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DO ALL THREE VARY: \circ UMa, 23 UMa AND HR 3245?

Jackisch (1963) had reported, on the basis of 16 observations between 1954 and 1957, that \circ UMa (HR 3323, NSV 4093) was variable by 0.08V in a period of 358 days. He also indicated the possibility of a secondary period of 0.05 day with an amplitude of 0.02V. The recent NSV catalogue (Kholopov 1982) gives a range from 3.30 to 3.36V. However, these values come from the USNO catalogue of photoelectric magnitudes (Blanco 1968) and do not necessarily indicate the amplitude of the suspected variable, only the range of discordances among six observers using different equipment. In not one of the six determinations was any suspicion of variability mentioned. Jackisch fortunately indicated which two stars he had used for comparison, HR 3245 and HR 3757 (23 UMa, NSV 4506). Both have subsequently been reported as variable. Henriksson (1977) found HR 3245 to be a possible eclipsing variable, 5.74V, amp. 0.062V. HR 3757 had been announced by Lau (1914) as varying from 3.3 to 3.8v in a short period. But a visual variation of only 0.5 mag. is within the probable errors of naked-eye determination. The recent NSV gives 3.65-3.68V, but this again represents the discordance among five independent observers.

Clearly, all three of these stars (Table I) should be observed photoelectrically to ascertain which actually do vary, and to determine types and periods for those that do.

Table I

HR	Name	NSV	(1950)	V	amp?	Per. d
3245	—	—	8 ^h 14 ^m 57 ^s +62°39'8	5.7	0.06	
3323	\circ UMa	4093	8 26 06 +60 53.3	3.3	0.08?	358?
3757	23 UMa	4506	9 27 37 +63 16.9	3.7	0.03	short

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