Advantages of LED

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techNOTE

Long Life

The main advantage of using LEDs is the fact they have a much longer life expectancy than other light sources – typically expected to have an operational life of up to 100,000 hours, making them very manageable and extremely low maintenance.

Ecologically Friendly

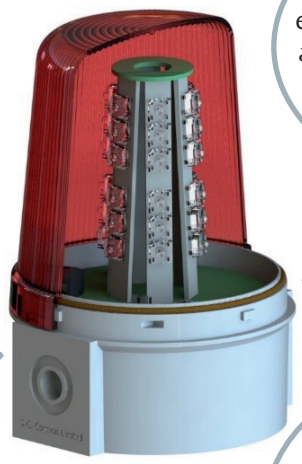
As LEDs are longer lasting than most conventional light bulbs, there is much less waste in material, as well as labour. They are free of toxic chemicals which other traditional light sources can contain - such as mercury, therefore helping towards the environment.

Durability

LEDs are resistant to shock, vibrations, and external impacts, they are extremely durable and can withstand most rough conditions. This makes them very versatile, and suitable for most applications.

Design Flexibility

LEDs can be used to produce incredible lighting effects, including LED mood illumination, as individual LEDs can be dimmed, allowing a compelling control of light, colour and distribution. LED lighting also provides a crisp, clear image, making it extremely visible in almost all areas.



Zero UV Emissions

Because LEDs produce little infrared light and close to no UV emissions, LED products are highly suitable for all areas, including areas that are UV sensitive, such as art galleries or museums. Also, the low radiated heat emissions make them suitable for goods and materials that are sensitive to heat.

Operational in Extreme Temperatures

Where conventional lamps may struggle to operate in extremely high or low temperatures, LEDs are ideal for use in these sorts of applications, such as freezer rooms, etc, and operation should remain unaffected.

Energy Efficient

LEDs are todays most efficient way of lighting – they have an estimated energy efficiency of approximately 80 – 90% when compared to conventional light bulbs. This means the majority of electrical energy is converted to light, whereas with most other light sources a lot of this energy is converted to, and lost as heat.

Low-Voltage

There are no restrictions where LED lighting can be used, as a low-voltage power supply is sufficient. Suitable for indoor or outdoor applications, the use of LEDs allows diversity and versatility in all situations.

Light Dispersement

A higher application efficiency can be achieved using LEDs, as they are designed to focus light, so it can be directed to a specific location without the use of an external reflector. This gives a more concentrated beam of light, increasing efficiency.

Instant Lighting & Frequent Switching

LEDs offer instant lighting, where other light sources may be slightly hesitant or delayed, LEDs brighten up immediately when powered. Frequent On/Off switching would certainly reduce the operational life expectancy of traditional lighting, but LEDs can be switched on and off frequently without the lifetime or light emissions being affected.

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