HOCHIKI
World Class Leaders in Fire Detection Since 1918

FIREscape

PRODUCTCATALOGUE
Emergency Lighting Solutions

IF YOU CAN'T SEE IT,
HOW DO YOU EXPECT OTHERS TO?

Selecting an emergency lighting solution that has
adequate luminescence and that isn't going to fail
in an emergency is essential.

Look for these approvals to ensure product quality.

KM 653255
BS EN60598-1:2015
BS EN 60598-2-
22:2014
Emergency Luiminaires

ICEL

BS 5266
Compliant

BS EN
62034
TYPE PEPC

BS EN
60598-2-22

HOCHIKI www.hochikieurope.com/firescape

Hochiki Offices

HOCHIKI OFFICES AROUND THE WORLD
(from West to East)

HOCHIKI AMERICA CORPORATION
E: sales@hochiki.com
www.hochiki.com

HOCHIKI MEXICO
E: jbravo@hochiki.com
www.hochikiamerica.com

HOCHIKI EUROPE (UK) LTD
E: info@hochikieurope.com
www.hochikieurope.com

HOCHIKI ITALIA
E: info@hochiki.it
www.hochiki.it

HOCHIKI MIDDLE EAST FZE
E: sales@hochiki.ae
www.hochiki.ae

HOCHIKI EUROPE - INDIA BRANCH OFFICE
E: info@hochiki.in
www.hochikieurope.com/india

HOCHIKI ASIA PACIFIC
E: sales@hochikiasiapacific.com
www.hochikiasiapacific.com

HOCHIKI CORPORATION - TAIWAN BRANCH OFFICE
E: htro@hochiki.com.tw
www.hochiki.com.tw

HOCHIKI CORPORATION
E: overseas@hochiki.co.jp
www.hochiki.co.jp

HOCHIKI (THAILAND) COMPANY LIMITED
E: info@hochikiasiapacific.com
www.hochikiasiapacific.com

HOCHIKI JAKARTA REPRESENTATIVE OFFICE
E: sales@hochikiasiapacific.com
www.hochikiasiapacific.com

HOCHIKI HO CHI MINH REPRESENTATIVE OFFICE
E: sales@hochikiasiapacific.com
www.hochikiasiapacific.com

HOCHIKI AUSTRALIA
E: sales@hochikiaustralia.com
www.hochikiaustralia.com

World Class Leaders in Life Safety Since 1918

Hochiki has a distinguished heritage of specialist technological expertise which has gained the group its international status as one of the world's leading manufacturers of commercial and industrial fire detection solutions.

Established early in the twentieth century, Hochiki is a wholly independent, multinational, publicly listed group of companies with over 2000 employees working across six manufacturing plants, 38 sales offices and 14 subsidiaries.

Hochiki Europe (UK) Ltd manufactures and distributes product for Europe, the Middle East, CIS, Indian Sub-Continent and Africa and is dedicated to providing sales and technical services to these markets.

World Proven Performance

With a heritage of innovative design and leading edge technologies, Hochiki's products have gained widespread acceptance as the benchmark for high-integrity and long-term reliability throughout the world.

Research and Development for Life Safety

Hochiki owns the world's largest, purpose-built, state of the art fire test laboratory. This ensures that the pedigree of Hochiki products remains unrivalled and guarantees that even large scale designs are fully proven in real fire conditions.

In addition, the Group employs over 100 specialist research and development engineers that undertake activities from fundamental research into the physical properties of fire, to hardware and software product design and development.

Useful Contact Information

Hochiki Asia Pacific PTE Ltd.
82 Ubi Ave 4
#06-02 Edward Boustead Centre
Singapore 408832

www.hochikiasiapacific.com

hochiki@hochikiasiapacific.com

Main Switchboard

+ 65 6841 9728

ICEL

Hochiki
Europe is a
member of
ICEL

Emergency Lighting Solutions

2 Types of Emergency Lighting Solutions

FIREscape®

Emergency Lighting System

FIREscape lite

Mains Powered Emergency Lighting

Photometric Data

Applicable to all of the FIREscape ranges

Design Guide

Key Information to Consider

Index

Need help finding something?

Introduction

Emergency Lighting Solutions

Hochiki offers two types of LED emergency lighting solutions:

FIREscape®
a fully intelligent, self-monitoring lighting system.

FIREscape lite
a range of self-contained, mains-powered lighting kits.

www.hochikieurope.com/firescape
www.hochikieurope.com/firescapelite

Why is an emergency lighting system essential?

39% Of installers reported **INADEQUATE** exit signage*
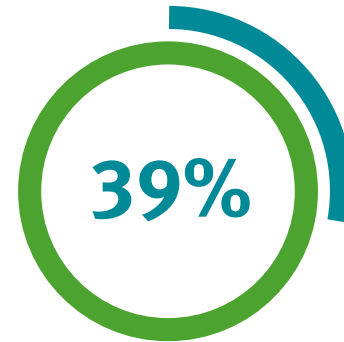
Aids Life Safety

Although some may see it as simply a legal tick box, in an emergency, having adequate emergency lighting can be the difference between life and death. Reliable emergency lighting enables building occupants to locate and utilise fire fighting equipment such as fire extinguishers and manual call points during an emergency where power to the normal lighting may be compromised.

Additionally, emergency lighting will permit the continuation of life-critical activities during an emergency such as surgery, first aid and indeed firefighting itself.

To Meet the Legislation of Emergency Lighting

When installing an emergency lighting system it is best practice to adhere to the recognised local standards. Compliance with BS 5266 parts 1, 7 and 8 would be adequate for most premises in the UK. However, some local authorities have Licencing or Registration Schemes for certain types of buildings, where the risks are deemed much greater, including:

▸ Premises licenced for the sale of alcohol
▸ Very old premises, including heritage sites.
▸ Premises where large numbers of people are gathered together.

*STATISTICS TAKEN FROM THE HOCHIKI CUSTOMER SERVICE SURVEY DECEMBER 2016

What problems must emergency lighting systems overcome?

Fire Safety Legislation

In the UK, the Fire Safety legislation requires emergency lighting to be provided in the following premises -

- Offices & shops
- Community halls
- Schools
- Hotels & Hostels
- Premises that provide care

- Common areas in houses in multiple occupation
- Pubs, clubs and restaurants
- Tents and marquees
- Factories and warehouses.

Time Constraints

Emergency lighting systems must remain active for a minimum of 1 hour (autonomy) and must fully recharge within 24 hours before reoccupation. However, emergency lighting systems must remain active for a minimum of 3 hours in the following conditions -

- Sleeping risks (hotels)
- Lincenced premises and places of entertainment
- Premises requiring early reoccupation (schools, hospitals).

Luminosity

The luminaires and exit signs within an emergency lighting system must be strategically positioned and selected to best suit particular environments. Particular areas may require additional brightness, or particular styles of luminaires to assist in the evacuation or safety operations.

All of this information is available in our Emergency Lighting Guide Book which summarises BS5266, Part 1 2016 (shown above)

"
Emergency routes and exits requiring illumination must be provided with emergency lighting of adequate intensity in the case of failure of the normal lighting."

RRFSO, 2005

Benefits of the FIREscape® Range

FIREscape is a unique, highly cost effective and environmentally friendly emergency lighting system based on LED technology and is the UK's first to be fully intelligent.

FIREscape is based around an addressable, emergency lighting control panel with battery back-up and features addressable, self contained luminaires and signage connected via screened, extra-low voltage (40V) cabling. With lighting units fitting directly onto the standard Hochiki Europe sensor base (YBN-R/3),

The system is based on LED (Light Emitting Diode) solutions that consider the useful life of the entire emergency light system, from its installation to the recycling of the equipment at the end of the life-cycle.

Due to their self-contained backup power source, the FIREscape lighting devices can use screened, non-fire rated cabling, instead of heavy and costly fire resistant cabling, reducing the installation costs associated with traditional emergency lighting systems.

The FIREscape emergency light system has also been designed, bearing operational safety and user-friendliness in mind. It constantly controls the condition of the lights' LEDs and batteries. If necessary, the system will provide specific information on the status, either locally on a keypad or by representing it graphically at the control centre of the service provider using an IP or GSM network.

By using the optional PC-based graphical software, the luminaire status information can be linked with floor plans showing the alarm locations.

▶ Environmentally friendly in energy costs and CO_2e emissions

▶ A cost-efficient system to implement and maintain

▶ Exit luminaires and emergency exit signs share the same circuit

▶ Easy installation, Easy to service and maintain

▶ Reduced cabling costs

▶ Luminaire line length 500/1,000m

▶ Two lighting lines, up to 127 devices per line

▶ Operational reliability; luminaires feature integral stand-by batteries

▶ Automatic luminaire battery and LED health testing features.

Typical Costs Savings Example

The maintenance and operational expenditure of emergency lighting systems can be significant, particularly within sites that require mandatory routine testing of their emergency lighting systems to keep a building and its occupants safe.

The Hochiki group identified four critical components that contribute to an emergency lighting system's annual operational expenditure:

1. Annual Emergency Lighting Power Consumption
2. Statutory Inspections and Maintenance
3. Luminaire/Battery Replacement (Materials)
4. Luminaire/Battery Replacement (Labour)

The breakdown of each of these cost components uses the following simplified site model:

- Site currently utilises a conventional 240 V self-contained luminaire type emergency lighting system of 100 units

- 70 units are non-maintained (on in emergency) escape route luminaires

- 30 units are maintained (always on) exit signs

- Average engineer labour rate of $81.37 per hour.

Annual Emergency Lighting Power Consumption

Assuming an existing maintained (always on) exit sign power consumption of 4 W and an existing non-maintained (on in emergency) escape route luminaire of 2 W. Based on a national commercial property power consumption cost of 20 cents per kWH.

FIREscape's energy efficient ELV luminaire range has been independently verified as consuming 0.8W per exit sign and 0.1W per luminaire*.

- Existing System = $308.60 per year
- FIREscape System = $36.63 per year
- Saving $271.98 per year (88%) plus associated CO_2 emissions.
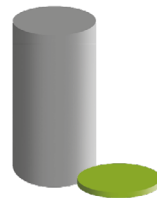
Statutory Annual and Monthly Inspections and Maintenance

In Australia AS2293.2 specifies the periodic routine service and maintenance requirements of Emergency Escape and Exit Lighting Systems and associated manual and automatic testing facilities.

An ATS (automatic test system) significantly reduces the time required to carry our such periodic inspections and testing procedures.

Assuming a manual test emergency lighting system will require 2 minutes allocation per luminiare, this would equates to 6.6 hours annually

The FIREscape system requires a maximum of 1 min per luminaire allocation.

- Existing System = $542.52 per year
- FIREscape System = $271.26 per year
- Saving = $271.26 per year (50%).

Luminaire/Battery Replacement (Materials)

Assuming material replacement costs of an average 240 V self-contained exit sign to be $81.37 and for an emergency escape luminaire $61.03.

Based on market research the current failure rate of 240 V self-contained or ATS luminaires in accordance with AS2293 requirements is anywhere between 10% - 40%. This example therefore uses a 25% failure rate.

Hochiki predicts a FIREscape system will require two battery replacements per unit over a 10-year period, with unit life expectancy to be in excess of 10 years.

- Existing System = $1,678.30 per year
- FIREscape System = $339.05 per year
- Saving = $1,339.25 per year (80%).
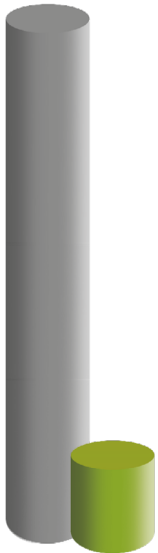
Luminaire/Battery Replacement (Labour)

Assuming 45 minutes labour time for the replacement or repair failed emergency lighting units at an average labour rate of $81.37 per hour.

FIREscape luminaire replacement time is approximately 5 minutes (no programming required).

Luminaires are replaceable from ground level up to 9 metres installation height by use of specific tool. ELV allows the option of any personnel to conduct repair.

- Existing System = $1,525.73
- FIREscape System = $169.53
- Saving = $1,356.20 (92%).

FIREscape® System 10 Year Summary and ROI

Based on the four critical components of the annual costs of an emergency lighting system:

The current system has 100 conventional self-contained units of which 70 are non-maintained (on in emergency) escape route luminaires (70%) and 30 are maintained (always on) exit signs (30%).

- Existing System will cost $4,055.04 per year ($44,522.03 over 10 years + 2.5%)
- FIREscape System will cost $806.26 per year (£3,741.76 over 10 years)
- Saving $3,248.10 per year (80%) ($35,942.74 over 10 years).

Return on Investment

A FIREscape System of 100 intelligent luminaires of which 70 are emergency escape (70%) and 30 are emergency exits (30%) (product, material and installation) will cost approximately $23,869.89.

Based on the identified 4 components and associated costs of an existing/alternative system, FIREscape's ROI is anticipated to be:

- 40% Failure Rate = ROI Year 3
- 30% Failure Rate = ROI Year 5
- 20% Failure Rate = ROI Year 6

FIREscape®

Emergency Lighting System

FIREscape is based around an addressable, emergency lighting control panel with battery back-up, and features addressable, self contained luminaires and signage connected via screened, extra-low voltage (40V) cabling. With lighting units fitting directly onto the standard Hochiki Europe sensor base (YBN-R/3), FIREscape offers the installer a brand new and easy solution to the installation of emergency lighting and signage.
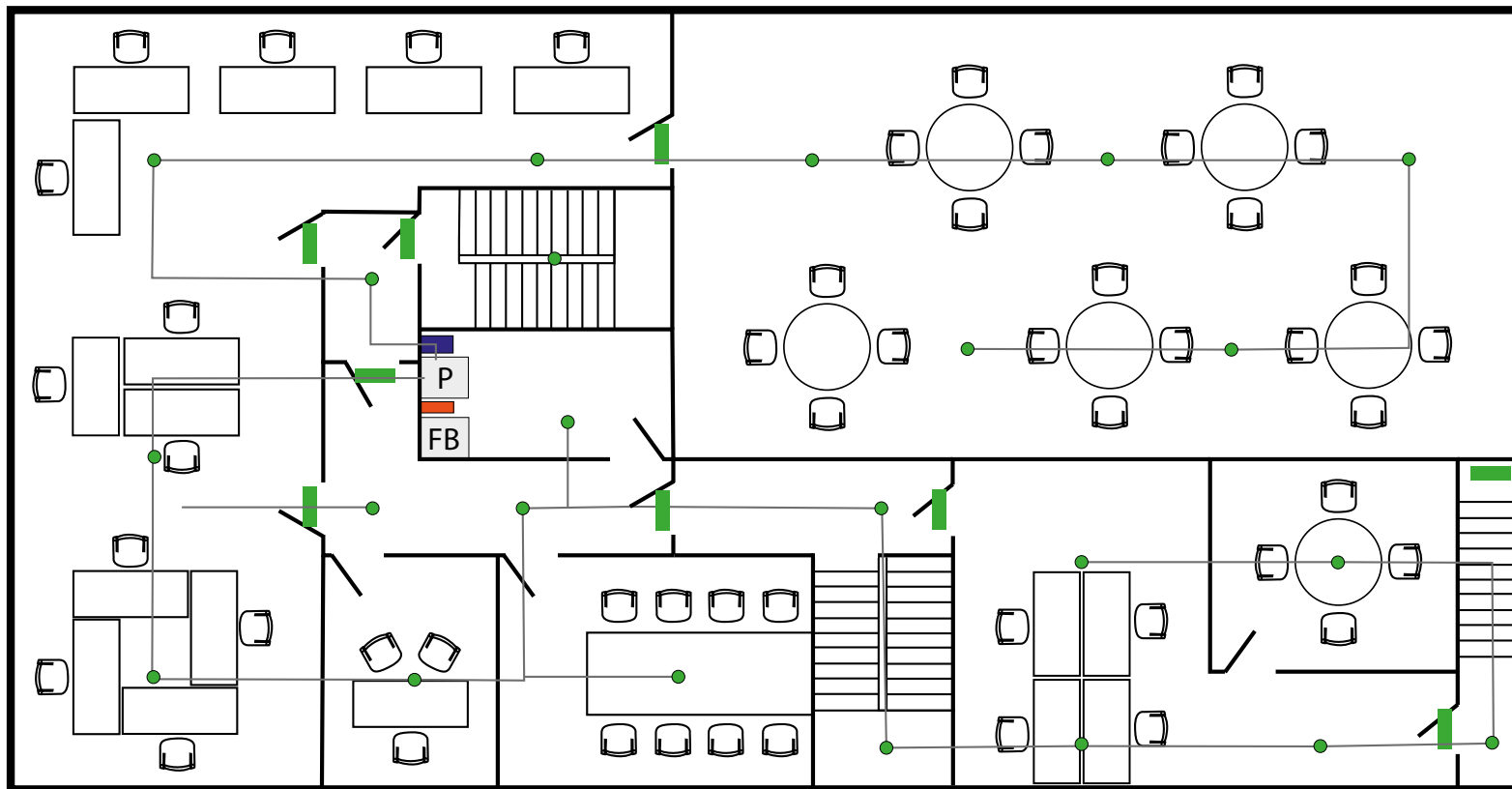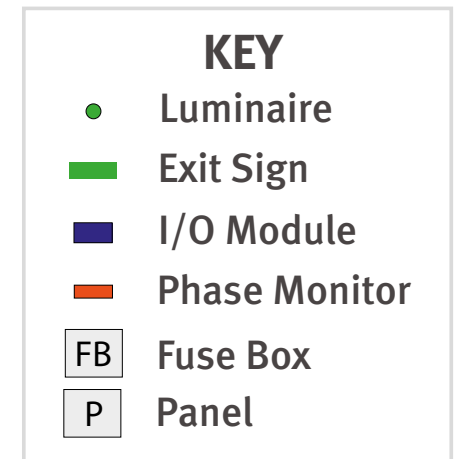
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Applications

The F**I**REscape® system is recommended for use in the following industries:

- Education
- Carehomes
- Industrial
- Hotel & Leisure
- Healthcare
- Commercial

System Architecture Example

KEY

- Luminaire
- Exit Sign
- I/O Module
- Phase Monitor
- FB — Fuse Box
- P — Panel

EL-2 Addressable Control Panel

The EL-2 emergency light control panel features two lines, each line can accommodate 127 exit signs, route lights or I/O units. The EL-2 supplies the operational voltage to the light units during normal conditions, whilst also completing the continuous testing and monitoring of the equipment on the system. All monitored event information is saved in the memory of the control panel, and this can be accessed by a connected EL-KP key pad (see page 23).

NOTE: Must be used in conjunction with the EL-35V Transformer - see opposite.

Number of lights/signs supported	254
Connection voltage	35 V ac (222 VA)
Nominal voltages	12 V dc
Internal batteries capacity	7.2 Ah
I/O outputs	2 relay outputs
Modem/PC connection	RS-232
User panel connection	RS-485/9600 baud
Event memory	500 events
Dimensions (mm)	W270 x H345 x D90
Material/Colour	Sheet steel, powder coated / White
Weight including batteries (kg)	8

EL-35V

is a transformer for the EL-2 emergency light control panel.

▶ 35 VAC, 220 VA

▶ Input: 230 V ac

▶ Output: 35 V ac / 220 VA

▶ Protection class: IP44

▶ Operational temperature: max 30ºC

▶ Wall installation: with three screws

▶ Manufacturing class: SS 4270203 (EN60742)

▶ Weight: 3.2 kg

20m Addressable Exit Sign

An LED-based, addressable 20m viewable exit light with a flexible 'flex it' hinge solution. The exit light's hinge cup contains the electronics and stand-by battery and allows the unit to attach to the standard Hochiki YBN-R/3 sensor mounting base. The cup also features a bicoloured status LED indicating charge/fault status (green for charging, red for fault).
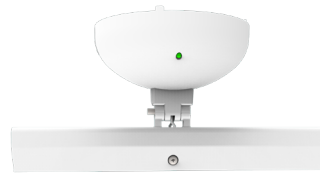

EL-20G-R(ISO)

20m Lens, RIGHT arrow (ISO7010)

EL-20G-D(ISO)

20m Lens, DOWN arrow (ISO7010)

EL-20(WHT)

20m Emergency Exit Sign Frame, White (Battery and mounting base required)

EL-20G-L(ISO)

20m Lens, LEFT arrow (ISO7010)

EL-20G-U(ISO)

20m Lens, UP arrow (ISO7010)

Older Design

The previous lens designs for the 20m exit sign are still available to purchase from Hochiki, for retro-fit projects. However, please note - these do not meet the ISO 7010 standard and the two designs should not be mixed.

Product Code	Description
EL-20G-R	Standard 20m Right Lens
EL-20G-D	Standard 20m Down Lens
EL-20G-L	Standard 20m Left Lens
EL-20G-U	Standard 20m Up Lens

40m Addressable Exit Sign

An LED-based, addressable 40m viewable exit light with a flexible 'flex it' hinge solution. The exit light's hinge cup contains the electronics and stand-by battery and allows the unit to attach to the standard Hochiki YBN-R/3 sensor mounting base. The cup also features a bicoloured status LED indicating charge/fault status (green for charging, red for fault).

EL-40G-R(ISO)

40m Lens, RIGHT arrow (ISO7010)

EL-40G-D(ISO)

40m Lens, DOWN arrow (ISO7010)

EL-40(WHT)

40m Emergency Exit Sign Frame, White (Battery and mounting base required)

EL-40G-L(ISO)

40m Lens, LEFT arrow (ISO7010)

EL-40G-U(ISO)

40m Lens, UP arrow (ISO7010)

Older Design

The previous lens designs for the 40m exit sign are still available to purchase from Hochiki, for retro-fit projects. However, please note - these do not meet the ISO 7010 standard and the two designs should not be mixed.

Product Code	Description
EL-40G-R	Standard 40m Right Lens
EL-40G-D	Standard 40m Down Lens
EL-40G-L	Standard 40m Left Lens
EL-40G-U	Standard 40m Up Lens

EL-REC20 & EL-REC40 Recess Adaptor

These recess adaptor brackets allow a semi-flush fitting of the EL-20 and EL-40 exit signs. The brackets need to be fitted with an exit sign and a mounting base (not supplied) and are equipped with spring loaded clips for secure fixing to most suspended ceiling materials. The brackets feature a small inspection hole in the ceiling plate which allows sight of the bicoloured status LED on the exit sign cup within the ceiling void.

Available in two sizes.

Order Codes	EL-REC20	EL-REC40
Adaptor Bracket Colour	White	White
Material	Powder-coated metal	Powder-coated metal
Dimensions (mm)	L250 x W120 x H110	L380 x W120 x H110
Cut-out dimensions (mm)	L220 x W90	L350 x W90
Maximum ceiling thickness (mm)	35	35
Weight (g)	500	650

EL-KP Lighting System Keypad

EL-KP is an emergency lighting control panel keypad for use with the EL-2 panel.
The control panel is operated and interrogated through the compact backlit LCD graphical display of the keypad, which can show system status of the lighting units including battery charge and LED faults.

One EL-2 control panel can support a total of 8 EL-KP keypad units, with up to a max of 15 panels on one system.

Nominal voltage	12 V dc
Display	LCD graphical display - 128 x 65 pixels
Display viewing area (mm)	60.0 x 32.5
Case colour	Light grey
Dimensions (mm)	W147 x H144 x D29
Material/Colour	Metal alloy, powder coated/Ivory
Weight (g)	410

EL-DL2(BLK)

Now avaliable in black

EL-DL2 Corridor Down Light

EL-DL2 is an LED-based, addressable corridor down light featuring one high-powered LED with a specially engineered dual surface free-form optic. The unit's body contains the electronics and the stand-by battery and features a bicoloured status LED indicating charge/fault status (green for charging, red for fault).

The unit has been designed to easily fit onto Hochiki's standard sensor base, the YBN-R/3.

Case colour	White (RAL 9003 "Signal White") / Black
Case material	Fire resistant PC + ABS plastic (FR3010)
Fire class	UL94 V-O
Operation time	1-3 Hour
Dimensions (mm)	100 Ø x H48 (inc. 8mm for YBN-R/3 base)
Weight including battery (g)	100
Operating Humidity	RH 95% non-condensing
Operating Temperature	-20ºC to +40ºC
Ingress Protection Rating	IP20
Weight including battery (g)	100
Operating voltage (max)	41V
Current consumption (Charger set for 3h standby time [mA])	Intensity
Energy Consumption	0.34 W (charging)
	0.13 W (not charging)

Current consumption (Charger set for 3h standby time [mA])	Intensity
6.8	0
12.0	1
15.5	2
23.0	3
36.5	4
42.0	5
46.0	6
58.5	7
Sleep mode	1mA

EL-BAT450

is a rechargeable Lithium/Polymer back-up battery for use with luminaires and exit signs within the FIREscape range.

▶ 459mAh

▶ 7.4 V

▶ For use with luminaires and exit signs

▶ Ideal for cold facilities, minimum operating temperature -25ºC

▶ Provides the BS5266 minimum 3h back-up time

▶ Incorporates deep discharge protection circuitry

EL-DL3(BLK)

Now
avaliable
in black

EL-DL3 Open Space Down Light

EL-DL3 is an LED-based, addressable open space down light featuring one high-powered LED with a specially engineered dual surface free-form optic. The unit's body contains the electronics and the stand-by battery and features a bicoloured status LED indicating charge/fault status (green for charging, red for fault).

The unit has been designed to easily fit onto Hochiki's standard sensor base, the YBN-R/3.

Case colour	White (RAL 9003 "Signal White") / Black
Case material	Fire resistant PC + ABS plastic (FR3010)
Fire class	UL94 V-O
Operation time	1-3 Hour
Dimensions (mm)	100 Ø x H48 (inc. 8mm for YBN-R/3 base)
Weight including battery (g)	100
Operating voltage (max)	41V
Operating Humidity	RH 95% non-condensing
Operating Temperature	-20°C to +40°C
Ingress Protection Rating	IP20
Current consumption (Charger set for 3h standby time [mA])	Intensity
Energy Consumption	0.34 W (charging)
	0.13 W (not charging)

Current consumption (Charger set for 3h standby time [mA])	Intensity
6.8	0
12.0	1
15.5	2
23.0	3
36.5	4
42.0	5
46.0	6
58.5	7
Sleep mode	1mA

EL-BAT450

is a rechargeable Lithium/Polymer back-up battery for use with luminaires and exit signs within the FIREscape range.

- ▶ 459mAh
- ▶ 7.4 V
- ▶ For use with luminaires and exit signs
- ▶ Ideal for cold facilities, minimum operating temperature -25°C
- ▶ Provides the BS5266 minimum 3h back-up time
- ▶ Incorporates deep discharge protection circuitry

NFW89/C(BLK)

Now
avaliable
in black

NFW89/C High Power Corridor Down Light

The NFW89/C Corridor luminaire is an addressable processor controlled device using modern LED technology. It uses one conductor pair for both power and communication. The conductors are connected to a separate round mounting base onto which the luminaire is mounted.

The luminaire uses a bigger battery than standard and needs a battery spacer NFW/BS (supplied). The battery* is mounted into the spacer and the spacer is connected to the luminaire with bayonet fixing (Twist fit). The Complete unit is then mounted onto the base.

Case colour	White (RAL 9003 "Signal White") / Black
Case material	Aluminium
Fire class	UL94 V-O
Operation time	1-3 Hour
Dimensions (mm)	100 Ø x H65 (inc. 8mm for YBN-R/3 base)
Weight including battery (g)	100
Operating Temperature	-20ºC to +40ºC
Ingress Protection Rating	IP20
Weight including battery (g)	100g
Energy Consumption	1.65 W (charging)
	0.72 W (not charging)

NF89 Battery

is a rechargeable Lithium/Polymer back-up battery specifically for use with the NFW89/C and NFW89/O high power luminaires within the FIREscape range.

▶ 2950mAh

▶ 7.4 V

▶ For use with the NFW89/C & NFW89/O

*Battery sold seperatley

NFW89/O(BLK)

Now avaliable in black

NFW89/O High Power Open Area Down Light

The NFW89/O Open Area luminaire is an addressable processor controlled device using modern LED technology. It uses one conductor pair for both power and communication. The conductors are connected to a seperate round mounting base onto which the luminaire is mounted.

The luminaire uses a bigger battery than standard and needs a battery spacer NFW/BS (supplied). The battery* is mounted into the spacer and the spacer is connected to the luminaire with bayonet fix. The complete unit is then mounted onto the base.

Case colour	White (RAL 9003 "Signal White") / Black
Case material	Aluminium
Fire class	UL94 V-O
Operation time	1-3 Hour
Dimensions (mm)	100 Ø x H65 (inc. 8mm for YBN-R/3 base)
Weight including battery (g)	100
Operating Humidity	RH 95% non-condensing
Operating Temperature	-20ºC to +40ºC
Ingress Protection Rating	IP20
Energy Consumption	1.65 W (charging)
	0.72 W (not charging)

NF89 Battery

is a rechargeable Lithium/Polymer back-up battery specifically for use with the NFW89/C and NFW89/O high power luminaires within the FIREscape range.

▶ 2950mAh

▶ 7.4 V

▶ For use with the NFW89/C & NFW89/O.

*Battery sold seperatley

NFW68/89-RA Recess Adaptor

The NFW68/89-RA is a mounting adaptor for the Emergency Lighting product range and their associated mounting bases. It allows a base and light combination to be flush mounted by providing a recess fixing in the ceiling.

(shown with luminaire fitted - luminaire and mounting base sold separately)

Allows all current FIREscape luminaires to be flush mounted: EL-DL2, EL-DL3, NFW89/O, NFW89/C

Operating temperature range	-10ºC to +50ºC
Storage temperature range	-30ºC to +60ºC
Maximum humidity	955RH - non condensing (at 40ºC)
Colour/material	White / ABS
Weight (g) / Diameter (mm) / Height (mm)	65 / 140 / 44
Height when fitted flush (mm)	3
Drilled hole size (mm)	128
Ingress Protection Rating	IP20
Operating Humidity	RH 95% non-condensing
Compatible Bases	YBN-R/3
Compatible Luminaires	EL-DL2, EL-DL3, NFW89/O, NFW89/C

EL-SL Addressable Step Luminaire

An LED-based, addressable step lighting unit, which is installed semi-flush. The stand-by battery is contained within the unit.

Although low-level lighting is not a requirement under BS5266 this attractive and discreet unit is ideal for lighting stairway treads and changes in floor levels.

Case colour	White (RAL 9003 "Signal White")
Material	Fire resistant PC + ABS plastic (FR3010)
Fire class	UL94 V-O
Operation Time	1-3 Hour
Dimensions (mm)	W80 x H80 x D12
Weight including battery (g)	110
Operating Humidity	RH 95% non-condensing
Operating Temperature	-20°C to +40°C
Ingress Protection Rating	IP20

Accessories

Hochiki offers a wide range of accessories which can be used in conjuction with the FIREscape® system.

EL-PSU

is a bus-controlled power supply, which operates with the system providing charge to luminaire batteries.

▶ Switched-mode power source
▶ Parallel connection for outputs max 2.5mm²
▶ Outputs: 12 V dc / 24 V dc (2 x 5 A)
▶ Batteries: 2 units, 7 Ah / 1 hr standby time
▶ Group-specific monitoring of emergency lighting
▶ Controlled using EL-IO units
▶ Designed for 12/24 lights.

NOTE: A remote power supply is required to power any non-addressable slave luminaires

EL-BDC

Is a battery monitoring card for use with the EL-2 Emergency Lighting control panel.

▶ The unit is used to prevent the deep discharge of the panel's battery during long-duration (over 50h) power outages.
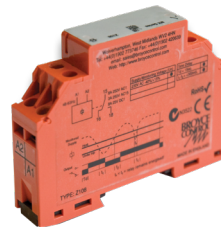
EL-PM

is an under-voltage monitoring device that constantly assesses the condition of a mains lighting circuit. When the lighting circuit is deemed faulty, the unit will provide a signal that can be related to the control equipment to initiate emergency luminaire activation.

▶ Triggers at 75% of the nominal lighting circuit supply
▶ DIN rail mounted
▶ Power and output indications.
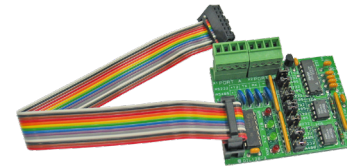
EL-EXP

is an expansion unit used for expanding the serial ports of the EL-2 Emergency Light control panel. The unit provides two additional ports, SER1 and SER2.

▶ Provides two additional serial ports within the control panel
▶ Ports can be configured either as RS-232 or RS-485
▶ Four integral LEDs to integrate communications.
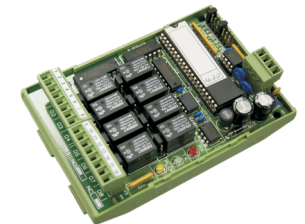
EL-8RC

is a relay card which adds 8 relay outputs to the control panel. Each output can be programmed with all necessary functions, including links to other systems. Up to 4 cards can be connected to the panel simultaneously.

▶ Provides 8 relay outputs 1A at 30V
▶ RS-485 channel connection (DIL-128)
▶ A total of 4 cards can be connected to the same channel
▶ Dimensions: 110 x 75 x 42 mm
▶ Fits to DIN rail.

EL-BAT450

is a rechargeable Lithium/ Polymer back-up battery for use with luminaires and exit signs within the range.
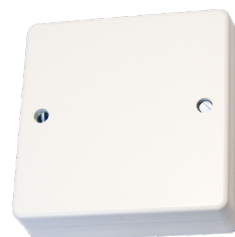
- ▶ 450mAh
- ▶ 7.4 V
- ▶ For use with luminaires and exit signs
- ▶ Ideal for cold facilities, minimum operating temperature -25ºC
- ▶ Provides the BS5266 minimum 3h back-up time
- ▶ Incorporates deep discharge protection circuitry.

NF89 Battery

is a rechargeable Lithium/ Polymer back-up battery specifically for use with the NFW89/C and NFW89/O high power luminaires within the range.

- ▶ 2950mAh
- ▶ 7.4 V
- ▶ For use with the NFW89/C & NFW89/O.

EL-IO

is an I/O unit which is connected to a line of the EL-2 Emergency Lighting control panel, from which it receives its power. The unit links test switches and phase monitors to the system.

- ▶ 450mAh, 7.4 V
- ▶ For use with luminaires and exit signs.
- ▶ Ideal for cold facilities, minimum operating temperature -25ºC
- ▶ Provides the BS5266 minimum 3h back-up time
- ▶ Incorporates deep discharge protection circuitry.
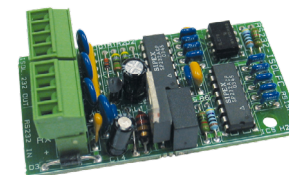
EL-ISOL

is an isolator device which should be used when connecting external equipment ot the EL-2 Emergency Lighting control panel's RS232 outputs, to avoid ground leakages.
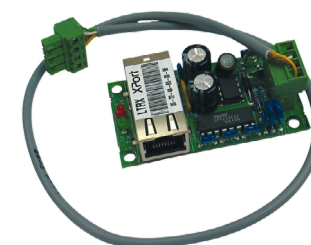
EL-LAN

is an RS232 to Ethernet adapter, designed for connecting the EL-2 Emergency Lighting control panel to an Ethernet network.

- ▶ 10/100 Mbit/s
- ▶ Operation voltage 9-30 V dc
- ▶ Power feed from the EL-2 Emergency Lighting control panel (PRG screw connector)
- ▶ Maximum distance from the panel is 200m.

EL-SWT5

is a 5-port ethernet switch, which can be used for splitting an Ethernet network and extending CAT cabling.

- RJ45 connectors
- Maximum distance to the next switch or terminal unit 100m
- 10/100 Mbit/s
- Operational voltage 18.5 to 30.2 V dc
- Electricity consumption ~ 90 mA (at 24 V dc).

EL-SWT8

is an 8-port Ethernet switch, which can be used for splitting an Ethernet network and extending CAT cabling.

- RJ45 connectors
- Maximum distance to the next switch or terminal unit 100m
- 10/100 Mbit/s
- Operational voltage 18.5 to 30.2 V dc
- Electricity consumption ~ 90 mA (at 24 V dc).

YBN-R/3

is a common mounting base, which is used to mount the range of luminaires and exit signs.

- Electronics free
- Stainless steel contacts
- Accepts 2.5mm^2 conductors
- Slim profile - only 8mm
- Quick and easy 'twist on' connection of luminaires.

TCH-B200

is a Hand Held Address Programmer, designed to be light, robust and easy to use. It operates from a single PP3 size battery.

- Lightweight design
- Quick and reliable addressing
- Over 8000 address settings from one battery.

SBB-2

is a back box, providing a secure fixing for the luminaires and mounting base. Provides an aesthetically pleasing solution where surface fixed devices are required. The housing supports four 20mm glanded entries for cabling access.

- 4 glanded cable entry holes (glands not supplied)
- Colour matched
- Provides moisture and dust resistant fixing.

NFW68 89-IP44

is an external weather-proof enclosure, designed to allow the external mounting of the EL-DL down lights. The enclosure features one cable entry which can be glanded.

- ▶ Robust design
- ▶ Provides IP44 protection but can be upgraded to IP66 using sealant,
- ▶ Metal, powder-coated body, acrylic dome.

EL-DEB

is an external weatherproof enclosure and bracket, designed to allow the external mounting of the EL-DL3 open space down light. The bracket section features two cable entries which can be glanded.

- ▶ Suitable for EL-DL3 only (open space down light)
- ▶ Robust design, Provides IP67 rating
- ▶ 2 cable entries can be glanded
- ▶ Metal, powder-coated enclosure and bracket, acrylic dome.

EL-MC

is a media adaptor capable of converting a dual cable to Ethernet in order to extend an Ethernet network across a dual cable connection.

- ▶ RJ45 connector for Ethernet / screw connector for dual cable
- ▶ Max range up to 10 km* resulting in a max transfer capacity 15.3 Mbps*
- ▶ Installation in pairs ('master' and 'slave' units)
- ▶ No MAC or IP addresses
- ▶ Supply voltage 18-30 Vdc
- ▶ Max current consumption 180mA.

*Depending on data rate and cable cross section
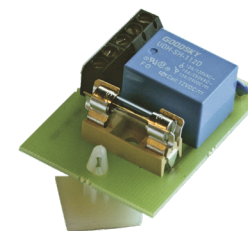
EL-1RC

is a relay card for use with the EL-2 Emergency Lighting control panel.

- ▶ Equipped with one volt-free relay output which can be as N/O or N/C
- ▶ Control voltage 12 V dc
- ▶ Electricity consumption 37.5 mA (at 12 V dc)
- ▶ Dimensions: 50 x 37 mm.

EL-BBA1

A BESA Box Adaptor Plate, which allows adjustment of the YBN-R/3 mounting base to allow correct alignment of exit signs and luminaires. Supplied with fixing screws.

YZU-A

is an angled ceiling bracket. It allows all current luminaires to be mounted: EL-DL2, EL-DL3, NFW89/O & NFW89/C

▶ Easy to install
▶ Allows the luminaires and mounting base to be angled.

YZU-B

is a fixed angle wall bracket, which allows all current luminaires to be mounted: EL-DL2, EL-DL3, NFW89/C & NFW89/O where the detector cannot be fixed to a ceiling.

▶ Easy to install
▶ Requires a mounting base for the luminaires.

Software & Hardware

Hochiki offer a range of enhanced graphics software, which can be used alongside the **FIREscape**® system.
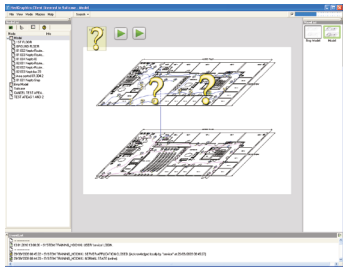
EL-GRAPH

is an alarm graphics package, which allows the end-user to visually check on the status of the complete FIREscape system, down to individual point status.

- ▶ Fully integrated graphics package
- ▶ Individual point monitoring
- ▶ Reports point status information
- ▶ Point interrogation and control.
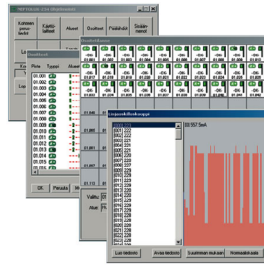
EL-IMP

is a configuration & programming software tool for use with the EL-2 emergency lighting control panel. The software is used to configure light levels, set up lighting areas and create input and output parameters during set-up commissioning.

- ▶ Allows configuration of luminaires
- ▶ Allows configuration of input/output devices
- ▶ Assists in fault finding
- ▶ Allows uploading and downloading of data
- ▶ Assists in report generation and retrieval.
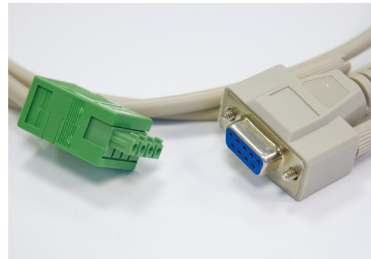
EL-CAB

is a connection cable for use between the EL-2 Emergency Lighting control panel and a PC/laptop.

EL-USB

is an adaptor for use in conjunction with the EL-CAB for connections to PCs/laptops that don't feature a serial port.

FIREscape lite

Mains Powered, Emergency Lighting Solution

FIREscape lite is an innovative, self-diagnosing, mains powered, LED-based emergency lighting solution, based on the world-proven intelligent lighting system, FIREscape.

This highly cost effective and environmentally friendly range of self-contained luminaires and exit signs, features a uniquely designed 'step-down' transformer, which allows the units to be mains-powered.
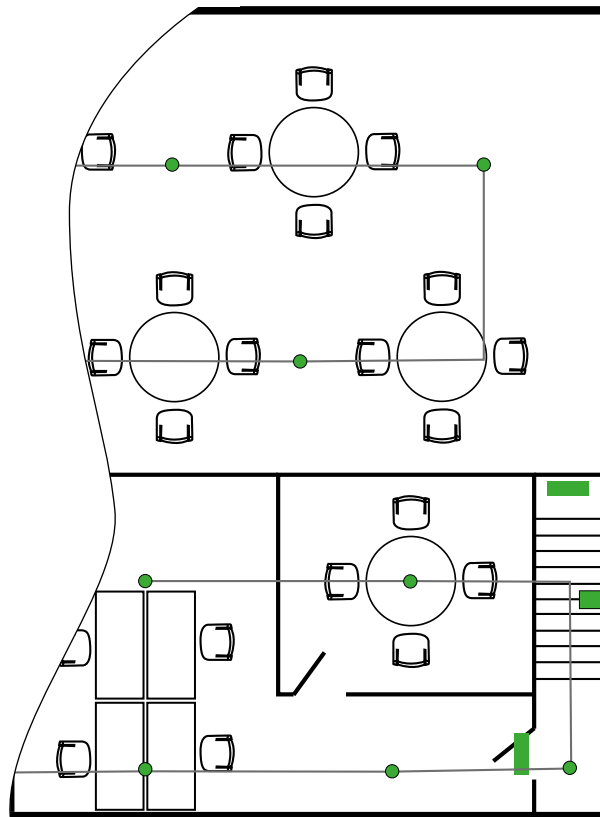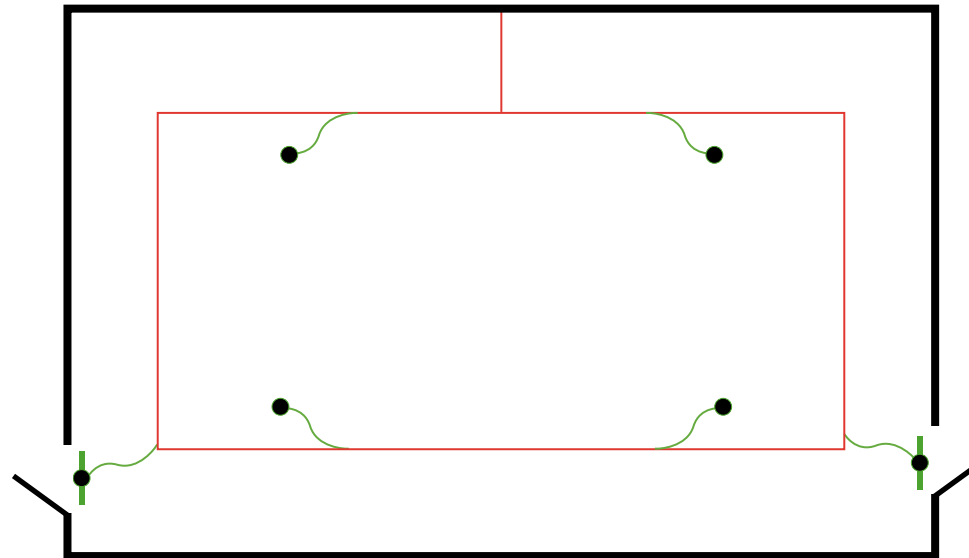
www.hochikieurope.com/firescapelite

Applications

The **FIREscape lite** system is recommended for use in the following applications -

- Standalone buildings
- Temporary structures
- Change of use
- Building sites
- Instant compliance after risk assessment

System Architecture Example

KEY

- • Luminaire
- ▬ Exit Sign
- ▪ Step Light
- — Mains Circuit
- —●— NFW-SDT/EL20 Kit
- ● NFW-SDT/DL3 Kit
- ～ Spur off mains

Within this lighting system, there are six autonomous, self-testing luminaires and exit signs. These are wired from a permanent live feed from the local lighting supply.
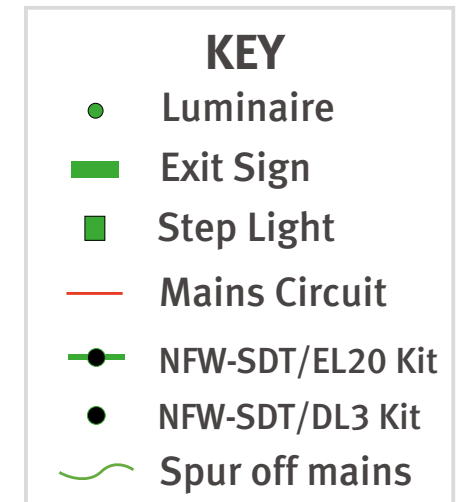
Exit Sign Kits

These innovative exit sign kits can be spurred of the mains and work as a mains-powered, LED-based emergency lighting solution. All kits come with a step down transformer, a step down transformer spacer, a common mounting base and rechargeable lithium battery as standard.

NFW-SDT/EL20R

20m Frame RIGHT arrow
Legend (ISO7010)

NFW-SDT/EL20L

20m Frame LEFT arrow
Legend (ISO7010)

NFW-SDT/EL20U

20m Frame UP arrow
Legend (ISO7010)

NFW-SDT/EL20D

20m Frame DOWN arrow
Legend (ISO7010)

NFW-SDT/EL40R

40m Frame RIGHT arrow
Legend (ISO7010)

NFW-SDT/EL40L

40m FrameLEFT arrow
Legend (ISO7010)

NFW-SDT/EL40U

40m Frame UP arrow
Legend (ISO7010)

NFW-SDT/EL40D

40m Frame DOWN arrow
Legend (ISO7010)

Luminaire Kits

These innovative luminaire kits can be spurred of the mains and work as a mains-powered, LED-based emergency lighting solution. All kits come with a step down transformer, a step down transformer spacer, and a common mounting base as standard.

NFW-SDT/DL2

Intelligent Corridor Down Light
Rechargeable Lithium Battery

NFW-SDT/DL3

Open Space Down Light
Rechargeable Lithium Battery

NFW-SDT/NF89/C

High-powered Corridor Luminaire
Rechargeable High Power Battery

NFW-SDT/NF89/O

High-powered Open Space Luminaire
Rechargeable High Power Battery

Accessories

EL-BAT450

is a rechargeable Lithium/ Polymer back-up battery for use with luminaires and exit signs within the FIREscape range.

- ▶ 450mAh
- ▶ 7.4 V
- ▶ For use with luminaires and exit signs
- ▶ Ideal for cold facilities, minimum operating temperature -25ºC
- ▶ Provides the BS5266 minimum 3h back-up time
- ▶ Incorporates deep discharge protection circuitry.

NOTE: A remote power supply is required to power any non-addressable slave luminaires

NF89 BATTERY

is a rechargeable Lithium/Polymer back-up battery specifically for use with the NFW89/C and NFW89/O luminaires within the FIREscape range.

- ▶ 2950mAh
- ▶ 7.4 V
- ▶ For use with the NFW89/C & NFW89/O.

Simple Steps to create
FIREscape lite

Please follow the simple steps shown in the pictures to the right, to fit your FIREscape Lite exit sign or luminaire kit to the ceiling.

To find out more information and guidance on how to fit your kit to the ceiling, please go to 'FIREscape lite Range Overview' video on our Hochiki YouTube channel.

☰ YouTube

NFW-SDT FIREscape
Transformer Fitting
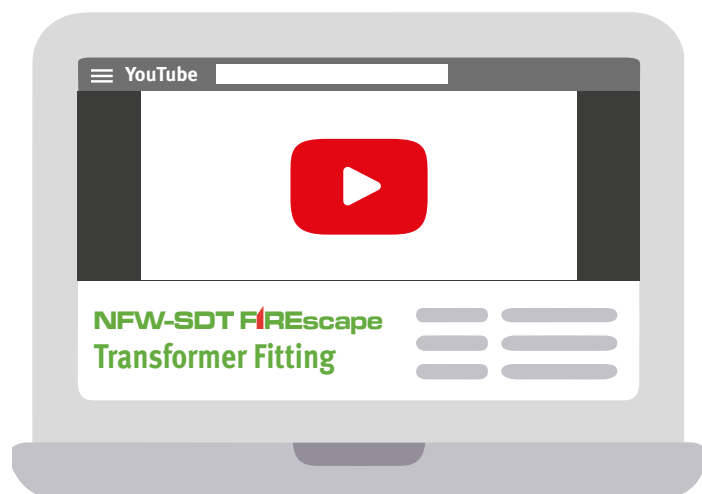
Scan QR code to watch our NFW-SDT FIREscape Transformer Fitting Video

LIVE

NEUTRAL 240V AC
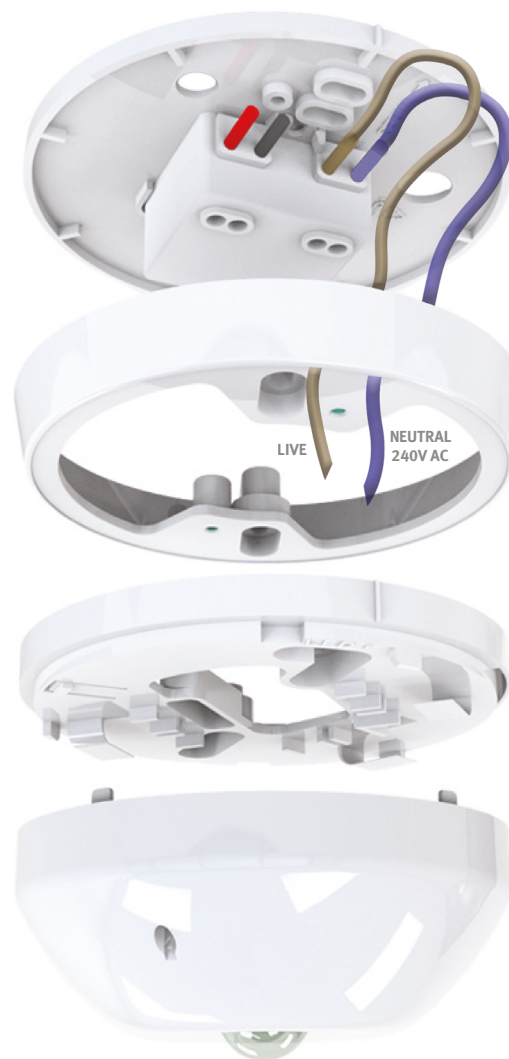
STEP 1

Once spurred off the mains, fix the transformer onto the ceiling

STEP 2

Fix the spacer on top of the transformer

STEP 3

Fix the base on top of the spacer and connect wire

STEP 4

Finally, you can twist fit your luminaire or exit sign

Photometric Data

EL-DL2
Corridor Luminaire

NON-MAINTAINED	2m Wide Corridor	
Mounting Height (m)	Spacing 1 Lux to Wall	Spacing 1 Lux Between
2.00	4.56	9.82
2.40	5.18	11.40
2.50	5.31	11.80
2.60	5.45	12.12
2.70	5.55	12.48
2.80	5.66	12.80
2.90	5.75	13.10
3.00	5.83	13.44
3.10	5.90	13.80
3.20	5.95	14.08
3.30	5.96	14.38
3.40	5.95	14.66
3.50	5.90	14.94

MAINTAINED	2m Wide Corridor	
Mounting Height (m)	Spacing 1 Lux to Wall	Spacing 1 Lux Between
2.00	4.56	9.70
2.40	5.02	11.20
2.50	5.15	11.56
2.60	5.24	11.84
2.70	5.32	12.18
2.80	5.40	12.50
2.90	5.48	12.80
3.00	5.50	13.12
3.10	5.50	13.40
3.20	5.46	13.70
3.30	5.31	13.98
3.40	3.32	14.20
3.50	2.75	14.44

*While every care is taken, Hochiki design assistance is offered purely as advice and should be checked against both client and insurance requirements

EL-DL3
Open Area Luminaire

NON-MAINTAINED	Open Area to 0.5 Lux	
Mounting Height (m)	Spacing to Wall	Spacing Between
2.00	2.85	6.19
2.40	3.19	7.14
2.50	3.25	7.37
2.60	3.30	7.57
2.70	3.32	7.78
2.80	3.31	7.99
2.90	3.31	8.20
3.00	3.04	8.37
3.10	2.79	8.56
3.20	2.55	8.73

MAINTAINED	Open Area to 0.5 Lux	
Mounting Height (m)	Spacing to Wall	Spacing Between
2.00	2.76	6.08
2.40	3.04	6.96
2.50	3.08	7.20
2.60	3.04	7.41
2.70	2.93	7.61
2.80	2.70	7.78
2.90	2.47	7.95
3.00	2.19	8.15

*While every care is taken, Hochiki design assistance is offered purely as advice and should be checked against both client and insurance requirements

NFW89/C
High Powered Corridor Luminaire

NON-MAINTAINED	2m Wide Corridor	
Mounting Height (m)	Spacing 1 Lux to Wall	Spacing 1 Lux Between
2.00	4.60	9.00
2.20	5.00	9.60
2.50	5.50	10.60
2.70	5.90	11.60
3.00	6.60	12.60
3.50	7.20	14.20
4.0	8.00	15.60
4.50	8.90	17.00
5.00	9.60	19.00
6.00	10.50	20.00
7.00	12.00	22.00

NFW89/O
High Powered Open Area Luminaire

MAINTAINED	Open Area to 0.5 Lux	
Mounting Height (m)	Spacing to Wall	Spacing Between
2.00	3.32	6.79
2.20	3.61	7.50
2.50	4.03	8.49
2.70	4.31	9.05
3.00	4.67	9.90
3.50	5.37	11.31
4.00	6.01	12.59
4.50	6.51	13.86
5.00	7.00	15.13
6.00	7.64	17.39
7.00	7.14	19.23
8.00	5.44	20.51

*While every care is taken, Hochiki design assistance is offered purely as advice and should be checked against both client and insurance requirements

Design Guide

Hochiki has produced a booklet entitled "A Guide to BS5266-1:2018" which provides guidance on the design, installation and wiring of emergency lighting systems and is available free from Hochiki Europe.

Please either visit www.hochikieurope.com/literature to download a soft copy or contact our Marketing Department for a printed copy.

The following "Points of Emphasis" are one of the aspects highlighted in the guide.

At Stairs

Each tread should receive direct light from the installed emergency lighting luminaire(s) so that the minimum luminance on each stair tread is 1 Lux.
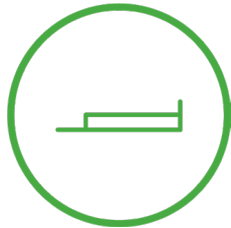
At Level Changes

Steps or other changes of level should receive direct light from an emergency lighting luminaire.

Outside & Near Exits

The escape route outside of the final exit(s) to a place of safety shall be illuminated.

Near First Aid Points

This is a requirement included in BS5266 part 7 1999, clause 4. All types of fire aid post including first aid rooms are to be illuminated to a level of 5 Lux.

Exit Doors

Emergency lighting luminaires shall be installed at each exit door to provide appropriate illuminance near the door and at the threshold. However, to provide the 1 Lux on the centre line, the luminaire may need to be closer than the 2m suggested in the diagram.*
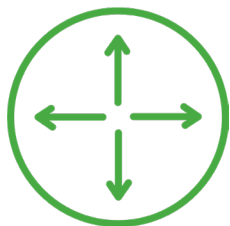
Change of Direction

Emergency lighting luminaires shall be installed at each change of direction as well as near each intersection of corridors on the designated escape route.*

Near Fire Equipment

Within 2 metres of all fire fighting and fire alarm call points an illuminance level of 5 Lux is required. This would also apply to a fire alarm control panel on an escape route.

Illuminates Safety Signs

Within 2 metres of all fire fighting and fire alarm call points an illuminance level of 5 Lux is required. This would also apply to a fire alarm control panel on an escape route.

*Interpretation: Where a point of emphasis requires a luminaire to be "at", this is not always practical, because, for example, there might be another fitment already at the same point. The luminaire would then be placed at a suitable position no further than 2m from the point of emphasis. Remember the 1 Lux along the centre line of escape route corridors and stairways should be designed. Where a point of emphasis requires a luminaire to be "near", this is stated as within 2m horizontally, as seen on a plan. Further information available in our Guide to BS5266 booklet.

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World Class Leaders in Life Safety since 1918

Hochiki Asia Pacific PTE Ltd.
82 Ubi Ave 4
#06-02 Edward Boustead Centre
Singapore 408832
Tel: + 65 6841 9728
E-mail: hochiki@hochikiasiapacific.com
www.hochikiasiapacific.com

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