

## Light pollution: FAQs

### Frequently asked questions about light pollution

#### **Why the fuss? Only a minority (astronomers) is affected?**

Everyone has the right to see the night sky, and most people enjoy the experience if they are able to see it. Those troubled by light intrusion and glare are usually not astronomers. We all pay for wasted light and wasted energy equals extra CO<sub>2</sub>. Wildlife is under threat and unnatural night has bad effects.



Sky beam

#### **But surely we can't turn all the lights off?**

Those campaigning for a better lit night time environment do not want to turn off a single **necessary** light. What is needed to solve the problems of light pollution is simply the right amount of light, directed where it is needed. Shielding, good design and sensitivity about the effects of light on others will lead to a solution.

#### **How much energy is wasted by excessive and poorly aimed lights?**

Estimates vary. A recent survey stated that Europe spends about seven billion Euros annually lighting up the night sky. A fact worth retaining: a single 100-watt bulb burning for all hours of the night for one year creates a quarter of a ton of carbon dioxide, the major greenhouse gas, at the power station (source: lighting industry).

#### ***What is it?***

Light wasted above the horizontal (especially at low angles) goes skywards, scatters from particles and droplets in the air and is reflected towards the observer (skyglow). This veils our view of the night sky. Also, stray light enters adjoining premises to cause light intrusion, and often distress and health issues to those affected. Over-bright, poorly-aimed lights cause glare, the most safety-related aspect of light pollution.



# CfDS: Protect the Night

## Won't criminals benefit if lights are not so bright?

There is no reliable independent evidence that the presence of light deters criminals. Most break-ins occur during broad daylight. Vandals and burglars regularly target brightly lit premises. It is a lot easier for passers-by to see malefactors if lighting is subtle: glare blinds potential witnesses and creates deep shadows in which criminals can hide. One school of thought states that darkened premises are safer: a torch flashing in the dark is more suspicious than a person moving about in a lit space. Who benefits most from a back garden light at 3 a.m.: the resident fast asleep indoors, the police officer miles away or the burglar sorting out his tools under the light?

## Is light nuisance against the law?

Yes. It may be against the civil law (i.e. where the complainant sues) and from April 2006 it has been against the criminal law, included as a statutory nuisance in the Clean Neighbourhoods and Environment Act.

Common-law private nuisance actions have been successfully brought against nuisance lights in several cases (Stonehaven, Bonwick and Bacon). It must be noted that none of the complainants in these cases were astronomers. However, such an action requires the complainant to sue to party responsible. Although the cases above show that bad lighting is becoming increasingly unacceptable to the reasonable person.

Exterior lighting has become subject to the criminal law of statutory nuisance, where the State may prosecute a party for a nuisance light. The change in the law was introduced by s. 102 of the Clean Neighbourhoods and Environment Act 2005. A complainant can take the matter up with the Environmental Protection Unit of their local council, who in turn may initiate proceedings in the Magistrate's Court. The issue of whether street lights are covered by this new law is a vexed question, but it is, at best, unlikely to do so.

## If we use downward directed streetlamps, with a narrower cone of light, won't they have to be closer together, and use more electricity?

Not true, though sometimes stated by local councils. Many schemes use replacement full cut-off (flat glass) lamps on existing columns, and some even have wider-spaced columns for the new lamps. The Institution of Lighting Professionals, the UK's premier guideline body on lighting, agrees that column height and the optics around the lamp determine the spread of the light.

## Surely street lamps and security lights are designed by experts..?

Yes - and so was the Titanic.

Since Swan and Edison independently produced the first bright electric lamps in the 1840s, many improvements have been made to public lighting, and its benefits are plain to see. But directionality has been the poor relation in this process, and the majority of modern exterior lamps send their emissions where they are neither needed nor wanted.

## Where can I get more information?

Contact the Commission for Dark Skies through our website, or at Burlington House, Piccadilly, London W1J 0DU, 0207 734 4145 [International Dark-Sky Association](http://www.internationaldarksky.org) This is our American counterpart, based in Tucson, Arizona. [www.dark-sky.org](http://www.dark-sky.org)  
[The Campaign to Protect Rural England](http://www.cpre.org.uk), (CPRE, 5-11 Lavington Street, London SE1 0NZ [www.cpre.org.uk](http://www.cpre.org.uk) Tel: 020 7981 2800  
[Institution of Lighting Professionals](http://www.theilp.org.uk), (ILP, Regent House, Regent Place, Rugby, CV21 2PN, Tel: 01788 576492, email: [info@theilp.org.uk](mailto:info@theilp.org.uk))



Contact the Commission for Dark Skies: Protect the Night

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