



I-LIGHT

SURGICAL ILLUMINATION
SYSTEMS

AYGUN®
SURGICAL INSTRUMENTS CO., INC.

" Meeting point for surgery..."



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Aygün has the right to modify and develop the products declared in this catalogue and its production program.

The weight and dimensional information given in our catalog are approximate values.

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www.aygun.com

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.





STERILIZATION CONTAINER SYSTEMS

All AYGÜN sterilization container systems are designed for perfect steam penetration, traceability, safety and stability. The locking mechanisms secure excellent grip and ensure up and down movement of the lids under steam pressure during the sterilization. We service our bottoms and lids made of 2 mm high quality special alloy aluminum raw material to the whole world with 8 basic color options.

CONTAINER **MODELS**

Standard Plus Model
Standard model
Bio-Barrier Model
PPSU Model
Window Model
B3 Model
Plasma Model
A1 Model
Safe Model



SURGICAL MOTOR SYSTEMS

The expertise of AYGÜN in surgical motor systems gathered up many designs and systems that have special structures servicing from neuro and spinal surgery to many fields like cardiovascular, orthopedic, plastic, hand & foot and maxillofacial surgery. The quality, power and ergonomic design of the new generation of high-tech battery powered surgical motor systems once again demonstrates AYGÜN's expertise in the medical field.

SURGICAL MOTOR SYSTEM **MODELS**

Scoren
Karinca 206
Karinca 208
Dermatome Bes
Dermatome ST-5
Skin Graft Mesher
Raptor SPS4
Praxis 3
Praxis 3B
Sternal Saw 3B
HSM Micro System
HSM 2 Neuro & Spine System
Mini Bone 40.000 rpm
Mini Bone Monoblock
Arthroscopy Shaver
Mini Surgical Motor
Mini Compact
Neuro Air Power
Standard Macro
EPS Motor System
Macro Compact
Mobil Stator



SURGICAL ILLUMINATION SYSTEMS

AYGÜN 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 tens of patents and models actively used in the medical sector.

ILLUMINATION SYSTEMS **FEATURES**

- I-LIGHT LD Specifications
- Superior Optical performance
- Light beams configuration to provide Shadowless illumination
- Almost perfect color rendition (Typ. 95)
- TFT touch screen for lighting control
- Adjustable beam sizes to user preferences
- Suitable for use with Laminar Flow functional ceilings
- Easy to clean
- Minimum Energy Consumption
- 54.000 hours LED life
- Indirect Endo light for endoscopic operations



DISPOSABLE STERILIZATION PRODUCTS

AYGÜN continues expanding its product range by adding other single use medical products to the completely silicone medical drainage systems needed by surgery. With its ISO 7 clean room and by carrying its expertise on sterilization and operation solutions one step further, AYGÜN offers professional service to its valued customers in disposable medical items as well.

DISPOSABLE PRODUCTS **MODELS**

- Silicone Straight Drain
- Silicone Flat Drain
- Silicone Redon Drain
- Silicone Penrose Drain
- Silicone T Drain
- Silicone Medical Tube

for more

visit us

www.aygun.com

WE ARE GROWING TOGETHER

Aygün has an actively growing position in the sector through using a high technology and innovative institutional structure.



QUALITY MANAGEMENT SYSTEM

- ISO 9001: 2015
- ISO 14001: 2015
- ISO 45001: 2018
- ISO 13485: 2016
- 93/42/EEC
- FDA 510 (K)
- 2017/745 (EU)





OUR VISION

The vision of AYGÜN is to grow in health sector according to the developing technology and sectoral innovations and serve humanity by producing new project and products appropriate to these innovations.

OUR MISSION

AYGÜN builds projects that can contribute to human health all over the world and integrates these projects to its production area and products in the light of technological developments. It constantly stays active with its innovative and explorer soul and remains taking part among the leader companies ruling the sector.





TECHNICAL INFRASTRUCTURE

CNC Machines

Hydraulic and Eccentric Presses

Hot Presses

Conventional CNC Machines

Mold Design and Molding Technology

3D Modelling Technology

Thermoforming

Cutting Machines

Electronic Design and Manufacturing Engineering

Software Technology

Fine Mechanic Techniques

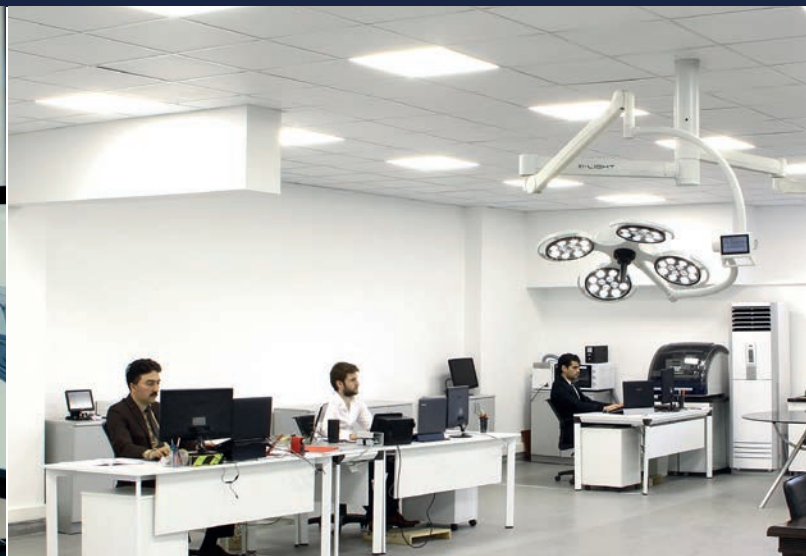
Hardening

Laser Technology

Silicone Extrusion Technology

Clean Room - ISO 7

Chemical Coating and Anodizing Technology



PRODUCTION

Sense of high-grade quality in each process from raw material supply to the shipment is combined with integrated quality management system according to the standards. A big stuff gathered under the same roof and adopted importance of teamwork carry all stages above the dreams and makes what is desired real.



COMBINATION OF PRECIOUS HIGH TECHNOLOGY PRODUCTION MACHINES AND PERFECT CRAFTSMANSHIP,

New product development desire and need began in minds becomes sharable and interpretable with 3D printers and technical drawings. After setting the models and testing the prototypes, the production process starts for the approved designs. The production starts with combination of high technology production machines and perfect craftsmanship.

RESEARCH, DEVELOPMENT, QUALITY

AYGÜN increases its power with its endless R&D works. It makes all needed investments so as to research and develop even the smallest part of the complicated products manufactured and carries out successful projects with its professional engineer team. It both develops the existing products with today's technology and performs serious works on new product designs.

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)	mm	500	
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)
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	-	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

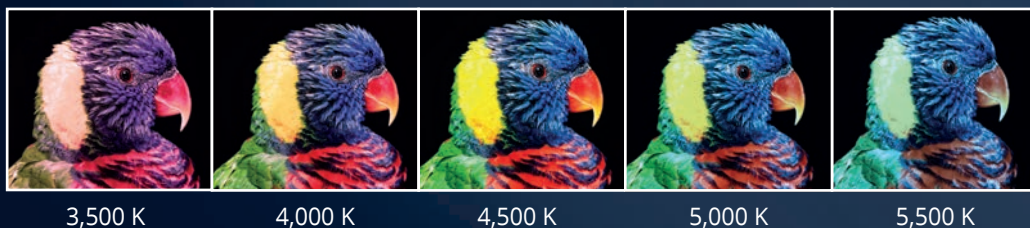
Light head weight	kg	19	17
Diameter of light head	mm	770	
Housing	-	Aluminum Alloy	
Design		Aerodynamically designed for Laminar Air flow	
Glass	-	Tempered Crystal Glass	
IP protection class	-	IP44	



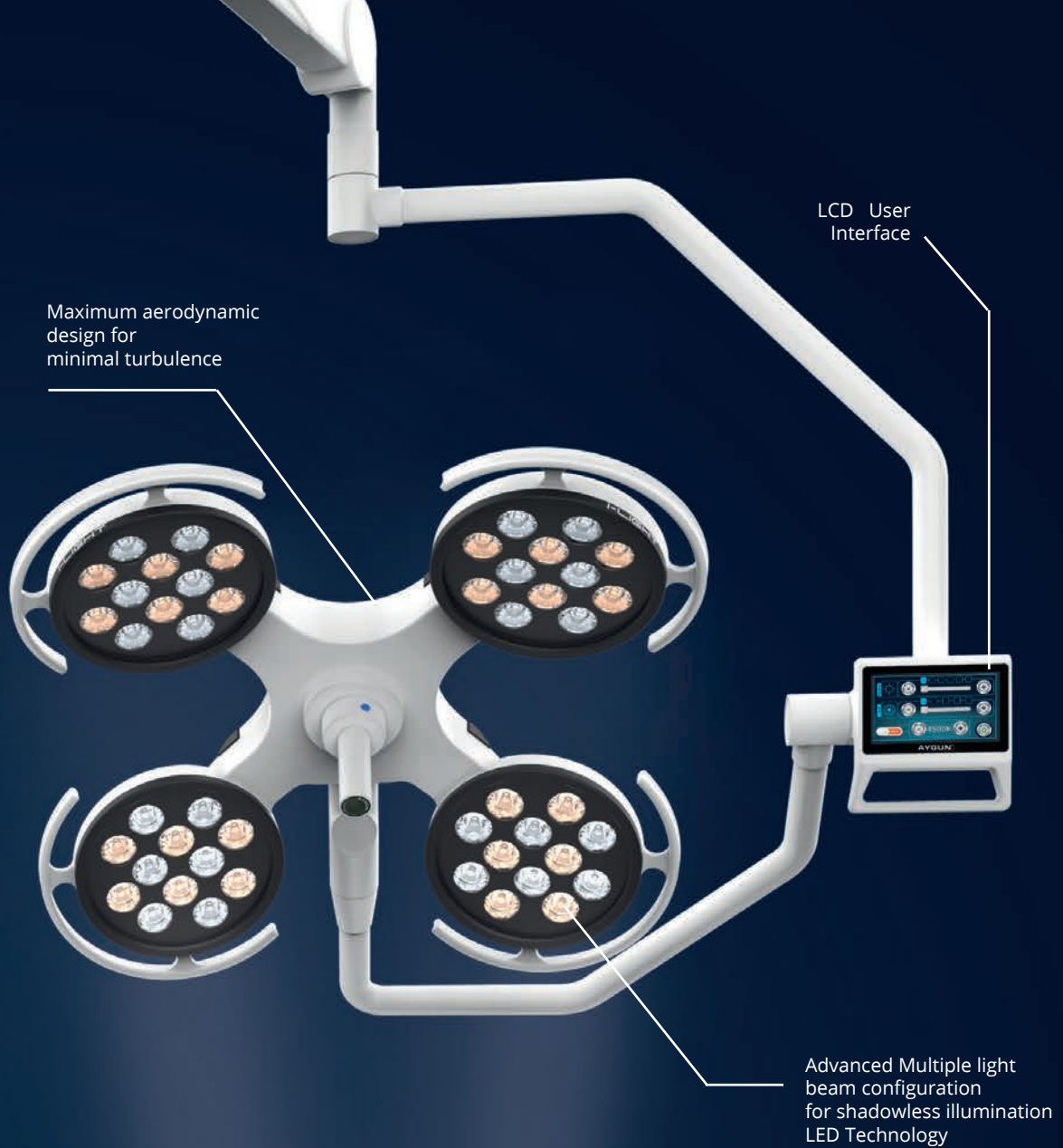
"see everything in detail"



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

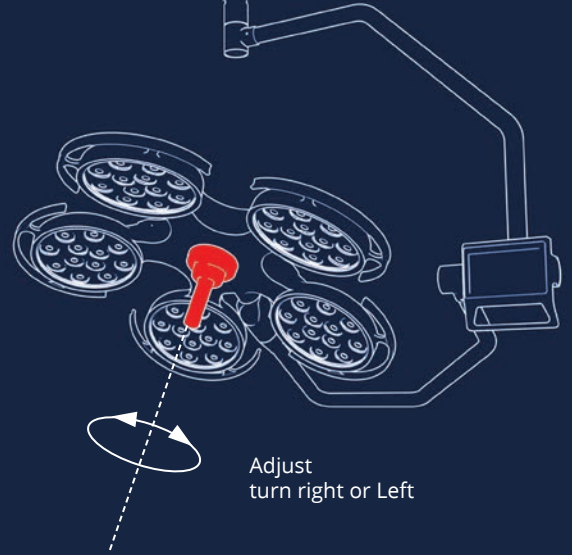
SURGICAL ILLUMINATION SYSTEM

Clear Visualization For Better Results

Aygün 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 SURGICAL ILLUMINATION SYSTEM



Quick and Comfortable Usage

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

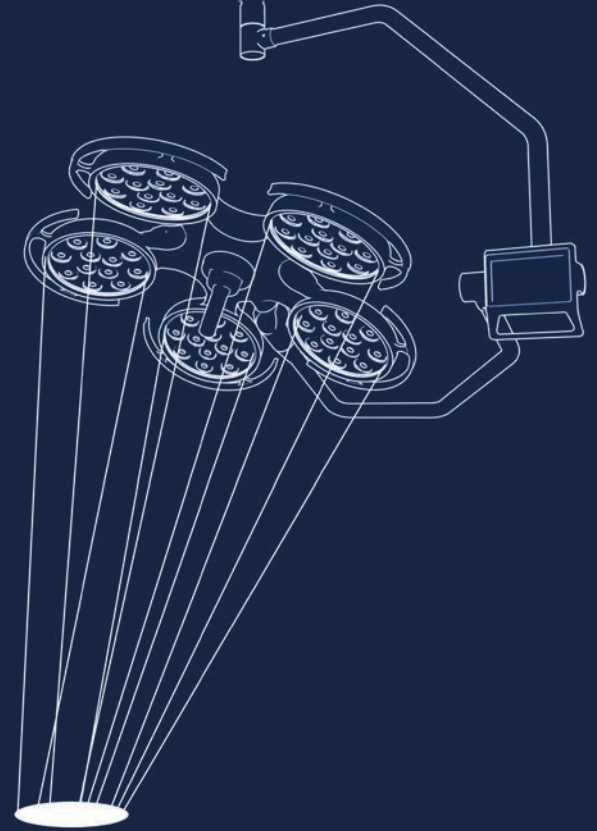


Multiple Light Beam Configuration for Shadowless Illumination

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.



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.





I-LIGHT SURGICAL ILLUMINATION SYSTEM

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.



360°
45°
50°

360°



Ergonomic And Practical Design

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



Extra Protection

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

45°
50°

360°



Laminar Air Flow

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

260°

260°



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PRODUCTS



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



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

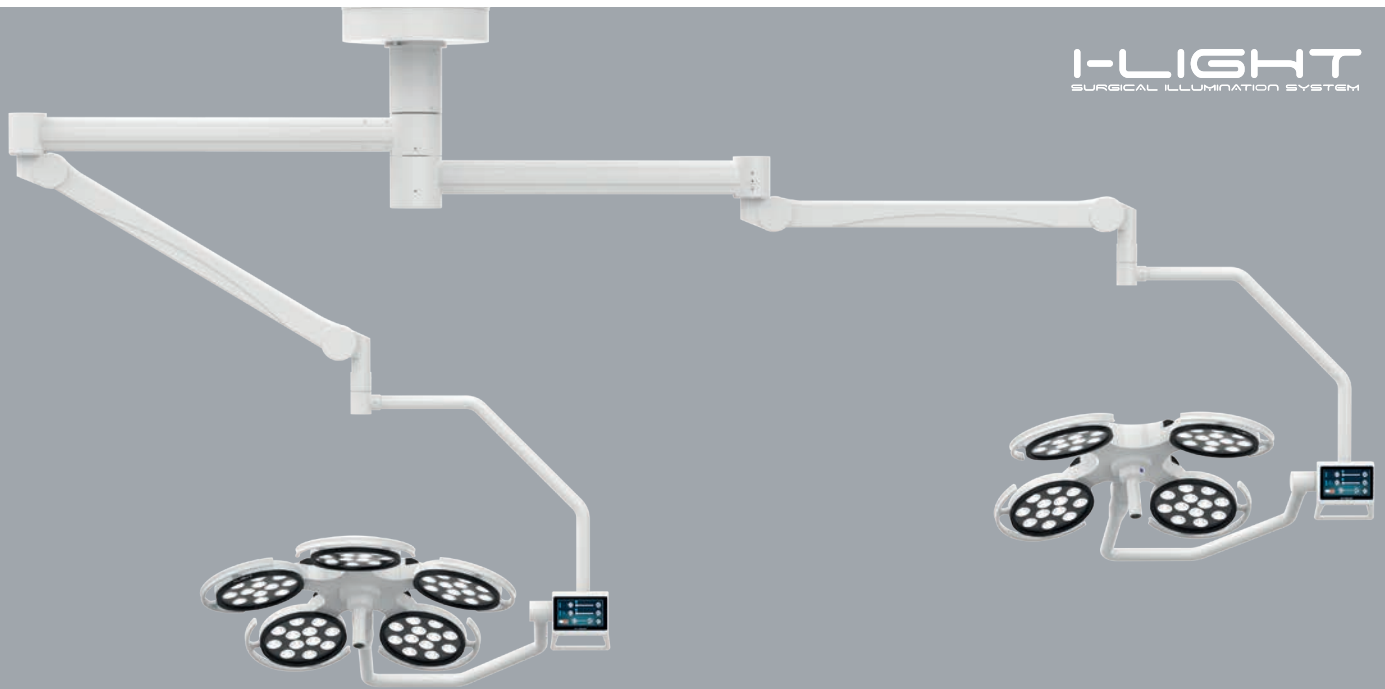
NUMBER OF LEDS: 60



LD44

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

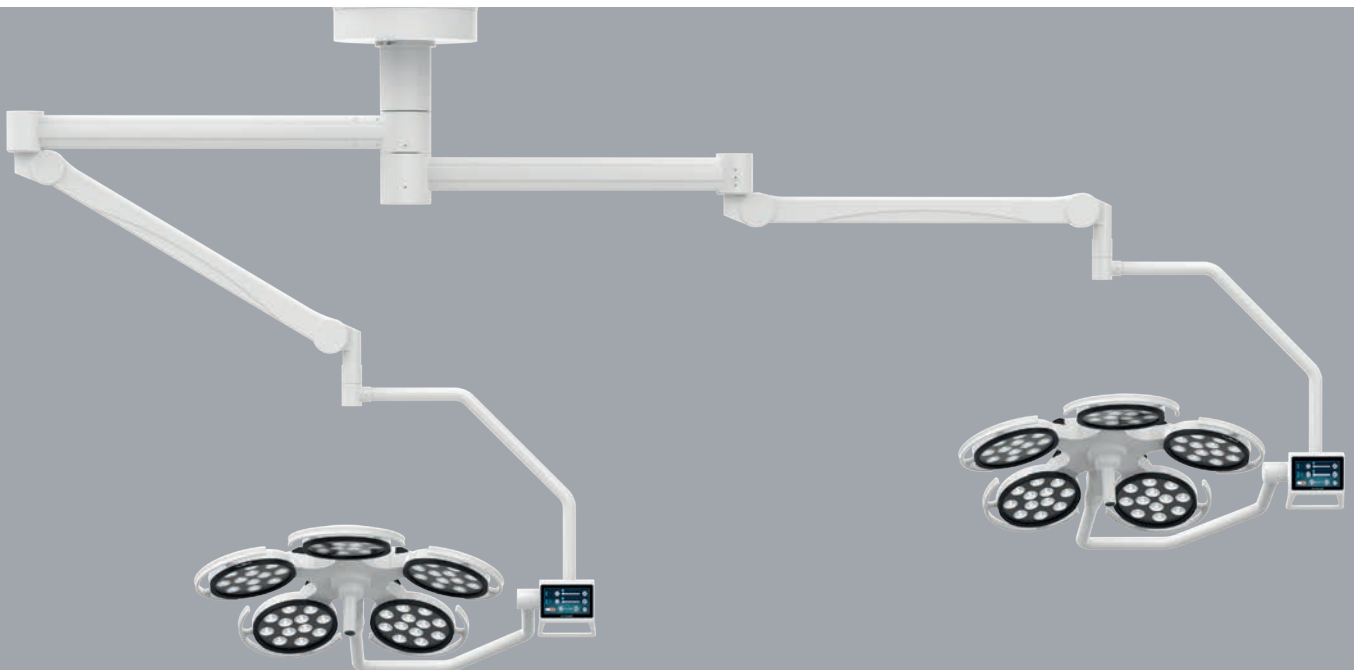
LIGHT INTENSITY: 120.000 + 120.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDS : 48 + 48



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



LD444

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

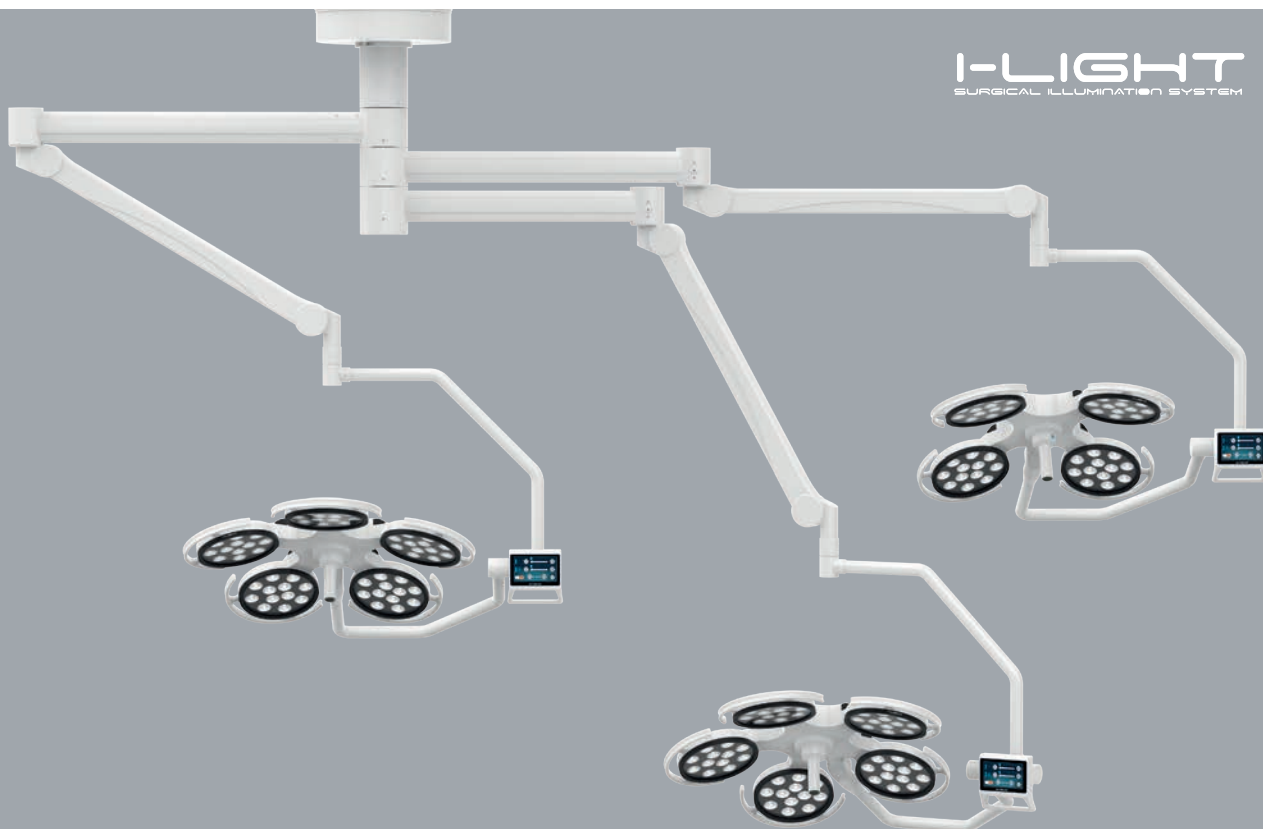
LIGHT INTENSITY: 120.000 + 120.000 + 120.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs : 48 + 48 + 48



LD544

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

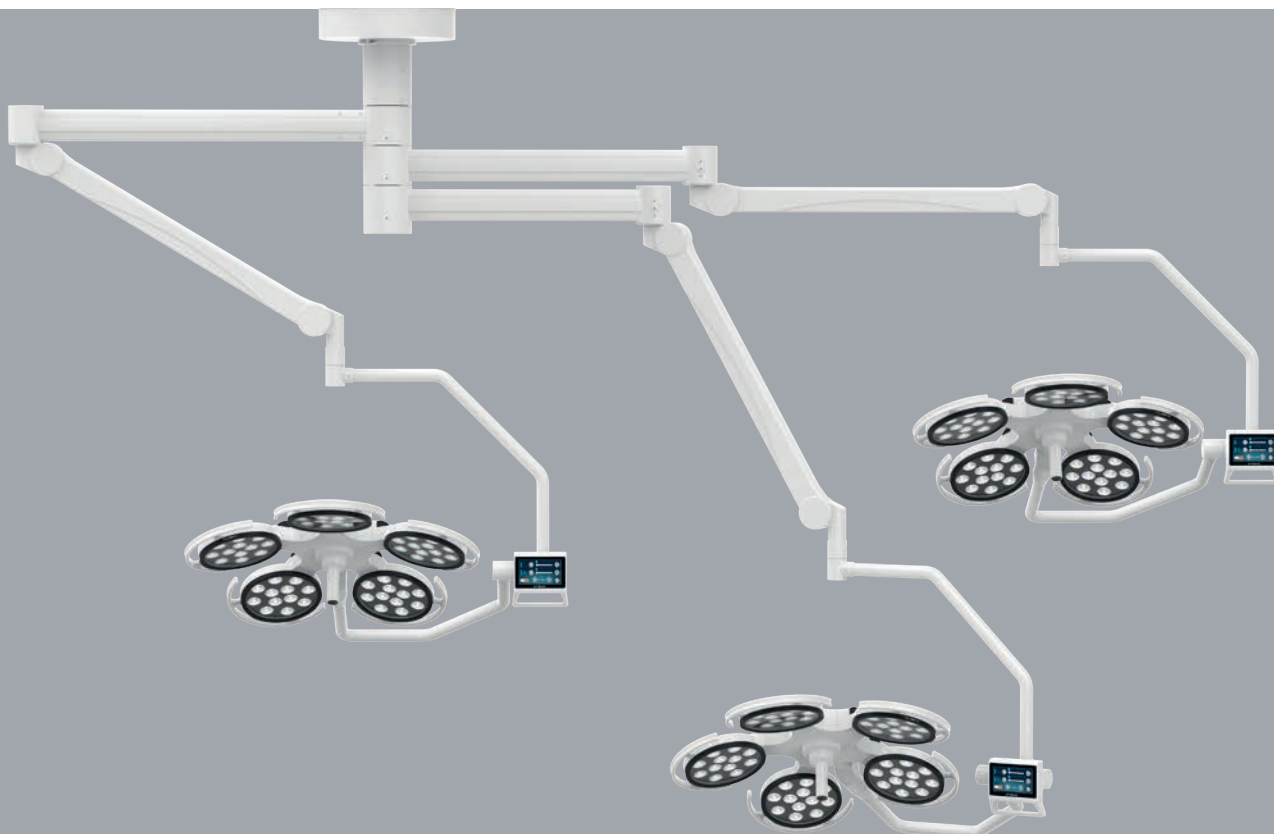
LIGHT INTENSITY: 160.000 + 120.000 + 120.000 LUX
COLOR TEMPERATURE: 3.500 - 5.500 K
NUMBER OF LEDs : 60 + 48 + 48



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



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

I-LIGHT

SURGICAL ILLUMINATION SYSTEM

To see what you could not see before



FAIRS WE ATTEND +

As Aygün Surgical Instruments Co, Inc. we are participate in many international fairs held every year in different regions of the world, organized in medical field; while presenting our products in a globalized competitive environment, also we are proud to represent our country. In this sense, we attend especially in Medica Düsseldorf which is considered as the biggest organization of the world in the field of medical technologies and also Arab Health in United Arab Emirates, FIME in United States, CMEFF in People's Republic of China, Hospitalar in Brazil and Expomed in Istanbul. Besides the fairs, we participate in many national and international congresses.



Düsseldorf / Germany



Dubai / United Arab Emirates



Johannesburg / South Africa



Miami / USA



Istanbul / Turkey



Danang / Vietnam



Antalya / Turkey



Antalya / Turkey



MEDICA DUSSELDORF



Glasgow / Scotland



Barcelona / Spain



Istanbul / Turkey



Beijing / China



Antalya / Turkey



Antalya / Turkey



Marmaris / Turkey



Sao Paulo / Brazil.



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