

TIC 457675706

Eclipsing binary candidate dossier - Star Vetter

CLEAN

BLS EPHEMERIS

Period 1.566373 d
Epoch (t0) 1570.5593 BTJD
Duration 0.0840 d
Depth 2.972 % (29,718 ppm)
SNR 105.8

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)

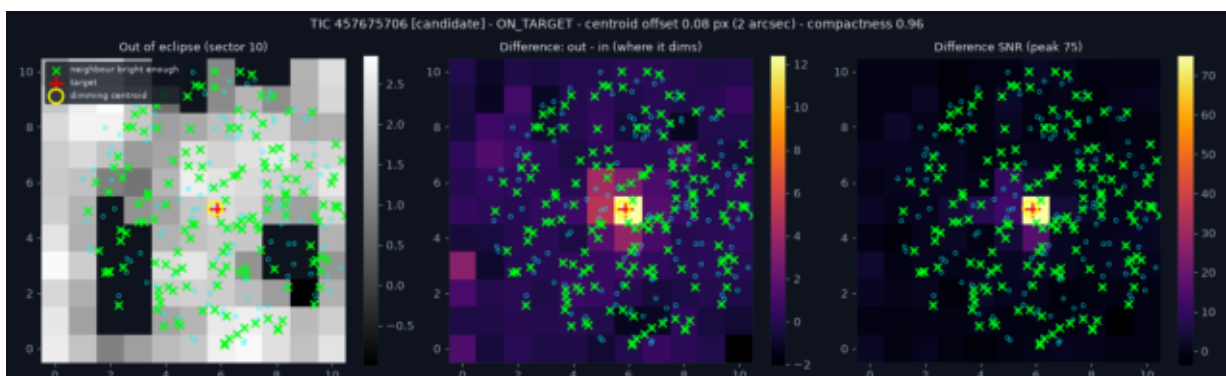
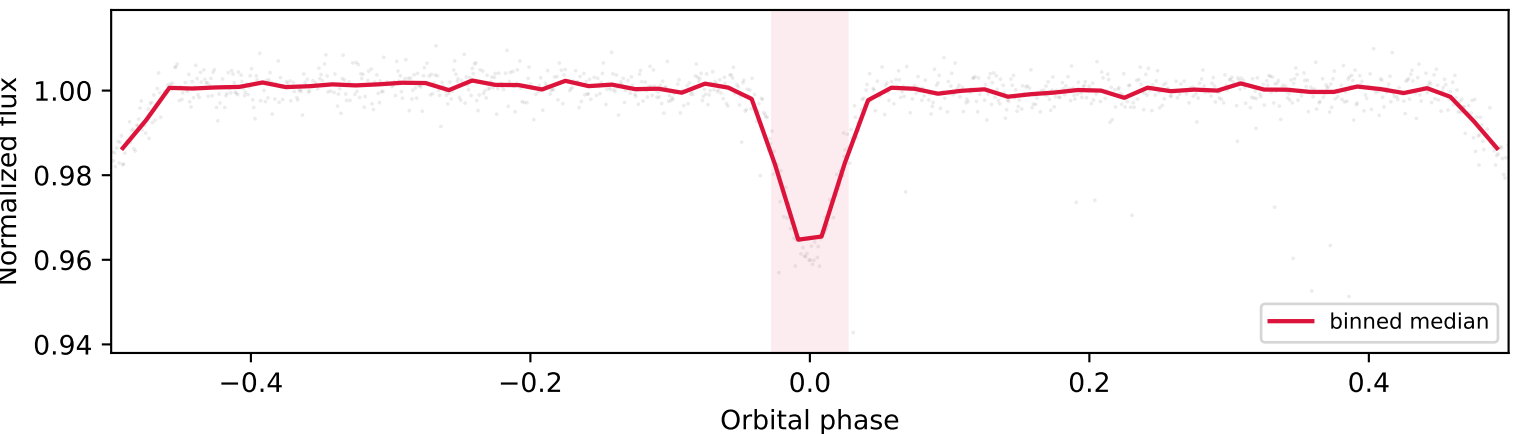
Eclipses observed 15 (gate ≥ 3)
Robust depth ratio 1.07 (gate ≥ 0.50)
Robust depth sigma 61.4 (gate ≥ 7.0)
Odd/even z-score 1.24 (consistent)
Secondary eclipse not detected

Verdict: NOVEL

PIXEL-LEVEL SOURCE CHECK (TESScut difference imaging)

Sector 10 light-curve dip in this sector: 64.8 sigma t0 refined by 0.0075 phase
Difference-image peak SNR 75.16 (gate ≥ 5.0) Compactness 0.96 (gate ≥ 0.50)
Dimming centroid offset 0.08 px (2 arcsec) (gate ≤ 1.0 px, i.e. on the target)
Nearest bright-enough neighbour in cutout: TIC 457675703
0.48 px away, dTmag +0.51 - farther from the dimming than the target

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



No caveats - clean detection on every check.