



Tris-led Saturno-led

Technology for minor surgeries and emergency rooms



Engineering and safety.
The study, design and
testing of even the smallest
detail convey innovation
and reliability to the entire
product.

This is the logic which RIMSA engineers and scientific consultants apply to the basics of all their projects. The result is an innovative, functional and above all reliable lamp. Experience, reliability and research have enabled RIMSA lamps to achieve prestigious and unparalleled results: excellent lighting performance, cold light without shadow, personalized design, deep lighting, easy operation, sterilizable handle, unlimited rotation, ergonomic curves for easier cleaning. The RIMSA lamps are class I products that comply with the requirements of the international **IEC 60601-1** and **IEC 60601-2-41** standards, and bear the CE mark, in conformity with European Directives **93/42/EEC** and **2007/47/EC**.

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Light plays a key role in surgery. It has to ensure the faithfulness of everything the surgeon sees during the operation. Proper lighting creates comfortable conditions, reduces stress and sense of tiredness and increases productivity. The quality of artificial lighting is of primary importance and is directly proportionated to the services to be provided. RIMSA, inspired by nature, has chosen for its LEDs a white colour temperature very similar to that of the sun at its zenith.

The radial pattern of the lenses and the large diameter of the reflector (40 cm) eliminate shadows and provide three-dimensional lighting

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The manual focalization grants a precise and immediate control of the light field.

The Focus function is activated rotating the central handle.

The possibility of adjusting the focalization every time the lamp is moved, allows to optimize the light flux and adapt the light field diameter according to the different surgeries.

This is a surgical lamp with exceptional technical performances and excellent operating versatility. It is particularly suitable for minor surgery, gynaecology and first aid. The dome is reduced in size and contains four modular beams, each with 7 LEDs arranged in a radial pattern so as to eliminate shadows and provide deep three-dimensional lighting. The modular design of the LEDs ensures lighting continuity even in the remote case of a fault affecting a single LED. The high efficiency of the LED sources and low current absorption permit obtaining a very low infra-red emission and a cold light in the operating field.

Very easy handling and positioning stability.

The focus and light field can be adjusted by turning the sterilizable handle. The lamp is very easy to move thanks to the lightness of the aluminium support structure. Adjustable clutch bearings are fitted on each light joint. **Tris-led** is available in mobile version with anti-static wheels, in wall, ceiling and double versions. On request, it can be supplied with an **emergency power unit** with a **3-hour operating time**, made up of batteries and battery charger.

Class I medical device, with **CE mark** in compliance with the Medical Device Directive **93/42/EEC** and Directive **2007/47/EC**



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Available versions:



Tris-led mobile



Tris-led ceiling



Tris-led X 2

RIMSA Saturno-led

30Klx 4500K-5000K

Surgical-type lamp suitable for minor operation surgeries

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This is a surgical-type lamp suitable for minor operation surgeries, gynaecology and first aid. The radial pattern of the beams and the large-diameter reflector (195mm) eliminate shadows and provide three-dimensional lighting.

The reduced emission of IR rays by the LEDs together with the low power used permit obtaining a very low heat emission to the benefit of patient and doctor comfort.

The fact that the beams are close together means they do not have to be focused. By pressing the digital key K on the control keyboard, two different tones of white light can

be selected - 4500°K and 5000°K-without altering the light intensity.

The lamp is very easy to move thanks to the lightness of the aluminium support structure.

Adjustable clutch bearings are fitted on each light joint. For environments in which power supply continuity cannot be guaranteed, it is best to purchase an **automatic rechargeable battery unit**.

Class I medical device, with **CE mark** in compliance with Medical Device Directive **93/42/EEC** and Directive **2007/47/EC**



Saturno-led ceiling

Available versions:



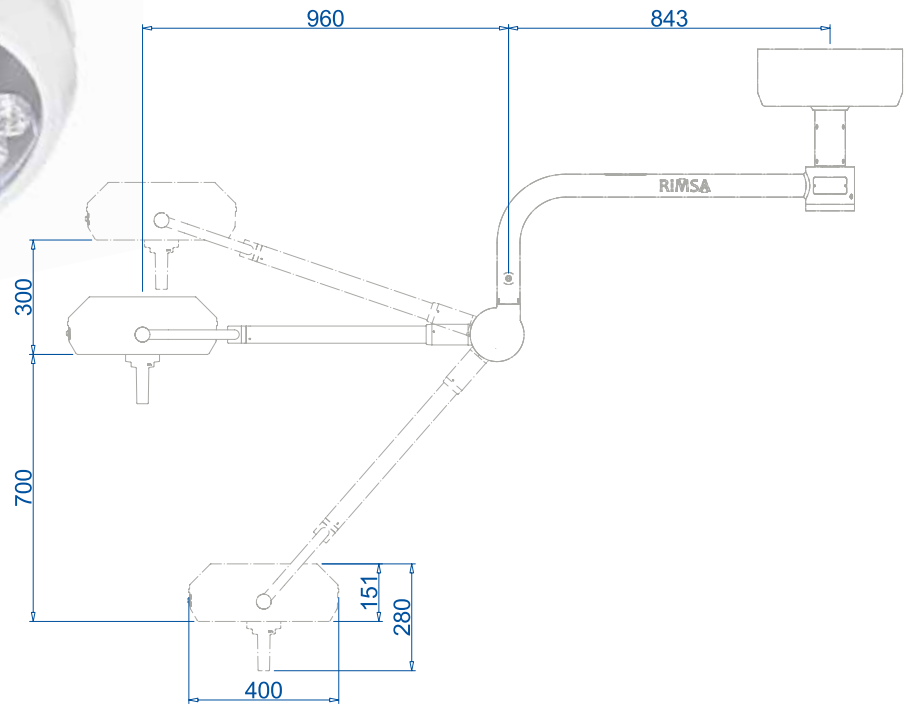
Saturno-led mobile



Saturno-led wall mounted

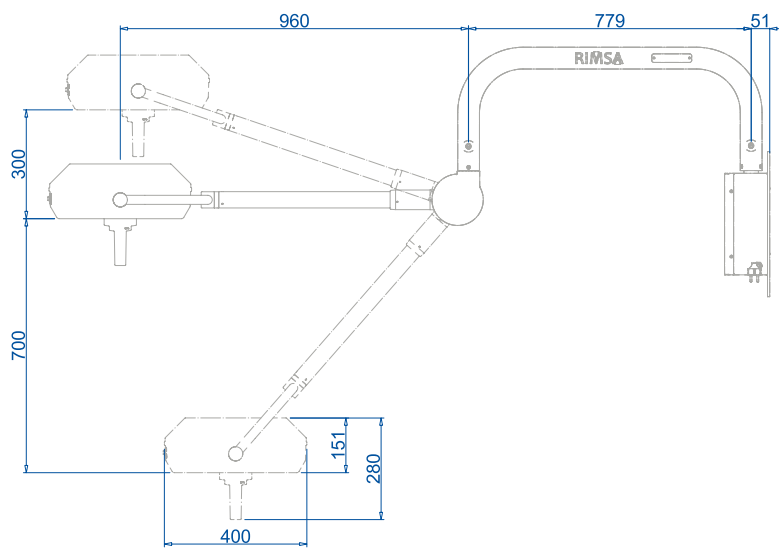


Tris-led

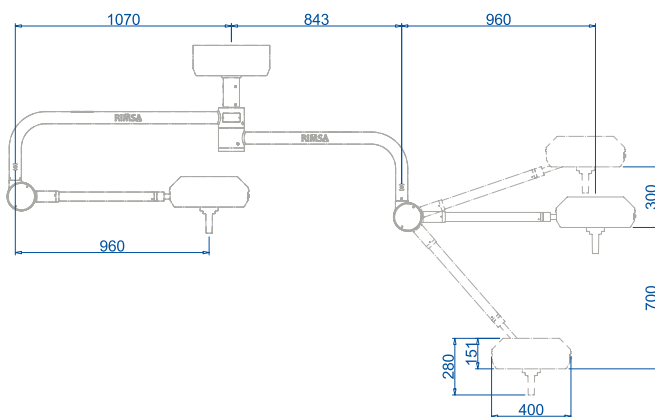
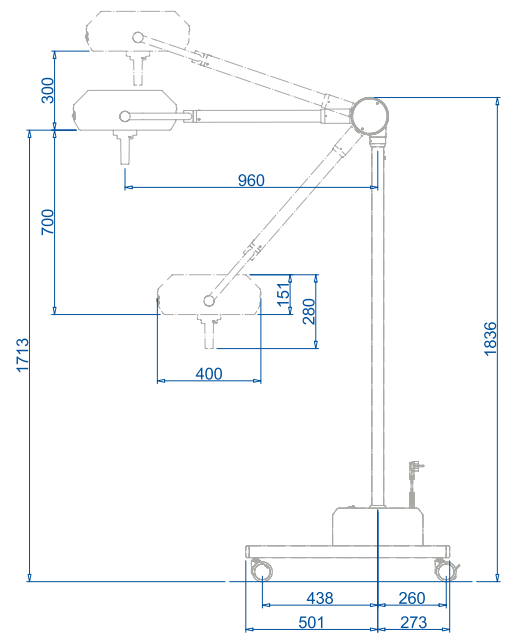


Tris-led ceiling

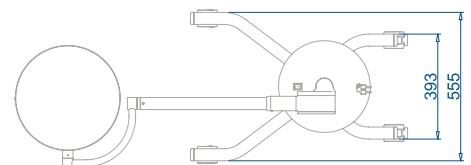
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Tris-led wall mounted

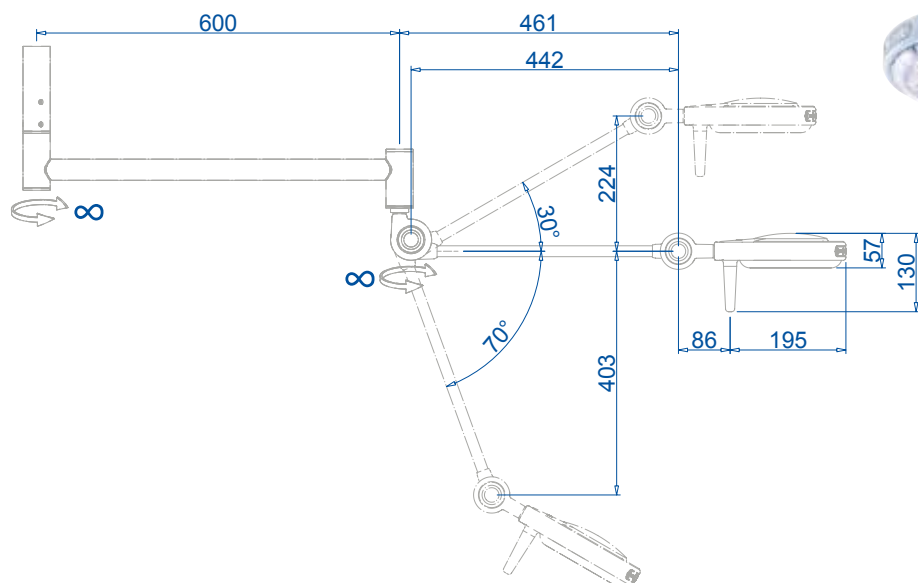


Tris-led X 2

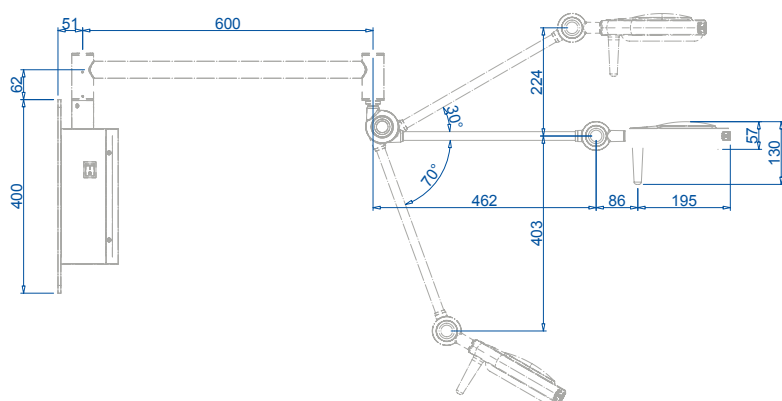


Tris-led mobile

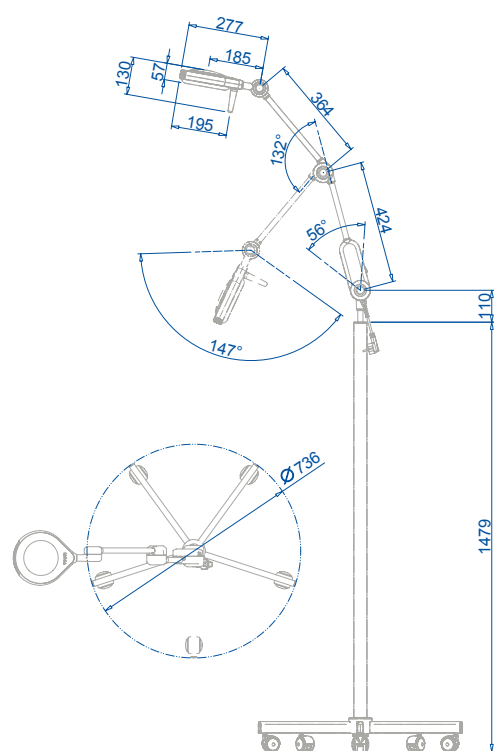
Saturno-led



Saturno-led ceiling



Saturno-led wall mounted



Saturno-led mobile

Tris-led

Saturno-led

Performances

Light intensity at 1m distance (Ec)	100Klx	30Klx
Color temperature	4.300K	4.500 / 5.000K
Color rendering index (CRI)	96	96
R9	≥90	≥90
No. of Leds	28	9
Diameter and focus adjustment	Manual	-
Light field diameter adjustable from – to – (cm)	26 - 38	28
d10 light field diameter where illuminance reaches 10% of Ec	240 mm	250 mm
d50 light field diameter where illuminance reaches 50% of Ec	120 mm	125 mm
Depth of illumination IEC 60601-2-41 (L1+L2) at 60%	82 cm	136 cm
Depth of illumination IEC 60601-2-41 (L1+L2) at 20%	148 cm	228 cm
Control of the illuminance (%)	-	25 – 100 in 7 steps
Total radiated energy Ee where the illuminance reaches max level (W/m2)	280	105
Ratio between radiated energy Ee and illuminance Ec (mW/m2.lx)	2,79	2,82
Radiated UV energy with wavelength less than 400nm (W/m2)	0,001	0,004
Average Led life	> 50.000 hours	> 50.000 hours

Electrical data

Primary voltage (V)	100 ÷ 240	100 ÷ 240
Secondary voltage (V)	24	24
Frequency (Hz)	50/60	50/60
Absorbed power (VA)	70	35

General data

Colour	RAL 9003	RAL 9003
Directive	2007/47/EC	2007/47/EC
Standards	IEC60601-2-41	IEC60601-2-41
Classification of product (Medical Device)	Class I	Class I

Dimensions

Out reflector diameter (cm)	40	19,5
Useful lighting surface (cm2)	200	65
Weight (Kg): ceiling, mobile, wall	35, 32, 27	12, 14, 13

Optional

Battery group with automatic charger	Optional	Optional
SD camera on separate arm	Optional	-
HD camera on separate arm	Optional	-
Arm and TFT Video	Optional	-

All lighting values are subjected to a tolerance of $\pm 5\%$ due to manufacturing and metrological reasons.



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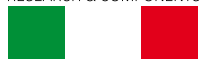
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RESEARCH & COMPONENTS



HAND-MADE IN ITALY

