

Connected outdoor components



# Introducing SR. The new industry standard for global connected solutions.

For today, for tomorrow



Outdoor

# Making cities smarter and more livable

By connecting a lighting infrastructure to the Internet of Things you take a significant step toward making a city smarter and more livable.

### Consider lighting to be more than just illumination

When paired with the infrastructures created by the Internet of Things and the compatible sensors and software applications, connected lighting offers an impressive range of benefits. When used imaginatively it can enhance people's moods, react to their presence, switch itself off when no one is around, and adapt to personal preferences. It also reduces energy consumption, collects relevant data, improves efficiency in building management and makes cities feel safer and more engaging.

In the past, one of the main barriers to making lighting smarter and connected was the complexity. Without widely-accepted international standards, each manufacturer tended to develop its own solution. The result, inevitably, was lack of compatibility between different systems. This hampered the spread of connectivity, and also meant that innovations couldn't easily build upon each other to expand the boundaries of what's possible with lighting.



## Universal, future-proof solution

We have provided the answer to the question of compatibility in the form of our SR platform, developed to provide a foundation on which the connected lighting systems of today and tomorrow can be built, whilst removing any complexity and guaranteeing widespread compatibility.

The result is an acceleration in innovation which allows OEMs to develop their own solutions based around a standardized framework, enabling the prevalence of smart cities that are a more rewarding place to live.

### **Connectivity confidence**

The performance of SR products is tested and certified to ensure interfacing is seamless, and our growing list of SR certified components cover a wide range of connected lighting solutions from trusted providers of sensor and connectivity modules, building management systems and city management systems.

## Benefits of being an SR partner



Through Zhaga standardization and SR certification you can interconnect with innovations from different suppliers.

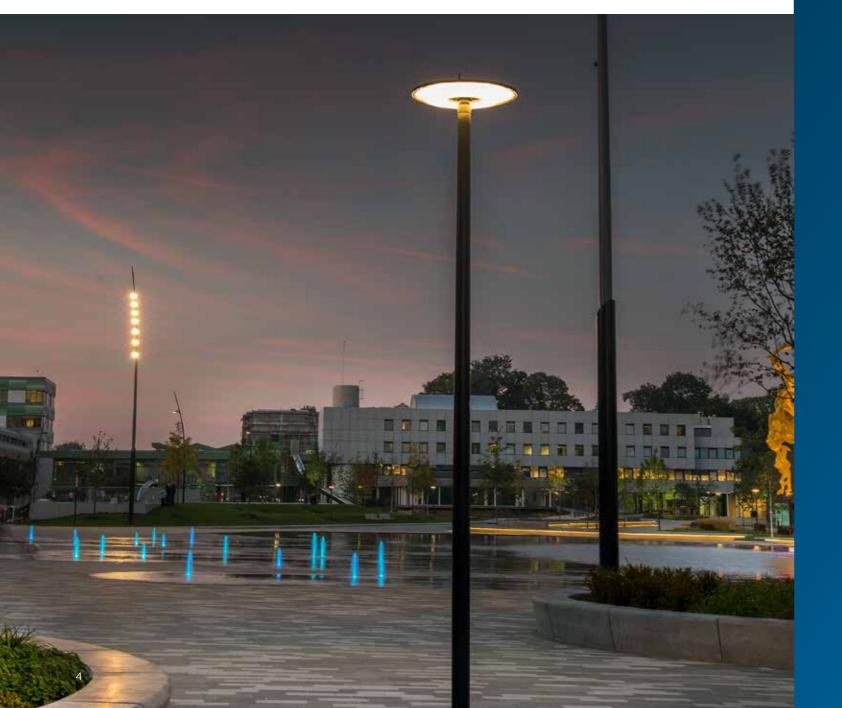
### Plug and play



Open



This SR platform allows you to integrate new innovations that could enhance your lighting solutions even further.



### Highly compatible

Designed for hassle-free installation, SR controls and sensors can be mounted onto the luminaire without opening it.

### **Future-proof**

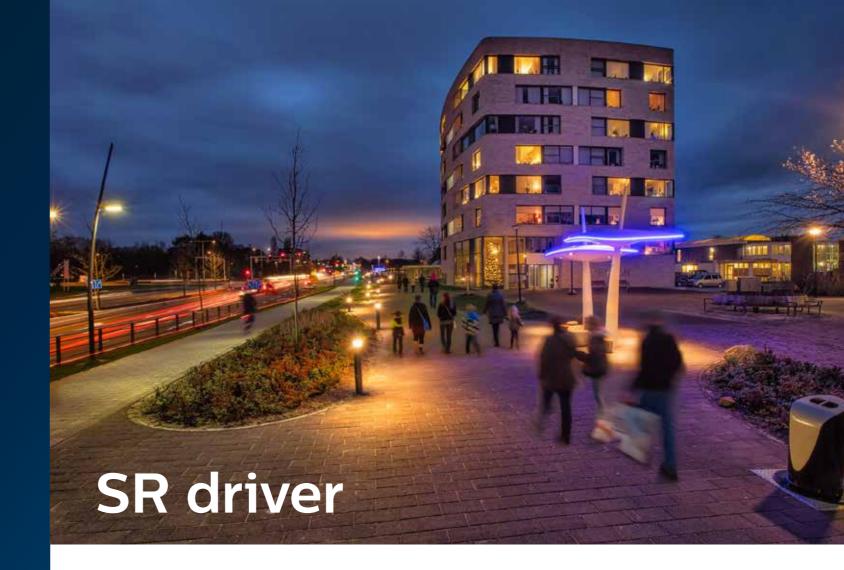
SR luminaires can be paired with sensors and controllers now or later; whatever suits you best. They are therefore key components in a flexible and scalable city-wide solution.



# SR building blocks

Our SR platform for connected lighting devices consists of fundamental building blocks specifically designed to accelerate the creation of smart city lighting networks by being easy to integrate, widely compatible and futureproof. It is our intention to expand this platform on an ongoing basis. The building blocks currently available are:





By integrating these drivers into luminaires, you prepare them for becoming connected light points. Features like diagnostics and accurate power metering are built in as standard. The luminaires become automatically compatible with intelligent lighting controllers from any of our users, from municipalities to SR partners.

> One of the great attractions of our SR drivers is that they help luminaire manufacturers to design and build future-proof lighting solutions. As a result, connected devices can be added now or whenever it suits municipal authorities best. This means that cost-effective upgrades only have to take place when financial resources become available.

### Adding connectivity and expanded functionality

Our SR drivers don't just provide power conversion for LED lighting, but also feature integrated power supplies and energy metering. This enables users to deliver actionable operational data such as energy consumption. Equally beneficial are the integrated sensor controllers, which provide daylight harvesting and occupancy patterns to a building management system, without the need for additional external components. Collectively they help bring connectivity and expanded functionality to luminaires.

# SR connector

Our SR connector is integrated into a luminaire, and functions in much the same way as a USB slot. The connector allows all manner of SR-compatible sensors, controllers and other modules to be attached with the greatest of ease; you simply plug them in and they are ready to go.

The SR connector itself is connected to the luminaire in an extremely straightforward way. It only has three wires, which are inserted into slots in the luminaire's SR driver. The connector is small and unobtrusive, and is positioned on the top and/or bottom of the luminaire. The IP66 rating ensures there is no risk of water ingress.

Increasing reliability of operation Once the socket is in position, the luminaire is ready to become a connected lighting point. It can accept SR certified add-ons from Philips, or any of our SR partners, thanks to the universal SR platform (SR driver and SR connector). To ensure full component interoperability, Philips provides SR certification. The performance of SR products is tested and certified to eliminate any interface problems, which means you can offer connected lighting solutions without the worry of software capabilities, system investments or compatibility, as we have a growing list of SR certified products which are compatible with the Philips Xitanium SR LED drivers.



# EasyAir outdoor module

The EasyAir outdoor module plugs straight into the SR connector on a luminaire. It's that simple. It functions as stand-alone controller, and replaces existing Photocell and LineSwitch solutions.

It allows you to monitor and analyze burning hours, number of on/off switches and energy use.

### Adjusting street lighting on the spot

It is configured without power via SimpleSet (NFC) at assembly or during installation via Bluetooth technology. Once in use you can adjust light levels and schedules on the spot, using a smartphone app, so you get to see the results right away. The app gives access to all relevant settings including the 5-step DynaDimmer, which can now be set to an accuracy of one minute, and automatically adjusts to summer/winter time.

On-the-spot adjustment is very convenient in situations where street lighting is not optimized for the context it's used in. For example, light shining through windows is often unpleasant for nearby residents. There can be insufficient illumination for comfort and safety. And dimming schedules may become outdated over time or because of seasonal changes. With EasyAir, none of this has to be a problem.

### Designed with future developments in mind

The module has a built-in GPS receiver. Based on the location, date and time it calculates the exact on-off switching and dimming moments. It also has a back-up sensor for the rare situations when a GPS signal cannot be received. Designed with future developments in mind, it's simple to incorporate the EasyAir outdoor module when upgrading to a complete city management system (CMS).





### The Philips SR partner program

### open for all manufacturers

The Philips SR partner program is an open innovation platform which uses standardized components and technologies to enable scalable, smart city applications across the globe, independent of manufacturer.

Through this program, companies can apply for certification of their components and sensors. SR specifications are proposed to international bodies such as Zhaga and ANSI\*.

The program was set up to promote standardization and compatibility throughout the ever-

ANSI C137.4 General SR specification ANSI C136.52 Energy metering ANSI C136.54 Four-pin SR connector (Zhaga) growing number of SR partners involved in outdoor components and city management systems (CMS). It aims to help in the creation of new applications, increase the number of futureproof lighting infrastructures, and accelerate the development of smart cities and rate of innovation that benefits cities and inhabitants.



### **Specifications**

| Product name                       | Housing | Output<br>current<br>range | Output<br>voltage<br>range | Dimming<br>range | Efficiency<br>@ 100%<br>load | Lifetime @<br>Tc life | Diagnostics via<br>SR interface | DALI power<br>supply<br>via SR<br>interface<br>max power<br>0.5W | 24V power<br>supply 3W<br>average<br>power /<br>10W peak | Energy<br>me-<br>tering<br>accu-<br>racy | Order code     |
|------------------------------------|---------|----------------------------|----------------------------|------------------|------------------------------|-----------------------|---------------------------------|--|--|--|----------------|
|                                    |         | mA                         | V                          | %                | %                            | hrs                   |                                 |  |  | %  | EOC            |
| Xitanium SR 12W 0.2-0.7A C133 sXt  | C133    | 200-700                    | 8-32                       | 100-10           | 83                           | 100.000               | •                               | •  | •  | 1  | 87186967391670 |
| Xitanium SR 22W 0.2-0.7A C133 sXt  | C133    | 200-700                    | 16-48                      | 100-10           | 85                           | 100.000               | •                               | •  | •  | 1  | 87186967391810 |
| Xitanium SR 22W 0.3-1.0A C133 sXt  | C133    | 300-1050                   | 8-32                       | 100-10           | 85                           | 100.000               | •                               | •  | •  | 1  | 87186967391290 |
| Xitanium SR 40W 0.2-0.7A C133 sXt  | C133    | 200-700                    | 25-77                      | 100-10           | 86                           | 100.000               | •                               | •  | •  | 1  | 87186967391430 |
| Xitanium SR 40W 0.3-1.0A C133 sXt  | C133    | 300-1050                   | 20-54                      | 100-10           | 86                           | 100.000               | •                               | •  | •  | 1  | 87186965687980 |
| Xitanium SR 75W 0.3-1.0A S240 sXt  | S240    | 300-1050                   | 20-100                     | 100-10           | 88                           | 100.000               | •                               | •  | •  | 1  | 87186966741470 |
| Xitanium SR 150W 0.2-0.7A S240 sXt | S240    | 200-700                    | 90-283                     | 100-10           | 90                           | 100.000               | •                               | •  | •  | 1  | 8718696568750  |
| Xitanium SR 150W 0.3-1.0A S240 sXt | S240    | 300-1050                   | 70-214                     | 100-10           | 90                           | 100.000               | •                               | •  | •  | 1  | 87186966741230 |

-264V, Surge protection DM/CM 6/8kV, SimpleSet, DynaDimmer, Module Temperatur





©2018 Philips Lighting Holding B.V. All rights reserved. This document contains information relating to Philips Lighting product portfolio. Note that the information provided is subject to change. Philips Lighting does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract. Trademarks are the property of Koninklijke Philips N.V., Philips Lighting Holding B.V. or their respective owners.

www.philips.com