



Campaign to Protect  
Rural England



## Lighting Nuisance Survey 2009/10: Summary Results

### About our survey

The Campaign to Protect Rural England (CPRE) and the British Astronomical Association's Campaign for Dark Skies (CfDS) came together in late 2009 to run a survey about how light pollution is affecting people's lives.

Both organisations have been contacted regularly by members of the public seeking advice on how to deal with problem lighting. The ongoing enquiries prompted our survey work to find out more about the sources of light, when lights are on, what problems the light causes and how people have tried to remedy the situation.

The CfDS and De Montfort University ran a pilot survey in 2008, which elicited 545 responses. CPRE and the CfDS worked together to modify the original survey and created an online survey form for the 2009/10 survey, allowing people to tell us about their light pollution problems. The survey was widely promoted including in CPRE's monthly e-newsletter and by a letter from their Chief Executive to local press.

The lighting nuisance survey ran from mid December 2009 to mid February 2010. A total of 1,358 people who are affected by light pollution responded.

### What is a 'lighting nuisance'?

Some forms of artificial light were recently made a statutory nuisance in section 102 of the Clean Neighbourhoods and Environment Act 2005.

If someone's life is being negatively affected by excessive light this could be deemed as a lighting nuisance, although it may not fall under the official criteria for a statutory nuisance. For example, if a street light is shining into a bedroom window it can affect quality of sleep but it is exempt from the statutory nuisance criteria.

Light pollution is a more generic term referring to artificial light which shines where it is neither wanted nor needed.

In broad terms, there are three types of light pollution:

1. **Skyglow** – the pink or orange glow we see for miles around towns and cities, spreading deep into the countryside, caused by a scattering of artificial light by airborne dust and water droplets;
2. **Glare** – the uncomfortable brightness of a light source;
3. **Light intrusion** – light spilling beyond the boundary of the property on which a light is located, sometimes shining through windows and curtains.

## **Summary of survey results**

### ***Where does the light pollution come from?***

Our survey revealed that the main culprits are road lighting (89%), domestic security lighting (79%), street lights that are more than five years old (77%), businesses (56%), sports grounds (53%) and supermarkets (41%).

Almost two-thirds of the light pollution came from an established source with an established lighting scheme (65%) e.g. a development that has been in place for some time. 82% of respondents said that the lights were left on all night.

### ***What problems does the lighting cause?***

The survey showed that eight out of ten people (83%) have their home view of the night sky affected by light pollution and half (50%) of respondents said that their sleep had been disrupted by light shining into their bedroom window. More than a third (37%) told us that excess lighting shines across their drive or garden and 30% said that light intruded into another room in their property.

Almost half of respondents (46%) stated that light pollution affected the view of the night sky from a public area.

### ***What measures have you taken to deal with the light pollution?***

Nearly seven out of ten people (68%) have fitted thicker curtains to block out the light and 15% have created a screen using fencing, or by planting trees. Only a quarter (24%) of respondents said that they had confronted the lighting owner about the problem. More than one in ten people (14%) have slept in a different room to enable them to sleep away from the light and 3% have moved house to get away from the light pollution.

Almost three quarters (71%) of people stated that they had not complained to anyone about the lighting. Almost a quarter (24%) had complained to their local council but only 27% said their council had been supportive.

## Summary of comments about light pollution

We asked people how they felt about the light pollution and more about the measures they had taken to deal with the problem. A summary of the comments follows. Many of the comments attached to the survey reinforce the concerns of CPRE and the Campaign for Dark Skies.

When asked **how they feel about light pollution**, respondents feel generally:

**Angry** (on a spectrum from “*irritated*” to “*absolutely desperate!*”) at the obvious waste that both skyglow and intrusive light represent:

*“I just feel we’ve gone overboard on lighting for no good”*

**And frustrated** that there seems little they can do about it, in spite of the legislation set out through Section 102 of the Clean Neighbourhoods and Environment Act 2005 which gives local authorities power to deal with many forms of nuisance lighting:

*“complained to the Council – no response received”*

*“confronted the Council and they blamed the EU”*

*“the Council told me they wouldn’t alter any lights unless they were over X amount of years old”*

When asked **what measures have you taken to deal with the light pollution?**

A very common response by victims of intrusive light is to erect screens or install thick curtains, which goes against the well-established principle that it is the polluter who should remedy the situation, not the aggrieved party:

*“I don’t feel I should have to resort to blackout curtains!”*

*“When children and grandchildren stay, I have to hang blankets over the curtains as they are unused to sleeping with such intrusive light”*

Some people responding to the survey had moved house to escape from the problems caused by light intrusion, having encountered intransigence from offending neighbours or not having wished to cause friction with them about their lights:

*“(I am) reluctant to confront my neighbour, who has security lights on for long periods, for fear of souring relationships”*

*“The street lights are one of the reasons I am planning to move house within the next few years”*

One respondent summed up the huge cost to the environment above of light pollution:

*“Unfortunately, thicker curtains and blinds do not address the problem of light pollution of the sky. Where is the starlit sky I used to see when I was a little girl in the 40s and 50s?”*

In **summary**, the general themes arising from the comments were:

- **Energy waste and money:** People are concerned at the waste of energy and money, and degradation of the environment, that light pollution represents, especially in an era when we are all being exhorted to save energy and when our fuel bills are increasing;
- **Powerless to act:** People affected by stray light often feel powerless to act against the originator, be it a large corporation or an individual: they feel that the authorities are not on their side;
- **Lack of Government action:** There is a consensus that the Government (and a recent report of the Royal Commission on Environmental Pollution – ‘Artificial Light in the Environment’ echoed this) has not got a grip on this problem, and that authorities on various levels often cannot or will not act upon complaints.

### **What needs to happen to remedy these problems?**

There is not enough awareness about the impact of light pollution and currently no planning policy in place capable of halting its rapid growth. The Clean Neighbourhoods and Environment Act 2005 made some forms of lighting a statutory nuisance. Yet there is a list of light sources which are excluded from the statutory nuisance criteria, many of which our survey reveals are some of the worst offenders.

Here’s what we think needs to happen:

#### **We can all**

- Ensure we don’t waste light outside our homes: angle outdoor lights downwards; use minimum wattage bulbs; fit hoods or shields to minimise light spill; ensure they are switched on only when needed.
- Approach neighbours – be they households or businesses – with overly bright security lights and politely ask them to angle them downwards, or shield them, or fit a passive infra red sensor or a lower wattage bulb.

#### **DIY superstores and other retailers should**

- Withdraw the more powerful, 300 to 500 watt security floodlights from their shelves – there’s no need for these anti-social, environmentally-unfriendly products to be sold in the mass market. We suggest a maximum of 150 watts, in line with the Institution of Lighting Engineers’ recommendation.
- Ensure that the Lumen output (brightness) of lights sold is illustrated on packaging alongside the wattage. For example, a 150w LED (Light Emitting Diode) gives out as many Lumens as a traditional 500w tungsten-halogen light.
- Ensure information is available on installation methods that minimise light pollution – in signage next to the product on the shelves as well as in the packaging.

**Property developers, owners of commercial premises, lighting manufacturers, specifiers and installers should**

- Recognise that light pollution is everybody's problem, including theirs, and take the issue properly into account whenever exterior lighting is considered.

**The Highways Agency, responsible for trunk roads and motorways, should**

- Set a target date for replacing all existing road lighting with low light pollution, 'Full Cut Off' lighting which cuts out all light going upwards.
- Bring forward the replacement of lighting at the most over-lit junctions in both urban and rural areas and consider whether more rural stretches of its network currently lit with conventional road lighting could have solar-powered LED studs (rather like cat's eyes) installed instead.
- Consult communities affected by any necessary new road lighting schemes about their impact and how this may be minimised.
- Encourage more innovative approaches to lighting large, harshly lit areas like junctions. For example, one tall downward angled light may create less light pollution than several smaller lights.

**Local Authorities light the rest of the road network and have an important influence as planning authorities. They should**

- Introduce a policy to control light pollution in their local planning policies. This should include:
  - insisting on light pollution assessment at the planning application stage of new developments. Badly designed or over-lit schemes should be sent back to the applicant for modification;
  - setting limits on light pollution, including curfews, according to the remoteness, darkness or other special qualities of the area. There should be a strong presumption against any powerful and intrusive exterior lighting schemes in or on the edge of open countryside.
- Ensure the environmental statements required for major development schemes address light pollution.
- Set targets for replacing all their street and road lights with less light polluting types. Consider using solar powered LED studs instead of street lighting on rural roads. Local authorities should address these issues in their Local Transport Plan.
- Ensure consultation takes place with local residents when installing any new road lighting.
- Consider reducing the number of road and street lights in over-lit areas as part of any replacement programme.

## **Government should**

- Begin a consultation on the long-awaited planning guidance to control light pollution (annex to Planning Policy Statement 23: Planning and Pollution Control). The House of Commons Science and Technology Committee suggested this in 2003 and the Royal Commission on Environmental Pollution reiterated the need for planning guidance in late 2009.
- Develop indicators of light pollution and set targets to prevent the problem getting worse. Satellite data such as CPRE's 1993 and 2000 light pollution data could provide the basis for such indicators. (It is intended that this data set is updated shortly for 2007).
- Set up a cross-departmental group charged with drawing up the most cost-effective and practical policies for halting the growth in light pollution. Options should include introducing new regulations through land use planning legislation to allow planning authorities to control exterior lighting, for example by defining 'areas of special control' over outdoor lighting and amending Building Regulations to cover external lighting of buildings.