

APPENDIX B: OAI UV Flood Source Calibration

Version: 30 November 2021

General Use Precautions:

- **Emergency Stop** — If something goes horribly wrong with the system, a large red button (above the right control panel) can be hit to stop the pneumatic system and minimize damage to the equipment.
- **Eye Protection** — UV light protective goggles should be worn while using the UV flood source. They are stored in black cases, and kept in the cabinet next to the tool.

General Use Procedure:

1. Turn on the exposure system according to **steps 1- 4** in the **ABM/OAI Flood Source and Alignment System SOP**.
2. Once the UV flood source controller (below the table) has finished booting up, proceed to the next step.
3. Select the **Test** button and the **Current** buttons on the main screen (they will turn blue). Set the WL 365nm (left) current to 90% using the < > buttons or tapping the numeric field and entering the value. See the image at right for reference (note that this image does not show the installed WL 405nm option.)
4. Retrieve the OAI 306 UV power meter and place the round probe onto the center of the substrate chuck. Turn on the power meter, and make sure the right toggle switch is set to **NORM**.
5. Move the UV flood source over the substrate by flipping the **LIGHT SOURCE** toggle (on the right control panel) to the **EXPOSE** position.
6. Press the red **START** button to turn on the light source. The round indicator to the right of the button will turn red.
7. Note the value on the power meter.
8. Select **Calibration**. The calibration screen will appear.
9. Enter the intensity value (mw/cm^2) obtained in step 7 into the numeric field at the top left. A numeric keypad will appear on the screen when this field is selected. Note that only 1 digit to the right of the decimal is allowed. Press “C” to clear the field; press “Ok” to enter the value.
10. Once the intensity value has been entered, press the **Calibrate** button on the calibration screen.
11. Press **Main** to return to the main screen.
12. Press the red **START** button to turn off the light source.
13. Move the UV flood source back to its home position by flipping the **LIGHT SOURCE** toggle (on the right control panel) to **HOME**.
14. Turn off the UV power meter and return it to its case.
15. Proceed with **step 6** in the **ABM/OAI Flood Source and Alignment System SOP**.

