

A Study of 20 Eclipsing Binary Variables from the NSV Catalog

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#	Name	Other	Coord (J2000)	Type	Max	Min	System	Period	Epoch (JD)	type	Sp	Comment	L.Curve	Find.Chart	Data
1	NSV 10189	HV 11809	18 06 44.24, -39 46 11.6	EW	13.6	14.2 :	V	0.306885	2453634.540	min		Comm. 1	10189lc.jpg	10189ch.jpg	ASAS 180644-3946.2
2	NSV 10193	HV 7982	18 07 38.76, -53 15 33.6	EW	13.4	14.2	V	0.446077	2453677.543	min		Comm. 2	10193lc.jpg	10193ch.jpg	ASAS 180739-5315.6
3	NSV 10379	Plaut 116	18 13 53.97, -35 46 04.8	EW	13.5	14.2 :	V	0.438370	2454649.630	min		Comm. 3	10379lc.jpg	10379ch.jpg	ASAS 181354-3546.1
4	NSV 10388	HV 9795	18 15 05.42, -54 45 11.0	EW	14.67	15.18	CV	0.3338947	2455104.950	min		Comm. 4	10388lc.jpg	10388ch.jpg	10388dat.txt
5	NSV 10453	HV 9330	18 17 04.67, -47 32 14.6	EA	13.5	< 14.4	V	6.6303	2453827.05	min		Comm. 5	10453lc.jpg	10453ch.jpg	ASAS 181705-4732.2
6	NSV 10480	HV 9828	18 18 12.83, -55 59 44.7	EW	14.84	15.19	CV	0.696867	2455023.115	min		Comm. 6	10480lc.jpg	10480ch.jpg	10480dat.txt
7	NSV 10503	HV 9340	18 19 41.62, -62 52 20.0	EA	14.55	16.06	CV	1.91517	2453647.885	min		Comm. 7	10503lc.jpg	10503ch.jpg	10503dat.txt
8	NSV 10683		18 21 59.92, -23 54 26.1	EW	13.2	13.6	V	0.39810	2455048.620	min		Comm. 8	10683lc.jpg	10683ch.jpg	ASAS 182200-2354.4
9	NSV 10729	HV 9892	18 25 07.04, -52 49 16.8	EB	15.12	15.48	CV	0.631851	2455806.012	min		Comm. 9	10729lc.jpg	10729ch.jpg	10729dat.txt
10	NSV 10734	HV 9893	18 25 18.82, -53 02 51.4	EA	14.78	15.35	CV	0.667631	2455104.965	min		Comm. 10	10734lc.jpg	10734ch.jpg	10734dat.txt
11	NSV 10760	Plaut 853	18 25 46.82, -36 44 12.0	EA	12.7	13.5	V	1.01485	2454573.795	min		Comm. 11	10760lc.jpg	10760ch.jpg	ASAS 182547-3644.2
12	NSV 10917	HV 9946	18 31 39.01, -54 52 35.9	EA	14.54	14.78	CV	0.714441	2455763.078	min		Comm. 12	10917lc.jpg	10917ch.jpg	10917dat.txt
13	NSV 10927	HV 9949	18 32 05.54, -57 21 50.8	EA	13.55	14.02	CV	1.89385	2453850.125	min		Comm. 13	10927lc.jpg	10927ch.jpg	10927dat.txt
14	NSV 11037	HV 9977	18 35 49.94, -57 01 40.0	EW	14.27	15.05	CV	0.321245	2454354.907	min		Comm. 14	11037lc.jpg	11037ch.jpg	11037dat.txt
15	NSV 11044	HV 9980	18 36 08.95, -55 35 15.2	EW	14.93	15.40	CV	0.332223	2456065.154	min		Comm. 15	11044lc.jpg	11044ch.jpg	11044dat.txt
16	NSV 11047	HV 9981	18 36 15.55, -55 05 24.3	EA	15.5	< 16.6	CV	4.6362:	2456175.80	min		Comm. 16	11047lc.jpg	11047ch.jpg	11047dat.txt
17	NSV 11101		18 37 20.18, -25 19 23.8	EB	13.4	13.9	V	0.457048	2454631.767	min		Comm. 17	11101lc.jpg	11101ch.jpg	ASAS 183720-2519.4
18	NSV 11137	HV 10010	18 40 00.16, -55 04 50.3	EB	14.85	15.55	CV	0.386221	2454697.074	min		Comm. 18	11137lc.jpg	11137ch.jpg	11137dat.txt
19	NSV 11162	HV 10018	18 41 09.20, -55 51 20.9	EW	13.70	14.15	CV	0.2718185	2456448.013	min		Comm. 19	11162lc.jpg	11162ch.jpg	11162dat.txt
20	NSV 11220	Innes 52a	18 42 54.18, -33 18 16.8	EW	13.6	14.25	V	0.334176	2454916.893	min		Comm. 20	11220lc.jpg	11220ch.jpg	ASAS 184254-3318.3

Comments:

1. MinII = 14.1. Twice shorter period with DSCT type is also possible.
2. MinII = 13.9.
3. MinII = 13.9.
4. MinII = 15.18.
5. MinII = 13.8. No finding chart was available for this variable before.
6. MinII = 15.17. Twice shorter period with RRC type is also possible.
7. MinII = 14.70. D = 0.12 P. No finding chart was available for this variable before.
8. MinII = 13.55.
9. MinII = 15.4.
10. MinII = 14.93. D = 0.16 P.
11. MinII = 12.9. D = 0.16 P.
12. D = 0.11 P. We see only one minimum and do not know if it is MinI or MinII.
13. MinII = 13.92. D = 0.10 P.
14. MinII = 14.91.
15. MinII = 15.36.
16. MinII = 15.8.
17. MinII = 13.7.
18. MinII = 15.25.
19. MinII = 14.10.
20. MinII = 14.05.

Remarks:

In our work aimed at improvement of the coordinates of variable stars from the NSV catalog (Samus et al. 2007–2015), we found light elements and types for 20 of them. We recovered the variable NSV 10453 suspected by Luyten (1935) and NSV 10503 suspected by Luyten (1933). We study the variables using publicly available electronic archives of CCD observations of the [ASAS-3](#) project (Pojmanski 2002), images of the US Naval Observatory Image and Catalog Archive, and the online publicly available [Catalina Sky Survey](#) photometric data (2013).

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References:

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