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PHOTOELECTRIC MINIMA OF ECLIPSING BINARIES

The following table gives photoelectric minima obtained during the years 1983/84 at the Ege University Observatory, Izmir (Turkey) and the Nürnberg Observatory (Germany). Minima of eclipsing binaries observed at both observatories 1960-1982 were published in Astr. Nachr. 288, 69 (1964); 289, 191 (1966); 291, 111 (1968); I.B.V.S. No. 456 (1970), 530 (1971), 647 (1972), 937 (1974), 1053 (1975), 1163 (1976), 1358 (1977), 1449 (1978), 1924 (1981), 2189 (1982), and 2385 (1983).

The table gives the heliocentric minima, three different O-C's, the type of filter, UBV, the abbreviations of the names of the observers and the type of the instruments used (Izmir: 48 cm Cassegrain, Nürnberg: 34 cm Cassegrain, both with phototube 1P21).

Abbreviations of the observer's names:

Be = F. Betten	Ka = H. Karl
Bu = A. Buchler	Ls = C. Lichtschlag
Ca = M. Can Akan	Ma = D. Matschat
Er = A.Y. Ertan	Sn = S. Evren
Gd = N. Güdür	Sr = C. Sezer
G1 = Ö. Gülmen	Tm = O. Tümer
Gr = R. Gröbel	Tn = Z. Tunca
Ib = C. Ibanoglu	

Remarks:

O-C (I): GCVS, Moscow 1969/70 or First or Second or Third Supplement to the Third Edition of the GCVS. Moscow 1971, 1974 and 1976.

O-C (II): SAC 56, Krakow 1984.

O-C (III): AO Cam 2445745.6396 + 0.<sup>d</sup>329921 . E (E. Evans, D.H. Grossoehme, E.J. Mayer Jr., IBVS 2497, 1984)  
DM Del 2445 523.4368 + 0.<sup>d</sup>8446747 . E (C. Sezer, N.Güdür, Ö. Gülmen, IBVS 2591, 1984)  
RT Lac 2444 873.3648 + 5.<sup>d</sup>0739496 . E - 2.<sup>d</sup>7 . 10<sup>-8</sup> . E<sup>2</sup> (Z. Tunca, C. Ibanoglu, O. Tümer, A.Y. Ertan, S. Evren, Astrophys. Space Science 93,431, 1983)

Table

Star.	Min. hel. 244	0-C (II)	0-C (III)	Filt.	Obs.	Instr.	Rem.
RT And	5673.3256	-0.0194		V	Gr	34	
AB And	6002.4573	+0.0028		V	Be/Ka	34	Min II
BX And	5576.484:	+0.001:		V	Gr	34	Min II
"	5638.411	+0.001 =		V	Gr/Ls	34	
CN And	5546.4531:	-0.0129:		V	Gr	34	Min II
"	5994.438:	-0.014:		V	Ls	34	Min II
SS Ari	5651.3318:	-0.0926:		V	Gr/Ls	34	
TZ Boo	5814.3651	-0.0136		V	Gr	34	
i Boo	5468.4684	+0.0098=		B	Sn	48	Min II
"	5468.4649	+0.0063		V	Sn	48	Min II
"	5482.5245	+0.0055=		B	Sn	48	
"	5482.5259	+0.0069=		V	Sn	48	
"	5870.4565	+0.0061=		V	Gr/Ls	34	Min II
A0 Cam	6006.4281		-0.0141	V	Be/Gr	34	Min II
"	6022.429:		-0.014:	V	Be/Ka	34	
"	6036.2858		-0.0142	V	Gr/Ls	34	
"	6036.4498		-0.0152	V	Gr/Ls	34	Min II
"	6036.6157		-0.0142	V	Gr/Ls	34	
DO Cas	5629.4529:	-0.0020:		V	Gr/Ls	34	
PV Cas	5685.3637	-0.0008		V	Gr/Ls	34	
V375 Cas	5561.4814	-0.0247		V	Gr	34	
V381 Cas	5562.413	-0.079		V	Gr/Ma	34	
RW CrB	5818.4497	0.0000=		V	Gr/Ls	34	
BR Cyg	5526.4951	-0.0022=		V	Gr	34	
GO Cyg	5866.4836	+0.0246		B, V	Gd	48	Min II
"	5954.4082	+0.0231		B, V	Gd	48	
"	5972.3528	+0.0236		B	Gd	48	
"	5972.3535	+0.0243		V	Gd	48	
DM Del	5200.345	+0.042		B, V	Gd	48	Min II
"	5523.4355	+0.0452		B, V	G1	48	
"	5605.3694	+0.0459		B, V	Gd/Sr	48	
"	5613.396	+0.048		B, V	Sr	48	Min II
"	5619.3059	+0.0453		B, V	G1	48	Min II
TZ Dra	5888.4779	-0.0024=		V	Gr	34	
UZ Dra	5878.4650	+0.0025		B	Sr	48	
UZ Dra	5878.4643	+0.0018		V	Sr	48	

Table (cont.)

Star	Min. hel. 244	O-C (I)	O-C (II)	O-C (III)	Filt.	Obs.	Instr.	Rem.
UZ Dra	5914.3391	+0.0023	+0.0030		B, V	Sr	48	
" "	5958.3660	+0.0016	+0.0002		B, V	Sr	48	Min II
" "	5971.4105	+0.0009	-0.0005		B, V	Sr	48	Min II
HS Her	5864.529:	-0.013:-	-0.013:-		V	Gr/Ls	34	
NM Her	5543.4730	-0.0799	+0.0119		B, V	Sn	48	
" "	5547.4657	-0.0674	0.0245		B, V	Sn	48	Min II
" "	5551.4350	-0.0783	+0.0136		B, V	Sn	48	
" "	5559.3911	-0.0826	+0.0094		B	Sn/Tm	48	
" "	5559.3928	-0.0809	+0.0111		V	Sn/Tm	48	
RT Lac	5629.3843	-0.0412	-0.0086	+0.0016	B	Sn/Ca	48	
" "	5629.3850	-0.0405	-0.0079	+0.0023	V	Sn/Ca	48	
" "	5903.3674	-0.0548	-0.0216	-0.0081	B	Sn/Ca	48	
" "	5903.3688	-0.0534	-0.0202	-0.0067	V	Sn/Ca	48	
" "	5908.4422	-0.0540	-0.0208	-0.0072	B	Ib	48	
" "	5908.4438	-0.0524	-0.0192	-0.0056	V	Ib	48	
" "	5969.3265	-0.0578	-0.0245	-0.0101	B	Tm	48	
" "	5969.3286	-0.0557	-0.0224	-0.0080	V	Tm	48	
SW Lac	5336.2831	-0.0217	+0.0011		B	Gr	34	
" "	5336.2841	-0.0207	+0.0021		V	Gr	34	
" "	5556.4575	-0.0214	+0.0022		V	Gr	34	Min II
" "	5672.2365	-0.0222	+0.0017		V	Bu/Ls	34	Min II
" "	6004.3467:	-0.0173:	+0.0078:		V	Gr/Ls	34	
XY Leo	5810.450	(-0.095)	+0.006		V	Bu/Gr	34	Min II
AM Leo	5808.4204	-0.0071	-0.0210		V	Gr/Ls	34	
AT Peg	5615.2538	+0.0184	+0.0117		B	Gl	48	
" "	5957.360	+0.019	+0.021		B, V	Gl	48	Min II
AG Per	5626.4097	-0.0007	+0.0926		B, V	Gd	48	Min II
LX Per	5609.3820	-0.0344=	-0.0344		B	In/Tm	48	
" "	5609.3806	-0.0358=	-0.0358		V	Ib/Tm	48	
" "	5629.4788	-0.0331=	-0.0331		B, V	Sn/Ca	48	Min II
V471 Tau	4876.47018	-0.00217		-0.00008	B	Tm/Tn	48	
" "	4911.38954	-0.00210		+0.00002	B	Er/Tm	48	
" "	5612.38065	-0.00266		-0.00002	B	Ib/Tm	48	
" "	5614.46546	-0.00258		+0.00006	B	Tm	48	
" "	5695.24889	-0.00258		+0.00012	B	Ib/Tn	48	

Star	Min. hel. 244	Table (cont.)		Filt.	Obs.	Instr.	Rem.
		0-C (I)	0-C (III)				
ER Vul	5220.4101	-0.0147	-0.0036	B	Er/Tm	48	
"	5220.4073	-0.0175	-0.0064	V	Er/Tm	48	
"	5221.4559	-0.0161	-0.0049	B, V	Er	48	Min II
"	5900.3536	-0.0167	-0.0046	B	Sn/Ca	48	
"	5900.3522	-0.0181	-0.0060	V	Sn/Ca	48	
"	5901.4043	-0.0132	-0.0010	B	Ib/Sn/Ca	48	Min II
"	5901.4036	-0.0139	-0.0017	V	Ib/Sn/Ca	48	Min II
"	5902.4481	-0.0165	-0.0044	B	Sn/Ca	48	
"	5902.4468	-0.0178	-0.0057	V	Sn/Ca	48	
"	5933.5126	-0.0173	-0.0051	B	Sn/Ca	48	Min II
"	5933.5119	-0.0180	-0.0058	V	Sn/Ca	48	Min II
"	5939.4465	-0.0172	-0.0050	B	Sn/Ca	48	
"	5939.4472	-0.0165	-0.0043	V	Sn/Ca	48	
HD199497	5136.4045		+0.0009	B, V	Gd/Rn	48	Min II
"	5145.4995		0.0000	B, V	Gd	48	Min II
"	5146.4058		-0.0033	B, V	Sr/Rn	48	
"	5149.5053		+0.0036	B, V	Sr	48	Min II
"	5150.4082		-0.0031	B, V	Gd/Rn	48	
"	5177.3357		+0.0005	B, V	Gd	48	
"	5177.5184		+0.0013	B, V	Gd	48	Min II

V 471 Tau 2440 610.06614 + 0.<sup>d</sup>52118301 . E (S. Evren, C. Ibanoglu,  
IBVS 2573, 1984)

HD 199497 2445 146.4091 + 0.<sup>d</sup>3638368 . E (C. Sezer, O. Gülmen,  
N. Güdür, IBVS 2553, 1984)

The (O-C)'s for secondary minima (Min II) were calculated on the supposition,  
that they are symmetric between primary minima (if no special data are given).  
m = only GCVS gives secondary minimum.

The sign = between O-C (I) and O-C (II) indicates that the elements (I) and  
(II) are equal.

The sign: means that the time of minimum (last decimal) is uncertain.

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