

Ecology and Lighting

Sources of lighting which can disturb bats are not limited to roadside or external security lighting, but can also include light spill via windows. Additionally, glare (extremely high contrast between a source of light and the surrounding darkness – linked to the intensity of a luminaire) may affect bats over a greater distance than the target area directly illuminated by a luminaire and has been considered on this site.

Appropriate luminaire specifications

Luminaires come in a myriad of different styles, applications and specifications. The following will be considered when choosing luminaires.

- All luminaires should lack UV elements when manufactured Metal halide, fluorescent sources should not be used
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability
- A warm white spectrum (ideally <2700Kelvin) should be adopted to reduce blue light component
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats
- Internal luminaires can be recessed where installed in proximity to windows to reduce glare and light spill
- The use of specialist bollard or low-level downward directional luminaires to retain darkness above can be considered.
- Only luminaires with an upward light ratio of 0% and with good optical control should be used
- Luminaires should always be mounted on the horizontal, ie no upward tilt
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- Any external security lighting