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Discovery of Variability for NOMAD-1 1127-0027360

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Star Name:	NOMAD-1 1127-0027360		
Coordinates (J2000):	1 48 50.13, +22 46 37.4		
Variability type:	EB:;	**Limits, System:**	15.32 - 16.25 (I); 16.2 - 17.61 (R);
Period:	0.320 d;	**Epoch(min):**	JD 2455441.2871

Remarks:

The variability of NOMAD-1 1127-0027360 was discovered on frames obtained during observations of the gamma-ray burst GRB100901a with telescopes of the MASTER robotic net (Lipunov et al. 2010) (Tunka Valley; Kourovka astronomical observatory; Kislovodsk solar station) on September 1 - 2, 2010. Completely identical MASTER II telescopes, each of them consisting of two parallel optical telescopes on the same mount (40 cm aperture, 1:2.5 focal ratio), are installed at all three locations. They permit to take two simultaneous images in broadband filters. The telescopes are equipped with Apogee Alta U16 CCD cameras (Kodak KAF16000 chip, Peltier cooled). Additional observations of the object were carried out at Kourovka astronomical observatory on September 2 - 4, 2010. Instrumental I and R filters were used.

The reductions of CCD frames were carried out with the IRAF package (Tody 1993). We did not transform our observations to a standart photometric system. Our I-band observations cover both the primary and the secondary minimum as well as both maxima. The secondary maximum was not covered with our R-band observations. We suggest that the star is an EB eclipsing variable.

The period was determined using the FAMIAS software package developed in the framework of the FP6 European Coordination Action HELAS (Zima 2008).

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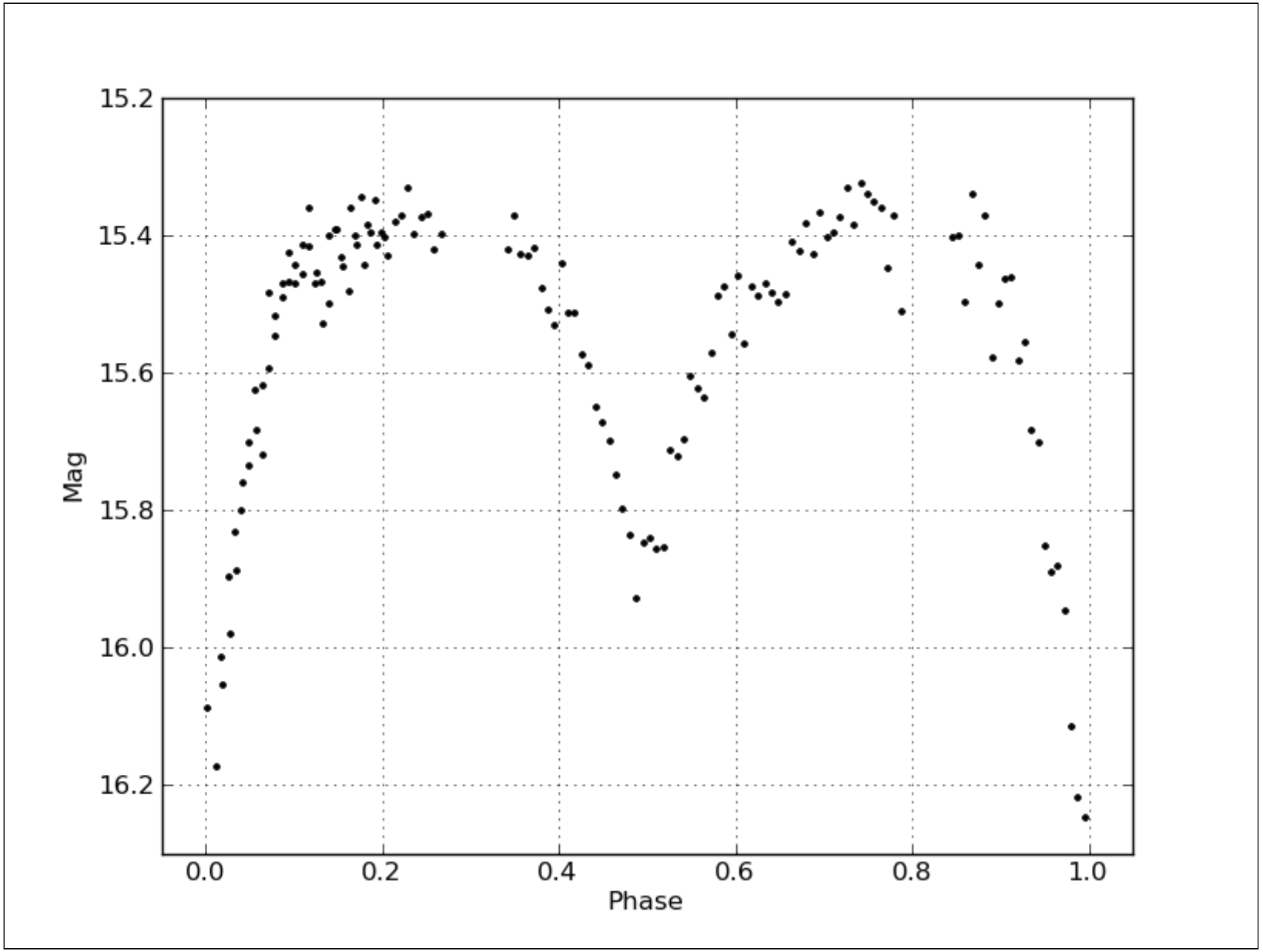
References:

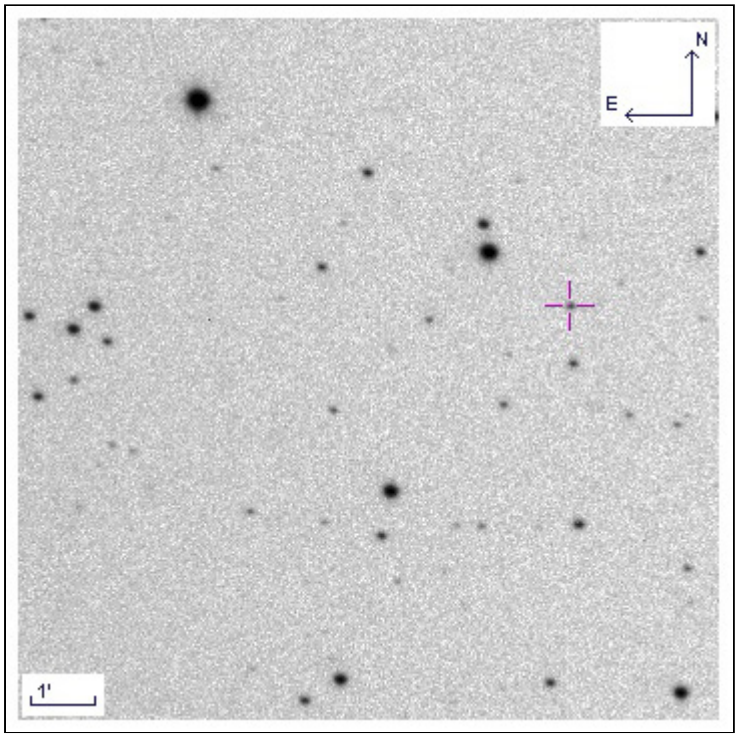
Lipunov, V., Kornilov, V., Gorbovskoy, E., et al., 2010, Advances in Astronomy, 2010, Article ID 349171
Tody, D., 1993, A.S.P. Conference Ser., 52, 173

Light Curve



The I-band light curve.

Finding Chart



Data Source

1. data.txt