

Resonon Test Report – Wedge Window Realign

Identification Data	
Date	June, 2019
Resonon SN	100124-5
Instrument Name	RS5
Andor Camera SN	CCD-16343

Configuration	
Filters Installed	
1. 540-900 nm bandpass filter. See Figure 1.	
Sensors Installed	
1. 10K Ohm Thermister: Digikey part # 615-1010-ND; 3 units.	
2. Humidity Sensor: Digikey part # 480-3294-1-ND	
Fiber bundle info: Leoni 800 μm core fibers. See Figure 2.	

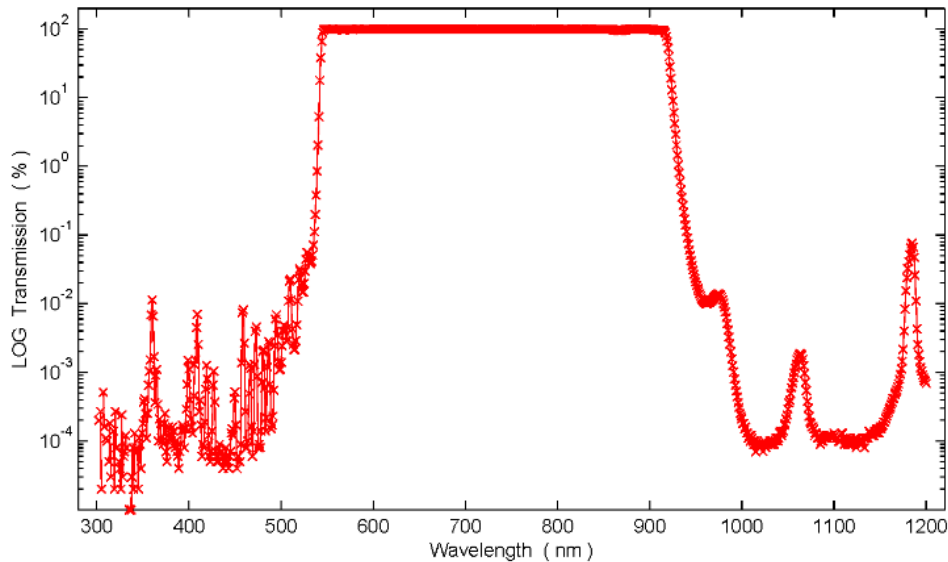


Figure 1: Bandpass filter on front face of 1st prism

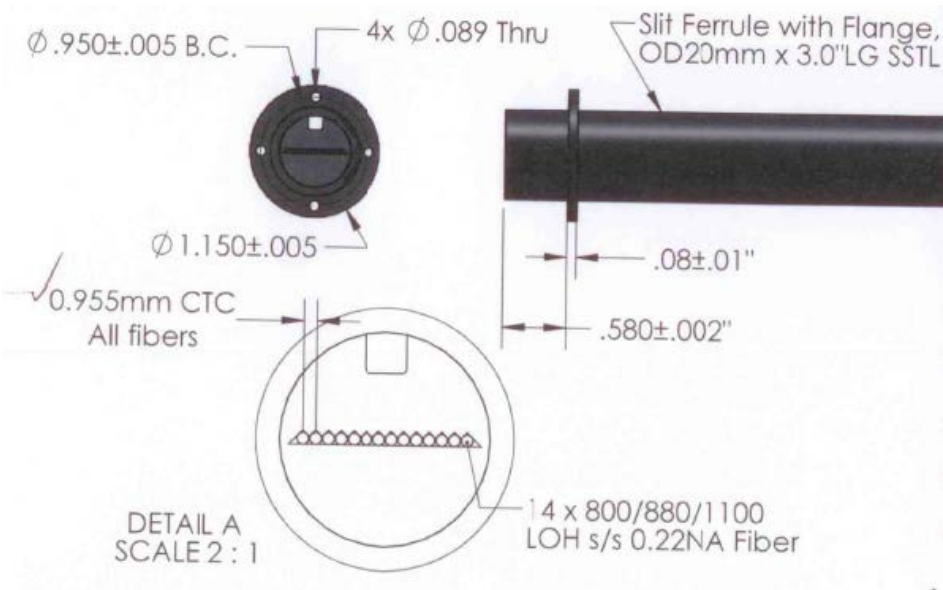


Figure 2: Leoni Fiber details

Test Summary	
Smile (Peak to Trough)	
@ 587 nm	.7 pixels
@ 705nm	.7 pixels
Keystone (Peak to Trough)	
Channel 1	3 pixels
Channel 7	1.5 pixels
Channel14	5 pixels
Spectral Resolution (FWHM)	
@ 587 nm	~1 nm
@ 705 nm	~1 nm

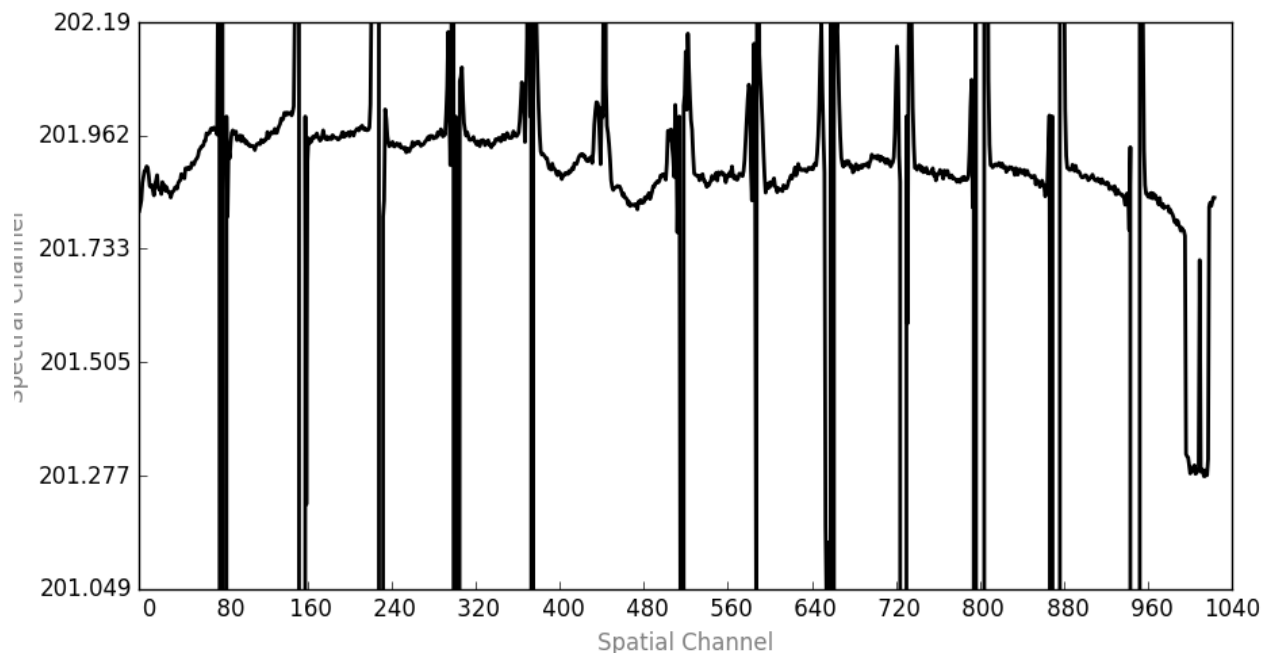


Figure 3: Smile at 587 nm. Horizontal axis is spatial channels and vertical axis is spectral.

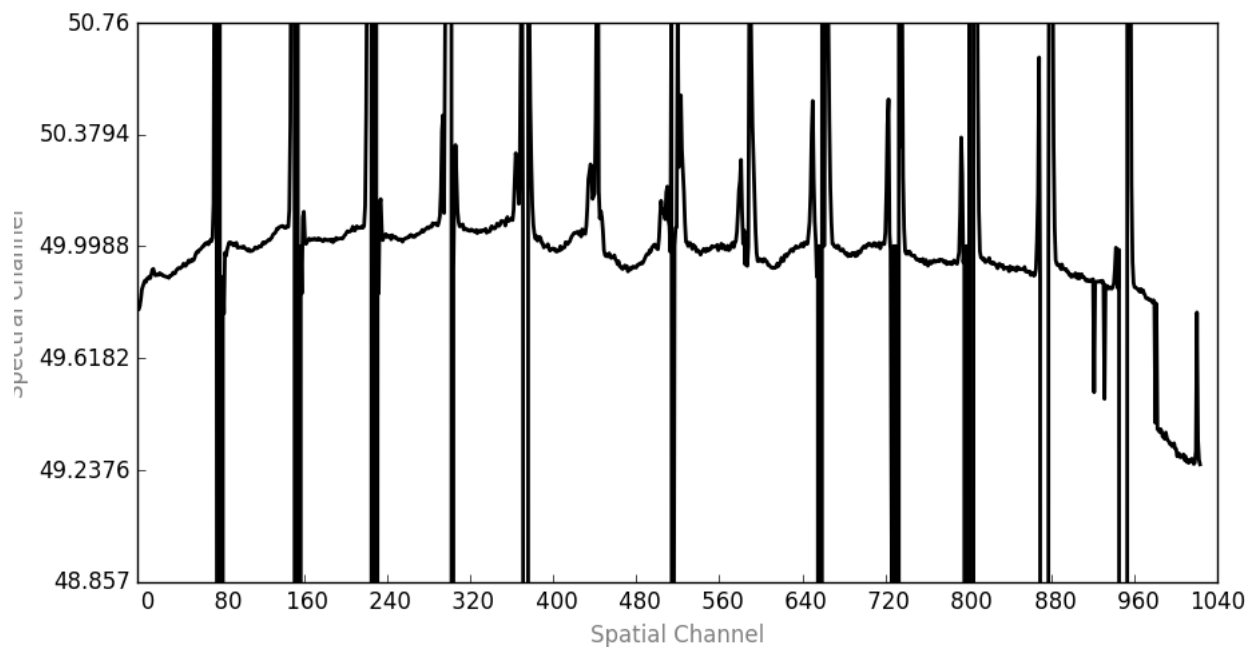


Figure 4: Smile at 705 nm.

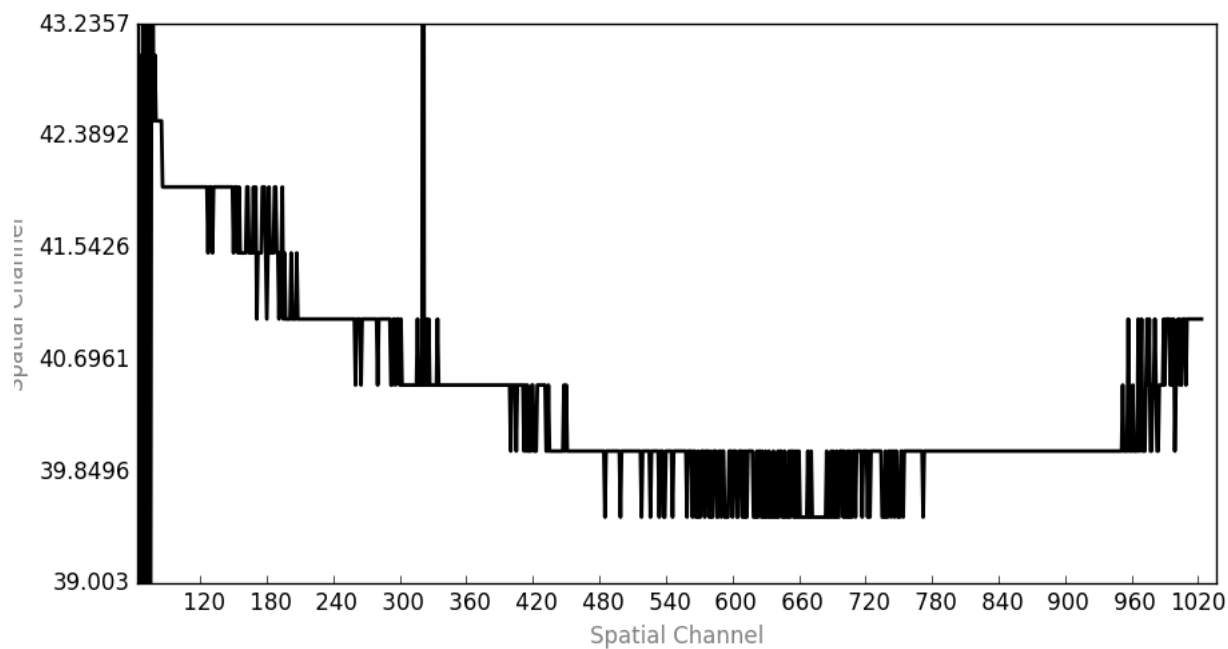


Figure 5: Channel 1 keystone. Horizontal axis is spectral channels and vertical axis is spatial.

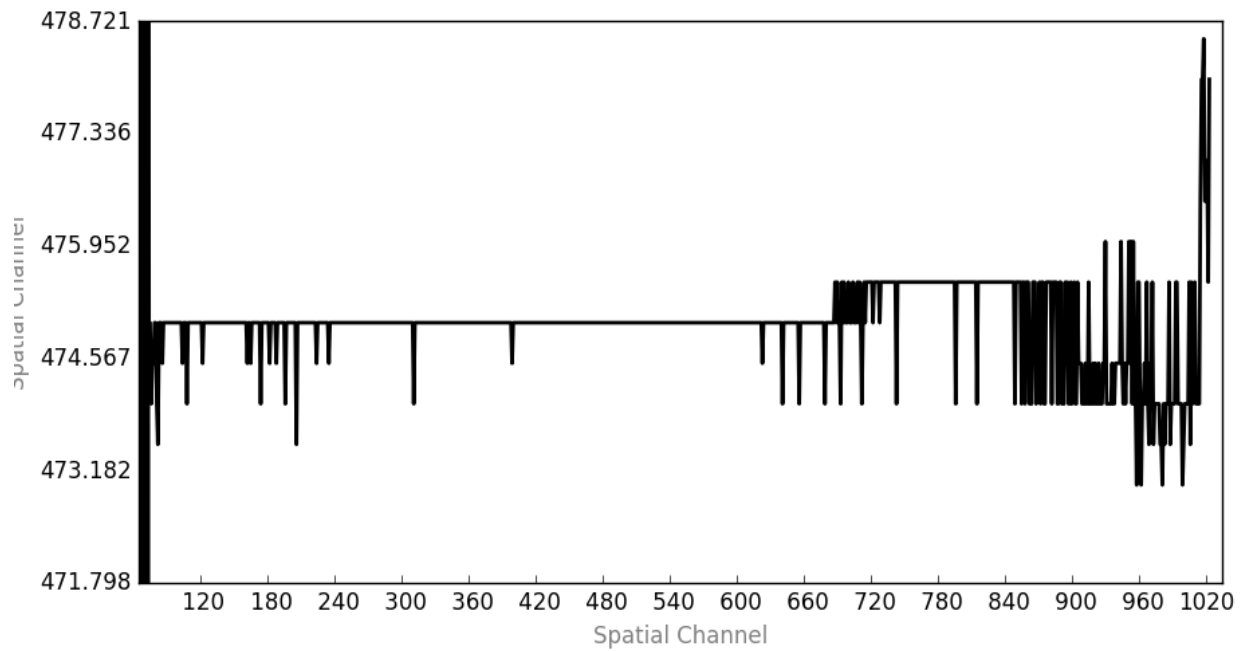


Figure 6: Channel 7 tilt

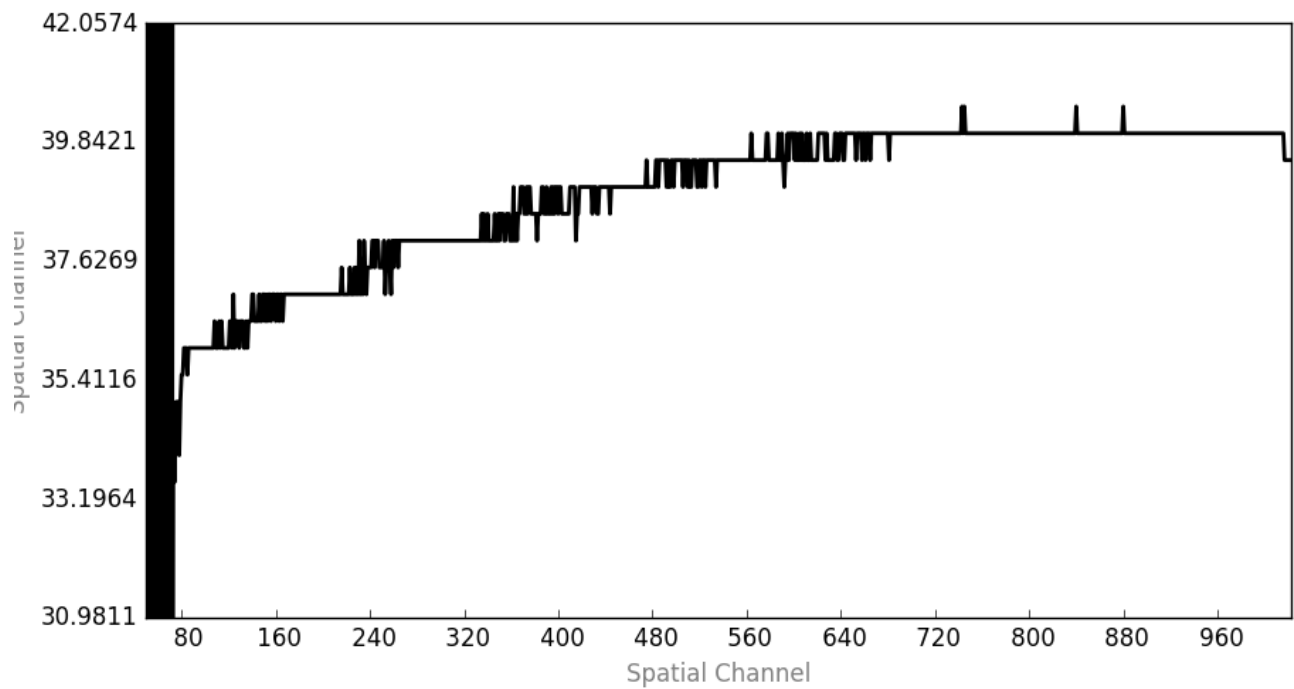


Figure 7: Channel 14 keystone.

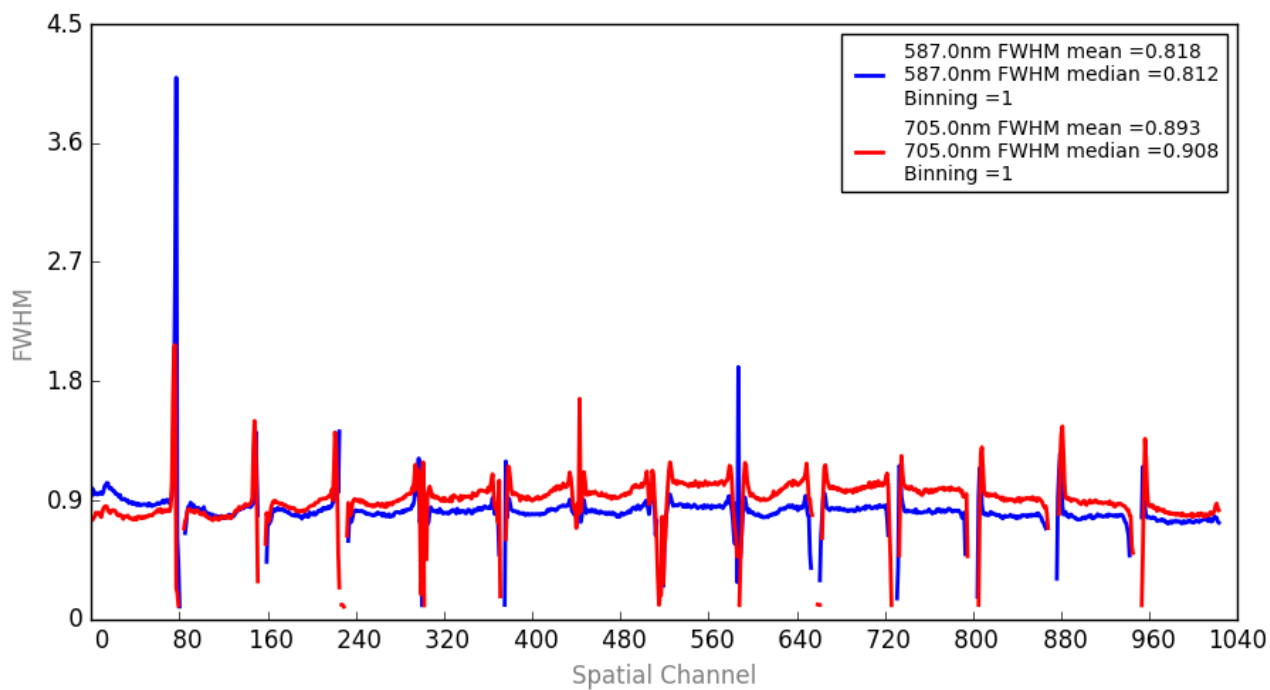


Figure 8: Spectral widths vs. spatial position. Gaussian peak fitting calculated a FWHM of ~ 1 nm.

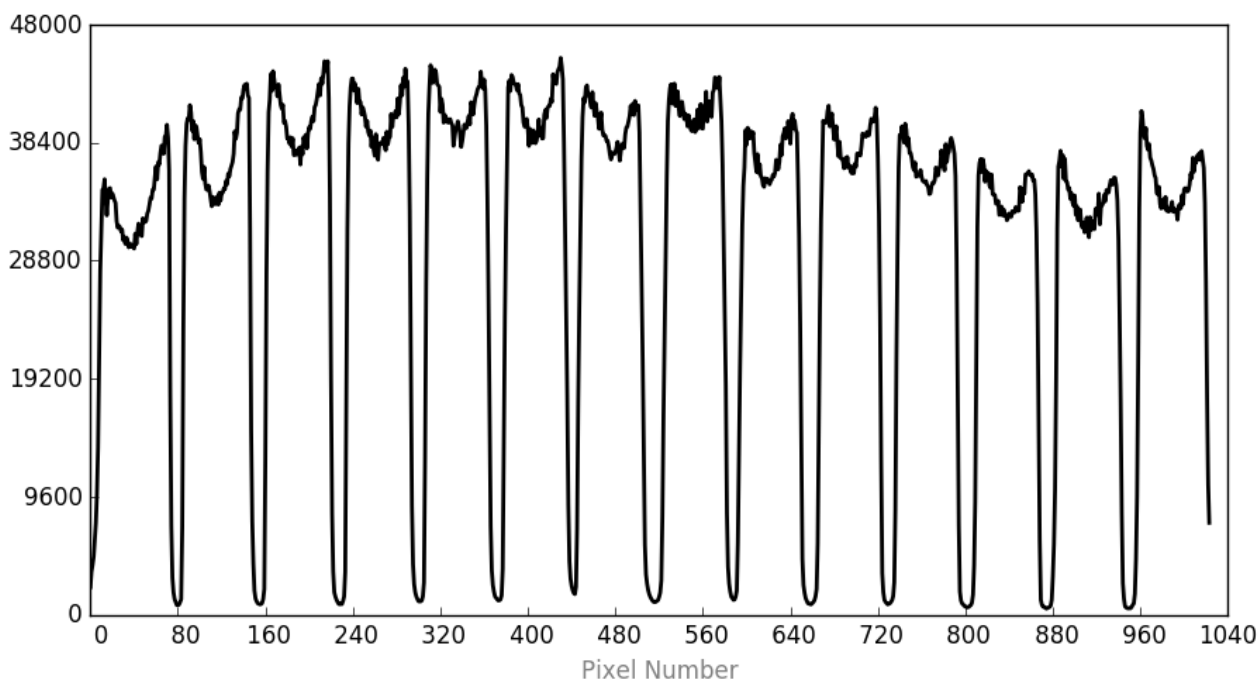


Figure 9: Cross section of all fibers.

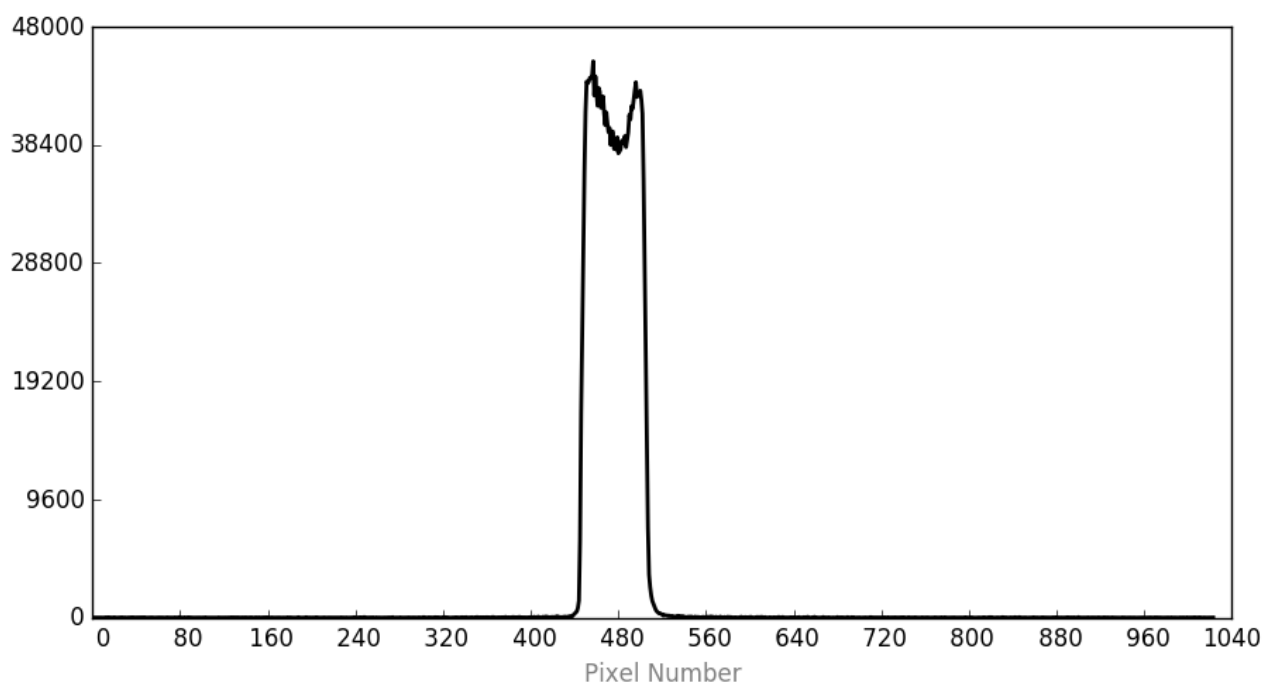


Figure 10: Cross section of channel 7.