



# Where brightness and reliability are essential.

Specialty light sources for medical and industrial applications.

SEE THE WORLD IN A NEW LIGHT

**OSRAM**



**The right lamp  
whatever your  
application.**



# Designed to fit your application.

Covering applications from analyzing to visualization, OSRAM has established itself as a reliable partner with its extensive know-how as a system supplier and has therefore become one of the world's largest manufacturers in the field of medical and industrial lighting.

## Analyzing

### Requirements

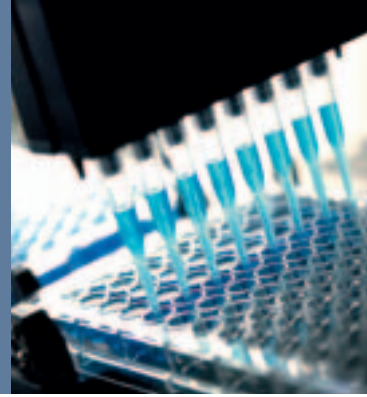
Effective illumination for analyzing and diagnostics to identify the molecular structure of a compound or to determine its purity. The filament with tight tolerances provides an excellent and uniform illumination of small areas with constant and brilliant light over the entire lifetime. Customized solutions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

### Solutions

- 64258
- 64259
- 64623 HLX®

### Typical applications

- Analyzing
- Diagnostics



## Medical Fiber Optics

### Requirements

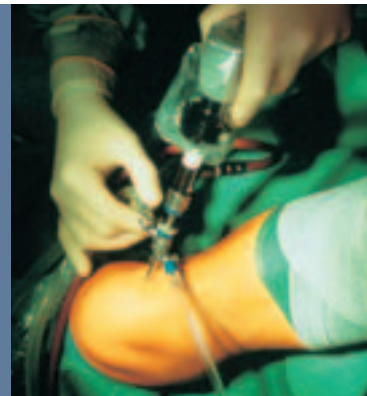
Illumination of human organs or tissue with white light containing a well-balanced mix of colors in its spectrum. High color rendering index. Focused light beam for easy and efficient coupling into light guides with small diameters.

### Solutions

- XBO® R 100 W
- XBO® R 120 W (AC)
- XBO® R 180 W
- XBO® R 300 W
- 64627 HLX®
- 64634 HLX®
- 64653 HLX®

### Typical applications

- Endoscopic light sources
- Overhead light sources



## Microscopy

### Requirements

Illumination of slide preparations through small-diameter optics. Different wavelengths applicable for different fluorescent markers, therefore a wide-range spectrum from UV-A through blue and green to red color is required. Long life for time-consuming screening tasks.

### Solutions

- HBO® 50 W/AC
- HBO® 100 W/2
- HBO® 103 W/2
- HBO® R 103 W
- HXP® R 120 W VIS
- Halogen lamps

### Typical applications

- Fluorescent microscopy
- Inspection microscopy



## Surgical Lighting

### Requirements

Instant brilliant light and light output over life with a constant color temperature and excellent color rendering. Tungsten halogen lamps can be operated easily, they are environmentally preferable (mercury-free) and easy to dim. The new XIR lamp family – xenon lamps with IR coating allow for up to 50% more light in the surgical lighting system.

### Solutions

- 64291 XIR 40 W
- 64292 XIR 150 W
- 64293 XIR 110 W
- 64668 XIR 80 W
- 64638 HLX®
- 64642 HLX®
- 64643 HLX®
- 64647 HLX®
- 64650 HLX®

### Typical applications

- Surgical lighting



## Projection and Scanning

### Requirements

Illumination of small frames for projection of films, still images or patterns. Depending on specific application, either a well-balanced continuous light spectrum with high color rendering index or peak-like spectrum. High intensity for high-speed exposures (3D scanning).

### Solutions

- HXP® R 120 W VIS
- HXP® R 200 W
- XBO® R 300 W

### Typical applications

- Projection of patterns for optical 3D scanning



## Sterilization with UV Light

### Requirements

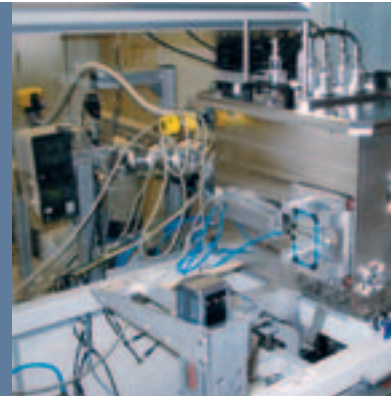
High germicidal efficiency with surface illumination. Long life.

### Solutions

- XERADEX®

### Typical applications

- Intensive UV-C illumination for direct germicidal effects



## Curing: Adhesives and Composites

### Requirements

Exposure of light-activated adhesives to UV-A or to blue-color light. High irradiation level required for short curing times of adhesives in industrial lighting or dental composites in dentistry. Long life for mass production processes.

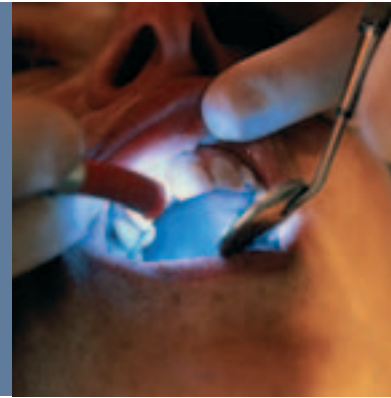
### Solutions

- DO BDL 8 W M
- XBO® R 180 W
- XBO® R 300 W
- HBO® R 103 W
- HBO® R 200 W
- HXP® R 120 W UV
- HXP® R 200 W
- HXP® R 206 W

- 64617
- 64617S
- 64613
- 64624

### Typical applications

- Curing of dental composites
- Curing of adhesives



## Production and Quality Assurance Inspections

### Requirements

Small-area illumination: Focused light beam for efficient coupling into light guides or microscopy optics. High intensity for short camera exposure times. Long life.

### Solutions

- XBO® R 100 W
- XBO® R 120 W (AC)
- XBO® R 180 W
- XBO® R 300 W
- HXP® R 120 W VIS
- HXP® R 200 W

### Typical applications

- Illumination at production lines



## Biotechnology

### Requirements

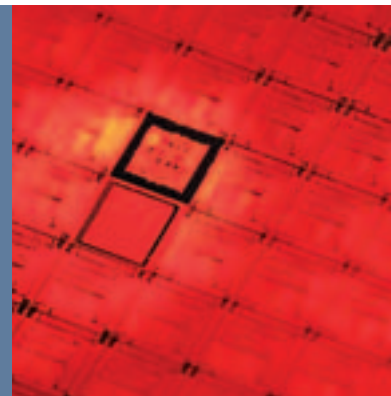
Intensive and efficiently focused near UV-A beam for triggering chemical reactions, e.g. in nucleotide chains. Additional visible light beam to trigger fluorescence of fluorescent markers. Long life.

### Solutions

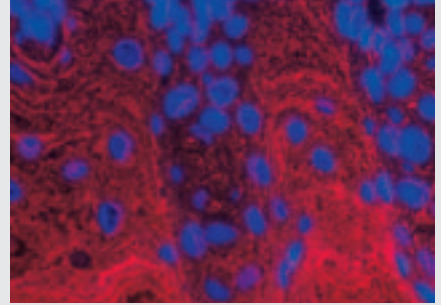
- HXP® R 120 W VIS
- HXP® R 200 W
- HXP® R 206 W

### Typical applications

- Synthesis of oligonucleotide microarrays
- Readout of microarrays



# Designed to fit your application.



## Halogen XENOPHOT® HLX®

- Tungsten halogen low-voltage lamp with or without reflector
- Xenon-gas-filled lamps have an up to 10 % higher luminous efficacy than standard lamps



## Intense UV-C Light for Surface Cleaning XERADEX®

- 20W and 100W excimer lamp system
- Patented pulse operating principle obtains four times higher efficiency compared to conventional operations
- VUV radiation at 172 nm wavelength
- Efficient ozone generation
- No cooling required



## Curing Blue Light Power LED DO BDL 8W M

- High-power blue LED light
- Typical radiant power: 1.5W
- No limitation in dimming
- Optical efficiency: 28 %
- Small required mounting space
- Viewing angle: 140°
- RoHS-compliant



## Infrared-coated Capsule XIR

- Tungsten halogen capsule filled with xenon gas, with infrared (IR) coating for maximum energy efficiency
- IR capsule produces up to 30 % higher luminous efficacy than standard lamps with the same characteristics (wattage and lamp life)



## Halogen Lamp with Optimized Filament

- Tungsten halogen low-voltage lamp with flat filament optimized for projection and diagnostics
- Excellent illumination of area of interest
- Special lamp holder on request



### Optimized UV Light HBO® R 103W

- Mercury discharge lamp for DC operation at constant power
- Short arc
- Focus diameter of approx. 5 mm
- Reflector coated for maximum reflection in 320 ... 500 nm range



### Optimized UV & Blue Light with Long Life HXP® R 120W UV / 206W

- Mercury discharge lamp for AC operation at constant power
- Short arc
- Long average life: 2,000/1,000 hours
- Focus diameter of approx. 5 mm
- Reflector of HXP® R 120W UV coated for maximum reflection in 320 ... 500 nm range
- ECG/lamp system



### UV, Blue & White Light with Long Life HXP® R 120W VIS, 200W

- Mercury discharge lamp for AC operation at constant power
- Short arc
- Long average life: 2,000 hours
- Focus diameter of approx. 5 mm
- Reflector coated for maximum reflection in UV, blue and visible spectral range
- ECG/lamp system

### Excellent Xenon Light with Long Life XBO® R 120W, 65W (AC)

- Xenon discharge lamp for AC operation
- Long average life: 1,000 hours
- Color rendering index > 95
- Short arc
- Focus diameter of approx. 5 mm
- Reflector coated for maximum reflection in visible spectral range
- Ozone-free
- ECG/lamp system



### Excellent Xenon Light XBO® R 300W, 180W, 100W

- Xenon discharge lamp for DC operation
- Color rendering index > 95
- Short arc
- Focus diameter of approx. 5 mm
- Reflector coated for maximum reflection in visible spectral range
- Ozone-free
- Hot restart

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