

# External Lighting

## Biodiversity Specification #5

Light pollution is known to impact both humans and wildlife and needs to be considered during the planning process. This specification details our requirements for external lighting where sensitive wildlife is likely to be present.

### Location

In order to minimise your impact on wildlife, you should restrict the amount of lighting you use. Consider where you want to install lighting and whether it is necessary. Infrared cameras are a good alternative if security is a concern.

- A maximum of one light per external doorway is permitted
- Each light must be positioned above or beside an external door, below eaves height and no more than 2.5m above ground
- Lights can be installed into the underside of a porch or canopy if required, but must still be associated with an external door
- Lights must not shine onto hedgerows, access routes to bat boxes or other sensitive features

### Design

It is important to ensure that the lighting unit is appropriate. Some units cause unnecessary light pollution, increasing disturbance. Various shapes are available, but suitable units must generally:

- Be fixed downlights with a 0 degree tilt angle. Floodlights or units which can be tilted are not appropriate
- Have a 0% upward light ratio. Meaning that the only light produced by the unit is directed to the floor. Some units also emit light upwards or sideways, these are not appropriate
- Be fitted with a low wattage LED bulb (maximum 5W) with a warm white colour temperature not exceeding 2700K

### Installation

Lights must be installed on the horizontal. Tilting the fitting causes light to spread outside of the target area, increasing potential impact on wildlife.

### Operation

All lighting shall be triggered by a PIR motion sensor with a short timer (maximum 1 minute) to limit disturbance. Be aware that not all units will have a built-in motion sensor- you might need to fit a separate sensor.

### Further Information

<https://cdn.bats.org.uk/uploads/pdf/Resources/ilp-guidance-note-8-bats-and-artificial-lighting-compressed.pdf?v=1542109349>



**Unsuitable External Light.** Light is directed sideways meaning that it is spread over a much greater distance. The compact fluorescent bulb is likely to contain wavelengths which are more disturbing to invertebrates than an LED. Suitable



**Suitable External Light.** All light is directed downwards with a warm white colour temperature.