COMMISSION 27 OF THE I. A. U. INFORMATION BULLETIN ON VARIABLE STARS

Number 1538

Konkoly Observatory Budapest 1979 January 29

PHOTOELECTRIC PHOTOMETRY OF UZ LEONIS

The W Ursae Majoris system, UZ Leo, was observed photoelectrically in 1975. The 24-inch Morehead telescope of the University of North Carolina (Chapel Hill) was equipped with an uncooled photomultiplier tube and a DC amplifier. An RCA 1P21 tube was used on seven nights and an EMI 9789 on two nights. A one minute deflection was defined as a single observation. The BD numbers and coordinates of UZ Leo, comparison and check star are given below:

Star	BD No.	R.A. (1900)	Dec. (1900)
UZ Leonis	+14 ⁰ 2280	10 ^h 35 ^m 14 ^s	+14 ⁰ 05.3′
Comparison	+14 2284	10 36 37	+14 18.3
Check	+14 2275	10 33 06	+14 29.7

Standard stars were observed so that all observations could be converted to the UBV system. Differential extinction corrections were also included. The comparison star was found to have the following values:

$$V = 8.95 \pm .03 \text{ p.e.}$$

 $(B-V) = 0.29 \pm .01$
 $(U-B) = 0.04 \pm .03$

The B and V observations of UZ Leo appear plotted in Figure 1. The phases were computed from the light elements of Binnendijk (1972). UZ Leo was found to have the following magnitudes and color.

Maximum			in	um	Secondary Minimum		
V	=	9.58	±	.04 p.e.	10.12 ± .05 p.e.		
В	=	9.91	±	.04	10.43 ± .05		
B-V	=	0.33	+	.01	$0.32 \pm .02$		

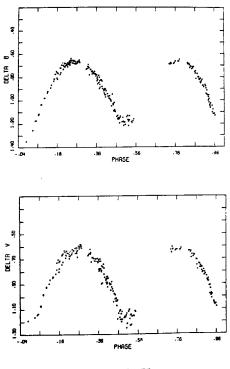


FIG. 1 UZ LEO

The bottom of primary minimum was poorly covered by the present observations, but it is approximately 0.03 deeper than the secondary minimum. The amplitude of the light variations agrees very closely with that found by Binnendijk.

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Reference:
Binnendijk, L. 1972, Astron. J. 77, 246