

## **ANNEX 5**

### **DIRFT Lighting Guidelines**

1.1 The following GUIDELINES for exterior lighting design shall apply to ALL forms of exterior lighting, ie:

- Road lighting,
- Area lighting,
- Security lighting and
- Illuminated advertisements.

1.1 Before final consent for any exterior lighting installation is granted, the DEVELOPER must submit to DAVENTRY DISTRICT COUNCIL, detailed designs that give proof of the adherence to the following GUIDELINES.

### **Task Lighting**

2.1 Task lighting levels should be limited, for both environmental and energy conservation reasons, to those advised in the following publications listed below. These Guides and Standards give suggested average lighting levels and uniformity values – which allow the designer a range of maximum and minimum values – for the many different types of work and road classifications. In addition, they also give glare limitations and colour rendering requirements. (This last aspect is important as some modern lamps such as the very orange “low pressure sodium lamp” while very efficient in producing light, do not render any colours other than yellow.):

- Lighting Guide, LG1: 2004 - The Industrial Environment, Chartered Institution of Building Services Engineers
  - Common Areas – loading bays Lighting of Industries - Sidings, marshalling yards and goods yards
- British Standard BS 5489:2003 – Code of practice for the design of road lighting
  - Part 1 Lighting of roads and public amenity areas.
- British Standard BS EN 13201:2003 Road Lighting
  - Part 2 Performance requirements

Plus draft Standard:

- PrEN 12464-2 Lighting of work places
  - Part 2 Outdoor work places

### **Light Pollution**

2.2 Note has been taken and the contents agreed, with reference to the:

- “DIRFT” Environmental Statement  
by Nathaniel Lichfield & Partners December 2002  
and Supplementary Planning Document:
- Daventry International Rail Freight Terminal Expansion
  - Design Guide  
by Nathaniel Lichfield and Partners – May 2005

Further to the above, all exterior lighting shall also comply with:

- Guidance Notes for the Reduction of Obtrusive Light 2005 by The Institution of Lighting Engineers (ILE)

**In line with the above-mentioned ILE Guidance Notes and other publications that refer to the same aspects, the following will apply to this development:**

### 3.1 Environmental zone

The wider semi-rural environment surrounding the development is one of “Low District brightness” and as such the ILE Environmental Zone “E2” shall apply.

### 3.2 Sky glow

Because of the large, industrial scale of the development and the agreed content of the above-mentioned Environmental Statement and design guide, the obtrusive light limitation for “Sky glow” (ULR), shall be further reduced to Zero. i.e. As for ILE Environmental Zone “E1”. It should be noted that this “sky glow” figure refers to direct light and not reflected light i.e it is acknowledged that a limited amount of light will naturally reflect and hence form some limited sky glow, even when lighting is correctly positioned.

## **Additional Restrictions**

In addition to the aforementioned ILE Guidance Notes, the following additional restrictions shall apply to the exterior lighting installation.

### 4.1 Light sources

Building upon the work of the aforementioned Environmental Statement by Nathaniel Lichfield & Partners, light sources shall be energy efficient “white light” and of a colour rendering value, Ra > 60 and colour appearance temperature above 3000K.

### 4.2 Luminaire mounting heights

Building upon the work of the aforementioned Environmental Statement by Nathaniel Lichfield & Partners, luminaire mounting heights within the “Trans-shipment area” shall be limited to 15m. Elsewhere, the limit to be 10m. The mounting of all luminaires shall be in scale with their surroundings and therefore generally below the eaves of any adjacent buildings.

### 4.3 Switching controls

Security lighting controlled by infra-red switching shall be carefully installed so as not to cause nuisance tripping outside of the area being monitored.

### 4.4 Decorative lighting and signs

Any decorative lighting or illuminated advertising signs shall be agreed with the relevant authority and conform with the overall design guidelines for the development. Any such lighting shall not be visible from outside of the site.

The following Appendices A & B, give examples of acceptable and non-acceptable installations.

**APPENDIX: A**

- [i] Example of ACCEPTABLE roadway lighting  
eg. Horizontal cut-off (HCO)\* luminaire.  
Metal Halide light source.



- ii] Example of UN-ACCEPTABLE roadway lighting  
eg. Non-HCO luminaire.  
Low pressure sodium light source.



[ \* ie. luminaire Upward Light Ratio (ULR) = Zero]

## APPENDIX: B

- [i] Example of ACCEPTABLE area lighting  
eg. Building mounted, asymmetric luminaires, installed so that front glass is horizontal. Matching column mounted units, neat day-time appearance.



- [ii] Example of UN-ACCEPTABLE area lighting  
eg. Non cut-off luminaires installed so that considerable light is radiated in all directions above, as well as below the horizontal. Untidy day-time appearance.

