

Scintillator Sheet Tests With LED

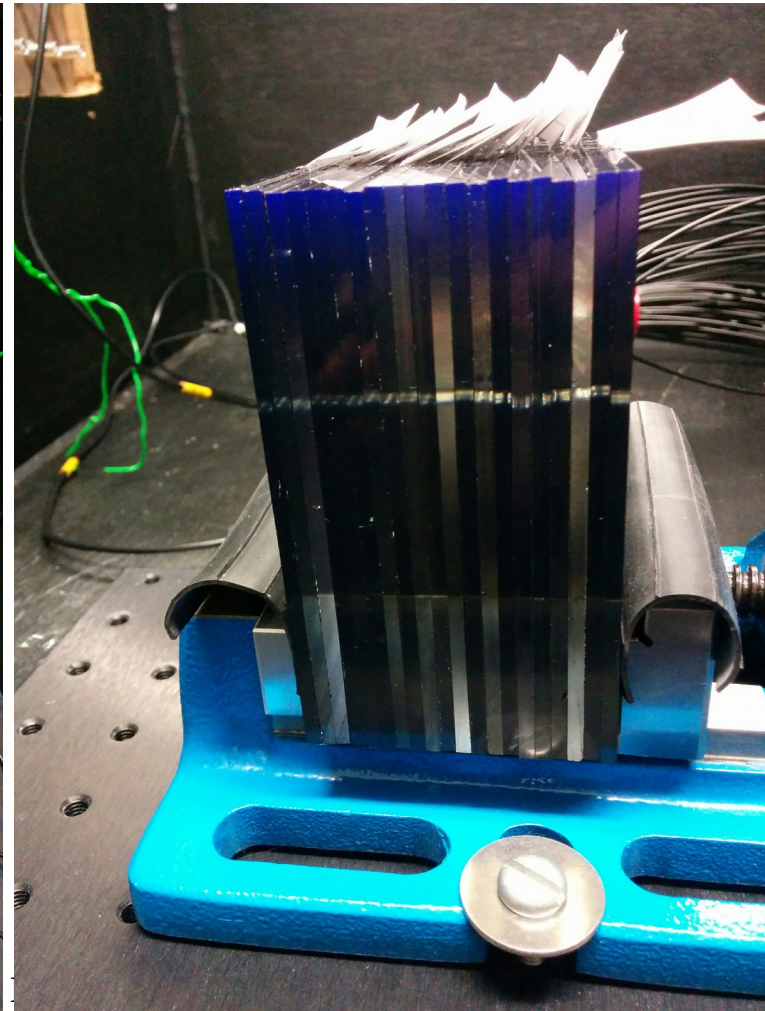
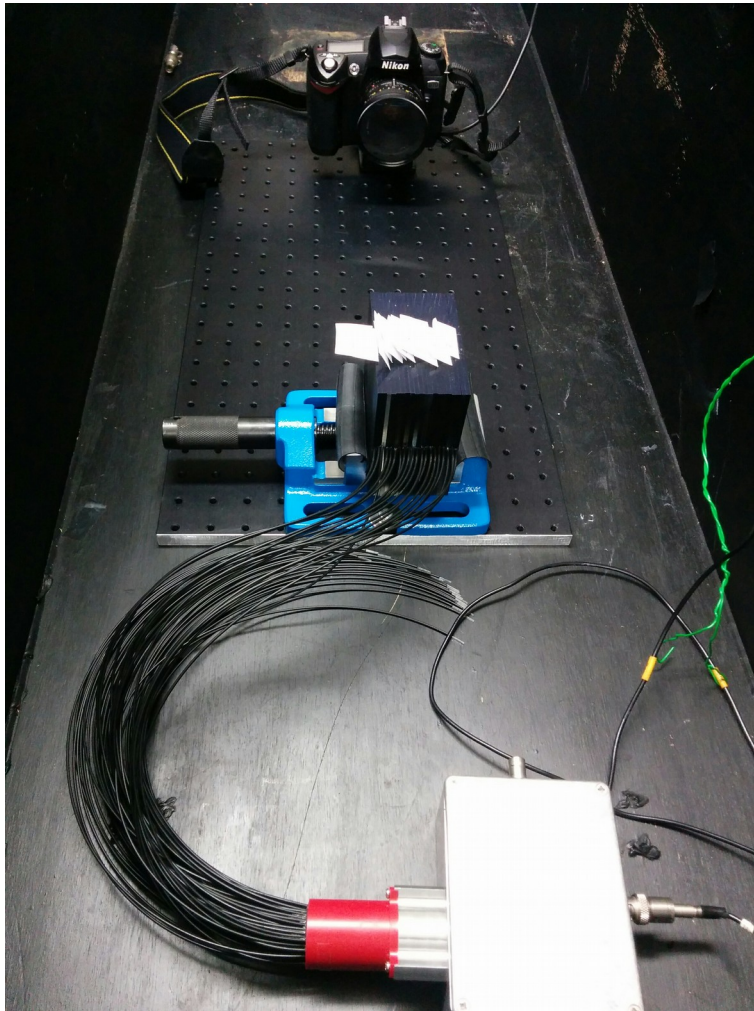
7th February 2018

Laurent Kelleter

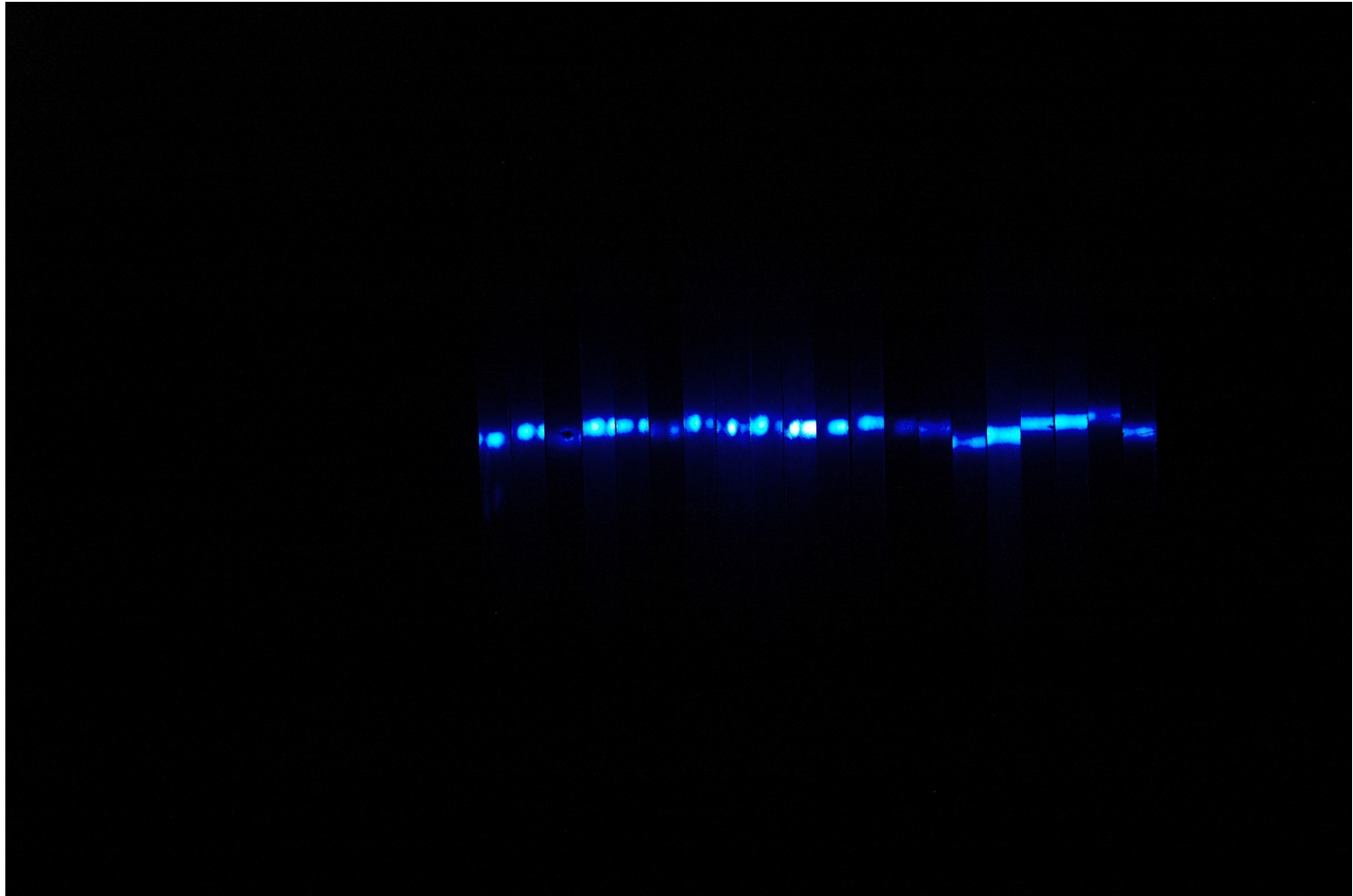
Laurent.kelleter.16@ucl.ac.uk

Setup

- Anastasia and I did a first series of tests with the scintillator stack, an LED and a DSLR camera (5th and 6th February)

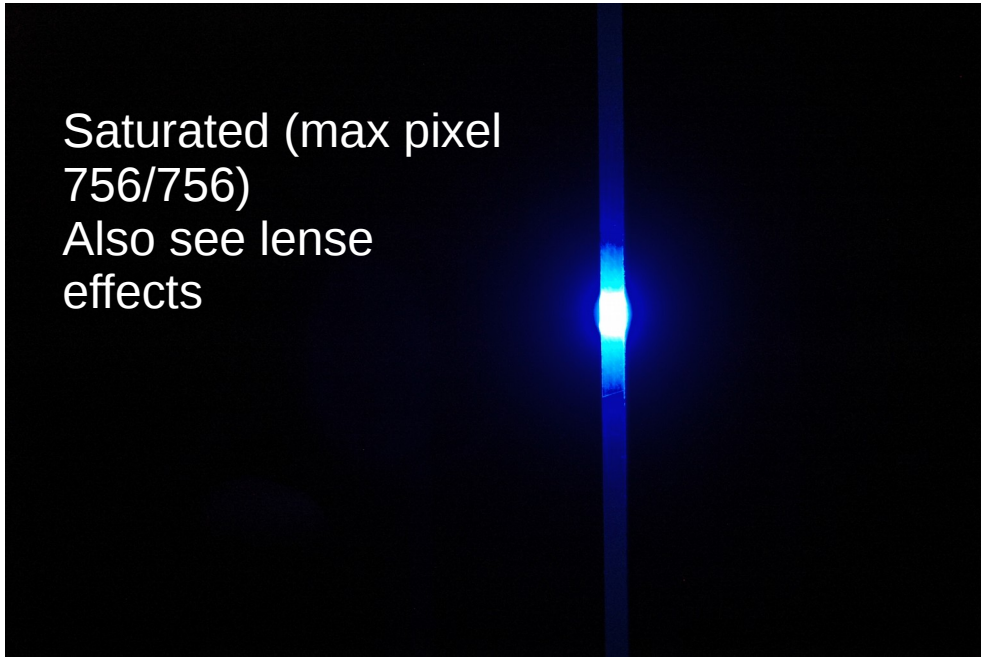


All sheets coupled to LED

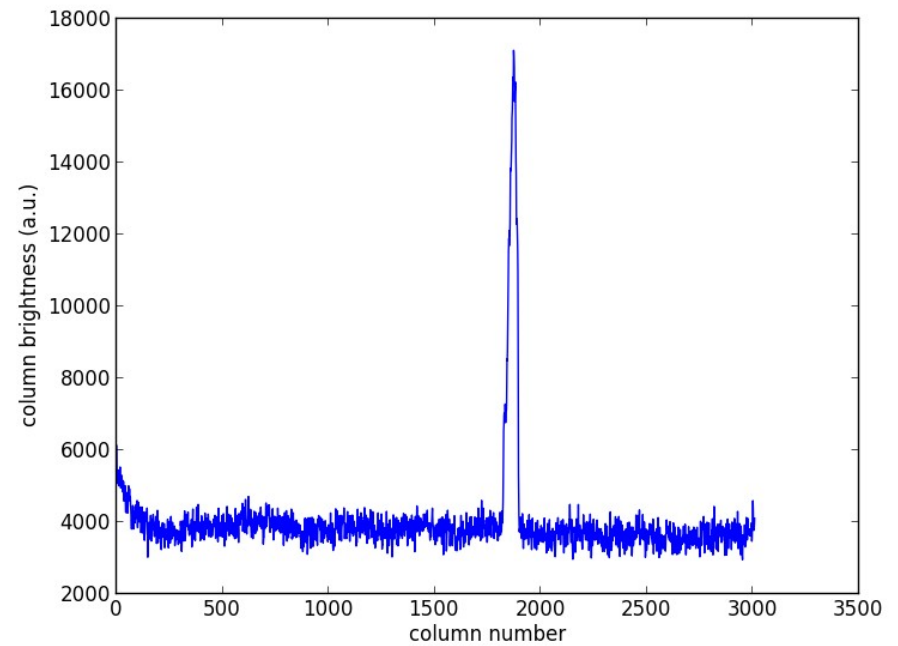
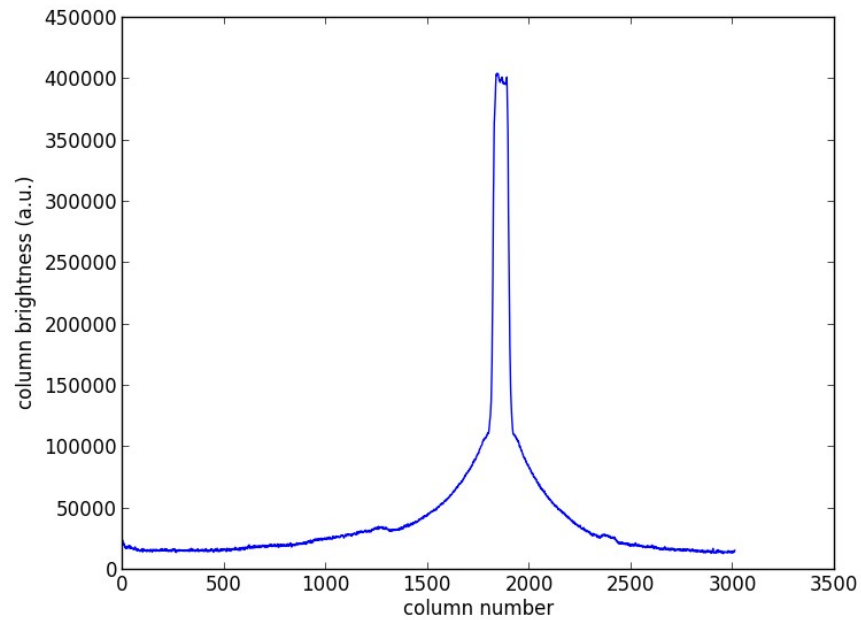


Saturation

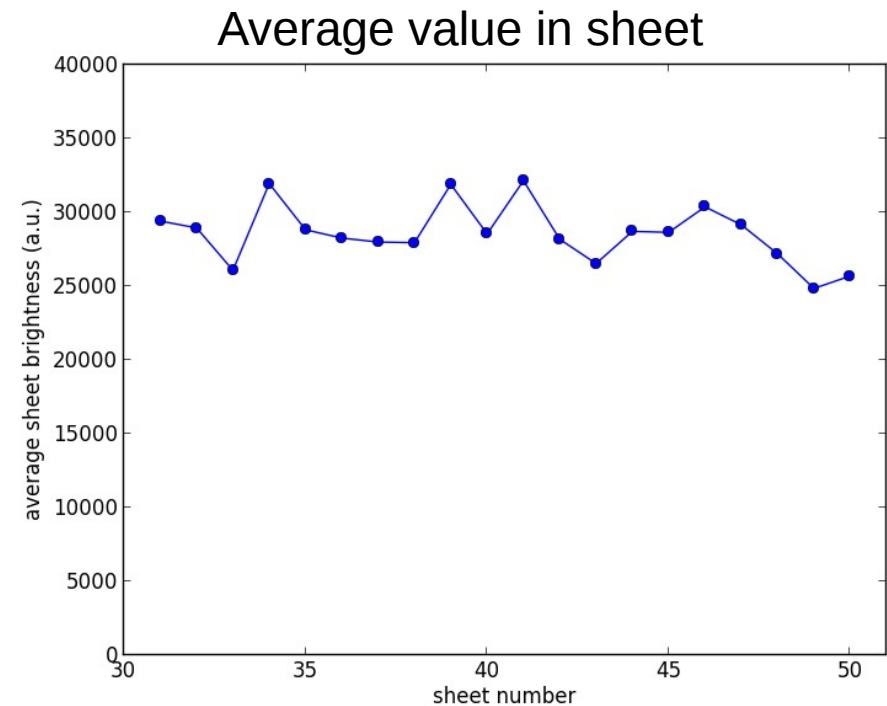
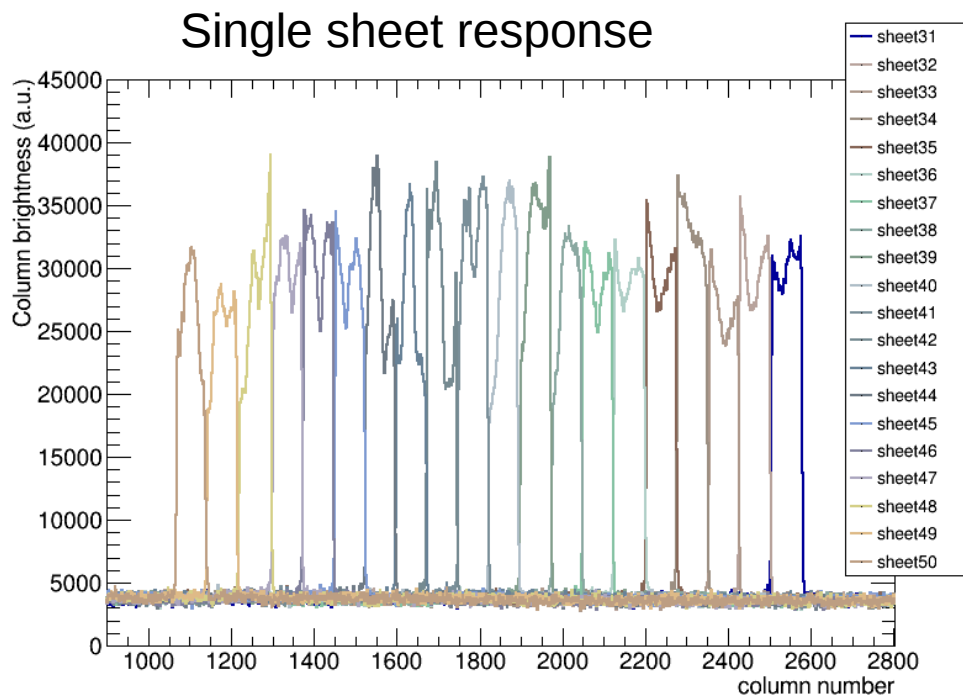
Saturated (max pixel
756/756)
Also see lense
effects



Good case (max pixel 450/756)



- Use the same optical fibre for all sheets
- This basically measures how good we are in coupling the LED to the scintillator sheet
- But it also sets an upper limit on the scintillator uniformity



- Analyse rest of data
- Can we predict camera settings for test beam conditions?
- Some sheets need repainting: Black paint layer too thin
- Measurement with radioactive source? (30kHz, 1MeV electrons)