Sigma Tech360

What can the **Unite** wireless
system do for you?**…**

…LET US TELL YOU

COLOUR CHANGING

DAYLIGHT HARVESTIN
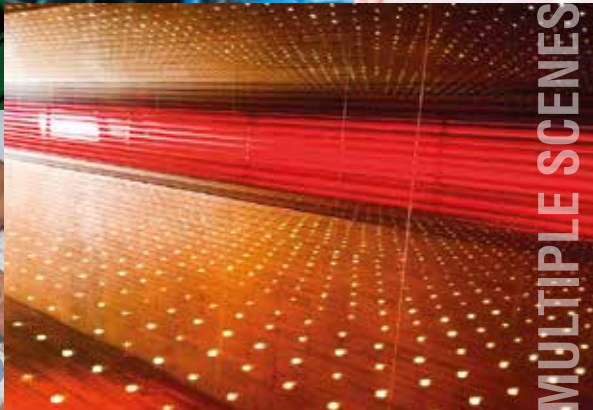
MULTIPLE SCENES

IMPORT PLANS

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CONNECTING TOMORROW'S WORLD TODAY

WHAT CAN **UNITE** DO?

Globally, we are all facing serious environmental issues every day. Wasted energy and energy inefficiency is a contributing factor. Most buildings today are over-lit, or spaces are lit even when they are unoccupied. Installing **Unite** in a building, adding intelligent, energy-efficient light controls provides a flexible, scalable system for maximum control and energy saving benefits.

Quite simply, **Unite** gives the ability to connect, control, configure, monitor and manage all aspects of lighting systems through one simple module via a wireless mesh network. This mesh network enbles multi-location configuration, providing energy analytics, beacon and management of lighting over a multitude of rooms and buildings in any location.

Conveniently managed from a desktop, tablet or smart phone. Schedule lighting to turn on, off or dim at any time. Preset presence detection, or set scenes to dimming levels and colours to ensure each space has the right type of ambience and lighting efficiency.

Every commercial space, small or large, can realise energy savings by installing the **Unite** module.

Take Control

Unify legacy Systems
Control all your lights in one easy to manage system

Retrofit
Add wireless controls to retrofits in difficult locations effortlessly

New builds
Specify **Unite** technology to prepare for IoT

Energy efficiency
Measure consumption from whole estates to individual lamps

Online control
Secure internet control panel to manage your lights and run reports from anywhere

Mobile controls
Control, manage and maintain your lighting from your phone

API
Control your own software and Apps with the Sigma Tech 360 API

Emergency lighting
Automate emergency light testing and run reports to show compliance

No more commissioning
Take control of your lighting and leave commissioning behind

HOW DOES **UNITE** WORK?

SUMMARY

Unite module creates an infrastructure to control all your light fixtures using a wireless mesh network (*See p8 for more information*).

CENTRALISED CONTROLS

You control the whole system centrally making sure the right people have the right access at the right time. Security and control is built in from the ground up in all **Unite** products and apps.

SCHEDULING

Shedule lighting preferences that reduce energy wastage and can be implemented across the building and beyond. Emergency lighting can be monitored and tests scheduled and reported automatically.

APPLICATION PROGRAMMING INTERFACE (API)

APIs are very powerful for enabling you to link systems together. With **Unite** API you can create your own bespoke apps for controlling and managing your lights and sensors as well as getting complete access to your data.
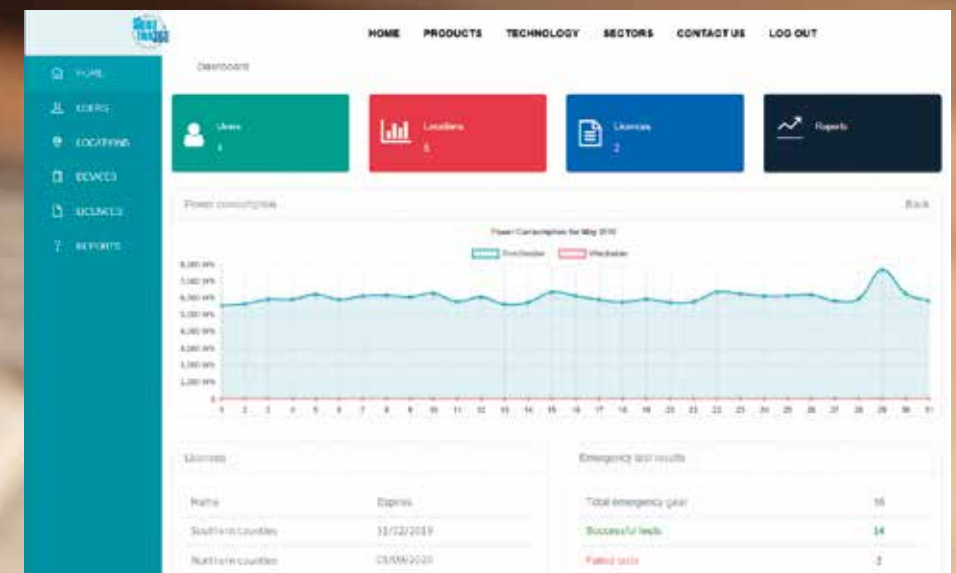
REPORTING AND ANALYTICS

See how your energy consumption changes over time and test new lighting schedules to see how to reduce your energy bills whilst optimising a healthy and productive environment.

DID YOU KNOW?

All systems can be controlled from anywhere in the building or online from anywhere in the world. Secure logins provide access to the right level for users, allowing commissioning and changing of settings, all using intuitive apps.

CONTROL... MONITOR... TEST

UNITE: TECHNICAL INFORMATION

MESH NETWORK

Unite automatically creates its own Bluetooth Low Energy mesh network. This mesh network joins every device together, multiple times, which means you have a robust and fault resistant system.

ANALOGUE DIMMING

Analogue dimming, Also known as 0-10v or 1-10v dimming. Traditionally it is achieved using physical switches and sliders to change the voltage the device receives and that voltage is used to set the brightness of the lamp. With **Unite** it is now achieved wirelessly.

DALI (Digital addressable lighting interface)

DALI is a very established technology that allows individual light fittings to be controlled independently from every other light. There are restrictions with DALI such as the number of light fittings that can be used on a single circuit but **Unite** removes these restrictions and makes it wireless.

DMX 512 (Digital Multiplex)

DMX is a system for digital dimming that is commonly used to control lighting or special effects devices. Originally designed for the creative industry it can now be used to control almost anything, making it very popular in theatres and venues.

BEACON

Beacons are used to help make life easier for people. They do this by broadcasting a signal that mobile devices can hear and use to do certain things like give them offers in a retail environment or giving them appropriate controls over the lights in a meeting room. Each **Unite** module has a beacon built in that you can turn on and off at any time.
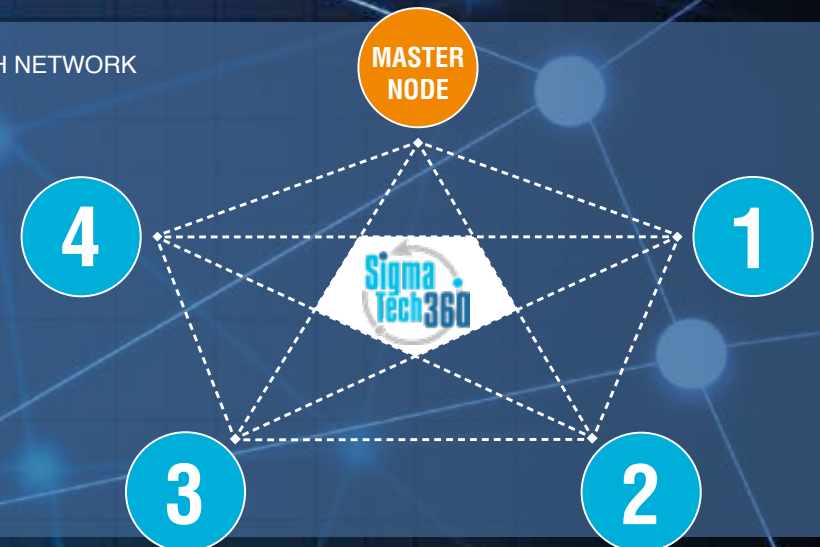
A SCALABLE SYSTEM THAT SELF HEALS

UNITE FUNCTIONS

0-10V	✓	**Analogue/Dimming/Emergency testing***
1-10V	✓	**Analogue/Dimming/Emergency testing***
DALI	✓	**Addressable/Dimming/Colour changing***
DMX	✓	**Addressable/Dimming/Colour changing**
API	✓	**App**
IoT	✓	**Internet of Things**
BEACON	✓	**Turn On or Off**

* The emerceny control gear must be DALI compatible

MESH NETWORK

MASTER NODE

4

1

3

2

WHAT ARE THE BENEFITS?

ENERGY AND FINANCIAL SAVINGS

By using **Unite** to schedule your light fittings, the energy consumption can be analysed to gain maximum cost savings, even if LED lighting technology is already in situ.

SOLVE YOUR EMERGENCY COMPLIANCE

Emergency lighting can be monitored, scheduled, tested and reported automatically.

EASY TO INSTALL

You can set up the **Unite** module yourself and make changes when required. It is the end of commissioning as we know it.

LIGHTING FOR HEALTH

Lighting systems that work in harmony with people, supports higher productivity and better results by keeping them alert and making the surroundings more inviting and comfortable.

COMMUNAL AREAS

Control your lighting in your communal areas, corridors and outside spaces to predefined scenes by setting dimming and colour. Whatever the luminaires, the **Unite** module can be utilised to wirelessly control them all. Link to sensors to identify when people enter these areas and save money by only lighting them when necessary.

DID YOU KNOW?

It has been scientifically proven that daylight and healthy artificial light directly affects our health and sense of wellbeing. Our physiology is heavily affected by daily and seasonal changes in the visible light spectrum.

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GLOSSARY OF TERMS

Mesh networks
A mesh network is a local network topology in which the infrastructure nodes (i.e. bridges, switches and other infrastructure devices) connect directly, dynamically and non-hierarchically to as many other nodes as required and unite with one another to efficiently route data from/to clients.

Beacon
A device that sends out a regular and predictably formated broadcast. In this case this broadcast complies with the strict Bluetooth Low Energy standard.

Web enabled
Requiring a data connection to the internet.

Bluetooth
A wireless technology standard for exchanging data over short distances.

Unite Module
The **Unite** module is the self contained component of the **Unite** system. The module contains power management, wireless communications and embedded intelligence.

IOT (Internet of things)
A generic term for anything that connects to the internet. It often refers to devices that can send and receive data which can be used to make decisions and perform a task.

Analogue (0-10v / 1-10v)
Another term for analogue dimming.

DALI
DALI or digital addressable lighting interface allows individual light fittings to be controlled independently from every other light.

DMX
DMX or digital multiplex is a system for digital dimming used to control lighting or special effects devices.

API
API or application programming interface is a set of functions and procedures that allow the creation of applications which access the features or data of an operating system, application, or other service.

Portal
An online resource that gives the authorised user access to configuration, control and reporting of the system.

Circadium Rhythms
The 24-hour internal 'body clock' running in the background of your brain and cycles between sleepiness and alertness. This internal clock is affected by environmental cues, like sunlight and temperature.

Retro fit
To fit new technology to old systems to introduce new features and benefits.

App
App is short for 'application' these are programs that run on mobile devices.

CONNECTING TOMORROW'S WORLD TODAY

If you would like a demonstration of how the UNITE module works, please contact us:

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