

Refined Ephemeris and Light Curves for New Eclipsing Variable GSC 2484-0592

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Star Name:	GSC 2484-0592, HIP 42753, HD 74057, BD +32 1779, PPM 73933, SAO 61003, 1RXS J084245.9+315141		
Coordinates (J2000):	08 42 46.21, +31 51 45.4		
Variability type:	EA;	Limits, System: 0.72 (max-min),I;	Spectrum: F8
Period:	31.21985 +/- .0002 d;	Epoch(min): JD (HJD) : 2454162.7371 Prim. 2454182.8146 Sec.	

Remarks:

Discovered in an automated survey for variable stars and reported in Davies (2006).

High precision data was obtained in the 2006-2007 season; this has provided an improved ephemeris and detailed light curves for the primary and most of the secondary eclipse. Four-second integrations were taken every 6 seconds; the brightness of GSC 2484-0592 was ratioed to the sum of the brightness of the two reference stars (TYC 2484-1314-1 and TYC 2484-532-1) for each frame. Forty frames were then averaged to get the measurements for the light curves. Frames with poor images (mostly due to wind buffeting) were removed before averaging.

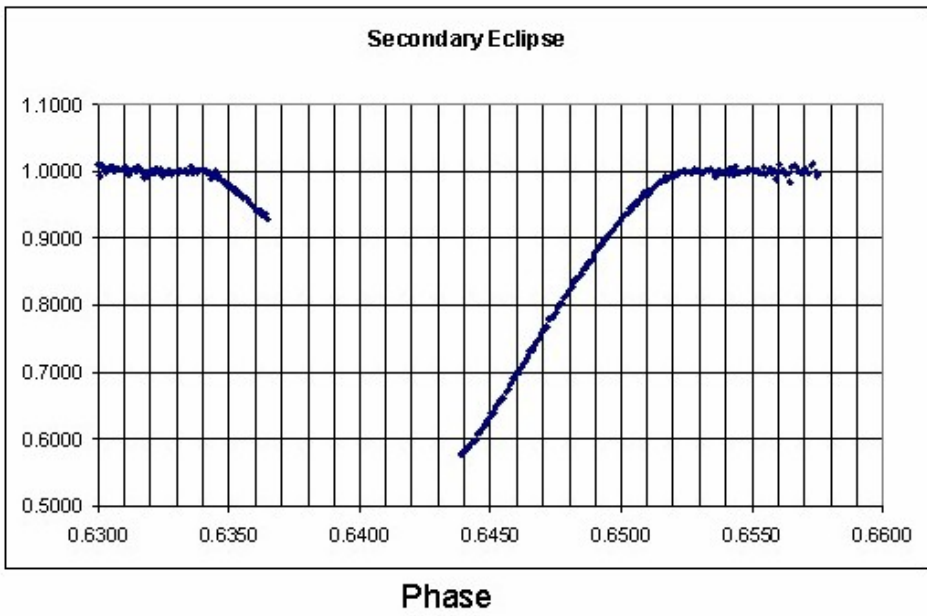
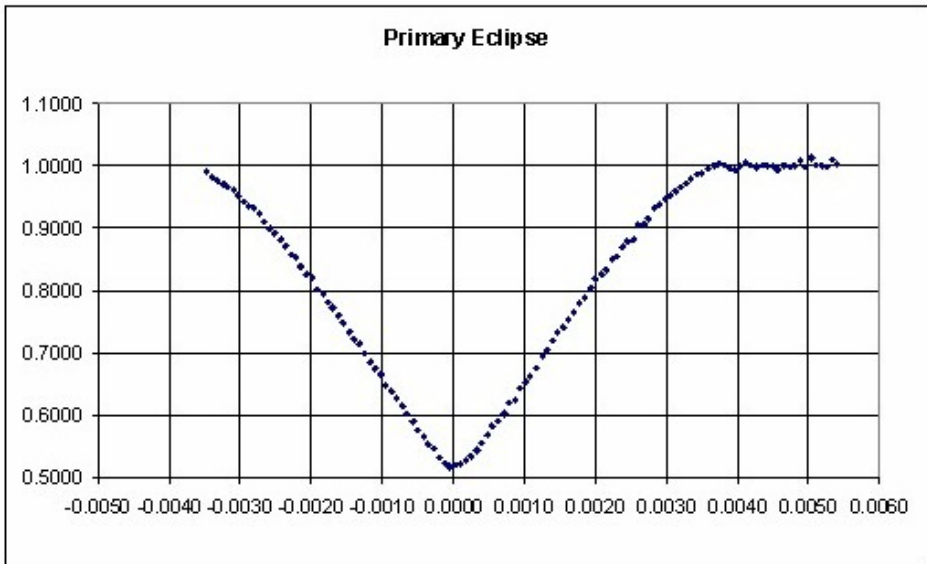
Primary eclipse drops to 51.5% brightness (I-band) and lasts 5.45 hours. Secondary eclipse drops to 55-57.8% and lasts 13.53 hours. Secondary eclipse phase is 0.6431.

References:

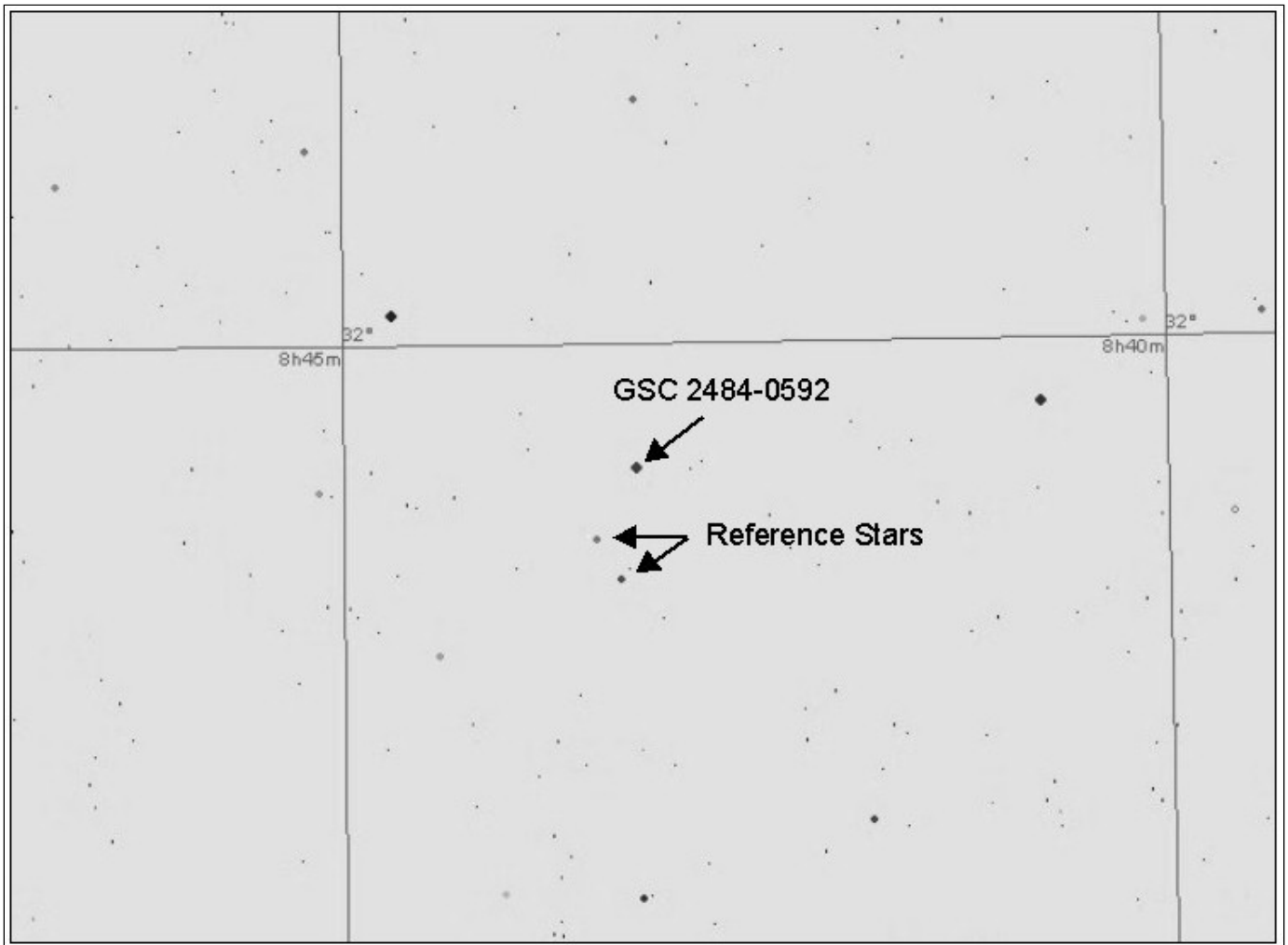
Davies, D., 2006, PZP, 6, No. 14

Light Curve

GSC 2484-0592



Primary eclipse light curve and ingress/egress light curve for secondary eclipse.
Finding Chart



Finder Chart.

Data Source

1. [gsc2484-592datafilesecondyear.txt](#)