











表 2a<sub>1</sub> 球状水银温度表相对湿度查算表  
 $P=110\text{ kPa}, A=0.857\times 10^{-3}\text{ }^{\circ}\text{C}^{-1}(0.4\text{ m/s})$

| $t-t_w$<br>$t$ | 0.0   | 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|----------------|-------|------|------|------|------|------|------|------|------|------|------|
| 15             | 100.0 | 98.8 | 97.6 | 96.4 | 95.2 | 94.1 | 92.9 | 91.7 | 90.5 | 89.4 | 88.2 |
| 16             | 100.0 | 98.8 | 97.7 | 96.5 | 95.4 | 94.3 | 93.1 | 92.0 | 90.9 | 89.7 | 88.6 |
| 17             | 100.0 | 98.9 | 97.8 | 96.7 | 95.5 | 94.4 | 93.3 | 92.2 | 91.1 | 90.1 | 89.0 |
| 18             | 100.0 | 98.9 | 97.8 | 96.8 | 95.7 | 94.6 | 93.5 | 92.5 | 91.4 | 90.4 | 89.3 |
| 19             | 100.0 | 98.9 | 97.9 | 96.9 | 95.8 | 94.8 | 93.7 | 92.7 | 91.7 | 90.7 | 89.6 |
| 20             | 100.0 | 99.0 | 98.0 | 96.9 | 95.9 | 94.9 | 93.9 | 92.9 | 91.9 | 90.9 | 89.9 |
| 21             | 100.0 | 99.0 | 98.0 | 97.0 | 96.1 | 95.1 | 94.1 | 93.1 | 92.2 | 91.2 | 90.2 |
| 22             | 100.0 | 99.0 | 98.1 | 97.1 | 96.2 | 95.2 | 94.3 | 93.3 | 92.4 | 91.4 | 90.5 |
| 23             | 100.0 | 99.1 | 98.1 | 97.2 | 96.3 | 95.5 | 94.4 | 93.5 | 92.6 | 91.7 | 90.7 |
| 24             | 100.0 | 99.1 | 98.2 | 97.3 | 96.4 | 95.5 | 94.6 | 93.7 | 92.8 | 91.9 | 91.0 |
| 25             | 100.0 | 99.1 | 98.2 | 97.3 | 96.4 | 95.6 | 94.7 | 93.8 | 92.9 | 92.1 | 91.2 |
| 26             | 100.0 | 99.1 | 98.3 | 97.4 | 96.5 | 95.7 | 94.8 | 94.0 | 93.1 | 92.3 | 91.4 |
| 27             | 100.0 | 99.1 | 98.3 | 97.5 | 96.6 | 95.8 | 94.9 | 94.1 | 93.3 | 92.5 | 91.6 |
| 28             | 100.0 | 99.2 | 98.3 | 97.5 | 96.7 | 95.9 | 95.1 | 94.2 | 93.4 | 92.6 | 91.8 |
| 29             | 100.0 | 99.2 | 98.4 | 97.6 | 96.8 | 96.0 | 95.2 | 94.4 | 93.6 | 92.8 | 92.0 |
| 30             | 100.0 | 99.2 | 98.4 | 97.6 | 96.8 | 96.1 | 95.3 | 94.5 | 93.7 | 92.9 | 92.2 |
| 31             | 100.0 | 99.2 | 98.4 | 97.7 | 96.9 | 96.1 | 95.4 | 94.6 | 93.9 | 93.1 | 92.3 |
| 32             | 100.0 | 99.2 | 98.5 | 97.7 | 97.0 | 96.2 | 95.5 | 94.7 | 94.0 | 93.2 | 92.5 |
| 33             | 100.0 | 99.3 | 98.5 | 97.8 | 97.0 | 96.3 | 95.6 | 94.8 | 94.1 | 93.4 | 92.6 |
| 34             | 100.0 | 99.3 | 98.5 | 97.8 | 97.1 | 96.4 | 95.6 | 94.9 | 94.2 | 93.5 | 92.8 |
| 35             | 100.0 | 99.3 | 98.6 | 97.8 | 97.1 | 96.4 | 95.7 | 95.0 | 94.3 | 93.6 | 92.9 |
| 36             | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.5 | 95.8 | 95.1 | 94.4 | 93.7 | 93.1 |
| 37             | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.6 | 95.9 | 95.2 | 94.5 | 93.8 | 93.2 |
| 38             | 100.0 | 99.3 | 98.6 | 98.0 | 97.3 | 96.6 | 95.9 | 95.3 | 94.6 | 94.0 | 93.3 |
| 39             | 100.0 | 99.3 | 98.7 | 98.0 | 97.3 | 96.7 | 96.0 | 95.4 | 94.7 | 94.1 | 93.4 |
| 40             | 100.0 | 99.3 | 98.7 | 98.0 | 97.4 | 96.7 | 96.1 | 95.4 | 94.8 | 94.2 | 93.5 |
| 41             | 100.0 | 99.4 | 98.7 | 98.1 | 97.4 | 96.8 | 96.1 | 95.5 | 94.9 | 94.2 | 93.6 |
| 42             | 100.0 | 99.4 | 98.7 | 98.1 | 97.5 | 96.8 | 96.2 | 95.6 | 95.0 | 94.3 | 93.7 |
| 43             | 100.0 | 99.4 | 98.7 | 98.1 | 97.5 | 96.9 | 96.3 | 95.6 | 95.0 | 94.4 | 93.8 |
| 44             | 100.0 | 99.4 | 98.8 | 98.1 | 97.5 | 96.9 | 96.3 | 95.7 | 95.1 | 94.5 | 93.9 |
| 45             | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.8 | 95.2 | 94.6 | 94.0 |
| 46             | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.8 | 95.2 | 94.7 | 94.1 |
| 47             | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.5 | 95.9 | 95.3 | 94.7 | 94.2 |
| 48             | 100.0 | 99.4 | 98.8 | 98.2 | 97.7 | 97.1 | 96.5 | 95.9 | 95.4 | 94.8 | 94.2 |
| 49             | 100.0 | 99.4 | 98.8 | 98.3 | 97.7 | 97.1 | 96.6 | 96.0 | 95.4 | 94.9 | 94.3 |
| 50             | 100.0 | 99.4 | 98.9 | 98.3 | 97.7 | 97.2 | 96.6 | 96.0 | 95.5 | 94.9 | 94.4 |
| 51             | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.2 | 96.6 | 96.1 | 95.5 | 95.0 | 94.4 |
| 52             | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.2 | 96.7 | 96.1 | 95.6 | 95.1 | 94.5 |
| 53             | 100.0 | 99.4 | 98.9 | 98.4 | 97.8 | 97.3 | 96.7 | 96.2 | 95.6 | 95.1 | 94.6 |
| 54             | 100.0 | 99.5 | 98.9 | 98.4 | 97.8 | 97.3 | 96.8 | 96.2 | 95.7 | 95.2 | 94.6 |
| 55             | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.3 | 96.8 | 96.3 | 95.8 | 95.2 | 94.7 |
| 56             | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.4 | 96.8 | 96.3 | 95.8 | 95.3 | 94.8 |
| 57             | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.4 | 96.9 | 96.4 | 95.8 | 95.3 | 94.8 |



表 2a<sub>1</sub> (续)

| $t \begin{matrix} \diagup \\ t-t_w \end{matrix}$ | 1.1  | 1.2  | 1.3  | 1.4  | 1.5  | 1.6  | 1.7  | 1.8  | 1.9  | 2.0  |
|--------------------------------------------------|------|------|------|------|------|------|------|------|------|------|
| 15                                               | 87.0 | 85.9 | 84.7 | 83.6 | 82.4 | 81.3 | 80.2 | 79.0 | 77.9 | 76.8 |
| 16                                               | 87.5 | 86.4 | 85.2 | 84.1 | 83.0 | 81.9 | 80.8 | 79.7 | 78.6 | 77.5 |
| 17                                               | 87.9 | 86.8 | 85.7 | 84.6 | 83.6 | 82.5 | 81.4 | 80.4 | 79.3 | 78.3 |
| 18                                               | 88.3 | 87.2 | 86.2 | 85.1 | 84.1 | 83.1 | 82.0 | 81.0 | 80.0 | 79.0 |
| 19                                               | 88.6 | 87.6 | 86.6 | 85.6 | 84.6 | 83.6 | 82.6 | 81.6 | 80.6 | 79.6 |
| 20                                               | 88.9 | 88.0 | 87.0 | 86.0 | 85.0 | 84.1 | 83.1 | 82.1 | 81.2 | 80.2 |
| 21                                               | 89.3 | 88.3 | 87.4 | 86.4 | 85.5 | 84.5 | 83.6 | 82.6 | 81.7 | 80.8 |
| 22                                               | 89.6 | 88.6 | 87.7 | 86.8 | 85.9 | 84.9 | 84.0 | 83.1 | 82.2 | 81.3 |
| 23                                               | 89.8 | 88.9 | 88.0 | 87.1 | 86.2 | 85.3 | 84.5 | 83.6 | 82.7 | 81.8 |
| 24                                               | 90.1 | 89.2 | 88.3 | 87.5 | 86.6 | 85.7 | 84.9 | 84.0 | 83.1 | 82.3 |
| 25                                               | 90.4 | 89.5 | 88.6 | 87.8 | 86.9 | 86.1 | 85.2 | 84.4 | 83.6 | 82.7 |
| 26                                               | 90.6 | 89.8 | 88.9 | 88.1 | 87.3 | 86.4 | 85.6 | 84.8 | 84.0 | 83.2 |
| 27                                               | 90.8 | 90.0 | 89.2 | 88.4 | 87.6 | 86.8 | 85.9 | 85.1 | 84.3 | 83.6 |
| 28                                               | 91.0 | 90.2 | 89.4 | 88.6 | 87.8 | 87.1 | 86.3 | 85.5 | 84.7 | 83.9 |
| 29                                               | 91.2 | 90.4 | 89.7 | 88.9 | 88.1 | 87.3 | 86.6 | 85.8 | 85.1 | 84.3 |
| 30                                               | 91.4 | 90.6 | 89.9 | 89.1 | 88.4 | 87.6 | 86.9 | 86.1 | 85.4 | 84.6 |
| 31                                               | 91.6 | 90.8 | 90.1 | 89.4 | 88.6 | 87.9 | 87.1 | 86.4 | 85.7 | 85.0 |
| 32                                               | 91.8 | 91.0 | 90.3 | 89.6 | 88.8 | 88.1 | 87.4 | 86.7 | 86.0 | 85.3 |
| 33                                               | 91.9 | 91.2 | 90.5 | 89.8 | 89.1 | 88.4 | 87.7 | 87.0 | 86.3 | 85.6 |
| 34                                               | 92.1 | 91.4 | 90.7 | 90.0 | 89.3 | 88.6 | 87.9 | 87.2 | 86.5 | 85.8 |
| 35                                               | 92.2 | 91.5 | 90.9 | 90.2 | 89.5 | 88.8 | 88.1 | 87.4 | 86.8 | 86.1 |
| 36                                               | 92.4 | 91.7 | 91.0 | 90.3 | 89.7 | 89.0 | 88.3 | 87.7 | 87.0 | 86.4 |
| 37                                               | 92.5 | 91.8 | 91.2 | 90.5 | 89.9 | 89.2 | 88.5 | 87.9 | 87.2 | 86.6 |
| 38                                               | 92.6 | 92.0 | 91.3 | 90.7 | 90.0 | 89.4 | 88.7 | 88.1 | 87.5 | 86.8 |
| 39                                               | 92.8 | 92.1 | 91.5 | 90.8 | 90.2 | 89.6 | 88.9 | 88.3 | 87.7 | 87.0 |
| 40                                               | 92.9 | 92.2 | 91.6 | 91.0 | 90.4 | 89.7 | 89.1 | 88.5 | 87.9 | 87.3 |
| 41                                               | 93.0 | 92.4 | 91.7 | 91.1 | 90.5 | 89.9 | 89.3 | 88.7 | 88.1 | 87.5 |
| 42                                               | 93.1 | 92.5 | 91.9 | 91.3 | 90.7 | 90.1 | 89.5 | 88.9 | 88.3 | 87.7 |
| 43                                               | 93.2 | 92.6 | 92.0 | 91.4 | 90.8 | 90.2 | 89.6 | 89.0 | 88.4 | 87.8 |
| 44                                               | 93.3 | 92.7 | 92.1 | 91.5 | 90.9 | 90.3 | 89.8 | 89.2 | 88.6 | 88.0 |
| 45                                               | 93.4 | 92.8 | 92.2 | 91.6 | 91.1 | 90.5 | 89.9 | 89.3 | 88.8 | 88.2 |
| 46                                               | 93.5 | 92.9 | 92.3 | 91.8 | 91.2 | 90.6 | 90.0 | 89.5 | 88.9 | 88.4 |
| 47                                               | 93.6 | 93.0 | 92.4 | 91.9 | 91.3 | 90.7 | 90.2 | 89.6 | 89.1 | 88.5 |
| 48                                               | 93.7 | 93.1 | 92.5 | 92.0 | 91.4 | 90.9 | 90.3 | 89.8 | 89.2 | 88.7 |
| 49                                               | 93.7 | 93.2 | 92.6 | 92.1 | 91.5 | 91.0 | 90.4 | 89.9 | 89.4 | 88.8 |
| 50                                               | 93.8 | 93.3 | 92.7 | 92.2 | 91.6 | 91.1 | 90.6 | 90.0 | 89.5 | 89.0 |
| 51                                               | 93.9 | 93.4 | 92.8 | 92.3 | 91.7 | 91.2 | 90.7 | 90.2 | 89.6 | 89.1 |
| 52                                               | 94.0 | 93.4 | 92.9 | 92.4 | 91.8 | 91.3 | 90.8 | 90.3 | 89.8 | 89.2 |
| 53                                               | 94.1 | 93.5 | 93.0 | 92.5 | 91.9 | 91.4 | 90.9 | 90.4 | 89.9 | 89.4 |
| 54                                               | 94.1 | 93.6 | 93.1 | 92.6 | 92.0 | 91.5 | 91.0 | 90.5 | 90.0 | 89.5 |
| 55                                               | 94.2 | 93.7 | 93.2 | 92.6 | 92.1 | 91.6 | 91.1 | 90.6 | 90.1 | 89.6 |
| 56                                               | 94.3 | 93.7 | 93.2 | 92.7 | 92.2 | 91.7 | 91.2 | 90.7 | 90.2 | 89.7 |
| 57                                               | 94.3 | 93.8 | 93.3 | 92.8 | 92.3 | 91.8 | 91.3 | 90.8 | 90.3 | 89.8 |

表 2a<sub>1</sub> (续)

| $t$ \ $t-t_w$ | 1.1  | 1.2  | 1.3  | 1.4  | 1.5  | 1.6  | 1.7  | 1.8  | 1.9  | 2.0  |
|---------------|------|------|------|------|------|------|------|------|------|------|
| 58            | 94.4 | 93.9 | 93.4 | 92.9 | 92.4 | 91.9 | 91.4 | 90.9 | 90.4 | 89.9 |
| 59            | 94.4 | 93.9 | 93.5 | 93.0 | 92.5 | 92.0 | 91.5 | 91.0 | 90.5 | 90.1 |
| 60            | 94.5 | 94.0 | 93.5 | 93.0 | 92.6 | 92.1 | 91.6 | 91.1 | 90.6 | 90.2 |
| 61            | 94.6 | 94.1 | 93.6 | 93.1 | 92.6 | 92.1 | 91.7 | 91.2 | 90.7 | 90.3 |
| 62            | 94.6 | 94.1 | 93.7 | 93.2 | 92.7 | 92.2 | 91.8 | 91.3 | 90.8 | 90.4 |
| 63            | 94.7 | 94.2 | 93.7 | 93.2 | 92.8 | 92.3 | 91.8 | 91.4 | 90.9 | 90.4 |
| 64            | 94.7 | 94.2 | 93.8 | 93.3 | 92.8 | 92.4 | 91.9 | 91.5 | 91.0 | 90.5 |
| 65            | 94.8 | 94.3 | 93.8 | 93.4 | 92.9 | 92.5 | 92.0 | 91.5 | 91.1 | 90.6 |
| 66            | 94.8 | 94.4 | 93.9 | 93.4 | 93.0 | 92.5 | 92.1 | 91.6 | 91.2 | 90.7 |
| 67            | 94.9 | 94.4 | 94.0 | 93.5 | 93.0 | 92.6 | 92.1 | 91.7 | 91.3 | 90.8 |
| 68            | 94.9 | 94.5 | 94.0 | 93.6 | 93.1 | 92.7 | 92.2 | 91.8 | 91.3 | 90.9 |
| 69            | 95.0 | 94.5 | 94.1 | 93.6 | 93.2 | 92.7 | 92.3 | 91.8 | 91.4 | 91.0 |
| 70            | 95.0 | 94.6 | 94.1 | 93.7 | 93.2 | 92.8 | 92.4 | 91.9 | 91.5 | 91.1 |
| 71            | 95.0 | 94.6 | 94.2 | 93.7 | 93.3 | 92.9 | 92.4 | 92.0 | 91.6 | 91.1 |
| 72            | 95.1 | 94.7 | 94.2 | 93.8 | 93.4 | 92.9 | 92.5 | 92.1 | 91.6 | 91.2 |
| 73            | 95.1 | 94.7 | 94.3 | 93.8 | 93.4 | 93.0 | 92.6 | 92.1 | 91.7 | 91.3 |
| 74            | 95.2 | 94.7 | 94.3 | 93.9 | 93.5 | 93.0 | 92.6 | 92.2 | 91.8 | 91.4 |
| 75            | 95.2 | 94.8 | 94.4 | 93.9 | 93.5 | 93.1 | 92.7 | 92.3 | 91.8 | 91.4 |
| 76            | 95.3 | 94.8 | 94.4 | 94.0 | 93.6 | 93.2 | 92.7 | 92.3 | 91.9 | 91.5 |
| 77            | 95.3 | 94.9 | 94.5 | 94.0 | 93.6 | 93.2 | 92.8 | 92.4 | 92.0 | 91.6 |
| 78            | 95.3 | 94.9 | 94.5 | 94.1 | 93.7 | 93.3 | 92.9 | 92.5 | 92.0 | 91.6 |
| 79            | 95.4 | 95.0 | 94.5 | 94.1 | 93.7 | 93.3 | 92.9 | 92.5 | 92.1 | 91.7 |
| 80            | 95.4 | 95.0 | 94.6 | 94.2 | 93.8 | 93.4 | 93.0 | 92.6 | 92.2 | 91.8 |
| 81            | 95.4 | 95.0 | 94.6 | 94.2 | 93.8 | 93.4 | 93.0 | 92.6 | 92.2 | 91.8 |
| 82            | 95.5 | 95.1 | 94.7 | 94.3 | 93.9 | 93.5 | 93.1 | 92.7 | 92.3 | 91.9 |
| 83            | 95.5 | 95.1 | 94.7 | 94.3 | 93.9 | 93.5 | 93.1 | 92.7 | 92.4 | 92.0 |
| 84            | 95.6 | 95.2 | 94.8 | 94.4 | 94.0 | 93.6 | 93.2 | 92.8 | 92.4 | 92.0 |
| 85            | 95.6 | 95.2 | 94.8 | 94.4 | 94.0 | 93.6 | 93.2 | 92.9 | 92.5 | 92.1 |
| 86            | 95.6 | 95.2 | 94.8 | 94.4 | 94.1 | 93.7 | 93.3 | 92.9 | 92.5 | 92.1 |
| 87            | 95.7 | 95.3 | 94.9 | 94.5 | 94.1 | 93.7 | 93.3 | 93.0 | 92.6 | 92.2 |
| 88            | 95.7 | 95.3 | 94.9 | 94.5 | 94.1 | 93.8 | 93.4 | 93.0 | 92.6 | 92.3 |
| 89            | 95.7 | 95.3 | 95.0 | 94.6 | 94.2 | 93.8 | 93.4 | 93.1 | 92.7 | 92.3 |
| 90            | 95.7 | 95.4 | 95.0 | 94.6 | 94.2 | 93.9 | 93.5 | 93.1 | 92.7 | 92.4 |
| 91            | 95.8 | 95.4 | 95.0 | 94.6 | 94.3 | 93.9 | 93.5 | 93.2 | 92.8 | 92.4 |
| 92            | 95.8 | 95.4 | 95.1 | 94.7 | 94.3 | 93.9 | 93.6 | 93.2 | 92.8 | 92.5 |
| 93            | 95.8 | 95.5 | 95.1 | 94.7 | 94.4 | 94.0 | 93.6 | 93.3 | 92.9 | 92.5 |
| 94            | 95.9 | 95.5 | 95.1 | 94.8 | 94.4 | 94.0 | 93.7 | 93.3 | 92.9 | 92.6 |
| 95            | 95.9 | 95.5 | 95.2 | 94.8 | 94.4 | 94.1 | 93.7 | 93.4 | 93.0 | 92.6 |
| 96            | 95.9 | 95.6 | 95.2 | 94.8 | 94.5 | 94.1 | 93.8 | 93.4 | 93.0 | 92.7 |
| 97            | 96.0 | 95.6 | 95.2 | 94.9 | 94.5 | 94.2 | 93.8 | 93.4 | 93.1 | 92.7 |
| 98            | 96.0 | 95.6 | 95.3 | 94.9 | 94.6 | 94.2 | 93.8 | 93.5 | 93.1 | 92.8 |
| 99            | 96.0 | 95.7 | 95.3 | 94.9 | 94.6 | 94.2 | 93.9 | 93.5 | 93.2 | 92.8 |
| 100           | 96.0 | 95.7 | 95.3 | 95.0 | 94.6 | 94.3 | 93.9 | 93.6 | 93.2 | 92.9 |



表 2a<sub>1</sub> (续)

| $t - t_w$<br>$t$ | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 58               | 89.5 | 89.0 | 88.5 | 88.0 | 87.5 | 87.1 | 86.6 | 86.1 | 85.7 | 85.2 |
| 59               | 89.6 | 89.1 | 88.6 | 88.1 | 87.7 | 87.2 | 86.7 | 86.3 | 85.8 | 85.3 |
| 60               | 89.7 | 89.2 | 88.7 | 88.3 | 87.8 | 87.3 | 86.9 | 86.4 | 86.0 | 85.5 |
| 61               | 89.8 | 89.3 | 88.9 | 88.4 | 87.9 | 87.5 | 87.0 | 86.5 | 86.1 | 85.6 |
| 62               | 89.9 | 89.4 | 89.0 | 88.5 | 88.0 | 87.6 | 87.1 | 86.7 | 86.2 | 85.8 |
| 63               | 90.0 | 89.5 | 89.1 | 88.6 | 88.2 | 87.7 | 87.3 | 86.8 | 86.4 | 85.9 |
| 64               | 90.1 | 89.6 | 89.2 | 88.7 | 88.3 | 87.8 | 87.4 | 86.9 | 86.5 | 86.1 |
| 65               | 90.2 | 89.7 | 89.3 | 88.8 | 88.4 | 87.9 | 87.5 | 87.1 | 86.6 | 86.2 |
| 66               | 90.3 | 89.8 | 89.4 | 88.9 | 88.5 | 88.1 | 87.6 | 87.2 | 86.8 | 86.3 |
| 67               | 90.4 | 89.9 | 89.5 | 89.0 | 88.6 | 88.2 | 87.7 | 87.3 | 86.9 | 86.4 |
| 68               | 90.5 | 90.0 | 89.6 | 89.1 | 88.7 | 88.3 | 87.9 | 87.4 | 87.0 | 86.6 |
| 69               | 90.5 | 90.1 | 89.7 | 89.2 | 88.8 | 88.4 | 88.0 | 87.5 | 87.1 | 86.7 |
| 70               | 90.6 | 90.2 | 89.8 | 89.3 | 88.9 | 88.5 | 88.1 | 87.6 | 87.2 | 86.8 |
| 71               | 90.7 | 90.3 | 89.9 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 | 87.3 | 86.9 |
| 72               | 90.8 | 90.4 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 | 87.4 | 87.0 |
| 73               | 90.9 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.6 | 87.1 |
| 74               | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 | 87.3 |
| 75               | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 | 87.4 |
| 76               | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 | 87.5 |
| 77               | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.6 |
| 78               | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.1 | 87.7 |
| 79               | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.2 | 87.8 |
| 80               | 91.4 | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.9 |
| 81               | 91.4 | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 88.0 |
| 82               | 91.5 | 91.1 | 90.7 | 90.3 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 |
| 83               | 91.6 | 91.2 | 90.8 | 90.4 | 90.0 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 |
| 84               | 91.6 | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.4 | 89.0 | 88.6 | 88.2 |
| 85               | 91.7 | 91.3 | 90.9 | 90.6 | 90.2 | 89.8 | 89.4 | 89.1 | 88.7 | 88.3 |
| 86               | 91.8 | 91.4 | 91.0 | 90.6 | 90.3 | 89.9 | 89.5 | 89.1 | 88.8 | 88.4 |
| 87               | 91.8 | 91.4 | 91.1 | 90.7 | 90.3 | 90.0 | 89.6 | 89.2 | 88.8 | 88.5 |
| 88               | 91.9 | 91.5 | 91.1 | 90.8 | 90.4 | 90.0 | 89.7 | 89.3 | 88.9 | 88.6 |
| 89               | 91.9 | 91.6 | 91.2 | 90.8 | 90.5 | 90.1 | 89.7 | 89.4 | 89.0 | 88.6 |
| 90               | 92.0 | 91.6 | 91.3 | 90.9 | 90.5 | 90.2 | 89.8 | 89.4 | 89.1 | 88.7 |
| 91               | 92.1 | 91.7 | 91.3 | 91.0 | 90.6 | 90.2 | 89.9 | 89.5 | 89.2 | 88.8 |
| 92               | 92.1 | 91.8 | 91.4 | 91.0 | 90.7 | 90.3 | 90.0 | 89.6 | 89.2 | 88.9 |
| 93               | 92.2 | 91.8 | 91.5 | 91.1 | 90.7 | 90.4 | 90.0 | 89.7 | 89.3 | 89.0 |
| 94               | 92.2 | 91.9 | 91.5 | 91.2 | 90.8 | 90.4 | 90.1 | 89.7 | 89.4 | 89.0 |
| 95               | 92.3 | 91.9 | 91.6 | 91.2 | 90.9 | 90.5 | 90.2 | 89.8 | 89.5 | 89.1 |
| 96               | 92.3 | 92.0 | 91.6 | 91.3 | 90.9 | 90.6 | 90.2 | 89.9 | 89.5 | 89.2 |
| 97               | 92.4 | 92.0 | 91.7 | 91.3 | 91.0 | 90.6 | 90.3 | 89.9 | 89.6 | 89.3 |
| 98               | 92.4 | 92.1 | 91.7 | 91.4 | 91.0 | 90.7 | 90.4 | 90.0 | 89.7 | 89.3 |
| 99               | 92.5 | 92.1 | 91.8 | 91.5 | 91.1 | 90.8 | 90.4 | 90.1 | 89.7 | 89.4 |
| 100              | 92.5 | 92.2 | 91.9 | 91.5 | 91.2 | 90.8 | 90.5 | 90.1 | 89.8 | 89.5 |















表 2a<sub>1</sub> (续)

| $t-t_w$<br>$t$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 67.0 | 66.2 | 65.4 | 64.6 | 63.8 | 63.0 | 62.3 | 61.5 | 60.8 | 60.0 |
| 59             | 67.3 | 66.5 | 65.7 | 65.0 | 64.2 | 63.4 | 62.7 | 61.9 | 61.2 | 60.4 |
| 60             | 67.7 | 66.9 | 66.1 | 65.3 | 64.6 | 63.8 | 63.0 | 62.3 | 61.5 | 60.8 |
| 61             | 68.0 | 67.2 | 66.4 | 65.7 | 64.9 | 64.2 | 63.4 | 62.7 | 61.9 | 61.2 |
| 62             | 68.3 | 67.5 | 66.8 | 66.0 | 65.2 | 64.5 | 63.8 | 63.0 | 62.3 | 61.6 |
| 63             | 68.6 | 67.8 | 67.1 | 66.3 | 65.6 | 64.8 | 64.1 | 63.4 | 62.6 | 61.9 |
| 64             | 68.9 | 68.1 | 67.4 | 66.6 | 65.9 | 65.2 | 64.4 | 63.7 | 63.0 | 62.3 |
| 65             | 69.2 | 68.4 | 67.7 | 66.9 | 66.2 | 65.5 | 64.8 | 64.0 | 63.3 | 62.6 |
| 66             | 69.5 | 68.7 | 68.0 | 67.2 | 66.5 | 65.8 | 65.1 | 64.4 | 63.7 | 63.0 |
| 67             | 69.7 | 69.0 | 68.3 | 67.5 | 66.8 | 66.1 | 65.4 | 64.7 | 64.0 | 63.3 |
| 68             | 70.0 | 69.3 | 68.5 | 67.8 | 67.1 | 66.4 | 65.7 | 65.0 | 64.3 | 63.6 |
| 69             | 70.3 | 69.5 | 68.8 | 68.1 | 67.4 | 66.7 | 66.0 | 65.3 | 64.6 | 63.9 |
| 70             | 70.5 | 69.8 | 69.1 | 68.4 | 67.7 | 67.0 | 66.3 | 65.6 | 64.9 | 64.2 |
| 71             | 70.8 | 70.0 | 69.3 | 68.6 | 67.9 | 67.2 | 66.6 | 65.9 | 65.2 | 64.5 |
| 72             | 71.0 | 70.3 | 69.6 | 68.9 | 68.2 | 67.5 | 66.8 | 66.2 | 65.5 | 64.8 |
| 73             | 71.2 | 70.5 | 69.8 | 69.1 | 68.5 | 67.8 | 67.1 | 66.4 | 65.8 | 65.1 |
| 74             | 71.5 | 70.8 | 70.1 | 69.4 | 68.7 | 68.0 | 67.4 | 66.7 | 66.0 | 65.4 |
| 75             | 71.7 | 71.0 | 70.3 | 69.6 | 69.0 | 68.3 | 67.6 | 67.0 | 66.3 | 65.6 |
| 76             | 71.9 | 71.2 | 70.5 | 69.9 | 69.2 | 68.5 | 67.9 | 67.2 | 66.6 | 65.9 |
| 77             | 72.1 | 71.4 | 70.8 | 70.1 | 69.4 | 68.8 | 68.1 | 67.5 | 66.8 | 66.2 |
| 78             | 72.3 | 71.7 | 71.0 | 70.3 | 69.7 | 69.0 | 68.4 | 67.7 | 67.1 | 66.4 |
| 79             | 72.6 | 71.9 | 71.2 | 70.6 | 69.9 | 69.2 | 68.6 | 67.9 | 67.3 | 66.7 |
| 80             | 72.8 | 72.1 | 71.4 | 70.8 | 70.1 | 69.5 | 68.8 | 68.2 | 67.5 | 66.9 |
| 81             | 73.0 | 72.3 | 71.6 | 71.0 | 70.3 | 69.7 | 69.0 | 68.4 | 67.8 | 67.2 |
| 82             | 73.2 | 72.5 | 71.8 | 71.2 | 70.5 | 69.9 | 69.3 | 68.6 | 68.0 | 67.4 |
| 83             | 73.4 | 72.7 | 72.0 | 71.4 | 70.8 | 70.1 | 69.5 | 68.9 | 68.2 | 67.6 |
| 84             | 73.5 | 72.9 | 72.2 | 71.6 | 71.0 | 70.3 | 69.7 | 69.1 | 68.5 | 67.8 |
| 85             | 73.7 | 73.1 | 72.4 | 71.8 | 71.2 | 70.5 | 69.9 | 69.3 | 68.7 | 68.1 |
| 86             | 73.9 | 73.3 | 72.6 | 72.0 | 71.4 | 70.7 | 70.1 | 69.5 | 68.9 | 68.3 |
| 87             | 74.1 | 73.5 | 72.8 | 72.2 | 71.6 | 70.9 | 70.3 | 69.7 | 69.1 | 68.5 |
| 88             | 74.3 | 73.6 | 73.0 | 72.4 | 71.8 | 71.1 | 70.5 | 69.9 | 69.3 | 68.7 |
| 89             | 74.4 | 73.8 | 73.2 | 72.6 | 72.0 | 71.3 | 70.7 | 70.1 | 69.5 | 68.9 |
| 90             | 74.6 | 74.0 | 73.4 | 72.8 | 72.1 | 71.5 | 70.9 | 70.3 | 69.7 | 69.1 |
| 91             | 74.8 | 74.2 | 73.6 | 72.9 | 72.3 | 71.7 | 71.1 | 70.5 | 69.9 | 69.3 |
| 92             | 75.0 | 74.3 | 73.7 | 73.1 | 72.5 | 71.9 | 71.3 | 70.7 | 70.1 | 69.5 |
| 93             | 75.1 | 74.5 | 73.9 | 73.3 | 72.7 | 72.1 | 71.5 | 70.9 | 70.3 | 69.7 |
| 94             | 75.3 | 74.7 | 74.1 | 73.5 | 72.9 | 72.3 | 71.7 | 71.1 | 70.5 | 69.9 |
| 95             | 75.4 | 74.8 | 74.2 | 73.6 | 73.0 | 72.4 | 71.9 | 71.3 | 70.7 | 70.1 |
| 96             | 75.6 | 75.0 | 74.4 | 73.8 | 73.2 | 72.6 | 72.0 | 71.5 | 70.9 | 70.3 |
| 97             | 75.8 | 75.2 | 74.6 | 74.0 | 73.4 | 72.8 | 72.2 | 71.6 | 71.1 | 70.5 |
| 98             | 75.9 | 75.3 | 74.7 | 74.1 | 73.5 | 73.0 | 72.4 | 71.8 | 71.2 | 70.7 |
| 99             | 76.1 | 75.5 | 74.9 | 74.3 | 73.7 | 73.1 | 72.6 | 72.0 | 71.4 | 70.9 |
| 100            | 76.2 | 75.6 | 75.0 | 74.5 | 73.9 | 73.3 | 72.7 | 72.2 | 71.6 | 71.0 |



表 2a<sub>1</sub>(续)

| $t-t_w$<br>$t$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 59.3 | 58.5 | 57.8 | 57.0 | 56.3 | 55.6 | 54.9 | 54.2 | 53.5 | 52.8 |
| 59             | 59.7 | 58.9 | 58.2 | 57.5 | 56.8 | 56.0 | 55.3 | 54.6 | 53.9 | 53.2 |
| 60             | 60.1 | 59.3 | 58.6 | 57.9 | 57.2 | 56.5 | 55.8 | 55.1 | 54.4 | 53.7 |
| 61             | 60.5 | 59.7 | 59.0 | 58.3 | 57.6 | 56.9 | 56.2 | 55.5 | 54.8 | 54.2 |
| 62             | 60.8 | 60.1 | 59.4 | 58.7 | 58.0 | 57.3 | 56.6 | 56.0 | 55.3 | 54.6 |
| 63             | 61.2 | 60.5 | 59.8 | 59.1 | 58.4 | 57.7 | 57.0 | 56.4 | 55.7 | 55.0 |
| 64             | 61.6 | 60.9 | 60.2 | 59.5 | 58.8 | 58.1 | 57.4 | 56.8 | 56.1 | 55.4 |
| 65             | 61.9 | 61.2 | 60.5 | 59.9 | 59.2 | 58.5 | 57.8 | 57.2 | 56.5 | 55.8 |
| 66             | 62.3 | 61.6 | 60.9 | 60.2 | 59.5 | 58.9 | 58.2 | 57.5 | 56.9 | 56.2 |
| 67             | 62.6 | 61.9 | 61.2 | 60.6 | 59.9 | 59.2 | 58.6 | 57.9 | 57.3 | 56.6 |
| 68             | 62.9 | 62.2 | 61.6 | 60.9 | 60.2 | 59.6 | 58.9 | 58.3 | 57.6 | 57.0 |
| 69             | 63.2 | 62.6 | 61.9 | 61.2 | 60.6 | 59.9 | 59.3 | 58.6 | 58.0 | 57.3 |
| 70             | 63.6 | 62.9 | 62.2 | 61.6 | 60.9 | 60.3 | 59.6 | 59.0 | 58.3 | 57.7 |
| 71             | 63.9 | 63.2 | 62.5 | 61.9 | 61.2 | 60.6 | 59.9 | 59.3 | 58.7 | 58.0 |
| 72             | 64.1 | 63.5 | 62.8 | 62.2 | 61.5 | 60.9 | 60.3 | 59.6 | 59.0 | 58.4 |
| 73             | 64.4 | 63.8 | 63.1 | 62.5 | 61.8 | 61.2 | 60.6 | 59.9 | 59.3 | 58.7 |
| 74             | 64.7 | 64.1 | 63.4 | 62.8 | 62.1 | 61.5 | 60.9 | 60.3 | 59.6 | 59.0 |
| 75             | 65.0 | 64.3 | 63.7 | 63.1 | 62.4 | 61.8 | 61.2 | 60.6 | 60.0 | 59.3 |
| 76             | 65.3 | 64.6 | 64.0 | 63.4 | 62.7 | 62.1 | 61.5 | 60.9 | 60.3 | 59.7 |
| 77             | 65.5 | 64.9 | 64.3 | 63.6 | 63.0 | 62.4 | 61.8 | 61.2 | 60.6 | 60.0 |
| 78             | 65.8 | 65.1 | 64.5 | 63.9 | 63.3 | 62.7 | 62.1 | 61.4 | 60.8 | 60.2 |
| 79             | 66.0 | 65.4 | 64.8 | 64.2 | 63.5 | 62.9 | 62.3 | 61.7 | 61.1 | 60.5 |
| 80             | 66.3 | 65.7 | 65.0 | 64.4 | 63.8 | 63.2 | 62.6 | 62.0 | 61.4 | 60.8 |
| 81             | 66.5 | 65.9 | 65.3 | 64.7 | 64.1 | 63.5 | 62.9 | 62.3 | 61.7 | 61.1 |
| 82             | 66.8 | 66.1 | 65.5 | 64.9 | 64.3 | 63.7 | 63.1 | 62.5 | 62.0 | 61.4 |
| 83             | 67.0 | 66.4 | 65.8 | 65.2 | 64.6 | 64.0 | 63.4 | 62.8 | 62.2 | 61.6 |
| 84             | 67.2 | 66.6 | 66.0 | 65.4 | 64.8 | 64.2 | 63.6 | 63.1 | 62.5 | 61.9 |
| 85             | 67.5 | 66.9 | 66.3 | 65.7 | 65.1 | 64.5 | 63.9 | 63.3 | 62.7 | 62.2 |
| 86             | 67.7 | 67.1 | 66.5 | 65.9 | 65.3 | 64.7 | 64.1 | 63.6 | 63.0 | 62.4 |
| 87             | 67.9 | 67.3 | 66.7 | 66.1 | 65.5 | 65.0 | 64.4 | 63.8 | 63.2 | 62.7 |
| 88             | 68.1 | 67.5 | 66.9 | 66.3 | 65.8 | 65.2 | 64.6 | 64.0 | 63.5 | 62.9 |
| 89             | 68.3 | 67.7 | 67.2 | 66.6 | 66.0 | 65.4 | 64.8 | 64.3 | 63.7 | 63.2 |
| 90             | 68.5 | 68.0 | 67.4 | 66.8 | 66.2 | 65.6 | 65.1 | 64.5 | 63.9 | 63.4 |
| 91             | 68.7 | 68.2 | 67.6 | 67.0 | 66.4 | 65.9 | 65.3 | 64.7 | 64.2 | 63.6 |
| 92             | 68.9 | 68.4 | 67.8 | 67.2 | 66.6 | 66.1 | 65.5 | 65.0 | 64.4 | 63.9 |
| 93             | 69.1 | 68.6 | 68.0 | 67.4 | 66.9 | 66.3 | 65.7 | 65.2 | 64.6 | 64.1 |
| 94             | 69.3 | 68.8 | 68.2 | 67.6 | 67.1 | 66.5 | 66.0 | 65.4 | 64.9 | 64.3 |
| 95             | 69.5 | 69.0 | 68.4 | 67.8 | 67.3 | 66.7 | 66.2 | 65.6 | 65.1 | 64.5 |
| 96             | 69.7 | 69.2 | 68.6 | 68.0 | 67.5 | 66.9 | 66.4 | 65.8 | 65.3 | 64.7 |
| 97             | 69.9 | 69.4 | 68.8 | 68.2 | 67.7 | 67.1 | 66.6 | 66.0 | 65.5 | 65.0 |
| 98             | 70.1 | 69.5 | 69.0 | 68.4 | 67.9 | 67.3 | 66.8 | 66.2 | 65.7 | 65.2 |
| 99             | 70.3 | 69.7 | 69.2 | 68.6 | 68.1 | 67.5 | 67.0 | 66.4 | 65.9 | 65.4 |
| 100            | 70.5 | 69.9 | 69.4 | 68.8 | 68.3 | 67.7 | 67.2 | 66.6 | 66.1 | 65.6 |

表 2a<sub>1</sub>(续)

| $t-t_w$<br>$t$ | 11.5 | 12.0 | 12.5 | 13.5 | 13.5 | 14.0 | 14.5 | 15.0 | 15.5 | 16.0 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             |      |      |      |      |      |      |      |      |      |      |
| 16             |      |      |      |      |      |      |      |      |      |      |
| 17             |      |      |      |      |      |      |      |      |      |      |
| 18             |      |      |      |      |      |      |      |      |      |      |
| 19             |      |      |      |      |      |      |      |      |      |      |
| 20             | 1.1  |      |      |      |      |      |      |      |      |      |
| 21             | 4.1  | 0.6  |      |      |      |      |      |      |      |      |
| 22             | 7.0  | 3.6  | 0.3  |      |      |      |      |      |      |      |
| 23             | 9.7  | 6.4  | 3.2  | 0.1  |      |      |      |      |      |      |
| 24             | 12.2 | 9.1  | 6.0  | 2.9  |      |      |      |      |      |      |
| 25             | 14.6 | 11.5 | 8.5  | 5.6  | 2.6  |      |      |      |      |      |
| 26             | 16.8 | 13.9 | 11.0 | 8.1  | 5.2  | 2.4  |      |      |      |      |
| 27             | 19.0 | 16.1 | 13.2 | 10.4 | 7.7  | 5.0  | 2.3  |      |      |      |
| 28             | 21.0 | 18.1 | 15.4 | 12.7 | 10.0 | 7.3  | 4.7  | 2.2  |      |      |
| 29             | 22.8 | 20.1 | 17.4 | 14.8 | 12.2 | 9.6  | 7.1  | 4.6  | 2.1  |      |
| 30             | 24.6 | 22.0 | 19.3 | 16.8 | 14.2 | 11.7 | 9.3  | 6.8  | 4.5  | 2.1  |
| 31             | 26.3 | 23.7 | 21.2 | 18.6 | 16.2 | 13.7 | 11.3 | 9.0  | 6.6  | 4.4  |
| 32             | 27.9 | 25.4 | 22.9 | 20.4 | 18.0 | 15.6 | 13.3 | 11.0 | 8.7  | 6.5  |
| 33             | 29.4 | 26.9 | 24.5 | 22.1 | 19.7 | 17.4 | 15.1 | 12.9 | 10.7 | 8.5  |
| 34             | 30.8 | 28.4 | 26.0 | 23.7 | 21.4 | 19.1 | 16.9 | 14.7 | 12.5 | 10.4 |
| 35             | 32.2 | 29.8 | 27.5 | 25.2 | 23.0 | 20.7 | 18.6 | 16.4 | 14.3 | 12.2 |
| 36             | 33.5 | 31.2 | 28.9 | 26.6 | 24.4 | 22.3 | 20.1 | 18.0 | 16.0 | 13.9 |
| 37             | 34.7 | 32.4 | 30.2 | 28.0 | 25.8 | 23.7 | 21.6 | 19.6 | 17.6 | 15.6 |
| 38             | 35.9 | 33.6 | 31.5 | 29.3 | 27.2 | 25.1 | 23.1 | 21.0 | 19.1 | 17.1 |
| 39             | 37.0 | 34.8 | 32.6 | 30.5 | 28.5 | 26.4 | 24.4 | 22.4 | 20.5 | 18.6 |
| 40             | 38.0 | 35.9 | 33.8 | 31.7 | 29.7 | 27.7 | 25.7 | 23.8 | 21.9 | 20.0 |
| 41             | 39.1 | 36.9 | 34.9 | 32.8 | 30.8 | 28.9 | 26.9 | 25.0 | 23.2 | 21.3 |
| 42             | 40.0 | 37.9 | 35.9 | 33.9 | 31.9 | 30.0 | 28.1 | 26.2 | 24.4 | 22.6 |
| 43             | 40.9 | 38.9 | 36.9 | 34.9 | 33.0 | 31.1 | 29.2 | 27.4 | 25.6 | 23.8 |
| 44             | 41.8 | 39.8 | 37.8 | 35.9 | 34.0 | 32.1 | 30.3 | 28.5 | 26.7 | 24.9 |
| 45             | 42.7 | 40.7 | 38.7 | 36.8 | 34.9 | 33.1 | 31.3 | 29.5 | 27.8 | 26.0 |
| 46             | 43.5 | 41.5 | 39.6 | 37.7 | 35.9 | 34.0 | 32.3 | 30.5 | 28.8 | 27.1 |
| 47             | 44.2 | 42.3 | 40.4 | 38.6 | 36.7 | 35.0 | 33.2 | 31.5 | 29.8 | 28.1 |
| 48             | 45.0 | 43.1 | 41.2 | 39.4 | 37.6 | 35.8 | 34.1 | 32.4 | 30.7 | 29.1 |
| 49             | 45.7 | 43.8 | 42.0 | 40.2 | 38.4 | 36.7 | 34.9 | 33.3 | 31.6 | 30.0 |
| 50             | 46.4 | 44.5 | 42.7 | 40.9 | 39.2 | 37.5 | 35.8 | 34.1 | 32.5 | 30.9 |
| 51             | 47.0 | 45.2 | 43.4 | 41.7 | 39.9 | 38.2 | 36.6 | 34.9 | 33.3 | 31.7 |
| 52             | 47.7 | 45.9 | 44.1 | 42.4 | 40.6 | 39.0 | 37.3 | 35.7 | 34.1 | 32.6 |
| 53             | 48.3 | 46.5 | 44.7 | 43.0 | 41.3 | 39.7 | 38.1 | 36.5 | 34.9 | 33.3 |
| 54             | 48.9 | 47.1 | 45.4 | 43.7 | 42.0 | 40.4 | 38.8 | 37.2 | 35.6 | 34.1 |
| 55             | 49.4 | 47.7 | 46.0 | 44.3 | 42.6 | 41.0 | 39.4 | 37.9 | 36.3 | 34.8 |
| 56             | 50.0 | 48.3 | 46.6 | 44.9 | 43.3 | 41.7 | 40.1 | 38.5 | 37.0 | 35.5 |
| 57             | 50.5 | 48.8 | 47.1 | 45.5 | 43.9 | 42.3 | 40.7 | 39.2 | 37.7 | 36.2 |



表 2a<sub>2</sub> 柱状水银温度表相对湿度查算表  
 $P=110\text{ kPa}, A=0.815 \times 10^{-3} \text{ }^{\circ}\text{C}^{-1} (0.4\text{ m/s})$

| $t \backslash t - t_w$ | 0.0   | 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|------------------------|-------|------|------|------|------|------|------|------|------|------|------|
| 15                     | 100.0 | 98.8 | 97.7 | 96.5 | 95.3 | 94.2 | 93.0 | 91.9 | 90.8 | 89.6 | 88.5 |
| 16                     | 100.0 | 98.9 | 97.7 | 96.6 | 95.5 | 94.4 | 93.3 | 92.2 | 91.1 | 90.0 | 88.9 |
| 17                     | 100.0 | 98.9 | 97.8 | 96.7 | 95.6 | 94.6 | 93.5 | 92.4 | 91.3 | 90.3 | 89.2 |
| 18                     | 100.0 | 98.9 | 97.9 | 96.8 | 95.8 | 94.7 | 93.7 | 92.6 | 91.6 | 90.6 | 89.5 |
| 19                     | 100.0 | 99.0 | 97.9 | 96.9 | 95.9 | 94.9 | 93.9 | 92.9 | 91.8 | 90.8 | 89.8 |
| 20                     | 100.0 | 99.0 | 98.0 | 97.0 | 96.0 | 95.0 | 94.0 | 93.1 | 92.1 | 91.1 | 90.1 |
| 21                     | 100.0 | 99.0 | 98.1 | 97.1 | 96.1 | 95.2 | 94.2 | 93.3 | 92.3 | 91.4 | 90.4 |
| 22                     | 100.0 | 99.1 | 98.1 | 97.2 | 96.2 | 95.3 | 94.4 | 93.4 | 92.5 | 91.6 | 90.7 |
| 23                     | 100.0 | 99.1 | 98.2 | 97.2 | 96.3 | 95.4 | 94.5 | 93.6 | 92.7 | 91.8 | 90.9 |
| 24                     | 100.0 | 99.1 | 98.2 | 97.3 | 96.4 | 95.5 | 94.6 | 93.8 | 92.9 | 92.0 | 91.1 |
| 25                     | 100.0 | 99.1 | 98.2 | 97.4 | 96.5 | 95.6 | 94.8 | 93.9 | 93.1 | 92.2 | 91.4 |
| 26                     | 100.0 | 99.1 | 98.3 | 97.4 | 96.6 | 95.7 | 94.9 | 94.1 | 93.2 | 92.4 | 91.6 |
| 27                     | 100.0 | 99.2 | 98.3 | 97.5 | 96.7 | 95.8 | 95.0 | 94.2 | 93.4 | 92.6 | 91.8 |
| 28                     | 100.0 | 99.2 | 98.4 | 97.6 | 96.7 | 95.9 | 95.1 | 94.3 | 93.5 | 92.7 | 91.9 |
| 29                     | 100.0 | 99.2 | 98.4 | 97.6 | 96.8 | 96.0 | 95.2 | 94.5 | 93.7 | 92.9 | 92.1 |
| 30                     | 100.0 | 99.2 | 98.4 | 97.7 | 96.9 | 96.1 | 95.3 | 94.6 | 93.8 | 93.0 | 92.3 |
| 31                     | 100.0 | 99.2 | 98.5 | 97.7 | 96.9 | 96.2 | 95.4 | 94.7 | 93.9 | 93.2 | 92.4 |
| 32                     | 100.0 | 99.2 | 98.5 | 97.8 | 97.0 | 96.3 | 95.5 | 94.8 | 94.1 | 93.3 | 92.6 |
| 33                     | 100.0 | 99.3 | 98.5 | 97.8 | 97.1 | 96.3 | 95.6 | 94.9 | 94.2 | 93.5 | 92.7 |
| 34                     | 100.0 | 99.3 | 98.6 | 97.8 | 97.1 | 96.4 | 95.7 | 95.0 | 94.3 | 93.6 | 92.9 |
| 35                     | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.5 | 95.8 | 95.1 | 94.4 | 93.7 | 93.0 |
| 36                     | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.5 | 95.8 | 95.2 | 94.5 | 93.8 | 93.1 |
| 37                     | 100.0 | 99.3 | 98.6 | 97.9 | 97.3 | 96.6 | 95.9 | 95.2 | 94.6 | 93.9 | 93.2 |
| 38                     | 100.0 | 99.3 | 98.7 | 98.0 | 97.3 | 96.7 | 96.0 | 95.3 | 94.7 | 94.0 | 93.4 |
| 39                     | 100.0 | 99.3 | 98.7 | 98.0 | 97.4 | 96.7 | 96.1 | 95.4 | 94.8 | 94.1 | 93.5 |
| 40                     | 100.0 | 99.3 | 98.7 | 98.0 | 97.4 | 96.8 | 96.1 | 95.5 | 94.8 | 94.2 | 93.6 |
| 41                     | 100.0 | 99.4 | 98.7 | 98.1 | 97.4 | 96.8 | 96.2 | 95.5 | 94.9 | 94.3 | 93.7 |
| 42                     | 100.0 | 99.4 | 98.7 | 98.1 | 97.5 | 96.9 | 96.2 | 95.6 | 95.0 | 94.4 | 93.8 |
| 43                     | 100.0 | 99.4 | 98.8 | 98.1 | 97.5 | 96.9 | 96.3 | 95.7 | 95.1 | 94.5 | 93.9 |
| 44                     | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 96.9 | 96.3 | 95.7 | 95.1 | 94.5 | 94.0 |
| 45                     | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.8 | 95.2 | 94.6 | 94.0 |
| 46                     | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.9 | 95.3 | 94.7 | 94.1 |
| 47                     | 100.0 | 99.4 | 98.8 | 98.2 | 97.7 | 97.1 | 96.5 | 95.9 | 95.3 | 94.8 | 94.2 |
| 48                     | 100.0 | 99.4 | 98.8 | 98.3 | 97.7 | 97.1 | 96.5 | 96.0 | 95.4 | 94.8 | 94.3 |
| 49                     | 100.0 | 99.4 | 98.9 | 98.3 | 97.7 | 97.1 | 96.6 | 96.0 | 95.5 | 94.9 | 94.3 |
| 50                     | 100.0 | 99.4 | 98.9 | 98.3 | 97.7 | 97.2 | 96.6 | 96.1 | 95.5 | 95.0 | 94.4 |
| 51                     | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.2 | 96.7 | 96.1 | 95.6 | 95.0 | 94.5 |
| 52                     | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.2 | 96.7 | 96.2 | 95.6 | 95.1 | 94.6 |
| 53                     | 100.0 | 99.5 | 98.9 | 98.4 | 97.8 | 97.3 | 96.7 | 96.2 | 95.7 | 95.1 | 94.6 |
| 54                     | 100.0 | 99.5 | 98.9 | 98.4 | 97.8 | 97.3 | 96.8 | 96.3 | 95.7 | 95.2 | 94.7 |
| 55                     | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.3 | 96.8 | 96.3 | 95.8 | 95.3 | 94.7 |
| 56                     | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.4 | 96.9 | 96.3 | 95.8 | 95.3 | 94.8 |
| 57                     | 100.0 | 99.5 | 99.0 | 98.4 | 97.9 | 97.4 | 96.9 | 96.4 | 95.9 | 95.4 | 94.9 |







表 2a<sub>2</sub> (续)

| $t \begin{smallmatrix} \diagup \\ t-t_w \end{smallmatrix}$ | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|------------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|
| 15                                                         | 76.2 | 75.1 | 74.0 | 72.9 | 71.8 | 70.8 | 69.7 | 68.6 | 67.5 | 66.5 |
| 16                                                         | 77.0 | 75.9 | 74.9 | 73.8 | 72.8 | 71.7 | 70.7 | 69.6 | 68.6 | 67.6 |
| 17                                                         | 77.7 | 76.7 | 75.7 | 74.7 | 73.6 | 72.6 | 71.6 | 70.6 | 69.6 | 68.6 |
| 18                                                         | 78.4 | 77.4 | 76.4 | 75.4 | 74.4 | 73.5 | 72.5 | 71.5 | 70.5 | 69.6 |
| 19                                                         | 79.0 | 78.1 | 77.1 | 76.2 | 75.2 | 74.3 | 73.3 | 72.4 | 71.4 | 70.5 |
| 20                                                         | 79.7 | 78.7 | 77.8 | 76.9 | 75.9 | 75.0 | 74.1 | 73.2 | 72.3 | 71.4 |
| 21                                                         | 80.2 | 79.3 | 78.4 | 77.5 | 76.6 | 75.7 | 74.8 | 73.9 | 73.0 | 72.2 |
| 22                                                         | 80.8 | 79.9 | 79.0 | 78.1 | 77.2 | 76.4 | 75.5 | 74.6 | 73.8 | 72.9 |
| 23                                                         | 81.3 | 80.4 | 79.6 | 78.7 | 77.9 | 77.0 | 76.2 | 75.3 | 74.5 | 73.6 |
| 24                                                         | 81.7 | 80.9 | 80.1 | 79.2 | 78.4 | 77.6 | 76.8 | 76.0 | 75.1 | 74.3 |
| 25                                                         | 82.2 | 81.4 | 80.6 | 79.8 | 79.0 | 78.1 | 77.3 | 76.5 | 75.8 | 75.0 |
| 26                                                         | 82.6 | 81.8 | 81.0 | 80.2 | 79.5 | 78.7 | 77.9 | 77.1 | 76.3 | 75.6 |
| 27                                                         | 83.0 | 82.3 | 81.5 | 80.7 | 79.9 | 79.2 | 78.4 | 77.6 | 76.9 | 76.1 |
| 28                                                         | 83.4 | 82.7 | 81.9 | 81.1 | 80.4 | 79.6 | 78.9 | 78.2 | 77.4 | 76.7 |
| 29                                                         | 83.8 | 83.0 | 82.3 | 81.6 | 80.8 | 80.1 | 79.4 | 78.6 | 77.9 | 77.2 |
| 30                                                         | 84.1 | 83.4 | 82.7 | 82.0 | 81.2 | 80.5 | 79.8 | 79.1 | 78.4 | 77.7 |
| 31                                                         | 84.4 | 83.7 | 83.0 | 82.3 | 81.6 | 80.9 | 80.2 | 79.5 | 78.8 | 78.1 |
| 32                                                         | 84.8 | 84.1 | 83.4 | 82.7 | 82.0 | 81.3 | 80.6 | 79.9 | 79.3 | 78.6 |
| 33                                                         | 85.1 | 84.4 | 83.7 | 83.0 | 82.3 | 81.7 | 81.0 | 80.3 | 79.7 | 79.0 |
| 34                                                         | 85.3 | 84.7 | 84.0 | 83.3 | 82.7 | 82.0 | 81.4 | 80.7 | 80.0 | 79.4 |
| 35                                                         | 85.6 | 84.9 | 84.3 | 83.6 | 83.0 | 82.3 | 81.7 | 81.1 | 80.4 | 79.8 |
| 36                                                         | 85.9 | 85.2 | 84.6 | 83.9 | 83.3 | 82.7 | 82.0 | 81.4 | 80.8 | 80.1 |
| 37                                                         | 86.1 | 85.5 | 84.8 | 84.2 | 83.6 | 83.0 | 82.3 | 81.7 | 81.1 | 80.5 |
| 38                                                         | 86.3 | 85.7 | 85.1 | 84.5 | 83.9 | 83.2 | 82.6 | 82.0 | 81.4 | 80.8 |
| 39                                                         | 86.6 | 86.0 | 85.3 | 84.7 | 84.1 | 83.5 | 82.9 | 82.3 | 81.7 | 81.1 |
| 40                                                         | 86.8 | 86.2 | 85.6 | 85.0 | 84.4 | 83.8 | 83.2 | 82.6 | 82.0 | 81.4 |
| 41                                                         | 87.0 | 86.4 | 85.8 | 85.2 | 84.6 | 84.0 | 83.5 | 82.9 | 82.3 | 81.7 |
| 42                                                         | 87.2 | 86.6 | 86.0 | 85.4 | 84.9 | 84.3 | 83.7 | 83.1 | 82.6 | 82.0 |
| 43                                                         | 87.4 | 86.8 | 86.2 | 85.6 | 85.1 | 84.5 | 83.9 | 83.4 | 82.8 | 82.3 |
| 44                                                         | 87.6 | 87.0 | 86.4 | 85.9 | 85.3 | 84.7 | 84.2 | 83.6 | 83.1 | 82.5 |
| 45                                                         | 87.7 | 87.2 | 86.6 | 86.1 | 85.5 | 84.9 | 84.4 | 83.8 | 83.3 | 82.8 |
| 46                                                         | 87.9 | 87.3 | 86.8 | 86.2 | 85.7 | 85.2 | 84.6 | 84.1 | 83.5 | 83.0 |
| 47                                                         | 88.1 | 87.5 | 87.0 | 86.4 | 85.9 | 85.3 | 84.8 | 84.3 | 83.7 | 83.2 |
| 48                                                         | 88.2 | 87.7 | 87.1 | 86.6 | 86.1 | 85.5 | 85.0 | 84.5 | 84.0 | 83.4 |
| 49                                                         | 88.4 | 87.8 | 87.3 | 86.8 | 86.2 | 85.7 | 85.2 | 84.7 | 84.2 | 83.6 |
| 50                                                         | 88.5 | 88.0 | 87.5 | 86.9 | 86.4 | 85.9 | 85.4 | 84.9 | 84.4 | 83.9 |
| 51                                                         | 88.6 | 88.1 | 87.6 | 87.1 | 86.6 | 86.1 | 85.6 | 85.1 | 84.6 | 84.0 |
| 52                                                         | 88.8 | 88.3 | 87.8 | 87.3 | 86.7 | 86.2 | 85.7 | 85.2 | 84.7 | 84.2 |
| 53                                                         | 88.9 | 88.4 | 87.9 | 87.4 | 86.9 | 86.4 | 85.9 | 85.4 | 84.9 | 84.4 |
| 54                                                         | 89.0 | 88.5 | 88.0 | 87.5 | 87.1 | 86.6 | 86.1 | 85.6 | 85.1 | 84.6 |
| 55                                                         | 89.2 | 88.7 | 88.2 | 87.7 | 87.2 | 86.7 | 86.2 | 85.7 | 85.3 | 84.8 |
| 56                                                         | 89.3 | 88.8 | 88.3 | 87.8 | 87.3 | 86.9 | 86.4 | 85.9 | 85.4 | 84.9 |
| 57                                                         | 89.4 | 88.9 | 88.4 | 88.0 | 87.5 | 87.0 | 86.5 | 86.0 | 85.6 | 85.1 |





















表 2a<sub>2</sub>(续)

| $t \begin{matrix} \diagup \\ t-t_w \end{matrix}$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|--------------------------------------------------|------|------|------|------|------|------|------|------|------|------|
| 58                                               | 59.5 | 58.7 | 58.0 | 57.3 | 56.6 | 55.9 | 55.1 | 54.4 | 53.7 | 53.0 |
| 59                                               | 59.9 | 59.2 | 58.4 | 57.7 | 57.0 | 56.3 | 55.6 | 54.9 | 54.2 | 53.5 |
| 60                                               | 60.3 | 59.6 | 58.8 | 58.1 | 57.4 | 56.7 | 56.0 | 55.3 | 54.6 | 54.0 |
| 61                                               | 60.7 | 60.0 | 59.2 | 58.5 | 57.8 | 57.1 | 56.4 | 55.8 | 55.1 | 54.4 |
| 62                                               | 61.0 | 60.3 | 59.6 | 58.9 | 58.2 | 57.5 | 56.9 | 56.2 | 55.5 | 54.8 |
| 63                                               | 61.4 | 60.7 | 60.0 | 59.3 | 58.6 | 57.9 | 57.3 | 56.6 | 55.9 | 55.3 |
| 64                                               | 61.8 | 61.1 | 60.4 | 59.7 | 59.0 | 58.3 | 57.6 | 57.0 | 56.3 | 55.7 |
| 65                                               | 62.1 | 61.4 | 60.7 | 60.0 | 59.4 | 58.7 | 58.0 | 57.4 | 56.7 | 56.0 |
| 66                                               | 62.4 | 61.7 | 61.1 | 60.4 | 59.7 | 59.0 | 58.4 | 57.7 | 57.1 | 56.4 |
| 67                                               | 62.8 | 62.1 | 61.4 | 60.7 | 60.1 | 59.4 | 58.7 | 58.1 | 57.4 | 56.8 |
| 68                                               | 63.1 | 62.4 | 61.7 | 61.1 | 60.4 | 59.7 | 59.1 | 58.4 | 57.8 | 57.2 |
| 69                                               | 63.4 | 62.7 | 62.0 | 61.4 | 60.7 | 60.1 | 59.4 | 58.8 | 58.2 | 57.5 |
| 70                                               | 63.7 | 63.0 | 62.4 | 61.7 | 61.1 | 60.4 | 59.8 | 59.1 | 58.5 | 57.9 |
| 71                                               | 64.0 | 63.3 | 62.7 | 62.0 | 61.4 | 60.7 | 60.1 | 59.5 | 58.8 | 58.2 |
| 72                                               | 64.3 | 63.6 | 63.0 | 62.3 | 61.7 | 61.0 | 60.4 | 59.8 | 59.2 | 58.5 |
| 73                                               | 64.6 | 63.9 | 63.3 | 62.6 | 62.0 | 61.3 | 60.7 | 60.1 | 59.5 | 58.9 |
| 74                                               | 64.8 | 64.2 | 63.5 | 62.9 | 62.3 | 61.6 | 61.0 | 60.4 | 59.8 | 59.2 |
| 75                                               | 65.1 | 64.5 | 63.8 | 63.2 | 62.6 | 61.9 | 61.3 | 60.7 | 60.1 | 59.5 |
| 76                                               | 65.4 | 64.7 | 64.1 | 63.5 | 62.8 | 62.2 | 61.6 | 61.0 | 60.4 | 59.8 |
| 77                                               | 65.6 | 65.0 | 64.4 | 63.7 | 63.1 | 62.5 | 61.9 | 61.3 | 60.7 | 60.1 |
| 78                                               | 65.9 | 65.2 | 64.6 | 64.0 | 63.4 | 62.8 | 62.2 | 61.6 | 61.0 | 60.4 |
| 79                                               | 66.1 | 65.5 | 64.9 | 64.3 | 63.7 | 63.0 | 62.4 | 61.8 | 61.2 | 60.6 |
| 80                                               | 66.4 | 65.8 | 65.1 | 64.5 | 63.9 | 63.3 | 62.7 | 62.1 | 61.5 | 60.9 |
| 81                                               | 66.6 | 66.0 | 65.4 | 64.8 | 64.2 | 63.6 | 63.0 | 62.4 | 61.8 | 61.2 |
| 82                                               | 66.8 | 66.2 | 65.6 | 65.0 | 64.4 | 63.8 | 63.2 | 62.6 | 62.1 | 61.5 |
| 83                                               | 67.1 | 66.5 | 65.9 | 65.3 | 64.7 | 64.1 | 63.5 | 62.9 | 62.3 | 61.7 |
| 84                                               | 67.3 | 66.7 | 66.1 | 65.5 | 64.9 | 64.3 | 63.7 | 63.1 | 62.6 | 62.0 |
| 85                                               | 67.5 | 66.9 | 66.3 | 65.7 | 65.1 | 64.6 | 64.0 | 63.4 | 62.8 | 62.2 |
| 86                                               | 67.8 | 67.2 | 66.6 | 66.0 | 65.4 | 64.8 | 64.2 | 63.6 | 63.1 | 62.5 |
| 87                                               | 68.0 | 67.4 | 66.8 | 66.2 | 65.6 | 65.0 | 64.5 | 63.9 | 63.3 | 62.7 |
| 88                                               | 68.2 | 67.6 | 67.0 | 66.4 | 65.8 | 65.3 | 64.7 | 64.1 | 63.5 | 63.0 |
| 89                                               | 68.4 | 67.8 | 67.2 | 66.6 | 66.1 | 65.5 | 64.9 | 64.3 | 63.8 | 63.2 |
| 90                                               | 68.6 | 68.0 | 67.4 | 66.9 | 66.3 | 65.7 | 65.1 | 64.6 | 64.0 | 63.5 |
| 91                                               | 68.8 | 68.2 | 67.6 | 67.1 | 66.5 | 65.9 | 65.4 | 64.8 | 64.2 | 63.7 |
| 92                                               | 69.0 | 68.4 | 67.8 | 67.3 | 66.7 | 66.1 | 65.6 | 65.0 | 64.5 | 63.9 |
| 93                                               | 69.2 | 68.6 | 68.1 | 67.5 | 66.9 | 66.4 | 65.8 | 65.2 | 64.7 | 64.1 |
| 94                                               | 69.4 | 68.8 | 68.3 | 67.7 | 67.1 | 66.6 | 66.0 | 65.5 | 64.9 | 64.4 |
| 95                                               | 69.6 | 69.0 | 68.5 | 67.9 | 67.3 | 66.8 | 66.2 | 65.7 | 65.1 | 64.6 |
| 96                                               | 69.8 | 69.2 | 68.6 | 68.1 | 67.5 | 67.0 | 66.4 | 65.9 | 65.3 | 64.8 |
| 97                                               | 70.0 | 69.4 | 68.8 | 68.3 | 67.7 | 67.2 | 66.6 | 66.1 | 65.6 | 65.0 |
| 98                                               | 70.1 | 69.6 | 69.0 | 68.5 | 67.9 | 67.4 | 66.8 | 66.3 | 65.8 | 65.2 |
| 99                                               | 70.3 | 69.8 | 69.2 | 68.7 | 68.1 | 67.6 | 67.0 | 66.5 | 66.0 | 65.4 |
| 100                                              | 70.5 | 70.0 | 69.4 | 68.9 | 68.3 | 67.8 | 67.2 | 66.7 | 66.2 | 65.6 |









表 2b (续)

| $t \backslash t - t_w$ | 1.1  | 1.2  | 1.3  | 1.4  | 1.5  | 1.6  | 1.7  | 1.8  | 1.9  | 2.0  |
|------------------------|------|------|------|------|------|------|------|------|------|------|
| 15                     | 87.5 | 86.4 | 85.3 | 84.2 | 83.0 | 81.9 | 80.8 | 79.7 | 78.7 | 77.6 |
| 16                     | 87.9 | 86.8 | 85.7 | 84.7 | 83.6 | 82.5 | 81.5 | 80.4 | 79.3 | 78.3 |
| 17                     | 88.3 | 87.2 | 86.2 | 85.1 | 84.1 | 83.1 | 82.0 | 81.0 | 80.0 | 79.0 |
| 18                     | 88.6 | 87.6 | 86.6 | 85.6 | 84.6 | 83.6 | 82.6 | 81.6 | 80.6 | 79.6 |
| 19                     | 89.0 | 88.0 | 87.0 | 86.0 | 85.0 | 84.1 | 83.1 | 82.1 | 81.2 | 80.2 |
| 20                     | 89.3 | 88.3 | 87.4 | 86.4 | 85.5 | 84.5 | 83.6 | 82.6 | 81.7 | 80.8 |
| 21                     | 89.6 | 88.6 | 87.7 | 86.8 | 85.9 | 85.0 | 84.0 | 83.1 | 82.2 | 81.3 |
| 22                     | 89.8 | 88.9 | 88.0 | 87.1 | 86.2 | 85.4 | 84.5 | 83.6 | 82.7 | 81.8 |
| 23                     | 90.1 | 89.2 | 88.4 | 87.5 | 86.6 | 85.7 | 84.9 | 84.0 | 83.1 | 82.3 |
| 24                     | 90.4 | 89.5 | 88.6 | 87.8 | 86.9 | 86.1 | 85.3 | 84.4 | 83.6 | 82.7 |
| 25                     | 90.6 | 89.8 | 88.9 | 88.1 | 87.3 | 86.4 | 85.6 | 84.8 | 84.0 | 83.2 |
| 26                     | 90.8 | 90.0 | 89.2 | 88.4 | 87.6 | 86.8 | 86.0 | 85.2 | 84.4 | 83.6 |
| 27                     | 91.0 | 90.2 | 89.4 | 88.6 | 87.8 | 87.1 | 86.3 | 85.5 | 84.7 | 83.9 |
| 28                     | 91.2 | 90.4 | 89.7 | 88.9 | 88.1 | 87.3 | 86.6 | 85.8 | 85.1 | 84.3 |
| 29                     | 91.4 | 90.6 | 89.9 | 89.1 | 88.4 | 87.6 | 86.9 | 86.1 | 85.4 | 84.6 |
| 30                     | 91.6 | 90.8 | 90.1 | 89.4 | 88.6 | 87.9 | 87.1 | 86.4 | 85.7 | 85.0 |
| 31                     | 91.8 | 91.0 | 90.3 | 89.6 | 88.8 | 88.1 | 87.4 | 86.7 | 86.0 | 85.3 |
| 32                     | 91.9 | 91.2 | 90.5 | 89.8 | 89.1 | 88.4 | 87.7 | 87.0 | 86.3 | 85.6 |
| 33                     | 92.1 | 91.4 | 90.7 | 90.0 | 89.3 | 88.6 | 87.9 | 87.2 | 86.5 | 85.8 |
| 34                     | 92.2 | 91.5 | 90.8 | 90.2 | 89.5 | 88.8 | 88.1 | 87.4 | 86.8 | 86.1 |
| 35                     | 92.4 | 91.7 | 91.0 | 90.3 | 89.7 | 89.0 | 88.3 | 87.7 | 87.0 | 86.3 |
| 36                     | 92.5 | 91.8 | 91.2 | 90.5 | 89.8 | 89.2 | 88.5 | 87.9 | 87.2 | 86.6 |
| 37                     | 92.6 | 92.0 | 91.3 | 90.7 | 90.0 | 89.4 | 88.7 | 88.1 | 87.5 | 86.8 |
| 38                     | 92.7 | 92.1 | 91.5 | 90.8 | 90.2 | 89.6 | 88.9 | 88.3 | 87.7 | 87.0 |
| 39                     | 92.9 | 92.2 | 91.6 | 91.0 | 90.3 | 89.7 | 89.1 | 88.5 | 87.9 | 87.2 |
| 40                     | 93.0 | 92.4 | 91.7 | 91.1 | 90.5 | 89.9 | 89.3 | 88.7 | 88.1 | 87.4 |
| 41                     | 93.1 | 92.5 | 91.9 | 91.3 | 90.6 | 90.0 | 89.4 | 88.8 | 88.2 | 87.6 |
| 42                     | 93.2 | 92.6 | 92.0 | 91.4 | 90.8 | 90.2 | 89.6 | 89.0 | 88.4 | 87.8 |
| 43                     | 93.3 | 92.7 | 92.1 | 91.5 | 90.9 | 90.3 | 89.7 | 89.2 | 88.6 | 88.0 |
| 44                     | 93.4 | 92.8 | 92.2 | 91.6 | 91.0 | 90.5 | 89.9 | 89.3 | 88.7 | 88.2 |
| 45                     | 93.5 | 92.9 | 92.3 | 91.7 | 91.2 | 90.6 | 90.0 | 89.5 | 88.9 | 88.3 |
| 46                     | 93.6 | 93.0 | 92.4 | 91.9 | 91.3 | 90.7 | 90.2 | 89.6 | 89.0 | 88.5 |
| 47                     | 93.7 | 93.1 | 92.5 | 92.0 | 91.4 | 90.8 | 90.3 | 89.7 | 89.2 | 88.6 |
| 48                     | 93.7 | 93.2 | 92.6 | 92.1 | 91.5 | 91.0 | 90.4 | 89.9 | 89.3 | 88.8 |
| 49                     | 93.8 | 93.3 | 92.7 | 92.2 | 91.6 | 91.1 | 90.5 | 90.0 | 89.5 | 88.9 |
| 50                     | 93.9 | 93.3 | 92.8 | 92.3 | 91.7 | 91.2 | 90.7 | 90.1 | 89.6 | 89.1 |
| 51                     | 94.0 | 93.4 | 92.9 | 92.4 | 91.8 | 91.3 | 90.8 | 90.2 | 89.7 | 89.2 |
| 52                     | 94.0 | 93.5 | 93.0 | 92.4 | 91.9 | 91.4 | 90.9 | 90.4 | 89.8 | 89.3 |
| 53                     | 94.1 | 93.6 | 93.1 | 92.5 | 92.0 | 91.5 | 91.0 | 90.5 | 90.0 | 89.5 |
| 54                     | 94.2 | 93.7 | 93.1 | 92.6 | 92.1 | 91.6 | 91.1 | 90.6 | 90.1 | 89.6 |
| 55                     | 94.2 | 93.7 | 93.2 | 92.7 | 92.2 | 91.7 | 91.2 | 90.7 | 90.2 | 89.7 |
| 56                     | 94.3 | 93.8 | 93.3 | 92.8 | 92.3 | 91.8 | 91.3 | 90.8 | 90.3 | 89.8 |
| 57                     | 94.4 | 93.9 | 93.4 | 92.9 | 92.4 | 91.9 | 91.4 | 90.9 | 90.4 | 89.9 |













表 2b (续)

| $t-t_w$<br>$t$ | 4.1  | 4.2  | 4.3  | 4.4  | 4.5  | 4.6  | 4.7  | 4.8  | 4.9  | 5.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 80.3 | 79.9 | 79.4 | 79.0 | 78.5 | 78.1 | 77.7 | 77.2 | 76.8 | 76.4 |
| 59             | 80.5 | 80.1 | 79.6 | 79.2 | 78.7 | 78.3 | 77.9 | 77.5 | 77.0 | 76.6 |
| 60             | 80.7 | 80.3 | 79.8 | 79.4 | 79.0 | 78.5 | 78.1 | 77.7 | 77.3 | 76.8 |
| 61             | 80.9 | 80.5 | 80.0 | 79.6 | 79.2 | 78.7 | 78.3 | 77.9 | 77.5 | 77.1 |
| 62             | 81.1 | 80.6 | 80.2 | 79.8 | 79.4 | 78.9 | 78.5 | 78.1 | 77.7 | 77.3 |
| 63             | 81.3 | 80.8 | 80.4 | 80.0 | 79.6 | 79.1 | 78.7 | 78.3 | 77.9 | 77.5 |
| 64             | 81.4 | 81.0 | 80.6 | 80.2 | 79.8 | 79.3 | 78.9 | 78.5 | 78.1 | 77.7 |
| 65             | 81.6 | 81.2 | 80.8 | 80.4 | 79.9 | 79.5 | 79.1 | 78.7 | 78.3 | 77.9 |
| 66             | 81.8 | 81.4 | 80.9 | 80.5 | 80.1 | 79.7 | 79.3 | 78.9 | 78.5 | 78.1 |
| 67             | 81.9 | 81.5 | 81.1 | 80.7 | 80.3 | 79.9 | 79.5 | 79.1 | 78.7 | 78.3 |
| 68             | 82.1 | 81.7 | 81.3 | 80.9 | 80.5 | 80.1 | 79.7 | 79.3 | 78.9 | 78.5 |
| 69             | 82.2 | 81.8 | 81.4 | 81.0 | 80.6 | 80.2 | 79.9 | 79.5 | 79.1 | 78.7 |
| 70             | 82.4 | 82.0 | 81.6 | 81.2 | 80.8 | 80.4 | 80.0 | 79.6 | 79.2 | 78.9 |
| 71             | 82.5 | 82.1 | 81.8 | 81.4 | 81.0 | 80.6 | 80.2 | 79.8 | 79.4 | 79.0 |
| 72             | 82.7 | 82.3 | 81.9 | 81.5 | 81.1 | 80.7 | 80.4 | 80.0 | 79.6 | 79.2 |
| 73             | 82.8 | 82.4 | 82.1 | 81.7 | 81.3 | 80.9 | 80.5 | 80.1 | 79.8 | 79.4 |
| 74             | 83.0 | 82.6 | 82.2 | 81.8 | 81.4 | 81.1 | 80.7 | 80.3 | 79.9 | 79.5 |
| 75             | 83.1 | 82.7 | 82.3 | 82.0 | 81.6 | 81.2 | 80.8 | 80.5 | 80.1 | 79.7 |
| 76             | 83.2 | 82.9 | 82.5 | 82.1 | 81.7 | 81.4 | 81.0 | 80.6 | 80.2 | 79.9 |
| 77             | 83.4 | 83.0 | 82.6 | 82.2 | 81.9 | 81.5 | 81.1 | 80.8 | 80.4 | 80.0 |
| 78             | 83.5 | 83.1 | 82.8 | 82.4 | 82.0 | 81.6 | 81.3 | 80.9 | 80.5 | 80.2 |
| 79             | 83.6 | 83.3 | 82.9 | 82.5 | 82.2 | 81.8 | 81.4 | 81.1 | 80.7 | 80.3 |
| 80             | 83.8 | 83.4 | 83.0 | 82.7 | 82.3 | 81.9 | 81.6 | 81.2 | 80.8 | 80.5 |
| 81             | 83.9 | 83.5 | 83.1 | 82.8 | 82.4 | 82.1 | 81.7 | 81.3 | 81.0 | 80.6 |
| 82             | 84.0 | 83.6 | 83.3 | 82.9 | 82.5 | 82.2 | 81.8 | 81.5 | 81.1 | 80.8 |
| 83             | 84.1 | 83.8 | 83.4 | 83.0 | 82.7 | 82.3 | 82.0 | 81.6 | 81.3 | 80.9 |
| 84             | 84.2 | 83.9 | 83.5 | 83.2 | 82.8 | 82.4 | 82.1 | 81.7 | 81.4 | 81.0 |
| 85             | 84.3 | 84.0 | 83.6 | 83.3 | 82.9 | 82.6 | 82.2 | 81.9 | 81.5 | 81.2 |
| 86             | 84.5 | 84.1 | 83.8 | 83.4 | 83.1 | 82.7 | 82.4 | 82.0 | 81.7 | 81.3 |
| 87             | 84.6 | 84.2 | 83.9 | 83.5 | 83.2 | 82.8 | 82.5 | 82.1 | 81.8 | 81.4 |
| 88             | 84.7 | 84.3 | 84.0 | 83.6 | 83.3 | 82.9 | 82.6 | 82.3 | 81.9 | 81.6 |
| 89             | 84.8 | 84.4 | 84.1 | 83.7 | 83.4 | 83.1 | 82.7 | 82.4 | 82.0 | 81.7 |
| 90             | 84.9 | 84.5 | 84.2 | 83.9 | 83.5 | 83.2 | 82.8 | 82.5 | 82.2 | 81.8 |
| 91             | 85.0 | 84.7 | 84.3 | 84.0 | 83.6 | 83.3 | 83.0 | 82.6 | 82.3 | 82.0 |
| 92             | 85.1 | 84.8 | 84.4 | 84.1 | 83.7 | 83.4 | 83.1 | 82.7 | 82.4 | 82.1 |
| 93             | 85.2 | 84.9 | 84.5 | 84.2 | 83.9 | 83.5 | 83.2 | 82.9 | 82.5 | 82.2 |
| 94             | 85.3 | 85.0 | 84.6 | 84.3 | 84.0 | 83.6 | 83.3 | 83.0 | 82.6 | 82.3 |
| 95             | 85.4 | 85.1 | 84.7 | 84.4 | 84.1 | 83.7 | 83.4 | 83.1 | 82.8 | 82.4 |
| 96             | 85.5 | 85.2 | 84.8 | 84.5 | 84.2 | 83.8 | 83.5 | 83.2 | 82.9 | 82.5 |
| 97             | 85.6 | 85.3 | 84.9 | 84.6 | 84.3 | 84.0 | 83.6 | 83.3 | 83.0 | 82.7 |
| 98             | 85.7 | 85.4 | 85.0 | 84.7 | 84.4 | 84.1 | 83.7 | 83.4 | 83.1 | 82.8 |
| 99             | 85.8 | 85.5 | 85.1 | 84.8 | 84.5 | 84.2 | 83.8 | 83.5 | 83.2 | 82.9 |
| 100            | 85.9 | 85.5 | 85.2 | 84.9 | 84.6 | 84.3 | 83.9 | 83.6 | 83.3 | 83.0 |



表 2b (续)

| $t-t_w$<br>$t$ | 5.2  | 5.4  | 5.6  | 5.8  | 6.0  | 6.2  | 6.4  | 6.6  | 6.8  | 7.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 75.5 | 74.6 | 73.8 | 73.0 | 72.1 | 71.3 | 70.5 | 69.7 | 68.9 | 68.0 |
| 59             | 75.7 | 74.9 | 74.1 | 73.2 | 72.4 | 71.6 | 70.8 | 70.0 | 69.2 | 68.4 |
| 60             | 76.0 | 75.2 | 74.3 | 73.5 | 72.7 | 71.9 | 71.1 | 70.3 | 69.5 | 68.7 |
| 61             | 76.2 | 75.4 | 74.6 | 73.8 | 72.9 | 72.1 | 71.3 | 70.6 | 69.8 | 69.0 |
| 62             | 76.5 | 75.6 | 74.8 | 74.0 | 73.2 | 72.4 | 71.6 | 70.8 | 70.1 | 69.3 |
| 63             | 76.7 | 75.9 | 75.1 | 74.3 | 73.5 | 72.7 | 71.9 | 71.1 | 70.3 | 69.6 |
| 64             | 76.9 | 76.1 | 75.3 | 74.5 | 73.7 | 72.9 | 72.1 | 71.4 | 70.6 | 69.8 |
| 65             | 77.1 | 76.3 | 75.5 | 74.7 | 73.9 | 73.2 | 72.4 | 71.6 | 70.9 | 70.1 |
| 66             | 77.3 | 76.5 | 75.7 | 74.9 | 74.2 | 73.4 | 72.6 | 71.9 | 71.1 | 70.4 |
| 67             | 77.5 | 76.7 | 75.9 | 75.2 | 74.4 | 73.6 | 72.9 | 72.1 | 71.4 | 70.6 |
| 68             | 77.7 | 76.9 | 76.2 | 75.4 | 74.6 | 73.9 | 73.1 | 72.4 | 71.6 | 70.9 |
| 69             | 77.9 | 77.1 | 76.4 | 75.6 | 74.8 | 74.1 | 73.3 | 72.6 | 71.9 | 71.1 |
| 70             | 78.1 | 77.3 | 76.6 | 75.8 | 75.1 | 74.3 | 73.6 | 72.8 | 72.1 | 71.4 |
| 71             | 78.3 | 77.5 | 76.8 | 76.0 | 75.3 | 74.5 | 73.8 | 73.1 | 72.3 | 71.6 |
| 72             | 78.4 | 77.7 | 76.9 | 76.2 | 75.5 | 74.7 | 74.0 | 73.3 | 72.6 | 71.8 |
| 73             | 78.6 | 77.9 | 77.1 | 76.4 | 75.7 | 74.9 | 74.2 | 73.5 | 72.8 | 72.1 |
| 74             | 78.8 | 78.1 | 77.3 | 76.6 | 75.9 | 75.1 | 74.4 | 73.7 | 73.0 | 72.3 |
| 75             | 79.0 | 78.2 | 77.5 | 76.8 | 76.0 | 75.3 | 74.6 | 73.9 | 73.2 | 72.5 |
| 76             | 79.1 | 78.4 | 77.7 | 77.0 | 76.2 | 75.5 | 74.8 | 74.1 | 73.4 | 72.7 |
| 77             | 79.3 | 78.6 | 77.8 | 77.1 | 76.4 | 75.7 | 75.0 | 74.3 | 73.6 | 72.9 |
| 78             | 79.5 | 78.7 | 78.0 | 77.3 | 76.6 | 75.9 | 75.2 | 74.5 | 73.8 | 73.1 |
| 79             | 79.6 | 78.9 | 78.2 | 77.5 | 76.8 | 76.1 | 75.4 | 74.7 | 74.0 | 73.3 |
| 80             | 79.8 | 79.0 | 78.3 | 77.6 | 76.9 | 76.3 | 75.6 | 74.9 | 74.2 | 73.5 |
| 81             | 79.9 | 79.2 | 78.5 | 77.8 | 77.1 | 76.4 | 75.7 | 75.1 | 74.4 | 73.7 |
| 82             | 80.1 | 79.4 | 78.7 | 78.0 | 77.3 | 76.6 | 75.9 | 75.2 | 74.6 | 73.9 |
| 83             | 80.2 | 79.5 | 78.8 | 78.1 | 77.4 | 76.8 | 76.1 | 75.4 | 74.8 | 74.1 |
| 84             | 80.3 | 79.7 | 79.0 | 78.3 | 77.6 | 76.9 | 76.3 | 75.6 | 74.9 | 74.3 |
| 85             | 80.5 | 79.8 | 79.1 | 78.4 | 77.8 | 77.1 | 76.4 | 75.8 | 75.1 | 74.5 |
| 86             | 80.6 | 79.9 | 79.3 | 78.6 | 77.9 | 77.3 | 76.6 | 75.9 | 75.3 | 74.6 |
| 87             | 80.8 | 80.1 | 79.4 | 78.7 | 78.1 | 77.4 | 76.8 | 76.1 | 75.5 | 74.8 |
| 88             | 80.9 | 80.2 | 79.6 | 78.9 | 78.2 | 77.6 | 76.9 | 76.3 | 75.6 | 75.0 |
| 89             | 81.0 | 80.4 | 79.7 | 79.0 | 78.4 | 77.7 | 77.1 | 76.4 | 75.8 | 75.2 |
| 90             | 81.2 | 80.5 | 79.8 | 79.2 | 78.5 | 77.9 | 77.2 | 76.6 | 76.0 | 75.3 |
| 91             | 81.3 | 80.6 | 80.0 | 79.3 | 78.7 | 78.0 | 77.4 | 76.7 | 76.1 | 75.5 |
| 92             | 81.4 | 80.8 | 80.1 | 79.5 | 78.8 | 78.2 | 77.5 | 76.9 | 76.3 | 75.6 |
| 93             | 81.5 | 80.9 | 80.2 | 79.6 | 78.9 | 78.3 | 77.7 | 77.1 | 76.4 | 75.8 |
| 94             | 81.7 | 81.0 | 80.4 | 79.7 | 79.1 | 78.5 | 77.8 | 77.2 | 76.6 | 76.0 |
| 95             | 81.8 | 81.1 | 80.5 | 79.9 | 79.2 | 78.6 | 78.0 | 77.3 | 76.7 | 76.1 |
| 96             | 81.9 | 81.3 | 80.6 | 80.0 | 79.4 | 78.7 | 78.1 | 77.5 | 76.9 | 76.3 |
| 97             | 82.0 | 81.4 | 80.7 | 80.1 | 79.5 | 78.9 | 78.3 | 77.6 | 77.0 | 76.4 |
| 98             | 82.1 | 81.5 | 80.9 | 80.2 | 79.6 | 79.0 | 78.4 | 77.8 | 77.2 | 76.6 |
| 99             | 82.2 | 81.6 | 81.0 | 80.4 | 79.8 | 79.1 | 78.5 | 77.9 | 77.3 | 76.7 |
| 100            | 82.4 | 81.7 | 81.1 | 80.5 | 79.9 | 79.3 | 78.7 | 78.1 | 77.5 | 76.9 |



表 2b (续)

| $t \backslash t - t_w$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|------------------------|------|------|------|------|------|------|------|------|------|------|
| 58                     | 67.3 | 66.5 | 65.7 | 64.9 | 64.1 | 63.4 | 62.6 | 61.8 | 61.1 | 60.3 |
| 59                     | 67.6 | 66.8 | 66.0 | 65.2 | 64.5 | 63.7 | 63.0 | 62.2 | 61.5 | 60.7 |
| 60                     | 67.9 | 67.1 | 66.4 | 65.6 | 64.8 | 64.1 | 63.3 | 62.6 | 61.8 | 61.1 |
| 61                     | 68.2 | 67.4 | 66.7 | 65.9 | 65.2 | 64.4 | 63.7 | 62.9 | 62.2 | 61.5 |
| 62                     | 68.5 | 67.8 | 67.0 | 66.2 | 65.5 | 64.8 | 64.0 | 63.3 | 62.6 | 61.8 |
| 63                     | 68.8 | 68.1 | 67.3 | 66.6 | 65.8 | 65.1 | 64.4 | 63.6 | 62.9 | 62.2 |
| 64                     | 69.1 | 68.3 | 67.6 | 66.9 | 66.1 | 65.4 | 64.7 | 64.0 | 63.2 | 62.5 |
| 65                     | 69.4 | 68.6 | 67.9 | 67.2 | 66.4 | 65.7 | 65.0 | 64.3 | 63.6 | 62.9 |
| 66                     | 69.6 | 68.9 | 68.2 | 67.4 | 66.7 | 66.0 | 65.3 | 64.6 | 63.9 | 63.2 |
| 67                     | 69.9 | 69.2 | 68.5 | 67.7 | 67.0 | 66.3 | 65.6 | 64.9 | 64.2 | 63.5 |
| 68                     | 70.2 | 69.4 | 68.7 | 68.0 | 67.3 | 66.6 | 65.9 | 65.2 | 64.5 | 63.8 |
| 69                     | 70.4 | 69.7 | 69.0 | 68.3 | 67.6 | 66.9 | 66.2 | 65.5 | 64.8 | 64.1 |
| 70                     | 70.7 | 70.0 | 69.2 | 68.5 | 67.8 | 67.1 | 66.5 | 65.8 | 65.1 | 64.4 |
| 71                     | 70.9 | 70.2 | 69.5 | 68.8 | 68.1 | 67.4 | 66.7 | 66.1 | 65.4 | 64.7 |
| 72                     | 71.1 | 70.4 | 69.7 | 69.0 | 68.4 | 67.7 | 67.0 | 66.3 | 65.7 | 65.0 |
| 73                     | 71.4 | 70.7 | 70.0 | 69.3 | 68.6 | 67.9 | 67.3 | 66.6 | 65.9 | 65.3 |
| 74                     | 71.6 | 70.9 | 70.2 | 69.5 | 68.9 | 68.2 | 67.5 | 66.8 | 66.2 | 65.5 |
| 75                     | 71.8 | 71.1 | 70.4 | 69.8 | 69.1 | 68.4 | 67.8 | 67.1 | 66.4 | 65.8 |
| 76                     | 72.0 | 71.4 | 70.7 | 70.0 | 69.3 | 68.7 | 68.0 | 67.4 | 66.7 | 66.1 |
| 77                     | 72.2 | 71.6 | 70.9 | 70.2 | 69.6 | 68.9 | 68.2 | 67.6 | 67.0 | 66.3 |
| 78                     | 72.5 | 71.8 | 71.1 | 70.4 | 69.8 | 69.1 | 68.5 | 67.8 | 67.2 | 66.6 |
| 79                     | 72.7 | 72.0 | 71.3 | 70.7 | 70.0 | 69.4 | 68.7 | 68.1 | 67.4 | 66.8 |
| 80                     | 72.9 | 72.2 | 71.5 | 70.9 | 70.2 | 69.6 | 68.9 | 68.3 | 67.7 | 67.0 |
| 81                     | 73.1 | 72.4 | 71.7 | 71.1 | 70.4 | 69.8 | 69.2 | 68.5 | 67.9 | 67.3 |
| 82                     | 73.3 | 72.6 | 71.9 | 71.3 | 70.7 | 70.0 | 69.4 | 68.8 | 68.1 | 67.5 |
| 83                     | 73.4 | 72.8 | 72.1 | 71.5 | 70.9 | 70.2 | 69.6 | 69.0 | 68.4 | 67.7 |
| 84                     | 73.6 | 73.0 | 72.3 | 71.7 | 71.1 | 70.4 | 69.8 | 69.2 | 68.6 | 68.0 |
| 85                     | 73.8 | 73.2 | 72.5 | 71.9 | 71.3 | 70.6 | 70.0 | 69.4 | 68.8 | 68.2 |
| 86                     | 74.0 | 73.4 | 72.7 | 72.1 | 71.5 | 70.8 | 70.2 | 69.6 | 69.0 | 68.4 |
| 87                     | 74.2 | 73.5 | 72.9 | 72.3 | 71.7 | 71.0 | 70.4 | 69.8 | 69.2 | 68.6 |
| 88                     | 74.3 | 73.7 | 73.1 | 72.5 | 71.8 | 71.2 | 70.6 | 70.0 | 69.4 | 68.8 |
| 89                     | 74.5 | 73.9 | 73.3 | 72.7 | 72.0 | 71.4 | 70.8 | 70.2 | 69.6 | 69.0 |
| 90                     | 74.7 | 74.1 | 73.4 | 72.8 | 72.2 | 71.6 | 71.0 | 70.4 | 69.8 | 69.2 |
| 91                     | 74.9 | 74.2 | 73.6 | 73.0 | 72.4 | 71.8 | 71.2 | 70.6 | 70.0 | 69.4 |
| 92                     | 75.0 | 74.4 | 73.8 | 73.2 | 72.6 | 72.0 | 71.4 | 70.8 | 70.2 | 69.6 |
| 93                     | 75.2 | 74.6 | 74.0 | 73.4 | 72.8 | 72.2 | 71.6 | 71.0 | 70.4 | 69.8 |
| 94                     | 75.3 | 74.7 | 74.1 | 73.5 | 72.9 | 72.3 | 71.7 | 71.2 | 70.6 | 70.0 |
| 95                     | 75.5 | 74.9 | 74.3 | 73.7 | 73.1 | 72.5 | 71.9 | 71.3 | 70.8 | 70.2 |
| 96                     | 75.7 | 75.1 | 74.5 | 73.9 | 73.3 | 72.7 | 72.1 | 71.5 | 70.9 | 70.4 |
| 97                     | 75.8 | 75.2 | 74.6 | 74.0 | 73.4 | 72.9 | 72.3 | 71.7 | 71.1 | 70.6 |
| 98                     | 76.0 | 75.4 | 74.8 | 74.2 | 73.6 | 73.0 | 72.4 | 71.9 | 71.3 | 70.7 |
| 99                     | 76.1 | 75.5 | 74.9 | 74.4 | 73.8 | 73.2 | 72.6 | 72.0 | 71.5 | 70.9 |
| 100                    | 76.3 | 75.7 | 75.1 | 74.5 | 73.9 | 73.4 | 72.8 | 72.2 | 71.7 | 71.1 |



表 2b (续)

| $t$ \ $t-t_w$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| 58            | 59.6 | 58.9 | 58.1 | 57.4 | 56.7 | 56.0 | 55.3 | 54.6 | 53.9 | 53.2 |
| 59            | 60.0 | 59.3 | 58.6 | 57.8 | 57.1 | 56.4 | 55.7 | 55.0 | 54.3 | 53.6 |
| 60            | 60.4 | 59.7 | 59.0 | 58.2 | 57.5 | 56.8 | 56.1 | 55.5 | 54.8 | 54.1 |
| 61            | 60.8 | 60.1 | 59.3 | 58.6 | 57.9 | 57.2 | 56.6 | 55.9 | 55.2 | 54.5 |
| 62            | 61.1 | 60.4 | 59.7 | 59.0 | 58.3 | 57.6 | 57.0 | 56.3 | 55.6 | 54.9 |
| 63            | 61.5 | 60.8 | 60.1 | 59.4 | 58.7 | 58.0 | 57.4 | 56.7 | 56.0 | 55.4 |
| 64            | 61.8 | 61.1 | 60.5 | 59.8 | 59.1 | 58.4 | 57.7 | 57.1 | 56.4 | 55.8 |
| 65            | 62.2 | 61.5 | 60.8 | 60.1 | 59.4 | 58.8 | 58.1 | 57.5 | 56.8 | 56.1 |
| 66            | 62.5 | 61.8 | 61.1 | 60.5 | 59.8 | 59.1 | 58.5 | 57.8 | 57.2 | 56.5 |
| 67            | 62.8 | 62.2 | 61.5 | 60.8 | 60.1 | 59.5 | 58.8 | 58.2 | 57.5 | 56.9 |
| 68            | 63.1 | 62.5 | 61.8 | 61.1 | 60.5 | 59.8 | 59.2 | 58.5 | 57.9 | 57.3 |
| 69            | 63.5 | 62.8 | 62.1 | 61.5 | 60.8 | 60.2 | 59.5 | 58.9 | 58.2 | 57.6 |
| 70            | 63.8 | 63.1 | 62.4 | 61.8 | 61.1 | 60.5 | 59.8 | 59.2 | 58.6 | 57.9 |
| 71            | 64.0 | 63.4 | 62.7 | 62.1 | 61.4 | 60.8 | 60.2 | 59.5 | 58.9 | 58.3 |
| 72            | 64.3 | 63.7 | 63.0 | 62.4 | 61.7 | 61.1 | 60.5 | 59.8 | 59.2 | 58.6 |
| 73            | 64.6 | 64.0 | 63.3 | 62.7 | 62.0 | 61.4 | 60.8 | 60.2 | 59.5 | 58.9 |
| 74            | 64.9 | 64.2 | 63.6 | 63.0 | 62.3 | 61.7 | 61.1 | 60.5 | 59.8 | 59.2 |
| 75            | 65.2 | 64.5 | 63.9 | 63.2 | 62.6 | 62.0 | 61.4 | 60.8 | 60.1 | 59.5 |
| 76            | 65.4 | 64.8 | 64.1 | 63.5 | 62.9 | 62.3 | 61.7 | 61.0 | 60.4 | 59.8 |
| 77            | 65.7 | 65.0 | 64.4 | 63.8 | 63.2 | 62.6 | 61.9 | 61.3 | 60.7 | 60.1 |
| 78            | 65.9 | 65.3 | 64.7 | 64.1 | 63.4 | 62.8 | 62.2 | 61.6 | 61.0 | 60.4 |
| 79            | 66.2 | 65.5 | 64.9 | 64.3 | 63.7 | 63.1 | 62.5 | 61.9 | 61.3 | 60.7 |
| 80            | 66.4 | 65.8 | 65.2 | 64.6 | 64.0 | 63.4 | 62.8 | 62.2 | 61.6 | 61.0 |
| 81            | 66.7 | 66.0 | 65.4 | 64.8 | 64.2 | 63.6 | 63.0 | 62.4 | 61.8 | 61.3 |
| 82            | 66.9 | 66.3 | 65.7 | 65.1 | 64.5 | 63.9 | 63.3 | 62.7 | 62.1 | 61.5 |
| 83            | 67.1 | 66.5 | 65.9 | 65.3 | 64.7 | 64.1 | 63.5 | 62.9 | 62.4 | 61.8 |
| 84            | 67.3 | 66.7 | 66.1 | 65.5 | 64.9 | 64.4 | 63.8 | 63.2 | 62.6 | 62.0 |
| 85            | 67.6 | 67.0 | 66.4 | 65.8 | 65.2 | 64.6 | 64.0 | 63.4 | 62.9 | 62.3 |
| 86            | 67.8 | 67.2 | 66.6 | 66.0 | 65.4 | 64.8 | 64.3 | 63.7 | 63.1 | 62.5 |
| 87            | 68.0 | 67.4 | 66.8 | 66.2 | 65.6 | 65.1 | 64.5 | 63.9 | 63.3 | 62.8 |
| 88            | 68.2 | 67.6 | 67.0 | 66.4 | 65.9 | 65.3 | 64.7 | 64.2 | 63.6 | 63.0 |
| 89            | 68.4 | 67.8 | 67.2 | 66.7 | 66.1 | 65.5 | 64.9 | 64.4 | 63.8 | 63.3 |
| 90            | 68.6 | 68.0 | 67.5 | 66.9 | 66.3 | 65.7 | 65.2 | 64.6 | 64.1 | 63.5 |
| 91            | 68.8 | 68.2 | 67.7 | 67.1 | 66.5 | 66.0 | 65.4 | 64.8 | 64.3 | 63.7 |
| 92            | 69.0 | 68.5 | 67.9 | 67.3 | 66.7 | 66.2 | 65.6 | 65.1 | 64.5 | 64.0 |
| 93            | 69.2 | 68.7 | 68.1 | 67.5 | 66.9 | 66.4 | 65.8 | 65.3 | 64.7 | 64.2 |
| 94            | 69.4 | 68.8 | 68.3 | 67.7 | 67.2 | 66.6 | 66.0 | 65.5 | 64.9 | 64.4 |
| 95            | 69.6 | 69.0 | 68.5 | 67.9 | 67.4 | 66.8 | 66.2 | 65.7 | 65.2 | 64.6 |
| 96            | 69.8 | 69.2 | 68.7 | 68.1 | 67.6 | 67.0 | 66.5 | 65.9 | 65.4 | 64.8 |
| 97            | 70.0 | 69.4 | 68.9 | 68.3 | 67.8 | 67.2 | 66.7 | 66.1 | 65.6 | 65.0 |
| 98            | 70.2 | 69.6 | 69.1 | 68.5 | 68.0 | 67.4 | 66.9 | 66.3 | 65.8 | 65.2 |
| 99            | 70.4 | 69.8 | 69.2 | 68.7 | 68.1 | 67.6 | 67.1 | 66.5 | 66.0 | 65.5 |
| 100           | 70.5 | 70.0 | 69.4 | 68.9 | 68.3 | 67.8 | 67.3 | 66.7 | 66.2 | 65.7 |

表 2b (续)

| $t-t_w$<br>$t$ | 11.5 | 12.0 | 12.5 | 13.5 | 13.5 | 14.0 | 14.5 | 15.0 | 15.5 | 16.0 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             |      |      |      |      |      |      |      |      |      |      |
| 16             |      |      |      |      |      |      |      |      |      |      |
| 17             |      |      |      |      |      |      |      |      |      |      |
| 18             |      |      |      |      |      |      |      |      |      |      |
| 19             | 1.4  |      |      |      |      |      |      |      |      |      |
| 20             | 4.4  | 1.0  |      |      |      |      |      |      |      |      |
| 21             | 7.3  | 4.0  | 0.7  |      |      |      |      |      |      |      |
| 22             | 10.0 | 6.7  | 3.6  | 0.4  |      |      |      |      |      |      |
| 23             | 12.5 | 9.4  | 6.3  | 3.2  | 0.2  |      |      |      |      |      |
| 24             | 14.9 | 11.8 | 8.8  | 5.9  | 3.0  | 0.1  |      |      |      |      |
| 25             | 17.1 | 14.1 | 11.2 | 8.4  | 5.6  | 2.8  | 0.0  |      |      |      |
| 26             | 19.2 | 16.3 | 13.5 | 10.7 | 8.0  | 5.3  | 2.6  | 0.0  |      |      |
| 27             | 21.2 | 18.4 | 15.6 | 12.9 | 10.3 | 7.7  | 5.1  | 2.5  | 0.0  |      |
| 28             | 23.0 | 20.3 | 17.7 | 15.0 | 12.4 | 9.9  | 7.4  | 4.9  | 2.5  | 0.1  |
| 29             | 24.8 | 22.2 | 19.6 | 17.0 | 14.5 | 12.0 | 9.6  | 7.1  | 4.8  | 2.4  |
| 30             | 26.5 | 23.9 | 21.4 | 18.9 | 16.4 | 14.0 | 11.6 | 9.3  | 7.0  | 4.7  |
| 31             | 28.1 | 25.5 | 23.1 | 20.6 | 18.2 | 15.9 | 13.5 | 11.3 | 9.0  | 6.8  |
| 32             | 29.6 | 27.1 | 24.7 | 22.3 | 19.9 | 17.6 | 15.4 | 13.2 | 11.0 | 8.8  |
| 33             | 31.0 | 28.6 | 26.2 | 23.9 | 21.6 | 19.3 | 17.1 | 14.9 | 12.8 | 10.7 |
| 34             | 32.3 | 30.0 | 27.6 | 25.4 | 23.1 | 20.9 | 18.8 | 16.6 | 14.5 | 12.5 |
| 35             | 33.6 | 31.3 | 29.0 | 26.8 | 24.6 | 22.4 | 20.3 | 18.2 | 16.2 | 14.2 |
| 36             | 34.8 | 32.5 | 30.3 | 28.1 | 26.0 | 23.9 | 21.8 | 19.8 | 17.8 | 15.8 |
| 37             | 36.0 | 33.7 | 31.6 | 29.4 | 27.3 | 25.2 | 23.2 | 21.2 | 19.3 | 17.3 |
| 38             | 37.1 | 34.9 | 32.7 | 30.6 | 28.6 | 26.5 | 24.6 | 22.6 | 20.7 | 18.8 |
| 39             | 38.1 | 36.0 | 33.9 | 31.8 | 29.8 | 27.8 | 25.8 | 23.9 | 22.0 | 20.2 |
| 40             | 39.1 | 37.0 | 34.9 | 32.9 | 30.9 | 29.0 | 27.0 | 25.2 | 23.3 | 21.5 |
| 41             | 40.1 | 38.0 | 36.0 | 34.0 | 32.0 | 30.1 | 28.2 | 26.3 | 24.5 | 22.7 |
| 42             | 41.0 | 38.9 | 36.9 | 35.0 | 33.1 | 31.2 | 29.3 | 27.5 | 25.7 | 23.9 |
| 43             | 41.9 | 39.8 | 37.9 | 35.9 | 34.0 | 32.2 | 30.4 | 28.6 | 26.8 | 25.1 |
| 44             | 42.7 | 40.7 | 38.8 | 36.9 | 35.0 | 33.2 | 31.4 | 29.6 | 27.9 | 26.2 |
| 45             | 43.5 | 41.5 | 39.6 | 37.8 | 35.9 | 34.1 | 32.3 | 30.6 | 28.9 | 27.2 |
| 46             | 44.3 | 42.3 | 40.4 | 38.6 | 36.8 | 35.0 | 33.2 | 31.5 | 29.8 | 28.2 |
| 47             | 45.0 | 43.1 | 41.2 | 39.4 | 37.6 | 35.9 | 34.1 | 32.4 | 30.8 | 29.1 |
| 48             | 45.7 | 43.8 | 42.0 | 40.2 | 38.4 | 36.7 | 35.0 | 33.3 | 31.7 | 30.1 |
| 49             | 46.4 | 44.5 | 42.7 | 40.9 | 39.2 | 37.5 | 35.8 | 34.1 | 32.5 | 30.9 |
| 50             | 47.0 | 45.2 | 43.4 | 41.7 | 39.9 | 38.2 | 36.6 | 34.9 | 33.3 | 31.8 |
| 51             | 47.7 | 45.8 | 44.1 | 42.3 | 40.6 | 39.0 | 37.3 | 35.7 | 34.1 | 32.6 |
| 52             | 48.3 | 46.5 | 44.7 | 43.0 | 41.3 | 39.7 | 38.1 | 36.5 | 34.9 | 33.4 |
| 53             | 48.8 | 47.1 | 45.3 | 43.7 | 42.0 | 40.4 | 38.7 | 37.2 | 35.6 | 34.1 |
| 54             | 49.4 | 47.7 | 45.9 | 44.3 | 42.6 | 41.0 | 39.4 | 37.9 | 36.3 | 34.8 |
| 55             | 49.9 | 48.2 | 46.5 | 44.9 | 43.2 | 41.6 | 40.1 | 38.5 | 37.0 | 35.5 |
| 56             | 50.5 | 48.8 | 47.1 | 45.4 | 43.8 | 42.2 | 40.7 | 39.2 | 37.7 | 36.2 |
| 57             | 51.0 | 49.3 | 47.6 | 46.0 | 44.4 | 42.8 | 41.3 | 39.8 | 38.3 | 36.8 |















表 2c (续)

| $t - t_w$<br>$t$ | 3.1  | 3.2  | 3.3  | 3.4  | 3.5  | 3.6  | 3.7  | 3.8  | 3.9  | 4.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               | 68.5 | 67.5 | 66.5 | 65.6 | 64.6 | 63.7 | 62.7 | 61.8 | 60.8 | 59.9 |
| 16               | 69.4 | 68.5 | 67.5 | 66.6 | 65.7 | 64.8 | 63.8 | 62.9 | 62.0 | 61.1 |
| 17               | 70.3 | 69.4 | 68.5 | 67.6 | 66.7 | 65.8 | 64.9 | 64.0 | 63.1 | 62.2 |
| 18               | 71.1 | 70.3 | 69.4 | 68.5 | 67.6 | 66.8 | 65.9 | 65.0 | 64.2 | 63.3 |
| 19               | 71.9 | 71.1 | 70.2 | 69.4 | 68.5 | 67.7 | 66.8 | 66.0 | 65.2 | 64.3 |
| 20               | 72.7 | 71.8 | 71.0 | 70.2 | 69.4 | 68.5 | 67.7 | 66.9 | 66.1 | 65.3 |
| 21               | 73.4 | 72.6 | 71.8 | 71.0 | 70.2 | 69.4 | 68.6 | 67.8 | 67.0 | 66.2 |
| 22               | 74.0 | 73.3 | 72.5 | 71.7 | 70.9 | 70.1 | 69.3 | 68.6 | 67.8 | 67.0 |
| 23               | 74.7 | 73.9 | 73.1 | 72.4 | 71.6 | 70.8 | 70.1 | 69.3 | 68.6 | 67.8 |
| 24               | 75.3 | 74.5 | 73.8 | 73.0 | 72.3 | 71.5 | 70.8 | 70.0 | 69.3 | 68.6 |
| 25               | 75.8 | 75.1 | 74.3 | 73.6 | 72.9 | 72.2 | 71.4 | 70.7 | 70.0 | 69.3 |
| 26               | 76.3 | 75.6 | 74.9 | 74.2 | 73.5 | 72.8 | 72.1 | 71.4 | 70.7 | 70.0 |
| 27               | 76.8 | 76.1 | 75.4 | 74.7 | 74.1 | 73.4 | 72.7 | 72.0 | 71.3 | 70.6 |
| 28               | 77.3 | 76.6 | 75.9 | 75.3 | 74.6 | 73.9 | 73.2 | 72.6 | 71.9 | 71.2 |
| 29               | 77.8 | 77.1 | 76.4 | 75.8 | 75.1 | 74.4 | 73.8 | 73.1 | 72.4 | 71.8 |
| 30               | 78.2 | 77.5 | 76.9 | 76.2 | 75.6 | 74.9 | 74.3 | 73.6 | 73.0 | 72.3 |
| 31               | 78.6 | 78.0 | 77.3 | 76.7 | 76.0 | 75.4 | 74.8 | 74.1 | 73.5 | 72.9 |
| 32               | 79.0 | 78.4 | 77.7 | 77.1 | 76.5 | 75.8 | 75.2 | 74.6 | 74.0 | 73.4 |
| 33               | 79.4 | 78.7 | 78.1 | 77.5 | 76.9 | 76.3 | 75.7 | 75.0 | 74.4 | 73.8 |
| 34               | 79.7 | 79.1 | 78.5 | 77.9 | 77.3 | 76.7 | 76.1 | 75.5 | 74.9 | 74.3 |
| 35               | 80.1 | 79.5 | 78.9 | 78.3 | 77.7 | 77.1 | 76.5 | 75.9 | 75.3 | 74.7 |
| 36               | 80.4 | 79.8 | 79.2 | 78.6 | 78.0 | 77.4 | 76.9 | 76.3 | 75.7 | 75.1 |
| 37               | 80.7 | 80.1 | 79.5 | 78.9 | 78.4 | 77.8 | 77.2 | 76.6 | 76.1 | 75.5 |
| 38               | 81.0 | 80.4 | 79.8 | 79.3 | 78.7 | 78.1 | 77.6 | 77.0 | 76.4 | 75.9 |
| 39               | 81.3 | 80.7 | 80.1 | 79.6 | 79.0 | 78.5 | 77.9 | 77.4 | 76.8 | 76.2 |
| 40               | 81.5 | 81.0 | 80.4 | 79.9 | 79.3 | 78.8 | 78.2 | 77.7 | 77.1 | 76.6 |
| 41               | 81.8 | 81.3 | 80.7 | 80.2 | 79.6 | 79.1 | 78.5 | 78.0 | 77.5 | 76.9 |
| 42               | 82.1 | 81.5 | 81.0 | 80.4 | 79.9 | 79.4 | 78.8 | 78.3 | 77.8 | 77.2 |
| 43               | 82.3 | 81.8 | 81.2 | 80.7 | 80.2 | 79.6 | 79.1 | 78.6 | 78.1 | 77.5 |
| 44               | 82.5 | 82.0 | 81.5 | 81.0 | 80.4 | 79.9 | 79.4 | 78.9 | 78.4 | 77.8 |
| 45               | 82.8 | 82.2 | 81.7 | 81.2 | 80.7 | 80.2 | 79.7 | 79.1 | 78.6 | 78.1 |
| 46               | 83.0 | 82.5 | 81.9 | 81.4 | 80.9 | 80.4 | 79.9 | 79.4 | 78.9 | 78.4 |
| 47               | 83.2 | 82.7 | 82.2 | 81.7 | 81.2 | 80.7 | 80.2 | 79.7 | 79.2 | 78.7 |
| 48               | 83.4 | 82.9 | 82.4 | 81.9 | 81.4 | 80.9 | 80.4 | 79.9 | 79.4 | 78.9 |
| 49               | 83.6 | 83.1 | 82.6 | 82.1 | 81.6 | 81.1 | 80.6 | 80.1 | 79.6 | 79.2 |
| 50               | 83.8 | 83.3 | 82.8 | 82.3 | 81.8 | 81.3 | 80.8 | 80.4 | 79.9 | 79.4 |
| 51               | 83.9 | 83.5 | 83.0 | 82.5 | 82.0 | 81.5 | 81.1 | 80.6 | 80.1 | 79.6 |
| 52               | 84.1 | 83.6 | 83.2 | 82.7 | 82.2 | 81.7 | 81.3 | 80.8 | 80.3 | 79.9 |
| 53               | 84.3 | 83.8 | 83.3 | 82.9 | 82.4 | 81.9 | 81.5 | 81.0 | 80.5 | 80.1 |
| 54               | 84.5 | 84.0 | 83.5 | 83.1 | 82.6 | 82.1 | 81.7 | 81.2 | 80.7 | 80.3 |
| 55               | 84.6 | 84.2 | 83.7 | 83.2 | 82.8 | 82.3 | 81.9 | 81.4 | 80.9 | 80.5 |
| 56               | 84.8 | 84.3 | 83.9 | 83.4 | 82.9 | 82.5 | 82.0 | 81.6 | 81.1 | 80.7 |
| 57               | 84.9 | 84.5 | 84.0 | 83.6 | 83.1 | 82.7 | 82.2 | 81.8 | 81.3 | 80.9 |

表 2c (续)

| $t-t_w$<br>$t$ | 3.1  | 3.2  | 3.3  | 3.4  | 3.5  | 3.6  | 3.7  | 3.8  | 3.9  | 4.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 85.1 | 84.6 | 84.2 | 83.7 | 83.3 | 82.8 | 82.4 | 81.9 | 81.5 | 81.1 |
| 59             | 85.2 | 84.8 | 84.3 | 83.9 | 83.4 | 83.0 | 82.6 | 82.1 | 81.7 | 81.2 |
| 60             | 85.4 | 84.9 | 84.5 | 84.0 | 83.6 | 83.2 | 82.7 | 82.3 | 81.9 | 81.4 |
| 61             | 85.5 | 85.1 | 84.6 | 84.2 | 83.8 | 83.3 | 82.9 | 82.5 | 82.0 | 81.6 |
| 62             | 85.6 | 85.2 | 84.8 | 84.3 | 83.9 | 83.5 | 83.0 | 82.6 | 82.2 | 81.8 |
| 63             | 85.8 | 85.3 | 84.9 | 84.5 | 84.0 | 83.6 | 83.2 | 82.8 | 82.4 | 81.9 |
| 64             | 85.9 | 85.5 | 85.0 | 84.6 | 84.2 | 83.8 | 83.3 | 82.9 | 82.5 | 82.1 |
| 65             | 86.0 | 85.6 | 85.2 | 84.8 | 84.3 | 83.9 | 83.5 | 83.1 | 82.7 | 82.2 |
| 66             | 86.1 | 85.7 | 85.3 | 84.9 | 84.5 | 84.1 | 83.6 | 83.2 | 82.8 | 82.4 |
| 67             | 86.3 | 85.8 | 85.4 | 85.0 | 84.6 | 84.2 | 83.8 | 83.4 | 83.0 | 82.6 |
| 68             | 86.4 | 86.0 | 85.6 | 85.1 | 84.7 | 84.3 | 83.9 | 83.5 | 83.1 | 82.7 |
| 69             | 86.5 | 86.1 | 85.7 | 85.3 | 84.9 | 84.5 | 84.0 | 83.6 | 83.2 | 82.8 |
| 70             | 86.6 | 86.2 | 85.8 | 85.4 | 85.0 | 84.6 | 84.2 | 83.8 | 83.4 | 83.0 |
| 71             | 86.7 | 86.3 | 85.9 | 85.5 | 85.1 | 84.7 | 84.3 | 83.9 | 83.5 | 83.1 |
| 72             | 86.8 | 86.4 | 86.0 | 85.6 | 85.2 | 84.8 | 84.4 | 84.0 | 83.6 | 83.3 |
| 73             | 86.9 | 86.5 | 86.1 | 85.7 | 85.3 | 84.9 | 84.6 | 84.2 | 83.8 | 83.4 |
| 74             | 87.0 | 86.6 | 86.2 | 85.8 | 85.5 | 85.1 | 84.7 | 84.3 | 83.9 | 83.5 |
| 75             | 87.1 | 86.7 | 86.3 | 86.0 | 85.6 | 85.2 | 84.8 | 84.4 | 84.0 | 83.6 |
| 76             | 87.2 | 86.8 | 86.5 | 86.1 | 85.7 | 85.3 | 84.9 | 84.5 | 84.2 | 83.8 |
| 77             | 87.3 | 86.9 | 86.6 | 86.2 | 85.8 | 85.4 | 85.0 | 84.6 | 84.3 | 83.9 |
| 78             | 87.4 | 87.0 | 86.7 | 86.3 | 85.9 | 85.5 | 85.1 | 84.8 | 84.4 | 84.0 |
| 79             | 87.5 | 87.1 | 86.8 | 86.4 | 86.0 | 85.6 | 85.3 | 84.9 | 84.5 | 84.1 |
| 80             | 87.6 | 87.2 | 86.9 | 86.5 | 86.1 | 85.7 | 85.4 | 85.0 | 84.6 | 84.3 |
| 81             | 87.7 | 87.3 | 87.0 | 86.6 | 86.2 | 85.8 | 85.5 | 85.1 | 84.7 | 84.4 |
| 82             | 87.8 | 87.4 | 87.0 | 86.7 | 86.3 | 85.9 | 85.6 | 85.2 | 84.8 | 84.5 |
| 83             | 87.9 | 87.5 | 87.1 | 86.8 | 86.4 | 86.0 | 85.7 | 85.3 | 85.0 | 84.6 |
| 84             | 88.0 | 87.6 | 87.2 | 86.9 | 86.5 | 86.1 | 85.8 | 85.4 | 85.1 | 84.7 |
| 85             | 88.1 | 87.7 | 87.3 | 87.0 | 86.6 | 86.2 | 85.9 | 85.5 | 85.2 | 84.8 |
| 86             | 88.1 | 87.8 | 87.4 | 87.1 | 86.7 | 86.3 | 86.0 | 85.6 | 85.3 | 84.9 |
| 87             | 88.2 | 87.9 | 87.5 | 87.1 | 86.8 | 86.4 | 86.1 | 85.7 | 85.4 | 85.0 |
| 88             | 88.3 | 87.9 | 87.6 | 87.2 | 86.9 | 86.5 | 86.2 | 85.8 | 85.5 | 85.1 |
| 89             | 88.4 | 88.0 | 87.7 | 87.3 | 87.0 | 86.6 | 86.3 | 85.9 | 85.6 | 85.2 |
| 90             | 88.5 | 88.1 | 87.8 | 87.4 | 87.1 | 86.7 | 86.4 | 86.0 | 85.7 | 85.3 |
| 91             | 88.5 | 88.2 | 87.8 | 87.5 | 87.1 | 86.8 | 86.5 | 86.1 | 85.8 | 85.4 |
| 92             | 88.6 | 88.3 | 87.9 | 87.6 | 87.2 | 86.9 | 86.5 | 86.2 | 85.9 | 85.5 |
| 93             | 88.7 | 88.4 | 88.0 | 87.7 | 87.3 | 87.0 | 86.6 | 86.3 | 86.0 | 85.6 |
| 94             | 88.8 | 88.4 | 88.1 | 87.7 | 87.4 | 87.1 | 86.7 | 86.4 | 86.0 | 85.7 |
| 95             | 88.8 | 88.5 | 88.2 | 87.8 | 87.5 | 87.1 | 86.8 | 86.5 | 86.1 | 85.8 |
| 96             | 88.9 | 88.6 | 88.2 | 87.9 | 87.6 | 87.2 | 86.9 | 86.6 | 86.2 | 85.9 |
| 97             | 89.0 | 88.7 | 88.3 | 88.0 | 87.6 | 87.3 | 87.0 | 86.6 | 86.3 | 86.0 |
| 98             | 89.1 | 88.7 | 88.4 | 88.1 | 87.7 | 87.4 | 87.1 | 86.7 | 86.4 | 86.1 |
| 99             | 89.1 | 88.8 | 88.5 | 88.1 | 87.8 | 87.5 | 87.1 | 86.8 | 86.5 | 86.2 |
| 100            | 89.2 | 88.9 | 88.5 | 88.2 | 87.9 | 87.6 | 87.2 | 86.9 | 86.6 | 86.3 |





表 2c (续)

| $t - t_w$<br>$t$ | 5.2  | 5.4  | 5.6  | 5.8  | 6.0  | 6.2  | 6.4  | 6.6  | 6.8  | 7.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               | 48.8 | 47.0 | 45.2 | 43.5 | 41.7 | 39.9 | 38.2 | 36.4 | 34.7 | 33.0 |
| 16               | 50.4 | 48.7 | 46.9 | 45.2 | 43.5 | 41.8 | 40.1 | 38.4 | 36.7 | 35.1 |
| 17               | 51.9 | 50.2 | 48.5 | 46.8 | 45.2 | 43.5 | 41.9 | 40.3 | 38.6 | 37.0 |
| 18               | 53.3 | 51.6 | 50.0 | 48.4 | 46.8 | 45.2 | 43.6 | 42.0 | 40.4 | 38.9 |
| 19               | 54.6 | 53.0 | 51.4 | 49.8 | 48.3 | 46.7 | 45.2 | 43.6 | 42.1 | 40.6 |
| 20               | 55.8 | 54.2 | 52.7 | 51.2 | 49.7 | 48.2 | 46.7 | 45.2 | 43.7 | 42.2 |
| 21               | 56.9 | 55.4 | 53.9 | 52.5 | 51.0 | 49.5 | 48.1 | 46.6 | 45.2 | 43.8 |
| 22               | 58.0 | 56.6 | 55.1 | 53.7 | 52.2 | 50.8 | 49.4 | 48.0 | 46.6 | 45.2 |
| 23               | 59.0 | 57.6 | 56.2 | 54.8 | 53.4 | 52.0 | 50.6 | 49.3 | 47.9 | 46.6 |
| 24               | 60.0 | 58.6 | 57.2 | 55.9 | 54.5 | 53.2 | 51.8 | 50.5 | 49.1 | 47.8 |
| 25               | 60.9 | 59.6 | 58.2 | 56.9 | 55.6 | 54.2 | 52.9 | 51.6 | 50.3 | 49.0 |
| 26               | 61.8 | 60.5 | 59.2 | 57.8 | 56.5 | 55.3 | 54.0 | 52.7 | 51.4 | 50.2 |
| 27               | 62.6 | 61.3 | 60.0 | 58.7 | 57.5 | 56.2 | 55.0 | 53.7 | 52.5 | 51.3 |
| 28               | 63.4 | 62.1 | 60.9 | 59.6 | 58.4 | 57.1 | 55.9 | 54.7 | 53.5 | 52.3 |
| 29               | 64.1 | 62.9 | 61.7 | 60.4 | 59.2 | 58.0 | 56.8 | 55.6 | 54.4 | 53.3 |
| 30               | 64.8 | 63.6 | 62.4 | 61.2 | 60.0 | 58.8 | 57.6 | 56.5 | 55.3 | 54.2 |
| 31               | 65.5 | 64.3 | 63.1 | 61.9 | 60.8 | 59.6 | 58.5 | 57.3 | 56.2 | 55.1 |
| 32               | 66.1 | 65.0 | 63.8 | 62.6 | 61.5 | 60.4 | 59.2 | 58.1 | 57.0 | 55.9 |
| 33               | 66.7 | 65.6 | 64.4 | 63.3 | 62.2 | 61.1 | 59.9 | 58.8 | 57.8 | 56.7 |
| 34               | 67.3 | 66.2 | 65.1 | 63.9 | 62.8 | 61.7 | 60.6 | 59.6 | 58.5 | 57.4 |
| 35               | 67.9 | 66.7 | 65.6 | 64.5 | 63.5 | 62.4 | 61.3 | 60.2 | 59.2 | 58.1 |
| 36               | 68.4 | 67.3 | 66.2 | 65.1 | 64.1 | 63.0 | 61.9 | 60.9 | 59.9 | 58.8 |
| 37               | 68.9 | 67.8 | 66.7 | 65.7 | 64.6 | 63.6 | 62.5 | 61.5 | 60.5 | 59.5 |
| 38               | 69.4 | 68.3 | 67.2 | 66.2 | 65.2 | 64.1 | 63.1 | 62.1 | 61.1 | 60.1 |
| 39               | 69.8 | 68.8 | 67.7 | 66.7 | 65.7 | 64.7 | 63.7 | 62.7 | 61.7 | 60.7 |
| 40               | 70.3 | 69.2 | 68.2 | 67.2 | 66.2 | 65.2 | 64.2 | 63.2 | 62.2 | 61.3 |
| 41               | 70.7 | 69.7 | 68.7 | 67.7 | 66.7 | 65.7 | 64.7 | 63.7 | 62.8 | 61.8 |
| 42               | 71.1 | 70.1 | 69.1 | 68.1 | 67.1 | 66.2 | 65.2 | 64.2 | 63.3 | 62.4 |
| 43               | 71.5 | 70.5 | 69.5 | 68.5 | 67.6 | 66.6 | 65.7 | 64.7 | 63.8 | 62.9 |
| 44               | 71.8 | 70.9 | 69.9 | 68.9 | 68.0 | 67.0 | 66.1 | 65.2 | 64.3 | 63.3 |
| 45               | 72.2 | 71.2 | 70.3 | 69.3 | 68.4 | 67.5 | 66.5 | 65.6 | 64.7 | 63.8 |
| 46               | 72.5 | 71.6 | 70.7 | 69.7 | 68.8 | 67.9 | 67.0 | 66.1 | 65.2 | 64.3 |
| 47               | 72.9 | 71.9 | 71.0 | 70.1 | 69.2 | 68.3 | 67.4 | 66.5 | 65.6 | 64.7 |
| 48               | 73.2 | 72.3 | 71.4 | 70.4 | 69.5 | 68.6 | 67.7 | 66.9 | 66.0 | 65.1 |
| 49               | 73.5 | 72.6 | 71.7 | 70.8 | 69.9 | 69.0 | 68.1 | 67.2 | 66.4 | 65.5 |
| 50               | 73.8 | 72.9 | 72.0 | 71.1 | 70.2 | 69.4 | 68.5 | 67.6 | 66.8 | 65.9 |
| 51               | 74.1 | 73.2 | 72.3 | 71.4 | 70.6 | 69.7 | 68.8 | 68.0 | 67.1 | 66.3 |
| 52               | 74.4 | 73.5 | 72.6 | 71.7 | 70.9 | 70.0 | 69.2 | 68.3 | 67.5 | 66.6 |
| 53               | 74.7 | 73.8 | 72.9 | 72.1 | 71.2 | 70.3 | 69.5 | 68.7 | 67.8 | 67.0 |
| 54               | 74.9 | 74.1 | 73.2 | 72.3 | 71.5 | 70.6 | 69.8 | 69.0 | 68.2 | 67.3 |
| 55               | 75.2 | 74.3 | 73.5 | 72.6 | 71.8 | 70.9 | 70.1 | 69.3 | 68.5 | 67.7 |
| 56               | 75.4 | 74.6 | 73.7 | 72.9 | 72.1 | 71.2 | 70.4 | 69.6 | 68.8 | 68.0 |
| 57               | 75.7 | 74.8 | 74.0 | 73.2 | 72.3 | 71.5 | 70.7 | 69.9 | 69.1 | 68.3 |

表 2c (续)

| $t \backslash t - t_w$ | 5.2  | 5.4  | 5.6  | 5.8  | 6.0  | 6.2  | 6.4  | 6.6  | 6.8  | 7.0  |
|------------------------|------|------|------|------|------|------|------|------|------|------|
| 58                     | 75.9 | 75.1 | 74.2 | 73.4 | 72.6 | 71.8 | 71.0 | 70.2 | 69.4 | 68.6 |
| 59                     | 76.1 | 75.3 | 74.5 | 73.7 | 72.9 | 72.1 | 71.3 | 70.5 | 69.7 | 68.9 |
| 60                     | 76.4 | 75.5 | 74.7 | 73.9 | 73.1 | 72.3 | 71.5 | 70.7 | 70.0 | 69.2 |
| 61                     | 76.6 | 75.8 | 75.0 | 74.2 | 73.4 | 72.6 | 71.8 | 71.0 | 70.2 | 69.5 |
| 62                     | 76.8 | 76.0 | 75.2 | 74.4 | 73.6 | 72.8 | 72.0 | 71.3 | 70.5 | 69.7 |
| 63                     | 77.0 | 76.2 | 75.4 | 74.6 | 73.8 | 73.1 | 72.3 | 71.5 | 70.8 | 70.0 |
| 64                     | 77.2 | 76.4 | 75.6 | 74.8 | 74.1 | 73.3 | 72.5 | 71.8 | 71.0 | 70.3 |
| 65                     | 77.4 | 76.6 | 75.8 | 75.1 | 74.3 | 73.5 | 72.8 | 72.0 | 71.3 | 70.5 |
| 66                     | 77.6 | 76.8 | 76.0 | 75.3 | 74.5 | 73.8 | 73.0 | 72.3 | 71.5 | 70.8 |
| 67                     | 77.8 | 77.0 | 76.2 | 75.5 | 74.7 | 74.0 | 73.2 | 72.5 | 71.7 | 71.0 |
| 68                     | 78.0 | 77.2 | 76.4 | 75.7 | 74.9 | 74.2 | 73.4 | 72.7 | 72.0 | 71.3 |
| 69                     | 78.2 | 77.4 | 76.6 | 75.9 | 75.1 | 74.4 | 73.7 | 72.9 | 72.2 | 71.5 |
| 70                     | 78.3 | 77.6 | 76.8 | 76.1 | 75.3 | 74.6 | 73.9 | 73.1 | 72.4 | 71.7 |
| 71                     | 78.5 | 77.8 | 77.0 | 76.3 | 75.5 | 74.8 | 74.1 | 73.4 | 72.6 | 71.9 |
| 72                     | 78.7 | 77.9 | 77.2 | 76.5 | 75.7 | 75.0 | 74.3 | 73.6 | 72.9 | 72.1 |
| 73                     | 78.8 | 78.1 | 77.4 | 76.6 | 75.9 | 75.2 | 74.5 | 73.8 | 73.1 | 72.4 |
| 74                     | 79.0 | 78.3 | 77.5 | 76.8 | 76.1 | 75.4 | 74.7 | 74.0 | 73.3 | 72.6 |
| 75                     | 79.2 | 78.4 | 77.7 | 77.0 | 76.3 | 75.6 | 74.9 | 74.2 | 73.5 | 72.8 |
| 76                     | 79.3 | 78.6 | 77.9 | 77.2 | 76.5 | 75.7 | 75.0 | 74.4 | 73.7 | 73.0 |
| 77                     | 79.5 | 78.8 | 78.0 | 77.3 | 76.6 | 75.9 | 75.2 | 74.5 | 73.9 | 73.2 |
| 78                     | 79.6 | 78.9 | 78.2 | 77.5 | 76.8 | 76.1 | 75.4 | 74.7 | 74.0 | 73.4 |
| 79                     | 79.8 | 79.1 | 78.4 | 77.7 | 77.0 | 76.3 | 75.6 | 74.9 | 74.2 | 73.6 |
| 80                     | 79.9 | 79.2 | 78.5 | 77.8 | 77.1 | 76.4 | 75.8 | 75.1 | 74.4 | 73.7 |
| 81                     | 80.1 | 79.4 | 78.7 | 78.0 | 77.3 | 76.6 | 75.9 | 75.3 | 74.6 | 73.9 |
| 82                     | 80.2 | 79.5 | 78.8 | 78.1 | 77.5 | 76.8 | 76.1 | 75.4 | 74.8 | 74.1 |
| 83                     | 80.3 | 79.7 | 79.0 | 78.3 | 77.6 | 76.9 | 76.3 | 75.6 | 74.9 | 74.3 |
| 84                     | 80.5 | 79.8 | 79.1 | 78.4 | 77.8 | 77.1 | 76.4 | 75.8 | 75.1 | 74.5 |
| 85                     | 80.6 | 79.9 | 79.3 | 78.6 | 77.9 | 77.3 | 76.6 | 75.9 | 75.3 | 74.6 |
| 86                     | 80.8 | 80.1 | 79.4 | 78.7 | 78.1 | 77.4 | 76.8 | 76.1 | 75.5 | 74.8 |
| 87                     | 80.9 | 80.2 | 79.5 | 78.9 | 78.2 | 77.6 | 76.9 | 76.3 | 75.6 | 75.0 |
| 88                     | 81.0 | 80.3 | 79.7 | 79.0 | 78.4 | 77.7 | 77.1 | 76.4 | 75.8 | 75.1 |
| 89                     | 81.1 | 80.5 | 79.8 | 79.2 | 78.5 | 77.9 | 77.2 | 76.6 | 75.9 | 75.3 |
| 90                     | 81.3 | 80.6 | 79.9 | 79.3 | 78.6 | 78.0 | 77.4 | 76.7 | 76.1 | 75.5 |
| 91                     | 81.4 | 80.7 | 80.1 | 79.4 | 78.8 | 78.1 | 77.5 | 76.9 | 76.2 | 75.6 |
| 92                     | 81.5 | 80.9 | 80.2 | 79.6 | 78.9 | 78.3 | 77.7 | 77.0 | 76.4 | 75.8 |
| 93                     | 81.6 | 81.0 | 80.3 | 79.7 | 79.1 | 78.4 | 77.8 | 77.2 | 76.6 | 75.9 |
| 94                     | 81.8 | 81.1 | 80.5 | 79.8 | 79.2 | 78.6 | 77.9 | 77.3 | 76.7 | 76.1 |
| 95                     | 81.9 | 81.2 | 80.6 | 80.0 | 79.3 | 78.7 | 78.1 | 77.5 | 76.8 | 76.2 |
| 96                     | 82.0 | 81.3 | 80.7 | 80.1 | 79.5 | 78.8 | 78.2 | 77.6 | 77.0 | 76.4 |
| 97                     | 82.1 | 81.5 | 80.8 | 80.2 | 79.6 | 79.0 | 78.4 | 77.7 | 77.1 | 76.5 |
| 98                     | 82.2 | 81.6 | 81.0 | 80.3 | 79.7 | 79.1 | 78.5 | 77.9 | 77.3 | 76.7 |
| 99                     | 82.3 | 81.7 | 81.1 | 80.5 | 79.8 | 79.2 | 78.6 | 78.0 | 77.4 | 76.8 |
| 100                    | 82.4 | 81.8 | 81.2 | 80.6 | 80.0 | 79.4 | 78.8 | 78.2 | 77.6 | 77.0 |

表 2c (续)

| $t \backslash t - t_w$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|------------------------|------|------|------|------|------|------|------|------|------|------|
| 15                     | 31.3 | 29.6 | 27.9 | 26.2 | 24.6 | 22.9 | 21.3 | 19.6 | 18.0 | 16.4 |
| 16                     | 33.4 | 31.8 | 30.2 | 28.5 | 26.9 | 25.3 | 23.7 | 22.2 | 20.6 | 19.0 |
| 17                     | 35.4 | 33.9 | 32.3 | 30.7 | 29.2 | 27.6 | 26.1 | 24.5 | 23.0 | 21.5 |
| 18                     | 37.3 | 35.8 | 34.3 | 32.8 | 31.2 | 29.7 | 28.3 | 26.8 | 25.3 | 23.8 |
| 19                     | 39.1 | 37.6 | 36.1 | 34.7 | 33.2 | 31.8 | 30.3 | 28.9 | 27.4 | 26.0 |
| 20                     | 40.8 | 39.3 | 37.9 | 36.5 | 35.0 | 33.6 | 32.2 | 30.8 | 29.5 | 28.1 |
| 21                     | 42.3 | 40.9 | 39.5 | 38.2 | 36.8 | 35.4 | 34.0 | 32.7 | 31.4 | 30.0 |
| 22                     | 43.8 | 42.5 | 41.1 | 39.7 | 38.4 | 37.1 | 35.8 | 34.4 | 33.1 | 31.8 |
| 23                     | 45.2 | 43.9 | 42.6 | 41.2 | 39.9 | 38.6 | 37.4 | 36.1 | 34.8 | 33.5 |
| 24                     | 46.5 | 45.2 | 43.9 | 42.7 | 41.4 | 40.1 | 38.9 | 37.6 | 36.4 | 35.2 |
| 25                     | 47.8 | 46.5 | 45.2 | 44.0 | 42.8 | 41.5 | 40.3 | 39.1 | 37.9 | 36.7 |
| 26                     | 48.9 | 47.7 | 46.5 | 45.3 | 44.0 | 42.8 | 41.7 | 40.5 | 39.3 | 38.1 |
| 27                     | 50.0 | 48.8 | 47.6 | 46.5 | 45.3 | 44.1 | 42.9 | 41.8 | 40.6 | 39.5 |
| 28                     | 51.1 | 49.9 | 48.7 | 47.6 | 46.4 | 45.3 | 44.1 | 43.0 | 41.9 | 40.8 |
| 29                     | 52.1 | 50.9 | 49.8 | 48.7 | 47.5 | 46.4 | 45.3 | 44.2 | 43.1 | 42.0 |
| 30                     | 53.0 | 51.9 | 50.8 | 49.7 | 48.6 | 47.5 | 46.4 | 45.3 | 44.2 | 43.1 |
| 31                     | 53.9 | 52.8 | 51.7 | 50.6 | 49.5 | 48.5 | 47.4 | 46.3 | 45.3 | 44.2 |
| 32                     | 54.8 | 53.7 | 52.6 | 51.5 | 50.5 | 49.4 | 48.4 | 47.3 | 46.3 | 45.3 |
| 33                     | 55.6 | 54.5 | 53.5 | 52.4 | 51.4 | 50.3 | 49.3 | 48.3 | 47.3 | 46.3 |
| 34                     | 56.4 | 55.3 | 54.3 | 53.2 | 52.2 | 51.2 | 50.2 | 49.2 | 48.2 | 47.2 |
| 35                     | 57.1 | 56.1 | 55.1 | 54.0 | 53.0 | 52.0 | 51.0 | 50.1 | 49.1 | 48.1 |
| 36                     | 57.8 | 56.8 | 55.8 | 54.8 | 53.8 | 52.8 | 51.8 | 50.9 | 49.9 | 49.0 |
| 37                     | 58.5 | 57.5 | 56.5 | 55.5 | 54.5 | 53.6 | 52.6 | 51.7 | 50.7 | 49.8 |
| 38                     | 59.1 | 58.1 | 57.2 | 56.2 | 55.2 | 54.3 | 53.3 | 52.4 | 51.5 | 50.6 |
| 39                     | 59.7 | 58.8 | 57.8 | 56.9 | 55.9 | 55.0 | 54.0 | 53.1 | 52.2 | 51.3 |
| 40                     | 60.3 | 59.4 | 58.4 | 57.5 | 56.6 | 55.6 | 54.7 | 53.8 | 52.9 | 52.0 |
| 41                     | 60.9 | 59.9 | 59.0 | 58.1 | 57.2 | 56.3 | 55.4 | 54.5 | 53.6 | 52.7 |
| 42                     | 61.4 | 60.5 | 59.6 | 58.7 | 57.8 | 56.9 | 56.0 | 55.1 | 54.2 | 53.3 |
| 43                     | 61.9 | 61.0 | 60.1 | 59.2 | 58.3 | 57.4 | 56.6 | 55.7 | 54.8 | 54.0 |
| 44                     | 62.4 | 61.5 | 60.6 | 59.8 | 58.9 | 58.0 | 57.1 | 56.3 | 55.4 | 54.6 |
| 45                     | 62.9 | 62.0 | 61.1 | 60.3 | 59.4 | 58.5 | 57.7 | 56.8 | 56.0 | 55.2 |
| 46                     | 63.4 | 62.5 | 61.6 | 60.8 | 59.9 | 59.1 | 58.2 | 57.4 | 56.5 | 55.7 |
| 47                     | 63.8 | 63.0 | 62.1 | 61.2 | 60.4 | 59.5 | 58.7 | 57.9 | 57.1 | 56.2 |
| 48                     | 64.2 | 63.4 | 62.5 | 61.7 | 60.9 | 60.0 | 59.2 | 58.4 | 57.6 | 56.8 |
| 49                     | 64.7 | 63.8 | 63.0 | 62.1 | 61.3 | 60.5 | 59.7 | 58.9 | 58.1 | 57.3 |
| 50                     | 65.1 | 64.2 | 63.4 | 62.6 | 61.7 | 60.9 | 60.1 | 59.3 | 58.5 | 57.7 |
| 51                     | 65.4 | 64.6 | 63.8 | 63.0 | 62.2 | 61.4 | 60.6 | 59.8 | 59.0 | 58.2 |
| 52                     | 65.8 | 65.0 | 64.2 | 63.4 | 62.6 | 61.8 | 61.0 | 60.2 | 59.4 | 58.7 |
| 53                     | 66.2 | 65.4 | 64.6 | 63.8 | 63.0 | 62.2 | 61.4 | 60.6 | 59.8 | 59.1 |
| 54                     | 66.5 | 65.7 | 64.9 | 64.1 | 63.3 | 62.6 | 61.8 | 61.0 | 60.3 | 59.5 |
| 55                     | 66.9 | 66.1 | 65.3 | 64.5 | 63.7 | 62.9 | 62.2 | 61.4 | 60.7 | 59.9 |
| 56                     | 67.2 | 66.4 | 65.6 | 64.8 | 64.1 | 63.3 | 62.6 | 61.8 | 61.0 | 60.3 |
| 57                     | 67.5 | 66.7 | 66.0 | 65.2 | 64.4 | 63.7 | 62.9 | 62.2 | 61.4 | 60.7 |

表 2c (续)

| $t-t_w$<br>$t$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 67.8 | 67.1 | 66.3 | 65.5 | 64.8 | 64.0 | 63.3 | 62.5 | 61.8 | 61.1 |
| 59             | 68.1 | 67.4 | 66.6 | 65.8 | 65.1 | 64.3 | 63.6 | 62.9 | 62.1 | 61.4 |
| 60             | 68.4 | 67.7 | 66.9 | 66.2 | 65.4 | 64.7 | 63.9 | 63.2 | 62.5 | 61.8 |
| 61             | 68.7 | 68.0 | 67.2 | 66.5 | 65.7 | 65.0 | 64.3 | 63.5 | 62.8 | 62.1 |
| 62             | 69.0 | 68.2 | 67.5 | 66.8 | 66.0 | 65.3 | 64.6 | 63.9 | 63.2 | 62.5 |
| 63             | 69.3 | 68.5 | 67.8 | 67.1 | 66.3 | 65.6 | 64.9 | 64.2 | 63.5 | 62.8 |
| 64             | 69.5 | 68.8 | 68.1 | 67.3 | 66.6 | 65.9 | 65.2 | 64.5 | 63.8 | 63.1 |
| 65             | 69.8 | 69.1 | 68.3 | 67.6 | 66.9 | 66.2 | 65.5 | 64.8 | 64.1 | 63.4 |
| 66             | 70.0 | 69.3 | 68.6 | 67.9 | 67.2 | 66.5 | 65.8 | 65.1 | 64.4 | 63.7 |
| 67             | 70.3 | 69.6 | 68.9 | 68.1 | 67.4 | 66.7 | 66.0 | 65.4 | 64.7 | 64.0 |
| 68             | 70.5 | 69.8 | 69.1 | 68.4 | 67.7 | 67.0 | 66.3 | 65.6 | 65.0 | 64.3 |
| 69             | 70.8 | 70.1 | 69.4 | 68.7 | 68.0 | 67.3 | 66.6 | 65.9 | 65.2 | 64.6 |
| 70             | 71.0 | 70.3 | 69.6 | 68.9 | 68.2 | 67.5 | 66.9 | 66.2 | 65.5 | 64.8 |
| 71             | 71.2 | 70.5 | 69.8 | 69.1 | 68.5 | 67.8 | 67.1 | 66.4 | 65.8 | 65.1 |
| 72             | 71.5 | 70.8 | 70.1 | 69.4 | 68.7 | 68.0 | 67.4 | 66.7 | 66.0 | 65.4 |
| 73             | 71.7 | 71.0 | 70.3 | 69.6 | 68.9 | 68.3 | 67.6 | 66.9 | 66.3 | 65.6 |
| 74             | 71.9 | 71.2 | 70.5 | 69.8 | 69.2 | 68.5 | 67.8 | 67.2 | 66.5 | 65.9 |
| 75             | 72.1 | 71.4 | 70.7 | 70.1 | 69.4 | 68.7 | 68.1 | 67.4 | 66.8 | 66.1 |
| 76             | 72.3 | 71.6 | 71.0 | 70.3 | 69.6 | 69.0 | 68.3 | 67.7 | 67.0 | 66.4 |
| 77             | 72.5 | 71.8 | 71.2 | 70.5 | 69.8 | 69.2 | 68.5 | 67.9 | 67.3 | 66.6 |
| 78             | 72.7 | 72.0 | 71.4 | 70.7 | 70.1 | 69.4 | 68.8 | 68.1 | 67.5 | 66.9 |
| 79             | 72.9 | 72.2 | 71.6 | 70.9 | 70.3 | 69.6 | 69.0 | 68.3 | 67.7 | 67.1 |
| 80             | 73.1 | 72.4 | 71.8 | 71.1 | 70.5 | 69.8 | 69.2 | 68.6 | 67.9 | 67.3 |
| 81             | 73.3 | 72.6 | 72.0 | 71.3 | 70.7 | 70.0 | 69.4 | 68.8 | 68.2 | 67.5 |
| 82             | 73.5 | 72.8 | 72.2 | 71.5 | 70.9 | 70.3 | 69.6 | 69.0 | 68.4 | 67.8 |
| 83             | 73.6 | 73.0 | 72.4 | 71.7 | 71.1 | 70.5 | 69.8 | 69.2 | 68.6 | 68.0 |
| 84             | 73.8 | 73.2 | 72.5 | 71.9 | 71.3 | 70.7 | 70.0 | 69.4 | 68.8 | 68.2 |
| 85             | 74.0 | 73.4 | 72.7 | 72.1 | 71.5 | 70.8 | 70.2 | 69.6 | 69.0 | 68.4 |
| 86             | 74.2 | 73.5 | 72.9 | 72.3 | 71.7 | 71.0 | 70.4 | 69.8 | 69.2 | 68.6 |
| 87             | 74.3 | 73.7 | 73.1 | 72.5 | 71.8 | 71.2 | 70.6 | 70.0 | 69.4 | 68.8 |
| 88             | 74.5 | 73.9 | 73.3 | 72.6 | 72.0 | 71.4 | 70.8 | 70.2 | 69.6 | 69.0 |
| 89             | 74.7 | 74.1 | 73.4 | 72.8 | 72.2 | 71.6 | 71.0 | 70.4 | 69.8 | 69.2 |
| 90             | 74.8 | 74.2 | 73.6 | 73.0 | 72.4 | 71.8 | 71.2 | 70.6 | 70.0 | 69.4 |
| 91             | 75.0 | 74.4 | 73.8 | 73.2 | 72.6 | 72.0 | 71.4 | 70.8 | 70.2 | 69.6 |
| 92             | 75.2 | 74.6 | 73.9 | 73.3 | 72.7 | 72.1 | 71.5 | 71.0 | 70.4 | 69.8 |
| 93             | 75.3 | 74.7 | 74.1 | 73.5 | 72.9 | 72.3 | 71.7 | 71.1 | 70.6 | 70.0 |
| 94             | 75.5 | 74.9 | 74.3 | 73.7 | 73.1 | 72.5 | 71.9 | 71.3 | 70.7 | 70.2 |
| 95             | 75.6 | 75.0 | 74.4 | 73.8 | 73.2 | 72.7 | 72.1 | 71.5 | 70.9 | 70.3 |
| 96             | 75.8 | 75.2 | 74.6 | 74.0 | 73.4 | 72.8 | 72.2 | 71.7 | 71.1 | 70.5 |
| 97             | 75.9 | 75.3 | 74.7 | 74.2 | 73.6 | 73.0 | 72.4 | 71.8 | 71.3 | 70.7 |
| 98             | 76.1 | 75.5 | 74.9 | 74.3 | 73.7 | 73.2 | 72.6 | 72.0 | 71.4 | 70.9 |
| 99             | 76.2 | 75.6 | 75.1 | 74.5 | 73.9 | 73.3 | 72.7 | 72.2 | 71.6 | 71.0 |
| 100            | 76.4 | 75.8 | 75.2 | 74.6 | 74.0 | 73.5 | 72.9 | 72.3 | 71.8 | 71.2 |



表 2c (续)

| $t-t_w$<br>$t$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 60.3 | 59.6 | 58.9 | 58.2 | 57.5 | 56.8 | 56.1 | 55.4 | 54.7 | 54.1 |
| 59             | 60.7 | 60.0 | 59.3 | 58.6 | 57.9 | 57.2 | 56.5 | 55.8 | 55.2 | 54.5 |
| 60             | 61.1 | 60.4 | 59.7 | 59.0 | 58.3 | 57.6 | 56.9 | 56.2 | 55.6 | 54.9 |
| 61             | 61.4 | 60.7 | 60.0 | 59.3 | 58.6 | 58.0 | 57.3 | 56.6 | 56.0 | 55.3 |
| 62             | 61.8 | 61.1 | 60.4 | 59.7 | 59.0 | 58.3 | 57.7 | 57.0 | 56.3 | 55.7 |
| 63             | 62.1 | 61.4 | 60.7 | 60.0 | 59.4 | 58.7 | 58.0 | 57.4 | 56.7 | 56.1 |
| 64             | 62.4 | 61.7 | 61.0 | 60.4 | 59.7 | 59.0 | 58.4 | 57.7 | 57.1 | 56.4 |
| 65             | 62.7 | 62.0 | 61.4 | 60.7 | 60.0 | 59.4 | 58.7 | 58.1 | 57.4 | 56.8 |
| 66             | 63.0 | 62.4 | 61.7 | 61.0 | 60.4 | 59.7 | 59.1 | 58.4 | 57.8 | 57.1 |
| 67             | 63.3 | 62.7 | 62.0 | 61.3 | 60.7 | 60.0 | 59.4 | 58.7 | 58.1 | 57.5 |
| 68             | 63.6 | 63.0 | 62.3 | 61.6 | 61.0 | 60.3 | 59.7 | 59.1 | 58.4 | 57.8 |
| 69             | 63.9 | 63.2 | 62.6 | 61.9 | 61.3 | 60.7 | 60.0 | 59.4 | 58.8 | 58.1 |
| 70             | 64.2 | 63.5 | 62.9 | 62.2 | 61.6 | 61.0 | 60.3 | 59.7 | 59.1 | 58.5 |
| 71             | 64.5 | 63.8 | 63.2 | 62.5 | 61.9 | 61.3 | 60.6 | 60.0 | 59.4 | 58.8 |
| 72             | 64.7 | 64.1 | 63.4 | 62.8 | 62.2 | 61.5 | 60.9 | 60.3 | 59.7 | 59.1 |
| 73             | 65.0 | 64.3 | 63.7 | 63.1 | 62.4 | 61.8 | 61.2 | 60.6 | 60.0 | 59.4 |
| 74             | 65.2 | 64.6 | 64.0 | 63.3 | 62.7 | 62.1 | 61.5 | 60.9 | 60.3 | 59.7 |
| 75             | 65.5 | 64.9 | 64.2 | 63.6 | 63.0 | 62.4 | 61.8 | 61.2 | 60.6 | 60.0 |
| 76             | 65.7 | 65.1 | 64.5 | 63.9 | 63.3 | 62.6 | 62.0 | 61.4 | 60.8 | 60.2 |
| 77             | 66.0 | 65.4 | 64.7 | 64.1 | 63.5 | 62.9 | 62.3 | 61.7 | 61.1 | 60.5 |
| 78             | 66.2 | 65.6 | 65.0 | 64.4 | 63.8 | 63.2 | 62.6 | 62.0 | 61.4 | 60.8 |
| 79             | 66.5 | 65.8 | 65.2 | 64.6 | 64.0 | 63.4 | 62.8 | 62.2 | 61.6 | 61.1 |
| 80             | 66.7 | 66.1 | 65.5 | 64.9 | 64.3 | 63.7 | 63.1 | 62.5 | 61.9 | 61.3 |
| 81             | 66.9 | 66.3 | 65.7 | 65.1 | 64.5 | 63.9 | 63.3 | 62.7 | 62.2 | 61.6 |
| 82             | 67.2 | 66.5 | 65.9 | 65.3 | 64.7 | 64.2 | 63.6 | 63.0 | 62.4 | 61.8 |
| 83             | 67.4 | 66.8 | 66.2 | 65.6 | 65.0 | 64.4 | 63.8 | 63.2 | 62.7 | 62.1 |
| 84             | 67.6 | 67.0 | 66.4 | 65.8 | 65.2 | 64.6 | 64.0 | 63.5 | 62.9 | 62.3 |
| 85             | 67.8 | 67.2 | 66.6 | 66.0 | 65.4 | 64.9 | 64.3 | 63.7 | 63.1 | 62.6 |
| 86             | 68.0 | 67.4 | 66.8 | 66.2 | 65.7 | 65.1 | 64.5 | 63.9 | 63.4 | 62.8 |
| 87             | 68.2 | 67.6 | 67.0 | 66.5 | 65.9 | 65.3 | 64.7 | 64.2 | 63.6 | 63.0 |
| 88             | 68.4 | 67.8 | 67.2 | 66.7 | 66.1 | 65.5 | 65.0 | 64.4 | 63.8 | 63.3 |
| 89             | 68.6 | 68.0 | 67.5 | 66.9 | 66.3 | 65.7 | 65.2 | 64.6 | 64.1 | 63.5 |
| 90             | 68.8 | 68.2 | 67.7 | 67.1 | 66.5 | 66.0 | 65.4 | 64.8 | 64.3 | 63.7 |
| 91             | 69.0 | 68.4 | 67.9 | 67.3 | 66.7 | 66.2 | 65.6 | 65.0 | 64.5 | 63.9 |
| 92             | 69.2 | 68.6 | 68.1 | 67.5 | 66.9 | 66.4 | 65.8 | 65.3 | 64.7 | 64.2 |
| 93             | 69.4 | 68.8 | 68.3 | 67.7 | 67.1 | 66.6 | 66.0 | 65.5 | 64.9 | 64.4 |
| 94             | 69.6 | 69.0 | 68.5 | 67.9 | 67.3 | 66.8 | 66.2 | 65.7 | 65.1 | 64.6 |
| 95             | 69.8 | 69.2 | 68.6 | 68.1 | 67.5 | 67.0 | 66.4 | 65.9 | 65.3 | 64.8 |
| 96             | 70.0 | 69.4 | 68.8 | 68.3 | 67.7 | 67.2 | 66.6 | 66.1 | 65.5 | 65.0 |
| 97             | 70.1 | 69.6 | 69.0 | 68.5 | 67.9 | 67.4 | 66.8 | 66.3 | 65.8 | 65.2 |
| 98             | 70.3 | 69.8 | 69.2 | 68.7 | 68.1 | 67.6 | 67.0 | 66.5 | 66.0 | 65.4 |
| 99             | 70.5 | 69.9 | 69.4 | 68.8 | 68.3 | 67.8 | 67.2 | 66.7 | 66.1 | 65.6 |
| 100            | 70.7 | 70.1 | 69.6 | 69.0 | 68.5 | 67.9 | 67.4 | 66.9 | 66.3 | 65.8 |







表 3a<sub>1</sub> (续)

| $t-t_w$<br>$t$ | 0.0   | 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|----------------|-------|------|------|------|------|------|------|------|------|------|------|
| 58             | 100.0 | 99.5 | 99.0 | 98.5 | 97.9 | 97.4 | 96.9 | 96.4 | 95.9 | 95.4 | 94.9 |
| 59             | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.5 | 96.0 | 95.5 | 95.0 |
| 60             | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.5 | 96.0 | 95.5 | 95.0 |
| 61             | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.5 | 96.1 | 95.6 | 95.1 |
| 62             | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.1 | 96.6 | 96.1 | 95.6 | 95.1 |
| 63             | 100.0 | 99.5 | 99.0 | 98.5 | 98.1 | 97.6 | 97.1 | 96.6 | 96.1 | 95.7 | 95.2 |
| 64             | 100.0 | 99.5 | 99.0 | 98.5 | 98.1 | 97.6 | 97.1 | 96.6 | 96.2 | 95.7 | 95.2 |
| 65             | 100.0 | 99.5 | 99.0 | 98.6 | 98.1 | 97.6 | 97.1 | 96.7 | 96.2 | 95.7 | 95.3 |
| 66             | 100.0 | 99.5 | 99.0 | 98.6 | 98.1 | 97.6 | 97.2 | 96.7 | 96.2 | 95.8 | 95.3 |
| 67             | 100.0 | 99.5 | 99.1 | 98.6 | 98.1 | 97.7 | 97.2 | 96.7 | 96.3 | 95.8 | 95.4 |
| 68             | 100.0 | 99.5 | 99.1 | 98.6 | 98.1 | 97.7 | 97.2 | 96.8 | 96.3 | 95.9 | 95.4 |
| 69             | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.7 | 97.2 | 96.8 | 96.3 | 95.9 | 95.4 |
| 70             | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.7 | 97.3 | 96.8 | 96.4 | 95.9 | 95.5 |
| 71             | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.7 | 97.3 | 96.8 | 96.4 | 96.0 | 95.5 |
| 72             | 100.0 | 99.5 | 99.1 | 98.7 | 98.2 | 97.8 | 97.3 | 96.9 | 96.4 | 96.0 | 95.6 |
| 73             | 100.0 | 99.6 | 99.1 | 98.7 | 98.2 | 97.8 | 97.3 | 96.9 | 96.5 | 96.0 | 95.6 |
| 74             | 100.0 | 99.6 | 99.1 | 98.7 | 98.2 | 97.8 | 97.4 | 96.9 | 96.5 | 96.1 | 95.6 |
| 75             | 100.0 | 99.6 | 99.1 | 98.7 | 98.2 | 97.8 | 97.4 | 97.0 | 96.5 | 96.1 | 95.7 |
| 76             | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.8 | 97.4 | 97.0 | 96.6 | 96.1 | 95.7 |
| 77             | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.9 | 97.4 | 97.0 | 96.6 | 96.2 | 95.7 |
| 78             | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.9 | 97.4 | 97.0 | 96.6 | 96.2 | 95.8 |
| 79             | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.9 | 97.5 | 97.0 | 96.6 | 96.2 | 95.8 |
| 80             | 100.0 | 99.6 | 99.2 | 98.7 | 98.3 | 97.9 | 97.5 | 97.1 | 96.7 | 96.2 | 95.8 |
| 81             | 100.0 | 99.6 | 99.2 | 98.7 | 98.3 | 97.9 | 97.5 | 97.1 | 96.7 | 96.3 | 95.9 |
| 82             | 100.0 | 99.6 | 99.2 | 98.8 | 98.3 | 97.9 | 97.5 | 97.1 | 96.7 | 96.3 | 95.9 |
| 83             | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.5 | 97.1 | 96.7 | 96.3 | 95.9 |
| 84             | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 85             | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 86             | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 87             | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.1 |
| 88             | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.9 | 96.5 | 96.1 |
| 89             | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.7 | 97.3 | 96.9 | 96.5 | 96.1 |
| 90             | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.1 | 97.7 | 97.3 | 96.9 | 96.5 | 96.1 |
| 91             | 100.0 | 99.6 | 99.2 | 98.8 | 98.5 | 98.1 | 97.7 | 97.3 | 96.9 | 96.5 | 96.2 |
| 92             | 100.0 | 99.6 | 99.2 | 98.8 | 98.5 | 98.1 | 97.7 | 97.3 | 96.9 | 96.6 | 96.2 |
| 93             | 100.0 | 99.6 | 99.2 | 98.9 | 98.5 | 98.1 | 97.7 | 97.3 | 97.0 | 96.6 | 96.2 |
| 94             | 100.0 | 99.6 | 99.2 | 98.9 | 98.5 | 98.1 | 97.7 | 97.4 | 97.0 | 96.6 | 96.2 |
| 95             | 100.0 | 99.6 | 99.2 | 98.9 | 98.5 | 98.1 | 97.8 | 97.4 | 97.0 | 96.6 | 96.3 |
| 96             | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.1 | 97.8 | 97.4 | 97.0 | 96.7 | 96.3 |
| 97             | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.1 | 97.8 | 97.4 | 97.1 | 96.7 | 96.3 |
| 98             | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.4 | 97.1 | 96.7 | 96.3 |
| 99             | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.5 | 97.1 | 96.7 | 96.4 |
| 100            | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.5 | 97.1 | 96.8 | 96.4 |

表 3a<sub>1</sub>(续)

| $t-t_w$<br>$t$ | 1.1  | 1.2  | 1.3  | 1.4  | 1.5  | 1.6  | 1.7  | 1.8  | 1.9  | 2.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 87.6 | 86.5 | 85.4 | 84.3 | 83.2 | 82.1 | 81.0 | 79.9 | 78.8 | 77.8 |
| 16             | 88.0 | 86.9 | 85.9 | 84.8 | 83.7 | 82.7 | 81.6 | 80.6 | 79.5 | 78.5 |
| 17             | 88.4 | 87.3 | 86.3 | 85.3 | 84.2 | 83.2 | 82.2 | 81.2 | 80.2 | 79.2 |
| 18             | 88.7 | 87.7 | 86.7 | 85.7 | 84.7 | 83.7 | 82.7 | 81.7 | 80.8 | 79.8 |
| 19             | 89.0 | 88.1 | 87.1 | 86.1 | 85.2 | 84.2 | 83.2 | 82.3 | 81.3 | 80.4 |
| 20             | 89.4 | 88.4 | 87.5 | 86.5 | 85.6 | 84.6 | 83.7 | 82.8 | 81.9 | 80.9 |
| 21             | 89.6 | 88.7 | 87.8 | 86.9 | 86.0 | 85.1 | 84.2 | 83.3 | 82.4 | 81.5 |
| 22             | 89.9 | 89.0 | 88.1 | 87.2 | 86.3 | 85.5 | 84.6 | 83.7 | 82.8 | 81.9 |
| 23             | 90.2 | 89.3 | 88.4 | 87.6 | 86.7 | 85.8 | 85.0 | 84.1 | 83.3 | 82.4 |
| 24             | 90.4 | 89.6 | 88.7 | 87.9 | 87.0 | 86.2 | 85.3 | 84.5 | 83.7 | 82.9 |
| 25             | 90.7 | 89.8 | 89.0 | 88.2 | 87.3 | 86.5 | 85.7 | 84.9 | 84.1 | 83.3 |
| 26             | 90.9 | 90.1 | 89.2 | 88.4 | 87.6 | 86.8 | 86.0 | 85.2 | 84.5 | 83.7 |
| 27             | 91.1 | 90.3 | 89.5 | 88.7 | 87.9 | 87.1 | 86.4 | 85.6 | 84.8 | 84.0 |
| 28             | 91.3 | 90.5 | 89.7 | 89.0 | 88.2 | 87.4 | 86.7 | 85.9 | 85.1 | 84.4 |
| 29             | 91.5 | 90.7 | 89.9 | 89.2 | 88.4 | 87.7 | 86.9 | 86.2 | 85.5 | 84.7 |
| 30             | 91.6 | 90.9 | 90.1 | 89.4 | 88.7 | 87.9 | 87.2 | 86.5 | 85.8 | 85.0 |
| 31             | 91.8 | 91.1 | 90.3 | 89.6 | 88.9 | 88.2 | 87.5 | 86.8 | 86.0 | 85.3 |
| 32             | 92.0 | 91.2 | 90.5 | 89.8 | 89.1 | 88.4 | 87.7 | 87.0 | 86.3 | 85.6 |
| 33             | 92.1 | 91.4 | 90.7 | 90.0 | 89.3 | 88.6 | 87.9 | 87.3 | 86.6 | 85.9 |
| 34             | 92.3 | 91.6 | 90.9 | 90.2 | 89.5 | 88.8 | 88.2 | 87.5 | 86.8 | 86.2 |
| 35             | 92.4 | 91.7 | 91.0 | 90.4 | 89.7 | 89.0 | 88.4 | 87.7 | 87.1 | 86.4 |
| 36             | 92.5 | 91.9 | 91.2 | 90.5 | 89.9 | 89.2 | 88.6 | 87.9 | 87.3 | 86.6 |
| 37             | 92.7 | 92.0 | 91.4 | 90.7 | 90.1 | 89.4 | 88.8 | 88.1 | 87.5 | 86.9 |
| 38             | 92.8 | 92.1 | 91.5 | 90.9 | 90.2 | 89.6 | 89.0 | 88.3 | 87.7 | 87.1 |
| 39             | 92.9 | 92.3 | 91.6 | 91.0 | 90.4 | 89.8 | 89.1 | 88.5 | 87.9 | 87.3 |
| 40             | 93.0 | 92.4 | 91.8 | 91.1 | 90.5 | 89.9 | 89.3 | 88.7 | 88.1 | 87.5 |
| 41             | 93.1 | 92.5 | 91.9 | 91.3 | 90.7 | 90.1 | 89.5 | 88.9 | 88.3 | 87.7 |
| 42             | 93.2 | 92.6 | 92.0 | 91.4 | 90.8 | 90.2 | 89.6 | 89.0 | 88.5 | 87.9 |
| 43             | 93.3 | 92.7 | 92.1 | 91.5 | 90.9 | 90.4 | 89.8 | 89.2 | 88.6 | 88.0 |
| 44             | 93.4 | 92.8 | 92.2 | 91.7 | 91.1 | 90.5 | 89.9 | 89.3 | 88.8 | 88.2 |
| 45             | 93.5 | 92.9 | 92.3 | 91.8 | 91.2 | 90.6 | 90.1 | 89.5 | 88.9 | 88.4 |
| 46             | 93.6 | 93.0 | 92.4 | 91.9 | 91.3 | 90.8 | 90.2 | 89.6 | 89.1 | 88.5 |
| 47             | 93.7 | 93.1 | 92.5 | 92.0 | 91.4 | 90.9 | 90.3 | 89.8 | 89.2 | 88.7 |
| 48             | 93.7 | 93.2 | 92.6 | 92.1 | 91.5 | 91.0 | 90.4 | 89.9 | 89.4 | 88.8 |
| 49             | 93.8 | 93.3 | 92.7 | 92.2 | 91.6 | 91.1 | 90.6 | 90.0 | 89.5 | 89.0 |
| 50             | 93.9 | 93.4 | 92.8 | 92.3 | 91.7 | 91.2 | 90.7 | 90.2 | 89.6 | 89.1 |
| 51             | 94.0 | 93.4 | 92.9 | 92.4 | 91.8 | 91.3 | 90.8 | 90.3 | 89.7 | 89.2 |
| 52             | 94.0 | 93.5 | 93.0 | 92.5 | 91.9 | 91.4 | 90.9 | 90.4 | 89.9 | 89.4 |
| 53             | 94.1 | 93.6 | 93.1 | 92.6 | 92.0 | 91.5 | 91.0 | 90.5 | 90.0 | 89.5 |
| 54             | 94.2 | 93.7 | 93.2 | 92.6 | 92.1 | 91.6 | 91.1 | 90.6 | 90.1 | 89.6 |
| 55             | 94.2 | 93.7 | 93.2 | 92.7 | 92.2 | 91.7 | 91.2 | 90.7 | 90.2 | 89.7 |
| 56             | 94.3 | 93.8 | 93.3 | 92.8 | 92.3 | 91.8 | 91.3 | 90.8 | 90.3 | 89.8 |
| 57             | 94.4 | 93.9 | 93.4 | 92.9 | 92.4 | 91.9 | 91.4 | 90.9 | 90.4 | 89.9 |

表 3a<sub>1</sub> (续)

| $t-t_w$<br>$t$ | 1.1  | 1.2  | 1.3  | 1.4  | 1.5  | 1.6  | 1.7  | 1.8  | 1.9  | 2.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 94.4 | 93.9 | 93.4 | 93.0 | 92.5 | 92.0 | 91.5 | 91.0 | 90.5 | 90.0 |
| 59             | 94.5 | 94.0 | 93.5 | 93.0 | 92.5 | 92.1 | 91.6 | 91.1 | 90.6 | 90.1 |
| 60             | 94.5 | 94.1 | 93.6 | 93.1 | 92.6 | 92.1 | 91.7 | 91.2 | 90.7 | 90.2 |
| 61             | 94.6 | 94.1 | 93.6 | 93.2 | 92.7 | 92.2 | 91.7 | 91.3 | 90.8 | 90.3 |
| 62             | 94.7 | 94.2 | 93.7 | 93.2 | 92.8 | 92.3 | 91.8 | 91.4 | 90.9 | 90.4 |
| 63             | 94.7 | 94.2 | 93.8 | 93.3 | 92.8 | 92.4 | 91.9 | 91.4 | 91.0 | 90.5 |
| 64             | 94.8 | 94.3 | 93.8 | 93.4 | 92.9 | 92.4 | 92.0 | 91.5 | 91.1 | 90.6 |
| 65             | 94.8 | 94.3 | 93.9 | 93.4 | 93.0 | 92.5 | 92.1 | 91.6 | 91.2 | 90.7 |
| 66             | 94.9 | 94.4 | 93.9 | 93.5 | 93.0 | 92.6 | 92.1 | 91.7 | 91.2 | 90.8 |
| 67             | 94.9 | 94.4 | 94.0 | 93.5 | 93.1 | 92.6 | 92.2 | 91.8 | 91.3 | 90.9 |
| 68             | 94.9 | 94.5 | 94.0 | 93.6 | 93.2 | 92.7 | 92.3 | 91.8 | 91.4 | 91.0 |
| 69             | 95.0 | 94.5 | 94.1 | 93.7 | 93.2 | 92.8 | 92.3 | 91.9 | 91.5 | 91.0 |
| 70             | 95.0 | 94.6 | 94.2 | 93.7 | 93.3 | 92.8 | 92.4 | 92.0 | 91.5 | 91.1 |
| 71             | 95.1 | 94.6 | 94.2 | 93.8 | 93.3 | 92.9 | 92.5 | 92.0 | 91.6 | 91.2 |
| 72             | 95.1 | 94.7 | 94.3 | 93.8 | 93.4 | 93.0 | 92.5 | 92.1 | 91.7 | 91.3 |
| 73             | 95.2 | 94.7 | 94.3 | 93.9 | 93.4 | 93.0 | 92.6 | 92.2 | 91.8 | 91.3 |
| 74             | 95.2 | 94.8 | 94.3 | 93.9 | 93.5 | 93.1 | 92.7 | 92.2 | 91.8 | 91.4 |
| 75             | 95.2 | 94.8 | 94.4 | 94.0 | 93.6 | 93.1 | 92.7 | 92.3 | 91.9 | 91.5 |
| 76             | 95.3 | 94.9 | 94.4 | 94.0 | 93.6 | 93.2 | 92.8 | 92.4 | 92.0 | 91.5 |
| 77             | 95.3 | 94.9 | 94.5 | 94.1 | 93.7 | 93.2 | 92.8 | 92.4 | 92.0 | 91.6 |
| 78             | 95.4 | 94.9 | 94.5 | 94.1 | 93.7 | 93.3 | 92.9 | 92.5 | 92.1 | 91.7 |
| 79             | 95.4 | 95.0 | 94.6 | 94.2 | 93.8 | 93.4 | 92.9 | 92.5 | 92.1 | 91.7 |
| 80             | 95.4 | 95.0 | 94.6 | 94.2 | 93.8 | 93.4 | 93.0 | 92.6 | 92.2 | 91.8 |
| 81             | 95.5 | 95.1 | 94.7 | 94.3 | 93.9 | 93.5 | 93.1 | 92.7 | 92.3 | 91.9 |
| 82             | 95.5 | 95.1 | 94.7 | 94.3 | 93.9 | 93.5 | 93.1 | 92.7 | 92.3 | 91.9 |
| 83             | 95.5 | 95.1 | 94.7 | 94.3 | 93.9 | 93.6 | 93.2 | 92.8 | 92.4 | 92.0 |
| 84             | 95.6 | 95.2 | 94.8 | 94.4 | 94.0 | 93.6 | 93.2 | 92.8 | 92.4 | 92.1 |
| 85             | 95.6 | 95.2 | 94.8 | 94.4 | 94.0 | 93.7 | 93.3 | 92.9 | 92.5 | 92.1 |
| 86             | 95.6 | 95.2 | 94.9 | 94.5 | 94.1 | 93.7 | 93.3 | 92.9 | 92.6 | 92.2 |
| 87             | 95.7 | 95.3 | 94.9 | 94.5 | 94.1 | 93.7 | 93.4 | 93.0 | 92.6 | 92.2 |
| 88             | 95.7 | 95.3 | 94.9 | 94.5 | 94.2 | 93.8 | 93.4 | 93.0 | 92.7 | 92.3 |
| 89             | 95.7 | 95.3 | 95.0 | 94.6 | 94.2 | 93.8 | 93.5 | 93.1 | 92.7 | 92.3 |
| 90             | 95.8 | 95.4 | 95.0 | 94.6 | 94.3 | 93.9 | 93.5 | 93.1 | 92.8 | 92.4 |
| 91             | 95.8 | 95.4 | 95.0 | 94.7 | 94.3 | 93.9 | 93.6 | 93.2 | 92.8 | 92.4 |
| 92             | 95.8 | 95.4 | 95.1 | 94.7 | 94.3 | 94.0 | 93.6 | 93.2 | 92.9 | 92.5 |
| 93             | 95.8 | 95.5 | 95.1 | 94.7 | 94.4 | 94.0 | 93.6 | 93.3 | 92.9 | 92.6 |
| 94             | 95.9 | 95.5 | 95.1 | 94.8 | 94.4 | 94.0 | 93.7 | 93.3 | 93.0 | 92.6 |
| 95             | 95.9 | 95.5 | 95.2 | 94.8 | 94.5 | 94.1 | 93.7 | 93.4 | 93.0 | 92.7 |
| 96             | 95.9 | 95.6 | 95.2 | 94.8 | 94.5 | 94.1 | 93.8 | 93.4 | 93.1 | 92.7 |
| 97             | 96.0 | 95.6 | 95.2 | 94.9 | 94.5 | 94.2 | 93.8 | 93.5 | 93.1 | 92.8 |
| 98             | 96.0 | 95.6 | 95.3 | 94.9 | 94.6 | 94.2 | 93.9 | 93.5 | 93.2 | 92.8 |
| 99             | 96.0 | 95.7 | 95.3 | 95.0 | 94.6 | 94.2 | 93.9 | 93.5 | 93.2 | 92.9 |
| 100            | 96.0 | 95.7 | 95.3 | 95.0 | 94.6 | 94.3 | 93.9 | 93.6 | 93.2 | 92.9 |



表 3a<sub>1</sub> (续)

| $t - t_w$<br>$t$ | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 58               | 89.6 | 89.1 | 88.6 | 88.1 | 87.7 | 87.2 | 86.7 | 86.3 | 85.8 | 85.3 |
| 59               | 89.7 | 89.2 | 88.7 | 88.3 | 87.8 | 87.3 | 86.9 | 86.4 | 85.9 | 85.5 |
| 60               | 89.8 | 89.3 | 88.8 | 88.4 | 87.9 | 87.4 | 87.0 | 86.5 | 86.1 | 85.6 |
| 61               | 89.9 | 89.4 | 88.9 | 88.5 | 88.0 | 87.6 | 87.1 | 86.7 | 86.2 | 85.8 |
| 62               | 90.0 | 89.5 | 89.1 | 88.6 | 88.1 | 87.7 | 87.2 | 86.8 | 86.3 | 85.9 |
| 63               | 90.1 | 89.6 | 89.2 | 88.7 | 88.3 | 87.8 | 87.4 | 86.9 | 86.5 | 86.0 |
| 64               | 90.2 | 89.7 | 89.3 | 88.8 | 88.4 | 87.9 | 87.5 | 87.0 | 86.6 | 86.2 |
| 65               | 90.3 | 89.8 | 89.4 | 88.9 | 88.5 | 88.0 | 87.6 | 87.2 | 86.7 | 86.3 |
| 66               | 90.3 | 89.9 | 89.5 | 89.0 | 88.6 | 88.1 | 87.7 | 87.3 | 86.8 | 86.4 |
| 67               | 90.4 | 90.0 | 89.6 | 89.1 | 88.7 | 88.3 | 87.8 | 87.4 | 87.0 | 86.5 |
| 68               | 90.5 | 90.1 | 89.6 | 89.2 | 88.8 | 88.4 | 87.9 | 87.5 | 87.1 | 86.7 |
| 69               | 90.6 | 90.2 | 89.7 | 89.3 | 88.9 | 88.5 | 88.0 | 87.6 | 87.2 | 86.8 |
| 70               | 90.7 | 90.3 | 89.8 | 89.4 | 89.0 | 88.6 | 88.1 | 87.7 | 87.3 | 86.9 |
| 71               | 90.8 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.2 | 87.8 | 87.4 | 87.0 |
| 72               | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.3 | 87.9 | 87.5 | 87.1 |
| 73               | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.8 | 88.4 | 88.0 | 87.6 | 87.2 |
| 74               | 91.0 | 90.6 | 90.2 | 89.8 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 | 87.3 |
| 75               | 91.1 | 90.7 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 | 87.4 |
| 76               | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 | 87.5 |
| 77               | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.6 |
| 78               | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 |
| 79               | 91.3 | 90.9 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 |
| 80               | 91.4 | 91.0 | 90.6 | 90.2 | 89.8 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 |
| 81               | 91.5 | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.2 | 88.8 | 88.4 | 88.0 |
| 82               | 91.5 | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.9 | 88.5 | 88.1 |
| 83               | 91.6 | 91.2 | 90.8 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.6 | 88.2 |
| 84               | 91.7 | 91.3 | 90.9 | 90.5 | 90.1 | 89.8 | 89.4 | 89.0 | 88.6 | 88.3 |
| 85               | 91.7 | 91.4 | 91.0 | 90.6 | 90.2 | 89.8 | 89.5 | 89.1 | 88.7 | 88.4 |
| 86               | 91.8 | 91.4 | 91.0 | 90.7 | 90.3 | 89.9 | 89.5 | 89.2 | 88.8 | 88.4 |
| 87               | 91.9 | 91.5 | 91.1 | 90.7 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 | 88.5 |
| 88               | 91.9 | 91.5 | 91.2 | 90.8 | 90.4 | 90.1 | 89.7 | 89.3 | 89.0 | 88.6 |
| 89               | 92.0 | 91.6 | 91.2 | 90.9 | 90.5 | 90.1 | 89.8 | 89.4 | 89.0 | 88.7 |
| 90               | 92.0 | 91.7 | 91.3 | 90.9 | 90.6 | 90.2 | 89.8 | 89.5 | 89.1 | 88.8 |
| 91               | 92.1 | 91.7 | 91.4 | 91.0 | 90.6 | 90.3 | 89.9 | 89.6 | 89.2 | 88.8 |
| 92               | 92.1 | 91.8 | 91.4 | 91.1 | 90.7 | 90.3 | 90.0 | 89.6 | 89.3 | 88.9 |
| 93               | 92.2 | 91.8 | 91.5 | 91.1 | 90.8 | 90.4 | 90.1 | 89.7 | 89.3 | 89.0 |
| 94               | 92.2 | 91.9 | 91.5 | 91.2 | 90.8 | 90.5 | 90.1 | 89.8 | 89.4 | 89.1 |
| 95               | 92.3 | 91.9 | 91.6 | 91.2 | 90.9 | 90.5 | 90.2 | 89.8 | 89.5 | 89.1 |
| 96               | 92.4 | 92.0 | 91.6 | 91.3 | 90.9 | 90.6 | 90.3 | 89.9 | 89.6 | 89.2 |
| 97               | 92.4 | 92.1 | 91.7 | 91.4 | 91.0 | 90.7 | 90.3 | 90.0 | 89.6 | 89.3 |
| 98               | 92.5 | 92.1 | 91.8 | 91.4 | 91.1 | 90.7 | 90.4 | 90.0 | 89.7 | 89.4 |
| 99               | 92.5 | 92.2 | 91.8 | 91.5 | 91.1 | 90.8 | 90.4 | 90.1 | 89.8 | 89.4 |
| 100              | 92.6 | 92.2 | 91.9 | 91.5 | 91.2 | 90.8 | 90.5 | 90.2 | 89.8 | 89.5 |



表 3a<sub>1</sub>(续)

| $t-t_w$<br>$t$ | 3.1  | 3.2  | 3.3  | 3.4  | 3.5  | 3.6  | 3.7  | 3.8  | 3.9  | 4.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 84.9 | 84.4 | 83.9 | 83.5 | 83.0 | 82.6 | 82.1 | 81.7 | 81.2 | 80.8 |
| 59             | 85.0 | 84.6 | 84.1 | 83.7 | 83.2 | 82.8 | 82.3 | 81.9 | 81.4 | 81.0 |
| 60             | 85.2 | 84.7 | 84.3 | 83.8 | 83.4 | 82.9 | 82.5 | 82.0 | 81.6 | 81.2 |
| 61             | 85.3 | 84.9 | 84.4 | 84.0 | 83.5 | 83.1 | 82.7 | 82.2 | 81.8 | 81.4 |
| 62             | 85.5 | 85.0 | 84.6 | 84.1 | 83.7 | 83.3 | 82.8 | 82.4 | 82.0 | 81.5 |
| 63             | 85.6 | 85.2 | 84.7 | 84.3 | 83.9 | 83.4 | 83.0 | 82.6 | 82.1 | 81.7 |
| 64             | 85.7 | 85.3 | 84.9 | 84.4 | 84.0 | 83.6 | 83.1 | 82.7 | 82.3 | 81.9 |
| 65             | 85.9 | 85.4 | 85.0 | 84.6 | 84.1 | 83.7 | 83.3 | 82.9 | 82.5 | 82.0 |
| 66             | 86.0 | 85.6 | 85.1 | 84.7 | 84.3 | 83.9 | 83.5 | 83.0 | 82.6 | 82.2 |
| 67             | 86.1 | 85.7 | 85.3 | 84.9 | 84.4 | 84.0 | 83.6 | 83.2 | 82.8 | 82.4 |
| 68             | 86.2 | 85.8 | 85.4 | 85.0 | 84.6 | 84.2 | 83.7 | 83.3 | 82.9 | 82.5 |
| 69             | 86.4 | 85.9 | 85.5 | 85.1 | 84.7 | 84.3 | 83.9 | 83.5 | 83.1 | 82.7 |
| 70             | 86.5 | 86.1 | 85.7 | 85.2 | 84.8 | 84.4 | 84.0 | 83.6 | 83.2 | 82.8 |
| 71             | 86.6 | 86.2 | 85.8 | 85.4 | 85.0 | 84.6 | 84.2 | 83.8 | 83.4 | 83.0 |
| 72             | 86.7 | 86.3 | 85.9 | 85.5 | 85.1 | 84.7 | 84.3 | 83.9 | 83.5 | 83.1 |
| 73             | 86.8 | 86.4 | 86.0 | 85.6 | 85.2 | 84.8 | 84.4 | 84.0 | 83.6 | 83.2 |
| 74             | 86.9 | 86.5 | 86.1 | 85.7 | 85.3 | 84.9 | 84.5 | 84.2 | 83.8 | 83.4 |
| 75             | 87.0 | 86.6 | 86.2 | 85.8 | 85.5 | 85.1 | 84.7 | 84.3 | 83.9 | 83.5 |
| 76             | 87.1 | 86.7 | 86.3 | 86.0 | 85.6 | 85.2 | 84.8 | 84.4 | 84.0 | 83.6 |
| 77             | 87.2 | 86.8 | 86.5 | 86.1 | 85.7 | 85.3 | 84.9 | 84.5 | 84.2 | 83.8 |
| 78             | 87.3 | 86.9 | 86.6 | 86.2 | 85.8 | 85.4 | 85.0 | 84.7 | 84.3 | 83.9 |
| 79             | 87.4 | 87.0 | 86.7 | 86.3 | 85.9 | 85.5 | 85.1 | 84.8 | 84.4 | 84.0 |
| 80             | 87.5 | 87.1 | 86.8 | 86.4 | 86.0 | 85.6 | 85.3 | 84.9 | 84.5 | 84.1 |
| 81             | 87.6 | 87.2 | 86.9 | 86.5 | 86.1 | 85.7 | 85.4 | 85.0 | 84.6 | 84.3 |
| 82             | 87.7 | 87.3 | 87.0 | 86.6 | 86.2 | 85.8 | 85.5 | 85.1 | 84.7 | 84.4 |
| 83             | 87.8 | 87.4 | 87.1 | 86.7 | 86.3 | 86.0 | 85.6 | 85.2 | 84.9 | 84.5 |
| 84             | 87.9 | 87.5 | 87.2 | 86.8 | 86.4 | 86.1 | 85.7 | 85.3 | 85.0 | 84.6 |
| 85             | 88.0 | 87.6 | 87.3 | 86.9 | 86.5 | 86.2 | 85.8 | 85.4 | 85.1 | 84.7 |
| 86             | 88.1 | 87.7 | 87.3 | 87.0 | 86.6 | 86.3 | 85.9 | 85.5 | 85.2 | 84.8 |
| 87             | 88.2 | 87.8 | 87.4 | 87.1 | 86.7 | 86.4 | 86.0 | 85.6 | 85.3 | 84.9 |
| 88             | 88.2 | 87.9 | 87.5 | 87.2 | 86.8 | 86.5 | 86.1 | 85.7 | 85.4 | 85.0 |
| 89             | 88.3 | 88.0 | 87.6 | 87.3 | 86.9 | 86.5 | 86.2 | 85.8 | 85.5 | 85.1 |
| 90             | 88.4 | 88.1 | 87.7 | 87.3 | 87.0 | 86.6 | 86.3 | 85.9 | 85.6 | 85.2 |
| 91             | 88.5 | 88.1 | 87.8 | 87.4 | 87.1 | 86.7 | 86.4 | 86.0 | 85.7 | 85.4 |
| 92             | 88.6 | 88.2 | 87.9 | 87.5 | 87.2 | 86.8 | 86.5 | 86.1 | 85.8 | 85.5 |
| 93             | 88.6 | 88.3 | 88.0 | 87.6 | 87.3 | 86.9 | 86.6 | 86.2 | 85.9 | 85.5 |
| 94             | 88.7 | 88.4 | 88.0 | 87.7 | 87.3 | 87.0 | 86.7 | 86.3 | 86.0 | 85.6 |
| 95             | 88.8 | 88.5 | 88.1 | 87.8 | 87.4 | 87.1 | 86.8 | 86.4 | 86.1 | 85.7 |
| 96             | 88.9 | 88.5 | 88.2 | 87.9 | 87.5 | 87.2 | 86.8 | 86.5 | 86.2 | 85.8 |
| 97             | 89.0 | 88.6 | 88.3 | 87.9 | 87.6 | 87.3 | 86.9 | 86.6 | 86.3 | 85.9 |
| 98             | 89.0 | 88.7 | 88.3 | 88.0 | 87.7 | 87.3 | 87.0 | 86.7 | 86.4 | 86.0 |
| 99             | 89.1 | 88.8 | 88.4 | 88.1 | 87.8 | 87.4 | 87.1 | 86.8 | 86.4 | 86.1 |
| 100            | 89.2 | 88.8 | 88.5 | 88.2 | 87.8 | 87.5 | 87.2 | 86.9 | 86.5 | 86.2 |

表 3a<sub>1</sub>(续)

| $t-t_w$<br>$t$ | 4.1  | 4.2  | 4.3  | 4.4  | 4.5  | 4.6  | 4.7  | 4.8  | 4.9  | 5.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 55.8 | 54.8 | 53.8 | 52.8 | 51.8 | 50.8 | 49.8 | 48.8 | 47.8 | 46.9 |
| 16             | 57.3 | 56.3 | 55.3 | 54.4 | 53.4 | 52.4 | 51.5 | 50.5 | 49.6 | 48.6 |
| 17             | 58.6 | 57.7 | 56.8 | 55.8 | 54.9 | 53.9 | 53.0 | 52.1 | 51.2 | 50.2 |
| 18             | 59.9 | 59.0 | 58.1 | 57.2 | 56.3 | 55.4 | 54.5 | 53.6 | 52.7 | 51.8 |
| 19             | 61.1 | 60.2 | 59.3 | 58.5 | 57.6 | 56.7 | 55.8 | 55.0 | 54.1 | 53.2 |
| 20             | 62.2 | 61.4 | 60.5 | 59.7 | 58.8 | 58.0 | 57.1 | 56.3 | 55.4 | 54.6 |
| 21             | 63.3 | 62.4 | 61.6 | 60.8 | 60.0 | 59.1 | 58.3 | 57.5 | 56.7 | 55.9 |
| 22             | 64.3 | 63.5 | 62.6 | 61.8 | 61.0 | 60.2 | 59.4 | 58.6 | 57.9 | 57.1 |
| 23             | 65.2 | 64.4 | 63.6 | 62.8 | 62.1 | 61.3 | 60.5 | 59.7 | 59.0 | 58.2 |
| 24             | 66.1 | 65.3 | 64.6 | 63.8 | 63.0 | 62.3 | 61.5 | 60.8 | 60.0 | 59.3 |
| 25             | 66.9 | 66.2 | 65.4 | 64.7 | 63.9 | 63.2 | 62.5 | 61.7 | 61.0 | 60.3 |
| 26             | 67.7 | 67.0 | 66.2 | 65.5 | 64.8 | 64.1 | 63.4 | 62.6 | 61.9 | 61.2 |
| 27             | 68.5 | 67.7 | 67.0 | 66.3 | 65.6 | 64.9 | 64.2 | 63.5 | 62.8 | 62.1 |
| 28             | 69.2 | 68.5 | 67.8 | 67.1 | 66.4 | 65.7 | 65.0 | 64.3 | 63.6 | 63.0 |
| 29             | 69.8 | 69.1 | 68.5 | 67.8 | 67.1 | 66.4 | 65.8 | 65.1 | 64.4 | 63.8 |
| 30             | 70.5 | 69.8 | 69.1 | 68.5 | 67.8 | 67.1 | 66.5 | 65.8 | 65.2 | 64.5 |
| 31             | 71.1 | 70.4 | 69.8 | 69.1 | 68.5 | 67.8 | 67.2 | 66.5 | 65.9 | 65.3 |
| 32             | 71.6 | 71.0 | 70.4 | 69.7 | 69.1 | 68.5 | 67.8 | 67.2 | 66.6 | 66.0 |
| 33             | 72.2 | 71.5 | 70.9 | 70.3 | 69.7 | 69.1 | 68.4 | 67.8 | 67.2 | 66.6 |
| 34             | 72.7 | 72.1 | 71.5 | 70.9 | 70.2 | 69.6 | 69.0 | 68.4 | 67.8 | 67.2 |
| 35             | 73.2 | 72.6 | 72.0 | 71.4 | 70.8 | 70.2 | 69.6 | 69.0 | 68.4 | 67.8 |
| 36             | 73.7 | 73.1 | 72.5 | 71.9 | 71.3 | 70.7 | 70.1 | 69.5 | 69.0 | 68.4 |
| 37             | 74.1 | 73.5 | 72.9 | 72.4 | 71.8 | 71.2 | 70.6 | 70.1 | 69.5 | 68.9 |
| 38             | 74.5 | 74.0 | 73.4 | 72.8 | 72.3 | 71.7 | 71.1 | 70.6 | 70.0 | 69.5 |
| 39             | 74.9 | 74.4 | 73.8 | 73.3 | 72.7 | 72.1 | 71.6 | 71.0 | 70.5 | 69.9 |
| 40             | 75.3 | 74.8 | 74.2 | 73.7 | 73.1 | 72.6 | 72.0 | 71.5 | 71.0 | 70.4 |
| 41             | 75.7 | 75.2 | 74.6 | 74.1 | 73.5 | 73.0 | 72.5 | 71.9 | 71.4 | 70.9 |
| 42             | 76.1 | 75.5 | 75.0 | 74.5 | 73.9 | 73.4 | 72.9 | 72.3 | 71.8 | 71.3 |
| 43             | 76.4 | 75.9 | 75.4 | 74.8 | 74.3 | 73.8 | 73.3 | 72.7 | 72.2 | 71.7 |
| 44             | 76.8 | 76.2 | 75.7 | 75.2 | 74.7 | 74.2 | 73.6 | 73.1 | 72.6 | 72.1 |
| 45             | 77.1 | 76.6 | 76.0 | 75.5 | 75.0 | 74.5 | 74.0 | 73.5 | 73.0 | 72.5 |
| 46             | 77.4 | 76.9 | 76.4 | 75.9 | 75.4 | 74.9 | 74.4 | 73.9 | 73.4 | 72.9 |
| 47             | 77.7 | 77.2 | 76.7 | 76.2 | 75.7 | 75.2 | 74.7 | 74.2 | 73.7 | 73.2 |
| 48             | 78.0 | 77.5 | 77.0 | 76.5 | 76.0 | 75.5 | 75.0 | 74.5 | 74.0 | 73.6 |
| 49             | 78.2 | 77.7 | 77.3 | 76.8 | 76.3 | 75.8 | 75.3 | 74.8 | 74.4 | 73.9 |
| 50             | 78.5 | 78.0 | 77.5 | 77.1 | 76.6 | 76.1 | 75.6 | 75.1 | 74.7 | 74.2 |
| 51             | 78.8 | 78.3 | 77.8 | 77.3 | 76.9 | 76.4 | 75.9 | 75.4 | 75.0 | 74.5 |
| 52             | 79.0 | 78.5 | 78.1 | 77.6 | 77.1 | 76.7 | 76.2 | 75.7 | 75.3 | 74.8 |
| 53             | 79.2 | 78.8 | 78.3 | 77.8 | 77.4 | 76.9 | 76.5 | 76.0 | 75.6 | 75.1 |
| 54             | 79.5 | 79.0 | 78.6 | 78.1 | 77.6 | 77.2 | 76.7 | 76.3 | 75.8 | 75.4 |
| 55             | 79.7 | 79.2 | 78.8 | 78.3 | 77.9 | 77.4 | 77.0 | 76.5 | 76.1 | 75.6 |
| 56             | 79.9 | 79.5 | 79.0 | 78.6 | 78.1 | 77.7 | 77.2 | 76.8 | 76.3 | 75.9 |
| 57             | 80.1 | 79.7 | 79.2 | 78.8 | 78.3 | 77.9 | 77.5 | 77.0 | 76.6 | 76.2 |



表 3a<sub>1</sub> (续)

| $t - t_w$<br>$t$ | 5.2  | 5.4  | 5.6  | 5.8  | 6.0  | 6.2  | 6.4  | 6.6  | 6.8  | 7.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               | 44.9 | 42.9 | 41.0 | 39.1 | 37.1 | 35.2 | 33.3 | 31.4 | 29.6 | 27.7 |
| 16               | 46.7 | 44.8 | 42.9 | 41.1 | 39.2 | 37.4 | 35.6 | 33.7 | 31.9 | 30.1 |
| 17               | 48.4 | 46.6 | 44.8 | 43.0 | 41.2 | 39.4 | 37.6 | 35.9 | 34.1 | 32.4 |
| 18               | 50.0 | 48.2 | 46.5 | 44.8 | 43.0 | 41.3 | 39.6 | 37.9 | 36.2 | 34.5 |
| 19               | 51.5 | 49.8 | 48.1 | 46.4 | 44.7 | 43.1 | 41.4 | 39.8 | 38.1 | 36.5 |
| 20               | 52.9 | 51.3 | 49.6 | 48.0 | 46.4 | 44.7 | 43.1 | 41.5 | 39.9 | 38.4 |
| 21               | 54.2 | 52.6 | 51.0 | 49.4 | 47.9 | 46.3 | 44.7 | 43.2 | 41.7 | 40.1 |
| 22               | 55.5 | 53.9 | 52.4 | 50.8 | 49.3 | 47.8 | 46.3 | 44.8 | 43.3 | 41.8 |
| 23               | 56.7 | 55.1 | 53.6 | 52.1 | 50.6 | 49.2 | 47.7 | 46.2 | 44.8 | 43.3 |
| 24               | 57.8 | 56.3 | 54.8 | 53.4 | 51.9 | 50.5 | 49.0 | 47.6 | 46.2 | 44.8 |
| 25               | 58.8 | 57.4 | 55.9 | 54.5 | 53.1 | 51.7 | 50.3 | 48.9 | 47.6 | 46.2 |
| 26               | 59.8 | 58.4 | 57.0 | 55.6 | 54.2 | 52.9 | 51.5 | 50.2 | 48.8 | 47.5 |
| 27               | 60.7 | 59.4 | 58.0 | 56.7 | 55.3 | 54.0 | 52.7 | 51.3 | 50.0 | 48.7 |
| 28               | 61.6 | 60.3 | 59.0 | 57.6 | 56.3 | 55.0 | 53.7 | 52.4 | 51.2 | 49.9 |
| 29               | 62.5 | 61.2 | 59.9 | 58.6 | 57.3 | 56.0 | 54.7 | 53.5 | 52.2 | 51.0 |
| 30               | 63.3 | 62.0 | 60.7 | 59.4 | 58.2 | 56.9 | 55.7 | 54.5 | 53.3 | 52.1 |
| 31               | 64.0 | 62.8 | 61.5 | 60.3 | 59.0 | 57.8 | 56.6 | 55.4 | 54.2 | 53.0 |
| 32               | 64.7 | 63.5 | 62.3 | 61.1 | 59.9 | 58.7 | 57.5 | 56.3 | 55.1 | 54.0 |
| 33               | 65.4 | 64.2 | 63.0 | 61.8 | 60.6 | 59.5 | 58.3 | 57.2 | 56.0 | 54.9 |
| 34               | 66.0 | 64.9 | 63.7 | 62.5 | 61.4 | 60.2 | 59.1 | 58.0 | 56.8 | 55.7 |
| 35               | 66.7 | 65.5 | 64.4 | 63.2 | 62.1 | 61.0 | 59.8 | 58.7 | 57.6 | 56.5 |
| 36               | 67.2 | 66.1 | 65.0 | 63.9 | 62.8 | 61.6 | 60.6 | 59.5 | 58.4 | 57.3 |
| 37               | 67.8 | 66.7 | 65.6 | 64.5 | 63.4 | 62.3 | 61.2 | 60.2 | 59.1 | 58.0 |
| 38               | 68.3 | 67.2 | 66.2 | 65.1 | 64.0 | 62.9 | 61.9 | 60.8 | 59.8 | 58.7 |
| 39               | 68.9 | 67.8 | 66.7 | 65.6 | 64.6 | 63.5 | 62.5 | 61.5 | 60.4 | 59.4 |
| 40               | 69.3 | 68.3 | 67.2 | 66.2 | 65.1 | 64.1 | 63.1 | 62.1 | 61.1 | 60.1 |
| 41               | 69.8 | 68.8 | 67.7 | 66.7 | 65.7 | 64.7 | 63.6 | 62.6 | 61.7 | 60.7 |
| 42               | 70.3 | 69.2 | 68.2 | 67.2 | 66.2 | 65.2 | 64.2 | 63.2 | 62.2 | 61.3 |
| 43               | 70.7 | 69.7 | 68.7 | 67.7 | 66.7 | 65.7 | 64.7 | 63.7 | 62.8 | 61.8 |
| 44               | 71.1 | 70.1 | 69.1 | 68.1 | 67.1 | 66.2 | 65.2 | 64.2 | 63.3 | 62.4 |
| 45               | 71.5 | 70.5 | 69.5 | 68.6 | 67.6 | 66.6 | 65.7 | 64.7 | 63.8 | 62.9 |
| 46               | 71.9 | 70.9 | 69.9 | 69.0 | 68.0 | 67.1 | 66.1 | 65.2 | 64.3 | 63.4 |
| 47               | 72.2 | 71.3 | 70.3 | 69.4 | 68.4 | 67.5 | 66.6 | 65.7 | 64.8 | 63.8 |
| 48               | 72.6 | 71.7 | 70.7 | 69.8 | 68.8 | 67.9 | 67.0 | 66.1 | 65.2 | 64.3 |
| 49               | 72.9 | 72.0 | 71.1 | 70.2 | 69.2 | 68.3 | 67.4 | 66.5 | 65.6 | 64.7 |
| 50               | 73.3 | 72.3 | 71.4 | 70.5 | 69.6 | 68.7 | 67.8 | 66.9 | 66.0 | 65.2 |
| 51               | 73.6 | 72.7 | 71.8 | 70.9 | 70.0 | 69.1 | 68.2 | 67.3 | 66.4 | 65.6 |
| 52               | 73.9 | 73.0 | 72.1 | 71.2 | 70.3 | 69.4 | 68.6 | 67.7 | 66.8 | 66.0 |
| 53               | 74.2 | 73.3 | 72.4 | 71.5 | 70.7 | 69.8 | 68.9 | 68.1 | 67.2 | 66.4 |
| 54               | 74.5 | 73.6 | 72.7 | 71.8 | 71.0 | 70.1 | 69.3 | 68.4 | 67.6 | 66.7 |
| 55               | 74.8 | 73.9 | 73.0 | 72.1 | 71.3 | 70.4 | 69.6 | 68.8 | 67.9 | 67.1 |
| 56               | 75.0 | 74.2 | 73.3 | 72.4 | 71.6 | 70.8 | 69.9 | 69.1 | 68.3 | 67.5 |
| 57               | 75.3 | 74.4 | 73.6 | 72.7 | 71.9 | 71.1 | 70.2 | 69.4 | 68.6 | 67.8 |









表 3a<sub>1</sub>(续)

| $t$ \ $t-t_w$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| 58            | 59.7 | 59.0 | 58.2 | 57.5 | 56.8 | 56.1 | 55.4 | 54.7 | 54.0 | 53.3 |
| 59            | 60.1 | 59.4 | 58.6 | 57.9 | 57.2 | 56.5 | 55.8 | 55.1 | 54.4 | 53.7 |
| 60            | 60.5 | 59.8 | 59.0 | 58.3 | 57.6 | 56.9 | 56.2 | 55.5 | 54.9 | 54.2 |
| 61            | 60.8 | 60.1 | 59.4 | 58.7 | 58.0 | 57.3 | 56.6 | 56.0 | 55.3 | 54.6 |
| 62            | 61.2 | 60.5 | 59.8 | 59.1 | 58.4 | 57.7 | 57.0 | 56.4 | 55.7 | 55.0 |
| 63            | 61.6 | 60.9 | 60.2 | 59.5 | 58.8 | 58.1 | 57.4 | 56.8 | 56.1 | 55.4 |
| 64            | 61.9 | 61.2 | 60.5 | 59.8 | 59.2 | 58.5 | 57.8 | 57.2 | 56.5 | 55.8 |
| 65            | 62.2 | 61.6 | 60.9 | 60.2 | 59.5 | 58.8 | 58.2 | 57.5 | 56.9 | 56.2 |
| 66            | 62.6 | 61.9 | 61.2 | 60.5 | 59.9 | 59.2 | 58.5 | 57.9 | 57.2 | 56.6 |
| 67            | 62.9 | 62.2 | 61.5 | 60.9 | 60.2 | 59.5 | 58.9 | 58.2 | 57.6 | 57.0 |
| 68            | 63.2 | 62.5 | 61.9 | 61.2 | 60.5 | 59.9 | 59.2 | 58.6 | 58.0 | 57.3 |
| 69            | 63.5 | 62.8 | 62.2 | 61.5 | 60.9 | 60.2 | 59.6 | 58.9 | 58.3 | 57.7 |
| 70            | 63.8 | 63.1 | 62.5 | 61.8 | 61.2 | 60.5 | 59.9 | 59.3 | 58.6 | 58.0 |
| 71            | 64.1 | 63.4 | 62.8 | 62.1 | 61.5 | 60.8 | 60.2 | 59.6 | 59.0 | 58.3 |
| 72            | 64.4 | 63.7 | 63.1 | 62.4 | 61.8 | 61.2 | 60.5 | 59.9 | 59.3 | 58.7 |
| 73            | 64.7 | 64.0 | 63.4 | 62.7 | 62.1 | 61.5 | 60.8 | 60.2 | 59.6 | 59.0 |
| 74            | 64.9 | 64.3 | 63.6 | 63.0 | 62.4 | 61.7 | 61.1 | 60.5 | 59.9 | 59.3 |
| 75            | 65.2 | 64.6 | 63.9 | 63.3 | 62.7 | 62.0 | 61.4 | 60.8 | 60.2 | 59.6 |
| 76            | 65.5 | 64.8 | 64.2 | 63.6 | 62.9 | 62.3 | 61.7 | 61.1 | 60.5 | 59.9 |
| 77            | 65.7 | 65.1 | 64.5 | 63.8 | 63.2 | 62.6 | 62.0 | 61.4 | 60.8 | 60.2 |
| 78            | 66.0 | 65.3 | 64.7 | 64.1 | 63.5 | 62.9 | 62.3 | 61.7 | 61.1 | 60.5 |
| 79            | 66.2 | 65.6 | 65.0 | 64.3 | 63.7 | 63.1 | 62.5 | 61.9 | 61.3 | 60.7 |
| 80            | 66.4 | 65.8 | 65.2 | 64.6 | 64.0 | 63.4 | 62.8 | 62.2 | 61.6 | 61.0 |
| 81            | 66.7 | 66.1 | 65.5 | 64.8 | 64.2 | 63.6 | 63.1 | 62.5 | 61.9 | 61.3 |
| 82            | 66.9 | 66.3 | 65.7 | 65.1 | 64.5 | 63.9 | 63.3 | 62.7 | 62.1 | 61.6 |
| 83            | 67.1 | 66.5 | 65.9 | 65.3 | 64.7 | 64.1 | 63.6 | 63.0 | 62.4 | 61.8 |
| 84            | 67.4 | 66.8 | 66.2 | 65.6 | 65.0 | 64.4 | 63.8 | 63.2 | 62.6 | 62.1 |
| 85            | 67.6 | 67.0 | 66.4 | 65.8 | 65.2 | 64.6 | 64.0 | 63.5 | 62.9 | 62.3 |
| 86            | 67.8 | 67.2 | 66.6 | 66.0 | 65.4 | 64.9 | 64.3 | 63.7 | 63.1 | 62.6 |
| 87            | 68.0 | 67.4 | 66.8 | 66.3 | 65.7 | 65.1 | 64.5 | 63.9 | 63.4 | 62.8 |
| 88            | 68.2 | 67.6 | 67.1 | 66.5 | 65.9 | 65.3 | 64.7 | 64.2 | 63.6 | 63.1 |
| 89            | 68.4 | 67.9 | 67.3 | 66.7 | 66.1 | 65.5 | 65.0 | 64.4 | 63.8 | 63.3 |
| 90            | 68.7 | 68.1 | 67.5 | 66.9 | 66.3 | 65.8 | 65.2 | 64.6 | 64.1 | 63.5 |
| 91            | 68.9 | 68.3 | 67.7 | 67.1 | 66.5 | 66.0 | 65.4 | 64.9 | 64.3 | 63.8 |
| 92            | 69.1 | 68.5 | 67.9 | 67.3 | 66.8 | 66.2 | 65.6 | 65.1 | 64.5 | 64.0 |
| 93            | 69.2 | 68.7 | 68.1 | 67.5 | 67.0 | 66.4 | 65.9 | 65.3 | 64.7 | 64.2 |
| 94            | 69.4 | 68.9 | 68.3 | 67.7 | 67.2 | 66.6 | 66.1 | 65.5 | 65.0 | 64.4 |
| 95            | 69.6 | 69.1 | 68.5 | 67.9 | 67.4 | 66.8 | 66.3 | 65.7 | 65.2 | 64.6 |
| 96            | 69.8 | 69.3 | 68.7 | 68.1 | 67.6 | 67.0 | 66.5 | 65.9 | 65.4 | 64.9 |
| 97            | 70.0 | 69.4 | 68.9 | 68.3 | 67.8 | 67.2 | 66.7 | 66.1 | 65.6 | 65.1 |
| 98            | 70.2 | 69.6 | 69.1 | 68.5 | 68.0 | 67.4 | 66.9 | 66.3 | 65.8 | 65.3 |
| 99            | 70.4 | 69.8 | 69.3 | 68.7 | 68.2 | 67.6 | 67.1 | 66.5 | 66.0 | 65.5 |
| 100           | 70.5 | 70.0 | 69.4 | 68.9 | 68.4 | 67.8 | 67.3 | 66.7 | 66.2 | 65.7 |





表 3a<sub>2</sub> 柱状水银温度表相对湿度查算表  
 $P=100\text{ kPa}, A=0.815 \times 10^{-3} \text{ }^{\circ}\text{C}^{-1} (0.4\text{ m/s})$

| $t-t_w$<br>$t$ | 0.0   | 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|----------------|-------|------|------|------|------|------|------|------|------|------|------|
| 15             | 100.0 | 98.9 | 97.8 | 96.6 | 95.5 | 94.4 | 93.3 | 92.2 | 91.1 | 90.0 | 89.0 |
| 16             | 100.0 | 98.9 | 97.8 | 96.8 | 95.7 | 94.6 | 93.5 | 92.5 | 91.4 | 90.4 | 89.3 |
| 17             | 100.0 | 98.9 | 97.9 | 96.9 | 95.8 | 94.8 | 93.7 | 92.7 | 91.7 | 90.6 | 89.6 |
| 18             | 100.0 | 99.0 | 98.0 | 96.9 | 95.9 | 94.9 | 93.9 | 92.9 | 91.9 | 90.9 | 89.9 |
| 19             | 100.0 | 99.0 | 98.0 | 97.0 | 96.0 | 95.1 | 94.1 | 93.1 | 92.1 | 91.2 | 90.2 |
| 20             | 100.0 | 99.0 | 98.1 | 97.1 | 96.2 | 95.2 | 94.3 | 93.3 | 92.4 | 91.4 | 90.5 |
| 21             | 100.0 | 99.1 | 98.1 | 97.2 | 96.3 | 95.3 | 94.4 | 93.5 | 92.6 | 91.6 | 90.7 |
| 22             | 100.0 | 99.1 | 98.2 | 97.3 | 96.4 | 95.4 | 94.5 | 93.7 | 92.8 | 91.9 | 91.0 |
| 23             | 100.0 | 99.1 | 98.2 | 97.3 | 96.4 | 95.6 | 94.7 | 93.8 | 92.9 | 92.1 | 91.2 |
| 24             | 100.0 | 99.1 | 98.3 | 97.4 | 96.5 | 95.7 | 94.8 | 94.0 | 93.1 | 92.3 | 91.4 |
| 25             | 100.0 | 99.1 | 98.3 | 97.5 | 96.6 | 95.8 | 94.9 | 94.1 | 93.3 | 92.4 | 91.6 |
| 26             | 100.0 | 99.2 | 98.3 | 97.5 | 96.7 | 95.9 | 95.0 | 94.2 | 93.4 | 92.6 | 91.8 |
| 27             | 100.0 | 99.2 | 98.4 | 97.6 | 96.8 | 96.0 | 95.2 | 94.4 | 93.6 | 92.8 | 92.0 |
| 28             | 100.0 | 99.2 | 98.4 | 97.6 | 96.8 | 96.0 | 95.3 | 94.5 | 93.7 | 92.9 | 92.2 |
| 29             | 100.0 | 99.2 | 98.4 | 97.7 | 96.9 | 96.1 | 95.4 | 94.6 | 93.8 | 93.1 | 92.3 |
| 30             | 100.0 | 99.2 | 98.5 | 97.7 | 97.0 | 96.2 | 95.5 | 94.7 | 94.0 | 93.2 | 92.5 |
| 31             | 100.0 | 99.3 | 98.5 | 97.8 | 97.0 | 96.3 | 95.5 | 94.8 | 94.1 | 93.4 | 92.6 |
| 32             | 100.0 | 99.3 | 98.5 | 97.8 | 97.1 | 96.4 | 95.6 | 94.9 | 94.2 | 93.5 | 92.8 |
| 33             | 100.0 | 99.3 | 98.6 | 97.8 | 97.1 | 96.4 | 95.7 | 95.0 | 94.3 | 93.6 | 92.9 |
| 34             | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.5 | 95.8 | 95.1 | 94.4 | 93.7 | 93.0 |
| 35             | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.5 | 95.9 | 95.2 | 94.5 | 93.8 | 93.2 |
| 36             | 100.0 | 99.3 | 98.6 | 98.0 | 97.3 | 96.6 | 95.9 | 95.3 | 94.6 | 93.9 | 93.3 |
| 37             | 100.0 | 99.3 | 98.7 | 98.0 | 97.3 | 96.7 | 96.0 | 95.3 | 94.7 | 94.0 | 93.4 |
| 38             | 100.0 | 99.3 | 98.7 | 98.0 | 97.4 | 96.7 | 96.1 | 95.4 | 94.8 | 94.1 | 93.5 |
| 39             | 100.0 | 99.3 | 98.7 | 98.1 | 97.4 | 96.8 | 96.1 | 95.5 | 94.9 | 94.2 | 93.6 |
| 40             | 100.0 | 99.4 | 98.7 | 98.1 | 97.4 | 96.8 | 96.2 | 95.6 | 94.9 | 94.3 | 93.7 |
| 41             | 100.0 | 99.4 | 98.7 | 98.1 | 97.5 | 96.9 | 96.2 | 95.6 | 95.0 | 94.4 | 93.8 |
| 42             | 100.0 | 99.4 | 98.8 | 98.1 | 97.5 | 96.9 | 96.3 | 95.7 | 95.1 | 94.5 | 93.9 |
| 43             | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 96.9 | 96.3 | 95.7 | 95.1 | 94.6 | 94.0 |
| 44             | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.8 | 95.2 | 94.6 | 94.0 |
| 45             | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.9 | 95.3 | 94.7 | 94.1 |
| 46             | 100.0 | 99.4 | 98.8 | 98.2 | 97.7 | 97.1 | 96.5 | 95.9 | 95.3 | 94.8 | 94.2 |
| 47             | 100.0 | 99.4 | 98.8 | 98.3 | 97.7 | 97.1 | 96.5 | 96.0 | 95.4 | 94.8 | 94.3 |
| 48             | 100.0 | 99.4 | 98.9 | 98.3 | 97.7 | 97.1 | 96.6 | 96.0 | 95.5 | 94.9 | 94.3 |
| 49             | 100.0 | 99.4 | 98.9 | 98.3 | 97.7 | 97.2 | 96.6 | 96.1 | 95.5 | 95.0 | 94.4 |
| 50             | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.2 | 96.7 | 96.1 | 95.6 | 95.0 | 94.5 |
| 51             | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.2 | 96.7 | 96.2 | 95.6 | 95.1 | 94.5 |
| 52             | 100.0 | 99.5 | 98.9 | 98.4 | 97.8 | 97.3 | 96.7 | 96.2 | 95.7 | 95.1 | 94.6 |
| 53             | 100.0 | 99.5 | 98.9 | 98.4 | 97.8 | 97.3 | 96.8 | 96.2 | 95.7 | 95.2 | 94.7 |
| 54             | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.3 | 96.8 | 96.3 | 95.8 | 95.2 | 94.7 |
| 55             | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.4 | 96.8 | 96.3 | 95.8 | 95.3 | 94.8 |
| 56             | 100.0 | 99.5 | 99.0 | 98.4 | 97.9 | 97.4 | 96.9 | 96.4 | 95.9 | 95.4 | 94.8 |
| 57             | 100.0 | 99.5 | 99.0 | 98.4 | 97.9 | 97.4 | 96.9 | 96.4 | 95.9 | 95.4 | 94.9 |



表 3a<sub>2</sub> (续)

| $t - t_w$<br>$t$ | 1.1  | 1.2  | 1.3  | 1.4  | 1.5  | 1.6  | 1.7  | 1.8  | 1.9  | 2.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               | 87.9 | 86.8 | 85.7 | 84.6 | 83.6 | 82.5 | 81.4 | 80.4 | 79.3 | 78.3 |
| 16               | 88.3 | 87.2 | 86.2 | 85.1 | 84.1 | 83.0 | 82.0 | 81.0 | 80.0 | 78.9 |
| 17               | 88.6 | 87.6 | 86.6 | 85.6 | 84.6 | 83.6 | 82.6 | 81.6 | 80.6 | 79.6 |
| 18               | 88.9 | 88.0 | 87.0 | 86.0 | 85.0 | 84.0 | 83.1 | 82.1 | 81.1 | 80.2 |
| 19               | 89.3 | 88.3 | 87.3 | 86.4 | 85.4 | 84.5 | 83.6 | 82.6 | 81.7 | 80.8 |
| 20               | 89.6 | 88.6 | 87.7 | 86.8 | 85.8 | 84.9 | 84.0 | 83.1 | 82.2 | 81.3 |
| 21               | 89.8 | 88.9 | 88.0 | 87.1 | 86.2 | 85.3 | 84.4 | 83.6 | 82.7 | 81.8 |
| 22               | 90.1 | 89.2 | 88.3 | 87.5 | 86.6 | 85.7 | 84.8 | 84.0 | 83.1 | 82.3 |
| 23               | 90.3 | 89.5 | 88.6 | 87.8 | 86.9 | 86.1 | 85.2 | 84.4 | 83.5 | 82.7 |
| 24               | 90.6 | 89.7 | 88.9 | 88.1 | 87.2 | 86.4 | 85.6 | 84.8 | 83.9 | 83.1 |
| 25               | 90.8 | 90.0 | 89.2 | 88.3 | 87.5 | 86.7 | 85.9 | 85.1 | 84.3 | 83.5 |
| 26               | 91.0 | 90.2 | 89.4 | 88.6 | 87.8 | 87.0 | 86.3 | 85.5 | 84.7 | 83.9 |
| 27               | 91.2 | 90.4 | 89.6 | 88.9 | 88.1 | 87.3 | 86.6 | 85.8 | 85.0 | 84.3 |
| 28               | 91.4 | 90.6 | 89.9 | 89.1 | 88.4 | 87.6 | 86.8 | 86.1 | 85.4 | 84.6 |
| 29               | 91.6 | 90.8 | 90.1 | 89.3 | 88.6 | 87.9 | 87.1 | 86.4 | 85.7 | 84.9 |
| 30               | 91.7 | 91.0 | 90.3 | 89.5 | 88.8 | 88.1 | 87.4 | 86.7 | 85.9 | 85.2 |
| 31               | 91.9 | 91.2 | 90.5 | 89.8 | 89.0 | 88.3 | 87.6 | 86.9 | 86.2 | 85.5 |
| 32               | 92.1 | 91.4 | 90.7 | 90.0 | 89.3 | 88.6 | 87.9 | 87.2 | 86.5 | 85.8 |
| 33               | 92.2 | 91.5 | 90.8 | 90.1 | 89.5 | 88.8 | 88.1 | 87.4 | 86.7 | 86.1 |
| 34               | 92.3 | 91.7 | 91.0 | 90.3 | 89.6 | 89.0 | 88.3 | 87.6 | 87.0 | 86.3 |
| 35               | 92.5 | 91.8 | 91.1 | 90.5 | 89.8 | 89.2 | 88.5 | 87.9 | 87.2 | 86.6 |
| 36               | 92.6 | 92.0 | 91.3 | 90.6 | 90.0 | 89.3 | 88.7 | 88.1 | 87.4 | 86.8 |
| 37               | 92.7 | 92.1 | 91.4 | 90.8 | 90.2 | 89.5 | 88.9 | 88.3 | 87.6 | 87.0 |
| 38               | 92.8 | 92.2 | 91.6 | 90.9 | 90.3 | 89.7 | 89.1 | 88.4 | 87.8 | 87.2 |
| 39               | 93.0 | 92.3 | 91.7 | 91.1 | 90.5 | 89.9 | 89.2 | 88.6 | 88.0 | 87.4 |
| 40               | 93.1 | 92.5 | 91.8 | 91.2 | 90.6 | 90.0 | 89.4 | 88.8 | 88.2 | 87.6 |
| 41               | 93.2 | 92.6 | 92.0 | 91.4 | 90.8 | 90.2 | 89.6 | 89.0 | 88.4 | 87.8 |
| 42               | 93.3 | 92.7 | 92.1 | 91.5 | 90.9 | 90.3 | 89.7 | 89.1 | 88.5 | 88.0 |
| 43               | 93.4 | 92.8 | 92.2 | 91.6 | 91.0 | 90.4 | 89.9 | 89.3 | 88.7 | 88.1 |
| 44               | 93.5 | 92.9 | 92.3 | 91.7 | 91.1 | 90.6 | 90.0 | 89.4 | 88.9 | 88.3 |
| 45               | 93.5 | 93.0 | 92.4 | 91.8 | 91.3 | 90.7 | 90.1 | 89.6 | 89.0 | 88.5 |
| 46               | 93.6 | 93.1 | 92.5 | 91.9 | 91.4 | 90.8 | 90.3 | 89.7 | 89.2 | 88.6 |
| 47               | 93.7 | 93.2 | 92.6 | 92.0 | 91.5 | 90.9 | 90.4 | 89.8 | 89.3 | 88.8 |
| 48               | 93.8 | 93.2 | 92.7 | 92.1 | 91.6 | 91.1 | 90.5 | 90.0 | 89.4 | 88.9 |
| 49               | 93.9 | 93.3 | 92.8 | 92.2 | 91.7 | 91.2 | 90.6 | 90.1 | 89.6 | 89.0 |
| 50               | 93.9 | 93.4 | 92.9 | 92.3 | 91.8 | 91.3 | 90.7 | 90.2 | 89.7 | 89.2 |
| 51               | 94.0 | 93.5 | 93.0 | 92.4 | 91.9 | 91.4 | 90.8 | 90.3 | 89.8 | 89.3 |
| 52               | 94.1 | 93.6 | 93.0 | 92.5 | 92.0 | 91.5 | 91.0 | 90.4 | 89.9 | 89.4 |
| 53               | 94.1 | 93.6 | 93.1 | 92.6 | 92.1 | 91.6 | 91.1 | 90.5 | 90.0 | 89.5 |
| 54               | 94.2 | 93.7 | 93.2 | 92.7 | 92.2 | 91.7 | 91.2 | 90.7 | 90.2 | 89.7 |
| 55               | 94.3 | 93.8 | 93.3 | 92.8 | 92.3 | 91.8 | 91.3 | 90.8 | 90.3 | 89.8 |
| 56               | 94.3 | 93.8 | 93.3 | 92.8 | 92.3 | 91.8 | 91.3 | 90.9 | 90.4 | 89.9 |
| 57               | 94.4 | 93.9 | 93.4 | 92.9 | 92.4 | 91.9 | 91.4 | 91.0 | 90.5 | 90.0 |





表 3a<sub>2</sub>(续)

| $t-t_w$<br>$t$ | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 89.6 | 89.1 | 88.7 | 88.2 | 87.7 | 87.2 | 86.8 | 86.3 | 85.9 | 85.4 |
| 59             | 89.7 | 89.2 | 88.8 | 88.3 | 87.8 | 87.4 | 86.9 | 86.5 | 86.0 | 85.5 |
| 60             | 89.8 | 89.3 | 88.9 | 88.4 | 88.0 | 87.5 | 87.0 | 86.6 | 86.1 | 85.7 |
| 61             | 89.9 | 89.5 | 89.0 | 88.5 | 88.1 | 87.6 | 87.2 | 86.7 | 86.3 | 85.8 |
| 62             | 90.0 | 89.6 | 89.1 | 88.6 | 88.2 | 87.7 | 87.3 | 86.8 | 86.4 | 86.0 |
| 63             | 90.1 | 89.7 | 89.2 | 88.8 | 88.3 | 87.9 | 87.4 | 87.0 | 86.5 | 86.1 |
| 64             | 90.2 | 89.8 | 89.3 | 88.9 | 88.4 | 88.0 | 87.5 | 87.1 | 86.7 | 86.2 |
| 65             | 90.3 | 89.8 | 89.4 | 89.0 | 88.5 | 88.1 | 87.6 | 87.2 | 86.8 | 86.3 |
| 66             | 90.4 | 89.9 | 89.5 | 89.1 | 88.6 | 88.2 | 87.8 | 87.3 | 86.9 | 86.5 |
| 67             | 90.5 | 90.0 | 89.6 | 89.2 | 88.7 | 88.3 | 87.9 | 87.4 | 87.0 | 86.6 |
| 68             | 90.5 | 90.1 | 89.7 | 89.3 | 88.8 | 88.4 | 88.0 | 87.5 | 87.1 | 86.7 |
| 69             | 90.6 | 90.2 | 89.8 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 | 87.2 | 86.8 |
| 70             | 90.7 | 90.3 | 89.9 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 | 87.3 | 86.9 |
| 71             | 90.8 | 90.4 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 | 87.5 | 87.0 |
| 72             | 90.9 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.6 | 87.1 |
| 73             | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 | 87.3 |
| 74             | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 | 87.4 |
| 75             | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 | 87.5 |
| 76             | 91.2 | 90.8 | 90.4 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 88.0 | 87.6 |
| 77             | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.7 |
| 78             | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.8 |
| 79             | 91.4 | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 |
| 80             | 91.4 | 91.0 | 90.6 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 |
| 81             | 91.5 | 91.1 | 90.7 | 90.3 | 89.9 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 |
| 82             | 91.6 | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 | 88.5 | 88.1 |
| 83             | 91.6 | 91.2 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 89.0 | 88.6 | 88.2 |
| 84             | 91.7 | 91.3 | 90.9 | 90.5 | 90.2 | 89.8 | 89.4 | 89.0 | 88.7 | 88.3 |
| 85             | 91.7 | 91.4 | 91.0 | 90.6 | 90.2 | 89.9 | 89.5 | 89.1 | 88.7 | 88.4 |
| 86             | 91.8 | 91.4 | 91.1 | 90.7 | 90.3 | 89.9 | 89.6 | 89.2 | 88.8 | 88.5 |
| 87             | 91.9 | 91.5 | 91.1 | 90.7 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 | 88.5 |
| 88             | 91.9 | 91.6 | 91.2 | 90.8 | 90.4 | 90.1 | 89.7 | 89.4 | 89.0 | 88.6 |
| 89             | 92.0 | 91.6 | 91.2 | 90.9 | 90.5 | 90.2 | 89.8 | 89.4 | 89.1 | 88.7 |
| 90             | 92.0 | 91.7 | 91.3 | 90.9 | 90.6 | 90.2 | 89.9 | 89.5 | 89.1 | 88.8 |
| 91             | 92.1 | 91.7 | 91.4 | 91.0 | 90.6 | 90.3 | 89.9 | 89.6 | 89.2 | 88.9 |
| 92             | 92.2 | 91.8 | 91.4 | 91.1 | 90.7 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 |
| 93             | 92.2 | 91.8 | 91.5 | 91.1 | 90.8 | 90.4 | 90.1 | 89.7 | 89.4 | 89.0 |
| 94             | 92.3 | 91.9 | 91.5 | 91.2 | 90.8 | 90.5 | 90.1 | 89.8 | 89.4 | 89.1 |
| 95             | 92.3 | 92.0 | 91.6 | 91.3 | 90.9 | 90.6 | 90.2 | 89.9 | 89.5 | 89.2 |
| 96             | 92.4 | 92.0 | 91.7 | 91.3 | 91.0 | 90.6 | 90.3 | 89.9 | 89.6 | 89.2 |
| 97             | 92.4 | 92.1 | 91.7 | 91.4 | 91.0 | 90.7 | 90.3 | 90.0 | 89.6 | 89.3 |
| 98             | 92.5 | 92.1 | 91.8 | 91.4 | 91.1 | 90.7 | 90.4 | 90.1 | 89.7 | 89.4 |
| 99             | 92.5 | 92.2 | 91.8 | 91.5 | 91.1 | 90.8 | 90.5 | 90.1 | 89.8 | 89.4 |
| 100            | 92.6 | 92.2 | 91.9 | 91.5 | 91.2 | 90.9 | 90.5 | 90.2 | 89.8 | 89.5 |

表 3a<sub>2</sub>(续)

| $t-t_w$<br>$t$ | 3.1  | 3.2  | 3.3  | 3.4  | 3.5  | 3.6  | 3.7  | 3.8  | 3.9  | 4.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 66.9 | 65.9 | 64.8 | 63.8 | 62.8 | 61.8 | 60.8 | 59.8 | 58.8 | 57.8 |
| 16             | 67.9 | 66.9 | 66.0 | 65.0 | 64.0 | 63.0 | 62.1 | 61.1 | 60.1 | 59.2 |
| 17             | 68.9 | 68.0 | 67.0 | 66.1 | 65.1 | 64.2 | 63.2 | 62.3 | 61.4 | 60.5 |
| 18             | 69.8 | 68.9 | 68.0 | 67.1 | 66.2 | 65.3 | 64.3 | 63.4 | 62.5 | 61.6 |
| 19             | 70.7 | 69.8 | 68.9 | 68.0 | 67.1 | 66.3 | 65.4 | 64.5 | 63.6 | 62.8 |
| 20             | 71.5 | 70.7 | 69.8 | 68.9 | 68.1 | 67.2 | 66.4 | 65.5 | 64.6 | 63.8 |
| 21             | 72.3 | 71.5 | 70.6 | 69.8 | 68.9 | 68.1 | 67.3 | 66.4 | 65.6 | 64.8 |
| 22             | 73.0 | 72.2 | 71.4 | 70.6 | 69.7 | 68.9 | 68.1 | 67.3 | 66.5 | 65.7 |
| 23             | 73.7 | 72.9 | 72.1 | 71.3 | 70.5 | 69.7 | 68.9 | 68.2 | 67.4 | 66.6 |
| 24             | 74.4 | 73.6 | 72.8 | 72.0 | 71.2 | 70.5 | 69.7 | 68.9 | 68.2 | 67.4 |
| 25             | 75.0 | 74.2 | 73.4 | 72.7 | 71.9 | 71.2 | 70.4 | 69.7 | 68.9 | 68.2 |
| 26             | 75.5 | 74.8 | 74.1 | 73.3 | 72.6 | 71.8 | 71.1 | 70.4 | 69.7 | 68.9 |
| 27             | 76.1 | 75.4 | 74.6 | 73.9 | 73.2 | 72.5 | 71.8 | 71.1 | 70.3 | 69.6 |
| 28             | 76.6 | 75.9 | 75.2 | 74.5 | 73.8 | 73.1 | 72.4 | 71.7 | 71.0 | 70.3 |
| 29             | 77.1 | 76.4 | 75.7 | 75.0 | 74.3 | 73.6 | 73.0 | 72.3 | 71.6 | 70.9 |
| 30             | 77.6 | 76.9 | 76.2 | 75.5 | 74.9 | 74.2 | 73.5 | 72.9 | 72.2 | 71.5 |
| 31             | 78.0 | 77.3 | 76.7 | 76.0 | 75.4 | 74.7 | 74.0 | 73.4 | 72.7 | 72.1 |
| 32             | 78.4 | 77.8 | 77.1 | 76.5 | 75.8 | 75.2 | 74.5 | 73.9 | 73.3 | 72.6 |
| 33             | 78.8 | 78.2 | 77.6 | 76.9 | 76.3 | 75.6 | 75.0 | 74.4 | 73.8 | 73.1 |
| 34             | 79.2 | 78.6 | 78.0 | 77.3 | 76.7 | 76.1 | 75.5 | 74.9 | 74.2 | 73.6 |
| 35             | 79.6 | 79.0 | 78.3 | 77.7 | 77.1 | 76.5 | 75.9 | 75.3 | 74.7 | 74.1 |
| 36             | 79.9 | 79.3 | 78.7 | 78.1 | 77.5 | 76.9 | 76.3 | 75.7 | 75.1 | 74.5 |
| 37             | 80.3 | 79.7 | 79.1 | 78.5 | 77.9 | 77.3 | 76.7 | 76.1 | 75.5 | 75.0 |
| 38             | 80.6 | 80.0 | 79.4 | 78.8 | 78.2 | 77.7 | 77.1 | 76.5 | 75.9 | 75.4 |
| 39             | 80.9 | 80.3 | 79.7 | 79.2 | 78.6 | 78.0 | 77.4 | 76.9 | 76.3 | 75.8 |
| 40             | 81.2 | 80.6 | 80.0 | 79.5 | 78.9 | 78.4 | 77.8 | 77.2 | 76.7 | 76.1 |
| 41             | 81.5 | 80.9 | 80.3 | 79.8 | 79.2 | 78.7 | 78.1 | 77.6 | 77.0 | 76.5 |
| 42             | 81.7 | 81.2 | 80.6 | 80.1 | 79.5 | 79.0 | 78.4 | 77.9 | 77.4 | 76.8 |
| 43             | 82.0 | 81.4 | 80.9 | 80.4 | 79.8 | 79.3 | 78.7 | 78.2 | 77.7 | 77.1 |
| 44             | 82.2 | 81.7 | 81.2 | 80.6 | 80.1 | 79.6 | 79.0 | 78.5 | 78.0 | 77.5 |
| 45             | 82.5 | 81.9 | 81.4 | 80.9 | 80.4 | 79.8 | 79.3 | 78.8 | 78.3 | 77.8 |
| 46             | 82.7 | 82.2 | 81.7 | 81.1 | 80.6 | 80.1 | 79.6 | 79.1 | 78.6 | 78.1 |
| 47             | 82.9 | 82.4 | 81.9 | 81.4 | 80.9 | 80.4 | 79.9 | 79.3 | 78.8 | 78.3 |
| 48             | 83.1 | 82.6 | 82.1 | 81.6 | 81.1 | 80.6 | 80.1 | 79.6 | 79.1 | 78.6 |
| 49             | 83.3 | 82.8 | 82.3 | 81.8 | 81.3 | 80.8 | 80.3 | 79.9 | 79.4 | 78.9 |
| 50             | 83.5 | 83.0 | 82.6 | 82.1 | 81.6 | 81.1 | 80.6 | 80.1 | 79.6 | 79.1 |
| 51             | 83.7 | 83.2 | 82.8 | 82.3 | 81.8 | 81.3 | 80.8 | 80.3 | 79.8 | 79.4 |
| 52             | 83.9 | 83.4 | 83.0 | 82.5 | 82.0 | 81.5 | 81.0 | 80.6 | 80.1 | 79.6 |
| 53             | 84.1 | 83.6 | 83.1 | 82.7 | 82.2 | 81.7 | 81.2 | 80.8 | 80.3 | 79.8 |
| 54             | 84.3 | 83.8 | 83.3 | 82.9 | 82.4 | 81.9 | 81.4 | 81.0 | 80.5 | 80.1 |
| 55             | 84.5 | 84.0 | 83.5 | 83.0 | 82.6 | 82.1 | 81.6 | 81.2 | 80.7 | 80.3 |
| 56             | 84.6 | 84.2 | 83.7 | 83.2 | 82.8 | 82.3 | 81.8 | 81.4 | 80.9 | 80.5 |
| 57             | 84.8 | 84.3 | 83.9 | 83.4 | 82.9 | 82.5 | 82.0 | 81.6 | 81.1 | 80.7 |

表 3a<sub>2</sub> (续)

| $t$ \ $t-t_w$ | 3.1  | 3.2  | 3.3  | 3.4  | 3.5  | 3.6  | 3.7  | 3.8  | 3.9  | 4.0  |
|---------------|------|------|------|------|------|------|------|------|------|------|
| 58            | 84.9 | 84.5 | 84.0 | 83.6 | 83.1 | 82.7 | 82.2 | 81.8 | 81.3 | 80.9 |
| 59            | 85.1 | 84.6 | 84.2 | 83.7 | 83.3 | 82.8 | 82.4 | 81.9 | 81.5 | 81.1 |
| 60            | 85.2 | 84.8 | 84.3 | 83.9 | 83.4 | 83.0 | 82.6 | 82.1 | 81.7 | 81.3 |
| 61            | 85.4 | 84.9 | 84.5 | 84.0 | 83.6 | 83.2 | 82.7 | 82.3 | 81.9 | 81.4 |
| 62            | 85.5 | 85.1 | 84.6 | 84.2 | 83.8 | 83.3 | 82.9 | 82.5 | 82.0 | 81.6 |
| 63            | 85.7 | 85.2 | 84.8 | 84.3 | 83.9 | 83.5 | 83.1 | 82.6 | 82.2 | 81.8 |
| 64            | 85.8 | 85.4 | 84.9 | 84.5 | 84.1 | 83.6 | 83.2 | 82.8 | 82.4 | 81.9 |
| 65            | 85.9 | 85.5 | 85.1 | 84.6 | 84.2 | 83.8 | 83.4 | 82.9 | 82.5 | 82.1 |
| 66            | 86.0 | 85.6 | 85.2 | 84.8 | 84.3 | 83.9 | 83.5 | 83.1 | 82.7 | 82.3 |
| 67            | 86.2 | 85.7 | 85.3 | 84.9 | 84.5 | 84.1 | 83.7 | 83.2 | 82.8 | 82.4 |
| 68            | 86.3 | 85.9 | 85.5 | 85.0 | 84.6 | 84.2 | 83.8 | 83.4 | 83.0 | 82.6 |
| 69            | 86.4 | 86.0 | 85.6 | 85.2 | 84.8 | 84.3 | 83.9 | 83.5 | 83.1 | 82.7 |
| 70            | 86.5 | 86.1 | 85.7 | 85.3 | 84.9 | 84.5 | 84.1 | 83.7 | 83.3 | 82.9 |
| 71            | 86.6 | 86.2 | 85.8 | 85.4 | 85.0 | 84.6 | 84.2 | 83.8 | 83.4 | 83.0 |
| 72            | 86.7 | 86.3 | 85.9 | 85.5 | 85.1 | 84.7 | 84.3 | 83.9 | 83.5 | 83.2 |
| 73            | 86.9 | 86.5 | 86.1 | 85.7 | 85.3 | 84.9 | 84.5 | 84.1 | 83.7 | 83.3 |
| 74            | 87.0 | 86.6 | 86.2 | 85.8 | 85.4 | 85.0 | 84.6 | 84.2 | 83.8 | 83.4 |
| 75            | 87.1 | 86.7 | 86.3 | 85.9 | 85.5 | 85.1 | 84.7 | 84.3 | 83.9 | 83.6 |
| 76            | 87.2 | 86.8 | 86.4 | 86.0 | 85.6 | 85.2 | 84.8 | 84.4 | 84.1 | 83.7 |
| 77            | 87.3 | 86.9 | 86.5 | 86.1 | 85.7 | 85.3 | 85.0 | 84.6 | 84.2 | 83.8 |
| 78            | 87.4 | 87.0 | 86.6 | 86.2 | 85.8 | 85.4 | 85.1 | 84.7 | 84.3 | 83.9 |
| 79            | 87.5 | 87.1 | 86.7 | 86.3 | 85.9 | 85.6 | 85.2 | 84.8 | 84.4 | 84.1 |
| 80            | 87.6 | 87.2 | 86.8 | 86.4 | 86.0 | 85.7 | 85.3 | 84.9 | 84.5 | 84.2 |
| 81            | 87.7 | 87.3 | 86.9 | 86.5 | 86.1 | 85.8 | 85.4 | 85.0 | 84.7 | 84.3 |
| 82            | 87.7 | 87.4 | 87.0 | 86.6 | 86.2 | 85.9 | 85.5 | 85.1 | 84.8 | 84.4 |
| 83            | 87.8 | 87.5 | 87.1 | 86.7 | 86.4 | 86.0 | 85.6 | 85.3 | 84.9 | 84.5 |
| 84            | 87.9 | 87.6 | 87.2 | 86.8 | 86.4 | 86.1 | 85.7 | 85.4 | 85.0 | 84.6 |
| 85            | 88.0 | 87.6 | 87.3 | 86.9 | 86.5 | 86.2 | 85.8 | 85.5 | 85.1 | 84.7 |
| 86            | 88.1 | 87.7 | 87.4 | 87.0 | 86.6 | 86.3 | 85.9 | 85.6 | 85.2 | 84.9 |
| 87            | 88.2 | 87.8 | 87.5 | 87.1 | 86.7 | 86.4 | 86.0 | 85.7 | 85.3 | 85.0 |
| 88            | 88.3 | 87.9 | 87.5 | 87.2 | 86.8 | 86.5 | 86.1 | 85.8 | 85.4 | 85.1 |
| 89            | 88.3 | 88.0 | 87.6 | 87.3 | 86.9 | 86.6 | 86.2 | 85.9 | 85.5 | 85.2 |
| 90            | 88.4 | 88.1 | 87.7 | 87.4 | 87.0 | 86.7 | 86.3 | 86.0 | 85.6 | 85.3 |
| 91            | 88.5 | 88.2 | 87.8 | 87.5 | 87.1 | 86.8 | 86.4 | 86.1 | 85.7 | 85.4 |
| 92            | 88.6 | 88.2 | 87.9 | 87.5 | 87.2 | 86.8 | 86.5 | 86.2 | 85.8 | 85.5 |
| 93            | 88.7 | 88.3 | 88.0 | 87.6 | 87.3 | 86.9 | 86.6 | 86.3 | 85.9 | 85.6 |
| 94            | 88.7 | 88.4 | 88.1 | 87.7 | 87.4 | 87.0 | 86.7 | 86.3 | 86.0 | 85.7 |
| 95            | 88.8 | 88.5 | 88.1 | 87.8 | 87.4 | 87.1 | 86.8 | 86.4 | 86.1 | 85.8 |
| 96            | 88.9 | 88.6 | 88.2 | 87.9 | 87.5 | 87.2 | 86.9 | 86.5 | 86.2 | 85.9 |
| 97            | 89.0 | 88.6 | 88.3 | 88.0 | 87.6 | 87.3 | 86.9 | 86.6 | 86.3 | 85.9 |
| 98            | 89.0 | 88.7 | 88.4 | 88.0 | 87.7 | 87.4 | 87.0 | 86.7 | 86.4 | 86.0 |
| 99            | 89.1 | 88.8 | 88.4 | 88.1 | 87.8 | 87.4 | 87.1 | 86.8 | 86.5 | 86.1 |
| 100           | 89.2 | 88.8 | 88.5 | 88.2 | 87.9 | 87.5 | 87.2 | 86.9 | 86.5 | 86.2 |

表 3a<sub>2</sub>(续)

| $t-t_w$<br>$t$ | 4.1  | 4.2  | 4.3  | 4.4  | 4.5  | 4.6  | 4.7  | 4.8  | 4.9  | 5.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 56.9 | 55.9 | 54.9 | 53.9 | 52.9 | 52.0 | 51.0 | 50.0 | 49.1 | 48.1 |
| 16             | 58.2 | 57.3 | 56.3 | 55.4 | 54.4 | 53.5 | 52.6 | 51.6 | 50.7 | 49.8 |
| 17             | 59.5 | 58.6 | 57.7 | 56.8 | 55.9 | 54.9 | 54.0 | 53.1 | 52.2 | 51.3 |
| 18             | 60.7 | 59.9 | 59.0 | 58.1 | 57.2 | 56.3 | 55.4 | 54.5 | 53.7 | 52.8 |
| 19             | 61.9 | 61.0 | 60.2 | 59.3 | 58.4 | 57.6 | 56.7 | 55.9 | 55.0 | 54.2 |
| 20             | 63.0 | 62.1 | 61.3 | 60.4 | 59.6 | 58.8 | 58.0 | 57.1 | 56.3 | 55.5 |
| 21             | 64.0 | 63.2 | 62.3 | 61.5 | 60.7 | 59.9 | 59.1 | 58.3 | 57.5 | 56.7 |
| 22             | 64.9 | 64.1 | 63.3 | 62.5 | 61.8 | 61.0 | 60.2 | 59.4 | 58.6 | 57.9 |
| 23             | 65.8 | 65.0 | 64.3 | 63.5 | 62.7 | 62.0 | 61.2 | 60.5 | 59.7 | 58.9 |
| 24             | 66.7 | 65.9 | 65.2 | 64.4 | 63.7 | 62.9 | 62.2 | 61.4 | 60.7 | 60.0 |
| 25             | 67.5 | 66.7 | 66.0 | 65.3 | 64.5 | 63.8 | 63.1 | 62.4 | 61.6 | 60.9 |
| 26             | 68.2 | 67.5 | 66.8 | 66.1 | 65.4 | 64.7 | 63.9 | 63.2 | 62.5 | 61.8 |
| 27             | 68.9 | 68.2 | 67.5 | 66.8 | 66.1 | 65.5 | 64.8 | 64.1 | 63.4 | 62.7 |
| 28             | 69.6 | 68.9 | 68.2 | 67.6 | 66.9 | 66.2 | 65.5 | 64.9 | 64.2 | 63.5 |
| 29             | 70.3 | 69.6 | 68.9 | 68.2 | 67.6 | 66.9 | 66.3 | 65.6 | 65.0 | 64.3 |
| 30             | 70.9 | 70.2 | 69.6 | 68.9 | 68.3 | 67.6 | 67.0 | 66.3 | 65.7 | 65.0 |
| 31             | 71.4 | 70.8 | 70.2 | 69.5 | 68.9 | 68.2 | 67.6 | 67.0 | 66.4 | 65.7 |
| 32             | 72.0 | 71.4 | 70.7 | 70.1 | 69.5 | 68.9 | 68.2 | 67.6 | 67.0 | 66.4 |
| 33             | 72.5 | 71.9 | 71.3 | 70.7 | 70.1 | 69.4 | 68.8 | 68.2 | 67.6 | 67.0 |
| 34             | 73.0 | 72.4 | 71.8 | 71.2 | 70.6 | 70.0 | 69.4 | 68.8 | 68.2 | 67.6 |
| 35             | 73.5 | 72.9 | 72.3 | 71.7 | 71.1 | 70.5 | 69.9 | 69.4 | 68.8 | 68.2 |
| 36             | 73.9 | 73.4 | 72.8 | 72.2 | 71.6 | 71.0 | 70.5 | 69.9 | 69.3 | 68.7 |
| 37             | 74.4 | 73.8 | 73.2 | 72.7 | 72.1 | 71.5 | 71.0 | 70.4 | 69.8 | 69.3 |
| 38             | 74.8 | 74.2 | 73.7 | 73.1 | 72.5 | 72.0 | 71.4 | 70.9 | 70.3 | 69.8 |
| 39             | 75.2 | 74.6 | 74.1 | 73.5 | 73.0 | 72.4 | 71.9 | 71.3 | 70.8 | 70.2 |
| 40             | 75.6 | 75.0 | 74.5 | 73.9 | 73.4 | 72.8 | 72.3 | 71.8 | 71.2 | 70.7 |
| 41             | 75.9 | 75.4 | 74.9 | 74.3 | 73.8 | 73.2 | 72.7 | 72.2 | 71.7 | 71.1 |
| 42             | 76.3 | 75.8 | 75.2 | 74.7 | 74.2 | 73.6 | 73.1 | 72.6 | 72.1 | 71.6 |
| 43             | 76.6 | 76.1 | 75.6 | 75.0 | 74.5 | 74.0 | 73.5 | 73.0 | 72.5 | 72.0 |
| 44             | 76.9 | 76.4 | 75.9 | 75.4 | 74.9 | 74.4 | 73.9 | 73.4 | 72.8 | 72.3 |
| 45             | 77.3 | 76.7 | 76.2 | 75.7 | 75.2 | 74.7 | 74.2 | 73.7 | 73.2 | 72.7 |
| 46             | 77.5 | 77.0 | 76.5 | 76.0 | 75.5 | 75.0 | 74.5 | 74.1 | 73.6 | 73.1 |
| 47             | 77.8 | 77.3 | 76.8 | 76.3 | 75.9 | 75.4 | 74.9 | 74.4 | 73.9 | 73.4 |
| 48             | 78.1 | 77.6 | 77.1 | 76.6 | 76.2 | 75.7 | 75.2 | 74.7 | 74.2 | 73.7 |
| 49             | 78.4 | 77.9 | 77.4 | 76.9 | 76.4 | 76.0 | 75.5 | 75.0 | 74.5 | 74.1 |
| 50             | 78.6 | 78.2 | 77.7 | 77.2 | 76.7 | 76.3 | 75.8 | 75.3 | 74.8 | 74.4 |
| 51             | 78.9 | 78.4 | 77.9 | 77.5 | 77.0 | 76.5 | 76.1 | 75.6 | 75.1 | 74.7 |
| 52             | 79.1 | 78.7 | 78.2 | 77.7 | 77.3 | 76.8 | 76.3 | 75.9 | 75.4 | 75.0 |
| 53             | 79.4 | 78.9 | 78.4 | 78.0 | 77.5 | 77.1 | 76.6 | 76.1 | 75.7 | 75.2 |
| 54             | 79.6 | 79.1 | 78.7 | 78.2 | 77.8 | 77.3 | 76.9 | 76.4 | 76.0 | 75.5 |
| 55             | 79.8 | 79.4 | 78.9 | 78.5 | 78.0 | 77.6 | 77.1 | 76.7 | 76.2 | 75.8 |













表 3a<sub>2</sub> (续)

| $t \begin{matrix} \diagup \\ t-t_w \end{matrix}$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|--------------------------------------------------|------|------|------|------|------|------|------|------|------|------|
| 58                                               | 59.9 | 59.2 | 58.4 | 57.7 | 57.0 | 56.3 | 55.6 | 54.9 | 54.2 | 53.5 |
| 59                                               | 60.3 | 59.6 | 58.8 | 58.1 | 57.4 | 56.7 | 56.0 | 55.3 | 54.7 | 54.0 |
| 60                                               | 60.7 | 59.9 | 59.2 | 58.5 | 57.8 | 57.1 | 56.5 | 55.8 | 55.1 | 54.4 |
| 61                                               | 61.0 | 60.3 | 59.6 | 58.9 | 58.2 | 57.5 | 56.9 | 56.2 | 55.5 | 54.8 |
| 62                                               | 61.4 | 60.7 | 60.0 | 59.3 | 58.6 | 57.9 | 57.2 | 56.6 | 55.9 | 55.2 |
| 63                                               | 61.7 | 61.0 | 60.3 | 59.7 | 59.0 | 58.3 | 57.6 | 57.0 | 56.3 | 55.6 |
| 64                                               | 62.1 | 61.4 | 60.7 | 60.0 | 59.3 | 58.7 | 58.0 | 57.3 | 56.7 | 56.0 |
| 65                                               | 62.4 | 61.7 | 61.0 | 60.4 | 59.7 | 59.0 | 58.4 | 57.7 | 57.1 | 56.4 |
| 66                                               | 62.7 | 62.0 | 61.4 | 60.7 | 60.0 | 59.4 | 58.7 | 58.1 | 57.4 | 56.8 |
| 67                                               | 63.0 | 62.4 | 61.7 | 61.0 | 60.4 | 59.7 | 59.1 | 58.4 | 57.8 | 57.1 |
| 68                                               | 63.3 | 62.7 | 62.0 | 61.3 | 60.7 | 60.0 | 59.4 | 58.7 | 58.1 | 57.5 |
| 69                                               | 63.6 | 63.0 | 62.3 | 61.7 | 61.0 | 60.4 | 59.7 | 59.1 | 58.4 | 57.8 |
| 70                                               | 63.9 | 63.3 | 62.6 | 62.0 | 61.3 | 60.7 | 60.0 | 59.4 | 58.8 | 58.2 |
| 71                                               | 64.2 | 63.6 | 62.9 | 62.3 | 61.6 | 61.0 | 60.3 | 59.7 | 59.1 | 58.5 |
| 72                                               | 64.5 | 63.8 | 63.2 | 62.6 | 61.9 | 61.3 | 60.7 | 60.0 | 59.4 | 58.8 |
| 73                                               | 64.8 | 64.1 | 63.5 | 62.8 | 62.2 | 61.6 | 61.0 | 60.3 | 59.7 | 59.1 |
| 74                                               | 65.0 | 64.4 | 63.8 | 63.1 | 62.5 | 61.9 | 61.2 | 60.6 | 60.0 | 59.4 |
| 75                                               | 65.3 | 64.7 | 64.0 | 63.4 | 62.8 | 62.1 | 61.5 | 60.9 | 60.3 | 59.7 |
| 76                                               | 65.6 | 64.9 | 64.3 | 63.7 | 63.0 | 62.4 | 61.8 | 61.2 | 60.6 | 60.0 |
| 77                                               | 65.8 | 65.2 | 64.5 | 63.9 | 63.3 | 62.7 | 62.1 | 61.5 | 60.9 | 60.3 |
| 78                                               | 66.0 | 65.4 | 64.8 | 64.2 | 63.6 | 63.0 | 62.4 | 61.8 | 61.2 | 60.6 |
| 79                                               | 66.3 | 65.7 | 65.1 | 64.4 | 63.8 | 63.2 | 62.6 | 62.0 | 61.4 | 60.8 |
| 80                                               | 66.5 | 65.9 | 65.3 | 64.7 | 64.1 | 63.5 | 62.9 | 62.3 | 61.7 | 61.1 |
| 81                                               | 66.8 | 66.1 | 65.5 | 64.9 | 64.3 | 63.7 | 63.1 | 62.5 | 62.0 | 61.4 |
| 82                                               | 67.0 | 66.4 | 65.8 | 65.2 | 64.6 | 64.0 | 63.4 | 62.8 | 62.2 | 61.6 |
| 83                                               | 67.2 | 66.6 | 66.0 | 65.4 | 64.8 | 64.2 | 63.6 | 63.1 | 62.5 | 61.9 |
| 84                                               | 67.4 | 66.8 | 66.2 | 65.6 | 65.1 | 64.5 | 63.9 | 63.3 | 62.7 | 62.2 |
| 85                                               | 67.7 | 67.1 | 66.5 | 65.9 | 65.3 | 64.7 | 64.1 | 63.5 | 63.0 | 62.4 |
| 86                                               | 67.9 | 67.3 | 66.7 | 66.1 | 65.5 | 64.9 | 64.4 | 63.8 | 63.2 | 62.6 |
| 87                                               | 68.1 | 67.5 | 66.9 | 66.3 | 65.7 | 65.2 | 64.6 | 64.0 | 63.5 | 62.9 |
| 88                                               | 68.3 | 67.7 | 67.1 | 66.5 | 66.0 | 65.4 | 64.8 | 64.2 | 63.7 | 63.1 |
| 89                                               | 68.5 | 67.9 | 67.3 | 66.8 | 66.2 | 65.6 | 65.0 | 64.5 | 63.9 | 63.4 |
| 90                                               | 68.7 | 68.1 | 67.5 | 67.0 | 66.4 | 65.8 | 65.3 | 64.7 | 64.1 | 63.6 |
| 91                                               | 68.9 | 68.3 | 67.7 | 67.2 | 66.6 | 66.0 | 65.5 | 64.9 | 64.4 | 63.8 |
| 92                                               | 69.1 | 68.5 | 68.0 | 67.4 | 66.8 | 66.3 | 65.7 | 65.1 | 64.6 | 64.0 |
| 93                                               | 69.3 | 68.7 | 68.2 | 67.6 | 67.0 | 66.5 | 65.9 | 65.4 | 64.8 | 64.3 |
| 94                                               | 69.5 | 68.9 | 68.3 | 67.8 | 67.2 | 66.7 | 66.1 | 65.6 | 65.0 | 64.5 |
| 95                                               | 69.7 | 69.1 | 68.5 | 68.0 | 67.4 | 66.9 | 66.3 | 65.8 | 65.2 | 64.7 |
| 96                                               | 69.9 | 69.3 | 68.7 | 68.2 | 67.6 | 67.1 | 66.5 | 66.0 | 65.4 | 64.9 |
| 97                                               | 70.0 | 69.5 | 68.9 | 68.4 | 67.8 | 67.3 | 66.7 | 66.2 | 65.6 | 65.1 |
| 98                                               | 70.2 | 69.7 | 69.1 | 68.6 | 68.0 | 67.5 | 66.9 | 66.4 | 65.9 | 65.3 |
| 99                                               | 70.4 | 69.9 | 69.3 | 68.7 | 68.2 | 67.7 | 67.1 | 66.6 | 66.1 | 65.5 |
| 100                                              | 70.6 | 70.0 | 69.5 | 68.9 | 68.4 | 67.9 | 67.3 | 66.8 | 66.3 | 65.7 |





表 3b 球状水银温度表相对湿度查算表  
 $P=100\text{ kPa}, A=0.7947 \times 10^{-3} \text{ }^{\circ}\text{C}^{-1} (0.8\text{ m/s})$

| $t-t_w$ | 0.0   | 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|---------|-------|------|------|------|------|------|------|------|------|------|------|
| $t$     |       |      |      |      |      |      |      |      |      |      |      |
| 15      | 100.0 | 98.9 | 97.8 | 96.7 | 95.6 | 94.5 | 93.4 | 92.3 | 91.2 | 90.2 | 89.1 |
| 16      | 100.0 | 98.9 | 97.9 | 96.8 | 95.7 | 94.7 | 93.6 | 92.6 | 91.5 | 90.5 | 89.4 |
| 17      | 100.0 | 99.0 | 97.9 | 96.9 | 95.9 | 94.8 | 93.8 | 92.8 | 91.8 | 90.7 | 89.7 |
| 18      | 100.0 | 99.0 | 98.0 | 97.0 | 96.0 | 95.0 | 94.0 | 93.0 | 92.0 | 91.0 | 90.0 |
| 19      | 100.0 | 99.0 | 98.0 | 97.1 | 96.1 | 95.1 | 94.1 | 93.2 | 92.2 | 91.3 | 90.3 |
| 20      | 100.0 | 99.0 | 98.1 | 97.1 | 96.2 | 95.2 | 94.3 | 93.4 | 92.4 | 91.5 | 90.6 |
| 21      | 100.0 | 99.1 | 98.1 | 97.2 | 96.3 | 95.4 | 94.5 | 93.5 | 92.6 | 91.7 | 90.8 |
| 22      | 100.0 | 99.1 | 98.2 | 97.3 | 96.4 | 95.5 | 94.6 | 93.7 | 92.8 | 91.9 | 91.1 |
| 23      | 100.0 | 99.1 | 98.2 | 97.3 | 96.5 | 95.6 | 94.7 | 93.9 | 93.0 | 92.1 | 91.3 |
| 24      | 100.0 | 99.1 | 98.3 | 97.4 | 96.6 | 95.7 | 94.9 | 94.0 | 93.2 | 92.3 | 91.5 |
| 25      | 100.0 | 99.2 | 98.3 | 97.5 | 96.6 | 95.8 | 95.0 | 94.1 | 93.3 | 92.5 | 91.7 |
| 26      | 100.0 | 99.2 | 98.3 | 97.5 | 96.7 | 95.9 | 95.1 | 94.3 | 93.5 | 92.7 | 91.9 |
| 27      | 100.0 | 99.2 | 98.4 | 97.6 | 96.8 | 96.0 | 95.2 | 94.4 | 93.6 | 92.8 | 92.0 |
| 28      | 100.0 | 99.2 | 98.4 | 97.6 | 96.9 | 96.1 | 95.3 | 94.5 | 93.7 | 93.0 | 92.2 |
| 29      | 100.0 | 99.2 | 98.5 | 97.7 | 96.9 | 96.2 | 95.4 | 94.6 | 93.9 | 93.1 | 92.4 |
| 30      | 100.0 | 99.2 | 98.5 | 97.7 | 97.0 | 96.2 | 95.5 | 94.7 | 94.0 | 93.3 | 92.5 |
| 31      | 100.0 | 99.3 | 98.5 | 97.8 | 97.0 | 96.3 | 95.6 | 94.8 | 94.1 | 93.4 | 92.7 |
| 32      | 100.0 | 99.3 | 98.5 | 97.8 | 97.1 | 96.4 | 95.7 | 94.9 | 94.2 | 93.5 | 92.8 |
| 33      | 100.0 | 99.3 | 98.6 | 97.9 | 97.1 | 96.4 | 95.7 | 95.0 | 94.3 | 93.6 | 92.9 |
| 34      | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.5 | 95.8 | 95.1 | 94.4 | 93.7 | 93.1 |
| 35      | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.6 | 95.9 | 95.2 | 94.5 | 93.9 | 93.2 |
| 36      | 100.0 | 99.3 | 98.6 | 98.0 | 97.3 | 96.6 | 96.0 | 95.3 | 94.6 | 94.0 | 93.3 |
| 37      | 100.0 | 99.3 | 98.7 | 98.0 | 97.3 | 96.7 | 96.0 | 95.4 | 94.7 | 94.1 | 93.4 |
| 38      | 100.0 | 99.3 | 98.7 | 98.0 | 97.4 | 96.7 | 96.1 | 95.4 | 94.8 | 94.2 | 93.5 |
| 39      | 100.0 | 99.4 | 98.7 | 98.1 | 97.4 | 96.8 | 96.1 | 95.5 | 94.9 | 94.2 | 93.6 |
| 40      | 100.0 | 99.4 | 98.7 | 98.1 | 97.5 | 96.8 | 96.2 | 95.6 | 95.0 | 94.3 | 93.7 |
| 41      | 100.0 | 99.4 | 98.7 | 98.1 | 97.5 | 96.9 | 96.3 | 95.6 | 95.0 | 94.4 | 93.8 |
| 42      | 100.0 | 99.4 | 98.8 | 98.1 | 97.5 | 96.9 | 96.3 | 95.7 | 95.1 | 94.5 | 93.9 |
| 43      | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.8 | 95.2 | 94.6 | 94.0 |
| 44      | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.8 | 95.2 | 94.6 | 94.1 |
| 45      | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.5 | 95.9 | 95.3 | 94.7 | 94.1 |
| 46      | 100.0 | 99.4 | 98.8 | 98.2 | 97.7 | 97.1 | 96.5 | 95.9 | 95.4 | 94.8 | 94.2 |
| 47      | 100.0 | 99.4 | 98.8 | 98.3 | 97.7 | 97.1 | 96.5 | 96.0 | 95.4 | 94.9 | 94.3 |
| 48      | 100.0 | 99.4 | 98.9 | 98.3 | 97.7 | 97.2 | 96.6 | 96.0 | 95.5 | 94.9 | 94.4 |
| 49      | 100.0 | 99.4 | 98.9 | 98.3 | 97.7 | 97.2 | 96.6 | 96.1 | 95.5 | 95.0 | 94.4 |
| 50      | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.2 | 96.7 | 96.1 | 95.6 | 95.0 | 94.5 |
| 51      | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.3 | 96.7 | 96.2 | 95.6 | 95.1 | 94.6 |
| 52      | 100.0 | 99.5 | 98.9 | 98.4 | 97.8 | 97.3 | 96.8 | 96.2 | 95.7 | 95.2 | 94.6 |
| 53      | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.3 | 96.8 | 96.3 | 95.7 | 95.2 | 94.7 |
| 54      | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.3 | 96.8 | 96.3 | 95.8 | 95.3 | 94.7 |
| 55      | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.4 | 96.9 | 96.3 | 95.8 | 95.3 | 94.8 |
| 56      | 100.0 | 99.5 | 99.0 | 98.4 | 97.9 | 97.4 | 96.9 | 96.4 | 95.9 | 95.4 | 94.9 |
| 57      | 100.0 | 99.5 | 99.0 | 98.5 | 97.9 | 97.4 | 96.9 | 96.4 | 95.9 | 95.4 | 94.9 |



表 3b (续)

| $t-t_w$<br>$t$ | 1.1  | 1.2  | 1.3  | 1.4  | 1.5  | 1.6  | 1.7  | 1.8  | 1.9  | 2.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 88.0 | 86.9 | 85.9 | 84.8 | 83.7 | 82.7 | 81.6 | 80.6 | 79.5 | 78.5 |
| 16             | 88.4 | 87.3 | 86.3 | 85.3 | 84.2 | 83.2 | 82.2 | 81.2 | 80.2 | 79.2 |
| 17             | 88.7 | 87.7 | 86.7 | 85.7 | 84.7 | 83.7 | 82.7 | 81.8 | 80.8 | 79.8 |
| 18             | 89.0 | 88.1 | 87.1 | 86.1 | 85.2 | 84.2 | 83.2 | 82.3 | 81.3 | 80.4 |
| 19             | 89.4 | 88.4 | 87.5 | 86.5 | 85.6 | 84.6 | 83.7 | 82.8 | 81.9 | 80.9 |
| 20             | 89.6 | 88.7 | 87.8 | 86.9 | 86.0 | 85.1 | 84.2 | 83.3 | 82.4 | 81.5 |
| 21             | 89.9 | 89.0 | 88.1 | 87.2 | 86.3 | 85.5 | 84.6 | 83.7 | 82.8 | 82.0 |
| 22             | 90.2 | 89.3 | 88.4 | 87.6 | 86.7 | 85.8 | 85.0 | 84.1 | 83.3 | 82.4 |
| 23             | 90.4 | 89.6 | 88.7 | 87.9 | 87.0 | 86.2 | 85.4 | 84.5 | 83.7 | 82.9 |
| 24             | 90.6 | 89.8 | 89.0 | 88.2 | 87.3 | 86.5 | 85.7 | 84.9 | 84.1 | 83.3 |
| 25             | 90.9 | 90.1 | 89.2 | 88.4 | 87.6 | 86.8 | 86.0 | 85.2 | 84.5 | 83.7 |
| 26             | 91.1 | 90.3 | 89.5 | 88.7 | 87.9 | 87.1 | 86.4 | 85.6 | 84.8 | 84.0 |
| 27             | 91.3 | 90.5 | 89.7 | 88.9 | 88.2 | 87.4 | 86.7 | 85.9 | 85.1 | 84.4 |
| 28             | 91.5 | 90.7 | 89.9 | 89.2 | 88.4 | 87.7 | 86.9 | 86.2 | 85.5 | 84.7 |
| 29             | 91.6 | 90.9 | 90.1 | 89.4 | 88.7 | 87.9 | 87.2 | 86.5 | 85.8 | 85.0 |
| 30             | 91.8 | 91.1 | 90.3 | 89.6 | 88.9 | 88.2 | 87.5 | 86.7 | 86.0 | 85.3 |
| 31             | 92.0 | 91.2 | 90.5 | 89.8 | 89.1 | 88.4 | 87.7 | 87.0 | 86.3 | 85.6 |
| 32             | 92.1 | 91.4 | 90.7 | 90.0 | 89.3 | 88.6 | 87.9 | 87.3 | 86.6 | 85.9 |
| 33             | 92.3 | 91.6 | 90.9 | 90.2 | 89.5 | 88.8 | 88.2 | 87.5 | 86.8 | 86.1 |
| 34             | 92.4 | 91.7 | 91.0 | 90.4 | 89.7 | 89.0 | 88.4 | 87.7 | 87.0 | 86.4 |
| 35             | 92.5 | 91.9 | 91.2 | 90.5 | 89.9 | 89.2 | 88.6 | 87.9 | 87.3 | 86.6 |
| 36             | 92.6 | 92.0 | 91.3 | 90.7 | 90.0 | 89.4 | 88.8 | 88.1 | 87.5 | 86.9 |
| 37             | 92.8 | 92.1 | 91.5 | 90.8 | 90.2 | 89.6 | 88.9 | 88.3 | 87.7 | 87.1 |
| 38             | 92.9 | 92.2 | 91.6 | 91.0 | 90.4 | 89.7 | 89.1 | 88.5 | 87.9 | 87.3 |
| 39             | 93.0 | 92.4 | 91.7 | 91.1 | 90.5 | 89.9 | 89.3 | 88.7 | 88.1 | 87.5 |
| 40             | 93.1 | 92.5 | 91.9 | 91.3 | 90.7 | 90.1 | 89.5 | 88.9 | 88.3 | 87.7 |
| 41             | 93.2 | 92.6 | 92.0 | 91.4 | 90.8 | 90.2 | 89.6 | 89.0 | 88.4 | 87.8 |
| 42             | 93.3 | 92.7 | 92.1 | 91.5 | 90.9 | 90.3 | 89.8 | 89.2 | 88.6 | 88.0 |
| 43             | 93.4 | 92.8 | 92.2 | 91.6 | 91.1 | 90.5 | 89.9 | 89.3 | 88.8 | 88.2 |
| 44             | 93.5 | 92.9 | 92.3 | 91.7 | 91.2 | 90.6 | 90.0 | 89.5 | 88.9 | 88.3 |
| 45             | 93.6 | 93.0 | 92.4 | 91.9 | 91.3 | 90.7 | 90.2 | 89.6 | 89.1 | 88.5 |
| 46             | 93.7 | 93.1 | 92.5 | 92.0 | 91.4 | 90.9 | 90.3 | 89.7 | 89.2 | 88.7 |
| 47             | 93.7 | 93.2 | 92.6 | 92.1 | 91.5 | 91.0 | 90.4 | 89.9 | 89.3 | 88.8 |
| 48             | 93.8 | 93.3 | 92.7 | 92.2 | 91.6 | 91.1 | 90.5 | 90.0 | 89.5 | 88.9 |
| 49             | 93.9 | 93.3 | 92.8 | 92.3 | 91.7 | 91.2 | 90.7 | 90.1 | 89.6 | 89.1 |
| 50             | 94.0 | 93.4 | 92.9 | 92.4 | 91.8 | 91.3 | 90.8 | 90.2 | 89.7 | 89.2 |
| 51             | 94.0 | 93.5 | 93.0 | 92.4 | 91.9 | 91.4 | 90.9 | 90.4 | 89.8 | 89.3 |
| 52             | 94.1 | 93.6 | 93.1 | 92.5 | 92.0 | 91.5 | 91.0 | 90.5 | 90.0 | 89.4 |
| 53             | 94.2 | 93.6 | 93.1 | 92.6 | 92.1 | 91.6 | 91.1 | 90.6 | 90.1 | 89.6 |
| 54             | 94.2 | 93.7 | 93.2 | 92.7 | 92.2 | 91.7 | 91.2 | 90.7 | 90.2 | 89.7 |
| 55             | 94.3 | 93.8 | 93.3 | 92.8 | 92.3 | 91.8 | 91.3 | 90.8 | 90.3 | 89.8 |
| 56             | 94.4 | 93.9 | 93.4 | 92.9 | 92.4 | 91.9 | 91.4 | 90.9 | 90.4 | 89.9 |
| 57             | 94.4 | 93.9 | 93.4 | 92.9 | 92.4 | 91.9 | 91.5 | 91.0 | 90.5 | 90.0 |



表 3b (续)

| $t-t_w$<br>$t$ | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 77.5 | 76.4 | 75.4 | 74.4 | 73.3 | 72.3 | 71.3 | 70.3 | 69.3 | 68.3 |
| 16             | 78.2 | 77.2 | 76.2 | 75.2 | 74.2 | 73.2 | 72.2 | 71.2 | 70.2 | 69.2 |
| 17             | 78.8 | 77.8 | 76.9 | 75.9 | 74.9 | 74.0 | 73.0 | 72.1 | 71.1 | 70.2 |
| 18             | 79.4 | 78.5 | 77.6 | 76.6 | 75.7 | 74.8 | 73.8 | 72.9 | 72.0 | 71.1 |
| 19             | 80.0 | 79.1 | 78.2 | 77.3 | 76.4 | 75.5 | 74.6 | 73.7 | 72.8 | 71.9 |
| 20             | 80.6 | 79.7 | 78.8 | 77.9 | 77.0 | 76.1 | 75.3 | 74.4 | 73.5 | 72.7 |
| 21             | 81.1 | 80.2 | 79.4 | 78.5 | 77.6 | 76.8 | 75.9 | 75.1 | 74.2 | 73.4 |
| 22             | 81.6 | 80.7 | 79.9 | 79.0 | 78.2 | 77.4 | 76.6 | 75.7 | 74.9 | 74.1 |
| 23             | 82.0 | 81.2 | 80.4 | 79.6 | 78.8 | 77.9 | 77.1 | 76.3 | 75.5 | 74.7 |
| 24             | 82.5 | 81.7 | 80.9 | 80.1 | 79.3 | 78.5 | 77.7 | 76.9 | 76.1 | 75.3 |
| 25             | 82.9 | 82.1 | 81.3 | 80.5 | 79.8 | 79.0 | 78.2 | 77.4 | 76.7 | 75.9 |
| 26             | 83.3 | 82.5 | 81.7 | 81.0 | 80.2 | 79.5 | 78.7 | 78.0 | 77.2 | 76.5 |
| 27             | 83.6 | 82.9 | 82.1 | 81.4 | 80.7 | 79.9 | 79.2 | 78.4 | 77.7 | 77.0 |
| 28             | 84.0 | 83.2 | 82.5 | 81.8 | 81.1 | 80.3 | 79.6 | 78.9 | 78.2 | 77.5 |
| 29             | 84.3 | 83.6 | 82.9 | 82.2 | 81.5 | 80.8 | 80.0 | 79.3 | 78.6 | 78.0 |
| 30             | 84.6 | 83.9 | 83.2 | 82.5 | 81.8 | 81.1 | 80.5 | 79.8 | 79.1 | 78.4 |
| 31             | 84.9 | 84.2 | 83.6 | 82.9 | 82.2 | 81.5 | 80.8 | 80.2 | 79.5 | 78.8 |
| 32             | 85.2 | 84.5 | 83.9 | 83.2 | 82.5 | 81.9 | 81.2 | 80.5 | 79.9 | 79.2 |
| 33             | 85.5 | 84.8 | 84.2 | 83.5 | 82.8 | 82.2 | 81.5 | 80.9 | 80.2 | 79.6 |
| 34             | 85.7 | 85.1 | 84.4 | 83.8 | 83.2 | 82.5 | 81.9 | 81.2 | 80.6 | 80.0 |
| 35             | 86.0 | 85.3 | 84.7 | 84.1 | 83.4 | 82.8 | 82.2 | 81.6 | 80.9 | 80.3 |
| 36             | 86.2 | 85.6 | 85.0 | 84.3 | 83.7 | 83.1 | 82.5 | 81.9 | 81.3 | 80.6 |
| 37             | 86.4 | 85.8 | 85.2 | 84.6 | 84.0 | 83.4 | 82.8 | 82.2 | 81.6 | 81.0 |
| 38             | 86.7 | 86.1 | 85.4 | 84.8 | 84.2 | 83.6 | 83.0 | 82.5 | 81.9 | 81.3 |
| 39             | 86.9 | 86.3 | 85.7 | 85.1 | 84.5 | 83.9 | 83.3 | 82.7 | 82.1 | 81.6 |
| 40             | 87.1 | 86.5 | 85.9 | 85.3 | 84.7 | 84.1 | 83.6 | 83.0 | 82.4 | 81.8 |
| 41             | 87.3 | 86.7 | 86.1 | 85.5 | 84.9 | 84.4 | 83.8 | 83.2 | 82.7 | 82.1 |
| 42             | 87.4 | 86.9 | 86.3 | 85.7 | 85.2 | 84.6 | 84.0 | 83.5 | 82.9 | 82.4 |
| 43             | 87.6 | 87.1 | 86.5 | 85.9 | 85.4 | 84.8 | 84.3 | 83.7 | 83.2 | 82.6 |
| 44             | 87.8 | 87.2 | 86.7 | 86.1 | 85.6 | 85.0 | 84.5 | 83.9 | 83.4 | 82.8 |
| 45             | 87.9 | 87.4 | 86.9 | 86.3 | 85.8 | 85.2 | 84.7 | 84.1 | 83.6 | 83.1 |
| 46             | 88.1 | 87.6 | 87.0 | 86.5 | 85.9 | 85.4 | 84.9 | 84.3 | 83.8 | 83.3 |
| 47             | 88.3 | 87.7 | 87.2 | 86.7 | 86.1 | 85.6 | 85.1 | 84.5 | 84.0 | 83.5 |
| 48             | 88.4 | 87.9 | 87.3 | 86.8 | 86.3 | 85.8 | 85.3 | 84.7 | 84.2 | 83.7 |
| 49             | 88.5 | 88.0 | 87.5 | 87.0 | 86.5 | 85.9 | 85.4 | 84.9 | 84.4 | 83.9 |
| 50             | 88.7 | 88.2 | 87.6 | 87.1 | 86.6 | 86.1 | 85.6 | 85.1 | 84.6 | 84.1 |
| 51             | 88.8 | 88.3 | 87.8 | 87.3 | 86.8 | 86.3 | 85.8 | 85.3 | 84.8 | 84.3 |
| 52             | 88.9 | 88.4 | 87.9 | 87.4 | 86.9 | 86.4 | 85.9 | 85.4 | 85.0 | 84.5 |
| 53             | 89.1 | 88.6 | 88.1 | 87.6 | 87.1 | 86.6 | 86.1 | 85.6 | 85.1 | 84.6 |
| 54             | 89.2 | 88.7 | 88.2 | 87.7 | 87.2 | 86.7 | 86.2 | 85.8 | 85.3 | 84.8 |
| 55             | 89.3 | 88.8 | 88.3 | 87.8 | 87.4 | 86.9 | 86.4 | 85.9 | 85.4 | 85.0 |
| 56             | 89.4 | 88.9 | 88.4 | 88.0 | 87.5 | 87.0 | 86.5 | 86.1 | 85.6 | 85.1 |
| 57             | 89.5 | 89.0 | 88.6 | 88.1 | 87.6 | 87.1 | 86.7 | 86.2 | 85.7 | 85.3 |





表 3b (续)

| $t-t_w$<br>$t$ | 3.1  | 3.2  | 3.3  | 3.4  | 3.5  | 3.6  | 3.7  | 3.8  | 3.9  | 4.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 85.0 | 84.5 | 84.1 | 83.6 | 83.2 | 82.7 | 82.3 | 81.8 | 81.4 | 80.9 |
| 59             | 85.1 | 84.7 | 84.2 | 83.8 | 83.3 | 82.9 | 82.4 | 82.0 | 81.5 | 81.1 |
| 60             | 85.3 | 84.8 | 84.4 | 83.9 | 83.5 | 83.0 | 82.6 | 82.2 | 81.7 | 81.3 |
| 61             | 85.4 | 85.0 | 84.5 | 84.1 | 83.6 | 83.2 | 82.8 | 82.3 | 81.9 | 81.5 |
| 62             | 85.5 | 85.1 | 84.7 | 84.2 | 83.8 | 83.4 | 82.9 | 82.5 | 82.1 | 81.6 |
| 63             | 85.7 | 85.2 | 84.8 | 84.4 | 83.9 | 83.5 | 83.1 | 82.7 | 82.2 | 81.8 |
| 64             | 85.8 | 85.4 | 84.9 | 84.5 | 84.1 | 83.7 | 83.2 | 82.8 | 82.4 | 82.0 |
| 65             | 85.9 | 85.5 | 85.1 | 84.7 | 84.2 | 83.8 | 83.4 | 83.0 | 82.6 | 82.1 |
| 66             | 86.1 | 85.6 | 85.2 | 84.8 | 84.4 | 84.0 | 83.5 | 83.1 | 82.7 | 82.3 |
| 67             | 86.2 | 85.8 | 85.3 | 84.9 | 84.5 | 84.1 | 83.7 | 83.3 | 82.9 | 82.5 |
| 68             | 86.3 | 85.9 | 85.5 | 85.1 | 84.6 | 84.2 | 83.8 | 83.4 | 83.0 | 82.6 |
| 69             | 86.4 | 86.0 | 85.6 | 85.2 | 84.8 | 84.4 | 84.0 | 83.6 | 83.2 | 82.8 |
| 70             | 86.5 | 86.1 | 85.7 | 85.3 | 84.9 | 84.5 | 84.1 | 83.7 | 83.3 | 82.9 |
| 71             | 86.7 | 86.2 | 85.8 | 85.4 | 85.0 | 84.6 | 84.2 | 83.8 | 83.4 | 83.0 |
| 72             | 86.8 | 86.4 | 86.0 | 85.6 | 85.2 | 84.8 | 84.4 | 84.0 | 83.6 | 83.2 |
| 73             | 86.9 | 86.5 | 86.1 | 85.7 | 85.3 | 84.9 | 84.5 | 84.1 | 83.7 | 83.3 |
| 74             | 87.0 | 86.6 | 86.2 | 85.8 | 85.4 | 85.0 | 84.6 | 84.2 | 83.8 | 83.4 |
| 75             | 87.1 | 86.7 | 86.3 | 85.9 | 85.5 | 85.1 | 84.7 | 84.3 | 84.0 | 83.6 |
| 76             | 87.2 | 86.8 | 86.4 | 86.0 | 85.6 | 85.2 | 84.9 | 84.5 | 84.1 | 83.7 |
| 77             | 87.3 | 86.9 | 86.5 | 86.1 | 85.7 | 85.4 | 85.0 | 84.6 | 84.2 | 83.8 |
| 78             | 87.4 | 87.0 | 86.6 | 86.2 | 85.8 | 85.5 | 85.1 | 84.7 | 84.3 | 84.0 |
| 79             | 87.5 | 87.1 | 86.7 | 86.3 | 86.0 | 85.6 | 85.2 | 84.8 | 84.4 | 84.1 |
| 80             | 87.6 | 87.2 | 86.8 | 86.4 | 86.1 | 85.7 | 85.3 | 84.9 | 84.6 | 84.2 |
| 81             | 87.7 | 87.3 | 86.9 | 86.5 | 86.2 | 85.8 | 85.4 | 85.0 | 84.7 | 84.3 |
| 82             | 87.8 | 87.4 | 87.0 | 86.6 | 86.3 | 85.9 | 85.5 | 85.2 | 84.8 | 84.4 |
| 83             | 87.8 | 87.5 | 87.1 | 86.7 | 86.4 | 86.0 | 85.6 | 85.3 | 84.9 | 84.5 |
| 84             | 87.9 | 87.6 | 87.2 | 86.8 | 86.5 | 86.1 | 85.7 | 85.4 | 85.0 | 84.7 |
| 85             | 88.0 | 87.7 | 87.3 | 86.9 | 86.6 | 86.2 | 85.8 | 85.5 | 85.1 | 84.8 |
| 86             | 88.1 | 87.7 | 87.4 | 87.0 | 86.7 | 86.3 | 85.9 | 85.6 | 85.2 | 84.9 |
| 87             | 88.2 | 87.8 | 87.5 | 87.1 | 86.8 | 86.4 | 86.0 | 85.7 | 85.3 | 85.0 |
| 88             | 88.3 | 87.9 | 87.6 | 87.2 | 86.8 | 86.5 | 86.1 | 85.8 | 85.4 | 85.1 |
| 89             | 88.4 | 88.0 | 87.6 | 87.3 | 86.9 | 86.6 | 86.2 | 85.9 | 85.5 | 85.2 |
| 90             | 88.4 | 88.1 | 87.7 | 87.4 | 87.0 | 86.7 | 86.3 | 86.0 | 85.6 | 85.3 |
| 91             | 88.5 | 88.2 | 87.8 | 87.5 | 87.1 | 86.8 | 86.4 | 86.1 | 85.7 | 85.4 |
| 92             | 88.6 | 88.2 | 87.9 | 87.5 | 87.2 | 86.9 | 86.5 | 86.2 | 85.8 | 85.5 |
| 93             | 88.7 | 88.3 | 88.0 | 87.6 | 87.3 | 86.9 | 86.6 | 86.3 | 85.9 | 85.6 |
| 94             | 88.7 | 88.4 | 88.1 | 87.7 | 87.4 | 87.0 | 86.7 | 86.4 | 86.0 | 85.7 |
| 95             | 88.8 | 88.5 | 88.1 | 87.8 | 87.5 | 87.1 | 86.8 | 86.4 | 86.1 | 85.8 |
| 96             | 88.9 | 88.6 | 88.2 | 87.9 | 87.5 | 87.2 | 86.9 | 86.5 | 86.2 | 85.9 |
| 97             | 89.0 | 88.6 | 88.3 | 88.0 | 87.6 | 87.3 | 87.0 | 86.6 | 86.3 | 86.0 |
| 98             | 89.0 | 88.7 | 88.4 | 88.0 | 87.7 | 87.4 | 87.0 | 86.7 | 86.4 | 86.0 |
| 99             | 89.1 | 88.8 | 88.4 | 88.1 | 87.8 | 87.5 | 87.1 | 86.8 | 86.5 | 86.1 |
| 100            | 89.2 | 88.9 | 88.5 | 88.2 | 87.9 | 87.5 | 87.2 | 86.9 | 86.6 | 86.2 |



表 3b (续)

| $t-t_w$<br>$t$ | 4.1  | 4.2  | 4.3  | 4.4  | 4.5  | 4.6  | 4.7  | 4.8  | 4.9  | 5.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 80.5 | 80.0 | 79.6 | 79.2 | 78.7 | 78.3 | 77.9 | 77.4 | 77.0 | 76.6 |
| 59             | 80.7 | 80.2 | 79.8 | 79.4 | 78.9 | 78.5 | 78.1 | 77.7 | 77.2 | 76.8 |
| 60             | 80.9 | 80.4 | 80.0 | 79.6 | 79.1 | 78.7 | 78.3 | 77.9 | 77.4 | 77.0 |
| 61             | 81.0 | 80.6 | 80.2 | 79.8 | 79.3 | 78.9 | 78.5 | 78.1 | 77.7 | 77.2 |
| 62             | 81.2 | 80.8 | 80.4 | 80.0 | 79.5 | 79.1 | 78.7 | 78.3 | 77.9 | 77.5 |
| 63             | 81.4 | 81.0 | 80.6 | 80.1 | 79.7 | 79.3 | 78.9 | 78.5 | 78.1 | 77.7 |
| 64             | 81.6 | 81.1 | 80.7 | 80.3 | 79.9 | 79.5 | 79.1 | 78.7 | 78.3 | 77.9 |
| 65             | 81.7 | 81.3 | 80.9 | 80.5 | 80.1 | 79.7 | 79.3 | 78.9 | 78.5 | 78.1 |
| 66             | 81.9 | 81.5 | 81.1 | 80.7 | 80.3 | 79.9 | 79.5 | 79.1 | 78.7 | 78.3 |
| 67             | 82.0 | 81.6 | 81.2 | 80.8 | 80.4 | 80.0 | 79.6 | 79.2 | 78.8 | 78.4 |
| 68             | 82.2 | 81.8 | 81.4 | 81.0 | 80.6 | 80.2 | 79.8 | 79.4 | 79.0 | 78.6 |
| 69             | 82.4 | 82.0 | 81.6 | 81.2 | 80.8 | 80.4 | 80.0 | 79.6 | 79.2 | 78.8 |
| 70             | 82.5 | 82.1 | 81.7 | 81.3 | 80.9 | 80.5 | 80.1 | 79.8 | 79.4 | 79.0 |
| 71             | 82.6 | 82.3 | 81.9 | 81.5 | 81.1 | 80.7 | 80.3 | 79.9 | 79.5 | 79.2 |
| 72             | 82.8 | 82.4 | 82.0 | 81.6 | 81.2 | 80.8 | 80.5 | 80.1 | 79.7 | 79.3 |
| 73             | 82.9 | 82.5 | 82.2 | 81.8 | 81.4 | 81.0 | 80.6 | 80.2 | 79.9 | 79.5 |
| 74             | 83.1 | 82.7 | 82.3 | 81.9 | 81.5 | 81.2 | 80.8 | 80.4 | 80.0 | 79.7 |
| 75             | 83.2 | 82.8 | 82.4 | 82.1 | 81.7 | 81.3 | 80.9 | 80.6 | 80.2 | 79.8 |
| 76             | 83.3 | 82.9 | 82.6 | 82.2 | 81.8 | 81.4 | 81.1 | 80.7 | 80.3 | 80.0 |
| 77             | 83.5 | 83.1 | 82.7 | 82.3 | 82.0 | 81.6 | 81.2 | 80.9 | 80.5 | 80.1 |
| 78             | 83.6 | 83.2 | 82.8 | 82.5 | 82.1 | 81.7 | 81.4 | 81.0 | 80.6 | 80.3 |
| 79             | 83.7 | 83.3 | 83.0 | 82.6 | 82.2 | 81.9 | 81.5 | 81.1 | 80.8 | 80.4 |
| 80             | 83.8 | 83.5 | 83.1 | 82.7 | 82.4 | 82.0 | 81.6 | 81.3 | 80.9 | 80.6 |
| 81             | 83.9 | 83.6 | 83.2 | 82.9 | 82.5 | 82.1 | 81.8 | 81.4 | 81.1 | 80.7 |
| 82             | 84.1 | 83.7 | 83.3 | 83.0 | 82.6 | 82.3 | 81.9 | 81.5 | 81.2 | 80.8 |
| 83             | 84.2 | 83.8 | 83.5 | 83.1 | 82.7 | 82.4 | 82.0 | 81.7 | 81.3 | 81.0 |
| 84             | 84.3 | 83.9 | 83.6 | 83.2 | 82.9 | 82.5 | 82.2 | 81.8 | 81.5 | 81.1 |
| 85             | 84.4 | 84.0 | 83.7 | 83.3 | 83.0 | 82.6 | 82.3 | 81.9 | 81.6 | 81.2 |
| 86             | 84.5 | 84.2 | 83.8 | 83.5 | 83.1 | 82.8 | 82.4 | 82.1 | 81.7 | 81.4 |
| 87             | 84.6 | 84.3 | 83.9 | 83.6 | 83.2 | 82.9 | 82.5 | 82.2 | 81.9 | 81.5 |
| 88             | 84.7 | 84.4 | 84.0 | 83.7 | 83.3 | 83.0 | 82.7 | 82.3 | 82.0 | 81.6 |
| 89             | 84.8 | 84.5 | 84.1 | 83.8 | 83.5 | 83.1 | 82.8 | 82.4 | 82.1 | 81.8 |
| 90             | 84.9 | 84.6 | 84.3 | 83.9 | 83.6 | 83.2 | 82.9 | 82.6 | 82.2 | 81.9 |
| 91             | 85.0 | 84.7 | 84.4 | 84.0 | 83.7 | 83.3 | 83.0 | 82.7 | 82.3 | 82.0 |
| 92             | 85.1 | 84.8 | 84.5 | 84.1 | 83.8 | 83.5 | 83.1 | 82.8 | 82.5 | 82.1 |
| 93             | 85.2 | 84.9 | 84.6 | 84.2 | 83.9 | 83.6 | 83.2 | 82.9 | 82.6 | 82.2 |
| 94             | 85.3 | 85.0 | 84.7 | 84.3 | 84.0 | 83.7 | 83.3 | 83.0 | 82.7 | 82.4 |
| 95             | 85.4 | 85.1 | 84.8 | 84.4 | 84.1 | 83.8 | 83.5 | 83.1 | 82.8 | 82.5 |
| 96             | 85.5 | 85.2 | 84.9 | 84.5 | 84.2 | 83.9 | 83.6 | 83.2 | 82.9 | 82.6 |
| 97             | 85.6 | 85.3 | 85.0 | 84.6 | 84.3 | 84.0 | 83.7 | 83.3 | 83.0 | 82.7 |
| 98             | 85.7 | 85.4 | 85.1 | 84.7 | 84.4 | 84.1 | 83.8 | 83.5 | 83.1 | 82.8 |
| 99             | 85.8 | 85.5 | 85.2 | 84.8 | 84.5 | 84.2 | 83.9 | 83.6 | 83.2 | 82.9 |
| 100            | 85.9 | 85.6 | 85.3 | 84.9 | 84.6 | 84.3 | 84.0 | 83.7 | 83.3 | 83.0 |



表 3b (续)

| $t - t_w$<br>$t$ | 5.2  | 5.4  | 5.6  | 5.8  | 6.0  | 6.2  | 6.4  | 6.6  | 6.8  | 7.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 58               | 75.7 | 74.9 | 74.0 | 73.2 | 72.4 | 71.6 | 70.8 | 70.0 | 69.2 | 68.4 |
| 59               | 76.0 | 75.1 | 74.3 | 73.5 | 72.7 | 71.8 | 71.0 | 70.2 | 69.5 | 68.7 |
| 60               | 76.2 | 75.4 | 74.5 | 73.7 | 72.9 | 72.1 | 71.3 | 70.5 | 69.7 | 69.0 |
| 61               | 76.4 | 75.6 | 74.8 | 74.0 | 73.2 | 72.4 | 71.6 | 70.8 | 70.0 | 69.3 |
| 62               | 76.6 | 75.8 | 75.0 | 74.2 | 73.4 | 72.6 | 71.9 | 71.1 | 70.3 | 69.5 |
| 63               | 76.9 | 76.0 | 75.2 | 74.5 | 73.7 | 72.9 | 72.1 | 71.3 | 70.6 | 69.8 |
| 64               | 77.1 | 76.3 | 75.5 | 74.7 | 73.9 | 73.1 | 72.4 | 71.6 | 70.8 | 70.1 |
| 65               | 77.3 | 76.5 | 75.7 | 74.9 | 74.1 | 73.4 | 72.6 | 71.8 | 71.1 | 70.3 |
| 66               | 77.5 | 76.7 | 75.9 | 75.1 | 74.4 | 73.6 | 72.8 | 72.1 | 71.3 | 70.6 |
| 67               | 77.7 | 76.9 | 76.1 | 75.3 | 74.6 | 73.8 | 73.1 | 72.3 | 71.6 | 70.8 |
| 68               | 77.9 | 77.1 | 76.3 | 75.5 | 74.8 | 74.0 | 73.3 | 72.6 | 71.8 | 71.1 |
| 69               | 78.0 | 77.3 | 76.5 | 75.8 | 75.0 | 74.3 | 73.5 | 72.8 | 72.1 | 71.3 |
| 70               | 78.2 | 77.5 | 76.7 | 76.0 | 75.2 | 74.5 | 73.7 | 73.0 | 72.3 | 71.6 |
| 71               | 78.4 | 77.6 | 76.9 | 76.1 | 75.4 | 74.7 | 73.9 | 73.2 | 72.5 | 71.8 |
| 72               | 78.6 | 77.8 | 77.1 | 76.3 | 75.6 | 74.9 | 74.2 | 73.4 | 72.7 | 72.0 |
| 73               | 78.7 | 78.0 | 77.3 | 76.5 | 75.8 | 75.1 | 74.4 | 73.6 | 72.9 | 72.2 |
| 74               | 78.9 | 78.2 | 77.4 | 76.7 | 76.0 | 75.3 | 74.6 | 73.8 | 73.1 | 72.4 |
| 75               | 79.1 | 78.3 | 77.6 | 76.9 | 76.2 | 75.5 | 74.7 | 74.0 | 73.3 | 72.7 |
| 76               | 79.2 | 78.5 | 77.8 | 77.1 | 76.4 | 75.6 | 74.9 | 74.2 | 73.6 | 72.9 |
| 77               | 79.4 | 78.7 | 78.0 | 77.2 | 76.5 | 75.8 | 75.1 | 74.4 | 73.7 | 73.1 |
| 78               | 79.5 | 78.8 | 78.1 | 77.4 | 76.7 | 76.0 | 75.3 | 74.6 | 73.9 | 73.3 |
| 79               | 79.7 | 79.0 | 78.3 | 77.6 | 76.9 | 76.2 | 75.5 | 74.8 | 74.1 | 73.5 |
| 80               | 79.8 | 79.1 | 78.4 | 77.7 | 77.0 | 76.4 | 75.7 | 75.0 | 74.3 | 73.6 |
| 81               | 80.0 | 79.3 | 78.6 | 77.9 | 77.2 | 76.5 | 75.8 | 75.2 | 74.5 | 73.8 |
| 82               | 80.1 | 79.4 | 78.7 | 78.1 | 77.4 | 76.7 | 76.0 | 75.3 | 74.7 | 74.0 |
| 83               | 80.3 | 79.6 | 78.9 | 78.2 | 77.5 | 76.9 | 76.2 | 75.5 | 74.9 | 74.2 |
| 84               | 80.4 | 79.7 | 79.0 | 78.4 | 77.7 | 77.0 | 76.4 | 75.7 | 75.0 | 74.4 |
| 85               | 80.6 | 79.9 | 79.2 | 78.5 | 77.8 | 77.2 | 76.5 | 75.9 | 75.2 | 74.6 |
| 86               | 80.7 | 80.0 | 79.3 | 78.7 | 78.0 | 77.3 | 76.7 | 76.0 | 75.4 | 74.7 |
| 87               | 80.8 | 80.2 | 79.5 | 78.8 | 78.2 | 77.5 | 76.8 | 76.2 | 75.5 | 74.9 |
| 88               | 81.0 | 80.3 | 79.6 | 79.0 | 78.3 | 77.6 | 77.0 | 76.4 | 75.7 | 75.1 |
| 89               | 81.1 | 80.4 | 79.8 | 79.1 | 78.4 | 77.8 | 77.2 | 76.5 | 75.9 | 75.2 |
| 90               | 81.2 | 80.6 | 79.9 | 79.2 | 78.6 | 77.9 | 77.3 | 76.7 | 76.0 | 75.4 |
| 91               | 81.3 | 80.7 | 80.0 | 79.4 | 78.7 | 78.1 | 77.5 | 76.8 | 76.2 | 75.6 |
| 92               | 81.5 | 80.8 | 80.2 | 79.5 | 78.9 | 78.2 | 77.6 | 77.0 | 76.3 | 75.7 |
| 93               | 81.6 | 80.9 | 80.3 | 79.6 | 79.0 | 78.4 | 77.7 | 77.1 | 76.5 | 75.9 |
| 94               | 81.7 | 81.1 | 80.4 | 79.8 | 79.1 | 78.5 | 77.9 | 77.3 | 76.6 | 76.0 |
| 95               | 81.8 | 81.2 | 80.5 | 79.9 | 79.3 | 78.7 | 78.0 | 77.4 | 76.8 | 76.2 |
| 96               | 81.9 | 81.3 | 80.7 | 80.0 | 79.4 | 78.8 | 78.2 | 77.6 | 76.9 | 76.3 |
| 97               | 82.1 | 81.4 | 80.8 | 80.2 | 79.5 | 78.9 | 78.3 | 77.7 | 77.1 | 76.5 |
| 98               | 82.2 | 81.5 | 80.9 | 80.3 | 79.7 | 79.1 | 78.4 | 77.8 | 77.2 | 76.6 |
| 99               | 82.3 | 81.7 | 81.0 | 80.4 | 79.8 | 79.2 | 78.6 | 78.0 | 77.4 | 76.8 |
| 100              | 82.4 | 81.8 | 81.2 | 80.5 | 79.9 | 79.3 | 78.7 | 78.1 | 77.5 | 76.9 |







表 3b (续)

| $t$ \ $t-t_w$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| 58            | 60.0 | 59.3 | 58.6 | 57.8 | 57.1 | 56.4 | 55.7 | 55.0 | 54.3 | 53.7 |
| 59            | 60.4 | 59.7 | 59.0 | 58.2 | 57.5 | 56.8 | 56.2 | 55.5 | 54.8 | 54.1 |
| 60            | 60.8 | 60.0 | 59.3 | 58.6 | 57.9 | 57.2 | 56.6 | 55.9 | 55.2 | 54.5 |
| 61            | 61.1 | 60.4 | 59.7 | 59.0 | 58.3 | 57.6 | 57.0 | 56.3 | 55.6 | 54.9 |
| 62            | 61.5 | 60.8 | 60.1 | 59.4 | 58.7 | 58.0 | 57.3 | 56.7 | 56.0 | 55.3 |
| 63            | 61.8 | 61.1 | 60.4 | 59.7 | 59.1 | 58.4 | 57.7 | 57.1 | 56.4 | 55.7 |
| 64            | 62.1 | 61.5 | 60.8 | 60.1 | 59.4 | 58.8 | 58.1 | 57.4 | 56.8 | 56.1 |
| 65            | 62.5 | 61.8 | 61.1 | 60.4 | 59.8 | 59.1 | 58.4 | 57.8 | 57.1 | 56.5 |
| 66            | 62.8 | 62.1 | 61.4 | 60.8 | 60.1 | 59.4 | 58.8 | 58.1 | 57.5 | 56.9 |
| 67            | 63.1 | 62.4 | 61.8 | 61.1 | 60.4 | 59.8 | 59.1 | 58.5 | 57.8 | 57.2 |
| 68            | 63.4 | 62.7 | 62.1 | 61.4 | 60.8 | 60.1 | 59.5 | 58.8 | 58.2 | 57.6 |
| 69            | 63.7 | 63.0 | 62.4 | 61.7 | 61.1 | 60.4 | 59.8 | 59.2 | 58.5 | 57.9 |
| 70            | 64.0 | 63.3 | 62.7 | 62.0 | 61.4 | 60.7 | 60.1 | 59.5 | 58.8 | 58.2 |
| 71            | 64.3 | 63.6 | 63.0 | 62.3 | 61.7 | 61.0 | 60.4 | 59.8 | 59.2 | 58.5 |
| 72            | 64.5 | 63.9 | 63.3 | 62.6 | 62.0 | 61.3 | 60.7 | 60.1 | 59.5 | 58.9 |
| 73            | 64.8 | 64.2 | 63.5 | 62.9 | 62.3 | 61.6 | 61.0 | 60.4 | 59.8 | 59.2 |
| 74            | 65.1 | 64.4 | 63.8 | 63.2 | 62.5 | 61.9 | 61.3 | 60.7 | 60.1 | 59.5 |
| 75            | 65.3 | 64.7 | 64.1 | 63.4 | 62.8 | 62.2 | 61.6 | 61.0 | 60.4 | 59.8 |
| 76            | 65.6 | 65.0 | 64.3 | 63.7 | 63.1 | 62.5 | 61.9 | 61.3 | 60.7 | 60.1 |
| 77            | 65.8 | 65.2 | 64.6 | 64.0 | 63.4 | 62.7 | 62.1 | 61.5 | 60.9 | 60.3 |
| 78            | 66.1 | 65.5 | 64.8 | 64.2 | 63.6 | 63.0 | 62.4 | 61.8 | 61.2 | 60.6 |
| 79            | 66.3 | 65.7 | 65.1 | 64.5 | 63.9 | 63.3 | 62.7 | 62.1 | 61.5 | 60.9 |
| 80            | 66.6 | 66.0 | 65.3 | 64.7 | 64.1 | 63.5 | 62.9 | 62.3 | 61.7 | 61.2 |
| 81            | 66.8 | 66.2 | 65.6 | 65.0 | 64.4 | 63.8 | 63.2 | 62.6 | 62.0 | 61.4 |
| 82            | 67.0 | 66.4 | 65.8 | 65.2 | 64.6 | 64.0 | 63.4 | 62.8 | 62.3 | 61.7 |
| 83            | 67.3 | 66.6 | 66.0 | 65.4 | 64.9 | 64.3 | 63.7 | 63.1 | 62.5 | 61.9 |
| 84            | 67.5 | 66.9 | 66.3 | 65.7 | 65.1 | 64.5 | 63.9 | 63.3 | 62.8 | 62.2 |
| 85            | 67.7 | 67.1 | 66.5 | 65.9 | 65.3 | 64.7 | 64.2 | 63.6 | 63.0 | 62.4 |
| 86            | 67.9 | 67.3 | 66.7 | 66.1 | 65.5 | 65.0 | 64.4 | 63.8 | 63.2 | 62.7 |
| 87            | 68.1 | 67.5 | 66.9 | 66.4 | 65.8 | 65.2 | 64.6 | 64.1 | 63.5 | 62.9 |
| 88            | 68.3 | 67.7 | 67.2 | 66.6 | 66.0 | 65.4 | 64.8 | 64.3 | 63.7 | 63.2 |
| 89            | 68.5 | 67.9 | 67.4 | 66.8 | 66.2 | 65.6 | 65.1 | 64.5 | 63.9 | 63.4 |
| 90            | 68.7 | 68.1 | 67.6 | 67.0 | 66.4 | 65.9 | 65.3 | 64.7 | 64.2 | 63.6 |
| 91            | 68.9 | 68.4 | 67.8 | 67.2 | 66.6 | 66.1 | 65.5 | 65.0 | 64.4 | 63.8 |
| 92            | 69.1 | 68.6 | 68.0 | 67.4 | 66.8 | 66.3 | 65.7 | 65.2 | 64.6 | 64.1 |
| 93            | 69.3 | 68.7 | 68.2 | 67.6 | 67.0 | 66.5 | 65.9 | 65.4 | 64.8 | 64.3 |
| 94            | 69.5 | 68.9 | 68.4 | 67.8 | 67.3 | 66.7 | 66.1 | 65.6 | 65.0 | 64.5 |
| 95            | 69.7 | 69.1 | 68.6 | 68.0 | 67.5 | 66.9 | 66.3 | 65.8 | 65.3 | 64.7 |
| 96            | 69.9 | 69.3 | 68.8 | 68.2 | 67.6 | 67.1 | 66.5 | 66.0 | 65.5 | 64.9 |
| 97            | 70.1 | 69.5 | 68.9 | 68.4 | 67.8 | 67.3 | 66.7 | 66.2 | 65.7 | 65.1 |
| 98            | 70.2 | 69.7 | 69.1 | 68.6 | 68.0 | 67.5 | 66.9 | 66.4 | 65.9 | 65.3 |
| 99            | 70.4 | 69.9 | 69.3 | 68.8 | 68.2 | 67.7 | 67.1 | 66.6 | 66.1 | 65.5 |
| 100           | 70.6 | 70.1 | 69.5 | 69.0 | 68.4 | 67.9 | 67.3 | 66.8 | 66.3 | 65.7 |













表 3c (续)

| $t-t_w$<br>$t$ | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 79.1 | 78.1 | 77.2 | 76.2 | 75.3 | 74.3 | 73.4 | 72.5 | 71.5 | 70.6 |
| 16             | 79.7 | 78.8 | 77.8 | 76.9 | 76.0 | 75.1 | 74.2 | 73.3 | 72.3 | 71.4 |
| 17             | 80.3 | 79.4 | 78.5 | 77.6 | 76.7 | 75.8 | 74.9 | 74.0 | 73.1 | 72.2 |
| 18             | 80.8 | 79.9 | 79.0 | 78.2 | 77.3 | 76.4 | 75.6 | 74.7 | 73.8 | 73.0 |
| 19             | 81.3 | 80.4 | 79.6 | 78.7 | 77.9 | 77.0 | 76.2 | 75.4 | 74.5 | 73.7 |
| 20             | 81.8 | 80.9 | 80.1 | 79.3 | 78.4 | 77.6 | 76.8 | 76.0 | 75.2 | 74.4 |
| 21             | 82.2 | 81.4 | 80.6 | 79.8 | 79.0 | 78.2 | 77.4 | 76.6 | 75.8 | 75.0 |
| 22             | 82.6 | 81.8 | 81.0 | 80.3 | 79.5 | 78.7 | 77.9 | 77.1 | 76.4 | 75.6 |
| 23             | 83.0 | 82.2 | 81.5 | 80.7 | 79.9 | 79.2 | 78.4 | 77.7 | 76.9 | 76.1 |
| 24             | 83.4 | 82.6 | 81.9 | 81.1 | 80.4 | 79.6 | 78.9 | 78.2 | 77.4 | 76.7 |
| 25             | 83.8 | 83.0 | 82.3 | 81.5 | 80.8 | 80.1 | 79.3 | 78.6 | 77.9 | 77.2 |
| 26             | 84.1 | 83.4 | 82.6 | 81.9 | 81.2 | 80.5 | 79.8 | 79.1 | 78.4 | 77.7 |
| 27             | 84.4 | 83.7 | 83.0 | 82.3 | 81.6 | 80.9 | 80.2 | 79.5 | 78.8 | 78.1 |
| 28             | 84.7 | 84.0 | 83.3 | 82.6 | 81.9 | 81.3 | 80.6 | 79.9 | 79.2 | 78.5 |
| 29             | 85.0 | 84.3 | 83.6 | 83.0 | 82.3 | 81.6 | 80.9 | 80.3 | 79.6 | 78.9 |
| 30             | 85.3 | 84.6 | 83.9 | 83.3 | 82.6 | 82.0 | 81.3 | 80.6 | 80.0 | 79.3 |
| 31             | 85.5 | 84.9 | 84.2 | 83.6 | 82.9 | 82.3 | 81.6 | 81.0 | 80.3 | 79.7 |
| 32             | 85.8 | 85.1 | 84.5 | 83.9 | 83.2 | 82.6 | 81.9 | 81.3 | 80.7 | 80.1 |
| 33             | 86.0 | 85.4 | 84.8 | 84.1 | 83.5 | 82.9 | 82.3 | 81.6 | 81.0 | 80.4 |
| 34             | 86.3 | 85.6 | 85.0 | 84.4 | 83.8 | 83.2 | 82.5 | 81.9 | 81.3 | 80.7 |
| 35             | 86.5 | 85.9 | 85.3 | 84.6 | 84.0 | 83.4 | 82.8 | 82.2 | 81.6 | 81.0 |
| 36             | 86.7 | 86.1 | 85.5 | 84.9 | 84.3 | 83.7 | 83.1 | 82.5 | 81.9 | 81.3 |
| 37             | 86.9 | 86.3 | 85.7 | 85.1 | 84.5 | 83.9 | 83.3 | 82.8 | 82.2 | 81.6 |
| 38             | 87.1 | 86.5 | 85.9 | 85.3 | 84.7 | 84.2 | 83.6 | 83.0 | 82.4 | 81.9 |
| 39             | 87.3 | 86.7 | 86.1 | 85.5 | 85.0 | 84.4 | 83.8 | 83.3 | 82.7 | 82.1 |
| 40             | 87.4 | 86.9 | 86.3 | 85.7 | 85.2 | 84.6 | 84.0 | 83.5 | 82.9 | 82.4 |
| 41             | 87.6 | 87.1 | 86.5 | 85.9 | 85.4 | 84.8 | 84.3 | 83.7 | 83.2 | 82.6 |
| 42             | 87.8 | 87.2 | 86.7 | 86.1 | 85.6 | 85.0 | 84.5 | 83.9 | 83.4 | 82.8 |
| 43             | 87.9 | 87.4 | 86.8 | 86.3 | 85.8 | 85.2 | 84.7 | 84.1 | 83.6 | 83.1 |
| 44             | 88.1 | 87.6 | 87.0 | 86.5 | 85.9 | 85.4 | 84.9 | 84.3 | 83.8 | 83.3 |
| 45             | 88.2 | 87.7 | 87.2 | 86.6 | 86.1 | 85.6 | 85.1 | 84.5 | 84.0 | 83.5 |
| 46             | 88.4 | 87.9 | 87.3 | 86.8 | 86.3 | 85.8 | 85.2 | 84.7 | 84.2 | 83.7 |
| 47             | 88.5 | 88.0 | 87.5 | 87.0 | 86.4 | 85.9 | 85.4 | 84.9 | 84.4 | 83.9 |
| 48             | 88.7 | 88.1 | 87.6 | 87.1 | 86.6 | 86.1 | 85.6 | 85.1 | 84.6 | 84.1 |
| 49             | 88.8 | 88.3 | 87.8 | 87.3 | 86.7 | 86.2 | 85.7 | 85.2 | 84.7 | 84.2 |
| 50             | 88.9 | 88.4 | 87.9 | 87.4 | 86.9 | 86.4 | 85.9 | 85.4 | 84.9 | 84.4 |
| 51             | 89.0 | 88.5 | 88.0 | 87.5 | 87.0 | 86.5 | 86.1 | 85.6 | 85.1 | 84.6 |
| 52             | 89.1 | 88.7 | 88.2 | 87.7 | 87.2 | 86.7 | 86.2 | 85.7 | 85.2 | 84.8 |
| 53             | 89.3 | 88.8 | 88.3 | 87.8 | 87.3 | 86.8 | 86.3 | 85.9 | 85.4 | 84.9 |
| 54             | 89.4 | 88.9 | 88.4 | 87.9 | 87.4 | 87.0 | 86.5 | 86.0 | 85.5 | 85.1 |
| 55             | 89.5 | 89.0 | 88.5 | 88.0 | 87.6 | 87.1 | 86.6 | 86.2 | 85.7 | 85.2 |
| 56             | 89.6 | 89.1 | 88.6 | 88.2 | 87.7 | 87.2 | 86.8 | 86.3 | 85.8 | 85.4 |
| 57             | 89.7 | 89.2 | 88.7 | 88.3 | 87.8 | 87.3 | 86.9 | 86.4 | 86.0 | 85.5 |



表 3c (续)

| $t \backslash t - t_w$ | 3.1  | 3.2  | 3.3  | 3.4  | 3.5  | 3.6  | 3.7  | 3.8  | 3.9  | 4.0  |
|------------------------|------|------|------|------|------|------|------|------|------|------|
| 15                     | 69.7 | 68.7 | 67.8 | 66.9 | 66.0 | 65.1 | 64.1 | 63.2 | 62.3 | 61.4 |
| 16                     | 70.5 | 69.6 | 68.7 | 67.9 | 67.0 | 66.1 | 65.2 | 64.3 | 63.4 | 62.6 |
| 17                     | 71.4 | 70.5 | 69.6 | 68.8 | 67.9 | 67.0 | 66.2 | 65.3 | 64.5 | 63.6 |
| 18                     | 72.1 | 71.3 | 70.4 | 69.6 | 68.8 | 67.9 | 67.1 | 66.3 | 65.4 | 64.6 |
| 19                     | 72.9 | 72.0 | 71.2 | 70.4 | 69.6 | 68.8 | 68.0 | 67.1 | 66.3 | 65.5 |
| 20                     | 73.6 | 72.8 | 72.0 | 71.2 | 70.4 | 69.6 | 68.8 | 68.0 | 67.2 | 66.4 |
| 21                     | 74.2 | 73.4 | 72.6 | 71.9 | 71.1 | 70.3 | 69.5 | 68.8 | 68.0 | 67.3 |
| 22                     | 74.8 | 74.1 | 73.3 | 72.5 | 71.8 | 71.0 | 70.3 | 69.5 | 68.8 | 68.0 |
| 23                     | 75.4 | 74.7 | 73.9 | 73.2 | 72.4 | 71.7 | 71.0 | 70.2 | 69.5 | 68.8 |
| 24                     | 75.9 | 75.2 | 74.5 | 73.8 | 73.0 | 72.3 | 71.6 | 70.9 | 70.2 | 69.5 |
| 25                     | 76.5 | 75.8 | 75.0 | 74.3 | 73.6 | 72.9 | 72.2 | 71.5 | 70.8 | 70.1 |
| 26                     | 77.0 | 76.3 | 75.6 | 74.9 | 74.2 | 73.5 | 72.8 | 72.1 | 71.4 | 70.8 |
| 27                     | 77.4 | 76.7 | 76.1 | 75.4 | 74.7 | 74.0 | 73.4 | 72.7 | 72.0 | 71.4 |
| 28                     | 77.9 | 77.2 | 76.5 | 75.9 | 75.2 | 74.5 | 73.9 | 73.2 | 72.6 | 71.9 |
| 29                     | 78.3 | 77.6 | 77.0 | 76.3 | 75.7 | 75.0 | 74.4 | 73.7 | 73.1 | 72.5 |
| 30                     | 78.7 | 78.0 | 77.4 | 76.8 | 76.1 | 75.5 | 74.9 | 74.2 | 73.6 | 73.0 |
| 31                     | 79.1 | 78.4 | 77.8 | 77.2 | 76.5 | 75.9 | 75.3 | 74.7 | 74.1 | 73.5 |
| 32                     | 79.4 | 78.8 | 78.2 | 77.6 | 77.0 | 76.3 | 75.7 | 75.1 | 74.5 | 73.9 |
| 33                     | 79.8 | 79.2 | 78.6 | 78.0 | 77.3 | 76.7 | 76.1 | 75.5 | 74.9 | 74.4 |
| 34                     | 80.1 | 79.5 | 78.9 | 78.3 | 77.7 | 77.1 | 76.5 | 75.9 | 75.4 | 74.8 |
| 35                     | 80.4 | 79.8 | 79.2 | 78.7 | 78.1 | 77.5 | 76.9 | 76.3 | 75.8 | 75.2 |
| 36                     | 80.7 | 80.1 | 79.6 | 79.0 | 78.4 | 77.8 | 77.3 | 76.7 | 76.1 | 75.6 |
| 37                     | 81.0 | 80.4 | 79.9 | 79.3 | 78.7 | 78.2 | 77.6 | 77.0 | 76.5 | 75.9 |
| 38                     | 81.3 | 80.7 | 80.2 | 79.6 | 79.1 | 78.5 | 77.9 | 77.4 | 76.8 | 76.3 |
| 39                     | 81.6 | 81.0 | 80.5 | 79.9 | 79.4 | 78.8 | 78.3 | 77.7 | 77.2 | 76.6 |
| 40                     | 81.8 | 81.3 | 80.7 | 80.2 | 79.6 | 79.1 | 78.6 | 78.0 | 77.5 | 77.0 |
| 41                     | 82.1 | 81.5 | 81.0 | 80.5 | 79.9 | 79.4 | 78.8 | 78.3 | 77.8 | 77.3 |
| 42                     | 82.3 | 81.8 | 81.2 | 80.7 | 80.2 | 79.7 | 79.1 | 78.6 | 78.1 | 77.6 |
| 43                     | 82.5 | 82.0 | 81.5 | 81.0 | 80.4 | 79.9 | 79.4 | 78.9 | 78.4 | 77.9 |
| 44                     | 82.8 | 82.2 | 81.7 | 81.2 | 80.7 | 80.2 | 79.7 | 79.1 | 78.6 | 78.1 |
| 45                     | 83.0 | 82.5 | 81.9 | 81.4 | 80.9 | 80.4 | 79.9 | 79.4 | 78.9 | 78.4 |
| 46                     | 83.2 | 82.7 | 82.2 | 81.7 | 81.2 | 80.6 | 80.2 | 79.7 | 79.2 | 78.7 |
| 47                     | 83.4 | 82.9 | 82.4 | 81.9 | 81.4 | 80.9 | 80.4 | 79.9 | 79.4 | 78.9 |
| 48                     | 83.6 | 83.1 | 82.6 | 82.1 | 81.6 | 81.1 | 80.6 | 80.1 | 79.6 | 79.2 |
| 49                     | 83.8 | 83.3 | 82.8 | 82.3 | 81.8 | 81.3 | 80.8 | 80.3 | 79.9 | 79.4 |
| 50                     | 83.9 | 83.4 | 83.0 | 82.5 | 82.0 | 81.5 | 81.0 | 80.6 | 80.1 | 79.6 |
| 51                     | 84.1 | 83.6 | 83.1 | 82.7 | 82.2 | 81.7 | 81.2 | 80.8 | 80.3 | 79.8 |
| 52                     | 84.3 | 83.8 | 83.3 | 82.9 | 82.4 | 81.9 | 81.4 | 81.0 | 80.5 | 80.1 |
| 53                     | 84.4 | 84.0 | 83.5 | 83.0 | 82.6 | 82.1 | 81.6 | 81.2 | 80.7 | 80.3 |
| 54                     | 84.6 | 84.1 | 83.7 | 83.2 | 82.7 | 82.3 | 81.8 | 81.4 | 80.9 | 80.5 |
| 55                     | 84.8 | 84.3 | 83.8 | 83.4 | 82.9 | 82.5 | 82.0 | 81.6 | 81.1 | 80.7 |
| 56                     | 84.9 | 84.4 | 84.0 | 83.5 | 83.1 | 82.6 | 82.2 | 81.7 | 81.3 | 80.8 |
| 57                     | 85.1 | 84.6 | 84.1 | 83.7 | 83.2 | 82.8 | 82.4 | 81.9 | 81.5 | 81.0 |



表 3c (续)

| $t - t_w$ | 4.1  | 4.2  | 4.3  | 4.4  | 4.5  | 4.6  | 4.7  | 4.8  | 4.9  | 5.0  |
|-----------|------|------|------|------|------|------|------|------|------|------|
| $t$       |      |      |      |      |      |      |      |      |      |      |
| 15        | 60.5 | 59.6 | 58.7 | 57.9 | 57.0 | 56.1 | 55.2 | 54.3 | 53.5 | 52.6 |
| 16        | 61.7 | 60.8 | 60.0 | 59.1 | 58.2 | 57.4 | 56.5 | 55.7 | 54.8 | 54.0 |
| 17        | 62.8 | 61.9 | 61.1 | 60.2 | 59.4 | 58.6 | 57.8 | 56.9 | 56.1 | 55.3 |
| 18        | 63.8 | 63.0 | 62.1 | 61.3 | 60.5 | 59.7 | 58.9 | 58.1 | 57.3 | 56.5 |
| 19        | 64.7 | 63.9 | 63.2 | 62.4 | 61.6 | 60.8 | 60.0 | 59.2 | 58.4 | 57.7 |
| 20        | 65.6 | 64.9 | 64.1 | 63.3 | 62.6 | 61.8 | 61.0 | 60.3 | 59.5 | 58.8 |
| 21        | 66.5 | 65.7 | 65.0 | 64.2 | 63.5 | 62.7 | 62.0 | 61.3 | 60.5 | 59.8 |
| 22        | 67.3 | 66.6 | 65.8 | 65.1 | 64.4 | 63.6 | 62.9 | 62.2 | 61.5 | 60.8 |
| 23        | 68.1 | 67.3 | 66.6 | 65.9 | 65.2 | 64.5 | 63.8 | 63.1 | 62.4 | 61.7 |
| 24        | 68.8 | 68.1 | 67.4 | 66.7 | 66.0 | 65.3 | 64.6 | 63.9 | 63.2 | 62.5 |
| 25        | 69.4 | 68.8 | 68.1 | 67.4 | 66.7 | 66.0 | 65.4 | 64.7 | 64.0 | 63.3 |
| 26        | 70.1 | 69.4 | 68.7 | 68.1 | 67.4 | 66.7 | 66.1 | 65.4 | 64.8 | 64.1 |
| 27        | 70.7 | 70.0 | 69.4 | 68.7 | 68.1 | 67.4 | 66.8 | 66.1 | 65.5 | 64.9 |
| 28        | 71.3 | 70.6 | 70.0 | 69.3 | 68.7 | 68.1 | 67.4 | 66.8 | 66.2 | 65.6 |
| 29        | 71.8 | 71.2 | 70.6 | 69.9 | 69.3 | 68.7 | 68.1 | 67.4 | 66.8 | 66.2 |
| 30        | 72.3 | 71.7 | 71.1 | 70.5 | 69.9 | 69.3 | 68.7 | 68.0 | 67.4 | 66.8 |
| 31        | 72.8 | 72.2 | 71.6 | 71.0 | 70.4 | 69.8 | 69.2 | 68.6 | 68.0 | 67.4 |
| 32        | 73.3 | 72.7 | 72.1 | 71.5 | 70.9 | 70.3 | 69.8 | 69.2 | 68.6 | 68.0 |
| 33        | 73.8 | 73.2 | 72.6 | 72.0 | 71.4 | 70.8 | 70.3 | 69.7 | 69.1 | 68.5 |
| 34        | 74.2 | 73.6 | 73.0 | 72.5 | 71.9 | 71.3 | 70.8 | 70.2 | 69.6 | 69.1 |
| 35        | 74.6 | 74.0 | 73.5 | 72.9 | 72.3 | 71.8 | 71.2 | 70.7 | 70.1 | 69.6 |
| 36        | 75.0 | 74.4 | 73.9 | 73.3 | 72.8 | 72.2 | 71.7 | 71.1 | 70.6 | 70.0 |
| 37        | 75.4 | 74.8 | 74.3 | 73.7 | 73.2 | 72.6 | 72.1 | 71.6 | 71.0 | 70.5 |
| 38        | 75.7 | 75.2 | 74.7 | 74.1 | 73.6 | 73.0 | 72.5 | 72.0 | 71.4 | 70.9 |
| 39        | 76.1 | 75.6 | 75.0 | 74.5 | 74.0 | 73.4 | 72.9 | 72.4 | 71.9 | 71.3 |
| 40        | 76.4 | 75.9 | 75.4 | 74.8 | 74.3 | 73.8 | 73.3 | 72.8 | 72.2 | 71.7 |
| 41        | 76.7 | 76.2 | 75.7 | 75.2 | 74.7 | 74.2 | 73.6 | 73.1 | 72.6 | 72.1 |
| 42        | 77.0 | 76.5 | 76.0 | 75.5 | 75.0 | 74.5 | 74.0 | 73.5 | 73.0 | 72.5 |
| 43        | 77.3 | 76.8 | 76.3 | 75.8 | 75.3 | 74.8 | 74.3 | 73.8 | 73.3 | 72.8 |
| 44        | 77.6 | 77.1 | 76.6 | 76.1 | 75.6 | 75.1 | 74.6 | 74.2 | 73.7 | 73.2 |
| 45        | 77.9 | 77.4 | 76.9 | 76.4 | 75.9 | 75.4 | 75.0 | 74.5 | 74.0 | 73.5 |
| 46        | 78.2 | 77.7 | 77.2 | 76.7 | 76.2 | 75.7 | 75.3 | 74.8 | 74.3 | 73.8 |
| 47        | 78.4 | 77.9 | 77.5 | 77.0 | 76.5 | 76.0 | 75.6 | 75.1 | 74.6 | 74.1 |
| 48        | 78.7 | 78.2 | 77.7 | 77.2 | 76.8 | 76.3 | 75.8 | 75.4 | 74.9 | 74.4 |
| 49        | 78.9 | 78.4 | 78.0 | 77.5 | 77.0 | 76.6 | 76.1 | 75.6 | 75.2 | 74.7 |
| 50        | 79.1 | 78.7 | 78.2 | 77.7 | 77.3 | 76.8 | 76.4 | 75.9 | 75.5 | 75.0 |
| 51        | 79.4 | 78.9 | 78.4 | 78.0 | 77.5 | 77.1 | 76.6 | 76.2 | 75.7 | 75.3 |
| 52        | 79.6 | 79.1 | 78.7 | 78.2 | 77.8 | 77.3 | 76.9 | 76.4 | 76.0 | 75.5 |
| 53        | 79.8 | 79.3 | 78.9 | 78.4 | 78.0 | 77.6 | 77.1 | 76.7 | 76.2 | 75.8 |
| 54        | 80.0 | 79.6 | 79.1 | 78.7 | 78.2 | 77.8 | 77.3 | 76.9 | 76.5 | 76.0 |
| 55        | 80.2 | 79.8 | 79.3 | 78.9 | 78.4 | 78.0 | 77.6 | 77.1 | 76.7 | 76.3 |
| 56        | 80.4 | 80.0 | 79.5 | 79.1 | 78.6 | 78.2 | 77.8 | 77.4 | 76.9 | 76.5 |
| 57        | 80.6 | 80.2 | 79.7 | 79.3 | 78.9 | 78.4 | 78.0 | 77.6 | 77.1 | 76.7 |





表 3c (续)

| $t-t_w$<br>$t$ | 5.2  | 5.4  | 5.6  | 5.8  | 6.0  | 6.2  | 6.4  | 6.6  | 6.8  | 7.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 76.1 | 75.3 | 74.5 | 73.6 | 72.8 | 72.0 | 71.2 | 70.4 | 69.6 | 68.9 |
| 59             | 76.3 | 75.5 | 74.7 | 73.9 | 73.1 | 72.3 | 71.5 | 70.7 | 69.9 | 69.2 |
| 60             | 76.5 | 75.7 | 74.9 | 74.1 | 73.3 | 72.5 | 71.7 | 71.0 | 70.2 | 69.4 |
| 61             | 76.8 | 75.9 | 75.1 | 74.3 | 73.6 | 72.8 | 72.0 | 71.2 | 70.5 | 69.7 |
| 62             | 77.0 | 76.2 | 75.4 | 74.6 | 73.8 | 73.0 | 72.2 | 71.5 | 70.7 | 70.0 |
| 63             | 77.2 | 76.4 | 75.6 | 74.8 | 74.0 | 73.2 | 72.5 | 71.7 | 71.0 | 70.2 |
| 64             | 77.4 | 76.6 | 75.8 | 75.0 | 74.2 | 73.5 | 72.7 | 72.0 | 71.2 | 70.5 |
| 65             | 77.5 | 76.8 | 76.0 | 75.2 | 74.5 | 73.7 | 72.9 | 72.2 | 71.4 | 70.7 |
| 66             | 77.7 | 77.0 | 76.2 | 75.4 | 74.7 | 73.9 | 73.2 | 72.4 | 71.7 | 71.0 |
| 67             | 77.9 | 77.1 | 76.4 | 75.6 | 74.9 | 74.1 | 73.4 | 72.6 | 71.9 | 71.2 |
| 68             | 78.1 | 77.3 | 76.6 | 75.8 | 75.1 | 74.3 | 73.6 | 72.9 | 72.1 | 71.4 |
| 69             | 78.3 | 77.5 | 76.8 | 76.0 | 75.3 | 74.5 | 73.8 | 73.1 | 72.4 | 71.6 |
| 70             | 78.4 | 77.7 | 76.9 | 76.2 | 75.5 | 74.7 | 74.0 | 73.3 | 72.6 | 71.9 |
| 71             | 78.6 | 77.9 | 77.1 | 76.4 | 75.7 | 74.9 | 74.2 | 73.5 | 72.8 | 72.1 |
| 72             | 78.8 | 78.0 | 77.3 | 76.6 | 75.8 | 75.1 | 74.4 | 73.7 | 73.0 | 72.3 |
| 73             | 78.9 | 78.2 | 77.5 | 76.7 | 76.0 | 75.3 | 74.6 | 73.9 | 73.2 | 72.5 |
| 74             | 79.1 | 78.4 | 77.6 | 76.9 | 76.2 | 75.5 | 74.8 | 74.1 | 73.4 | 72.7 |
| 75             | 79.3 | 78.5 | 77.8 | 77.1 | 76.4 | 75.7 | 75.0 | 74.3 | 73.6 | 72.9 |
| 76             | 79.4 | 78.7 | 78.0 | 77.3 | 76.6 | 75.8 | 75.2 | 74.5 | 73.8 | 73.1 |
| 77             | 79.6 | 78.8 | 78.1 | 77.4 | 76.7 | 76.0 | 75.3 | 74.6 | 74.0 | 73.3 |
| 78             | 79.7 | 79.0 | 78.3 | 77.6 | 76.9 | 76.2 | 75.5 | 74.8 | 74.1 | 73.5 |
| 79             | 79.8 | 79.1 | 78.4 | 77.7 | 77.1 | 76.4 | 75.7 | 75.0 | 74.3 | 73.7 |
| 80             | 80.0 | 79.3 | 78.6 | 77.9 | 77.2 | 76.5 | 75.9 | 75.2 | 74.5 | 73.8 |
| 81             | 80.1 | 79.4 | 78.7 | 78.1 | 77.4 | 76.7 | 76.0 | 75.4 | 74.7 | 74.0 |
| 82             | 80.3 | 79.6 | 78.9 | 78.2 | 77.5 | 76.9 | 76.2 | 75.5 | 74.9 | 74.2 |
| 83             | 80.4 | 79.7 | 79.0 | 78.4 | 77.7 | 77.0 | 76.3 | 75.7 | 75.0 | 74.4 |
| 84             | 80.5 | 79.9 | 79.2 | 78.5 | 77.8 | 77.2 | 76.5 | 75.9 | 75.2 | 74.6 |
| 85             | 80.7 | 80.0 | 79.3 | 78.7 | 78.0 | 77.3 | 76.7 | 76.0 | 75.4 | 74.7 |
| 86             | 80.8 | 80.1 | 79.5 | 78.8 | 78.1 | 77.5 | 76.8 | 76.2 | 75.5 | 74.9 |
| 87             | 80.9 | 80.3 | 79.6 | 78.9 | 78.3 | 77.6 | 77.0 | 76.3 | 75.7 | 75.1 |
| 88             | 81.1 | 80.4 | 79.7 | 79.1 | 78.4 | 77.8 | 77.1 | 76.5 | 75.8 | 75.2 |
| 89             | 81.2 | 80.5 | 79.9 | 79.2 | 78.6 | 77.9 | 77.3 | 76.6 | 76.0 | 75.4 |
| 90             | 81.3 | 80.7 | 80.0 | 79.4 | 78.7 | 78.1 | 77.4 | 76.8 | 76.2 | 75.5 |
| 91             | 81.4 | 80.8 | 80.1 | 79.5 | 78.8 | 78.2 | 77.6 | 76.9 | 76.3 | 75.7 |
| 92             | 81.6 | 80.9 | 80.3 | 79.6 | 79.0 | 78.3 | 77.7 | 77.1 | 76.5 | 75.8 |
| 93             | 81.7 | 81.0 | 80.4 | 79.7 | 79.1 | 78.5 | 77.9 | 77.2 | 76.6 | 76.0 |
| 94             | 81.8 | 81.2 | 80.5 | 79.9 | 79.2 | 78.6 | 78.0 | 77.4 | 76.8 | 76.1 |
| 95             | 81.9 | 81.3 | 80.6 | 80.0 | 79.4 | 78.8 | 78.1 | 77.5 | 76.9 | 76.3 |
| 96             | 82.0 | 81.4 | 80.8 | 80.1 | 79.5 | 78.9 | 78.3 | 77.7 | 77.0 | 76.4 |
| 97             | 82.1 | 81.5 | 80.9 | 80.3 | 79.6 | 79.0 | 78.4 | 77.8 | 77.2 | 76.6 |
| 98             | 82.3 | 81.6 | 81.0 | 80.4 | 79.8 | 79.1 | 78.5 | 77.9 | 77.3 | 76.7 |
| 99             | 82.4 | 81.7 | 81.1 | 80.5 | 79.9 | 79.3 | 78.7 | 78.1 | 77.5 | 76.9 |
| 100            | 82.5 | 81.8 | 81.2 | 80.6 | 80.0 | 79.4 | 78.8 | 78.2 | 77.6 | 77.0 |







表 3c (续)

| $t-t_w$<br>$t$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 60.7 | 60.0 | 59.3 | 58.6 | 57.9 | 57.2 | 56.5 | 55.8 | 55.1 | 54.5 |
| 59             | 61.0 | 60.3 | 59.6 | 58.9 | 58.2 | 57.6 | 56.9 | 56.2 | 55.5 | 54.9 |
| 60             | 61.4 | 60.7 | 60.0 | 59.3 | 58.6 | 57.9 | 57.3 | 56.6 | 55.9 | 55.3 |
| 61             | 61.7 | 61.0 | 60.3 | 59.6 | 59.0 | 58.3 | 57.6 | 57.0 | 56.3 | 55.6 |
| 62             | 62.0 | 61.3 | 60.7 | 60.0 | 59.3 | 58.6 | 58.0 | 57.3 | 56.7 | 56.0 |
| 63             | 62.3 | 61.7 | 61.0 | 60.3 | 59.6 | 59.0 | 58.3 | 57.7 | 57.0 | 56.4 |
| 64             | 62.7 | 62.0 | 61.3 | 60.6 | 60.0 | 59.3 | 58.7 | 58.0 | 57.4 | 56.7 |
| 65             | 63.0 | 62.3 | 61.6 | 61.0 | 60.3 | 59.6 | 59.0 | 58.4 | 57.7 | 57.1 |
| 66             | 63.3 | 62.6 | 61.9 | 61.3 | 60.6 | 60.0 | 59.3 | 58.7 | 58.0 | 57.4 |
| 67             | 63.5 | 62.9 | 62.2 | 61.6 | 60.9 | 60.3 | 59.6 | 59.0 | 58.4 | 57.7 |
| 68             | 63.8 | 63.2 | 62.5 | 61.9 | 61.2 | 60.6 | 59.9 | 59.3 | 58.7 | 58.1 |
| 69             | 64.1 | 63.5 | 62.8 | 62.2 | 61.5 | 60.9 | 60.2 | 59.6 | 59.0 | 58.4 |
| 70             | 64.4 | 63.7 | 63.1 | 62.4 | 61.8 | 61.2 | 60.5 | 59.9 | 59.3 | 58.7 |
| 71             | 64.6 | 64.0 | 63.4 | 62.7 | 62.1 | 61.5 | 60.8 | 60.2 | 59.6 | 59.0 |
| 72             | 64.9 | 64.3 | 63.6 | 63.0 | 62.4 | 61.7 | 61.1 | 60.5 | 59.9 | 59.3 |
| 73             | 65.2 | 64.5 | 63.9 | 63.3 | 62.6 | 62.0 | 61.4 | 60.8 | 60.2 | 59.6 |
| 74             | 65.4 | 64.8 | 64.1 | 63.5 | 62.9 | 62.3 | 61.7 | 61.1 | 60.5 | 59.9 |
| 75             | 65.7 | 65.0 | 64.4 | 63.8 | 63.2 | 62.6 | 61.9 | 61.3 | 60.7 | 60.1 |
| 76             | 65.9 | 65.3 | 64.7 | 64.0 | 63.4 | 62.8 | 62.2 | 61.6 | 61.0 | 60.4 |
| 77             | 66.1 | 65.5 | 64.9 | 64.3 | 63.7 | 63.1 | 62.5 | 61.9 | 61.3 | 60.7 |
| 78             | 66.4 | 65.8 | 65.1 | 64.5 | 63.9 | 63.3 | 62.7 | 62.1 | 61.5 | 61.0 |
| 79             | 66.6 | 66.0 | 65.4 | 64.8 | 64.2 | 63.6 | 63.0 | 62.4 | 61.8 | 61.2 |
| 80             | 66.8 | 66.2 | 65.6 | 65.0 | 64.4 | 63.8 | 63.2 | 62.6 | 62.0 | 61.5 |
| 81             | 67.0 | 66.4 | 65.8 | 65.2 | 64.6 | 64.0 | 63.5 | 62.9 | 62.3 | 61.7 |
| 82             | 67.3 | 66.7 | 66.1 | 65.5 | 64.9 | 64.3 | 63.7 | 63.1 | 62.5 | 62.0 |
| 83             | 67.5 | 66.9 | 66.3 | 65.7 | 65.1 | 64.5 | 63.9 | 63.4 | 62.8 | 62.2 |
| 84             | 67.7 | 67.1 | 66.5 | 65.9 | 65.3 | 64.7 | 64.2 | 63.6 | 63.0 | 62.5 |
| 85             | 67.9 | 67.3 | 66.7 | 66.1 | 65.5 | 65.0 | 64.4 | 63.8 | 63.3 | 62.7 |
| 86             | 68.1 | 67.5 | 66.9 | 66.3 | 65.8 | 65.2 | 64.6 | 64.1 | 63.5 | 62.9 |
| 87             | 68.3 | 67.7 | 67.1 | 66.6 | 66.0 | 65.4 | 64.8 | 64.3 | 63.7 | 63.2 |
| 88             | 68.5 | 67.9 | 67.3 | 66.8 | 66.2 | 65.6 | 65.1 | 64.5 | 63.9 | 63.4 |
| 89             | 68.7 | 68.1 | 67.6 | 67.0 | 66.4 | 65.8 | 65.3 | 64.7 | 64.2 | 63.6 |
| 90             | 68.9 | 68.3 | 67.8 | 67.2 | 66.6 | 66.0 | 65.5 | 64.9 | 64.4 | 63.8 |
| 91             | 69.1 | 68.5 | 68.0 | 67.4 | 66.8 | 66.3 | 65.7 | 65.1 | 64.6 | 64.0 |
| 92             | 69.3 | 68.7 | 68.1 | 67.6 | 67.0 | 66.5 | 65.9 | 65.4 | 64.8 | 64.3 |
| 93             | 69.5 | 68.9 | 68.3 | 67.8 | 67.2 | 66.7 | 66.1 | 65.6 | 65.0 | 64.5 |
| 94             | 69.7 | 69.1 | 68.5 | 68.0 | 67.4 | 66.9 | 66.3 | 65.8 | 65.2 | 64.7 |
| 95             | 69.8 | 69.3 | 68.7 | 68.2 | 67.6 | 67.1 | 66.5 | 66.0 | 65.4 | 64.9 |
| 96             | 70.0 | 69.5 | 68.9 | 68.3 | 67.8 | 67.3 | 66.7 | 66.2 | 65.6 | 65.1 |
| 97             | 70.2 | 69.6 | 69.1 | 68.5 | 68.0 | 67.4 | 66.9 | 66.4 | 65.8 | 65.3 |
| 98             | 70.4 | 69.8 | 69.3 | 68.7 | 68.2 | 67.6 | 67.1 | 66.6 | 66.0 | 65.5 |
| 99             | 70.6 | 70.0 | 69.4 | 68.9 | 68.4 | 67.8 | 67.3 | 66.8 | 66.2 | 65.7 |
| 100            | 70.7 | 70.2 | 69.6 | 69.1 | 68.5 | 68.0 | 67.5 | 66.9 | 66.4 | 65.9 |



表 3c (续)

| $t \backslash t - t_w$ | 11.5 | 12.0 | 12.5 | 13.5 | 13.5 | 14.0 | 14.5 | 15.0 | 15.5 | 16.0 |
|------------------------|------|------|------|------|------|------|------|------|------|------|
| 58                     | 52.8 | 51.2 | 49.6 | 48.1 | 46.5 | 45.0 | 43.6 | 42.1 | 40.7 | 39.3 |
| 59                     | 53.2 | 51.6 | 50.1 | 48.5 | 47.0 | 45.5 | 44.1 | 42.6 | 41.2 | 39.9 |
| 60                     | 53.6 | 52.0 | 50.5 | 49.0 | 47.5 | 46.0 | 44.5 | 43.1 | 41.7 | 40.4 |
| 61                     | 54.0 | 52.5 | 50.9 | 49.4 | 47.9 | 46.4 | 45.0 | 43.6 | 42.2 | 40.9 |
| 62                     | 54.4 | 52.9 | 51.3 | 49.8 | 48.3 | 46.9 | 45.4 | 44.1 | 42.7 | 41.3 |
| 63                     | 54.8 | 53.2 | 51.7 | 50.2 | 48.7 | 47.3 | 45.9 | 44.5 | 43.1 | 41.8 |
| 64                     | 55.2 | 53.6 | 52.1 | 50.6 | 49.1 | 47.7 | 46.3 | 44.9 | 43.6 | 42.3 |
| 65                     | 55.5 | 54.0 | 52.5 | 51.0 | 49.5 | 48.1 | 46.7 | 45.4 | 44.0 | 42.7 |
| 66                     | 55.9 | 54.3 | 52.8 | 51.4 | 49.9 | 48.5 | 47.1 | 45.8 | 44.4 | 43.1 |
| 67                     | 56.2 | 54.7 | 53.2 | 51.7 | 50.3 | 48.9 | 47.5 | 46.2 | 44.8 | 43.5 |
| 68                     | 56.5 | 55.0 | 53.6 | 52.1 | 50.7 | 49.3 | 47.9 | 46.6 | 45.2 | 44.0 |
| 69                     | 56.9 | 55.4 | 53.9 | 52.5 | 51.0 | 49.7 | 48.3 | 47.0 | 45.6 | 44.4 |
| 70                     | 57.2 | 55.7 | 54.2 | 52.8 | 51.4 | 50.0 | 48.7 | 47.3 | 46.0 | 44.7 |
| 71                     | 57.5 | 56.0 | 54.6 | 53.1 | 51.7 | 50.4 | 49.0 | 47.7 | 46.4 | 45.1 |
| 72                     | 57.8 | 56.3 | 54.9 | 53.5 | 52.1 | 50.7 | 49.4 | 48.1 | 46.8 | 45.5 |
| 73                     | 58.1 | 56.6 | 55.2 | 53.8 | 52.4 | 51.1 | 49.7 | 48.4 | 47.1 | 45.9 |
| 74                     | 58.4 | 56.9 | 55.5 | 54.1 | 52.7 | 51.4 | 50.1 | 48.8 | 47.5 | 46.2 |
| 75                     | 58.7 | 57.2 | 55.8 | 54.4 | 53.1 | 51.7 | 50.4 | 49.1 | 47.8 | 46.6 |
| 76                     | 59.0 | 57.5 | 56.1 | 54.7 | 53.4 | 52.0 | 50.7 | 49.4 | 48.2 | 46.9 |
| 77                     | 59.2 | 57.8 | 56.4 | 55.0 | 53.7 | 52.4 | 51.0 | 49.8 | 48.5 | 47.3 |
| 78                     | 59.5 | 58.1 | 56.7 | 55.3 | 54.0 | 52.7 | 51.4 | 50.1 | 48.8 | 47.6 |
| 79                     | 59.8 | 58.4 | 57.0 | 55.6 | 54.3 | 53.0 | 51.7 | 50.4 | 49.2 | 47.9 |
| 80                     | 60.0 | 58.6 | 57.3 | 55.9 | 54.6 | 53.3 | 52.0 | 50.7 | 49.5 | 48.3 |
| 81                     | 60.3 | 58.9 | 57.5 | 56.2 | 54.9 | 53.6 | 52.3 | 51.0 | 49.8 | 48.6 |
| 82                     | 60.6 | 59.2 | 57.8 | 56.5 | 55.1 | 53.8 | 52.6 | 51.3 | 50.1 | 48.9 |
| 83                     | 60.8 | 59.4 | 58.1 | 56.7 | 55.4 | 54.1 | 52.9 | 51.6 | 50.4 | 49.2 |
| 84                     | 61.1 | 59.7 | 58.3 | 57.0 | 55.7 | 54.4 | 53.2 | 51.9 | 50.7 | 49.5 |
| 85                     | 61.3 | 59.9 | 58.6 | 57.3 | 56.0 | 54.7 | 53.4 | 52.2 | 51.0 | 49.8 |
| 86                     | 61.5 | 60.2 | 58.8 | 57.5 | 56.2 | 55.0 | 53.7 | 52.5 | 51.3 | 50.1 |
| 87                     | 61.8 | 60.4 | 59.1 | 57.8 | 56.5 | 55.2 | 54.0 | 52.8 | 51.6 | 50.4 |
| 88                     | 62.0 | 60.7 | 59.3 | 58.0 | 56.8 | 55.5 | 54.3 | 53.0 | 51.8 | 50.7 |
| 89                     | 62.2 | 60.9 | 59.6 | 58.3 | 57.0 | 55.8 | 54.5 | 53.3 | 52.1 | 50.9 |
| 90                     | 62.5 | 61.1 | 59.8 | 58.5 | 57.3 | 56.0 | 54.8 | 53.6 | 52.4 | 51.2 |
| 91                     | 62.7 | 61.4 | 60.1 | 58.8 | 57.5 | 56.3 | 55.0 | 53.8 | 52.7 | 51.5 |
| 92                     | 62.9 | 61.6 | 60.3 | 59.0 | 57.8 | 56.5 | 55.3 | 54.1 | 52.9 | 51.8 |
| 93                     | 63.1 | 61.8 | 60.5 | 59.2 | 58.0 | 56.8 | 55.5 | 54.4 | 53.2 | 52.0 |
| 94                     | 63.4 | 62.0 | 60.8 | 59.5 | 58.2 | 57.0 | 55.8 | 54.6 | 53.4 | 52.3 |
| 95                     | 63.6 | 62.3 | 61.0 | 59.7 | 58.5 | 57.2 | 56.0 | 54.9 | 53.7 | 52.6 |
| 96                     | 63.8 | 62.5 | 61.2 | 59.9 | 58.7 | 57.5 | 56.3 | 55.1 | 53.9 | 52.8 |
| 97                     | 64.0 | 62.7 | 61.4 | 60.2 | 58.9 | 57.7 | 56.5 | 55.4 | 54.2 | 53.1 |
| 98                     | 64.2 | 62.9 | 61.6 | 60.4 | 59.2 | 58.0 | 56.8 | 55.6 | 54.4 | 53.3 |
| 99                     | 64.4 | 63.1 | 61.9 | 60.6 | 59.4 | 58.2 | 57.0 | 55.8 | 54.7 | 53.6 |
| 100                    | 64.6 | 63.3 | 62.1 | 60.8 | 59.6 | 58.4 | 57.2 | 56.1 | 54.9 | 53.8 |

表 4a<sub>1</sub> 球状水银温度表相对湿度查算表  
 $P=90 \text{ kPa}, A=0.857 \times 10^{-3} \text{ }^{\circ}\text{C}^{-1} (0.4 \text{ m/s})$

| $t-t_w$<br>$t$ | 0.0   | 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|----------------|-------|------|------|------|------|------|------|------|------|------|------|
| 15             | 100.0 | 98.9 | 97.8 | 96.7 | 95.6 | 94.6 | 93.5 | 92.4 | 91.3 | 90.3 | 89.2 |
| 16             | 100.0 | 98.9 | 97.9 | 96.8 | 95.8 | 94.7 | 93.7 | 92.6 | 91.6 | 90.6 | 89.5 |
| 17             | 100.0 | 99.0 | 97.9 | 96.9 | 95.9 | 94.9 | 93.9 | 92.9 | 91.9 | 90.8 | 89.9 |
| 18             | 100.0 | 99.0 | 98.0 | 97.0 | 96.0 | 95.0 | 94.0 | 93.1 | 92.1 | 91.1 | 90.1 |
| 19             | 100.0 | 99.0 | 98.1 | 97.1 | 96.1 | 95.2 | 94.2 | 93.3 | 92.3 | 91.4 | 90.4 |
| 20             | 100.0 | 99.1 | 98.1 | 97.2 | 96.2 | 95.3 | 94.4 | 93.4 | 92.5 | 91.6 | 90.7 |
| 21             | 100.0 | 99.1 | 98.2 | 97.2 | 96.3 | 95.4 | 94.5 | 93.6 | 92.7 | 91.8 | 90.9 |
| 22             | 100.0 | 99.1 | 98.2 | 97.3 | 96.4 | 95.5 | 94.6 | 93.8 | 92.9 | 92.0 | 91.1 |
| 23             | 100.0 | 99.1 | 98.2 | 97.4 | 96.5 | 95.6 | 94.8 | 93.9 | 93.1 | 92.2 | 91.4 |
| 24             | 100.0 | 99.1 | 98.3 | 97.4 | 96.6 | 95.7 | 94.9 | 94.1 | 93.2 | 92.4 | 91.6 |
| 25             | 100.0 | 99.2 | 98.3 | 97.5 | 96.7 | 95.8 | 95.0 | 94.2 | 93.4 | 92.6 | 91.8 |
| 26             | 100.0 | 99.2 | 98.4 | 97.6 | 96.7 | 95.9 | 95.1 | 94.3 | 93.5 | 92.7 | 91.9 |
| 27             | 100.0 | 99.2 | 98.4 | 97.6 | 96.8 | 96.0 | 95.2 | 94.4 | 93.7 | 92.9 | 92.1 |
| 28             | 100.0 | 99.2 | 98.4 | 97.7 | 96.9 | 96.1 | 95.3 | 94.6 | 93.8 | 93.0 | 92.3 |
| 29             | 100.0 | 99.2 | 98.5 | 97.7 | 96.9 | 96.2 | 95.4 | 94.7 | 93.9 | 93.2 | 92.4 |
| 30             | 100.0 | 99.2 | 98.5 | 97.7 | 97.0 | 96.3 | 95.5 | 94.8 | 94.0 | 93.3 | 92.6 |
| 31             | 100.0 | 99.3 | 98.5 | 97.8 | 97.1 | 96.3 | 95.6 | 94.9 | 94.2 | 93.4 | 92.7 |
| 32             | 100.0 | 99.3 | 98.6 | 97.8 | 97.1 | 96.4 | 95.7 | 95.0 | 94.3 | 93.6 | 92.9 |
| 33             | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.5 | 95.8 | 95.1 | 94.4 | 93.7 | 93.0 |
| 34             | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.5 | 95.8 | 95.2 | 94.5 | 93.8 | 93.1 |
| 35             | 100.0 | 99.3 | 98.6 | 97.9 | 97.3 | 96.6 | 95.9 | 95.2 | 94.6 | 93.9 | 93.2 |
| 36             | 100.0 | 99.3 | 98.6 | 98.0 | 97.3 | 96.6 | 96.0 | 95.3 | 94.7 | 94.0 | 93.3 |
| 37             | 100.0 | 99.3 | 98.7 | 98.0 | 97.3 | 96.7 | 96.0 | 95.4 | 94.7 | 94.1 | 93.4 |
| 38             | 100.0 | 99.3 | 98.7 | 98.0 | 97.4 | 96.7 | 96.1 | 95.5 | 94.8 | 94.2 | 93.6 |
| 39             | 100.0 | 99.4 | 98.7 | 98.1 | 97.4 | 96.8 | 96.2 | 95.5 | 94.9 | 94.3 | 93.6 |
| 40             | 100.0 | 99.4 | 98.7 | 98.1 | 97.5 | 96.8 | 96.2 | 95.6 | 95.0 | 94.4 | 93.7 |
| 41             | 100.0 | 99.4 | 98.7 | 98.1 | 97.5 | 96.9 | 96.3 | 95.7 | 95.0 | 94.4 | 93.8 |
| 42             | 100.0 | 99.4 | 98.8 | 98.2 | 97.5 | 96.9 | 96.3 | 95.7 | 95.1 | 94.5 | 93.9 |
| 43             | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.8 | 95.2 | 94.6 | 94.0 |
| 44             | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.8 | 95.3 | 94.7 | 94.1 |
| 45             | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.1 | 96.5 | 95.9 | 95.3 | 94.7 | 94.2 |
| 46             | 100.0 | 99.4 | 98.8 | 98.2 | 97.7 | 97.1 | 96.5 | 95.9 | 95.4 | 94.8 | 94.2 |
| 47             | 100.0 | 99.4 | 98.8 | 98.3 | 97.7 | 97.1 | 96.6 | 96.0 | 95.4 | 94.9 | 94.3 |
| 48             | 100.0 | 99.4 | 98.9 | 98.3 | 97.7 | 97.2 | 96.6 | 96.0 | 95.5 | 94.9 | 94.4 |
| 49             | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.2 | 96.6 | 96.1 | 95.5 | 95.0 | 94.5 |
| 50             | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.2 | 96.7 | 96.1 | 95.6 | 95.1 | 94.5 |
| 51             | 100.0 | 99.4 | 98.9 | 98.4 | 97.8 | 97.3 | 96.7 | 96.2 | 95.6 | 95.1 | 94.6 |
| 52             | 100.0 | 99.5 | 98.9 | 98.4 | 97.8 | 97.3 | 96.8 | 96.2 | 95.7 | 95.2 | 94.6 |
| 53             | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.3 | 96.8 | 96.3 | 95.7 | 95.2 | 94.7 |
| 54             | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.4 | 96.8 | 96.3 | 95.8 | 95.3 | 94.8 |
| 55             | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.4 | 96.9 | 96.4 | 95.8 | 95.3 | 94.8 |
| 56             | 100.0 | 99.5 | 99.0 | 98.4 | 97.9 | 97.4 | 96.9 | 96.4 | 95.9 | 95.4 | 94.9 |
| 57             | 100.0 | 99.5 | 99.0 | 98.5 | 97.9 | 97.4 | 96.9 | 96.4 | 95.9 | 95.4 | 94.9 |



表 4a<sub>1</sub> (续)

| $t-t_w$ | 1.1  | 1.2  | 1.3  | 1.4  | 1.5  | 1.6  | 1.7  | 1.8  | 1.9  | 2.0  |
|---------|------|------|------|------|------|------|------|------|------|------|
| $t$     |      |      |      |      |      |      |      |      |      |      |
| 15      | 88.2 | 87.1 | 86.0 | 85.0 | 84.0 | 82.9 | 81.9 | 80.8 | 79.8 | 78.8 |
| 16      | 88.5 | 87.5 | 86.5 | 85.5 | 84.4 | 83.4 | 82.4 | 81.4 | 80.4 | 79.4 |
| 17      | 88.9 | 87.9 | 86.9 | 85.9 | 84.9 | 83.9 | 82.9 | 82.0 | 81.0 | 80.0 |
| 18      | 89.2 | 88.2 | 87.2 | 86.3 | 85.3 | 84.4 | 83.4 | 82.5 | 81.6 | 80.6 |
| 19      | 89.5 | 88.5 | 87.6 | 86.7 | 85.7 | 84.8 | 83.9 | 83.0 | 82.1 | 81.2 |
| 20      | 89.8 | 88.8 | 87.9 | 87.0 | 86.1 | 85.2 | 84.3 | 83.4 | 82.5 | 81.7 |
| 21      | 90.0 | 89.1 | 88.2 | 87.4 | 86.5 | 85.6 | 84.7 | 83.9 | 83.0 | 82.1 |
| 22      | 90.3 | 89.4 | 88.5 | 87.7 | 86.8 | 86.0 | 85.1 | 84.3 | 83.4 | 82.6 |
| 23      | 90.5 | 89.7 | 88.8 | 88.0 | 87.2 | 86.3 | 85.5 | 84.7 | 83.8 | 83.0 |
| 24      | 90.7 | 89.9 | 89.1 | 88.3 | 87.5 | 86.6 | 85.8 | 85.0 | 84.2 | 83.4 |
| 25      | 90.9 | 90.1 | 89.3 | 88.5 | 87.7 | 87.0 | 86.2 | 85.4 | 84.6 | 83.8 |
| 26      | 91.1 | 90.4 | 89.6 | 88.8 | 88.0 | 87.2 | 86.5 | 85.7 | 84.9 | 84.2 |
| 27      | 91.3 | 90.6 | 89.8 | 89.0 | 88.3 | 87.5 | 86.8 | 86.0 | 85.3 | 84.5 |
| 28      | 91.5 | 90.8 | 90.0 | 89.3 | 88.5 | 87.8 | 87.0 | 86.3 | 85.6 | 84.8 |
| 29      | 91.7 | 91.0 | 90.2 | 89.5 | 88.8 | 88.0 | 87.3 | 86.6 | 85.9 | 85.1 |
| 30      | 91.9 | 91.1 | 90.4 | 89.7 | 89.0 | 88.3 | 87.6 | 86.8 | 86.1 | 85.4 |
| 31      | 92.0 | 91.3 | 90.6 | 89.9 | 89.2 | 88.5 | 87.8 | 87.1 | 86.4 | 85.7 |
| 32      | 92.2 | 91.5 | 90.8 | 90.1 | 89.4 | 88.7 | 88.0 | 87.3 | 86.7 | 86.0 |
| 33      | 92.3 | 91.6 | 90.9 | 90.3 | 89.6 | 88.9 | 88.2 | 87.6 | 86.9 | 86.2 |
| 34      | 92.4 | 91.8 | 91.1 | 90.4 | 89.8 | 89.1 | 88.4 | 87.8 | 87.1 | 86.5 |
| 35      | 92.6 | 91.9 | 91.2 | 90.6 | 89.9 | 89.3 | 88.6 | 88.0 | 87.4 | 86.7 |
| 36      | 92.7 | 92.0 | 91.4 | 90.7 | 90.1 | 89.5 | 88.8 | 88.2 | 87.6 | 86.9 |
| 37      | 92.8 | 92.2 | 91.5 | 90.9 | 90.3 | 89.6 | 89.0 | 88.4 | 87.8 | 87.1 |
| 38      | 92.9 | 92.3 | 91.7 | 91.0 | 90.4 | 89.8 | 89.2 | 88.6 | 88.0 | 87.3 |
| 39      | 93.0 | 92.4 | 91.8 | 91.2 | 90.6 | 90.0 | 89.3 | 88.7 | 88.1 | 87.5 |
| 40      | 93.1 | 92.5 | 91.9 | 91.3 | 90.7 | 90.1 | 89.5 | 88.9 | 88.3 | 87.7 |
| 41      | 93.2 | 92.6 | 92.0 | 91.4 | 90.8 | 90.2 | 89.7 | 89.1 | 88.5 | 87.9 |
| 42      | 93.3 | 92.7 | 92.1 | 91.6 | 91.0 | 90.4 | 89.8 | 89.2 | 88.6 | 88.1 |
| 43      | 93.4 | 92.8 | 92.3 | 91.7 | 91.1 | 90.5 | 89.9 | 89.4 | 88.8 | 88.2 |
| 44      | 93.5 | 92.9 | 92.4 | 91.8 | 91.2 | 90.6 | 90.1 | 89.5 | 89.0 | 88.4 |
| 45      | 93.6 | 93.0 | 92.5 | 91.9 | 91.3 | 90.8 | 90.2 | 89.7 | 89.1 | 88.6 |
| 46      | 93.7 | 93.1 | 92.6 | 92.0 | 91.4 | 90.9 | 90.3 | 89.8 | 89.2 | 88.7 |
| 47      | 93.8 | 93.2 | 92.6 | 92.1 | 91.6 | 91.0 | 90.5 | 89.9 | 89.4 | 88.8 |
| 48      | 93.8 | 93.3 | 92.7 | 92.2 | 91.7 | 91.1 | 90.6 | 90.0 | 89.5 | 89.0 |
| 49      | 93.9 | 93.4 | 92.8 | 92.3 | 91.8 | 91.2 | 90.7 | 90.2 | 89.6 | 89.1 |
| 50      | 94.0 | 93.4 | 92.9 | 92.4 | 91.9 | 91.3 | 90.8 | 90.3 | 89.8 | 89.2 |
| 51      | 94.0 | 93.5 | 93.0 | 92.5 | 91.9 | 91.4 | 90.9 | 90.4 | 89.9 | 89.4 |
| 52      | 94.1 | 93.6 | 93.1 | 92.6 | 92.0 | 91.5 | 91.0 | 90.5 | 90.0 | 89.5 |
| 53      | 94.2 | 93.7 | 93.2 | 92.6 | 92.1 | 91.6 | 91.1 | 90.6 | 90.1 | 89.6 |
| 54      | 94.2 | 93.7 | 93.2 | 92.7 | 92.2 | 91.7 | 91.2 | 90.7 | 90.2 | 89.7 |
| 55      | 94.3 | 93.8 | 93.3 | 92.8 | 92.3 | 91.8 | 91.3 | 90.8 | 90.3 | 89.8 |
| 56      | 94.4 | 93.9 | 93.4 | 92.9 | 92.4 | 91.9 | 91.4 | 90.9 | 90.4 | 89.9 |
| 57      | 94.4 | 93.9 | 93.4 | 92.9 | 92.5 | 92.0 | 91.5 | 91.0 | 90.5 | 90.0 |















表 4a<sub>1</sub> (续)

| $t-t_w$<br>$t$ | 5.2  | 5.4  | 5.6  | 5.8  | 6.0  | 6.2  | 6.4  | 6.6  | 6.8  | 7.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 47.5 | 45.7 | 43.8 | 42.0 | 40.2 | 38.4 | 36.6 | 34.8 | 33.0 | 31.2 |
| 16             | 49.2 | 47.4 | 45.6 | 43.8 | 42.1 | 40.3 | 38.6 | 36.8 | 35.1 | 33.4 |
| 17             | 50.7 | 49.0 | 47.3 | 45.5 | 43.8 | 42.1 | 40.5 | 38.8 | 37.1 | 35.5 |
| 18             | 52.2 | 50.5 | 48.8 | 47.2 | 45.5 | 43.9 | 42.2 | 40.6 | 39.0 | 37.4 |
| 19             | 53.5 | 51.9 | 50.3 | 48.7 | 47.1 | 45.5 | 43.9 | 42.3 | 40.8 | 39.2 |
| 20             | 54.8 | 53.2 | 51.7 | 50.1 | 48.6 | 47.0 | 45.5 | 44.0 | 42.4 | 40.9 |
| 21             | 56.0 | 54.5 | 53.0 | 51.4 | 49.9 | 48.4 | 47.0 | 45.5 | 44.0 | 42.5 |
| 22             | 57.2 | 55.7 | 54.2 | 52.7 | 51.2 | 49.8 | 48.3 | 46.9 | 45.5 | 44.1 |
| 23             | 58.3 | 56.8 | 55.3 | 53.9 | 52.5 | 51.1 | 49.6 | 48.2 | 46.9 | 45.5 |
| 24             | 59.3 | 57.8 | 56.4 | 55.0 | 53.6 | 52.3 | 50.9 | 49.5 | 48.2 | 46.8 |
| 25             | 60.2 | 58.8 | 57.5 | 56.1 | 54.7 | 53.4 | 52.0 | 50.7 | 49.4 | 48.1 |
| 26             | 61.1 | 59.8 | 58.4 | 57.1 | 55.8 | 54.5 | 53.2 | 51.9 | 50.6 | 49.3 |
| 27             | 62.0 | 60.7 | 59.4 | 58.0 | 56.8 | 55.5 | 54.2 | 52.9 | 51.7 | 50.4 |
| 28             | 62.8 | 61.5 | 60.2 | 58.9 | 57.7 | 56.4 | 55.2 | 53.9 | 52.7 | 51.5 |
| 29             | 63.6 | 62.3 | 61.0 | 59.8 | 58.6 | 57.3 | 56.1 | 54.9 | 53.7 | 52.5 |
| 30             | 64.3 | 63.1 | 61.8 | 60.6 | 59.4 | 58.2 | 57.0 | 55.8 | 54.6 | 53.5 |
| 31             | 65.0 | 63.8 | 62.6 | 61.4 | 60.2 | 59.0 | 57.8 | 56.7 | 55.5 | 54.4 |
| 32             | 65.7 | 64.5 | 63.3 | 62.1 | 60.9 | 59.8 | 58.6 | 57.5 | 56.4 | 55.2 |
| 33             | 66.3 | 65.1 | 64.0 | 62.8 | 61.7 | 60.5 | 59.4 | 58.3 | 57.2 | 56.1 |
| 34             | 66.9 | 65.7 | 64.6 | 63.5 | 62.3 | 61.2 | 60.1 | 59.0 | 57.9 | 56.9 |
| 35             | 67.5 | 66.3 | 65.2 | 64.1 | 63.0 | 61.9 | 60.8 | 59.7 | 58.7 | 57.6 |
| 36             | 68.0 | 66.9 | 65.8 | 64.7 | 63.6 | 62.5 | 61.5 | 60.4 | 59.4 | 58.3 |
| 37             | 68.5 | 67.4 | 66.3 | 65.3 | 64.2 | 63.2 | 62.1 | 61.1 | 60.0 | 59.0 |
| 38             | 69.0 | 67.9 | 66.9 | 65.8 | 64.8 | 63.7 | 62.7 | 61.7 | 60.7 | 59.7 |
| 39             | 69.5 | 68.4 | 67.4 | 66.3 | 65.3 | 64.3 | 63.3 | 62.3 | 61.3 | 60.3 |
| 40             | 69.9 | 68.9 | 67.9 | 66.9 | 65.8 | 64.8 | 63.8 | 62.8 | 61.8 | 60.9 |
| 41             | 70.4 | 69.4 | 68.3 | 67.3 | 66.3 | 65.3 | 64.4 | 63.4 | 62.4 | 61.4 |
| 42             | 70.8 | 69.8 | 68.8 | 67.8 | 66.8 | 65.8 | 64.9 | 63.9 | 62.9 | 62.0 |
| 43             | 71.2 | 70.2 | 69.2 | 68.2 | 67.3 | 66.3 | 65.3 | 64.4 | 63.4 | 62.5 |
| 44             | 71.6 | 70.6 | 69.6 | 68.7 | 67.7 | 66.8 | 65.8 | 64.9 | 63.9 | 63.0 |
| 45             | 72.0 | 71.0 | 70.0 | 69.1 | 68.1 | 67.2 | 66.3 | 65.3 | 64.4 | 63.5 |
| 46             | 72.3 | 71.4 | 70.4 | 69.5 | 68.5 | 67.6 | 66.7 | 65.8 | 64.9 | 64.0 |
| 47             | 72.7 | 71.7 | 70.8 | 69.9 | 68.9 | 68.0 | 67.1 | 66.2 | 65.3 | 64.4 |
| 48             | 73.0 | 72.1 | 71.1 | 70.2 | 69.3 | 68.4 | 67.5 | 66.6 | 65.7 | 64.8 |
| 49             | 73.3 | 72.4 | 71.5 | 70.6 | 69.7 | 68.8 | 67.9 | 67.0 | 66.1 | 65.3 |
| 50             | 73.6 | 72.7 | 71.8 | 70.9 | 70.0 | 69.1 | 68.3 | 67.4 | 66.5 | 65.7 |
| 51             | 73.9 | 73.0 | 72.1 | 71.2 | 70.4 | 69.5 | 68.6 | 67.8 | 66.9 | 66.0 |
| 52             | 74.2 | 73.3 | 72.4 | 71.6 | 70.7 | 69.8 | 69.0 | 68.1 | 67.3 | 66.4 |
| 53             | 74.5 | 73.6 | 72.7 | 71.9 | 71.0 | 70.2 | 69.3 | 68.5 | 67.6 | 66.8 |
| 54             | 74.8 | 73.9 | 73.0 | 72.2 | 71.3 | 70.5 | 69.6 | 68.8 | 68.0 | 67.1 |
| 55             | 75.0 | 74.2 | 73.3 | 72.5 | 71.6 | 70.8 | 69.9 | 69.1 | 68.3 | 67.5 |
| 56             | 75.3 | 74.4 | 73.6 | 72.7 | 71.9 | 71.1 | 70.3 | 69.4 | 68.6 | 67.8 |
| 57             | 75.5 | 74.7 | 73.9 | 73.0 | 72.2 | 71.4 | 70.6 | 69.7 | 68.9 | 68.1 |





表 4a<sub>1</sub> (续)

| $t-t_w$<br>$t$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 67.7 | 66.9 | 66.1 | 65.3 | 64.6 | 63.8 | 63.1 | 62.3 | 61.6 | 60.8 |
| 59             | 68.0 | 67.2 | 66.4 | 65.7 | 64.9 | 64.2 | 63.4 | 62.7 | 61.9 | 61.2 |
| 60             | 68.3 | 67.5 | 66.7 | 66.0 | 65.2 | 64.5 | 63.8 | 63.0 | 62.3 | 61.6 |
| 61             | 68.6 | 67.8 | 67.1 | 66.3 | 65.6 | 64.8 | 64.1 | 63.4 | 62.6 | 61.9 |
| 62             | 68.9 | 68.1 | 67.4 | 66.6 | 65.9 | 65.1 | 64.4 | 63.7 | 63.0 | 62.3 |
| 63             | 69.1 | 68.4 | 67.6 | 66.9 | 66.2 | 65.5 | 64.7 | 64.0 | 63.3 | 62.6 |
| 64             | 69.4 | 68.7 | 67.9 | 67.2 | 66.5 | 65.8 | 65.0 | 64.3 | 63.6 | 62.9 |
| 65             | 69.7 | 68.9 | 68.2 | 67.5 | 66.8 | 66.0 | 65.3 | 64.6 | 63.9 | 63.2 |
| 66             | 69.9 | 69.2 | 68.5 | 67.8 | 67.0 | 66.3 | 65.6 | 64.9 | 64.2 | 63.6 |
| 67             | 70.2 | 69.5 | 68.7 | 68.0 | 67.3 | 66.6 | 65.9 | 65.2 | 64.5 | 63.9 |
| 68             | 70.4 | 69.7 | 69.0 | 68.3 | 67.6 | 66.9 | 66.2 | 65.5 | 64.8 | 64.2 |
| 69             | 70.7 | 70.0 | 69.2 | 68.5 | 67.8 | 67.2 | 66.5 | 65.8 | 65.1 | 64.4 |
| 70             | 70.9 | 70.2 | 69.5 | 68.8 | 68.1 | 67.4 | 66.7 | 66.1 | 65.4 | 64.7 |
| 71             | 71.1 | 70.4 | 69.7 | 69.0 | 68.4 | 67.7 | 67.0 | 66.3 | 65.7 | 65.0 |
| 72             | 71.4 | 70.7 | 70.0 | 69.3 | 68.6 | 67.9 | 67.3 | 66.6 | 65.9 | 65.3 |
| 73             | 71.6 | 70.9 | 70.2 | 69.5 | 68.8 | 68.2 | 67.5 | 66.8 | 66.2 | 65.5 |
| 74             | 71.8 | 71.1 | 70.4 | 69.8 | 69.1 | 68.4 | 67.7 | 67.1 | 66.4 | 65.8 |
| 75             | 72.0 | 71.3 | 70.7 | 70.0 | 69.3 | 68.6 | 68.0 | 67.3 | 66.7 | 66.0 |
| 76             | 72.2 | 71.5 | 70.9 | 70.2 | 69.5 | 68.9 | 68.2 | 67.6 | 66.9 | 66.3 |
| 77             | 72.4 | 71.8 | 71.1 | 70.4 | 69.8 | 69.1 | 68.5 | 67.8 | 67.2 | 66.5 |
| 78             | 72.6 | 72.0 | 71.3 | 70.6 | 70.0 | 69.3 | 68.7 | 68.0 | 67.4 | 66.8 |
| 79             | 72.8 | 72.2 | 71.5 | 70.8 | 70.2 | 69.5 | 68.9 | 68.3 | 67.6 | 67.0 |
| 80             | 73.0 | 72.4 | 71.7 | 71.1 | 70.4 | 69.8 | 69.1 | 68.5 | 67.9 | 67.2 |
| 81             | 73.2 | 72.6 | 71.9 | 71.3 | 70.6 | 70.0 | 69.3 | 68.7 | 68.1 | 67.5 |
| 82             | 73.4 | 72.7 | 72.1 | 71.5 | 70.8 | 70.2 | 69.6 | 68.9 | 68.3 | 67.7 |
| 83             | 73.6 | 72.9 | 72.3 | 71.7 | 71.0 | 70.4 | 69.8 | 69.1 | 68.5 | 67.9 |
| 84             | 73.8 | 73.1 | 72.5 | 71.8 | 71.2 | 70.6 | 70.0 | 69.3 | 68.7 | 68.1 |
| 85             | 73.9 | 73.3 | 72.7 | 72.0 | 71.4 | 70.8 | 70.2 | 69.6 | 68.9 | 68.3 |
| 86             | 74.1 | 73.5 | 72.9 | 72.2 | 71.6 | 71.0 | 70.4 | 69.8 | 69.1 | 68.5 |
| 87             | 74.3 | 73.7 | 73.0 | 72.4 | 71.8 | 71.2 | 70.6 | 70.0 | 69.3 | 68.7 |
| 88             | 74.5 | 73.8 | 73.2 | 72.6 | 72.0 | 71.4 | 70.8 | 70.1 | 69.5 | 69.0 |
| 89             | 74.6 | 74.0 | 73.4 | 72.8 | 72.2 | 71.5 | 70.9 | 70.3 | 69.7 | 69.2 |
| 90             | 74.8 | 74.2 | 73.6 | 72.9 | 72.3 | 71.7 | 71.1 | 70.5 | 69.9 | 69.3 |
| 91             | 75.0 | 74.3 | 73.7 | 73.1 | 72.5 | 71.9 | 71.3 | 70.7 | 70.1 | 69.5 |
| 92             | 75.1 | 74.5 | 73.9 | 73.3 | 72.7 | 72.1 | 71.5 | 70.9 | 70.3 | 69.7 |
| 93             | 75.3 | 74.7 | 74.1 | 73.5 | 72.9 | 72.3 | 71.7 | 71.1 | 70.5 | 69.9 |
| 94             | 75.4 | 74.8 | 74.2 | 73.6 | 73.0 | 72.4 | 71.9 | 71.3 | 70.7 | 70.1 |
| 95             | 75.6 | 75.0 | 74.4 | 73.8 | 73.2 | 72.6 | 72.0 | 71.4 | 70.9 | 70.3 |
| 96             | 75.7 | 75.1 | 74.6 | 74.0 | 73.4 | 72.8 | 72.2 | 71.6 | 71.0 | 70.5 |
| 97             | 75.9 | 75.3 | 74.7 | 74.1 | 73.5 | 73.0 | 72.4 | 71.8 | 71.2 | 70.7 |
| 98             | 76.0 | 75.5 | 74.9 | 74.3 | 73.7 | 73.1 | 72.5 | 72.0 | 71.4 | 70.8 |
| 99             | 76.2 | 75.6 | 75.0 | 74.4 | 73.9 | 73.3 | 72.7 | 72.1 | 71.6 | 71.0 |
| 100            | 76.3 | 75.8 | 75.2 | 74.6 | 74.0 | 73.4 | 72.9 | 72.3 | 71.7 | 71.2 |



表 4a<sub>1</sub> (续)

| $t - t_w$<br>$t$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 58               | 60.1 | 59.4 | 58.7 | 58.0 | 57.3 | 56.6 | 55.9 | 55.2 | 54.5 | 53.8 |
| 59               | 60.5 | 59.8 | 59.1 | 58.4 | 57.7 | 57.0 | 56.3 | 55.6 | 54.9 | 54.2 |
| 60               | 60.9 | 60.2 | 59.4 | 58.7 | 58.1 | 57.4 | 56.7 | 56.0 | 55.3 | 54.7 |
| 61               | 61.2 | 60.5 | 59.8 | 59.1 | 58.4 | 57.8 | 57.1 | 56.4 | 55.7 | 55.1 |
| 62               | 61.6 | 60.9 | 60.2 | 59.5 | 58.8 | 58.1 | 57.5 | 56.8 | 56.1 | 55.5 |
| 63               | 61.9 | 61.2 | 60.5 | 59.8 | 59.2 | 58.5 | 57.8 | 57.2 | 56.5 | 55.9 |
| 64               | 62.2 | 61.6 | 60.9 | 60.2 | 59.5 | 58.9 | 58.2 | 57.5 | 56.9 | 56.2 |
| 65               | 62.6 | 61.9 | 61.2 | 60.5 | 59.9 | 59.2 | 58.5 | 57.9 | 57.2 | 56.6 |
| 66               | 62.9 | 62.2 | 61.5 | 60.9 | 60.2 | 59.5 | 58.9 | 58.2 | 57.6 | 57.0 |
| 67               | 63.2 | 62.5 | 61.8 | 61.2 | 60.5 | 59.9 | 59.2 | 58.6 | 57.9 | 57.3 |
| 68               | 63.5 | 62.8 | 62.1 | 61.5 | 60.8 | 60.2 | 59.5 | 58.9 | 58.3 | 57.6 |
| 69               | 63.8 | 63.1 | 62.5 | 61.8 | 61.1 | 60.5 | 59.9 | 59.2 | 58.6 | 58.0 |
| 70               | 64.1 | 63.4 | 62.7 | 62.1 | 61.5 | 60.8 | 60.2 | 59.6 | 58.9 | 58.3 |
| 71               | 64.3 | 63.7 | 63.0 | 62.4 | 61.8 | 61.1 | 60.5 | 59.9 | 59.2 | 58.6 |
| 72               | 64.6 | 64.0 | 63.3 | 62.7 | 62.0 | 61.4 | 60.8 | 60.2 | 59.5 | 58.9 |
| 73               | 64.9 | 64.2 | 63.6 | 63.0 | 62.3 | 61.7 | 61.1 | 60.5 | 59.8 | 59.2 |
| 74               | 65.1 | 64.5 | 63.9 | 63.2 | 62.6 | 62.0 | 61.4 | 60.8 | 60.1 | 59.5 |
| 75               | 65.4 | 64.8 | 64.1 | 63.5 | 62.9 | 62.3 | 61.6 | 61.0 | 60.4 | 59.8 |
| 76               | 65.7 | 65.0 | 64.4 | 63.8 | 63.1 | 62.5 | 61.9 | 61.3 | 60.7 | 60.1 |
| 77               | 65.9 | 65.3 | 64.6 | 64.0 | 63.4 | 62.8 | 62.2 | 61.6 | 61.0 | 60.4 |
| 78               | 66.1 | 65.5 | 64.9 | 64.3 | 63.7 | 63.1 | 62.5 | 61.9 | 61.3 | 60.7 |
| 79               | 66.4 | 65.8 | 65.1 | 64.5 | 63.9 | 63.3 | 62.7 | 62.1 | 61.5 | 61.0 |
| 80               | 66.6 | 66.0 | 65.4 | 64.8 | 64.2 | 63.6 | 63.0 | 62.4 | 61.8 | 61.2 |
| 81               | 66.8 | 66.2 | 65.6 | 65.0 | 64.4 | 63.8 | 63.2 | 62.6 | 62.1 | 61.5 |
| 82               | 67.1 | 66.5 | 65.9 | 65.3 | 64.7 | 64.1 | 63.5 | 62.9 | 62.3 | 61.7 |
| 83               | 67.3 | 66.7 | 66.1 | 65.5 | 64.9 | 64.3 | 63.7 | 63.1 | 62.6 | 62.0 |
| 84               | 67.5 | 66.9 | 66.3 | 65.7 | 65.1 | 64.5 | 64.0 | 63.4 | 62.8 | 62.2 |
| 85               | 67.7 | 67.1 | 66.5 | 65.9 | 65.4 | 64.8 | 64.2 | 63.6 | 63.1 | 62.5 |
| 86               | 67.9 | 67.3 | 66.8 | 66.2 | 65.6 | 65.0 | 64.4 | 63.9 | 63.3 | 62.7 |
| 87               | 68.2 | 67.6 | 67.0 | 66.4 | 65.8 | 65.2 | 64.7 | 64.1 | 63.5 | 63.0 |
| 88               | 68.4 | 67.8 | 67.2 | 66.6 | 66.0 | 65.5 | 64.9 | 64.3 | 63.8 | 63.2 |
| 89               | 68.6 | 68.0 | 67.4 | 66.8 | 66.2 | 65.7 | 65.1 | 64.5 | 64.0 | 63.4 |
| 90               | 68.8 | 68.2 | 67.6 | 67.0 | 66.5 | 65.9 | 65.3 | 64.8 | 64.2 | 63.7 |
| 91               | 69.0 | 68.4 | 67.8 | 67.2 | 66.7 | 66.1 | 65.5 | 65.0 | 64.4 | 63.9 |
| 92               | 69.2 | 68.6 | 68.0 | 67.4 | 66.9 | 66.3 | 65.8 | 65.2 | 64.6 | 64.1 |
| 93               | 69.3 | 68.8 | 68.2 | 67.6 | 67.1 | 66.5 | 66.0 | 65.4 | 64.9 | 64.3 |
| 94               | 69.5 | 69.0 | 68.4 | 67.8 | 67.3 | 66.7 | 66.2 | 65.6 | 65.1 | 64.5 |
| 95               | 69.7 | 69.2 | 68.6 | 68.0 | 67.5 | 66.9 | 66.4 | 65.8 | 65.3 | 64.7 |
| 96               | 69.9 | 69.3 | 68.8 | 68.2 | 67.7 | 67.1 | 66.6 | 66.0 | 65.5 | 65.0 |
| 97               | 70.1 | 69.5 | 69.0 | 68.4 | 67.9 | 67.3 | 66.8 | 66.2 | 65.7 | 65.2 |
| 98               | 70.3 | 69.7 | 69.2 | 68.6 | 68.1 | 67.5 | 67.0 | 66.4 | 65.9 | 65.4 |
| 99               | 70.4 | 69.9 | 69.3 | 68.8 | 68.2 | 67.7 | 67.2 | 66.6 | 66.1 | 65.6 |
| 100              | 70.6 | 70.1 | 69.5 | 69.0 | 68.4 | 67.9 | 67.4 | 66.8 | 66.3 | 65.8 |

表 4a<sub>1</sub> (续)

| $t - t_w$<br>$t$ | 11.5 | 12.0 | 12.5 | 13.5 | 13.5 | 14.0 | 14.5 | 15.0 | 15.5 | 16.0 |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               |      |      |      |      |      |      |      |      |      |      |
| 16               |      |      |      |      |      |      |      |      |      |      |
| 17               | 0.8  |      |      |      |      |      |      |      |      |      |
| 18               | 3.9  | 0.4  |      |      |      |      |      |      |      |      |
| 19               | 6.8  | 3.4  | 0.1  |      |      |      |      |      |      |      |
| 20               | 9.5  | 6.3  | 3.1  |      |      |      |      |      |      |      |
| 21               | 12.1 | 8.9  | 5.8  | 2.8  |      |      |      |      |      |      |
| 22               | 14.4 | 11.4 | 8.4  | 5.5  | 2.6  |      |      |      |      |      |
| 23               | 16.7 | 13.8 | 10.8 | 8.0  | 5.2  | 2.4  |      |      |      |      |
| 24               | 18.8 | 16.0 | 13.1 | 10.4 | 7.6  | 4.9  | 2.3  |      |      |      |
| 25               | 20.8 | 18.0 | 15.3 | 12.6 | 9.9  | 7.3  | 4.8  | 2.2  |      |      |
| 26               | 22.7 | 20.0 | 17.3 | 14.7 | 12.1 | 9.6  | 7.1  | 4.6  | 2.2  |      |
| 27               | 24.5 | 21.8 | 19.2 | 16.7 | 14.2 | 11.7 | 9.3  | 6.9  | 4.5  | 2.2  |
| 28               | 26.2 | 23.6 | 21.1 | 18.6 | 16.1 | 13.7 | 11.3 | 9.0  | 6.7  | 4.4  |
| 29               | 27.8 | 25.2 | 22.8 | 20.3 | 17.9 | 15.6 | 13.3 | 11.0 | 8.8  | 6.6  |
| 30               | 29.3 | 26.8 | 24.4 | 22.0 | 19.7 | 17.4 | 15.1 | 12.9 | 10.7 | 8.6  |
| 31               | 30.7 | 28.3 | 25.9 | 23.6 | 21.3 | 19.1 | 16.9 | 14.7 | 12.6 | 10.5 |
| 32               | 32.0 | 29.7 | 27.4 | 25.1 | 22.9 | 20.7 | 18.5 | 16.4 | 14.3 | 12.3 |
| 33               | 33.3 | 31.0 | 28.8 | 26.5 | 24.3 | 22.2 | 20.1 | 18.0 | 16.0 | 14.0 |
| 34               | 34.5 | 32.3 | 30.1 | 27.9 | 25.7 | 23.6 | 21.6 | 19.5 | 17.5 | 15.6 |
| 35               | 35.7 | 33.5 | 31.3 | 29.2 | 27.1 | 25.0 | 23.0 | 21.0 | 19.0 | 17.1 |
| 36               | 36.8 | 34.6 | 32.5 | 30.4 | 28.3 | 26.3 | 24.3 | 22.4 | 20.4 | 18.6 |
| 37               | 37.9 | 35.7 | 33.6 | 31.6 | 29.5 | 27.5 | 25.6 | 23.7 | 21.8 | 19.9 |
| 38               | 38.9 | 36.7 | 34.7 | 32.7 | 30.7 | 28.7 | 26.8 | 24.9 | 23.1 | 21.3 |
| 39               | 39.8 | 37.7 | 35.7 | 33.7 | 31.8 | 29.8 | 28.0 | 26.1 | 24.3 | 22.5 |
| 40               | 40.7 | 38.7 | 36.7 | 34.7 | 32.8 | 30.9 | 29.1 | 27.2 | 25.5 | 23.7 |
| 41               | 41.6 | 39.6 | 37.6 | 35.7 | 33.8 | 31.9 | 30.1 | 28.3 | 26.6 | 24.8 |
| 42               | 42.4 | 40.4 | 38.5 | 36.6 | 34.7 | 32.9 | 31.1 | 29.4 | 27.6 | 25.9 |
| 43               | 43.2 | 41.3 | 39.4 | 37.5 | 35.7 | 33.9 | 32.1 | 30.3 | 28.6 | 27.0 |
| 44               | 44.0 | 42.1 | 40.2 | 38.3 | 36.5 | 34.7 | 33.0 | 31.3 | 29.6 | 28.0 |
| 45               | 44.7 | 42.8 | 41.0 | 39.1 | 37.4 | 35.6 | 33.9 | 32.2 | 30.5 | 28.9 |
| 46               | 45.4 | 43.6 | 41.7 | 39.9 | 38.2 | 36.4 | 34.7 | 33.1 | 31.4 | 29.8 |
| 47               | 46.1 | 44.3 | 42.4 | 40.7 | 38.9 | 37.2 | 35.5 | 33.9 | 32.3 | 30.7 |
| 48               | 46.8 | 44.9 | 43.1 | 41.4 | 39.7 | 38.0 | 36.3 | 34.7 | 33.1 | 31.5 |
| 49               | 47.4 | 45.6 | 43.8 | 42.1 | 40.4 | 38.7 | 37.1 | 35.5 | 33.9 | 32.3 |
| 50               | 48.0 | 46.2 | 44.5 | 42.7 | 41.1 | 39.4 | 37.8 | 36.2 | 34.6 | 33.1 |
| 51               | 48.6 | 46.8 | 45.1 | 43.4 | 41.7 | 40.1 | 38.5 | 36.9 | 35.4 | 33.9 |
| 52               | 49.1 | 47.4 | 45.7 | 44.0 | 42.3 | 40.7 | 39.1 | 37.6 | 36.1 | 34.6 |
| 53               | 49.7 | 47.9 | 46.2 | 44.6 | 43.0 | 41.4 | 39.8 | 38.3 | 36.7 | 35.3 |
| 54               | 50.2 | 48.5 | 46.8 | 45.2 | 43.5 | 42.0 | 40.4 | 38.9 | 37.4 | 35.9 |
| 55               | 50.7 | 49.0 | 47.3 | 45.7 | 44.1 | 42.6 | 41.0 | 39.5 | 38.0 | 36.6 |
| 56               | 51.2 | 49.5 | 47.9 | 46.3 | 44.7 | 43.1 | 41.6 | 40.1 | 38.6 | 37.2 |
| 57               | 51.7 | 50.0 | 48.4 | 46.8 | 45.2 | 43.7 | 42.2 | 40.7 | 39.2 | 37.8 |















表 4a<sub>2</sub>(续)

| $t-t_w$<br>$t$ | 3.1  | 3.2  | 3.3  | 3.4  | 3.5  | 3.6  | 3.7  | 3.8  | 3.9  | 4.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 68.4 | 67.4 | 66.4 | 65.5 | 64.5 | 63.5 | 62.6 | 61.6 | 60.7 | 59.8 |
| 16             | 69.3 | 68.4 | 67.4 | 66.5 | 65.6 | 64.7 | 63.7 | 62.8 | 61.9 | 61.0 |
| 17             | 70.2 | 69.3 | 68.4 | 67.5 | 66.6 | 65.7 | 64.8 | 63.9 | 63.0 | 62.1 |
| 18             | 71.1 | 70.2 | 69.3 | 68.4 | 67.5 | 66.7 | 65.8 | 64.9 | 64.1 | 63.2 |
| 19             | 71.9 | 71.0 | 70.1 | 69.3 | 68.4 | 67.6 | 66.8 | 65.9 | 65.1 | 64.2 |
| 20             | 72.6 | 71.8 | 70.9 | 70.1 | 69.3 | 68.5 | 67.6 | 66.8 | 66.0 | 65.2 |
| 21             | 73.3 | 72.5 | 71.7 | 70.9 | 70.1 | 69.3 | 68.5 | 67.7 | 66.9 | 66.1 |
| 22             | 74.0 | 73.2 | 72.4 | 71.6 | 70.8 | 70.0 | 69.3 | 68.5 | 67.7 | 67.0 |
| 23             | 74.6 | 73.8 | 73.1 | 72.3 | 71.5 | 70.8 | 70.0 | 69.3 | 68.5 | 67.8 |
| 24             | 75.2 | 74.4 | 73.7 | 72.9 | 72.2 | 71.5 | 70.7 | 70.0 | 69.2 | 68.5 |
| 25             | 75.8 | 75.0 | 74.3 | 73.6 | 72.8 | 72.1 | 71.4 | 70.7 | 69.9 | 69.2 |
| 26             | 76.3 | 75.6 | 74.9 | 74.1 | 73.4 | 72.7 | 72.0 | 71.3 | 70.6 | 69.9 |
| 27             | 76.8 | 76.1 | 75.4 | 74.7 | 74.0 | 73.3 | 72.6 | 71.9 | 71.2 | 70.6 |
| 28             | 77.3 | 76.6 | 75.9 | 75.2 | 74.5 | 73.9 | 73.2 | 72.5 | 71.8 | 71.2 |
| 29             | 77.7 | 77.1 | 76.4 | 75.7 | 75.0 | 74.4 | 73.7 | 73.1 | 72.4 | 71.7 |
| 30             | 78.2 | 77.5 | 76.8 | 76.2 | 75.5 | 74.9 | 74.2 | 73.6 | 72.9 | 72.3 |
| 31             | 78.6 | 77.9 | 77.3 | 76.6 | 76.0 | 75.4 | 74.7 | 74.1 | 73.4 | 72.8 |
| 32             | 79.0 | 78.3 | 77.7 | 77.1 | 76.4 | 75.8 | 75.2 | 74.6 | 73.9 | 73.3 |
| 33             | 79.3 | 78.7 | 78.1 | 77.5 | 76.8 | 76.2 | 75.6 | 75.0 | 74.4 | 73.8 |
| 34             | 79.7 | 79.1 | 78.5 | 77.9 | 77.2 | 76.6 | 76.0 | 75.4 | 74.8 | 74.2 |
| 35             | 80.0 | 79.4 | 78.8 | 78.2 | 77.6 | 77.0 | 76.4 | 75.8 | 75.3 | 74.7 |
| 36             | 80.4 | 79.8 | 79.2 | 78.6 | 78.0 | 77.4 | 76.8 | 76.2 | 75.7 | 75.1 |
| 37             | 80.7 | 80.1 | 79.5 | 78.9 | 78.3 | 77.8 | 77.2 | 76.6 | 76.0 | 75.5 |
| 38             | 81.0 | 80.4 | 79.8 | 79.2 | 78.7 | 78.1 | 77.5 | 77.0 | 76.4 | 75.9 |
| 39             | 81.3 | 80.7 | 80.1 | 79.6 | 79.0 | 78.4 | 77.9 | 77.3 | 76.8 | 76.2 |
| 40             | 81.5 | 81.0 | 80.4 | 79.9 | 79.3 | 78.7 | 78.2 | 77.7 | 77.1 | 76.6 |
| 41             | 81.8 | 81.2 | 80.7 | 80.1 | 79.6 | 79.0 | 78.5 | 78.0 | 77.4 | 76.9 |
| 42             | 82.0 | 81.5 | 81.0 | 80.4 | 79.9 | 79.3 | 78.8 | 78.3 | 77.7 | 77.2 |
| 43             | 82.3 | 81.7 | 81.2 | 80.7 | 80.1 | 79.6 | 79.1 | 78.6 | 78.0 | 77.5 |
| 44             | 82.5 | 82.0 | 81.5 | 80.9 | 80.4 | 79.9 | 79.4 | 78.8 | 78.3 | 77.8 |
| 45             | 82.7 | 82.2 | 81.7 | 81.2 | 80.7 | 80.1 | 79.6 | 79.1 | 78.6 | 78.1 |
| 46             | 83.0 | 82.4 | 81.9 | 81.4 | 80.9 | 80.4 | 79.9 | 79.4 | 78.9 | 78.4 |
| 47             | 83.2 | 82.7 | 82.1 | 81.6 | 81.1 | 80.6 | 80.1 | 79.6 | 79.1 | 78.6 |
| 48             | 83.4 | 82.9 | 82.4 | 81.9 | 81.4 | 80.9 | 80.4 | 79.9 | 79.4 | 78.9 |
| 49             | 83.6 | 83.1 | 82.6 | 82.1 | 81.6 | 81.1 | 80.6 | 80.1 | 79.6 | 79.1 |
| 50             | 83.8 | 83.3 | 82.8 | 82.3 | 81.8 | 81.3 | 80.8 | 80.3 | 79.9 | 79.4 |
| 51             | 83.9 | 83.4 | 83.0 | 82.5 | 82.0 | 81.5 | 81.0 | 80.6 | 80.1 | 79.6 |
| 52             | 84.1 | 83.6 | 83.2 | 82.7 | 82.2 | 81.7 | 81.2 | 80.8 | 80.3 | 79.8 |
| 53             | 84.3 | 83.8 | 83.3 | 82.9 | 82.4 | 81.9 | 81.5 | 81.0 | 80.5 | 80.1 |
| 54             | 84.5 | 84.0 | 83.5 | 83.0 | 82.6 | 82.1 | 81.6 | 81.2 | 80.7 | 80.3 |
| 55             | 84.6 | 84.1 | 83.7 | 83.2 | 82.8 | 82.3 | 81.8 | 81.4 | 80.9 | 80.5 |
| 56             | 84.8 | 84.3 | 83.8 | 83.4 | 82.9 | 82.5 | 82.0 | 81.6 | 81.1 | 80.7 |
| 57             | 84.9 | 84.5 | 84.0 | 83.6 | 83.1 | 82.7 | 82.2 | 81.8 | 81.3 | 80.9 |



表 4a<sub>2</sub>(续)

| $t \begin{matrix} \diagup \\ t - t_w \end{matrix}$ | 4.1  | 4.2  | 4.3  | 4.4  | 4.5  | 4.6  | 4.7  | 4.8  | 4.9  | 5.0  |
|----------------------------------------------------|------|------|------|------|------|------|------|------|------|------|
| 15                                                 | 58.8 | 57.9 | 56.9 | 56.0 | 55.1 | 54.2 | 53.2 | 52.3 | 51.4 | 50.5 |
| 16                                                 | 60.1 | 59.2 | 58.3 | 57.4 | 56.5 | 55.6 | 54.7 | 53.8 | 52.9 | 52.0 |
| 17                                                 | 61.3 | 60.4 | 59.5 | 58.6 | 57.8 | 56.9 | 56.0 | 55.2 | 54.3 | 53.4 |
| 18                                                 | 62.4 | 61.5 | 60.7 | 59.8 | 59.0 | 58.1 | 57.3 | 56.4 | 55.6 | 54.8 |
| 19                                                 | 63.4 | 62.6 | 61.8 | 60.9 | 60.1 | 59.3 | 58.5 | 57.7 | 56.8 | 56.0 |
| 20                                                 | 64.4 | 63.6 | 62.8 | 62.0 | 61.2 | 60.4 | 59.6 | 58.8 | 58.0 | 57.2 |
| 21                                                 | 65.3 | 64.5 | 63.7 | 63.0 | 62.2 | 61.4 | 60.6 | 59.9 | 59.1 | 58.3 |
| 22                                                 | 66.2 | 65.4 | 64.7 | 63.9 | 63.1 | 62.4 | 61.6 | 60.9 | 60.1 | 59.4 |
| 23                                                 | 67.0 | 66.3 | 65.5 | 64.8 | 64.0 | 63.3 | 62.6 | 61.8 | 61.1 | 60.4 |
| 24                                                 | 67.8 | 67.1 | 66.3 | 65.6 | 64.9 | 64.2 | 63.5 | 62.7 | 62.0 | 61.3 |
| 25                                                 | 68.5 | 67.8 | 67.1 | 66.4 | 65.7 | 65.0 | 64.3 | 63.6 | 62.9 | 62.2 |
| 26                                                 | 69.2 | 68.5 | 67.8 | 67.1 | 66.5 | 65.8 | 65.1 | 64.4 | 63.7 | 63.1 |
| 27                                                 | 69.9 | 69.2 | 68.5 | 67.8 | 67.2 | 66.5 | 65.8 | 65.2 | 64.5 | 63.9 |
| 28                                                 | 70.5 | 69.8 | 69.2 | 68.5 | 67.9 | 67.2 | 66.5 | 65.9 | 65.2 | 64.6 |
| 29                                                 | 71.1 | 70.4 | 69.8 | 69.1 | 68.5 | 67.9 | 67.2 | 66.6 | 66.0 | 65.3 |
| 30                                                 | 71.7 | 71.0 | 70.4 | 69.7 | 69.1 | 68.5 | 67.9 | 67.2 | 66.6 | 66.0 |
| 31                                                 | 72.2 | 71.6 | 70.9 | 70.3 | 69.7 | 69.1 | 68.5 | 67.9 | 67.2 | 66.6 |
| 32                                                 | 72.7 | 72.1 | 71.5 | 70.9 | 70.3 | 69.7 | 69.0 | 68.4 | 67.9 | 67.3 |
| 33                                                 | 73.2 | 72.6 | 72.0 | 71.4 | 70.8 | 70.2 | 69.6 | 69.0 | 68.4 | 67.8 |
| 34                                                 | 73.6 | 73.1 | 72.5 | 71.9 | 71.3 | 70.7 | 70.1 | 69.5 | 69.0 | 68.4 |
| 35                                                 | 74.1 | 73.5 | 72.9 | 72.3 | 71.8 | 71.2 | 70.6 | 70.1 | 69.5 | 68.9 |
| 36                                                 | 74.5 | 73.9 | 73.4 | 72.8 | 72.2 | 71.7 | 71.1 | 70.5 | 70.0 | 69.4 |
| 37                                                 | 74.9 | 74.3 | 73.8 | 73.2 | 72.7 | 72.1 | 71.6 | 71.0 | 70.5 | 69.9 |
| 38                                                 | 75.3 | 74.7 | 74.2 | 73.6 | 73.1 | 72.5 | 72.0 | 71.5 | 70.9 | 70.4 |
| 39                                                 | 75.7 | 75.1 | 74.6 | 74.0 | 73.5 | 73.0 | 72.4 | 71.9 | 71.4 | 70.8 |
| 40                                                 | 76.0 | 75.5 | 74.9 | 74.4 | 73.9 | 73.4 | 72.8 | 72.3 | 71.8 | 71.3 |
| 41                                                 | 76.4 | 75.8 | 75.3 | 74.8 | 74.3 | 73.7 | 73.2 | 72.7 | 72.2 | 71.7 |
| 42                                                 | 76.7 | 76.2 | 75.6 | 75.1 | 74.6 | 74.1 | 73.6 | 73.1 | 72.6 | 72.1 |
| 43                                                 | 77.0 | 76.5 | 76.0 | 75.5 | 75.0 | 74.4 | 73.9 | 73.4 | 72.9 | 72.4 |
| 44                                                 | 77.3 | 76.8 | 76.3 | 75.8 | 75.3 | 74.8 | 74.3 | 73.8 | 73.3 | 72.8 |
| 45                                                 | 77.6 | 77.1 | 76.6 | 76.1 | 75.6 | 75.1 | 74.6 | 74.1 | 73.6 | 73.1 |
| 46                                                 | 77.9 | 77.4 | 76.9 | 76.4 | 75.9 | 75.4 | 74.9 | 74.4 | 74.0 | 73.5 |
| 47                                                 | 78.2 | 77.7 | 77.2 | 76.7 | 76.2 | 75.7 | 75.2 | 74.8 | 74.3 | 73.8 |
| 48                                                 | 78.4 | 77.9 | 77.4 | 77.0 | 76.5 | 76.0 | 75.5 | 75.1 | 74.6 | 74.1 |
| 49                                                 | 78.7 | 78.2 | 77.7 | 77.2 | 76.8 | 76.3 | 75.8 | 75.3 | 74.9 | 74.4 |
| 50                                                 | 78.9 | 78.4 | 78.0 | 77.5 | 77.0 | 76.6 | 76.1 | 75.6 | 75.2 | 74.7 |
| 51                                                 | 79.1 | 78.7 | 78.2 | 77.7 | 77.3 | 76.8 | 76.4 | 75.9 | 75.4 | 75.0 |
| 52                                                 | 79.4 | 78.9 | 78.5 | 78.0 | 77.5 | 77.1 | 76.6 | 76.2 | 75.7 | 75.3 |
| 53                                                 | 79.6 | 79.1 | 78.7 | 78.2 | 77.8 | 77.3 | 76.9 | 76.4 | 76.0 | 75.5 |
| 54                                                 | 79.8 | 79.4 | 78.9 | 78.5 | 78.0 | 77.6 | 77.1 | 76.7 | 76.2 | 75.8 |
| 55                                                 | 80.0 | 79.6 | 79.1 | 78.7 | 78.2 | 77.8 | 77.3 | 76.9 | 76.5 | 76.0 |
| 56                                                 | 80.2 | 79.8 | 79.3 | 78.9 | 78.5 | 78.0 | 77.6 | 77.1 | 76.7 | 76.3 |
| 57                                                 | 80.4 | 80.0 | 79.5 | 79.1 | 78.7 | 78.2 | 77.8 | 77.4 | 76.9 | 76.5 |

表 4a<sub>2</sub>(续)

| $t$ \ $t-t_w$ | 4.1  | 4.2  | 4.3  | 4.4  | 4.5  | 4.6  | 4.7  | 4.8  | 4.9  | 5.0  |
|---------------|------|------|------|------|------|------|------|------|------|------|
| 58            | 80.6 | 80.2 | 79.7 | 79.3 | 78.9 | 78.4 | 78.0 | 77.6 | 77.2 | 76.7 |
| 59            | 80.8 | 80.4 | 79.9 | 79.5 | 79.1 | 78.7 | 78.2 | 77.8 | 77.4 | 77.0 |
| 60            | 81.0 | 80.6 | 80.1 | 79.7 | 79.3 | 78.9 | 78.4 | 78.0 | 77.6 | 77.2 |
| 61            | 81.2 | 80.7 | 80.3 | 79.9 | 79.5 | 79.1 | 78.6 | 78.2 | 77.8 | 77.4 |
| 62            | 81.3 | 80.9 | 80.5 | 80.1 | 79.7 | 79.2 | 78.8 | 78.4 | 78.0 | 77.6 |
| 63            | 81.5 | 81.1 | 80.7 | 80.3 | 79.8 | 79.4 | 79.0 | 78.6 | 78.2 | 77.8 |
| 64            | 81.7 | 81.3 | 80.8 | 80.4 | 80.0 | 79.6 | 79.2 | 78.8 | 78.4 | 78.0 |
| 65            | 81.8 | 81.4 | 81.0 | 80.6 | 80.2 | 79.8 | 79.4 | 79.0 | 78.6 | 78.2 |
| 66            | 82.0 | 81.6 | 81.2 | 80.8 | 80.4 | 80.0 | 79.6 | 79.2 | 78.8 | 78.4 |
| 67            | 82.1 | 81.7 | 81.3 | 80.9 | 80.5 | 80.1 | 79.7 | 79.3 | 78.9 | 78.6 |
| 68            | 82.3 | 81.9 | 81.5 | 81.1 | 80.7 | 80.3 | 79.9 | 79.5 | 79.1 | 78.7 |
| 69            | 82.4 | 82.0 | 81.6 | 81.2 | 80.9 | 80.5 | 80.1 | 79.7 | 79.3 | 78.9 |
| 70            | 82.6 | 82.2 | 81.8 | 81.4 | 81.0 | 80.6 | 80.2 | 79.8 | 79.5 | 79.1 |
| 71            | 82.7 | 82.3 | 81.9 | 81.6 | 81.2 | 80.8 | 80.4 | 80.0 | 79.6 | 79.2 |
| 72            | 82.9 | 82.5 | 82.1 | 81.7 | 81.3 | 80.9 | 80.6 | 80.2 | 79.8 | 79.4 |
| 73            | 83.0 | 82.6 | 82.2 | 81.8 | 81.5 | 81.1 | 80.7 | 80.3 | 80.0 | 79.6 |
| 74            | 83.1 | 82.7 | 82.4 | 82.0 | 81.6 | 81.2 | 80.9 | 80.5 | 80.1 | 79.7 |
| 75            | 83.3 | 82.9 | 82.5 | 82.1 | 81.7 | 81.4 | 81.0 | 80.6 | 80.3 | 79.9 |
| 76            | 83.4 | 83.0 | 82.6 | 82.3 | 81.9 | 81.5 | 81.1 | 80.8 | 80.4 | 80.0 |
| 77            | 83.5 | 83.1 | 82.8 | 82.4 | 82.0 | 81.7 | 81.3 | 80.9 | 80.6 | 80.2 |
| 78            | 83.6 | 83.3 | 82.9 | 82.5 | 82.2 | 81.8 | 81.4 | 81.1 | 80.7 | 80.3 |
| 79            | 83.8 | 83.4 | 83.0 | 82.7 | 82.3 | 81.9 | 81.6 | 81.2 | 80.8 | 80.5 |
| 80            | 83.9 | 83.5 | 83.1 | 82.8 | 82.4 | 82.1 | 81.7 | 81.3 | 81.0 | 80.6 |
| 81            | 84.0 | 83.6 | 83.3 | 82.9 | 82.5 | 82.2 | 81.8 | 81.5 | 81.1 | 80.8 |
| 82            | 84.1 | 83.7 | 83.4 | 83.0 | 82.7 | 82.3 | 82.0 | 81.6 | 81.3 | 80.9 |
| 83            | 84.2 | 83.9 | 83.5 | 83.2 | 82.8 | 82.4 | 82.1 | 81.7 | 81.4 | 81.0 |
| 84            | 84.3 | 84.0 | 83.6 | 83.3 | 82.9 | 82.6 | 82.2 | 81.9 | 81.5 | 81.2 |
| 85            | 84.4 | 84.1 | 83.7 | 83.4 | 83.0 | 82.7 | 82.3 | 82.0 | 81.6 | 81.3 |
| 86            | 84.6 | 84.2 | 83.9 | 83.5 | 83.2 | 82.8 | 82.5 | 82.1 | 81.8 | 81.4 |
| 87            | 84.7 | 84.3 | 84.0 | 83.6 | 83.3 | 82.9 | 82.6 | 82.2 | 81.9 | 81.6 |
| 88            | 84.8 | 84.4 | 84.1 | 83.7 | 83.4 | 83.0 | 82.7 | 82.4 | 82.0 | 81.7 |
| 89            | 84.9 | 84.5 | 84.2 | 83.8 | 83.5 | 83.2 | 82.8 | 82.5 | 82.1 | 81.8 |
| 90            | 85.0 | 84.6 | 84.3 | 83.9 | 83.6 | 83.3 | 82.9 | 82.6 | 82.3 | 81.9 |
| 91            | 85.1 | 84.7 | 84.4 | 84.1 | 83.7 | 83.4 | 83.0 | 82.7 | 82.4 | 82.0 |
| 92            | 85.2 | 84.8 | 84.5 | 84.2 | 83.8 | 83.5 | 83.2 | 82.8 | 82.5 | 82.2 |
| 93            | 85.3 | 84.9 | 84.6 | 84.3 | 83.9 | 83.6 | 83.3 | 82.9 | 82.6 | 82.3 |
| 94            | 85.4 | 85.0 | 84.7 | 84.4 | 84.0 | 83.7 | 83.4 | 83.1 | 82.7 | 82.4 |
| 95            | 85.5 | 85.1 | 84.8 | 84.5 | 84.1 | 83.8 | 83.5 | 83.2 | 82.8 | 82.5 |
| 96            | 85.6 | 85.2 | 84.9 | 84.6 | 84.2 | 83.9 | 83.6 | 83.3 | 82.9 | 82.6 |
| 97            | 85.7 | 85.3 | 85.0 | 84.7 | 84.3 | 84.0 | 83.7 | 83.4 | 83.1 | 82.7 |
| 98            | 85.7 | 85.4 | 85.1 | 84.8 | 84.4 | 84.1 | 83.8 | 83.5 | 83.2 | 82.8 |
| 99            | 85.8 | 85.5 | 85.2 | 84.9 | 84.5 | 84.2 | 83.9 | 83.6 | 83.3 | 83.0 |
| 100           | 85.9 | 85.6 | 85.3 | 85.0 | 84.6 | 84.3 | 84.0 | 83.7 | 83.4 | 83.1 |

表 4a<sub>2</sub>(续)

| $t - t_w$<br>$t$ | 5.2  | 5.4  | 5.6  | 5.8  | 6.0  | 6.2  | 6.4  | 6.6  | 6.8  | 7.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               | 48.7 | 46.9 | 45.1 | 43.3 | 41.5 | 39.7 | 38.0 | 36.2 | 34.5 | 32.8 |
| 16               | 50.2 | 48.5 | 46.8 | 45.0 | 43.3 | 41.6 | 39.9 | 38.2 | 36.5 | 34.9 |
| 17               | 51.7 | 50.0 | 48.3 | 46.7 | 45.0 | 43.4 | 41.7 | 40.1 | 38.5 | 36.9 |
| 18               | 53.1 | 51.5 | 49.8 | 48.2 | 46.6 | 45.0 | 43.4 | 41.8 | 40.3 | 38.7 |
| 19               | 54.4 | 52.8 | 51.3 | 49.7 | 48.1 | 46.6 | 45.0 | 43.5 | 42.0 | 40.4 |
| 20               | 55.7 | 54.1 | 52.6 | 51.0 | 49.5 | 48.0 | 46.5 | 45.0 | 43.5 | 42.1 |
| 21               | 56.8 | 55.3 | 53.8 | 52.3 | 50.9 | 49.4 | 47.9 | 46.5 | 45.0 | 43.6 |
| 22               | 57.9 | 56.5 | 55.0 | 53.5 | 52.1 | 50.7 | 49.3 | 47.8 | 46.4 | 45.1 |
| 23               | 59.0 | 57.5 | 56.1 | 54.7 | 53.3 | 51.9 | 50.5 | 49.1 | 47.8 | 46.4 |
| 24               | 59.9 | 58.5 | 57.1 | 55.8 | 54.4 | 53.0 | 51.7 | 50.4 | 49.0 | 47.7 |
| 25               | 60.8 | 59.5 | 58.1 | 56.8 | 55.5 | 54.1 | 52.8 | 51.5 | 50.2 | 48.9 |
| 26               | 61.7 | 60.4 | 59.1 | 57.8 | 56.4 | 55.2 | 53.9 | 52.6 | 51.3 | 50.1 |
| 27               | 62.5 | 61.2 | 59.9 | 58.7 | 57.4 | 56.1 | 54.9 | 53.6 | 52.4 | 51.2 |
| 28               | 63.3 | 62.0 | 60.8 | 59.5 | 58.3 | 57.0 | 55.8 | 54.6 | 53.4 | 52.2 |
| 29               | 64.1 | 62.8 | 61.6 | 60.3 | 59.1 | 57.9 | 56.7 | 55.5 | 54.3 | 53.2 |
| 30               | 64.8 | 63.5 | 62.3 | 61.1 | 59.9 | 58.7 | 57.6 | 56.4 | 55.2 | 54.1 |
| 31               | 65.4 | 64.2 | 63.0 | 61.9 | 60.7 | 59.5 | 58.4 | 57.2 | 56.1 | 55.0 |
| 32               | 66.1 | 64.9 | 63.7 | 62.6 | 61.4 | 60.3 | 59.1 | 58.0 | 56.9 | 55.8 |
| 33               | 66.7 | 65.5 | 64.4 | 63.2 | 62.1 | 61.0 | 59.9 | 58.8 | 57.7 | 56.6 |
| 34               | 67.3 | 66.1 | 65.0 | 63.9 | 62.8 | 61.7 | 60.6 | 59.5 | 58.4 | 57.4 |
| 35               | 67.8 | 66.7 | 65.6 | 64.5 | 63.4 | 62.3 | 61.2 | 60.2 | 59.1 | 58.1 |
| 36               | 68.3 | 67.2 | 66.1 | 65.1 | 64.0 | 62.9 | 61.9 | 60.8 | 59.8 | 58.8 |
| 37               | 68.8 | 67.8 | 66.7 | 65.6 | 64.6 | 63.5 | 62.5 | 61.5 | 60.4 | 59.4 |
| 38               | 69.3 | 68.3 | 67.2 | 66.2 | 65.1 | 64.1 | 63.1 | 62.1 | 61.0 | 60.1 |
| 39               | 69.8 | 68.7 | 67.7 | 66.7 | 65.6 | 64.6 | 63.6 | 62.6 | 61.6 | 60.7 |
| 40               | 70.2 | 69.2 | 68.2 | 67.1 | 66.1 | 65.1 | 64.2 | 63.2 | 62.2 | 61.2 |
| 41               | 70.6 | 69.6 | 68.6 | 67.6 | 66.6 | 65.6 | 64.7 | 63.7 | 62.7 | 61.8 |
| 42               | 71.0 | 70.0 | 69.0 | 68.1 | 67.1 | 66.1 | 65.2 | 64.2 | 63.2 | 62.3 |
| 43               | 71.4 | 70.4 | 69.5 | 68.5 | 67.5 | 66.6 | 65.6 | 64.7 | 63.7 | 62.8 |
| 44               | 71.8 | 70.8 | 69.9 | 68.9 | 68.0 | 67.0 | 66.1 | 65.1 | 64.2 | 63.3 |
| 45               | 72.2 | 71.2 | 70.3 | 69.3 | 68.4 | 67.4 | 66.5 | 65.6 | 64.7 | 63.8 |
| 46               | 72.5 | 71.6 | 70.6 | 69.7 | 68.8 | 67.8 | 66.9 | 66.0 | 65.1 | 64.2 |
| 47               | 72.9 | 71.9 | 71.0 | 70.1 | 69.1 | 68.2 | 67.3 | 66.4 | 65.5 | 64.7 |
| 48               | 73.2 | 72.3 | 71.3 | 70.4 | 69.5 | 68.6 | 67.7 | 66.8 | 66.0 | 65.1 |
| 49               | 73.5 | 72.6 | 71.7 | 70.8 | 69.9 | 69.0 | 68.1 | 67.2 | 66.3 | 65.5 |
| 50               | 73.8 | 72.9 | 72.0 | 71.1 | 70.2 | 69.3 | 68.5 | 67.6 | 66.7 | 65.9 |
| 51               | 74.1 | 73.2 | 72.3 | 71.4 | 70.5 | 69.7 | 68.8 | 67.9 | 67.1 | 66.3 |
| 52               | 74.4 | 73.5 | 72.6 | 71.7 | 70.9 | 70.0 | 69.1 | 68.3 | 67.5 | 66.6 |
| 53               | 74.6 | 73.8 | 72.9 | 72.0 | 71.2 | 70.3 | 69.5 | 68.6 | 67.8 | 67.0 |
| 54               | 74.9 | 74.0 | 73.2 | 72.3 | 71.5 | 70.6 | 69.8 | 69.0 | 68.1 | 67.3 |
| 55               | 75.2 | 74.3 | 73.5 | 72.6 | 71.8 | 70.9 | 70.1 | 69.3 | 68.5 | 67.7 |
| 56               | 75.4 | 74.6 | 73.7 | 72.9 | 72.0 | 71.2 | 70.4 | 69.6 | 68.8 | 68.0 |
| 57               | 75.7 | 74.8 | 74.0 | 73.1 | 72.3 | 71.5 | 70.7 | 69.9 | 69.1 | 68.3 |



表 4a<sub>2</sub> (续)

| $t \backslash t - t_w$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|------------------------|------|------|------|------|------|------|------|------|------|------|
| 15                     | 31.1 | 29.4 | 27.7 | 26.0 | 24.3 | 22.7 | 21.0 | 19.4 | 17.7 | 16.1 |
| 16                     | 33.2 | 31.6 | 29.9 | 28.3 | 26.7 | 25.1 | 23.5 | 21.9 | 20.3 | 18.8 |
| 17                     | 35.2 | 33.7 | 32.1 | 30.5 | 28.9 | 27.4 | 25.8 | 24.3 | 22.8 | 21.3 |
| 18                     | 37.1 | 35.6 | 34.1 | 32.6 | 31.0 | 29.5 | 28.0 | 26.6 | 25.1 | 23.6 |
| 19                     | 38.9 | 37.4 | 36.0 | 34.5 | 33.0 | 31.6 | 30.1 | 28.7 | 27.2 | 25.8 |
| 20                     | 40.6 | 39.2 | 37.7 | 36.3 | 34.9 | 33.4 | 32.0 | 30.6 | 29.3 | 27.9 |
| 21                     | 42.2 | 40.8 | 39.4 | 38.0 | 36.6 | 35.2 | 33.9 | 32.5 | 31.2 | 29.8 |
| 22                     | 43.7 | 42.3 | 40.9 | 39.6 | 38.2 | 36.9 | 35.6 | 34.3 | 33.0 | 31.7 |
| 23                     | 45.1 | 43.7 | 42.4 | 41.1 | 39.8 | 38.5 | 37.2 | 35.9 | 34.6 | 33.4 |
| 24                     | 46.4 | 45.1 | 43.8 | 42.5 | 41.2 | 40.0 | 38.7 | 37.5 | 36.2 | 35.0 |
| 25                     | 47.6 | 46.4 | 45.1 | 43.9 | 42.6 | 41.4 | 40.2 | 38.9 | 37.7 | 36.5 |
| 26                     | 48.8 | 47.6 | 46.4 | 45.1 | 43.9 | 42.7 | 41.5 | 40.3 | 39.2 | 38.0 |
| 27                     | 49.9 | 48.7 | 47.5 | 46.3 | 45.1 | 44.0 | 42.8 | 41.6 | 40.5 | 39.3 |
| 28                     | 51.0 | 49.8 | 48.6 | 47.5 | 46.3 | 45.2 | 44.0 | 42.9 | 41.8 | 40.6 |
| 29                     | 52.0 | 50.8 | 49.7 | 48.5 | 47.4 | 46.3 | 45.2 | 44.1 | 43.0 | 41.9 |
| 30                     | 52.9 | 51.8 | 50.7 | 49.6 | 48.5 | 47.4 | 46.3 | 45.2 | 44.1 | 43.0 |
| 31                     | 53.8 | 52.7 | 51.6 | 50.5 | 49.5 | 48.4 | 47.3 | 46.2 | 45.2 | 44.1 |
| 32                     | 54.7 | 53.6 | 52.5 | 51.5 | 50.4 | 49.3 | 48.3 | 47.2 | 46.2 | 45.2 |
| 33                     | 55.5 | 54.5 | 53.4 | 52.3 | 51.3 | 50.3 | 49.2 | 48.2 | 47.2 | 46.2 |
| 34                     | 56.3 | 55.2 | 54.2 | 53.2 | 52.1 | 51.1 | 50.1 | 49.1 | 48.1 | 47.1 |
| 35                     | 57.0 | 56.0 | 55.0 | 54.0 | 53.0 | 52.0 | 51.0 | 50.0 | 49.0 | 48.0 |
| 36                     | 57.7 | 56.7 | 55.7 | 54.7 | 53.7 | 52.7 | 51.8 | 50.8 | 49.8 | 48.9 |
| 37                     | 58.4 | 57.4 | 56.4 | 55.4 | 54.5 | 53.5 | 52.5 | 51.6 | 50.6 | 49.7 |
| 38                     | 59.1 | 58.1 | 57.1 | 56.1 | 55.2 | 54.2 | 53.3 | 52.3 | 51.4 | 50.5 |
| 39                     | 59.7 | 58.7 | 57.7 | 56.8 | 55.9 | 54.9 | 54.0 | 53.1 | 52.1 | 51.2 |
| 40                     | 60.3 | 59.3 | 58.4 | 57.4 | 56.5 | 55.6 | 54.7 | 53.7 | 52.8 | 51.9 |
| 41                     | 60.8 | 59.9 | 59.0 | 58.0 | 57.1 | 56.2 | 55.3 | 54.4 | 53.5 | 52.6 |
| 42                     | 61.4 | 60.4 | 59.5 | 58.6 | 57.7 | 56.8 | 55.9 | 55.0 | 54.2 | 53.3 |
| 43                     | 61.9 | 61.0 | 60.1 | 59.2 | 58.3 | 57.4 | 56.5 | 55.6 | 54.8 | 53.9 |
| 44                     | 62.4 | 61.5 | 60.6 | 59.7 | 58.8 | 58.0 | 57.1 | 56.2 | 55.4 | 54.5 |
| 45                     | 62.9 | 62.0 | 61.1 | 60.2 | 59.4 | 58.5 | 57.6 | 56.8 | 55.9 | 55.1 |
| 46                     | 63.3 | 62.5 | 61.6 | 60.7 | 59.9 | 59.0 | 58.2 | 57.3 | 56.5 | 55.7 |
| 47                     | 63.8 | 62.9 | 62.1 | 61.2 | 60.3 | 59.5 | 58.7 | 57.8 | 57.0 | 56.2 |
| 48                     | 64.2 | 63.4 | 62.5 | 61.7 | 60.8 | 60.0 | 59.2 | 58.3 | 57.5 | 56.7 |
| 49                     | 64.6 | 63.8 | 62.9 | 62.1 | 61.3 | 60.4 | 59.6 | 58.8 | 58.0 | 57.2 |
| 50                     | 65.0 | 64.2 | 63.4 | 62.5 | 61.7 | 60.9 | 60.1 | 59.3 | 58.5 | 57.7 |
| 51                     | 65.4 | 64.6 | 63.8 | 62.9 | 62.1 | 61.3 | 60.5 | 59.7 | 58.9 | 58.2 |
| 52                     | 65.8 | 65.0 | 64.2 | 63.3 | 62.5 | 61.7 | 61.0 | 60.2 | 59.4 | 58.6 |
| 53                     | 66.2 | 65.3 | 64.5 | 63.7 | 62.9 | 62.1 | 61.4 | 60.6 | 59.8 | 59.1 |
| 54                     | 66.5 | 65.7 | 64.9 | 64.1 | 63.3 | 62.5 | 61.8 | 61.0 | 60.2 | 59.5 |
| 55                     | 66.8 | 66.0 | 65.3 | 64.5 | 63.7 | 62.9 | 62.2 | 61.4 | 60.6 | 59.9 |
| 56                     | 67.2 | 66.4 | 65.6 | 64.8 | 64.1 | 63.3 | 62.5 | 61.8 | 61.0 | 60.3 |
| 57                     | 67.5 | 66.7 | 65.9 | 65.2 | 64.4 | 63.6 | 62.9 | 62.1 | 61.4 | 60.7 |









表 4a<sub>2</sub>(续)

| $t-t_w$<br>$t$ | 11.5 | 12.0 | 12.5 | 13.5 | 13.5 | 14.0 | 14.5 | 15.0 | 15.5 | 16.0 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 52.4 | 50.7 | 49.1 | 47.6 | 46.0 | 44.5 | 43.0 | 41.5 | 40.1 | 38.7 |
| 59             | 52.8 | 51.2 | 49.6 | 48.0 | 46.5 | 45.0 | 43.5 | 42.1 | 40.7 | 39.3 |
| 60             | 53.2 | 51.6 | 50.0 | 48.5 | 47.0 | 45.5 | 44.0 | 42.6 | 41.2 | 39.8 |
| 61             | 53.6 | 52.0 | 50.5 | 48.9 | 47.4 | 46.0 | 44.5 | 43.1 | 41.7 | 40.3 |
| 62             | 54.0 | 52.5 | 50.9 | 49.4 | 47.9 | 46.4 | 45.0 | 43.6 | 42.2 | 40.8 |
| 63             | 54.4 | 52.9 | 51.3 | 49.8 | 48.3 | 46.9 | 45.4 | 44.0 | 42.7 | 41.3 |
| 64             | 54.8 | 53.3 | 51.7 | 50.2 | 48.7 | 47.3 | 45.9 | 44.5 | 43.1 | 41.8 |
| 65             | 55.2 | 53.6 | 52.1 | 50.6 | 49.2 | 47.7 | 46.3 | 44.9 | 43.6 | 42.2 |
| 66             | 55.5 | 54.0 | 52.5 | 51.0 | 49.6 | 48.1 | 46.7 | 45.4 | 44.0 | 42.7 |
| 67             | 55.9 | 54.4 | 52.9 | 51.4 | 50.0 | 48.5 | 47.1 | 45.8 | 44.4 | 43.1 |
| 68             | 56.2 | 54.7 | 53.2 | 51.8 | 50.3 | 48.9 | 47.6 | 46.2 | 44.9 | 43.6 |
| 69             | 56.6 | 55.1 | 53.6 | 52.1 | 50.7 | 49.3 | 47.9 | 46.6 | 45.3 | 44.0 |
| 70             | 56.9 | 55.4 | 53.9 | 52.5 | 51.1 | 49.7 | 48.3 | 47.0 | 45.7 | 44.4 |
| 71             | 57.2 | 55.7 | 54.3 | 52.9 | 51.4 | 50.1 | 48.7 | 47.4 | 46.1 | 44.8 |
| 72             | 57.6 | 56.1 | 54.6 | 53.2 | 51.8 | 50.4 | 49.1 | 47.7 | 46.4 | 45.2 |
| 73             | 57.9 | 56.4 | 54.9 | 53.5 | 52.1 | 50.8 | 49.4 | 48.1 | 46.8 | 45.6 |
| 74             | 58.2 | 56.7 | 55.3 | 53.9 | 52.5 | 51.1 | 49.8 | 48.5 | 47.2 | 45.9 |
| 75             | 58.5 | 57.0 | 55.6 | 54.2 | 52.8 | 51.5 | 50.1 | 48.8 | 47.5 | 46.3 |
| 76             | 58.8 | 57.3 | 55.9 | 54.5 | 53.1 | 51.8 | 50.5 | 49.2 | 47.9 | 46.6 |
| 77             | 59.0 | 57.6 | 56.2 | 54.8 | 53.4 | 52.1 | 50.8 | 49.5 | 48.2 | 47.0 |
| 78             | 59.3 | 57.9 | 56.5 | 55.1 | 53.8 | 52.4 | 51.1 | 49.8 | 48.6 | 47.3 |
| 79             | 59.6 | 58.2 | 56.8 | 55.4 | 54.1 | 52.7 | 51.4 | 50.2 | 48.9 | 47.7 |
| 80             | 59.9 | 58.5 | 57.1 | 55.7 | 54.4 | 53.1 | 51.8 | 50.5 | 49.2 | 48.0 |
| 81             | 60.1 | 58.7 | 57.4 | 56.0 | 54.7 | 53.4 | 52.1 | 50.8 | 49.6 | 48.3 |
| 82             | 60.4 | 59.0 | 57.6 | 56.3 | 55.0 | 53.7 | 52.4 | 51.1 | 49.9 | 48.7 |
| 83             | 60.7 | 59.3 | 57.9 | 56.6 | 55.2 | 53.9 | 52.7 | 51.4 | 50.2 | 49.0 |
| 84             | 60.9 | 59.5 | 58.2 | 56.8 | 55.5 | 54.2 | 53.0 | 51.7 | 50.5 | 49.3 |
| 85             | 61.2 | 59.8 | 58.4 | 57.1 | 55.8 | 54.5 | 53.3 | 52.0 | 50.8 | 49.6 |
| 86             | 61.4 | 60.0 | 58.7 | 57.4 | 56.1 | 54.8 | 53.5 | 52.3 | 51.1 | 49.9 |
| 87             | 61.6 | 60.3 | 58.9 | 57.6 | 56.3 | 55.1 | 53.8 | 52.6 | 51.4 | 50.2 |
| 88             | 61.9 | 60.5 | 59.2 | 57.9 | 56.6 | 55.3 | 54.1 | 52.9 | 51.7 | 50.5 |
| 89             | 62.1 | 60.8 | 59.4 | 58.1 | 56.9 | 55.6 | 54.4 | 53.1 | 52.0 | 50.8 |
| 90             | 62.4 | 61.0 | 59.7 | 58.4 | 57.1 | 55.9 | 54.6 | 53.4 | 52.2 | 51.1 |
| 91             | 62.6 | 61.2 | 59.9 | 58.6 | 57.4 | 56.1 | 54.9 | 53.7 | 52.5 | 51.3 |
| 92             | 62.8 | 61.5 | 60.2 | 58.9 | 57.6 | 56.4 | 55.2 | 54.0 | 52.8 | 51.6 |
| 93             | 63.0 | 61.7 | 60.4 | 59.1 | 57.9 | 56.6 | 55.4 | 54.2 | 53.0 | 51.9 |
| 94             | 63.3 | 61.9 | 60.6 | 59.4 | 58.1 | 56.9 | 55.7 | 54.5 | 53.3 | 52.2 |
| 95             | 63.5 | 62.2 | 60.9 | 59.6 | 58.4 | 57.1 | 55.9 | 54.7 | 53.6 | 52.4 |
| 96             | 63.7 | 62.4 | 61.1 | 59.8 | 58.6 | 57.4 | 56.2 | 55.0 | 53.8 | 52.7 |
| 97             | 63.9 | 62.6 | 61.3 | 60.1 | 58.8 | 57.6 | 56.4 | 55.2 | 54.1 | 52.9 |
| 98             | 64.1 | 62.8 | 61.5 | 60.3 | 59.1 | 57.8 | 56.7 | 55.5 | 54.3 | 53.2 |
| 99             | 64.3 | 63.0 | 61.8 | 60.5 | 59.3 | 58.1 | 56.9 | 55.7 | 54.6 | 53.4 |
| 100            | 64.5 | 63.2 | 62.0 | 60.7 | 59.5 | 58.3 | 57.1 | 56.0 | 54.8 | 53.7 |













表 4b (续)

| $t-t_w$ | 3.1  | 3.2  | 3.3  | 3.4  | 3.5  | 3.6  | 3.7  | 3.8  | 3.9  | 4.0  |
|---------|------|------|------|------|------|------|------|------|------|------|
| $t$     |      |      |      |      |      |      |      |      |      |      |
| 15      | 68.7 | 67.7 | 66.8 | 65.8 | 64.9 | 63.9 | 63.0 | 62.1 | 61.1 | 60.2 |
| 16      | 69.6 | 68.7 | 67.8 | 66.9 | 65.9 | 65.0 | 64.1 | 63.2 | 62.3 | 61.4 |
| 17      | 70.5 | 69.6 | 68.7 | 67.8 | 66.9 | 66.0 | 65.2 | 64.3 | 63.4 | 62.5 |
| 18      | 71.3 | 70.5 | 69.6 | 68.7 | 67.9 | 67.0 | 66.1 | 65.3 | 64.4 | 63.6 |
| 19      | 72.1 | 71.3 | 70.4 | 69.6 | 68.7 | 67.9 | 67.1 | 66.2 | 65.4 | 64.6 |
| 20      | 72.9 | 72.0 | 71.2 | 70.4 | 69.6 | 68.7 | 67.9 | 67.1 | 66.3 | 65.5 |
| 21      | 73.5 | 72.7 | 71.9 | 71.1 | 70.3 | 69.5 | 68.8 | 68.0 | 67.2 | 66.4 |
| 22      | 74.2 | 73.4 | 72.6 | 71.8 | 71.1 | 70.3 | 69.5 | 68.8 | 68.0 | 67.2 |
| 23      | 74.8 | 74.0 | 73.3 | 72.5 | 71.8 | 71.0 | 70.3 | 69.5 | 68.8 | 68.0 |
| 24      | 75.4 | 74.6 | 73.9 | 73.2 | 72.4 | 71.7 | 70.9 | 70.2 | 69.5 | 68.8 |
| 25      | 75.9 | 75.2 | 74.5 | 73.8 | 73.0 | 72.3 | 71.6 | 70.9 | 70.2 | 69.5 |
| 26      | 76.5 | 75.8 | 75.0 | 74.3 | 73.6 | 72.9 | 72.2 | 71.5 | 70.8 | 70.1 |
| 27      | 77.0 | 76.3 | 75.6 | 74.9 | 74.2 | 73.5 | 72.8 | 72.1 | 71.4 | 70.8 |
| 28      | 77.4 | 76.7 | 76.1 | 75.4 | 74.7 | 74.0 | 73.4 | 72.7 | 72.0 | 71.4 |
| 29      | 77.9 | 77.2 | 76.5 | 75.9 | 75.2 | 74.5 | 73.9 | 73.2 | 72.6 | 71.9 |
| 30      | 78.3 | 77.6 | 77.0 | 76.3 | 75.7 | 75.0 | 74.4 | 73.7 | 73.1 | 72.5 |
| 31      | 78.7 | 78.1 | 77.4 | 76.8 | 76.1 | 75.5 | 74.9 | 74.2 | 73.6 | 73.0 |
| 32      | 79.1 | 78.5 | 77.8 | 77.2 | 76.6 | 75.9 | 75.3 | 74.7 | 74.1 | 73.5 |
| 33      | 79.5 | 78.8 | 78.2 | 77.6 | 77.0 | 76.4 | 75.8 | 75.1 | 74.5 | 73.9 |
| 34      | 79.8 | 79.2 | 78.6 | 78.0 | 77.4 | 76.8 | 76.2 | 75.6 | 75.0 | 74.4 |
| 35      | 80.1 | 79.5 | 78.9 | 78.3 | 77.7 | 77.1 | 76.6 | 76.0 | 75.4 | 74.8 |
| 36      | 80.5 | 79.9 | 79.3 | 78.7 | 78.1 | 77.5 | 76.9 | 76.4 | 75.8 | 75.2 |
| 37      | 80.8 | 80.2 | 79.6 | 79.0 | 78.4 | 77.9 | 77.3 | 76.7 | 76.2 | 75.6 |
| 38      | 81.1 | 80.5 | 79.9 | 79.3 | 78.8 | 78.2 | 77.6 | 77.1 | 76.5 | 76.0 |
| 39      | 81.3 | 80.8 | 80.2 | 79.6 | 79.1 | 78.5 | 78.0 | 77.4 | 76.9 | 76.3 |
| 40      | 81.6 | 81.0 | 80.5 | 79.9 | 79.4 | 78.8 | 78.3 | 77.7 | 77.2 | 76.7 |
| 41      | 81.9 | 81.3 | 80.8 | 80.2 | 79.7 | 79.1 | 78.6 | 78.1 | 77.5 | 77.0 |
| 42      | 82.1 | 81.6 | 81.0 | 80.5 | 80.0 | 79.4 | 78.9 | 78.4 | 77.8 | 77.3 |
| 43      | 82.3 | 81.8 | 81.3 | 80.7 | 80.2 | 79.7 | 79.2 | 78.6 | 78.1 | 77.6 |
| 44      | 82.6 | 82.0 | 81.5 | 81.0 | 80.5 | 80.0 | 79.4 | 78.9 | 78.4 | 77.9 |
| 45      | 82.8 | 82.3 | 81.8 | 81.2 | 80.7 | 80.2 | 79.7 | 79.2 | 78.7 | 78.2 |
| 46      | 83.0 | 82.5 | 82.0 | 81.5 | 81.0 | 80.5 | 80.0 | 79.5 | 79.0 | 78.5 |
| 47      | 83.2 | 82.7 | 82.2 | 81.7 | 81.2 | 80.7 | 80.2 | 79.7 | 79.2 | 78.7 |
| 48      | 83.4 | 82.9 | 82.4 | 81.9 | 81.4 | 80.9 | 80.4 | 79.9 | 79.5 | 79.0 |
| 49      | 83.6 | 83.1 | 82.6 | 82.1 | 81.6 | 81.1 | 80.7 | 80.2 | 79.7 | 79.2 |
| 50      | 83.8 | 83.3 | 82.8 | 82.3 | 81.8 | 81.4 | 80.9 | 80.4 | 79.9 | 79.4 |
| 51      | 84.0 | 83.5 | 83.0 | 82.5 | 82.0 | 81.6 | 81.1 | 80.6 | 80.1 | 79.7 |
| 52      | 84.2 | 83.7 | 83.2 | 82.7 | 82.2 | 81.8 | 81.3 | 80.8 | 80.4 | 79.9 |
| 53      | 84.3 | 83.8 | 83.4 | 82.9 | 82.4 | 82.0 | 81.5 | 81.0 | 80.6 | 80.1 |
| 54      | 84.5 | 84.0 | 83.6 | 83.1 | 82.6 | 82.2 | 81.7 | 81.2 | 80.8 | 80.3 |
| 55      | 84.7 | 84.2 | 83.7 | 83.3 | 82.8 | 82.3 | 81.9 | 81.4 | 81.0 | 80.5 |
| 56      | 84.8 | 84.3 | 83.9 | 83.4 | 83.0 | 82.5 | 82.1 | 81.6 | 81.2 | 80.7 |
| 57      | 85.0 | 84.5 | 84.0 | 83.6 | 83.1 | 82.7 | 82.2 | 81.8 | 81.4 | 80.9 |

表 4b (续)

| $t - t_w$<br>$t$ | 3.1  | 3.2  | 3.3  | 3.4  | 3.5  | 3.6  | 3.7  | 3.8  | 3.9  | 4.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 58               | 85.1 | 84.7 | 84.2 | 83.8 | 83.3 | 82.9 | 82.4 | 82.0 | 81.5 | 81.1 |
| 59               | 85.2 | 84.8 | 84.4 | 83.9 | 83.5 | 83.0 | 82.6 | 82.1 | 81.7 | 81.3 |
| 60               | 85.4 | 84.9 | 84.5 | 84.1 | 83.6 | 83.2 | 82.7 | 82.3 | 81.9 | 81.5 |
| 61               | 85.5 | 85.1 | 84.6 | 84.2 | 83.8 | 83.3 | 82.9 | 82.5 | 82.0 | 81.6 |
| 62               | 85.7 | 85.2 | 84.8 | 84.4 | 83.9 | 83.5 | 83.1 | 82.6 | 82.2 | 81.8 |
| 63               | 85.8 | 85.4 | 84.9 | 84.5 | 84.1 | 83.6 | 83.2 | 82.8 | 82.4 | 82.0 |
| 64               | 85.9 | 85.5 | 85.1 | 84.6 | 84.2 | 83.8 | 83.4 | 82.9 | 82.5 | 82.1 |
| 65               | 86.0 | 85.6 | 85.2 | 84.8 | 84.3 | 83.9 | 83.5 | 83.1 | 82.7 | 82.3 |
| 66               | 86.2 | 85.7 | 85.3 | 84.9 | 84.5 | 84.1 | 83.7 | 83.2 | 82.8 | 82.4 |
| 67               | 86.3 | 85.9 | 85.4 | 85.0 | 84.6 | 84.2 | 83.8 | 83.4 | 83.0 | 82.6 |
| 68               | 86.4 | 86.0 | 85.6 | 85.2 | 84.7 | 84.3 | 83.9 | 83.5 | 83.1 | 82.7 |
| 69               | 86.5 | 86.1 | 85.7 | 85.3 | 84.9 | 84.5 | 84.1 | 83.7 | 83.3 | 82.9 |
| 70               | 86.6 | 86.2 | 85.8 | 85.4 | 85.0 | 84.6 | 84.2 | 83.8 | 83.4 | 83.0 |
| 71               | 86.7 | 86.3 | 85.9 | 85.5 | 85.1 | 84.7 | 84.3 | 83.9 | 83.5 | 83.1 |
| 72               | 86.8 | 86.4 | 86.0 | 85.6 | 85.2 | 84.8 | 84.4 | 84.1 | 83.7 | 83.3 |
| 73               | 86.9 | 86.5 | 86.1 | 85.7 | 85.4 | 85.0 | 84.6 | 84.2 | 83.8 | 83.4 |
| 74               | 87.0 | 86.6 | 86.3 | 85.9 | 85.5 | 85.1 | 84.7 | 84.3 | 83.9 | 83.5 |
| 75               | 87.1 | 86.8 | 86.4 | 86.0 | 85.6 | 85.2 | 84.8 | 84.4 | 84.0 | 83.7 |
| 76               | 87.2 | 86.9 | 86.5 | 86.1 | 85.7 | 85.3 | 84.9 | 84.5 | 84.2 | 83.8 |
| 77               | 87.3 | 87.0 | 86.6 | 86.2 | 85.8 | 85.4 | 85.0 | 84.7 | 84.3 | 83.9 |
| 78               | 87.4 | 87.1 | 86.7 | 86.3 | 85.9 | 85.5 | 85.2 | 84.8 | 84.4 | 84.0 |
| 79               | 87.5 | 87.1 | 86.8 | 86.4 | 86.0 | 85.6 | 85.3 | 84.9 | 84.5 | 84.1 |
| 80               | 87.6 | 87.2 | 86.9 | 86.5 | 86.1 | 85.7 | 85.4 | 85.0 | 84.6 | 84.3 |
| 81               | 87.7 | 87.3 | 87.0 | 86.6 | 86.2 | 85.8 | 85.5 | 85.1 | 84.7 | 84.4 |
| 82               | 87.8 | 87.4 | 87.1 | 86.7 | 86.3 | 85.9 | 85.6 | 85.2 | 84.9 | 84.5 |
| 83               | 87.9 | 87.5 | 87.2 | 86.8 | 86.4 | 86.1 | 85.7 | 85.3 | 85.0 | 84.6 |
| 84               | 88.0 | 87.6 | 87.2 | 86.9 | 86.5 | 86.1 | 85.8 | 85.4 | 85.1 | 84.7 |
| 85               | 88.1 | 87.7 | 87.3 | 87.0 | 86.6 | 86.2 | 85.9 | 85.5 | 85.2 | 84.8 |
| 86               | 88.1 | 87.8 | 87.4 | 87.1 | 86.7 | 86.3 | 86.0 | 85.6 | 85.3 | 84.9 |
| 87               | 88.2 | 87.9 | 87.5 | 87.2 | 86.8 | 86.4 | 86.1 | 85.7 | 85.4 | 85.0 |
| 88               | 88.3 | 88.0 | 87.6 | 87.2 | 86.9 | 86.5 | 86.2 | 85.8 | 85.5 | 85.1 |
| 89               | 88.4 | 88.0 | 87.7 | 87.3 | 87.0 | 86.6 | 86.3 | 85.9 | 85.6 | 85.2 |
| 90               | 88.5 | 88.1 | 87.8 | 87.4 | 87.1 | 86.7 | 86.4 | 86.0 | 85.7 | 85.3 |
| 91               | 88.6 | 88.2 | 87.8 | 87.5 | 87.2 | 86.8 | 86.5 | 86.1 | 85.8 | 85.4 |
| 92               | 88.6 | 88.3 | 87.9 | 87.6 | 87.2 | 86.9 | 86.5 | 86.2 | 85.9 | 85.5 |
| 93               | 88.7 | 88.4 | 88.0 | 87.7 | 87.3 | 87.0 | 86.6 | 86.3 | 86.0 | 85.6 |
| 94               | 88.8 | 88.4 | 88.1 | 87.7 | 87.4 | 87.1 | 86.7 | 86.4 | 86.1 | 85.7 |
| 95               | 88.9 | 88.5 | 88.2 | 87.8 | 87.5 | 87.2 | 86.8 | 86.5 | 86.1 | 85.8 |
| 96               | 88.9 | 88.6 | 88.2 | 87.9 | 87.6 | 87.2 | 86.9 | 86.6 | 86.2 | 85.9 |
| 97               | 89.0 | 88.7 | 88.3 | 88.0 | 87.7 | 87.3 | 87.0 | 86.7 | 86.3 | 86.0 |
| 98               | 89.1 | 88.7 | 88.4 | 88.1 | 87.7 | 87.4 | 87.1 | 86.7 | 86.4 | 86.1 |
| 99               | 89.1 | 88.8 | 88.5 | 88.1 | 87.8 | 87.5 | 87.2 | 86.8 | 86.5 | 86.2 |
| 100              | 89.2 | 88.9 | 88.5 | 88.2 | 87.9 | 87.6 | 87.2 | 86.9 | 86.6 | 86.3 |

表 4b (续)

| $t - t_w$<br>$t$ | 4.1  | 4.2  | 4.3  | 4.4  | 4.5  | 4.6  | 4.7  | 4.8  | 4.9  | 5.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               | 59.3 | 58.3 | 57.4 | 56.5 | 55.6 | 54.7 | 53.7 | 52.8 | 51.9 | 51.0 |
| 16               | 60.5 | 59.6 | 58.7 | 57.8 | 56.9 | 56.0 | 55.1 | 54.3 | 53.4 | 52.5 |
| 17               | 61.6 | 60.8 | 59.9 | 59.0 | 58.2 | 57.3 | 56.5 | 55.6 | 54.8 | 53.9 |
| 18               | 62.7 | 61.9 | 61.0 | 60.2 | 59.4 | 58.5 | 57.7 | 56.9 | 56.0 | 55.2 |
| 19               | 63.7 | 62.9 | 62.1 | 61.3 | 60.5 | 59.7 | 58.9 | 58.1 | 57.3 | 56.5 |
| 20               | 64.7 | 63.9 | 63.1 | 62.3 | 61.5 | 60.7 | 60.0 | 59.2 | 58.4 | 57.6 |
| 21               | 65.6 | 64.8 | 64.1 | 63.3 | 62.5 | 61.8 | 61.0 | 60.2 | 59.5 | 58.7 |
| 22               | 66.5 | 65.7 | 65.0 | 64.2 | 63.5 | 62.7 | 62.0 | 61.2 | 60.5 | 59.7 |
| 23               | 67.3 | 66.5 | 65.8 | 65.1 | 64.3 | 63.6 | 62.9 | 62.2 | 61.4 | 60.7 |
| 24               | 68.0 | 67.3 | 66.6 | 65.9 | 65.2 | 64.5 | 63.7 | 63.0 | 62.3 | 61.6 |
| 25               | 68.8 | 68.1 | 67.3 | 66.6 | 66.0 | 65.3 | 64.6 | 63.9 | 63.2 | 62.5 |
| 26               | 69.4 | 68.7 | 68.1 | 67.4 | 66.7 | 66.0 | 65.3 | 64.7 | 64.0 | 63.3 |
| 27               | 70.1 | 69.4 | 68.7 | 68.1 | 67.4 | 66.7 | 66.1 | 65.4 | 64.8 | 64.1 |
| 28               | 70.7 | 70.0 | 69.4 | 68.7 | 68.1 | 67.4 | 66.8 | 66.1 | 65.5 | 64.8 |
| 29               | 71.3 | 70.6 | 70.0 | 69.3 | 68.7 | 68.1 | 67.4 | 66.8 | 66.2 | 65.5 |
| 30               | 71.8 | 71.2 | 70.6 | 69.9 | 69.3 | 68.7 | 68.1 | 67.4 | 66.8 | 66.2 |
| 31               | 72.4 | 71.7 | 71.1 | 70.5 | 69.9 | 69.3 | 68.7 | 68.1 | 67.4 | 66.8 |
| 32               | 72.9 | 72.2 | 71.6 | 71.0 | 70.4 | 69.8 | 69.2 | 68.6 | 68.0 | 67.4 |
| 33               | 73.3 | 72.7 | 72.1 | 71.5 | 70.9 | 70.4 | 69.8 | 69.2 | 68.6 | 68.0 |
| 34               | 73.8 | 73.2 | 72.6 | 72.0 | 71.4 | 70.9 | 70.3 | 69.7 | 69.1 | 68.6 |
| 35               | 74.2 | 73.6 | 73.1 | 72.5 | 71.9 | 71.3 | 70.8 | 70.2 | 69.7 | 69.1 |
| 36               | 74.6 | 74.1 | 73.5 | 72.9 | 72.4 | 71.8 | 71.3 | 70.7 | 70.1 | 69.6 |
| 37               | 75.0 | 74.5 | 73.9 | 73.4 | 72.8 | 72.3 | 71.7 | 71.2 | 70.6 | 70.1 |
| 38               | 75.4 | 74.9 | 74.3 | 73.8 | 73.2 | 72.7 | 72.1 | 71.6 | 71.1 | 70.5 |
| 39               | 75.8 | 75.2 | 74.7 | 74.2 | 73.6 | 73.1 | 72.5 | 72.0 | 71.5 | 71.0 |
| 40               | 76.1 | 75.6 | 75.1 | 74.5 | 74.0 | 73.5 | 72.9 | 72.4 | 71.9 | 71.4 |
| 41               | 76.5 | 75.9 | 75.4 | 74.9 | 74.4 | 73.8 | 73.3 | 72.8 | 72.3 | 71.8 |
| 42               | 76.8 | 76.3 | 75.7 | 75.2 | 74.7 | 74.2 | 73.7 | 73.2 | 72.7 | 72.2 |
| 43               | 77.1 | 76.6 | 76.1 | 75.6 | 75.0 | 74.5 | 74.0 | 73.5 | 73.0 | 72.5 |
| 44               | 77.4 | 76.9 | 76.4 | 75.9 | 75.4 | 74.9 | 74.4 | 73.9 | 73.4 | 72.9 |
| 45               | 77.7 | 77.2 | 76.7 | 76.2 | 75.7 | 75.2 | 74.7 | 74.2 | 73.7 | 73.2 |
| 46               | 78.0 | 77.5 | 77.0 | 76.5 | 76.0 | 75.5 | 75.0 | 74.5 | 74.0 | 73.6 |
| 47               | 78.2 | 77.7 | 77.2 | 76.8 | 76.3 | 75.8 | 75.3 | 74.8 | 74.4 | 73.9 |
| 48               | 78.5 | 78.0 | 77.5 | 77.0 | 76.6 | 76.1 | 75.6 | 75.1 | 74.7 | 74.2 |
| 49               | 78.7 | 78.3 | 77.8 | 77.3 | 76.8 | 76.4 | 75.9 | 75.4 | 75.0 | 74.5 |
| 50               | 79.0 | 78.5 | 78.0 | 77.6 | 77.1 | 76.6 | 76.2 | 75.7 | 75.2 | 74.8 |
| 51               | 79.2 | 78.7 | 78.3 | 77.8 | 77.3 | 76.9 | 76.4 | 76.0 | 75.5 | 75.1 |
| 52               | 79.4 | 79.0 | 78.5 | 78.0 | 77.6 | 77.1 | 76.7 | 76.2 | 75.8 | 75.3 |
| 53               | 79.7 | 79.2 | 78.7 | 78.3 | 77.8 | 77.4 | 76.9 | 76.5 | 76.0 | 75.6 |
| 54               | 79.9 | 79.4 | 79.0 | 78.5 | 78.1 | 77.6 | 77.2 | 76.7 | 76.3 | 75.8 |
| 55               | 80.1 | 79.6 | 79.2 | 78.7 | 78.3 | 77.8 | 77.4 | 77.0 | 76.5 | 76.1 |
| 56               | 80.3 | 79.8 | 79.4 | 78.9 | 78.5 | 78.1 | 77.6 | 77.2 | 76.8 | 76.3 |
| 57               | 80.5 | 80.0 | 79.6 | 79.2 | 78.7 | 78.3 | 77.9 | 77.4 | 77.0 | 76.6 |







表 4b (续)

| $t-t_w$<br>$t$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 31.8 | 30.2 | 28.5 | 26.8 | 25.2 | 23.5 | 21.9 | 20.3 | 18.7 | 17.1 |
| 16             | 33.9 | 32.3 | 30.7 | 29.1 | 27.5 | 25.9 | 24.3 | 22.8 | 21.2 | 19.7 |
| 17             | 35.9 | 34.4 | 32.8 | 31.2 | 29.7 | 28.2 | 26.6 | 25.1 | 23.6 | 22.1 |
| 18             | 37.8 | 36.3 | 34.7 | 33.2 | 31.7 | 30.3 | 28.8 | 27.3 | 25.9 | 24.4 |
| 19             | 39.5 | 38.1 | 36.6 | 35.1 | 33.7 | 32.2 | 30.8 | 29.4 | 28.0 | 26.6 |
| 20             | 41.2 | 39.7 | 38.3 | 36.9 | 35.5 | 34.1 | 32.7 | 31.3 | 29.9 | 28.6 |
| 21             | 42.7 | 41.3 | 39.9 | 38.6 | 37.2 | 35.8 | 34.5 | 33.1 | 31.8 | 30.5 |
| 22             | 44.2 | 42.8 | 41.5 | 40.1 | 38.8 | 37.5 | 36.2 | 34.9 | 33.6 | 32.3 |
| 23             | 45.5 | 44.2 | 42.9 | 41.6 | 40.3 | 39.0 | 37.7 | 36.5 | 35.2 | 34.0 |
| 24             | 46.8 | 45.5 | 44.3 | 43.0 | 41.7 | 40.5 | 39.2 | 38.0 | 36.8 | 35.6 |
| 25             | 48.1 | 46.8 | 45.6 | 44.3 | 43.1 | 41.9 | 40.6 | 39.4 | 38.2 | 37.1 |
| 26             | 49.2 | 48.0 | 46.8 | 45.6 | 44.4 | 43.2 | 42.0 | 40.8 | 39.6 | 38.5 |
| 27             | 50.3 | 49.1 | 47.9 | 46.7 | 45.6 | 44.4 | 43.2 | 42.1 | 40.9 | 39.8 |
| 28             | 51.3 | 50.2 | 49.0 | 47.8 | 46.7 | 45.6 | 44.4 | 43.3 | 42.2 | 41.1 |
| 29             | 52.3 | 51.2 | 50.0 | 48.9 | 47.8 | 46.7 | 45.6 | 44.5 | 43.4 | 42.3 |
| 30             | 53.3 | 52.1 | 51.0 | 49.9 | 48.8 | 47.7 | 46.6 | 45.5 | 44.5 | 43.4 |
| 31             | 54.1 | 53.0 | 51.9 | 50.9 | 49.8 | 48.7 | 47.6 | 46.6 | 45.5 | 44.5 |
| 32             | 55.0 | 53.9 | 52.8 | 51.8 | 50.7 | 49.7 | 48.6 | 47.6 | 46.5 | 45.5 |
| 33             | 55.8 | 54.7 | 53.7 | 52.6 | 51.6 | 50.5 | 49.5 | 48.5 | 47.5 | 46.5 |
| 34             | 56.5 | 55.5 | 54.5 | 53.4 | 52.4 | 51.4 | 50.4 | 49.4 | 48.4 | 47.4 |
| 35             | 57.3 | 56.2 | 55.2 | 54.2 | 53.2 | 52.2 | 51.2 | 50.3 | 49.3 | 48.3 |
| 36             | 58.0 | 57.0 | 56.0 | 55.0 | 54.0 | 53.0 | 52.0 | 51.1 | 50.1 | 49.2 |
| 37             | 58.6 | 57.6 | 56.6 | 55.7 | 54.7 | 53.7 | 52.8 | 51.8 | 50.9 | 50.0 |
| 38             | 59.3 | 58.3 | 57.3 | 56.4 | 55.4 | 54.4 | 53.5 | 52.6 | 51.6 | 50.7 |
| 39             | 59.9 | 58.9 | 57.9 | 57.0 | 56.1 | 55.1 | 54.2 | 53.3 | 52.4 | 51.5 |
| 40             | 60.4 | 59.5 | 58.6 | 57.6 | 56.7 | 55.8 | 54.9 | 54.0 | 53.1 | 52.2 |
| 41             | 61.0 | 60.1 | 59.1 | 58.2 | 57.3 | 56.4 | 55.5 | 54.6 | 53.7 | 52.8 |
| 42             | 61.5 | 60.6 | 59.7 | 58.8 | 57.9 | 57.0 | 56.1 | 55.2 | 54.4 | 53.5 |
| 43             | 62.0 | 61.1 | 60.2 | 59.3 | 58.4 | 57.6 | 56.7 | 55.8 | 55.0 | 54.1 |
| 44             | 62.5 | 61.6 | 60.7 | 59.9 | 59.0 | 58.1 | 57.3 | 56.4 | 55.5 | 54.7 |
| 45             | 63.0 | 62.1 | 61.2 | 60.4 | 59.5 | 58.6 | 57.8 | 56.9 | 56.1 | 55.3 |
| 46             | 63.5 | 62.6 | 61.7 | 60.9 | 60.0 | 59.2 | 58.3 | 57.5 | 56.6 | 55.8 |
| 47             | 63.9 | 63.0 | 62.2 | 61.3 | 60.5 | 59.6 | 58.8 | 58.0 | 57.2 | 56.4 |
| 48             | 64.3 | 63.5 | 62.6 | 61.8 | 60.9 | 60.1 | 59.3 | 58.5 | 57.7 | 56.9 |
| 49             | 64.7 | 63.9 | 63.1 | 62.2 | 61.4 | 60.6 | 59.8 | 59.0 | 58.2 | 57.4 |
| 50             | 65.1 | 64.3 | 63.5 | 62.6 | 61.8 | 61.0 | 60.2 | 59.4 | 58.6 | 57.8 |
| 51             | 65.5 | 64.7 | 63.9 | 63.1 | 62.2 | 61.4 | 60.6 | 59.9 | 59.1 | 58.3 |
| 52             | 65.9 | 65.1 | 64.3 | 63.4 | 62.6 | 61.9 | 61.1 | 60.3 | 59.5 | 58.7 |
| 53             | 66.2 | 65.4 | 64.6 | 63.8 | 63.0 | 62.3 | 61.5 | 60.7 | 59.9 | 59.2 |
| 54             | 66.6 | 65.8 | 65.0 | 64.2 | 63.4 | 62.6 | 61.9 | 61.1 | 60.3 | 59.6 |
| 55             | 66.9 | 66.1 | 65.3 | 64.6 | 63.8 | 63.0 | 62.2 | 61.5 | 60.7 | 60.0 |
| 56             | 67.3 | 66.5 | 65.7 | 64.9 | 64.1 | 63.4 | 62.6 | 61.9 | 61.1 | 60.4 |
| 57             | 67.6 | 66.8 | 66.0 | 65.2 | 64.5 | 63.7 | 63.0 | 62.2 | 61.5 | 60.8 |

表 4b (续)

| $t-t_w$<br>$t$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 67.9 | 67.1 | 66.3 | 65.6 | 64.8 | 64.1 | 63.3 | 62.6 | 61.9 | 61.1 |
| 59             | 68.2 | 67.4 | 66.7 | 65.9 | 65.1 | 64.4 | 63.7 | 62.9 | 62.2 | 61.5 |
| 60             | 68.5 | 67.7 | 67.0 | 66.2 | 65.5 | 64.7 | 64.0 | 63.3 | 62.5 | 61.8 |
| 61             | 68.8 | 68.0 | 67.3 | 66.5 | 65.8 | 65.0 | 64.3 | 63.6 | 62.9 | 62.2 |
| 62             | 69.0 | 68.3 | 67.5 | 66.8 | 66.1 | 65.4 | 64.6 | 63.9 | 63.2 | 62.5 |
| 63             | 69.3 | 68.6 | 67.8 | 67.1 | 66.4 | 65.7 | 64.9 | 64.2 | 63.5 | 62.8 |
| 64             | 69.6 | 68.8 | 68.1 | 67.4 | 66.7 | 65.9 | 65.2 | 64.5 | 63.8 | 63.1 |
| 65             | 69.8 | 69.1 | 68.4 | 67.7 | 66.9 | 66.2 | 65.5 | 64.8 | 64.1 | 63.4 |
| 66             | 70.1 | 69.4 | 68.6 | 67.9 | 67.2 | 66.5 | 65.8 | 65.1 | 64.4 | 63.7 |
| 67             | 70.3 | 69.6 | 68.9 | 68.2 | 67.5 | 66.8 | 66.1 | 65.4 | 64.7 | 64.0 |
| 68             | 70.6 | 69.9 | 69.1 | 68.4 | 67.7 | 67.0 | 66.4 | 65.7 | 65.0 | 64.3 |
| 69             | 70.8 | 70.1 | 69.4 | 68.7 | 68.0 | 67.3 | 66.6 | 65.9 | 65.3 | 64.6 |
| 70             | 71.0 | 70.3 | 69.6 | 68.9 | 68.2 | 67.6 | 66.9 | 66.2 | 65.5 | 64.9 |
| 71             | 71.3 | 70.6 | 69.9 | 69.2 | 68.5 | 67.8 | 67.1 | 66.5 | 65.8 | 65.1 |
| 72             | 71.5 | 70.8 | 70.1 | 69.4 | 68.7 | 68.1 | 67.4 | 66.7 | 66.1 | 65.4 |
| 73             | 71.7 | 71.0 | 70.3 | 69.6 | 69.0 | 68.3 | 67.6 | 67.0 | 66.3 | 65.7 |
| 74             | 71.9 | 71.2 | 70.5 | 69.9 | 69.2 | 68.5 | 67.9 | 67.2 | 66.6 | 65.9 |
| 75             | 72.1 | 71.4 | 70.8 | 70.1 | 69.4 | 68.8 | 68.1 | 67.5 | 66.8 | 66.2 |
| 76             | 72.3 | 71.6 | 71.0 | 70.3 | 69.6 | 69.0 | 68.3 | 67.7 | 67.1 | 66.4 |
| 77             | 72.5 | 71.9 | 71.2 | 70.5 | 69.9 | 69.2 | 68.6 | 67.9 | 67.3 | 66.7 |
| 78             | 72.7 | 72.1 | 71.4 | 70.7 | 70.1 | 69.4 | 68.8 | 68.2 | 67.5 | 66.9 |
| 79             | 72.9 | 72.3 | 71.6 | 70.9 | 70.3 | 69.6 | 69.0 | 68.4 | 67.7 | 67.1 |
| 80             | 73.1 | 72.4 | 71.8 | 71.1 | 70.5 | 69.9 | 69.2 | 68.6 | 68.0 | 67.3 |
| 81             | 73.3 | 72.6 | 72.0 | 71.3 | 70.7 | 70.1 | 69.4 | 68.8 | 68.2 | 67.6 |
| 82             | 73.5 | 72.8 | 72.2 | 71.5 | 70.9 | 70.3 | 69.6 | 69.0 | 68.4 | 67.8 |
| 83             | 73.7 | 73.0 | 72.4 | 71.7 | 71.1 | 70.5 | 69.8 | 69.2 | 68.6 | 68.0 |
| 84             | 73.8 | 73.2 | 72.6 | 71.9 | 71.3 | 70.7 | 70.0 | 69.4 | 68.8 | 68.2 |
| 85             | 74.0 | 73.4 | 72.7 | 72.1 | 71.5 | 70.9 | 70.2 | 69.6 | 69.0 | 68.4 |
| 86             | 74.2 | 73.6 | 72.9 | 72.3 | 71.7 | 71.1 | 70.4 | 69.8 | 69.2 | 68.6 |
| 87             | 74.4 | 73.7 | 73.1 | 72.5 | 71.9 | 71.2 | 70.6 | 70.0 | 69.4 | 68.8 |
| 88             | 74.5 | 73.9 | 73.3 | 72.7 | 72.0 | 71.4 | 70.8 | 70.2 | 69.6 | 69.0 |
| 89             | 74.7 | 74.1 | 73.4 | 72.8 | 72.2 | 71.6 | 71.0 | 70.4 | 69.8 | 69.2 |
| 90             | 74.9 | 74.2 | 73.6 | 73.0 | 72.4 | 71.8 | 71.2 | 70.6 | 70.0 | 69.4 |
| 91             | 75.0 | 74.4 | 73.8 | 73.2 | 72.6 | 72.0 | 71.4 | 70.8 | 70.2 | 69.6 |
| 92             | 75.2 | 74.6 | 74.0 | 73.4 | 72.7 | 72.2 | 71.6 | 71.0 | 70.4 | 69.8 |
| 93             | 75.3 | 74.7 | 74.1 | 73.5 | 72.9 | 72.3 | 71.7 | 71.2 | 70.6 | 70.0 |
| 94             | 75.5 | 74.9 | 74.3 | 73.7 | 73.1 | 72.5 | 71.9 | 71.3 | 70.7 | 70.2 |
| 95             | 75.6 | 75.0 | 74.4 | 73.8 | 73.3 | 72.7 | 72.1 | 71.5 | 70.9 | 70.4 |
| 96             | 75.8 | 75.2 | 74.6 | 74.0 | 73.4 | 72.8 | 72.3 | 71.7 | 71.1 | 70.5 |
| 97             | 75.9 | 75.3 | 74.8 | 74.2 | 73.6 | 73.0 | 72.4 | 71.8 | 71.3 | 70.7 |
| 98             | 76.1 | 75.5 | 74.9 | 74.3 | 73.7 | 73.2 | 72.6 | 72.0 | 71.5 | 70.9 |
| 99             | 76.2 | 75.6 | 75.1 | 74.5 | 73.9 | 73.3 | 72.8 | 72.2 | 71.6 | 71.1 |
| 100            | 76.4 | 75.8 | 75.2 | 74.6 | 74.1 | 73.5 | 72.9 | 72.4 | 71.8 | 71.2 |





表 4b (续)

| $t-t_w$<br>$t$ | 11.5 | 12.0 | 12.5 | 13.5 | 13.5 | 14.0 | 14.5 | 15.0 | 15.5 | 16.0 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             |      |      |      |      |      |      |      |      |      |      |
| 16             | 1.1  |      |      |      |      |      |      |      |      |      |
| 17             | 4.1  | 0.7  |      |      |      |      |      |      |      |      |
| 18             | 7.0  | 3.7  | 0.4  |      |      |      |      |      |      |      |
| 19             | 9.7  | 6.5  | 3.3  | 0.2  |      |      |      |      |      |      |
| 20             | 12.3 | 9.1  | 6.1  | 3.1  | 0.1  |      |      |      |      |      |
| 21             | 14.6 | 11.6 | 8.7  | 5.7  | 2.8  |      |      |      |      |      |
| 22             | 16.9 | 14.0 | 11.1 | 8.2  | 5.4  | 2.7  |      |      |      |      |
| 23             | 19.0 | 16.1 | 13.3 | 10.6 | 7.9  | 5.2  | 2.6  |      |      |      |
| 24             | 21.0 | 18.2 | 15.5 | 12.8 | 10.2 | 7.6  | 5.0  | 2.5  | 0.0  |      |
| 25             | 22.9 | 20.2 | 17.5 | 14.9 | 12.3 | 9.8  | 7.3  | 4.9  | 2.5  | 0.1  |
| 26             | 24.6 | 22.0 | 19.4 | 16.9 | 14.4 | 11.9 | 9.5  | 7.1  | 4.8  | 2.5  |
| 27             | 26.3 | 23.7 | 21.2 | 18.7 | 16.3 | 13.9 | 11.5 | 9.2  | 6.9  | 4.7  |
| 28             | 27.9 | 25.4 | 22.9 | 20.5 | 18.1 | 15.8 | 13.5 | 11.2 | 9.0  | 6.8  |
| 29             | 29.4 | 26.9 | 24.5 | 22.2 | 19.8 | 17.5 | 15.3 | 13.1 | 10.9 | 8.8  |
| 30             | 30.8 | 28.4 | 26.0 | 23.7 | 21.5 | 19.2 | 17.0 | 14.9 | 12.8 | 10.7 |
| 31             | 32.1 | 29.8 | 27.5 | 25.2 | 23.0 | 20.8 | 18.7 | 16.6 | 14.5 | 12.5 |
| 32             | 33.4 | 31.1 | 28.8 | 26.6 | 24.5 | 22.3 | 20.2 | 18.2 | 16.1 | 14.1 |
| 33             | 34.6 | 32.4 | 30.1 | 28.0 | 25.8 | 23.8 | 21.7 | 19.7 | 17.7 | 15.7 |
| 34             | 35.8 | 33.5 | 31.4 | 29.3 | 27.2 | 25.1 | 23.1 | 21.1 | 19.2 | 17.3 |
| 35             | 36.8 | 34.7 | 32.6 | 30.5 | 28.4 | 26.4 | 24.4 | 22.5 | 20.6 | 18.7 |
| 36             | 37.9 | 35.8 | 33.7 | 31.6 | 29.6 | 27.6 | 25.7 | 23.8 | 21.9 | 20.1 |
| 37             | 38.9 | 36.8 | 34.7 | 32.7 | 30.7 | 28.8 | 26.9 | 25.0 | 23.2 | 21.4 |
| 38             | 39.8 | 37.8 | 35.7 | 33.8 | 31.8 | 29.9 | 28.0 | 26.2 | 24.4 | 22.6 |
| 39             | 40.7 | 38.7 | 36.7 | 34.8 | 32.8 | 31.0 | 29.1 | 27.3 | 25.5 | 23.8 |
| 40             | 41.6 | 39.6 | 37.6 | 35.7 | 33.8 | 32.0 | 30.2 | 28.4 | 26.6 | 24.9 |
| 41             | 42.4 | 40.4 | 38.5 | 36.6 | 34.8 | 32.9 | 31.2 | 29.4 | 27.7 | 26.0 |
| 42             | 43.2 | 41.3 | 39.4 | 37.5 | 35.7 | 33.9 | 32.1 | 30.4 | 28.7 | 27.0 |
| 43             | 44.0 | 42.1 | 40.2 | 38.3 | 36.5 | 34.8 | 33.0 | 31.3 | 29.6 | 28.0 |
| 44             | 44.7 | 42.8 | 41.0 | 39.1 | 37.4 | 35.6 | 33.9 | 32.2 | 30.6 | 28.9 |
| 45             | 45.4 | 43.5 | 41.7 | 39.9 | 38.1 | 36.4 | 34.7 | 33.1 | 31.4 | 29.8 |
| 46             | 46.1 | 44.2 | 42.4 | 40.6 | 38.9 | 37.2 | 35.5 | 33.9 | 32.3 | 30.7 |
| 47             | 46.7 | 44.9 | 43.1 | 41.4 | 39.6 | 38.0 | 36.3 | 34.7 | 33.1 | 31.5 |
| 48             | 47.3 | 45.5 | 43.8 | 42.0 | 40.3 | 38.7 | 37.0 | 35.4 | 33.9 | 32.3 |
| 49             | 47.9 | 46.1 | 44.4 | 42.7 | 41.0 | 39.4 | 37.8 | 36.2 | 34.6 | 33.1 |
| 50             | 48.5 | 46.7 | 45.0 | 43.3 | 41.7 | 40.0 | 38.4 | 36.9 | 35.3 | 33.8 |
| 51             | 49.1 | 47.3 | 45.6 | 43.9 | 42.3 | 40.7 | 39.1 | 37.6 | 36.0 | 34.5 |
| 52             | 49.6 | 47.9 | 46.2 | 44.5 | 42.9 | 41.3 | 39.7 | 38.2 | 36.7 | 35.2 |
| 53             | 50.1 | 48.4 | 46.7 | 45.1 | 43.5 | 41.9 | 40.4 | 38.8 | 37.4 | 35.9 |
| 54             | 50.6 | 48.9 | 47.3 | 45.6 | 44.1 | 42.5 | 41.0 | 39.5 | 38.0 | 36.5 |
| 55             | 51.1 | 49.4 | 47.8 | 46.2 | 44.6 | 43.1 | 41.5 | 40.0 | 38.6 | 37.1 |
| 56             | 51.6 | 49.9 | 48.3 | 46.7 | 45.1 | 43.6 | 42.1 | 40.6 | 39.2 | 37.7 |
| 57             | 52.0 | 50.4 | 48.8 | 47.2 | 45.6 | 44.1 | 42.6 | 41.2 | 39.7 | 38.3 |





表 4c (续)

| $t - t_w$<br>$t$ | 0.0   | 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|------------------|-------|------|------|------|------|------|------|------|------|------|------|
| 58               | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.5 | 96.0 | 95.6 | 95.1 |
| 59               | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.6 | 96.1 | 95.6 | 95.1 |
| 60               | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.6 | 97.1 | 96.6 | 96.1 | 95.6 | 95.2 |
| 61               | 100.0 | 99.5 | 99.0 | 98.5 | 98.1 | 97.6 | 97.1 | 96.6 | 96.2 | 95.7 | 95.2 |
| 62               | 100.0 | 99.5 | 99.0 | 98.6 | 98.1 | 97.6 | 97.1 | 96.7 | 96.2 | 95.7 | 95.2 |
| 63               | 100.0 | 99.5 | 99.0 | 98.6 | 98.1 | 97.6 | 97.2 | 96.7 | 96.2 | 95.8 | 95.3 |
| 64               | 100.0 | 99.5 | 99.1 | 98.6 | 98.1 | 97.6 | 97.2 | 96.7 | 96.3 | 95.8 | 95.3 |
| 65               | 100.0 | 99.5 | 99.1 | 98.6 | 98.1 | 97.7 | 97.2 | 96.7 | 96.3 | 95.8 | 95.4 |
| 66               | 100.0 | 99.5 | 99.1 | 98.6 | 98.1 | 97.7 | 97.2 | 96.8 | 96.3 | 95.9 | 95.4 |
| 67               | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.7 | 97.3 | 96.8 | 96.3 | 95.9 | 95.5 |
| 68               | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.7 | 97.3 | 96.8 | 96.4 | 95.9 | 95.5 |
| 69               | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.7 | 97.3 | 96.9 | 96.4 | 96.0 | 95.5 |
| 70               | 100.0 | 99.5 | 99.1 | 98.7 | 98.2 | 97.8 | 97.3 | 96.9 | 96.4 | 96.0 | 95.6 |
| 71               | 100.0 | 99.6 | 99.1 | 98.7 | 98.2 | 97.8 | 97.3 | 96.9 | 96.5 | 96.0 | 95.6 |
| 72               | 100.0 | 99.6 | 99.1 | 98.7 | 98.2 | 97.8 | 97.4 | 96.9 | 96.5 | 96.1 | 95.6 |
| 73               | 100.0 | 99.6 | 99.1 | 98.7 | 98.2 | 97.8 | 97.4 | 97.0 | 96.5 | 96.1 | 95.7 |
| 74               | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.8 | 97.4 | 97.0 | 96.5 | 96.1 | 95.7 |
| 75               | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.8 | 97.4 | 97.0 | 96.6 | 96.2 | 95.7 |
| 76               | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.9 | 97.4 | 97.0 | 96.6 | 96.2 | 95.8 |
| 77               | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.9 | 97.5 | 97.0 | 96.6 | 96.2 | 95.8 |
| 78               | 100.0 | 99.6 | 99.2 | 98.7 | 98.3 | 97.9 | 97.5 | 97.1 | 96.7 | 96.2 | 95.8 |
| 79               | 100.0 | 99.6 | 99.2 | 98.7 | 98.3 | 97.9 | 97.5 | 97.1 | 96.7 | 96.3 | 95.9 |
| 80               | 100.0 | 99.6 | 99.2 | 98.8 | 98.3 | 97.9 | 97.5 | 97.1 | 96.7 | 96.3 | 95.9 |
| 81               | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 97.9 | 97.5 | 97.1 | 96.7 | 96.3 | 95.9 |
| 82               | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 83               | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 84               | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 85               | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 86               | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.5 | 96.1 |
| 87               | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.3 | 96.9 | 96.5 | 96.1 |
| 88               | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.7 | 97.3 | 96.9 | 96.5 | 96.1 |
| 89               | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.1 | 97.7 | 97.3 | 96.9 | 96.5 | 96.1 |
| 90               | 100.0 | 99.6 | 99.2 | 98.8 | 98.5 | 98.1 | 97.7 | 97.3 | 96.9 | 96.6 | 96.2 |
| 91               | 100.0 | 99.6 | 99.2 | 98.8 | 98.5 | 98.1 | 97.7 | 97.3 | 97.0 | 96.6 | 96.2 |
| 92               | 100.0 | 99.6 | 99.2 | 98.9 | 98.5 | 98.1 | 97.7 | 97.3 | 97.0 | 96.6 | 96.2 |
| 93               | 100.0 | 99.6 | 99.2 | 98.9 | 98.5 | 98.1 | 97.7 | 97.4 | 97.0 | 96.6 | 96.3 |
| 94               | 100.0 | 99.6 | 99.2 | 98.9 | 98.5 | 98.1 | 97.8 | 97.4 | 97.0 | 96.6 | 96.3 |
| 95               | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.1 | 97.8 | 97.4 | 97.0 | 96.7 | 96.3 |
| 96               | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.4 | 97.1 | 96.7 | 96.3 |
| 97               | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.4 | 97.1 | 96.7 | 96.4 |
| 98               | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.5 | 97.1 | 96.7 | 96.4 |
| 99               | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.5 | 97.1 | 96.8 | 96.4 |
| 100              | 100.0 | 99.6 | 99.3 | 98.9 | 98.6 | 98.2 | 97.8 | 97.5 | 97.1 | 96.8 | 96.4 |







表 4c (续)

| $t$ \ $t-t_w$ | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|---------------|------|------|------|------|------|------|------|------|------|------|
| 58            | 89.9 | 89.4 | 88.9 | 88.5 | 88.0 | 87.6 | 87.1 | 86.7 | 86.2 | 85.8 |
| 59            | 90.0 | 89.5 | 89.0 | 88.6 | 88.1 | 87.7 | 87.2 | 86.8 | 86.3 | 85.9 |
| 60            | 90.0 | 89.6 | 89.1 | 88.7 | 88.2 | 87.8 | 87.3 | 86.9 | 86.5 | 86.0 |
| 61            | 90.1 | 89.7 | 89.2 | 88.8 | 88.3 | 87.9 | 87.5 | 87.0 | 86.6 | 86.1 |
| 62            | 90.2 | 89.8 | 89.3 | 88.9 | 88.4 | 88.0 | 87.6 | 87.1 | 86.7 | 86.3 |
| 63            | 90.3 | 89.9 | 89.4 | 89.0 | 88.5 | 88.1 | 87.7 | 87.2 | 86.8 | 86.4 |
| 64            | 90.4 | 90.0 | 89.5 | 89.1 | 88.6 | 88.2 | 87.8 | 87.3 | 86.9 | 86.5 |
| 65            | 90.5 | 90.0 | 89.6 | 89.2 | 88.7 | 88.3 | 87.9 | 87.5 | 87.0 | 86.6 |
| 66            | 90.6 | 90.1 | 89.7 | 89.3 | 88.8 | 88.4 | 88.0 | 87.6 | 87.1 | 86.7 |
| 67            | 90.6 | 90.2 | 89.8 | 89.4 | 88.9 | 88.5 | 88.1 | 87.7 | 87.2 | 86.8 |
| 68            | 90.7 | 90.3 | 89.9 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 | 87.3 | 86.9 |
| 69            | 90.8 | 90.4 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 | 87.5 | 87.0 |
| 70            | 90.9 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.5 | 87.1 |
| 71            | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.6 | 87.2 |
| 72            | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.5 | 88.1 | 87.7 | 87.3 |
| 73            | 91.1 | 90.7 | 90.3 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 | 87.4 |
| 74            | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 | 87.5 |
| 75            | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.6 |
| 76            | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 |
| 77            | 91.3 | 90.9 | 90.5 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 |
| 78            | 91.4 | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.1 | 88.7 | 88.3 | 87.9 |
| 79            | 91.5 | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.8 | 88.4 | 88.0 |
| 80            | 91.5 | 91.1 | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.5 | 88.1 |
| 81            | 91.6 | 91.2 | 90.8 | 90.4 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.2 |
| 82            | 91.7 | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.4 | 89.0 | 88.6 | 88.2 |
| 83            | 91.7 | 91.3 | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.1 | 88.7 | 88.3 |
| 84            | 91.8 | 91.4 | 91.0 | 90.6 | 90.3 | 89.9 | 89.5 | 89.1 | 88.8 | 88.4 |
| 85            | 91.8 | 91.5 | 91.1 | 90.7 | 90.3 | 90.0 | 89.6 | 89.2 | 88.9 | 88.5 |
| 86            | 91.9 | 91.5 | 91.1 | 90.8 | 90.4 | 90.0 | 89.7 | 89.3 | 88.9 | 88.6 |
| 87            | 91.9 | 91.6 | 91.2 | 90.8 | 90.5 | 90.1 | 89.7 | 89.4 | 89.0 | 88.6 |
| 88            | 92.0 | 91.6 | 91.3 | 90.9 | 90.5 | 90.2 | 89.8 | 89.4 | 89.1 | 88.7 |
| 89            | 92.1 | 91.7 | 91.3 | 91.0 | 90.6 | 90.2 | 89.9 | 89.5 | 89.2 | 88.8 |
| 90            | 92.1 | 91.7 | 91.4 | 91.0 | 90.7 | 90.3 | 89.9 | 89.6 | 89.2 | 88.9 |
| 91            | 92.2 | 91.8 | 91.4 | 91.1 | 90.7 | 90.4 | 90.0 | 89.7 | 89.3 | 89.0 |
| 92            | 92.2 | 91.9 | 91.5 | 91.1 | 90.8 | 90.4 | 90.1 | 89.7 | 89.4 | 89.0 |
| 93            | 92.3 | 91.9 | 91.6 | 91.2 | 90.8 | 90.5 | 90.1 | 89.8 | 89.4 | 89.1 |
| 94            | 92.3 | 92.0 | 91.6 | 91.3 | 90.9 | 90.6 | 90.2 | 89.9 | 89.5 | 89.2 |
| 95            | 92.4 | 92.0 | 91.7 | 91.3 | 91.0 | 90.6 | 90.3 | 89.9 | 89.6 | 89.2 |
| 96            | 92.4 | 92.1 | 91.7 | 91.4 | 91.0 | 90.7 | 90.3 | 90.0 | 89.6 | 89.3 |
| 97            | 92.5 | 92.1 | 91.8 | 91.4 | 91.1 | 90.7 | 90.4 | 90.1 | 89.7 | 89.4 |
| 98            | 92.5 | 92.2 | 91.8 | 91.5 | 91.1 | 90.8 | 90.5 | 90.1 | 89.8 | 89.4 |
| 99            | 92.6 | 92.2 | 91.9 | 91.5 | 91.2 | 90.9 | 90.5 | 90.2 | 89.8 | 89.5 |
| 100           | 92.6 | 92.3 | 91.9 | 91.6 | 91.3 | 90.9 | 90.6 | 90.2 | 89.9 | 89.6 |









表 4c (续)

| $t-t_w$<br>$t$ | 5.2  | 5.4  | 5.6  | 5.8  | 6.0  | 6.2  | 6.4  | 6.6  | 6.8  | 7.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 52.9 | 51.2 | 49.6 | 48.0 | 46.3 | 44.7 | 43.1 | 41.6 | 40.0 | 38.4 |
| 16             | 54.2 | 52.6 | 51.0 | 49.4 | 47.9 | 46.3 | 44.8 | 43.2 | 41.7 | 40.2 |
| 17             | 55.4 | 53.9 | 52.3 | 50.8 | 49.3 | 47.8 | 46.3 | 44.8 | 43.3 | 41.8 |
| 18             | 56.6 | 55.1 | 53.6 | 52.1 | 50.6 | 49.1 | 47.7 | 46.2 | 44.8 | 43.4 |
| 19             | 57.7 | 56.2 | 54.8 | 53.3 | 51.9 | 50.4 | 49.0 | 47.6 | 46.2 | 44.8 |
| 20             | 58.7 | 57.3 | 55.9 | 54.5 | 53.1 | 51.7 | 50.3 | 48.9 | 47.5 | 46.2 |
| 21             | 59.7 | 58.3 | 56.9 | 55.5 | 54.2 | 52.8 | 51.5 | 50.1 | 48.8 | 47.5 |
| 22             | 60.6 | 59.3 | 57.9 | 56.6 | 55.2 | 53.9 | 52.6 | 51.3 | 50.0 | 48.7 |
| 23             | 61.5 | 60.2 | 58.8 | 57.5 | 56.2 | 54.9 | 53.6 | 52.4 | 51.1 | 49.9 |
| 24             | 62.3 | 61.0 | 59.7 | 58.4 | 57.2 | 55.9 | 54.6 | 53.4 | 52.2 | 50.9 |
| 25             | 63.1 | 61.8 | 60.6 | 59.3 | 58.1 | 56.8 | 55.6 | 54.4 | 53.2 | 52.0 |
| 26             | 63.8 | 62.6 | 61.4 | 60.1 | 58.9 | 57.7 | 56.5 | 55.3 | 54.1 | 52.9 |
| 27             | 64.5 | 63.3 | 62.1 | 60.9 | 59.7 | 58.5 | 57.3 | 56.2 | 55.0 | 53.9 |
| 28             | 65.2 | 64.0 | 62.8 | 61.6 | 60.5 | 59.3 | 58.2 | 57.0 | 55.9 | 54.7 |
| 29             | 65.9 | 64.7 | 63.5 | 62.3 | 61.2 | 60.1 | 58.9 | 57.8 | 56.7 | 55.6 |
| 30             | 66.5 | 65.3 | 64.1 | 63.0 | 61.9 | 60.8 | 59.6 | 58.5 | 57.4 | 56.4 |
| 31             | 67.0 | 65.9 | 64.8 | 63.6 | 62.5 | 61.4 | 60.3 | 59.3 | 58.2 | 57.1 |
| 32             | 67.6 | 66.5 | 65.4 | 64.3 | 63.2 | 62.1 | 61.0 | 59.9 | 58.9 | 57.8 |
| 33             | 68.1 | 67.0 | 65.9 | 64.8 | 63.8 | 62.7 | 61.6 | 60.6 | 59.5 | 58.5 |
| 34             | 68.6 | 67.5 | 66.4 | 65.4 | 64.3 | 63.3 | 62.2 | 61.2 | 60.2 | 59.2 |
| 35             | 69.1 | 68.0 | 67.0 | 65.9 | 64.9 | 63.8 | 62.8 | 61.8 | 60.8 | 59.8 |
| 36             | 69.5 | 68.5 | 67.4 | 66.4 | 65.4 | 64.4 | 63.4 | 62.4 | 61.4 | 60.4 |
| 37             | 70.0 | 68.9 | 67.9 | 66.9 | 65.9 | 64.9 | 63.9 | 62.9 | 61.9 | 61.0 |
| 38             | 70.4 | 69.4 | 68.4 | 67.4 | 66.4 | 65.4 | 64.4 | 63.4 | 62.5 | 61.5 |
| 39             | 70.8 | 69.8 | 68.8 | 67.8 | 66.8 | 65.8 | 64.9 | 63.9 | 63.0 | 62.0 |
| 40             | 71.2 | 70.2 | 69.2 | 68.2 | 67.3 | 66.3 | 65.3 | 64.4 | 63.5 | 62.5 |
| 41             | 71.6 | 70.6 | 69.6 | 68.6 | 67.7 | 66.7 | 65.8 | 64.9 | 63.9 | 63.0 |
| 42             | 71.9 | 70.9 | 70.0 | 69.0 | 68.1 | 67.2 | 66.2 | 65.3 | 64.4 | 63.5 |
| 43             | 72.3 | 71.3 | 70.4 | 69.4 | 68.5 | 67.6 | 66.6 | 65.7 | 64.8 | 63.9 |
| 44             | 72.6 | 71.7 | 70.7 | 69.8 | 68.9 | 67.9 | 67.0 | 66.1 | 65.2 | 64.4 |
| 45             | 72.9 | 72.0 | 71.1 | 70.1 | 69.2 | 68.3 | 67.4 | 66.5 | 65.7 | 64.8 |
| 46             | 73.2 | 72.3 | 71.4 | 70.5 | 69.6 | 68.7 | 67.8 | 66.9 | 66.0 | 65.2 |
| 47             | 73.5 | 72.6 | 71.7 | 70.8 | 69.9 | 69.0 | 68.2 | 67.3 | 66.4 | 65.6 |
| 48             | 73.8 | 72.9 | 72.0 | 71.1 | 70.2 | 69.4 | 68.5 | 67.6 | 66.8 | 65.9 |
| 49             | 74.1 | 73.2 | 72.3 | 71.4 | 70.6 | 69.7 | 68.8 | 68.0 | 67.1 | 66.3 |
| 50             | 74.4 | 73.5 | 72.6 | 71.7 | 70.9 | 70.0 | 69.2 | 68.3 | 67.5 | 66.7 |
| 51             | 74.6 | 73.8 | 72.9 | 72.0 | 71.2 | 70.3 | 69.5 | 68.6 | 67.8 | 67.0 |
| 52             | 74.9 | 74.0 | 73.2 | 72.3 | 71.5 | 70.6 | 69.8 | 69.0 | 68.1 | 67.3 |
| 53             | 75.1 | 74.3 | 73.4 | 72.6 | 71.7 | 70.9 | 70.1 | 69.3 | 68.5 | 67.6 |
| 54             | 75.4 | 74.5 | 73.7 | 72.9 | 72.0 | 71.2 | 70.4 | 69.6 | 68.8 | 68.0 |
| 55             | 75.6 | 74.8 | 73.9 | 73.1 | 72.3 | 71.5 | 70.7 | 69.9 | 69.1 | 68.3 |
| 56             | 75.9 | 75.0 | 74.2 | 73.4 | 72.5 | 71.7 | 70.9 | 70.1 | 69.3 | 68.6 |
| 57             | 76.1 | 75.2 | 74.4 | 73.6 | 72.8 | 72.0 | 71.2 | 70.4 | 69.6 | 68.8 |

表 4c (续)

| $t-t_w$<br>$t$ | 5.2  | 5.4  | 5.6  | 5.8  | 6.0  | 6.2  | 6.4  | 6.6  | 6.8  | 7.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 76.3 | 75.5 | 74.7 | 73.8 | 73.0 | 72.2 | 71.5 | 70.7 | 69.9 | 69.1 |
| 59             | 76.5 | 75.7 | 74.9 | 74.1 | 73.3 | 72.5 | 71.7 | 70.9 | 70.2 | 69.4 |
| 60             | 76.7 | 75.9 | 75.1 | 74.3 | 73.5 | 72.7 | 72.0 | 71.2 | 70.4 | 69.7 |
| 61             | 76.9 | 76.1 | 75.3 | 74.5 | 73.7 | 73.0 | 72.2 | 71.4 | 70.7 | 69.9 |
| 62             | 77.1 | 76.3 | 75.5 | 74.7 | 74.0 | 73.2 | 72.4 | 71.7 | 70.9 | 70.2 |
| 63             | 77.3 | 76.5 | 75.7 | 75.0 | 74.2 | 73.4 | 72.7 | 71.9 | 71.2 | 70.4 |
| 64             | 77.5 | 76.7 | 75.9 | 75.2 | 74.4 | 73.6 | 72.9 | 72.1 | 71.4 | 70.7 |
| 65             | 77.7 | 76.9 | 76.1 | 75.4 | 74.6 | 73.9 | 73.1 | 72.4 | 71.6 | 70.9 |
| 66             | 77.9 | 77.1 | 76.3 | 75.6 | 74.8 | 74.1 | 73.3 | 72.6 | 71.9 | 71.1 |
| 67             | 78.0 | 77.3 | 76.5 | 75.8 | 75.0 | 74.3 | 73.5 | 72.8 | 72.1 | 71.4 |
| 68             | 78.2 | 77.5 | 76.7 | 76.0 | 75.2 | 74.5 | 73.7 | 73.0 | 72.3 | 71.6 |
| 69             | 78.4 | 77.6 | 76.9 | 76.1 | 75.4 | 74.7 | 73.9 | 73.2 | 72.5 | 71.8 |
| 70             | 78.5 | 77.8 | 77.1 | 76.3 | 75.6 | 74.9 | 74.1 | 73.4 | 72.7 | 72.0 |
| 71             | 78.7 | 78.0 | 77.2 | 76.5 | 75.8 | 75.1 | 74.3 | 73.6 | 72.9 | 72.2 |
| 72             | 78.9 | 78.1 | 77.4 | 76.7 | 76.0 | 75.2 | 74.5 | 73.8 | 73.1 | 72.4 |
| 73             | 79.0 | 78.3 | 77.6 | 76.9 | 76.1 | 75.4 | 74.7 | 74.0 | 73.3 | 72.6 |
| 74             | 79.2 | 78.5 | 77.7 | 77.0 | 76.3 | 75.6 | 74.9 | 74.2 | 73.5 | 72.8 |
| 75             | 79.3 | 78.6 | 77.9 | 77.2 | 76.5 | 75.8 | 75.1 | 74.4 | 73.7 | 73.0 |
| 76             | 79.5 | 78.8 | 78.1 | 77.4 | 76.6 | 76.0 | 75.3 | 74.6 | 73.9 | 73.2 |
| 77             | 79.6 | 78.9 | 78.2 | 77.5 | 76.8 | 76.1 | 75.4 | 74.7 | 74.1 | 73.4 |
| 78             | 79.8 | 79.1 | 78.4 | 77.7 | 77.0 | 76.3 | 75.6 | 74.9 | 74.3 | 73.6 |
| 79             | 79.9 | 79.2 | 78.5 | 77.8 | 77.1 | 76.5 | 75.8 | 75.1 | 74.4 | 73.8 |
| 80             | 80.1 | 79.4 | 78.7 | 78.0 | 77.3 | 76.6 | 75.9 | 75.3 | 74.6 | 73.9 |
| 81             | 80.2 | 79.5 | 78.8 | 78.1 | 77.5 | 76.8 | 76.1 | 75.4 | 74.8 | 74.1 |
| 82             | 80.3 | 79.7 | 79.0 | 78.3 | 77.6 | 76.9 | 76.3 | 75.6 | 74.9 | 74.3 |
| 83             | 80.5 | 79.8 | 79.1 | 78.4 | 77.8 | 77.1 | 76.4 | 75.8 | 75.1 | 74.5 |
| 84             | 80.6 | 79.9 | 79.2 | 78.6 | 77.9 | 77.2 | 76.6 | 75.9 | 75.3 | 74.6 |
| 85             | 80.7 | 80.1 | 79.4 | 78.7 | 78.1 | 77.4 | 76.7 | 76.1 | 75.4 | 74.8 |
| 86             | 80.9 | 80.2 | 79.5 | 78.9 | 78.2 | 77.5 | 76.9 | 76.2 | 75.6 | 75.0 |
| 87             | 81.0 | 80.3 | 79.7 | 79.0 | 78.3 | 77.7 | 77.0 | 76.4 | 75.8 | 75.1 |
| 88             | 81.1 | 80.5 | 79.8 | 79.1 | 78.5 | 77.8 | 77.2 | 76.6 | 75.9 | 75.3 |
| 89             | 81.2 | 80.6 | 79.9 | 79.3 | 78.6 | 78.0 | 77.3 | 76.7 | 76.1 | 75.4 |
| 90             | 81.4 | 80.7 | 80.1 | 79.4 | 78.8 | 78.1 | 77.5 | 76.9 | 76.2 | 75.6 |
| 91             | 81.5 | 80.8 | 80.2 | 79.5 | 78.9 | 78.3 | 77.6 | 77.0 | 76.4 | 75.8 |
| 92             | 81.6 | 81.0 | 80.3 | 79.7 | 79.0 | 78.4 | 77.8 | 77.1 | 76.5 | 75.9 |
| 93             | 81.7 | 81.1 | 80.4 | 79.8 | 79.2 | 78.5 | 77.9 | 77.3 | 76.7 | 76.1 |
| 94             | 81.8 | 81.2 | 80.6 | 79.9 | 79.3 | 78.7 | 78.0 | 77.4 | 76.8 | 76.2 |
| 95             | 82.0 | 81.3 | 80.7 | 80.0 | 79.4 | 78.8 | 78.2 | 77.6 | 77.0 | 76.3 |
| 96             | 82.1 | 81.4 | 80.8 | 80.2 | 79.5 | 78.9 | 78.3 | 77.7 | 77.1 | 76.5 |
| 97             | 82.2 | 81.5 | 80.9 | 80.3 | 79.7 | 79.1 | 78.4 | 77.8 | 77.2 | 76.6 |
| 98             | 82.3 | 81.7 | 81.0 | 80.4 | 79.8 | 79.2 | 78.6 | 78.0 | 77.4 | 76.8 |
| 99             | 82.4 | 81.8 | 81.2 | 80.5 | 79.9 | 79.3 | 78.7 | 78.1 | 77.5 | 76.9 |
| 100            | 82.5 | 81.9 | 81.3 | 80.7 | 80.0 | 79.4 | 78.8 | 78.2 | 77.6 | 77.1 |



表 4c (续)

| $t-t_w$<br>$t$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 68.4 | 67.6 | 66.8 | 66.1 | 65.3 | 64.6 | 63.9 | 63.2 | 62.4 | 61.7 |
| 59             | 68.6 | 67.9 | 67.1 | 66.4 | 65.7 | 64.9 | 64.2 | 63.5 | 62.8 | 62.1 |
| 60             | 68.9 | 68.2 | 67.4 | 66.7 | 65.9 | 65.2 | 64.5 | 63.8 | 63.1 | 62.4 |
| 61             | 69.2 | 68.4 | 67.7 | 67.0 | 66.2 | 65.5 | 64.8 | 64.1 | 63.4 | 62.7 |
| 62             | 69.4 | 68.7 | 68.0 | 67.2 | 66.5 | 65.8 | 65.1 | 64.4 | 63.7 | 63.0 |
| 63             | 69.7 | 69.0 | 68.2 | 67.5 | 66.8 | 66.1 | 65.4 | 64.7 | 64.0 | 63.3 |
| 64             | 69.9 | 69.2 | 68.5 | 67.8 | 67.1 | 66.4 | 65.7 | 65.0 | 64.3 | 63.6 |
| 65             | 70.2 | 69.5 | 68.7 | 68.0 | 67.3 | 66.6 | 65.9 | 65.2 | 64.6 | 63.9 |
| 66             | 70.4 | 69.7 | 69.0 | 68.3 | 67.6 | 66.9 | 66.2 | 65.5 | 64.8 | 64.2 |
| 67             | 70.6 | 69.9 | 69.2 | 68.5 | 67.8 | 67.1 | 66.5 | 65.8 | 65.1 | 64.4 |
| 68             | 70.9 | 70.2 | 69.5 | 68.8 | 68.1 | 67.4 | 66.7 | 66.0 | 65.4 | 64.7 |
| 69             | 71.1 | 70.4 | 69.7 | 69.0 | 68.3 | 67.6 | 67.0 | 66.3 | 65.6 | 65.0 |
| 70             | 71.3 | 70.6 | 69.9 | 69.2 | 68.6 | 67.9 | 67.2 | 66.5 | 65.9 | 65.2 |
| 71             | 71.5 | 70.8 | 70.1 | 69.5 | 68.8 | 68.1 | 67.4 | 66.8 | 66.1 | 65.5 |
| 72             | 71.7 | 71.0 | 70.4 | 69.7 | 69.0 | 68.3 | 67.7 | 67.0 | 66.4 | 65.7 |
| 73             | 71.9 | 71.3 | 70.6 | 69.9 | 69.2 | 68.6 | 67.9 | 67.3 | 66.6 | 66.0 |
| 74             | 72.1 | 71.5 | 70.8 | 70.1 | 69.5 | 68.8 | 68.1 | 67.5 | 66.9 | 66.2 |
| 75             | 72.3 | 71.7 | 71.0 | 70.3 | 69.7 | 69.0 | 68.4 | 67.7 | 67.1 | 66.4 |
| 76             | 72.5 | 71.9 | 71.2 | 70.5 | 69.9 | 69.2 | 68.6 | 67.9 | 67.3 | 66.7 |
| 77             | 72.7 | 72.1 | 71.4 | 70.7 | 70.1 | 69.4 | 68.8 | 68.2 | 67.5 | 66.9 |
| 78             | 72.9 | 72.3 | 71.6 | 70.9 | 70.3 | 69.7 | 69.0 | 68.4 | 67.8 | 67.1 |
| 79             | 73.1 | 72.4 | 71.8 | 71.1 | 70.5 | 69.9 | 69.2 | 68.6 | 68.0 | 67.4 |
| 80             | 73.3 | 72.6 | 72.0 | 71.3 | 70.7 | 70.1 | 69.4 | 68.8 | 68.2 | 67.6 |
| 81             | 73.5 | 72.8 | 72.2 | 71.5 | 70.9 | 70.3 | 69.6 | 69.0 | 68.4 | 67.8 |
| 82             | 73.6 | 73.0 | 72.4 | 71.7 | 71.1 | 70.5 | 69.8 | 69.2 | 68.6 | 68.0 |
| 83             | 73.8 | 73.2 | 72.5 | 71.9 | 71.3 | 70.7 | 70.0 | 69.4 | 68.8 | 68.2 |
| 84             | 74.0 | 73.4 | 72.7 | 72.1 | 71.5 | 70.8 | 70.2 | 69.6 | 69.0 | 68.4 |
| 85             | 74.2 | 73.5 | 72.9 | 72.3 | 71.7 | 71.0 | 70.4 | 69.8 | 69.2 | 68.6 |
| 86             | 74.3 | 73.7 | 73.1 | 72.5 | 71.8 | 71.2 | 70.6 | 70.0 | 69.4 | 68.8 |
| 87             | 74.5 | 73.9 | 73.2 | 72.6 | 72.0 | 71.4 | 70.8 | 70.2 | 69.6 | 69.0 |
| 88             | 74.7 | 74.0 | 73.4 | 72.8 | 72.2 | 71.6 | 71.0 | 70.4 | 69.8 | 69.2 |
| 89             | 74.8 | 74.2 | 73.6 | 73.0 | 72.4 | 71.8 | 71.2 | 70.6 | 70.0 | 69.4 |
| 90             | 75.0 | 74.4 | 73.8 | 73.1 | 72.5 | 71.9 | 71.3 | 70.7 | 70.2 | 69.6 |
| 91             | 75.1 | 74.5 | 73.9 | 73.3 | 72.7 | 72.1 | 71.5 | 70.9 | 70.3 | 69.8 |
| 92             | 75.3 | 74.7 | 74.1 | 73.5 | 72.9 | 72.3 | 71.7 | 71.1 | 70.5 | 69.9 |
| 93             | 75.4 | 74.8 | 74.2 | 73.6 | 73.0 | 72.5 | 71.9 | 71.3 | 70.7 | 70.1 |
| 94             | 75.6 | 75.0 | 74.4 | 73.8 | 73.2 | 72.6 | 72.0 | 71.5 | 70.9 | 70.3 |
| 95             | 75.7 | 75.1 | 74.5 | 74.0 | 73.4 | 72.8 | 72.2 | 71.6 | 71.1 | 70.5 |
| 96             | 75.9 | 75.3 | 74.7 | 74.1 | 73.5 | 72.9 | 72.4 | 71.8 | 71.2 | 70.7 |
| 97             | 76.0 | 75.4 | 74.9 | 74.3 | 73.7 | 73.1 | 72.5 | 72.0 | 71.4 | 70.8 |
| 98             | 76.2 | 75.6 | 75.0 | 74.4 | 73.8 | 73.3 | 72.7 | 72.1 | 71.6 | 71.0 |
| 99             | 76.3 | 75.7 | 75.2 | 74.6 | 74.0 | 73.4 | 72.9 | 72.3 | 71.7 | 71.2 |
| 100            | 76.5 | 75.9 | 75.3 | 74.7 | 74.2 | 73.6 | 73.0 | 72.5 | 71.9 | 71.3 |

表 4c (续)

| $t - t_w$<br>$t$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               | 21.9 | 20.5 | 19.0 | 17.6 | 16.2 | 14.8 | 13.4 | 12.0 | 10.6 | 9.2  |
| 16               | 24.2 | 22.8 | 21.4 | 20.0 | 18.6 | 17.3 | 15.9 | 14.6 | 13.2 | 11.9 |
| 17               | 26.3 | 24.9 | 23.6 | 22.3 | 20.9 | 19.6 | 18.3 | 17.0 | 15.7 | 14.4 |
| 18               | 28.3 | 27.0 | 25.7 | 24.4 | 23.1 | 21.8 | 20.5 | 19.3 | 18.0 | 16.8 |
| 19               | 30.2 | 28.9 | 27.6 | 26.4 | 25.1 | 23.9 | 22.6 | 21.4 | 20.2 | 19.0 |
| 20               | 31.9 | 30.7 | 29.5 | 28.2 | 27.0 | 25.8 | 24.6 | 23.4 | 22.2 | 21.0 |
| 21               | 33.6 | 32.4 | 31.2 | 30.0 | 28.8 | 27.6 | 26.5 | 25.3 | 24.1 | 23.0 |
| 22               | 35.2 | 34.0 | 32.8 | 31.6 | 30.5 | 29.3 | 28.2 | 27.1 | 26.0 | 24.8 |
| 23               | 36.6 | 35.5 | 34.3 | 33.2 | 32.1 | 31.0 | 29.9 | 28.8 | 27.7 | 26.6 |
| 24               | 38.0 | 36.9 | 35.8 | 34.7 | 33.6 | 32.5 | 31.4 | 30.3 | 29.3 | 28.2 |
| 25               | 39.3 | 38.2 | 37.2 | 36.1 | 35.0 | 33.9 | 32.9 | 31.8 | 30.8 | 29.7 |
| 26               | 40.6 | 39.5 | 38.4 | 37.4 | 36.3 | 35.3 | 34.3 | 33.2 | 32.2 | 31.2 |
| 27               | 41.8 | 40.7 | 39.7 | 38.6 | 37.6 | 36.6 | 35.6 | 34.6 | 33.6 | 32.6 |
| 28               | 42.9 | 41.9 | 40.8 | 39.8 | 38.8 | 37.8 | 36.8 | 35.8 | 34.9 | 33.9 |
| 29               | 43.9 | 42.9 | 41.9 | 40.9 | 40.0 | 39.0 | 38.0 | 37.0 | 36.1 | 35.1 |
| 30               | 45.0 | 44.0 | 43.0 | 42.0 | 41.0 | 40.1 | 39.1 | 38.2 | 37.2 | 36.3 |
| 31               | 45.9 | 44.9 | 44.0 | 43.0 | 42.1 | 41.1 | 40.2 | 39.3 | 38.3 | 37.4 |
| 32               | 46.8 | 45.9 | 44.9 | 44.0 | 43.1 | 42.1 | 41.2 | 40.3 | 39.4 | 38.5 |
| 33               | 47.7 | 46.8 | 45.8 | 44.9 | 44.0 | 43.1 | 42.2 | 41.3 | 40.4 | 39.5 |
| 34               | 48.5 | 47.6 | 46.7 | 45.8 | 44.9 | 44.0 | 43.1 | 42.2 | 41.3 | 40.5 |
| 35               | 49.3 | 48.4 | 47.5 | 46.6 | 45.7 | 44.8 | 44.0 | 43.1 | 42.2 | 41.4 |
| 36               | 50.1 | 49.2 | 48.3 | 47.4 | 46.5 | 45.7 | 44.8 | 44.0 | 43.1 | 42.3 |
| 37               | 50.8 | 49.9 | 49.0 | 48.2 | 47.3 | 46.5 | 45.6 | 44.8 | 43.9 | 43.1 |
| 38               | 51.5 | 50.6 | 49.7 | 48.9 | 48.0 | 47.2 | 46.4 | 45.5 | 44.7 | 43.9 |
| 39               | 52.1 | 51.3 | 50.4 | 49.6 | 48.8 | 47.9 | 47.1 | 46.3 | 45.5 | 44.7 |
| 40               | 52.8 | 51.9 | 51.1 | 50.3 | 49.4 | 48.6 | 47.8 | 47.0 | 46.2 | 45.4 |
| 41               | 53.4 | 52.5 | 51.7 | 50.9 | 50.1 | 49.3 | 48.5 | 47.7 | 46.9 | 46.1 |
| 42               | 54.0 | 53.1 | 52.3 | 51.5 | 50.7 | 49.9 | 49.1 | 48.3 | 47.6 | 46.8 |
| 43               | 54.5 | 53.7 | 52.9 | 52.1 | 51.3 | 50.5 | 49.7 | 49.0 | 48.2 | 47.4 |
| 44               | 55.1 | 54.3 | 53.5 | 52.7 | 51.9 | 51.1 | 50.3 | 49.6 | 48.8 | 48.1 |
| 45               | 55.6 | 54.8 | 54.0 | 53.2 | 52.5 | 51.7 | 50.9 | 50.2 | 49.4 | 48.7 |
| 46               | 56.1 | 55.3 | 54.5 | 53.8 | 53.0 | 52.2 | 51.5 | 50.7 | 50.0 | 49.2 |
| 47               | 56.6 | 55.8 | 55.0 | 54.3 | 53.5 | 52.8 | 52.0 | 51.3 | 50.5 | 49.8 |
| 48               | 57.1 | 56.3 | 55.5 | 54.8 | 54.0 | 53.3 | 52.5 | 51.8 | 51.1 | 50.3 |
| 49               | 57.5 | 56.7 | 56.0 | 55.2 | 54.5 | 53.8 | 53.0 | 52.3 | 51.6 | 50.9 |
| 50               | 57.9 | 57.2 | 56.4 | 55.7 | 55.0 | 54.2 | 53.5 | 52.8 | 52.1 | 51.4 |
| 51               | 58.4 | 57.6 | 56.9 | 56.1 | 55.4 | 54.7 | 54.0 | 53.3 | 52.6 | 51.8 |
| 52               | 58.8 | 58.0 | 57.3 | 56.6 | 55.9 | 55.1 | 54.4 | 53.7 | 53.0 | 52.3 |
| 53               | 59.2 | 58.4 | 57.7 | 57.0 | 56.3 | 55.6 | 54.9 | 54.2 | 53.5 | 52.8 |
| 54               | 59.6 | 58.8 | 58.1 | 57.4 | 56.7 | 56.0 | 55.3 | 54.6 | 53.9 | 53.2 |
| 55               | 59.9 | 59.2 | 58.5 | 57.8 | 57.1 | 56.4 | 55.7 | 55.0 | 54.3 | 53.7 |
| 56               | 60.3 | 59.6 | 58.9 | 58.2 | 57.5 | 56.8 | 56.1 | 55.4 | 54.7 | 54.1 |
| 57               | 60.7 | 60.0 | 59.3 | 58.6 | 57.9 | 57.2 | 56.5 | 55.8 | 55.1 | 54.5 |













表 5a<sub>1</sub>(续)

| $t-t_w$<br>$t$ | 1.1  | 1.2  | 1.3  | 1.4  | 1.5  | 1.6  | 1.7  | 1.8  | 1.9  | 2.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 94.5 | 94.0 | 93.6 | 93.1 | 92.6 | 92.1 | 91.6 | 91.2 | 90.7 | 90.2 |
| 59             | 94.6 | 94.1 | 93.6 | 93.2 | 92.7 | 92.2 | 91.7 | 91.3 | 90.8 | 90.3 |
| 60             | 94.6 | 94.2 | 93.7 | 93.2 | 92.7 | 92.3 | 91.8 | 91.3 | 90.9 | 90.4 |
| 61             | 94.7 | 94.2 | 93.7 | 93.3 | 92.8 | 92.3 | 91.9 | 91.4 | 91.0 | 90.5 |
| 62             | 94.7 | 94.3 | 93.8 | 93.3 | 92.9 | 92.4 | 92.0 | 91.5 | 91.0 | 90.6 |
| 63             | 94.8 | 94.3 | 93.9 | 93.4 | 92.9 | 92.5 | 92.0 | 91.6 | 91.1 | 90.7 |
| 64             | 94.8 | 94.4 | 93.9 | 93.5 | 93.0 | 92.6 | 92.1 | 91.7 | 91.2 | 90.8 |
| 65             | 94.9 | 94.4 | 94.0 | 93.5 | 93.1 | 92.6 | 92.2 | 91.7 | 91.3 | 90.8 |
| 66             | 94.9 | 94.5 | 94.0 | 93.6 | 93.1 | 92.7 | 92.2 | 91.8 | 91.4 | 90.9 |
| 67             | 95.0 | 94.5 | 94.1 | 93.6 | 93.2 | 92.7 | 92.3 | 91.9 | 91.4 | 91.0 |
| 68             | 95.0 | 94.6 | 94.1 | 93.7 | 93.2 | 92.8 | 92.4 | 91.9 | 91.5 | 91.1 |
| 69             | 95.1 | 94.6 | 94.2 | 93.7 | 93.3 | 92.9 | 92.4 | 92.0 | 91.6 | 91.1 |
| 70             | 95.1 | 94.7 | 94.2 | 93.8 | 93.4 | 92.9 | 92.5 | 92.1 | 91.6 | 91.2 |
| 71             | 95.1 | 94.7 | 94.3 | 93.8 | 93.4 | 93.0 | 92.6 | 92.1 | 91.7 | 91.3 |
| 72             | 95.2 | 94.7 | 94.3 | 93.9 | 93.5 | 93.0 | 92.6 | 92.2 | 91.8 | 91.4 |
| 73             | 95.2 | 94.8 | 94.4 | 93.9 | 93.5 | 93.1 | 92.7 | 92.3 | 91.8 | 91.4 |
| 74             | 95.3 | 94.8 | 94.4 | 94.0 | 93.6 | 93.2 | 92.7 | 92.3 | 91.9 | 91.5 |
| 75             | 95.3 | 94.9 | 94.5 | 94.0 | 93.6 | 93.2 | 92.8 | 92.4 | 92.0 | 91.6 |
| 76             | 95.3 | 94.9 | 94.5 | 94.1 | 93.7 | 93.3 | 92.9 | 92.4 | 92.0 | 91.6 |
| 77             | 95.4 | 95.0 | 94.5 | 94.1 | 93.7 | 93.3 | 92.9 | 92.5 | 92.1 | 91.7 |
| 78             | 95.4 | 95.0 | 94.6 | 94.2 | 93.8 | 93.4 | 93.0 | 92.6 | 92.2 | 91.8 |
| 79             | 95.4 | 95.0 | 94.6 | 94.2 | 93.8 | 93.4 | 93.0 | 92.6 | 92.2 | 91.8 |
| 80             | 95.5 | 95.1 | 94.7 | 94.3 | 93.9 | 93.5 | 93.1 | 92.7 | 92.3 | 91.9 |
| 81             | 95.5 | 95.1 | 94.7 | 94.3 | 93.9 | 93.5 | 93.1 | 92.7 | 92.3 | 91.9 |
| 82             | 95.5 | 95.1 | 94.7 | 94.3 | 94.0 | 93.6 | 93.2 | 92.8 | 92.4 | 92.0 |
| 83             | 95.6 | 95.2 | 94.8 | 94.4 | 94.0 | 93.6 | 93.2 | 92.8 | 92.4 | 92.1 |
| 84             | 95.6 | 95.2 | 94.8 | 94.4 | 94.0 | 93.7 | 93.3 | 92.9 | 92.5 | 92.1 |
| 85             | 95.6 | 95.2 | 94.9 | 94.5 | 94.1 | 93.7 | 93.3 | 92.9 | 92.6 | 92.2 |
| 86             | 95.7 | 95.3 | 94.9 | 94.5 | 94.1 | 93.7 | 93.4 | 93.0 | 92.6 | 92.2 |
| 87             | 95.7 | 95.3 | 94.9 | 94.5 | 94.2 | 93.8 | 93.4 | 93.0 | 92.7 | 92.3 |
| 88             | 95.7 | 95.3 | 95.0 | 94.6 | 94.2 | 93.8 | 93.5 | 93.1 | 92.7 | 92.3 |
| 89             | 95.8 | 95.4 | 95.0 | 94.6 | 94.2 | 93.9 | 93.5 | 93.1 | 92.8 | 92.4 |
| 90             | 95.8 | 95.4 | 95.0 | 94.7 | 94.3 | 93.9 | 93.5 | 93.2 | 92.8 | 92.4 |
| 91             | 95.8 | 95.4 | 95.1 | 94.7 | 94.3 | 94.0 | 93.6 | 93.2 | 92.9 | 92.5 |
| 92             | 95.8 | 95.5 | 95.1 | 94.7 | 94.4 | 94.0 | 93.6 | 93.3 | 92.9 | 92.5 |
| 93             | 95.9 | 95.5 | 95.1 | 94.8 | 94.4 | 94.0 | 93.7 | 93.3 | 93.0 | 92.6 |
| 94             | 95.9 | 95.5 | 95.2 | 94.8 | 94.4 | 94.1 | 93.7 | 93.4 | 93.0 | 92.6 |
| 95             | 95.9 | 95.6 | 95.2 | 94.8 | 94.5 | 94.1 | 93.8 | 93.4 | 93.1 | 92.7 |
| 96             | 96.0 | 95.6 | 95.2 | 94.9 | 94.5 | 94.2 | 93.8 | 93.5 | 93.1 | 92.7 |
| 97             | 96.0 | 95.6 | 95.3 | 94.9 | 94.6 | 94.2 | 93.8 | 93.5 | 93.1 | 92.8 |
| 98             | 96.0 | 95.7 | 95.3 | 94.9 | 94.6 | 94.2 | 93.9 | 93.5 | 93.2 | 92.8 |
| 99             | 96.0 | 95.7 | 95.3 | 95.0 | 94.6 | 94.3 | 93.9 | 93.6 | 93.2 | 92.9 |
| 100            | 96.1 | 95.7 | 95.4 | 95.0 | 94.7 | 94.3 | 94.0 | 93.6 | 93.3 | 92.9 |

表 5a<sub>1</sub> (续)

| $t-t_w$ | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|---------|------|------|------|------|------|------|------|------|------|------|
| $t$     |      |      |      |      |      |      |      |      |      |      |
| 15      | 78.8 | 77.8 | 76.9 | 75.9 | 74.9 | 74.0 | 73.0 | 72.1 | 71.1 | 70.2 |
| 16      | 79.4 | 78.5 | 77.5 | 76.6 | 75.7 | 74.7 | 73.8 | 72.9 | 72.0 | 71.0 |
| 17      | 80.0 | 79.1 | 78.2 | 77.3 | 76.4 | 75.5 | 74.6 | 73.7 | 72.8 | 71.9 |
| 18      | 80.5 | 79.7 | 78.8 | 77.9 | 77.0 | 76.1 | 75.3 | 74.4 | 73.5 | 72.6 |
| 19      | 81.1 | 80.2 | 79.3 | 78.5 | 77.6 | 76.8 | 75.9 | 75.1 | 74.2 | 73.4 |
| 20      | 81.5 | 80.7 | 79.9 | 79.0 | 78.2 | 77.4 | 76.5 | 75.7 | 74.9 | 74.1 |
| 21      | 82.0 | 81.2 | 80.4 | 79.5 | 78.7 | 77.9 | 77.1 | 76.3 | 75.5 | 74.7 |
| 22      | 82.4 | 81.6 | 80.8 | 80.0 | 79.2 | 78.5 | 77.7 | 76.9 | 76.1 | 75.3 |
| 23      | 82.8 | 82.1 | 81.3 | 80.5 | 79.7 | 79.0 | 78.2 | 77.4 | 76.7 | 75.9 |
| 24      | 83.2 | 82.5 | 81.7 | 80.9 | 80.2 | 79.4 | 78.7 | 77.9 | 77.2 | 76.4 |
| 25      | 83.6 | 82.8 | 82.1 | 81.4 | 80.6 | 79.9 | 79.1 | 78.4 | 77.7 | 77.0 |
| 26      | 83.9 | 83.2 | 82.5 | 81.8 | 81.0 | 80.3 | 79.6 | 78.9 | 78.2 | 77.4 |
| 27      | 84.3 | 83.6 | 82.8 | 82.1 | 81.4 | 80.7 | 80.0 | 79.3 | 78.6 | 77.9 |
| 28      | 84.6 | 83.9 | 83.2 | 82.5 | 81.8 | 81.1 | 80.4 | 79.7 | 79.0 | 78.4 |
| 29      | 84.9 | 84.2 | 83.5 | 82.8 | 82.1 | 81.5 | 80.8 | 80.1 | 79.4 | 78.8 |
| 30      | 85.2 | 84.5 | 83.8 | 83.1 | 82.5 | 81.8 | 81.1 | 80.5 | 79.8 | 79.2 |
| 31      | 85.4 | 84.8 | 84.1 | 83.4 | 82.8 | 82.1 | 81.5 | 80.8 | 80.2 | 79.5 |
| 32      | 85.7 | 85.0 | 84.4 | 83.7 | 83.1 | 82.5 | 81.8 | 81.2 | 80.5 | 79.9 |
| 33      | 85.9 | 85.3 | 84.7 | 84.0 | 83.4 | 82.8 | 82.1 | 81.5 | 80.9 | 80.3 |
| 34      | 86.2 | 85.5 | 84.9 | 84.3 | 83.7 | 83.0 | 82.4 | 81.8 | 81.2 | 80.6 |
| 35      | 86.4 | 85.8 | 85.2 | 84.5 | 83.9 | 83.3 | 82.7 | 82.1 | 81.5 | 80.9 |
| 36      | 86.6 | 86.0 | 85.4 | 84.8 | 84.2 | 83.6 | 83.0 | 82.4 | 81.8 | 81.2 |
| 37      | 86.8 | 86.2 | 85.6 | 85.0 | 84.4 | 83.8 | 83.2 | 82.7 | 82.1 | 81.5 |
| 38      | 87.0 | 86.4 | 85.8 | 85.2 | 84.7 | 84.1 | 83.5 | 82.9 | 82.3 | 81.8 |
| 39      | 87.2 | 86.6 | 86.0 | 85.5 | 84.9 | 84.3 | 83.7 | 83.2 | 82.6 | 82.0 |
| 40      | 87.4 | 86.8 | 86.2 | 85.7 | 85.1 | 84.5 | 84.0 | 83.4 | 82.8 | 82.3 |
| 41      | 87.6 | 87.0 | 86.4 | 85.9 | 85.3 | 84.7 | 84.2 | 83.6 | 83.1 | 82.5 |
| 42      | 87.7 | 87.2 | 86.6 | 86.0 | 85.5 | 84.9 | 84.4 | 83.8 | 83.3 | 82.8 |
| 43      | 87.9 | 87.3 | 86.8 | 86.2 | 85.7 | 85.1 | 84.6 | 84.1 | 83.5 | 83.0 |
| 44      | 88.0 | 87.5 | 86.9 | 86.4 | 85.9 | 85.3 | 84.8 | 84.3 | 83.7 | 83.2 |
| 45      | 88.2 | 87.7 | 87.1 | 86.6 | 86.0 | 85.5 | 85.0 | 84.5 | 83.9 | 83.4 |
| 46      | 88.3 | 87.8 | 87.3 | 86.7 | 86.2 | 85.7 | 85.2 | 84.7 | 84.1 | 83.6 |
| 47      | 88.5 | 87.9 | 87.4 | 86.9 | 86.4 | 85.9 | 85.3 | 84.8 | 84.3 | 83.8 |
| 48      | 88.6 | 88.1 | 87.6 | 87.1 | 86.5 | 86.0 | 85.5 | 85.0 | 84.5 | 84.0 |
| 49      | 88.7 | 88.2 | 87.7 | 87.2 | 86.7 | 86.2 | 85.7 | 85.2 | 84.7 | 84.2 |
| 50      | 88.9 | 88.4 | 87.9 | 87.3 | 86.8 | 86.3 | 85.8 | 85.4 | 84.9 | 84.4 |
| 51      | 89.0 | 88.5 | 88.0 | 87.5 | 87.0 | 86.5 | 86.0 | 85.5 | 85.0 | 84.5 |
| 52      | 89.1 | 88.6 | 88.1 | 87.6 | 87.1 | 86.6 | 86.2 | 85.7 | 85.2 | 84.7 |
| 53      | 89.2 | 88.7 | 88.2 | 87.8 | 87.3 | 86.8 | 86.3 | 85.8 | 85.3 | 84.9 |
| 54      | 89.3 | 88.9 | 88.4 | 87.9 | 87.4 | 86.9 | 86.4 | 86.0 | 85.5 | 85.0 |
| 55      | 89.4 | 89.0 | 88.5 | 88.0 | 87.5 | 87.1 | 86.6 | 86.1 | 85.6 | 85.2 |
| 56      | 89.6 | 89.1 | 88.6 | 88.1 | 87.7 | 87.2 | 86.7 | 86.3 | 85.8 | 85.3 |
| 57      | 89.7 | 89.2 | 88.7 | 88.2 | 87.8 | 87.3 | 86.8 | 86.4 | 85.9 | 85.5 |

表 5a<sub>1</sub> (续)

| $t-t_w$<br>$t$ | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 89.8 | 89.3 | 88.8 | 88.4 | 87.9 | 87.4 | 87.0 | 86.5 | 86.1 | 85.6 |
| 59             | 89.9 | 89.4 | 88.9 | 88.5 | 88.0 | 87.6 | 87.1 | 86.6 | 86.2 | 85.7 |
| 60             | 90.0 | 89.5 | 89.0 | 88.6 | 88.1 | 87.7 | 87.2 | 86.8 | 86.3 | 85.9 |
| 61             | 90.0 | 89.6 | 89.1 | 88.7 | 88.2 | 87.8 | 87.3 | 86.9 | 86.5 | 86.0 |
| 62             | 90.1 | 89.7 | 89.2 | 88.8 | 88.3 | 87.9 | 87.5 | 87.0 | 86.6 | 86.1 |
| 63             | 90.2 | 89.8 | 89.3 | 88.9 | 88.4 | 88.0 | 87.6 | 87.1 | 86.7 | 86.3 |
| 64             | 90.3 | 89.9 | 89.4 | 89.0 | 88.5 | 88.1 | 87.7 | 87.2 | 86.8 | 86.4 |
| 65             | 90.4 | 90.0 | 89.5 | 89.1 | 88.6 | 88.2 | 87.8 | 87.4 | 86.9 | 86.5 |
| 66             | 90.5 | 90.0 | 89.6 | 89.2 | 88.7 | 88.3 | 87.9 | 87.5 | 87.0 | 86.6 |
| 67             | 90.6 | 90.1 | 89.7 | 89.3 | 88.8 | 88.4 | 88.0 | 87.6 | 87.1 | 86.7 |
| 68             | 90.6 | 90.2 | 89.8 | 89.4 | 88.9 | 88.5 | 88.1 | 87.7 | 87.3 | 86.8 |
| 69             | 90.7 | 90.3 | 89.9 | 89.5 | 89.0 | 88.6 | 88.2 | 87.8 | 87.4 | 86.9 |
| 70             | 90.8 | 90.4 | 90.0 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 | 87.5 | 87.1 |
| 71             | 90.9 | 90.5 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.6 | 87.2 |
| 72             | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 | 87.3 |
| 73             | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 | 87.4 |
| 74             | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 | 87.5 |
| 75             | 91.2 | 90.8 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.4 | 88.0 | 87.6 |
| 76             | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.7 |
| 77             | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 |
| 78             | 91.4 | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 |
| 79             | 91.4 | 91.0 | 90.6 | 90.2 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 |
| 80             | 91.5 | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.2 | 88.8 | 88.4 | 88.0 |
| 81             | 91.6 | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.9 | 88.5 | 88.1 |
| 82             | 91.6 | 91.2 | 90.8 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.6 | 88.2 |
| 83             | 91.7 | 91.3 | 90.9 | 90.5 | 90.2 | 89.8 | 89.4 | 89.0 | 88.7 | 88.3 |
| 84             | 91.7 | 91.4 | 91.0 | 90.6 | 90.2 | 89.9 | 89.5 | 89.1 | 88.7 | 88.4 |
| 85             | 91.8 | 91.4 | 91.0 | 90.7 | 90.3 | 89.9 | 89.6 | 89.2 | 88.8 | 88.4 |
| 86             | 91.9 | 91.5 | 91.1 | 90.7 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 | 88.5 |
| 87             | 91.9 | 91.5 | 91.2 | 90.8 | 90.4 | 90.1 | 89.7 | 89.3 | 89.0 | 88.6 |
| 88             | 92.0 | 91.6 | 91.2 | 90.9 | 90.5 | 90.1 | 89.8 | 89.4 | 89.0 | 88.7 |
| 89             | 92.0 | 91.7 | 91.3 | 90.9 | 90.6 | 90.2 | 89.8 | 89.5 | 89.1 | 88.8 |
| 90             | 92.1 | 91.7 | 91.4 | 91.0 | 90.6 | 90.3 | 89.9 | 89.6 | 89.2 | 88.8 |
| 91             | 92.1 | 91.8 | 91.4 | 91.1 | 90.7 | 90.3 | 90.0 | 89.6 | 89.3 | 88.9 |
| 92             | 92.2 | 91.8 | 91.5 | 91.1 | 90.8 | 90.4 | 90.0 | 89.7 | 89.3 | 89.0 |
| 93             | 92.2 | 91.9 | 91.5 | 91.2 | 90.8 | 90.5 | 90.1 | 89.8 | 89.4 | 89.1 |
| 94             | 92.3 | 91.9 | 91.6 | 91.2 | 90.9 | 90.5 | 90.2 | 89.8 | 89.5 | 89.1 |
| 95             | 92.3 | 92.0 | 91.6 | 91.3 | 90.9 | 90.6 | 90.2 | 89.9 | 89.6 | 89.2 |
| 96             | 92.4 | 92.0 | 91.7 | 91.3 | 91.0 | 90.7 | 90.3 | 90.0 | 89.6 | 89.3 |
| 97             | 92.4 | 92.1 | 91.7 | 91.4 | 91.1 | 90.7 | 90.4 | 90.0 | 89.7 | 89.3 |
| 98             | 92.5 | 92.1 | 91.8 | 91.5 | 91.1 | 90.8 | 90.4 | 90.1 | 89.8 | 89.4 |
| 99             | 92.5 | 92.2 | 91.9 | 91.5 | 91.2 | 90.8 | 90.5 | 90.2 | 89.8 | 89.5 |
| 100            | 92.6 | 92.2 | 91.9 | 91.6 | 91.2 | 90.9 | 90.6 | 90.2 | 89.9 | 89.6 |

表 5a<sub>1</sub> (续)

| $t-t_w$<br>$t$ | 3.1  | 3.2  | 3.3  | 3.4  | 3.5  | 3.6  | 3.7  | 3.8  | 3.9  | 4.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 69.2 | 68.3 | 67.4 | 66.4 | 65.5 | 64.6 | 63.6 | 62.7 | 61.8 | 60.9 |
| 16             | 70.1 | 69.2 | 68.3 | 67.4 | 66.5 | 65.6 | 64.7 | 63.8 | 62.9 | 62.0 |
| 17             | 71.0 | 70.1 | 69.2 | 68.3 | 67.5 | 66.6 | 65.7 | 64.9 | 64.0 | 63.1 |
| 18             | 71.8 | 70.9 | 70.1 | 69.2 | 68.4 | 67.5 | 66.7 | 65.8 | 65.0 | 64.1 |
| 19             | 72.5 | 71.7 | 70.9 | 70.0 | 69.2 | 68.4 | 67.6 | 66.7 | 65.9 | 65.1 |
| 20             | 73.2 | 72.4 | 71.6 | 70.8 | 70.0 | 69.2 | 68.4 | 67.6 | 66.8 | 66.0 |
| 21             | 73.9 | 73.1 | 72.3 | 71.5 | 70.8 | 70.0 | 69.2 | 68.4 | 67.6 | 66.9 |
| 22             | 74.5 | 73.8 | 73.0 | 72.2 | 71.5 | 70.7 | 69.9 | 69.2 | 68.4 | 67.7 |
| 23             | 75.1 | 74.4 | 73.6 | 72.9 | 72.1 | 71.4 | 70.6 | 69.9 | 69.2 | 68.4 |
| 24             | 75.7 | 75.0 | 74.2 | 73.5 | 72.8 | 72.0 | 71.3 | 70.6 | 69.9 | 69.2 |
| 25             | 76.2 | 75.5 | 74.8 | 74.1 | 73.4 | 72.7 | 71.9 | 71.2 | 70.5 | 69.8 |
| 26             | 76.7 | 76.0 | 75.3 | 74.6 | 73.9 | 73.2 | 72.5 | 71.9 | 71.2 | 70.5 |
| 27             | 77.2 | 76.5 | 75.8 | 75.2 | 74.5 | 73.8 | 73.1 | 72.4 | 71.8 | 71.1 |
| 28             | 77.7 | 77.0 | 76.3 | 75.6 | 75.0 | 74.3 | 73.6 | 73.0 | 72.3 | 71.7 |
| 29             | 78.1 | 77.4 | 76.8 | 76.1 | 75.5 | 74.8 | 74.2 | 73.5 | 72.9 | 72.2 |
| 30             | 78.5 | 77.9 | 77.2 | 76.6 | 75.9 | 75.3 | 74.6 | 74.0 | 73.4 | 72.7 |
| 31             | 78.9 | 78.3 | 77.6 | 77.0 | 76.4 | 75.7 | 75.1 | 74.5 | 73.9 | 73.2 |
| 32             | 79.3 | 78.7 | 78.0 | 77.4 | 76.8 | 76.2 | 75.5 | 74.9 | 74.3 | 73.7 |
| 33             | 79.6 | 79.0 | 78.4 | 77.8 | 77.2 | 76.6 | 76.0 | 75.4 | 74.8 | 74.2 |
| 34             | 80.0 | 79.4 | 78.8 | 78.2 | 77.6 | 77.0 | 76.4 | 75.8 | 75.2 | 74.6 |
| 35             | 80.3 | 79.7 | 79.1 | 78.5 | 77.9 | 77.3 | 76.8 | 76.2 | 75.6 | 75.0 |
| 36             | 80.6 | 80.0 | 79.4 | 78.9 | 78.3 | 77.7 | 77.1 | 76.5 | 76.0 | 75.4 |
| 37             | 80.9 | 80.3 | 79.8 | 79.2 | 78.6 | 78.0 | 77.5 | 76.9 | 76.3 | 75.8 |
| 38             | 81.2 | 80.6 | 80.1 | 79.5 | 78.9 | 78.4 | 77.8 | 77.3 | 76.7 | 76.1 |
| 39             | 81.5 | 80.9 | 80.3 | 79.8 | 79.2 | 78.7 | 78.1 | 77.6 | 77.0 | 76.5 |
| 40             | 81.7 | 81.2 | 80.6 | 80.1 | 79.5 | 79.0 | 78.4 | 77.9 | 77.4 | 76.8 |
| 41             | 82.0 | 81.4 | 80.9 | 80.3 | 79.8 | 79.3 | 78.7 | 78.2 | 77.7 | 77.1 |
| 42             | 82.2 | 81.7 | 81.1 | 80.6 | 80.1 | 79.5 | 79.0 | 78.5 | 78.0 | 77.5 |
| 43             | 82.5 | 81.9 | 81.4 | 80.9 | 80.3 | 79.8 | 79.3 | 78.8 | 78.3 | 77.7 |
| 44             | 82.7 | 82.2 | 81.6 | 81.1 | 80.6 | 80.1 | 79.6 | 79.0 | 78.5 | 78.0 |
| 45             | 82.9 | 82.4 | 81.9 | 81.3 | 80.8 | 80.3 | 79.8 | 79.3 | 78.8 | 78.3 |
| 46             | 83.1 | 82.6 | 82.1 | 81.6 | 81.1 | 80.6 | 80.1 | 79.6 | 79.1 | 78.6 |
| 47             | 83.3 | 82.8 | 82.3 | 81.8 | 81.3 | 80.8 | 80.3 | 79.8 | 79.3 | 78.8 |
| 48             | 83.5 | 83.0 | 82.5 | 82.0 | 81.5 | 81.0 | 80.5 | 80.0 | 79.6 | 79.1 |
| 49             | 83.7 | 83.2 | 82.7 | 82.2 | 81.7 | 81.2 | 80.8 | 80.3 | 79.8 | 79.3 |
| 50             | 83.9 | 83.4 | 82.9 | 82.4 | 81.9 | 81.4 | 81.0 | 80.5 | 80.0 | 79.5 |
| 51             | 84.1 | 83.6 | 83.1 | 82.6 | 82.1 | 81.7 | 81.2 | 80.7 | 80.2 | 79.8 |
| 52             | 84.2 | 83.7 | 83.3 | 82.8 | 82.3 | 81.8 | 81.4 | 80.9 | 80.4 | 80.0 |
| 53             | 84.4 | 83.9 | 83.4 | 83.0 | 82.5 | 82.0 | 81.6 | 81.1 | 80.7 | 80.2 |
| 54             | 84.6 | 84.1 | 83.6 | 83.2 | 82.7 | 82.2 | 81.8 | 81.3 | 80.9 | 80.4 |
| 55             | 84.7 | 84.2 | 83.8 | 83.3 | 82.9 | 82.4 | 82.0 | 81.5 | 81.0 | 80.6 |
| 56             | 84.9 | 84.4 | 83.9 | 83.5 | 83.0 | 82.6 | 82.1 | 81.7 | 81.2 | 80.8 |
| 57             | 85.0 | 84.6 | 84.1 | 83.7 | 83.2 | 82.8 | 82.3 | 81.9 | 81.4 | 81.0 |



表 5a<sub>1</sub> (续)

| $t-t_w$<br>$t$ | 4.1  | 4.2  | 4.3  | 4.4  | 4.5  | 4.6  | 4.7  | 4.8  | 4.9  | 5.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 60.0 | 59.1 | 58.2 | 57.2 | 56.3 | 55.5 | 54.6 | 53.7 | 52.8 | 51.9 |
| 16             | 61.2 | 60.3 | 59.4 | 58.5 | 57.6 | 56.8 | 55.9 | 55.0 | 54.2 | 53.3 |
| 17             | 62.3 | 61.4 | 60.6 | 59.7 | 58.9 | 58.0 | 57.2 | 56.3 | 55.5 | 54.7 |
| 18             | 63.3 | 62.5 | 61.7 | 60.8 | 60.0 | 59.2 | 58.4 | 57.6 | 56.7 | 55.9 |
| 19             | 64.3 | 63.5 | 62.7 | 61.9 | 61.1 | 60.3 | 59.5 | 58.7 | 57.9 | 57.1 |
| 20             | 65.2 | 64.4 | 63.7 | 62.9 | 62.1 | 61.3 | 60.6 | 59.8 | 59.0 | 58.3 |
| 21             | 66.1 | 65.3 | 64.6 | 63.8 | 63.1 | 62.3 | 61.5 | 60.8 | 60.1 | 59.3 |
| 22             | 66.9 | 66.2 | 65.4 | 64.7 | 64.0 | 63.2 | 62.5 | 61.8 | 61.0 | 60.3 |
| 23             | 67.7 | 67.0 | 66.3 | 65.5 | 64.8 | 64.1 | 63.4 | 62.7 | 62.0 | 61.2 |
| 24             | 68.4 | 67.7 | 67.0 | 66.3 | 65.6 | 64.9 | 64.2 | 63.5 | 62.8 | 62.1 |
| 25             | 69.1 | 68.4 | 67.8 | 67.1 | 66.4 | 65.7 | 65.0 | 64.3 | 63.6 | 63.0 |
| 26             | 69.8 | 69.1 | 68.4 | 67.8 | 67.1 | 66.4 | 65.8 | 65.1 | 64.4 | 63.8 |
| 27             | 70.4 | 69.8 | 69.1 | 68.4 | 67.8 | 67.1 | 66.5 | 65.8 | 65.2 | 64.5 |
| 28             | 71.0 | 70.4 | 69.7 | 69.1 | 68.4 | 67.8 | 67.1 | 66.5 | 65.9 | 65.2 |
| 29             | 71.6 | 70.9 | 70.3 | 69.7 | 69.0 | 68.4 | 67.8 | 67.2 | 66.5 | 65.9 |
| 30             | 72.1 | 71.5 | 70.9 | 70.2 | 69.6 | 69.0 | 68.4 | 67.8 | 67.2 | 66.6 |
| 31             | 72.6 | 72.0 | 71.4 | 70.8 | 70.2 | 69.6 | 69.0 | 68.4 | 67.8 | 67.2 |
| 32             | 73.1 | 72.5 | 71.9 | 71.3 | 70.7 | 70.1 | 69.5 | 68.9 | 68.3 | 67.8 |
| 33             | 73.6 | 73.0 | 72.4 | 71.8 | 71.2 | 70.6 | 70.0 | 69.5 | 68.9 | 68.3 |
| 34             | 74.0 | 73.4 | 72.9 | 72.3 | 71.7 | 71.1 | 70.5 | 70.0 | 69.4 | 68.8 |
| 35             | 74.4 | 73.9 | 73.3 | 72.7 | 72.2 | 71.6 | 71.0 | 70.5 | 69.9 | 69.4 |
| 36             | 74.8 | 74.3 | 73.7 | 73.2 | 72.6 | 72.0 | 71.5 | 70.9 | 70.4 | 69.8 |
| 37             | 75.2 | 74.7 | 74.1 | 73.6 | 73.0 | 72.5 | 71.9 | 71.4 | 70.8 | 70.3 |
| 38             | 75.6 | 75.0 | 74.5 | 74.0 | 73.4 | 72.9 | 72.3 | 71.8 | 71.3 | 70.7 |
| 39             | 76.0 | 75.4 | 74.9 | 74.3 | 73.8 | 73.3 | 72.7 | 72.2 | 71.7 | 71.2 |
| 40             | 76.3 | 75.8 | 75.2 | 74.7 | 74.2 | 73.7 | 73.1 | 72.6 | 72.1 | 71.6 |
| 41             | 76.6 | 76.1 | 75.6 | 75.0 | 74.5 | 74.0 | 73.5 | 73.0 | 72.5 | 72.0 |
| 42             | 76.9 | 76.4 | 75.9 | 75.4 | 74.9 | 74.4 | 73.9 | 73.4 | 72.8 | 72.3 |
| 43             | 77.2 | 76.7 | 76.2 | 75.7 | 75.2 | 74.7 | 74.2 | 73.7 | 73.2 | 72.7 |
| 44             | 77.5 | 77.0 | 76.5 | 76.0 | 75.5 | 75.0 | 74.5 | 74.0 | 73.5 | 73.1 |
| 45             | 77.8 | 77.3 | 76.8 | 76.3 | 75.8 | 75.3 | 74.8 | 74.4 | 73.9 | 73.4 |
| 46             | 78.1 | 77.6 | 77.1 | 76.6 | 76.1 | 75.6 | 75.2 | 74.7 | 74.2 | 73.7 |
| 47             | 78.3 | 77.9 | 77.4 | 76.9 | 76.4 | 75.9 | 75.4 | 75.0 | 74.5 | 74.0 |
| 48             | 78.6 | 78.1 | 77.6 | 77.2 | 76.7 | 76.2 | 75.7 | 75.3 | 74.8 | 74.3 |
| 49             | 78.8 | 78.4 | 77.9 | 77.4 | 76.9 | 76.5 | 76.0 | 75.5 | 75.1 | 74.6 |
| 50             | 79.1 | 78.6 | 78.1 | 77.7 | 77.2 | 76.7 | 76.3 | 75.8 | 75.4 | 74.9 |
| 51             | 79.3 | 78.8 | 78.4 | 77.9 | 77.4 | 77.0 | 76.5 | 76.1 | 75.6 | 75.2 |
| 52             | 79.5 | 79.1 | 78.6 | 78.1 | 77.7 | 77.2 | 76.8 | 76.3 | 75.9 | 75.4 |
| 53             | 79.7 | 79.3 | 78.8 | 78.4 | 77.9 | 77.5 | 77.0 | 76.6 | 76.1 | 75.7 |
| 54             | 79.9 | 79.5 | 79.0 | 78.6 | 78.2 | 77.7 | 77.3 | 76.8 | 76.4 | 75.9 |
| 55             | 80.1 | 79.7 | 79.3 | 78.8 | 78.4 | 77.9 | 77.5 | 77.1 | 76.6 | 76.2 |
| 56             | 80.3 | 79.9 | 79.5 | 79.0 | 78.6 | 78.1 | 77.7 | 77.3 | 76.9 | 76.4 |
| 57             | 80.5 | 80.1 | 79.7 | 79.2 | 78.8 | 78.4 | 77.9 | 77.5 | 77.1 | 76.7 |



表 5a<sub>1</sub> (续)

| $t-t_w$<br>$t$ | 5.2  | 5.4  | 5.6  | 5.8  | 6.0  | 6.2  | 6.4  | 6.6  | 6.8  | 7.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 50.1 | 48.4 | 46.6 | 44.9 | 43.2 | 41.5 | 39.8 | 38.1 | 36.4 | 34.7 |
| 16             | 51.6 | 49.9 | 48.2 | 46.6 | 44.9 | 43.2 | 41.6 | 40.0 | 38.3 | 36.7 |
| 17             | 53.0 | 51.4 | 49.7 | 48.1 | 46.5 | 44.9 | 43.3 | 41.7 | 40.1 | 38.6 |
| 18             | 54.3 | 52.7 | 51.1 | 49.6 | 48.0 | 46.4 | 44.9 | 43.4 | 41.8 | 40.3 |
| 19             | 55.6 | 54.0 | 52.5 | 50.9 | 49.4 | 47.9 | 46.4 | 44.9 | 43.4 | 42.0 |
| 20             | 56.7 | 55.2 | 53.7 | 52.2 | 50.8 | 49.3 | 47.8 | 46.4 | 44.9 | 43.5 |
| 21             | 57.8 | 56.4 | 54.9 | 53.4 | 52.0 | 50.6 | 49.2 | 47.7 | 46.3 | 45.0 |
| 22             | 58.9 | 57.4 | 56.0 | 54.6 | 53.2 | 51.8 | 50.4 | 49.0 | 47.7 | 46.3 |
| 23             | 59.8 | 58.4 | 57.1 | 55.7 | 54.3 | 53.0 | 51.6 | 50.3 | 48.9 | 47.6 |
| 24             | 60.8 | 59.4 | 58.0 | 56.7 | 55.4 | 54.0 | 52.7 | 51.4 | 50.1 | 48.8 |
| 25             | 61.6 | 60.3 | 59.0 | 57.7 | 56.4 | 55.1 | 53.8 | 52.5 | 51.2 | 50.0 |
| 26             | 62.5 | 61.2 | 59.9 | 58.6 | 57.3 | 56.0 | 54.8 | 53.5 | 52.3 | 51.1 |
| 27             | 63.2 | 62.0 | 60.7 | 59.4 | 58.2 | 57.0 | 55.7 | 54.5 | 53.3 | 52.1 |
| 28             | 64.0 | 62.7 | 61.5 | 60.3 | 59.0 | 57.8 | 56.6 | 55.4 | 54.3 | 53.1 |
| 29             | 64.7 | 63.5 | 62.2 | 61.0 | 59.8 | 58.7 | 57.5 | 56.3 | 55.2 | 54.0 |
| 30             | 65.4 | 64.2 | 63.0 | 61.8 | 60.6 | 59.4 | 58.3 | 57.1 | 56.0 | 54.9 |
| 31             | 66.0 | 64.8 | 63.6 | 62.5 | 61.3 | 60.2 | 59.1 | 57.9 | 56.8 | 55.7 |
| 32             | 66.6 | 65.4 | 64.3 | 63.2 | 62.0 | 60.9 | 59.8 | 58.7 | 57.6 | 56.5 |
| 33             | 67.2 | 66.0 | 64.9 | 63.8 | 62.7 | 61.6 | 60.5 | 59.4 | 58.3 | 57.3 |
| 34             | 67.7 | 66.6 | 65.5 | 64.4 | 63.3 | 62.2 | 61.2 | 60.1 | 59.0 | 58.0 |
| 35             | 68.2 | 67.2 | 66.1 | 65.0 | 63.9 | 62.8 | 61.8 | 60.7 | 59.7 | 58.7 |
| 36             | 68.7 | 67.7 | 66.6 | 65.5 | 64.5 | 63.4 | 62.4 | 61.4 | 60.3 | 59.3 |
| 37             | 69.2 | 68.2 | 67.1 | 66.1 | 65.0 | 64.0 | 63.0 | 62.0 | 61.0 | 60.0 |
| 38             | 69.7 | 68.6 | 67.6 | 66.6 | 65.6 | 64.5 | 63.5 | 62.5 | 61.5 | 60.6 |
| 39             | 70.1 | 69.1 | 68.1 | 67.1 | 66.1 | 65.1 | 64.1 | 63.1 | 62.1 | 61.1 |
| 40             | 70.6 | 69.5 | 68.5 | 67.5 | 66.5 | 65.5 | 64.6 | 63.6 | 62.6 | 61.7 |
| 41             | 71.0 | 70.0 | 69.0 | 68.0 | 67.0 | 66.0 | 65.1 | 64.1 | 63.2 | 62.2 |
| 42             | 71.3 | 70.4 | 69.4 | 68.4 | 67.4 | 66.5 | 65.5 | 64.6 | 63.6 | 62.7 |
| 43             | 71.7 | 70.7 | 69.8 | 68.8 | 67.9 | 66.9 | 66.0 | 65.0 | 64.1 | 63.2 |
| 44             | 72.1 | 71.1 | 70.2 | 69.2 | 68.3 | 67.3 | 66.4 | 65.5 | 64.6 | 63.7 |
| 45             | 72.4 | 71.5 | 70.5 | 69.6 | 68.7 | 67.7 | 66.8 | 65.9 | 65.0 | 64.1 |
| 46             | 72.8 | 71.8 | 70.9 | 70.0 | 69.0 | 68.1 | 67.2 | 66.3 | 65.4 | 64.6 |
| 47             | 73.1 | 72.2 | 71.2 | 70.3 | 69.4 | 68.5 | 67.6 | 66.7 | 65.8 | 65.0 |
| 48             | 73.4 | 72.5 | 71.6 | 70.7 | 69.8 | 68.9 | 68.0 | 67.1 | 66.2 | 65.4 |
| 49             | 73.7 | 72.8 | 71.9 | 71.0 | 70.1 | 69.2 | 68.4 | 67.5 | 66.6 | 65.8 |
| 50             | 74.0 | 73.1 | 72.2 | 71.3 | 70.4 | 69.6 | 68.7 | 67.8 | 67.0 | 66.1 |
| 51             | 74.3 | 73.4 | 72.5 | 71.6 | 70.8 | 69.9 | 69.0 | 68.2 | 67.3 | 66.5 |
| 52             | 74.6 | 73.7 | 72.8 | 71.9 | 71.1 | 70.2 | 69.4 | 68.5 | 67.7 | 66.9 |
| 53             | 74.8 | 73.9 | 73.1 | 72.2 | 71.4 | 70.5 | 69.7 | 68.9 | 68.0 | 67.2 |
| 54             | 75.1 | 74.2 | 73.4 | 72.5 | 71.7 | 70.8 | 70.0 | 69.2 | 68.4 | 67.5 |
| 55             | 75.3 | 74.5 | 73.6 | 72.8 | 71.9 | 71.1 | 70.3 | 69.5 | 68.7 | 67.9 |
| 56             | 75.6 | 74.7 | 73.9 | 73.0 | 72.2 | 71.4 | 70.6 | 69.8 | 69.0 | 68.2 |
| 57             | 75.8 | 75.0 | 74.1 | 73.3 | 72.5 | 71.7 | 70.9 | 70.1 | 69.3 | 68.5 |



表 5a<sub>1</sub> (续)

| $t - t_w$<br>$t$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               | 33.1 | 31.4 | 29.8 | 28.2 | 26.6 | 25.0 | 23.4 | 21.8 | 20.2 | 18.6 |
| 16               | 35.1 | 33.5 | 31.9 | 30.4 | 28.8 | 27.3 | 25.7 | 24.2 | 22.7 | 21.1 |
| 17               | 37.0 | 35.5 | 34.0 | 32.4 | 30.9 | 29.4 | 27.9 | 26.4 | 25.0 | 23.5 |
| 18               | 38.8 | 37.3 | 35.8 | 34.4 | 32.9 | 31.4 | 30.0 | 28.6 | 27.1 | 25.7 |
| 19               | 40.5 | 39.1 | 37.6 | 36.2 | 34.8 | 33.3 | 31.9 | 30.5 | 29.2 | 27.8 |
| 20               | 42.1 | 40.7 | 39.3 | 37.9 | 36.5 | 35.1 | 33.8 | 32.4 | 31.1 | 29.7 |
| 21               | 43.6 | 42.2 | 40.8 | 39.5 | 38.1 | 36.8 | 35.5 | 34.2 | 32.9 | 31.6 |
| 22               | 45.0 | 43.6 | 42.3 | 41.0 | 39.7 | 38.4 | 37.1 | 35.8 | 34.6 | 33.3 |
| 23               | 46.3 | 45.0 | 43.7 | 42.4 | 41.2 | 39.9 | 38.6 | 37.4 | 36.1 | 34.9 |
| 24               | 47.6 | 46.3 | 45.0 | 43.8 | 42.5 | 41.3 | 40.1 | 38.9 | 37.6 | 36.4 |
| 25               | 48.7 | 47.5 | 46.3 | 45.0 | 43.8 | 42.6 | 41.4 | 40.2 | 39.1 | 37.9 |
| 26               | 49.9 | 48.6 | 47.4 | 46.2 | 45.1 | 43.9 | 42.7 | 41.6 | 40.4 | 39.3 |
| 27               | 50.9 | 49.7 | 48.5 | 47.4 | 46.2 | 45.1 | 43.9 | 42.8 | 41.7 | 40.6 |
| 28               | 51.9 | 50.8 | 49.6 | 48.5 | 47.3 | 46.2 | 45.1 | 44.0 | 42.9 | 41.8 |
| 29               | 52.9 | 51.7 | 50.6 | 49.5 | 48.4 | 47.3 | 46.2 | 45.1 | 44.0 | 42.9 |
| 30               | 53.8 | 52.6 | 51.5 | 50.4 | 49.4 | 48.3 | 47.2 | 46.1 | 45.1 | 44.0 |
| 31               | 54.6 | 53.5 | 52.4 | 51.4 | 50.3 | 49.2 | 48.2 | 47.2 | 46.1 | 45.1 |
| 32               | 55.4 | 54.4 | 53.3 | 52.2 | 51.2 | 50.2 | 49.1 | 48.1 | 47.1 | 46.1 |
| 33               | 56.2 | 55.2 | 54.1 | 53.1 | 52.1 | 51.0 | 50.0 | 49.0 | 48.0 | 47.0 |
| 34               | 56.9 | 55.9 | 54.9 | 53.9 | 52.9 | 51.9 | 50.9 | 49.9 | 48.9 | 47.9 |
| 35               | 57.7 | 56.6 | 55.6 | 54.6 | 53.6 | 52.7 | 51.7 | 50.7 | 49.7 | 48.8 |
| 36               | 58.3 | 57.3 | 56.3 | 55.3 | 54.4 | 53.4 | 52.4 | 51.5 | 50.5 | 49.6 |
| 37               | 59.0 | 58.0 | 57.0 | 56.0 | 55.1 | 54.1 | 53.2 | 52.2 | 51.3 | 50.4 |
| 38               | 59.6 | 58.6 | 57.7 | 56.7 | 55.8 | 54.8 | 53.9 | 53.0 | 52.0 | 51.1 |
| 39               | 60.2 | 59.2 | 58.3 | 57.3 | 56.4 | 55.5 | 54.6 | 53.6 | 52.7 | 51.8 |
| 40               | 60.7 | 59.8 | 58.9 | 57.9 | 57.0 | 56.1 | 55.2 | 54.3 | 53.4 | 52.5 |
| 41               | 61.3 | 60.3 | 59.4 | 58.5 | 57.6 | 56.7 | 55.8 | 54.9 | 54.1 | 53.2 |
| 42               | 61.8 | 60.9 | 60.0 | 59.1 | 58.2 | 57.3 | 56.4 | 55.5 | 54.7 | 53.8 |
| 43               | 62.3 | 61.4 | 60.5 | 59.6 | 58.7 | 57.8 | 57.0 | 56.1 | 55.3 | 54.4 |
| 44               | 62.8 | 61.9 | 61.0 | 60.1 | 59.2 | 58.4 | 57.5 | 56.7 | 55.8 | 55.0 |
| 45               | 63.2 | 62.4 | 61.5 | 60.6 | 59.8 | 58.9 | 58.1 | 57.2 | 56.4 | 55.6 |
| 46               | 63.7 | 62.8 | 61.9 | 61.1 | 60.2 | 59.4 | 58.6 | 57.7 | 56.9 | 56.1 |
| 47               | 64.1 | 63.2 | 62.4 | 61.5 | 60.7 | 59.9 | 59.0 | 58.2 | 57.4 | 56.6 |
| 48               | 64.5 | 63.7 | 62.8 | 62.0 | 61.2 | 60.3 | 59.5 | 58.7 | 57.9 | 57.1 |
| 49               | 64.9 | 64.1 | 63.2 | 62.4 | 61.6 | 60.8 | 60.0 | 59.2 | 58.4 | 57.6 |
| 50               | 65.3 | 64.5 | 63.7 | 62.8 | 62.0 | 61.2 | 60.4 | 59.6 | 58.8 | 58.0 |
| 51               | 65.7 | 64.9 | 64.0 | 63.2 | 62.4 | 61.6 | 60.8 | 60.1 | 59.3 | 58.5 |
| 52               | 66.0 | 65.2 | 64.4 | 63.6 | 62.8 | 62.0 | 61.2 | 60.5 | 59.7 | 58.9 |
| 53               | 66.4 | 65.6 | 64.8 | 64.0 | 63.2 | 62.4 | 61.6 | 60.9 | 60.1 | 59.4 |
| 54               | 66.7 | 65.9 | 65.1 | 64.4 | 63.6 | 62.8 | 62.0 | 61.3 | 60.5 | 59.8 |
| 55               | 67.1 | 66.3 | 65.5 | 64.7 | 63.9 | 63.2 | 62.4 | 61.7 | 60.9 | 60.2 |
| 56               | 67.4 | 66.6 | 65.8 | 65.1 | 64.3 | 63.5 | 62.8 | 62.0 | 61.3 | 60.5 |
| 57               | 67.7 | 66.9 | 66.1 | 65.4 | 64.6 | 63.9 | 63.1 | 62.4 | 61.6 | 60.9 |



表 5a<sub>1</sub> (续)

| $t - t_w$<br>$t$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               | 17.1 | 15.5 | 14.0 | 12.4 | 10.9 | 9.4  | 7.9  | 6.4  | 4.9  | 3.4  |
| 16               | 19.6 | 18.1 | 16.6 | 15.2 | 13.7 | 12.2 | 10.8 | 9.3  | 7.9  | 6.5  |
| 17               | 22.0 | 20.6 | 19.2 | 17.7 | 16.3 | 14.9 | 13.5 | 12.1 | 10.7 | 9.3  |
| 18               | 24.3 | 22.9 | 21.5 | 20.1 | 18.7 | 17.4 | 16.0 | 14.7 | 13.3 | 12.0 |
| 19               | 26.4 | 25.0 | 23.7 | 22.4 | 21.0 | 19.7 | 18.4 | 17.1 | 15.8 | 14.5 |
| 20               | 28.4 | 27.1 | 25.8 | 24.5 | 23.2 | 21.9 | 20.6 | 19.3 | 18.1 | 16.8 |
| 21               | 30.3 | 29.0 | 27.7 | 26.4 | 25.2 | 23.9 | 22.7 | 21.5 | 20.2 | 19.0 |
| 22               | 32.0 | 30.8 | 29.5 | 28.3 | 27.1 | 25.9 | 24.7 | 23.5 | 22.3 | 21.1 |
| 23               | 33.7 | 32.5 | 31.3 | 30.1 | 28.9 | 27.7 | 26.5 | 25.4 | 24.2 | 23.1 |
| 24               | 35.3 | 34.1 | 32.9 | 31.7 | 30.6 | 29.4 | 28.3 | 27.1 | 26.0 | 24.9 |
| 25               | 36.7 | 35.6 | 34.4 | 33.3 | 32.2 | 31.0 | 29.9 | 28.8 | 27.7 | 26.6 |
| 26               | 38.1 | 37.0 | 35.9 | 34.8 | 33.7 | 32.6 | 31.5 | 30.4 | 29.3 | 28.3 |
| 27               | 39.4 | 38.3 | 37.3 | 36.2 | 35.1 | 34.0 | 33.0 | 31.9 | 30.9 | 29.8 |
| 28               | 40.7 | 39.6 | 38.6 | 37.5 | 36.4 | 35.4 | 34.4 | 33.3 | 32.3 | 31.3 |
| 29               | 41.9 | 40.8 | 39.8 | 38.7 | 37.7 | 36.7 | 35.7 | 34.7 | 33.7 | 32.7 |
| 30               | 43.0 | 42.0 | 41.0 | 39.9 | 38.9 | 37.9 | 36.9 | 35.9 | 35.0 | 34.0 |
| 31               | 44.1 | 43.1 | 42.1 | 41.1 | 40.1 | 39.1 | 38.1 | 37.1 | 36.2 | 35.2 |
| 32               | 45.1 | 44.1 | 43.1 | 42.1 | 41.2 | 40.2 | 39.2 | 38.3 | 37.4 | 36.4 |
| 33               | 46.1 | 45.1 | 44.1 | 43.2 | 42.2 | 41.3 | 40.3 | 39.4 | 38.5 | 37.5 |
| 34               | 47.0 | 46.0 | 45.1 | 44.1 | 43.2 | 42.3 | 41.3 | 40.4 | 39.5 | 38.6 |
| 35               | 47.8 | 46.9 | 46.0 | 45.0 | 44.1 | 43.2 | 42.3 | 41.4 | 40.5 | 39.6 |
| 36               | 48.7 | 47.8 | 46.8 | 45.9 | 45.0 | 44.1 | 43.2 | 42.4 | 41.5 | 40.6 |
| 37               | 49.5 | 48.6 | 47.7 | 46.8 | 45.9 | 45.0 | 44.1 | 43.2 | 42.4 | 41.5 |
| 38               | 50.2 | 49.3 | 48.4 | 47.6 | 46.7 | 45.8 | 45.0 | 44.1 | 43.3 | 42.4 |
| 39               | 51.0 | 50.1 | 49.2 | 48.3 | 47.5 | 46.6 | 45.8 | 44.9 | 44.1 | 43.3 |
| 40               | 51.7 | 50.8 | 49.9 | 49.1 | 48.2 | 47.4 | 46.5 | 45.7 | 44.9 | 44.1 |
| 41               | 52.3 | 51.5 | 50.6 | 49.8 | 48.9 | 48.1 | 47.3 | 46.5 | 45.6 | 44.8 |
| 42               | 53.0 | 52.1 | 51.3 | 50.4 | 49.6 | 48.8 | 48.0 | 47.2 | 46.4 | 45.6 |
| 43               | 53.6 | 52.7 | 51.9 | 51.1 | 50.3 | 49.5 | 48.7 | 47.9 | 47.1 | 46.3 |
| 44               | 54.2 | 53.3 | 52.5 | 51.7 | 50.9 | 50.1 | 49.3 | 48.5 | 47.7 | 47.0 |
| 45               | 54.7 | 53.9 | 53.1 | 52.3 | 51.5 | 50.7 | 49.9 | 49.2 | 48.4 | 47.6 |
| 46               | 55.3 | 54.5 | 53.7 | 52.9 | 52.1 | 51.3 | 50.5 | 49.8 | 49.0 | 48.3 |
| 47               | 55.8 | 55.0 | 54.2 | 53.4 | 52.7 | 51.9 | 51.1 | 50.4 | 49.6 | 48.9 |
| 48               | 56.3 | 55.5 | 54.7 | 54.0 | 53.2 | 52.4 | 51.7 | 50.9 | 50.2 | 49.5 |
| 49               | 56.8 | 56.0 | 55.3 | 54.5 | 53.7 | 53.0 | 52.2 | 51.5 | 50.7 | 50.0 |
| 50               | 57.3 | 56.5 | 55.7 | 55.0 | 54.2 | 53.5 | 52.7 | 52.0 | 51.3 | 50.6 |
| 51               | 57.7 | 57.0 | 56.2 | 55.5 | 54.7 | 54.0 | 53.2 | 52.5 | 51.8 | 51.1 |
| 52               | 58.2 | 57.4 | 56.7 | 55.9 | 55.2 | 54.5 | 53.7 | 53.0 | 52.3 | 51.6 |
| 53               | 58.6 | 57.9 | 57.1 | 56.4 | 55.6 | 54.9 | 54.2 | 53.5 | 52.8 | 52.1 |
| 54               | 59.0 | 58.3 | 57.5 | 56.8 | 56.1 | 55.4 | 54.7 | 54.0 | 53.3 | 52.6 |
| 55               | 59.4 | 58.7 | 58.0 | 57.2 | 56.5 | 55.8 | 55.1 | 54.4 | 53.7 | 53.0 |
| 56               | 59.8 | 59.1 | 58.4 | 57.6 | 56.9 | 56.2 | 55.5 | 54.8 | 54.2 | 53.5 |
| 57               | 60.2 | 59.5 | 58.8 | 58.0 | 57.3 | 56.6 | 55.9 | 55.3 | 54.6 | 53.9 |

表 5a<sub>1</sub>(续)

| $t-t_w$<br>$t$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 60.6 | 59.8 | 59.1 | 58.4 | 57.7 | 57.0 | 56.4 | 55.7 | 55.0 | 54.3 |
| 59             | 60.9 | 60.2 | 59.5 | 58.8 | 58.1 | 57.4 | 56.7 | 56.1 | 55.4 | 54.7 |
| 60             | 61.3 | 60.6 | 59.9 | 59.2 | 58.5 | 57.8 | 57.1 | 56.5 | 55.8 | 55.1 |
| 61             | 61.6 | 60.9 | 60.2 | 59.5 | 58.8 | 58.2 | 57.5 | 56.8 | 56.2 | 55.5 |
| 62             | 61.9 | 61.2 | 60.6 | 59.9 | 59.2 | 58.5 | 57.9 | 57.2 | 56.5 | 55.9 |
| 63             | 62.3 | 61.6 | 60.9 | 60.2 | 59.5 | 58.9 | 58.2 | 57.6 | 56.9 | 56.3 |
| 64             | 62.6 | 61.9 | 61.2 | 60.5 | 59.9 | 59.2 | 58.6 | 57.9 | 57.3 | 56.6 |
| 65             | 62.9 | 62.2 | 61.5 | 60.9 | 60.2 | 59.5 | 58.9 | 58.3 | 57.6 | 57.0 |
| 66             | 63.2 | 62.5 | 61.8 | 61.2 | 60.5 | 59.9 | 59.2 | 58.6 | 57.9 | 57.3 |
| 67             | 63.5 | 62.8 | 62.1 | 61.5 | 60.8 | 60.2 | 59.5 | 58.9 | 58.3 | 57.6 |
| 68             | 63.8 | 63.1 | 62.4 | 61.8 | 61.1 | 60.5 | 59.9 | 59.2 | 58.6 | 58.0 |
| 69             | 64.0 | 63.4 | 62.7 | 62.1 | 61.4 | 60.8 | 60.2 | 59.5 | 58.9 | 58.3 |
| 70             | 64.3 | 63.7 | 63.0 | 62.4 | 61.7 | 61.1 | 60.5 | 59.8 | 59.2 | 58.6 |
| 71             | 64.6 | 63.9 | 63.3 | 62.6 | 62.0 | 61.4 | 60.8 | 60.1 | 59.5 | 58.9 |
| 72             | 64.8 | 64.2 | 63.6 | 62.9 | 62.3 | 61.7 | 61.0 | 60.4 | 59.8 | 59.2 |
| 73             | 65.1 | 64.5 | 63.8 | 63.2 | 62.6 | 61.9 | 61.3 | 60.7 | 60.1 | 59.5 |
| 74             | 65.4 | 64.7 | 64.1 | 63.5 | 62.8 | 62.2 | 61.6 | 61.0 | 60.4 | 59.8 |
| 75             | 65.6 | 65.0 | 64.3 | 63.7 | 63.1 | 62.5 | 61.9 | 61.3 | 60.7 | 60.1 |
| 76             | 65.8 | 65.2 | 64.6 | 64.0 | 63.4 | 62.8 | 62.1 | 61.5 | 60.9 | 60.4 |
| 77             | 66.1 | 65.5 | 64.8 | 64.2 | 63.6 | 63.0 | 62.4 | 61.8 | 61.2 | 60.6 |
| 78             | 66.3 | 65.7 | 65.1 | 64.5 | 63.9 | 63.3 | 62.7 | 62.1 | 61.5 | 60.9 |
| 79             | 66.6 | 65.9 | 65.3 | 64.7 | 64.1 | 63.5 | 62.9 | 62.3 | 61.7 | 61.2 |
| 80             | 66.8 | 66.2 | 65.6 | 65.0 | 64.4 | 63.8 | 63.2 | 62.6 | 62.0 | 61.4 |
| 81             | 67.0 | 66.4 | 65.8 | 65.2 | 64.6 | 64.0 | 63.4 | 62.8 | 62.2 | 61.7 |
| 82             | 67.2 | 66.6 | 66.0 | 65.4 | 64.8 | 64.2 | 63.7 | 63.1 | 62.5 | 61.9 |
| 83             | 67.4 | 66.8 | 66.2 | 65.6 | 65.1 | 64.5 | 63.9 | 63.3 | 62.7 | 62.2 |
| 84             | 67.7 | 67.1 | 66.5 | 65.9 | 65.3 | 64.7 | 64.1 | 63.5 | 63.0 | 62.4 |
| 85             | 67.9 | 67.3 | 66.7 | 66.1 | 65.5 | 64.9 | 64.4 | 63.8 | 63.2 | 62.6 |
| 86             | 68.1 | 67.5 | 66.9 | 66.3 | 65.7 | 65.2 | 64.6 | 64.0 | 63.4 | 62.9 |
| 87             | 68.3 | 67.7 | 67.1 | 66.5 | 65.9 | 65.4 | 64.8 | 64.2 | 63.7 | 63.1 |
| 88             | 68.5 | 67.9 | 67.3 | 66.7 | 66.2 | 65.6 | 65.0 | 64.5 | 63.9 | 63.3 |
| 89             | 68.7 | 68.1 | 67.5 | 66.9 | 66.4 | 65.8 | 65.2 | 64.7 | 64.1 | 63.6 |
| 90             | 68.9 | 68.3 | 67.7 | 67.1 | 66.6 | 66.0 | 65.5 | 64.9 | 64.3 | 63.8 |
| 91             | 69.1 | 68.5 | 67.9 | 67.3 | 66.8 | 66.2 | 65.7 | 65.1 | 64.6 | 64.0 |
| 92             | 69.3 | 68.7 | 68.1 | 67.5 | 67.0 | 66.4 | 65.9 | 65.3 | 64.8 | 64.2 |
| 93             | 69.4 | 68.9 | 68.3 | 67.7 | 67.2 | 66.6 | 66.1 | 65.5 | 65.0 | 64.4 |
| 94             | 69.6 | 69.1 | 68.5 | 67.9 | 67.4 | 66.8 | 66.3 | 65.7 | 65.2 | 64.7 |
| 95             | 69.8 | 69.3 | 68.7 | 68.1 | 67.6 | 67.0 | 66.5 | 65.9 | 65.4 | 64.9 |
| 96             | 70.0 | 69.4 | 68.9 | 68.3 | 67.8 | 67.2 | 66.7 | 66.1 | 65.6 | 65.1 |
| 97             | 70.2 | 69.6 | 69.1 | 68.5 | 68.0 | 67.4 | 66.9 | 66.3 | 65.8 | 65.3 |
| 98             | 70.4 | 69.8 | 69.2 | 68.7 | 68.2 | 67.6 | 67.1 | 66.5 | 66.0 | 65.5 |
| 99             | 70.5 | 70.0 | 69.4 | 68.9 | 68.3 | 67.8 | 67.3 | 66.7 | 66.2 | 65.7 |
| 100            | 70.7 | 70.2 | 69.6 | 69.1 | 68.5 | 68.0 | 67.4 | 66.9 | 66.4 | 65.9 |

表 5a<sub>1</sub> (续)

| $t \rightarrow t_w$<br>$t$ | 11.5 | 12.0 | 12.5 | 13.5 | 13.5 | 14.0 | 14.5 | 15.0 | 15.5 | 16.0 |
|----------------------------|------|------|------|------|------|------|------|------|------|------|
| 15                         |      |      |      |      |      |      |      |      |      |      |
| 16                         | 2.9  |      |      |      |      |      |      |      |      |      |
| 17                         | 5.9  | 2.5  |      |      |      |      |      |      |      |      |
| 18                         | 8.7  | 5.4  | 2.2  |      |      |      |      |      |      |      |
| 19                         | 11.3 | 8.1  | 5.0  | 2.0  |      |      |      |      |      |      |
| 20                         | 13.7 | 10.7 | 7.7  | 4.7  | 1.8  |      |      |      |      |      |
| 21                         | 16.0 | 13.1 | 10.1 | 7.3  | 4.4  | 1.7  |      |      |      |      |
| 22                         | 18.2 | 15.3 | 12.5 | 9.7  | 6.9  | 4.2  | 1.6  |      |      |      |
| 23                         | 20.2 | 17.4 | 14.7 | 12.0 | 9.3  | 6.7  | 4.1  | 1.6  |      |      |
| 24                         | 22.1 | 19.4 | 16.7 | 14.1 | 11.5 | 9.0  | 6.5  | 4.0  | 1.6  |      |
| 25                         | 23.9 | 21.3 | 18.7 | 16.1 | 13.6 | 11.1 | 8.7  | 6.3  | 3.9  | 1.6  |
| 26                         | 25.6 | 23.1 | 20.5 | 18.0 | 15.6 | 13.1 | 10.8 | 8.4  | 6.1  | 3.9  |
| 27                         | 27.3 | 24.7 | 22.2 | 19.8 | 17.4 | 15.1 | 12.7 | 10.5 | 8.2  | 6.0  |
| 28                         | 28.8 | 26.3 | 23.9 | 21.5 | 19.2 | 16.9 | 14.6 | 12.4 | 10.2 | 8.1  |
| 29                         | 30.2 | 27.8 | 25.4 | 23.1 | 20.8 | 18.6 | 16.4 | 14.2 | 12.1 | 10.0 |
| 30                         | 31.6 | 29.2 | 26.9 | 24.6 | 22.4 | 20.2 | 18.0 | 15.9 | 13.8 | 11.8 |
| 31                         | 32.9 | 30.6 | 28.3 | 26.1 | 23.9 | 21.7 | 19.6 | 17.6 | 15.5 | 13.5 |
| 32                         | 34.1 | 31.8 | 29.6 | 27.4 | 25.3 | 23.2 | 21.1 | 19.1 | 17.1 | 15.1 |
| 33                         | 35.3 | 33.1 | 30.9 | 28.7 | 26.6 | 24.6 | 22.6 | 20.6 | 18.6 | 16.7 |
| 34                         | 36.4 | 34.2 | 32.1 | 30.0 | 27.9 | 25.9 | 23.9 | 22.0 | 20.0 | 18.2 |
| 35                         | 37.5 | 35.3 | 33.2 | 31.1 | 29.1 | 27.1 | 25.2 | 23.3 | 21.4 | 19.5 |
| 36                         | 38.5 | 36.4 | 34.3 | 32.3 | 30.3 | 28.3 | 26.4 | 24.5 | 22.7 | 20.9 |
| 37                         | 39.4 | 37.4 | 35.3 | 33.3 | 31.4 | 29.5 | 27.6 | 25.7 | 23.9 | 22.1 |
| 38                         | 40.3 | 38.3 | 36.3 | 34.3 | 32.4 | 30.5 | 28.7 | 26.9 | 25.1 | 23.3 |
| 39                         | 41.2 | 39.2 | 37.2 | 35.3 | 33.4 | 31.6 | 29.7 | 27.9 | 26.2 | 24.5 |
| 40                         | 42.1 | 40.1 | 38.1 | 36.2 | 34.4 | 32.5 | 30.7 | 29.0 | 27.3 | 25.6 |
| 41                         | 42.9 | 40.9 | 39.0 | 37.1 | 35.3 | 33.5 | 31.7 | 30.0 | 28.3 | 26.6 |
| 42                         | 43.6 | 41.7 | 39.8 | 38.0 | 36.2 | 34.4 | 32.6 | 30.9 | 29.2 | 27.6 |
| 43                         | 44.4 | 42.5 | 40.6 | 38.8 | 37.0 | 35.2 | 33.5 | 31.8 | 30.2 | 28.6 |
| 44                         | 45.1 | 43.2 | 41.4 | 39.6 | 37.8 | 36.1 | 34.4 | 32.7 | 31.1 | 29.5 |
| 45                         | 45.7 | 43.9 | 42.1 | 40.3 | 38.6 | 36.9 | 35.2 | 33.5 | 31.9 | 30.3 |
| 46                         | 46.4 | 44.6 | 42.8 | 41.0 | 39.3 | 37.6 | 36.0 | 34.3 | 32.7 | 31.2 |
| 47                         | 47.0 | 45.2 | 43.5 | 41.7 | 40.0 | 38.3 | 36.7 | 35.1 | 33.5 | 32.0 |
| 48                         | 47.6 | 45.8 | 44.1 | 42.4 | 40.7 | 39.0 | 37.4 | 35.8 | 34.3 | 32.8 |
| 49                         | 48.2 | 46.5 | 44.7 | 43.0 | 41.4 | 39.7 | 38.1 | 36.6 | 35.0 | 33.5 |
| 50                         | 48.8 | 47.0 | 45.3 | 43.6 | 42.0 | 40.4 | 38.8 | 37.2 | 35.7 | 34.2 |
| 51                         | 49.3 | 47.6 | 45.9 | 44.2 | 42.6 | 41.0 | 39.4 | 37.9 | 36.4 | 34.9 |
| 52                         | 49.8 | 48.1 | 46.5 | 44.8 | 43.2 | 41.6 | 40.1 | 38.5 | 37.0 | 35.6 |
| 53                         | 50.4 | 48.7 | 47.0 | 45.4 | 43.8 | 42.2 | 40.7 | 39.2 | 37.7 | 36.2 |
| 54                         | 50.8 | 49.2 | 47.5 | 45.9 | 44.3 | 42.8 | 41.2 | 39.7 | 38.3 | 36.8 |
| 55                         | 51.3 | 49.7 | 48.0 | 46.4 | 44.9 | 43.3 | 41.8 | 40.3 | 38.9 | 37.4 |
| 56                         | 51.8 | 50.1 | 48.5 | 46.9 | 45.4 | 43.8 | 42.3 | 40.9 | 39.4 | 38.0 |
| 57                         | 52.2 | 50.6 | 49.0 | 47.4 | 45.9 | 44.4 | 42.9 | 41.4 | 40.0 | 38.6 |

表 5a<sub>1</sub> (续)

| $t-t_w$<br>$t$ | 11.5 | 12.0 | 12.5 | 13.5 | 13.5 | 14.0 | 14.5 | 15.0 | 15.5 | 16.0 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 52.7 | 51.0 | 49.5 | 47.9 | 46.4 | 44.9 | 43.4 | 41.9 | 40.5 | 39.1 |
| 59             | 53.1 | 51.5 | 49.9 | 48.4 | 46.8 | 45.3 | 43.9 | 42.4 | 41.0 | 39.7 |
| 60             | 53.5 | 51.9 | 50.3 | 48.8 | 47.3 | 45.8 | 44.4 | 42.9 | 41.5 | 40.2 |
| 61             | 53.9 | 52.3 | 50.8 | 49.2 | 47.7 | 46.3 | 44.8 | 43.4 | 42.0 | 40.7 |
| 62             | 54.3 | 52.7 | 51.2 | 49.7 | 48.2 | 46.7 | 45.3 | 43.9 | 42.5 | 41.2 |
| 63             | 54.7 | 53.1 | 51.6 | 50.1 | 48.6 | 47.2 | 45.7 | 44.3 | 43.0 | 41.6 |
| 64             | 55.0 | 53.5 | 52.0 | 50.5 | 49.0 | 47.6 | 46.2 | 44.8 | 43.4 | 42.1 |
| 65             | 55.4 | 53.9 | 52.4 | 50.9 | 49.4 | 48.0 | 46.6 | 45.2 | 43.9 | 42.5 |
| 66             | 55.8 | 54.2 | 52.7 | 51.3 | 49.8 | 48.4 | 47.0 | 45.6 | 44.3 | 43.0 |
| 67             | 56.1 | 54.6 | 53.1 | 51.6 | 50.2 | 48.8 | 47.4 | 46.0 | 44.7 | 43.4 |
| 68             | 56.4 | 54.9 | 53.4 | 52.0 | 50.6 | 49.2 | 47.8 | 46.4 | 45.1 | 43.8 |
| 69             | 56.8 | 55.3 | 53.8 | 52.4 | 50.9 | 49.5 | 48.2 | 46.8 | 45.5 | 44.2 |
| 70             | 57.1 | 55.6 | 54.1 | 52.7 | 51.3 | 49.9 | 48.6 | 47.2 | 45.9 | 44.6 |
| 71             | 57.4 | 55.9 | 54.5 | 53.0 | 51.6 | 50.3 | 48.9 | 47.6 | 46.3 | 45.0 |
| 72             | 57.7 | 56.2 | 54.8 | 53.4 | 52.0 | 50.6 | 49.3 | 48.0 | 46.7 | 45.4 |
| 73             | 58.0 | 56.6 | 55.1 | 53.7 | 52.3 | 51.0 | 49.6 | 48.3 | 47.0 | 45.8 |
| 74             | 58.3 | 56.9 | 55.4 | 54.0 | 52.7 | 51.3 | 50.0 | 48.7 | 47.4 | 46.1 |
| 75             | 58.6 | 57.2 | 55.7 | 54.3 | 53.0 | 51.6 | 50.3 | 49.0 | 47.7 | 46.5 |
| 76             | 58.9 | 57.5 | 56.0 | 54.7 | 53.3 | 52.0 | 50.6 | 49.4 | 48.1 | 46.8 |
| 77             | 59.2 | 57.7 | 56.3 | 55.0 | 53.6 | 52.3 | 51.0 | 49.7 | 48.4 | 47.2 |
| 78             | 59.4 | 58.0 | 56.6 | 55.3 | 53.9 | 52.6 | 51.3 | 50.0 | 48.8 | 47.5 |
| 79             | 59.7 | 58.3 | 56.9 | 55.6 | 54.2 | 52.9 | 51.6 | 50.3 | 49.1 | 47.9 |
| 80             | 60.0 | 58.6 | 57.2 | 55.8 | 54.5 | 53.2 | 51.9 | 50.6 | 49.4 | 48.2 |
| 81             | 60.2 | 58.8 | 57.5 | 56.1 | 54.8 | 53.5 | 52.2 | 51.0 | 49.7 | 48.5 |
| 82             | 60.5 | 59.1 | 57.7 | 56.4 | 55.1 | 53.8 | 52.5 | 51.3 | 50.0 | 48.8 |
| 83             | 60.8 | 59.4 | 58.0 | 56.7 | 55.4 | 54.1 | 52.8 | 51.6 | 50.3 | 49.1 |
| 84             | 61.0 | 59.6 | 58.3 | 56.9 | 55.6 | 54.4 | 53.1 | 51.8 | 50.6 | 49.4 |
| 85             | 61.3 | 59.9 | 58.5 | 57.2 | 55.9 | 54.6 | 53.4 | 52.1 | 50.9 | 49.7 |
| 86             | 61.5 | 60.1 | 58.8 | 57.5 | 56.2 | 54.9 | 53.7 | 52.4 | 51.2 | 50.0 |
| 87             | 61.7 | 60.4 | 59.0 | 57.7 | 56.4 | 55.2 | 53.9 | 52.7 | 51.5 | 50.3 |
| 88             | 62.0 | 60.6 | 59.3 | 58.0 | 56.7 | 55.4 | 54.2 | 53.0 | 51.8 | 50.6 |
| 89             | 62.2 | 60.9 | 59.5 | 58.2 | 57.0 | 55.7 | 54.5 | 53.3 | 52.1 | 50.9 |
| 90             | 62.4 | 61.1 | 59.8 | 58.5 | 57.2 | 56.0 | 54.7 | 53.5 | 52.3 | 51.2 |
| 91             | 62.7 | 61.3 | 60.0 | 58.7 | 57.5 | 56.2 | 55.0 | 53.8 | 52.6 | 51.4 |
| 92             | 62.9 | 61.6 | 60.3 | 59.0 | 57.7 | 56.5 | 55.3 | 54.1 | 52.9 | 51.7 |
| 93             | 63.1 | 61.8 | 60.5 | 59.2 | 58.0 | 56.7 | 55.5 | 54.3 | 53.1 | 52.0 |
| 94             | 63.3 | 62.0 | 60.7 | 59.4 | 58.2 | 57.0 | 55.8 | 54.6 | 53.4 | 52.2 |
| 95             | 63.5 | 62.2 | 60.9 | 59.7 | 58.4 | 57.2 | 56.0 | 54.8 | 53.7 | 52.5 |
| 96             | 63.7 | 62.4 | 61.2 | 59.9 | 58.7 | 57.4 | 56.2 | 55.1 | 53.9 | 52.8 |
| 97             | 64.0 | 62.7 | 61.4 | 60.1 | 58.9 | 57.7 | 56.5 | 55.3 | 54.2 | 53.0 |
| 98             | 64.2 | 62.9 | 61.6 | 60.4 | 59.1 | 57.9 | 56.7 | 55.6 | 54.4 | 53.3 |
| 99             | 64.4 | 63.1 | 61.8 | 60.6 | 59.4 | 58.2 | 57.0 | 55.8 | 54.7 | 53.5 |
| 100            | 64.6 | 63.3 | 62.0 | 60.8 | 59.6 | 58.4 | 57.2 | 56.0 | 54.9 | 53.8 |

表 5a<sub>2</sub> 柱状水银温度表相对湿度查算表  
 $P=80\text{ kPa}, A=0.815 \times 10^{-3} \text{ }^{\circ}\text{C}^{-1} (0.4\text{ m/s})$

| $t-t_w$<br>$t$ | 0.0   | 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|----------------|-------|------|------|------|------|------|------|------|------|------|------|
| 15             | 100.0 | 99.0 | 98.0 | 96.9 | 95.9 | 94.9 | 93.9 | 92.9 | 91.9 | 90.9 | 89.9 |
| 16             | 100.0 | 99.0 | 98.0 | 97.0 | 96.0 | 95.1 | 94.1 | 93.1 | 92.1 | 91.2 | 90.2 |
| 17             | 100.0 | 99.0 | 98.1 | 97.1 | 96.1 | 95.2 | 94.2 | 93.3 | 92.3 | 91.4 | 90.5 |
| 18             | 100.0 | 99.1 | 98.1 | 97.2 | 96.2 | 95.3 | 94.4 | 93.5 | 92.5 | 91.6 | 90.7 |
| 19             | 100.0 | 99.1 | 98.2 | 97.3 | 96.3 | 95.4 | 94.5 | 93.6 | 92.7 | 91.8 | 91.0 |
| 20             | 100.0 | 99.1 | 98.2 | 97.3 | 96.4 | 95.5 | 94.7 | 93.8 | 92.9 | 92.0 | 91.2 |
| 21             | 100.0 | 99.1 | 98.3 | 97.4 | 96.5 | 95.7 | 94.8 | 93.9 | 93.1 | 92.2 | 91.4 |
| 22             | 100.0 | 99.1 | 98.3 | 97.4 | 96.6 | 95.8 | 94.9 | 94.1 | 93.2 | 92.4 | 91.6 |
| 23             | 100.0 | 99.2 | 98.3 | 97.5 | 96.7 | 95.9 | 95.0 | 94.2 | 93.4 | 92.6 | 91.8 |
| 24             | 100.0 | 99.2 | 98.4 | 97.6 | 96.7 | 95.9 | 95.1 | 94.3 | 93.5 | 92.8 | 92.0 |
| 25             | 100.0 | 99.2 | 98.4 | 97.6 | 96.8 | 96.0 | 95.2 | 94.5 | 93.7 | 92.9 | 92.1 |
| 26             | 100.0 | 99.2 | 98.4 | 97.7 | 96.9 | 96.1 | 95.3 | 94.6 | 93.8 | 93.1 | 92.3 |
| 27             | 100.0 | 99.2 | 98.5 | 97.7 | 96.9 | 96.2 | 95.4 | 94.7 | 93.9 | 93.2 | 92.4 |
| 28             | 100.0 | 99.2 | 98.5 | 97.7 | 97.0 | 96.3 | 95.5 | 94.8 | 94.1 | 93.3 | 92.6 |
| 29             | 100.0 | 99.3 | 98.5 | 97.8 | 97.1 | 96.3 | 95.6 | 94.9 | 94.2 | 93.4 | 92.7 |
| 30             | 100.0 | 99.3 | 98.6 | 97.8 | 97.1 | 96.4 | 95.7 | 95.0 | 94.3 | 93.6 | 92.9 |
| 31             | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.5 | 95.8 | 95.1 | 94.4 | 93.7 | 93.0 |
| 32             | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.5 | 95.8 | 95.1 | 94.5 | 93.8 | 93.1 |
| 33             | 100.0 | 99.3 | 98.6 | 97.9 | 97.3 | 96.6 | 95.9 | 95.2 | 94.6 | 93.9 | 93.2 |
| 34             | 100.0 | 99.3 | 98.6 | 98.0 | 97.3 | 96.6 | 96.0 | 95.3 | 94.6 | 94.0 | 93.3 |
| 35             | 100.0 | 99.3 | 98.7 | 98.0 | 97.3 | 96.7 | 96.0 | 95.4 | 94.7 | 94.1 | 93.4 |
| 36             | 100.0 | 99.3 | 98.7 | 98.0 | 97.4 | 96.7 | 96.1 | 95.5 | 94.8 | 94.2 | 93.5 |
| 37             | 100.0 | 99.4 | 98.7 | 98.1 | 97.4 | 96.8 | 96.2 | 95.5 | 94.9 | 94.3 | 93.6 |
| 38             | 100.0 | 99.4 | 98.7 | 98.1 | 97.5 | 96.8 | 96.2 | 95.6 | 95.0 | 94.3 | 93.7 |
| 39             | 100.0 | 99.4 | 98.7 | 98.1 | 97.5 | 96.9 | 96.3 | 95.6 | 95.0 | 94.4 | 93.8 |
| 40             | 100.0 | 99.4 | 98.8 | 98.1 | 97.5 | 96.9 | 96.3 | 95.7 | 95.1 | 94.5 | 93.9 |
| 41             | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.8 | 95.2 | 94.6 | 94.0 |
| 42             | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.8 | 95.2 | 94.7 | 94.1 |
| 43             | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.5 | 95.9 | 95.3 | 94.7 | 94.1 |
| 44             | 100.0 | 99.4 | 98.8 | 98.2 | 97.7 | 97.1 | 96.5 | 95.9 | 95.4 | 94.8 | 94.2 |
| 45             | 100.0 | 99.4 | 98.8 | 98.3 | 97.7 | 97.1 | 96.5 | 96.0 | 95.4 | 94.9 | 94.3 |
| 46             | 100.0 | 99.4 | 98.9 | 98.3 | 97.7 | 97.2 | 96.6 | 96.0 | 95.5 | 94.9 | 94.4 |
| 47             | 100.0 | 99.4 | 98.9 | 98.3 | 97.7 | 97.2 | 96.6 | 96.1 | 95.5 | 95.0 | 94.4 |
| 48             | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.2 | 96.7 | 96.1 | 95.6 | 95.0 | 94.5 |
| 49             | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.3 | 96.7 | 96.2 | 95.6 | 95.1 | 94.6 |
| 50             | 100.0 | 99.5 | 98.9 | 98.4 | 97.8 | 97.3 | 96.7 | 96.2 | 95.7 | 95.1 | 94.6 |
| 51             | 100.0 | 99.5 | 98.9 | 98.4 | 97.8 | 97.3 | 96.8 | 96.2 | 95.7 | 95.2 | 94.7 |
| 52             | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.3 | 96.8 | 96.3 | 95.8 | 95.2 | 94.7 |
| 53             | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.4 | 96.8 | 96.3 | 95.8 | 95.3 | 94.8 |
| 54             | 100.0 | 99.5 | 99.0 | 98.4 | 97.9 | 97.4 | 96.9 | 96.4 | 95.9 | 95.3 | 94.8 |
| 55             | 100.0 | 99.5 | 99.0 | 98.4 | 97.9 | 97.4 | 96.9 | 96.4 | 95.9 | 95.4 | 94.9 |
| 56             | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.4 | 96.9 | 96.4 | 95.9 | 95.4 | 94.9 |
| 57             | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.5 | 96.0 | 95.5 | 95.0 |

表 5a<sub>2</sub>(续)

| $t \backslash t - t_w$ | 0.0   | 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|------------------------|-------|------|------|------|------|------|------|------|------|------|------|
| 58                     | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.5 | 96.0 | 95.5 | 95.0 |
| 59                     | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.5 | 96.1 | 95.6 | 95.1 |
| 60                     | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.1 | 96.6 | 96.1 | 95.6 | 95.1 |
| 61                     | 100.0 | 99.5 | 99.0 | 98.5 | 98.1 | 97.6 | 97.1 | 96.6 | 96.1 | 95.7 | 95.2 |
| 62                     | 100.0 | 99.5 | 99.0 | 98.5 | 98.1 | 97.6 | 97.1 | 96.6 | 96.2 | 95.7 | 95.2 |
| 63                     | 100.0 | 99.5 | 99.0 | 98.6 | 98.1 | 97.6 | 97.1 | 96.7 | 96.2 | 95.7 | 95.3 |
| 64                     | 100.0 | 99.5 | 99.0 | 98.6 | 98.1 | 97.6 | 97.2 | 96.7 | 96.2 | 95.8 | 95.3 |
| 65                     | 100.0 | 99.5 | 99.1 | 98.6 | 98.1 | 97.7 | 97.2 | 96.7 | 96.3 | 95.8 | 95.4 |
| 66                     | 100.0 | 99.5 | 99.1 | 98.6 | 98.1 | 97.7 | 97.2 | 96.8 | 96.3 | 95.8 | 95.4 |
| 67                     | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.7 | 97.2 | 96.8 | 96.3 | 95.9 | 95.4 |
| 68                     | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.7 | 97.3 | 96.8 | 96.4 | 95.9 | 95.5 |
| 69                     | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.7 | 97.3 | 96.8 | 96.4 | 95.9 | 95.5 |
| 70                     | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.8 | 97.3 | 96.9 | 96.4 | 96.0 | 95.5 |
| 71                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.2 | 97.8 | 97.3 | 96.9 | 96.5 | 96.0 | 95.6 |
| 72                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.2 | 97.8 | 97.4 | 96.9 | 96.5 | 96.0 | 95.6 |
| 73                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.2 | 97.8 | 97.4 | 96.9 | 96.5 | 96.1 | 95.7 |
| 74                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.8 | 97.4 | 97.0 | 96.5 | 96.1 | 95.7 |
| 75                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.8 | 97.4 | 97.0 | 96.6 | 96.1 | 95.7 |
| 76                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.9 | 97.4 | 97.0 | 96.6 | 96.2 | 95.8 |
| 77                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.9 | 97.5 | 97.0 | 96.6 | 96.2 | 95.8 |
| 78                     | 100.0 | 99.6 | 99.2 | 98.7 | 98.3 | 97.9 | 97.5 | 97.1 | 96.6 | 96.2 | 95.8 |
| 79                     | 100.0 | 99.6 | 99.2 | 98.7 | 98.3 | 97.9 | 97.5 | 97.1 | 96.7 | 96.3 | 95.8 |
| 80                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.3 | 97.9 | 97.5 | 97.1 | 96.7 | 96.3 | 95.9 |
| 81                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.3 | 97.9 | 97.5 | 97.1 | 96.7 | 96.3 | 95.9 |
| 82                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.5 | 97.1 | 96.7 | 96.3 | 95.9 |
| 83                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 84                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 85                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 86                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.1 |
| 87                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.9 | 96.5 | 96.1 |
| 88                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.7 | 97.3 | 96.9 | 96.5 | 96.1 |
| 89                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.1 | 97.7 | 97.3 | 96.9 | 96.5 | 96.1 |
| 90                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.5 | 98.1 | 97.7 | 97.3 | 96.9 | 96.5 | 96.2 |
| 91                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.5 | 98.1 | 97.7 | 97.3 | 96.9 | 96.6 | 96.2 |
| 92                     | 100.0 | 99.6 | 99.2 | 98.9 | 98.5 | 98.1 | 97.7 | 97.3 | 97.0 | 96.6 | 96.2 |
| 93                     | 100.0 | 99.6 | 99.2 | 98.9 | 98.5 | 98.1 | 97.7 | 97.4 | 97.0 | 96.6 | 96.2 |
| 94                     | 100.0 | 99.6 | 99.2 | 98.9 | 98.5 | 98.1 | 97.7 | 97.4 | 97.0 | 96.6 | 96.3 |
| 95                     | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.1 | 97.8 | 97.4 | 97.0 | 96.7 | 96.3 |
| 96                     | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.1 | 97.8 | 97.4 | 97.0 | 96.7 | 96.3 |
| 97                     | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.4 | 97.1 | 96.7 | 96.3 |
| 98                     | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.4 | 97.1 | 96.7 | 96.4 |
| 99                     | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.5 | 97.1 | 96.8 | 96.4 |
| 100                    | 100.0 | 99.6 | 99.3 | 98.9 | 98.6 | 98.2 | 97.8 | 97.5 | 97.1 | 96.8 | 96.4 |







表 5a<sub>2</sub>(续)

| $t-t_w$<br>$t$ | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 89.8 | 89.3 | 88.9 | 88.4 | 87.9 | 87.5 | 87.0 | 86.6 | 86.1 | 85.7 |
| 59             | 89.9 | 89.4 | 89.0 | 88.5 | 88.1 | 87.6 | 87.1 | 86.7 | 86.2 | 85.8 |
| 60             | 90.0 | 89.5 | 89.1 | 88.6 | 88.2 | 87.7 | 87.3 | 86.8 | 86.4 | 85.9 |
| 61             | 90.1 | 89.6 | 89.2 | 88.7 | 88.3 | 87.8 | 87.4 | 86.9 | 86.5 | 86.1 |
| 62             | 90.2 | 89.7 | 89.3 | 88.8 | 88.4 | 87.9 | 87.5 | 87.1 | 86.6 | 86.2 |
| 63             | 90.3 | 89.8 | 89.4 | 88.9 | 88.5 | 88.0 | 87.6 | 87.2 | 86.7 | 86.3 |
| 64             | 90.3 | 89.9 | 89.5 | 89.0 | 88.6 | 88.1 | 87.7 | 87.3 | 86.9 | 86.4 |
| 65             | 90.4 | 90.0 | 89.6 | 89.1 | 88.7 | 88.3 | 87.8 | 87.4 | 87.0 | 86.5 |
| 66             | 90.5 | 90.1 | 89.6 | 89.2 | 88.8 | 88.4 | 87.9 | 87.5 | 87.1 | 86.7 |
| 67             | 90.6 | 90.2 | 89.7 | 89.3 | 88.9 | 88.5 | 88.0 | 87.6 | 87.2 | 86.8 |
| 68             | 90.7 | 90.2 | 89.8 | 89.4 | 89.0 | 88.5 | 88.1 | 87.7 | 87.3 | 86.9 |
| 69             | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.6 | 88.2 | 87.8 | 87.4 | 87.0 |
| 70             | 90.8 | 90.4 | 90.0 | 89.6 | 89.1 | 88.7 | 88.3 | 87.9 | 87.5 | 87.1 |
| 71             | 90.9 | 90.5 | 90.1 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.6 | 87.2 |
| 72             | 91.0 | 90.6 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 | 87.3 |
| 73             | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 | 87.4 |
| 74             | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 | 87.5 |
| 75             | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.6 |
| 76             | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 |
| 77             | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.6 | 88.2 | 87.8 |
| 78             | 91.4 | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.9 |
| 79             | 91.4 | 91.0 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 88.0 |
| 80             | 91.5 | 91.1 | 90.7 | 90.3 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 |
| 81             | 91.6 | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 | 88.5 | 88.1 |
| 82             | 91.6 | 91.2 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 89.0 | 88.6 | 88.2 |
| 83             | 91.7 | 91.3 | 90.9 | 90.5 | 90.2 | 89.8 | 89.4 | 89.0 | 88.7 | 88.3 |
| 84             | 91.7 | 91.4 | 91.0 | 90.6 | 90.2 | 89.9 | 89.5 | 89.1 | 88.8 | 88.4 |
| 85             | 91.8 | 91.4 | 91.1 | 90.7 | 90.3 | 89.9 | 89.6 | 89.2 | 88.8 | 88.5 |
| 86             | 91.9 | 91.5 | 91.1 | 90.7 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 | 88.5 |
| 87             | 91.9 | 91.6 | 91.2 | 90.8 | 90.4 | 90.1 | 89.7 | 89.3 | 89.0 | 88.6 |
| 88             | 92.0 | 91.6 | 91.2 | 90.9 | 90.5 | 90.1 | 89.8 | 89.4 | 89.1 | 88.7 |
| 89             | 92.0 | 91.7 | 91.3 | 90.9 | 90.6 | 90.2 | 89.9 | 89.5 | 89.1 | 88.8 |
| 90             | 92.1 | 91.7 | 91.4 | 91.0 | 90.6 | 90.3 | 89.9 | 89.6 | 89.2 | 88.9 |
| 91             | 92.1 | 91.8 | 91.4 | 91.1 | 90.7 | 90.3 | 90.0 | 89.6 | 89.3 | 88.9 |
| 92             | 92.2 | 91.8 | 91.5 | 91.1 | 90.8 | 90.4 | 90.1 | 89.7 | 89.4 | 89.0 |
| 93             | 92.2 | 91.9 | 91.5 | 91.2 | 90.8 | 90.5 | 90.1 | 89.8 | 89.4 | 89.1 |
| 94             | 92.3 | 91.9 | 91.6 | 91.2 | 90.9 | 90.5 | 90.2 | 89.8 | 89.5 | 89.1 |
| 95             | 92.4 | 92.0 | 91.6 | 91.3 | 90.9 | 90.6 | 90.3 | 89.9 | 89.6 | 89.2 |
| 96             | 92.4 | 92.1 | 91.7 | 91.4 | 91.0 | 90.7 | 90.3 | 90.0 | 89.6 | 89.3 |
| 97             | 92.5 | 92.1 | 91.8 | 91.4 | 91.1 | 90.7 | 90.4 | 90.0 | 89.7 | 89.4 |
| 98             | 92.5 | 92.2 | 91.8 | 91.5 | 91.1 | 90.8 | 90.4 | 90.1 | 89.8 | 89.4 |
| 99             | 92.5 | 92.2 | 91.9 | 91.5 | 91.2 | 90.8 | 90.5 | 90.2 | 89.8 | 89.5 |
| 100            | 92.6 | 92.3 | 91.9 | 91.6 | 91.2 | 90.9 | 90.6 | 90.2 | 89.9 | 89.6 |







表 5a<sub>2</sub>(续)

| $t-t_w$<br>$t$ | 4.1  | 4.2  | 4.3  | 4.4  | 4.5  | 4.6  | 4.7  | 4.8  | 4.9  | 5.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 80.8 | 80.4 | 79.9 | 79.5 | 79.1 | 78.7 | 78.2 | 77.8 | 77.4 | 77.0 |
| 59             | 81.0 | 80.5 | 80.1 | 79.7 | 79.3 | 78.9 | 78.4 | 78.0 | 77.6 | 77.2 |
| 60             | 81.2 | 80.7 | 80.3 | 79.9 | 79.5 | 79.0 | 78.6 | 78.2 | 77.8 | 77.4 |
| 61             | 81.3 | 80.9 | 80.5 | 80.1 | 79.6 | 79.2 | 78.8 | 78.4 | 78.0 | 77.6 |
| 62             | 81.5 | 81.1 | 80.7 | 80.2 | 79.8 | 79.4 | 79.0 | 78.6 | 78.2 | 77.8 |
| 63             | 81.6 | 81.2 | 80.8 | 80.4 | 80.0 | 79.6 | 79.2 | 78.8 | 78.4 | 78.0 |
| 64             | 81.8 | 81.4 | 81.0 | 80.6 | 80.2 | 79.8 | 79.4 | 79.0 | 78.6 | 78.2 |
| 65             | 82.0 | 81.6 | 81.1 | 80.7 | 80.3 | 79.9 | 79.5 | 79.1 | 78.7 | 78.3 |
| 66             | 82.1 | 81.7 | 81.3 | 80.9 | 80.5 | 80.1 | 79.7 | 79.3 | 78.9 | 78.5 |
| 67             | 82.3 | 81.9 | 81.5 | 81.1 | 80.7 | 80.3 | 79.9 | 79.5 | 79.1 | 78.7 |
| 68             | 82.4 | 82.0 | 81.6 | 81.2 | 80.8 | 80.4 | 80.0 | 79.7 | 79.3 | 78.9 |
| 69             | 82.5 | 82.2 | 81.8 | 81.4 | 81.0 | 80.6 | 80.2 | 79.8 | 79.4 | 79.0 |
| 70             | 82.7 | 82.3 | 81.9 | 81.5 | 81.1 | 80.7 | 80.4 | 80.0 | 79.6 | 79.2 |
| 71             | 82.8 | 82.4 | 82.0 | 81.7 | 81.3 | 80.9 | 80.5 | 80.1 | 79.8 | 79.4 |
| 72             | 83.0 | 82.6 | 82.2 | 81.8 | 81.4 | 81.0 | 80.7 | 80.3 | 79.9 | 79.5 |
| 73             | 83.1 | 82.7 | 82.3 | 81.9 | 81.6 | 81.2 | 80.8 | 80.4 | 80.1 | 79.7 |
| 74             | 83.2 | 82.8 | 82.5 | 82.1 | 81.7 | 81.3 | 81.0 | 80.6 | 80.2 | 79.8 |
| 75             | 83.3 | 83.0 | 82.6 | 82.2 | 81.8 | 81.5 | 81.1 | 80.7 | 80.4 | 80.0 |
| 76             | 83.5 | 83.1 | 82.7 | 82.3 | 82.0 | 81.6 | 81.2 | 80.9 | 80.5 | 80.1 |
| 77             | 83.6 | 83.2 | 82.8 | 82.5 | 82.1 | 81.7 | 81.4 | 81.0 | 80.7 | 80.3 |
| 78             | 83.7 | 83.3 | 83.0 | 82.6 | 82.2 | 81.9 | 81.5 | 81.2 | 80.8 | 80.4 |
| 79             | 83.8 | 83.5 | 83.1 | 82.7 | 82.4 | 82.0 | 81.6 | 81.3 | 80.9 | 80.6 |
| 80             | 83.9 | 83.6 | 83.2 | 82.9 | 82.5 | 82.1 | 81.8 | 81.4 | 81.1 | 80.7 |
| 81             | 84.1 | 83.7 | 83.3 | 83.0 | 82.6 | 82.3 | 81.9 | 81.6 | 81.2 | 80.8 |
| 82             | 84.2 | 83.8 | 83.5 | 83.1 | 82.7 | 82.4 | 82.0 | 81.7 | 81.3 | 81.0 |
| 83             | 84.3 | 83.9 | 83.6 | 83.2 | 82.9 | 82.5 | 82.2 | 81.8 | 81.5 | 81.1 |
| 84             | 84.4 | 84.0 | 83.7 | 83.3 | 83.0 | 82.6 | 82.3 | 81.9 | 81.6 | 81.2 |
| 85             | 84.5 | 84.2 | 83.8 | 83.5 | 83.1 | 82.8 | 82.4 | 82.1 | 81.7 | 81.4 |
| 86             | 84.6 | 84.3 | 83.9 | 83.6 | 83.2 | 82.9 | 82.5 | 82.2 | 81.8 | 81.5 |
| 87             | 84.7 | 84.4 | 84.0 | 83.7 | 83.3 | 83.0 | 82.6 | 82.3 | 82.0 | 81.6 |
| 88             | 84.8 | 84.5 | 84.1 | 83.8 | 83.4 | 83.1 | 82.8 | 82.4 | 82.1 | 81.7 |
| 89             | 84.9 | 84.6 | 84.2 | 83.9 | 83.6 | 83.2 | 82.9 | 82.5 | 82.2 | 81.9 |
| 90             | 85.0 | 84.7 | 84.3 | 84.0 | 83.7 | 83.3 | 83.0 | 82.7 | 82.3 | 82.0 |
| 91             | 85.1 | 84.8 | 84.4 | 84.1 | 83.8 | 83.4 | 83.1 | 82.8 | 82.4 | 82.1 |
| 92             | 85.2 | 84.9 | 84.5 | 84.2 | 83.9 | 83.5 | 83.2 | 82.9 | 82.5 | 82.2 |
| 93             | 85.3 | 85.0 | 84.6 | 84.3 | 84.0 | 83.7 | 83.3 | 83.0 | 82.7 | 82.3 |
| 94             | 85.4 | 85.1 | 84.7 | 84.4 | 84.1 | 83.8 | 83.4 | 83.1 | 82.8 | 82.4 |
| 95             | 85.5 | 85.2 | 84.8 | 84.5 | 84.2 | 83.9 | 83.5 | 83.2 | 82.9 | 82.6 |
| 96             | 85.6 | 85.3 | 84.9 | 84.6 | 84.3 | 84.0 | 83.6 | 83.3 | 83.0 | 82.7 |
| 97             | 85.7 | 85.4 | 85.0 | 84.7 | 84.4 | 84.1 | 83.7 | 83.4 | 83.1 | 82.8 |
| 98             | 85.8 | 85.5 | 85.1 | 84.8 | 84.5 | 84.2 | 83.8 | 83.5 | 83.2 | 82.9 |
| 99             | 85.9 | 85.5 | 85.2 | 84.9 | 84.6 | 84.3 | 83.9 | 83.6 | 83.3 | 83.0 |
| 100            | 86.0 | 85.6 | 85.3 | 85.0 | 84.7 | 84.4 | 84.0 | 83.7 | 83.4 | 83.1 |





表 5a<sub>2</sub>(续)

| $t - t_w$<br>$t$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               | 34.5 | 32.9 | 31.3 | 29.7 | 28.1 | 26.6 | 25.0 | 23.5 | 21.9 | 20.4 |
| 16               | 36.5 | 34.9 | 33.4 | 31.8 | 30.3 | 28.8 | 27.3 | 25.8 | 24.3 | 22.8 |
| 17               | 38.3 | 36.8 | 35.3 | 33.8 | 32.3 | 30.8 | 29.4 | 27.9 | 26.5 | 25.1 |
| 18               | 40.0 | 38.5 | 37.1 | 35.6 | 34.2 | 32.8 | 31.4 | 30.0 | 28.6 | 27.2 |
| 19               | 41.6 | 40.2 | 38.8 | 37.4 | 36.0 | 34.6 | 33.2 | 31.9 | 30.5 | 29.2 |
| 20               | 43.1 | 41.7 | 40.4 | 39.0 | 37.7 | 36.3 | 35.0 | 33.6 | 32.3 | 31.0 |
| 21               | 44.6 | 43.2 | 41.9 | 40.5 | 39.2 | 37.9 | 36.6 | 35.3 | 34.0 | 32.8 |
| 22               | 45.9 | 44.6 | 43.3 | 42.0 | 40.7 | 39.4 | 38.2 | 36.9 | 35.7 | 34.4 |
| 23               | 47.2 | 45.9 | 44.6 | 43.4 | 42.1 | 40.9 | 39.6 | 38.4 | 37.2 | 36.0 |
| 24               | 48.4 | 47.1 | 45.9 | 44.7 | 43.4 | 42.2 | 41.0 | 39.8 | 38.6 | 37.5 |
| 25               | 49.5 | 48.3 | 47.1 | 45.9 | 44.7 | 43.5 | 42.3 | 41.2 | 40.0 | 38.9 |
| 26               | 50.6 | 49.4 | 48.2 | 47.0 | 45.9 | 44.7 | 43.6 | 42.4 | 41.3 | 40.2 |
| 27               | 51.6 | 50.4 | 49.3 | 48.1 | 47.0 | 45.8 | 44.7 | 43.6 | 42.5 | 41.4 |
| 28               | 52.5 | 51.4 | 50.3 | 49.2 | 48.0 | 46.9 | 45.8 | 44.7 | 43.7 | 42.6 |
| 29               | 53.5 | 52.3 | 51.2 | 50.1 | 49.0 | 48.0 | 46.9 | 45.8 | 44.8 | 43.7 |
| 30               | 54.3 | 53.2 | 52.1 | 51.1 | 50.0 | 48.9 | 47.9 | 46.8 | 45.8 | 44.8 |
| 31               | 55.2 | 54.1 | 53.0 | 52.0 | 50.9 | 49.9 | 48.8 | 47.8 | 46.8 | 45.8 |
| 32               | 55.9 | 54.9 | 53.8 | 52.8 | 51.8 | 50.7 | 49.7 | 48.7 | 47.7 | 46.7 |
| 33               | 56.7 | 55.7 | 54.6 | 53.6 | 52.6 | 51.6 | 50.6 | 49.6 | 48.6 | 47.6 |
| 34               | 57.4 | 56.4 | 55.4 | 54.4 | 53.4 | 52.4 | 51.4 | 50.4 | 49.5 | 48.5 |
| 35               | 58.1 | 57.1 | 56.1 | 55.1 | 54.1 | 53.1 | 52.2 | 51.2 | 50.3 | 49.3 |
| 36               | 58.7 | 57.7 | 56.8 | 55.8 | 54.8 | 53.9 | 52.9 | 52.0 | 51.0 | 50.1 |
| 37               | 59.4 | 58.4 | 57.4 | 56.5 | 55.5 | 54.6 | 53.6 | 52.7 | 51.8 | 50.9 |
| 38               | 59.9 | 59.0 | 58.0 | 57.1 | 56.2 | 55.2 | 54.3 | 53.4 | 52.5 | 51.6 |
| 39               | 60.5 | 59.6 | 58.6 | 57.7 | 56.8 | 55.9 | 55.0 | 54.1 | 53.2 | 52.3 |
| 40               | 61.1 | 60.1 | 59.2 | 58.3 | 57.4 | 56.5 | 55.6 | 54.7 | 53.8 | 52.9 |
| 41               | 61.6 | 60.7 | 59.8 | 58.9 | 58.0 | 57.1 | 56.2 | 55.3 | 54.4 | 53.6 |
| 42               | 62.1 | 61.2 | 60.3 | 59.4 | 58.5 | 57.6 | 56.8 | 55.9 | 55.0 | 54.2 |
| 43               | 62.6 | 61.7 | 60.8 | 59.9 | 59.0 | 58.2 | 57.3 | 56.5 | 55.6 | 54.8 |
| 44               | 63.0 | 62.2 | 61.3 | 60.4 | 59.5 | 58.7 | 57.8 | 57.0 | 56.2 | 55.3 |
| 45               | 63.5 | 62.6 | 61.7 | 60.9 | 60.0 | 59.2 | 58.3 | 57.5 | 56.7 | 55.9 |
| 46               | 63.9 | 63.1 | 62.2 | 61.3 | 60.5 | 59.7 | 58.8 | 58.0 | 57.2 | 56.4 |
| 47               | 64.3 | 63.5 | 62.6 | 61.8 | 61.0 | 60.1 | 59.3 | 58.5 | 57.7 | 56.9 |
| 48               | 64.7 | 63.9 | 63.1 | 62.2 | 61.4 | 60.6 | 59.8 | 59.0 | 58.2 | 57.4 |
| 49               | 65.1 | 64.3 | 63.5 | 62.6 | 61.8 | 61.0 | 60.2 | 59.4 | 58.6 | 57.8 |
| 50               | 65.5 | 64.7 | 63.9 | 63.0 | 62.2 | 61.4 | 60.6 | 59.9 | 59.1 | 58.3 |
| 51               | 65.9 | 65.1 | 64.2 | 63.4 | 62.6 | 61.8 | 61.1 | 60.3 | 59.5 | 58.7 |
| 52               | 66.2 | 65.4 | 64.6 | 63.8 | 63.0 | 62.2 | 61.5 | 60.7 | 59.9 | 59.2 |
| 53               | 66.6 | 65.8 | 65.0 | 64.2 | 63.4 | 62.6 | 61.8 | 61.1 | 60.3 | 59.6 |
| 54               | 66.9 | 66.1 | 65.3 | 64.5 | 63.8 | 63.0 | 62.2 | 61.5 | 60.7 | 60.0 |
| 55               | 67.2 | 66.4 | 65.7 | 64.9 | 64.1 | 63.3 | 62.6 | 61.8 | 61.1 | 60.3 |
| 56               | 67.5 | 66.8 | 66.0 | 65.2 | 64.4 | 63.7 | 62.9 | 62.2 | 61.5 | 60.7 |
| 57               | 67.8 | 67.1 | 66.3 | 65.5 | 64.8 | 64.0 | 63.3 | 62.5 | 61.8 | 61.1 |

表 5a<sub>2</sub>(续)

| $t-t_w$<br>$t$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 68.1 | 67.4 | 66.6 | 65.9 | 65.1 | 64.4 | 63.6 | 62.9 | 62.2 | 61.4 |
| 59             | 68.4 | 67.7 | 66.9 | 66.2 | 65.4 | 64.7 | 63.9 | 63.2 | 62.5 | 61.8 |
| 60             | 68.7 | 67.9 | 67.2 | 66.5 | 65.7 | 65.0 | 64.3 | 63.5 | 62.8 | 62.1 |
| 61             | 69.0 | 68.2 | 67.5 | 66.8 | 66.0 | 65.3 | 64.6 | 63.9 | 63.2 | 62.4 |
| 62             | 69.2 | 68.5 | 67.8 | 67.0 | 66.3 | 65.6 | 64.9 | 64.2 | 63.5 | 62.8 |
| 63             | 69.5 | 68.8 | 68.0 | 67.3 | 66.6 | 65.9 | 65.2 | 64.5 | 63.8 | 63.1 |
| 64             | 69.8 | 69.0 | 68.3 | 67.6 | 66.9 | 66.2 | 65.5 | 64.8 | 64.1 | 63.4 |
| 65             | 70.0 | 69.3 | 68.6 | 67.9 | 67.1 | 66.4 | 65.7 | 65.0 | 64.4 | 63.7 |
| 66             | 70.3 | 69.5 | 68.8 | 68.1 | 67.4 | 66.7 | 66.0 | 65.3 | 64.6 | 64.0 |
| 67             | 70.5 | 69.8 | 69.1 | 68.4 | 67.7 | 67.0 | 66.3 | 65.6 | 64.9 | 64.2 |
| 68             | 70.7 | 70.0 | 69.3 | 68.6 | 67.9 | 67.2 | 66.5 | 65.9 | 65.2 | 64.5 |
| 69             | 71.0 | 70.2 | 69.6 | 68.9 | 68.2 | 67.5 | 66.8 | 66.1 | 65.5 | 64.8 |
| 70             | 71.2 | 70.5 | 69.8 | 69.1 | 68.4 | 67.7 | 67.1 | 66.4 | 65.7 | 65.1 |
| 71             | 71.4 | 70.7 | 70.0 | 69.3 | 68.6 | 68.0 | 67.3 | 66.6 | 66.0 | 65.3 |
| 72             | 71.6 | 70.9 | 70.2 | 69.6 | 68.9 | 68.2 | 67.5 | 66.9 | 66.2 | 65.6 |
| 73             | 71.8 | 71.1 | 70.5 | 69.8 | 69.1 | 68.4 | 67.8 | 67.1 | 66.5 | 65.8 |
| 74             | 72.0 | 71.3 | 70.7 | 70.0 | 69.3 | 68.7 | 68.0 | 67.4 | 66.7 | 66.1 |
| 75             | 72.2 | 71.6 | 70.9 | 70.2 | 69.6 | 68.9 | 68.2 | 67.6 | 67.0 | 66.3 |
| 76             | 72.4 | 71.8 | 71.1 | 70.4 | 69.8 | 69.1 | 68.5 | 67.8 | 67.2 | 66.6 |
| 77             | 72.6 | 72.0 | 71.3 | 70.6 | 70.0 | 69.3 | 68.7 | 68.1 | 67.4 | 66.8 |
| 78             | 72.8 | 72.2 | 71.5 | 70.8 | 70.2 | 69.6 | 68.9 | 68.3 | 67.6 | 67.0 |
| 79             | 73.0 | 72.4 | 71.7 | 71.0 | 70.4 | 69.8 | 69.1 | 68.5 | 67.9 | 67.2 |
| 80             | 73.2 | 72.5 | 71.9 | 71.2 | 70.6 | 70.0 | 69.3 | 68.7 | 68.1 | 67.5 |
| 81             | 73.4 | 72.7 | 72.1 | 71.4 | 70.8 | 70.2 | 69.5 | 68.9 | 68.3 | 67.7 |
| 82             | 73.6 | 72.9 | 72.3 | 71.6 | 71.0 | 70.4 | 69.7 | 69.1 | 68.5 | 67.9 |
| 83             | 73.7 | 73.1 | 72.5 | 71.8 | 71.2 | 70.6 | 69.9 | 69.3 | 68.7 | 68.1 |
| 84             | 73.9 | 73.3 | 72.6 | 72.0 | 71.4 | 70.8 | 70.1 | 69.5 | 68.9 | 68.3 |
| 85             | 74.1 | 73.5 | 72.8 | 72.2 | 71.6 | 71.0 | 70.3 | 69.7 | 69.1 | 68.5 |
| 86             | 74.3 | 73.6 | 73.0 | 72.4 | 71.8 | 71.1 | 70.5 | 69.9 | 69.3 | 68.7 |
| 87             | 74.4 | 73.8 | 73.2 | 72.6 | 71.9 | 71.3 | 70.7 | 70.1 | 69.5 | 68.9 |
| 88             | 74.6 | 74.0 | 73.4 | 72.7 | 72.1 | 71.5 | 70.9 | 70.3 | 69.7 | 69.1 |
| 89             | 74.8 | 74.1 | 73.5 | 72.9 | 72.3 | 71.7 | 71.1 | 70.5 | 69.9 | 69.3 |
| 90             | 74.9 | 74.3 | 73.7 | 73.1 | 72.5 | 71.9 | 71.3 | 70.7 | 70.1 | 69.5 |
| 91             | 75.1 | 74.5 | 73.9 | 73.2 | 72.6 | 72.0 | 71.5 | 70.9 | 70.3 | 69.7 |
| 92             | 75.2 | 74.6 | 74.0 | 73.4 | 72.8 | 72.2 | 71.6 | 71.0 | 70.5 | 69.9 |
| 93             | 75.4 | 74.8 | 74.2 | 73.6 | 73.0 | 72.4 | 71.8 | 71.2 | 70.6 | 70.1 |
| 94             | 75.5 | 74.9 | 74.3 | 73.7 | 73.2 | 72.6 | 72.0 | 71.4 | 70.8 | 70.2 |
| 95             | 75.7 | 75.1 | 74.5 | 73.9 | 73.3 | 72.7 | 72.1 | 71.6 | 71.0 | 70.4 |
| 96             | 75.8 | 75.2 | 74.7 | 74.1 | 73.5 | 72.9 | 72.3 | 71.7 | 71.2 | 70.6 |
| 97             | 76.0 | 75.4 | 74.8 | 74.2 | 73.6 | 73.1 | 72.5 | 71.9 | 71.3 | 70.8 |
| 98             | 76.1 | 75.5 | 75.0 | 74.4 | 73.8 | 73.2 | 72.6 | 72.1 | 71.5 | 70.9 |
| 99             | 76.3 | 75.7 | 75.1 | 74.5 | 74.0 | 73.4 | 72.8 | 72.2 | 71.7 | 71.1 |
| 100            | 76.4 | 75.8 | 75.3 | 74.7 | 74.1 | 73.5 | 73.0 | 72.4 | 71.8 | 71.3 |











表 5b (续)

| $t \backslash t - t_w$ | 0.0   | 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|------------------------|-------|------|------|------|------|------|------|------|------|------|------|
| 58                     | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.5 | 96.0 | 95.5 | 95.1 |
| 59                     | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.5 | 96.1 | 95.6 | 95.1 |
| 60                     | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.1 | 96.6 | 96.1 | 95.6 | 95.1 |
| 61                     | 100.0 | 99.5 | 99.0 | 98.5 | 98.1 | 97.6 | 97.1 | 96.6 | 96.1 | 95.7 | 95.2 |
| 62                     | 100.0 | 99.5 | 99.0 | 98.6 | 98.1 | 97.6 | 97.1 | 96.6 | 96.2 | 95.7 | 95.2 |
| 63                     | 100.0 | 99.5 | 99.0 | 98.6 | 98.1 | 97.6 | 97.1 | 96.7 | 96.2 | 95.7 | 95.3 |
| 64                     | 100.0 | 99.5 | 99.0 | 98.6 | 98.1 | 97.6 | 97.2 | 96.7 | 96.2 | 95.8 | 95.3 |
| 65                     | 100.0 | 99.5 | 99.1 | 98.6 | 98.1 | 97.7 | 97.2 | 96.7 | 96.3 | 95.8 | 95.4 |
| 66                     | 100.0 | 99.5 | 99.1 | 98.6 | 98.1 | 97.7 | 97.2 | 96.8 | 96.3 | 95.8 | 95.4 |
| 67                     | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.7 | 97.2 | 96.8 | 96.3 | 95.9 | 95.4 |
| 68                     | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.7 | 97.3 | 96.8 | 96.4 | 95.9 | 95.5 |
| 69                     | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.7 | 97.3 | 96.8 | 96.4 | 96.0 | 95.5 |
| 70                     | 100.0 | 99.5 | 99.1 | 98.6 | 98.2 | 97.8 | 97.3 | 96.9 | 96.4 | 96.0 | 95.5 |
| 71                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.2 | 97.8 | 97.3 | 96.9 | 96.5 | 96.0 | 95.6 |
| 72                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.2 | 97.8 | 97.4 | 96.9 | 96.5 | 96.1 | 95.6 |
| 73                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.2 | 97.8 | 97.4 | 96.9 | 96.5 | 96.1 | 95.7 |
| 74                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.8 | 97.4 | 97.0 | 96.5 | 96.1 | 95.7 |
| 75                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.8 | 97.4 | 97.0 | 96.6 | 96.1 | 95.7 |
| 76                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.9 | 97.4 | 97.0 | 96.6 | 96.2 | 95.8 |
| 77                     | 100.0 | 99.6 | 99.1 | 98.7 | 98.3 | 97.9 | 97.5 | 97.0 | 96.6 | 96.2 | 95.8 |
| 78                     | 100.0 | 99.6 | 99.2 | 98.7 | 98.3 | 97.9 | 97.5 | 97.1 | 96.6 | 96.2 | 95.8 |
| 79                     | 100.0 | 99.6 | 99.2 | 98.7 | 98.3 | 97.9 | 97.5 | 97.1 | 96.7 | 96.3 | 95.9 |
| 80                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.3 | 97.9 | 97.5 | 97.1 | 96.7 | 96.3 | 95.9 |
| 81                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.3 | 97.9 | 97.5 | 97.1 | 96.7 | 96.3 | 95.9 |
| 82                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.1 | 96.7 | 96.3 | 95.9 |
| 83                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 84                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 85                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.0 |
| 86                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.8 | 96.4 | 96.1 |
| 87                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.6 | 97.2 | 96.9 | 96.5 | 96.1 |
| 88                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.0 | 97.7 | 97.3 | 96.9 | 96.5 | 96.1 |
| 89                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.4 | 98.1 | 97.7 | 97.3 | 96.9 | 96.5 | 96.1 |
| 90                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.5 | 98.1 | 97.7 | 97.3 | 96.9 | 96.5 | 96.2 |
| 91                     | 100.0 | 99.6 | 99.2 | 98.8 | 98.5 | 98.1 | 97.7 | 97.3 | 96.9 | 96.6 | 96.2 |
| 92                     | 100.0 | 99.6 | 99.2 | 98.9 | 98.5 | 98.1 | 97.7 | 97.3 | 97.0 | 96.6 | 96.2 |
| 93                     | 100.0 | 99.6 | 99.2 | 98.9 | 98.5 | 98.1 | 97.7 | 97.4 | 97.0 | 96.6 | 96.2 |
| 94                     | 100.0 | 99.6 | 99.2 | 98.9 | 98.5 | 98.1 | 97.8 | 97.4 | 97.0 | 96.6 | 96.3 |
| 95                     | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.1 | 97.8 | 97.4 | 97.0 | 96.7 | 96.3 |
| 96                     | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.1 | 97.8 | 97.4 | 97.1 | 96.7 | 96.3 |
| 97                     | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.4 | 97.1 | 96.7 | 96.3 |
| 98                     | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.4 | 97.1 | 96.7 | 96.4 |
| 99                     | 100.0 | 99.6 | 99.3 | 98.9 | 98.5 | 98.2 | 97.8 | 97.5 | 97.1 | 96.8 | 96.4 |
| 100                    | 100.0 | 99.6 | 99.3 | 98.9 | 98.6 | 98.2 | 97.8 | 97.5 | 97.1 | 96.8 | 96.4 |







表 5b (续)

| $t-t_w$<br>$t$ | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 58             | 89.8 | 89.4 | 88.9 | 88.4 | 88.0 | 87.5 | 87.1 | 86.6 | 86.1 | 85.7 |
| 59             | 89.9 | 89.5 | 89.0 | 88.5 | 88.1 | 87.6 | 87.2 | 86.7 | 86.3 | 85.8 |
| 60             | 90.0 | 89.5 | 89.1 | 88.6 | 88.2 | 87.7 | 87.3 | 86.8 | 86.4 | 86.0 |
| 61             | 90.1 | 89.6 | 89.2 | 88.7 | 88.3 | 87.8 | 87.4 | 87.0 | 86.5 | 86.1 |
| 62             | 90.2 | 89.7 | 89.3 | 88.8 | 88.4 | 88.0 | 87.5 | 87.1 | 86.6 | 86.2 |
| 63             | 90.3 | 89.8 | 89.4 | 88.9 | 88.5 | 88.1 | 87.6 | 87.2 | 86.8 | 86.3 |
| 64             | 90.4 | 89.9 | 89.5 | 89.0 | 88.6 | 88.2 | 87.7 | 87.3 | 86.9 | 86.4 |
| 65             | 90.4 | 90.0 | 89.6 | 89.1 | 88.7 | 88.3 | 87.8 | 87.4 | 87.0 | 86.6 |
| 66             | 90.5 | 90.1 | 89.7 | 89.2 | 88.8 | 88.4 | 87.9 | 87.5 | 87.1 | 86.7 |
| 67             | 90.6 | 90.2 | 89.7 | 89.3 | 88.9 | 88.5 | 88.0 | 87.6 | 87.2 | 86.8 |
| 68             | 90.7 | 90.3 | 89.8 | 89.4 | 89.0 | 88.6 | 88.1 | 87.7 | 87.3 | 86.9 |
| 69             | 90.8 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.2 | 87.8 | 87.4 | 87.0 |
| 70             | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.7 | 88.3 | 87.9 | 87.5 | 87.1 |
| 71             | 90.9 | 90.5 | 90.1 | 89.7 | 89.2 | 88.8 | 88.4 | 88.0 | 87.6 | 87.2 |
| 72             | 91.0 | 90.6 | 90.2 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 | 87.3 |
| 73             | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 | 87.4 |
| 74             | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 | 87.5 |
| 75             | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.6 |
| 76             | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 |
| 77             | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 89.0 | 88.6 | 88.2 | 87.8 |
| 78             | 91.4 | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.3 | 87.9 |
| 79             | 91.4 | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 88.0 |
| 80             | 91.5 | 91.1 | 90.7 | 90.3 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.1 |
| 81             | 91.6 | 91.2 | 90.8 | 90.4 | 90.0 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 |
| 82             | 91.6 | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 89.0 | 88.6 | 88.2 |
| 83             | 91.7 | 91.3 | 90.9 | 90.6 | 90.2 | 89.8 | 89.4 | 89.1 | 88.7 | 88.3 |
| 84             | 91.8 | 91.4 | 91.0 | 90.6 | 90.2 | 89.9 | 89.5 | 89.1 | 88.8 | 88.4 |
| 85             | 91.8 | 91.4 | 91.1 | 90.7 | 90.3 | 89.9 | 89.6 | 89.2 | 88.8 | 88.5 |
| 86             | 91.9 | 91.5 | 91.1 | 90.8 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 | 88.6 |
| 87             | 91.9 | 91.6 | 91.2 | 90.8 | 90.5 | 90.1 | 89.7 | 89.4 | 89.0 | 88.6 |
| 88             | 92.0 | 91.6 | 91.2 | 90.9 | 90.5 | 90.2 | 89.8 | 89.4 | 89.1 | 88.7 |
| 89             | 92.0 | 91.7 | 91.3 | 90.9 | 90.6 | 90.2 | 89.9 | 89.5 | 89.1 | 88.8 |
| 90             | 92.1 | 91.7 | 91.4 | 91.0 | 90.6 | 90.3 | 89.9 | 89.6 | 89.2 | 88.9 |
| 91             | 92.1 | 91.8 | 91.4 | 91.1 | 90.7 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 |
| 92             | 92.2 | 91.8 | 91.5 | 91.1 | 90.8 | 90.4 | 90.1 | 89.7 | 89.4 | 89.0 |
| 93             | 92.3 | 91.9 | 91.5 | 91.2 | 90.8 | 90.5 | 90.1 | 89.8 | 89.4 | 89.1 |
| 94             | 92.3 | 92.0 | 91.6 | 91.2 | 90.9 | 90.5 | 90.2 | 89.8 | 89.5 | 89.2 |
| 95             | 92.4 | 92.0 | 91.7 | 91.3 | 91.0 | 90.6 | 90.3 | 89.9 | 89.6 | 89.2 |
| 96             | 92.4 | 92.1 | 91.7 | 91.4 | 91.0 | 90.7 | 90.3 | 90.0 | 89.6 | 89.3 |
| 97             | 92.5 | 92.1 | 91.8 | 91.4 | 91.1 | 90.7 | 90.4 | 90.0 | 89.7 | 89.4 |
| 98             | 92.5 | 92.2 | 91.8 | 91.5 | 91.1 | 90.8 | 90.4 | 90.1 | 89.8 | 89.4 |
| 99             | 92.6 | 92.2 | 91.9 | 91.5 | 91.2 | 90.8 | 90.5 | 90.2 | 89.8 | 89.5 |
| 100            | 92.6 | 92.3 | 91.9 | 91.6 | 91.2 | 90.9 | 90.6 | 90.2 | 89.9 | 89.6 |

















表 5b (续)

| $t-t_w$<br>$t$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| 15             | 19.8 | 18.3 | 16.8 | 15.3 | 13.9 | 12.4 | 10.9 | 9.5  | 8.1  | 6.7  |
| 16             | 22.2 | 20.7 | 19.3 | 17.9 | 16.4 | 15.0 | 13.6 | 12.2 | 10.9 | 9.5  |
| 17             | 24.4 | 23.0 | 21.6 | 20.2 | 18.9 | 17.5 | 16.2 | 14.8 | 13.5 | 12.1 |
| 18             | 26.5 | 25.2 | 23.8 | 22.5 | 21.1 | 19.8 | 18.5 | 17.2 | 15.9 | 14.6 |
| 19             | 28.5 | 27.2 | 25.9 | 24.6 | 23.3 | 22.0 | 20.7 | 19.5 | 18.2 | 17.0 |
| 20             | 30.4 | 29.1 | 27.8 | 26.6 | 25.3 | 24.1 | 22.8 | 21.6 | 20.4 | 19.2 |
| 21             | 32.1 | 30.9 | 29.6 | 28.4 | 27.2 | 26.0 | 24.8 | 23.6 | 22.4 | 21.2 |
| 22             | 33.8 | 32.6 | 31.4 | 30.2 | 29.0 | 27.8 | 26.6 | 25.5 | 24.3 | 23.2 |
| 23             | 35.3 | 34.1 | 33.0 | 31.8 | 30.7 | 29.5 | 28.4 | 27.2 | 26.1 | 25.0 |
| 24             | 36.8 | 35.6 | 34.5 | 33.4 | 32.2 | 31.1 | 30.0 | 28.9 | 27.8 | 26.7 |
| 25             | 38.2 | 37.1 | 35.9 | 34.8 | 33.7 | 32.6 | 31.6 | 30.5 | 29.4 | 28.4 |
| 26             | 39.5 | 38.4 | 37.3 | 36.2 | 35.2 | 34.1 | 33.0 | 32.0 | 30.9 | 29.9 |
| 27             | 40.7 | 39.7 | 38.6 | 37.5 | 36.5 | 35.4 | 34.4 | 33.4 | 32.4 | 31.4 |
| 28             | 41.9 | 40.9 | 39.8 | 38.8 | 37.8 | 36.7 | 35.7 | 34.7 | 33.7 | 32.7 |
| 29             | 43.0 | 42.0 | 41.0 | 40.0 | 39.0 | 38.0 | 37.0 | 36.0 | 35.0 | 34.0 |
| 30             | 44.1 | 43.1 | 42.1 | 41.1 | 40.1 | 39.1 | 38.2 | 37.2 | 36.2 | 35.3 |
| 31             | 45.1 | 44.1 | 43.1 | 42.1 | 41.2 | 40.2 | 39.3 | 38.3 | 37.4 | 36.5 |
| 32             | 46.1 | 45.1 | 44.1 | 43.2 | 42.2 | 41.3 | 40.3 | 39.4 | 38.5 | 37.6 |
| 33             | 47.0 | 46.0 | 45.1 | 44.1 | 43.2 | 42.3 | 41.3 | 40.4 | 39.5 | 38.6 |
| 34             | 47.8 | 46.9 | 46.0 | 45.0 | 44.1 | 43.2 | 42.3 | 41.4 | 40.5 | 39.6 |
| 35             | 48.7 | 47.7 | 46.8 | 45.9 | 45.0 | 44.1 | 43.2 | 42.3 | 41.5 | 40.6 |
| 36             | 49.4 | 48.5 | 47.6 | 46.7 | 45.9 | 45.0 | 44.1 | 43.2 | 42.4 | 41.5 |
| 37             | 50.2 | 49.3 | 48.4 | 47.5 | 46.7 | 45.8 | 44.9 | 44.1 | 43.2 | 42.4 |
| 38             | 50.9 | 50.0 | 49.2 | 48.3 | 47.4 | 46.6 | 45.7 | 44.9 | 44.1 | 43.2 |
| 39             | 51.6 | 50.7 | 49.9 | 49.0 | 48.2 | 47.3 | 46.5 | 45.7 | 44.9 | 44.0 |
| 40             | 52.3 | 51.4 | 50.6 | 49.7 | 48.9 | 48.1 | 47.2 | 46.4 | 45.6 | 44.8 |
| 41             | 52.9 | 52.1 | 51.2 | 50.4 | 49.6 | 48.8 | 47.9 | 47.1 | 46.3 | 45.5 |
| 42             | 53.5 | 52.7 | 51.9 | 51.0 | 50.2 | 49.4 | 48.6 | 47.8 | 47.0 | 46.3 |
| 43             | 54.1 | 53.3 | 52.5 | 51.7 | 50.9 | 50.1 | 49.3 | 48.5 | 47.7 | 46.9 |
| 44             | 54.7 | 53.9 | 53.0 | 52.2 | 51.5 | 50.7 | 49.9 | 49.1 | 48.3 | 47.6 |
| 45             | 55.2 | 54.4 | 53.6 | 52.8 | 52.0 | 51.3 | 50.5 | 49.7 | 49.0 | 48.2 |
| 46             | 55.7 | 54.9 | 54.2 | 53.4 | 52.6 | 51.8 | 51.1 | 50.3 | 49.6 | 48.8 |
| 47             | 56.2 | 55.5 | 54.7 | 53.9 | 53.1 | 52.4 | 51.6 | 50.9 | 50.1 | 49.4 |
| 48             | 56.7 | 55.9 | 55.2 | 54.4 | 53.7 | 52.9 | 52.2 | 51.4 | 50.7 | 49.9 |
| 49             | 57.2 | 56.4 | 55.7 | 54.9 | 54.2 | 53.4 | 52.7 | 51.9 | 51.2 | 50.5 |
| 50             | 57.6 | 56.9 | 56.1 | 55.4 | 54.6 | 53.9 | 53.2 | 52.4 | 51.7 | 51.0 |
| 51             | 58.1 | 57.3 | 56.6 | 55.8 | 55.1 | 54.4 | 53.6 | 52.9 | 52.2 | 51.5 |
| 52             | 58.5 | 57.8 | 57.0 | 56.3 | 55.6 | 54.8 | 54.1 | 53.4 | 52.7 | 52.0 |
| 53             | 58.9 | 58.2 | 57.4 | 56.7 | 56.0 | 55.3 | 54.6 | 53.9 | 53.2 | 52.5 |
| 54             | 59.3 | 58.6 | 57.9 | 57.1 | 56.4 | 55.7 | 55.0 | 54.3 | 53.6 | 52.9 |
| 55             | 59.7 | 59.0 | 58.3 | 57.5 | 56.8 | 56.1 | 55.4 | 54.7 | 54.1 | 53.4 |
| 56             | 60.1 | 59.4 | 58.7 | 57.9 | 57.2 | 56.5 | 55.8 | 55.2 | 54.5 | 53.8 |
| 57             | 60.5 | 59.7 | 59.0 | 58.3 | 57.6 | 56.9 | 56.2 | 55.6 | 54.9 | 54.2 |







表 5c 球状、柱状水银温度表相对湿度查算表

 $P=80\text{ kPa}, A=0.662 \times 10^{-3} \text{ }^{\circ}\text{C}^{-1} (2.5\text{ m/s})$ 

| $t \backslash t-t_w$ | 0.0   | 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|
| 15                   | 100.0 | 99.0 | 98.1 | 97.2 | 96.2 | 95.3 | 94.3 | 93.4 | 92.5 | 91.6 | 90.6 |
| 16                   | 100.0 | 99.1 | 98.1 | 97.2 | 96.3 | 95.4 | 94.5 | 93.6 | 92.7 | 91.8 | 90.9 |
| 17                   | 100.0 | 99.1 | 98.2 | 97.3 | 96.4 | 95.5 | 94.6 | 93.7 | 92.9 | 92.0 | 91.1 |
| 18                   | 100.0 | 99.1 | 98.2 | 97.4 | 96.5 | 95.6 | 94.7 | 93.9 | 93.0 | 92.2 | 91.3 |
| 19                   | 100.0 | 99.1 | 98.3 | 97.4 | 96.6 | 95.7 | 94.9 | 94.0 | 93.2 | 92.3 | 91.5 |
| 20                   | 100.0 | 99.2 | 98.3 | 97.5 | 96.6 | 95.8 | 95.0 | 94.2 | 93.3 | 92.5 | 91.7 |
| 21                   | 100.0 | 99.2 | 98.4 | 97.5 | 96.7 | 95.9 | 95.1 | 94.3 | 93.5 | 92.7 | 91.9 |
| 22                   | 100.0 | 99.2 | 98.4 | 97.6 | 96.8 | 96.0 | 95.2 | 94.4 | 93.6 | 92.8 | 92.1 |
| 23                   | 100.0 | 99.2 | 98.4 | 97.6 | 96.9 | 96.1 | 95.3 | 94.5 | 93.8 | 93.0 | 92.2 |
| 24                   | 100.0 | 99.2 | 98.4 | 97.7 | 96.9 | 96.1 | 95.4 | 94.6 | 93.9 | 93.1 | 92.4 |
| 25                   | 100.0 | 99.2 | 98.5 | 97.7 | 97.0 | 96.2 | 95.5 | 94.7 | 94.0 | 93.3 | 92.5 |
| 26                   | 100.0 | 99.3 | 98.5 | 97.8 | 97.0 | 96.3 | 95.6 | 94.8 | 94.1 | 93.4 | 92.7 |
| 27                   | 100.0 | 99.3 | 98.5 | 97.8 | 97.1 | 96.4 | 95.6 | 94.9 | 94.2 | 93.5 | 92.8 |
| 28                   | 100.0 | 99.3 | 98.6 | 97.8 | 97.1 | 96.4 | 95.7 | 95.0 | 94.3 | 93.6 | 92.9 |
| 29                   | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.5 | 95.8 | 95.1 | 94.4 | 93.7 | 93.0 |
| 30                   | 100.0 | 99.3 | 98.6 | 97.9 | 97.2 | 96.5 | 95.9 | 95.2 | 94.5 | 93.8 | 93.2 |
| 31                   | 100.0 | 99.3 | 98.6 | 97.9 | 97.3 | 96.6 | 95.9 | 95.3 | 94.6 | 93.9 | 93.3 |
| 32                   | 100.0 | 99.3 | 98.7 | 98.0 | 97.3 | 96.7 | 96.0 | 95.3 | 94.7 | 94.0 | 93.4 |
| 33                   | 100.0 | 99.3 | 98.7 | 98.0 | 97.4 | 96.7 | 96.0 | 95.4 | 94.8 | 94.1 | 93.5 |
| 34                   | 100.0 | 99.3 | 98.7 | 98.0 | 97.4 | 96.7 | 96.1 | 95.5 | 94.8 | 94.2 | 93.6 |
| 35                   | 100.0 | 99.4 | 98.7 | 98.1 | 97.4 | 96.8 | 96.2 | 95.5 | 94.9 | 94.3 | 93.7 |
| 36                   | 100.0 | 99.4 | 98.7 | 98.1 | 97.5 | 96.8 | 96.2 | 95.6 | 95.0 | 94.4 | 93.7 |
| 37                   | 100.0 | 99.4 | 98.7 | 98.1 | 97.5 | 96.9 | 96.3 | 95.7 | 95.0 | 94.4 | 93.8 |
| 38                   | 100.0 | 99.4 | 98.8 | 98.1 | 97.5 | 96.9 | 96.3 | 95.7 | 95.1 | 94.5 | 93.9 |
| 39                   | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.8 | 95.2 | 94.6 | 94.0 |
| 40                   | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.4 | 95.8 | 95.2 | 94.7 | 94.1 |
| 41                   | 100.0 | 99.4 | 98.8 | 98.2 | 97.6 | 97.0 | 96.5 | 95.9 | 95.3 | 94.7 | 94.1 |
| 42                   | 100.0 | 99.4 | 98.8 | 98.2 | 97.7 | 97.1 | 96.5 | 95.9 | 95.4 | 94.8 | 94.2 |
| 43                   | 100.0 | 99.4 | 98.8 | 98.3 | 97.7 | 97.1 | 96.5 | 96.0 | 95.4 | 94.8 | 94.3 |
| 44                   | 100.0 | 99.4 | 98.9 | 98.3 | 97.7 | 97.1 | 96.6 | 96.0 | 95.5 | 94.9 | 94.4 |
| 45                   | 100.0 | 99.4 | 98.9 | 98.3 | 97.7 | 97.2 | 96.6 | 96.1 | 95.5 | 95.0 | 94.4 |
| 46                   | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.2 | 96.7 | 96.1 | 95.6 | 95.0 | 94.5 |
| 47                   | 100.0 | 99.4 | 98.9 | 98.3 | 97.8 | 97.2 | 96.7 | 96.2 | 95.6 | 95.1 | 94.5 |
| 48                   | 100.0 | 99.5 | 98.9 | 98.4 | 97.8 | 97.3 | 96.7 | 96.2 | 95.7 | 95.1 | 94.6 |
| 49                   | 100.0 | 99.5 | 98.9 | 98.4 | 97.8 | 97.3 | 96.8 | 96.2 | 95.7 | 95.2 | 94.7 |
| 50                   | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.3 | 96.8 | 96.3 | 95.8 | 95.2 | 94.7 |
| 51                   | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.4 | 96.8 | 96.3 | 95.8 | 95.3 | 94.8 |
| 52                   | 100.0 | 99.5 | 98.9 | 98.4 | 97.9 | 97.4 | 96.9 | 96.4 | 95.8 | 95.3 | 94.8 |
| 53                   | 100.0 | 99.5 | 99.0 | 98.4 | 97.9 | 97.4 | 96.9 | 96.4 | 95.9 | 95.4 | 94.9 |
| 54                   | 100.0 | 99.5 | 99.0 | 98.5 | 97.9 | 97.4 | 96.9 | 96.4 | 95.9 | 95.4 | 94.9 |
| 55                   | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.5 | 96.0 | 95.5 | 95.0 |
| 56                   | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.5 | 96.0 | 95.5 | 95.0 |
| 57                   | 100.0 | 99.5 | 99.0 | 98.5 | 98.0 | 97.5 | 97.0 | 96.5 | 96.0 | 95.5 | 95.1 |









表 5c (续)

| $t \backslash t - t_w$ | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|------------------------|------|------|------|------|------|------|------|------|------|------|
| 58                     | 89.9 | 89.5 | 89.0 | 88.6 | 88.1 | 87.7 | 87.2 | 86.8 | 86.3 | 85.9 |
| 59                     | 90.0 | 89.6 | 89.1 | 88.7 | 88.2 | 87.8 | 87.3 | 86.9 | 86.4 | 86.0 |
| 60                     | 90.1 | 89.7 | 89.2 | 88.8 | 88.3 | 87.9 | 87.4 | 87.0 | 86.6 | 86.1 |
| 61                     | 90.2 | 89.8 | 89.3 | 88.9 | 88.4 | 88.0 | 87.5 | 87.1 | 86.7 | 86.2 |
| 62                     | 90.3 | 89.8 | 89.4 | 89.0 | 88.5 | 88.1 | 87.6 | 87.2 | 86.8 | 86.4 |
| 63                     | 90.4 | 89.9 | 89.5 | 89.1 | 88.6 | 88.2 | 87.8 | 87.3 | 86.9 | 86.5 |
| 64                     | 90.4 | 90.0 | 89.6 | 89.1 | 88.7 | 88.3 | 87.9 | 87.4 | 87.0 | 86.6 |
| 65                     | 90.5 | 90.1 | 89.7 | 89.2 | 88.8 | 88.4 | 88.0 | 87.5 | 87.1 | 86.7 |
| 66                     | 90.6 | 90.2 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.6 | 87.2 | 86.8 |
| 67                     | 90.7 | 90.3 | 89.8 | 89.4 | 89.0 | 88.6 | 88.1 | 87.7 | 87.3 | 86.9 |
| 68                     | 90.8 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.2 | 87.8 | 87.4 | 87.0 |
| 69                     | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.7 | 88.3 | 87.9 | 87.5 | 87.1 |
| 70                     | 90.9 | 90.5 | 90.1 | 89.7 | 89.2 | 88.8 | 88.4 | 88.0 | 87.6 | 87.2 |
| 71                     | 91.0 | 90.6 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 | 87.3 |
| 72                     | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.8 | 87.4 |
| 73                     | 91.1 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 | 87.5 |
| 74                     | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 | 87.6 |
| 75                     | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 | 88.5 | 88.1 | 87.7 |
| 76                     | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 88.9 | 88.5 | 88.2 | 87.8 |
| 77                     | 91.4 | 91.0 | 90.6 | 90.2 | 89.8 | 89.4 | 89.0 | 88.6 | 88.2 | 87.9 |
| 78                     | 91.4 | 91.0 | 90.7 | 90.3 | 89.9 | 89.5 | 89.1 | 88.7 | 88.3 | 87.9 |
| 79                     | 91.5 | 91.1 | 90.7 | 90.3 | 89.9 | 89.6 | 89.2 | 88.8 | 88.4 | 88.0 |
| 80                     | 91.6 | 91.2 | 90.8 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 | 88.5 | 88.1 |
| 81                     | 91.6 | 91.2 | 90.9 | 90.5 | 90.1 | 89.7 | 89.3 | 89.0 | 88.6 | 88.2 |
| 82                     | 91.7 | 91.3 | 90.9 | 90.5 | 90.2 | 89.8 | 89.4 | 89.0 | 88.7 | 88.3 |
| 83                     | 91.7 | 91.4 | 91.0 | 90.6 | 90.2 | 89.9 | 89.5 | 89.1 | 88.7 | 88.4 |
| 84                     | 91.8 | 91.4 | 91.0 | 90.7 | 90.3 | 89.9 | 89.6 | 89.2 | 88.8 | 88.4 |
| 85                     | 91.9 | 91.5 | 91.1 | 90.7 | 90.4 | 90.0 | 89.6 | 89.3 | 88.9 | 88.5 |
| 86                     | 91.9 | 91.5 | 91.2 | 90.8 | 90.4 | 90.1 | 89.7 | 89.3 | 89.0 | 88.6 |
| 87                     | 92.0 | 91.6 | 91.2 | 90.9 | 90.5 | 90.1 | 89.8 | 89.4 | 89.0 | 88.7 |
| 88                     | 92.0 | 91.7 | 91.3 | 90.9 | 90.6 | 90.2 | 89.8 | 89.5 | 89.1 | 88.8 |
| 89                     | 92.1 | 91.7 | 91.3 | 91.0 | 90.6 | 90.3 | 89.9 | 89.5 | 89.2 | 88.8 |
| 90                     | 92.1 | 91.8 | 91.4 | 91.0 | 90.7 | 90.3 | 90.0 | 89.6 | 89.3 | 88.9 |
| 91                     | 92.2 | 91.8 | 91.5 | 91.1 | 90.7 | 90.4 | 90.0 | 89.7 | 89.3 | 89.0 |
| 92                     | 92.2 | 91.9 | 91.5 | 91.2 | 90.8 | 90.5 | 90.1 | 89.8 | 89.4 | 89.1 |
| 93                     | 92.3 | 91.9 | 91.6 | 91.2 | 90.9 | 90.5 | 90.2 | 89.8 | 89.5 | 89.1 |
| 94                     | 92.3 | 92.0 | 91.6 | 91.3 | 90.9 | 90.6 | 90.2 | 89.9 | 89.5 | 89.2 |
| 95                     | 92.4 | 92.0 | 91.7 | 91.3 | 91.0 | 90.6 | 90.3 | 89.9 | 89.6 | 89.3 |
| 96                     | 92.4 | 92.1 | 91.7 | 91.4 | 91.0 | 90.7 | 90.4 | 90.0 | 89.7 | 89.3 |
| 97                     | 92.5 | 92.1 | 91.8 | 91.4 | 91.1 | 90.8 | 90.4 | 90.1 | 89.7 | 89.4 |
| 98                     | 92.5 | 92.2 | 91.8 | 91.5 | 91.2 | 90.8 | 90.5 | 90.1 | 89.8 | 89.5 |
| 99                     | 92.6 | 92.2 | 91.9 | 91.6 | 91.2 | 90.9 | 90.5 | 90.2 | 89.9 | 89.5 |
| 100                    | 92.6 | 92.3 | 91.9 | 91.6 | 91.3 | 90.9 | 90.6 | 90.3 | 89.9 | 89.6 |







表 5c (续)

| $t - t_w$<br>$t$ | 4.1  | 4.2  | 4.3  | 4.4  | 4.5  | 4.6  | 4.7  | 4.8  | 4.9  | 5.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 58               | 81.1 | 80.6 | 80.2 | 79.8 | 79.4 | 79.0 | 78.5 | 78.1 | 77.7 | 77.3 |
| 59               | 81.2 | 80.8 | 80.4 | 80.0 | 79.6 | 79.1 | 78.7 | 78.3 | 77.9 | 77.5 |
| 60               | 81.4 | 81.0 | 80.6 | 80.2 | 79.7 | 79.3 | 78.9 | 78.5 | 78.1 | 77.7 |
| 61               | 81.6 | 81.1 | 80.7 | 80.3 | 79.9 | 79.5 | 79.1 | 78.7 | 78.3 | 77.9 |
| 62               | 81.7 | 81.3 | 80.9 | 80.5 | 80.1 | 79.7 | 79.3 | 78.9 | 78.5 | 78.1 |
| 63               | 81.9 | 81.5 | 81.1 | 80.6 | 80.2 | 79.8 | 79.4 | 79.0 | 78.6 | 78.2 |
| 64               | 82.0 | 81.6 | 81.2 | 80.8 | 80.4 | 80.0 | 79.6 | 79.2 | 78.8 | 78.4 |
| 65               | 82.2 | 81.8 | 81.4 | 81.0 | 80.6 | 80.2 | 79.8 | 79.4 | 79.0 | 78.6 |
| 66               | 82.3 | 81.9 | 81.5 | 81.1 | 80.7 | 80.3 | 79.9 | 79.5 | 79.2 | 78.8 |
| 67               | 82.4 | 82.0 | 81.7 | 81.3 | 80.9 | 80.5 | 80.1 | 79.7 | 79.3 | 78.9 |
| 68               | 82.6 | 82.2 | 81.8 | 81.4 | 81.0 | 80.6 | 80.2 | 79.9 | 79.5 | 79.1 |
| 69               | 82.7 | 82.3 | 81.9 | 81.5 | 81.2 | 80.8 | 80.4 | 80.0 | 79.6 | 79.3 |
| 70               | 82.8 | 82.5 | 82.1 | 81.7 | 81.3 | 80.9 | 80.5 | 80.2 | 79.8 | 79.4 |
| 71               | 83.0 | 82.6 | 82.2 | 81.8 | 81.4 | 81.1 | 80.7 | 80.3 | 79.9 | 79.6 |
| 72               | 83.1 | 82.7 | 82.3 | 82.0 | 81.6 | 81.2 | 80.8 | 80.5 | 80.1 | 79.7 |
| 73               | 83.2 | 82.9 | 82.5 | 82.1 | 81.7 | 81.3 | 81.0 | 80.6 | 80.2 | 79.9 |
| 74               | 83.4 | 83.0 | 82.6 | 82.2 | 81.9 | 81.5 | 81.1 | 80.7 | 80.4 | 80.0 |
| 75               | 83.5 | 83.1 | 82.7 | 82.4 | 82.0 | 81.6 | 81.2 | 80.9 | 80.5 | 80.2 |
| 76               | 83.6 | 83.2 | 82.9 | 82.5 | 82.1 | 81.7 | 81.4 | 81.0 | 80.7 | 80.3 |
| 77               | 83.7 | 83.3 | 83.0 | 82.6 | 82.2 | 81.9 | 81.5 | 81.2 | 80.8 | 80.4 |
| 78               | 83.8 | 83.5 | 83.1 | 82.7 | 82.4 | 82.0 | 81.6 | 81.3 | 80.9 | 80.6 |
| 79               | 83.9 | 83.6 | 83.2 | 82.9 | 82.5 | 82.1 | 81.8 | 81.4 | 81.1 | 80.7 |
| 80               | 84.1 | 83.7 | 83.3 | 83.0 | 82.6 | 82.3 | 81.9 | 81.5 | 81.2 | 80.8 |
| 81               | 84.2 | 83.8 | 83.4 | 83.1 | 82.7 | 82.4 | 82.0 | 81.7 | 81.3 | 81.0 |
| 82               | 84.3 | 83.9 | 83.6 | 83.2 | 82.9 | 82.5 | 82.1 | 81.8 | 81.4 | 81.1 |
| 83               | 84.4 | 84.0 | 83.7 | 83.3 | 83.0 | 82.6 | 82.3 | 81.9 | 81.6 | 81.2 |
| 84               | 84.5 | 84.1 | 83.8 | 83.4 | 83.1 | 82.7 | 82.4 | 82.0 | 81.7 | 81.4 |
| 85               | 84.6 | 84.2 | 83.9 | 83.5 | 83.2 | 82.9 | 82.5 | 82.2 | 81.8 | 81.5 |
| 86               | 84.7 | 84.3 | 84.0 | 83.7 | 83.3 | 83.0 | 82.6 | 82.3 | 81.9 | 81.6 |
| 87               | 84.8 | 84.5 | 84.1 | 83.8 | 83.4 | 83.1 | 82.7 | 82.4 | 82.1 | 81.7 |
| 88               | 84.9 | 84.6 | 84.2 | 83.9 | 83.5 | 83.2 | 82.8 | 82.5 | 82.2 | 81.8 |
| 89               | 85.0 | 84.7 | 84.3 | 84.0 | 83.6 | 83.3 | 83.0 | 82.6 | 82.3 | 82.0 |
| 90               | 85.1 | 84.8 | 84.4 | 84.1 | 83.7 | 83.4 | 83.1 | 82.7 | 82.4 | 82.1 |
| 91               | 85.2 | 84.9 | 84.5 | 84.2 | 83.8 | 83.5 | 83.2 | 82.8 | 82.5 | 82.2 |
| 92               | 85.3 | 85.0 | 84.6 | 84.3 | 83.9 | 83.6 | 83.3 | 83.0 | 82.6 | 82.3 |
| 93               | 85.4 | 85.0 | 84.7 | 84.4 | 84.1 | 83.7 | 83.4 | 83.1 | 82.7 | 82.4 |
| 94               | 85.5 | 85.1 | 84.8 | 84.5 | 84.2 | 83.8 | 83.5 | 83.2 | 82.8 | 82.5 |
| 95               | 85.6 | 85.2 | 84.9 | 84.6 | 84.3 | 83.9 | 83.6 | 83.3 | 83.0 | 82.6 |
| 96               | 85.7 | 85.3 | 85.0 | 84.7 | 84.4 | 84.0 | 83.7 | 83.4 | 83.1 | 82.7 |
| 97               | 85.7 | 85.4 | 85.1 | 84.8 | 84.4 | 84.1 | 83.8 | 83.5 | 83.2 | 82.8 |
| 98               | 85.8 | 85.5 | 85.2 | 84.9 | 84.5 | 84.2 | 83.9 | 83.6 | 83.3 | 83.0 |
| 99               | 85.9 | 85.6 | 85.3 | 85.0 | 84.6 | 84.3 | 84.0 | 83.7 | 83.4 | 83.1 |
| 100              | 86.0 | 85.7 | 85.4 | 85.1 | 84.7 | 84.4 | 84.1 | 83.8 | 83.5 | 83.2 |

表 5c (续)

| $t - t_w$<br>$t$ | 5.2  | 5.4  | 5.6  | 5.8  | 6.0  | 6.2  | 6.4  | 6.6  | 6.8  | 7.0  |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               | 54.9 | 53.3 | 51.8 | 50.2 | 48.7 | 47.1 | 45.6 | 44.1 | 42.6 | 41.2 |
| 16               | 56.1 | 54.6 | 53.0 | 51.5 | 50.0 | 48.6 | 47.1 | 45.6 | 44.2 | 42.7 |
| 17               | 57.2 | 55.7 | 54.2 | 52.8 | 51.3 | 49.9 | 48.5 | 47.0 | 45.6 | 44.2 |
| 18               | 58.3 | 56.8 | 55.4 | 54.0 | 52.5 | 51.1 | 49.7 | 48.4 | 47.0 | 45.6 |
| 19               | 59.3 | 57.9 | 56.5 | 55.1 | 53.7 | 52.3 | 51.0 | 49.6 | 48.3 | 46.9 |
| 20               | 60.2 | 58.8 | 57.5 | 56.1 | 54.8 | 53.4 | 52.1 | 50.8 | 49.5 | 48.2 |
| 21               | 61.1 | 59.7 | 58.4 | 57.1 | 55.8 | 54.5 | 53.2 | 51.9 | 50.6 | 49.4 |
| 22               | 61.9 | 60.6 | 59.3 | 58.0 | 56.7 | 55.5 | 54.2 | 52.9 | 51.7 | 50.5 |
| 23               | 62.7 | 61.4 | 60.2 | 58.9 | 57.6 | 56.4 | 55.2 | 53.9 | 52.7 | 51.5 |
| 24               | 63.5 | 62.2 | 61.0 | 59.7 | 58.5 | 57.3 | 56.1 | 54.9 | 53.7 | 52.5 |
| 25               | 64.2 | 63.0 | 61.7 | 60.5 | 59.3 | 58.1 | 56.9 | 55.8 | 54.6 | 53.4 |
| 26               | 64.9 | 63.7 | 62.5 | 61.3 | 60.1 | 58.9 | 57.8 | 56.6 | 55.5 | 54.3 |
| 27               | 65.5 | 64.3 | 63.1 | 62.0 | 60.8 | 59.7 | 58.5 | 57.4 | 56.3 | 55.2 |
| 28               | 66.1 | 65.0 | 63.8 | 62.7 | 61.5 | 60.4 | 59.3 | 58.2 | 57.1 | 56.0 |
| 29               | 66.7 | 65.6 | 64.4 | 63.3 | 62.2 | 61.1 | 60.0 | 58.9 | 57.8 | 56.7 |
| 30               | 67.3 | 66.1 | 65.0 | 63.9 | 62.8 | 61.7 | 60.6 | 59.6 | 58.5 | 57.5 |
| 31               | 67.8 | 66.7 | 65.6 | 64.5 | 63.4 | 62.3 | 61.3 | 60.2 | 59.2 | 58.1 |
| 32               | 68.3 | 67.2 | 66.1 | 65.1 | 64.0 | 62.9 | 61.9 | 60.9 | 59.8 | 58.8 |
| 33               | 68.8 | 67.7 | 66.6 | 65.6 | 64.5 | 63.5 | 62.5 | 61.5 | 60.4 | 59.4 |
| 34               | 69.2 | 68.2 | 67.1 | 66.1 | 65.1 | 64.0 | 63.0 | 62.0 | 61.0 | 60.0 |
| 35               | 69.7 | 68.6 | 67.6 | 66.6 | 65.6 | 64.6 | 63.6 | 62.6 | 61.6 | 59.8 |
| 36               | 70.1 | 69.1 | 68.1 | 67.1 | 66.1 | 65.1 | 64.1 | 63.1 | 62.1 | 60.4 |
| 37               | 70.5 | 69.5 | 68.5 | 67.5 | 66.5 | 65.5 | 64.6 | 63.6 | 62.6 | 61.0 |
| 38               | 70.9 | 69.9 | 68.9 | 67.9 | 67.0 | 66.0 | 65.0 | 64.1 | 63.1 | 61.5 |
| 39               | 71.3 | 70.3 | 69.3 | 68.4 | 67.4 | 66.4 | 65.5 | 64.5 | 63.6 | 62.0 |
| 40               | 71.7 | 70.7 | 69.7 | 68.8 | 67.8 | 66.9 | 65.9 | 65.0 | 64.1 | 62.5 |
| 41               | 72.0 | 71.0 | 70.1 | 69.1 | 68.2 | 67.3 | 66.3 | 65.4 | 64.5 | 63.0 |
| 42               | 72.3 | 71.4 | 70.4 | 69.5 | 68.6 | 67.7 | 66.7 | 65.8 | 64.9 | 63.5 |
| 43               | 72.7 | 71.7 | 70.8 | 69.9 | 68.9 | 68.0 | 67.1 | 66.2 | 65.3 | 63.9 |
| 44               | 73.0 | 72.0 | 71.1 | 70.2 | 69.3 | 68.4 | 67.5 | 66.6 | 65.7 | 64.4 |
| 45               | 73.3 | 72.4 | 71.4 | 70.5 | 69.6 | 68.8 | 67.9 | 67.0 | 66.1 | 64.8 |
| 46               | 73.6 | 72.7 | 71.8 | 70.9 | 70.0 | 69.1 | 68.2 | 67.4 | 66.5 | 65.2 |
| 47               | 73.9 | 73.0 | 72.1 | 71.2 | 70.3 | 69.4 | 68.6 | 67.7 | 66.8 | 65.6 |
| 48               | 74.1 | 73.2 | 72.4 | 71.5 | 70.6 | 69.7 | 68.9 | 68.0 | 67.2 | 65.9 |
| 49               | 74.4 | 73.5 | 72.6 | 71.8 | 70.9 | 70.1 | 69.2 | 68.4 | 67.5 | 66.3 |
| 50               | 74.7 | 73.8 | 72.9 | 72.1 | 71.2 | 70.4 | 69.5 | 68.7 | 67.9 | 67.0 |
| 51               | 74.9 | 74.0 | 73.2 | 72.3 | 71.5 | 70.6 | 69.8 | 69.0 | 68.2 | 67.4 |
| 52               | 75.1 | 74.3 | 73.4 | 72.6 | 71.8 | 70.9 | 70.1 | 69.3 | 68.5 | 67.7 |
| 53               | 75.4 | 74.5 | 73.7 | 72.9 | 72.0 | 71.2 | 70.4 | 69.6 | 68.8 | 68.0 |
| 54               | 75.6 | 74.8 | 73.9 | 73.1 | 72.3 | 71.5 | 70.7 | 69.9 | 69.1 | 68.3 |
| 55               | 75.8 | 75.0 | 74.2 | 73.4 | 72.5 | 71.7 | 70.9 | 70.1 | 69.3 | 68.6 |
| 56               | 76.1 | 75.2 | 74.4 | 73.6 | 72.8 | 72.0 | 71.2 | 70.4 | 69.6 | 68.8 |
| 57               | 76.3 | 75.5 | 74.6 | 73.8 | 73.0 | 72.2 | 71.4 | 70.7 | 69.9 | 69.1 |





表 5c (续)

| $t \rightarrow t_w$ | 7.2  | 7.4  | 7.6  | 7.8  | 8.0  | 8.2  | 8.4  | 8.6  | 8.8  | 9.0  |
|---------------------|------|------|------|------|------|------|------|------|------|------|
| 58                  | 68.6 | 67.9 | 67.1 | 66.4 | 65.6 | 64.9 | 64.2 | 63.5 | 62.8 | 62.0 |
| 59                  | 68.9 | 68.1 | 67.4 | 66.7 | 65.9 | 65.2 | 64.5 | 63.8 | 63.1 | 62.4 |
| 60                  | 69.1 | 68.4 | 67.7 | 66.9 | 66.2 | 65.5 | 64.8 | 64.1 | 63.4 | 62.7 |
| 61                  | 69.4 | 68.7 | 67.9 | 67.2 | 66.5 | 65.8 | 65.1 | 64.4 | 63.7 | 63.0 |
| 62                  | 69.6 | 68.9 | 68.2 | 67.5 | 66.8 | 66.1 | 65.3 | 64.6 | 64.0 | 63.3 |
| 63                  | 69.9 | 69.2 | 68.4 | 67.7 | 67.0 | 66.3 | 65.6 | 64.9 | 64.2 | 63.6 |
| 64                  | 70.1 | 69.4 | 68.7 | 68.0 | 67.3 | 66.6 | 65.9 | 65.2 | 64.5 | 63.8 |
| 65                  | 70.4 | 69.6 | 68.9 | 68.2 | 67.5 | 66.8 | 66.2 | 65.5 | 64.8 | 64.1 |
| 66                  | 70.6 | 69.9 | 69.2 | 68.5 | 67.8 | 67.1 | 66.4 | 65.7 | 65.1 | 64.4 |
| 67                  | 70.8 | 70.1 | 69.4 | 68.7 | 68.0 | 67.3 | 66.7 | 66.0 | 65.3 | 64.7 |
| 68                  | 71.0 | 70.3 | 69.6 | 68.9 | 68.3 | 67.6 | 66.9 | 66.2 | 65.6 | 64.9 |
| 69                  | 71.2 | 70.6 | 69.9 | 69.2 | 68.5 | 67.8 | 67.1 | 66.5 | 65.8 | 65.2 |
| 70                  | 71.5 | 70.8 | 70.1 | 69.4 | 68.7 | 68.1 | 67.4 | 66.7 | 66.1 | 65.4 |
| 71                  | 71.7 | 71.0 | 70.3 | 69.6 | 68.9 | 68.3 | 67.6 | 67.0 | 66.3 | 65.7 |
| 72                  | 71.9 | 71.2 | 70.5 | 69.8 | 69.2 | 68.5 | 67.8 | 67.2 | 66.5 | 65.9 |
| 73                  | 72.1 | 71.4 | 70.7 | 70.1 | 69.4 | 68.7 | 68.1 | 67.4 | 66.8 | 66.1 |
| 74                  | 72.3 | 71.6 | 70.9 | 70.3 | 69.6 | 68.9 | 68.3 | 67.7 | 67.0 | 66.4 |
| 75                  | 72.5 | 71.8 | 71.1 | 70.5 | 69.8 | 69.2 | 68.5 | 67.9 | 67.2 | 66.6 |
| 76                  | 72.7 | 72.0 | 71.3 | 70.7 | 70.0 | 69.4 | 68.7 | 68.1 | 67.5 | 66.8 |
| 77                  | 72.8 | 72.2 | 71.5 | 70.9 | 70.2 | 69.6 | 68.9 | 68.3 | 67.7 | 67.1 |
| 78                  | 73.0 | 72.4 | 71.7 | 71.1 | 70.4 | 69.8 | 69.1 | 68.5 | 67.9 | 67.3 |
| 79                  | 73.2 | 72.6 | 71.9 | 71.3 | 70.6 | 70.0 | 69.4 | 68.7 | 68.1 | 67.5 |
| 80                  | 73.4 | 72.7 | 72.1 | 71.4 | 70.8 | 70.2 | 69.6 | 68.9 | 68.3 | 67.7 |
| 81                  | 73.6 | 72.9 | 72.3 | 71.6 | 71.0 | 70.4 | 69.8 | 69.1 | 68.5 | 67.9 |
| 82                  | 73.7 | 73.1 | 72.5 | 71.8 | 71.2 | 70.6 | 69.9 | 69.3 | 68.7 | 68.1 |
| 83                  | 73.9 | 73.3 | 72.6 | 72.0 | 71.4 | 70.8 | 70.1 | 69.5 | 68.9 | 68.3 |
| 84                  | 74.1 | 73.4 | 72.8 | 72.2 | 71.6 | 70.9 | 70.3 | 69.7 | 69.1 | 68.5 |
| 85                  | 74.2 | 73.6 | 73.0 | 72.4 | 71.7 | 71.1 | 70.5 | 69.9 | 69.3 | 68.7 |
| 86                  | 74.4 | 73.8 | 73.2 | 72.5 | 71.9 | 71.3 | 70.7 | 70.1 | 69.5 | 68.9 |
| 87                  | 74.6 | 73.9 | 73.3 | 72.7 | 72.1 | 71.5 | 70.9 | 70.3 | 69.7 | 69.1 |
| 88                  | 74.7 | 74.1 | 73.5 | 72.9 | 72.3 | 71.7 | 71.1 | 70.5 | 69.9 | 69.3 |
| 89                  | 74.9 | 74.3 | 73.7 | 73.0 | 72.4 | 71.8 | 71.2 | 70.7 | 70.1 | 69.5 |
| 90                  | 75.0 | 74.4 | 73.8 | 73.2 | 72.6 | 72.0 | 71.4 | 70.8 | 70.2 | 69.7 |
| 91                  | 75.2 | 74.6 | 74.0 | 73.4 | 72.8 | 72.2 | 71.6 | 71.0 | 70.4 | 69.8 |
| 92                  | 75.4 | 74.7 | 74.1 | 73.5 | 72.9 | 72.4 | 71.8 | 71.2 | 70.6 | 70.0 |
| 93                  | 75.5 | 74.9 | 74.3 | 73.7 | 73.1 | 72.5 | 71.9 | 71.4 | 70.8 | 70.2 |
| 94                  | 75.7 | 75.1 | 74.5 | 73.9 | 73.3 | 72.7 | 72.1 | 71.5 | 70.9 | 70.4 |
| 95                  | 75.8 | 75.2 | 74.6 | 74.0 | 73.4 | 72.8 | 72.3 | 71.7 | 71.1 | 70.6 |
| 96                  | 75.9 | 75.4 | 74.8 | 74.2 | 73.6 | 73.0 | 72.4 | 71.9 | 71.3 | 70.7 |
| 97                  | 76.1 | 75.5 | 74.9 | 74.3 | 73.7 | 73.2 | 72.6 | 72.0 | 71.5 | 70.9 |
| 98                  | 76.2 | 75.6 | 75.1 | 74.5 | 73.9 | 73.3 | 72.8 | 72.2 | 71.6 | 71.1 |
| 99                  | 76.4 | 75.8 | 75.2 | 74.6 | 74.1 | 73.5 | 72.9 | 72.3 | 71.8 | 71.2 |
| 100                 | 76.5 | 75.9 | 75.4 | 74.8 | 74.2 | 73.6 | 73.1 | 72.5 | 72.0 | 71.4 |

表 5c (续)

| $t - t_w$<br>$t$ | 9.2  | 9.4  | 9.6  | 9.8  | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
|------------------|------|------|------|------|------|------|------|------|------|------|
| 15               | 25.5 | 24.1 | 22.8 | 21.4 | 20.1 | 18.7 | 17.4 | 16.1 | 14.8 | 13.5 |
| 16               | 27.5 | 26.2 | 24.9 | 23.6 | 22.3 | 21.0 | 19.7 | 18.4 | 17.2 | 15.9 |
| 17               | 29.4 | 28.2 | 26.9 | 25.6 | 24.4 | 23.1 | 21.9 | 20.6 | 19.4 | 18.2 |
| 18               | 31.3 | 30.0 | 28.8 | 27.5 | 26.3 | 25.1 | 23.9 | 22.7 | 21.5 | 20.3 |
| 19               | 32.9 | 31.7 | 30.5 | 29.3 | 28.1 | 26.9 | 25.8 | 24.6 | 23.4 | 22.3 |
| 20               | 34.5 | 33.4 | 32.2 | 31.0 | 29.8 | 28.7 | 27.5 | 26.4 | 25.3 | 24.2 |
| 21               | 36.0 | 34.9 | 33.7 | 32.6 | 31.5 | 30.3 | 29.2 | 28.1 | 27.0 | 25.9 |
| 22               | 37.5 | 36.3 | 35.2 | 34.1 | 33.0 | 31.9 | 30.8 | 29.7 | 28.7 | 27.6 |
| 23               | 38.8 | 37.7 | 36.6 | 35.5 | 34.4 | 33.4 | 32.3 | 31.2 | 30.2 | 29.2 |
| 24               | 40.1 | 39.0 | 37.9 | 36.9 | 35.8 | 34.8 | 33.7 | 32.7 | 31.7 | 30.6 |
| 25               | 41.3 | 40.2 | 39.2 | 38.1 | 37.1 | 36.1 | 35.1 | 34.0 | 33.0 | 32.0 |
| 26               | 42.4 | 41.4 | 40.3 | 39.3 | 38.3 | 37.3 | 36.3 | 35.3 | 34.3 | 33.4 |
| 27               | 43.5 | 42.5 | 41.5 | 40.5 | 39.5 | 38.5 | 37.5 | 36.5 | 35.6 | 34.6 |
| 28               | 44.5 | 43.5 | 42.5 | 41.5 | 40.6 | 39.6 | 38.6 | 37.7 | 36.8 | 35.8 |
| 29               | 45.5 | 44.5 | 43.5 | 42.6 | 41.6 | 40.7 | 39.7 | 38.8 | 37.9 | 37.0 |
| 30               | 46.4 | 45.4 | 44.5 | 43.5 | 42.6 | 41.7 | 40.8 | 39.8 | 38.9 | 38.0 |
| 31               | 47.3 | 46.3 | 45.4 | 44.5 | 43.5 | 42.6 | 41.7 | 40.8 | 39.9 | 39.1 |
| 32               | 48.1 | 47.2 | 46.3 | 45.3 | 44.4 | 43.5 | 42.7 | 41.8 | 40.9 | 40.0 |
| 33               | 48.9 | 48.0 | 47.1 | 46.2 | 45.3 | 44.4 | 43.5 | 42.7 | 41.8 | 41.0 |
| 34               | 49.7 | 48.8 | 47.9 | 47.0 | 46.1 | 45.2 | 44.4 | 43.5 | 42.7 | 41.8 |
| 35               | 50.4 | 49.5 | 48.6 | 47.8 | 46.9 | 46.0 | 45.2 | 44.4 | 43.5 | 42.7 |
| 36               | 51.1 | 50.2 | 49.4 | 48.5 | 47.6 | 46.8 | 46.0 | 45.1 | 44.3 | 43.5 |
| 37               | 51.8 | 50.9 | 50.0 | 49.2 | 48.4 | 47.5 | 46.7 | 45.9 | 45.1 | 44.3 |
| 38               | 52.4 | 51.5 | 50.7 | 49.9 | 49.0 | 48.2 | 47.4 | 46.6 | 45.8 | 45.0 |
| 39               | 53.0 | 52.2 | 51.3 | 50.5 | 49.7 | 48.9 | 48.1 | 47.3 | 46.5 | 45.7 |
| 40               | 53.6 | 52.8 | 52.0 | 51.1 | 50.3 | 49.5 | 48.7 | 47.9 | 47.2 | 46.4 |
| 41               | 54.2 | 53.3 | 52.5 | 51.7 | 50.9 | 50.1 | 49.4 | 48.6 | 47.8 | 47.0 |
| 42               | 54.7 | 53.9 | 53.1 | 52.3 | 51.5 | 50.7 | 50.0 | 49.2 | 48.4 | 47.7 |
| 43               | 55.2 | 54.4 | 53.6 | 52.9 | 52.1 | 51.3 | 50.5 | 49.8 | 49.0 | 48.3 |
| 44               | 55.7 | 55.0 | 54.2 | 53.4 | 52.6 | 51.9 | 51.1 | 50.3 | 49.6 | 48.9 |
| 45               | 56.2 | 55.4 | 54.7 | 53.9 | 53.1 | 52.4 | 51.6 | 50.9 | 50.2 | 49.4 |
| 46               | 56.7 | 55.9 | 55.2 | 54.4 | 53.6 | 52.9 | 52.2 | 51.4 | 50.7 | 50.0 |
| 47               | 57.2 | 56.4 | 55.6 | 54.9 | 54.1 | 53.4 | 52.7 | 51.9 | 51.2 | 50.5 |
| 48               | 57.6 | 56.8 | 56.1 | 55.3 | 54.6 | 53.9 | 53.1 | 52.4 | 51.7 | 51.0 |
| 49               | 58.0 | 57.3 | 56.5 | 55.8 | 55.1 | 54.3 | 53.6 | 52.9 | 52.2 | 51.5 |
| 50               | 58.4 | 57.7 | 57.0 | 56.2 | 55.5 | 54.8 | 54.1 | 53.4 | 52.6 | 52.0 |
| 51               | 58.8 | 58.1 | 57.4 | 56.6 | 55.9 | 55.2 | 54.5 | 53.8 | 53.1 | 52.4 |
| 52               | 59.2 | 58.5 | 57.8 | 57.1 | 56.3 | 55.6 | 54.9 | 54.2 | 53.5 | 52.9 |
| 53               | 59.6 | 58.9 | 58.2 | 57.4 | 56.7 | 56.0 | 55.3 | 54.7 | 54.0 | 53.3 |
| 54               | 60.0 | 59.3 | 58.5 | 57.8 | 57.1 | 56.4 | 55.7 | 55.1 | 54.4 | 53.7 |
| 55               | 60.3 | 59.6 | 58.9 | 58.2 | 57.5 | 56.8 | 56.1 | 55.5 | 54.8 | 54.1 |
| 56               | 60.7 | 60.0 | 59.3 | 58.6 | 57.9 | 57.2 | 56.5 | 55.8 | 55.2 | 54.5 |
| 57               | 61.0 | 60.3 | 59.6 | 58.9 | 58.2 | 57.6 | 56.9 | 56.2 | 55.6 | 54.9 |











表 6 (续)

| $t \backslash t - t_w$ | 0.0    | 0.1    | 0.2    | 0.3    | 0.4    | 0.5    | 0.6    | 0.7    | 0.8    | 0.9    |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 75                     | 38.555 | 38.717 | 38.879 | 39.042 | 39.205 | 39.369 | 39.534 | 39.699 | 39.864 | 40.031 |
| 76                     | 40.197 | 40.365 | 40.533 | 40.701 | 40.870 | 41.040 | 41.210 | 41.381 | 41.553 | 41.725 |
| 77                     | 41.898 | 42.071 | 42.245 | 42.419 | 42.595 | 42.770 | 42.947 | 43.124 | 43.301 | 43.479 |
| 78                     | 43.658 | 43.838 | 44.018 | 44.198 | 44.379 | 44.561 | 44.744 | 44.927 | 45.111 | 45.295 |
| 79                     | 45.480 | 45.666 | 45.852 | 46.039 | 46.227 | 46.415 | 46.604 | 46.794 | 46.984 | 47.175 |
| 80                     | 47.366 | 47.558 | 47.751 | 47.944 | 48.139 | 48.333 | 48.529 | 48.725 | 48.922 | 49.119 |
| 81                     | 49.317 | 49.516 | 49.715 | 49.915 | 50.116 | 50.318 | 50.520 | 50.722 | 50.926 | 51.130 |
| 82                     | 51.335 | 51.541 | 51.747 | 51.954 | 52.161 | 52.370 | 52.579 | 52.788 | 52.999 | 53.210 |
| 83                     | 53.422 | 53.634 | 53.848 | 54.061 | 54.276 | 54.491 | 54.708 | 54.924 | 55.142 | 55.360 |
| 84                     | 55.579 | 55.799 | 56.019 | 56.240 | 56.462 | 56.685 | 56.908 | 57.132 | 57.357 | 57.583 |
| 85                     | 57.809 | 58.036 | 58.264 | 58.492 | 58.722 | 58.952 | 59.182 | 59.414 | 59.646 | 59.879 |
| 86                     | 60.113 | 60.348 | 60.583 | 60.819 | 61.056 | 61.294 | 61.532 | 61.771 | 62.011 | 62.252 |
| 87                     | 62.494 | 62.736 | 62.979 | 63.223 | 63.468 | 63.713 | 63.959 | 64.207 | 64.454 | 64.703 |
| 88                     | 64.953 | 65.203 | 65.454 | 65.706 | 65.958 | 66.212 | 66.466 | 66.721 | 66.977 | 67.234 |
| 89                     | 67.492 | 67.750 | 68.009 | 68.269 | 68.530 | 68.792 | 69.054 | 69.318 | 69.582 | 69.847 |
| 90                     | 70.113 | 70.380 | 70.647 | 70.916 | 71.185 | 71.455 | 71.726 | 71.998 | 72.271 | 72.544 |
| 91                     | 72.819 | 73.094 | 73.370 | 73.647 | 73.925 | 74.204 | 74.484 | 74.764 | 75.046 | 75.328 |
| 92                     | 75.611 | 75.897 | 76.182 | 76.466 | 76.753 | 77.041 | 77.329 | 77.618 | 77.908 | 78.198 |

