Polarizing and Bandpass Filters for Use with C-mount Lenses

Datasheet

Colored bandpass filters and rotating linear polarizer filters designed for C-mount lenses used with Banner vision sensors

C-Mount Lens Filter Models

Family	Color	-	Size
FLT	B470 (Blue) G525 (Green) I850 (Infrared) R635 (Red) R660 (Dark Red) PR032 (Linear Polarizer)	- (dash)	25.5 (25.5 mm) 27 (27 mm) 30.5 (30.5 mm) 34 (34 mm) 35.5 (35.5 mm) 43 (43 mm) 46 (46 mm) 55 (55 mm)

Filters are available in six sizes, specific to the inside thread diameter of the lens. Use the table below to select the corresponding filter for each C-mount lens available through Banner Engineering.

Size	Lens Option
25.5 mm	Edmund Optics, Tamron
27 mm	Ricoh, Evetar (8 mm, 12 mm, 16 mm, 25 mm, 35 mm)
30.5 mm	Computar (8 mm, 12 mm, 16 mm, 25 mm, 35 mm, 50 mm, 75 mm[1]), Evetar (50 mm)
34 mm	Evetar (6 mm, 75 mm[1])
35.5 mm	Kowa (12 mm, 16 mm, 25 mm, 35 mm)[2]
43 mm	Computar (5 mm)
46 mm	Kowa (5 mm)
55 mm	Kowa (8 mm)

Important: These filters are for the C-mount lens only. Depending on the lighting technique used, a polarizing filter may be needed for both the lens and the light source. See *www.bannerengineering.com* for Banner's selection of light filters.

Install the Filter

1. Thread the filter onto the front of the C-mount lens.
2. For linear polarization, rotate the outer portion of the filter mount to determine the position where glare is reduced the most.
3. Use the supplied locking thumbscrew to fasten the filter in position and to prevent movement that can occur during cleaning or other accidental contact.

[1] The filter is not compatible with the sealed lens cover when installed on this lens.
[2] The filter is not compatible with the lens and 60 mm sealed lens cover installed.

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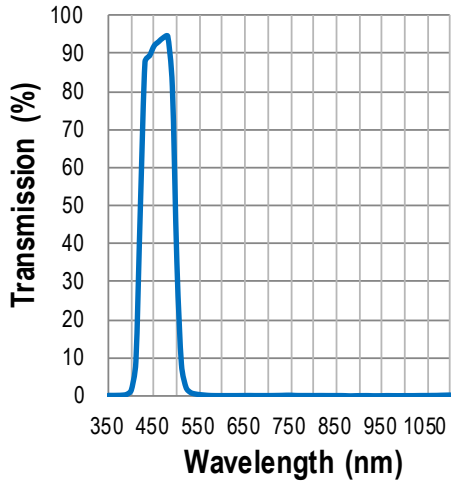
Percent Transmission of Light Wavelengths Through the Filter

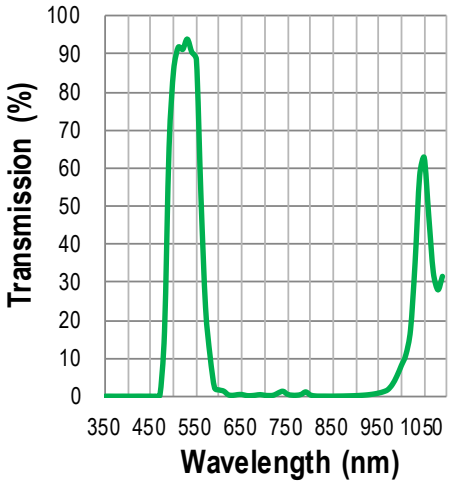
Note: The percentages show are typical, but they could vary.

FLTB470



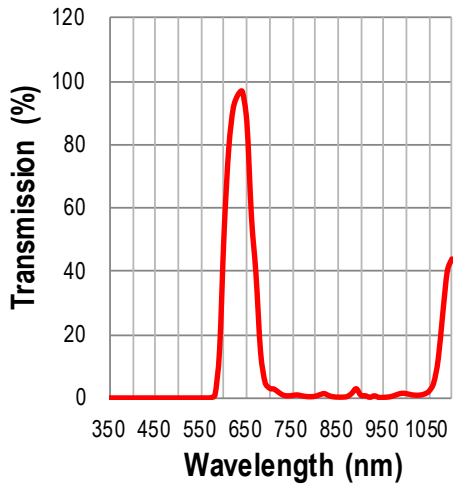
The FLTB470 Blue Filter improves image quality by helping to reduce unwanted ambient light. It passes blue light while blocking infrared and other visible light.

FLTG525



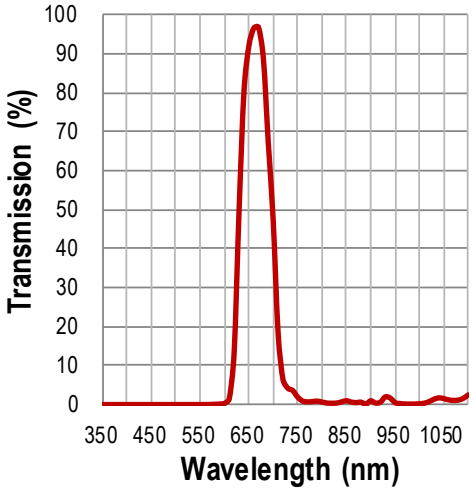
The FLTG525 Green Filter improves image quality by helping to reduce unwanted ambient light. It passes green light while blocking infrared and other visible light.

FLTR635



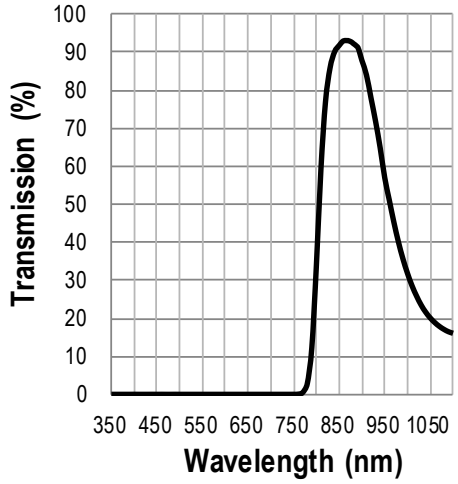
The FLTR635 Red Filter improves image quality by helping to reduce unwanted ambient light. It passes red light while blocking infrared and other visible light.

FLTR660



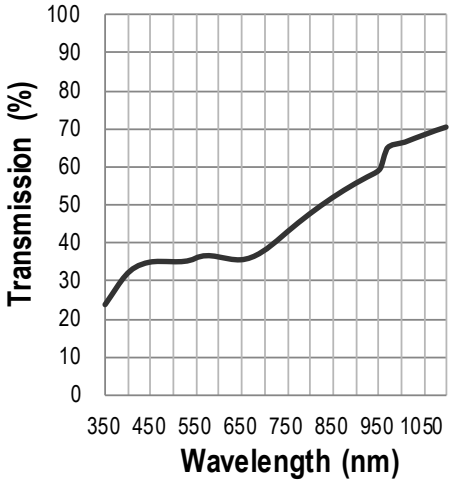
The FLTR660 Dark Red Filter improves image quality by helping to reduce unwanted ambient light. It passes red (650 to 680 nm) and laser diode lighting while blocking infrared and other visible light.

FLTI850



The FLTI850 Infrared Filter blocks visible light and passes infrared light. Use the FLTMI filter only with infrared light sources.

FLTPR032



Use FLTPR032 filters in situations where the target is partially obscured by glare. The useful range is 400 to 700 nm. FLTPR032 filters are recommended in situations where the target is partially obscured by glare to reduce or eliminate problems created by unwanted reflections. The polarization of light only occurs in the 400 to 700 nm (visible) range; light in the UV or IR ranges is not polarized .

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