## Solar Physics 2005-2006: Exercises to Lecture 13

C.U.Keller

March 31, 2006

## 1 Wavelength Dependence of Umbral Intensity

The observed intensity of a sunspot umbra increases toward longer wavelengths (see Fig. 8.27 in Stix's book). Explain this behavior and calculate its wavelength dependence to first order in  $\lambda$ .

## 2 Problems from Stix's Book

Solve problems 8.13 to 8.15.