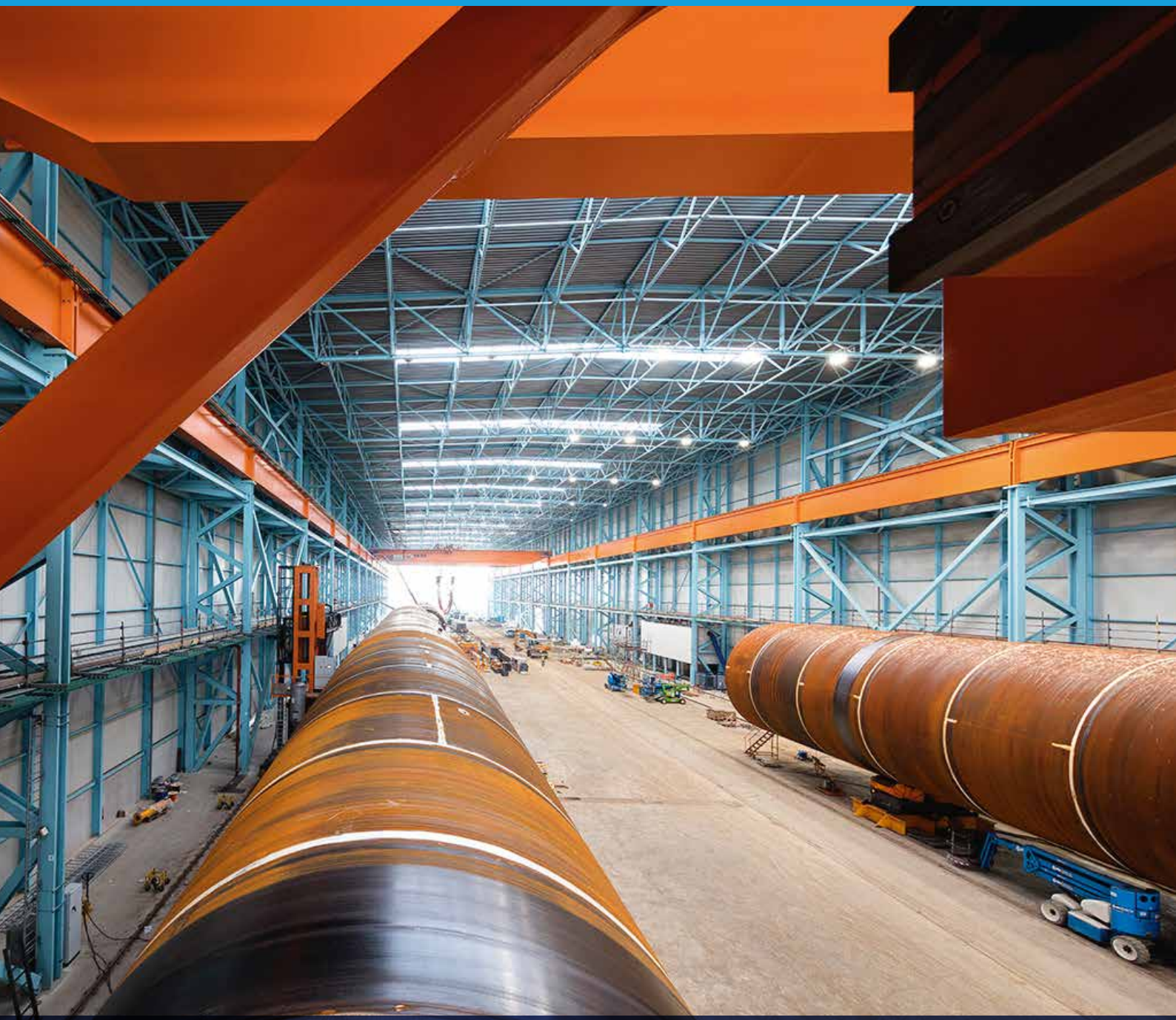
HOLOPHANE®

An AcuityBrands Company

CASE STUDY

HOLOPHANE LIGHTS THE IMPRESSIVE SIF MAASVLAKTE SITE



Quick Facts

- HOLOS Air - fully integrated interior control system
- Low on-going site maintenance costs
- Superior 'Volumetric Lighting' due to PrismaLED technology

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V-MAX™

Haloprism™

HOLOSAir

HOLOS Air

Background

Founded in 1948, Sif are market leaders in the production of foundation components for the offshore wind farm industry and the oil & gas industry. They are among the largest steel tubular manufacturers currently for the offshore industry.

In 2015 Sif and the Port of Rotterdam concluded an agreement for Sif to build a new additional production facility at the Maasvlakte site. The first foundations were laid the same year with the site becoming fully operational in the summer of 2017. The facility now stands on a 42-hectare site, is just over half a kilometre long and 30 metres high. The new facility has meant Sif has increased its production capacity from 225,000 tons to 300,000 tonnes a year. Sif has the ability to manufacture foundation piles up to 11 metres in diameter, 120 metres in length with each weighing up to 2000 metric tons.

Challenge

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.

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 lm 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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optics / light source

> Available with 5 light distributions; Narrow, Focused, Intensive, Broad and Extensive

> Lumen packages ranging from 15,000 to 60,000

> 80CRI

> 4000°K colour temperature

> Fully soak tested high powered LEDs

> Efficiencies of up to 153 lm/W

> Incorporates mid-power and high-power LED technologies

approvals

IP IP20 luminaire, IP65 option available

Complies with: EN60598

DIN 18032-3:1997-04*

Ta Up to 55°C

optics / light source

> Available with a variety of optical packages for various street lighting standards

> Lumen packages ranging from 1,000 to 34,000

> 4000°K and 3000°K colour temperature

> 100,000 hours life (L90B10) at 15°C tq

> -10° to +20° tilting*

approvals

IP 66 gear compartment (IEC60529)

IP 66 light engines (IEC60529)

Ta -40°C to +50°C

IK07 - Standard product

IK10 available

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