Recent Minima of 229 Eclipsing Binary Stars

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Abstract This paper continues the publication of times of minima for eclipsing binary stars. Times of minima for 299 variable stars were determined from observations received by the American Association of Variable Star Observers (AAVSO) Eclipsing Binaries Section from February 2023 through July 2023.

1. Recent observations

The accompanying list (Table 1) contains times of minima calculated for 229 variable stars calculated from recent CCD observations made by participants in the AAVSO's eclipsing binary program. These observations were reduced by the observers or the writer using the method of Kwee and van Worden (1956).

The linear elements in the *General Catalogue of Variable Stars* (GCVS; Kholopov *et al.* 1985) were used to compute the O–C values for most stars. For a few exceptions where the GCVS elements are missing or are in significant error, light elements from another source are used: CD Cam (Baldwin and Samolyk 2007), AC CMi (Samolyk 2008), DV Cep (Frank and Lichtenknecker 1987), Z Dra (Danielkiewicz-Krosńiak *et al.* 1996), DF Hya (Samolyk 1992), DK Hya (Samolyk 1990), EF Ori (Baldwin and Samolyk 2005), and GU Ori (Samolyk 1985).

The light elements used for EH Cnc, CX CMa, TY CMi, CZ CMi, LR Com, AS CrB, V728 Cyg, V796 Cyg, V1918 Cyg, V2364 Cyg, LS Del, GW Gem, IT Her, V728 Her, WZ Leo, DE Lyn, CU Tau, and KM UMa are from (Kreiner 2004).

The light elements used for V1687 Aql, V1713 Aql, DN Boo, GW Boo, MU Cnc, FV CVn, AW CrB, BD CrB, V700 Cyg, V2181 Cyg, V2477 Cyg, V1057 Her, CE Leo, GU Leo, HI Leo, FI Lyn, V740 Per, RZ Pyx, V1332 Tau, V1370 Tau, BU Tri, QT UMa, and IR Vir are from (Paschke 2014).

The light elements used for V459 Aur, LQ Dra, and V871 Per are from (Nelson 2014).

The light elements used for DG CMi, V417 Gem, EU Hya, V740 Lyr, and V958 Mon are from (Watson *et al.* 2014).

The standard error is included when available. Column F indicates the filter used. A "C" indicates a clear filter.

This list will be web-archived and made available through the AAVSO ftp site at:

ftp://ftp.aavso.org/public/datasets/gsamj512eb229.txt.

This list, along with the eclipsing binary data from earlier AAVSO publications, is also included in the Lichtenknecker Database administrated by the Bundesdeutsche Arbeitsgemeinschaft für Veränderliche Sterne e. V. BAV; Walter *et al.* 2015).[1]

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Table 1. Recent times of minima of stars in the AAVSO eclipsing binary program.

Star	*JD (min) Hel. 2400000 +*	*Cycle*	*O–C (day)*	*F*	*Observer*	*Standard Error (day)*
XZ And	59987.3502	26531	0.2161	V	T. Arranz	0.0001
AB And	60158.7595	72461	–0.0569	V	K. Menzies	0.0001
KO Aql	60105.8317	6361	0.1054	V	G. Samolyk	0.0002
KO Aql	60154.5205	6378	0.1053	V	T. Arranz	0.0001
OO Aql	60130.5337	42458	0.0862	V	T. Arranz	0.0001
OO Aql	60149.5385	42495.5	0.0864	V	T. Arranz	0.0001
OO Aql	60152.5796	42501.5	0.0868	V	T. Arranz	0.0001
OO Aql	60153.5932	42503.5	0.0868	V	T. Arranz	0.0001
OO Aql	60154.6066	42505.5	0.0867	V	T. Arranz	0.0004
V342 Aql	60155.4913	6145	–0.0596	V	T. Arranz	0.0003
V343 Aql	60146.5635	17187	–0.0453	V	T. Arranz	0.0002
V1687 Aql	60047.8494	12901	0.0192	V	L. Hazel	0.0003
V1713 Aql	60153.4490	14428	–0.0482	V	T. Arranz	0.0004
RY Aur	60016.3927	7972	0.0126	V	T. Arranz	0.0001
SX Aur	60000.4160	16394	0.0257	V	T. Arranz	0.0002
WW Aur	60008.6979	10718	0.0026	V	G. Samolyk	0.0004
AP Aur	60023.3712	30875.5	1.9541	V	T. Arranz	0.0002
AR Aur	60001.6808	5224	–0.1491	V	G. Samolyk	0.0004
CL Aur	59987.5784	21714	0.1856	V	G. Samolyk	0.0001
CL Aur	60022.4206	21742	0.1856	V	T. Arranz	0.0001
EM Aur	59994.4843	15918.5	–1.1409	V	T. Arranz	0.0006
EP Aur	60001.5910	57008	0.0249	V	G. Samolyk	0.0002
EP Aur	60042.3686	57077	0.0230	V	T. Arranz	0.0001
HP Aur	59992.3818	12114	0.0752	V	T. Arranz	0.0001
IM Aur	60014.3755	15633	–0.1494	V	T. Arranz	0.0001
V404 Aur	60000.4540	9942	–0.0016	V	T. Arranz	0.0004
V459 Aur	60008.6674	2791.5	0.0112	V	G. Samolyk	0.0008
SU Boo	60110.4295	25005	0.0262	V	T. Arranz	0.0002
TU Boo	60043.8102	83190.5	–0.1748	V	G. Samolyk	0.0002
TY Boo	60044.8021	80607	0.0524	V	K. Menzies	0.0001
TY Boo	60101.5707	80786	0.0516	V	T. Arranz	0.0001
TY Boo	60124.4053	80858	0.0516	V	T. Arranz	0.0001
TY Boo	60124.5654	80858.5	0.0531	V	T. Arranz	0.0003
TZ Boo	60048.6632	68702.5	0.0491	V	G. Samolyk	0.0003
TZ Boo	60048.8140	68703	0.0513	V	G. Samolyk	0.0001
TZ Boo	60103.6391	68887.5	0.0500	V	G. Samolyk	0.0003
TZ Boo	60119.3894	68940.5	0.0507	V	T. Arranz	0.0001
TZ Boo	60119.5386	68941	0.0514	V	T. Arranz	0.0001
UW Boo	60097.6667	17610	–0.0035	V	G. Samolyk	0.0002
VW Boo	60047.6937	84348.5	–0.3379	V	G. Samolyk	0.0001
VW Boo	60047.8684	84349	–0.3343	V	G. Samolyk	0.0001
VW Boo	60074.7367	84427.5	–0.3386	V	K. Menzies	0.0001
VW Boo	60126.4257	84578.5	–0.3407	V	T. Arranz	0.0002
AD Boo	60112.6753	18057	0.0412	V	G. Samolyk	0.0001
DN Boo	60084.4470	11584	0.0118	V	T. Arranz	0.0003
EQ Boo	60112.4227	2241	–0.0131	V	T. Arranz	0.0002
GW Boo	60045.8622	13653.5	–0.0112	V	K. Menzies	0.0005
V376 Boo	60112.4772	24989	–0.0066	V	T. Arranz	0.0007
AO Cam	59991.3246	22707.5	–0.0369	V	T. Arranz	0.0001
AO Cam	59991.4879	22708	–0.0385	V	T. Arranz	0.0001
CD Cam	60044.5855	9529	–0.0250	V	K. Menzies	0.0005
FN Cam	60012.7516	11094.5	0.0198	V	L. Hazel	0.0003
SW Cnc	60002.6020	2849	–0.0049	V	L. Hazel	0.0006
TW Cnc	60017.4507	105	–0.1393	V	T. Arranz	0.0008
TX Cnc	60039.3784	57532	0.0469	V	L. Corp	0.0006
XZ Cnc	60025.3851	9656	0.0254	V	T. Arranz	0.0001
YY Cnc	60054.3999	5377	–0.0038	V	T. Arranz	0.0003
EH Cnc	60018.3970	17984.5	–0.0128	V	T. Arranz	0.0002
MU Cnc	60002.6753	22254	0.0040	V	L. Hazel	0.0003
MU Cnc	60030.6039	22350	–0.0047	V	L. Hazel	0.0003
FV CVn	59710.5417	21134.5	–0.0119	V	T. Arranz	0.0002
SX CMa	60041.3577	19668	0.0439	V	T. Arranz	0.0002
TU CMa	59991.6391	29273	–0.0153	V	L. Hazel	0.0003
UU CMa	60006.4027	7112	–0.0449	V	T. Arranz	0.0001
UU CMa	60008.5669	7113	–0.0472	V	L. Hazel	0.0003
CX CMa	59987.6641	7843	0.0068	V	L. Hazel	0.0006
TY CMi	60016.4009	5785	–0.0314	V	T. Arranz	0.0003
XZ CMi	60030.3769	30383	0.0062	V	T. Arranz	0.0002
AC CMi	60053.4105	9311	0.0055	V	T. Arranz	0.0002
AK CMi	60001.6092	29864	–0.0257	V	G. Samolyk	0.0001
AK CMi	60055.3697	29959	–0.0255	V	T. Arranz	0.0001
CZ CMi	60018.3745	17632	–0.0199	V	T. Arranz	0.0001
DG CMi	60044.6188	6975	0.0611	V	L. Hazel	0.0003
TW Cas	59982.4481	12584	0.0316	V	T. Arranz	0.0002
WZ Cep	60143.6555	76904	–0.2523	V	G. Samolyk	0.0002
WZ Cep	60143.8635	76904.5	–0.2530	V	G. Samolyk	0.0002
XX Cep	60144.6626	6548	0.0458	V	G. Samolyk	0.0002
ZZ Cep	60091.8418	15017	–0.0198	V	G. Samolyk	0.0001
DK Cep	60152.8796	26942	0.0264	V	G. Samolyk	0.0002
DV Cep	60116.7617	11492	–0.0057	V	G. Samolyk	0.0002
RW Com	59993.7913	84144.5	0.0229	V	G. Samolyk	0.0002
RW Com	60053.6029	84396.5	0.0234	V	G. Samolyk	0.0002
RW Com	60053.7225	84397	0.0243	V	G. Samolyk	0.0002
RW Com	60076.6260	84493.5	0.0239	V	L. Hazel	0.0003
RZ Com	60022.6710	74401	0.0633	V	G. Samolyk	0.0001
RZ Com	60022.8404	74401.5	0.0635	V	G. Samolyk	0.0001
RZ Com	60061.7684	74516.5	0.0633	V	G. Samolyk	0.0001
RZ Com	60088.6803	74596	0.0639	V	G. Samolyk	0.0002
SS Com	60047.7405	84895.5	1.0558	V	G. Samolyk	0.0002
SS Com	60089.6419	84997	1.0588	V	L. Hazel	0.0006
CC Com	60029.6654	92874.5	–0.0455	V	G. Samolyk	0.0002
CC Com	60029.7743	92875	–0.0470	V	G. Samolyk	0.0001
CC Com	60029.8860	92875.5	–0.0456	V	G. Samolyk	0.0002
CC Com	60089.5831	93146	–0.0441	V	L. Hazel	0.0003
LR Com	60002.7888	8370	0.0319	V	L. Hazel	0.0003
U CrB	60076.7049	12551	0.1542	V	L. Hazel	0.0006
RW CrB	60094.6126	26628	–0.0004	V	L. Hazel	0.0006
TW CrB	60103.6656	37708	0.0642	V	G. Samolyk	0.0001
AS CrB	60146.4154	20087	0.0227	V	T. Arranz	0.0002
AW CrB	60137.4227	24203	–0.0231	V	T. Arranz	0.0003
BD CrB	60070.4264	24802	0.0224	V	T. Arranz	0.0005
BD CrB	60075.4227	24816	0.0225	V	T. Arranz	0.0005
W Crv	60086.6402	52666.5	0.0152	V	G. Samolyk	0.0002
RV Crv	60088.6739	25506	–0.1222	V	G. Samolyk	0.0008
V Crt	60061.6670	26586	0.0029	V	G. Samolyk	0.0002
SW Cyg	60118.7902	3991	–0.4053	V	G. Samolyk	0.0001
WW Cyg	60118.7836	5950	0.1721	V	G. Samolyk	0.0002
AE Cyg	60104.8494	16012	–0.0047	V	G. Samolyk	0.0002
BR Cyg	60048.7830	13890	0.0016	V	L. Hazel	0.0003
BR Cyg	60132.7347	13953	0.0017	V	G. Samolyk	0.0001
BR Cyg	60151.3907	13967	0.0018	V	T. Arranz	0.0001
CG Cyg	60076.7726	32721	0.0858	V	L. Hazel	0.0003
DK Cyg	60152.7851	47065	0.1506	V	G. Samolyk	0.0002
MR Cyg	60094.7687	15920	–0.0134	V	L. Hazel	0.0006
V387 Cyg	60094.7328	50124	0.0178	V	L. Hazel	0.0003
V388 Cyg	60152.7404	21186	–0.1590	V	G. Samolyk	0.0001
V401 Cyg	60082.8194	27882	0.1056	V	L. Hazel	0.0003
V401 Cyg	60150.4151	27998	0.1055	V	T. Arranz	0.0003
V466 Cyg	60097.8582	22509.5	0.0078	V	G. Samolyk	0.0002
V466 Cyg	60159.7834	22554	0.0083	V	K. Menzies	0.0001
V477 Cyg	60097.8216	6778.5	–0.5181	V	G. Samolyk	0.0002
V700 Cyg	60145.5875	96744	–0.0393	V	T. Arranz	0.0002
V700 Cyg	60146.6041	96747.5	–0.0399	V	T. Arranz	0.0001
V700 Cyg	60156.6311	96782	–0.0396	V	T. Arranz	0.0001
V728 Cyg	60090.7408	3684	0.0649	V	L. Hazel	0.0003
V753 Cyg	60142.4589	55310	0.0859	V	T. Arranz	0.0001
V796 Cyg	60094.6680	5128	–0.0183	V	L. Hazel	0.0006
V995 Cyg	60162.4527	9507	0.6963	V	T. Arranz	0.0001
V1918 Cyg	60044.8724	18260	–0.0071	V	L. Hazel	0.0003
V1918 Cyg	60047.7669	18267	–0.0049	V	L. Hazel	0.0003
V2181 Cyg	59812.5001	15791.5	–0.0113	V	T. Arranz	0.0005
V2364 Cyg	60082.7328	12805.5	0.0113	V	L. Hazel	0.0009
V2477 Cyg	60145.5880	27800	0.0030	V	T. Arranz	0.0001
TY Del	60130.8260	14416	0.0958	V	G. Samolyk	0.0001

Table continued on following pages

Table 1. Recent times of minima of stars in the AAVSO eclipsing binary program, cont.

Star	JD (min) Hel. 2400000 +	Cycle	O–C (day)	F	Observer	Standard Error (day)	Star	JD (min) Hel. 2400000 +	Cycle	O–C (day)	F	Observer	Standard Error (day)
LS Del	60139.5688	20996	–0.0114	V	L. Corp	0.0007	XY Leo	60084.3779	52833	0.1958	V	T. Arranz	0.0002
Z Dra	60053.6745	7521	–0.0004	V	G. Samolyk	0.0002	AP Leo	60061.4216	47692.5	0.0497	V	T. Arranz	0.0002
Z Dra	60091.6816	7549	–0.0015	V	L. Hazel	0.0003	CE Leo	60066.5436	40823	–0.0122	V	T. Arranz	0.0001
Z Dra	60091.6825	7549	–0.0006	V	G. Samolyk	0.0001	GU Leo	60065.3713	21690	0.0055	V	T. Arranz	0.0001
RZ Dra	60085.7668	28878	0.0777	V	G. Samolyk	0.0001	HI Leo	60072.4172	23530	0.0480	V	T. Arranz	0.0001
RZ Dra	60116.6156	28934	0.0776	V	G. Samolyk	0.0002	T LMi	60040.6479	4849	–0.1425	V	G. Samolyk	0.0002
TW Dra	60098.7352	5687	–0.0987	V	G. Samolyk	0.0001	SS Lib	60118.7378	13187	0.1942	V	G. Samolyk	0.0004
TW Dra	60101.5419	5688	–0.0988	V	T. Arranz	0.0001	SS Lib	60137.4321	13200	0.1945	V	T. Arranz	0.0003
UZ Dra	60115.6820	5686.5	0.0029	V	G. Samolyk	0.0001	RY Lyn	60022.6018	11941	–0.0329	V	K. Menzies	0.0001
AI Dra	60048.7006	13978	0.0431	V	L. Hazel	0.0003	UV Lyn	60060.4151	47686	0.1337	V	T. Arranz	0.0001
AI Dra	60090.6611	14013	0.0451	V	G. Samolyk	0.0003	DE Lyn	60042.4542	18449	–0.0455	V	T. Arranz	0.0005
BH Dra	60105.7319	11053	–0.0042	V	G. Samolyk	0.0003	FI Lyn	60043.4363	22677.5	–0.0020	V	T. Arranz	0.0002
BH Dra	60147.5288	11076	–0.0038	V	T. Arranz	0.0001	RV Lyr	60145.4608	4062	–0.3117	V	T. Arranz	0.0002
BV Dra	60125.4973	44709	0.0203	V	T. Arranz	0.0001	UZ Lyr	60151.5191	8704	–0.0600	V	T. Arranz	0.0001
BW Dra	60125.4930	60079	–0.1522	V	T. Arranz	0.0001	BV Lyr	60148.5153	14903	0.0405	V	T. Arranz	0.0001
LQ Dra	60044.7766	2120	0.0353	V	L. Hazel	0.0003	EW Lyr	60103.7995	17244	0.3231	V	G. Samolyk	0.0002
YY Eri	59969.6550	57195	0.1731	V	L. Hazel	0.0003	EW Lyr	60154.4672	17270	0.3240	V	T. Arranz	0.0001
RW Gem	59995.6426	14550	0.0033	V	L. Hazel	0.0006	FL Lyr	60142.4970	10064	–0.0014	V	T. Arranz	0.0001
TX Gem	60031.3677	14351	–0.0452	V	T. Arranz	0.0001	FL Lyr	60144.6742	10065	–0.0023	V	G. Samolyk	0.0002
TX Gem	60045.3676	14356	–0.0454	V	T. Arranz	0.0001	V740 Lyr	60129.5986	22134.5	0.0283	V	T. Arranz	0.0001
WW Gem	60047.6175	27519	0.0396	V	G. Samolyk	0.0002	V740 Lyr	60130.4191	22137	0.0270	V	T. Arranz	0.0001
AC Gem	59960.6222	12950	–0.3544	V	L. Hazel	0.0006	V740 Lyr	60130.5847	22137.5	0.0283	V	T. Arranz	0.0001
AF Gem	60014.3622	26419	–0.0657	V	T. Arranz	0.0001	RU Mon	59960.7285	5082	–0.1606	V	L. Hazel	0.0006
AL Gem	60018.6065	24217	0.1153	V	G. Samolyk	0.0001	RU Mon	60050.3319	5107	–0.1759	V	T. Arranz	0.0003
CX Gem	59987.5751	14699	–0.0493	V	L. Hazel	0.0006	RW Mon	60001.6053	13809	–0.0965	V	G. Samolyk	0.0001
FG Gem	59934.7134	40082	–0.0192	V	L. Hazel	0.0006	RW Mon	60047.3508	13833	–0.0973	V	T. Arranz	0.0001
FG Gem	60049.3860	40222	–0.0246	V	T. Arranz	0.0001	AT Mon	60019.3814	16467	0.0091	V	T. Arranz	0.0003
GW Gem	60022.4323	11407	0.0003	V	T. Arranz	0.0002	BB Mon	60008.3631	45485	–0.0046	V	T. Arranz	0.0002
V417 Gem	60007.4722	21306.5	–0.1249	V	T. Arranz	0.0008	BO Mon	60025.4042	7423	0.0043	V	T. Arranz	0.0001
SZ Her	60090.6777	22279	–0.0391	V	G. Samolyk	0.0001	V958 Mon	59993.4368	28385.5	0.0570	V	T. Arranz	0.0001
SZ Her	60136.4910	22335	–0.0393	V	T. Arranz	0.0001	SX Oph	60129.6587	12955	0.0010	V	G. Samolyk	0.0004
TT Her	60048.8426	21986	0.0435	V	G. Samolyk	0.0001	V501 Oph	60103.8018	30159	–0.0093	V	G. Samolyk	0.0002
TT Her	60135.4893	22081	0.0431	V	T. Arranz	0.0001	V508 Oph	60132.6943	43650	–0.0251	V	G. Samolyk	0.0002
TU Her	60079.8048	7066	–0.2827	V	L. Hazel	0.0006	V839 Oph	60115.7238	48086	0.3619	V	G. Samolyk	0.0001
TU Her	60104.7450	7077	–0.2795	V	G. Samolyk	0.0001	V839 Oph	60148.4440	48166	0.3625	V	T. Arranz	0.0001
TU Her	60136.4839	7091	–0.2786	V	T. Arranz	0.0001	V1010 Oph	60113.7445	32016	–0.2435	V	G. Samolyk	0.0003
UX Her	60081.7392	13177	0.1919	V	G. Samolyk	0.0001	V1010 Oph	60116.7227	32020.5	–0.2417	V	G. Samolyk	0.0004
AK Her	60042.7966	42361.5	0.0320	V	L. Hazel	0.0003	EF Ori	60007.3505	4728	0.0112	V	T. Arranz	0.0002
CC Her	60105.7305	11786	0.3961	V	G. Samolyk	0.0001	ER Ori	60007.3783	43412.5	0.1672	V	T. Arranz	0.0001
CT Her	60129.4530	9856	0.0110	V	T. Arranz	0.0002	FH Ori	59993.6345	15849	–0.4873	V	G. Samolyk	0.0003
DI Her	60147.5300	1698	–0.0029	V	T. Arranz	0.0001	FL Ori	59993.3224	9443	0.0392	V	T. Arranz	0.0001
IT Her	60148.5127	22535.5	–0.0173	V	L. Corp	0.0014	FT Ori	59986.5646	5916	0.0265	V	G. Samolyk	0.0001
LT Her	60104.7235	17849	–0.1694	V	G. Samolyk	0.0003	GU Ori	59992.4560	35953.5	–0.0763	V	T. Arranz	0.0002
V450 Her	60134.4746	37741	–0.3956	V	T. Arranz	0.0003	GU Ori	59994.3386	35957.5	–0.0765	V	T. Arranz	0.0002
V728 Her	60148.4011	16228	0.0389	V	T. Arranz	0.0001	U Peg	60132.8350	63027	–0.1830	V	G. Samolyk	0.0002
V1057 Her	60157.4295	9392	–0.0122	V	T. Arranz	0.0003	DM Peg	59841.7663	13128	0.0211	V	L. Hazel	0.0006
WY Hya	60018.4748	27161	0.0468	V	T. Arranz	0.0001	ST Per	60008.4041	6635	0.3261	V	T. Arranz	0.0001
AV Hya	60043.6918	34197	–0.1260	V	G. Samolyk	0.0003	WY Per	59979.3809	4201	–0.3846	V	T. Arranz	0.0001
DF Hya	59987.7103	52025.5	0.0319	V	G. Samolyk	0.0001	XZ Per	59980.3663	14304	–0.0856	V	T. Arranz	0.0001
DF Hya	59987.8759	52026	0.0322	V	G. Samolyk	0.0001	AY Per	59985.3893	2788	–0.1330	V	T. Arranz	0.0005
DF Hya	60024.4077	52136.5	0.0321	V	T. Arranz	0.0001	V740 Per	60002.3936	23065.5	–0.0017	V	T. Arranz	0.0001
DF Hya	60040.6079	52185.5	0.0327	V	G. Samolyk	0.0001	V871 Per	59619.3579	886	–0.1706	V	T. Arranz	0.0002
DI Hya	59989.7127	46844	–0.0434	V	G. Samolyk	0.0002	V871 Per	60000.3416	1012	–0.1977	V	T. Arranz	0.0004
DK Hya	59987.7665	32848	–0.0027	V	G. Samolyk	0.0002	V873 Per	59984.3888	29208	–0.0393	V	T. Arranz	0.0001
EU Hya	60041.4296	33301	–0.0266	V	T. Arranz	0.0002	Beta Per	59989.6630	5004	0.1588	V	G. Samolyk	0.0003
Y Leo	60017.7645	8648	–0.0966	V	G. Samolyk	0.0001	UZ Pup	60031.4133	19397	–0.0137	V	T. Arranz	0.0001
Y Leo	60061.6029	8674	–0.0968	V	G. Samolyk	0.0001	XZ Pup	60012.6560	8028	0.1704	V	L. Hazel	0.0002
Y Leo	60073.4057	8681	–0.0968	V	T. Arranz	0.0001	RZ Pyx	59918.8657	32741.5	0.0064	V	L. Hazel	0.0003
UU Leo	60041.6902	8718	0.2530	V	G. Samolyk	0.0002	RZ Pyx	59991.7085	32852.5	0.0027	V	L. Hazel	0.0006
UV Leo	60001.8242	35930	0.0517	V	G. Samolyk	0.0001	U Sge	60145.4521	12724	0.0403	V	T. Arranz	0.0001
VZ Leo	60032.6180	26487	–0.0382	V	G. Samolyk	0.0003	RS Ser	60086.8262	42072	0.0266	V	G. Samolyk	0.0002
VZ Leo	60044.6084	26498	–0.0368	V	K. Menzies	0.0002	RS Ser	60130.4901	42145	0.0262	V	T. Arranz	0.0001
VZ Leo	60066.4058	26518	–0.0375	V	T. Arranz	0.0003	AO Ser	60047.8264	29470	–0.0070	V	G. Samolyk	0.0001
WZ Leo	59987.8507	5317	–0.0006	V	G. Samolyk	0.0002	CC Ser	60043.8841	43722.5	1.2330	V	G. Samolyk	0.0003
WZ Leo	60079.3835	5382	0.0005	V	T. Arranz	0.0002	Y Sex	60043.6557	43536	–0.0377	V	G. Samolyk	0.0004
XY Leo	60022.7284	52616	0.1953	V	K. Menzies	0.0002	Y Sex	60047.6472	43545.5	–0.0345	V	L. Hazel	0.0003
XY Leo	60039.4900	52675	0.1952	V	L. Corp	0.0007	RZ Tau	59981.3659	53659	0.1102	V	T. Arranz	0.0001

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Table 1. Recent times of minima of stars in the AAVSO eclipsing binary program, cont.

Star	*JD (min) Hel. 2400000 +*	*Cycle*	*O–C (day)*	*F*	*Observer*	*Standard Error (day)*	*Star*	*JD (min) Hel. 2400000 +*	*Cycle*	*O–C (day)*	*F*	*Observer*	*Standard Error (day)*
TY Tau	59993.6386	36015	0.2853	V	G. Samolyk	0.0002	VV UMa	60053.6257	20714	–0.1001	V	G. Samolyk	0.0001
AC Tau	59989.3572	7024	0.2347	V	T. Arranz	0.0001	KM UMa	60076.4330	21532	–0.0264	V	T. Arranz	0.0002
AM Tau	60006.3879	7218	–0.0870	V	T. Arranz	0.0001	QT UMa	60078.4202	17980	0.0130	V	T. Arranz	0.0001
AQ Tau	59988.4483	24947	0.5172	V	T. Arranz	0.0002	RU UMi	60104.6941	35259	–0.0146	V	G. Samolyk	0.0001
AQ Tau	59989.6638	24948	0.5168	V	G. Samolyk	0.0002	VV Vir	60017.8904	64547	–0.0531	V	G. Samolyk	0.0002
CT Tau	59990.5280	21874	–0.0770	V	K. Menzies	0.0002	VV Vir	60125.4093	64788	–0.0530	V	T. Arranz	0.0002
CT Tau	59990.5289	21874	–0.0761	I	K. Menzies	0.0007	AG Vir	60036.6298	22725	–0.0231	V	G. Samolyk	0.0003
CU Tau	59993.4218	18164.5	–0.0815	V	T. Arranz	0.0002	AH Vir	60001.7322	34813	0.3186	V	G. Samolyk	0.0001
EQ Tau	59978.3680	57903	–0.0580	V	T. Arranz	0.0001	AK Vir	60075.7026	14661	–0.0471	V	G. Samolyk	0.0001
EQ Tau	59987.5844	57930	–0.0580	V	G. Samolyk	0.0001	AW Vir	59984.8923	42266.5	0.0352	V	K. Menzies	0.0001
V781 Tau	59990.3074	46723.5	–0.0489	V	T. Arranz	0.0001	AW Vir	60097.6400	42585	0.0349	V	G. Samolyk	0.0001
V781 Tau	59990.4799	46724	–0.0489	V	T. Arranz	0.0001	AW Vir	60111.4455	42624	0.0345	V	T. Arranz	0.0002
V1332 Tau	59981.3687	23157	0.0292	V	T. Arranz	0.0001	AX Vir	60044.7520	46225	0.0344	V	K. Menzies	0.0001
V1370 Tau	59991.3264	28842	0.0141	V	T. Arranz	0.0002	AZ Vir	60033.8455	45922	–0.0157	V	G. Samolyk	0.0001
V1370 Tau	59991.4737	28842.5	0.0136	V	T. Arranz	0.0002	AZ Vir	60105.7018	46127.5	–0.0156	V	G. Samolyk	0.0002
X Tri	59985.3801	17995	–0.1168	V	T. Arranz	0.0001	AZ Vir	60111.4703	46144	–0.0165	V	T. Arranz	0.0002
X Tri	59986.3519	17996	–0.1166	V	T. Arranz	0.0001	BH Vir	60091.6396	20641	–0.0163	V	G. Samolyk	0.0001
RV Tri	59978.3467	18503	–0.0522	V	T. Arranz	0.0001	BH Vir	60110.4273	20664	–0.0166	V	T. Arranz	0.0001
BU Tri	59611.3768	18987.5	–0.0976	V	T. Arranz	0.0007	IR Vir	60082.4385	27767.5	–0.0146	V	T. Arranz	0.0001
BU Tri	59978.3138	20229	–0.1058	V	T. Arranz	0.0006	Z Vul	60156.5455	7010	–0.0195	V	T. Arranz	0.0007
W UMa	60048.6197	42810	–0.1397	V	G. Samolyk	0.0003	BE Vul	60132.8501	12900	0.1015	V	G. Samolyk	0.0004
W UMa	60048.7879	42810.5	–0.1384	V	G. Samolyk	0.0002	BO Vul	60141.5676	12412	0.0106	V	T. Arranz	0.0001
TX UMa	60075.7060	4922	0.3001	V	G. Samolyk	0.0004	BS Vul	60112.8364	35383	–0.0401	V	G. Samolyk	0.0001
TY UMa	60033.6603	57823.5	0.5011	V	G. Samolyk	0.0001	BT Vul	60130.8500	21669	0.0072	V	G. Samolyk	0.0003
TY UMa	60033.8377	57824	0.5012	V	G. Samolyk	0.0002	BU Vul	60130.7038	46744	0.0120	V	G. Samolyk	0.0001
UX UMa	60040.5760	114952	–0.0014	V	G. Samolyk	0.0003	CD Vul	60130.6616	20230	–0.0048	V	G. Samolyk	0.0002