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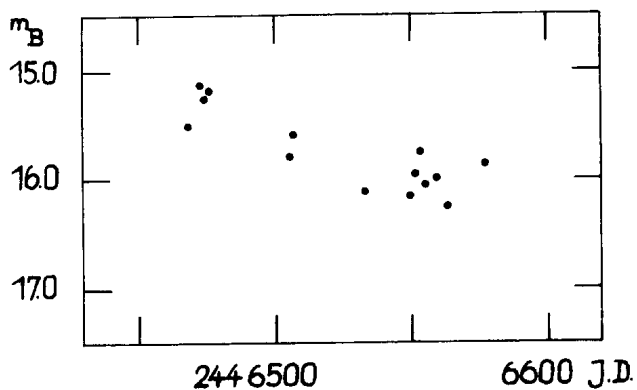
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OPTICAL BEHAVIOUR OF THE POLAR ST LEONIS MINORIS = CW 1103 + 254 IN 1986

Using the sequence of comparison stars given in the IBVS No. 2735 the star was measured on 20 blue-sensitive plates (ORWO ZU21 + GG13 + BG12) from 14 nights taken with the 50/70/172 cm Schmidt camera of Sonneberg Observatory covering the time interval between 7 February 1986 and 26 May 1986. On 6 nights more than one plate per night were obtained. The exposure time of the plates amounts to 20 minutes. The individual observations are listed in Table I.

Table I

J.D.hel.	$m_B$	J.D.hel.	$m_B$
244....		244....	
6469.586	15. <sup>m</sup> 41	6507.568	15. <sup>m</sup> 58
6469.606	15.59	6533.451	15.94
6473.590	15.36	6533.469	16.31
6473.609	14.96	6550.380	16.15
6474.512	15.44	6552.362	15.96
6474.531	15.03	6553.365	15.76
6476.550	15.33	6555.363	16.06
6476.572	15.07	6559.442	15.98
6506.546	15.70	6563.394	16.27
6506.566	15.93	6577.403	15.85



The long time-scale light curve in B is shown in Figure 1. There a slow decrease of brightness from  $m_B \approx 15.2$  to  $m_B \approx 16.0$  within the given time interval can be seen. This behaviour can be explained as a decrease from the X-ray heated high state of ST LMi to the mean brightness state, which in former series of observations was accepted as the high state. From the

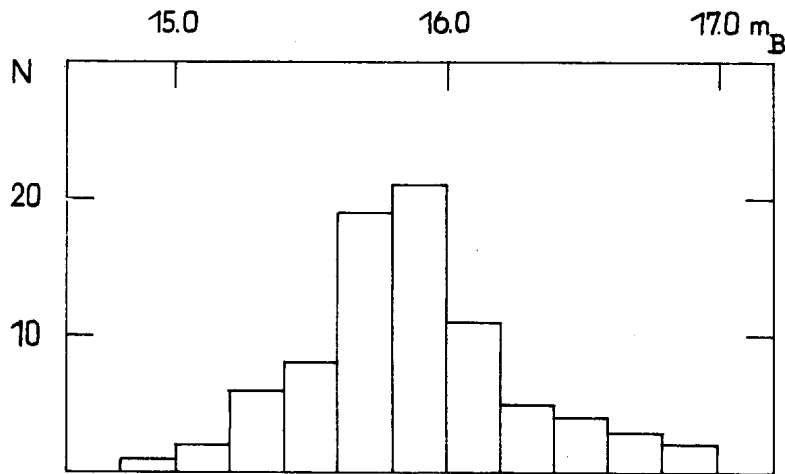


Figure 2

brightness distribution of the star obtained from all individual observations between 1982 and 1986 and shown in Figure 2 the conclusion can be drawn that the star prefers the mean brightness state. In connection with this behaviour it is worth mentioning that in the season 1983/84 an increase of brightness from the low to just the mean state was observed (Götz, 1985).

Because of the small number of observations in 1986 no positive statements about the behaviour of the occultation light changes can be made.

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Reference:

Götz, W. 1985, I.B.V.S. No. 2735