PHILIPS

April 2017

OEM LED
catalogue

Quality of light
The collaboration between light and technology is stronger than ever

Support tools for you
My Technology Portal

Easy Design–in Tool

MultiOne configuration software

"Turning up the quality of light"

Lasse Ehmsen
Key Account Manager Philips Lighting LED electronics

LED

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

"Creating value together"

Light controls our daily routine. Our lives are guided by its power and only through light can we play, learn, discover, produce, shop and relax. As a lighting technology partner, it is our job to put all these activities into the right light. As complex as it sounds, ultimately it comes down to one thing: light quality. Light quality naturally depends on application needs and consists of many different aspects, but only through mastering light quality can we – as the lighting industry – achieve satisfied customers and end users. This is what we strive for every day. LED technology enables us to break through previously existing barriers, leading to almost indefinite opportunities. But are these really the endless possibilities you are seeking? Wouldn't you rather prefer a limited number of right options?

"Selling light is about mastering light quality"

To recommend the best light quality for every application, a deep understanding of its attributes is essential. At Philips we break it down into three types of attributes. Temporal aspects that control light modulation over time and frequency. Secondly, spectral aspects that cover perfecting all spectrum related values. And last, spatial aspects that shape light emission of LEDs and optical systems. Combining this knowledge with our passion and the expertise we have gained in the last 125 years, Philips Lighting is able to offer you the basis for a strong partnership: components with the best light quality and highest efficacy.

Lasse Ehmsen
Key Account Manager
Philips Lighting LED electronics

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Point sources downlighting

Linear lighting

Xtreme modules

OEM LED catalogue 2017
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
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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.

philips.com/technology

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.

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.

Introducing
Paul Nulty

Paul Nulty founded his eponymous lighting design practice in 2011, breaking new ground in the lighting firmament. With a background in theatre design — he graduated in Performance Design from LIPA in 1996 — Nulty decided to leave the world of fantasy behind and focus on real-life scenarios. Crucially, he brought some of the fun and magic of the theatre with him: his ethos is less about fixtures and fittings and pretty much everything to do with creating the right sort of atmosphere.

With over 15 years' experience of collaborating with architects and interior designers on significant retail and hospitality residential and commercial projects, Nulty is fully versed in the interaction of light and space. Innovation continues to be his driving force. As well as pursuing clever concepts, Nulty investigates lighting design approaches that are sustainable and environmentally friendly. Energy efficiency, light pollution and environmental impact also feature high on his list of concerns.

As industry awards jostle for space on his mantelpiece, invitations to share his vision on Architectural Lighting as a speaker on the international stage are dropping through his letterbox. Paul Nulty is tripping the light fantastic but he made time to pop in and share some thoughts here:

Paul Nulty,
Lighting Design Consultant

"It's great to see the shift towards LEDs now becoming more cost effective."

As Lighting Designers, an important element of our work is the impact that the quality of light has on the built environment, and the emotional connection light facilitates between a person and their surroundings.

High-quality lighting encompasses a number of factors including colour rendering, consistency, light levels, intensity, direction, layering and contrast/drama. These attributes are tools that are used in our architectural lighting schemes – to build a composition of light, to enhance a space and create an engaging atmosphere for the people using it.

The shift towards human factors in lighting has been interesting. As designers, it is something that's been spoken about for a long time: using light to get people to engage with their environment. Finding that human connection with light is crucial and yet it can be underestimated.

The collaboration between light and technology is stronger than ever. LED is now being used as an advanced marketing and sales tool and this, combined with smartphones, is radically changing the way consumers browse and purchase. Two-thirds of consumers shop with smartphones to purchase online; there is a need to bring customers back to the high street. >>

The quality of light
and technology

<< Today's state-of-the-art luminaires can communicate via smartphones, tracking consumer movements and subtly increasing light levels to focus on particular products and offers. Light's power is that it is functional and aesthetic; it enables people to act and also feel. Get the combination right and it can positively encourage people to visit shops, buy and connect with the brand.

There is a move towards the blurring of retail and e-tail by enabling smartphones to gather and retain information on a shopper's previous purchases. Shoppers can be alerted with reminders as they walk past specific stores and light can be automatically adjusted to match the ambiance depending on what a customer is buying. This is particularly beneficial to the cosmetics industry, marking a new era in which in-store lighting can finally enhance and offer a truer representation of customers' skin tones as they buy cosmetics (further detail on this later on).

If you look at technology in the industry, it certainly has its place in 'lighting'. However, some technologies — control systems, for example, especially in retail environments — generate cynicism. Daylight linking around store entrances is a case in point because dwell times aren't very long in these spaces. Once you get into the deeper planned department stores, daylight linking almost becomes irrelevant and in some circumstances you need more light in the day than in the evenings.

The shift from traditional lighting to LEDs

In some cases the shift towards LEDs has made lighting quite challenging, as they do not quite provide the 'sparkle' or peak intensity that traditional light sources do, rendering some spaces a little 'flat'.

Until recently it has also been rather difficult to justify the additional cost associated with LEDs. Historically the tipping point between energy saving and increased capital expenditure has been three to five years, and most retailers only work on a three-year programme. As costs are obviously coming down, this is becoming much easier. The landscape is changing and it's great to see the shift towards LEDs now becoming more cost effective.

"LED radically changes the way consumers browse and purchase."

Gradually, there has been a move away from 'traditional' halide light to LED, which is positive. On the other hand there is still an issue with LED products. Many of these light sources have spectral outputs skewed towards blue or red wavelengths — it's rare to find a source that has both. So, it can be challenging. This is particularly the case in fashion retail where you have to think about trends — where clothing and colours change rapidly from week to week and season to season.

In general, LEDs are especially difficult to use as accent sources in jewellery stores or other shops where retailers need to make products 'pop' and 'sparkle'. It is slightly frustrating when it comes to CRI because when manufacturers produce LED sources

to fit the CRI measurement criteria, it doesn't necessarily mean that the gaps in between those CRI measurement points are good. This too can be challenging. Ideally, there would be a better way to compare LED chips on a broader spectrum than a small number of specific colours or wavelengths.

Bespoke Lighting

At Nulty, we conducted intensive research for the cosmetics industry with University College London (UCL) in collaboration with LED manufacturers to see how we can blend sources of light to ensure an authentic quality of light to match make up colours to the skin. The results have been implemented in two of our clients' stores in London: the new Charlotte Tilbury boutique in Westfield and Cosmetics à La Carte in Sloane Square.

Creating bespoke solutions for our clients is crucial, especially in the kind of environment where the right lighting is imperative to ensure a successful sale and ultimately a happy customer. Essentially, the key thing about lighting in retail is that it can be used to enhance a brand and increase brand awareness.

At Nulty, a close relationship with our clients is essential to ensure we understand their aspirations and their specific brand values. For instance, trend-led retailers who aspire to have a dark and moody feel will need to have the appropriate lighting to reflect this. But we also work with retailers who need their space to be light and airy. Cosmetics à La Carte, for example, had a beautifully bespoke LED lighting scheme with simple track lighting and carefully positioned downlights to create the most flexibility and ensure the spotlight is always on the merchandise to encourage the customer to buy.

A shift towards creativity

There is a shift towards better quality light sources, towards better efficiency and towards more cost-effective light sources. It's a 'win-win' situation as costs are going down and the quality of sources going up. Historically there have been too many manufacturers simply 'shoehorning' LED chips into traditional housings or copying each other's designs. Now there is also a shift towards better products. Ultimately, in this day and age, a light fitting is simply a biscuit tin that houses a LED chip and reflector

(this maybe oversimplifying a little). It's also positive to see more originality and creativity in product design and that's producing a wider palette of aesthetics to choose from.

Finally, when employing innovative design techniques to engage and attract customers to a space, a lighting designer needs to almost be a consumer psychologist who understands the moods and emotions of customers in order to drive their behaviour. By engaging early on in the design process, it is possible to achieve the perfect lighting solution to illuminate a space. Lighting is and continues to be a formidable tool in Retail Design. Technology is clearly a key factor in this. But it is also the considered application and emotional empathy that sets apart the very best lighting schemes.

What's in store
for retailers?

Digital transformation of the retail industry is the new reality. In today's connected world, shopping has become a multilayered process. The Millennials, who grew up with 24/7 connectivity, orient themselves before going shopping, on the move and in the store. Retailers must adapt to this behavior, and personalize the customer experience. And it's here that physical stores have an advantage over online retailers, as long as they fuse the street experience with an online and mobile presence. We look at trends in the retail segment, the challenges retailers face, what lighting solutions are available, and the role of Philips OEM in these solutions.

The challenges retailers face

'Shopping as usual' is over. The traditional customer journey – driving to a store and back – is outdated. The Millennials generation shops by discussing with peers, comparing offerings, checking reviews and sharing experiences; at home and in-store with their mobiles. It's the new customer journey and it's blurring the store concept. But it's also making it more personal, digital and convenient. The physical store must engage the digital shopper, rejuvenate spaces and at the same time, reduce the cost burden. There's been a slowdown in 'brick-and-mortar' retail, with foot traffic halving between 2010 and 2013. The amount of new retail space opened per year dropped dramatically in the same period. Nevertheless, over 80 percent[1] of Millennials still prefer physical stores as long as they're fun, interactive and up-to-date. Retailers that recognize this are taking steps to make the in-store experience special. To lure shoppers away from the ease and convenience of online shopping, a store visit must add value. Lighting is part of this as it helps shape perceptions of products and enhances the experience. Lighting also has a role in keeping shoppers connected in the store.

Create a unique retail experience

Luminaire manufacturers are responding to the changing retail landscape. Lighting can help reduce operational costs, enhance spaces and products, create a unique retail experience and enable connectivity. Today's lighting is sustainable, flexible and efficient. Switching to LED and using functions like scheduling, daylight harvesting and presence sensing can save up to 40 percent on the electricity bill. Smart control systems can reduce annual energy costs by another 20 percent (total savings 60 percent).

Lighting facilitates multi-layering, dynamic shop windows and scene setting through dimming and color. Retailers can stay connected with customers by linking the online experience to the in-store experience using lighting-based indoor positioning technology and smartphone apps. Market adoption of indoor location technology is expected to explode by 2020, particularly in fashion, food, DIY, and electronics retailing.

[1] "The truth about showrooming, Forrest, Oct 2014. Who are the Millennial shoppers? And what they really want?" Accenture, outlook 2013

In an example of a 1300 square meter store with 4800 burning hours per year, electricity savings by switching from TL5 and CDM to LED were 40 percent per year (from € 12,605 to € 7,528). Using StoreWise smart control brought this down to € 5,226, representing a total saving of 59 percent.

"

Lighting can enhance the shopping experience, strengthen the brand, extend customer loyalty and increase operational efficiency.

"

Lighting in fashion retailing

With the right light, it's possible to transform a store, enhance merchandise and engage customers. Buyers want to experience a product and expect an interactive experience. And there's no better place than in a physical store for a brand to connect and engage with its customers by activating all their senses and building loyalty. Paradoxically, online fashion retailers are opening physical stores as they are an asset for communicating with customers.

Conventional lighting is rapidly fading out, LED lighting is firmly established and techniques are emerging to use light as a 'central nervous system' for retail. Lighting can reflect true colors or enhance their richness. For example, making white garments look whiter. And in food retail, products can look natural and appetizing, and even have a longer shelf life. Retailers recognize the importance of color when choosing a product. Lighting is critical for how colors are presented.

World's best quality of light

Philips creates value through the world's best quality of light. We understand the needs of retailers and shoppers, and support luminaire manufacturers by providing LED drivers and LED modules for luminaires that meet these needs. Our components provide the flexibility, quality of light, visual comfort and efficiency demanded by retail lighting applications. There are three ranges: Fortimo LED SLM gen 6 down- and spotlight modules, Xitanium LED drivers, and YellowDot ready drivers for indoor positioning systems.

Fortimo
LED SLM gen 6

Comprises down- and spotlight modules. Luminaire manufacturers can specify a light color, CRI, white tone and lumen package without having to change the complete fixture. The range includes colors optimized for specific lighting applications: PremiumWhite and CrispWhite for fashion retail, and PremiumRed and WarmWhite for food retail.

Xitanium
LED drivers

Are down- and spotlight drivers for retail applications. They are reliable, efficient, and easy to configure. The portfolio comprises fixed-output, programmable and emergency LED driver versions. Their design is based on recommendations of international commissions about avoiding visual disturbances to create the right atmosphere.

YellowDot
ready LED drivers

Fit the Philips YellowDot program, which enables luminaire manufacturers to certify luminaires for interoperability with our indoor positioning technology. This works by Visible Light Communication (VLC) in which allows individual light points to transmit a unique identifier.

my technology portal

One-stop-support, from design-in to delivery

At Philips we like to support you in all stages of your daily business. My Technology Portal, your personal link to our services, plays a growing role in realizing that goal.

The user friendly dashboard offers you at any time a complete library of product information, product launches and phase-outs, as well as order- and marketing related information. It also provides access to our online service tools and direct connection to relevant contacts and news. Did you already discover all benefits the of My Technology Portal? We invite you to scan the advantages below. Check them online and get out of it what's in it for you!

Portfolio
- order history and quantity
- phase-out information
- search & excel download
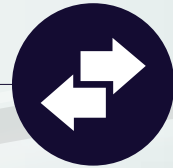
Webshop
- see available samples
- order samples
- track & trace your order

News
- webinars
- tutorials
- what's new videos
- event information
- market specific content (new!)

ⓘ Would you like to focus on 'local news'?
Set your personal preferences in My account!

Share center
- share relevant files with your Key Account Manager
- easy tot find documentation in folder structure
- larger files can be exchanged here

My account

- customize product news according to your needs
- activate notifications
- select content and frequency of notifications

ⓘ You like to see at once what's relevant to you.
Fill in your 'Fields of Interest' to list preferred segments first in Product news and notifications.

"The additional features and the email updates really support my efforts in planning any changes to products and creating ideas around new developments, a visit to the My Technology Portal is a daily must for me!"

Dominic McAndrew
Technical Engineer – Apollo Lighting

Not registered yet? Go to **mytechnologyportal.philips.com** and watch the highlights.

Product news

- most recent changes (Phase In and Phase Out)
- alle relevant documentation, including dates and codes
- quick links to Easy Desgin-in Tool, webshop, price and sample request

ⓘ Interested in one of our Phase In products? Just click for your sample or to request a price.

"Discover all benefits, just one click away"

Tools

- **Easy Design-in Tool (see page 18-19)**
- Gear Selection Tool
- **MultiOne configuration software (see page 20-23)**
- request price
- get MultiOne keys

ⓘ Use our tools via My Technology Portal for direct acces to relevant data and easy interchange of information.

My Orders

- review your orders
- check order status & delivery information

ⓘ You need some information on your order. Now!
Check the complete overview with My orders, 24/7.

Contacts

- see your relevant contacts
- contact your Key Account Manager or Customer Service Desk to place an order

Easy Design–in Tool

- saving you precious time
- easily upgrading your solutions
- approved combinations

Making your work easier **every day!**

easy design-in tool

With Easy Design-in Tool you create the ideal LED configuration in a minute. It automatically calculates the consequences of your choices and helps you to easily manage the growing complexity of LED systems.

New:

Truly indispensable

Philips cares for your business and precious time. That's why we have developed Easy Design-in Tool. Less than two years after its release thousands of luminaire designers and product engineers incorporated Easy Design-in Tool in their daily routine. This tool not only helps to select the best driver-module combination, but also shows how to connect the components and how to set the driver for the given purpose. The validity of the outcome is verified and approved by Philips and is covered under Philips warranty after purchase. No wonder it soon became – and still is – the benchmark in the market.

Performance prediction at luminaire level

At Philips we keep on improving Easy Design-in Tool. Latest and greatest addition: driver efficiency by its operating point. Now you can compose a full system and evaluate all its relevant parameters in actual operating conditions, even mimicking luminaire performance! Also new are the search function and request price button.

More ease of use, via My Technology Portal

We enthusiastically encourage you to create an account in our My Technology Portal. Using Easy Design-in Tool once you're logged in, you can directly check component availability for the solution you selected and jump to our web shop with the shopping cart filled. A click on the price request button will quickly lead to a quotation from your own sales representative.

"More often than not, Easy Design-in Tool will suggest a better driver than I had in mind. Saving me time and money and optimizing my system in the process."

Oded Drori (Gaash), Product Engineer

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

Access to the features built into the device (driver or sensor) offers you the flexibility to configure your devices to match 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 all Xitanium LED drivers using our MultiOne SimpleSet technology.

Specific features

✓ Functionality

- Adjustable output current
- Adjustable light output
- Adjustable startup time
- End of life indication

✓ Security

- Module temperature protection
- 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

For (re)configuration after installation you can use Philips Field App
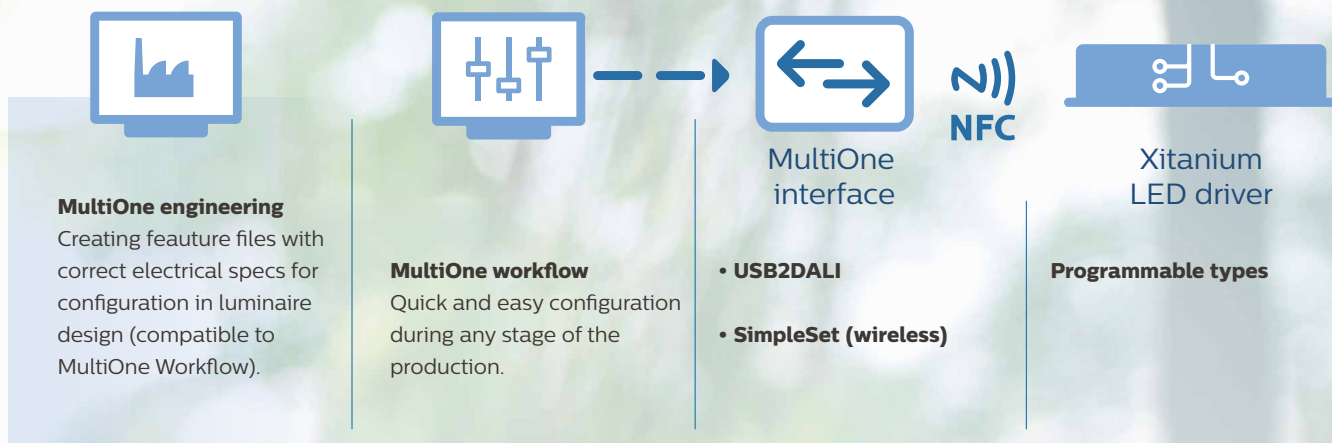
MultiOne engineering
Creating feauture files with correct electrical specs for configuration in luminaire design (compatible to MultiOne Workflow).

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

MultiOne interface

• USB2DALI

• SimpleSet (wireless)

NFC

Xitanium LED driver

Programmable types

Philips MultiOne interface	
Product name	12 NC
LCN8600/00 MultiOne interface USB2DALI	9137 003 46703
LCN9610 MultiOne SimpleSet interface	9290 009 99406
LCN9620 MultiOne SimpleSet interface	9290 009 99506

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

**LCN9610 and
LCN9620 MultiOne
SimpleSet interface**
The interface that can be used with the MultiOne PC software to powerless configure, diagnose devices via the wireless SimpleSet interface.

SimpleSet,
for wireless configuration

"We immediately recognized the benefits of SimpleSet in our organisation to be flexible in our product-offering for spot- and downlight."

Wim Gielen
R&D Manager, Orbit

Suitable for:

Office   Retail   Industry   Outdoor

Let's connect

saving energy and costs

Feel the potential
of connected
lighting

"
Get connected
with tomorrow's market."

saving
energy and costs

Connectivity has grown beyond its promise. Cities are getting 'smarter' every day and facility managers in offices and industry are also discovering the potential of connected lighting as a resource for collecting data, saving energy and managing space. Connectivity offers a tremendous possibility to add value to your luminaires.

Sensor ready = 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 exactly the sensors 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 Philips Field 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.

Jeroen Thijs
Product Manager
Connectivity

Just released!

Order now at www.philips.com/oemwebshop

Xitanium
SR Linear HV (non-isolated) drivers
See page 28

NEW!

Xitanium
YellowDot ready drivers
See page 29

NEW!

New drivers YellowDot ready for use with the Philips YellowDot indoor positioning system for retailers, now available to Lighting Manufacturers.

Xitanium
SR outdoor drivers
See page 29

NEW!

New Philips outdoor drivers sensor ready are ideal for use with Smart City management systems. With additional energy metering and diagnostics data available to City management systems and integrated low voltage power supplies, these drivers are the perfect match for smart city solutions.

Coming soon!

LED innovations at pre-launch phase

Bluetooth under pole configuration
Coming soon, we will enter new territory in outdoor with in-field smartphone configuration of street lighting made possible by Philips connected components. Stay tuned!

Suitable for:

Office | Industry | Outdoor

Order at sample webshop
philips.com/oemwebshop

For further information visit philips.com/technology

Suitable for:

Outdoor

Order at sample webshop
philips.com/oemwebshop

For further information visit philips.com/technology

Connectivity – linear lighting

New Philips drivers sensor ready are ideal for use with sensors and building management systems. With its integrated DALI 2.0 power supply it is easy to power sensors and wireless modules directly from the driver. It also features integrated energy metering for use in building management systems from the SR Certified program. This program with key building management and sensor vendors ensures that certified sensors and controllers work seamlessly with the Xitanium SR driver. For more information go to our webpage at philips.com/xitaniumsr.

The EasyAir sensor range is a brand new range with presence and daylight sensors that can be used all across offices, including open plan offices, meeting rooms and corridors. The EasyAir sensors' single-box, luminaire-mounting format and, powered by Xitanium SR, a two-wire connection will save time and costs when integrating them into your luminaires.
The EasyAir sensors are ready for the future. By integrating the EasyAir sensor into your luminaire, all work is done to enter the connected world of tomorrow. So let's get connected.

Product specification

Product name	Housing	Output current range	Output voltage range	Dimming range	DALI power supply max. supply current	Energy metering accuracy	Order code
	mm	mA	V	%	mA	%	EOC
Xitanium SR 36W 0.3–1.0A 54V iso	360x30x21	300–1000	27–54	100–1	52	4	8718696567715
Xitanium SR 75W 0.7–2.0A 54V iso	360x30x21	700–2000	27–54	100–1	52	4	8718696552704
Xitanium 35W 0.08–0.35A 150V SR 230V	360x30x21	80–350	50–150	100–1	52	4	871869669814300
Xitanium 60W 0.08–0.35A 220V SR 230V	360x30x21	80–350	50–220	100–1	52	4	871869669816700
Xitanium 60W 0.08–0.35A 300V SR 230V	360x30x21	80–350	100–300	100–1	52	4	871869669818100
Xitanium 100W 0.25–0.7A 220V SR 230V	360x30x21	250–700	50–220	100–1	52	4	871869669924900
Xitanium 100W 0.15–0.5A 300V SR 230V iXT	425x30x21	150–500	100–300	100–1	52	4	871869669926300
Xitanium 150W 0.2–0.7A 300V SR 230V iXT	425x30x21	200–700	100–300	100–1	52	4	871869669928700

new

Product specification

Product name	Housing (volume inside luminaire)	Key Features	Req. Luminaire hole	Occupancy technology	Detection area at 3 m height (minor movement)	Detection area at 2.4 m height (minor movement)	Viewing Angle	Full light dimlevel	Operating Ambient tempera-ture	Order code
	mm		mm		m	m		%	°C	EOC
EasyAir office sensor standalone SNS100	50x19x31.5 (50x19x24)	App-based configuration	44x17	Passive IR	3.6x3.4	2.9x2.7	X=72°Y=86°	5–100%	0–55	8718696900567 00
EasyAir office sensor advanced grouping SNS200	50x19x31.5 (50x19x24)	Zigbee wireless communication	44x17	Passive IR	3.6x3.4	2.9x2.7	X=72°Y=86°	5–100%	0–55	8718696698945 00

Suitable for:

Office   Industry

easy design-in tool

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

Order at sample webshop
philips.com/oemwebshop

For further information visit philips.com/technology

Connectivity – outdoor lighting

New Philips outdoor drivers sensor ready are ideal for use with Smart City management systems. This driver simplifies the design and production of connected luminaires that use intelligent lighting controllers from our SR Certified partners by reducing wiring and component count. It adds new features like diagnostics and accurate power metering. Furthermore, it enables luminaire manufacturers to design and build future-proof solutions that align with phased investment capabilities of municipal authorities. Using the driver in combination with industry-standard Zhaga connectors enables sensors and other connected devices to be added to the luminaire at a later date. This makes cost-effective upgrades possible as financial resources become available. For more information go to our webpage at philips.com/xitaniumsr.

Product specification

Product name	Housing	Output current range	Output voltage range	Dimming range	Efficiency @ 100% load	Lifetime @ Tc life	Diagnos-tics via SR interface	DALI power supply via SR interface max power 0.5W	24V power supply 3W average power / 10W peak	Energy metering accuracy	Order code
		mA	V	%	%	hrs				%	EOC
Xitanium SR Outdoor 75W 0.2-0.7A S240 sXt	S240	200-700	50-150	100-10	88	100.000	•	•	•	1	871869656879800
Xitanium SR Outdoor 75W 0.3-1.0A S240 sXt	S240	300-1050	20-100	100-10	88	100.000	•	•	•	1	871869667414700
Xitanium SR Outdoor 150W 0.2-0.7A S240 sXt	S240	200-700	90-283	100-10	90	100.000	•	•	•	1	871869656875000
Xitanium SR Outdoor 150W 0.3-1.0A S240 sXt	S240	300-1050	70-214	100-10	90	100.000	•	•	•	1	871869667412300

new

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

Connectivity – retail lighting

Product specification

Product name	Housing	Output current range	Output voltage range	Dimming range	YellowDot Ready (indoor positioning)	Order code
		mA	V	%		EOC
Xitanium 60W 0.08-0.35A 300V TD16CL 230V	280x30x16	80-350	100-300	100-1	•	871869669890700
Xitanium 100W 0.15-0.5A 300V iXt TDCL 230V	360x30x21	150-500	100-300	100-1	•	871869669858700
Xitanium 150W 0.2-0.7A 300V iXt TDCL 230V	360x30x21	200-700	100-300	100-1	•	871869669888400

new

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

Suitable for:

Industry   Outdoor

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SR CERTIFIED™

The SR Certified partner program
working seamlessly together

If you are looking for connected lighting functionality beyond the basic capabilities of our components, the place to start is our SR Certified partner program. The growing list of partners includes manufacturers of building management systems, city management systems and sensor and control manufacturers that are certified to work with Philips Xitanium SR drivers. Close cooperation ensures all partners' products and services work seamlessly with our connected lighting components. It's a seal of approval to help you find the right partners to supply complementary components for your connected luminaires.

SR Certified partners

Sensor and connectivity module manufacturers
· CP Electronics Ltd.
· Magnum Energy Solutions
· Philips
· Samsung Electronics Ltd.
· Silvair
· WattStopper®
· Steinel
· Gooee

Building Management systems
· Digital Lumens
· Enlighted
· Nedap
· Organic Response

City Management systems
· esave ag
· Lucy Zodion
· Silver Spring Networks
· Telematics Wireless
· Telensa
· Tvilight B.V.

exceptional
light quality

Point sources spotlighting

Light
that sells

"Lighting up the brand experience: spot on."

The right lighting is a key factor in improving retail sales. It can make a product shine and enable customers to really live the brand experience. At Philips we know how to translate the world of lighting specifications into LED lighting solutions with the look and feel your customer has in mind.

The perfect light for each product

Our complete Fortimo LED SLM gen 6 portfolio is designed to light up desire. We offer a wide variety of solutions on a single platform to meet all your customer's needs. In addition to our standard range we've developed superior series for specific lighting applications. Crisp white is the outstanding choice when stores demand the best quality of light possible. It brings out the crisp whites and vibrant colors in fashion retail applications. Premium white gives you excellent light quality without sacrificing efficiency. If you are looking for an appetizing experience for food retail, food premium red and food warm white are the solutions of choice.

Premium flexibility

The Fortimo LED SLM gen 6 portfolio allows you to select a product based on quality of light, lumen per Watt and/or lumen per Euro: all very easy to design-in. Each module is interchangeable, enabling retailers to create different lighting effects throughout the entire store with just one consistent luminaire range. For full system flexibility our Xitanium driver portfolio offers a wide range of high-end single current, window and programmable drivers. All products come with a five-year Philips Lighting system warranty.

Reinhard Voorspoels
Product Manager
LED spotlighting

Just released!

Fortimo LED SLM ES 4000lm

NEW!

Coming soon!

LED innovations at pre-launch phase

Fortimo LED SLM gen 7 HD
Philips Lighting continues to push the limits of COB technology. Fortimo LED SLM gen 7 will continue to focus on Quality of light, energy efficiency and performance. A "High Density" portfolio will be created which combines a higher amount of LEDs on smaller LES sizes. This great combination result in the perfect solution for applications that require a high output with narrow beam optics to generate a high punch effect. We will introduce the 1204 LED package with a LES size of 9mm enabling output up to 3000lm. Release is expected in Q2 2017.

Suitable for:

Retail   Office   Hospitality

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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 800-10000 lm. Please also check the online Easy Design-in Tool for your perfect system combination (for more information see page 18-19).

Product specification*

Product name	Module efficacy**	Color temperature	Color rendering	CoB size***	Order code
	lm/W	K	CRI		EOC
LES size: 6.5mm – typical lm ouput: 800lm					
Fortimo SLM C 827 1202 L06 1215 G6	125	2700	>80	1215	8718696651377 00
Fortimo SLM C 830 1202 L06 1215 G6	132	3000	>80	1215	8718696651391 00
Fortimo SLM C 835 1202 L06 1215 G6	134	3500	>80	1215	8718696651414 00
Fortimo SLM C 840 1202 L06 1215 G6	136	4000	>80	1215	8718696651438 00
Fortimo SLM C 927 1202 L06 1215 G6	104	2700	>90	1215	8718696651520 00
Fortimo SLM C 930 1202 L06 1215 G6	108	3000	>90	1215	8718696651544 00
LES size: 9mm – typical lm ouput: 1100lm					
Fortimo SLM C 740 1203 L09 1619 G6	155	4000	>70	1619	8718696650721 00
Fortimo SLM C 827 1203 L09 1619 G6	133	2700	>80	1619	8718696650745 00
Fortimo SLM C 830 1203 L09 1619 G6	136	3000	>80	1619	8718696650769 00
Fortimo SLM C 835 1203 L09 1619 G6	139	3500	>80	1619	8718696650783 00
Fortimo SLM C 840 1203 L09 1619 G6	144	4000	>80	1619	8718696650806 00
Fortimo SLM C 850 1203 L09 1619 G6	144	5000	>80	1619	8718696650820 00
Fortimo SLM C 927 1203 L09 1619 G6	110	2700	>90	1619	8718696650882 00
Fortimo SLM C 930 1203 L09 1619 G6	114	3000	>90	1619	8718696650905 00
LES size 13mm – Typical lm output: 2000lm					
Fortimo SLM C 740 1205 L13 2024 G6	161	4000	>70	2024	8718696650189 00
Fortimo SLM C 827 1205 L13 2024 G6	138	2700	>80	2024	8718696650202 00
Fortimo SLM C 830 1205 L13 2024 G6	144	3000	>80	2024	8718696649282 00
Fortimo SLM C 835 1205 L13 2024 G6	146	3500	>80	2024	8718696650226 00
Fortimo SLM C 840 1205 L13 2024 G6	150	4000	>80	2024	8718696650240 00
Fortimo SLM C 850 1205 L13 2024 G6	150	5000	>80	2024	8718696650264 00
Fortimo SLM C 927 1205 L13 2024 G6	114	2700	>90	2024	8718696650301 00
Fortimo SLM C 930 1205 L13 2024 G6	119	3000	>90	2024	8718696650325 00
LES size 15mm – Typical lm output: 3000lm					
Fortimo SLM C 740 1208 L15 2024 G6	160	4000	>70	2024	8718696650448 00
Fortimo SLM C 827 1208 L15 2024 G6	137	2700	>80	2024	8718696650462 00
Fortimo SLM C 830 1208 L15 2024 G6	143	3000	>80	2024	8718696650486 00
Fortimo SLM C 835 1208 L15 2024 G6	145	3500	>80	2024	8718696650509 00
Fortimo SLM C 840 1208 L15 2024 G6	148	4000	>80	2024	8718696650523 00
Fortimo SLM C 850 1208 L15 2024 G6	148	5000	>80	2024	8718696650547 00
Fortimo SLM C 857 1208 L15 2024 G6	145	5700	>80	2024	8718696650561 00
Fortimo SLM C 927 1208 L15 2024 G6	113	2700	>90	2024	8718696650585 00
Fortimo SLM C 930 1208 L15 2024 G6	118	3000	>90	2024	8718696650608 00
LES size 19mm – Typical lm output: 4500lm					
Fortimo SLM C 740 1211 L19 2828 G6	158	4000	>70	2828	8718696649305 00
Fortimo SLM C 827 1211 L19 2828 G6	135	2700	>80	2828	8718696649329 00
Fortimo SLM C 830 1211 L19 2828 G6	139	3000	>80	2828	8718696649343 00
Fortimo SLM C 835 1211 L19 2828 G6	142	3500	>80	2828	8718696649367 00
Fortimo SLM C 840 1211 L19 2828 G6	146	4000	>80	2828	8718696649381 00
Fortimo SLM C 850 1211 L19 2828 G6	146	5000	>80	2828	8718696649404 00
Fortimo SLM C 857 1211 L19 2828 G6	142	5700	>80	2828	8718696649428 00
Fortimo SLM C 927 1211 L19 2828 G6	112	2700	>90	2828	8718696649442 00
Fortimo SLM C 930 1211 L19 2828 G6	117	3000	>90	2828	8718696649466 00
LES size 23mm – Typical lm output: 6000lm**					
Fortimo SLM C 740 1216 L23 2828 G6	155	4000	>70	2828	8718696649589 00
Fortimo SLM C 827 1216 L23 2828 G6	134	2700	>80	2828	8718696649602 00
Fortimo SLM C 830 1216 L23 2828 G6	137	3000	>80	2828	8718696649626 00
Fortimo SLM C 835 1216 L23 2828 G6	140	3500	>80	2828	8718696649640 00
Fortimo SLM C 840 1216 L23 2828 G6	145	4000	>80	2828	8718696649664 00
Fortimo SLM C 850 1216 L23 2828 G6	145	5000	>80	2828	8718696649688 00
Fortimo SLM C 857 1216 L23 2828 G6	140	5700	>80	2828	8718696649701 00
Fortimo SLM C 930 1216 L23 2828 G6	115	3000	>90	2828	8718696649749 00

*   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. 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 41).

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 84–91.

Driver compatibility matrix

Module type	Xitanium 20W 0.15–0.5A 48V	Xitanium 36W 0.3–1A 48V	Xitanium 50W 0.7–1.5A 48V	Xitanium 50W 0.9–1.4A 48V	Xitanium 16W/m 0.35A 46V SC 230V	Xitanium 23W/m 0.5A 46V SC 230V	Xitanium 28W/m 0.6A 31–46V SC 230V	Xitanium 32W/m 0.7A 46V SC 230V	Xitanium 34W/m 0.8A 42V SC 230V	Xitanium 38W/m 0.9A 42V SC 230V	Xitanium 48W/m 1.05A 46V SC 230V
1202s, 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.

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Fortimo 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 PremiumWhite 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	Module efficacy**	Color temperature	Color rendering	CoB size***	Order code
	lm/W	K	CRI		EOC
LES size: 6.5mm – typical lm ouput: 800lm					
Fortimo SLM C 830 PW 1202 L06 1215 G6	128	3000	>80	1215	8718696651568 00
Fortimo SLM C 930 PW 1202 L06 1215 G6	108	3000	>90	1215	8718696651582 00
Fortimo SLM C 935 PW 1202 L06 1215 G6	114	3500	>90	1215	8718696651605 00
Fortimo SLM C 940 PW 1202 L06 1215 G6	117	4000	>90	1215	8718696651629 00
LES size: 9mm – Typical lm output: 1100lm					
Fortimo SLM C 830 PW 1203 L09 1619 G6	133	3000	>80	1619	8718696650929 00
Fortimo SLM C 930 PW 1203 L09 1619 G6	113	3000	>90	1619	8718696650943 00
Fortimo SLM C 935 PW 1203 L09 1619 G6	119	3500	>90	1619	8718696650967 00
Fortimo SLM C 940 PW 1203 L09 1619 G6	122	4000	>90	1619	8718696650981 00
LES size 13mm – Typical lm output: 2000lm					
Fortimo SLM C 830 PW 1205 L13 2024 G6	139	3000	>80	2024	8718696650349 00
Fortimo SLM C 930 PW 1205 L13 2024 G6	119	3000	>90	2024	8718696650363 00
Fortimo SLM C 935 PW 1205 L13 2024 G6	125	3500	>90	2024	8718696650387 00
Fortimo SLM C 940 PW 1205 L13 2024 G6	128	4000	>90	2024	8718696650400 00
LES size 15mm – Typical lm output: 3000lm					
Fortimo SLM C 830 PW 1208 L15 2024 G6	140	3000	>80	2024	8718696650622 00
Fortimo SLM C 930 PW 1208 L15 2024 G6	119	3000	>90	2024	8718696650646 00
Fortimo SLM C 935 PW 1208 L15 2024 G6	125	3500	>90	2024	8718696650660 00
Fortimo SLM C 940 PW 1208 L15 2024 G6	129	4000	>90	2024	8718696650684 00
LES size 19mm – Typical lm output: 4500lm					
Fortimo SLM C 830 PW 1211 L19 2828 G6	139	3000	>80	2828	8718696649480 00
Fortimo SLM C 930 PW 1211 L19 2828 G6	119	3000	>90	2828	8718696649503 00
Fortimo SLM C 935 PW 1211 L19 2828 G6	124	3500	>90	2828	8718696649527 00
Fortimo SLM C 940 PW 1211 L19 2828 G6	128	4000	>90	2828	8718696649541 00
LES size 23mm – Typical lm output: 6000lm**					
Fortimo SLM C 830 PW 1216 L23 2828 G6	139	3000	>80	2828	8718696649763 00
Fortimo SLM C 930 PW 1216 L23 2828 G6	119	3000	>90	2828	8718696649787 00
Fortimo SLM C 935 PW 1216 L23 2828 G6	124	3500	>90	2828	8718696649800 00
Fortimo SLM C 940 PW 1216 L23 2828 G6	128	4000	>90	2828	8718696649824 00

* 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. 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 41).

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
1202s, 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.

Suitable for:

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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	Module efficacy**	Color temperature	Color rendering	CoB size***	Order code
	lm/W	K	CRI		EOC
LES size: 6.5mm – typical lm ouput: 800lm					
Fortimo SLM C 930 CW 1202 L06 1215 G6	91	3000	>90	1215	8718696651643 00
LES size: 9mm – typical lm ouput: 1100lm					
Fortimo SLM C 930 CW 1203 L09 1619 G6	92	3000	>90	1619	8718696651001 00
LES size 13mm – Typical lm output: 2000lm					
Fortimo SLM C 930 CW 1205 L13 2024 G6	99	3000	>90	2024	8718696650424 00
LES size 15mm – Typical lm output: 3000lm					
Fortimo SLM C 930 CW 1208 L15 2024 G6	98	3000	>90	2024	8718696650707 00
LES size 19mm – Typical lm output: 4500lm					
Fortimo SLM C 930 CW 1211 L19 2828 G6	97	3000	>90	2828	8718696649565 00

*   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. 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 41).

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 84–91.

Driver compatibility matrix

Module type	Xitanium 20W 0.15–0.5A 48V	Xitanium 36W 0.3–1A 48V	Xitanium 50W 0.7–1.5A 48V	Xitanium 50W 0.9–1.4A 48V	Xitanium 16W/m 0.35A 46V SC 230V	Xitanium 23W/m 0.5A 46V SC 230V	Xitanium 28W/m 0.6A 31–46V SC 230V	Xitanium 32W/m 0.7A 46V SC 230V	Xitanium 34W/m 0.8A 42V SC 230V	Xitanium 38W/m 0.9A 42V SC 230V	Xitanium 48W/m 1.05A 46V SC 230V
1202s, 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.

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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	Module efficacy**	Color rendering	CoB size***	Order code
	lm/W	CRI		EOC
LES size 15mm				
Fortimo SLM C 925 FWW 1208 L15 2024 G6	85	>90	1208	8718696 649862 00
Fortimo SLM C 930 FPR 1208 L15 2024 G6	88	>90	1208	8718696 649886 00
LES size 19mm				
Fortimo SLM C 930 FWW 1211 L19 2828 G6	84	>90	1211	8718696 646632 00
Fortimo SLM C 930 FPR 1211 L19 2828 G6	85	>90	1211	8718696 646656 00

*   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. 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 41).

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 84–91.

Driver compatibility matrix

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

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

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Fortimo LED SLM gen 6 – holder

Fortimo LED SLM gen 6 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 6.5mm a 35 mm poke-in holder is available. CoB compatibility is defined by the CoB size.

Product specification

Product name	CoB size	wire length	wire type	Order code
		mm	mm²	EOC
Standard holder				
Fortimo SLM H 1619 G1	1619	600	0.5	8718696522059 00
Fortimo SLM H 2024 G1	2024	600	0.5	8718696506745 00
Fortimo SLM H 2828 G1	2828	600	0.5	8718696506806 00
Downlight holder				
Fortimo SLM H DL 1619 G1	1619	600	0.5	8718696522080 00
Fortimo SLM H DL 2024 G1	2024	600	0.5	8718696506776 00
Fortimo SLM H DL 2828 G1	2828	600	0.5	8718696506837 00
Zhaga Poke-in holder				
Fortimo SLM H ZP 1619 G1	1619	n.a.	0.3-0.75	6947939127238 00
Fortimo SLM H ZP 2024 G1	2024	n.a.	0.3-0.75	6947939127252 00
Fortimo SLM H ZP 2828 G1	2828	n.a.	0.3-0.75	6947939127276 00
Poke-in holder				
Fortimo SLM H PI 1619 G1	1619	n.a.	0.3-0.75	8718696522110 00
Fortimo SLM H PI 2024 G1	2024	n.a.	0.3-0.75	8718696507001 00
Fortimo SLM H PI 2828 G1*	2828	n.a.	0.3-0.75	8718696507025 00
35 mm Poke-in holder				
Fortimo SLM H PI 1215 35 G1	1215	n.a.	0.3-0.75	6947939132720 00

* 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.

Point sources spotlighting

Product specification

Product name	Light output	Power @230V AC 50 Hz	Module efficacy	Correlated color temperature	Color rendering index	Order code
	lm	W	lm/W	K	CRI	EOC
Fortimo SLM ES 1100lm 830 PW L09 G1	1190	12.4	100	3000	>80	6947939170401 00
Fortimo SLM ES 1100lm 840 L09 G1	1190	11	115	4000	>80	6947939170425 00
Fortimo SLM ES 1100lm 930 PW L09 G1	1030	12.4	88	3000	>90	6947939170449 00
Fortimo SLM ES 2000lm 830 PW L13 G1	2150	21.5	100	3000	>80	6947939170463 00
Fortimo SLM ES 2000lm 840 L13 G1	2150	18.6	116	4000	>80	6947939170487 00
Fortimo SLM ES 2000lm 930 PW L13 G1	1880	21.5	87	3000	>90	6947939170500 00
Fortimo SLM ES 3000lm 830 PW L15 G1	2860	26.8	108	3000	>80	6947939170524 00
Fortimo SLM ES 3000lm 840 L15 G1	3110	26.6	117	4000	>80	6947939170548 00
Fortimo SLM ES 3000lm 930 PW L15 G1	2510	26.8	94	3000	>90	6947939170562 00
Fortimo SLM ES 4000lm 830 PW L15 G2*	3900	35	111	3000	>80	8718696 711729 00
Fortimo SLM ES 4000lm 840 L15 G2*	4200	35	120	4000	>80	8718696 711743 00

new

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

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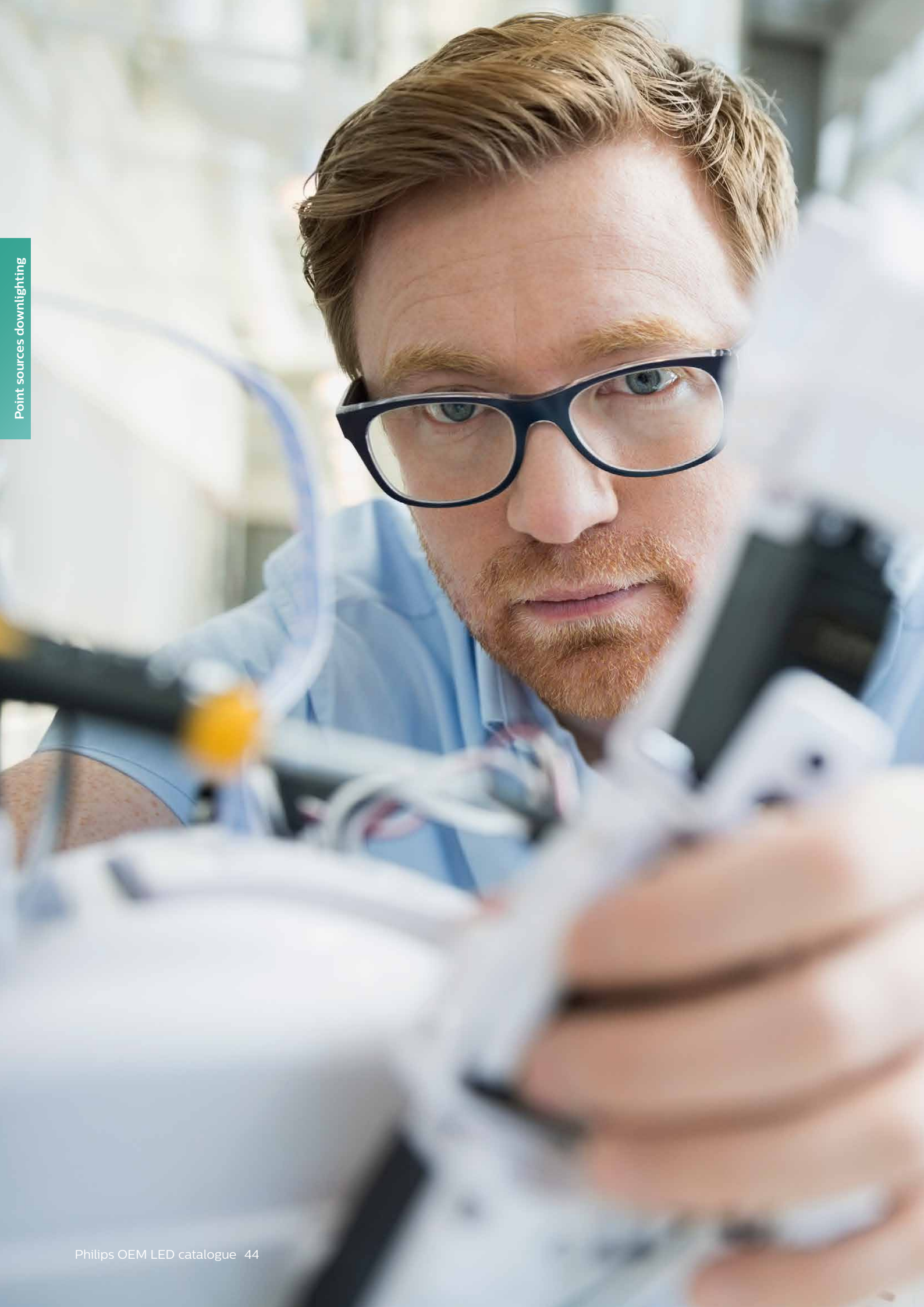
efficient
flexibility

Point sources downlighting

High performance downlight applications

"Flexibility and efficiency
are what counts."

In public spaces and working environments where the lights are on day and night you can make all the difference with the right downlight applications. Flexibility and efficiency are what counts in these markets.

Benchmark for high-performance
Our Fortimo DLM range is known as the benchmark for high-performance LED downlighting. We offer a complete range of products with lumen packages of 1100 lm, 2000 lm and 3000 lm, each in 3000 K and 4000 K color temperatures. If you combine the modules with our tunable Xitanium LED drivers, you can further optimize flexibility.

Manufacturing convenience
In the Fortimo LED DLM EaseSelect family we have integrated driver and LEDs onto the same board. This produces a convenient and compact solution for your luminaires with high efficacy. The Fortimo LED DLM EaseSelect family further simplifies design-in and increases manufacturing convenience to lower the cost of your future luminaires, without compromising on performance.

A durable solution
The Fortimo DLM EaseSelect has the same mechanical footprint as the DLM Flex, thus continuing the DLM tradition of backwards compatibility. You benefit from a 50,000 hour lifespan and a five-year warranty, so your luminaires will also have the durability your customers demand.

Reinhard Voorspoels
Product Manager
LED downlighting

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 luminair designs.

Product specification – LED board

Product name	Light output	Module power	Module efficacy*	Correlated color temperature	Color rendering index	Order code
	lm	W	lm/W	K	CRI	EOC
Fortimo LED DLM Flex 1100/830 G2	1100	7.7	142	3000	>80	6947939121144 00
Fortimo LED DLM Flex 1100/840 G2	1100	7.1	155	4000	>80	6947939121168 00
Fortimo LED DLM Flex 2000/830 G2	2000	14.3	140	3000	>80	6947939121205 00
Fortimo LED DLM Flex 2000/840 G2	2000	13	153	4000	>80	6947939121229 00
Fortimo LED DLM Flex 3000/830 G2	3000	21.1	142	3000	>80	6947939121267 00
Fortimo LED DLM Flex 3000/840 G2	3000	19.3	156	4000	>80	6947939121281 00
Fortimo LED DLM Flex 5000/830 G2	5000	36.7	136	3000	>80	6947939121328 00
Fortimo LED DLM Flex 5000/840 G2	5000	33.4	150	4000	>80	6947939121342 00

Product specification (with shallow housing)

Product name	Light output	Module power	Module efficacy*	Correlated color temperature	Color rendering index
	lm	W	lm/W	K	CRI
Fortimo LED DLM Flex 1100/830 G2	1100	9.5	115	3000	>80
Fortimo LED DLM Flex 1100/840 G2	1100	8.6	127	4000	>80
Fortimo LED DLM Flex 2000/830 G2	2000	17.7	113	3000	>80
Fortimo LED DLM Flex 2000/840 G2	2000	16	125	4000	>80
Fortimo LED DLM Flex 3000/830 G2	3000	26	115	3000	>80
Fortimo LED DLM Flex 3000/840 G2	3000	23.6	127	4000	>80
Fortimo LED DLM Flex 5000/830 G2	5000	45.7	110	3000	>80
Fortimo LED DLM Flex 5000/840 G2	5000	41.1	122	4000	>80

Product specification (with high housing)

Product name	Light output	Module power	Module efficacy*	Correlated color temperature	Color rendering index
	lm	W	lm/W	K	CRI
Fortimo LED DLM Flex 1100/830 G2	1100	11.8	93	3000	>80
Fortimo LED DLM Flex 1100/840 G2	1100	10.5	104	4000	>80
Fortimo LED DLM Flex 2000/830 G2	2000	22	91	3000	>80
Fortimo LED DLM Flex 2000/840 G2	2000	19.6	102	4000	>80
Fortimo LED DLM Flex 3000/830 G2	3000	32	94	3000	>80
Fortimo LED DLM Flex 3000/840 G2	3000	28.7	105	4000	>80
Fortimo LED DLM Flex 5000/830 G2	5000	57	88	3000	>80
Fortimo LED DLM Flex 5000/840 G2	5000	50.6	99	4000	>80

* Module efficacy is calculated for the typical lm output. For more detailed specifications (including lifetime) please check the datasheets or the Easy Design-in Tool.

Product name	Order code
	EOC
Fortimo LED DLM Flex Cover	8718291 797456 00
Fortimo LED DLM Flex High cover	8718696 421178 00
Fortimo LED DLM Flex Cable 600mm	8718696 421192 00

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 84–91.

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.

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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	Module efficacy	Correlated color temperature	Color rendering index	Order code
	lm	W	lm/W	K	CRI	EOC
Fortimo DLM ES 1100/830 G1	1080	10	114	3000	>80	8718696534519 00
Fortimo DLM ES 1100/840 G1	1100	10	116	4000	>80	8718696534533 00
Fortimo DLM ES 2000/830 G1	1930	18	110	3000	>80	8718696534571 00
Fortimo DLM ES 2000/840 G1	2000	18	114	4000	>80	8718696534595 00
Fortimo DLM ES 3000/830 G1	2850	26.5	108	3000	>80	8718696534632 00
Fortimo DLM ES 3000/840 G1	3000	26.5	108	4000	>80	8718696534656 00

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CertaFlux LED DLM EaseSelect

Certaflux DLM EaseSelect brings with it good performance in a cost effective driver on board (DoB) solution, delivering a high quality of light with low flicker. Having an integrated driver, enables easy and hassle free design-in.

Product specification

Product name	Light output	Power @230V AC 50 Hz	Module efficacy	Correlated color temperature	Color rendering index	Order code
	lm	W	lm/W	K	CRI	EOC
Certaflux DLM ES 1100/830 G1	1080	11	100	3000	>80	6947939120963 00
Certaflux DLM ES 1100/840 G1	1100	11	102	4000	>80	6947939120987 00
Certaflux DLM ES 2000/830 G1	1930	21	92	3000	>80	6947939121021 00
Certaflux DLM ES 2000/840 G1	2000	21	95	4000	>80	6947939121045 00
Certaflux DLM ES 3000/830 G1	2850	31	92	3000	>80	6947939121083 00
Certaflux DLM ES 3000/840 G1	3000	31	97	4000	>80	6947939121106 00

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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	System power	Correlated color temperature	Color rendering index	Color consistency	Beam angle	Input Voltage	Tc life module	Order code
	lm	W	K	CRI	SDCM	º	V	hrs	EOC
CertaFlux DL-S 1000lm 3000K	1000	13	3000	80	5	98	220-240	25,000	6923410 798067 00
CertaFlux DL-S 1000lm 4000K	1000	13	4000	80	5	98	220-240	25,000	6923410 798081 00
CertaFlux DL-S 2000lm 3000K	2000	26	3000	80	5	98	220-240	25,000	6923410 798401 00
CertaFlux DL-S 2000lm 4000K	2000	26	4000	80	5	98	220-240	25,000	6923410 798425 00

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Linear lighting

Working
in the light
**of common
sense**

"We ease the LEDification of lighting."

best in class

Based on the total cost of ownership, LED is clearly the preferred lighting system in most retail, office and industry situations. Fortimo linear LED systems are the ideal solution for this LEDification. To ease operation and optimize the result we have introduced some trailblazing novelties.

Time-saving and enhanced light quality
The Fortimo low-flux and mid-flux range have been extended with a 1150mm and 1450mm LED strip. So now you need only one module for a 4ft/120cm or 5ft/150cm luminaire, which obviously saves time. This optimized length minimizes dark ends in the luminaire, compared to standardized modules available on the market. These range extensions are available with the connector on top of or underneath the module. This speeds up assembly and improves the quality of light, as it avoids optical interference in the connector and wires.

Light follows function
We offer a wide variety of modules suitable for the most divergent types of luminaires to meet the numerous manifestations of linear lighting. Our CertaFlux range offers the most cost-efficient solution for indoor LED lighting in general applications. We are continually extending the performance boundaries for high-end applications with our Fortimo range. This range is synonymous with an exceptional quality of light and comes with a five year warranty. Together with our Xitanium driver portfolio, our systems offer you the freedom to fine-tune and differentiate on lumen output, lifetime and efficacy.

Jeroen van de Grint
Product Manager
LED linear lighting

Just released!

**Fortimo LED strip
1150mm and 1450mm gen 4**
See page 60-61

NEW!

Fortimo LED strip high flux gen 4
See page 61

NEW!

Fortimo LED square gen 2
See page 62

NEW!

CertaFlux LED strip gen 3
See page 63

NEW!

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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, which have been differentiated by the number of rows of LEDs on the module. 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 have been designed to produce high efficiency, pure white light, for general lighting applications where diffuse lighting on the horizontal plane is key. Fortimo LED line high flux is designed to enable LED lighting at higher application heights where more light is needed, such as trunking, battens and high-bay applications in warehouses, factories or big retail stores.

Product information (HV)

Type	Commercial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Case temp. lifetime	Order code
		lm	lm/W @ Tc Nom	CRI	SDCM	hrs	°C	EOC
Low-flux (650 lm per 1 ft / 280 mm)								
3R	Fortimo LED Line 1ft 650lm 830 3R HV3	618	146	>80	3	>50,000	75	87186964 13104 00
	Fortimo LED Line 1ft 650lm 840 3R HV3	650	154	>80	3	>50,000	75	87186964 13142 00
	Fortimo LED Line 1ft 650lm 850 3R HV3	650	154	>80	3	>50,000	75	87186964 13166 00
Mid-flux (1100 lm per 1 ft / 280 mm)								
1R	Fortimo LED Line 1ft 1100lm 830 1R HV3	1046	145	>80	3	>50,000	80	87186964 12589 00
	Fortimo LED Line 1ft 1100lm 840 1R HV3	1100	152	>80	3	>50,000	80	87186964 12602 00
	Fortimo LED Line 1ft 1100lm 850 1R HV3	1100	152	>80	3	>50,000	80	87186964 12626 00
	Fortimo LED Line 1ft 1100lm 930 1R HV3	1000	108	>90	3	>50,000	80	87186964 81028 00
	Fortimo LED Line 1ft 1100lm 940 1R HV3	1100	120	>90	3	>50,000	80	87186964 12664 00
	Fortimo LED Line 2ft 2200lm 830 1R HV3	2092	145	>80	3	>50,000	80	87186964 12961 00
	Fortimo LED Line 2ft 2200lm 840 1R HV3	2200	152	>80	3	>50,000	80	87186964 13043 00
	Fortimo LED Line 2ft 2200lm 850 1R HV3	2200	152	>80	3	>50,000	80	87186964 13067 00
	Fortimo LED Line 2ft 2200lm 930 1R HV3	2000	108	>90	3	>50,000	80	87186964 81066 00
	Fortimo LED Line 2ft 2200lm 940 1R HV3	2200	120	>90	3	>50,000	80	87186964 81080 00
3R	Fortimo LED Line 1ft 1100lm 830 3R HV3	1046	156	>80	3	>50,000	80	87186964 13555 00
	Fortimo LED Line 1ft 1100lm 840 3R HV3	1100	164	>80	3	>50,000	80	87186964 13517 00
	Fortimo LED Line 1ft 1100lm 850 3R HV3	1100	164	>80	3	>50,000	80	87186964 13579 00
	Fortimo LED Line 1ft 1100lm 930 3R HV3	1000	117	>90	3	>50,000	80	87186964 81141 00
	Fortimo LED Line 1ft 1100lm 940 3R HV3	1100	130	>90	3	>50,000	80	87186964 13616 00
High-flux (2000 lm per 1 ft / 280 mm)								
1R	Fortimo LED Line 1ft 2000lm 830 1R HV2	1910	136	>80	3	>50,000	90	87186964 18482 00
	Fortimo LED Line 1ft 2000lm 840 1R HV2	2000	142	>80	3	>50,000	90	87186964 18536 00
	Fortimo LED Line 1ft 2000lm 850 1R HV2	2010	143	>80	3	>50,000	90	87186964 18550 00
	Fortimo LED Line 2ft 4000lm 830 1R HV2	3820	136	>80	3	>50,000	90	87186964 18659 00
	Fortimo LED Line 2ft 4000lm 840 1R HV2	4000	142	>80	3	>50,000	90	87186964 18697 00
	Fortimo LED Line 2ft 4000lm 850 1R HV2	4020	143	>80	3	>50,000	90	87186964 18710 00
3R	Fortimo LED Line 1ft 2000lm 830 3R HV2	1900	147	>80	3	>50,000	90	87186964 80946 00
	Fortimo LED Line 1ft 2000lm 840 3R HV2	2000	155	>80	3	>50,000	90	87186964 80984 00
	Fortimo LED Line 1ft 2000lm 850 3R HV2	2000	155	>80	3	>50,000	90	87186964 81004 00

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Product information (LV)

Type	Commercial name	Light output	Module efficacy	Color rendering	Color con-sistency	Lifetime	Case temp. lifetime	Order code
		lm	lm/W @ Tc Nom	CRI	SDCM	hrs	°C	EOC
Low-flux (650 lm per 1 ft / 280 mm)								
3R	Fortimo LED Line 1ft 650lm 830 3R LV3	618	146	>80	3	>50,000	75	87186964 12787 00
	Fortimo LED Line 1ft 650lm 840 3R LV3	650	154	>80	3	>50,000	75	87186964 12947 00
	Fortimo LED Line 1ft 650lm 850 3R LV3	650	154	>80	3	>50,000	75	87186964 13029 00
Mid-flux (1100 lm per 1 ft / 280 mm)								
1R	Fortimo LED Line 1ft 1100lm 830 1R LV3	1046	145	>80	3	>50,000	80	87186964 12466 00
	Fortimo LED Line 1ft 1100lm 840 1R LV3	1100	152	>80	3	>50,000	80	87186964 12503 00
	Fortimo LED Line 1ft 1100lm 850 1R LV3	1100	152	>80	3	>50,000	80	87186964 12527 00
	Fortimo LED Line 1ft 1100lm 930 1R LV3	1000	108	>90	3	>50,000	80	87186964 81042 00
	Fortimo LED Line 1ft 1100lm 940 1R LV3	1100	120	>90	3	>50,000	80	87186964 12565 00
	Fortimo LED Line 2ft 2200lm 830 1R LV3	2092	145	>80	3	>50,000	80	87186964 12749 00
	Fortimo LED Line 2ft 2200lm 840 1R LV3	2200	152	>80	3	>50,000	80	87186964 12848 00
	Fortimo LED Line 2ft 2200lm 850 1R LV3	2200	152	>80	3	>50,000	80	87186964 12862 00
	Fortimo LED Line 2ft 2200lm 930 1R LV3	2000	108	>90	3	>50,000	80	87186964 81103 00
	Fortimo LED Line 2ft 2200lm 940 1R LV3	2200	120	>90	3	>50,000	80	87186964 81127 00
High-flux (2000 lm per 1 ft / 280 mm)								
1R	Fortimo LED Line 2ft 4000lm 830 1R LV2	3820	136	>80	3	>50,000	90	87186964 18574 00
	Fortimo LED Line 2ft 4000lm 840 1R LV2	4000	142	>80	3	>50,000	90	87186964 18611 00
	Fortimo LED Line 2ft 4000lm 850 1R LV2	4020	143	>80	3	>50,000	90	87186964 18635 00

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 74-83.

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Fortimo LED strip

Design is a major differentiator for you as a luminaire designer/manufacturer. But you cannot afford to compromise on the quality of light or to accept less than the best in terms of energy efficiency. This fourth generation of LED strip makes sure you don't have to. Fortimo LED strip allows you to design high-performance, slim linear LED luminaires without having to compromise on design freedom, quality of light, or total cost of ownership. The systems are ideal for use in luminaires for direct lighting in offices, banks, schools, public buildings, supermarkets and anywhere where a small, slim, flexible form factor is appreciated. Fortimo LED strip high flux is designed to enable LED lighting at higher application heights where more light is needed, such as trunking, battens and high-bay applications in warehouses, factories or big retail stores.

Product information (HV)

Commercial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Case temp. lifetime	Order code
	lm	lm/W @ Tc Nom	CRI	SDCM	hrs	°C	EOC
Low-flux (650 lm per 1 ft / 280 mm)							
Fortimo LED Strip 1ft 650lm 830 FC HV4	617	164	>80	3	>50,000	70	87186966 54910 00
Fortimo LED Strip 1ft 650lm 840 FC HV4	650	173	>80	3	>50,000	70	87186966 54934 00
Fortimo LED Strip 2ft 1300lm 830 FC HV4	1234	164	>80	3	>50,000	70	87186966 55313 00
Fortimo LED Strip 2ft 1300lm 840 FC HV4	1300	173	>80	3	>50,000	70	87186966 55337 00
Fortimo LED Strip 1150mm 2600lm 830 HV4F	2469	165	>80	3	>50,000	70	69479391 31426 00
Fortimo LED Strip 1150mm 2600lm 840 HV4F	2600	174	>80	3	>50,000	70	69479391 31440 00
Fortimo LED Strip 1150mm 2600lm 830 HV4B	2469	165	>80	3	>50,000	70	69479391 31907 00
Fortimo LED Strip 1150mm 2600lm 840 HV4B	2600	174	>80	3	>50,000	70	69479391 31921 00
Fortimo LED Strip 1450mm 3250lm 830 HV4F	3086	165	>80	3	>50,000	70	69479391 31709 00
Fortimo LED Strip 1450mm 3250lm 840 HV4F	3250	174	>80	3	>50,000	70	69479391 31723 00
Fortimo LED Strip 1450mm 3250lm 830 HV4B	3086	165	>80	3	>50,000	70	69479391 32188 00
Fortimo LED Strip 1450mm 3250lm 840 HV4B	3250	174	>80	3	>50,000	70	69479391 32201 00
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	87186966 54613 00
Fortimo LED Strip 0.5ft 550lm 840 FC HV4	550	178	>80	3	>50,000	70	87186966 54637 00
Fortimo LED Strip 0.5ft 550lm 850 FC HV4	550	180	>80	3	>50,000	70	87186966 54651 00
Fortimo LED Strip 0.5ft 550lm 930 FC HV4	522	134	>90	3	>50,000	70	87186966 54675 00
Fortimo LED Strip 0.5ft 550lm 940 FC HV4	550	141	>90	3	>50,000	70	87186966 54699 00
Fortimo LED Strip 1ft 1100lm 830 FC HV4	1044	169	>80	3	>50,000	70	87186966 54958 00
Fortimo LED Strip 1ft 1100lm 840 FC HV4	1100	178	>80	3	>50,000	70	87186966 54972 00
Fortimo LED Strip 1ft 1100lm 850 FC HV4	1110	180	>80	3	>50,000	70	87186966 54996 00
Fortimo LED Strip 1ft 1100lm 930 FC HV4	1045	134	>90	3	>50,000	70	87186966 55030 00
Fortimo LED Strip 1ft 1100lm 940 FC HV4	1100	141	>90	3	>50,000	70	87186966 55054 00
Fortimo LED Strip 2ft 2200lm 830 FC HV4	2088	169	>80	3	>50,000	70	87186966 55351 00
Fortimo LED Strip 2ft 2200lm 840 FC HV4	2200	178	>80	3	>50,000	70	87186966 55375 00
Fortimo LED Strip 2ft 2200lm 850 FC HV4	2220	180	>80	3	>50,000	70	87186966 55399 00
Fortimo LED Strip 2ft 2200lm 930 FC HV4	2090	134	>90	3	>50,000	70	87186966 55436 00
Fortimo LED Strip 2ft 2200lm 940 FC HV4	2200	141	>90	3	>50,000	70	87186966 55450 00
Fortimo LED Strip 1150mm 4400lm 830 HV4F	4177	169	>80	3	>50,000	70	69479391 31549 00
Fortimo LED Strip 1150mm 4400lm 840 HV4F	4400	178	>80	3	>50,000	70	69479391 31563 00
Fortimo LED Strip 1150mm 4400lm 850 HV4F	4400	180	>80	3	>50,000	70	69479391 31587 00
Fortimo LED Strip 1150mm 4400lm 830 HV4B	4177	169	>80	3	>50,000	70	69479391 32027 00
Fortimo LED Strip 1150mm 4400lm 840 HV4B	4400	178	>80	3	>50,000	70	69479391 32041 00
Fortimo LED Strip 1150mm 4400lm 850 HV4B	4400	180	>80	3	>50,000	70	69479391 32065 00
Fortimo LED Strip 1450mm 5500lm 830 HV4F	5222	169	>80	3	>50,000	70	69479391 31785 00
Fortimo LED Strip 1450mm 5500lm 840 HV4F	5500	178	>80	3	>50,000	70	69479391 31808 00
Fortimo LED Strip 1450mm 5500lm 850 HV4F	5550	180	>80	3	>50,000	70	69479391 31822 00
Fortimo LED Strip 1450mm 5500lm 830 HV4B	5222	169	>80	3	>50,000	70	69479391 32263 00
Fortimo LED Strip 1450mm 5500lm 840 HV4B	5500	178	>80	3	>50,000	70	69479391 32287 00
Fortimo LED Strip 1450mm 5500lm 850 HV4B	5550	180	>80	3	>50,000	70	69479391 32300 00

>>

Product specification (HV)

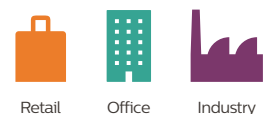| Commercial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Case temp. lifetime	Order code
	lm	lm/W @ Tc Nom	CRI	SDCM	hrs	°C	EOC
High-flux (2000 lm per 1 ft / 280 mm)							
Fortimo LED Strip 1ft 2000lm 830 FC HV4	1900	163	>80	3	>50,000	90	87186967 04790 00
Fortimo LED Strip 1ft 2000lm 840 FC HV4	2000	172	>80	3	>50,000	90	87186967 04837 00
Fortimo LED Strip 1ft 2000lm 850 FC HV4	2000	172	>80	3	>50,000	90	87186967 04851 00
Fortimo LED Strip 2ft 4000lm 830 FC HV4	1900	163	>80	3	>50,000	90	87186967 04974 00
Fortimo LED Strip 2ft 4000lm 840 FC HV4	2000	172	>80	3	>50,000	90	87186967 05094 00
Fortimo LED Strip 2ft 4000lm 850 FC HV4	2000	172	>80	3	>50,000	90	87186967 05179 00

Product information (LV)

Commercial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Case temp. lifetime	Order code
	lm	lm/W @ Tc Nom	CRI	SDCM	hrs	°C	EOC
Low-flux (650 lm per 1 ft / 280 mm)							
Fortimo LED Strip 1ft 650lm 830 FC LV4	617	164	>80	3	>50,000	70	87186966 55078 00
Fortimo LED Strip 1ft 650lm 840 FC LV4	650	173	>80	3	>50,000	70	87186966 55092 00
Fortimo LED Strip 2ft 1300lm 830 FC LV4	1234	164	>80	3	>50,000	70	87186966 55528 00
Fortimo LED Strip 2ft 1300lm 840 FC LV4	1300	173	>90	3	>50,000	70	87186966 55542 00
Fortimo LED Strip 1150mm 2600lm 830 LV4F	2469	165	>80	3	>50,000	70	69479391 31488 00
Fortimo LED Strip 1150mm 2600lm 840 LV4F	2600	174	>80	3	>50,000	70	69479391 31501 00
Fortimo LED Strip 1150mm 2600lm 830 LV4B	2469	165	>80	3	>50,000	70	69479391 31969 00
Fortimo LED Strip 1150mm 2600lm 840 LV4B	2600	174	>80	3	>50,000	70	69479391 31983 00
Fortimo LED Strip 1450mm 3250lm 830 LV4F	3086	165	>80	3	>50,000	70	69479391 31747 00
Fortimo LED Strip 1450mm 3250lm 840 LV4F	3250	174	>80	3	>50,000	70	69479391 31761 00
Fortimo LED Strip 1450mm 3250lm 830 LV4B	3086	165	>80	3	>50,000	70	69479391 32225 00
Fortimo LED Strip 1450mm 3250lm 840 LV4B	3250	174	>80	3	>50,000	70	69479391 32249 00
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	87186966 54712 00
Fortimo LED Strip 0.5ft 550lm 840 FC LV4	550	178	>80	3	>50,000	70	87186966 54736 00
Fortimo LED Strip 0.5ft 550lm 850 FC LV4	550	180	>80	3	>50,000	70	87186966 54750 00
Fortimo LED Strip 0.5ft 550lm 930 FC LV4	522	134	>90	3	>50,000	70	87186966 54774 00
Fortimo LED Strip 0.5ft 550lm 940 FC LV4	550	141	>90	3	>50,000	70	87186966 54798 00
Fortimo LED Strip 1ft 1100lm 830 FC LV4	1044	169	>80	3	>50,000	70	87186966 55115 00
Fortimo LED Strip 1ft 1100lm 840 FC LV4	1100	178	>80	3	>50,000	70	87186966 55139 00
Fortimo LED Strip 1ft 1100lm 850 FC LV4	1110	180	>80	3	>50,000	70	87186966 55153 00
Fortimo LED Strip 1ft 1100lm 930 FC LV4	1045	134	>90	3	>50,000	70	87186966 55191 00
Fortimo LED Strip 1ft 1100lm 940 FC LV4	1100	141	>90	3	>50,000	70	87186966 55214 00
Fortimo LED Strip 2ft 2200lm 830 FC LV4	2088	169	>80	3	>50,000	70	87186966 55566 00
Fortimo LED Strip 2ft 2200lm 840 FC LV4	2200	178	>80	3	>50,000	70	87186966 55580 00
Fortimo LED Strip 2ft 2200lm 850 FC LV4	2220	180	>80	3	>50,000	70	87186966 55603 00
Fortimo LED Strip 2ft 2200lm 930 FC LV4	2090	134	>90	3	>50,000	70	87186966 55641 00
Fortimo LED Strip 2ft 2200lm 940 FC LV4	2200	141	>90	3	>50,000	70	87186966 55665 00
Fortimo LED Strip 1150mm 4400lm 830 LV4F	4177	169	>80	3	>50,000	70	69479391 31624 00
Fortimo LED Strip 1150mm 4400lm 840 LV4F	4400	178	>80	3	>50,000	70	69479391 31648 00
Fortimo LED Strip 1150mm 4400lm 850 LV4F	4400	180	>80	3	>50,000	70	69479391 31662 00
Fortimo LED Strip 1150mm 4400lm 830 LV4B	4177	169	>80	3	>50,000	70	69479391 32102 00
Fortimo LED Strip 1150mm 4400lm 840 LV4B	4400	178	>80	3	>50,000	70	69479391 32126 00
Fortimo LED Strip 1150mm 4400lm 850 LV4B	4400	180	>80	3	>50,000	70	69479391 32140 00
Fortimo LED Strip 1450mm 5500lm 830 LV4F	5222	169	>80	3	>50,000	70	69479391 31846 00
Fortimo LED Strip 1450mm 5500lm 840 LV4F	5500	178	>80	3	>50,000	70	69479391 31860 00
Fortimo LED Strip 1450mm 5500lm 850 LV4F	5550	180	>80	3	>50,000	70	69479391 31884 00
Fortimo LED Strip 1450mm 5500lm 830 LV4B	5222	169	>80	3	>50,000	70	69479391 32324 00
Fortimo LED Strip 1450mm 5500lm 840 LV4B	5500	178	>80	3	>50,000	70	69479391 32348 00
Fortimo LED Strip 1450mm 5500lm 850 LV4B	5550	180	>80	3	>50,000	70	69479391 32362 00

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 74–83.

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Fortimo LED square

Fortimo LED square systems consist of white light LED modules with square outer dimensions delivering high energy efficiency and high quality of homogeneous light. These smart systems are completed with the Xitanium drivers offering the flexibility to adjust current settings to differentiate on lumen output, efficacy and lifetime. 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	Order code
	lm	lm/W @ Tc Nom	CRI	SDCM	hrs	°C	EOC
Fortimo LED Square 1250lm 830 HV/LV2	1170	165	>80	3	>50,000	65	87186966 73386 00
Fortimo LED Square 1250lm 840 HV/LV2	1250	177	>80	3	>50,000	65	87186966 73829 00
Fortimo LED Square 1250lm 865 HV/LV2	1250	177	>80	3	>50,000	65	87186966 73843 00
Fortimo LED Square 2500lm 830 HV/LV2	2350	165	>80	3	>50,000	65	87186966 73867 00
Fortimo LED Square 2500lm 840 HV/LV2	2500	177	>80	3	>50,000	65	87186966 73904 00
Fortimo LED Square 2500lm 865 HV/LV2	2500	177	>80	3	>50,000	65	87186966 73942 00

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 74-83.

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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	Order code
	lm	lm/W @ Tc Nom	CRI	SDCM	hrs @ Tc Nom	°C	EOC
CertaFlux LED Strip 1ft 775lm 830 HV3	719	135	>80	4	>50,000	75	87186967 28055 00
CertaFlux LED Strip 1ft 775lm 840 HV3	775	145	>80	4	>50,000	75	87186967 28079 00
CertaFlux LED Strip 1ft 775lm 865 HV3	775	145	>80	4	>50,000	75	87186967 28093 00
CertaFlux LED Strip 1ft 1100lm 830 HV3	1021	129	>80	4	>50,000	75	87186967 28116 00
CertaFlux LED Strip 1ft 1100lm 840 HV3	1100	139	>80	4	>50,000	75	87186967 28130 00
CertaFlux LED Strip 1ft 1100lm 865 HV3	1100	139	>80	4	>50,000	75	87186967 28154 00
CertaFlux LED Strip 2ft 1550lm 830 HV3	1438	135	>80	4	>50,000	75	87186967 28178 00
CertaFlux LED Strip 2ft 1550lm 840 HV3	1550	145	>80	4	>50,000	75	87186967 28192 00
CertaFlux LED Strip 2ft 1550lm 865 HV3	1550	145	>80	4	>50,000	75	87186967 28215 00
CertaFlux LED Strip 2ft 2200lm 830 HV3	2041	129	>80	4	>50,000	75	87186967 28239 00
CertaFlux LED Strip 2ft 2200lm 840 HV3	2200	139	>80	4	>50,000	75	87186967 28253 00
CertaFlux LED Strip 2ft 2200lm 865 HV3	2200	139	>80	4	>50,000	75	87186967 28277 00

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 pages 74–83.

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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	Order code
	lm	lm/W @ Tc Nom	CRI	SDCM	hrs @ Tc Nom	EOC
CertaFlux LLS ES 1150mm 4500lm 840 HV1	4500	123	>80	4	>50,000	87186965 28358 00
CertaFlux LLS ES 1450mm 4500lm 840 HV1	4500	123	>80	4	>50,000	87186965 26118 00
CertaFlux LLS ES 1450mm 6750lm 840 HV1	6750	123	>80	4	>50,000	87186965 26132 00

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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 2500lm, enabling to have one luminaire design for both the high performance and cost oriented segment.
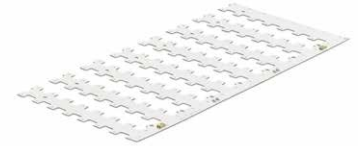
Product information

Commercial name	Light output	Module efficacy	Color rendering	Color consistency	Lifetime	Case temp. lifetime	Order code
	lm	lm/W @ Tc Nom	CRI	SDCM	hrs @ Tc Nom	°C	EOC
CertaFlux LED Square 2500lm 830 HV/LV1	2360	137	>80	4	>50,000	75	87186965 95862 00
CertaFlux LED Square 2500lm 840 HV/LV1	2500	146	>80	4	>50,000	75	87186965 96180 00
CertaFlux LED Square 2500lm 865 HV/LV1	2500	146	>80	4	>50,000	75	87186965 96241 00

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 pages 74–83.

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Lighting up
harsh conditions

" We provide design flexibility and ultimate reliability."

xtremely **reliable**

LED is rapidly conquering the market of outdoor and industrial lighting. To expand your opportunities in this growing market, you want to 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. To add to these qualities we provide maximum design flexibility in combination with unrivaled reliability.

Where customization counts

The Fortimo Fastflex differentiation family gen 4 is designed to operate with third party lenses, offering you an unlimited number of optical configurations. The latest FastFlex gen 4 DA and DAX series includes new building block modules to further expand your possibilities. At the same time we have upgraded the efficiency and the temperature operating rate. New in this series is the Fortimo FastFlex differentiation protected gen 4, the first that enables you to get IP66-rating on a module. It also simplifies design and reduces the loss of light. The obvious result: enhanced efficacy.

All in one

The Fortimo FastFlex gen 4 'standard' offers you a 'one stop shop'. The board and lens provided by Philips enables a short fixture development cycle.

For the world outside

Our solid LED Xtreme solutions stand for best in class energy efficiency and outstanding reliability. Their suitability for dimming and tele management makes the systems ideal for industrial, road, residential and urban lighting.
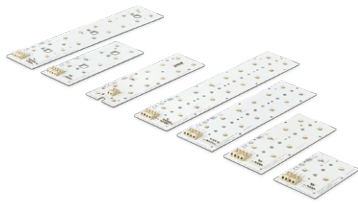
Juan Bernal
Product Manager
LED modules

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Fortimo FastFlex gen 4
See page 70

NEW!

Fortimo FastFlex gen 4

The outdoor and industrial lighting market segment is a highly diverse field: while some OEMs distinguish themselves through fixture design and speed-to-market, other firms differentiate their commercial propositions based on optical (photometrical) performance, efficacy, cost, or product life time. As an answer to this diversity, the fourth generation of the Fortimo FastFlex portfolio has been developed to offer a suitable solution to each type of OEM, meeting every project requirement.

The standard Fortimo FastFlex are products designed for OEMs looking for a "one-stop-shop", where boards and lenses are provided by Philips allowing a short fixture development cycle, while enabling basic optical flexibility with its eight standard light distributions. For OEMs looking to have a unique photometrical performance, the FastFlex differentation array (DA) as well as the NEW FastFlex differentation protected (DP) are designed to operate together with third party lenses, enabling endless optical configurations. The FastFlex DP additionally allows maximum cost effectiveness and fixture efficacy via IP protection.

The Fortimo FastFlex gen 4 brings also the introduction of the X product line; Products specially designed to deliver maximum efficiency levels and 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	Light output	Module efficacy typical	Correlated color temperature	Color rendering index	Tcase Nominal	Module power	Color consistency	Lifetime 90% survivals	Order code
	lm	lm/W @ Tc Nom	K	min. CRI	°C	W	SDCM	hrs	EOC
Fortimo FastFlex LED 2x8/730 G4	3450	142	3000	>70	80	24	4*	>55,000**	871869672363000
Fortimo FastFlex LED 2x8/740 G4	3730	154	4000	>70	80	24	4*	>55,000**	871869672365400
Fortimo FastFlex LED 2x8/757 G4	3690	151	5700	>70	80	24	4*	>55,000**	871869673406300
Fortimo FastFlex LED 2x8/830 G4	3208	131	3000	>80	80	24	4*	>55,000**	871869672492700
Fortimo FastFlex LED 2x8/840 G4	3357	138	4000	>80	80	24	4*	>55,000**	871869672494100
Fortimo FastFlex LED 2x8/730 X G4	3623	153	3000	>70	80	24	3*	>55,000**	871869672486600
Fortimo FastFlex LED 2x8/740 X G4	3918	166	4000	>70	80	24	3*	>55,000**	871869672367800
Fortimo FastFlex LED 2x4/730 G4	1725	142	3000	>70	80	12	4*	>55,000**	871869672504700
Fortimo FastFlex LED 2x4/740 G4	1865	154	4000	>70	80	12	4*	>55,000**	871869672407100
Fortimo FastFlex LED 2x8/730 DA G4	3450	142	3000	>70	80	24	4*	>55,000**	871869672369200
Fortimo FastFlex LED 2x8/740 DA G4	3730	154	4000	>70	80	24	4*	>55,000**	871869672381400
Fortimo FastFlex LED 2x8/757 DA G4	3690	151	5700	>70	80	24	4*	>55,000**	871869673409400
Fortimo FastFlex LED 2x8/765 DA G4	3693	151	6500	>70	80	24	4*	>55,000**	871869672500900
Fortimo FastFlex LED 2x8/830 DA G4	3208	131	3000	>80	80	24	4*	>55,000**	871869672502300
Fortimo FastFlex LED 2x8/840 DA G4	3357	138	4000	>80	80	24	4*	>55,000**	871869672385200
Fortimo FastFlex LED 2x8/730 DAX G4	3624	153	3000	>70	80	24	3*	>55,000**	871869672371500
Fortimo FastFlex LED 2x8/740 DAX G4	3918	166	4000	>70	80	24	3*	>55,000**	871869672383800
Fortimo FastFlex LED 2x6/730 DA G4	2588	142	3000	>70	80	18	4*	>55,000**	871869672514600
Fortimo FastFlex LED 2x6/740 DA G4	2798	154	4000	>70	80	18	4*	>55,000**	871869672403300
Fortimo FastFlex LED 2x6/840 DA G4	2518	138	4000	>80	80	18	4*	>55,000**	871869672520700
Fortimo FastFlex LED 2x6/730 DAX G4	2762	156	3000	>70	80	18	3*	>55,000**	871869672516000
Fortimo FastFlex LED 2x6/740 DAX G4	2938	166	4000	>70	80	18	3*	>55,000**	871869672518400
Fortimo FastFlex LED 2x4/730 DA G4	1725	142	3000	>70	80	12	4*	>55,000**	871869672506100
Fortimo FastFlex LED 2x4/740 DA G4	1865	154	4000	>70	80	12	4*	>55,000**	871869672405700
Fortimo FastFlex LED 2x4/840 DA G4	1679	138	4000	>80	80	12	4*	>55,000**	871869672508500
Fortimo FastFlex LED 2x2/730 DA G4	863	142	3000	>70	80	6	4*	>55,000**	871869672524500
Fortimo FastFlex LED 2x2/740 DA G4	933	154	4000	>70	80	6	4*	>55,000**	871869672526900
Fortimo FastFlex LED 2x2/840 DA G4	839	138	4000	>80	80	6	4*	>55,000**	871869672528300
Fortimo FastFlex LED 2x6/730 DP G4	2588	142	3000	>70	80	18	4*	>55,000**	871869672397500
Fortimo FastFlex LED 2x6/740 DP G4	2798	154	4000	>70	80	18	4*	>55,000**	871869672399900
Fortimo FastFlex LED 2x6/840 DP G4	2518	138	4000	>80	80	18	4*	>55,000**	871869672512200
Fortimo FastFlex LED 2x6/730 DPX G4	2762	156	3000	>70	80	18	3*	>55,000**	871869672510800
Fortimo FastFlex LED 2x6/740 DPX G4	2938	166	4000	>70	80	18	3*	>55,000**	871869672401900

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.
* Typical 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.

Xtreme modules

FastFlex LED Lenses and clip gen 2	Order code (EOC)
FastFlex lens 2x8/II–X G2	8718291707950 00
FastFlex lens 2x8/III–X G2	8718291707974 00
FastFlex lens 2x8/IV–X G2	8718291707998 00
FastFlex lens 2x8/V G2	8718291708018 00
FastFlex lens 2x8/HB65 G2	8718291765530 00
FastFlex lens 2x8/II–X WTR G2	8718291787969 00
FastFlex lens 2x4/SW–X G2	8718291768920 00
FastFlex lens 2x4/V_C G2	8718291768944 00
FastFlex module clip*	8718696438985 00

* 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 and DS 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

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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.

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.

For a total overview of suitable drivers see pages 92–105.

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Fortimo LED linear light module (LLM) gen 4

The Fortimo LED LLM gen 4 is recognized as one of the most comfortable LED light source for outdoor application; Its high quality natural white light, as well as the easiness to design low glare fixtures, make this product a perfect choice for existing or new luminaires in road or urban lighting. There is a choice of warm (3000 K) or neutral (4000 K) white light with CRI > 70.

Product specification

Product name	Light output	Module power initial	Driving Current	Module efficacy	Thermal load	Correlated color temperature	Color rendering index	Color consistency	Lumen maintenance @ 50,000 hrs*	Order code
	lm	W	mA	lm/W	W	K	min. CRI	SDCM	%	EOC
Fortimo LED LLM 1100/730 9W G4	1100	9	405	125	6	3000	>70	<7	100	8718696430637 00
Fortimo LED LLM 1100/740 8W G4	1100	8	370	135	5	4000	>70	<7	100	8718696430651 00
Fortimo LED LLM 1800/730 16W G4	1800	16	550	120	10	3000	>70	<7	100	8718696430675 00
Fortimo LED LLM 1800/740 15W G4	1800	15	565	125	9	4000	>70	<7	100	8718696430699 00
Fortimo LED LLM 3000/730 26W G4	3000	26	575	120	17	3000	>70	<7	100	8718696430712 00
Fortimo LED LLM 3000/740 24W G4	3000	24	565	125	16	4000	>70	<7	100	8718696430736 00
Fortimo LED LLM 4500/730 39W G4	4500	39	575	120	26	3000	>70	<7	100	8718696430750 00
Fortimo LED LLM 4500/740 36W G4	4500	36	575	125	24	4000	>70	<7	100	8718696430774 00

* When driver CLO feature is enabled.

Recommended drivers

Systems	Number of Modules	Driver
Fortimo LED LLM 1100lm G4	1	Xi LP 40W 0.3–1.0A S1 230V S175 sXt
Fortimo LED LLM 1800lm G4	1	Xi LP 40W 0.3–1.0A S1 230V S175 sXt
Fortimo LED LLM 1800lm G4	2	Xi LP 75W 0.2–0.7A S1 230V S240 sXt
Fortimo LED LLM 3000lm G4	1	Xi LP 40W 0.2–0.7A S1 230V S175 sXt
Fortimo LED LLM 3000lm G4	2	Xi LP 75W 0.2–0.7A SL 230V S240 sXt
Fortimo LED LLM 4500lm G4	1	Xi LP 75W 0.2–0.7A S1 230V S240 sXt
Fortimo LED LLM 4500lm G4	2	Xi LP 150W 0.2–0.7A S1 230V S240 sXt

Fortimo 7PA to 6wire – 600 mm   **EOC:** 8718291 214120 00

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

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Industry   Outdoor

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ahead
in flexibility

Indoor linear drivers

Ready
for future-proof
solutions

"Customization has never been easier."

LED, with its limitless possibilities, brings a whole new dynamic to office, retail and industrial lighting. Combined with the huge potential of connectivity this leads to a constant stream of innovations. We feel the urge on the OEM side to manage LED generations and the growing complexity as we head for a fully customized future. Not to mention the eternal drive for more efficacy and further miniaturization.

Number one in design flexibility

Our Xitanium LED linear driver portfolio offers you everything you need to match the divergent demands of your customers. In addition to fixed-output, dimmable (1-10 V and Touch & DALI) and programmable versions, we now introduce sensor ready drivers for those who want to achieve the benefits of connected lighting. Customization has never been easier. Xitanium LED drivers with SimpleSet technology inside can even be wirelessly configured. With a unique driver height of only 16 mm, we literally leave you more space for design.

Unequaled performance

Our Xitanium LED linear drivers come with an efficiency of up to 94% (!) and enable a perfect quality of light. They all have a low ripple output current of 4% at low and high frequencies to avoid interference issues and ensure a camera and scanner-friendly performance. By combining them with Philips Fortimo LED modules, you can optimize the efficacy of your application. LED modules from other manufacturers can be an alternative option as long as the V/I specifications fit the operating window.

Guus van Schijndel
Product Manager
LED indoor linear drivers

Indoor linear drivers

Just released!

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Xitanium 60W '250V' TD/16 (non-isolated/HV)
See page 78

NEW!

Improved
- Low profile 16mm height
- Operating window2.0
- SimpleSet technology
- Low output ripple of 4% for high and low frequencies
- Low standby power
- Glow-in-the-dark2.0

Coming soon!

LED innovations at pre-launch phase

Xitanium 36W & 75W fixed output + SimpleSet (isolated/LV)
Like for non-isolated/HV we will offer customers the choice
whether they want SimpleSet or LEDset. Next to that the other
portfolio improvements like lower output current ripple for
high and low frequencies and 'real' 21 mm height drivers will
be included.

NEW!

Xitanium 35W & 60W fixed output 16 mm (non-isolated/HV)
After introducing low profile 16mm for TD LED linear
drivers beginning 2017 also fixed output drivers will
come in 16 mm height profiles.

NEW!

CertaDrive 30W & 44W fixed output 21mm (non-isolated/HV)
These drivers are specially developed to operate the new
CertaFlux gen 3 LED boards. Together they are the system that
offer good enough quality that can be great.

NEW!

Suitable for:

Retail   Office   Industry

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Xitanium LED linear drivers

HV (non-isolated) LED drivers

Xitanium LED non-isolated drivers are ideal for professional general lighting applications such as HV linear office systems. The non-isolated drivers are available in DALI dimmable and programmable, 1-10 V dimmable and fixed output versions. The non-isolated drivers offer the highest efficiency, lowest cost and smallest dimensions and are available in 17 W, 35/36 W, 60/75 W all in T5 form factors but with various lengths.

New operating windows2.0 are being introduced in 35 W and 60 W too boost efficiency again. The fixed output version are available in LEDset or SimpleSet versions. Where for the DALI drivers both SimpleSet and LEDset are integrated in one driver. At last specific '250 V' drivers are being introduced to avoid creapage and clearance challenges for OEM's making their own L2 LED boards.

Next the new operating windows2.0 the new drivers feature SimpleSet technoloy, low output current ripple of 4% for high and low frequencies, low standby power for TD drivers and Glow-in-theDark2.0 specifications.

DALI dimmable & programmable

Product name	Housing	Dimming range	Output current range	Output voltage range	Order code
	mm	%	A	V	EOC
Xitanium 75W/0.12-0.4A 215V TD 230V	360 x 30 x 22	100-1	0.12-0.4	100-215	8718291 684022 00
Xitanium 60W/0.08-0.35A 300V TD/16 230V	280 x 30 x 16	100-1	0.08-0.35	100-300	8718696 535271 00
Xitanium 60W/0.08-0.35A 220V TD/16 230V	280 x 30 x 16	100-1	0.08-0.35	100-220	8718696 686003 00
Xitanium 36W/0.12-0.4A 110V TD 230V	360 x 30 x 22	100-1	0.12-0.4	50-110	8718291 684046 00
Xitanium 35W/0.08-0.35A 150V TD/16 230V	280 x 30 x 16	100-1	0.08-0.35	50-150	8718696 535233 00
Xitanium 17W/0.12-0.4A 54V TD 230V	360 x 30 x 22	100-10	0.12-0.4	27-54	8718291 198048 00

new (Xitanium 60W/0.08-0.35A 220V TD/16 230V)

DALI dimmable & programmable – for industry applications

Product name	Housing	Dimming range	Output current range	Output voltage range	Order code
	mm	%	A	V	EOC
Xitanium 150W/0.2-0.7A 300V TD 230V iXt	360 x 30 x 21	100-1	0.2-0.7	100-300	8718696 581230 00
Xitanium 150W/0.2-0.7A 300V TD 230V iXt	360 x 30 x 21	100-1	0.2-0.7	140-300	8718291 768265 00
Xitanium 110W/0.2-0.6A 215V TD 230V iXt	360 x 30 x 21	100-1	0.2-0.6	100-215	8718291 736295 00
Xitanium 100W/0.15-0.5A 300V TD 230V iXt	360 x 30 x 21	100-1	0.15-0.5	100-300	8718696 581254 00

Indoor linear drivers

1–10 V dimmable

Product name	Housing	Dimming range	Output current range	Output voltage range	Order code
	mm	%	A	V	EOC
Xitanium 75W/0.12–0.4A 220V 1–10V 230V	280 x 30 x 21	100–10	0.12–0.4	100–220	8718696 469682 00
Xitanium 36W/0.12–0.4A 115V 1–10V 230V	280 x 30 x 21	100–10	0.12–0.4	50–115	8718696 469705 00
Xitanium 17W/0.12–0.4A 54V 1–10V 230V	360 x 30 x 22	100–10	0.12–0.4	27–54	8718291 198062 00

Fixed output

Product name	Housing	Dimming range	Output current range	Output voltage range	Order code
	mm	%	A	V	EOC
Xitanium 100W/0.25–0.7A 220V S 230V	360 x 30 x 21	n.a.	0.25–0.7	50–220	8718696 657089 00
Xitanium 75W/0.12–0.4A 220V 230V	280 x 30 x 21	n.a.	0.12–0.4	100–220	8718696 440025 00
Xitanium 60W/0.08–0.35A 300V S 230V	280 x 30 x 21	n.a.	0.08–0.35	100–300	8718696 555873 00
Xitanium 60W/0.08–0.35A 220V S 230V	280 x 30 x 21	n.a.	0.08–0.35	100–220	8718696 560730 00
Xitanium 36W/0.12–0.4A 115V 230V	280 x 30 x 21	n.a.	0.12–0.4	50–115	8718696 440001 00
Xitanium 35W/0.08–0.35A 150V S 230V	280 x 30 x 21	n.a.	0.08–0.35	50–150	8718696 555859 00

Fixed output – for industry applications

Product name	Housing	Dimming range	Output current range	Output voltage range	Order code
	mm	%	A	V	EOC
Xitanium 150W/0.2–0.7A 300V iXt 230V	360 x 30 x 21	n.a.	0.2–0.7	100–300	8718696 555897 00
Xitanium 100W/0.15–0.5A 300V iXt 230V	360 x 30 x 21	n.a.	0.15–0.5	100–300	8718696 555910 00

new

Module recommendation

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

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Xitanium LED linear drivers

LV (isolated) LED drivers

Xitanium LED isolated drivers ideal for professional general lighting applications such as LV linear office systems. The isolated drivers offer LEDset and are available in DALI dimmable and programmable, 1-10 V dimmable and fixed output. The isolated drivers offer ease of design-in and simpler approbation process and are available in 17 W, 36 W, 75 W all in T5 form factors but with various lengths. New DALI drivers feature 'real' 21 mm heigth, 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.

The Xitanium LED drivers are based on Philips experience and knowledge of conventional fluorescent technology. The reliability of the LED solution is further enhanced by specific features that protect the connected LED module, like: reduced ripple current, thermal derating, all drivers feature central DC operation. Application oriented operating windows offer luminaire design flexibility. The operating windows are stacked so that a wide number of LEDs can be operated.

DALI dimmable & programmable

Product name	Housing	Dimming range	Output current range	Output voltage range	Order code
	mm	%	A	V	EOC
Xitanium 75W/0.7-2A 54V TD 230V	360 x 30 x 21	100-1	0.7-2	27-54	8718696 552681 00
Xitanium 36W/0.3-1A 54V TD 230V	360 x 30 x 21	100-1	0.3-1	27-54	8718696 552643 00

1-10 V dimmable

Product name	Housing	Dimming range	Output current range	Output voltage range	Order code
	mm	%	A	V	EOC
Xitanium 75W/0.7-2A 54V 1-10V 230V	425 x 30 x 26.5	100-10	0.7-2	27-54	8718291 696445 00
Xitanium 36W/0.3-1A 54V 1-10V 230V	360 x 30 x 26.5	100-10	0.3-1	27-54	8718291 684060 00

Fixed output

Product name	Housing	Dimming range	Output current range	Output voltage range	Order code
	mm	%	A	V	EOC
Xitanium 75W/0.7-2A 54V 230V	360 x 30 x 21	n.a.	0.7-2	27-54	8718696 468876 00
Xitanium 36W/0.3-1A 54V 230V	360 x 30 x 21	n.a.	0.3-1	27-54	8718696 468890 00

Module recommendation

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

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Indoor linear drivers

CertaDrive LED linear drivers

HV (non-isolated) LED drivers

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. 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 new process is called Fast lane release and enable customized driver development within 8 weeks for high volume driver needs (25 K pcs driver/year). The new drivers are being produced in Poland to facilitate faster and more flexible supply besides the commercial benefit that they are marked 'Made in Poland'.

Fixed output

Product name	Housing	Dimming range	Output current	Output voltage	Order code
	mm	%	mA	V	EOC
CertaDrive 30W 330mA 82V 230V	210 x 30 x 21	n.a.	330	82	8718696 491744 00
CertaDrive 40W 360mA 110V 230V	210 x 30 x 21	n.a.	360	110	8718696 491768 00
CertaDrive 60W 360mA 170V 230V	210 x 30 x 21	n.a.	360	170	8718696 491782 00
CertaDrive 30W 0.29A 102V 230V	210 x 30 x 21	n.a.	290	102	8718696 744017 00
CertaDrive 44W 0.32A 137V 230V	210 x 30 x 21	n.a.	320	137	8718696 744031 00

new

Module recommendation

For all suitable modules see CertaFlux LED strip, see page 60-61.

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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	Order code
TrustSight Basic L 20-95V 3W	245 x 30 x 21	3W	32-150mA	20-95V	Manual	10	8718696596265 00
TrustSight Pro L 20-95V 3W	245 x 30 x 21	3W	32-150mA	20-95V	Automatic	10	8718696596289 00
TrustSight DALI L 20-95V 3W	245 x 30 x 21	3W	32-150mA	20-95V	Automatic	10	8718696596340 00
TrustSight Basic L 20-95V 6W	245 x 30 x 21	6W	64-300mA	20-95V	Manual	10	8718696596302 00
TrustSight Pro L 20-95V 6W	245 x 30 x 21	6W	64-300mA	20-95V	Automatic	10	8718696596326 00
TrustSight DALI L 20-95V 6W	245 x 30 x 21	6W	64-300mA	20-95V	Automatic	10	8718696596364 00

	Battery type	Voltage	Capacity	Emergency time (3W)	Emergency time (6W)	Pieces per box	Order code
TrustSight Flat Batt NiMH 7.2V 1300mA	NiMH	7.2V	1300mAh	1 hour	–	10	8718696596388 00
TrustSight Flat Batt NiMH 7.2V 2500mAh	NiMH	7.2V	2500mAh	3 hour	1 hour	10	8718696596401 00

* Batteries will be delivered inluding harness (cable).

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Indoor linear drivers

superior
quality
of light

Indoor point drivers

Indoor point drivers

Let's focus on
wellbeing

" Visual comfort is a quality that pays off."

Visual comfort is an important quality of light in point source applications. The right light enhances the wellbeing of visitors and staff and is proven to have a positive effect on productivity and performance. That's why we are working with the recommendations of international commissions to avoid visual disturbance and create the right atmosphere. Our strong portfolio offers you all you need to meet your customers' requirements and follow the key trends, such as miniaturization in spotlighting.

No flicker and stroboscopic effects
Visual flicker and stroboscopic camera effects are a thing of the past with our new generation Xitanium point LED drivers. Top performance is guaranteed thanks to reduced ripple current in the entire range and Amplitude Modulation dimming in our Touch & 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 well aware that complexity management is a key topic in LED lighting. That is why we are continuously improving our driver portfolio to make it 'easy to work'. Our application-oriented driver designs make your choice simple yet comprehensive at the same time. Products vary from single current (plug & 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) this offers you endless possibilities.

Mustafa Oktay
Product Manager
LED indoor point drivers
downlight and spotlight
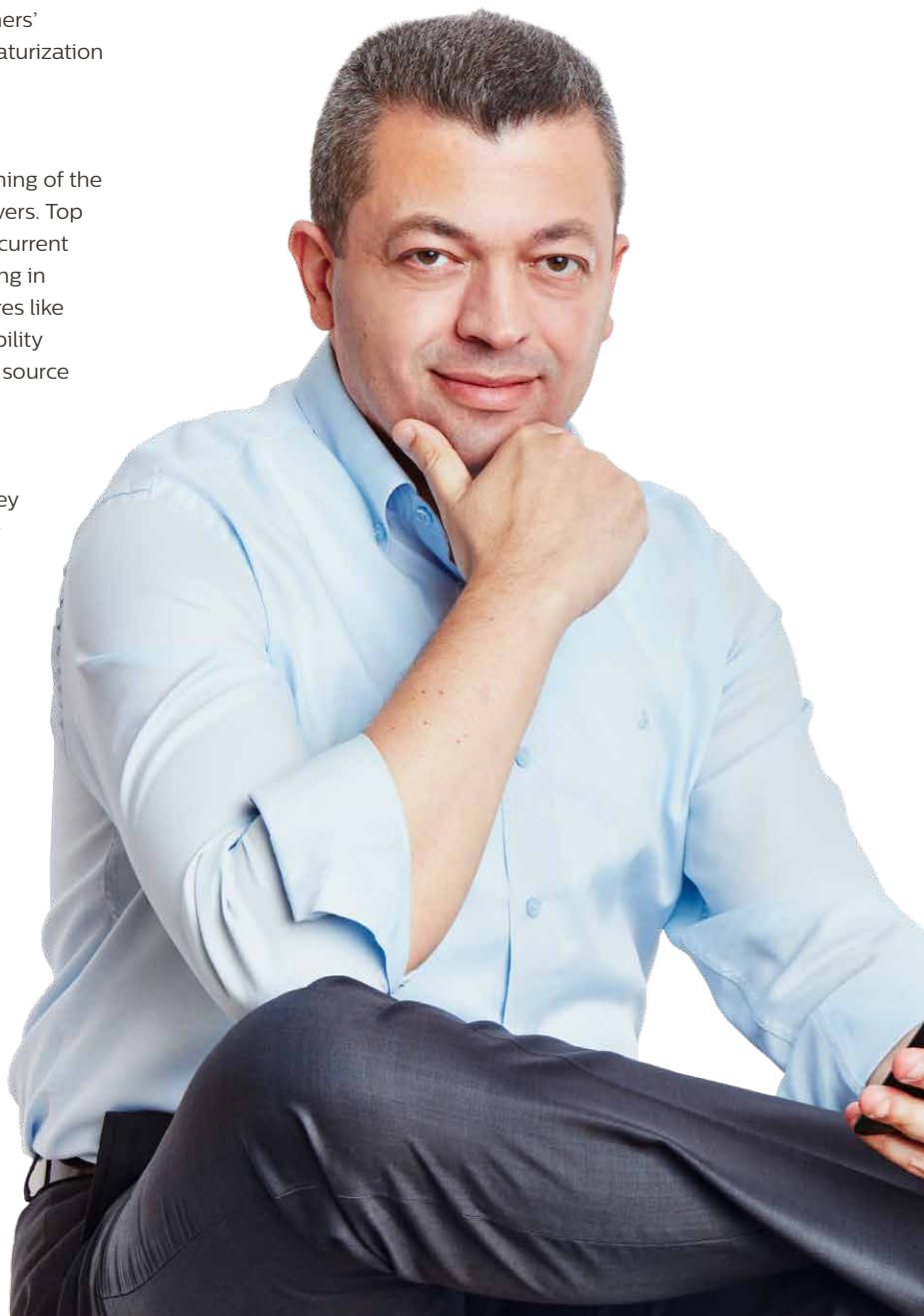
Coming soon!

LED innovations at pre-launch phase

Xitanium mini DALI

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

NEW!

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

Product specification

Product name	Hous–ing	Housing	Dimming range	Output current range	Output voltage range	Central DC ope–ration	SELV	DALI / Touch&Dim & pro–grammable	Trailing edge dim	SimpleSet	Order code
	type	mm	%	A	V					⌁))	EOC
Xitanium 75W SH 0.3–1A 110V TDI 230V	4	220 x 83 x 35	100–1	0.3–1.0	55–110	•	•	•			8718291 728030 00
Xitanium 50W LH 0.3–1A 62V TD/I 230V	2	190 x 46 x 32	100–1	0.3–1.0	31–62	•	•	•			8718291 710950 00
Xitanium 50W LH 0.7–1.5A 48V TD/I 230V	2	190 x 46 x 32	100–1	0.7–1.5	24–48	•	•	•			8718291 782360 00
Xitanium 50W WH 0.7–1.5A 54V TD/Is 230V	5	200 x 74 x 32	100–1	0.7–1.5	24–54	•	•	•		•	8718696 538111 00
Xitanium 36W WH 0.3–1.0A 54V TD/Is 230V	5	200 x 74 x 32	100–1	0.3–1.0	24–54	•	•	•		•	8718696 515587 00
Xitanium 36W LH 0.3–1A 48V TD/I 230V	2	190 x 46 x 32	100–1	0.3–1.0	24–48	•	•	•			8718291 729037 00
Xitanium 36W/s 0.3–1A 48V TD 230V	3	110 x 75 x 31	100–1	0.3–1.0	24–48	•	•	•			8718291 770947 00
Xitanium 25W LH 0.3–1A 36V TD/Is 230V	1	150 x 46 x 32	100–1	0.3–1.0	18–36	•	•	•			8728291 708032 00
Xitanium 20W WH 0.15–0.5A 54V TD/Is 230V	5	200 x 74 x 32	100–1	0.15–0.5	24–54	•	•	•		•	8718696 531884 00
Xitanium 20W LH 0.15–0.5A 48V TD/Is 230V	1	150 x 46 x 32	100–1	0.15–0.5	24–48	•	•	•			8718291 782346 00

These drivers are compatible with Fortimo LED DLM and SLM modules.
For details on LED module and cable combinations see pages 32-53.

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	Order code
	type	mm	A	V			⌁))	EOC
Xitanium 75W SH 0.3–1A 110V I 230V	4	220 x 83 x 35	0.3–1	55–110	•	•		8718291 676256 00
new Xitanium 50W WH 0.7–1.5A 54V Is 230V	6	200 x 74 x 32	0.7–1.5	24–54	•	•	•	8718696 683644 00
Xitanium 50W WH 0.7–1.5A 54V S 230V	3	110 x 74 x 32	0.7–1.5	24–54	•	•	•	8718696 683705 00
Xitanium 50W SH 0.3–1A 62V I 230V	4	220 x 83 x 35	0.3–1	31–62	•	•		8718291 676218 00
Xitanium 50W LH 0.7–1.5A 48V I 230V	2	190 x 46 x 32	0.7–1.5	24–48	•	•	•	8718696 437629 00
Xitanium 50W/s 0.3–1A 62V 230V	3	110 x 75 x 32	0.3–1	31–62	•	•		8718291 676157 00
Xitanium 50W/s 0.9–1.4A 48V 230V	3	110 x 75 x 32	0.9–1.4	24–48	•	•		8718291 777588 00
Xitanium 50W/m 0.7–1.5A 54V 230V	5	97 x 43 x 30	0.7–1.5	24–54		•	•	8718696 659090 00
Xitanium 50W/m 0.7–1.5A 48V 230V	5	97 x 43 x 30	0.7–1.5	24–48		•		8718696 437186 00
Xitanium 43W/m 0.7–1.2A 54V 230V	5	97 x 43 x 30	0.7–1.2	24–54		•	•	8718696 659076 00
new Xitanium 36W WH 0.3–1.05A 54V Is 230V	6	200 x 74 x 32	0.3–1.05	24–54	•	•	•	8718696 683620 00
Xitanium 36W WH 0.3–1.05A 54V S 230V	3	110 x 74 x 32	0.3–1.05	24–54	•	•	•	8718696 683682 00
Xitanium 36W LH 0.3–1A 48V I 230V	2	190 x 46 x 32	0.3–1	24–48	•	•	•	8718696 542439 00
Xitanium 36W/m 0.3–1.05A 54V 230V	5	97 x 43 x 30	0.3–1.05	24–54		•	•	8718696 659052 00
Xitanium 36W/m 0.3–1.05A 48V 230V	5	97 x 43 x 30	0.3–1.05	24–48		•		8718291 750277 00
new Xitanium 20W WH 0.15–0.5A 54V Is 230V	6	200 x 74 x 32	0.15–0.5	24–54	•	•	•	8718696 683606 00
Xitanium 20W WH 0.15–0.5A 54V S 230V	3	110 x 74 x 32	0.15–0.5	24–54	•	•	•	8718696 683668 00
Xitanium 20W LH 0.15–0.5A 48V Is 230V	1	150 x 46 x 32	0.15–0.5	24–48	•	•	•	8718696 474044 00
Xitanium 20W/m 0.15–0.5A 54V 230V	5	97 x 43 x 30	0.15–0.5	24–54		•	•	8718696 659038 00
Xitanium 20W/m 0.15–0.5A 48V 230V	5	97 x 43 x 30	0.15–0.5	24–48		•		8718291 766636 00

These drivers are compatible with Fortimo LED DLM and SLM modules.
For details on LED module and cable combinations see pages 32–53.

Indoor point drivers

Fixed output single current

Product specification

Product name	Housing	Housing	Output current range	Output voltage range	SELV	Order code
	type	mm	A	V		EOC
Xitanium 48W/m 1.05A 46V SC 230V	5	97 x 43 x 30	1.05	31-46	•	8718696 720691 00
Xitanium 38W/m 0.9A 42V SC 230V	5	97 x 43 x 30	0.9	30-42	•	8718696 711804 00
Xitanium 34W/m 0.8A 42V SC 230V	5	97 x 43 x 30	0.8	30-42	•	8718696 711781 00
Xitanium 32W/m 0.7A 46V SC 230V	5	97 x 43 x 30	0.7	31-46	•	8718696 572955 00
Xitanium 28W/m 0.6A 46V SC 230V	5	97 x 43 x 30	0.6	31-46	•	8718696 684856 00
Xitanium 23W/m 0.5A 46V SC 230V	5	97 x 43 x 30	0.5	31-46	•	8718696 572917 00
Xitanium 21W/m 0.7A 30V SC 230V	5	97 x 43 x 30	0.7	20-30	•	8718696 572931 00
Xitanium 16W/m 0.35A 46V SC 230V	5	97 x 43 x 30	0.35	31-46	•	8718696 572894 00
Xitanium 10W/m 0.35A 30V SC 230V	5	97 x 43 x 30	0.35	20-30	•	8718696 572870 00

new

These drivers are compatible with Fortimo LED DLM and SLM modules.
For details on LED module and cable combinations see pages 32-53.

Accessories

Product name	Order code (EOC)
JST to push-in adaptor	8718291 245254 00
Xitanium LH Loop-through adaptor	8718291 770299 00
Strain Relief Blocks*	8718696 583197 00

* 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	12 NC code	Order code (EOC)
Fortimo LED Rset 300mA	560	Poke-in	929000912506	8718696401934 00
Fortimo LED Rset 300mA connector	560	JST	929000912606	8718696401958 00
Fortimo LED Rset 500mA	1200	Poke-in	929000912706	8718696401996 00
Fortimo LED Rset 500mA connector	1200	JST	929000912806	8718696402016 00
Fortimo LED Rset 750mA	2050	Poke-in	929000912906	8718696402030 00
Fortimo LED Rset 750mA connector	2050	JST	929000913006	8718696402054 00
Fortimo LED Rset 950mA	3090	Poke-in	929000913106	8718696402078 00
Fortimo LED Rset 950mA connector	3090	JST	929000913206	8718696402092 00
Fortimo LED Rset 1200mA	4870	Poke-in	929000913306	8718696402115 00
Fortimo LED Rset 1200mA connector	4870	JST	929000913406	8718696402139 00

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CertaDrive LED downlight and spotlight drivers

A new fixed output single current LED driver portfolio. 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	Order code
	type	mm	A	V			EOC
CertaDrive 15W 0.35A 42V I 230V	1	115 x 45 x 29	0.35	32–42		•	8718291799573 00
CertaDrive 20W 0.5A 40V I 230V	1	115 x 45 x 29	0.50	32–40		•	8718291799603 00
CertaDrive 30W 0.7A 42V I 230V	2	105 x 68 x 32	0.70	32–42		•	8718696419991 00
CertaDrive 40W 1.05A 38V I 230V	2	105 x 68 x 32	1.05	32–38		•	8718696419830 00

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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

Driver	Driver housing	Output Power	Output Currrent Range	Output Voltage range	SELV	Self test	Pieces per box	Order code
TrustSight Basic P 15-55V 3W	190 x 46 x 32	3W	54-200mA	15-55V	Yes	Manual	10	8718696596425 00
TrustSight Pro P 15-55V 3W	190 x 46 x 32	3W	54-200mA	15-55V	Yes	Automatic	10	8718696596449 00
TrustSight DALI P 15-55V 3W	190 x 46 x 32	3W	54-200mA	15-55V	Yes	Automatic	10	8718696596463 00

* 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	Order code
TrustSight Batt Box NiMH 7.2V 1300mA	NiMH	7.2V	1300mAh	1 hour	10	8718696596487 00
TrustSight Batt Box NiMH 7.2V 2500mAh	NiMH	7.2V	2500mAh	3 hour	10	8718696596500 00

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

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to the max

Xtreme drivers

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"Ultimate uptime is our selling point."

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Intense heat, frigid cold, dust clouds, hail and lightning: outdoor and industrial luminaires need to withstand harsh conditions in addition to everyday stress resulting from varying temperatures, moisture and external contact. Luminaires are furthermore increasingly used as valuable data collectors for city and building management systems. Philips meets both challenges.

Rock solid and sensor ready
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. This results in an industry-leading 100,000 hour lifetime, a survival rate of 90% and a five year warranty. These are powerful selling points for customers who want to minimize the need for repairs – because they know what that costs. For those who manage 'smart cities' and 'smart buildings' we offer our expanding range of sensor ready drivers.

Programmable: lite and full
Our lite programmable configuration offers basic flexibility options. For complete flexibility (a wide range of features) choose full programmable LED drivers. Both ranges provide unrivalled efficacy and superior specs and features, such as SimpleSet technology to effortlessly configure the driver without turning it on.

Paul Sloekers
Product Manager
Xtreme drivers

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**Xitanium LED lite Programmable Xtreme:
150W in S240 housing, with new current window
of 0.5–1.5A**
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NEW!

**Xitanium LED lite Programmable Xtreme:
165W in new compact C170 housing, with three current
windows and a 5-step DynaDimmer**
See page 100

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Coming soon!

LED innovations at pre-launch phase

Philips is working on various new launches for both Xitanium
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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	Hou-sing	Input voltage range	Output current range	Min Cur-rent	Output voltage range	Output power	Class	Surge protec-tion DM/CM	DALI	1-10V	Dyna Dim-mer	Module Temp. Protec-tion	Effici-ency range, max load	Inrush current peak (230V)	Inrush current width to 50%	Power factor. 100% load	Power factor. dimmed 50%	Tc life	Lifetime @ Tc life, 90% sur-vivals	Order code
	type	Vac	mA	mA	V	W	I/II	kV					%	A	µs			°C	hrs	GPC
Xitanium 40W 0.7A Prog+ GL-J sXt	J-can	120–277	350–700	50	29–57	3–40	I/II	4/4	•	•	•	•	88	65	100	0.97	0.93	74	100,000	929000 708803
Xitanium 75W 0.35–0.7A Prog+ GL-F sXt	F-can	120–277	350–700	50	80–152	6–75	I	3/3	•	•	•	•	90	108	140	0.97	0.93	70	100,000	929000 702302
Xitanium 75W 0.1 – 1.05A Prog+ sXt	F-can	120–277	350–1050	100	36–75	6–75	I	4/4	•	•	•	•	90	100	160	0.97	0.93	70	100,000	929000 708903
Xitanium 150W 0.35–0.7A GL Prog sXt	F-can	120–277	350–700	50	125–280	15–150	I	3/3	•	•	•	•	91	108	140	0.97	0.93	70	100,000	929000 702202
Xitanium 150W 0.1–1.05A GL Prog sXt	F-can	120–277	350–1050	100	70–148	15–150	I/II	4/4	•	•	•	•	92	110	150	0.97	0.93	70	100,000	929000 709003
Xitanium 300W 0.35–1.5A Prog+ GL-R sXt	R-can	120–277	350–1500	100	80–280	21–300	I/II	4/4	•	•	•	•	93	170	220	0.98	0.95	64	100,000	929000 712703

Module recommendation

Driver type	Suitable module
Xitanium 27W 1.0A Prog 230V-J sXt	Fortimo FastFlex LED board 2x4/740 G3
Xitanium 75W 0.7A Prog+ GL-Z sXt	Fortimo FastFlex LED board 2x8/740 DA G3
Xitanium 150W 0.3-0,7A Prog+ GL-F sXt	Fortimo FastFlex LED board 2x8/840 G3

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Xitanium LED drivers – full programmable Xtreme

with SimpleSet technology!

New 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.
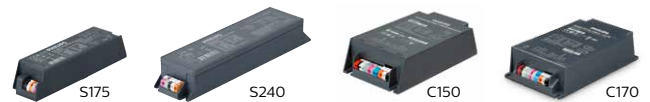
S175   S240   C150   C170

Product specification

Product name	Housing	Output current range	Min Current	Output voltage range	Output power	Efficiency @ 100% load	Input voltage range	Inrush current peak	Inrush current width	Power factor. 100% load	Power factor. dimmed 50%	Tc life	Lifetime @ Tc life	Simple Set	DALI	Line Switch	Dyna Dimmer Switch	Module Temp. Protection	Order code
	type	mA	mA	V	W	%	Vac	A	µs			°C	hrs						EOC
Xi FP 22W 0.3-1.0A SN-LDAE 230V S175 sXt	S175	300-1050	70	8-32	1-22	85	170-264*	15	360	0.98	0,94	75	100,000	•	•	•	•	•	8718696 526590 00
Xi FP 40W 0.2-0.7A SN-LDAE 230V S175 sXt	S175	200-700	53	25-77	2-40	89	170-264*	22	290	0.98	0.96	75	100,000	•	•	•	•	•	8718696 526613 00
Xi FP 40W 0.3-1.0A SN-LDAE 230V S175 sXt	S175	300-1050	70	20-54	2-40	89	170-264*	22	290	0.98	0.96	75	100,000	•	•	•	•	•	8718696 526637 00
Xi FP 75W 0.2-0.7A SN-LDAE 230V S240 sXt	S240	200 - 700	53	50-150	3-75	92	170-264*	46	250	0.98	0.96	75	100,000	•	•	•	•	•	8718696 481448 00
Xi FP 75W 0.3-1.0A SN-LDAE 230V S240 sXt	S240	300 - 1050	70	20-100	4-75	92	170-264*	46	245	0.98	0.96	75	100,000	•	•	•	•	•	8718696 481462 00
Xi FP 100W 0.3-1.0A SNLDAE 230V C165 sXt	C165	200-700	50	50-150	5-100	92	170-264*	45	285	0.98	0.96	75	100,000	•	•	•	•	•	8718696 593905 00
Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt	S240	200-700	53	90-283	11-150	93	170-264*	53	300	0.98	0.96	75	100,000	•	•	•	•	•	8718696 481486 00
Xi FP 150W 0.3-1.0A SNLDAE 230V S240 sXt	S240	300-1050	70	70-214	11-150	93	170-264*	53	300	0.98	0.96	75	100,000	•	•	•	•	•	8718696 481509 00
Xi FP 22W 0.3-1.0A SN-LDAE 230V C123 sXt	C123	300-1050	70	8-32	1-22	85	170-264*	14	400	0.98	0,94	75	100,000	•	•	•	•	•	8718696 592533 00
Xi FP 40W 0.2-0.7A SN-LDAE 230V C123 sXt	C123	200-700	53	25-77	2-40	89	170-264*	21	300	0.98	0.96	75	100,000	•	•	•	•	•	8718696 592557 00
Xi FP 40W 0.3-1.0A SN-LDAE 230V C123 sXt	C123	300-1050	70	20-54	2-40	89	170-264*	21	300	0.98	0.96	75	100,000	•	•	•	•	•	8718696 592571 00
Xi FP 70W 0.3-1.0A NLD 230V C150 sXt	C150	100-1000	70	30-100	5-70	88	170-264	10	300	0.98	0.92	75	100,000		•	•	•	•	8718696 521212 00
Xi FP 110W 0.3-1.0A NLD 230V C150 sXt	C150	100-1000	70	60-200	8-110	89	170-264	10	300	0.98	0.95	75	100,000		•	•	•	•	8718696 521038 00
Xi FP 165W 0.2-0.7A SNLDAE 230V C170 sXt	C170	200-700	70	100-300	10-165	93	170-264*	58	340	0.98	0.96	80	100,000	•	•	•	•	•	8718696 565742 00
Xi FP 165W 0.3-1.0A SNLDAE 230V C170 sXt	C170	300-1050	70	80-235	10-165	93	170-264*	58	340	0.98	0.96	80	100,000	•	•	•	•	•	8718696 565766 00

new

* Includes MainsGuard

Module recommendation

Driver type	Suitable module
Xi FP 22W 0.3-1.0A SNLDAE 230V S175 sXt	Fortimo FastFlex LED board 2x4/740 G3
Xi FP 40W 0.2-0.7A SNLDAE 230V S175 sXt	Fortimo FastFlex LED board 2x4/740 G3
Xi FP 70W 0.3-1.0A NLD 230V C150 sXt	Fortimo FastFlex LED board 2x8/740 DA G3
Xi FP 75W 0.2-0.7A SNLDAE 230V S240 sXt	Fortimo FastFlex LED board 2x8/740 DA G3
Xi FP 110W 0.3-1.0A NLD 230V C150 sXt	Fortimo FastFlex LED board 2x8/740 DA G3
Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt	Fortimo FastFlex LED board 2x8/840 G3

Xtreme drivers

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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	Line-Switch	1-10 V	Dyna-Dimmer lite	Dimming range	Module Temp. Protection	Efficiency range, max load	Input voltage range	Inrush current peak	Inrush current width to 50%	Power factor, 100% load	Power factor, dimmed 50%	Tc life	Lifetime @ Tc life, 90% survivals	Simple-Set	Order code
	type	mA	V	W				%		%	Vac	A	µs			°C	hrs	⟶))	EOC
Xi LP 40W 0.2-0.7A S1 230V S175 sXt	S175	200-700	25-77	4-40		•	•	100-21		88	220-240	27	265	0.98	0.96	70	100,000	•	8718696 470329 00
Xi LP 40W 0.2-0.7A SL 230V S175 sXt	S175	200-700	25-77	4-40	•		•	100-21		88	220-240	27	265	0.98	0.96	70	100,000	•	8718696 475928 00
Xi LP 40W 0.3-1.0A S1 230V S175 sXt	S175	300-1000	20-54	4-40		•	•	100-20		88	220-240	27	265	0.98	0.96	70	100,000	•	8718696 475966 00
Xi LP 40W 0.3-1.0A SL 230V S175 sXt	S175	300-1000	20-54	4-40	•		•	100-20		88	220-240	27	265	0.98	0.96	70	100,000	•	8718696 475942 00
Xi LP 40W 0.2-0.7A SN 230V S175 sXt	S175	200-700	25-77	4-40			•	100-20	•	89	220-240	27	265	0.98	0.96	70	100,000	•	8718696 475904 00
Xi LP 75W 0.2-0.7A S1 230V S240 sXt	S240	200-700	50-150	22-75		•	•	100-10		92	220-240	46	245	0.98	0.96	75	100,000	•	8718696 481547 00
Xi LP 75W 0.2-0.7A SL 230V S240 sXt	S240	200-700	50-150	22-75	•		•	100-10		92	220-240	46	245	0.98	0.96	75	100,000	•	8718696 481561 00
Xi LP 75W 0.3-1.0A S1 230V S240 sXt	S240	300-1050	35-108	22-75		•	•	100-10		92	220-240	46	245	0.98	0.96	75	100,000	•	8718696 481585 00
Xi LP 75W 0.3-1.0A SL 230V S240 sXt	S240	300-1050	35-108	22-75	•		•	100-10		92	220-240	46	245	0.98	0.96	75	100,000	•	8718696 481608 00
Xi LP 75W 0.2-0.7A SN 230V S240 sXt	S240	200-700	50-150	4-75			•	100-12	•	92	220-240	46	250	0.98	0.96	75	100,000	•	8718696 481523 00
Xi LP 150W 0.2-0.7A S1 230V S240 sXt	S240	200-700	90-283	45-150		•	•	100-10		93	220-240	53	300	0.98	0.96	75	100,000	•	8718696 481646 00
Xi LP 150W 0.2-0.7A SL 230V S240 sXt	S240	200-700	90-283	45-150	•		•	100-10		93	220-240	53	300	0.98	0.96	75	100,000	•	8718696 481660 00
Xi LP 150W 0.3-1.0A S1 230V S240 sXt	S240	300-1050	70-214	45-150		•	•	100-10		93	220-240	53	300	0.98	0.96	75	100,000	•	8718696 481684 00
Xi LP 150W 0.3-1.0A SL 230V S240 sXt	S240	300-1050	70-214	45-150	•		•	100-10		93	220-240	53	300	0.98	0.96	75	100,000	•	8718696 481707 00
Xi LP 150W 0.2-0.7A SN 230V S240 sXt	S240	200-700	90-283	7-150			•	100-11	•	93	220-240	53	300	0.98	0.96	80	100,000	•	8718696 481622 00
new Xi LP 150W 0.5-1.5A S1 230V S240 sXt	S240	500-1500	50-142	7-150		•	•	100-10		92	220-240	53	300	0.99	0.98	80	100,000	•	8718696 691502 00

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	Line-Switch	1-10 V	Dyna-Dimmer lite	Dyna-Dim-mer	Dim-ming range	Module Temp. Protec-tion	Effici-ency range, max load	Input vol-tage range	Inrush current peak	Inrush current width to 50%	Power factor, 100% load	Power factor, dimmed 50%	Tc life	Lifetime @ Tc life, 90% survi-vals	Simple-Set	Order code
	type	mA	V	W					%		%	Vac	A	µs			°C	hrs	⌐•)))	EOC
Xi LP 22W 0.3-1.0A S1 230V C123 sXt	C123	300–1050	8–32	0.6–22		•	•		100-10	no	87	220-240	15	320	0.99	0.97	75	100,000	•	8718696 672372 00
Xi LP 40W 0.2-0.7A S1 230V C123 sXt	C123	200–700	25–77	1.8–40		•	•		100-10	no	89	220-240	22	250	0.98	0.96	75	100,000	•	8718696 675809 00
Xi LP 40W 0.3-1.0A S1 230V C123 sXt	C123	300–1050	20–54	1.5–40		•	•		100-10	no	89	220-240	22	250	0.98	0.96	75	100,000	•	8718696 672396 00
Xi LP 35W 0.3-1.0A S1 230V C150 sXt	C150	300–1050	20–60	4–36		•	•		100-20		87	220-240	33	290	0.96	0.86	75	100,000	•	8718696 526651 00
Xi LP 70W 0.2-0.7A S1 230V C150 sXt	C150	200–700	50–150	4–70		•	•		100-10		90	220-240	37	290	0.98	0.96	75	100,000	•	8718696 477380 00
Xi LP 70W 0.2-0.7A SL 230V C150 sXt	C150	200–700	50–150	4–70	•		•		100-10		90	220-240	37	290	0.98	0.96	75	100,000	•	8718696 477342 00
Xi LP 70W 0.3-1.0A S1 230V C150 sXt	C150	300–1000	32–100	4–70		•	•		100-10		90	220-240	37	290	0.98	0.96	75	100,000	•	8718696 477403 00
Xi LP 70W 0.3-1.0A SL 230V C150 sXt	C150	300–1000	32–100	4–70	•		•		100-10		90	220-240	37	290	0.98	0.96	75	100,000	•	8718696 477366 00
Xi LP 110W 0.2-0.7A S1 230V C150 sXt	C150	200–700	70–220	6.5–110		•	•		100-10		91	220-240	37	290	0.98	0.96	75	100,000	•	8718696 477465 00
Xi LP 110W 0.2-0.7A SL 230V C150 sXt	C150	200–700	70–220	6.5–110	•		•		100-10		91	220-240	37	290	0.98	0.96	75	100,000	•	8718696 477427 00
Xi LP 110W 0.3-1.0A S1 230V C150 sXt	C150	300–1050	50–160	6.5–110		•	•		100-10		91	220-240	37	290	0.98	0.96	75	100,000	•	8718696 477489 00
Xi LP 110W 0.3-1.0A SL 230V C150 sXt	C150	300–1050	50–160	6.5–110	•		•		100-10		91	220-240	37	290	0.98	0.96	75	100,000	•	8718696 477441 00
Xi LP 165W 0.2-0.7A S1 230V C170 sXt	C170	200–700	100–300	7–165		•		•	100-10		93	220-240	41	440	0.98	0.96	75	100,000	•	8718696 711286 00
Xi LP 165W 0.3-1.0A S1 230V C170 sXt	C170	300–1000	80–235	7–165		•		•	100-10		93	220-240	41	440	0.98	0.96	75	100,000	•	8718696 711309 00
Xi LP 165W 0.5-1.5A S1 230V C170 sXt	C170	500–1500	54–157	7–165		•		•	100-10		93	220-240	41	440	0.98	0.96	75	100,000	•	8718696 711323 00

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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.
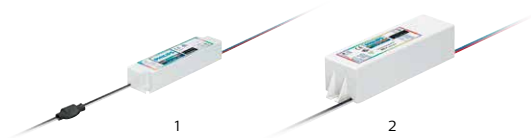
Product specification (Otd)

Product name	Housing	Output current	Output voltage	Type of dimming	Input voltage range	Power factor 100% load	Lifetime with 90% survivals	Order code
	type	Ma	V		Vac		hrs	EOC
Fixed								
LED Driver Outdoor 12W/0.35A–33V 230V	1	350	2.6–33.0	n.a.	220–240	0.90	50,000	8711500 930453 00
LED Driver Outdoor 17W/0.70A–24V 230V	2	700	2.6–24.6	n.a.	220–240	0.90	50,000	8711500 930965 00

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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 250W versions with lifetimes up to 100,000 hours. The light output is fully adjustable via a 1 to 10V analog dimming interface.

Product specification

Product name	Housing	Electrical Class	Output current	Output voltage range	Output power	Type of dimming	Dimming range	Efficiency range, max load	Input voltage range	Inrush current peak	Inrush current width to 50%	Power factor, 100% load	Power factor, dimmed 50%	Tc life	Lifetime @ Tc life, 90% survivals	Order code
	type		mA	V	W		%	%	Vac	A	µs			°C	hrs	EOC
Xitanium 75W 0.70A 1-10V 230V C165 sXt	C165	Class I & II	700	52-107	3.7-75	1-10V	100-10	91	220-240	31	390	0.98	0.94	75	100,000	8718696595985 00
Xitanium 75W 1.05A 1-10V 230V C165 sXt	C165	Class I & II	1050	36-75	3.7-75	1-10V	100-10	91	220-240	31	390	0.98	0.94	75	100,000	8718696596005 00
Xitanium 150W 0.70A 1-10V 230V S240 sXt	S240	Class I & II	700	100-214	7-150	1-10V	100-10	92	220-240	34	475	0.99	0.97	75	100,000	8718696646236 00
Xitanium 150W 1.05A 1-10V 230V S240 sXt	S240	Class I & II	1050	72-150	8-150	1-10V	100-10	91	220-240	34	475	0.99	0.97	75	100,000	8718696646250 00
Xitanium 250W 0.70A 1-10V 230V Q	Q-can	Class I	700	158-357	25-250	1-10V	100-10	94	220-240	38	625	0.98	0.95	80	100,000	6923410741902 00
Xitanium 75W 0.70A 1-10V 230V I220	I220	Class I & II	700	52-107	4-75W	1-10V	100-10	90	220-240	31	400	0.98	0.95	70	100,000	8718696596029 00
Xitanium 150W 0.70A 1-10V 230V I220	I220	Class I & II	700	100-214	7-150W	1-10V	100-10	92	220-240	34	475	0.99	0.98	70	100,000	8718696596043 00
Xitanium Dim 250W 0.70A 1-10V 230V I220	I220	Class I	700	178-357	25-250	1-10V	100-10	94	220-240	38	625	0.98	0.95	70	100,000	8718696562369 00

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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)	Lifetime with 90% survivals	Order code
	mA	V		%		V	hrs	EOC
Xitanium 40W 0.2–0.7A LS 12-24V	200-700	40-100	Programmable LumiStep	100-10	•	10.5–32	50,000	8727900 925593 00
Xitanium 70W 0.2–0.7A LS 12-24V	200-700	40-100	Programmable LumiStep	100-10	•	10.5–32	50,000	8727900 925609 00

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	Lifetime @ Tc life, 90% survivals	Order code
	Vac	Type	kV	kA	kA	°C	°C	hrs	GPC
Xtreme Surge Protector I	220–240	TN, TT, IT	10	5	5	80	–40..85	100.000	9290 008 86906

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Lighting products, brightening faces

"With the premium light quality."

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.

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.
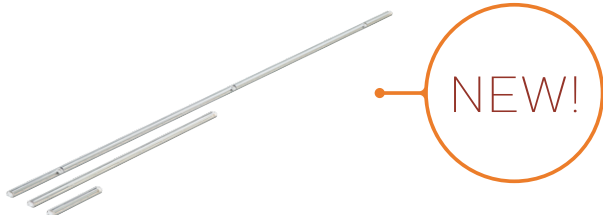
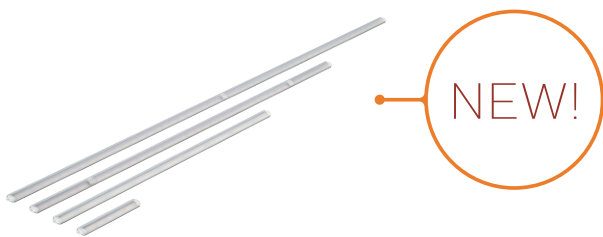**Melike Yavuz**
Product Manager
Retail display lighting

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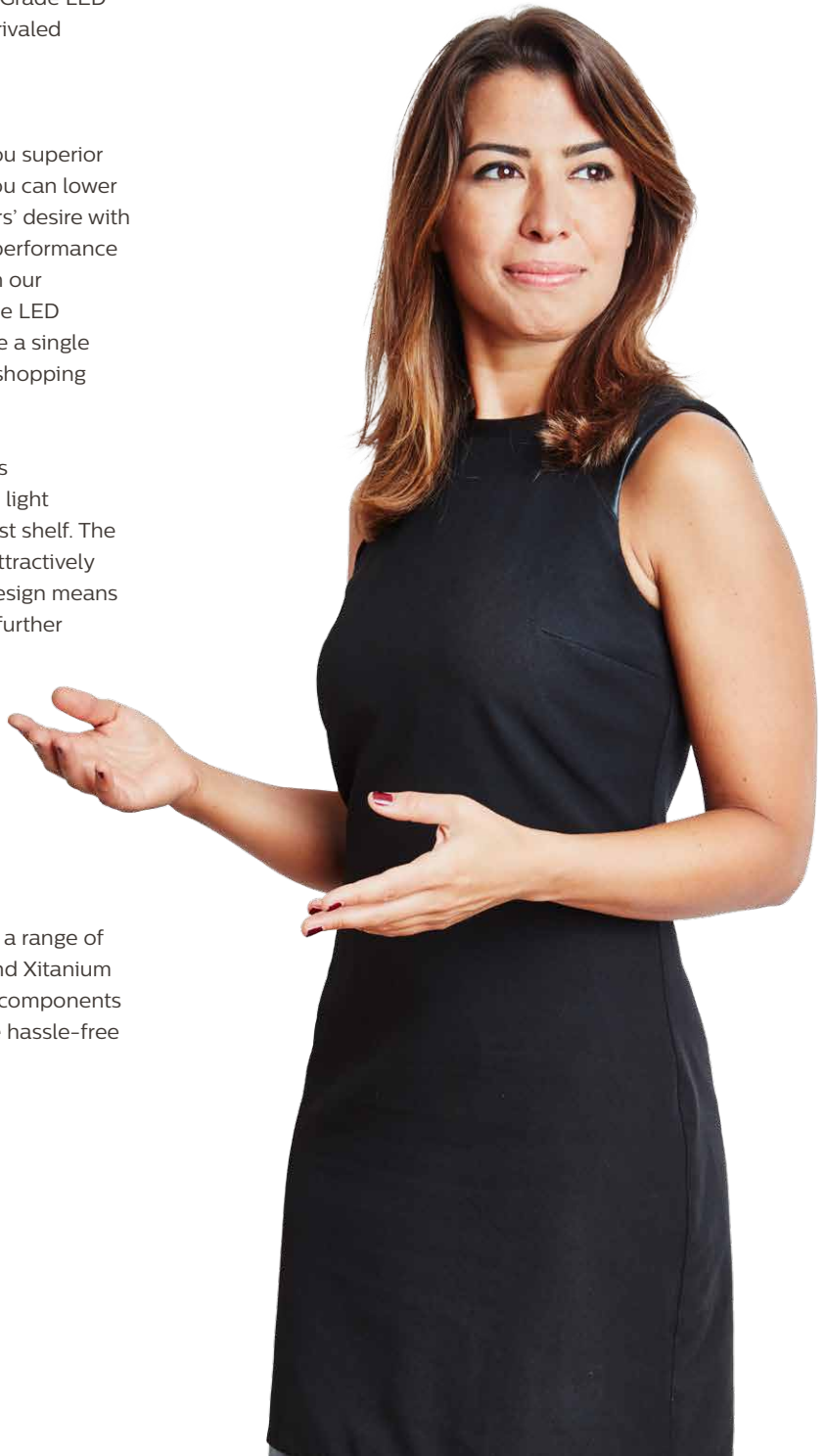
Just released!

InteGrade LED system high flux gen 2
See pages 112

NEW!

InteGrade LED system premium white gen 3
See page 113–115

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Philips InteGrade LED products

InteGrade LED system gen 2

The InteGrade LED system gen 2 has been designed to enhance the merchandise colour perception, by means of its specially formulated CRI 90 LEDs which deliver a perfectly balanced colour rendering in different CCTs, including the brand new food version featuring a single color line of light. The 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. The InteGrade LED narrow beam engines and fixtures enable easy creation of narrow-beam lighting solutions for vertical and horizontal display applications. The narrow beam in combination with the extremely small dimensions makes this system suitable for applications like chiller doors, where there is no room to place a sizable lighting solution. The unique optical system directs the light precisely where you want it, thus making optimum use of the light and energy. The InteGrade LED system is completed by Xitanium constant voltage LED power drivers, cables, mounting profiles, clips and other accessories offering maximum design flexibility.

InteGrade LED

For shelf lighting

InteGrade engine vision gen 2

Product specification

Product name	Power consumption	Lumen	Color Rendering Index	Correlated Color Temperature*	Product Code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	(12NC)
InteGrade engine Vi 140mm (6") 930 G2	2,2	170	90	3000	9290 015 09606
InteGrade engine Vi 575mm (23") 930 G2	10	750	90	3000	9290 015 09706
InteGrade engine Vi 855mm (34") 930 G2	14	1090	90	3000	9290 015 09806
InteGrade engine Vi 1150mm (46") 930 G2	20	1500	90	3000	9290 015 09906
InteGrade engine Vi 140mm (6") 940 G2	2,2	180	90	4000	9290 015 10406
InteGrade engine Vi 575mm (23") 940 G2	10	800	90	4000	9290 015 10506
InteGrade engine Vi 855mm (34") 940 G2	14	1160	90	4000	9290 015 10606
InteGrade engine Vi 1150mm (46") 940 G2	20	1600	90	4000	9290 015 10706
InteGrade engine Vi 140mm (6") 856 G2	1,9	180	85	5600	9290 015 10806
InteGrade engine Vi 575mm (23") 856 G2	8,5	800	85	5600	9290 015 10906
InteGrade engine Vi 140mm (6") WWR G2	2	150			9290 015 11006
InteGrade engine Vi 575mm (23") WWR G2	9	650			9290 015 11106
InteGrade engine Vi 855mm (34") WWR G2	13	950			9290 015 11206
InteGrade engine Vi 1150mm (46") WWR G2	18	1300			9290 015 11306

* Correlated color temperature within 5 SDCM range

InteGrade engine value gen 2

Product specification

Product name	Power consumption	Lumen	Color Rendering Index	Correlated Color Temperature*	Product Code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	(12NC)
InteGrade engine Va 140mm (6") 930 G2	1,1	85	90	3000	9290 015 13006
InteGrade engine Va 575mm (23") 930 G2	5	380	90	3000	9290 015 13106
InteGrade engine Va 855mm (34") 930 G2	7	550	90	3000	9290 015 13206
InteGrade engine Va 1150mm (46") 930 G2	10	760	90	3000	9290 015 13306
InteGrade engine Va 140mm (6") 940 G2	1,1	90	90	4000	9290 015 13806
InteGrade engine Va 575mm (23") 940 G2	5	420	90	4000	9290 015 13906
InteGrade engine Va 855mm (34") 940 G2	7	600	90	4000	9290 015 14006
InteGrade engine Va 1150mm (46") 940 G2	10	840	90	4000	9290 015 14106
InteGrade engine Va 140mm (6") 856 G2	1	90	85	5600	9290 015 17906
InteGrade engine Va 575mm (23") 856 G2	5	420	85	5600	9290 015 18006
InteGrade engine Va 140mm (6") WWR G2	1	70			9290 015 14206
InteGrade engine Va 575mm (23") WWR G2	4,3	310			9290 015 14306
InteGrade engine Va 855mm (34") WWR G2	6,3	450			9290 015 14406

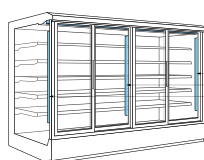* Correlated color temperature within 5 SDCM range

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InteGrade LED

For chillers with doors

InteGrade engine narrow beam gen 2

Product specification

Product name	Power consumption	Lumen	Color Rendering Index	Correlated Color Temperature*	Product Code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	(12NC)
InteGrade engine NB 140mm (6'') 930 G2	1,5	115	90	3000	9290 015 11606
InteGrade engine NB 575mm (23'') 930 G2	6,5	500	90	3000	9290 015 11706
InteGrade engine NB 1430mm (57'') 930 G2	16	1230	90	3000	9290 015 11806
InteGrade engine NB 140mm (6'') 940 G2	1,3	120	90	4000	9290 015 12206
InteGrade engine NB 575mm (23'') 940 G2	6	530	90	4000	9290 015 12306
InteGrade engine NB 1430mm (57'') 940 G2	16	1300	90	4000	9290 015 12406
InteGrade engine NB 140mm (6'') WWR G2	1,5	115	90		9290 015 12506
InteGrade engine NB 575mm (23'') WWR G2	7	500	90		9290 015 12606
InteGrade engine NB 1430mm (57'') WWR G2	16,9	1230	90		9290 015 12706

* Correlated color temperature within 5 SDCM range

InteGrade fixture narrow beam gen 2

Product specification

Product name	Power consumption	Lumen	Color Rendering Index	Correlated Color Temperature*	Product Code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	(12NC)
InteGrade F NB 1500mm(59") 930 SD G2	16	1230	90	3000	9290 015 21306
InteGrade F NB 1500mm(59") 930 CTR G2	32	2460	90	3000	9290 015 21006
InteGrade F NB 1500mm(59") 940 SD G2	14,5	1300	90	4000	9290 015 21406
InteGrade F NB 1500mm(59") 940 CTR G2	29	2600	90	4000	9290 015 21106
InteGrade F NB 1500mm(59") WWR SD G2	16,9	1230			9290 015 21506
InteGrade F NB 1500mm(59") WWR CTR G2	33,8	2460			9290 015 21206

* Correlated color temperature within 5 SDCM range

Power driver	Product Code (12NC)
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

Accessories	Product Code (12NC)
Profiles	
InteGrade profile 875mm(34")	9290 006 43413
InteGrade profile 1175mm(46")	9290 006 43313
InteGrade profile 2000mm(79")	9290 006 54413
InteGrade profile 2000mm(79") F style	9290 006 54313
InteGrade profile 2000mm(79") L style	9290 006 54513
InteGrade prof 2000mm(79") T style CTR	9290 008 53013
InteGrade profile 2000mm(79") T style SD	9290 008 53113
InteGrade profile 2356mm (93") M style	9290 008 71313
Power cables – to connect engine to driver	
InteGrade power cable 1m(39") black	9290 006 41014
InteGrade power cable 2.5m(98") black	9290 006 41114
InteGrade cable 1m(39") black angle	9290 006 44614
InteGrade cable 2.5m(98") black angle	9290 006 44814
InteGrade power cable 1m(39") white	9290 006 45614
InteGrade power cable 2.5m(98") white	9290 006 44514
InteGrade cable 1m(39") white angle	9290 006 44714
InteGrade cable 2.5m(98") white angle	9290 006 44914
InteGrade spacer cable 0.5m black	9290 006 45014
InteGrade spacer cable 0.5m white	9290 006 45114
InteGrade magnet for M style profile	9290 008 71413

| Accessories	Product Code (12NC)
Other accessories	
InteGrade mounting clip shelf arm V2	9290 009 57806
InteGrade engine clip shelf arm G2	9290 015 16006
InteGrade engine mounting clip G2	9290 015 16106
InteGrade mounting clip under shelf	9290 006 43903
InteGrade engine lock inline	9290 006 43713
InteGrade mounting clip for T style prof	9290 008 53213
InteGrade connector	9290 009 59106

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Philips InteGrade LED products

InteGrade LED system high flux gen 2

The InteGrade LED system high flux gen 2 takes the very successful InteGrade range to a whole new level of specifications beyond imagination. InteGrade LED system high flux gen 2 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. Furthermore, its specially formulated CRI90 LEDs deliver a natural merchandise color in different CCTS enhancing visual display of the merchandise. Note that InteGrade LED high flux gen 2 engines are not standalone engines and they 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. 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 gen 2 offers maximum design flexibility to enable a vast variety of innovative refrigeration systems with style, modernity and functionality according the needs of the stores. InteGrade LED high flux gen 2 engines are not standalone engines and they need to be integrated with a heatsink for thermal management and to achieve 50 khrs lifetime.

InteGrade LED
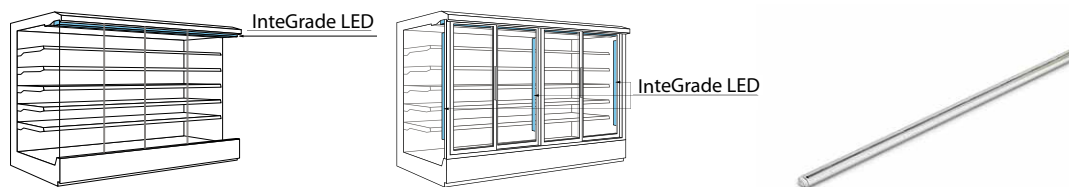
InteGrade LED

For canopy and chillers with doors

InteGrade engine high flux gen 2

Product specification

Product name	Power consumption	Lumen	Color Rendering Index	Correlated Color Temperature*	Product Code
	W, typical ± 20%	lm, typical ± 20%	CRI, min	K	(12NC)
InteGrade engine HF 140mm (6") 930 G2	5	385	90	3000	9290 015 36806
InteGrade engine HF 575mm (23") 930 G2	20	1550	90	3000	9290 015 15006
InteGrade engine HF 1150mm (46") 930 G2	40	3100	90	3000	9290 015 15106
InteGrade engine HF 140mm (6") 940 G2	4,6	400	90	4000	9290 015 36906
InteGrade engine HF 575mm (23") 940 G2	18,5	1575	90	4000	9290 015 15206
InteGrade engine HF 1150mm (46") 940 G2	37	3150	90	4000	9290 015 15306
InteGrade engine HF 140mm (6") WWR G2	5	375			9290 015 37006
InteGrade engine HF 575mm (23") WWR G2	20	1500			9290 015 15406
InteGrade engine HF 1150mm (46") WWR G2	40	3000			9290 015 15506

* Correlated color temperature within 5 SDCM range

Power driver	Product Code (12NC)
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

Accessories	Product Code (12NC)
InteGrade power cable 1m(39") black	9290 006 41014
InteGrade power cable 2.5m(98") black	9290 006 41114
InteGrade power cable 1m(39") white	9290 006 45614
InteGrade power cable 2.5m(98") white	9290 006 44514
InteGrade engine lock inline	9290 006 43713
InteGrade connector	9290 009 59106

Suitable for:

Retail

For further information visit philips.com/technology

Philips InteGrade LED products

NEW!

InteGrade LED system premium white gen 3

A better presentation of the merchandize can make products more appealing to achieve maximum impact at the point-of-purchase. The InteGrade LED system premium white 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 new generation offers an optimized color spectrum enabling enhanced white performance and astonishing lively rich colors for superior visual display of the merchandize while providing an outstanding efficacy up to 125 lm/W to enable lower power consumption. What is exciting is that an ultimate shopping experience can be created by the combination of the InteGrade LED system premium white gen 3 and already available premium white spot lighting solutions enabling one look and feel in the store. This 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. The brand new InteGrade 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 premium white gen 3 offers maximum design flexibility to enable a vast variety of innovative refrigeration systems with style, modernity and functionality according the needs of the stores.

InteGrade LED

For shelf lighting

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	(12NC)
InteGrade engine Vi 140mm 930 PW G3	1,6	170	93	3000	9290 015 68306
InteGrade engine Vi 575mm 930 PW G3	6,9	750	93	3000	9290 015 68406
InteGrade engine Vi 855mm 930 PW G3	10,1	1090	93	3000	9290 015 68506
InteGrade engine Vi 1150mm 930 PW G3	13,8	1500	93	3000	9290 015 68606
InteGrade engine Vi 140mm 940 PW G3	1,6	180	93	4000	9290 015 68706
InteGrade engine Vi 575mm 940 PW G3	6,9	800	93	4000	9290 015 68806
InteGrade engine Vi 855mm 940 PW G3	10,1	1160	93	4000	9290 015 68906
InteGrade engine Vi 1150mm 940 PW G3	13,8	1600	93	4000	9290 015 69006

* Correlated color temperature within 5 SDCM range

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	(12NC)
InteGrade engine Va 140mm 930 PW G3	0,8	85	93	3000	9290 015 67506
InteGrade engine Va 575mm 930 PW G3	3,4	380	93	3000	9290 015 67606
InteGrade engine Va 855mm 930 PW G3	4,9	550	93	3000	9290 015 67706
InteGrade engine Va 1150mm 930 PW G3	6,7	760	93	3000	9290 015 67806
InteGrade engine Va 140mm 940 PW G3	0,8	90	93	4000	9290 015 67906
InteGrade engine Va 575mm 940 PW G3	3,4	420	93	4000	9290 015 68006
InteGrade engine Va 855mm 940 PW G3	4,9	600	93	4000	9290 015 68106
InteGrade engine Va 1150mm 940 PW G3	6,7	840	93	4000	9290 015 68206

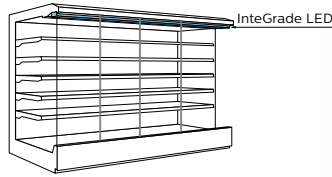* Correlated color temperature within 5 SDCM range

Suitable for:

Retail

For further information visit philips.com/technology

Philips InteGrade LED products

NEW!

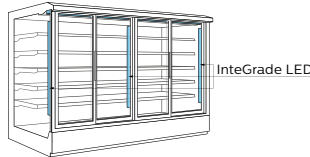InteGrade LED

For canopy lighting

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	(12NC)
InteGrade engine UB Vi 140mm 930 PW G3	2,5	250	93	3000	9290 015 72506
InteGrade engine UB Vi 575mm 930 PW G3	10	1000	93	3000	9290 015 69706
InteGrade engine UB Vi 855mm 930 PW G3	15	1500	93	3000	9290 015 69806
InteGrade engine UB Vi 1150mm 930 PW G3	20	2000	93	3000	9290 015 69906
InteGrade engine UB Vi 140mm 940 PW G3	2,5	280	93	4000	9290 015 72606
InteGrade engine UB Vi 575mm 940 PW G3	10	1100	93	4000	9290 015 70006
InteGrade engine UB Vi 855mm 940 PW G3	15	1650	93	4000	9290 015 70106
InteGrade engine UB Vi 1150mm 940 PW G3	20	2200	93	4000	9290 015 70206

* Correlated color temperature within 5 SDCM range

InteGrade LED

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	(12NC)
InteGrade engine NB Va 140mm 930 PW G3	1	115	93	3000	9290 015 69106
InteGrade engine NB Va 575mm 930 PW G3	4,5	500	93	3000	9290 015 69206
InteGrade engine NB Va 1430mm 930 PW G3	11	1230	93	3000	9290 015 69306
InteGrade engine NB Va 140mm 940 PW G3	1	120	93	4000	9290 015 69406
InteGrade engine NB Va 575mm 940 PW G3	4,5	530	93	4000	9290 015 69506
InteGrade engine NB Va 1430mm 940 PW G3	11	1300	93	4000	9290 015 69606

* 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	(12NC)
InteGrade F NB Va 1500mm 930 PW SD G3	11	1230	93	3000	9290 015 72006
InteGrade F NB Va 1500mm 930 PW CTR G3	22	2460	93	3000	9290 015 72106
InteGrade F NB Va 1500mm 940 PW SD G3	11	1300	93	4000	9290 015 72206
InteGrade F NB Va 1500mm 940 PW CTR G3	22	2600	93	4000	9290 015 72306

* Correlated color temperature within 5 SDCM range

Suitable for:

Retail

For further information visit philips.com/technology

Philips InteGrade LED products

NEW!

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	(12NC)
InteGrade F NB Vi 1500mm 930 PW SD G3	26,2	2850	93	3000	9290 015 70306
InteGrade F NB Vi 1500mm 930 PW CTR G3	52,4	5700	93	3000	9290 015 70406
InteGrade F NB Vi 1500mm 940 PW SD G3	26,3	3100	93	4000	9290 015 70506
InteGrade F NB Vi 1500mm 940 PW CTR G3	52,6	6200	93	4000	9290 015 70606

* Correlated color temperature within 5 SDCM range

Power driver	Product Code (12NC)
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

| Accessories	Product Code (12NC)
Profiles	
InteGrade profile 875mm(34")	9290 006 43413
InteGrade profile 1175mm(46")	9290 006 43313
InteGrade profile 2000mm(79")	9290 006 54413
InteGrade profile 2000mm(79") F style	9290 006 54313
InteGrade profile 2000mm(79") L style	9290 006 54513
InteGrade prof 2000mm(79") T style CTR	9290 008 53013
InteGrade profile 2000mm(79") T style SD	9290 008 53113
InteGrade profile 2356mm (93") M style	9290 008 71313
Power cables – to connect engine to driver	
InteGrade power cable 1m(39") black	9290 006 41014
InteGrade power cable 2.5m(98") black	9290 006 41114
InteGrade cable 1m(39") black angle	9290 006 44614
InteGrade cable 2.5m(98") black angle	9290 006 44814
InteGrade power cable 1m(39") white	9290 006 45614
InteGrade power cable 2.5m(98") white	9290 006 44514
InteGrade cable 1m(39") white angle	9290 006 44714
InteGrade cable 2.5m(98") white angle	9290 006 44914
InteGrade spacer cable 0.5m black	9290 006 45014
InteGrade spacer cable 0.5m white	9290 006 45114
InteGrade magnet for M style profile	9290 008 71413
Other accessories	
InteGrade mounting clip shelf arm V2	9290 009 57806
InteGrade engine clip shelf arm G2	9290 015 16006
InteGrade engine mounting clip G2	9290 015 16106
InteGrade mounting clip under shelf	9290 006 43903
InteGrade engine lock inline	9290 006 43713
InteGrade mounting clip for T style prof	9290 008 53213
InteGrade mounting clip canopy	9290 015 71106
InteGrade connector	9290 009 59106

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 and half-height glass-door refrigeration cabinets.
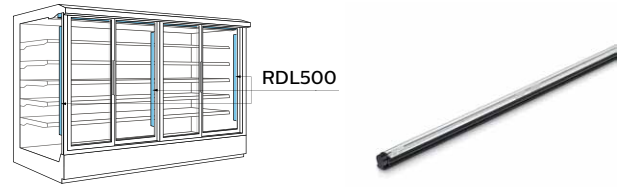
RDL500

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	(12NC)
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	(12NC)
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

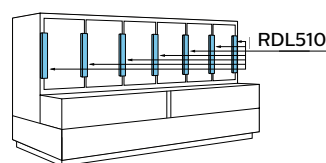* Correlated color temperature within 5 SDCM range

Suitable for:

Retail

For further information visit philips.com/technology

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	(12NC)
PrimeSet RDL 510 Vision 750 mm (30") 841 G1	11	1100	85	4100	9290 00934 506
PrimeSet RDL 510 Vision 750 mm (30") 856 G1	11	1200	85	5600	9290 00934 406
PrimeSet RDL 510 Vision 850 mm (33") 841 G1	12	1300	85	4100	9290 01502 006
PrimeSet RDL 510 Vision 850 mm (33") 856 G1	12	1400	85	5600	9290 01502 106
PrimeSet RDL 510 Vision 950 mm (37") 841 G1	14	1400	85	4100	9290 00934 306
PrimeSet RDL 510 Vision 950 mm (37") 856 G1	14	1500	85	5600	9290 00934 206

* Correlated color temperature within 5 SDCM range

Power driver	Product Code (12NC)
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

| Accessories	Product Code (12NC)
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
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

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. LDM522 modules can be integrated in the canopy of a refrigeration case.

LDM522
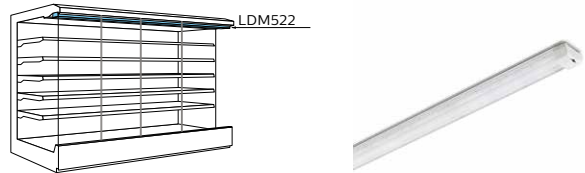
LDM522

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	(12NC)
PrimeSet Vision LDM 522 600mm (24") 830	10	1100	85	3000	9290 009 82906
PrimeSet Vision LDM 522 600mm (24") 840	10	1100	85	4000	9290 009 82806
PrimeSet Vision LDM 522 600mm (24") WWR	9	700			9290 009 83006
PrimeSet Vision LDM 522 850mm (33") 830	15	1600	85	3000	9290 009 67906
PrimeSet Vision LDM 522 850mm (33") 840	15	1700	85	4000	9290 009 67806
PrimeSet Vision LDM 522 850mm (33") WWR	8	1100			9290 009 68506
PrimeSet Vision LDM 522 1175mm (46") 830	20	2200	85	3000	9290 009 67706
PrimeSet Vision LDM 522 1175mm (46") 840	20	2300	85	4000	9290 009 67606
PrimeSet Vision LDM 522 1175mm (46") WWR	18	1400			9290 009 68206

* Correlated color temperature within 5 SDCM 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	(12NC)
PrimeSet Value LDM 522 850mm (33") 830	10	1100	85	3000	9290 009 68406
PrimeSet Value LDM 522 850mm (33") 840	10	1100	85	4000	9290 009 68306
PrimeSet Value LDM 522 850mm (33") WWR	8	700			9290 009 70706
PrimeSet Value LDM 522 1175mm (46") 830	13	1400	85	3000	9290 009 68106
PrimeSet Value LDM 522 1175mm (46") 840	13	1500	85	4000	9290 009 68006
PrimeSet Value LDM 522 1175mm (46") WWR	11	900			9290 009 70606

* Correlated color temperature within 5 SDCM range

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
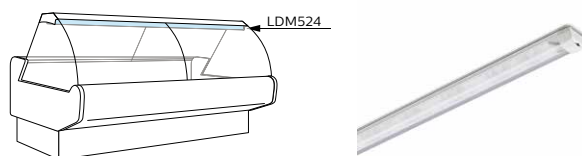
Vision
Product specification

Product name	Power consumption	Lumen	Color Rendering Index	Correlated Color Temperature*	Product Code
	W, typical ± 20%	lm, typical ± 20%	CRI, typical	K	(12NC)
PrimeSet Vision LDM 524 250mm (10") 830	4	400	85	3000	9290 009 69306
PrimeSet Vision LDM 524 250mm (10") 840	4	400	85	4000	9290 009 69206
PrimeSet Vision LDM 524 250mm (10") WWR	4	300			9290 009 69406
PrimeSet Vision LDM 524 850mm (33") 830	15	1600	85	3000	9290 009 69006
PrimeSet Vision LDM 524 850mm (33") 840	15	1700	85	4000	9290 009 68906
PrimeSet Vision LDM 524 850mm (33") WWR	13	1000			9290 009 69106
PrimeSet Vision LDM 524 1175mm (46") 830	20	2100	85	3000	9290 009 68706
PrimeSet Vision LDM 524 1175mm (46") 840	20	2100	85	4000	9290 009 68606
PrimeSet Vision LDM 524 1175mm (46") WWR	17	1400			9290 009 68806

* Correlated color temperature within 5 SDCM 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	(12NC)
PrimeSet Value LDM 524 850mm (33") 840	10	1100	85	4000	9290 009 69806
PrimeSet Value LDM 524 850mm (33") 856	10	1100	85	5600	9290 009 69706
PrimeSet Value LDM 524 1175mm (46") 840	13	1500	85	4000	9290 009 69606
PrimeSet Value LDM 524 1175mm (46") 856	13	1500	85	5600	9290 009 69506

* Correlated color temperature within 5 SDCM range

Power driver	Product Code (12NC)
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

Accessories	Product Code (12NC)
Mounting profile 600mm	9290 009 82506
Mounting profile 850mm	9290 009 77206
Mounting profile 1175mm	9290 009 77306
Mounting profile 45degr 600mm	9290 009 82606
Mounting profile 45degr 850mm	9290 009 77506
Mounting profile 45degr 1175mm	9290 009 77606
Mounting profile 10degr 850mm	9290 009 77806
Mounting profile 10degr 600mm	9290 009 82706
Mounting profile 10degr 1000mm	9290 009 77906
Mounting profile 10degr 1175mm	9290 009 78006
Mounting clips	9290 006 05913

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

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

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: fitchhuang@ckoptics.com
Web: www.ckoptics.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

LedLink Optics Inc
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Application areas

See page 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)
EOC code		European Order Code
Frequency	Hz	See line frequency
Housing color		Color of housing
Input Voltage	V	Voltage required as input for the product
IP classification		Ingress protection defined in terras of object size and water beam protected against
Inrush current peak		Highest current the capacitative components operate at start up
Lifetime	hrs	Lifetime in hours, associated with specific conditions (e.g. lumen maintenance, Tc, failure)
Lifetime 10% failure	hrs	Lifetime in hours, defined by reaching 10% failures (i.e. 90% survivors) for a population
Light output	lm	Output of luminous flux
Lumen maintenance @ 50,000 hrs		% of the original lumen flux remaining after indicated (life-)time for a defined population; e.g. B50/L70 indicates 50% of the population retaining 70% of the 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 interaction of the Philips LED module and driver portfolio and the design-in process.

They will also bridge the gap between technical customer needs and the relevant Philips R&D team, acting as an interface between the two. Remote, on-site technical support, as well as training is offered in order to help facilitate the design-in of Philips LED systems or LED drivers. Also for early sampling requests of products, not yet formally released to the market, the Application Engineers can be approached.

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Linear modules, linear drivers and
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

Please contact your local Key Account Manager to discuss your needs.

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