



LED & Halogen Series

# Shadowless Surgical Light



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Heal Force Leads You to Healthier Life

# TopSUN

Adjustable Color Temperature LED surgical light



## BELLE Color

Revolutionary LED lighting technology: Brilliant Four-Color-Mix Concept

Light sources with four colors (Green, Amber, Red and Warm/Cold White) are mixed exactly where it is created (in the unique light beam condenser)- but not in the surgical field, which brings super high CRI (Ra>=95).

Meanwhile, the New Light Source requires less LEDs to reach a ideal illuminance with lower irradiated heat.



## BELLE Lighting

Ambient Light Mode for Endo-surgery

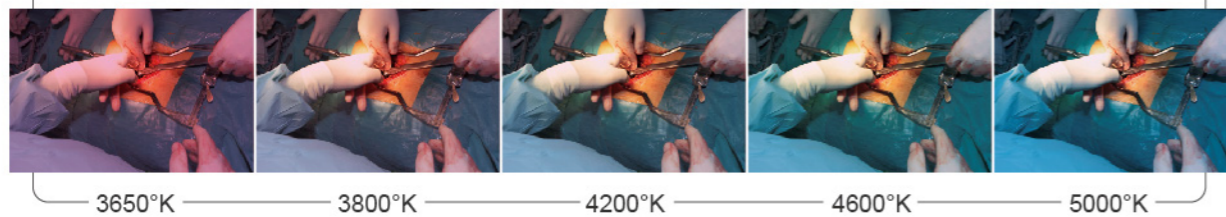
During the MIS (Minimally Invasive Surgery) and Endoscopic Surgery, TopSUN renders gentle and comfortable ambient lighting, for better screen image observation and less fatigue.

## BELLE Vision

10-level Color Temperature Adjustment

With desired color temperature (3650K-5000K), CTA supports you distinguish different tissue types more easily, with less fatigue and more concentration, especially during long-lasting procedures.

### Color Temperature Adjustment



## BELLE Control

4 Intuitive Control Method for free choice

You can control the light intensity, color temperature, and spot field diameter of two/three lighthoods synchronously via the touch panel.



Keypad panel



Wall-mount



Remote handle



IR control

## BELLE Homogeneity

Automatic Illumination Control System for Shadow Compensation

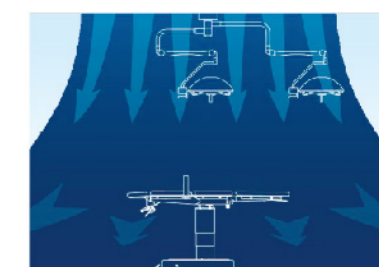
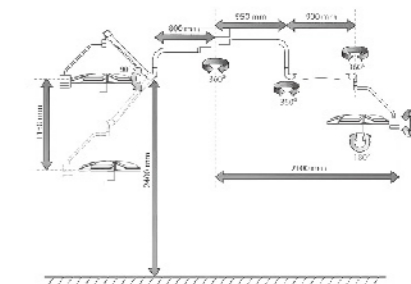
Once the sensor finds area masked by surgeon's head, the lighting of the remaining zones are automatically boosted to maintain the central illumination, which dodges the inconvenience of making adjustments during the procedure.

Meanwhile, AICS ensure true shadowless effect and less heat around surgeon's head.



## Technical data

Model	TopSUN 7000	TopSUN 6000
Central Illuminance (KLux)	140-160	120-140
Color Temperature (K)	3650-5000 10-level adjustment	3650-5000 10-level adjustment
Spot Field (d10) (mm)	160-320	160-320
d10/d50	>=50%	>=50%
CRI (Ra)	>=95	>=95
Shadow Dilution with Tube	95%	95%
Shadow Dilution with 1 Mask	75%	73%
Shadow Dilution with 2 Masks	60%	60%
Shadow Dilution with Tube & 1 Mask	70%	68%
Shadow Dilution with Tube & 2 Masks	55%	55%
Illumination Depth (L1+L2) (mm)	1050	1000
Ee	500W/M <sup>2</sup>	500W/M <sup>2</sup>
Radiant Energy (W/m <sup>2</sup> ×Lux)	4	4
Bulb lifetime (hrs)	50,000	50,000



# TopLED

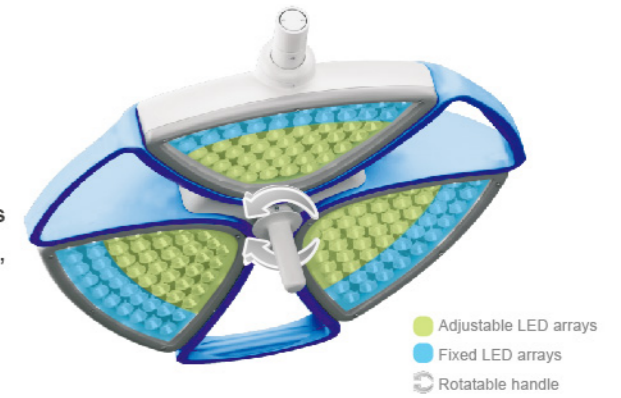
Fixed Color Temperature LED surgical light



## SMART Focus

Modular LEDs Array for Easy Lighting Spot Field Adjustment

Just rotating the sterile handle, the peripheral regulable LEDs arrays can be positioned and project an ideal focused lighting spot, which suits surgeries of sorts of wound sizes.



## SMART Mount

Flexible Installation Methods for Your Choice



## SMART Options

More optional functions are available

Optional Ambient Mode for MIS or Endoscopic surgery  
Optional IR control by handle or wall-mount panel for flexible control from supporting staffs.

## Technical data

Model	TopLED8000	TopLED6000
Lighthouse Dia. (cm)	80	60
LED Amount	150	90
Central Illuminance (KLux)	140-160	120-140
Color Temperature (K)	4300 (5100 optional)	4300 (5100 optional)
Spot Field (d10) (mm)	160-320	160-320
d10/d50	>=50%	>=50%
CRI(Ra)	95	95
Shadow Dilution with Tube	95%	95%
Shadow Dilution with 1 Mask	75%	73%
Shadow Dilution with 2 Masks	60%	60%
Shadow Dilution with Tube & 1 Mask	70%	68%
Shadow Dilution with Tube & 2 Masks	55%	55%
Illumination Depth (L1+L2)(mm)	≥800	≥800
Radiant Energy (W/m²×Lux)	4	4
Bulb lifetime (hrs)	50,000	50,000

## SMART Design

Unique Shamrock Shape Design

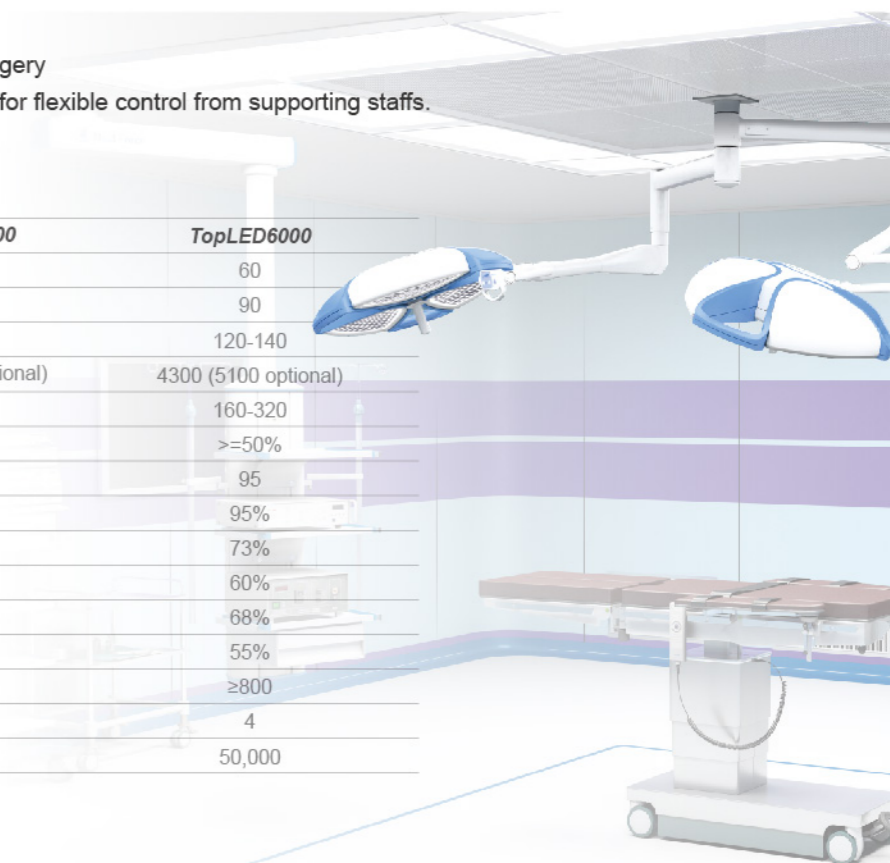
TopLED's shamrock design complies with OR laminar flow requirements, at the same time, features excellent heat dissipation, which gives better hygiene for optimum operation conditions.



## SMART Control

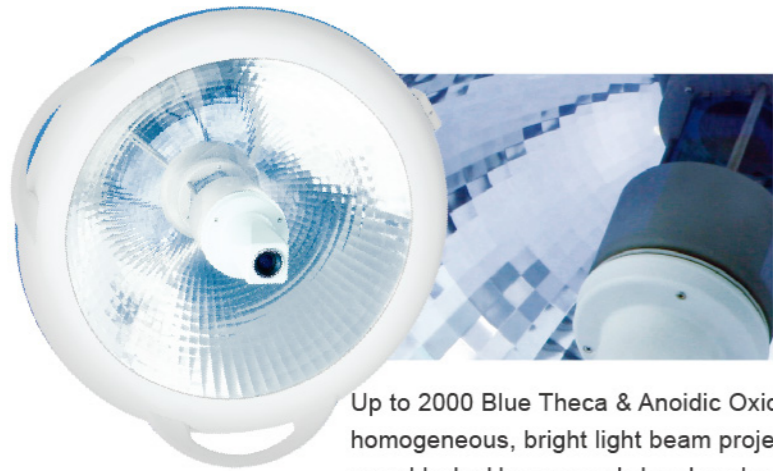
Innovative and Patent Inductive Light Intensity Control

Thank for the innovative inductive control, the surgeon can adjust the light intensity by putting hand in the inductive zone, which keep surgeon's hand sterile throughout the whole surgery, to prevent potential contamination.



# Toplite

Fixed Color Temperature  
Multi-reflector Halogen surgical light



## DEFT Craft

Fine Reflectors Processing technique

Up to 2000 Blue Theca & Anodic Oxidation processed reflectors, designed by CAD/CAM, create homogeneous, bright light beam projected to the surgical field, which is true shadowless visually even blocked by surgeon's head or shoulder.

## DEFT Cooling

Effective Heat Management

A specially coated endothermic system built in Toplite series helps to absorb the undesired infrared radiation in the light. A cool light without infrared reduces tissue desiccation to an absolute minimum. Less heat provides a pleasant working environment, even for surgeries that last a long time.



## DEFT Endurance

Durable and Reliable with Back Solution

Long-lasting OSRAM halogen lamp ensures constant light quality and color temperature over 1,000 hours service time. And back-up bulb switched to optical centre within 0.3 seconds without lighting or quality loss in emergency.



## DEFT Mount

Flexible Installation Methods for Your Choice

Ceiling Mount

Mobile Mount

Wall Mount



## Technical data

Model	Toplite-7000	Toplite-6000
Lighthouse Dia. (cm)	70	60
Halogen Bulb	150W*1	150W*1
Central Illuminance (KLux)	140-160	120-140
Color Temperature (K)	4200	4200
Spot Field (d10) (mm)	120-320	120-320
d10/d50	≥50%	≥50%
CRI(Ra)	95±5	95±5
Shadow Dilution with Tube	95%	95%
Shadow Dilution with 1 Mask	75%	73%
Shadow Dilution with 2 Masks	60%	60%
Shadow Dilution with Tube & 1 Mask	70%	68%
Shadow Dilution with Tube & 2 Masks	55%	55%
Illumination Depth (L1+L2)(mm)	≥600	≥600
Bulb lifetime (hrs)	1000	1000

## Technical data

Model	FII	F	G	P
Reflector treatment	Anodic oxidation	Blue theca	Blue theca	Blue theca
Dome size	70 and 60cm	70 and 60cm	70 and 60cm	70 and 60cm
Anti-glare	Flat	Flat	Grooved	Grooved
Installation	Ceiling, Wall or mobile system (only one dome for wall or mobile system)			
Dome number	1 (Ceiling, Wall or Mobile system)			
	2 or 3 (Ceiling)	2 or 3 (Ceiling)	2 or 3 (Ceiling)	2 or 3 (Ceiling)
Horizontal swing	Adjustable	Adjustable	Adjustable	Adjustable
Working height	Adjustable	Adjustable	Adjustable	N/A
Working direction	Adjustable	Adjustable	Adjustable	Adjustable



# Surgical documentation

## Future Ready

HD camera system

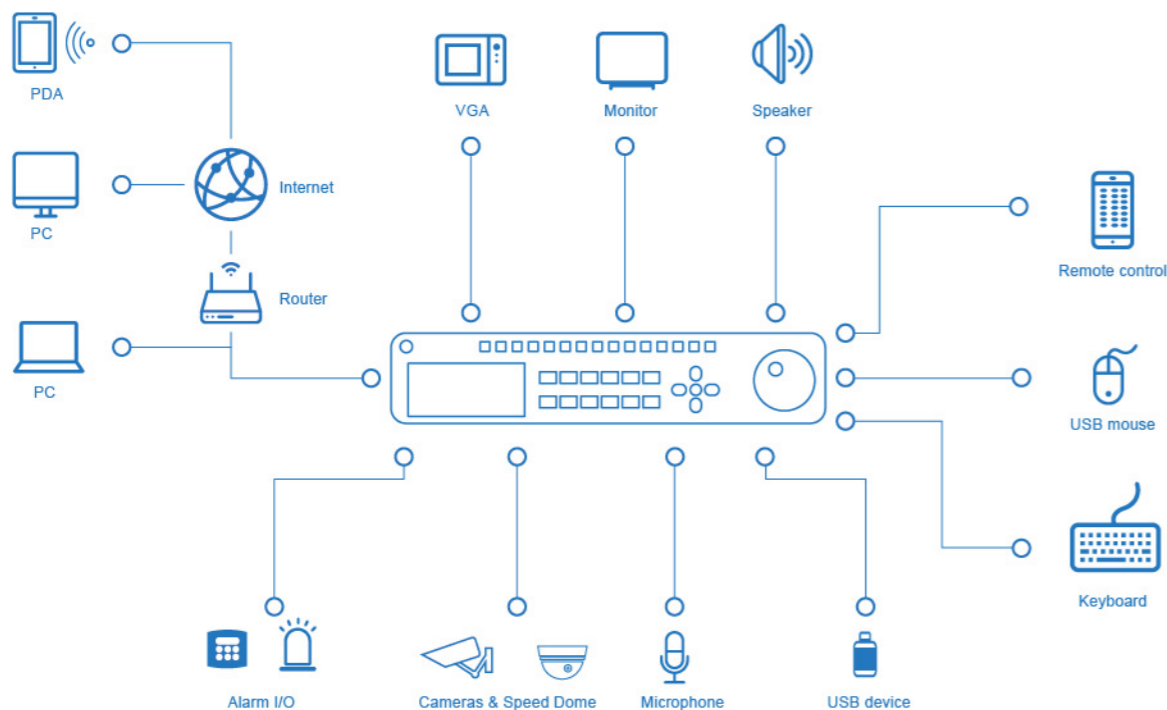
HD Camera can either be integrated into the center of a light head, mounted on wall or installed on a separate suspension arm.



## Future Ready

Application in Data and Information Documentation System

Data and information nowadays play a vital role in many surgical, endoscopic and other imaging interventions and procedures. Specifically, digital image documentation of surgical procedures and live operations are increasingly gaining importance. In conjunction with our novel TopSUN LED operating light, the digital camera system from Heal Force gets you directly in touch with what's happening in the OR – live.

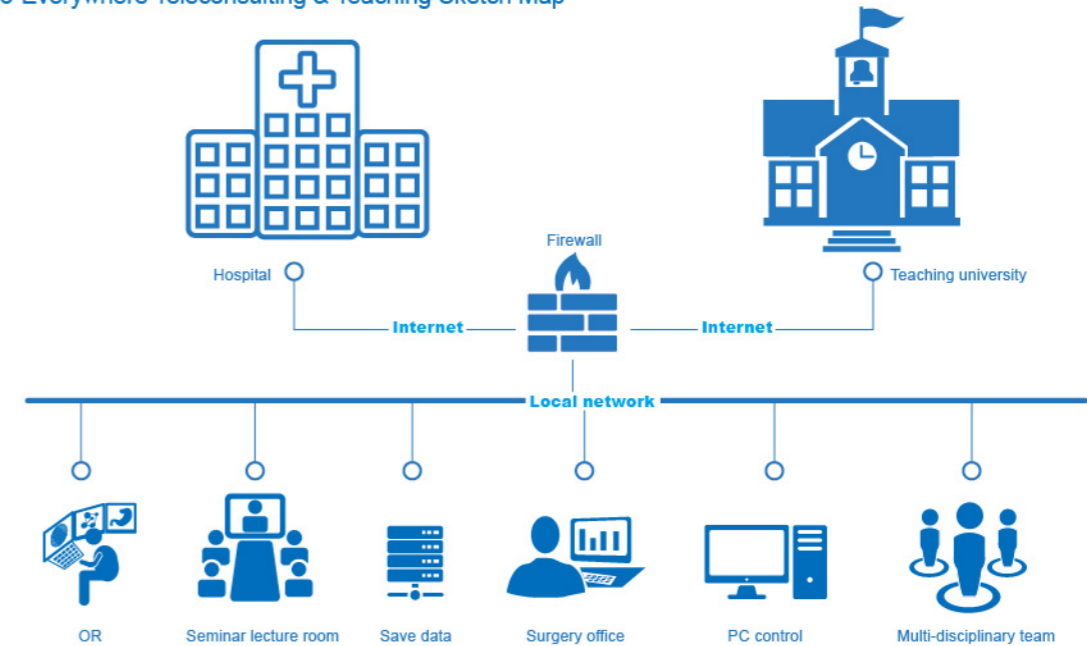


## Future Ready

Application in Data and Communication Integration System

To meet individual surgical documentation, teleconsulting, teaching and training needs, Heal Force provide comprehensive surgical monitoring solution to support surgical diagnosis and treatment.

OR-to-Everywhere Teleconsulting & Teaching Sketch Map



## Technical data

### Video camera system(Optional)

CCD sensor	1/4" Interline Transfer Super HAD CCD	1/4" Interline Transfer Super HAD CCD
Scan system	PAL, 625 lines, 25 frames/sec	PAL, 625 lines, 25 frames/sec
Effective Pixels	752(H)×582 (V)	752(H)×582 (V)
Horizontal resolution	480	480
Aspect Ratio	4:3	4:3
S/N Ratio (dB)	>52	>52
Lens	22×optical zoom lens, 10×digital zoom	22×optical zoom lens, 10×digital zoom
Lens control	Independent control system	Independent control system
Focal length (mm)	f=3.6 to 79.2	f=3.6 to 79.2
Focus	Automatic, manual	Automatic, manual
Aperture	Automatic, manual	Automatic, manual
Shutter	Automatic, fixed	Automatic, fixed
White balance	Automatic, manual	Automatic, manual
Minimum luminance	0.01Lux	0.01Lux
Video output	VBS 1.0Vp-p, 75Ω	VBS 1.0Vp-p, 75Ω
Picture in picture function	Yes	Yes
Backlight Compensation	On/Off	On/Off
Location of camera	Center of the lighthead/separate arm	Center of the lighthead/separate arm
Camera operation	At the surgica light/ mobile control unit	At the surgica light/ mobile control unit
Serial link interface	RS485	RS485
Power consumption(VA)	5	5

\* Optional installation height may require special suspension arm or extra accessories.

# Worldwide coverage

Nowadays, Heal Force has 3 R&D centers and 9 manufacturing plants in China; Meanwhile, distribution has expanded over 120 countries.





**TopSUN**

## Selection Guide

Model	TopSUN	TopLED	Toplite
Light Source	LED	LED	Halogen
CRI (Ra)	≥95	95	90±5
Color Temperature	Adjustable	Fixed	Fixed
Endo Mode Lighting	Standard	Optional	N/A
Bulb Service Time	50,000hrs	50,000hrs	1,000hrs
Intuitive Control	Keypad / IR / Handle / Wall	Keypad / IR / Handle (Optional)	Keypad



**TopLED**



**Toplite**

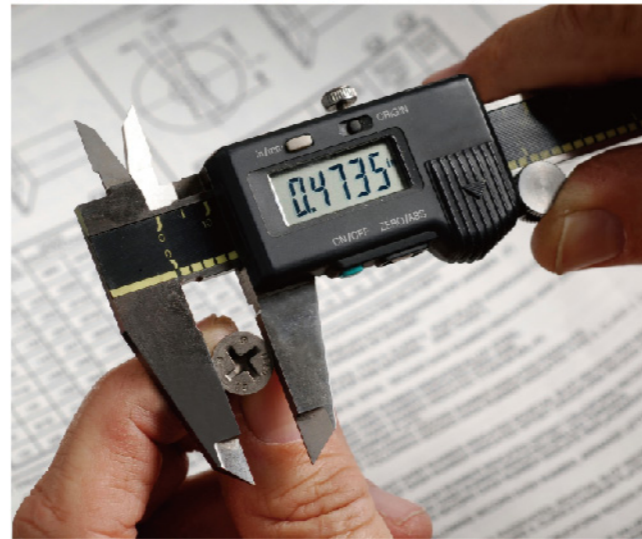
# Quality Control

## Commitment to Quality

We operate quality management systems that follow the standard of ISO9001 and ISO13485, and successfully get CE marked and FDA approved, to make sure that our products can comply with regulation globally.

Strict test condition and procedure are designed and executed by the R&D team and production department, thus to ensure providing the high and reliable products to customers.

## Certificates



# Ordering Guide

Installation Style	TopSUN	TopLED	Toplite-FII	Toplite-F	Toplite-G	Toplite-P
	7070	8080	F7272	F7070	G7070	P7070
<b>Double Light Heads</b>	7060	8060	F7262	F7060	G7060	P7060
	6060	6060	F6262	F6060	G6060	P6060
	707060	808060	F727262	F707060	G707060	P707060
<b>Trible Light Heads</b>	706060	806060	F726262	F706060	G706060	P706060
	606060	606060	F626262	F606060	G606060	P606060
	7000	8000	F7200	F7000	G7000	P7000
<b>Single Light head</b>	6000	6000	F6200	F6000	G6000	P6000
<b>Wall Single</b>	7000W	8000W	F7200W	F7000W	G7000W	P7000W
	6000W	6000W	F6200W	F6000W	G6000W	P6000W
	7000L	8000L	F7200L	F7000L	G7000L	P7000L
<b>Mobile Single</b>	6000L	6000L	F6200L	F6000L	G6000L	P6000L
<b>Mobile Single Battery</b>	7000LE	8000LE	F7200LE	F7000LE	G7000LE	P7000LE
	6000LE	6000LE	F6200LE	F6000LE	G6000LE	P6000LE

