

Req 5.6.5

Title:

Filter band passes - Userbands vs keybands

Objective:

Characterize the transformation coefficients, including the colour term for the **OmegaCAM** user passbands to the **OmegaCAM** key passband.

In addition, determine the expected small colour terms between the four bands of the *composite* filter and the *monolithic* filters for all the **key bands**. The monolithic filters for the key bands are produced by a different company than the composite filter. The colour terms of the transformation monolithic-composite filter are put in a Calfile which is used as input in the determination of the zeropoint of the night **req.563**.

The standard keybands are calibrated in **req.563** with the two lens corrector; the characterization of the ADC at the keybands and its transformation to the standard configuration is part of the present requirement.

Fulfilling or fulfilled by:

Selfstanding.

When performed/frequency:

Once commissioning for user bands, once/year for composite filter

Sources, observations, instrument configurations:

OmegaCAM equatorial fields; **Mode– Stare** N=1; ADC for key passbands.

Inputs:

Reference magnitudes and transformations:

CalFile– 569 *Secondary Standard Catalog*

CalFile– 564E *Standard extinction curve*

each night:

CalFile– 562 *Extinction night report*

Outputs:

CalFile– 565 *User -> key - monolithic*

CalFile– 565C *composite -> monolithic*

Required accuracy, constraints:

10% on the photometric scale (formal spec) and 2% (goal) for broad band filters

1% for composite -> key

Estimated time needed:

20 min/run

Priority:

very important