Requirement rationale
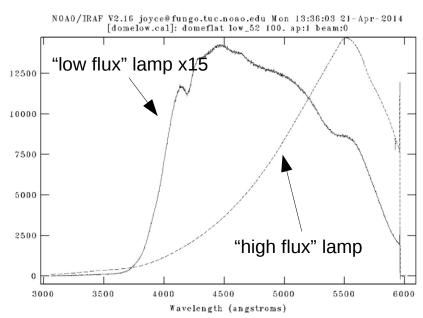
- Clean calibration signal above noise

    → Min number of electron per pixel row : 10 000 e⁻

- Avoid high intensity non-linear effects

    → Max number of electron per pixel row : 168 000 e⁻

- Ratio of DESI throughput across spectral range = 5

    → Max ratio of counts across the spectrograph spectral range = 3

Typical continuum lamp spectrum is not flat.
For the current lamps available at the Mayall, "low flux" lamps have a blue filter to balance their spectrum.

An other option could be to use several exposures with different exposure time for each band.

NOAO/IRAF V2.16 joyce@fungo.tuc.noao.edu Mon 13:36:03 21-Apr-2014
[domelow.cal]: domeflat low_52 100. ap:1 beam:0

"low flux" lamp x15

"high flux" lamp

Wavelength (angstroms)

Dark Energy Spectroscopic Instrument
U.S. Department of Energy Office of Science
Lawrence Berkeley National Laboratory