Fiber Optic Luminaire Masonlite Cold cathode

What is Cold Cathode Luminaries ?

Developed seventy years ago, cold cathode was first the first commercially available form of cold flourencent lighting. Each cold cathode lamp is handmade can can be sized and shaped to conform to virtually any design.

These lamps are manufactured so that they can be installed close to each other resulting a clean continuos flow of light eliminating any dark shadows which are typical in fluorescent fixtures. Unlike LEDs Cold Cathode lamps are weatherproof and impact resistant.







Why use Cold Cathode Lighting ?

A cold cathode lighting system offers unique advantages not found in any other lighting fixtures. The illumination from cold cathode lights come from a single continuous lamp. Lamp ignition is instantaneous and flicker free. Cold cathode lamps are easily dimmed and are compatible with a wide variety of commercially available lighting control systems - an important feature to consider when specifying lighting fixtures. One of the big advantages of using a cold cathode system is that a single transformer can drive a long span of lamps connected in series, allowing virtually silent operation and low maintenance cost. Cold cathode lamps have been tested over a life span of more than one hundred and thirty thousand hours. The only aging element is found with powder coated tubes, where the UV emission causes a progressive aging of the luminuos pigments.

Though initial cost may sometimes be higher, cold cathode lighting delivers substantial long term savings compared with other fixtures. It is energy efficient and will consume as little as 16 - 30 watts per meter, depending on the configuration of transformers. Lamps can last 50,000 hours and beyond, unlike fluorescent lamps, cold cathode lamp life is not affected by the number of times the system is switched on and off. A cold cathode system not only decreases energy cost, but drastically lowers lamp replacement and maintenance costs.

How to plan and design a Cold Cathode layout ?

A cold cathode system is most often used in indirect lighting applications and is particularly effective for cove and ceiling coffers. The result of a high-quality, well-designed system is a rich, uniform light without any dark shadows or hot spots. Cold cathode can also be installed as direct illumination to 'light mark' any architectural detail.

Designers and electrical engineers should consider the unique characteristics of the various cold cathode lighting systems offered. Each configuration has its own set of guidelines with respect to installation method, application and light effect. Specification sheets, technical details and recommended ceiling coffer design are available on our website, additional information available on request.

How energy efficient is Cold Cathode Lighting ?

Cold Cathode offers very good energy efficiency compared with other lighting fixtures. The lamp is filled with a mix of gases including mercury vapor. This mix generates a high density of invisible UV radiation, which is converted into visible light by an inner coating of fluorescent powders. This maximizes light efficiency, achieving results 10 times brighter than incandescent light bulbs.

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