

# EL Lamps

## EL Lamps

- **'Cold' lighting medium**
- **Less than 0.5mm thick**
- **Selective application options**
- **Colour filters can be used to a variety of colours**
- **Variety of Inverter options available**
- **Able to be integrated within a membrane keypad or under a silicone keymat**



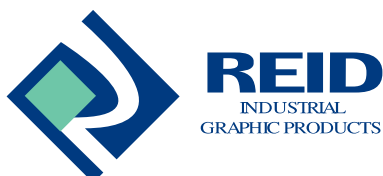
Visipoint EL Lamps are a very thin, electrically stable, 'cold' lighting medium. The EL Lamp comprises a polyester substrate which is selectively applied with a phosphor/dielectric combination essentially forming a parallel plate capacitor.

EL Lamps are an alternative to conventional lighting techniques such as LED's and fibre optics, and have become increasingly used in a wide range of sophisticated electronic applications especially where minimum thickness is critical to a design.

As we manufacture our EL lamps in-house we can custom design them to suit your requirements. We are able to tailor the shape and even include cutouts within the lamp to allow an exact fit for your application. We can selectively apply (i.e. to light only where backlighting is needed) the EL materials to the lamp allowing lower costs to be realised whilst maximising illuminated area and minimising power consumption.

### How long does it last?

In normal operation EL Lamps can be expected to perform with an acceptable level of brightness for a period of greater than 5000 hours. The life of the lamp is directly dependant on the voltage, frequency, temperature and humidity at which it is driven. Devices which only require low illumination levels can be expected to have considerably longer lamp life than those with higher requirements. The brightness of the lamp will decay in a linear fashion from initial power up.



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## How Does It Work?

An Alternating Current (AC) voltage with a frequency of between 50Hz and 1kHz is applied to the lamp. The device is raised in energy state at the instigation of the first positive half of the cycle and then, during the later stages of that half cycle, device returns to its previous state, expelling the raised energy in the form of monochromatic light. A similar process repeats itself in the negative half-cycle.

The ability to vary the voltage and frequency provides a very versatile light giving device whose overall layered structure is approximately 0.25mm thick and is extremely flexible.

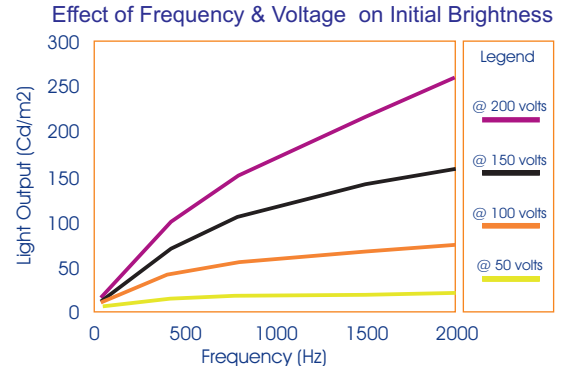
## Specifications

Operating Voltage (typical):	25-200 Vrms (please specify preferred voltage)
Operating Frequency (typical):	50-1000 Hz
Lamp Brightness (typical):	16-18ft-L @ 115V/400 Hz
Capacitance (typical):	2.5 - 5.5 nF/Sq Inch
Life (typical):	5-10K hrs (dependant on drive parameters)

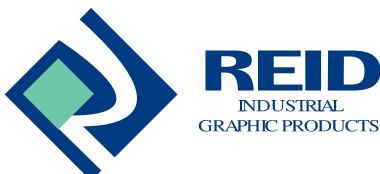
The lowest input voltage and frequency that will suit your application should be used to obtain maximum service life.

## Colours

The base phosphor is available in one colour, blue/green though other colours are attainable through the use of coloured filters.



Note: Due to constant development specifications are subject to change without notice. Lamps should be tested by the customer to ensure that they perform as required.



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