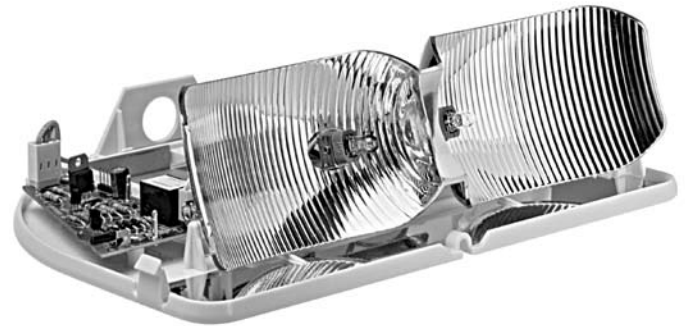




LiteScape® Series

Decorative, low profile emergency lighting unit designed for fast, easy installation.

Catalog Number	
Comments	Type



Patented reflector design produces bright, evenly illuminated "SurePath™" egress lighting pattern

Product Selector

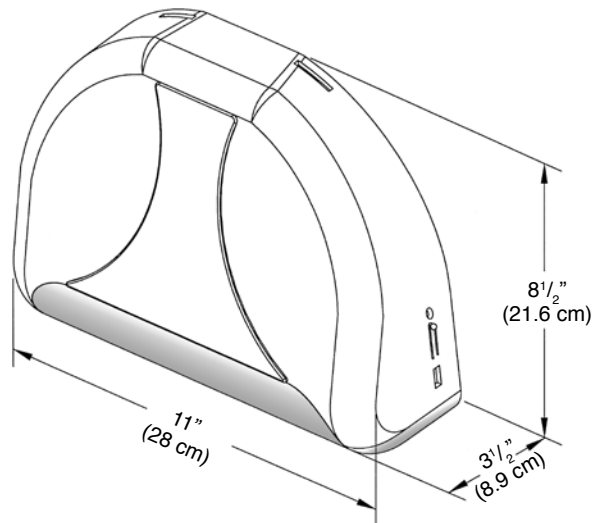
Fixture Type	Model No.	Description
	LSC	Lead-acid battery model
	LSCN	Nickel-Cadmium battery model
	LSCI	Self-testing/self-diagnostic lead-acid battery model
	LSCNI	Self-testing/self-diagnostic nickel-cadmium battery model
(√)	Options (add suffix to model)	
	-24K	220/240VAC, 60Hz. operation
	-AA	Audible alarm ⁽¹⁾

(1) For use with LSCI and LSCNI self-testing/self-diagnostic models only.

Features

- Factory guaranteed NFPA-101 code-compliant illumination
- Design allows field adjustable 3 ft. x 40 ft. or 6 ft. x 30 ft. egress illumination patterns
- Unique SurePath® technology delivers bright, continuous illumination over egress pathway
- Contemporary styling with low-profile silhouette
- Designed for fast, easy installation
- High-output, 6 volt, 10-watt halogen lamps
- Unit housing, lens and reflector completely constructed of high-temperature, impact resistant, UV stable polycarbonate
- Unit housing is paintable
- Choice of maintenance-free, lead-acid or nickel-cadmium battery models
- Universal 120/277VAC operation
- Fully automatic charger
- AC lockout
- Low-voltage battery disconnect
- Test switch and AC-On LED indicator
- Temperature range:
 - Lead-acid models = 20°C to 30°C (68°F to 86°F)
 - Nickel-Cadmium models = 0°C to 40°C (32°F to 104°F)
- UL 924 Listed (Emergency Lighting)
- UL Damp Location Listed (Nickel-Cadmium models only)
- U.S. Patent Nos. 7,093,957; 7,147,348

Dimensions

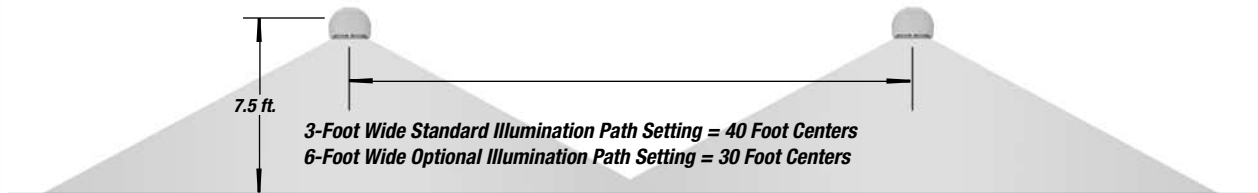


Hubbell Lighting, Inc.

The LiteScape Performance Guarantee

Dual-Lite guarantees the LiteScape unit will fully meet the 2003 edition of the NFPA 101 Life Safety Code emergency lighting requirements by providing an average of one footcandle of illumination along the path of egress as defined in the illustration below.

Center to Center Mounting Information



NOTE: The LiteScape unit must be installed per factory instructions provided and properly maintained. In addition, the pathway to be illuminated must meet the minimum surface reflectance values shown at right to qualify for guaranteed illumination performance.

Minimum Reflectance Values Required:
Ceiling: 80% Walls: 50% Floor: 20%

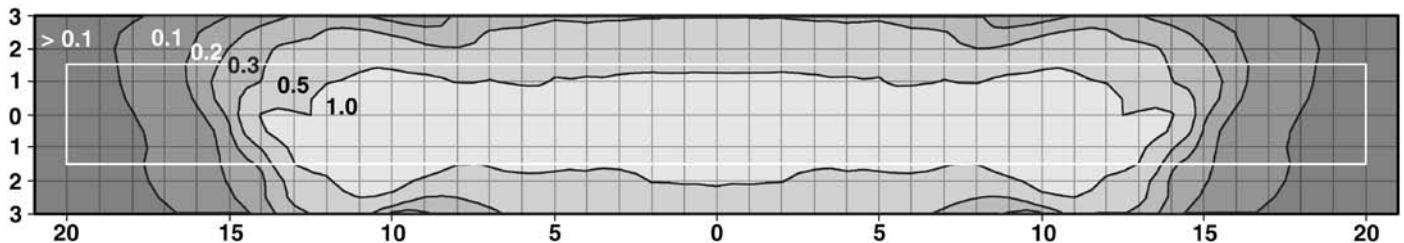
The LiteScape Performance Guarantee applies solely to units mounted 7.5 feet above the floor surface. For information on lighting performance at other mounting heights, refer to LiteScape Series Mounting Guide on the LiteScape product page in the Dual-Lite web site's on-line catalog. The LiteScape Performance Guarantee is subject to all conditions as outlined in the Product Warranty Statement on the Dual-Lite public web site (www.dual-lite.com) and applies only to the installation's initial emergency lighting inspection by the authority having jurisdiction.

SurePath® Technology

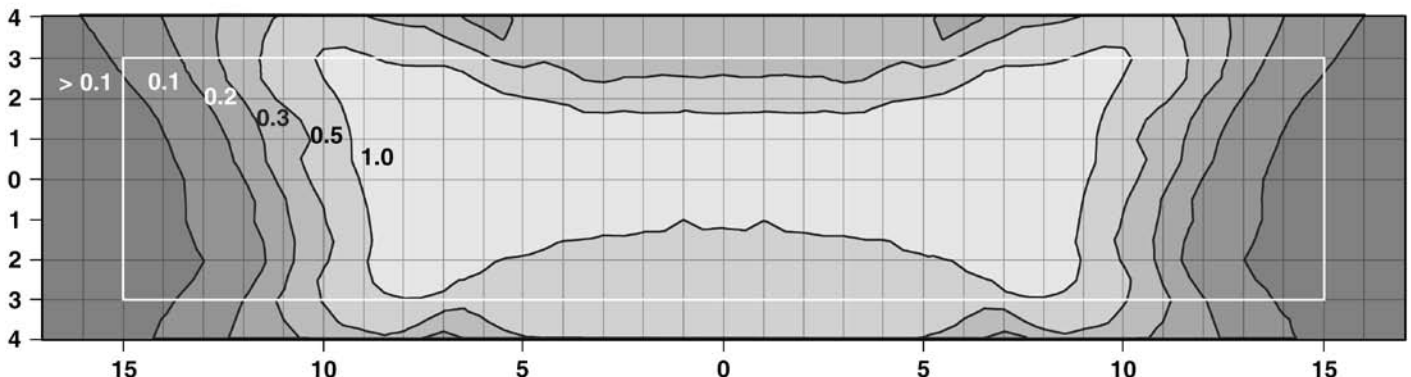
The heart of LiteScape's SurePath technology is the patent pending reflector design created exclusively for Dual-Lite by Breault Research Organization, the company selected to correct the optics for the Hubble space telescope. This unique reflector design coupled with the unit's two high-output, 10-watt halogen lamps provide an incredibly bright and evenly distributed illumination pattern. Additionally, a user-selectable reflector adjustment allows a choice of the 3' or 6' wide SurePath illumination patterns shown below. The long, broad and even nature of the SurePath illumination pattern makes it the optimum method of lighting interior paths of egress during emergency conditions.

Photometrics

3-Foot Standard Illumination Path Setting (40-Foot Mounting Centers)



6-Foot Optional Illumination Path Setting (30-Foot Mounting Centers)



- 1) Photometric illustrations based on data provided by Independent Testing Laboratories (ITL), Boulder, Colorado.
- 2) Photometrics shown based on 7.5-foot mounting height and minimum 80-50-20 reflectance values.
- 3) The white rectangular area in photometric illustrations represents normal center to center SurePath egress illumination pattern provided.

Contemporary Style, High-Performance Emergency Lighting Unit

Construction

Unit Housing/Lens Assembly: Ultrasonically welded, impact resistant, high temperature polycarbonate

Housing Finish: Bright white finish

Unit Reflector: Patented design, high temperature polycarbonate with metallized mirror finish

Mounting Plate: 20-gauge galvanized steel with universal mounting pattern

Light Source

Number of Lamps: Two

Lamp Type: Halogen G4, 2-pin base

Lamp Voltage: 6 volts

Lamp Wattage: 10.0 watts

Rated lamp life: 100 hours

Illumination

LiteScape units allow maximum control of light distribution. As supplied, the LiteScape unit will deliver a 3-foot wide illumination path averaging 1-footcandle in intensity over a center-to-center distance of forty feet. This setting is ideal for hallways or egress paths up to six feet in width. With two minor adjustments, the LiteScape unit is user adaptable to provide a six-foot wide illumination path averaging 1-footcandle in intensity over a center-to-center distance of thirty feet for application in hallways or paths of egress over six feet in width.

Installation

Wall Mounting: The unit mounting plate provides a universal knockout pattern for installation to 3 1/2", 4" octagon, or 4" square outlet boxes and standard plaster rings. The unit back plate affixes to the mounting plate by means of two 6-32 machine screws. The unit housing/lens assembly is designed to hinge and snap fit to the unit back plate

Operating Temperature Range

Sealed Lead-Acid Battery Models: 20°C to 30°C (68°F to 86°F)

Nickel-Cadmium Battery Models: 0°C to 40°C (32°F to 104°F)

Electronics

Input: 120/277VAC, 60 Hz. (standard)

Lead-Acid Battery Model Charger: Constant voltage, current limited, float type

Nickel-Cadmium Battery Model Charger: Constant current type

Transfer: Enclosed mechanical relay

Built-in Protection: AC lockout, transformer isolation and low battery voltage disconnect

Battery Recharge Cycle: Per UL time standards

Test Means: Integral test switch

Battery

Type: Sealed, maintenance-free, lead-acid or high temperature, maintenance-free Nickel-Cadmium, depending on model

Power Consumption (maximum)

120VAC: 4.0 watts (all models)

277VAC: 4.0 watts (all models)

Compliances

UL 924

NFPA-101

NEC (NFPA 70)

Warranty

Unit and Electronics: 1 year full

Battery:

Lead-Acid Models: 1 year full, 5 years pro-rata (6 years total)

Nickel-Cadmium Models: 1 year full, 9 years pro-rata (10 years total)

Suggested Specifications

1.01 Emergency Lighting Units

A. General Requirements

A1. Manufacturer **guarantees** that the illumination levels of the unit's lighting pattern along the path of egress will average 1-footcandle in intensity in full compliance with NFPA 101 Life Safety Code

B. Construction/Housing

B1. Impact resistant, high temperature polycarbonate housing, lens and backplate

B2. Standard bright white housing finish.

B3. Paintable housing

B4. Dimensions: 11" (28cm) Wide x 3.5" (8.9cm) Deep x 8.5" (21.6cm) High

C. Lamps/Illumination

C1. Unit lamps: 6-volt, 10 watt halogen G4, 2-pin base

C2. Lamp life: 100 hours

C3. Unit will illuminate an egress path (40 feet long and 3 feet wide)(30 feet long and 6 feet wide) when properly installed in environments

with minimum established reflectance levels

C4. The unit may be easily field adjusted to provide either a 3-foot wide or 6-foot wide illumination path

D. Mounting /Installation

D1. A universal mounting plate allows installation to 3 1/2", 4" octagon, or 4" square outlet boxes as well as standard plaster rings.

D2. The unit back plate affixes to the mounting plate by means of two, 6-32 machine screws.

D3. The unit housing/lens assembly is designed to hinge and snap fit to the unit back plate for ease of assembly.

E. Operating Temperature Range

E1. Sealed Lead-Acid Battery Models: 20°C to 30°C (68°F to 86°F)

E2. Nickel-Cadmium Battery Models: 0°C to 40°C (32°F to 104°F)

F. Electronics

F1. A universal transformer allows operation from 120 or 277VAC, 60 Hz sources.

F2. Charger:

F2a. Lead-Acid Battery Models: Regulated voltage/current limited design.

F2b. Nickel-Cadmium Battery Models: Constant current design.

F3. Electronic control circuitry includes AC lockout, transformer isolation and low battery voltage disconnect protection.

F4. A manual test switch allows a user-activated test at any time.

F5. An LED pilot light indicates the presence of utility power

G. Battery

G1. Maintenance-free, lead-acid or nickel-cadmium depending on model

H. Power Consumption (maximum)

H1. 120 or 277VAC: 4.0 watts (all models)

I. Compliances

I1. UL 924, UL Damp Location Listed (Nickel-Cadmium Models only), and NFPA-101

J. Operation

J1. During normal operation, the unit's charging circuit will maintain the battery at full capacity.

J2. Upon interruption of normal AC power, the unit shall automatically switch the emergency lighting lamps to the battery.

J3. Emergency power will be provided for a minimum of 90 minutes.

J4. Upon return of normal utility power the unit shall begin a recharge cycle.

J5. The charger will bring the battery to full capacity within acceptable UL time standards.

K. Warranty

K1. Unit and Electronics: 1 year full

K2. Battery:

K2a. Lead-Acid Models: 1 year full, 5 years pro-rata

K2b. Nickel-Cadmium Models: 1 year full, 9 years pro-rata



Self-testing/self-diagnostic electronics provide increased reliability and decreased maintenance

Spectron Electronics

All models ordered with the Spectron (I) self-testing/self-diagnostic electronics system provide:

- Visual indication of AC power status
- Visual Indication of all self-diagnostic test cycles
- Visual indication of unit malfunctions including:
 - **Battery fault**
 - **Charger fault**
 - **Transfer fault**
 - **Lamp fault**

Features

- Meets UL standards for self-testing/self-diagnostic models
- Provides automatic self-diagnostic monitoring and testing of unit operation
- Assures operational readiness at all times
- Emergency lamps and transfer circuit monitored during self-test cycles and power failures
- Routine discharge cycles insure optimum battery performance and maximum useful life
- Automatic 1-minute self-test every 28 days and 30-minute self-test every 6 months and 60-minute self-test once a year
- Single, bi-color LED Status Indicator light
- Automatic low voltage disconnect battery protection
- Automatic unit transfer in brownout conditions
- Automatic AC lockout circuit
- Automatic 15 minute re-transfer delay (TDR) with manual termination feature
- Flashing LED indication of unit malfunction or test cycle
- All detected malfunctions retained in memory until corrected and retested
- Test switch allows a programmable 1, 5, 30 or 60-minute system check at any time
- Optional audible alarm for fault detections

⊛ Bi-Color Status Indicator LED

LiteScape Spectron model units are provided with a single, bi-color LED which serves as a combination AC power, self-test and service alert status indicator. During normal operation, the green status LED will be constantly illuminated, indicating the presence of AC power. During all automatic or manual self-test cycles, the green Status LED will blink at a one cycle per second rate indicating "Test In Progress". If a fault condition is detected during any automatic or manual self-test cycle, the Status Indicator will illuminate alternately red and green until the end of the test cycle in a coded sequence to indicate the type of detected malfunction.

Under normal operating conditions, the unit's red Service Alert LED will remain off. Following any test cycle in which a malfunction is detected, the red Service Alert LED will blink at a one cycle per second rate in a coded sequence indicating the type of failure as shown in the following table:

Service Alert Code	Description
One blink ON/pause	Battery not connected
Two blinks ON/pause	Battery fault
Three blinks ON/pause	Charger fault
Four blinks ON/pause	Transfer circuit fault
Five blinks ON/pause	Lamp failure
Six blinks ON/pause	Lamp calibration error
Seven blinks ON/pause	Lamp overload condition

Manual Test

Using the unit test switch, users can initiate different duration test cycles based on the following table:

Initiating Action	Test Cycle
Press test switch once	1 minute
Press test switch twice	5 minute
Press test switch 3 times	30 minute
Press test switch 4 times	60 minute

Pressing test switch at any time after a test cycle has begun cancels remainder of test and returns unit to normal operation. The test switch can also be used to manually silence the audible alarm option (see below) by depressing the switch until an audible beep is sounded.

Audible Alarm (Optional)

LiteScape Spectron model units ordered with the optional audible alarm feature provide an audible alert upon detection of a fault condition during any manual or automatic test cycle. The audible alarm will sound once every hour until the fault is corrected or the alarm is manually silenced. Audible alarm will automatically re-enable after 24 hours if manually silenced.