

Thermal Camera Vignetting Shape Updates

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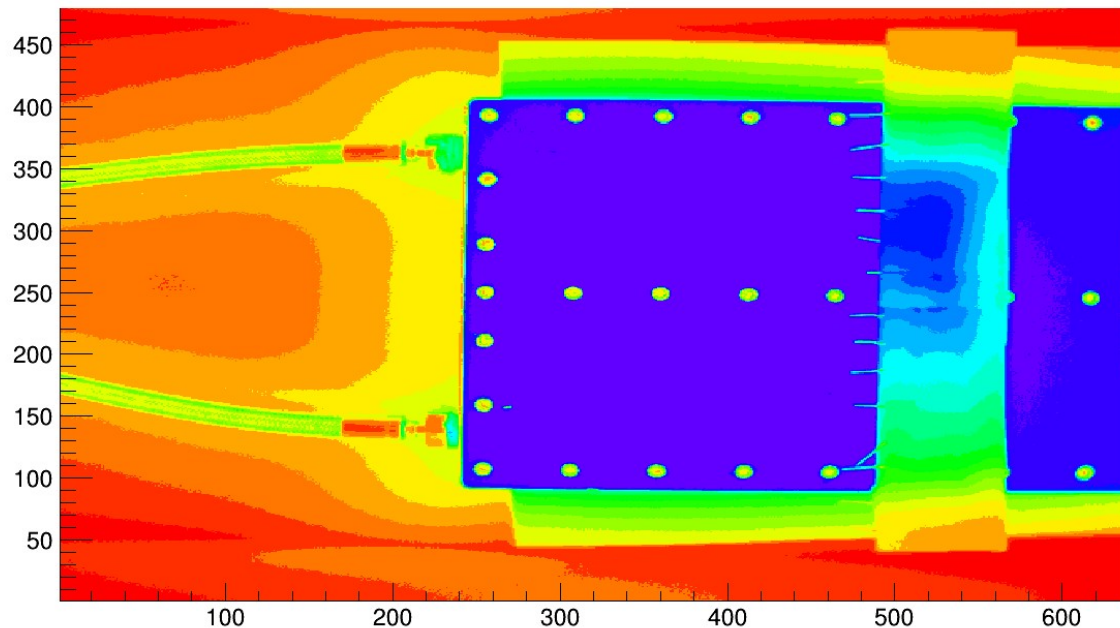
(He who is now done with the qual!)

08/31/2016

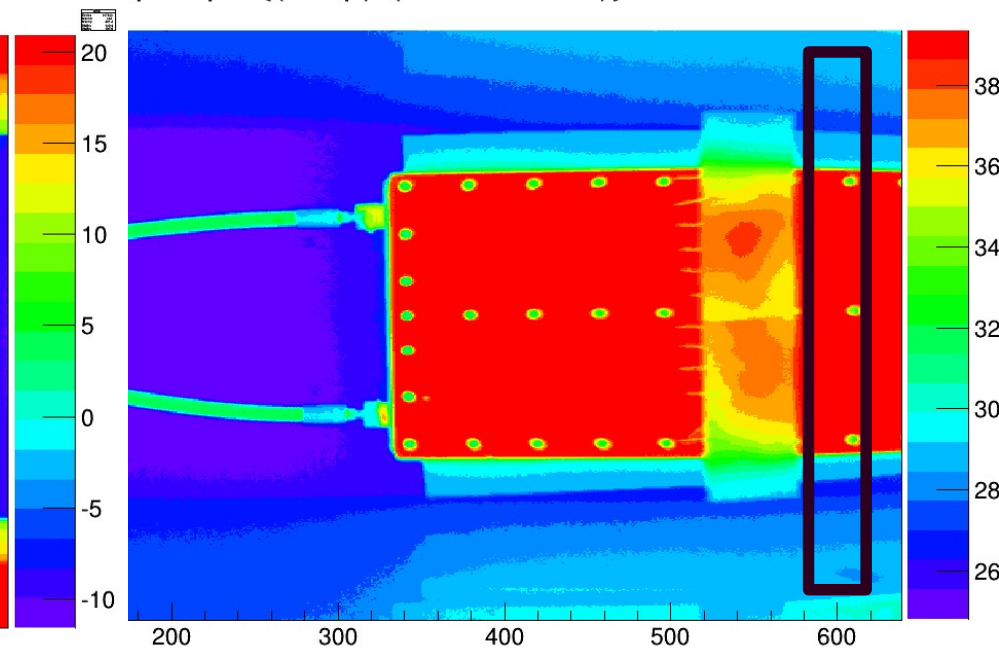
Vignetting Shape Measurement

- To find the vignetting shape in the x direction, the temperature of a location on the aluminum plate was measured by 40x40 pixel squares of the camera.
- The plate was held at a constant temperature and the camera was moved to capture 15 different lines.
- These lines were calculated by averaging over 100 frames and then averaging over the 40x40 pixel square.
- Since the plate was smaller than the field of view, the lines that were outside the bounds were removed, and the lines that included the metal were removed and replaced by using an average from above and below the line.
- The difference between the center Temperature and the surrounding Temperatures was then plotted.

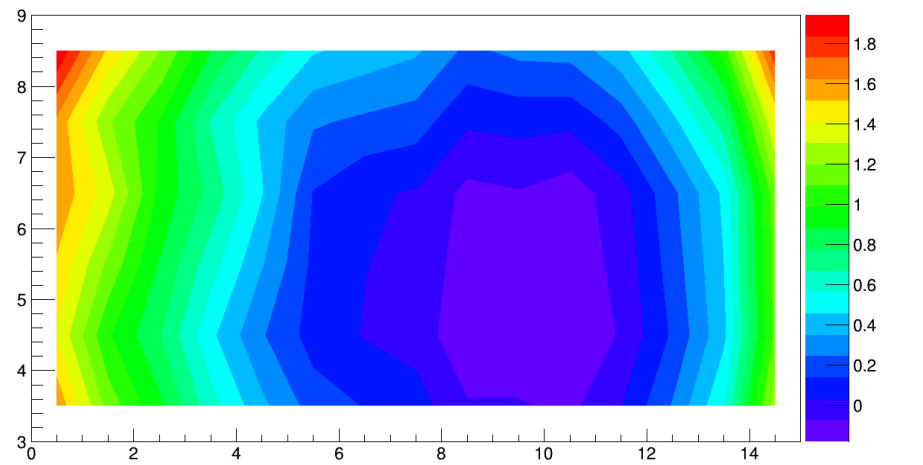
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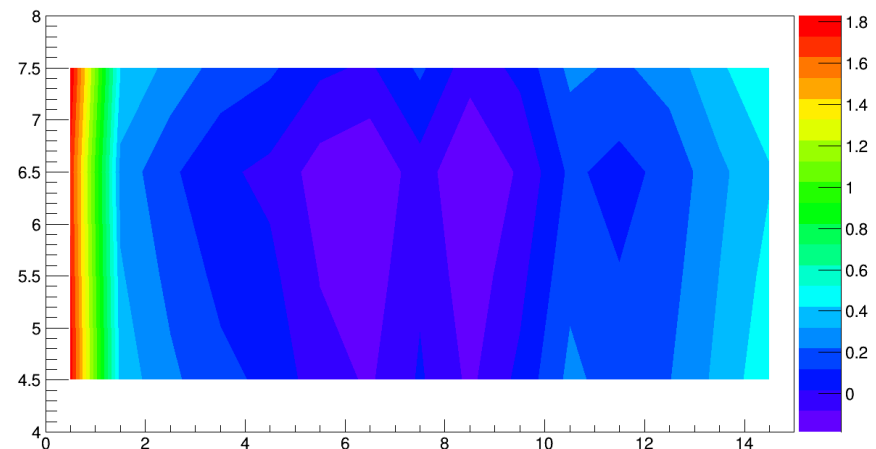
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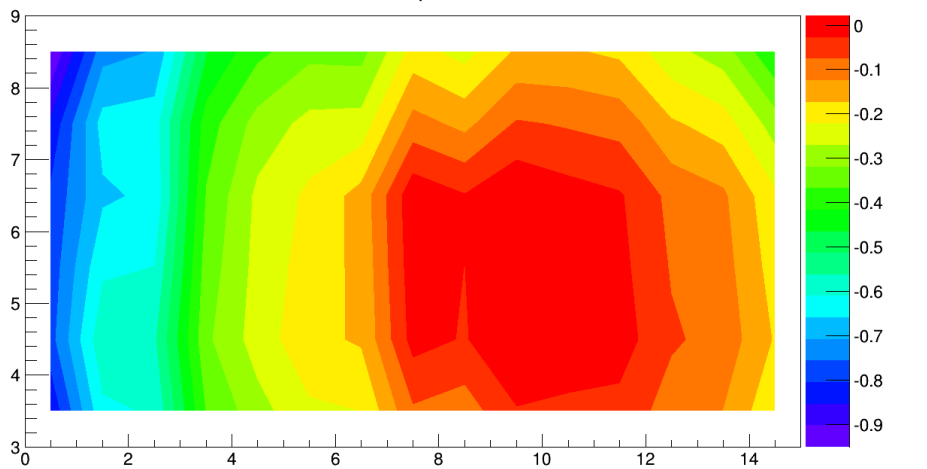
-15°C Vshape 45° Lens



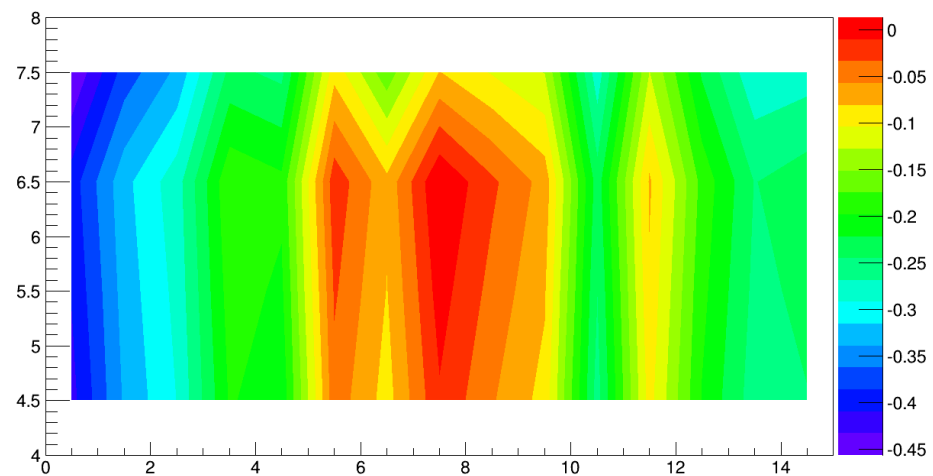
-15°C Vshape 80° Lens



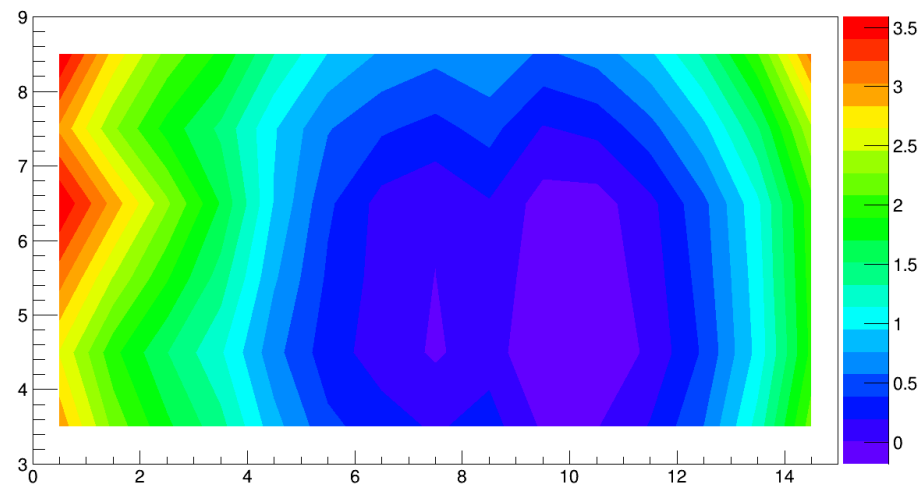
40°C Vshape 45° Lens



40°C Vshape 80° Lens



-35°C Vshape 45° Lens



-35°C Vshape 80° Lens

