

# Saving Energy with LED Lighting

Most of us appreciate that LED lighting is more energy efficient when compared to traditional forms of lighting.

Indeed, compared to incandescent and halogen lighting these savings can be as much as 90%. Even fluorescents including CFLs, (which incidentally were known as energy saving lights when they were first introduced), will use up to twice the energy of LEDs.

So why are LEDs so much more energy efficient?

An LED, or a Light Emitting Diode is, an electrical light source that only allows an electrical current to flow in one direction. LEDs contain two conductive materials that are placed in contact with each other. Once electricity is applied to the diode, the atoms in one material become charged with energy. This energy is then released in the form of electrons into the other conductive material. This release of energy is what creates light, and the colour temperature of that light can be changed by using different phosphors on the surface of the chips.



A Light Emitting Diode

This process of generating light is what distinguishes LEDs from traditional lighting which rely on heating a filament to produce light. The problem with this principle is that most of the energy required is wasted as heat.

Having established that LEDs are by far the most energy efficient form of lighting, the next question to ask is are all LEDs created equal?

The answer to this is most definitely no.

As with any technology the design, manufacture and quality of the components will all influence the efficiency and longevity of an LED light.

These are certainly factors to consider when choosing your LED lights and especially so when choosing lights for an agricultural environment. In these circumstances it is also important to consider the suitability of the lights for the type of animals you are rearing and for the environment in which they will need to function.

The lights should be flicker-free, have a specific colour temperature and be extremely durable to allow adequate cleaning between cycles.

At Gallina LED we sell only lighting products that have been built with the very highest quality components and have been designed for the type of animals and the environment in which they will be used.

LED: Improve Performance, Improve Welfare, Save Energy!