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AN ECLIPSING BINARY IN THE FIELD OF ω CEN

Niss, Jørgensen and Laustsen (1978) have recently published a list of new variables in the region of the globular cluster NGC 5139 (ω Centauri). Of these stars, one (their number 5, hereafter called NJL 5) was classed as a definite eclipsing binary.

A search through the Harvard Observatory plate collection by the undersigned has located approximately 250 plates with images of NJL 5 from 1893 to 1950, and 14 definite minima from JD 2,413,409.5 (1895) to 2,430,171.2 (1941). The resulting period is $1^d.376162$, with epoch of minimum at JD 2,429,787 $^d.22$. Fig. 1 shows a light curve of NJL 5 derived from 39 plates (blue emulsion without filter) taken with the Harvard 60-inch Rockefeller Reflector at Bloemfontein, South Africa between 1933 and 1941. Comparison stars were taken from the photometry of Cannon and Stobie (1973).

Although a detailed solution of the light curve for elements has not been made, the shape suggests that the primary may have a radius appropriate to a main sequence star. Therefore, at the magnitude derived, NJL 5 is probably not a member of NGC 5139.

MARTHA H. LILLER

Harvard-Smithsonian Center for Astrophysics
Cambridge, Mass. 02138, U.S.A.

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