



DDK-LED Sports Light

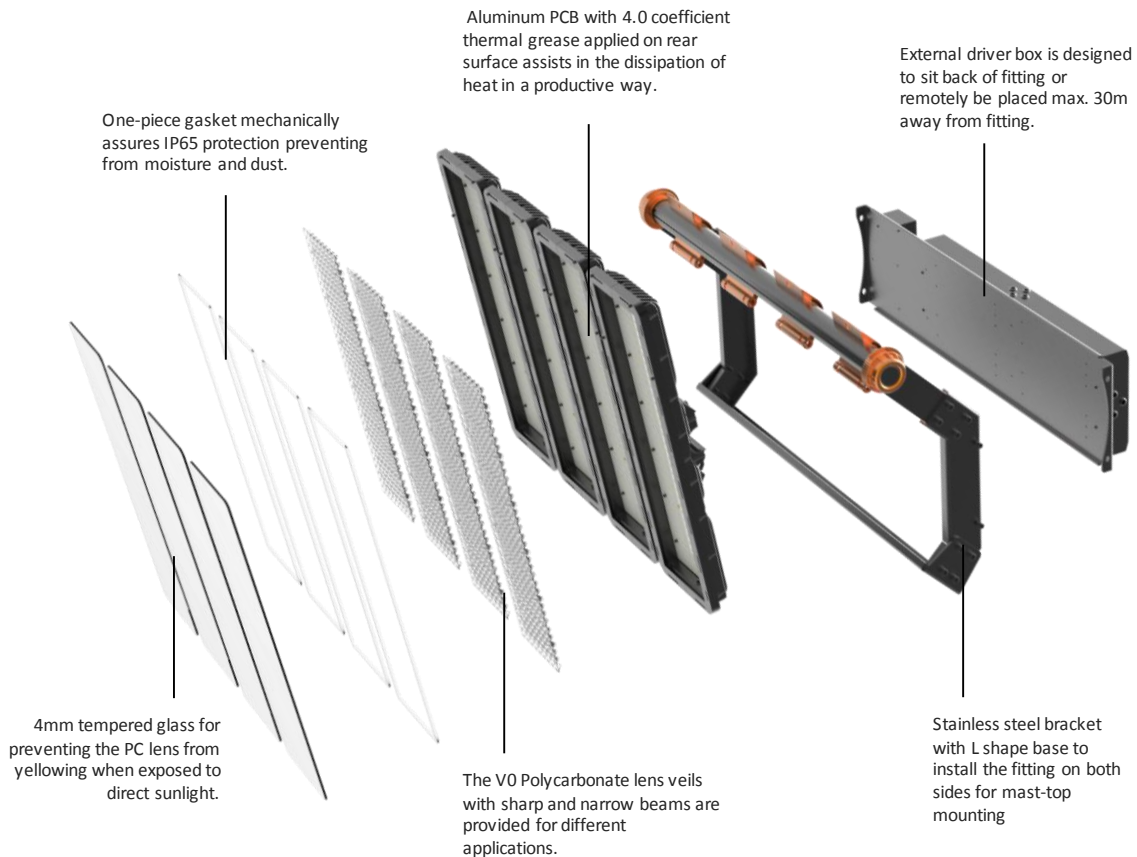
Inheriting the reliability of their predecessors, the HW series continuously maintains high performance with low energy consumption adapting Philips driver and LEDs. Meanwhile, effectively reducing spill light while maintaining luminance levels make the surrounded residents live in a comfortable environment without light pollution.



5 years
warranty

CE RoHS





Product Parameter

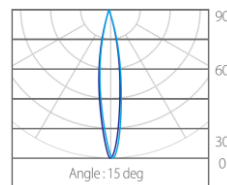
	Part No.	Power	Voltage	CRI	PF	Lumen output@4000K
145lm/W	FK-VX470-XXN-HW	470W	180-305VAC	>70	>0.95	68150lm
145lm/W	FK-VX705-XXN-HW	705W	180-305VAC	>70	>0.95	102225lm
145lm/W	FK-VX940-XXN-HW	940W	180-305VAC	>70	>0.95	136300lm
135lm/W	FK-VX470-XXN-FW	470W	180-305VAC	>70	>0.95	63450lm
135lm/W	FK-VX705-XXN-FW	705W	180-305VAC	>70	>0.95	95175lm
135lm/W	FK-VX940-XXN-FW	940W	180-305VAC	>70	>0.95	126900lm

Specifications

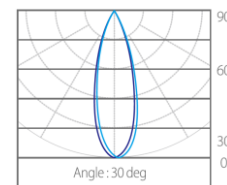
Operating temperature range	-40°C to +55°C
Driver vendor	Meanwell
LEDs vendor	Seoul semiconductor
Smart control options	DALI dimming
	1-10V dimming
Material	Structure: Extruded ADC12
	Finish: Powder coated
	Lens: Polycarbonate
	Glass: Tempered glass
Color	Matte black
Mounting options	Suspended /wall mounted
IP grade	IP66
.IES / .LDT file	Available

X: L-Regular / D-Dimmable / A-DALI
 XX: S01 / S04

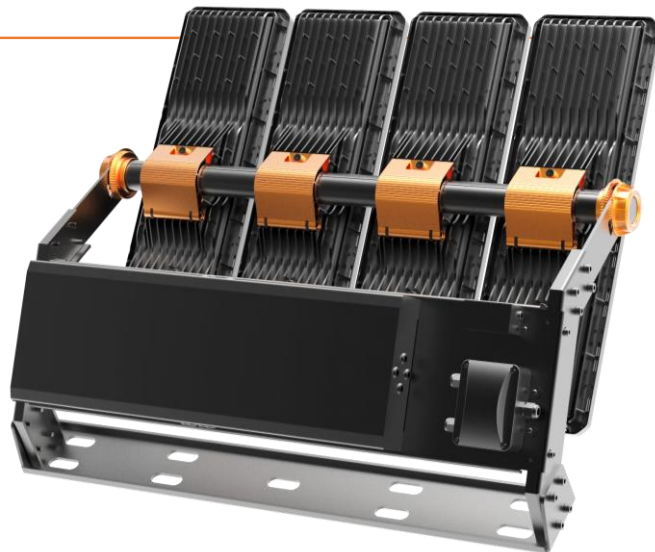
Light distribution curve



Sharp beam symmetric
S04



Narrow beam symmetric
S01

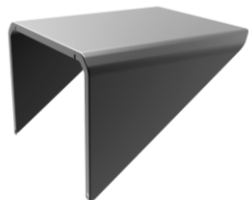


Materials and Finish

The single-piece extruded heat sink adapts aluminum ADC12 as raw material for the best effect of heat management.

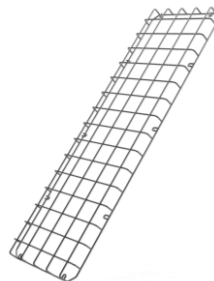
Stainless steel screws, bracket and driver box not only ensures the strength but also eliminate the risk of possible fracture caused by corrosion when being used in harsh condition.

Polyester resin for powder coating which is resistant to corrosion and saline environments.



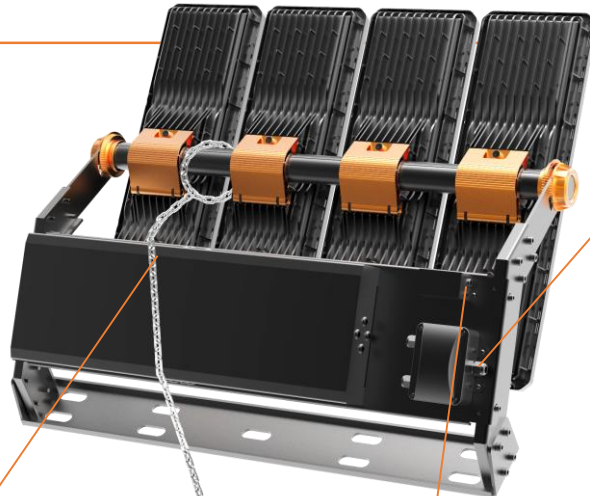
Visor to trim the excess upward light

Spill or obtrusive light is light which spills out of the playing surface and into surrounding areas, such as residential zones or parking aprons etc.. The visor is specially designed to trim the excess upward light for excellent control of spill light and limitation of glare.



Wireguard to protect the fixture

The stainless steel wireguard is designed to protect the fixture from hitting by high speed objects such as birds or balls.

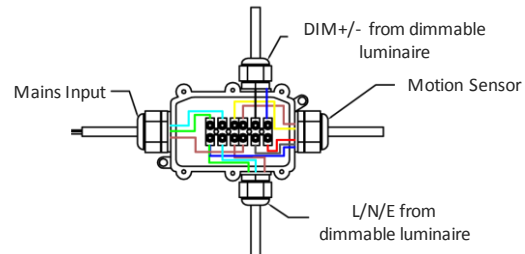


Protection Chain

Although the HW series have been proved to withstand winds of Beaufort force 12 by Wind Tunnel testing, an additional stainless steel chain would be provided for further protection on request.

Junction Box IP66

Product Code	84-1100-0005
Dimension(mm)	130*55*37
--- Built-in VDE listed terminal block	



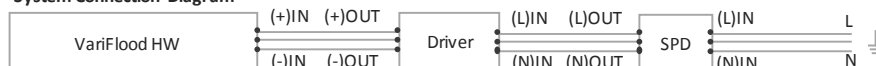
The wiring scheme is suitable for 1-10v dimmable VariFlood HW with microwave motion sensor to achieve 3-step dimming function.

Surge Protector

Part No.	SPD-ZGDD10-320(P4)
Surge handling capability	10 KV
Working temperature	-40°C ~ +70°C
IP grade	67
Compliance with	IEC61000-4-5

- SPD can effectively protect the lamp after the occurrence of a surge;
- The artful appearance, easy to install;
- IP67 dust prevention water proofing can be used for outdoor applications;
- SPD-ZGDD10-320(P4) is suitable for PHILIPS driver.

System Connection Diagram



Precision Aiming

Our lighting designer could help you with your planning for the areas you're willing to light up, whether it is a sport pitch or a car parking. When the planning scheme is developed and approved, the installation and aiming of floodlights as planned will become quite crucial. The precision aiming device will assist to precisely align the light to aiming point with a green laser ray of maximum 300m distance projecting ability. All is to make your work much easier and high efficient.



Detachable External Driver Box

As per rule-of-thumb, 99% failures of LED floodlight are caused by drivers. In practical use, even branded drivers could encounter problems.

The external driver box is designed to either sit behind lampbody on the top of mast or remotely be placed at the bottom of mast for easy access of wiring and driver maintenance. Thanks to the unique design of low current, it helps to efficiently reduce the line loss and allow 30m distance between driver output and lampbody.

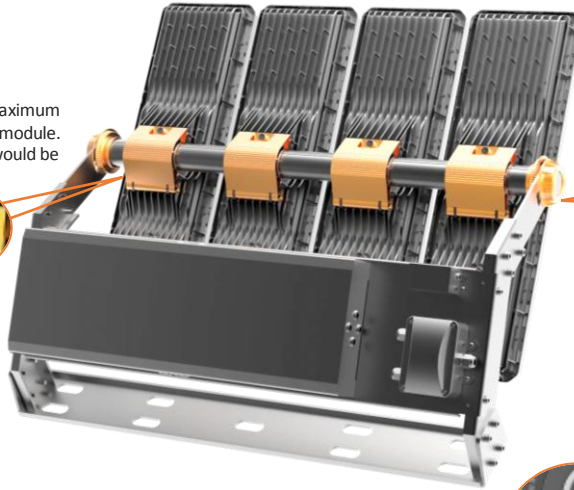
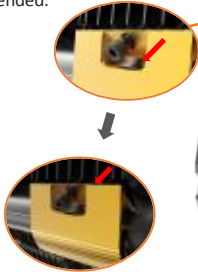


Easily Adjustable

To illuminate a particular sport field, having the right light simulation output with software is only half of the battle. VariFlood HW series with primary and fine adjustment caters to the rotation ability of 0-90 for the whole fitting and 0-30deg for respective module, which maximally realizes the aiming angle determined by light simulation. Only the seamless combination could get the mission accomplished.

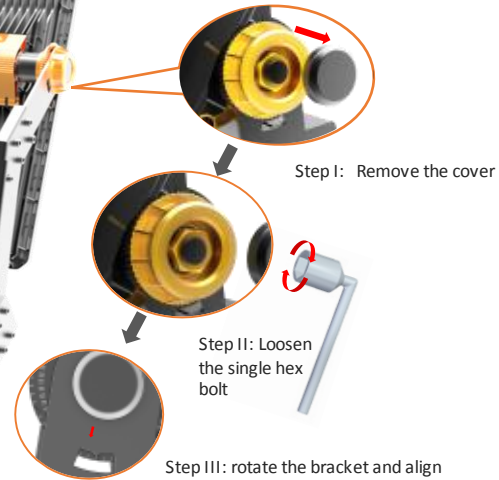
Fine Adjustment

Loosen and pull out the bolt in maximum 1cm to allow tilting of respective module. 0deg/ 15deg/ 30deg adjustable would be recommended.



Primary Adjustment

Loosen the single hex head bolt and adjust the tilt with protractor scale for precise aiming of floodlight. Incremental 6deg tick marks are provided in the casting to facilitate the alignment of multiple fittings.



Direct Replacement

1 x 940W
VariFlood HW

to

1 x 2100W
HID Light

High
Light efficiency

140 lm/w

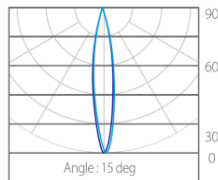
55% on
energy saving

0\$ increased cost on
installation

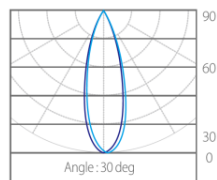
Precision designed optics

HW series with 15deg sharp beam and 30deg narrow beam provide precise circular pattern into center of sports lighting field from corner high mast, which makes it an ideal solution especially for soccer/ hockey/ football field. In the meantime, the cut-off beam especially delivers the light exactly to where required and help to reduce the obtrusive light.

Sharp beam symmetric
S04




Narrow beam symmetric
S01

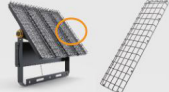


Accessories


VariFlood HW




Precision aiming device



Wireguard



Protection Chain




Visor

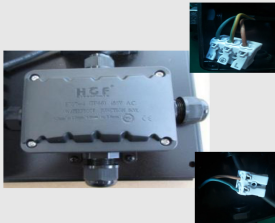
Wiring

VariFlood HW

IP68 male/female connector



Junction box with 2-pin or 3-pin terminal blocks

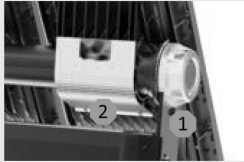



Installation


VariFlood HW

Primary and fine adjustment helps to cater to the rotation ability of 0-90 for the whole fitting and 0-30deg for respective module, which maximally realizes the aiming angle determined by light simulation.

(1)Primary adjustment
(2)Fine adjustment

a, The power module can be fixed by screws with the lamp together the expected angle.



b, The power module can also be fixed separately closer to the ground for easy maintenance.



Application

Outdoor Soccer Pitch

Soccer is a ground level sport with the ball traveling very high into the air. When lighting a soccer pitch, the objective is to ensure good visibility enabling players to follow the progress of a game. The ball, regardless of its location and speed, should always be clearly visible.

According to EN12193, all sports fields can be classified into 3 levels as below:

Class	I	II	III
Level of competition	<ul style="list-style-type: none">• International and National• Regional• Local	<ul style="list-style-type: none">• Regional• Local• Training	<ul style="list-style-type: none">• Local• Training• Recreational/School sports



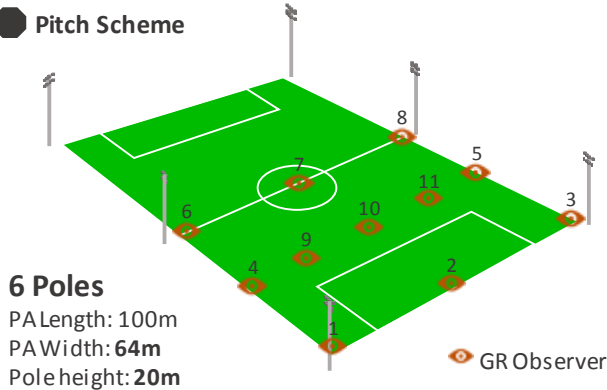
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Solution for Class II Outdoor Soccer Pitch

EN12193 Requirement

Class	Horizontal illuminance		GR	Ra
	\bar{E}_m	E_{min}/\bar{E}_m		
II	200 lx	0.6	50	60

Pitch Scheme



Luminaire Data



18 x 940W
 ⇄
 18x 2100W HID

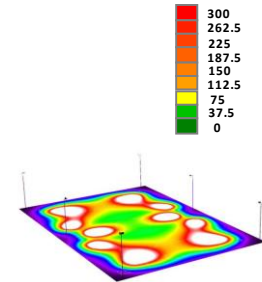


Photometry at 0° tilt

Model name	FK-VL940
Luminous flux (Luminaries)	135334lm
Luminaire wattage	940W
Optics being Used	S01
Ra	>70
Color temperature	5000K
Qty. being Used	18pcs

Simulation Data

Eav [lx]	238
Emin [lx]	144
Emax [lx]	448
Emin / Eav	0.61
Emin / Emax	0.32
GR max	44
ULR	4.0%
Maintenance factor	0.8



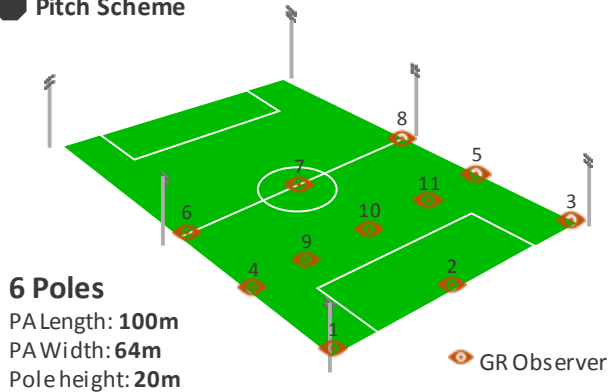
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Solution for Class III Outdoor Soccer Pitch

EN12193 Requirement

Class	Horizontal illuminance		GR	R a
	\bar{E}_m	E_{min} / \bar{E}_m		
III	75 lx	0.5	55	20

Pitch Scheme



Luminaire Data



8 x 940W
 ⇕
 8x 2100W HID

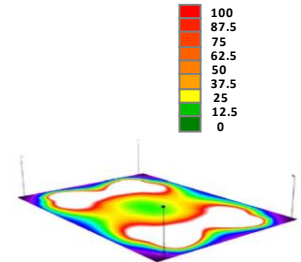


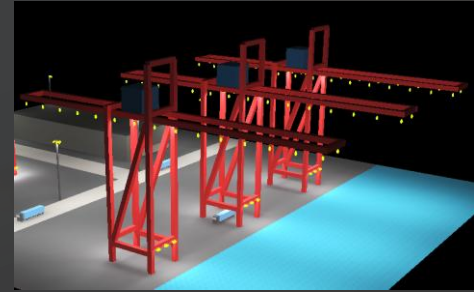
Photometry at 0° tilt

Model name	FK-VL940
Luminous flux (Luminaries)	135334lm
Luminaire wattage	940W
Optics being Used	S01
Ra	>70
Color temperature	5000K
Qty. being Used	8pcs

Simulation Data

Eav [lx]	101
Emin [lx]	50
Emax [lx]	240
Emin / Eav	0.5
Emin / Emax	0.21
GR max	46
ULR	4.5%
Maintenance factor	0.8





Application I Quay Crane

- Under the operator cabin
- Under the boom arm
- Sideways

Quay cranes are facilities used to move containers from a vessel onto a cargo truck. Luminaries for this area are not only required to be vibration resistance but also need to offer adequate light on the ground for safe operations.

Lighting Requirement

	\bar{E} m	U0	Ra
Under the operator cabin	150 lx	0.5	20
Under the boom arm	100 lx	0.5	20
Sideways	50 lx	0.4	20

Main Lighting Area

A-Quay Crane

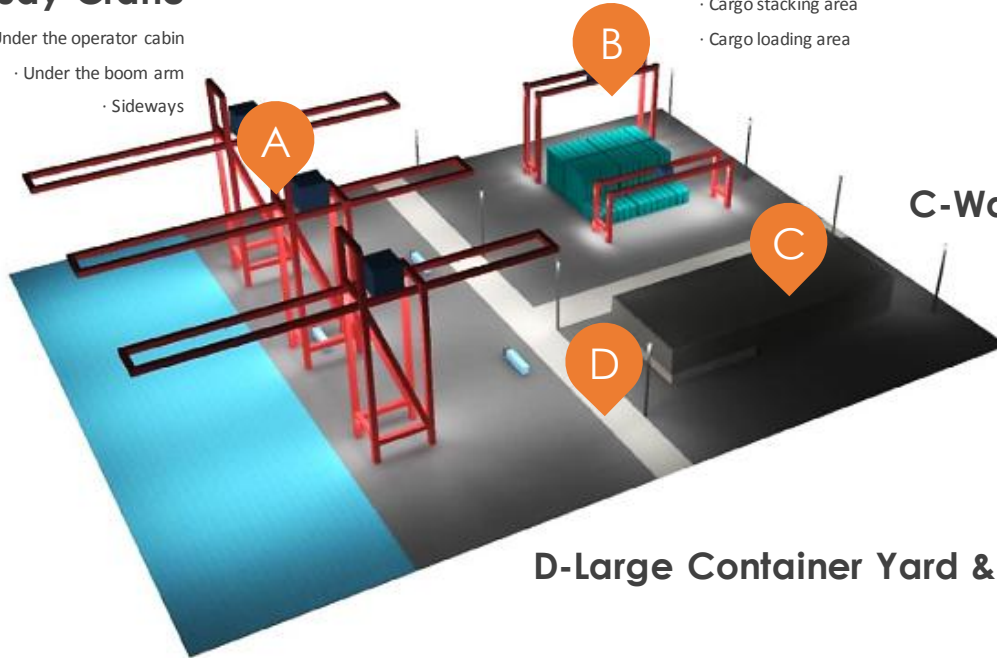
- Under the operator cabin
- Under the boom arm
- Sideways

B-Gantry Crane

- Cargo stacking area
- Cargo loading area

C-Warehouse

D-Large Container Yard & Roadways

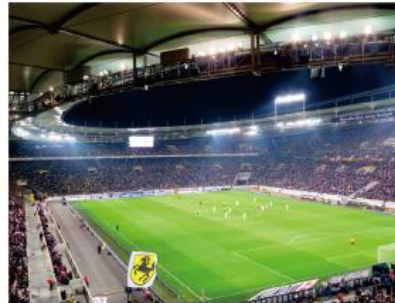


References

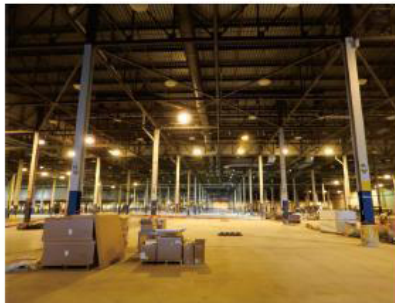
German Large industrial workshop



Ireland stadium



BMW Auto Parts Workshop



Germany Hamburg Wharf





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