

**6.5 Artificial and display lighting**

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standard

**6.5**

mandatory

Every *building* must be designed and *constructed* in such a way that the artificial or display lighting installed is energy efficient and is capable of being controlled to achieve optimum energy efficiency.

**Limitation:**

This standard does not apply to:

- (a) process and emergency lighting components in a *building*;
- (b) alterations in *dwellings*.

**6.5.0 Introduction**

Artificial lighting can account for a substantial proportion of the electricity used within a *building*. Appropriate lighting design (including use of natural daylight) can reduce carbon dioxide emissions and running costs, and can also reduce internal heat gains.

Advice on use and specification of low-energy lighting is available from the [Energy Saving Trust](#). This includes documents such as GIL 20 – ‘Low energy domestic lighting’ and CE61 – ‘Energy efficient lighting - guidance for installers and specifiers’.

In respect of this standard:

- fixed light fittings include only the main light sources to a *room* and not display or feature lighting such as picture lights, *kitchen* wall cupboard lights, over mirror lights. A light fitting may contain one or more lamps and a group of lamps operated by the same switch could be counted as one fitting, e.g. A pair of wall lights;
- low energy light fittings should include the provision of lamps/bulbs.

*Conversions*

In the case of conversions, as specified in regulation 4, the *building* as *converted* shall meet the requirements of this standard in so far as is *reasonably practicable*, and in no case be worse than before the *conversion* (regulation 12, schedule 6).

### 6.5.1 Fixed internal lighting

Whilst lighting generally represents a relatively small proportion of energy use in the home, this aspect of domestic energy demand can be limited simply and effectively, at very little cost, through the use of energy efficient light fittings and lamps.

Accordingly, a minimum of 75% of the fixed light fittings and lamps installed within a *dwelling* should be low energy type, with a luminous efficacy at least 45 lumens/circuit watt, for example tubular fluorescent and compact fluorescent fittings (CFL's).

These fittings may be either:

- dedicated fittings which will have a separate control gear and will only take low energy lamps (e.g. pin based lamps); or
- standard fittings supplied with low energy lamps with integrated control gear (e.g. bayonet or Edison screw base lamps).

Common areas

Lighting to common areas of *domestic buildings* should follow the guidance above for *dwellings* with the following exception:

- all fixed light fittings and lamps provided to corridors, stairs and other circulation areas should be low energy type. Controls to such lighting, to enable safe use of the areas in question, are identified in guidance to standard 4.6.

### 6.5.2 Fixed external lighting

Where fixed external lighting is installed, such as to enable safe use of external areas when natural light levels are not sufficient or for security during the hours of darkness, measures should be taken to prevent wasteful use of energy by such fittings.

Fixed external lighting should either:

- be rated at not more than 100 lamp-watts per light fitting with automatic control by both movement detection (e.g. PIR) and photocell to ensure operation only when needed; or
- have fittings with an efficacy of at least 45 lumens per circuit-watt, with automatically control by photocell to ensure operation only when needed.

In addition to the above, manual switching may be provided to override operation of automatic controls.