Cutler-Hammer Stacklights Family Overview

Component descriptions

Bases

A standard base is used with incandescent or standard LED lamps for steady, non-flashing illumination. Bases include terminal block, stacklight cover and gasket.

A flashing stacklight base configures each light in the stack for either steady or 60 times-per-minute flashing illumination. Flashing circuits are for use with incandescent lamps only. The maximum allowable number of flashing light modules is four at 24 VDC and six at 120 VDC.

Light Modules

Light modules are available in a varietv of colors for both incandescent lamps and LEDs. To maximize illumination and light dispersion, incandescent units include an opal white diffuser. LEDs also work with the opal diffuser. Factory configured LED modules include a clear diffuser.

Alarms

An alarm unit is fitted to the top of the stacklight module or directly to the stacklight base. Alarm units are available in three versions, each with adjustable sound levels. The sound levels can be adjusted from 64 to 90 dB via a potentiometer on underside of device.

Xenon Strobe

A Xenon strobe unit is similar to the standard lens/diffuser unit, except that it consists of two lens units. The lower unit includes the electronics and is permanently fused to the upper unit, which houses the Xenon lamp. Xenon units may be placed in any position in a complete stacklight module. The Xenon flashes 60 times per minute when used with standard or flashing bases. The Xenon strobe unit occupies two module slots in the assembly.

Technical data

Mechanical ratings:

- Shock (IEC68-2-27): 11 mS, 15g
- Vibration (IEC 68-2-6): 10 sweeps 10 - 150 Hz, 2g
- Bump (IEC 68-2-29): 1000 pulses, 6ms, 15g

Climate conditions:

- Operating: maximum 104°F (40°C) at 95% RH, temperature -4 to 140°F (-20° to 60°C).
- Storage: temperature -40°F to 176°F (-40° to 80°C).

Materials:

- Cover: polycarbonate
- Lenses: polycarbonate
- Stacklight Base: nylon
- Extension Tubes: aluminum
- Mounting Base: zinc die cast

Terminals

- 14-30 AWG (2.5-0.05 mm^2) for single conductors and 18-26 AWG (0.75-0.14 mm^2) for two conductors of the same size. (Do not mix solid and stranded wire in the same terminal.)
- Recommended tightening torque is 4.4-5.3 lb/in (0.5-0.6 N·m)

Electrical ratings

- Insulation voltage (Ui): 690V
- Operational voltage (Ue): 250V
- Impulse withstand voltage (Uimp): 1.5 kV

Bulb specifications

- Incandescent lamp type: BA15d
- Maximum lamp wattage: 6W
- Bulbs - average life:
  - Incandescent: 7,000 to 12,000h
  - Xenon flasher: 20,000h
  - LED: 100,000h

LED/incandescent comparison

Incandescent lamps

- Average operating life of 7,000 hours
- Each lamp can be used with any color lens
- Low cost results in short-term savings

LED lamps

- Average operating life of 100,000h
- Low power consumption
- Extended life results in long-term savings

Standards and certifications

- CE 60947-5-1
- UL 508 - File # E131568
- CUL C22.2 No. 14 - File #E131568

Ingress protection

- Stacklight base and light units: IP65, NEMA 4, 4X and 13
- Alarm Units: IP20, NEMA 1

Electrical shock protection

- Stacklight base and light unit: IP2X
- Alarm units: IP0X

Stacklights Application Data

Application Data				
Type of Light	***Voltage AC/ DC***	***Lamp Used***	***Approximate Current, mA per Light***	***Theoretical Lamp Life, Hours As Applied***
Incandescent	24V	BA15d	208mA	7,000
	110-140 V	BA15d	36-50 mA	7,000

Application Data				
Type of Light	***Voltage AC/ DC***	***Current***	***Approximate Current, mA per Light***	***Theoretical Lamp Life, Hours As Applied***
E26 Xenon flasher	24V strobe	DC	190mA	20,000
		AC	320mA	20,000
	120V	AC	60mA*	20,000

**** Represents average current draw, 1.6A peak for 120V***

Application Data			
Type of Light	***Color***	***Cylindrical LED Approximate Current, mA at Rated Volts***	***Theoretical Lamp Life, Hours As Applied***
24V AC/DC Continuous/flashing LED	Red	47mA	100,000
	Amber	47mA	100,000
	Green	59mA	80,000
	Blue	59mA	60,000
	White	59mA	60,000
120V AC/DC LED	Red	24mA	100,000
	Amber	24mA	100,000
	Green	17mA	80,000
	Blue	16mA	60,000

Note: Published theoretical lamp lives are based on ideal laboratory conditions and should be used for comparison only. Actual life may be shorter due to various application conditions.