

## COLD CATHODE LIGHTING SPECIFICATIONS System TNP (standard-output transformer-operated cold cathode)

**LAMPS:** Shall be 50,000-hour, 25mm triphosphor-coated cold cathode, operating at 100 mA and producing 386 lumens per foot (warm white 30TC). Manufacturer shall submit ITL photometric reports to substantiate.

**LAMP HOLDERS:** Shall be UL listed (U.S. and Canada) type TL (surface mounted) or type TL-R (recess mounted), white electrical porcelain with phosphor bronze clips to electrically connect and retain the lamp.

**TRANSFORMERS:** Shall be UL listed (U.S. and Canada) and shall be the models designated on the shop drawings. Transformers are to be installed as close to lamps as possible in order to keep the secondary feeds as short as possible. Transformers shall be installed in an accessible location by installation: in an accessible electrical or maintenance closet, above a lay-in ceiling, or above an access panel (18" x 18" minimum size). Transformer location shall not exceed 100 degrees F. To avoid any electrical noise interfering with computer, public address, or telecommunication systems, all cold cathode transformers shall be supplied from distribution transformers dedicated to lighting only. If distribution or isolation transformers are not available, cold cathode transformers must be fed from a dedicated circuit with separate neutral wiring. Additionally, all cold cathode transformers and associated conduits and wiring shall maintain a 36" separation from any computer, public address, or telecommunications wiring and equipment.

**WIRING AND CONDUIT:** Cathode Lighting Systems Inc. shall provide GTO-15 high-voltage cable to be installed in strict accordance with the instructions on the shop drawings. Installing contractor shall provide conduit, conduit fittings, and ground wire. All components and installation methods provided by the installing contractor shall comply with the NEC (National Electric Code) and applicable local codes.

**SHOP DRAWINGS:** Shall be CAD generated and shall be submitted for approval and future maintenance. Drawings shall show lighting layout, method of installation, and a complete bill of materials. Installing contractor is responsible for furnishing "as built" dimensions or full-sized patterns, as requested on the shop drawings.

**DIMMING:** System TNP shall be specified as dimmable or nondimmable. If dimming is required, specifier or contractor must verify with dimmer manufacturer that dimming system is compatible with normal power factor cold cathode transformers.

**MANUFACTURER:** Shall be listed under UL (U.S. and Canada) category *IFAY - Electric Discharge Lighting Systems*. Manufacturer: Cathode Lighting Systems Inc., Gaithersburg, MD, USA; (800) 551-5012. Website: [www.CathodeLightingSystems.com](http://www.CathodeLightingSystems.com)