



AURA & SPECTRA Light Engines[®] Multiband Dichroic and Emission Filter Selection - Chroma

AURAs & SPECTRAs for fast switching speed bioanalysis

Fast switching speed is needed in illuminators designed to support live cell imaging and high throughput analysis. Lumencor's products satisfy this need with **electronic switching and shuttering, between color bands and among intensities, on the order of 10's of microseconds or less.** This is in contrast to the 100ms timing typically required to rotate a filter wheel between between single band pass filters for use with the common arc lamps. The fast timing of Lumencor's light engines can only be fully exploited with appropriate multiband dichroics and multiband emission filters. They eliminate mechanical constraints of timing tied to filter movement on the detection side of the analysis. The recommended **Chroma** polyband mirrors and filters to support the most commonly requested fluorophor combinations are listed below:

Chroma Filter Set	Analysis	Light Engine Excitation		Multi- or Singleband Filters	
		Primary	Alternate	Dichroic	Emission
Dualband 86002v2	CFP	434/17	484/24	dual band 86002v2bs	470/30
	YFP	500/24	510/10		535/30
Dualband 86007	GFP & FITC	475/35		dual band 86007bs	525/40
	mCherry & DsRed	565/24			620/60
Triband 86006	CFP	434/17		tri band 86006bs	465/30
	YFP	494/20	500/24		535/30
	mCherry & DsRed	575/25			630/60
Sedat Quadband 86000v2	DAPI	390/18		quad band 86100bs	457/50
	YFP	485/20			528/38
	TRITC & Cy3	549/15	555/28		617/73
	Cy5	632/22	650/13		685/40
Sedat Quadband 89000	DAPI	390/18		quad band T89100bs	455/50
	YFP	485/20			525/36
	TRITC & Cy3	560/25	549/15		605/52
	Cy5	650/13	632/22		705/72
Sedat Quadband 86010	DAPI & BFP	390/18		quad band 86010bs	415/24
	CFP	434/17			465/30
	YFP	494/20			530/40
	mCherry & DsRed	575/25			630/60

NOTES

- all excitation filter designations represent nominal wavelength/bandpass in nm
- primary and alternate bands typically provide comparable output power levels
- dichroic and emission filters are represented as a series of nominal wavelengths and should be purchased directly from **Chroma**
- all requests for customization are welcome; OEM customization expected
- NOTE: switching between green and yellow outputs is limited to 50ms due to a bistable solenoid employed to change between these color bands

Product Manager Contact

Les Decker T 503-505-6985 E les.decker@lumencor.com