Light is essential

OSRAM medical products

Specialty light sources for medical and industrial applications
Medical Fiber Optics

Benefits
Illumination of human organs or tissue containing a well-balanced spectral characteristic and high color rendering. Focused light beam for easy and efficient coupling into light guides with small diameters. Optimized for endoscopy and surgical headlamps.

Discharge/Halogen/LED
- XBO®
- XBO® LED
- 64627 HLX®
- 64634 HLX®
- 64653 HLX®
- ITOS® Phaser 3000

Microscopy

Benefits
Illumination for microscopy visualization in medical and life science systems. Providing white light and a wide range of wavelengths for fluorescence applications. Optimized for surgical, diagnostic, and inspection microscopy.

Discharge/Halogen/LED
- HBO®
- XBO®
- HXP®
- Halogen lamps without reflector
- ITOS® Phaser 3000

Analyzing

Benefits
Effective illumination for analyzing and diagnostics to identify the molecular structure of a compound or to determine its purity. The filament with tight tolerances provides an excellent and uniform illumination of small areas with constant and brilliant light over the entire lifetime. Customized solutions on request. Optimized for analyzing and diagnostics.

Discharge/Halogen
- HBO®
- XBO®
- HXP®
- 64258
- 64259
- 64623 HLX®
- Halogen modules

Surgical Lighting

Benefits
Instant brilliant light and light output over life with a constant color temperature and excellent color rendering.

Discharge/Halogen
- HBO®
- XBO®
- HXP®
- Halogen lamps without reflector
- ITOS® Phaser 3000

Purification with UV Light

Benefits
Long life and high germicidal efficiency for surface sterilization, air and water purification.

Discharge
- PURITEC® HNS®

Bilirubin therapy lighting

Benefits
As part for medical devices OSRAM BLUE is the perfect solution for the treatment of jaundice. Its compact design is suitable for mobile equipment and hand-held luminaires. It works emission-free and with low energy consumption.

Discharge
- DULUX® S BLUE 9W/71
- DULUX® L BLUE 18W/71
- L BLUE 18W/71

The right light for your application
Curing: Adhesives and Composites

Benefits
Exposure of light-activated composites and adhesives. High irradiation level required for short curing times in dental and industrial applications.

Discharge
- HBO®
- HXP®
- Halogen
  - 64613
  - 64617/64617S
  - 64624

LED
- DO BDL 8W M

Discharge lamps
- XBO® 75 W, 100 W, 150 W

Optimized UV Light HBO®
- Xenon discharge lamp for DC operation
- Color rendering index > 95
- Short arc
- Hot restart

Halogen lamps
- Halogen HLX® lamp family

- HLX® tungsten halogen low-voltage lamp with or without a reflector
- Xenon-gas-filled lamps have up to 10 % higher luminous efficacy than standard lamps
- Instant light
- Dimmable
- Mercury-/Ozone-free

- Infrared-coated capsule XIR®

- Tungsten halogen capsule filled with xenon gas and in addition with infrared (IR) coating on the glass bulb for maximum energy efficiency
- IR capsule produces up to 30 % higher luminous efficacy than standard lamps with the same characteristics (wattage and lamp life)
- Mercury-/Ozone-free

- Halogen Lamp Modules – Customized Solutions

- Various lamp types can be combined with a customized lamp holder
- Automatic computer-controlled production process with very tight tolerances
- Lamp is optimally adjusted in the system after the replacement, no readjustment necessary
- Special customized solutions on request

The right light for your application
## Discharge lamps

<table>
<thead>
<tr>
<th>Optimized UV &amp; Blue Light with Long Life HXP® R 120 W UV</th>
<th>UV, Blue &amp; White Light with Long Life HXP® R 120 W VIS, 200 W</th>
<th>Excellent Xenon Light XBO® 100 W, 180 W, R 300 W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury discharge lamp for AC operation at constant power</td>
<td>Mercury discharge lamp for AC operation at constant power</td>
<td>Xenon discharge lamp for DC operation</td>
</tr>
<tr>
<td>Short arc</td>
<td>Short arc</td>
<td>Color rendering index &gt; 95</td>
</tr>
<tr>
<td>Long average life: up to 2,000 hours</td>
<td>Long average life: up to 2,000 hours</td>
<td>Short arc</td>
</tr>
<tr>
<td>Focus diameter of approx. 5 mm</td>
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</tr>
<tr>
<td>Reflector of HXP® R 120 W UV coated for maximum reflection in 320 ... 500 nm range</td>
<td>Reflector coated for maximum reflection in UV, blue and visible spectral range</td>
<td>Reflector coated for maximum reflection in visible spectral range</td>
</tr>
<tr>
<td>ECG / lamp system</td>
<td>ECG / lamp system</td>
<td>ECG / lamp system</td>
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</tbody>
</table>

## Discharge lamps

<table>
<thead>
<tr>
<th>Linear PURITEC® HNS® UV-C Light</th>
<th>Compact PURITEC® HNS® UV-C Light</th>
<th>OSRAM BLUE lamps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficient at disinfecting air, water and surfaces</td>
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<td>Low mercury content</td>
</tr>
<tr>
<td>Effective and environmentally friendly disinfection without chemicals</td>
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<td>Long lifetime thanks to special high-quality coating of the glass bulb</td>
</tr>
<tr>
<td>Low mercury content</td>
<td>Low mercury content</td>
<td>Color rendering index thanks to special high-quality coating of the glass bulb</td>
</tr>
<tr>
<td>Long lifetime thanks to special high-quality coating of the glass bulb</td>
<td>Long lifetime thanks to special high-quality coating of the glass bulb</td>
<td>High quality</td>
</tr>
<tr>
<td>4 W - 75 W</td>
<td>4 W - 75 W</td>
<td></td>
</tr>
</tbody>
</table>

## Modules for luminaries

<table>
<thead>
<tr>
<th>ITOS® ME/W LED Module</th>
<th>ITOS® ME PLUS FZ/W LED Module</th>
<th>ITOS® SL/W LED Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED based central light engine for medical examination lighting fixture</td>
<td>LED based central light engine for medical examination and surgical lighting fixture</td>
<td>LED based central light engine for surgical lighting fixture</td>
</tr>
<tr>
<td>Ec 45 Klux</td>
<td>Ec 120 Klux</td>
<td>Ec 160 Klux</td>
</tr>
<tr>
<td>Color temperature of 4500 K</td>
<td>Color temperature of 4500 K</td>
<td>Color temperature of 4500 K</td>
</tr>
<tr>
<td>Color rendering index up to 94</td>
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<td>Color rendering index up to 94</td>
</tr>
<tr>
<td>High rendering index for red R9 &gt; 90</td>
<td>High rendering index for red R9 &gt; 90</td>
<td>High rendering index for red R9 &gt; 90</td>
</tr>
<tr>
<td>Also available with integrated zoom function</td>
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</tbody>
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## Modules for luminaries

<table>
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<tr>
<th>Curing Blue Light Power LED DO BDL 8 W M</th>
<th>ITOS® PHASER 3000</th>
</tr>
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<tbody>
<tr>
<td>High-power blue LED light</td>
<td>Laser/LED-based module with high brightness</td>
</tr>
<tr>
<td>Typical radiant power: 1.5 W</td>
<td>Up to 20 times longer lifetime*</td>
</tr>
<tr>
<td>Dimmable</td>
<td>No UV/IR emissions*</td>
</tr>
<tr>
<td>Optical efficiency: 28%</td>
<td>Low energy consumption*</td>
</tr>
<tr>
<td>Small required mounting space</td>
<td>Up to 2-times more light at distal end of endoscope**</td>
</tr>
<tr>
<td>Viewing angle: 140°</td>
<td>* compared to Xenon lamps</td>
</tr>
<tr>
<td>** compared to LED-solutions</td>
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If you are interested in learning more about OSRAM medical product portfolio, please visit our corporate website:

Medical applications
www.osram.com/medical

PHASER technology
www.osram.com/phaser