

**Table 1.** Median values and 68% confidence interval for OGLE-TR-1076.

Parameter	Units	Values
Stellar Parameters:		
$M_*$	Mass ( $M_\odot$ )	$0.63^{+0.13}_{-0.10}$
$R_*$	Radius ( $R_\odot$ )	$1.625^{+0.093}_{-0.084}$
$R_{*,SED}$	Radius <sup>1</sup> ( $R_\odot$ )	$1.72^{+0.12}_{-0.10}$
$L_*$	Luminosity ( $L_\odot$ )	$1.97^{+0.41}_{-0.37}$
$F_{Bol}$	Bolometric Flux (cgs)	$0.000000000209^{+0.0000000000023}_{-0.0000000000024}$
$\rho_*$	Density (cgs)	$0.210^{+0.019}_{-0.024}$
$\log g$	Surface gravity (cgs)	$3.819^{+0.044}_{-0.054}$
$T_{eff}$	Effective Temperature (K)	$5380^{+180}_{-230}$
$T_{eff,SED}$	Effective Temperature <sup>1</sup> (K)	$5240^{+200}_{-260}$
[Fe/H]	Metallicity (dex)	$-3.45^{+0.80}_{-0.38}$
[Fe/H] <sub>0</sub>	Initial Metallicity <sup>2</sup>	$-3.47^{+0.80}_{-0.38}$
Age	Age (Gyr)	$0.00068^{+0.00015}_{-0.00012}$
EEP	Equal Evolutionary Phase <sup>3</sup>	$120.9^{+9.6}_{-9.2}$
$A_V$	V-band extinction (mag)	$0.76^{+0.16}_{-0.21}$
$\sigma_{SED}$	SED photometry error scaling	$6.10^{+0.93}_{-0.75}$
$\varpi$	Parallax (mas)	$0.576^{+0.039}_{-0.037}$
$d$	Distance (pc)	$1730^{+120}_{-110}$
Planetary Parameters:		
		b
$P$	Period (days)	$5.785527^{+0.000017}_{-0.000018}$
$R_p$	Radius ( $R_J$ )	$1.92^{+0.11}_{-0.10}$
$M_p$	Mass <sup>4</sup> ( $M_J$ )	$0.4027^{+0.0084}_{-0.017}$
$T_C$	Time of conjunction <sup>5</sup> (BJD <sub>TDB</sub> )	$2455380.2351^{+0.0059}_{-0.0056}$
$T_T$	Time of minimum projected separation <sup>6</sup> (BJD <sub>TDB</sub> )	$2455380.2351^{+0.0059}_{-0.0056}$
$T_0$	Optimal conjunction Time <sup>7</sup> (BJD <sub>TDB</sub> )	$2457029.1103 \pm 0.0027$
$a$	Semi-major axis (AU)	$0.0540^{+0.0035}_{-0.0031}$
$i$	Inclination (Degrees)	$88.73^{+0.90}_{-1.3}$
$T_{eq}$	Equilibrium temperature <sup>8</sup> (K)	$1420^{+51}_{-60}$
$\tau_{circ}$	Tidal circularization timescale (Gyr)	$0.069^{+0.015}_{-0.013}$
$K$	RV semi-amplitude <sup>4</sup> (m/s)	$61.5^{+7.9}_{-7.2}$
$R_p/R_*$	Radius of planet in stellar radii	$0.1212 \pm 0.0025$
$a/R_*$	Semi-major axis in stellar radii	$7.19^{+0.21}_{-0.29}$
$\delta$	$(R_p/R_*)^2$	$0.01468^{+0.00062}_{-0.00061}$
$\delta_I$	Transit depth in I (fraction)	$0.01636^{+0.00073}_{-0.00071}$
$\delta_V$	Transit depth in V (fraction)	$0.01751^{+0.00095}_{-0.00086}$
$\tau$	Ingress/egress transit duration (days)	$0.0317^{+0.0028}_{-0.0013}$
$T_{14}$	Total transit duration (days)	$0.2844^{+0.0071}_{-0.0066}$

Table 1 continued on next page

Table 1 (continued)

Parameter	Units	Values	
$T_{FWHM}$ ..	FWHM transit duration (days) .....	0.2521 <sup>+0.0061</sup> <sub>-0.0058</sub>	
$b$ .....	Transit Impact parameter .....	0.16 <sup>+0.16</sup> <sub>-0.11</sub>	
$\delta_{S,2.5\mu m}$ ..	Blackbody eclipse depth at 2.5 $\mu m$ (ppm) .....	496 <sup>+58</sup> <sub>-57</sub>	
$\delta_{S,5.0\mu m}$ ..	Blackbody eclipse depth at 5.0 $\mu m$ (ppm) .....	1570 <sup>+110</sup> <sub>-100</sub>	
$\delta_{S,7.5\mu m}$ ..	Blackbody eclipse depth at 7.5 $\mu m$ (ppm) .....	2190 <sup>+130</sup> <sub>-120</sub>	
$\rho_P$ .....	Density <sup>4</sup> (cgs) .....	0.070 <sup>+0.012</sup> <sub>-0.011</sub>	
$\log g_P$ .....	Surface gravity <sup>4</sup> .....	2.429 <sup>+0.047</sup> <sub>-0.049</sub>	
$\Theta$ .....	Safronov Number .....	0.0359 <sup>+0.0062</sup> <sub>-0.0057</sub>	
$\langle F \rangle$ .....	Incident Flux (10 <sup>9</sup> erg s <sup>-1</sup> cm <sup>-2</sup> ) .....	0.92 <sup>+0.14</sup> <sub>-0.15</sub>	
$T_P$ .....	Time of Periastron (BJD <sub>TDB</sub> ) .....	2455380.2351 <sup>+0.0059</sup> <sub>-0.0056</sub>	
$T_S$ .....	Time of eclipse (BJD <sub>TDB</sub> ) .....	2455377.3423 <sup>+0.0059</sup> <sub>-0.0056</sub>	
$T_A$ .....	Time of Ascending Node (BJD <sub>TDB</sub> ) .....	2455384.5742 <sup>+0.0059</sup> <sub>-0.0056</sub>	
$T_D$ .....	Time of Descending Node (BJD <sub>TDB</sub> ) .....	2455381.6814 <sup>+0.0059</sup> <sub>-0.0056</sub>	
$V_c/V_e$ .....	.....	1.00	
$M_P \sin i$ ..	Minimum mass <sup>4</sup> ( $M_J$ ) .....	0.4025 <sup>+0.0084</sup> <sub>-0.017</sub>	
$M_P/M_*$ .....	Mass ratio <sup>4</sup> .....	0.00061 <sup>+0.00012</sup> <sub>-0.00010</sub>	
$d/R_*$ .....	Separation at mid transit .....	7.19 <sup>+0.21</sup> <sub>-0.29</sub>	
$P_T$ .....	A priori non-grazing transit prob .....	0.1223 <sup>+0.0051</sup> <sub>-0.0036</sub>	
$P_{T,G}$ .....	A priori transit prob .....	0.1560 <sup>+0.0065</sup> <sub>-0.0044</sub>	
Wavelength Parameters:		I	V
$u_1$ .....	linear limb-darkening coeff .....	0.212 <sup>+0.056</sup> <sub>-0.052</sub>	0.337 <sup>+0.058</sup> <sub>-0.053</sub>
$u_2$ .....	quadratic limb-darkening coeff .....	0.328 <sup>+0.052</sup> <sub>-0.054</sub>	0.335 <sup>+0.052</sup> <sub>-0.055</sub>
Transit Parameters:		OGLE UT 2010-07-02 (I)	OGLE UT 2010-07-02 (V)
$\sigma^2$ .....	Added Variance .....	0.0000784 <sup>+0.0000016</sup> <sub>-0.0000015</sub>	0.000084 <sup>+0.000013</sup> <sub>-0.000011</sub>
$F_0$ .....	Baseline flux .....	1.00053 $\pm$ 0.00012	1.00009 $\pm$ 0.00087

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