SUNOPTIC SURGICAL

TITAN Lightsources

Tomorrow's Innovation

TITAN X450

The TITAN's 400 watts of Bright White light is the only lightsource on the market that delivers this amount of light to the surgical site.

- New Ceramic body elliptical lamp
- New Touch Screen Controls
- 1,000 hour lamp
- Dual Fan Cooling System
- External Air Filter
- Automatic Shutter
- Standby Mode
- New Mechanical Lamp Alignment
- Consistent High Lux Output
- Internal Self Diagnosis

TITAN X350

The TITAN's 300 watts of Bright White light is superior to any other 300 watt system in the market due to the advanced optic design.

- New Ceramic body elliptical lamp
- New Touch Screen Controls
- 1,000 hour lamp
- Dual Fan Cooling System
- External Air Filter
- Automatic Shutter
- Standby Mode
- New Mechanical Lamp Alignment
- Consistent High Lux Output
- Internal Self Diagnosis

TITAN X300

300 watts of Bright White light
Enhanced Quality
Whisper Quiet Operation

- Consistent High Lux Output
- 1,000 hour lamp
- Manual Intensity Slide
- Advanced Air Flow
- Automatic Shutter
- Reliable
- Whisper Quiet
- Quality, Performance and Advanced Aesthetics

TITAN X450 & X350

- Lamp Type: Ceramic Type Xenon Lamp
- Lamp Power Rating: 400 Watts & 300 Watts
- Lamp Color Temperature: 5,600K
- Lamp Warranty: 1000 Hours (Typical)
- Front Panel Controls: On/Off Switch, Touch Screen Controls, Turret
- Input Voltage Range: 100 – 120 VAC 50 /60Hz, 220–240VAC 50Hz
- Power Consumption: 720 Watts & 450 Watts
- Regulatory: UL60601, EN 60601-1, EN 60601-1-2, CAN/CSA, C22.2, No 601.1-M90, CE
- Equipment Class: BF-TYPE
- Dimensions: 338mm (13.3") W x 155mm (6.1") H x 457mm (18") D
- Weight: 10.0 kg (22 lbs)

Tx-450 series patents: 7,510,313 (400-watt), 9,772,094 (Tx alignment system)
Tx-350 series patent: 9,772,094 (Tx alignment system)

TITAN X300

- Lamp Type: Ceramic Type Xenon Lamp
- Lamp Power Rating: 300 Watts
- Lamp Color Temperature: 5,600K
- Lamp Warranty: 1000 Hours Prorated
- Front Panel Controls: On/Off Switch, Attenuator Control, Turret
- Input Voltage Range: 100 – 120 VAC 50 /60Hz, 220–240VAC 50Hz
- Power Consumption: 450 Watts
- Regulatory: UL60601, EN 60601-1, EN 60601-1-2, CAN/CSA, C22.2, No 601.1-M90, CE
- Equipment Class: BF-TYPE
- Dimensions: 338mm (13.3") W x 155mm (6.1") H x 457mm (18") D
- Weight: 10.0 kg (22 lbs)

Ordering Information

- TITANX450ST-K 400 Watt Xenon Lightsource, 4 Port Turret
- TITANX350ST-K 300 Watt Xenon Lightsource, 4 Port Turret
- TITANX300ST-K 300 Watt Xenon Lightsource, 4 Port Turret
- SSL0070T Floorstand for TITAN Lightsources
- SSX0450 Replacement Lamp Module for TITANX450
- SSX0350 Replacement Lamp Module for TITANX350
- SSX0300 Replacement Lamp Module for TITANX300

(For International use: Replace -K with required power cord plug.)

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TITAN Headlights

SUNOPTIC SURGICAL

Tomorrow's Innovation

TITAN RCS Headband

The TITAN "RCS" Rear Cranial Support Headband provides enhanced comfort due to the lightweight and flexible material. The front to back crown support design allows for better module adjustment and stabilization. These features help minimize the fatigue that sets in during lengthy surgical procedures.

- Lightweight, Comfortable and the "RCS" helps minimize fatigue
- BRIGHTEST Illumination Available
- Module spot sizes offered: 20mm-110mm
- Headlight cables available in bifurcated and straight configuration
- Lensed 3.5mm fiber bundle with Grey armoured sheathing 9ft long
- Fused fibers on the proximal end increase transmission efficiency by 10%
- Molded UltraGrip Handle eases cable removal from the lightsource and aids against fiber damage

TITAN Sport Headband

TITAN Molded UltraGrip SPORT Headlight System provides bright illumination and superior performance along with the level of comfort and stability required by surgeons' during surgical procedures.

TITAN RCS Headband Specifications

- Designed Lightweight Headband with Rear Cranial Support for added comfort
- Headlight Module with 20mm-110mm Variable Spot @ 16"
- Fused 3.5mm Bifurcated Molded UltraGrip Cable 9' Long with Wolf Lensed Proximal End to optimize light output Also available in 20mm-140mm Variable Spot @ 16"
- Molded Junctions add Flexibility and the Reinforced Sheathing Protects the Fiber Bundle
- Headband with ModuleWeight - 4.5 oz
- Headband, Module and Bifurcated Cable Weight - 6.5 oz

System Includes:

- 1 Headlight With Rear Cranial Support "RCS"
- 1 20mm-110mm Variable Spot Module
- 1 3.5mm Bifurcated 9' Long UltraGrip Cable with Lensed Wolf Proximal End
- 2 Prepackaged, Sterile, Disposable Joysticks
- 1 Duffel Bag for storage

ALSO AVAILABLE AS A TITAN SPORTBAND

Ordering Information

- SG35-110-VHB "RCS" Headlight 110mm Variable Spot Module and Molded UltraGrip Bif Cable
- SL35-110-VHB "RCS" Headlight 110mm Variable Spot Module and Molded UltraGrip Bif Cable
- SG35-110-VSS Sportband Headlight 110mm Variable Spot Module and Molded UltraGrip Straight Cable
- SL-0040 Replacement Foam Comfort Liners (Set of 3)
- SL-0013 Replacement Sterile Joysticks (Set of 10)
- SL-0080 Replacement 3.5mm Bifurcated Headlight Cable
- SG-0080 Replacement 3.5mm Molded UltraGrip Bifurcated Headlight Cable
- SL-0088 Replacement 3.5mm Straight Headlight Cable
- SG-0088 Replacement 3.5mm Molded UltraGrip Straight Headlight Cable
- Sport2 Replacement Sportband (set of 2)

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LED Headlight

SUNOPTIC SURGICAL

Tomorrow's Innovation

SSL-9500 LED Headlight

Sunoptic Surgical's SSL-9500 LED Headlight allows the freedom to be untethered from a light source with its battery-operated design. The headlight delivers the brightest white light essential to surgical procedures, with a homogeneous spot for true tissue color rendition. The RCS headband and lightweight module provide comfort and stability.

- 10w LED offers the BRIGHTEST Illumination available
- Light Intensity: 70,000 Lux @ 16"
- Module with variable spot size: 20mm-110mm @ 16"
- Lightweight battery and clip on holster provide 2 hr 30 min of continuous light at maximum intensity
- Battery life doubles at 50% output (power)
- The "RCS" headband is Lightweight and Comfortable
- Audible warning when battery charge is low

SSL-9500 LED Headlight

Specifications

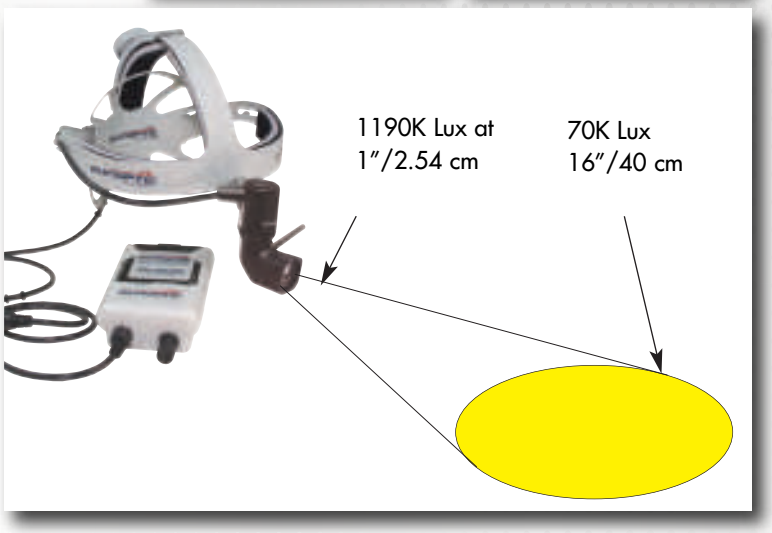
- 10w LED Producing Bright,White Light
- Color temperature: 4,500°K
- Typical LED life: >50,000 hours
- Lightweight Headband with Rear Cranial Support for added comfort
- Variable Module Spot 20mm-110mm @ 16" / 40cm
- Variable Intensity Control: 0 – 70,000 Lux at 16"/ 40cm working distance
- Headband with LED Module Weight – 9 oz/ 255 grams
- Battery and Holster Weight – 12 oz/ 340 grams
- Battery Life – 2 hrs 30 min @ Full Intensity, 5 hrs at 50% power
- Battery Charger Accepts 100-240V AC, 50/60 Hz input for worldwide operation
- Battery Recharge Time – 3.5 hrs
- Warranty Three (3) Years on LED Headlight and One (1) Year on Battery

Classification:

- European Class I, Active device per Annex IX, rule 1
- FDA Class I, Device Listing 125713
- Complies with Essential Requirements Matrix of MDD 93/42/EEC, amended by 2007/47/CE

System Includes:

- LED Headlight with RCS Headband
- Battery Pack with 2 Rechargeable Batteries
- Single or Dual Bay Charger
- Padded Carrying Bag



Systems:

- SSL-9500 LED Headlight System, Battery Powered, RCS headband
- SSL-9500-DB LED Headlight System with dual bay charger
- SSL-9500-SBDB LED Headlight System with dual bay charger and Sport Band
- SSL-9500-SB LED Headlight System with Sport Band
- SSL-9500-MOD Upgrade module for converting LED9000/9000-II to 9500
- SSL-9500-KIT Upgrade kit/module for converting LED 8000, LED 8500 or LED 8500-II into a 9500 system
- SSL-9500-B-K - LED Headlight System with BLUE RCS headband, two batteries, single bay charger and carrying bag

Accessories:

- SSL-3736 Replacement single bay battery charger
- SSL-3736-2 Dual bay charger accessory
- SSL-2054BE Replacement encrypted battery for LED 9500

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LED Lightsource

SUNOPTIC SURGICAL

Tomorrow's Innovation

LED 4000

Sunoptic Surgical LED4000 is a state-of-the-art LED Lightsource designed to provide light for Headlight and endoscopic procedures. The lumen output is comparable to many Xenon lightsources currently being used in endoscopy. The expected LED life of 30,000 hours eliminates the need to purchase replacement lamps, thus saving money in operational cost.

- Compact, efficient, durable source of brilliant "daylight" quality light for endoscopy.
- Expected LED life of 30,000 hours
- Color temperature: 6500°K @ 75 CRI for maximum output 5600°K @ 92 CRI for fuller spectrum
- Ergonomically designed turret includes ACMI, Olympus, Storz, & Wolf ports; single port version and other options.
- LED automatically shuts off when cable is removed from active port.

LED 3000

Sunoptic Surgical LED3000 is another state-of-the-art LED Lightsource and is designed to provide light for endoscopic procedures. The lumen output is comparable to many Xenon lightsources currently being used in endoscopy. The expected LED life of 30,000 hours eliminates the need to purchase replacement lamps thus saving money in operational cost.

- Compact, efficient, durable source of brilliant "daylight" quality light
- Ideal for office use and post OP examinations
- Expected LED life of 30,000 hours
- Color temperature: 6950°K nominal
- Ergonomically designed turret includes ACMI, Olympus, Storz, & Wolf ports; single port versions and other port styles are also available.

LED 2000

- Compact, efficient, durable source of brilliant "daylight" quality light
- Ideal for office use and post OP examinations
- Expected LED life of 50,000 hours
- Color temperature: 6500°K nominal
- Ergonomically designed turret includes ACMI, Olympus, Storz & Wolf ports; single port versions and other port styles are also available.

LED 4000 & LED 3000 Lightsource

- Compact, efficient, durable source of brilliant "daylight" quality light for headlights and endoscopy.
- Lumen output comparable to many Xenon units but more stable and consistent.
- Expected LED life of 30,000 hours (15 years @ 40 hrs/week x 50 weeks/year) eliminates costly periodic lamp changes.
- Color temperature: LED4000 6500°K @ 75 CRI or 5600°K @ 92 CRI. LED3000 6950°K
- Electronic (PWM) intensity control from 0-100%; variety of linear & geometric dimming profiles available for optimum performance with cameras.
- High-level Command Interface facilitates remote control and status access through integral RS232 and USB ports.
- Ergonomically designed turret includes ACMI, Olympus, Storz, & Wolf ports; single port versions (shown above) and other port styles are also available.
- LED automatically shuts off when cable is removed from active port.
- Standby mode turns off LED but keeps lightsource energized and adjustable.
- Accepts 100-240V AC, 50/60 Hz input power for worldwide operation.
- Regulatory: IEC60601-1 3rd Edition, CAN/CSA C22.2 No. 601.1, CE mark.
- Dimensions: 11" W x 4.5" H x 11" D; weight 3.4kg (7.5 lbs).

LED 2000

Sunoptic Surgical SSL-2000 Lightsource

- 50W Solid State LED Light
- Compact, efficient, durable "daylight" light
- Premium LLS-2000 utilizes new high efficiency design
- Color temperature: 6500° K nominal
- Typical LED life: >50,000 hours
- Low power consumption: 52W typical
- Electronic (PWM) intensity control from 0-100%
- Four-port turret and single port versions available
- Standard ports are ACMI, Olympus, Storz, and Wolf, other ports available
- Accepts 100-240V AC, 50/60 Hz input power for worldwide operation
- Regulatory: UL60601-1, CAN/CSAC22.2 No. 601.1, EN60601-1-2; CE marked
- Dimensions: 4.65" W x 3.32" H x 7.25" D (~10" overall)
- Weight: 1.14 kg (2.5 lbs)

LED 4000 & LED 3000

Ordering Information

- SSL-4000T-SC-K LED-4000 lightsource with Standard CRI and "K" cord
- SSL-4000T-HC-K LED-4000 lightsource with High CRI and "K" cord
- SSL-3000T-K LED-3000 lightsource with "K" cord
- SSL0070T - Sunoptic Floorstand
- SG40-110-VHB - GREY "RCS" HB, 110MM VAR. SPOT MODULE, SU-0097 BIF CABLE
- SU-0097 SUNOPTIC, 4MM, FUSED HEADLIGHT CABLE, WITH MOLDED GRIP FOR LED LIGHTSOURCES

(FOR INTERNATIONAL ORDERING PLEASE SPECIFY CORD RQUIRED)

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Cables

SUNOPTIC SURGICAL

Tomorrow's Innovation

UltraGrip Endoscopic Cables

Sunoptic Surgical Endoscopic cables are manufactured to a high standard of quality, performance and reliability. They are skillfully manufactured in-house with medical grade materials and comply with FDA regulations, and ISO 13485 certification. Our extensive line of Endoscopic cables is equipped with Sunoptic Surgical's Moulded UltraGrip handle, a patented ergonomic design feature that provides added strain-relief, plus durability and ease of cable removal from the lightsource.

Headlight Cables

Our headlight cables are designed to deliver the maximum light output and performance when used with our Sunoptic Surgical headlights. The patented process of fusing the fiber bundle at the proximal end combined with using a high quality lens to focus the light results in an increase in light transmission outperforming the competition. This along with Sunoptics Surgical Moulded UltraGrip handle provides added strain-relief, plus durability and ease of cable removal from the lightsource.

Replacement Cables

Sunoptic Surgical replacement headlight cables are manufactured with the same quality and performance as our standard fiberoptic cables. We offer high quality replacement cables for the following competitors: Integra/Luxtec, Welch-Allyn, BFW, Aculux, Isolux and Applied Fiberoptics.

New, Premium Option:

Endoscopic cables can now be available with a special vapor disposition coating that finishes the cable with a smooth, velvety feel to-the-touch polish. Ask your sales representative for more details regarding this custom feature.

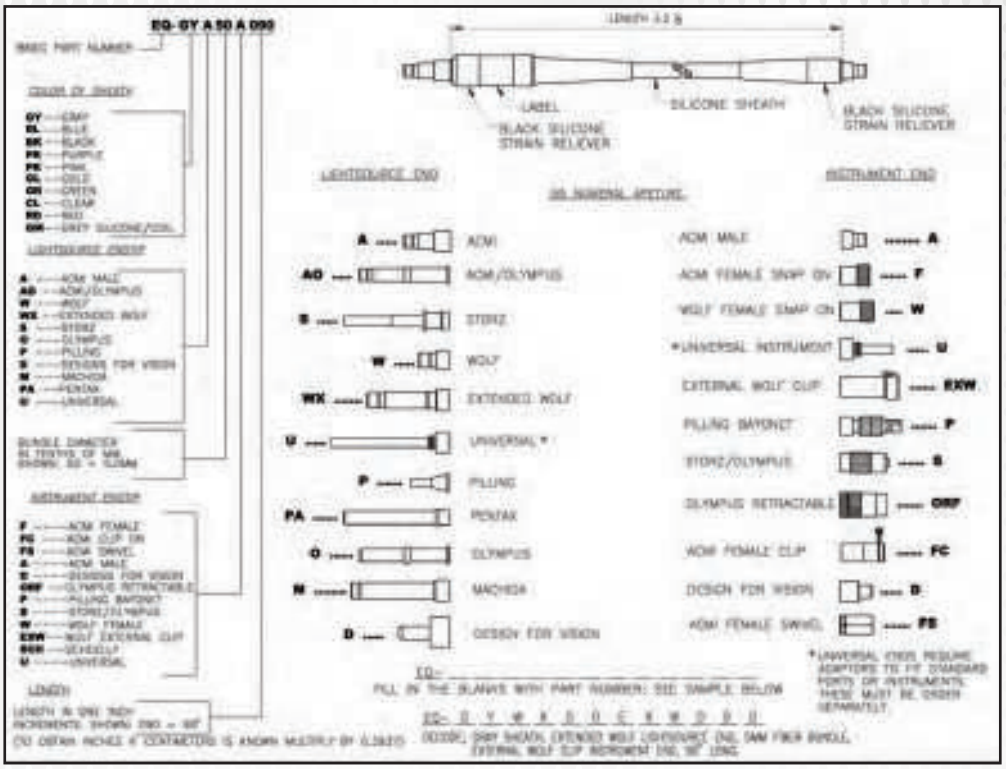
Endoscopic Cables - Universal / Dedicated

Sunoptic Surgical fiberoptic cables are designed to deliver maximum light when coupled to a medical grade fiberoptic light-source. They are compatible with virtually all endoscopes, medical instruments, and microscopes.The cables can be manufactured with bundle diameters ranging from 3.0 mm to 5.0 mm to match the bundle of the instrument being used to provide optimal lighting. We offer eight different opaque colors of medical grade silicone sheathing so that each department can have its own unique identifier. All of our endoscopic cables are hermetically sealed and can be sterilized using steam autoclave, cold soak, Steris, or Sterrad.

Endoscopic Cables - Universal Style

Sunoptic Surgical Universal cables can be used with various adapters according to the lightsource and instrument that is to be used for a procedure. Each end of the cable has to be fitted with a thread on adapter to properly function. This gives the versatility of creating a custom cable by simply changing the adapters on each end.

*New custom option: Cables are now available with a vapor disposition coating that leaves the cable with a smooth, velvety polish.



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Lamps

SUNOPTIC SURGICAL

The Brilliant Choice

Manufacturers of Reliable, High-Quality Illumination Products

Sunoptic Surgical is a leading manufacturer of xenon lamps for medical use. In this specialty field, we focus on CeraLux (TM) ceramic xenon short arc lamps.
We offer B and C body styles with ellipsoidal and parabolic reflectors. Our line of xenon lamps include lamps, lamp modules, and various accessories.

Manufactured by Sunoptic in the USA, these lamps provide high-quality lighting backed with superior value and direct access to technical assistance. All of the products are built to last, offer great color rendition and use safer materials than other lighting techniques. Our products have been designed to be durable and dependable within the environments in which they are used. This narrow focus enables us to remain true to our goal of having the best value and speed of service in the industry.

Some of the light source brands Sunoptic Surgical can provide illumination for are listed below:

BFW
Leica
Linvatec
Storz
Isolux

Moeller-Wedel
Olympus
Pentax
Smith & Nephew
Stryker

Integra/Luxtec
Welch Allyn
Richard Wolf
Zeiss
Fujinon

CeraLux lamps™ are short arc, high pressure, xenon lamps that have parabolic and elliptical reflectors integrated in the design. By having reflectors with this type of construction, our lamps can produce pre-aligned collimated or focused beams of high intensity white light. This white light is due to xenon gas' ability to emit UV, Visible and IR output that is closely matched to that of the sun (color temperatures of approximately 6000° K). Compared to quartz type lamps, CeraLux lamps are safer because of the materials used and easier to work with due to the pre-focused reflectors. The rugged construction of these lamps incorporates high strength welds and brazed seals. They are designed for DC operation with instant "on" ignition. Unlike metal halide and mercury lamps, no warm-up time is required for the lamp to produce its superior white light. Another advantage is that no mercury or rare earth elements are used in our lamps, so there are no environmental or disposal issues.

CeraLux™ **xenon lamps from Sunoptic Surgical** have been designed to be exact replacement for existing ceramic xenon lamps, as well as optimized for the use of OEMs, and other individual customers. They are used extensively in medical endoscopy, fiber optic illuminators, dental curing, dental bleaching, solar simulation and for industrial use.

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SUNOPTIC SURGICAL

Tomorrow's Innovation

SSL-5500 Wireless LED Headlight

Sunoptic Surgical's SSL-5500 Wireless LED Headlight offers the ability to be untethered from a light source or remote battery pack, while providing bright, white light with a homogeneous spot. The lightweight RCS headband provides comfort and stability where a wireless headlight is preferred.

Features & Benefits:

- No external wires or batteries
- 30,000 lux output at 16"/ 40cm distance with a bright, clean, uniform spot
- 20-110mm spot variability at 16"/ 40cm working distance
- Infinitely variable output switch on side of headband allows surgeon to set different light outputs, which translates into longer battery life
- 4 hour battery life for fully charged battery at maximum output
- Battery life doubles when used at 50% output (power)
- New headband design distributes weight for maximum comfort
- Accessible battery on the headband is quick and easy to change
- Low-battery indicator clearly visible on side of headband
- 4-5 hour recharge time
- Color temperature is 4,500° K
- Color Rendering Index (CRI) 75
- Classification: FDA Class 1 Device

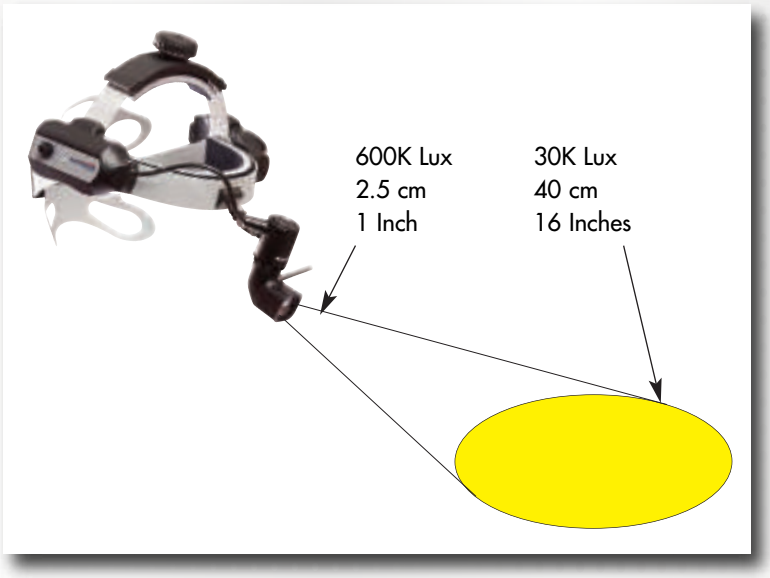
Specifications

10w LED Headlight

- Variable Module Spot 20mm-110mm @16”/ 40cm
- Side mounted variable intensity control: 0-30,000 Lux at 16”/ 40cm working distance
- Rear Cranial Support Headband for added comfort
- Headband with battery weight 15oz/ 437grams
- Battery weight 3.7 oz/ 106g
- Battery life 4 hours at full intensity and doubles at half output (power)
- Battery Recharge Time – 4-5 hrs
- Color Temperature 4,500K typ.
- Color Rendition Index (CRI): 75
- Typical LED life: >50,000 hours
- Warranty Two (2) years on LED Headlight and one (1) year on Batteries
- Classification: FDA Class 1 Device Listing D125713

System Includes:

- 1 LED headlight with Rear Cranial Support “RCS” headband
- Side mounted battery holster and attenuator
- 2 Rechargeable batteries
- 1 single bay charger
- 1 padded carrying bag with shoulder strap
- Disposable Joysticks for positioning module



Ordering information:

- SSL-5500-KIT LED headlight system includes charger and two batteries. Kit includes domestic and international adaptors.
- SSL-1821J Replacement Sunoptic Battery for 5500
- SSL-8121J-C LED 5500 battery charger
- SL-0026B Black Module Hinge Extension
- SSL-5500-B-KIT- LED Headlight system includes BLUE headband with charger, two batteries and carrying bag. Kit also includes domestic and international adaptors for the charger.

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