Cold Cathode Fluorescent Lamp

CCFLs were developed primarily for back and edge lighting and are most effectively used for LCD backlight due to the high brightness and high color.

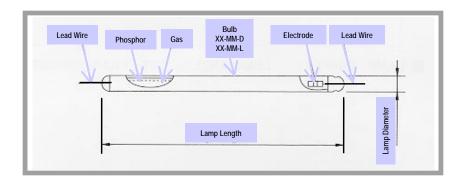
Attributes

- High bright
- High color
- •Low heating 10-25°
- •Small size, light weight
- Low power consumption
- •Average life 10,000-40,000 hrs
- Adjustable brightness through dimming circuit

Lamp Life Variables

- Pulse Width Modulation
- Length
- Diameter
- Ambient temperature
- Gas pressure and mixture
- Amount of current
- Actual operating hours
- Life ends at 50% brightness

How it works: The CCFL typically includes a hollow glass cylinder coated on the inside with a phosphor material such as zinc silicate and various halo phosphates. The tube is sealed at both ends, each one containing a mercury-dispensing electrode and cathode connected to the leads.



When high voltage is applied to the electrodes, ultraviolet energy at 254hm is produced as the mercury and gasses are ionized. The resulting energy from the mercury discharge stimulates the phosphor lining inside the lamp and produces light.

