

SRM-08 ROC Tolerances

R. Martin and G. Billingsley
3-Sep-13

Checked indiv files, gaps, recalculated average for each rotation, recalculated ROC

		Random Check of Individual Files							Average Files for Each Rotation			Effect of Gap		Effect of Zernike uncertainty		Effect of ROC-TC tolerance	
		6m_SRM-08-0_011	6m_SRM-08-0_055	6m_SRM-08-225_021	6m_SRM-08-225_099	6m_SRM-08-90_014	6m_SRM-08-90_014	6m_SRM-08-90_014	ave 0 deg (arrow up)	ave 90 deg (arrow right)	ave 225 deg	+2 mm	-2 mm	Zmin=-0.003209	Zmax=-0.000594	ROC-x (max)	ROC-y (min)
Radius of curvature of TS	m	-6.49886	-6.49886	-6.49886	-6.49886	-6.49886	-6.49886	-6.49886	-6.49886	-6.49886	-6.49886	-6.49886	-6.49886	-6.49886	-6.49886	-6.50207	-6.49564
Gap between TS and part to be measured	m	0.82062	0.82062	0.82062	0.82062	0.82062	0.82062	0.82062	0.82062	0.82062	0.82262	0.81862	0.82062	0.82062	0.82062	0.82062	0.82062
Zernike power coefficient	nm	-3.06	-1.09	-6.36	-2.64	-1.27	-2.87	-1.27	-1.89	-2.10	-2.53	-1.89	-1.89	-3.41	-0.63	-1.89	-1.89
Part measured aperture	mm	30.324	30.324	30.324	30.324	30.324	30.324	30.324	30.324	30.324	30.324	30.324	30.324	30.324	30.324	30.324	30.324
Wavefront "sag" at part plus power	mm	-0.02024886	-0.02024493	-0.02025546	-0.02024802	-0.02024528	-0.02024879	-0.02024528	-0.02024651	-0.020246936	-0.020247802	-0.0202536	-0.0202394	-0.020249566	-0.020244002	-0.02023508	-0.020257998
Part radius	m	-5.6765	-5.6776	-5.6747	-5.6768	-5.6775	-5.6766	-5.6775	-5.6772	-5.6771	-5.6768	-5.6752	-5.6792	-5.6763	-5.6779	-5.6804	-5.6740
Specified Radius	m	-5.69															
		(+/-0.03)	-5.63														
			-5.75														

Cumulative Tolerance: -5.9 mm 6.1

- SRM-08
- Measured on 7-Sep-2011 at CIT with Wyko interferometer by R. Martin and G. Billingsley
 - Measured Gap = 81.6 cm (+ 4.62 mm)
 - The optic was measured at 0 deg (arrow up), 90 deg (arrow right) and arrow at 225 deg cw, all when looking at the HR side of the optic
 - Transmission Sphere Data File - C1203092
 - Related Surface Figure report - E1200571