

TIC 340551910

Eclipsing binary candidate dossier - Star Vetter

CLEAN

BLS EPHEMERIS

Period 1.961946 d
Epoch (t0) 2391.5179 BTJD
Duration 0.0580 d
Depth 3.048 % (30,480 ppm)
SNR 121.3

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)

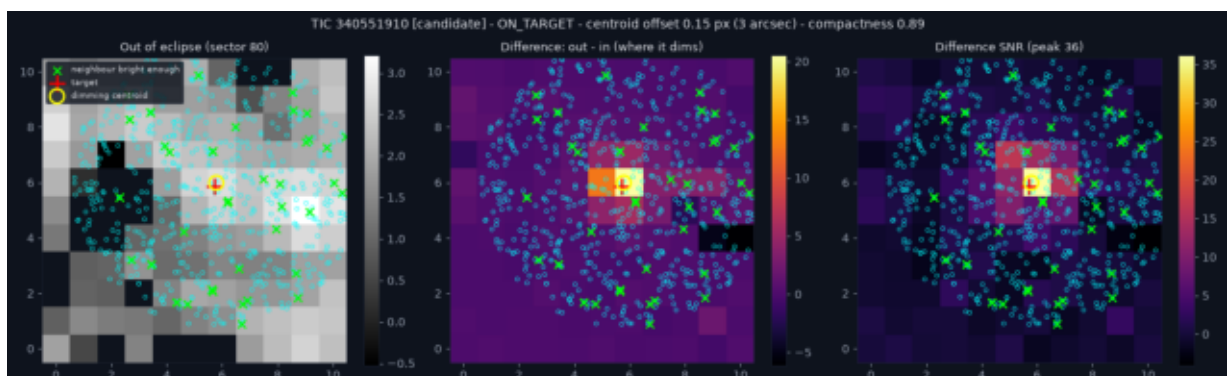
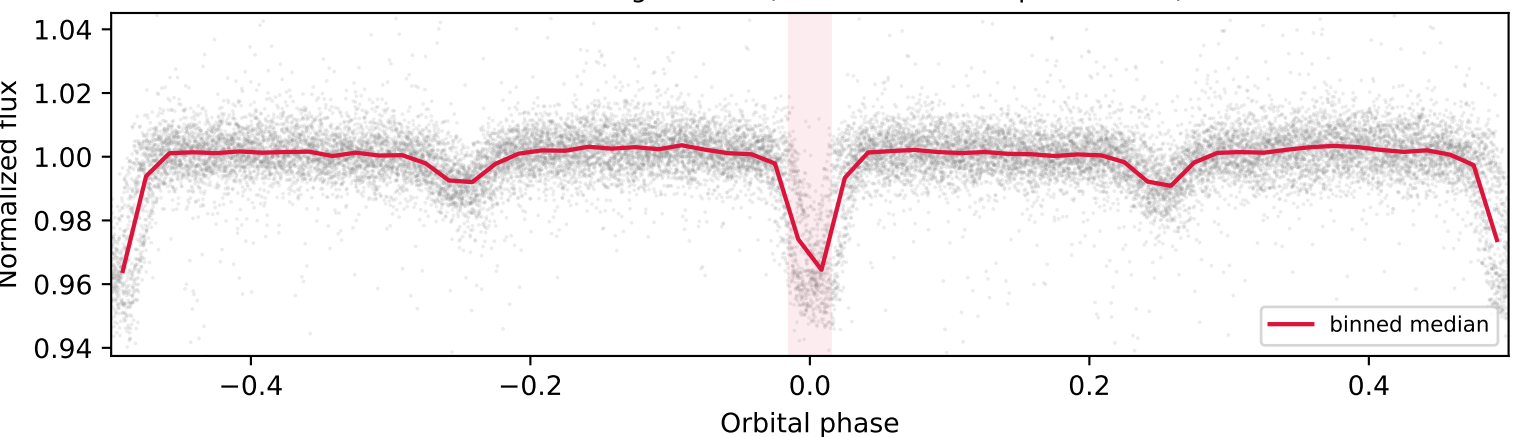
Eclipses observed 53 (gate ≥ 3)
Robust depth ratio 1.09 (gate ≥ 0.50)
Robust depth sigma 93.6 (gate ≥ 7.0)
Odd/even z-score 0.06 (consistent)
Secondary eclipse detected, phase -0.49, 5.9 sigma

Verdict: NOVEL

PIXEL-LEVEL SOURCE CHECK (TESScut difference imaging)

Sector 80 light-curve dip in this sector: 55.5 sigma t0 refined by 0.0125 phase
Difference-image peak SNR 36.20 (gate ≥ 5.0) Compactness 0.89 (gate ≥ 0.50)
Dimming centroid offset 0.15 px (3 arcsec) (gate ≤ 1.0 px, i.e. on the target)
Nearest bright-enough neighbour in cutout: TIC 1802826775
0.78 px away, dTmag +1.87 - farther from the dimming than the target

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



No caveats - clean detection on every check.