



Single- Band Filter Sets

SOLA, SOLA U-nIR and SOLA V-nIR Light Engines

Lumencor's white light [SOLA Light Engines](#) generate continuous output from 350 to 750 nm, providing efficient excitation of most common fluorophores and fluorescent proteins. For fluorescence microscopy applications, excitation and emission bandpass filters and dichroic beamsplitters are all installed external to the Light Engine.

Below find a list of single-band filter sets that are recommended for imaging widely used fluorophores and fluorescent proteins on microscopes equipped with SOLA, SOLA U-nIR and SOLA V-nIR Light Engines. Please speak to your Lumencor sales representative or contact techsupport@lumencor.com to confirm the best filter prescription for your application and experiment design.

Filter Set Recommendations:

Spectral Range	SOLA	SOLA V-nIR	SOLA U-nIR	Filter Set Recommendations
Ultraviolet (350-380 nm)	X		X	Chroma (39000) Semrock (LED-DAPI-B-000)
Violet (380-410 nm)		X		Chroma (49028) Semrock (LED-DAPI-B-000)
Blue (420-450 nm)		X	X	Chroma (49001 - ET - ECFP) Semrock (LED-CFP-A-000)
Cyan (460-490 nm)	X	X	X	Chroma (49002-ET-EGFP(FITC/Cy2)) Semrock (LED-FITC-A-000)
Teal (500-520 nm)	X	X	X	Chroma (49003 - ET - EYFP) Semrock (LED-YFP-A-000)
Green (525-570 nm)	X	X	X	Chroma (49004 - ET - Cy3/TRITC) Semrock (LED-TRITC-A-000)
Yellow (570-600 nm)	X	X	X	Chroma (49004-ET-mCherry.Texas Red) Semrock (LED-mCherry-A-000)
Red (620-660 nm)	X	X	X	Chroma (49006 - ET - Cy5) Semrock (LED-Cy5-A-000)
nIR (710-750 nm)		X	X	Chroma (49007 - ET - Cy7) Semrock (LED-Cy7-A-000)

#Fluorescence excited in the red and nIR ranges is largely invisible and requires a camera for detection. Chroma filter sets are supplied by [Chroma Technology Corporation](#). Semrock filter sets are supplied by [Semrock, Inc.](#) (a subsidiary of IDEX Corporation).

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SOLA FISH Light Engine

The spectral output of the SOLA FISH Light Engine is designed to provide optimal excitation for SpectrumGreen™, SpectrumRed™ and other fluorophores commonly used for fluorescence in situ hybridization (FISH) analysis in cytogenetic testing laboratories.

SOLA FISH Filter Set Recommendations:

Fluorophores	Chroma Filter Set	Semrock Filter Set
DAPI, SpectrumBlue™	39000	DAPI-5060C
SpectrumAqua™	49302	SpAqua-C
SpectrumGreen™	49303	SpGr-B
SpectrumGold™	49309	SpGold-B
SpectrumOrange™	49305	SpOr-B
SpectrumRed™	49311	SpRed-B
SpectrumFRed™	49307	LED-Cy5-A

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