

I-LIGHT

Always on, always ready



Surgical Illumination Systems

Improved Beam Technology

Super Optical Performance

Endo Mode

Futuristic Drone Design

Laminar Air Flow

 **hermann
müller**

AYGUN®



Aygün

Surgical Illumination Systems

Guides surgeons through surgery
using the power of light



A leading manufacturer of Medical Devices Industry for over 40 years.

OUR HISTORY

AYGÜN, one of the leading establishments of Turkey in the field of Medical Industry, was founded in 1988. It manufactures Container Systems for sterilization, Surgical Motor Systems, Medical Illumination Systems and Single Use Medical Systems in its facility at Samsun Central Organized Industrial Zone.

AYGÜN meets the needs of significant part of Turkey as a result of its continuous R&D works and the capacity increasing. It manufactures its products in international standards and put them to the world market with a high

competitive power. Moreover with its integrated quality management system, it proves that it is a specialized establishment.

Besides being a manufacturer, AYGÜN is also a designer company and with its continuous product development works it increases number of its patents, on the other hand, is contributing career development of rising generation by acting as a school.

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I-LIGHT

Clear Visualization For Better Results

Leds offer better shadow control compared to conventional halogen bulbs. Halogen systems consist of a single bulb and multidirectional reflectors. Unfortunately, each direction requires a different setting and a different distance from the bulb. These differences may lead to unwanted “hot” and “cool” spots in the light pattern. A typical LED end-piece focuses LEDs at a single point. During this process it forms a block in order to avoid overlapping LEDs, therefore, LED points are round and consistent. There is no shadow cast on the patient during the surgery as the surgeons move in the lighted area. This can be tested with the surgeon moving their hands between the lamp and the operated area.

Performance	Units	LD5S	LD4S
Technology	-	LED	
Lighting at the center, Ec@ 100 cm	lx	160.000	120.000
Number of LEDs	pcs	60	48
Light field diameter	mm	190-300 (adjustable 5 steps)	
Light field depth L1+L2 (@60% Ec)(Tolerance±%10)	mm	600	
Light field depth L1+L2 (@20% Ec)(Tolerance±%10)	mm	1200	
Color Rendering Index (CRI Ra)	-	min.95 (R9: typ.97)	
Color Temperature	K	3.500-5.500 (adjustable 5 steps)	
Electrical dimmability from/to	lx	60.000-160.000 (6 steps)	40.000-120.000 (6 steps)
Ambient illumination	lx	8.000	6.000
Light parameters control	-	5" TFT LCD Touch Panel	
Service life	hrs	>54.000	
Handle	-	Removable and sterilizable	
Temperature increase in head area	C	< 1	
Rotation	°	360	
Radiant energy	mW/m²lx	<3.4	
Shadowless	-	%98	
Endo light mode (Ambient illumination)	-	yes (adjustable 5 steps)	

Electrical Data

Power supply input voltage	V	100-240 VAC / 120-360VDC / 24VDC Backup or Battery	
Frequency of AC input voltage	Hz	50-60	
Power Consumption at Lighthead	W @ 24VDC	60	50

Mechanical Data

Light head weight	kg	19	17
Diameter of light head	mm	770	
Housing	-	Aluminum Alloy	
Design		Aerodynamically designed for Laminar Air flow	
Glass	-	Tempered Crystal Glass	
IP protection class	-	IP44	



Where clarity meets confidence

Optional Add-Ons



CAMERA

IMAGE SENSOR: 1/2.5-type Exmor R CMOS Sensor (8.51M pixels)
LENS: 20x optical zoom, f = 4.4 mm to 88.4 mm, F2.0 to F3.8
PICTURE QUALITY: 3840x2160 (4K), 1920x1080 (Full HD), 1280x720 (HD), 720x480/576 (SD)
ZOOM: 20x optical zoom, 12X digital zoom
OUTPUT: 3840x2160 (QFHD), 1920x1080 (Full HD), 1280x720 (HD), 720x480/576 (SD)
CAMERA ROTATION: 360° rotation function of camera
E-FLIP: This function reverses the video output from the camera vertically and horizontally
PICTURE EFFECT: Freeze and Image Stabilization



Better Visualization, Better Outcomes.

4K cameras and monitors offer surgeons a unique opportunity to see the surgical field in sharper and more detail. Because 4K resolution has four times the number of pixels as Full HD resolution, surgeons can more easily see small details and structures. This helps to make surgery more accurate and efficient.

- **Better visualization:** Surgeons can see the surgical field in more detail and accuracy. This helps to identify small structures and defects.
- **Reduced errors:** Improved visualization can help surgeons make more accurate incisions and repairs. This helps to reduce the risk of errors and complications during surgery.
- **Better patient outcomes:** Improved visualization can lead to better surgical outcomes for patients. This can lead to shorter recovery times, lower infection rates, and improved quality of life.
- **Recording and playback:** 4K cameras can be used to record and playback surgical procedures. This can be useful for training purposes or for reviewing procedures after the fact.

MONITOR

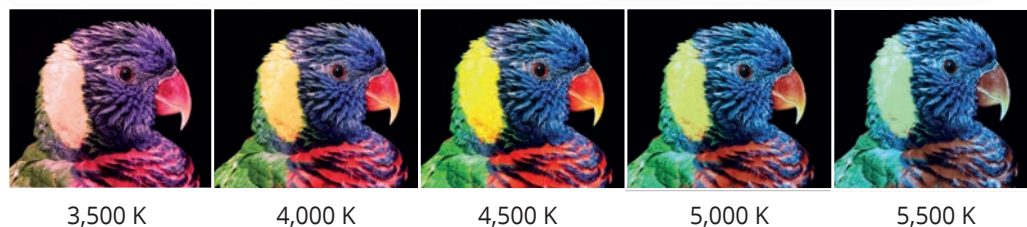
27"-32" 4K/FHD Medical Display
 Rapid video signal detection
 Image pan, zoom, freeze
 Picture-in-picture
 Fanless
 intuitive, full-featured on screen menus



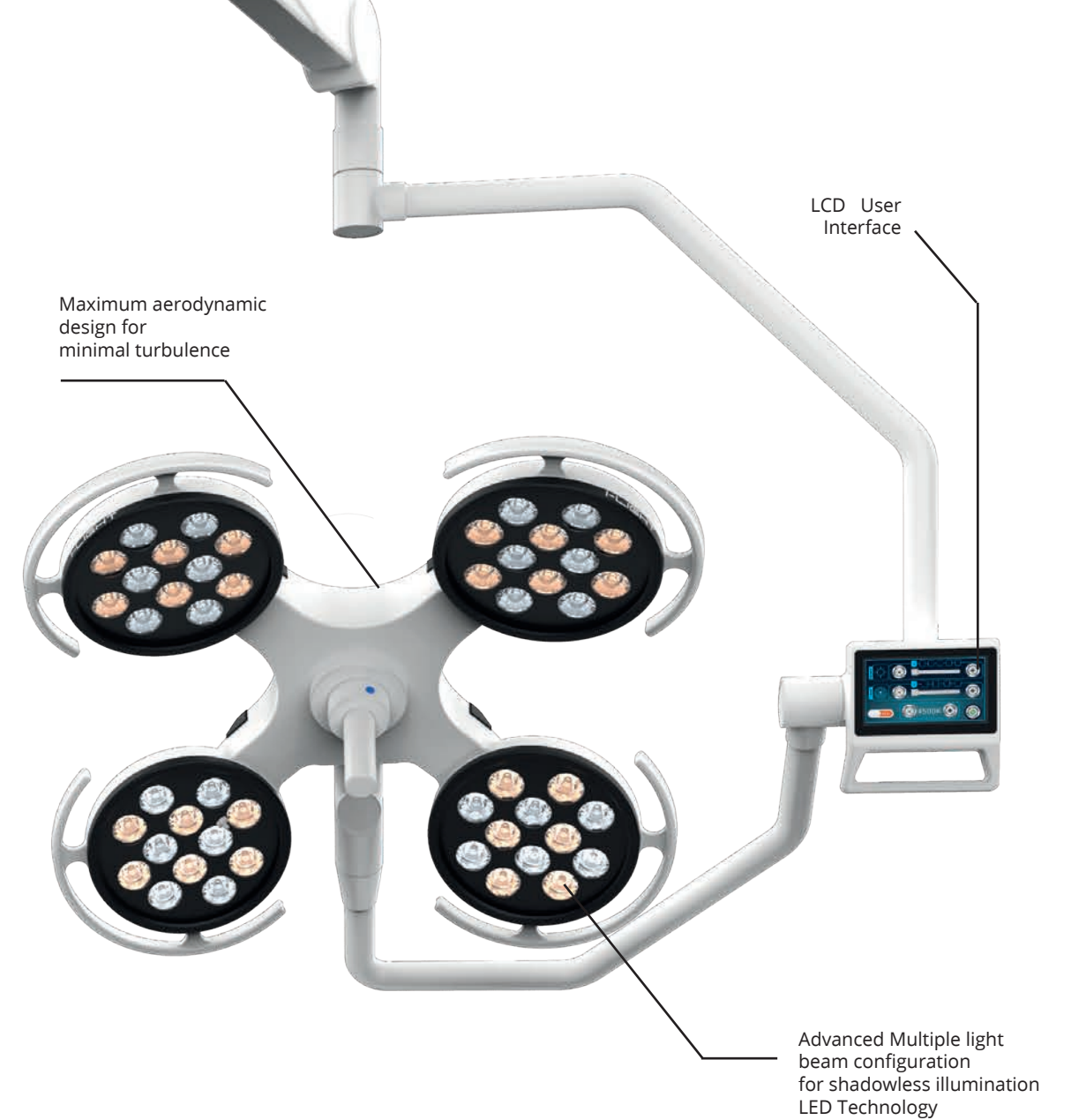


Multi Colours

Adjustable color control



I-LIGHT LD Series provides adjustable color temperature to optimize visualization of red tissues. Color temperature is variable from 3500K – 5500K.



I-LIGHT

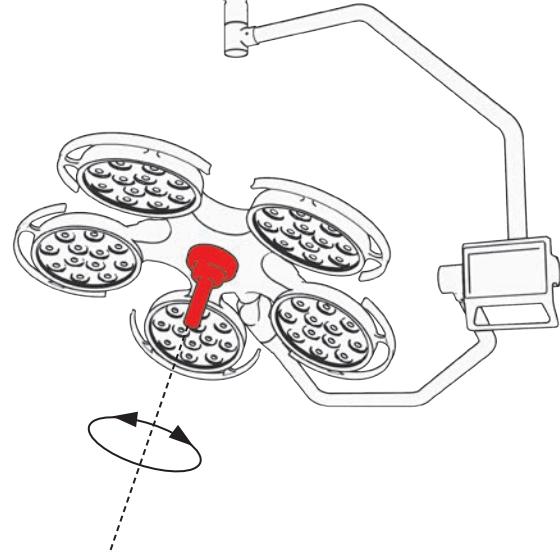
Hermann Müller is furthering a number of R&D projects simultaneously thanks to its advanced R&D infrastructure, team of engineers and technical personnel specialized in their field. Thus, the company holds many patents and models actively used in the medical sector.

- Multiple Light Beam Configuration for Shadowless Illumination
- Improved Beam Technology
- No flicker effect
- Quality Light
- Super Optical Performance
- 5" TFT LCD Touch Screen Panel
- Memory function
- Easy to clean
- Endo Mode
- Ergonomic and practical design
- Laminar Air Flow
- Quick and comfortable usage
- Extra Protection

I-LIGHT

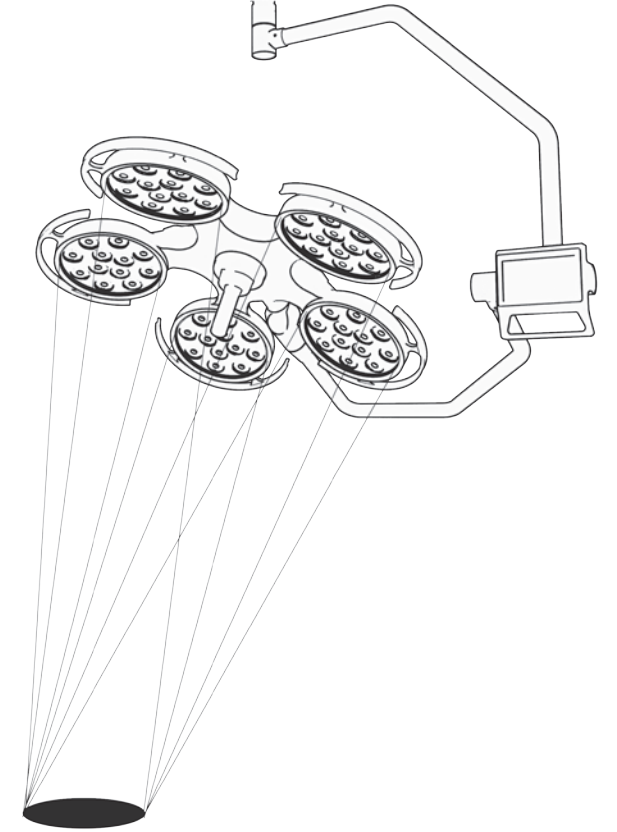
Quick and Comfortable Usage

Thanks to sterilizable handle, surgeon can do reposition easily and change the lighting field and ENDO mode quickly.



Multiple Light Beam Configuration for Shadowless Illumination

I-LIGHT boasts the ideal design for shadowless illumination thanks to its precise multiple light beam configuration.



Improved Beam Technology

Special lens technology designed for surgical lighting fully compatible with LED, provides homogeneous light field; when the light field is changed, the light intensity does not change.



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Quality Light

Special alloy body design and LED driving technology minimize the heating of the light head. High quality LEDs with the lowest infrared or ultraviolet emissions, protects the patient from drying out of the tissue and provides a high quality working condition with the constant high-class lighting temperature to the operator.



No flicker effect

Thanks to the smooth LED driving technology no flicker effect is generated. Flicker effect can cause eye strain, headaches, blurred vision. Also light flicker causes corruption in photos or videos.



Super Optical Performance

Lighting functions are governed by microcontroller based electronic systems. By ensuring perfect LED and Lens compatibility, light quality is improved. By designed protected LED module, safer lighting is provided in case of failure of any LEDs the other LEDs are not effected. Each LED module can be replaced independently of the others and also they can be reached easily thanks to the independent Glass cover design of the Light head.

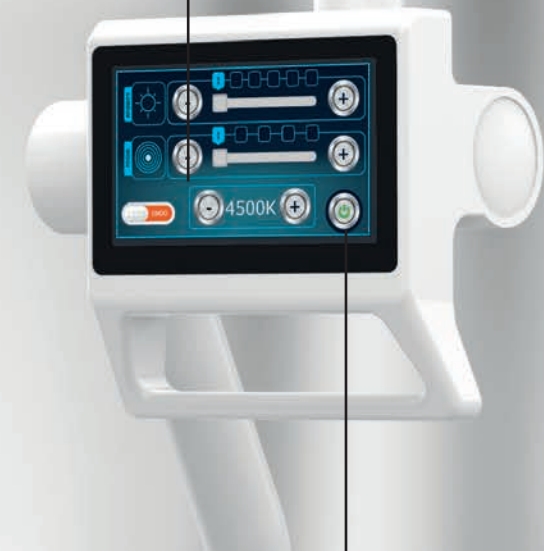


5" TFT LCD Touch Screen Panel

All functions used in the surgical light system are adjusted via the touch screen. Light intensity, focus and endo mode are set on the touch panel with animated feedback.

Easy to clean

Thanks to the smooth surface, It can be easily cleaned.



Memory function

When the product is energized, it is turned on with the last adjusted light parameters.

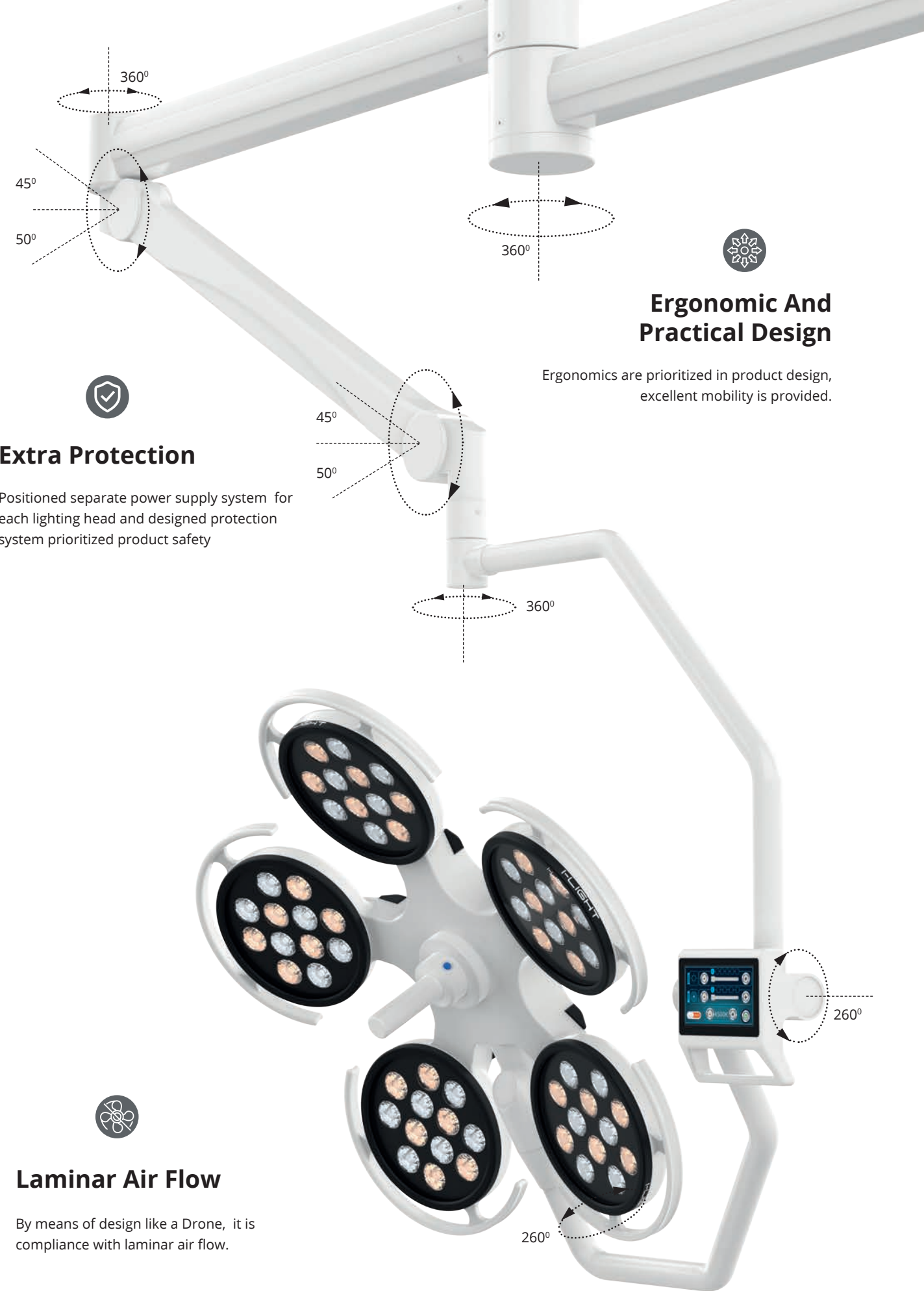


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Endo Mode

Provides the environment lighting necessary for endoscopic surgery with only one button and the system is switched back to the last surgical lighting settings with only one button.



Extra Protection

Positioned separate power supply system for each lighting head and designed protection system prioritized product safety

Laminar Air Flow

By means of design like a Drone, it is compliance with laminar air flow.

Ergonomic And Practical Design

Ergonomics are prioritized in product design, excellent mobility is provided.

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LD5

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 85 VA
WEIGHT : 58 KG

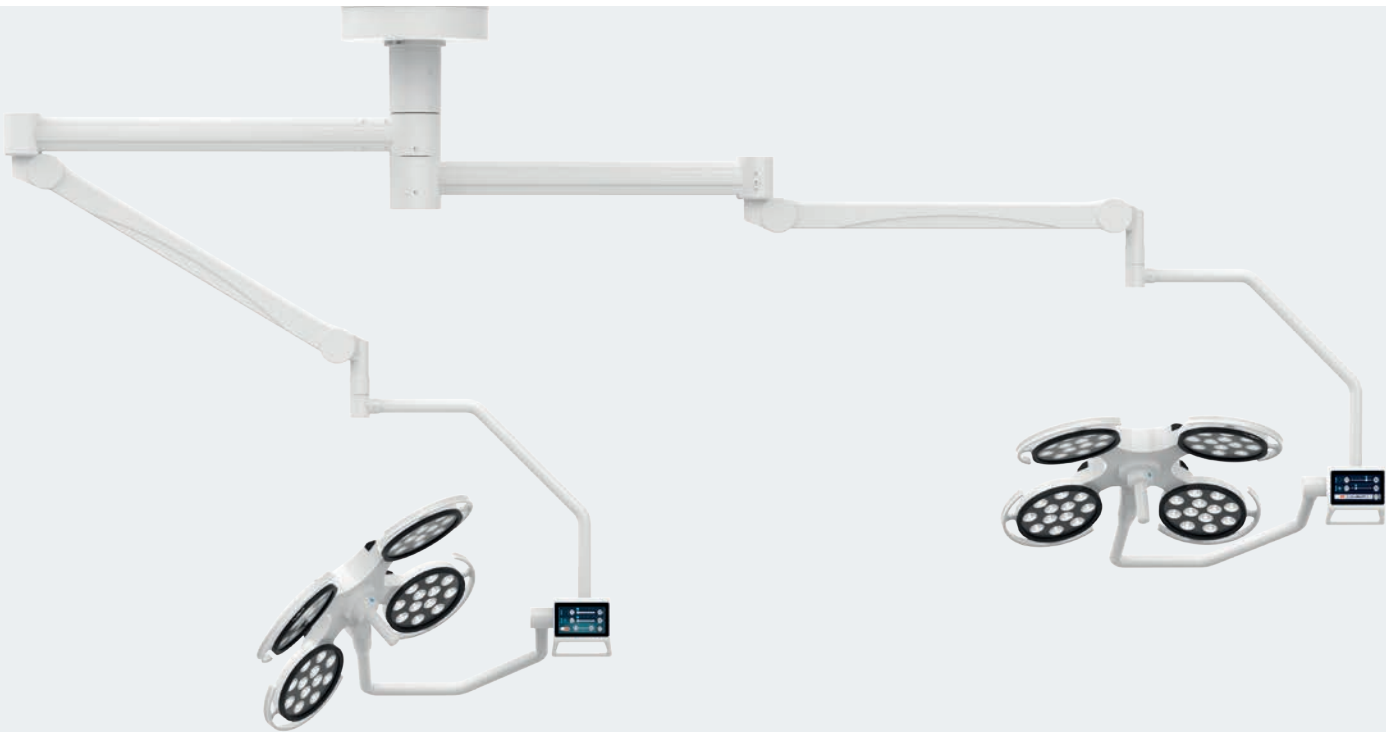
LIGHT INTENSITY: 160.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs: 60



LD44

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 133 VA
WEIGHT: 88 KG

LIGHT INTENSITY: 120.000 + 120.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs : 48 + 48



LD4

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 68 VA
WEIGHT : 55 KG

LIGHT INTENSITY: 120.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs: 48

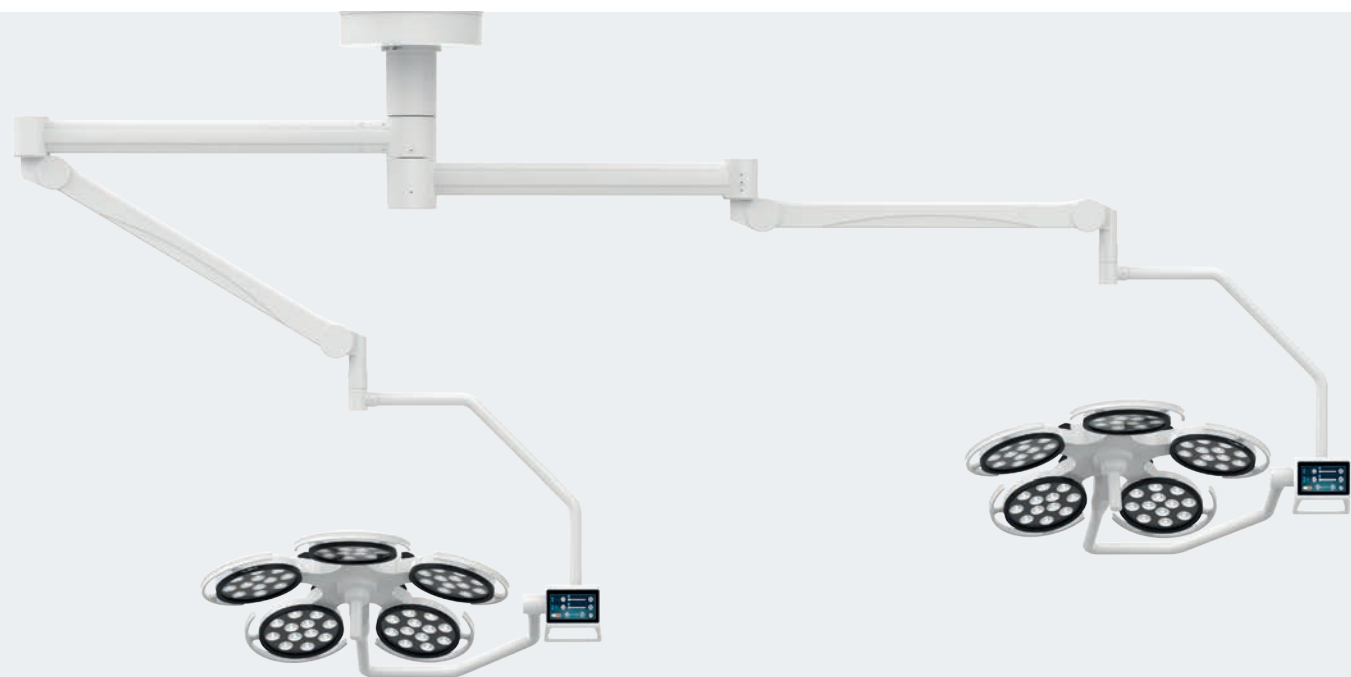


LD54

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 150 VA
WEIGHT: 90 KG

LIGHT INTENSITY: 160.000 + 120.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs : 60 + 48

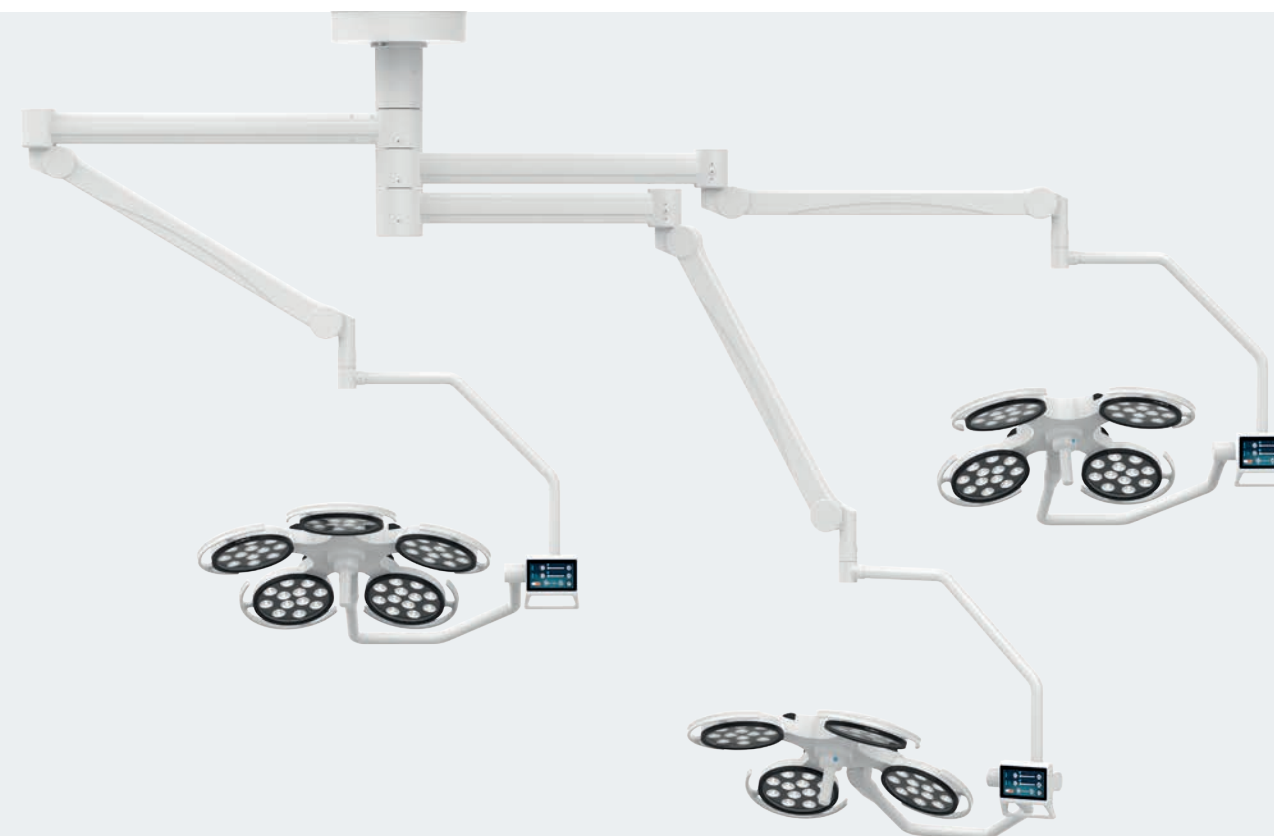




LD55

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 167 VA
WEIGHT: 93 KG

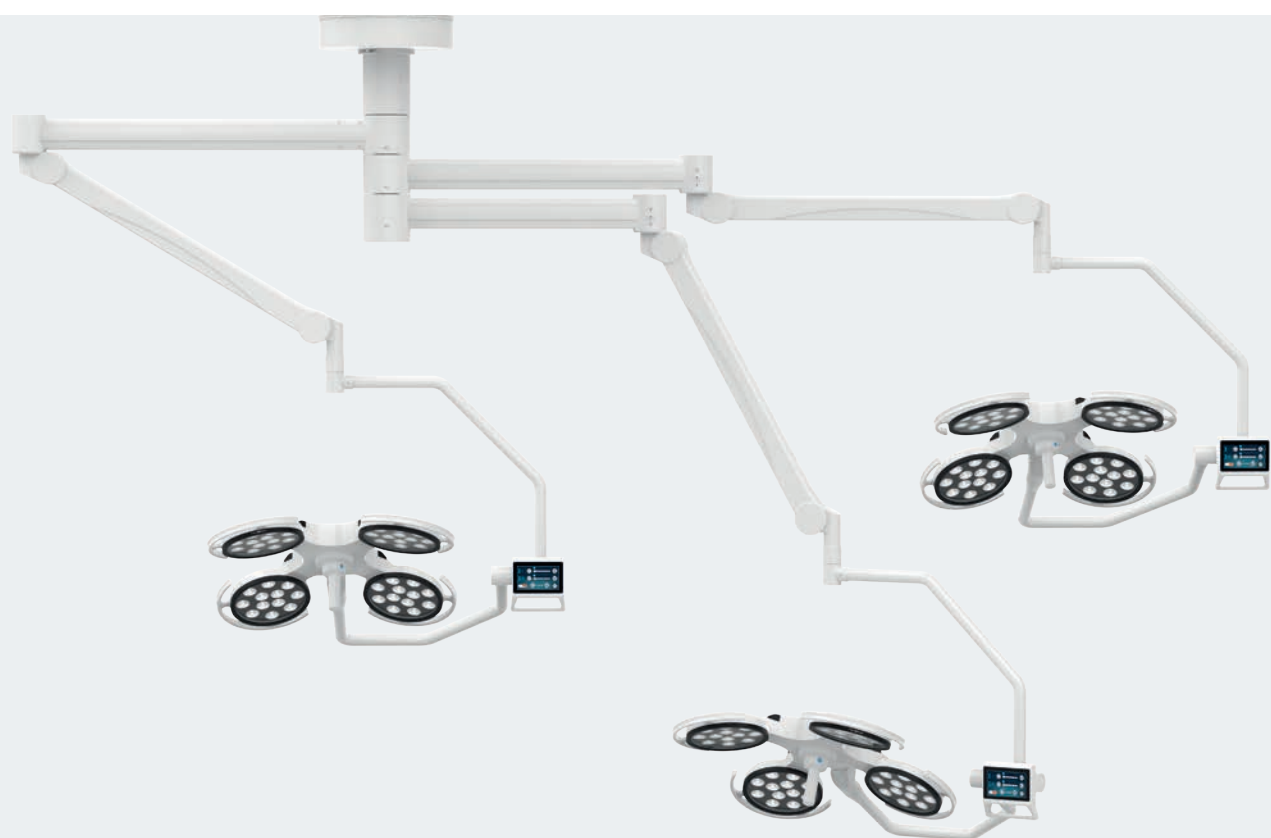
LIGHT INTENSITY: 160.000 + 160.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs : 60 + 60



LD544

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 217 VA
WEIGHT: 118 KG

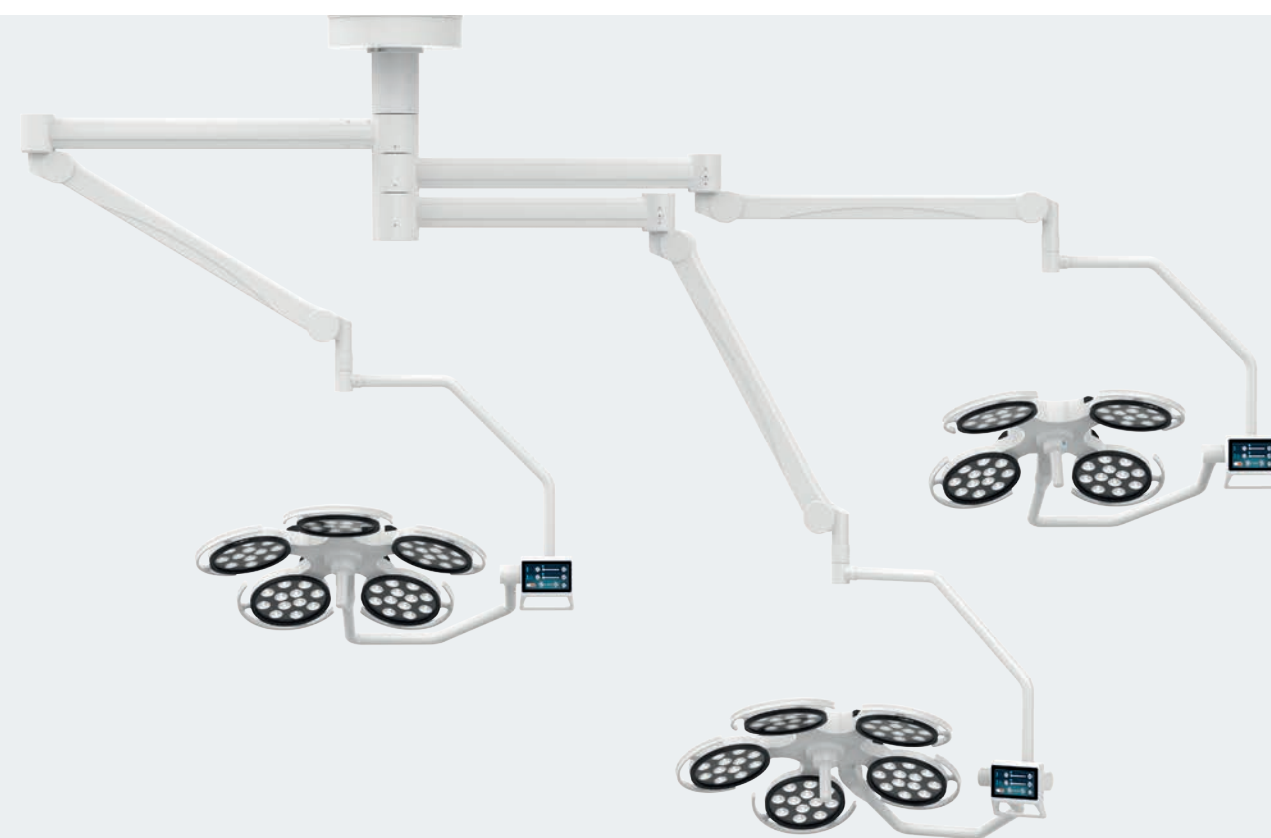
LIGHT INTENSITY: 160.000 + 120.000 + 120.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs : 60 + 48 + 48



LD444

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 200 VA
WEIGHT: 115 KG

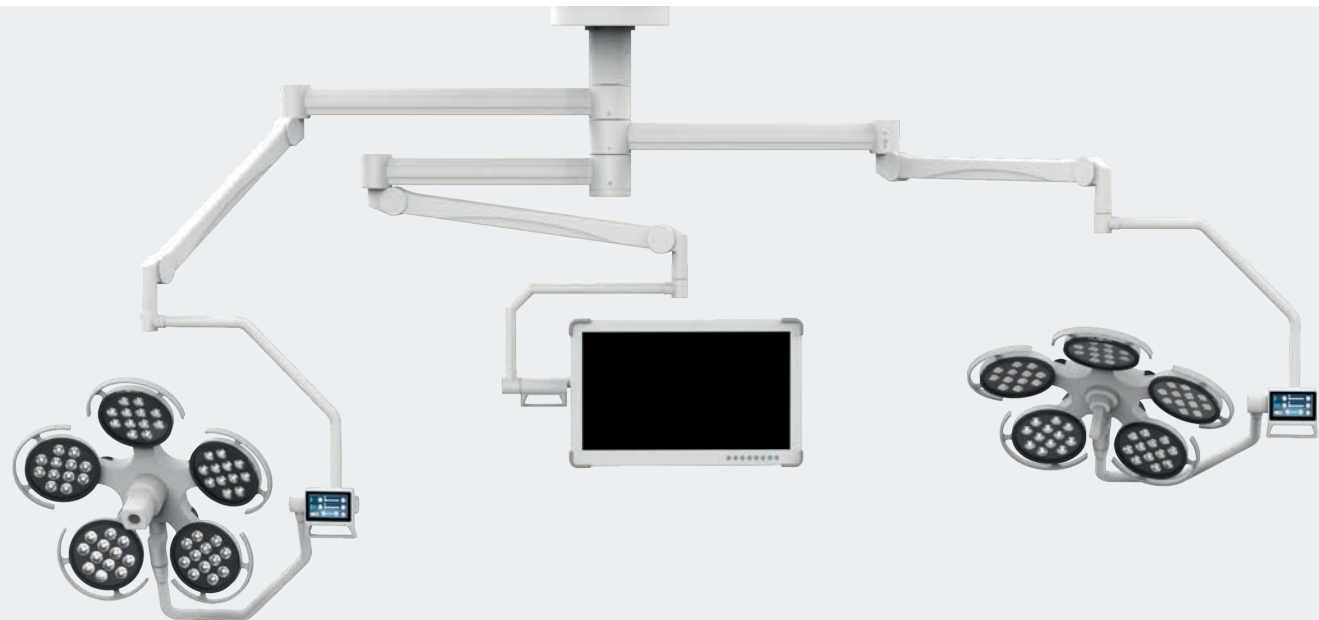
LIGHT INTENSITY: 120.000 + 120.000 + 120.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs : 48 + 48 + 48



LD554

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 234 VA
WEIGHT: 121 KG

LIGHT INTENSITY: 160.000 + 160.000 + 120.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs: 60 + 60 + 48

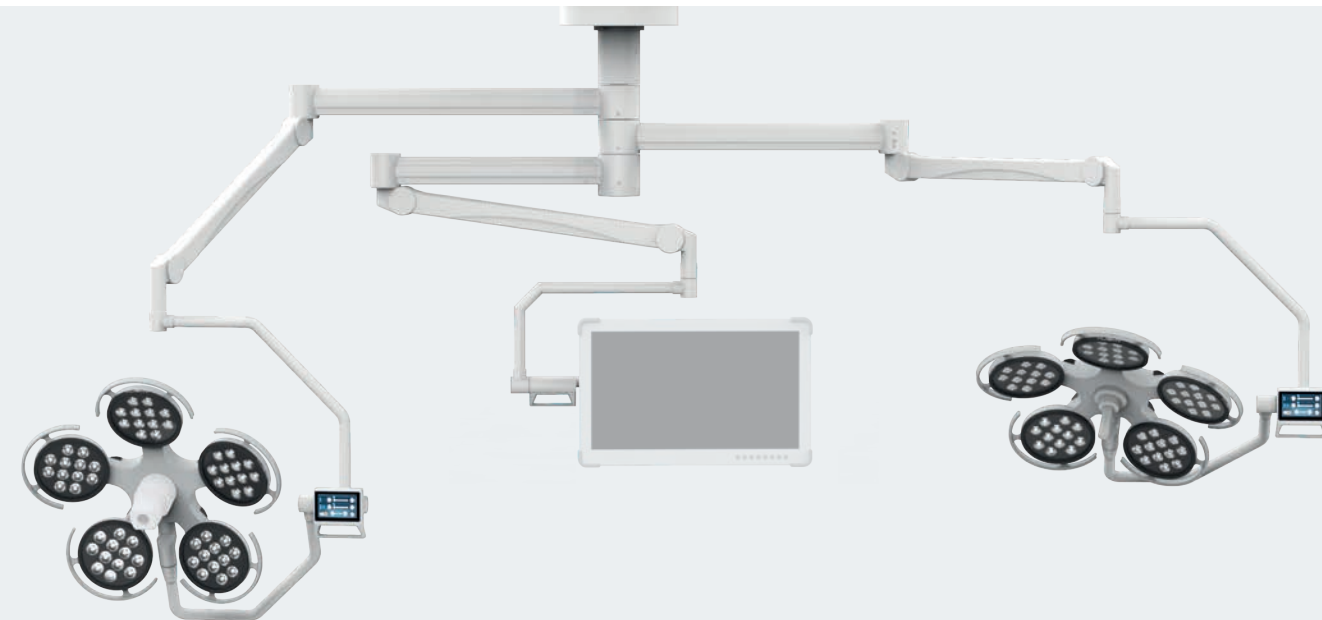


CAMERA & MONITOR

LD55V

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 240 VA
WEIGHT: 120 KG

LIGHT INTENSITY: 160.000 + 160.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs : 60 + 60

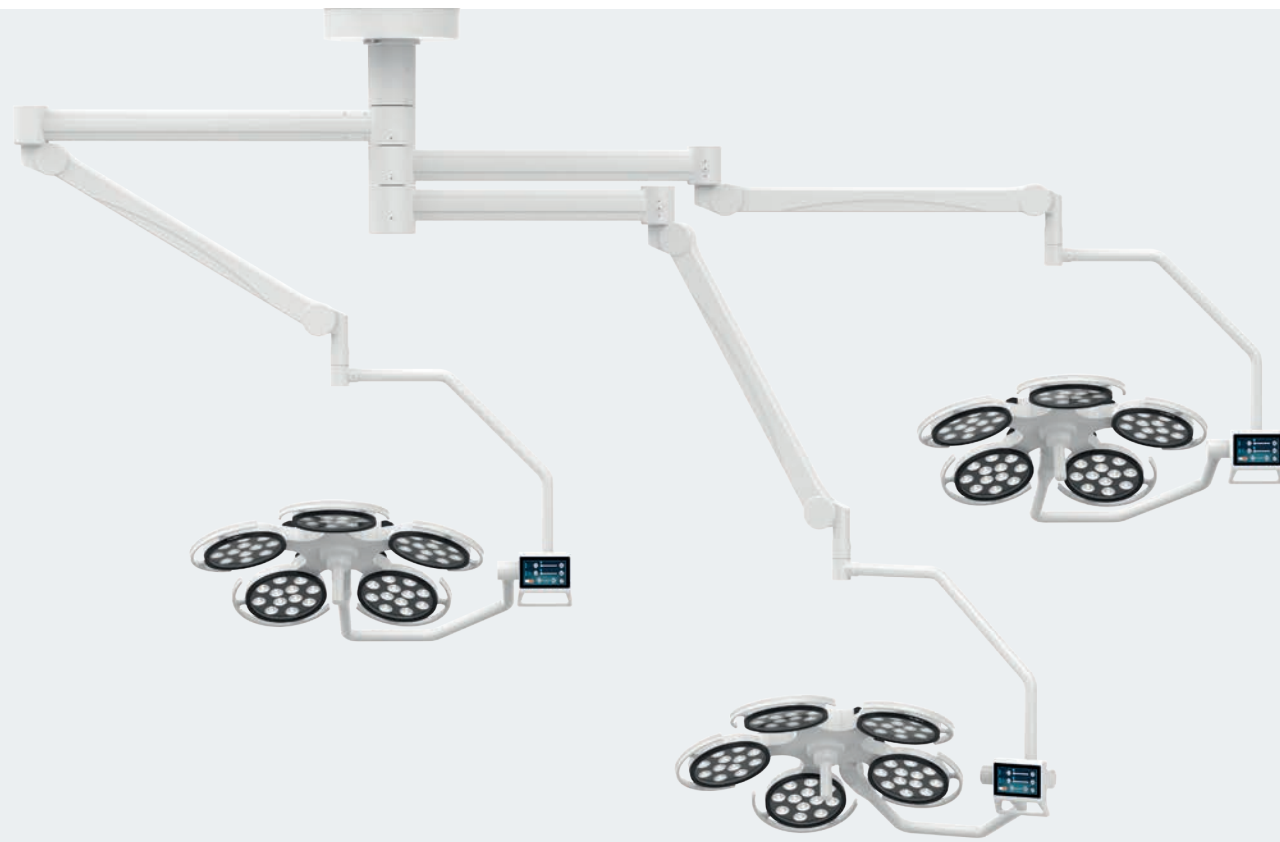


CAMERA & MONITOR (OPTIONAL)

LD550

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 240 VA
WEIGHT: 120 KG

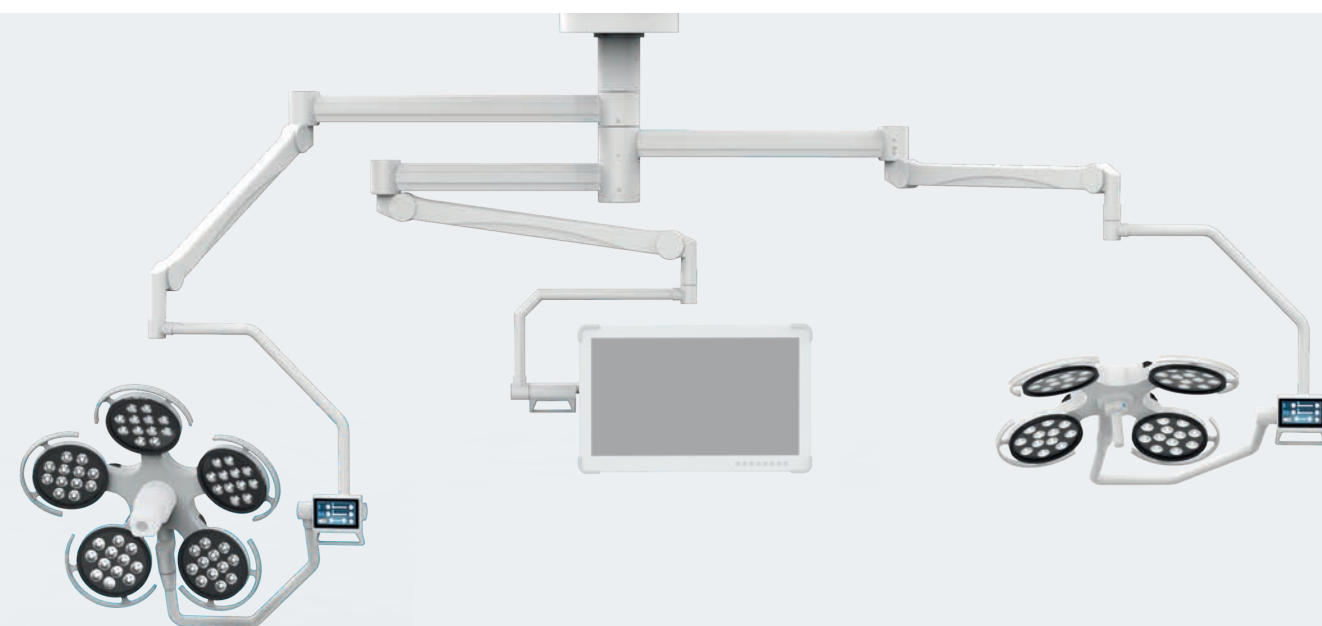
LIGHT INTENSITY: 160.000 + 160.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs : 60 + 60



LD555

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 250 VA
WEIGHT: 124 KG

LIGHT INTENSITY: 160.000 + 160.000 + 160.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs : 60 + 60 + 60



CAMERA & MONITOR (OPTIONAL)

LD540

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 240 VA
WEIGHT: 120 KG

LIGHT INTENSITY: 160.000 + 160.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs : 60 + 60

LD4MB/LD4ME

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 50 W
WEIGHT : 72 KG
BATTERY: LEAD ACID (LD4MB)
CONNECTION: CABLE PLUG AND SCOKET CONNECTION (LD4ME)

LIGHT INTENSITY: 120.000 LUX
COLOR TEMPERATURE: 3500-5500 K
NUMBER OF LEDs: 48
OPERATING DURATION: 10 HOURS (LD4MB)
CHARGING TIME: 8 HOURS (LD4MB)
CASTERS: 4 LOCKABLE CASTERS



LD5MB/LD5ME

POWER INPUT: 100 - 240 VAC
POWER CONSUMPTION: 60 W
WEIGHT : 75 KG
BATTERY: LEAD ACID (LD5MB)
CONNECTION: CABLE PLUG AND SCOKET CONNECTION (LD5ME)

LIGHT INTENSITY: 160.000 LUX
COLOR TEMPERATURE: 3500-5500 K
NUMBER OF LEDs: 60
OPERATING DURATION: 8 HOURS (LD5MB)
CHARGING TIME: 8 HOURS (LD5MB)
CASTERS: 4 LOCKABLE CASTERS



ACCESSORIES

UR-NEXT4K

4K Medical Video Recorder



IR-Hand-held Remote

TBD, UR-NEXT4K (1080)

Medical-Grade Digital
Video Recorder 4KH

TBD, UR-NEXT4KS (1080)

Medical-Grade Digital
Video Recorder 4KS

UR-4MD 1TB

Medical-Grade Digital
Video Recorder FHD



CM CAMERA MODULE
(CAMERA 4K+Transmitter and Receiver)



Back



RECEIVER

Front



MEDICAL MONITOR FHD/4K





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