

Project		Catalog #		Type	
Prepared by		Notes		Date	



# Sure-Lites

## HR Series

Ultra-High Capacity (170-360 Watts)  
High Capacity (87-117 Watts)  
Sealed LEAD Calcium Battery, 6V  
Emergency Lighting

### Typical Applications

Industrial • Commercial • Multi-housing Environments

### Interactive Menu

- Order Information [page 2](#)
- Photometric Data [page 2](#)
- Product Specifications/Technical Data [page 3](#)
- Product Warranty

### Product Certification



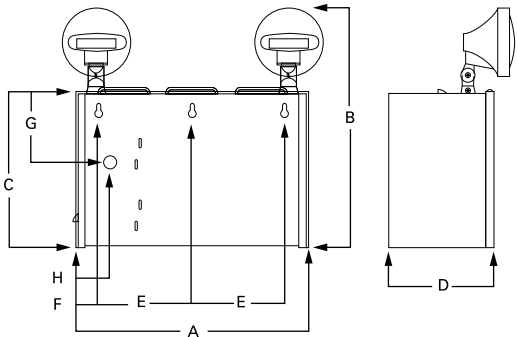
### Product Features



### Top Product Features

- Dual voltage input 120/277 VAC, 60Hz
- 18-gauge, die-formed steel housing
- White, powder-coated finish
- Two top-mounted, fully adjustable, high-impact thermoplastic heads
- Sealed lead calcium battery
- Knockout, conduit or cord set
- Line-latching, solid-state voltage limited charger
- Options to meet Trade Agreements Act requirements

### Dimensional Details



	High Capacity	Ultra High Capacity
A	12-1/4" [311mm]	17" [432mm]
B	13-1/4" [337mm]	16-7/8" [429mm]
C	7-7/8" [200mm]	11-1/2" [292mm]
D	4-1/4" [108mm]	8" [203mm]
E	4-3/4" [121mm]	6" [152mm]
F	1-3/8" [35mm]	2" [51mm]
G	-----	5-3/4" [146mm]
H	-----	2-1/2" [64mm]

## Electrical Ratings

Rated Wattage to 87 1/2% of rated D.C. Voltage							Lamp Information		
Model	Battery	DC Voltage	1-1/2 hours	2 hours	3 hours	4 hours	Type	Wattage	Number
HR87*	SLC	6	87	65	43	32	Incandescent	9	29-84
HR180*	SLC	6	180	135	900	67	Incandescent	9	29-84

\*Batteries may be shipped separately. SLC=Sealed Lead Calcium

## Ordering Information

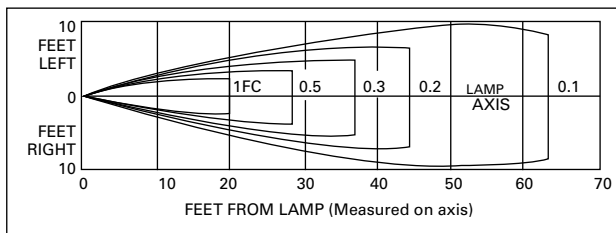
Domestic Preferences	Series	Options	Accessories
Domestic Preferences <sup>(4)</sup>	Series	Options <sup>(1), (2)</sup>	Accessories <sup>(3), (4)</sup>
[Blank]=Standard TAA=Trade Agreements Act	HR87 HR180	347=347V MH=Metal Heads A=Ammeter V=Voltmeter TDM=Time Delay Monitor	<b>Cord Set</b> CSK120=Cord Set (120 VAC) CSK277=Cord Set (277 VAC) <b>Mounting Kit</b> 2MSWH=Mounting Shelf (High Capacity) 3BRWH=Mounting Brackets 3MSWH=Mounting Shelf (Ultra-High Capacity) <b>Protective Housing</b> WG3=Wire Guard (Ultra High Capacity) VS2=Polycarbonate Vandal Shield VK1=Voltmeter WG7=Wire Guard (High Capacity) VS2WP=Weatherproof Polycarbonate Vandal Shield
<b>Notes</b> (4) Only product configurations with this designated prefix are built to be compliant with the Trade Agreements Act of 1979 (TAA). Please refer to <a href="#">DOMESTIC PREFERENCES</a> website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.		<b>Notes</b> (1) Add as a suffix. (2) 0, 1, 3, and 4 Heads also available. Specify after catalog number (i.e. HR-12117379).	<b>Notes</b> (3) Order separately. (4) Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

## Energy Data

Series	Input Current (Max.):
HR87	120V=.50A
	277V=.21A
HR180	120V=.98A
	277V=.43A

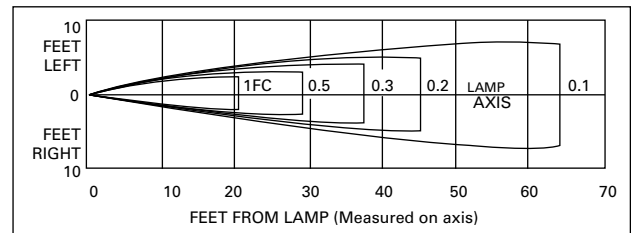
## Photometrics

### Horizontal Distribution



Lamp No. 29-84  
Initial Lumens – 29-84 @ 132

### Vertical Distribution



Lamp No. 29-84

[View IES files](#)

## Description

A real workhorse in emergency lighting systems, these durable, reliable units are unparalleled in both performance and freedom from maintenance. The HR Series provides a low cost, solid-state lighting system ideal for industrial, commercial or multi-housing environments. High-capacity makes the HR Series ideal for installations where a large number of heads/exits will be remotely operated.

## Product Specifications

### Electronic

- Dual Voltage Input 120/277 VAC, 60 Hz
- Line-latching
- Solid-State Voltage Charger
- Solid-state Switching
- Low-Voltage Disconnect
- Brownout Circuit
- Overload/Short Circuit Protection
- Test Switch/Power Indicator Light
- Isolation Transformer

### Battery

- Sealed Lead Calcium, Recombination
- Maintenance-free, Long-life
- Full Recharge Time, 24 hrs. (max.)
- Polarized Battery Terminals

### Housing Construction

- 18-Gauge Die-Formed Steel Housing
- 18-Gauge Die-Formed Steel Cover
- Knockout, Conduit or Cord Set
- Universal J-Box Mounting Pattern
- Keyhole Mounting Slots
- White Finish

### Code Compliance

- UL 924 Listed
- Life Safety NFPA 101
- NEC/OSHA
- Most State and Local Codes

### Warranty

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

### Head/Lamp Data

- Two Heads Standard
- Top Mounted
- Glare-Free Lens
- Fully Adjustable
- Remote Capability
- High Impact - Thermoplastic

### Mounting Requirement

- Mount only on a vertical plane (i.e. wall mount, etc.)

## Technical Data

### Heads

The lamp housing is constructed of flame-resistant and impact-resistant injection molded thermoplastic with matching finish. The three dimensional swivel assembly permits approximate aiming adjustment from 80° vertical and 358° rotation. The placement is secured with a lockable pivot mounted on a rotating base ring.

### Lamps

Designed specifically for emergency lighting applications, the PAR 36 sealed beam type design insures optimum glare-free trapezoidal light distribution along with horizontal and vertical adjustment by rotating the lens within the housing.

### Housing

The rugged 18-gauge die-formed steel housing is finished with an attractive white corrosion-resistant polyester powder coat paint. Cabinet has keyhole mounting slots, universal mounting pattern, and knockouts in rear and side for AC/DC wiring connections and accessory cord set. Up to three lighting heads can be mounted on the cabinet.

### 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 permanently turned on.

### Solid-State Charger

Supplied with a 120 through 277 VAC, voltage regulated solid-state charger. Immediately upon restoration of AC current after a power failure, the charger provides a high charge rate. The charge circuit reacts to the condition of the battery and alters the rate of charge in order to maintain peak battery capacity and maximize battery life. Solid-state construction recharges the battery following a power failure in accordance with UL 924.

### 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 in Sure-Lites' units 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.

### Solid-State Transfer

The unit incorporates a solid-state switching transistor which eliminates corrode 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. Upon restoration of the AC power, the emergency lamps will switch off and the charger will automatically recharge the battery.

### Low-Voltage Disconnect

When the battery's terminal voltage falls below 80% of the rated voltage, the low-voltage circuitry disconnects the lighting load. The disconnect remains in effect until normal utility power is restored, preventing deep battery discharge.

### Test Switch/Power Indicator Light

Conveniently located Test Switch allows for manual verification of proper operation of the transfer circuit and emergency lamps. The Power Indicator Light provides visual assurance that the AC power is on.

### Sealed Nickel Cadmium 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 operate in any position.

### Warranty

All Sure-Lites' units are backed by a firm one-year warranty against defects in material and workmanship (excluding lamps). Maintenance-free, long-life, sealed lead calcium batteries carry a five-year pro-rata warranty.