

TIC 40100356

Eclipsing binary candidate dossier - Star Vetter

CLEAN

BLS EPHEMERIS

Period 1.513912 d
Epoch (t0) 1683.6330 BTJD
Duration 0.0840 d
Depth 1.790 % (17,896 ppm)
SNR 72.1

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)

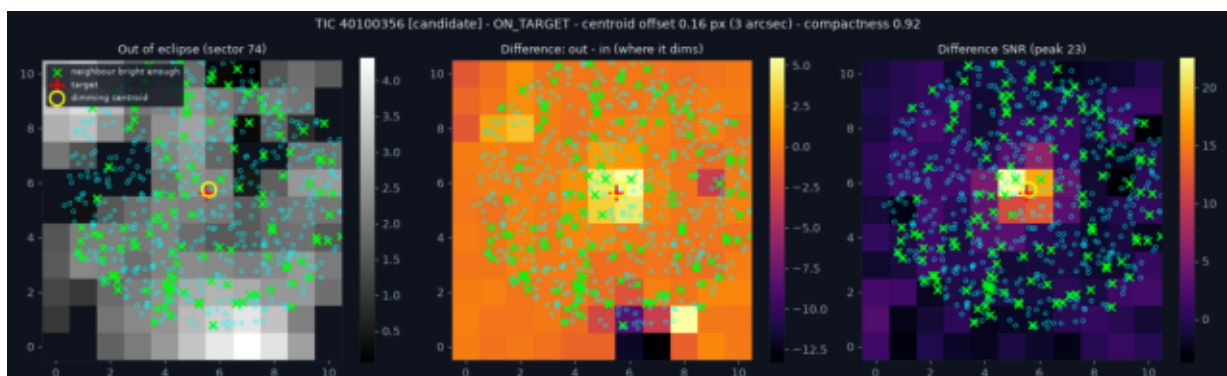
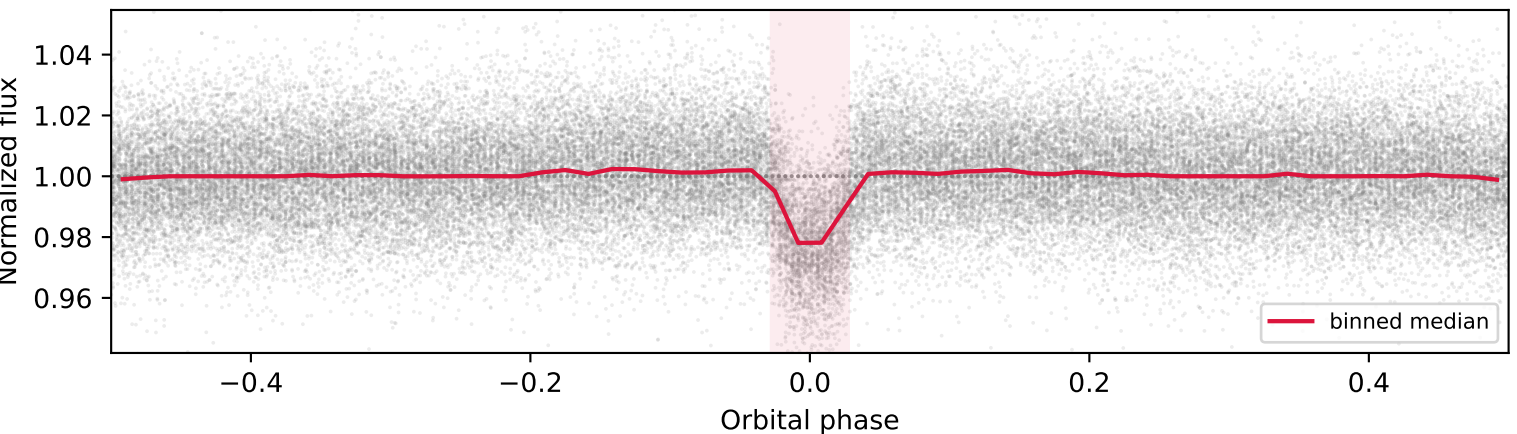
Eclipses observed 153 (gate ≥ 3)
Robust depth ratio 1.02 (gate ≥ 0.50)
Robust depth sigma 61.6 (gate ≥ 7.0)
Odd/even z-score 1.00 (consistent)
Secondary eclipse not detected

Verdict: NOVEL

PIXEL-LEVEL SOURCE CHECK (TESScut difference imaging)

Sector 74 light-curve dip in this sector: 23.7 sigma t0 refined by 0.0075 phase
Difference-image peak SNR 22.62 (gate ≥ 5.0) Compactness 0.92 (gate ≥ 0.50)
Dimming centroid offset 0.16 px (3 arcsec) (gate ≤ 1.0 px, i.e. on the target)
Nearest bright-enough neighbour in cutout: TIC 40100338
0.56 px away, dTmag +4.12 - farther from the dimming than the target

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



No caveats - clean detection on every check.