

(18548)Christoffel occults UCAC4 520-008779

***** Asteroid occultation Report *****

[Date] 2025.11.29 [Approx hour] 13.0
[Star] UCAC4 520-008779 VMag=12.68 RMag=11.74
[Asteroid] (18548)Christoffel 17.68 mag.

[Observer] 1: Katsuhiko Kitazaki 2:
[Location] Musashino, Tokyo, JP
[Longitude] 139o33'41.2" E
[Latitude] 35o42'37.0" N
[Altitude] 66m
[Datum] WGS84

[Event time] D: 13h00m28.265s +/- 0.007s (UTC) S/N=13.24 Ctt=30.4
R: 13h00m28.617s +/- 0.008s (UTC) S/N=12.01
[Predicted Time error] 0.167 sec [RUWE] 1.00

[Recorded] From 13h0m10s
To 13h1m0s

[Mag. drop] D: Measured: Mag Drop (measured): 4.42 Mag. ; Predicted:
Mag Drop (predicted): 5.0 Mag.
R: Measured: Mag Drop (measured): 4.42 Mag. ; Predicted:
Mag Drop (predicted): 5.0 Mag.

[Telescope] Aperture: 40cm Type: Classical Cassegrain F=2.6 (Reducer
x 0.26)
[Camera] Analog or Digital video , Model= ASI290MM
[Exposure] Set: 90.3msec, Measure: 90.3msec
[Setting] Area: 1936x600 ; Binning=2
Gain: 400 ; Brightness: 42 ; High Speed Mode: Off
[Time keep] GPS ; Model: GT502MGG
[Evidence] GPS Time Log : Recorded ; Screen shot: Recorded

[Condition] Stability: Slight flickering Transparency: Clear
[Remarks] The longer frame exposure time of 90.3 ms yielded a high signal-
to-noise ratio. Time analysis identified two intermediate points during
Disappearance, enabling the calculation of the Contact Angle and subsequent
fitting of the diffraction curve.
[Additional comment]
Capture : ZWO ASI290MM imaging data to PC using SharpCap4.1.13800.0
Photometry analysis : Analyzed with software.limovie1.0.1.8 Pneuma
Photometry method : PSF photometry
(Sharp4.1 ON,Tracking OFF, Linked Tracking=OFF, Star's Angular
Diameter=ON Mag drop considered=OFF)
Data Release Site
https://drive.google.com/drive/folders/1QsO1NhznmHT1McrzulMPQL4kS6
XVrBD?usp=sharing

<Observations>
<Event>
<Date>2025|11|29|13.0</Date>
<Details>
<Star>UCAC4|520-
008779|0||0.0000000000|0.0000000000|0.00|0.00|0.00|0|0.00000000|0.00000
00|25.00|25.00|25.00|0</Star>
<Asteroid>18548|Christoffel|0.00000000|0.00000000|0.00000000|0.00000000|0
.00000000|0.00000000|1.00000|0.00000|0.0|1.0|20.00</Asteroid>
</Details>
<Observations>
<Observer>
<ID>1|Katsuhiko Kitazaki||0|Musashino, Tokyo|JP|+139 33
41.2|+35 42 37.0|66| 40|6|a|a</ID>
<Conditions>2|1|12.63||The longer frame exposure time of 90.3 ms
yielded a high signal-to-noise ratio. Time analysis identified two intermediate

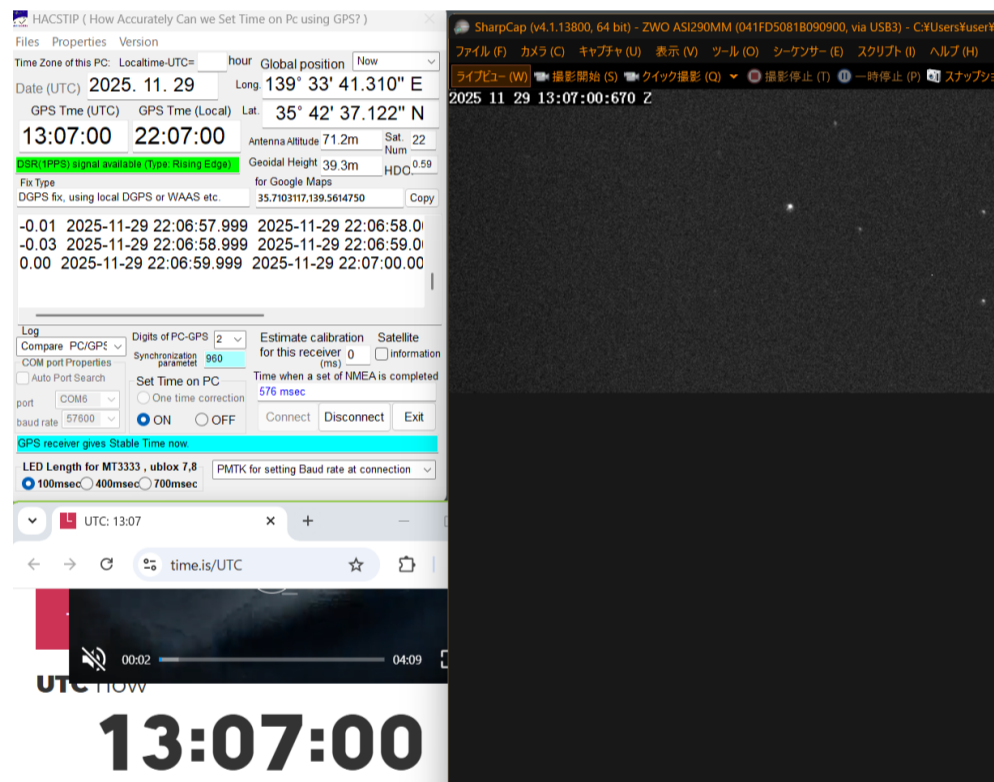
points during Disappearance, enabling the calculation of the Contact Angle and
subsequent fitting of the diffraction curve.</Conditions>

<D>13 0 28.265|D|0.007||| </D>
<R>13 0 28.617|R|0.008||| </R>
</Observer>
</Observations>
<LastEdited>2023|7|17</LastEdited>
</Event>
</Observations>

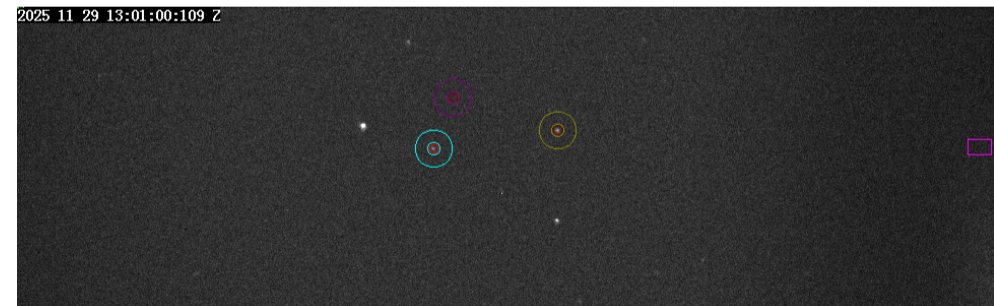
Text-based Light curve
(18548)_20251129_130024_Katsuhiko_Kitazaki.dat

Date: 2025-11-29 13:0:24.75: 7.59: 85
Star: 0: 0: 0: 0: 0-0-0: 520-008779
Observer: +139:33:41.2: +35:42:37.0: 66: Katsuhiko Kitazaki
Object: Asteroid: 18548: Christoffel
Values:1048:1100:1149:1168:1276:1002:1076:1102:1212:1210:1158:1045:1097
:938:1182:1136:1158:1088:1035:1102:1019:1068:1105:1053:1171:1007:1097:1
049:1158:1013:1009:1034:1100:949:1194:939:1221:1128:1007:513:107:27:10:6
75:934:1371:1132:898:1164:
1158:1074:1087:1060:1127:1089:1037:1060:1028:1228:1056:1183:1181:1060:1
277:1002:1191:1146:1143:1192:976:1190:964:1109:945:1161:1157:1215:1212:
1100:1157:1180:1082:1008:1082:1310

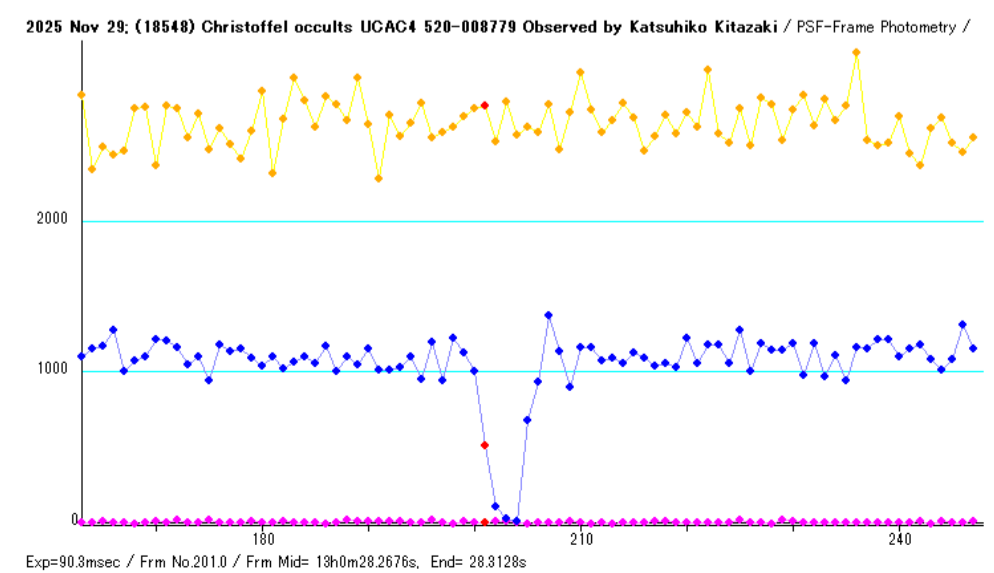
UTC Time Evidence



Target Star Position (Target star = Blue, Comparison star = Yellow, Pink =
Background metering)

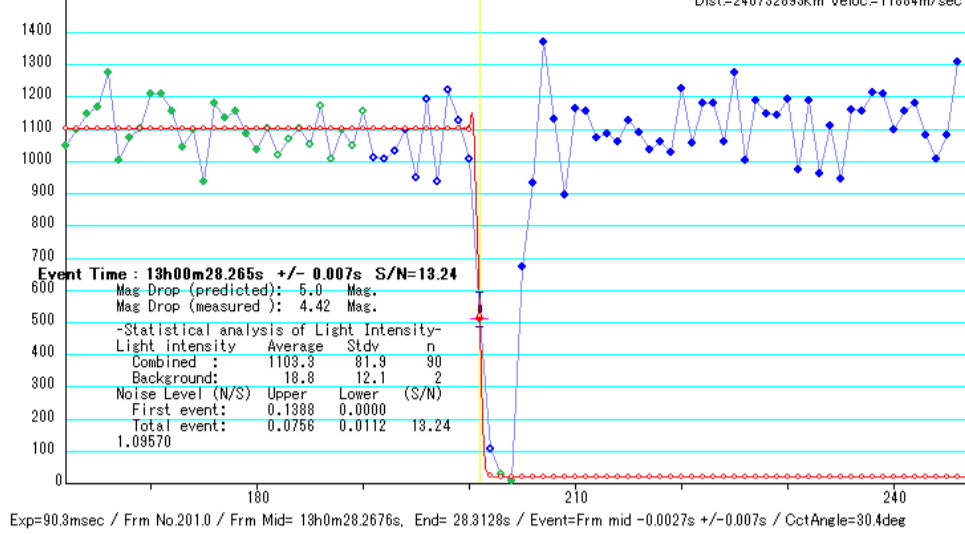


Light curve (Target star = Blue line, Target star = Yellow line)



Time analysis of disappearance

2025 Nov 29: (18548) Christoffel occults UCAC4 520-008779 Observed by Katsuhiko Kitazaki / PSF-Frame Photometry /
Dist=240732893km Veloc=11884m/sec



Time analysis of reappearance

2025 Nov 29: (18548) Christoffel occults UCAC4 520-008779 Observed by Katsuhiko Kitazaki / PSF-Frame Photometry /
Dist=240732893km Veloc=11884m/sec

