

Martin Morgan-Taylor

IDA Board, CfDS
Principal Lecturer, De Montfort
University, Leicester

mart@dmu.ac.uk

Obtrusive Lighting as an Issue?

- The subject of several major UK reports-
- Parliamentary Select Committee 2002/3
- Royal Commission on Environmental Pollution (RCEP)
 2009
- Both asked for a lighting annex
- This has led to -
- Statutory nuisance: S. 102 Clean Neighbourhoods and Environment Act 2005:
 - "artificial light emitted from premises so as to be prejudicial to health or a nuisance"
- Mention in planning control- PPS1 PPS23

This Presentation Aims to Update You

- A. Government <u>revised</u> planning control
- B. ILP <u>updated</u> guidance note
- C. BRE forthcoming guidance note
- D. Lacunae?

A: Planning

- Existing regime mentions LP in PPS1 and PPS23.
- Says that local authorities should try and limit LP.
- Gives no advice as to <u>how</u>
- Result: A variable response: Not good
- Forthcoming: New planning guidance regime

A. Draft Planning NPPF: Summary

- "Noise and light pollution
- Noise and <u>light pollution</u> impacts badly on people's quality of life. The draft Framework says that planners must try to avoid too much noise pollution from new developments, and to protect tranquil areas prized for their peace and quiet. <u>By encouraging good design</u>, <u>planning decisions should limit the affect of light pollution</u>." (Summary, p.10)

A. Draft Planning NPPF

- Main document (July 2011):
- NATURAL ENVIRONMENT
- 173. Planning policies and decisions should aim to: ...
- "175. By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation."

A. Planning

- Will the <u>reduced</u> level of guidance mean-
- Continued confusion and a mixed response to what a good lighting scheme means?
- & problems with lighting and sports/historic buildings/ the natural environment?
- Or
- Will more planning authorities draft lighting policies?
- Will planning authorities increasingly look at lighting in planning applications?
- An increase in professionally designed lighting schemes?

B. ILP/BRE Guidance

- So "good design" is to be encouraged?
- What does this mean?
- As yet no Government guidance
- Existing ILP guidance, 2005 now updated 2011
- Planned guidance from the BRE

B: ILP Summary What's New?

- More guidance on <u>why</u> we should be careful when lighting
- Mentions <u>blue light</u> dis/benefits
- A new E0 zone
- Advice to avoid light at <u>critical angles</u> (near to or just above the horizontal)
- References security lighting guidance GN02:2009 (This needs to be in the box)
- Glare advice for road users
- Appendix on means to reduce obtrusive lighting

B. ILP Guidance

- New advice-
- The Guide is used by many non-lighting engineers, so needs to be wide
- ""Think before you light The right amount of light, where it is wanted, when it is wanted."
- Gives guidance on lamp/luminaire types & Lumen output is <u>not</u> the same as Wattage power consumption!

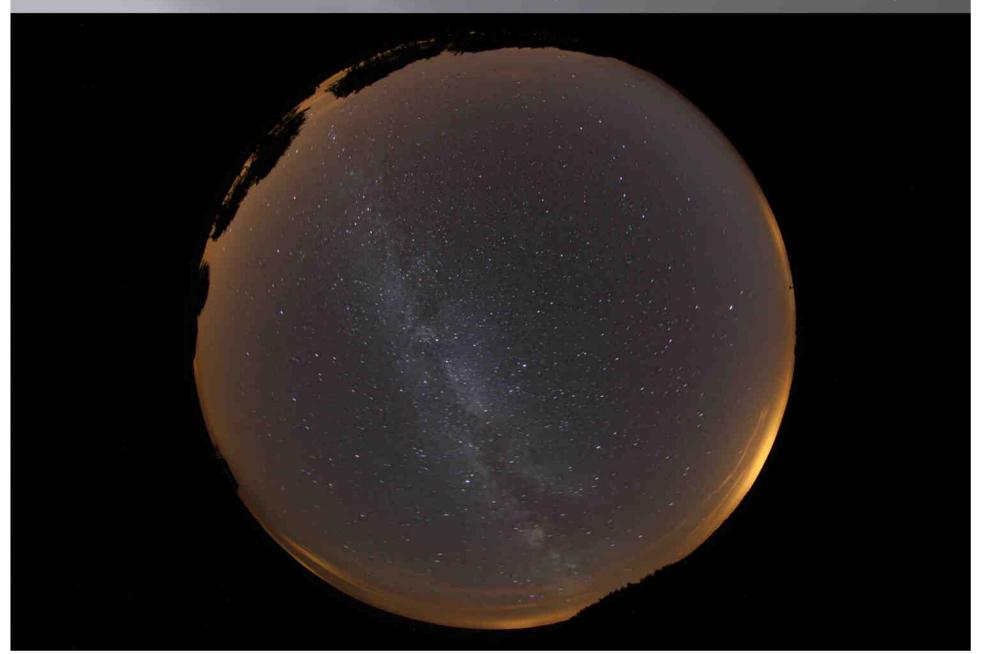
B. ILP Guidance

- Blue rich light may effect the human <u>circadian</u> <u>rhythm</u>
- States that it offers <u>benefits</u> (to help keep people awake) and <u>possible</u> harm (where people need to sleep)

B: ILP Guidance

- Critical angles
- Light <u>at</u>, <u>or just above the horizontal</u> travels the <u>furthest</u>, so worst for <u>skyglow</u>
- Also see the ILP/CfDS Guide "Towards Understanding Skyglow" 2007

New environmental zone- E0 (Exmoor National Park)



B. ILP New Environmental Zone- E0

Zone	Surrounding	Lighting Environment	Examples
E0	Protected	Dark	UNESCO Starlight Reserves, IDA Dark Sky Parks
E1	Natural	Intrinsically dark	National Parks, Areas of Outstanding Natural Beauty etc
E2	Rural	Low district brightness	Village or relatively dark outer suburban locations
E3	Suburban	Medium district brightness	Small town centres or suburban locations
E4	Urban	High district brightness	Town/city centres with high levels of night-time activity

B. ILP Environmentally Sensitive Areas

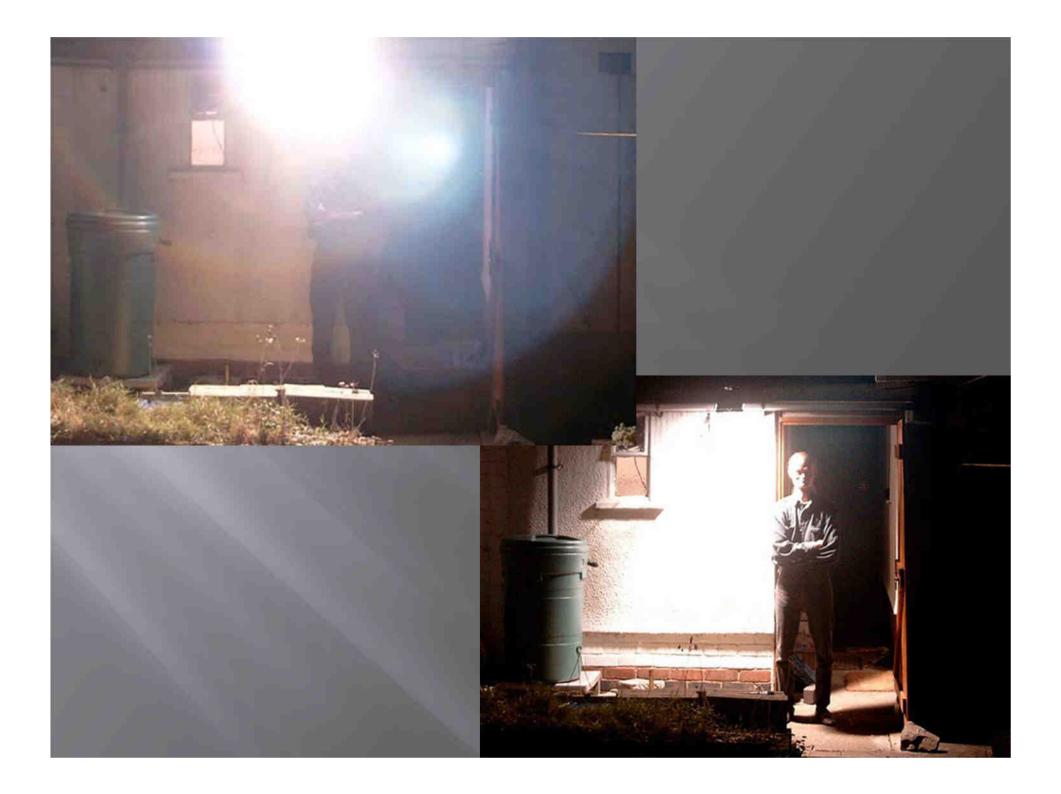
- Excellent- recognises the special needs of <u>dark-</u> <u>sky reserves</u>
- Aids Government intentions for English parks and broads to include protection of the night sky
- Helps fledgling <u>ecotourism</u> or <u>dark-sky</u> tourism cf, Blackpool!
- *Also <u>aids critters</u> affected by artificial lighting (major part of the RCEP Report)

B: ILP Glare Guidance

 Installation adviceto avoid glare- try and light downwards where possible



- Domestic security lighting is a major source of nuisance complaint
- ILP guide now references ILP GN02:2009 guidance on domestic security lighting
- Very good- but needs to be in the box!



B. ILP Guidance Lighting Levels Unchanged from 2005, bar new E0

Table 2 – Obtrusive Light Limitations for Exterior Lighting Installations – General Observers								
Environmenta I Zone	Sky Glow ULR [Max %] ⁽¹⁾	Light Intrusion (into Windows) E _v [lux] ⁽²⁾		Luminaire Intensity I [candelas] ⁽³⁾		Building Luminance Pre-curfew ⁽⁴⁾		
		Pre- curfew	Post- curfew	Pre- curfew	Post- curfew	Average, L [cd/m²]		
E0	0	0	0	0	0	0		
E1	0	2	0 (1*)	2,500	0	0		
E2	2.5	5	1	7,500	500	5		
E3	5.0	10	2	10,000	1,000	10		
E4	15	25	5	25,000	2,500	25		

B. ILP New Appendix- Accessories for Obtrusive Light

■ The new appendix gives information on physical shields which may be used to reduce/prevent obtrusive light

■ E.g. Louvres, barn doors etc

C. BRE: OBTRUSIVE LIGHT FROM PROPOSED DEVELOPMENTS

- A new guidance document in preparation!
- Consolidates existing guidelines (including ILP) and how they can be applied under different circumstances.
- It addresses spill light from floodlighting and also from indoor lighting (such as an office block).
- It should assist planning officers, developers, architects and lighting engineers.
- "Play dough" language, and should aid installation as it includes pictures

D. Advantages

- There is still no detailed Central Government planning guidance on LP, despite the PSC and the RCEP reports
- Guidance from the ILP and BRE will help fill the void

E. Lacunae? Domestic Security Lighting

- Big complaint problem- simple to resolve
- Guidance both on and in the box
- Not really a lighting professional matter- really a manufacturer, retailer, consumer and installer matter
- Guidance was promised at point of sale by the industry in the 2002/3 PSC Report
- The RCEP repeated the call
- No education or other guidance (than ILP GN02:2009)!

E. Lacunae? Special Applications?

- Historic, sports, rural applications- Government guidance? What will happen to the PPS documents?
- Lighting levels- avoid <u>over lighting</u> (which <u>standard</u> is needed)?
- Angling <u>down</u> may still create glare from tall stanchions
- Appropriate <u>choice</u> and <u>shielding</u> of lighting?
- Consideration for <u>location</u> and <u>positioning?</u>





E. Lacunae

- What will the NPPF mean in practice?
- "By encouraging good design, planning decisions should limit the affect of light pollution."
- NO LIGHTING CAPS/ LUMEN CAPS
- NO LIGHTING MAXIMA
- NO GUIDANCE FROM THE CIEH ON NUISANCE

mart@dmu.ac.uk