PHILIPS

April 2018

OEM LED
catalogue

Connected lighting
Get streetwise about outdoor lighting

We're connected
Our OEM support tools make it easy to meet ever–increasing demands and complex challenges

"Connectivity is no longer the future of lighting; it's here and now."

Peter Duine
Global product manager connected components

LED

"Connected lighting is here and now"

Connected lighting has made a significant leap in terms of asset management

Connected lighting is having its lightbulb moment. Advances in digital connectivity and the Internet of Things have unlocked exciting possibilities for smarter, cost-effective solutions that can transform public spaces. Connected lighting can finally live up to the promise of customization, control and data collection. It's now smarter, easy to design in, and more cost-effective. But the most important breakthrough has come thanks to genuine compatibility.

Connected lighting is all about two-way data communication. However, until recently not all luminaires, controls and sensors were talking the same language. With the Philips SR portfolio, all that has changed. As your strategic partner, we put compatibility at the center of our thinking. As you would expect from Philips, our connected lighting components use standard and industry-preferred protocols. But to ensure the maximum interoperability, we've also pioneered an industry-wide initiative: the SR certified program. It guarantees our universal drivers and sensors are compatible with the widest range of connectivity systems and solutions from our growing list of SR partners. So, everyone can share in the wealth of opportunities that come with connected lighting.

As you'll learn in my article on connected outdoor lighting on page 8, there's never been a better time to explore the possibilities. Because connectivity is no longer the future of lighting; it's here and now.

Peter Duine
Global product manager
connected components

Learn more at
philips.com/technology

Content

OEM support tools

LED Components

Connectivity

Point source modules

Linear modules

Xtreme modules

Linear drivers

Point source drivers

Xtreme drivers

Constant voltage drivers

Retail display lighting

OEM LED catalogue 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 Philips
OEM technology
carla.tax@philips.com

OEM technology within Philips Lighting

Philips OEM Lighting is responsible for the development of new light sources, drivers and controls for the new-build luminaire market.

We have been focusing on this market already 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.

🛍 Retail

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

This includes careful consideration of the lighting, whereby image, company identity and an appealing atmosphere play a big role in the choice of lighting design. Dependent 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 applications such as education and hospitals, has always maintained a strong drive towards energy saving. Legislation and Building regulations have driven the standards applicable 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.

philips.com/technology

Industry

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

This segment has a strong drive towards energy saving and lower maintenance while enabling high quality and uniform lighting for optimum visual performance and visual comfort creating 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 looking at how to use 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.

Hospitality

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

Within this segment, many and 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 its replacing a halogen or fluorescent light source with a retrofit LED lamp, or fully refurbishing relevant hotel areas with (controllable) LED luminaires, Philips can offer the right technology components to realize this. Luminaire manufacturers can be offered a wide range of LED products, such as spotlighting and downlighting systems. But apart from that also linear and outdoor systems find their way towards hospitality segment.

Peter Duine
Product manager connectivity

Getting streetwise about outdoor lighting

According to Gartner, "Intelligent streetlights will be one of the most valuable pieces of real estate in the city."[1] But if that's the case, most cities are still in the dark. Many authorities don't know how many street lights they operate, at what power level and which types. Without this base level of understanding it's hard for them to take advantage of immediate potential savings from energy reduction and automated lighting management, let alone the long-term benefits of connected street lighting as a central infrastructure and source of valuable city data and insights, which Gartner alludes to. By controlling lights wirelessly, however, every city can start on the journey to smarter, better managed lighting.

We're all connected

Outdoor lights come in a huge range of shapes and forms from many different vendors. Some are designed to meet specific light levels using different power LEDs, CoBs or high power arrays, others are carefully spaced and designed to illuminate different road widths. They can be mounted on various pole heights, in urban areas, parking lots, public parks and buildings. But despite all their differences, they have one thing in common: they can all be controlled wirelessly.

Standardized drivers

That's because Philips has established a standard to store asset information and energy consumption in the LED driver, enabling innovation to continue, while assuring that connected lighting is 'plug and play'. Any light with a Philips Xitanium SR LED driver can be 'discovered' – which means using lighting management software you'll be able to see fixture model, production date, color temperature, and energy consumption – in a convenient dashboard or app.

[1] Source: Analysts Explore How IoT Technologies Are Poised to Transform Cities at Gartner Symposium/ITxpo 2016

One-stop support from an award-winning content platform

"It's in **your hands**"

The new improved My Technology Portal App gives you 24/7 services to drive your business with Philips OEM technology. It has all the information to guide you through every step of the process. Whether you're looking for products or track and tracing orders, you've got all our services at your fingertips with just one log in.

The only service platform of its kind in the lighting industry, It's free to download for Android via Google apps and IOS via AppStore. Just log-in with your existing portal credentials and get started!

A personalized space
You can see at once what's relevant to you by filling in your 'fields of interest' to highlight preferred segments. These features and email updates support your needs in planning changes to products and creating ideas around new developments.

Winner of the Digital Communications Content Platform Award 2017

my technology portal

24/7 access to all
these support tools:

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

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

News, including webinars, tutorials, OEM videos, event information and market specific insights

Share center, to share files with your key account manager and find relevant documentation
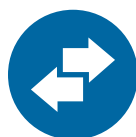
Portfolio, a customized overview based on your order history, quantity, phase-out information, search and Excel download

Contacts, see your relevant contacts and get in touch

Webshop, where you can order samples of our newest products, track and trace your order

Tools, direct access to Easy Design-In Tool to configure your LED system in a minute, MultiOne Configurator and 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

Coming soon in 2018:

New design-in widget to save even more time
Easy Design-In Tool with special OEM features
More product manager videos uploaded to our News section

Easy Design-In Tool

Making your work
easier every day

With Easy Design-In Tool (EDIT), you can configure the perfect LED module-driver combination in minutes. This configuration tool automatically calculates the consequences of your choices and helps you to manage the growing complexity of LED systems with ease.

Trusted to save time

EDIT has been developed to save your business precious time. Not only does it help you select the best LED module-driver combination, it also indicates how to connect components and set up the driver to suit each installation. EDIT's calculated results are verified and approved by Philips, to support the warranties that come with our products. EDIT is easy to incorporate into your daily routine. It's the industry's benchmark that's trusted by thousands of luminaire designers and product engineers.

Quick and easy to use

EDIT is very easy to use. The powerful calculation engine and algorithm have received a performance boost. Based on user feedback, the interface has been optimized, so it's easier to select the components you would like to design-in. You can focus on the specifications that matter to you, associate the right drivers and modules, or compose your combination from scratch. Simply select the solution that will give you optimal results. When you're ready, request an instant price and download a summary of your newly-designed system - including full technical details and a configuration of the components, system and basic luminaire specifications. It's that simple.

Brand new features

A unique new feature in EDIT is that you can use the driver as the starting point for your system design. Furthermore, after logging in to EDIT, you can customize the tool to your needs with focused views and exciting new functionality. Imagine saving your complete list of new results. Or having your customized Philips LED modules in EDIT with full EDIT functionality. For your eyes only, of course. EDIT is designed to make your work easier every day.

The growing complexity of LED systems can be difficult to navigate. With Philips Easy Design-In Tool, you have a solution in minutes. To discover more go to **easydesignintool.philips.com**

The reason I choose Philips is because of support tools like the Easy Design-In Tool"

Georgi Kourtev, General Manager ELUX

- Saving you precious time
- Easy to upgrade your solutions
- Approved combinations

MultiOne
configuration software

Customize
your devices,
simple and fast

With MultiOne configuration software, our intuitive tool, you can meet specific requirements of your customers with a limited portfolio of programmable devices. Depending on the type of device, driver or sensor, a combination of features can be configured to create diversity, extra security and costdown improvements.

Main benefits

✓ One multi-functional tool

You can program a luminaire, test it, configure it automatically in production, read out its status and do a complete quality analysis if there are returns from the field. All with one intuitive tool compatible with all Philips configurable drivers.

✓ Ultimate flexibility

Because the tool can access features built into the driver or sensor, you're free to configure your devices to meet specific requirements. It enables optimization of installation, last minute changes, easy diagnostics and maintenance.

✓ Innovative

We bring innovation to your business by allowing you to wirelessly program, our sensors and all Xitanium LED drivers using our MultiOne SimpleSet technology.

Specific features

Most important and used features in these groups

✓ Functionality

- adjustable output current
- adjustable light output
- adjustable startup time
- end of life indication.

✓ Security

- module temperature protection
- driver temperature limit
- active cooling
- DC emergency
- OEM write protection
- OEM traceability.

✓ Cost Down

- constant light output
- energy meter
- dimming interface
  – 1–10 V dim level
  – AmpDim
  – LumiStep
  – DynaDimmer
  – corridor mode
  – touch and dim.

Just choose the right interface to get started

"

We made it very easy to get started. The MultiOne software is free to download from our website. You only need a windows operating pc or laptop with USB connections and choose the MultiOne interface that fits best into your process."

Jan Fitters
Product manager

Configuration set-up

MultiOne engineering
Creating feauture files with correct electrical specs for configuration in luminaire design (compatible to MultiOne Workflow).

MultiOne workflow
Quick and easy configuration during any stage of the production.

MultiOne interface
Takes care of the communication to the drivers and luminaires in development, production and quality department.

– USB2NFC = SimpleSet (wireless)
– USB2DALI (powered)

Xitanium LED devices
Configurable
– drivers
– sensors

Interface specification

Product name	Technology	Key Features	Product code
LCN8600/00 MultiOne interface USB2DALI	DALI	Configuration: – Wired, powered – Single and Multiple Commissioning	913700346703
LCN9610 MultiOne SimpleSet interface	NFC	Configuration: – Wireless, powerless – Single – Quick	929000999406
LCN9620 MultiOne SimpleSet interface	NFC	Configuration: – Wireless, powerless – Single – Quick	929000999506
LCN9630 MultiOne SimpleSet interface	NFC	Configuration: – Wireless, powerless – Single – Quick	929001546306

MultiOne interface USB2DALI
The interface that can be used with the MultiOne PC software to commission, configure, diagnose devices via the LCN8600/00 DALI interface.

MultiOne SimpleSet interfaces
There are three interfaces that can be used with the MultiOne PC software to powerlessly configure and diagnose devices via the wireless SimpleSet interface.
· LCN9610 handheld scanner for remote programming from close-up.
· LCN9620 Tabletop remote programmer.
· LCN9630 for remote programming at a greater distance from above.

66

Production configuration is important to our organization, so we immediately recognized the benefits of using SimpleSet as a flexible product for spots and downlights."

Wim Gielen
R&D manager, Orbit

Suitable for:

Office   Retail   Industry   Outdoor

Configurability, commissioning and connectivity. Are you getting your wires crossed?

Lighting technology is evolving at a rapid pace, bringing exciting possibilities for OEMs and their customers. But with so many new introductions and features, there is a lot of new terminology to understand. See opposite for a helpful explanation:

Configurability

This refers to the **driver features that can be configured in the OEM's factory** using DALI, SR or SimpleSet 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
- DC-emergency for light levels when mode 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.
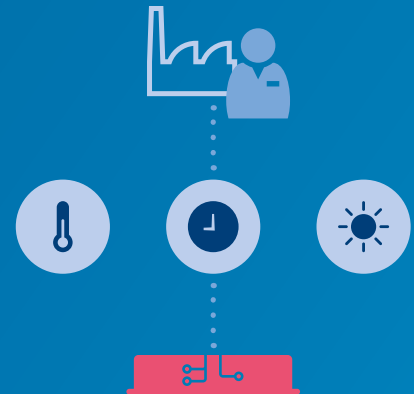
Commissioning

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.
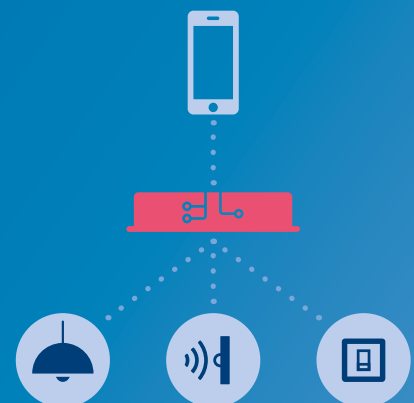
Connectivity

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
- improve comfort and convenience
- save energy.

Any other questions? Contact your local Philips contact 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.

01
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.

03
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.

OEM
product families

Integrated LED modules and drivers, your partners in performance.

Philips 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. The 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. The 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.

For today, for tomorrow.

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. The 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, the drivers come with a three-year system warranty (module and driver).

Sometimes good can be great.

Let's
connect

saving
energy and
costs

Feel the potential
of connected lighting

"

Get connected
with tomorrow's
market."

saving
energy and
costs

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 need. 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!

Order now at
www.philips.com/oemwebshop

EasyAir
industry sensor SNH200
See page 28

NEW!

This new sensor will expand our EasyAir concept into the industry segment. With higher ceiling heights accompanied by IP65 rating, SNH200 is well suited for warehousing and highbay applications especially where motion and daylight sensing can help provide large energy savings.

EasyAir
outdoor module SNO110
See page 29

NEW!
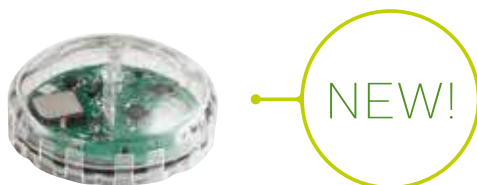
The EasyAir outdoor module offers a simple method to switch on/off the light, regulate the light and enables a very accurate DynaDimmer schedule. Settings can easily be configured by SimpleSet or via the secured Bluetooth connection. The module fits on the new universal SR outdoor connector and enables customers to offer flexible and futureproof solutions.

Suitable for:

Office   Industry   Outdoor

Order at sample webshop
philips.com/oemwebshop

For further information visit philips.com/technology

Connectivity

New Philips 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 catalogue, 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, luminaire-mounting 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 specification

Product name	Housing (volume inside luminaire)	Key features	Req. luminaire hole	Occupancy technology	Detection area	Viewing angle	Full light dimlevel	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

new

Outdoor

Product specification

Product name	Dimensions	Key features	Configurable via	Operating ambient temperature	Interface	Product code
	mm			°C		GPC
new EasyAir SNO110	ø 83x40	Adjustable light output Accurate timing via GNSS On/Off switching with DST Real time DynaDimmer Ramp-up/fade-down time IP66, IK09	SimpleSet (NFC) Bluetooth	-40..65C	SR	929001599206

Accessories

Product specification

SR connector

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
EasyAir SNS200CMP/w	Ceiling mount bracket for remote mounting, the sensor is inbuilt in the bracket	929000790206
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 apps.
The app is available free of charge from the Google Play Store.
For specifiers, installers and the end user, the possibilities are endless.

GET IT ON
Google Play

Suitable for:

Office   Industry   Outdoor

Order at sample webshop
philips.com/oemwebshop

For further information visit philips.com/technology

Choose SR certified
to drive compatibility

Philips has 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 full interoperability, Philips provides 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 Philips 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, Philips has launched the SR partner program. SR partners receive all required details of the Xitanium SR driver interface for electrical and DALI data exchange protocols. Philips also provides test and verification tests and successfully tested products can be recognised via the SR certified logo.

Released SR certified products *

SR partner	SR certified product
CP Electronics	EBR-MINIPIR-DALI, EBDHS DNET1 SR
Steinel	Sensotec sensor SR HF2, Sensotec sensor SE PIR
Nedap	Luxon IoT node
Enlighted	CS-D2, FS-D22
eSave AG	eSave SLC-DC and SLC-DC GPS, eSave SLC-AC and SLC-AC GPS
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, SkyLite Internal 230Vac HP, SkyLite Internal 230Vac MP
Lucy Zodion	PrecizionHALO photocell
CimCon	iSLC3400 DC photocell
Digital Lumens	DLA-S, DLA-I, DLA-R
Lutron	Vive Integral Fixture Control DFCSJ-OEM-OCC and DFCSJ-OEM-RF
Magnum Energy Solutions	Mx-OPUS-MLDHB, Mx-OPUS-MLD, MX

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

System compatibility
SR certified products are prepared for SR and DALI 2.0 interoperability, yet in all cases individual system release is required for performance guarantee.

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.
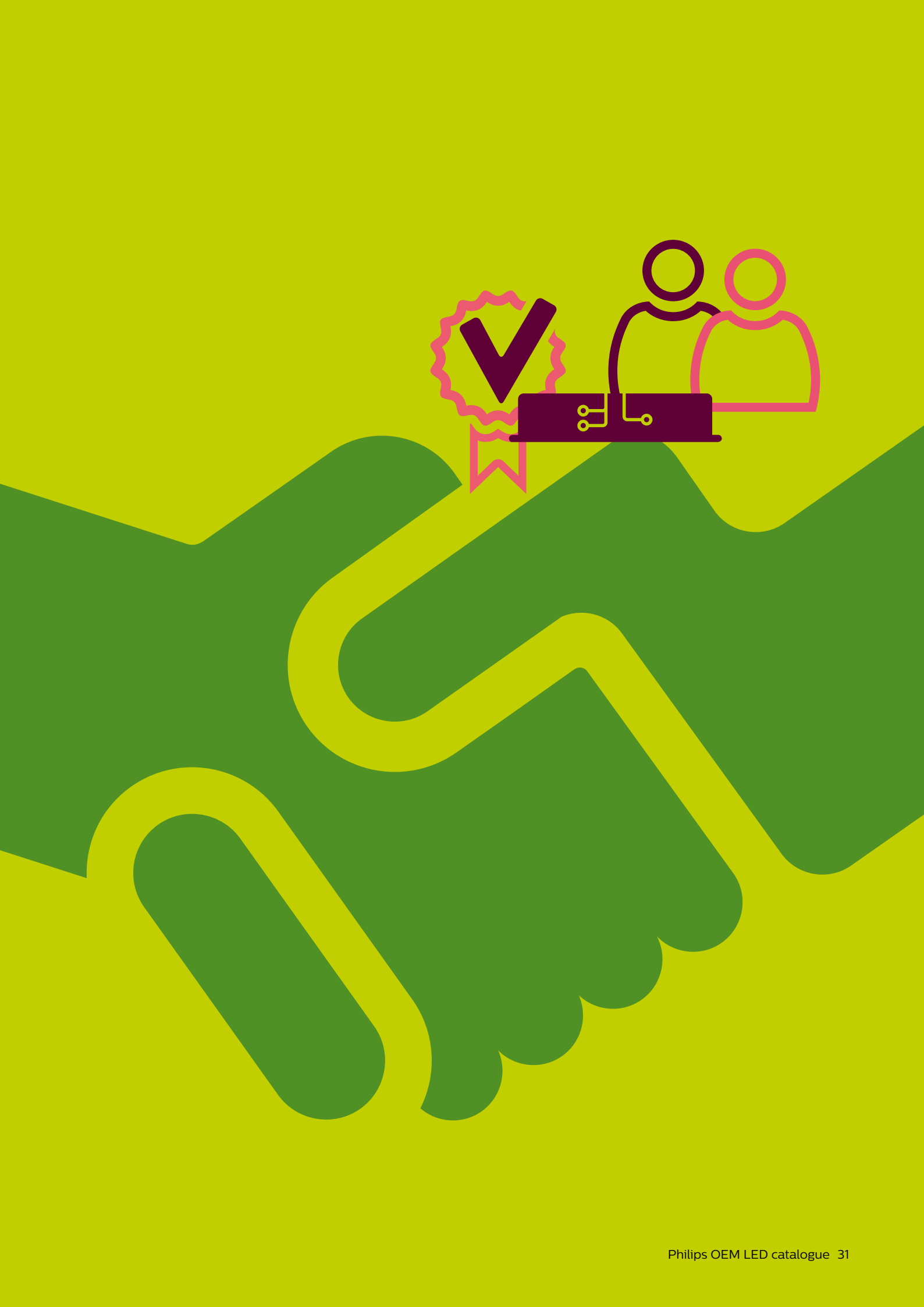
flexible
and efficient

Point source modules

Light
that sells

" Exceptional light quality everywhere with one consistent range."

flexible
and efficient

With a portfolio of spotlight and downlight modules that offer flexibility, quality of light and efficacy, you can create LED lighting solutions with the look and feel customers want. For retail, offices, working environments, industry, and public spaces.

The perfect spotlight

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. Plus there's food premium red and food warm white for supermarket and food applications. For extra punch, our high density portfolio enables small CoBs to emit more light. Due to its high output and small LES size, SLM gen 7 HD is perfect for narrow beam applications or for miniaturized designs resulting in higher energy efficacy or a significant cost advantage on application level. And now there's Fortimo SLM premium color – a fascinating new spectrum that combines beautiful saturated colors, a strong energizing white and a rich black experience with the highest energy efficacy in the market for comparable products.

The choice is yours

With Fortimo LED SLM and Fortimo DLM flex you can design products based on quality of light, lumen per Watt, and/or lumen per Euro. And because all modules have a standardized form factor, you can create the differentiation that is requested by lighting designers and end-users with one consistent luminaire range.

High-performance spot and downlights

For high-performance spot and downlight applications flexibility, efficiency and performance count. The Fortimo LED SLM and DLM EaseSelect family integrates driver and LEDs onto the same board – a compact solution for high-efficacy luminaires. Design-in and your luminaire production process is simple and effective, lowering the cost of luminaires without compromising performance.

Leading TLA performance

Our Fortimo EaseSelect family comes in a range of lumen packages and color temperatures. These new generation modules also eliminate temporal light artifacts (TLAs) like visual flicker that negatively impact health, so using them can also enhance wellbeing.

Reinhard Voorspoels

Product manager
point source modules

Coming soon!

LED innovations in the
pre-launch phase

Fortimo LED SLM premium color

To further enable the advantage of LED technology we developed a new spectrum for retail applications. Premium color offers more saturated colors combined with strong whites. This results in an enhanced contrast experience on products combined with an energizing ambient light effect.
All this is made possible with only limited impact on energy efficacy.

Fortimo LED SLM gen 7

In the next generation of Fortimo SLM we continue to focus on the combination of Quality of Light, Energy efficacy and miniaturization in a future proof and backwards compatible portfolio. Key difference wrt the previous generation is the enhanced efficacy (+8%).

Suitable for:

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Fortimo LED SLM gen 6

Fortimo LED SLM gen 6 continous 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 pointsource 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 12–13).

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

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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 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

* This overview represents the global Fortimo SLM portfolio, please contact your Philips Lighting representative for local availability.
** 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 42).

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,

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 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.

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
R = reflectors

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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 is now 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 your Philips Lighting representative for local availability.
** 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 42).

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 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.

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
R = reflectors

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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*

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 your Philips Lighting representative for local availability.
**   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. (see page 42).

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 84–85.

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 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.

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
R = reflectors
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 enhancing 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

*   This overview represents the global Fortimo SLM portfolio, please contact your Philips Lighting representative for local availability.
**   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. (see page 44).

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 84-85.

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*						

* 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
R = reflectors

See pages 128-129 for more information.

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Fortimo LED SLM gen 7 – high density

The latest generation of Fortimo LED SLM enables more light 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 down lights when used with optimized lens optics. With Fortimo SLM HD it is poosible to get up to 3000lm 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 gen 7 HD						
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

*   This overview represents the global Fortimo SLM portfolio, please contact your Philips Lighting representative for local availability.
**   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 42)

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
1204, L09	•	•	•	•	•	•	•	•	•	•	•**
Xitanium 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	CKO	Widegerm
R	L/R	R	R	L/R	L/R	L/R	L	R

L = lenses
R = reflectors

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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 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

* Only Fortimo SLM H PI 2828 G1 is compatible with CoBs with LES size 23 mm (1216).

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Fortimo LED SLM EaseSelect

Quality of light is key in retail lighting. The need for miniaturization is continiously pushing LED technology for smaller luminaires, often jeopardizing important specifications as flicker, lifetime and reliability. Fortimo LED SLM EaseSelect offers an integrated portfolio that combines the high quality standards of a Philips Fortimo/Xitanium system with the possibility for a luminaire design without a driver box.

Product specification*

Product name	Light output	Power @230V AC 50 Hz	Module efficacy	Correlated color temperature	Color rendering index	Product code
	lm	W	lm/W	K	CRI	GPC
Fortimo SLM ES 1100lm 830 PW L09 G1	1190	12.4	100	3000	>80	929001500580
Fortimo SLM ES 1100lm 840 L09 G1	1190	11	115	4000	>80	929001500680
Fortimo SLM ES 1100lm 930 PW L09 G1	1030	12.4	88	3000	>90	929001500780
Fortimo SLM ES 2000lm 830 PW L13 G1	2150	21.5	100	3000	>80	929001500880
Fortimo SLM ES 2000lm 840 L13 G1	2150	18.6	116	4000	>80	929001500980
Fortimo SLM ES 2000lm 930 PW L13 G1	1880	21.5	87	3000	>90	929001501080
Fortimo SLM ES 3000lm 830 PW L15 G1	2860	26.8	108	3000	>80	929001501180
Fortimo SLM ES 3000lm 840 L15 G1	3110	26.6	117	4000	>80	929001501280
Fortimo SLM ES 3000lm 930 PW L15 G1	2510	26.8	94	3000	>90	929001501380
Fortimo SLM ES 3000lm 930 PW L15 G2*	3000	30	100	3000	>90	929001610006
Fortimo SLM ES 4000lm 830 PW L15 G2*	3900	35	111	3000	>80	929001560806
Fortimo SLM ES 4000lm 840 L15 G2*	4200	35	120	4000	>80	929001560906

* Fortimo SLM ES 4000lm requires additional cooling. Please contact the Philips Lighting design-in team for support.

Complementary partners

Jordan	Ledil	Almeco	Nata	CKO	Widegerm
R	R	R	R	L	R

L = lenses
R = reflectors

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Fortimo LED DLM flex gen 2

Being the trend setter in high performance LED downlighting with the Fortimo DLM range, Philips introduced the next generation of the Fortimo LED DLM flex family. Being 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 84–85.

Driver compatibility matrix

Module type	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 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.

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.

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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 assurance 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
– Fortimo LED DLM flex cover (low housing)
– Fortimo LED DLM flex high cover (high 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.

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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

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CertaFlux DL-S

Now you can convert any downlight to LED. The Philips CertaFlux DL-S module makes design-in and development fast and efficient thanks to the innovative design with integrated heat sink and driver. The breakthrough system cost gives it a clear competitive advantage compared to conventional downlighting solutions and makes it an ideal solution for basic lighting. It is available in 1000 and 2000 lm with color temperature choices of 3000 and 4000 K. The quality of light is good with a CRI of 80.

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 DL-S 1000lm 3000K	1000	13	74	3000	80	929000880006
CertaFlux DL-S 1000lm 4000K	1000	13	78	4000	80	929000880106
CertaFlux DL-S 2000lm 3000K	2000	26	76	3000	80	929000880206
CertaFlux DL-S 2000lm 4000K	2000	26	83	4000	80	929000880306

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Linear modules

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Because people
work better in
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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
Product manager
linear modules

Coming soon!

LED innovations in the pre-launch phase

CertaFlux LED panel 5959 840 LV1

The CertaFlux LED panel is intended as an easy portfolio addition for OEMs that want to offer a panel to complement their other performance-grade luminaires. Our CertaFlux LED panel is positioned to be a good quality product with specs aimed at providing a cost competitive proposition.

Tunable white LED strip

We will be bringing a tunable white LED strip (and -system) to make it very easy to upgrade a broad luminaire range to tunable white.

Very high efficiency LED strip

While continuing to focus our LED strip portfolio to bring ideal balance between performance and cost, we will also add a range of LED strips offering efficiencies of up to 200 lm/W in real applications.

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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) with 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.

Product information (HV)

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)							
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
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 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 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)							
Fortimo LED Strip 1ft 2000lm 830 FC HV4	1900	163	>80	3	>50,000	90	929001644406
Fortimo LED Strip 1ft 2000lm 840 FC HV4	2000	172	>80	3	>50,000	90	929001644506
Fortimo LED Strip 1ft 2000lm 850 FC HV4	2000	172	>80	3	>50,000	90	929001644606
Fortimo LED Strip 2ft 4000lm 830 FC HV4	3800	163	>80	3	>50,000	90	929001644806
Fortimo LED Strip 2ft 4000lm 840 FC HV4	4000	172	>80	3	>50,000	90	929001644906
Fortimo LED Strip 2ft 4000lm 850 FC HV4	4000	172	>80	3	>50,000	90	929001645006

Product information (LV)

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)							
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 (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 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 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 72-76.

Complementary partners

Jordan	Ledil	BJB	Darkoo
R	L	L	L

L = lenses
R = reflectors

See pages 128-129 for more information.

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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 2 main ranges of products. The Fortimo LED line 1R system, with 1 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 3 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

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Product information (LV)

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 72-76.

Complementary partners

Jordan	Ledil	BJB	Carclo	Darkoo	CKO
R	L	L	L	L	L

L = lenses
R = reflectors

See pages 128-129 for more information.

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Fortimo LED square

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.

1250 lm   2500 lm

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	°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 LED 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 72-76.

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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, optimal to operate CertaFlux LED modules. For a detailed overview of all CertaDrive LED linear drivers see page 77.

Complementary partners

Jordan	Ledil	BJB
R	L	L

L = lenses
R = reflectors

See pages 128–129 for more information.

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CertaFlux LLS EaseSelect

CertaFlux LLS EaseSelect is Philips' 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 lower cost for the OEM. Target customers are OEMs with focus on 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

Linear modules

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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, enabling 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

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, optimal to operate CertaFlux LED modules. For a detailed overview of all CertaDrive LED linear drivers see page 77.

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best in class efficiency and reliability with maximum optical flexibility

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. At Philips 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 further 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) brings a truly breakthrough in efficiency level, while allowing the creation of compact high bay, as well as outdoor and area luminaire applications due to its best in class lumen per mm^2. The Fortimo FastFlex gen 4 differentiation protected (DP) is the first IP66-ready module, which simplifies your luminaire design and reduces the light losses. The end result is lower fixture cost and enhanced efficacy.

Enabling a short development cycle

The Fortimo FastFlex gen 4 standard version offers you a 'one stop shop'. The board, clips and lens provided by Philips enables 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 xtreme modules

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Fortimo FastFlex DHE
See page 64

NEW!

The new Fortimo FastFlex DHE delivers outstanding efficiency in applications such as industry, outdoor and area lighting, while providing optical flexibility via third-party optics to meet every project's needs.

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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 each type of OEM, meeting every project requirement. The standard Fortimo FastFlex solutions are designed for OEMs looking for a 'one-stop shop', where boards and lenses are provided by Philips. This offers a short fixture development cycle, while enabling basic optical flexibility with its eight standard light distributions. For OEMs who 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 the Philips LED module reliability program results.

Product specification

Product name	Typical light output	Module efficacy typical	Correlated color temperature	Color rendering index	Typical dimensions	Product code
	lm	lm/W @ Tc Nom	K	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

new (marker for the last two rows)

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 x 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 x 8 (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 x 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 FP 100W 0.2–0.7A SNLDAE 230V C165 sXt

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

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**Recommended drivers FastFlex LED board 2 x 4
(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 x 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.

Complementary partners

	Ledil	Carclo	LedLink	Darkoo	CKO
FastFlex DA & DAX	L	L	L	L	
FastFlex DP & DPX	L		L	L	L
FastFlex DHE	L				

L = lenses

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Philips 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 are 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 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 of manufacturers that have joined the SR partner program.

Next to our SR driver range, we also have a complete range of **Touch and 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 and burst specifications are needed. Our new 300 W 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 Touch and DALI and fixed output drivers are available in low-profile housing of 16 mm height. In 2018, we will take miniaturization to the next level by also introducing a range that is not only 11 mm in height, but also 280 mm in length. These drivers will for sure be the smallest LED linear drivers on the market.

Simone van Leeuwen
Product manager linear drivers

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Xitanium 300 W industry Xtreme
See page 74

With this unique industry Xtreme (iXt) high-power driver, we are specifically targeting high bay applications. The new driver is designed to replace two 150 W drivers, enabling you to save on costs.

Coming soon!

LED innovations in the
pre-launch phase

Xitanium Touch and DALI 11 mm drivers

The new 11 mm Touch and DALI drivers, take miniaturization to the next level. With a height of 11 mm and a length of only 280 mm, this new range offers you ultimate design freedom.

Suitable for:

Retail   Office   Industry

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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 a Philips Xitanium SR LED driver into your luminaire, and it can play a bigger role in network connectivity. The Philips 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	%	A	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 range	SimpleSet	Product code
	mm	%	A	V	⌐•))	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

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V	⌐•))	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	%	A	V	⌐•))	GPC
Xitanium 36W 0.3–1A_54V SR 230V	360x30x21	100–1	0.3 – 1	27–54	•	929001516306
Xitanium 75W 0.7–2.0A 54V SR 230V	360x30x21	100–1	0.7 – 2	27–54	•	929001505006

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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 Philips' 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 it as such to customers.

Philips is currently offering 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	•	871869669890700
Xitanium 100W 0.15-0.5A 300V iXt TDCL 230V	360x30x21	100-1	150-500	100-300	•	871869669858700
Xitanium 150W 0.2-0.7A 300V iXt TDCL 230V	360x30x21	100-1	200-700	100-300	•	871869669888400

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

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Xitanium LED linear drivers – non-isolated

Xitanium LED non-isolated drivers are ideal for professional general lighting applications. The 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 Touch and DALI and fixed output drivers are available in low-profile housing of 16 mm height.

DALI dimmable & programmable

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V	🔌)))	GPC
Xitanium 17W/0.12-0.4A 54V TD 230V	360x30x22	100-10	0.12-0.4	27-54		929000684703
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
Xitanium 60W/0.08-0.35A 220V TD/16 230V	280x30x16	100-1	0.08-0.35	100-220	•	929001547206
Xitanium 60W/0.08-0.35A 300V TD/16 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	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V	🔌)))	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
new Xitanium 300W/0.5-1.4A 300V iXt TD 230V	360x50x28	100-1	0.5-1.4	100-300	•	929001608406

1–10 V dimmable

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V		GPC
Xitanium 17W/0.12-0.4A 54V 1-10V 230V	360x30x22	100-10	0.12-0.4	27-54		929000684803
Xitanium 36W/0.12-0.4A 115V 1-10V 230V	280x30x21	100-10	0.12-0.4	50-115		929000953606
Xitanium 75W/0.12-0.4A 220V 1-10V 230V	280x30x21	100-10	0.12-0.4	100-220		929000953706

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Linear drivers

Fixed output

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	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

new (Xitanium 100W/0.25–0.7A 220V 16 230V)

Fixed output – for industry applications

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V	⊷)))	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 52–55.

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Xitanium LED linear drivers – isolated

Xitanium LED isolated drivers are ideal for professional general lighting applications such as 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 better ripple current ensures no interference with security-, cell phone- or webcameras and scanners.

DALI dimmable & programmable

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V	⌐◄»)	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 range	SimpleSet	Product code
	mm	%	A	V	⌐◄»)	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

Fixed output

	Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
		mm	%	A	V	⌐◄»)	GPC
	Xitanium 36W/0.3-1A 54V 230V	360x30x21	n.a.	0.3-1	27-54		929000958706
new	Xitanium 36W/0.3-1.05A 54V S 230V	360x30x21	n.a.	0.3-1.05	27-54	•	929001571406
new	Xitanium 65W/0.5-1.4A 54V S 230V	360x30x21	n.a.	0.5-1.4	27-54	•	929001571506
	Xitanium 75W/0.7-2A 54V 230V	360x30x21	n.a.	0.7-2	27-54		929000958806

Module recommendation

For all suitable modules see Fortimo LED lines and Fortimo LED strips, see pages 52–55.

Linear drivers

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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, optimal to operate CertaFlux LED modules. Lifetime of the driver is set at 50,000 hours and warranty period is three years.

These LED drivers are also interesting for OEMs producing and selling their own LED-boards. If the specific V/A specifications of these CertaDrive LED linear drivers do not suit the LED board specifications of the OEM, Philips offers the possibility to create fast derivative LED drivers with the required V/A of the OEM. 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
new CertaDrive 30W 0.29A 102V 230V	210x30x21	n.a.	290	102	929001598606
CertaDrive 40W 360mA 110V 230V	210x30x21	n.a.	360	110	929000974906
new CertaDrive 44W 0.32A 137V 230V	210x30x21	n.a.	320	137	929001598706
CertaDrive 60W 360mA 170V 230V	210x30x21	n.a.	360	170	929000975006

Module recommendation

For all suitable modules see CertaFlux LED strip, see page 57.

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TrustSight LED emergency drivers

Philips TrustSight LED emergency systems are designed for your safety. Philips LED TrustSight solutions are designed to secure light in case the normal mains voltage is failing. In that case 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

Product name	Battery type	Voltage	Capacity	Emergency time (3W)	Emergency time (6W)	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 hour	1 hour	10	913700767066
new TrustSight flat batt NiMH 7.2V 3000mAh	NiMH	7.2V	3000mAh	3 hour	1 hour	10	929001572466

* Batteries will be delivered inluding harness (cable).

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Linear drivers

eliminate
**undesired
light
artifacts**

Point source drivers

Let's focus on
wellbeing

"
Visual comfort
pays off point source applications."

eliminate **undesired light artifacts**

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 on productivity and performance too. Understanding of the effects of LED lighting on human body is an important element in our driver development activities. Not only internal efforts but also cooperating with international commissions aim for supporting 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, the risk of physical effects like headaches, annoyance and low work performance is also reduced. Additionally, the interference of LED lighting with surrounding equipment is targeted to be 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 point the way with the SR bridge which already makes it possible to benefit from SR functionalities fully.

Mustafa Oktay
Product manager
point source drivers

Just released!

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Xitanium Mini DALI range
See page 84

Miniaturization is taking the next step in Xitanium DALI family with new Xitanium Mini DALI range. Xitanium Mini DALI range is available in two versions as 20 W and 36 W. And similar to fixed output range, built in drivers will be converted to independent drivers via add-on strain relief caps.

Xitanium Single current trailing edge
See page 85

Xitanium LED point driver portfolio is extending its application area with new trailing edge drivers. With this new range, low lumen applications are targeted especially in hospitality segment.

Coming soon!

LED innovations in the
pre-launch phase

Xitanium Mini Window driver ranges

UPGRADE

The new generation Xitanium Mini fixed output windows driver families are coming with new features. The DC compatibility for central DC operation and minimized high frequency ripple current to prevent any interference risk with barcode scanners are making these drivers more powerful than before.

Suitable for:

| Retail | Office | Hospitality |

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Xitanium LED downlight and spotlight drivers

with SimpleSet technology!

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 programmable drivers

 1 2 3 4 5 6

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	%	A	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 36–45.

Fixed output

 1 2 3 4 5 6

Product specification

Product name	Housing	Housing	Output current range	Output voltage range	Central DC operation	SELV	SimpleSet	Product code
	type	mm	A	V			⌁)))	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

new

These drivers are compatible with Fortimo LED DLM and SLM modules.
For details on LED module and cable combinations see pages 36–45.

Point source drivers

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	%	A	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	A	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 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 36-45.

Accessories

Product name	Product code (GPC)
JST to push-in adaptor	929000831103
Xitanium LH loop-through adaptor	929000881106
Strain relief blocks*	929001461680
new Strain relief blocks DALI	929001430906
new Strain relief blocks TE	929001431106

* Not suitable for 50 W/m Rset driver only.

Rset

The current of Xitanium window drivers can be set by use of a resistor. Certain resistor values are offered by Philips. 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	Type	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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CertaDrive LED downlight and spotlight drivers

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.

1

2

Fixed output

Product specification

Product name	Housing	Housing	Output current range	Output voltage range	Central DC operation	SELV	Product code
	type	mm	A	V			GPC
CertaDrive 15W 0.35A 42V I 230V	1	115x45x29	0.35	32–42		•	929000898106
CertaDrive 20W 0.5A 40V I 230V	1	115x45x29	0.50	32–40		•	929000898006
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

Philips TrustSight LED emergency systems are designed for your safety. Philips LED TrustSight solutions are designed to secure light in case the normal mains voltage is failing. In that case 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	Yes	Manual	10	913700767266
TrustSight Pro P 15-55V 3W	190x46x32	3W	54-200mA	15-55V	Yes	Automatic	10	913700766666
TrustSight DALI P 15-55V 3W	190x46x32	3W	54-200mA	15-55V	Yes	Automatic	10	929000995866

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

Batteries	Battery type	Voltage	Capacity	Emergency time (3W)	Pieces per box	Product code
TrustSight batt box NiMH 7.2V 1300mA	NiMH	7.2V	1300mAh	1 hour	10	913700768166
TrustSight batt box NiMH 7.2V 2500mAh	NiMH	7.2V	2500mAh	3 hour	10	913700768266

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

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reliable
to the max

Xtreme drivers

When the going gets tough...

" Ultimate uptime
is our selling point."

Intense heat, frigid 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. Philips helps 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°C and severe surges (now up to 10 kV). This results in an industry-leading 100,000 hour 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 just got upgraded (see just released section). For complete flexibility with a wide range of features you choose the fully 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, the new Philips 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
Product manager
xtreme drivers

Just released!

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Xitanium
SR outdoor 12 W, 22 W and 40 W C133 drivers
See page 92

These new SR outdoor drivers completes the portfolio in the lower wattage range so now all SR-based outdoor connectivity solutions can penetrate in such areas as residential and pedestrian areas.

Xitanium
LED full programmable Xtreme
See page 94

110 W in C133 housing: new compact shape including 10 kV surge protection (CM), DALI, MainsGuard, driver temperature limit and other well know full programmable features.

Xitanium
LED full programmable Xtreme
See page 94

22 W 0.2-0.7A window in C123 and S175 housing: new compact shapes including 10 kV surge protection (CM), DALI, MainsGuard, and other well know full programmable features. Moreover, surge specification upgrade towards 10kV for other 22W and 40W S175 and C123 shapes

Xitanium
LED full programmable Xtreme
See page 94

75 W and 150 W in S240 housing: specification upgrade (new codes) towards 10 kV surge protection (CM), and driver temperature limit.

Xitanium
LED lite programmable Xtreme
See page 95

22 W 0.2-0.7A window in C123 and S175 housing: new compact shapes including 10 kV. Moreover, all 22 W and 40W C123 and S175 shapes are upgraded to 10 kV surge protection (CM), a 5-step DynaDimmer, MainsGuard, and full diagnostics.

Coming soon!

LED innovations in the
pre-launch phase

Philips is working on various new launches for both Xitanium LED lite and full programmable Xtreme drivers. Please stay tuned for our product announcements.

Suitable for:

Industry   Outdoor

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Xitanium LED drivers – SR

The new Philips Xtreme SR outdoor 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 29), 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 the 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	11902	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	11902	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

new

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

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MultiOne Software

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Xitanium LED drivers – programmable Xtreme

Philips Xitanium programmable Xtreme LED drivers with global input voltage (UL, ENEC) are designed to deliver the 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.

F-can   J-can   R-can

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	I/II	kV	%	A	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+ GL-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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Xitanium LED drivers – full programmable Xtreme

with SimpleSet technology!

Philips Xitanium full programmable Xtreme LED drivers are designed to deliver the highest performance, reliability and configuration possibilities. The portfolio offers both standalone as remotely 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 way to change and read-out the settings.

S175   S240   C123   C133   C150   C170

Product specification

	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	%	A	µs		°C								GPC
new	Xi FP 22W 0.2-0.7A SNLDAE 230V S175 sXt	S175	200-700	53	16-48	1-22	10/6	86	15	295	0.99	75	•	•	•	•	•		•	929000 1617806
	Xi FP 22W 0.3-1.0A SNLDAE 230V S175 sXt	S175	300-1050	70	8-32	1-22	10/6	86	15	295	0.99	75	•	•	•	•	•		•	929000 991206
upgrade	Xi FP 40W 0.2-0.7A SNLDAE 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 SNLDAE 230V S175 sXt	S175	300-1050	70	20-54	2-40	10/6	90	21	225	0.99	75	•	•	•	•	•		•	929000 989306
new	Xi FP 75W 0.2-0.7A SNLDAE 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 SNLDAE 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	5-100	8/6	92	45	285	0.98	75	•	•	•	•	•		•	929001 522006
new	Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt	S240	200 - 700	53	90-283	11-150	10/6	93	53	300	0.98	75	•	•	•	•	•	•	•	929001 644206
	Xi FP 150W 0.3-1.0A SNLDAE 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 SNLDAE 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 SNLDAE 230V C123 sXt	C123	300-1050	70	8-32	1-22	10/6	86	15	360	0.99	75	•	•	•	•	•		•	929001 518506
up-grade	Xi FP 40W 0.2-0.7A SNLDAE 230V C123 sXt	C123	200-700	53	25-77	4-40	10/6	90	21	300	0.99	75	•	•	•	•	•		•	929001 518606
	Xi FP 40W 0.3-1.0A SNLDAE 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 SNLDAE 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 SNLDAE 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 SNLDAE 230V C133 sXt	C133	500-1500	100	25-71	2.5-75	10/6	91	43	260	0.99	70	•	•	•	•	•	•	•	929001 408606
new	Xi FP 110W 0.2-0.7A SNLDAE 230V C133 sXt	C133	200-700	50	70-220	4-110	10/6	93	47	250	0.99	75	•	•	•	•	•	•	•	929001 639006
	Xi FP 110W 0.3-1.0A SNLDAE 230V C133 sXt	C133	300-1050	70	50-160	4-110	10/6	92	47	250	0.99	75	•	•	•	•	•	•	•	929001 639106
upgrade	Xi FP 165W 0.2-0.7A SNLDAE 230V C170 sXt	C170	200-700	70	100-300	10-165	10/6	93	58	340	0.98	80	•	•	•	•	•	•	•	929000 976206
	Xi FP 165W 0.3-1.0A SNLDAE 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	Suitable module
Xi FP 22W 0.3-1.0A SNLDAE 230V S175 sXt	Fortimo FastFlex 2x4/740 G4
Xi FP 40W 0.2-0.7A SNLDAE 230V S175 sXt	Fortimo FastFlex 2x4/740 G4
Xi FP 75W 0.2-0.7A SNLDAE 230V S240 sXt	Fortimo FastFlex 2x8/740 DA G4
Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt	Fortimo FastFlex 2x8/840 G4

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Xtreme drivers

Xitanium LED drivers – lite programmable Xtreme

with SimpleSet technology!

Philips Xitanium lite programmable Xtreme LED drivers are value engineered to deliver a carefully selected feature set and high-end performance, making it 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 being prepared for 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.

C123   S175   S240   C150   C170

Product specification

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	LineSwitch	1-10 V	DynaDimmer lite (1-step)	Dyna-Dimmer (5-step)	Module temp. Protection	Driver temp. limit	MainsGuard	Product code
	type	mA	V	W	kV	%	%	A	µs		°C	⌲•⟩⟩⟩								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 0.2-0.7A SL 230V S175 sXt	S175	200-700	25-77	4-40	8/6	100-20	88	27	265	0.98	70	•	•		•					929000930806
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 40W 0.3-1.0A SL 230V S175 sXt	S175	300-1000	20-54	4-40	8/6	100-20	88	27	265	0.98	70	•	·		•					929000940906
Xi LP 40W 0.2-0.7A SN 230V S175 sXt	S175	200-700	25-77	4-40	8/6	100-20	89	27	265	0.98	70	•			•		•			929000930906
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 0.2-0.7A SL 230V S240 sXt	S240	200-700	50-150	4-75	8/6	100-10	92	46	245	0.98	75	•	•		•					929000963006
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 0.3-1.0A SL 230V S240 sXt	S240	300-1050	35-108	4-75	8/6	100-10	92	46	245	0.98	75	•	·		•					929000963106
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 75W 0.2-0.7A SN 230V S240 sXt	S240	200-700	50-150	4-75	8/6	100-10	92	46	250	0.98	75	•			•		•			929000963906
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 0.2-0.7A SL 230V S240 sXt	S240	200-700	90-283	7-150	8/6	100-10	93	53	300	0.98	75	•	•		•					929000962606
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 0.3-1.0A SL 230V S240 sXt	S240	300-1050	70-214	7-150	8/6	100-10	93	53	300	0.98	75	•	·		•					929000962706
Xi LP 150W 0.2-0.7A SN 230V S240 sXt	S240	200-700	90-283	7-150	8/6	100-10	93	53	300	0.98	80	•			•		•			929000963806
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

new
upgrade
upgrade

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

Suitable for:

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Xitanium LED drivers –
lite programmable Xtreme

C123   S175   S240   C150   C170

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	Line- Switch	1–10 V	Dyna- Dimmer lite (1-step)	Dyna- Dimmer (5-step)	Product code
	type	mA	V	W	kV	%	%	A	µs		⌐)))					GPC
Xi LP 22W 0.2–0.7A S1 230V C123 sXt	C123	200– 700	16–48	1–22	10/6	100–10	87	TBD 15	TBD 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	TBD 15	TBD 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	TBD 22	TBD 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	TBD 22	TBD 250	0.98	•		•		•	929001532406
Xi LP 70W 0.2–0.7A S1 230V C150 sXt	C150	200– 700	50–150	4–70	8/6	100–10	90	37	290	0.98	•		•	•		929000964206
Xi LP 70W 0.2–0.7A SL 230V C150 sXt	C150	200– 700	50–150	4–70	8/6	100–10	90	37	290	0.98	•	•		•		929000964006
Xi LP 70W 0.3–1.0A S1 230V C150 sXt	C150	300– 1000	32–100	4–70	8/6	100–10	90	37	290	0.98	•		•	•		929000964306
Xi LP 70W 0.3–1.0A SL 230V C150 sXt	C150	300– 1000	32–100	4–70	8/6	100–10	90	37	290	0.98	•	•		•		929000964106
Xi LP 110W 0.2–0.7A S1 230V C150 sXt	C150	200– 700	70–220	6.5–110	8/6	100–10	91	37	290	0.98	•		•	•		929000964606
Xi LP 110W 0.2–0.7A SL 230V C150 sXt	C150	200– 700	70–220	6.5–110	8/6	100–10	91	37	290	0.98	•	•		•		929000964406
Xi LP 110W 0.3–1.0A S1 230V C150 sXt	C150	300– 1050	50–160	6.5–110	8/6	100–10	91	37	290	0.98	•		•	•		929000964706
Xi LP 110W 0.3–1.0A SL 230V C150 sXt	C150	300– 1050	50–160	6.5–110	8/6	100–10	91	37	290	0.98	•	•		•		929000964506
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	•		•		•	929001535406
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	•		•		•	929001535506
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

new

upgrade

Input voltage range 220–240 Vac
Tc life 75°C
Lifetime @ Tc life, 90% survivals 100,000 hrs

Xtreme drivers

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Xitanium LED drivers – single output current

The 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.

1

2

Product specification (Otd)

Product name	Housing	Output current	Output voltage	Type of dimming	Power factor 100% load	Product code
	type	Ma	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

Philips 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 protection CM/DM	Efficiency 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	%	A	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	I220	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	I220	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	I220	Class I	700	178–357	25–250	6/6	94	38	625	0.98	0.95	70	929001404706

Type of dimming 1–10V
Dimming range 100–10%
Input voltage range 220–240 Vac
Lifetime @ Tc life, 90% survivals 100,000 hrs

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Xitanium LED drivers – low voltage DC input

Philips 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 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

Product name	Output current	Output voltage	Type of dimming	Dimming range	Temperature protection	Input voltage range (DC)	Product code
	mA	V		%		V	GPC
Xitanium 40W 0.2–0.7A LS 12–24V	200–700	40–100	Programmable LumiStep	100–10	•	10.5–32	929000611903
Xitanium 70W 0.2–0.7A LS 12–24V	200–700	40–100	Programmable LumiStep	100–10	•	10.5–32	929000612003

Lifetime @ Tc life, 90% survivals 50,000 hrs

Module recommendation

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

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Philips surge protection devices

The Philips 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:

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Constant voltage drivers

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LED power drivers

Xitanium constant voltage LED drivers are ideal for modular integration with Philips LED products, like LDM and InteGrade. Easy installation with simple parallel wiring, even in confined spaces, makes them perfect for refrigerated cabinets and display lighting. The robust design reduces maintenance and lowers the cost of ownership over an impressive operating life. So you can build unique lighting solutions that optimize performance and cost effectiveness.

Transformer LED drivers

Complementary lighting can do so much to enhance spaces, creating inviting, appealing and appetizing ambiences. With our electronic transformers for low-voltage applications you can achieve it safely and cost effectively. High frequency, compact and with a long lifetime of 50,000 hours, transformer LED drivers operate with 24VDC LED modules, LED strips and other applications that require a 24DVC constant voltage.

CertaDrive LED drivers

CertaDrive constant voltage drivers are designed to help you meet current and future lighting requirements. They are suitable for a wide range of applications from partial lighting in corridors and lounge areas to architectural and decorative mood lighting. The dedicated LED solution optimizes performance over a long lifetime of more than 40,000 hours at <45°C, giving you complete control over the performance and cost of your commercial lighting. So, whether it's lighting for coves, ceilings, tracks, panels, shelves or cabinets, with CertaDrive LED drivers, sometimes good can be great.

Luis Chivico
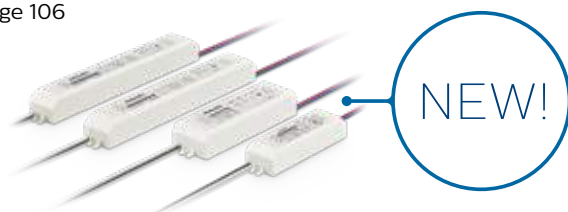Product manager
constant voltage drivers

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CertaDrive
See page 106

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Constant voltage LED drivers

Philips 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, 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 installation friendly.

Xitanium 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
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	I/II	20	929001430080

Xitanium 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
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

Xitanium 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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The key need of food and fashion retailers is to make merchandise shine at the point-of-purchase while consuming less power. That's why we have expanded our InteGrade LED portfolio with two major innovations that bring unrivaled product visibility, attractiveness and efficiency.

Premium light quality, throughout the store
Our new InteGrade premium white family offers you superior visual display with best-in-class efficiency. And you can lower energy costs at the same time. It lights up shoppers' desire with an optimized color spectrum for enhanced white performance and astonishingly lively rich colors. 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.

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 placed 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.

All our state of the art LEDs have minimal output degradation and practically no color shift over time. Undesirable hot spots, glare and reflections are virtually eliminated by their unique feature – a continuous line of light.

Maximum design flexibility
We offer you maximum design flexibility thanks to a range of engine lengths, color temperatures, accessories and Xitanium constant voltage LED power drivers. The modular components fit together easily to simplify design-in and ensure hassle-free installation.
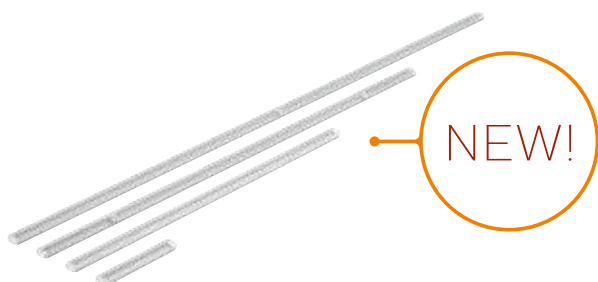
Melike Yavuz
Product manager retail display lighting

Just released!

Philips InteGrade gen 3 (standard color range)

NEW!

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 range: Premium white color range and standard color range. 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 while providing an outstanding efficacy up to 125 lm/W to enable lower power consumption. Standard color range (3000 K, 4000 K, 5600 K, WWR) 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.

Suitable for:

Retail

For further information visit philips.com/technology

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 range: premium white color range and standard color range. 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 while providing an outstanding efficacy up to 125 lm/W to enable lower power consumption. 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 the 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 new InteGrade engine and fixture narrow beam vision provides higher lumen levels and yet maintaining its slim design suitable for aesthetic integration in the applications like chiller doors, where there is no room to place a sizable lighting solution. What is more exciting is InteGrade high flux is available also 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.

Moreover an ultimate shopping experience can be created by the combination of the InteGrade LED system premium white and already available 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 maintaining the outstanding flexibility that its modular approach offers, 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 Xitanium constant voltage LED power 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 according the needs of the stores.

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 range

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

* 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	K	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

* Correlated color temperature within 5 SDCM range

Suitable for:

Retail

For further information visit philips.com/technology

Philips InteGrade LED products

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

* 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

* 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

* Correlated color temperature within 5 SDCM range

InteGrade fixture 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 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

* Correlated color temperature within 5 SDCM range

Suitable for:

Retail

For further information visit philips.com/technology

Retail display lighting

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	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

* 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

Product name	Product code (GPC)
Xitanium constant voltage LED power driver 20W – 24V	929000654006
Xitanium constant voltage LED power driver 80W – 24V	929000653906
Xitanium constant voltage LED power driver 100W 24V 100/240V	929001430080
Xitanium 100W 4.1A 24V FIX INT –S*	929000771913
LED driver outdoor 100W 100–240V 24V**	929000485303

* Only for NAM region
** Only for Japan

Accessories	Product code (GPC)
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 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 2.5m(98") white	929000644514
InteGrade cable 1m(39") white angle	929000644714
InteGrade cable 2.5m(98") white angle	929000644914
InteGrade spacer cable 0.5m black	929000645014
InteGrade spacer cable 0.5m white	929000645114
InteGrade extension cable 1.5m(59")black	929000874413
InteGrade Y cable black	929000874313

Accessories	Product code (GPC)
Other accessories	
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 lock inline	929000643713
InteGrade mounting clip for T style prof	929000853213
InteGrade mounting clip canopy	929001571106
InteGrade connector	929000959106
InteGrade magnet for M style profile	929000871413
InteGrade rotational bracket	929000874613

Suitable for:

Retail

For further information visit philips.com/technology

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 range: premium white color range and standard color range. 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 while providing an outstanding efficacy up to 125 lm/W to enable lower power consumption. 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 the 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 new InteGrade engine and fixture narrow beam vision provides higher lumen levels and yet maintaining its slim design suitable for aesthetic integration in the applications like 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 maintaining the outstanding flexibility that its modular approach offers, 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 Xitanium constant voltage LED power 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 according the needs of the stores.

For shelf lighting

InteGrade engine 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 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 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
InteGrade engine Va 140mm WWR G3	0,7	70	90		929001575406
InteGrade engine Va 575mm WWR G3	3,2	310	90		929001575506
InteGrade engine Va 855mm WWR G3	4,7	450	90		929001575606
InteGrade engine Va 1150mm WWR G3	6,4	620	90		929001575706

* Correlated color temperature within 5 SDCM range

Suitable for:

Retail

For further information visit philips.com/technology

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 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

* Correlated color temperature within 5 SDCM range

For canopy lighting

InteGrade engine uniform 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 engine UB Va 855mm 930 G3	9,4	890	90	3000	929001603706
InteGrade engine UB Va 1150mm 930 G3	13	1200	90	3000	929001603806
InteGrade engine UB Va 855mm 940 G3	9,4	970	90	4000	929001603906
InteGrade engine UB Va 1150mm 940 G3	13	1300	90	4000	929001604006
InteGrade engine UB Va 855mm WWR G3	7,9	700	90		929001604106
InteGrade engine UB Va 1150mm WWR G3	11	900	90		929001604206

* 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 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
InteGrade engine UB Vi 855mm WWR G3	11	1050	90		929001579506
InteGrade engine UB Vi 1150mm WWR G3	15	1400	90		929001579606

* Correlated color temperature within 5 SDCM range

Suitable for:

Retail

For further information visit philips.com/technology

Philips InteGrade LED products

For chillers with doors

InteGrade engine 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 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

* 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

* Correlated color temperature within 5 SDCM range

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

* 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

* Correlated color temperature within 5 SDCM range

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	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
InteGrade engine HF 1150mm WWR G3	35,1	3000	90		929001622906

* 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

Product name	Product code (GPC)
Xitanium constant voltage LED power driver 20W – 24V	929000654006
Xitanium constant voltage LED power driver 80W – 24V	929000653906
Xitanium constant voltage LED power driver 100W 24V 100/240V	929001430080
Xitanium 100W 4.1A 24V FIX INT –S*	929000771913
LED driver outdoor 100W 100–240V 24V**	929000485303

* Only for NAM region
** Only for Japan

Accessories	Product code (GPC)
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 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 2.5m(98") white	929000644514
InteGrade cable 1m(39") white angle	929000644714
InteGrade cable 2.5m(98") white angle	929000644914
InteGrade spacer cable 0.5m black	929000645014
InteGrade spacer cable 0.5m white	929000645114
InteGrade extension cable 1.5m(59")black	929000874413
InteGrade Y cable black	929000874313

Accessories	Product code (GPC)
Other accessories	
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 lock inline	929000643713
InteGrade mounting clip for T style prof	929000853213
InteGrade mounting clip canopy	929001571106
InteGrade connector	929000959106
InteGrade magnet for M style profile	929000871413
InteGrade rotational bracket	929000874613

Suitable for:

Retail

For further information visit philips.com/technology

Philips InteGrade LED products

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

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

This new range offers a breathtaking performance with superb lumen and lux levels and an exceptional uniform light distribution due to its revolutionary optics that brings light right down to the lowest shelf at the canopy application. 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 has also standard color range with specially formulated CRI 90 LEDs to enable product colors look natural.

InteGrade LED engines have been designed to match the most common application lengths, reducing the number of components needed per installation; yet maintaining the outstanding flexibility that its modular approach offers, 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 according the needs of the stores.
Note that InteGrade high flux engines are not standalone engines and they might need be 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	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
InteGrade engine HF 1150mm WWR G3	35,1	3000	90		929001622906

* 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.

Suitable for:

Retail

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

* 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

Product name	Product code (GPC)
Xitanium constant voltage LED power driver 20W - 24V	929000654006
Xitanium constant voltage LED power driver 80W - 24V	929000653906
Xitanium constant voltage LED power driver 100W 24V 100/240V	929001430080
Xitanium 100W 4.1A 24V FIX INT –S*	929000771913
LED driver outdoor 100W 100-240V 24V**	929000485303

* Only for NAM region
** Only for Japan

Accessories

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:

Retail

For further information visit philips.com/technology

LED display modules

Philips LED lighting for refrigeration 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
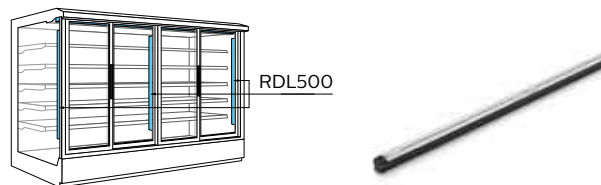
RDL500

Value

Product specification

Product name	Power consumption	Lumen	Color Rendering Index	Correlated Color Temperature*	Product Code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC
PrimeSet RDL 500 1200 mm (47") 841 G1	10	900	85	4100	9290 00891 106
PrimeSet RDL 500 1200 mm (47") 856 G1	10	1000	85	5600	9290 00891 006
PrimeSet RDL 500 1500 mm (59") 841 G1	12	1200	85	4100	9290 00890 706
PrimeSet RDL 500 1500 mm (59") 856 G1	12	1300	85	5600	9290 00890 606
PrimeSet RDL 500 1700 mm (67") 841 G1	13	1300	85	4100	9290 00890 306
PrimeSet RDL 500 1700 mm (67") 856 G1	13	1400	85	5600	9290 00890 206

* 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	17	1900	85	4100	9290 015018 06
PrimeSet RDL 500 Vision 1200 mm (47") 856 G1	17	2000	85	5600	9290 015019 06
PrimeSet RDL 500 Vision 1500 mm (59") 841 G1	24	2200	85	4100	9290 00934 106
PrimeSet RDL 500 Vision 1500 mm (59") 856 G1	24	2400	85	5600	9290 00934 006
PrimeSet RDL 500 Vision 1700 mm (67") 841 G1	27	2500	85	4100	9290 00933 906
PrimeSet RDL 500 Vision 1700 mm (67") 856 G1	27	2700	85	5600	9290 00933 806

* Correlated color temperature within 5 SDCM range

Suitable for:

Retail

For further information visit philips.com/technology

Retail display lighting

LED display modules

RDL510
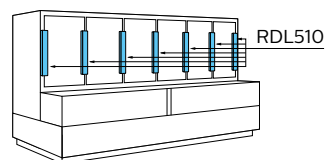
Vision

Product specification

Product name	Power consumption	Lumen	Color rendering index	Correlated color temperature*	Product code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	GPC
PrimeSet RDL 510 Vision 750 mm (30") 841 G1	11	1100	85	4100	929000934506
PrimeSet RDL 510 Vision 750 mm (30") 856 G1	11	1200	85	5600	929000934406
PrimeSet RDL 510 Vision 850 mm (33") 841 G1	12	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	14	1400	85	4100	929000934306
PrimeSet RDL 510 Vision 950 mm (37") 856 G1	14	1500	85	5600	929000934206

* Correlated color temperature within 5 SDCM range

Constant voltage drivers

Product name	Product code (GPC)
Xitanium constant voltage LED power driver 20W - 24V	9290 006 54006
Xitanium constant voltage LED power driver 80W - 24V	9290 006 53906
Xitanium constant voltage LED power driver 100W 24V 100/240V	9290 014 30080
Xitanium 100W 4.1A 24V FIX INT -S*	9290 007 71913
LED driver outdoor 100W 100-240V 24V**	9290 004 85303

* Only for NAM region
** Only for Japan

Accessories

	Product code (GPC)
Profiles	
PrimeSet RDL-mount prof CTR 750mm	9290 008 94006
PrimeSet RDL-mount prof CTR 850mm	9290 015 07306
PrimeSet RDL-mount prof CTR 950mm	9290 008 94106
PrimeSet RDL-mount prof CTR 1200mm	9290 008 94206
PrimeSet RDL-mount prof CTR 1500mm	9290 008 94306
PrimeSet RDL-mount prof CTR 1700mm	9290 008 94406
PrimeSet RDL-mount prof SD 750mm	9290 008 94706
PrimeSet RDL-mount prof SD 850mm	9290 015 07406
PrimeSet RDL-mount prof SD 950mm	9290 008 94806
PrimeSet RDL-mount prof SD 1200mm	9290 008 94906
PrimeSet RDL-mount prof SD 1500mm	9290 008 95006
PrimeSet RDL-mount prof SD 1700mm	9290 008 95106
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	9290 008 92706
PrimeSet RDL - side cable 1m (39") B	9290 008 92806
PrimeSet RDL - centre cable 2.5m (98") B	9290 009 57206
PrimeSet RDL - side cable 2.5m (98") B	9290 009 57306

* Only for NAM region

Suitable for:

Retail

For further information visit philips.com/technology

LED display modules

Well/serve-over lighting

Philips LED lighting for refrigeration 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 modules can be used for well counters (under combined cabinets) or serve-over counters.
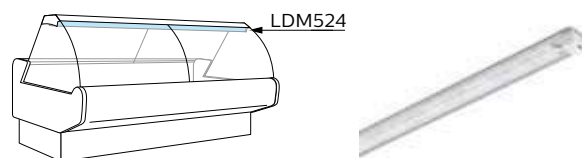
LDM524

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	K	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

* 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

* Correlated color temperature within 5 SDCM range

Suitable for:

Retail

For further information visit philips.com/technology

LDM524 (premium white range)
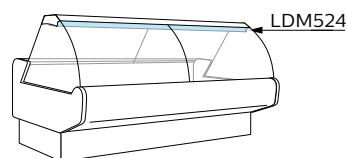
LDM524

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 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") 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

* Correlated color temperature within 5 SDCM range

Constant voltage drivers

Product name	Product code (GPC)
Xitanium constant voltage LED power driver 20W – 24V	929000654006
Xitanium constant voltage LED power driver 80W – 24V	929000653906
Xitanium constant voltage LED power driver 100W 24V 100/240V	929001430080
Xitanium 100W 4.1A 24V FIX INT –S*	929000771913
LED driver outdoor 100W 100–240V 24V**	929000485303

* Only for NAM region
** Only for Japan

Accessories

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:

Retail

For further information visit philips.com/technology

LED display modules

CertaFlux LCM400 LED system gen 3

Discount and price-fighter retail chains focus on costs. They leverage purchasing power to deliver value, and the customer expects low prices and a functional shopping experience. The lighting must support this image, which is where Philips CertaFlux LED lighting come in. It has established itself as an energy-efficient way to deliver the quality of light this cost-sensitive retail sector is looking for. CertaFlux LCM400 LED system gen 3 combines a low initial price with plug and play simplicity for fast and easy assembly. And thanks to a lifetime of 50,000 hours, they're virtually maintenance free as well. This all adds up to a low cost of ownership and rapid payback times.

The quality of light and performance of CertaFlux LCM400 are aligned with the needs of discount retailer: a typical CRI of 85 and an efficacy up to 105 lumens per watt lights up products. The LEDs have minimal output degradation and color shift over time, so the light remains consistent throughout their long service life. A carefully selected range of accessories is also available. The slim modules are easy to aesthetically integrate into cabinets, enabling you to reduce cabinet depth and increase storage space. Thanks to a set of standard lengths that are optimized for the application, fixtures, accessories like mounting profiles, mounting clips, power cables, and Xitanium constant voltage LED power drivers, the Certaflux LCM400 LED system gen 3 offers fast and easy assembly with plug and play simplicity.

LCM

For shelf lighting

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
CertaFlux LCM400 900mm 830 gen 3	5,2	525	85	3000	929001600306
CertaFlux LCM400 1200mm 830 gen 3	7	700	85	3000	929001600506
CertaFlux LCM400 900mm 840 gen 3	5	525	85	4000	929001600406
CertaFlux LCM400 1200mm 840 gen 3	6,7	700	85	4000	929001600606
CertaFlux LCM400 900mm WWR gen 3	4,7	400	90		929001600706
CertaFlux LCM400 1200mm WWR gen 3	6,2	525	90		929001600806

* Correlated color temperature within 5 SDCM range

Constant voltage drivers

Product name	Product code (GPC)
Xitanium constant voltage LED power driver 20W – 24V	929000654006
Xitanium constant voltage LED power driver 80W – 24V	929000653906
Xitanium constant voltage LED power driver 100W 24V 100/240V	929001430080
Xitanium 100W 4.1A 24V FIX INT –S*	929000771913
LED driver outdoor 100W 100-240V 24V**	929000485303

* Only for NAM region
** Only for Japan

Accessories	Product code (GPC)
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 profile 2356mm (93") M style	929000871313
Power cables – to connect engine to driver	
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 2.5m(98") white	929000644514
InteGrade cable 1m(39") white angle	929000644714
InteGrade cable 2.5m(98") white angle	929000644914
InteGrade spacer cable 0.5m black	929000645014
InteGrade spacer cable 0.5m white	929000645114
InteGrade extension cable 1.5m(59")black	929000874413
InteGrade Y cable black	929000874313

Other accessories	Product code (GPC)
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 lock inline	929000643713
InteGrade mounting clip canopy	929001571106
InteGrade connector	929000959106
InteGrade magnet for M style profile	929000871413
InteGrade rotational bracket	929000874613

Suitable for:

Retail

For further information visit philips.com/technology

Complementary
partners

We are keen to bring the latest LED innovations to the market that will help you design luminaires that meet market 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 road map 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 below listed complementary partners. Please visit the websites of the complementary partners for more product information or contact them directly in case you have any specific requests.

Coolings

Asia Vital Components (AVC) CO. Ltd
7F-3, No.24, Wucyuan 2 Rd.
Sinjhuang District
New Taipei City 24892
Taiwan
Tel: +886 2 2299 6930 **Fax:** +886 2 2299 6929
E-mail: sales@avc.com.tw
Web: www.avc.com.tw

Application areas

Sunon European Headquarters
Parc Médicis 66, Av des Pépinières
94832 Fresnes Cedex
France
Tel: +33 146 154 515 **Fax:** +33 146 154 510
Web: www.sunon.com

Application areas

MechaTronix
4 to 6F, No.308 Ba-De 1st Rd.
Kaohsiung City 80050
Taiwan
Tel: +886-7-2382185 **Fax:** +886-7-2382187
E-mail: led@mechatronix-asia.com
Web: www.led-heatsink.com

Application areas

Wisefull Technology Ltd.
No.3, Hong-ye 9th South Road
138 Industrial Park Tangxia, Dongguan
Guangdong Province
China
Tel: +86 769 8685 3888 **Fax:** +86 769 8772 4315
E-mail: contact@wisefull.com
Web: www.wisefull.com

Application areas

Mechanical fixations

BJB
Werler Str. 1
59755 Arnsberg
Germany
Tel.: +49 2932 982 0
E-mail: info@bjb.com
Web: www.bjb.com

Application areas

Lenses

BJB
Werler Str. 1
59755 Arnsberg
Germany
Tel.: +49 2932 982 0
E-mail: info@bjb.com
Web: www.bjb.com

Application areas

Darkoo Optics (Zhongshan) Co,. Ltd
Huanmao Road, High-Tech Developing Zone,
Zhongshan City, Guangdong
China
Zip code: 528400
Tel: 86-760-85332970 **Fax:** 86-760-85335526
E-mail: sales@darkoo.cc
Web: www.darkoo.cc/en/index.html

Application areas

Carclo Optics
6 - 7 Faraday Road, Rabans Lane Industrial Area,
Aylesbury, HP19 8RY
England
Tel: +44 1753 575 011
E-mail: sales@carclo-optics.com
Web: www.carclo-optics.com

Application areas

LedLink Optics Inc
15F, No.655, Bannan Rd., Chung-Ho Dist,
New Taipei City
Taiwan
Tel: +886-2-8227-6126 **ext:** 3128 **Fax:** +886-2-8227-6127
E-mail: claire_lai@ledlink-optics.com
Web: www.ledlink-optics.com

Application areas

Chun Kuang Optics Corp.
5F., No 122-8, Jhonghua Rd., Hukou, Hsinchu 303
Taiwan
Tel: 886-3-6960168 **ext:** 701 **Fax:** 886-3-6960228
E-mail: sales@ckopitcs.com
Web: www.ckoptics.com

Application areas

Ledil
Salorankatu 10
24240 SALO
Finland
E-mail: ledil@ledil.com
Web: www.ledil.com

Application areas

Reflectors

ALMECO Group – Headquarters
Via della Liberazione 15
I - 20098 Civesio di S.Giuliano Milanese (**MI**) - ITALY
Tel: +39 02 9889631
E-mail: almeco@almecogroup.com
Web: www.almecogroup.com/en/lighting

Application areas

Nata lighting
Postal: 529040
380 Jin Ou Road, Jiang Hai District
Jiang Men City, Guangdong
China
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
7640764 Langenfeld
Germany
Tel: +49 2173 / 279-0 **Fax:** +49 2173 / 279-250
E-mail: info@jordan-reflektoren.de
Web: www.jordan-reflektoren.de

Application areas

Widegerm Lighting Ltd.
Hong Kong Office: Flat A, 3/F., Tak Wing Ind. Building, 3
Tsun Wen Road, Tuen Mun, N.T.
China Office: Sha Tian Town,Dong Guan City,
Guang Dong Province
China
Tel: +852 2465 5679 **Fax:** +852 2455 8434
E-mail: info@widegerm.com.hk
Web: www.widegerm.com.hk

Application areas

Ledil
Salorankatu 10
24240 SALO
Finland
E-mail: ledil@ledil.com
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

Lighting definitions **explained**

Legend technical specifications	Symbol	Definition
Backwards compatible		It can work with an older product or technology
Beam angle	(º)	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	CoB	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 internet
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		lngress 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 orginal light output
Luminous flux	lm	Total energy emitted by a lightsource across the visible wavelengths of light
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 is regulating down 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 becoming a node in the network by containing one or more sensors and having 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		Zhaga is 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 are here to help you understand the technical features and interactions of Philips LED lighting systems across different portfolios. This includes the 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 Philips R&D team, acting as an interface between the two. Remote or on-site technical support, as well as hands-on training is offered to help you to facilitate the design-in of Philips LED systems or LED drivers. You can also ask our engineers for early samples of products that haven't yet formally been released to market.

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Specialist for:
Easy Design-In Tool

Design-in support

In addition to application support, Philips 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:

· Thermal measurements
  and/or simulation
· Optical measurements
  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.

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Second edition