

KL-LED · D SERIES

KL-LED-D78, KL-LED-D61 shadowless operation lamp is suitable for the requirements of various operation conditions and it is ideal operating lighting equipment for modern operation rooms and clean operation rooms.

- An imported LED cold light source is adopted. With electric focusing function.
- Imported spring arm.
- The imported switch power supply is adopted to control the voltage, making the work voltage permanently stable.
- ◆ The no welding titanium alloy arm and the streamline-designed lamp cap better meet the design requirements of modern clean laminar flow operation rooms.

Digital means are adopted for stepless regulation of LED brightness.

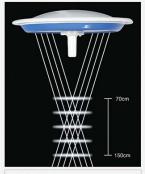
◆ The service life of LED shadowless lamp is long (50,000h).

◆ The removable handle sheath can be disinfected at the high temperature of 135 °C.





Neeps You Cook& wound Care
The LED cool light without infrared together with our
Nano coating heat filter the exceptionally low heat dissipation (3.3mW/m ²x), which avoids the problem
of heating the area around the surgeon's head, and prevents desiccation of exposed tissue, and is good for the quickly recover of the wound.



Illination in depth

With the independent secondary control light lens in every LED bulb, the output of light is perfect: in every LED buld, ne output or light is perter-small angles, high homogeneity and top effi-cience. This enables an optimum illumination depth of the wound field according to its texture and the shadowing effects. This is very important in case of small and deep wound channels.



The well-proportioned LED bulbs deliver a 160,000lux of pure, white light,a bright, consistent spot on surgical field regardless of obstruction.







KL-LED · D61/D61







High CRI
High CRI, It may enhance the chromatic aberration
between blood, other body tissues and organs, and it
thus helps the operating doctor to have a clearer view.



Patented design
Patented design appearance, forming a die-cast
aluminum, with high heat dissipation, thus extending
the service life of LED lights, imported LED source
with an average life of 50,000 hours.







KL-LED · D78

KL-LED · D78、D61 [SPECIFICATION]

MODE	KL-LED·D61/D61	KL-LED·D61	KL-LED·D78/D61
Dlameter of lighthead(cm)	61/61	61	78/61
Lllumination at 1m(lux)	60000~120000 / 60000~120000	60000~120000	80000~160000 / 60000~120000
L ight field diameter at 1m (cm)	10-28	10-28	10-28
D10(mm)	180±15	180±15	180±15
Diameter of spot D50(mm)	100±15	100±15	100±15
L1+L2 Depth of illumination(cm)	110 / 110	110	130 / 110
Color rendering index(Ra)	95	95	95
Color temperature(K)	4500±500	4500±500	4500 ±500
Number of LED bulbs	72 / 72	72	78/72
Average bulb life (hours)	50,000	50,000	50,000
Heat-to-light ratio(mW/m 2lx)	3.3	3.3	3.3
Working distance(cm)	70-150	70-150	70-150
Power supply	100-240 V,50/60HZ	100-240 V,50/60HZ	100-240 V,50/60HZ
Input power (W)	240VA	120VA	270VA
Ceiling height for installation(cm)	270-320	270-320	270-320

KL-LED · D78 [SPECIFICATION]

MODE	KL-LED·D78	KL-LED·D78/D78	
Dlameter of lighthead(cm)	78	78/78	
Lllumination at 1m(lux)	80000~160000	80000~160000 / 80000~160000	
L ight field diameter at 1m (cm)	10-28	10-28	
D10(mm)	180±15	180±15	
Diameter of spot D50(mm)	100±15	100±15	
L1+L2 Depth of illumination(cm)	130	130	
Color rendering index(Ra)	95	95	
Color temperature(K)	4500 ±500	4500 ± 500	
Number of LED bulbs	78	78 / 78	
Average bulb life (hours)	50,000	50,000	
Heat-to-light ratio(mW/m 2lx)	3.3	3.3	
Working distance(cm)	70-150	70-150	
Power supply	100-240 V,50/60HZ	100-240 V,50/60HZ	
Input power (W)	150VA	300VA	
Ceiling height for installation(cm)	270-320	270-320	

KLLED-KM1 [KL01L.II LED]

 $KLLED\text{-}KM1\ Suitable\ for\ ENT,\ urology,\ gynecology\ examination\ and\ outpatient\ surgery\ half\ auxiliary\ lighting.$

An imported LED cold light source is adopted as operation lighting. As a genuine cold light source.

- The LED shadowless lamp is pure-DC power supplied, without any strobe or harmonic.
- The service life of LED shadowless lamp is long (50,000 h).
- ◆ LED has high luminous efficiency and it is impact-resistant and strong to resist crumbling, without mercury contamination. The light it sends contains no infra-red or ultraviolet radiation pollution.
- ◆ The unique design of the spring arm.

Note: KM1 also can make with battery, wall type, ceiling type











KL-LED · MD61

KL-LED-MD61 shadowless operation lamp is suitable for the requirements of various operation conditions and it is ideal operating lighting equipment for modern operation rooms and clean operation rooms.

An imported LED cold light source is adopted as operation lighting. As a genuine cold light source, there is almost no temperature rise at the doctor's head or the wound.

The white LED has a feature of color temperature which is different from the light source of common light for operation. It may enhance the chromatic aberration between blood, other body tissues and organs, and it thus helps the operating doctor to have a clearer view.

- ◆ The LED light is pure-DC power supplied, without any strobe or harmonic interference with other equipment in the working area.
- The imported switch power supply is adopted to control the voltage, making the work voltage permanently stable.
- lacktriangle The removable handle sheath can be disinfected at the high temperature of 135 °C.
- A special optical system is adopted so that the light is evenly illuminated on the observed objects in 360°, without any virtual image and with high definition.
- ♦ The service life of LED light is long (50,000h), far longer than that of traditional tungsten halogen lamp (1,500h), and it is over twenty times of the service life of energy saving lamp.
- ◆ LED has high luminous efficiency and it is impact-resistant and strong to resist crumbling, without mercury contamination. The light it sends contains no infra-red or ultraviolet radiation pollution.



Technical Specifications

Illumination (lux); 60000-120000
Color Temperature (k); ; 4500±500
Color rendering index(Ra); 95
Depth of illumination(mm); ≥700
Diameter of spot (mm); 10~28





KL700/700-III [**DIGITAL**]

KL digit, picture & shadowless lamp system consists of major and auxiliary vidicons, multimedia computer controlled digital monitoring system, monitor and shadowless lamp for surgical operation. This system is mainly intended for clinical demonstration and surgical operation.

The no welding titanium alloy main arm is adopted, so that the appearance is aesthetic and the rotation is more flexible and convenient.

The removable handle sheath can be disinfected at the high temperature of 135°C.

The depolished panel made of imported material makes the light rays softer.

- The imported switch power supply is adopted to control the voltage, making the work voltage permanently stable.
- ◆ The special radiation filter reducing the heat to the minimum level.
- ◆ The multi-flake retroreflector made of imported aluminum sheet has the features of no coating film and never fading.
- Imported lamp receptacle, Tungsten halogen bulbs of international brand are adopted with the average service more than 1500 hours.
- ♦ Light adjustment circuit adopts CPU control, enabling increase or decrease of illumination and boasting brightness memory.
- ♦ One lamp holder with two bulbs enables automatic operation of the standby bulb in 1/2 second when the main bulb malfunctions, and it has indicators for the damage of main or standby bulb.

CAMERA SPECIFICATION:

- KL digit, picture & OR Light system consists of major and auxiliary vidicons, multimedia computer controlled digital monitoring system, monitor and shadowless lamp for surgical operation. This system is mainly intended for clinical demonstration and surgical operation.
- ◆ The major vidicon is set in the center of the major lamp, keeping the scene and the light from shadowless lamp in the same direction so as to maintain the best visual angle for surgical operation and the clearest picture. This design makes the overall structure compact and simple. The auxiliary vidicon on the platform takes picture of the entire scene, enlarging the vision for monitoring.
- ♦ The system adopts integrated digital vidicon of high sensitivity imported from Japan and multimedia computer controlled digital monitoring system as well as other sophisticated technologies
- The zoom offers 22 times of zooming, making it convenient to observe the entire scene or to have local enlargement.
- Multimedia computer controlled digital monitoring system provides:
- Monitoring function: real-time display of three picture segregation.
- · Video function: real-time video of all pictures.
- Back play function: select back play key to replay pictures.
- · WINDOWS operating system, reliable in performances.
- Specially designed software, humanized picture operating interface for convenient operation, operation completed by clicking relevant keys on the major interface.
- Surgical operation scene or pictures of operation environment recorded by adopting MPEG.
- Three-way video input making convenient shift between full screen and major interface.
- Standard BMP saving mode for taking pictures of surgical operation scene or operation environment.
- VCD video for backup, surgical operation information in the form of video (leader and reel
 end produced automatically)forming a complete whole along with the video of surgical
 operation, making study on surgical operation convenient.
- Stable database saving mode for storing various data, retaining more information on surgical operation.
- Fuzzy search for search of data in the database.
- Format, letter style and color to be determined by the user, printing can be set flexibly.









Illumination (lux): 80000~160000	Color Temperature (k): 4500±500	Color rendering index(Ra): 100≥Ra≥85
Diameter of spot (mm): 175±35	Depth of illumination(mm) : ≥700	
The value of the total irradiance(service ra	nge for temperature rise≤10°C); ≤6mW/m²lx	

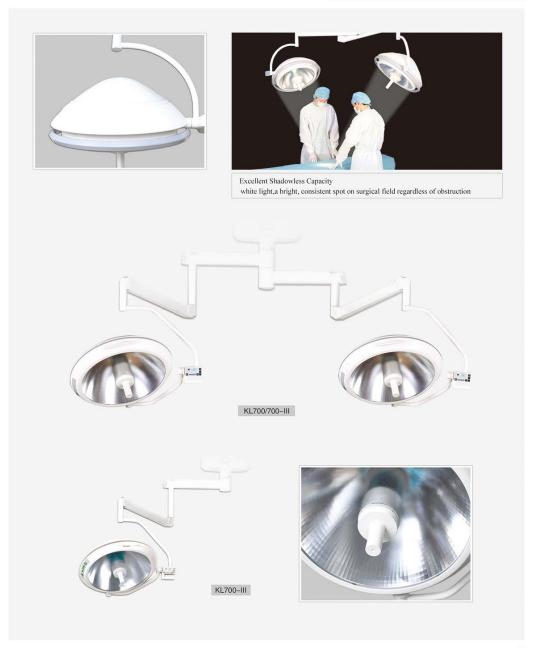
KL700, 500 SERIES

KL700、500 shadowless operation lamp is suitable for the requirements of various operation conditions and it is ideal operating lighting equipment for modern operation rooms and clean operation rooms.

- The no welding titanium alloy main arm is adopted, so that the appearance is aesthetic and the rotation is more flexible and convenient.

 The removable handle sheath can be disinfected at the high temperature of 135°C.
- The depolished panel made of imported material makes the light rays softer.
- The imported switch power supply is adopted to control the voltage, making the work voltage permanently stable.
- ◆ The special radiation filter reducing the heat to the minimum level.
- ◆ The multi-flake retroreflector made of imported aluminum sheet has the features of no coating film and never fading.
- ◆ Imported lamp receptacle, Tungsten halogen bulbs of international brand are adopted with the average service more than 1500 hours.
- ♦ Light adjustment circuit adopts CPU control, enabling increase or decrease of illumination and boasting brightness memory.
- One lamp holder with two bulbs enables automatic operation of the standby bulb in 1/2 second when the main bulb malfunctions, and it has indicators for the damage of main or standby bulb.





OR LIGHTS





KL700-III、KL700/700-III [NEW] [SPECIFICATION]

MODE	KL700-III [NEW]	KL700/700-III [NEW]
Illumination (lux)	160000≥Ec≥80000	160000≥Ec≥80000 / 160000≥Ec≥80000
Color Temperature (K)	4500±500	4500±500
Color rendering index	100≥Ra≥85	100≥Ra≥85
Diameter of Spot (mm)	d10175±35	d10175±35 / d10175±35
Depth of light beam (mm)	≥700	≥700
Brightness level adjustment	CPU light-dimmer	CPU light-dimmer
The value of the total irradiance	< 6mW/m²lx	<6mW/m²lx
(service range for temperature rise≤10°C)		
Total irradiance (Temperature rise on the head	$\leq 600 \text{W/m}^2$	≤600W/m²
of patient under surgical operation≤2°C)		
Diameter of lamp holder (mm)	700	700/700
Shift of major and stand by lamps	Automatic	Automatic
Bulb power W(24V)	150	150/150
Power supply (AC)	220±20% 50Hz	220±20% 50Hz
Input power (VA)	200+10%	400+10%
Minimum height for installation (mm)	2700~3200	2800~3200

KL700-III 、KL700/700-III [SPECIFICATION]

MODE	KL700-III	KL700/700-III
Illumination (lux)	160000≥Ec≥80000	160000≥Ec≥80000 / 160000≥Ec≥80000
Color Temperature (K)	4500±500	4500±500
Color rendering index	100≥Ra≥85	100≥Ra≥85
Diameter of Spot (mm)	d10175±35	d10175±35 / d10175±35
Depth of light beam (mm)	≥700	≥700
Brightness level adjustment	CPU light-dimmer	CPU light-dimmer
The value of the total irradiance	< 6mW/m²Ix	< 6mW/m²lx
(service range for temperature rise≤10°C)		
Total irradiance (Temperature rise on the head	\leq 600 W/m ²	\leq 600 W/m ²
of patient under surgical operation≤2°C)		
Diameter of lamp holder (mm)	700	700/700
Shift of major and stand by lamps	Automatic	Automatic
Bulb power W(24V)	150	150/150
Power supply (AC)	220±20% 50Hz	220±20% 50Hz
Input power (VA)	200+10%	400+10%
Minimum height for installation (mm)	2700~3200	2800~3200

KL700/500-III 、KL500-III [SPECIFICATION]

MODE	KL700/500-III	KL500-III
Illumination (lux)	160000≥Ec≥80000 / 100000≥Ec≥50000	100000≥Ec≥50000
Color Temperature (K)	4500±500	4500±500
Color rendering index	100≥Ra≥85	100≥Ra≥85
Diameter of Spot (mm)	d10175±35 / d10175±35	d10175±35
Depth of light beam (mm)	≥700	≥700
Brightness level adjustment	CPU light-dimmer	CPU light-dimmer
The value of the total irradiance	$<6 \text{mW/m}^2 \text{lx}$	< 6mW/m²lx
(service range for temperature rise≤10°C)		
Total irradiance (Temperature rise on the head	≤600 W/m ²	≤600 W/m ²
of patient under surgical operation≤2°C)		
Diameter of lamp holder (mm)	700/500	500
Shift of major and stand by lamps	Automatic	Automatic
Bulb power W(24V)	150/150	150
Power supply (AC)	220±20% 50Hz	220±20% 50Hz
Input power (VA)	400+10%	200+10%
Minimum height for installation (mm)	2800~3200	2700~3200

KL500/500-III [SPECIFICATION]

MODE	KL500/500-III
Illumination (lux)	100000≥Ec≥50000 / 100000≥Ec≥50000
Color Temperature (K)	4500±500
Color rendering index	100≥Ra≥85
Diameter of Spot (mm)	d10175±35 / d10175±35
Depth of light beam (mm)	≥700
Brightness level adjustment	CPU light-dimmer
The value of the total irradiance	< 6mW/m²lx
(service range for temperature rise≤10°C)	
Total irradiance (Temperature rise on the head	≤600W/m²
of patient under surgical operation≤2°C)	
Diameter of lamp holder (mm)	500/500
Shift of major and stand by lamps	Automatic
Bulb power W(24V)	150/150
Power supply (AC)	220±20% 50Hz
Input power (VA)	400+10%
Minimum height for installation (mm)	2800~3200

KL600 SERIES

KL600 series shadowless operation lamp is suitable for the requirements of various operation conditions and it is ideal operating lighting equipment for modern operation rooms and clean operation rooms.

- The no welding titanium alloy main arm is adopted, so that the appearance is aesthetic and the rotation is more flexible and convenient.

 The removable handle sheath can be disinfected at the high temperature of 135°C.
- The depolished panel made of imported material makes the light rays softer.
- The imported switch power supply is adopted to control the voltage, making the work voltage permanently stable.
- ◆ The special radiation filter reducing the heat to the minimum level.
- ♦ The multi-flake retroreflector made of imported aluminum sheet has the features of no coating film and never fading.
- ◆ Imported lamp receptacle, Tungsten halogen bulbs of international brand are adopted with the average service more than 1500 hours.
- ◆ Light adjustment circuit adopts CPU control, enabling increase or decrease of illumination and boasting brightness memory.
- ♦ One lamp holder with two bulbs enables automatic operation of the standby bulb in 1/2 second when the main bulb malfunctions, and it has indicators for the damage of main or standby bulb.









KL600/600-III、KL600-III、KL600-II [SPECIFICATION]

MODE	KL600/600-III	KL600-III	KL600-II
Illumination (lux)	140000≥Ec≥60000	140000≥Ec≥60000	120000≥Ec≥60000
	140000≥Ec≥60000		
Color Temperature (K)	4500±500	4500±500	4500±500
Color rendering index	100≥Ra≥85	100≥Ra≥85	100≥Ra≥85
Diameter of Spot (mm)	d10175±35 / d10175±35	d10175±35	d10175±35
Depth of light beam (mm)	≥700	≥700	≥700
Brightness level adjustment	CPU light-dimmer	CPU light-dimmer	CPU light-dimmer
The value of the total irradiance	< 6m W/m ² lx	$< 6 \text{mW/m}^2 \text{lx}$	$< 6 \text{mW/m}^2 \text{lx}$
(service range for temperature rise≤10°C)			
Total irradiance (Temperature rise on the head	\leq 600W/m ²	≤600W/m ²	\leq 600 W/m ²
of patient under surgical operation≤2°C)			
Diameter of lamp holder (mm)	600/600	600	600
Shift of major and stand by lamps	Automatic	Automatic	Automatic
Bulb power W(24V)	150/150	150	150
Power supply (AC)	220±20% 50Hz	220±20% 50Hz	220±20% 50Hz
Input power (VA)	440+10%	200+10%	220+10%
Minimum height for installation (mm)	2800 ~ 3200	2700~3200	2800~3200

Technical Specifications

Illumination (lux): 50000~100000

Color Temperature (K): 4500±500

Diameter of Spot (mm): 175±35

Depth of light beam (mm); ≥700

Color rendering index (Ra): 100≥Ra≥85

KL600-I、KL600/600-I

KL600-1, KL600/600-I shadowless operation lamp is suitable for the requirements of various operation conditions and it is ideal operating lighting equipment for modern operation rooms and clean operation rooms.

Light adjustment circuit adopts SCR adjustment. The removable handle sheath can be disinfected at the high temperature of 135 °C.

The retroreflector made of imported aluminum sheet has the features of no coating film and never fading.

- The special radiation filter reducing the heat to the minimum level.
- The rippled panel made of imported material makes the light rays softer.
- One lamp holder with two bulbs, In case the primary bulb is in fault, the hand switch can be used to switch to the secondary bulb for lighting.
- ◆ Imported lamp receptacle, Tungsten halogen bulbs of international brand are adopted with the average service more than 1500 hours.



KL600-I、KL600/600-I[SPECIFICATION]

MODE	KL600-I	KL600/600-I
Illumination (lux)	100000≥Ec≥60000	100000≥Ec≥60000 / 100000≥Ec≥60000
Color Temperature (K)	4500±500	4500±500
Color rendering index	100≥Ra≥85	100≥Ra≥85
Diameter of Spot (mm)	d10175±35	d10175±35 / d10175±35
Depth of light beam (mm)	≥700	≥700
Brightness level adjustment	Stepless adjustment of light	Stepless adjustment of light
The value of the total irradiance	$< 6 \text{mW/m}^2 \text{lx}$	< 6mW/m²lx
(service range for temperature rise≤10°C)	$\leq 600 W/m^2$	
Total irradiance (Temperature rise on the head		≤600W/m ²
of patient under surgical operation≤2°C)	600	
Diameter of lamp holder (mm)		600/600
Shift of major and stand by lamps	Hand-operated	Hand-operated
Bulb power W(24V)	150	150/150
Power supply (AC)	220±10% 50Hz	220±10% 50Hz
Input power (VA)	220+10%	440+10%
Minimum height for installation (mm)	2800~3200	2800~3200

KL500-III [MOBILE]

KL500-III shadowless operation lamp is suitable for the requirements of various operation conditions and it is ideal operating lighting equipment for modern operation rooms and clean operation rooms.

The imported switch power supply is adopted to control the voltage, making the work voltage permanently stable.

- The removable handle sheath can be disinfected at the high temperature of 135 °C.
- The special radiation filter reducing the heat to the minimum level.
- The depolished panel is made of imported material makes the light rays softer.
- ◆ The multi-flake retroreflector made of imported aluminum sheet, has the features of no coating film and never fading.
- Light adjustment circuit adopts CPU control, enabling increase or decrease of illumination and boasting brightness memory.
- One lamp holder with two bulbs enables automatic operation of the standby bulb in 1/2 second when the main bulb malfunctions, and it has indicators for the damage of main or standby bulb.
- ◆ Imported lamp receptacle, Tungsten halogen bulbs of international brand are adopted with the average service more than 1500 hours.
- ◆ AC/DC,may satisfy when the power failure continues the surgery.(AC/DC type)



KL01L SERIES

 $KL01L\ Suitable\ for\ ENT,\ urology,\ gynecology\ examination\ and\ outpatient\ surgery\ half\ auxiliary\ lighting.$

NOTE:

KL01L.IP use shadonless bulbs KL01L.IL use halogen bulbs KL01L.IIL with battery



KL04L [MOBILE]

KL04L For general outpatient surgical lighting, with brake can be easy moved. KL04L.I with battery is more suitable for cutting off power.





KL05L SERIES

 $KL05\ is\ more\ suitable\ for\ small\ operating\ room,\ KL05L.III\ with\ brake\ can\ be\ easy\ moved,\ KL05L.I\ with\ battery\ is\ more\ suitable\ for\ cutting\ off\ power.$



KL09L、KL12L、KL1205L

KL09L KL12L KL1205L use of multiple different sources, by focusing knob, so the beam is irradiated from different locations surgery, reduce the shadow medical staff head, hands and other parts caused. The illumination can be adjusted according to actual needs.





NOTE: If you want use halogen bulbs, please mention before your order.

KL01L [SPECIFICATION]

MODE	KL01L·IP	KL01L·IL、KL01L·IIL AC/DC
Illumination (lux)	≥12000	≥20000
Color Temperature (K)	3500±500	3500±500
Power supply (AC)	220V±10% 50Hz	220V±10% 50Hz
Rated voltage of bulb	24V	24V
Rated power of bulb	25W	50W
Input power (VA)	30	60
Note	Cold light source	Tungsten halogen bulb

KL04L [SPECIFICATION]

MODE	KL04L·I AC/DC	KL04L·III
Illumination (lux)	40000	40000
Color Temperature (K)	4000±500	4000±500
Color rendering index	100≥Ra≥85	100≥Ra≥85
Depth of light beam (mm)		≥500
The value of the total irradiance(service range for	< 6mW/m²lx	< 6mW/m²lx
temperature rise≤10°C)		
Total irradiance (Temperature rise on the	\leq 600W/m ²	\leq 600W/m ²
head of patient under surgical operation≤2°C)		
Power supply(AC)	220V±10% 50Hz DC24V	220V±10% 50Hz DC24V
Rated voltage of bulb	24V	24V
Rated power of bulb	100W	100W
Input power(VA)	180	120

KL05L、KL09L [SPECIFICATION]

MODE	KL05L、KL05L·I、KL05L·III	KL09L
Illumination (lux)	50000	90000
Color Temperature (K)	4000±500	4000±500
Color rendering index	100≥Ra≥85	100≥Ra≥85
Depth of light beam (mm)	≥500	≥500
The value of the total irradiance(service range for	$<6 \text{mW/m}^2 \text{lx}$	$< 6 \text{mW/m}^2 \text{lx}$
temperature rise≤10°C)		
Total irradiance (Temperature rise on the	\leq 600 W/m ²	≤600W/m ²
head of patient under surgical operation≤2°C)		
Power supply(AC)	220V±10% 50Hz	220V±10% 50Hz
Rated voltage of bulb	24V	24V
Rated power of bulb	125W	225W
Input power(VA)	150	280

KL12L、KL1205L [SPECIFICATION]

MODE	KL12L	KL1205L
Illumination of Main lamp (lux)	120000	120000
Illumination of Supple mentary lamp (lux)	-	50000
Color Temperature (K)	4000±500	4000±500
Color rendering index	100≥Ra≥85	100≥Ra≥85
Depth of light beam (mm)	≥500	≥500
The value of the total irradiance(service range for	< 6mW/m²lx	< 6m W/m²lx
temperature rise≤10°C)		
Total irradiance (Temperature rise on the	$\leq 600 \text{W/m}^2$	\leq 600 W/m ²
head of patient under surgical operation≤2°C)		
Power supply(AC)	220V±10% 50Hz	220V±10% 50Hz
Rated voltage of bulb	24V	24V
Rated power of bulb	300 W	425W
Input power(VA)	350	500