



**Title:** Shooting Star C Mini Spectrometer

**Material / Specification:** 190-850nm

**Part number(s):** OSP0201, OSP0202, OSP0203, OSP0204, OSP0205, OSP0206

## Our complete ranges of mini spectrometers are designed with operating efficiency in mind.

Our Shooting Star C mini spectrometer is a research grade system with a concave grating offering high performance for spectral applications in the UV/VIS between 190-850nm. The 40mm concave grating is corrected for aberrations, significantly removing coma and astigmatism found in other plane grating spectrometer designs. The grating forms a flat field on the CCD detector for uniform resolutions across the entire range. The key advantage of the Shooting Star system however is its ability to dramatically reduce stray light levels, showing only 0.02% at 425nm and 0.20% at 200nm. Our concave grating spectrometers provide two to three times enhanced UV sensitivity compared to plane grating systems.

Designed to be fully "Plug and Play", the Shooting Star mini spectrometer is ready to use straight out the box. Install the supplied SpectraWiz software, plug the system in and start taking measurements without any fuss. The Shooting Star C mini spectrometer has no moving parts and is enclosed in a rugged case for exceptional durability making it both portable and reliable out in the field.

The Shooting Star C mini spectrometer is suitable for a range of UV/VIS applications including, but not limited to spectroradiometry, optical power measurements, laser characterization and thin film measurements. Chemical applications include chemical ID and moisture analysis. Dual and multi-beam applications can be achieved by configuring two or more mini spectrometers together using the USB-2 connections supplied.



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## Specifications:

<b>Model:</b>	<b>Shooting Star C</b>
Dynamic range:	2000:1 with 6 decades
Optical resolution:	< 1 nm Resolving Res. with 25um slit
Detector type:	2048 pixel CCD, PDA Optional
Detector range:	190-850nm
Pixel Size:	14um x 200um
Concave Grating:	Aberration corrected
Grating Type:	Holographic, 590 g/mm
Spectrograph:	f/2, Flat field - No mirrors
Order Sorting Filter:	Integrated multi-band
Signal to Noise:	1000:1 CCD
Digitizer:	16-bit
Dimensions:	69 x 100 x 150mm
Power consumption:	100 mA @ 5 VDC
Interface:	USB-2
Data Transfer Speed:	3x / 40x faster than USB-1
Detector Integration:	1 ms to 65s
Slit size options:	14, 25, 50, 100, 200um
Stray Light:	0.02% at 435 nm; 0.2% at 200nm
Fiber Optic Input:	SMA905 0.22na single fiber
Operating systems:	Windows XP/Vista/7/8
Software included:	SpectraWiz program & apps
Also free programs for:	LabView / VC / VBA / Delphi

## Variations of the Shooting Star C:

Model	Wavelength Range (nm)	Grating g/mm	Slit-200 nm res.	Slit-100 nm res.	Slit-50 nm res.	Slit-25 nm res.	Slit-14 nm res.
C I	190-850	590	6.00	3.00	1.50	0.85	0.75
C II	280-900	590	6.00	3.00	1.50	0.85	0.75
C-SR I	200-1080	590	8.00	4.00	2.00	1.50	1.30
C-SR II	220-1100	590	8.00	4.00	2.00	1.50	1.30
C-HR I	200-600	590	-	-	-	-	0.40
C-HR II	380-750	590	-	-	-	-	0.40

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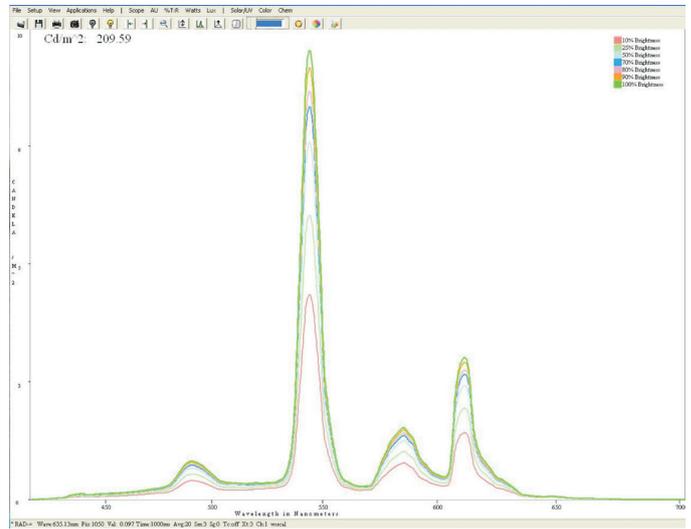
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## Variations:

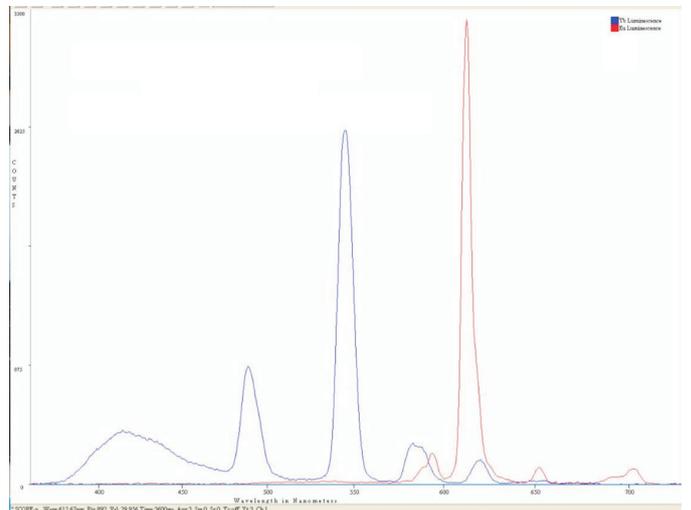
Knight Optical is excited to offer six different Shooting Star models for a range of applications. Our customers can purchase either our standard Shooting Star C model or choose from our extended range of models with alternative operating ranges. We also offer SR and HR models for broader spectral ranges of high resolutions respectively. These options have been listed in the purchasing table within this category. For ease of use you will also find these variations listed in the table above.

All our mini spectrometers are supplied with intuitive Windows XP, Vista, 7 and 8 compatible SpectraWiz software for quick and easy measuring wherever you are. SpectraWiz software is versatile, allowing for accurately measuring and displaying wavelength emissions, reflectance, transmission, absorption, concentrations and absolute intensities.

The images below, taken from the SpectraWiz software supplied, show some of the many applications for the Shooting Star mini spectrometer.



Shooting Star C II mini spectrometer showing CD/ m2 bright- ness measurements of a white display monitor with adjusting brightness control from 100% to 10%.



Shooting Star C-HR II mini spectrometer measuring powder lanthanide complex luminescence.