

ALYON™ Surgical Lighting

ALYON
Surgical Lighting System

STERIS

ALYON™ Surgical Lighting Presentation

01 Where do the important characteristics of light come from?

02 ALYON™ Surgical Lights

03 Marcoms Tools

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Conform with new IEC standards 60601-2-41 Ed. 3.0.

1. Where do the important characteristics of light come from?

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Important Characteristics of Light



International Electrotechnical Commission Standards

- Govern ALL surgical lighting
- IEC 60601-2-41 Specifications
- Provides definitions, guidelines, and measurements for acceptable surgical lights

The IEC standard rules on specifications that affect user and patient safety

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2. ALYON™ Surgical Lights

Shaped by Inspiration
Powered by Experience

STERIS

New Global Surgical Lighting Systems: ALYON™



The new Global Surgical Light replaces
XLED™ & HarmonyAIR G-Series Lighting Systems.

ALYON
Surgical Lighting System

ALL ON in the OR

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ALYON™ Surgical Light

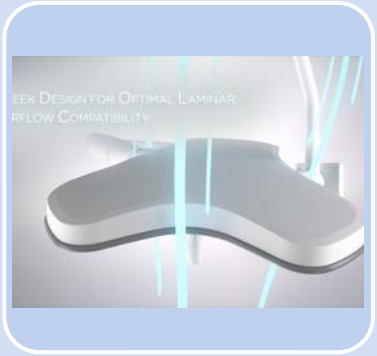
Shape by Inspiration, Powered by Experience

Sleek
Smart
Adaptable



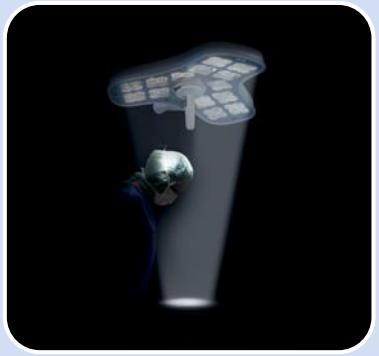
Tailor-made surgical lights

- ✓ Suspension: Flexible and evolutive solutions
- → Build your own configuration
- → Adapt to all clinical & financial needs



Sleek Design

- ✓ Laminar flow compatibility
- ✓User comfort and ergonomics
- ✓Reducing the risk of infection
- ✓Improving patient safety
- ✓Performance sustained overtime



Advanced Features

- ✓ Adaptive Lighting
- ✓ Automatic intensity
- ✓ Management
- ✓ Wireless 4K camera
- ✓ Integrated Ambient & Task light



4K Wireless Camera

- ✓ Exceptional quality of image
- ✓Clarity and Enhanced Contrast as Standard
- ✓ Compatible as Standard



Intuitive Controls

- ✓ Sterile handles
- ✓ Touchscreen Yoke
- ✓ Touchscreen Wall
- ✓ STERIS OR Integration System (HexaVue)

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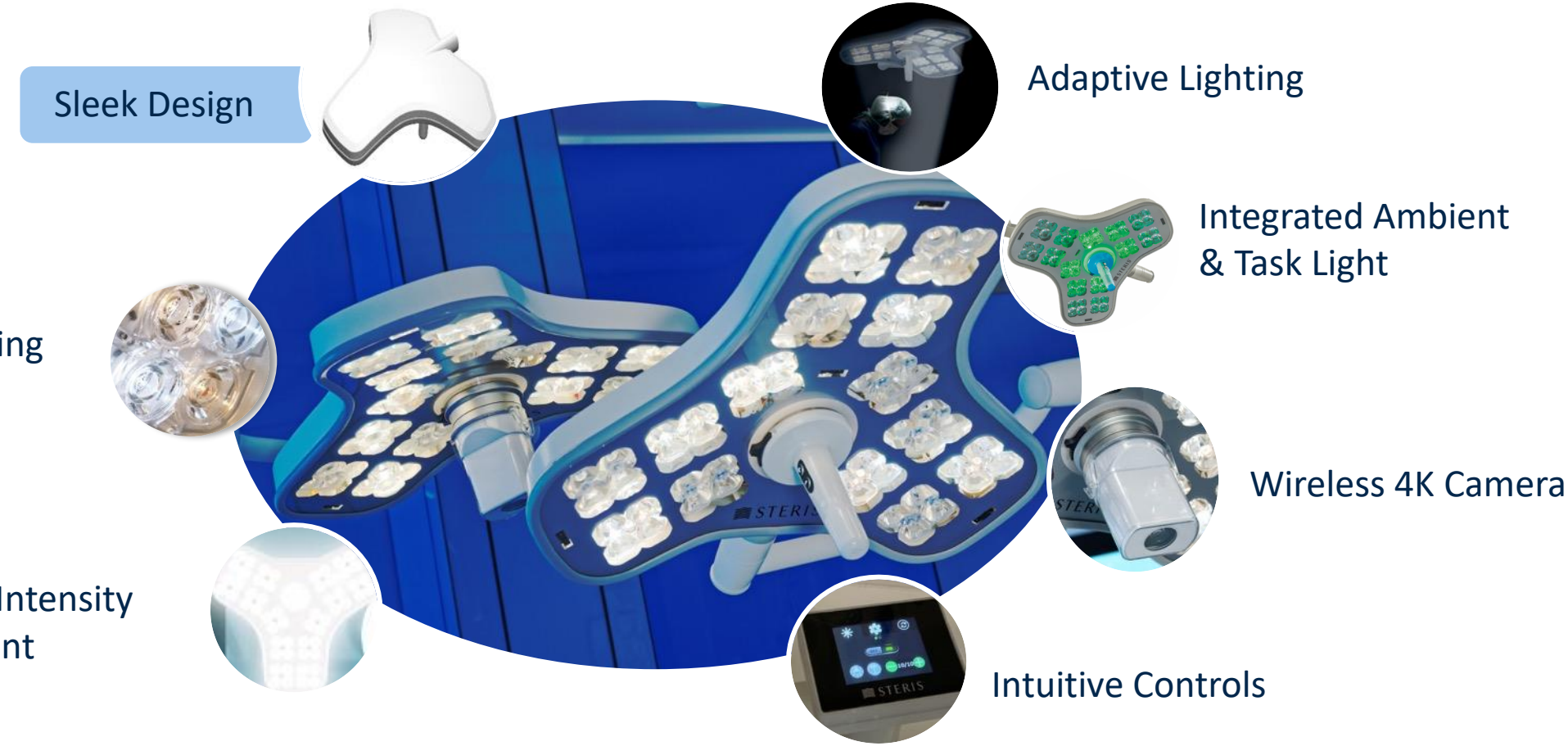
ALYON™ Surgical Light

Sleek
Smart
Adaptable



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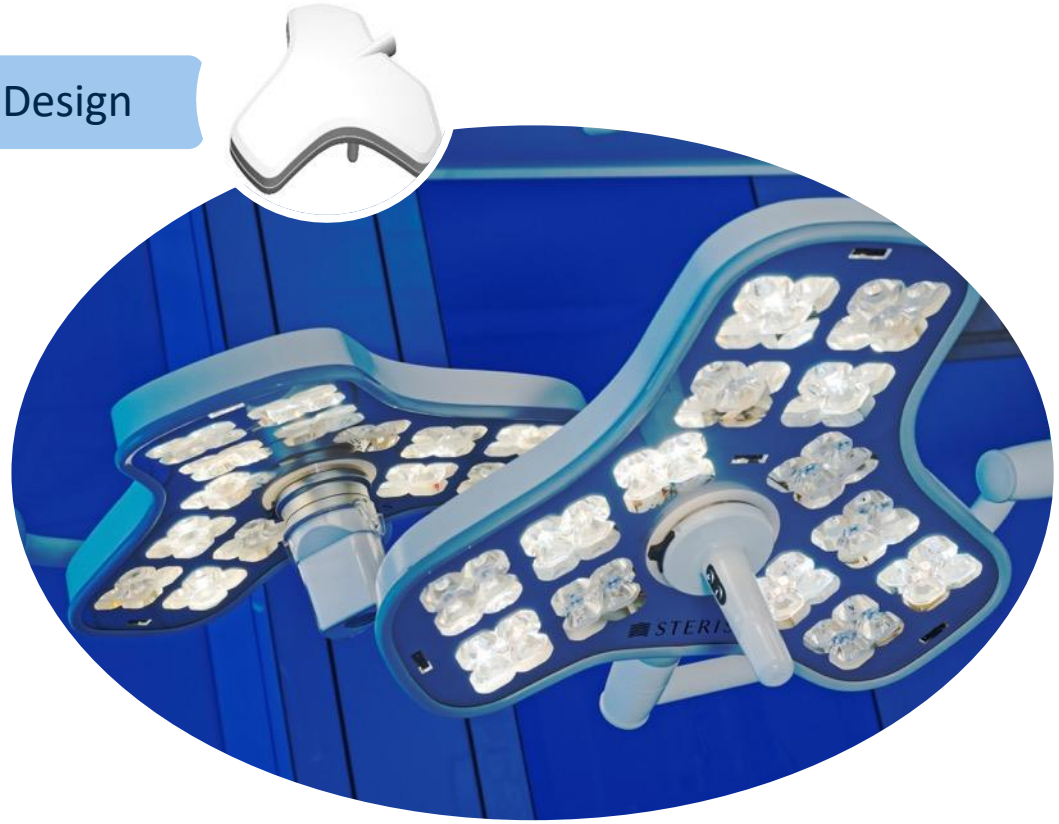
ALYON™ Surgical Light

Sleek
Smart
Adaptable

Sleek Design



- User comfort and ergonomics
- Reducing the risk of infection
- Improving patient safety
- Performance consistent over time

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ALYON™ Surgical Light

Sleek Design: High Quality Materials

Sleek
Smart
Adaptable



Aluminum foundry

- ✓ Lightweight and robust
- ✓ Easy maneuverability
- ✓ Excellent heat conduction

User comfort and ergonomics
Performance consistent over time

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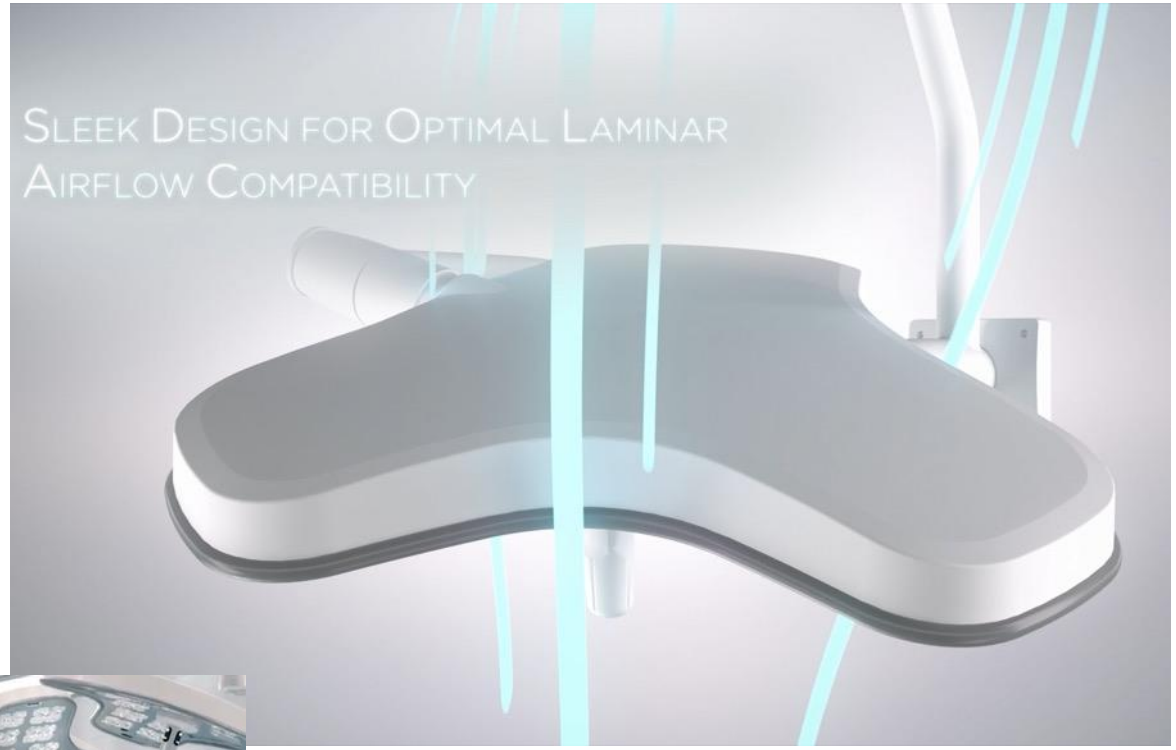
ALYON™ Surgical Light

Sleek Design: Optimal Laminar Airflow Compatibility

Sleek
Smart
Adaptable





- ✓ Open shape to support Laminar Air Flow
- ✓ Air travels around the light head
- ✓ Allows for surgical smoke plume and heat to escape the surgical field
- ✓ The triangular shape allows the light heads to be nested together



Reducing the risk of infection
Improving patient's safety

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ALYON™ Surgical Light

Sleek Design: A sealed design easy to clean

Sleek
Smart
Adaptable



✓ Ingress Protection rating

IP54

Dust Protected

Protected Against Splashing of Water

✓ Medical Grade Silicone Seals

Reducing the risk of infection
Improving patient safety

STERIS

ALYON™ Surgical Light

Sleek Design:

Sleek
Smart
Adaptable

ALYON-PRO



- ✓ 56 High-performing LEDs
- ✓ Including advanced features

Modular Range
Adapt to all Clinical & Financial Needs

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ALYON™ Surgical Light

Sleek
Smart
Adaptable



Sleek Design

Adaptive Lighting



Integrated Ambient
& Task Light

Exceptional
Lighting Quality



Wireless 4K Camera



Automatic Intensity
Management

Intuitive Controls

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ALYON™ Surgical Light

High Lighting Quality : Selecting the Best Option

Sleek
Smart
Adaptable



ALYON™ Fixed Colour Temperature:
Pure White Light

4500K

ALYON™ Adjustable Colour Temperature:
Enhanced Visual Comfort

3500K 4000K 4500K 5000K

- High performing mix of 2 white LEDs
- Optical performance optimised
- Homogeneous and consistent light
- Excellent Color Rendering Index and R9 values

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ALYON™ Surgical Light

High Lighting Quality : Fixed Colour Temperature

Sleek
Smart
Adaptable





	ALYON-PRO
Colour Temperature (K)	4,500 Kelvin
Number of LEDs	56 (28+28)
Max illum Ec at DMI (Lux)	Up to 160,000
Dimming Range Ec	10 Steps / 0-100%
CRI	98
R9	97
Depth of Field (L1+L2 at 60% EC) (cm)	75
Depth of Field (L1+L2 at 20% EC) (cm)	130
Type of Yoke	Single & Dual
Power Consumption (W)	75 Max.
LED Life Span (hours)	60,000

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ALYON™ Surgical Light

High Lighting Quality : Adjustable Colour Temperature

Sleek
Smart
Adaptable







	ALYON-PRO
Colour Temperature (K)	3,500, 4,000, 4,500 & 5,000 Kelvin
Number of LEDs	56 (28+28)
Max illum Ec at DMI (Lux)	Up to 160,000
Dimming Range Ec	10 Steps / 0-100%
CRI	98
R9	97 89@ 5,500K
Depth of Field (L1+L2 at 60% EC) (cm)	75
Depth of Field (L1+L2 at 20% EC) (cm)	130
Type of Yoke	Single & Dual
Power Consumption (W)	75 Max.
LED Life Span (hours)	60,000

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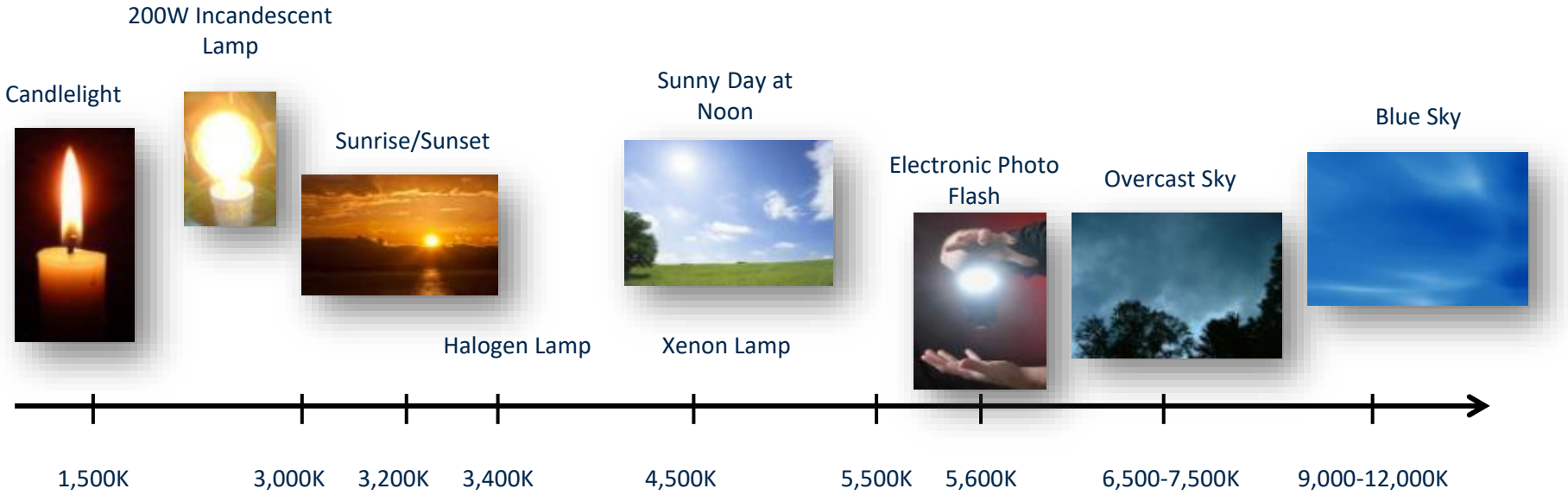
ALYON™ Surgical Light

High Lighting Quality : Colour Temperature Spectrum



IEC standard for colour temperature = 3,000 – 6,700 Kelvin

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ALYON™ Surgical Light

High Lighting Quality : Adjustable Colour Temperature Clinical Benefits

Sleek
Smart
Adaptable



- ✓ Accommodate all surgeons' preferences
- ✓ Differentiate the types of tissues
- ✓ Reduce eye fatigue, especially during long procedures

Enhanced Visual Comfort

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ALYON™ Surgical Light

Sleek
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Adaptable

Smart Design





Adaptive Lighting



Integrated Ambient
& Task Light

Exceptional
Lighting Quality







Wireless 4K Camera

Automatic Intensity
Management

Intuitive Controls

STERIS

ALYON™ Surgical Light

Automatic Intensity Management & Pattern Size Adjustment

Smart





- ✓ Sterile Pattern Size Adjustment by ‘Clicking’ the Light Landle:
  - ✓ Increase the Light Pattern Size (anti-clockwise rotation)
  - ✓ Decrease the Light Pattern Size (clockwise rotation)
- ✓ 4 Distinct Spot Sizes from 17 - 28 cm
- ✓ Auto Intensity Lighting automatically maintains constant light intensity when the light is adjusted

Constant illuminance up to 160,000 Lux

Reliable & Consistent Visual Experience

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ALYON™ Surgical Light

Sleek
Smart
Adaptable

Smart Design





Adaptive Lighting



Integrated Ambient &
Task Light

Exceptional
Lighting Quality





Wireless 4K Camera

Automatic intensity
Management

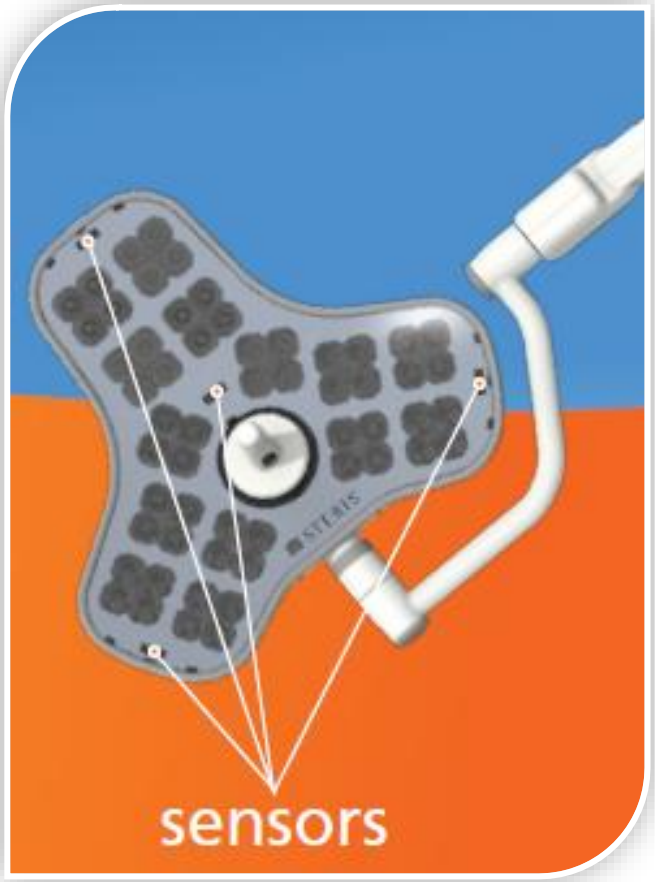
Intuitive Controls

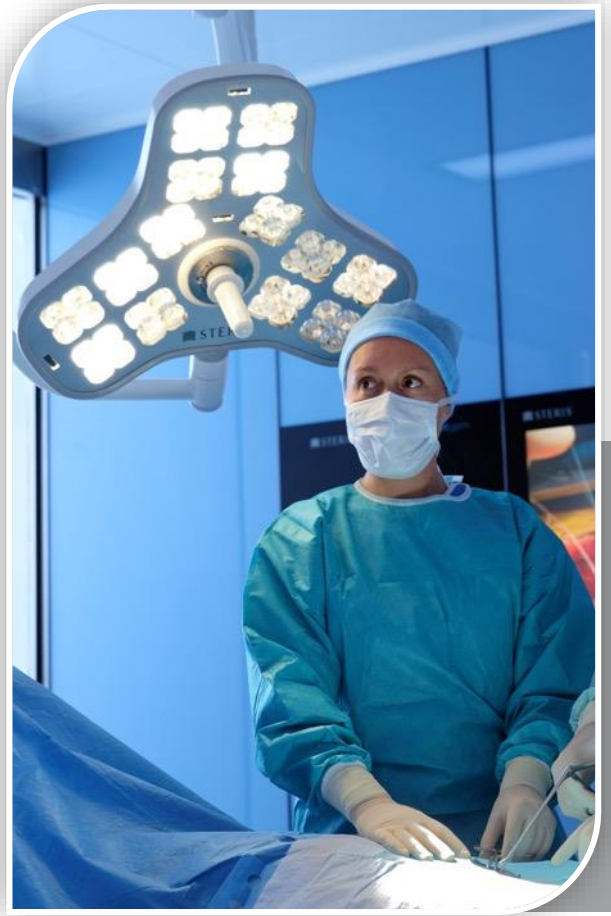
STERIS

Smart

ALYON™ Surgical Light

Adaptive Lighting : Automatically Boosts Light Where Needed





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Smart

ALYON™ Surgical Light

Adaptive Lighting : Automatically boosts light where needed



- ✓ 4 Adaptive lighting sensors that automatically detect obstructions and provide real-time feedback
- ✓ Adjust the intensity and distribution of light in the surgical field when obstructions occur
- ✓ Prevents shadows and maintains a uniform and well-lit surgical environment
- ✓ Adapted to human eyes with a 4s delay activation





Consistent and optimal level of illumination during surgical procedures

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ALYON™ Surgical Light

Sleek
Smart
Adaptable

Smart Design

Adaptive Lighting

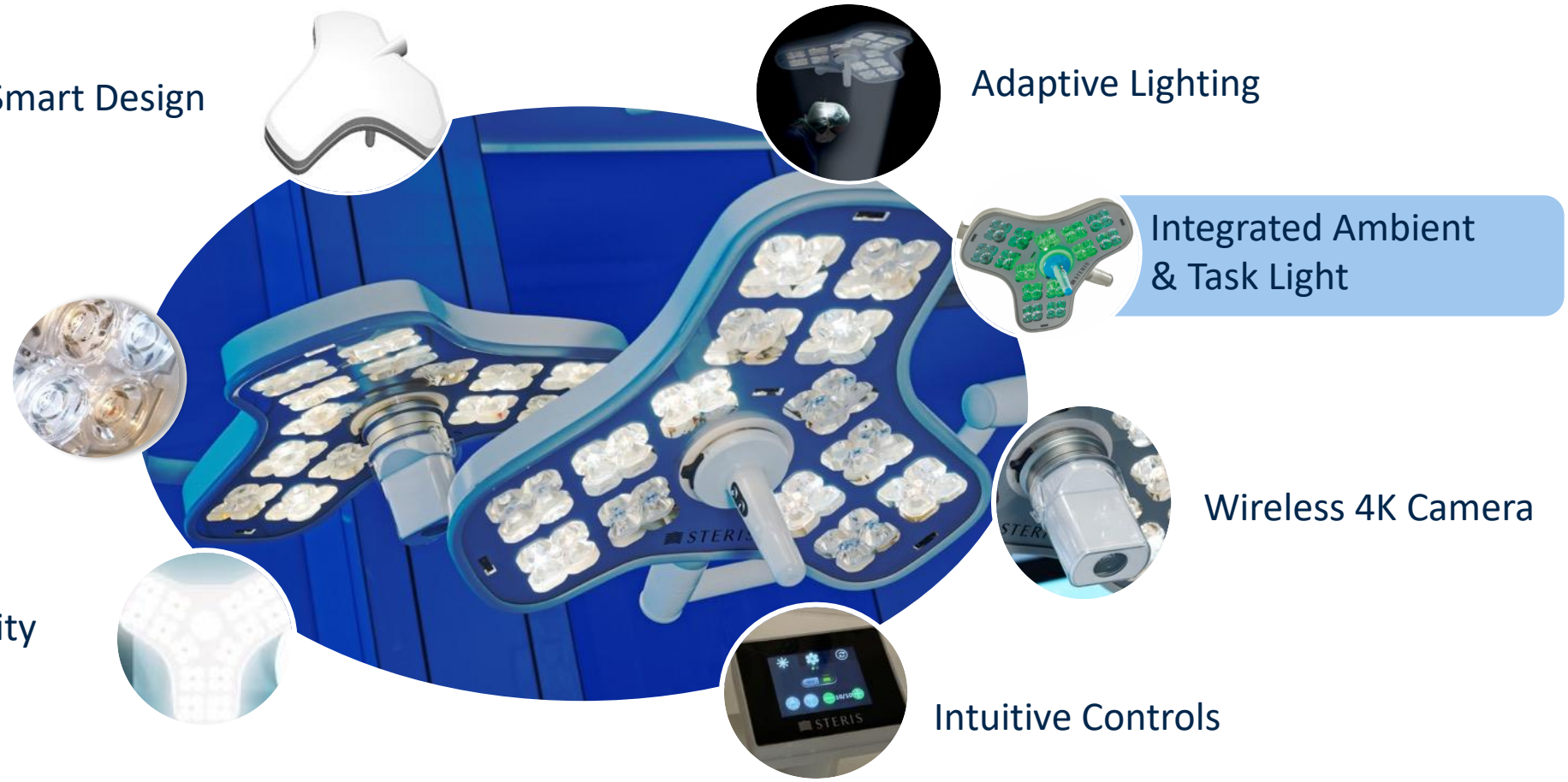
Integrated Ambient & Task Light

Exceptional Lighting Quality

Wireless 4K Camera

Automatic Intensity Management

Intuitive Controls



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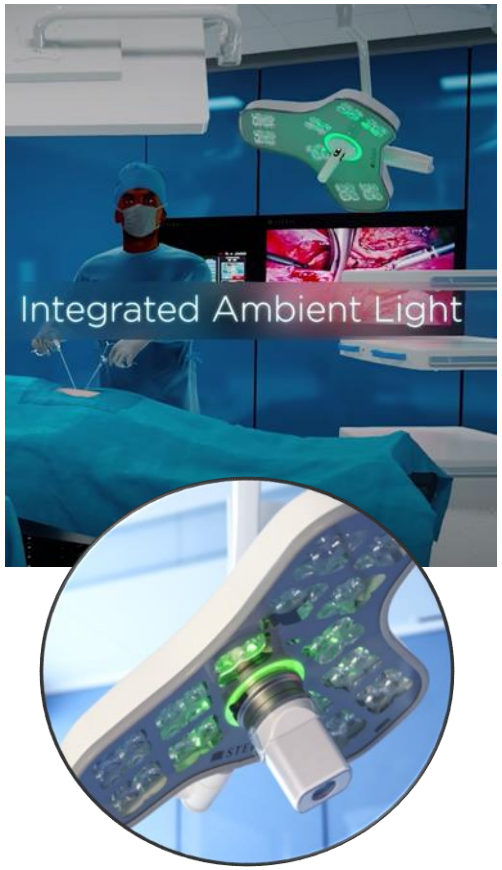
Smart

ALYON™ Surgical Light

Integrated Ambient Light and Task Light







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Smart

ALYON™ Surgical Light

Integrated Ambient Light and Task Light



Ambient Lighting

- ✓ Calming Green Light
- ✓ Promotes Patient Relaxation while Providing Enough Light for the Surgical Staff
- ✓ Intensity ≈10 Lux – All LED's are off

Task Mode

- ✓ Dim Light Output Below the Lowest Light Setting
- ✓ Provides Low illumination During Minimally Invasive Cases
- ✓ Intensity ≈700 Lux – 12 LED's are on

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ALYON™ Surgical Light

Sleek
Smart
Adaptable

Smart Design

Adaptive Lighting

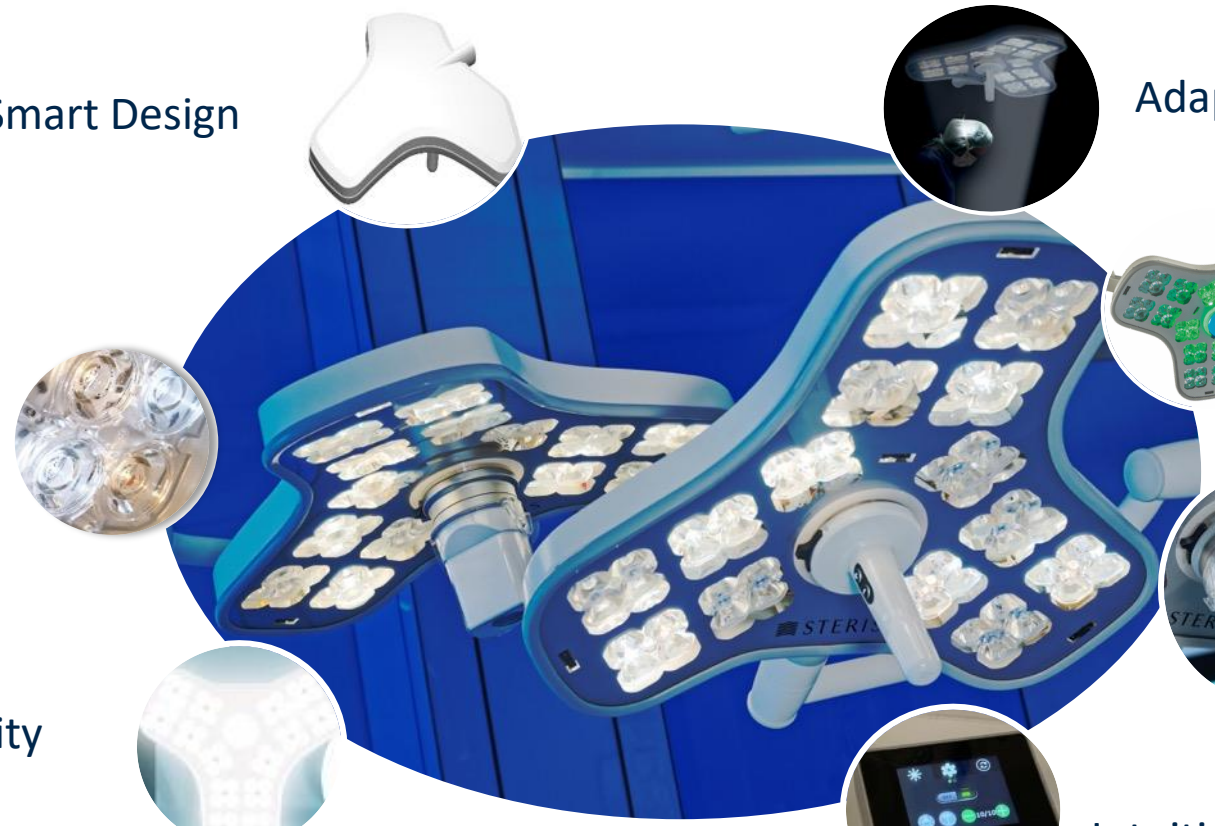
Integrated Ambient & Task Light

Exceptional Lighting Quality

Wireless 4K Camera

Automatic Intensity Management

Intuitive Controls



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ALYON™ 4K Wireless Camera

Clarity and Enhanced Contrast as Standard

Smart



- ✓ Compatible as Standard with all ALYON™ Light heads
- ✓ Click & Connect 4K camera: Easy and Quick, Tool-Free Attachment & Removal
- ✓ Can be Shared Across Several Rooms
- ✓ Maintained Adjustable Pattern Size Control
- ✓ Sterilisable Case
- ✓ Sterile Disposable Covers (Coming Soon)





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ALYON™ 4K Wireless Camera Specification

4K Wireless Camera Specifications	
Camera signal	4K: 2160p
Resolution	8.51 million pixel (4K, 3840x2160)
Wireless transmission frequency	5 GHz
Optical zoom	20 X
Digital zoom	12X
Focus	Auto / manual
White balance	Auto / manual
Brightness	Auto / manual
SN ratio	50dB or more
Receiver video output	1x HDMI 1.4 Type-A

Possibility of pairing one wireless camera with up to 4 receivers







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ALYON™ 4K Wireless Camera

Exceptional Video Quality

Comparison of different 4K Video Transmissions

1. 60 GHz Wireless

- Transmission instability and poor robustness
- Does not support 4K resolution
- The transmitter and receiver must be in the direct line-of-sight with minimal reflections
- Features only one unit per room (cannot support a video matrix)
- Supports only x1 TX that projects to x1 RX

Feature	STERIS 5GHz	60GHz (Novanta)	WiFi (5GHz)	Cable
Robustness	🟢	🔴	🟡	🟢
Video Quality	🟢	🟡	🟡	🟢
Latency	🟢	🟢	🔴	🟢
Compatibility	🟢	🟡	🟡	🟢
Ease of use	🟢	🟢	🟢	🟢
Mobility	🟢	🟡	🟢	🔴
Installation Time	🟢	🟢	🟢	🔴
Certifications	🟢	🟢	🟢	🟢
Multi System	🟢	🔴	🟢	🟡

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ALYON™ 4K Wireless Camera

Exceptional Video Quality

Comparison of different 4K Video Transmissions

2. WiFi
- High latency, unstable transmission, inferior video quality

3. Cable
- Pricy and lengthy installations
- Reduced flexibility and mobility options

4. STERIS Wireless
- Easy retrofit, reduce the complexity, and increase OR availability
- Transmit video in multicast, wide range modes, robust and no cut-offs

Feature	STERIS 5GHz	60GHz (Novanta)	WiFi (5GHz)	Cable
Robustness	🟢	🔴	🟡	🟢
Video Quality	🟢	🟡	🟡	🟢
Latency	🟢	🟢	🔴	🟢
Compatibility	🟢	🟡	🟡	🟢
Ease of use	🟢	🟢	🟢	🟢
Mobility	🟢	🟡	🟢	🔴
Installation Time	🟢	🟢	🟢	🔴
Certifications	🟢	🟢	🟢	🟢
Multi System	🟢	🔴	🟢	🟡

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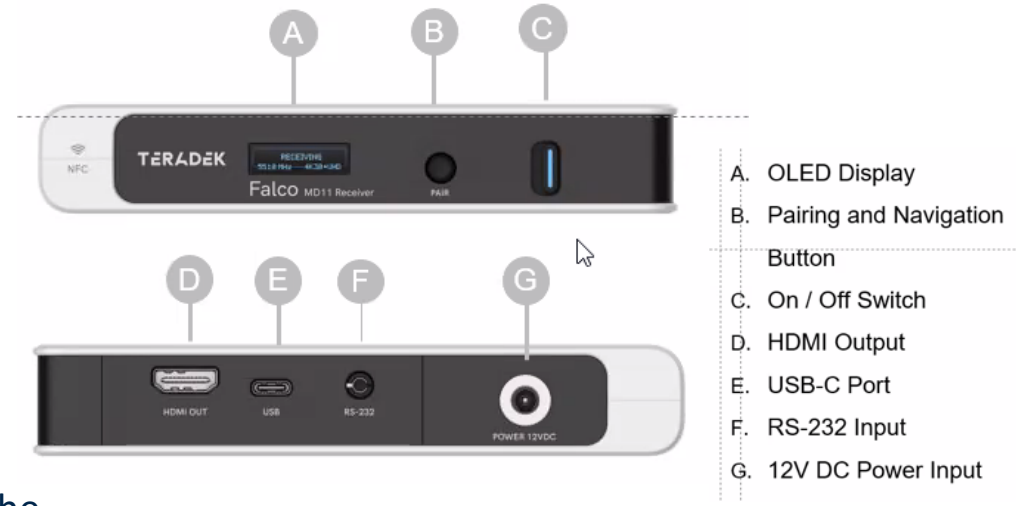
ALYON™ 4K Wireless Camera

Exceptional Video Quality

Smart

- ✓ Wireless 4K: Up to 8,294,400 pixels (3840 x 2160 - 30fps)
- ✓ A simple pairing mechanism with the receiver
- ✓ Transmits over a 5 GHz license-free spectrum, supporting 40 MHz & 20 MHz channels
- ✓ Robust wireless transmission with a latency of less than 1mSec, eliminating the need for “Line of Sight”
- ✓ Up to 20 m between the 4K wireless camera and the receiver
- ✓ Connect to 4 receivers with one 4K wireless camera (displays, recorder…)





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ALYON™ Surgical Light

Sleek
Smart
Adaptable

Smart Design





Adaptive Lighting



Integrated Ambient
& Task Light

Exceptional
Lighting Quality





Wireless 4K Camera

Automatic Intensity
Management

Intuitive Controls

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ALYON™: New Surgical Lighting Systems

All controls at your fingertips

Smart

From the Sterile Handle











From the Touchscreen Yoke Controller



From OR Integration Systems



From the Touchscreen Wall Controller

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ALYON™: New Surgical Lighting Systems

Adaptable to your Customers' habits



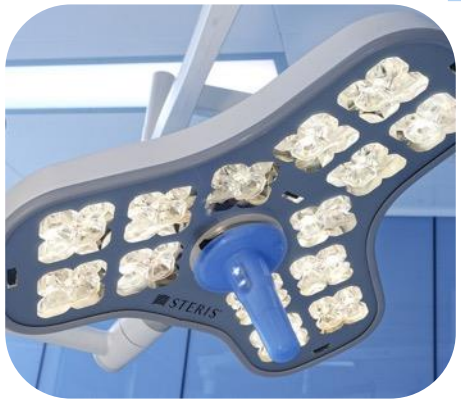
Sterilisable Handle as Standard



ALYHAND



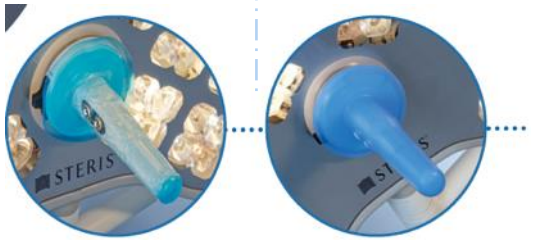
XHAND5



NON-Sterilisable Option with +/- Buttons



LAS0042



LB83

LAS0036

4K Wireless Camera Option



ALYW4KC



Single Use Sterile Covers (Coming Soon)



ALYWSH5 Sterilisable Case

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3. Marcom tools

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ALYON™ Surgical Lighting System



Illustrated information on ALYON™ range

Highlights the features and benefits of the ALYON™ range



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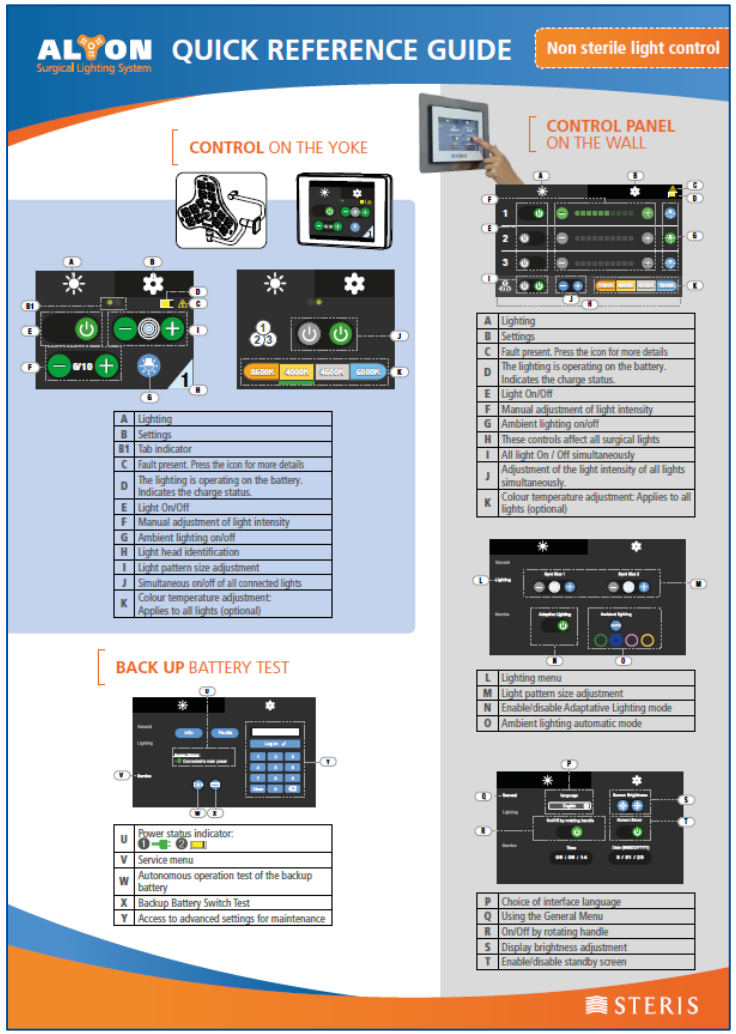
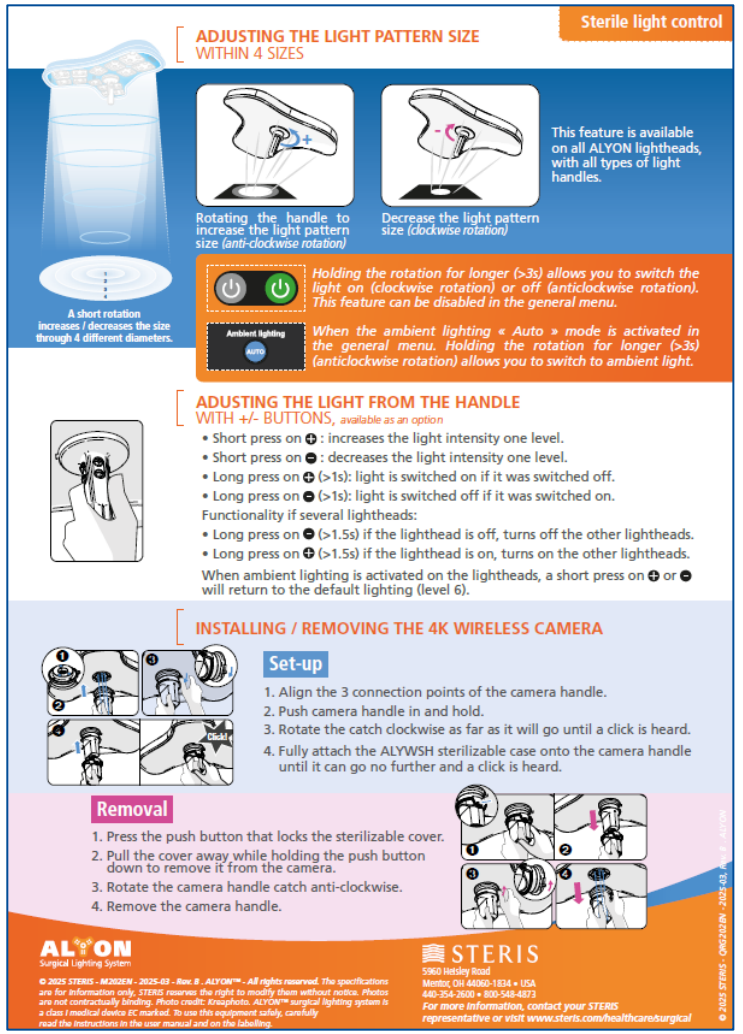
ALYON™ Surgical Lighting System

Quick Reference Guide

Shortened version of the user manual to help you start using ALYON™ at a glance:





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ALYON™ Surgical Lighting System

Videos: Available on YouTube

STERIS ALYON™ Surgical Lights. Shaped by Inspiration - Powered by Experience (youtube.com)









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Thank You