

# V&V Summary Report

## L2 ASCDS Version : 10.9.1

Observation 5770 - L2 Version 4  
Chandra X-Ray Center

L2 Processing Date : Oct 5 2020

See [axaff05770N004\\_VV001\\_vvref2.pdf](#) for the full report

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.02239

## Comments

The ACA has the capability to devote one or more of the eight image slots to "monitor" particular sky locations. This allows simultaneous optical photometry of one or more targets in the ACA field of view. These optical sources can be slightly fainter than the ACA guide star limit of  $m_{ACA} = 10.2$  mag. The bright-end limit for monitor star photometry is  $m_{ACA}=6.2$  mag. However, since there are a fixed number of image slots, devoting a slot to photometry instead of tracking a guide star results in a degradation of the image reconstruction and celestial location accuracy (Section 5.4). Using one monitor slot represents a 15 - 25% increase in the aspect image reconstruction RMS diameter, depending on the particular guide star configuration. Two monitor slots would increase the diameter by about 50 - 60%, but this configuration is not operationally allowed under normal circumstances. The photometric accuracy which can be achieved depends primarily on the star magnitude, integration time, CCD dark current, CCD read noise, sky background, and the CCD dark current uncertainty.

seq_num	800483	Sequence number
obs_id	5770	Observation id
title	Alternate: The Eclipsing Binary ET Tau	Proposal title
observer	Gordon Garmire	Principal investigator
object	ET Tau	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.420417	Observer's specified target RA [deg]
dec_targ	27.271278	Observer's specified target Dec [deg]
ra_nom	84.413149601743	Nominal RA [deg]
dec_nom	27.265410873209	Nominal Dec [deg]
roll_nom	254.20534105884	Nominal Roll [deg]
revision	4	Processing version of data
ontime	10022.399962664	Sum of GTIs [s]
livetime	9895.4902995717	Livetime [s]
ontime2	10022.399962664	Sum of GTIs [s]
ontime3	10022.399962664	Sum of GTIs [s]
ontime5	10022.399962664	Sum of GTIs [s]
ontime6	10022.399962664	Sum of GTIs [s]
ontime7	10022.399962664	Sum of GTIs [s]
ontime8	10022.399962664	Sum of GTIs [s]
l2events	123392	Number of level 2 events

