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V759 CENTAURI: NEW TIMES OF MINIMA AND REVISED PERIOD

The binary system V759 Cen (HD 123732) was discovered by Bond (1970) on objective prism plates and confirmed by y-Strömgren photometric observations. Sisteró and Castore de Sisteró (1976) published the period P=0.3939513 determined from UBV photoelectric times of minima. The light curves of V759 Cen show very shallow (Δ V = 0.2 mag) and almost equal minima, most of the light variation seems to be ellipsoidal. Because of these difficulties minima were misidentified when we reduced Bond's observations and primary and secondary minima were interchanged, this was realized when further observations were made. Here we present the results of UBV monitoring for minima of V759 Cen. The new minima are included in Table I: four from Bosque Alegre Station of Córdoba Observatory (JD 2442918 to 2444724) observed with the 1.54 m reflecting telescope and four (JD 2444808 to 2445079) from the 0.76 m reflector at El Leoncito of Félix Aguilar Observatory, San Juan, Argentina.

From all minima (old published values are also listed in Table I) now extending over 11000 cycles we determined the following least squares linear ephemeris:

P.M. = JDhe1 2443089.2898 +
$$0.39399903 \times E$$

+.0012 +.00000030

The O-C residuals from the above ephemeris in Table I are comparable to the estimated mean errors (~ 0.0035) derived from the averages in the three wavelength determinations (compare for instance individual values as given by Sisteró and Castore de Sisteró, 1976). There are two minima exceeding twice the mean error, however determined from few individual observations on eclipses whose circumstances are not neatly defined.

TABLE I

Min	λ	JD hel 2440000 +	Cycles	(o - c)
II	y	649.8352	-6191.5	-0.0096 -0.0037
I	У	650.0381	-6191.0	
I	UB♥	2122.8210	-2453.0	+0.0108
11	∩BA.	2195.5031	-2268.5	+0.0001
Ŧ	UBV	2195.7033	-2268.0	+0.0033
ī	UBV	2196.4909	-2266.0	+0.0029
_	UBV	2196.6865	-2265•5	+0.0015
II		2221.5128	-2202.5	-0.0059
II	UBV	2918.6848	-433•0	-0.0034
I	UBV	2920.6549	-428.0	-0.0033
I	UB V		+3369•0	+0.0010
I	UBA	4416.6735	+4150.5	-0.0006
II	UBV	4724.5822		+0.0032
II	UBV	4808.5078	+4363.5	_
II	UB V	5050.8099	+4978.5	-0.0041
I	UB¥	5076.6194	+5044•0	-0.0015
ī	UB V	5079.7701	+5052.0	-0.0028

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Bond, H.E.: 1970, P.A.S.P., 82, 1065. Sisteró, R.F. and Castore de Sisteró, M.E.: 1976, IBVS, No.1132.