

From: Emiel Hall (NOAA Affiliate) emiell.hall@noaa.gov
Subject: SRF Radiometer Scale Factors
Date: July 19, 2017 at 8:33 AM
To: Byron Blomquist - NOAA Affiliate byron.blomquist@noaa.gov



Hello Byron,

Dave told me you are looking for scale factors to use for your comparison. I was under the impression you would be comparing to our Cavity/Diffuse component sum measurement. But from your conversation with Dave it seems like you are interested in a pyranometer to compare with instead.

I would use 73-36 as the reference pyranometer. We don't really have a true "reference" pyranometer that we use for calibrations. We always use the component sum for our calibration data. With that said, 73-36 has been on the roof for a while and we have a calibration history for it. I just ran a new calibration for it and came up with an acceptable value:

73-36 Cal = **7.582**

We have two PIRs on the roof currently. One is ventilated and shaded, the other is neither ventilated or shaded. I would use the non-ventilated/shaded PIR for your comparison because it is being operated under the same conditions as your PIRs. I will give you scale factors for both sensors and you can decide what you would like to use.

Ventilated and Shaded PIR: 27407

Cal: C = **3.470**; k = **3.238**

Non Ventilated and Non Shaded PIR: 27455

Cal: C = **3.720**; k = **3.274**

You are welcome to use whichever PIR you would like. Data for both are easily accessible from Dave's website.

We also just found and fixed a bug on the data access page, so if you downloaded our reference data before yesterday afternoon, there is a chance it has some bad data mixed in. Please re-download new data so that you get the proper values.

Let me know if you have any questions.

Emiel

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