

TIC 467976427

Eclipsing binary candidate dossier - Star Vetter

PERIOD ALIAS

BLS EPHEMERIS

Period 1.943398 d (ALIASSED, see below)
-> corrected period: 3.886797 d
Epoch (t0) 1570.4460 BTJD
Duration 0.1700 d
Depth 13.029 % (130,293 ppm)
SNR 638.2

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

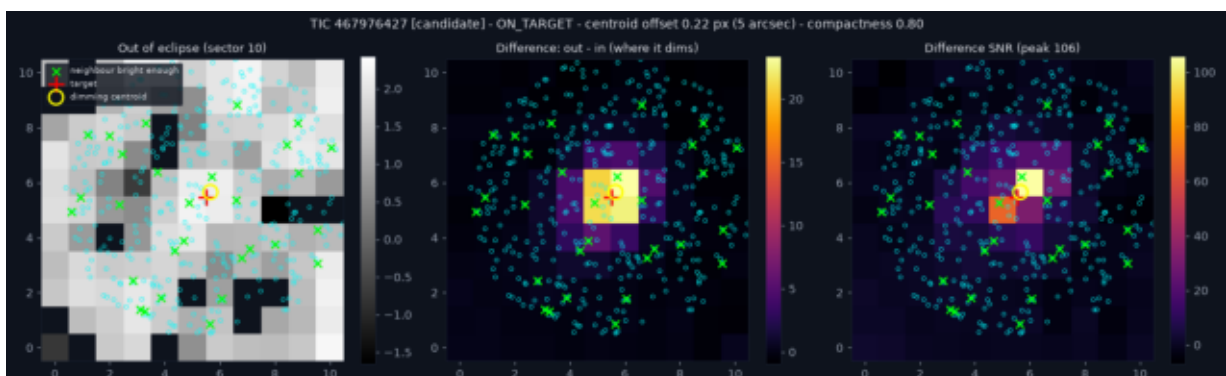
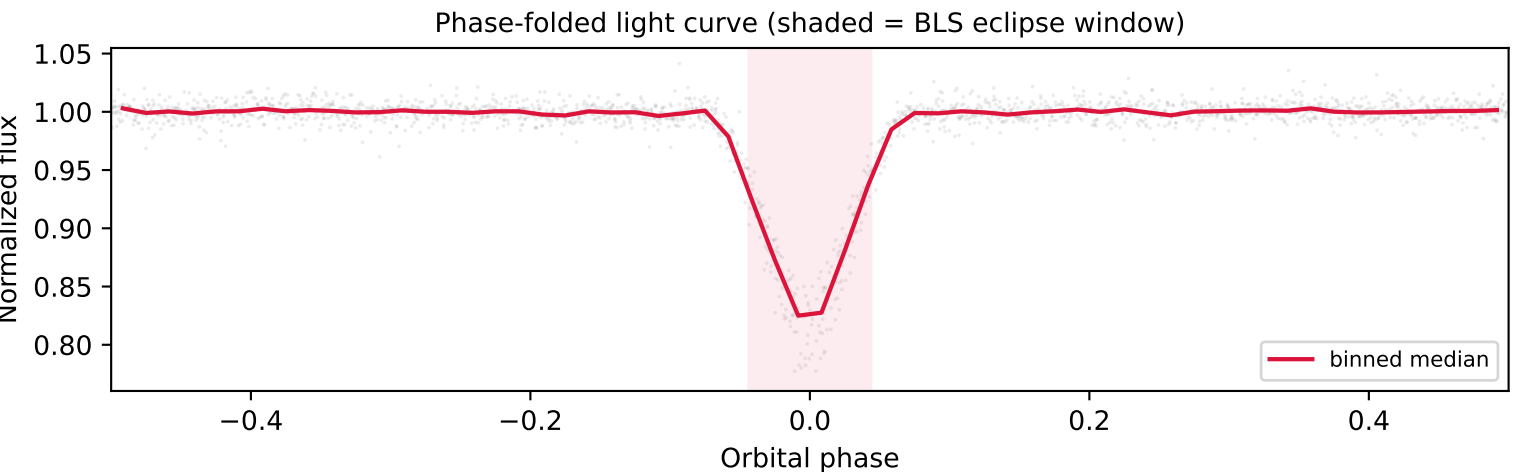
INDEPENDENT CHECKS (f3i gates)

Eclipses observed 23 (gate ≥ 3)
Robust depth ratio 1.01 (gate ≥ 0.50)
Robust depth sigma 213.1 (gate ≥ 7.0)
Odd/even z-score 8.14 (ALIAS FLAGGED)
Secondary eclipse not detected

Verdict: NOVEL

PIXEL-LEVEL SOURCE CHECK (TESScut difference imaging)

Sector 10 light-curve dip in this sector: 122.4 sigma t0 refined by 0.0000 phase
Difference-image peak SNR 105.85 (gate ≥ 5.0) Compactness 0.80 (gate ≥ 0.50)
Dimming centroid offset 0.22 px (5 arcsec) (gate ≤ 1.0 px, i.e. on the target)
Nearest bright-enough neighbour in cutout: TIC 467976410
0.56 px away, dTmag +0.84 - farther from the dimming than the target



Caveat (PERIOD ALIAS): Odd/even eclipse-depth z-score is 8.14 (gate > 3.0): alternating eclipses differ significantly in depth, the signature of a true period double what BLS found. Pixel-check confirmation and eclipse timing are unaffected - report the corrected period, 3.886797 d, in any write-up.