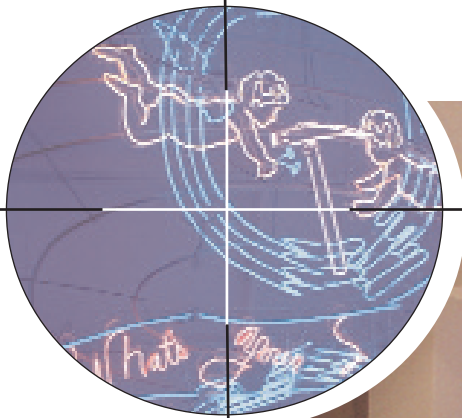


Focus on:



Many people view cold cathode as the better alternative to LED and fluorescent.

Popular since the early 1930s, cold cathode is a dependable linear light source, which can also be sensually curved and provides an even, continuous bright line of light where required.

With the development of the high frequency low voltage electronic transformer, together with the advent of DMX Control, cold cathode lighting is an exciting light source, both practical and flexible. Though much maligned, cold cathode lighting has a long life expectancy and is more durable than some people expect. Even in a commercial installation, with extended usage, it should still perform for a minimum of some three or more.

The Light Corporation has demonstrated to the entertainment industry, as well as in the domestic lighting market, just how cold cathode lighting could be used in lighting design schemes, in a cost effective and innovative manner, stripping

away the 'black art' surrounding it.

'Cold cathode can be a stunning and most cost effective light source that is still, sadly, much undervalued and underused,' believes Tim Henderson, director of The Light Corporation.

David Caddick, Henderson's co-director, states: 'For a light source that graced some of the most beautiful ocean liner interiors of the classic art deco restaurants of the 1930s, this light source deserves its rightful place dining at the top table of usable, creative light sources.'

The Light Corporation recently specified cold cathode lighting for Park Village West in London's Regent Park. Park Village West is a grade two listed renovation where the owner requested a fun, funky colour change effect from the lighting design for contemporary addition to his home.

Colour changing red, green and blue (RGB) cold cathode lighting was used in a

concealed, linear format throughout the living/kitchen areas. This is controlled by a DMX signal dimming system, which was programmed to suit the clients' moods at different times of the day. Cold cathode was chosen for its effectiveness and cost effectiveness, as the LED lighting option would have been a more expensive option used to create a similar effect.

Paul Nulty, design director at Light Bureau, believes that cold cathode, whilst not quite as efficient as T5 linear fluorescent lamps, is still more efficient than the best LEDs and is ultimately more versatile.

'LEDs are still point sources and still suffer inconsistency in colour temperature whereas cold cathode, if supplied by a good quality manufacturer, will be much more consistent,' believes Nulty. 'We also constantly face the age old argument that cold cathode is much more expensive than other sources... But quantity

cold cathode



Facing page inset: Electro Signs created the lighting feature in Selfridges' new Shoe Galleries. Left: The Light Corporation specified cold cathode from Bengel Neon for Park Village West in London's Regent Park. Below: Cold cathode from Kemps is still running perfectly eight years later at the Grand Hyatt in Dubai.



Lyndsey Hubbard gets an update on the market.

surveyors conveniently forget that most cold cathode is priced to include installation whereas fluorescent or LED sources are not.'

Nulty has a particular love for cove lighting. 'Coves can take many forms: coffers, wall slots, perimeter slots, pelmets and so forth, but all styles have several things in common. The eye is always drawn to the brightest point in a room, consequently discreetly concealing the light source provides visual emphasis on the illuminated surface rather than a distractive luminaire. This approach creates higher luminance values on the illuminated surface than on surrounding ones, providing good contrast, drama and visual interest.'

His favourite light source for cove lighting is cold cathode. 'Cold cathode lamps come in a wide variety of colour temperatures and as they are made to order can fit into any length cove. Energy

efficient and long life (approx 40,000 hours), a common misconception is that cold cathode is expensive to purchase.'

Antonio Patente, business development manager at Kemps Lighting, believes that cold cathode offers the lighting designer a platform for creativity and originality whilst at the same time providing a durable and reliable product at a cost effective price. 'The range of colours available is outstanding and can give structure, ambiance and flair to any design. It may be used to highlight or emphasise a particular feature or simply to fill a larger area with light and colour,' explains Patente. 'It is practical as well as artistic, and the lamps themselves can be formed to any shape to follow any contour. Cold cathode lighting is able to give depth and warmth of colour to an area that is difficult to achieve with LED.'

It is able to withstand a wide range in temperature, which makes it ideal for both

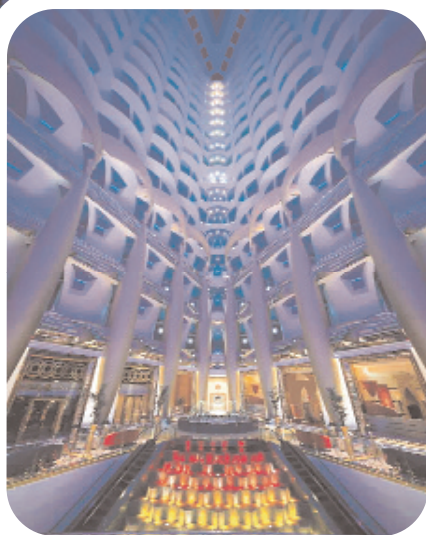
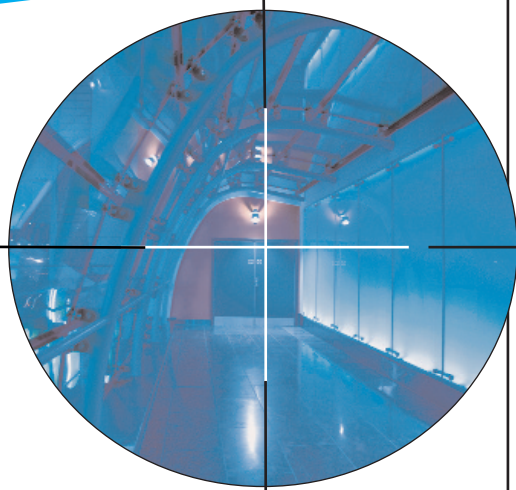
indoor and outdoor use, with applications varying from the cold and wet of an English winter to the heat and humidity of exterior facades of Dubai and Abu Dhabi. Kemps Lighting made the external white lines on the Grand Hyatt in Dubai using cold cathode eight years ago, and the lighting is still working perfectly in this type of environment.

'Cold cathode lamps can be expected to give around 50,000 hours of light with very little maintenance once installed. LEDs are not the only products that are economical to run. A cold cathode lighting system uses as little as 20W per metre, going up to 60W for a high output system allowing the designer to balance lux levels to running costs,' says Patente.

Mark Wolstenholme, marketing manager at ACDC Lighting, stresses the long lamp life of cold cathode: 'In a fluorescent lamp, the electrodes must be heated to strike the lamp and this results in a reduced



ACDC supplies cold cathode for a wide range of projects.



lamp life of typically 10,000 hours. A cold cathode lamp does not operate in this manner and no heating is required – hence the name cold cathode – and the operating lifetime of an ACDC tube is around 45,000 hours.’

Another benefit of cold cathode that Wolstemholme points out is the continuous lighting effect created by the ‘turned-back’ electrodes. Fluorescent lamps do not light right to the end and furthermore, this area blackens over the life of the lamp thus creating unsightly dark areas and uneven lighting effects.’

Fluorescent lamps are sometimes offered in a small selection of colours, through the use of a coloured sleeve. Wolstemholme feels this is relatively ineffective as it significantly reduces light output. Cold cathode however offers a wide selection of vivid, saturated colours created through the use of a phosphor coating on the inside of the tube.

‘Whilst we accept that the initial outlay for a cold cathode system may be more

than fluorescent, the significant product and service benefits are clear to see. A better product, which is quicker and easier to install is provided and there are significant lifetime benefits with a cold cathode system.’


Electro Signs has completed an installation in the new Shoe Galleries at Selfridges in London. The piece was the brain child of Allana Weston, creative director of Selfridges and her team.

The idea came from the Sistine Chapel in Venice but with a hint of fun; painting with cold cathode was the request. The piece comprises 400 various shaped and patterned tubes in the form of cherubs, banging nails with hammers, holding sticking plasters for sore feet, pouring water in a bowl to soak your feet and tying shoe laces. The strap line was ‘What’s your shoe story’, and the job was completed within just four weeks.

The piece measures 9.5m x 4m, and it was suspended from the ceiling. To make the oval ring in keeping with the overall scheme, laser cut acrylic letters were applied to the piece with words ‘click clack stomp snap’.

‘The cold cathode tubing was made in compound three dimensional shapes and

fitted onto an oval fabricated tubular system,’ explains Chris Bracey from Electro Signs. ‘The high tension cables were braided in specially woven dove grey weave to reflect the different coloured tubes. Each cherub had six wings, which were wired onto a three channel animator to give the effect of flight. The cold cathode tubing was mounted onto laser cut acrylic shapes, which made assembly easier.’

Cold cathode still has a firm foot within the lighting arena, and will continue to do so, offering long lamp life, flexibility, and the ability to withstand varying temperatures. 

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