Light Guide

Port infrastructures









Port of Hamburg, Germany



Performance and efficiency

- Uniformity of lighting levels over a very long range
- Optimisation of the number of luminaires needed thanks to their lighting performance
- User safety because there is no glare
- Reduced light pollution



Resistance in marine environments

- Materials that are impervious to corrosion: aluminium ALSI12 with low copper content and 316L stainless steel
- Hermetically sealed IP65/IP68/69K

Why choose Sammode?

The lighting in port areas must be able to respond to numerous external constraints: humidity, particularly aggressive saline environment, vibrations, installation at great heights on gantries or masts–all while providing reliable and high-quality performance to ensure the safety of users. In response to these multiple requirements, Sill and Sammode, the specialists in high-power lighting and lighting in harsh environments, offer robust, sustainable solutions that guarantee the necessary levels and uniformity of lighting.

The Sammode guarantee

Sammode is committed to the quality and durability of its lighting solutions. Thanks to our experience in extreme environments, we can offer you long-lasting solutions with an up to 8-year guarantee in 24/7 intensive operation.





Long-lasting, repairable solutions

- Repairability and interchangeability of components
- Industrial electronic components
- Mechanical design resistant to vibrations



Optimised total cost of ownership

- Minimal energy consumption
- Reduced installation and maintenance costs
- Exceptional service life of our luminaires

Container terminal



Port of Rotterdam, Netherlands



As areas of heavy traffic and handling, container zones require very specific lighting: safety must be guaranteed with the need for minimum lighting levels providing good visibility and optimal uniformity for visual comfort. With their LED technology, our luminaires limit the risks of glare by ensuring homogeneous distribution of light output. Thanks to their long-range asymmetrical optics, Sill projectors enable the number of light points on new installations to be kept to a minimum and the power consumption in renovation projects to be reduced. All this while guaranteeing an unequalled level of lighting uniformity. These optics reduce light pollution by ensuring a ULR (upward light ratio) equal to 0.

Case study

Before



Traditional source lighting: 430 W

After



Sill 177 lighting: 350 W

Number of light points: 60 Number of luminaires per mast: 6 Distance between each mast: 100 metres Mast height: 25 metres

	Traditional source lighting	Sill 177	Benefits
Source	Metallic iodide	LED	Service life x 5
Power consumption (W)	430 W	350 W	Energy savings 20%
Uniformity	0.150	0.5	Uniformity x 3

Day



Night



Loading/Unloading dock



Port infrastructures



Installed on gantries and unloading cranes, luminaires face extreme conditions: saline environments, vibrations, humidity and wave splash. The materials used in Sill and Sammode products are selected to resist saline corrosion: 316L stainless steel and low copper content aluminium (AlSi12), which are naturally impervious to corrosion phenomena.

The projectors and their tailored optics-intensive, extensive and asymmetrical-can provide good illumination levels tailored to the height of the installation or the zone that requires lighting, from dockside to bilge tank.

Projectors on Ship/Shore Crane





BULK TERMINALS

Reliable and robust solutions suited to raw material conveyance and storage zones

Exterior approaches

• SILL 48

<u>Conveyors</u>

- CUGNOT
- BOYLE (ATEX zones 2, 21, 22)

Tanks and silos

- JAMIN (ATEX zones 2, 21, 22)
- SABATIER (ATEX zone 1)
- FUMAT (ATEX for great heights)

(UN)LOADING DOCK

A vast array of high-performance lighting solutions, for reliable, effective lighting from dock surrounds to bilge tank.

Gantries and loading cranes

- Heights < 20 m: SILL 48
- Heights 20-30 m: SILL 176
- CUGNOT (stairs and gangways)

Vicinity of docks, passageways and train terminal

• SILL 48

Emergency lighting

• COULOMB, MAXWELL

CONTAINER TERMINAL

Powerful and efficient, built-to-last solutions designed specifically for lighting intensive activity zones in large areas requiring a high level of security

Projectors on masts in the container zone

• SILL 176, 177

Mounted on gantries

- SILL 48, 176
- CUGNOT

Emergency lighting

• COULOMB, MAXWELL

ANCILLARY BUILDINGS

Efficient, long-lasting solutions for general lighting and at great heights indoors

Administrative buildings

• PASCAL

Transit warehouses

- Height 7-13 m: FRESNEL
- Height 13-25 m: SILL 48, 176
- Refrigerated warehouses (up to -40°C)
- Bering, Barents
- Maxwell BT

SHIPYARD

A vast array of solutions ranging from the construction/renovation of ships to embedded compact luminaires for circulation and orientation

Construction sites, gangways, embedded lighting

- PASCAL, FOUCAULT
- SILL 48

Machine rooms, specific work (paint)

- JAMIN (ATEX zones 2, 21, 22)
- SABATIER (ATEX zone 1)

Emergency lighting, signage

- COULOMB, MAXWELL
- MABUSE, MORISOT

Bulk terminals



Port of Nantes Saint-Nazaire, coal conveyor



Bulk materials, whether dry or liquid, require specific modes of handling. Petrochemicals, aggregates, grain and other goods need to be loaded and unloaded using conveyor systems. Lighting in these areas requires specific solutions, particularly in ATEX explosive zones (hydrocarbons, cereals). The luminaires must also be able to withstand strong vibrations and abrasion in the conveyor zones.

The range of Sammode tubular luminaires covers standard lighting as well as ATEX/IECEx zone 1, 2, 21, and 22 explosive environments. In compliance with the stringent requirements of EN 60598-1 (tests in accordance with IEC 60068-2-6) and IK10, our tubular luminaires are designed to withstand heavy vibrations and shocks, thus ensuring the sustainability of the installation. Thanks to their ergonomic, lightweight design, they are renowned for being so easy to install. An added benefit is that they are entirely maintainable. All parts of the luminaire can be replaced on site.

Shipyards



Port of Nantes Saint-Nazaire



Shipyard lighting is characterised by the vast dimensions of the buildings and structures on which the luminaires are used. The light fittings must therefore be lightweight, very flexible in their installation and powerful enough to illuminate these great heights.

Shipyard lighting has to meet a wide range of needs, from lighting up great heights to top-up lighting, not to mention lighting ATEX zones in painting areas.



The long-lasting, high-performance tube light



PS3 plug



Fixings on brackets



Protective stainless steel covers



ATEX prewiring 😣 🔤 with Maréchal lead

SILL

(Un)loading dock
Container terminal
Ancillary buildings
Shipyards
Bulk terminals

High-power projectors



Accessories and options for SILL 176, 177:



Connector for splicing



Angle brackets



Swivel bracket



Suspension kit



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References

AUSTRALIA Port Dalrymple Bay Coal Terminal

BELGIUM Port Zeebrugge

FRANCE Grand port maritime de Rouen Plaque portuaire Bordeaux Port de Brest Port de Lorient Port de Nantes Saint-Nazaire Port de Vannes

GABON Comilog Port of Owendo

GERMANY Berliner Hafen- und Lagerhausgesellschaft GmbH Duisburger Hafen Hafen Brake Hafen Hamburg Hafen Stralsund Hafen Wiek Hafen Wismar Seehafen Rostock Speicher Hafen SWRN (Sekundärwertstoff-Recycling-Hafen-Nürnberg)

NETHERLANDS CRO Ports Vlissingen Port of Rotterdam Port of The Hague

SCOTLAND Port of Ayr

UNITED KINGDOM Port Killingholme Sammode and Sill are the European specialists in technical lighting.

Industrial and family-owned, our companies share decades of expertise, innovation and excellence. Our industrial expertise means we can guarantee the suitability, performance, reliability and long-term robustness of all our products, with particular attention paid to design.

As designer, manufacturer and consultant all in one, we favour a customer-centric approach, ranging all the way to made-to-measure solutions.

When clients choose one of our products, they get more than a light fixture: they acquire intelligence and service.

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