

Lighting with LEDs

LEDs are fast becoming recognised as the definitive energy efficient lighting technology of choice. They have advanced so significantly recently that even champions of traditional lighting are recognising their impressive performance levels and promoting them for general lighting tasks. LEDs already save business thousands of pounds in energy costs, significantly reducing carbon emissions while lighting different areas very effectively.

Though the energy benefits are undeniable, when buying quality LEDs you should consider several key points first. The market is new, it is not fully regulated and knowledge of LED lighting technology is still specialist. The following table will help you through the buying process and ensure you end up with durable lights that are right for your business and that provide you with a compelling return on investment:

Do	What this means
<ul style="list-style-type: none">• Find the right task to light	<ul style="list-style-type: none">• Do not assume LEDs light all tasks
<ul style="list-style-type: none">• Find the right product for the task	<ul style="list-style-type: none">• Do not buy the cheapest LEDs
<ul style="list-style-type: none">• Find the right supplier for the product	<ul style="list-style-type: none">• Consult a supplier with LED expertise
<ul style="list-style-type: none">• Find the right way to pay	<ul style="list-style-type: none">• Don't give up because of price

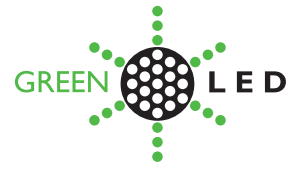
Find the right task to light

It is important to ensure the right light output and ambience. LED lamps are stylish and come in different shapes and sizes to enhance lit environments and provide colour quality and light output equivalent to that of traditional lighting without the high energy usage. Today purchasers can choose from any one of a number of effects from bright and sparkly to warm and mellow.

Considerations to think about include colour, brightness, dimmability and beam angle. There is not necessarily a one-size-fits-all solution. For example, consider what colour you need from your lights to complement the ambience and how much light you need with respect to the ceiling height. By trying the lights in situ you will be able to correctly assess these and, importantly, the effects on fabrics and fittings.

Different areas of buildings often have different lighting demands. For example, bedroom corridors require gentle, sympathetic lighting; dining areas need dimmable lighting to alter the environment's ambience throughout the day and bathrooms often need to be brilliantly lit. All tasks can be successfully achieved using different types of LED lights.

LEDs are primarily directional lights. They are ideal as downlights and spotlights and as halogen replacements. Consider them also for cabinet-lighting, recessed luminaires, ceiling lights and wall-lights.



Find the right product for the task

LED lights are now part of the mainstream lighting mix but they are not suitable, at least yet, for all lighting applications. Good advice is crucial here.

Today LED downlighters, spotlights, floodlights, wash lighting and exterior lighting such as bulkheads, tubes and car-park lighting are available. They can be versatile, dimmable, retrofit and adaptable with narrow, medium and broad angled beams to give control.

With retrofits, there are a number of issues to consider including whether LEDs work with existing transformers, with existing fittings and with existing airflow patterns. A good supplier will guide you through these and any other issues particular to your situation.

Performance is key. Most UK legislation now demands a minimum efficiency of 40 Lumens/Watt. Other features such as colour rendering and power factor may also need to be assessed for compliance with UK Building Regulations, CIBSE guidelines, Enhanced Capital Allowance rules and Energy Saving Recommended status.

Buying poorly engineered products is the most significant pitfall to avoid. Like many electronic products, LEDs vary in quality – they do not all perform well. Equally, modern lighting is moving at such a pace that a traditional lighting supplier may not have the expertise in LED technology to advise or supply correctly.



Find the right supplier for the product

To ensure you invest in quality LED products it is essential to talk to a LED lighting specialist. There are a number associated with and approved by respected lighting or energy authorities such as the Lighting Association, Carbon Trust and Green Register.

Finding a reputable supplier will also enable you to ensure that the lights have the correct guarantees; important given that once installed they may be in place for 5 years or more.



Find the right way to pay

Installing quality LEDs can seem expensive but payback is often within a year. For example, the cost of buying and installing 88 LEDs for a pub in St Albans was £2,200 and payback was fully achieved in 11 months.

If the initial expense of installing LED lights is not viable, there are a range of schemes available such as the Carbon Trust interest-free loan scheme. LED specialists often manage these loan schemes on behalf of businesses, removing the financial headache altogether.



In conclusion

LEDs can start reducing your business carbon footprint and save you significant sums of money right away. By being aware of all the considerations that need to be taken into account, the transition can be smooth and pain free.

To illustrate just how easy it can be, a major hotel in Bristol replaced 145 lamps in an hour with a resulting saving of £5,200 in energy costs.