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CSV 2851 - A RED DWARF VARIABLE

CSV 2851 = HV 10814 = BPM 61550 = CoD-38^o11343 was introduced in 1973 in the research program on red dwarf variables of the I.T.A. Astronomical Observatory (Ferraz Mello, S. and Torres, C.A.O., 1971 I.B.V.S. 577) after a notes of Sanduleak, N. and Stephenson, C.B. (1973 I.B.V.S. 770) showing that this suspected irregular variable was actually a dM3e star.

The star was observed on 9 different nights against the comparison stars CoD-38^o11352 and CoD-38^o11353. The last one was not very stable, probably due to a nearby faint star that may have been included inadvertently in the diaphragm on some nights. But the observed variation is certainly due to CSV 2851. Although the paucity of the data doesn't permit to obtain unambiguously the period, we represent in Fig.1 the light curve obtained with the period that best fits the data, $P=2^d.69$. The ordinates are magnitude differences CSV 2851 minus CoD-38^o11352 and the individual values are given in Table I.

We obtained for the first comparison star a magnitude $V=9.40$ and a color index $B-V=1.23$. A $B-V=1.54$ for CSV 2851 is consistent with a dM3e spectral classification, and if we suppose it to be a normal main sequence star, the visual magnitude of 11.2 would imply a parallax of the order of $0''.09$. (It is important to confirm this, and we note that the star is less than 1^o from Gl 646)

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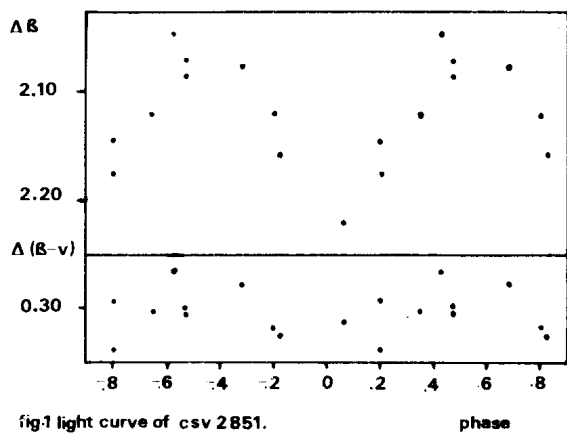


fig:1 light curve of csv 2851.

Table I

JD 2441000+	ΔB	$\Delta(B-V)$
831.670	2.068	0.298
831.677	2.086	0.305
838.635	2.220	0.313
839.617	2.046	0.265
840.621	2.118	0.317
841.695	2.147	0.292
863.612	2.122	0.305
872.586	2.074	0.278
894.489	2.157	0.325
895.507	2.176	0.338