

## ***Interactive comment on “Auroral all-sky camera calibration” by F. Sigernes et al.***

### **Anonymous Referee #1**

Received and published: 25 September 2014

For dependable evaluation of auroral energy input, precise calibration of all-sky camera is absolutely necessary. In this paper the authors describes a two-step procedure to calibrate the sensitivity of an all-sky camera at Kejell Henriksen Observatory. The method is written in an appropriate way and understandable. Figures and Tables are well organized and helpful for understanding the context. It is a good idea to calibrate the center of image with a known brightness diffuser, and by using an integrating sphere that value is expanded to a full field of view.

However, in page 520, authors describe that "The radiance  $B$  of the integrating sphere is per definition uniform in all directions of  $\theta$  and  $(x,y)$ -points with equal  $R$  should, due to symmetry, have the same raw data count rate of  $u$ ." This can be said for a freshly inside-coated integrating sphere. Because coating material is hygroscopic, inside of the integrating sphere will deteriorate with time, and will become not completely uniform.

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I would suggest the authors that above assumption is for an ideal condition, and not necessary applied to an integrating sphere used for a long time. I recommend some minor revision or addition of a sentence.

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Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., 4, 515, 2014.