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ON THE VARIABILITY OF THE STAR BD +56^o2855

The star BD +56^o2855 (9, 0) = HD 240 055 (9, 4) (B5) = P 5699 = K~~5~~ 5612, RA 1900 = 22^h42^m15^s, D 1900 = +56^o19' 5" has hitherto often been used as comparison star for CO Lac. Uitterdijk (1934), on inspecting photographic plates found that on 12 September 1915 the star was by about 0.24 mag fainter than its mean brightness. Consequently, the star BD 56^o2855 has been included in the catalogue of stars suspected of variability.

In the period 25 August 1967 to 1 October 1967, 221 observations of the star were made at the Crimean Astrophysical Observatory (USSR) using a 64-cm telescope equipped with a photoelectric photometer. The observations were made in a system similar to the system B, V Johnson - Morgan. The star BD +56^o2855 was used as comparison star.

The star BD +56^o2855 turned out to be an eclipsing variable with elements:

$$J.D. 2439749,3973 + 6^d,3549 . E$$

$$\text{The depth of primary minimum } A_1 = 0,30 \text{ mag}$$

$$\text{The depth of secondary minimum } A_2 = 0,13 \text{ mag}$$

$$\text{The duration of the eclipse } D = 6^h 20^m$$

in yellow. The secondary minima are lying symmetrically relative to the primary ones. The elements in the blue colour are similar to those in yellow.

Further photoelectric observations of times of minima are desirable for a more accurate determination of elements.

Cracow, 5 January 1968

J. M. KREINER

Astronomical Observatory
of the Jagellonian University

References

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