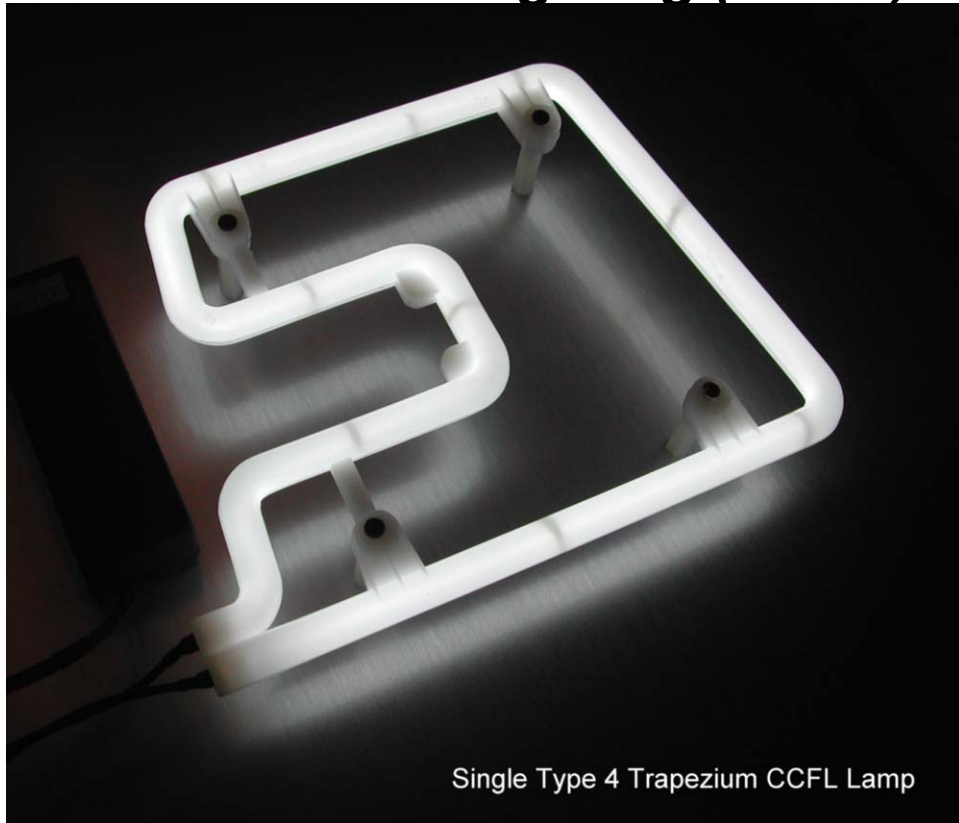




COIN MECHANISMS

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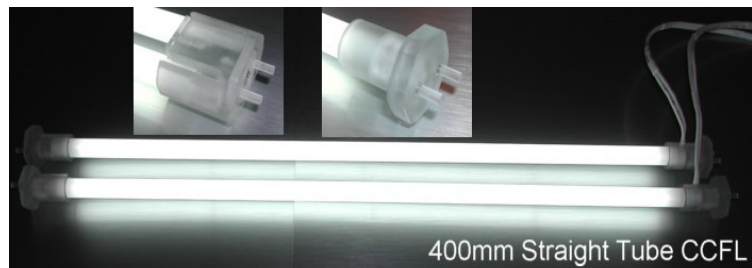
Cold Cathode Lighting (CCFL)



Single Type 4 Trapezium CCFL Lamp



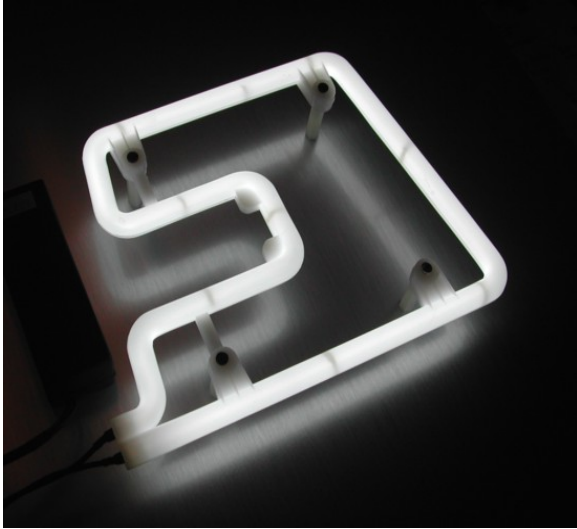
Type 4 CCFL Retrofit Kit



400mm Straight Tube CCFL

The CCFL is called a cold cathode fluorescent tube, and the principal of illumination is the same as that of the hot cathode fluorescent but this lamp does not require preheating of the filaments. The electrodes at the end of the CCFL tube stay at a low temperature while the lamp is emitting light. A special power supply, called an inverter, is required to drive the CCFL and generates approximately 800V AC at 38kHz. This inverter is a small efficient power supply designed specifically to drive its associated size CCFL tube and wire length.

Type 4 Trapezium CCFL



Cold Cathode lighting shaped as a trapezoid is one of the newest advances in lighting offered by Coin Mechanisms. Responsive to the interests of both casinos and slot machine manufacturers, cold cathode offers high light output coupled with low power consumption, making cold cathode extremely energy efficient and a cost effective alternative to traditional fluorescent lamps. Patented diffuser and trapezium form provides a shock resistant and highly durable lighting solution. A single design for all common applications keeps inventory management simple and easy.

Casino Benefits

- CCFL is more energy efficient than fluorescent tube sets using approximately 70% less current. Lower fixture temperature means more energy is converted to light and not heat.
- CCFLs burn cool therefore they do not strain air conditioning loads, nor do they create fire hazards or cause harm from accidental contact.
- CCFL can substantially reduce the cost of relamping and maintenance. It has one of the longest lamp life expectancies of any lighting system: 20,000+ hours versus 2,000 hours for standard fluorescent tubes (that's about 2.5 maintenance free years).
- Patented design is twice as long, 730mm, as other model cathodes tubes and provides exceptional white light illumination.
- One size fits most applications—belly panel, top box (square and round top) and universal toppers. CCFL trapezoid may be oriented in different positions to best illuminate different spaces.
- Easily mounts with Panduit brand stand-offs, part number WS50-50-C.
- Lower replacement cost than electronic ballasts with fluorescent lamp.

OEM Benefits

- Eliminates AC line voltage from the slot door for safety and ease of service.
- The CCFL uses about 70% less power to operate than standard fluorescent tubes, reducing the load on the regulated power supply.
- Produces no UV light insuring that colors in machine graphics retain their vibrance over time.
- CCFL generates less heat inside the machine, improving the environment for other components and reducing the need for fans.
- Produces pure white light that dramatically enhances machine graphics.
- One size should accommodate most applications.
- The longer life cycle of the CCFL (20,000+ hours versus 2,000 hours for a standard fluorescent tube) is a cost savings benefit to casinos.
- Available with 24 volt DC (standard) or 12 volt DC inverter. Sold individually as lamp and inverter.
- Requires less depth, creating more space inside the machine for other items.
- Lower cost than comparable standard fluorescent fixtures with electronic ballasts, starters and harness.
- UL and CE approved.

Type 1 / 2 / 3 / 40 - Straight Tube CCFLs

Straight tube Cold Cathode lighting has been designed primarily for OEM applications, but can also be used as a retrofit item. All straight tube CCFL lamps are manufactured with a patented diffuser that provides even light distribution through the lamp. The diffuser makes the lamp a shock resistant, highly durable lighting solution. Patented internal o-rings within the lamp's diffuser provide a shock absorbing benefit resulting in the further durability of the lamp.



Type 40 Straight Tube CCFL (shown above with both the dual and single end caps).

- The dual end cap option has unique ratchets that allow 8 position rotation within the fixture to maximize light reflection.
- Type 40 with end caps designed to retrofit either reel or belly glass areas.
- Type 40 end caps replace existing industry standard F15-T8 fluorescent lamps.
- A unique T40 Inverter, available in either 12 or 24 volt DC, is required to power the lamp.



Type 1 / 2 / 3 Straight Tube CCFLs (shown left)

- Straight tube CCFLs are available in 100mm, 200mm and 300mm lengths.
- A unique T1, T2 or T3 Inverter, available in either 12 or 24 VDC, is required to power the lamp.
- Each lamp is supplied with molded acrylic blocks on both ends for easy mounting.

TYPE 1/2/3/40 LAMP / INVERTER SPECIFICATIONS

LAMP LENGTH [mm] in	INPUT VOLTAGE VDC	INPUT CURRENT SINGLE /DUAL A MAX.	OPER TEMP C	STORE TEMP C	HUMIDITY R.H.
[112] 04.4	12.0 ± 10%	.240/.365	-10 TO +65	-20 TO +65	95% MAX.
[212] 08.3		.335/.525			
[312] 12.3		.415/.670			
[412] 16.2		.600/.900			
[112] 04.4	24.0 ± 10%	.125/.200			
[212] 08.3		.170/.265			
[312] 12.3		.215/.350			
[412] 16.2		.260/.435			

CCFL INVERTERS & ACCESSORIES



Each CCFL lamp type requires it's own Inverter to drive it. Inverters are available in either 12 or 24 VDC.

An optional 120 VAC to 12 VDC power supply is available and includes all wiring needed to drive a 12 VDC CCFL/ Inverter set.



TYPE 4 CCFL RETROFIT KIT

The Type 4 CCFL can be purchased as a retrofit kit (as shown). The kit allows the Type 4 trapezium lamps to easily retrofit into existing light fixtures. A complete kit consists of 2 Type 4 CCFL Lamps, 2 Inverters (12 or 24 volt DC), a reflector panel, suspension rod with unique plastic end caps, plus all necessary mounting hardware and wiring.



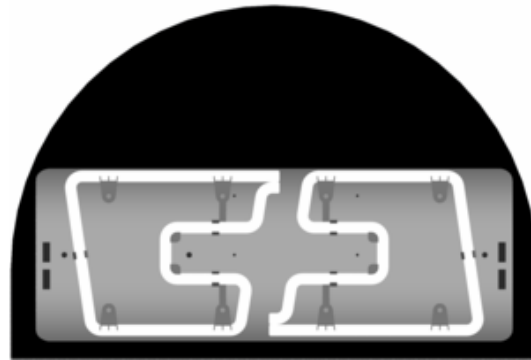
GAMING MACHINE CONFIGURATIONS



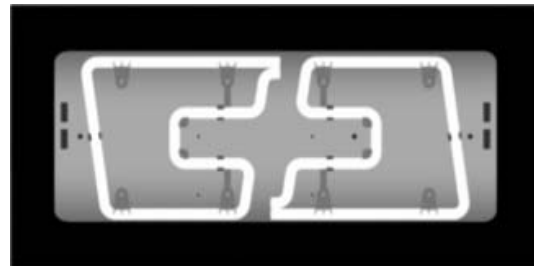
UNIVERSAL TOPPER



LARGE SIGN FORMAT



TOP BOX



BELLY PANEL

TYPE 4 LAMP / INVERTER SPECIFICATIONS

CCFL dimensions: 7-1/2 in. x 5-3/4 in. x 3/8 in. diameter

Linear Dimensions: 730mm x 10mm diameter / Lead length: 8 inches

Current draw: 8.8 watts; 370 mA at 24V DC; 740 mA at 12V DC

Warranty: 2 years on lamp and inverter / UL and CE Approved

WARNING: Because of the high voltage required to drive the lamp, it is very important to never disconnect the lamp while it is operating. Always remove power when changing or installing lamps. Always make sure the lamp connector is fully seated and locked before operating.



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