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MINIMA OF ECLIPSING VARIABLES

This report continues the one in IBVS No. 154, and contains 151 observed minima of 41 eclipsing variable stars. All are visual timings reduced by the tracing-paper method, except where noted. Linear elements in the 1958 General Catalogue of Variable Stars were used to compute the O - C's, unless otherwise specified. The number of estimates used for each minimum is given under n.

J.D. ⊙ (2430000)	E	O - C	n	Observer
RT Andromedae				
9323.664	+24,175	-0.015	17	Carl Anderson
9340.643	+24,202	-0.017	19	D. Lucas
9350.712	+24,218	-0.011	12	F. Sanner
9355.740	+24,226	-0.014	13	F. Sanner
XZ Andromedae				
9349.696	+ 4,764	+0.053	17	M. Baldwin
9353.766	+ 4,767	+0.051	15	R. Swanberg
9421.634	+ 4,817	+0.056	24	D. Livingston
9421.635	+ 4,817	+0.057	13	D. Williams
9421.637	+ 4,817	+0.059	30	F. Chapman
9425.707	+ 4,820	+0.057	19	M. Baldwin
AB Andromedae				
9316.819	+12,779.5	+0.056	14	M. Baldwin
9348.682	+12,875.5	+0.058	10	M. Baldwin
9349.676	+12,878.5	+0.056	13	M. Baldwin
9352.662	+12,887,5	+0.055	10	M. Baldwin
9426.675	+13,110.5	+0.057	12	M. Baldwin
9432.650	+13,128,5	+0.058	8	M. Baldwin
9433.646	+13,131,5	+0.059	9	M. Baldwin
9435.637	+13,137,5	+0.058	12	M. Baldwin
9435.804	+13,138	+0.059	12	M. Baldwin
9436.632	+13,140.5	+0.058	10	M. Baldwin
CX Aquarii				
9358.592	+23,431	+0.034	12	R. Monske
9378.594	+23,467	+0.021	16	R. Monske

J.D. ⊙ (2430000)	E	O - C	n	Observer
BV 623 Aquarii				
8990.0584 ↓[1]	+ 8,143	+0.0095	27pe	L. Kalish
8990.8241 ↓[1]	+ 8,143.5	+0.0126	17pe	L. Kalish
OO Aquilae				
9293.841	+ 9,999	-0.023	10	M. Baldwin
9315.642	+10,042	-0.014	7	M. Baldwin
9316.649	+10,044	-0.021	11	M. Baldwin
9317.660	+10,046	-0.024	11	M. Baldwin
9319.689	+10,050	-0.022	14	M. Baldwin
9320.701	+10,052	-0.023	13	M. Baldwin
9337.677:	+10,085.5	-0.025	13	R. Monske
9342.747	+10,095,5	-0.023	14	R. Monske
9350.602	+10,111	-0.023	13	R. Monske
9352.626	+10,115	-0.027	10	M. Baldwin
9355.664	+10,121	-0.029	12	R. Monske
9355.665	+10,121	-0.028	16	M. Baldwin
V342 Aquilae ↓[2]				
9318.584	+ 1,087	+0.010	33	M. Baldwin
V346 Aquilae				
9341.659	+ 7,242	-0.023	21	R. Monske
9342.769	+ 7,243	-0.019	20	R. Monske
WW Aurigae				
9169.712	+ 2,339	+0.001	18	M. Baldwin
AR Aurigae				
9435.856	+ 3,070	+0.014	14	M. Baldwin
Y Camelopardalis				
9173.706	+ 4,459	-0.014	25	M. Baldwin
9183.617	+ 4,462	-0.020	16	L. Hazel
SV Camelopardalis				
9348.739	+11,906	-0.021	10	F. Sanner
9361.790	+11,928	-0.018	11	F. Sanner
R Canis Majoris				
9169.678	+ 3,217	+0.005	14	M. Baldwin

J.D. ⊙ (2430000)	E	O - C	n	Observer
RZ Cassiopeiae				
9315.748	+18,373	-0.038	18	M. Baldwin
9321.726	+18,378	-0.037	10	T. Cragg
9327.697	+18,383	-0.042	45pe	A. Stokes
9364.756:	+18,414	-0.036	14	R. Thompson
9364.757	+18,414	-0.035	18	F. Sanner
9375.505 [3]	+18,423	-0.044	12	J. Ashbrook
9385.677 [4]	+18,431.5	-0.032	30pe	J. Ruiz
9393.436 [3]	+18,438	-0.039	6	J. Ashbrook
9400.609	+18,444	-0.040	14	R. Thompson
9406.584	+18,449	-0.042	15	R. Thompson
9419.733	+18,460	-0.040	15	Sterling Anderson
9425.713	+18,465	-0.039	9	M. Baldwin
9431.688	+18,470	-0.038	15	T. Cragg
9443.646	+18,480	-0,032	9	J. Ashbrook
9456.779	+18,491	-0.047	33	D. Friedman
TV Cassiopeiae [5]				
4261.516:	+ 7,803	-0.023	5	J. Ashbrook
5662.683:	+ 8,576	-0.003	10	J. Ashbrook
6108.584	+ 8,822	-0.004	5	J. Ashbrook
7132.711	+ 9,387	-0.002	14	J. Ashbrook
8274.659	+10,017	+0.002	16	J. Ashbrook
9338.655	+10,604	-0.004	11	J. Ashbrook
9358.596	+10,615	-0.001	7	J. Ashbrook
AB Cassiopeiae				
9432.593	+10,203	+0.064	19	M. Baldwin
9436.694	+10,206	+0.065	21	M. Baldwin
U Cephei				
8909.773	+12,443	+0.742	12	D. Williams
9435.805	+12,654	+0.779	34	M. Baldwin
XX Cephei				
9433.569	+ 6,134	-0.091	14	M. Baldwin
EG Cephei [4]				
9358.785	+22,822	+0.005	14	R. Monske

J.D. ⊙ (2430000)	E	O - C	n	Observer
BV 382 Cephei [6]				
8606.7068	+ ,407	-0.0006	37pe	J. Ruiz
8622.636	+ 427	+0.014	18pe	A. Stokes
8634.795	+ 437	+0.002	27pe	A. Stokes
8642.759	+ 445.5	+0.009	33pe	A. Stokes
8644.635	+ 447.5	+0.013	--pe	A. Stokes
8649.757	+ 453	-0.014	--pe	A. Stokes
8652.585	+ 456	+0.005	19pe	A. Stokes
8652.588	+ 456	+0.008	89pe	J. Ruiz
8694.7047	+ 501	-0.0028	40pe	J. Ruiz
8700.7885	+ 507.5	-0.0041	27pe	J. Ruiz
8703.6015	+ 510.5	+0.0004	30pe	J. Ruiz
8708.7487	+ 516	-0.0013	26pe	J. Ruiz
8711.5587	+ 519	+0.0002	17pe	J. Ruiz
8997.0911 [7]	+ 824	+0.0004	--pe	J. Ruiz
8997.5592 [7]	+ 824.5	+0.0004	--pe	J. Ruiz
9405.7367	+ 1,260.5	+0.0074	--pe	A. Stokes
Y Cygni [8]				
9293.768	+ 9,932	+0.007	16	M. Baldwin
9341.702	+ 9,948	0.000	18	R. Monske
9350.690	+ 9,951	+0.001	18	R. Monske
9134.588	+ 9,979	-0.001	14	R. Monske
V477 Cygni				
9356.826	+ 2,774	-0.041	13	F. Sanner
9429.592	+ 2,805	-0.032	14	F. Sanner
W Delphini				
9358.695	+ 4,434	+0.101	30	R. Monske
YY Delphini				
9355.702	+17,098	+0.036	13	R. Monske
AI Draconis				
9342.729:	+12,266	+0.012	20	R. Monske
TW Draconis				
9350.621	+ 1,946	0.000	20	R. Monske
RX Herculis				
8966.763	+ 3,259	-0.006	13	D. Williams
8998.795	+ 3,277	+0.011	19	D. Loring

J.D. ⊙ (2430000)	E	O - C	n	Observer
SZ Herculis				
9293.839	+ 2,649	+0.009	17	M. Baldwin
9312.660	+ 2,672	+0.014	11	M. Baldwin
9316.746	+ 2,677	+0.009	20	M. Baldwin
9347.841:	+ 2,715	+0.017	19	Curtis Anderson
9348.654	+ 2,716	+0.012	11	M. Baldwin
9352.744	+ 2,721	+0.011	23	R. Swanberg
9366.654	+ 2,738	+0.013	20	W. Lowder
9375.653	+ 2,749	+0.013	15	W. Lowder
CT Herculis				
8894.754	+ 4,473	+0.038	22	R. Monske
8953.728	+ 4,506	+0.062	19	R. Monske
9321.739	+ 4,712	+0.088	11	T. Cragg
9355.666	+ 4,731	+0.075	17	R. Monske
SW Lacertae				
9335.773	+49,773	+0.036	19	R. Swanberg
9344.910	+49,801.5	+0.033	18	D. Loring
9348.766	+49,813.5	+0.040	14	R. Swanberg
9349.729	+49,816.5	+0.041	20	M. Baldwin
9352.772	+49,826	+0.037	15	R. Swanberg
9426.705	+50,056.5	+0.046	13	M. Baldwin
9429.591	+50,065.5	+0.045	11	M. Baldwin
9429.592	+50,065.5	+0.046	12	R. Monske
9432.638	+50,075.	+0.045	10	M. Baldwin
9433.598	+50,078	+0.043	10	M. Baldwin
9434.552	+50,081	+0,035	11	R. Monske
9435.686	+50,084.5	+0.047	12	M. Baldwin
9436.643	+50,087.5	+0.042	12	R. Monske
9436.646	+50,087.5	+0.045	12	M. Baldwin
9445.623:	+50,115.5	+0.042	21	F. Chapman
9449.630	+50,128	+0.040	20	F. Chapman
VX Lacertae				
9363.794	+ 4,783	-0.024	13	D. Williams
Delta Librae				
9320.701	+ 2,090	-0.009	12	M. Baldwin
RT Persei				
9435.683	+ 7,355	-0.015	13	M. Baldwin

J.D. ⊙ (2430000)	E	O - C	n	Observer
IK Persei [10]				
9125.411 [11]	+17,348	+0.009	--	M. Baldwin
9125.744 [11]	+17,348.5	+0.004	--	M. Baldwin
Beta Persei [12]				
9436.635	+513	-0.003	21	R. Monske
9479.642	+528	-0.008	12	J. Olivarez
U. Sagittae				
9337.698:	+6,569	+0.001	30	R. Monske
V505 Sagittarii				
9319.664	+4,907	-0.016	11	M. Baldwin
BV 312 Tauri [13]				
9169.664	+6,579	+0.001	19	M. Baldwin
X Trianguli				
7220.509	+2,599	+0.016	9	J. Ashbrook
7552.769	+2,941	+0.013	21	J. Ashbrook
9431.721	+4,875	+0.030	14	T. Cragg
9432.691	+4,876	+0.028	10	M. Baldwin
9433.662	+4,877	+0.028	15	M. Baldwin
9434.632	+4,878	+0.026	18	R. Monske
9435.606	+4,879	+0.029	15	M. Baldwin
9436.576	+4,880	+0.027	16	M. Baldwin
9436.578	+4,880	+0.029	15	R. Monske
AW Vulpeculae				
9376.600	+15,954	-0.010	13	R. Monske
BU Vulpeculae				
9384.643	+10,170	+0.052	20	R. Monske

1). Normal times of minima from observations between JD 38967 and 39024. O - C's were computed from elements given in IBVS No. 89.

2). O - C computed from elements given in IBVS No. 92.

3). Reduced with a mean light curve.

4). Observations in yellow light: 1P21 + GG 7. Depth of minimum about 0.11 magnitude. Reduced by Kwee- van Woerden method, giving a probable error of $\pm$ 0^d.001.

5). Reduced with a mean light curve.

6). O - C's computed from elements given in IBVS No. 85. Minima by Ruiz reduced by Kwee- van Woerden methods; those of Stokes by the tracing-paper method.

7). Normal times of minima from 119 observations between JD 38931 and 39063.

8). Elements for apsidal motion were used in computing O - C's.

9). O - C's were computed from the elements in Sky and Tele., May, 1963, page 277.

10). O - C's computed from elements given in MVS, 407-8.

11). Normal times of minima from 320 observations between JD 39045 and 39204.

12). O - C's computed from elements given in Sky and Tele., 27, 5, 316.

13). O - C computed from elements in Sky and Tele., 26, 5, 264.

14). O - C computed from 1960 supplement to GCVS.

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L. J. ROBINSON
"Sky and Telescope"
49 Bay State Rd.
Cambridge, Mass. USA

"T 83"