



We make  
emergency  
lighting easy

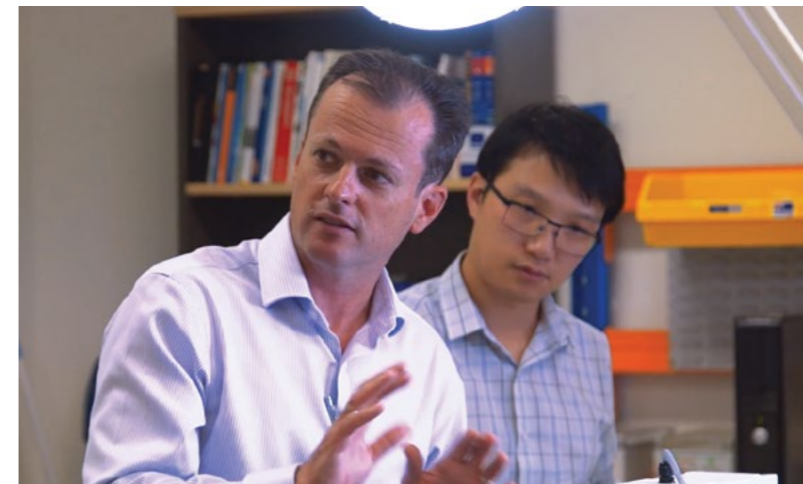


**80%** maintenance savings

Global pioneers in **lithium battery technology** in emergency lighting

Up to **89%** carbon reduction

Over **5 million** lithium powered luminaires installed



**35+** research and development engineers

Over **450** specialised staff



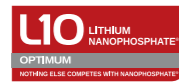
State of the art **engineering and testing laboratories**

**ISO 9001** and **ISO 4001** accredited



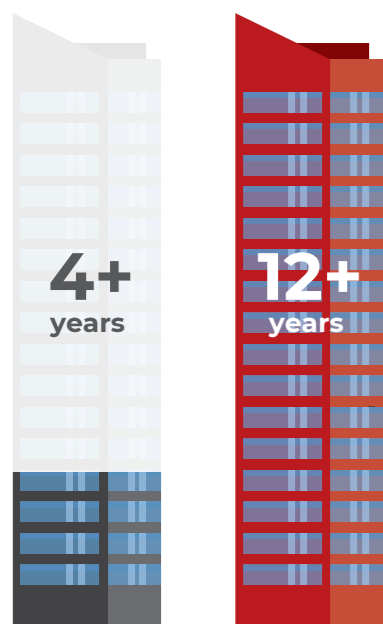


## Unrivalled product performance



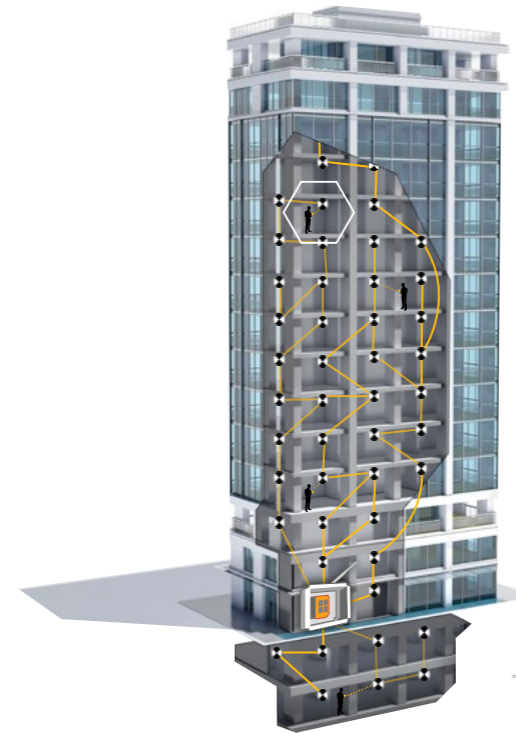
L10 Lithium Nanophosphate range has completely revolutionised the global emergency lighting market by improving the maintenance free service life of emergency lighting from 4 years to 12+ years, reducing costs and carbon output. L10 ensures a compliant emergency lighting solution without the maintenance cost burden and high carbon footprint of others. Reduce your emergency lighting costs by 80% and carbon output by up to 89% with L10 Nanophosphate; it's that simple.

Battery life comparisons\*



NiCd / NiMH L10 Nanophosphate

- **12+** year maintenance free service life
- **8** Year Warranty (Manual, self test, DALI)
- **10** year warranty (Zoneworks HIVE)
- **89%** reduction in Carbon output
- The incredible unrivalled product performance is achieved through intelligent electronic and luminaire design combined with Nanophosphate battery technology, providing twice the battery life of any other lithium battery technology and three times of any NiCd and NiMH alternatives
- Over **1,000,000** L10 Nanophosphate luminaires are installed across Australia, NZ and the UK
- Supported by **10** years of on site data and 12 years of long term testing



\* Components not shown to scale.

## The right emergency lighting solution for your needs

Clevertronics has spent over twenty years developing dedicated emergency lighting systems that have one purpose; making it easier to achieve emergency lighting compliance. Easy to understand, install, test and maintain with a system of your choice.



### Introducing Zoneworks XT HIVE

Zoneworks is the world's most advanced emergency lighting system with over 2,500 sites installed across Australia, New Zealand and the UK. Zoneworks XT HIVE reduces the backbone hardware requirements to a single RF controller with dynamic self-managed meshing technology, making your emergency lighting simpler, faster, reliable and more sustainable than ever before.

The functionality includes a clean web-based interface, both on PC and SMART devices. Integration with other networked building management services can be achieved seamlessly.

Testing and monitoring of all luminaires can be managed remotely to save time and money.



### DALI Emergency lighting

DALI, the protocol supported by all the major lighting manufacturers, enables digital dimming, individual luminaire control, lamp and ECG status feedback and emergency test and monitoring – all over a robust and simple wiring solution.

Clevertronics manufactures a full range of DALI registered emergency lights and exit luminaires. All our DALI registered luminaires have been designed following IEC 62386-2-2.

Product and application support is always available for installers and integrators using Clevertronics DALI luminaires on a project.



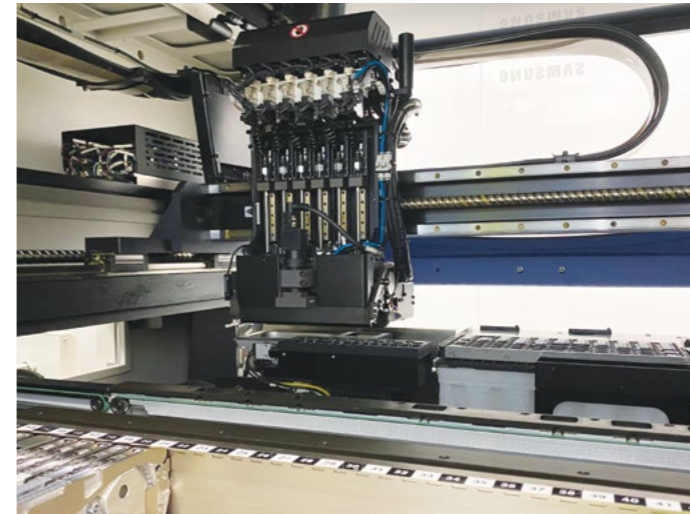
### Advantage Lifetime Support

With the Zoneworks XT HIVE platform, Clevertronics also includes ongoing support through our complimentary Advantage Lifetime Support (ALS) program. This service is designed to help the building owner & maintenance contractor manage the on-going health for the life of the system.





Our quality



**“Quality means quality. There is no other way for Clevertronics!”**

## Our quality shines through

Around the world, awareness and commitment is increasing on the importance of emergency lighting compliance. Our focus on providing quality products and systems for the specification and installation process is second to none.

Building owners, facilities managers, or the appointed responsible person needs to have 100% confidence that the product they are specifying or installing will do the job it is designed to do. Throughout our history, we have invested significant resources into product development to reduce the burden of compliance for our customers.

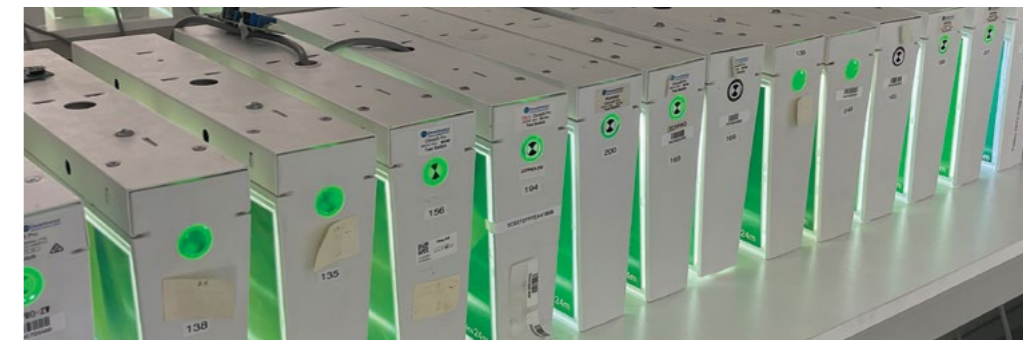
### Unique Capabilities

We design, prototype and test all our luminaires and systems from our new state-of-the-art head office in Melbourne, Australia. Our research and product development area consists of photometric laboratories, thermal testing chambers and longterm elevated temperature test rooms.

Clevertronics ISO 9001 and ISO 14001 certified manufacturing facilities cater to high volume and specialised requirements. All products conform to BS EN 60598-2-22.

### Expertise

Our extensive expertise in understanding emergency lighting standards and application requirements has resulted in 1000's of specialised luminaires being designed and manufactured for installation in projects like tunnels, heritage buildings, places of interest, harsh environments, stadia, rail infrastructure and many other applications. If you have a challenging application, we welcome the opportunity to create a solution for you.



**“Our state of the art testing facilities are recognised as best in class within the industry, even being used by other regulatory testing bodies!”**





## Emergency Lighting meets sustainability

In 2021 the UK government set the world's most ambitious carbon reduction plan, to reduce carbon emissions by 78% by the year 2035.

Buildings contribute greatly to UK carbon emissions therefore building owners, designers, maintenance professionals and installers are seeking practical ways to reduce operational and embodied carbon emissions and emergency lighting can contribute toward net zero.

**AECOM**  
**“Emergency lighting that reduces your carbon footprint!”**

The Leading global sustainability experts AECOM, recently conducted a carbon study on the use of emergency lighting products in buildings, we asked “What impact would result in using the latest technologies within a building’s carbon footprint?”

The AECOM study compared a typical installation of 1000 self-contained emergency light fittings with various battery technology and testing systems.

The battery technology included:

- NiCd, NiMH and L10 Lithium Nanophosphate

The testing Systems included:

- Manual test, DALI, RF and Zoneworks XT HIVE

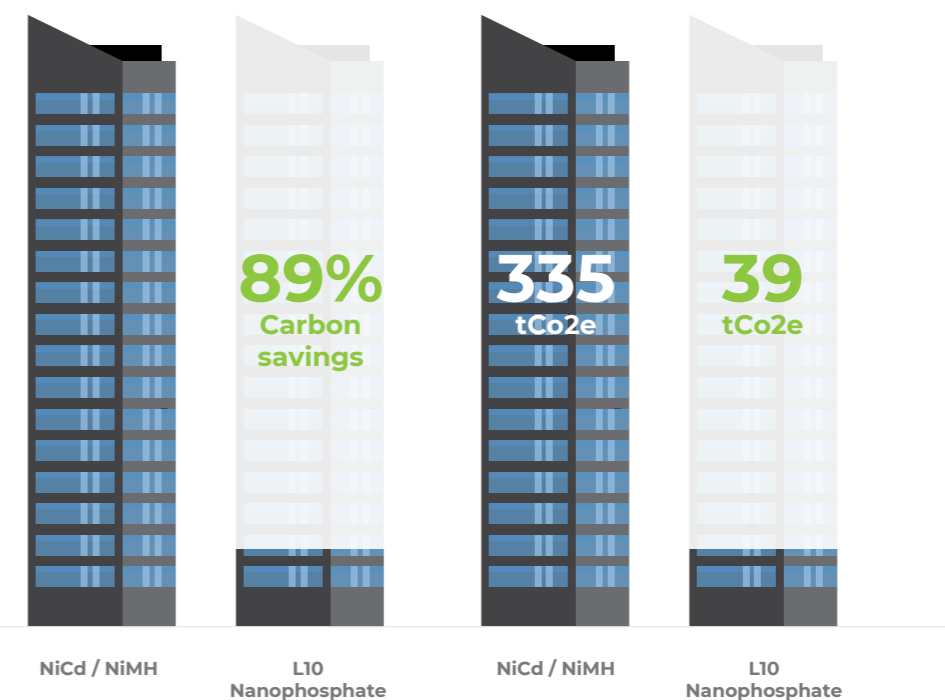
The assessment focuses on the “differences” in the carbon impact of the different combinations of battery and testing systems used to provide an overall carbon impact scenario.

Key measures in the assessment included:

- Operational Energy Consumption
- Fittings Replacement
- Driving for testing and maintenance
- Original and replacement batteries
- Waste Disposal
- Extra hardware and components

## The most sustainable, emergency lighting solution available

Carbon impact



### The study made some key findings:

- L10 Nanophosphate and Zoneworks XT HIVE can reduce carbon emissions by up to 89%
- L10 Nanophosphate alone has a lower carbon footprint in comparison to Ni-Cd/Ni-MH and other Lithium chemistry batteries that require on average between 4-6 cells to achieve the same result
- Per single battery, the NiCd/NiMH battery has an embodied carbon impact around 1.5 times greater than L10 Nanophosphate

- L10 Nanophosphate with a 12 year design life last 3 times longer than NiCd and NiMH alternatives
- Additional hardware and cabling for wired DALI systems increases the carbon output by 45t CO2e for a 1,000 fitting installation compared to Zoneworks XT HIVE

The findings are clear, **Clevertronics products and solutions were found to give considerable carbon reduction benefits** compared to other conventional emergency lighting systems on the market.

**“A carbon saving of up to 89% compared to other products on the market by switching to Clevertronics technologies.”**





## Emergency lighting conversions. A conversation worth having...

Designing and manufacturing emergency lighting over the past 20+ years has provided us with significant learning on what is required to make an effective and reliable emergency luminaire.

**“Converting luminaires to Clevertronics emergency versions provides longer service life, reduced maintenance and lower carbon emissions!”**

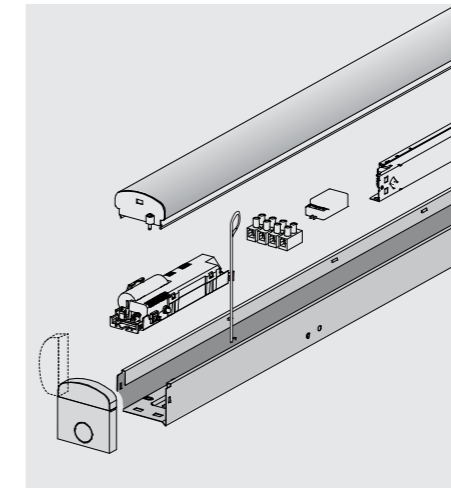
### Compliant

When a project requires the conversion of a standard luminaire to emergency, we assess it independently to ensure we can achieve the right outcome. Before leaving our factories, all conversions and kits are designed, manufactured, and tested to the current regulations and the Clevertronics rigorous testing regime.

### Confidence

You can be confident that all our emergency conversions use the highest quality approved components and are expertly assessed by qualified engineers that follow strict conversion processes and guidelines. This means we can deliver emergency solutions that work when you need them the most, allowing you to reap the benefits of extra-long service life, reduced maintenance, and lower carbon emissions, that our products have become synonymous with.

Contact us for more information about your specific requirements.



Our four conversion options are:

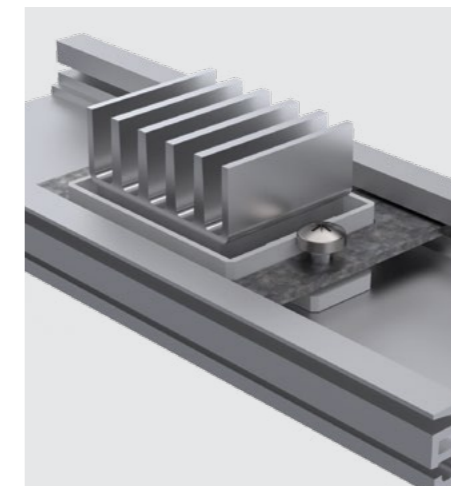
#### 1 Conversion kit

A Clevertronics kit that converts 3rd party luminaires' existing LED light sources.



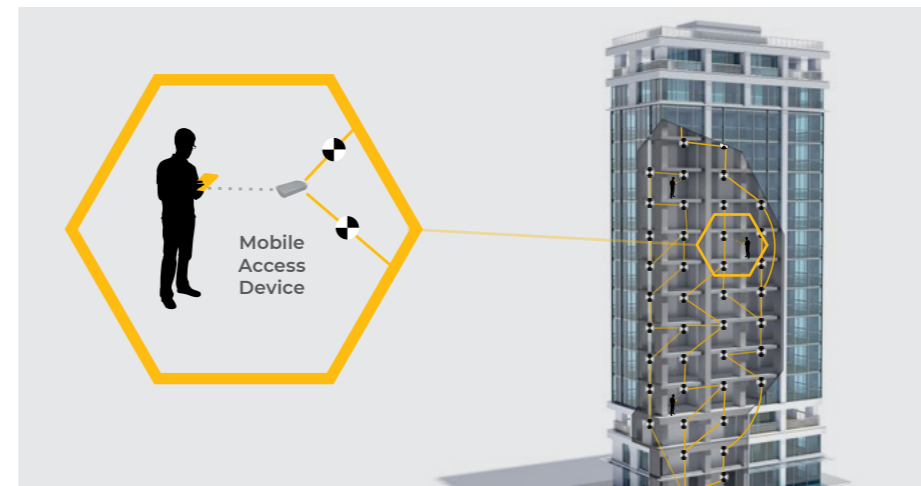
#### 2 Conversion kit plus

A Clevertronics kit supplied with a high-powered mini-LED light source that can be located inside the 3rd party light fitting.



#### 3 Customised conversion kit

A conversion kit that is built into the fabric of the luminaire using Clevertronics solutions.



#### 4 Smart Kit Conversion

Our all-singing, all-dancing conversion kit incorporates one of the above options plus smart functionality to allow wireless integration into our award-winning Zoneworks XT HIVE wireless system.





## Engineering a solution

There are always projects that need a customised solution to achieve the compliance or architectural requirement. Our team of product and system engineers have designed and produced many emergency and exit luminaires for these types of applications.

### Compliance

Critical applications like tunnels and hazardous areas always require an engineered solution to match the environment and design of the evacuation plan. This is where the Clevertronics team is able to apply their experience in design and know-how to create the exit and emergency lighting outcome that is required to meet the prescribed standard.

### Aesthetically pleasing

There are buildings and applications where a standard emergency or exit luminaire doesn't quite fit the architectural nature of the building. In a heritage setting and also in a modern, architecturally designed building, a traditional exit sign might remove the look and feel of a particular space. Clevertronics has engineered and designed bespoke exit luminaires to blend the compliance requirement into the personality of the building. We have worked with museums, churches,

theatres, restaurants, entertainment venues and iconic places like the Sydney Opera House and the Old London War Office to achieve the right outcome.

### Bringing it all together

Our state of the art engineering and testing capabilities allow us to take bespoke designs and prototypes and test them consistently throughout the process to ensure a timely outcome. Each luminaire undertakes thermal, humidity and electrostatic discharge testing as well as photometric analysis before sending them to external laboratories for official certification.







## Why use Enhanced Exit Signage?



**Doubles the awareness of exit signage**



**Decision time is reduced by 45%**



**Faster & more efficient evacuation**

## Exit signs aren't always seen

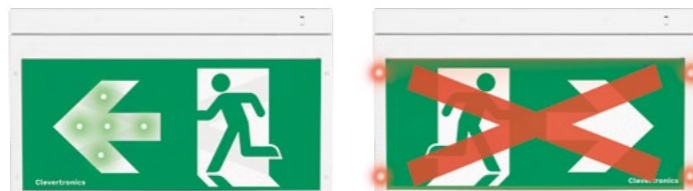
Exit signs, with the running man symbol, are effective in their purpose, however only around 38% of people actually notice Exit signs during evacuations.

**Research has proven that over twice as many people (77%) will see Dynamic GREEN Exit signs...**

This means many people will likely not know they are actually near a fire exit, and could take far longer to evacuate by either going out of the building they way the entered (which could be a substantial distance), or they may spend unnecessary time deciding which way to exit the building. The Enhanced EXIT signage 'Dynamic GREEN' by Clevertronics, applies a principle of activating bright, sequencing green LEDs to increase the visibility of Exit signs, activated during a power failure, or by a building's safety system or fire detection system. Research has proven that over twice as many people

(77%) will see Dynamic GREEN Exit signs and, therefore will be more likely to take the nearest exit during evacuations far more quickly than static Exit signs. Dynamic GREEN Enhanced EXIT signs help to keep building occupants safe.

Where an exit is compromised by fire or an event, a Dynamic RED X sign can be used to display a red cross, alerting those evacuating to seek an alternative exit. Using a red cross through the sign has been demonstrated by FSEG research to be effective in conveying negative enforcement.



### Dynamic Emergency Signage

A new concept in emergency signage, which I call the 'Active Dynamic Signage System (ADSS)', extends the idea of smart buildings to emergency wayfinding, with a new generation of advanced emergency exit signs. Traditional emergency signs are not always noticed in an emergency and cannot adapt to the circumstances of an incident or a changing threat environment, even if they are directing people into potential danger. The ADSS is intended to save lives by addressing these shortcomings - attracting attention when signs need to be

conspicuous, redirecting people during an evolving emergency, and automatically identifying, not just an exit route, but the optimal exit route.

**These advances bring the humble emergency exit sign into the 21st century.**

#### Prof Ed Galea

BSc, Dip.Ed, PhD, CMath, FIMA, CEng, FIFireE  
CAA Professor of Mathematical Modelling  
Director Fire Safety Engineering Group  
University of Greenwich





Exits

Standard exits

Cleverfit Exits



Cleverfit Pro Exit



Ultrablade Pro Surface Mount Exits



Ultrablade Pro Recessed Exit



Form 100mm Exit



Specialty exits



Low Temperature Exits



Vandal Resistant Exit



Jumbo 50m Exits



Gigantor 100m Exits



Dynamic exits

CleverEVAC Dynamic Exit



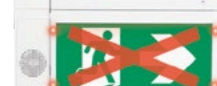
CleverEVAC Dynamic Exit Red X



CleverEVAC Dynamic Exit SoundEscape



CleverEVAC Dynamic Exit SoundEscape Red X



CleverEVAC Dynamic Blade



CleverEVAC Dynamic Blade Red X



Non standard exits

Tunnel Exit



Emergency luminaires

Standard emergency

Lifelight



Lifelight Surface Mount



Lifelight PRO



Lifelight PRO Surface Mount



Lifelight PRO Cylinder Surface Mount



Bulkite



Low Temperature



Supalite



Circular & Bulkhead

Argonaut Square



Bunkalite



Circlite



Disc



Linears

Standard linears

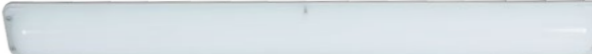
Argonaut Plus



Argonaut PRO



Argonaut Vandal Resistant





## We are market leaders in emergency lighting innovation



**Wallet**





**clevertronics.co.uk**

Unit 362 Stockley Close,  
West Drayton,  
Middlesex.  
UB7 9BL

**E** [uksales@clevertronics.com](mailto:uksales@clevertronics.com)

**T** 01895 430 255

**F** 01895 430 254

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