

# Design and materials

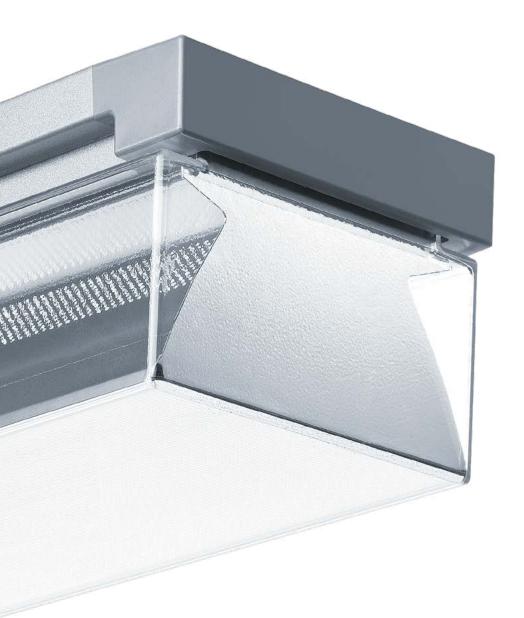
Ambassadors for innovative technology

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PERLUCE linear luminaire with LRO optic

Luminaires with extra protection are used when the primary requirement placed on a fit-for-purpose lighting solution is better protection and simpler maintenance. PERLUCE is a closed lighting system that sets new standards in terms of everyday usability and combines this with a variety of optics, IP50 and IP54 protection and various models. Its deliberately utilitarian materials are reflected in its functional design. Its plain, unpretentious stylistic idiom gives precedence to the architecture of the room: light, not the luminaire, is the centre of attention.





"PERLUCE is inspired by the idea of a deliberately simple design, whose strength lies in its functionality and excellent logic of detail. The design is timeless, yet the forms, materials and colours act as platforms for innovative technologies."



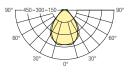
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Photos scale 1:1

## **PERLUCE** with LRO optic

With its Luminance Reducing Optic (LRO), PERLUCE LRO provides extra scope for creative design. The luminaire produces extremely glare-free light. This improves lighting comfort and creates ideal visual conditions, even with horizontally inclined laptop screens – regardless where the luminaire is positioned relative to the workstation. This means that nothing stands in the way of flexible desk arrangements in offices and classrooms.

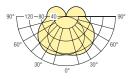




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## **PERLUCE** with opal optic

The lighting unit distributes diffuse light uniformly throughout the room while at the same time gently brightening up the ceiling. This results in a friendly lighting atmosphere that is a pleasure to experience, especially in corridors, stairwells and adjoining rooms. The opal diffuser provides other benefits as well: its smooth surface is easy to clean and the LEDs are hidden from direct view. This impressive combination of a backlit area and effective protection is available in a linear luminaire and in two different sized square models.



## **Butt joined**

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PERLUCE as a continuous-row system



Photos scale 1:1

### Continuous-row system

PERLUCE makes no distinction between individual optics in terms of installation options and mounting convenience. PERLUCE displays its strengths, both as an individual luminaire and as part of a continuousrow system. In both cases, it is possible to attach the luminaire directly to the ceiling or to install it on trunking.

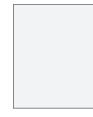


620 mm		
	1220 mm	
		1520 mm

All four PERLUCE styles are available in three classic linear lengths.

## Luminous panels

PERLUCE as a cluster



**310 x 310 mm** 2140 lm, 116 lm/W 2250 lm, 122 lm/W 3000 K / 4000 K IP50 / IP54 620 x 620 mm 5230 lm, 124 lm/W 5490 lm, 130 lm/W 3000 K / 4000 K IP50 / IP54

### More than the sum of its parts

Clusters of opal PERLUCE luminaires are an alluring eye-turner; they are easy to implement and also very simple to look after and maintain. Where used as an individually combinable design element for ceilings and walls, the luminaire becomes a flexible modular system for delivering diffuse wide-area light – for example in order to provide higher illuminance levels in central areas of an entrance lobby or an underground car park. With just a few mounting points, the luminaire is easy to install and simple to maintain, even the luminaires that are located in the centre of a cluster.



# For ceilings and walls

PERLUCE circular luminaire



Ø 350 mm 2010 lm, 110 lm/W 2000 lm, 122 lm/W 3000 K / 4000 K IP50



3800 lm, 116 lm/W 3990 lm, 121 lm/W 3000 K / 4000 K IP50

### Variable in all directions

As a circular luminaire, PERLUCE is free from any geometrical constraints pointing into a particular direction or dictating any lines. Its round, self-contained design rather opens up all options of flexible arrangement – both on ceilings and on walls. The opal diffuser protects from glare and makes luminance levels visible. In this manner, the luminaire provides a pleasant form of orientation. Thus, the circular PERLUCE luminaire is up to the most varied tasks: from creating a welcoming atmosphere in long corridors or stairways to setting the lighting stage for open-design areas.



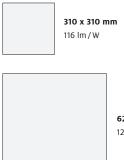
# **Durability and efficiency**

PERLUCE opal



PERLUCE LED without cover, 620 x 620 mm Photos scale 1:1

### Design sizes Square



a perfect match. Quality benefits include wide-area illumination the full luminous flux immediately after the luminaire has been switched on. Due to a higher protection rating and a service life of 50,000 hours, PERLUCE LED stands out as a maintenance-free luminaire protected against soiling. Another impressive feature: PERLUCE LED luminaires can be conveniently integrated into lighting management systems, and can be dimmed as frequently as required without any loss in performance or reduction of service life.

Efficient technology providing up to 124 lm/W and opal diffusers make

**620 x 620 mm** 124 lm / W



### Design sizes Linear

620 mm		
1220 mm	113 lm / W	
1520 mm		113 lm / W

 Ø 350 mm

 110 lm / W

 Ø 450 mm

 115 lm / W

## From start to finish

Both simple and stable





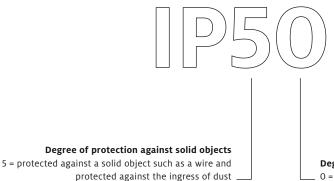
### Installation and maintenance

In daily use, PERLUCE proves that sophisticated lighting technology can go hand-in-hand with an easy-clean design. This is made possible by a robust housing and a sealed unit comprising optic and diffuser that locks in position precisely without the use of any tools. This protects both LEDs and lighting technology, which in turn minimises maintenance and cleaning effort. This ensures that the luminaire operates very efficiently for a long time.



## Well protected

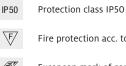
Well protected against solid objects and, optionally, splashing water



Degree of protection against water 0 = non-protected

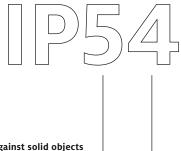
### PERLUCE IP50

PERLUCE offers IP50 protection as standard. Because both LED and optic are perfectly protected by various diffusers and a durable, elastic gasket, there is effectively no possibility of these components becoming soiled. This has the advantage that the luminaire's light output ratio decreases more slowly, thus allowing for longer maintenance intervals. The consistently robust design of the luminaire makes it the ideal lighting tool for storage areas, workshops, school rooms and adjoining rooms in sports halls and hospitals.



Fire protection acc. to DIN VDE 0711 Part 1

European mark of conformity of the EU and EFTA



Degree of protection against solid objects

5 = protected against a solid object such as a wire and protected against the ingress of dust \_

#### **Degree of protection against water** 4 = protected against splashing water from any direction

### PERLUCE IP54

Building on the same effective sealing as the IP50 luminaire that affords protection against solid objects, PERLUCE IP54 also features protection against splashing water. This is achieved through selfsealing screws and clinch joints as well as special sealing grommets that are described in detail on the next double page. Typical application areas for IP54 luminaires with extra protection include wet indoor areas, production workshops, laboratories, underground car parks and rooms where foodstuffs are manufactured, processed or packed.

- IP54 Protection class IP54
- F Fire protection acc. to DIN VDE 0711 Part 1
- Dust ignition protection
- European mark of conformity of the EU and EFTA

## Measures to ensure extra protection

PERLUCE IP54

### Housing

Zumtobel has successfully developed a luminaire housing which, despite clinch joints, is splash proof. Clinch joints have proven themselves as a reliable method of attaching control gear both quickly and durably. An all-round gasket made of highly elastic, durable foam plastic prevents splashing water from penetrating inside the luminaire. The fact that all PERLUCE luminaires have halogenfree wiring is another important safety feature.

### Sealing grommets

Openings are sealed with special grommets designed to ensure higher degrees of protection in order to prevent leaks at points where cables penetrate into the luminaire.



### spedcaps®

Built-in components are secured with self-sealing fastening screws. These ensure high loosening resistance and also make it possible to replace a ballast without compromising sealing.

### Raw material for diffuser

Zumtobel uses UV-, chemically and impact-resistant polymethylacrylate (PMMA) for both the transparent and opal optics. The difference between PMMA and polycarbonates becomes apparent as they age: PC goes yellow, PMMA hardly goes yellow at all.







Volkswagen AG, Emden / DE Architect: Thomas Single, Wolfsburg/DE Lighting design: Volkswagen AG, Wolfsburg/DE

### Setting objects vividly centre stage

Prestigious objects like cars want to impress people with their lines, their colours and even the thickness of their paint. It is the task of the lighting system to evoke dynamism and emotions in those who look at the cars. PERLUCE plays a major role in achieving this: the combination of diffuse and directional light reflects the interplay of sunlight and clouds in the sky. Illuminated surfaces and spotlights for accent lighting compose an overall visual experience that is almost an image of perfection – a car moving against a natural backdrop.







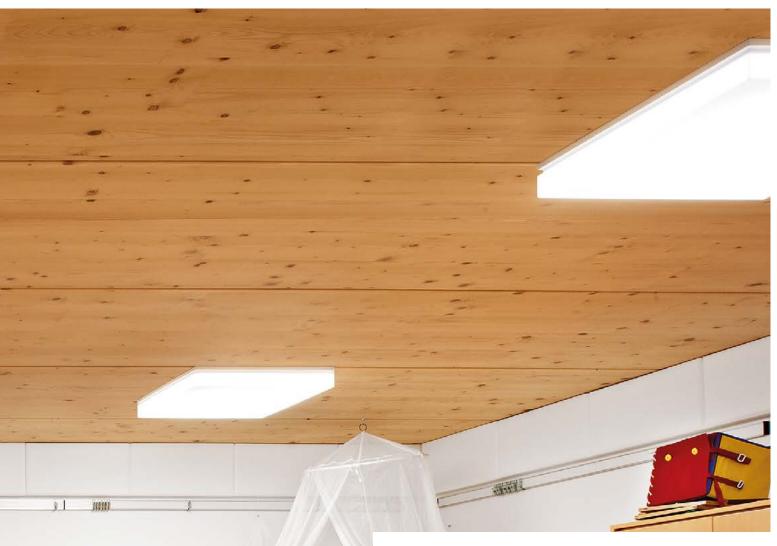
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### Light for colours and shapes

In classrooms that are used for specialist craft lessons, light's most pressing task is to make small objects and minimal colour differences easily identifiable. This requires illuminance in conformity with applicable standards, well-balanced shadow detail and good colour rendering. A PERLUCE IP50 or IP54 luminaire also offers perfect protection against soiling in situations where there are high dust levels.









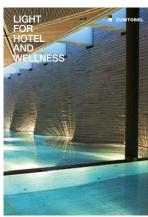
Nursery school, Girlan / IT Architects: Ohnewein & Haller, Bolzano / IT

### Light that makes children feel good

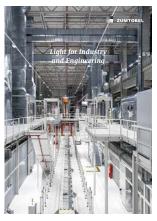
In order to develop properly, children need varied, ever changing impressions. To create these, rooms are needed with plenty of space, flexible furnishings and lighting that enhances varying settings of play and work. The wide-area, pleasant and uniform lighting with all-round glare control of the opal PERLUCE luminaire meets these requirements perfectly. The indirect light component improves uniformity and creates a pleasant atmosphere in the room. Zumtobel, a company of the Zumtobel Group, is an internationally leading supplier of integral lighting solutions for professional indoor and outdoor building lighting applications.



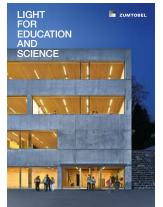
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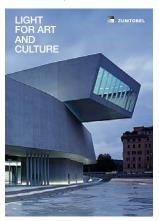
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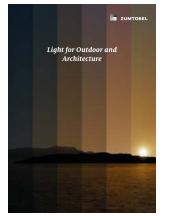
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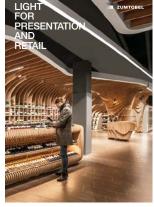
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Top quality – with a five-year guarantee. As a globally leading luminaire manufacturer, Zumtobel provides a five year manufacturer's guarantee on all Zumtobel branded products in accordance with the terms of guarantee at **zumtobel.com/guarantee**.



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- Industry and Engineering
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- Living

We provide unique customer benefits by integrating technology, design, emotion and energy efficiency. We combine the best possible ergonomic lighting quality for an individual's well-being with the responsible use of energy resources. The company's own sales organisations in twenty countries, as well as commercial agencies in fifty other countries, form an international network of experts and design partners providing professional lighting consulting, design assistance and comprehensive services.

### Lighting and sustainability

In line with our corporate philosophy "We want to use light to create worlds of experience, make work easier and improve communications and safety while remaining fully aware of our responsibility to the environment", Zumtobel offers energyefficient high-quality products, while at the same time making sure that our production processes based on the considerate use of resources are environmentally compatible.

zumtobel.com/sustainability

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Tracks and spots

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Downlights

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High-bay luminaires

Luminaires with extra protection



Lighting management systems



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## The Light.

