

## 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.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

## SPECIFICATION FEATURES

### Electronic

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

- 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

### 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
- Matches Housing Finish

### Mounting Requirement

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

### Battery

- Sealed Lead Calcium, Recombination
- Maintenance-free, Long-life

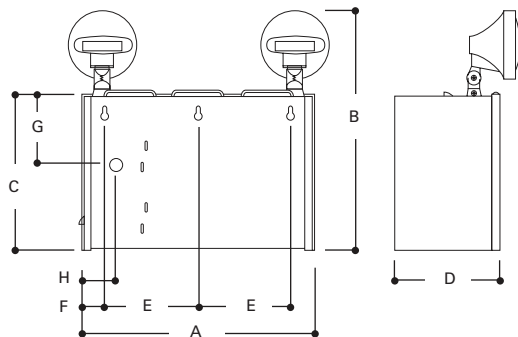
### Code Compliance

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



## HR SERIES

## DIMENSIONS



	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)

ULTRA HIGH CAPACITY  
HIGH CAPACITY  
170-360 WATTS  
(ULTRA HIGH CAPACITY)  
87-117 WATTS  
(HIGH CAPACITY)  
6-VOLT  
SEALED LEAD CALCIUM  
BATTERY  
EMERGENCY LIGHTING

## ELECTRICAL RATINGS

Model	Battery	Rated Wattage to 87 1/2% of rated D.C. Voltage				Lamp Information			
		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	90	67	Incandescent	9	29-84

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

## ORDERING INFORMATION

Sample Number: HR87

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### Series

HR87  
HR180

### Options <sup>1, 2</sup>

MH=Metal Heads  
A=Ammeter  
V=Voltmeter  
TDM=Time Delay Monitor

### Accessories <sup>3</sup>

**Cord Set**  
CSK120 =Cord Set (120 VAC)      CSK277 =Cord Set (277 VAC)  
**Mounting Kit**  
2MSWH =Mounting Shelf (High Capacity)      3MSWH =Mounting Shelf (Ultra-High Capacity)  
3BRWH =Mounting Brackets  
**Protective Housing**  
WG3 =Wire Guard (Ultra High Capacity)      WG7 =Wire Guard (High Capacity)  
VS2 =Polycarbonate Vandal Shield      VS2WP =Polycarbonate Vandal Shield - Weather Proof  
VK1 =Voltmeter

### Notes:

- 1 Add as a suffix.
- 2 0, 1, 3, and 4 Heads also available. Specify after catalog number (i.e., HR-12117379).
- 3 Order separately.

TOTALLY PREDICTABLE  
**RELIABILITY**

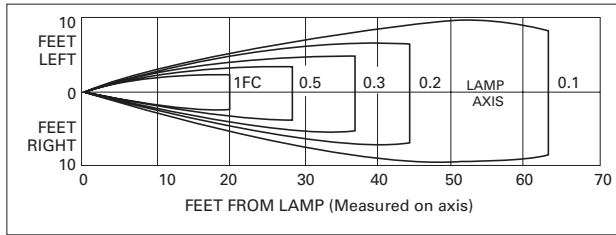
## ENERGY DATA

**HR87**  
Input Current (Max.):  
120V= .50A  
277V= .21A

**HR180**  
Input Current (Max.):  
120V= .98A  
277V= .43A

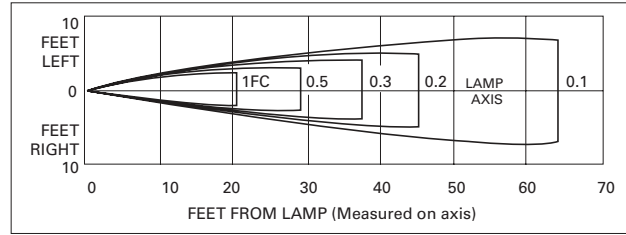
## PHOTOMETRICS

## Horizontal Distribution



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

## Vertical Distribution



Lamp No. 29-84

## TECHNICAL DATA

**Heads**

The lamp housing is constructed of flame- 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 120/277 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 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. 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 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**

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