Light Source Operating Instruction

SCN-B50/940-107092075XY

Content

一、Packing List

List	Quantity	Specifications	Picture
Light source board	1pcs	1070x920x75mm	Figure 1
Power line	1pcs	Triangle plug power cable	Figure 2
Serial port line	1pcs	RS-232 serial port line	Figure 3
OQC Report	1pcs	The CS-2000 Test Light Source Report	Figure 4

Figure 1

Figure 2

Figure 3

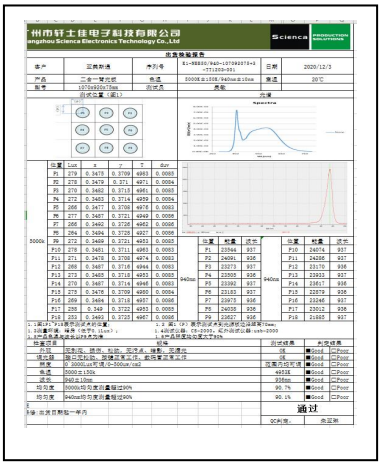


Figure 4

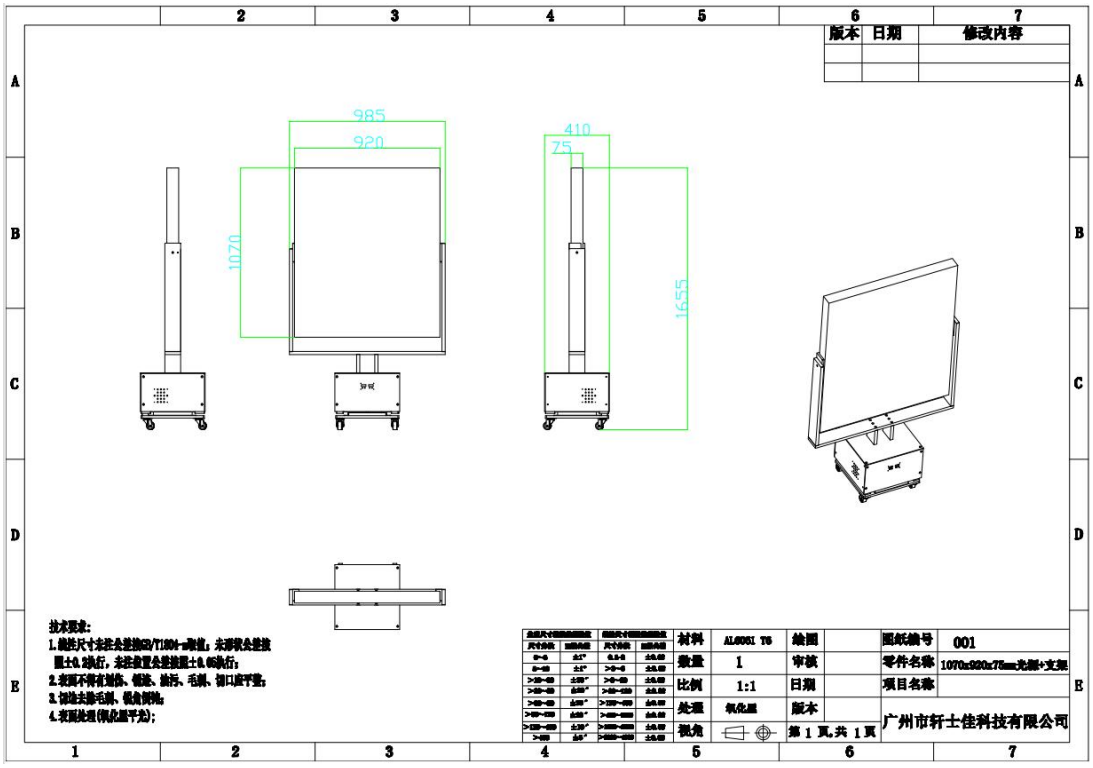
2、Light source parameters

2、Description of the relevant technical parameters of the light source

2.1、Light source overview

Light source board is a backlight board product using LED luminous, using high thermal conductivity aluminum substrate as the LED carrier can improve the welding strength, while the use of high thermal conductivity cooling adhesive is conducive to LED heat dissipation, so it produces less heat and less electric power consumption, with good high temperature resistance and anti-aging. At the same time, the reasonable arrangement of LED matrix form and the selection of LED luminous Angle can all improve the uniformity of products very well. Customer use effect will be more ideal.

2.2、The size of the structure



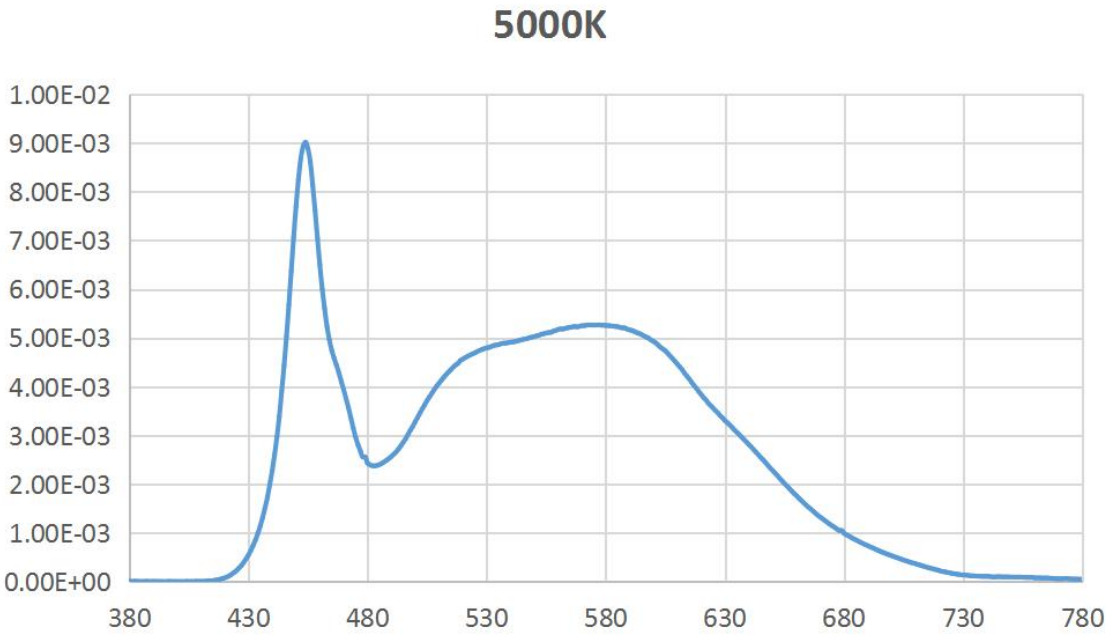
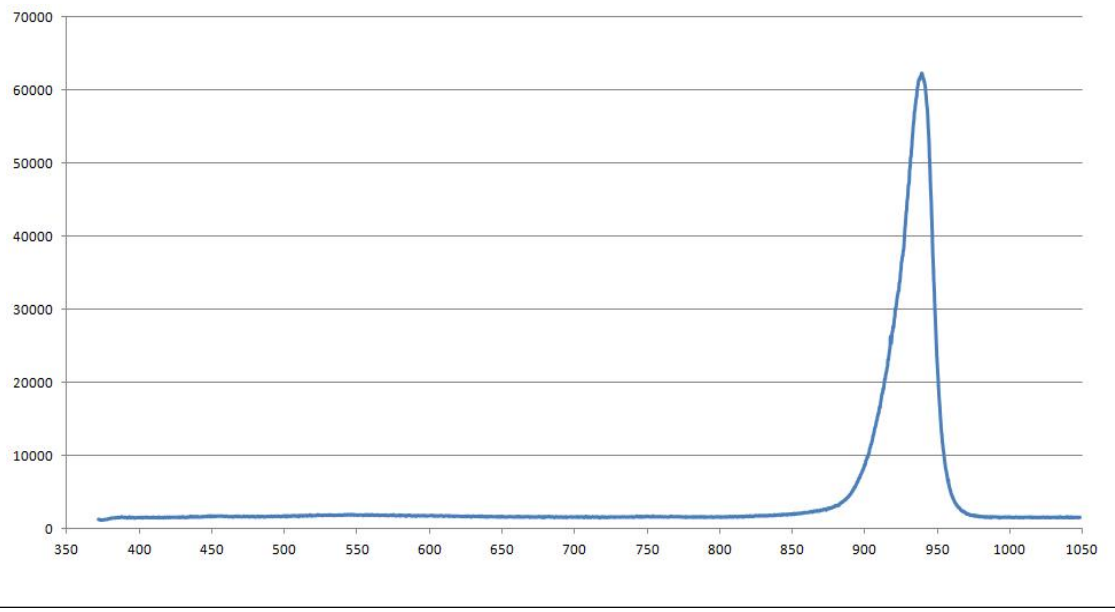
2 .3、Technical parameters of light source

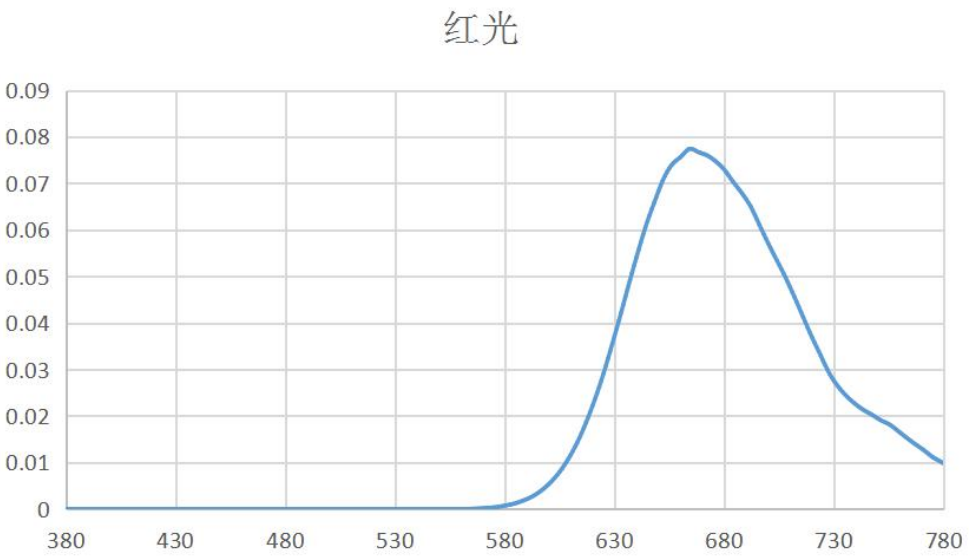
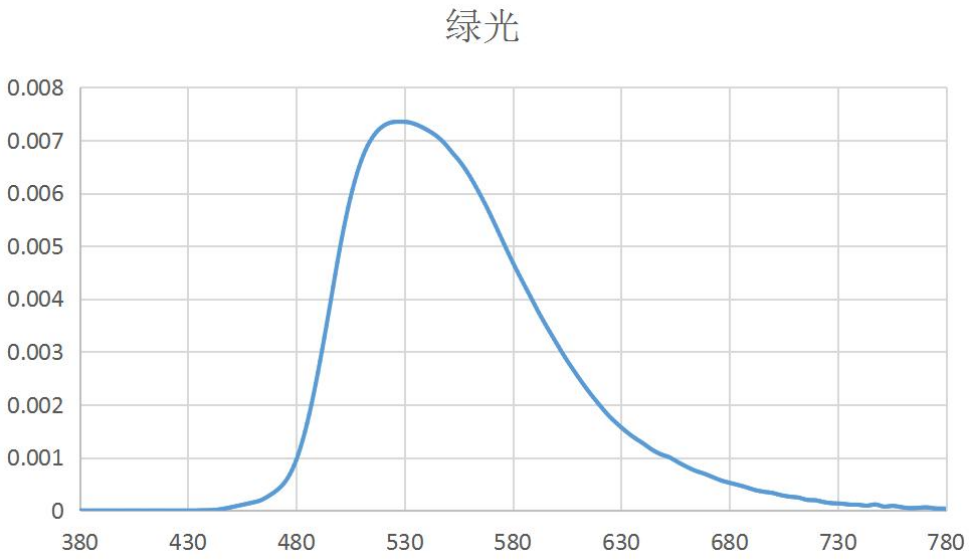
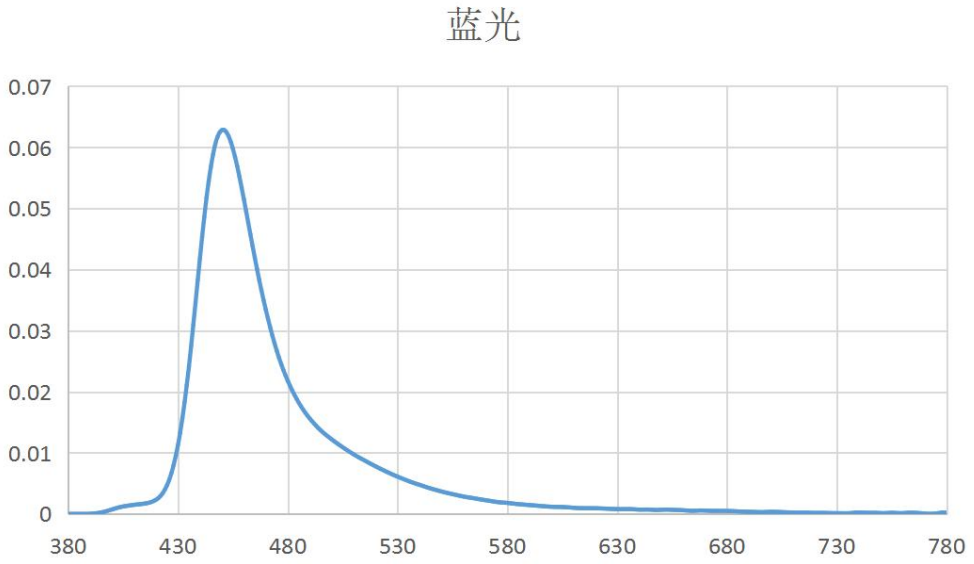
1、Optical technical parameters	
Illuminance range:	0~3000Lux
CCT:	5000K±150K
RGB:	With RGB, it can adjust the calibration color coordinates
Infrared wavelength:	940±10nm
IR energy value:	0~500uw/cm2
Light source uniformity:	Over90%

2、Electrical technical parameters	
Input Voltage:	24-48VDC
Input Current:	6.25A(Max)
3、Structural technical parameters	
Size of the appearance:	1070x920x75mm
Light emitting area:	1000x850mm
Housing material:	Electrode black aluminum
4、Environment for application	
Storage temperature:	-10℃～50℃
Working humidity:	40%~60%
Working temperature:	0℃～30℃

2、Light source parameters

2.4、Light Source Spectrum

5000K spectrum	
940nm spectrum	

R spectrum	
G spectrum	
B spectrum	

2.5、Overview of controller

The controller adopts high frequency and high memory chip, with high running speed and high stability. It can also connect the controller to PC through serial port and switch PC channel to control the light source brightness to integrate the light source into customer products. The controller adopts constant current control with high adjustment accuracy and good consistency.

2.6、Controller Technical Parameters

1、Electrical parameters	
Input Voltage ：	110~240VAC
Output Voltage ：	24~48VDC
Output Current ：	6.25A（Max）
Start-up power dissipation：	150W（Max）
Standby power dissipation：	0.5W
Working Frequency ：	50 / 60Hz
2、Structure parameter	
Housing material：	Electrode black aluminum
3、Environment for application	
Storage temperature：	-10℃～50℃
Working humidity：	40%~60%
Working temperature：	0℃～30℃

2.7、Controller Interface Introduction

The front of the controller

The back of the controller

① Switch and channel display digital pipe, the lower key is open or closed light channel, the additional key is switch channel;

② Brightness display digital tube, below the brightness plus and decrease adjustment button (long press adjustment step 10, short press adjustment step 1);

③ Power switch;

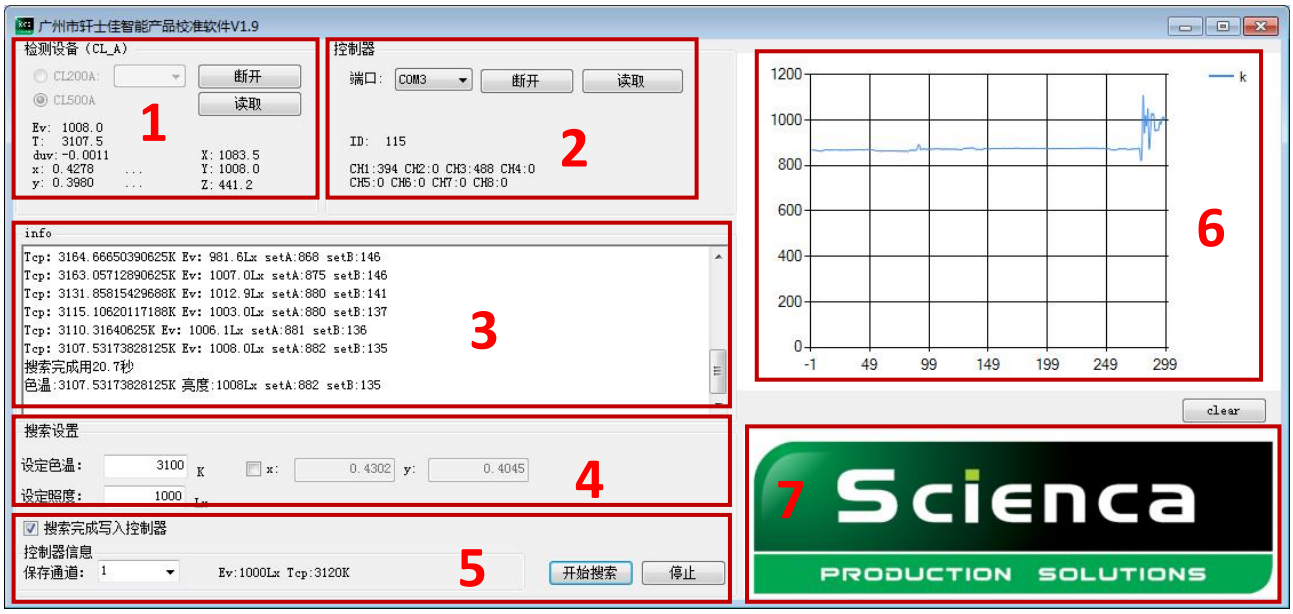
④ The AC220V power supply input;

⑤ RS232 Serial communication interface

3.1 Operation description of the upper computer computer software

Automatically calibrate the color temperature, color coordinates, and illuminance of the light source

3.1.1、Introduction to the calibration software interface



1: It is mainly connected to detect optical parameters, such as CL200, CL500
2: controller connection and data display stored in control, select the port of controller, click the connection button,
3: Information display window
4: Configure the parameters of automatic search, check the color coordinates x, y, illumination search, do not check the color temperature, illumination search
5: After the configuration search is completed, check whether to deposit to the controller, which channel to store to the controller, and click to start the search
6: The illuminance value of the light source that is read in real time
7: Project configuration button

3.1.2、Instructions for the automatic calibration operation

1.Premise steps：

①. The controller connects the power supply, the light source board, and connects the computer via the RS232 serial port

②. The detection instrument uses a special data cable connected to the computer, and the instrument sensor probe is close to the center of the light source surface

③. The ambient brightness is less than 0.1lux

④. Turn on the controller power switch, detect the instrument power switch, and turn on the calibration software

2. Select the test instrument CL-200A / CL-500A, use CL-200A to select the port to connect the instrument to the computer, CL-500A does not need to select the port to connect the instrument to the computer, click to connect, and then click to read

3. Select the port of the controller to connect to the computer, click Connect, pop readOK shows that the connection is successful, click OK

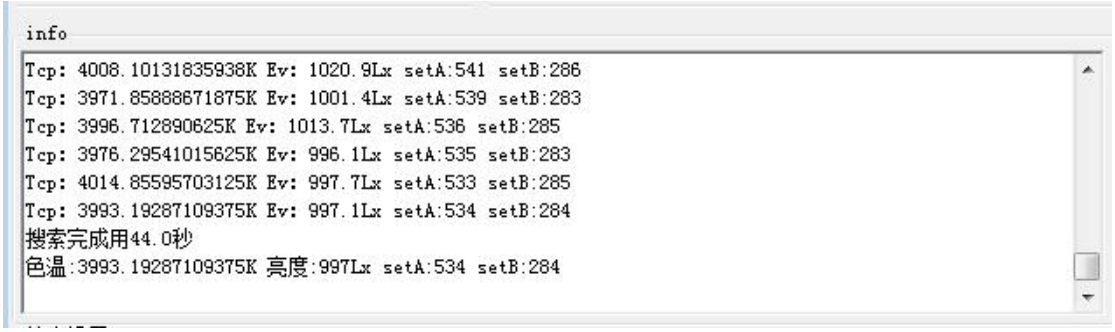
3. Configure the parameters for the automatic calibration.

① Calibration with color coordinates: check , enter target x, y value, color coordinate accuracy is 0.002, input set illumination: target illumination (between 0 and 1000)

② Calibration with color temperature: not checked □, enter set color temperature: target color temperature (between 3000~6000k), enter set illumination: target illumination (between 0 and 1000)

4. Check the search to write controller, select save channel (1~10), and click to search,

5. Calibration is completed.



4、Notes and safety requirements

1. Please read and follow all the instructions as you operate this product.
2. Please keep this manual as a reference to facilitate others to read or guide others to operate the product.
3. Follow the warnings. Please follow all the warnings and safety measures we provide in this manual.
4. Prevent water and moisture, and maintain electrical safety; when you use this product, you may use it in a place of water overflow or other liquid or uncontrolled moisture.
5. Thoroughly clean, you can use a clean-free cloth to clean and wipe, do not use corrosive liquid detergent, which will corrode the product, thus affecting the performance of the product, you can dip the cloth with mild soap liquid to clean the outer surface.
6. Use only one supporting controller, and use the special controller of the product.
7. Do not overload the circuit, but carry sockets and wires, which may cause the danger of fire or electric shock. Regularly check all wires to ensure that the lines is not damaged; find any signs of damage or wear, should be replaced immediately.
8. In case of thunderstorm weather, do not operate in the environment without any lightning protection measures. Unplug the power supply to avoid power fluctuation or unnecessary power decline, which may lead to damage to LED lights and electronic circuits.
9. Light source and controller must be used together.
10. The light source outlet should not be pressed by heavy objects, and can not pull the light source outlet randomly, to prevent the light source outlet from being scratched by sharp hard objects.
11. The light source use environment should be dry and cannot be used in a humid environment.
12. Before the light source is plugged in or dialed on the power line, make sure that the switch button of the light source is in OFF state. The wire needs to be connected and then energized.
13. When detecting, installing and using, the light source should be carefully operated to prevent the light source panel from being scratched by hard objects.

SCN-B50/940-1070920075XY

Guangzhou Scienca Electronics Technology Co.,Ltd

广州市轩士佳电子科技有限公司

www.scienca.com.cn