# Luminox Supreme Pro

A versatile partner for surgeons

Prism recognizes the need to deliver the latest medical technology in order to enable healthcare practitioners in India to provide the best healthcare services to patients with relatively lower spending capacity. Since the launch of the first product of the Luminox series, Prism has set the industry standard for surgical lighting in India. With the launch of the all new Luminox Supreme, Prism is looking to take the game further by setting a new benchmark for performance expectations from surgical lighting. With a few first in class features, the all new Supreme aims to deliver the latest medical technology to the Indian surgeon at an accessible pricing.

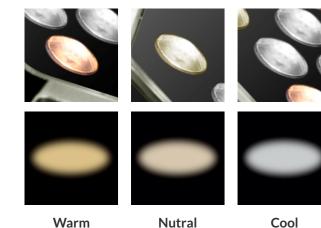
The product has been designed to be used in any major OT as the primary light source for open surgical procedures. This model has especially been lauded by the Ortho and Onco specialists where there is requirement of bright illumination over longer duration. The 'Illuminance Contrast' management done by our designing team ensures that the light head can be comfortably used for longer surgical procedures, while maintaining the surgeons comfort!





- 6 degrees of freedom.
- 360\* around the main axis (Vertical axis).
- 359\* around the main arm (Vertical axis).
- Spring arm motion 20\* up, 40\* down (Total vertical travel 27 inches).
- 359\* around the C-arm connector (Variable axis).
- 359\* around the Spring arm L-connector (Horizontal axis).
- Mechanical focus adjustment mechanism using sterile handle.

Luminox Supreme uses multicolored LEDs to achieve either a fixed daylight like color temperature- 4350 K or a variable color temperature from 3700 K to 5500K. This feature is important as the light head can distinguish the difference between various tissue types and the perception of true tissue colors by using the appropriate color temperature mode, which is used especially within cardiac surgery.



Warm

Prism uses a combination of warm white, neutral white and cool white LEDs to achieve the required color temperature variation. This ensures that the light in the operating area is symmetrically illuminated from different parts of the light head and the surgeon will not get a 'Rainbow effect' when the surgeon might accidently block some of the light sources.

Nutral

#### Cutting edge illumination technology

Being a specialist in lighting design, Prism has integrated the latest generation of LEDs and optical technology to ensure maximum power efficiency and comfort for the operating surgeon. Our LEDs have very high lumens per watt enabling superior illumination while consuming very low power and there by low heat. Even at the max 140000 illumination, the LEDs are driven only at 40% of their rated capacity, there by exponentially reducing the heat and extending the life of the LEDs.

## PRISM Luminox

50,000 hrs

Standard LED

20,000 hrs

Gas Discharge Bulb

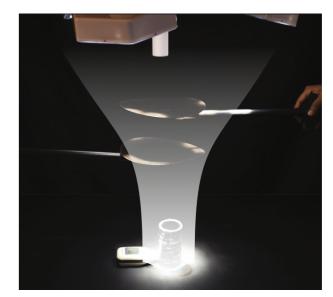
5,000 hrs

Halogen Bulb

1,000 hrs



#### Optically enhanced Shadowless-ness



With over 600 interacting light beams, combined with advanced parallel beam optics, Luminox Supreme ensures a high degree of Shadowless-ness. The new optical design enables the light head to have 23% higher light emitting area, thereby resulting in an enhanced shadow-less compliance.

## **Prism Full HD Imaging Solution**

Luminox Supreme comes with a provision to put an inbuilt camera with true Full HD resolution (1920x1080p at 60 fps) and auto focus zoom lens.



### Antiglare Light-field for long surgeries



Optically designed to deliver high intensity light without glare for operating surgeon to manage surgeon eye fatigue. Special optical techniques of indirect illumination and luminance contrast management used to deliver glare free lighting.

#### **Detachable Handle for Sterilization**



Each light head comes with 2 detachable sterile field handles to enable surgeon a bit more freedom to hold and move the light head under the spot suspension technique.





#### **Integra Configuration Design**

While the new technology brings in these additional features, Luminox Supreme also carries its unique shape and form of the original design. The surgeon can align both domes in the 'Integra configuration' to get an optically enhanced single light head. The light head when aligned together can be used for supramajor surgeries where the operating field is bigger than the normal light field. In the Integra configuration

multiple surgeons can also operate near the cavity under the light without having to compromise the shadowless-ness of the light head. When used individually the light head can be used for routine surgical procedures ranging from Oncology, orthopaedic, general surgery, ENT, gynaecology etc. Either of the dome can be used as a principal dome depending on the type of surgical procedure.

#### **Recommended For**

Luminox Supreme Series gives surgeon excellent flexibility for all types of applications and can be used for:

ENT	Neuro	
Ortho	Onco	
Gynaec	General Surgery	

## **Technical Specifications\***

	PRINCIPAL DOME	SATELLITE DOME
Central illuminance (at 1m distance)	1,40,000 lux	1,00,000 lux
Light field diameter (at 1m distance)	240-300 mm	220-280 mm
Depth of illuminance(L1 + L2)	1,200 mm	1,100 mm
Correlated color temperature	4,350 K / 3700K-5700K	4,350 K / 3700K-5700K
Color rendering index	95	93
Shadow dilution with tube	100%	100%
Shadow dilution with one mask	65%	62.5%
Shadow dilution with tube & one mask	60%	57%
Shadow dilution with two masks	55%	52%
Shadow dilution with tube & two masks	50%	50%
Radiant energy	1mW/(m2.lux)	0.7mW/(m2.lux)
Ambient illumination	8,000 lux	6,500 lux
Service life of bulb	50,000 h	50,000 h
Bulb power consumption	60 W	42 W
Power supply	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz
Number of LED bulbs	21	14
Dimming range	5-100%	5-100%
Light head dimension	600 mm	500 mm
Carrier-arm Camera	Optional	Optional
Increase in Temp. near Surgeon's Head Area	< 1°C	<1°C
Safety	MOSFET/PFA/OV	MOSFET/PFA/OV

## **Camera Specifications**

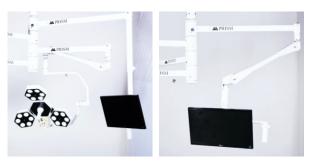
Image sensor	1/3-type CMOS (Progressive Scan)
Effective number of pixels	Approx. 4,080,000 pixels (4mp)
Signal system(HD)	1080p/50, 720p/50
White balance	Auto
Exposure	Auto / Manual
Shutter speed	1/1 to 1/10,000 sec
Focusing system	Auto / Manual / One touch

<sup>\*</sup>All specifications are nominal and subject to change without notice A specification is within + 20% of a stated value at room temperature (25°C) and a nominal input power voltage.

# **Prism Full HD imaging Solution**



Full HD Camera Integrated with light head



Standard Monitor Arm Advanced Monitor Arm



# Corporate Office



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