SCHRÉDER GROUP NEWSLETTER
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Schréder

OUR LED COMMITMENTS

1 POWERFUL PHOTOMETRIC ENGINES

SCHRÉDER HAS DEVELOPED 2 PHOTOMETRIC ENGINE CONCEPTS TO COVER ALL TYPES OF ROAD AND URBAN LIGHTING

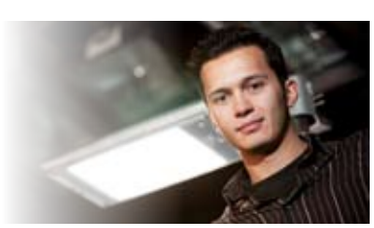
Oriento®/OrientoFlex® - a photometric system that maximises LED performance.

Koen Van Winkel, Schréder Group Road & Tunnel Lighting Product Manager

"Conceived and developed by Schréder, Oriento® is a photometric system based on precise focusing of LEDs. These systems are fitted with lenses that have been selected down to the very last detail. Each LED associated with a lens can be independently focused. It is a combination of all the LEDs that creates the overall light distribution.

Oriento® therefore makes it possible to maximise luminous flux on the road while avoiding any potential light disturbances such as intrusive light.

A variant of the Oriento® concept further ensures total flexibility in terms of lighting. OrientoFlex® enables the number of LEDs to be changed as well as the way in which they are focused, in order to respond to a wide range of road lighting applications. The flexibility of OrientoFlex® also allows settings to be made according to the specific needs of each project. It means that specific requirements can be met in terms of lighting, and particularly taking account of the surroundings.



LensoFlex® - a photometric system for use in urban areas

Philippe Vo Van, Schréder Group LED Project Manager

"LensoFlex® is a photometric system that works on the addition principle of lighting distribution. Since each LED associated with a specific lens generates the full light distribution of the luminaire, it is the number of LEDs which determines the level of intensity of light distribution. The LensoFlex® concept enables LEDs to be placed horizontally.

In order fully to control the performance of LED luminaires based on this concept, Schréder has specifically designed a range of lenses that ensure flexibility of the photometric engine. Thanks to the range of photometric solutions for creating lighting ambiances, the LensoFlex® system is particularly suitable for urban areas such as streets, avenues, parks, public places and cycle paths and for the well-being and security of people living in towns.

OUR LED COMMITMENTS

2 REDUCED ENERGY CONSUMPTION AND MINIMAL ENVIRONMENTAL FOOTPRINT

Rational use of energy

Jean-Luc Lambert, Schréder Group Urban Lighting Product Manager

"LED luminaires developed by Schréder demonstrate remarkable photometric performance. For example, with the Senso luminaire installed on an M4-classifed road, and adhering to CIE 115, the power needed to meet a steady lighting level of 0.75cd/m² is less than 0.6W per m² of roadway and per required cd/m².

The performance of our photometric, thermal and mechanical designs are clearly aimed at reducing the energy used for meeting the required lighting levels, respecting applicable international standards, throughout the entire usable life of the luminaire.

For Schréder, advancing durable and responsible solutions that optimise energy and lighting benefits is a non-negotiable commitment.

It is possible to achieve furthermore up to 30% savings thanks to intelligent systems that vary intensity levels, and provide remote management and movement detection.

Environmental footprint and label

Luc de Lamalle - Schréder Group Communications Director

"When all parameters that need to be taken into account when designing a luminaire have been successfully mastered, LEDs can be used to create light sources that are both low-energy and intelligent.

Less energy means lower operating costs and also lower CO_2 emissions.

In terms of the environment, LEDs stand out because they have long usable lives. Furthermore, as with all its luminaires, Schréder is committed to promoting the use of durable and recyclable materials such as aluminium and glass.

In order to respond to concerns about minimising environmental impact, Schréder has incorporated a label: "The green light".

Most of our LED luminaires meet our label's objective criteria across the four areas we have researched: energy, light disturbance, materials and production.

SCHRÉDER THE GREEN LIGHT

OUR LED COMMITMENTS

3 RELIABLE SOLUTIONS

AS PART OF OFFERING RELIABLE, DURABLE AND EFFECTIVE SOLUTIONS, SCHRÉDER HAS DEVELOPED TWO DESIGNS.

ThermiX®, up to 80% of luminous flux guaranteed for a minimum of 60,000 hours

Hervé Damoiseau, Project Manager of Schréder Group Research & Development Centre

"Thermal management of LEDs is a crucial aspect in terms of the luminaire's reliability. Controlling lost heat is essential for ensuring the LED lasts a long time by maximising effectiveness and preserving luminous flux over time.

Schréder has developed a concept – ThermiX® - which is based on optimising several parameters in the thermal management of LEDs:

- *Thermal compartmentalisation between the LED and electronic control gear.*
- *Direct conduction: lost heat takes the shortest route between the source and outside.*
- *The optimised design of the heat exchange surface with the outside.*
- *The printed circuits on which the LEDs are fixed and connected (PCBs) are fitted with a temperature sensor that avoids any accidental overheating.*

When designing LED luminaires, Schréder uses sophisticated thermal simulation software early on to determine the future behaviour of the luminaires. Before going into production, further measures are implemented - first on the prototypes and then on initial samples.

The ThermiX® principles used in our LED luminaires enable at least 80% of the initial luminous flux to be maintained over 60,000 hours of use, up to a maximum ambient temperature of 35°C.

ThermiX® concept

LEDSafe®, effective protection to last longer

Christian Marville, Technical Director of Schréder Group

"Through the Sealsafe® system, Schréder was a pioneer in maximising the length of time traditional-source luminaires maintain their performance. Sealsafe® ensures that the inside of the optical compartment stays clean throughout the entire life of the luminaire.

This was then adapted and integrated into our LED luminaires. The LEDSafe® has a completely sealed photometric engine that ensures lighting performance is maintained by avoiding dust and water from getting into the optical chamber.

LEDSafe® concept

OUR LED COMMITMENTS

4 UPGRADABLE TECHNOLOGY

FutureProof, Schréder's upgradable concept

Marc Gillet, Director of Marketing and the Schréder Group Research & Development Centre

"Since LEDs are always undergoing technological development, Schréder has devised upgradable luminaires for road lighting. Our luminaires already benefit from the latest developments in electronics, photometry, materials and, naturally, LEDs; in addition, the design of our latest versions responds to concerns over adapting to LEDs yet to come. In our most recent advances, both the photometric engine and the electronic assembly have been designed to be replaced at the end of the LEDs' useful life, in order to take advantage of future developments in this technology.

FutureProof, devised by Schréder, highlights our desire to offer solutions that will last over time and will adapt to technological change.

Piano

Senso

Claro

LED GENERATION

Schréder

Abu dhabi | Alexandria | Basingstoke (UK) | Belgrade | Beirut
Bogota | Brussels | Budapest | Buenos Aires | Carrouge (CH)
Chicago | Cluj Napoca (RO) | Cochabamba | Guadalajara (SP)
Ho Chi Minh City | Kuala Lumpur | Lima | Lisbon | Montreal | Moscow
New Delhi | Olifantsfontein (ZA) | Paris | Prague | Quito
Rhenen (NL) | Sao Paul | Santiago | Singapore | Ternopil | Tianjin
Torino | Warsaw | Wendlingen (D) | Wien

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