

Sunoptic's brightest LED headlight

The innovators at Sunoptic Technologies have launched their brightest battery powered LED headlight to date – the SSL-9500. The experts in surgical lighting have developed this state-of-the-art product in a bid to provide healthcare professionals with bright white light for optimum surgical performance.

The SSL-9500 headlight

Sunoptic Technologies entered the surgical lighting sector more than 35 years ago, manufacturing in Florida, United States of America. The company is known for being a market leading specialist with innovative, quality systems in surgical lighting, cameras and fibre optic cabling.

The newest addition to Sunoptic's portfolio is the SSL-9500 headlight - the lightest and brightest battery powered LED headlight in the range. The engineers at Sunoptic Technologies manufacture under ISO 9001 and 13485 certification standards, ensuring the highest quality products. Alongside its LED headlights, the company manufactures LED and xenon light sources, including the most powerful of all, the Titan X450.

The brightest headlight

The SSL-9500 has been designed to provide a homogeneous spot of bright white light for true tissue colour recognition, allowing for optimum performance during surgical procedures. The battery powered LED headlight offers the freedom from being tethered

to a light source by a fibre optic cable, however, before now, this has usually come with the drawback of lack of light, particularly in 'deep' procedures. The SSL-9500 provides a hitherto unachieved 70,000 lux of light in a battery powered model at a working distance of 16", brighter than a number of 300 watt xenon light sources, but most importantly the light is bright white.

Lightweight and comfortable

The SSL-9500 comes with the RCS (Rear Cranium Support) headband, the lightest headband ever developed by Sunoptic Technologies (weighing 730grams), reducing fatigue some surgeons face while performing lengthy operations. Not only is the headlight light but it is also comfortable, the lightweight battery clips onto a belt or scrub gown by a holster, distributing the weight around the body for maximum comfort. Having minimal distractions in the operating room is an essential part of surgical procedures, and that is why Sunoptics has designed a cooling fan on the SSL-9500 that works quietly in the background, allowing surgeons maximum concentration.

The SSL-9500's battery will last 2 hours 45 minutes on the full intensity of 70,000 Lux, however, at half intensity (still extremely bright), the battery will last upwards of 5 and a half hours. The product has an audio warning feature for when the battery gets low, and a replacement battery as standard, which can be easily replaced in seconds for a quick and easy transition - an extremely useful feature, particularly in lengthy surgeries.

The SSL-9500 also shines at a colour temperature of 4500°K. Colour temperature is an important feature for a surgical headlight. If the colour temperature is too low, the light may appear yellow and hazy, and if the temperature is too high the colour has a hint of blue. With a colour temperature

of 4500°K, the SSL-9500's light could be described as vibrant, bright white, which is considered the best light for working environments.

The latest technology

Sunoptic Technologies always looks to innovate, and this is why the company has ventured into developing LED light sources and headlights. There are multiple benefits of LED technology. However, previously the light intensity was not considered bright enough to be utilised in an LED battery powered headlight and could not compare to that offered by xenon products. Sunoptic says its advancements and developments have now made LED technology a serious contender to replace headlights connected to traditional xenon and halogen light sources.

A green product

One of the main reasons LED is considered to be the future of surgical lighting is the effect it has on the environment in comparison to traditional lighting methods. LED uses around 60% less electricity than xenon lights, which is not only better for the environment, it also reduces overhead costs.

The SSL-9500 can provide high quality light for up to 50,000 hours, where as many xenon modules generally have to be replaced around every 500+ hours. This means around 100 xenon light modules have to be produced, then disposed of, for each LED headlight. As the product has no moving parts, this in turn reduces spend, in the form of maintenance costs.

LED headlights are highly durable - these devices work using semiconductor materials, meaning they are resistant to vibrations and shock, which prevents potential damage.

One other particular advantage the SSL-9500 headlight provides is instant light. At the press of a button the light is on and poised ready for action, whereas with xenon and halogen light sources the module has to 'warm up' before the product is able to be used. This is a distinct advantage for surgeons, where speed is vital. Not only is the light instant, but it can be easily controlled

with a dimming knob for smooth and seamless variations in light intensity. The field of view can easily be changed with the SSL-9500 by using the variable spot module, which can create a spot of light from 20mm up to 110mm to suit the surgeons' preference.

Only the best

Sunoptic Technologies offers a three year warranty on all Sunoptic light sources and cameras, including the SSL9500, as proof of its' quality. All Sunoptic products are CE marked, FDA and European Class 1 approved.

Managing your costs

The annual spending of the NHS has increased by 4% a year in real terms, since it was founded in 1948. Despite this, budgets are expected to remain the same or in line with national inflation, which is well below the expected growth in demand, as people live longer with developments in

medicine and modern lifestyles. The NHS has to fulfil its constitution despite these pressures (to provide excellent service, available to all), but these demands create a sizeable funding gap. Trusts have to invest in the latest technologies and one method of being able to purchase high-quality capital goods, such as the SSL-9500, is to reduce the spend on consumable products.

Reduce consumables spending

Uniplex is the UK distributor for Sunoptic Technologies, retailing a range of its lighting solutions. Alongside the premium Sunoptics range, the Sheffield based company markets a range of medical devices, many of which it says can reduce consumables spending.

Innovations in technology have cut manufacturing costs, while allowing product quality to improve. Several ways technology has lessened production costs include the lowering of energy costs, reduction in manpower and the minimisation of errors and waste. Uniplex distributes two types of Haemostats, gelatin sponge



(Cutanplast) and oxidised cellulose (Okcel) both of which are being used throughout the UK, providing vast cost savings for numerous Trusts.

Another product which could provide savings without diminishing quality is sutures, manufactured by Meril. Meril is a global medical device company, offering sharp, strong sutures, with significant cost savings. Switching to any of these systems could free up potential funds, assisting Trusts to equip surgeons with extremely bright LED headlights and helping them to continue providing ever better quality of surgery for their patients. ■

About Uniplex

Uniplex is a UK manufacturer of surgical instruments and tuning forks, a repairer of same and a distributor of medical devices with a particular focus on the Operating Room, Sterile Service Departments and Endoscopy. The Sheffield based company has a product range to cater for advancements in technology and changing customer requirements. Its portfolio includes sutures, haemostats, light sources and more. Uniplex operates a repairs service, restoring surgical instruments back to their best under their ISO 9001 and 13835 accredited service.

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