

TIC 258151016

Eclipsing binary candidate dossier - Star Vetter

CLEAN

BLS EPHEMERIS

Period 0.894047 d
Epoch (t0) 1518.3672 BTJD
Duration 0.1200 d
Depth 3.871 % (38,706 ppm)
SNR 114.5

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)

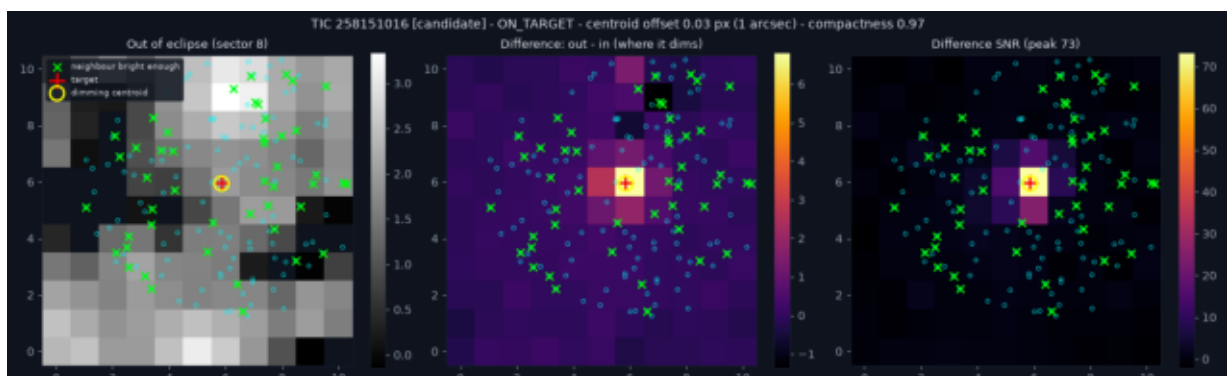
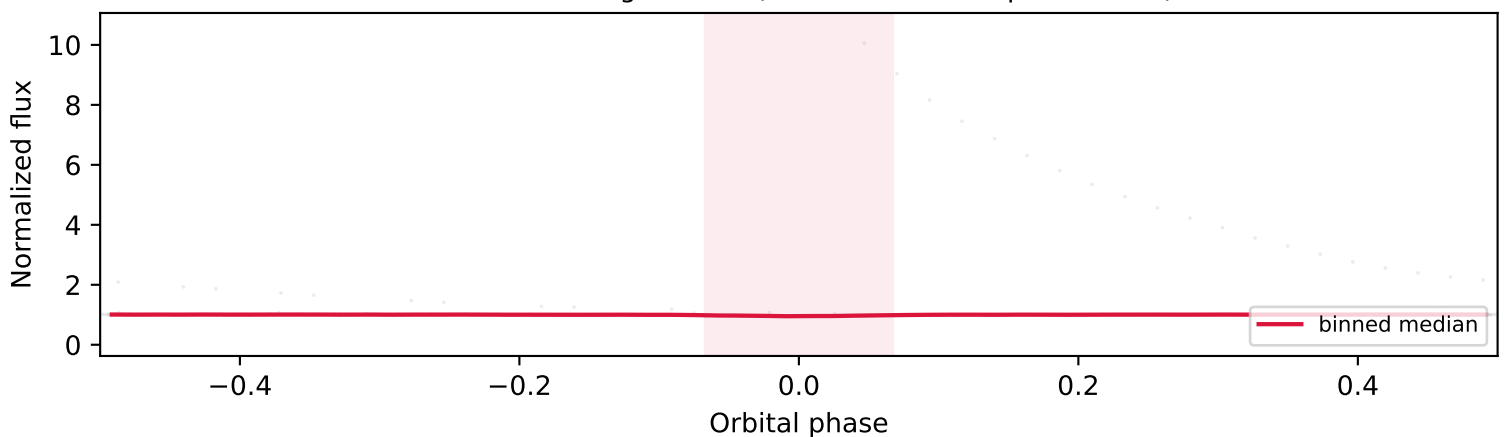
Eclipses observed 19 (gate ≥ 3)
Robust depth ratio 0.99 (gate ≥ 0.50)
Robust depth sigma 59.4 (gate ≥ 7.0)
Odd/even z-score 0.24 (consistent)
Secondary eclipse not detected

Verdict: NOVEL

PIXEL-LEVEL SOURCE CHECK (TESScut difference imaging)

Sector 8 light-curve dip in this sector: 59.5 sigma t0 refined by 0.0025 phase
Difference-image peak SNR 73.44 (gate ≥ 5.0) Compactness 0.97 (gate ≥ 0.50)
Dimming centroid offset 0.03 px (1 arcsec) (gate ≤ 1.0 px, i.e. on the target)
Nearest bright-enough neighbour in cutout: TIC 258151031
1.41 px away, dTmag +2.12 - farther from the dimming than the target

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



No caveats - clean detection on every check.