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 Operating Room Equipments Under One Roof...



Redefining
 the Surgical
 illumination

Shalya iLUX Surgical Lights



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Redefining the Surgical illumination

Surgical luminary system is essential equipment in modern surgical operating room. To identify the differentiation in tissue structure during advance surgical procedure, which demands the high grade surgical lights to emulate the sunlight.

Shalya iLUX luminary system provides highest ability to identify a red tissue structures (R9) and overall surgical vision for different tissue identification (CRI).

HIGH PERFORMANCE - DURABILITY - STABLE - RELIABLE

Key Features

- Pulse width Modulation control of LEDs for less heating.
- No change in Light color output throughout life cycle.
- Electronic focusing for changing the lighting field diameter.
- High power LEDs provides high lumen to watt ratio with less energy.
- High CRI & R9 for critical super specialty surgical applications.
- Obstacle sensing to maintain the intensity without temperature rise.
- Detachable centrally mounted Full HD camera with wireless technology.
- Video control unit with full HD Recording & Live transmission.
- Efficient design with LEDs directly mounted on aluminium body.
- Synchronized or separate control of light domes.
- Light control for sterile handle.



Shalya iLUX 40

Shalya iLUX 10



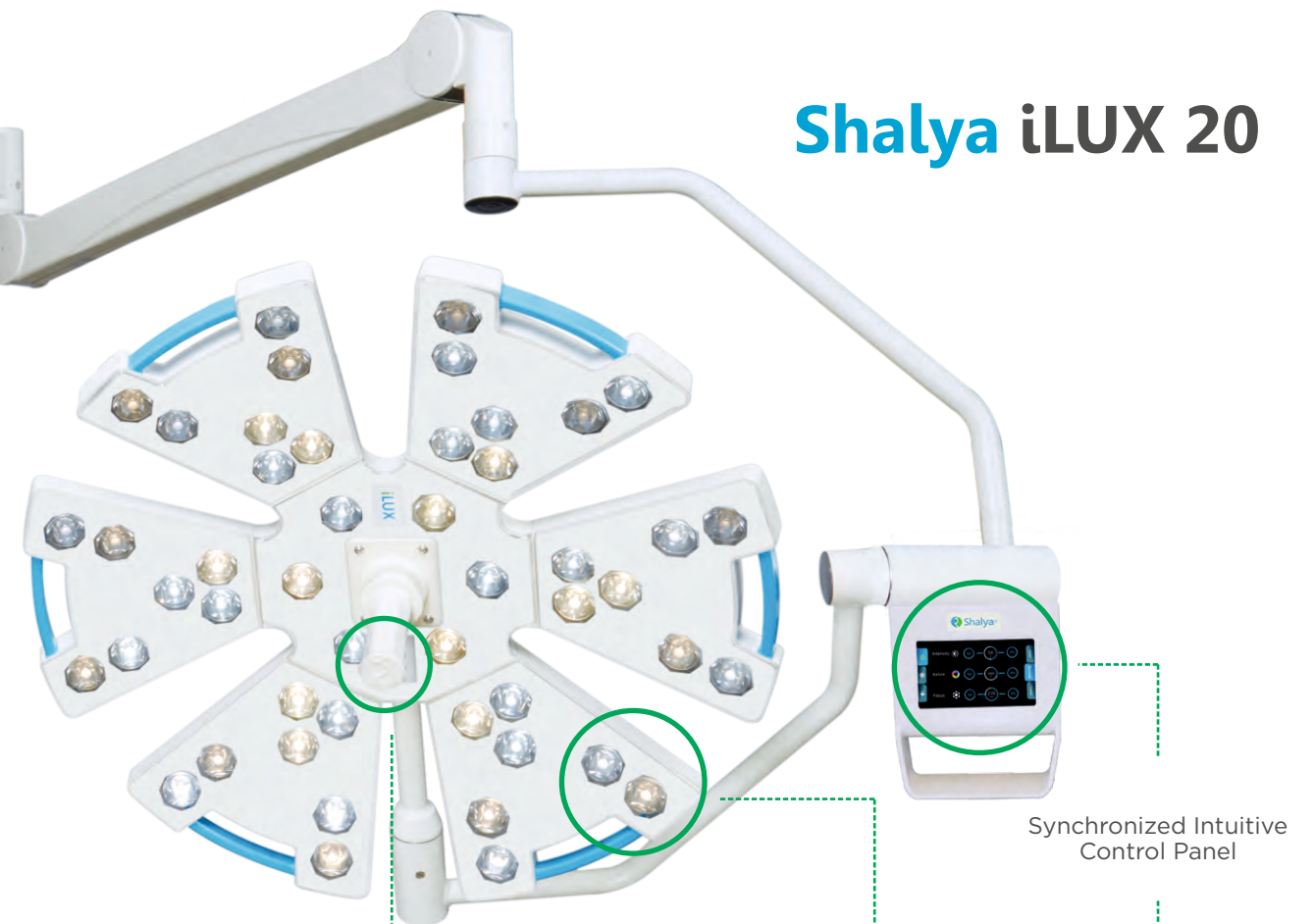
LED Light

- High colour rendering index (CRI > 95) provides better tissue identification same as that visible under sunlight.
- High R9 LEDs provide highest ability to identify a red tissue structures (R9 > 98)
- Compact size & minimum no. of LED components which allow the compact luminary design.
- High power LEDs provide high lumen to watt ratio with less energy consumption.
- Radiant energy is <3.2mW/lm² with increased light life.

Shalya iLUX 12



Shalya iLUX 20



CENTRAL GRIP

- Autoclavable handle or Full HD Camera

GERMAN LED

- Instant brilliant light with constant color temperature and excellent colour rendering throughout LED life.

GERMAN SPRING ARM

- Proven technology with a high level of reliability
- Used in most of Operation Light supplied globally
- Outstanding performance and uncompromising safety

Synchronized Intuitive Control Panel



Intensity
160,000 Lux (Max.)



Kelvin
3500 K - 5000 K
(6 Steps Adjustments)



Focus
Max. 30 cm / Min 15 cm



Endo Mode
Suitable for endo-surgery

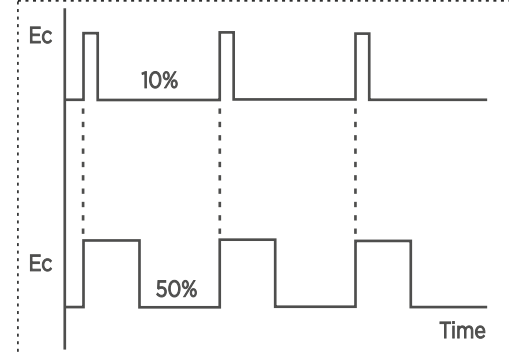
PWM Technology

Pulse Width Modulation Technology

In PWM, the LED is driven in pulse of particular duty cycle. Due to this, LED is turned ON only for limited period (ON period) and rest of the time it is turned OFF. This method allows LED to cool down between two Switch ON periods. This helps in extending the life of LED.

Features:

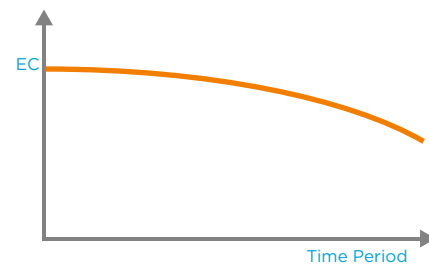
- Causes less heating
- Increases life of LED
- No change in light colour output throughout lifecycle



Maintaining Light Performance

PWM Technology maintains constant intensity and colour temperature throughout each surgical procedure

LED Lighting without PWM

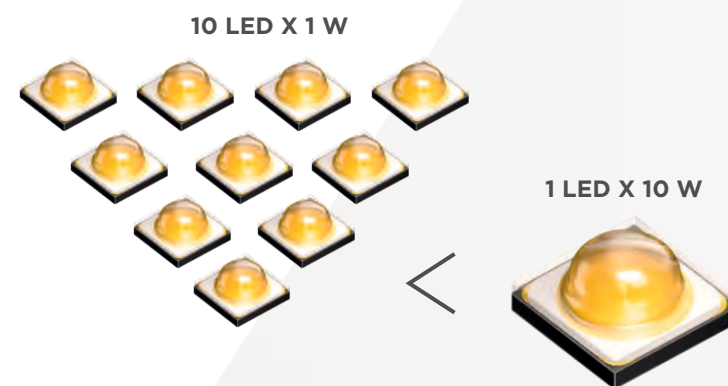


Shalya LED Lighting with PWM

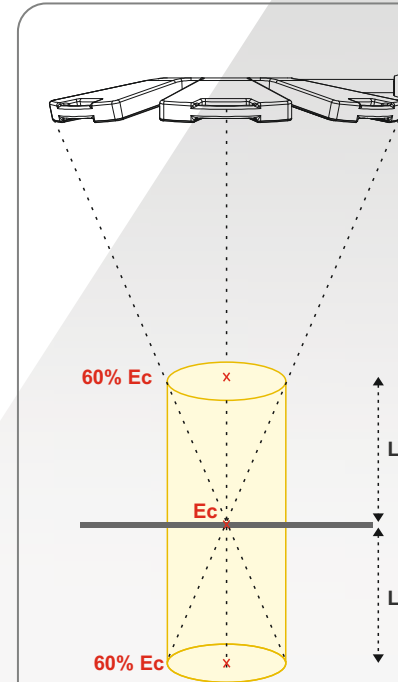


Energy Saving Module

High wattage LEDs are used which increases the efficacy of LED OT Light. Hence output of 1 LED of 10W is 30% more than 10 LEDs of 1W. Also PWM technology helps in extending the LED life.



Large Depth of Field



Depth of Illumination

The vertical distance between the point of maximum intensity (E_c) of illumination at the centre of the illuminating field (one meter from the surface emission of light) & the detection of the value of 60% of central illumination in upward direction (L_1) and downward direction (L_2).

These values added together ($L_1 + L_2$), gives the depth of illumination without the need to refocus. The higher level of illumination depth is very important especially in case of narrow and deep wound channel.

Shalya iLUX Delivers Excellent Depth of Illumination

iLUX 20/40	▶ $E_c \times 60\%$: 650 mm
	▶ $E_c \times 20\%$: 1200 mm
iLUX 10	▶ $E_c \times 60\%$: 600 mm
	▶ $E_c \times 20\%$: 1000 mm

Shalya iLUX 20



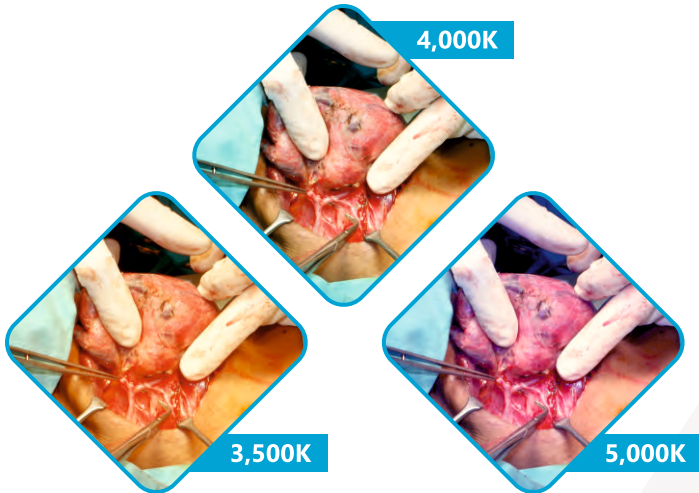
Shalya iLUX provides quality of light close to sunlight at noon

Colour Temperature



Shalya iLUX

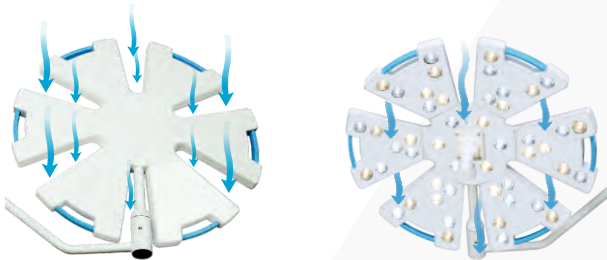
Color temperature adjustment feature provides the ideal light for the planned surgery. User can choose color temperature settings from 3500K warm white values to 5000K cool white values. Color temperature adjustment is set in 6 steps between 3500 K to 5000 K values.



Thyroid surgery under 3,500 to 5,000k

Laminar Flow Friendly

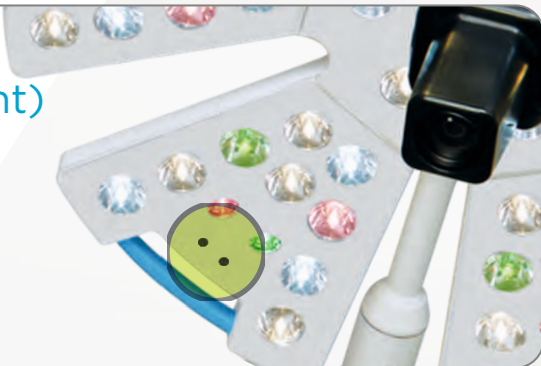
- Light head design enables the ideal laminar air flow on the surgical site.
- Minimizing contamination of bacteria



Laminar Air Flow

Obstacle Sensing (Shadow Managment)

When surgeon's head obstruct the light path emitted from the OR light; the intensity of the obstructed petal is reduced and intensity of other petals is boosted, there by maintaining the light intensity at surgical site and also keeps very low temperature at surgeon's head.



Always look for higher CRI to get better result

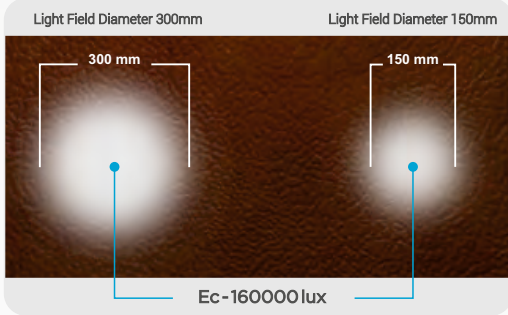
CRI | Colour Rendering Index | R9 | Red Colour Index

The Combination of Latest-generation white & colour LEDs provides a high colour rendering index (CRI) and a very good reproduction of red colours (R9).

With colour rendering indexes Ra above 95 and R9 (red) above 98 the surgeon recognizes clearly the tiniest shade of colour in tissue.

Electronic Focussing

- Equipped with a sophisticated electronic management of the LEDs.
- Adjusting the light field diameter by electronic focussing without mechanical movement & allows the illuminated field diameter up to a large spot size without compromising light intensity.



Technical Specifications of Shalya iLUX Series LED OT Light

Parameter	iLUX 40	iLUX 20	iLUX 10	iLUX 12
Max light intensity	160 000 lux	160 000 lux	160 000 lux	120 000 lux
Dimming Range	25-100%	25-100%	25-100%	25-100%
Field Diameter (Focus)	150-300mm	150-300mm	150-300mm	150-300mm
D10	300mm	300mm	300mm	300mm
D50	160mm	160mm	160mm	160mm
Focal depth (L1 + L2) @ 60% / Focal depth (L1 + L2) @ 20%	650mm/1200mm	650mm/1200mm	600mm/1000mm	600mm/1000mm
Color Temperature	3500-5000K	3500-5000K	4000K	4000K
CRI (Ra)	≥95 (3500 K)	>95 (3500 K)	>94 (4000 K)	>94 (4000 K)
R9	≥98 (3500 K)	>94 (3500 K)	>90 (4000 K)	>90 (4000 K)
LED's Life time	>60,000 hrs	>60,000 hrs	>60,000 hrs	>60,000 hrs
LED Lamp Module	72	48	24	18
Endoscopic mode	5% Dimming	5% Dimming	5% Dimming	5% Dimming
HD Camera	Optional	Optional	Optional*	NA
Power Consumption	120 W	100 W	80 W	50 W
Lamp head diameter	680mm	680mm	590mm	495mm
Focusing	Electronic	Electronic	Electronic	Electronic
Centralized Control	Available	Available	Available	Available
Obstacle Sensing	Optional	Optional	NA	NA

* On special request



CONTROL Units

LCD Touch Panel

LCD touch screen provides a user friendly interaction and allows to control features of dome such as intensity, colour temperature, focus, Endoscopy mode ON/OFF, obstacle sensing. It has provision for Synchronized as well as separate control of light heads.



Sterile Handle Control

All Parameters like Intensity, Colour Temperature & Focus can be controlled by touch sensing from Sterile area via autoclavable sterile Handle



Remote Control

Remote control unit can be used to regulate intensity, colour temperature, focus, Endo mode and ON/OFF



Wall Mount

Wall Mount control unit can be used to regulate intensity, colour temperature, focus, Endo mode and ON/OFF. It has provision for synchronized as well as separate control of light heads. It can control upto 3 domes.

Wireless Camera

Detachable centrally mounted full HD camera with wireless technology. Video control unit with full HD recording & live transmission. Videos & Images can be recorded & saved for clinical Documentation & review of critical Surgeries. Two way audio transmission with video conferencing. Real time surgery can be viewed by surgeons located at any corner of the world.

Types of Configuration

