User guide

Profoto L1600D

For other languages visit:
Pour les autres langues, veuillez consulter:
www.profoto.com/support

Profoto

General safety instructions

IMPORTANT SAFETY INFORMATION & WARNINGS!

Do not operate the equipment before studying the Quick Start and Safety Guide and the User Guide. Make sure that the Quick Start and Safety Guide is always accessible to the user! Profoto products are intended for professional use! Do not place or use the equipment where it can be exposed to extreme electromagnetic fields or in areas with flammable gases or dust! Only use the product together with recommended light shaping tools, as specified in the User Guide. Light source shall be replaced if they are damaged or thermally deformed. It shall only be replaced by the manufacturer or his service agent. If the product enclosure or reflector is damaged, immediately stop using the product, disconnect the mains cable from the wall outlet and contact Profoto Service! Always lift product by their handles and never by the connectors or cables. Do not connect to mains power or operate the product when it has been left in a hot or cold environment, such as a car. Let the product reach the approved operating temperature before doing so. Always make sure that the equipment is securely attached to a stable stand or mounted with a safety strap when applying other mounting solutions. Remove transport cap from lamp head before use! Never install the product in a confined space. Always leave a space around the product for ventilation, do not cover any ventilation openings or light source. Product shall not be exposed to excessive heat such as sunshine, heat sources, and fire or similar. Profoto products are only intended for the purpose of image capture, such as photography and videography. They are not intended for use in any other application. To guarantee full functionality, make sure the fan blades can move freely. While operating the yoke, be aware of the risk of pinching hands. For optimal performance, it is recommended to use the product with the fans positioned on the topside.

WARNING – Electrical Shock – High Voltage!

Mains powered equipment shall always be connected to a mains socket outlet with a protective earthing connection! Do not attempt to repair this product yourself, as opening or removing screwed covers may expose you to the risk of electric shock. Do not dissasemble or touch any part of the minireflector or light source while the unit is connected to power. High voltage may be present whenever the mains cable is connected. Equipment must only be serviced, modified, or repaired by authorized and competent service personnel! Warning - The terminals marked with the flash symbol are hazardous live. Do not open or disassemble the product. Equipment operates with high voltage. It may be hazardous live, for a considerable time, even when powered off and/or the mains cable has been removed. The mains plug or appliance coupler is used as disconnect device. The disconnect device shall remain readily operable. When you are done using the equipment, always disconnect from the mains outlet by pulling the plug, not the cable. Never use ordinary household extension cords to elongate the power cable. They may overheat. Make sure that rated voltage for product corresponds with technical data of user guide regarding power supply.

Caution – Burn Hazard – Hot Parts!

Do not touch hot parts with bare fingers! The equipment may make certain metal parts, front lenses, or glass covers emit strong heat when used! Do not point light source too close to people.

Caution!

Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eye.

Table of Contents

Nomenclature 6
Getting started 8
- Mandatory safety instructions 8
- Powering up the unit 9
- Product registration and firmware update 9
- Mounting L1600D 10
- Mount Profoto Light Shaping Tools 11

Basic operation 12
- Switch on/off 12
- Adjusting light intensity 12
- Control options 13

Connect DMX 14
- Wired 15
- Wireless/CRMX 15
- Bluetooth DMX 15

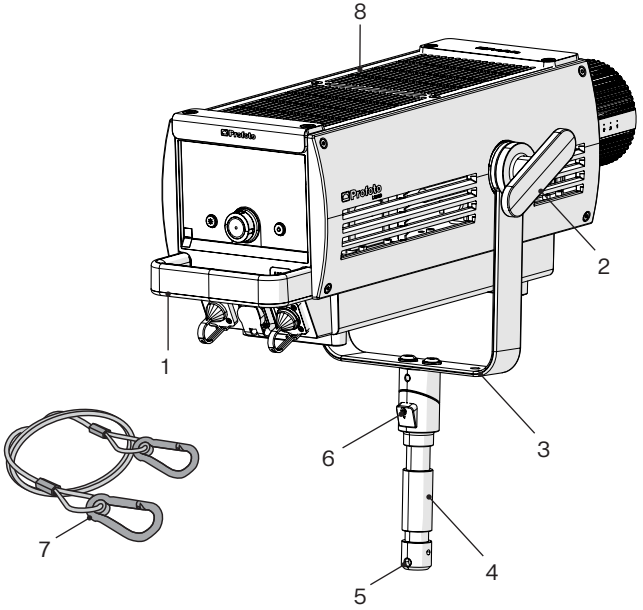
Connect Profoto Air 16
- Set up connectivity with Profoto remotes 16

Connect Profoto Control app 16
Settings 17
- DMX 18
- Wireless DMX 18
- Bluetooth DMX 19
- Dimming curve 19
- Fan 20
- General 20
- Factory reset 22
- Icon placement, DMX/CRMX mode (filming) 23
- Icon placement, Air mode (still photography) 24

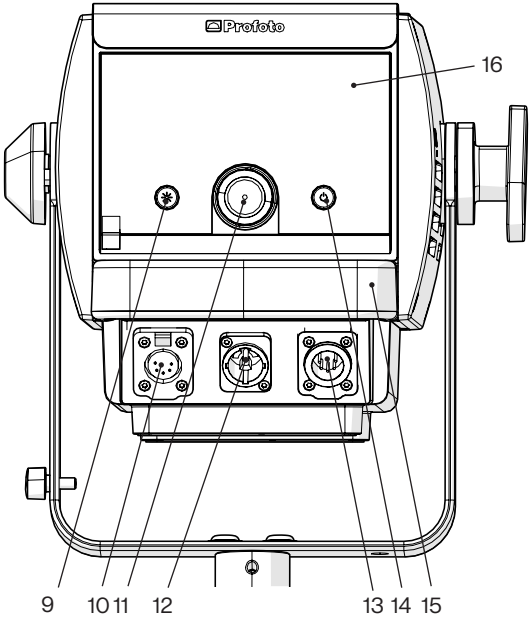
Maintenance 26
- Care instruction 26

Other 26
Overheat protection 26
Serial number 27
Firmware update 27
Technical specifications 29
Photometric data 30
Warranty 31
Credit 31

Nomenclature



1. Handle
2. Yoke wheel
3. Safety wire connection
4. Stand adapter
5. Clamp screw connection
6. Swivel yoke button
7. Safety wire
8. Fan (must not be covered)



9. Light On/Off
   Navigation back
10. DMX out
11. Center button and dial
12. AC power in
13. DMX in
14. Device On/Off
    Quick exit
15. USB (behind handle)
16. Display

Getting started

Mandatory safety instructions

Transport & Handling

Cap and Power Off: Before transportation, turn off the unit, mount the transport cap and disconnect from mains power.

Safe Transport: Always use the provided case to prevent damage during transport.

Before Use:

Inspect: Before connecting to mains, check the housing and front glass for cracks. If the front glass is dirty, wipe it with a soft cloth.

In the Event of Equipment Damage

Stop Use and Disconnect: If there are any open cracks in the housing or front glass, immediately stop use, disconnect from power to prevent electric shock risk. Do not touch any internal parts and contact Profoto Service or an authorized service center for assistance.

High Voltage Warning

Persistent Voltage: High internal voltage remains up to 10 minutes after the unit is turned off and disconnected from mains. Never remove front glass or touch any parts inside without referring to the complete user guide and Quick Start and Safety Guide.

Self-Maintenance

See Maintenance, Care instruction on page 27.

Repairs

Authorized Service Only: Any repairs beyond basic self-maintenance must only be performed by authorized service personnel. For assistance, contact Profoto Service or an authorized service center.

In addition to this user guide, you are required to read the Quick Start and Safety Guide before you start using your L1600D. It contains vital information for the safe operation of the product as well as important regulatory information. The Quick Start and Safety Guide is supplied in print with the L1600D translated into many languages, it can also be found for download where you download this user guide.

Powering up the unit

1. Connect the power cable connector to the power connection [12].
2. Connect the power cable to mains power.

The L1600D unit starts and the display lights up.

Product registration and firmware update

Before using your product for the first time, it needs to be registered and updated. Scan the QR-code below or go to profoto.com/setup for additional instructions.

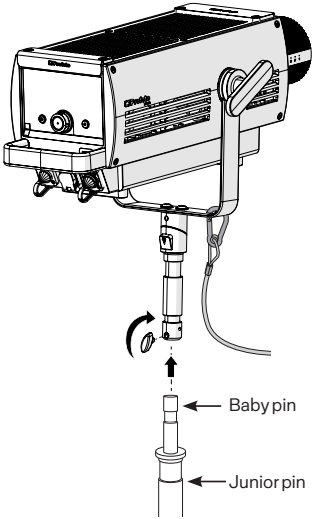
Mounting L1600D

1. There are two types of mounting onto a light stand, baby pin or junior pin. Remove the clamp screw and mount the L1600D to a light stand. Secure the baby pin/junior pin with the clamp screw.
2. L1600D unit can be rotated when pressing the swivel yoke button. Stop pressing the swivel yoke button to lock L1600D in position.
3. The L1600D unit can also be mounted on the ceiling and be directed upwards/downwards when the yoke wheel is loosened.

Warning!

- Make sure that no people or object are nearby during rotation to avoid accidents.
- While operating the yoke, be aware of the risk of pinching hands.
- Do not mount or fixture the L1600D upside down, and make sure that the fan is not covered.

4. Connect a safety wire to secure the lamp.



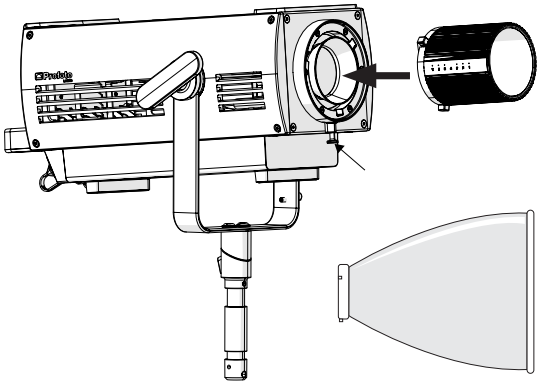
Mount Profoto Light Shaping Tools

The L1600D unit has a built-in reflector that creates a wide and even light spread with a high output. The L1600D comes with a Boost reflector (50 cm/19.6 in). The L1600D has dual mounting options; Bowens mount and Profoto adapter. When the adapter is mounted in the Bowens mount, it is compatible with more than 120 light shaping tools, which can be used to shape its already beautiful light into almost any light you can imagine.

1. Mount the Profoto adaptor onto the front of L1600D. Turn the reflector clockwise to lock it in place. Then mount the Profoto adapter over the Bowens mount.
2. Release by pulling the pin down and turn the reflector counter clockwise.

Mount tools with Profoto reflector mount

When the reflectors are equipped with a Profoto adaptor, the tools are easy to mount and allow you to shape the light by simply sliding the reflector back and forth along the zoom scale on the unit.



Basic operation

Switch on/off

Connect the device to the power source. To switch the unit on and off, press the On/Off button[14].

When the unit is switched off, the last settings are stored and will apply when the unit is switched on again.

Adjusting light intensity

Percentage scale, 0-100%

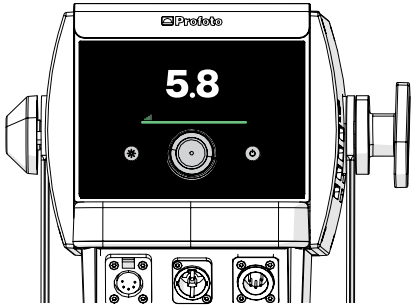
Turn the center button [11] to adjust the brightness ratio from 0-100%.

- Turning the center button [11] will adjust the light intensity 0.1 percentage points for every step.
- When turning the center button [11] fast, the light intensity change will accelerate.

Profoto/Air scale, 0-10

When Profoto Air is ON, light intensity switches to Profoto scale.

- Turning the center button [11] will adjust the light intensity 0.1 F-stop for every step.
- When turning the center button [11] fast, the light intensity change will accelerate.
- Pressing while turning the center button [11] will adjust light intensity 1 percentage points for every step.

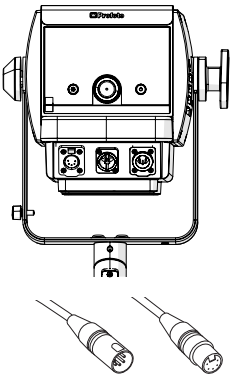


Control options

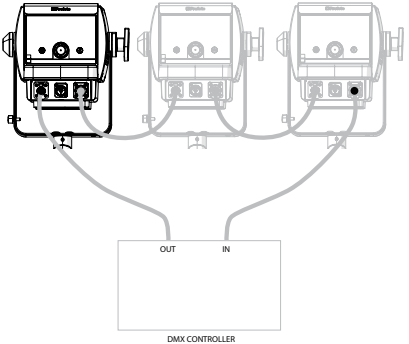
The L1600D has multiple control options:

1. L1600D interface
2. DMX
3. CRMX/Lumen radio
4. Profoto Air
5. Profoto Control app
6. Third-part Lumen radio compatible apps

Connect DMX



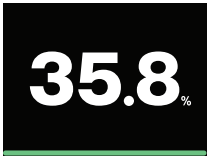
Connect the L1600D to a DMX controller. You can connect multiple units by using the built-in termination setting on the last unit, or by connecting the last unit to output via a cable. Ensure the controller is set to the same DMX Address as the unit.



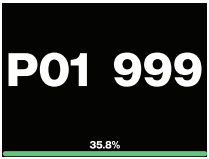
When the device receives a DMX signal, a green bottom line appears. If the device is connected to wireless DMX (CRMX), the CRMX link strength indicator ( ) is displayed. When connected via Bluetooth, the Bluetooth icon ( ) is visible. If the device is connected to both Bluetooth and DMX, the green bottom line will be shown together with the Bluetooth icon.

Wired

DMX signal received



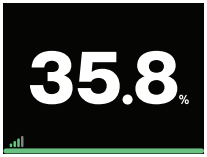
DMX info is set to SHOW



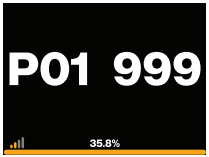
DMX signal lost

Wireless/CRMX

CRMX linked



CRMX signal low



DMX signal lost

Bluetooth DMX

DMX signal via Bluetooth

DMX info is set to SHOW

DMX signal lost

Connect Profoto Air

Set up connectivity with Profoto remotes

These instructions only cover the basic setup on L1600D. For detailed operating instructions, refer to the user guide for your Profoto remote.

1. In the L1600D settings menu, set Air to ON.
2. In the L1600D settings menu, select the same channel that is set on your Profoto remote.
3. In the L1600D settings menu, assign a group (A-F).

Connect Profoto Control app

Profoto apps are continuously updated with new functionality and they also help you to keep your L1600D up to date with the latest new feature updates and bug fixes.

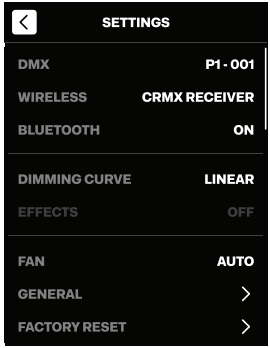
Profoto apps are available on App Store and Google Play. For more information about the Profoto apps, go to profoto.com.

To connect the Profoto app to the L1600D, you need to activate Bluetooth. Then start the Profoto app and follow the in-app instructions.

Settings

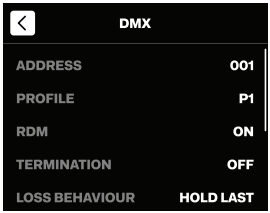
All L1600D settings are accessed and selected through the settings menu.

1. Press the center button [11] to enter the settings menu.



2. Scroll through the settings menu by turning the center button [11].
3. To change a setting, press the center button [11]. For some settings, a submenu will appear.
4. To return to the previous menu, press the left button [9] or select the left arrow symbol at the top of the menu.

DMX

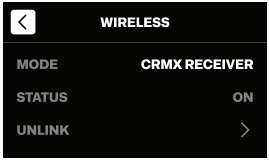


Status shows current profile and address. The DMX selectable settings.

- ADDRESS: Address used by the unit.
- PROFILE: Defines what channels are used.
  P1 - 8bits 1 channels and P2 - 16 bits, 2 channels.
- RDM: Allows two-way communication between a controller and a DMX device.
- TERMINATION:
  OFF: The built-in termination is off. The last unit needs to be connected to output via a cable.
  ON: The built-in termination is on.
- LOSS BEHAVIOUR: Hold last, Black out, Hold 2 min fade out.

When the DMX signal is lost (e.g., the cable is unplugged) and the DMX loss behavior is set to "Hold Last," a popup will remain on the screen until the user presses a button or the DMX is reconnected.

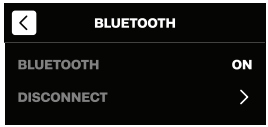
Wireless DMX



The WIRELESS DMX setting is used to select:

- MODE (Off, CRMX receiver, Profoto air).
- STATUS: ON (the device is not linked), LINKED

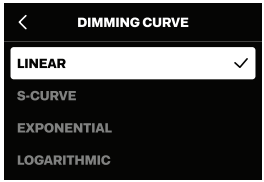
Bluetooth DMX



The BLUETOOTH setting is used to manage connectivity with the Profoto app or other third parts app.

- ON: Bluetooth is activated and the unit can be connected to the Profoto app or other third parts app.
- CONNECTED: The unit is connected to Profoto app.
- OFF: Bluetooth is deactivated.

Dimming curve

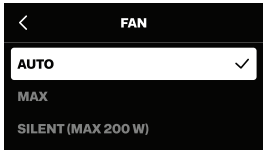


There are four selectable settings.

- Linear: proportional to electrical power, but perceived as uneven to the human eye.
- Logarithmic (log): More natural and smoother at lower light levels.
- Exponential (exp): Subtle changes at the beginning but more significant changes at higher levels.
- S-Curve: The smoothest and most natural transition across the entire dimming range.

The choice of dimming curve depends on the desired experience and precision in light control.

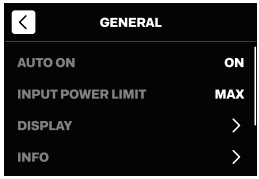
Fan



The Fan settings can be set to

- MAX (constant speed).
- AUTO (the speed of the fan depends on the environment).
- SILENT (max 200W).

General



The General settings has four selectable settings:

- AUTO ON: (the display starts but the lamp is still off).
- INPUT POWER LIMIT: Power consumption setting (Off, max 1200W, max 800W, max 400W.

If input power is limited, eg. by selecting Silent fan or a specific limit, a badge with the selected limit is displayed.

In addition to the selectable power limits, the unit features an in-built automatic selection system that adjusts based on the voltage it is connected to.

The automatic input power limiting function operates in two stages based on input voltage:

1. First Stage: If the voltage is between 101-110 V, the unit reduces its power output to 90% of its maximum capacity, which equals 1440 W (90% of 1600 W). At this stage, the current will vary slightly depending on the input voltage, from approximately 14.18 A at 101 V
2. Second Stage (relevant for Japan): If the voltage falls to 100 V or below, the unit further reduces its power output to 80% of the maximum, resulting in an output of 1280 W. At this reduced output, the current would be approximately 12.8 A.

The automatic power limit resets when the input voltage returns to 106 V or 116 V, restoring full power output.

Additionally, users can manually select input power limits of the maximum power in the power limit settings. These settings would cap the power output at 1200 W, 800 W, or 400 W, respectively.

- DISPLAY: Settings for display brightness (Brightness, Input power, DMX info).

If Input power under Display is set to Show, the current power input text is displayed below the light intensity.

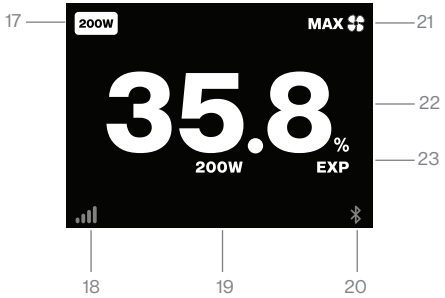
- INFO: Contains following sections:
  - ABOUT displays unit specific information about the serial number, hardware, and installed firmware.
  - UNIT STATS displays lifetime accumulated unit stats. Runtime (hours in operation) and Power-on count (number of sessions).
  - REGULATORY displays regulatory information.

Factory reset

FACTORY RESET will reset all settings to factory default settings.

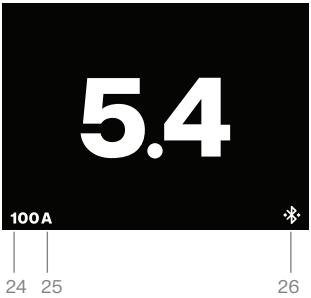
- Wireless factory default is CRMS RECEIVER.
- Bluetooth factory default is ON.
- Dimming curve factory default is LINEAR.
- Fan factory default is AUTO.
- General - factory default is AUTO ON.
- General - INPUT POWER LIMIT factory default is AUTO.

Icon placement, DMX/CRMX mode (filming)



17. Input power limit
18. CRMX ON
19. Input power
20. Bluetooth ON
21. Fan
22. Light intensity
23. Dimming curve

Icon placement, Air mode (still photography)



24. Air channel
25. Air group
26. Bluetooth connected

Air

Displaying selected channel and group in Air mode.

Bluetooth

Displayed when Bluetooth is On or Connected.

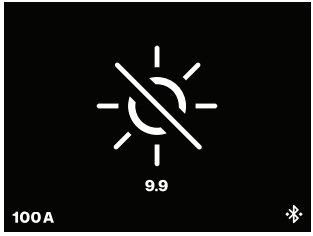
Profoto Air mode

When Profoto Air is on:

- CRMX is disabled.
- Incoming DMX signal is ignored.
- Instead of 0.1-100% user see the Profoto scale (0.1-10).

Head off

- Profoto scale beneath the symbol.



Maintenance

Care instruction

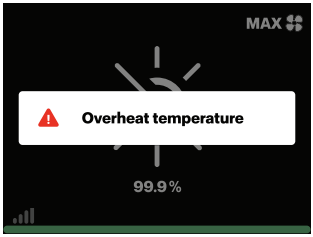
To clean the unit, wipe it with a soft cloth moistened with a small amount of mild detergent. Use another soft, dry cloth to wipe it dry.

Other

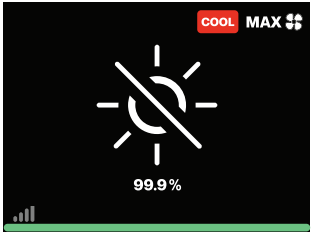
Overheat protection

A temperature limit indicator is shown on the main screen of the display [8] if the unit has reached a temperature level that has activated the built-in overheat protection. When this occurs, the performance is limited until the temperature level is back to an acceptable level.

If the device overheats, the head turns off, and the fan switches to max speed.



If the device remains overheated after the user closes the popup warning, the “COOL” badge will be displayed until the device returns to a normal temperature.



Serial number

The serial number is printed underneath the unit next to the power connection [12]. You can also find the serial number in the display [16] under SETTINGS>GENERAL>ABOUT.

Firmware update

When a firmware update over Bluetooth (from the Profoto app) is in progress, a static "Update in Progress" popup will be displayed on the main screen.

The progress of the update is shown on the app connected to the device.

When the firmware update over Bluetooth is finished the device will restart.

If no additional internal updates are needed after the restart, an "Updated Successfully" popup will appear for 3 seconds, and the device will notify the app that the update has completed successfully.

If internal device updates are needed after the device restarts, a "Finalizing Update" popup with a progress bar will appear to inform the user that the update is still in progress.

When internal updates are complete, an "Updated Successfully" popup will appear for 3 seconds, and the device will notify the app that the update has finished successfully.

If something goes wrong

If an issue occurs during the internal updates, a “Something Went Wrong” popup will appear and remain on the screen until the user presses a button or restarts the update.

Technical specifications

Model name	L1600D
Regulatory model	PCA2635
Max power consumption	1600W. 110-250v (More info under "General" on page 21)
Operating temperature	0°C to +35°C/ +32°F to +95°F (full functionality)
Storage temperature	-10°C - +50°C / 14°F - 122°F
Input power	AC 100-240 V, 50/60 Hz, Max 16A
Operating frequency and radio output power (Air and Bluetooth Low Energy)	2402-2480 MHz, < 9.9 dBm EIRP
Color temperature	5700K
Connectivity	Lumen Radio/CRMX DMX Bluetooth Profoto Air Radio USB-C
Weight	
Light including yoke	11.3 kg/24.9 lb
Light, mains cable, Profoto adaptor and case	15.3 kg/33.7 lb

More technical specifications are available on Profoto.com.

Photometric data

Distance with Boost reflector 12"	Output with Boost reflector 12"	Diameter with Boost reflector 12"
5 m/16.4 ft	49 000 lux	1 m/3.2 ft
7 m/22 ft	25 400 lux	1.5 m/5 ft
10 m/33 ft	12 200 lux	2 m/6.5 ft
15 m/49 ft	5 480 lux	3.6 m/11.8 ft
Distance with built-in wide reflector 60"	**Output with built-in wide reflector 60"**	**Diameter with built-in wide reflector 60"**
5 m/16.4 ft	3 850 lux	5.6 m/18.3 ft
7 m/22 ft	2 160 lux	7.5 m/24.6 ft
10 m/33 ft	1 130 lux	11 m/36 ft
15 m/49 ft	670 lux	16.5 m/54.1 ft

Warranty

All generators, heads, and remote controllers, manufactured by or for Profoto, which bear the Profoto trademark, name, or logo are individually tested before they leave the company and guaranteed for a period of one year (with the possibility to prolong when the device is registered) with the exceptions set out in Warranty terms. If you have any technical problems with the product, please get in contact with an authorized Profoto service station or visit: https://profoto.com/support/warranty.

Credit

App Store is a trademark of Apple Inc., registered in the U.S. and other countries and regions.

The Bluetooth word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Profoto is under license.

USB Type-C and USB-C are registered trademarks of USB Implementers Forum.

Other trademarks and trade names are those of their respective owners.

Technical data and product information are subject to change without notice.

October 2024. PCA2635-0000. Printed in Sweden.

Profoto AB
Box 1264,
172 25 Sundbyberg
Sweden

+46 (0) 8 447 53 00
info@profoto.com
www.profoto.com

Profoto