Sensor Calibration Tool DCA

USER MANUAL

Translation of the original instructions

Version: **1.0**

Date: **14/04/2026**

Index

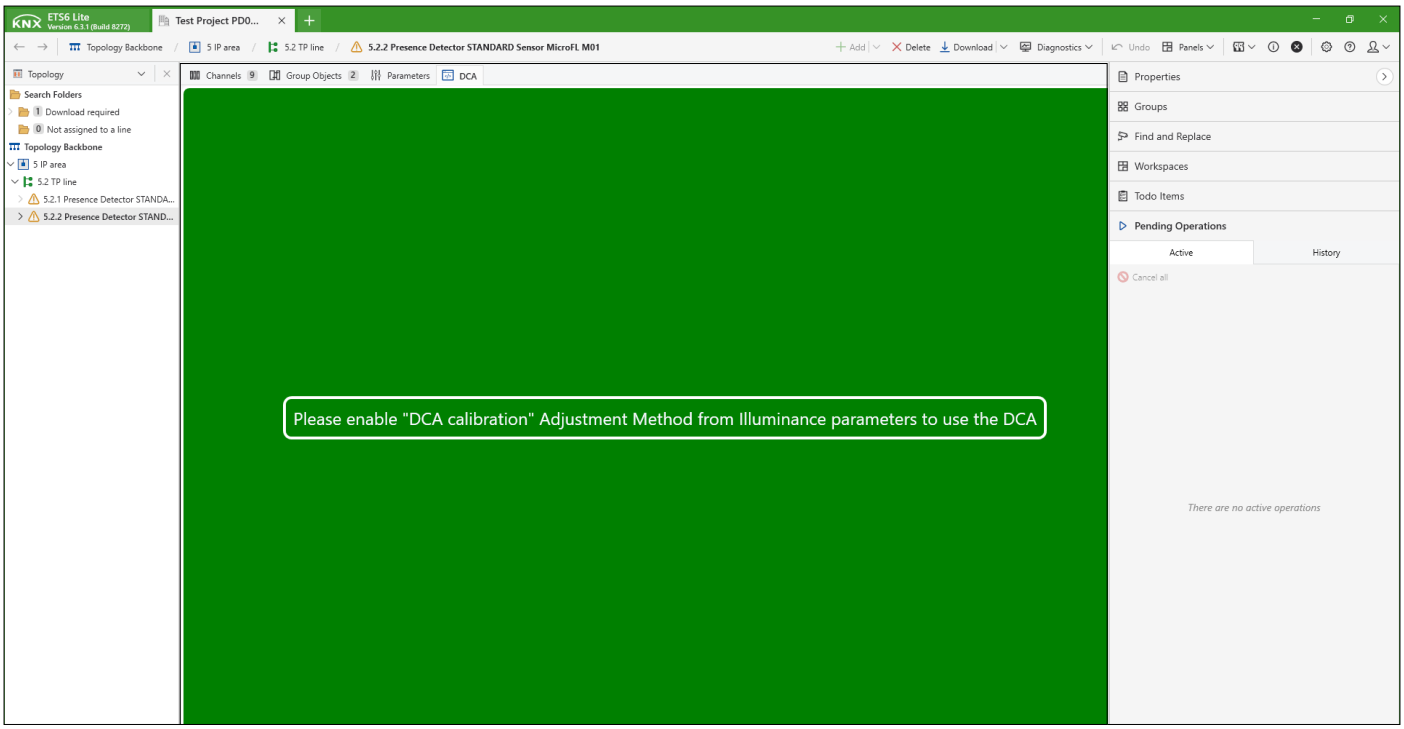
VERSION	DATE	CHANGES
1.0	14/04/2026	-

1. Purpose of the manual

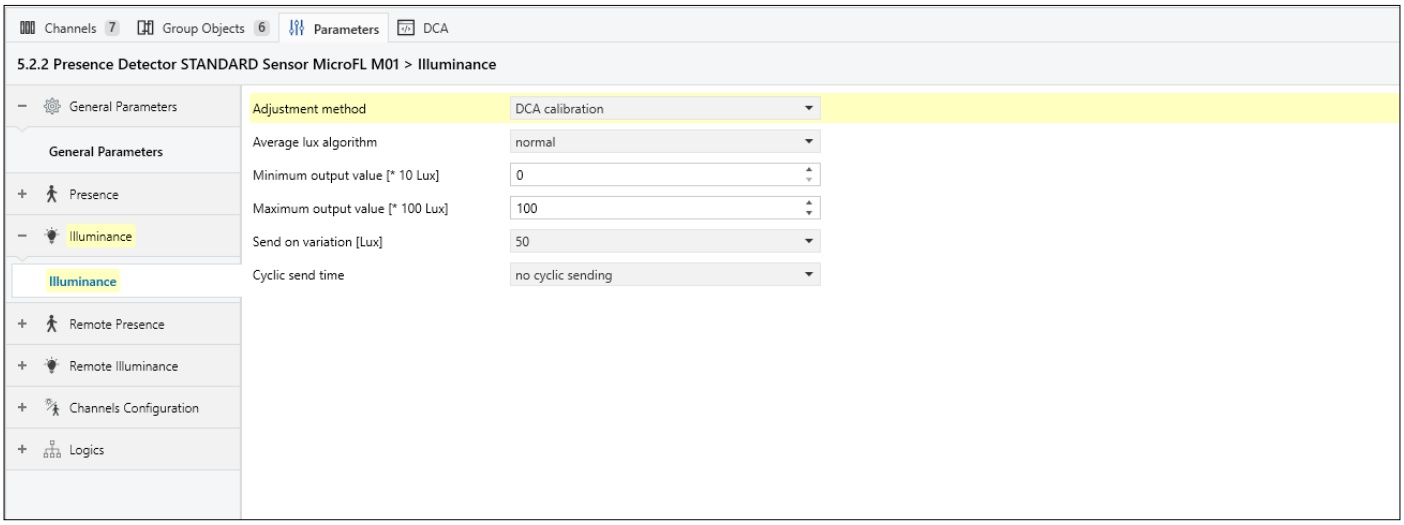
DCA “Sensor Calibration Tool” by Eelectron SpA allows to calibrate the sensor by setting the internal curve of the lamp and the ratio between natural light and artificial light to optimize light control and grant ideal conditions of illuminance.

2. ETS® application

ETS configuration

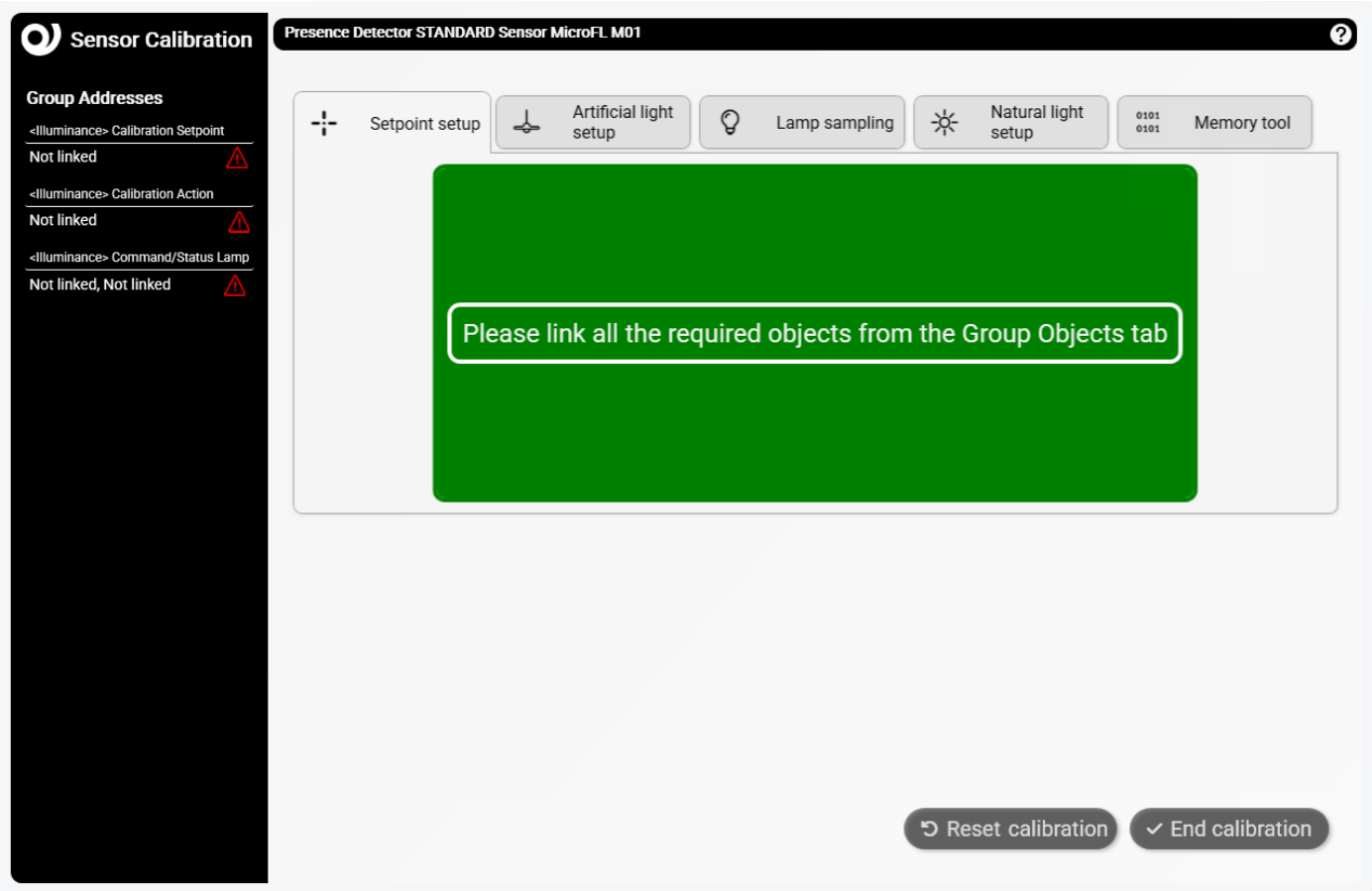


01 - Upon starting a new project with the Presence Detector (e.g., PD00M01KNX), the DCA tab will become available, allowing you to begin using the calibration software.

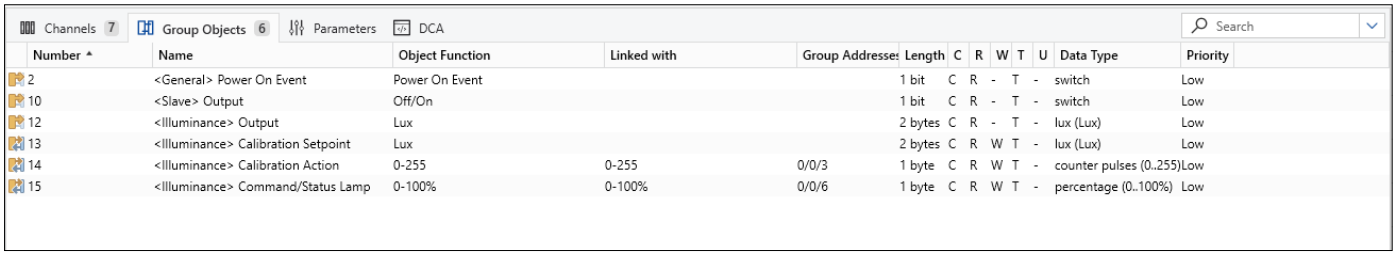


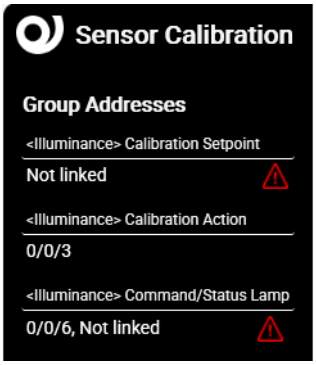
02 - From Illuminance section, set adjustment method as DCA calibration.

Setpoint setup

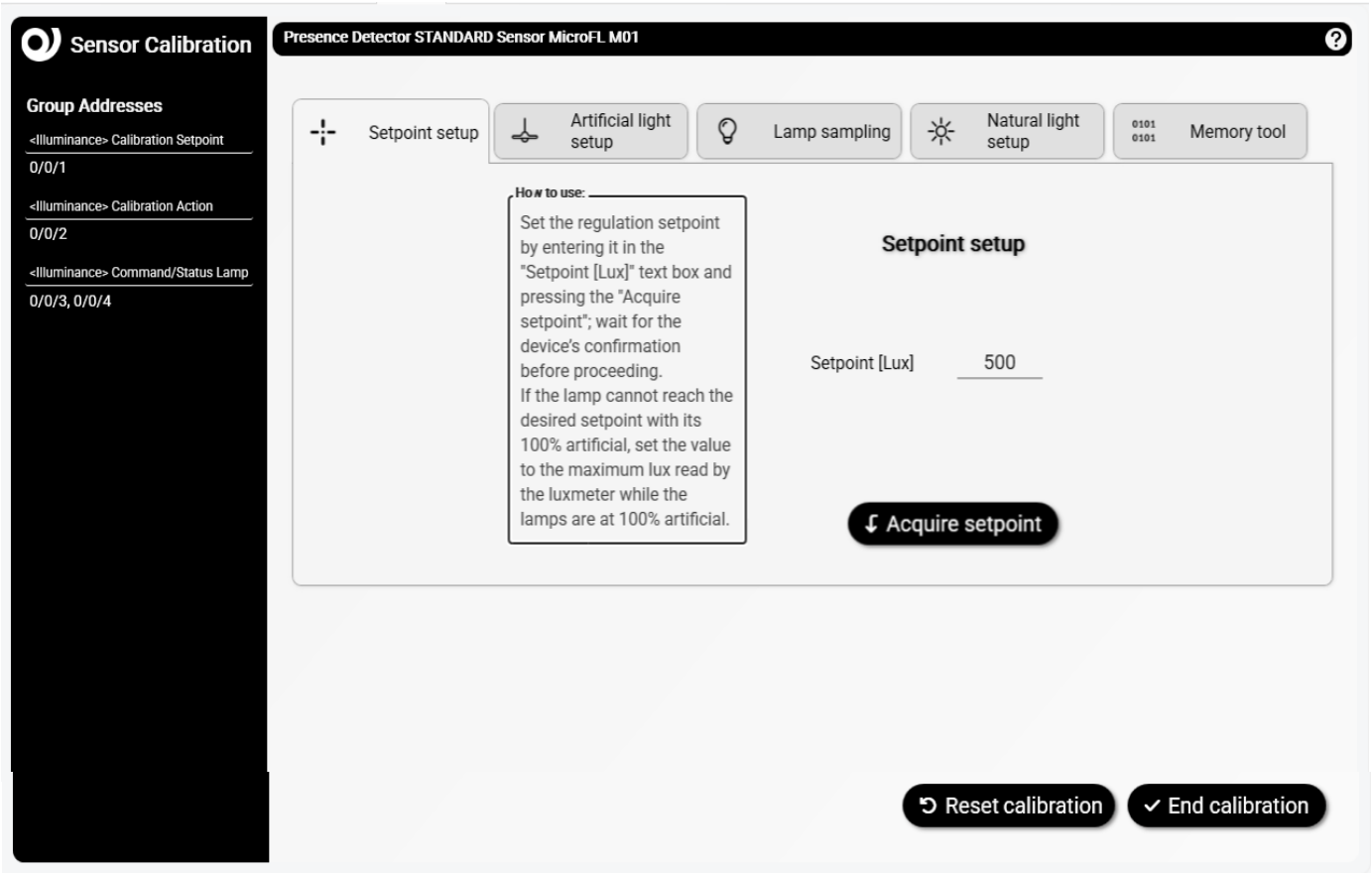


03 - First and foremost, you must link all the required communication objects from the Group Objects tab: group addresses will be shown on the black sidebar.

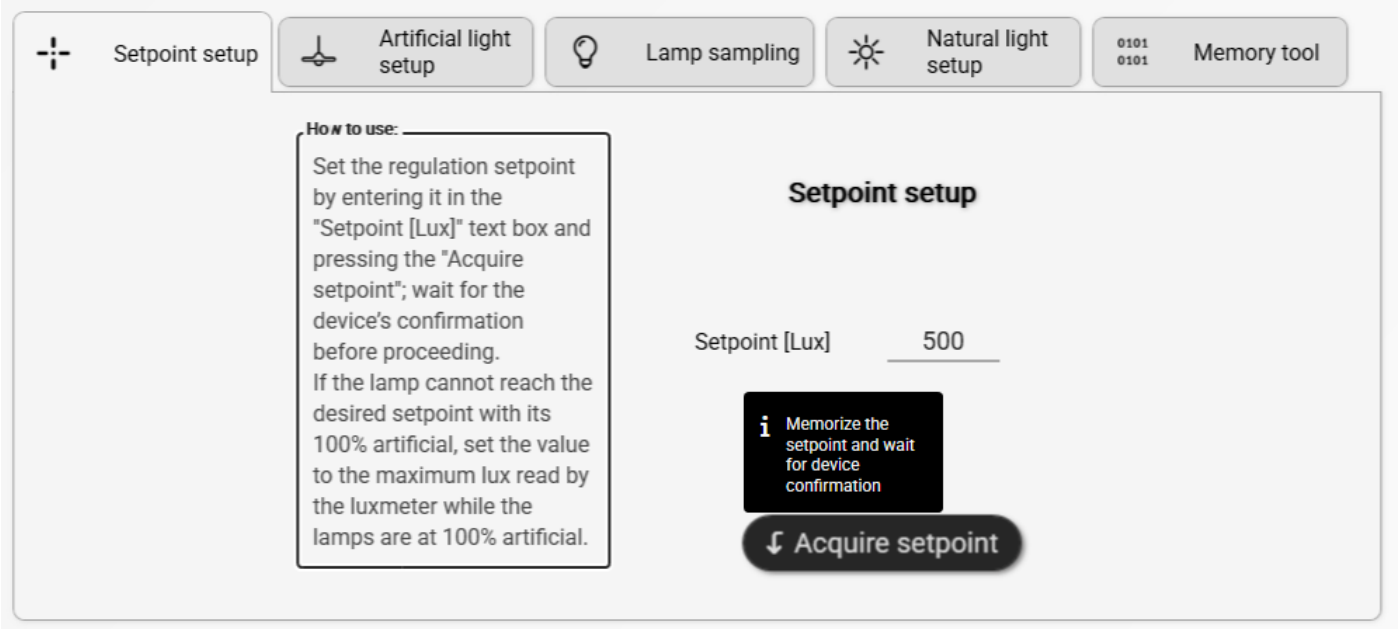




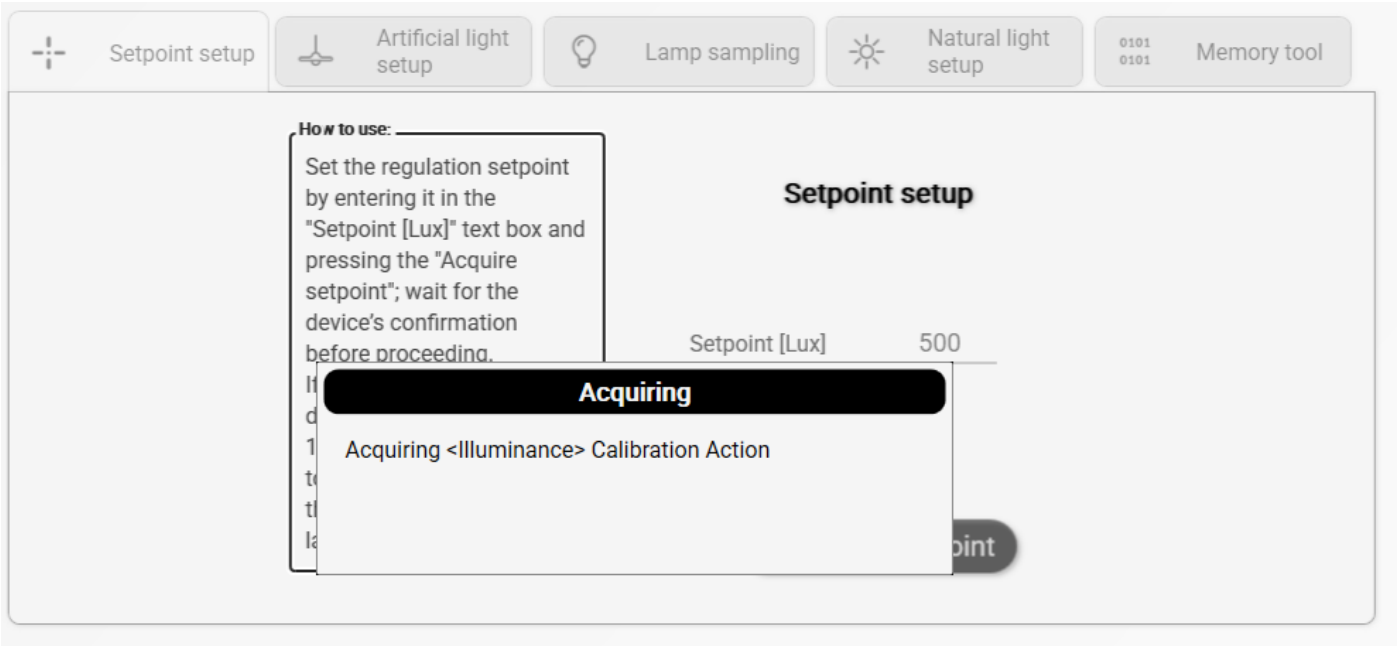
04 - Once an object has been linked and assigned to an address (e.g. 0/0/3), the red triangular warning symbol will disappear.



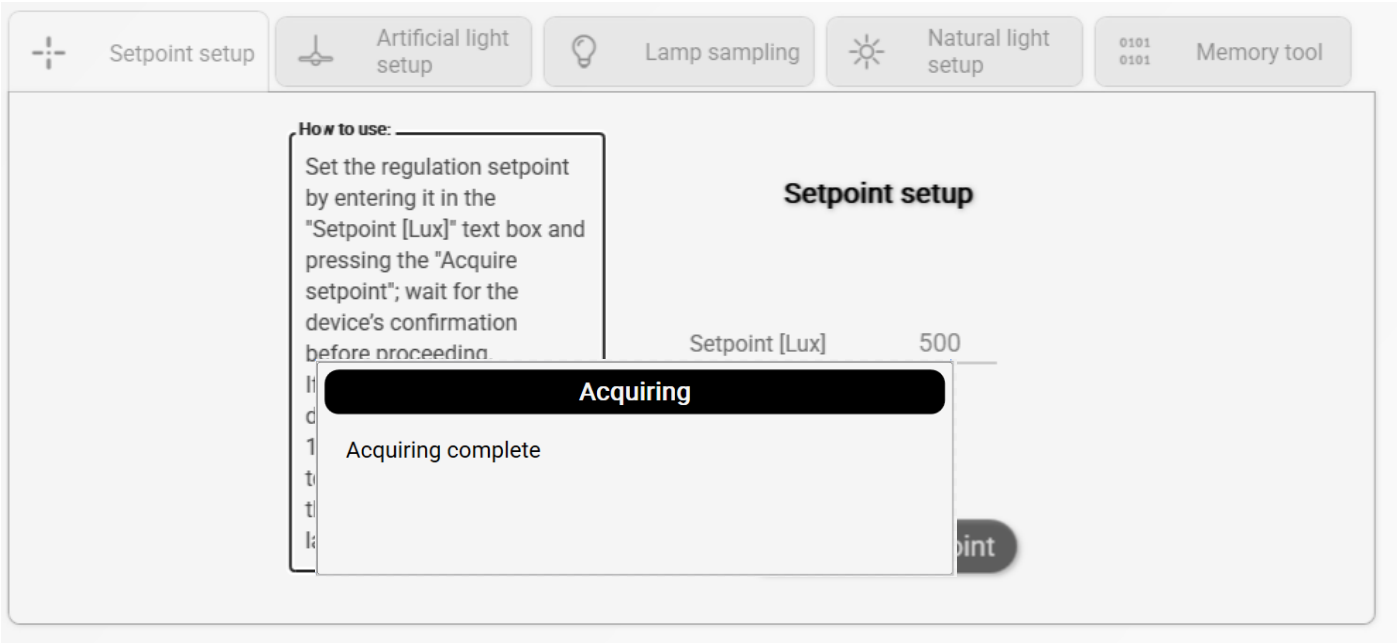
05 - Once all group addresses have been assigned in the black sidebar, you can begin configuring the setpoint. The following images (06 ÷ 08) show the entire process step-by-step.



06 - Write value in relative box and click on Acquire setpoint.

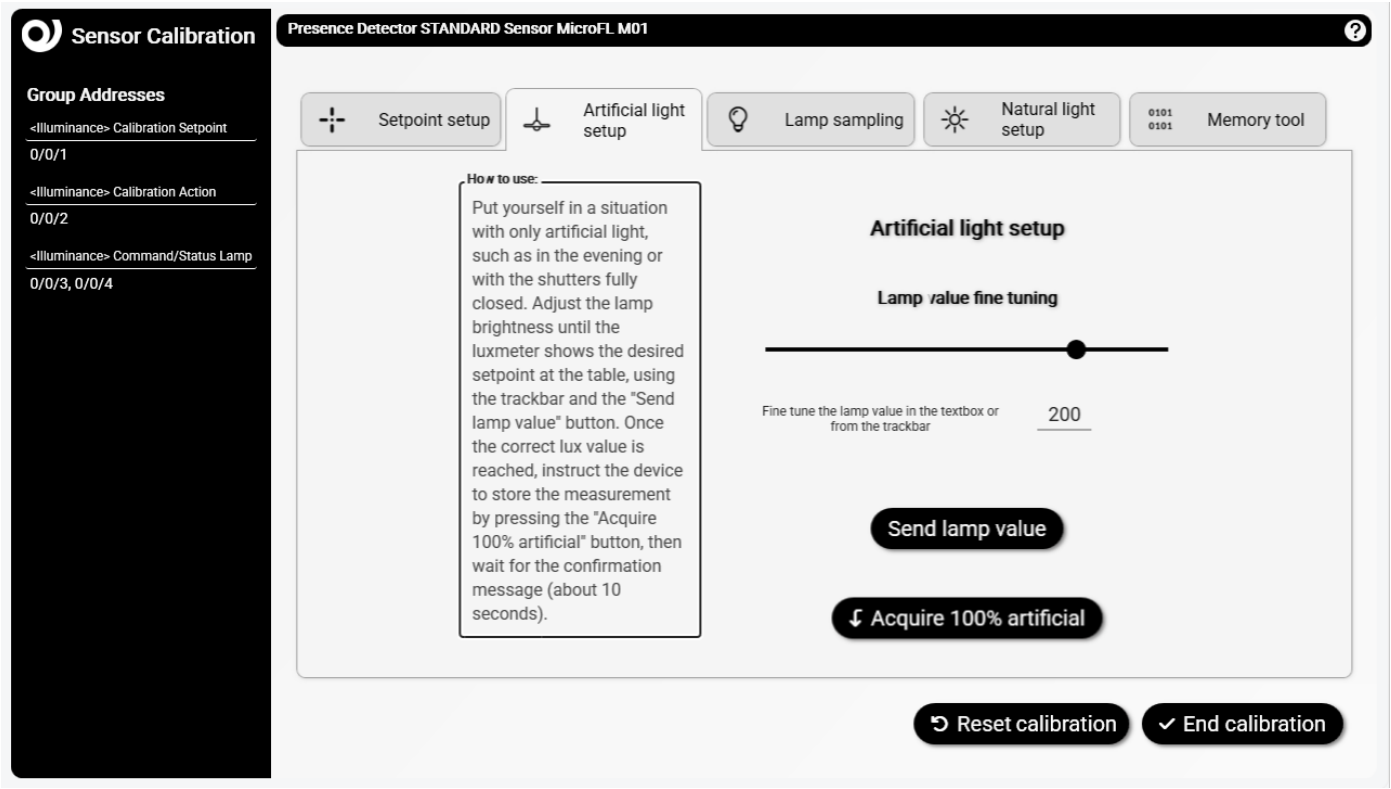


07 - Acquiring in progress.

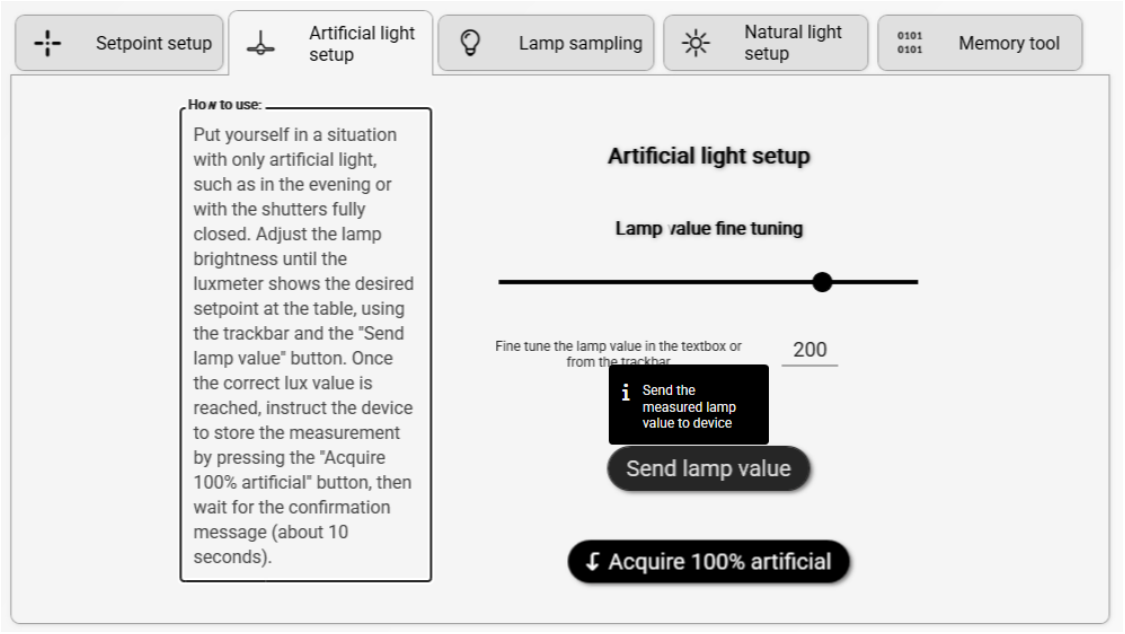


08 - Acquiring complete.

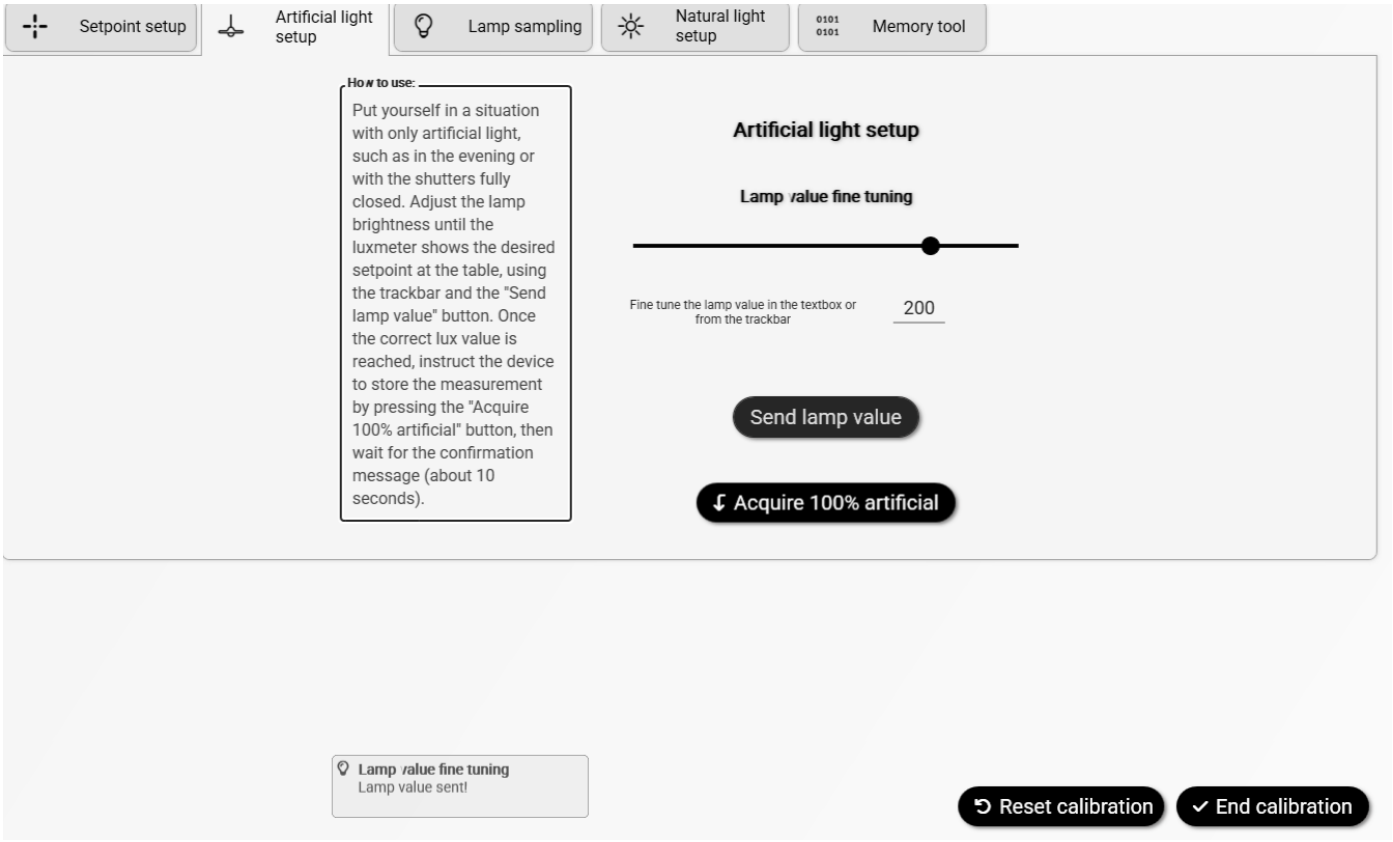
Artificial light setup



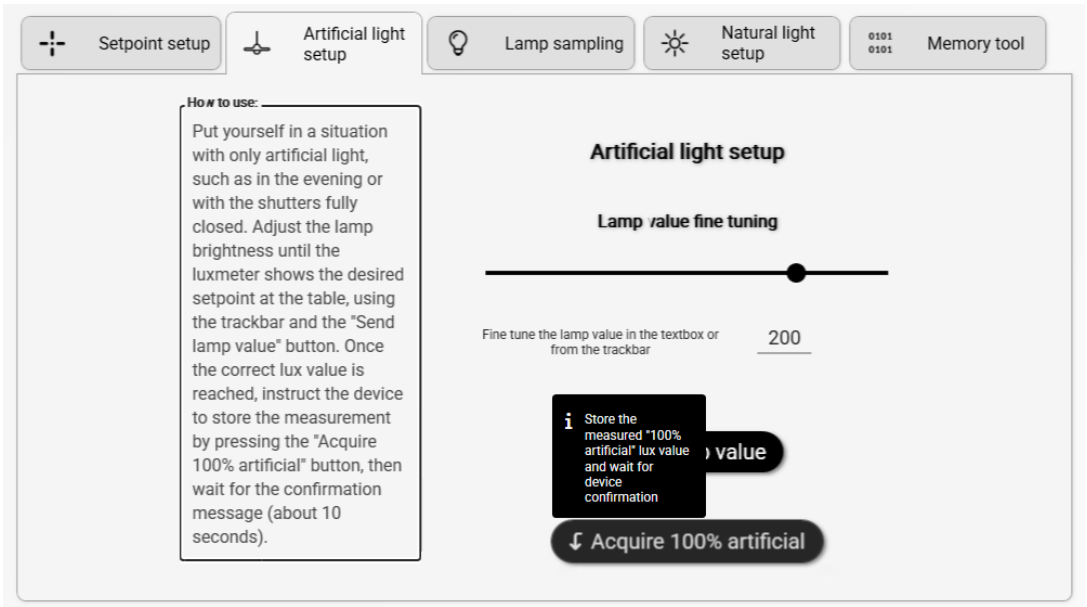
09 - The artificial light setup section analyze the contribute of artificial lights in reaching the desired setpoint. The following images (10 ÷ 14) demonstrate the entire process step-by-step.



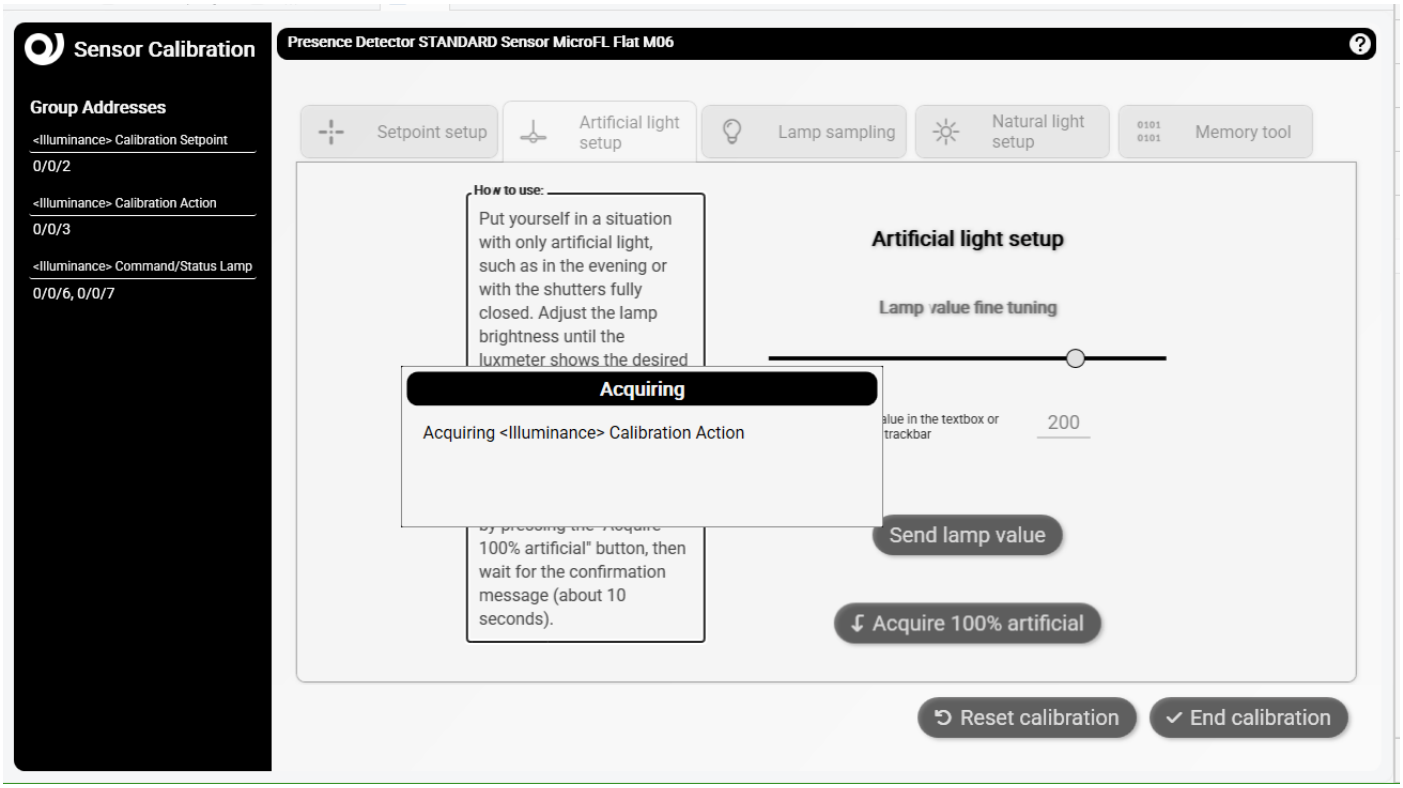
10 - Adjust lamp brightness via the trackbar and send the value by clicking on Send lamp value till the luxmeter shows the desired setpoint.



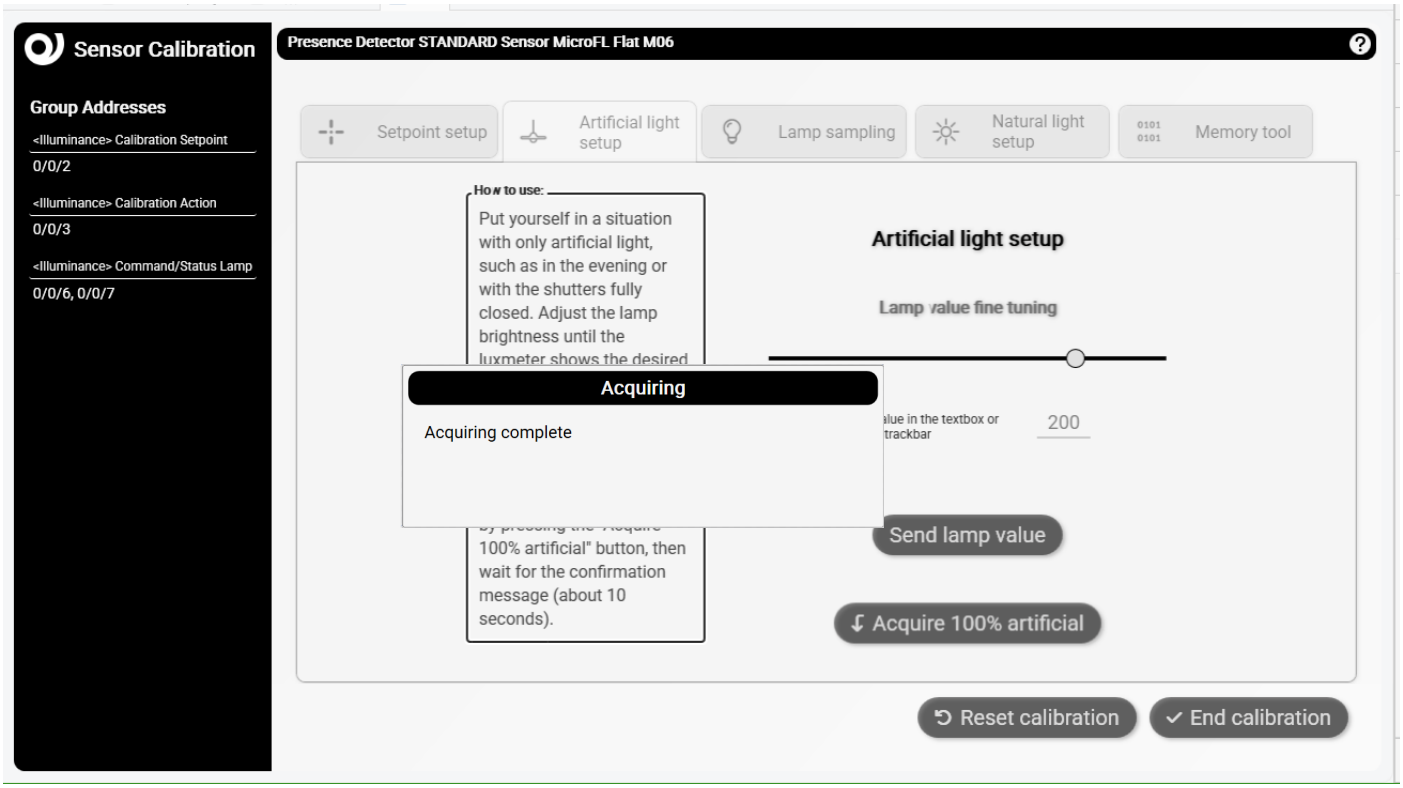
11 - When the lamp value is sent, a confirmation message will appear at the bottom of the software page.



12 - Click on Acquire 100% artificial to store data.

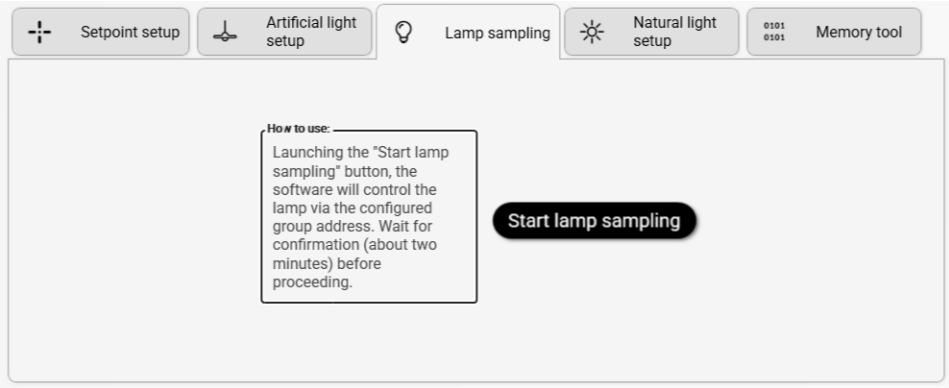


13 - Acquiring in progress.

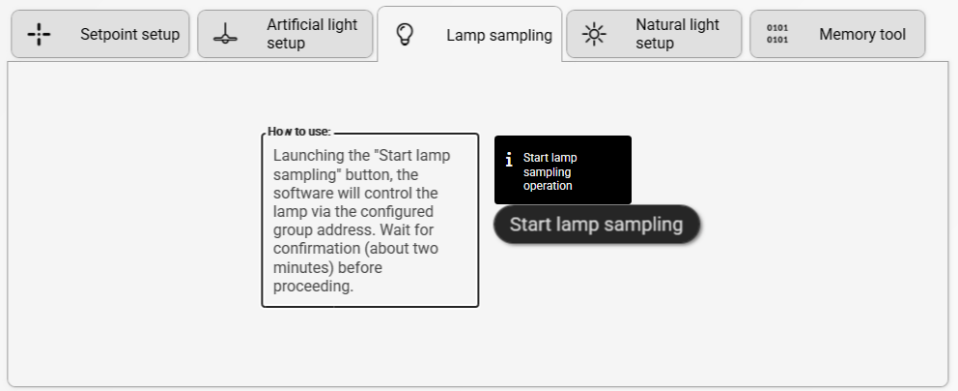


14 - Acquiring complete.

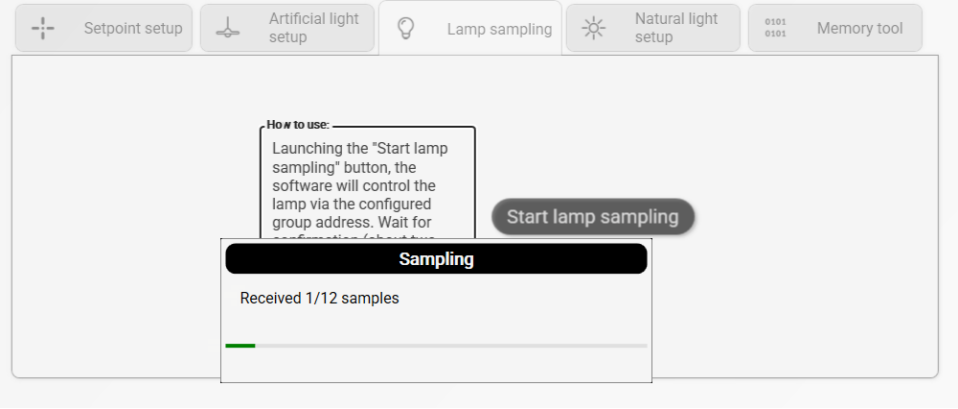
Lamp sampling



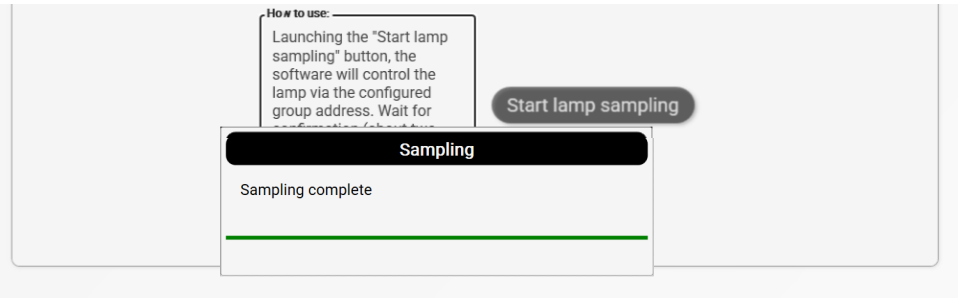
15 - The 'Lamp sampling' section allows allows the DCA to control the lamp and acquire relative data. The following images (16 ÷ 18) show the entire process step-by-step.



16 - Click on Start lamp sampling to launch the process.

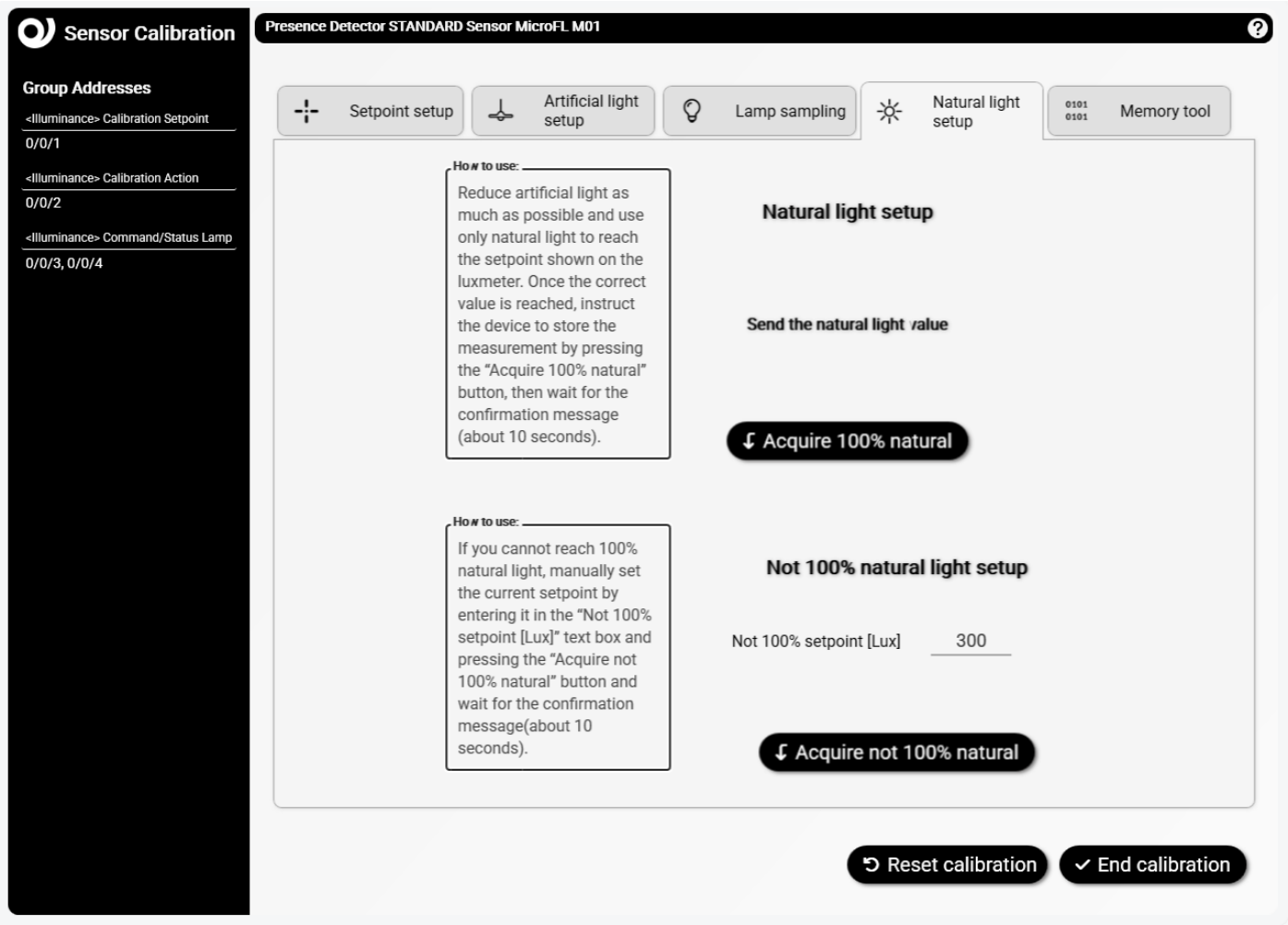


17- Sampling in progress.

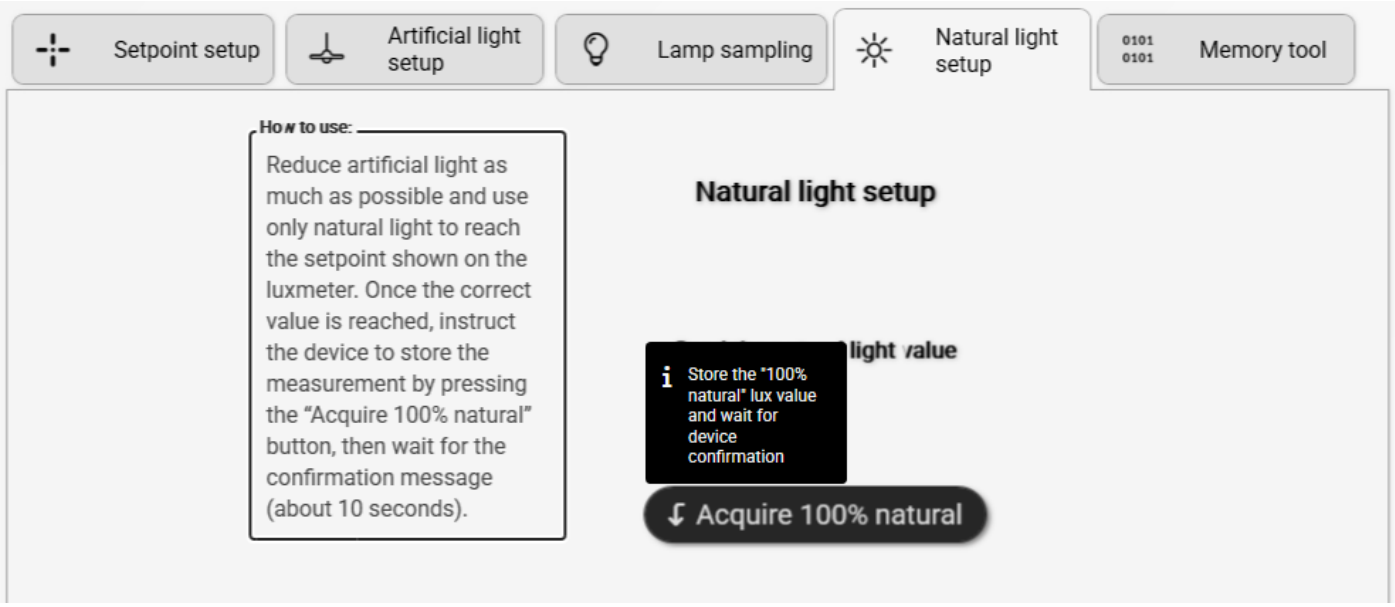


18 - Sampling complete.

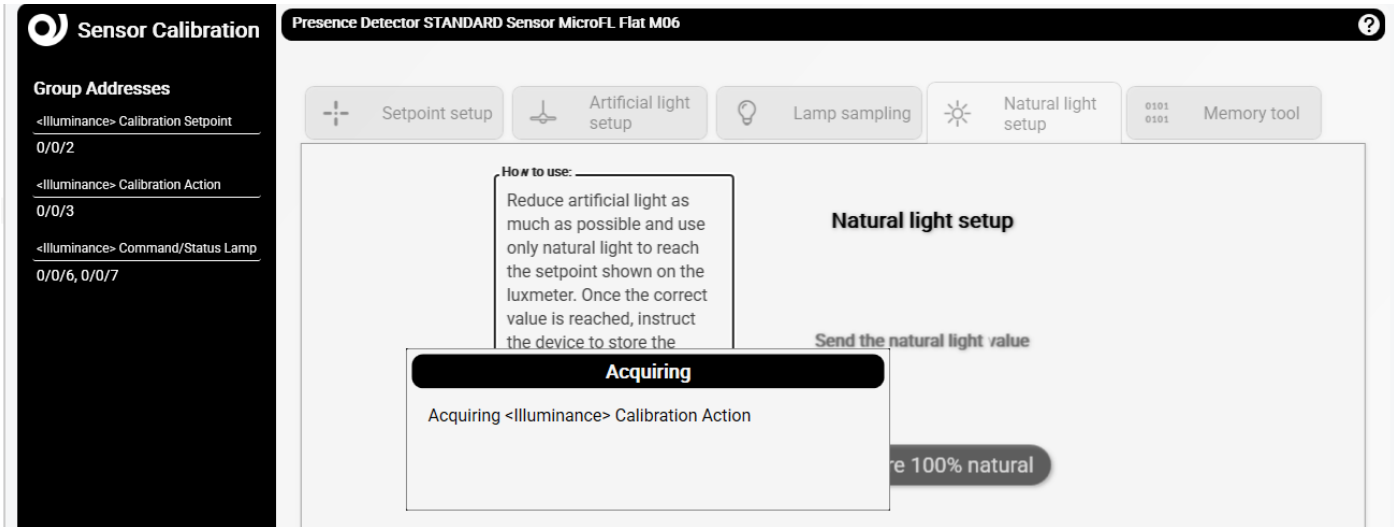
Natural light setup



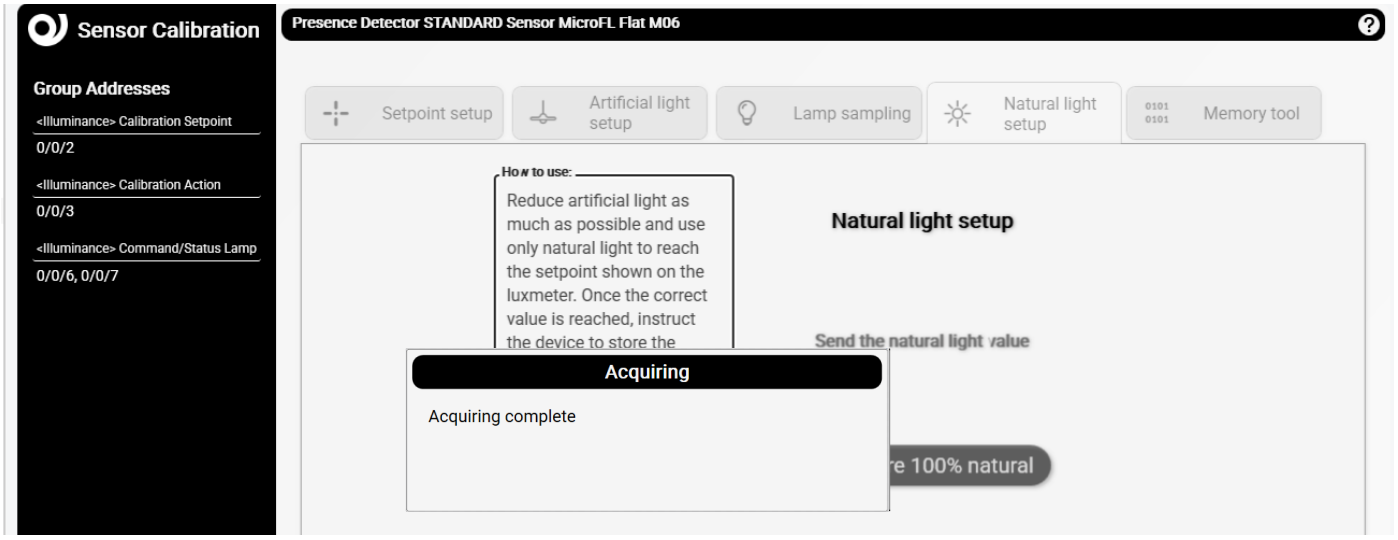
19 - The natural light setup section allows an additional calibration, ideal in buildings where natural light plays a major part in ambient light. To acquire 100% natural light reduce artificial light contribute to 0% and acquire data in the most favourable conditions (e.g. shutters up). If setpoint can't be reached only by natural light use function Acquire not 100% natural to store the maximum setpoint. The following images (20 ÷ 25) demonstrate the entire process step-by-step.



20 - Click on Acquire 100% natural to start this process.

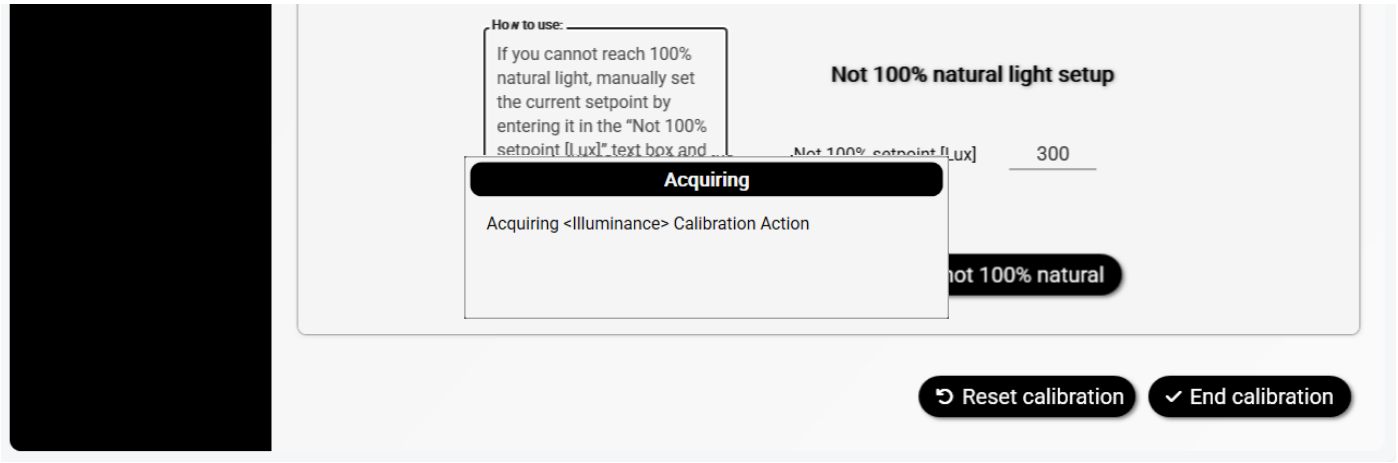


21 - Acquiring in progress.

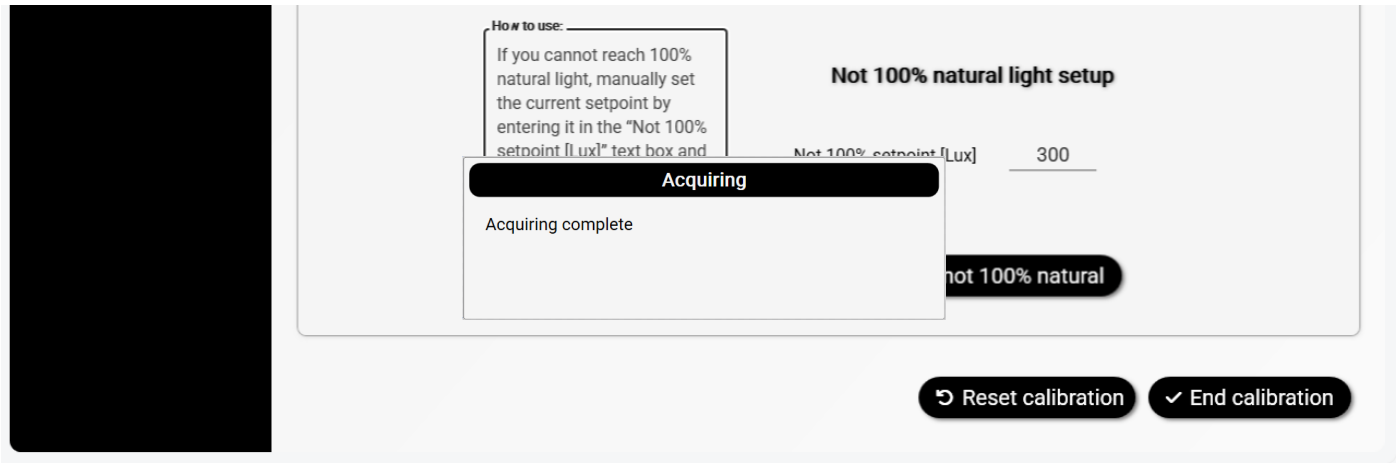


22- Acquiring complete.

23 - Click on Acquire not 100% natural to start this process.

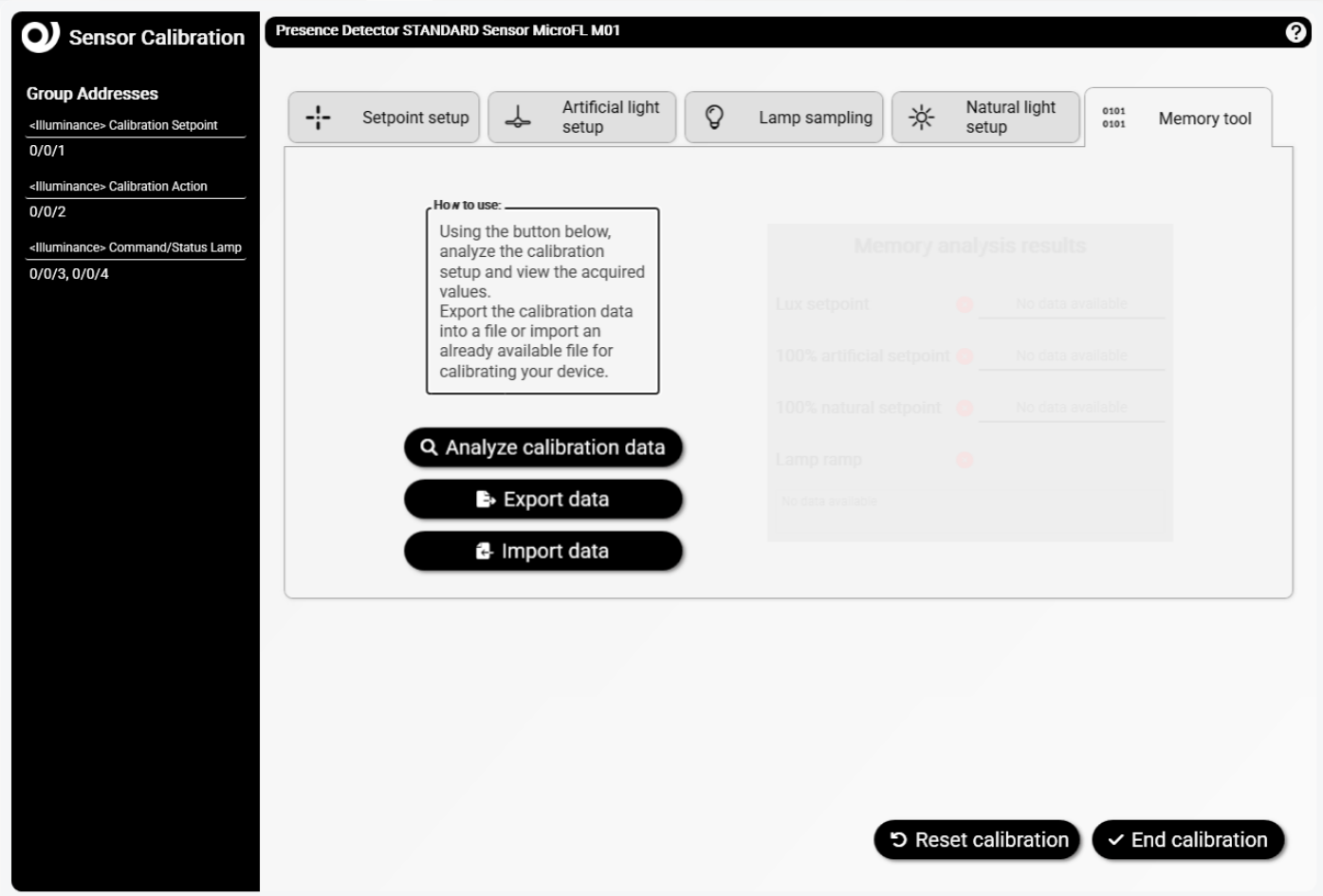


24 - Acquiring in progress.

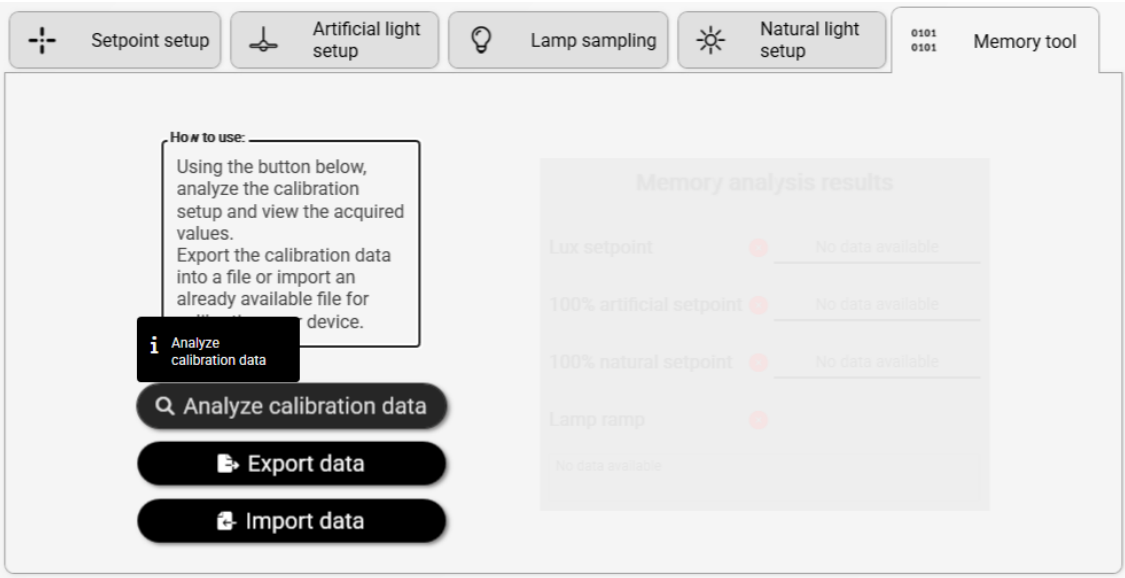


25 - Acquiring complete.

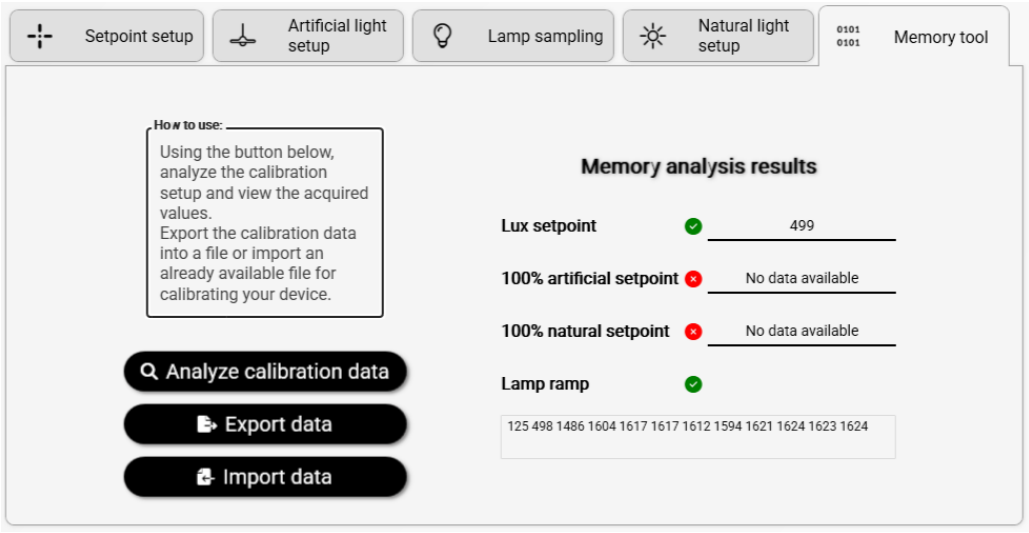
Memory tool



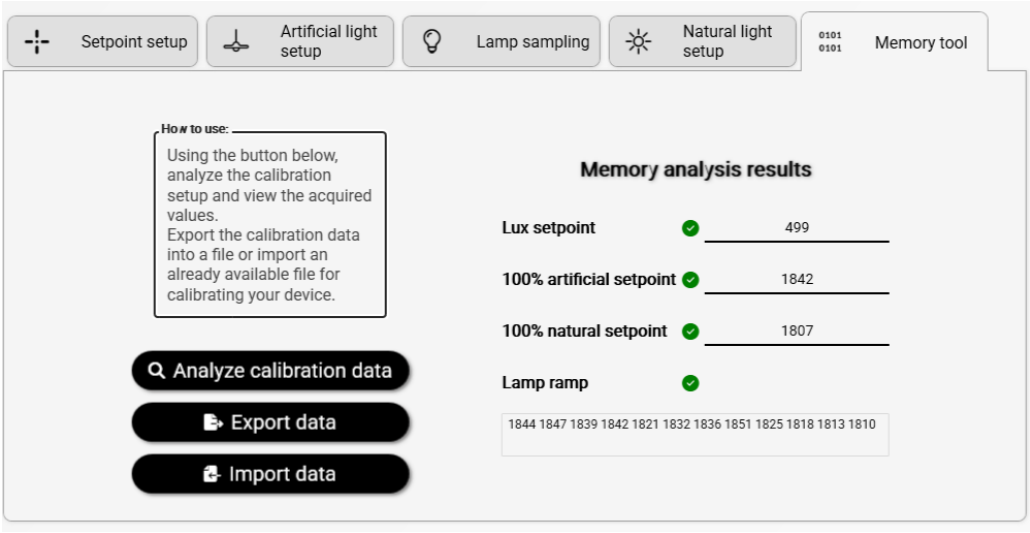
26 - The final section of the DCA allows you to analyze calibration parameters, as well as export or import them by converting the data into a specific file format. If any data from the previous sections is missing, a warning message will appear indicating that the export is incomplete, or that an incomplete import will overwrite the current calibration data. The following images (27 ÷ 34) demonstrate the entire process step-by-step.



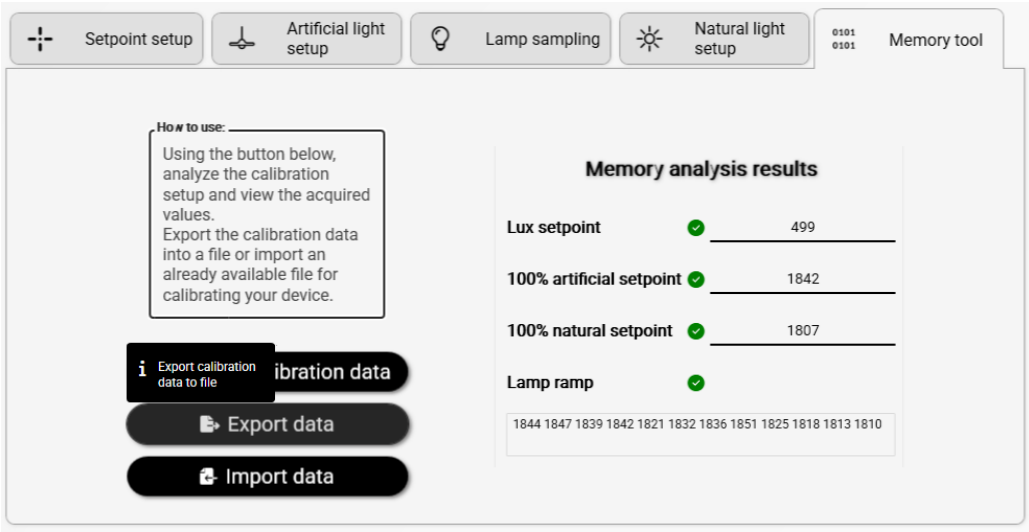
27 - Click on Analyze calibration data to show the values stored in the device.



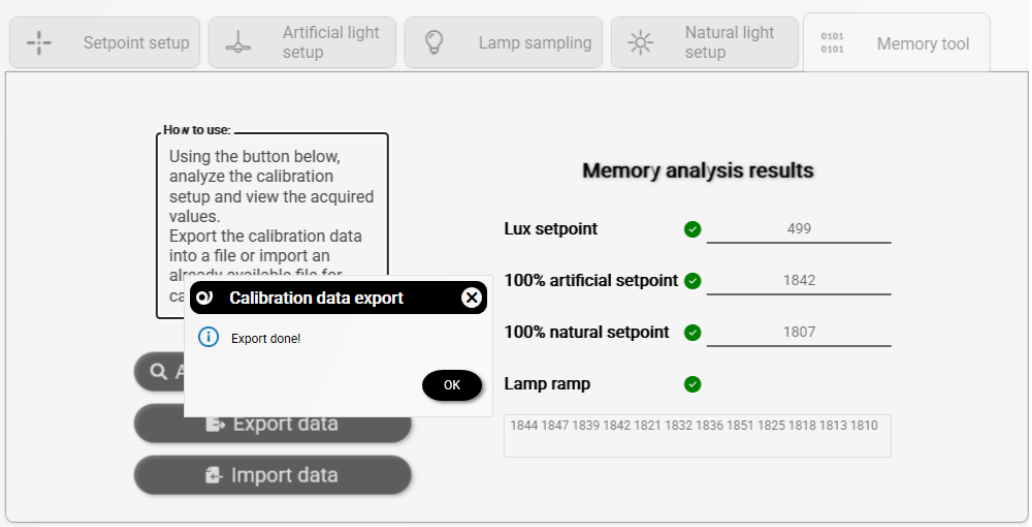
28 - Some parameters are missing.



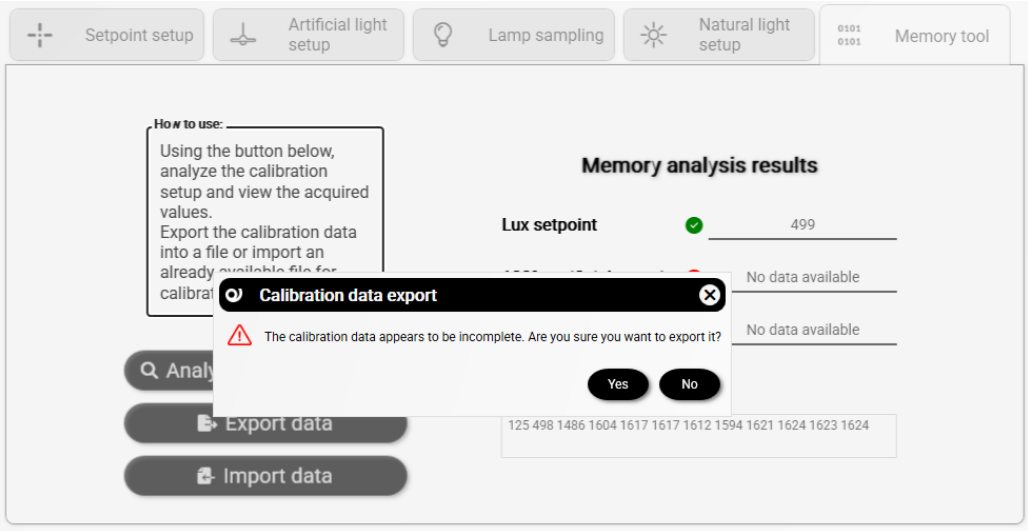
29- All data parameters are complete.



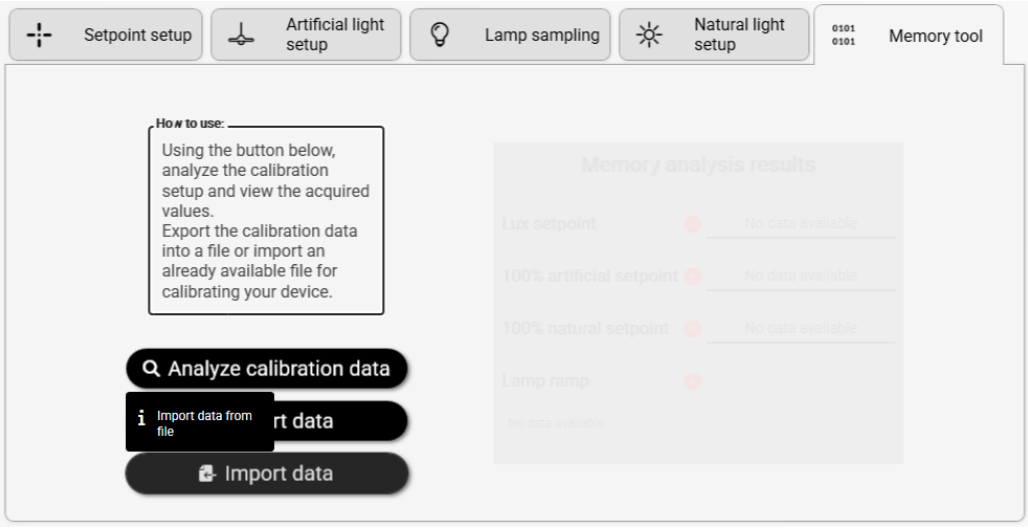
30 - To export data, click on the relative button.



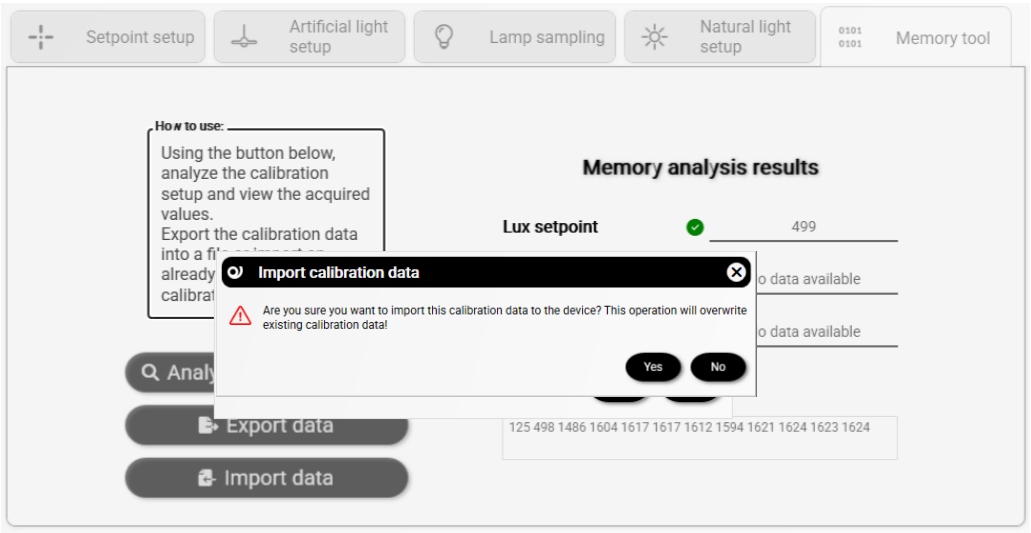
31- Calibration successfully exported.



32 - In case of missing data, a warning message will appear.

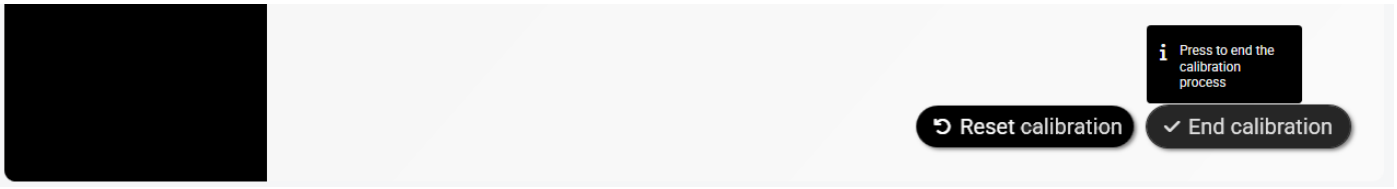


33 - To import data, click on the relative button.

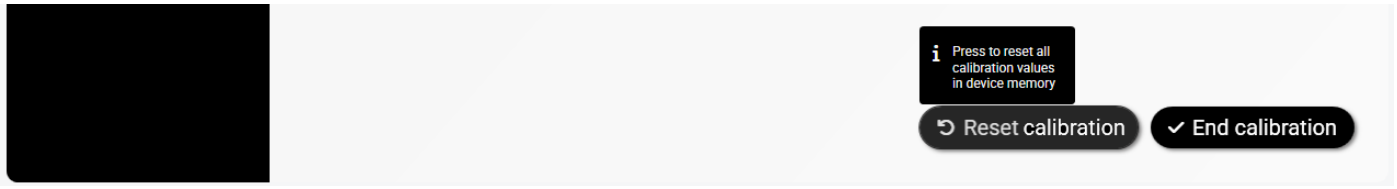


34 - Warning message to confirm the overwrite.

End and reset



34 - To end the calibration process, click on the relative button.



35 - To reset the calibration process and clear all stored data, click on the relative button. Reset operation can be done at any point of the calibration.