

LMI Filter Characterization 2

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The information on this page is for quick reference. Please consult the [LMI Users Manual](#) for more detailed information, including filter transmission curves and data.

LMI Filters:

Currently available filters for LMI are given in the table below.

- The value shown under **FITS Header** will appear in the FILTERS keyword of your image headers.
- The **Pattern String** is the LOUI display string you need to use if creating a [Telescope Motion Pattern File](#).
- **Focus Offset** indicates how much additional focus offset is applied to the Active Optics System to account for filter refraction – it is most helpful for determining which filters are parfocal.
- For most filters, the **Central Wavelength** and **Filter Width** (both in Å) are listed.
- The **Flatfield Lamps** indicate the recommended lamp set to use with each filter for efficient dome flat field images. For the bluest filters (both broad- and narrow-band), the usual "LMI Lamps" do not provide sufficient flux in the bandpass to easily collect dome flats, and we recommend using the Photo Floods (a.k.a. IGRINS lamps) on the lamp boom. These are 600-W photographic flood lamps with very short lifetimes – please use sparingly.
- Links are provided for **Nominal** and **Latest** dome flat field images for most filters. These are provided to give a visual confirmation that flat field images on a given night have the expected features. (Sky flats may have slightly different features owing to the difference in spectrum between the twilight sky and the dome lamps.)
- **Count Rate** indicates the expected ADU/s using the flatfield lamp indicated for 2x2 binning. This value is provided to allow the observer to compute an exposure time for the desired counts in the final dome flat image.
- For a standard dome flat field exposure (and 2x2 binning), the approximate **Exposure Time for 20k counts** is given for convenience.

Note: For **Flatfield Lamps**, "Dome Lamps, 12V" are the usual "LMI Lamps" mounted to the dome and operated at 12VDC, controlled by the TO through the CLSD application. The "Photo Floods" are also known as the "IGRINS Lamps", as they were originally installed for use with that instrument.



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