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A PHOTOELECTRIC SECONDARY MINIMUM OF AR Lac

The first observations from the new Dark Sky Observatory at Appalachian State University have yielded times of minima in two colors for a secondary eclipse of AR Lacertae. The observations were made with the 46 cm telescope and photoelectric photometer equipped with standard UBV filters and an uncooled 1P21 photomultiplier tube. The instrument, in fact, is the same as used by Caton et al. (1977). The amplifier output voltage is converted to a frequency and averaged by a Commodore 4016 microcomputer.

The comparison star used was BD+47^o3711, approximately three degrees away and almost identical in color to AR Lac. Effects of differential extinction were not removed, nor were the data converted to standard UBV. The reduced data were analyzed using the method of Kwee and Van Woerden (1956), using a computer program by Mallama (1982). The resulting times of minima for the two colors are:

Color	Hel. J.D.	Mean Error
visual	2444898.6828	± 0.0011
blue	.6869	± .0023

I am grateful to the University of Florida for the loan of their photometer.

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