DESCRIPTION

The Sure-Lites CHEL Emergency Light provides a distinct solution to any emergency lighting application. Constructed of die-cast aluminum, the CHEL presents not only a unique shape and design but also provides dependable strength and durability. The two, fully adjustable, high efficiency 12W MR16 lamps provide maximum path of egress performance. The standard Watchguard EMS self-diagnostic system meets NFPA 101 testing requirements providing assurance that the unit is working properly at all times. The Sure-Lites LASER test feature allows remote, 30 second confidence testing of the emergency light upon demand.

SPECIFICATION FEATURES

Electrical

- Dual Voltage Input, 120/277 VAC, 60 Hz
- Isolation Transformer
- Line-Latching
- Solid-State Voltage Limited Charger
- Low-Voltage Disconnect
- Brownout Circuit
- Overload/Short Circuit Protection
- Test Switch/Power Indicator Light
- Watchguard EMS Self-Diagnostic System
- Remote Photocell Test Switch (requires accessory LASER for activation)
- Fully Recharged in 24 hours

- Battery
- Sealed Lead Calcium
- Maintenance-free, Long-life
- Full Recharge Time, 24 hrs

Housing Construction

- Die-Cast Aluminum Construction
- Universal Pattern Knockouts on
- rear of housing for direct
- mounting to junction box
- 1/2" Threaded Conduit Access
- on top surface
- Powder Coat Paint Finish
- Snap Fit Design
- Reversible Mounting

 Catalog #
 Type

 Project
 Date

 Comments
 Date

 Prepared by
 Date

COOPER LIGHTING - SURE-LITES®

Code Compliance

- UL924 Listed Self Diagnostic
- UL Outdoor Damp Location Listed
- City of Chicago Approved
- Life Safety NFPA 101
- NEC/OSHA
- Most State and Local Codes

Warranty

- Unit: 1-Year - Battery: 5-year, pro-rata

Head/Lamp Data

- -Two 6V 12W MR16 Lamps
- Fully Adjustable





4.0"

Sure-Lites	® 023-414				
WatchGuard EMS					
Indicator	Meaning				
 Steady Pulse - -<td>Float Charge High Charge Battery Failure Circuit Failure Lamp Failure</td>	Float Charge High Charge Battery Failure Circuit Failure Lamp Failure				
TEST	INDICATOR				

ELECTRICAL RATINGS

	Rated W	attage to 87 1/2% of Rated D.C. Voltage	Lamp Information			
Model	DC Voltage	1 1/2 Hours	Туре	Wattage	Number	Spacing ¹
CHEL1SD	6	24	MR16	12	29-140	50′

ORDERING INFORMATION



Notes: 1 Order separately.





CHEL SERIES

ARCHITECTURAL EMERGENCY LIGHT

DIE-CAST ALUMINUM

SURFACE MOUNT

SEALED LEAD CALCIUM BATTERY

MR16 LAMPS

WATCHGUARD EMS SELF-DIAGNOSTICS SYSTEM FAS-TEST (TM) LASER TEST

> CITY OF CHICAGO APPROVED

EMERGENCY LIGHTING



ENERGY DATA Sealed Lead Calcium Battery CHEL15D Input Current: 120V = .05A 277V = .02A



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 100 feet long, 9 foot ceiling with a 6 foot wide walkway and 3 foot path of egress. The reflectances are 80% ceiling, 50% walls and 20% floors. The fixture mounting height is 7.5 feet. Cooper Lighting 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.

TECHNICAL DATA

Lamps

The CHEL1SD utilizes 6V 12W high output MR16 lamps standard. The MR16 lamps provide maximum illumination along the emergency path of egress.

Housing

Die cast aluminum with a powder coat painted finish. Universal pattern knockouts are located on the back housing for direct mounting to the junction box. Threaded conduit entry provided on the top surface of the housing. Snap fit design allows ease of installation.

Electronics

Dual voltage input 120/277 VAC is standard. Sealed Lead Calcium battery is standard. All battery and electrical components are enclosed within the housing.

Photocell Test Switch

Allows verification of proper operation of the transfer circuit and emergency lamps with a laser pointer (laser is sold as an accessory). The emergency lamps will test for 15 seconds when activated.

Self-Diagnostics

The self-diagnostic unit will automatically perform all tests required by UL924, and NFPA 101. The system indicates the status of the unit at all times using the LED indicator near the test switch on the bottom of the unit. A 90-minute battery power (emergency mode) simulation test will occur randomly once every six months. A 30-second battery power simulation test will occur every 30 days. The charger function is tested upon initial power-up and after every battery discharge cycle thereafter. The AC/DC power transfer circuit is monitored continuously. The charging mode is also monitored. The unit goes into a high charge mode for 24 hours the first time AC power is applied and when a discharge causes the battery voltage to fall below its nominal value. Pressing the test switch causes the unit to use

battery power and test the battery capacity for 15 seconds. The LED indicator is off when the unit is in the emergency mode and on continuously when the unit is fully charged. The LED blinks when the unit is in the high charge mode. It blinks twice (then repeats) when the battery needs to be replaced, or if it is disconnected. It blinks three times if there is a circuit board (charger or AC/DC transfer function) failure, and four times if there is a lamp failure.

Line-Latched

Sure-Lites 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 CHEL Emergency Light incorporates solidstate 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 deep battery discharge.

Overload and Short Circuit Protection

The solid-state overload monitoring device in the DC circuit disconnects the lamp load from the battery should excessive wattage demands be made and automatically resets when the overload or short circuit is removed. This overload current protective feature eliminates the need for fuses or circuit breakers for the DC load.

Brownout Circuit

The brownout circuit on Sure-Lites exits monitors the flow of AC current 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 cover of the unit permits the activation of the emergency circuit for a complete operational systems check. The Power Indicator Light provides visual assurance that the AC power is on.

Sealed Lead Calcium Battery

The fully sealed, long-life, maintenance-free lead-calcium battery is ideal for emergency lighting applications. These recombinant cycle batteries typically provide eight to ten years of life and may be operated in any position.

Warranty

This Sure-Lites CHEL1SD Emergency Light is backed by a firm one (1) year warranty against defects in material and workmanship. Maintenance-free, long-life, sealed lead calcium batteries carry a five-year pro-rata warranty.

