

**PHILIPS**

*ClearFlood* family

Area & recreational  
sports lighting



Product guide

# Efficient, high-quality lighting

across multiple  
applications



# Addressing the needs and challenges **in area and recreational sports applications**

Owners and operators of area and recreational sports lighting installations need to deal with several tough challenges.

Energy consumption is a key cost driver and needs to be reduced, along with maintenance costs and the Total Cost of Ownership. But not at the expense of safety and comfort, which need to be maintained or even increased – for citizens, visitors and employees of local businesses.

Businesses are looking forward to making use of advanced technology, luminaires combined with controls, and new lighting systems, all of which offer opportunities that were not previously possible. These new innovations enable companies, realize energy savings, take operational excellence to the next level, and comply fully with regulations.

**Meet Philips ClearFlood, an extremely flexible and energy-efficient lighting solution for area and recreational sports lighting. Choose the lumens you need – to control your energy consumption and much more.**





# ClearFlood 4



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ClearFlood

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# ClearFlood



Using the latest  
LEDGINE optimized  
platform

## Tailor made solution with L-Tune

For tuned project solutions  
Philips can support with the  
exclusive L-Tune tool



## Standard engine

across key portfolio, offering  
latest LED upgrades to various  
products, without changing  
light distributions

## Standardized optics

Dedicated optics for sport  
and area lighting; Lumen  
package is increased by 20%



## 1:1 retrofit/HID replacement

Same electrics, same  
poles, same weight,  
same bracket footprint  
as conventional models



## Outstanding energy efficiency

More than 50% energy  
saving versus HID! Controls  
for stand-alone and remote  
light management  
(for example: CityTouch)  
also enable additional  
energy savings



## Future-proof

Long lifetime of 100 khrs  
L80 B10, along with robust  
IP66 & IK08/09 protection  
and special coating to  
prevent corrosion



## Ideal for multiple application areas

From recreational sports  
and industrial areas to  
parking lots, highways  
airport, harbour and more



## Easy to install and maintain

With the unique Philips  
Service tag application you  
have access to spare parts  
information and mounting  
instructions 24/7



## CityTouch Ready!

Get full control of  
your city's lighting  
infrastructure; simply  
connect via existing  
mobile networks



## Meets national and European standards

ENEC certified and VDE BALL proof



# Transformative solution

## 1:1 retrofit/HID replacement

Thinking of renovating your area or recreational sports lighting installation? ClearFlood is the ideal solution for retrofits, as well as for new installations. It enables conventional technology to be smoothly and easily replaced, while retaining the same electrical installation and poles. ClearFlood matches HID lamps between 150W up to 1000W (HPI-TP), and offers an equivalent weight. What's more, it has the same bracket footprint as conventional models.

## Outstanding energy efficiency

ClearFlood incorporates extremely efficient, state-of-the-art LED technology, cutting energy consumption by up to 50% compared to conventional HID static light. A wide range of LED boards and highly flexible DEC drivers enables the exact lighting level to be chosen for every installation. Multiple control options and intelligent lighting further increase efficiency. Depending on the selected optic configuration, a system efficiency of up to 145 lm/W is possible.

## Future-proof

In areas with 24/7 operation, lighting installations have to be reliable and stable for years to come. ClearFlood offers an attractive Return on Investment, as well as state-of-the-art features and control capabilities that lead to significant cost savings over its long lifetime. It incorporates the LEDGINE optimized platform, an engine with up-to-date LED performance and a future-proof optical concept to ensure design continuity. In practice this means that LED upgrades to various products will not affect light distributions.

## Ideal for multiple application areas

Whether it's a recreational sports facility, industrial area, parking lot, building facade, roundabout, motorway junction or one of a host of other applications, ClearFlood is the sensible choice. A wide choice of new optics sets ensures maximum application coverage and provides a solution for dealing with obtrusive light.

## Easy to install

Simple, straightforward installation means that ClearFlood is perfect for replacing conventional light-points as it uses the same electrical installation and poles. The two axes of rotation with scale of degrees provide freedom of installation in multipurpose installations: Vertical aiming from the horizontal:  $-90^{\circ}/+90^{\circ}$   
Max adjustment from the horizontal:  $-170^{\circ}$  to  $+170^{\circ}$

## Designed for serviceability

Because LED luminaires require different competences and processes for maintenance, fault finding and repair, ClearFlood family and its components are designed with serviceability in mind. Also, to provide better support, 24/7 access to information and spare parts ordering, all ClearFlood Family products and packages are all labelled with the unique Philips Service tag application.

## Highly robust

- Each floodlight is designed in die-cast aluminum with Alloy L2521 strengthening its natural resistance to corrosion.
- Optional coatings are available for extra protection in harsh environments such as salt atmospheres (harbors...).
- Basic corrosion test (500 hr test in lab): Standard coating with paint finish
- Marine Salt Protection (1000 hr test in lab): Luminaire coating with standard paint finish and extra primer layer
- Protection Swimming Pool\* (1500 hr test in lab): Standard luminaire (normal paint layer) and treatment on screws (ZINKLAD).

\*ClearFlood Large option

# Application areas

## Transportation areas

For an efficient, high-quality yet affordable lighting solution for an airport, harbor, railway station or coach station, ClearFlood fits the bill. Its ease of installation and simple operation will delight the facility manager, while its energy-saving features and low Total Cost of Operation will satisfy those responsible for keeping the lighting budget under control.

## Outdoor parking areas

Thanks to its high performance and cost-efficiency, ClearFlood is ideal for outdoor parking areas. It will also perfectly illuminate the buildings associated with the parking area, such as offices, kiosks and security cabins. And it will help improve the safety of perimeter zones and access and exit roads.

## Industrial areas

ClearFlood reduces the cost and environmental impact of high energy consumption for companies operating industrial facilities, including their parking areas and road/rail networks. In doing so, it allows companies to improve their environmental image.

## Recreational sports pitches

Tennis, football, hockey? Rugby, basketball, athletics? Training session or competitive event? Indoor or outdoor? ClearFlood is ideal for a huge range of recreational sports. By delivering outstanding quality of light, ClearFlood can help increase the attractiveness of local sports facilities. This encourages people to take up a sport, have fun, and experience all the associated health benefits.







Area & recreational  
sports lighting

ClearFlood

Application areas









Area & recreational  
sports lighting  
.....  
ClearFlood  
.....  
Application areas  
.....



# LEDGINE

## optimized



Standardized  
**optics**



Standard  
**engine**



Tailor-made  
**solutions**



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

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

To get full flexibility in terms of applications, ClearFlood Family offers different optical distributions: four asymmetrical and many symmetrical beams for widening the applications scope.

Asymmetrical beam shaping includes wide and extra wide optics, with various spacings to uniformly optimize outdoor locations. The set also provides good control of glare and spill light. It allows the luminaire to be used in horizontal positions in many applications, resulting in better comfort for users.

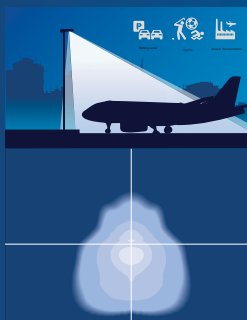
Optional louvres BL1/BL2 can be added according to the project configuration. They further control and limit front or back spill light.

ClearFlood Family is standard across the whole portfolio, ensuring design continuity. It is easy to use, the light distribution remains the same after an LED upgrade, and it complies with national and European lighting standards.



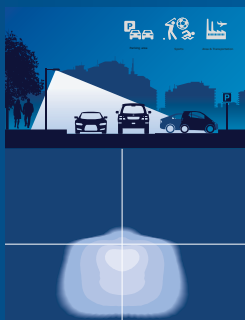
## Typical Asymmetrical optics for Sport and Area lighting :

**DX50**



Large Width area application  
(apron, parking...)

**DX51**



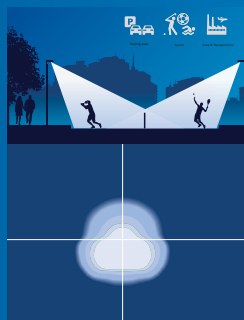
General area application where strong cut off in front and behind luminaire is needed

**DX10**



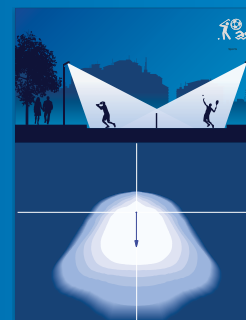
Large spacing and width area application  
(harbor, parking,...)

**OFA52**



Small outdoor sports pitch (tennis, basket ball) and indoor venues

**DX60**



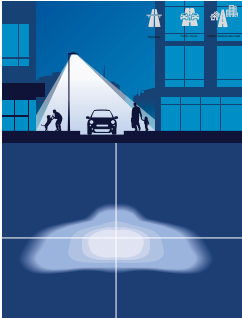
Asymmetrical floodlight distribution



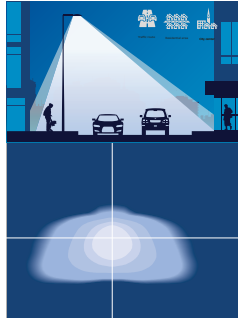
# Portfolio of optics

## Luminance classes (M)

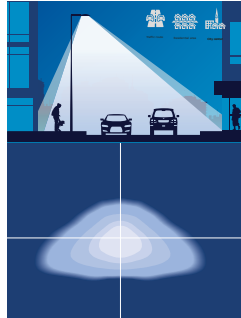
DN11



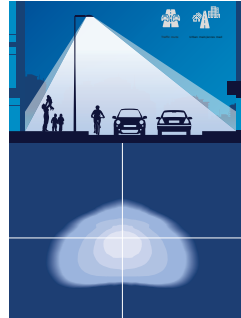
DM10



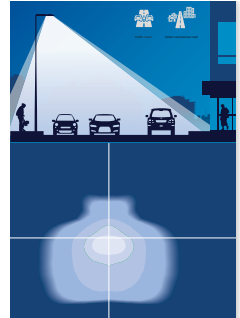
DM11



DW10



DX10



From narrow to wide geometries



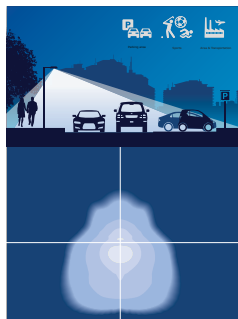
## Illuminance classes (P, C)

## Dedicated applications

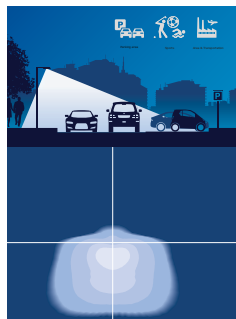
DM50



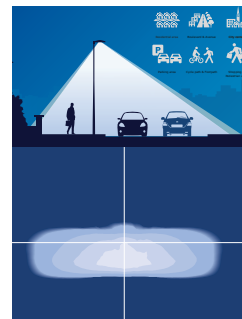
DX50



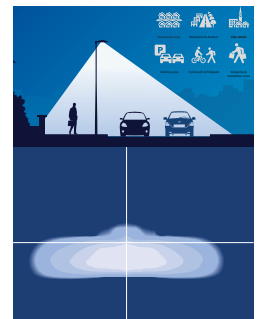
DX51



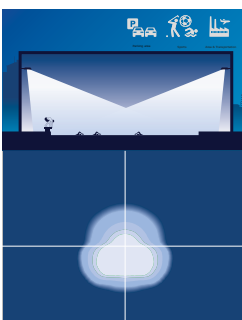
Optics+BL1



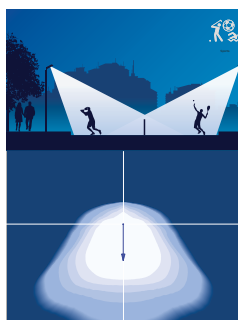
Optics+BL2



OFA52



DX60



S (Symmetrical)



# CityTouch



CityTouch is a professional, software-based lighting management system that provides full control, enabling efficient management of a city's street or area lighting infrastructure.

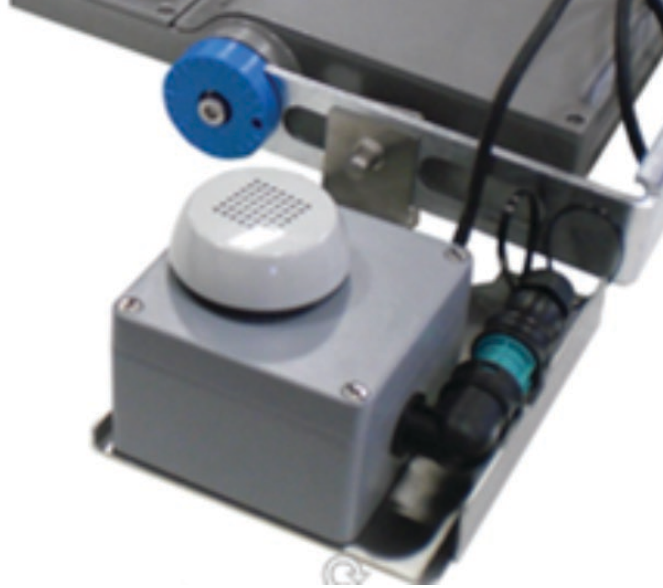
CityTouch is the easiest way to manage a city's lighting, using a near real-time map-based view. It integrates devices, intuitive Software as a Service (SaaS) applications and specialized services, and connects via existing mobile networks – so there's no need to invest in proprietary technology.

## What's possible with CityTouch?

- Accurate energy metering of individual light points
- Near real-time status without the need for manual scouting
- Auto-notification of faults and flexible adaptation of light levels
- The ability to control street lights remotely and set up dimming schedules
- Verification of energy billing







Area & recreational sports lighting	.....
ClearFlood	.....
<b>CityTouch</b>	.....

# ClearFlood: CityTouch Ready!

ClearFlood is fully CityTouch Ready, which means it's quick and easy to connect ClearFlood to the CityTouch network – without the need for any additional control hardware. Once a CityTouch Ready ClearFlood gets connected, it automatically appears on the map at the right location and with all the technical parameters imported into the system.

After a few clicks you can start controlling it remotely, it will send data about energy usage and automatically report an alarm in case of a problem.



## Control of each individual light point

You have the flexibility to adjust every single luminaire to changing situations or requirements at any time. You can adjust calendars to suit your individual needs simply by changing the switching points of each dimming profile via drag and drop.



## Fault detection and notification

Faster and better provision of information about the current status of the lighting infrastructure enables you to address maintenance issues more quickly and to improve the maintenance service level.



## Accurate energy metering

Accurate energy metering for each individual luminaire enables you to monitor your energy bills and to identify potential new savings.



# Lighting systems for Sport & Area

All ClearFlood family models have a built-in gear tray; for CityTouch ready control, the GPRS antenna is fixed on an external box. Models come with several options including optics, louvres, coatings and cabling. There is a choice of three levels of control. Simply choose the configuration that best suits your requirements.

Everything under control in area lighting:

**ClearFlood LED Basic** is the ideal solution for smaller areas and is highly affordable. It does not offer network control, and its energy saving potential is limited.

**ClearFlood LED Smart** uses dimming schedules to make energy savings, without major infrastructure changes. The DALI interface enables network control.

**ClearFlood LED Advanced** is the top-of-the-range and enables immediate dimming and adjustment of illumination levels without affecting uniformity and light quality; additional energy saving can be achieved up to 50%.

	ClearFlood Up to LED400-4S*	ClearFlood large Up to LED750-4S*
<b>Controls &amp; interfaces</b>		
DALI (Digital Addressable Lighting interface)	X	X
AmpDim (mains dimming) For conventional mains <i>dimming system</i> To provide monitoring and control over groups of Lights point	X Mains dimming (Simple dimming by lowering mains)	X Mains dimming (Simple dimming by lowering mains)
LineSwitch High/Low level Integrated switch-off delay Smooth light : Fade-on/Fade-down timing	X SDU pilot line (Simple dimming by extra control line)	X SDU pilot line (Simple dimming by extra control line)
DynaDimmer To locally set the right amount of efficient light at the right place at the right time	X 5 step Dynadimmer (Midnight shift to compensate for location)	X 5 step Dynadimmer (Midnight shift to compensate for location)
CityTouch Ready (external box) GPRS antenna	X Ready for connectivity, ready for CityTouch (based on Dali protocol)	X Ready for connectivity, ready for CityTouch (based on Dali protocol)
<b>Others functions</b>		
CLO (Constant Light Output)	X	X
MTP (Module temperature protection)	X	X

\*Higher Lumen package with L tune tool



Area & recreational  
sports lighting

ClearFlood

Lighting systems  
for Sport & Area





# PerfectPlay

PerfectPlay is an intelligent sports lighting system which offers huge potential to reduce energy costs and other operational expenditure. The system improves the quality of the light on the pitch or court, and ensures easy control of the lighting by offering different light settings, matching the activity taking place.

PerfectPlay offers all the standard features you would expect from recreational sports LED lighting, but also goes so much further.



## PerfectPlay standard features:

- The right quality of light-improving visibility and safety during sports and reduced light pollution
- Energy efficiency, saving on costs and promotes the green credentials of your sports club
- Low maintenance costs due to the long lifetime of LED lighting
- Meets requirements of international and national sports federations for different lighting classes

## PerfectPlay additional features:

- Simple control device that anyone can operate
- Option to produce reports on lighting consumption and usage
- Reliable communication via power-grid cables only
- Dedicated installation tool for easy re-configuration and system upgrades
- Remote support and hassle-free software upgrades
- Multiple user groups and profile authorization possible, to ensure security and guarantee additional energy savings
- Remote access to system parameters to conduct system condition checks
- Future-proof architecture thanks to cloud technology
- Easy retrofitting – cutting out disruptive and costly cable works





## Smarter thinking?

New innovation will likely bring together the worlds of smartphones, tablets, apps and recreational sports lighting. In the near future, it may become possible to adjust the lighting on the move rather than from a fixed location in the clubhouse or an office-based PC. Smart control is the smart answer for the flexibility your club members need.

And it is all possible with dedicated, control devices that are tailored to your way of working and needs. The way you operate PerfectPlay will really depend on your sports facility. Philips Lighting offers three different versions of PerfectPlay. Each works with DALI driven Philips LED floodlights such as ClearFlood and ClearFlood Large.



### Panel

This is the traditional way to trigger light settings via push buttons or a panel that can be placed on a cabinet, pole or operated from the clubhouse.

Choose between a number of simple visualized light settings on the panel, depending on the way in which your playing areas are being used. If you don't require full 'match' illumination for a training session, for instance, simply select the 'training' icon. You can even split a field in half and illuminate only one end of it, creating the possibility for additional energy savings.



### Tablet

This wall-mounted or portable tablet has a dedicated simple interface with the same functionalities as a panel. Thanks to a tablet device, it is possible to see all your courts, fields – and even pathways – on a single page.

You are able to authorize a list of users with various login accounts who will be able to control the lighting, and even assign a relevant profile to each user. For example a trainer will likely be able to control only training field settings. In this way the facility can save more on energy costs, because training sessions usually take place in the evening and do not require high lux levels.



### Smartphone

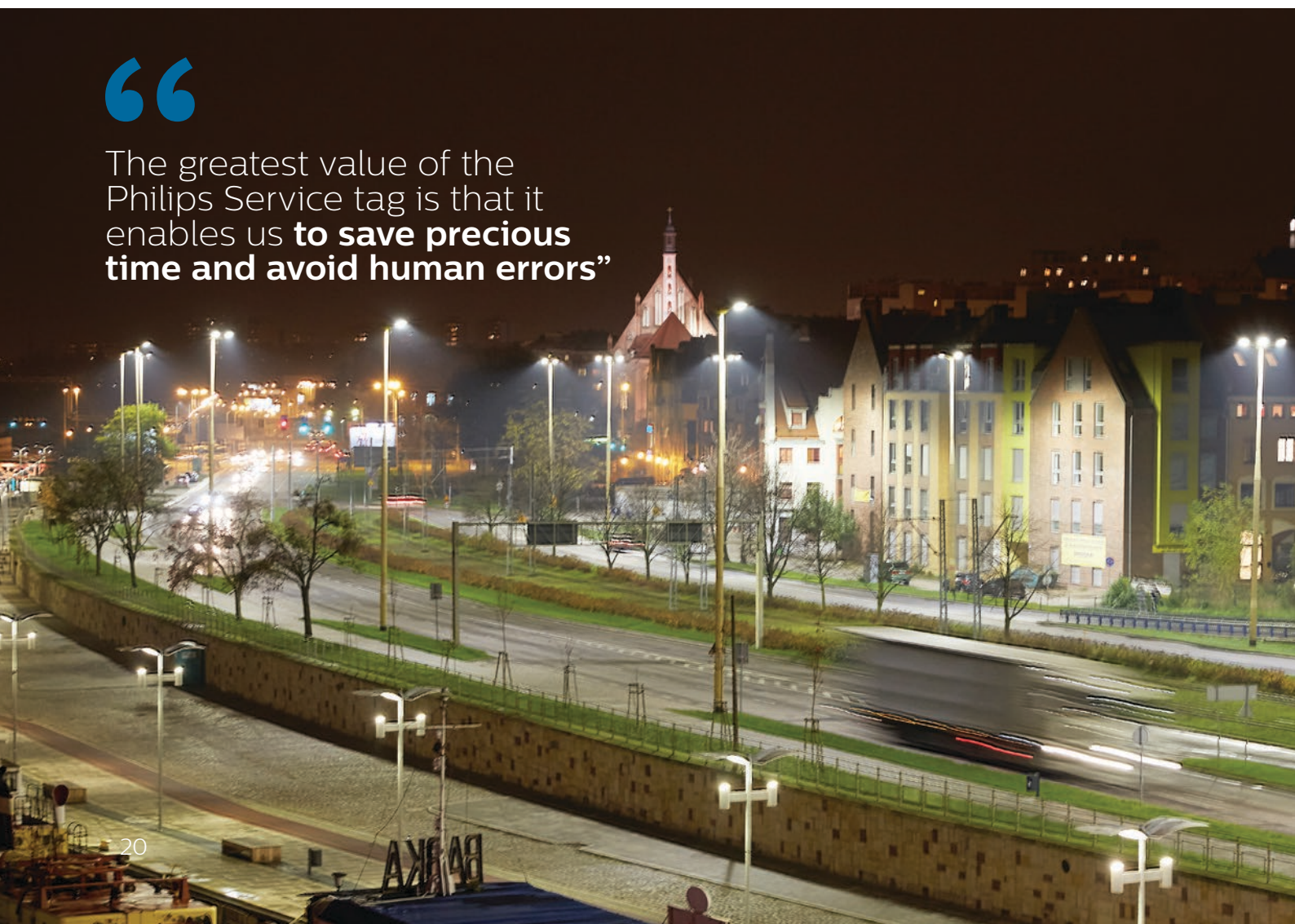
Just like with the tablet, an authorized user, such as a club manager, will be able to control lights from a different location via his or her smartphone with a personal password. For instance, late in the evening, you can check and override light settings or switch lights off without visiting the sports facility.

# Designed for serviceability

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

“

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



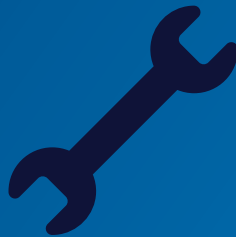


## Why Philips Service tag?



### 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

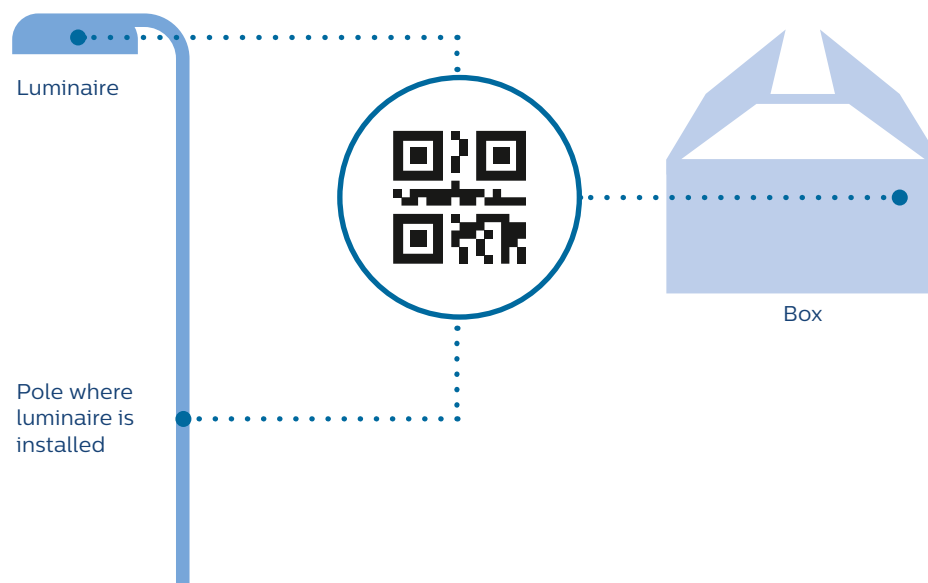


### Digital maintenance

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.



# Components

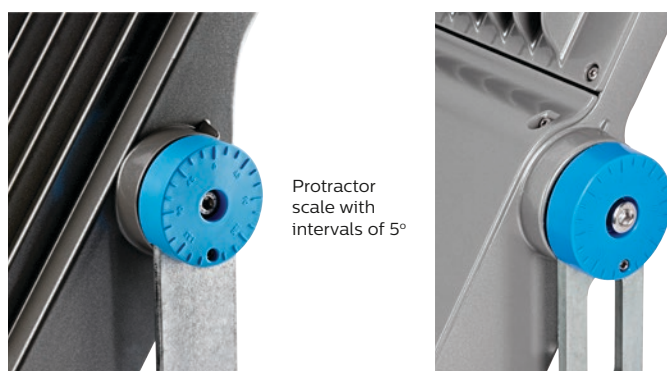
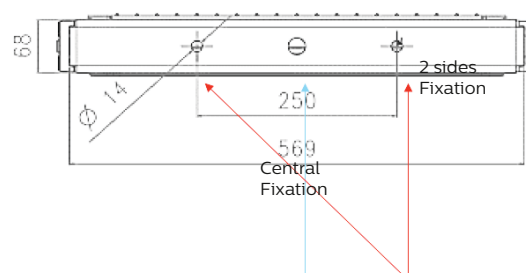
## Housing/Ledgine/Optics

- Housed in die-cast aluminum mixed with alloy L2521 to strengthen its natural resistance to corrosion (optionally painted or coated for marine salt protection and swimming pool applications)
- LED light modules called LEDGINE O (Optimized) platform are equipped with either asymmetrical or symmetrical or road OptiPerfect lenses.
- Front clear and flat glass tempered (IK08/IK09)
- Heat sink in aluminum with finishing always painted; allowing any ClearFlood position (Up/Down)



## U-bracket stirrup

- The universal mounting bracket has central and 2-sided fixation points to allow 3-point fixation using 2x M12 / 1x M20 bolts
- The U-shaped bracket can be mounted in a standing or a hanging position
- Tilting is possible through a range of Vertical/ Horizontal planes:  $-90^{\circ}/+90^{\circ}$ ,  $-170^{\circ}/+170^{\circ}$
- Universal U-bracket made in galvanized sheet steel. Standing-up or hanging-down mounting



Protractor scale with intervals of 5°



## Electrical connections/controls

IP68 External connector with 5 poles :

- Mains connector for cable Ø 10-14 mm (2-4 mm<sup>2</sup> wires section).
- External control command Dali (D9), via the supplied waterproof connector (same as the mains supply) accepting cable diameters from 10 mm to 14 mm, or cable entry via 2 waterproof connectors supplied as option (in Dali/Dali out) accepting cable diameters from Ø 7-12 mm (0,5-1,5 mm<sup>2</sup> wires section).

Mains via a M20 cable gland that accept cable diameters from Ø6-12 mm (wire section 2 - 4 mm<sup>2</sup>)

or cable entry via 2 M16 cable glands (Dali in/out Dali) supplied as option accepting cable diameters from Ø4-9 mm (wires section 1,5 - 2,5 mm<sup>2</sup>)

- Other configuration consult the Mounting instructions

ClearFlood Large is designed as a two-compartment luminaire, with one compartment for the gear tray (drivers) and a separate compartment for the LED board and lighting regulation components

With a lifetime of 100.000 hours there is no need to change the LEDs during the lifetime.

- 2 x 300W drivers gear tray,
- NTC for temperature protection

The standard size ClearFlood comes with one compartment, which can be hinged open to provide easy access to the drivers, LED board and optical plate.

With a lifetime of 100.000 hours there is no need to change the LEDs during the lifetime.

- 2 x 150W drivers gear tray,
- NTC for temperature protection



Main connector  
Ø10-14 mm 2-4 mm<sup>2</sup>



Secondary connector (2x)  
(Only DALI IN/OUT versions)  
Ø7-12 mm 0,5-1,5 mm<sup>2</sup>



MAIN IN + DALI IN



MAIN IN + DALI IN/OUT



The silicon gasket with its special profile helps to protect the critical components from water and dust. It is IP66 rated and stays in place when opening the gear tray or LED/Optic compartments.

# Specifications







Area & recreational  
sports lighting

ClearFlood

Specifications

## ClearFlood

Type name	ClearFlood – BVP650	ClearFlood Large – BVP651
consult L TUNE tool for higher lumen package	Min/ Max (Hot Flux) LED-HB 5350-32300 lm-4S/830 LED-HB 7250-43950 lm-4S/740 LED-HB 7250-43950 lm-4S/757	Min/ Max (Hot Flux) 1xLED-HB 31800-76100 lm-4S/757 1xLED-HB 31800-76100 lm-4S/740 1xLED-HB 23400-56100 lm-4S/830
Wattage (NW)	44 to 270W	285 to 520W
Efficacy	up to 140 lm/W	up to 130 lm/W
LED number	48,64,82,120	184
Power factor	Min : 0.88 / Max : 0.98	0.97
CCT	NW (Neutral white 4000K)/ CW (cool White 5700K) / WW (Warm White 3000K)	
CRI	70 (NW & CW) / 80 (WW)	
Life time / Lumen maintenance	>100 Khrs L94B10 (Max) @ Ta 25°C	
Light distribution / optic / louvres	Asymmetrical and symmetrical distributions Illuminances and Luminances Classes S/ OFA52 / DX10/DX50/DX51/DW10/ DM10 DN11/DM11/DM50/DX60	
Main input Voltage	220-240 VAC / 50-60Hz	
Driver failure rate	0.5% at 5000 Hrs	
Inrush Current 230VAC**	106 A (2 drivers)	340 A / 220 µs
Operating Temperature Outdoor	-40°C to 45°C (all configuration with S / OFA52 optics) Ta 35°C for all other optics)	-40 to 45°C (ta 45°C for S / OFA52 optics ) For other optics ta 35°C max
Electrical insulation Class	Class 1 or Class 2	
Degree of Protection : shocks	IK09	IK08
Degree of protection Water and Dust	IP66	IP 66
Surge protection	6KV	4KV / 10 KV as an option
Luminaire dimensions (LxHxD)	817x597x80mm 16Kg	562x580x95mm 24kg
Material / finishing	- Die cast Housing - Clear Flat tempered glass - Metacrylate optical plate (except S / OFA52 : HT temperature Metacrylate)	
Coating for Harsh environment	Marine salt protected (MSP)	Protection Swimming Pool (SPO) / Marine salt protected (MSP)
Luminaire Mounting / installation	- Outdoor: on mast-head frame/wall or Indoor: on roof or ceiling/wall - U-shaped mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 bolts - Tilting Vertical / Horizontal planes: -90° / +90°, -170° / +170° - Standing-up or hanging-down mounting - U-bracket stirrup Protractor scale with intervals of 5°, Blue memory cap Easy access to the driver & LED board with a single quick- release clip (Hinge)	- Outdoor: on mast-head frame/wall or Indoor: on roof or ceiling/wall - U-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 bolts - Tilting Vertical / Horizontal planes: -90° / +90°, -170° / +170° - Standing-up or hanging-down mounting - U-bracket stirrup Protractor scale with intervals of 5°, Blue memory cap. Separate access to the drivers gear compartment.
Luminaire windage area (SCx)	At 90° 0.26m² / At 0° 0.04m² / At 15° 0.1m²	At 90° 0.41m² / At 0° 0.05m² / At 15° 0.13m²
Standard Electrical connection	Mains via a M20 cable gland that accept cable diameters from Ø6-12 mm or cable entry via 2 M16 cable glands (Dali in/out Dali). <i>See page 21</i>	IP68 External connector with 5 poles : Mains connector for cable Ø 10-14 mm (2-4 mm² wires section). External control command Dali (D9), via the supplied waterproof connector <i>See page 21</i>
Controls	- Dimming via external communication DALI - Dimming via mains voltage ( AmpDim) - Dimming via DynaDimmer - LineSwitch	- Dimming via 1-10V - Dimming via external communication DALI - Dimming via mains voltage ( AmpDim) - Dimming via DynaDimmer
Remote light management	CityTouch ready (based on Dali protocol)	
Options	- Constant Light Output (CLO) - Module Temperature Protection (MTP) - DC Emergency (via special project) - DC-Emergency-Constant Light Output (CLO) - Module Temperature Protection (MTP)	- Constant Light Output (CLO) - Module Temperature Protection (MTP)
Maintenance	*replaceable Drivers Gear EVP650 and EVP651 - Spare part list available (glass, optics, bracket, protractor scale, PCB LED, connector) - Service Tag with QR code	
Certifications / Approbations	CE, ENEC, RoHS, VDE-Ball proof	

# Dimensional drawings

ClearFlood products

BVP650

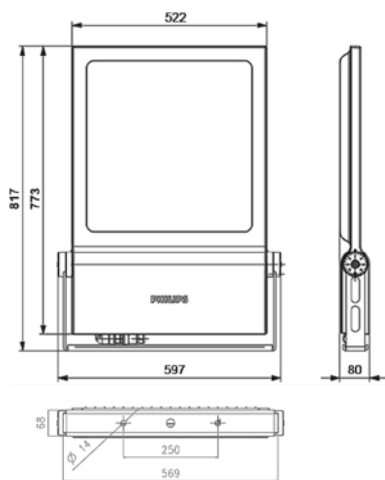


BVP651

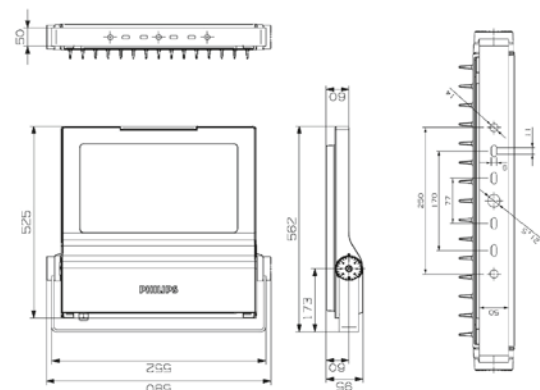




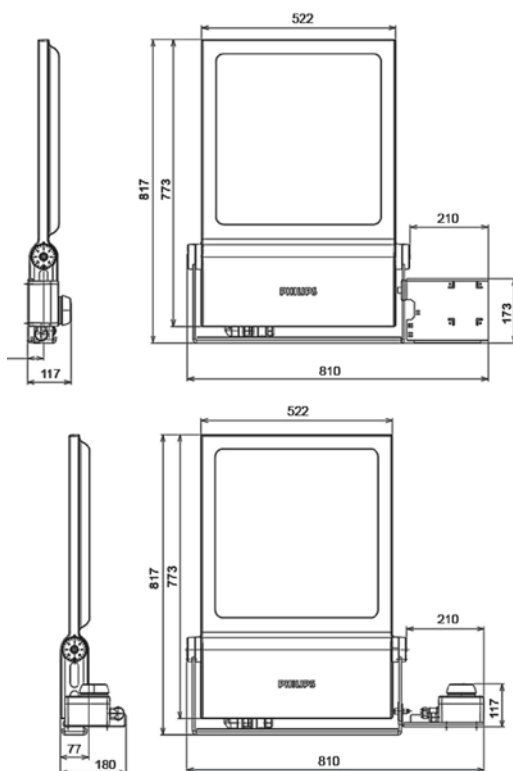
**BVP651**



**BVP650**



**BVP651 with CityTouch**



**BVP650 with CityTouch**

