



Design Tips 3

Introduction

We are all becoming more aware of the need to reduce the amount of electricity we consume at home and a very effective way of doing this is to fit low-energy light bulbs. But there is much more to low-energy lighting than just that, as Richard Nock, Lightmaster's Design Director, explains in this, the third in a series of articles featuring lighting design tips for the home.

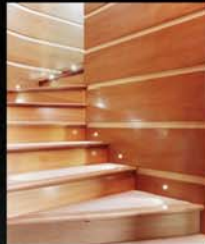
The Regulations

For new builds, extensions and major refurbishments requiring planning permission, The Building Regulations, Conservation of Fuel & Power (L1A & L1B) have, since 6th April 2006, required that at least 25% of light fittings are low-energy types. Best practice, however, is to aim for significantly more than that.

What is low-energy lighting?

Low-energy lighting refers to the amount of electricity required to produce a given amount of light. For example, a 20W compact fluorescent bulb produces the same amount of light as a 100W conventional light bulb but uses one-fifth of the electricity (measured in watts).

Fluorescent and compact fluorescent bulb types are accepted as 'low-energy' bulbs, as are many types of LED light. Tungsten filament (BC and ES) and tungsten-halogen bulbs, whether mains-voltage (240V) or low-voltage (12V), are not.



When to install low-energy lighting

The best time to install low-energy lighting is during construction, whether of a new house, an extension or a refurbishment. At this time you can plan ahead and decide exactly where you need light and what type of light it should be. Be careful, however, as low-energy light sources can often give out light of poor quality, which could make your smart new interior look quite drab.

If you are not planning major works, look around your home and consider where you can replace conventional bulbs with low-energy types. This will undoubtedly save you money and will help to reduce global emissions but, again, take care because although fluorescent and LED lights use less energy they do not always produce better light.

Where to use low-energy lighting

Energy-efficient lighting needs proper planning as lighting has a major impact on a room's appearance and practicality. If the lighting design is poor then tasks such as reading, watching TV, cooking or using the computer may be difficult and this will result in complaints from the whole family!

Also consider for how much time the particular light will be on. WCs and Utility Rooms may be ideal places to fit low-energy lights but they are used less often than other areas of the house and so the overall energy benefits are lower.

Kitchen and Family Rooms, by comparison, are used the most and therefore this is where you should consider fitting low-energy lights but be careful to ensure that you are getting light where you need it, particularly over worksurfaces and island/peninsula units and over the table for eating or working.

In the living room atmosphere is important. Wall lights which take conventional light bulbs can be replaced with low-energy wall lights but be careful that the light fitting selected does not spoil the overall atmosphere of the room.

Upstairs, consider using low-level LED lights at skirting-board height to act as 'night lighting' for the kids. These typically consume only 1 watt of electricity each and so are very energy-efficient, even if left on all night. Extend this idea to the Family Bathroom so the kids can see their way to the bathroom without flooding the house with light.

In Bedrooms be sure that your bedside reading lights are bright enough to read by without causing discomfort to your partner. There are some very effective LED reading lights available on flexible arms, which can be stand-alone or combined with low-energy shaded lamps for ambient lighting.

Lighting Control

The atmosphere within a room can be varied effectively by dimming the light. Although some low-energy lights can be dimmed there is often a reduction in light quality when the light is actually dimmed. Also, many low-energy lamp types, particularly replacement lamps, are unsuitable for dimming. To get it right and avoid wasting your money you should seek specialist advice before buying.

Programmable scene-setting control is very effective with tungsten-filament and tungsten-halogen lights because of the smooth, seamless transition between scenes (eg. cooking, dining, reading, watching TV, party etc). A similar effect can be achieved with low-energy lighting but only if you use the correct fittings and control gear. Again, it is advisable to seek specialist advice at this point to ensure that your low-energy system does not result in a space which feels like an office or even your garage!

Another benefit of a control system is that it can be designed to ensure, automatically, that only the lights you need are on at any particular time. No more telling the children off for leaving lights on, your control system can turn them off for you!

Conclusion

Low-energy lighting technology, both in terms of light bulbs and lighting controls, is developing fast. There are now many products available which claim to provide low-energy lighting: most of them will save energy but only some of them will give you an acceptable lighting effect, so you need to take care before spending your money.

To get it right you need to seek specialist advice which Lightmaster, with their 100 years' combined experience in lighting, are well-placed to give. At their Design Studio in Blackwell, 7 miles from Moreton-in-Marsh, there are many low-energy lighting effects on display, so you can see for yourself the different lighting effects which can be achieved.

To make an appointment to visit our Studio and for more information and advice on low-energy lighting and lighting control for your home, office, restaurant or hotel contact Lightmaster-Direct Ltd today on 01608 682115 or e-mail: info@lightmaster-direct.co.uk; also see our website www.lightmaster-direct.co.uk.

