

VB1c Photometry for Five Eclipsing Variables

[L. N. Berdnikov](#)^{#1}, [E. N. Pastukhova](#)^{#2}

#1. Sternberg Astronomical Institute, Lomonosov State University, Moscow, Russia

#2. Institute of Astronomy, Russian Academy of Sciences, Moscow, Russia

Received: 9.04.2013; accepted: 7.10.2013

(E-mail for contact: leonid.berdnikov@gmail.com, pastukhova@sai.msu.ru)

#	Name	Other	Coord (J2000)	Type	Max	Min	System	Period	Epoch (JD)	type	Sp	Comment	L.Curve	Find.Chart	Data
1		ASAS 052606-6710.9	05 26 06.19, -67 10 56.8	EB	12.32	12.70	V	3.301535	2454816.370	min	OB	Comm. 1	1lc.jpg	1ch.jpg	1.txt
2		ASAS 063847-3108.0	06 38 47.58, -31 07 56.2	EW	13.05	13.50	V	0.706765	2454844.319	min		Comm. 2	2lc.jpg	2ch.jpg	2.txt
3	EZ Mon	ASAS 070525-0510.6	07 05 25.39, -05 10 37.0	EW	12.60	13.40	V	0.752334	2455578.488	min		Comm. 3	3lc.jpg	3ch.jpg	3.txt
4		ASAS 074522-2400.2	07 45 22.32, -24 00 13.5	EB	11.65	11.85	V	2.242637	2454480.449	min		Comm. 4	4lc.jpg	4ch.jpg	4.txt
5		ASAS 200559-0159.9	20 05 58.40, -01 59 53.0	EW:	12.23	12.45	V	1.052182	2456063.540	min		Comm. 5	5lc.jpg	5ch.jpg	5.txt

Comments:

1. MinII = 12^m.65. B-V = -0.11, J-K = -0.2.

2. MinII = 13^m.43. B-V = 0.42, J-K = 0.21. This star was discovered in the ASAS-3 survey and enters their variable-star catalog as EC/DCEP-F0 but with a wrong period (2^d.4179).

3. MinII = 13^m.35. B-V = 0.60, J-K = 0.22.

4. MinII = 11^m.80. B-V = 0.35, J-K = 0.09.

5. MinII = 12^m.40. B-V = 0.81, J-K = 0.41.

Remarks:

In 2006–2012, we performed photometric observations of selected variable stars with the 76-cm telescope of the South African Astronomical Observatory (SAAO,

Republic of South Africa). Photoelectric photometer was used before JD 2454480 and an SBIG ST-10XME CCD camera was used after JD 2454480. For all frames, we used BVI filters of the Kron–Cousins system (Cousins 1976). We found that 4 stars which were suspected to be pulsating variables (EZ Mon is in GCVS, Samus et al. 2007–2012; stars 1, 4, and 5 are in the ASAS-3 project, Pojmanski 2002), have proved to be eclipsing binaries. Later we revealed that EZ Mon was already detected in the ASAS-3 project as an eclipsing variable with a period of 0.75234 days. Periods for other stars were determined by us and we could confirm the value of period thanks to the publicly available electronic archives of CCD observations of the ASAS-3 project.

Acknowledgments: Our studies are supported by grants from the Russian Foundation for Basic Research (grants No. 10-02-00489, 11-02-00495, 13-02-00203 and 13-02-00664) and from the Program "Origin and Evolution of Stars and Galaxies" of the Presidium of Russian Academy of Science. We wish to thank the administration of the SAAO for allocation of the telescope time.

References:

Cousins, A.W.J., 1976, *Mem. R. Astron. Soc.*, 81, 25

Pojmanski, G., 2002, *Acta Astronomica*, 52, 397

Samus, N.N., Durlevich, O.V., Kazarovets, E.V., Kireeva, N.N., Pastukhova E.N., et al., 2007–2012, *General Catalogue of Variable Stars*, Centre de Données Astronomiques de Strasbourg, B/gcvs