**Supplementary Table 5**

Items discrimination and response category difficulty thresholds of 23 items in LEBA (n =690)

| Items | a | b1 | b2 | b3 | b4 |
| --- | --- | --- | --- | --- | --- |
| **F1: Wearing blue light ﬁlters** | | | | | |
| Item 16 | 28.13 | 0.78 | 0.90 | 1.06 | 1.40 |
| Item 36 | 4.49 | 0.94 | 1.08 | 1.23 | 1.40 |
| Item 17 | 2.81 | 0.97 | 1.11 | 1.38 | 1.62 |
| **F2: Spending time outdoors** | | | | | |
| Item 11 | 3.27 | -0.79 | 0.65 | 1.54 | 2.31 |
| Item 10 | 3.07 | -1.27 | -0.09 | 0.82 | 2.00 |
| Item 12 | 1.72 | -0.67 | 0.44 | 1.28 | 2.11 |
| Item 07 | 1.09 | -0.50 | 0.73 | 1.63 | 2.97 |
| Item 08 | 1.19 | -2.26 | -0.48 | 0.64 | 1.91 |
| Item 09 | 0.91 | -2.63 | -0.96 | 1.11 | 3.49 |
| **F3: Using phone and smartwatch in bed** | | | | | |
| Item 27 | 2.21 | -1.88 | -1.19 | -0.73 | 0.30 |
| Item 03 | 3.03 | -1.24 | -0.77 | -0.20 | 0.66 |
| Item 40 | 1.55 | -0.51 | 0.46 | 1.32 | 2.22 |
| Item 30 | 0.49 | 3.27 | 3.74 | 4.64 | 6.52 |
| Item 41 | 0.51 | 3.87 | 4.78 | 6.39 | 8.91 |
| **F4: Using light before bedtime** | | | | | |
| Item 32 | 1.62 | -1.03 | -0.78 | -0.42 | 0.16 |
| Item 35 | 1.37 | -1.09 | -0.98 | -0.75 | -0.40 |
| Item 38 | 0.40 | -7.48 | -5.56 | -4.23 | -0.90 |
| Item 33 | 12.31 | -0.66 | -0.48 | -0.24 | 0.13 |
| **F5: Using light in the morning and during daytime** | | | | | |
| Item 46 | 2.22 | 0.68 | 0.89 | 1.38 | 2.17 |
| Item 45 | 1.51 | 0.30 | 0.55 | 1.17 | 1.91 |
| Item 25 | 0.52 | -1.37 | -0.04 | 1.89 | 4.22 |
| Item 04 | 0.84 | 2.44 | 2.80 | 3.18 | 3.67 |
| Item 01 | 0.39 | -0.91 | 1.52 | 3.25 | 5.53 |

*Note.* a = item discrimination parameter; b(1-4) = response category difficulty parameter