EUVST Effective Area - v0.1

Some very crude initial routines for computing EUVST count rates. The software developed by Peter Young for LEMUR has been used to create lookup tables. These routines read the lookup tables and interpolate the effective area for the input wavelength.

For example,

```
IDL> ints = euvst ints2counts(977.02, 1.0E+3, 1.0, /verbose)
       wavelength = 977.020 Angstrom
         intensity = 1000.00 \text{ erg/cm}^2/\text{s/sr}
         intensity = 4.91e+13 \text{ ph/cm}^2/\text{s/sr}
 effective area = 6.33 \text{ cm}^2
    x pixel size = 0.18 arcsec
    y pixel size = 0.18 arcsec
   exposure time = 1.0 s
    total counts = 236.5
and
IDL> ea = euvst_wave2ea(977.02)
IDL> print, ea
          6.3262800
                                                                                                 Effective Area (cm^{-2})
   Effective Area (cm<sup>-2</sup>)
                                                    Effective Area (cm<sup>-2</sup>)
                                                        5
        2.0
        1.5
                                                        3
        1.0
                                                        2
        0.5
                   30 190 200
Wavelength (Å)
                180
                                     210
                                                          700
                                                                    750
                                                                             800
                                                                                                           950
                                                                                                                    1000
                                                                                                                              1050
          170
                                                                  Wavelength (Å)
                                                                                                                Wavelength (Å)
         10
                                                                                                    2.5
    Effective Area (cm^{-2})
                                                 Effective Area (cm^{-2})
                                                                                                Effective Area (cm<sup>-2</sup>)
          8
                                                      1.5
          6
                                                                                                     1.5
                                                      1.0
                                                                                                     1.0
                                                                                                     0.5
                                                      0.0
                                                                                                    0.0
                         1200
                                   1250
                                                                      500
                                                                                      540
                                                                                                                       600
                                                                                                                              620
                                                               480
                                                                              520
                                                                                                       560
                   Wavelength (Å)
                                                                  Wavelength (Å)
                                                                                                                Wavelength (Å)
```

Figure 1: Effective area as a function of wavelength.