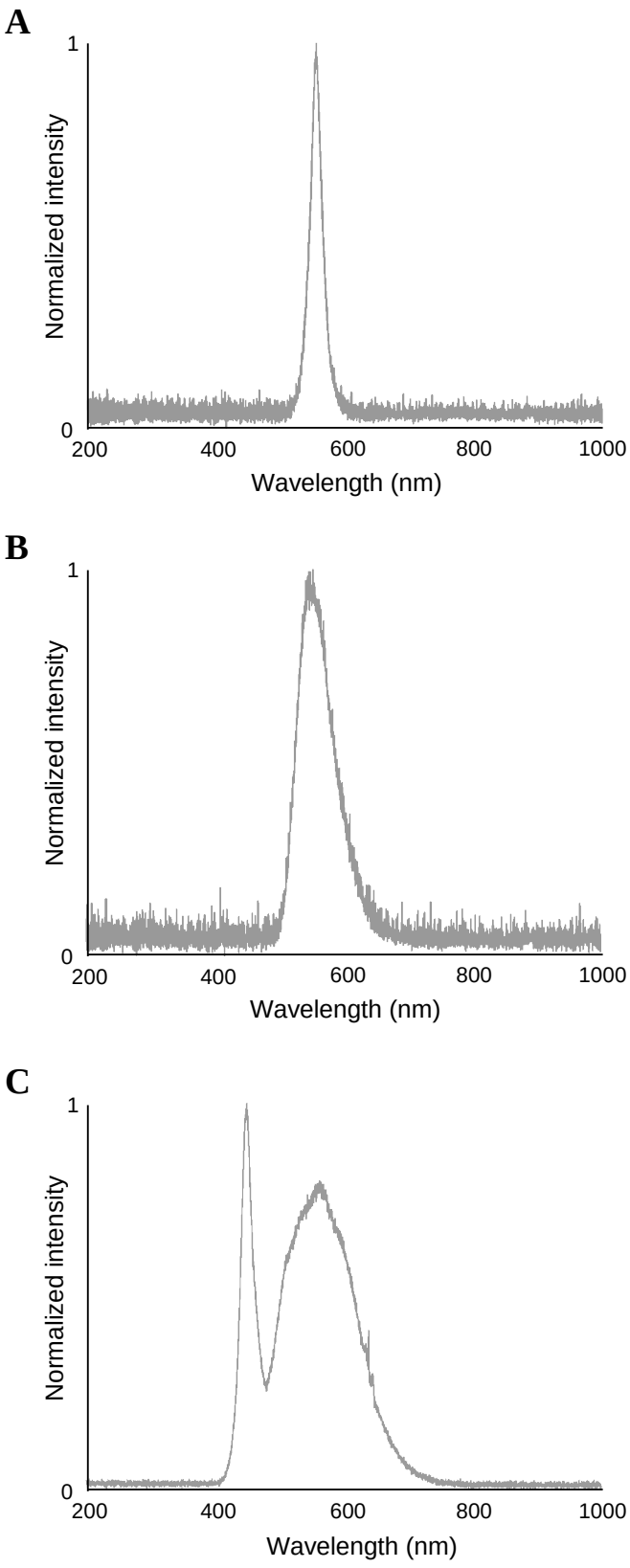

Figure S1. The normalised emission spectra of the (a) female glow, (b) trap LED and (c) artificial light source measured with a commercial spectrometer (CCS200/M, Thorlabs, Newton, N.J.). Spectra were recorded using OSA software (Thorlabs).

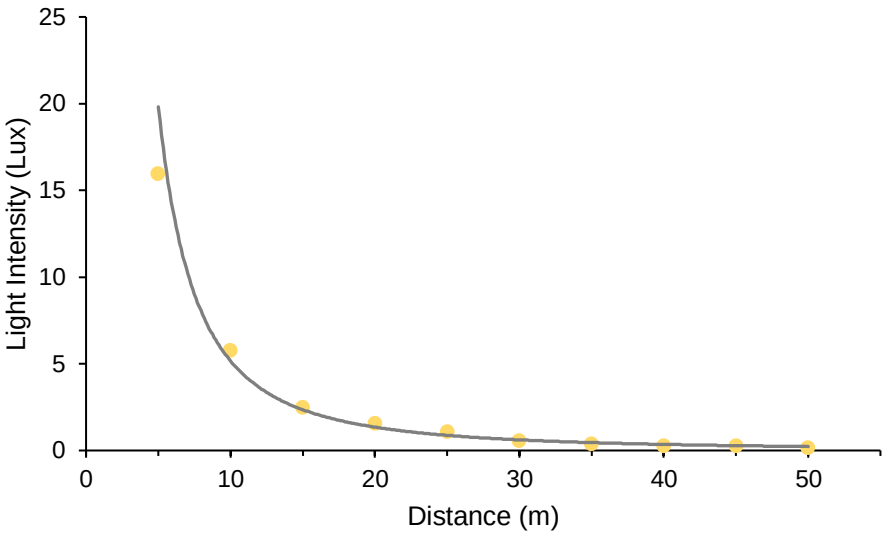

Figure S2. The intensity of light received from the artificial light source (ALS) at 5m intervals (coinciding with trap positions) along the transect. The ALS was a Solaris Megastar™ SLA24A/h lamp (Nightsearcher Ltd, Farlington, U.K.) mounted facing horizontally at 2.75m above the ground on a metal tripod and powered by a 12V battery. Illuminance emitted by the ALS, measured by a light meter (Handyman TEK1336, Newhaven, U.K.), decayed with distance from the lamp to below the level of detection at 55m. Yellow dots indicate the individual measures. The grey line indicates the inverse square law for decay from the light source.

Table S1. Summary of the maximal and minimum adequate generalised mixed effects models used in all four analyses. All Poisson family models were initially fitted according to the maximal model, aside from the 55m trap comparisons, where distance was not a relevant factor. All models also incorporated 'trial nested within year' as a random factor. Models were selected based on their AIC score where there was a marked difference. For models with similar AIC scores, the significance of likelihood ratio tests was used. This always indicated no significant difference among the models, so the least complicated model was selected, and consequently the interaction term was removed. Simpler models (not shown) in which the least significant fixed effect was removed were significantly worse than the final model selected.

Analysis	Response	Maximal (initial) model	Model compared with maximal model	Model comparisons	Minimum adequate (final) model	Fixed effect significance (Type II Wald chi-square tests)
Transect of ≤40m	Male glow worm count in each trap	ALAN treatment (white light) x Trap distance from treatment	ALAN treatment (white light) + Trap distance from treatment	Maximal AIC score: 1784.9 Comparison model AIC score: 1890.8	ALAN treatment (white light) x Trap distance from treatment	Alan treatment: $X^2 = 143.93$, d.f. = 1, $p < 0.001$ Trap distance: $X^2 = 33.78$, d.f. = 3, $p < 0.001$ Alan treatment x Trap distance: $X = 78.92$, d.f. = 3, $p < 0.001$
Comparison of 45m trap catch with 50m trap turned on and off	Male glow worm count in each trap	ALAN treatment (white light) x 50m trap on/off	ALAN treatment (white light) + 50m trap on/off	Maximal AIC score: 350.84 Comparison model AIC score: 350.48	ALAN treatment (white light) + 50m trap on/off	ALAN treatment: $X^2 = 11.70$, d.f. = 1, $p < 0.001$ 50m trap on/off: $X^2 = 15.05$, d.f. = 1, $p < 0.001$
Comparison of 50m trap catch with 55m trap present and absent	Male glow worm count in each trap	ALAN treatment (white light) x 55m trap present/absent	ALAN treatment (white light) + 55m trap present/absent	Maximal AIC score: 315.88 Comparison model AIC score: 313.88	ALAN treatment (white light) + 55m trap present/absent	ALAN treatment: $X^2 = 20.42$, d.f. = 1, $p < 0.001$ 55m trap present/absent: $X^2 = 3.03$, d.f. = 1, $p = 0.08$
Comparison of 55m trap exposed to ALS and 55m trap in the dark	Male glow worm count in trap	ALAN treatment	NA	NA	Only a single model fitted because only a there is only a single fixed effect variable	ALAN treatment: $X^2 = 17.83$, d.f = 1, $p < 0.001$

Table S2

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