Aurora Flatfield Foil

Congratulations on your purchase of an *Aurora* Flatfield Foil!
The Aurora foil offers you a new, comfortable and reliable way to capture flatfield data with your imaging system. There is no need for bulky flatfield boxes or getting the correct timeslot for skyflats: Simply place your Aurora Foil in front of your instrument, switch the inverter on an start getting flatfield data! The Aurora foil is lightweight, easy to handle and gives you a perfect even illuminated surface. The Aurora foils are especialy designed for the Astronomical imaging application!

Some remarks on the Aurora Flatfield-Foil:

- The Aurora foil is mounted in a very rigid frame. Due to this is protected against mechanical stress and scratches

- The foil is illuminated by an external high voltage, which is produced by the "inverter" you have also received. The high voltage is produced at a very low amperage, so there is no danger to you!

- The foil and the inverter might generate a strange sound. –That's normal!

- Please use the foil only with the matching inverter which comes with the foil. Using another (wrong) inverter will damage either the foil or the inverter quite fast.

- Do not switch the inverter on without a foil attached to it. Running the inverter without a foil will kill it within minutes. (It leaves very typical signs on the electronics. There is no waranty in this case!)

- Do not run the foil longer than two hours without a break.

- The light from the foil looks blueish/white. Most foils from other sources seem to be white to the human eye, but the light is made of discrete emission lines. -Due to this the foils from most other sources at not suitable for narrowband emission line filters! The brightness is very even across the whole surface. It works well for the most critical observations, even photometry or spectroscopy. Due to the special design of the foil, it is sensitive to UV and solarlight. Please prevent sunlight and UV from reaching the illuminating side your Aurora foil. Do not put any stuff on the illuminating side of the foil! (After some time with direct sunlight you´ll see a kind of shadow on the foil.)

- The brightness of the Aurora foil can be controlled electronically a little bit: If you use a 12V inverter, you may reduce the input voltage a little bit, but reducing it too much causes patterns and brightness variations. If the foil is too bright for your setup , you should get one of our matching ND-filterfoils. They´re available with ND 1.2 and you may reduce the brightness even for the very fastest systems

- There is no universal rule for the exposure time. Due to the focal ratio of your instrument, the camera and the filters the exposure time may go up to 30 seconds. Please look at histogram of the images: You should have the peak at about 50% of the dynamic range of the camera, and no part should reach saturation! If you use special Astronomical cooled slow-scan cameras (SBIG, QSI, FLI, Atik etc...), you should avoid very short exposures, as the moving shutter might cause some gradients. In any case you should expose longer than 1/4s to avoid any patterns in the flatfield.

Available sizes:
The Aurora foils are available in the diameters: 160mm, 220mm, 315mm, 420mm
Custom made foils are available up 594mm or even 1,5m upon special request. You may find a list of all foils plus matching inverters on my website.

weitere Informationen finden Sie auf:
www.gerdneumann.net

Gerd Neumann jr.
Entwicklung und Herstellung optischer und feinmechanischer Instrumente
Nottulner Landweg 104, D-48161 Münster-Roxel, Telefon +49/ (0)2534/ 977 445, Fax +49/ (0) 2534/ 977 446
eMail: gerd@neumann.net, Internet: www.gerdneumann.net