White light during daytime does not improve alertness in well-rested individuals.

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Table S1: Photometric properties of background- and experimental light according to the Lucas file (Lucas et al., 2014)

| Type               | Color temperature (K) | Illuminance (lux) | Cyanopic (lux) | Melanopic (lux) | Rhodopic (lux) | Chloropic (lux) | Erythropic (lux) |
|--------------------|-----------------------|-------------------|----------------|-----------------|----------------|-----------------|------------------|
| Background         | 2500                  | 10                | 3              | 4               | 5              | 8               | 10               |
| Experimental light | 5800                  | 24                | 20             | 21              | 23             | 27              | 29               |
| Experimental light | 5800                  | 74                | 66             | 67              | 68             | 73              | 74               |
| Experimental light | 5800                  | 222               | 206            | 219             | 221            | 230             | 226              |
| Experimental light | 5800                  | 666               | 584            | 642             | 644            | 661             | 647              |
| Experimental light | 5800                  | 2000              | 1744           | 1933            | 1934           | 1975            | 1925             |

Figure S1: Spectral composition of background light (dashed line) and experimental light (solid line). Illuminance was measured on the vertical plane at the level of the eye. Background light was generated by ceiling-mounted fluorescent light TL tubes. Experimental light consisted of a modified Philips Energy Up light, in which two white LEDs had been substituted by two blue LEDs.
Figure S2: Time course of performance correlates of alertness, measured with the Go-NoGo task. Depicted from top to bottom are the 10% fastest (A)- and slowest (B) reaction times, average overall reaction time (C), average reaction time in the first (D)- and last minute (E). N=10 per intensity group. Data represent mean ± SEM. Timing of DL and EL is indicated by the grey and white shaded areas respectively.
Figure S3: Time course of physiological correlates of alertness, measured with infrared radiation detection glasses. Depicted are the blink frequency (A), eyelid closing time (B), total time that the eyelid is closed (C) and the reopening time (D). N=10 per intensity group. Data represent mean ± SEM. Timing of DL and EL is indicated by the grey and white shaded areas respectively.

Figure S4: Time course of skin temperature, measured with Ibuttons. Depicted are the proximal (A)- and distal (B) skin temperature. N=10 per intensity group. Data represent mean (black line) ± SEM(grey). Timing of DL and EL is indicated by the grey and white shaded areas respectively.
Figure S5: Hypothetical data illustrating the applied correction for time of day effects. A linear interpolation was used to
determine the slope between the last point in DL of one block and the last point in DL in the next block (indicated by dashed
line). The vertical distance of every data point relative to this interpolation was determined, at the level of participant ID.
Figure S6: Relationship between illuminance and reaction time on the Go-NoGo task. Depicted are the 10% fastest (A)- and slowest (B) reaction times, average reaction time (C), average reaction time in the first (D) and -last minute (E) against intensity (lux). Intensity is depicted on a logarithmic scale. All reaction time parameters are z-transformed and corrected for time of day effects at the level of participant ID. Data represent mean ± SEM. Black circles with solid lines represent data collected after 18 minutes of EL exposure, squares with dashed lines follow data after 48 minutes EL exposure and triangles with dotted lines represent data collected 18 minutes after EL was turned off.
Figure S7: Relationship between illuminance and eye-parameters. Depicted are blink frequency (A), eyelid closing time (B), total time that the eyelid was closed (C) and eyelid reopening time (D) against intensity (lux). Intensity is depicted on a logarithmic scale. Eye parameter values are z-transformed and corrected for time of day at the level of participant ID. Data represent mean ± SEM. Black circles with solid lines represent data collected after 18 minutes of EL exposure, squares with dashed lines follow data collected after 48 minutes EL exposure and triangles with dotted lines represent data collected 18 minutes after EL was turned off.
Figure S8: Relationship between illuminance (depicted on a logarithmic scale) and distal (A)- and proximal (B) skin temperature. Values are z-transformed and corrected for time of day effects at the level of participant ID. Data represent mean ± SEM. Black circles with solid lines represent data collected after 18 minutes of EL exposure, squares with dashed lines follow data collected after 48 minutes EL exposure and triangles with dotted lines represent data collected 18 minutes after EL was turned off.

Figure S9: Relationship between illuminance (depicted on a logarithmic scale) and fastest (A)- and slowest (B) reaction times, average reaction time (C) and first (D)- and last minute (E) reaction time. Values are averaged over all times of day, z-transformed and corrected for time of day effects at the level of participant ID. Data represent mean ± SEM. Black circles with solid lines represent data collected after 18 minutes of EL exposure, squares with dashed lines follow data collected after 48 minutes EL exposure and triangles with dotted lines represent data collected 18 minutes after EL was turned off.

Figure S10: Relationship between illuminance (depicted on a logarithmic scale) and blink frequency (A), eyelid closing time (B), the total time that the eyelid is closed (C) and reopening time (D). Values are averaged over all times of day, z-transformed and corrected for time of day effects at the level of participant ID. Data represent mean ± SEM. Black circles with solid lines represent data collected after 18 minutes of EL exposure, squares with dashed lines follow data collected after 48 minutes EL exposure and triangles with dotted lines represent data collected 18 minutes after EL was turned off.
Figure S1: Relationship between illuminance (depicted on a logarithmic scale) and distal (A)- and proximal (B) skin temperature and the distal-proximal gradient. Values are averaged over all times of day, z-transformed and corrected for time of day effects at the level of participant ID. Data represent mean ± SEM. Black circles with solid lines represent data collected after 18 minutes of EL exposure, squares with dashed lines follow data collected after 48 minutes EL exposure and triangles with dotted lines represent data collected 18 minutes after EL was turned off.
Table S2: Dose response curves were fitted with a modified version of the Naka-Rushton equation: $Fit = \frac{P_{max} - P_{min}}{1 + \left(\frac{X}{EC50}\right)^a}$. Values of the best fit are shown for subjective alertness, median reaction time and blink duration at different times of day, during- or after EL exposure.

|                          | $P_{min}$ | $P_{max}$ | $a$  | $b$  | $p$  | $F$  | $SS$ | $Df$ |
|--------------------------|-----------|-----------|------|------|------|------|------|------|
| Sleepiness score         |           |           |      |      |      |      |      |      |
| 09:00 – 10:00 EL         |           |           |      |      |      |      |      |      |
| 18 min. EL exposure      | -0.20     | 2.38      | 1.31 | 27.03| 0.72 | 0.45 | 65.95| 46   |
| 48 min. EL exposure      | -2.28     | 0.45      | 4.04 | 6.17 | 0.60 | 0.62 | 62.71| 46   |
| 18 min. after EL was turned off | -2.52     | 0.14      | 4.07 | 4.50 | 0.34 | 1.14 | 47.60| 46   |
| Sleepiness score         |           |           |      |      |      |      |      |      |
| 11:30 – 12:30 EL         |           |           |      |      |      |      |      |      |
| 18 min. EL exposure      | 0.041     | 2.96      | 1.27 | 48.18| 1.00 | 0.01 | 46.28| 46   |
| 48 min. EL exposure      | -0.15     | 0.67      | 2.61 | 0.27 | 1.00 | 0.01 | 59.31| 46   |
| 18 min. after EL was turned off | -1.34     | 1.66      | 1.60 | 0.44 | 0.87 | 0.24 | 34.06| 46   |
| Sleepiness score         |           |           |      |      |      |      |      |      |
| 14:00 – 15:00 EL         |           |           |      |      |      |      |      |      |
| 18 min. EL exposure      | 0.21      | 0.52      | 2.30 | 45.71| 0.74 | 0.41 | 37.17| 46   |
| 48 min. EL exposure      | 0.001     | 3.38      | 0.65 | 1.43 | 0.70 | 0.47 | 63.47| 46   |
| 18 min. after EL was turned off | 0.17      | 2.25      | 1.36 | 3.15 | 0.13 | 1.96 | 37.07| 46   |
| Sleepiness score         |           |           |      |      |      |      |      |      |
| 16:30 – 17:30 EL         |           |           |      |      |      |      |      |      |
| 18 min. EL exposure      | -0.54     | 0.40      | 3.01 | 46.07| 0.25 | 1.41 | 73.46| 46   |
| 48 min. EL exposure      | -1.77     | 3.16      | 0.87 | 0.25 | 0.98 | 0.06 | 116.18| 46   |
| Median reaction time     |           |           |      |      |      |      |      |      |
| 09:00 – 10:00 EL         |           |           |      |      |      |      |      |      |
| 18 min. EL exposure      | -1.06     | 2.14      | 1.31 | -0.25| 0.96 | 0.11 | 38.83| 46   |
| 48 min. EL exposure      | -1.07     | 0.51      | 1.30 | -25.05| 0.78 | 0.35 | 27.22| 46   |
| 18 min. after EL was turned off | -1.19     | 1.22      | 1.11 | -0.56| 0.78 | 0.36 | 21.67| 46   |
| Median reaction time     |           |           |      |      |      |      |      |      |
| 11:30 – 12:30 EL         |           |           |      |      |      |      |      |      |
| 18 min. EL exposure      | -1.84     | 0.88      | 1.20 | -0.67| 0.513| 0.78 | 18.23| 46   |
| 48 min. EL exposure      | -0.53     | -0.12     | -64.88| 1.87 | 0.26 | 1.37 | 15.44| 46   |
| 18 min. after EL was turned off | -0.65     | -0.15     | -1.86 | -69.71| 0.19 | 1.65 | 18.69| 46   |
| Median reaction time     |           |           |      |      |      |      |      |      |
| 14:00 – 15:00 EL         |           |           |      |      |      |      |      |      |
| 18 min. EL exposure      | -2.08     | -0.27     | 1.24 | -8.06| 0.32 | 1.18 | 29.36| 46   |
| 48 min. EL exposure      | -1.45     | -0.29     | 1.31 | -9.49| 0.35 | 1.11 | 21.43| 46   |
| 18 min. after EL was turned off | -1.73     | -0.31     | 1.27 | -14.17| 0.54 | 0.75 | 20.08| 46   |
| Median reaction time     |           |           |      |      |      |      |      |      |
| 16:30 – 17:30 EL         |           |           |      |      |      |      |      |      |
| 18 min. EL exposure      | -0.42     | -0.36     | 0.79 | -12.04| 1   | 2.71^*5 | 55.58| 46   |
| 48 min. EL exposure      | -3.34     | -0.35     | 0.73 | -13.27| 1   | 2.56^ -6 | 80.52| 46   |
| Blink duration           |           |           |      |      |      |      |      |      |
| 09:00 – 10:00 EL         |           |           |      |      |      |      |      |      |
| 18 min. EL exposure      | -0.20     | 0.72      | 1.26 | -0.10| 1.00 | 5.71^*^4 | 69.20| 46   |
| 48 min. EL exposure      | -1.79     | 2.24      | 2.68 | 0.61 | 0.75 | 0.40 | 65.93| 46   |
| 18 min. after EL was turned off | -1.91     | 1.84      | 2.14 | 0.50 | 0.79 | 0.35 | 47.21| 46   |
| Blink duration           |           |           |      |      |      |      |      |      |
| 11:30 – 12:30 EL         |           |           |      |      |      |      |      |      |
| 18 min. EL exposure      | -1.49     | 1.92      | 2.48 | 0.15 | 1.00 | 0.02 | 71.73| 46   |
| 48 min. EL exposure      | -1.68     | 2.41      | 2.33 | -0.29| 0.96 | 0.09 | 68.26| 46   |
| 18 min. after EL was turned off | -1.93     | 1.83      | 1.99 | 0.24 | 0.97 | 0.09 | 41.89| 46   |
| Blink duration           |           |           |      |      |      |      |      |      |
| 14:00 – 15:00 EL         |           |           |      |      |      |      |      |      |
| 18 min. EL exposure      | -0.97     | 0.30      | 1.20 | -3.84| 0.65 | 0.55 | 36.47| 46   |
| 48 min. EL exposure      | -1.98     | 1.84      | 3.17 | 0.39 | 0.92 | 0.16 | 63.46| 46   |
| 18 min. after EL was turned off | -2.37     | 2.62      | 1.42 | 0.47 | 0.71 | 0.46 | 54.17| 46   |
| Blink duration           |           |           |      |      |      |      |      |      |
| 16:30 – 17:30 EL         |           |           |      |      |      |      |      |      |
| 18 min. EL exposure      | -2.27     | 0.11      | 1.24 | -13.08| 0.79 | 0.35 | 81.68| 46   |
| 48 min. EL exposure      | -3.96     | 3.70^*^3 | 1.33 | -21.04| 0.37 | 1.07 | 171.44| 46   |
Table S3: Dose response curves were fitted with a modified version of the Naka-Rushton equation: $Y = P_{\text{min}} + \frac{P_{\text{max}} - P_{\text{min}}}{1 + (E_0/EC_{50})^a}$. Values of the best fit are shown for all other parameters of alertness, during- or after EL exposure. Significant values are indicated with *, but only last minute reaction time reached significance at 12:48, 18 minutes after EL had been turned off, after correcting for multiple comparisons ($\alpha_{\text{corrected}}=0.05/3$).
|                                | Pmin | Pmax | α  | B   | p    | F    | SS  | Df  |
|--------------------------------|------|------|----|-----|------|------|-----|-----|
| **Last minute reaction time**  |      |      |    |     |      |      |     |     |
| 09:00 – 10:00 EL              | 0.09 | 0.48 | 2.80 | 66.75 | 0.59 | 0.63 | 29.76 | 46  |
| 18 min. after EL was turned off| -0.78 | 0.85 | 0.61 | 0.19 | 1.00 | 0.05 | 21.57 | 46  |
| 11:30 – 12:30 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -1.59 | 0.48 | 1.04 | -0.60 | 0.83 | 0.29 | 21.81 | 46  |
| 14:00 – 15:00 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -1.35 | 0.01 | 1.22 | -6.73 | 0.57 | 0.66 | 30.11 | 46  |
| 16:30 – 17:30 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -1.35 | 1.39 | 1.24 | 0.36 | 0.92 | 0.16 | 26.86 | 46  |
| **Blink frequency**            |      |      |    |     |      |      |     |     |
| 09:00 – 10:00 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -1.71 | 2.45 | 2.01 | -0.13 | 1.00 | 0.01 | 19.15 | 46  |
| 11:30 – 12:30 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -0.98 | 1.61 | 2.08 | 0.61 | 0.86 | 0.25 | 45.43 | 46  |
| 14:00 – 15:00 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -2.13 | 0.48 | 3.34 | 71.27 | 0.36 | 1.09 | 61.95 | 46  |
| 16:30 – 17:30 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -0.60 | 1.00 | 0.75 | 0.01 | 1.00 | 5.71 | 32.11 | 46  |
| **Closing time**               |      |      |    |     |      |      |     |     |
| 09:00 – 10:00 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -0.93 | 1.90 | 1.94 | -0.12 | 1.00 | 0.01 | 68.53 | 46  |
| 11:30 – 12:30 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -0.06 | 0.16 | 2.83 | -53.47 | 0.92 | 0.16 | 34.57 | 46  |
| 14:00 – 15:00 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -1.46 | 2.19 | 2.43 | -0.44 | 0.94 | 0.13 | 91.83 | 46  |
| 16:30 – 17:30 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -0.03 | 3.79 | 3.34 | 28.48 | 0.28 | 1.31 | 49.33 | 46  |
| **Total closed time**          |      |      |    |     |      |      |     |     |
| 09:00 – 10:00 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -0.20 | 2.04 | 2.05 | 0.27 | 0.94 | 0.13 | 41.81 | 46  |
| 11:30 – 12:30 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -0.34 | 1.41 | 3.57 | -0.20 | 1.00 | 0.01 | 68.53 | 46  |
| 14:00 – 15:00 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -1.33 | 1.10 | 1.21 | -0.33 | 1.00 | 0.08 | 34.75 | 46  |
| 16:30 – 17:30 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -1.81 | 2.63 | 1.07 | 0.36 | 0.88 | 0.22 | 52.79 | 46  |
| **Total closed time**          |      |      |    |     |      |      |     |     |
| 14:00 – 15:00 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -0.25 | 0.98 | 0.54 | -0.14 | 1.00 | 0.02 | 82.06 | 46  |
| **Reopening time**             |      |      |    |     |      |      |     |     |
| 09:00 – 10:00 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -0.30 | 0.34 | 0.82 | -2.41 | 0.99 | 0.05 | 78.83 | 46  |
| 11:30 – 12:30 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -0.14 | 0.86 | 1.07 | 5.93 | 0.97 | 0.08 | 41.22 | 46  |
| 14:00 – 15:00 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -0.81 | 1.32 | 1.44 | -0.82 | 0.48 | 0.83 | 35.46 | 46  |
| 16:30 – 17:30 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -0.38 | 0.13 | 0.60 | -0.12 | 1.00 | 2.26 | 92.29 | 46  |
| **Reopening time**             |      |      |    |     |      |      |     |     |
| 14:00 – 15:00 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| 0.12  | 3.66 | 1.31 | 47.81 | 0.95 | 0.12 | 78.74 | 46  |
| 16:30 – 17:30 EL              |      |      |    |     |      |      |     |     |
| 18 min. after EL was turned off| -2.32 | 0.63 | 1.07 | -2.70 | 0.44 | 0.91 | 80.30 | 46  |
| Time                | Condition                          | Pmin  | Pmax  | α     | B     | p     | F     | SS   | Df  |
|---------------------|------------------------------------|-------|-------|-------|-------|-------|-------|------|-----|
| 09:00 - 10:00 EL    | Distal skin temperature            | 18 min. EL exposure | -0.14 | 0.23  | 1.38  | 0.96  | 0.32  | 1.21 | 0.46 | 46  |
|                     |                                    | 48 min. EL exposure | -0.28 | 0.24  | 3.02  | 0.58  | 0.71  | 0.46 | 0.84 | 46  |
|                     |                                    | 18 min. after EL was turned off| -0.07 | -0.02 | 2.75  | 78.36 | 0.79  | 0.35 | 1.37 | 46  |
| 11:30 - 12:30 EL    | Distal skin temperature            | 18 min. EL exposure | -0.83 | 0.78  | 1.99  | -0.58 | 0.29  | 1.30 | 3.03 | 46  |
|                     |                                    | 48 min. EL exposure | -0.57 | 0.56  | 4.15  | -0.16 | 0.99  | 0.04 | 3.51 | 46  |
|                     |                                    | 18 min. after EL was turned off| -0.21 | -0.04 | 2.29  | -67.41| 0.20  | 1.62 | 3.29 | 46  |
| 14:00 - 15:00 EL    | Distal skin temperature            | 18 min. EL exposure | -0.08 | 0.50  | 3.34  | -80.75| 0.32  | 1.20 | 2.39 | 46  |
|                     |                                    | 48 min. EL exposure | -0.04 | 1.28  | 3.72  | -14.85| 0.61  | 0.62 | 6.89 | 46  |
|                     |                                    | 18 min. after EL was turned off| -0.46 | 0.36  | 1.44  | 0.26  | 0.97  | 0.08 | 2.68 | 46  |
| 16:30 - 17:30 EL    | Distal skin temperature            | 18 min. EL exposure | -0.51 | 0.41  | 4.17  | 0.14  | 0.99  | 0.03 | 2.88 | 46  |
|                     |                                    | 48 min. EL exposure | -0.17 | 0.32  | 3.76  | -0.38 | 0.97  | 0.05 | 2.99 | 46  |
| 09:00 - 10:00 EL    | Proximal skin temperature          | 18 min. EL exposure | -0.90 | 2.78  | 1.17  | 0.63  | 0.51  | 0.78 | 28.62| 46  |
| 11:30 - 12:30 EL    | Proximal skin temperature          | 18 min. EL exposure | -1.23 | 1.10  | 4.50  | 3.60  | 0.56  | 0.69 | 42.98| 46  |
|                     |                                    | 48 min. EL exposure | -1.05 | 0.40  | 3.36  | 37.66 | 0.34  | 1.13 | 24.56| 46  |
| 14:00 - 15:00 EL    | Proximal skin temperature          | 18 min. EL exposure | -1.14 | 2.01  | 3.01  | -0.42 | 0.84  | 0.27 | 28.84| 46  |
|                     |                                    | 48 min. EL exposure | -0.28 | 1.50  | 1.97  | -0.03 | 1.00  | 2.45  | 4.97 | 46  |
|                     |                                    | 18 min. after EL was turned off | -1.63 | 1.85  | 1.64  | 0.19  | 0.98  | 0.06 | 35.22| 46  |
| 16:30 - 17:30 EL    | Proximal skin temperature          | 18 min. EL exposure | -0.33 | 0.99  | 1.20  | 0.22  | 1.00  | 8.52  | 42.76| 46  |
|                     |                                    | 48 min. EL exposure | 0.19  | 2.78  | 1.36  | 39.63 | 0.06  | 2.63  | 44.18| 46  |
|                     |                                    | 18 min. after EL was turned off | -2.10 | 0.15  | 0.87  | -2.29 | 0.447 | 0.86  | 26.21| 46  |
| 09:00 - 10:00 EL    | Distal-Proximal gradient           | 18 min. EL exposure | -0.64 | -0.32 | 2.10  | 94.59 | 0.72  | 0.44  | 44.55| 46  |
| 11:30 - 12:30 EL    | Distal-Proximal gradient           | 18 min. EL exposure | -0.74 | 2.05  | 3.60  | -16.62| 0.58  | 0.66  | 52.34| 46  |
|                     |                                    | 48 min. EL exposure | -0.42 | 1.40  | 3.44  | -15.94| 0.28  | 1.30  | 34.95| 46  |
|                     |                                    | 18 min. after EL was turned off | -1.09 | 0.51  | 2.56  | -0.52 | 0.90  | 0.19  | 17.08| 46  |
| 14:00 - 15:00 EL    | Distal-Proximal gradient           | 18 min. EL exposure | -1.21 | 0.38  | 4.46  | -0.33 | 0.99  | 0.03  | 37.45| 46  |
|                     |                                    | 48 min. EL exposure | -0.60 | 0.47  | 3.61  | -0.23 | 1.00  | 0.01  | 23.46| 46  |
|                     |                                    | 18 min. after EL was turned off | -1.83 | -0.20 | 1.34  | -27.83| 0.15  | 1.85  | 17.91| 46  |
| 16:30 - 17:30 EL    | Distal-Proximal gradient           | 18 min. EL exposure | -0.68 | -0.08 | 2.40  | -82.79| 0.11  | 2.11  | 28.43| 46  |
|                     |                                    | 48 min. EL exposure | -2.12 | 2.29  | 0.71  | 0.07  | 1.00  | 0.01  | 28.67| 46  |
|                     |                                    | 18 min. after EL was turned off | -1.49 | 0.99  | 2.49  | 0.14  | 1.00  | 0.02  | 32.67| 46  |
|                     |                                    | 48 min. EL exposure | -0.69 | 2.05  | 4.60  | -4.14 | 0.72  | 0.45  | 62.67| 46  |
Table 54: Dose response curves were fitted with a modified version of the Naka-Rushton equation: \( Y = P_{min} \frac{P_{max} - P_{min}}{1 + \left( \frac{[L]}{K} \right)^a} \).

Values of the best fit are shown for all other parameters of alertness, during- or after EL exposure on averaged values over time of day. Significant values are indicated with *, but none of them reached significance after correcting for multiple comparisons (\( \alpha_{corrected} = 0.02 \)).

| Parameter                        | 18 min. EL exposure | 48 min. EL exposure | 18 min. after EL was turned off |
|----------------------------------|---------------------|---------------------|-------------------------------|
| **Sleepiness**                   |                     |                     |                               |
| First minute reaction time       | -1.82               | 0.20                | 3.75                          |
| Last minute reaction time        | -1.78               | 0.59                | 6.08                          |
| **Reaction time**                |                     |                     |                               |
| 10%slowest reaction time         | -1.19               | -0.02               | 1.31                          |
| 10%fastest reaction time         | -1.27               | 0.19                | 1.22                          |
| Average reaction time            | -1.68               | 0.18                | 1.12                          |
| 10%slowest reaction time         | -1.58               | 0.76                | 1.24                          |
| 10%fastest reaction time         | -1.77               | 1.00                | 1.11                          |
| **Blink duration**               |                     |                     |                               |
| 18 min. EL exposure              | -0.46               | -0.05               | 1.30                          |
| 48 min. EL exposure              | -1.11               | 0.64                | 1.722                         |
| 18 min. after EL was turned off  | -1.22               | 0.01                | 1.37                          |
| **Sleepiness**                   |                     |                     |                               |
| Average reaction time            | -1.08               | -0.07               | 1.31                          |
| 18 min. after EL was turned off  | -1.09               | -0.10               | 1.31                          |
| **First minute reaction time**   |                     |                     |                               |
| 18 min. EL exposure              | -0.92               | -0.01               | 1.37                          |
| 48 min. EL exposure              | -0.89               | -0.04               | 1.37                          |
| 18 min. after EL was turned off  | -0.94               | -0.05               | 1.36                          |
| **Last minute reaction time**    |                     |                     |                               |
| 18 min. EL exposure              | -0.13               | 0.18                | 1.08                          |
| 48 min. EL exposure              | -0.13               | 0.84                | 0.91                          |
| 18 min. after EL was turned off  | -0.69               | -0.05               | 1.33                          |
| **Blink frequency**              |                     |                     |                               |
| 18 min. EL exposure              | -0.95               | 1.70                | 2.08                          |
| 48 min. EL exposure              | -1.53               | 2.11                | 2.49                          |
| 18 min. after EL was turned off  | -1.22               | 0.49                | 3.42                          |
| **Closing time**                 |                     |                     |                               |
| 18 min. EL exposure              | 0.30                | 1.77                | 3.06                          |
| 48 min. EL exposure              | -0.43               | 1.32                | 2.32                          |
| 18 min. after EL was turned off  | -1.25               | 0.20                | 6.98                          |
| **Total closed time**            |                     |                     |                               |
| 18 min. EL exposure              | -1.11               | 1.49                | 1.16                          |
| 48 min. EL exposure              | -0.80               | 0.60                | 0.73                          |
| 18 min. after EL was turned off  | -0.03               | 1.63                | 1.33                          |
| **Reopening time**               |                     |                     |                               |
| 18 min. EL exposure              | -1.44               | 1.34                | 1.43                          |
| 48 min. EL exposure              | -0.20               | 0.18                | 2.01                          |
| 18 min. after EL was turned off  | -0.07               | 1.76                | 4.76                          |
| **Distal skin temperature**      |                     |                     |                               |
| 18 min. EL exposure              | -0.45               | 0.26                | 0.92                          |
| 48 min. EL exposure              | -0.38               | 0.29                | 1.62                          |
| 18 min. after EL was turned off  | -0.05               | 0.03                | 2.59                          |
| **Proximal skin temperature**    |                     |                     |                               |
| 18 min. EL exposure              | -0.69               | 1.22                | 3.95                          |
| 48 min. EL exposure              | -1.00               | 1.55                | 2.32                          |
| 18 min. after EL was turned off  | 0.18                | 0.36                | 2.62                          |
| **Distal proximal gradient**     |                     |                     |                               |
| 18 min. EL exposure              | -0.90               | 0.33                | 3.35                          |
| 48 min. EL exposure              | -1.42               | 0.96                | 2.80                          |
| 18 min. after EL was turned off  | -0.42               | -0.15               | 2.50                          |