Overview

This group chose a class C9 solar flare with a sharp, distinct peak. This peak is approximately .000219772 W/m^2 tall and occurs at 16:22 on 2015-03-11. For the baseline correction, this group found the average of the pre-flare and used that as a baseline. The pre-flare area was defined to be on the interval [0:350] min. This group utilized the np.clip and np.mean functions to clip the data and then find the mean of the clip. The found baseline was then subtracted from the solar-data to get a final "corrected-data". To integrate, this group used the integrate.trapz function to integrate from [365:450] seconds. From this, the total energy was found to be 8.831737005144779e+27.

Merits

I think that this groups' analysis is very succinct and sectioned well. I also think that their method of integration is very reasonable as they have good limits of integration and utilized the trapezoidal integration technique. In addition, I believe that the subclass of their flare, as well as the date and time of its peak, were reported correctly.

Critiques

I would suggest adding more units and more comments in the code. Both the graphs and the printed data (baseline_average, total_energy) do not include units, which make reading the analysis a bit more difficult. I would also suggest adding comments to the code. By implementing both these critiques, the analysis will more in-depth and easier to understand.

In addition, I am a bit confused about the graph of the preflare data. It seems like there is a major peak of e25 in the preflare graph but not in the preflare section of the original solar flare graph. I would also suggest using a different method to find the baseline, since it seems like the calculated baseline is incorrect. This translates to the calculated total energy which I believe should be larger for a class C9 flare.

Overall Recommendation

☐	No revisions are needed
☐	Needs minor revisions
X	Needs major revisions

Conclusions

Overall, this analysis was succinct and had some correct aspects, but I believe that some changes need to be made before it is submitted again. It does not include units or commented code which makes the analysis some-what difficult to follow. In addition, it was hard to understand the approach taken to find the baseline, and with no justification, it seemed incorrect. If this group were to make these changes, the final product will be top-quality.