

THREELINE 



**Lighting of
SPORTS
FACILITIES**



Changing the Game.

LED lighting has revolutionised the way sports facilities are illuminated worldwide. Thanks to their energy efficiency, longevity, and advanced control features, LED lighting systems are redefining the sporting experience for both athletes and spectators.

This innovative technology not only enhances the quality of light during sporting events but also contributes to the creation of safer environments. This is a crucial factor for both athletic performance and spectator enjoyment.

One of the main advantages of LED lighting in sports applications is its ability to provide bright, uniform light with a high Colour Rendering Index (CRI).

In addition to having excellent performance, LED lighting systems are highly customisable and can adapt to the specific needs of each sport and type of space. This flexibility allows the creation of optimal environments for any kind of activity, improving the functionality of the sports space. Furthermore, advanced control systems enable the programming of different lighting configurations depending on the type of event and time of day, maximising efficiency and user experience.

Another advantage is the long lifespan and low maintenance requirements, which reduce long-term operational costs. Additionally, as a more environmentally friendly technology, it helps reduce carbon emissions related to energy production.

In conclusion, LED lighting is transforming the landscape of sports lighting, offering superior performance, greater energy efficiency, and lower maintenance needs.

Illuminance and uniformity



Illuminance and luminous uniformity play a fundamental role in ensuring optimal visibility conditions in sports facilities.

Colour Rendering Index



The CRI (Ra) is a crucial value for sports lighting. Therefore, when choosing the lighting system, both the quantity and quality of light must be considered to ensure visibility conditions that enhance athlete performance and spectator experience.

Glare



The recommended glare limit value for outdoor environments is <50 to avoid disturbing players and spectators. The use of asymmetric optics facilitates glare control and ensures a safer and more comfortable visual experience.

Flicker

Flicker can affect athletic performance and is also clearly noticeable to spectators if the event is recorded with cameras and broadcasted. Therefore, it is essential that lighting systems are designed to eliminate this flicker.



Light pollution

The use of projectors with asymmetric lenses is recommended in specific areas and near buildings as they improve light distribution and reduce the light flux emitted from the upper hemisphere.

For long distances, when there is a need to illuminate specific dark areas, symmetric optics with 15° , 30° , and 60° angles are available, suitable for levelling peripheral areas of the field, allowing precise control of the light flux without dispersion.

We also offer accessories such as visors or upper covers to reduce the Upward Light Output Ratio (ULOR) and, consequently, light pollution, in accordance with European Union regulations.



EN 12193 STANDARD.

Lighting of sports facilities.

This standard must be consulted at the beginning of any sports lighting project. It establishes the minimum values of horizontal illuminance, as well as minimum (Emin) and average (Em) uniformity.

Below are the recommendations of the EN 12193 standard for various lighting categories for each sport, both for outdoor and indoor environments.



CLASS I
Top-level competitions.
National and international competitions.



CLASS II
Medium-level competitions.
Regional and local competitions.



CLASS III
General training.
Physical education and recreational activities.

ACTIVITY	Outdoor lighting					
	CLASS I		CLASS II		CLASS III	
	Horizontal Illum. Em (lux)	Uniformity (Emin/Em)	Horizontal Illum. Em (lux)	Uniformity (Emin/Em)	Horizontal Illum. Em (lux)	Uniformity (Emin/Em)
Soccer	500	0,7	200	0,6	75	0,5
Rugby	500	0,7	200	0,6	75	0,5
Tennis	500	0,7	300	0,7	200	0,6
Padel	500	0,7	300	0,7	200	0,6
Basketball	500	0,7	200	0,6	75	0,5
Volleyball	500	0,7	200	0,6	75	0,5
Swimming	500	0,7	300	0,7	200	0,5

ACTIVITY	Indoor lighting					
	CLASS I		CLASS II		CLASS III	
	Horizontal Illum. Em (lux)	Uniformity (Emin/Em)	Horizontal Illum. Em (lux)	Uniformity (Emin/Em)	Horizontal Illum. Em (lux)	Uniformity (Emin/Em)
Soccer	750	0,7	500	0,5	200	0,5
Tennis	750	0,7	500	0,7	300	0,6
Padel	750	0,7	500	0,7	300	0,5
Basketball	750	0,7	500	0,5	200	0,5
Volleyball	750	0,7	500	0,5	200	0,5
Swimming	750	0,7	500	0,7	300	0,5
Judo	750	0,7	500	0,5	200	0,5
Karate	750	0,7	500	0,5	200	0,5

Note: Values refer to the "total play area".

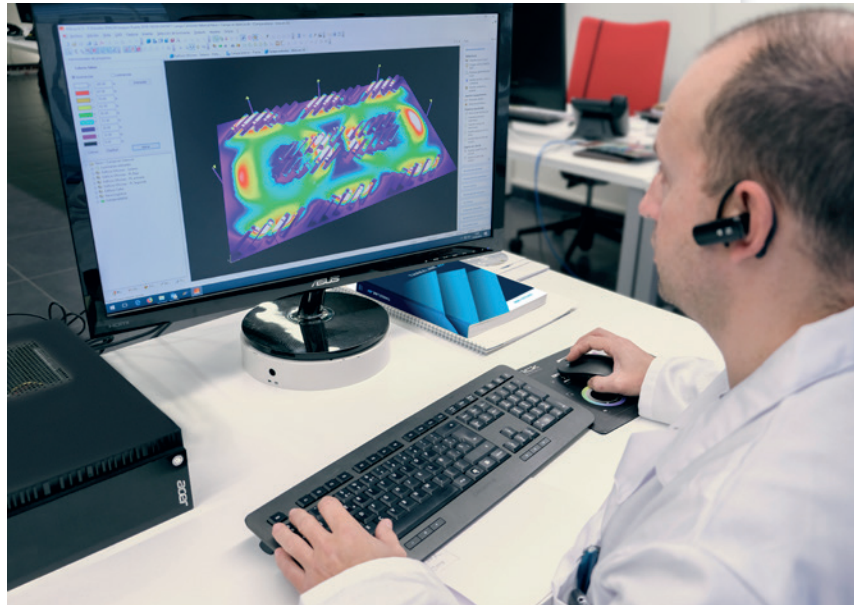
SOLUTIONS FOR SPORTS FACILITIES.

Consulting services for professionals.

We offer a personalised service for the definition of the final project, providing specific consultations and managing all stages of the process comprehensively.

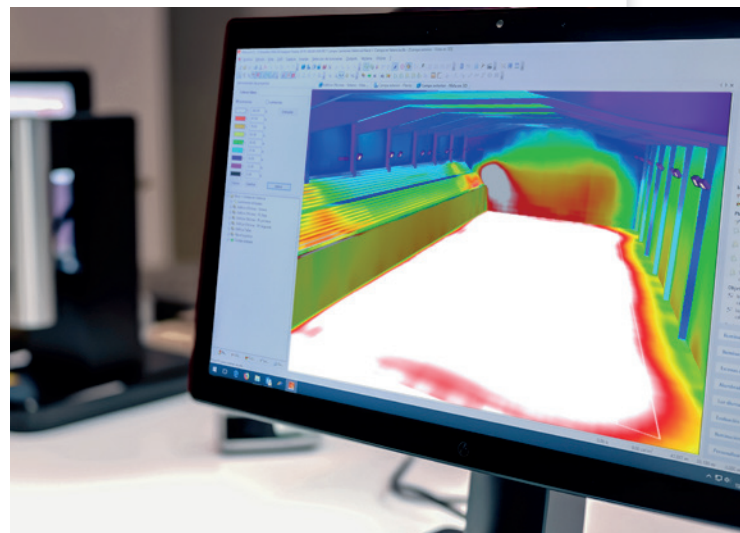
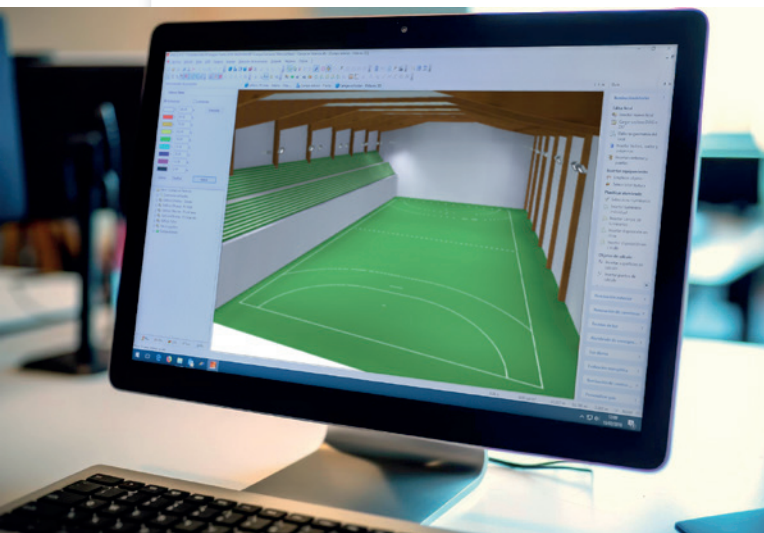
Our goal is to transform customers' ideas into concrete realities through a wide range of specialised studies and reports. We meticulously analyse every technical and aesthetic aspect to ensure that the final result meets the specific expectations and needs of the customer.

For any sports lighting project you wish to undertake, do not hesitate to contact us. We are experts in providing tailored solutions that adapt to your goals and needs, ensuring an optimal and satisfactory result.



Customised Calculations Based on EN 12193 Standards

Our team of engineers specialised in sports lighting is available to analyse customer requests and study their lighting needs.



In this guide, we present six examples of solutions developed by our technical office that meet the lighting requirements established by the EN 12193 standard for different levels of professionalism in soccer, rugby, tennis, padel, basketball, and volleyball.

PREMIUM

OLYMPIC II OLP



Actual 150 lm/W

Optimal heat management

Heat sink
Made of aluminium alloy ADC12

>95% Light transmission lens

5050 High luminosity LED

One driver per module

Design to reduce wind resistance

Powder paint coating

Indication of tilt angle
Easy and precise installation

IK10

IP66

100-277Vac
50/60Hz

+30°
-30°

110°
60°

300 W
OLP0300

600 W
OLP0600

900 W
OLP0900

1200 W
OLP1200

• Dimming options

- 1-10V
- 0-10V
- DALI
- 0-10V/DA Ref. ZIGBEE-010V
- 0-10V/DA Ref. CSB1100A
- 0-10V/DA Ref. DMX-010V

• Lens

- 15°
- 30°
- 60°
- 90°
- 117x34°

ACCESSORIES

Positioning laser
Ref. **LOLP**

Covering to reduce ULOR
(Upward Light Output Ratio)
Ref. **COLPII-A**

PREMIUM

OLYMPIC II OLP

Actual
150 lm/W



5700K



4000K



IP66



IK08



CRI >70



FLICKER FREE



5 YEARS OF WARRANTY



NE RAL9005



V DIFFUSER



AL BODY



PC OPTIC



Optimal heat management



Heat sink

Made of aluminium alloy ADC12

Metallic sheath to protect cable

10 kv surge protection

IP65 Waterproof box

Possibility for remote installation of the driver

Design to reduce wind resistance



Indication of tilt angle

Easy and precise installation

5050 High luminosity LED



IK10

>95% Light transmission lens



IP66

Powder paint coating

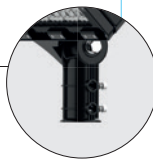
Bracket included

• Optional

Adjustable base
Ref. **BROLPII**



Accessory for pole
Ref. **AMOLPII**



• Dimming options



0-10V



0-10V
Ref. **DALI-PWM**



0-10V
Ref. **ZIGBEE-010V**



0-10V
Ref. **CSBT100A**



0-10V
Ref. **DMX-010V**

• Lens



15°



30°



60°



90°



117x34°



OLP1500



1500 W

OLP1800



1800 W

ACCESSORIES



Positioning laser
Ref. **L0LP**

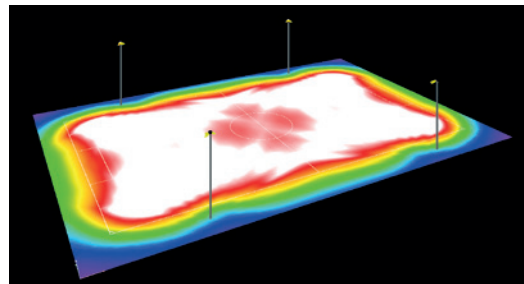
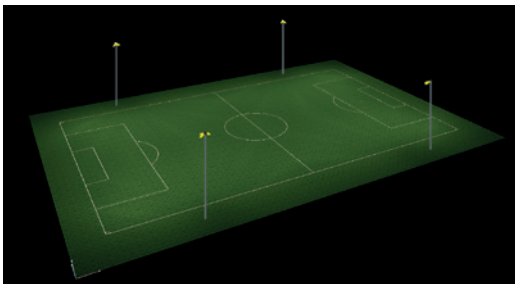


Covering to reduce ULOR
(Upward Light Output Ratio)
Ref. **COLPII-B**

OLYMPIC II OLP



SOCCER



CLASS I

Em (lux)	Emin/Emed
500	0,7

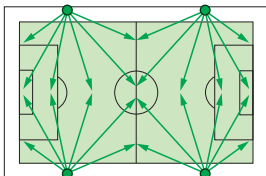
CLASS II

Em (lux)	Emin/Emed
200	0,6



CLASS III

Em (lux)	Emin/Emed
75	0,5

100 x 60 m



Floodlights:

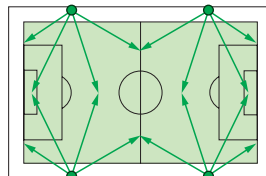
24 | OLP18005730  

1800W 5700K 30°


Poles: **4** Poles height: **20 m**

Em (lux)	Emin/Emed	Total Power
506	0,80	43200W

100 x 60 m



Floodlights:

12 | OLP12005730  

1200W 5700K 30°

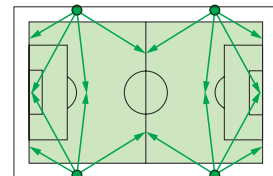
4 | OLP12005760  

1200W 5700K 60°

Poles: **4** Poles height: **20 m**

Em (lux)	Emin/Emed	Total Power
211	0,75	19200W

100 x 60 m



Floodlights:

12 | OLP06005730  

600W 5700K 30°



4 | OLP03005760  

300W 5700K 60°

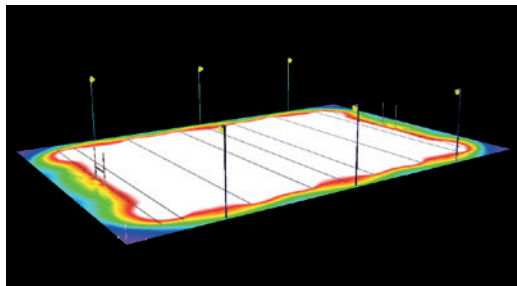
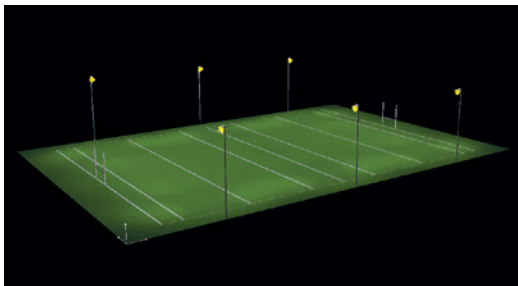


Poles: **4** Poles height: **20 m**

Em (lux)	Emin/Emed	Total Power
82	0,68	8400W

OLYMPIC II OLP

RUGBY



CLASS I

Em (lux) **500** Emin/Emed **0,7**

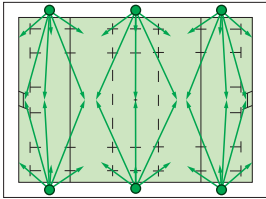
CLASS II

Em (lux) **200** Emin/Emed **0,6**

CLASS III

Em (lux) **75** Emin/Emed **0,5**

100 x 70 m



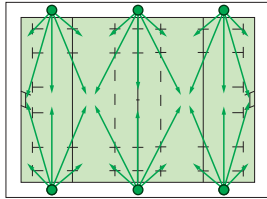
Floodlights:

- 18 | OLP15005730
1500W 5700K 30°
- 12 | OLP09005730
900W 5700K 30°
- 6 | OLP09005760
900W 5700K 60°

Poles: **6** Poles height: **20 m**

Em (lux) **531** Emin/Emed **0,80** Total Power **43200 W**

100 x 70 m



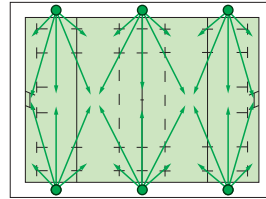
Floodlights:

- 30 | OLP06005730
600W 5700K 30°

Poles: **6** Poles height: **20 m**

Em (lux) **236** Emin/Emed **0,65** Total Power **18000 W**

100 x 70 m



Floodlights:

- 30 | OLP03005730
300W 5700K 30°

Poles: **6** Poles height: **20 m**

Em (lux) **93** Emin/Emed **0,60** Total Power **9000 W**

PRO **LYON** PRL

- 5700K
- 4000K
- 3000K
- IP66
- IK08
- CRI >80
- FLICKER FREE
- 5 YEARS OF WARRANTY
- NE RAL9005
- V TEMP DIFFUSER
- AL BODY
- PC OPTIC
-

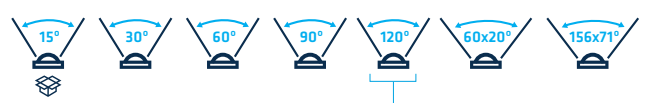
Actual
140 lm/W



Made of aluminium alloy ADC12

Personalised lens

• Lens



• Dimming options

- 0/1-10V
- DALI
- 0-10V/DA
Ref. ZIGBEE-010V
- 0-10V/DA
Ref. CSB110DA
- 0-10V/DA
Ref. DMX-010V

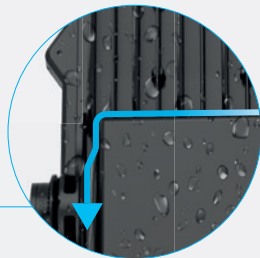
Standard model with frost glass 120°



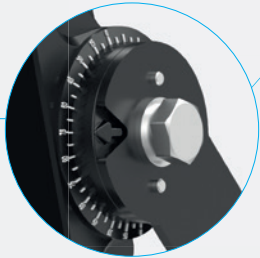
Optimal heat management



Designed to avoid dirt accumulation



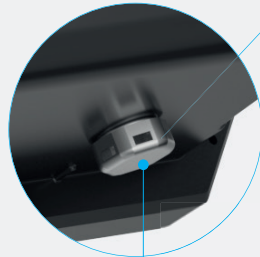
Indication of tilt angle
Easy and precise installation



Waterproof quick connector included



Anti-condensation valve



PRL400 PRL300



400 W



300 W

PRL240 PRL200



240 W



200 W

PRL150 PRL100



150 W



100 W

ACCESSORY

Anti-vandal grille available



• Included



WCIP65

• Optional



IP65
MOTION SENSOR
Ref. SP65V2



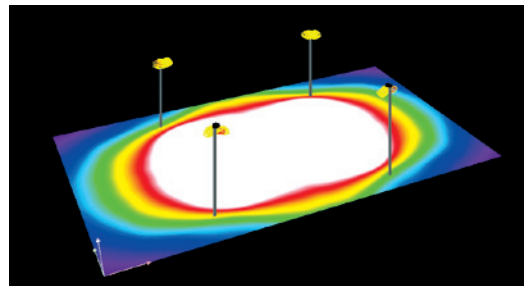
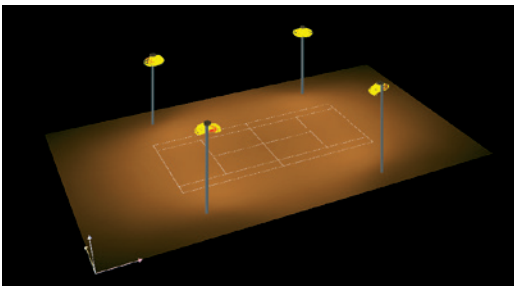
EMERGENCY
KIT



ANTI-VANDAL
GRILLE



TENNIS



CLASS I

Em (lux)	Emin/Emed
500	0,7

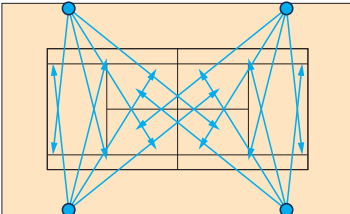
CLASS II

Em (lux)	Emin/Emed
300	0,7




CLASS III

Em (lux)	Emin/Emed
200	0,6

36 x 18 m

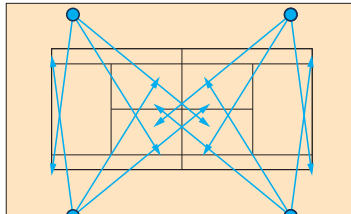


Floodlights:

16 | PRL30057A11   

Poles: **4** Poles height: **10 m**

36 x 18 m

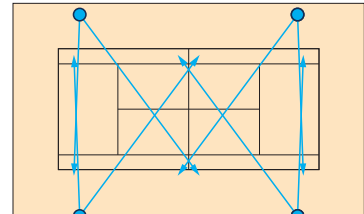


Floodlights:


12 | PRL24057A11   

Poles: **4** Poles height: **10 m**

36 x 18 m



Floodlights:

8 | PRL24057A11   

Poles: **4** Poles height: **10 m**

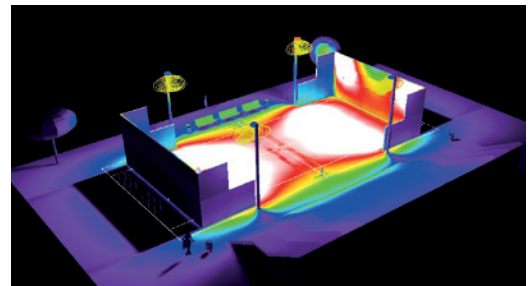
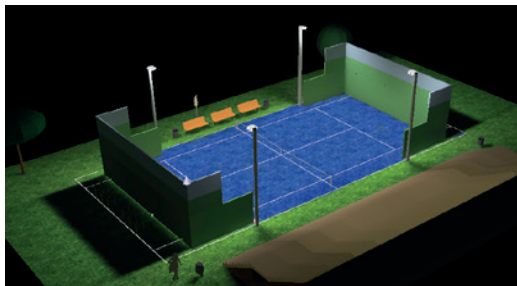
Em (lux)	Emin/Emed	Total Power
508	0,88	4768W

Em (lux)	Emin/Emed	Total Power
305	0,87	2875W

Em (lux)	Emin/Emed	Total Power
211	0,92	1916W



PADEL



CLASS I

Em (lux)	Emin/Emed
500	0,7

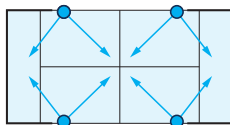
CLASS II

Em (lux)	Emin/Emed
300	0,7

CLASS III

Em (lux)	Emin/Emed
200	0,6

20 x 10 m



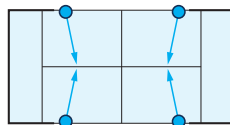
Floodlights:

8 | PRL24057A11   

Poles: **4** Poles height: **10 m**

Em (lux)	Emin/Emed	Total Power
573	0,83	1916W

20 x 10 m



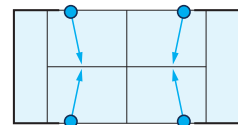
Floodlights:

4 | PRL30057A11   

Poles: **4** Poles height: **10 m**

Em (lux)	Emin/Emed	Total Power
329	0,77	1192W

20 x 10 m



Floodlights:

4 | PRL20057A11   

Poles: **4** Poles height: **10 m**

Em (lux)	Emin/Emed	Total Power
225	0,82	797 W

PRO TELLY HBT

-  5700K
-  4000K
-  IP65
-  IK10
-  CRI >80
-  FLICKER FREE
-  5 YEARS OF WARRANTY
-  RAL9005
-  PC DIFFUSER
-  AL BODY
-  CE

Actual
160 lm/W

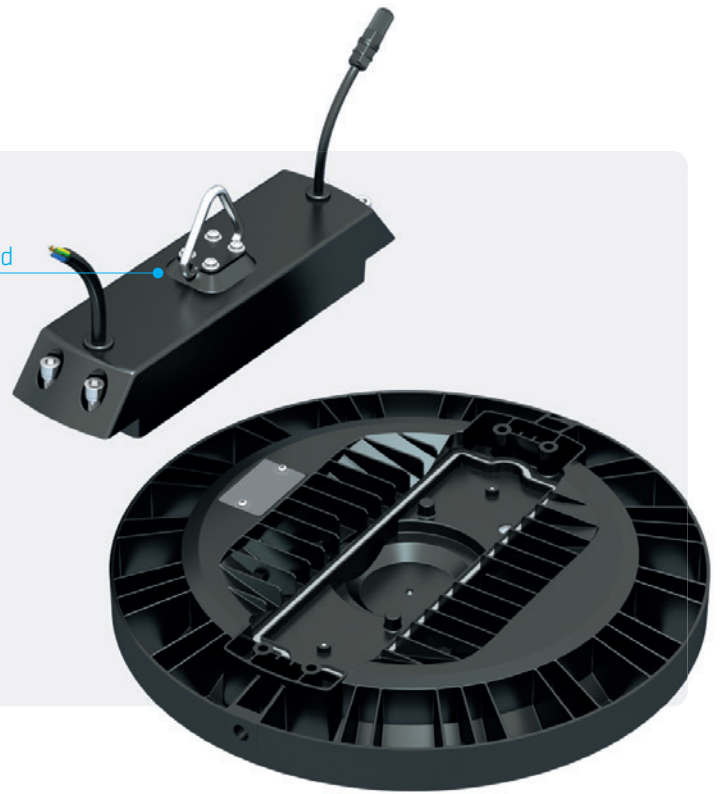


• Lens



Isolated 0-10V dimmable driver included

Its die-cast aluminium body permits an efficient heat management



ACCESSORIES

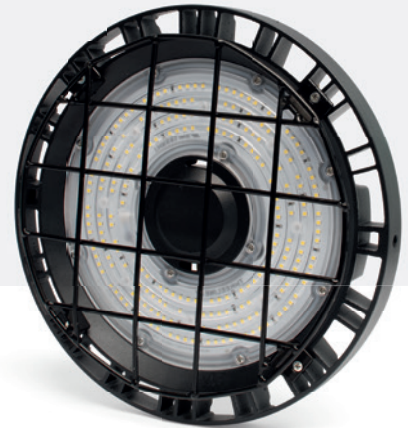
Bracket accessory available



Aluminium reflector accessory available to achieve low UGR



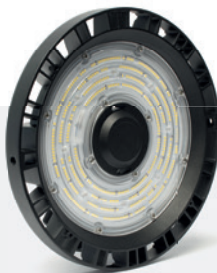
Anti-vandal grille available



HBT100
100 W



HBT150
150 W



HBT200
200 W

• Included



0-10V

• Dimming options



DALI



0-10V/DA
Ref. CSB110DA



0-10V/DA
Ref. ZIGBEE-010V

• Optional



Ref. WCIP65



Ref. RFAHBT



Ref. ASHBT



MOTION SENSOR



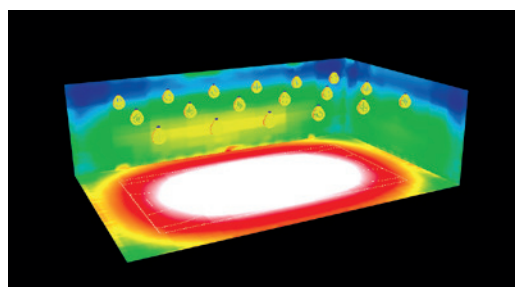
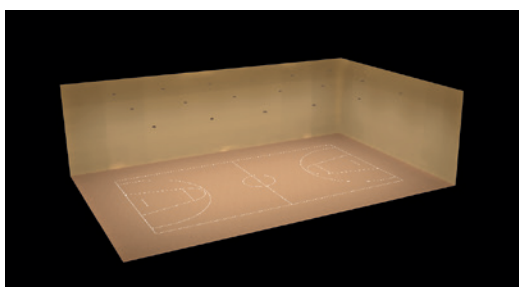
EMERGENCY KIT



ANTI-VANDAL GRILLE



BASKET



CLASS I

Em (lux)	Emin/Emed
750	0,7

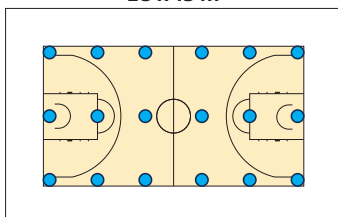
CLASS II

Em (lux)	Emin/Emed
500	0,5

CLASS III

Em (lux)	Emin/Emed
200	0,5

28 x 15 m

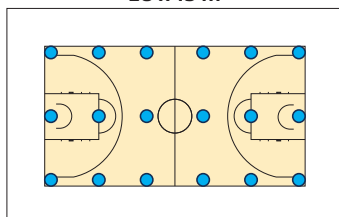


Highbays:

18 | HBT2005790   

Height: 10 m

28 x 15 m

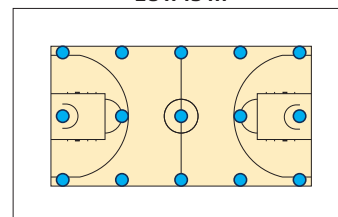


Highbays:

18 | HBT1505790   

Height: 10 m

28 x 15 m



Highbays:

15 | HBT1005790   

Height: 10 m

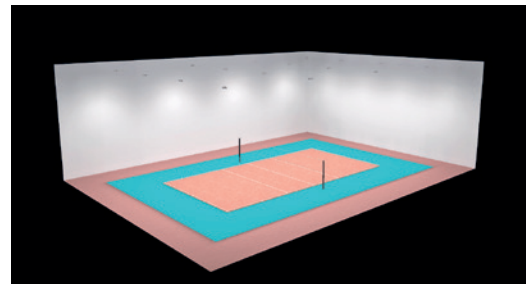
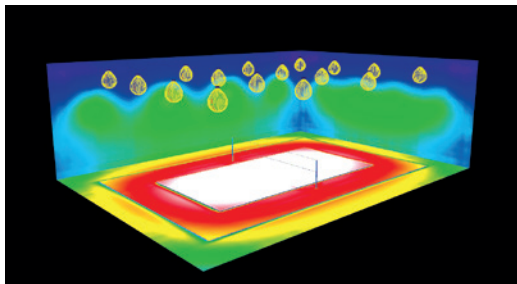
Em (lux)	Emin/Emed	Total Power
771	0,80	3630W

Em (lux)	Emin/Emed	Total Power
579	0,78	2723W

Em (lux)	Emin/Emed	Total Power
322	0,80	1525W



VOLLEYBALL



CLASS I

Em (lux)	Emin/Emed
750	0,7

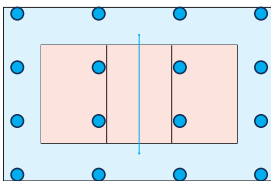
CLASS II

Em (lux)	Emin/Emed
500	0,5

CLASS III

Em (lux)	Emin/Emed
200	0,5

18 x 9 m

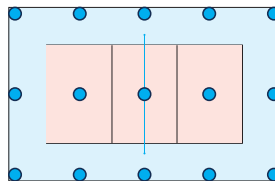


Highbays:

19 | HBT2005790   

Height: **10 m**

18 x 9 m

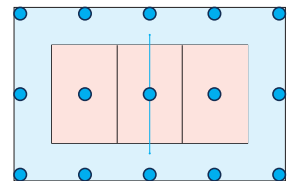


Highbays:

18 | HBT1505790   

Height: **10 m**

18 x 9 m



Highbays:

18 | HBT1005790   

Height: **10 m**

Em (lux)	Emin/Emed	Total Power
752	0,94	3832W

Em (lux)	Emin/Emed	Total Power
523	0,79	2723W

Em (lux)	Emin/Emed	Total Power
329	0,81	1830W

OLYMPIC II OLP

OLP0300



MODEL	OPTIONS	CCT	W	Beam Spread	Beam Spread	Beam Spread
OLP03005715	*	5700K	300 W	42000 lm	36000 lm	15°
OLP03004015	*	4000K	300 W	42000 lm	36000 lm	15°
OLP03005730	*	5700K	300 W	51000 lm	45000 lm	30°
OLP03004030	*	4000K	300 W	51000 lm	45000 lm	30°
OLP03005760	*	5700K	300 W	51000 lm	45000 lm	60°
OLP03004060	*	4000K	300 W	51000 lm	45000 lm	60°
OLP03005790	*	5700K	300 W	51000 lm	45000 lm	90°
OLP03004090	*	4000K	300 W	51000 lm	45000 lm	90°
OLP030057A16	*	5700K	300 W	51000 lm	45000 lm	117x34°
OLP030040A16	*	4000K	300 W	51000 lm	45000 lm	117x34°

OLP0600



OLP06005715	*	5700K	600 W	84000 lm	72000 lm	15°
OLP06004015	*	4000K	600 W	84000 lm	72000 lm	15°
OLP06005730	*	5700K	600 W	102000 lm	90000 lm	30°
OLP06004030	*	4000K	600 W	102000 lm	90000 lm	30°
OLP06005760	*	5700K	600 W	102000 lm	90000 lm	60°
OLP06004060	*	4000K	600 W	102000 lm	90000 lm	60°
OLP06005790	*	5700K	600 W	102000 lm	90000 lm	90°
OLP06004090	*	4000K	600 W	102000 lm	90000 lm	90°
OLP060057A16	*	5700K	600 W	102000 lm	90000 lm	117x34°
OLP060040A16	*	4000K	600 W	102000 lm	90000 lm	117x34°

OLP0900



OLP09005715	*	5700K	900 W	126000 lm	108000 lm	15°
OLP09004015	*	4000K	900 W	126000 lm	108000 lm	15°
OLP09005730	*	5700K	900 W	153000 lm	135000 lm	30°
OLP09004030	*	4000K	900 W	153000 lm	135000 lm	30°
OLP09005760	*	5700K	900 W	153000 lm	135000 lm	60°
OLP09004060	*	4000K	900 W	153000 lm	135000 lm	60°
OLP09005790	*	5700K	900 W	153000 lm	135000 lm	90°
OLP09004090	*	4000K	900 W	153000 lm	135000 lm	90°
OLP090057A16	*	5700K	900 W	153000 lm	135000 lm	117x34°
OLP090040A16	*	4000K	900 W	153000 lm	135000 lm	117x34°

OLP1200



OLP12005715	*	5700K	1200 W	168000 lm	144000 lm	15°
OLP12004015	*	4000K	1200 W	168000 lm	144000 lm	15°
OLP12005730	*	5700K	1200 W	204000 lm	180000 lm	30°
OLP12004030	*	4000K	1200 W	204000 lm	180000 lm	30°
OLP12005760	*	5700K	1200 W	204000 lm	180000 lm	60°
OLP12004060	*	4000K	1200 W	204000 lm	180000 lm	60°
OLP12005790	*	5700K	1200 W	204000 lm	180000 lm	90°
OLP12004090	*	4000K	1200 W	204000 lm	180000 lm	90°
OLP120057A16	*	5700K	1200 W	204000 lm	180000 lm	117x34°
OLP120040A16	*	4000K	1200 W	204000 lm	180000 lm	117x34°

* Dimming options

- D1 (0-10V)
- D2 (DALI)

OLP1500



OLP15005715	—	5700K	1500 W	210000 lm	180000 lm	15°
OLP15004015	—	4000K	1500 W	210000 lm	180000 lm	15°
OLP15005730	—	5700K	1500 W	255000 lm	225000 lm	30°
OLP15004030	—	4000K	1500 W	255000 lm	225000 lm	30°
OLP15005760	—	5700K	1500 W	255000 lm	225000 lm	60°
OLP15004060	—	4000K	1500 W	255000 lm	225000 lm	60°
OLP15005790	—	5700K	1500 W	255000 lm	225000 lm	90°
OLP15004090	—	4000K	1500 W	255000 lm	225000 lm	90°
OLP150057A16	—	5700K	1500 W	255000 lm	225000 lm	117x34°
OLP150040A16	—	4000K	1500 W	255000 lm	225000 lm	117x34°

OLP1800



OLP18005715	—	5700K	1800 W	252000 lm	216000 lm	15°
OLP18004015	—	4000K	1800 W	252000 lm	216000 lm	15°
OLP18005730	—	5700K	1800 W	306000 lm	270000 lm	30°
OLP18004030	—	4000K	1800 W	306000 lm	270000 lm	30°
OLP18005760	—	5700K	1800 W	306000 lm	270000 lm	60°
OLP18004060	—	4000K	1800 W	306000 lm	270000 lm	60°
OLP18005790	—	5700K	1800 W	306000 lm	270000 lm	90°
OLP18004090	—	4000K	1800 W	306000 lm	270000 lm	90°
OLP180057A16	—	5700K	1800 W	306000 lm	270000 lm	117x34°
OLP180040A16	—	4000K	1800 W	306000 lm	270000 lm	117x34°

LYON PRL

PRL100



OPTIONS	CCT	W	Beam	Beam
PRL10057120 *	5700K	100 W	16000 lm	14000 lm
PRL10040120 *	4000K	100 W	16000 lm	14000 lm
PRL10030120 *	3000K	100 W	15700 lm	13500 lm

PRL150



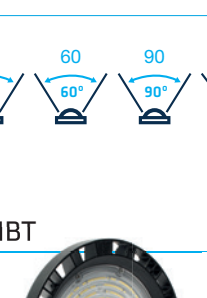
OPTIONS	CCT	W	Beam	Beam
PRL15057120 *	5700K	150 W	24000 lm	21000 lm
PRL15040120 *	4000K	150 W	24000 lm	21000 lm
PRL15030120 *	3000K	150 W	23550 lm	20250 lm

PRL200



OPTIONS	CCT	W	Beam	Beam
PRL20057120 *	5700K	200 W	32000 lm	28000 lm
PRL20040120 *	4000K	200 W	32000 lm	28000 lm
PRL20030120 *	3000K	200 W	31400 lm	27000 lm

PRL240



OPTIONS	CCT	W	Beam	Beam
PRL24057120 *	5700K	240 W	38400 lm	33600 lm
PRL24040120 *	4000K	240 W	38400 lm	33600 lm
PRL24030120 *	3000K	240 W	37680 lm	32400 lm

PRL300

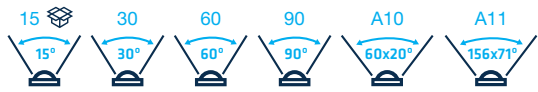


OPTIONS	CCT	W	Beam	Beam
PRL30057120 *	5700K	300 W	48000 lm	42000 lm
PRL30040120 *	4000K	300 W	48000 lm	42000 lm
PRL30030120 *	3000K	300 W	47100 lm	40500 lm

PRL400



• Lens



* Optional

- S1 IP65 motion sensor
- E Emergency kit
- AV Anti-vandal grille

TELLY HBT

HBT100



OPTIONS	CCT	W	Beam	Beam	Beam
HBT1005760 *	5700K	100 W	18000 lm	16000 lm	60°
HBT1004060 *	4000K	100 W	18000 lm	16000 lm	60°
HBT1005790 *	5700K	100 W	18000 lm	16000 lm	90°
HBT1004090 *	4000K	100 W	18000 lm	16000 lm	90°
HBT10057120 *	5700K	100 W	18000 lm	16000 lm	120°
HBT10040120 *	4000K	100 W	18000 lm	16000 lm	120°

HBT150



OPTIONS	CCT	W	Beam	Beam	Beam
HBT1505760 *	5700K	150 W	27000 lm	24000 lm	60°
HBT1504060 *	4000K	150 W	27000 lm	24000 lm	60°
HBT1505790 *	5700K	150 W	27000 lm	24000 lm	90°
HBT1504090 *	4000K	150 W	27000 lm	24000 lm	90°
HBT15057120 *	5700K	150 W	27000 lm	24000 lm	120°
HBT15040120 *	4000K	150 W	27000 lm	24000 lm	120°

HBT200



OPTIONS	CCT	W	Beam	Beam	Beam
HBT2005760 *	5700K	200 W	36000 lm	32000 lm	60°
HBT2004060 *	4000K	200 W	36000 lm	32000 lm	60°
HBT2005790 *	5700K	200 W	36000 lm	32000 lm	90°
HBT2004090 *	4000K	200 W	36000 lm	32000 lm	90°
HBT20057120 *	5700K	200 W	36000 lm	32000 lm	120°
HBT20040120 *	4000K	200 W	36000 lm	32000 lm	120°

* Dimming options

- D2 DALI

* Optional

- S3 Motion sensor
- AV Anti-vandal grille
- E Emergency kit

THREELINE 

