



#### Dear relation

Thank you for reading our OEM LED catalogue. Please let me take a moment to introduce myself: my name is Roland van Esch, industrial engineer with a Supply Chain Masters, and carrying over 20 years of (mainly) Philips history with me, of which 15 in lighting. Having seen a variety of businesses, markets and functions, in both conventional and LED environments, I am now leading the global business for LED electronics at Signify.

We have chosen to focus on connected lighting as the theme of this catalogue. As LED conversion is tapering, our bets are on connected lighting to be the next transformational wave for lighting markets. Compelling use cases are multiplying, many of them already proven in the field. And the bright ideas keep coming.

It is expected that the value of connected lighting applications will outpace that of stand-alone LED lighting installations sooner rather than later, but all of us are awaiting the undisputed outcome. To make the most of these new opportunities, our industry needs to cut through the clutter of proprietary peak solutions and standardization models that block a clear way forward.

We are convinced that our Sensor Ready (SR) standardization program responds to this challenge. It enables seamless interoperability of SR-certified components for connected lighting according agreed standards. This promotes innovation by eliminating the need for proprietary solutions and large investment in customization, testing and fine-tuning.

Important industry partners have committed to follow the SR standards, which are now reaching final draft status\*. With a common interoperable standard virtually agreed, we're now focused on supporting new value creation by growing this SR partner ecosystem. The program is expanding fast, with more than 50 partnership agreements already in place and a wide range of SR-compatible sensor products in the pipeline.

Given the diverse array of lighting applications and the almost limitless possibilities of connected lighting, we see immense potential to discover new value spaces and drive innovation. But it's work we can't do alone. Industry-wide collaboration is needed.

That's why we're encouraging people to contribute their expertise, understanding of customers and ability to add value in lighting and beyond. With your help, the next wave of bright ideas will come to light – creating a world of new business opportunities. And that's the theme of our keynote article in this edition. Read on for all the latest innovations in our portfolio, including SR drivers and connected lighting.

We hope our catalogue inspires you, and we thank you for your continued trust.

Learn more at philips.com/technology

Roland van Esch
Business leader LED electronics

SESC.

#### Regarding pape

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NB: Specifications are subject to change without notice. It is possible that products mentioned in this European catalogue are not available in your country; for more information please contact your local Signify Organization.

\* Three core aspects of the SR standard are now in final draft: **DiiA** (details of electrical specs and MB#200 and higher), **ANSI** (MB#1) and **Zhaga** (the 4-pin socket).



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#### **OEM LED catalogue October 2018**

In this catalogue you will find a simple overview of our LED innovations. We always strive for high quality, therefore your feedback is highly appreciated.

#### Carla Tax

Marketing manager carla.tax@signify.com



# Our OEM technology

We are responsible for the development of new light sources, drivers and controls for the new-build luminaire market.

We have been focusing on this market for over three decades and have a solid track record of technology leadership, combined with excellent application knowledge and market understanding. Prime activities include designing, developing, manufacturing and selling light sources, drivers, LED light engines and controls to luminaire manufacturers for incorporation in new luminaires. There is a wide, varied product portfolio available, ranging from fluorescent, HID, halogen lamps and drivers to LED downlight, spotlight, linear and outdoor LED light engines.

philips.com/technology



Fashion and food retailers, department stores and shopping malls use every means they can to appeal to their target audiences.

This includes careful consideration of the lighting, whereby image, company identity and an appealing atmosphere play a key role in the choice of lighting design. Depending on the application, different elements come in to play, such as energy efficiency, color rendering ability, the correct color temperature, whiteness, color saturation or dynamic lighting. For all of these specific needs, we can offer a variety of LED light engines and a complementary range of electronic drivers for retail lighting, from downlights, spotlights to linear fixtures, each with their own, unique proposition and features designed around specific retail lighting applications.

# Office

The office segment has been dominated for many years by linear lighting solutions

This segment, which also includes areas such as education and hospitals, has always maintained a strong drive towards energy saving. Legislation and building regulations have driven the standards on light quality, luminance and energy efficiency in a working environment, and this has also highlighted the role of lighting controls. We address this market segment with a full, state-of-the-art, highly efficient LED linear module and drivers portfolio, in a building block format, as well as a luminaire-based and standalone controls range.

# **44** Industry

The industry segment covers an extensive range of applications such as warehouses, production areas, cold storage, food processing and parking areas.

This segment is moving strongly towards energy efficiency and lower maintenance while enabling high-quality, uniform lighting for optimum visual performance and visual comfort that contributes to a more efficient and productive workplace. Our module and driver portfolio enables cost-effective and reliable systems for extreme application conditions, delivering ultimate light quality and comfort. Used with controls, our lighting solutions provide illumination only when and where it is needed for increased energy efficiency.

# Outdoor

Outdoor lighting encompasses a vast range of applications, including motorways, highways, residential areas, city centers, sports and tunnel lighting.

All have their particular lighting needs and requirements. The outdoor market is transforming fast from HID light sources to LED and is also a forerunner in lighting control management systems. Here we have a diverse product portfolio available for luminaire manufacturers with a choice of several LED module families and a vast range of Xitanium outdoor drivers, with a focus on robustness, reliability, configurability and connectivity.



Within hospitality lighting, energy savings (sustainability), quality of light and creating an optimal guest experience are of great importance.

Within this segment, many different lighting technologies are used in various application areas. Examples are reception and lobby, corridors, guest rooms, bars, restaurants, conference centers and even outdoor areas. Whether it's replacing a halogen or fluorescent light source with a retrofit LED lamp or fully refurbishing relevant hotel areas with (controllable) LED luminaires, we have the technology components to realize this. We offer luminaire manufacturers a wide range of LED products, such as spotlighting and downlighting systems. Our linear and outdoor systems are also used in the hospitality segment.



Connected lighting applications are growing in popularity globally. In future, they'll be mainstream, opening vibrant new markets for the lighting industry. So what are the opportunities — and how can we accelerate them? We believe growth lies in finding inspirational new use cases that go beyond energy saving to offer compelling benefits to businesses. By collaborating as an industry, we can uncover these



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#### The search is on for new use cases

We've invested deeply to develop connected lighting use cases. But we're still just one company. Although we're committed to using our reach and innovation power to explore a multitude of use cases, there are too many for one company to explore alone, so we're focusing on three things:



#### Building a thriving ecosystem for connected lighting

We're working with an array of partner companies who use our components as building blocks to make 'connect-ready' lighting products. Each brings its own unique technical background, industry perspective and customer relationships. Their in-depth understanding of their customers' challenges often pushes them to explore new territory. Sometimes, this leads to value creation beyond illumination.



#### Creating standardized foundations for partners to build on

To accelerate innovation, we've developed standardized products and components. Inside the luminaire, our SR driver functionality is being standardized in DiiA, ANSI and in future also in IEC as part of the DALI standards. Creating an open-standards-based proposition gives our customers confidence that our technology is accepted industry wide. Outside the luminaire we use wireless technology based on the success of Zigbee and Hue. An example is our EasyAir wireless sensor, which provides presence and daylight sensing in a single unit and forms an easy-to-integrate building block for any lighting manufacturer who wants to move into this space.



#### **Sharing our expertise**

By sharing knowledge openly across our partner ecosystem, we want to supercharge innovation. This approach saw amazing success with Philips Hue, which helped democratize the idea of the smart home. Crucial insights from our partners and an army of app developers helped us evolve Hue to become one of our most talked-about innovations ever, opening new use cases along the way.

#### Unlocking new value in indoor lighting

In schools, hospitals, offices and warehouses, we're already seeing global take-up of connected lighting. So far, the big use cases focus on energy savings and convenience, with wireless control sensors embedded in light fixtures. These help businesses to reduce power consumption via occupancy sensing, daylight harvesting, granular dimming fixture groups and wireless wall switches.

To enter these markets, your product line needs to include fixtures that can use wireless protocols to report power consumption. The next step for customers is to add a gateway. This enables energy monitoring and insight via a dashboard. With energy bills on the rise, these use cases are starting to drive vigorous new business for early movers in the industry.

Also gaining momentum are more advanced use cases, like conference room scheduling or HVAC optimization, that

use the occupancy data that the lights provide to optimize business operations and energy use. A promising use case is using sensors and Bluetooth Low Energy (BLE) beacons in the lighting infrastructure for asset tracking and reporting.

Where to next? As connected lighting infrastructure matures as a framework for improving business operations, an explosion of new use cases is possible. To help you capitalize on these growth opportunities, we're creating standardized products like the EasyAir SNS300 fixture-based control product line, which can be configured by a standard Zigbee controller. These wireless sensors can be incorporated into luminaires and connected to Z3.0 gateways. If you're interested in this space, check out the sensors section of this catalog. And stay tuned for our new EasyAir partner ecosystem program, coming soon on our website.

#### The next wave of use cases for outdoor lighting

In outdoor lighting for roads, streets and parking lots, we have already developed a standout use case for connected lighting that's maturing fast: asset management. This offers an immediate opportunity for you to enter this emerging market.

Large customers worldwide are already adopting asset reporting to simplify management and maintenance of large outdoor lighting installations. With a dashboard view of fixture type, light output, color temperature and light distribution, they can greatly improve efficiency. Control units to enable these capabilities are only a field upgrade away, making adoption relatively simple. Now that the ANSI C137.4 committee provides a standard for asset data, it is specified in tenders across the world. This all adds up to a massive opportunity.

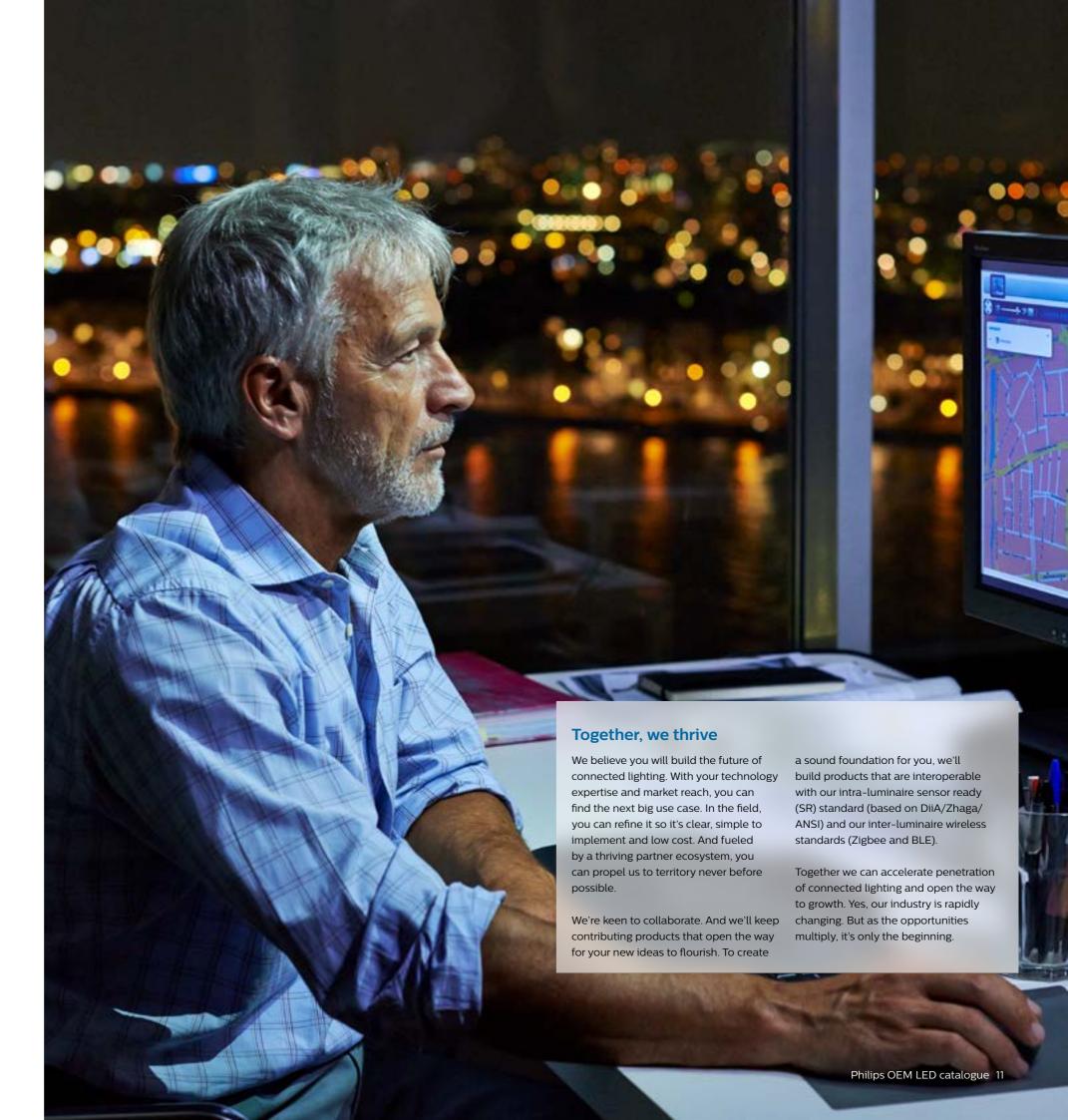
To help you enter this market without the upfront cost of developing your own software, we've created a MultiOne configurator that lets you store asset information during luminaire production.

We're also laying a strong foundation for you to innovate with an EasyAir node based on standard wireless communication: the EasyAir SNO110. It uses BLE communication secured by our own cloud infrastructure to do encryption key exchanges in the field. The use case is to set dimming schedules accurately by indicating time and location through a GPS connection.

These use cases are just the beginning. As the market develops, we're looking, together with all our partners, to explore powerful new use cases that extend the value of the lighting infrastructure. Think flood detection or empty parking space indicators. By trying new ideas, you can test the value that can be created and help us drive future product development.

"Together we can accelerate penetration of connected lighting and open the way to growth.

99



# **OEM** support tools

My Technology Portal

Our award-winning

content platform

This app gives you 24/7 services to drive your business with our OEM

technology. It has all the information

process. Whether you're looking for

products or track and tracing orders,

The only service platform of its kind in the lighting industry,

It's free to download for Android via Google apps and IOS via

the AppStore. Just login with your existing portal credentials

You can see at once what's relevant to you by filling in your

features support your needs in planning changes to products

and creating ideas around new developments. Please make

sure to set your notification preferences in My Account on

the My Technology Portal to ensure you do not miss out on

'fields of interest' to highlight preferred segments. These

you've got all our services at your

fingertips with just one log in.

and get started!

any updates.

A personalized space

to guide you through every step of the



# **Everything** you need is here



My orders; review your orders, and check order status and delivery information



My account; customize your dashboard, set notifications and fields of interest



**News**; includes webinars, tutorials, OEM videos, event information and marketspecific insights



**Share center**; share files with your key account manager and find relevant documentation



**Portfolio**; a customized overview based on your order history, quantity, phaseout information, search and Excel download



**Contacts**; see your relevant contacts and get in touch



**Web shop**; order samples of our newest products, or track and trace your order



**Tools**; directly access Easy Design-In Tool to configure your LED system in a minute, the MultiOne Configurator and the Gear Selection Tool



**Product news**; all upcoming introductions and phaseouts including dates, codes, all the files you need and quick links to order samples and submit price requests



#### What's coming soon?

Username

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Log in









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# Easy Design-In Tool Making your work easier every day

The growing complexity of LED systems can be difficult to navigate. So wouldn't it be great if you could select exactly the right components to effortlessly design into your luminaires? With Easy Design-In Tool (EDIT), our complete portfolio of OEM products is at your fingertips, so you can configure the perfect LED module-driver combination in minutes. EDIT automatically filters the options that are available as a result of the choices you make. So you can manage the growing complexity of LED systems with ease.

#### Trusted to save time

As well as helping you find products and configure systems, the results EDIT calculates are verified by us to support our product warranties. It's the industry's benchmark that's trusted by thousands of luminaire designers and product engineers.

- · Quick and easy to use
- Filter by specifications
- Associate drivers and modules
- Connect components, set up drivers
- $\cdot \ \ \mathsf{Reliable}, \mathsf{approved} \ \mathsf{solutions}$
- · Request a price easily
- Download system summaries with full technical details

Take a look at our knowledge page to discover even more valuable EDIT tips and tricks that you can incorporate into your daily routine, and explore the full spectrum of EDIT's capabilities.

#### Now even smarter

With new connectivity, EDIT gives you an even smarter way to streamline your workflow. Simply log on with your My Technology Portal account to access customized views and connect to other OEM support tools.

#### **MyTP**

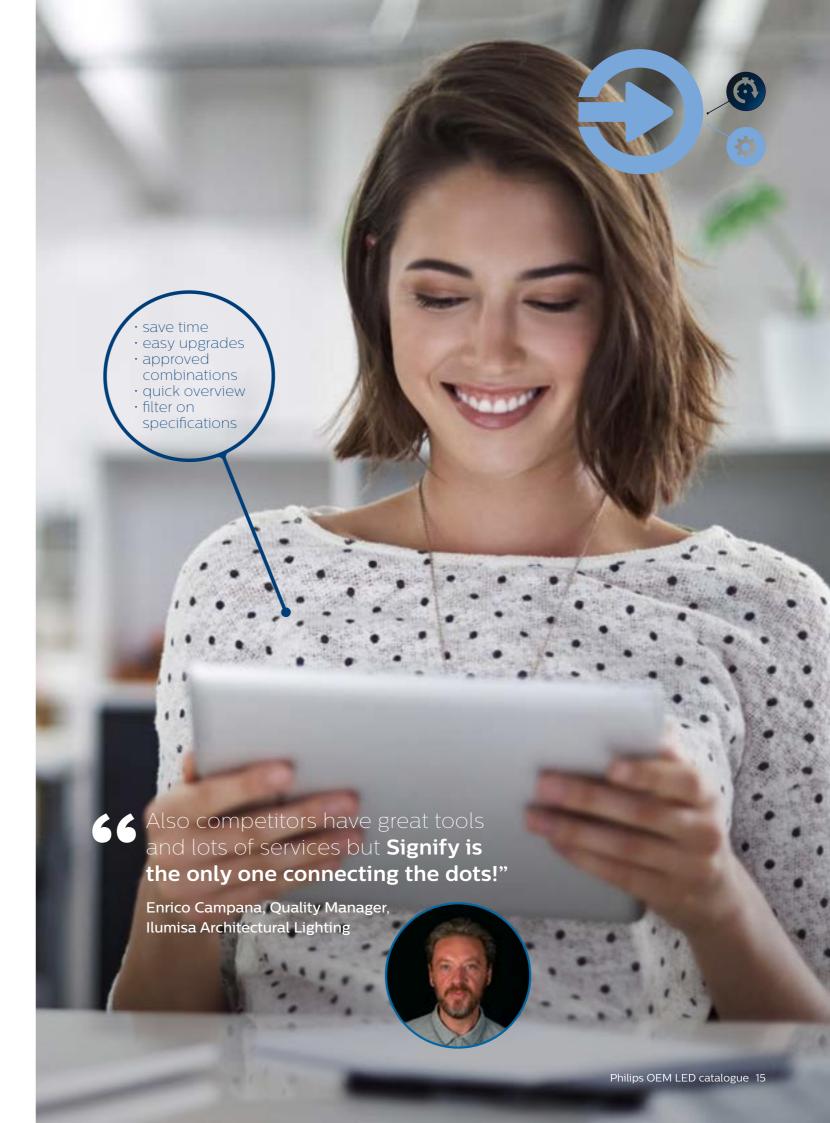
EDIT connects to My Technology Portal, so it's easy to contact your key account manager for price guides, to get help with finding the right LED products or to discuss your freshly-found system solution.

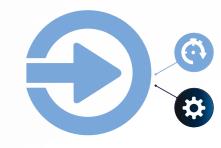
#### **MultiOne**

You now can use your EDIT output to generate the input for our MultiOne configuration software – saving you even more time. It's that simple.

#### **Get the EDIT habi**

To see just how easy life could be, log on and start exploring EDIT at easydesignintool.philips.com





# MultiOne configuration software Configuring devices has never been easier

As customers demand more flexibility and diversity in their lighting solutions, customization is key. With MultiOne you have an intuitive tool that makes configuring devices quick and simple. It works by accessing the features that are already built into our drivers and sensors, so you can quickly adjust the parameters and make last-minute changes to suit different requirements.



# One multi-functional tool for all our components

One of the great benefits of MultiOne is that you can use it to configure and test devices during production. It also combines configurability with diagnostics, so you can check status and do a complete quality analysis on returns from the field. All with one tool that supports the complete range of Philips configurable drivers and components.

For wireless configuration we also have MultiOne SimpleSet. Based on NFC technology, it enables you to configure sensors and Xitanium LED drivers without connecting to mains power.



# Customize lighting for every application

#### ✓ Configure functions

- output current
- light output
- · startup time
- · end-of-life indication
- diagnostics and energy meteringSR power supply
- · luminaire information.

#### ✓ Add security

- module temperature protection
- driver temperature limit
- emergency feature
- OEM write protection.

#### ✓ Create savings

- constant light output
- $\cdot \ \text{dimming interface} \\$
- 1-10 V dim level
- AmpDim
- LumiStep
- DynaDimmercorridor mode
- touch and dim.

Sensor and driver technology is changing all the time, so don't forget to keep checking www.philips.com/MultiOne for new features that will keep you ahead of the game.

# **Easy does it**

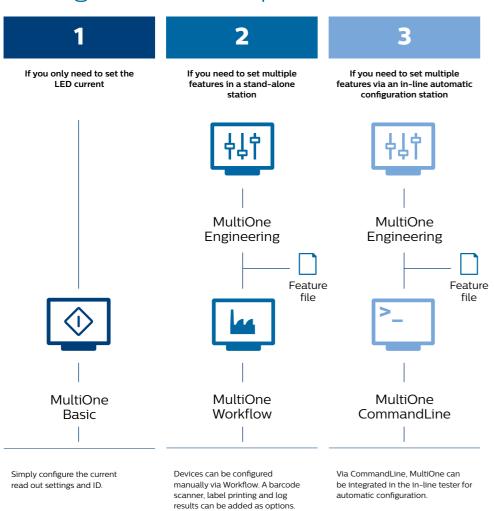
#### MultiOne. Three simple set-ups

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There are three simple set-ups to follow, depending on which parameters and devices you're working with.

MultiOne Basic is a stand-alone solution that offers quick and easy manual configuration of the LED current at any stage of production. MultiOne Engineering creates feature files that can be used with MultiOne Workflow for full configuration in a standalone, manually-operated workstation. And MultiOne CommandLine offers full, automatic configuration of multiple features when integrated into inline stations.

# Configuration set-up





### MultiOne interfaces

Type of tool	Name	12nc	DALI	SimpleSet	Distance	Basic	Workflow	Command- Line
10	LCN8600 Philips MultiOne Interface USB2DALI	913700346703	•		-		•	•
n	LCN9610 FEIG MultiOne SimpleSet Interface	929000999406		•	1cm		•	•
	LCN9620 FEIG MultiOne SimpleSet Interface	929000999506		·	1cm	•	•	•
200	LCN9630 FEIG MultiOne SimpleSet Interface	929001546306		•	1-20cm	•	•	•

With SimpleSet based on NFC technology it's quick and easy to configure fixtures and devices.

To see just how easy we've made configuration, go to

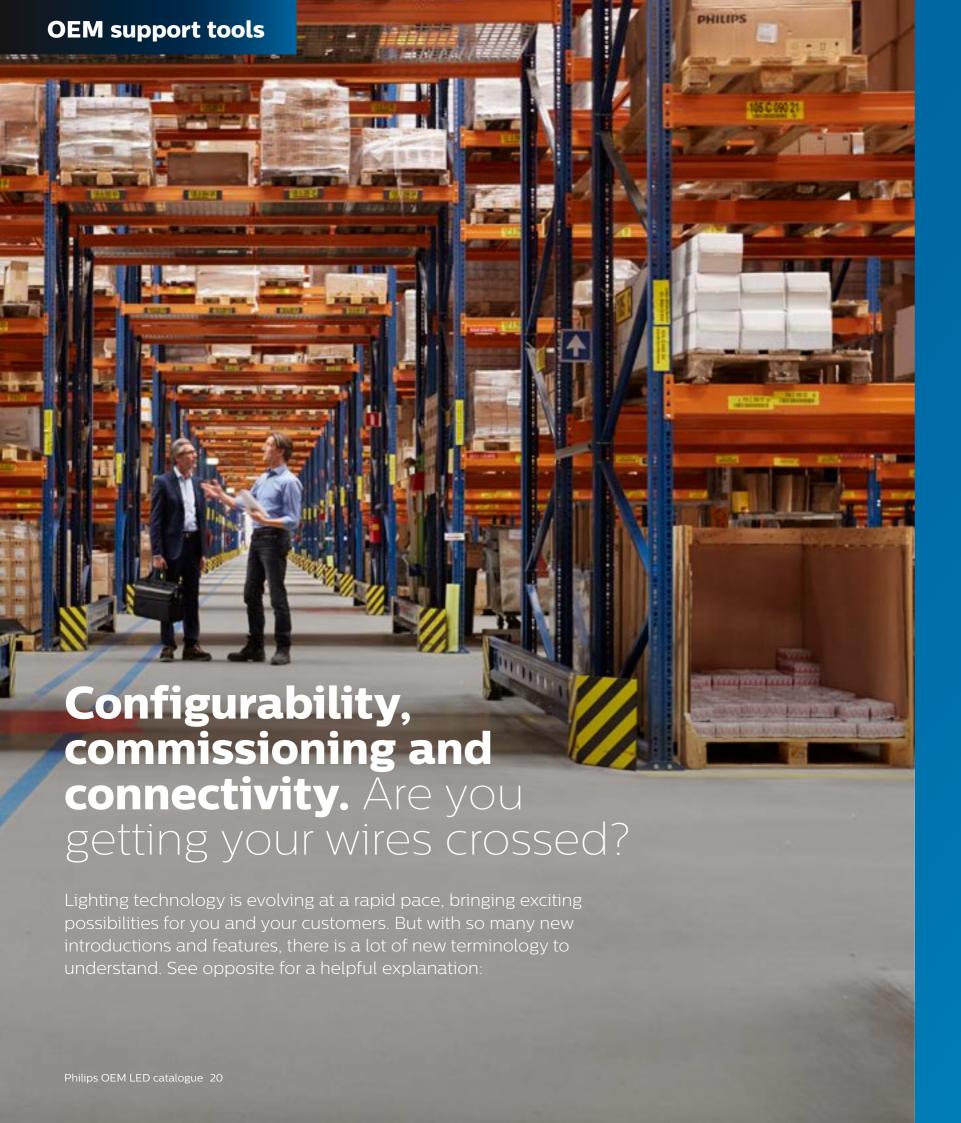








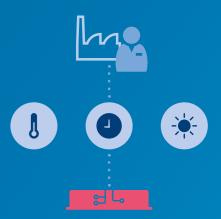
www.mytechnologyportal.philips.com and explore MultiOne.



# Configurability

This refers to the **driver or sensor features that can be configured in your factory** using DALI, SR or SimpleSet (NFC) technology. You can set up a range of parameters including:

- · adjustable output current for the LED module
- corridor mode with light levels and fade-time settings for presence detection
- DynaDimmer for autonomous light levels and timers for outdoor dimming
- LineSwitch for light levels, ramp up and fade down with central outdoor control
- configure that the new TrustSight emergency system switches to central battery during mains failure
- start-up time to gradually increase light levels at switch on
- module temperature protection for over-temperature conditions
- · driver temperature limit to protect driver at over-temperature.



#### Commissioning

This refers to the grouping capabilities you can set once the lighting solution has been installed on-site. Using a smart phone and an infrared signal, it is possible to link:

- drivers
- luminaires
- switches
- sensors

This enables you to tailor a lighting installation, setting discreet lighting zones and parameters within one location to suit a range of different needs.



## Connectivity

This refers to **the wireless connection** between drivers, luminaires, switches and sensors. The Zigbee language of connected lighting enables you to:

- · create new ways to use light
- · download and upload information
- $\boldsymbol{\cdot}$   $\,$  improve comfort and convenience
- save energy.



Any other questions? Contact our local representative or visit www.philips.com/technology

# From idea to new LED lighting component

We are constantly looking for new and innovative ways to create light. Light that enhances our lives and illuminates our world in the best possible way. Life without light is impossible to imagine. The process to develop a new lighting idea into a LED lighting component is divided in four phases.

# **O1**Concept phase

A new lighting idea is often inspired by insights obtained from customers and developments in LED lighting technology. A combination of technical advances and lighting requirements within a certain application will help to determine the uniqueness or improvement for the lighting component under development, ensuring it will meet specific needs from the lighting market.

# **02**Development phase

The benefits that customers expect from the new concept are translated into product specifications. As product specifications are added and the design of a new product or improvement of an existing one becomes clear, it allows the project team to communicate an approximate timing for introduction of this new innovation to the market.

# O3 Pre-launch phase

The idea becomes a LED lighting product with a final design and fixed specifications that are tested, and once technically approved will be announced with a target launch date. Customers can start pilot studies for new luminaire designs that have the new LED lighting components inside.

# **04**Product launch

The new LED lighting component is fully approved and available. The process then reaches its final stage with an official commercial release of the new or improved product. At time of launch the new product is available for ordering via the sample webshop, tradelink or local key account managers.

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Philips OEM LED catalogue 23

# What is quality lighting? And why we think you should care.

Quality is an elusive term. Most organizations say they strive for it. But few can define it. Mostly because it's not just one thing. It's many.

In today's competitive business world, your customer experience is your brand. Customers don't make decisions on cost alone — they consider features, value and the quality of their experience before they reward you with their business and their loyalty. So how do you deliver quality across everything you do? This article looks at the six pillars of our quality program which are specifically designed to support quality across your business – from design to delivery.



#### **Quality lighting**

The most obvious place to strive for quality is in the lighting products and systems you produce. Today's savvy customers want lighting that delivers real business benefits – from helping hotel guests enjoy a more restful night, to improving the appearance and shelf life of goods or energizing and inspiring people at work. With Philips flicker-free LED components and unique lighting spectrums you can design high quality lighting where the results are backed with proven research. So working with Philips high quality lighting components is the first step in end-to-end quality alignment in your business.

#### **Quality assurance**

A great experience is also highly dependent on the performance, durability and reliability of your products. We understand the challenges you face of designing lighting for a harsh outdoor environment, a humid warehouse or a 24/7 workplace and our proven lighting components have been designed to work under harsh conditions. To make sure your customers are never disappointed, our rigorous testing and assurance program uses a globally standardized, gated development and testing process (NPDL) and Design for Six Sigma (DFSS). And to give you high performance in the lifetime of our products, we also use simulations to predict precise failure rates for solder joints, connectors, electronics and electronic components. This level of assurance ticks another box on your quality list.

#### **Quality innovation**

Today's bargain. Tomorrow's expensive mistake. Customers complain when they buy 'old technology' or inflexible systems that are not ready for the future and have to be upgraded before their anticipated end of life. Delivering quality innovation means staying up to date on new trends and developing for a connected future when lighting systems will have an increasing role to play in energy conservation, management, visual comfort and more. To help you set the benchmark and be first to market with new products and systems, we invest in a multi-million euro research and development program that has led to world-firsts and over 17,500 patents. Because we lead the field, you can too

#### **Quality people**

Quality also depends on the value your customers place on your expertize. And with lighting systems and standards constantly changing it can be hard to stay right on top of developments. That's why our program provides industry leaders and technical experts who are ready to help you meet international lighting standards and build prototypes that meet specific needs and requirements. This enables you to build a quality team that is augmented by our expertize – when and if you need it.

#### **Quality support**

An important aspect of quality is in the timeliness of your delivery. We can help you speed up the development cycle with support tools from My Technology Portal. As well as online tutorials, guides and data sheets, the Easy Design-In Tool lets you program, test and configure your designs. You can also check your order status and get prices, samples, product and technical information. To help you create quality innovation we also offer networking opportunities with our ecosystem of SR partners. This enables you to harness the power of Internet of Things innovations to invent new products, reimagine old ones, and co-create with companies who have complementary skills, software and technologies.

#### **Quality leadership**

Being recognized as a quality business leader is also important for your reputation. It gives your customers confidence that their investment is protected because it is built to the latest designs. To support you we are advising and leading standards boards globally – from lighting to wireless and networking protocols. We also work to develop and progress open systems that enable component manufacturers, lighting designers, app developers and engineers to evolve better lighting solutions for the planet.

#### **Changing the conversation**

Helping your customers to grasp the importance of quality lighting from a quality company means shifting the conversation away from "Which spaces do you want to illuminate?", to "What do you want to achieve with your lighting?" Energy savings? Wellbeing? Employee comfort? Control? Space management? A stunning exterior you can program?

All of these capabilities, of course, are heavily dependent on the quality of the lighting components and systems you use. Which is why we enforce rigorous standards with components that are leading edge and fully tested. It's our quality that gives you the confidence to drive bigger customer conversations and build a reputation for service that is second to none.

To find out more about the benefits of our quality program visit: philips.com/technology

# OEM product families

Integrated LED modules and drivers; your partners in performance.

Our range of LED modules and drivers cover all your luminaire application requirements. We offer two component levels: the high-performance Fortimo in combination with Xitanium that push the performance boundaries in high-end lighting applications, and CertaFlux and CertaDrive for basic solutions in general lighting applications.

# **Fortimo**

LED modules

The reliable Fortimo LED modules deliver exceptional light quality. They are 'partners in performance' for our extensive range of high-efficiency Xitanium LED drivers. These modules include advanced features that boost performance, simplify design-in, increase flexibility and extend the operational life. The extensive range of configurations covers downlight, spotlight, linear and outdoor LED light modules for luminaires. A five-year system warranty provides extra peace of mind.

# **Xitanium**

LED drivers

The state-of-the-art Xitanium LED drivers are robust and reliable, and are offered with a wide choice of operating windows. They are 'partners in performance' for Fortimo LED modules. These drivers come in various form factors and are available for indoor and outdoor applications. The range comprises fixed light output and dimming versions as well as programmable drivers that provide the flexibility to configure the drivers at a later stage. Xitanium drivers are guaranteed for five years. SR versions are available for enabling connected lighting solutions.

# CertaFlux

LED modules

Certaflux LED modules deliver basic product functionality and a fit-for-purpose performance for high-volume lighting sold through trade distribution channels. They are easy to design-in, simplify assembly and meet relevant EU regulations. The range covers linear, spot and downlight applications. These drivers are performance-matched for use with our CertaFlux LED modules. A three-year system warranty (module and driver) completes the package

# **CertaDrive**

LED drivers

CertaDrive LED drivers are designed to meet your market needs for basic lighting products. They are ideal for high-volume applications, and complement our CertaFlux LED modules, as well as third-party LED engines. Offering basic specifications, such as specific current and voltage settings, these drivers come with a three-year system warranty (module and driver).

For today, for tomorrow.

Sometimes good can be great.



**Get connected** with tomorrow's market."



Connectivity is delivering on its promise. Cities are 'smarter' and offices and industry have discovered the potential of connected lighting for collecting data, saving energy and managing space. Connectivity has real potential to add value to your luminaires. And connecting sensors has never been easier, thanks to our SR certified partner program. The list of partners covers building management systems, city management systems, sensors and control systems that are certified to work with Philips Xitanium SR drivers. For a complete overview see page 32 and take advantage of the new connected landscape.

#### SR = future proof

The Philips Xitanium SR LED drivers are sensor ready, meaning they can be easily connected to a wireless sensor, making them perfect for versatile use in buildings and city management systems. The intelligence is already built in, ready to interface with and power the sensors exactly to your customers' needs. Our drivers are future-proof, as sensor ready will be the new standard for connectivity. Thanks to our SR certified partner program you can choose from a wide variety of quickly expanding possibilities.

#### Step into smart lighting

Our growing portfolio of connected components smooths your path into this dynamic world. Our proposition is spearheaded by the Philips Xitanium SR drivers, Philips EasyAir sensors and apps which control and configure drivers and sensors by means of a smartphone. All work seamlessly with each other. So step into smart lighting now and get connected with tomorrow's market.

#### **Peter Duine**

Product manager connectivity



# **Just** released!

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#### EasyAir SNS300

See page 32



This new sensor will extend our office sensor portfolio. It is our gateway-ready product that is compliant with Zigbee 3.0 gateways; opening up new possibilities via a dashboard or an app such as scheduling, real-time remote monitoring, energy reporting and predictive maintenance.

#### EasyAir outdoor module SNO110

See page 33





The EasyAir outdoor module offers a simple method to switch on/off the light, regulate it and enable a very accurate DynaDimmer schedule. Settings can easily be configured by SimpleSet or via the secure Bluetooth connection. The module fits on the new universal SR outdoor connector and enables you to offer flexible and future proof solutions.

# Coming soon!

LED innovations in the pre-launch phase

#### EasyAir SNS210

This next-generation sensor will enable Bluetooth communication for easy and quick installation in indoor spaces such as offices, schools or hospitals. A one stop, future-proof device, it will work stand-alone or with a gateway via Zigbee 3.0 technology. It will be released with a simple, user-friendly iOS/Android app for an intuitive workflow that takes advantage of motion and daylight sensing for significant energy savings.

#### IR Dongle v2.0

This new dongle will replace the current IR Dongle used with EasyAir SNS200 and EasyAir SNH200. It will offer improved battery life, long Infrared range and narrow beam for high selectivity of sensor from ground level. The usability of this product will be enhanced for easier commissioning of EasyAir sensors in the field.

Availability – Q4 2018







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# **Connectivity**

Our new SR drivers are ideal for use with sensors and building management systems. With their integrated DALI 2.0 power supply it is easy to power sensors and wireless modules directly from the driver. The drivers also feature integrated energy metering for use in building management systems via SR certified products to ensure that certified sensors and controllers work seamlessly with the Xitanium SR driver.

You'll find further information regarding our SR drivers in this catalog, in the section that also features our indoor linear drivers and Xtreme drivers. Alternatively, visit our webpage at philips.com/xitaniumsr.

The new EasyAir sensor range features presence and daylight sensors that can be used across all office and industry applications, including open-plan offices, meeting rooms, warehouses and assembly areas. The EasyAir sensors have a single-box, luminairemounting format, powered by Xitanium SR via a two-wire connection, to save time and costs when integrating them into your luminaires, whilst the intuitive Android-based apps enable quick and easy configuration and commissioning during and after installation. The EasyAir sensors are future-ready. By integrating them into your luminaire you're also prepared to enter the connected world of tomorrow. So let's get connected!

#### Indoor

Product name	Housing (volume inside luminaire)	Key features	Req. luminaire hole	Occupancy technology	Detection area	Viewing angle	Full light dim level	Operating Ambient temperature	Product code
	mm		mm		m		%	°C	GPC
EasyAir SNS200/w	50x19x31.5 (50x19x24)	Advanced grouping Color: white	44x17	Passive IR	At 3m - 3.6x3.4 (minor movement) At 2.4m - 2.9x2.7 (minor movement)	X=72° Y=86°	5-100%	0-55	929000766803
EasyAir SNS200/g	50x19x31.5 (50x19x24)	Advanced grouping Color: grey	44x17	Passive IR	At 3m - 3.6x3.4 (minor movement) At 2.4m - 2.9x2.7 (minor movement)	X=72° Y=86°	5-100%	0-55	929001560703
EasyAir SNS200/b	50x19x31.5 (50x19x24)	Advanced grouping Color: black	44x17	Passive IR	At 3m - 3.6x3.4 (minor movement) At 2.4m - 2.9x2.7 (minor movement)	X=72° Y=86°	5-100%	0-55	929001651206
EasyAir SNS300/w	50x19x31.5 (50x19x24)	Advanced grouping Color: white Zigbee 3.0 gateway	44x17	Passive IR	At 3m - 3.6x3.4 (minor movement) At 2.4m - 2.9x2.7 (minor movement)	X=72° Y=86°	5-100%	0-55	929000795606
EasyAir SNH200	Diameter: 115 Height: 43	Advanced grouping and zoning	M20 threaded nipple for M20 knockout	Passive IR	At 16m - range diameter 16 At 12m - range diameter 13 At 8m - range diameter 9 At 4m - range diameter 4.5	X=45° Y=45°	5-100%	-30-65	929001625706
EasyAir SNS200CMP/w	Remote mounting in ceiling	Advanced grouping; remote mounting Color: white	Not applicable	Passive IR	At 3m - 3.6x3.4 (minor movement) At 2.4m - 2.9x2.7 (minor movement)	X=72° Y=86°	5-100%	0-55	929000790206
EasyAir SNS300CMP/w	Remote mounting in ceiling	Advanced grouping; remote mounting	Not applicable	Passive IR	At 3m - 3.6x3.4 (minor movement) At 2.4m - 2.9x2.7 (minor movement)	X=72° Y=86°	5-100%	0-55	929001702606

#### Outdoor

	Product specification						
	Product name	Dimensions	Key features	Configurable via	Operating ambient temperature	Interface	Product code
		mm			°C		GPC
w	EasyAir SNO110	ø 83x40	Adjustable light output Accurate timing via GNSS On/Off switching with DST Real time DynaDimmer Ramp-up/fade-down time	SimpleSet (NFC) Bluetooth	-4065C	SR	929001599206

#### Accessories

Product specifica	<b>SR</b> conne	ector
Product name	Description	Product code
		GPC
IR Dongle	Infrared device to commission EasyAir SNS200 and EasyAir SNH200	9290 016 51106
EasyAir SMB-50/w	Surface mount bracket for EasyAir SNS200/w	929001540206
EasyAir SMB-50/g	Surface mount bracket for EasyAir SNS200/g	929001540306
SR connector	Compact 4 pole receptacle, IP 66 (with cap or node), IK09, can be used upwards and downwards, according Zhaga Book 18 specifications	929001650806
SR cap light grey	For future-proof luminaire without node	929001651006
SR cap dark grey	For future-proof luminaire without node	929001650906

## **Apps**

Because ease of use for you is so important to us, configuring and commissioning is also possible via the app. This app is available free of charge from the Google Play Store. For specifiers, installers and the end user, the possibilities are endless.









Order at sample webshop



Philips OEM LED catalogue 32 Philips OEM LED catalogue 33

# **Choose SR certified**

# to drive compatibility

We recently launched a comprehensive set of Xitanium SR drivers for indoor and outdoor application segments. The Xitanium SR drivers offer great benefits for lighting management systems. To ensure full system component interoperability, we provide SR certification.

The performance of SR products is tested and certified to eliminate any interface problems. This means you can offer connected lighting solutions without having to worry about software capabilities and system investments. We have a growing list of SR certified products that are compatible with our Xitanium SR LED drivers. They cover a wide range of connected lighting solutions from trusted providers of sensor and connectivity modules, building management systems and city management systems.

To support the development of SR certified components, We launched the SR partner program. SR partners receive all required details of the Xitanium SR driver interface for electrical and DALI data exchange protocols. Verified and successfully tested products can be recognized via the SR certified logo.

# Released SR certified products \*

SR partner SR certified product

**CP Electronics** EBR-MINIPIR-DALI, EBDHS DNET1 SR

CimConiSLC3400 DC photocellDigital LumensDLA-S, DLA-I, DLA-REnlightedCS-D2, FS-D22

eSave AG eSave SLC-DC and SLC-DC GPS, eSave SLC-AC and SLC-AC GPS
Lontri Field Service Gataway 100, Control Unit LM 100, Control Panel E100

**Lucy Zodion** PrecizionHALO photocell

**Lutron** Vive Integral Fixture Control DFCSJ-OEM-OCC and DFCSJ-OEM-RF

Magnum Energy Solutions Mx-OPUS-MLDHB, Mx-OPUS-MLD, MX-OPUS-MLDE

Nedap Luxon IoT node

Signify Philips EasyAir SNH200,

Philips EasyAir SNS200,

Philips LLC7270 Interact Ready Connector Node Dark Grey, Philips LLC7271 Interact Ready Connector Node Light Grey, Philips LLC7280 Interact Ready Connector Node NEMA

**teinel** Sensotec sensor SR HF2, Sensotec sensor SE PIR

**Tvilight** CitySense+ 115Vac MP Grey, CitySense+ 230Vac MP Black, CitySense+ 230Vac MP Grey,

CitySense+ 230Vac MP Thorn

SkyLite External 115Vac HP, SkyLite External 115Vac MP, SkyLite External 230Vac HP, SkyLite External 230Vac MP, SkyLite Internal 115Vac HP, SkyLite Internal 115Vac MP, Sk

230Vac HP, SkyLite Internal 230Vac MP, SkyLite Prime

#### ${\bf Compatibility\ with\ outdoor\ CMS\ systems}$

In the outdoor segment, the preferred option is to apply the SR driver in combination with the SR connector for both the CMS nodes and potentially additional sensors. However, in existing installations it can be requested to release the combination of the SR driver and 7 pin NEMA socket. The combination of SR driver and NEMA socket requires special attention. The Xitanium SR drivers can be applied in combination of DALI edition 2 compliant device, in other cases, a full system verification is advised to avoid high customer dissatisfaction and significant costs to repair.

#### Compatibility with SR sensors

When SR certified sensor is applied in combination with CMS/BMS or second sensor, the CMS/BMS and/or sensor supplier must release the combination to ensure that the sensor will work seamlessly in the CMS/BMS or with the second sensor. For movement detection and other light control sensors, proper master-slave algorithm software needs to be included in the CMS/BMS to ensure consistent light behavior. CMS/BMS suppliers need to support sensors to allow that sensor data can be uploaded and made available in the CMS/BMS dashboard or API. Application owners need to inform their CMS/BMS supplier on SR sensor addition plans accordingly. CMS release of SR certified sensors is the responsibility of the CMS/BMS supplier.



<sup>\*</sup>For a complete and up to date list of all SR compliant products we recommend to visit the websites of the SR partners



**Exceptional light quality** 

everywhere with one

consistent range."

With Fortimo LED SLM and Fortimo LED DLM flex you can design products based on quality of light, lumen per Watt, and/or lumen per Euro. They enable the differentiation that is demanded by lighting designers and end-users for retail, offices, work environments, industry and public spaces.

#### The perfect spotlight

With the introduction of Fortimo SLM gen 7 we're once again setting the standard for spot and downlight applications. The Fortimo LED SLM portfolio offers multiple solutions on a single platform, including special spectra for specific applications. Crisp white delivers stunning whites and vibrant colors in fashion stores, whereas premium white offers the best light quality without sacrificing efficiency for every retail environment.

And now there's Fortimo SLM premium color - a fascinating new spectrum that combines beautiful saturated colors with a strong energizing white and a rich black experience. Premium color has been created to enhance the shopping experience. It adds energy to a room and boosts the perceived value of products on display.

For extra punch, our high-density portfolio enables small CoBs to emit more light. Due to its high output and small LES size, Fortimo SLM gen 7 HD is perfect for narrow beam applications or for miniaturized designs, resulting in higher efficacy or a significant cost advantage at the application level.

#### **Leading TLA performance**

For high-performance downlight applications, our Fortimo DLM EaseSelect family, with integrated driver technology, comes in a range of lumen packages and color temperatures. Fortimo DLM EaseSelect also eliminates temporal light artifacts (TLAs) such as visual flicker that have a negative impact on health, so using them can also enhance

#### **Reinhard Voorspoels**

Product manager point source modules

# Just released

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#### Fortimo LED SLM gen 7

See page 46



flexible

and efficient













The latest generation of Fortimo SLM modules continues to focus on the combination of quality of light, energy efficacy and miniaturization in a future-proof and backwardscompatible portfolio. The key difference compared with the previous generation is the enhanced efficacy (+8%).

#### Fortimo LED SLM gen 7 premium color

See page 49















To extend the advantages of LED technology we have developed a new spectrum for retail applications. Premium color offers more saturated colors combined with strong whites. This creates even more contrast on products combined with an energizing, ambient light effect. All made possible with only limited impact on energy efficiency.



















# Fortimo LED SLM gen 6

Fortimo LED SLM gen 6 continues to focus on the combination of quality of light and performance. The standard portfolio now also contains LES sizes 6.5 and 23 mm. This results in an extensive CoB portfolio for point source applications from 800-10,000 lm. Please also check the online Easy Design-In Tool for your perfect system combination (for more information see pages 14-15).











#### Product specification\*

Product specification						
Product name	Typical light output	Module efficacy**	Color temperature	Color rendering	CoB size***	Product code
	lm	lm/W	K	CRI		GPC
LES size 6.5mm						
Fortimo SLM C 827 1202 L06 1215 G6	800	128	2700	>80	1215	929001453106
Fortimo SLM C 830 1202 L06 1215 G6	800	136	3000	>80	1215	929001453206
Fortimo SLM C 835 1202 L06 1215 G6	800	139	3500	>80	1215	929001453306
Fortimo SLM C 840 1202 L06 1215 G6	800	141	4000	>80	1215	929001453406
Fortimo SLM C 927 1202 L06 1215 G6	800	101	2700	>90	1215	929001453706
Fortimo SLM C 930 1202 L06 1215 G6	800	106	3000	>90	1215	929001453806
LES size 9mm						
Fortimo SLM C 740 1203 L09 1619 G6	1100	170	4000	>70	1619	929001454406
Fortimo SLM C 827 1203 L09 1619 G6	1100	141	2700	>80	1619	929001454506
Fortimo SLM C 830 1203 L09 1619 G6	1100	145	3000	>80	1619	929001454606
Fortimo SLM C 835 1203 L09 1619 G6	1100	149	3500	>80	1619	929001454706
Fortimo SLM C 840 1203 L09 1619 G6	1100	155	4000	>80	1619	929001454806
Fortimo SLM C 850 1203 L09 1619 G6	1100	155	5000	>80	1619	929001454906
Fortimo SLM C 927 1203 L09 1619 G6	1100	111	2700	>90	1619	929001455106
Fortimo SLM C 930 1203 L09 1619 G6	1100	116	3000	>90	1619	929001455206
LES size 13mm						
Fortimo SLM C 740 1205 L13 2024 G6	2000	174	4000	>70	2024	929001458606
Fortimo SLM C 827 1205 L13 2024 G6	2000	144	2700	>80	2024	929001458706
Fortimo SLM C 830 1205 L13 2024 G6	2000	151	3000	>80	2024	929001458806
Fortimo SLM C 835 1205 L13 2024 G6	2000	155	3500	>80	2024	929001458906
Fortimo SLM C 840 1205 L13 2024 G6	2000	159	4000	>80	2024	929001459006
Fortimo SLM C 850 1205 L13 2024 G6	2000	159	5000	>80	2024	929001459106
Fortimo SLM C 927 1205 L13 2024 G6	2000	113	2700	>90	2024	929001459306
Fortimo SLM C 930 1205 L13 2024 G6	2000	119	3000	>90	2024	929001459406
LES size 15mm						
Fortimo SLM C 730 1208 L15 2024 G6	3000	161	3000	>70	2024	929001434606
Fortimo SLM C 740 1208 L15 2024 G6	3000	173	4000	>70	2024	929001445806
Fortimo SLM C 750 1208 L15 2024 G6	3000	173	5000	>70	2024	929001434706
Fortimo SLM C 757 1208 L15 2024 G6	3000	167	5700	>70	2024	929001434806
Fortimo SLM C 827 1208 L15 2024 G6	3000	143	2700	>80	2024	929001445906
Fortimo SLM C 830 1208 L15 2024 G6	3000	151	3000	>80	2024	929001446006
Fortimo SLM C 835 1208 L15 2024 G6	3000	154	3500	>80	2024	929001446106
Fortimo SLM C 840 1208 L15 2024 G6	3000	158	4000	>80	2024	929001446206
Fortimo SLM C 850 1208 L15 2024 G6	3000	158	5000	>80	2024	929001446306
Fortimo SLM C 857 1208 L15 2024 G6	3000	154	5700	>80	2024	929001446406
Fortimo SLM C 927 1208 L15 2024 G6	3000	112	2700	>90	2024	929001446506
Fortimo SLM C 930 1208 L15 2024 G6	3000	118	3000	>90	2024	929001446606
LES size 19mm						
Fortimo SLM C 730 1211 L19 2828 G6	4500	163	3000	>70	2828	929001434906
Fortimo SLM C 740 1211 L19 2828 G6	4500	176	4000	>70	2828	929001447206
Fortimo SLM C 750 1211 L19 2828 G6	4500	176	5000	>70	2828	929001435006
Fortimo SLM C 757 1211 L19 2828 G6	4500	170	5700	>70	2828	929001435106
Fortimo SLM C 827 1211 L19 2828 G6	4500	145	2700	>80	2828	929001447306
Fortimo SLM C 830 1211 L19 2828 G6	4500	150	3000	>80	2828	929001447406
Fortimo SLM C 835 1211 L19 2828 G6	4500	154	3500	>80	2828	929001447506
Fortimo SLM C 840 1211 L19 2828 G6	4500	160	4000	>80	2828	929001447606
Fortimo SLM C 850 1211 L19 2828 G6	4500	160	5000	>80	2828	929001447706
Fortimo SLM C 857 1211 L19 2828 G6	4500	154	5700	>80	2828	929001447806
Fortimo SLM C 927 1211 L19 2828 G6	4500	113	2700	>90	2828	929001447906
Fortimo SLM C 930 1211 L19 2828 G6	4500	120	3000	>90	2828	929001448006
. 5.45 52.11 € 550 1211 €15 2020 00	4500	.20	3000	. 50	2020	525001440000



#### Product specification\*

Product name	Typical light output	Module efficacy**	Color temperature	Color rendering	CoB size***	Product code
	lm	lm/W	K	CRI		GPC
ES size 23mm****						
Fortimo SLM C 730 1216 L23 2828 G6	6000	161	3000	>70	2828	929001435206
Fortimo SLM C 740 1216 L23 2828 G6	6000	172	4000	>70	2828	929001448606
Fortimo SLM C 750 1216 L23 2828 G6	6000	172	5000	>70	2828	929001435306
Fortimo SLM C 757 1216 L23 2828 G6	6000	168	5700	>70	2828	929001435406
Fortimo SLM C 827 1216 L23 2828 G6	6000	143	2700	>80	2828	929001448706
Fortimo SLM C 830 1216 L23 2828 G6	6000	164	3000	>80	2828	929001448806
Fortimo SLM C 835 1216 L23 2828 G6	6000	168	3500	>80	2828	929001448906
Fortimo SLM C 840 1216 L23 2828 G6	6000	158	4000	>80	2828	929001449006
Fortimo SLM C 850 1216 L23 2828 G6	6000	175	5000	>80	2828	929001449106
Fortimo SLM C 857 1216 L23 2828 G6	6000	151	5700	>80	2828	929001449206
Fortimo SLM C 930 1216 L23 2828 G6	6000	117	3000	>90	2828	929001449406

<sup>\*</sup> This overview represents the global Fortimo SLM portfolio, please contact our local representative for availability in your region.

#### Module driver compatibility

The Fortimo LED SLM portfolio is compatible with multiple Xitanium LED drivers. Xitanium LED drivers are available as a builtin or independent driver, dimmable or with a fixed output. For a detailed overview of all available Xitanium indoor point drivers, please go to the Xitanium indoor point driver section at pages 90-91.

#### **Driver compatibility matrix**

Module type	Xitanium 20W 0.15- 0.5A 48V	Xitanium 36W 0.3-1A 48V	Xitanium 50W 0.7-1.5A 48V	Xitanium 50W 0.9- 1.4A 48V	Xitanium 16W/m 0.35A 46V SC 230V	Xitanium 23W/m 0.5A 46V SC 230V	Xitanium 28W/m 0.6A 31-46V SC 230V	Xitanium 32W/m 0.7A 46V SC 230V	Xitanium 34W/m 0.8A 42V SC 230V	Xitanium 38W/m 0.9A 42V SC 230V	Xitanium 48W/m 1.05A 46V SC 230V
1202, L06	•				•	•					
1203, L09	•				•	•					
1205, L13	•	•			•	•	•	•	•	•	•
1208, L15		•	•	•	•	•	•	•	•	•	•
1211, L19			•	•	•	•	•	•	•	•	•
1216, L23			•	•	•	•	•	•	•	•	•
Xitanium windo	w drivers*				Xitanium singl	e current driver	s*				

<sup>\*</sup> Check the Xitanium indoor point driver portfolio or philips.com/technology for all available drivers with the operating point you need.

#### **Complementary partners**

Jordan	Ledil	Almeco	BJB	Nata	LedLink	Darkoo	CKO	Widegerm
R	L/R	R	R	L/R	L/R	L/R	L	R
L = lenses	orc							

See pages 128-129 for more information.

Suitable for:









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Saves time and upgrades your solutions. Check philips.com/technology

<sup>\*\*</sup> Module efficacy is calculated for the typical lm output with Tc= 85C. For more detailed specifications (including lifetime) please check the datasheets or the Easy Design-In Tool.

<sup>\*\*\*</sup> The CoB size defines the compatibility with the SLM holders. The CoB size is also given in the name of the holder.

<sup>\*\*\*\*</sup> LES size 23 mm is only compatible with the Fortimo H PI 2828 holder. (see page 50).

# Fortimo LED SLM gen 6 - premium white

Fortimo LED SLM premium white provides the best combination of quality of light and energy efficiency. With color points carefully chosen just below the black body locus in combination with the best color gamut, premium white is ideal for creating ambience, fresh whites and depth of color for retail environments. The premium white portfolio is available in all Fortimo LED SLM gen 6 CoB sizes. The Fortimo premium white portfolio has now been extended with 3500 and 4000 K. Perfect for a fresh, cool but rich color experience without sacrificing energy efficacy.











#### Product specification\*

Product name	Typical light output	Module efficacy**	Color temperature	Color rendering	CoB size***	Product code
	lm	lm/W	K	CRI		GPC
LES size 6.5mm						
Fortimo SLM C 830 PW 1202 L06 1215 G6	800	131	3000	>80	1215	929001453906
Fortimo SLM C 930 PW 1202 L06 1215 G6	800	107	3000	>90	1215	929001454006
Fortimo SLM C 935 PW 1202 L06 1215 G6	800	114	3500	>90	1215	929001454106
Fortimo SLM C 940 PW 1202 L06 1215 G6	800	117	4000	>90	1215	929001454206
LES size 9mm						
Fortimo SLM C 830 PW 1203 L09 1619 G6	1100	140	3000	>80	1619	929001455306
Fortimo SLM C 930 PW 1203 L09 1619 G6	1100	115	3000	>90	1619	929001455406
Fortimo SLM C 935 PW 1203 L09 1619 G6	1100	123	3500	>90	1619	929001455506
Fortimo SLM C 940 PW 1203 L09 1619 G6	1100	127	4000	>90	1619	929001455606
LES size 13mm						
Fortimo SLM C 830 PW 1205 L13 2024 G6	2000	145	3000	>80	2024	929001459506
Fortimo SLM C 930 PW 1205 L13 2024 G6	2000	119	3000	>90	2024	929001459606
Fortimo SLM C 935 PW 1205 L13 2024 G6	2000	127	3500	>90	2024	929001459706
Fortimo SLM C 940 PW 1205 L13 2024 G6	2000	131	4000	>90	2024	929001459806
LES size 15mm						
Fortimo SLM C 830 PW 1208 L15 2024 G6	3000	146	3000	>80	2024	929001446706
Fortimo SLM C 930 PW 1208 L15 2024 G6	3000	119	3000	>90	2024	929001446806
Fortimo SLM C 935 PW 1208 L15 2024 G6	3000	127	3500	>90	2024	929001446906
Fortimo SLM C 940 PW 1208 L15 2024 G6	3000	132	4000	>90	2024	929001447006
LES size 19mm						
Fortimo SLM C 830 PW 1211 L19 2828 G6	4500	148	3000	>80	2828	929001448106
Fortimo SLM C 930 PW 1211 L19 2828 G6	4500	122	3000	>90	2828	929001448206
Fortimo SLM C 935 PW 1211 L19 2828 G6	4500	129	3500	>90	2828	929001448306
Fortimo SLM C 940 PW 1211 L19 2828 G6	4500	133	4000	>90	2828	929001448406
LES size 23mm****						
Fortimo SLM C 830 PW 1216 L23 2828 G6	6000	142	3000	>80	2828	929001449506
Fortimo SLM C 930 PW 1216 L23 2828 G6	6000	116	3000	>90	2828	929001449606
Fortimo SLM C 935 PW 1216 L23 2828 G6	6000	123	3500	>90	2828	929001449706
Fortimo SLM C 940 PW 1216 L23 2828 G6	6000	127	4000	>90	2828	929001449806

- This overview represents the global Fortimo SLM portfolio, please contact our local representative for availability in your region.
- \*\* Module efficacy is calculated for the typical lm output with Tc= 85C. For more detailed specifications (including lifetime) please check the datasheets or the Easy Design-In Tool.
- \*\*\* The CoB size defines the compatibility with the SLM holders. The CoB size is also given in the name of the holder.
- \*\*\*\* LES size 23 mm is only compatible with the Fortimo SLM H PI 2828 holder. (see page 50).

#### **Driver compatibility matrix**

Module type	Xitanium	Xitanium	Xitanium	Xitanium	Xitanium	Xitanium	Xitanium	Xitanium	Xitanium	Xitanium	Xitanium
	20W 0.15-	36W 0.3-1A	50W 0.7-1.5A	50W 0.9-	16W/m 0.35A	23W/m 0.5A	28W/m 0.6A	32W/m 0.7A	34W/m 0.8A	38W/m 0.9A	48W/m 1.05A
	0.5A 48V	48V	48V	1.4A 48V	46V SC 230V	46V SC 230V	31-46V SC 230V	46V SC 230V	42V SC 230V	42V SC 230V	46V SC 230V
1202, L06	•				•	•					
1203, L09	•				•	•					
1205, L13	•	•			•	•	•	•	•	•	•
1208, L15		•	•	•	•	•	•	•	•	•	•
1211, L19			•	•	•	•	•	•	•	•	•
1216, L23			•	•	•	•	•	•	•	•	•
Xitanium window	v drivers*				Xitanium singl	e current driver	s*				

<sup>\*</sup> Check the Xitanium indoor point driver portfolio or philips.com/technology for all available drivers with the operating point you need.

Compte	Complementary partners											
Jordan	Ledil	Almeco	BJB	Nata	LedLink	Darkoo	СКО	Widegerm				
R	L/R	R	R	L/R	L/R	L/R	L	R				
L = lenses												

See pages 128-129 for more information

#### Suitable for













For further information visit philips.com/technology

# Fortimo LED SLM gen 6 - crisp white

Fortimo LED SLM crisp white is a unique solution that offers an unparalleled rendering of intense white and warm, deep colors within one light source. Fortimo SLM crisp white is ideal for use in fashion lighting applications, where the white colors in the fabric and material truly stand out from the display.









#### Product specification<sup>4</sup>

Product name	Typical light output	Module efficacy**	Color temperature	Color rendering	CoB size***	Product code
	lm	lm/W	K	CRI		GPC
LES size 6.5mm						
Fortimo SLM C 930 CW 1202 L06 1215 G6	600	92	3000	>90	1215	929001454306
LES size 9mm						
Fortimo SLM C 930 CW 1203 L09 1619 G6	1100	89	3000	>90	1619	929001455706
LES size 13mm						
Fortimo SLM C 930 CW 1205 L13 2024 G6	2000	94	3000	>90	2024	929001459906
LES size 15mm						
Fortimo SLM C 930 CW 1208 L15 2024 G6	3000	94	3000	>90	2024	929001447106
LES size 19mm						
Fortimo SLM C 930 CW 1211 L19 2828 G6	4500	94	3000	>90	2828	929001448506

- \* This overview represents the global Fortimo SLM portfolio, please contact our local representative for availability in your region.
- \*\* Module efficacy is calculated for the typical Im output with Tc= 85C. For more detailed specifications (including lifetime) please check the datasheets or the Easy Design-In Tool.
- \*\*\* The CoB size defines the compatibility with the SLM holders. The CoB size is also given in the name of the holder. (see page 50).

#### Module driver compatibility

The Fortimo LED SLM portfolio is compatible with multiple Xitanium LED drivers. Xitanium LED drivers are available as a builtin or independent driver, dimmable or with a fixed output. For a detailed overview of all available Xitanium indoor point drivers, please go to the Xitanium indoor point driver section at pages 90-91.

#### **Driver compatibility matrix**

Module type	Xitanium 20W 0.15- 0.5A 48V	Xitanium 36W 0.3-1A 48V	Xitanium 50W 0.7-1.5A 48V	Xitanium 50W 0.9- 1.4A 48V	Xitanium 16W/m 0.35A 46V SC 230V	Xitanium 23W/m 0.5A 46V SC 230V	Xitanium 28W/m 0.6A 31-46V SC 230V	Xitanium 32W/m 0.7A 46V SC 230V	Xitanium 34W/m 0.8A 42V SC 230V	Xitanium 38W/m 0.9A 42V SC 230V	Xitanium 48W/m 1.05A 46V SC 230V
1202, L06	•				•	•					
1203, L09	•				•	•					
1205, L13	•	•			•	•	•	•	•	•	•
1208, L15		•	•	•	•	•	•	•	•	•	•
1211, L19			•	•	•	•	•	•	•	•	•
Xitanium windo	w drivers*				Xitanium singl	e current driver	s*				

<sup>\*</sup> Check the Xitanium indoor point driver portfolio or philips.com/technology for all available drivers with the operating point you need.

#### **Complementary partners**

Jordan	Ledil	Almeco	BJB	Nata	LedLink	Darkoo	СКО	Widegerm
R	L/R	R	R	L/R	L/R	L/R	L	R
L = lenses								

See pages 128-129 for more information





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# Fortimo LED SLM gen 6 food warm white and food premium red

Fortimo LED SLM food warm white and Fortimo LED SLM food premium red are dedicated propositions, geared towards fresh food applications. The Fortimo SLM food warm white offers a specific spectrum that enhances the appearance of fresh food such as bread, fruit and vegetables, whereas the Fortimo LED SLM food premium red specifically enhances the appearance of fresh meat. Both products are also available with LES size 15 mm.





#### Product specification\*

Product name	Typical light output	Module efficacy**	Color temperature	Color rendering	CoB size***	Product code
	lm	lm/W	K	CRI		GPC
LES size 15mm						
Fortimo SLM C 925 FWW 1208 L15 2024 G6	2000	87	dedicated for fresh food	>90	1208	929001452680
Fortimo SLM C 930 FPR 1208 L15 2024 G6	2000	91	dedicated for meat	>90	1208	929001452980
LES size 19mm						
Fortimo SLM C 930 FWW 1211 L19 2828 G6	3500	87	dedicated for fresh food	>90	1211	929001452280
Fortimo SLM C 930 FPR 1211 L19 2828 G6	3500	92	dedicated for meat	>90	1211	929001452580

- Module efficacy is calculated for the typical Im output with Tc= 85C. For more detailed specifications (including lifetime) please check the datasheets or the Easy Design-In Tool. \*\*\* The CoB size defines the compatibility with the SLM holders. The CoB size is also given in the name of the holder. (see page 50).

#### Module driver compatibility

The Fortimo LED SLM portfolio is compatible with multiple Xitanium LED drivers. Xitanium LED drivers are available as a built-in or independent driver, dimmable or with a fixed output. For a detailed overview of all available Xitanium indoor point drivers, please go to the Xitanium indoor point driver section at pages 90-91.

#### **Driver compatibility matrix**

Module type	Xitanium 20W 0.15- 0.5A 48V	Xitanium 36W 0.3-1A 48V	Xitanium 50W 0.7-1.5A 48V	Xitanium 50W 0.9- 1.4A 48V	Xitanium 16W/m 0.35A 46V SC 230V	Xitanium 23W/m 0.5A 46V SC 230V	Xitanium 28W/m 0.6A 31-46V SC 230V	Xitanium 32W/m 0.7A 46V SC 230V	Xitanium 34W/m 0.8A 42V SC 230V	Xitanium 38W/m 0.9A 42V SC 230V	Xitanium 48W/m 1.05A 46V SC 230V
1208, L15		•	•	•	•	•	•	•	•	•	•
1211, L19			•	•	•	•	•	•	•	•	•
Xitanium window drivers*				Xitanium single current drivers*							

<sup>\*</sup> Check the Xitanium indoor point driver portfolio or philips.com/technology for all available drivers with the operating point you need.

#### **Complementary partners**

Jordan	Ledil	Almeco	ВЈВ	Nata	LedLink	Darkoo	ско	Widegerm
R	L/R	R	R	L/R	L/R	L/R	L	R
L = lenses								

See pages 128-129 for more information

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Suitable for:





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# Fortimo LED SLM gen 7 - high density

The latest generation of Fortimo LED SLM enables higher light output out of small COB sizes. The Fortimo SLM high density (HD) portfolio is perfect for narrow beam high punch applications, but can also be used for miniaturized downlights when used with optimized lens optics. With Fortimo SLM HD it is possible to get up to 3000 lm out of a less size of only 9 mm.

#### Product specification\*

	Product name	Typical light output	Module efficacy**	Color temperature	Color rendering	CoB size***	Product code	
		lm	lm/W	K	CRI		GPC	
	Fortimo SLM Gen7 HD							
	LES size 6.5mm							
	Fortimo SLM C 827 1202 L06 1215 G7	1100	111	2700	>80	1215	929001581806	
	Fortimo SLM C 830 1202 L06 1215 G7	1100	120	3000	>80	1215	929001581906	
w	Fortimo SLM C 835 1202 L06 1215 G7	1100	128	3500	>80	1215	929001582006	
	Fortimo SLM C 840 1202 L06 1215 G7	1100	133	4000	>80	1215	929001582106	
	Fortimo SLM C 927 1202 L06 1215 G7	1100	87	2700	>90	1215	929001582406	
	Fortimo SLM C 930 1202 L06 1215 G7	1100	96	3000	>90	1215	929001582506	
	Fortimo SLM Gen7 HD premium white							
	Fortimo SLM C 830 PW 1202 L06 1215 G7	1100	120	3000	>90	1215	929001582606	
w	Fortimo SLM C 930 PW 1202 L06 1215 G7	1100	96	3000	>90	1215	929001582706	
	Fortimo SLM C 935 PW 1202 L06 1215 G7	1100	106	3500	>90	1215	929001582806	
	Fortimo SLM C 940 PW 1202 L06 1215 G7	1100	110	4000	>90	1215	929001582906	
	Fortimo SLM Gen7 HD premium color							
w	Fortimo SLM C 930 PC 1202 L06 1215 G7	1100	93	3000	>90	1215	929001462706	
	LES size 9mm							
	Fortimo SLM C 730 1204 L09 1619 G7	2000	135	3000	>70	1619	929001585306	
	Fortimo SLM C 740 1204 L09 1619 G7	2000	144	4000	>70	1619	929001585406	
	Fortimo SLM C 827 1204 L09 1619 G7	2000	116	2700	>80	1619	929001585806	
	Fortimo SLM C 830 1204 L09 1619 G7	2000	124	3000	>80	1619	929001585906	
	Fortimo SLM C 835 1204 L09 1619 G7	2000	128	3500	>80	1619	929001586006	
	Fortimo SLM C 840 1204 L09 1619 G7	2000	131	4000	>80	1619	929001586106	
	Fortimo SLM C 850 1204 L09 1619 G7	2000	131	5000	>80	1619	929001586206	
	Fortimo SLM C 857 1204 L09 1619 G7	2000	130	5700	>80	1619	929001586306	
	Fortimo SLM C 927 1204 L09 1619 G7	2000	91	2700	>90	1619	929001586406	
	Fortimo SLM C 930 1204 L09 1619 G7	2000	94	3000	>90	1619	929001586506	
	Fortimo SLM gen 7 HD - premium white							
	Fortimo SLM C 830 PW 1204 L09 1619 G7	2000	124	3000	>90	1619	929001586606	
	Fortimo SLM C 930 PW 1204 L09 1619 G7	2000	97	3000	>90	1619	929001586706	
	Fortimo SLM C 935 PW 1204 L09 1619 G7	2000	105	3500	>90	1619	929001586806	
	Fortimo SLM C 940 PW 1204 L09 1619 G7	2000	109	4000	>90	1619	929001586906	
	Fortimo SLM Gen7 HD premium color							
N	Fortimo SLM C 930 PC 1204 L09 1619 G7	2000	96	3000	>90	1619	929001463306	

- \* This overview represents the global Fortimo SLM portfolio, please contact our local representative for availability in your region.
- \*\* Module efficacy is calculated for the typical Im output with Tc= 85C. For more detailed specifications (including lifetime) please check the datasheets or the Easy Design-In Tool.
- \*\*\* The CoB size defines the compatibility with the SLM holders. The CoB size is also given in the name of the holder. \*\*\*\* LES size 23 mm is only compatible with the Fortimo SLM H PI 2828 holder. (see page 50)

#### **Driver compatibility matrix**

Module type	Xitanium 20W 0.15- 0.5A 48V	Xitanium 36W 0.3-1A 48V	Xitanium 50W 0.7-1.5A 48V	Xitanium 50W 0.9- 1.4A 48V	Xitanium 16W/m 0.35A 46V SC 230V	Xitanium 23W/m 0.5A 46V SC 230V	Xitanium 28W/m 0.6A 31-46V SC 230V	Xitanium 32W/m 0.7A 46V SC 230V	Xitanium 34W/m 0.8A 42V SC 230V	Xitanium 38W/m 0.9A 42V SC 230V	Xitanium 48W/m 1.05A 46V SC 230V
1202, L06	•				•	•					
1204, L09	•	•	•	•	•	•	•	•	•	•	•**
Xitanium window	itanium window drivers*				Xitanium single current drivers*						

- \* Check the Xitanium indoor point driver portfolio or philips.com/technology for all available drivers with the operating point you need.
- \*\* The warranty window of Fortimo SLM gen 7 HD is valid up to 900mA.

#### **Complementary partners**

Jordan	Ledil	Almeco	BJB	Nata	LedLink	Darkoo	СКО	Widegerm
R	L/R	R	R	L/R	L/R	L/R	L	R
L = lenses								

See pages 128-129 for more information



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Philips OEM LED catalogue 44 Philips OEM LED catalogue 45

Fortimo SLM C 827 1211 L19 2828 G7

Fortimo SLM C 830 1211 L19 2828 G7

Fortimo SLM C 835 1211 L19 2828 G7

Fortimo SLM C 840 1211 L19 2828 G7

Fortimo SLM C 850 1211 L19 2828 G7

Fortimo SLM C 857 1211 L19 2828 G7

Fortimo SLM C 927 1211 L19 2828 G7

Fortimo SLM C 930 1211 L19 2828 G7

Fortimo SLM C 827 1216 L23 2828 G7

Fortimo SLM C 830 1216 L23 2828 G7

Fortimo SLM C 835 1216 L23 2828 G7

Fortimo SLM C 840 1216 L23 2828 G7

Fortimo SI M C 850 1216 I 23 2828 G7

Fortimo SLM C 857 1216 L23 2828 G7

Fortimo SLM C 927 1216 L23 2828 G7

Fortimo SLM C 930 1216 L23 2828 G7

LES size 23mm\*\*\*\*

Fortimo LED SLM gen 7 continues to focus on the combination of quality of light and performance. Fortimo SLM gen 7 offers 8% higher efficacy compared to gen 6 in the same form factor. Fortimo LED SLM gen 7 is backwards compatible with existing Fortimo SLM luminaires. To find your perfect system combination, please explore our online Easy Design-In Tool (for more information see









929001591806

929001591906

929001592006

929001592106

929001592206

929001592306

929001592406

929001592506

929001593806

929001593906

929001594006

929001594106

929001594206

929001594306

929001594506



Product name	Typical light	Module	Color	Color	CoB size***	Product code
	output	efficacy**	temperature	rendering		
	lm	lm/W	K	CRI		GPC
LES size 9mm						
Fortimo SLM C 827 1203 L09 1619 G7	1100	154	2700	>80	1619	929001583806
Fortimo SLM C 830 1203 L09 1619 G7	1100	158	3000	>80	1619	929001583906
Fortimo SLM C 835 1203 L09 1619 G7	1100	162	3500	>80	1619	929001584006
Fortimo SLM C 840 1203 L09 1619 G7	1100	168	4000	>80	1619	929001584106
Fortimo SLM C 850 1203 L09 1619 G7	1100	168	5000	>80	1619	929001584206
Fortimo SLM C 927 1203 L09 1619 G7	1100	124	2700	>90	1619	929001584406
Fortimo SLM C 930 1203 L09 1619 G7	1100	128	3000	>90	1619	929001584506
LES size 13mm						
Fortimo SLM C 827 1205 L13 2024 G7	2000	157	2700	>80	2024	929001587806
Fortimo SLM C 830 1205 L13 2024 G7	2000	164	3000	>80	2024	929001587906
Fortimo SLM C 835 1205 L13 2024 G7	2000	168	3500	>80	2024	929001588006
Fortimo SLM C 840 1205 L13 2024 G7	2000	172	4000	>80	2024	929001588106
Fortimo SLM C 850 1205 L13 2024 G7	2000	172	5000	>80	2024	929001588206
Fortimo SLM C 927 1205 L13 2024 G7	2000	125	2700	>90	2024	929001588406
Fortimo SLM C 930 1205 L13 2024 G7	2000	131	3000	>90	2024	929001588506
LES size 15mm						
Fortimo SLM C 827 1208 L15 2024 G7	3000	158	2700	>80	2024	929001589806
Fortimo SLM C 830 1208 L15 2024 G7	3000	165	3000	>80	2024	929001589906
Fortimo SLM C 835 1208 L15 2024 G7	3000	169	3500	>80	2024	929001590006
Fortimo SLM C 840 1208 L15 2024 G7	3000	173	4000	>80	2024	929001590106
Fortimo SLM C 850 1208 L15 2024 G7	3000	173	5000	>80	2024	929001590206
Fortimo SLM C 857 1208 L15 2024 G7	3000	172	5700	>80	2024	929001590306
Fortimo SLM C 927 1208 L15 2024 G7	3000	125	2700	>90	2024	929001590406
Fortimo SLM C 930 1208 L15 2024 G7	3000	131	3000	>90	2024	929001590506

2700

3000

3500

4000

5700

2700

3000

2700

3000

3500

4000

5000

2700

3000

>80

>80

>80

>80

>90

>90

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>80

>80

>80

>90

2828

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This overview represents the global Fortimo SLM portfolio, please contact our local representative for availability in your region

168

175

174

126

157

172

125

131

Module efficacy is calculated for the typical Im output with Tc= 85C. For more detailed specifications (including lifetime) please check the datasheets or the Easy Design-In Tool. \*\*\* The CoB size defines the compatibility with the SLM holders. The CoB size is also given in the name of the holder.

4500

4500

4500

4500

4500

4500

6000

6000

6000

6000

6000

6000

6000

6000

\*\*\*\* LES size 23 mm is only compatible with the Fortimo H PI 2828 holder. (see page 50)

#### Module driver compatibility

The Fortimo LED SLM portfolio is compatible with multiple Xitanium LED drivers. Xitanium LED drivers are available as a built-in or independent driver, dimmable or with a fixed output. For a detailed overview of all available Xitanium indoor point drivers, please go to the Xitanium indoor point driver section on page 90-91.

#### Driver compatibility matrix

Driver comp	atibility illa	Lrix									
Module type	Xitanium 36W 0.3-1A 48V	Xitanium 36W 0.3-1A 48V	Xitanium 50W 0.7-1.5A 48V	Xitanium 50W 0.9- 1.4A 48V	Xitanium 16W/m 0.35A 46V SC 230V	Xitanium 23W/m 0.5A 46V SC 230V	Xitanium 28W/m 0.6A 31-46V SC 230V	Xitanium 32W/m 0.7A 46V SC 230V	Xitanium 34W/m 0.8A 42V SC 230V	Xitanium 38W/m 0.9A 42V SC 230V	Xitanium 48W/m 1.05A 46V SC 230V
1203, L09	•				•	•					
1205, L13	•	•			•	•	•	•	•	•	•
1208, L15		•	•	•	•	•	•	•	•	•	•
1211, L19			•	•	•	•	•	•	•	•	•
1216, L23			•	•	•	•	•	•	•	•	•
Xitanium windo	w drivers*				Yitanium singl	e current driver	c*				

 $<sup>^{*}</sup>$  Check the Xitanium indoor point driver portfolio or philips.com/technology for all available drivers with the operating point you need.

#### **Complementary partners**

Jordan	Ledil	Almeco	BJB	Nata	LedLink	Darkoo	СКО	Widegerm
R	L/R	R	R	L/R	L/R	L/R	L	R
L = lenses R = reflecto								

See pages 128-129 for more information.

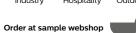
#### Suitable for:











Fortimo LED SLM premium white provides the best combination of quality of light and energy efficiency. With color points carefully chosen just below the black body locus, combined with the best color gamut, premium white is ideal for creating ambience, fresh whites and depth of color for retail environments. The premium white portfolio is available in all Fortimo LED SLM gen 7 CoB sizes. The Fortimo premium white portfolio has now been extended with 3500 K and 4000 K. Perfect for a fresh, cool but rich color experience without sacrificing energy efficacy.









#### Product specification\*

	Product name	Typical light output	Module efficacy**	Color temperature	Color rendering	CoB size***	Product code
		lm	lm/W	К	CRI		GPC
	LES size 9mm						
	Fortimo SLM C 830 PW 1203 L09 1619 G7	1100	156	3000	>80	1619	929001584606
,	Fortimo SLM C 930 PW 1203 L09 1619 G7	1100	128	3000	>90	1619	929001584706
١,	Fortimo SLM C 935 PW 1203 L09 1619 G7	1100	137	3500	>90	1619	929001584806
	Fortimo SLM C 940 PW 1203 L09 1619 G7	1100	142	4000	>90	1619	929001584906
ı	LES size 13mm						
	Fortimo SLM C 830 PW 1205 L13 2024 G7	2000	159	3000	>80	2024	929001588606
,	Fortimo SLM C 930 PW 1205 L13 2024 G7	2000	131	3000	>90	2024	929001588706
1	Fortimo SLM C 935 PW 1205 L13 2024 G7	2000	139	3500	>90	2024	929001588806
	Fortimo SLM C 940 PW 1205 L13 2024 G7	2000	143	4000	>90	2024	929001588906
ľ	LES size 15mm						
	Fortimo SLM C 830 PW 1208 L15 2024 G7	3000	160	3000	>80	2024	929001590606
.	Fortimo SLM C 930 PW 1208 L15 2024 G7	3000	131	3000	>90	2024	929001590706
'	Fortimo SLM C 935 PW 1208 L15 2024 G7	3000	140	3500	>90	2024	929001590806
	Fortimo SLM C 940 PW 1208 L15 2024 G7	3000	144	4000	>90	2024	929001590906
ı	LES size 19mm						
	Fortimo SLM C 830 PW 1211 L19 2828 G7	4500	161	3000	>80	2828	929001592606
,	Fortimo SLM C 930 PW 1211 L19 2828 G7	4500	133	3000	>90	2828	929001592706
١,	Fortimo SLM C 935 PW 1211 L19 2828 G7	4500	141	3500	>90	2828	929001592806
	Fortimo SLM C 940 PW 1211 L19 2828 G7	4500	146	4000	>90	2828	929001592906
	LES size 23mm****						
	Fortimo SLM C 830 PW 1216 L23 2828 G7	6000	159	3000	>80	2828	929001594606
,	Fortimo SLM C 930 PW 1216 L23 2828 G7	6000	131	3000	>90	2828	929001594706
١,	Fortimo SLM C 935 PW 1216 L23 2828 G7	6000	139	3500	>90	2828	929001594806
	Fortimo SLM C 940 PW 1216 L23 2828 G7	6000	144	4000	>90	2828	929001594906

- This overview represents the global Fortimo SLM portfolio, please contact our local representative for availability in your region.
- Module efficacy is calculated for the typical Im output with Tc= 85C. For more detailed specifications (including lifetime) please check the datasheets or the Easy Design-In Tool.
- \*\*\* The CoB size defines the compatibility with the SLM holders. The CoB size is also given in the name of the holder. \*\*\*\* LES size 23 mm is only compatible with the Fortimo H PI 2828 holder. (see page 50)

#### **Driver compatibility matrix**

Module type	Xitanium 20W 0.15- 0.5A 48V	Xitanium 36W 0.3-1A 48V	Xitanium 50W 0.7-1.5A 48V	Xitanium 50W 0.9- 1.4A 48V	Xitanium 16W/m 0.35A 46V SC 230V	Xitanium 23W/m 0.5A 46V SC 230V	Xitanium 28W/m 0.6A 31-46V SC 230V	Xitanium 32W/m 0.7A 46V SC 230V	Xitanium 34W/m 0.8A 42V SC 230V	Xitanium 38W/m 0.9A 42V SC 230V	Xitanium 48W/m 1.05A 46V SC 230V	
1203, L09	•				•	•						
1205, L13	•	•			•	•	•	•	•	•	•	
1208, L15		•	•	•	•	•	•	•	•	•	•	
1211, L19			•	•	•	•	•	•	•	•	•	
1216, L23			•	•	•	•	•	•	•	•	•	
Xitanium windov	Xitanium window drivers*					Xitanium single current drivers*						

<sup>\*</sup> Check the Xitanium indoor point driver portfolio or philips.com/technology for all available drivers with the operating point you need.

#### **Complementary partners**

Jordan	Ledil	Almeco	BJB	Nata	LedLink	Darkoo	ско	Widegerm
R	L/R	R	R	L/R	L/R	L/R	L	R
L = lenses R = reflect								

See pages 128-129 for more information



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#### Suitable for:











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# Fortimo LED SLM gen 7 - premium color

Premium color is the latest innovation in quality of light. This spectrum has been developed with the strengths of LED technology in mind. It answers the question "How can we make the best LED spectrum possible?" Premium color combines bright whites, perfect blacks and saturated colors without forgetting the importance of energy efficiency. It has been created to enhance the shopping experience. It adds energy to a room and boosts the perceived value of products on display.

Premium color is available in all Fortimo LED SLM form factors, including HD. This means it can be used immediately in existing Fortimo SLM applications.













	Product specification						
	Product name	Typical light output	Module efficacy**	Color temperature	Color rendering	CoB size***	Product code
		lm	lm/W	K	CRI		GPC
	LES size 9mm						
new	Fortimo SLM C 930 PC 1203 L09 1619 G7	1100	117	3000	>90	1619	929001647706
	LES size 13mm						
new	Fortimo SLM C 930 PC 1205 L13 2024 G7	2000	119	3000	>90	2024	929001647806
	LES size 15mm						
new	Fortimo SLM C 930 PC 1208 L15 2024 G7	3000	121	3000	>90	2024	929001647906
	LES size 19mm						
new	Fortimo SLM C 930 PC 1211 L19 2828 G7	4500	120	3000	>90	2828	929001648006
	LES size 23mm****						
new	Fortimo SLM C 930 PC 1216 L23 2828 G7	6000	119	3000	>90	2828	929001648106

- \* This overview represents the global Fortimo SLM portfolio, please contact our local representative for availability in your region.
- \*\* Module efficacy is calculated for the typical lm output with Tc= 85C. For more detailed specifications (including lifetime) please check the datasheets or the Easy Design-In Tool. \*\*\* The CoB size defines the compatibility with the SLM holders. The CoB size is also given in the name of the holder.
- \*\*\*\* LES size 23 mm is only compatible with the Fortimo H PI 2828 holder. (see page 50)

#### **Driver compatibility matrix**

Module type	Xitanium 20W 0.15- 0.5A 48V	Xitanium 36W 0.3-1A 48V	Xitanium 50W 0.7-1.5A 48V	Xitanium 50W 0.9- 1.4A 48V	Xitanium 16W/m 0.35A 46V SC 230V	Xitanium 23W/m 0.5A 46V SC 230V	Xitanium 28W/m 0.6A 31-46V SC 230V	Xitanium 32W/m 0.7A 46V SC 230V	Xitanium 34W/m 0.8A 42V SC 230V	Xitanium 38W/m 0.9A 42V SC 230V	Xitanium 48W/m 1.05A 46V SC 230V
1203, L09	•				•	•					
1205, L13	•	•			•	•	•	•	•	•	•
1208, L15		•	•	•	•	•	•	•	•	•	•
1211, L19			•	•	•	•	•	•	•	•	•
1216, L23			•	•	•	•	•	•	•	•	•
Xitanium windov	w drivers*				Xitanium singl	e current driver	s*				

<sup>\*</sup> Check the Xitanium indoor point driver portfolio or philips.com/technology for all available drivers with the operating point you need.

#### **Complementary partners**

Jordan	Ledil	Almeco	BJB	Nata	LedLink	Darkoo	СКО	Widegerm
R	L/R	R	R	L/R	L/R	L/R	L	R
L = lenses								

See pages 128-129 for more information.



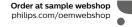












### Fortimo LED SLM - holder

Fortimo LED SLM CoBs and holders can be ordered separately. This results in even more flexibility and an even more extensive product portfolio. Optimized holders are available for spot and downlight applications. For pre-cabled luminaire designs, holders with poke-in connectors can be ordered. For the SLM types with LES 6.5 mm a 35 mm poke-in holder is available. CoB compatibility is defined by the CoB size.

#### Product specification\*

Product name	Compatible CoB size	Wire length	Wire type	Product code
		mm	mm²	GPC
Standard holder				
Fortimo SLM H 1619 G1	1619	600	0.5	929000993580
Fortimo SLM H 2024 G1	2024	600	0.5	929000980703
Fortimo SLM H 2828 G1	2828	600	0.5	929000981003
Downlight holder				
Fortimo SLM H DL 1619 G1	1619	600	0.5	929000993680
Fortimo SLM H DL 2024 G1	2024	600	0.5	929000980803
Fortimo SLM H DL 2828 G1	2828	600	0.5	929000981103
Zhaga Poke-in holder				
Fortimo SLM H ZP 1619 G1	1619	n.a.	0.3-0.75	929001451980
Fortimo SLM H ZP 2024 G1	2024	n.a.	0.3-0.75	929001452080
Fortimo SLM H ZP 2828 G1	2828	n.a.	0.3-0.75	929001452180
Poke-in holder				
Fortimo SLM H PI 1619 G1	1619	n.a.	0.3-0.75	929000993780
Fortimo SLM H PI 2024 G1	2024	n.a.	0.3-0.75	929000980903
Fortimo SLM H PI 2828 G1*	2828	n.a.	0.3-0.75	929000981203
35 mm Poke-in holder				
Fortimo SLM H PI 1215 35 G1	1215	n.a.	0.3-0.75	929001538106

#### $^{\ast}$ Only Fortimo SLM H PI 2828 G1 is compatible with CoBs with LES size 23 mm (1216).

#### Suitable for:













For further information visit philips.com/technology

# Fortimo LED DLM flex gen 2

Be the trendsetter in high-performance LED downlighting with the Fortimo DLM range. Our next-generation Fortimo LED DLM flex family is backwards compatible with the previous generation. Fortimo LED DLM flex gen 2 enables further optimization of existing as well as new flexible downlight luminaire designs.



#### **Product specification - LED board**

Product name	Light output	Module efficacy*	Correlated color temperature	Color rendering index	Product code
	lm	lm/W	K	CRI	GPC
Fortimo LED DLM flex 1100/830 G2	1100	142	3000	>80	929001503880
Fortimo LED DLM flex 1100/840 G2	1100	155	4000	>80	929001503980
Fortimo LED DLM flex 2000/830 G2	2000	140	3000	>80	929001504180
Fortimo LED DLM flex 2000/840 G2	2000	153	4000	>80	929001504280
Fortimo LED DLM flex 3000/830 G2	3000	142	3000	>80	929001504480
Fortimo LED DLM flex 3000/840 G2	3000	156	4000	>80	929001504580
Fortimo LED DLM flex 5000/830 G2	5000	136	3000	>80	929001504780
Fortimo LED DLM flex 5000/840 G2	5000	150	4000	>80	929001504880

Product name	Product code				
	GPC				
Fortimo LED DLM flex cover	929000908506				
Fortimo LED DLM flex high cover	929000927806				
Fortimo LED DLM flex cable 600mm	929000910706				

NOTE: DLM will be used with below accessory, in APR we recommend to use with low housing

- Fortimo LED DLM flex cover (low housing)
- Fortimo LED DLM flex high cover (high housing)

#### Module driver compatibility

The Fortimo LED DLM portfolio is compatible with multiple Xitanium LED drivers. Xitanium LED drivers are available as a built-in or independent driver, dimmable or with a fixed output. For a detailed overview of all available Xitanium indoor point drivers, please go to the Xitanium indoor point driver section at pages 90-91.

#### Driver compatibility matrix

	Xitanium 20W 0.15- 0.5A 48V	Xitanium 36W 0.3-1A 48V	Xitanium 50W 0.3-1A 62V	Xitanium 50W 0.7- 1.5A 48V	Xitanium 50W 0.9- 1.4A 48V	Xitanium 16W/m 0.35A 46V SC 230V	Xitanium 23W/m 0.5A 46V SC 230V	Xitanium 28W/m 0.6A 31-46V SC 230V	Xitanium 32W/m 0.7A 46V SC 230V	Xitanium 34W/m 0.8A 42V SC 230V	Xitanium 38W/m 0.9A 42V SC 230V	Xitanium 48W/m 1.05A 46V SC 230V
Fortimo LED DLM flex 1100lm	•					•						
Fortimo LED DLM flex 2000lm	•	•	•				•			•	•	
Fortimo LED DLM flex 3000lm		•	•	•				•		•	•	•
Fortimo LED DLM flex 5000lm				•	•			•		•	•	•
Xitanium window dri	vers*					Xitanium sin	gle current dri	vers*				

<sup>\*</sup> Check the Xitanium indoor point driver portfolio or philips.com/technology for all available drivers with the operating point you need.

#### **Complementary partners**

Jordan	Almeco	Nata	Widegerm							
R(*)	R	R	R							
L = lenses										
R = reflect	ors									
(*) made to order but not on stock										
See pages 128–129 for more information										



Create the ideal LED configuration in a minute. Saves time and upgrades your solutions. Check philips.com/technology

#### Suitable for









## Fortimo LED DLM EaseSelect

Fortimo DLM EaseSelect is a high-performance driver on board (DoB) solution, delivering an excellent quality of light with low flicker. Having an integrated driver and the same mechanical footprint as existing DLM solutions (DLM flex) enables easy and hassle free design-in. The Fortimo brand promise brings with it the reassurance of quality, reliability and performance.



#### **Product specification**

Product name	Light output	Power @230V AC 50 Hz	System efficacy	Correlated color temperature	Color rendering index	Product code
	lm	W	lm/W	K	CRI	GPC
Fortimo DLM ES 1100/830 G2	1080	9,5	115	3000	>80	929001435506
Fortimo DLM ES 1100/840 G2	1150	9,5	120	4000	>80	929001435606
Fortimo DLM ES 2000/830 G2	1950	17,5	111	3000	>80	929001435706
Fortimo DLM ES 2000/840 G2	2050	17,5	118	4000	>80	929001435806
Fortimo DLM ES 3000/830 G2	2950	27,0	109	3000	>80	929001435906
Fortimo DLM ES 3000/840 G2	3150	27,0	117	4000	>80	929001436006

NOTE: DLM will be used with below accessory, in APR we recommend to use with low housing

#### **Complementary partners**

Jordan	Almeco	Nata	Widegerm		
R(*)	R	R	R		

L = lenses

R = reflectors

(\*) made to order but not on stock

See pages 128-129 for more information.

#### Suitable for:









Order at sample webshop philips.com/oemwebshop

For further information visit philips.com/technology

### **CertaFlux LED DLM EaseSelect**

Certaflux DLM EaseSelect offers improved temporal light artifacts (TLA) performance and increased efficacy. Compatible with DC operation, the gen 2 version can be used in emergency lighting installations without relying on the mains current.



#### **Product specification**

Product name	Light output	Power @230V AC 50 Hz	System efficacy	Correlated color temperature	Color rendering index	Product code
	lm	W	lm/W	K	CRI	GPC
Certaflux DLM ES 1100/830 G1	1080	11	100	3000	>80	929000997880
Certaflux DLM ES 1100/840 G1	1100	11	102	4000	>80	929000997980
Certaflux DLM ES 2000/830 G1	1930	21	92	3000	>80	929000998180
Certaflux DLM ES 2000/840 G1	2000	21	95	4000	>80	929000998280
Certaflux DLM ES 3000/830 G1	2850	31	92	3000	>80	929000998480
Certaflux DLM ES 3000/840 G1	3000	31	97	4000	>80	929000998580

#### **Complementary partners**

Jordan	Almeco	Nata	Widegerm
R(*)	R	R	R

L = lenses

R = reflectors (\*) made to order but not on stock

See pages 128-129 for more information.

#### Suitable for







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Order at sample webshop philips.com/oemwebshop

<sup>-</sup> Fortimo LED DLM flex cover (low housing)

<sup>-</sup> Fortimo LED DLM flex high cover (high housing)



66

Because people

# work better in well-lit spaces."



Linear lighting is focused on optimal performance for the best total cost of ownership. Energy efficiency, reliable lifetime at an affordable cost are key value drivers of our linear modules, and we are further expanding the boundaries of what LED can do in offices, industrial applications, schools and retail.

#### **Setting the standard**

The Fortimo range, designed with Xitanium drivers, continues to bring the best performance, tested and proven in realistic and extreme circumstances. The Fortimo LED strip has been gaining preference as the key performance product for both functional and decorative luminaires. Our CertaFlux range offers the most cost-efficient solution for indoor LED lighting in general applications.

#### Safer by design

We continually improve the performance of our Fortimo range. We integrated fuses in our modules to prevent overheating near end of life. We only offer solutions with very low sensitivity for electrostatic discharge, which contributes to a product with a proven lifespan.

#### **David Vanbeselaere**

Philips OEM LED catalogue 56

Product manager linear modules



# **Just** released!

Order now at www.philips.com/oemwebshop

#### High Efficiency LED strip

See page 58



The High Efficiency LED strip range offers the highest efficiency available in the market today. This is tested and validated in real application conditions and offers efficiencies up to 200 lm/W. While our Fortimo LED strip product family has always been positioned to provide the best overall performance, this premium High Efficiency range has been added for projects that want to make a strong statement about saving energy.

#### Fortimo LED strip 4/5 foot 1120mm and 1400mm

See page 58-59



The new LED strips offer lengths that are an exact match with the existing 1 and 2 foot strips, making it easy to switch between these form factors. We are keeping the longer-length 1150mm and 1450mm boards in the portfolio, to allow 4 and 5 foot TL luminaires to be retrofitted without dark spots at the ends.

#### CertaFlux LED panel

See page 65



The CertaFlux LED panel is intended as an easy portfolio addition so you can offer a panel to complement your other performance-grade luminaires. Our CertaFlux LED panel is a good quality product with specs that provide a cost-competitive proposition.

#### Fortimo LED strip with colors 927 and 965 $\,$

See page 58



Due to popular demand, we have added new colors, 927 and 965, to our Fortimo LED strip product family, both in the standard 1 foot version.

# Coming soon!

LED innovations in the pre-launch phase

#### Fortimo LED strip premium white

The Fortimo LED strip with premium white spectrum provides the best combination of efficiency and quality of light. The color point is carefully chosen to create ambience, fresh whites and depth of color primarily for retail environments, and allows for a perfect 'one shop' experience in combination with our other premium white products.

#### Suitable for







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# **Fortimo LED strip**

Fortimo LED strips are the workhorses in our linear modules portfolio. They offer the perfect combination of high efficiency that lasts (to enable good total cost of ownership) and a slim form factor that is easy to design into a multitude of luminaires. As a consequence, they have been growing rapidly in popularity for nearly all indoor general lighting applications.

Color

Color

Case temp.

Module

Light output

#### Product information (HV)

Commercial name

		υμιραι	erricacy	rendening	Consistency		uieuiiie	
		lm	lm/W @ Tc Nom	CRI	SDCM	hrs	°C	GPC
	Low-flux (650 lm per 1 ft / 280 mm)							
	Fortimo LED strip 1ft 650lm 830 FC HV4	617	164	>80	3	>50,000	70	929001524406
	Fortimo LED strip 1ft 650lm 840 FC HV4	650	173	>80	3	>50,000	70	929001524506
	Fortimo LED strip 2ft 1300lm 830 FC HV4	1234	164	>80	3	>50,000	70	929001526006
	Fortimo LED strip 2ft 1300lm 840 FC HV4	1300	173	>80	3	>50,000	70	929001526106
	Mid-flux (1100 lm per 1 ft / 280 mm)							
	Fortimo LED strip 0.5ft 550lm 830 FC HV4	522	169	>80	3	>50,000	70	929001523406
	Fortimo LED strip 0.5ft 550lm 840 FC HV4	550	178	>80	3	>50,000	70	929001523506
	Fortimo LED strip 0.5ft 550lm 850 FC HV4	550	180	>80	3	>50,000	70	929001523606
	Fortimo LED strip 0.5ft 550lm 930 FC HV4	522	134	>90	3	>50,000	70	929001523706
	Fortimo LED strip 0.5ft 550lm 940 FC HV4	550	141	>90	3	>50,000	70	929001523806
	Fortimo LED strip 1ft 1100lm 830 FC HV4	1044	169	>80	3	>50,000	70	929001524806
	Fortimo LED strip 1ft 1100lm 840 FC HV4	1100	178	>80	3	>50,000	70	929001524906
	Fortimo LED strip 1ft 1100lm 850 FC HV4	1110	180	>80	3	>50,000	70	929001525006
ı	Fortimo LED strip 1ft 1100lm 927 FC HV4	1028	132	>90	3	>50,000	70	929001655406
	Fortimo LED strip 1ft 1100lm 930 FC HV4	1045	134	>90	3	>50,000	70	929001525206
	Fortimo LED strip 1ft 1100lm 940 FC HV4	1100	141	>90	3	>50,000	70	929001525306
,	Fortimo LED strip 1ft 1100lm 965 FC HV4	1070	137	>90	3	>50,000	70	929001655506
	Fortimo LED strip 2ft 2200lm 830 FC HV4	2088	169	>80	3	>50,000	70	929001526406
	Fortimo LED strip 2ft 2200lm 840 FC HV4	2200	178	>80	3	>50,000	70	929001526506
	Fortimo LED strip 2ft 2200lm 850 FC HV4	2220	180	>80	3	>50,000	70	929001526606
	Fortimo LED strip 2ft 2200lm 930 FC HV4	2090	134	>90	3	>50,000	70	929001526806
	Fortimo LED strip 2ft 2200lm 940 FC HV4	2200	141	>90	3	>50,000	70	929001526906
	Fortimo LED strip 1150mm 4400lm 830 HV4F	4177	169	>80	3	>50,000	70	929001548006
	Fortimo LED strip 1150mm 4400lm 840 HV4F	4400	178	>80	3	>50,000	70	929001548106
	Fortimo LED strip 1150mm 4400lm 850 HV4F	4400	180	>80	3	>50,000	70	929001548206
	Fortimo LED strip 1150mm 4400lm 830 HV4B	4177	169	>80	3	>50,000	70	929001550406
	Fortimo LED strip 1150mm 4400lm 840 HV4B	4400	178	>80	3	>50,000	70	929001550506
	Fortimo LED strip 1150mm 4400lm 850 HV4B	4400	180	>80	3	>50,000	70	929001550606
	Fortimo LED strip 1400mm 5500lm 830 HV4F	5222	164	>80	3	>50,000	70	929001656706
	Fortimo LED strip 1400mm 5500lm 840 HV4F	5500	178	>80	3	>50,000	70	929001656806
	Fortimo LED strip 1400mm 5500lm 840 HV4B	5500	178	>80	3	>50,000	70	929001656906
	Fortimo LED strip 1450mm 5500lm 830 HV4F	5222	169	>80	3	>50,000	70	929001549206
	Fortimo LED strip 1450mm 5500lm 840 HV4F	5500	178	>80	3	>50,000	70	929001549306
	Fortimo LED strip 1450mm 5500lm 850 HV4F	5550	180	>80	3	>50,000	70	929001549406
	Fortimo LED strip 1450mm 5500lm 830 HV4B	5222	169	>80	3	>50,000	70	929001551606
	Fortimo LED strip 1450mm 5500lm 840 HV4B	5500	178	>80	3	>50,000	70	929001551706
	Fortimo LED strip 1450mm 5500lm 850 HV4B	5550	180	>80	3	>50,000	70	929001551806
	High-flux (2000 lm per 1 ft / 280 mm)	3330	100	- 55		30,000	,,,	323001331000
	Fortimo LED strip 1ft 2000lm 830 FC HV5	1900	163	>80	3	>50,000	90	929001644406
	Fortimo LED strip 1ft 2000lm 840 FC HV5	2000	172	>80	3	>50,000	90	929001644506
	Fortimo LED strip 1ft 2000lm 850 FC HV5	2000	172	>80	3	>50,000	90	929001644606
	Fortimo LED strip 2ft 4000lm 830 FC HV5	3800	163	>80	3	>50,000	90	929001644806
	Fortimo LED strip 2ft 4000lm 840 FC HV5	4000	172	>80	3	>50,000	90	929001644906
	Fortimo LED strip 2ft 4000lm 850 FC HV5	4000	172	>80	3	>50,000	90	929001645006
	TOTAINO EED SAIP ZIT 4000MIT 030 FC TV3	4000	1/2	-00	,	-30,000	50	323001043000
	High Efficiency							
	MISH ETTICIENCY							

#### High Efficiency

	nigh Efficiency							
	Mid-flux (1100 lm per 1 ft)							
	Fortimo LED strip 1ft 1100lm 830 HE HV4	1030	184	>80	3	>50,000	70	929001657306
	Fortimo LED strip 1ft 1100lm 840 HE HV4	1100	196	>80	3	>50,000	70	929001657406
	Fortimo LED strip 1ft 1100lm 850 HE HV4	1100	194	>80	3	>50,000	70	929001657506
	Fortimo LED strip 2ft 2200lm 830 HE HV4	2060	184	>80	3	>50,000	70	929001657906
,	Fortimo LED strip 2ft 2200lm 840 HE HV4	2200	196	>80	3	>50,000	70	929001658006
١,	High-flux (2000 lm per 1 ft / 280 mm)							
	Fortimo LED strip 1ft 2000lm 830 HE HV4	1890	180	>80	3	>50,000	70	929001657606
	Fortimo LED strip 1ft 2000lm 840 HE HV4	2000	192	>80	3	>50,000	70	929001657706
	Fortimo LED strip 1ft 2000lm 850 HE HV4	2000	190	>80	3	>50,000	70	929001657806
	Fortimo LED strip 2ft 4000lm 830 HE HV4	3780	180	>80	3	>50,000	70	929001658106
	Fortimo LED strip 2ft 4000lm 840 HE HV4	4000	192	>80	3	>50,000	70	929001658206

#### Product information (LV)

Comme	rcial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Case temp. lifetime	Product code
		lm	lm/W @ Tc Nom	CRI	SDCM	hrs	°C	GPC
Low-flu	x (650 lm per 1 ft / 280 mm)							
Fortimo	LED strip 1ft 650lm 830 FC LV4	617	164	>80	3	>50,000	70	929001524606
Fortimo	LED strip 1ft 650lm 840 FC LV4	650	173	>80	3	>50,000	70	929001524706
Fortimo	LED strip 2ft 1300lm 830 FC LV4	1234	164	>80	3	>50,000	70	929001526206
Fortimo	LED strip 2ft 1300lm 840 FC LV4	1300	173	>90	3	>50,000	70	929001526306
Fortimo	LED strip 1150mm 2600lm 830 LV4F	2469	165	>80	3	>50,000	70	929001547706
Fortimo	LED strip 1150mm 2600lm 840 LV4F	2600	174	>80	3	>50,000	70	929001547806
Fortimo	LED strip 1450mm 3250lm 830 LV4F	3086	165	>80	3	>50,000	70	929001549006
Fortimo	LED strip 1450mm 3250lm 840 LV4F	3250	174	>80	3	>50,000	70	929001549106
Mid-flux	x (1100 lm per 1 ft / 280 mm)							
Fortimo	LED strip 0.5ft 550lm 830 FC LV4	522	169	>80	3	>50,000	70	929001523906
Fortimo	LED strip 0.5ft 550lm 840 FC LV4	550	178	>80	3	>50,000	70	929001524006
Fortimo	LED strip 0.5ft 550lm 850 FC LV4	550	180	>80	3	>50,000	70	929001524106
Fortimo	LED strip 0.5ft 550lm 930 FC LV4	522	134	>90	3	>50,000	70	929001524206
Fortimo	LED strip 0.5ft 550lm 940 FC LV4	550	141	>90	3	>50,000	70	929001524306
Fortimo	LED strip 1ft 1100lm 830 FC LV4	1044	169	>80	3	>50,000	70	929001525406
Fortimo	LED strip 1ft 1100lm 840 FC LV4	1100	178	>80	3	>50,000	70	929001525506
Fortimo	LED strip 1ft 1100lm 850 FC LV4	1110	180	>80	3	>50,000	70	929001525606
Fortimo	LED strip 1ft 1100lm 930 FC LV4	1045	134	>90	3	>50,000	70	929001525806
Fortimo	LED strip 1ft 1100lm 940 FC LV4	1100	141	>90	3	>50,000	70	929001525906
Fortimo	LED strip 2ft 2200lm 830 FC LV4	2088	169	>80	3	>50,000	70	929001527006
Fortimo	LED strip 2ft 2200lm 840 FC LV4	2200	178	>80	3	>50,000	70	929001527106
Fortimo	LED strip 2ft 2200lm 850 FC LV4	2220	180	>80	3	>50,000	70	929001527206
Fortimo	LED strip 2ft 2200lm 930 FC LV4	2090	134	>90	3	>50,000	70	929001527406
Fortimo	LED strip 2ft 2200lm 940 FC LV4	2200	141	>90	3	>50,000	70	929001527506
Fortimo	LED strip 1120mm 4400lm 840 LV4F	4400	178	>80	3	>50,000	70	929001656006
Fortimo	LED strip 1120mm 4400lm 840 LV4B	4400	178	>80	3	>50,000	70	929001656106
Fortimo	LED strip 1150mm 4400lm 830 LV4F	4177	169	>80	3	>50,000	70	929001548406
Fortimo	LED strip 1150mm 4400lm 840 LV4F	4400	178	>80	3	>50,000	70	929001548506
Fortimo	LED strip 1150mm 4400lm 830 LV4B	4177	169	>80	3	>50,000	70	929001550806
Fortimo	LED strip 1150mm 4400lm 840 LV4B	4400	178	>80	3	>50,000	70	929001550906
Fortimo	LED strip 1400mm 5500lm 840 LV4F	5500	178	>80	3	>50,000	70	929001656506
Fortimo	LED strip 1400mm 5500lm 840 LV4B	5500	178	>80	3	>50,000	70	929001656606
Fortimo	LED strip 1450mm 5500lm 830 LV4F	5222	169	>80	3	>50,000	70	929001549506
Fortimo	LED strip 1450mm 5500lm 840 LV4F	5500	178	>80	3	>50,000	70	929001549606
Fortimo	LED strip 1450mm 5500lm 830 LV4B	5222	169	>80	3	>50,000	70	929001551906
Fortimo	LED strip 1450mm 5500lm 840 LV4B	5500	178	>80	3	>50,000	70	929001552006

#### Module driver compatibility

The Fortimo LED linear portfolio is compatible with multiple Xitanium LED drivers. Xitanium window drivers offer the freedom to adjust current settings and to differentiate in terms of lumen output, efficacy and lifetime. The corresponding linear Xitanium driver portfolio includes isolated and non-isolated drivers, in fixed light output, 1-10 V and DALI versions. For a detailed overview of all linear Xitanium LED drivers see pages 78-82.

#### **Complementary partners**

Jordan	Ledil	BJB	Darkoo
R	L	L	L
L = lenses R = reflect			

See pages 128-129 for more information.

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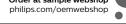
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### **Fortimo LED line**

Fortimo LED line systems are designed to produce pure white light for general lighting applications with high efficiency levels. The Fortimo LED line portfolio consists of two main ranges of products. The Fortimo LED line 1R system, with one row of LEDs on the module, is ideal for applications requiring beam shaping and where light is intended to fall on a vertical surface, such as racking or shelves. The Fortimo LED line 3R systems, with three rows of LEDs, have been designed to produce high-efficiency white light for general lighting applications where diffuse lighting on the horizontal plane is key.



#### Product information (HV)

Type	Commercial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Case temp. lifetime	Product code
		lm	lm/W @ Tc Nom	CRI	SDCM	hrs	°C	GPC
Low-flux (	650 lm per 1 ft / 280 mm)							
3R	Fortimo LED line 1ft 650lm 830 3R HV4	604	164	>80	3	>50,000	75	929001543706
	Fortimo LED line 1ft 650lm 840 3R HV4	650	177	>80	3	>50,000	75	929001543806
	Fortimo LED line 1ft 650lm 850 3R HV4	650	177	>80	3	>50,000	75	929001543906
Mid-flux (	1100 lm per 1 ft / 280 mm)							
1R	Fortimo LED line 1ft 1100lm 830 1R HV4	1045	164	>80	3	>50,000	80	929001542306
	Fortimo LED line 1ft 1100lm 840 1R HV4	1100	173	>80	3	>50,000	80	929001542406
	Fortimo LED line 1ft 1100lm 850 1R HV4	1111	174	>80	3	>50,000	80	929001542506
	Fortimo LED line 2ft 2200lm 830 1R HV4	2090	164	>80	3	>50,000	80	929001542606
	Fortimo LED line 2ft 2200lm 840 1R HV4	2200	173	>80	3	>50,000	80	929001542706
	Fortimo LED line 2ft 2200lm 850 1R HV4	2222	174	>80	3	>50,000	80	929001542806
3R	Fortimo LED line 1ft 1100lm 830 3R HV4F	1045	174	>80	3	>50,000	80	929001544306
	Fortimo LED line 1ft 1100lm 840 3R HV4F	1100	183	>80	3	>50,000	80	929001544406
	Fortimo LED line 1ft 1100lm 850 3R HV4F	1111	185	>80	3	>50,000	80	929001544506
	Fortimo LED line 1ft 1100lm 930 3R HV4F	1045	141	>90	3	>50,000	80	929001544606
	Fortimo LED line 1ft 1100lm 940 3R HV4F	1100	148	>90	3	>50,000	80	929001544706
	Fortimo LED line 1ft 1100lm 830 3R HV4B	1045	174	>80	3	>50,000	80	929001545506
	Fortimo LED line 1ft 1100lm 840 3R HV4B	1100	183	>80	3	>50,000	80	929001545606
	Fortimo LED line 1ft 1100lm 850 3R HV4B	1111	185	>80	3	>50,000	80	929001545706
	Fortimo LED line 2ft 2200lm 830 3R HV4	2090	174	>80	3	>50,000	80	929001544806
	Fortimo LED line 2ft 2200lm 840 3R HV4	2200	183	>80	3	>50,000	80	929001544906
	Fortimo LED line 2ft 2200lm 850 3R HV4	2222	185	>80	3	>50,000	80	929001545006
High-flux	(2000 lm per 1 ft / 280 mm)							
1R	Fortimo LED Line 1ft 2000lm 830 1R HV4	1902	163	>80	3	>50,000	90	929001645206
	Fortimo LED Line 1ft 2000lm 840 1R HV4	2000	172	>80	3	>50,000	90	929001645306
	Fortimo LED Line 1ft 2000lm 850 1R HV4	2020	172	>80	3	>50,000	90	929001645406
	Fortimo LED Line 2ft 4000lm 830 1R HV4	3804	163	>80	3	>50,000	90	929001645606
	Fortimo LED Line 2ft 4000lm 840 1R HV4	4000	172	>80	3	>50,000	90	929001645806
	Fortimo LED Line 2ft 4000lm 850 1R HV4	4040	172	>80	3	>50,000	90	929001645906
3R	Fortimo LED Line 1ft 2000lm 830 3R HV4	1901	172	>80	3	>50,000	90	929001646106
	Fortimo LED Line 1ft 2000lm 840 3R HV4	2000	180	>80	3	>50,000	90	929001646206
	Fortimo LED Line 1ft 2000lm 850 3R HV4	2019	180	>80	3	>50,000	90	929001646306

#### Product information (LV)

ouucc	mornacion (21)							
Type	Commercial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Case temp. lifetime	Product code
		lm	lm/W @ Tc Nom	CRI	SDCM	hrs	°C	GPC
Low-flux (	650 lm per 1 ft / 280 mm)							
3R	Fortimo LED line 1ft 650lm 830 3R LV4	604	164	>80	3	>50,000	75	929001544006
	Fortimo LED line 1ft 650lm 840 3R LV4	650	177	>80	3	>50,000	75	929001544106
	Fortimo LED line 1ft 650lm 850 3R LV4	650	177	>80	3	>50,000	75	929001544206
Mid-flux (	1100 lm per 1 ft / 280 mm)							
1R	Fortimo LED line 1ft 1100lm 830 1R LV4	1045	164	>80	3	>50,000	80	929001542906
	Fortimo LED line 1ft 1100lm 840 1R LV4	1100	173	>80	3	>50,000	80	929001543106
	Fortimo LED line 1ft 1100lm 850 1R LV4	1111	174	>80	3	>50,000	80	929001543206
	Fortimo LED line 2ft 2200lm 830 1R LV4	2090	164	>80	3	>50,000	80	929001543306
	Fortimo LED line 2ft 2200lm 840 1R LV4	2200	173	>80	3	>50,000	80	929001543506
	Fortimo LED line 2ft 2200lm 850 1R LV4	2222	174	>80	3	>50,000	80	929001543606

#### Module driver compatibility

The Fortimo LED linear portfolio is compatible with multiple Xitanium LED drivers. Xitanium window drivers offer the freedom to adjust current settings and to differentiate in terms of lumen output, efficacy and lifetime. The corresponding linear Xitanium driver portfolio includes isolated and non-isolated drivers, in fixed light output, 1-10 V and DALI versions. For a detailed overview of all linear Xitanium LED drivers see pages 78-82.

#### **Complementary partners**

Jordan	Ledil	BJB	Carclo	Darkoo	ско
R	L	L	L	L	L
L = lenses	ors				

See pages 128-129 for more information.

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# **Fortimo LED square**

The Fortimo LED square systems deliver high-quality homogeneous light at high efficiencies. Fortimo LED square systems are ideal for office applications where the luminaires require a very homogeneous exit surface window. Typical applications are recessed, surface mounted and suspended office luminaires.

Product informatio	n
--------------------	---

Commercial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Case temp. lifetime	Product code
	lm	lm/W @ Tc Nom	CRI	SDCM	hrs	°C	GPC
Fortimo LED square 1250lm 830 HV/LV2	1170	165	>80	3	>50,000	65	929001531606
Fortimo LED square 1250lm 840 HV/LV2	1250	177	>80	3	>50,000	65	929001531706
Fortimo LED square 1250lm 865 HV/LV2	1250	177	>80	3	>50,000	65	929001531806
Fortimo LED square 2500lm 830 HV/LV2	2350	165	>80	3	>50,000	65	929001531906
Fortimo LED square 2500lm 840 HV/LV2	2500	177	>80	3	>50,000	65	929001532006
Fortimo LED square 2500lm 865 HV/LV2	2500	177	>80	3	>50,000	65	929001532106
Fortimo LED square 1250lm 930 HV/LV2	1140	137	>90	3	>50,000	65	929001561806
Fortimo I ED square 1250lm 940 HV/LV2	1250	150	>90	3	>50.000	65	929001561906

#### Module driver compatibility

The Fortimo LED linear portfolio is compatible with multiple Xitanium LED drivers. Xitanium window drivers offer the freedom to adjust current settings and to differentiate in terms of lumen output, efficacy and lifetime. The corresponding linear Xitanium driver portfolio includes isolated and non-isolated drivers, in fixed light output, 1-10 V and DALI versions. For a detailed overview of all linear Xitanium LED drivers see pages 78-82.











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# **CertaFlux LED strip**

While further improving the specifications of our Fortimo range, we focus on offering the most cost-efficient solution for linear LED lighting with our CertaFlux range. CertaFlux LED strip systems offer good product performance and functionality, with good quality of light, meeting market needs for basic lighting. These cost-effective systems are completed with the CertaDrive linear LED driver portfolio, specifically designed to match the CertaFlux LED strips and focused on lumen packages for high volume applications.

#### Product information

Commercial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Case temp. lifetime	Product code
	lm	lm/W @ Tc Nom	CRI	SDCM	hrs @ Tc Nom	°C	GPC
CertaFlux LED strip 1ft 775lm 830 HV3	719	135	>80	4	>50,000	75	929001436906
CertaFlux LED strip 1ft 775lm 840 HV3	775	145	>80	4	>50,000	75	929001437006
CertaFlux LED strip 1ft 775lm 865 HV3	775	145	>80	4	>50,000	75	929001437106
CertaFlux LED strip 1ft 1100lm 830 HV3	1021	129	>80	4	>50,000	75	929001437206
CertaFlux LED strip 1ft 1100lm 840 HV3	1100	139	>80	4	>50,000	75	929001437306
CertaFlux LED strip 1ft 1100lm 865 HV3	1100	139	>80	4	>50,000	75	929001437406
CertaFlux LED strip 2ft 1550lm 830 HV3	1438	135	>80	4	>50,000	75	929001437506
CertaFlux LED strip 2ft 1550lm 840 HV3	1550	145	>80	4	>50,000	75	929001437606
CertaFlux LED strip 2ft 1550lm 865 HV3	1550	145	>80	4	>50,000	75	929001437706
CertaFlux LED strip 2ft 2200lm 830 HV3	2041	129	>80	4	>50,000	75	929001437806
CertaFlux LED strip 2ft 2200lm 840 HV3	2200	139	>80	4	>50,000	75	929001437906
CertaFlux LED strip 2ft 2200lm 865 HV3	2200	139	>80	4	>50,000	75	929001438006

#### Module driver compatibility

CertaDrive LED drivers are designed to fulfill the market need for essential lighting. The CertaDrive LED drivers offer basic specifications such as specific current and voltage settings, optimized for operating CertaFlux LED modules. For a detailed overview of all CertaDrive LED linear drivers see page 83.

Complementary partners						
Jordan	Ledil	BJB				
R	L	L				
_ = lenses						

See pages 128-129 for more information

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Philips OEM LED catalogue 62

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#### **CertaFlux LLS EaseSelect**

CertaFlux LLS EaseSelect is our first linear driver-on-board solution, light engines and corresponding drivers in one. Having an integrated driver enables an easy design-in and exchange, while speeding up the assembly process and thus lowering your costs. Ideal for the entry/trade segment of the market, especially for waterproof applications.

#### **Product information**

Commercial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Product code
	lm	lm/W @ Tc Nom	CRI	SDCM	hrs @ Tc Nom	GPC
CertaFlux LLS ES 1150mm 4500lm 840 HV2	4500	135	>80	4	>50,000	929001598806
CertaFlux LLS ES 1450mm 4500lm 840 HV2	4500	135	>80	4	>50,000	929001598906
CertaFlux LLS ES 1450mm 6750lm 840 HV2	6750	135	>80	4	>50,000	929001599006

# **CertaFlux LED square**

CertaFlux LED square systems are ideal for office applications where the luminaires require a very homogeneous exit surface window. Typical applications are recessed, surface mounted and suspended office luminaires. The design of the LED module is backwards-compatible, and the LED pitch remains unchanged compared to the Fortimo LED square 2500 lm. This makes it possible to have one luminaire design for both the high-performance and cost-oriented segment.



#### Product information

Commercial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Case temp. lifetime	Product code
	lm	lm/W @ Tc Nom	CRI	SDCM	hrs @ Tc Nom	°C	GPC
CertaFlux LED square 2500lm 830 HV/LV1	2360	137	>80	4	>50,000	75	929001517206
CertaFlux LED square 2500lm 840 HV/LV1	2500	146	>80	4	>50,000	75	929001517306
CertaFlux LED square 2500lm 865 HV/LV1	2500	146	>80	4	>50,000	75	929001517406

# **CertaFlux LED panel**

CertaFlux LED sidelit panels are ideal for office applications where a good, even light surface is needed. This CertaFlux solution is a reliable product with specifications that are good enough to ensure we can provide you with an attractive product that easily complements your portfolio.

#### **Product information**

	Commercial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Case temp. lifetime	Product code
		lm	lm/W @ Tc Nom	CRI	SDCM	hrs @ Tc Nom	°C	GPC
آ ہیں	CertaFlux LED panel 5959 840 MD1	2900	100	>80	5	>25,000	60	929001471380
EW	CertaFlux LED panel 6060 840 MD1	2900	100	>80	5	>25.000	60	929001471680

#### Module driver compatibility

CertaDrive LED drivers are designed to fulfill the market need for essential lighting. These drivers offer basic specifications such as specific current and voltage settings, optimized for operating CertaFlux LED modules. For a detailed overview of all CertaDrive LED linear drivers see page 83.

#### \_\_\_\_\_







Industry



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#### Suitable for







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66

# We provide design flexibility

and ultimate reliability."

As LED rapidly conquers the outdoor and industrial lighting markets, doors open to expand your opportunities and make a difference in design, speed to market, lifetime or product specifications. We understand that optical design is your core competence, just as developing components is ours. The fusion of these complementary qualities gives you more design flexibility in combination with unrivaled reliability.

#### Where customization counts

The Fortimo FastFlex gen 4 Differentiation family is about adding value through optical differentiation. Designed to operate with third party lenses, they offer you an unlimited number of optical configurations, ultimately delivering unique luminaire performance to match every project's requirement. The FastFlex gen 4 series includes new building block modules to expand your possibilities in outdoor and industrial applications. We've also upgraded the efficiency and operating temperature range, enabling greener and lower cost fixtures. The Fortimo FastFlex gen 4 differentiation high efficiency (DHE) is a true breakthrough in efficiency, and enables the creation of compact high bay, outdoor and area luminaire applications due to its best-in-class lumen per mm<sup>2</sup> performance. The Fortimo FastFlex gen 4 differentiation protected (DP) and the new FastFlex differentiation compact (DC) are IP66-ready modules, which simplifies your luminaire design and reduces light loss. The result is a lower fixture cost and enhanced efficacy.

#### Enabling a short development cycle

The Fortimo FastFlex gen 4 standard version offers you a 'one stop shop'. Our board, clips and lens enable a short fixture development cycle with minimum development investment. As a result you are able to bring a top-notch fixture to market in a short time.

#### **Juan Bernal**

Product manager

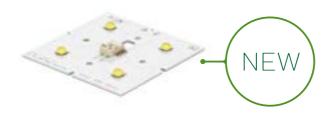
best-in-class efficiency and reliability with maximum optical flexibility

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#### Fortimo FastFlex DC

See page 70



The new Fortimo FastFlex DC (Differentiation Compact) offers outstanding fixture design flexibility due to its high lumen per square millimeter and its symmetrical form factor. In combination with third-party IP66 lenses, the FastFlex DC enables the creation of efficient and cost-effective luminaires in applications such as industry high bay, as well as outdoor roads and city centers.





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# Fortimo FastFlex gen 4

The fourth generation of the Fortimo FastFlex portfolio has been developed to offer a suitable solution for every project requirement. Think of the standard Fortimo FastFlex solutions as a 'one-stop shop', where we provide boards and lenses. This enables a short fixture development cycle, while enabling basic optical flexibility through eight standard light distributions. If you are looking for a unique photometrical performance, the FastFlex differentiation array (DA and DAX), the FastFlex differentiation protected (DP and DPX), and the new FastFlex DHE enables the use of third-party lenses for an unlimited range of optical configurations. Additionally, the FastFlex DP and DPX offer maximum cost effectiveness and fixture efficacy via IP protection.

The Fortimo FastFlex gen 4 also sees the introduction of the X product line; products specially designed to deliver maximum efficiency levels that are suitable for road lighting applications. In line with previous iterations of the Fortimo FastFlex, the fourth generation delivers state-of-the-art performance as well as access to our LED module reliability program results.

Product:	specification
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Product name	Typical light output	Module efficacy typical	Correlated color temperature	Color rendering index	Typical dimensions	Product code
	lm	lm/W @ Tc Nom	К	min. CRI	hrs	GPC
Fortimo FastFlex LED 2x8/730 G4	3450	142	3000	>70	218 x 49.5 x 5.95	929001562506
Fortimo FastFlex LED 2x8/740 G4	3730	154	4000	>70	218 x 49.5 x 5.95	929001562606
Fortimo FastFlex LED 2x8/757 G4	3690	151	5700	>70	218 x 49.5 x 5.95	929001562706
Fortimo FastFlex LED 2x8/830 G4	3208	131	3000	>80	218 x 49.5 x 5.95	929001562806
Fortimo FastFlex LED 2x8/840 G4	3357	138	4000	>80	218 x 49.5 x 5.95	929001562906
Fortimo FastFlex LED 2x8/730 X G4	3623	156	3000	>70	218 x 49.5 x 5.95	929001572906
Fortimo FastFlex LED 2x8/740 X G4	3918	165	4000	>70	218 x 49.5 x 5.95	929001573006
Fortimo FastFlex LED 2x4/730 G4	1725	142	3000	>70	118.5 x 49.5 x 5.95	929001563006
Fortimo FastFlex LED 2x4/740 G4	1865	154	4000	>70	118.5 x 49.5 x 5.95	929001563106
Fortimo FastFlex LED 2x8/730 DA G4	3450	142	3000	>70	223 x 49.5 x 5.85	929001563506
Fortimo FastFlex LED 2x8/740 DA G4	3730	154	4000	>70	223 x 49.5 x 5.85	929001563606
Fortimo FastFlex LED 2x8/757 DA G4	3690	151	5700	>70	223 x 49.5 x 5.85	929001563806
Fortimo FastFlex LED 2x8/765 DA G4	3693	151	6500	>70	223 x 49.5 x 5.85	929001563906
Fortimo FastFlex LED 2x8/827 DA G4	2965	122	2700	>80	223 x 49.5 x 5.85	929001564006
Fortimo FastFlex LED 2x8/830 DA G4	3208	131	3000	>80	223 x 49.5 x 5.85	929001564106
Fortimo FastFlex LED 2x8/840 DA G4	3357	138	4000	>80	223 x 49.5 x 5.85	929001564206
Fortimo FastFlex LED 2x8/730 DAX G4	3624	156	3000	>70	223 x 49.5 x 5.85	929001573106
Fortimo FastFlex LED 2x8/740 DAX G4	3918	165	4000	>70	223 x 49.5 x 5.85	929001573206
Fortimo FastFlex LED 2x6/730 DA G4	2588	142	3000	>70	172.2 x 49.5 x 5.85	929001565006
Fortimo FastFlex LED 2x6/740 DA G4	2798	154	4000	>70	172.2 x 49.5 x 5.85	929001565106
Fortimo FastFlex LED 2x6/840 DA G4	2518	138	4000	>80	172.2 x 49.5 x 5.85	929001565706
Fortimo FastFlex LED 2x6/827 DA G4	2224	122	2700	>80	172.2 x 49.5 x 5.85	929001620406
Fortimo FastFlex LED 2x6/830 DA G4	2406	131	3000	>80	172.2 x 49.5 x 5.85	929001620506
Fortimo FastFlex LED 2x6/730 DAX G4	2762	156	3000	>70	172.2 x 49.5 x 5.85	929001574006
Fortimo FastFlex LED 2x6/740 DAX G4	2938	166	4000	>70	172.2 x 49.5 x 5.85	929001574106
Fortimo FastFlex LED 2x4/730 DA G4	1725	142	3000	>70	121.4 x 49.5 x 5.85	929001565806
Fortimo FastFlex LED 2x4/740 DA G4	1865	154	4000	>70	121.4 x 49.5 x 5.85	929001565906
Fortimo FastFlex LED 2x4/840 DA G4	1679	138	4000	>80	121.4 x 49.5 x 5.85	929001566506
Fortimo FastFlex LED 2x4/730 DAX G4	1845	156	3000	>70	121.4 x 49.5 x 5.85	929001617406
Fortimo FastFlex LED 2x4/740 DAX G4	1942	165	4000	>70	121.4 x 49.5 x 5.85	929001617506
Fortimo FastFlex LED 2x2/730 DA G4	863	142	3000	>70	70.6 x 49.5 x 5.85	929001566606
Fortimo FastFlex LED 2x2/740 DA G4	933	154	4000	>70	70.6 x 49.5 x 5.85	929001566706
Fortimo FastFlex LED 2x2/840 DA G4	839	138	4000	>80	70.6 x 49.5 x 5.85	929001567306
Fortimo FastFlex LED 2x2/730 DAX G4	922	156	3000	>70	70.6 x 49.5 x 5.85	929001619206
Fortimo FastFlex LED 2x2/740 DAX G4	971	165	4000	>70	70.6 x 49.5 x 5.85	929001619306
Fortimo FastFlex LED 2x6/730 DP G4	2588	142	3000	>70	146 x 45 x 5.85	929001564306
Fortimo FastFlex LED 2x6/740 DP G4	2798	154	4000	>70	146 x 45 x 5.85	929001564406
Fortimo FastFlex LED 2x6/840 DP G4	2518	138	4000	>80	146 x 45 x 5.85	929001564906
Fortimo FastFlex LED 2x6/730 DPX G4	2762	156	3000	>70	146 x 45 x 5.85	929001573306
Fortimo FastFlex LED 2x6/740 DPX G4	2938	165	4000	>70	146 x 45 x 5.85	929001573406
Fortimo FastFlex LED 4x16/840 DHE G4	4213	178	4000	>80	223 x 49.5 x 4.25	929001616606
Fortimo FastFlex LED 4x16/850 DHE G4	4213	178	5000	>80	223 x 49.5 x 4.25	929001616706
Fortimo FastFlex LED 4x16/830 DHE G4	3900	165	3000	>80	223 x 49.5 x 4.25	929001616506
Fortimo FastFlex LED 2x2/740 70x70 DC G4	3636	153	4000	>70	70 x 70 x 6.2	929001647006
Fortimo FastFlex LED 2x2/750 70x70 DC G4	3726	159	5000	>70	70 x 70 x 6.2	929001647106
Fortimo FastFlex LED 2x2/730 70x70 DC G4	3385	143	3000	>70	70 x 70 x 6.2	929001646906
Fortimo FastFlex LED 2x2/840 70x70 DC G4	3385	143	4000	>80	70 x 70 x 6.2	929001647506

NOTE: light output is specified at board level (lens optical losses not included).

When using standard Fortimo FastFlex lenses, optical losses of 4% need to be taken into account.

Specification given at 530 mA and Tc 80°C and 75°C for the FastFlex DHE.

\* Max. color consistency specified at beginning of life time.

\*\* Charts presenting module's Tc and current Vs expected lifetime (up to 120,000 hours), as well as module's Tc and current Vs expected lumen depreciation (L70 and above) are available via your sales representative.

FastFlex LED lenses and clip gen 2	Product code (GPC)
FastFlex lens 2x8/II-X G2	929000873806
FastFlex lens 2x8/III-X G2	929000873906
FastFlex lens 2x8/IV-X G2	929000874006
FastFlex lens 2x8/V G2	929000874106
FastFlex lens 2x8/HB65 G2	929000896306
FastFlex lens 2x8/II-X WTR G2	929000906206
FastFlex lens 2x4/SW-X G2	929000897406
FastFlex lens 2x4/V_C G2	929000897506
FastFlex module clip*	929000948106

 $^*$  3 FastFlex module clips are required for a standard Fortimo FastFlex gen 4 module 2 x 8, and 2 clips for a module 2 x 4. Fortimo FastFlex gen 4 DA/DAX, DP/DPX and DHE do not require a dedicated clip.

#### Recommended drivers FastFlex LED board 2 $\times$ 8 (standard and DA version)

Number of FastFlex LED modules	Max output current	Driver
(2 x 8)	mA	
1	1050	Xi LP 75W 0.3-1.0A S1 230V S240 sXt
1	700	Xi LP 40W 0.3-1.0A SL 230V S175 sXt
2	1050	Xi LP 110W 0.3-1.0A S1 230V C150 sXt
2	700	Xi LP 70W 0.2-0.7A SL 230V C150 sXt
3	1050	Xi FP 165W 0.3-1.0A SNLDAE 230V C170 sXt
3	700	Xi LP 110W 0.2-0.7A SL 230V C150 sXt
4	700	Xi LP 150W 0.2-0.7A S1 230V S240 sXt
5	530	Xi LP 150W 0.2-0.7A SN 230V S240 sXt

#### Recommended drivers FastFlex LED board $2 \times 8$ (standard and DA version)

(Standard and DA Version)				
Number of FastFlex LED modules	Max output current	Driver		
(2 x 8)	mA			
1	1050	Xi FP 75W 0.3-1.0A SNLDAE 230V S240 sXt		
1	700	Xi FP 40W 0.2-0.7A SNLDAE 230V C123 sXt		
2	1050	Xi FP 150W 0.3-1.0A SNLDAE 230V S240 sXt		
2	700	Xi FP 75W 0.3-1.0A SNLDAE 230V S240 sXt		
3	1050	Xi FP 165W 0.3-1.0A SNLDAE 230V C170 sXt		
3	700	Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt		
4	700	Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt		
5	530	Xi FP 165W 0.2-0.7A SNLDAE 230V C170 sXt		

NOTE: Driving current of module must be programmed via MultiOne Configurator.

#### Recommended drivers FastFlex LED board 2 $\times$ 6 (DA and DP versions)

Number of FastFlex LED modules	Max output current	Driver
(2 x 6)	mA	
1	1050	Xi LP 40W 0.3-1.0A SL 230V S175 sXt
1	700	Xi LP 40W 0.2-0.7A SL 230V S175 sXt
2	1050	Xi LP 110W 0.3-1.0A S1 230V C150 sXt
2	700	Xi LP 70W 0.2-0.7A SL 230V C150 sXt
3	1050	Xi LP 150W 0.3-1.0A S1 230V S240 sXt
3	700	Xi LP 110W 0.2-0.7A S1 230V C150 sXt

Number of FastFlex LED modules	Max output current	Driver
(2 x 6)	mA	
1	1050	Xi FP 40W 0.3-1.0A SNLDAE 230V S175 sXt
1	700	Xi FP 40W 0.2-0.7A SNLDAE 230V C123 sXt
2	1050	Xi FP 150W 0.3-1.0A SNLDAE 230V S240 sXt
2	700	Xi FP 70W 0.3-1.0A NLD 230V C150 sXt
3	1050	Xi FP 150W 0.3-1.0A SNLDAE 230V S240 sXt
3	700	Xi EP 100W 0 2-0 7A SNI DAE 230V C165 sXt

NOTE: Driving current of module must be programmed via MultiOne Configurator.







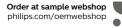


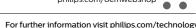
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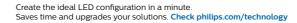




Outdoor







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## Recommended drivers FastFlex LED board 2 $\times$ 4 (standard and DA versions)

(standard and DA versions)							
Number of FastFlex LED modules	Max output current	Driver					
(2 x 4)	mA						
1	1050	Xi LP 35W 0.3-1.0A S1 230V C150 sXt					
1	700	Xi LP 22W 0.3-1.0A S1 230V C123 sXt					
2	1050	Xi LP 75W 0.3-1.0A S1 230V S240 sXt					
2	700	Xi LP 40W 0.2-0.7A S1 230V S175 sXt					
3	1050	Xi LP 110W 0.3-1.0A SL 230V C150 sXt					
3	700	Xi LP 70W 0.2-0.7A SL 230V C150 sXt					
4	1050	Xi LP 110W 0.3-1.0A SL 230V C150 sXt					
4	700	Xi LP 70W 0.2-0.7A SL 230V C150 sXt					
5	1050	Xi LP 150W 0.3-1.0A SL 230V S240 sXt					



Number of FastFlex LED modules	Max output current	Driver
(2 x 4)	mA	
1	1050	Xi FP 40W 0.3-1.0A SNLDAE 230V S175 sXt
1	700	Xi FP 22W 0.3-1.0A SNLDAE 230V S175 sXt
2	1050	Xi FP 75W 0.3-1.0A SNLDAE 230V S240 sXt
2	700	Xi FP 40W 0.3-1.0A SNLDAE 230V S175 sXt
3	1050	Xi FP 150W 0.3-1.0A SNLDAE 230V S240 sXt
3	700	Xi FP 70W 0.3-1.0A NLD 230V C150 sXt
4	1050	Xi FP 150W 0.3-1.0A SNLDAE 230V S240 sXt
4	700	Xi FP 70W 0.3-1.0A NLD 230V C150 sXt
5	1050	Xi FP 150W 0.3-1.0A SNLDAE 230V S240 sXt



NOTE: Driving current of module must be programmed via MultiOne Configurator.

#### Recommended drivers FastFlex LED board 2 x 2 DA

Number of FastFlex LED modules	Max output current	Driver
(2 x 2)	mA	
1	1050	Xi FP 22W 0.3-1.0A SNLDAE 230V S175 sXt
1	700	Xi LP 22W 0.3-1.0A S1 230V C123 sXt
2	1050	Xi LP 35W 0.3-1.0A S1 230V C150 sXt
2	700	Xi FP 22W 0.3-1.0A SNLDAE 230V C123 sXt
3	1050	Xi LP 40W 0.3-1.0A SL 230V S175 sXt
3	700	Xi LP 35W 0.3-1.0A S1 230V C150 sXt
4	1050	Xi LP 70W 0.3-1.0A SL 230V C150 sXt
4	700	Xi LP 40W 0.2-0.7A S1 230V S175 sXt

NOTE: Driving current of module must be programmed via MultiOne Configurator.

#### Recommended drivers FastFlex LED board 4 $\times$ 16 DHE

Number of FastFlex LED modules	Max output current	Driver
(4 x 16)	mA	
1	700	Xi FP 40W 0.2-0.7A SNLDAE 230V C123 sXt
2	700	Xi FP 75W 0.2-0.7A SNLDAE 230V C133 sXt
3	700	Xi FP 75W 0.2-0.7A SNLDAE 230V S240 sXt
4	700	Xi LP 110W 0.2-0.7A S1 230V C150 sXt
4	700	Xitanium 100W 0.25-0.7A 220V 16 230V
5	700	Xi LP 150W 0.2-0.7A SL 230V S240 sXt
5	700	Xitanium 150W 0.2-0.7A 300V iXt TD 230V

NOTE: Driving current of module must be programmed via MultiOne Configurator.

#### Recommended drivers FastFlex LED board DC 2x2

Number of FastFlex LED modules	Max output current	Driver
(2 x 2)	mA	
1	700	Xi FP 40W 0.2-0.7A SNLDAE 230V C123 sXt
1	1000	Xi FP 40W 0.3-1.0A SNLDAE 230V S175 sXt
1	1500	Xi FP 75W 0.5-1.5A SNLDAE 230V C133 sXt
2	1000	Xi FP 75W 0.3-1.0A SNLDAE 230V C133 sXt
2	1500	Xi LP 150W 0.5-1.5A S1 230V S240 sXt
3	1000	Xi LP 110W 0.3-1.0A S1 230V C150 sXt
4	1000	Xi LP 150W 0.3-1.0A SL 230V S240 sXt
5	700	Xi FP 165W 0.2-0.7A SNLDAE 230V C170 sXt

NOTE: Driving current of module must be programmed via MultiOne Configurator.

For a total overview of suitable drivers see pages 78-106.









#### **Complementary partners**

	Ledil	Carclo	LedLink	Darkoo	ско
FastFlex DA & DAX	L	L	L	L	
FastFlex DP & DPX	L		L	L	L
FastFlex DHE	L				
FastFlex DC	L				
L = lenses					

See pages 128-129 for more information.



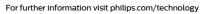
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#### Suitable for:





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# The future is

# connected."



Our Xitanium linear LED drivers stand on three pillars: quality of light, reliability and flexibility. With every driver we introduce to the market, we make sure that all these benefits are experienced in the application. For example, by using Xitanium LED drivers in your luminaires, you can be sure to offer your customers high quality of light without visual flicker and stroboscopic effects. Secondly, the reliability of your complete lighting system is enhanced as our drivers offer specific features that protect the connected LED module, including hot wiring, reduced ripple current and thermal de-rating. Finally, application-oriented operating windows offer the flexibility required to provide the stable lumen output and light quality levels that lighting specifiers and architects demand.

Key trends in the office and industry segment include connectivity, design and energy efficiency. With our broad portfolio of linear drivers, you will be able to design luminaires that meet these trends.

To create connected lighting systems, we have a range of **SR linear LED drivers**. These SR drivers can easily be combined with sensors and switches from a growing list of manufacturers who have joined the SR partner program.

Next to our SR driver range, we also have a complete range of **Touch Dim & DALI LED linear drivers**, that allow you to connect to building management systems.

Specifically, for industry applications, we have developed a range of **industry Xtreme drivers** that are suitable for applications where longer lifetime, higher temperatures and higher surge specifications are needed. Our new 300W industry Xtreme driver is a good example of this.

Finally, we have a broad range of **fixed output drivers** for maximum flexibility and high-end performance.

To provide you with ultimate design freedom, our drivers are available in a low-profile housing just 16mm high. In June 2018, we took miniaturization to the next level by also introducing a range that is not only 11mm high, but also 280mm long. These drivers are the smallest LED linear drivers available on the market today.

#### Simone van Leeuwen

Product manager linear drivers



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#### Xitanium non-isolated 11mm DALI drivers

See page 80



Xitanium 11mm Touch Dim & DALI drivers offer customers the ultimate design freedom, without compromising on performance and quality of light. With a height of only 11mm and a length of 280mm, these drivers are the smallest linear drivers available on the market today.

#### New generation TrustSight emergency drivers

See page 84



With the new TrustSight emergency family, our emergency lighting system offer is moving to next stage. Thanks to upgraded specifications, simplified choices, additional features and new battery chemistry options, TrustSight emergency range is ready to be a smart choice for today's and future emergency applications.

# Coming soon!

LED innovations in the pre-launch phase

#### Xitanium Touch Dim & DALI 18W isolated



As LED modules become more efficient, there is an increasing need for lower wattage drivers. With this in mind, we will be extending our range of isolated Touch Dim & DALI drivers by adding an 18W version.

#### **Constant voltage LED drivers**

New 80 and 100W LED power drivers with excellent electromagnetic compatibility performance and global approbation marks / certifications.

Suitable for:





# **Xitanium LED linear drivers - SR**



Because light is all around us, the lighting infrastructure is an ideal platform for collecting and carrying information. This is the driving force behind connected lighting. Design our Xitanium SR LED driver into your luminaire, and it can play a bigger role in network connectivity. Xitanium SR LED drivers are sensor ready, making them perfect for use in building management systems. You can power and interface with sensors directly from the driver without the need for additional modules, devices or power packs. And thanks to the SR certified program, there are a variety of sensor and network system vendors available to suit your needs.

For more information go to philips.com/xitaniumsr



**SR bridge** (can be used in combination with all indoor DALI drivers, including point source drivers)

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	Α	V	~~·))	GPC
Xitanium SR bridge built-in	204x30x21	n.a.	n.a.	n.a.	n.a.	929001546406
Xitanium SR bridge independent	228x30x21	n.a.	n.a.	n.a.	n.a.	929001546506



#### SR non-isolated drivers

Product name	Housing	Dimming range	Output current range Output voltage ra		SimpleSet	Product code
	mm	%	A	V	(- <b>-</b> )	GPC
Xitanium 35W 0.08-0.35A 150V SR 230V	360x30x21	100-1	0.08 - 0.35	50-150	•	929001540406
Xitanium 60W 0.08-0.35A 220V SR 230V	360x30x21	100-1	0.08 - 0.35	50-220	•	929001540506
Xitanium 60W 0.08-0.35A 300V SR 230V	360x30x21	100-1	0.08 - 0.35	100-300	•	929001540606



#### SR non-isolated - for industry applications

SK non-isotated - for industry applications							
Product name	Housing Dimming range		Output current range	Output voltage range	SimpleSet	Product code	
	mm	%	Α	V	- <del>-</del> -)))	GPC	
Xitanium 100W 0.25-0.7A 220V SR 230V iXt	360x30x21	100-1	0.25 - 0.27	50-220	•	929001540706	
Xitanium 100W 0.15-0.5A 300V SR 230V iXt	425x30x21	100-1	0.15 - 0.5	100-300	•	929001540806	
Xitanium 150W 0.2-0.7A 300V SR 230V iXt	425x30x21	100-1	0.2 - 0.7	100-300		929001540906	



#### SR isolated drivers

Product name		Housing Dimming range Output current range		Output voltage range	SimpleSet	Product code		
		mm	%	Α	٧	<del></del> )))	GPC	
	Xitanium 36W 0.3-1A_54V SR 230V	360x30x21	100-1	0.3 - 1	27-54		929001516306	
	Vitanium 7FW 0.7. 2.04 F4V CD 220V	360,/30,/31	100 1	07.3	27.54		020001505006	



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## Xitanium LED linear drivers - YellowDot

The YellowDot program is a luminaire certification program that allows any manufacturer to test and certify that their LED luminaires are interoperable with our indoor positioning technology. This smart technology allows shoppers and store staff to receive directions to products or location-based notifications. It also collects location-based data analytics to measure marketing impact and assess store operations. To a retailer, this level of customer engagement is invaluable.

If the luminaires pass a range of tests, it permits the manufacturer to apply the YellowDot certified trademark to the product and offer

We currently offer three YellowDot-ready LED drivers (60, 100 and 150 W non-isolated) for the European market, based on the latest generation of Xitanium drivers.

Contact your account manager to enroll in the YellowDot certification program.



#### Product specification

Product name	Housing	Dimming range	Output current range	Output voltage range	YellowDot-ready (indoor positioning)	Product code
		%	mA	V		GPC
Xitanium 60W 0.08-0.35A 300V TD16CL 230V	280x30x16	100-1	80-350	100-300	•	929001553706
Xitanium 100W 0.15-0.5A 300V iXt TDCL 230V	360x30x21	100-1	150-500	100-300	•	929001553406
Xitanium 150W 0.2-0.7A 300V iXt TDCL 230V	360x30x21	100-1	200-700	100-300	•	929001553506

<sup>\*</sup> Standard features: Input voltage range 170-264V, Surge protection DM/CM 6/8kV, SimpleSet, DynaDimmer, Module Temperature Protection



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Philips OEM LED catalogue 78 Philips OEM LED catalogue 79

# Xitanium LED linear drivers - non-isolated

Xitanium LED non-isolated drivers are ideal for professional general lighting applications. These non-isolated drivers are available in DALI dimmable and programmable, 1-10 V dimmable and fixed output versions. They offer the highest efficiency, lowest cost and smallest dimensions and are available in 17 W, 35/36 W, 60/75 W all in linear form factors but with various lengths. The fixed output drivers are available in LEDset or SimpleSet versions while for the DALI drivers both SimpleSet and LEDset are integrated in one driver. Specific '250 V' drivers have been introduced to avoid creapage and clearance challenges for luminaire manufacturers making their own L2 LED boards. To provide you with ultimate design freedom, our drivers are available in 11 mm and 16 mm versions.



#### DALI dimmable & programmable

	Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
		mm	%	Α	V	<del></del> ))	GPC
	Xitanium 17W 0.12-0.4A 54V TD 230V	360x30x22	100-10	0.12-0.4	27-54		929000684703
new	Xitanium 35W 0.08-0.35A 220V TD11 230V	280x30x11	100-1	0.08-0.35	50-220	•	929001627706
	Xitanium 35W 0.08-0.35A 150V TD/16 230V	280x30x16	100-1	0.08-0.35	50-150	•	929000993106
	Xitanium 36W 0.12-0.4A 110V TD 230V	360x30x22	100-1	0.12-0.4	50-110		929000852203
new	Xitanium 60W 0.15-0.5A 220V TD11 230V	280x30x11	100-1	0.15-0.5	50-220	•	929001627606
	Xitanium 60W 0.08-0.35A 220V TD16 230V	280x30x16	100-1	0.08-0.35	100-220	•	929001547206
	Xitanium 60W 0.08-0.35A 300V TD16 230V	280x30x16	100-1	0.08-0.35	100-300	•	929000993206
	Xitanium 75W 0.12-0.4A 215V TD 230V	360x30x22	100-1	0.12-0.4	100-215		929000852103
	Xitanium 100W 0.25-0.7A 220V TD16 230V	360x30x16	100-1	0.25-0.7	100-220	•	929001547306



#### DALI dimmable & programmable - for industry applications

Product name	Housing	using Dimming range Output current range Output vol		Output voltage range	SimpleSet	Product code
	mm	%	A	٧	~~·))	GPC
Xitanium 100W 0.15-0.5A 300V TD 230V iXt	360x30x21	100-1	0.15-0.5	100-300	•	929001516406
Xitanium 110W 0.2-0.6A 215V TD 230V iXt	360x30x21	100-1	0.2-0.6	100-215		929000877306
Xitanium 150W 0.2-0.7A 300V TD 230V iXt	360x30x21	100-1	0.2-0.7	100-300	•	929001516506
Xitanium 300W 0.5-1.4A 300V iXt TD 230V	360x50x28	100-1	0.5-14	100-300	•	929001608406



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Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	Α	V	~~·))	GPC
Xitanium 35W 0.08-0.35A 150V 16 230V	280x30x16	n.a.	0.08-0.35	50-150		929001557606
Xitanium 35W 0.08-0.35A 150V S 230V	280x30x21	n.a.	0.08-0.35	50-150	•	929001506406
Xitanium 35W 0.08-0.35A 150V S/16 230V	280x30x16	n.a.	0.08-0.35	50-150	•	929001557306
Xitanium 36W 0.12-0.4A 115V 230V	280x30x21	n.a.	0.12-0.4	50-115		929000950606
Xitanium 60W 0.08-0.35A 220V 16 230V	280x30x16	n.a.	0.08-0.35	100-220		929001557806
Xitanium 60W 0.08-0.35A 300V 16 230V	280x30x16	n.a.	0.08-0.35	100-300		929001557706
Xitanium 60W 0.08-0.35A 220V S 230V	280x30x21	n.a.	0.08-0.35	100-220	•	929001509106
Xitanium 60W 0.08-0.35A 300V S 230V	280x30x21	n.a.	0.08-0.35	100-300	•	929001506506
Xitanium 60W 0.08-0.35A 220V S/16 230V	280x30x16	n.a.	0.08-0.35	100-220	•	929001557506
Xitanium 60W 0.08-0.35A 300V S/16 230V	280x30x16	n.a.	0.08-0.35	100-300	•	929001557406
Xitanium 75W 0.12-0.4A 220V 230V	280x30x21	n.a.	0.12-0.4	100-220		929000950706
Xitanium 100W 0.25-0.7A 220V S 230V	360x30x21	n.a.	0.25-0.7	50-220	•	929001529506
Xitanium 100W 0.25-0.7A 220V 16 230V	360x30x16	n.a.	0.25-0.7	50-220		929001613406



#### Fixed output - for industry applications

Product name	Housing	Dimming range Output current range		Output voltage range	SimpleSet	Product code
	mm	%	Α	V	<del></del> ))	GPC
Xitanium 100W 0.15-0.5A 300V iXt 230V	360x30x21	n.a.	0.15-0.5	100-300	•	929001506606
Xitanium 150W 0.2-0.7A 300V iXt 230V	360x30x21	n.a.	0.2-0.7	100-300	•	929001506706

#### Module recommendation

For all suitable modules see Fortimo LED strips and Fortimo LED lines, see pages 58-61.



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# Xitanium LED linear drivers - isolated



Xitanium LED isolated drivers are ideal for professional low voltage (LV) linear office systems. The isolated drivers are available in DALI dimmable and programmable, 1-10 V dimmable and fixed output. They offer ease of design-in and make the approbation process simpler. They are available in 17 W, 36 W, 75 W all in linear form factors but with various lengths. The DALI drivers and new fixed output drivers feature SimpleSet technology, low output current ripple of 4% for high and low frequencies and low standby specifications. The improved ripple current performance ensures no interference with security-, cell phone- or web cameras and scanners.



#### DALI dimmable & programmable

Product name	Housing Dimming range		Output current range	Output voltage range	SimpleSet	Product code
	mm	%	Α	V	- <del></del> -)))	GPC
Xitanium 36W 0.3-1A 54V TD 230V	360x30x21	100-1	0.3-1	27-54	•	929001503606
Xitanium 75W 0.7-2A 54V TD 230V	360x30x21	100-1	0.7-2	27-54		929001503706



#### 1-10 V dimmable

Product name	Housing	Dimming range	Output current range Output voltage ra		SimpleSet	Product code
	mm	%	Α	V	- <b>-</b> -)))	GPC
Xitanium 36W 0.3-1A 54V 1-10V 230V	360x30x26.5	100-10	0.3-1	27-54		929000854003
Xitanium 75W 0.7-2A 54V 1-10V 230V	425x30x26.5	100-10	0.7-2	27-54		929000863503



rixeu output						
Product name	Housing	using Dimming range Output current range O		Output voltage range	SimpleSet	Product code
	mm	%	Α	V	~ <b>~</b> )))	GPC
Xitanium 36W 0.3-1A 54V 230V	360x30x21	n.a.	0.3-1	27-54		929000958706
Xitanium 36W 0.3-1.05A 54V S 230V	360x30x21	n.a.	0.3-1.05	27-54	•	929001571406
Xitanium 65W 0.5-1.4A 54V S 230V	360x30x21	n.a.	0.5-1.4	27-54	•	929001571506
Vitanium 75W 0.7-24 54V 230V	360v30v21	na	0.7-2	27-54		929000958806

#### Module recommendation

For all suitable modules see Fortimo LED lines and Fortimo LED strips, see pages 58-61.



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# **CertaDrive LED linear drivers**

CertaDrive LED drivers are designed to fulfill the market need for essential lighting. They offer basic specifications such as specific current and voltage settings, optimized for operating CertaFlux LED modules. The lifetime of the driver is set at 50,000 hours and the warranty period is five years.

These LED drivers are also interesting when you produce and sell your own LED boards. If the specific V/A specifications of these CertaDrive LED linear drivers do not suit your LED board specifications, we offer the possibility to create fast derivative LED drivers with your required V/A. This process is called Fast Lane Release and enables customized driver development within 6 weeks for high volume driver needs (50 K pcs driver/year). The new drivers are produced in Poland, ensuring fast and flexible supply.



#### Fixed output

Product name	Housing	Dimming range	Output current	Output voltage	Product code
	mm	%	mA	V	GPC
CertaDrive 30W 330mA 82V 230V	210x30x21	n.a.	330	82	929000974806
CertaDrive 30W 0.29A 102V 230V	210x30x21	n.a.	290	102	929001598606
CertaDrive 40W 360mA 110V 230V	210x30x21	n.a.	360	110	929000974906
CertaDrive 44W 0.32A 137V 230V	210x30x21	n.a.	320	137	929001598706
CertaDrive 60W 360mA 170V 230V	210x30x21	n.a.	360	170	929000975006

For all suitable modules see CertaFlux LED strip, see page 63.



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TrustSight LED emergency systems are designed for safety. Our TrustSight LED solutions are designed to secure light in case the normal mains voltage fails. The TrustSight driver immediately switches over to battery mode to light up vital objects such as escape routes.



#### **Product specification**

Product name	Driver housing	Output power	Output currrent range	Output voltage range	Self test	Pieces per box	Product code
TrustSight Basic L 20-95V 3W	245x30x21	3W	32-150mA	20-95V	Manual	10	913700767366
TrustSight Pro L 20-95V 3W	245x30x21	3W	32-150mA	20-95V	Automatic	10	911700766766
TrustSight DALI L 20-95V 3W	245x30x21	3W	32-150mA	20-95V	Automatic	10	929000995966
TrustSight Basic L 20-95V 6W	245x30x21	6W	64-300mA	20-95V	Manual	10	913700767466
TrustSight Pro L 20-95V 6W	245x30x21	6W	64-300mA	20-95V	Automatic	10	913700766866
TrustSight DALI L 20-95V 6W	245x30x21	6W	64-300mA	20-95V	Automatic	10	929000996066
TrustSight BASIC 45-300VNiMH	205x30x21	2-5W	7-110mA	45-300V	Manual	10	929001642706
TrustSight PRO 45-300VNiMH	205x30x21	2-5W	7-110mA	45-300V	Automatic	10	929001639906
TrustSight DALI 45-300VNiMH	205x30x21	2-5W	7-110mA	45-300V	Automatic	10	929001640106
TrustSight BASIC 45-300V LFP	205x30x21	2-5W	7-110mA	45-300V	Manual	10	929001652006
TrustSight PRO 45-300V LFP	205x30x21	2-5W	7-110mA	45-300V	Automatic	10	929001652206
TrustSight DALI 45-300V LFP	205x30x21	2-5W	7-110mA	45-300V	Automatic	10	929001652406

	5 1 .	<b>5</b>			- · · · · · · · · · · · · · · · · · · ·	n:	5 1
	Product name	Battery type	Voltage	Capacity	Emergency time (3W)	Pieces per box	Product code
	TrustSight flat batt NiMH 7.2V 1300mA	NiMH	7.2V	1300mAh	1 hour	10	913700766966
	TrustSight flat batt NiMH 7.2V 2500mAh	NiMH	7.2V	2500mAh	3 hours	10	913700767066
	TrustSight flat batt NiMH 7.2V 3000mAh	NiMH	7.2V	3000mAh	3 hours	10	929001572466
ſ	TrustSight 3.6V 3cell 4000mAh battery NiMH	NiMH	3.6V	4000mAh	3 hours	10	929001652506
ı	TrustSight 4.8V 4cell 4000mAh battery NiMH	NiMH	4.8V	4000mAh	3 hours	10	929001652606
	TrustSight 6.0V 5cell 4000mAh battery NiMH	NiMH	6V	4000mAh	3 hours	10	929001652706
1	TrustSight 3.2V 3cell 4500mAh battery LFP	Lithium	3.2V	4500mAh	3 hours	10	929001653006
ı	TrustSight 6.4V 4cell 3000mAh battery LFP	Lithium	6.4V	3000mAh	3 hours	10	929001653106
L	TrustSight 9.6V 6cell 3000mAh battery LFP	Lithium	9.6V	3000mAh	3 hours	10	929001653206

\* Batteries will be delivered including harness (cable).

	Accessories	Pieces per box	Product code
Γ	TrustSight LED indicator	10	929001653606
	TrustSight battery harness LFP	10	929001682006
ı	TructSight hattery harness NiMh	10	_

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# **Constant voltage LED drivers**

Our constant voltage LED drivers and transformers are designed for safe operation and optimal performance in professional general lighting applications. With a high frequency, compact size and long lifetime, they are suitable for operation with 24VDC LED modules, flexible LED strips and other LED applications that require 24VDC constant voltage. Each driver and transformer offers complete protection, overload, short circuit and overheat protection and is easy-to-install.



#### **LED** power drivers

Product specification								
Product name	Nominal voltage	Mains frequency	Nominal output voltage	Nominal output power	Ambiente temperature range	Protection class	IP rated	Product code
	Vac	Hz	VDC	W	°C			GPC
LED power driver 20W 24V	120-240	0/50/60	24	20	-30+40	II	20	929000654006
LED power driver 80W 24V	120-240	0/50/60	24	80	-30+60	I/II	20	929000653906
LED power driver 100W 24V	120-240	0/50/60	24	100	-30+60	1/11	20	929001430080



#### **LED** transformers

Product specification									
Product name	Nominal voltage	Mains frequency	Nominal output voltage	Nominal output power	Ambiente temperature range	Protection class	IP rated	Product code	
	Vac	Hz	VDC	W	°C			GPC	
LED transformer 60W 24VDC	220-240	0/50/60	24	60	-20+50	II	20	913710032267	
LED transformer 60W 24VDC (w/Cable)	220-240	0/50/60	24	60	-20+50	II	20	929001425206	
LED transformer 120W 24VDC	220-240	0/50/60	24	120	-20+50	II	20	913710032567	



#### CertaDrive LED drivers

Product specification								
Product name	Nominal voltage	Mains frequency	Nominal output voltage	Nominal output power	Ambiente temperature range	Protection class	IP rated	Product code
	Vac	Hz	VDC	W	°C			GPC
CertaDrive 35W/24VDC 220-240V	220-240	0/50/60	24	35	-20+50	II	40	929001424006
CertaDrive 60W/24VDC 220-240V	220-240	0/50/60	24	60	-20+50	II	40	929001424106
CertaDrive 100W/24VDC 220-240V	220-240	0/50/60	24	100	-20+50	II	40	929001424206
CertaDrive 120W/24VDC 220-240V	220-240	0/50/60	24	120	-20+50	II	40	929001424306

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new



# Visual comfort

pays off point source applications."

Visual comfort is a primary objective in point source applications. The right quality of light not only has a positive effect on the right atmosphere, but also on productivity and performance. Understanding of the effects of LED lighting on the human body is an important element in our driver development activities. Not only our internal efforts but also our cooperating with international commissions is intended to support human wellbeing in retail applications.

#### Make temporal light artifacts a thing of the past

Temporal light artifacts (TLAs), including visual flicker and stroboscopic effects, can negatively impact human health. You can eliminate TLAs by using our Xitanium point LED drivers and, in doing so, minimize the risk of physical effects like headaches, annoyance and low work performance. Additionally, the interference of LED lighting with surrounding equipment is closer to being eliminated thanks to reduced ripple current in the entire range and amplitude modulation dimming in our Touch and DALI drivers. The addition of other features like high efficiency, hot wiring and DC operation compatibility makes Xitanium LED drivers a unique choice in point source applications.

#### Managing complexity

We're aware that complexity management is a key topic in LED lighting and drives us to continuously make our driver portfolio 'easy to work'. The application-oriented driver designs simplify making the right choice without compromising on the features you want. Products vary from single current (plug and play) to fully programmable drivers, based on a few key application-oriented designs and their accessories. In combination with our intuitive MultiOne configuration software and wireless SimpleSet technology, the possibilities are endless. And as connected lighting makes inroads into point lighting, we lead the way with the SR bridge, which already makes it possible to fully benefit from SR functionalities.

#### **Mustafa Oktay**

Product manager point source drivers



applications.

# **Just** released!

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#### **New generation Trustsight emergency drivers**

See page 93



With the new Trustsight emergency family, our emergency lighting system offer is moving to next stage. Thanks to upgraded specifications, simplified choices, additional features and new battery chemistry options, Trustsight emergency range is ready to be a smart choice for today's and future emergency

# Coming soon!

#### LED innovations in the pre-launch phase

#### Xitanium track adapter drivers



In spot lighting applications, the Xitanium point source driver portfolio is targeting further miniaturization with a new driver family integrated in track adapters. The new range not only has standard on/off applications but also wireless versions, which will enable easy lighting control thanks to Casambi ecosystem compatibility.

#### Xitanium WH LED drivers - YellowDot



YellowDot technology is expanding its application area with a new product being added into the portfolio. Next to the existing linear drivers, three new WH drivers (20W, 36W & 50W) compatible with YellowDot technology will be released for downlight and panel applications.

#### Mini Window LEDSet driver range



We are committed to strengthening the well-deserved reputation of our Mini Window drivers. With the upgraded version, the new Mini family is able to address additional requirements of point source applications. LEDSet interface, DC operation compatibility and HF ripple current reduction are the main upgrade elements supporting high-performance specifications.







For further information visit philips.com/technology

Philips OEM LED catalogue 88

# **Xitanium LED downlight and** spotlight drivers



Dimmable and fixed output LED drivers. Power ratings and related operating windows from 20 W to 75 W. Various housing designs: Linear housed form factors for tracks in '3 in 1' design, conventional HID housings for down- and spotlighting, WH housing for independent use with strain relief and loop-through and mini housing for track and recessed spotlight applications. Depending on the family drivers feature following specifications: operating window, SELV, improved ripple current, temperature derating, hot wiring, 12 V output for active cooling or decorative effects, central DC operation. The addition of SimpleSet technology in certain drivers will now also enable wireless configuration in manufacturing environments.

#### Dimmable and/or Dimmable and/or programmable drivers













Product specification										
Product name	Housing	Housing	Dimming range	Output current range	Output voltage range	Central DC operation	SELV	DALI / Touch&Dim & pro- grammable	SimpleSet	Product code
	type	mm	%	Α	V				))	GPC
Xitanium 20W LH 0.15-0.5A 48V TD/Is 230V	1	150x46x32	100-1	0.15-0.5	24-48	•	•	•		929000904006
Xitanium 20W WH 0.15-0.5A 54V TD/Is 230V	5	200x74x32	100-1	0.15-0.5	24-54	•	•	•	•	929000991706
Xitanium 20W/m 0.15-0.5A 54V TD 230V	6	97x43x30	100-1	0.15-0.5	24-54		•	•		929001419006
Xitanium 25W LH 0.3-1A 36V TD/Is 230V	1	150x46x32	100-1	0.3-1.0	18-36	•	•	•		929000863703
Xitanium 36W LH 0.3-1A 48V TD/I 230V	2	190x46x32	100-1	0.3-1.0	24-48	•	•	•		929000870806
Xitanium 36W/s 0.3-1A 48V TD 230V	3	110x75x31	100-1	0.3-1.0	24-48		•	•		929000897606
Xitanium 36W WH 0.3-1.0A 54V TD/Is 230V	5	200x74x32	100-1	0.3-1.0	24-54	•	•	•	•	929000969906
Xitanium 36W/m 0.3-1.05A 54V TD 230V	6	97x43x30	100-1	0.3-1.05	24-54		•	•		929001419106
Xitanium 50W WH 0.7-1.5A 54V TD/Is 230V	5	200x74x32	100-1	0.7-1.5	24-54	•	•	•	•	929000991806
Xitanium 50W LH 0.7-1.5A 48V TD/I 230V	2	190x46x32	100-1	0.7-1.5	24-48	•	•	•		929000904106
Xitanium 50W LH 0.3-1A 62V TD/I 230V	2	190x46x32	100-1	0.3-1.0	31-62		•	•		929000863803
Xitanium 75W SH 0.3-1A 110V TDI 230V	4	220x83x35	100-1	0.3-1.0	55-110	•	•	•		929000870203

These drivers are compatible with Fortimo LED DLM and SLM modules. For details on LED module and cable combinations see pages 40-53.

#### Fixed output













#### Product specification

Product specification								
Product name	Housing	Housing	Output current range	Output voltage range	Central DC operation	SELV	SimpleSet	Product code
	type	mm	Α	V			(( <del></del>	GPC
Xitanium 20W LH 0.15-0.5A 48V Is 230V	1	150x46x32	0.15-0.5	24-48	•	•	•	929000941306
Xitanium 20W/m 0.15-0.5A 48V 230V	5	97x43x30	0.15-0.5	24-48		•		929000893806
Xitanium 20W WH 0.15-0.5A 54V Is 230V	6	200x74x32	0.15-0.5	24-54	•	•	•	929001413906
Xitanium 20W WH 0.15-0.5A 54V S 230V	3	110x74x32	0.15-0.5	24-54	•	•	•	929001416506
Xitanium 20W/m 0.15-0.5A 54V 230V	5	97x43x30	0.15-0.5	24-54		•	•	929001415006
Xitanium 36W LH 0.3-1A 48V I 230V	2	190x46x32	0.3-1	24-48	•	•	•	929001404306
Xitanium 36W/m 0.3-1.05A 48V 230V	5	97x43x30	0.3-1.05	24-48		•		929000881806
Xitanium 36W WH 0.3-1.05A 54V Is 230V	6	200x74x32	0.3-1.05	24-54	•	•	•	929001414006
Xitanium 36W WH 0.3-1.05A 54V S 230V	3	110x74x32	0.3-1.05	24-54	•	•	•	929001416606
Xitanium 36W/m 0.3-1.05A 54V OffDiag 230V	5	97x43x30	0.3-1.05	24-54		•	•	929001423606
Xitanium 36W/m 0.3-1.05A 54V 230V	5	97x43x30	0.3-1.05	24-54		•	•	929001415106
Xitanium 43W/m 0.7-1.2A 54V 230V	5	97x43x30	0.7-1.2	24-54		•	•	929001415206
Xitanium 50W SH 0.3-1A 62V I 230V	4	220x83x35	0.3-1	31-62	•	•		929000853703
Xitanium 50W/s 0.3-1A 62V 230V	3	110x75x32	0.3-1	31-62	•	•		929000853603
Xitanium 50W LH 0.7-1.5A 48V I 230V	2	190x46x32	0.7-1.5	24-48	•	•	•	929000934706
Xitanium 50W WH 0.7-1.5A 54V Is 230V	6	200x74x32	0.7-1.5	24-54	•	•	•	929001416806
Xitanium 50W WH 0.7-1.5A 54V S 230V	3	110x74x32	0.7-1.5	24-54	•	•	•	929001416706
Xitanium 50W/m 0.7-1.5A 48V 230V	5	97x43x30	0.7-1.5	24-48		•		929000934606
Xitanium 50W/m 0.7-1.5A 54V 230V	5	97x43x30	0.7-1.5	24-54		•	•	929001415306
Xitanium 50W/s 0.9-1.4A 48V 230V	3	110x75x32	0.9-1.4	24-48	•	•		929000899306
Xitanium 75W SH 0.3-1A 110V I 230V	4	220x83x35	0.3-1	55-110	•	•		929000853803

These drivers are compatible with Fortimo LED DLM and SLM modules. For details on LED module and cable combinations see pages 40-53.

#### Fixed output single current dimmable

**Product specification** 

Product name	Housing	Housing	Dimming range	Output current range	Output voltage range	SELV	Trailing edge dim	Product code
	type	mm	%	Α	V			GPC
Xitanium 4W 0.1A 40V TE SC 230V	7	85x50x19	5-100	0,10	29-40	•	•	929001420706
Xitanium 6W 0.15A 40V TE SC 230V	7	85x50x19	5-100	0,15	29-40	•		929001420806
Xitanium 7W 0.35A 20V TE SC 230V	7	85x50x19	5-100	0,35	8-20	•	•	929001420906
Xitanium 8W 0.2A 40V TE SC 230V	7	85x50x19	5-100	0,20	29-40	•	•	929001421006
Xitanium 10W 0.5A 20V TE SC 230V	7	100x50x19	5-100	0,50	8-20	•	•	929001421206
Xitanium 10W 0.25A 40V TE SC 230V	7	100x50x19	5-100	0,25	29-40	•	•	929001421106
Xitanium 14W 0.35A 40V TE SC 230V	7	100x50x19	5-100	0,35	29-40	•		929001421306
Xitanium 15W 0.75A 20V TE SC 230V	7	100x50x19	5-100	0,75	8-20	•	•	929001421406

#### Fixed output single current

#### **Product specification**

Product name	Housing	Housing	Output current range	Output voltage range	SELV	Product code
	type	mm	Α	V		GPC
Xitanium 10W/m 0.35A 30V SC 230V	5	97x43x30	0.35	20-30	•	929001412280
Xitanium 16W/m 0.35A 46V SC 230V	5	97x43x30	0.35	31-46	•	929001412380
Xitanium 21W/m 0.7A 30V SC 230V	5	97x43x30	0.7	20-30	•	929001412580
Xitanium 23W/m 0.5A 46V SC 230V	5	97x43x30	0.5	31-46	•	929001412480
Xitanium 28W/m 0.6A 46V SC 230V	5	97x43x30	0.6	31-46	•	929001418706
Xitanium 30W/m 0.65A 46V SC 230V	5	97x43x30	0,65	31-46	•	929001470806
Xitanium 32W/m 0.7A 46V SC 230V	5	97x43x30	0.7	31-46	•	929001412680
Xitanium 34W/m 0.8A 42V SC 230V	5	97x43x30	0.8	30-42	•	929001418806
Xitanium 38W/m 0.9A 42V SC 230V	5	97x43x30	0.9	30-42	•	929001418906
Xitanium 48W/m 1.05A 46V SC 230V	5	97x43x30	1.05	31-46	•	929001572806

These drivers are compatible with Fortimo LED DLM and SLM modules. For details on LED module and cable combinations see pages 40-53.

#### Accessories

Product name	Product code (GPC)
JST to push-in adaptor	929000831103
Xitanium LH loop-through adaptor	929000881106
Strain relief blocks*	929001461680
Strain relief blocks DALI	929001430906
Strain relief blocks TE	929001431106
* Not suitable for 50 W/m Rset driver only.	







The current in Xitanium window drivers can be set using of a resistor. We offer various resistor values. Depending on the driver type, a poke-in resistor or a JST connector has to be used. Please check the Xitanium driver's datasheet for more detailed information.

Rset	Value	Туре	Product code (GPC)
Fortimo LED Rset 300mA	560	Poke-in	929000912506
Fortimo LED Rset 300mA connector	560	JST	929000912606
Fortimo LED Rset 500mA	1200	Poke-in	929000912706
Fortimo LED Rset 500mA connector	1200	JST	929000912806
Fortimo LED Rset 750mA	2050	Poke-in	929000912906
Fortimo LED Rset 750mA connector	2050	JST	929000913006
Fortimo LED Rset 950mA	3090	Poke-in	929000913106
Fortimo LED Rset 950mA connector	3090	JST	929000913206
Fortimo LED Rset 1200mA	4870	Poke-in	929000913306
Fortimo LED Rset 1200mA connector	4870	JST	929000913406



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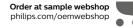
#### **MultiOne Software**

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Philips OEM LED catalogue 90 Philips OEM LED catalogue 91 Power ratings are from 15 to 40 W with available current options from 0.35 to 1.05 A. With an optimized lifetime of 30,000 hours CertaDrive range is an ideal proposition for basic spot- and downlight applications.





#### Fixed output

Done also at	<b>::: -::</b>

Product specification							
Product name	Housing	Housing	Output current range	Output voltage range			Product code
	type	mm	Α	V			GPC
CertaDrive 15W 0.35A 42V I 230V	1	115x45x29	0.35	32-42		•	929001422080
CertaDrive 21W 0.5A 42V I 230V	1	115x45x29	0.50	32-42		•	929001422380
CertaDrive 30W 0.7A 42V I 230V	2	105x68x32	0.70	32-42		•	929000932006
CertaDrive 44W 1.05A 42V I 230V	2	105x68x32	1.05	32-42		•	929001410880



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# **TrustSight LED emergency drivers**

TrustSight LED emergency systems are designed for safety. Our TrustSight LED solutions are designed to secure light in case the normal mains voltage fails. The TrustSight driver immediately switches over to battery mode to light up vital objects such as escape routes.

- · easy to design-in thanks to constant power
- · no settings needed
- · TrustSight systems complies with latest regulations for independent use.



#### **Product specification**

	· · · · · · · · · · · · · · · · · · ·								
	Driver	Driver housing	Output Power	Output currrent range	Output voltage range	SELV	Self test	Pieces per box	Product code
	TrustSight Basic P 15-55V 3W	190x46x32	3W	54-200mA	15-55V	•	Manual	10	913700767266
	TrustSight Pro P 15-55V 3W	190x46x32	3W	54-200mA	15-55V	•	Automatic	10	913700766666
	TrustSight DALI P 15-55V 3W	190x46x32	3W	54-200mA	15-55V	•	Automatic	10	929000995866
Γ	TrustSight BASIC 15-55V NiMH	205x30x21	25W	40-330mA	15-55V	•	Manual	10	929001642606
ı	TrustSight PRO 15-55V NiMH	205x30x21	25W	40-330mA	15-55V	•	Automatic	10	929001642806
,	TrustSight DALI 15-55V NiMH	205x30x21	25W	40-330mA	15-55V	•	Automatic	10	929001640006
1	TrustSight BASIC 15-55V LFP	205x30x21	25W	40-330mA	15-55V	•	Manual	10	929001651906
	TrustSight PRO 15-55V LFP	205x30x21	25W	40-330mA	15-55V	•	Automatic	10	929001652106
L	TrustSight DALI 15-55V LFP	205x30x21	25W	40-330mA	15-55V	•	Automatic	10	929001652306

\* Driver contains strain-relief for independent use, brackets for build-in and bi-color LED status indicator.

Batterie	s	Battery type	Voltage	Capacity	Emergency time (3W)	Pieces per box	Product code
TrustSigh	nt batt box NiMH 7.2V 1300mA	NiMH	7.2V	1300mAh	1 hour	10	913700768166
TrustSigh	nt batt box NiMH 7.2V 2500mAh	NiMH	7.2V	2500mAh	3 hours	10	913700768266
TrustSigh	nt 3.6V 3cell 4000mAh battery NiMH	NiMH	3.6V	4000mAh	3 hours	10	929001652506
TrustSigh	nt 4.8V 4cell 4000mAh battery NiMH	NiMH	4.8V	4000mAh	3 hours	10	929001652606
TrustSigh	nt 6.0V 5cell 4000mAh battery NiMH	NiMH	6V	4000mAh	3 hours	10	929001652706
TrustSigh	nt 3.2V 3cell 4500mAh battery LFP	Lithium	3.2V	4500mAh	3 hours	10	929001653006
TrustSigh	nt 6.4V 4cell 3000mAh battery LFP	Lithium	6.4V	3000mAh	3 hours	10	929001653106
TrustSigh	nt 9.6V 6cell 3000mAh battery LFP	Lithium	9.6V	3000mAh	3 hours	10	929001653206

\* Batteries are mounted in box for independent use and harness (cables).

	Accessories	Pieces per box	Product code
	TrustSight strain relief	20	929001653306
	TrustSight battery independent box	10	929001653406
v	TrustSight LED indicator	10	929001653606
	TrustSight battery harness LFP	10	929001653606
	TrustSight battery harness NiMh	10	929001682006



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66

# **Ultimate uptime**

is our selling point."



Intense heat, freezing cold, dust clouds, hail and lightning; outdoor and industrial luminaires must withstand harsh conditions as well as everyday stress from varying temperatures, moisture and physical contact. Luminaires are furthermore increasingly used as valuable data collectors for city and building management systems. And in outdoor applications, where service and maintenance is costly, reliability is an absolute must. We help you meet all these challenges.

#### **Rock solid**

Our robust Xitanium LED Xtreme drivers are specifically designed to withstand powerful vibrations, high moisture levels, driver case temperatures of up to  $90^{\circ}$ C and severe power surges (now up to 10 kV). This results in an industry-leading 100,000 hours lifetime, a survival rate of 90% and a five year warranty. These are powerful arguments for customers who want to minimize the need for repairs – because they know what that costs.

#### SR and programmable

For those who manage 'smart cities' and 'smart buildings' we offer our expanding range of SR drivers. Our lite programmable configuration offers a carefully selected feature set and was recently upgraded (see 'just released' section). For complete flexibility with a wide range of features, choose the full programmable LED drivers. Both ranges provide unrivalled efficacy and superior specs and features, such as SimpleSet technology to effortlessly configure the driver without turning it on. And finally, our new SR outdoor drivers can be combined with the new EasyAir outdoor modules and feature a new universal SR connector – a future–proof solution that can be phased in as and when investment becomes available.

#### **Paul Sloekers**

Philips OEM LED catal

Product manager xtreme drivers



# **Just** released!

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#### Xitanium LED full programmable Xtreme

See page 100

100W in C165W housing: specification upgrade (new code) towards 10 kV surge protection (CM), and driver temperature limit (DTL).

#### Xitanium LED lite programmable Xtreme

See page 102



New 75W and 110W in C133 housing 10 kV surge protection (CM), 5-step DynaDimmer, MainsGuard, DTL, and full diagnostics.

# Coming soon!

LED innovations in the pre-launch phase

We are working on various new launches throughout the Xtreme driver range.

Suitable for





Outdoor

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# **Xitanium LED drivers - SR**

Our new Philips Xtreme SR drivers are ideal for use in outdoor applications. These robust drivers feature the SR interface and can be used in combination with the new EasyAir outdoor module (see page 33), intelligent photocells, or the many smart city management systems developed by our SR certified partners. The integrated power supply, accurate energy metering and extended diagnostics reduces the component count and simplifies the design significantly. The integration also increases system reliability. Combined with the new universal SR connector, these drivers offer future-proof solutions for the phased investment capabilities of municipal authorities.

For more information go to philips.com/xitaniumsr



#### **Product specification**

Product name	Housing	Output current range	Output voltage range	Dimming range	Efficiency @ 100% load	Lifetime @ Tc life	Diagnostics via SR interface	DALI power supply via SR interface max power 0.5W	24V power supply 3W average power / 10W peak	Energy metering accuracy	
		mA	V	%	%	hrs				%	GPC
Xitanium SR 12W 0.2-0.7A C133 sXt	C133	200-700	8-32	100-10	83	100000				1	929001613506
Xitanium SR 22W 0.2-0.7A C133 sXt	C133	200-700	16-48	100-10	85	100000				1	929001598306
Xitanium SR 22W 0.3-1.0A C133 sXt	C133	300-1050	8-32	100-10	85	100000				1	929001573706
Xitanium SR 40W 0.2-0.7A C133 sXt	C133	200-700	25-77	100-10	86	100000				1	929001573506
Xitanium SR 40W 0.3-1.0A C133 sXt	C133	300-1050	20-54	100-10	86	100000				1	929001573606
Xitanium SR 75W 0.2-0.7A S240 sXt	S240	200-700	50-150	100-10	92	100000				1	929001507706
Xitanium SR 75W 0.3-1.0A S240 sXt	S240	300-1050	20-100	100-10	91	100000				1	929001507806
Xitanium SR 150W 0.2-0.7A S240 sXt	S240	200-700	90-283	100-10	90	100000				1	929001507506
Xitanium SR 150W 0.3-1.0A S240 sXt	S240	300-1050	70-214	100-10	90	100000				1	929001507606

 $^{*}$  Standard features: Input voltage range 170-264V, Surge protection DM/CM 6/8kV, SimpleSet, DynaDimmer, Module Temperature Protection Temperature Protection 170-264V, Surge protection DM/CM 6/8kV, SimpleSet, DynaDimmer, Module Temperature Protection 170-264V, Surge protection DM/CM 6/8kV, SimpleSet, DynaDimmer, Module Temperature Protection 170-264V, Surge protection DM/CM 6/8kV, SimpleSet, DynaDimmer, Module Temperature Protection 170-264V, Surge protection DM/CM 6/8kV, SimpleSet, DynaDimmer, Module Temperature Protection 170-264V, Surge protection



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#### **MultiOne Software**

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# Xitanium LED drivers - programmable Xtreme

Our Xitanium programmable Xtreme LED drivers with global input voltage (UL, ENEC) are designed to deliver high performance, protection and configurability. The Xtreme technology ensures maximum robustness and protection with a very long lifetime. Configuration of programmable drivers can be done via DALI and the MultiOne software.



#### **Product specification**

Product name	Housing	Output current range	Min Current	Output voltage range	Output power	Class	Surge protection DM/CM	Efficiency range, max load	Inrush current peak (230V)	Inrush current width to 50%	Power factor. 100% load	Tc life	DALI	1-10V	Dyna Dimmer	Module Temp. Protec- tion	Product code
	type	mA	mA	V	W	1/11	kV	%	Α	μs		°C					GPC
Xitanium 40W 0.7A Prog+ GL-J sXt	J-can	350- 700	50	29-57	3-40	I/II	4/4	88	65	100	0.97	74	•	•	•	•	929000 708803
Xitanium 75W 0.35-0.7A Prog+ GL-F sXt	F-can	350- 700	50	80-152	6-75	I	3/3	90	108	140	0.97	70	•	•	•	•	929000 702302
Xitanium 75W 0.1 – 1.05A Prog+ sXt	F-can	350- 1050	100	36-75	6-75	I	4/4	90	100	160	0.97	70	•	•	•	•	929000 708903
Xitanium 100W 0.70A Prog+ GL-Z sXt	Z-can	350 - 700	100	71-143	10-100	I/II	4/4	92	80	150	0.97	75	•	•	•	•	929000 708703
Xitanium 150W 0.35-0.7A GL Prog sXt	F-can	350- 700	50	125-280	15-150	I	3/3	91	108	140	0.97	70	•	•	•	•	929000 702202
Xitanium 150W 0.1-1.05A GL Prog sXt	F-can	350- 1050	100	70-148	15-150	I/II	4/4	92	110	150	0.97	70	•	•	•	•	929000 709003
Xitanium 300W 0.35-1.5A Prog+ GI -R sXt	R-can	350- 1500	100	80-280	21-300	I/II	4/4	93	170	220	0.98	64	•	•	•	•	929000 712703

Input voltage range 120-277 Vac Lifetime @ Tc life, 90% survivals 100,000 hrs

#### Module recommendation

Driver type Suitable module

Xitanium 150W 0.3-0,7A Prog+ GL-F sXt Fortimo FastFlex 2x8/740 G4



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#### **MultiOne Software**

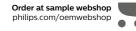
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Suitable f





Outdoor



# **Xitanium LED drivers** full programmable Xtreme



Our Xitanium full programmable Xtreme LED drivers are designed to deliver the highest performance, reliability and configuration possibilities. The portfolio offers both stand-alone and remote dimming protocols to further decrease energy use with latest LED technologies. The proven Xtreme technology ensures maximum robustness and protection for a very long lifetime. These drivers are the preferred choice for your demanding applications such as outdoor and industry. Configuration of these drivers can be done via both the universal DALI or with SimpleSet, which is the latest technology for reliable, fast and easy alterating and reading out of settings.









100	C170

Prod	luct	speci	ficat	ion

Product name	Hou- sing	Output current range	Min cur- rent	Output voltage range	Output power	Surge protec- tion DM/ CM	Effici- ency @ 100% load	Inrush current peak	Inrush current width	Power factor. 100% load	Tc life	Simple Set	DALI	Line Switch	Dyna Dim- mer	Module Temp. Protec- tion	Driver temp. limit	Mains- Guard	Product code
	type	mA	mA	V	W	kV	%	Α	μs		°C								GPC
Xi FP 22W 0.2-0.7A SNL- DAE 230V S175 sXt	S175	200- 700	53	16-48	1-22	10/6	86	15	295	0.99	75	•	•	•	•	•		•	929001 617806
Xi FP 22W 0.3-1.0A SNL- DAE 230V S175 sXt	S175	300- 1050	70	8-32	1-22	10/6	86	15	295	0.99	75	•	•	•	•	•		•	929000 991206
Xi FP 40W 0.2-0.7A SNL- DAE 230V S175 sXt	S175	200- 700	53	25-77	2-40	10/6	90	21	225	0.99	75	•	•	•	•	•		•	929000 989206
Xi FP 40W 0.3-1.0A SNL- DAE 230V S175 sXt	S175	300- 1050	70	20-54	2-40	10/6	90	21	225	0.99	75	•	•	•	•	•		•	929000 989306
Xi FP 75W 0.2-0.7A SNL- DAE 230V S240 sXt	S240	200 - 700	53	50-150	3-75	10/6	92	46	250	0.98	75	•	•	•	•	•	•	•	929001 644006
Xi FP 75W 0.3-1.0A SNL- DAE 230V S240 sXt	S240	300 - 1050	70	20-100	4-75	10/6	92	46	245	0.98	75	•	•	•	•	•	•	•	929001 644106
Xi FP 100W 0.3-1.0A SNLDAE 230V C165 sXt	C165	200- 700	50	50-150	3-100	10/6	92	45	285	0.99	75	•	•	•	•	•	•	•	929001 650006
Xi FP 150W 0.2-0.7A SN- LDAE 230V S240 sXt	S240	200 -	53	90-283	11-150	10/6	93	53	300	0.98	75	•	•	•	•	•	•	•	929001 644206
Xi FP 150W 0.3-1.0A SN- LDAE 230V S240 sXt	S240	300 - 1050	70	70-214	11-150	10/6	93	53	300	0.98	75	•	•	•	•	•	•	•	929001 644306
Xi FP 22W 0.2-0.7A SNL- DAE 230V C123 sXt	C123	200- 700	53	16-48	1-22	10/6	86	15	360	0.99	75	•	•	•	•	•		•	929001 617706
Xi FP 22W 0.3-1.0A SNL- DAE 230V C123 sXt	C123	300- 1050	70	8-32	1-22	10/6	86	15	360	0.99	75	•	•	•	•	•		•	929001 518506
Xi FP 40W 0.2-0.7A SNL- DAE 230V C123 sXt	C123	200-	53	25-77	4-40	10/6	90	21	300	0.99	75	•	•	•	•	•		•	929001 518606
Xi FP 40W 0.3-1.0A SNL- DAE 230V C123 sXt	C123	300- 1050	70	20-54	4-40	10/6	90	21	300	0.99	75	•	•	•	•	•		•	929001 518706
Xi FP 75W 0.2-0.7A SNL- DAE 230V C133 sXt	C133	200- 700	50	50-150	2.5-75	10/6	92	43	260	0.99	70	•	•	•	•	•	•	•	929001 408406
Xi FP 75W 0.3-1.0A SNL- DAE 230V C133 sXt	C133	300- 1050	70	35-108	2.5-75	10/6	92	43	260	0.99	70	•	•	•	•	•	•	•	929001 408506
Xi FP 75W 0.5-1.5A SNL- DAE 230V C133 sXt	C133	500- 1500	100	25-71	2.5-75	10/6	91	43	260	0.99	70	•	•	•	•	•	•	•	929001 408606
Xi FP 110W 0.2-0.7A SN- LDAE 230V C133 sXt	C133	200-	50	70-220	4-110	10/6	93	47	250	0.99	75	•	•	•	•	•	•	•	929001 639006
Xi FP 110W 0.3-1.0A SN- LDAE 230V C133 sXt	C133	300- 1050	70	50-160	4-110	10/6	92	47	250	0.99	75	•	•	•	•	•	•	•	929001 639106
Xi FP 165W 0.2-0.7A SNLDAE 230V C170 sXt	C170	200-	70	100-	10-165	10/6	93	58	340	0.98	80	•	•	•	•	•	•	•	929000 976206
Xi FP 165W 0.3-1.0A SN- LDAE 230V C170 sXt	C170	300- 1050	70	80-235	10-165	10/6	93	58	340	0.98	80	•	•	•	•	•	•	•	929000 976306
Xi FP 330W 2:0.2-0.75A SNDAE 230V C240 sXt	C240	200- 750 (x2)	50	100- 300	5-165	10/6	93	19	300	0.99	75	•	•	•	•	•	•	•	929001 408306

Input voltage range 220-240 Vac Lifetime @ Tc life, 90% survivals 100,000 hrs

#### Module recommendation

Driver type
Xi FP 22W 0.3-1.0A SNLDAE 230V S175 sXt
Xi FP 40W 0.2-0.7A SNLDAE 230V S175 sXt
Xi FP 75W 0.2-0.7A SNLDAE 230V S240 sXt
Xi EP 150W 0 2-0 7Δ SNI DΔE 230V S240 sXt

Suitable module Fortimo FastFlex 2x4/740 G4 Fortimo FastFlex 2x4/740 G4 Fortimo FastFlex 2x8/740 DA G4







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# **Xitanium LED drivers** lite programmable Xtreme



Our Xitanium lite programmable Xtreme LED drivers are value engineered to deliver a carefully selected feature set and highend performance, making them a preferred choice for many outdoor applications. The portfolio offers high flexibility with a customizable operating window, enabling differentiation in LED lighting designs via system tuning and compatibility with LED efficacy upgrades. Configuration of programmable drivers has never been easier with the integrated SimpleSet feature, a fast and wireless way to change and read-out settings.











roduct specification	roduct	specification
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Product name																	
	Housing	Output current range	Output voltage range	Output power	Surge protection CM/DM	Dimming range	Efficiency @, 100% load	Inrush current peak	Inrush current width to 50%	Power factor, 100% load	Tc life	SimpleSet	1-10 V	DynaDimmer (5-step)	Driver temp. limit	MainsGuard	Product code
	type	mA	٧	W	kV	%	%	Α	μs		°C	(( <del></del> )					GPC
Xi LP 22W 0.2-0.7A S1 230V S175 sXt	S175	200-700	16-48	1-22	10/6	100-10	86	12	270	0.99	70	•	•	•		•	929001613606
Xi LP 22W 0.3-1.0A S1 230V S175 sXt	S175	300-1050	8-32	1-22	10/6	100-10	86	12	270	0.99	70	•	•	•		•	929001613706
Xi LP 40W 0.2-0.7A S1 230V S175 sXt	S175	200-700	23-77	2-40	10/6	100-10	89	16	240	0.98	70	•	•	•		•	929000930706
Xi LP 40W 0.3-1.0A S1 230V S175 sXt	S175	300-1050	20-54	2-40	10/6	100-10	89	16	240	0.98	70	•	•	•		•	929000940806
Xi LP 75W 0.2-0.7A S1 230V S240 sXt	S240	200-700	50-150	4-75	10/6	100-10	92	46	245	0.98	75	•	•	•	•	•	929000963206
Xi LP 75W 0.3-1.0A S1 230V S240 sXt	S240	300-1050	35-108	4-75	10/6	100-10	92	46	245	0.98	75	•	•	•	•	•	929000963306
Xi LP 75W 0.5-1.5A S1 230V S240 sXt	S240	500-1500	25-75	4-75	10/6	100-10	91	43	260	0.98	75	•	•	•	•	•	929001597606
Xi LP 150W 0.2-0.7A S1 230V S240 sXt	S240	200-700	90-283	7-150	10/6	100-10	93	53	300	0.98	75	•	•	•	•	•	929000962806
Xi LP 150W 0.3-1.0A S1 230V S240 sXt	S240	300-1050	70-214	7-150	10/6	100-10	93	53	300	0.98	75	•	•	•	•	•	929000962906
Xi LP 150W 0.5-1.5A S1 230V S240 sXt	S240	500-1500	50-142	7-150	10/6	100-10	92	53	300	0.99	80	•	•		•	•	929001553806

Input voltage range 220-240 Vac

Lifetime @ Tc life. 90% survivals 100.000 hrs





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Philips OEM LED catalogue 100 Philips OEM LED catalogue 101

# **Xitanium LED drivers** lite programmable Xtreme











#### **Product specification**

Product name	Hous- ing	Output current range	Output voltage range	Output power	Surge protec- tion CM/ DM	Dim- ming range	Efficiency @ 100% load	Inrush current peak	Inrush current width to 50%	Power factor, 100% load	Simple- Set	1-10 V	Dyna- Dimmer (5-step)	Driver Temp. Limit	Mains- Guard	Product code
	type	mA	٧	W	kV	%	%	Α	μs		(( <del></del>					GPC
Xi LP 22W 0.2-0.7A S1 230V C123 sXt	C123	200- 700	16-48	1-22	10/6	100-10	87	15	320	0.99	•	•	•		•	929001627006
Xi LP 22W 0.3-1.0A S1 230V C123 sXt	C123	300- 1050	8-32	1-22	10/6	100-10	87	15	320	0.99	•	•	•		•	929001532306
Xi LP 40W 0.2-0.7A S1 230V C123 sXt	C123	200- 700	25-77	1.8-40	10/6	100-10	90	22	250	0.98	•	•	•		•	929001537106
Xi LP 40W 0.3-1.0A S1 230V C123 sXt	C123	300- 1050	20-54	1.5-40	10/6	100-10	90	22	250	0.98	•	•	•		•	929001532406
Xi LP 75W 0.2-0.7A S1 230V C133 sXt	C133	200- 700	50-150	3.5-75	10/6	100-10	91	43	270	0.98	•	•	•	•	•	929000964206
Xi LP 75W 0.3-1.0A S1 230V C133 sXt	C133	300- 1050	35-108	3.5-75	10/6	100-10	91	43	270	0.98	•	•	•	•	•	929000964006
Xi LP 75W 0.5-1.5A S1 230V C133 sXt	C133	500- 1500	25-75	3.5-75	10/6	100-10	90	43	270	0.98	•	•	•	•	•	929000964306
Xi LP 110W 0.2-0.7A S1 230V C133 sXt	C133	200- 700	70-220	5-110	10/6	100-10	91	45	270	0.98	•	•	•	•	•	929000964106
Xi LP 110W 0.3-1.0A S1 230V C133 sXt	C133	300- 1050	50-160	5-110	10/6	100-10	91	45	270	0.98	•	•	•	•	•	929000964606
Xi LP 165W 0.2-0.7A S1 230V C170 sXt	C170	200- 700	100- 300	7-165	10/6	100-10	93	41	440	0.98	•	•	•		•	929000964406
Xi LP 165W 0.3-1.0A S1 230V C170 sXt	C170	300- 1000	80-235	7-165	10/6	100-10	93	41	440	0.98	•	•	•		•	929000964706
Xi LP 165W 0.5-1.5A S1 230V C170 sXt	C170	500- 1500	54-157	7-165	10/6	100-10	93	41	440	0.98	•	•	•		•	929001571906

Input voltage range 220-240 Vac

Tc life 75°C Lifetime @ Tc life, 90% survivals 100,000 hrs



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# **Xitanium LED drivers - single output current**

Our Philips Xitanium LED drivers with single output current provide constant current output, optimal for a single string of LEDs. The family offers a selection of drivers with different currents and wattages in a range of convenient form factors. The lower wattage versions are SELV (safety extra low voltage) compliant, enabling easy LED light engine design.



#### Product specification (Otd)

roduct specification (ota)						
Product name	Housing	Output current	Output voltage	Type of dimming	Power factor 100% load	Product code
	type	Ма	V			GPC
Fixed						
LED driver outdoor 12W/0.35A-33V 230V	1	350	2.6-33.0	n.a.	0.90	913700615882
LED driver outdoor 17W/0.70A-24V 230V	2	700	2.6-24.6	n.a.	0.90	913700615982

Input voltage range 220-240 Vac Lifetime @ Tc life, 90% survivals 50,000 hrs





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# Xitanium LED drivers 1-10V dimmable

Our Xitanium Xtreme single current LED drivers bring performance, value for money, long life and reliability to demanding outdoor and industrial LED lighting applications. Ideal for road lighting, urban street lighting, area/flood lighting, high-bay lighting and tunnels, they are designed to be easy to integrate into your luminaires. The drivers are compact, and you can choose between build-in and independent versions that are protected against water and dust ingression to IP67. The range includes 75, 150 and 250 W versions with lifetimes up to 100,000 hours. The light output is fully adjustable via a 1 to 10 V analog dimming interface.





#### **Product specification**

Product name	Housing	Electrical class	Output current	Output voltage range	Output power	Surge protec- tion CM/ DM	Efficien- cy range @ 100% load	Inrush current peak	Inrush current width to 50%	Power factor, 100% load	Power factor, dimmed 50%	Tc life	Product code
	type		mA	V	W	kV	%	Α	μs			°C	GPC
Xitanium 75W 0.70A 1-10V 230V C165 sXt	C165	Class I & II	700	52-107	3.7-75	8/6	91	31	390	0.98	0.94	75	929001405306
Xitanium 75W 1.05A 1-10V 230V C165 sXt	C165	Class I & II	1050	36-75	3.7-75	8/6	91	31	390	0.98	0.94	75	929001405406
Xitanium 150W 0.70A 1-10V 230V S240 sXt	S240	Class I & II	700	100-214	7-150	8/6	92	34	475	0.99	0.97	75	929001405506
Xitanium 150W 1.05A 1-10V 230V S240 sXt	S240	Class I & II	1050	72-150	8-150	8/6	91	34	475	0.99	0.97	75	929001405606
Xitanium 250W 0.70A 1-10V 230V Q	Q-can	Class I	700	158-357	25-250	6/6	94	38	625	0.98	0.95	80	929000838508
Xitanium 75W 0.70A 1-10V 230V I220	1220	Class I & II	700	52-107	4-75W	8/6	90	31	400	0.98	0.95	70	929001405706
Xitanium 150W 0.70A 1-10V 230V I220	1220	Class I & II	700	100-214	7-150W	8/6	92	34	475	0.99	0.98	70	929001405806
Xitanium Dim 250W 0.70A 1-10V 230V I220	1220	Class I	700	178-357	25-250	6/6	94	38	625	0.98	0.95	70	929001404706

Input voltage range 220-240 Vac Lifetime @ Tc life, 90% survivals 100,000 hrs

#### Suitable for:





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# **Xitanium LED drivers - low voltage DC input**

Our Xitanium LED drivers with low voltage DC input are designed for off-grid solutions running on battery (direct current) power. The drivers incorporate dimming intelligence, which translates the often-scarce energy collected by the solar system or wind turbine into the best possible system performance and reliability. Originally optimized for use with Fortimo FastFlex LED board gen 3, the drivers can be used with different light LED engines.



#### Product specification

Output current	Output voltage	Type of dimming	Dimming range	Temperature protection	Input voltage range (DC)	Product code
mA	V		%		V	GPC
200-700	40-100	Programmable LumiStep	100-10	•	10.5-32	929000611903
200-700	40-100	Programmable LumiStep	100-10	•	10.5-32	929000612003
	mA 200-700	mA V 200-700 40-100	mA V 200-700 40-100 Programmable LumiStep	mA V % 200-700 40-100 Programmable LumiStep 100-10	protection  mA V %  200-700 40-100 Programmable LumiStep 100-10 •	mA V

Lifetime @ Tc life. 90% survivals 50.000 hrs

#### Module recommendation

Driver type Xitanium 40W 0.2-0.7A LS 12-24V Fortimo FastFlex LED board G3

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Suitable for:



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Philips OEM LED catalogue 104

# **Surge protection devices**

Our surge protection devices are the ideal solution to the challenge of using LEDs in outdoor lighting. The SPD protects the complete system against high surges that can occur due to for example lightning strikes. Essential for LED systems installed in high-risk areas, the advantages of using the SPD are not limited only to LED systems. The product can be used in any new or existing lighting solution, regardless of technology.



#### **Product specification**

Commercial name	Rated Input voltage range	Power grids	Discharge voltage	Discharge current (L-N)	Discharge current (L/N-GND)	Tc life	T amb	Product code
	Vac	Type	kV	kA	kA	°C	°C	GPC
Xtreme surge protector I	220-240	TN, TT, IT	10	5	5	80	-40, 85	929000886906
Surge protector class-I	230	TN, TT	10	5	5	80	-40, 85	929001607006
Surge protector class-II	230	TN, TT	10	5	5	80	-40, 85	929001607106

Lifetime @ Tc life, 90% survivals 100,000 hrs

Suitable for:



Outdoo

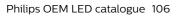


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# Retail display lighting

# With the premium light quality."

The key need of food and fashion retailers is to make merchandise stand out at the point-of-purchase while consuming less power. That's why we have developed our InteGrade LED system gen 3 portfolio,

which brings unrivaled product visibility, attractiveness and efficiency.

#### Premium light quality, throughout the store

Our new InteGrade gen 3 family offers you superior visual display with best-in-class efficiency. And you can lower energy costs at the same time. We offer two color ranges: premium white and standard.

Premium white color lights up shoppers' desire with an optimized color spectrum for enhanced white performance and astonishingly lively rich colors with typical CRI 93 while providing an outstanding efficacy up to 125 lm/W to enable lower power consumption.

Combined with our premium white spotlighting solutions, the InteGrade LED system premium white gen 3 enables you to create a single look and feel for the whole store, for the ultimate shopping experience. Standard color range enables product colors to look natural by means of its specially formulated CRI 90 LEDs, including the food version featuring a single color line of light.

Also great news: InteGrade high flux family, with its breathtaking performance. Its exceptional uniform light distribution brings the light right down to the lowest shelf. The bright, high-quality light displays products more attractively even when behind a glass door. Its miniaturized design means the light source itself is out of sight, which further maximizes attention on the products. InteGrade high flux is now available in premium white to combine the best of both worlds.

#### **Maximum design flexibility**

We offer you maximum design flexibility thanks to a range of engine lengths, color temperatures, accessories and constant voltage LED drivers. The modular components fit together easily to simplify design-in and ensure hassle-free installation.

#### **Melike Yavuz**

Product manager retail display lighting





# **Just** released!

#### CertaFlux RDL gen 1

See page 122



Discount and price-fighter retail chains focus on costs. They leverage purchasing power to deliver value, and the customer expects affordable prices and a functional shopping experience. The lighting must support this image, which is where our CertaFlux RDL portfolio comes in. It has established itself as an energy-efficient way to deliver the quality of light this cost-sensitive retail sector is looking for, especially in cooler and shelf applications.

# Coming soon!

# LED innovations in the pre-launch phase

#### Fortimo LEDFlex gen 1

Extending RDL business from Refrigeration Display Lighting to Retail Display Lighting!

Fortimo LEDFlex gen 1 will be our new flexible LED strip portfolio. We will offer two color ranges: premium white and standard. Combined with our premium white spotlighting solutions and premium white InteGrade LED system gen 3, Fortimo LEDFlex gen 1 will enable you to create a single look and feel for the whole store, for the ultimate shopping experience.

Suitable for:



# **Philips InteGrade LED products**

#### InteGrade LED system gen 3 - premium white range

The InteGrade LED system gen 3 has been designed for ultimate product attractiveness through a combination of a superior light quality, best light distribution and state-of-art efficacy. This range offers two color ranges: premium white and standard. The premium white color range offers an optimized color spectrum, enabling enhanced white performance and astonishing lively rich colors for superior visual display of the merchandize with typical CRI 93. It also provides an outstanding efficacy up to 125 lm/W to enable lower power consumption. The standard color range enables product colors look natural by means of its specially-formulated CRI 90 LEDs, including the food version featuring a single color line of light.

The third generation of the very successful InteGrade range includes a brand new canopy version featuring a slim and miniaturized design with a breakthrough optical design enabling a perfect uniform light distribution in the chillers. Furthermore a new InteGrade engine and fixture narrow beam vision provides higher lumen levels while maintaining a slim design suitable for aesthetic integration in, for example, chiller doors, where there is no room to place a sizable lighting solution. What's more, the InteGrade high flux is available in premium white to combine the best of both worlds: high flux with premium white takes the product visibility and product attractiveness to the ultimate level, and stimulates the desire to buy.

An ultimate shopping experience can be created by the combination of the InteGrade LED system premium white and existing premium white spot lighting solutions, enabling one look and feel in the store. InteGrade LED engines have been designed to match the most common application lengths, reducing the number of components needed per installation. Yet they maintain outstanding flexibility through their modular design, enabling the creation of odd-size lighting solutions to match every project specification. Thanks to a range of engine lengths, fixtures, accessories like mounting profiles, mounting clips, power cables, and constant voltage LED drivers, the InteGrade LED system gen 3 offers maximum design flexibility and plug and play simplicity to enable a vast variety of innovative systems with style, modernity and functionality.

#### For shelf lighting

#### InteGrade engine value premium white gen 3

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC
InteGrade engine Va 140mm 930 PW G3	0,8	85	93	3000	929001567506
InteGrade engine Va 575mm 930 PW G3	3,4	380	93	3000	929001567606
InteGrade engine Va 855mm 930 PW G3	4,9	550	93	3000	929001567706
InteGrade engine Va 1150mm 930 PW G3	6,7	760	93	3000	929001567806
InteGrade engine Va 140mm 940 PW G3	0,8	90	93	4000	929001567906
InteGrade engine Va 575mm 940 PW G3	3,4	420	93	4000	929001568006
InteGrade engine Va 855mm 940 PW G3	4,9	600	93	4000	929001568106
InteGrade engine Va 1150mm 940 PW G3	6,7	840	93	4000	929001568206

\* Correlated color temperature within 5 SDCM range

#### InteGrade engine vision premium white gen 3

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC
InteGrade engine Vi 140mm 930 PW G3	1,6	170	93	3000	929001568306
InteGrade engine Vi 575mm 930 PW G3	6,9	750	93	3000	929001568406
InteGrade engine Vi 855mm 930 PW G3	10,1	1090	93	3000	929001568506
InteGrade engine Vi 1150mm 930 PW G3	13,8	1500	93	3000	929001568606
InteGrade engine Vi 140mm 940 PW G3	1,6	180	93	4000	929001568706
InteGrade engine Vi 575mm 940 PW G3	6,9	800	93	4000	929001568806
InteGrade engine Vi 855mm 940 PW G3	10,1	1160	93	4000	929001568906
InteGrade engine Vi 1150mm 940 PW G3	13,8	1600	93	4000	929001569006

\* Correlated color temperature within 5 SDCM rang

#### For canopy lighting

#### InteGrade engine uniform beam value premium white gen 3

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC
InteGrade engine UB Va 855mm 930 PW G3	9,6	940	93	3000	929001626606
InteGrade engine UB Va 1150mm 930 PW G3	12,8	1250	93	3000	929001626806
InteGrade engine UB Va 855mm 940 PW G3	9,6	1025	93	4000	929001626706
InteGrade engine UB Va 1150mm 940 PW G3	12,8	1350	93	4000	929001626906

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### InteGrade engine uniform beam vision premium white gen 3

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	К	GPC
InteGrade engine UB Vi 140mm 930 PW G3	2,5	250	93	3000	929001572506
InteGrade engine UB Vi 575mm 930 PW G3	10	1000	93	3000	929001569706
InteGrade engine UB Vi 855mm 930 PW G3	15	1500	93	3000	929001569806
InteGrade engine UB Vi 1150mm 930 PW G3	20	2000	93	3000	929001569906
InteGrade engine UB Vi 140mm 940 PW G3	2,5	280	93	4000	929001572606
InteGrade engine UB Vi 575mm 940 PW G3	10	1100	93	4000	929001570006
InteGrade engine UB Vi 855mm 940 PW G3	15	1650	93	4000	929001570106
InteGrade engine UB Vi 1150mm 940 PW G3	20	2200	93	4000	929001570206

<sup>\*</sup> Correlated color temperature within 5 SDCM range

Suitable for:



#### For chillers with doors

#### InteGrade engine narrow beam value premium white gen 3 $\,$

Product Specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC
InteGrade engine NB Va 140mm 930 PW G3	1	115	93	3000	929001569106
InteGrade engine NB Va 575mm 930 PW G3	4,5	500	93	3000	929001569206
InteGrade engine NB Va 1430mm 930 PW G3	11	1230	93	3000	929001569306
InteGrade engine NB Va 140mm 940 PW G3	1	120	93	4000	929001569406
InteGrade engine NB Va 575mm 940 PW G3	4,5	530	93	4000	929001569506
InteGrade engine NB Va 1430mm 940 PW G3	11	1300	93	4000	929001569606

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### InteGrade engine narrow beam vision premium white gen 3

Product specification						
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code	
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC	
InteGrade engine NB Vi 140mm 930 PW G3	2,7	280	93	3000	929001605406	
InteGrade engine NB Vi 1430mm 930 PW G3	27,2	2850	93	3000	929001571706	
InteGrade engine NB Vi 140mm 940 PW G3	2,7	300	93	4000	929001605506	
InteGrade engine NB Vi 1430mm 940 PW G3	27.2	3100	93	4000	929001571806	

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### InteGrade fixture narrow beam value premium white gen 3 $\,$

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC
InteGrade F NB Va 1500mm 930 PW SD G3	11	1230	93	3000	929001572006
InteGrade F NB Va 1500mm 930 PW CTR G3	22	2460	93	3000	929001572106
InteGrade F NB Va 1500mm 940 PW SD G3	11	1300	93	4000	929001572206
InteGrade F NB Va 1500mm 940 PW CTR G3	22	2600	93	4000	929001572306

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### InteGrade fixture narrow beam vision premium white gen 3 $\,$

Product specification Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC
InteGrade F NB Vi 1500mm 930 PW SD G3	26,2	2850	93	3000	929001570306
InteGrade F NB Vi 1500mm 930 PW CTR G3	52,4	5700	93	3000	929001570406
InteGrade F NB Vi 1500mm 940 PW SD G3	26,3	3100	93	4000	929001570506
InteGrade F NB Vi 1500mm 940 PW CTR G3	52,6	6200	93	4000	929001570606

 $<sup>^{\</sup>ast}$  Correlated color temperature within 5 SDCM range

#### Suitable for:



For further information visit philips.com/technology

#### For canopy and chillers with doors

#### InteGrade engine high flux premium white gen 3

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	К	GPC
InteGrade engine HF 140mm 930 PW G3	4,4	400	93	3000	929001605606
InteGrade engine HF 575mm 930 PW G3	17,5	1575	93	3000	929001605706
InteGrade engine HF 1150mm 930 PW G3	34,9	3150	93	3000	929001605806
InteGrade engine HF 140mm 940 PW G3	4	400	93	4000	929001605906
InteGrade engine HF 575mm 940 PW G3	16,1	1575	93	4000	929001606006
InteGrade engine HF 1150mm 940 PW G3	32,2	3150	93	4000	929001606106

<sup>\*</sup> Correlated color temperature within 5 SDCM range

Note: InteGrade high flux engines are not standalone engines and they might need to be integrated with a heatsink for thermal management and to achieve 50 khrs lifetime.

Product code (GPC)

929000874313

#### **Constant voltage drivers**

Product name	Product code (GPC)
LED power driver 20W 24V	929000654006
LED power driver 80W 24V	929000653906
LED power driver 100W 24V 100/240V	929001430080
LED power driver 75W - 24V PP ItG-N plug*	929000869613
Xitanium 77W 100-277V 3.2A XI077C320V024FNS1M *	929001708113
Xitanium 100W 100-277V 4.1A XI100C410V024FNS1M*	929000771913
LED driver outdoor 100W 100-240V 24V**	929000485303

<sup>\*</sup> Only for NAM region \*\* Only for Japan

InteGrade Y cable black

Accessories

nly for Japan

Clips	•
nteGrade mounting clip shelf arm V2	929000957806
teGrade engine clip shelf arm G2	929001516006
nteGrade engine mounting clip G2	929001516106
nteGrade mounting clip under shelf	929000643903
nteGrade engine clip magnetic	929001624606
nteGrade mounting clip canopy	929001571106
nteGrade engine clip mullion side	929001624506
nteGrade engine clip mullion center	929001624406
nteGrade mounting clip for T style prof	929000853213
rofiles	
teGrade profile 875mm(34")	929000643413
nteGrade profile 1175mm(46")	929000643313
nteGrade profile 2000mm(79")	929000654413
nteGrade profile 2000mm(79") F style	929000654313
nteGrade profile 2000mm(79") L style	929000654513
nteGrade prof 2000mm(79") T style CTR	929000853013
nteGrade profile 2000mm(79") T style SD	929000853113
nteGrade profile 2356mm (93") M style	929000871313
ower cables - to connect engine to driver	
nteGrade power cable 0.7m white	929001625306
nteGrade power cable 1m(39") black	929000641014
iteGrade power cable 2.5m(98") black	929000641114
nteGrade cable 1m(39") black angle	929000644614
nteGrade cable 2.5m(98") black angle	929000644814
teGrade power cable 1m(39") white	929000645614
nteGrade power cable 1.85m white	929001625206
nteGrade power cable 2.5m(98") white	929000644514
nteGrade cable 1m(39") white angle	929000644714
teGrade cable 2.5m(98") white angle	929000644914
nteGrade power cable 3m black angle	929001650106
iteGrade power cable 6m white	929001624806
nteGrade spacer cable 113mm white	929001625106
nteGrade spacer cable 0.3m black	929001625006
nteGrade spacer cable 0.5m black	929000645014
nteGrade spacer cable 0.5m white	929000645114
nteGrade spacer cable M 0.7m 5.5c black	929001624706
nteGrade extension cab 1.5m(59")black	929000874413

Accessories Product code (G			
Other accessories			
InteGrade engine lock inline	929000643713		
InteGrade connector	929000959106		
InteGrade magnet for M style profile	929000871413		
InteGrade rotational bracket	929000874613		

#### Suitable for:



# **Philips InteGrade LED products**

#### InteGrade LED system gen 3 - standard color range

The InteGrade LED system gen 3 has been designed for ultimate product attractiveness through a combination of a superior light quality, best light distribution and state-of-art efficacy. This range offers two color ranges: premium white and standard. The premium white color range offers an optimized color spectrum, enabling enhanced white performance and astonishing lively rich colors for superior visual display of the merchandize with typical CRI 93. Is also provides an outstanding efficacy up to 125 lm/W to enable lower power consumption. The standard color range enables product colors look natural by means of its specially-formulated CRI 90 LEDs, including the food version featuring a single color line of light.

The third generation of the very successful InteGrade range includes a brand new canopy version featuring a slim and miniaturized design with a breakthrough optical design enabling a perfect uniform light distribution in the chillers. Furthermore a new InteGrade engine and fixture narrow beam vision provides higher lumen levels while maintaining a slim design suitable for aesthetic integration in, for example, chiller doors, where there is no room to place a sizable lighting solution.

InteGrade LED engines have been designed to match the most common application lengths, reducing the number of components needed per installation. Yet they maintain outstanding flexibility through their modular design, enabling the creation of odd-size lighting solutions to match every project specification. Thanks to a range of engine lengths, fixtures, accessories like mounting profiles, mounting clips, power cables, and constant voltage LED drivers, the InteGrade LED system gen 3 offers maximum design flexibility and plug and play simplicity to enable a vast variety of innovative systems with style, modernity and functionality.

#### For shelf lighting

#### InteGrade engine value gen 3

Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	GPC
InteGrade engine Va 140mm 930 G3	0,9	85	90	3000	929001574606
InteGrade engine Va 575mm 930 G3	3,9	380	90	3000	929001574706
InteGrade engine Va 855mm 930 G3	5,7	550	90	3000	929001574806
InteGrade engine Va 1150mm 930 G3	7,8	760	90	3000	929001574906
InteGrade engine Va 140mm 935 G3	0,8	80	90	3500	929001641006
InteGrade engine Va 575mm 935 G3	3,6	355	90	3500	929001641106
InteGrade engine Va 855mm 935 G3	5,2	510	90	3500	929001641206
nteGrade engine Va 1150mm 935 G3	7,2	710	90	3500	929001641306
InteGrade engine Va 140mm 940 G3	0,9	90	90	4000	929001575006
InteGrade engine Va 575mm 940 G3	3,9	420	90	4000	929001575106
InteGrade engine Va 855mm 940 G3	5,7	600	90	4000	929001575206
InteGrade engine Va 1150mm 940 G3	7,8	840	90	4000	929001575306
InteGrade engine Va 140mm 956 G3	1,0	105	90	5600	929001617906
InteGrade engine Va 575mm 956 G3	3,9	420	90	5600	929001618006
InteGrade engine Va 855mm 956 G3	5,8	630	90	5600	929001618106
InteGrade engine Va 1150mm 956 G3	7,8	840	90	5600	929001618206
nteGrade engine Va 140mm WWR G3	0,7	70	90	-	929001575406
nteGrade engine Va 575mm WWR G3	3,2	310	90	-	929001575506
nteGrade engine Va 855mm WWR G3	4,7	450	90	-	929001575606
nteGrade engine Va 1150mm WWR G3	6,4	620	90	-	929001575706

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### InteGrade engine vision gen 3

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	GPC
InteGrade engine Vi 140mm 930 G3	1,7	170	90	3000	929001575806
InteGrade engine Vi 575mm 930 G3	7,3	750	90	3000	929001575906
InteGrade engine Vi 855mm 930 G3	10,7	1090	90	3000	929001576006
InteGrade engine Vi 1150mm 930 G3	14,6	1500	90	3000	929001576106
InteGrade engine Vi 140mm 935 G3	1,6	155	90	3500	929001641406
InteGrade engine Vi 575mm 935 G3	6,9	680	90	3500	929001641506



#### InteGrade engine vision gen 3

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	К	GPC
InteGrade engine Vi 855mm 935 G3	10,1	990	90	3500	929001641606
InteGrade engine Vi 1150mm 935 G3	13,8	1365	90	3500	929001641706
InteGrade engine Vi 140mm 940 G3	1,7	180	90	4000	929001576206
InteGrade engine Vi 575mm 940 G3	7,3	800	90	4000	929001576306
InteGrade engine Vi 855mm 940 G3	10,7	1160	90	4000	929001576406
InteGrade engine Vi 1150mm 940 G3	14,6	1600	90	4000	929001576506
InteGrade engine Vi 140mm 956 G3	1,9	200	90	5600	929001618306
InteGrade engine Vi 575mm 956 G3	7,4	800	90	5600	929001618406
InteGrade engine Vi 855mm 956 G3	11,1	1200	90	5600	929001618506
InteGrade engine Vi 1150mm 956 G3	14,9	1600	90	5600	929001618606
InteGrade engine Vi 140mm WWR G3	1,5	150	90	-	929001576606
InteGrade engine Vi 575mm WWR G3	6,6	650	90	-	929001576706
InteGrade engine Vi 855mm WWR G3	9,7	950	90	-	929001576806
InteGrade engine Vi 1150mm WWR G3	13,2	1300	90	-	929001576906
InteGrade engine Vi HL 140mm 935 G3**	2,4	240	90	3500	929001651506
InteGrade engine Vi HL 575mm 935 G3**	9,6	950	90	3500	929001651606
InteGrade engine Vi HL 855mm 935 G3**	14,4	1425	90	3500	929001651706
InteGrade engine Vi HL 1150mm 935 G3**	19,2	1875	90	3500	929001651806

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### For canopy lighting

#### InteGrade engine uniform beam value gen 3

Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
W, typical ± 20%	lm, typical ± 20%	CRI, min	K	GPC
9,4	890	90	3000	929001603706
13	1200	90	3000	929001603806
9,4	970	90	4000	929001603906
13	1300	90	4000	929001604006
7,9	700	90	-	929001604106
11	900	90	-	929001604206
	consumption W, typical ± 20% 9,4 13 9,4 13	consumption  W, typical ± 20% lm, typical ± 20%  9,4 890  13 1200  9,4 970  13 1300  7,9 700	consumption         index           W, typical ± 20%         lm, typical ± 20%         CRI, min           9,4         890         90           13         1200         90           9,4         970         90           13         1300         90           7,9         700         90	consumption         index         temperature*           W, typical ± 20%         lm, typical ± 20%         CRI, min         K           9,4         890         90         3000           13         1200         90         3000           9,4         970         90         4000           13         1300         90         4000           7,9         700         90         -

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### InteGrade engine uniform beam vision gen 3

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	GPC
InteGrade engine UB Vi 140mm 930 G3	2,6	240	90	3000	929001578506
InteGrade engine UB Vi 575mm 930 G3	10	950	90	3000	929001578606
InteGrade engine UB Vi 855mm 930 G3	15	1450	90	3000	929001578706
InteGrade engine UB Vi 1150mm 930 G3	20	1950	90	3000	929001578806
InteGrade engine UB Vi 140mm 935 G3	2,4	245	90	3500	929001642106
InteGrade engine UB Vi 575mm 935 G3	9,6	990	90	3500	929001642006
InteGrade engine UB Vi 855mm 935 G3	14,4	1500	90	3500	929001641906
InteGrade engine UB Vi 1150mm 935 G3	19,2	1975	90	3500	929001641806
InteGrade engine UB Vi 140mm 940 G3	2,6	260	90	4000	929001578906
InteGrade engine UB Vi 575mm 940 G3	10	1050	90	4000	929001579006
InteGrade engine UB Vi 855mm 940 G3	15	1600	90	4000	929001579106
InteGrade engine UB Vi 1150mm 940 G3	20	2100	90	4000	929001579206
InteGrade engine UB Vi 140mm WWR G3	1,9	175	90	-	929001579306
InteGrade engine UB Vi 575mm WWR G3	7,5	700	90	-	929001579406
nteGrade engine UB Vi 855mm WWR G3	11	1050	90	-	929001579506
nteGrade engine UB Vi 1150mm WWR G3	15	1400	90	-	929001579606

<sup>\*</sup> Correlated color temperature within 5 SDCM range

Suitable for:



<sup>\*\*</sup> Only for NAM region

#### For chillers with doors

InteGrade engine narrow beam value gen :	InteGr	ade e	ngine	narrow	beam	value	gen	3
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Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	GPC
InteGrade engine NB Va 140mm 930 G3	1,2	125	90	3000	929001577006
InteGrade engine NB Va 575mm 930 G3	4,8	500	90	3000	929001577106
InteGrade engine NB Va 1430mm 930 G3	11,9	1230	90	3000	929001577206
InteGrade engine NB Va 140mm 940 G3	1,2	130	90	4000	929001577306
InteGrade engine NB Va 575mm 940 G3	4,8	530	90	4000	929001577406
InteGrade engine NB Va 1430mm 940 G3	11,9	1300	90	4000	929001577506
InteGrade engine NB Va 140mm 956 G3	1,1	120	90	5600	929001618706
InteGrade engine NB Va 575mm 956 G3	4,3	480	90	5600	929001618806
InteGrade engine NB Va 1430mm 956 G3	10,7	1200	90	5600	929001618906
InteGrade engine NB Va 140mm WWR G3	1,3	125	90	-	929001577606
InteGrade engine NB Va 575mm WWR G3	5,1	500	90	-	929001577706
InteGrade engine NB Va 1430mm WWR G3	12,7	1230	90	-	929001577806

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### InteGrade engine narrow beam vision gen 3

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	GPC
InteGrade engine NB Vi 140mm 930 G3	2,7	260	90	3000	929001605106
InteGrade engine NB Vi 1430mm 930 G3	27,3	2600	90	3000	929001580306
InteGrade engine NB Vi 140mm 940 G3	2,7	280	90	4000	929001605206
InteGrade engine NB Vi 1430mm 940 G3	27,3	2800	90	4000	929001580406
InteGrade engine NB Vi 140mm WWR G3	2,7	260	90	-	929001605306
InteGrade engine NB Vi 1430mm WWR G3	26,6	2600	90	-	929001580506

#### InteGrade fixture narrow beam value gen 3

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	GPC
InteGrade F NB Va 1500mm 930 SD G3	11,7	1230	90	3000	929001577906
InteGrade F NB Va 1500mm 930 CTR G3	23,4	2460	90	3000	929001578006
InteGrade F NB Va 1500mm 940 SD G3	11,7	1300	90	4000	929001578106
InteGrade F NB Va 1500mm 940 CTR G3	23,4	2600	90	4000	929001578206
InteGrade F NB Va 1500mm 956 SD G3	10,7	1200	90	5600	929001619006
InteGrade F NB Va 1500mm 956 CTR G3	21,3	2400	90	5600	929001619106
InteGrade F NB Va 1500mm WWR SD G3	12,7	1230	90	-	929001578306
InteGrade F NB Va 1500mm WWR CTR G3	25,5	2460	90	-	929001578406

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### InteGrade fixture narrow beam vision gen 3

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	GPC
InteGrade F NB Vi 1500mm 930 SD G3	26,1	2600	90	3000	929001579706
InteGrade F NB Vi 1500mm 930 CTR G3	52,3	5200	90	3000	929001579806
InteGrade F NB Vi 1500mm 940 SD G3	26,2	2800	90	4000	929001579906
InteGrade F NB Vi 1500mm 940 CTR G3	52,4	5600	90	4000	929001580006
InteGrade F NB Vi 1500mm WWR SD G3	26,6	2600	90	-	929001580106
InteGrade F NB Vi 1500mm WWR CTR G3	53,2	5200	90	-	929001580206

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### For canopy and chillers with doors

### InteGrade engine high flux gen 3

Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	GPC
InteGrade engine HF 140mm 930 G3	4,4	375	90	3000	929001622106
InteGrade engine HF 575mm 930 G3	17,5	1550	90	3000	929001622206
InteGrade engine HF 1150mm 930 G3	35,0	3100	90	3000	929001622306
InteGrade engine HF 140mm 940 G3	3,9	400	90	4000	929001622406
InteGrade engine HF 575mm 940 G3	15,5	1575	90	4000	929001622506
InteGrade engine HF 1150mm 940 G3	31,1	3150	90	4000	929001622606
InteGrade engine HF 140mm WWR G3	4,4	375	90	-	929001622706
InteGrade engine HF 575mm WWR G3	17,5	1500	90	-	929001622806
nteGrade engine HF 1150mm WWR G3	35,1	3000	90	-	929001622906

<sup>\*</sup> Correlated color temperature within 5 SDCM range

Note: InteGrade high flux engines are not standalone engines and they might need to be integrated with a heatsink for thermal management and to achieve 50 khrs lifetime.

#### Constant voltage drivers

constant voltage anvers	
Product name	Product code (GPC)
LED power driver 20W 24V	929000654006
LED power driver 80W 24V	929000653906
LED power driver 100W 24V 100/240V	929001430080
LED power driver 75W - 24V PP ItG-N plug*	929000869613
Xitanium 77W 100-277V 3.2A XI077C320V024FNS1M *	929001708113
Xitanium 100W 100-277V 4.1A XI100C410V024FNS1M*	929000771913
LED driver outdoor 100W 100-240V 24V**	929000485303

<sup>\*</sup> Only for NAM region \*\* Only for Japan

Accessories	Product code (GPC)

Clips	
InteGrade mounting clip shelf arm V2	929000957806
InteGrade engine clip shelf arm G2	929001516006
InteGrade engine mounting clip G2	929001516106
InteGrade mounting clip under shelf	929000643903
InteGrade engine clip magnetic	929001624606
InteGrade mounting clip canopy	929001571106
InteGrade engine clip mullion side	929001624506
InteGrade engine clip mullion center	929001624406
InteGrade mounting clip for T style prof	929000853213
Profiles	
InteGrade profile 875mm(34")	929000643413
InteGrade profile 1175mm(46")	929000643313
InteGrade profile 2000mm(79")	929000654413
InteGrade profile 2000mm(79") F style	929000654313
InteGrade profile 2000mm(79") L style	929000654513
InteGrade prof 2000mm(79") T style CTR	929000853013
InteGrade profile 2000mm(79") T style SD	929000853113
InteGrade profile 2356mm (93") M style	929000871313
Power cables - to connect engine to driver	
InteGrade power cable 0.7m white	929001625306
InteGrade power cable 1m(39") black	929000641014
InteGrade power cable 2.5m(98") black	929000641114
InteGrade cable 1m(39") black angle	929000644614
InteGrade cable 2.5m(98") black angle	929000644814
InteGrade power cable 1m(39") white	929000645614
InteGrade power cable 1.85m white	929001625206
InteGrade power cable 2.5m(98") white	929000644514
InteGrade cable 1m(39") white angle	929000644714
InteGrade cable 2.5m(98") white angle	929000644914
InteGrade power cable 3m black angle	929001650106
InteGrade power cable 6m white	929001624806
InteGrade spacer cable 113mm white	929001625106
InteGrade spacer cable 0.3m black	929001625006
InteGrade spacer cable 0.5m black	929000645014
InteGrade spacer cable 0.5m white	929000645114
InteGrade spacer cable M 0.7m 5.5c black	929001624706
InteGrade extension cab 1.5m(59")black	929000874413
InteGrade Y cable black	929000874313

Accessories	Product code (GPC)
Other accessories	
InteGrade engine lock inline	929000643713
InteGrade connector	929000959106
InteGrade magnet for M style profile	929000871413
InteGrade rotational bracket	929000874613

Suitable for:



# **Philips InteGrade LED products**

#### InteGrade LED system high flux gen 3

The InteGrade LED system high flux takes the very successful InteGrade range to a whole new level of specifications.

InteGrade LED system high flux has been designed for ultimate product visibility and superior visual display of merchandize by means of an outstanding bright light distribution combined with a miniaturized unobtrusive design, which directs the customer focus onto the merchandize.

This new range offers breathtaking performance, with superb lumen and lux levels and an exceptional uniform light distribution. Revolutionary optics bring light right down to the lowest shelf at the canopy application. The InteGrade high flux is now available in premium white to combine the best of both worlds: high flux with premium white takes the product attractiveness to the ultimate level, and stimulates the desire to buy. Next to premium white version, InteGrade high flux is also available in a standard color range with specially-formulated CRI 90 LEDs to enable product colors to look natural.

InteGrade LED engines have been designed to match the most common application lengths, reducing the number of components needed per installation. Yet they maintain outstanding flexibility through their modular design, enabling the creation of odd-size lighting solutions to match every project specification. Thanks to a range of engine lengths, accessories and Xitanium constant voltage LED power drivers, the InteGrade LED system high flux offers maximum design flexibility and plug and play simplicity to enable a vast variety of innovative systems with style, modernity and functionality. Note that InteGrade high flux engines are not standalone engines, and they might need integrated with a heatsink for thermal management to achieve 50 khrs lifetime. The cabinet framework can be used for that. Our design-in service is available to support you.



#### For canopy and chillers with doors

#### InteGrade engine high flux gen 3

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	К	GPC
InteGrade engine HF 140mm 930 G3	4,4	375	90	3000	929001622106
InteGrade engine HF 575mm 930 G3	17,5	1550	90	3000	929001622206
InteGrade engine HF 1150mm 930 G3	35,0	3100	90	3000	929001622306
InteGrade engine HF 140mm 940 G3	3,9	400	90	4000	929001622406
InteGrade engine HF 575mm 940 G3	15,5	1575	90	4000	929001622506
InteGrade engine HF 1150mm 940 G3	31,1	3150	90	4000	929001622606
InteGrade engine HF 140mm WWR G3	4,4	375	90	-	929001622706
InteGrade engine HF 575mm WWR G3	17,5	1500	90	-	929001622806
InteGrade engine HF 1150mm WWR G3	35,1	3000	90	-	929001622906

 $<sup>^{\</sup>ast}$  Correlated color temperature within 5 SDCM range

Note: InteGrade high flux engines are not standalone engines and they might need to be integrated with a heatsink for thermal management and to achieve 50 khrs lifetime.

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For further information visit philips.com/technology

#### InteGrade engine high flux premium white gen 3

#### **Product specification**

Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC
InteGrade engine HF 140mm 930 PW G3	4,4	400	93	3000	929001605606
InteGrade engine HF 575mm 930 PW G3	17,5	1575	93	3000	929001605706
InteGrade engine HF 1150mm 930 PW G3	34,9	3150	93	3000	929001605806
InteGrade engine HF 140mm 940 PW G3	4	400	93	4000	929001605906
InteGrade engine HF 575mm 940 PW G3	16,1	1575	93	4000	929001606006
InteGrade engine HF 1150mm 940 PW G3	32,2	3150	93	4000	929001606106

<sup>\*</sup> Correlated color temperature within 5 SDCM range

Note: InteGrade high flux engines are not standalone engines and they might need to be integrated with a heatsink for thermal management and to achieve 50 khrs lifetime

#### Constant voltage drivers

constant vottage arress	
Product name	Product code (GPC)
LED power driver 20W 24V	929000654006
LED power driver 80W 24V	929000653906
LED power driver 100W 24V 100/240V	929001430080
LED power driver 75W - 24V PP ItG-N plug*	929000869613
Xitanium 77W 100-277V 3.2A XI077C320V024FNS1M *	929001708113
Xitanium 100W 100-277V 4.1A XI100C410V024FNS1M*	929000771913
LED driver outdoor 100W 100-240V 24V**	929000485303

<sup>\*</sup> Only for NAM regio

<sup>\*\*</sup> Only for Japa

Accessories	Product code (GPC)
InteGrade power cable 1m(39") black	929000641014
InteGrade power cable 2.5m(98") black	929000641114
InteGrade cable 1m(39") black angle	929000644614
InteGrade power cable 1m(39") white	929000645614
InteGrade power cable 2.5m(98") white	929000644514
InteGrade cable 1m(39") white angle	929000644714
InteGrade engine lock inline	929000643713
InteGrade connector	929000959106

Suitable for:



For further information visit philips.com/technology

# **Philips CertaFlux RDL LED products**



#### CertaFlux RDL LED system gen 1

Discount and price-fighter retail chains focus on costs. They leverage purchasing power to deliver value, and the customer expects affordable prices and a functional shopping experience. The lighting must support this image, which is where our CertaFlux RDL portfolio comes in. It has established itself as an energy-efficient way to deliver the quality of light this cost-sensitive retail sector is looking for, especially in cooler and shelf applications.

CertaFlux RDL portfolio is optimized for standard applications lengths with options for main cooler applications. A carefully-selected range of accessories is also available including glare shields, mounting clips and cables.

The quality of light and performance are everything a retail discounter needs. With a CRI of >80 and a lumen efficacy up to 120 lm/W, CertaFlux RDL illuminates products with a uniform, attractive light. What's more, the LEDs have minimal output degradation and color shift over time, so the light remains consistent throughout their long service life.

#### For shelf lighting



#### CertaFlux RDL shelf gen 1

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical -10% +20%	CRI, min	K	GPC
CertaFlux RDL shelf 575mm 830 G1	3	370	80	3000	929001665006
CertaFlux RDL shelf 855mm 830 G1	4,7	550	80	3000	929001665106
CertaFlux RDL shelf 1150mm 830 G1	6,2	740	80	3000	929001665206
CertaFlux RDL shelf 575mm 835 G1	3	370	80	3500	929001665306
CertaFlux RDL shelf 855mm 835 G1	4,7	550	80	3500	929001665406
CertaFlux RDL shelf 1150mm 835 G1	6,2	740	80	3500	929001665506
CertaFlux RDL shelf 575mm 840 G1	3	370	80	4000	929001665606
CertaFlux RDL shelf 855mm 840 G1	4,7	550	80	4000	929001665706
CertaFlux RDL shelf 1150mm 840 G1	6,2	740	80	4000	929001665806
CertaFlux RDL shelf 575mm MC G1	3	278	80	-	929001665906
CertaFlux RDL shelf 855mm MC G1	4,7	413	80	-	929001666006
CertaFlux RDL shelf 1150mm MC G1	6,2	555	80	-	929001666106

<sup>\*</sup> Correlated color temperature within 5 SDCM range

# For canopy lighting

CertaFlux RDL canopy gen 1

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical -10% +20%	CRI, min	K	GPC
CertaFlux RDL canopy 575mm 830 G1	8,6	1000	80	3000	929001667406
CertaFlux RDL canopy 855mm 830 G1	12,9	1500	80	3000	929001667506
CertaFlux RDL canopy 1150mm 830 G1	17,2	2000	80	3000	929001667606
CertaFlux RDL canopy 575mm 835 G1	8,6	1000	80	3500	929001667706
CertaFlux RDL canopy 855mm 835 G1	12,9	1500	80	3500	929001667806
CertaFlux RDL canopy 1150mm 835 G1	17,2	2000	80	3500	929001667906
CertaFlux RDL canopy 575mm 840 G1	8,6	1000	80	4000	929001668006
CertaFlux RDL canopy 855mm 840 G1	12,9	1500	80	4000	929001668106
CertaFlux RDL canopy 1150mm 840 G1	17,2	2000	80	4000	929001668206
CertaFlux RDL canopy 575mm MC G1	8,6	700	80	-	929001668306
CertaFlux RDL canopy 855mm MC G1	12,9	1050	80	-	929001668406
CertaFlux RDL canopy 1150mm MC G1	17,2	1400	80	-	929001668506

 $<sup>^{</sup>st}$  Correlated color temperature within 5 SDCM range

Suitable for:



For further information visit philips.com/technology

#### For chillers with doors

**Product specification** 

#### CertaFlux RDL vertical with glareshield gen 1

Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical -10% +20%	CRI, min	К	GPC
CertaFlux RDL vrt 1500mm 830 SD WGS G1	9,4	1155	80	3000	929001666206
CertaFlux RDL vrt 1500mm 830 CTR WGS G1	19,8	2420	80	3000	929001666506
CertaFlux RDL vrt 1500mm 840 SD WGS G1	9,4	1155	80	4000	929001666306
CertaFlux RDL vrt 1500mm 840 CTR WGS G1	19,8	2420	80	4000	929001666606
CertaFlux RDL vrt 1500mm MC SD WGS G1	12,8	1090	80	-	929001666406
CertaFlux RDL vrt 1500mm MC CTR WGS G1	26,5	2260	80	-	929001666706
CertaFlux RDL vrt 1650mm 830 SD WGS G1	10,8	1270	80	3000	929001666806
CertaFlux RDL vrt 1650mm 830 CTR WGS G1	21,6	2640	80	3000	929001667106
CertaFlux RDL vrt 1650mm 840 SD WGS G1	10,8	1270	80	4000	929001666906
CertaFlux RDL vrt 1650mm 840 CTR WGS G1	21,6	2640	80	4000	929001667206
CertaFlux RDL vrt 1650mm MC SD WGS G1	14,2	1200	80	-	929001667006
CertaFlux RDL vrt 1650mm MC CTR WGS G1	28,9	2480	80	-	929001667306

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### Constant voltage drive

Constant voltage univers	
Product name	Product code (GPC)
LED power driver 20W 24V	929000654006
LED power driver 80W 24V	929000653906
LED power driver 100W 24V 100/240V	929001430080
LED power driver 75W - 24V PP ItG-N plug*	929000869613
CertaDrive 35W/24VDC 220-240V	929001424006
CertaDrive 60W/24VDC 220-240V	929001424106
CertaDrive 100W/24VDC 220-240V	929001424206
CertaDrive 120W/24VDC 220-240V	929001424306
Xitanium 77W 100-277V 3.2A XI077C320V024FNS1M *	929001708113
Xitanium 100W 100-277V 4.1A XI100C410V024FNS1M*	929000771913
LED driver outdoor 100W 100-240V 24V**	929000485303

<sup>\*</sup> Only for NAM region

<sup>\*\*</sup> Only for Japan

Accessories	Product code (GPC)
Clips	
CertaFlux RDL clip canopy 0° surface	929000957806
CertaFlux RDL clip canopy 30° surface	929001516006
CertaFlux RDL clip shelf front	929001516106
CertaFlux RDL clip shelf arm	929000643903
CertaFlux RDL clip shelf magnetic	929001624606
Power cables - to connect engine to driver	
InteGrade power cable 0.7m white	929001625306
InteGrade power cable 1m(39") black	929000641014
InteGrade power cable 2.5m(98") black	929000641114
InteGrade cable 1m(39") black angle	929000644614
InteGrade cable 2.5m(98") black angle	929000644814
InteGrade power cable 1m(39") white	929000645614
InteGrade power cable 1.85m white	929001625206
InteGrade power cable 2.5m(98") white	929000644514
InteGrade cable 1m(39") white angle	929000644714
InteGrade cable 2.5m(98") white angle	929000644914
InteGrade power cable 3m black angle	929001650106
InteGrade power cable 6m white	929001624806
InteGrade spacer cable 113mm white	929001625106
InteGrade spacer cable 0.3m black	929001625006
InteGrade spacer cable 0.5m black	929000645014
InteGrade spacer cable 0.5m white	929000645114
InteGrade spacer cable M 0.7m 5.5c black	929001624706
InteGrade extension cab 1.5m(59")black	929000874413
InteGrade Y cable black	929000874313

Suitable for:



<sup>\*\*</sup> MC: meat color

<sup>\*\*</sup> MC: meat color

<sup>\*\*</sup> MC: meat color

# **Philips PrimeSet RDL products**

#### PrimeSet RDL 500/510 LED system gen 1

Our LED lighting for freezer cases is a sustainable and energy-efficient way to create an enjoyable shopping experience for customers – while at the same time supporting retailers' brand values. RDL500 and RDL510 modules can be vertically integrated in full-height glass-door refrigeration cabinets.



#### RDL500

#### Value

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	К	GPC
PrimeSet RDL 500 1200 mm (47") 841 G1	7,9	900	85	4100	929000891106
PrimeSet RDL 500 1200 mm (47") 856 G1	9	1000	85	5600	929000891006
PrimeSet RDL 500 1500 mm (59") 841 G1	9,9	1200	85	4100	929000890706
PrimeSet RDL 500 1500 mm (59") 856 G1	11,7	1300	85	5600	929000890606
PrimeSet RDL 500 1700 mm (67") 841 G1	11	1300	85	4100	929000890306
PrimeSet RDL 500 1700 mm (67") 856 G1	12,9	1400	85	5600	929000890206

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### Vision

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC
PrimeSet RDL 500 Vision 1200 mm (47") 841 G1	15,4	1900	85	4100	929001501806
PrimeSet RDL 500 Vision 1200 mm (47") 856 G1	17	2000	85	5600	929001501906
PrimeSet RDL 500 Vision 1500 mm (59") 841 G1	19,4	2200	85	4100	929000934106
PrimeSet RDL 500 Vision 1500 mm (59") 856 G1	22	2400	85	5600	929000934006
PrimeSet RDL 500 Vision 1700 mm (67") 841 G1	21,9	2500	85	4100	929000933906
PrimeSet RDL 500 Vision 1700 mm (67") 856 G1	24,7	2700	85	5600	929000933806

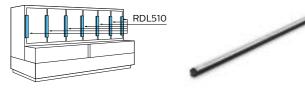
<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### Suitable for:



For further information visit philips.com/technology

# **Philips PrimeSet RDL products**



#### RDL510

#### Vision

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	К	GPC
PrimeSet RDL 510 Vision 750 mm (30") 841 G1	9,3	1100	85	4100	929000934506
PrimeSet RDL 510 Vision 750 mm (30") 856 G1	10,2	1200	85	5600	929000934406
PrimeSet RDL 510 Vision 850 mm (33") 841 G1	10,8	1300	85	4100	929001502006
PrimeSet RDL 510 Vision 850 mm (33") 856 G1	12	1400	85	5600	929001502106
PrimeSet RDL 510 Vision 950 mm (37") 841 G1	11,8	1400	85	4100	929000934306
PrimeSet RDL 510 Vision 950 mm (37") 856 G1	12,9	1500	85	5600	929000934206

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### Constant voltage drivers

Product name	Product code (GPC)
LED power driver 20W 24V	929000654006
LED power driver 80W 24V	929000653906
LED power driver 100W 24V 100/240V	929001430080
Xitanium 77W 100-277V 3.2A XI077C320V024FNS1M*	929001708113
Xitanium 100W 100-277V 4.1A XI100C410V024FNS1M*	929000771913
LED driver outdoor 100W 100-240V 24V**	929000485303

<sup>\*</sup> Only for NAM reg

<sup>\*\*</sup> Only for Japan

Accessories	Product code (GPC)
Profiles	•
PrimeSet RDL-mount prof CTR 750mm	929000894006
PrimeSet RDL-mount prof CTR 850mm	929001507306
PrimeSet RDL-mount prof CTR 950mm	929000894106
PrimeSet RDL-mount prof CTR 1200mm	929000894206
PrimeSet RDL-mount prof CTR 1500mm	929000894306
PrimeSet RDL-mount prof CTR 1700mm	929000894406
PrimeSet RDL-mount prof SD 750mm	929000894706
PrimeSet RDL-mount prof SD 850mm	929001507406
PrimeSet RDL-mount prof SD 950mm	929000894806
PrimeSet RDL-mount prof SD 1200mm	929000894906
PrimeSet RDL-mount prof SD 1500mm	929000895006
PrimeSet RDL-mount prof SD 1700mm	929000895106
PrimeSet RDL-mount prof CTR 1200mm-47" B*	929000897706
PrimeSet RDL-mount prof CTR 1500mm-59" B*	929000894506
PrimeSet RDL-mount prof CTR 1700mm-67" B*	929000894606
PrimeSet RDL-mount prof SD 1200mm-47" B*	929000897806
PrimeSet RDL-mount prof SD 1500mm-59" B*	929000895206
PrimeSet RDL-mount prof SD 1700mm-67" B*	929000895306
Power cables - to connect engine to driver	
PrimeSet RDL - centre cable 1m (39") B	929000892706
PrimeSet RDL - side cable 1m (39") B	929000892806
PrimeSet RDL - centre cable 2.5m (98") B	929000957206
PrimeSet RDL - side cable 2.5m (98") B	929000957306

<sup>\*</sup> Only for NAM region

#### Suitable for:

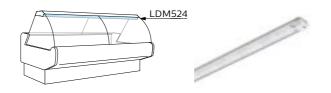


For further information visit philips.com/technology

# **Philips PrimeSet LDM524 products**

#### PrimeSet LDM524 LED system gen 1

Our LED lighting for well and serve-over cases is a sustainable and energy-efficient way to create an enjoyable shopping experience for customers – while at the same time supporting retailers' brand values.



#### LDM524 (standard color range)

#### Value

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	К	GPC
PrimeSet Value LDM 524 850mm (33") 840	10	1100	85	4000	929000969806
PrimeSet Value LDM 524 850mm (33") 856	10	1100	85	5600	929000969706
PrimeSet Value LDM 524 1175mm (46") 840	13	1500	85	4000	929000969606
PrimeSet Value LDM 524 1175mm (46") 856	13	1500	85	5600	929000969506

<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### Vision

Product specification					
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC
PrimeSet Vision LDM 524 250mm (10") 830	4	400	85	3000	929000969306
PrimeSet Vision LDM 524 250mm (10") 840	4	400	85	4000	929000969206
PrimeSet Vision LDM 524 250mm (10") WWR	2.7	250	90	-	929001600206
PrimeSet Vision LDM 524 850mm (33") 830	15	1600	85	3000	929000969006
PrimeSet Vision LDM 524 850mm (33") 840	15	1700	85	4000	929000968906
PrimeSet Vision LDM 524 850mm (33") WWR	11	1000	90	-	929001600106
PrimeSet Vision LDM 524 1175mm (46") 830	20	2100	85	3000	929000968706
PrimeSet Vision LDM 524 1175mm (46") 840	20	2100	85	4000	929000968606
PrimeSet Vision LDM 524 1175mm (46") WWR	15	1400	90	-	929001600006

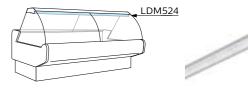
<sup>\*</sup> Correlated color temperature within 5 SDCM range

#### Suitable for:



For further information visit philips.com/technology





value						
Product specification						
Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code	
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC	
PrimeSet Value LDM 524 850mm 940 PW	10,4	1100	93	4000	929001626506	
PrimeSet Value LDM 524 1175mm 940 PW	13,9	1500	93	4000	929001626406	

\* Correlated color temperature within 5 SDCM range

#### Vision

Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	К	GPC
PrimeSet Vision LDM 524 250mm(10") 930 PW	4,0	400	93	3000	929001626306
PrimeSet Vision LDM 524 850mm(33") 930 PW	16,4	1600	93	3000	929001626106
PrimeSet Vision LDM 524 1175mm(46") 930 PW	21,9	2100	93	3000	929001625906
PrimeSet Vision LDM 524 250mm(10") 940 PW	3,8	400	93	4000	929001626206
PrimeSet Vision LDM 524 850mm(33") 940 PW	15,1	1600	93	4000	929001626006
PrimeSet Vision LDM 524 1175mm(46") 940 PW	20,1	2100	93	4000	929001625806

Constant voltage drivers	
Product name	Product code (GPC)
LED power driver 20W 24V	929000654006
LED power driver 80W 24V	929000653906
LED power driver 100W 24V 100/240V	929001430080
Xitanium 77W 100-277V 3.2A XI077C320V024FNS1M *	929001708113
Xitanium 100W 100-277V 4.1A XI100C410V024FNS1M*	929000771913
LED driver outdoor 100W 100-240V 24V**	929000485303

<sup>\*</sup> Only for NAM region

<sup>\*\*</sup> Only for Japan

Accessories	Product code (GPC)
Mounting profile 850mm	929000977206
Mounting profile 1175mm	929000977306
Mounting profile 45degr 850mm	929000977506
Mounting profile 45degr 1175mm	929000977606
Mounting clips	929000605913

#### Suitable for:



# Complementary partners

We are keen to bring the latest LED innovations to the market in a way that help you design luminaires that meet your customers' needs. In this process you might be faced with challenges that are not necessarily your speciality, but can easily be solved with the help of the right complementary partner.

Our complementary partners develop parts that are a perfect match with the LED systems we design. We have regular contact with these partners and inform them at early stages of the development roadmap so they can tailor their products to ensure perfect matches with the LED lighting components we bring to the market. Support for cooling, reflectors, lampholders and optics can be found via the complementary partners listed here. Please visit the websites for more product information or contact them directly in case you have any specific requests.

# **Coolings**



#### Asia Vital Components (AVC) CO. Ltd

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Application areas 🛗 🏢 🍱 🚱



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Application areas 🛗 🏢 🍱 💠 🌧

#### SUNON

#### Sunon European Headquarters

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Application areas 🛗 🏢 🍱 🚱 🌧



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Web: www.wisefull.com

Application areas 🛗 🏻 🎑 🚱

# **Mechanical fixations**



59755 Arnsberg

Tel · +49 2932 982 0 E-mail: info@bib.com

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Application areas 🛗 🏢 🍱 🚱 🌧

# Lenses



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Application areas 🛗 🏢 🍱 🏟 🌧



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Application areas 🔒 🏢 🎑 🏟 🌧





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Application areas



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Application areas



#### LedLink Optics Inc

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**Tel**: +86 769 8897 7888 **ext**: 3122 (China) Fax: +86 769 8897 5599 (China)

E-mail: paul\_li@ledlink-optics.com Web: www.ledlink-optics.com

Application areas



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Application areas

# Reflectors



#### **ALMECO Group - Headquarters**

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E-mail: almeco@almecogroup.com Web: www.almecogroup.com/en/lighting

Application areas





#### Nata lighting Postal: 529040

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Tel: +86 750 377 0000 Fax: +86 750 377 1111

E-mail: info@nata.cn Web: www nata cn

Application areas





#### Jordan Reflektoren GmbH & Co. KG

Schneiderstrasse 76 40764 Langenfeld

Tel: +49 2173 / 279-0 Fax: +49 2173 / 279-250 E-mail: info@jordan-reflektoren.de

Web: www.jordan-reflektoren.de





#### Widegerm Lighting Ltd. Hong Kong Office: Flat A, 3/F., Tak Wing Ind. Building, 3

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E-mail: info@widegerm.com.hl Web: www.widegerm.com.hk

Application areas



LEDiL Oy

Joensuunkatu 13 24100 Salo

Web: www.ledil.com Application areas

We give no warranties regarding complementary partner products and assume no legal liability or responsibility for any loss or damage resulting from the use of the information thereto given here

See pages 6-7 for explanation application areas

Philips OEM LED catalogue 128 Philips OEM LED catalogue 129

# Lighting definitions explained

Legend technical specifications	Symbol	Definition
Backwards compatible		It can work with an older product or technology
Beam angle	(⁰)	Exit angle of the light beam
Central beam candela		Power emitted by a light source in a particular direction. A common candle emits light with a luminous intensity of roughly one candela
Chip on board	СоВ	Refers to the semiconductor assembly technology wherein the microchip or die is directly mounted on and electrically interconnected to its final circuit board, instead of undergoing traditional assembly or packaging as an individual IC
Correlated color temperature	K	CCT; describes whether white light appears warm (reddish), neutral or cool (bluish)
Color rendering index	CRI	The ability to reproduce the colors of various objects fainthfully in reference to an ideal lightsource
Color consistency (initial)	SDCM	Standard Deviation of Color Matching; describing the difference between two colors. e.g. a differente of 1-3 SDCM is virtually imperceptible; a difference of 4 or more is readily visable
Connectivity		The capacity to be connected to other appliances, facilities and the interne
Digital		A collection of evolving technologies that enables generation, collection, analysis, storage in real-time and data exchange
Dimmable average lifetime 10% failure	hrs	Lifetime in hours, defined by reaching 10% failures (i.e. 90% survivors) when dimmed
Dimming range		Dimming range in which the system will perfom as specified
Driver power factor		Indicating how effective the driver converts electric current to usefull power output
Efficiency range max load		Efficiency when operated at maximum power (not dimmed)
GPC code		European Product code
Frequency	Hz	See line frequency
Housing color		Color of housing
Input Voltage	V	Voltage required as input for the product
IP classification		Ingress protection defined in terras of object size and water beam protected against
Inrush current peak		Highest current the capacitative components operate at start up
Lifetime	hrs	Lifetime in hours, associated with specific conditions (e.g. lumen maintenance, Tc, failure)
Lifetime 10% failure	hrs	Lifetime in hours, defined by reaching 10% failures (i.e. 90% survivors) for a population
Light output	lm	Output of luminous flux
Lumen maintenance @ 50,000 hrs		% of the original lumen flux remaining after indicated (life-)time for a defined population; e.g. B50/L70 indicates 50% of the population retaining 70% of the original light output
Luminous flux	lm	Total energy emitted by a light source across the visible wavelengths of ligh
Module efficacy	lm/VV	Efficiency module; lumen output per Watt input
Module power	W	Energy required to operate the module
Module temperature control		Protective feature with which the driver regulates the module power when a certain critical temperature of the module is passed
Passive cooling		Cooling without power consumption
Power factor	Pf	See: driver power factor
Relative humidity	%	Portion of water vapor in a mixture of air and watervapor
Smart fixture		Lighting fixtures that are enabled for connectivity become a node in the network by containing one or more sensors and have the ability to change behaviour as a response to a stimulus
System efficacy	lm/W	Efficiency module + driver
System power	W	Energy required to operate the system
Tc life driver	°C	Temperature of indicated point on the product on which the lifetime is based
Tc life module	°C	Temperature of indicated point on the product on which the lifetime is based
Zhaga		An industry-wide cooperation between companies aimed at enabling the interchangeability of LED light sources made by different manufacturers

# Your personal technical support

Our application and design-in engineers technical features and interactions of Philips LED lighting systems across LED drivers and modules, as well as the sensors and apps you'll need to build a connected system

They also bridge the gap between your technical needs and the relevant R&D team, acting as an interface on training is offered to help you to systems or LED drivers. You can also released to market.

**Contact our application** engineers



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Specialist for: Easy Design-In Tool

# **Design-in** support

In addition to application support, we can also help luminaire manufacturers with the design-in of LED systems into their luminaires. Typical design-in projects might be: 'LEDifying' existing luminaires, simulating optical or thermal scenarios and evaluating finished prototypes. You can make use of our design-in support for all kind of requests such as

and/or simulation · Mechanical solutions · Electrical measurements

· Evaluating the quality of light of the luminaire · Certification of luminaires equipped with YellowDot drivers

Please contact your local Key account manager to discuss your needs.



Sjef Jansen



Elly van der Voort Design-in Engineer

Mail: elly.onnekes@signify.com



**Helmut Zahn** 



Kwan-Nai Lee

#### **Contact** us

For more information please contact your local representative.

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philips.com/technology



#### Catalogue price €35,-

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