

1 **Supplementary data**

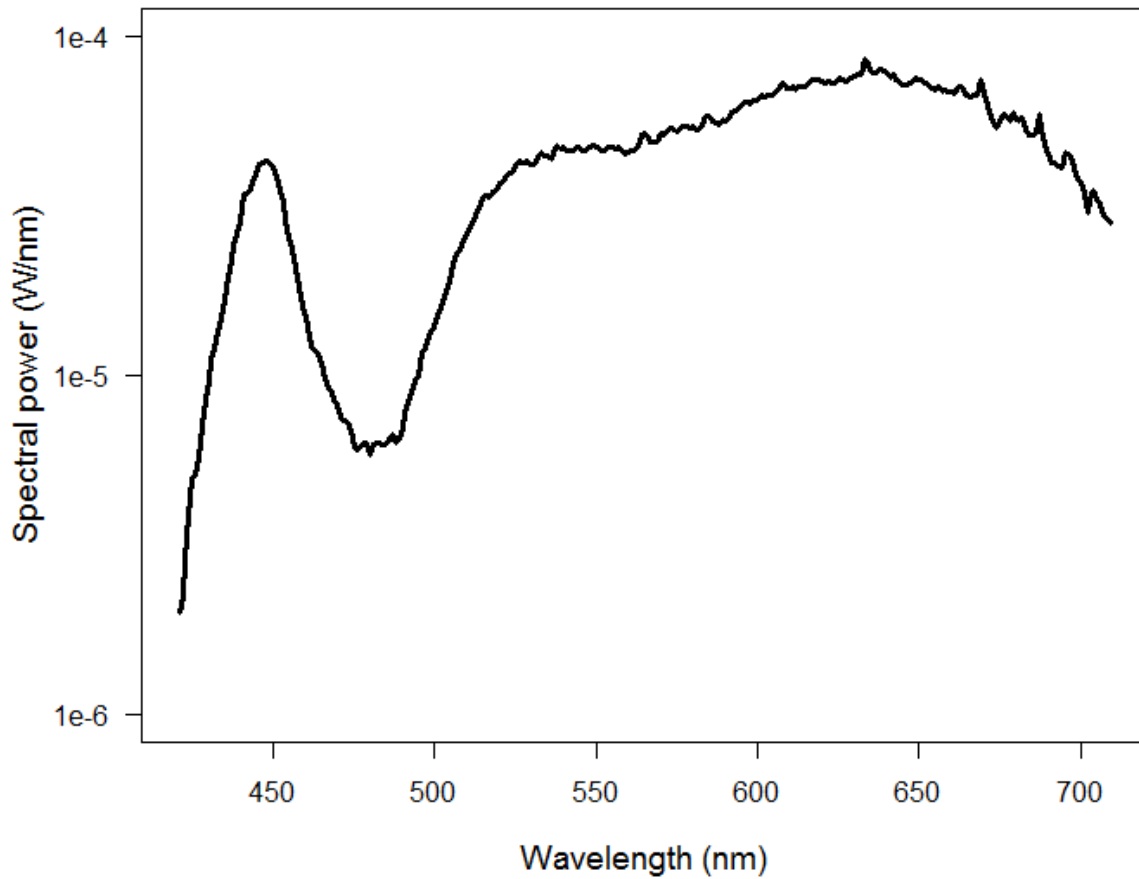
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3 de Jong M, Jeninga L, Ouyang JQ, van Oers K, Spoelstra K, Visser ME, Dose-dependent
4 responses of avian daily rhythms to artificial light at night, *Physiology & Behavior* (2016) doi:

5 10.1016/j.physbeh.2015.12.012

6

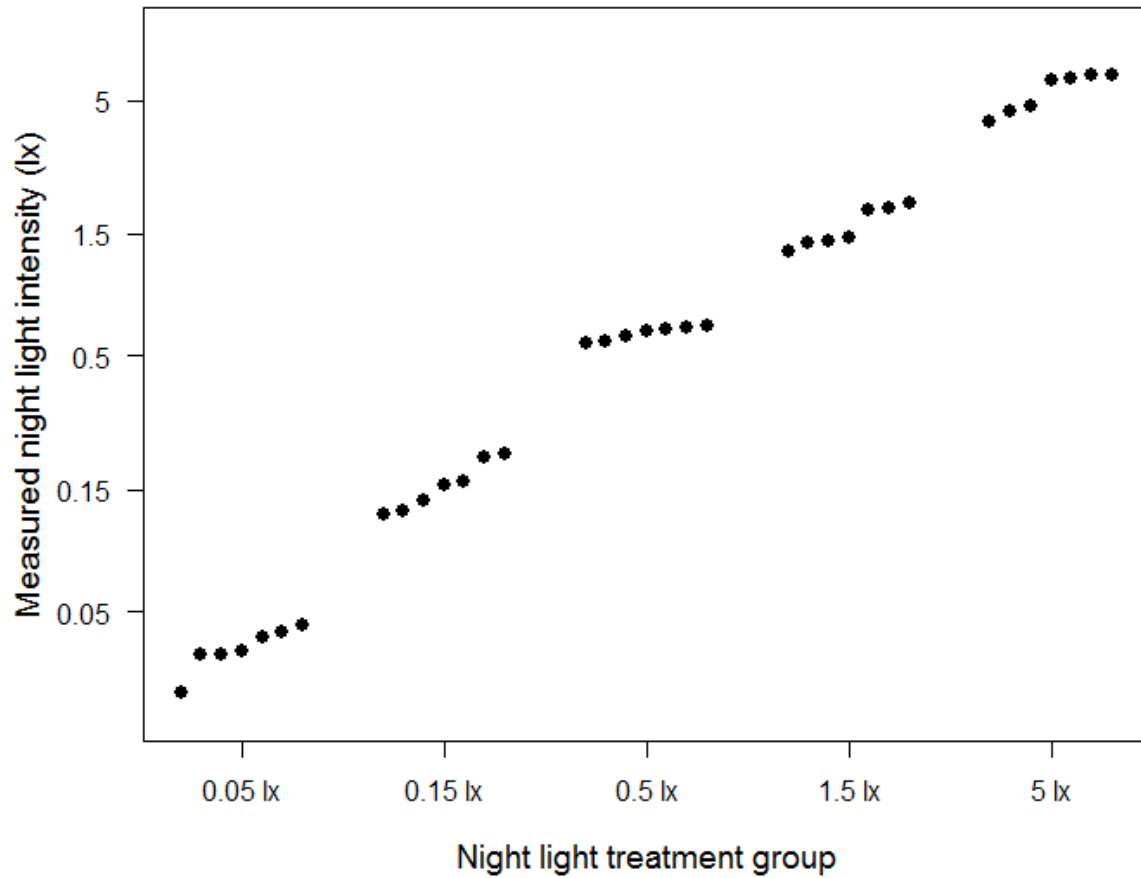
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10 **Fig. S1** Spectral composition of one of the 5 lx warm white LED lamps (Philips, Eindhoven,
11 the Netherlands).

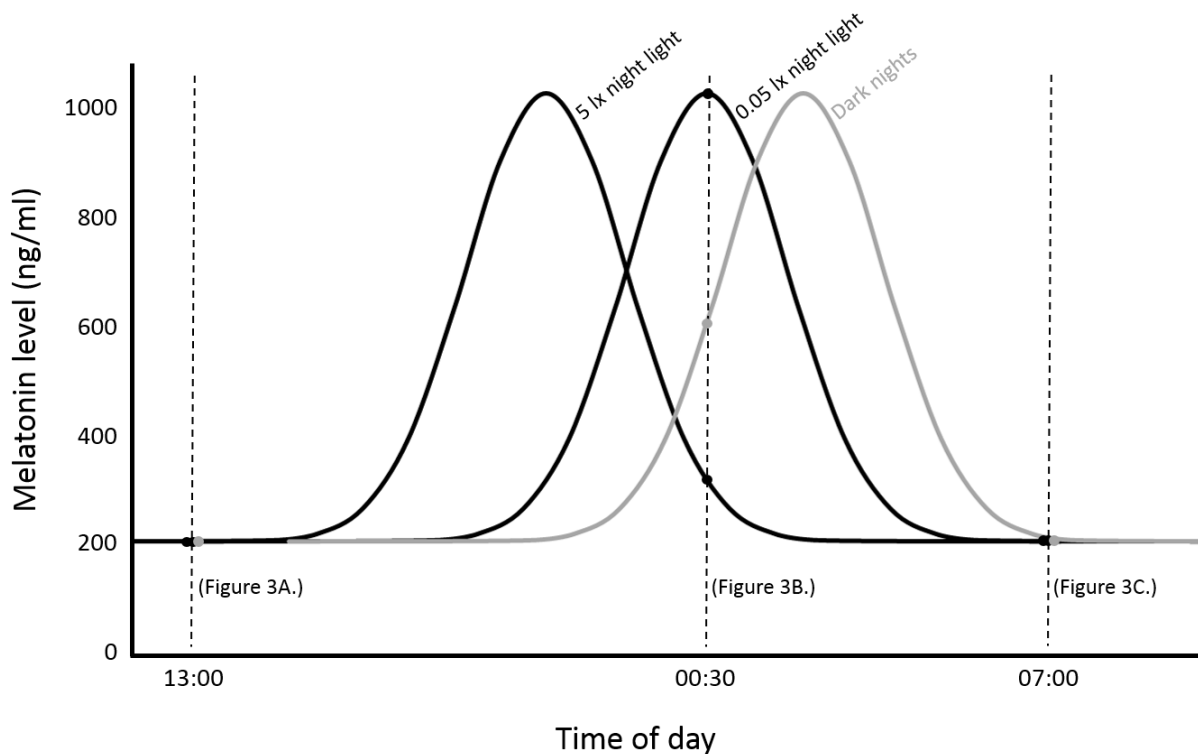


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15 **Fig. S2** Average of the night light intensity measured (in lx) at the two perches in each of the
16 35 cages, grouped by five night light treatment groups. Measurements were done with LMT
17 B 360 S illuminance meter (LMT Lichtmesstechnik GmbH, Berlin, Germany).

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22 **Fig. S3** Possible post-hoc explanation of daily profile of plasma melatonin level during
 23 experimental periods 1 and 3 (in grey) with dark nights and experimental period 2 (in black)
 24 with illuminated nights, according to light intensity treatment, here shown for 0.05 lx and 5 lx.
 25 The daily rhythm of melatonin secretion is hypothesized to shift as an effect of artificial light
 26 at night, following the advancement in onset of activity (see Fig. 2A.). The peak in melatonin
 27 level which normally, during dark nights, would be reached after midnight, might now be
 28 advanced and reached around midnight (0.05 lx) or even much earlier in the evening (5 lx).
 29 The vertical dashed lines correspond with the three moments that we sampled our birds;
 30 midday (12:30 – 13:30, see Fig. 3A.), midnight (00:00 – 01:00, Fig. 3B.) and early morning
 31 (06:30 – 07:30, Fig. 3C.).