

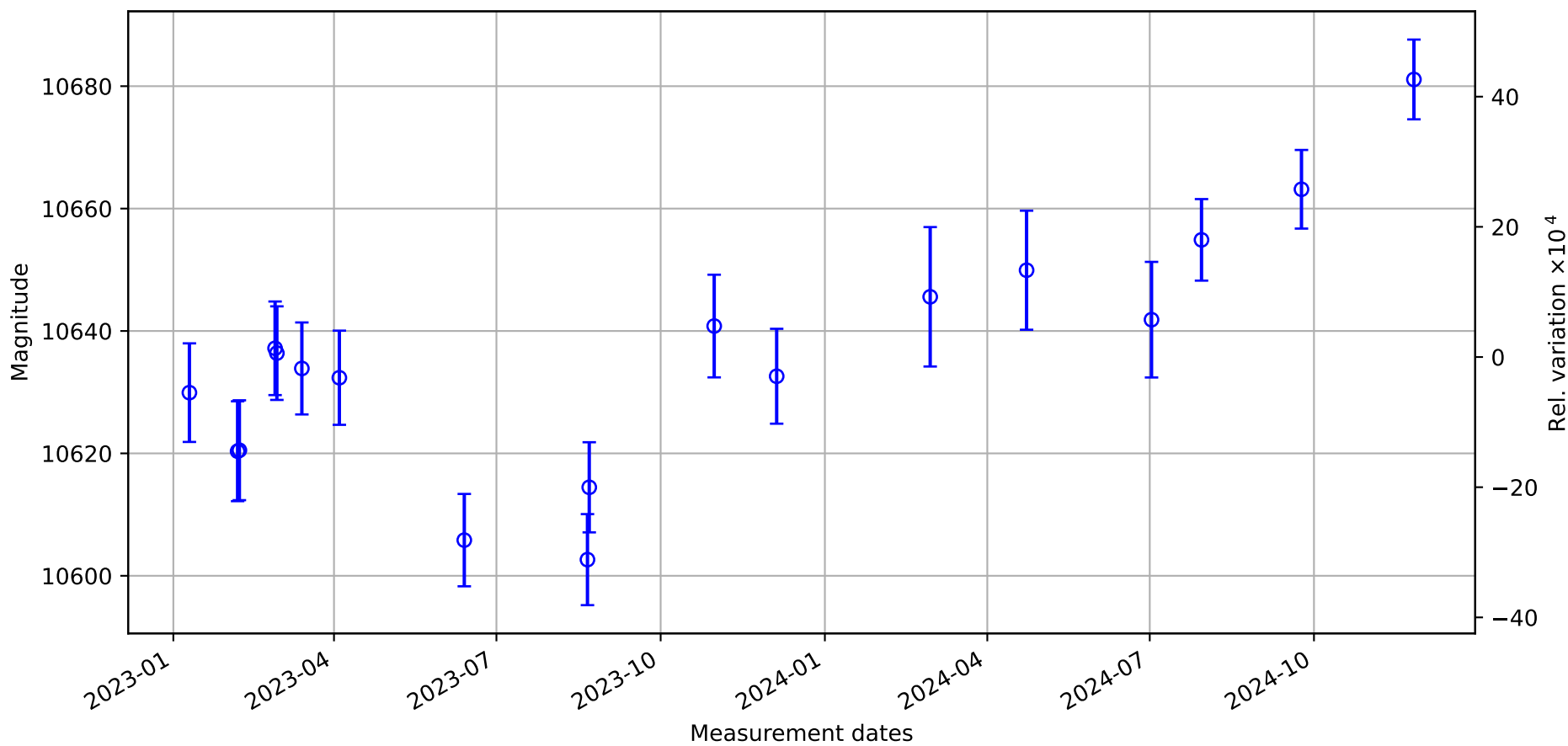
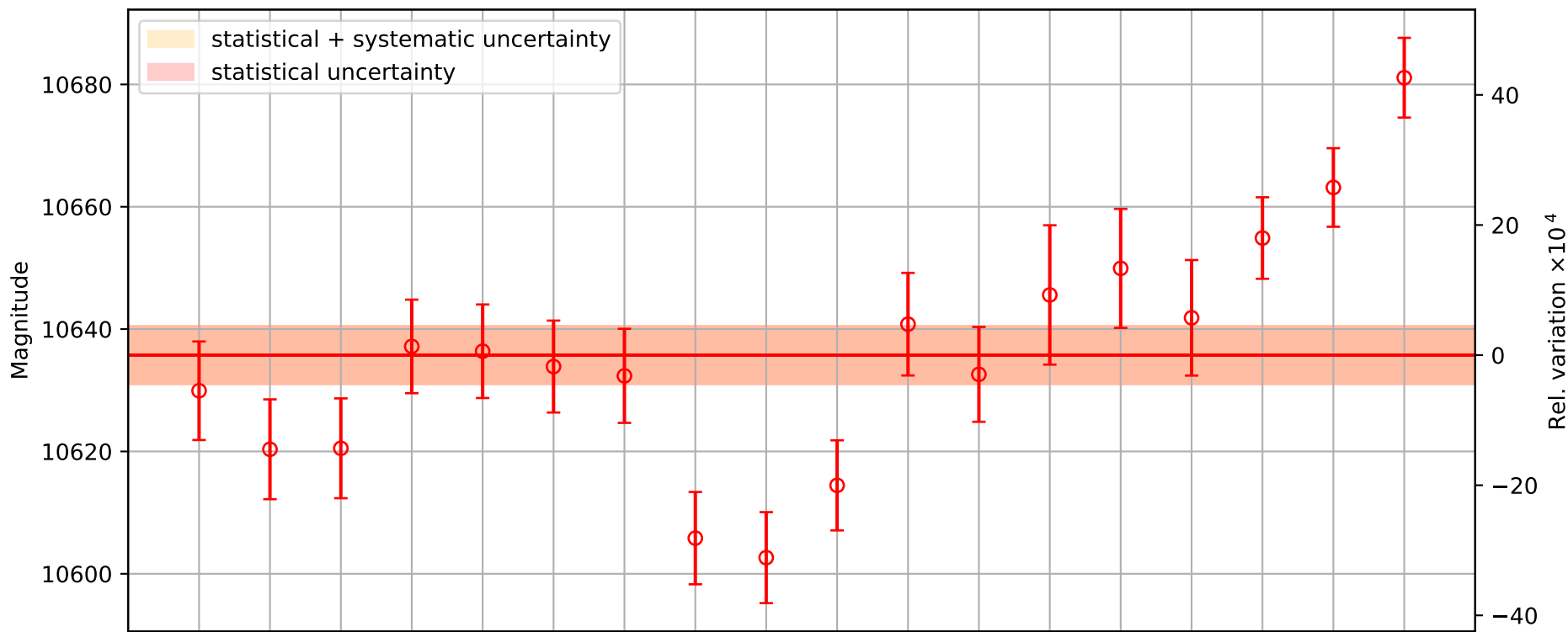
PCAL End Station Measurement Trends

	rhoR_prime	Description
	Date None \pm SD_None	
D20230110	10629.9242 \pm 8.0551	
D20230206	10620.3530 \pm 8.1594	
D20230207	10620.5139 \pm 8.1595	
D20230227	10637.1713 \pm 7.6462	
D20230228	10636.3809 \pm 7.6456	
D20230314	10633.8774 \pm 7.5141	
D20230404	10632.3603 \pm 7.6934	
D20230613	10605.8257 \pm 7.5452	
D20230821	10602.6395 \pm 7.4380	
D20230822	10614.4571 \pm 7.3641	
D20231031	10640.8070 \pm 8.3872	
D20231205	10632.6039 \pm 7.7518	
D20240229	10645.5847 \pm 11.3904	
D20240423	10649.9286 \pm 9.7264	
D20240702	10641.8462 \pm 9.4440	
D20240730	10654.8891 \pm 6.6613	
D20240924	10663.1539 \pm 6.4237	
D20241126	10681.0993 \pm 6.5151	

Summary of Rx Responsivity Corrected for Optical Efficiency

rhoR_prime
Mean value: 10635.745332
Standard deviation: 19.568802
Standard error: 4.744142
Relative Standard error: 0.000446

Rx Responsivity Corrected for Optical Efficiency

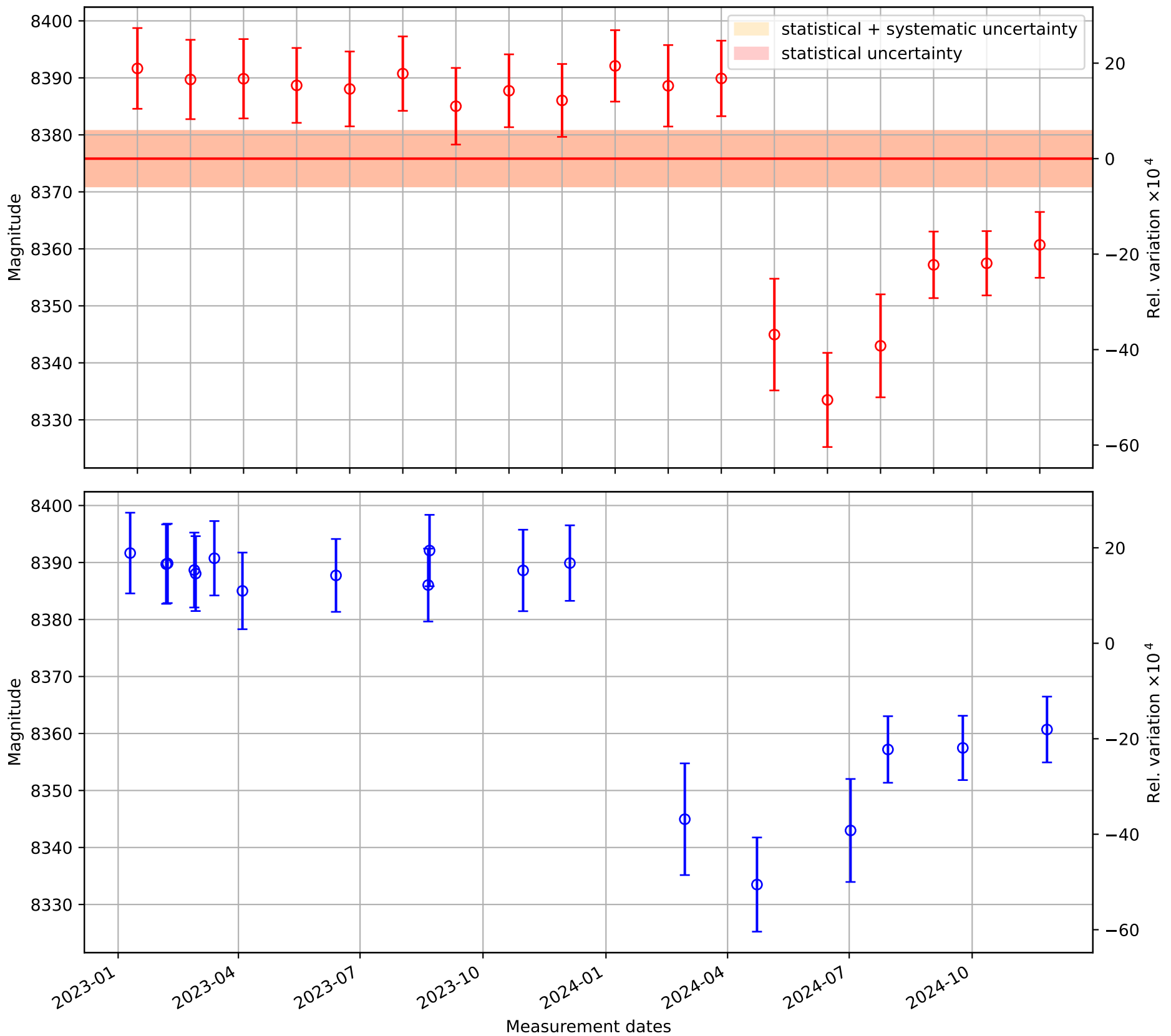


	rhoT_prime	Description
Date	None \pm SD_None	
D20230110	8391.6574 \pm 7.0818	
D20230206	8389.7169 \pm 6.9611	
D20230207	8389.8439 \pm 6.9612	
D20230227	8388.6783 \pm 6.5688	
D20230228	8388.0549 \pm 6.5683	
D20230314	8390.7454 \pm 6.5279	
D20230404	8385.0193 \pm 6.7238	
D20230613	8387.7359 \pm 6.3941	
D20230821	8386.0437 \pm 6.3956	
D20230822	8392.0998 \pm 6.2670	
D20231031	8388.6083 \pm 7.1489	
D20231205	8389.8996 \pm 6.6251	
D20240229	8344.9589 \pm 9.7997	
D20240423	8333.4924 \pm 8.2620	
D20240702	8342.9862 \pm 9.0346	
D20240730	8357.1960 \pm 5.8391	
D20240924	8357.4704 \pm 5.6429	
D20241126	8360.7000 \pm 5.7712	

Summary of Tx Responsivity Corrected for Optical Efficiency

Mean value: 8375.828167
Standard deviation: 20.103602
Standard error: 4.873795
Relative Standard error: 0.000582

Tx Responsivity Corrected for Optical Efficiency



	rho_T	Description
	Date m5 ± SD_m5	
D20230110	8335.8363 ± 3.7737	
D20230206	8331.4346 ± 3.5832	
D20230207	8331.5608 ± 3.5832	
D20230227	8335.2565 ± 3.3557	
D20230228	8334.6371 ± 3.3555	
D20230314	8333.3272 ± 3.4285	
D20230404	8330.5796 ± 3.5576	
D20230613	8323.3328 ± 3.1747	
D20230821	8322.2378 ± 3.2788	
D20230822	8330.7448 ± 3.1393	
D20231031	8333.5847 ± 3.6905	
D20231205	8330.8458 ± 3.3593	
D20240229	8292.7841 ± 4.9992	
D20240423	8280.0701 ± 4.2208	
D20240702	8288.5717 ± 7.0540	
D20240730	8301.2386 ± 4.5879	
D20240924	8305.0146 ± 4.4201	
D20241126	8310.1994 ± 4.5070	

rho_T

Summary of TX Responsivity rho_T

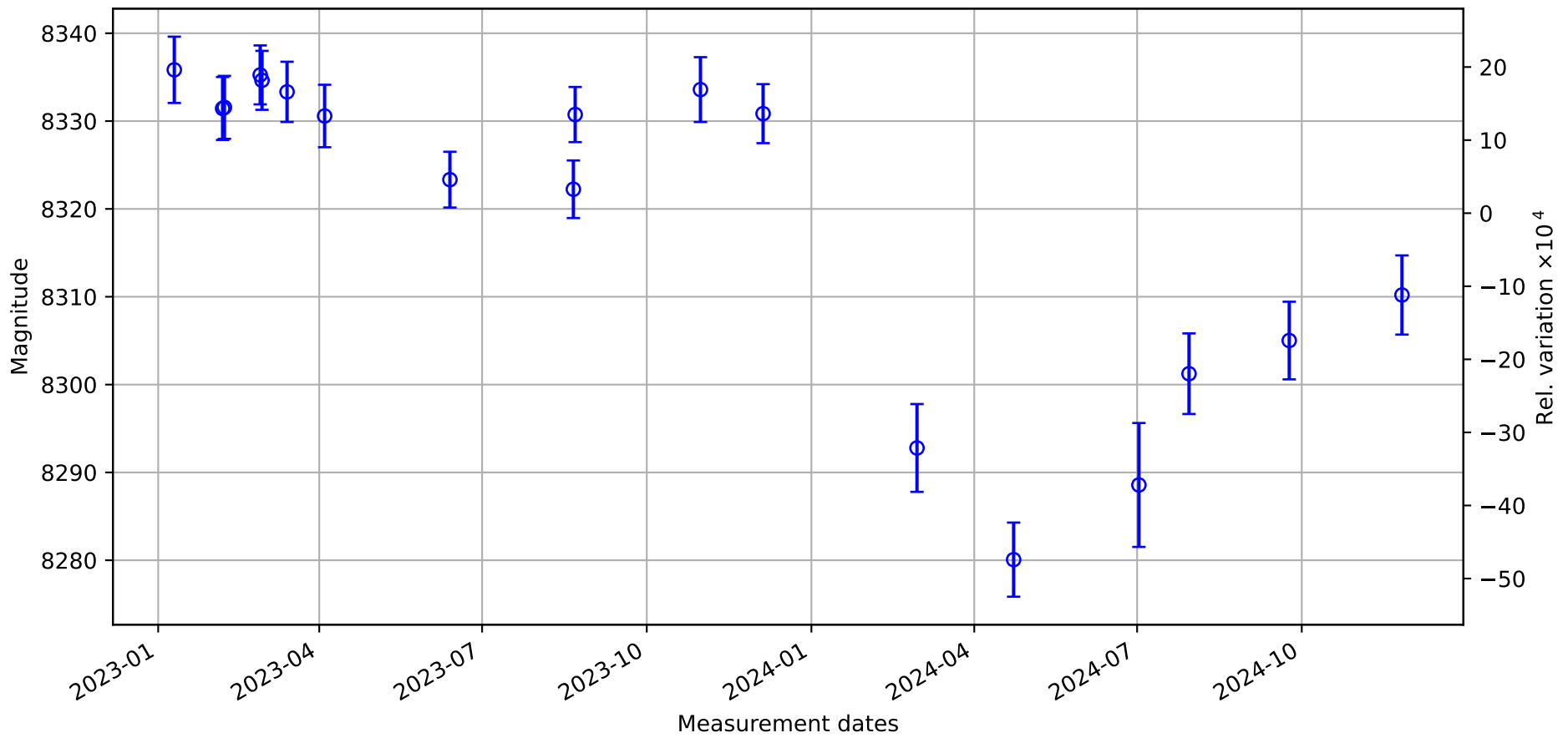
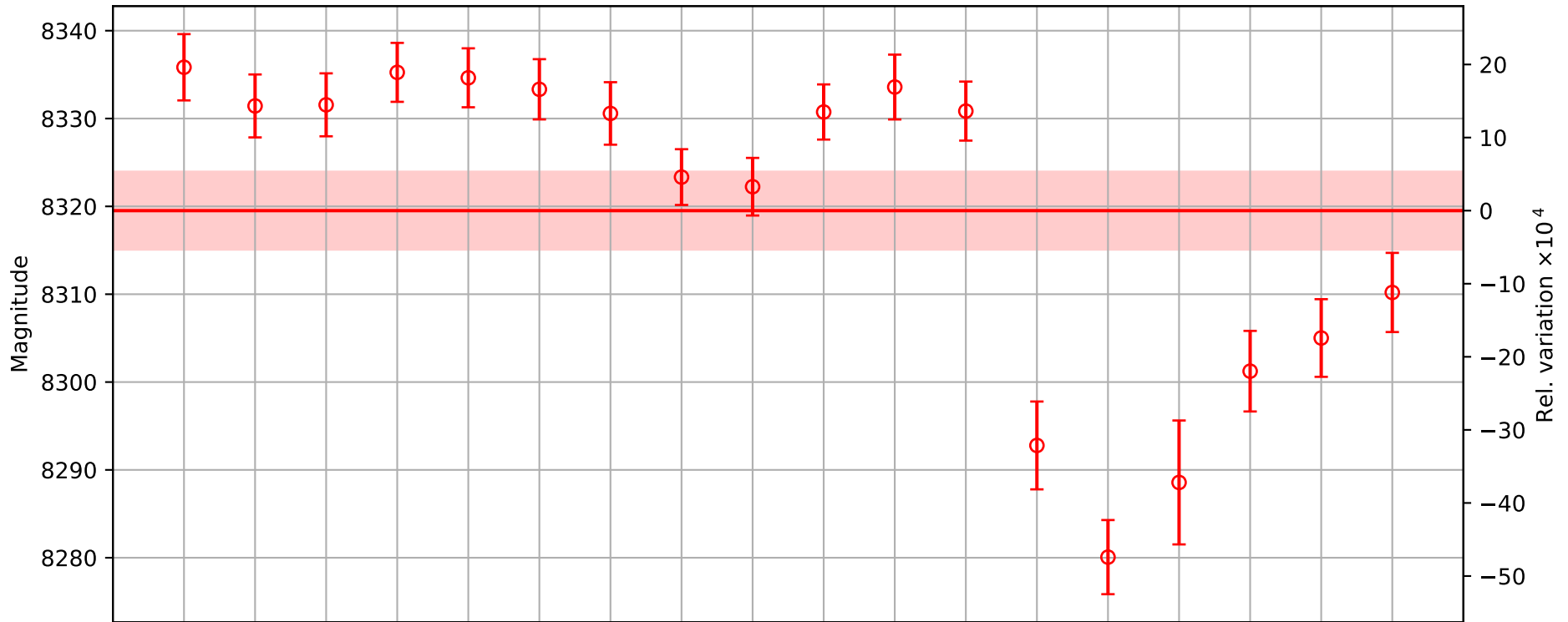
Mean value: 8319.514248

Standard deviation: 18.273537

Standard error: 4.430126

Relative Standard error: 0.000532

TX Responsivity ρ_T



	rho_R	Description
	Date None \pm SD_None	
D20230110	10689.2786 \pm 2.7664	
D20230206	10682.8253 \pm 3.1470	
D20230207	10682.9872 \pm 3.1471	
D20230227	10693.5125 \pm 2.7393	
D20230228	10692.7178 \pm 2.7391	
D20230314	10695.3109 \pm 2.6911	
D20230404	10690.0120 \pm 2.6817	
D20230613	10676.0753 \pm 2.8342	
D20230821	10672.1188 \pm 2.7358	
D20230822	10680.8116 \pm 2.7371	
D20231031	10699.2242 \pm 3.2295	
D20231205	10696.1371 \pm 2.8415	
D20240229	10700.7205 \pm 3.8462	
D20240423	10706.7924 \pm 3.5673	
D20240702	10699.8690 \pm 6.2313	
D20240730	10714.8547 \pm 4.8884	
D20240924	10718.6424 \pm 4.6756	
D20241126	10734.1288 \pm 4.6754	

rho_R

Summary of RX Responsivity rho_R

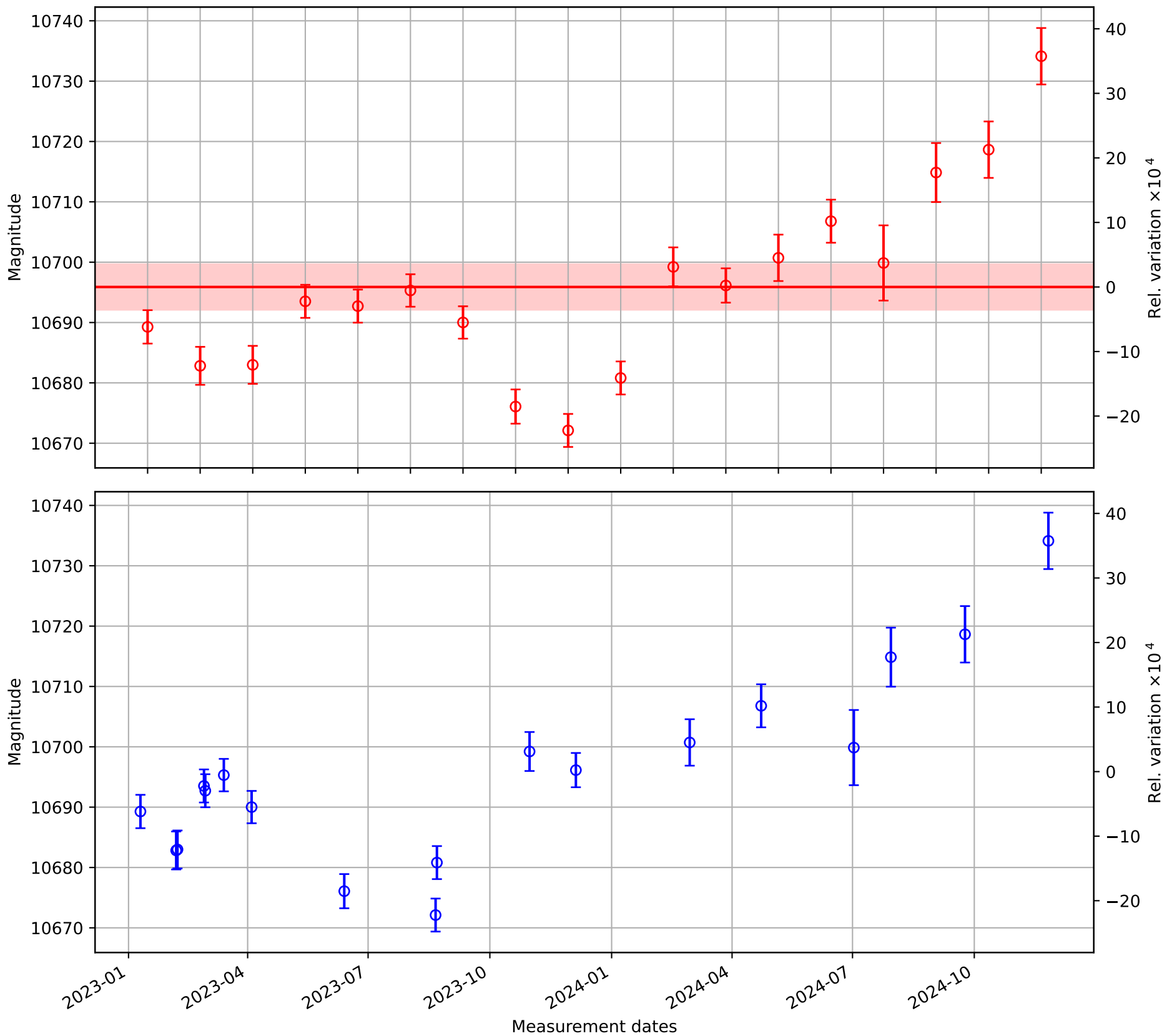
Mean value: 10695.889940

Standard deviation: 15.577645

Standard error: 3.776550

Relative Standard error: 0.000353

RX Responsivity rho_R



	WS	Description
	Date WS \pm SD_WS	
D20230110	-4.7051 \pm 0.0000	
D20230206	-4.7051 \pm 0.0000	
D20230207	-4.7051 \pm 0.0000	
D20230227	-4.7051 \pm 0.0000	
D20230228	-4.7051 \pm 0.0000	
D20230314	-4.7051 \pm 0.0000	
D20230404	-4.7051 \pm 0.0000	
D20230613	-4.7051 \pm 0.0000	
D20230821	-4.7051 \pm 0.0000	
D20230822	-4.7051 \pm 0.0000	
D20231031	-4.7051 \pm 0.0000	
D20231205	-4.7051 \pm 0.0000	
D20240229	-4.7051 \pm 0.0000	
D20240423	-4.7051 \pm 0.0000	
D20240702	-4.7023 \pm 0.0000	
D20240730	-4.7113 \pm 0.0000	
D20240924	-4.7098 \pm 0.0000	
D20241126	-4.7114 \pm 0.0000	

WS

Summary of Working Standard Responsivity rho_WS

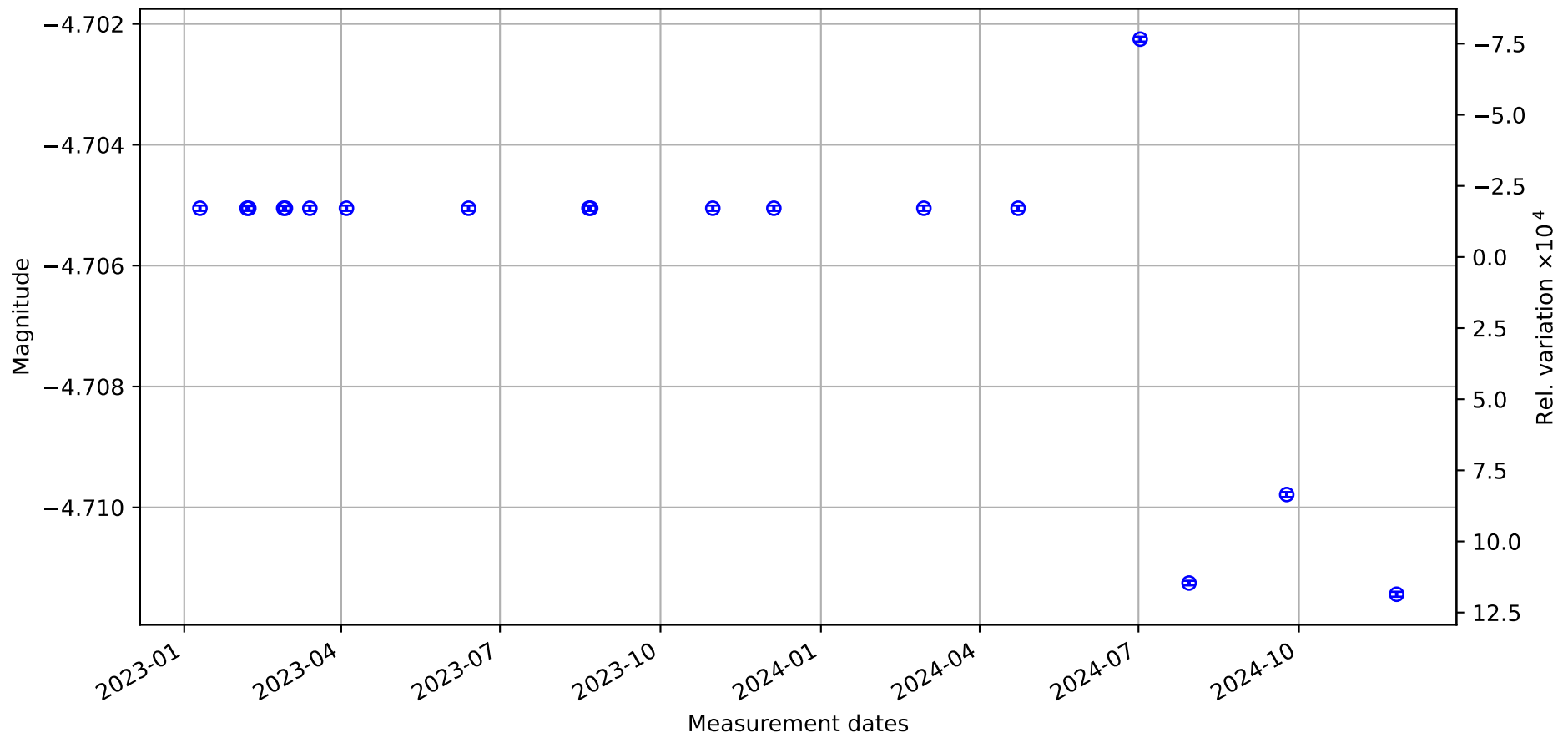
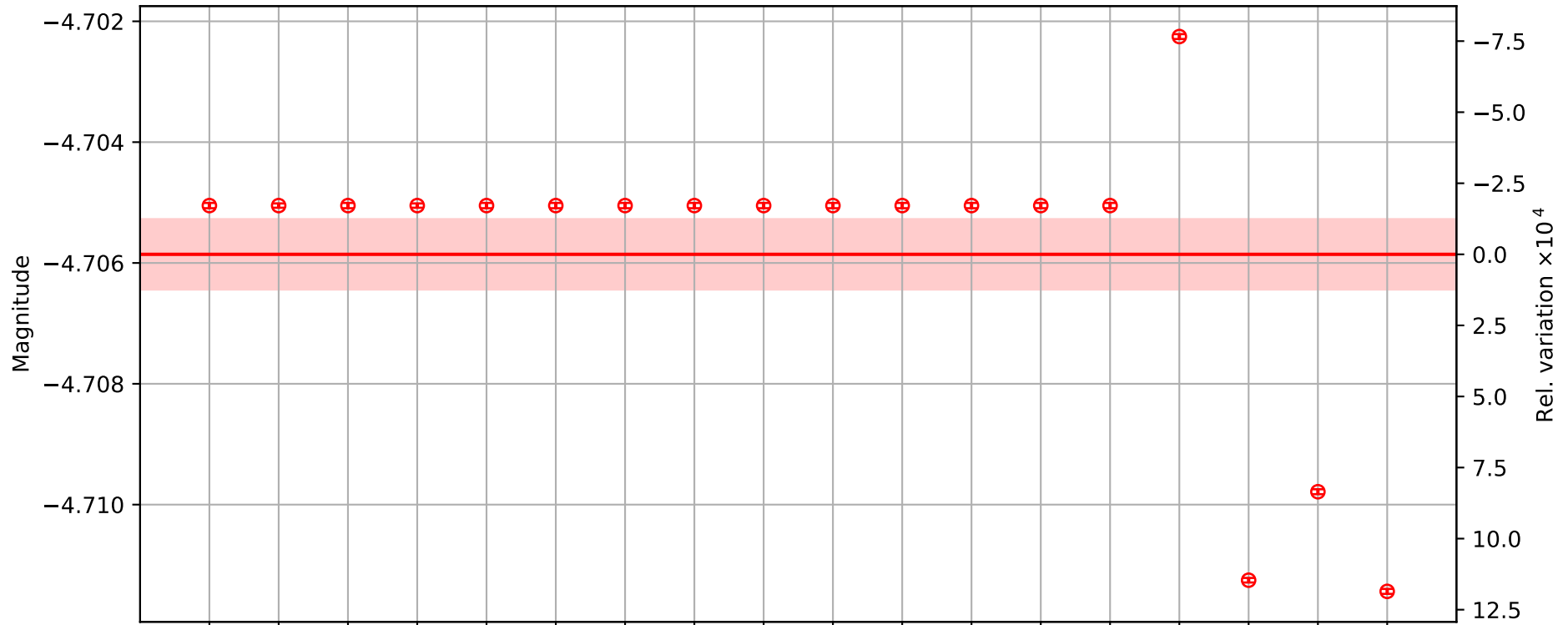
Mean value: -4.705857

Standard deviation: 0.002398

Standard error: 0.000581

Relative Standard error: -0.000124

Working Standard Responsivity rho_WS

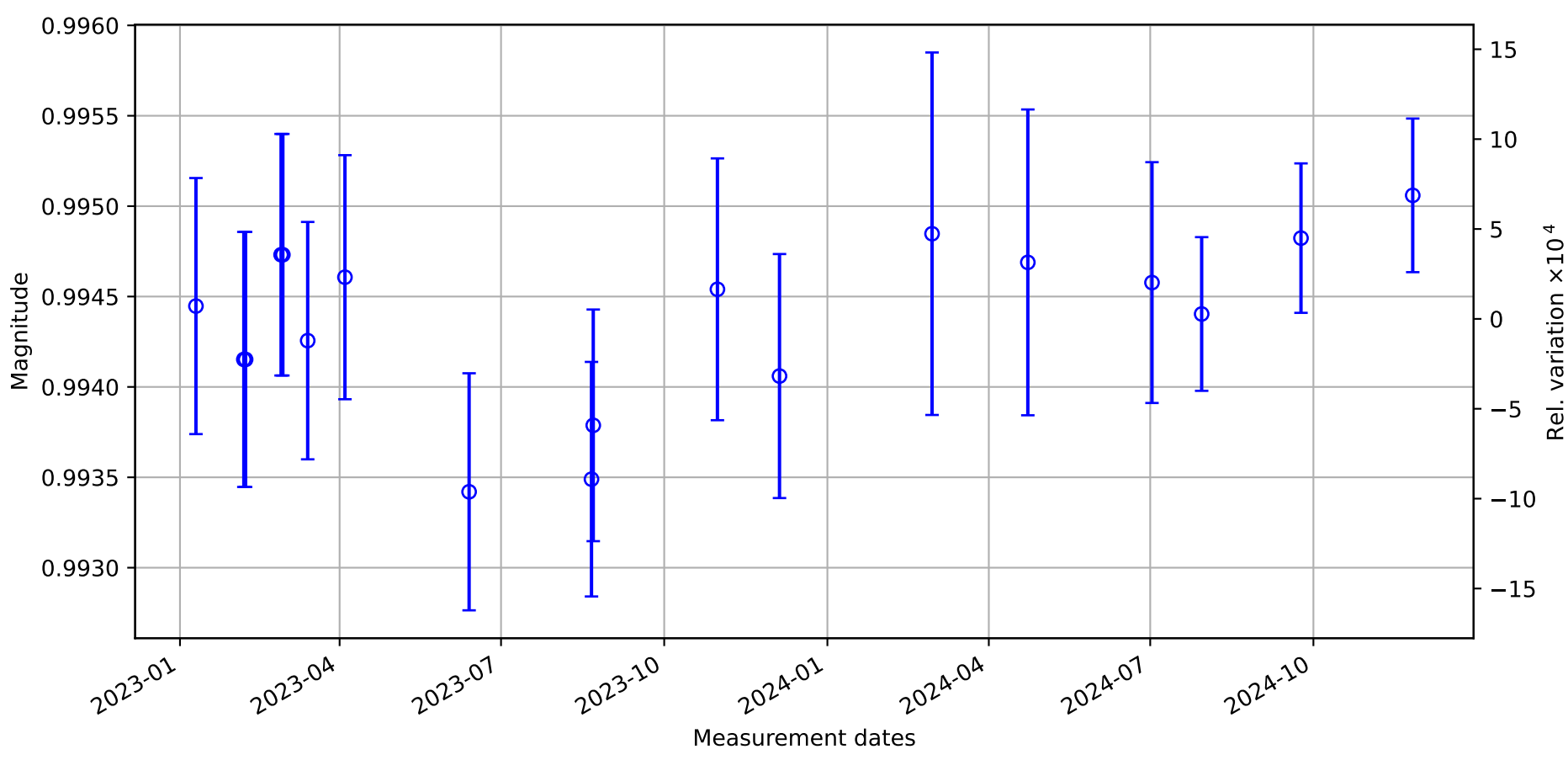
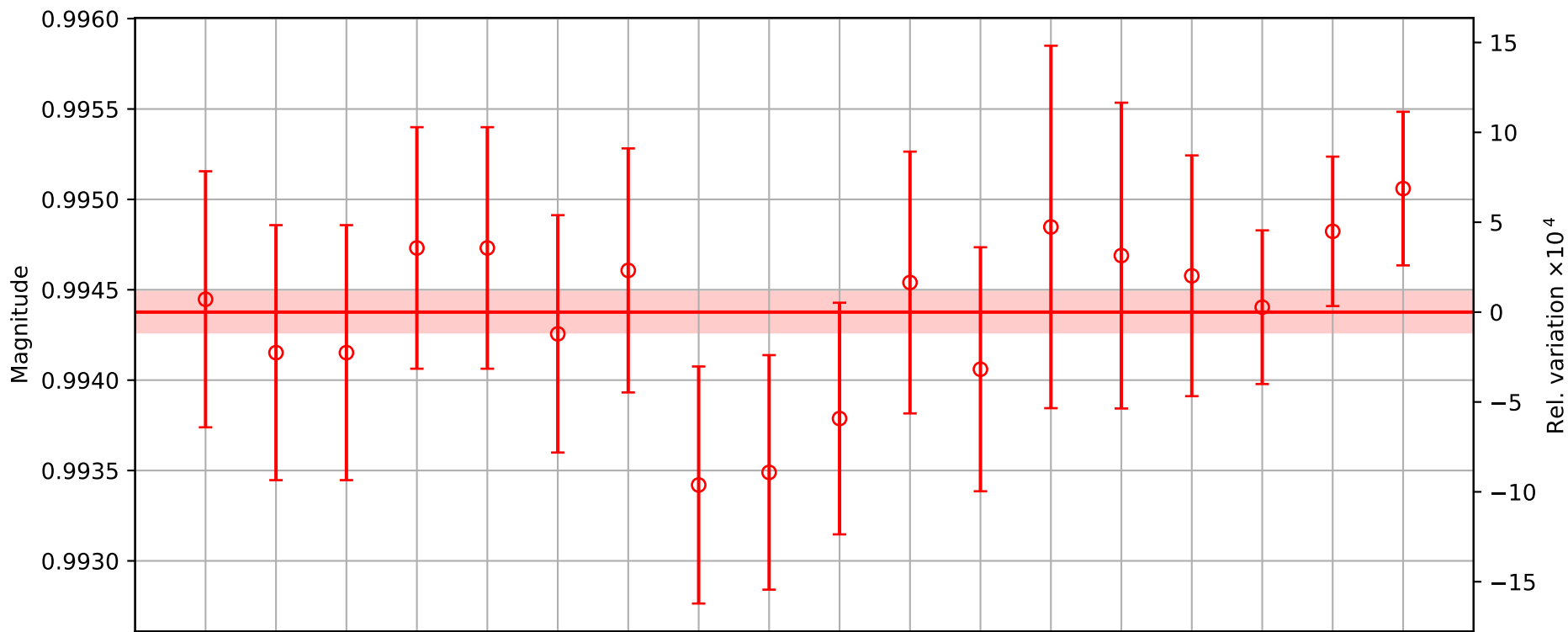


	E_R	
	Date	None \pm SD_None
		Description
D20230110	0.9944 \pm 0.0007	
D20230206	0.9942 \pm 0.0007	
D20230207	0.9942 \pm 0.0007	
D20230227	0.9947 \pm 0.0007	
D20230228	0.9947 \pm 0.0007	
D20230314	0.9943 \pm 0.0007	
D20230404	0.9946 \pm 0.0007	
D20230613	0.9934 \pm 0.0007	
D20230821	0.9935 \pm 0.0006	
D20230822	0.9938 \pm 0.0006	
D20231031	0.9945 \pm 0.0007	
D20231205	0.9941 \pm 0.0007	
D20240229	0.9948 \pm 0.0010	
D20240423	0.9947 \pm 0.0008	
D20240702	0.9946 \pm 0.0007	
D20240730	0.9944 \pm 0.0004	
D20240924	0.9948 \pm 0.0004	
D20241126	0.9951 \pm 0.0004	

Summary of Output Side Optical Efficiency correction
E_R
factor

Mean value: 0.994376
Standard deviation: 0.000462
Standard error: 0.000112
Relative Standard error: 0.000113

Output Side Optical Efficiency correction factor

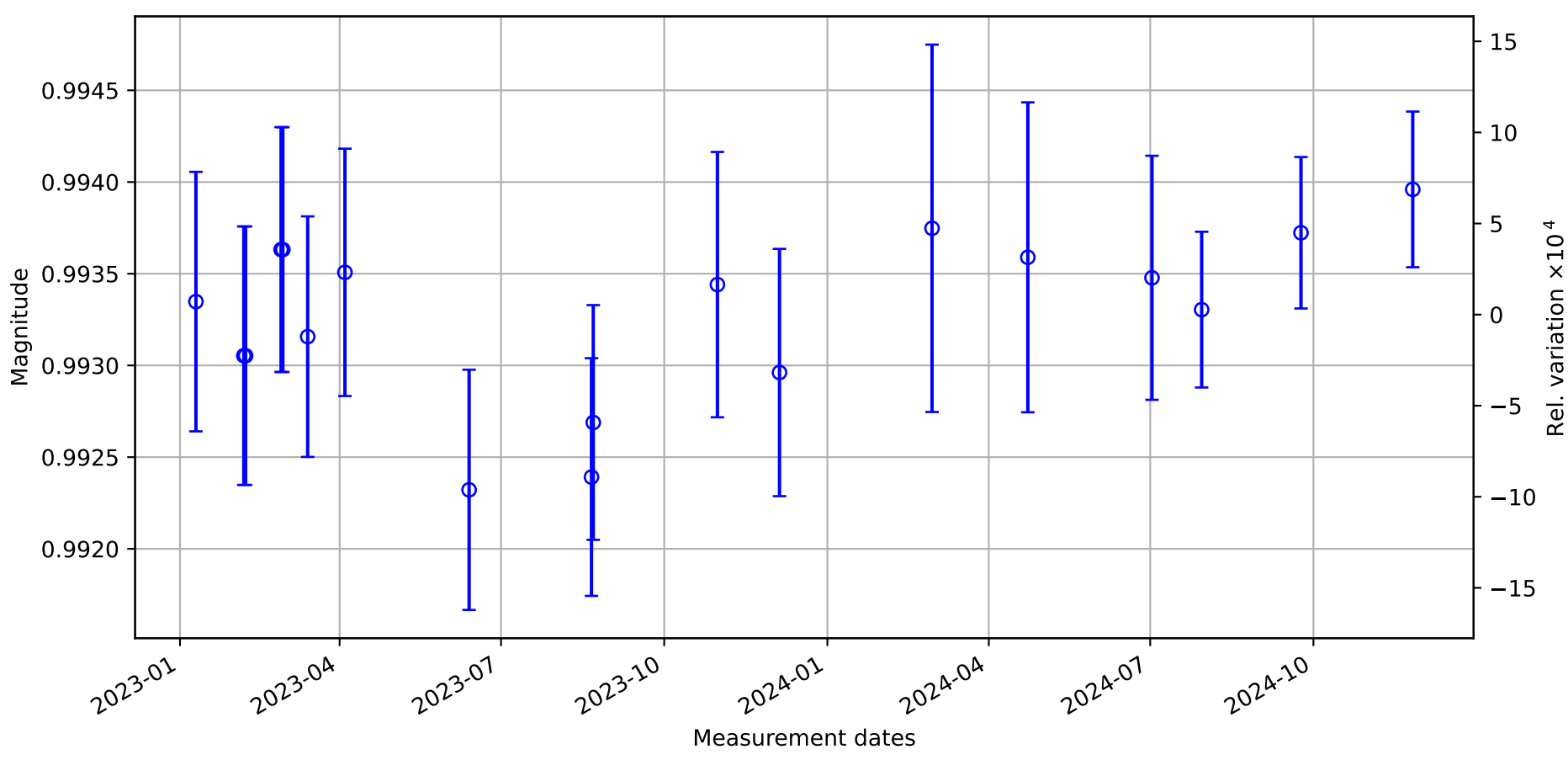
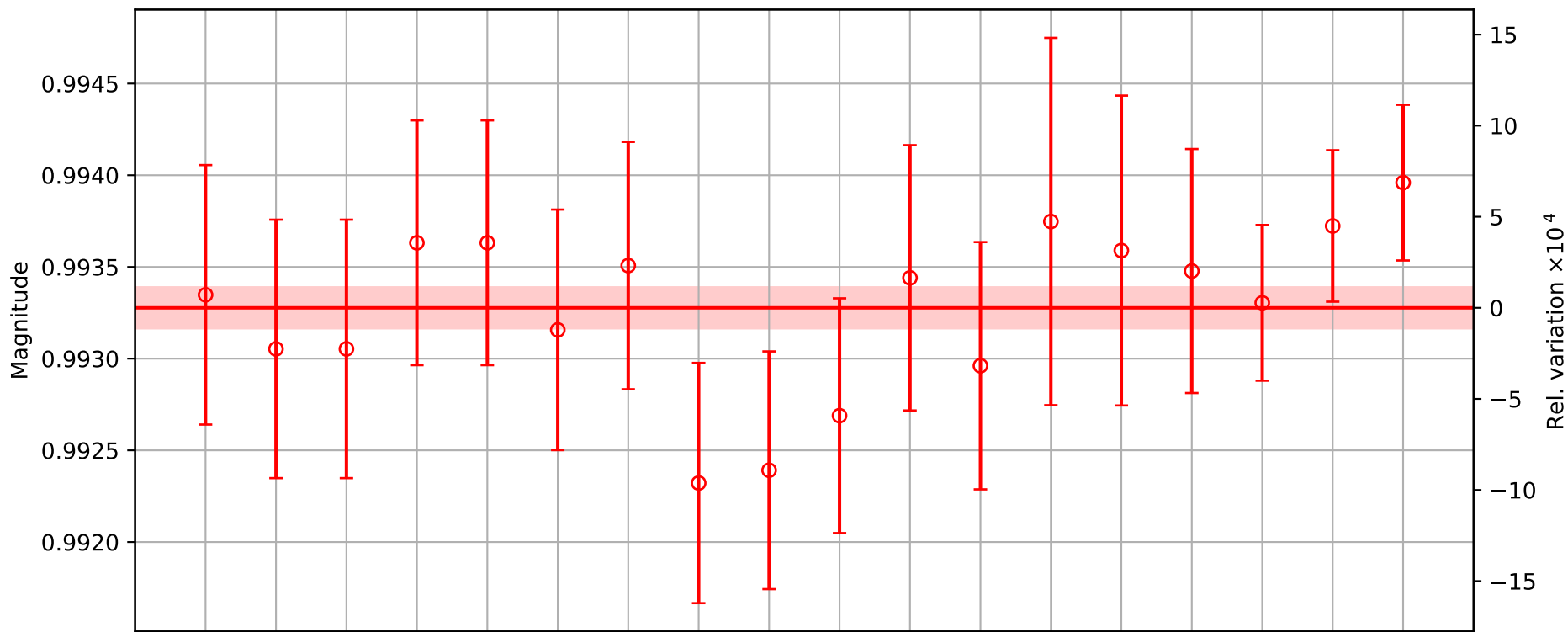


	E_T	
	Date E_T ± SD_E_T	Description
D20230110	0.9933 ± 0.0007	
D20230206	0.9931 ± 0.0007	
D20230207	0.9931 ± 0.0007	
D20230227	0.9936 ± 0.0007	
D20230228	0.9936 ± 0.0007	
D20230314	0.9932 ± 0.0007	
D20230404	0.9935 ± 0.0007	
D20230613	0.9923 ± 0.0007	
D20230821	0.9924 ± 0.0006	
D20230822	0.9927 ± 0.0006	
D20231031	0.9934 ± 0.0007	
D20231205	0.9930 ± 0.0007	
D20240229	0.9937 ± 0.0010	
D20240423	0.9936 ± 0.0008	
D20240702	0.9935 ± 0.0007	
D20240730	0.9933 ± 0.0004	
D20240924	0.9937 ± 0.0004	
D20241126	0.9940 ± 0.0004	

 Summary of Input Side Optical Efficiency correction ^{E_T}
 factor

Mean value: 0.993277
 Standard deviation: 0.000461
 Standard error: 0.000112
 Relative Standard error: 0.000113

Input Side Optical Efficiency correction factor



e

	Date	None \pm SD_None
D20230110	0.9878	\pm 0.0007
D20230206	0.9872	\pm 0.0007
D20230207	0.9872	\pm 0.0007
D20230227	0.9884	\pm 0.0007
D20230228	0.9884	\pm 0.0007
D20230314	0.9875	\pm 0.0007
D20230404	0.9881	\pm 0.0007
D20230613	0.9858	\pm 0.0007
D20230821	0.9859	\pm 0.0006
D20230822	0.9865	\pm 0.0006
D20231031	0.9880	\pm 0.0007
D20231205	0.9871	\pm 0.0007
D20240229	0.9886	\pm 0.0010
D20240423	0.9883	\pm 0.0008
D20240702	0.9881	\pm 0.0013
D20240730	0.9877	\pm 0.0008
D20240924	0.9886	\pm 0.0008
D20241126	0.9890	\pm 0.0008

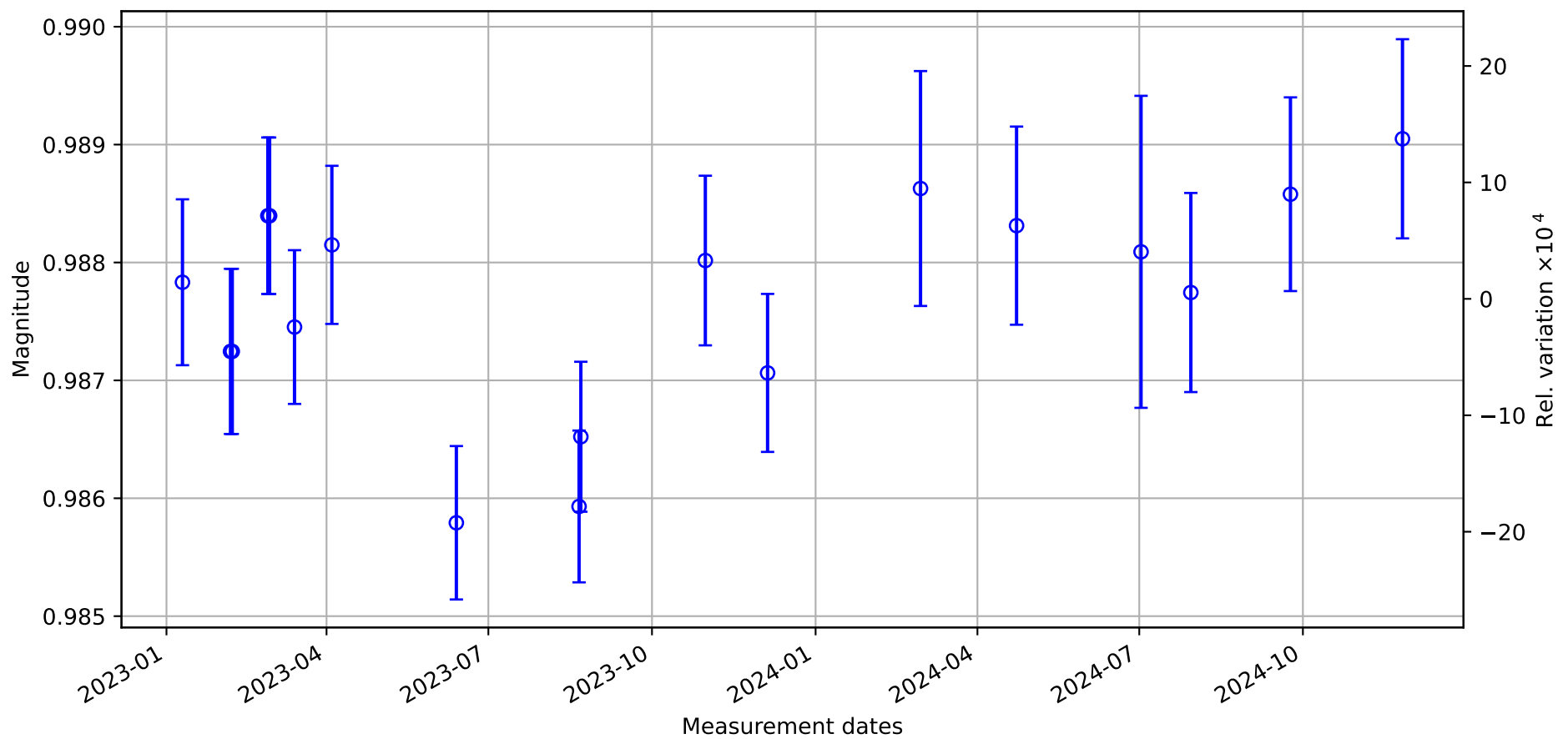
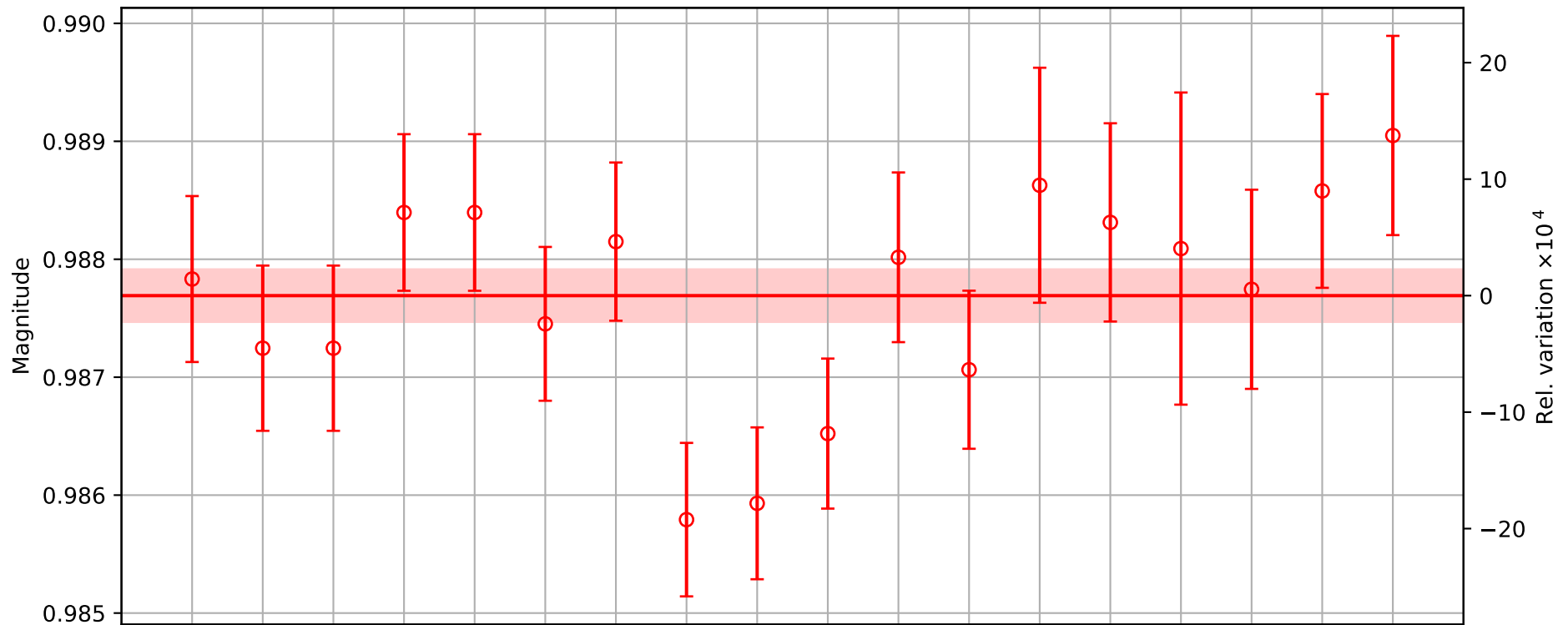
Description

e

Summary of Overall Optical Efficiency

Mean value:	0.987692
Standard deviation:	0.000917
Standard error:	0.000222
Relative Standard error:	0.000225

Overall Optical Efficiency



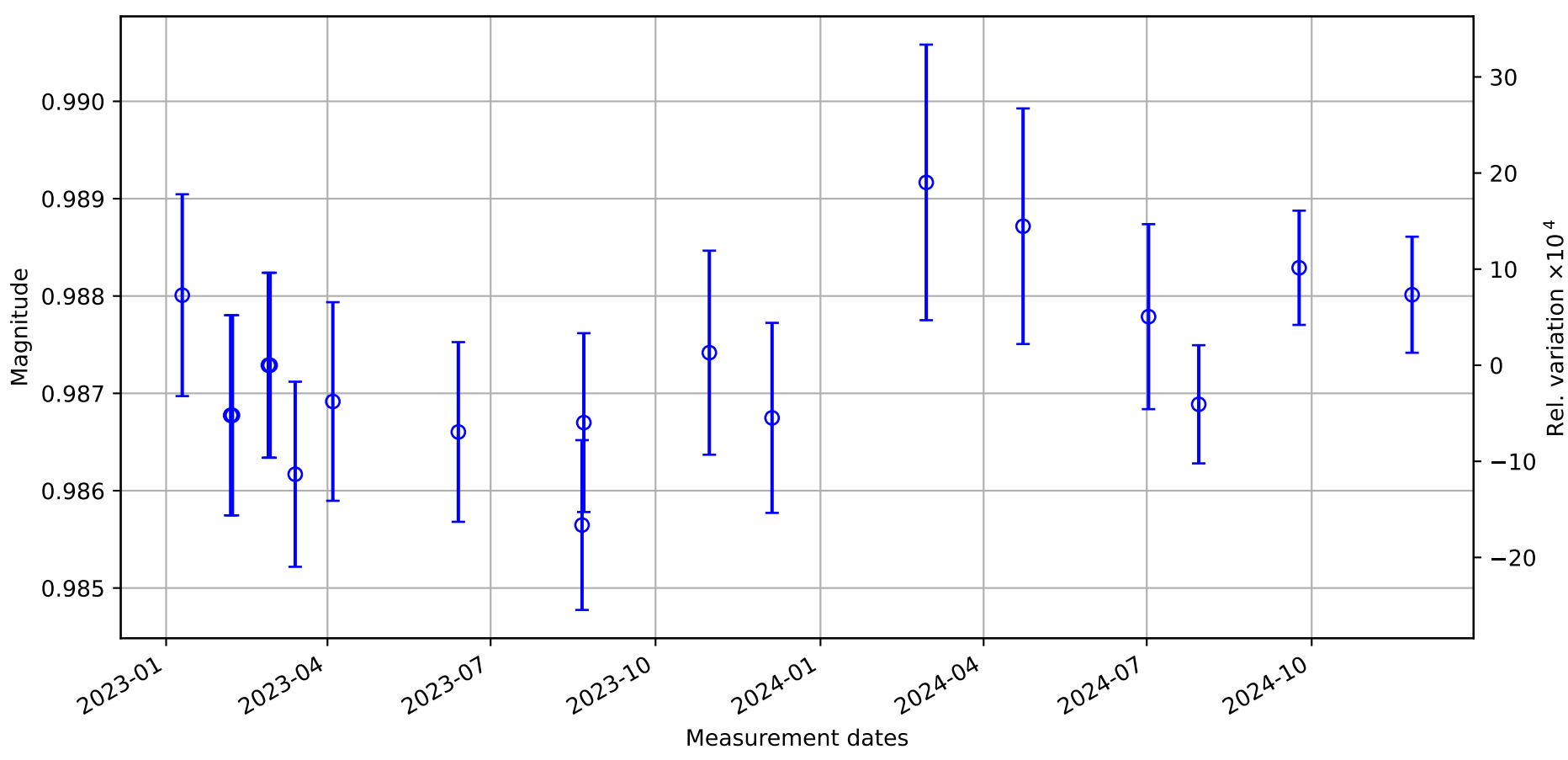
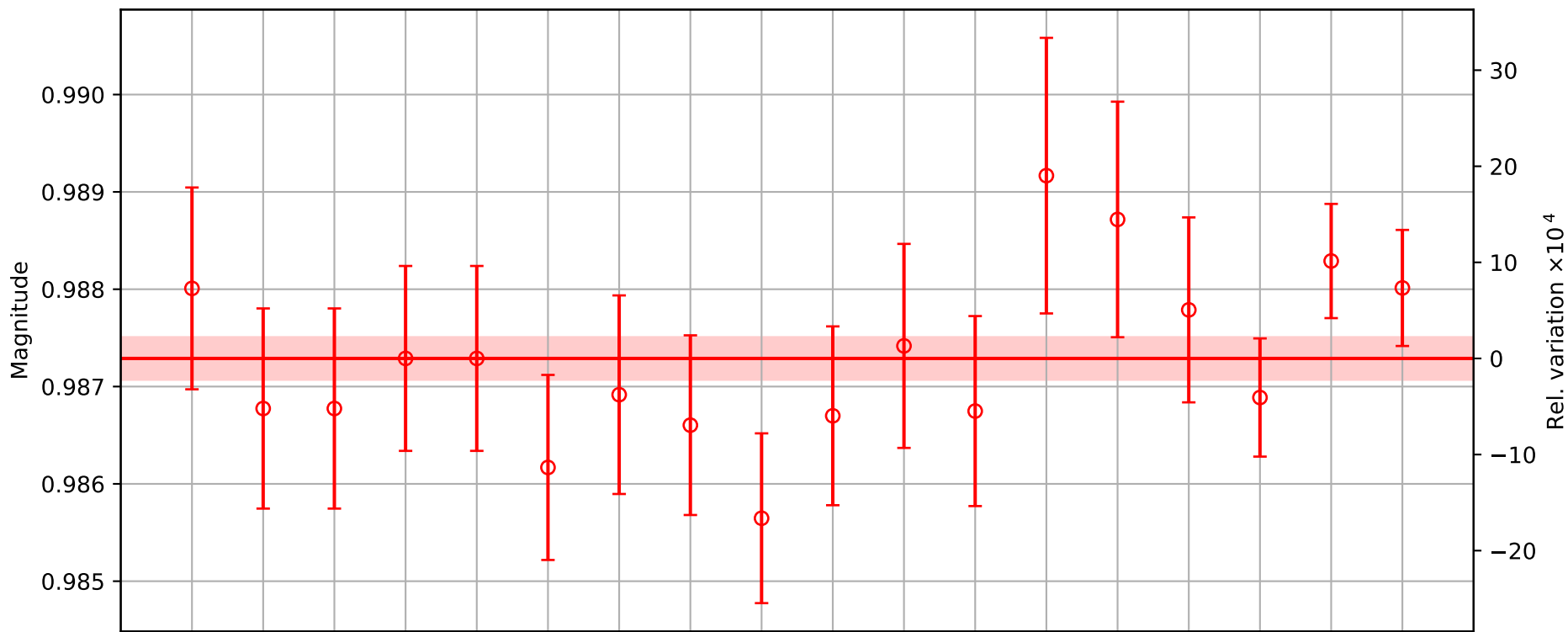
	e_i		
	Date	$e_i \pm SD_{e_i}$	
		Description	
D20230110	0.9880	± 0.0010	
D20230206	0.9868	± 0.0010	
D20230207	0.9868	± 0.0010	
D20230227	0.9873	± 0.0009	
D20230228	0.9873	± 0.0009	
D20230314	0.9862	± 0.0010	
D20230404	0.9869	± 0.0010	
D20230613	0.9866	± 0.0009	
D20230821	0.9856	± 0.0009	
D20230822	0.9867	± 0.0009	
D20231031	0.9874	± 0.0010	
D20231205	0.9867	± 0.0010	
D20240229	0.9892	± 0.0014	
D20240423	0.9887	± 0.0012	
D20240702	0.9878	± 0.0010	
D20240730	0.9869	± 0.0006	
D20240924	0.9883	± 0.0006	
D20241126	0.9880	± 0.0006	

 e_i

Summary of Optical Efficiency (Inner Beam)

Mean value: 0.987289
Standard deviation: 0.000900
Standard error: 0.000218
Relative Standard error: 0.000221

Optical Efficiency (Inner Beam)



	e_o	Description
	Date e_o ± SD_e_o	
D20230110	0.9877 ± 0.0010	
D20230206	0.9877 ± 0.0010	
D20230207	0.9877 ± 0.0010	
D20230227	0.9895 ± 0.0009	
D20230228	0.9895 ± 0.0009	
D20230314	0.9887 ± 0.0009	
D20230404	0.9894 ± 0.0009	
D20230613	0.9850 ± 0.0009	
D20230821	0.9862 ± 0.0010	
D20230822	0.9863 ± 0.0009	
D20231031	0.9886 ± 0.0010	
D20231205	0.9874 ± 0.0009	
D20240229	0.9881 ± 0.0014	
D20240423	0.9879 ± 0.0012	
D20240702	0.9884 ± 0.0009	
D20240730	0.9886 ± 0.0006	
D20240924	0.9889 ± 0.0006	
D20241126	0.9901 ± 0.0006	

e_o

Summary of Optical Efficiency (Outer Beam)

Mean value: 0.988089
Standard deviation: 0.001291
Standard error: 0.000313
Relative Standard error: 0.000317

Optical Efficiency (Outer Beam)

