The paper provides a in-depth analysis of spectral solar measurements during an eclipse focusing on a number of measuring and modelling issues.

Paragraph 7.4: I am referring firstly to this paragraph because the paper is becoming quite confusing at this point. If the authors conclude that the LD parameterization by Waldmeier is too simple, particularly in UV range, why this is being discussed previously in the estimation of total O_3? It is recommended to move this paragraph to 7.1 and then discuss the results based on those findings on LD parameterizations. In this concept, paragraph 7.3 should follow the new 7.1. In figure 10, the effect of the eclipse is masked by the dominant effect of changing solar zenith angle. The authors are asked to subtract the solar zenith angle effect by using the AOD and O_3 measurements just at the end (or start) of the eclipse (as inputs in model calculations) and, then, discuss the effect of the eclipse and the changes on aerosols and ozone (these paragraph should follow now).

Page 2, lines 15-20: Kazantzidis et al (2007) were measuring with NILU-UVs and calculated total ozone, too. They reported a slight increase when the visible part of the sun was more than 20% and decreased significantly as the eclipse progressed.

Figure 3 and relevant text: please provide a figure only with the UV wavelengths, no logarithmic axes. From the literature it seems that the bandwidth of 305nm channel is quite wide: it is more than 10nm even at full width at half maximum. In this case, please discuss the possible implications when measuring with this high bandwidth.

Page 5, lines 15-24: please provide/add some sentences about the performance of this method on estimating the direct and the shadowband corrected spectral irradiances.

Figure 4 and relevant text: What is the expected cosine error in UV wavelengths? Are there any measurements? Are the measurements in UV channels (used for this study) cosine corrected? How significant this effect is expected to be during the solar eclipse (when the direct component of solar irradiance is minimized)?

Figure 8: Aerosol Optical Depth (AOD) around 305nm is not depicted in figures 8a and 8b. Why? Do you think that the LD correction (8b) by Pierce is valid also for the lower UV wavelengths? If yes, how this decrease of AOD in these wavelengths can be explained? There is an assumption that this is not a measurement artifact but an unknown absorber. Which type of absorber could change the expected AOD values only at 314.2, 319.4nm (and 442.4nm!)? Moreover, what would be the AOD estimations if you apply the Neckel LD parameterization?

Paragraph 7.2: It is quite surprising that although AOD can be estimated by direct GUV measurements, this is not happening for the total O_3 amount as well, despite that direct measurements (divided by global ones) are presented in figure 10. Moreover, the 305/340 wavelength ratio methodology to derive total O_3 is based on model calculations as a function of O_3 and solar zenith angles but under cloud-free skies e.g. specifically defined direct and diffuse components of solar irradiance. This is not the solar eclipse case. And this is accounted by the authors. However, how valid are the LD parameterizations on CHANNEL irradiances when it is known that the direct/diffuse

ratio has significant spectral sensitivity? And how repeatable will be their results if the they use: a) direct irradiances, b) different channel ratios, e.g. 305/320, 312/340? The authors here should acknowledge a couple of very crucial facts: 1) the 305/340 wavelength ratio of channel irradiances is a well-known method that can be used for total O_3 estimations but it is accompanied by significant uncertainties (aerosol optical depth and scattering properties, cloudiness, ozone profile, direct/diffuse irradiance etc), 2) the comparison with ozone values or previous studies derived from instruments measuring the direct irradiance should be done under the acknowledgement that these measurements are correct not only because they are the standard ones but also because they are correct in terms of physics and the best in terms of overall uncertainty.

Figure 9 and relevant text: Kazantzidis et al (2007), when using the 305/320 wavelength ratio (in order to reduce the effect of spectral effect of the eclipse on direct and diffuse irradiances) reported very similar results to those derived from yours when using the 305/340 wavelength ratio AND applying the Neckel or Pierce parameterization. Surprisingly, this paper is referenced only for the comparison of measured and model irradiances. However, the results of this paper for ozone, irradiances and irradiance ratios vs eclipse percentage are not referenced, although it is based on results from 8 narrowband multi-channel NILU-UV6 radiometers.

Paragraph 8.1: the authors seem to have a point here. In order to better understand the similarities/differences with previous studies, a more detailed information is needed apart from direct/diffuse ratios: the measured wavelengths and the eclipse percentages should be provided. Moreover, the theoretical calculations from Emde and Mayer are quite capable to estimate the global irradiance (when normalized 5 minutes before totality) at 380 nm but maybe irradiance is significantly underestimated at 312 nm (Kazantzidis et al., 2007, figure 7 and relevant text). This affects directly the diffuse component. Of course, also this result is sensitive to factors like surface albedo, ozone profile and the dynamic range of the measuring system. All these factors should be mentioned.

Page 22-23: This comment refers to the ozone issue, described in detail by the authors. From my point of view, some (or much?) of these differences could be attributed on the measuring methods and the selected pairs of wavelengths. As mentioned before, a decrease of (uncorrected for LD effect) ozone retrievals has been reported by Kazantzidis et al (2007) for the same eclipse when using 8 NILU-UVs. As it was stated earlier in this review, the authors could strongly defend their findings if they will come up with the same results when using other wavelength pairs and the direct GUV irradiances. Unfortunately, this measuring campaign is not accompanied by more instruments.