Features：

- ◆ Operating voltage: USB 5VDC；
- ◆ IP20;
- ◆ 1 year warranty.

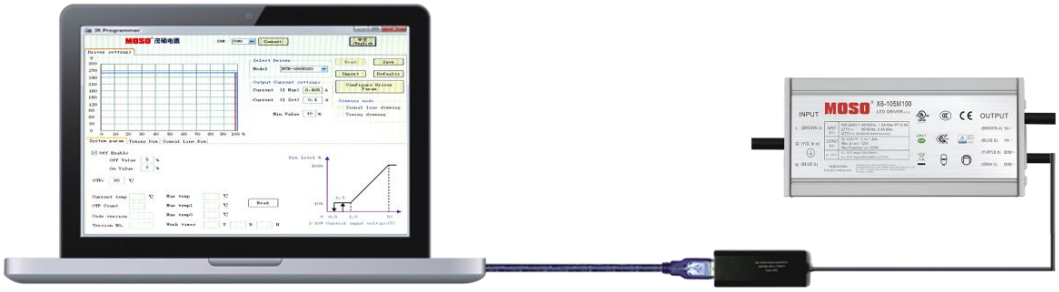
Application:

- ◆ Suitable for X6 series off-line programming.

DESCRIPTION

MS-PRG-W1 is an offline programming recorder. It is the bridge between the computer and the power supply, through the dimming line offline programming. USB port connects the computer and the other end connects the dimming line of the power supply. The power supply can be directly configured without power on. bring great convenience and cost saving to production, make power programming easier.

Diagram of upper computer connection：



UI

1.Connect to LED driver

First insert the "USB programmer" into the USB port of the computer, and connect the other end to the LED driver Dim line. Open the “Wired programmer V02” software and click “Connect” to connect the software to the LED driver, as shown in the figure below.

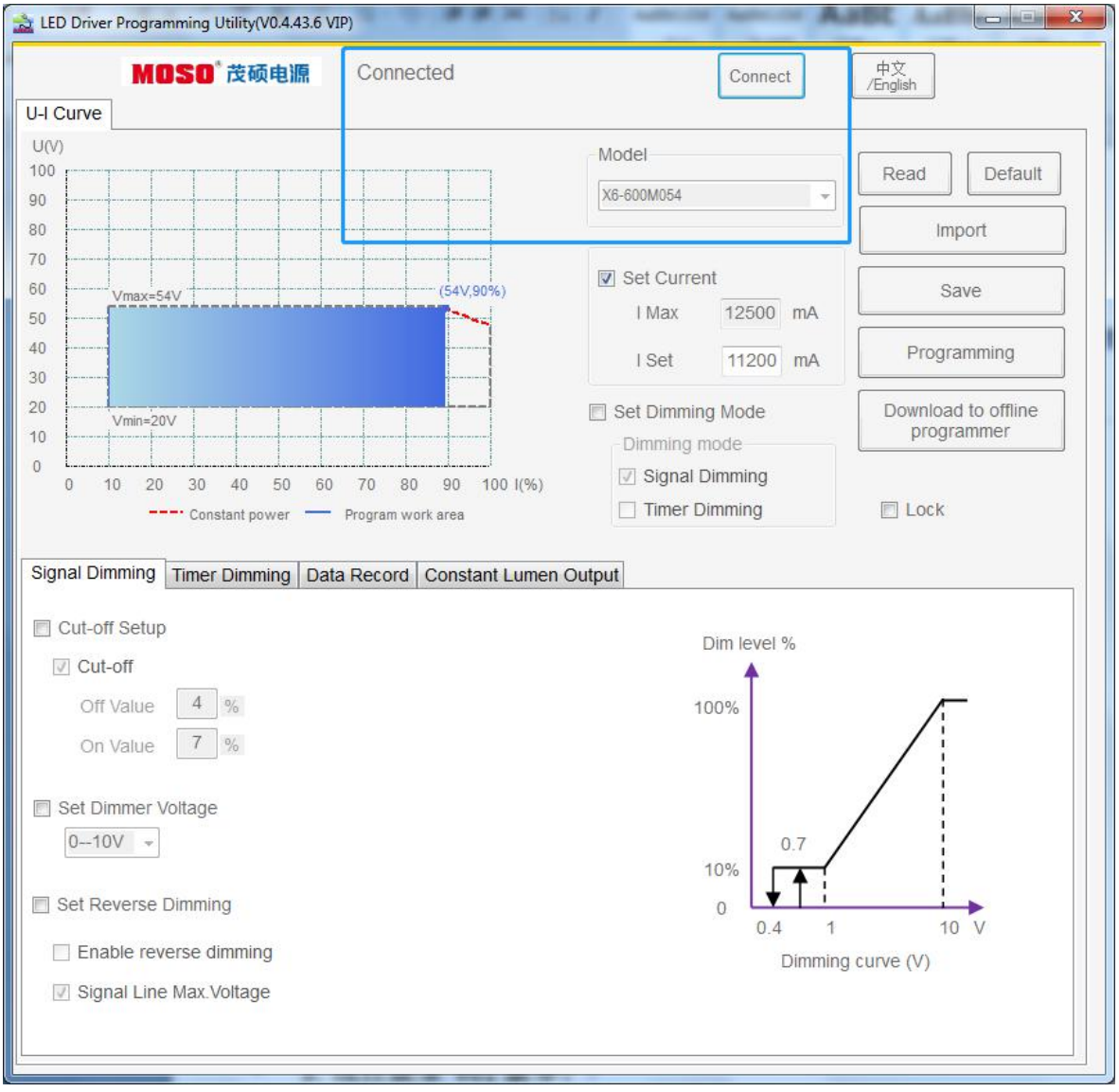


Figure 1：Connect to LED driver UI

If the connection is successful, the prompt “Connected” will be displayed at the top of the interface. If the power supply has been configured with a model before, it will automatically switch to the corresponding model, otherwise it will be the default model (User-defined).

At the same time, the U-I curve of the corresponding model is displayed on the left. The curve display allows the working area (gray dotted box), programming working area (blue area), constant power curve (red dotted line), output voltage range (Vmin ~ Vmax), full power voltage range and other information. The programming work area changes according to the set current.

2.Read LED driver parameters

Click “Read” to read the power parameter. This function can check the power parameter configuration. Readable parameters include:

1) Set the current and dimming modes;

2) Whether to turn off, dimming voltage, and whether to reverse logic dimming;

3) Time-controlled dimming parameters;

4)CLO parameters.

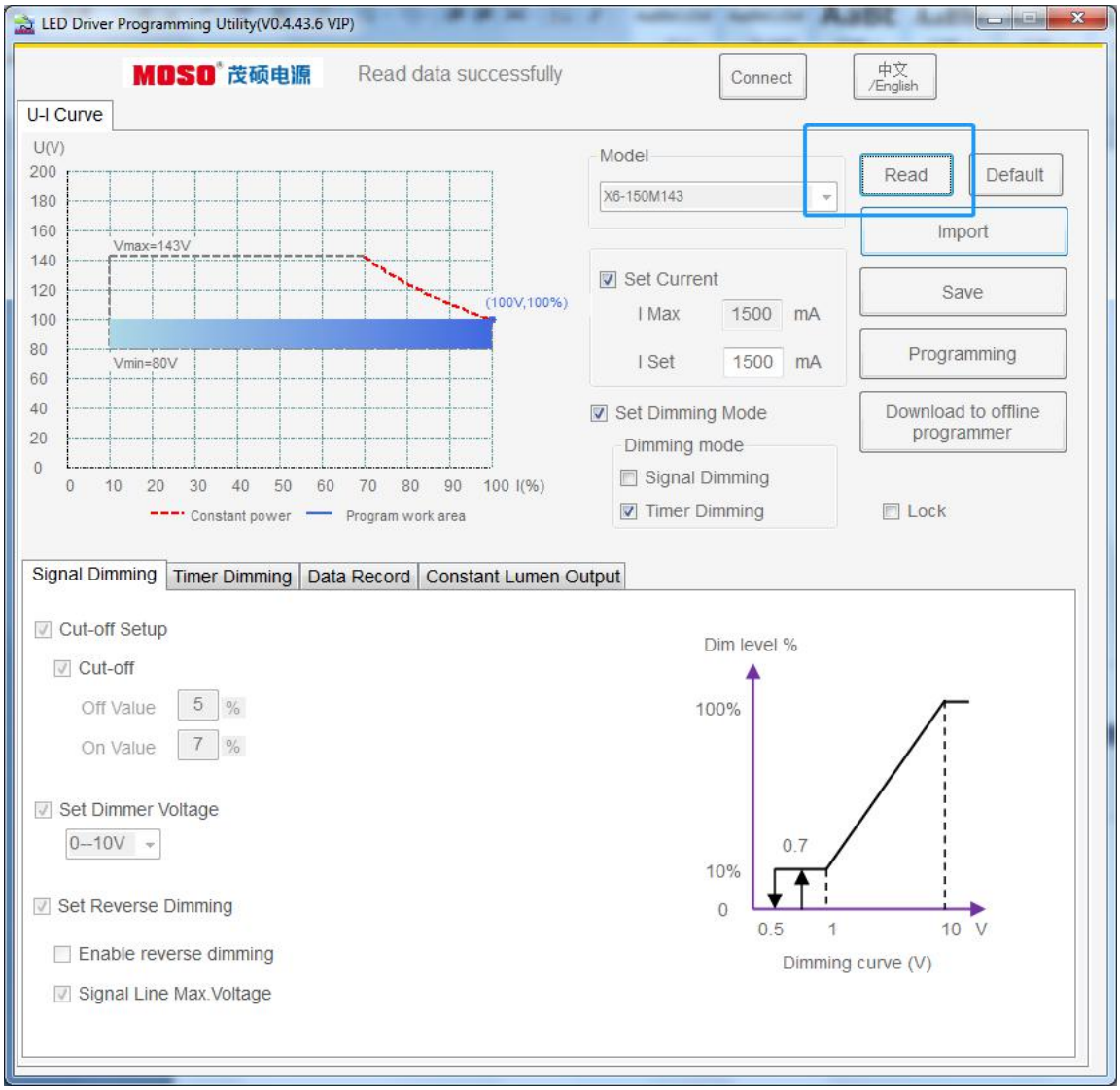


Figure2：Read parameters

3.Set LED driver current

The output current of the power supply can be set according to actual needs. As shown below. When different currents are configured, the U-I curve programming work area changes according to the set current change.

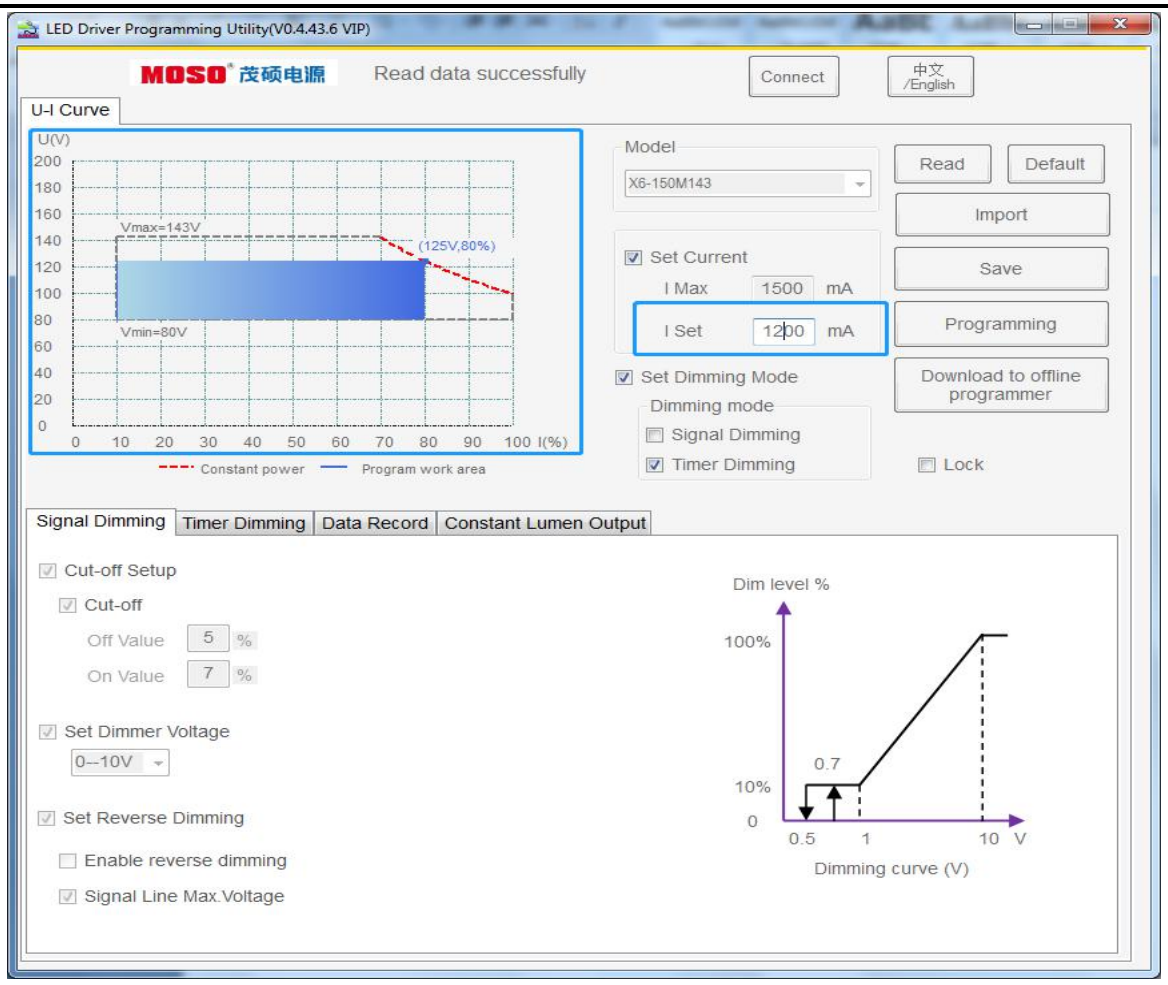


Figure3:set current

4.Select dimming mode

This software supports two optional dimming modes: "Signal Line Dimming" and "Timed Dimming". Signal line dimming includes “0-10V”, “0-5V”, “0-9V”, “0-3.3V” analog voltage dimming and corresponding voltage PWM dimming.

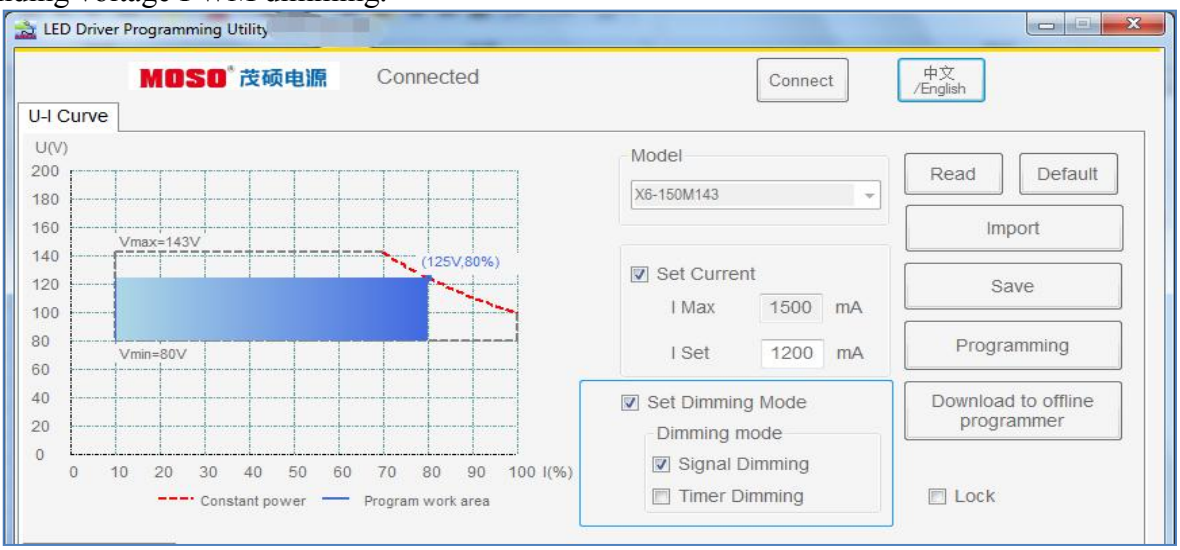


Figure 4

5.Function button description

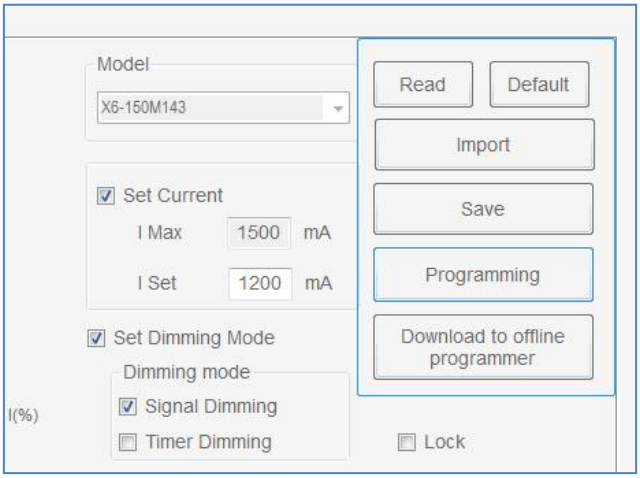


Figure 5

Read driver: read driver configuration parameters and display to the UI;
Restore default: restore the UI parameters to the factory default values;
Import configuration: import the saved parameter values from a file and display them on the UI;
Save configuration: save the interface display parameter values to a file;
Configure driving parameters: write the configured parameters to the driver;
Download to offline writer: Write the configured driver parameters to the offline programmer.
Note: The offline programmer is a programming tool kit developed by MOSO that can complete driver programming without relying on a computer. The kit is easy to use and quick to program. For detailed information about this product, please consult sales staff.

6 Set signal dimming

Select the “Signal Dimming” page to set related parameters.

6.1 Set the Cut-off function

If the cut-off function is activated, check "Cut-off Setup" and " Cut-off ". If the Cut-off function is not enabled, check " Cut-off Setup " and uncheck " Cut-off ".

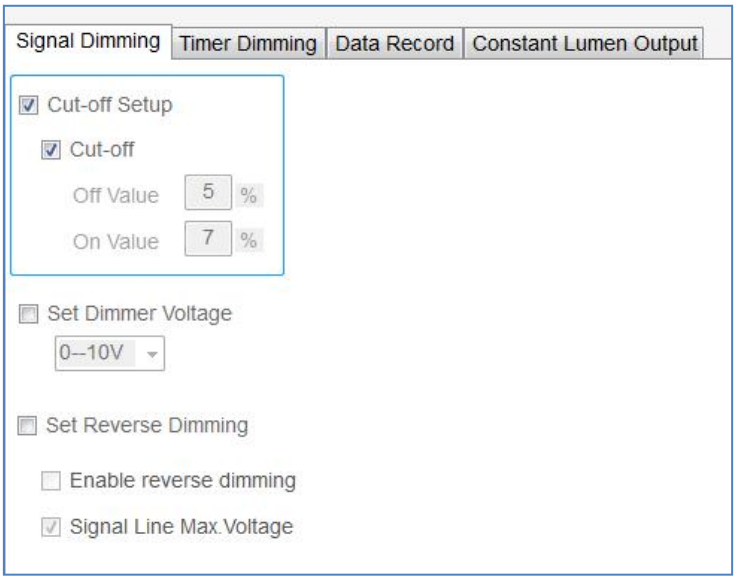


Figure 6.1

6.2Set the dimming voltage

4 types of dimming voltage can be selected: 0-10V, 0-5V, 0-9V, 0-3.3V. It can be selected according to the actual dimmer output voltage matching situation.

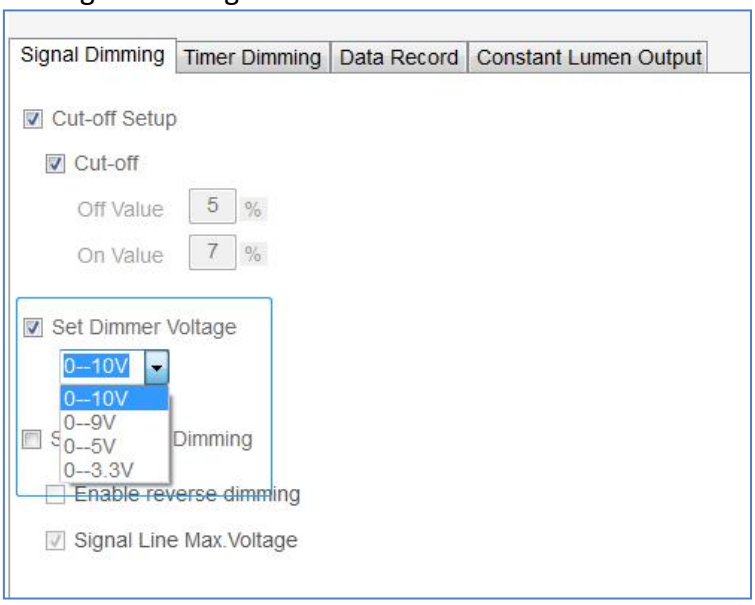


Figure 6.2

6.3Set up reverse dimming

Reverse dimming: reverse logic dimming. The larger the input voltage of the dimming light, the smaller the output current of the power supply, and the smaller the input voltage of the dimming light, the larger the output current of the power supply. When you need to turn on the reverse dimming function, check "Set reverse dimming " and "Enable Reverse dimming". Unchecking “Enable reverse dimming” means forward dimming.

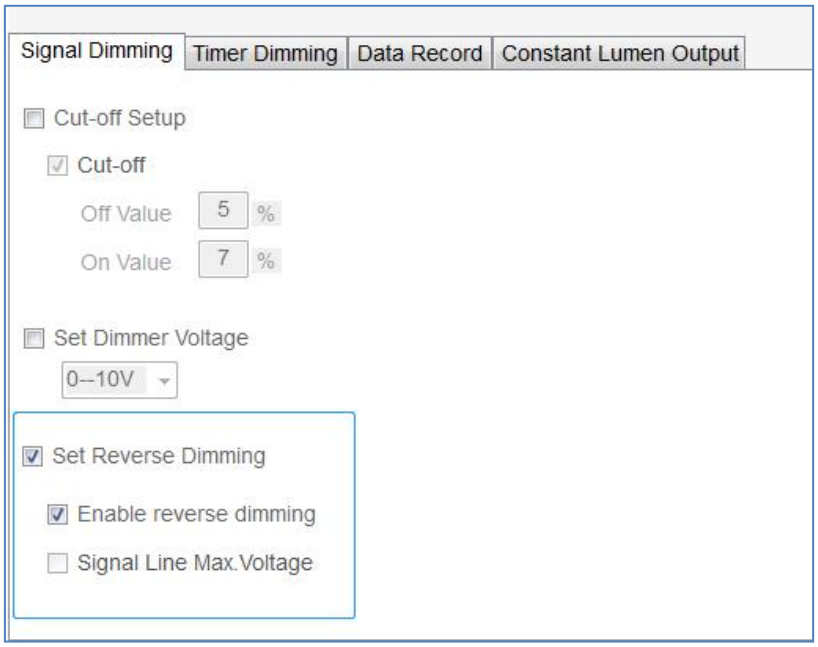


Figure 6.3.1

Signal Line maximum voltage output: When “Signal Line Max Voltage” is selected, the output voltage will be generated inside the dimming. 0-10V and 0-9V are about 10-12V, 0-5V and 0- 5V or so when 3.3V dimming.

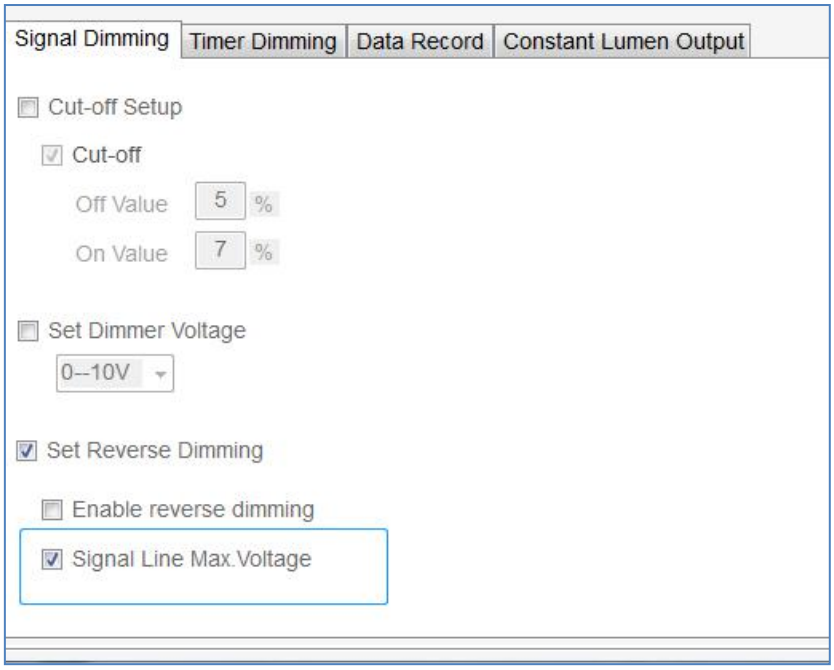


Figure 6.3.2

7.Setting the timer dimming

After selecting “Timed Dimming”, you can set the timing dimming related parameters. This software supports three timing dimming settings.

7.1Traditional timing

After the power supply is powered on, it works according to the set “work step” time and output power. In this mode, the number of steps, step time and output power are always the same. When in use, configure the steps in the blue box as shown below.

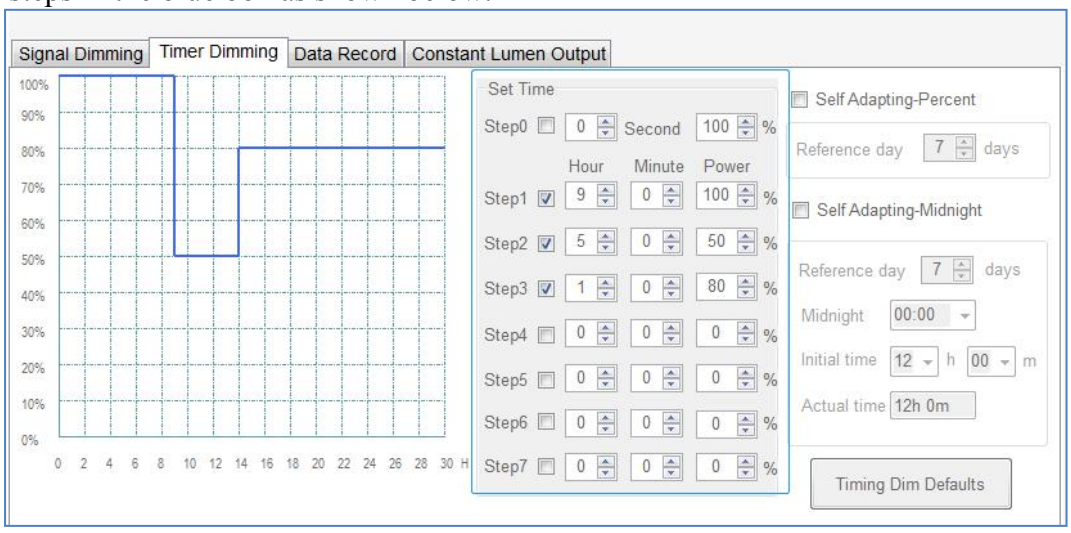


Figure 7.1

7.2Self Adapting-Percent

Check "Self Adapting-Percent " and select the reference days.

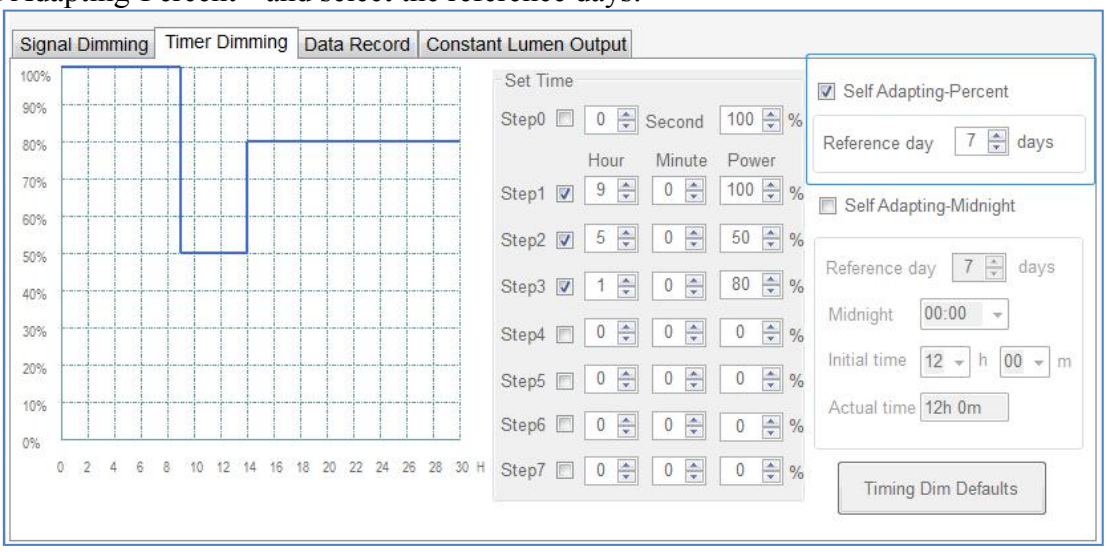


Figure 7.2

Self Adapting-Percent：

This function is to adapt to the case that the night time also changes with the season, and the time length parameter of the timing dimming also changes accordingly. To use this function, you need to set the parameters in "Set time" first. The software will calculate the night time of today tonight according to the night time (reference days) of the previous days. Assuming "reference days" is set to 7 days, the average of the night time for the first 7 days is taken as the night time for tonight. Then automatically adjust

(according to the proportion of steps) the working time of each step (except step 0) according to the night time of this evening. Example: Assume that the parameters of each step are: Step 1 is 2 hours and 30 minutes and the power is 100%; Step 2 is 3 hours and 30 minutes and the power is 80%; Step 3 is 2 hours and 0 minutes and the power is 50%. The total length of the three steps is 8 hours. According to the average of the night time in the previous 7 days, the night time is 10 hours. Then the duration of step 1 will be automatically adjusted to (2 hours and 30 minutes) × 10 ÷ 8 = 150 minutes × 10 ÷ 8 = 3 hours and 7.5 minutes; similar to this calculation, the duration of step 2 will be automatically adjusted to 4 hours 22.5 minutes, the duration of step 3 is automatically adjusted to 2 hours and 30 minutes. The initial night time is the traditional timed programming time.

7.3Self Adapting-Midnight

Check "Self Adapting-Midnight" and set the reference days, midpoint, and initial time.

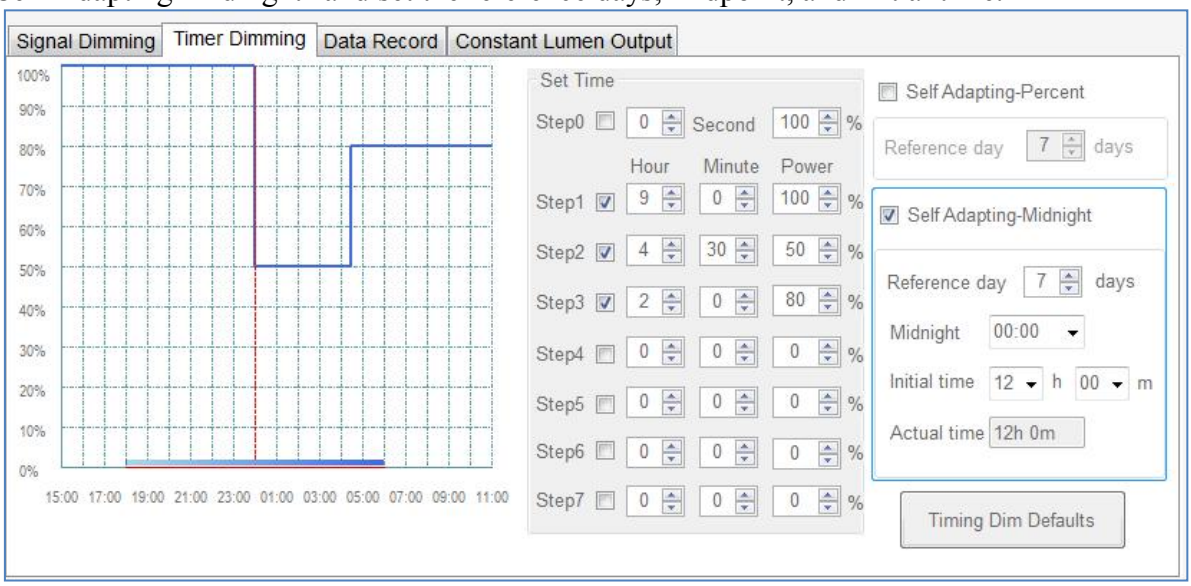


Figure 7.3.1

Self Adapting-Midnight：According to the estimated lighting time, the curve lights are extended from the midpoint to the left and right respectively.

"Reference days": Same as "Self Adapting-Percent", the night time of the previous few days.

"Midnight" is the aligned time point, with a red vertical line.

"Initial time(duration)" is the preset lighting duration, and the red horizontal line in the time axis.

"Actual time(duration)": The estimated lighting duration based on the reference days, the blue horizontal line in the time axis.

After the LED driver is turned on, it works according to the adaptive (actual time) step and time and output power. The area step curve shown in yellow in the figure below.

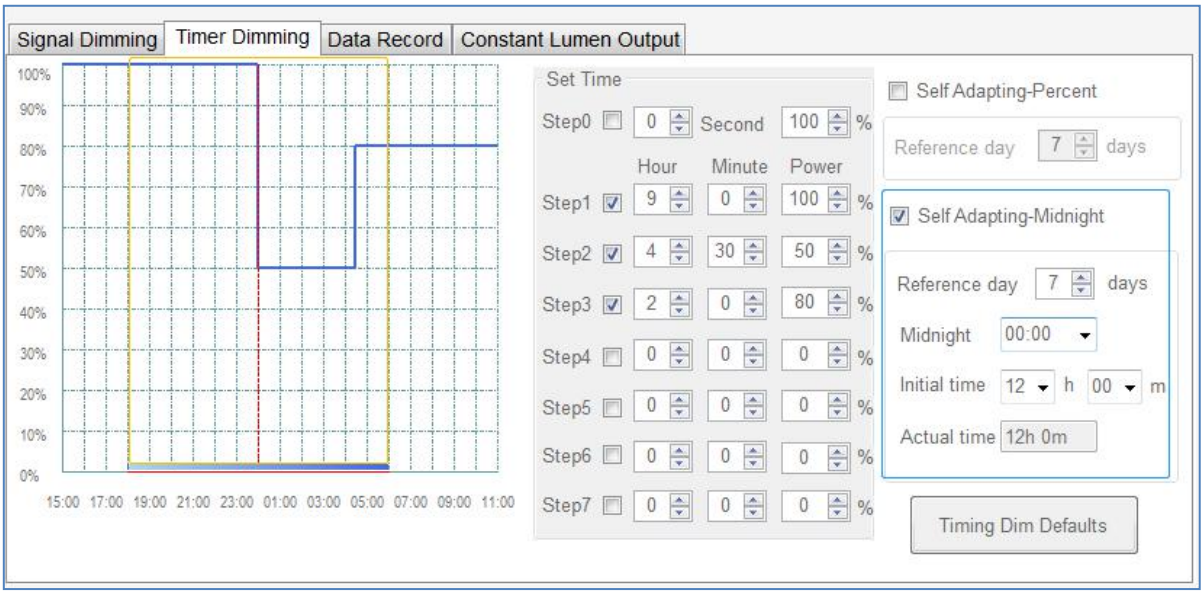


Figure 7.3.2

Note: Unlike the other two timing modes, the midpoint alignment steps use relative time settings. The start time of step1 is 15:00, and the other steps are arranged in order.

8.Read data record

Click "Read" to read the driver work log.

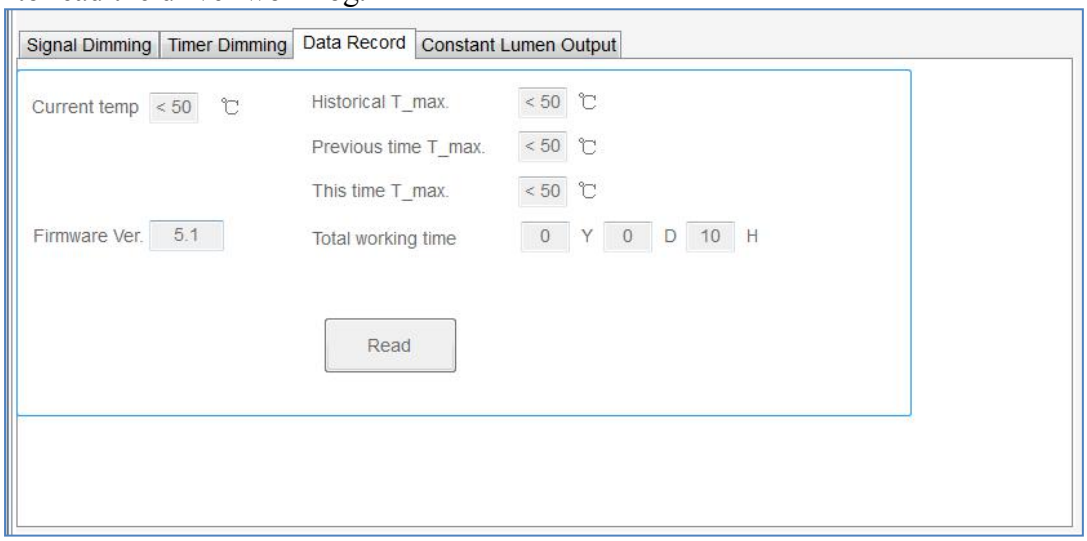


Figure 8

Power work log, including:

The current temperature, the historical maximum temperature, the last maximum temperature, the current maximum temperature, and the total operating time of the driver.

You can also check the driver firmware version.

"1.Current temp: Current drive temperature."

"2.Historical T_ Max: The highest temperature recorded in history."

"3.Previous time T_ Max: Record the highest temperature during the previous use."

"4.This time T_ Max: Record the highest temperature during this use."

"5.Total working time: Record the total working time."
"6.Firmware Ver.: Driver firmware version."

9.Set CLO

Select “Start CLO(Constant Lumen Output)”, configure the working time and the corresponding compensation current percentage, and click “Configure the driving parameters”.

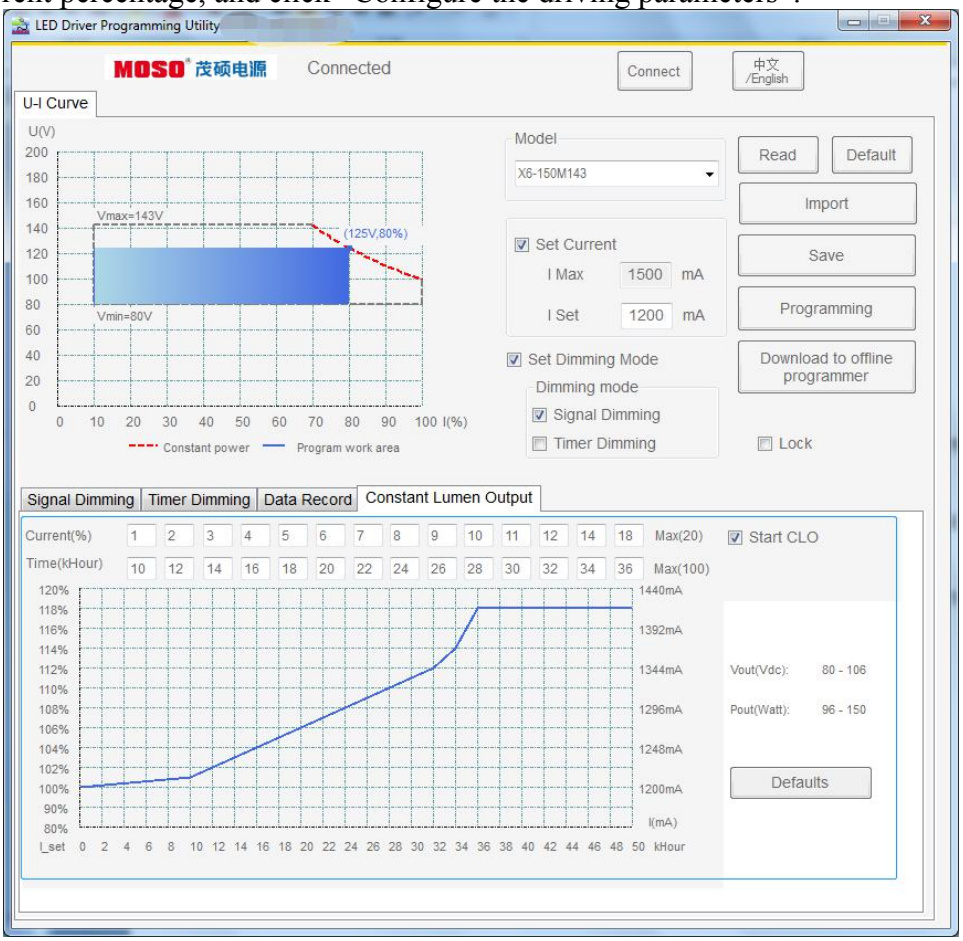


Figure 9

The compensation current percentage is the set current percentage. The maximum compensation percentage changes according to the change of the set current, and the maximum cannot exceed 20% of the set current.
Output voltage: Allowable working voltage range after compensating current.
Output power: The output power range within the allowable working voltage range under the current setting current. The maximum value is the power after compensating the current.