

# Variable Star Bulletin

## Visual and CCD minima of eclipsing binaries during 2005

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Following table is summary of minima of eclipsing binary reported from VSOLJ members.

star	min.		O-C	E	color	n	obs.	inst.
RT And	2453690.910		-0.010	19953	v	14	Hsk	28SC
WZ And	2453412.942		+0.032	18027	v	13	Hsk	28SC
XZ And	2453375.982		+0.149	21660	v	11	Hsk	28SC
BD And	2453690.0547		+0.0164	40457	V	172	Njh	25SC+CV-04
KP Aql	2453462.2948		-0.0172	3880	V	103	Njh	25SC+CV-04
OO Aql	2453455.313	*1	+0.030	29286.5	v	21	Kit	12B
OO Aql	2453498.136		+0.029	29371	v	37	Kit	12B
V346 Aql	2453667.944		-0.015	10620	v	16	Hsk	28SC
V415 Aql	2453586.1344		+0.1529	10117	V	155	Njh	25SC+CV-04
V417 Aql	2453547.1744	*1	+0.0509	28451.5	V	100	Nga	20SC+SV-04LE
V417 Aql	2453584.0220		+0.0706	28551	V	47	Nga	20SC+SV-04LE
V417 Aql	2453601.0569		+0.0796	28597	V	160	Nga	20SC+SV-04LE
CX Aqr	2453686.912		+0.009	30996	v	13	Hsk	28SC
EL Aqr	2453621.0814	*1	+0.0011	29360.5	V	105	Nga	20SC+SV-04LE
WW Aur	2453372.945		+0.000	8090	v	41	Kit	3.5B
WW Aur	2453372.956		+0.011	8090	v	12	Hsk	5F
WW Aur	2453728.970		-0.003	8231	v	28	Kit	3.5B
WW Aur	2453734.026		+0.003	8233	v	23	Kit	3.5B
ZZ Aur	2453696.0973		+0.0150	46891	V	600	Kub	16L+BJ-41L
ZZ Aur	2453723.1515		+0.0145	46936	V	382	Kub	16L+BJ-41L
ZZ Aur	2453724.0541	*1	+0.0153	46937.5	V	300	Kub	16L+BJ-41L
AH Aur	2453690.1891	*1	-0.0294	34788.5	V	107	Njh	25SC+CV-04
AH Aur	2453699.3316		-0.0308	34507	V	201	Njh	25SC+CV-04
AP Aur	2453732.1715	*1	-0.0504	19828.5	V	721	Kub	16L+BJ-41L
EO Aur	2453724.0162		+0.0456	8002	V	208	Njh	25SC+CV-04
EO Aur	2453732.144		+0.042	8004	v	16	Mdy	5B
EP Aur	2453645.2867		+0.0117	46253	V	420	Kub	16L+BJ-41L
EP Aur	2453713.2533		+0.0124	46368	V	584	Kub	16L+BJ-41L
HP Aur	2453455.9500		+0.0472	7520	C	219	Kub	16L+BJ-41L
HS Aur	2453476.9909		-0.0005	2657	V	120	Njh	25SC+CV-04
V534 Aur	2453699.2283	*K	-0.0135	1130	V	201	Njh	25SC+CV-04
VW Boo	2453522.1619	*1	-0.1225	65285.5	C	169	Kub	16L+BJ-41L

star	min.		O-C	E		n	obs.	inst.
VW Boo	2453517.1996		-0.1211	65271	C	188	Kub	16L+BJ-41L
VW Boo	2453527.9811	*1	-0.1228	65302.5	V	120	Kub	16L+BJ-41L
VW Boo	2453553.9968	*1	-0.1238	65378.5	V	52	Kub	16L+BJ-41L
YY Boo	2453456.1734		-0.0880	2962	V	138	Njh	25SC+CV-04
AC Boo	2453431.2944	*1	-0.0978	78469.5	Rc	106	Njh	25SC+CV-04
BW Boo	2453494.1972		-0.0201	3940	V	227	Njh	25SC+CV-04
CV Boo	2453435.2184	*1*3	-0.0006	840.5	V	119	Njh	25SC+CV-04
EF Boo	2453428.3022		+0.0203	11719	V	148	Mhh	20L+ST-7E
RZ Cas	2453379.088		+0.058	8516	v	20	Tcy	5B
RZ Cas	2453379.088		+0.058	8516	v	19	Nto	5B
RZ Cas	2453484.269		+0.058	8604	v	40	Kit	7B
RZ Cas	2453631.284		+0.057	8727	v	41	Kit	7B
RZ Cas	2453653.994		+0.057	8746	v	4	Ist	7.7B
RZ Cas	2453655.187		+0.055	8747	v	57	Tha	8B
RZ Cas	2453659.969		+0.056	8751	v	20	Nto	5B
RZ Cas	2453659.969		+0.056	8751	v	25	Tcy	5B
RZ Cas	2453661.172		+0.064	8752	v	31	Tcy	5B
RZ Cas	2453665.951		+0.062	8756	v	13	Nto	5B
RZ Cas	2453665.951		+0.062	8756	v	18	Tcy	5B
RZ Cas	2453667.138		+0.054	8757	v	24	Mdy	5B
RZ Cas	2453667.1410		+0.0567	8757	V	780	Kub	16L+BJ41L
RZ Cas	2453667.142		+0.058	8757	v	55	Kit	7B
RZ Cas	2453671.908		+0.043	8761	v	11	Tzt	
RZ Cas	2453671.908		+0.043	8761	v	19	Kgd	
RZ Cas	2453671.916		+0.051	8761	v	15	Tkc	
RZ Cas	2453671.921		+0.055	8761	v	20	Tnr	
RZ Cas	2453671.921		+0.055	8761	v	15	Oym	
RZ Cas	2453671.922		+0.056	8761	v	19	Wai	
RZ Cas	2453674.311		+0.055	8763	v	13	Hsk	5F
RZ Cas	2453679.093		+0.056	8767	v	42	Kit	7B
RZ Cas	2453685.067		+0.054	8772	v	41	Kit	7B
RZ Cas	2453691.047		+0.058	8777	v	29	Kit	7B
RZ Cas	2453691.06		+0.07	8777	v	6	Nto	5B
RZ Cas	2453691.05		+0.06	8777	v	11	Tcy	5B
RZ Cas	2453714.948		+0.054	8797	v	31	Kit	7B
RZ Cas	2453728.100		+0.058	8808	v	50	Ooa	
TV Cas	2453679.937		+0.005	5008	v	27	Tha	8B
TV Cas	2453687.157		-0.026	5012	v	42	Kit	7B
TV Cas	2453707.112		+0.009	5023	v	13	Mdy	10B
TW Cas	2453659.215		-0.011	8157	v	14	Mdy	10B
AB Cas	2453611.264		+0.083	7972	v	13	Hsk	28SC
BH Cas	2453633.1733	*1*H	+0.0133	8954.5	V	133	Njh	25SC+CV-04
CW Cas	2453617.2969		+0.0504	37535	V	150	Kub	16L+BJ41L
V523 Cas	2453602.2365		+0.0659	52984	V	251	Mhh	20L+ST-7E
V752 Cen	2453428.231		+0.002	24808	v	27	Kit	12B
V752 Cen	2453431.193		+0.002	24816	v	47	Kit	12B
VW Cep	2453623.015		-0.017	34010.5	v	56	Oht	5B
GK Cep	2453616.214		+0.101	15939	v	21	Oht	5B
TT Cet	2453663.0164		-0.0533	43455	Rc	65	Nga	20SC+SV-04LE
VV Cet	2453656.0538		+0.0998	42741	V	242	Nga	20SC+SV-04LE
VY Cet	2453721.9834		+0.0017	53675	V	224	Njh	25SC+CV-04
XY Cet	2453714.132		-0.005	5517	v	28	Kit	12B

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YY Cet	2453668.0770	*1*I	-0.2835	10638.5	Rc	65	Nga	20SC+SV-04LE
AA Cet	2453682.057		-0.039	23152	v	25	Kit	7B
AA Cet	2453704.056		-0.023	23193	v	16	Kit	5B
DY Cet	2453604.1828		-0.0219	11579	V	213	Kis	25SC+AP-7
DY Cet	2453676.0307		-0.0235	11742	V	38	Nga	20SC+SV-04LE
DY Cet	2453683.0833		-0.0236	11758	V	204	Nga	20SC+SV-04LE
DY Cet	2453683.083		-0.024	11758	v	58	Kit	12B
R CMa	2453378.104		+0.083	8001	v	19	Oht	5B
R CMa	2453443.962		+0.057	8059	v	22	Kit	5B
R CMa	2453697.2986		+0.0784	8282	V	214	Mhh	ST-7E+200mm(TelephotoLens)
RT CMa	2453693.1912		+0.6401	20921	V	198	Kis	25SC+AP-7
RT CMa	2453702.2464		+0.6390	20928	V	251	Mhh	20L+ST-7E
RX CMa	2453708.2036		-0.1380	5459	Ic	208	Kis	25SC+AP-7
YY CMi	2453413.163		+0.007	23208	v	30	Kit	12B
AK CMi	2453372.1286		-0.0171	18149	B	218	Mhh	25L+ST-7XME
AK CMi	2453372.1287		-0.0170	18149	V	218	Mhh	25L+ST-7XME
AK CMi	2453372.1285		-0.0172	18149	Rc	218	Mhh	25L+ST-7XME
AK CMi	2453376.0908		-0.0162	18156	Rc	70	Nga	10L+CV-04
AK CMi	2453379.2033	*1	-0.0161	18161.5	Rc	135	Njh	20SC+CV-04
AK CMi	2453381.1864		-0.0137	18165	Rc	118	Nga	10L+CV-04
AK CMi	2453383.1592	*1	-0.0215	18168.5	B	164	Njh	20SC+CV-04
AK CMi	2453682.2401		-0.0175	18697	V	349	Mhh	20L+ST-7E
AK CMi	2453688.1864	*1	-0.0130	18707.5	V	319	Kis	25SC+AP-7
AK CMi	2453695.2553		-0.0179	18720	V	254	Mhh	20L+ST-7E
AM CMi	2453388.1306	*1	+0.1850	27613.5	Rc	43	Nga	10L+CV-04
BH CMi	2453691.2849	*J	-0.0272	5666.5	V	122	Njh	25SC+CV-04
AH Cnc	2453380.2541	*1	-0.0028	32292.5	V	154	Njh	20SC+CV-04
RW Com	2453459.0234		-0.0190	56612	Rc	260	Njh	25SC+CV-04
RW Com	2453459.1405	*1	-0.0206	56612.5	Rc	260	Njh	25SC+CV-04
RW Com	2453495.0995		-0.0195	56764	V	376	Mhh	20L+ST-7E
SS Com	2453469.0091		-0.0431	68961	V	367	Njh	25SC+CV-04
SS Com	2453469.2138	*1	-0.0448	68961.5	V	367	Njh	25SC+CV-04
CC Com	2453438.1307		-0.0121	63006	Rc	263	Njh	25SC+CV-04
CC Com	2453438.2416	*1	-0.0115	63006.5	Rc	263	Njh	25SC+CV-04
CM Com	2453474.1456		+0.0126	4363	V	228	Njh	25SC+CV-04
DD Com	2453436.1053	*1	+0.0723	58158.5	V	286	Njh	25SC+CV-04
DD Com	2453436.2359		+0.0683	58159	V	286	Njh	25SC+CV-04
KK Com	2453478.0893	*B	-0.1619	4661	V	261	Njh	25SC+CV-04
LL Com	2453469.9957	*1*8	+0.1391	8069.5	V	327	Njh	25SC+CV-04
LL Com	2453470.1996	*8	+0.1396	8070	V	327	Njh	25SC+CV-04
KR Com	2453475.0061	*1*9	-0.1718	12194.5	V	289	Njh	25SC+CV-04
RW CrB	2453511.1396		-0.0068	17565	C	235	Kub	16L+BJ41L
TW CrB	2453550.0647		+0.0340	26579	V	108	Kub	16L+BJ41L
W Crv	2453449.0983		+0.0137	35563	Rc	121	Nga	10L+CV-04
RV Crv	2453414.283		-0.057	16574	v	39	Kit	12B
RV Crv	2453423.253		-0.054	16586	v	28	Kit	12B
VW CVn	2453504.0221		-0.0221	20683	V	177	Njh	20SC+CV-04
DF CVn	2453408.3280	*2	+0.0307	8679	V	185	Njh	20SC+CV-04
DF CVn	2453413.2309	*2	+0.0302	8694	V	161	Njh	20SC+CV-04
DF CVn	2453424.1801	*1*2	+0.0286	8727.5	V	188	Njh	20SC+CV-04

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ZZ Cyg	2453528.1240	-0.0436	13566	V	120	Kub	16L+BJ41L
ZZ Cyg	2453663.9029	-0.0459	13782	V	223	Kub	16L+BJ41L
ZZ Cyg	2453663.901	-0.048	13782	v	15	Hsk	28SC
ZZ Cyg	2453717.9658	-0.0440	13868	V	115	Njh	20SC+CV-04
BR Cyg	2453459.2526	+0.0009	8945	V	137	Njh	20SC+CV-04
BR Cyg	2453527.2132	+0.0007	8996	Rc	218	Mhh	20L+ST-7E
CG Cyg	2453567.1525	+0.0540	22407	V	49	Njh	25SC+CV-04
DK Cyg	2453643.0557	+0.0715	33235	V	318	Kub	16L+BJ41L
V456 Cyg	2453686.962	+0.039	9847	v	18	Hsk	28SC
V477 Cyg	2453610.0662	-0.0180	4014	V	188	Njh	25SC+CV-04
TY Del	2453589.1069	+0.0455	8924	V	101	Njh	25SC+CV-04
TY Del	2453662.957	+0.046	8986	v	14	Hsk	28SC
FZ Del	2453695.976	-0.038	28564	v	15	Hsk	28SC
Z Dra	2453455.15049	-0.16781	7334	V	268	Mhh	25L+ST-7XME
RZ Dra	2453491.2205	+0.0417	16907	V	316	Mhh	20L+ST-7E
WW Dra	2453516.1400	+0.4331	5507	V	427	Njh	25SC+CV-04
AI Dra	2453449.200	+0.017	8473	v	40	Kit	7B
AI Dra	2453694.956	+0.016	8678	v	21	Kit	8B
BV Dra	2453425.1898	-0.0029	25569	V	254	Njh	25SC+CV-04
BW Dra	2453425.1809	*1 -0.0501	37145.5	V	253	Njh	25SC+CV-04
BW Dra	2453425.3293	-0.0478	37146	V	253	Njh	25SC+CV-04
CM Dra	2453510.9889	*1 +0.0008	8370.5	V	103	Njh	25SC+CV-04
RU Eri	2453699.0837	-0.0245	17937	V	173	Nga	20SC+SV-04LE
RU Eri	2453718.0497	-0.0245	17967	V	106	Njh	25SC+CV-04
TZ Eri	2453373.010	+0.242	4205	v	17	Hsk	28SC
TZ Eri	2453662.292	+0.251	4316	v	21	Hsk	28SC
UX Eri	2453695.1958	+0.1337	26439	V	139	Njh	25SC+CV-04
UX Eri	2453697.1982	*1 +0.1324	26443.5	V	149	Njh	25SC+CV-04
UX Eri	2453702.0946	*1 +0.1307	26454.5	V	55	Nga	20SC+SV-04LE
WW Eri	2453718.0534	+0.0623	29284	V	274	Nga	20SC+SV-04LE
WW Eri	2453724.0732	*1 +0.0598	29290.5	V	146	Nga	20SC+SV-04LE
WW Eri	2453731.0240	+0.0619	29298	V	116	Nga	20SC+SV-04LE
WX Eri	2453611.2642	+0.0181	31678	V	134	Njh	25SC+CV-04
WX Eri	2453677.1217	+0.0140	31758	V	47	Nga	20SC+SV-04LE
WX Eri	2453682.067	+0.020	31764	v	28	Kit	12B
WX Eri	2453714.174	+0.019	31803	v	28	Kit	12B
WX Eri	2453728.997	+0.023	31821	v	29	Kit	12B
YY Eri	2453697.0860	*1 +0.1157	37684.5	V	323	Kis	25SC+AP-7
YY Eri	2453699.182	+0.122	37691	v	13	Tha	8B
YY Eri	2453700.1390	+0.1145	37694	V	178	Nga	20SC+SV-04LE
YY Eri	2453701.112	+0.123	37697	v	18	Tha	8B
YY Eri	2453702.068	+0.115	37700	v	14	Mdy	10B
YY Eri	2453702.069	+0.116	37700	v	37	Kit	12B
YY Eri	2453708.021	*1 +0.120	37718.5	v	23	Kit	12B
YY Eri	2453717.0189	*1 +0.1160	37746.5	V	293	Nga	20SC+SV-04LE
YY Eri	2453724.09	*1 +0.11	37768.5	v	13	Mdy	10B
YY Eri	2453724.093	*1 +0.117	37768.5	v	32	Kit	12B
YY Eri	2453734.059	*1 +0.117	37799.5	v	29	Kit	12B
AS Eri	2453375.949	-0.006	9323	v	34	Kit	12B
AS Eri	2453391.938	-0.002	9329	v	45	Kit	12B
BC Eri	2453715.0232	*L +0.0235	4199	V	156	Nga	20SC+SV-04LE
BC Eri	2453735.0598	*L +0.0249	4237	Ic	320	Kis	25SC+E47+

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BL Eri	2453708.1143	*1	-0.0654	58808.5	Ic	186	Kis	25SC+AP-7
BV Eri	2453697.0637	*1	-0.1164	20185.5	V	283	Nga	20SC+SV-04LE
BV Eri	2453711.0233		-0.1176	20213	V	281	Nga	20SC+SV-04LE
BZ Eri	2453630.2617		+0.0033	42266	V	286	Mhh	20L+ST-7E
CW Eri	2453679.0457		-0.0015	4549	V	67	Nga	20SC+SV-04LE
AE For	2453705.0677		-0.1464	5668	V	179	Nga	20SC+SV-04LE
TX Gem	2453678.1619		-0.0193	12082	V	599	Kub	16L+BJ41L
TX Gem	2453706.1588		-0.0225	12092	V	131	Njh	25SC+CV-04
AF Gem	2453430.0135		-0.0635	21124	Rc	72	Njh	25SC+CV-04
AF Gem	2453701.0944		-0.0664	21342	V	656	Kub	16L+BJ41L
AY Gem	2453404.963		-0.061	5493	v	15	Hsk	28SC
FG Gem	2453682.284		-0.033	32449	v	13	Hsk	28SC
GW Gem	2453679.2286		+0.0244	42511	V	674	Kub	16L+BJ41L
GW Gem	2453683.1850		+0.0241	42517	V	720	Kub	16L+BJ41L
GW Gem	2453730.9978		+0.0272	42589.5	V	420	Kub	16L+BJ41L
SZ Her	2453477.19034		-0.01991	14195	V	406	Mhh	20L+ST-7E
AK Her	2453437.3176		+0.0136	26691	Rc	83	Njh	25SC+CV-04
DQ Her	2453475.1731	*A	+0.0028	95652	C	498	Mhh	25L+ST-7XME
MT Her	2453455.2279		+0.0140	25297	Rc	243	Mhh	20L+ST-7E
MT Her	2453477.1747		+0.0135	25342	V	71	Njh	25SC+CV-04
MT Her	2453484.2468	*1	+0.0137	25356.5	Rc	267	Mhh	20L+ST-7E
MT Her	2453495.2211		+0.0143	25379	B	107	Mhh	25L+ST-7XME
MT Her	2453495.2209		+0.0141	25379	V	108	Mhh	25L+ST-7XME
V359 Her	2453458.2987		+0.1555	5573	V	93	Njh	25SC+CV-04
u Her	2453428.216		-0.000	23207	v	24	Kit	5B
WY Hya	2453727.2610	*1	+0.0241	18374.5	Ic	166	Kis	25SC+E47+
AI Hya	2453435.0558	*1	-0.4988	1412.5	V	190	Njh	25SC+CV-04
DF Hya	2453438.0436		-0.0008	67453	Rc	110	Nga	10L+CV-04
DF Hya	2453719.2260	*1	+0.0082	68303.5	V	92	Kis	25SC+E47+
EZ Hya	2453372.3079		-0.1112	24275	V	147	Njh	20SC+CV-04
EZ Hya	2453722.2207		-0.1055	25053	Ic	243	Kis	25SC+E47+
FG Hya	2453402.006		-0.076	25726	Rc	107	Nga	10L+CV-04
FG Hya	2453402.170	*1	-0.076	25726.5	Rc	107	Nga	10L+CV-04
SW Lac	2453580.1584	*1	-0.0967	25894.5	V	209	Kub	16L+BJ41L
VY Lac	2453637.2052		-0.1593	9542	V	87	Njh	25SC+CV-04
AR Lac	2453687.102		-0.115	6098	v	20	Nto	5B
AR Lac	2453687.110		-0.107	6098	v	22	Tcy	5B
AR Lac	2453687.114		-0.103	6098	v	24	Kit	5B
AR Lac	2453691.074		-0.110	6100	v	26	Kit	5B
AR Lac	2453691.085		-0.099	6100	v	17	Tcy	5B
AR Lac	2453693.065		-0.102	6101	v	20	Tcy	5B
AR Lac	2453695.021		-0.129	6102	v	12	Tcy	5B
AR Lac	2453698.994		-0.123	6104	v	21	Kit	7B
AR Lac	2453703.980	*1	-0.094	6106.5	v	15	Tcy	5B
AR Lac	2453704.952		-0.114	6107	v	17	Kit	7B
DG Lac	2453611.1325		-0.2073	4125	V	111	Njh	25SC+CV-04
UV Leo	2453380.161	*1	+0.024	24895.5	v	36	Kit	12B
UV Leo	2453393.062		+0.023	24917	v	31	Kit	12B
UV Leo	2453408.062		+0.021	24942	v	40	Kit	12B
UV Leo	2453412.266		+0.024	24949	v	29	Kit	12B
UV Leo	2453459.968	*1	+0.020	25028.5	v	35	Kit	12B
UV Leo	2453697.3090		+0.0272	25424	V	357	Kub	16L+BJ41L

star	min.		O-C	E		n	obs.	inst.
UV Leo	2453721.316		+0.031	25464	v	37	Kit	12B
UV Leo	2453722.212	*1	+0.027	25465.5	v	31	Kit	12B
UZ Leo	2453430.2327		+0.1618	22053	Rc	133	Njh	25SC+CV-04
VZ Leo	2453373.2749		-0.0557	20377	V	128	Njh	20SC+CV-04
VZ Leo	2453701.3275		-0.0648	20678	V	270	Kub	16L+BJ41L
XY Leo	2453723.2718		+0.0193	30443	V	230	Kub	16L+BJ41L
XZ Leo	2453720.2512		+0.0396	17827	V	380	Kub	16L+BJ41L
AM Leo	2453391.2308		+0.0057	29792	B,V,Ic	258	Kis	25SC+E47+
AP Leo	2453380.244		-0.041	32168	v	26	Kit	12B
AP Leo	2453469.9784	*1	-0.0364	32376.5	V	101	Nga	20SC+SV-04LE
BL Leo	2453437.0747		-0.0220	31172	V	309	Njh	25SC+CV-04
BL Leo	2453437.2164	*1	-0.0212	31172.5	V	309	Njh	25SC+CV-04
BW Leo	2453466.0513		-0.0615	45533	C	321	Njh	25SC+CV-04
CE Leo	2453439.0555		-0.0094	27656	Rc	263	Njh	25SC+CV-04
CE Leo	2453439.2089	*1	-0.0077	27656.5	Rc	263	Njh	25SC+CV-04
EX Leo	2453464.9407	*7	-0.0145	12151	V	385	Njh	25SC+CV-04
EX Leo	2453465.1487	*1*7	-0.0108	12151.5	V	385	Njh	25SC+CV-04
FS Leo	2453460.9423	*1*5	-0.0574	10855.5	V	476	Njh	25SC+CV-04
FS Leo	2453461.1839		-0.0443	10856	V	476	Njh	25SC+CV-04
delta Lib	2453380.279		+0.014	4477	v	20	Kit	5B
VW LMi	2453461.9371		+0.0278	10390	V	426	Njh	25SC+CV-04
VW LMi	2453462.1758	*1*6	+0.0277	10390.5	V	426	Njh	25SC+CV-04
SX Lyn	2453428.1820		-0.0044	3950	V	88	Njh	25SC+CV-04
SX Lyn	2453711.3295		-0.0029	4090	V	116	Njh	25SC+CV-04
UV Lyn	2453401.1355		+0.0522	31639	V	193	Njh	20SC+CV-04
TZ Lyr	2453644.9094		+0.0054	16755	V	240	Kub	16L+BJ41L
beta Lyr	2453674.982		-3.836	3518	v	15	Kit	3.5B
RW Mon	2453716.1948		-0.0616	3340	V	103	Njh	25SC+CV-04
RW Mon	2453721.1732	*1	-0.4603	3341.5	V	270	Njh	25SC+CV-04
RW Mon	2453696.2880		-0.0545	10501	B	202	Mhh	25L+ST-7XME
RW Mon	2453696.2880		-0.0545	10501	V	202	Mhh	25L+ST-7XME
RW Mon	2453696.2880		-0.0545	10501	Rc	202	Mhh	25L+ST-7XME
AO Mon	2453399.0612		+0.7000	6797	V	110	Njh	25SC+CV-04
AO Mon	2453432.0384	*1	+0.6956	6814.5	V	106	Njh	25SC+CV-04
AS Mon	2453711.2335		+0.6662	14696	V	124	Njh	25SC+CV-04
EP Mon	2453692.1718		+0.0365	18120	V	85	Njh	25SC+CV-04
FS Mon	2453706.3247		-0.0178	10102	V	146	Njh	25SC+CV-04
V453 Mon	2453708.2157		-0.0698	29821	V	170	Nga	20SC+SV-04LE
SW Oph	2453450.3126		+0.2564	5055	V	171	Njh	25SC+CV-04
V502 Oph	2453425.261		-0.112	27021	v	22	Kit	12B
V502 Oph	2453455.192		-0.105	27087	v	24	Kit	12B
V508 Oph	2453528.2194		-0.0068	24495	V	106	Kub	16L+BJ41L
V839 Oph	2453429.291		+0.185	31738	v	28	Kit	12B
V839 Oph	2453436.242		+0.183	31755	v	38	Kit	12B
V839 Oph	2453447.287		+0.185	31782	v	37	Kit	12B
V839 Oph	2453498.2107		+0.1886	31906.5	V	131	Nga	20SC+SV-04LE
V1010 Oph	2453459.281		-0.099	21955	v	31	Kit	5B
V1010 Oph	2453461.266		-0.098	21958	v	57	Kit	5B,7B
V1010 Oph	2453465.236		-0.097	21964	v	41	Kit	7B
V1010 Oph	2453528.0685		-0.0995	22059	V	163	Nga	20SC+SV-04LE
UW Ori	2453735.0909		+0.3278	33641	V	898	Kub	16L+BJ41L

star	min.		O-C	E		n	obs.	inst.
ER Ori	2453402.017		+0.037	27812	v	38	Kit	12B
ER Ori	2453404.983		+0.040	27819	v	58	Kit	12B
ER Ori	2453413.023		+0.035	27838	v	54	Kit	12B
ER Ori	2453663.2584		+0.0418	28429	V	87	Njh	25SC+CV-04
ER Ori	2453704.115	*1	+0.040	28525.5	v	38	Kit	12B
ER Ori	2453732.059	*1	+0.040	28591.5	v	31	Kit	12B
FH Ori	2453682.295		-0.323	12915	v	13	Hsk	28SC
FK Ori	2453708.2300		+0.0035	4122	V	193	Mhh	20L+ST-7E
FL Ori	2453732.0477		+0.0345	2406	Ic	289	Kis	25SC+E47+
FR Ori	2453690.2589		+0.0222	29245	V	120	Njh	25SC+CV-04
FR Ori	2453705.2713		+0.0209	29262	V	123	Njh	25SC+CV-04
FZ Ori	2453713.0721	*1	-0.0616	24222.5	V	196	Nga	20SC+SV-04LE
V392 Ori	2453696.2895		+0.0042	42758	V	314	Kub	16L+BJ41L
V392 Ori	2453700.2449		+0.0039	42764	V	480	Kub	16L+BJ41L
V1353 Ori	2453724.0858	*1*N	+0.1024	7686.5	V	420	Kis	25SC+E47+
V1353 Ori	2453727.1457	*N	+0.0980	7693	V	397	Kis	25SC+E47+
V1353 Ori	2453733.0420	*1*N	+0.1013	7705.5	Ic	168	Kis	25SC+E47+
V1353 Ori	2453733.0425	*1*N	+0.1018	7705.5	V	168	Kis	25SC+E47+
V1363 Ori	2453708.1365		+0.0711	12058	Ic	341	Kis	25SC+AP-7
U Peg	2453609.0901		-0.1074	45620	V	332	Kub	16L+BJ41L
U Peg	2453615.0880		-0.1060	45636	V	715	Kub	16L+BJ41L
U Peg	2453615.2762	*1	-0.1052	45636.5	V	715	Kub	16L+BJ41L
TY Peg	2453680.0302		-0.2710	4278	V	638	Kub	16L+BJ41L
AT Peg	2453616.0300		+0.0181	7326	V	280	Nga	20SC+SV-04LE
AT Peg	2453632.0752		+0.0182	7340	V	180	Nga	20SC+SV-04LE
AT Peg	2453671.0435		+0.0199	7374	V	238	Kub	16L+BJ41L
BB Peg	2453600.0826		+0.0001	27208	V	673	Kub	16L+BJ41L
BB Peg	2453600.2638		+0.0005	27208.5	V	673	Kub	16L+BJ41L
BB Peg	2453601.1670		-0.0000	27211	V	912	Kub	16L+BJ41L
BB Peg	2453602.0706		-0.0002	27213.5	V	997	Kub	16L+BJ41L
BB Peg	2453602.2514		-0.0002	27214	V	997	Kub	16L+BJ41L
BB Peg	2453617.0729		-0.0002	27255	V	581	Kub	16L+BJ41L
BX Peg	2453632.0216		-0.0763	33652	V	609	Kub	16L+BJ41L
BX Peg	2453632.1623		-0.0758	33652.5	V	609	Kub	16L+BJ41L
BX Peg	2453663.9891		-0.0767	33766	V	165	Kub	16L+BJ41L
DI Peg	2453645.0238		-0.0178	11869	V	240	Kub	16L+BJ41L
DI Peg	2453674.921		-0.017	11911	v	12	Hsk	28SC
DK Peg	2453674.920		+0.082	4991	v	16	Hsk	28SC
IP Peg	2453569.2281	*F	-0.0022	50275	C	119	Mhh	25L+ST-7XME
RT Per	2453382.890		+0.057	23554	v	11	Hsk	28SC
RT Per	2453686.976		+0.057	23912	v	12	Hsk	28SC
RV Per	2453733.939		-0.005	5922	v	16	Hsk	28SC
XZ Per	2453733.938		-0.050	8880	v	16	Hsk	28SC
AG Per	2453435.9510		+0.1105	4363	V	431	Njh	25SC+CV-04
IQ Per	2453715.1649	*1	-0.0494	5405.5	V	371	Njh	25SC+CV-04
IQ Per	2453723.0672		+0.0089	5410	V	49	Njh	25SC+CV-04
IT Per	2453717.0466		+0.0079	15866	V	89	Njh	25SC+CV-04
IU Per	2453412.944		+0.009	9103	v	11	Hsk	28SC
IU Per	2453664.0525		+0.0087	9396	V	247	Kub	16L+BJ41L
IU Per	2453693.1918		+0.0091	9430	V	236	Kub	16L+BJ41L
V432 Per	2453631.1896	*G	+0.0061	2827	V	308	Mhh	20L+ST-7E

star	min.		O-C	E		n	obs.	inst.
beta Per	2453621.298		+0.077	2783	v	12	Kit	n
beta Per	2453667.158		+0.060	2799	v	30	Kit	n
beta Per	2453670.023		+0.057	2800	v	19	Tha	2.5B
beta Per	2453687.243		+0.074	2806	v	34	Kit	n
beta Per	2453692.972		+0.068	2808	v	14	Tcy	2B
beta Per	2453715.913		+0.071	2816	v	28	Kit	n
beta Per	2453736.003		+0.089	2823	v	23	Kit	n
RV Psc	2453716.9490		-0.0403	52953	C	81	Njh	25SC+CV-04
VZ Psc	2453615.1687		-0.0388	37456	V	174	Nga	20SC+SV-04LE
VZ Psc	2453616.0814	*1	-0.0403	37459.5	B,V,Ic	225	Kis	25SC+AP-7
TY Pup	2453714.2755		+0.1737	23561	V	297	Njh	25SC+CV-04
UZ Pup	2453693.2771		-0.0064	11423	V	141	Njh	25SC+CV-04
VY Pup	2453708.2255		-0.0289	32712	V	192	Njh	25SC+CV-04
VY Pup	2453712.3076		-0.0306	32717	V	319	Njh	25SC+CV-04
VY Pup	2453717.2093		-0.0295	32723	V	161	Njh	25SC+CV-04
AV Pup	2453403.0552		-0.2585	39949	Rc	173	Nga	10L+CV-04
AV Pup	2453405.0126	*1	-0.2483	39952.5	Rc	92	Nga	10L+CV-04
AV Pup	2453426.9828		-0.2535	39992	V	73	Njh	25SC+CV-04
AY Pup	2453390.0956		-0.0570	27166	V,Ic	296	Kis	25SC+E47+
AY Pup	2453397.1288		-0.0582	27181	Ic	176	Kis	25SC+E47+
AY Pup	2453720.2402		-0.0613	27870	Ic	314	Kis	25SC+E47+
VV Pyx	2453413.1468		-0.0106	1913	V	229	Njh	25SC+CV-04
VV Pyx	2453429.1263	*1	-0.1178	1916.5	V	534	Njh	25SC+CV-04
AO Ser	2453434.2596		-0.0016	21949	Rc	156	Njh	25SC+CV-04
AS Ser	2453494.1461		-0.2438	54001	V	89	Nga	20SC+SV-04LE
AS Ser	2453495.0777		-0.2441	54003	V	182	Njh	25SC+CV-04
AS Ser	2453495.0773		-0.2445	54003	V	93	Nga	20SC+SV-04LE
AS Ser	2453498.1089	*1	-0.2415	54009.5	V	215	Njh	25SC+CV-04
AS Ser	2453522.1174		-0.2288	54062	V	216	Njh	25SC+CV-04
AU Ser	2453428.3170		-0.0894	22525	Rc	104	Njh	25SC+CV-04
BI Ser	2453507.0741		+0.1144	6011	V	101	Njh	25SC+CV-04
LX Ser	2453498.2684		+0.0027	58102	C	155	Mhh	25L+ST-7XME
OU Ser	2453460.2494	*1*4	-0.0021	16713.5	V	179	Njh	25SC+CV-04
Y Sex	2453424.1465	*1	+0.0091	27768.5	Rc	88	Nga	10L+CV-04
RW Tau	2453683.1610		-0.2090	2889	V	464	Mhh	20L+ST-7E
RW Tau	2453708.0798		-0.2098	2898	V	479	Mhh	20L+ST-7E
RZ Tau	2453381.0096	*1	+0.0446	37780.5	B	168	Mhh	25L+ST-7XME
RZ Tau	2453381.0094	*1	+0.0444	37780.5	V	168	Mhh	25L+ST-7XME
RZ Tau	2453621.2711	*1	+0.0461	38358.5	V	260	Kub	16L+BJ-41L
RZ Tau	2453632.2867		+0.0463	38385	V	270	Kub	16L+BJ-41L
RZ Tau	2453656.1890	*1	+0.0474	38442.5	V	630	Kub	16L+BJ-41L
SV Tau	2453381.979		-0.023	8749	v	13	Hsk	28SC
WY Tau	2453675.2051		+0.0523	23490	V	648	Kub	16L+BJ-41L
AC Tau	2453678.2262	*1	+0.0087	3935.5	V	546	Kis	25SC+AP-7
AC Tau	2453679.2530		+0.0138	3936	V	375	Kis	25SC+AP-7
AM Tau	2453422.947		-0.042	3997	v	13	Hsk	28SC
CT Tau	2453717.0215		-0.0440	12466	V	1179	Kub	16L+BJ-41L
CT Tau	2453717.3542	*1	-0.0447	12466.5	V	1179	Kub	16L+BJ-41L
CT Tau	2453718.3569		-0.0423	12468	V	737	Kub	16L+BJ-41L
CT Tau	2453722.0234	*1	-0.0434	12473.5	V	840	Kub	16L+BJ-41L
GR Tau	2453644.2548		-0.0296	21103	V	381	Kub	16L+BJ-41L



star	min.		O-C	E		n	obs.	inst.
GW Tau	2453643.197		-0.060	57292	V	346	Kub	16L+BJ-41L
GW Tau	2453668.2074		-0.0612	57331	V	519	Kub	16L+BJ-41L
GW Tau	2453676.2269	*1	-0.0584	57343.5	V	544	Kub	16L+BJ-41L
GW Tau	2453715.0245		-0.0612	57404	V	446	Kub	16L+BJ-41L
DW Tau	2453666.2832		-0.0614	57328	V	450	Kub	16L+BJ-41L
V781 Tau	2453378.0452	*1	-0.0416	27552.5	Rc	295	Njh	20SC+CV-04
V781 Tau	2453378.2173		-0.0419	27553	Rc	295	Njh	20SC+CV-04
X Tri	2453381.914		-0.058	11198	v	13	Hsk	28SC
X Tri	2453645.19313		-0.06508	11469	V	180	Mhh	20L+ST-7E
X Tri	2453719.0284		-0.0665	11545	V	93	Njh	25SC+CV-04
W UMa	2453455.2001	*1	-0.0485	23047.5	C	217	Kub	16L+BJ-41L
W UMa	2453720.2708		-0.0527	23842	V	286	Njh	25SC+CV-04
RW UMa	2453430.0773		-0.0457	1038	Rc	74	Njh	25SC+CV-04
UX UMa	2453372.2424		+0.0014	81046	C	305	Mhh	20L+ST-7E
UX UMa	2453723.3007		+0.0015	82831	C	180	Mhh	20L+ST-7E
XY UMa	2453434.1254		+0.0232	38033	Rc	136	Njh	25SC+CV-04
XZ UMa	2453398.360		-0.089	5915	v	9	Hsk	28SC
XZ UMa	2453441.1548		-0.0752	5950	Rc	75	Njh	25SC+CV-04
XZ UMa	2453667.275		-0.084	6135	v	13	Hsk	28SC
AA UMa	2453700.3517		+0.0356	27846	V	109	Njh	25SC+CV-04
AW UMa	2453429.2524		-0.0541	19977	V	310	Njh	25SC+CV-04
BH UMa	2453515.0043	*1	+0.0759	12053.5	V	97	Njh	25SC+CV-04
DN UMa	2453399.2797	*1	+0.0075	5468.5	V	416	Njh	20SC+CV-04
DN UMa	2453412.2596		+0.0092	5476	V	634	Njh	20SC+CV-04
VV Vir	2453498.0819		-0.0335	49933	Rc	438	Mhh	20L+ST-7E
AG Vir	2453376.2187		-0.0018	12361	V	131	Njh	20SC+CV-04
AG Vir	2453407.071		+0.003	12409	v	28	Kit	12B
AG Vir	2453432.1317		+0.0006	12448	Rc	151	Njh	25SC+CV-04
AH Vir	2453413.196		+0.174	18646	v	23	Kit	12B
AW Vir	2453461.2408		+0.0165	23838	V	282	Mhh	20L+ST-7E
AZ Vir	2453487.0626		-0.0187	27199	V	51	Nga	20SC+SV-04LE
AZ Vir	2453735.3223		-0.0213	27909	V	117	Njh	25SC+CV-04
GR Vir	2453489.1241	*1	+0.0601	19946.5	V	84	Nga	20SC+SV-04LE
HT Vir	2453491.1035	*1*D	+0.0160	12242.5	V	95	Nga	20SC+SV-04LE
HW Vir	2453444.0831	*E	-0.0037	66086	Ic	360	Kis	25SC+E47+
HW Vir	2453444.1998	*E	-0.0037	66087	Ic	360	Kis	25SC+E47+
HW Vir	2453449.2770	*1*E	-0.0038	66130.5	V	115	Mhh	20L+ST-7E
MS Vir	2453483.0987	*1*C	-0.0466	15948.5	V	124	Nga	20SC+SV-04LE
NY Vir	2453445.1653				V	118	Kis	25SC+E47+
GP Vul	2453645.9307		-0.0550	18445	V	478	Kub	16L+BJ-41L
MisV1228	2453645.1928	*1			C	234	Njh	25SC+CV-04
MisV1228	2453675.1063				C	191	Njh	25SC+CV-04
MisV1228	2453695.0606				C	113	Njh	25SC+CV-04
MisV1275	2453379.9165	*1			C	149	Njh	25SC+CV-04
MisV1275	2453663.1266				C	128	Njh	25SC+CV-04
MisV1275	2453699.9690				C	139	Njh	25SC+CV-04
MisV1278	2453687.0714				C	187	Njh	25SC+CV-04
MisV1278	2453694.9154				C	91	Njh	25SC+CV-04
MisV1278	2453701.0706	*1			C	177	Njh	25SC+CV-04
MisV1278	2453704.9995				C	30	Njh	25SC+CV-04
MisV1293	2453375.0329	*1			C	174	Njh	25SC+CV-04
MisV1293	2453378.9148				C	166	Njh	25SC+CV-04

star	min.		O-C	E	n	obs.	inst.	
MisV1294	2453388.0299				C	195	Njh	25SC+CV-04
MisV1295	2453380.9082				C	71	Njh	25SC+CV-04
MisV1295	2453404.0101	*1			C	170	Njh	25SC+CV-04
MisV1296	2453372.0011	*1			C	299	Njh	25SC+CV-04
MisV1296	2453422.0126				C	131	Njh	25SC+CV-04
MisV1306	2453388.9585	*1			C	187	Njh	25SC+CV-04
MisV1306	2453392.0991				C	168	Njh	25SC+CV-04
MisV1306	2453404.9615	*1			C	65	Njh	25SC+CV-04
MisV1306	2453436.9808	*1			C	121	Njh	25SC+CV-04
MisV1306	2453632.2537				C	239	Njh	25SC+CV-04
MisV1313	2453382.9907				C	94	Njh	25SC+CV-04
MisV1313	2453571.1722				C	116	Njh	25SC+CV-04
MisV1313	2453587.2363	*1			C	135	Njh	25SC+CV-04
MisV1313	2453594.1220				C	173	Njh	25SC+CV-04
MisV1317	2453430.9584				C	154	Njh	25SC+CV-04
MisV1317	2453621.1128				C	157	Njh	25SC+CV-04
MisV1317	2453664.1535	*1			C	184	Njh	25SC+CV-04
MisV1317	2453682.1390	*1			C	349	Njh	25SC+CV-04
MisV1317	2453691.1405	*1			C	246	Njh	25SC+CV-04
MisV1317	2453698.2018				C	156	Njh	25SC+CV-04
MisV1329	2453580.1781				C	265	Njh	25SC+CV-04
MisV1329	2453590.0749				C	203	Njh	25SC+CV-04
MisV1329	2453627.1689	*1			C	283	Njh	25SC+CV-04
MisV1330	2453587.1141	*1			C	130	Njh	25SC+CV-04
MisV1330	2453617.1568				C	301	Njh	25SC+CV-04
MisV1331	2453595.1868				C	153	Njh	25SC+CV-04
MisV1331	2453612.1446				C	199	Njh	25SC+CV-04
MisV1331	2453614.9713				C	90	Njh	25SC+CV-04
MisV1331	2453639.0003	*1			C	141	Njh	25SC+CV-04
MisV1331	2453713.9228				C	114	Njh	25SC+CV-04
MisV1331	2453720.9980	*1			C	260	Njh	25SC+CV-04
MisV1332	2453585.2017	*1			C	203	Njh	25SC+CV-04
MisV1337	2453701.2129	*1			C	227	Njh	25SC+CV-04
MisV1337	2453709.9545				C	128	Njh	25SC+CV-04
MisV1337	2453713.1722	*1			C	210	Njh	25SC+CV-04
MisV1337	2453714.0957	*1			C	154	Njh	25SC+CV-04
MisV1337	2453718.2352				C	204	Njh	25SC+CV-04
ASAS073342-1142.2	2453702.1613	*M	+0.0239	921	V	262	Njh	25SC+CV-04
ASAS073342-1142.2	2453704.1495	*M	+0.0230	922	V	140	Njh	25SC+CV-04
ASAS073342-1142.2	2453708.1258	*M	+0.0211	924	V	181	Njh	25SC+CV-04
ASAS073342-1142.2	2453710.1181	*M	+0.0243	925	V	305	Njh	25SC+CV-04
ASAS073342-1142.2	2453712.1064	*M	+0.0235	926	V	319	Njh	25SC+CV-04

## Observers

Hsk	Kenji Hirosawa
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Njh	Kazuhiro Nakajima
Nto	Ryosuke Naito
Oht	Masato Ohshima
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Oym	Masanori Okuyama
Tcy	Yukiko Tsuchiyama
Tha	Atsuko Takahashi
Tkc	Chizuto Takatuka
Tnr	Mitsuru Tanaka
Tzt	Toshiharu Takizawa
Wai	Ikumi Watanabe

## Remarks

\*1 secondary minimum

\*2 min = 2450571.219 + 0.326890 x E (IBVS5021)

\*3 min = 2452723.3207 + 0.8469938 x E (IBVS5535)

\*4 min = 2448500.2780 + 0.2967645 x E (Hipparcos)

\*5 min = 2448500.3510 + 0.456971 x E (Hipparcos)

\*6 min = 2448500.1960 + 0.477547 x E (Hipparcos)

\*7 min = 2448500.0080 + 0.408604 x E (Hipparcos)

\*8 min = 2450186.398 + 0.4068974 x E (IBVS4386)

\*9 min = 2448500.2121 + 0.407968 x E (Hipparcos)

\*A min = 2434954.94429+ 0.1936208964x E (Zhang, E. et al. 1995, ApJ, 454, 447)

\*B min = 2448500.7227 + 1.067910 x E (Hipparcos)

\*C min = 2448500.1960 + 0.312440 x E (Hipparcos)

\*D min = 2448500.1630 + 0.407672 x E (Hipparcos)

\*E min = 2445730.5565 + 0.116719582 x E (Cakirli, Devlen (1999))

\*F min = 2445615.4156 + 0.15820616 x E (Baptista et al. (2002))

\*G min = 2452547.5658 + 0.3833101 x E (IBVS5341)

\*H min = 2449998.618 + 0.405890 x E (IBVS4482)

\*I min = 2445259.0560 + 0.7904596 x E (1986MNRAS.218..159M)

\*J min = 2450518.3851 + 0.55994477 x E (IBVS4877)

\*K min = 2451278.940 + 2.14186 x E (IBVS5652)

\*L min = 2451501.1067497+ 0.5272429 x E (IBVS4937)

\*M min = 2451870.18 + 1.989096 x E (ASAS)

\*N min = 2450100.26059+ 0.4714399 x E (IBVS4333)

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