MYIRO Tutorial

How to measure with MYIRO-9 / FD-9 in Caldera RIP

Changes for v2:

- New FD-S2W templates package available (page 2) including:
  - New RGB Profiling Target (Caldera 11.2 update needed)
  - Renamed profiling and Light / Dark / Lin templates
  - Fogra MediaWedge v3 templates
- Information about new RGB Profiling Target added (page 8)

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Before you start:

- The purpose of this document is to show you how to measure test charts from Caldera V11 (minimum version) and higher version using Konica Minolta FD-9/ MYIRO-9 and FD-S2w measurement utility software
- FD-S2w is free of charge and can be dowloaded from MYIRO website
- You need to have Caldera V11 update installed at a minimum

What will you find in this procedure?

- How to print FD-9/MYIRO-9 test charts in EasyMedia
- How to configure FD-S2w measurement utility software
- How to measure and export measurements in FD-S2w
- How to import measurements in EasyMedia

Installation of FD-S2w:

- Please download and install FD-S2w prior to follow this guide from this link: https://www.myiro.com/downloads#legacy-software

Please download additional files for FD-S2w from this link:

- https://www.myiro.com/sites/default/files/installers/FD-S2w%20Templates%20for%20Caldera%20package%20v5.zip
  - FD-S2w Templates for Caldera package v5.zip

    -> necessary templates for FD-S2w

Note: Package also contains .tiff files: they are intended to better recognise a xml file and its corresponding chart. The chart to be printed are included in Easymedia. If you find a mismatch between info from these document and your version of Caldera, please contact Caldera support to upgrade your version.

Installation & Setup of FD-S2w

FD-S2w

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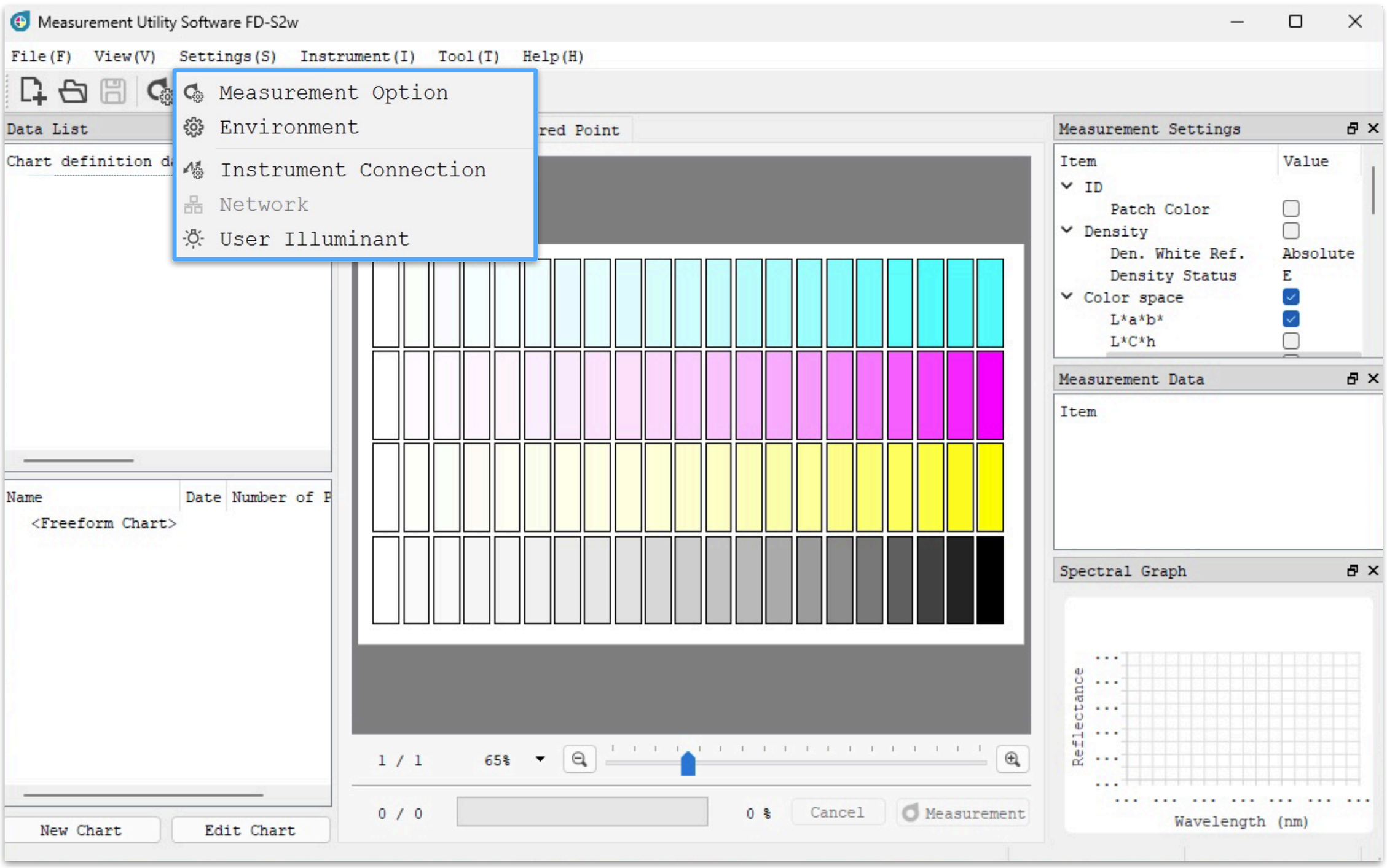
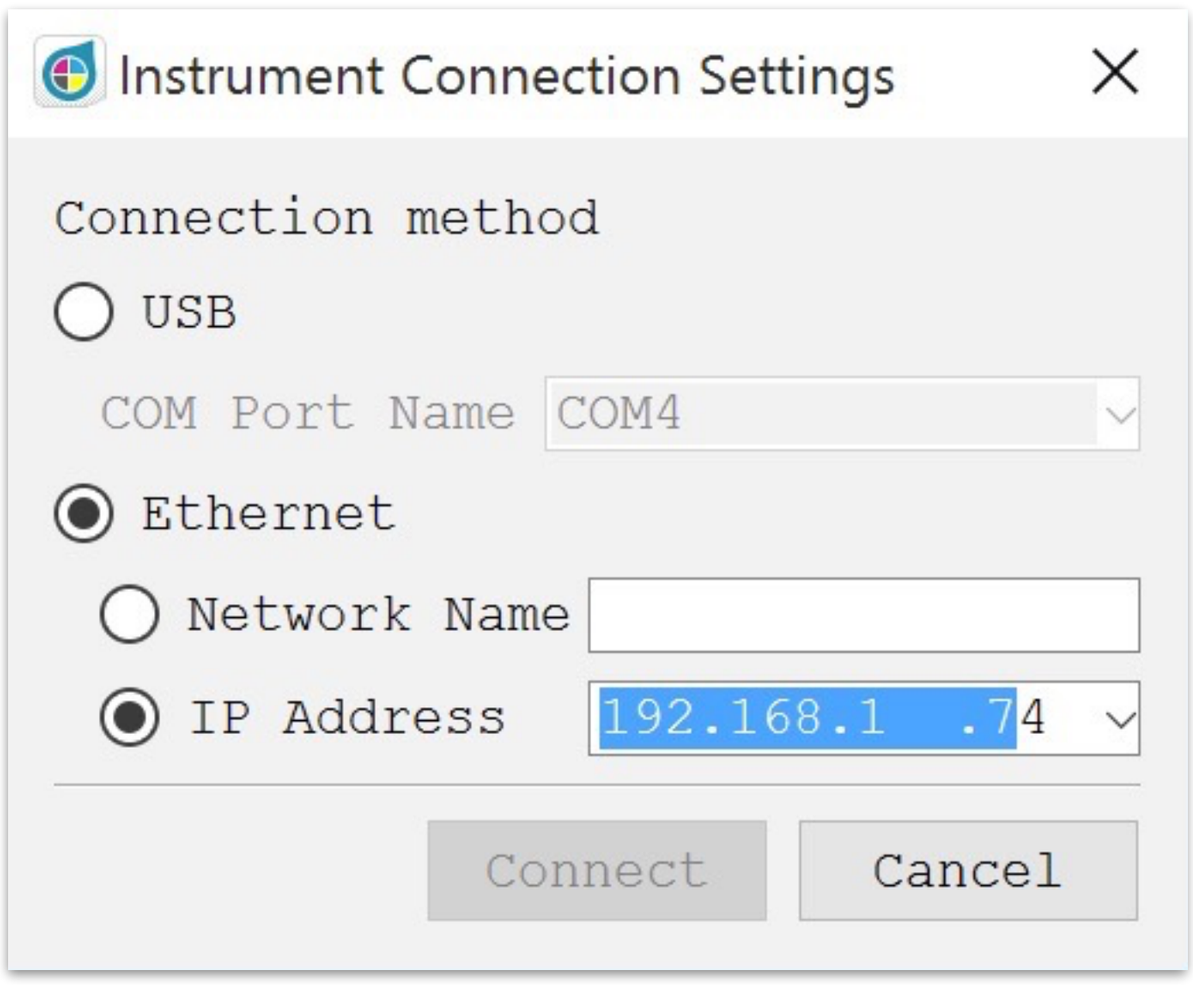
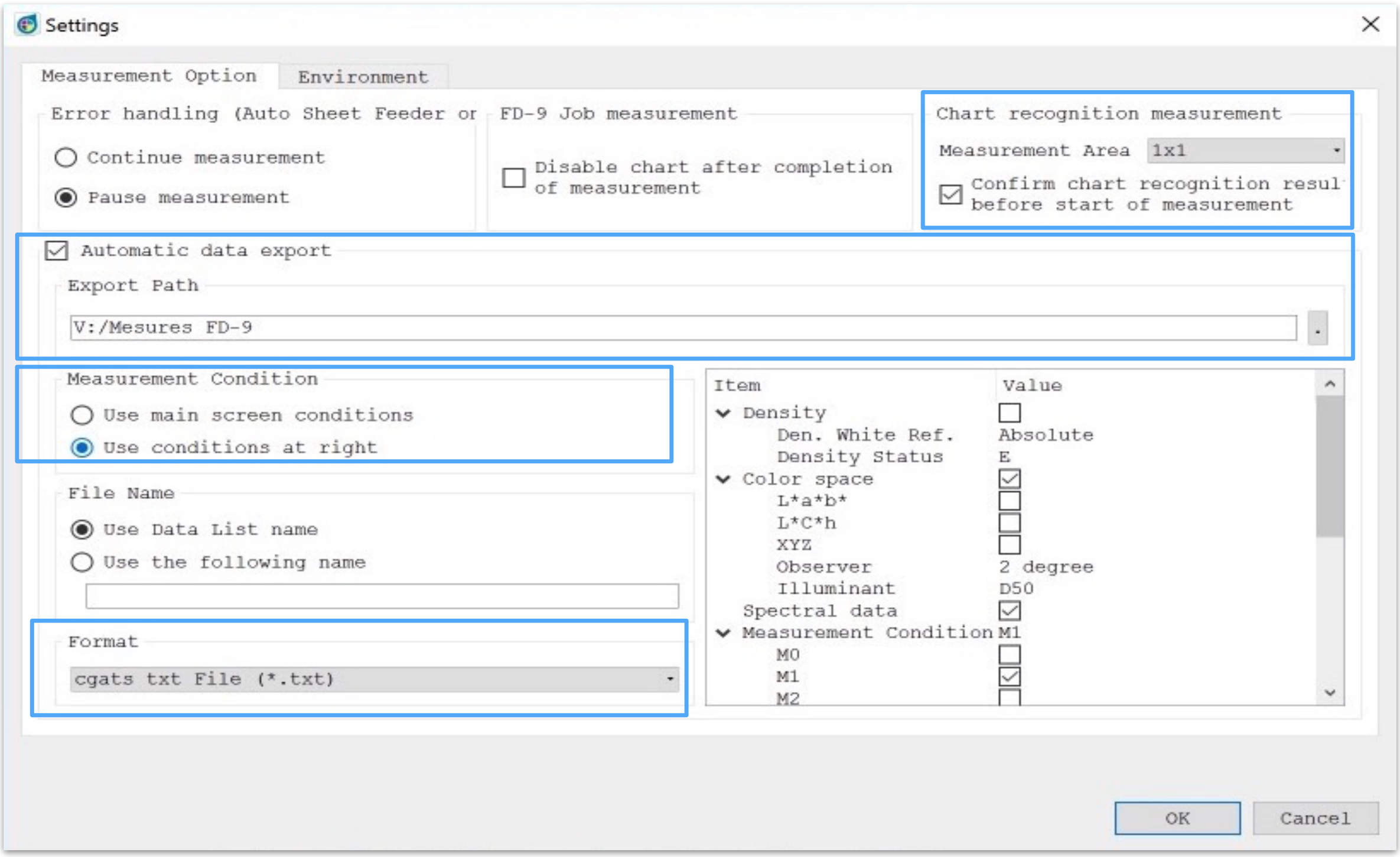
- If this is the first time you launch FD-S2w, you need to configure it.
  Click on **SETTINGS / Instrument Connection** (the configuration has to be done only once)



- Depending on the connection you choose, select USB or enter the IP address previously set in the FD-9/MYIRO-9

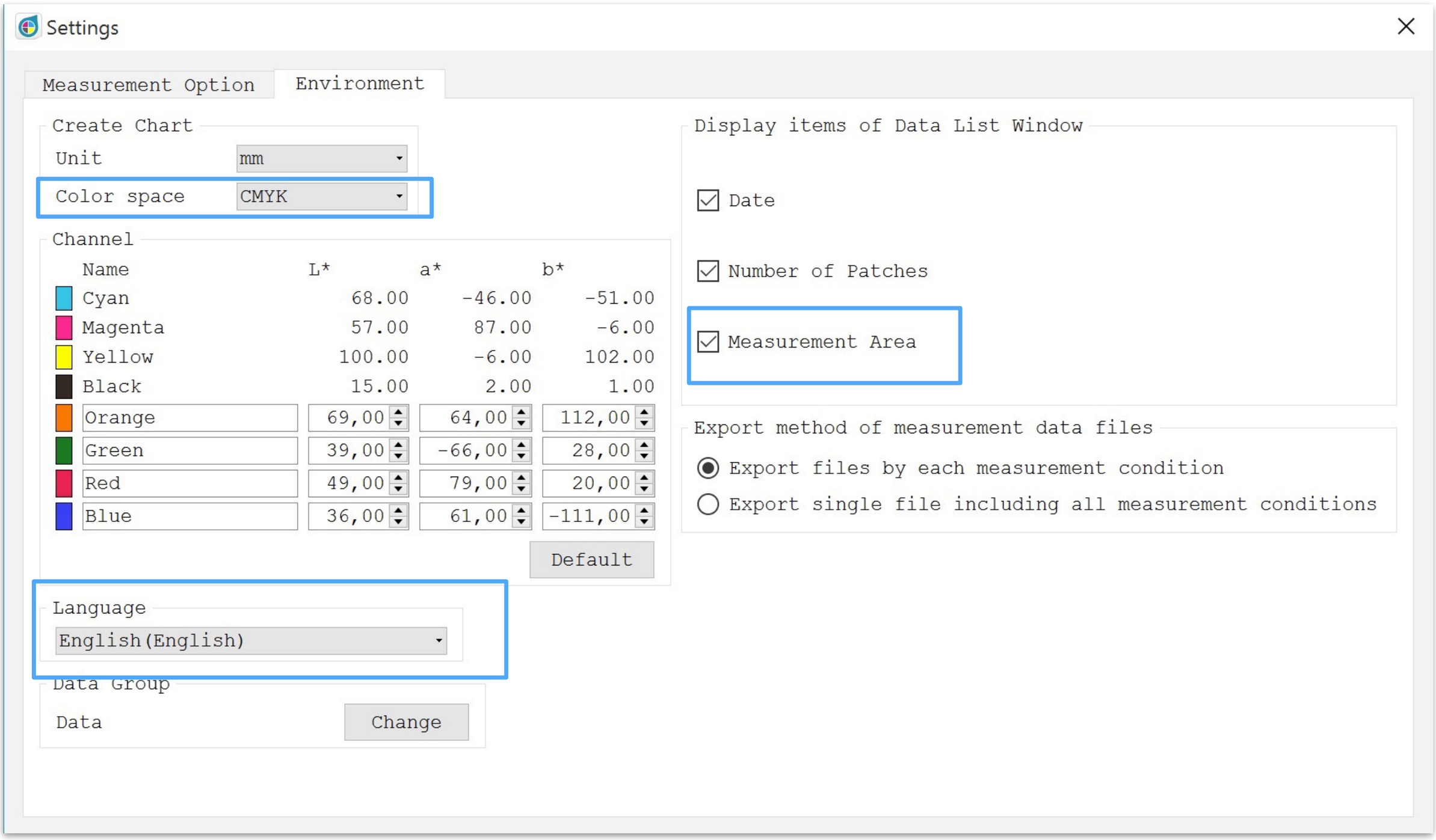


- Once the device is connected, select **SETTINGS / Measurement Option**



- Select the following parameters:
  - Confirm chart recognition result before start of measurement.
  - Select “Automatic data export”: create a network drive mapped to Public folder from Caldera. This way, FD-S2w will automatically export the measurement into Public folder.
  - Select “Use conditions at right” and please make sure to select:
    - Deactivate - Density - and - Patch Color -
    - Activate - Color space -
    - - L*a*b* - can be activated but isn’t mandatory
    - Activate - Spectral Data -
    - Activate only M1 as measurement condition (or M2 / M0 depending on your needs) Use Data List name.
  - Format: please use CGATS txt File (*.txt)

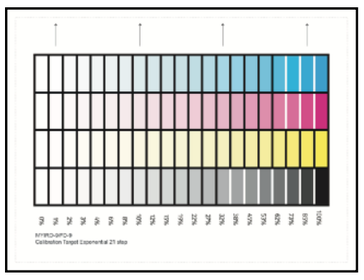
- Once the device is connected, select **SETTINGS / Measurement Option**



- Select the following parameters:
  - Color space: CMYK
  - Measurement area
  - Language: your language

- Please now unzip the folder **FD-S2w Templates for Caldera package v5.zip** previously downloaded

How to choose the right template for linearisation?



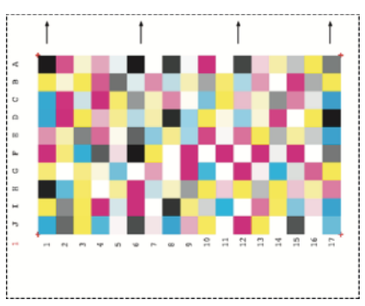
CALDERA | Light-Dark-Lin | Exponential-Target | 21 Step.xml

“Light-Dark-Lin” -> the same template can be used for the Light and/or Dark inks and/or Linearisation as the chart layout is the same

“Exponential-Target” -> different patch distribution can be used. E.g Exponential target is 0% / 1% / 2% / 3% / 4% / … / 100% while the regular target is 0% / 5% / 10% / 15% / … / 100%

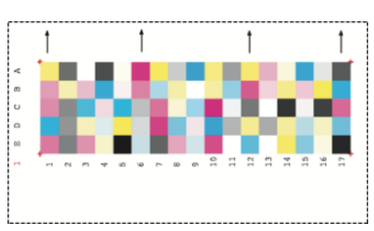
“21 step” -> number of step (patch to read) per color channel

- **Light / Dark Inks & Linearisation CMYK templates available:**



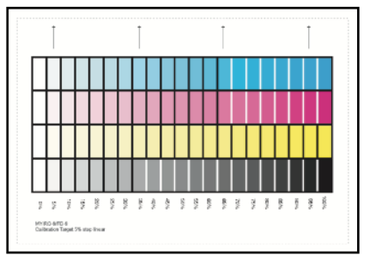
CALDERA Light-Dark-Lin-Target-FD-S2W 2-5% Step Scrambled.xml

Name in Caldera: “Calibration target (FD-S2W), 2.5% Step scrambled”



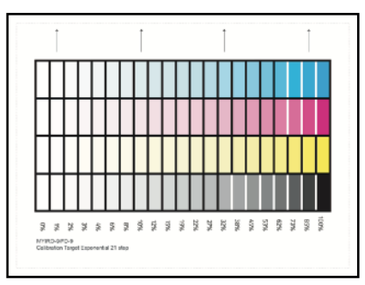
CALDERA Light-Dark-Lin-Target-FD-S2W 5% Step Scrambled.xml

Name in Caldera: “Calibration target (FD-S2W), 5% Step scrambled”



CALDERA Light-Dark-Lin-Calibration-Target CMYK 5% Step.xml

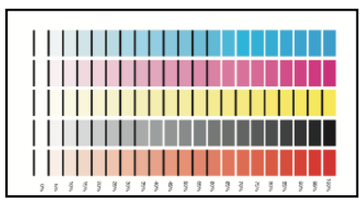
Name in Caldera: “Calibration target (FD-S2W), 5% Step linear”



CALDERA Light-Dark-Lin-Exponential-Target 21 Step.xml

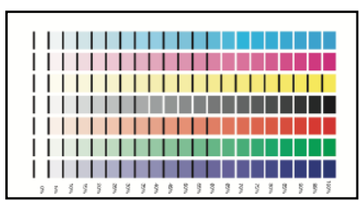
Name in Caldera: “Calibration target (FD-S2W), Exponential 21 Step”

- **Light / Dark Inks & Linearisation CMYK + Ncolor templates available:**



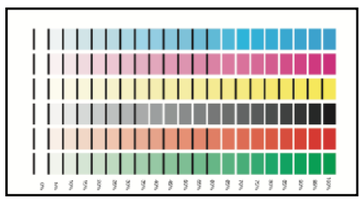
CALDERA Calibration-Target CMYK+R 5% Step.xml

Name in Caldera: “Calibration target, 5% step”



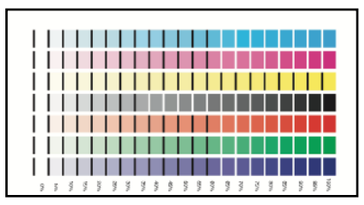
CALDERA Calibration-Target CMYK+R+G+B 5% Step.xml

Name in Caldera: “Calibration target, 5% step”



CALDERA Calibration-Target CMYK+O+G 5% Step.xml

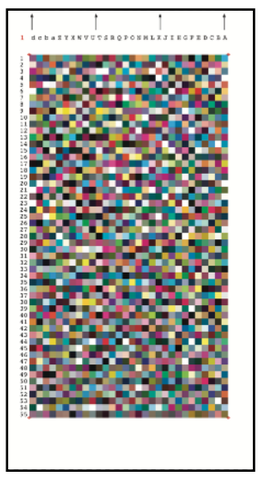
Name in Caldera: “Calibration target, 5% step”



CALDERA Calibration-Target CMYK+O+G+V 5% Step.xml

Name in Caldera: “Calibration target, 5% step”

How to choose the right template for profiling?



CALDERA | Profiling Target | CMYK IT874 | 6x6mm | 1650p.xml

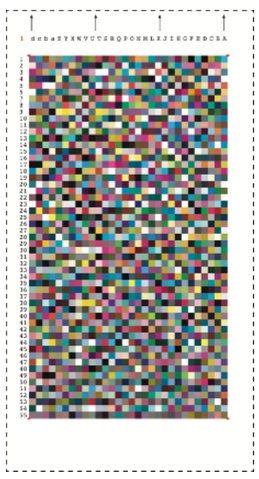
“Profiling Target” -> chart type to be used during the profiling process

“CMYK” -> color model in use (CMYK / RGB) followed by the name of the chart (if the chart is standardised)

“6x6mm” -> patch size (6x6mm minimum). The charts also exist with 9x9mm patch size in order to use the Virtual Aperture feature (multiple measurements per patch)

“1650p” -> number of patches (number also differ depending on patch size)

- **CMYK Profiling Target files available:**



CALDERA Profiling-Target-CMYK IT874 6x6mm 1650p.xml

Name in Caldera: “IT8.7-4 (FD-S2w), 6x6mm, 1650 patches”

CALDERA Profiling-Target-CMYK IT874 9x9mm 1632p.xml

Name in Caldera: “IT8.7-4 (FD-S2w), 9x9mm, 1632 patches”

CALDERA Profiling-Target-CMYK HC2052F 6x6mm 2108p.xml

Name in Caldera: “HC2052F (FD-S2W), 6x6mm, 2108 patches”

CALDERA Profiling-Target-CMYK HC2052F 9x9mm 2077p.xml

Name in Caldera: “HC2052F (FD-S2W), 9x9mm, 2077 patches”

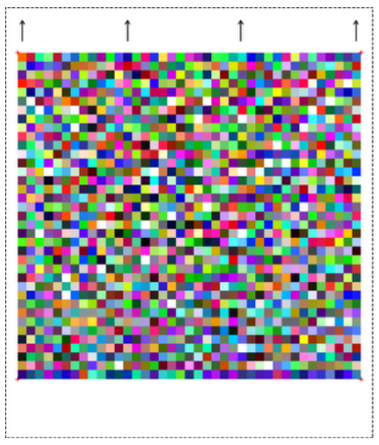
CALDERA Profiling-Target-CMYK 9x9mm 2500p.xml

Name in Caldera: “Profiling target (FD-S2W), 9x9mm, 2500 patches”

CALDERA Profiling-Target-CMYK 9x9mm 3000p.xml

Name in Caldera: “Profiling target (FD-S2W), 9x9mm, 3000 patches”

RGB Profiling Target files available:

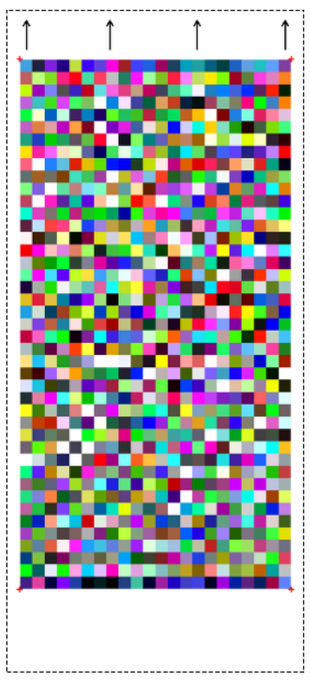


CALDERA Profiling-Target-RGB TC918-RGB 6x6mm 946p.xml

Name in Caldera: “TC918 RGB (FD-S2W), 6x6mm, 946 patches”

CALDERA Profiling-Target-RGB TC918-RGB 9x9mm 952p.xml

Name in Caldera: “TC918 RGB (FD-S2W), 9x9mm, 952 patches”



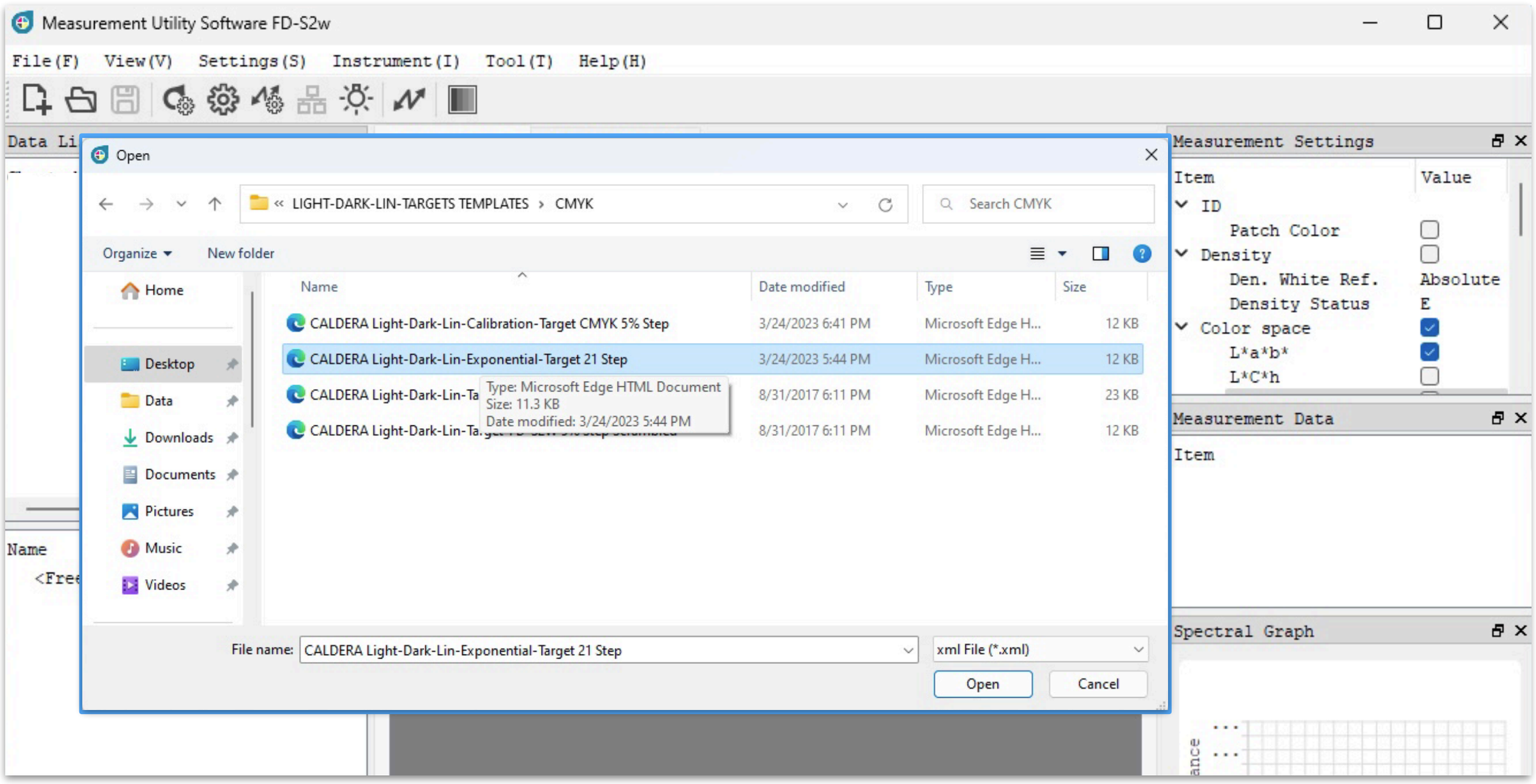
CALDERA Profiling-Target-RGB RGB-1400 6x6mm 1443p.xml

Name in Caldera: “RGB 1400 (FD-S2W), 6x6mm, 1443 patches”

CALDERA Profiling-Target-RGB RGB-1400 9x9mm 1428p.xml

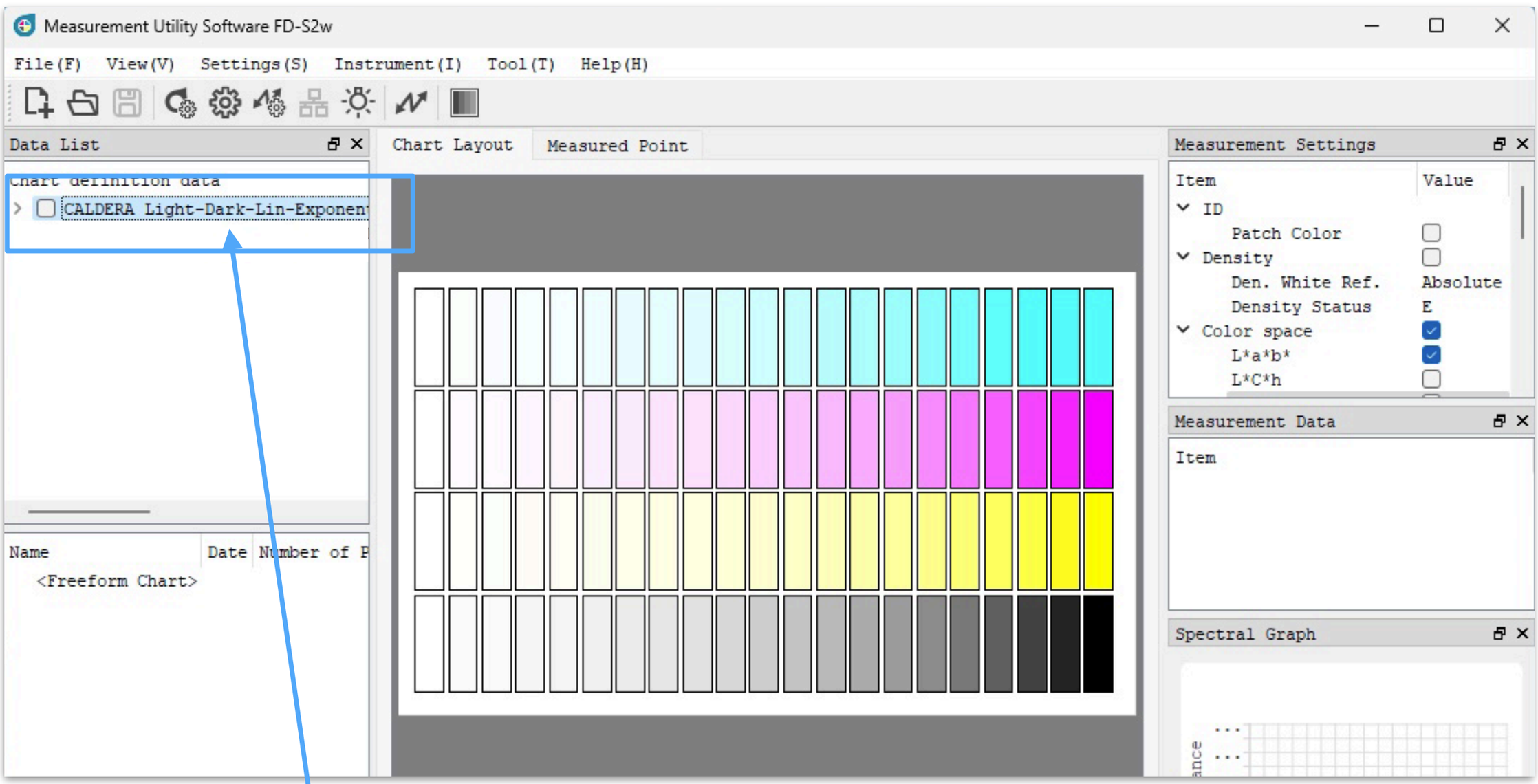
Name in Caldera: “RGB 1400 (FD-S2W), 9x9mm, 1428 patches”

- In FD-S2w, select **FILE / Open Chart File**



- Open the .xml file corresponding to the test chart printed in Caldera (Once the .xml file is opened, there is no need to open it again for future measurements of the same chart)

- Once the .xml file is loaded, you have an overview of the test chart



- On the left side, you see the imported .xml file corresponding to the chart you want to measure.

Measurement workflow:

Select FD-9/MYIRO-9 test chart in EasyMedia

Print FD-9/MYIRO-9 test chart in EasyMedia

Select reference file using FD-S2w

Measure test chart using FD-S2w

Export measurements from FD-S2w

Import measurements in EasyMedia

Continue the profiling process in EasyMedia

Print
Light/Dark inks &
Linearisation charts
In EasyMedia

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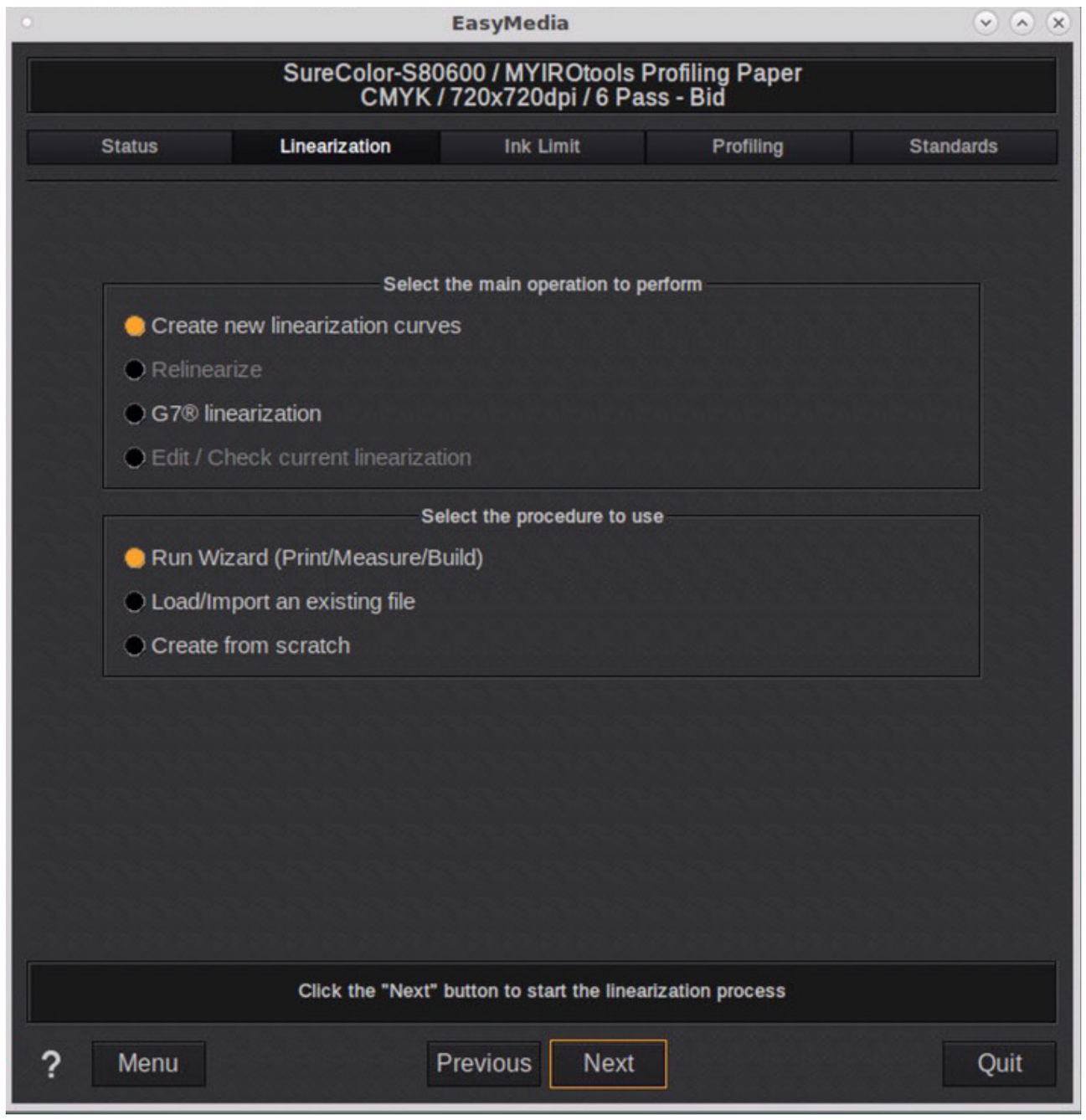
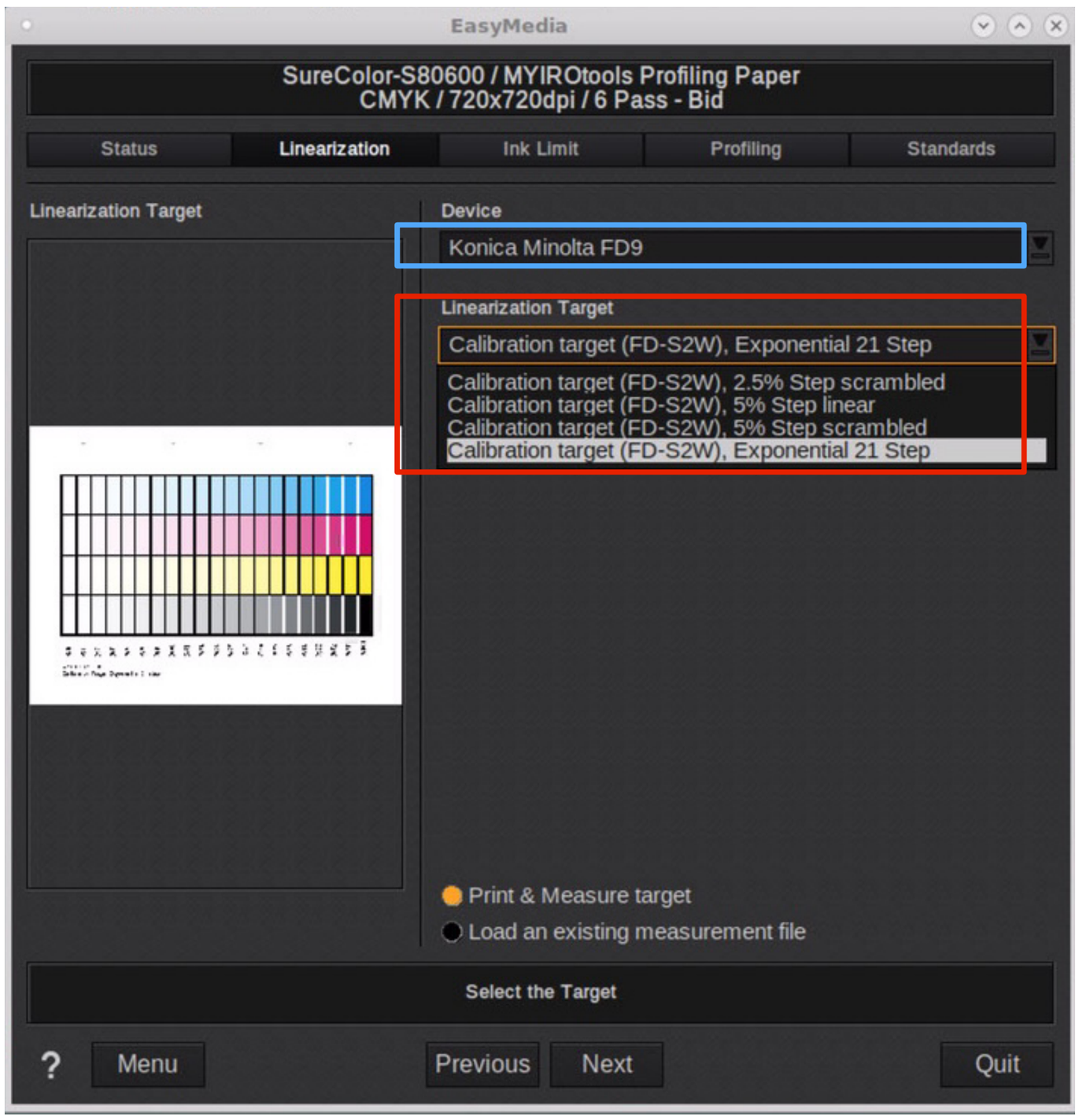
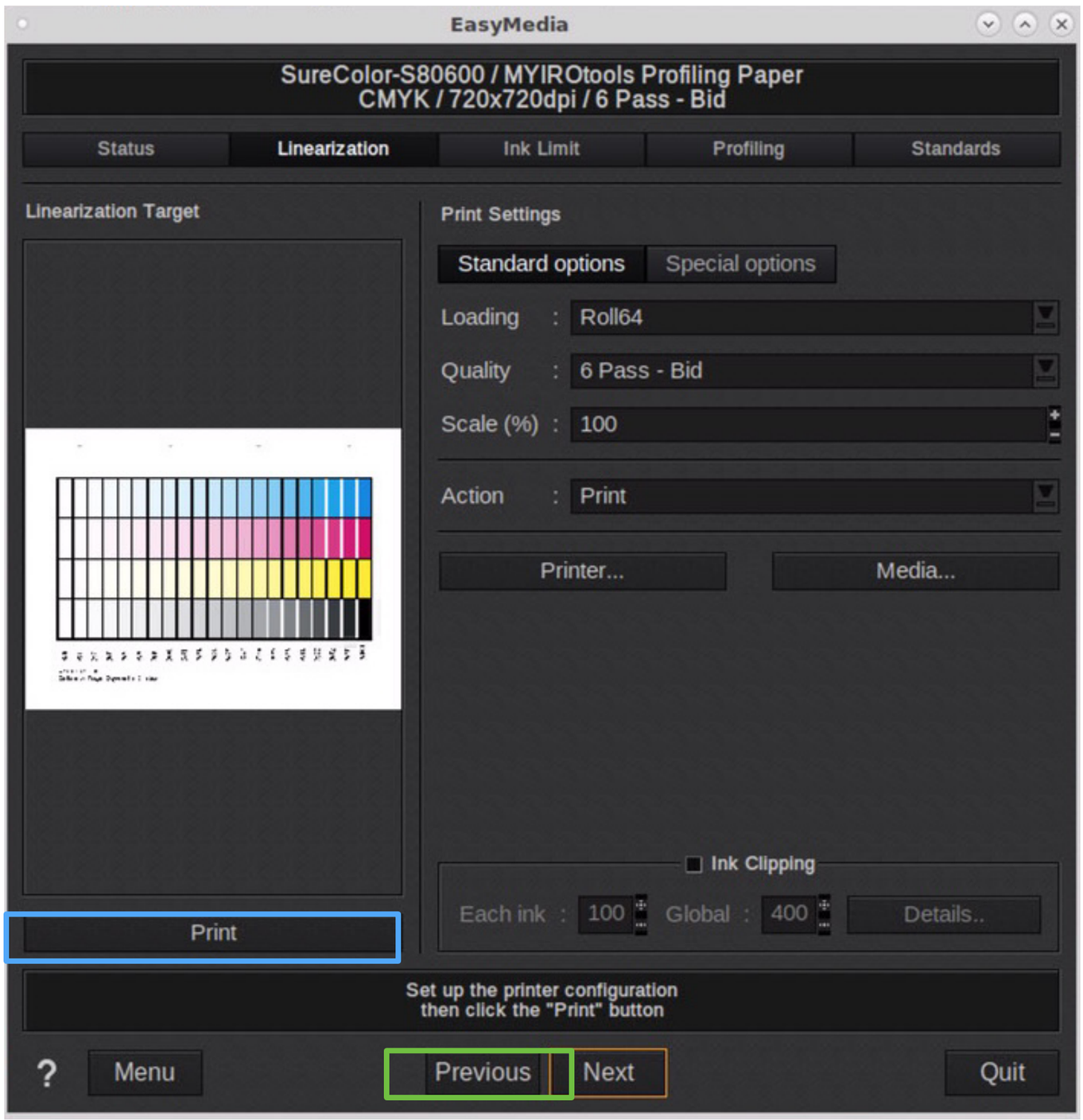
- In EasyMedia, Select **“Create new linearisation curves”**



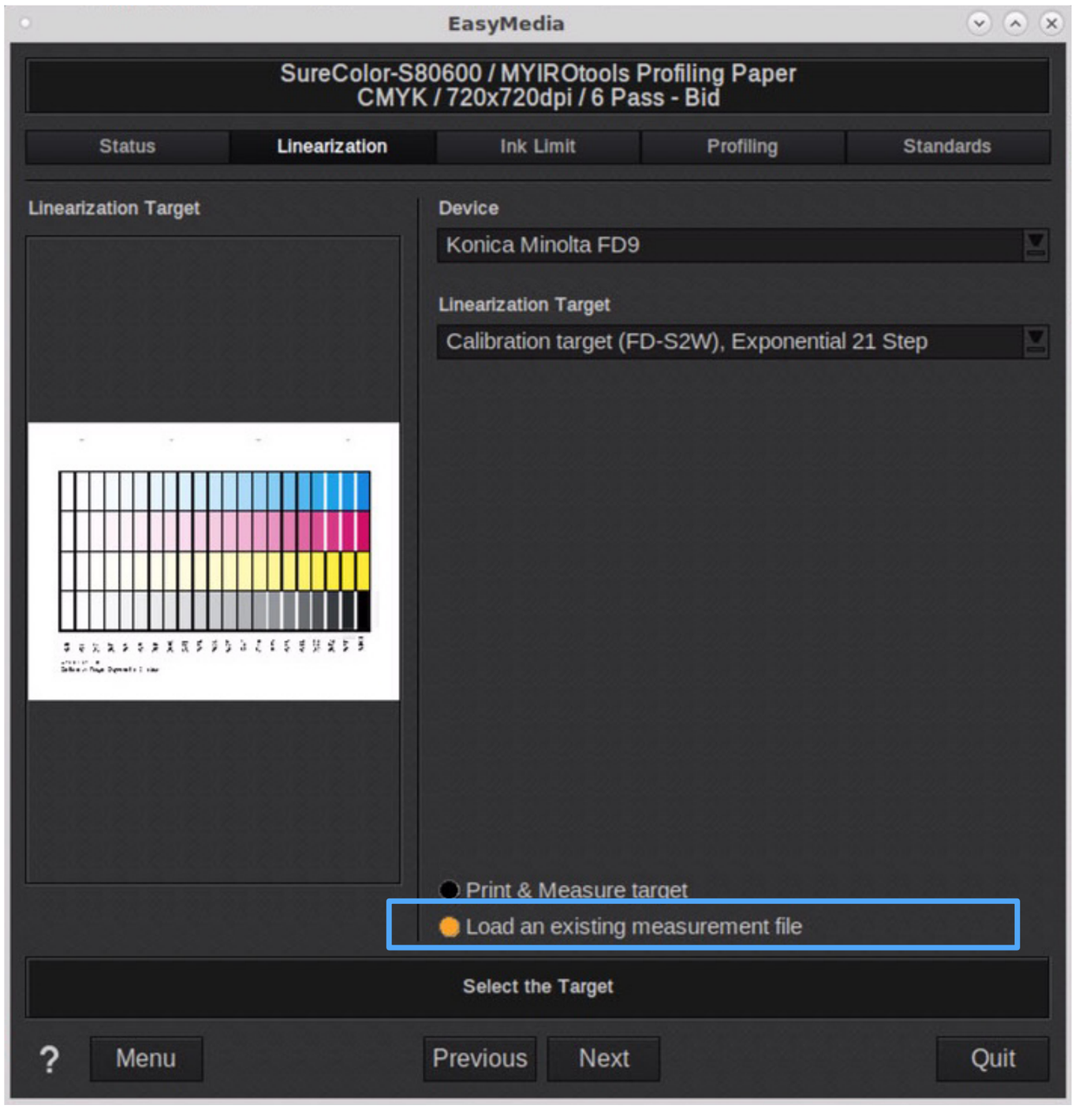
- Select **Konica Minolta FD-9/MYIRO-9** as measurement device, then select one of the linearization targets available, then click on **Next**



- Click on **Print**, then click on **Previous**



- Select **Load an existing measurement file**, then open **FD-S2w software**



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Measure FD-9/MYIRO-9 Linearisation charts

In FD-S2w

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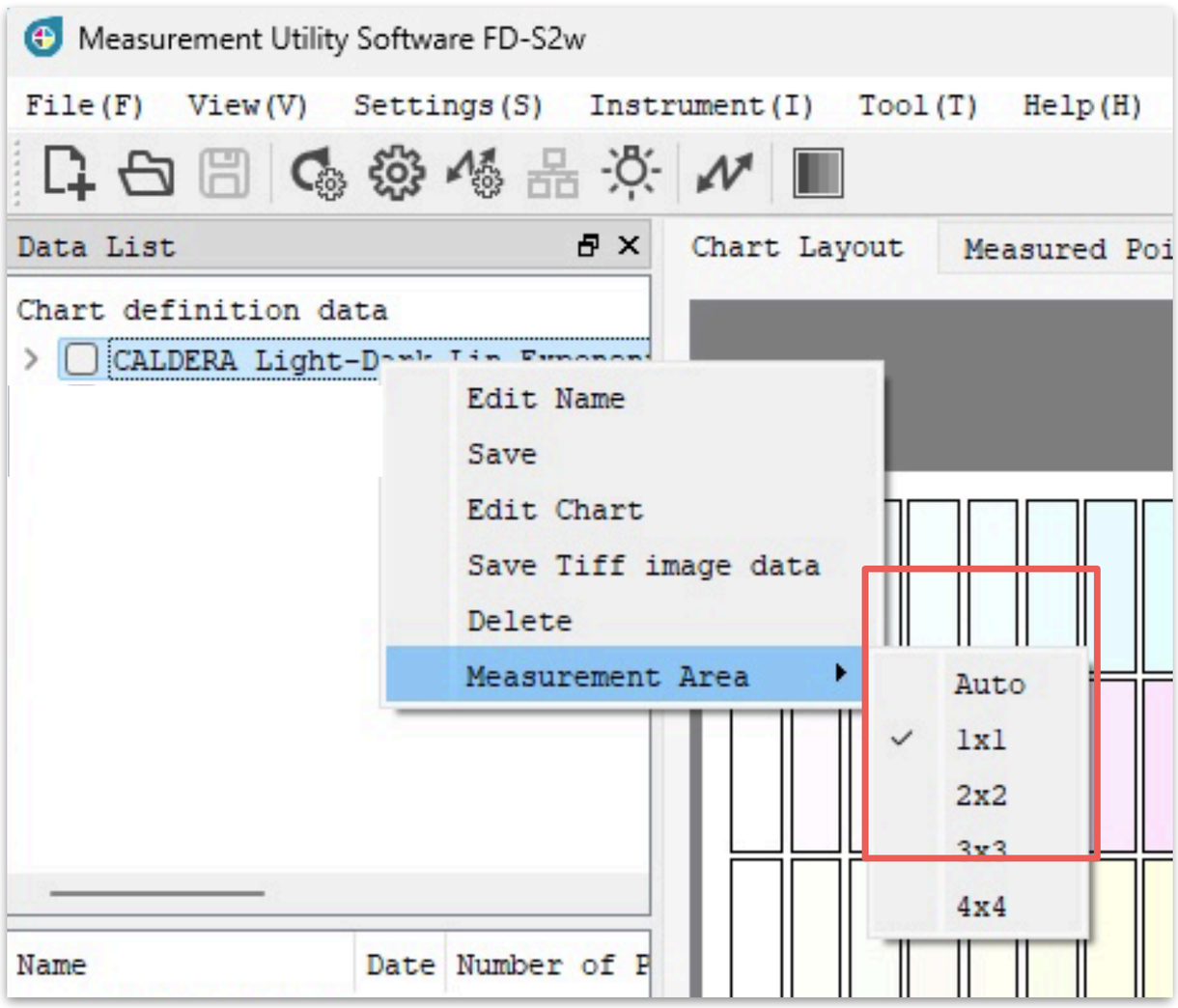
- Before starting measurement, you can set the FD-9/MYIRO-9 to perform **multiple measurements per patch** (feature called “Virtual Aperture”). This can be useful to increase the quality of measurements if the quality of the printouts is not good enough or if the paper is textured for example

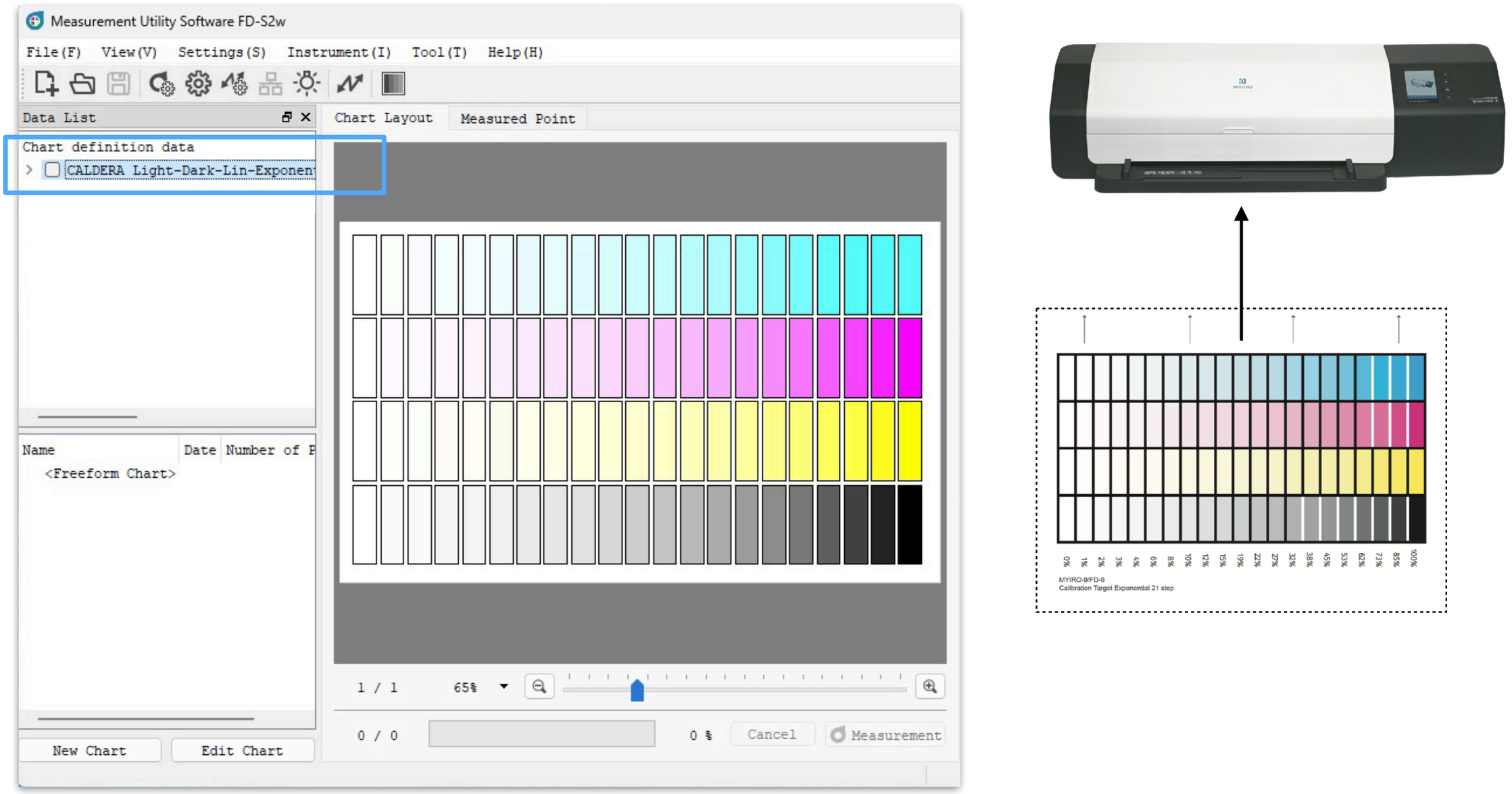


- Right click on the template, then select **Measurement Area**
  - Auto = FD-S2w decides depending on patch size
  - 1x1 = 1 measurement per patch (standard value)
  - 2x2 = 4 measurements per patch
  - 3x3 = 9 measurements per patch
  - 4x4 = 16 measurements per patch

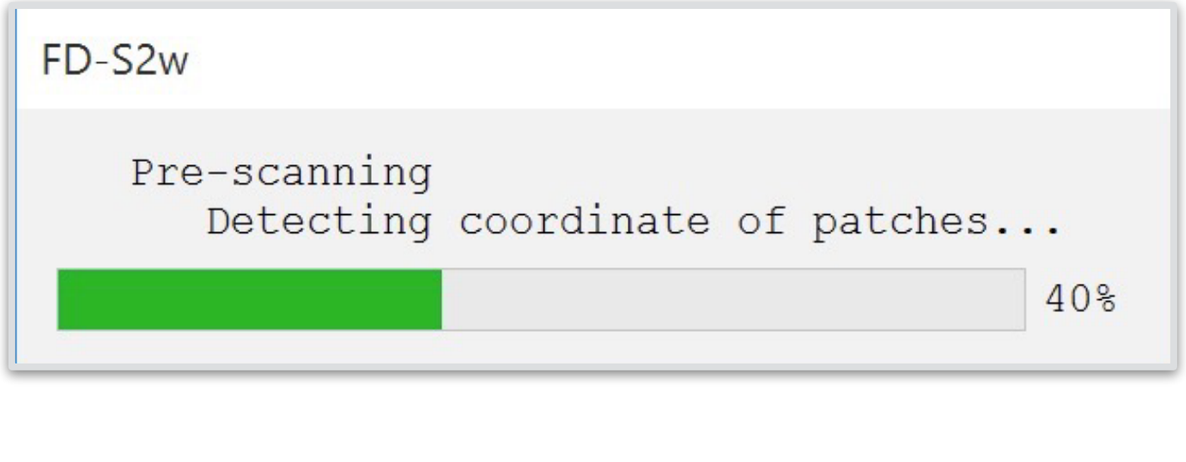
- **Make sure you are using a chart using a patch size of more than 6mm to benefit from the virtual aperture**

- **Measurement time will obviously increase if you select more than 1 measurement per patch!**

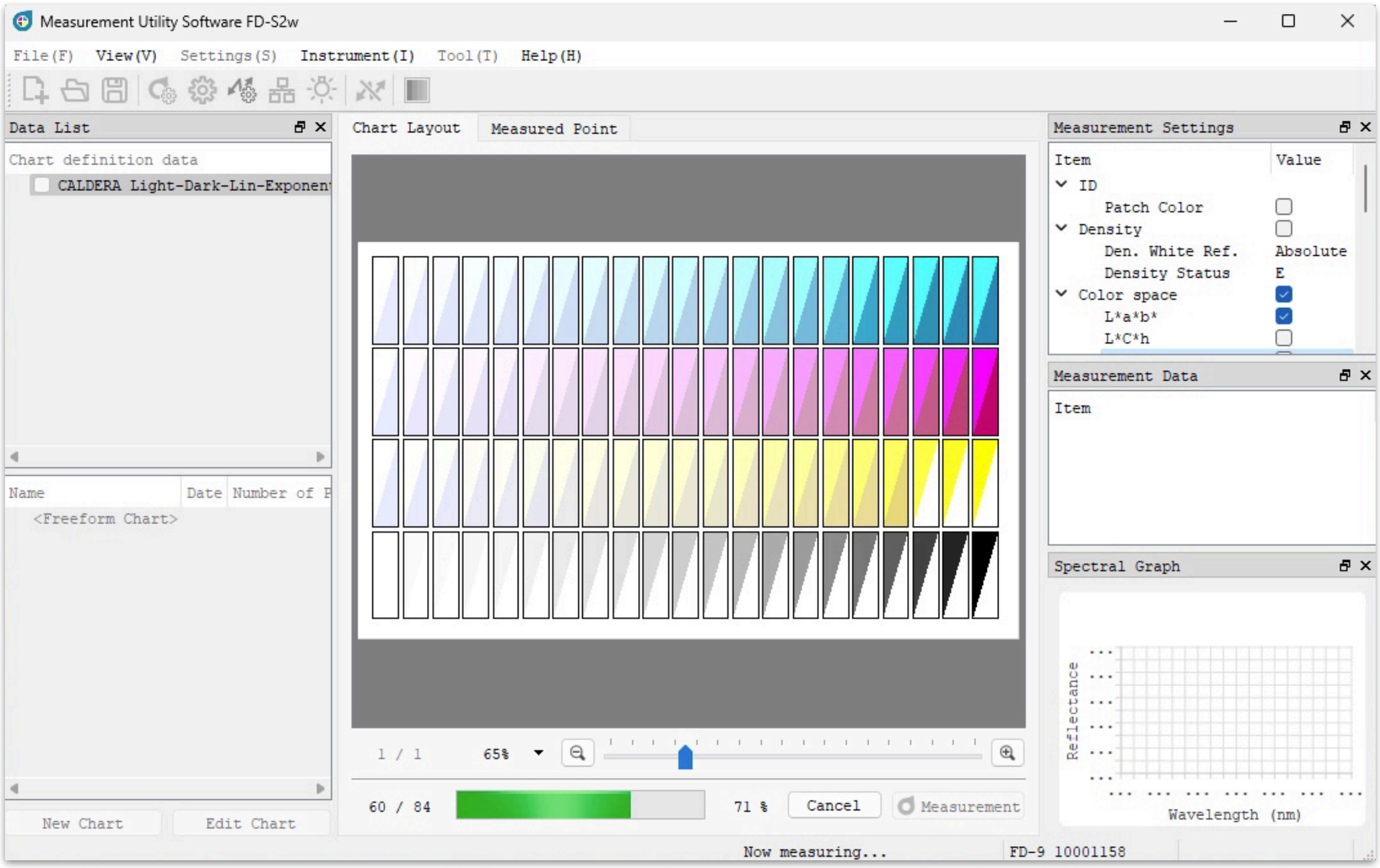
- Click on the template on the top left to highlight it, then load the printed test chart **in the same way the patch are displayed on the screen**. If needed, cut the test chart to the dashed lines, but not more!



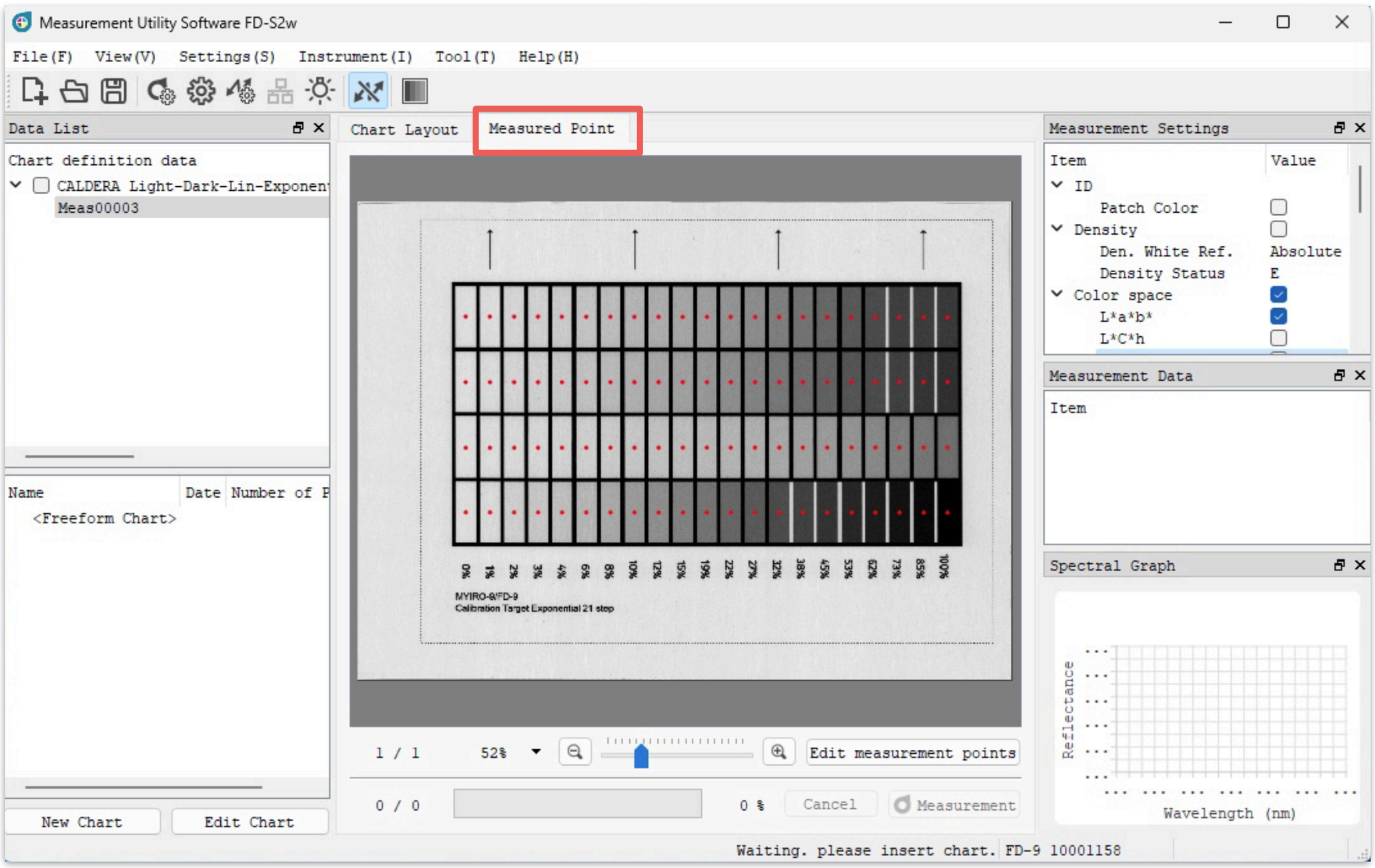
- **FD-9/MYIRO-9** is now detecting the patches by comparing the scanned image with the reference data contained in the template



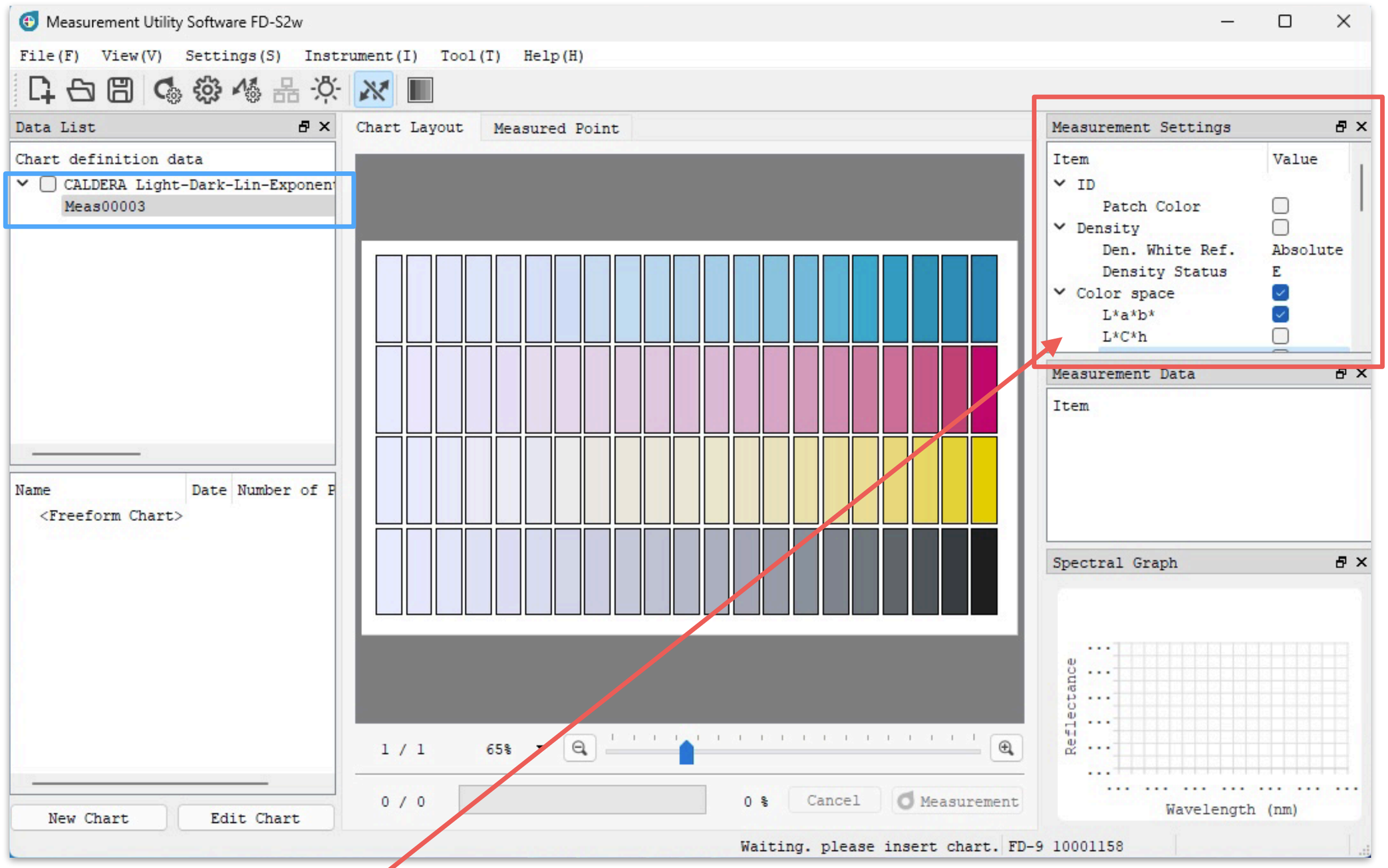
- If the detection is correct, then the **FD-9/MYIRO-9** starts measuring



- In tab **- Measured Point -** you can check the image scanned to make sure the patches have been measured correctly

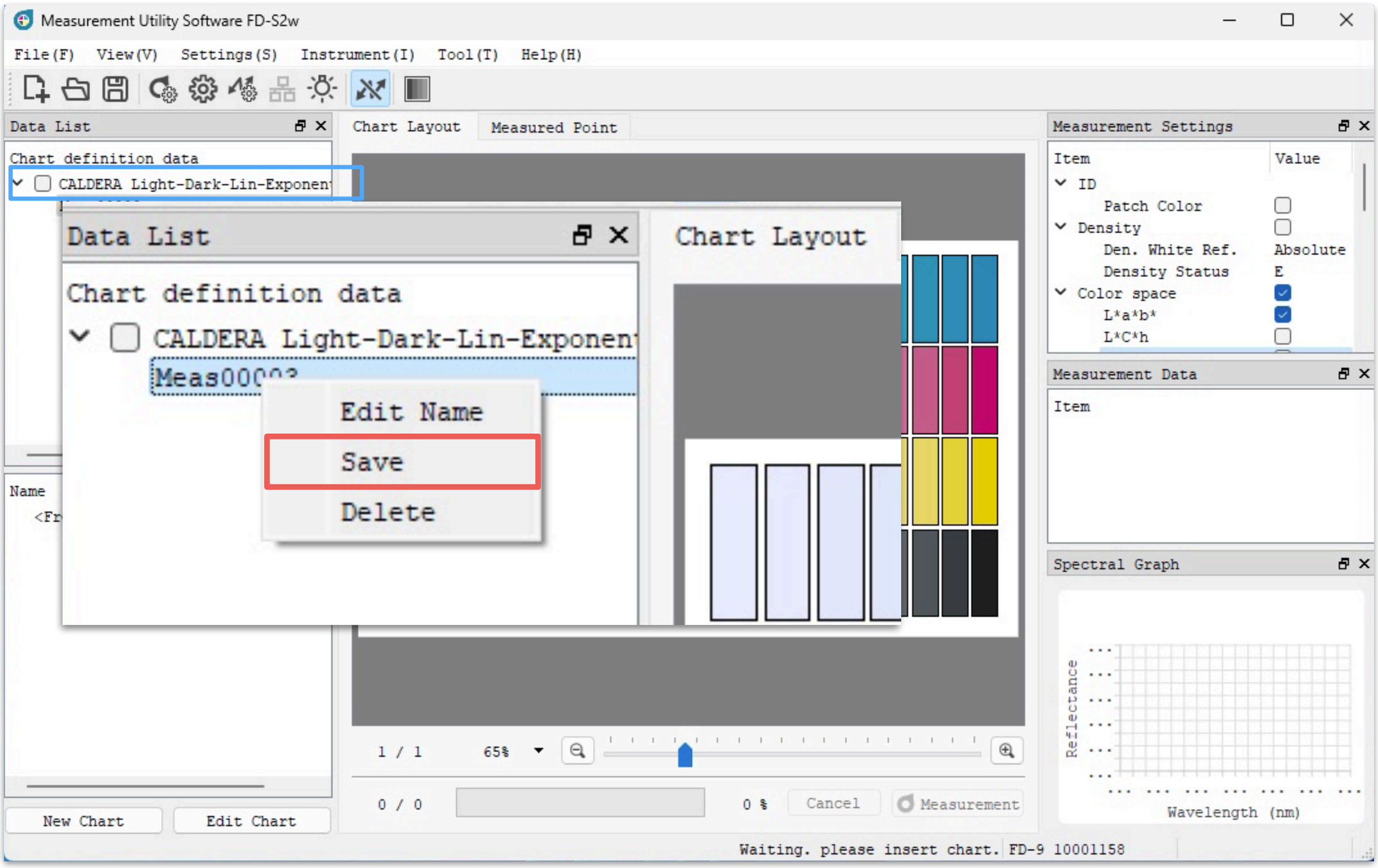


- If you set correctly the **automatic export function,** the data have been exported automatically in Caldera Public folder
- If not or if the automatic export of data didn’t work, you can even save the data manually.

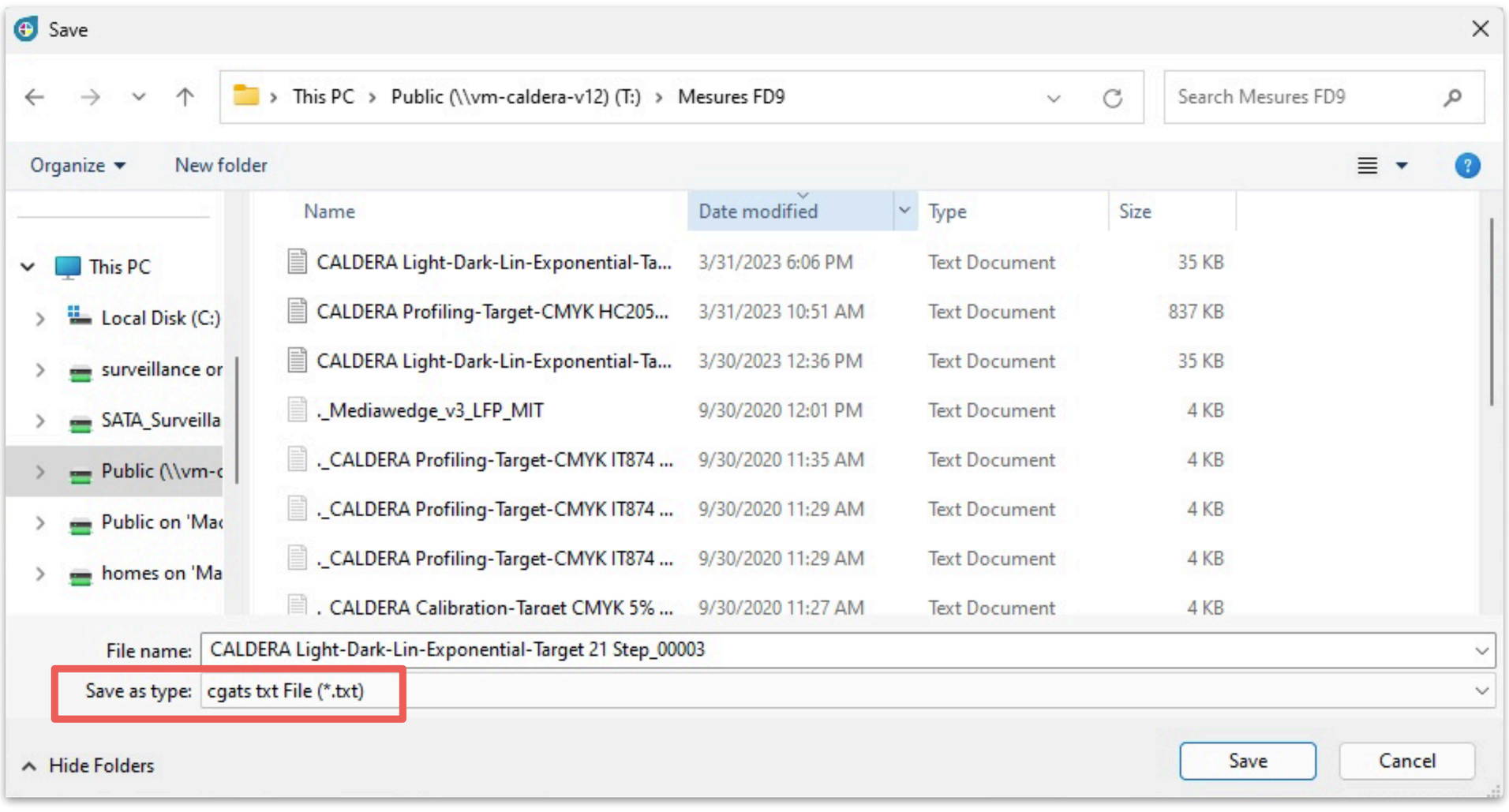


- In **Measurement Conditions** area, make sure you have selected:
  - Deactivate - Density -
  - Deactivate - Patch Color -
  - Activate - Color space -
  - - L*a*b* - can be activated but isn’t mandatory
  - Activate - Spectral Data -
  - Activate only M1 as measurement condition (or M2 / M0 depending on your needs)

- Then execute **right click** on the measurement and select **Save**



- Select **“Save as type” -> CGATS txt File (*.txt)**



MYIRO

Import FD-S2w Measurements

In EasyMedia

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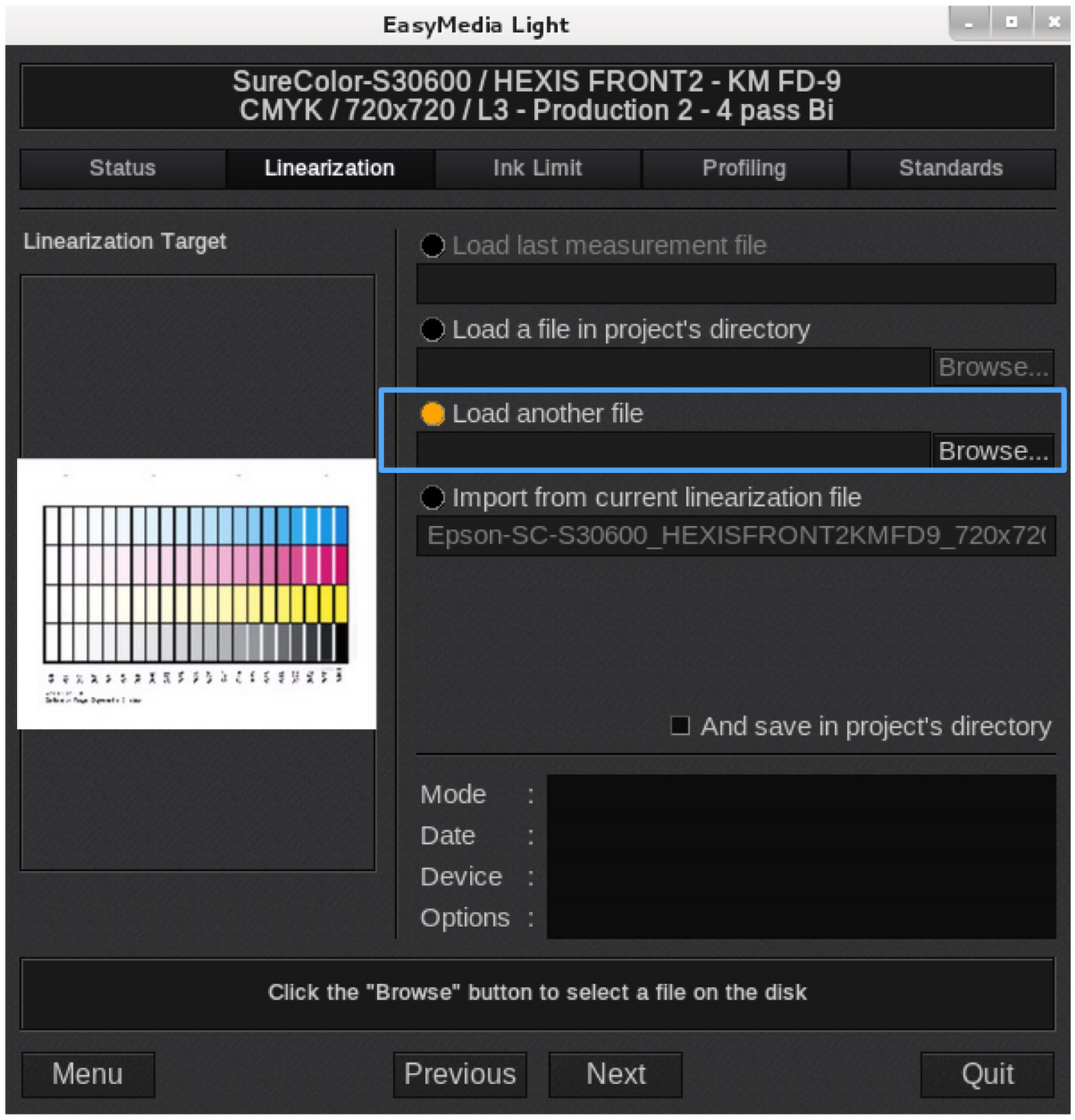
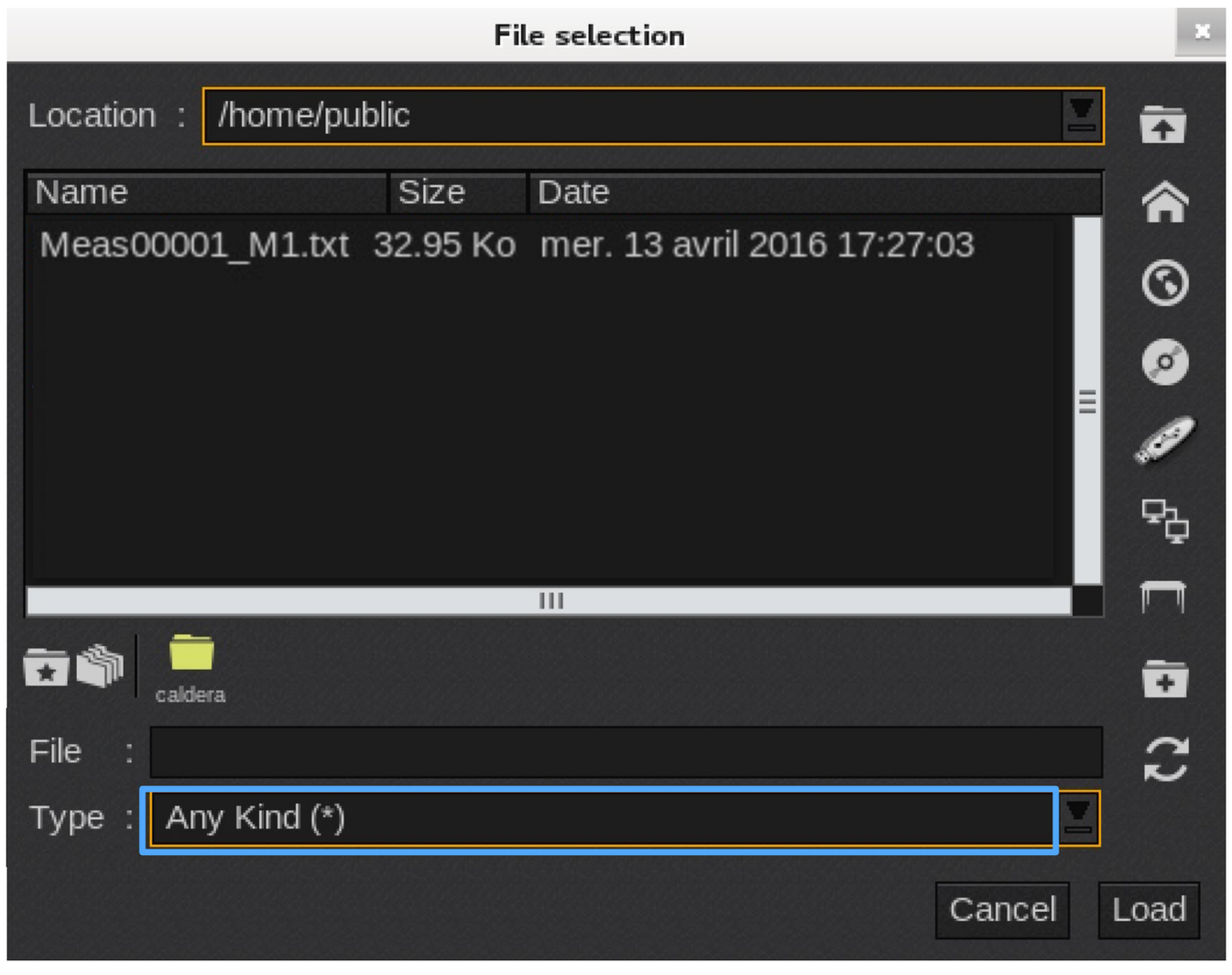
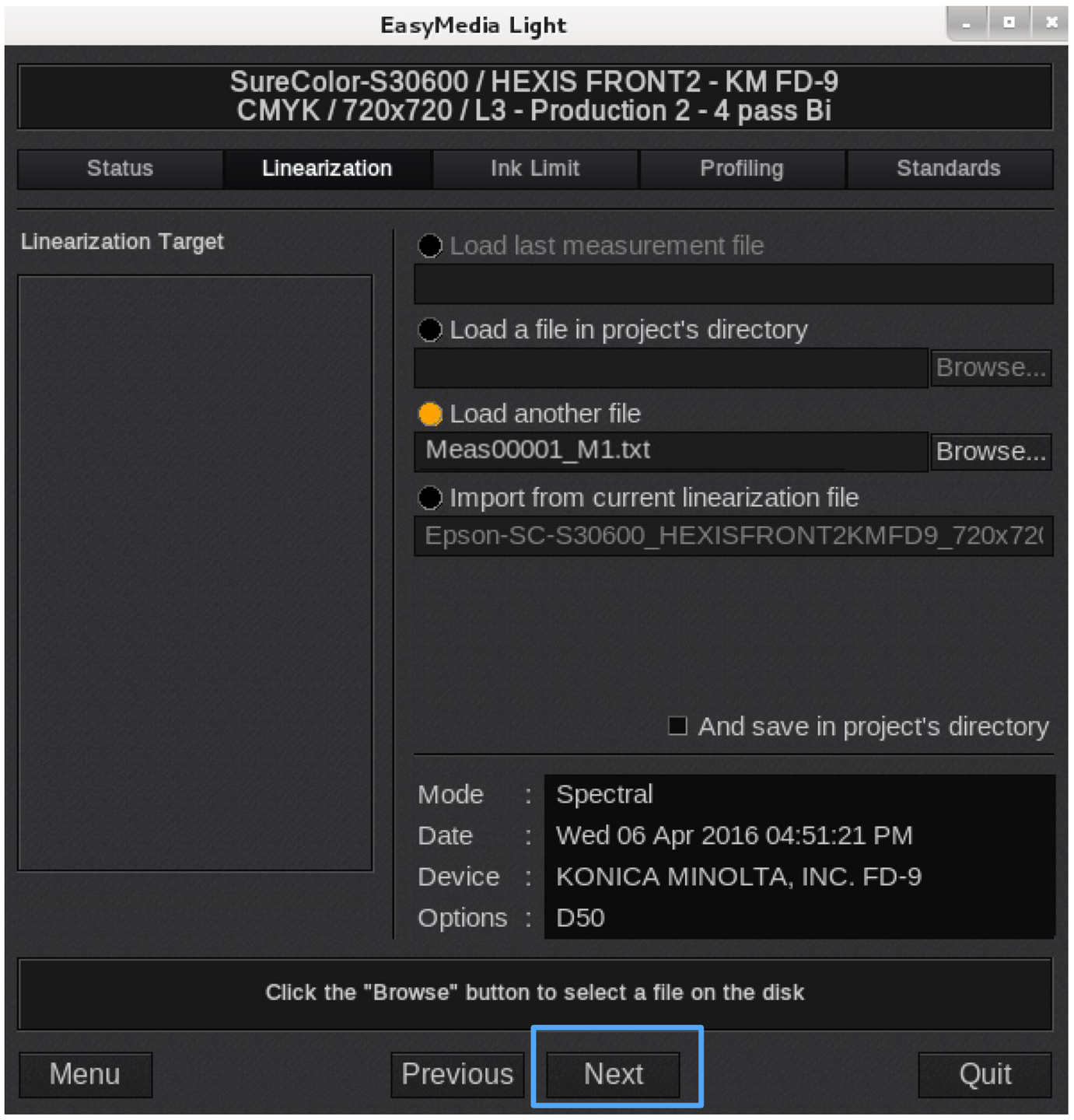
- Go back to **Caldera EasyMedia** window, click now on **Next** to open an existing measurement file, then select **Load another file**



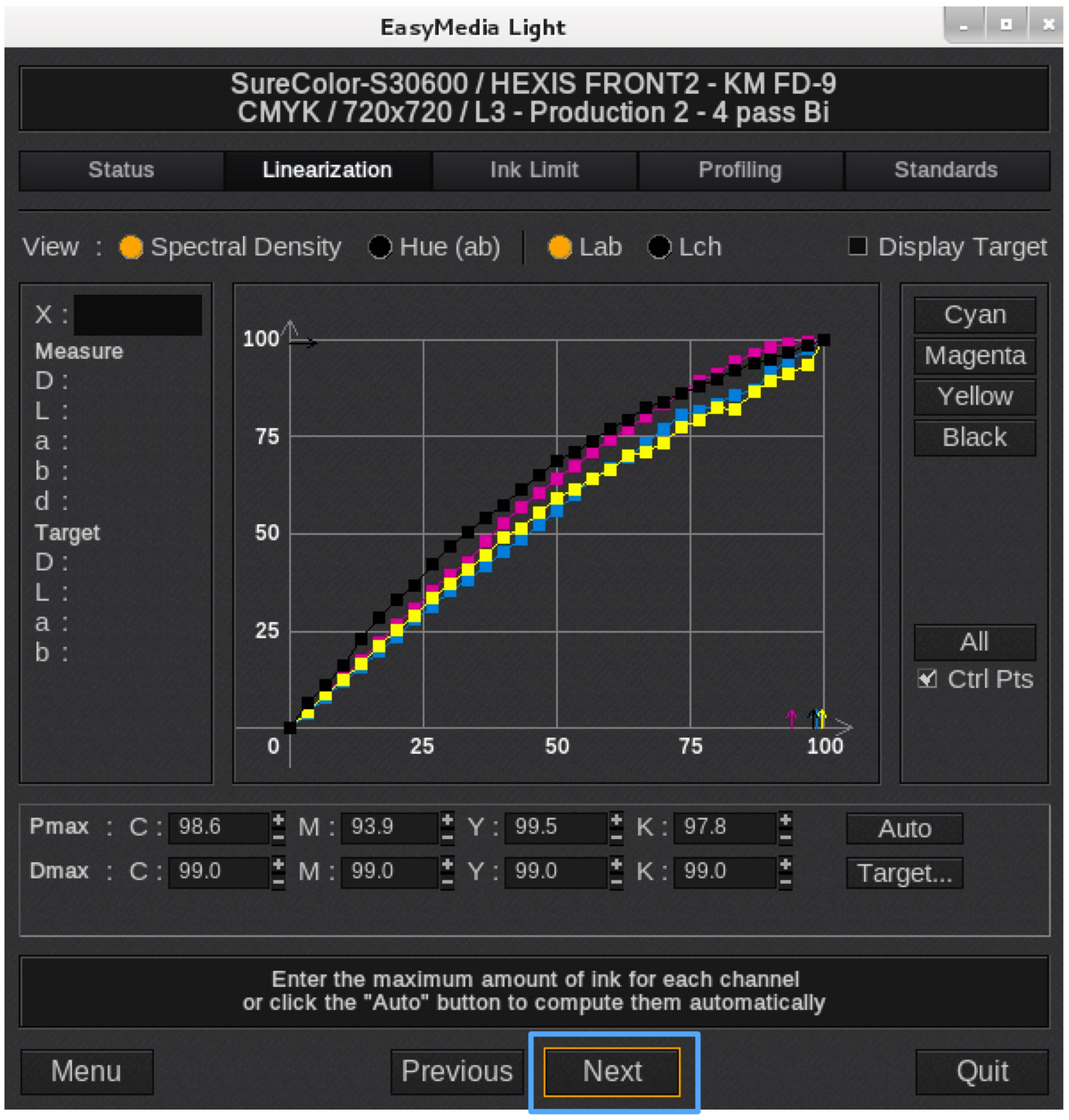
- Select **“Any Kind (*)” as type**, and select the latest measurement file



- Click on **Next** to load the measurement file



- Continue the linearisation process of EasyMedia as usual and click **Next**



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Print

FD-9/MYIRO-9 ICC Charts

In EasyMedia

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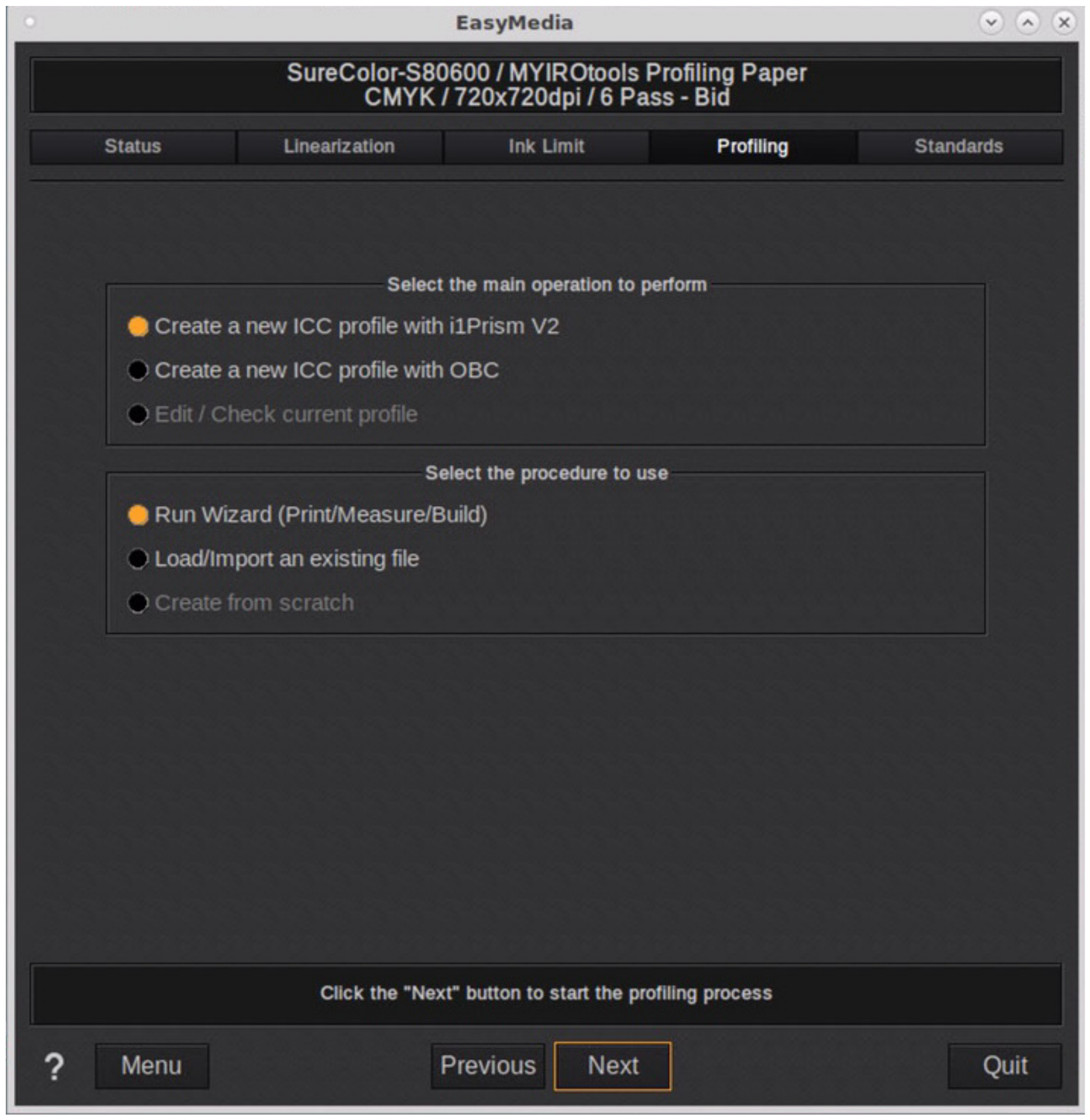
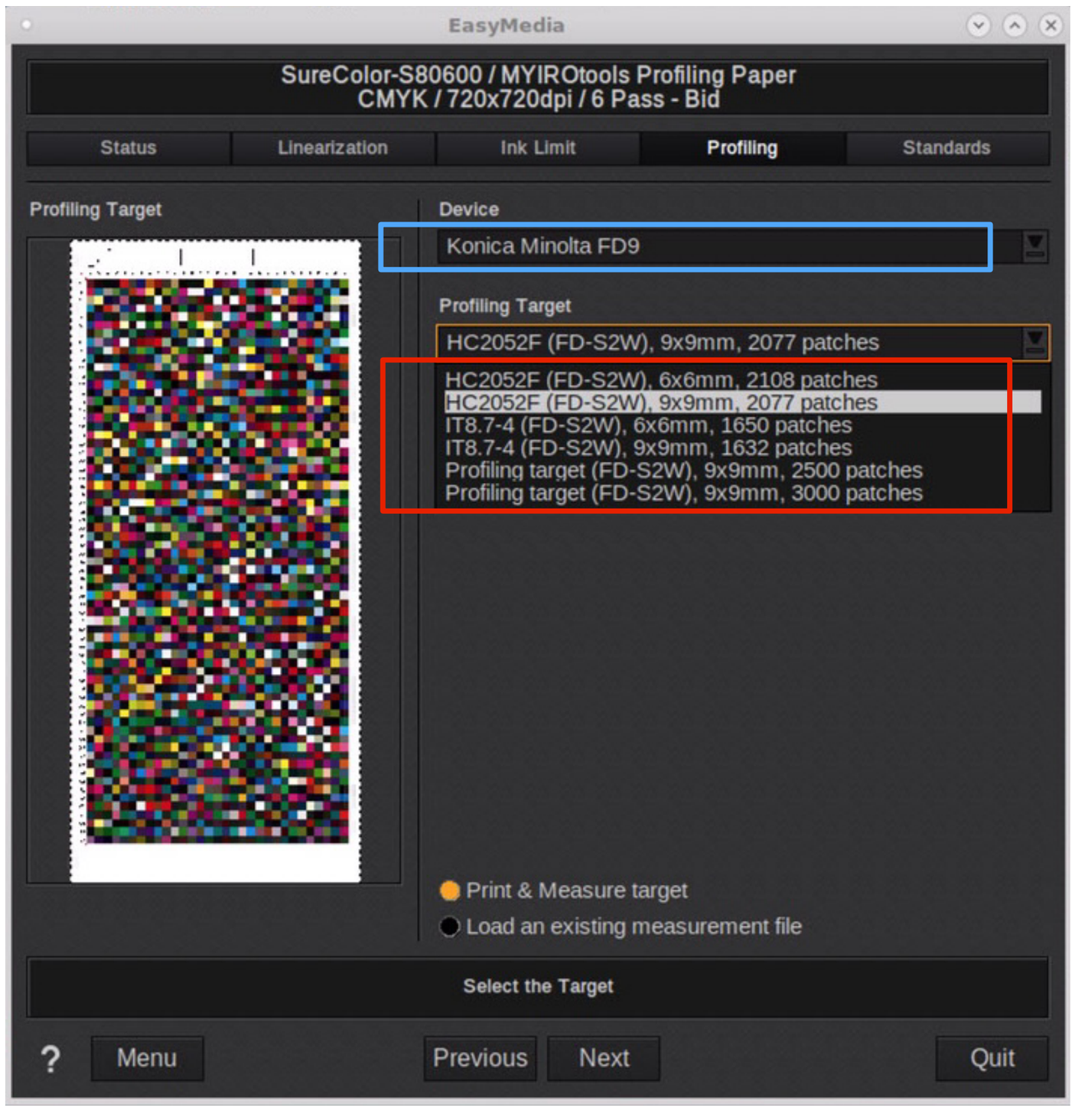
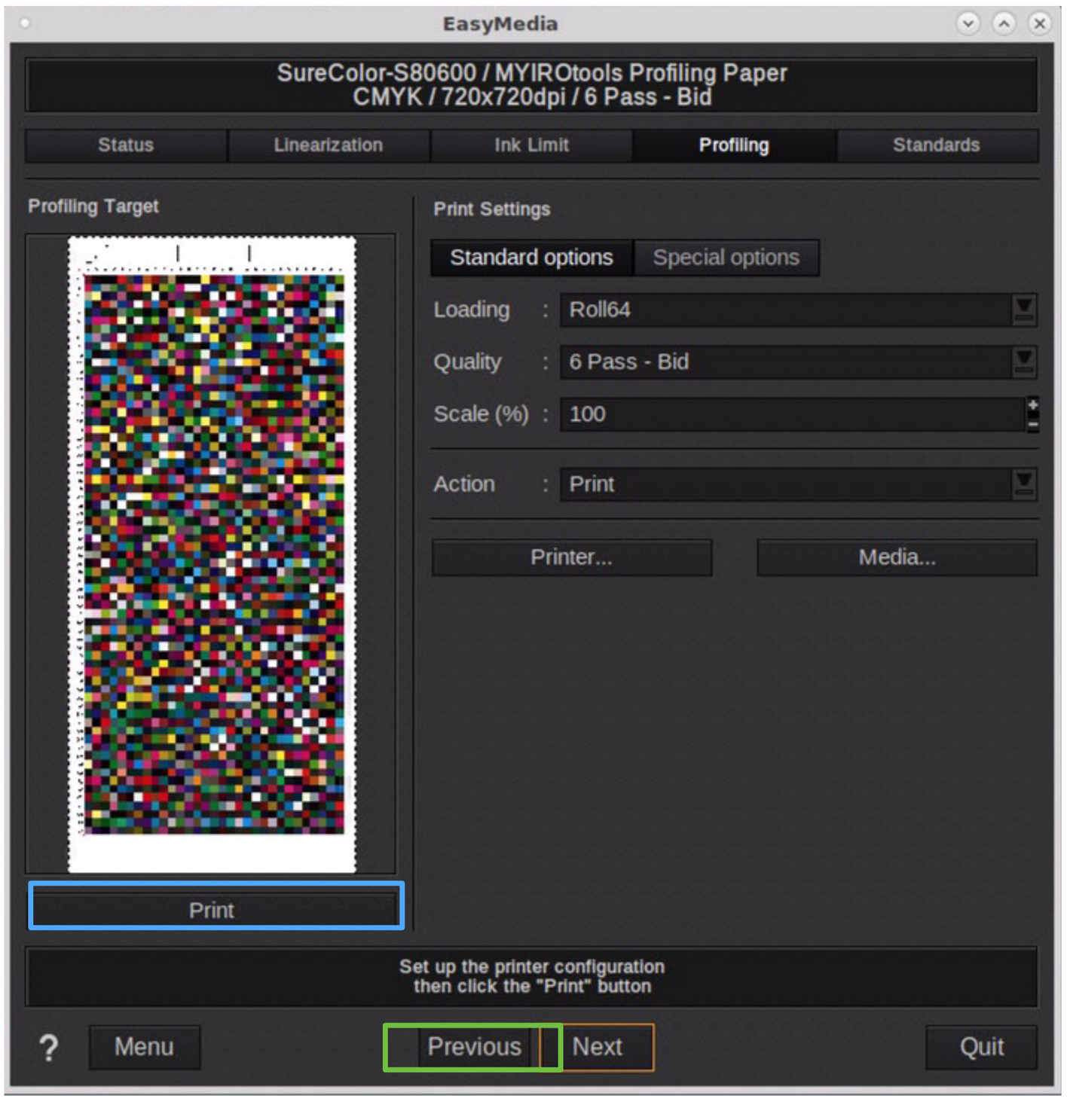
- In EasyMedia, Select **“Create new ICC Profile with i1Prism V2”**



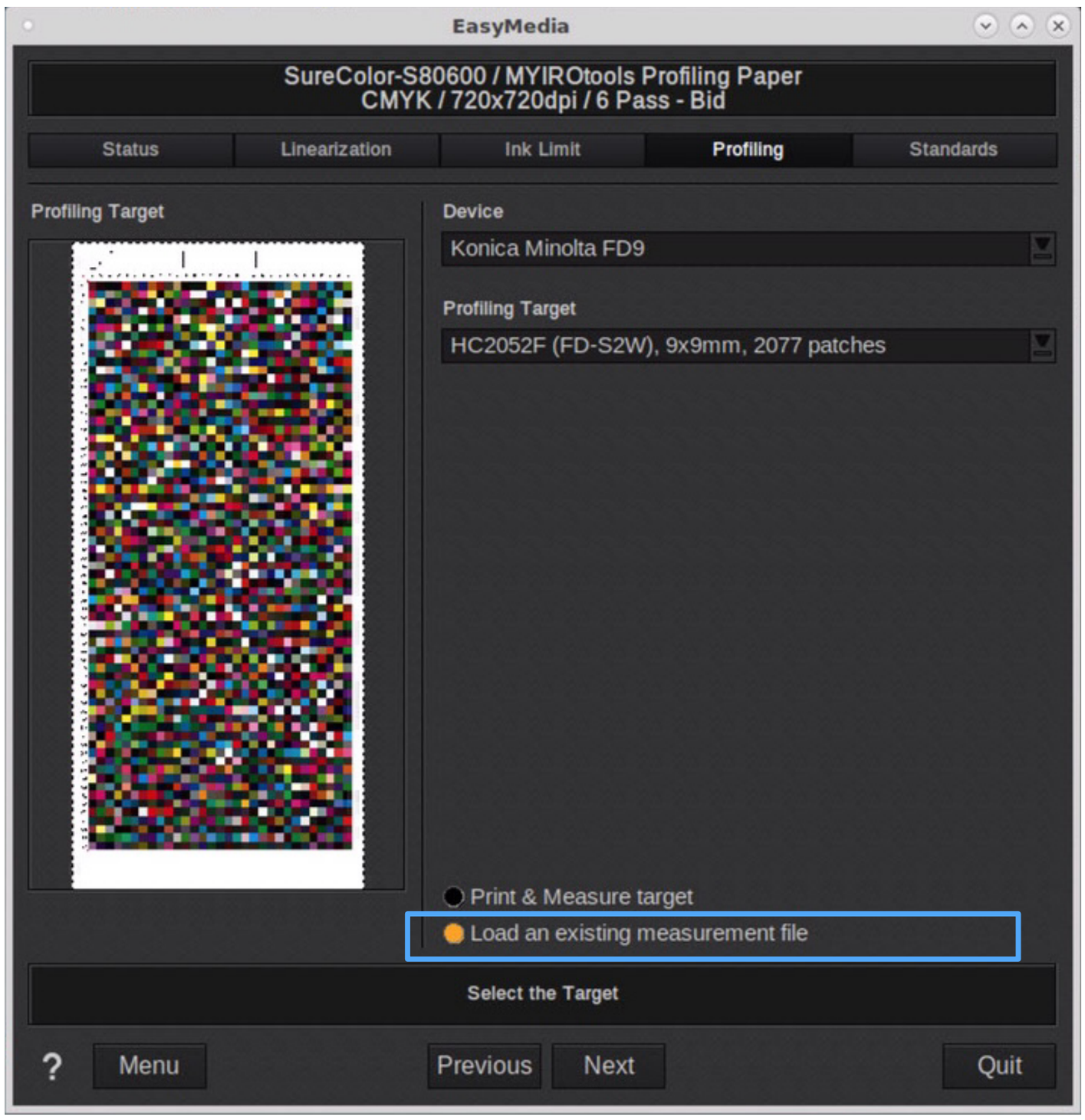
- Select **Konica Minolta FD-9/MYIRO-9** as measurement device, then select one of the **Profiling Targets** available, then click on **Next**



- Click on **Print** to launch the printing process, then click on **Previous**



- Select **Load an existing measurement file**, click **Next** and open **FD-S2w software**



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Measure FD-9/MYIRO-9 ICC Charts

In FD-S2w

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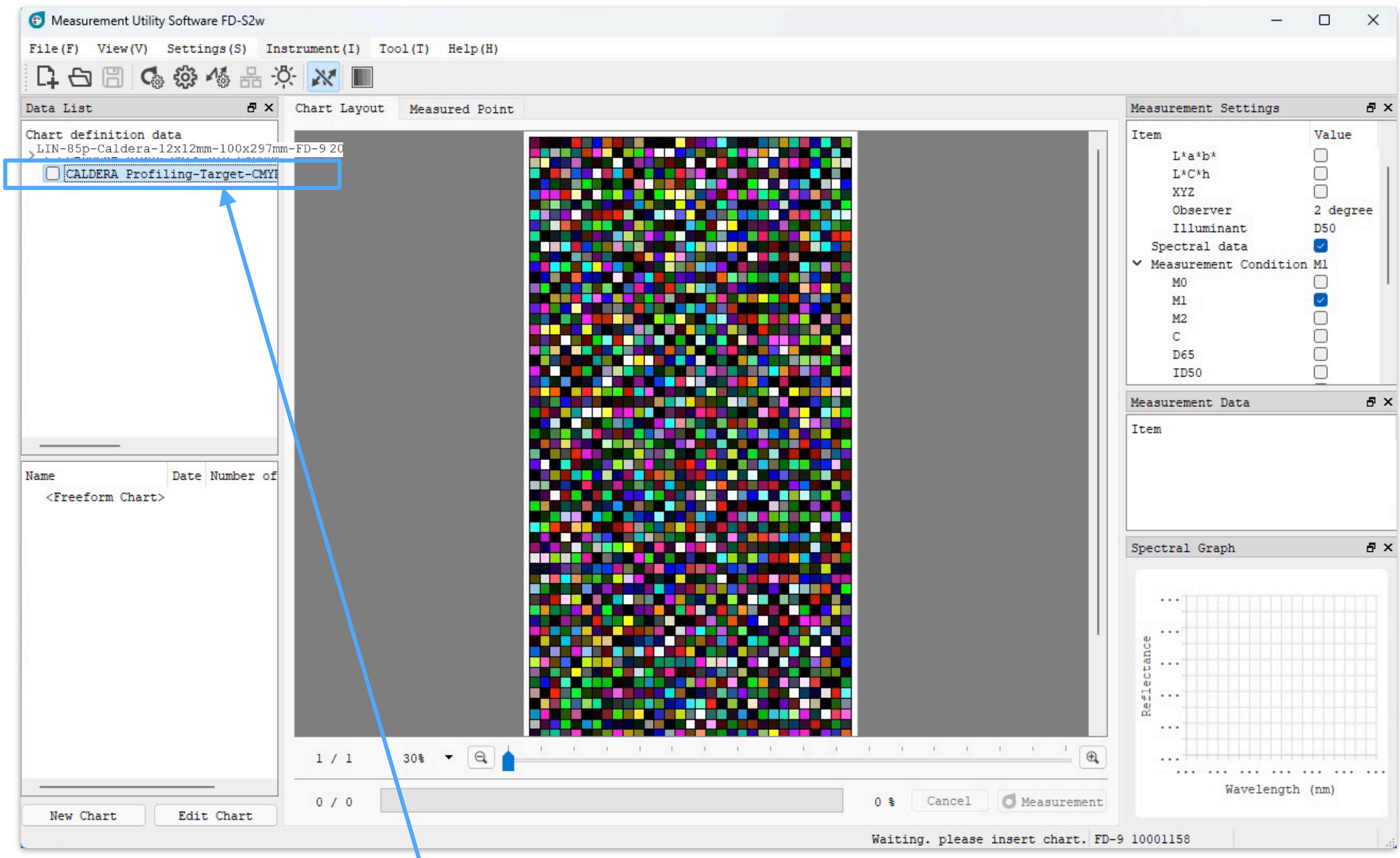
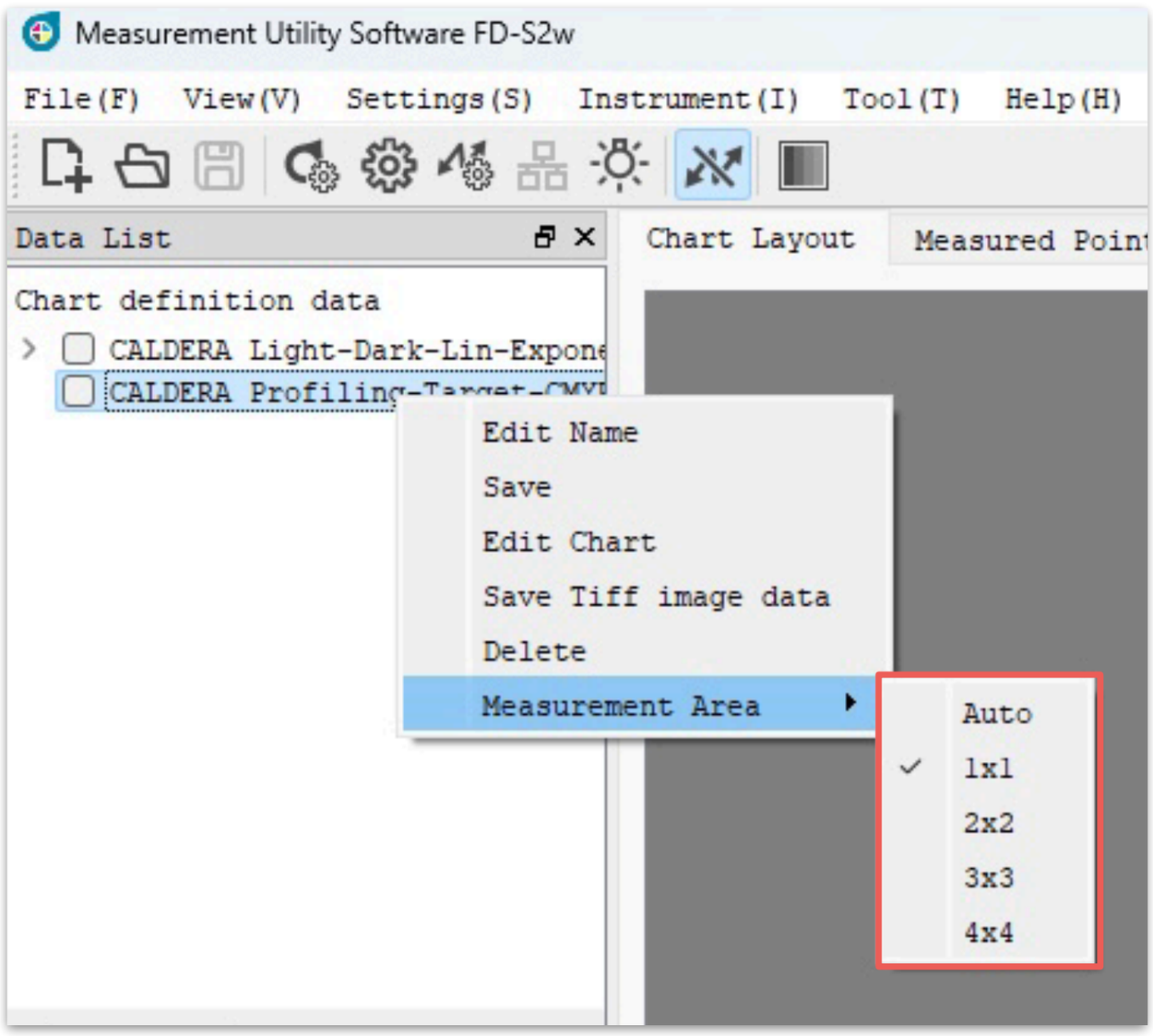
- Load the .xml file you need, then you get an overview of the test chart
  - **CALDERA Profiling-Target-CMYK IT874 6x6mm 1650p.xml**
    or
  - **CALDERA Profiling-Target-CMYK IT874 9x9mm 1632p.xml**
    or
  - **CALDERA Profiling-Target-RGB RGB-1400 6x6mm 1443p.xml**
    or
  - **CALDERA Profiling-Target-RGB TC918-RGB 6x6mm 946p.xml**
    or
  - **CALDERA Profiling-Target-RGB RGB-1400 9x9mm 1428p.xml**
    or
  - **CALDERA Profiling-Target-RGB TC918-RGB 9x9mm 952p.xml**



- On the left side, you see the imported .xml file corresponding to the chart you want to measure.

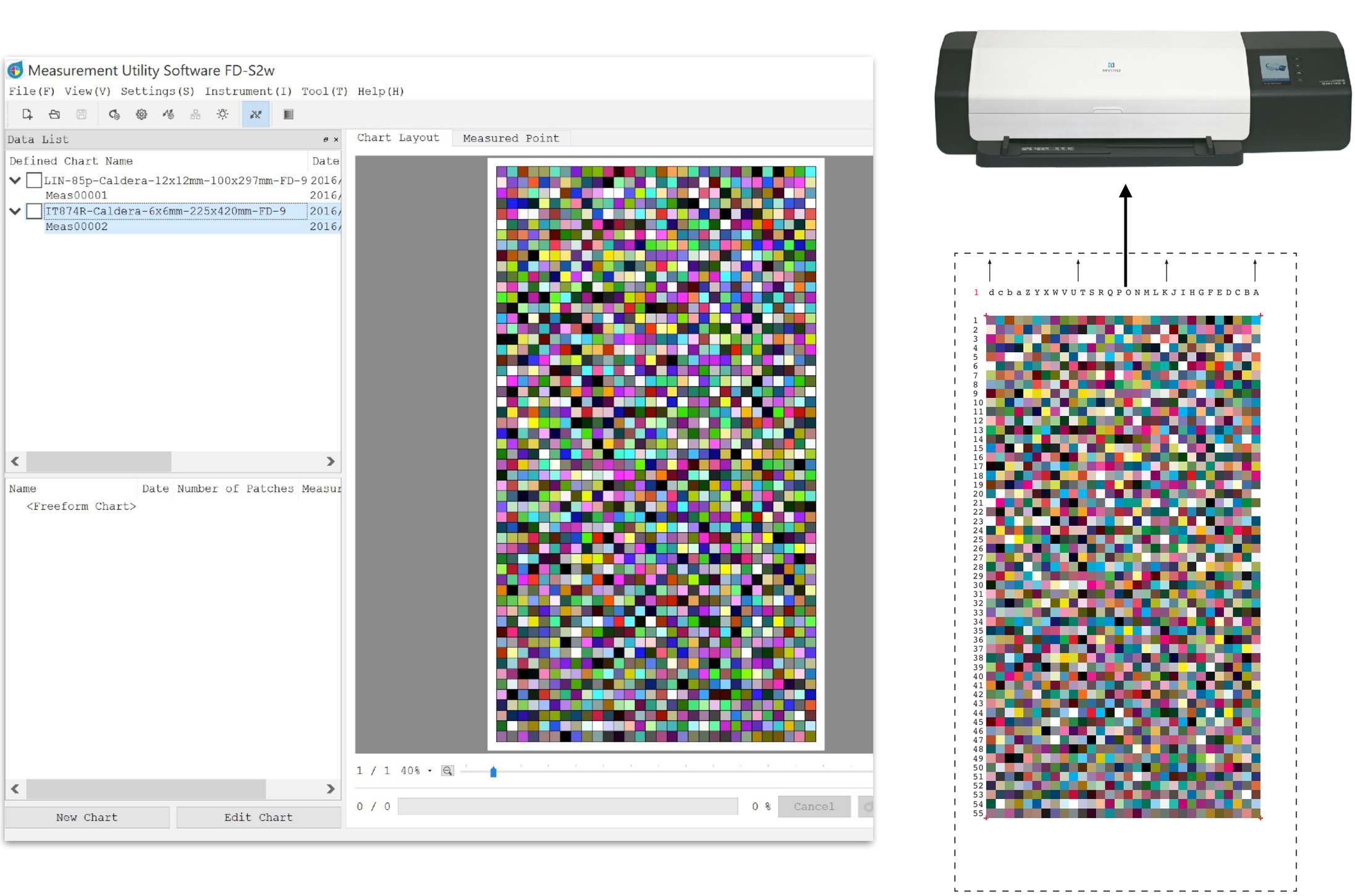
- Before starting measurement, you can set the **FD-9/MYIRO-9** to perform multiple measurements per patch. This can be useful to increase the quality of measurements if the quality of the printouts is not good enough or if the paper is textured for example



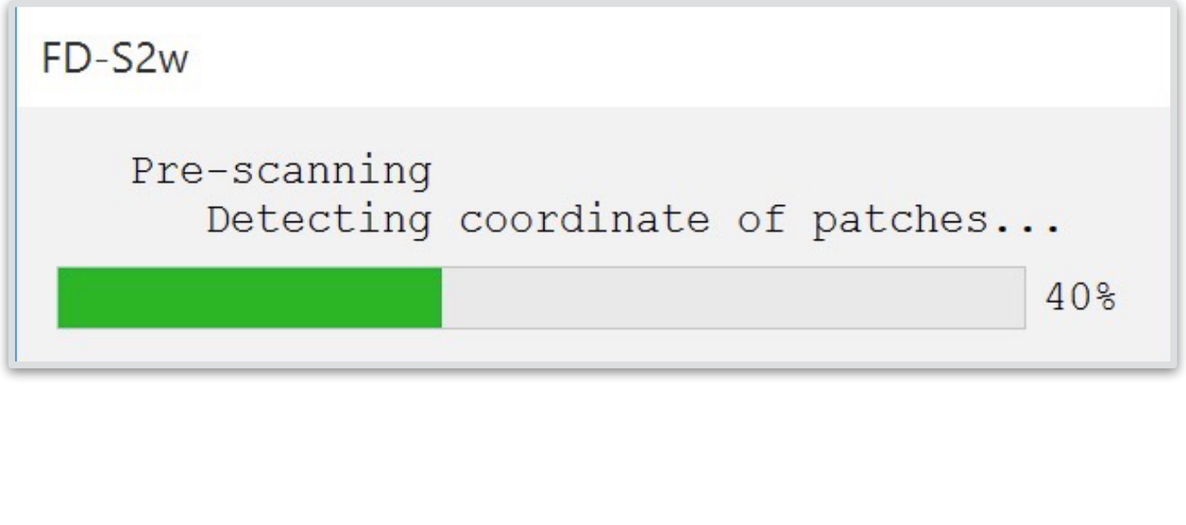
- Right click on the template, then select **Measurement Area**
  - Auto = FD-S2w decides depending on patch size
  - 1x1 = 1 measurement per patch (standard value)
  - 2x2 = 4 measurements per patch
  - 3x3 = 9 measurements per patch
  - 4x4 = 16 measurements per patch

- **Measurement time will obviously increase if you select more than 1 measurement per patch!**

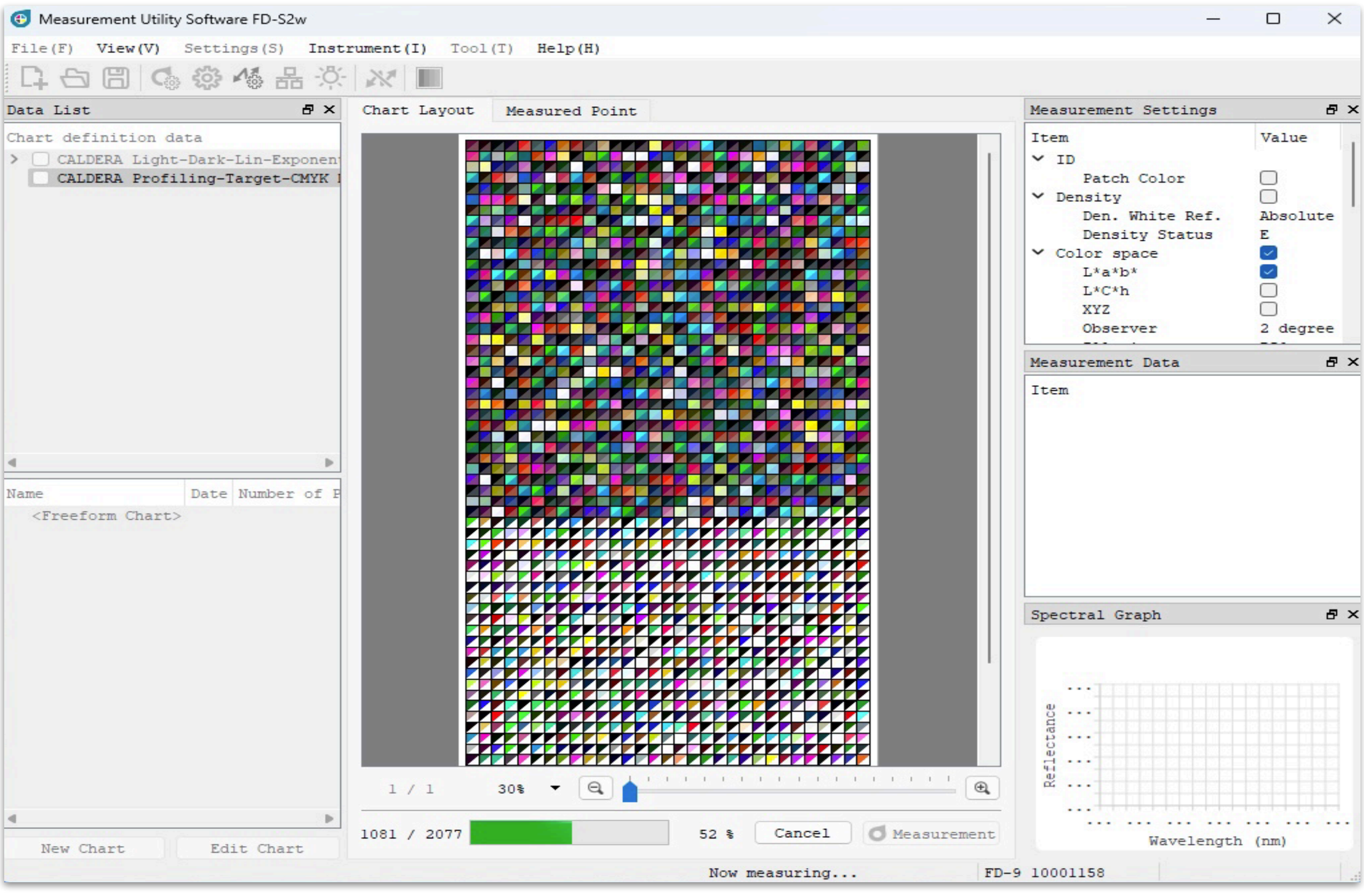
- Click on the template on the top left to highlight it, then load the printed test chart **in the same way the patch are displayed on the screen**. If needed, cut the test chart following the dashed lines, but not more!



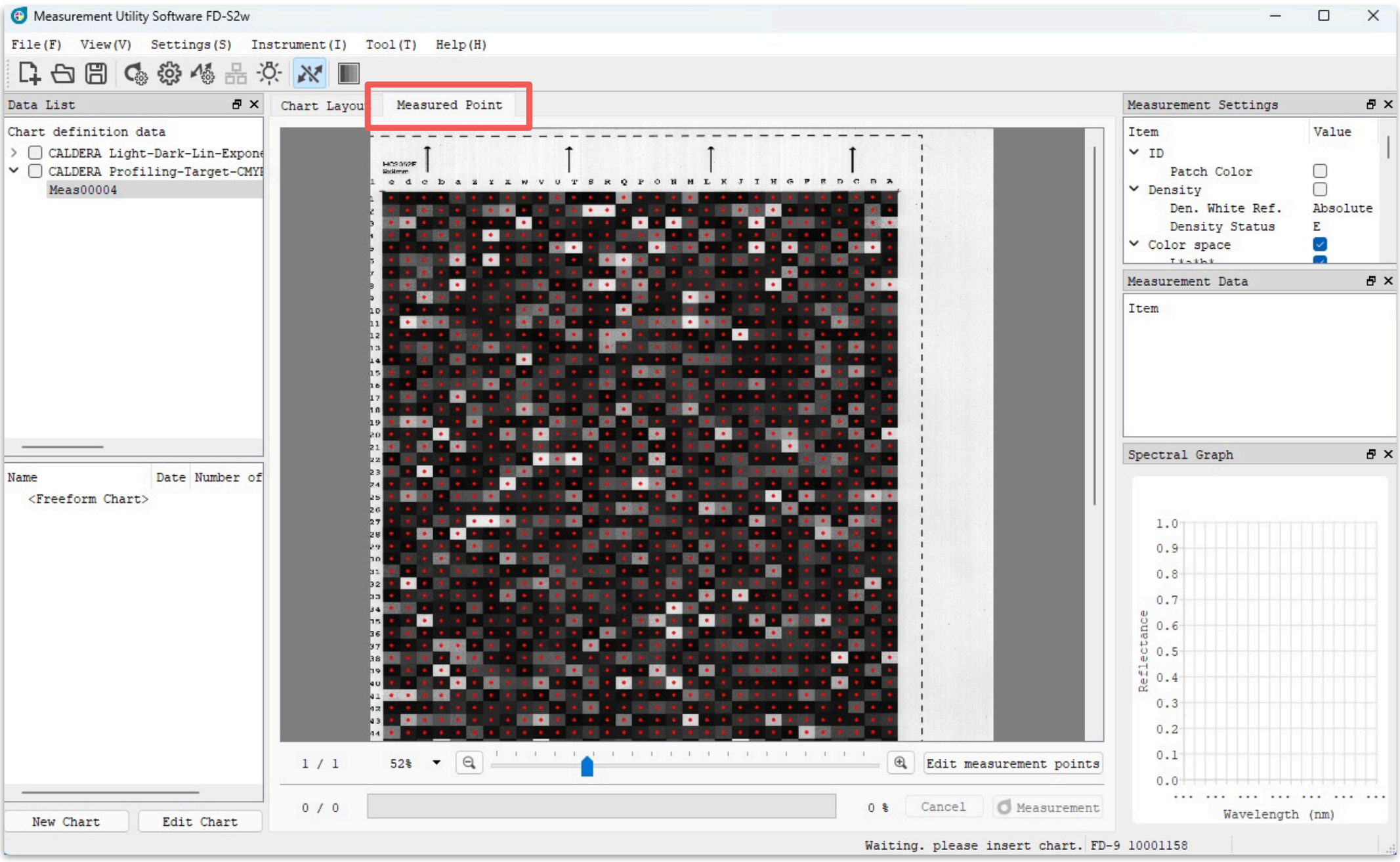
- **FD-9/MYIRO-9** is now detecting the patches by comparing the scanned image with the reference data contained in the .xml file



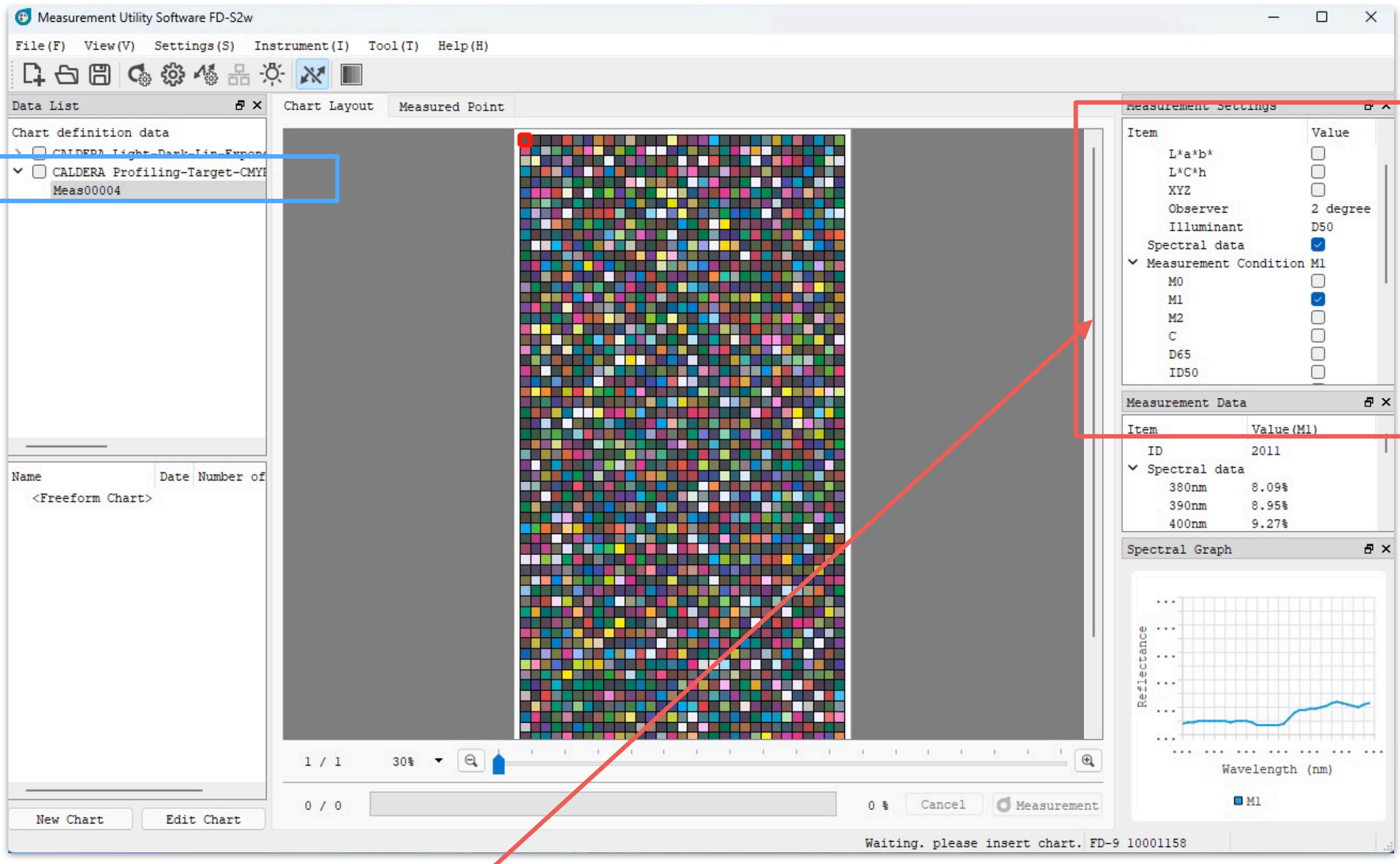
- If the detection is correct, then the **FD-9/MYIRO-9** starts measuring



- In tab **- Measured Point -** you can check the image scanned to make sure the patch have been measured correctly

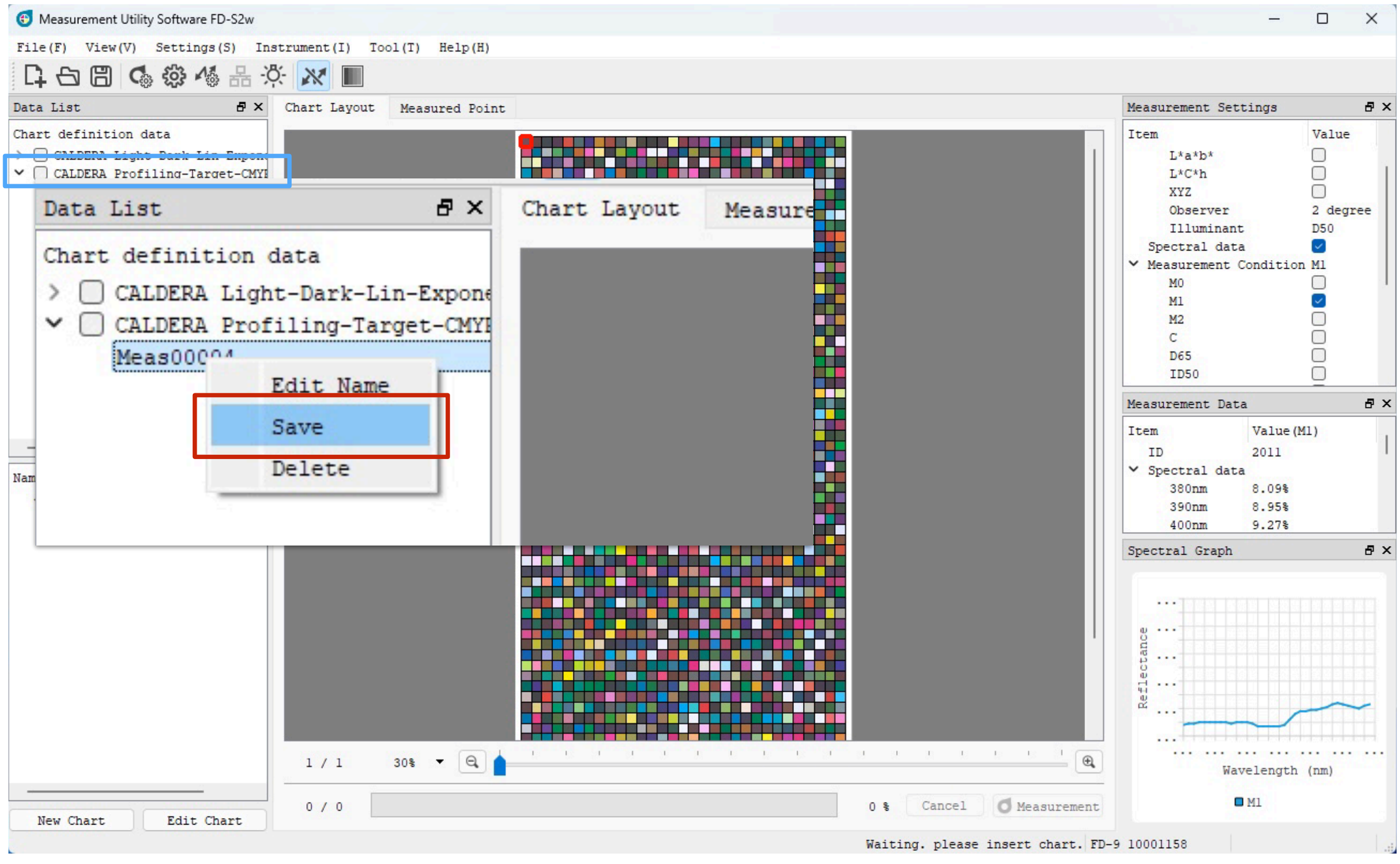


- If you set correctly the **automatic export function,** the data have been exported automatically in Caldera Public folder
- If not or if the automatic export of data didn't work, you can even save the data manually.

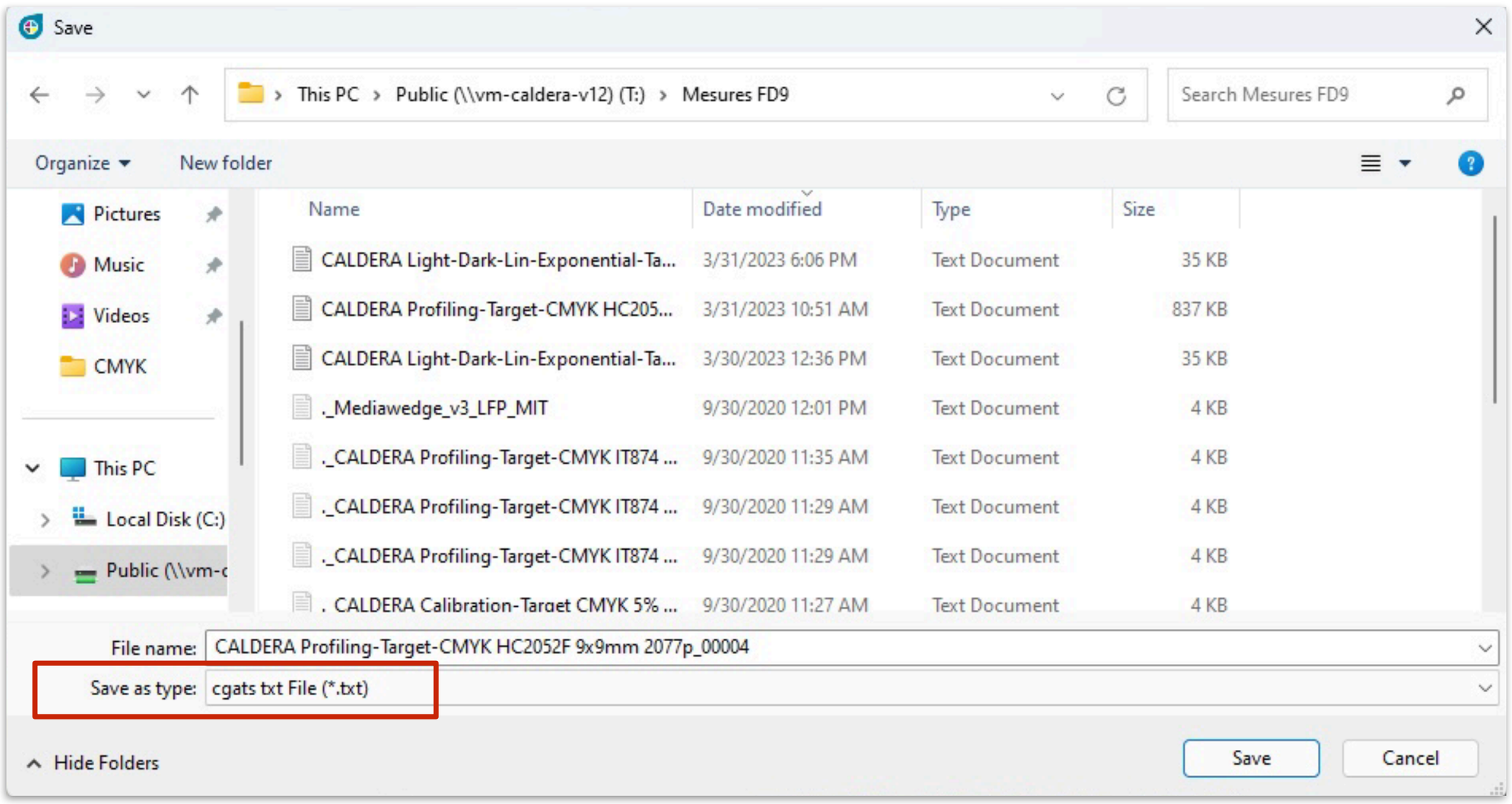


- In **Measurement Conditions** area, make sure you have selected:
  - Deactivate - Density -
  - Deactivate - Patch Color -
  - Activate - Color space -
  - - L*a*b* - can be activated but isn't mandatory
  - Activate - Spectral Data -
  - Activate only M1 as measurement condition (or M2 / M0 depending on your needs)

- Then execute **right click** on the measurement, then select **Save**



- Select **“Save as type” -> CGATS txt File (*.txt)**



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Import FD-S2w Measurements

EasyMedia

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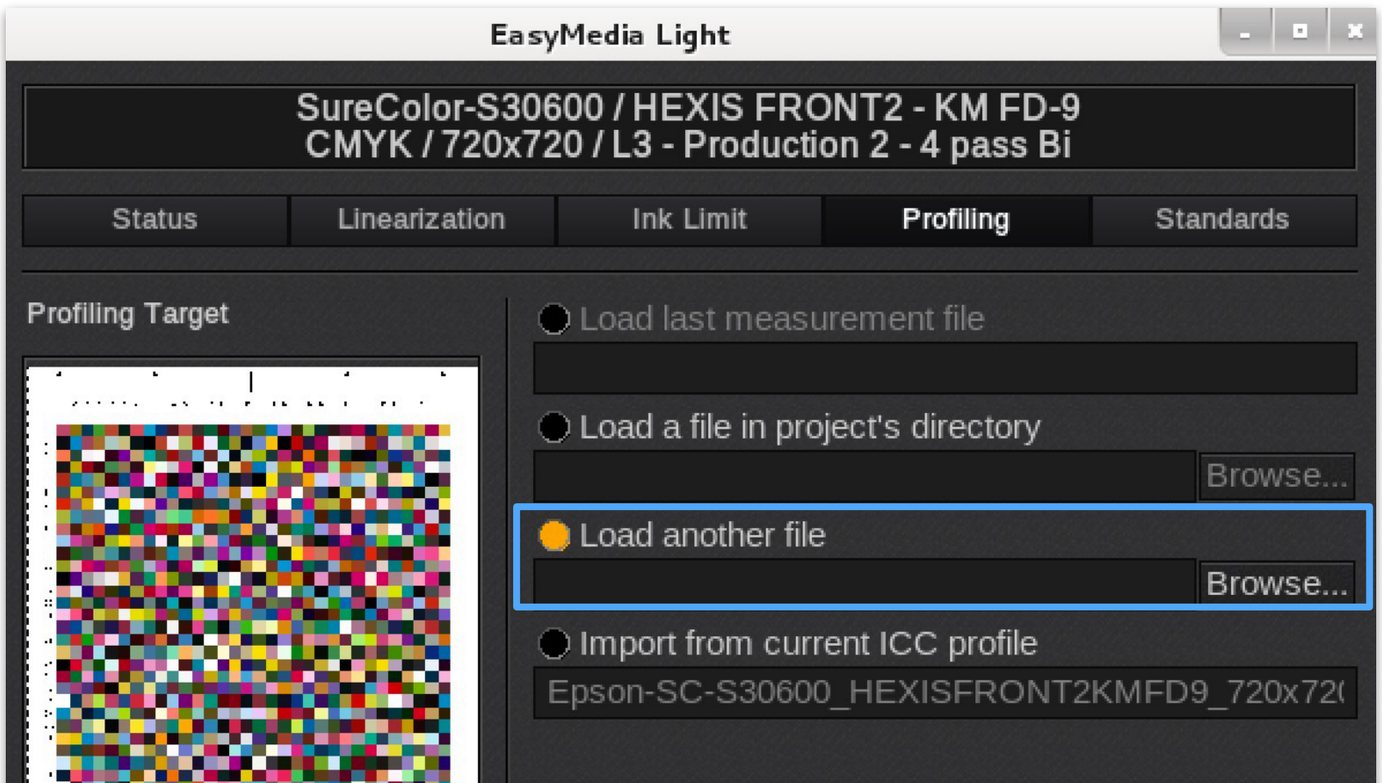
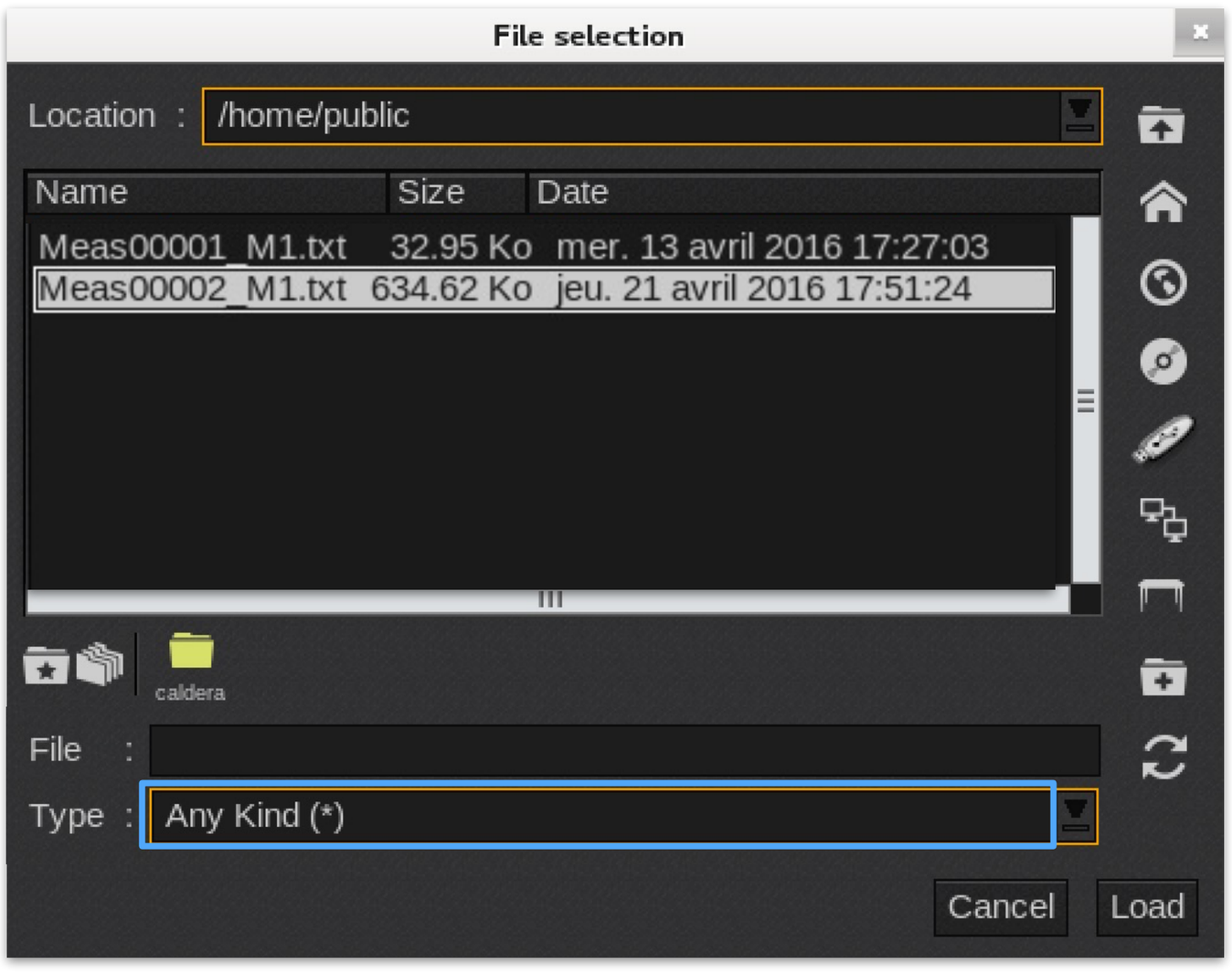
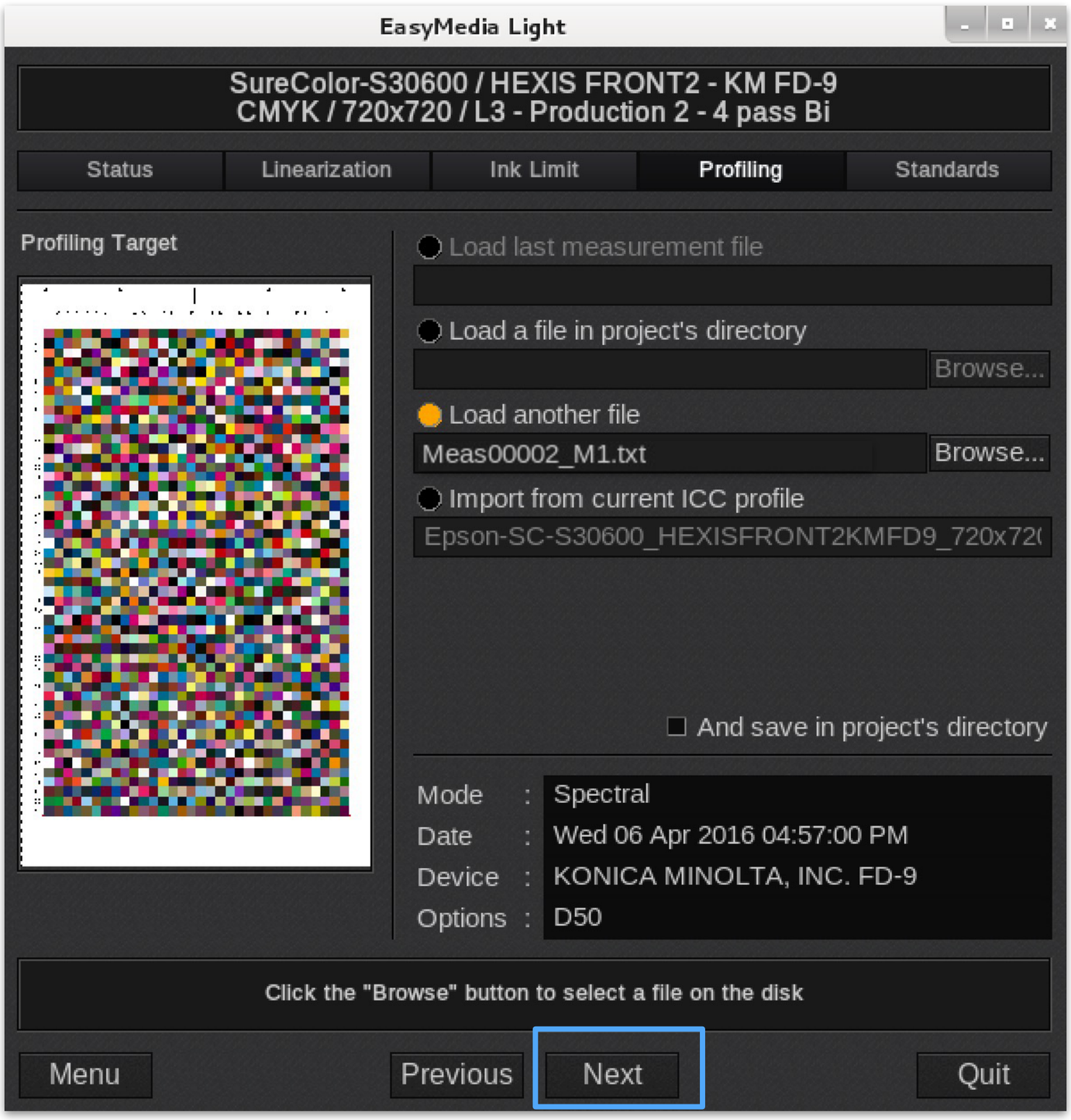
- Go back to Caldera EasyMedia window, select **Load another file** and click on **Next** to open an existing measurement file



- Select **“Any Kind (*)”** as type, and select the latest measurement file



- Click on **Next** to load the measurement file



- Continue the profiling process of EasyMedia as usual