

# NEWSLETTER

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## Savings on your Lighting Bill.

**LED Technology** differs from all previous light engine designs, in that the light output of any LED lamp is wholly directional.

Previous light technologies consist of Omni directional light sources, emitting light in all directions. Various housings around the actual lamp have attempted to focus light into wanted directions. However even the most efficient of reflector designs still result in significant losses.

A fluorescent tube, by mere design, emits light in all directions. The luminous flux rating manufacturers put to their lamps is representative of this.

By comparison the LED T8 tubes emit light in one direction only at a beam angle of 120°, which is 1/3rd the light radiation pattern of standard fluorescent tubes.

The vast majority of fluorescent tube fixtures are designed to emit light in one direction, with a similar 120° beam spread, a large proportion of the total light output from a tube is lost, even with chrome reflectors which have been shown to improve light output by only 20 to 30%.



## First Power & Surge Protection Ltd

*Electronic Lightning & Surge Protection-Electrical Under-voltage and Over-voltage-Harmonics and Power Factor Correction Specialist*

### Contact Details

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## CREE Commercial Grade LED Retrofit Lamps



The new CREE based LED Lighting is a direct replacement for standard halogen or incandescent lighting. Providing intense levels of lighting with all the benefits of LED.

- Retrofit design means you simply swap the bulb! – no wiring, no change of fittings.
- Up to 50,000 hours life span
- Highly energy efficient, using just 4 watts of power
- Clean directional light where you want it.
- 3X CREE's are significantly brighter than standard LED spots
- Comparable light levels to 35 watt halogen spots.

The MR16 low voltage range of spots require an 11-18 volt AC or DC supply. Current toroidal / magnetic transformers used in existing installations are fully compatible with the MR16 range of LED lamps.

Modern electronic transformers are usually incompatible due to their pulsed output, this results in the lamp flickering, lighting dimly or not lighting at all.



If you require additional information on the LED Range, Please contact us and we will e-mail the information.

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**CPT** cirprotec



**Cirprotec** has taken yet another step ahead by adapting its standard products in order to accommodate the special protection needs in renewable energy generating installations, such as wind energy fields and photovoltaic fields.

The company does moreover supply protection solutions and products for water treatment plants.



### **Cirprotec offers solutions for protection of nuclear power plants**

**Cirprotec** has a complete range of solutions for Lightning and Surge Protection in the field of nuclear power plants.

Surge protection devices for efficient protection of LV electrical power networks as well as for protection of data terminals and industrial communications within the NPP. **CPT** does also supply its advanced ESE technology based range of Lightning Protection Rods.

**CPT** finally provides a complete beacon system for day and night marking of the plant according to ICAO norms. Cirprotec has recently accomplished the protection project of two Spanish NPPs in Tarragona: Ascó I and Vandellós II.



#### **First Power and Surge Protection Ltd**

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