

# ITL Camera Characterization Report

Customer	UASAL
System	ZWO ASI294MM-P
ID	2f348f01230009000
Operator	Michael Lesser
Comment	Mode bin2, +20C, Gain=120, Offset=10
Report date	May-02-2024

# Gain Analysis

Read Noise in electrons is not system noise corrected

Channel	Gain [e/DN]	Noise [e]	Sens. [uV/e]	Bias[DN]
00	0.22	1.9	0.00	642.7

# Gain Map

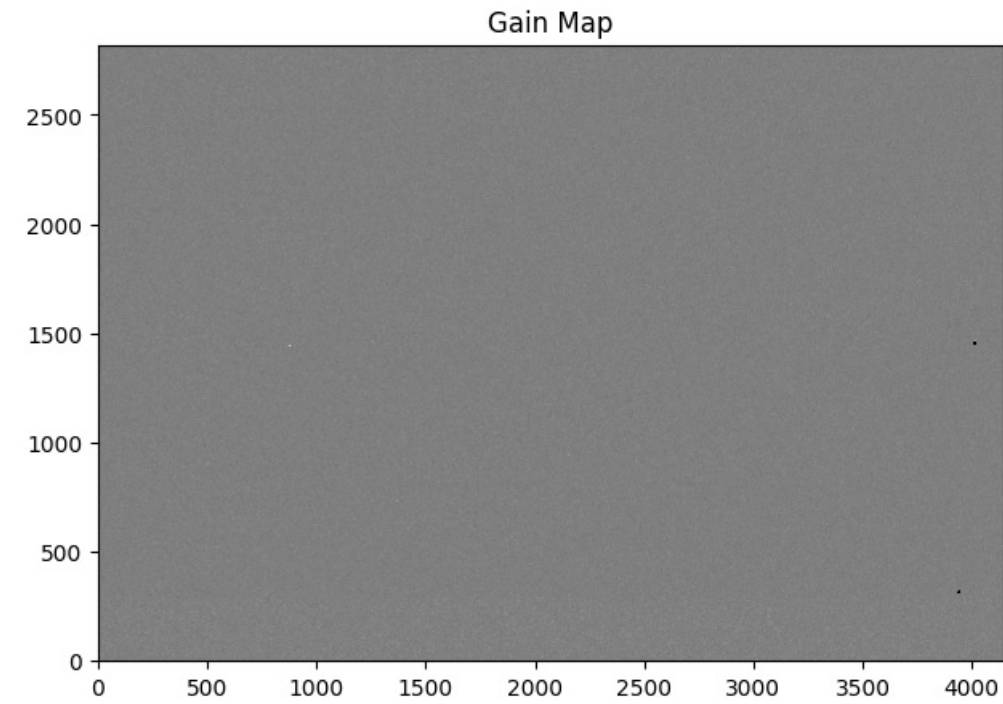
Gain mean = 0.269

Gain minimum = -1558.801

Gain maximum = 24.849

Gain median = 0.247

Gain sdev = 0.522

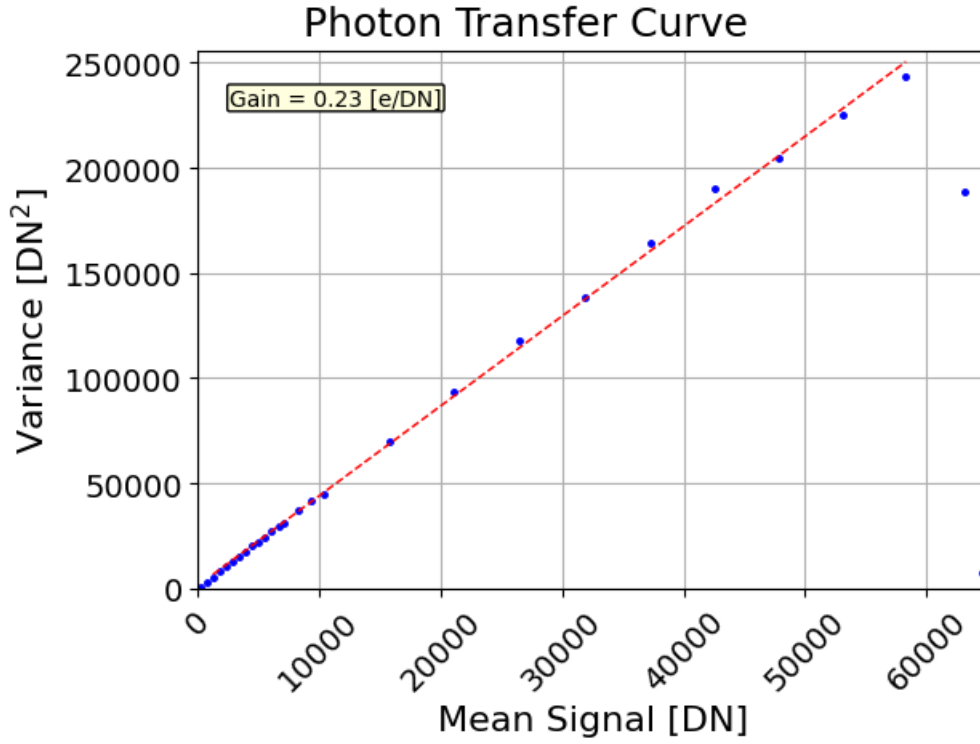


*Gain Map Image.*

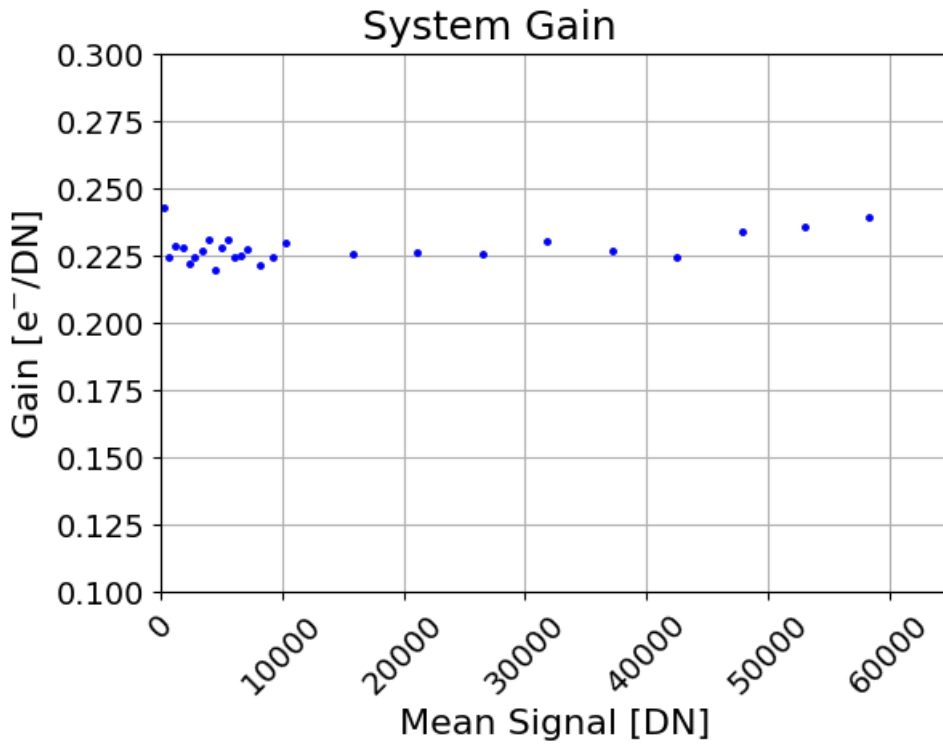
# PRNU Analysis

Wavelength	PRNU [%]
0400	1.7
0450	2.1
0500	2.2
0550	1.7
0600	1.9
0650	2.8
0700	2.6
0750	3.3
0800	4.2

# PTC Analysis



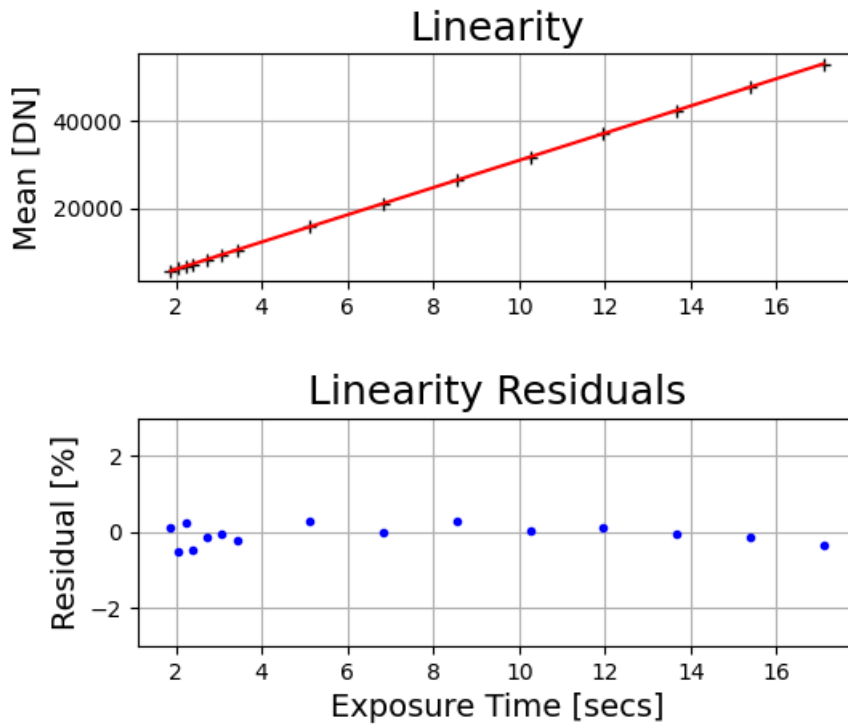
Photon Transfer Curve.



Photon Transfer Gain Plot.

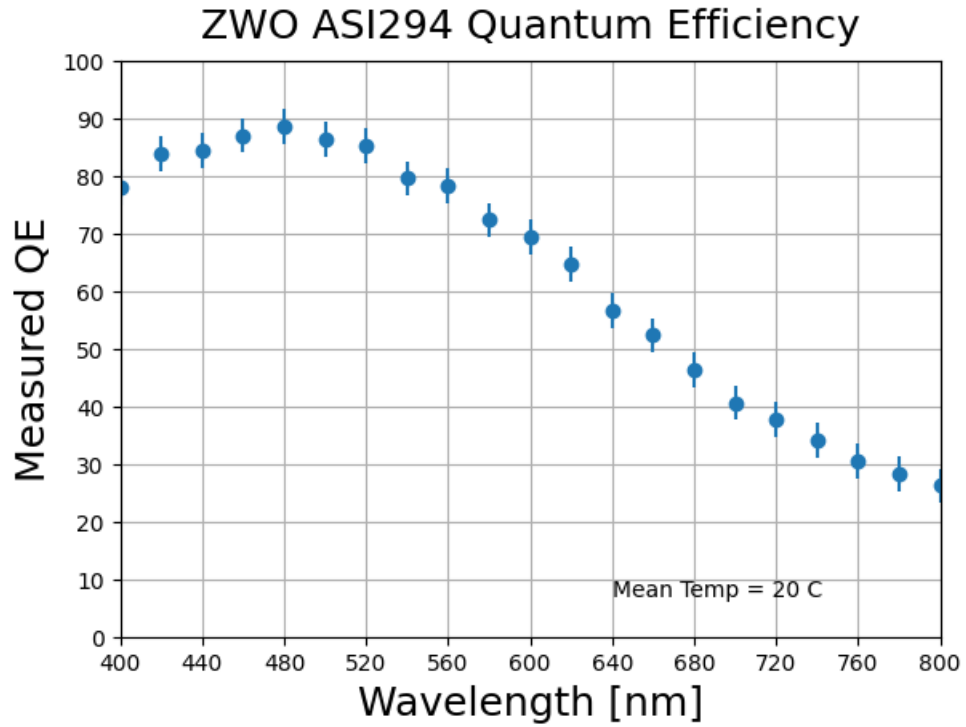
# Linearity Analysis

Max residual value [%]: 0.5  
Minimum fit limit [DN]: 5500.0  
Maximum fit limit [DN]: 49500.0  
Mean residuals [%]: 0.2



Linearity and residuals Plot.

# Quantum Efficiency Analysis



Quantum Efficiency Plot.

Wavelength	QE
400	0.780
420	0.837
440	0.844
460	0.870
480	0.885
500	0.864
520	0.852
540	0.795
560	0.782
580	0.723
600	0.694
620	0.646
640	0.566
660	0.523
680	0.464
700	0.406
720	0.377
740	0.341
760	0.305
780	0.283

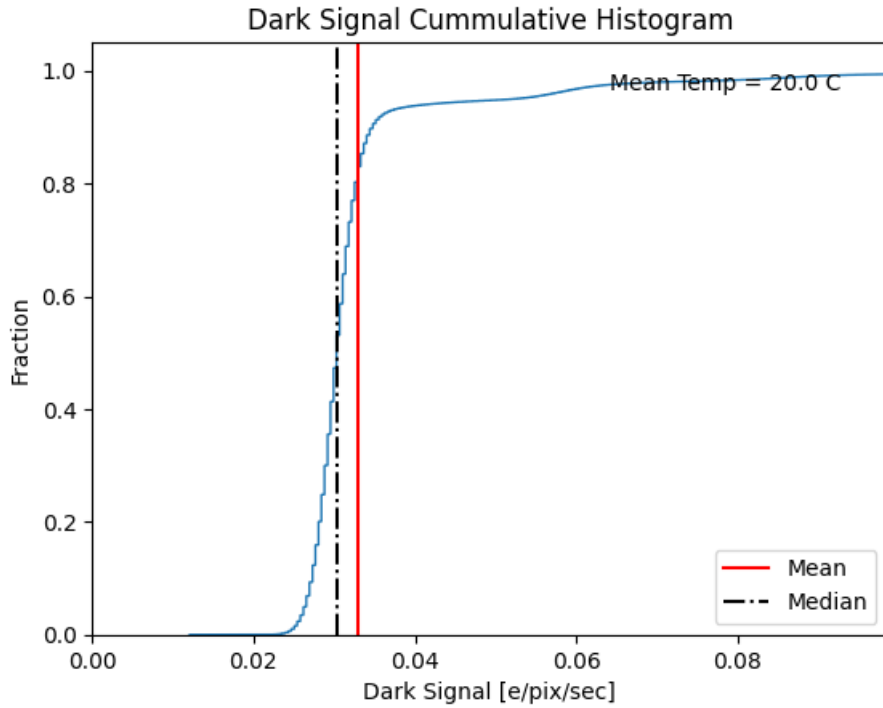
<b>Wavelength</b>	<b>QE</b>
800	0.262



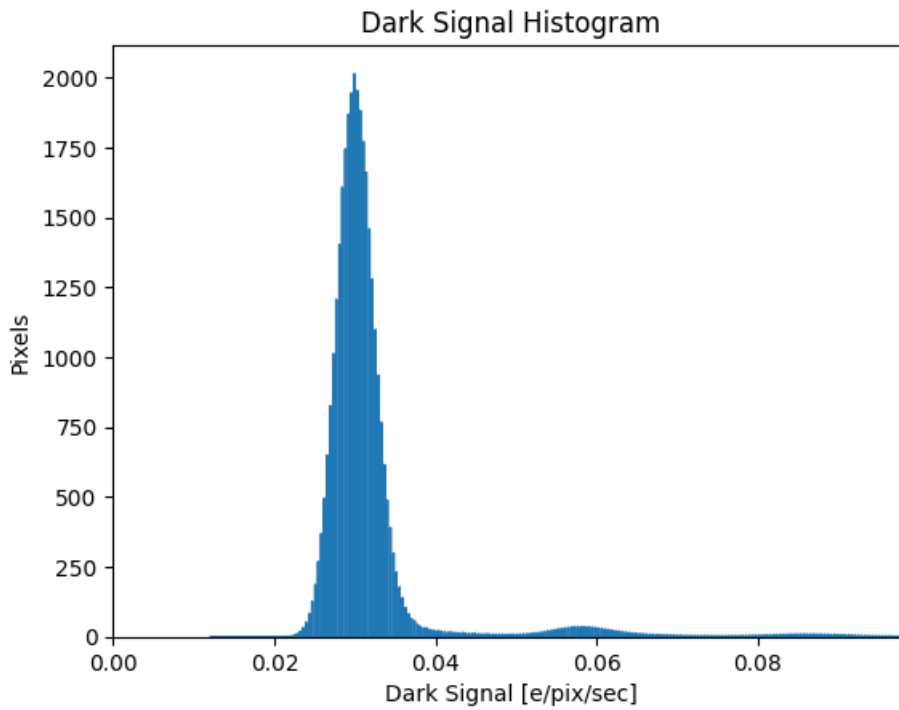
# Dark Signal Analysis

Mean dark signal is 0.033 e/pix/sec

Median dark signal is 0.030 e/pix/sec

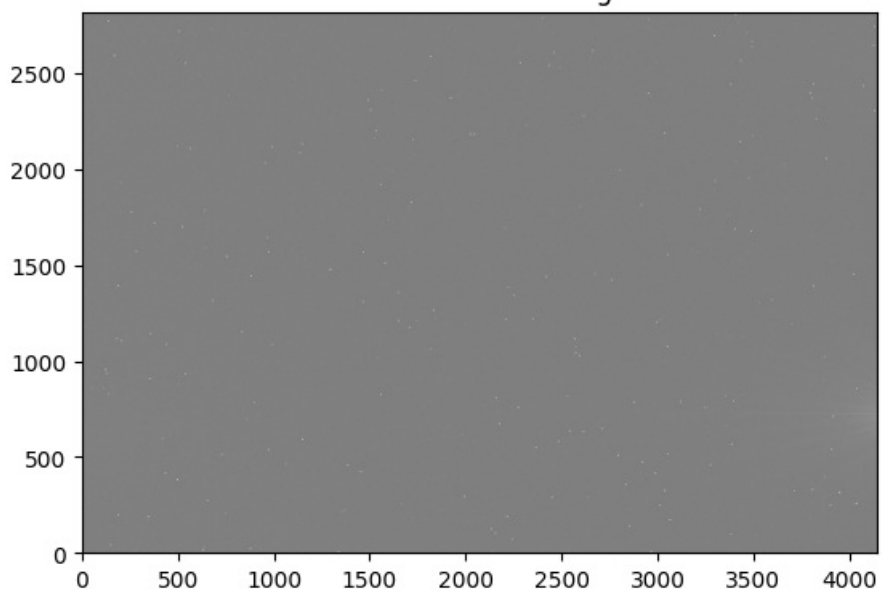


*Cumulative Dark Signal Histogram.*



*Total Dark Signal Histogram.*

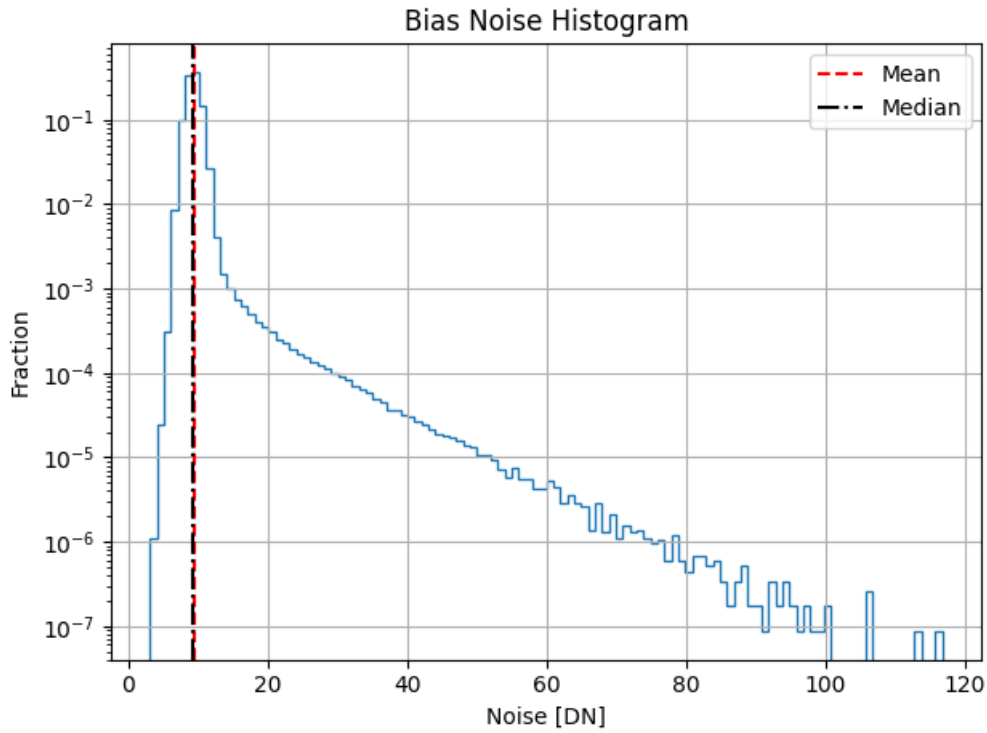
Combined Dark Image



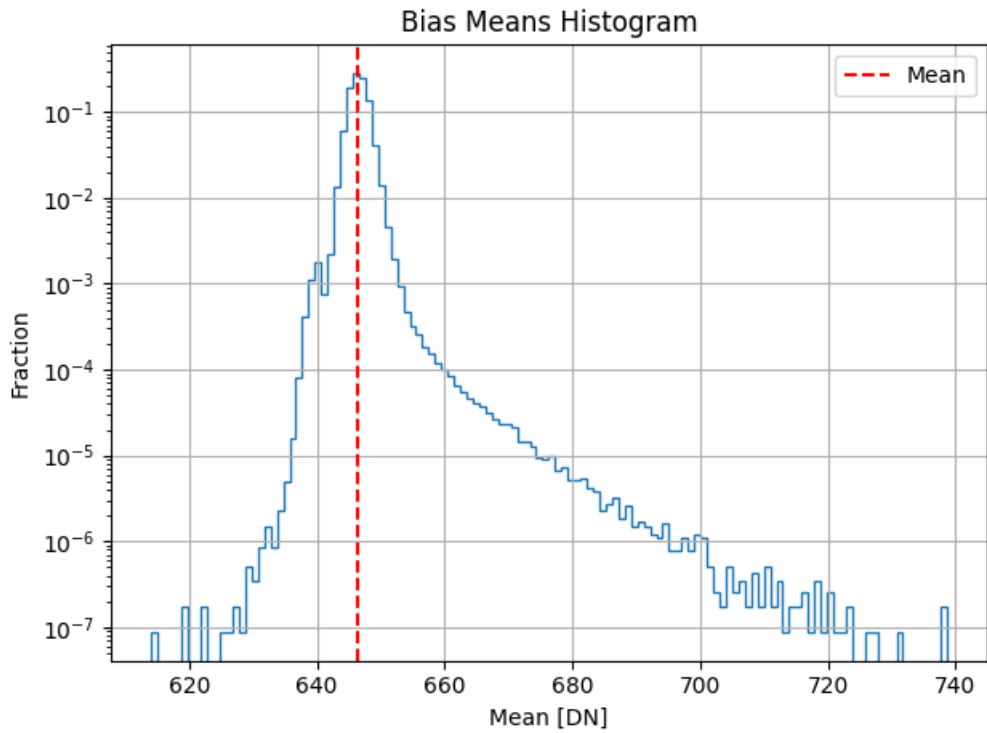
*Dark Image.*

# Bias Analysis

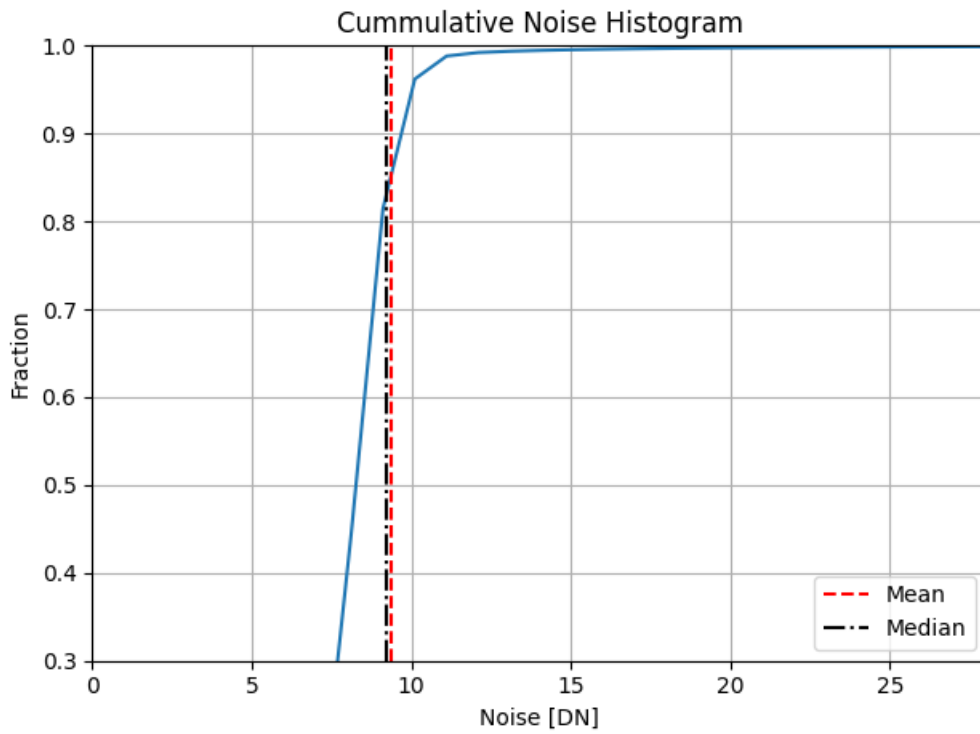
Mean (DN)	Noise (DN)
646	9.3



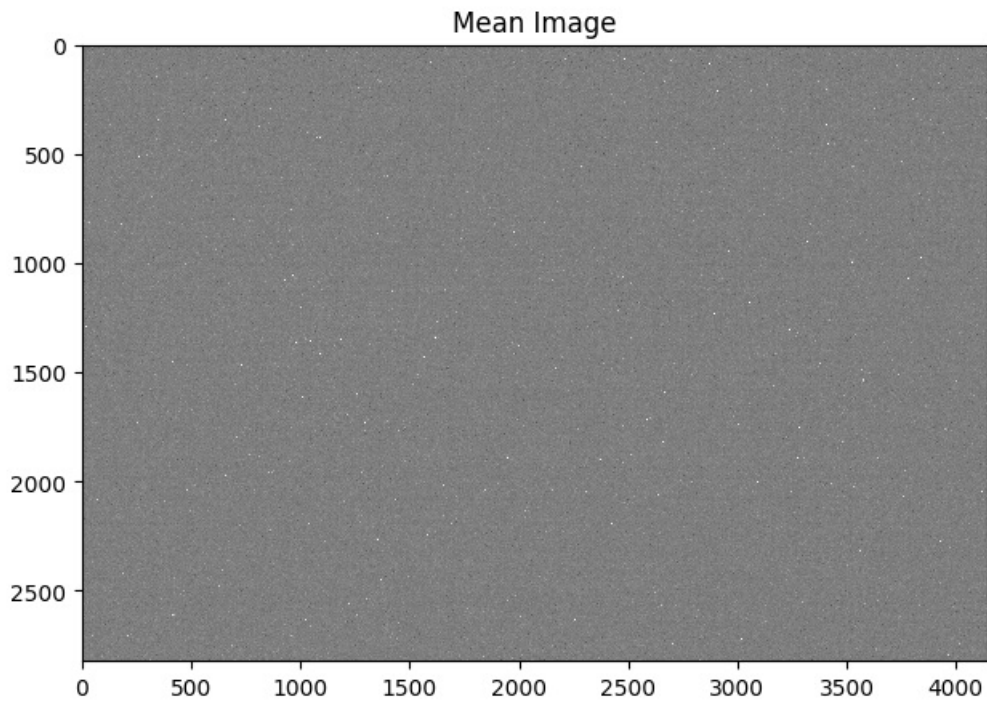
*Bias noise histogram.*



*Bias means histogram.*

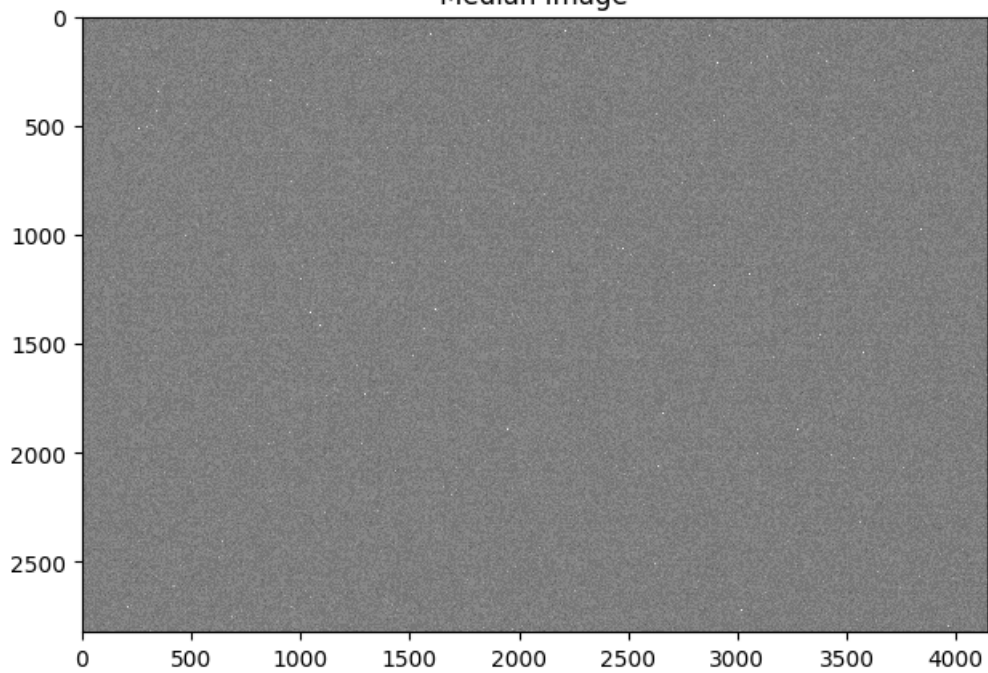


*Bias cummulative noise histogram.*



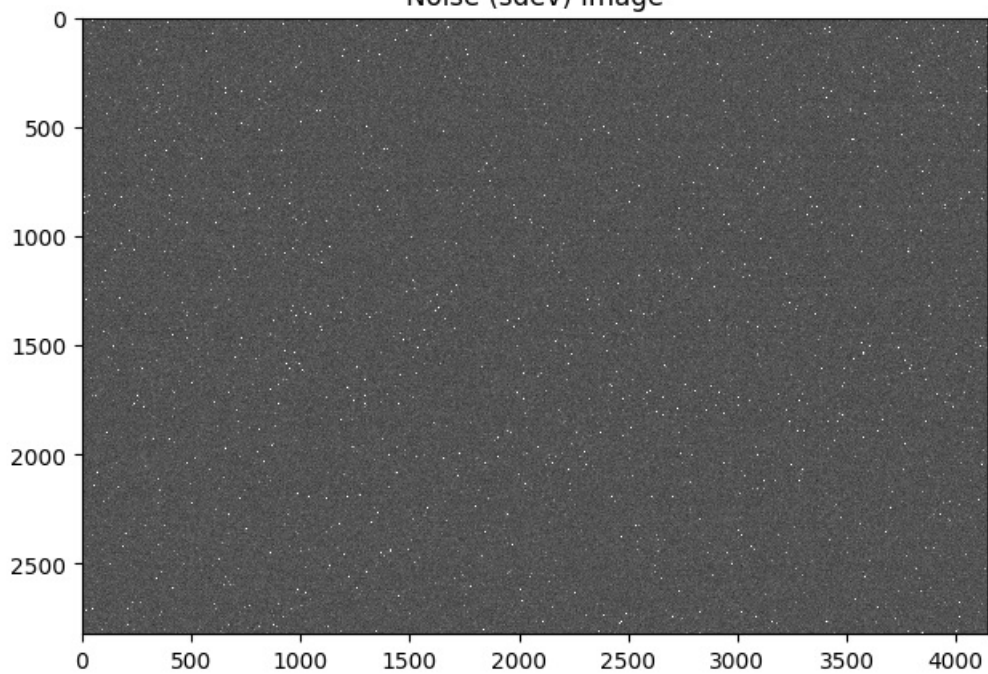
*Bias mean image plot.*

Median Image



*Bias median image plot.*

Noise (sdev) Image



*Bias Noise (sdev) image plot.*