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# IRVBU OBSERVATIONS OF W URSAE MAJORIS

Observations of W Ursae Majoris, on March 5-6, 1984, with the Kitt Peak Automated Filter Photometer, on the no. 2 0.9 meter telescope, resulted in 15925 IRVBU observations in a single observing session. The time of midprimary minimum was determined by finding the midpoints of chords connecting equal values of the light level. The lower part of the light curve was symmetric in all spectral bands. It will ultimately be possible to determine an improved time of minimum with the aid of light synthesis modelling. The heliocentric midprimary time was JD 2445765.7385. The O-C residual from the ephemeris of Hamzaoğlu et al. (I.B.V.S. No. 2102) is $-0.0025^d$. Total phase was covered by approximately 90 observations in each spectral band. To within observational error, primary minimum is of constant brightness, in contrast to secondary minimum.

There was a detectable O'Connell Effect, in the sense that the maximum following primary minimum (Max I) was higher than the preceding one. The magnitude difference of the two maxima, as a function of spectral band, was as follows:

| Spectral band | Max. II - Max. I |
|---|---|
| I | .019 |
| R | .013 |
| V | .010 |
| B | .021 |
| U | .023 |

Secondary minimum was asymmetric in the sense that egress phase light levels were below ingress phase levels, for equal displacements from midsecondary minimum, adopted as 1/2 period from midprimary. Annular phase of secondary minimum was not at a constant light level, but was 0.03 magnitudes brighter at second contact than third.

A detailed description of the light curves will appear in a separate publication.

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