

QC Report

Date: 2026-05

Scope: LSM700

Laser Power

Laser	Measured Power (mW)
405	1.10
488	3.30
555	2.98
635	1.37

Objective specifics - 63x oil

Pinhole 1.0 AU

Objective 1.4

Sampling

Channel	Saturation	Nyquist (μm)	Found (μm)	Nyquist/found ratio
647	none	0.058x0.058x0.174	0.045x0.045x0.1	0.8, 0.8, 0.6
555	none	0.05x0.05x0.151		0.9, 0.9, 0.7
488	none	0.044x0.044x0.131		1.0, 1.0, 0.8
405	<0.1%	0.036x0.036x0.109		1.2, 1.2, 0.9

Resolution

Channel	Sig/Background ratio	Dimension	Measured FWHM (μm)	theory (μm)	Fit Goodness	Mes./theory ratio
647	<0.1	X	0.646	0.236	0.7	2.74
		Y	0.795	0.236	0.77	3.37
		Z	2.025	0.611	0.77	3.31
555	<0.1	X	0.563	0.205	0.97	2.74
		Y	0.892	0.205	0.85	4.34
		Z	1.749	0.533	0.87	3.28
488	<0.1	X	0.529	0.178	0.86	2.97
		Y	0.853	0.178	0.83	4.8
		Z	1.373	0.461	0.83	2.98
405	<0.1	X	0.726	0.148	0.66	4.92

		Y	0.424	0.148	0.7	2.87
		Z	1.324	0.383	0.67	3.46

Co-Registration

ISO 21073 co-registration accuracy

	Distance (in μm)	647	555	488	405
647	Lateral		0.045	0.022	0
	Axial		0.475	0.65	0.9
555	Lateral	0.045		0.05	0.045
	Axial	0.475		0.175	0.425
488	Lateral	0.022	0.05		0.022
	Axial	0.65	0.175		0.25
405	Lateral	0	0.045	0.022	
	Axial	0.9	0.425	0.25	

Illumination uniformity

Filter	Uniformity (%)	Field Uniformity (%)	Centering Accuracy (%)	Image	Coef. of Variation	Mean c fit value
Alexa 350	63	94.7	78	C1-2026-05_Illumination	0.0456	0

Intensity profiles

