

**Table 1.** Median values and 68% confidence interval for OGLE-TR-1056.

Parameter	Units	Values
Stellar Parameters:		
$M_*$	Mass ( $M_\odot$ )	$1.071^{+0.11}_{-0.066}$
$R_*$	Radius ( $R_\odot$ )	$2.55^{+0.48}_{-0.38}$
$R_{*,SED}$	Radius <sup>1</sup> ( $R_\odot$ )	$2.60^{+0.47}_{-0.37}$
$L_*$	Luminosity ( $L_\odot$ )	$2.80^{+1.2}_{-0.74}$
$F_{Bol}$	Bolometric Flux (cgs)	$0.0000000000313^{+0.00000000000041}_{-0.00000000000032}$
$\rho_*$	Density (cgs)	$0.091^{+0.059}_{-0.034}$
$\log g$	Surface gravity (cgs)	$3.66^{+0.15}_{-0.13}$
$T_{eff}$	Effective Temperature (K)	$4690^{+160}_{-150}$
$T_{eff,SED}$	Effective Temperature <sup>1</sup> (K)	$4630^{+190}_{-160}$
[Fe/H]	Metallicity (dex)	$0.41^{+0.13}_{-0.20}$
[Fe/H] <sub>0</sub>	Initial Metallicity <sup>2</sup>	$0.35^{+0.11}_{-0.18}$
Age	Age (Gyr)	$10.0 \pm 2.7$
EEP	Equal Evolutionary Phase <sup>3</sup>	$480.8^{+7.2}_{-6.7}$
$A_V$	V-band extinction (mag)	$1.40^{+0.24}_{-0.22}$
$\sigma_{SED}$	SED photometry error scaling	$18.4^{+3.0}_{-2.6}$
$\varpi$	Parallax (mas)	$0.591^{+0.090}_{-0.092}$
$d$	Distance (pc)	$1690^{+310}_{-220}$
Planetary Parameters:		
		b
$P$	Period (days)	$7.7213^{+0.0086}_{-0.0012}$
$R_p$	Radius ( $R_J$ )	$1.048^{+0.085}_{-0.078}$
$M_p$	Mass <sup>4</sup> ( $M_J$ )	$37^{+28}_{-26}$
$T_C$	Time of conjunction <sup>5</sup> (BJD <sub>TDB</sub> )	$2455263.3^{+2.8}_{-1.1}$
$T_T$	Time of minimum projected separation <sup>6</sup> (BJD <sub>TDB</sub> )	$2455263.3^{+2.8}_{-1.1}$
$T_0$	Optimal conjunction Time <sup>7</sup> (BJD <sub>TDB</sub> )	$2456105.8^{+1.7}_{-2.1}$
$a$	Semi-major axis (AU)	$0.0791^{+0.0024}_{-0.0018}$
$i$	Inclination (Degrees)	$82.3^{+1.2}_{-1.3}$
$T_{eq}$	Equilibrium temperature <sup>8</sup> (K)	$1281^{+110}_{-99}$
$\tau_{circ}$	Tidal circularization timescale (Gyr)	$700^{+1000}_{-550}$
$K$	RV semi-amplitude <sup>4</sup> (m/s)	$3500^{+2600}_{-2500}$
$R_p/R_*$	Radius of planet in stellar radii	$0.0426^{+0.0070}_{-0.0076}$
$a/R_*$	Semi-major axis in stellar radii	$6.66^{+1.2}_{-0.96}$
$\delta$	$(R_p/R_*)^2$	$0.00181^{+0.00064}_{-0.00059}$
$\delta_I$	Transit depth in I (fraction)	$0.00137^{+0.00041}_{-0.00040}$
$\delta_V$	Transit depth in V (fraction)	$0.00090^{+0.00040}_{-0.00046}$
$\tau$	Ingress/egress transit duration (days)	$0.0364^{+0.014}_{-0.0083}$
$T_{14}$	Total transit duration (days)	$0.195^{+0.046}_{-0.039}$

Table 1 continued on next page

Table 1 (continued)

Parameter	Units	Values	
$T_{FWHM}$ ..	FWHM transit duration (days) .....	0.156 <sup>+0.054</sup> <sub>-0.051</sub>	
$b$ .....	Transit Impact parameter .....	0.903 <sup>+0.042</sup> <sub>-0.057</sub>	
$\delta_{S,2.5\mu m}$ ..	Blackbody eclipse depth at 2.5 $\mu m$ (ppm) .....	47.3 <sup>+11</sup> <sub>-9.7</sub>	
$\delta_{S,5.0\mu m}$ ..	Blackbody eclipse depth at 5.0 $\mu m$ (ppm) .....	178 <sup>+46</sup> <sub>-36</sub>	
$\delta_{S,7.5\mu m}$ ..	Blackbody eclipse depth at 7.5 $\mu m$ (ppm) .....	260 <sup>+68</sup> <sub>-59</sub>	
$\rho_P$ .....	Density <sup>4</sup> (cgs) .....	41 <sup>+39</sup> <sub>-31</sub>	
$\log g_P$ ..	Surface gravity <sup>4</sup> .....	4.94 <sup>+0.27</sup> <sub>-0.59</sub>	
$\Theta$ .....	Safronov Number .....	5.3 <sup>+4.4</sup> <sub>-3.9</sub>	
$\langle F \rangle$ .....	Incident Flux (10 <sup>9</sup> erg s <sup>-1</sup> cm <sup>-2</sup> ) .....	0.61 <sup>+0.23</sup> <sub>-0.17</sub>	
$T_P$ .....	Time of Periastron (BJD <sub>TDB</sub> ) .....	2455262.1 <sup>+1.1</sup> <sub>-3.8</sub>	
$T_S$ .....	Time of eclipse (BJD <sub>TDB</sub> ) .....	2455266.0 <sup>+1.1</sup> <sub>-3.8</sub>	
$T_A$ .....	Time of Ascending Node (BJD <sub>TDB</sub> ) .....	2455267.9 <sup>+1.1</sup> <sub>-3.8</sub>	
$T_D$ .....	Time of Descending Node (BJD <sub>TDB</sub> ) .....	2455264.0 <sup>+1.1</sup> <sub>-3.8</sub>	
$V_c/V_e$ ..	.....	1.00	
$M_P \sin i$ ..	Minimum mass <sup>4</sup> ( $M_J$ ) .....	37 <sup>+28</sup> <sub>-26</sub>	
$M_P/M_*$ ..	Mass ratio <sup>4</sup> .....	0.033 <sup>+0.025</sup> <sub>-0.024</sub>	
$d/R_*$ ..	Separation at mid transit .....	6.66 <sup>+1.2</sup> <sub>-0.96</sub>	
$P_T$ .....	A priori non-grazing transit prob .....	0.144 <sup>+0.025</sup> <sub>-0.023</sub>	
$P_{T,G}$ .....	A priori transit prob .....	0.157 <sup>+0.025</sup> <sub>-0.023</sub>	
Wavelength Parameters:		I	V
$u_1$ .....	linear limb-darkening coeff .....	0.451 <sup>+0.054</sup> <sub>-0.055</sub>	0.754 <sup>+0.064</sup> <sub>-0.075</sub>
$u_2$ .....	quadratic limb-darkening coeff .....	0.179 <sup>+0.052</sup> <sub>-0.054</sub>	0.051 <sup>+0.054</sup> <sub>-0.062</sub>
Transit Parameters:		OGLE UT 2010-03-07 (I)	OGLE UT 2010-03-07 (V)
$\sigma^2$ .....	Added Variance .....	0.00001693 <sup>+0.00000033</sup> <sub>-0.00000027</sub>	0.0000237 <sup>+0.00000038</sup> <sub>-0.00000037</sub>
$F_0$ .....	Baseline flux .....	1.000190 <sup>+0.000040</sup> <sub>-0.000052</sub>	1.00028 <sup>+0.00045</sup> <sub>-0.00048</sub>

See Table 3 in Eastman, J. et al., 2019, arXiv:1907.09480 for a detailed description of all parameters

<sup>1</sup>This value ignores the systematic error and is for reference only

<sup>2</sup>The metallicity of the star at birth

<sup>3</sup>Corresponds to static points in a star's evolutionary history. See §2 in Dotter, A., 2016, ApJS, 222, 8

<sup>4</sup>Uses measured radius and estimated mass from Chen, J., & Kipping, D. 2017, ApJ, 834, 17

<sup>5</sup>Time of conjunction is commonly reported as the "transit time"

<sup>6</sup>Time of minimum projected separation is a more correct "transit time"

<sup>7</sup>Optimal time of conjunction minimizes the covariance between  $T_C$  and Period

<sup>8</sup>Assumes no albedo and perfect redistribution