# 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)<br>G525 (Green)<br>I850 (Infrared)<br>R635 (Red)<br>R660 (Dark Red)<br>PR032 (Linear Polarizer) | - (dash) | 25.5 (25.5 mm)<br>27 (27 mm)<br>30.5 (30.5 mm)<br>34 (34 mm)<br>35.5 (35.5 mm)<br>43 (43 mm)<br>46 (46 mm)<br>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.

Original Document
173239 Rev. F

16 July 2018

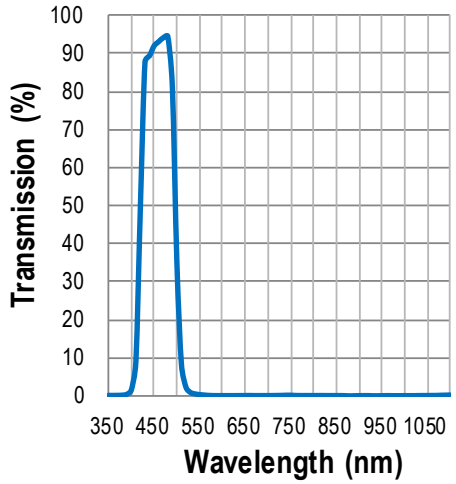
173239

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

## Percent Transmission of Light Wavelengths Through the Filter

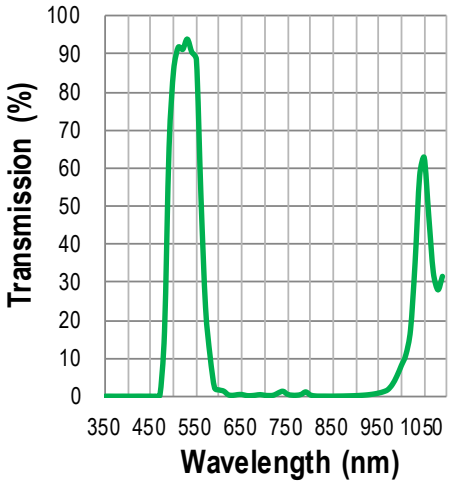
**Note:** The percentages show are typical, but they could vary.

### FLTB470



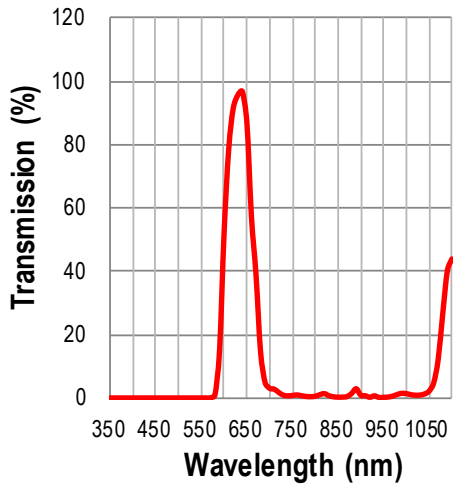

The FLTB470 Blue Filter improves image quality by helping to reduce unwanted ambient light. It passes blue light while blocking infrared and other visible light.

### FLTG525



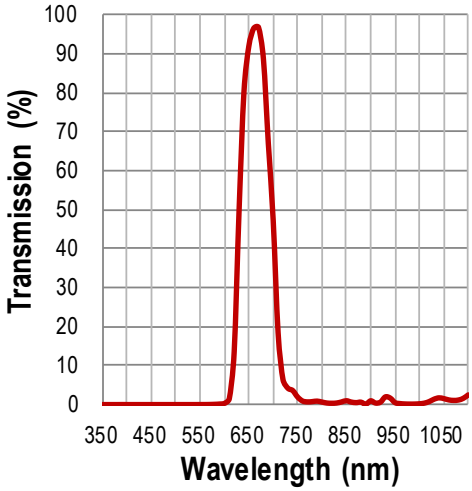

The FLTG525 Green Filter improves image quality by helping to reduce unwanted ambient light. It passes green light while blocking infrared and other visible light.

### FLTR635



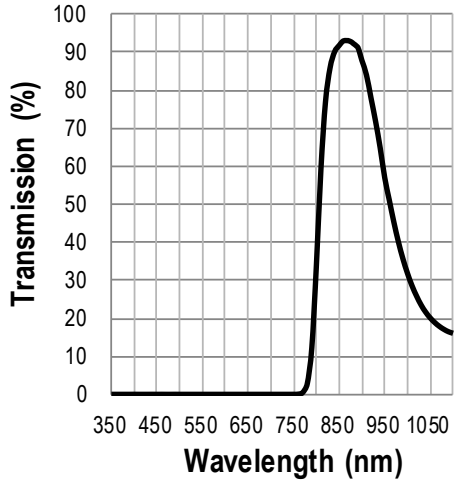

The FLTR635 Red Filter improves image quality by helping to reduce unwanted ambient light. It passes red light while blocking infrared and other visible light.

### FLTR660



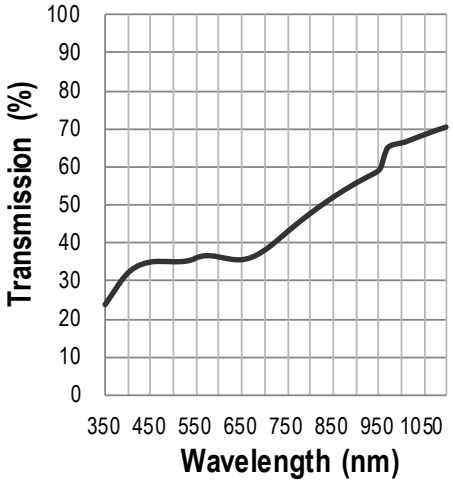

The FLTR660 Dark Red Filter improves image quality by helping to reduce unwanted ambient light. It passes red (650 to 680 nm) and laser diode lighting while blocking infrared and other visible light.

**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 .

## Banner Engineering Corp. Limited Warranty

Banner Engineering Corp. warrants its products to be free from defects in material and workmanship for one year following the date of shipment. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture which, at the time it is returned to the factory, is found to have been defective during the warranty period. This warranty does not cover damage or liability for misuse, abuse, or the improper application or installation of the Banner product.

**THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), AND WHETHER ARISING UNDER COURSE OF PERFORMANCE, COURSE OF DEALING OR TRADE USAGE.**

This Warranty is exclusive and limited to repair or, at the discretion of Banner Engineering Corp., replacement. **IN NO EVENT SHALL BANNER ENGINEERING CORP. BE LIABLE TO BUYER OR ANY OTHER PERSON OR ENTITY FOR ANY EXTRA COSTS, EXPENSES, LOSSES, LOSS OF PROFITS, OR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM ANY PRODUCT DEFECT OR FROM THE USE OR INABILITY TO USE THE PRODUCT, WHETHER ARISING IN CONTRACT OR WARRANTY, STATUTE, TORT, STRICT LIABILITY, NEGLIGENCE, OR OTHERWISE.**

Banner Engineering Corp. reserves the right to change, modify or improve the design of the product without assuming any obligations or liabilities relating to any product previously manufactured by Banner Engineering Corp. Any misuse, abuse, or improper application or installation of this product or use of the product for personal protection applications when the product is identified as not intended for such purposes will void the product warranty. Any modifications to this product without prior express approval by Banner Engineering Corp will void the product warranties. All specifications published in this document are subject to change; Banner reserves the right to modify product specifications or update documentation at any time. Specifications and product information in English supersede that which is provided in any other language. For the most recent version of any documentation, refer to: *www.bannerengineering.com*.



© Banner Engineering Corp. All rights reserved