

## LK/LED-500 LED Surgical Shadowless Lamp

### Technical Specifications and Product Introduction



### **1. Extra-long lifespan:**

**Utilizing a new type of LED cold light source, the lifespan can reach over 60,000 hours, eliminating the need for bulb replacement. Superior to traditional halogen lamps, it also meets energy-saving and environmental protection requirements.**

**2. Perfect cold light effect: Employing a new type of LED cold light source, the spectrum contains no ultraviolet or infrared rays, generating neither heat nor radiation. The temperature rise in the doctor's head and wound area is  $\leq 1^{\circ}\text{C}$ , virtually non-existent.**

**3. Ideal design meeting purification requirements: The fully enclosed, streamlined, circular lamp head design conforms to aerodynamic principles, completely eliminating dead zones in the purified airflow. This meets the high standards of laminar flow required in modern operating rooms, contributing to the sterility requirements of the operating room. The lamp cover is made of aluminum alloy, providing excellent heat dissipation. The surgical lamp head includes a sterilization handle and lamp head armrest, allowing medical staff to move and adjust the lamp head from any angle, fully considering the**

**operational flexibility of medical personnel.**

**4. User-friendly interface design:** The lighting brightness can be adjusted according to the hospital's different surgical lighting needs. Optional new LED touch LCD control panel allows for lighting on/off switching and adjustment of contrast, color temperature, and brightness mode.

**5. Superior deep illumination, perfect shadowless effect:** The overall design of the LED lamp head focuses the beam into a high-brightness, uniform beam, ensuring a soft and even deep focusing effect, meeting the high-brightness and high-depth illumination requirements of surgery.

**6. Adjustable color temperature:** The LK/LED-500 surgical shadowless lamp offers six adjustable color temperatures from 3000K to 6700K, improving diagnostic accuracy and preventing eye fatigue for medical staff during prolonged work.

**7. Excellent suspension system:** The lightweight, high-quality balance arm suspension system features

six sets of universal joint linkages, allowing the surgical shadowless lamp head to rotate 360° without limit. The sterilization handle and 360° guardrail design provide comprehensive support to meet the needs of various heights, angles, and patient positions during surgery, ensuring convenient movement and accurate positioning.

#### **8. Ingeniously Designed Focusing System:**

Features manual focusing technology, offering simple and convenient operation. It overcomes the technical challenges of focusing in LED surgical lights, achieving stepless focusing. The detachable handle allows for high-temperature sterilization ( $\leq 134^{\circ}\text{C}$ ).

**9. Bright and Uniform Illumination:** The beam of light emitted by the LED light source is focused into the surgical area through a specially designed high-performance lens, forming a light field that meets the requirements for surgical illumination. The maximum illuminance can reach 160,000 LUX. Digital stepless control of LED brightness is used, and the illuminance of each lamp head can be adjusted independently.

**10. Extremely Low Failure Rate:** Each LED module contains 6-8 LED beads, and each module has an independent electronic control system. The lamp head has a very low failure rate; the failure of a single LED will not affect the function of the lamp head.

**11. Low Heat Generation:** A major advantage of LEDs is their low heat generation, as they emit almost no infrared or ultraviolet rays.

**12. Technical parameters**

<b>model</b>	<b>LK/LED-500 model</b>
<b>Number of LED bulbs</b>	<b>48</b>
<b>Illuminance (Lux)</b>	40000—160000
<b>Color temperature (K)</b>	<b>3000-6700K adjustable</b>
<b>Spot diameter (mm)</b>	160-280
<b>Dimming system</b>	<b>Stepless dimming system</b>
<b>Color rendering index</b>	≥96

<b>Illumination depth (mm)</b>	$\geq 600$
<b>Temperature rise of the surgeon's head (° C)</b>	$\leq 1$
<b>Temperature rise in the surgical field (° C)</b>	$\leq 2$
<b>Color rendering index (CRI)</b>	$\geq 96$
<b>Color reproduction index</b>	$\geq 97$
<b>Maximum irradiance</b>	$\leq 350\text{W}/\text{m}^2$
<b>power supply voltage</b>	220V/50Hz
<b>Minimum/Optimal Installation Height</b>	2.5m/3m

**LK/LED-500 LED Surgical Shadowless Lamp Configuration List (Single Unit)**

Serial Number	Part Name	Quantity	Unit	Remark
1	500 lamp holder	1	set	
2	Disinfecting handle	4	pcs	Standard configuration and two spare parts
3	LED lights	1	set	The 500 lamp holder has 48 LED beads.
4	counterweight arm	2	set	
5	Rotary arm	1	set	arms
6	Switching power supply assembly	2	set	
7	Fixed base	1	set	
8	Shield	1	set	
9	lamp tools	1	set	
10	Product Certificate of Conformity/Warranty Card	1	set	
11	Instruction Manual	1	set	





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