

Surgical Lighting

XLED™
Surgical Lighting Systems

Brighten your Expertise



One Integrated Approach to Healthcare

 **STERIS**

What do You Expect From Your Surgical Lighting?

XLED™: Tailor-made Lighting

From a simple fixed spot to adjustable pattern multi-spots, fixed colour temperature to adjustable colour temperature, XLED™ provides the complete range of surgical lighting.

EXCLUSIVE DESIGN

Compatible with laminar flow

Thanks to its fluid and open shape, XLED™ surgical lighting rarely disturbs laminar flow, reducing the risk of infection and therefore improving patient safety.



The exclusive Wavelens system

Available as standard on XLED3 and XLED4, this patented system is used to instantly adjust the pattern diameter through beam divergence from the handle. Adjustment is simple and intuitive: the light head does not need to be refocused or repositioned.



Shadow reduction

The 20 LED array in each spot produces 20 patterns that are perfectly superimposed: if the operating field is partially obstructed, the area remains evenly lit.



Ambient lighting as standard

Ideal for minimally invasive surgery.



Lighting for every situation

STERIS engineers have focused on the best technologies to respond to each user's needs all while guaranteeing patient safety during operations.

Clinical efficiency

- Pattern homogeneity (no rainbow effects) for optimal viewing of the operative field
- Cold light: tissue-respectful
- Large depth of field optimal for lighting deep cavities

User comfort and ergonomics

- Light weight, easy to use light heads and suspensions
- Versatile thanks to its modular conception design

Harmony iQ™ Integration Systems: Taking the Complex and Making it Simple

The STERIS integration solution allows you to acquire, send, share and archive images in high definition inside and outside the operating theatre.

XLED™ is completely compatible with Harmony iQ™ integration systems for fluid control of all functions: lighting, video recording, real time sharing, archiving... via a wall mounted touch panel. **Sharing visual information has never been so easy.**



High resolution images



The XLED™ HD in-light camera allows the medical team to visualise the surgical procedures on surgical grade monitors or to broadcast them via video conferences for teaching purposes.

- **HD resolution:** 2 million pixels: for exceptionally clean and clear images
- **Click & Connect:** quick insertion, no tool: a single camera can easily be shared in a number of rooms

Put 4K in your operating rooms!

STERIS 4K Vividimage™ surgical monitors, not only offer you stunning detail, but also increased nuances, a high contrast balance and more real and smoother blends.

Get the best technology for greater surgical precision.



From the light head



Control the pattern diameter
from the sterilisable handle



From the wall mounted
touch screen



From the Harmony iQ™
integration systems

Integrate the image, transform your operating room.

XLED™ Exceptional Surgical Lighting Quality

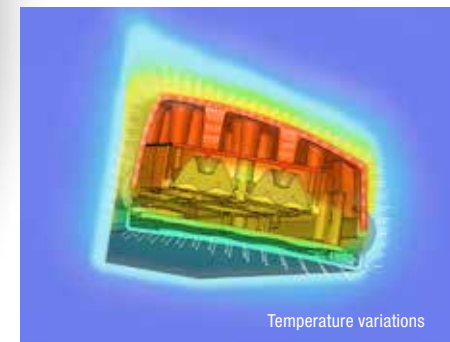
XLED™: First Choice White LEDs

The light emitted by the white LEDs used in the XLED™ surgical lights is pure, homogeneous and remains constant. Its colourimetric characteristics do not vary over time and offer wide range of benefits:

- Colours are clearly visible**
 Excellent colour rendering (Ra=95), especially for red tone (R9=97) for tissue and vein identification...
- Simple and efficient system**
 The white LEDs do not require recalibration over time.



A high-performance design



The aluminium enclosure contributes to maintain the light performance over time and optimises the system life cycle. This material provides excellent heat dissipation without the need for forced ventilation.



Close to natural light, XLED™ surgical lights offer optimal visual comfort as well as optimal conditions for a safe and precise operation.

CHARACTERISTICS	XLED 1	XLED 2	XLED 3	XLED 4
Maximum intensity at 1 m (Ec)	90 000* lux	110 000* lux	160 000** lux	160 000** lux
Pattern diameter (d10)*	160 mm	250 mm	250 - 300 mm	250 - 300 mm
Colour temperature (Tk)***	4 400			
Colour rendering index Ra (IRC)***	95			
Red rendering index (R9)***	97			
Estimated life cycle of LEDs	50 000 h			
Camera-ready option	-	Optional HD		-

*Performance + 10% according to IEC60601-2-41 / **Performance 0/-10% according to IEC60601-2-41 / ***Performance + 6% according to IEC60601-2-41

Adjustable colour temperature: For Your Visual Comfort

XLED™ surgical lighting with adjustable colour temperatures retains all the benefits of white LEDs while offering additional functions.

Selecting from 4 calibrated colour temperatures, the user can choose a light adapted to their visual sensitivity and preferences - warmer colours aiming towards orange, or cooler tones, aiming towards blue.

Depending on the type of surgery, the surgical team can easily adapt the colour temperature to facilitate tissue differentiation.



3 500 K
Ra=95 / R9=91



4 000 K
Ra=95 / R9=97



4 500 K
Ra=95 / R9=97



5 000 K
Ra=95 / R9=97

Homogeneous and constant quality of light across the different colour temperatures and over time.

How Does that Work? Optimal Duo of White LEDs

Contrary to the light generated by a combination of **coloured LEDs** (green, red, blue...) which have a tendency to decline over time and need regular recalibration to conserve its properties, XLED™ surgical lights with adjustable colour temperature option is obtained by combining 2 **white LEDs** with different colour temperatures.

It has taken 2 years for our Research and Development department to select the optimum combination of these 2 white LEDs to create a light pattern with precise characteristics.

CHARACTERISTICS	XLED 1	XLED 2	XLED 3	XLED 4
Maximum intensity at 1 m (Ec)	90 000* lux	110 000* lux	160 000** lux	160 000** lux
Pattern diameter (d10)*	130 mm	190 mm	190 - 240 mm	190 - 240 mm
Colour temperature (Tk)***	3 500 - 4 000 - 4 500 - 5 000			
Colour rendering index Ra (IRC)***	95			
Red rendering index (R9)***	91 at 3 500 K and 97 at 4 000, 4 500 and 5 000 K			
Estimated life cycle of LEDs	60 000 h			
Camera-ready option	-	Optional HD		-

*Performance + 10% according to IEC60601-2-41 / **Performance 0/-10% according to IEC60601-2-41 / ***Performance + 6% according to IEC60601-2-41

XLED™: Tailor-made Surgical Lighting

Each medical specialty requires particular and specific installations.

The modular design of XLED™ surgical lighting with multiple associated products brings a unique architectural, tailor-made solution which precisely responds to both your current and future needs.

Did You Know?

Designed and developed by STERIS, XTND® suspensions are easy to install and offer a wide range of flexible and evolutive solutions: any time after installation, add one or more additional spindles to suit your needs.

1. Choose your suspension

- Choice of height (short suspensions for low ceilings)
- Choice of arm length (long arms for hybrid rooms)
- Central or dual mounted installation, up to 5 arms



2. Choose the number of spots and light heads



1 spot



2 spots



3 spots



4 spots

From 1 to 4 spots and up to 3 light heads on a single arm
Fixed or adjustable pattern diameter



Create your Future Lighting System



By choosing the number of light heads and spots, then by varying the intensity and colour temperature, you create a light solution perfectly adapted to every situation.



3. Choose the colour temperature: fixed or adjustable



4 400 K



3 500 K - 4 000 K
4 500 K - 5 000 K

4. Add cameras and monitors



HD camera handle



Spring arm and simple or dual monitor holder



Monitors available in HD or 4K, from 31 to 65 inch



European Made Lighting

The XLED™ surgical lighting systems are distributed throughout the world, and manufactured in Europe, on a site producing a wide range of surgical equipment. This choice enables us to offer products of maximum quality, both in industrial and environmental terms:

- Proximity and integration of the specific needs of French and European users
- Full control of industrial processes
- Integration of the best European suppliers giving preference to local suppliers



ORigami™ is the complete STERIS solution for the operating theatre.

Creating or renovating an operating theatre has never been so simple with ORigami™, the STERIS designed modular solution. Claddings, ceilings, doors, and also distribution arms, surgical lighting, integration systems: everything is designed, coordinated and optimised to offer an exceptional quality of service.

STERIS, a Leader in the Healthcare Sector

With more than 14,000 employees worldwide, STERIS is a major player in the healthcare sector. In more than 100 countries, STERIS innovations have improved the day to day routine of hospital teams: operating theatre equipment, disinfection and infection prevention.

In the operating theatre, patient safety is the priority. Teams and equipment must be completely reliable.

STERIS helps you to implement optimal organisation which guarantees flawless execution of all your medical procedures.



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