

## Building Regulations

When specifying luminaires, legislation, as defined by the Building Regulations, must be considered to ensure that the installation meets with current requirements. The two most relevant pieces of legislation contained within the Building Regulations are:

- Approved Document L - Conservation of fuel and power, which includes limits on the energy efficiency of lighting in domestic and non-domestic buildings.
- Approved Document B - Fire Safety, which includes the requirements for emergency lighting and provisions for the use of thermoplastic materials, such as luminaire diffusers.

Included below is a brief guide to each of these documents. The latest information and requirements can be obtained by contacting our Technical Support and Application department. Links to recommended websites are also included below.

Approved Document L	Approved Document B
<p>Part L requires that energy efficient lighting be used in both domestic (Part L1) and non-domestic (Part L2) buildings. The regulations currently apply to all new buildings and refurbishments of over 100m<sup>2</sup> floor area. The document provides design information in the following areas for non-domestic buildings:</p> <ul style="list-style-type: none"> <li>• Effective use of daylight</li> <li>• Selection of lamp types</li> <li>• Associated control gear and power factor correction</li> <li>• Luminaire efficiency</li> <li>• Use of lighting controls</li> </ul> <p>The requirements can be met by selecting an efficient lamp, control gear and luminaire performance combination, along with lighting controls that make maximum use of daylight and avoid unnecessary lighting during times when spaces are unoccupied.</p> <p>Lighting controls can be simply an increased use of switches, time clocks and photocells to turn luminaires on and off. More advanced solutions include using high frequency dimmable control gear linked to photocells to provide constant illumination and daylight linking. Intelligent luminaires, such as Intellect, provide a straightforward solution to providing lighting control with user selectable functionality.</p> <p>It is strongly recommend that reference be made to the current edition of Approved Document L, to ensure compliance with the latest requirements. Full</p>	<p>Part B includes the fire safety requirements for emergency lighting and the use of thermoplastic materials. The impact on emergency lighting is covered in the Lighting Design Guide on page 441. Approved Document B2 defines the provisions that apply to the use of luminaire diffusers, which form part of the ceiling. It should be noted that surface mounted and suspended luminaires are not currently covered by the regulations.</p> <p>Luminaire with diffusers must not be used in fire protecting or fire resisting ceilings, unless satisfactorily tested as part of the ceiling system.</p> <p>The following information is provided on the limitation of use of thermoplastic (TP) materials in other ceiling types (except protected stairways):</p> <ul style="list-style-type: none"> <li>• Diffusers classified as TPa construction have no restriction on extent of use</li> <li>• Diffusers classified as TPb construction have limitations on size, total area coverage and spacing between diffusers</li> </ul> <p>In areas with general ceiling types, except protected stairways, the requirements can be met most simply by specifying TPa classification diffusers when using recessed luminaires. TPb materials can be used, but will require careful reference to Part B and calculation to ensure the regulations are complied with in full. All recessed luminaires with diffusers in this catalogue have TPa classification materials as an option.</p>

details of Part L can be found on The Office of the Deputy Prime Minister website: [www.odpm.gov.uk](http://www.odpm.gov.uk).

It is strongly recommend that reference be made to the current edition of Approved Document B, to ensure compliance with the latest requirements. Full details of Part B can be found on The Office of the Deputy Prime Minister website: [www.odpm.gov.uk](http://www.odpm.gov.uk).

### **Additional Considerations**

The Climate Change Levy came into force in April 2001. In practice, the effect has been to increase the cost of electricity, gas and solid fuels to most non-domestic consumers. The best way to minimise the impact of the levy is to reduce electricity consumption. For new or refurbishment projects, approved Document L details the requirements for an energy efficient installation. The government has also introduced tax incentives to encourage firms to make energy saving investments. Since 2001, enhanced capital allowances (ECA's) have been available, enabling companies to claim 100% first year capital allowances on such investments.

Products eligible for ECA's are published in the Energy Technology List at [www.eca.gov.uk](http://www.eca.gov.uk), together with guidelines for claiming. Lighting products are listed in three categories:

- Lamp replacement, using efficient lamps on a one-for-one basis
- Luminaires with required lamps and control gear
- Lighting Controls

Luminaires must meet minimum efficiency standards. To aid selection a lighting fitting efficiency code (LFEC) has been devised, based on a luminaires photometric performance. The LFEC range from F1 to F10, where F1 signifies the highest efficiency. The ECA Scheme website publishes the maximum LFEC codes that must be met for differing luminaire/lamp/ballast control gear combinations. LFEC codes for all appropriate Cooper Lighting and Security luminaires are available by contacting our Technical Support and Application Department.

### **Useful Website Addresses**

[www.odpm.gov.uk](http://www.odpm.gov.uk)

[www.eca.gov.uk](http://www.eca.gov.uk)

[www.thecarbontrust.co.uk](http://www.thecarbontrust.co.uk)

[www.actionenergy.org.uk](http://www.actionenergy.org.uk)

[www.defra.gov.uk](http://www.defra.gov.uk)

- Building Regulations
- Enhanced Capital Allowances
- Promotion of low carbon technologies/energy efficiency
- Business support to save money through energy saving
- Climate Change Levy