
POLAB
PROFESSIONAL LIGHTING
Sustainable
& innovative lighting
in Smögen, Sotenäs
Municipality, Sweden

Welcome to Smögen, Sotenäs municipality, Sweden.

One of Scandinavia's most demanding coastal climates.

> "Sustainability in public lighting is about long service life, stable operation, reduced energy consumption and minimal maintenance - which in practice means delivering the right light, in the right place, at the right time.
>
> Material selection and structural design are therefore decisive factors in our decision-making process."

Johan Johansson

Head of Operations, Sotenäs Municipality

Over 40 years of experience in lighting within demanding environments.

When the climate is at its toughest

Smögen is one of Sweden's most demanding environments for outdoor lighting – where both materials and construction must stand the test of time.

Why VALDUR for Coastal Environments?

VALDUR features a corrosion-free SMC thermoset composite housing.

Designed for long service life, low maintenance, and reduced life-cycle costs.

COASTAL CLIMATE IMPACT

Blasting salt, strong winds, bird droppings, galvanic corrosion and UV radiation.

Coastal environments accelerate wear on traditional materials and surface coatings – especially in luminaires that must remain outdoors year after year.

PORTS & COASTAL INFRASTRUCTURE

Marine environments impose strict requirements on material durability and long-term performance stability.

GERMAN DESIGN AWARD WINNER 2024

German Design Award-jury:

"The modern design of the VALDUR street lamp combines aesthetics and functionality in a remarkable way.

The use of cutting-edge technology and innovative composite materials makes VALDUR a pioneer in street lighting."

NARROW STREETS & HERITAGE ENVIRONMENTS

Require more than just light.

In coastal communities, lighting must provide safety while blending in — without disturbing the surroundings.


DESIGN
AWARD
2024

RESIDENTIAL ENVIRONMENTS

The light must be pleasant.

When luminaires are installed close to building façades, visual comfort becomes crucial to the overall experience.

2024 HONORABLE MENTION LIGHTING DESIGN AWARDS

THE RIGHT LIGHT FOR THE RIGHT PLACE

We assist with lighting calculations.

POLAB supports lighting planning and lighting calculations to achieve the correct levels, uniformity, and visual comfort.

OPTICS THAT MAKE A DIFFERENCE

Innovative solutions with LEDiL.

Together with LEDiL, we offer modern optics for all environments – with precise light exactly where it is needed.

We customize solutions to suit specific requirements.

A GENTLER NIGHTTIME ENVIRONMENT

For people and wildlife.

Warmer light with a lower blue content is gentler on the nighttime environment and creates a calmer sense of place.

WARMER LIGHT COLOUR TEMPERATURES

VALDUR can be supplied with warmer colour temperatures for softer light in sensitive environments. 3000K, 2700K & 2200K colour temperatures with LED modules from Philips Signify.

Can also be combined with LEDiL amber optics. Blocks up to 99% of short-wavelength blue light.

SAFETY WITH REDUCED GLARE

The right optics and placement reduce glare and create safer streets and pathways.

FLEXIBLE MOUNTING

The luminaire is designed for pole diameters of 48–60 mm.

The same luminaire can be mounted horizontally or vertically.

SMC IN CRITICAL INFRASTRUCTURE

SMC composite has long been used in safety-critical infrastructure systems, including European railway applications.

ECONOMY IN COASTAL CLIMATES

Corrosion-free saves money.

When the luminaire is not degraded by the environment, the need for service and premature replacements is reduced – lowering the total life-cycle cost.

"The material itself provides protection – better than any protective coating."

NOT DEPENDENT ON SURFACE COATINGS

No protective coating required.

When surface coatings on metal age or are damaged, degradation can begin. With SMC, the protection is built into the material itself.

SMC- (Sheet moulding compound) Thermoset Composite

DIMENSIONALLY STABLE & ROBUST

When SMC is compression-moulded, a curing process begins in which the material crosslinks and forms a strong "network" that locks the fibres in place.

The structure becomes permanent – making the housing dimensionally stable, hard, and durable even in industrial and marine environments.

JEC WORLD INNOVATION AWARDS FINALIST 2025

JEC World Finalist Paris 2025 – the world's leading composites exhibition, with 40,000+ visitors annually.

CAMX THE COMPOSITES AND ADVANCED MATERIALS EXPO

CAMX Unsurpassed Innovation Award - Finalist 2025 Florida, U.S.A.

ERGONOMICS FOR THE INSTALLER

Lighter luminaire – easier and faster installation.

The lower weight makes handling and mounting easier for the installer and improves ergonomics during installation.

VALDUR with a Commitment to the Environment

As the first generation of LED street lighting now approaches 50,000 operating hours, visible signs of ageing are becoming evident.

Protective coatings and surface treatments have, in many cases, been exposed to significant stress. Degradation, wear and early-stage oxidation are not uncommon.

As modern LED systems are designed for lifetimes of up to 100,000 hours, a relevant question emerges:

What condition will the luminaire be in when it is actually due for replacement?

Aluminium has long been the industry standard, primarily for its thermal conductivity.

Patent-pending thermal solution ensuring controlled heat dissipation and long-term performance.

Why aluminium? When LED diodes temperatures exceed 95 °C, material degradation within the diode can begin, affecting both luminous flux and the expected life length.

The development challenge behind VALDUR was clear: to combine corrosion resistance with controlled and reliable thermal management.

That principle became the foundation of VALDUR.

LOWER ENERGY USE IN PRODUCTION

Efficient manufacturing with lower CO_2 impact.

SMC manufacturing requires less energy compared to die-cast aluminium.

"Lower climate impact across the entire life cycle – from production to operation."

LESS CO_2 IN LOGISTICS

The lower weight enables more efficient transportation and contributes to a reduced climate impact throughout the supply chain.

LOCALLY PRODUCED IN SWEDEN

Manufactured in Ljungby, Småland.

VALDUR is produced in Sweden – strengthening traceability and delivery reliability while reducing transport distances and CO_2 emissions.

ENERGY IN OPERATION

The combination of high-efficiency LED technology and intelligent control systems can further reduce energy consumption.

PHILIPS SIGNIFY LED TECHNOLOGY

VALDUR uses proven components from Philips Signify – LED solutions with high efficiency for low energy consumption throughout the product's lifetime.

OPTIMISED LED TECHNOLOGY

LED modules delivering up to approximately 200 lm/W (luminaire efficiency approx. 150–160 lm/W), or the option to choose warmer colour temperatures, or high colour rendering with ColorRevive.

A wide range of drivers is also available, offering configuration options with programmable drivers.

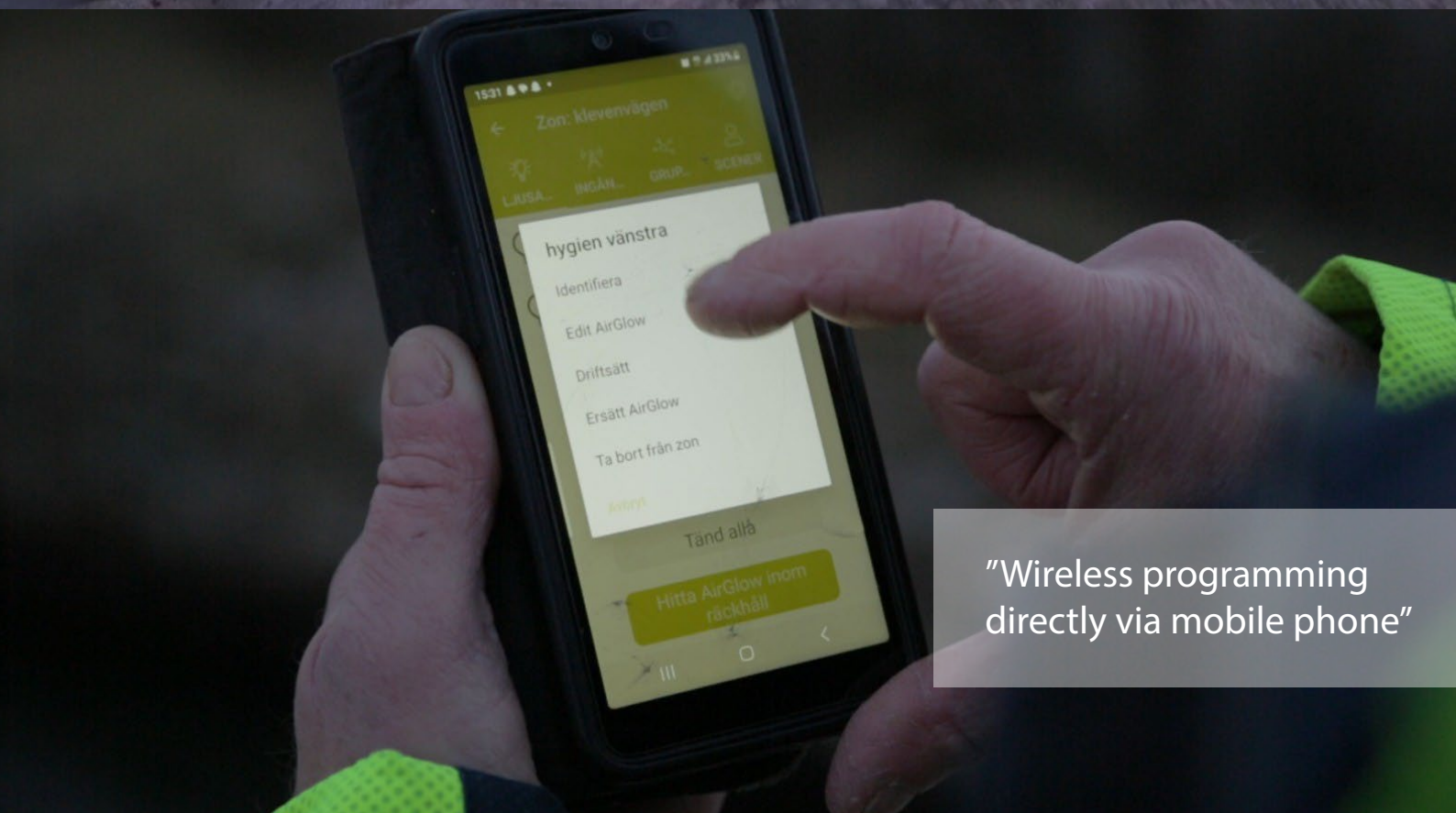
LumenRadio AirGlow

Radiotransparent composite material enables wireless control directly inside the luminaire.

VALDUR can be delivered with built-in control from LumenRadio – for wireless operation and future-proofing, without external enclosures on the luminaire.

EASIER FOR THE INSTALLER

Built-in functionality reduces the number of installation steps and enables faster installation.



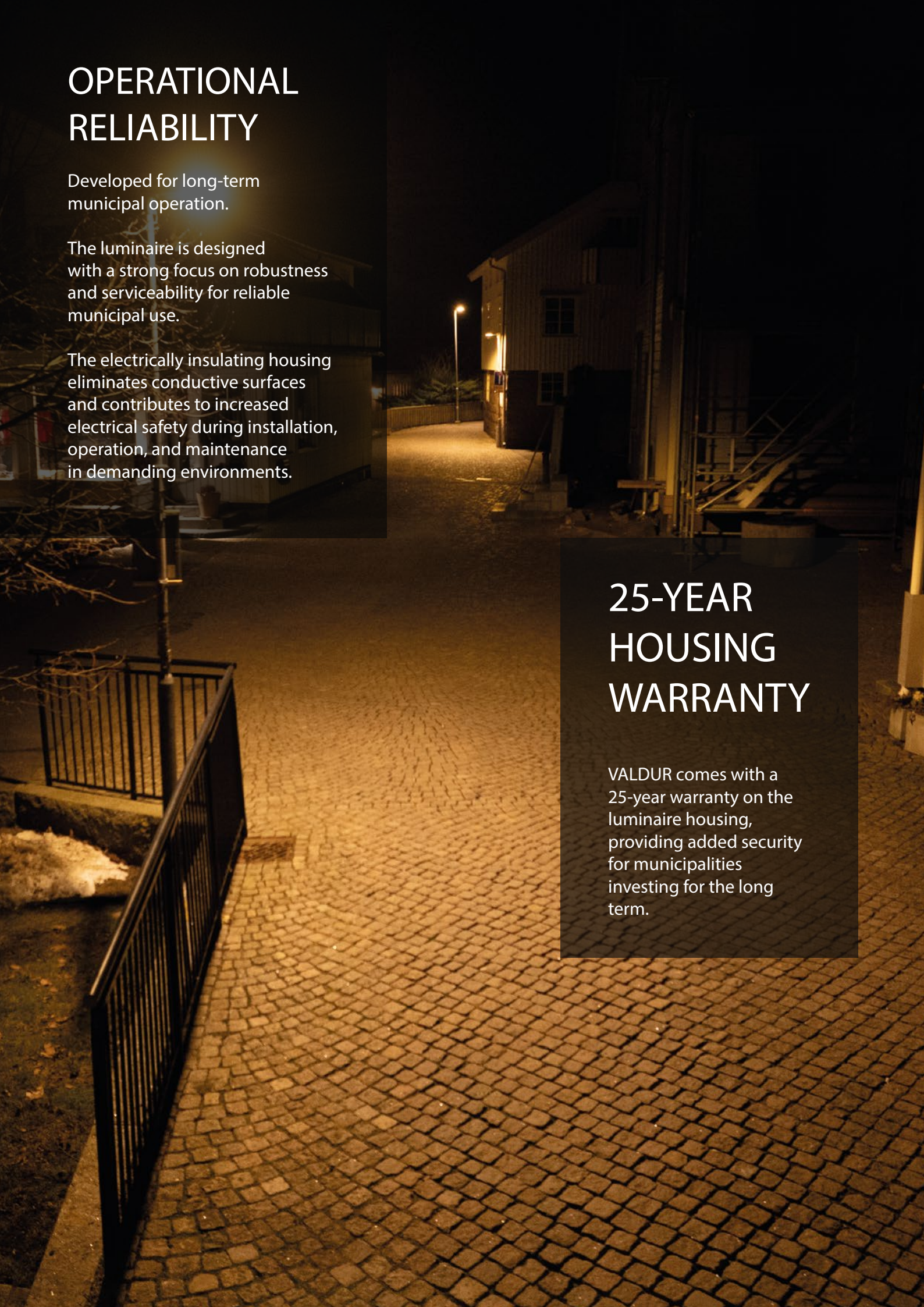
”Wireless programming directly via mobile phone”

ASTRONOMICAL CLOCK & LIGHTING SCENES

Order with time-based control via integrated astronomical clock and dynamic lighting scenes for energy-efficient operation.

PRESENCE-BASED CONTROL

On roads and pathways with low traffic, presence-based control can deliver very large energy savings – depending on scene profiles and traffic patterns.



OPERATIONAL RELIABILITY

Developed for long-term municipal operation.

The luminaire is designed with a strong focus on robustness and serviceability for reliable municipal use.

The electrically insulating housing eliminates conductive surfaces and contributes to increased electrical safety during installation, operation, and maintenance in demanding environments.

25-YEAR HOUSING WARRANTY

VALDUR comes with a 25-year warranty on the luminaire housing, providing added security for municipalities investing for the long term.

VALDUR Light grey

DESIGN AWARD 2024

VALDUR Black

Or optional custom colours available upon request.

GERMAN DESIGN AWARD WINNER 2024

POLAB was founded in 2010 and has worked with LED-based street lighting since the early adoption of the technology.

Today, service life is no longer defined solely by the light source - but by the materials and construction of the luminaire itself.

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