PHILIPS

OptiVision LED gen2

Recreational Sports
& Area lighting

LED

Product guide

Enhancing experiences, protecting investment

OptiVision LED gen2

Owners and operators of recreational sports and area lighting installations need to deal with several tough and often conflicting challenges. Even though we live, work and play in a 24/7 world, energy consumption must be cut back, Total Cost of Ownership has to go down, and carbon emissions reduced. And none of these should be at the expense of safety, which needs to be maintained or even increased – for employees and visitors alike.

Moreover, operational management must be improved, along with the way citizens experience outdoor activities like recreational sports. Demand is therefore increasing for total solutions, partnerships, and service offers that can deliver on these needs.

Meet the Philips OptiVision LED gen2. This asymmetric floodlight for downlighting ushers in a new era in smart area and recreational sports lighting. It combines compactness, flexibility and efficiency, and provides excellent spill light control, limitation of glare and negligible upward leakage of light.

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710

616

750
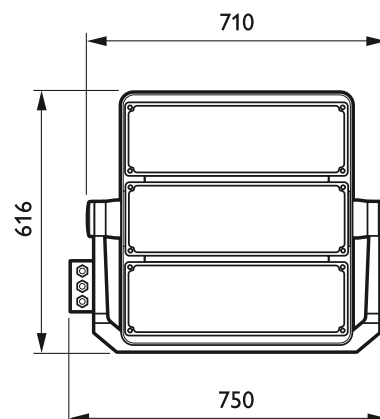
" thanks to this new high quality lighting, participation at our sports facilities **increased significantly."**

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**The smart
solution**
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The **smart**
solution

Flexibility – both in terms of application and user needs

High level of efficiency both in terms of cost and performance

Future-proof

Easy to install and maintain

Flexibility for all

The OptiVision LED gen2 family includes a wide range of dedicated optics and beams, ensuring the most optimal solution in multiple application areas. It has been designed in three different versions, to give the maximum flexibility in meeting different customer requirements.

Outstanding efficiency

When it comes to efficiency, OptiVision LED gen2 is a step ahead of the competition. Excellent spill light control, limited glare, negligible upward leakage of light ... all translate into highly efficient, cost-effective performance. Maximum and constant light output with effective thermal management extend product lifetime and minimize maintenance costs, reducing TCO.

Future-proof

An investment in lighting infrastructure has to be safe and secure for years, if not decades. OptiVision LED gen2 offers an attractive Return on Investment, as well as state-of-the-art features and control capabilities that lead to significant cost savings. One example is the DALI driver box, which enables easy connection to a lighting control system and increases energy savings too. The affordability of LED, combined with OptiVision LED gen2's sustainable design and use of recyclable materials, makes it the smart choice for area and recreational sports lighting.

Easy to install and maintain

Available in narrow, medium and wide beams, the OptiVision LED gen2 is easy to install and will be up and running quickly. Key reasons are the absence of complex wiring between the driver box and luminaire, the low total weight of the complete system, and flexible mounting solutions with the new IP66 driver box. OptiVision LED gen2 is also a very low maintenance solution.

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Energy-saving and light control on the tennis court

TV Markant, Breda, The Netherlands

OptiVision LED offers maximum opportunity for energy-saving and light control

The challenge

As one of the biggest tennis clubs in the Netherlands, TV Markant wanted to do its bit for the environment by opting for sustainable LED lighting. However, its playing fields are located right next to a residential area, and many local residents were concerned about increased light pollution. So how did the club deal with this?

The right lighting

The robust Philips OptiVision LED lighting scores very well in terms of light pollution – and that's great for local residents. What's more, with these new lamps there's no warm-up time, so the lights are only switched on when people are actually playing.

That means the lights are on for a much shorter period of time. Since these lamps last for 40,000 hours, they won't need to be replaced for 20 or 25 years anyway. And this is a modular system, so if there's a fault in the driver, for example, you can just replace the driver rather than replacing the whole lamp. That keeps additional costs down. The floodlights can also be dimmed. Unless there's a tournament taking place, they are dimmed down as standard to 70%, which also saves money. Léon van Leeuwen from the Dutch National Tennis Association (KNLTB) praised the club for making the switch to OptiVision LED: "TV Markant is setting a good example and this could also encourage other tennis clubs to follow suit."

“

This lighting benefits **the environment, local residents, and our club.”**

– Wim van 't Hoog, member of the Executive Committee of TV Markant Breda

Application
areas

Recreational sports pitches
Tennis, football, hockey? Rugby, basketball, athletics? Another recreational sport? Training session or competitive event? Indoor or outdoor? OptiVision LED gen2 is ideal for a huge range of recreational sports. By delivering outstanding quality of light, OptiVision LED gen2 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.

Outdoor parking areas
Thanks to its high performance and cost-efficiency, OptiVision LED gen2 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.

Transportation areas
For an efficient, high-quality yet affordable lighting solution for an airport, harbor, railway station or distribution center, OptiVision LED gen2 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.

Industrial areas
OptiVision LED gen2 reduces the cost and environmental impact of high energy consumption for companies operating oil & gas facilities, power plants and manufacturing sites. In doing so, it allows companies to improve their image for sustainability.

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Trondheim Airport, Værnes Stjordal, Norway

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**Application
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Lighting systems
for area lighting

OptiVision LED gen2 comes in two types, one with the driver box already attached and a basic type where the driver box is separate. Both come with several options including optics, louvres, coatings, cabling and accessories. There is a choice of three levels of control. Simply choose the configuration that best suits your requirements.

Everything under control in area lighting:

OptiVision 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.

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

OptiVision LED Advanced is the top-of-the-range and extends dimming to the floodlight group and manual lights. Greater energy savings are possible.

For the right level of control in recreational sports lighting see the PerfectPlay option on the next page.

Feature		OptiVision LED Basic	OptiVision LED Smart	OptiVision LED Advanced
LED floodlight	BVP525	✓	✓	✓
	BVP515	✓	✓	✓
Stand-alone		✓	✓	✓
Dimming schedule		✕	✓	✓
DALI interface		✕	✓	✓
Luminaire Group dimming		✕	✕	✓
Manual light dimming		✕	✕	✓

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**Lighting systems
for area lighting**
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PerfectPlay
Lighting system for recreational sports

For recreational sports locations, OptiVision LED gen2 can be connected to PerfectPlay. This is is an easy to use, dedicated system for remote management of both indoor and outdoor recreational sports facility lighting. It meets sports lighting norms and ensures players' comfort and safety, and provides operational efficiency and significant energy reductions.

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PerfectPlay
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PerfectPlay **Panel** will be available by the end of 2016.

The system is available in three configurations:

PerfectPlay Panel: this is the simplest option and consists of a panel of six buttons in the clubhouse or control room, which offer different levels of field illumination depending on the type of sport being played. The buttons turn lights on and off or dim them according to pre-programmed light settings.

PerfectPlay Tablet: this is designed for sports facilities with multiple fields, and allows the lighting to be controlled remotely via a large format tablet that can be either wall mounted or used on the go. Even fields with conventional lighting can be controlled. Like the PerfectPlay Panel, it offers pre-programmed lighting levels and scenarios.

PerfectPlay Remote: this is a web interface designed to manage multiple sites and sports centers remotely. The dashboard displays information such as which fields are occupied and when the last training ends. It also monitors the performance of the lighting system, looking at energy consumption, system failures, abnormal operating conditions, and switch off moments. Tailor-made reports can be created to help manage budgets and operational efficiency.

PerfectPlay **Tablet** will be available by the end of 2016.

PerfectPlay **Remote** will be available from mid-2017

Both the LED floodlights and system packages are entirely retrofit and require no new cabling or cabinet installation work, saving on installation costs.

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Lighting
performance

OptiVision LED gen2 offers different optical distributions for total flexibility: four asymmetrical and four symmetrical beams. It provides good control of glare and spill light of asymmetrical beams at 15° to 40° tilt. An optional integrated louvre for asymmetrical optics further controls and limits spill light.
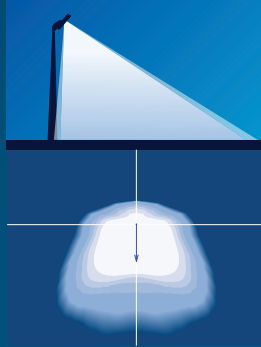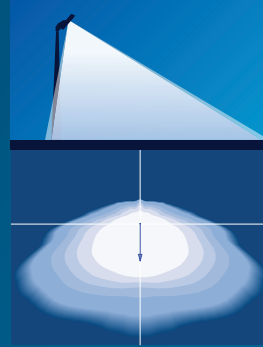
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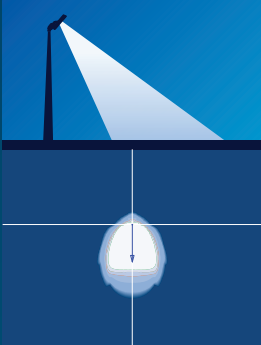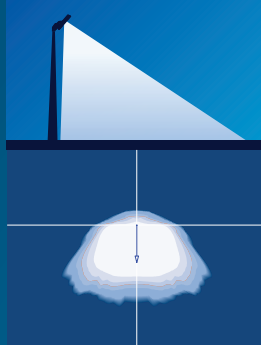Sports & Area
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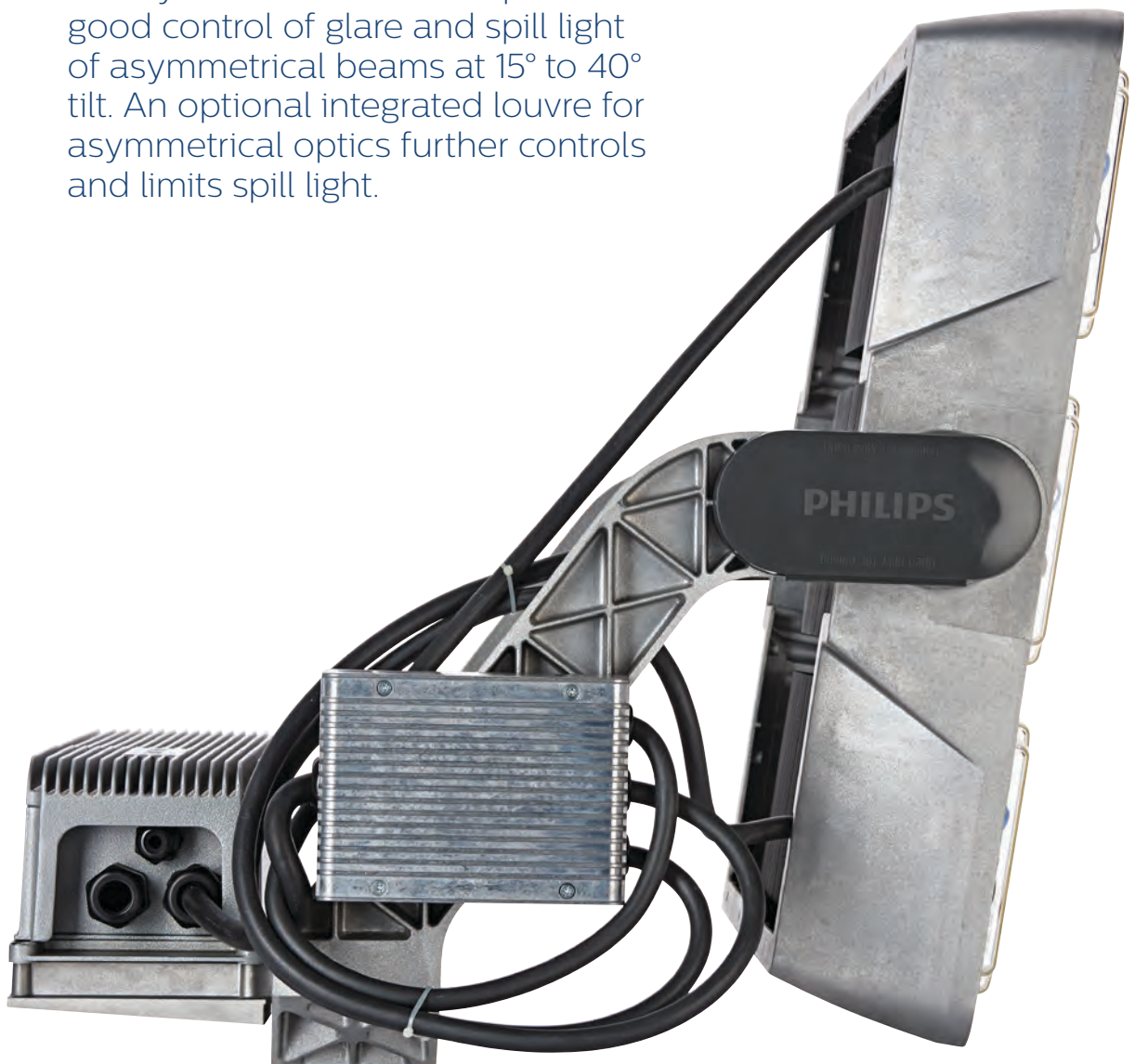
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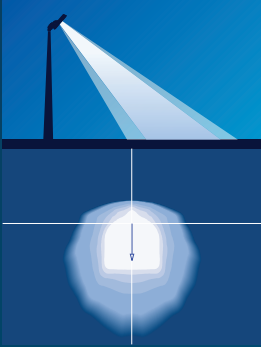
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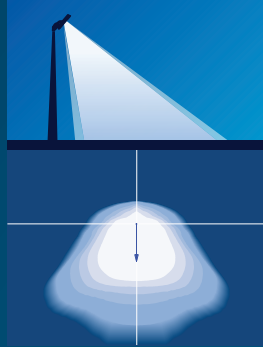
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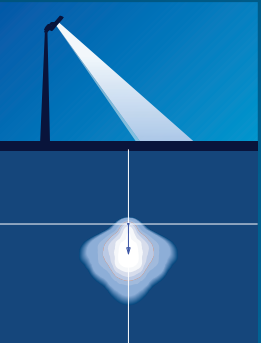
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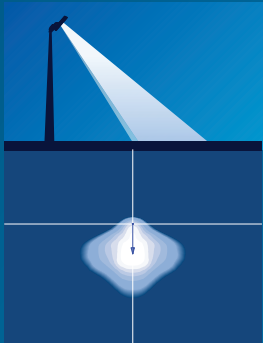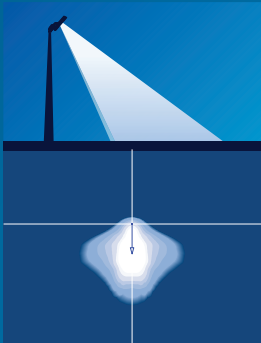
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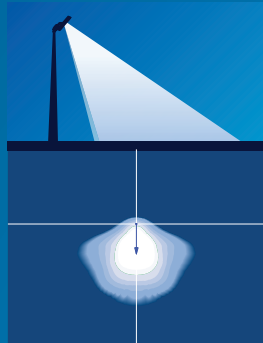
A–WB LO

A–VWB LO
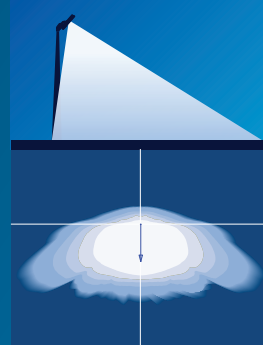
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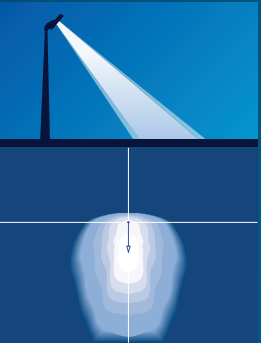
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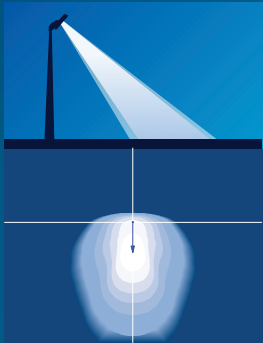
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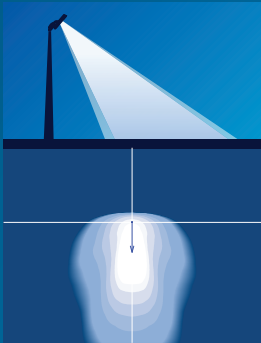
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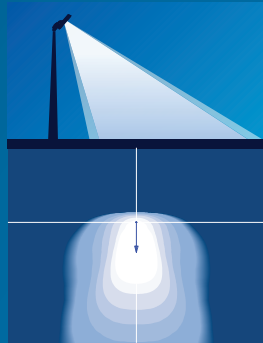
S3–ZVP420 L

S4–ZVP420 L

S6–ZVP420 L

S8–ZVP420 L

Dimensional
drawings

OptiVision LED gen2
floodlight & driver box

BVP525

BVP515

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**Dimensional
drawings**

Driver box EVP 500

BVP525 BV

-90/+90°
-180/+180°

710
130
616
750
450
22
92
150

BVP525 HGB

-90/+90°
-180/+180°

710
130
616
750
600
22
92
150

BVP515 BV

-90/+90°
-180/+180°

710
130
616
750
450
22
92

BVP515 HGB

-90/+90°
-180/+180°

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130
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750
600
22
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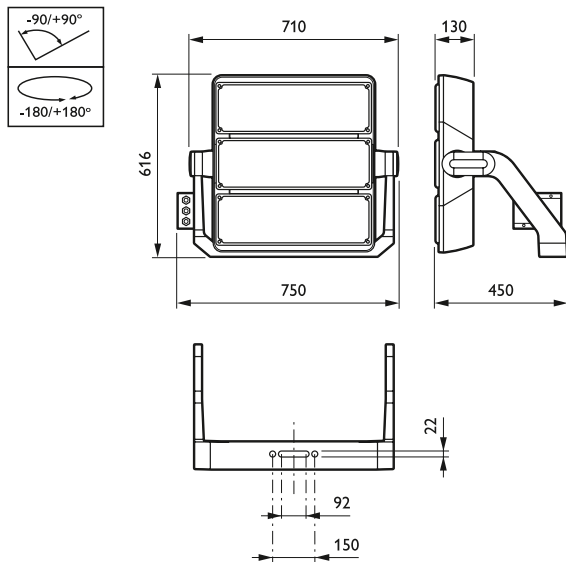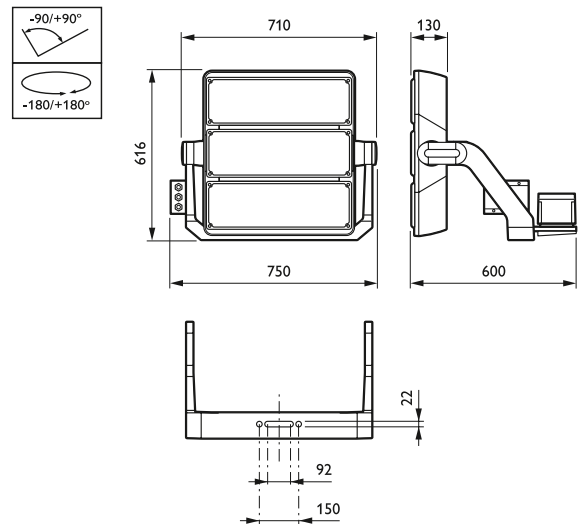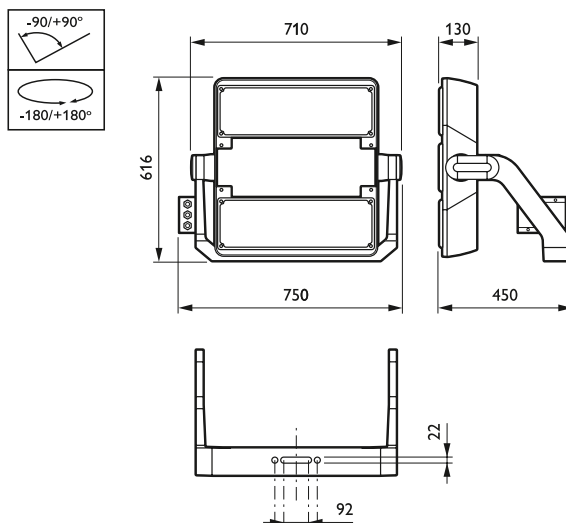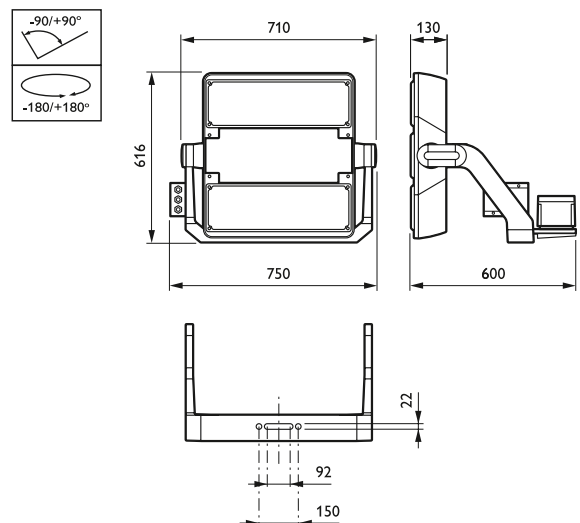
Components

Floodlights

1 **Housing** in molded aluminum; finishing in raw aluminum (optionally painted or coated for marine salt protection and swimming pool applications as per customer request)

2 **LED light modules** equipped with either asymmetrical or symmetrical optics (optionally)

3 **Aluminum molded electrical connection box** enabling wiring between floodlight and external driver box (not relevant to HGB–driver box attached to floodlight version, pre-cabled by the factory)

4 **Optic lens and cover** in UV protected PC

5 **Heat sink in aluminum;** finishing always black coated

6 **Mounting bracket in molded aluminum;** finishing in raw aluminum (painted when MSP or SWP version chosen)

7 **End caps** hiding the bolts for floodlight tilting (on either side) and the slot hole for horizontal adjustment of the bracket
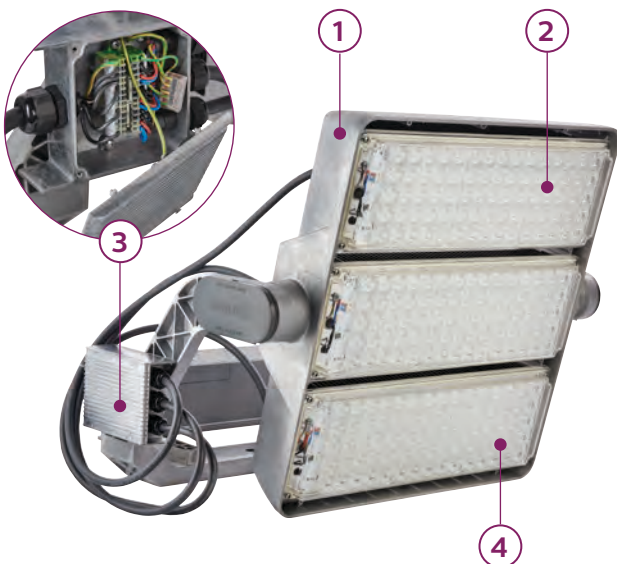
Front view of BVP525 HGB
(HGB: driver box attached)

Back view of BVP515 BV
(BV: driver box separate)

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Components

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Housing

1   **Housing/Heatsink**

2   **Cover to access terminals** for electrical connections

3   **Bottom cover** is fixed with screws and sealed IP66, so must never be opened by the installer/customer

4   **Key slot** at 4 corners for M6 fixation screws

5   **1xM20 DALI control**

6   **1xM25 output to LED modules**

7   **1xM25 Mains**

8   **Cable glands** are protected

9   **Retainable cover screws**

10   **Suspension hook** (for floodlight BV version)
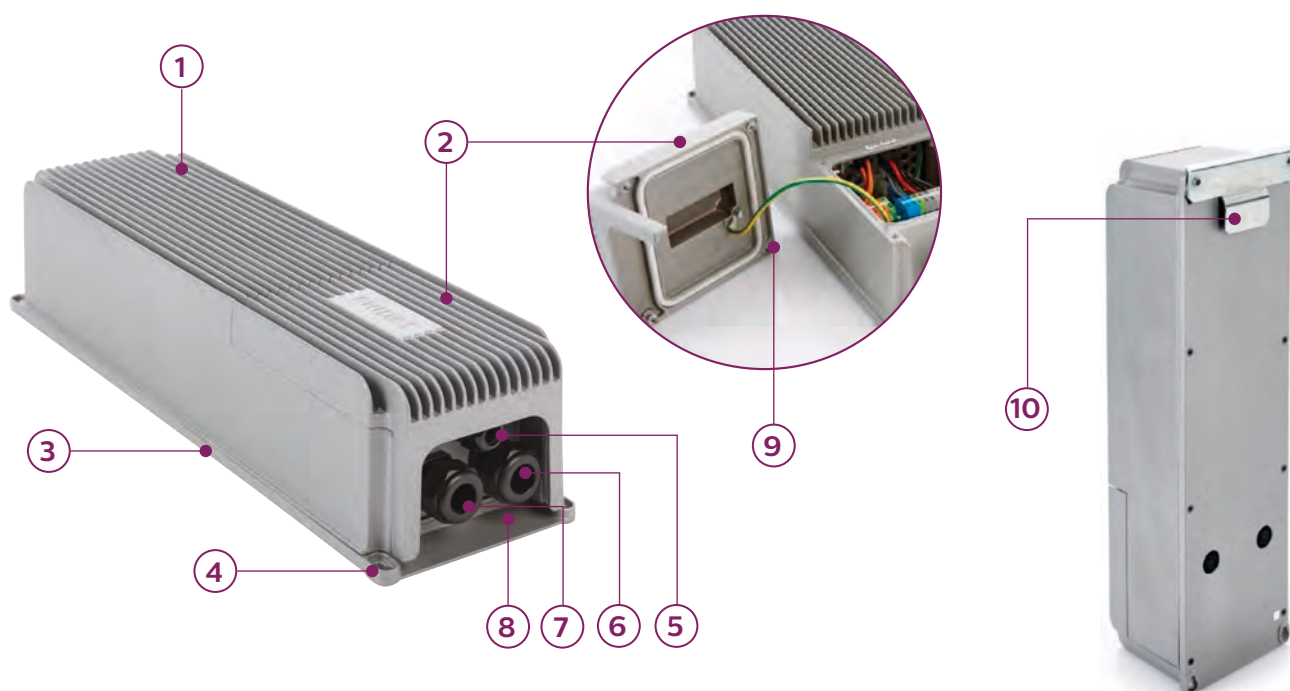
Driver box IP66 / 230–400V, 50Hz / DALI

Specifications

OptiVision LED gen2

Floodlight types	BVP515 (2-module) / BVP525 (3-module)
Floodlight versions	BV: Basic Version (separate driver box) / HGB: Housing Gear Box (driver box pre-fitted on the mounting bracket)
Driver box type	EVP500 (DALI)
Source light flux (Ta dependent)	BVP525 (5700K): up to 194 Klm outdoor / up to 163 Klm indoor BVP525 (4000K): up to 185 Klm outdoor / up to 156 Klm indoor BVP515 (5700K): up to 129 Klm outdoor / up to 109 Klm indoor BVP515 (4000K): up to 123 Klm outdoor / up to 104 Klm indoor Tolerances on light flux: +/- 7%
System power	BVP525: up to 1471 W outdoor / up to 1160 W indoor (+/- 10%) BVP515: up to 981 W outdoor / up to 773 W indoor (+/- 10%)
Floodlight efficacy	Up to 114 lm/W (depends on floodlight's Ta dependent version and CCT)
Correlated Color Temp. (CCT)	Cool White (CW) 5700 K / Natural White (NW) 4000 K (+/-400 K)
Color Rendering Index (CRI)	70
Light distributions / optics	4 rotational beam optics from 2 x 11° to 2 x 19° 4 asymmetrical beam optics from narrow to extra narrow
Operating temperature range	-40°C up to +45°C (depends on floodlight's Ta dependent version)
Electrical insulation class	Class I
Degree of Ingress Protection	IP66
Floodlight dimensions (l x w x h)	616 x 750 x 130 mm
Driver box dimensions (l x w x h)	500 x 145 x 120 mm
Floodlight weight	BVP515 (BV): 21 Kg / BVP515 (HGB): 28 Kg / BVP525 (BV): 25 Kg / BVP525 (HGB): 31.5 Kg (weight within 10% tolerance)
Driver box weight	6 Kg (weight within 10% tolerance)
Floodlight windage area (SCx)	BVP515 BV: 0.18 m2 (HGB: 0.34 m2); BVP525 BV: 0.23 m2 (HGB: 0.39 m2) at 15 tilt / BVP515 BV: 0.24 m^2 (HGB: 0.40 m2); BVP525 BV: 0.32 m2 (HGB: 0.48 m2) at 40º tilt
Material / Finishing	Housing/ Electrical connection box / Mounting bracket: Molded aluminum End caps: Plastics in GREY color Plastics / Cables: UV protected No paint on standard floodlight, raw aluminum (optionally, can be painted in other colors except heat-sink always black) Driver box is always painted in raw aluminum color (other paint colors are not possible)
Driver box mains input	230-400V / 50Hz (mains supply voltage fluctuations -/+ 10%)
Inrush current	18 A during 160 μs at 230 V mains / 30 A during 160 μs at 400 V mains
Power factor	> 0.95 at full power
Surge protection	10 KV standard

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Specifications

Life-time / Lumen maintenance	L80B10: up to 100000 hours
Driver box lifetime / Failure rate	50000 hours at operation temperature range / 0.5% per 5000 hours
Floodlight installation	Outdoor: on mast-head frame/wall or Indoor: on roof or ceiling/wall or catwalk U-shaped mounting bracket with foot-print suitable for 3-point fixation by means of M20 bolts Vertical aiming from the horizontal: -90° / +90° (not suitable for uplighting) Standing-up or hanging-down mounting
Driver box installation	Indoor/outdoor open air without need of cabinet or inside electrical cabinet (IP54) or inside electrical room or inside mast (min. entrance door opening w=125 mm x h=600 mm) Either pre-fitted on the floodlight (HGB version) or remotely at max 200 m distance to floodlight Fixation on flat surface by means 4 standard screws/bolts thru the key slot holes Universal fixation position (cable glands never upward for outdoor/inside mast)
Floodlight electrical connection / Cabling	Floodlights are always supplied with electrical connection box pre-fixed enabling wiring between floodlight and driver box Cable entry via 1xM25 cable gland accepting cable diameter between 13 and 18 mm and wiring with screw-less terminals for wires up to 2,5mm^2
Driver box electrical connection / Cabling	Mains input: Screw-less terminals for wires up to 4mm^2 / Cable entry via 1xM25 cable gland accepting cable diameter between 13 and 18mm (no thru-wiring in/out) Output to floodlight's electrical connection box: Screw-less terminals for wires up to 2,5mm2 / Cable entry via 1xM25 cable gland accepting cable diameter between 13 and 18 mm Cables to floodlight's electrical connection box (BV version floodlight): One cable of 7-core each at length of customer choice (cables are not supplied by Philips)
Integral dimming controls	Dynadimmer in three options DDF1, DDF2, DDF3 (factory preset)
DALI control interface	Screw-less terminals suitable wires up to 2.5 mm^2 / Cable entry via 1xM20 cable gland accepting cable diameter between 10 and 14mm (no thru-wiring in/out)
Floodlight accessories	External spill-light control louvre ZVP420 L and ZVP500 L (set of 2 pcs) for symmetrical S type optics External zero candela louvre at 90° ZVP520 L-A90 and ZVP500 L-A90 (set of 2 pcs) for asymmetrical A type of optics Precision aiming device ZVP420 PAD A0 for symmetrical S type optics Precision aiming device ZVP520 PAD A30 for asymmetrical A type optics
Optional versions	CLO / Integral spill-light control louvre or control plate for asymmetrical beam optics (LO or LT) / Indoor swimming pool protected (SWP) / Marine salt protected (MSP)
Certification / Listing	CE, ENEC, RoHS, VDE-Ball proof
Packaging content	Contains floodlight and driver box either pre-fitted (HGB) or separate (BV). Driver box of BV version contains a suspension kit with its fixing parts

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