

## APPLICATION

**Smart Lighting LED Retrofit**

## SECTOR

**Manufacturing**

## LOCATION

**UK**

## CUSTOMER

**John Tainton**

## PARTNER

**Test Consulting Ltd**

***“enModus gives us task specific lighting control and real-time visibility of building occupancy.”***

*Richard Wandless, Operations Director*

## Background

John Tainton is a specialist supplier of fully flattened steel sheets and plates based in Kidderminster, UK. An Energy Saving Opportunity Scheme (ESOS) audit recommended upgrading their legacy lighting to an energy efficient system.

## Customer Challenge

As part of a lighting efficiency upgrade John Tainton wanted to improve their lighting control capabilities.

At that time the control of the legacy lighting was either 'on or off'. Operations Director Richard Wandless wanted to gain greater levels of lighting control to maximise energy savings.

The premises already had skylights in place, but with limited lighting control the building was unable to take full advantage of the natural light and potential energy savings.

The site operates 24 hours a day during weekdays, with some weekend working. Night shifts run a smaller crew,

so there are fewer occupied areas of the site needing illumination.

The building has several different operational areas. Task specific lighting and individual control of luminaires was required for worker comfort and improved safety.

The operations team also wanted data to provide insight on occupancy to give a greater understanding of how the building was being used.

Richard stated that the lighting control solution needed to demonstrate cost savings and create a business case for further lighting upgrades to other areas of the premises.

**We make any building smart**

[enmodus.com](http://enmodus.com)

## Solution

To meet the needs of John Tainton, enModus installed a Smart Connected Lighting solution that uses the existing mains powerlines for connectivity and control.

The existing 250W Metal Halide/SON high bay luminaires were replaced with 100W Zumtobel CRAFT LED high bay lights installed by Test Consulting Ltd.

The enModus Smart Connected Lighting solution continuously tunes individual luminaires to provide the correct amount of light where and when its needed.

DANLERS occupancy and ambient light sensor inputs are used by the enModus Node for control of the DALI driver.

Nodes communicate across the existing power cables to an enModus Hub that connects to the Cloud Platform.

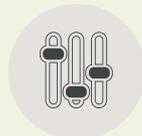
The Cloud Platform's web-based user interface delivers intelligent lighting control including task-tuning, daylight dimming, and customisable lighting schedules / schemes.

The enModus Cloud Platform visualises real-time energy measurements for accurate validation of energy savings.

It also provides real-time and historical occupancy reporting to take guess work out of building usage. Such data helps with space utilisation, inventory planning and better occupant safety.



LED LUMINAIRE



LIGHTING CONTROL



INTEGRATED SENSORS



CLOUD PLATFORM



ENERGY MEASUREMENT



TELEMETRY DATA

## Results

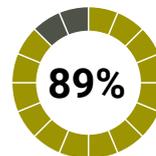
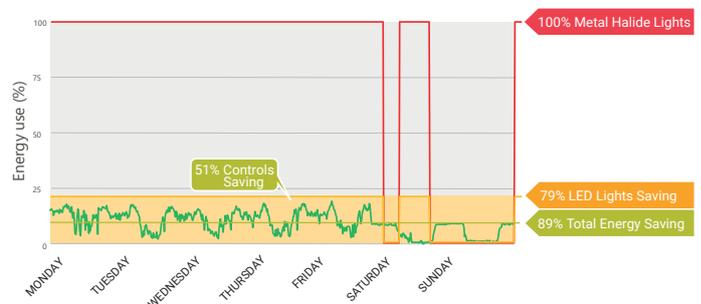
John Tainton has rapidly reduced energy costs while significantly improving the control of individual lights within its premises.

The LED lights and enModus Smart Connected Solution delivers 89% energy saving and intelligent control of each light.

Crucially, the enModus solution was installed with zero disruption to the 24 hour operations because it uses the existing mains wiring.

The Smart Connected Lighting solution will pay for itself in less than 19 months and reduce CO<sub>2</sub> emissions by 129,056 kg each year.

Following this success, Richard Wandless has identified the installation of an enModus automated emergency light testing solution and upgrade of the external lighting as subsequent phases.



Total energy saving



Payback period



CO<sub>2</sub> saving

## Next steps

Request a meeting or [email](mailto:en@enmodus.com) us today to find out how we can make your building smart.