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ON THE SECONDARY MINIMUM OF  $\theta^1$  Ori A

Photoelectric observations of  $\theta^1$  Ori A were obtained on 21 March 1975, starting at 0332 UT. This is within the time predicted for the secondary minimum (W.A. Feibelman 1975).

Eight UBV observations obtained with the 1 meter Ritchey-Chretien telescope at the Flagstaff Station of the Naval Observatory failed to show a decrease in light from normal.

A 13"39 aperture was used,  $\theta^1$  Ori D was monitored as a comparison star, sky readings were taken 15" west of A in the nebulosity, and observations were terminated by clouds. As can be seen below, where the observations are grouped in three means, differential photometry was not needed to demonstrate that the light did not vary by more than the error of each mean.

JDH	$\theta$	V	B-V	U-B	n
2440000.0+					
2858.6465	195.559	6.72 $\pm$ 0.03	0.03 $\pm$ 0.00	-1.00 $\pm$ 0.02	3
2858.6569	195.578	6.74 $\pm$ 0.04	0.03 $\pm$ 0.01	-1.00 $\pm$ 0.01	3
2858.6694	195.601	6.73 $\pm$ 0.04	0.03 $\pm$ 0.02	-0.99 $\pm$ 0.02	2

The values of  $\theta$  were computed using the light elements below which were derived from data by E. Lohsen (1975a, 1976b) and K. Aa. Strand (1975).

$$T_0 = 244\,1966.826 \pm 196.297 \cdot E.$$

Feibelman predicted the secondary minimum to extend to  $\theta=196^\circ$ . The above observations do not support this, but do confirm visual observations reported by Lohsen (1976b).

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References:

- W.A. Feibelman, 1975, IBVS No. 1070  
 E. Lohsen, 1975a, IBVS No. 988  
 E. Lohsen, 1976b, IBVS No. 1129  
 K. Aa. Strand 1975, IBVS No. 1025