

**Table 1.** Median values and 68% confidence interval for OGLE-TR-1066.

Parameter	Units	Values
Stellar Parameters:		
$M_*$	Mass ( $M_\odot$ )	$0.881^{+0.22}_{-0.088}$
$R_*$	Radius ( $R_\odot$ )	$3.70^{+1.4}_{-0.77}$
$R_{*,SED}$	Radius <sup>1</sup> ( $R_\odot$ )	$3.72^{+1.4}_{-0.78}$
$L_*$	Luminosity ( $L_\odot$ )	$10.7^{+8.7}_{-3.7}$
$F_{Bol}$	Bolometric Flux (cgs)	$0.000000000166^{+0.0000000000034}_{-0.0000000000031}$
$\rho_*$	Density (cgs)	$0.026^{+0.021}_{-0.015}$
$\log g$	Surface gravity (cgs)	$3.28^{+0.15}_{-0.25}$
$T_{eff}$	Effective Temperature (K)	$5430^{+370}_{-400}$
$T_{eff,SED}$	Effective Temperature <sup>1</sup> (K)	$5410 \pm 400$
[Fe/H]	Metallicity (dex)	$-1.7^{+1.2}_{-1.6}$
[Fe/H] <sub>0</sub>	Initial Metallicity <sup>2</sup>	$-1.7^{+1.1}_{-1.5}$
Age	Age (Gyr)	$9.5^{+3.2}_{-4.9}$
EEP	Equal Evolutionary Phase <sup>3</sup>	$487.3^{+12}_{-9.2}$
$A_V$	V-band extinction (mag)	$0.80^{+0.29}_{-0.33}$
$\sigma_{SED}$	SED photometry error scaling	$11.1^{+1.7}_{-1.3}$
$\varpi$	Parallax (mas)	$0.220^{+0.053}_{-0.058}$
$d$	Distance (pc)	$4540^{+1600}_{-880}$
Planetary Parameters:		
		b
$P$	Period (days)	$10.03302 \pm 0.00016$
$R_p$	Radius ( $R_J$ )	$1.68^{+0.75}_{-0.39}$
$M_p$	Mass <sup>4</sup> ( $M_J$ )	$150^{+78}_{-150}$
$T_C$	Time of conjunction <sup>5</sup> (BJD <sub>TDB</sub> )	$2455386.199^{+0.025}_{-0.027}$
$T_T$	Time of minimum projected separation <sup>6</sup> (BJD <sub>TDB</sub> )	$2455386.199^{+0.025}_{-0.027}$
$T_0$	Optimal conjunction Time <sup>7</sup> (BJD <sub>TDB</sub> )	$2456529.965^{+0.015}_{-0.022}$
$a$	Semi-major axis (AU)	$0.0917^{+0.0075}_{-0.0062}$
$i$	Inclination (Degrees)	$86.8^{+2.4}_{-6.6}$
$T_{eq}$	Equilibrium temperature <sup>8</sup> (K)	$1670^{+210}_{-150}$
$\tau_{circ}$	Tidal circularization timescale (Gyr)	$370^{+680}_{-330}$
$K$	RV semi-amplitude <sup>4</sup> (m/s)	$13200^{+5600}_{-13000}$
$R_p/R_*$	Radius of planet in stellar radii	$0.0468^{+0.0032}_{-0.0029}$
$a/R_*$	Semi-major axis in stellar radii	$5.41^{+0.94}_{-1.3}$
$\delta$	$(R_p/R_*)^2$	$0.00219^{+0.00031}_{-0.00026}$
$\delta_I$	Transit depth in I (fraction)	$0.00244 \pm 0.00026$
$\delta_V$	Transit depth in V (fraction)	$0.00260^{+0.00032}_{-0.00030}$
$\tau$	Ingress/egress transit duration (days)	$0.0288^{+0.026}_{-0.0055}$
$T_{14}$	Total transit duration (days)	$0.588^{+0.041}_{-0.071}$

Table 1 continued on next page

Table 1 (continued)

Parameter	Units	Values	
$T_{FWHM}$ ..	FWHM transit duration (days) .....	0.548 <sup>+0.036</sup> <sub>-0.060</sub>	
$b$ .....	Transit Impact parameter .....	0.31 <sup>+0.39</sup> <sub>-0.23</sub>	
$\delta_{S,2.5\mu m}$ ..	Blackbody eclipse depth at 2.5 $\mu m$ (ppm) .....	127 <sup>+95</sup> <sub>-36</sub>	
$\delta_{S,5.0\mu m}$ ..	Blackbody eclipse depth at 5.0 $\mu m$ (ppm) .....	318 <sup>+150</sup> <sub>-65</sub>	
$\delta_{S,7.5\mu m}$ ..	Blackbody eclipse depth at 7.5 $\mu m$ (ppm) .....	415 <sup>+170</sup> <sub>-76</sub>	
$\rho_P$ .....	Density <sup>4</sup> (cgs) .....	21 <sup>+19</sup> <sub>-20</sub>	
$\log g_P$ .....	Surface gravity <sup>4</sup> .....	4.99 <sup>+0.13</sup> <sub>-1.5</sub>	
$\Theta$ .....	Safronov Number .....	16.7 <sup>+3.2</sup> <sub>-16</sub>	
$\langle F \rangle$ .....	Incident Flux (10 <sup>9</sup> erg s <sup>-1</sup> cm <sup>-2</sup> ) .....	1.75 <sup>+1.1</sup> <sub>-0.56</sub>	
$T_P$ .....	Time of Periastron (BJD <sub>TDB</sub> ) .....	2455386.199 <sup>+0.025</sup> <sub>-0.027</sub>	
$T_S$ .....	Time of eclipse (BJD <sub>TDB</sub> ) .....	2455391.215 <sup>+0.025</sup> <sub>-0.027</sub>	
$T_A$ .....	Time of Ascending Node (BJD <sub>TDB</sub> ) .....	2455393.723 <sup>+0.025</sup> <sub>-0.027</sub>	
$T_D$ .....	Time of Descending Node (BJD <sub>TDB</sub> ) .....	2455388.707 <sup>+0.025</sup> <sub>-0.027</sub>	
$V_c/V_e$ .....	.....	1.00	
$M_P \sin i$ ..	Minimum mass <sup>4</sup> ( $M_J$ ) .....	149 <sup>+75</sup> <sub>-150</sub>	
$M_P/M_*$ .....	Mass ratio <sup>4</sup> .....	0.148 <sup>+0.076</sup> <sub>-0.15</sub>	
$d/R_*$ .....	Separation at mid transit .....	5.41 <sup>+0.94</sup> <sub>-1.3</sub>	
$P_T$ .....	A priori non-grazing transit prob .....	0.176 <sup>+0.054</sup> <sub>-0.026</sub>	
$P_{T,G}$ .....	A priori transit prob .....	0.193 <sup>+0.061</sup> <sub>-0.029</sub>	
Wavelength Parameters:		I	V
$u_1$ .....	linear limb-darkening coeff .....	0.257 <sup>+0.10</sup> <sub>-0.068</sub>	0.410 <sup>+0.15</sup> <sub>-0.072</sub>
$u_2$ .....	quadratic limb-darkening coeff .....	0.285 <sup>+0.056</sup> <sub>-0.061</sub>	0.269 <sup>+0.063</sup> <sub>-0.088</sub>
Transit Parameters:		OGLE UT 2010-07-08 (I)	OGLE UT 2010-07-08 (V)
$\sigma^2$ .....	Added Variance .....	0.00002361 <sup>+0.00000039</sup> <sub>-0.00000038</sub>	0.0000341 <sup>+0.00000048</sup> <sub>-0.00000043</sub>
$F_0$ .....	Baseline flux .....	1.000310 <sup>+0.000050</sup> <sub>-0.000051</sub>	0.99989 ± 0.00048

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