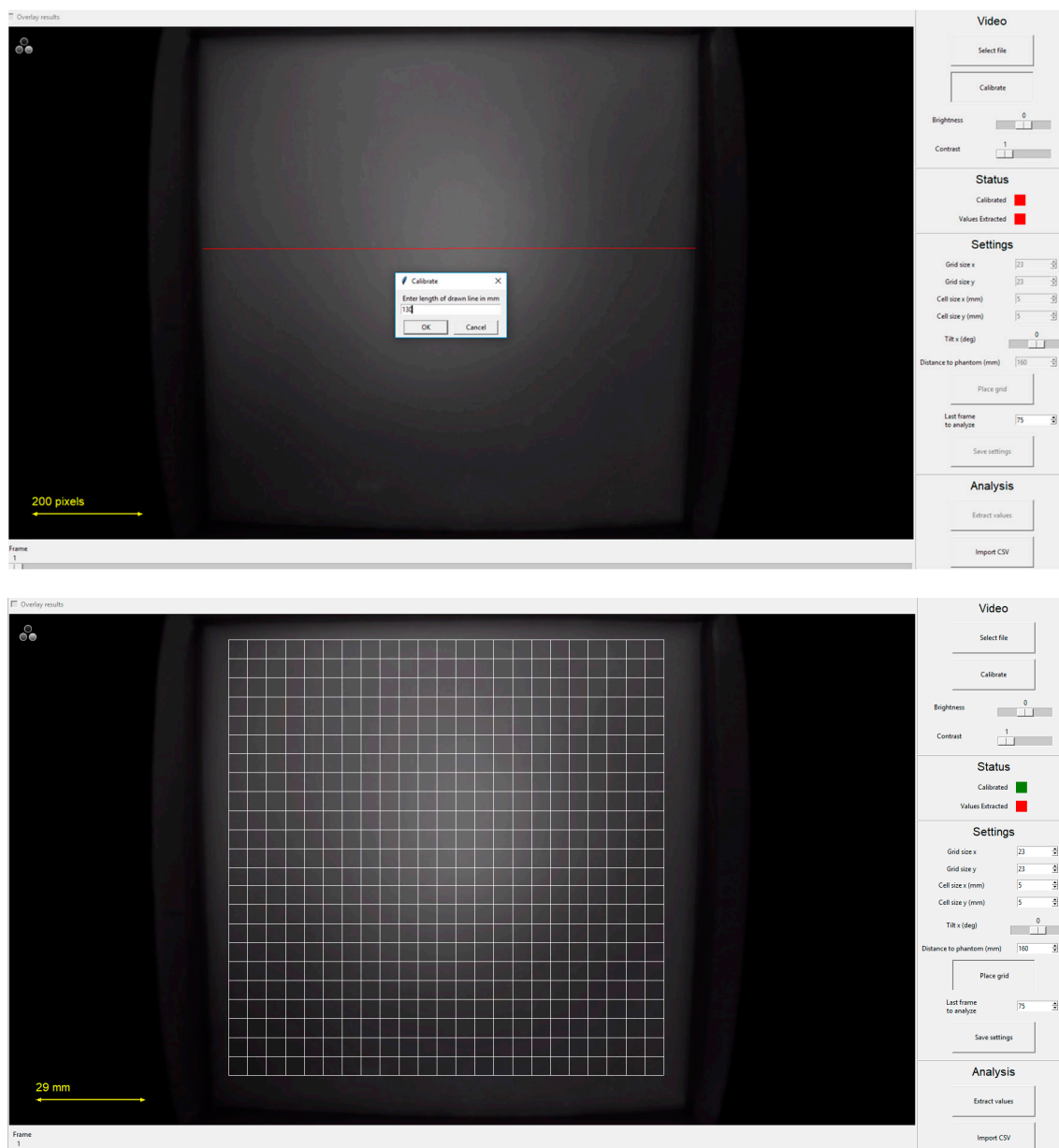


Supplementary Table S1. Table demonstrating features of camera systems tested in this experiment. Data of user manuals, communication with company representatives, or previously published assessments denotes that data were not available or obtainable through previously mentioned methods.

	Company	Intuitive Surgical Inc.	Olympus	Stryker (Novadaq)	Quest Medical Imaging	Stryker
Product	System	XI Firefly	Visera Elite II	AIM and SPY fluorescence	Quest Spectrum	Stryker 1688
	Lap/open	Laparoscopic	Laparoscopic	Laparoscopic	Open Quest	Laparoscopic
	Camera	XI Firefly	CH-S200-XZ-EB	Pinpoint	Spectrum handheld	AIM platform
Illumination/Excitation	Light Source	Laser	IR Xenon Bulb	Laser	Laser	Laser
	Excitation Wavelength	803 nm	710–790 nm	805 nm	780 nm (ICG mode)	808 nm
	Operation Mode	Continuous	Continuous	Continuous	Continuous	Continuous
	NIR Source power output	-	300 W Bulb	2 mW	-	2 mW
Fluorescence collection	Collection wavelength	800 nm	810–920 nm	825–850 nm	800 nm (ICG mode)	805–830 nm
	Sensor type	CCD	CMOS (x3)	CCD (x2)	CCD (x3)	CMOS
	Integration Time	Realtime	Realtime	Realtime	Realtime	Realtime
	Image overlay	Yes	Yes	Yes	Yes	Yes
	Variable gain setting	No	No	No	Yes	Yes



Supplementary Figure S1. The software used to calibrate and analyze the illumination field by grid. First the phantom size was calibrated by a red line, after indicating its length (130 mm) then a grid of 23 ×23 size cells was placed inside the phantom.