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NEW PHOTOELECTRIC TIMES OF MINIMA OF VW CEPHEI

VW Cep (BD +75° 752) is a well known eclipsing binary of W UMa-type, which has both variable period and variable light curve. Due to the peculiarities of VW Cep, it has been the subject of many investigators. So, many photoelectric light curves of the system have been obtained and a great deal of theoretical work has been done for a better understanding of this peculiar system.

During a program of photoelectric observations of eclipsing binary stars, the system was observed in two colours (B and V) on September 5-11, 1980.

Table I

HJD	σ	$(O-C)_1$	$(O-C)_2$	Filter	Min.
2440000+					
4488.4702	±0.0001	-0.0002	-0.1072	B,V	II
4489.3063	±0.0002	+0.0009	-0.1060	B,V	II
4489.4439	±0.0001	-0.0006	-0.1076	B,V	I
4490.4189	±0.0001	+0.0003	-0.1067	B,V	II
4490.5577	±0.0001	-0.0001	-0.1071	B,V	I
4491.3926	±0.0001	-0.0001	-0.1071	B,V	I
4492.3681	±0.0002	+0.0013	-0.1057	B,V	II
4492.5060	±0.0001	0.0000	-0.1070	B,V	I
4493.3409	±0.0001	0.0000	-0.1070	B,V	I
4493.4803	±0.0001	+0.0002	-0.1068	B,V	II
4494.3158	±0.0002	+0.0008	-0.1063	B,V	II
4494.4537	±0.0001	-0.0005	-0.1075	B,V	I

The observations were made with a 48-inch Cassegrain reflector (Contopoulos and Banos,1976) and a two beam multi-mode photometer (Goudis and Meaburn,1973). The two intermediate pass-band filters used were selected to be in close accordance with the standard U,B,V colour system. As comparison star we used BD $+74^{o}$ 889, as check star BD $+75^{o}$ 726.

All the times of minima and the mean errors σ were calculated by the method of Kwee and Van Woerden.

The successive columns of Table I contain the heliocentric time of minimum, the mean error σ , the differences O-C, the filter used and the type of minimum.

The $(O-C)_1$ values were computed using the ephemeris given by Hopp et al.(1979)

$$\text{Min I} = \text{JD Hel } 2443410.4180 + 0^{d}.27831481\ E$$

while the $(O-C)_2$ values were calculated according to van't Veer's (1973) ephemeris

$$\text{Min I} = \text{JD Hel } 2433898.4410 + 0^{d}.27831793\ E$$

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