

TIC 308578336

Eclipsing binary candidate dossier - Star Vetter

CLEAN

BLS EPHEMERIS

Period 4.276561 d
Epoch (t0) 1470.8412 BTJD
Duration 0.1200 d
Depth 17.448 % (174,476 ppm)
SNR 179.8

CATALOG CROSS-MATCH (novelty)

VSX	no match
ASAS-SN	no match
Gaia eclipsing-binary table	no match
Gaia variable classification	no match
TESS EB catalog (Prsa+2022)	no match
ExoFOP TOI list	no match

INDEPENDENT CHECKS (f3i gates)

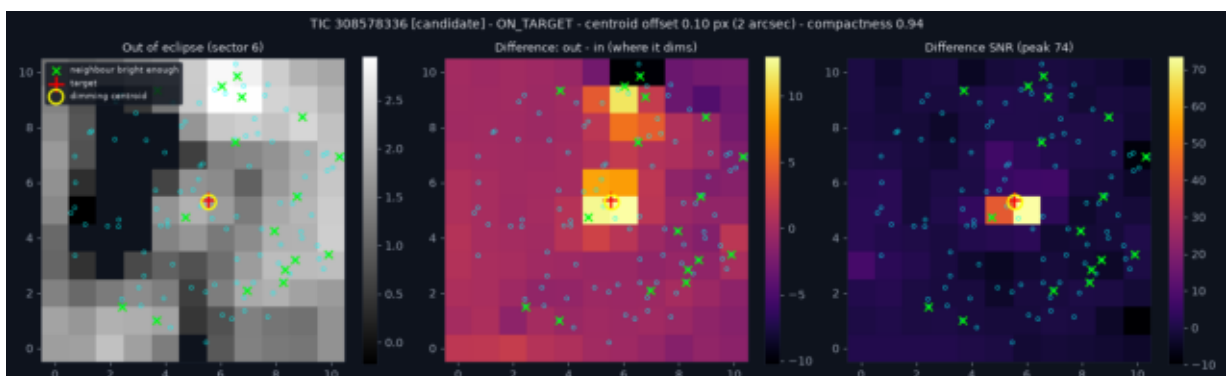
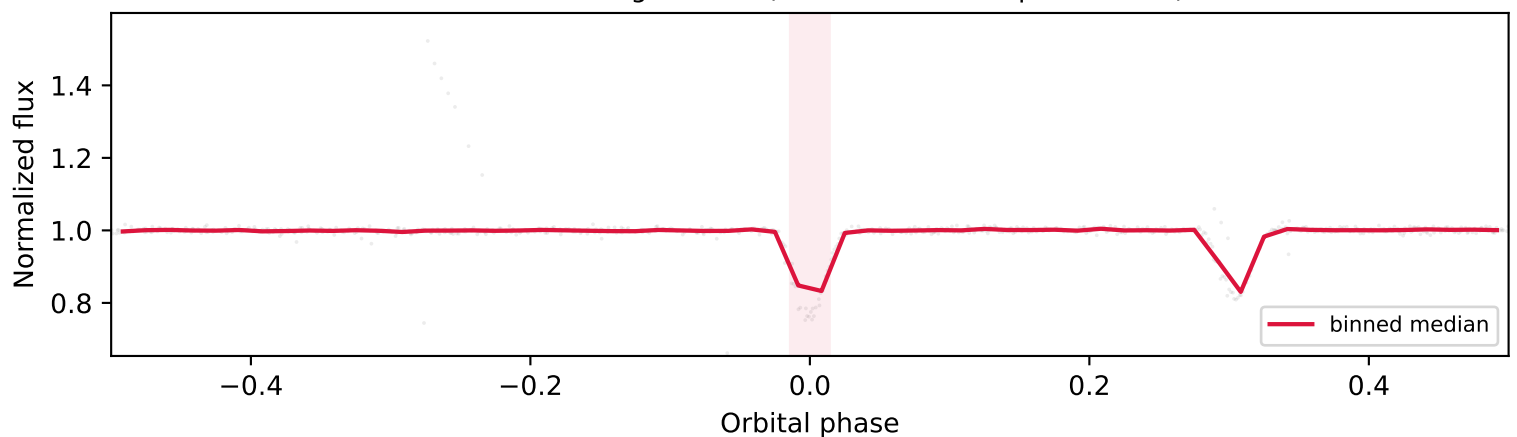
Eclipses observed 5 (gate ≥ 3)
Robust depth ratio 1.04 (gate ≥ 0.50)
Robust depth sigma 130.0 (gate ≥ 7.0)
Odd/even z-score 0.49 (consistent)
Secondary eclipse detected, phase 0.30, 7.3 sigma

Verdict: NOVEL

PIXEL-LEVEL SOURCE CHECK (TESScut difference imaging)

Sector 6 light-curve dip in this sector: 112.7 sigma t0 refined by -0.0025 phase
Difference-image peak SNR 73.73 (gate ≥ 5.0) Compactness 0.94 (gate ≥ 0.50)
Dimming centroid offset 0.10 px (2 arcsec) (gate ≤ 1.0 px, i.e. on the target)
Nearest bright-enough neighbour in cutout: TIC 308578322
1.02 px away, dTmag -0.17 - farther from the dimming than the target

Phase-folded light curve (shaded = BLS eclipse window)



No caveats - clean detection on every check.