

Illumination

Microscope info:

Image		2026-06-15_Illumination	
image's creation	date	2026-06-17 12:50:36	
	method used	from file creation date	
Actual image depth		16	
Filter combination(s)		Wavelengths	
		Ex. (nm)	Em. (nm)
		-1.0	-1.0
		Saturation	
		none	

Warnings:

(No saturated pixels detected).

Noise was removed using a gaussian Blur of sigma=2.0. The centering accuracy is computed using the 90.0-100% reference zone.

Uniformity & Centering Accuracy:

Filters combination/set	Uniformity (%)	Field Uniformity (%)	Centering Accuracy (%)	Image	Coef. of Variation	Mean c fit value
	66.9	90.6	98.3	C1-2026-06-15_Illumination	0.0249	9.0E-4

Green: within specifications, red: outside specifications (ie. uniformity below 50.0 or centering accuracy below 50.0). Centering accuracy computed using the 90.0%-100% zone as reference rather than the maximum intensity pixel position.

(ex. -1.0 nm, em. -1.0nm)

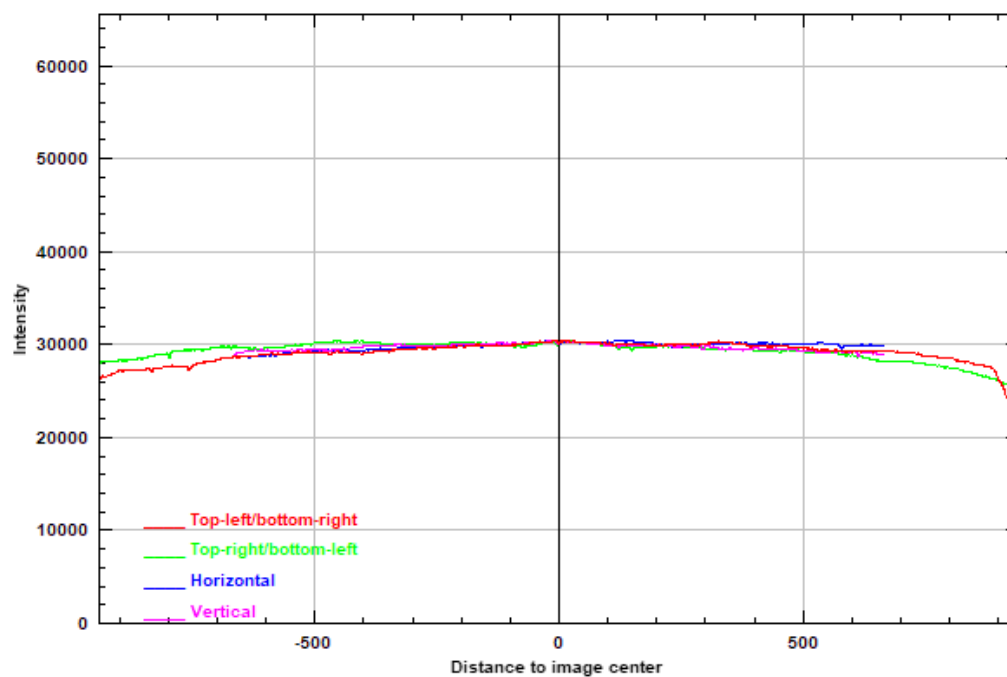
normalised intensity profile:



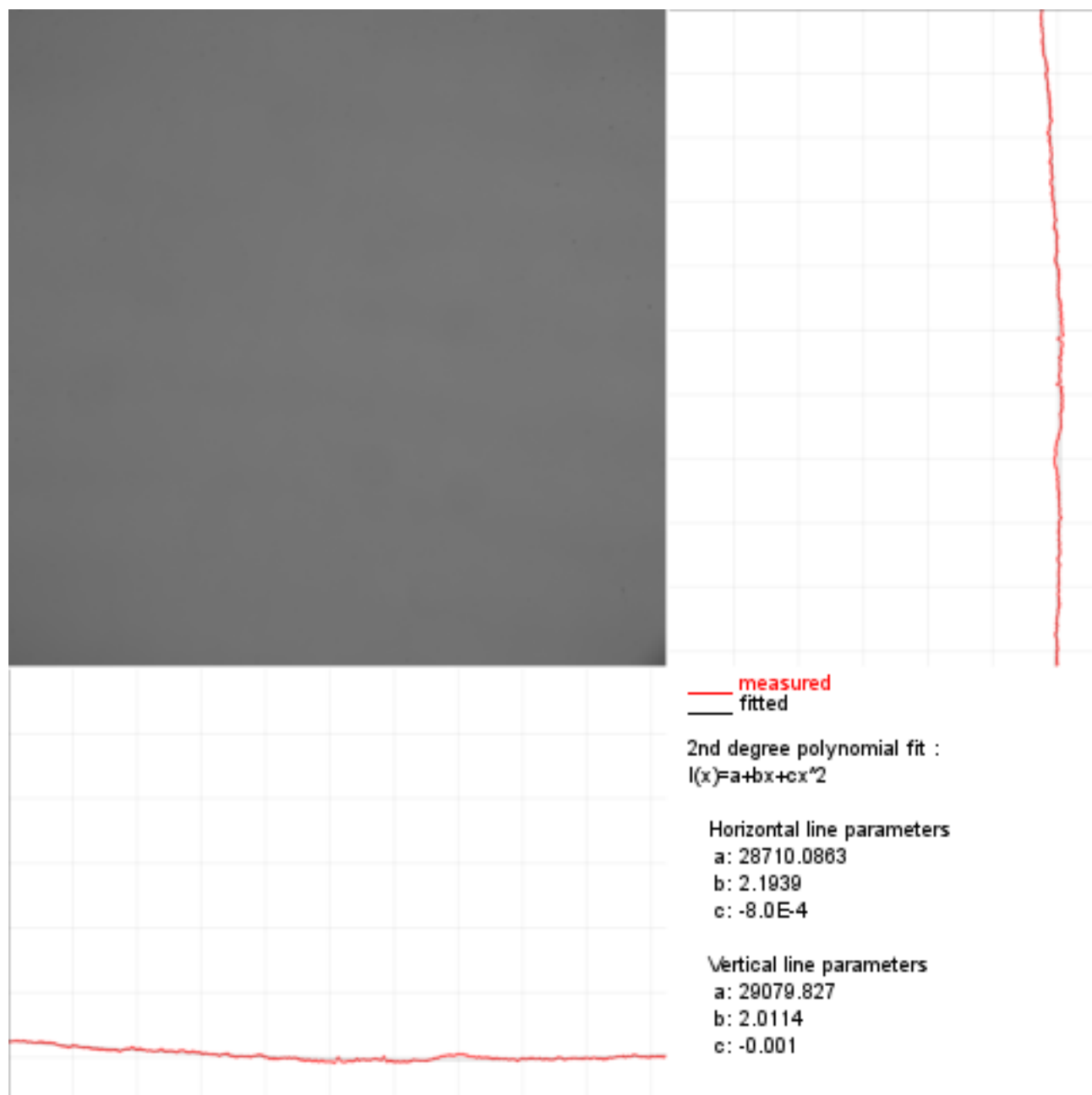
centres' locations:

Filters combination /set	Type	Image Centre	Centre of intensity/mass	Last maximum intensity pixel	Centre of the 90.0-100% reference zone
	Coordinates in pixels	(1024.0, 1024.0)	(1032.3, 1021.9)	(1331.0, 1129.0)	(1047.5, 1016.8)
	Distance to image centre in	-	5.548	210.899	15.989

diagonal & geometrical centre intensity profiles:



intensity profiles through reference zone centre



coordinates' statistics:

Filters combination/set	Location	Intensity	relative intensity to max
	Maximum (1331.0,1129.0)	30675	1.0
	Center of Mass(1032.3,1021.9)	30260	0.986
	Reference zone center(1047.5,1016.8)	30374	0.99
	Minimum(2047,2047)	20525	0.669
	Top-left corner	26113	0.851
	Top-right corner	27597	0.9
	Bottom-left corner	24693	0.805
	Bottom-right corner	20525	0.669
	Upper bound, middle pixel	28689	0.935
	Lower bound, middle pixel	28862	0.941
	Left bound, middle pixel	28842	0.94
	Right bound, middle pixel	29805	0.972

Analysis parameters

Tool & Operator	Tool	Field-Illumination
	Versions	MetroloJ QC v1.3.1.2, ImageJ v2.16.0/1.54p, Java v1.8.0_452, OS Windows 11
	Operator & date	Hanna, June 17, 2026 12:53 PM
data	result folder	Z:\CTIU\QC\2026-06-15\Thunder\Processed\Illumination\
	Type of saved data	.pdf, .jpg, .xls
	Input data bit depth	16
Dimension order		XY-(C)Z
Discard saturated samples		false
Gaussian blur noise removal applied		true
Isointensity image steps width		10.0%
Reference zone		90.0%-100%
Tolerance	Applied in this report	true
	Uniformity valid if above	50.0
	CA valid if above	50.0

Analysis log

image name	creation date	saturation	status
2026-06-15_Illumination	2026-06-17 12:50:36	none	analysed

Formulas used:

$$Uniformity = \frac{\text{minimum intensity}}{\text{maximum intensity}} * 100$$

$$Centering Accuracy = 100 - 100 * \frac{2}{\sqrt{w^2 + h^2}} * \sqrt{(x_{ref} - \frac{w}{2})^2 + (y_{ref} - \frac{h}{2})^2}$$

x_{ref} and y_{ref} are the coordinates of the “reference”, w and h the width and height of the image.