

datacolor
Light Booth
ES Luminaires
Color
Evaluation
Tools



datacolor Light Booth ES Luminaires Color Evaluation Tools User Manual

[Home](#) » [datacolor](#) » datacolor Light Booth ES Luminaires Color Evaluation Tools User Manual 

Contents

- 1 [datacolor Light Booth ES Luminaires Color Evaluation Tools](#)
- 2 [Product Usage Instructions](#)
- 3 [INTRODUCTION](#)
- 4 [Security information](#)
- 5 [Product Introduction](#)
- 6 [Function and Features](#)
- 7 [Assembly instructions for Light Booth](#)
- 8 [Power On](#)
- 9 [Operation](#)
- 10 [Appendix](#)
- 11 [Technical Specifications](#)
- 12 [About Datacolor](#)
- 13 [Frequently Asked Questions](#)
- 14 [Documents / Resources](#)
 - 14.1 [References](#)

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datacolor Light Booth ES Luminaires Color Evaluation Tools



Specifications

- **Product Name:** Datacolor Light Booth ES
- **Light Sources:** 5 standard light sources
- **Daylight Source:** CIE D65 (6500 K)
- **Adjustable Light Intensity:** Daylight, optional 1, optional 2 – 1200/1500/1800 Lx; UV lamp – 0.1/0.5/1.0 W/m²
- **Uniform Illumination:** Ultra-white glass diffuser
- **Material:** All-metal casing
- **Color Quality Standard:** Munsell N7 Color (N5 Color optional)

Product Usage Instructions

Assembly Instructions

Follow the assembly instructions provided in the manual to set up the light booth properly.


Power On

Connect the light booth to a power source and turn on the device using the power switch.

Operation

1. Select the desired light source from the available options.
2. Adjust the light intensity based on your requirements.
3. Monitor the LCD for configuration and parameter information.
4. Replace lamps when the lamp life reminder indicates the end of their lifespan.
5. Ensure uniform illumination by positioning objects properly within the light booth.





INTRODUCTION

- Please read the operation manual carefully before use.
- Please keep the manual properly for reference.
- This document has been translated by AI and may contain inaccuracies.
- Please refer to the original text or consult a professional for precise information.
- Please read carefully when any signs appear.
-  This symbol is used to remind you of potential dangers and behaviors that require attention.

Security information

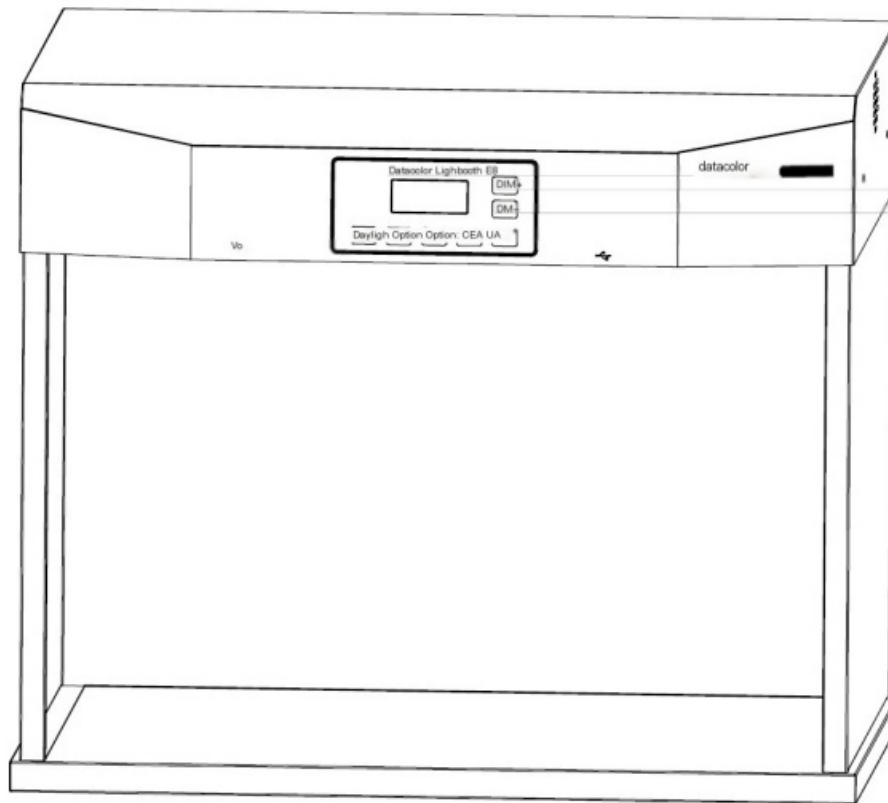
- Before installing and operating this device, please read this manual carefully and follow the instructions.
- If this device is not used in the designated manner, it may cause the protective measures of the device to fail and result in personal injury.

Matters needing attention

-  Use correct power supply: check the nameplate label on the back of the light box, and select to use the rated input power supply voltage.
- If the input power supply does not meet the requirements, it may lead to instability of the Light source, equipment burning, or even personal injury.
-  **Prevent burns:** Before touching the lamp tube, be sure to wait for it to cool down.
- Especially for incandescent lamp (CIE A), since the Type of lamp tube is tungsten halogen lamp, the glass temperature of the lamp tube shell is very high after lighting for some time.
- **Do not block the ventilation holes:** When installing the Light Booth, ensure that there is an open space of 30cm around to ensure good ventilation and heat dissipation conditions for the Light Booth.
- **Waterproof and moisture-proof:** Do not place the light box under the fire sprinkler System or in an environment prone to water dripping, to avoid equipment failure caused by liquid dripping into the equipment.
- **The correct working environment:** The workbench and surrounding area where the Light Booth is placed should be as neutral as possible, and interference from natural and other light sources should be avoided around the Light Booth.
-  When the UV lamp is turned on, it emits ultraviolet rays. Try to avoid direct eye contact or exposing your skin to light sources.
-  Unauthorized personnel, please do not open the chassis to prevent electric shock.

Product Introduction

This product is a compact standard light source box, which can provide up to 5 standard light sources. It can be widely used in the field of Color quality Management.



Appearance of Light Booth

- **Component list:** luminaire x 1, box x 1, diffuse glass x 1, 45 ° viewing angle table, power cord x 1, spare fuse x 2.

Function and Features

Light source Configuration

- **Five Light sources:**
 - **Daylight:** CIE D65 (6500 K).
 - **Option 1:** Fluorescent CWF (4150 K) or LED 4000 K.
 - **Option 2:** Fluorescent lamp TL84 (4000 K) or fluorescent lamp U35 (3500 K) or fluorescent lamp TL83 (3000 K).
 - **Incandescent lamp:** CIE A (2856 K).
 - **UV lamp:** UVA-365 nm. It can be used in combination with any Light source or alone.
- **Adjustable Light Intensity**
 - **Daylight**, optional 1, optional 2: adjustable illumination levels of 1200/1500/1800 Lx.
 - **UV lamp:** adjustable UV intensity range of 0.1/0.5/1.0 W/m².
 - **Note:** The illuminance of incandescent lamps is fixed at 1600 Lx and cannot be adjusted.
- **LCD Display Screen**
 - The LCD with backlight function can display the configuration information and light parameter information of the light source in a friendly way.
- **Lamp Lifespan Reminder**
 - The lamp life reminder function can display the expected remaining life of each lamp, and Tips the User to replace after the lamp life ends.
- **Uniform Illumination**
 - Using an ultra-white glass diffuser can eliminate dark areas of light and shadow, providing a more uniform

lighting environment.

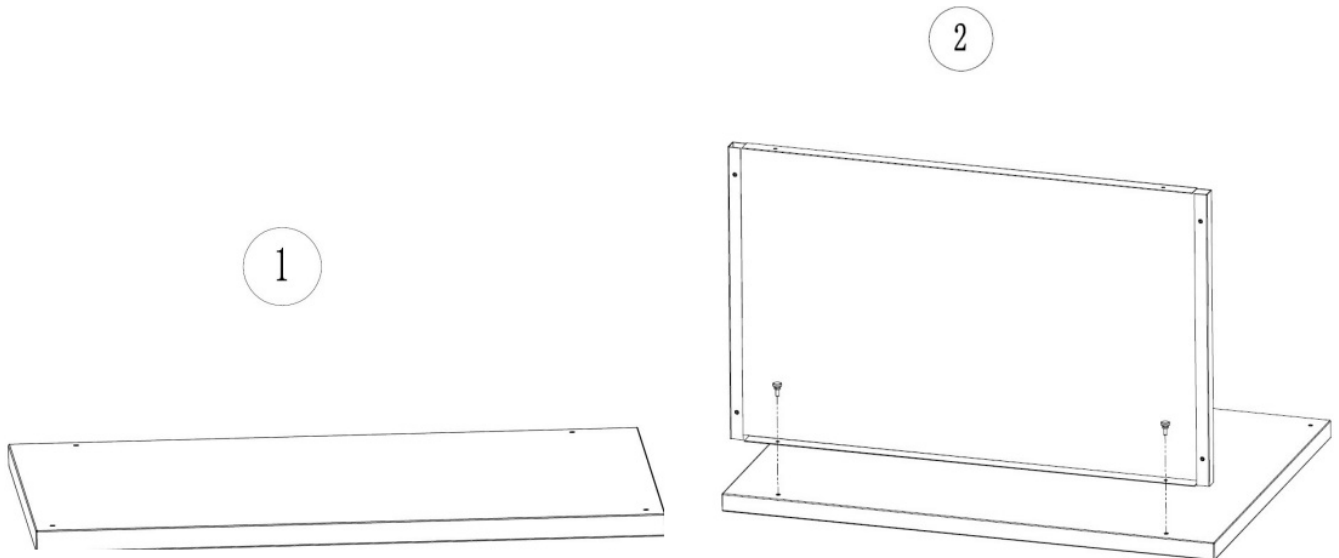
- **Equipment Casing**

- The all-metal casing and box are sturdy and durable. Observe that the coloring quality of the box surface meets the Munsell N7 Color standard. Munsell N5 Color can also be selected.

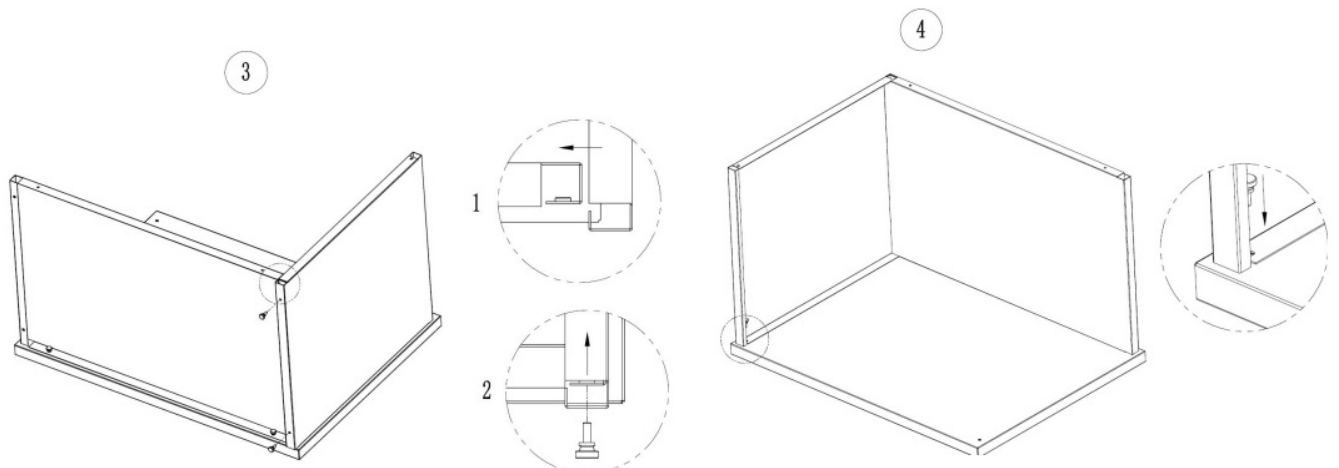
Assembly instructions for Light Booth

Select a flat table for installation to ensure that there is enough space for installing the light booth. Be careful not to scratch the surface of the box during installation.

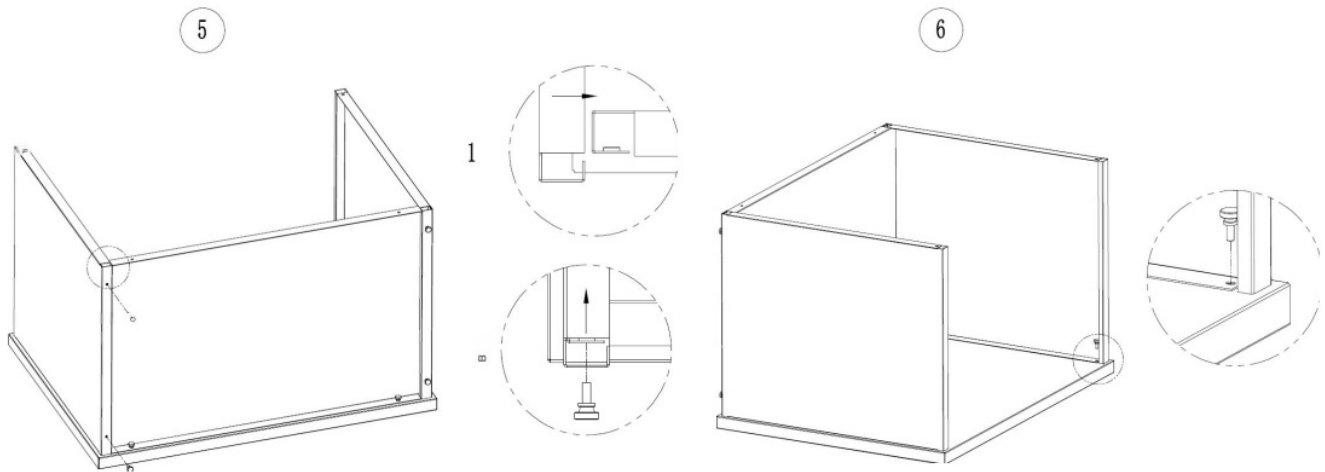
1. **Step 1** Place the base plate on a flat surface.
2. **Step 2** Place the back panel behind the base plate and secure it with two screws.



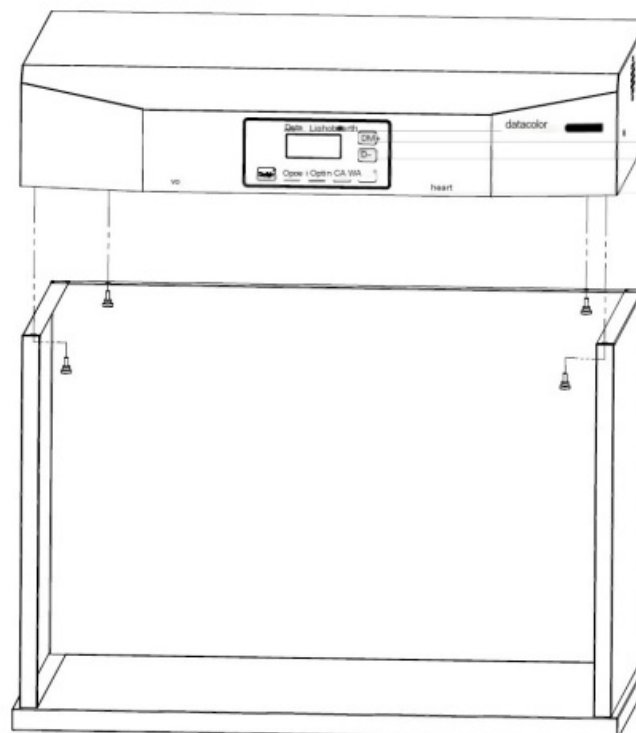
3. **Step 3** Insert the groove of the left side panel into the slit of the back panel and tighten the two screws at the back.
4. **Step 4** Tighten the screw between the left side panel and the bottom panel.



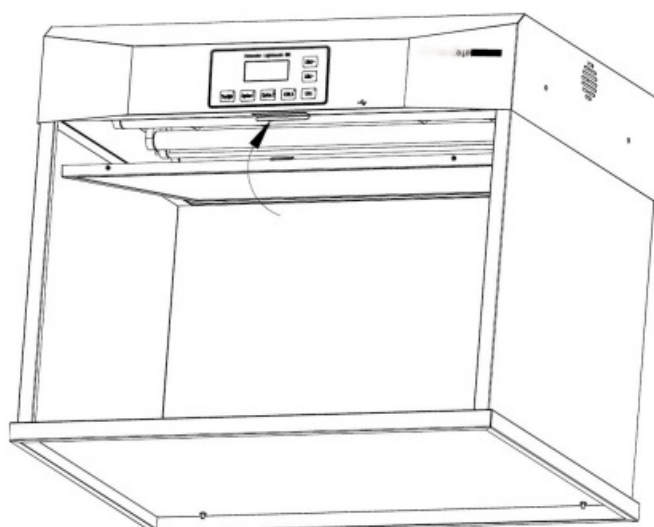
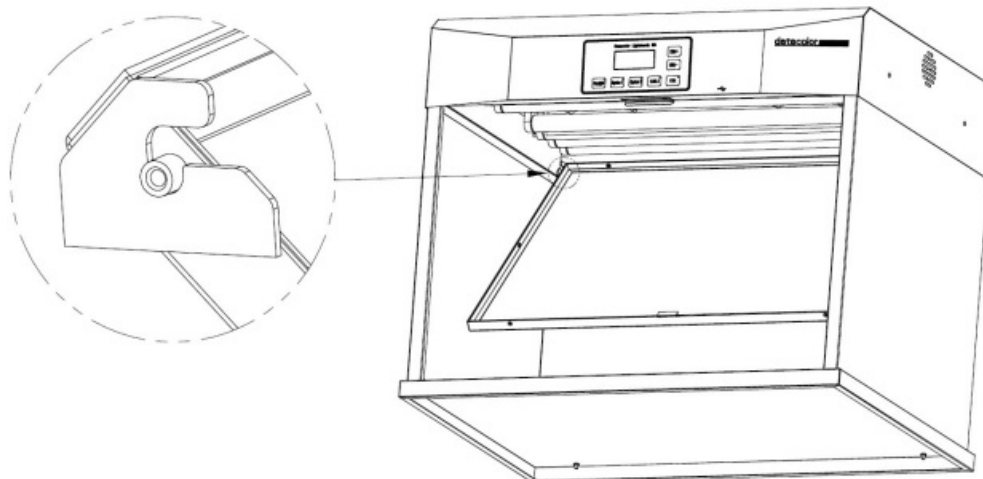
5. **Step 5** Insert the groove on the right side panel into the slit on the back panel and tighten the two screws at the back.
6. **Step 6** Tighten the screw between the right side panel and the bottom panel.



7. **Step 7** Carefully place the luminaire of the Light Booth on the frame of the box, ensuring that the upper and lower screw holes are aligned. Tighten and secure with four screws.



8. **Step 8** Ensure that the rough side of the diffuser faces downwards. Place the right pin of the diffuser into the right bracket under the light box emitter. Then place the left pin into another bracket.
9. **Step 9** Rotate the front of the diffuser and clip it into the lock.



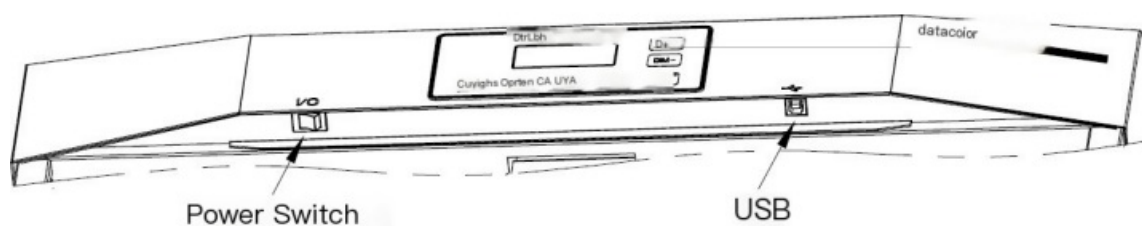
Power On

1. Fully insert the AC power cord plug into the power inlet socket. The main power inlet socket is located at the rear of the luminaire.

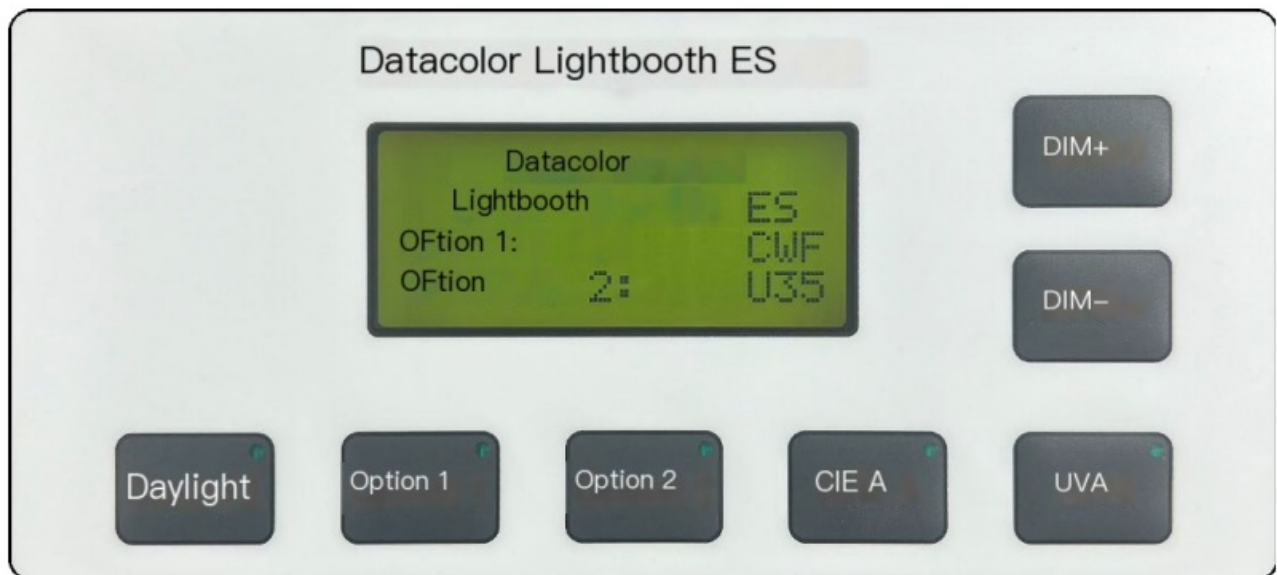


Power Inlet

2. The power switch is located on the lower left front side of the luminaire. Switch on and activate the device.



3. At this point, the LCD screen will light up and display the main menu.



Operation

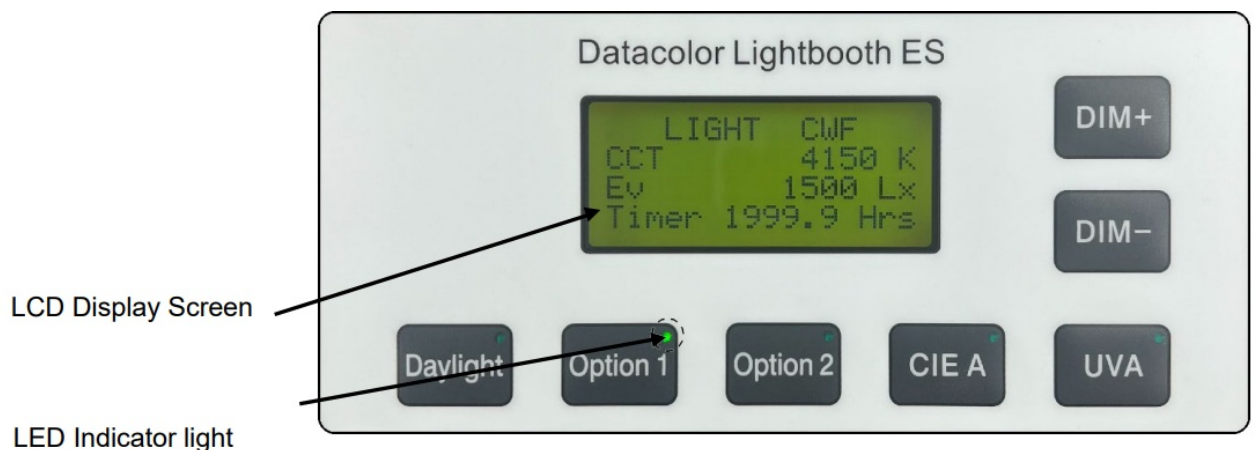
Button Description

1. Light source button

- **[Daylight]**: fluorescent light source
- **[Option 1]**: set light source for option 1
- **[Option 2]**: set light source for option 2
- **[CIE A]**: Incandescent light source
- **[UVA]**: UV Light source

2. Dimming button

- **DIM+** Increases the intensity of Daylight or Option 1 or Option 2 or UVA light source.
- **DIM-** Reduces the intensity of Daylight or Option 1 or Option 2 or UVA light source.



Switch Panel

Turning on and off the single light source

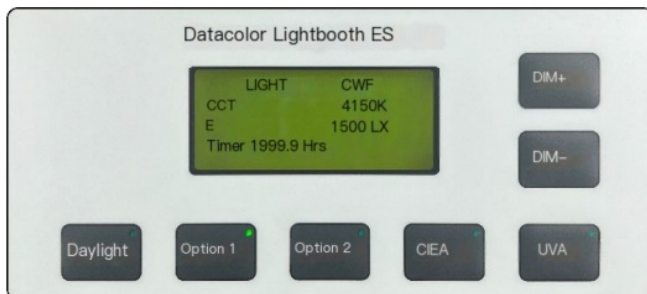
1. Press the light source button to light up the required Light source.
 - The LED indicator light in the upper right corner of the pressed button will light up.
 - The LCD screen will display the Name of the required light source, the standard color temperature CCT, the current illuminance Ev or UV radiation intensity, and the lamp remaining life Timer.



- **Note:** This operation will first Close the previously lit light source (if any), except for the UVA Light source button.
 - The UVA light source button can only control the switch of the UV light source. The ultraviolet lamp can be used in combination with any other light source or can be used alone.
 - Refer to “Select of combined light source with UV lamp”.
- Pressing the same key again will close the currently lit Light source.
 - The LED indicator will close, and the LCD will display the main menu

Turning on and off combined light sources

- The UVA lamp can be combined with any other light source.
- Press other light source buttons to light up a light source. Press the UVA lamp light source button again to turn on the UVA lamp. At this time, the UVA lamp will be added into the currently lit light source.



Adjust the Intensity of the light source

- When the light source is lit, pressing the DIM+ button will increase the light intensity, or pressing the DIM- button will reduce the light intensity. The LCD screen will display the corresponding illumination level.

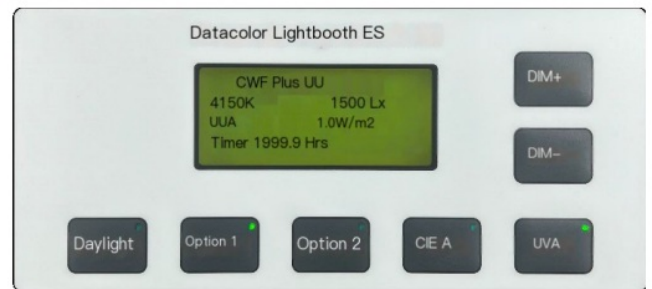
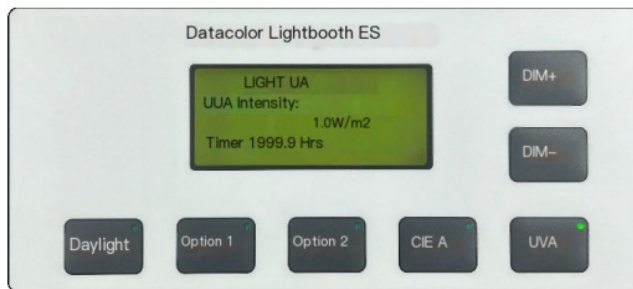


Adjust the UVA intensity in the combined light sources

- First, turn on the UVA light separately and press the DIM+ or DIM- button to adjust the UVA intensity value to

the desired level

2. Refer to “Turning on and off Combined light sources” again to light up the combined light source.



Appendix

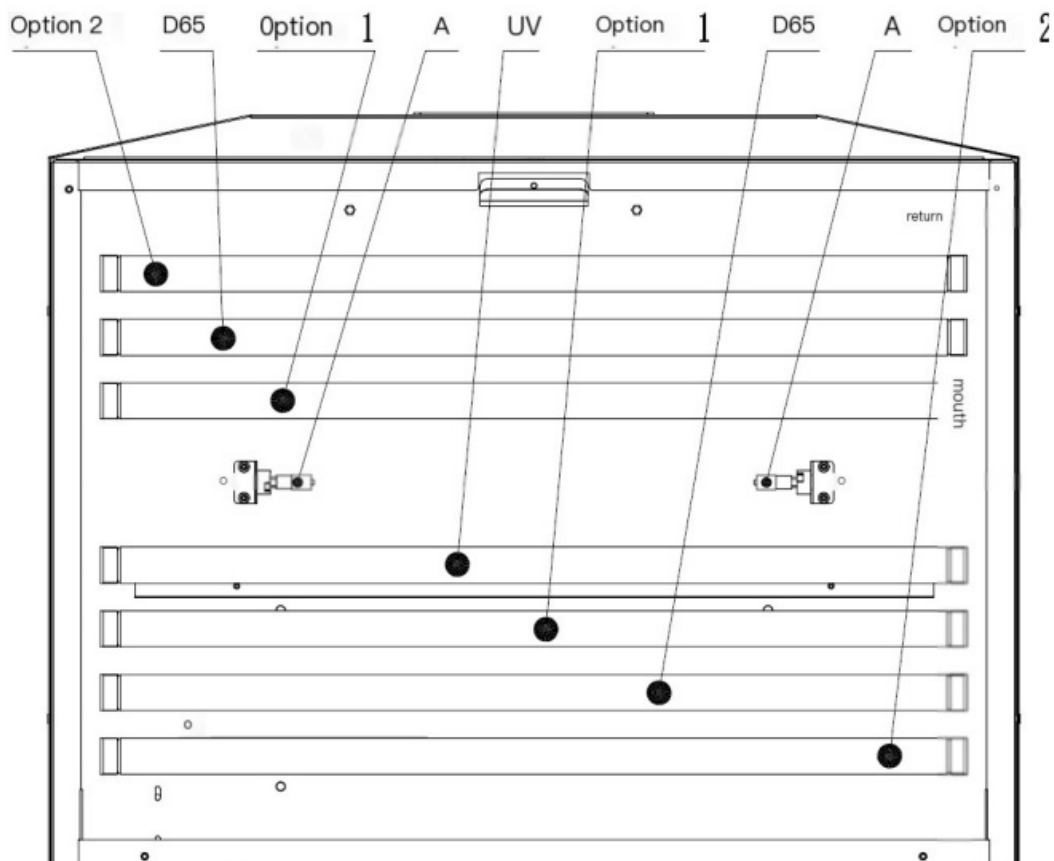
Maintenance

Replace the lamp

- Immediately replace the burnt out or expired lamp tubes to maintain overall performance standards.
- **Note:** We recommend replacing the complete set of lamps.
- The service life of recommended lamps is listed in the table below.

Lamp model	Change time	Lamp model	Change time
Fluorescent CIE D65	2000 hours	Incandescent CIE A	2000 hours
CWF	2000 hours	UV lamp	2000 hours
TL84	2000 hours	LED 4000 K	2000 hours
U35	2000 hours	TL83	2000 hours

Note: Option 1: CWF or LED 4000 K; Option 2: TL84 or U35 or TL83.



Lamp Position Guidance

Be careful:

- Before maintenance, be sure to close the power switch and unplug the input power cord.
- Before replacing the lamp tube, please hold one hand under the diffuser glass and release the diffuser glass lock with the other hand. Slowly lower the front end of the diffuser glass until it reaches the fully open vertical position.
- Before touching the lamp tube, please wait for it to cool down to prevent burns.

1. Replace the halogen tungsten lamp

- The incandescent CIE A light source is two tungsten halogen tubes. Please wait for the lamp to cool down before touching it.
- When touching the lamp tube, please use clean gloves or similar products, as skin oil can affect the performance of the lamp tube.
- Pull out the old lamp tube from the lamp slot.
- Insert the lamp legs of the replacement tube into the groove of the lamp slot.
- Repeat the above steps to install another lamp tube.
- After finishing, please turn on and close the light source to test whether the installation is correct.



2. Replace fluorescent/LED tubes

- Rotate the lamp tube by 1/4 turn with both hands simultaneously (rotation is not required), remove the lamp tube from the two grooves, and dispose of the waste lamp tube properly. The reference diagram is as follows.
- Install the new lamp tube into the groove and rotate the lamp tube 1/4 turn with both hands simultaneously.
- **Note:** After finishing, the label/spray code of the lamp tube should face upward or sideways to avoid shading.
- Repeat the above steps to install another lamp tube.

- After finishing, please turn on and close the Light source to test whether the installation is correct.



3. Reset the Lifespan of the Lamp

- When the lamp tube is replaced, press the button of the light source for more than 5 seconds, and the LCD will display a request for OK Windows.
- Pressing the DIM+ button will reset the lifespan of the lamp. Press the DIM- key, and the operation will be Cancel.
- **Note:** Resetting the service life time of light source may affect the warranty terms, please operate with caution!



4. Query the Reset Times of the Lamp Lifespan Timer

- When the lamp lifespan timer is reset, the reset count will increase by 1 (initially 0).
- Press the light source button to be queried to light up the light source. Press the DIM+ button continuously for more than 5 seconds to enter the reset count query page.
- **Note:** When applying for after-sales service, User may be required to provide photos of this page as evidence.



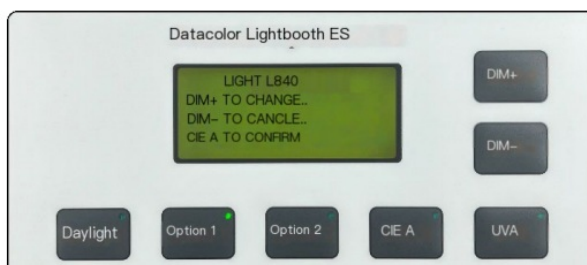
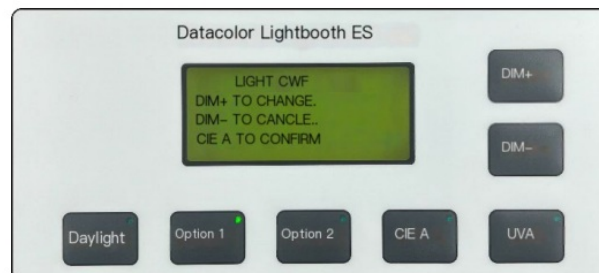
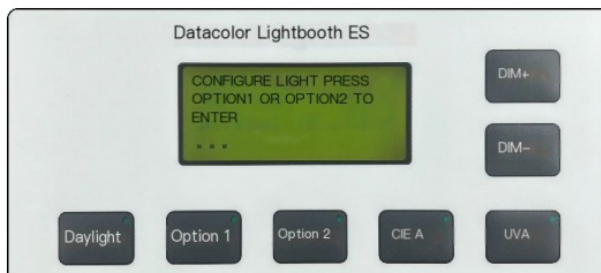
Switch the light source configuration

1. Optional Lamp Tube

- Option 1 can be optionally equipped with CWF or LED 4000K.
- Option 2 can be optionally equipped with TL84, U35, or TL83.
- To replace the lamp tube, please refer to the “Replacing the lamp” operation.

2. Switch Configuration Information between Option 1 and Option 2

- When switching the configuration of the selected position lamp, press the DIM+ button and hold it for more than 5 seconds. The LCD will display Tips Windows.
- At this point, press Option 1/Option 2 to enter the configuration interface. Press the DIM+ button to change the light source configuration information. Press the DIM key to Cancel the operation.
- Press the CIE A key to Save the light source configuration information and return to the main interface. At this point, the configuration information for Option 1 or Option 2 on the main interface will change accordingly.
- **Note:** If you change the configuration information, you need to calibrate again, otherwise the parameters such as light source illuminance may change significantly, please operate carefully!



3. Replace the Fuse

- Before operation, please close the power switch and unplug the input power cord.
- Use tools to open the fuse box. The fuse box is located below the power socket.
- Take out the damaged fuse and replace it with a spare fuse.
- After finishing, push the fuse box in the direction of the interface. The reference diagram is as follows.
- **Note:** Please use official accessories for fuses to avoid damaging the equipment.



Technical Specifications

Dimensions (H x W x D)	Light Booth	Observation area
	H 585 x W 697 x D 541 mm	H 420 x W 640 x D 480 mm
Weight/Shipping Weight	26.5 Kg/31.5 Kg (excluding the weight of 2.2 Kg for the optional 45 degree viewing platform)	
Electrical	1 Power Supply: 115V AC (100-120 Vac), 50/60HZ, 80W 230V AC (220-240 Vac), 50/60HZ, 80W 2 Fuse: 115V AC: 250V, 3A 220V AC: 250V, 1.6A 3 power cord: Plug: 110V and 220V two specifications Tail plug: IEC60320 C13 4 Standby power: ≤ 5 W	
Optics	Lamp tube: 1 CIE D65 fluorescent lamp: 2 units, T8, 18W 2 Option 1: CWF: 2 units, T8, 18W, Or LED 4000K: 2 pieces, T8 3 Option 2: TL84: 2 units, T8, 18W, Or TL83: 2, T8, 18W, Or U35: 2, T8, 17W 4 Incandescent lamps: 2, 12V, 35W 5 UV lamp: 1 unit, T8, 18w	
Environmental Requirements	1 Indoor use; 2 Altitude requirement: ≤ 2000 meters; 3 Environmental temperature: 5 °C to 35 °C; 4 Storage temperature: -40 °C to 70 °C; 5 Relative humidity: 0 to 80% maximum (non condensing)	
Transportation Method	Manual handling	

About Datacolor

- Datacolor, a global leader in color management solutions, provides software, instruments and services to assure accurate color of materials, products, and images.

- The world's leading brands, manufacturers and creative professionals have used Datacolor's innovative solutions to consistently achieve the right color for more than 45 years.

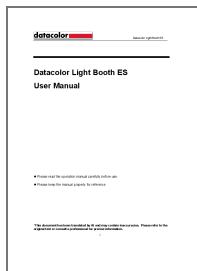
The company provides sales, service, and support to over 100 countries throughout Europe, the Americas, and Asia. Industries served include textile and apparel, paint and coatings, automotive and plastics, as well as photography, design, and videography.

- For more information, visit: [Datacolor.com](https://www.datacolor.com).

Frequently Asked Questions

- **Q: Can I adjust the intensity of all light sources?**
 - **A:** Daylight, optional 1, and optional 2 light sources have adjustable illumination levels, while the illuminance of incandescent lamps is fixed.
- **Q: How do I know when to replace the lamps?**
 - **A:** The lamp lifespan reminder function will display the remaining life of each lamp and notify you when it's time for replacement.
- **Q: What is the material of the light booth casing?**
 - **A:** The casing is made of all-metal, ensuring durability and sturdiness.

Documents / Resources

	<p>datacolor Light Booth ES Luminaires Color Evaluation Tools [pdf] User Manual Light Booth ES Luminaires Color Evaluation Tools, Light Booth ES, Luminaires Color Evaluation Tools, Color Evaluation Tools</p>
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References

- [d| Color Management Tools - Color Management | Datacolor](#)
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