



IRIS-400HP

4-channel LED Light Source

High Performance



3Z OPTICS

Features

High-Performance LED Illumination for Precision Microscopy

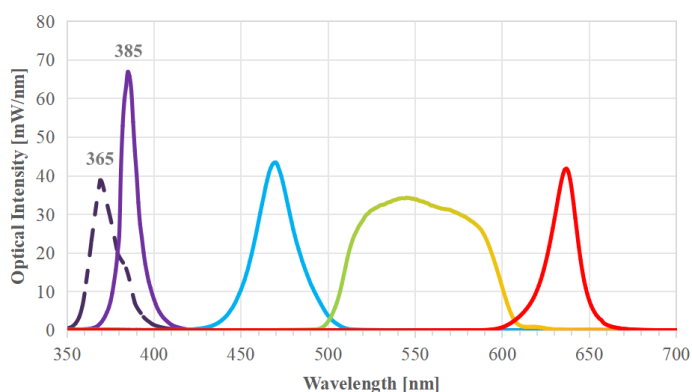
Intelligent Control, Flexible Integration

With USB connectivity it's easy to integrate the IRIS-400HP with host computer software and control systems; Standard suite includes $\phi 3$ liquid light guide and it also supports tailored spectrum with filter configuration to meet diverse experimental requirements.

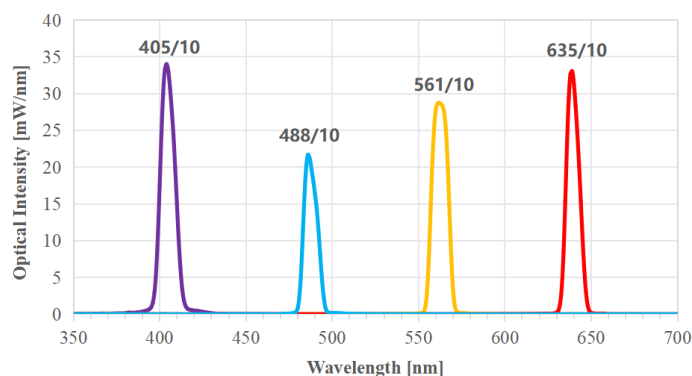
Optimized light delivery: unlock advanced spectral capabilities

Our advanced optical design delivers versatile spectral solutions. you can choose a standard unfiltered broad spectrum output that allows flexible downstream filtering directly within your microscope or imaging system. Or, the IRIS-400HP can be filtered to achieve narrow-band output for targeted bands, significantly enhancing signal-to-noise ratio (SNR) and experimental precision.

Below are the spectral profiles of the unfiltered broad spectrum output and the narrowband output achieved with a 550/20 nm bandpass filter.



▲ Standard Unfiltered Spectrum



▲ Filtered Spectrum

Configuration

Plug-and-play and high compatibility

IRIS-400HP can be coupled to your microscope or imaging systems with a liquid light guide or possibly other fibers configuration (please inquire).

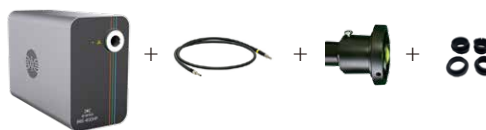
- LLG options: $\phi 3$ mm, $\phi 5$ mm, please inquire.

LLG coupling



Filexible configuration

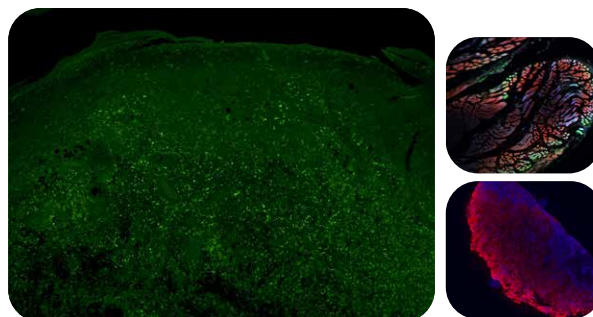
LLG + universal collimator



Tailored collimation available

Custom OEM Solutions

We develop tailored illumination systems for your specific applications. For full details, please visit our website or email inquiries to info@3zoptics.com.

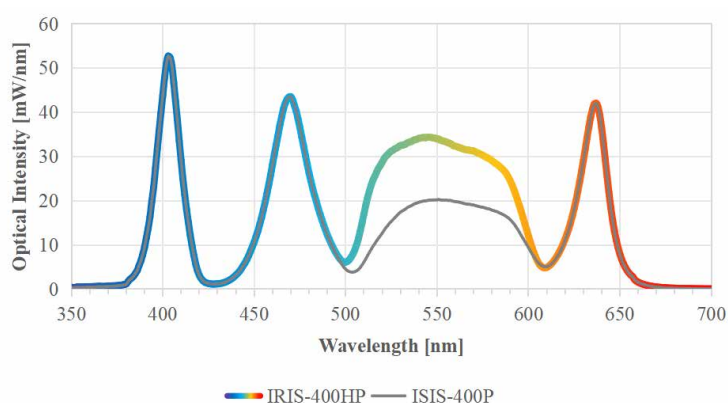


Applications

- Spinning disk confocal
- Slide scanning
- Super-resolution imaging
- Routine fluorescent excitation
- Optogenetics
- Cytogenetics

Technical Specifications

Model Name	IRIS-400P		IRIS-400HP
Wavelengths	4		
Spectral Range	360-660nm		
Peak Wavelengths	365/385/405nm, 470nm, 545nm, 635nm		
Optical Power ¹	≥ 4.7W	≥5.9W	
Light Delivery	Liquid light guide		
LLG Specification	φ3mm, NA=0.59, 1.2m length; φ5mm optional		
Power Stability ^[2]	≥99%		
Control	Control pod, TTL triggering, serial communication		
Operating Mode	Independent, global, TTL		
Intensity	1-100% linear dimming in increments of 1%		
TTL triggering	4 TTL inputs (DB15to4*BNC); response time<5 μs		
Interface	USB(protocol provided)		
Power Requirements	AC100-240V(±10%),50/60Hz		
Power Consumption	85W	95W	
LED Driver	Constant current		
Dimensions (WLH)	122mm x 279mm x 196mm		
Weight	6.35kg		
Noise Level ^[4]	≤47dB		
Working Environment (only indoors)	Temperature: 0-40°C Humidity: 20-80% RH (non-condensing)		
Storage Environment	Temperature: -15°C-40°C Humidity: 20-85% RH (non-condensing)		
Cooling	Air Cooling		
Lifetime	30000 hours	25000 hours	
Warranty	24 months (LLG excluded)		
Standard Package	Light source, LLG, USB cable, power cord		
Optional Accessories	Control pod, collimation optics, BNC cable		
Note :			
[1]Measured at the distal end of φ3mm LLG with full output.			
[2] Continuous monitoring of output power in 4 hours under room Temperature 26°C, Humidity 65%±10%.			
[3] Triggering frequency: 1KHz.			
[4] Measured under 38dB of ambient noise, 50cm away from the light source.			



- IRIS-400P - Designed for multicolor excitation applications, such as widefield fluorescence illumination and digital slide scanning systems.
- IRIS-400HP - Designed for challenging illumination scenarios, such as super-resolution techniques and spinning-disk confocal systems.



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