



ULTRA-PRECISE SWITCHING,  
ULTRA-EFFICIENT ENERGY CONSUMPTION



# ZODION ADVANCED PHOTOCELL TECHNOLOGY

The most energy-efficient, cost-effective way to keep streets  
and roads safe for pedestrians and motorists

## Pioneering lighting solutions from one of the UK's foremost technology specialists

Zodion street and amenity lighting control equipment is designed and manufactured to meet two critical objectives.

The first of these is to keep streets well lit and safe for everybody who uses them.

Secondly, our systems have to ensure that lighting operates in the most energy-efficient way possible. Reducing energy consumption is no longer an option but an environmental necessity that also makes good financial sense, saving money as well as precious resources.

In meeting these objectives Zodion has built up a worldwide reputation for the manufacture and supply of innovative, advanced electronic photo control units and lamp ballasts. These are used extensively by local authorities, utility companies, original equipment manufacturers and contractors. We also provide lighting controls for highway signage applications.

*With over thirty years experience, Zodion has unrivalled specialist knowledge and skills that can make a real difference to both safety and energy conservation.*

## HOW ZODION PHOTOCELL TECHNOLOGY WORKS

Zodion PECUs - photoelectric control units - are essentially light-operated switches. Working with exceptional precision, they switch street lamps on just before the minimum light level is reached at dusk (to allow for warm-up) and off as soon as there is sufficient daylight next day.

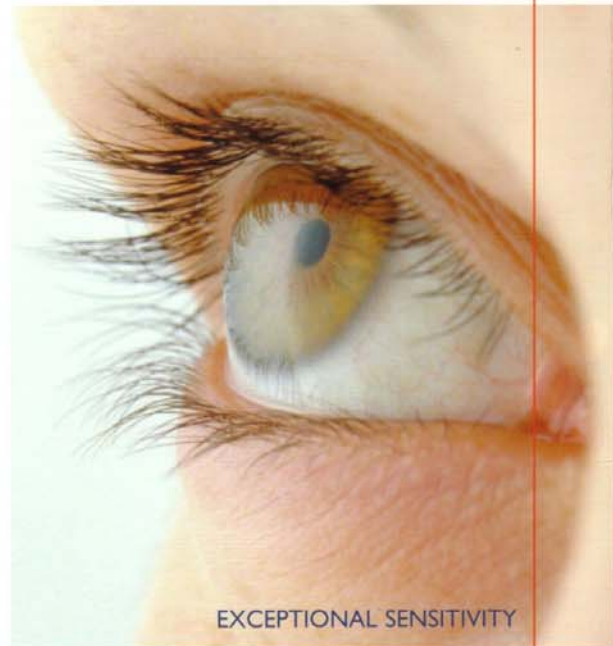
Zodion detectors use either glass filtered photodiodes or our DyeMatch system, depending on the application. Both systems ensure extremely high levels of accuracy. *Indeed, such is the sophistication of our technology that Zodion PECUs have a sensitivity which replicates the human eye at dusk.*

**For Local Authorities and Highway Agencies, precision switching is the key to reducing energy consumption**

Perhaps the single biggest factor influencing energy consumption is how accurately and consistently loads are controlled over long periods of time.

Across a wide spread of measurements Zodion systems demonstrate outstanding performance week in and week out, providing light when there is poor visibility prior to dusk and at the same time giving optimum control on clear evenings, allowing full advantage to be taken of good daylight.

Compare this with time clocks, which switch lights on and off at pre-ordained times and can therefore easily waste energy. Zodion systems only activate lamps when light is needed and switch them off when it isn't, keeping energy consumption to a minimum.



**EXCEPTIONAL SENSITIVITY**

*Zodion technology replicates the sensitivity of the human eye at dusk*



## Zodion **SmartCELL**™

a technological breakthrough that's setting new standards of energy conservation

Zodion **SmartCELL**™ is designed to give you greater efficiency and greater cost savings by always operating at a power factor of 0.9.

Thanks to advanced Zodion technology, **SmartCELL**™ has the ability to compensate for lamp ageing, supply voltage variations and PFC capacitor ageing. With **SmartCELL**™ you can be confident that your lighting unit is operating at an optimum power factor whatever its age.

**SmartCELL**™ is ideal for street lights and other lighting applications as it can be used in place of a standard NEMA photocell.

Highly effective, highly efficient.

As you would expect, **SmartCELL**™ is manufactured to the same high standards as all Zodion lighting technology. It has a power consumption of less than one watt and is typically more than 99% efficient.

PECU

As it incorporates Zodion's revolutionary SS6 one-part electronic photocell, **SmartCELL**™ also operates as a photo electric control unit. With filtered photodiode sensor, the SS6 utilises advanced diode technology to provide a consistent and extremely accurate switch performance.

### HOW SMART ARE YOUR STREET LIGHTS?

Zodion's advanced functionality results in streetlights that almost think for themselves. When light fails they give pedestrians and motorists maximum visibility - and when the daylight is good they save maximum energy.



# TOTAL SERVICE

## Some of the innovative controls in the Zodion range



### One part photocell Super6

Designed to provide maximum operating life, the Super6 comes with a ten-year warranty. Typical street life is 20+ years.



### Miniature electronic photocell SS12HD, 3x400W

Particularly suitable for higher voltage lanterns and bulkhead fittings. Combines the flexibility of a miniature unit with the load capability of the NEMA family.



### Part night electronic photocell SS9

The fully automatic answer where all-night switching is not needed. Switches off at approximately midnight and is reactivated at around 5.30am GMT, depending on ambient light levels.



### Electronic ballasts

Replacing conventional street lighting ballasts, our range features an intrinsic near unity power factor connection, ensuring a significant reduction in energy consumption.



### NEMA 3 pin socket photocell L415

Designed to NEMA specifications, the L415 uses brass contacts with phosphor bronze for maximum contact and exceptional durability.

Underpinning Zodion technology is an approach to customer support that plays a key role in helping us develop successful solutions.

From initial discussions to technical evaluation, planning and system design, we provide a seamless service that looks after every stage of a project and always links back to you the client, ensuring you are fully in the picture at all times.

Quite simply, we give you total service from the moment you first talk to us to the completion of an assignment.



## HIGHLY FLEXIBLE APPROACH

Because no two requirements are ever exactly alike, Zodion lighting systems can be tailored to meet your precise needs



The Zodion range is extensive and can be customised to meet an even wider range of applications.

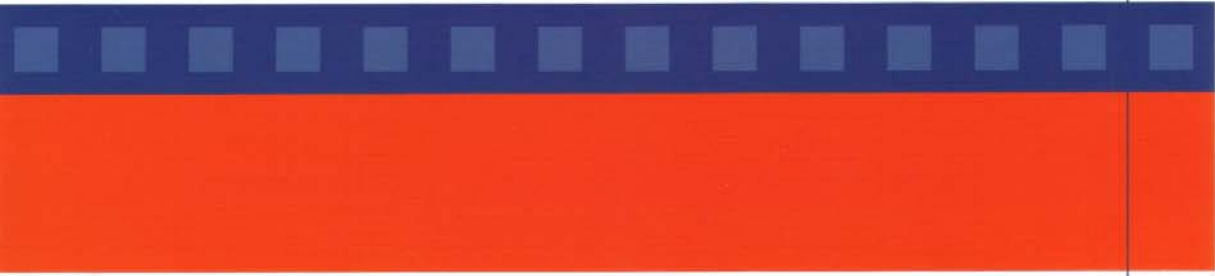
Whatever your particular needs, we will work with you to deliver solutions that are exactly right for the conditions and circumstances in question.

### ZODION AND THE ENVIRONMENT

Environmental issues form a key part of our activities.

We are totally committed to reducing energy consumption through the use of advanced electronics and at all times strive to achieve the very best balance between conservation and safety.





### LUMO LIGHTING

A sister company of Zodion, Lumo Lighting is a leading supplier of interior low voltage lights that combine innovative technology with stylish design and outstanding quality.

Particularly suited for caravans, boats, motor homes, recreational, commercial and specialist vehicles, the Lumo range is available with energy-saving fluorescent, halogen and incandescent light sources for 12 and 24 volt applications.



Zodion Limited, Zodion House, Station Road,  
Sowerby Bridge, West Yorkshire HX6 3AF, UK  
Tel: +44 (0) 1422 317 337 Fax: + 44 (0) 1422 836 717  
Email: [enquiries@zodionltd.eu.com](mailto:enquiries@zodionltd.eu.com)  
[www.zodionltd.eu.com](http://www.zodionltd.eu.com)