |  |  |  |  |  |  |  |
| N-phenylacetamide |  |  | 104 | |  |  |  |
|  | 308.2 | 104.4 | 0.508 | 0.5075 | -0.2459 | 0.088582677 | 0.1204204 |
|  |  | 121.6 | 0.794 | 0.7951 | -0.2804 | 0.150629723 |
|  |  | 138.9 | 1.109 | 1.1066 | -0.3094 | 0.211000902 |
|  |  | 156.1 | 1.246 | 1.2451 | -0.3307 | 0.065008026 |
|  |  | 173.3 | 1.497 | 1.4997 | -0.3532 | 0.185704743 |
|  |  | 190.6 | 1.698 | 1.6978 | -0.3733 | 0.010011779 |
|  |  | 207.8 | 1.756 | 1.7582 | -0.3903 | 0.126993166 |
|  |  | 225 | 2.025 | 2.0224 | -0.4096 | 0.125432099 |
|  |  |  |  |  |  |  |  |
|  | 318.2 | 104.4 | 0.41 | 0.4108 | -0.1509 | 0.216097561 | 0.1004449 |
|  |  | 123 | 0.81 | 0.8109 | -0.1973 | 0.121111111 |
|  |  | 138.8 | 1.224 | 1.2229 | -0.2283 | 0.087418301 |
|  |  | 156.1 | 1.741 | 1.7422 | -0.2574 | 0.074095348 |
|  |  | 173.3 | 2.386 | 2.3830 | -0.2838 | 0.123637888 |
|  |  | 190.5 | 2.783 | 2.7822 | -0.3046 | 0.02730866 |
|  |  | 207.8 | 3.124 | 3.1215 | -0.3237 | 0.077464789 |
|  |  | 225 | 3.245 | 3.2474 | -0.3401 | 0.07642527 |
|  |  |  |  |  |  |  |  |
|  | 328.2 | 104.4 | 0.293 | 0.2933 | -0.05 | 0.133788396 | 0.0987228 |
|  |  | 123 | 0.782 | 0.7821 | -0.1124 | 0.018286445 |
|  |  | 140.2 | 1.356 | 1.3556 | -0.5607 | 0.029498525 |
|  |  | 157.5 | 2.376 | 2.3748 | -0.188 | 0.047558923 |
|  |  | 174.7 | 2.817 | 2.8189 | -0.2104 | 0.069577565 |
|  |  | 191.9 | 3.487 | 3.4824 | -0.2331 | 0.130771437 |
|  |  | 209.9 | 4.225 | 4.2344 | -0.2552 | 0.224615385 |
|  |  | 225 | 4.562 | 4.5558 | -0.2706 | 0.135686103 |
|  |  |  |  |  |  |  |  |
| Orange 3 |  |  | 106 | |  |  |  |
|  | 323.7 | 101.3 | 1.518 | 1.5176 | 0.16984 | 0.02391304 | 0.0325852 |
|  |  | 149.8 | 6.983 | 6.9867 | 0.062955 | 0.05418874 |
|  |  | 205.8 | 13.656 | 13.654 | -0.03446 | 0.01408905 |
|  |  | 247.5 | 20.755 | 20.762 | -0.09622 | 0.03814984 |
|  |  | 305 | 16.342 | 16.352 | -0.17051 | 0.06482071 |
|  |  |  |  |  |  |  |  |
|  | 353.7 | 103.3 | 0.094 | 0.0939 | 0.260238 | 0.03191489 | 0.0148843 |
|  |  | 152.4 | 2.564 | 2.5641 | 0.161953 | 0.00686427 |
|  |  | 203.9 | 9.918 | 9.9192 | 0.081881 | 0.01262351 |
|  |  | 247.8 | 18.219 | 18.220 | 0.024035 | 0.00813437 |
|  |  | 304.7 | 27.517 | 27.508 | -0.04144 | 0.03116619 |
|  |  |  |  |  |  |  |  |
|  | 383.7 | 103.4 | 0.125 | 0.1249 | 0.345147 | 0.0104 | 0.0213423 |
|  |  | 150.4 | 4.239 | 4.2393 | 0.258791 | 0.00908233 |
|  |  | 198.5 | 10.691 | 10.687 | 0.191907 | 0.02938921 |
|  |  | 250.6 | 19.108 | 19.114 | 0.131009 | 0.0364978 |
|  |  | 301.6 | 32.243 | 32.236 | 0.078935 | 0.01900878 |
|  |  |  |  |  |  |  |  |
|  | 413.7 | 103.7 | 0.453 | 0.4529 | 0.420126 | 0.01368653 | 0.0168251 |
|  |  | 148.1 | 4.399 | 4.3997 | 0.347569 | 0.0160491 |
|  |  | 203 | 10.861 | 10.859 | 0.279876 | 0.01043182 |
|  |  | 251.3 | 20.783 | 20.777 | 0.229908 | 0.02713275 |
|  |  | 310.6 | 92.435 | 92.438 | 0.175243 | 0.00363823 |
|  |  |  |  |  |  |  |  |
| Orange 11 |  |  | 106 | |  |  |  |
|  | 333.15 | 132 | 1.71 | 1.7091 | 0.126992 | 0.050175439 | 0.0298038 |
|  |  | 152 | 2.39 | 2.3905 | 0.088138 | 0.022552301 |
|  |  | 172 | 3.21 | 3.2110 | 0.052494 | 0.033987539 |
|  |  | 193 | 4.16 | 4.1594 | 0.017889 | 0.0125 |
|  |  |  |  |  |  |  |  |
|  | 353.15 | 132 | 0.925 | 0.9248 | 0.190839 | 0.015675676 | 0.0159278 |
|  |  | 152 | 1.73 | 1.7300 | 0.154598 | 0.000867052 |
|  |  | 172 | 3 | 2.9995 | 0.121416 | 0.016266667 |
|  |  | 193 | 4.88 | 4.8784 | 0.089261 | 0.030901639 |
|  |  |  |  |  |  |  |  |
| Photochromic Dye |  |  | 106 | |  |  |  |
|  | 308 | 105 | 0.42 | 0.4170 | 0.15767 | 0.693095238 | 0.43073 |
|  |  | 130 | 0.91 | 0.9044 | 0.09592 | 0.605054945 |
|  |  | 156 | 1.19 | 1.1855 | 0.03998 | 0.371092437 |
|  |  | 172 | 1.4 | 1.3969 | 0.00871 | 0.217071429 |
|  |  | 204 | 2.12 | 2.1176 | -0.04827 | 0.108632075 |
|  |  | 229 | 2.35 | 2.3706 | -0.08865 | 0.879787234 |
|  |  | 249 | 2.39 | 2.3866 | -0.11882 | 0.140376569 |
|  |  |  |  |  |  |  |  |
|  | 318 | 136 | 0.68 | 0.6802 | 0.101639 | 0.032794118 | 0.418084 |
|  |  | 152 | 0.92 | 0.9271 | 0.068157 | 0.772826087 |
|  |  | 173 | 1.51 | 1.5015 | 0.027717 | 0.56013245 |
|  |  | 193 | 2.19 | 2.1893 | -0.00777 | 0.030913242 |
|  |  | 222 | 2.96 | 2.9477 | -0.05497 | 0.414087838 |
|  |  | 248 | 3.29 | 3.2670 | -0.09382 | 0.69775076 |
|  |  |  |  |  |  |  |  |
|  | 328 | 127 | 0.22 | 0.2185 | 0.14388 | 0.642727273 | 1.035834 |
|  |  | 155 | 0.82 | 0.8388 | 0.08582 | 2.300243902 |
|  |  | 175 | 1.57 | 1.5636 | 0.048677 | 0.405605096 |
|  |  | 202 | 2.86 | 2.8923 | 0.002908 | 1.131958042 |
|  |  | 226 | 4.26 | 4.2267 | -0.03438 | 0.78084507 |
|  |  | 256 | 5.05 | 5.0018 | -0.07734 | 0.953623762 |
|  |  |  |  |  |  |  |  |
| Red 1 |  |  | 107 | |  |  |  |
|  | 313.15 | 100 | 0.81 | 0.8109 | 0.160175 | 0.118148148 | 0.124985 |
|  |  | 150 | 3.41 | 3.4087 | 0.041114 | 0.036422287 |
|  |  | 200 | 6.44 | 6.4208 | -0.05299 | 0.297670807 |
|  |  | 250 | 8.25 | 8.2539 | -0.13216 | 0.04769697 |
|  |  |  |  |  |  |  |  |
|  | 353.15 | 100 | 0.45 | 0.4500 | 0.269563 | 0.014444444 | 0.11572 |
|  |  | 150 | 2.12 | 2.1162 | 0.165556 | 0.177028302 |
|  |  | 200 | 14.33 | 14.307 | 0.083247 | 0.159225401 |
|  |  | 250 | 31.8 | 31.764 | 0.014213 | 0.11218239 |
|  |  |  |  |  |  |  |  |
|  | 393.15 | 100 | 2.36 | 2.3619 | 0.372954 | 0.081228814 | 0.109675 |
|  |  | 150 | 10.2 | 10.209 | 0.283091 | 0.096421569 |
|  |  | 200 | 51.81 | 51.875 | 0.212087 | 0.127274657 |
|  |  | 250 | 161.9 | 162.11 | 0.15246 | 0.133776405 |
|  |  |  |  |  |  |  |  |
| Red 60 |  |  | 106 | |  |  |  |
|  | 313.15 | 98.5 | 1.61 | 1.6095 | 0.143784 | 0.027080745 | 0.025246 |
|  |  | 104.1 | 1.92 | 1.9208 | 0.129082 | 0.044322917 |
|  |  | 113.4 | 2.55 | 2.5499 | 0.105774 | 0.00254902 |
|  |  | 119.9 | 3.28 | 3.2789 | 0.09016 | 0.03097561 |
|  |  | 159.5 | 5.46 | 5.4614 | 0.00608 | 0.026227106 |
|  |  | 188.1 | 7.41 | 7.4061 | -0.04646 | 0.052483131 |
|  |  | 242.3 | 9.59 | 9.5918 | -0.13305 | 0.019426486 |
|  |  | 275.1 | 12.39 | 12.387 | -0.17949 | 0.016997579 |
|  |  | 32.83 | 14.13 | 14.128 | -0.372739 | 0.007154989 |
|  |  |  |  |  |  |  |  |
|  | 333.15 | 122 | 0.82 | 0.8188 | 0.155036 | 0.14 | 0.227767 |
|  |  | 126.2 | 1.66 | 1.6647 | 0.145754 | 0.287590361 |
|  |  | 158.3 | 4.14 | 4.1395 | 0.081523 | 0.0097343 |
|  |  | 180.5 | 6.47 | 6.4762 | 0.042088 | 0.096321484 |
|  |  | 210.5 | 9.8 | 9.7792 | -0.00633 | 0.211591837 |
|  |  | 248.8 | 13.91 | 13.865 | -0.06185 | 0.321631919 |
|  |  | 283.1 | 17.79 | 17.835 | -0.10691 | 0.254227094 |
|  |  | 307.1 | 20.52 | 20.417 | -0.13632 | 0.501038012 |
|  |  |  |  |  |  |  |  |
|  | 363.15 | 121 | 0.72 | 0.7199 | 0.249121 | 0.008472222 | 0.024593 |
|  |  | 149.2 | 2.64 | 2.6396 | 0.197408 | 0.011818182 |
|  |  | 181.1 | 5.92 | 5.9176 | 0.147114 | 0.039527027 |
|  |  | 183.6 | 4.96 | 4.9614 | 0.143733 | 0.028548387 |
|  |  | 200.6 | 8.93 | 8.9322 | 0.119294 | 0.025027996 |
|  |  | 201.8 | 7.2 | 7.1982 | 0.117934 | 0.024736111 |
|  |  | 230.8 | 14.35 | 14.351 | 0.07969 | 0.007184669 |
|  |  | 242.9 | 15.04 | 15.047 | 0.064932 | 0.047400266 |
|  |  | 279.9 | 27.79 | 27.795 | 0.022047 | 0.018708168 |
|  |  | 309.6 | 36.06 | 36.065 | -0.00955 | 0.016211869 |
|  |  | 322.8 | 41.38 | 41.397 | -0.023 | 0.042883035 |
|  |  |  |  |  |  |  |  |
|  | 393.15 | 145.5 | 2.33 | 2.3284 | 0.273772 | 0.067553648 | 0.131609 |
|  |  | 181.8 | 6.95 | 6.9599 | 0.220725 | 0.143093525 |
|  |  | 214.8 | 13.58 | 13.565 | 0.178363 | 0.104116348 |
|  |  | 246.6 | 22.75 | 22.748 | 0.141433 | 0.007604396 |
|  |  | 264.5 | 32.3 | 32.277 | 0.121953 | 0.069956656 |
|  |  | 272.9 | 38.02 | 37.945 | 0.113094 | 0.195931089 |
|  |  | 285.5 | 42.08 | 42.121 | 0.100208 | 0.097535646 |
|  |  | 323 | 68.98 | 69.020 | 0.063714 | 0.059022905 |
|  |  | 328.4 | 68.03 | 67.826 | 0.058765 | 0.299584007 |
|  |  | 335.4 | 72.47 | 72.666 | 0.05234 | 0.271691735 |
|  |  |  |  |  |  |  |  |
|  | 423.15 | 114.4 | 2.03 | 2.0299 | 0.422761 | 0.00137931 | 0.006717 |
|  |  | 136.9 | 4.4 | 4.3999 | 0.387892 | 0.000886364 |
|  |  | 167 | 7.15 | 7.1499 | 0.348192 | 0.000125874 |
|  |  | 200.9 | 15.4 | 15.396 | 0.308369 | 0.019915584 |
|  |  | 258.9 | 49.78 | 49.777 | 0.249784 | 0.005498192 |
|  |  | 291.7 | 85.03 | 85.037 | 0.220595 | 0.008298248 |
|  |  | 322.3 | 129.92 | 129.93 | 0.195285 | 0.010914409 |
|  |  |  |  |  |  |  |  |
| Red 73 |  |  | 106 | |  |  |  |
|  | 343 | 120 | 3 | 2.9987 | 0.193792 | 0.0417 | 0.0534218 |
|  |  | 160 | 8.7 | 8.6987 | 0.114335 | 0.014689655 |
|  |  | 200 | 13 | 12.999 | 0.047566 | 0.002230769 |
|  |  | 240 | 17 | 17.014 | -0.01065 | 0.085923529 |
|  |  | 280 | 20 | 19.975 | -0.06261 | 0.122565 |
|  |  |  |  |  |  |  |  |
|  | 363 | 120 | 3.7 | 3.7015 | 0.242991 | 0.040648649 | 0.0596407 |
|  |  | 160 | 11 | 10.992 | 0.168479 | 0.065881818 |
|  |  | 200 | 16 | 16.013 | 0.105874 | 0.0841375 |
|  |  | 240 | 21 | 20.987 | 0.051271 | 0.059109524 |
|  |  | 280 | 23 | 22.988 | 0.002581 | 0.048426087 |
|  |  |  |  |  |  |  |  |
|  | 383 | 120 | 5.3 | 5.2981 | 0.292673 | 0.034075472 | 0.0394805 |
|  |  | 160 | 13 | 13.002 | 0.223159 | 0.017707692 |
|  |  | 200 | 22 | 21.991 | 0.164676 | 0.039204545 |
|  |  | 240 | 26 | 25.988 | 0.113755 | 0.045430769 |
|  |  | 280 | 31 | 30.981 | 0.068257 | 0.060983871 |
|  |  |  |  |  |  |  |  |
| Red 82 |  |  | 105 | |  |  |  |
|  | 353.2 | 15 | 0.0642 | 0.0641 | 0.167222 | 0.057632399 | 0.0815947 |
|  |  | 20 | 1.08 | 1.0812 | 0.084424 | 0.118888889 |
|  |  | 25 | 3.44 | 3.4439 | 0.014284 | 0.115639535 |
|  |  | 30 | 4.22 | 4.2214 | -0.04649 | 0.034218009 |
|  |  |  |  |  |  |  |  |
|  | 373.2 | 15 | 0.0188 | 0.0188 | 0.214155 | 0.159574468 | 0.1541268 |
|  |  | 20 | 0.403 | 0.4035 | 0.136221 | 0.137220844 |
|  |  | 25 | 1.66 | 1.6620 | 0.070522 | 0.124036145 |
|  |  | 30 | 2.96 | 2.9657 | 0.013142 | 0.195675676 |
|  |  |  |  |  |  |  |  |
|  | 393.2 | 15 | 0.0167 | 0.0166 | 0.263113 | 0.047904192 | 0.0481284 |
|  |  | 20 | 0.16 | 0.1598 | 0.190085 | 0.075 |
|  |  | 25 | 1.14 | 1.1394 | 0.128568 | 0.045701754 |
|  |  | 30 | 2.38 | 2.3794 | 0.074847 | 0.023907563 |
|  |  |  |  |  |  |  |  |
| Red 153 |  |  | 106 | |  |  |  |
|  | 353.2 | 150 | 0.03 | 0.0300 | 0.15826 | 0.1 | 0.4307654 |
|  |  | 200 | 0.297 | 0.2966 | 0.076045 | 0.111784512 |
|  |  | 250 | 1.31 | 1.3196 | 0.00686 | 0.737633588 |
|  |  | 300 | 2.58 | 2.5600 | -0.05347 | 0.773643411 |
|  |  |  |  |  |  |  |  |
|  | 393.2 | 150 | 0.0433 | 0.0434 | 0.267563 | 0.251732102 | 0.2249768 |
|  |  | 200 | 0.266 | 0.2658 | 0.196257 | 0.064285714 |
|  |  | 250 | 1.21 | 1.2147 | 0.136227 | 0.394545455 |
|  |  | 300 | 3.81 | 3.8027 | 0.083845 | 0.189343832 |
|  |  |  |  |  |  |  |  |
| Yellow 7 |  |  | 106 | |  |  |  |
|  | 333.15 | 132 | 1.68 | 1.6774 | 0.138737 | 0.153928571 | 0.1572134 |
|  |  | 152 | 2.07 | 2.0691 | 0.098452 | 0.043285024 |
|  |  | 172 | 2.48 | 2.4876 | 0.061632 | 0.307701613 |
|  |  | 193 | 2.92 | 2.9163 | 0.02598 | 0.123938356 |
|  |  |  |  |  |  |  |  |
|  | 353.15 | 132 | 1.32 | 1.3217 | 0.192147 | 0.131818182 | 0.2421789 |
|  |  | 152 | 1.9 | 1.9048 | 0.154424 | 0.255210526 |
|  |  | 172 | 2.62 | 2.6153 | 0.119943 | 0.177175573 |
|  |  | 193 | 3.48 | 3.4659 | 0.086553 | 0.404511494 |
|  |  |  |  |  |  |  |  |
| Yellow 16 |  |  | 105 | |  |  |  |
|  | 323.15 | 100 | 0.2246 | 0.2248 | 0.175724 | 0.096170971 | 0.1162764 |
|  |  | 120 | 2.111 | 2.1091 | 0.126195 | 0.089578399 |
|  |  | 150 | 5.453 | 5.4581 | 0.061989 | 0.093654869 |
|  |  | 200 | 9.613 | 9.6056 | -0.02808 | 0.07693748 |
|  |  | 250 | 13.65 | 13.680 | -0.1044 | 0.225040293 |
|  |  |  |  |  |  |  |  |
|  | 353.15 | 100 | 0.09245 | 0.0925 | 0.25761 | 0.103839913 | 0.0746955 |
|  |  | 120 | 0.3317 | 0.3319 | 0.21364 | 0.065420561 |
|  |  | 150 | 2.09 | 2.0911 | 0.155958 | 0.055645933 |
|  |  | 200 | 9.988 | 9.9899 | 0.074933 | 0.019092911 |
|  |  | 250 | 22.03 | 22.058 | 0.005855 | 0.129477985 |
|  |  |  |  |  |  |  |  |
|  | 383.15 | 100 | 0.2089 | 0.2088 | 0.33451 | 0.003350886 | 0.0460345 |
|  |  | 120 | 0.5423 | 0.5421 | 0.29555 | 0.026369168 |
|  |  | 150 | 1.775 | 1.7763 | 0.244547 | 0.076619718 |
|  |  | 200 | 9.616 | 9.6101 | 0.172479 | 0.060451331 |
|  |  | 250 | 26.94 | 26.922 | 0.110727 | 0.063381589 |
|  |  |  |  |  |  |  |  |
| Yellow 119 |  |  | 106 | |  |  |  |
|  | 353.2 | 150 | 0.071 | 0.0713 | 0.157897 | 0.442253521 | 0.4608664 |
|  |  | 200 | 0.448 | 0.4500 | 0.07573 | 0.448214286 |
|  |  | 250 | 1.36 | 1.3580 | 0.006574 | 0.146470588 |
|  |  | 300 | 2.39 | 2.3707 | -0.05375 | 0.806527197 |
|  |  |  |  |  |  |  |  |
|  | 373.2 | 150 | 0.0747 | 0.0744 | 0.212029 | 0.329317269 | 0.2314048 |
|  |  | 200 | 0.494 | 0.4942 | 0.135284 | 0.055060729 |
|  |  | 250 | 1.53 | 1.5266 | 0.070696 | 0.217320261 |
|  |  | 300 | 3.29 | 3.3006 | 0.014332 | 0.323920973 |
|  |  |  |  |  |  |  |  |
|  | 393.2 | 150 | 0.0873 | 0.0872 | 0.26528 | 0.060710195 | 0.1282731 |
|  |  | 200 | 0.617 | 0.6168 | 0.193843 | 0.017990276 |
|  |  | 250 | 2.58 | 2.5867 | 0.133701 | 0.260271318 |
|  |  | 300 | 6.31 | 6.2990 | 0.081217 | 0.174120444 |

\*The individual absolute relative deviations (**IARD**):



+The average-absolute-relative-deviation (**AARD**):

