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ArenaVision LED – enabling sports venues to offer a new experience

ArenaVision LED

Philips ArenaVision LED floodlighting system is an innovative LED pitch-lighting solution supporting the latest TV broadcasting standards and featuring a control platform to create a completely immersive lighting experience. Designed exclusively for sports and multifunctional lighting applications, ArenaVision LED luminaires offer outstanding light quality, effective thermal management, and a very long lifetime. This solution includes a dedicated user interface and a control system allowing quick, easy and reliable commissioning, monitoring and switching between optimal lighting configurations. The ArenaVision LED control system can also be used to create special entertainment lighting effects that would normally require dedicated stage-lighting luminaires. At the push of a button the user can switch between fixed sports-lighting configurations that fulfill sports federations' requirements and preprogramed special lighting effects. For more advanced lighting effects, it is also possible to connect an external lighting controller to the ArenaVision LED control system, allowing full integration of the ArenaVision LED floodlights in a lighting show. In addition, the new ArenaVision LED control system is so flexible that even façade or stand lighting luminaires can be connected to it to create a fully immersive audience experience before, during and after the event, creating a

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lasting impression on the spectators and a strong desire to return.

Benefits

- Maximum design flexibility and a high level of lighting quality – no flicker effect in televised applications
- Creation and triggering of lighting atmospheres and sequences, as well as flexibility in switching between different types of events
- System enables interfacing with external lighting controllers

Features

- LED technology allows instant, dynamic control of the lighting
- Highly efficient optical systems
- Dedicated control system
- Philips know-how and global support in creating lighting for broadcasting and value-adding experiences

Application

- Outdoor and indoor sports arenas and stadiums
- Indoor sports halls (aquatic centers, velodromes, ice hockey arenas, etc.)
- Multipurpose arenas

Specifications

• Type	BVP420 (floodlight luminaire; 40,000 hours lifetime version) BVP421 (floodlight luminaire; 10,000 hours lifetime version) BVP422 (floodlight luminaire; 20,000 hours lifetime version) EVP420 (external driver box; 40,000 hours lifetime version) EVP421 (external driver box; 10,000 hours lifetime version) EVP422 (external driver box; 20,000 hours lifetime version)
• Light source	Integral LED-module
• Power	506 to 1396 W
• Beam angle	2 x 6 to 2 x 19° (7 beam angles)
• Luminous flux	42,000 to 87,000 lm
• Luminaire efficacy	Up to 83 lm/W
• Correlated Color Temperature	5700 K (+/-400 K)
• Color Rendering Index	> 85
• Maintenance of lumen output - L80F10	40,000 hours for BVP420 / EVP420; 10,000 hours for BVP421 / EVP421; 20,000 hours for BVP422 / EVP422 at released outdoor/indoor ambient temperatures
• Operating temperature range	Luminaire: - Outdoor: -30 to +55 °C - Indoor (ceiling): -30 to +45 °C Driver box: -30 to +45 °C
• Driver	Separate (non-self ballasted LED-module)
• Mains voltage	110-277 V / 50-60 Hz 347-480 V / 50-60 Hz
• Inrush current	30 A/kW at 200 µs
• Controls system input	DMX - RDM
• Dimming	Compatible with Philips' ArenaVision LED control system
• Optic	Dedicated rotational optic
• Material	Housing and mounting bracket: molded aluminum Heat sink: aluminum Electrical connection box: molded plastic Optic lens and cover: UV protected polycarbonate Driver box IP20: sheet aluminum Driver box IP66: molded aluminum
• Color	Housing and mounting bracket: raw aluminum Heat sink: black Electrical connection box: grey Driver box IP20: raw aluminum Drver box IP66: grey
• Connection	Push-in connector with 3 poles
• Maintenance	No internal cleaning required

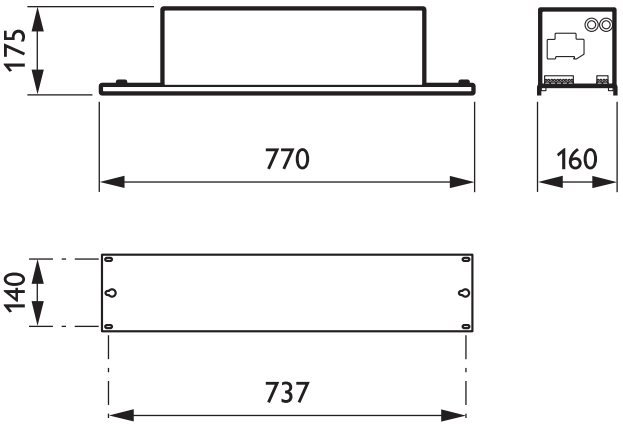
- Installation (luminaire)
  On roof or mast head frame or indoor catwalk
  U-shaped mounting bracket, fixation with standard bolts and nuts
  Standing-up or hanging-down mounting
  Aiming memory to safeguard the original aiming position of luminaire after servicing, if required
  Each light-module of the luminaire is equipped with a cable of ~10 cm with a quick connector plug at the end enabling easy plug-in of 3 cables of external driver box
  Electrical connection box (suitable for IP20 external driver box only) can be mounted either side of the mounting bracket of luminaire
  Max adjustment from the horizontal: -180 to +180°
  Max vertical aiming: -90 to +90° with protractor scale with 5° intervals (not for uplighting)
  Luminaire windage area (SCx): 0.35 m² at 65° tilt
- Installation (driver box)
  IP20: indoor use, installed inside electrical cabinet (not suitable for inside mast)
  IP66: outdoor use
  Nominal 7% and maximum 9% of watt losses can be taking into account to control the temperature where the IP20 driver box to be installed
  Distance to luminaire: either close at 1 m or remotely at max 200 m (IP20) and 25 m (IP66)
  Fixation by means of 4 standard bolts and nuts through holes
- Cable gland
  6 x M20 for electrical connection box of luminaire (only for IP20 external driver box)
  1 x M25 for mains input of IP66 external driver box
  2 x M12 for DMX-RDM control inn/out of IP66 external driver box
- Accessories
  External spill-light louvre
  Precision aiming device
  Extension cables of 10, 15, 25 m for IP66 driver box connection
- Remarks
  External driver box (EVP420/421/422) either in IP20 and IP66 to be ordered together with the floodlight (BVP420/421/422)

Related products

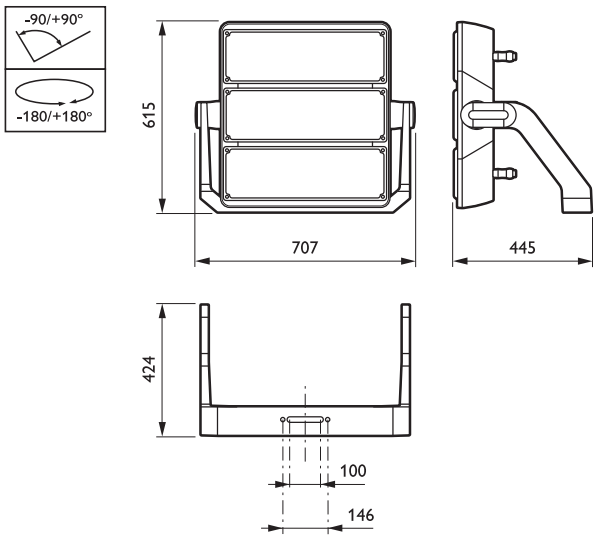
ArenaVision LED BVP420/421/422 flood-lighting luminaire

ArenaVision LED EVP420/421/422 external driver box (IP20)

Dimensional drawing



EVP420 87K/857 PSU 110-277V IP20 T20



BVP420 87K/857 S2 T20

Product details

Rear view of floodlight with heat sink for thermal management

Side view, right

Side view, left

Rear view; each light module is equipped with a ~10 cm cable with a quick connector plug at the end, making it easy to plug in the three cables from the external driver box

Floodlight with electrical connection box, which is supplied only with the IP20 version of the EVP420/421/422 external driver box and is equipped with three pre-wired 2 m cables with a quick connector plug at the end of each cable, making it easy to plug the cables into the luminaire's light modules

General information (1/2)

Order code	Product family code	Number of light sources	Light source color	Driver included	Mech. impact protection code	Optic type	Optical cover/lens type	Color	Dimmable	Surge protec-tion	CE mark
912300022583	BVP420	1	857	false	IK08	S2	PC	ALU	Yes	SRG	CE
912300022584	EVP420	-	857	true	-	-	-	-	No	-	CE
912300022585	EVP420	-	857	true	-	-	-	-	Yes	-	CE

General information (2/2)

Order code	Product family code	ENEC mark	Design Award Winner mark
912300022583	BVP420	ENEC	DAW-2015
912300022584	EVP420	ENEC	-
912300022585	EVP420	ENEC	-

Light technical

Order code	Product family code	Standard tilt angle posttop	Light source flux
912300022583	BVP420	0	87K

Accessories

ZVP420 PAD A0

Precision aiming device

ZVP420 C15K

Extension cable for connecting the EVP420 driver box (IP66) to the light module of the BVP420 floodlight – available in 10, 15 and 25 m lengths

ZVP420 C10K

Extension cable for connecting the EVP420 driver box (IP66) to the light module of the BVP420 floodlight – available in 10, 15 and 25 m lengths

Accessories

Order code	Product family code	Description
910503910039	ZVP420 PAD A0	Precision aiming device
912300022589	ZVP420 C10K	Cable 10 m

Order code	Product family code	Description
912300022590	ZVP420 C15K	Cable 15 m

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