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PHOTOELECTRIC LIGHT CURVES OF RZ COLUMBAE

The eclipsing binary system RZ Col (CoD-36°2177) was discovered photographically by Hoffmeister (1949). With the exception of the photographic data obtained by Hoffmeister (1956), no further work has been done on this system. For this reason, RZ Col was selected for observation on eight nights during December 1979. The number two 41cm telescope at Cerro Tololo InterAmerican Observatory was used with standard B,V filters and an RCA 1P21. The comparison star was CoD-36°2174; CoD-36°2179 was the check star.

The  $\beta$  Lyrae-type light curve is well defined at each effective wavelength. From the observations defining two primary and three secondary eclipse curves, five epochs of minimum light were determined. These are listed in Table I.

TABLE I

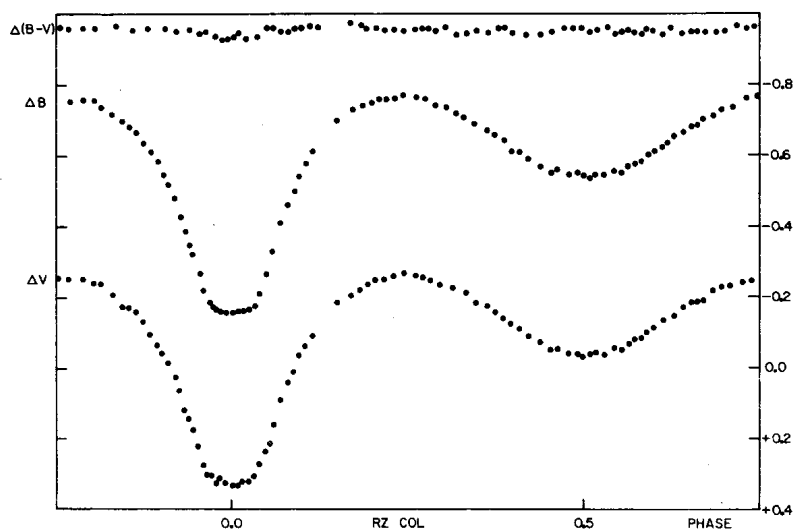
JD Hel. 2444200+	Min.	(O-C) <sub>1</sub>	(O-C) <sub>2</sub>
23.6959	II	+0. <sup>d</sup> 0017	+0. <sup>d</sup> 0001
27.6525	II	+0.0018	+0.0004
29.6291	I	0.0000	-0.0011
32.7396	II	+0.0018	+0.0010
33.5860	I	+0.0004	-0.0004

The times of primary minimum light in Table I and those observed by Hoffmeister (1956) were introduced into a least squares solution to obtain the ephemeris

$$\text{JD Hel. Min. I} = 2434326.2824 + 0.^{\text{d}}56522725\text{E.}$$

± 15 ± 29 p.e.

This was used to calculate the (O-C)<sub>1</sub>'s in Table I. The present observations



indicate a somewhat shorter period, and the following set of light elements,

$$\text{JD Hel. Min. I} = 2444229.6302 + 0.5651765E,$$

was used to calculate the  $(O-C)_2$ 's in Table I.

The B and V light curves of RZ Col, defined by normal points, are shown in Figure 1 as  $\Delta m$  versus phase.

An analysis of the observations is underway. Preliminary work indicated the eclipses are complete. Spectroscopic observations are urgently needed.

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- Hoffmeister, C. 1949, Astr. Abh. A.N. 12 (1).  
 \_\_\_\_\_ 1956, Veröff, Sonneberg 3, 3.