Simply brighter.

www.lars.pl/en

AWARDED AT INTERNATIONAL FAIR OF LIGHTING EQUIPMENT IN 2017

LARSA
the brightest path for suspended ceilings

www.lars.pl/en
LARSA is a brand new lighting system with advanced LED technology. The minimalist luminaire lies camouflaged amongst its surroundings until powered on. LARSA lamps can be installed in many configurations, enabling them to meet the creative vision of the discerning designer, but also fulfill functional requirements with ease. They provide the highest level of lighting comfort in offices, halls and public buildings – any space that requires a contemporary look and solid lighting - while maintaining the utmost standards of energy efficiency. LARSA supports the acoustic quality of suspended ceilings and its simplicity, minimalism and functionality create an aesthetic and highly energy efficient alternative to other lamps.

- 100% designed and produced in Europe
- Provides 70% energy saving compared to fluorescent raster lamps and 36% in relation to popular LED raster lamps¹
- Compliments acoustic interiors – up to 16% less noise
- 5-year warranty
- Freedom to create unique lighting patterns
- Certified for use in clinical areas of hospitals and health care buildings

LARSA is in high energy class that brings real savings of up to €18 per year for each lamp². The table below displays ROI over time.

<table>
<thead>
<tr>
<th>ENERGY CLASS</th>
<th>LARSA – ROI over time</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Fluorescent raster lamp</td>
</tr>
<tr>
<td>A</td>
<td>LED raster lamp</td>
</tr>
<tr>
<td>B</td>
<td>LARSA 60S x 2.5</td>
</tr>
</tbody>
</table>

ROI after 2,9 years

1) Research conducted on certified laboratory equipment with respect to the leading European manufacturers of fluorescent and LED lamps.
2) Two and a half of LARSA 60S generate light even to a standard raster luminaire with four fluorescent lamps. Analysis based on average industry electricity price for EU-28 from 2016 (0.12€ per kWh) and assumption that one lamp lights 12 hours a day.
How to choose the right lighting?

1. Choose the type of ceiling
   The ceiling type defines the mounting method. Depending on whether you are planning on using ceiling tiles, plaster or a metal ceiling, the method of installation will be different.

2. Choose the diffuser
   The opal diffuser gives a pleasant dispersion of the light, transparent diffuser gives more light in the room, and TU diffuser limits the glare.

3. Select LEDs
   Those with a higher CRI will allow you see the colours as they are in natural daylight.

4. Options
   When making the decision as to which type of LARSA you will use in your project you can additionally choose the EM option with a frame that has an emergency module and / or wireless control.

If you need assistance in selecting the right product, feel free to email us at: lighting@lars.pl. Our Project Design Department is a team of lighting experts and architects who use programs such as AutoCAD, DIALux and RELux daily.

We ensure that every project fulfills the requirements of modern facilities while maintaining optimal energy standards and financial performance for investors.
LARSA SYSTEM

LARSA System is a solution that fits in with suspended ceiling systems of the most popular producers. Thanks to special hooks and a high back frame, it can be hung quickly and easily on the ceiling structure. Its slim profile increases the noise control in the space.

Acoustic ceilings protect people from tiring noise. However, replacing sound-absorbing panels with the classical luminaires can reduce their efficiency by up to 16%.

LARSA lamps fit between the ceiling panels, optimising the control of sound and improving acoustic comfort in the space.

Thanks to its low profile and special hooks, the LARSA System can be installed under ventilation and fire protection systems without any problems.

Examples of the lighting patterns*

* To create light patterns I and III, the use of LARSA 120 Half is required. It is a luminaire with a length of 120 cm, which contains LEDs on one half and a bare surface on the other. It hangs between the main girders.
LARSA CLICK!

LARSA Click! is a simple and effective solution for **plaster ceilings, vertical baffles and other flat surfaces**. Thanks to the high quality elements, the lamp is very lightweight, which allows to install it even in soft materials. Simply screw in the clips and insert the LARSA lamp. You will know it’s all done when you hear the characteristic: „Click”.

LARSA FIST!

LARSA Fix! is a solution for **metal ceilings**. Uninterrupted light continuity emphasizes the purity and the form of metal. A powerful stream of light classifies it, just like the rest of the family, as the main lighting fixture.

This lamp has a transparent diffuser that increases luminous efficiency by 25%¹. Recommended for industrial buildings, production halls, fairs halls, sport halls, public buildings and all other spaces with high ceilings.

A lamp with transparent diffuser, with a low degree of glare (UGR). Recommended for use in shops, corridors, hospitals, homes and offices, where it is essential to reduce glare.

₁ Based on laboratory tests carried out in relation to the lamp LARSA 60S.

This lamp was created specifically for the printing, textile and trade industries. However, it can also be installed in dental practices and any other space where better seeing and distinguishing of colours is a priority. The advanced LED technology allows for colour rendering index (CRI) over 95.

Based on laboratory tests carried out in relation to the lamp LARSA 60S.

Options

All LARSA lamps can be extended with additional options.

Standard luminaire with an additional emergency module that illuminates evacuation routes in case of power outage (batteries last up from 1 to 3 hours). The green LED continuously alerts about system activity while the minimalist design ensures the smooth surface of the ceiling is preserved.

The LARSA system can be combined with any control method.

To set the intensity of light you can use a wireless remote control, a free smartphone app or advanced systems like KNX, DMX and DALI. This control over lighting sections guarantees savings and diversifies patterns on the ceiling, intensifying the „wow-factor.”

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LEDs

COMFORT or RA type LEDs can be used in all LARSA lamps.

Interface:
DALI, KNX, DMX

Smartphone:
IOS, Android, Windows

COMFORT or RA type LEDs can be used in all LARSA lamps.
### Parameters

<table>
<thead>
<tr>
<th>Parameters</th>
<th>LARSA 60 S</th>
<th>LARSA 120 S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power</strong></td>
<td>10 W</td>
<td>20 W</td>
</tr>
<tr>
<td><strong>Input voltage</strong></td>
<td>24 VDC (SELV)</td>
<td>24 VDC (SELV)</td>
</tr>
<tr>
<td><strong>Beam angle</strong></td>
<td>140°</td>
<td>140°</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>Neutral white</td>
<td>Neutral white</td>
</tr>
<tr>
<td><strong>Colour temperature</strong></td>
<td>4000 K</td>
<td>4000 K</td>
</tr>
<tr>
<td><strong>Luminous flux</strong></td>
<td>1050 lm</td>
<td>2100 lm</td>
</tr>
<tr>
<td><strong>LED durability</strong></td>
<td>50,000 h</td>
<td>50,000 h</td>
</tr>
<tr>
<td><strong>Ambient temperature range</strong></td>
<td>From 0°C to 40°C</td>
<td>From 0°C to 40°C</td>
</tr>
<tr>
<td><strong>Humidity (without condensation)</strong></td>
<td>&lt;95</td>
<td>&lt;95</td>
</tr>
<tr>
<td><strong>Controls and dimming</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>IP code</strong></td>
<td>IP40</td>
<td>IP40</td>
</tr>
<tr>
<td><strong>Colour Rendering Index (CRI)</strong></td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td><strong>Colour Rendering Index (CRI) LARSA RA</strong></td>
<td>&gt;95</td>
<td>&gt;95</td>
</tr>
<tr>
<td><strong>Energy class</strong></td>
<td>A+</td>
<td>A+</td>
</tr>
</tbody>
</table>

### Dimensions

All LARSA lamps are available in two standard dimensions **60cm** and **120cm**.

#### LARSA System 60 / 120

![LARSA System 60 / 120 Diagram](image)

#### LARSA Click! 60 / 120

![LARSA Click! 60 / 120 Diagram](image)

#### LARSA Fix! 60 / 120

![LARSA Fix! 60 / 120 Diagram](image)