

HOW MUCH MONEY CAN I SAVE USING COLD CATHODE EXIT SIGNS?

Over a six year cycle, cold cathode offers significant savings over the other Chicago-approved exit signs in terms of operating costs, energy consumed, heat generated and maintenance. Our Cold Cathode light module operates much cooler, and uses a fraction of the wattage of fluorescent or incandescent exit signs, significantly reducing operating costs for electricity and cooling. Cold cathode lamps operate for 5-8 years without maintenance, making Cold Cathode the most economical system to operate and maintain.

| | Steel Backlit Sign glass face COLD CATHODE | Steel Backlit Sign glass face WHITE LEDs | Steel Backlit Sign Fluorescent | Steel Backlit Sign Incandescent | Edgelit COLD CATHODE | Edgelit Fluorescent |
|---|---|--|-----------------------------------|------------------------------------|-------------------------|----------------------------|
| Power Usage | 5 Watts | 7 Watts | 22 Watts | 40 Watts | 5 Watts | 22 Watts |
| Yearly Energy Consumption (KWh)/Cost* | 43.8 \$5.20 | 61.32 \$7.29 | 192.72 \$22.91 | 350.4 \$41.66 | 43.8 \$5.20 | 192.72 \$22.91 |
| Rated Lamp Life | 50K-70K hours | 30K hours | 10K hours | 2K hours | 50K-70K hours | 10K hours |
| Yearly Lamp Replacement Cost | | | | | | |
| Material | \$0.00 | 29.16*** | \$3.60 | \$6.40 | \$0.00 | \$3.60 |
| Labor** | \$0.00 | \$2.50 | \$15.00 | \$60.00 | \$0.00 | \$20.00 |
| TOTAL Yearly Cost | \$5.20 | \$38.95 | \$41.51 | \$108.06 | \$5.20 | \$46.51 |
| 6-Year Cost | \$31.20 | \$233.70 | \$249.06 | \$648.36 | \$31.20 | \$279.06 |
| Total Savings by Investing in Cold Cathode**** | ---- | \$202.50 | \$217.86 | \$617.16 | ---- | \$247.86 |
| Return on Initial Investment***** New installations | | IMMEDIATE | 1 YEAR | 7 MONTHS | | 1 MONTH |
| Return on Investment Replacing existing signage. (yearly savings/sign price) | | less than 3.5 years | less than 3 years | less than 1 year | | less than 2.5 years |
| NOTES: | <ol style="list-style-type: none"> 1. Average annual electric rates for Northern Illinois are figured at \$0.1189 per KWh (Kilowatt Hour) 2. Labor costs to replace worn lightsource based on \$60/hour labor; average time to replace lamps: 4 backlit signs per hour and 3 edgelit signs per hour. 3. After 3 1/2 years, the White LED sign must be replaced at an average cost of \$175.00 ea. This cost is amortized over the 6-year period. 4. Total savings computed by subtracting the 6-year savings (over the life of the cold cathode lamps) less the 6-year cost of operating the cold cathode exit. 5. Payback period determined by dividing the total savings by 72 months to get savings per month. That figure is divided by the difference between the cost of a Cold Cathode sign and its alternative. E.G. Compared to a backlit fluorescent sign, the Cold Cathode sign saves \$3.02 per month. After 1 year, the Cold Cathode sign has paid for itself and is earning a net savings over the Fluorescent sign. | | | | | |

Distributed by:

Cold Cathode AC and Emergency Backup Exit Signs



The future of exit sign illumination is here, with the safest and most visible family of exit and emergency products in the industry!

Our specification grade **Cold Cathode** exit signs feature the revolutionary T5 cold cathode light source, which provides up to 70,000 hours of super-bright, white, energy-efficient (less than 3 watts per lamp), maintenance-free illumination. These exits are designed with an innovative style and appearance, and are engineered to maximize the visibility of the wording and overall illumination, making them among the safest and most effective emergency lighting products available anywhere.

WHAT IS COLD CATHODE?

Cold cathode lighting has been available since the '30s, and is currently used in many common applications, such as dashboard illumination, scanners, and laptop screens. Cold cathode is a form of illumination that operates by activating a phosphor coating inside a gas filled lamp, similar to the way that fluorescent and neon operate. Unlike fluorescent, however, there is no filament that must be heated to excite the phosphor, so cold cathode lamps operate at a much cooler temperature, and are designed to last 4-5 times longer than fluorescent lamps. Because there is no filament to wear out, cold cathode lamps are impervious to vibrations, repeated starting, strobing, etc. A bare cold cathode lamp can be very fragile; therefore we use a glass protective T5 enclosure to make it suitable for rugged applications like signage and emergency lighting.

FEATURES and BENEFITS

Cold Cathode offers a multitude of advantages over other types of lighting. Among its unique features are:

Energy Efficient: Uses only 2.5 watts per lamp. Most of the energy consumed is converted to light output and not to heat, versus incandescent and fluorescent lamps which convert much of the energy to heat. Compared to a fluorescent light source, Cold Cathode is 300% more efficient.

Low Heat Transmission: Cold Cathode lamps operate at 200°C, generating significantly less heat than fluorescent lamps which operate at 900°C. This allows the signage to operate at a significantly lower internal temperature, as much as 25°F cooler than exits using standard fluorescent lamps.

Long Life: Lamp life is extremely long, typically 50,000-70,000 hours, or 5-8 years of continuous maintenance-free operation, as compared to standard fluorescent life expectancy of 10,000-15,000 hours. At the end of its life cycle, cold cathode is still operating at 85% of full light output, compared to standard fluorescent lamps which are only producing 25% of initial light output.

High Visibility and Even Illumination: Our electronically engineered optics make this exit highly visible from a distance and maximizes the viewing of the wording. For **safety, visibility and aesthetics**, no incandescent, fluorescent, or LED exit sign on the market today can compare with our Cold Cathode exit signs.



COLD CATHODE TECHNICAL SPECIFICATIONS

ILLUMINATION: The T-5 Cold Cathode Lamp Module operates in either AC only or AC/Emergency Battery Back-up mode. The lamp module is a fully self-contained light source with one (1) 3mm cold cathode lamps encased in a standard T-5 bi-pin fluorescent tube with two (2) standard T-5 bi-pin lampholders. The module contains an electronic ballast/inverter with solid state battery charging circuitry (when used in AC/Emergency Mode). An output line with quick-connect terminals connects to the line voltage for easy installation.

OPERATION: The T-5 lamp module is desired for dual 120/277 Volt Input, and 6 Volt output in DC (Emergency) mode. The cold cathode lamps will illuminate for up to 70,000 hours, and consumes less than 7 watts of power under normal operation. Although the system is designed to be maintenance-free, all parts (Ballast/Inverter, T-5 Lamp Tube, Lampholders, Battery) may be replaced if necessary without compromising the operation of the module.

EMERGENCY OPERATION: System comes complete with 6 Volt Nickel Metal Hydride battery, charging circuitry, momentary test switch and charge indicating light; minimum 120 minutes operation. Solid state charger features automatic brown-out protection and low voltage disconnect, which prevents over-discharge of battery. When normal AC power is restored, an electronic relay switches the ballast/inverter back to AC mode and recharges the battery back to optimal specifications.

LABELS: UL, ETL, or ENTELA LISTED. City of Chicago Approved Panels. New York Code 8" letters also available for use in New York City.

WARRANTY: One Year.



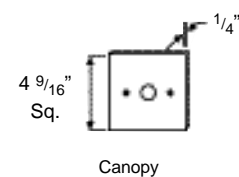
CERES - BACK LIT SURFACE MOUNT EXIT

CONSTRUCTION: Housing constructed of extruded aluminum. Door frame opens on end for easy access to internal components.

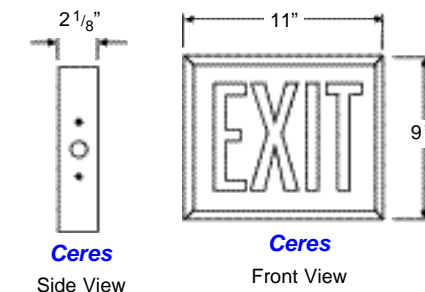
MOUNTING: Universal mounting – ceiling, end, wall, back or pendant mount; canopy supplied.

FINISH: Brushed satin aluminum standard; baked polyurethane powder coat finishes are available (please specify).

PANEL: Panels have red letters on white background. Stencil face panels have removable chevrons. Letters are 6" high with 3/4" stroke. Other color combinations are available to meet local codes. Glass panels meeting Chicago Code are standard for Chicago.



DIMENSIONS



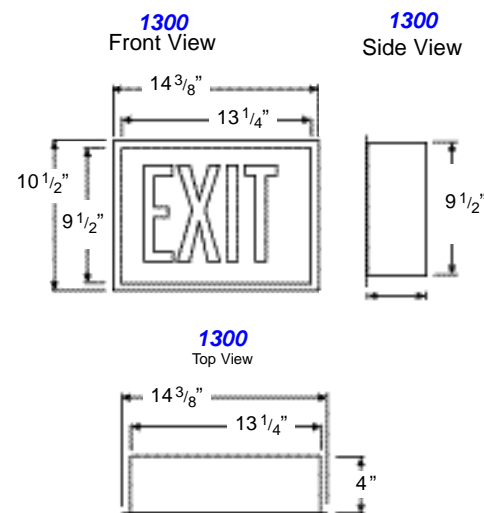
1300 SERIES - WALL RECESSED EXIT

CONSTRUCTION: 20 gauge die-formed steel housing. Extruded aluminum door frame open on hinges for easy access to internal components.

MOUNTING: Recessed wall mount—furnished with top, bottom, and side knockouts.

FINISH: Brushed satin aluminum or powder coat finish is standard; other finishes are available as options (please specify).

PANEL: Glass (Chicago Code) or thermoplastic panels have red letters on white background. Stencil face panels have removable chevrons, and red or green letters depending on local code requirements. Letters are 6" high with 3/4" stroke.



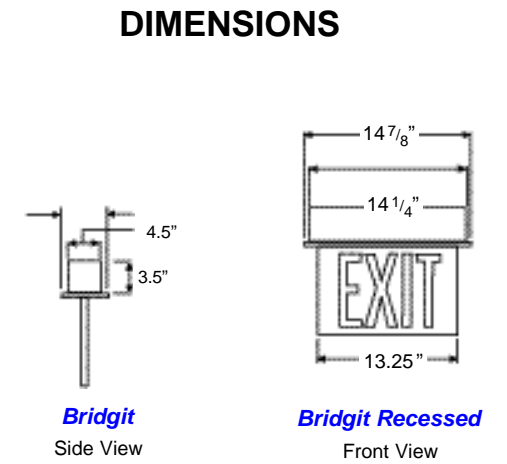
BRIDGIT - SURFACE OR RECESSED EDGE LIT EXIT

CONSTRUCTION-SURFACE MOUNTED: Housing manufactured from extruded aluminum. Universal mounting – supplied with a canopy for ceiling, end wall, back or pendant mounting (specify pendant length).

CONSTRUCTION-RECESSED: Recessed housing manufactured of die-formed 20 ga. steel. Face plate is brushed aluminum, fully gasketed to prevent light leaks. Furnished with adjustable mounting brackets for use with conduit or bar hangers.

EXTERIOR FINISH: Brushed satin aluminum standard; other baked polyurethane powder coat, anodized or plated finishes available (please specify as option).

PANEL: Molded, tapered and beveled acrylic panel with red 6" letters on a white, clear or mirrored background. Standard panels meet Chicago Code. Other color combinations and lettering available to meet local codes, including New York panel with 8" letters and universal panel with chevrons and 6" letters (please specify color and lettering as options).



4100-SS SERIES - STAINLESS STEEL VANDAL/WEATHER RESISTANT EXIT

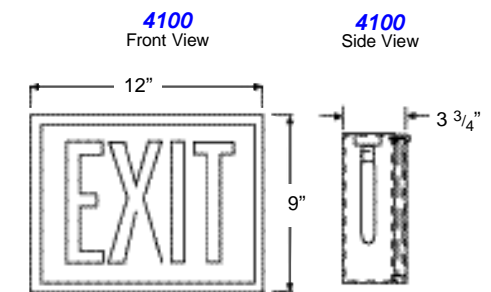
CONSTRUCTION: Housing, socket channel, and frame manufactured of 18 gauge type 304 die-formed stainless steel. Internally hinged frame opens for easy access to panel and socket channel, and is secured to housing with stainless steel, spanner head tamper-proof screws.

GASKETING: Silicone gasketing is applied to the housing and hinged frame to form a water tight seal.

MOUNTING: Universal mounting – ceiling, end, wall, pendant, or back mount; canopy supplied. (Pendant kit optional, please specify).

FINISH: Natural satin brush finish standard; other finishes available at no additional charge.

PANEL: Stencil face panels come with removeable chevrons. Letters are 6" high with 3/4" stroke. Other color combinations available to meet local codes. Glass panels (Chicago Code) have red letters on white background and .125" clear polycarbonate shield.



ORDERING INFORMATION

Example: CC-EM2800-2-120-AL-PK24

| Series | Panels | Voltage | Finish | Options |
|------------------------|---|---------|----------------------|--|
| CERES | | | | |
| CC-2800-AC Only | STF-1-Stencil Single Face | 120 | AL-Brushed Aluminum* | WG-Wire Guard |
| CC-EM2800-AC/Emergency | STF-2-Stencil Double Face | 277 | W- White | TP-Tamper Proof Screws |
| 1300 SERIES | XX-Glass or Edge Lit Panel (See Legend for Panel Codes) | | CC-Custom Color | G/W-Green Letters on White |
| CC-1300-AC ONLY | | | *=Standard | EXC-(Dual) Emergency Circuit |
| CC-EM1300-AC/Emergency | | | | FLS-Flasher |
| 4100 SERIES | | | | BZ-Buzzer |
| CC-4100-AC ONLY | | | | FAI-Fire Alarm Interface |
| CC-EM4100-AC/Emergency | | | | PK-Pendant Kit (Specify Stem Length) |
| BRIDGIT | | | | PP-Polycarbonate Panels |
| Surface | Recessed | | | AP-Acrylic Panels |
| SB-AC Only | AC Only | | | HO-Housing Only |
| EMSB-AC/Emergency | RB-AC | | | SPC-Special Panel Wording or Panel Color |
| | RBW-AC wallmount | | | NY-New York code 8" letters |
| | AC/Emergency | | | |
| | EMRB-Emergency | | | |
| | EMRBWM:-Emergency wall-mount | | | |

CHICAGO PANEL CODE

| SINGLE FACE | DOUBLE FACE |
|--------------|--------------|
| 2 - Stairs | 17 - Stairs |
| 3 - Exit | 18 - Exit |
| 5 - Stairs↘ | 20 - Stairs↘ |
| 6 - Exit↘ | 21 - Exit↘ |
| 8 - Stairs↙ | 23 - Stairs↙ |
| 9 - Exit↙ | 24 - Exit↙ |
| 11 - Stairs↔ | |
| 12 - Exit↔ | |

