

Ximea camera 26270871 with imec snapshot VIS sensor

Camera Info

Spectral Quality

Camera Info

✓ General Camera Info

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Imec part number	360-0003-01
Camera type	snapshot VIS
Number of samples in detection range	16
Detection range	460-600
Band pass filter type	internal filter
Bit depth	10 bit
Recommended lens	exit pupil telecentric with f-number ≥ 2.8

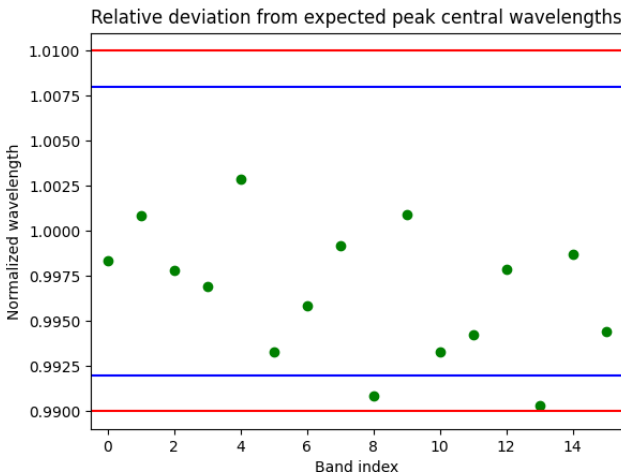
✓ Camera-Specific Info

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Camera ID	26270871
Sensor ID	15.7.20.6
Calibration filename	CMV2K-SSM4x4-460_600-15.7.20.6.xml

Peak central wavelength info

The peak central wavelengths of the sensor under collimated light are compared to the expected peak central wavelengths (see table below the plot). The measured peak central wavelengths are checked to be all within $\pm 1.0\%$ (red lines) and on average within $\pm 0.8\%$ (blue lines) from the expected wavelengths.



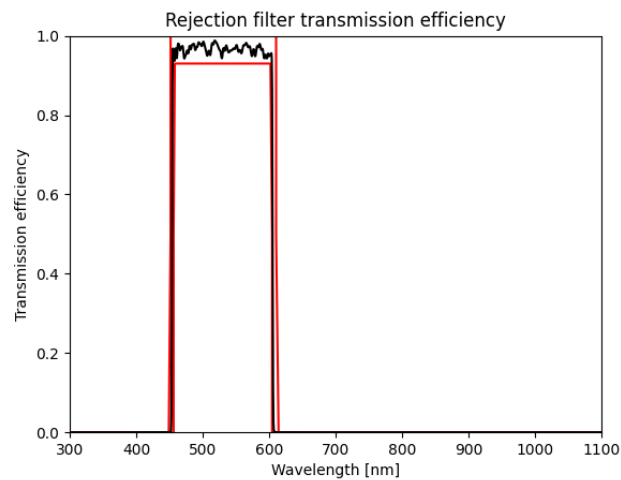
Expected peak central wavelengths under collimated light and % deviation of the measured w.r.t. the expected peak central wavelengths:

Band index	Expected wavelengths [nm]	Measured wavelengths [nm]	% shift	Band index	Expected wavelengths [nm]	Measured wavelengths [nm]	% shift
0	460.9	460.1	-0.2	8	536.9	532.0	-0.9
1	468.1	468.5	0.1	9	543.9	544.4	0.1
2	476.5	475.4	-0.2	10	554.5	550.8	-0.7
3	486.0	484.5	-0.3	11	563.2	560.0	-0.6
4	494.6	496.0	0.3	12	571.7	570.5	-0.2
5	506.4	503.0	-0.7	13	582.6	576.9	-1.0
6	515.4	513.3	-0.4	14	587.7	586.9	-0.1
7	524.5	524.1	-0.1	15	598.2	594.9	-0.6

The average deviation in peak central wavelength is -0.3%.

Band pass filter info

The measured transmission efficiency of the camera's rejection filter is plotted below (black line). The red lines indicate the accepted shift in cut-on/cut-off wavelength and the minimally accepted transmission efficiency.



Spectral Quality

A set of calibrated reference reflectance targets are measured under broadband LED light with the current camera and the spectra are compared to the reference spectra.

✓ Spectral measurements

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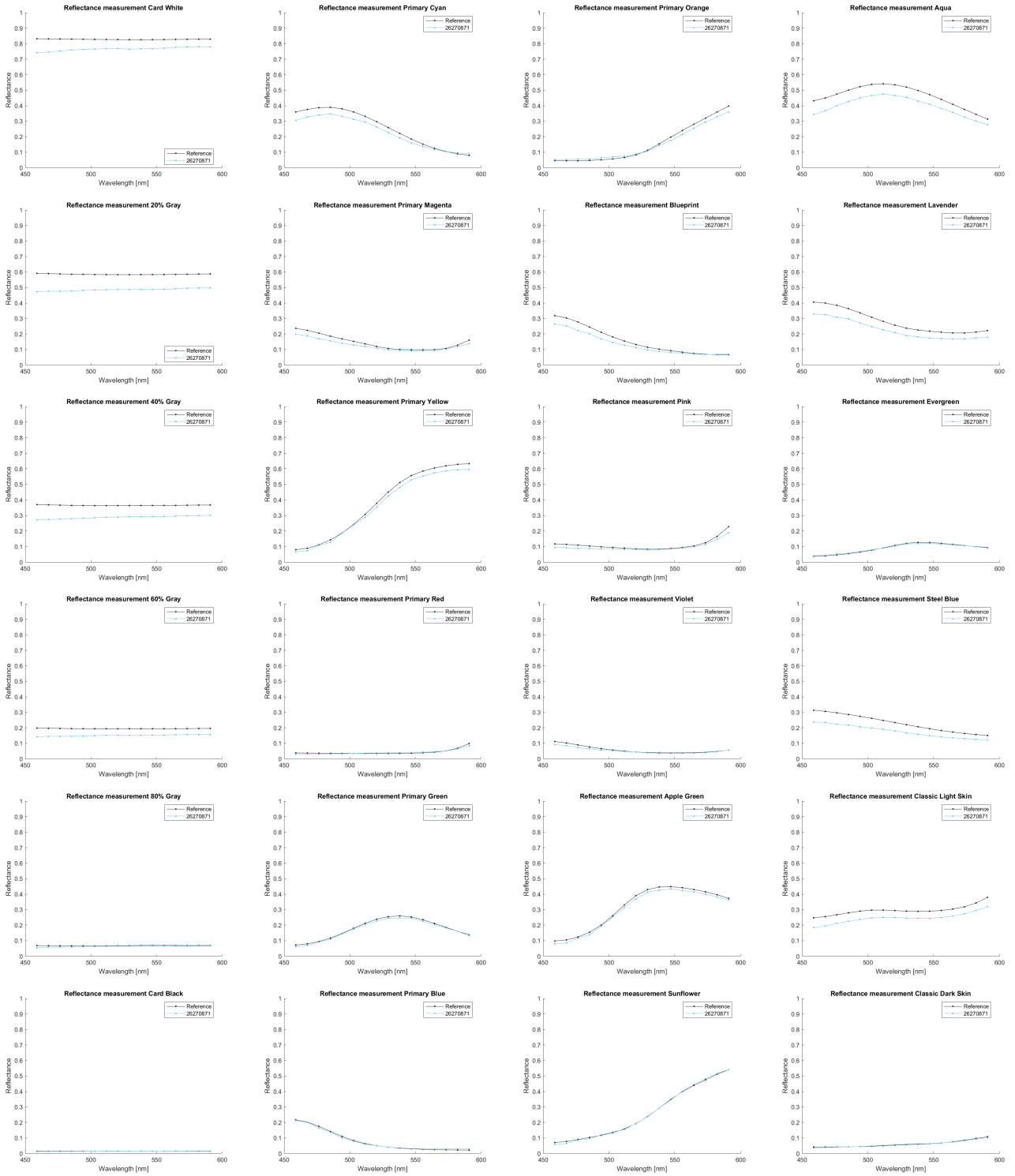


Table with the similarity index computed between the reconstructed and the reference reflectance spectrum for each spectral reference target:

Card White	0.25341	Primary Cyan	0.13877	Primary Orange	0.075197	Aqua	0.26371
20% Gray	0.39936	Primary Magenta	0.08603	Blueprint	0.12416	Lavender	0.22067
40% Gray	0.31016	Primary Yellow	0.098457	Pink	0.063531	Evergreen	0.016802
60% Gray	0.17817	Primary Red	0.022876	Violet	0.035347	Steel Blue	0.2206
80% Gray	0.023472	Primary Green	0.032808	Apple Green	0.062876	Classic Light Skin	0.20335
Card Black	0.0038791	Primary Blue	0.020547	Sunflower	0.02416	Classic Dark Skin	0.013688