

PHILIPS

DigiStreet

Public Lighting



DigiStreet product guide

**Future-proof road
and street lighting**
for tomorrow's
smart city



“

Today, 54% of the world's population lives in cities, increasing to 66% by 2050.”

The changing role of lighting in towns and cities

By 2050, two-thirds of the world's population is expected to live in cities. This rapid urbanization will lead to far reaching social and technological changes, and presents a complex challenge: how can you create a safe, attractive and sustainable urban environment while under severe budget and resource constraints? Part of the solution is to derive maximum value from your lighting infrastructure. In addition to helping you achieve sustainability targets, energy-efficient lighting solutions improve quality of life and create a feeling of well-being.

Advances in digital technology and lighting controls has created integrated, intelligent outdoor lighting solutions that can adapt to the ebb and flow of urban life. Solutions that are upgradable and future proof so they can serve society for years to come. Harnessing the digital potential of LED technology will not only enable your city to save energy and reduce maintenance costs, but also to create a vibrant, urban environment where life, work and play feel safe and secure.

Public Lighting
DigiStreet
Index

4
DigiStreet

6
Family range



8
Application areas

10
LEDGINE optimized

12
Lighting performance

Serviceability 14



16
Upgrade now or later



20
Components

22
Specifications



DigiStreet

Public Lighting
DigiStreet
Product family

DigiStreet is the first family of road and street luminaires that prepares your city for the digital age while saving energy and resources and optimizing maintenance efficiency. Designed exclusively for roads and streets, they can feature universal sockets on the top and bottom of each luminaire that are ready to carry future sensors and lighting management systems. They are also available in a range of forms and optics, making them the ideal choice for public lighting in many different applications. The ideal choice for cities looking to switch to future-proof, efficient LED lighting.

Designed for smart cities

The digital revolution and the Internet of Things presents exciting opportunities for cities to benefit from future innovations in connectivity. But advances in technology happen so quickly, it can be difficult to decide when to opt in. DigiStreet makes that decision easy. It gives you all the benefits of a high quality lighting infrastructure today, with industry-preferred technology that is ready to work with tomorrow's systems and sensors. A cost-effective, flexible solution that works with systems from different providers and can be scaled up to meet changing demands.

LEDGINE optimized optics

A dedicated road and street range with LEDGINE optics means you can always specify an optimized solution for your application. And you'll save up to 80% on energy compared to conventional lamps. The DigiStreet family meets the needs of applications ranging from highways to big city roads and even narrow paths.

Serviceability and operational efficiency

Thanks to the Philips Service tag placed on all luminaires, poles and the boxes, each DigiStreet luminaire is uniquely identifiable by simply scanning a QR code. All relevant information for this specific luminaire can be accessed using a simple hand-held device like a smartphone or tablet. If required, spare parts can also be configured to the original registered settings for any specific luminaire. By being able to immediately identify all individual products, your installation and maintenance processes become faster, easier and more cost-effective.

Award winning
design



reddot design award
winner 2017



DESIGN
AWARD
2017

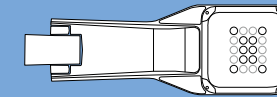
Complete road and street product family

The complete DigiStreet product family features a distinctive flat design signature. The range of optics covers narrow to wide geometries and come in a range of luminance and illuminance classes as well as dedicated optics for specific applications. This gives you optimum glare control and helps prevent vertical light pollution according to glare classifications up to G6.

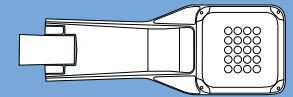


Mounting possibilities

DigiStreet Micro

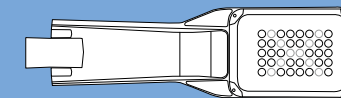


10 LEDs

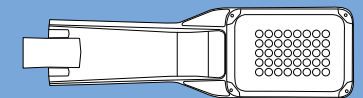


20 LEDs

DigiStreet Mini

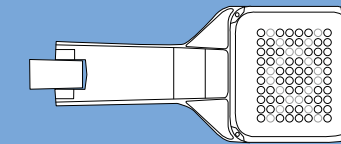


30 LEDs

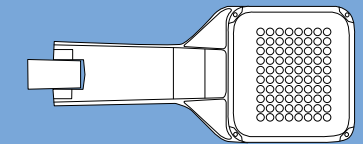


40 LEDs

DigiStreet Medium

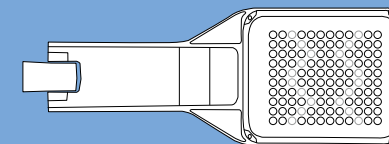


60 LEDs

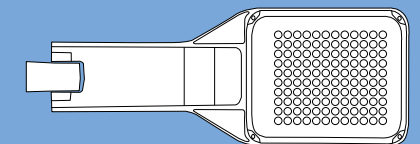


80 LEDs

DigiStreet Large



100 LEDs



120 LEDs

Tilt adjustments

To optimize the light distribution for varying road configurations or glare restriction, the multi-functional spigot of DigiStreet can be tilted from -20 to +20 degrees in five-degree steps. The positioning can be adjusted using two screws at the back. The tilt angles are clearly marked.



Post-top:

0, +5, +10, +15 and +20 degrees



Side-entry:

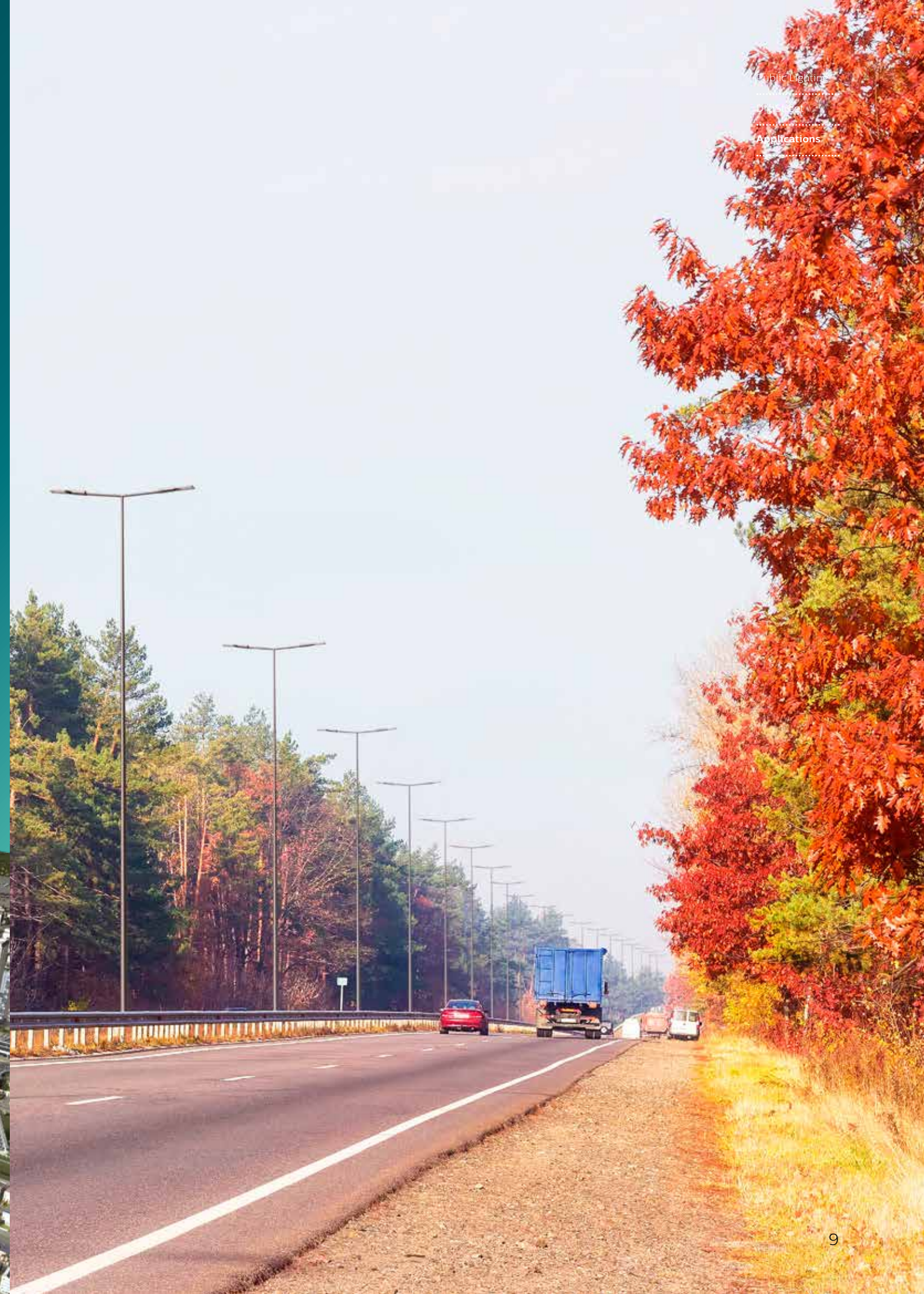
-20 to +20 degrees in 5-degree steps

Application areas

The DigiStreet family meets the needs of a wide variety of applications in towns, cities and the urban surroundings, from large inner-city highways to narrow paths.

The DigiStreet application areas include

- Sports**
 - Parking area
- City center**
 - Boulevard & avenue
 - Pedestrian crossing
 - Roundabout
 - Side street
 - Cycle path & footpath
 - Parking area
 - Public transport area
- Traffic route**
 - Boulevard & avenue
 - Cycle path
 - Parking area
 - Provincial road
 - Urban main/access road
 - Highway & road lighting
 - Countryside road
 - Highway
 - Pedestrian crossing
 - Roundabout
- Area and Transportation**
 - Airport
 - Harbor
 - Parking area
 - Public transport area
 - Industrial area
 - Petrol station
 - Rail yard
 - Waterway
- Residential area**
 - Cycle path & footpath
 - Pedestrian crossing
 - Roundabout
 - Parking area
 - Residential street





LEDGINE optimized

Public Lighting
.....
DigiStreet
.....
LEDGINE
.....

The new generation LEDGINE offers a unique combination of standardization and customization, so you can tune lighting solutions to suit your exact needs. The three pillars that characterize the LEDGINE are standardized optics, standard engine and tailor-made solutions.

Standardized optics

A complete new optics range ensures a perfect fit for every application. The optics offer flexibility, enabling standardization over applications with outstanding performance across a wide range of geometries – as well as design parameters such as tilt and overhang. They are easy to use and distribution remains the same, so even after a LED upgrade you are assured of design continuity. The optics comply with national and European road lighting standards.

Standard engine

Using a standard engine across key portfolio means you can benefit from the latest LED upgrades to various products without changing light distributions. The flux packages are pre-defined across product ranges, including CLO options. Flux minimization is achieved by using the highest flux package (up to L96B10) per standard. And for upgrades, the lighting image is continued and the engine is available for your installed base. Easy configuration is assured thanks to the Philips Service tag.

Tailor-made solutions

For tuned project solutions, Philips can support you with the exclusive L-Tune tool. It enables you to build the required flux to ensure the best balance between operational life, maintained flux, energy costs and product type. You can create your own standard by matching requirements to your own policy. For serviceability, the L-Tune program codes are linked to the Philips Service tag.





Lighting performance

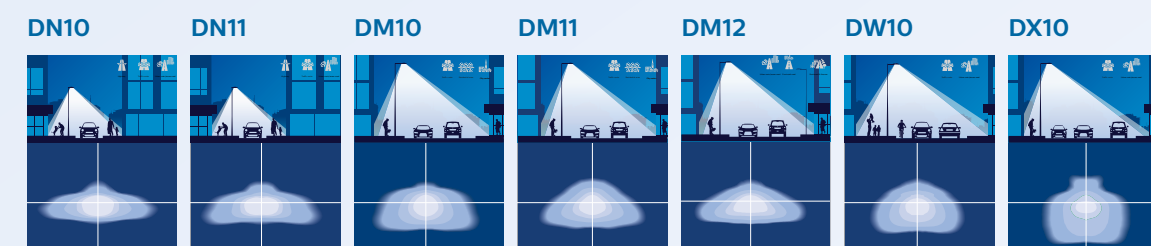
Thanks to its variety in lighting distributions and luminous flux, the DigiStreet range is flexible and can be used in many applications. An extensive optics portfolio is available to cover the needs of various applications. These include Luminance classes (M) and Illuminance classes (P, C). The optic geometrics include narrow, medium, wide and extra wide optics for outdoor places.

Optics for dedicated applications include light trespass prevention, comfort, wet roads, catenary optics, pedestrian crossings and facial recognition.

Portfolio of optics

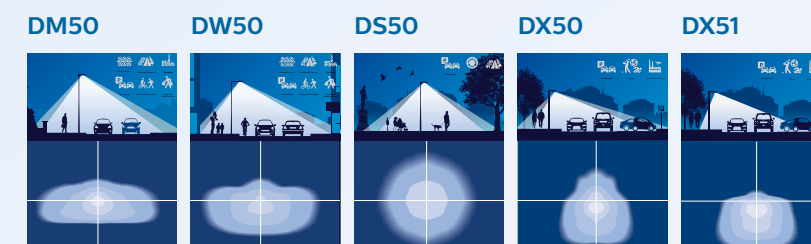
Luminance classes (M)

DN10/DN11/DM10/DM11/DM12/DW10/DX10



Illuminance classes (P, C)

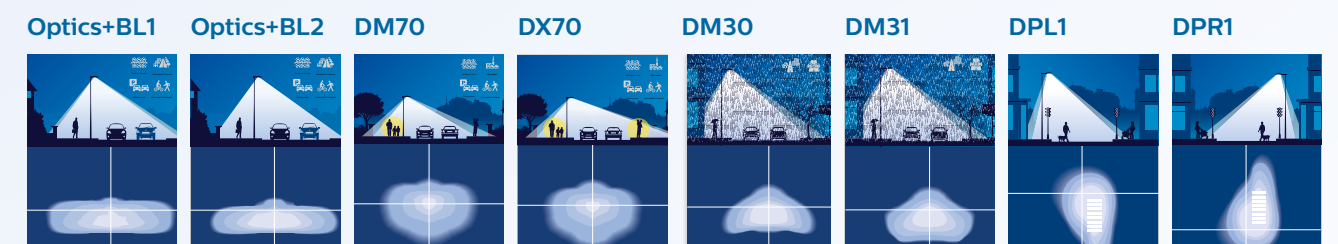
DM50/DW50/DX50/DX51/DS50



From narrow to wide geometries

Dedicated applications

BL1/BL2/DM30/DM31/DPL1/DPR1/DM70/DX70



Designed for serviceability

Since LED luminaires require different competencies and processes for maintenance, fault finding and repair, DigiStreet and its components are designed with serviceability in mind. Furthermore, to provide better support, 24/7 access to information and spare parts ordering, all DigiStreet products and packages can be identified by the unique Philips Service tag QR code.

“

The greatest value of the Philips Service tag is that it enables us **to save precious time and avoid human errors**”

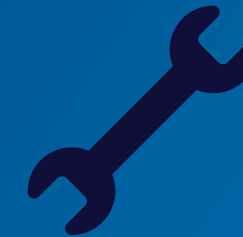


Why Philips Service tag?



Easy access to relevant information

Improving installation process by providing easy access to product configuration information



More effective maintenance

Enabling more effective maintenance operations by identifying spare parts

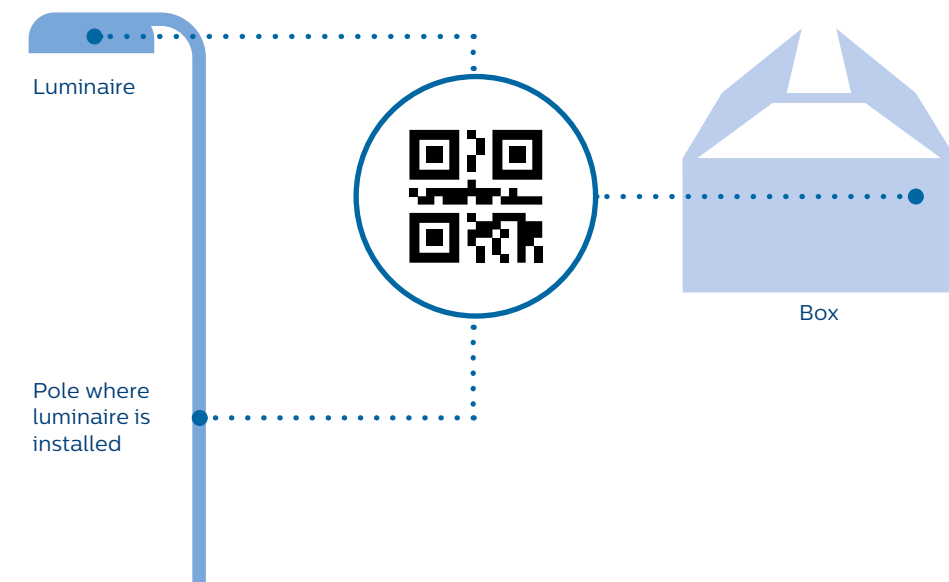


Digital maintenance

Enabling you to pre-program spare parts to factory settings

Instant access to procedures, spare part list and programming

This tag features a QR-based identification system that gives you instant access to critical information during unpacking, installation, diagnostics, fault reporting and programming. Simply scan the tag with a smartphone or tablet running the Philips Service tag app, and the contents of the box plus installation information are described. The tag also activates the five-year warranty. To assist in diagnosing breakdowns, scanning the tag provides the troubleshooting guide applicable to that luminaire. Sourcing spare parts and 'one touch' programming of parts to original settings can also be done using the app. It's that simple.



System ready architecture

The digital and smart city era is accelerating fast. To keep pace, cities need luminaires that are not only designed for today's technologies, but are prepared for future advances and upgrades. The System ready architecture gives you a scalable foundation that you can build on whenever your city is ready to opt into new advances in technology. So you can take light beyond illumination into a dynamic world of sensor-rich lighting – whenever you're ready.



Upgrade now or later

DigiStreet is the first family of luminaires that's System ready. They can come with a universal socket on the top and bottom of each luminaire, so all you have to do is click in controllers or sensors to activate new applications.

That means you can install your luminaires today and mount controllers and sensors at a later date – without any hassle. For example, when you are ready for remote light management, you can click in the CityTouch controller and the application will start right away.

An open platform

Philips System ready luminaires use state-of-the-art architectures and components. Because they are SR certified, they are compatible with all components released in the SR program. They also feature industry-wide standardized sockets

(Zhaga SR socket and ANSI 7-pin NEMA socket).

This ensures you'll always be ready for the latest innovations that will enable you to get more out of your lighting infrastructure.

Benefits of System ready



Future-proof upgrades

System ready luminaires can be paired with sensors and controllers now or later. A city solution that is completely flexible and scalable.



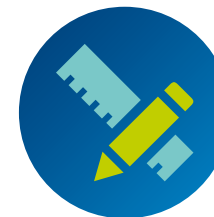
Plug and play

Designed for hassle-free installation, controllers and sensors can be mounted without opening the luminaire.



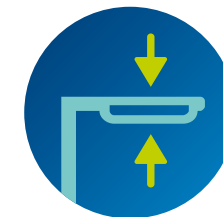
Standardized technology

Thanks to Zhaga standardization and the SR certified program, you will have access to preferred technology, allowing you to make use of innovations from different suppliers.



Aesthetic design

The small, unobtrusive form factor can be mounted discreetly on luminaires.



Flexibility

The SR socket can be mounted on the top or bottom of the luminaire, giving you the flexibility to choose from all sources of sensor applications. The IP66 rating also ensures there is no risk of water ingress.



Open innovation platform

Using this new system ready architecture gives you access to new innovations that could enhance your lighting even further in the future. Find out more at www.lighting.philips.com/main/systems/connected-lighting/citytouch/open-system

System ready luminaires in action

To make your city feel safe, attractive and inviting, you need the right lighting to keep pace with the changing dynamics of city life. System ready luminaires might be built for the future, but you can already benefit from a end to end street lighting management system like CityTouch today.



Connect it to CityTouch

CityTouch is a lighting management system for public lighting. It offers simple web applications to analyze, plan and maintain workflow management, whilst you can monitor, manage and measure your connected lighting through the application.

DigiStreet can be seamlessly paired with CityTouch software. As all the intelligence is integrated into the System ready luminaire, there's no need for any additional hardware. By adding the node on top, the luminaires is right away connected to the software, and can be controlled via the remote management software. Communication runs directly via the public mobile network. Furthermore, the entire connectivity management is covered by the

service we provide, ensuring it is completely hassle free. Once connected to the power supply, a light point automatically appears on the CityTouch map at the right location - with all the relevant technical parameters imported into the system. CityTouch connect app is an intelligent, interactive remote management solution for street lighting. It brings your city lighting to life and offers you flexibility, information and accuracy.



CityTouch connect app Future-proof street lighting



Manage

The intuitive user interface allows you to control individual or group street lights remotely.

- Adapt light levels with a simple click
- Set flexible lighting schedules in advance using the calendar function
- Store specific dimming profiles for every individual luminaire.



Monitor

CityTouch lets you monitor and receive status reports on individual luminaires with a click of your mouse.

- Get automatic failure notifications from street lights in your city
- Access the latest status updates on your lighting infrastructure
- Send repair crews only when and where needed, improving operational efficiency.



Measure

It also provides an accurate way to track and evaluate your energy use, with data graphs to show you when and where savings have been made.

- See full breakdowns of energy usage, including historical data
- Quantify the effect of energy-saving initiatives
- Make sure you are only paying for the energy you actually consume.

Components



- 1 DigiStreet** has been designed as a luminaire family that lasts a lifetime and is prepared for the future, in materials, connectivity possibilities and in space. All four sizes are designed as a two-compartment luminaire, one compartment for the driver and a separate compartment for the ledboard and lighting regulation components. With a lifetime of 100.000 hours there is no need to change the LEDs during the lifetime.
- 2** The DigiStreet housing is made of corrosion resistant aluminum (LM6) and uses flat glass (**2a**) to minimize upward light. The cover is fixed to the frame with four metal holders (**2b**) and ensures an IK protection of **IK09**.
- 3** The **spigot** (LM6-alloy aluminum) is designed to enable you to set the tilt angle from -20 to +20 degrees. These spigots are available to suit all your installation requirements: universal post-top / side-entry spigot for Ø 32-48 mm, post-top / side-entry spigot for Ø 62 mm or separate spigot for post-top Ø 76 mm.
- 4** Mounting of the spigots is standard with two stainless steel M8 bolts (extra-long bolts for a small bracket can be ordered).
- 5** Opening and closing of the driver compartment has been made easy and robust (for cable connection or driver replacement). The actual clip is made of stainless steel and is available as a spare part.
- 6** All drivers are fixed by a clip and can be loosened by hand. The wires need a simple tool to unlock the wires in the poke-in connector.
- 7** To ease maintenance and serviceability the housing of the driver can be locked in an almost vertical position thanks to the steel stand bracket. This enables you to service the luminaire from above in a stable position.
- 8** The silicon gasket with its special profile helps to protect the critical components from water and dust. It is IP66 and remains in place when opening the driver compartment.

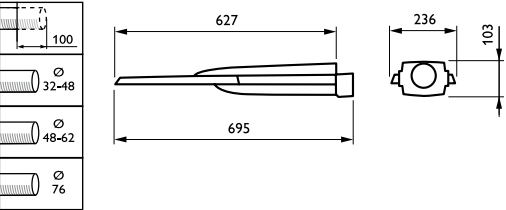
- 9** DigiStreet uses standardized LEDGINE O platform and the complete series of the OptiPerfect optics.
- 10** DigiStreet uses a white frame in all configurations to maximize light output and maximize lighting efficacy.
- 11** The cable connection is a standard M20 cable gland with strain relief, for cable Ø 6-12 mm.
- 12 Electrical connection**
DigiStreet comes in class I or Class II.
Class I: Earth wire needs to be connected to the earth slot in terminal block.
Class II: Neutral / phase are connected to common terminal block. DALI incoming wiring is connected to a terminal block. A knife connector is optionally available. With the knife connector, DALI incoming wiring is connected to a separate termination block.
- 13 Lighting control systems**
DigiStreet has several options for regulating lighting:
 - DynaDimmer or LumiStep standalone scenarios (various dim percentages and time settings).
 - LineSwitch for one step dimming.
 - DALI dim prepared for incoming communication.
 - CityTouch Ready
 - Future proof due to available space for future connected components.
 - System ready and future upgradeable

Specifications

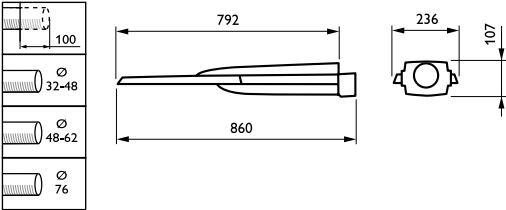


Type Name	Micro – BGP760	Mini – BGP761
Maximum lumens output	1000-5400 lumen	4500-10 900 lumen
Wattage (NW) (depending on the driver)	10 LED: 8 to 21W / 20 LED: 19 to 41W	30 LED: 31 to 60W / 40 LED: 60 to 76W
Efficacy (system)	127 Lm/W	130 Lm/W
LEDs	10 / 20 LEDs	30 / 40 LEDs
Power factor	Minimum: 0.81	Minimum: 0.85
Correlated Color Temp. (CCT)	NW / WW / CW	NW / WW / CW
Color Rendering Index (CRI)	Warm white: ≥ 80 Neutral white & Cool white: ≥ 70	Warm white: ≥ 80 Neutral white & Cool white: ≥ 70
System life/lumen maintenance (system = light modules & drivers)	Max: 100khrs @ L96B10	Max: 100khrs @ L96B10
Light distributions / optics / Louvres	LEDGINE OPTIMIZED DM10 / DM11 / DM12 / DM30 / DM31 / DM32 / DM33 / DM50 / DM70 / DM10 / DN10 / DN11 / DW10 / DW12 / DW50 / DX10 / DX50 / DX51 / DX70 / DS50 / DPR1 / DPR2 BL1 / BL2	
Mains input voltage	220-240V	220-240V
Inrush current	40W Xi FP driver: 22A / 290us (Max 20 driver on MCB 16A B Type) / 75W DEC FP driver: 46A / 250us (Max 11 driver on MCB 16A B Type) / 75W SR driver: 65A / 330us (Max 6 driver on MCB 16A B Type)	
Operating temperature range	-40° to +35°C (up to +50°C with some flux limitations)	-40° to +35°C (up to +50°C with some flux limitations)
Electrical insulation class	Class I & II	Class I & II
Degree of protection	IP66	IP66
	IK09	IK09
	Surge 6kV / Max 10kV (with SPD)	Surge 6kV / Max 10kV (with SPD)
Luminaire dimensions (l x w x h)	627 x 236 x 103 mm / 247 x 93 x 41 in	792 x 236 x 107 mm / 312 x 93 x 42 in
Luminaire weight	6 Kg / 13.22 lb	7.7 Kg / 17 lb
Material / Finishing	LM6 Aluminium	LM6 Aluminium
	MSP painting (optional)	MSP painting (optional)
Luminaire mounting / Installation	Choice of 3 spigots: 32-48 mm / 48-62 mm / 76 mm Side entry: 32-48 mm / 48-62 mm Post top: 48-62 mm / 76 mm Tilt: -20° to +20° with steps of 5°	Choice of 3 spigots: 32-48 mm / 48-62 mm / 76 mm Side entry: 32-48 mm / 48-62 mm Post top: 48-62 mm / 76 mm Tilt: -20° to +20° with steps of 5°
Electrical connection / Cabling	3183Y cable (3x0.75 / 3x1.5 / 3x2.5), H07RN cable (2x1.5 / 3x1.5 / 4x1.5 / 5x1.5) Length of cables: 4m, 5m, 6m, 8m, 10m, 12m, 15m, 18m	
Controls	D9 (DALI), D11/D12 (LineSwitch), D13 (AmpDimming), D18 (DynaDimmer L-tune), D24 (DynaDimmer with DALI unprogrammed), CLO, DDF1/2/3/27	
Connectors / Photocell	SR Connector / P1 (Nema Socket) / P1-7 (7 pins Nema)	
Remote Light Management	CityTouch	
Maintenance	Philips Service Tag / Tool-less maintenance of driver / Clip to open gear compartment	
Certification / Listing	CE / ENEC+ / 005 / ROHS / LM79 / LM80-TM21	

Micro – BGP760

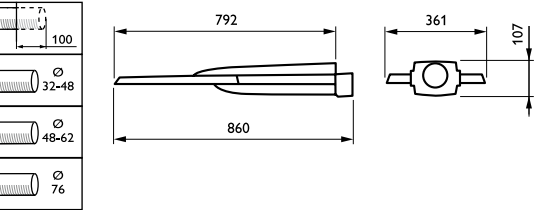


Mini – BGP761



Type Name	Medium – BGP762	Large – BGP763
Maximum lumens output	9500-22 000 lumen	24 000-34 000 lumen
Wattage (NW) (depending the driver)	60 LED: 65 to 117W / 80 LED: 115 to 152W	100 LED: 160 to 193W / 120 LED: 206 to 228W
Efficacy (system)	130 Lm/W	129 Lm/W
LEDs	60 / 80 LEDs	100 / 120 LEDs
Power factor	Minimum: 0.9	Minimum: 0.95
Correlated Color Temp. (CCT)	NW / WW / CW	NW / WW / CW
Color Rendering Index (CRI)	Warm white: ≥ 80 Neutral white & Cool white: ≥ 70	Warm white: ≥ 80 Neutral white & Cool white: ≥ 70
System life/lumen maintance (system = light modules & drivers)	Max: 100khrs @ L95B10	Max: 100khrs @ L95B10
Light distributions / optics / Louvres	LEDGINE OPTIMIZED DM10 / DM11 / DM12 / DM30 / DM31 / DM32 / DM33 / DM50 / DM70 / DM10 / DN10 / DN11 / DW10 / DW12 / DW50 / DX10 / DX50 / DX51 / DX70 / DS50 / DPR1 / DPR2 BL1 / BL2	
Mains input voltage	220-240V	220-240V
Inrush current	150W Xi FP driver: 53A / 300us (Max 8 driver on MCB 16A B Type) / 150W SR driver: 65A / 330us (Max 6 driver on MCB 16A B Type)	
Operating temperature range	-40° to +35°C (up to +50°C with some flux limitations)	-40° to +35°C (up to +50°C with some flux limitations)
Electrical insulation class	Class I & II	Class I & II
Degree of protection	IP66	IP66
	IK09	IK09
	Surge 6kV / Max 10kV (with SPD)	Surge 6kV / Max 10kV (with SPD)
Luminaire dimensions (l x w x h)	792 x 361 x 107 mm / 312 x 142 x 42 in	945 x 361 x 121 mm / 372 x 142 x 48 in
Luminaire weight	8.9 Kg / 19.6 lb	13 Kg / 28.6 lb
Material / Finishing	LM6 Aluminium	LM6 Aluminium
	MSP painting (optional)	MSP painting (optional)
Luminaire mounting / Installation	Choice of 3 spigots: 32-48 mm / 48-62 mm / 76 mm Side entry: 32-48 mm / 48-62 mm Post top: 48-62 mm / 76 mm Tilt: -20° to +20° with steps of 5°	Choice of 3 spigots: 32-48 mm / 48-62 mm / 76 mm Side entry: 32-48 mm / 48-62 mm Post top: 48-62 mm / 76 mm Tilt: -20° to +20° with steps of 5°
Electrical connection / Cabling	3183Y cable (3x0.75 / 3x1.5 / 3x2.5), H07RN cable (2x1.5 / 3x1.5 / 4x1.5 / 5x1.5) Length of cables: 4m, 5m, 6m, 8m, 10m, 12m, 15m, 18m	
Controls	D9 (DALI), D11/D12 (LineSwitch), D13 (AmpDimming), D18 (DynaDimmer L-tune), D24 (DynaDimmer with DALI unprogrammed), CLO, DDF1/2/3/27	
Connectors / Photocell	SR Connector / P1 (Nema Socket) / P1-7 (7 pins Nema)	
Remote Light Management	CityTouch	
Maintenance	Philips Service Tag / Tool-less maintenance of driver / Clip to open gear compartment	
Certification / Listing	CE / ENEC+ / 005 / ROHS / LM79 / LM80-TM21	

Medium – BGP762



Large – BGP763

