## PHILIPS

ClearFlood family

Area & recreational sports lighting

The I want



**Product guide** 

通道:

## 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.







Using the latest LEDGINE optimized platform





## 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



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## CityTouch Ready!

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



ENEC certified and VDE BALL proof

Area & recreational sports lighting

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ClearFlood

ClearFlood

## **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°/+90° Max adjustment from the horizontal: -170° to +170°

## 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 energysaving 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 costefficiency, 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.











Tailor-made solutions

# **LEDGINE** optimized

Standardized optics Standard engine

A REPORT OF

Area & recreational sports lighting

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ClearFlood

LEDGINE

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 predefined 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 :



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



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





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

OFA52



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

DX60



Asymmetrical floodlight distribution

Area & recreational sports lighting

ClearFlood

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Lighting performance

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## Portfolio of optics

## Luminance classes (M)



## From narrow to wide geometries

## Illuminance classes (P, C)

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DM50





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## Dedicated applications

Optics+BL1

Optics+BL2



OFA52







## 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





## 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.

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CityTouch



## **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-therange 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*
Controls & interfaces		
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)

### **Others functions**

CLO (Constant Light Output)	Х	X
MTP (Module temperature protection)	X	X

\*Higher Lumen package with L tune tool



# PerfectPlay

PerfectPlay is an intelligent sports lighting system which offers huge potential to reduce energy costs and other operationalexpenditure. 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**"

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ClearFlood

Serviceability

## 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°/+90°, -170°/+170°
- 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  $(2-4 \text{ mm}^2 \text{ wires section}).$
- 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 twocompartment 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,
- $\cdot$  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 mm²





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



L**...Tune** 

ClearFlood

ClearFlood

## Specifications

Consult LTUNE tool for higher lumon package     Min/ Max (Leff Flux)     Min/ Max (Leff Flux)       Valuage (WW)     H1 550-7300 tm 45/32     Lit ED-H8 31800 -76100 tm 45/32       Valuage (WW)     H1 550-7300 tm 45/32     Lit ED-H8 31800 -76100 tm 45/32       Valuage (WW)     H1 6230 - M2200     Lit ED-H8 31800 -76100 tm 45/32       Valuage (WW)     H1 6230 - M2200     Lit ED-H8 31800 -76100 tm 45/32       Valuage (WW)     H1 6230 / M2     Lit ED-H8 31800 -76100 tm 45/32       Valuage (WW)     H1 6230 / M2     Lit ED-H8 31800 -76100 tm 45/32       Valuage (WW)     H1 6430 / M2     Lit ED-H8 31800 -76100 tm 45/32       Valuage (WW)     Min 0041 / M4x (DW)     DV 400 / M2     DV 400 / M2       Valuage (WW)     Min 0041 / M4x (DW)     DV 400 / M2     DV 400 / M2       Valuage (WW)     Min 0041 / M4x (DW)     Min 0041 / M4x (DW)     Min 0041 / M4x (DW)       Valuage (WW)     X1 / M2 / M2     Min 0041 / M1X (M4x) (DW)     Min 0041 / M1X (M4x) (DW)       Valuage (WW)     X2 / M2 /	Type name	ClearFlood – BVP650	ClearFlood Large – BVP651
LED-HB 7250-43950 Im-45/740         LALED-HB 31800-750100 Im-45/740           Biffnacy         up to 130 m/W         285 to 520W           Efficacy         up to 130 m/W         100 m/W           LID number         44 6 4.87 120         184           Efficacy         up to 130 m/W         194           CT         NW (Nextral white 4000K) (W Kool White 5700K) / WW (Warm White 3000K).         0.97           CT         NW (Nextral white 4000K) (W Kool White 5700K) / WW (Warm White 3000K).         0.97           Light distribution / optic / loaves         Asymmetrical and symmetrical distributions         0.97           Light distribution / optic / loaves         Sy CH A22 (DS 100KN) (DM 10         0.90 A/ 220 (DS 10KN) (DM 10           Mann must Voltage         200 A/ 220 (DS 10KN) (DM 10         0.90 A/ 220 (DS 10KN) (DM 10           Mann must Voltage         200 A/ 220 (DS 10KN) (DM 10         0.90 A/ 220 (DS 10KN) (DM 10           Mann must Voltage         200 A/ 220 (DS 10KN) (DM 10         0.90 A/ 220 (DS 10KN) (DM 10           Mann must Voltage         200 A/ 220 (DS 10KN) (DM 10         0.90 A/ 220 (DS 10KN) (DM 10           Mann must Voltage         100 A/ 220 (DS 10KN) (DM 10         0.90 A/ 220 (DS 10KN) (DM 10           Mann must Voltage         100 A/ 220 (DS 10KN) (DM 10         0.90 A/ 220 (DS 10KN) (DM 10           Mann must Voltage	•••••••••••••••••••••••••••••••••••••••	Min/ Max (Hot Flux)	Min/ Max (Hot Flux)
IFD-IIII 2260-63050 m. 45/757         INITD-IIII 23400-56100 m. 45/830           Varianse (NM)         44 5 270W         28 5 b 23W           Efficacy         us to 140 m/W         us to 130 m/W           Efficacy         us to 140 m/W         us to 130 m/W           Efficacy         184           Power frame         46.648/120         184           Power frame         186.45120         184           Power frame         180.45020 (WW)         184           Power frame         200.4502 (WW)         184           Power frame         200.4502 (WW)         184           Itel time / Lumin maintenance         200.4502 (WW)         200.4502 (WW)           Itel time / Lumin maintenance         200.4502 (WW)         200.4502 (WW)           Main input Veillage         200.240 WC (SP of 56-64c         200.4502 (WW)           Devine Summary 2200 (SP of 500 (WW)         240.4720 (W         200.4502 (WH)           Main input Veillage         200.4502 (WW)         440.4720 (W         200.4502 (WH)           Devine Summary 220 (WW)         240.4720 (WH)         200.4502 (WH)         240.4720 (WH)           Devine Summary 220 (WW)         240.4720 (WH)         200.4502 (WH)         240.4720 (WH)           Devind Summary 220 (WW)         240 (WH)		LED-HB 5350-32300 lm-4S/830	1xLED-HB 31800-76100 lm-4S/757
Wattage (W)         44 to 270W         285 to 5/2W           Effacey         up to 240 m/W         up to 130 m/W           LED number         48,64,82 L00         184           Power factor         Mo. 038 / Max. 039         0,37           CCT         NW (Neutid white 4000K) (W (coul White 5700K) / WW (Mam, White 3000K)         CCT           CR         70 (NW & CW, 70 (W coul White 5700K) / WW (Mam, White 3000K)         CCT           CR         70 (NW & CW, 70 (W coul White 5700K) / WW (Mam, White 3000K)         CCT           Light during the provide state states		LED-HB 7250-43950 lm-4S/740	1xLED-HB 31800-76100 lm-4S/740
Efficacy         up to 140 InvW         up to 130 InvW           EDD number         48.64.28.1.20         184           Power factor         Min: 0.88 / Max: 0.98         0.97           CFT         W/ Nextural white 4.000K/ (W Good White 5700K/), WW (Warm White 3000K)         CR           CR         70 (NW 35 CW) / 80 (WW)         0.97           CR         70 (NW 35 CW) / 80 (WW)         0.97           Light distribution / optic / louves         Asymmetrical and symmetrical distributions         1000 (Max) (B Ta 275C)           Light distribution / optic / louves         Asymmetrical and symmetrical distributions         1000 (Max) (B Ta 275C)           Device flature rate         CPS as 3000 (ITS         310 A / 220 µs         0.07 (CPS / CPS /		LED-HB 7250-43950 lm-4S/757	1xLED-HB 23400-56100 lm-4S/830
Efficacy         up to 140 m/W         up to 130 m/W           LED number         48.6.4.22.120         18.4           Power factor         Min - 0.88, Max - 0.98         0.97           CT         W/ Max - 0.98, Max - 0.98         0.97           CR         70 (NW a CWW), K0 (WW)         0.97           Light distribution / optic / lowers         Asymmetrical and symmetrical distributions         1000 (Wax) (B Ta 25%)           Light distribution / optic / lowers         Asymmetrical and symmetrical distributions         1000 (Wax) (B Ta 25%)           Up inter finity management         0.58 a 3000 (IIIs)         310 A / 220 µs           Main incut Voltage         220 - 280 W/Z / 50 - 60H.         Domet finity management and the symmetrical distributions           Intrush Current 230 W/Z / 50 - 60H.         -40 to 25 °C (B 3 - 5°C (FA 52 C 0FK) / OFA52 0 ptics)           Departing Temperature Outcoor         -40 to 25 °C (B 3 - 5°C (FA 57 / OFA52 0 ptics)           Departing Temperature Outcoor         -40 to 25 °C (B 3 - 5°C (FA 57 / OFA52 0 ptics)           Departing Temperature Outcoor         -40 to 25 °C (B 3 - 5°C (FA 57 / OFA52 0 ptics)           Departing Temperature Outcoor         -40 to 25 °C (B 3 - 5°C max           Departing Temperature Outcoor         -40 to 25 °C (B 3 - 5°C max           Departing Temperature Outcoor         -40 to 25 °C max	Wattage (NW)	44 to 270W	285 to 520W
LED number     48.64.82.120     1.84       Power factor     Mill: 0.88 / Max. 0.98     0.97       CCT     WK (Neutral white 40.00 K/V (Kront) White 5700 K/V WK (Warm White 30.00 K)       CR     70 (NW & CW), 70 (Wront) White 5700 K/V WK (Warm White 30.00 K)       Light dwith-fabution / optic / louvers     Asymmetrical and symmetrical dwithe 40.00 K/V (Wront) White 5700 K/V WK (Warm White 30.00 K)       Light dwith-fabution / optic / louvers     Asymmetrical and symmetrical dwither 40.00 K/V (Wront) White 5700 K/V WK (Warm White 30.00 K)       Main input Voltage     220-430 VAC / 56 - 60 Hz       Diriver faluers rate     0.58 at 2000 His       Turosh Current 2004 C**     106 A (2 drivers)       Torsk Current 2004 C**     106 A (2 drivers)       Torsk Current 2004 C**     106 A (2 drivers)       Diriver faluers rate     0.16 A (2 drivers)       Torsk Current 2004 C**     106 A (2 drivers)       Torsk Current 2004 C**     106 A (2 drivers)       Diriver faluers rate     0.16 A (2 drivers)       Diriver faluers rate     0.16 A (2 drivers)       Diriver faluers rate     0.16 A (2 drivers)       Diriver faluers rate     0.2 A (2 drivers)       Diriver faluers rate     0.16 A (2 drivers)       Diriver faluers rate     0.2 A (2 drivers)       Diriver faluers rate     0.2 A (2 drivers)       Diriver faluers rate     0.2 A (2 drivers)		up to 140 lm/W	
Power factor         Min. 0.88 / Max. 0.08         0.37           CCT         W// Neutral with a doorky (w/ cool white 5/200 k/). / w/ (Warm white 3/00 k/)         Cool white 5/200 k// w// w// w// w// w// w// w// w// w//	LED number	48,64,82,120	
Instrument         New (Neural winter 40000K) CW (coll White 3200K).           CRI         200 Khrs 19400 (May 0) la 25C.           Light distribution / optic / Louvies         Asymmetrical and symmetrical distributions           Big to distribution / optic / Louvies         Asymmetrical and symmetrical distributions           Big to distribution / optic / Louvies         Asymmetrical and symmetrical and symmetrical distributions           Main input Voltage         220-240 Vac / Soc 66hr           Driver failure rate         0.5% at 5000 km           Operating Temperature Outdoor         -40°C to 45°C (all configuration           -40°C to 45°C (all configuration         -40°C to 45°C (all configuration           -40°C to 45°C (all configuration         -40°C to 45°C (all configuration           -40°C to 45°C (all configuration         -40°C to 45°C (all configuration           -40°C to 45°C (all configuration         -40°C to 45°C (all configuration           -10°C (asc 2)         For other optics ta 35°C max           Degree of Protection what and Dual         PF66         IP 66           Surge protection         64°C (SPO)           Material / finishing         -Dictable to all protected (MSP)           - Outdoor on maxt-head finane/wall or indoor on maxt-			
CRI         70 (NM S CW) / 80 (NM)           Urife time / Lumma maintenance         1200 KHz E14910 (Max) & 12 a 25°C           Light distribution / optic / louvies         Asymmetrical and symmetrical distributions           Hummances and UN Stage         220-240 VAC / 50-501+/           Driver failure rate         0.55 x 15000 HHs           Trush Current 230VAC*         106 A (2 drivers)           Operating Temperature Outdoor         400 A / 220 µs           Operating Temperature Outdoor         400 C to 45°C (at 45°C (or 5 / 0 FA52 optics)           Degree of Protection         For Other optics ta 35°C max           Ta 32°C for al other optics)         For other optics ta 35°C max           Degree of Protection         For G           Degree of Protection         For G           Degree of Protection         For G           Degree of Protection         6KV           Case 1 or Class 2         Class 1 or Class 2           Degree of Protection         6KR           Surge protection         6KV           Alf Rate         24kg           Material / fmishing         -De case 1 housing           -Ummare dimensions (x.kl.k0)         812/597480mm           Socks60x95mm         -Ded case 1 fait tempered glass           -Couthe or plastics -3 protin fastion to most need frame(	ССТ	NW (Neutral white 4000K)/ CW (cool White 57	00K) / WW (Warm White 3000K)
Light distribution / optic / louvres Illuminances and uninnances (Langases 5/ OFA32 / DX10/DX50/DX51/DV10/ DM10 DR11/DM11/DM01/DM50/DX60 DM11/DM11/DM12/DM50/DX60 DM11/DM11/DM12/DM10 DM11/DM11/DM12/DM10 DM11/DM11/DM12/DM10 DM11/DM11/DM12/DM10 DM11/DM11/DM12/DM10 DM11/DM12/DM10 DM11/DM12/DM12 DM11/DM12/DM12/DM10 DM11/DM12/DM12/DM10 DM11/DM12/DM12/DM12/DM10 DM11/DM12/DM12/DM12/DM12/DM12/DM12/DM12/			•
Light distribution / optic / louvres Illuminances and uninnances (Langases 5/ OFA32 / DX10/DX50/DX51/DV10/ DM10 DR11/DM11/DM01/DM50/DX60 DM11/DM11/DM12/DM50/DX60 DM11/DM11/DM12/DM10 DM11/DM11/DM12/DM10 DM11/DM11/DM12/DM10 DM11/DM11/DM12/DM10 DM11/DM11/DM12/DM10 DM11/DM12/DM10 DM11/DM12/DM12 DM11/DM12/DM12/DM10 DM11/DM12/DM12/DM10 DM11/DM12/DM12/DM12/DM10 DM11/DM12/DM12/DM12/DM12/DM12/DM12/DM12/	Life time / Lumen maintenance	>100 Khrs L94B10 (Max) @ Ta 25°C	•••••••••••••••••••••••••••••••••••••••
Sy OFAS2 / DXI O/DXSO/DXS1/DW10 / DM10         Main Input Voltage.       220:240 VAC / 50-661/z         Diment Failure rate.       0.55:ad 5000 Ms.         Main Input Voltage.       220:240 VAC / 50-661/z         Operating Temperature doutdoor       405:ad 520 ptts:)         Add C to 45C (to adfC to adfC to adfC to 5./ OFA52 optts:)       -40 to 45C (to adfC to 5./ OFA52 optts:)         Departed provide and there optics)       To 35C (to adj to there optics)       For other optics to 35°C max         Electrical insulation Class       Class 1 or Class 2       HK68         Degree of Protection water and Duat       HF66       HF66         Surge protection       6KV       4KV / 10 KV as an option         Luminater demonstrol. 4Hk0)       817x597x80mm       562x580x95mm         Material / finishing       -Dic cast Housing       -Claar Flat tempered glass         -Clast Flat tempered frame/wall or indoor on nod or celling/wall       -U-shaped mounting bracket with foot-print suitable for 3-point fxation by means of 2xML12 / Hx120 boils         -Tilling Vertical / HousingU-bracket string Portactor scale with intervals of 5% Bue memory can bearder access to the driver & LED board with a single quick- access to the driver & LED board with a single quick- access to the driver & gear compartment.         Luminater windage area (SCX)       At 90° 0.241m² / At 15° 0.13m²         Luminater windage area (SCX)       At 90° 0.241m² /			•••••••••••••••••••••••••••••••••••••••
DNILL/DNIL/DNS0/DXR0           Main input Voltage         220-240 VXC (20 - 601k           Direct failure ratio         05% at 5000 hrs.           Innuch Current 230VAC (************************************		Illuminances and Luminances Classes	
Main Input Voltage         22/0-240 VAC," 50-60Hz           Diver failure cafe         0.55 at 5000 Hs           Operating Temperature Outdoor         406 A122 drivers)           For other optics at 35°C frag         For other optics at 35°C frag           Electrical insulation Class         Class 1 or Class 2           Degree of Protection indices and Dust         IF66           Surge protection         BF66           Surge protection         BF68           Class 1 or Class 2         Protector Surge protection           Material / finishing         Dic cast Housing           -Claar Flat tempered glass         -Claar Flat tempered glass           -Class 1 and Class 2         Protector Surge row maschead frame/wall or Indoor on roo or celling/vall           Indoor on roo ro celling/vall         -U-shaped mounting bracket with foot-print suitable of 3-point fxaiton by means of 2xM12 / 1xM20 boits           -Tilling Vertical / Horizontal plates (able glame drow row paray access in the driver glass access in therwars of 32 / 90 - 041 m/r A10° 005 m/r A115° 01 m/r           -U-bracket string Protactor scale with intervals of 5% Bernemory can beganate access to the drivers glast access to the driver glass cacceston the drivers g		S/ OFA52 /DX10/DX50/DX51/DW10/ DM10	
Driver failure rate         0.5% at 5000 His           Invish Current 230VAC*         106 A.2 divers)         340 A./220 us           Operating Temperature Outdoor         -40° to 45°C (at 5°C of 5.0°FAs2 optics)         For other optics ta 35°C max           Degree of Indection         Status 25°C for all other optics)         For other optics ta 35°C max           Degree of Indection         Status 25°C for all other optics)         IN 88           Degree of Indection         Status 25°C for all other optics)         IN 86           Degree of Indection Shocks         IKOB         IN 86           Surge protection         GKV         4KV / 10 KV as an option           Luminaire dimensions (LVHKD)         817.5597x80mm         552.55805mm           Luminaire dimensions (LVHKD)         817.5597x80mm         552.558055mm           Coating for Harsh environment         Marine sati protected (MSP)         Protection Swimming Pool (SPO / Marine sati protected (MSP)           Luminaire Mounting / installation         -Outdoor on mast-head frame/wall or Indoor on roof or ceiling/wall         -Outdoor on mast-head frame/wall or Indoor on roof or ceiling/wall         -U-shaped mounting bracket with foot-print sutable for 3-point fbation by means of 2xM12 / LM20 bolts         -2M142 / LM20 bolts         -2M142 / LM20 bolts           -Titting Vertical / Horizontal planes: -90° / +90°, -170° +170°         -500°, -170° +10°         -510°C Ad10°C -10		DN11/DM11/DM50/DX60	
Driver failure rate         0.5% at 5000 His           Invish Current 230VAC*         106 A.2 divers)         340 A./220 us           Operating Temperature Outdoor         -40° to 45°C (at 5°C of 5.0°FAs2 optics)         For other optics ta 35°C max           Degree of Indection         Status 25°C for all other optics)         For other optics ta 35°C max           Degree of Indection         Status 25°C for all other optics)         IN 88           Degree of Indection         Status 25°C for all other optics)         IN 86           Degree of Indection Shocks         IKOB         IN 86           Surge protection         GKV         4KV / 10 KV as an option           Luminaire dimensions (LVHKD)         817.5597x80mm         552.55805mm           Luminaire dimensions (LVHKD)         817.5597x80mm         552.558055mm           Coating for Harsh environment         Marine sati protected (MSP)         Protection Swimming Pool (SPO / Marine sati protected (MSP)           Luminaire Mounting / installation         -Outdoor on mast-head frame/wall or Indoor on roof or ceiling/wall         -Outdoor on mast-head frame/wall or Indoor on roof or ceiling/wall         -U-shaped mounting bracket with foot-print sutable for 3-point fbation by means of 2xM12 / LM20 bolts         -2M142 / LM20 bolts         -2M142 / LM20 bolts           -Titting Vertical / Horizontal planes: -90° / +90°, -170° +170°         -500°, -170° +10°         -510°C Ad10°C -10	Main input Voltage	220-240 VAC / 50-60Hz	
Operating Temperature Outdoor       -40 °C to 45° C fat 20 optics )         Interview of Protection stocks       Class 1 or Class 2         Degree of Protection stocks       Class 1 or Class 2         Degree of protection stocks       P66         Surge protection       6KV         Luminaire dimensions (LxHxD)       817x597x80mm         16Kg       24kg         Material / Intshing       -Die cast Housing         -Clear Fait tempered glass       -Metacrylate optical plate (except 5 / OFA52 - PTT temperature Metacrylate)         Coating for Harsh environment       Maine saft protected (MSP)         Duminaire dimensions (LxHxD)       -Outdoor on mast-head frame/wall or indoor: on rol or celling/wall or -U-shaped mounting bracket with foot-print sutable for 3-point fixation by means of 2xM12/1 XM20 bolts       -Tilting Vertical / Horizontal planes -90° / +90°, -170° +170°         -Standing-up or hanging-down mounting -U-bracket stirup Protactor scale with intervals of 59. Blue memory cap. Separate to the driver & LD board with a single guick.       -Standing-up or hanging-down mounting -U-bracket stirup Protactor scale with intervals of 59. Blue memory cap. Separate to the driver & LD board with a single guick - excess to the driver sector with 5 poles.         Controls       -Dimming via external communication DALI - Dimming via a 1000 ro C 00 0 cm² / A 15° 0 0 cm² / A 15° 0 0 cm² / A 10° 0 0 cm² / A 15° 0 0 cm² / 40° - 000 cm² / A 15° 0 0 cm² / 40° - 000	Driver failure rate	0,5% at 5000 Hrs	
with 5 / OFAS2 optics)         For other optics ta 35°C max           Ta 35°C for all other optics)         For other optics ta 35°C max           Electrical insulation Class.         Class 1 or Class 2           Degree of Protection Water and Dust         IP66           Surge protection         6KV           Material / finishing         - Die cast Housing           - Clear Flat tempered glass         - Older of celling/wall           - Material / finishing         - Die cast Housing           - Clear Flat tempered glass         - Older on mast - head frame/wall or           - Metacrylate optical plate (except 5 / OFA52.         Protected (MSP)           Luminare dimensions (LVHKD)         Blatk control of celling/wall         - Older on mast - head frame/wall or           Indoor on order celling/wall         - Older on mast - head frame/wall or         - Older on mast - head frame/wall or           Indoor on order celling/wall         - Object cell fung/wall or         - Older on mast - head frame/wall or           - U-bracket String Protactors cale with         - Titting Vertical / Horizontal planes -90' /         + 90', -170' + 170'           - Standing - up or hanging - down mounting         - U-bracket String Protactors cale with         - U-bracket String Protactor scale with           - U-bracket String Protactors from 0 - 120' / 170'         - 90', -170' + 170'         - 50' - 170' + 170'	Inrush Current 230VAC**	106 A (2 drivers)	340 A /220 μs
Ta 35°C for all after optics)           Degree of Protection : shocks         (K09)           Degree of Protection : shocks         (K09)           Surge protection         6KV           Surge protection         6KV           Iuminaire dimensions (LxHxD)         817x597x80mm           16kg         24kg           Material / finishing         -Die cast Housing           - Clear Flat tempered glass         -Metacrylate optical plate (except 5 / OFA52 - HT temperature Metacrylate)           Coating for Harsh environment         Marine salt protected (MSP)           Luminaire Mounting / installation         -Outdoor on mast-head frame/wall or indoor. on of or celling/wall           -User Flat tempered protected (MSP)         -Outdoor on mast-head frame/wall or indoor. on of or celling/wall           -User Shaped mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -Tilting Vertical / Horizontal planes90° / 490°, -170° +170°           -Standing - up or hanging-down mounting - 0-tacket stirrup Protractor scale with intervals of 59. Blue memory cap Exaparate to the driver's BLD board with a single quicker term of capies (Hinge)         -District Horizont capies (Minge)           -Ummaite windage area (SC-)         At 96'2 2.50m² / At 92'0.24m² / At 15'0.01m²         H96'E 0.41m² / At 05'0.05m² / At 15'2 0.13m²           Standard Electrical connection         Mains via a M20 cable glands (Dal in/out Dal)         H	Operating Temperature Outdoor	-40°C to 45°C (all configuration	-40 to 45°C (ta 45°C for S / OFA52 optics )
Electrical insulation Class.       Class 1 or Class 2.         Degree of Protection Water and Dust.       PE6         Sugg protection       GKV         Auterial / Inishing       FP66         Material / Inishing       Decreat Housing         - Class Flat tempered glass      Metacrylate optical plate (except 5 / OFA52. HT temperature Metacrylate)         Coating for Harsh environment       Marine salt protected (MSP)         Luminaire Mounting / installation      Outdoor: on mast-head frame/wall or Indoor: on roof or celling/wall         -U-shaped mounting bracket with foot-orint suitable for 3-point fixation by means of 2XM12/1XM20 bolts      Outdoor: on mast-head frame/wall or Indoor: on roof or celling/wall         -U-bracket stirrup Protractor scale with intervals of 5º, Blue memory cap Easy access to the driver 8 LED board with a single quick- cable diameters from 06-12 mm or cable      U-bracket stirrup Protractor scale with Intervals of 5º, Blue memory cap Easy access to the driver 8 LED board with a single quick- cable diameters from 06-12 mm or cable         Luminare windage area (SCX)       At 90° 0.20n <sup>-7</sup> / At 0° 0.01m <sup>-7</sup> / At 0° 0.05m <sup>-7</sup> / At 15° 0.13m <sup>-7</sup> Standard Electrical connection       Marins via arans voltage (AmpDim) - Dimming			For other optics ta 35°C max
Degree of Protection: shocks         IKO9         IKO8           Degree of Protection         6KV         4KV / 10 KV as an option           Luminaire dimensions (L+HxD)         817x597x80mm         552x550x95mm           Luminaire dimensions (L+HxD)         817x597x80mm         552x550x95mm           Coating for Harsh environment         Material / Inishing         -Disc cast Housing         -Akg           Coating for Harsh environment         Marine sait protected (MSP)         Protection Swimming Pool (SPO) / Marine sait protected (MSP)           Luminaire Mounting / Installation         -Outdoor: on mast-head frame/wall or Indoor: on roof or celling/wall         Indoor: on roof or celling/wall           -Ubracket stirtup Protaction by means of 2xM12/ 1xM20 boits         -2MI12/ 1xM20 boits         -2MI12/ 1xM20 boits           - Titting Vertical / Horizontal planes: -90° / +90°, -170° +170°         -Standing-up or hanging-down mounting -U-bracket stirtup Protactor scale with intervals of 59, Blue memory cap Easy access to the driver RE LED bad with a single quick-         at 90° 0.41m² / AL0° 0.05m² / AL15° 0.13m²           Standard Electrical connection         Mains via a M20 cable gland that accept cable diameters from 66-12 mm or cable         IP68 External connector with 5 poles.           Mains via a M20 cable gland biat accept cable diameters form 66-12 mm or cable         IP68 External connector with 5 poles.           Standard Electrical connection         Mains via a M20 cable glands (Dali i		• • • • • • • • • • • • • • • • • • • •	••••••
Degree of protection Water and Dust         IP66         IP66           Surge protection         6KV         4KV / 10 KV as an option.           Lumnare dimensions (LxHxD)         617x597x80mm         562x560x95mm           Material / finishing         - Die cast Housing - Clear Flat tempered glass - Metacrylate optical plate (except 5 / OFA52 : HT temperature Metacrylate) - Protection Swimming Pool (SPO) / Marine salt protected (MSP)           Coating for Harsh environment         Marine salt protected (MSP)         - Outdoor: on mast-head frame/wall or Indoor: on roof or ceiling/wall         - Outdoor: on roof or ceiling/wall           Luminaire Mounting / Installation         - Outdoor: on mast-head frame/wall or Indoor: on roof or ceiling/wall         - U-shaped -mounting bracket with floot-print suitable for 3-point fixation by means of 2xM12 / HAV2 bolts         - U-shaped -mounting bracket with floot-print suitable for 3-point fixation by means of 2xM12 / HAV2 bolts         - Standing-up or hanging-down mounting - U-bracket strimp Protector scale with intervals of 59. Blue memory cap Easy access to the driver 8 LED board with a single quick- release clip (Hinge)         - U-shaped access to the drivers gear compartment. release clip (Hinge)           Luminaire windage area (SCx)         At 90° 0.20m² / At 15° 0.1m²         At 90° 0.41m² / At 0° 0.05m² / At 15° 0.13m²           Standard Electrical connection         Mains val a 200 cable gland that accest         Horeanal connector with 5 poles. dains connector for cable 0.0.14m           See page 21         Controls         - Dimming via anan			••••••
Surge protection         GKV         4KV / 10 KV as an option           Luminate dimensions (LxHxD)         317x597x80mm         562x580x95mm           Material / finishing         - Die cast Housing         - Claer flat tempered glass           - Claer flat tempered glass         - Metacrylate optical plate (except 5 / OFA52 : HT temperature Metacrylate)           Coating for Harsh environment         Marine salt protected (MSP)         Protection Swimming Pool (SPO) / Marine salt protected (MSP)           Luminate Mounting / Installation         - Outdoor: on mast-head frame/wall or indoor: on roof or celling/wall         - Outdoor: on mast-head frame/wall or - U-shaped -mounting bracket with foot-print           - U-shaped mounting bracket with foot-print         - U-shaped mounting bracket with foot-print         - U-shaped -mounting bracket with foot-print           - Titting yertical / Horizontal planes: -90° / +90°, -170′ +170°         - Titting yertical / Horizontal planes: -90° / +90°, -170′ +170°         - Titting yertical / Horizontal planes: -90° / +90°, -170′ +170°           - Standing-up or hanging-down mounting - U-bracket stirrup Protractor scale with intervals of 5%. Blue memory cap Esparate to the driver geat compartment.         - Standing-up or hanging - down mounting - U-bracket stirrup Protractor scale with a single quick- access to the driver geat compartment.           totter driver & LED board with a single quick- access to the driver geat compartment.         - Standing-14 tor? 0.01m² / At 0° 0.04m² / At 15° 0.13m²           Standard Electrical connection <td>Degree of Protection : shocks</td> <td></td> <td>IK08</td>	Degree of Protection : shocks		IK08
Surge protection         6KV         4KV / 10 KV as an option           Luminaire dimensions (LxHxD)         817x97x80mm         562x80x95mm           Material / finishing         -Dic cast Housing -Clear Flat tempered glass -Metacrylate optical plate (except 5/ OFA52 : HT temperature Metacrylate)           Coating for Harsh environment         Marine salt protected (MSP)         Protected (MSP)           Luminaire Mounting / Installation         -Outdoor: on mast-head frame/wall or Indoor: on rood or celling/wall         -Outdoor: on mast-head frame/wall or Indoor: on rood or celling/wall           -Ushaped mounting bracket with foot-print -Ushaped mounting bracket with foot-print -Ushaped mounting bracket with foot-print -Ushaped mounting bracket with foot-print -Ushaped mounting or 3-point fixation by means of 2xM12/ 1xM20 bolts         -Titting wertical / Horizontal planes: -90° / +90°, -170′, +170°           -Titting vertical / Horizontal planes: -90°, +90°, -170′, +170°         -Titting vertical / Horizontal planes: -90° / +90°, -170′, +170°         -Standing-up or hanging-down mounting -U-bracket stirrup Protractor scale with Intervals of 59°. Blue memory cap Easy access to the drivers gear compartment. release clip (Hinge)         -Ustaket stirrup Protractor scale with Intervals of 59°. Blue memory cap Easy access to the drivers gear compartment.           Luminaire windage area (SCx)         At 90° 0.26m² / At 15° 0.10m²         At 90° 0.41m² / At 0° 0.05m² / At 15° 0.13m²           Standard Electrical connection         Mains via a M20 cable gland that accept eable diameters form 06-12 mor or cable entry via 2 M16 cable glands (Dali			
16Kg         24kg           Material / finishing         -Die cast Housing         -Clear Flat tempered glass           -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 celling/wall         -Outdoor: on mast-head frame/wall or Indoor: on roof or celling/wall           1-U-shaped mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -W142/ 1xM20 boits           -Tilling Vertical / Horizontal planes: -90°/         -Tilling Vertical / Horizontal planes: -90°/         -Tilling Vertical / Horizontal planes: -90°/           -U-bracket stirup Protractor scale with intervals of 59. Blue memory cap Easy access to the drivers gear compartment. release clip (Hinge)         -U-bracket stirup Protractor scale with intervals of 59. Blue memory cap Easy access to the drivers gear compartment. release clip (Hinge)           Luminaire windage area (SCx)         At 90° 0.26m² / At 0° 0.04m² / At 15° 0.1m²         At 90° 0.01m² / At 0° 0.05m² / At 15° 0.13m²           Standard Electrical connection         Mains via a M20 cable gland that accept         Mains via a M20 cable gland (Dal in/out Dal).         P68 External connector with 5 poles : main svoltage (AmpDim)           0-birming via a external communication DALI         -Dimming via apinabinmer         -Dimming via apinabinmer         -Dimming via apinabinmer           Controls	Surge protection	6KV	
Material / finishing       -Die cast Housing         -Clear Flat tempered glass       -Metacrylate optical plate (except 5 / 0FA52 : HT temperature Metacrylate)         Coating for Harsh environment       Marine sait protected (MSP)       Protection Swimming Pool (SPO) / Marine sait protected (MSP)         Luminaire Mounting / installation       -Outdoor: on mast -head frame/wall or Indoor: on roof or celling/wall       -Outdoor: on mast -head frame/wall or Indoor: on roof or celling/wall         -U-shaped mounting bracket with foot-print suitable for 3-point fixation by means of 2xML2/ 1xM20 botts       -U-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xML2/ 1xM20 botts         -Titting Vertical / Horizontal planes: -90° / +90°, -170° +170°       - Titting 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 8 LED board with a single quick- releases clip (Hinge)       - Standing-up or hanging-down mounting -U-bracket stirrup Protractor scale with Intervals of 5°. Blue memory cap Easy access to the driver 8 LED board with a single quick- release clip (Hinge)       - Standing-up or hanging-down mounting -U-bracket stirrup Protractor scale with Intervals of 5°. Blue memory cap Easy access to the driver 8 LED board with a single quick- release clip (Hinge)       - Constart Light Output (LIO)         Luminaire windage area (SCX)       At 90° 0.24m² / At 15° 0.13m²       HS0° 0.41m² / At 0° 0.05m² / At 15° 0.13m²         Standard Electrical connection       Mains valia M20 cable gland that acce	Luminaire dimensions (LxHxD)		562x580x95mm
- Clear Flat tempered glass Metacrylate optical plate (except 5 / 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 celling/wall       -Outdoor on mast-head frame/wall or Indoor on roof or celling/wall         -U-shaped mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/1xM20 bolts       -U-shaped -mounting bracket with foot-print -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 stirup Protractor scale with intervals of 5%. Blue memory cap Easy access to the drivers gear compartment.         Luminaire windage area (SCx)       At 90° 0.02 m² / At 15° 0.1m²       At 90° 0.04 m² / At 15° 0.1m²         Standard Electrical connection       Mains via a M20 cable gland that accept cable diameters from 06-12 mm or cable entry via 2 M16 cable gland that accept cable diameters from 06-12 mm or cable entry via 2 M16 cable gland that scept cable diameters from 06-12 mm or cable entry via 2 M16 cable gland (bali in/out Dabl)       PloE External connector with 5 poles: Mains connector for cable 010-14 mm enving via amins voltage (AmpDim) -Dimming via aexternal communication DALI -Dimming via aexternal communication CALI -Dimming via aexternal communication CALI -Dimming via aexternal communication CALI -Dimming via aexternal control command Dali (D9), via the supplied waterproof connector see page 21       -Oin		16Kg	24kg
Metacrylate optical plate (except S / OFA52. HT temperature Metacrylate)           Coating for Harsh environment         Marine salt protected (MSP)         Protection Swimming Pool (SPO) / Marine salt           Luminaire Mounting / installation         -Outdoor: on mast-head frame/wall or Indoor: on roaf or celling/wall         -Outdoor: on mast-head frame/wall or Indoor: on roaf or celling/wall           -U-shaped mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -W1-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -W1-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -W1-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -W1-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -W1-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -U1-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -U1-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -U1-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -U1-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -U1-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -U1-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 boits         -U1-shaped -mounting br	Material / finishing	8	
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 celling/wall         -Outdoor: on most - head frame/wall or Indoor: on roof or celling/wall         -Outdoor: on most - head frame/wall or Indoor: on roof or celling/wall           -U-shaped mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 bolts         -Titting Vertical / Horizontal planes: -90° / + 90°, -170′ +170°         -Standing-up or hanging-down mounting           -U-bracket stirrup Protactor scale with intervals of 5º. Blue memory cap Easy access to the drivers be comparing - U-bracket stirrup Protactor scale with intervals of 5º. Blue memory cap Easy access to the drivers gear compartment.         -Standing-up or hanging-down mounting           Luminaire windage area (SCx)         At 90° 0.26m² / At 15° 0.13m²         At 90° 0.41m² / At 0° 0.05m² / At 15° 0.13m²           Standard Electrical connection         Maris via a M20 cable gland that accept cable diameters from 06-12 mm or cable diameters from 06-12 mm or cable         Mains via a M20 cable gland (bali in/out bal), via the supplied waterproof connector See page 21           Controls         -Dimming via external communication DALI         -Dimming via amains voltage (AmpDim) - Dimming via anis voltage (AmpDim) - Dimming			
Luminaire Mounting / Installation         - Outdoor: on mast-head frame/wall or Indoor: on roof or celling/wall -U-shaped mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 bolts         - Outdoor: on mast-head frame/wall or Indoor: on roof or celling/wall -U-shaped mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 bolts         - Outdoor: on mast-head frame/wall or Indoor: on roof or celling/wall -U-shaped mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 bolts         - U-shaped -mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/ 1xM20 bolts           - Titting Vertical / Horizontal planes: -90° / +90°, -170° +170°         - Titting Vertical / Horizontal planes: -90° / +90°, -170° +170°         - Titting Vertical / Horizontal planes: -90° / +0°, -170° +170°         - Titting Vertical / Horizontal planes: -90° / +0°, -170° +170°         - Titting Vertical / Horizontal planes: -90° / +0°, -170° +170°         - Titting Vertical / Horizontal planes: -90° / +0°, -170° +170°         - Titting Vertical / Horizontal planes: -90° / +0°, -170° +170°         - Titting Vertical / Horizontal planes: -90° / +0°, -170° +170°         - Titting Vertical / Horizontal planes: -90° / +0°, -170° +170°         - Titting Vertical / Horizontal planes: -90° / +0°, -170° +170°         - Standing-up or hanging-down mounting intervals of 5°, Blue memory cap Easy access to the drivers gear compartment.           Luminaire windage area (SCx)         At 90° 0.26m² / At 15° 0.1m²         - Standing-up or hanging-down mounting intervals of 5°, Blue memory cap Easy access to the drivers gear SUP 0.26m² / At 15° 0.1m²         - Standing-up or hanging-down mounting intervals of 5			
Luminaire Mounting / installation       -Outdoor: on mast-head frame/wall or Indoor: on roof or ceiling/wall       -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       -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)       -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)       -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)       At 90° 0.41m² / At 0° 0.05m² / At 15° 0.13m²         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 06-12 mm or cable       Mains via a 200 able gland that accept cable diameters from 06-12 mm or cable       Mains via a M20 cable gland that accept cable diameters from 06-12 mm or cable       Dimming via acternal communication DALI         -Dimming via a wins voltage (AmpDim)       -Dimming via axins voltage (AmpDim)       -Dimming via acternal communication DALI         -Dimming via mains voltage (AmpDim)       -Dimmin	Coating for Harsh environment		
-U-shaped mounting bracket with foot-print suitable for 3-point fixation by means of 2xM12/1xM20 bolts       - 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°       - 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)       - 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 (CHinge)       - 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 (CHinge)       - 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 (CHinge)       - U-bracket stirrup Protractor scale with intervals of 5°, Blue memory cap Easy access to the drivers gear compartment.         Standard Electrical connection       At 90° 0.26m² / At 0° 0.04m² / At 15° 0.1m²       At 90° 0.05m² / At 15° 0.13m²         Standard Electrical connection       See page 21       External connector with 5 poles : Wains via a M20 cable gland (Dali in/out Dali)         Controls       -Dimming via external communication DALI -Dimming via anis voltage (AmpDim) -Dimming via anis voltage (AmpDim) -Dimming via anis voltage (AmpDim) -LineSwitch       -Dimming via external communication DALI -Dimming via anis voltage (AmpDim) -Dimming via anis voltage (AmpDim) -Dioremergency-constant Light Output (CLO	Luminaire Mounting / installation		-Outdoor: on mast-head frame/wall or
suitable for 3-point fixation by means of 2xM12/1xM20 boits       suitable for 3-point fixation by means of 2xM12/1xM20 boits       suitable for 3-point fixation by means of 2xM12/1xM20 boits         -Tilting vertical / Horizontal planes: -90° / +90°, -170° +170°       - Tilting vertical / Horizontal planes: -90° / +90°, -170° +170°       - Tilting vertical / Horizontal planes: -90° / +90°, -170° +170°         -U-bracket stirup Portactor scale with intervals of 5°, Blue memory cap Easy access to the driver 8 LED board with a single quick- release clip (Hinge)       - Standing-up or hanging-down mounting -U-bracket stirup Portacket stirup Portacket stirup Portacket stirup Portacket stirup Portacket stirup Portacket stirup Portacket stirup -U-bracket stirup Portacket stirup Portacket stirup Portacket stirup -U-bracket stirup Portacket stirup Portacket stirup Portacket stirup Portacket stirup -U-bracket stirup Portacket s		Indoor: on roof or ceiling/wall	Indoor: on roof or ceiling/wall
2xM12/1xM20 bolts       2xM12/1xM20 bolts         -Tilting Vertical / Horizontal planes: -90° /       - Tilting Vertical / Horizontal planes: -90° /         +90°, -170°       +90°, -170°         -Standing-up or hanging-down mounting       - Standing-up or hanging-down mounting         -U-bracket stirrup Protractor scale with       - Standing-up or hanging-down mounting         -U-bracket stirrup Protractor scale with       - U-bracket stirrup Protractor scale with         intervals of 5°, Blue memory cap Easy access       Standing-up or hanging-down mounting         -U-bracket stirrup Protractor scale with a single quick-       - U-bracket stirrup Protractor scale with         release clip (Hinge)       At 90° 0.26m² / At 0° 0.04m² / At 15° 0.1m²         Standard Electrical connection       Mains via a M20 cable gland that accept         cable diameters from Ø6-12 mm or cable       P68 External connector for cable Ø 10-14 mm         entry via 2 M16 cable glands (Dali in/out Dali)       - 4t 90° 0.41m² / At 0° 0.05m² / At 15° 0.1m²         Standard Electrical connection       - Dimming via external communication DALI       - Dimming via section.         Step ogg 2.1       External control command Dali (D9), via the supplied wateproof connector See pogg 2.1       - Dimming via amins voltage (AmpDim)         -Dimming via amins voltage (AmpDim)       - Dimming via amins voltage (AmpDim)       - Dimming via amins voltage (AmpDim)         -UhesS		-U-shaped mounting bracket with foot-print	- U-shaped -mounting bracket with foot-print
-Tilting Vertical / Horizontal planes: -90° / +90°, -170′/ +170°       - Tilting Vertical / Horizontal planes: -90° / +90°, -170′/ +170°         -Standing-up or hanging-down mounting -U-bracket stirrup Protractor scale with intervals of 5º, Blue memory cap Easy access to the driver & LED board with a single quick- release clip (Hinge)       Standing-up or hanging-down mounting -U-bracket stirrup Protractor scale with intervals of 5º, Blue memory cap. Separate to the driver & LED board with a single quick- release clip (Hinge)       At 90° 0.26m² / At 0° 0.04m² / At 15° 0.1m²         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 glands (Dali in/out Dali)       IP68 External connector with 5 poles : dable diameters from 06-12 mm or cable entry via 2 M16 cable glands (Dali in/out Dali)       IP68 External connector with 5 poles : the supplied waterprof connector see page 21         Controls       -Dimming via external communication DALI -Dimming via avoltage (AmpDim) -LineSwitch       -Dimming via avitare of connector see page 21         Options       -Constant Light Output (CLO) -Constant Light Output (CLO)       -Constant Light Output (CLO) -Module Temperature Protection (MTP)         -Dic Emergency-Constant Light Output (CLO) -Module Temperature Protection (MTP)       -Onctant 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		suitable for 3-point fixation by means of	suitable for 3-point fixation by means of
+90°, -170°/ +170°       +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)       - Standing-up or hanging-down mounting -U-bracket stirrup Protractor scale with intervals of 5°, Blue memory cap. Separate access to the driver & LED board with a single quick- release clip (Hinge)       - U-bracket stirrup Protractor scale with intervals of 5°, Blue memory cap. Separate access to the driver & LED board with a single quick- release clip (Hinge)         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)       IP68 External connector with 5 poles : Mains connector for cable Ø 10-14 mm         Ster page 21       External control command Dali (D9), via the supplied waterproof connector See page 21       -Dimming via 2-10V         Controls       -Dimming via external communication DALI -Dimming via DynaDimmer       -Dimming via 1-10V         -LineSwitch       -Constant Light Output (CLO)       -Constant Light Output (CLO)         -Module Temperature Protection (MTP)       -Doc Emergency (via special project)       -Constant Light Output (CLO)         -Module Temperature Protection (MTP)       -DC Emergency (via special project)       -Constant Light Output (CLO)         -Module Temperature Protecti			
-Standing-up or hanging-down mounting -U-bracket stirup Protractor scale with intervals of 5%, Blue memory cap Easy access to the driver & LED board with a single quick- release clip (Hinge)- Standing-up or hanging-down mounting -U-bracket stirup Protractor scale with intervals of 5%, Blue memory cap Easy access to the driver & LED board with a single quick- release clip (Hinge)- Standing-up or hanging-down mounting -U-bracket stirup Protractor scale with intervals of 5%, Blue memory cap Easy access to the driver & LED board with a single quick- release clip (Hinge)- Standing-up or hanging-down mounting -U-bracket stirup Protractor scale with intervals of 5%, Blue memory cap Easy access to the driver & LED board with a single quick- release clip (Hinge)- U-bracket stirup Protractor scale with intervals of 5%, Blue memory cap Easy access to the driver & LED board with a single quick- release clip (Hinge)Luminaire windage area (SCx)At 90° 0.26m² / At 15° 0.11m²At 90° 0.41m² / At 0° 0.05m² / At 15° 0.13m²Standard Electrical connectionMains 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)IP68 External connector with 5 poles : Mains connector for cable 0 10-14 mm (2-4 mm² wires section). External control command Dali (D9), via the supplied waterproof connector See page 21Controls-Dimming via external communication DALI -Dimming via a bynaDimmer -Dimming via a bynaDimmer -Dimming via a bynaDimmer-Dimming via avains voltage (AmpDim) -Dimming via DynaDimmer -Dimming via appandimmerRemote light managementCityTouch ready (based on Dali protocol) -DC Emergency (Constant Light Output (CLO) -Module Temperature Protection (MTP) -DC Emerg			
-U-bracket stirrup Protractor scale with intervals of 5 <sup>9</sup> , Blue memory cap Easy access to the driver & LED board with a single quick- release clip (Hinge)       - U-bracket stirrup Protractor scale with intervals of 5 <sup>9</sup> , 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). See page 21       At 90° 0.41m² / At 0° 0.05m² /At 15° 0.13m²         Controls       - Dimming via external communication DALI - Dimming via external communication DALI - Dimming via amins voltage (AmpDim) - LineSwitch       - Dimming via external communication DALI - Dimming via mains voltage (AmpDim) - LineSwitch         Remote light management       CityTouch ready (based on Dali protocol) - Constant Light Output (CLO)       - Constant Light Output (CLO) - Module Temperature Protection (MTP)         Options       - Constant Light Output (CLO) - Module Temperature Protection (MTP)       - Module Temperature Protection (MTP)         Maintenance       * replaceable Drivers Geate EVP650 and EVP651 - Spare part list available (glass, optics, bracket, protractor scale, PCB LED, connector) - Service Tag with QR code			
intervals of 5°, Blue memory cap Easy access to the driver & LED board with a single quick- release clip (Hinge)intervals of 5°, Blue memory cap. Separate access to the drivers gear compartment. release clip (Hinge)Luminaire windage area (SCx)At 90° 0.26m² / At 0° 0.04m² / At 15° 0.1m²At 90° 0.41m² / At 0° 0.05m² / At 15° 0.13m²Standard Electrical connectionMains 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) . See page 21IP68 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 See page 21Controls-Dimming via external communication DALI - Dimming via DynaDimmer - LineSwitch-Dimming via external communication DALI - Dimming via DynaDimmer - Dimming via DynaDimmer - Dimming via DynaDimmer-Dimming via mains voltage (AmpDim) - Dimming via DynaDimmer - Dimming via DynaDimmerRemote light managementCityTouch ready (based on Dali protocol) - OC centrant Light Output (CL0) - Module Temperature Protection (MTP) - DC Emergency (via special project) - DC-Emergency -Constant Light Output (CL0) - Module Temperature Protection (MTP)-Constant Light Output (CL0) - 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			
to the driver & LED board with a single quick-release clip (Hinge)       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)       IP68 External connector with 5 poles :         Standard Electrical connection       See page 21       Mains connector for cable Ø 10-14 mm (2-4 mm² wires section).         See page 21       External control command Dali (D9), via the supplied waterproof connector See page 21.         Controls       -Dimming via external communication DALI       -Dimming via external communication DALI         -Dimming via ubanzommer       -Dimming via ubanzommer       -Dimming via external communication DALI         -LineSwitch       -Dimming via prabimmer       -Dimming via DynaDimmer         -LineSwitch       -Constant Light Output (CL0)       -Constant Light Output (CL0)         -Module Temperature Protection (MTP)       -Module Temperature Protection (MTP)       -Module Temperature Protection (MTP)         -DC Emergency Constant Light Output (CL0)       -Module Temperature Protection (MTP)       -Module Temperature Protection (MTP)         -Maintenance       *replaceable Drivers Gear EVP650 and EVP651       -Spare part list available (glass, optics, bracket, protractor scale, PCB LED, connector) <td></td> <td></td> <td></td>			
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 06-12 mm or cable entry via 2 M16 cable glands (Dali in/out Dali)       IP68 External connector with 5 poles: Mains connector for cable 0 10-14 mm entry via 2 M16 cable glands (Dali in/out Dali)         Standard Electrical connection       Mains via external common cable entry via 2 M16 cable glands (Dali in/out Dali)       IP68 External connector with 5 poles: Mains connector for cable 0 10-14 mm vires section). External control command Dali (D9), via the supplied waterproof connector see page 21         Controls       - Dimming via external communication DALI       - Dimming via a mains voltage (AmpDim)       - Dimming via a texternal communication DALI         - Dimming via DynaDimmer       - Dimming via apynaDimmer       - Dimming via apynaDimmer       - Dimming via apynaDimmer         - LineSwitch       - Dimming via pynaDimmer       - Dimming via DynaDimmer       - Dimming via DynaDimmer         - Constant Light Output (CLO)       - Module Temperature Protection (MTP)       - Constant Light Output (CLO)       - Module Temperature Protection (MTP)         - DC Emergency -Constant Light Output (CLO)       - Module Temperature Protection (MTP)       - Module Temperature Protection (MTP)         - DC Emergency -Constant Light Output (CLO)       - Module Temperature Protection (MTP)       - Spare part list available (glass, optics, bracket, protracto			
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       IP68 External connector with 5 poles : Mains connector for cable 0 10-14 mm         entry via 2 M16 cable glands (Dali in/out Dali)       (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       -Dimming via external communication DALI -Dimming via DynaDimmer         Remote light management       CityTouch ready (based on Dali protocol) -Constant Light Output (CLO)       -Constant Light Output (CLO) -Module Temperature Protection (MTP)         OC Emergency (via special project) -DC Emergency (via special project) -DC Emergency -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		- · ·	access to the unversigear compartment.
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). See page 21       IP68 External connector with 5 poles : Mains connector for cable Ø 10-14 mm         Controls       -Dimming via 2 M16 cable glands (Dali in/out Dali). See page 21       (2-4 mm <sup>2</sup> wires section). External control command Dali (D9), via the supplied waterproof connector See page 21         Controls       -Dimming via external communication DALI -Dimming via mains voltage (AmpDim) -Dimming via DynaDimmer       -Dimming via external communication DALI -Dimming via amins voltage (AmpDim) -Dimming via DynaDimmer         Remote light management       CityTouch ready (based on Dali protocol)       -Constant Light Output (CLO) -Module Temperature Protection (MTP)         Options       -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	Luminaire windage area (SCV)		$\Delta t 90^{\circ} 0 41 m^2 / \Delta t 0^{\circ} 0 05 m^2 / \Lambda t 15^{\circ} 0 13 m^2$
cable diameters from Ø6-12 mm or cable entry via 2 M16 cable glands (Dali in/out Dali) See page 21Mains connector for cable Ø 10-14 mm (2-4 mm² wires section). External control command Dali (D9), via the supplied waterproof connector See page 21Controls-Dimming via external communication DALI -Dimming via mains voltage (AmpDim) -Dimming via DynaDimmer-Dimming via 1-10V -Dimming via external communication DALI -Dimming via DynaDimmerRemote light managementCityTouch ready (based on Dali protocol)-Constant Light Output (CLO) -Module Temperature Protection (MTP)Options-Constant Light Output (CLO) -Module Temperature Protection (MTP)-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			
entry via 2 M16 cable glands (Dali in/out Dali).       (2-4 mm² wires section).         See page 21       External control command Dali (D9),         via the supplied waterproof connector       See page 21         Controls       -Dimming via external communication DALI       -Dimming via 1-10V         -Dimming via mains voltage (AmpDim)       -Dimming via external communication DALI       -Dimming via external communication DALI         -Dimming via DynaDimmer       -Dimming via anains voltage (AmpDim)       -Dimming via pynaDimmer       -Dimming via DynaDimmer         Remote light management       CityTouch ready (based on Dali protocol)       -Constant Light Output (CLO)       -Constant Light Output (CLO)         Options       -Constant Light Output (CLO)       -Constant Light Output (CLO)       -Module Temperature Protection (MTP)         -DC Emergency (via special project)       -DC-Emergency-Constant Light Output (CLO)       -Module Temperature Protection (MTP)         -Module Temperature Protection (MTP)       -Module Temperature Protection (MTP)       -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       -Service Tag with QR code       -Service Tag with QR code			
See page 21       External control command Dali (D9), via the supplied waterproof connector See page 21         Controls       -Dimming via external communication DALI       -Dimming via 1-10V         -Dimming via mains voltage (AmpDim)       -Dimming via external communication DALI       -Dimming via external communication DALI         -Dimming via DynaDimmer       -Dimming via mains voltage (AmpDim)       -Dimming via mains voltage (AmpDim)       -Dimming via mains voltage (AmpDim)         -LineSwitch       -Dimming via protocol)       -Dimming via DynaDimmer       -Dimming via DynaDimmer         Remote light management       CityTouch ready (based on Dali protocol)       -Constant Light Output (CLO)       -Module Temperature Protection (MTP)         Options       -Constant Light Output (CLO)       -Module Temperature Protection (MTP)       -Module Temperature Protection (MTP)         -DC -Emergency -Constant Light Output (CLO)       -Module Temperature Protection (MTP)       -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       -Service Tag with QR code       -Service Tag with QR code			
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See page 21         Controls       -Dimming via external communication DALI       -Dimming via 1-10V         -Dimming via mains voltage (AmpDim)       -Dimming via external communication DALI         -Dimming via DynaDimmer       -Dimming via mains voltage (AmpDim)         -LineSwitch       -Dimming via DynaDimmer         Remote light management       CityTouch ready (based on Dali protocol)         Options       -Constant Light Output (CLO)         -Module Temperature Protection (MTP)       -Module Temperature Protection (MTP)         -DC-Emergency (via special project)       -DC-Emergency-Constant Light Output (CLO)         -Module Temperature Protection (MTP)       -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		. –	
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-LineSwitch       -Dimming via DynaDimmer         Remote light management       CityTouch ready (based on Dali protocol)         Options       -Constant Light Output (CLO)         -Module Temperature Protection (MTP)       -Module Temperature Protection (MTP)         -DC Emergency (via special project)       -DC-Emergency-Constant Light Output (CLO)         -Module Temperature Protection (MTP)       -DC-Emergency-Constant Light Output (CLO)         -Module Temperature Protection (MTP)       -DC-Emergency-Constant Light Output (CLO)         -Module Temperature Protection (MTP)       -Spare part list available (glass, optics, bracket, protractor scale, PCB LED, connector)         -Spare part list available (glass, optics, bracket, protractor scale, PCB LED, connector)       -Service Tag with QR code		-Dimming via mains voltage ( AmpDim)	-Dimming via external communication DALI
Remote light management       CityTouch ready (based on Dali protocol)         Options       -Constant Light Output (CLO)       -Constant Light Output (CLO)         -Module Temperature Protection (MTP)       -Module Temperature Protection (MTP)       -DC Emergency (via special project)         -DC-Emergency -Constant Light Output (CLO)       -Module Temperature Protection (MTP)       -DC-Emergency-Constant Light Output (CLO)         -Module Temperature Protection (MTP)       -DC-Emergency-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       -Service Tag with QR code			
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Certifications / Approvations CE, ENEC, RODS, VDE-Ball Proof	Cortifications / Approhations	•••••••••••••••••••••••••••••	••••••
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# Dimensional drawings

ClearFlood products



Area & recreational sports lighting .....

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Dimensional drawings

**BVP651** 



## **BVP651 with CityTouch**



#### **BVP650**



## **BVP650 with CityTouch**





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