# HOLOSAir

THE FUTURE OF LIGHTING CONTROL



## HOLOS Air an eye on the facts





40%

Efficient general lighting can save up to an average 40%. Globally this equates to 630 million tonnes of  $CO_2$ 



75% of all the controllable lighting sold in Europe today is not currently controlled



### Take control

HOLOS Air is a web-based, wireless control, monitoring and management system for lighting. It gives users the freedom to commission, configure and completely control their own lighting to maximise energy savings and reduce carbon emissions.

Early generation lighting controls provided energy savings but were difficult and expensive to fit retrospectively, requiring specialist engineers. Once installed, they were difficult to alter and not well suited to respond to changing occupancy patterns in buildings.

HOLOS Air banishes these problems. Installation and initial configuration is **simple** and controls can be altered at the touch of a button to meet a building's changing needs. Comparisons with existing technology are impressive; it is capable of controlling 200 HOLOS devices from one wireless gateway.

HOLOS Air enables a variety of control strategies to be employed, for example daylight harvesting, occupancy sensing, time scheduling, and scene setting.

The solution also allows wireless conversion of 3rd party sensors via volt-free connection to HOLOS adapters and complete personalised mapping per user.



#### There is HUGE potential for energy savings through lighting controls

which are easy to install and can be integrated into the luminaire.







IS YOUR LIGHTING WASTING ENERGY?







parking areas



### controlled technology

#### Step 1

### Connect your luminaires with HOLOS Air

Enable your luminaire with an integrated HOLOSAir node or the individual remote node (HSA.NODE) which is electrically wired to the luminaire.

With just WIH or WIL at the end of a luminaire code you will have a Connected PIR device that is groupable.

WIL = Low mounting height under 4m

WIH = High mounting height 4m-16m

#### Individual Remote Node

(HSA.NODE) can be used when luminaire does not have WIL or WIH capability.

#### Step 2 Add intelligence

A HOLOS Air Gateway will be installed at your customer's site. This is the brain of our system, which contains the light management application software.



Gateway (HSA.GATE) Core system



### Cloud monitoring



An internet connection ensures a lighting system that is easy to access and to maintain. Historical system data allows for easy analysis and benchmarking for further optimization and pro-active maintenance purposes. Result: a truly sustainable lighting system.

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### the intelligence

#### Scalable control

Up to 200 devices can be managed from a single gateway, via a robust, secure wireless mesh network.

There is no limit to the number of gateways, and therefore the number of devices which can be managed by the central hub, which is also capable of controlling multiple sites and supporting access from multiple users.

#### Enabling luminaires is easy

Luminaires are enabled by connecting a simple adaptor to existing DALI control gear across a wide variety of lighting technologies.

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#### Sensors

The standard sensor is a PIR with a maximum mounting height of 17m and a 60 degrees detection angle. 3rd party sensors can also be used with suitable interfacing components, if required.

#### Software

The software, which can be accessed via an Android device, allows users to commission and map their lighting.

Users can visualise energy consumption, operating history and luminaire status via a suite of reports.

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### the software

HOLOS Air can create logical groups of luminaires to be controlled together, or control groups where luminaires can be linked to switches or sensors.

Their assigned schedules can be as simple or sophisticated as you like – on, off or different levels following customized time schedules. As building usage alters, these can easily be re-assigned at any time by the operator.





#### Dashboard

HOLOS Air, puts lighting control at your fingertips with its intuitive user dashboard. The dashboard gives an overview of the system, showing key data and allowing quick and easy visualisation of the system's status. Personal control can be allowed with different users having access to different features within the system.





### **case study :** Sif Maasvlatke Rotterdam

#### Requirements

Having already previously used Prismpack luminaires in existing facilities, Sif and Van Doren Engineers (Contractors) approached Holophane to provide a solution for both the interior and exterior of the building.

Due to the unique expansive size of the production facility the interior required a reliable high-performance luminaire that could provide consistent light levels at almost a 30-metre height whilst being able to cope the dirty production environment and coastal elements. Similarly, the exterior of the building needed a high lumen output fitting to light the immediate façade of the building that could withstand the coastal elements.

#### The Solution

#### Interior

For the interior Holophane's award-winning Haloprism High-Bay luminaire provided the ideal solution. With a output of c.55,000 lm almost 200 fittings are suspended above the expansive 30-metre high production hall. Coupled with PrismaLED technology the Haloprisms provide a consistent level of 'Volumetric Lighting' throughout the entire space, ensuring that a mix of light is delivered to both vertical and horizontal work surfaces, helping production workers carry out work on the enormous steel foundation piles.

The coastal location of the Sif facility also required a certain amount of Haloprims to operate in a wet location. Special 'wet location' IP65 Haloprims were used in this section giving sufficient protection from the harsh salty sea water ensuring longevity of the fittings.

Low static semi-torus glass and a heat-sink chassis combines to create a self-cleaning

effect which is ideal for the dirty high-dust environment. In the long-term the low dust accumulation means longer consistent light levels and lower maintenance for the end user. In the rare occasion that optic cleaning is needed all that is required is a simple wipe of a cloth to return the luminaire to 'near new' efficiency.

The HOLOS Air control system was installed enabling the complete control of the Haloprism luminaires. The entire installation is individually controllable via the HOLOS Air dashboard giving flexibility to the end-user. This has enabled Sif to be able to program in dimming schedules, increasing the energy the savings further. The HOLOS Air control system has saved the Sif site nearly 41% in energy costs month on month as compared to a non controllable system running at 100%.

It also gives the end-user the ability to monitor data such as luminaire temperate, hours operational and in the unlikely event of luminaire failure specific information such as if the drivers have failed. Additionally, helping to lower maintenance costs and can aid scheduling in preventative maintenance.

#### Exterior

The award winning V-MAX luminaire was selected for the exterior façade of the building. Despite being a street lighting luminaire the V-MAX fitting suited the application for the enormous building due to the mounting height and performance needed.

V-MAX V8s, the largest configuration possible, with an output of c.34,000 Im were mounted around the entirety of the half kilometre long building. Again, resistance to the coastal elements were crucial and the IP66 rating of the V-MAX more than surpassed this requirement.





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