

COOPER LIGHTING SOLUTIONS - SURE-LITES®

DESCRIPTION

For applications where the finest architectural appearance is required, the Concealed Emergency Light (CEL) Series offers the maximum protection of high quality MR16 lamps to light your path when you need it, but also the minimal intrusion on your environment when you don't. The CEL is fully recessed in your wall or ceiling and is almost invisible when not in use, demonstrating the perfect balance of form and function. The doors open automatically when power is lost, lighting your path of egress with up to 150 feet, and then automatically return to the closed position when power is restored.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Electrical

- Microprocessor Controlled Self-Diagnostics System is Standard
- Dual Voltage Input, 120/277 VAC, 60Hz
- Isolation Transformer
- Line-Latching
- Solid-State Voltage Limited Charger
- Low-Voltage Disconnect
- Brownout Circuit
- Test Switch/Front Panel Diagnostic Display
- Soft-Start Lamp Circuit Ensuring Extended Lamp Life
- Infrared Receiver for Optional Remote
- Time Delay Monitor Available as Option

Battery

- Sealed Lead Calcium Batteries with Unit Capacities Available to 150W
- Optional Nickel Cadmium Batteries
- Extended Run-Times, UL Listed to 120 Minutes
- Capable of Powering Remote Heads
- Charging Automatically Maintained by Circuitry

Housing Construction

- Precision Controlled Motor and Cam System
- Recessed Housing with Fully Adjustable Mounting Hardware
- Suitable for Ceiling or Wall Mounting
- Self-Adjusting Door Assembly
- No External Mounting Hardware
- Durable Off-White Textured

Powder Finish

- Can be Field Painted or Wall Papered to Match Any Color or Surface

Code Compliance

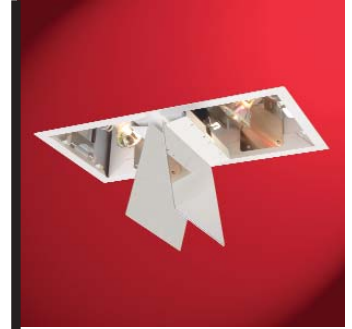
- UL924 Listed Self Diagnostic
- Approved for use in New York Calendar #48849
- Chicago Plenum approved with "CH" option
- Chicago Code approved with 20W or higher lamps selected

Warranty

- Limited three year warranty

Lamp Data

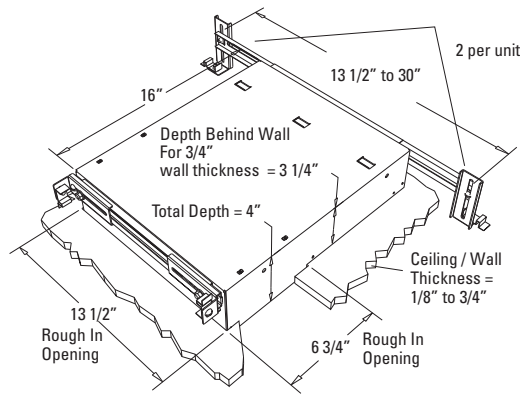
- Two MR16 Halogen Lamps Available 12W to 75W
- Four Available Lamp Positions per Side



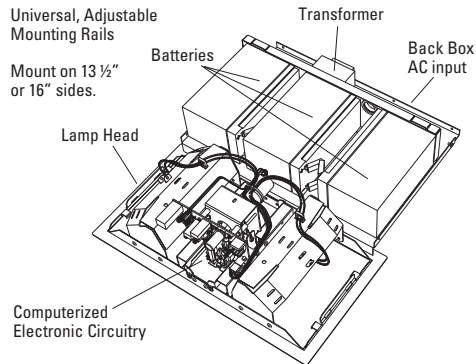
CEL SERIES

ARCHITECTURAL
EMERGENCY LIGHT
EMERGENCY LIGHTING

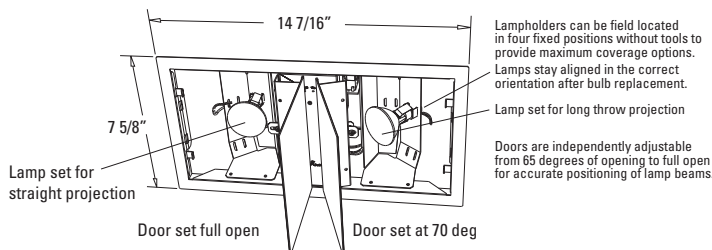
DIMENSIONS



Back Box and Mounting Dimensions



Internal Components with Back Box Rear Cover Removed



Mounted Dimensions (doors open)

ENERGY DATA

CEL
Input 120V/277V 60Hz, 0.2A

ORDERING INFORMATION

Sample Number: CEL7035120SD

Family CEL=Concealed EL	Battery Type _ =Lead Calcium 70=Nickel Cadmium	Standard SD=Self Diagnostics			
Battery Capacity 2412=24W battery, 12W lamp 4020= 40W battery, 20W lamp 7035= 70W battery, 35W lamp 10050= 100W battery, 50W lamp 15075= 150W battery, 75W lamp	Run Time _ = 90 minutes 120= 120 minutes	Accessories ¹ CELBK BX=Recessing Housing Only Remote= Remote Transmitter			

Notes: 1 Order separately.
* Consult Factory for Custom Finishes/Color options.

TECHNICAL DATA

Lamps

The CEL uses a 12 degree beam angle MR16 Halogen Lamps in wattages ranging from 12W to 75W. There are four standard lamp mounting positions per side that enable optimal light distribution depending on mounting location (e.g., ceiling or wall and height of mounting).

Fixture Head

Fixture head is formed steel housing with powder coated off-white finish, which can be custom painted or wall-papered in the field. Fixture head is held in-place against the housing with easy-to-install retaining clips (does not require tools).

Housing

Galvanized blanked and formed steel. 120/277V isolation transformer included in Housing. Two universal, adjustable rails included two per unit for mounting in spaces 13½" to 30". Two AC Input knock-outs. Option available to order housing separately (note: battery shelf will ship with Fixture Head).

Electronics

Dual voltage 120/277 VAC, 60Hz is standard. Battery and electrical components are contained within the housing.

Infrared Receiver

Allows for verification of proper operation of transfer circuit and emergency lamps with an optional Remote Transmitter, which runs tests selectable to 30-seconds or 90-minutes.

Self-Diagnostics

This standard feature will automatically perform all tests required by UL924. With the battery

fully-charged, an automatic self-test and diagnostic function will be performed every 28 days -- doors will open for 1 second and then close, then a load test will be performed for 29 minutes checking for lamp, battery or transfer fault.

Line-Latched

The line-latched electronic circuitry makes installation easy and economical. A labor efficient AC activated load switch prevents the lamps from turning on during installation to a non-energized AC circuit. Line-latching eliminates the need for a contractor's return to a job site to connect the batteries when the building's main power is turned on.

Solid-State Charger

Supplied with a 120/277 VAC, voltage regulated solid-state charger, the battery is recharged immediately upon restoration of AC current after a power failure. The charge circuit reacts to the condition of the battery in order to maintain peak battery capacity and maximize battery life. Solidstate construction recharges the battery following a power failure in accordance with UL 924.

Solid-State Transfer

The emergency light incorporates solid-state switching which eliminates corroded and pitted contacts or mechanical failures associated with relays. The switching circuit is designed to detect a loss of AC voltage and automatically energizes the lamps using DC power. Upon restoration of AC power, the DC power will be disconnected and the charger will automatically recharge the battery.

Low-Voltage Disconnect

When the battery's terminal voltage falls, the low-voltage circuitry disconnects the lighting load. The disconnect remains in effect until normal utility power is restored, preventing battery damage.

Brownout Circuit

The brownout circuit on Sure-Lites exits monitors the voltage to the unit and activates the emergency lighting system when a predetermined reduction of AC power occurs. This dip in voltage will cause most ballasted fixtures to extinguish causing loss of normal lighting even though a total power failure has not occurred.

Test Switch/Power Indicator Light

A test switch located on the inside cover of the unit permits the activation of the emergency circuit for a 30 second or 90 minute operational systems check. The Power Indicator Light provides visual assurance that the AC power is on.

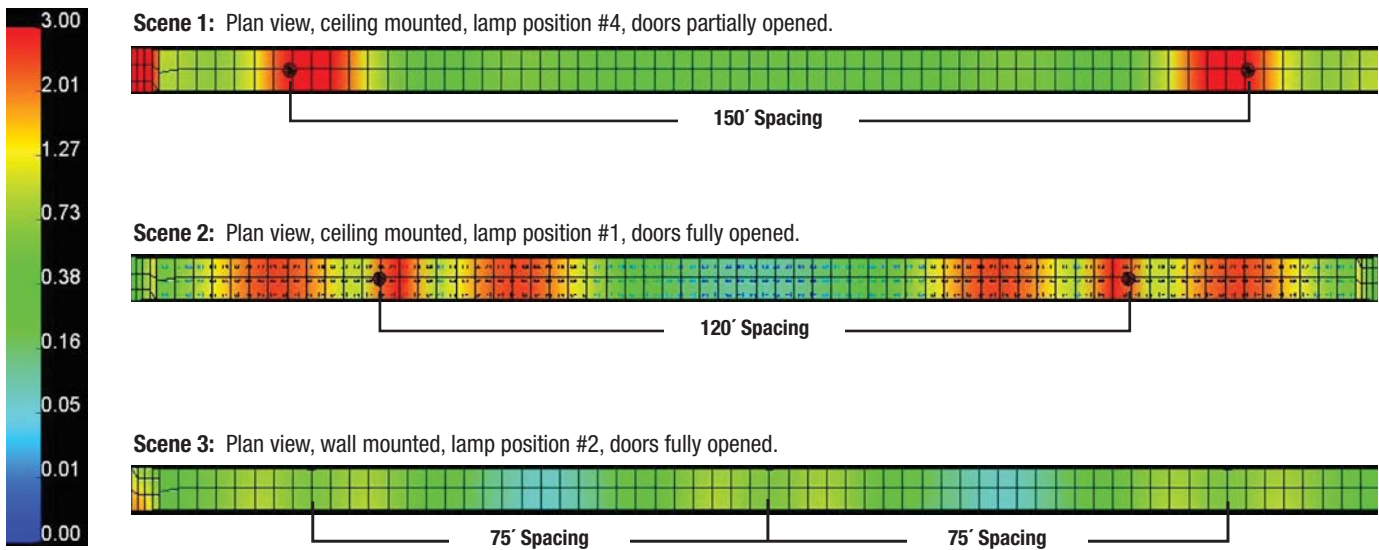
Sealed Lead Calcium or Nickel Cadmium Battery

Maintenance free, rechargeable sealed batteries. Standard battery is lead calcium with nickel cadmium as an option. Battery capacities available for lamp loads of 24W to 150W for a minimum of 90 minutes of emergency operation. Product available standard with 90 minute UL listing, option available for 120 minute UL listing. Note that expected run-times may exceed UL listing (see attached table).

Warranty

Limited three year warranty.

PHOTOMETRICS



***The "Rule of Thumb" spacing guidelines are designed to achieve 1 foot-candle average and 0.1 foot-candle minimum with a 40:1 maximum/minimum ratio. The corridor used is 200 feet long with a 9 foot ceiling, 6 foot wide walkway, and a 3 foot path of egress. The reflectances are 80% ceiling, 50% walls and 20% floors. The fixture mounting height is 9' when mounted on the ceiling and 8' when mounted on the wall. Cooper Lighting Solutions assumes no responsibility for local requirements or specific project variables. This is a guideline to be used as a design aid, not as guarantee of any code compliance.

Concealed Emergency Light UL Listing vs. Expected Run-Time

Base Product	UL Listing	Expected Run-Time
CEL2412SD	90 min	3 hour
CEL2412120SD	120 min	4 hour
CEL241270SD	90 min	3 hour
CEL241270120SD	120 min	4 hour
CEL4020SD	90 min	120 min
CEL4020120SD	120 min	4 hour
CEL402070SD	90 min	120 min
CEL402070120SD	120 min	4 hour
CEL7035SD	90 min	120 min
CEL7035120SD	120 min	3 hour
CEL703570SD	90 min	120 min
CEL703570120SD	120 min	3 hour
CEL10050SD	90 min	90 min
CEL10050120SD	120 min	120 min
CEL1005070SD	90 min	90 min
CEL1005070120SD	120 min	120 min
CEL15075SD	90 min	90 min
CEL1507570SD	90 min	90 min
CEL1507570SD	90 min	90 min

SELF DIAGNOSTIC LABEL

Front Panel Diagnostic Display

- Hi Charge
- Float / Full Charge

Diagnostic Functions

- ¹ Transfer Failure
- ² Battery Failure
- ³ Charger Failure
- ⁴ Door Failure
- ⁵ Lamp Failure
- Insufficient Charge
- In Test