



ILLUMINATIONS
lighting the future

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LED FACT SHEET

Sustainable energy is high on all our agenda and replacing your existing lighting is probably the easiest step towards achieving this goal.

LED lighting is energy efficient, environmentally friendly (contains no mercury), robust and can reduce maintenance costs.

Over the last 10 years the LED industry has developed rapidly but for some the technology and information supplied is still a mine field.

To confuse consumers even more some producers/suppliers give misleading information which in turn leads to disappointment in the product.

How to find a quality LED product? . Several factors needs to be considered; Lumen output, Colour rendition (CRI), Kelvin, wattage and thermal management all affect the quality and life expectancy of an LED product.

- **Lumen Output:** Lumen (lm) is a means of measuring the light output.
- **CRI:** Colour rendition index refers to the quality of light with >100 being the ultimate.
- **Kelvin:** A rough indication is 3000K = warm white (nearest to incandescent lighting), 5000K = Day light white and 6500K cool white (icy white). LEDs do not fail like an incandescent lamp but the light colour will settle (degrade) over a period of approximately 35,000 hours.
- **Wattage:** We are all conditioned to think that higher the wattage higher the light output but this is not the case with LED technology. The wattage is an indication as to how much power will be used.
- **Thermal Management:** An important factor which contributes to the reliability of LED lighting is the heat dissipation of the system – thermal management. If the heat build of an LED and the power supply is trapped inside the housing the LEDs will slowly cook to death. A stable product with good thermal management will ensure a good lifespan. The majority of power used in a halogen lamp is heat whereas an LED with good thermal management will result in the power producing light.

The price of products has not come down but the quality has improved – beware if you find a product that promotes excellent data at a bargain price - it is still very much the case of you get what you pay for!

If you would like any further information please call us and we will be happy to assist.