

## SLS201/M - June 16, 2016

Item # SLS201/M was discontinued on June 16, 2016. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

### COMPACT STABILIZED BROADBAND LIGHT SOURCES

- ▶ Stabilized Light Sources for 300 - 2600 nm, 450 - 5500 nm, or 500 - 9000 nm
- ▶ Stabilized Color Temperature and Output Power
- ▶ Long Lifespan: 10,000 Hours (Average)



**SLS202**  
Broadband 450 - 5500 nm Source with SLSC2 Collimation Package



**SLS203L**  
Broadband 500 - 9000 nm Source with Free Space Output



**SLS201**  
Broadband 300 - 2600 nm Source with Included SMA Fiber Patch Cable Connected to the Output



**SLS252**  
Replacement Bulb for the SLS202(/M) Stabilized Light Source

[Hide Overview](#)

#### OVERVIEW

##### Features

- Broadband Light Sources for Visible Through IR Wavelengths
- Constant, Stable Intensity Output
  - 0.01%/hr
  - 0.1%/°C
- Closed-Loop Control for High Stability
  - Output Power Stability: 0.05%
  - Color Temperature Stability: ±15 K
- 10,000 Hour Average Lifespan
- SMA Fiber Interface or Free Space Output
- Accepts Ø1" and Ø25 mm Filters
- Compatible with 30 mm Cage System
- Low-Noise Fan Cooling

##### Key Specifications<sup>a</sup>

Item #	SLS201(/M)	SLS202(/M)	SLS203L(/M)
<b>Wavelength Range</b>	300 - 2600 nm	450 - 5500 nm	500 - 9000 nm
<b>Peak Wavelength</b>	1000 nm	1500 nm	2400 nm
<b>Output Power Stability<sup>b</sup></b>	<0.05%		
<b>Output Power Drift per Hour</b>	0.01%		
<b>Output power Drift per °C</b>	0.1%		
<b>Color Temperature</b>	2796 K	1900 K	1500 K
<b>Color Temperature Stability</b>	±15 K		
<b>Bulb Electrical Power</b>	9 W	7.2 W	24 W
<b>Coupled Optical Power</b>	10 mW <sup>c</sup>	100 mW <sup>d</sup>	>1.5 W <sup>e</sup>
<b>Included Fiber Patch Cable</b>	M28L01	N/A <sup>f</sup>	N/A
<b>Included Power Supply</b>	Universal AC/DC Converter, 90 - 264 VAC at 47 - 63 Hz		

- Please see the *Specs* tab for full list of specifications
- Standard deviation of optical power measured at room temperature over a 1 hour period with 1 Hz sampling rate after a 45 minutes warm-up. Please see the *Graphs* tab for the results of our stability testing.



Click to Enlarge  
 The removable filter holder (filters sold separately) allows the user to mount Ø25 mm or Ø1" optics inside the stabilized light source. The front face of the light source features four 4-40 tapped holes, making it compatible with our 30 mm cage system.

## Accessories

- Collimation Packages
- Replacement Light Bulb Modules
- Extra Filter Holders

- Measured at the Output of the Included Patch Cable
- Measured Directly Over the Clear Aperture of the SMA Port
- Measured Directly at the Output Port with the Front Lens Tube Removed
- We recommend a mid-IR fluoride fiber patch cable or fiber bundle for this light source.

Thorlabs' Stabilized Light Sources provide a constant-intensity blackbody radiation spectrum from 300 to 2600 nm, 450 to 5500 nm, or 500 to 9000 nm. An internal feedback system is employed to achieve a highly stable power output. These devices feature an integrated filter holder and offer either a fiber-coupled output with an SMA connector [Item #s SLS201(/M) and SLS202(/M)] or free-space output [Item # SLS203L(/M)]. The superior performance of Thorlabs' stabilized light sources makes them ideal for experiments that require high accuracy and stability, such as transmittance and reflectance measurements. The compact design (see *Specs* tab) gives the user flexibility with positioning this light source on a crowded optical table. Additionally, indents in the side of the casing allow the SLS201(/M) and SLS202(/M) to be secured to an optical table with 1/4"-20 (M6) cap screws without increasing the footprint. Alternatively, all these devices can be post mounted by using the two 1/4"-20 (M6) taps on the bottom of the device and our Ø1" posts.

The front face features four 4-40 taps (as shown in the image to the right) for ER rods, making this device compatible with Thorlabs' 30 mm cage system. The back face has an on/off toggle switch and a laser engraving indicating the required voltage for the device (see image to the bottom left). A red filter holder is included with each lamp. This filter holder can accommodate Ø1" and Ø25 mm optics up to 0.31" (8.0 mm) thick, allowing bandpass filters to be placed in the light path for applications requiring constant-intensity illumination at a specific wavelength. Alternatively, a sample can be installed in the filter holder between two glass plates, allowing this light source to be used for material analysis. An included SM1RR retaining ring is used to secure the optic inside the holder. We recommend the SPW602 spanner wrench to secure the retaining ring without damaging the optic. The filter holder can be locked into place with a setscrew located on the side of the device (see the image to the bottom left). The light sources are also compatible with the CFH2-F filter holder (sold separately below), enabling the user to quickly change between different filters or samples.

Replacement bulbs are available for all three stabilized light sources. Please see the *Bulb Replacement* tab for detailed instructions on how to replace the bulbs in these lamps. Additionally, a variety of accessories for both the SLS201(/M) and SLS202(/M) are available separately below. Collimation packages, consisting of a Ø1 mm pinhole and collimating optic housed in a custom lens tube, thread directly on the output port of the lamps after the fiber adapters are removed. Be sure to purchase the appropriate collimation package and bulb module for each lamp, as they are not interchangeable.

If a higher color temperature is desired, our color-balancing filters can be used to attenuate red light from the light sources while passing blue light. This results in a beam with a higher color temperature and lower total power.



Click to Enlarge

The removable filter can be locked into place with the filter setscrew, which has an M3 hex (hex key is included with light source), located on the side of the stabilized light source.



Click to Enlarge

Indents in the side of the cases of the SLS201(/M) and SLS202(/M) allow the device to be secured to an optical table with 1/4"-20 (M6) cap screws.



Click to Enlarge

The back of these light sources are engraved with a dot indicating the voltage requirements for the device. Each device includes a universal power adapter engraved with the light source item number.

[Hide Specs](#)

## S P E C S

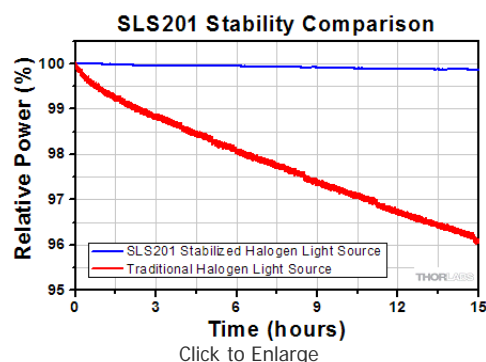
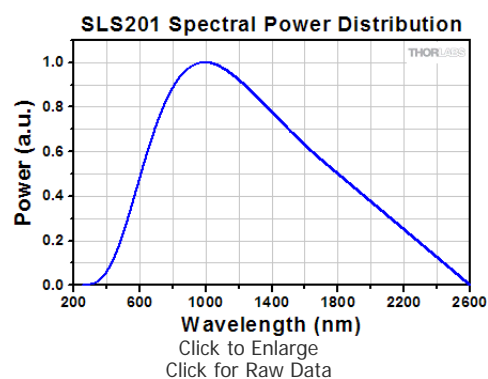
Item #	SLS201(/M)	SLS202(/M)	SLS203L(/M)
<b>Wavelength Range</b>	300 - 2600 nm	450 - 5500 nm	500 - 9000 nm
<b>Peak Wavelength</b>	1000 nm	1500 nm	2400 nm
<b>Output Coupling</b>	Fiber-Coupled and Free Space		Free Space
<b>Output Power Stability<sup>a</sup></b>	<0.05%		
<b>Optical Power Drift per Hour</b>	0.01% (Typical)		
<b>Optical Power Drift per °C</b>	0.1% (Typical)		
<b>Color Temperature</b>	2796 K	1900 K	1500 K
<b>Color Temperature Stability</b>	±15 K		

<b>Bulb Electrical Power</b>	9 W	7.2 W	24 W
<b>Output Optical Power</b>	10 mW <sup>b</sup>	100 mW <sup>c</sup>	>1.5 W <sup>d</sup>
<b>Included Fiber Patch Cable</b>	M28L01	N/A <sup>e</sup>	N/A
<b>Lifespan</b>	10,000 Hours (Avg.)		
<b>Compatible Filter Size</b>	Ø1" and Ø25 mm up to 0.31" (8.0 mm) thick		
<b>Operating Temperature</b>	0 °C to 45 °C		
<b>Storage Temperature</b>	-15 °C to 70 °C		
<b>Included Power Supply</b>	Universal AC/DC Converter, 90 - 264 VAC at 47 - 63 Hz		
<b>Dimensions (L x W x H)</b>	194.1 mm x 55.0 mm x 57.5 mm (7.64" x 2.17" x 2.26")	187.4 mm x 55.0 mm x 57.5 mm (7.38" x 2.17" x 2.26")	

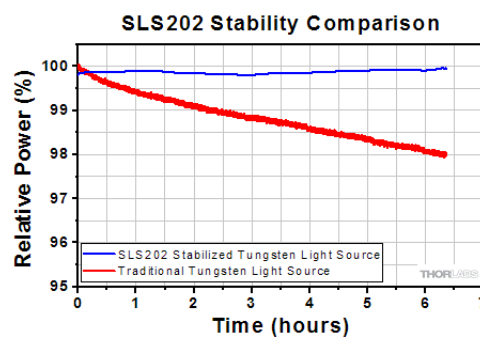
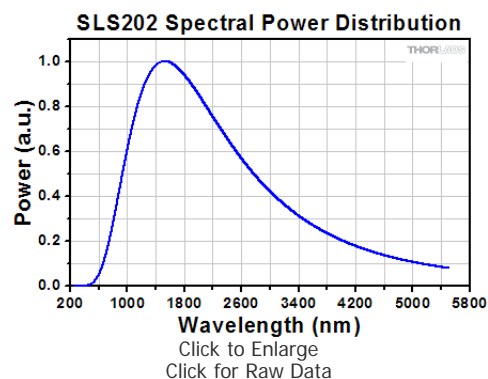
- Standard deviation of optical power measured at room temperature over a 1 hour period with 1 Hz sampling rate after a 45 minutes warm-up. Please see the *Graphs* tab for the results of our stability testing.
- Measured at the Output of the Included Patch Cable
- Measured Directly Over the Clear Aperture of the SMA Port
- Measured Directly at the Output Port with the Front Lens Tube Removed
- We recommend a mid-IR fluoride fiber patch cable or fiber bundle for this light source.

[Hide Graphs](#)

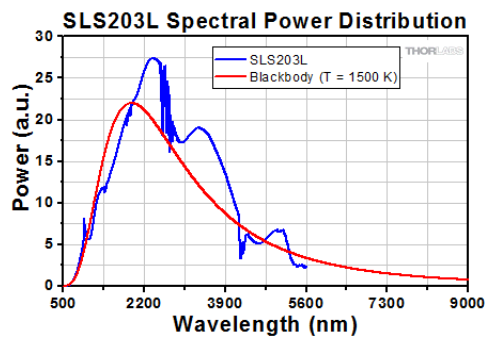
## GRAPHS



A comparison between the performance of Thorlabs' SLS201 stabilized light source and a typical halogen light source currently available on the market.

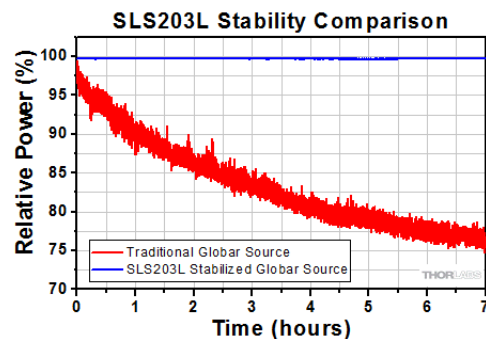


A comparison between the performance of Thorlabs' SLS202 stabilized light source and a typical tungsten light source currently available on the market.



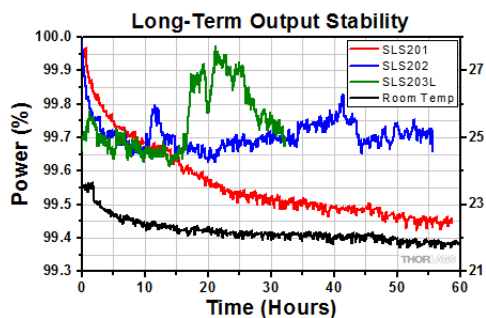
Click to Enlarge  
Click for Raw Data

The spectrum of the SLS203L compared to the blackbody spectrum with the equivalent color temperature. The structures in the measured SLS203L spectrum are due to absorption from various molecules such as H<sub>2</sub>O and CO<sub>2</sub>. The measured spectrum stops at to 5600 nm due to limits in the instrument's detection range.



Click to Enlarge

A comparison between the performance of Thorlabs' SLS203L stabilized light source and a typical globar light source currently available on the market.



Click to Enlarge

A long-term time comparison between the performance of Thorlabs' SLS series of stabilized light sources and changes in room temperature.

[Hide Pin Diagram](#)

## PIN DIAGRAM

### Stabilized Light Source Power Connector



Item #	SLS201(/M)	SLS202(/M)	SLS203L(/M)
Pin	Description		
1	+ 12 V		Reserved
2	Ground		
3	Reserved		+ 24 V

[Hide Bulb Replacement](#)

## BULB REPLACEMENT

The installation instructions and video below detail the recommended procedure for replacing the bulb in the SLS201(/M) [replacement bulb item # SLS251], SLS202(/M) [replacement bulb item # SLS252], and SLS203L(/M) [replacement bulb item # SLS253] Stabilized Light Sources. Be sure to install the correct bulb in its corresponding lamp, as the bulbs are not interchangeable.

We strongly recommend wearing gloves when replacing the bulb to prevent skin oils from being deposited onto the bulb. If you suspect the bulb is dirty, carefully clean it with alcohol before connecting it to a power supply.

### Open the Cavity

SLS201(/M), SLS202(/M), and SLS203L(/M) Bulb Replacement

- Using a 2 mm hex key, remove the screw closest to the end of the unit on the left and right sides. Do not remove the screws closest to the fan ventilation holes.
- Using the same 2 mm hex key, remove the four screws securing the cavity cover, located on the underside of the unit.

### Remove the Old Bulb

3. Unplug the white plug that is connected to the bulb module. This plug is located on the far side of the circuit board if the output aperture of the lamp is facing to the right.
4. Using the 1.5 mm ball-end hex key included with each replacement bulb, remove the cap screw located about half way down on the aluminum divider that separates the PCB chamber and the bulb chamber.
5. Remove the old bulb by sliding the wire and attached plug out through the hole in the aluminum divider.
 

**Note:** Two aluminum dowel pins, located on either side of the bulb module, may slip out of their holes while the bulb is being removed. Be careful not to misplace them as they are needed for the new bulb installation.

## Install the New Bulb

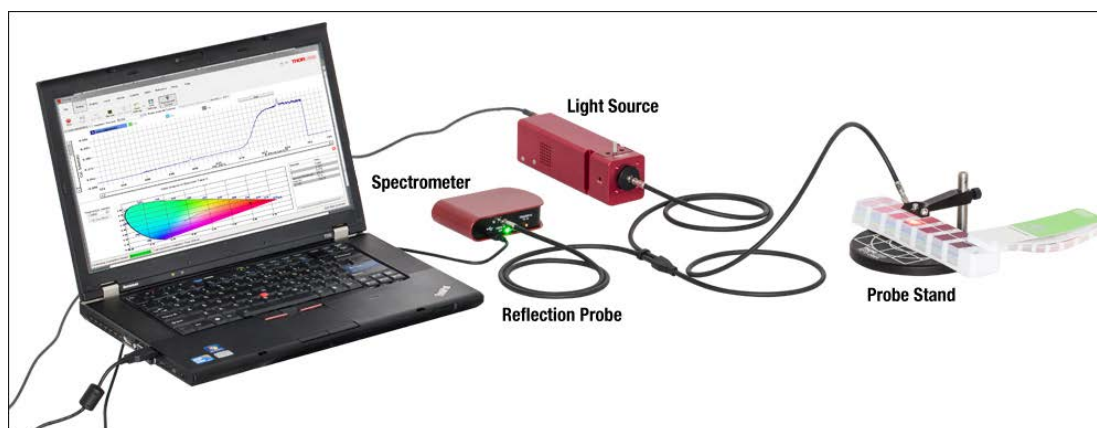
6. Place the two dowel pins in their corresponding holes in the new bulb module.
7. Slide the new bulb module in the bulb chamber, point up. Pass the wire and plug through the hole in the divider first and then insert the module. The two dowel pins should slide smoothly into the holes in the divider.
8. While pressing the bulb against the divider, screw the capscrew back in using the included 1.5 mm ball-end hex key.
9. Insert the white plug back into the circuit board and secure the cavity cover.

[Hide Application](#)

## APPLICATION

### Reflection Spectroscopy Application

These broadband light sources can be used along with our reflection spectroscopy probes, CCD spectrometers, and fiber probe holders to take diffuse reflection, specular reflection, and color measurements.



#### Spectrometers

Thorlabs offers several CCD-based spectrometers for use in the visible, NIR, or UV to NIR spectral ranges. The CCS100 and CCS175 operate in the 350 - 700 nm and 500 - 1000 nm spectral ranges with 0.5 nm and 0.6 nm resolution, respectively. The extended-range CCS200 operates in the 200 - 1000 nm spectral range with 2.0 nm resolution.

#### Light Sources

The SLS201 tungsten-halogen broadband fiber-coupled light source, sold below, delivers a 2796 K blackbody-type spectrum in the 300 - 2600 nm wavelength range and has active electronic stabilization for low spectral and intensity drift. Alternatively, the SLS202 light source delivers similar performance with a 1900 K color temperature and 450 - 5500 nm emission range, while the SLS203L provides free space output with a 1500 K temperature and 500 - 9000 nm emission range. We also offer fiber-coupled LEDs available with a selection of peak wavelengths or a broadband white-light emission spectra.

Alternatively, if the reflection probe is not used for illumination, Thorlabs offers a wide range of broadband and single wavelength light sources that are free-space or operate with a single fiber cable output. Our free-space and liquid light guide-coupled plasma light sources offer extremely intense illumination with a blackbody-type emission spectrum. Our line of fiber-coupled laser sources offers a selection of options for intense single-wavelength illumination.

#### Reflection Probe Fiber Bundles

Thorlabs offers reflection probes with either high-OH or low-OH multimode fiber for wavelengths from 250 - 1200 nm and 400 - 2400 nm, respectively. Probes are available with a sample end that terminates in either a  $\text{\O}1/4$ " probe or an SMA905 connector. We also offer  $\text{\O}1/4$ " and SMA-terminated probes with linear fiber bundle spectrometer ends for increased spectrometer coupling efficiency for samples with low reflectance.



[Click to Enlarge](#)  
Diffuse Measurement

If the coaxial illumination provided by a reflection probe bundle is not critical, separate fiber patch cables or bundles with SMA connectors can be used for illumination and signal collection. Our large-core round bundles maximize illumination intensity, while our single-fiber multimode SMA patch cables are useful for precise illumination, or for connection to a fiber-coupled laser. We also offer round-to-linear fiber bundles, which maximize signal strength at the spectrometer.

Taken at 45° Using RPH Holder Block

### Reflection Probe Holders

Thorlabs offers the RPS and RPS-SMA fiber probe stands (RPS-SMA shown above and to the right), which allow for precise, stable positioning of the fiber optic probe at an angle of 90° or 45° relative to the sample. The probe holder arms (also sold separately) can also be integrated into other optomechanical setups using Ø1/2" posts. Alternatively, the RPH and RPH-SMA probe holder blocks sit directly on a sample, allowing the fiber tip to be positioned close to the surface and also blocking out room lights from the area under test.

[Hide Stabilized Tungsten-Halogen Light Source, 300 - 2600 nm](#)

### Stabilized Tungsten-Halogen Light Source, 300 - 2600 nm



- ▶ 300 - 2600 nm Stabilized Light Source
- ▶ Includes M28L01 Fiber Patch Cord and Universal Power Supply
- ▶ >10 mW Coupled Power Through Included Patch Cable
- ▶ Replacement Bulb Module Sold Below

Thorlabs' Stabilized Tungsten-Halogen Light Source provides a constant-intensity, 10 mW blackbody radiation spectrum between 300 and 2600 nm. Since the blackbody spectrum spans both the visible and near-infrared spectral ranges, this source is ideal for integration into optical measurement equipment. Combine the stabilized light source with a reflection probe and spectrometer for diffuse reflection and fluorescence measurements or use it to back-illuminate a test target as part of a detector calibration system. It can also be used as an illumination source in a white light interferometer for applications such as mapping surface structure. The included customized filter holder is machined to match the height of the case and is also red anodized. It is interchangeable with the CFH2-F filter holder.

The SLS201 is shipped with a 1 m long, 0.39 NA, step-index, multimode SMA fiber patch cable with a Ø400 µm core size. This configuration provides 10 mW of coupled output power. Smaller core sizes and numerical apertures or longer fibers can be used at the expense of the output power while a larger core size or shorter fiber length can increase the output power. The S120-SMA fiber adapter on the front of this light source is removable and can be replaced with any internally SM1-threaded fiber adapter. Alternatively, the adapter can be replaced by the SLSC1 Collimation Package (sold below) to allow this lamp to be used in free-space applications. An internal fan keeps the light source temperature regulated. This fan is low noise and engages only when the internal temperature exceeds 65 °C. The SLS201(/M) includes a universal AC/DC power converter capable of accepting 90 - 264 VAC at 47 - 63 Hz and comes in a latchable storage case that houses everything included with this device. A hex wrench is also included to remove fiber connector if desired.

Part Number	Description	Price	Availability
SLS201/M	Stabilized Fiber-Coupled Light Source w/ Universal Power Adapter, 300 - 2600 nm, M6 Tap	\$990.00	Today
SLS201	Stabilized Fiber-Coupled Light Source w/ Universal Power Adapter, 300 - 2600 nm, 1/4"-20 Tap	\$990.00	Today

[Hide Stabilized Tungsten IR Light Source, 450 - 5500 nm](#)

### Stabilized Tungsten IR Light Source, 450 - 5500 nm



- ▶ 450 - 5500 nm Stabilized Light Source
- ▶ Includes a Universal Power Supply
- ▶ >100 mW Power Measured Over the Clear Aperture of the SMA Port
- ▶ Recommended for Use with Our Mid-IR Fluoride Fiber Patch Cables and Fiber Bundles
- ▶ Replacement Bulb Module Sold Below

Thorlabs' Stabilized Tungsten IR Light Source provides a constant-intensity blackbody radiation spectrum between 450 and 5500 nm. Since the blackbody spectrum spans the visible and mid-infrared spectral ranges, this source is ideal for integration into mid-IR measurement and analysis systems. The S120-SMA fiber adapter on the front of this light source is removable and can be replaced with any internally SM1-threaded fiber adapter. Alternatively, the adapter can be replaced by the SLSC2 Collimation Package (sold below) to allow this lamp to be used in free-space applications. A MIR fluoride fiber patch cable or fiber bundle is recommended for use with this device. The included customized filter holder is machined to match the height of the case and is also red anodized. It is interchangeable with the CFH2-F filter holder.

An internal fan keeps the light source temperature regulated. This fan is low noise and engages only when the internal temperature exceeds 65 °C. The SLS202(/M) includes a universal AC/DC power converter capable of accepting 90 - 264 VAC at 47 - 63 Hz and comes in a latchable storage case that houses everything included with this device. A hex wrench is also included to remove fiber connector if desired.

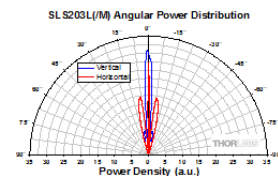
Part Number	Description	Price	Availability
SLS202/M	Stabilized Fiber-Coupled IR Light Source w/ Universal Power Adapter, 450 - 5500 nm, M6 Tap	\$1,500.00	Today
SLS202	Stabilized Fiber-Coupled IR Light Source w/ Universal Power Adapter, 450 - 5500 nm, 1/4"-20 Tap	\$1,500.00	Today

[Hide Stabilized Global Light Source, 500 - 9000 nm](#)

### Stabilized Global Light Source, 500 - 9000 nm



- ▶ 500 - 9000 nm Stabilized Light Source
- ▶ Collimated, Free Space Output
- ▶ >1.5 W Power Measured Over Output Port
- ▶ Includes a Universal Power Supply



Click to Enlarge  
The angular power distribution emitted from the SLS203L(M) Stabilized Global Source.

Thorlabs' Stabilized Global Light Source provides a constant-intensity, >1.5 W blackbody radiation spectrum from 500 to 9000 nm. Since the blackbody spectrum spans the visible and mid-infrared spectral ranges, this source is ideal for integration into mid-IR measurement and analysis systems. It uses a silicon carbide global that is housed in an ellipsoid reflector to increase the optical output. A CaF<sub>2</sub> lens collimates the light exiting the source. The angular distribution of this output beam is shown in the graph to the right. The included customized filter holder is machined to match the height of the case and is also red anodized. It is interchangeable with the CFH2-F filter holder, sold below.

Additionally, this light source features an internally SM1-threaded (Ø1.035"-40) lens tube at the output of the device. This tube is removable and includes a SM1RR retaining ring which can be used to secure Ø1" or Ø25 mm optics up to 18 mm thick inside it. A low-noise fan inside this light source engages when the temperature exceeds 65 °C to provide temperature regulation. The SLS201(M) includes a universal AC/DC power converter capable of accepting 90 - 264 VAC at 47 - 63 Hz and comes in a latchable storage case that houses everything included with this device.

Part Number	Description	Price	Availability
SLS203L/M	<b>NEW! Customer Inspired!</b> Stabilized Free Space IR Light Source w/ Universal Power Adapter, 500 - 9000 nm, M6 Tap	\$1,530.00	Today
SLS203L	<b>NEW! Customer Inspired!</b> Stabilized Free Space IR Light Source w/ Universal Power Adapter, 500 - 9000 nm, 1/4"-20 Tap	\$1,530.00	Today

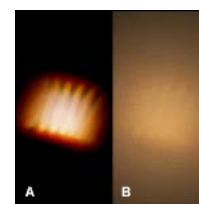
[Hide Collimation Packages for Stabilized Light Sources](#)

### Collimation Packages for Stabilized Light Sources

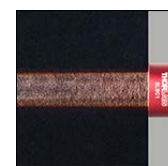


- ▶ SLSC1: Collimation Package for SLS201(M) Stabilized Tungsten-Halogen Light Source
- ▶ SLSC2: Collimation Package for SLS202(M) Stabilized Tungsten IR Light Source

The SLSC1 and SLSC2 are collimation packages for the SLS201(M) tungsten-halogen and SLS202(M) tungsten IR stabilized light sources, respectively. Each unit consists of a collimating lens and Ø1 mm pinhole packaged inside an internally SM1-threaded (1.035"-40) custom lens tube, which is engraved with the item number for easy identification. The SLSC1 contains an uncoated Aspheric Condenser Lens (Item # ACL2520), while the SLSC2 contains an Uncoated CaF<sub>2</sub> Bi-Convex Lens (Item # LB5774) (see the table below for more information).



Click for Details  
SLS201 Beam Profile with (A) SLSC1 Collimator Only, (B) SLSC1 and DG10-1500-MD Diffuser



Click to Enlarge  
SLS201 Lamp with SLSC1 Collimator

To install, unthread the fiber adapter from the output of the light source and thread on the appropriate collimation package with the pinhole facing toward the lamp. Be sure to install the correct collimation package in its corresponding lamp, as they are not interchangeable.

Please note that the output beam cannot be perfectly collimated due to the halogen lamp's incoherent emission. The SLSC1 or SLSC2 Collimation packages may be used directly with their respective halogen light sources (see A in photo to the right, 25 cm away from SLS201), or they may be used in conjunction with a Ø1" mounted diffuser (see B in photo to the right, 25 cm away from SLS201). The diffuser serves to smooth out the beam profile while increasing the beam divergence angle.

Item #	Compatible Stabilized Light Source	Included Lens	Beam Diameter <sup>a</sup>	Half Divergence Angle <sup>b</sup>	Output Power <sup>c</sup>	Pinhole Size	Outer Dimensions	Threads on Output Port
SLSC1	SLS201(M)	ACL2520	22.4 mm	1.3°	39 mW		Ø30.5 mm x 35.0 mm	

SLSC2	SLS202(/M)	LB5774	16.8 mm	1.0°	19 mW	Ø1.0 mm (Ø0.04")	(Ø1.20" x 1.38")	Internal SM1 (1.035"-40)
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- Theoretical RMS beam diameter at 10 mm after the collimating lens in the collimation package.
- Theoretically calculated using the operating wavelength ranges of the respective lamps.
- Measured with a S302C thermal sensor at the output port of the collimation package.

Part Number	Description	Price	Availability
SLSC1	Customer Inspired!Collimation Package for SLS201(/M)	\$110.00	Today
SLSC2	Customer Inspired!Collimation Package for SLS202(/M)	\$200.00	Today

[Hide Replacement Light Bulb Modules](#)

## Replacement Light Bulb Modules



- ▶ SLS251: Replacement Tungsten-Halogen Bulb for SLS201(/M) Stabilized Light Source
- ▶ SLS252: Replacement Tungsten IR Bulb for SLS202(/M) Stabilized Light Source
- ▶ SLS253: Replacement Global for SLS230L(/M) Stabilized Light Source

Item #	SLS251	SLS252	SLS253
Compatible Stabilized Light Source	SLS201(/M)	SLS202(/M)	SLS203L(/M)
Bulb Type	Tungsten-Halogen	Tungsten IR	Global
Bulb Electrical Power	9 W	7.2 W	24 W
Color Temperature	2796 K	1900 K	1500 K

The SLS251, SLS252, and SLS253 are replacement light bulb modules for the SLS201(/M) tungsten-halogen, SLS202(/M) tungsten IR, and SLS230L(/M) global stabilized light sources, respectively. Each bulb module comes with installation instructions and a 1.5 mm balldriver / hex key, which is needed during the installation process. Please see the *Bulb Replacement* tab for detailed bulb replacement instructions. Be sure to install the correct bulb in its corresponding lamp, as the bulbs are not interchangeable.

**Note:** We strongly recommend wearing gloves when replacing the bulb in either of our stabilized light sources to prevent skin oils from being deposited onto the bulb. If you suspect the bulb is dirty, carefully clean it with alcohol before connecting it to a power supply.

Part Number	Description	Price	Availability
SLS251	Customer Inspired!Replacement Bulb Module for SLS201(/M) Stabilized Light Source	\$120.00	Today
SLS252	Customer Inspired!Replacement Bulb Module for SLS202(/M) Stabilized Light Source	\$200.00	Today
SLS253	NEW! Customer Inspired!Replacement Bulb Module for SLS203L(/M) Stabilized Light Source	\$200.00	Today

[Hide Extra Filter Holder for Ø1" Optics](#)

## Extra Filter Holder for Ø1" Optics



- ▶ Replacement for Filter Holder Included with SLS201(/M) and SLS202(/M)
- ▶ Mounts Ø1" or Ø25 mm Optics up to 0.31" (8.0 mm) Thick
- ▶ SM1-Threaded (1.035"-40) Bore

This filter holder accommodates Ø1" or Ø25 mm optics up to 0.31" (8.0 mm) thick and can be used as a replacement for the filter holders included with the SLS201(/M) and SLS202(/M). With multiple filter holders, filters can be quickly swapped in and out of the stabilized light sources. The optic is secured against the back lip of the mount using the included SM1RR retaining ring. The top plate features two laser-engraved boxes for labeling and identification of the mounted optic.

Part Number	Description	Price	Availability
CFH2-F	Customer Inspired!Extra Filter Holder for Ø1" Optics for use with CFH2(/M)	\$57.80	Today

Visit the *Compact Stabilized Broadband Light Sources* page for pricing and availability information:

[http://www.thorlabs.com/newgrouppage9.cfm?objectgroup\\_id=7269](http://www.thorlabs.com/newgrouppage9.cfm?objectgroup_id=7269)