

On board control high-power LED panels



User´s Manual



October 2012

INTRODUCTION

This guide provides information about how to use the product functions to illuminate with this equipment as well as warnings on his use.

The are products of professional use for interior locations or studio and must be operated only by qualified technical personnel.

To obtain the maximum features, please read the following operating instructions very carefully before using this fixture for the first time. Please keep these operating instructions for you and subsequent users to reference in the future.

THELIGHT Luminary for cine and TV, S.L.

Safety Precautions

For your own safety, please read and follow all safety instructions and warnings.

Exemption from Liability

THELIGHT Luminary for cinema and TV, S.L. does not assume any responsibility for lighting failures caused by malfunction of this product.

The manufacturer disclaims liability for any damage to persons or property caused by inappropriate operation, damage of this kind lies in the responsibility of the operator.

Warranty

This product is manufactured to local specifications and the warranty is valid within the country of purchase. Should the product fail or malfunction while you are abroad, the manufacturer assumes no responsibility for servicing the product locally or bearing the expenditure incurred thereof.

www.thelight.com.es

The total or partial reproduction of this guide is prohibited without the express written permission of THELIGHT.
THELIGHT technology is protected under Spanish license laws with international patents pending.
Information and specifications in this document are subject to change without notice.
2012 © Copyright THELIGHT. All rights reserved.

SAFETY PRECAUTIONS

Various symbols are used throughout this instruction manual and on the product to prevent physical harm to you or other people and damage to property. The symbols and their meanings are explained below.

	Warning	Possible risk of injury or damage to equipment
	Danger	This symbol indicates the risk of electric shock or fire danger that could result in injury or damage to equipment.

This equipment has been checked and meets the requirements of general safety for electronic devices. These requirements are specified to provide a reasonable protection against electromagnetic interferences when the equipment is used in commercial environments.

This equipment generates, uses and can emit waves of radio frequency, and if not properly used following the instructions of this manual can produce interferences in radio communications. The use of this equipment in residential areas can produce interference, the user will be the only responsible of correcting them.

CAUTION: Though the light generated by LED does not produce any heat, for what his use turns out to be very comfortable for the actors, the lamp head acts as a heat sink through its back part. Surface can reach a temperature between the 50 °C and the 80 °C. Please use protective gloves if you touch the lamp head at the heat sink.

	Danger	Do not attempt to open any of the device or component housings. To reduce the risk of electric shock, do not remove lamp head or Control Unit cover. No user-serviceable parts inside. Maintenance and repair work to be carried out only by THELIGHT Service Centre.
		Do not cover the aluminium lamp head heat sink while using it. Proper ventilation must be provided. Avoid exposing the lamp head to the heat radiation of other light fixtures.
		The lamp head is equipped with high power LED. Due to their high light-output intensity don't stare directly into the light source.

	Warning	In order to protect against risk of electric shock, the installation should be properly grounded. Defeating the purpose of the grounding type plug will expose you to the risk of electric shock.
---	----------------	---

Marking



TABLE OF CONTENTS

Introduction.....	3
Safety precautions.....	4
Table of contents.....	5
1. Main features	6
2. Models	7
3. Components and accessories	11
4. Names and parts	13
5. Placing into operation	14
Yoke assembling.....	14
Connecting the power cable	15
Security cables.....	15
Optional mounts installation.....	15
6. Digital Adjustments	16
Turning the power On/Off.....	16
COLOR TEMPERATURE.....	16
DIMMER.....	16
-/+ GREEN.....	17
7. DMX 512 Control	18
8. Mechanical Adjustments	19
Beam angle variation.....	19
Barn doors installation.....	19
Softbox diffuser installation.....	20
9. Specifications	21
Chromaticity coordinates diagram.....	29
Regulations.....	30
Declaration of conformity.....	32
Warranty.....	33

1. MAIN FEATURES

THELIGHT-STUDIO are LED panels housing Phillips high power LED. They had been specially designed and their colorimetry calibrated for professional photography, cinematography and television industry use.

THELIGHT luminaries main innovative features are:

- Variable Colour Temperature with almost no lost in light output
- Stable colour dimming
- Green/magenta correction
- Adjustable light beam from 30° up to 125° without changing lenses
- Silent fan-free operation
- High-power Phillips LED 50,000 hours life
- 90 CRI digitally calibrated light
- Robust aluminium construction
- Digital control and through DMX
- Flicker free up to 3,000 fps
- Very high light output
- Low power draw

NOTE ABOUT MEASURING COLOUR TEMPERATURE (CCT)

THELIGHT-STUDIO incorporate the innovative THELIGHT technology based on Phillips high power LED triplets + Fresnel lens + CPU control software to obtain the wide range of calibrated colour temperatures combined with a high colour rendering index CCT.

We must remark that colour meters in use today are designed for a full spectrum source such as incandescent lights and therefore cannot be used to accurately read the correlated colour temperature (CCT) of the light emitted by THELIGHT and other LED light fixtures.

The eventual diversions to green display as CC05M or CC10M in hand-held colour meters are due to these unaccuracy on reading of the light emitted by LED and must not be considered.

THELIGHT guarantees pure white light with no green deviation and correct colorimetry of the light delivered by its high power LED luminaries which have been calibrated in laboratory according to CIE 13.3-1995 international standards for measurement of the CRI and chromatic coordinates (x, and CIE-1931).

The reliability of this digital equipment is supported by the calibration THELIGHT has made in laboratory by spectrophotometer, which precision is half-yearly calibrated according to the National Institute of Standards (NIST) of the United States and of the Physikalisch-Technische Bundesanstalt (PTB) of Germany.

In order that the advanced THELIGHT luminaries could be used together with other light sources, THELIGHT has accurately calibrated both the CCT and the chromatic coordinates to match them with traditional light sources following tungsten and daylight standards.

The digital Control Unit allows a further and precise green/magenta correction.

2. MODELS

Every THELIGHT-STUDIO high-power LED panel include a digital control on board. The range of STUDIO products is composed by:

2LIGHT-STUDIO

Articulated panel formed by two compact aluminium strips housing 48 Phillips high-power LED.
Power draw: 46W



3LIGHT-STUDIO

Articulated panel formed by three compact aluminium strips housing 72 Phillips high-power LED.
Power draw: 69W



4LIGHT-STUDIO

Articulated panel formed by four compact aluminium strips housing 96 Phillips high-power LED.
Power draw: 92W



5LIGHT-STUDIO

Articulated panel formed by five compact aluminium strips housing 120 Phillips high-power LED.
Power draw: 115W



6LIGHT-STUDIO

Articulated panel formed by six compact aluminium strips housing 144 Phillips high-power LED.
Power draw: 138W



2LONG-STUDIO

Articulated panel formed by two long aluminium strips housing 96 Phillips high-power LED.
Power draw: 92W



3LONG-STUDIO

Articulated panel formed by three long aluminium strips housing 144 Phillips high-power LED.
Power draw: 138W



4LONG-STUDIO

Articulated panel formed by four long aluminium strips housing 192 Phillips high-power LED.
Power draw: 184W



3. COMPONENTS AND ACCESSORIES

Each THELIGHT-STUDIO high-power LED panel can be composed by the following parts:

1x THELIGHT-STUDIO high-power LED panel



2x Removable barn doors

ref. 4L-RB valid for every LONG-STUDIO panel

ref. 4S-RB valid for every LIGHT-STUDIO panel



1x 2 meters PowerCon to mains power cable with Schuko plug ref. PWR-ACC2m



1x **Softbox diffuser Quarter kit** composed by 2x metal side wings, 1x Hilite softbox diffuser.
Available softbox diffusers on request:

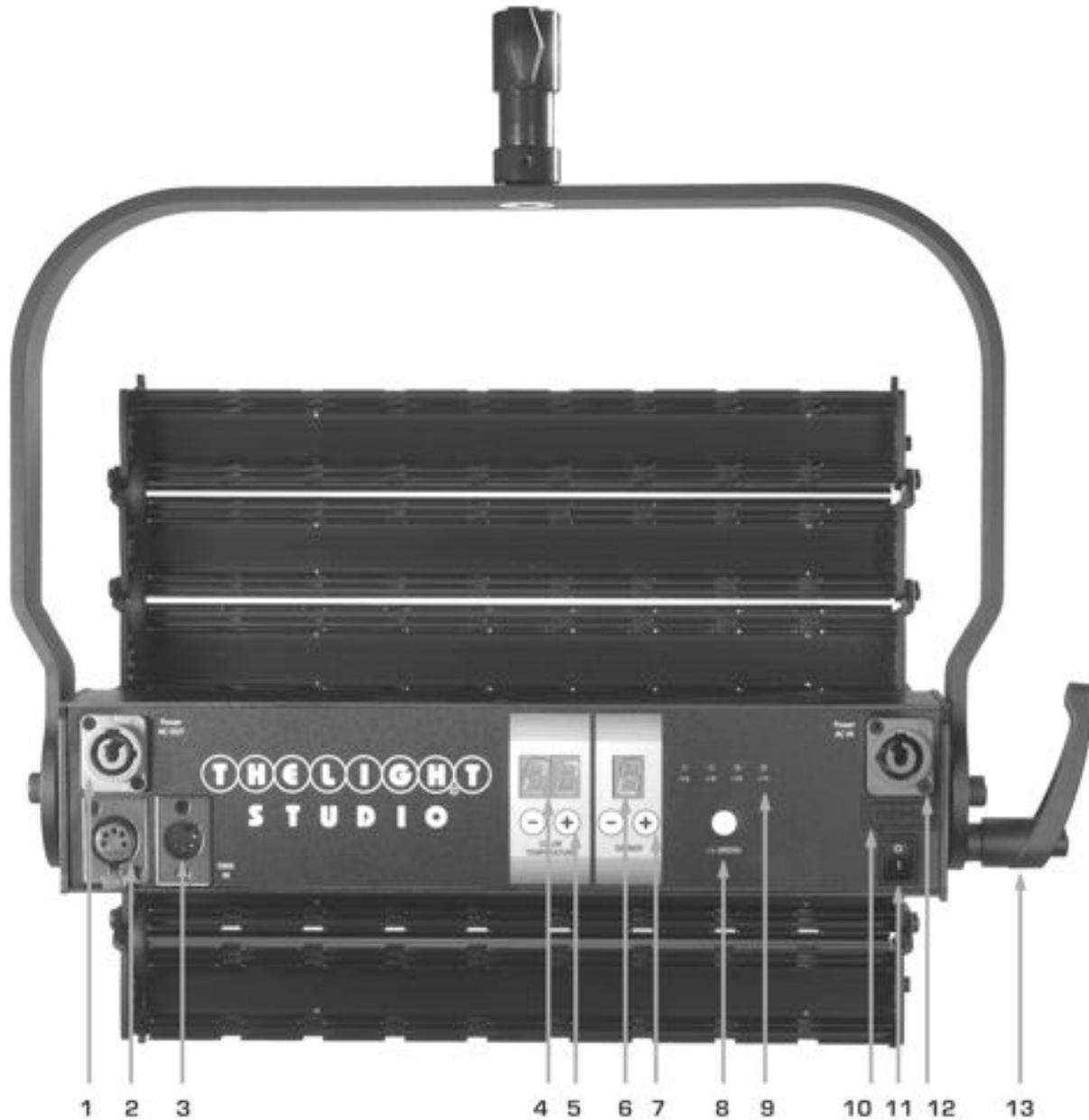
- Hilite
- Quarter silent grid cloth
- Half silent grid cloth
- Full silent grid cloth



4. NAMES AND PARTS

THELIGHT-STUDIO high-power LED panel

Rear view



- 1 PowerCon AC out
- 2 XLR DMX out
- 3 XLR DMX in
- 4 Colour temperature digital display
- 5 Colour temperature adjustment buttons
- 6 Intensity level digital display
- 7 Intensity adjustment buttons
- 8 Green/magenta adjustment button
- 9 Green/magenta offset status LED
- 10 Fuseholder
- 11 Power switch
- 12 PowerCon AC in
- 13 Yoke locking handle

5. PLACING INTO OPERATION

1. Yoke to LED panel assembling

Align the adjustable Yoke with the STUDIO LED panel as shown in the picture.

Assemble the Yoke to the LED panel by using the mounting kit of bolts, washers and adjustable handle.

First mount the handle with two metric M6 metal washers, then fix the two M8 bolts using the metric M8 metal washers and inserting the M8 rubber washers between the Yoke and the LED panel.



- 1 M8 hinge bolts x2
- 2 M8 metal washers x2
- 3 M8 rubber washer x2
- 4 M6 metal washers x2
- 5 M6 Adjustable handle x1

ATTENTION:

On order to get the full swivel movement set the yoke exactly as shown in the picture.



2. Connecting the AC PowerCon cable to the STUDIO LED panel

Connect the power cable to the AC IN blue plug located in the rear side of the STUDIO LED panel. Align and insert the PowerCon power connector to the blue AC IN plug located in the rear side of the STUDIO LED panel. Twist the connector clockwise until it locks into place. Connect the power plug with a mains power outlet.

To daisy-chain power use the blue power plug as AC IN and the grey power plug as AC OUT.

Disconnecting the AC PowerCon cable

Slide back the locking tab to unlock, twist the connector counterclockwise and then pull and disconnect the PowerCon AC connector.



Danger

To avoid electric shocks and/or damages in the equipment the power switch located at the STUDIO rear digital panel must be off before connecting or disconnecting cables.

3. Security cables

The LED panel is provided with several holes specially design to insert one o more 5mm snaps and their safety cable.



Warning

When the lamp head and any other component is mounted in a hanging position it must be secured with a safety cable rated at a minimum of ten times the weight of the light fixture including its accessories.

4. Optional mounts installation

The LONG series LED panel are provided with four metric M6 threads specially designed to install THELIGHT optional mounts or any custom made mounts.



6. DIGITAL ADJUSTMENTS

The digital control enables to adjust the following light parameters through its programmed CPU:

- Calibrated Colour Temperature variation
- Stable colour dimming
- Green/magenta correction

Turning the Power On/Off

Turn on the equipment by switching on the power button. The light settings always remain stored when the digital control is powered off.



Danger

The STUDIO LED panel is electrically protected against power failures but to avoid possible electric shocks and/or equipment damages make sure the power switch will be off before connecting or disconnecting the cable. In case of extreme over tension replace the 5mm 2,5Ah fuse from inside the mains power entry fuseholder located at the back. (see picture on page 13)

NOTE:

If a power failure would happen or the cable would be accidentally disconnected the digital control would entry on Error mode and the number 8 would show in the digital display. To reset the equipment and resume the light values turn the switch power off, connect the cable and switch on the power button.

COLOR TEMPERATURE Variation

Colour temperature can be easily increased or reduced through the +/- buttons located at the digital control panel. Above them a digital display indicates at all times the selected colour temperature. The value 3.2 corresponds to 3200K and the value 3.3 to 3300K and so on.

Push the + button to increase colour temperature or push the - button to decrease it. If you keep pushed any of the buttons the you will get a continuous variation.

NOTE:

Every push on the buttons will increase or decrease the colour temperature in increments of 100 Kelvin.

DIMMER Light intensity variation

The dimmer of the digital control is totally digital and guarantees the regulation of light intensity with minimal changes in the selected colour temperature.

Light intensity can be easily increased or reduced through the +/- buttons located at the digital control panel. Above them a digital display indicates the selected dimmer value from a minimum of 1 to a maximum of 9.

Push the + button to increase light intensity or push the - button to decrease it. If you keep pushed any of the buttons the you will get a continuous variation.

NOTE:

Every push on the buttons will increase or decrease the light intensity in increments of 1/2 stop.

-/+ GREEN Green/magenta correction

Green/magenta bias button located at the digital control panel lets you easily alter the colour of the light towards green or magenta in increments of $\pm 1/8$ and $1/4$.

Push the +/- Green button to offset the selected white light. A magenta or a green LED turns on the selected value to warn that the light emitted no longer guarantees the correct chromaticity.

NOTE:

THELIGHT guarantees the correct colorimetry for light emitting from their high power LED light fixtures, calibrated in the laboratory according to current international standards of the CIE 13.3-1995 for the average CRI and the chromatic co-ordinates (x, y CIE-1931). This certifies that our luminaries have no green/magenta deviation.

NOTE:

Full adjustment is possible in a range of colour temperatures from 2500K to 5600K. From 5600K to 6500K the adjustment is only possible on $1/8$ and $1/4$ plusgreen.

7. DMX 512 CONTROL

THELIGHT-STUDIO lightning fixtures have been designed for a full DMX control from the 5-pin DMX port located at the back of the fixture.

Connect the DMX cable coming from your console into the DMX IN male connector located at the back of the fixture. Beside the DMX IN there is also a DMX OUT connector to daisy-chain fixtures.

Addressing channels

Push both + and - COLOR TEMPERATURE buttons at the same time and then switch on the power button. Wait a few seconds for the three digital displays to blink.

Now you can define the start address. To do so just push the + or - DIMMER buttons to increase or decrease the first fixture address. Once you have chosen the desired address number push the -/+ GREEN button to save the selection.

Keep in mind the following points regarding DMX control:

THELIGHT DMX protocol uses 3 channels per fixture

After the DMX address is entered the digital control will automatically assign the following two channels.

If you wish to control several THELIGHT fixtures at the same values you will have to set them to the same address.

If you wish to control several THELIGHT fixtures independently you will have to offset their address by 3 channels. Example:

fixture1 address 001 – fixture2 address 004 – fixture3 address 007

DMX Channels

When you connect your console to the VAC Control Unit you will be able to control THELIGHT fixtures through 3 channels:

Channel 1 (start address)	COLOUR TEMPERATURE
From 2.5 to 6.5 (from 2500Kelvin to 6500Kelvin)	
Fader at 0	2.5 means 2500Kelvin
Fader at 100	6.5 means 6500Kelvin
Channel 2 (start address + 1)	DIMMER
Channel 3 (start address + 2)	GREEN/MAGENTA correction
fader at 0%	-1/4 Green
fader at 25%	- 1/8 Green
fader at 50%	standard position (green/magenta at 0)
fader at 75%	+1/8 Green
fader at 100%	+1/4 Green

NOTE:

Do not use microphone cables or other general purpose two-core cables designed for audio or signal use. They are not suitable for DMX 512. Problems due to wrong cabling may not be immediately perceptible. Microphone cables may appear to work fine, but systems built with such cables may fail or be susceptible to random errors. Cable must comply with RS-485 DMX protocol (EIA485).

NOTE:

A DMX terminator should be plugged into the final, empty, OUT connector of the last slave on the daisy chain. A terminator is a stand-alone male connector with a built-in 120 Ω resistor, matching the cable characteristic impedance, connected across the primary data signal pair.

**NOTE
for Avolites
consoles users:**

THELIGHT luminaries DMX working personality can be configured to be recognised by Avolites consoles. Download the personality files to install into Avolites consoles from www.avolitesdownload.com/PersonalityLibrary/?mainPage=Main.asp&ID=3516

8. MECHANICAL ADJUSTMENTS

Beam angle variation

Hold the lamp head from the outer segments and bend it in or out to the wanted concave or convex shape. Choose the light beam angle you need and the lamp head will remain at the chosen setting. When the lamp head is positioned at standard flat setting the light beam angle is 35°. The maximum light beam angle is given when the lamp head is bend at its more convex setting.



Barn doors installation

Place the barn door axle into the external lamp head segment grooves. Then insert one end of the axle into the hole located at the lamp head exterior segment as shown in the picture. The right mounting position is achieved when the product name is visible facing outwards.



Insert the other barn door axle end into the opposite hole located at the lamp head exterior segment.



Softbox diffuser installation

Position the lamp head in its standard flat setting.

Align the side wings captive screws with their respective threaded inserts located on the lamp head.

Screw the captive screws to attach the two side wings to the lamp head.



Set the barn doors open as shown in the picture.

Wrap the Softbox cloth around the side wings and barn doors.



NOTE: The ¼ silent grid cloth Softbox softens and broadens the light beam with minimal colour temperature shift. Excellent for softening harsh edges.

SOFTBOX CLOTH FLAMEPROOF RATING

The softbox has been manufactured with Cinebounce black cloth which meets the flameproof standard UNE EN 13773:2003 class 1.

9. SPECIFICATIONS

4LONG-STUDIO

COLOUR TEMPERATURE	adjustable from 2500K a 6500K (100K increments)
LIGHT INTENSITY	dimnable with minimal colour shift (1/2 stop increments)
GREEN/MAGENTA BIAS	adjustable +/- 1/4 y 1/8 steps from 2500K to 5600K
DMX	XLR5 in & out connectors
CRI	90
DIMENSIONS	622 x 205 x 148 mm
WEIGHT	7,6 kg including yoke
OPERATION TEMPERATURE	from -20°C to +40°C
COOLING	no-noise, fan-free passive cooling
PROTECTION	IP21 indoor or outdoor protected use
POWER DRAW	147W Nominal, 196W Maximum
POWER CONNECTION	Neutrik PowerCon in & out connectors
BEAM ANGLE	variable from 30° to 75° (standard 35°)
LED RATED LIFE	more than 50.000 hours
THELIGHT LED TECHNOLOGY	UME (Minimum Emitting Unit) made up of: 3 Phillips high-power LED with selected BIN + Fresnel lens + CPU control with THELIGHT software
RIGGING OPTIONS	aluminium yoke with 28 pin, optional quick link swivel ball head
ACCESSORIES	removable barn doors, softbox diffuser (hilite, quarter, half and full silent grid cloth options)
POWER SUPPLY	Universal 90-264 VAC
INPUT FREQUENCY	50/60Hz
OUTPUT FREQUENCY	20KHz flicker-free up to 3000fps
FUSE	1 x 2,5 A
CONSTRUCTION & FINISH	Black anodized extruded aluminium and black powder coated sheet aluminium

24 fps / 500 ASA

PHOTOMETRICS 4LONG-STUDIO

5600K

3200K

Lux	F-Stop	Fc	meters	Fc	F-Stop	Lux
14000	22	1300	1	1110	22	12000
1800	8 1/3	165	3	148	8	1600
500	4 1/3	46	6	39	4	420

3LONG-STUDIO

COLOUR TEMPERATURE	adjustable from 2500K a 6500K (100K increments)
LIGHT INTENSITY	dimnable with minimal colour shift (1/2 stop increments)
GREEN/MAGENTA BIAS	adjustable +/- 1/4 y 1/8 steps from 2500K to 5600K
DMX	XLR5 in & out connectors
CRI	90
DIMENSIONS	622 x 155 x 148 mm
WEIGHT	6,5 kg including yoke
OPERATION TEMPERATURE	from -20°C to +40°C
COOLING	no-noise, fan-free passive cooling
PROTECTION	IP21 indoor or outdoor protected use
POWER DRAW	110W Nominal, 145W Maximum
POWER CONNECTION	Neutrik PowerCon in & out connectors
BEAM ANGLE	variable from 30° to 60° (standard 35°)
LED RATED LIFE	more than 50.000 hours
THELIGHT LED TECHNOLOGY	UME (Minimum Emitting Unit) made up of: 3 Phillips high-power LED with selected BIN + Fresnel lens + CPU control with THELIGHT software
RIGGING OPTIONS	aluminium yoke with 28 pin, optional quick link swivel ball head
ACCESSORIES	removable barn doors, softbox diffuser (hilite, quarter, half and full silent grid cloth options)
POWER SUPPLY	Universal 90-264 VAC
INPUT FREQUENCY	50/60Hz
OUTPUT FREQUENCY	20KHz flicker-free up to 3000fps
FUSE	1 x 2,5 A
CONSTRUCTION & FINISH	Black anodized extruded aluminium and black powder coated sheet aluminium

24 fps / 500 ASA

PHOTOMETRICS

3LONG-STUDIO

5600K

3200K

Lux	F-Stop	Fc	meters	Fc	F-Stop	Lux
11000	22	1018	1	925	16 2/3	10000
1400	8	129	3	110	5.6 2/3	1200
450	4	41	6	35	2.8 2/3	380

2LONG-STUDIO

COLOUR TEMPERATURE	adjustable from 2500K a 6500K (100K increments)
LIGHT INTENSITY	dimnable with minimal colour shift (1/2 stop increments)
GREEN/MAGENTA BIAS	adjustable +/- 1/4 y 1/8 steps from 2500K to 5600K
DMX	XLR5 in & out connectors
CRI	90
DIMENSIONS	622 x 108 x 148 mm
WEIGHT	4,4 kg including yoke
OPERATION TEMPERATURE	from -20°C to +40°C
COOLING	no-noise, fan-free passive cooling
PROTECTION	IP21 indoor or outdoor protected use
POWER DRAW	74W Nominal, 98W Maximum
POWER CONNECTION	Neutrik PowerCon in & out connectors
BEAM ANGLE	variable from 30° to 40° (standard 35°)
LED RATED LIFE	more than 50.000 hours
THELIGHT LED TECHNOLOGY	UME (Minimum Emitting Unit) made up of: 3 Phillips high-power LED with selected BIN + Fresnel lens + CPU control with THELIGHT software
RIGGING OPTIONS	aluminium yoke with 28 pin, optional quick link swivel ball head
ACCESSORIES	removable barn doors, softbox diffuser (hilite, quarter, half and full silent grid cloth options)
POWER SUPPLY	Universal 90-264 VAC
INPUT FREQUENCY	50/60Hz
OUTPUT FREQUENCY	20KHz flicker-free up to 3000fps
FUSE	1 x 2,5 A
CONSTRUCTION & FINISH	Black anodized extruded aluminium and black powder coated sheet aluminium

24 fps / 500 ASA

PHOTOMETRICS

2LONG-STUDIO

5600K

3200K

Lux	F-Stop	Fc	meters	Fc	F-Stop	Lux
6000	16	556	1	510	11 2/3	5500
800	5,6 1/3	74	3	74	5.6 1/3	800
260	2.8	24	6	23	2.8	250

6LIGHT-STUDIO

COLOUR TEMPERATURE	adjustable from 2500K a 6500K (100K increments)
LIGHT INTENSITY	dimnable with minimal colour shift (1/2 stop increments)
GREEN/MAGENTA BIAS	adjustable +/- 1/4 y 1/8 steps from 2500K to 5600K
DMX	XLR5 in & out connectors
CRI	90
DIMENSIONS	340 x 300 x 148 mm
WEIGHT	6,1 kg including yoke
OPERATION TEMPERATURE	from -20°C to +40°C
COOLING	no-noise, fan-free passive cooling
PROTECTION	IP21 indoor or outdoor protected use
POWER DRAW	110W Nominal, 145W Maximum
POWER CONNECTION	Neutrik PowerCon in & out connectors
BEAM ANGLE	variable from 30° to 125° (standard 35°)
LED RATED LIFE	more than 50.000 hours
THELIGHT LED TECHNOLOGY	UME (Minimum Emitting Unit) made up of: 3 Phillips high-power LED with selected BIN + Fresnel lens + CPU control with THELIGHT software
RIGGING	aluminium yoke with 28 pin
ACCESSORIES	removable barn doors, softbox diffuser (hilite, quarter, half and full silent grid cloth options), 28 pin combined with 16mm female
POWER SUPPLY	Universal 90-264 VAC
INPUT FREQUENCY	50/60Hz
OUTPUT FREQUENCY	20KHz flicker-free up to 3000fps
FUSE	1 x 2,5 A
CONSTRUCTION & FINISH	Black anodized extruded aluminium and black powder coated sheet aluminium

24 fps / 500 ASA

PHOTOMETRICS

6LIGHT-STUDIO

5600K

3200K

Lux	F-Stop	Fc	meters	Fc	F-Stop	Lux
12500	22	1160	1	925	16 2/3	10000
1500	8	130	3	110	5.6 2/3	1200
450	4	41	6	35	2.8 2/3	380

5LIGHT-STUDIO

COLOUR TEMPERATURE	adjustable from 2500K a 6500K (100K increments)
LIGHT INTENSITY	dimnable with minimal colour shift (1/2 stop increments)
GREEN/MAGENTA BIAS	adjustable +/- 1/4 y 1/8 steps from 2500K to 5600K
DMX	XLR5 in & out connectors
CRI	90
DIMENSIONS	340 x 250 x 148 mm
WEIGHT	5,5 kg including yoke
OPERATION TEMPERATURE	from -20°C to +40°C
COOLING	no-noise, fan-free passive cooling
PROTECTION	IP21 indoor or outdoor protected use
POWER DRAW	92W Nominal, 123W Maximum
POWER CONNECTION	Neutrik PowerCon in & out connectors
BEAM ANGLE	variable from 30° to 100° (standard 35°)
LED RATED LIFE	more than 50.000 hours
THELIGHT LED TECHNOLOGY	UME (Minimum Emitting Unit) made up of: 3 Phillips high-power LED with selected BIN + Fresnel lens + CPU control with THELIGHT software
RIGGING	aluminium yoke with 28 pin
ACCESSORIES	removable barn doors, softbox diffuser (hilite, quarter, half and full silent grid cloth options), 28 pin combined with 16mm female
POWER SUPPLY	Universal 90-264 VAC
INPUT FREQUENCY	50/60Hz
OUTPUT FREQUENCY	20KHz flicker-free up to 3000fps
FUSE	1 x 2,5 A
CONSTRUCTION & FINISH	Black anodized extruded aluminium and black powder coated sheet aluminium

24 fps / 500 ASA

PHOTOMETRICS 5LIGHT-STUDIO

5600K

3200K

Lux	F-Stop	Fc	meters	Fc	F-Stop	Lux
10000	16 2/3	925	1	925	16 2/3	10000
1300	5.6 2/3	120	3	110	5.6 2/3	1200
350	2.8-4	32	6	28	2.8 1/3	300

4LIGHT-STUDIO

COLOUR TEMPERATURE	adjustable from 2500K a 6500K (100K increments)
LIGHT INTENSITY	dimnable with minimal colour shift (1/2 stop increments)
GREEN/MAGENTA BIAS	adjustable +/- 1/4 y 1/8 steps from 2500K to 5600K
DMX	XLR5 in & out connectors
CRI	90
DIMENSIONS	340 x 205 x 148 mm
WEIGHT	4,9 kg including yoke
OPERATION TEMPERATURE	from -20°C to +40°C
COOLING	no-noise, fan-free passive cooling
PROTECTION	IP21 indoor or outdoor protected use
POWER DRAW	73W Nominal, 98W Maximum
POWER CONNECTION	Neutrik PowerCon in & out connectors
BEAM ANGLE	variable from 30° to 75° (standard 35°)
LED RATED LIFE	more than 50.000 hours
THELIGHT LED TECHNOLOGY	UME (Minimum Emitting Unit) made up of: 3 Phillips high-power LED with selected BIN + Fresnel lens + CPU control with THELIGHT software
RIGGING	aluminium yoke with 28 pin
ACCESSORIES	removable barn doors, softbox diffuser (hilite, quarter, half and full silent grid cloth options), 28 pin combined with 16mm female
POWER SUPPLY	Universal 90-264 VAC
INPUT FREQUENCY	50/60Hz
OUTPUT FREQUENCY	20KHz flicker-free up to 3000fps
FUSE	1 x 2,5 A
CONSTRUCTION & FINISH	Black anodized extruded aluminium and black powder coated sheet aluminium

24 fps / 500 ASA

PHOTOMETRICS 4LIGHT-STUDIO

5600K

3200K

Lux	F-Stop	Fc	meters	Fc	F-Stop	Lux
7000	16 1/3	650	1	580	16	6800
900	5,6 1/3	83	3	78	5.6	740
300	2.8 1/3	28	6	26	2.8 1/3	280

3LIGHT-STUDIO

COLOUR TEMPERATURE	adjustable from 2500K a 6500K (100K increments)
LIGHT INTENSITY	dimnable with minimal colour shift (1/2 stop increments)
GREEN/MAGENTA BIAS	adjustable +/- 1/4 y 1/8 steps from 2500K to 5600K
DMX	XLR5 in & out connectors
CRI	90
DIMENSIONS	340 x 155 x 148 mm
WEIGHT	4,3 kg including yoke
OPERATION TEMPERATURE	from -20°C to +40°C
COOLING	no-noise, fan-free passive cooling
PROTECTION	IP21 indoor or outdoor protected use
POWER DRAW	55W Nominal, 73W Maximum
POWER CONNECTION	Neutrik PowerCon in & out connectors
BEAM ANGLE	variable from 30° to 60° (standard 35°)
LED RATED LIFE	more than 50.000 hours
THELIGHT LED TECHNOLOGY	UME (Minimum Emitting Unit) made up of: 3 Phillips high-power LED with selected BIN + Fresnel lens + CPU control with THELIGHT software
RIGGING	aluminium yoke with 28 pin
ACCESSORIES	removable barn doors, softbox diffuser (hilite, quarter, half and full silent grid cloth options), 28 pin combined with 16mm female
POWER SUPPLY	Universal 90-264 VAC
INPUT FREQUENCY	50/60Hz
OUTPUT FREQUENCY	20KHz flicker-free up to 3000fps
FUSE	1 x 2,5 A
CONSTRUCTION & FINISH	Black anodized extruded aluminium and black powder coated sheet aluminium

24 fps / 500 ASA

PHOTOMETRICS 3LIGHT-STUDIO

5600K

3200K

Lux	F-Stop	Fc	meters	Fc	F-Stop	Lux
5500	11 2/3	510	1	510	11 2/3	5500
800	5,6 1/3	74	3	65	5.6	700
210	2.8 1/3	19	6	18	2.8	190

2LIGHT-STUDIO

COLOUR TEMPERATURE	adjustable from 2500K a 6500K (100K increments)
LIGHT INTENSITY	dimnable with minimal colour shift (1/2 stop increments)
GREEN/MAGENTA BIAS	adjustable +/- 1/4 y 1/8 steps from 2500K to 5600K
DMX	XLR5 in & out connectors
CRI	90
DIMENSIONS	340 x 108 x 148 mm
WEIGHT	3,7 kg including yoke
OPERATION TEMPERATURE	from -20°C to +40°C
COOLING	no-noise, fan-free passive cooling
PROTECTION	IP21 indoor or outdoor protected use
POWER DRAW	37W Nominal, 49W Maximum
POWER CONNECTION	Neutrik PowerCon in & out connectors
BEAM ANGLE	variable from 30° to 40° (standard 35°)
LED RATED LIFE	more than 50.000 hours
THELIGHT LED TECHNOLOGY	UME (Minimum Emitting Unit) made up of: 3 Phillips high-power LED with selected BIN + Fresnel lens + CPU control with THELIGHT software
RIGGING	aluminium yoke with 28 pin
ACCESSORIES	removable barn doors, softbox diffuser (hilite, quarter, half and full silent grid cloth options), 28 pin combined with 16mm female
POWER SUPPLY	Universal 90-264 VAC
INPUT FREQUENCY	50/60Hz
OUTPUT FREQUENCY	20KHz flicker-free up to 3000fps
FUSE	1 x 2,5 A
CONSTRUCTION & FINISH	Black anodized extruded aluminium and black powder coated sheet aluminium

24 fps / 500 ASA

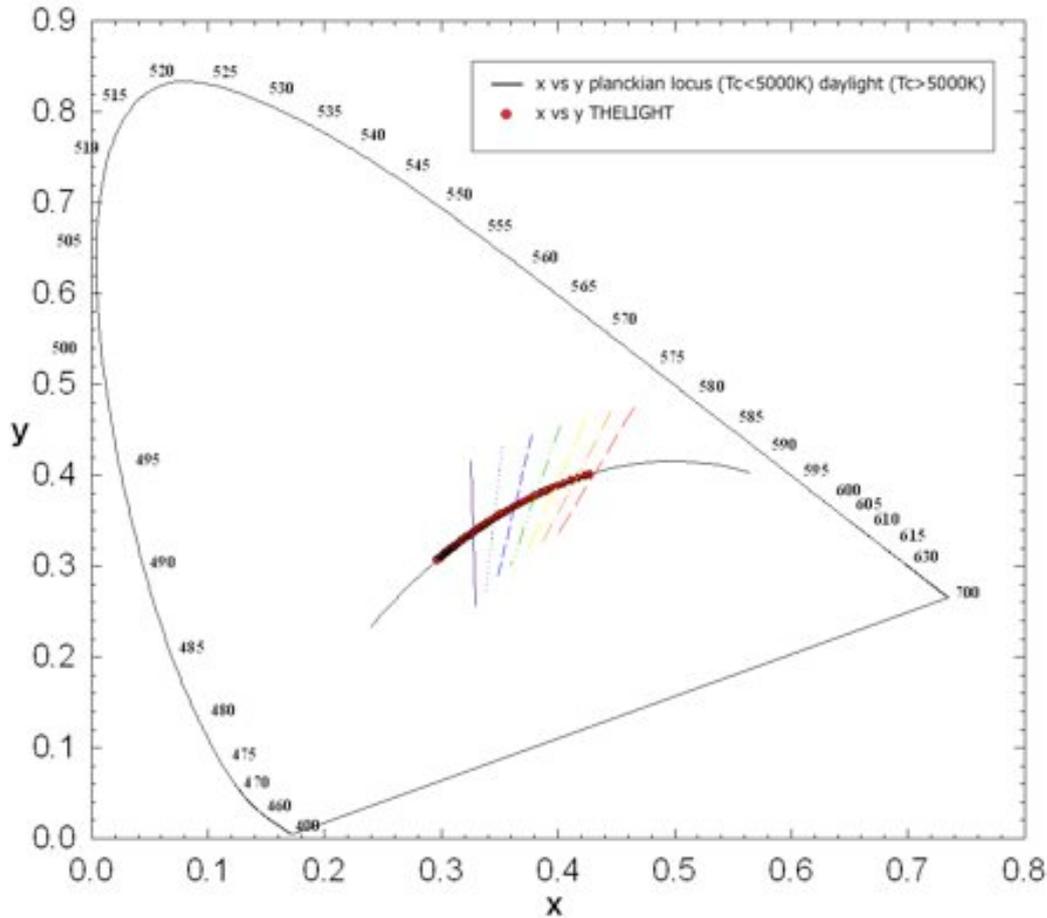
PHOTOMETRICS 2LIGHT-STUDIO

5600K

3200K

Lux	F-Stop	Fc	meters	Fc	F-Stop	Lux
4000	11 1/3	370	1	342	11	3700
540	4 2/3	50	3	39	4 1/3	420
170	2.8	16	6	13	2 2/3	140

(x, y CIE-1931)



Shown on the diagram are the THELIGHT lamp head chromaticity coordinates (x, y CIE-1931) feed and digitally controlled by its Control Unit and they are compared with the reference illuminants. These reference illuminants are the Planckian locus radiator set below 5000K and the CIE daylight reference is set over 5000K. The Planckian locus radiator references the chromaticity for several tungsten lamps colour temperatures while the daylight locus typify daylight type D illuminants.

The diagram evidence the light emanated by THELIGHT luminary at every colour temperature entirely matches with the described locus reference so that the colour of the light produced is essentially the same as incandescent and daylight. It is also remarkable the minimum green/magenta deviation over the locus reference along the range of colour temperatures (means minimal difference between THELIGHT chromaticity coordinates and the ideal reference line).

CALIBRATION

The Instrument Systems scanning spectrometer, model Spectro 320, serial number 30932004, with its accessory TOP-100 has been calibrated according to the United States National Institute of Standards (NIST) and the german Physikalisch-Technische Bundesanstalt (PTB) standard references.

ACCURACY

The Instrument Systems scanning spectrometer, model Spectro 320, serial number 30932004, with its accessory TOP-100 has an imprecision over the spectral radiometric results delivered lower than 1%.

REGULATIONS

This equipment is designed to meet the following regulations and safety standards for battery powered technology equipment:

ENVIRONMENTAL

THELIGHT devices are certified and intended for indoor use (IP21)

LAMP HEAD OPERATION TEMPERATURE from -20° to +40° C

OPERATING HUMIDITY from 30 to 90% RH non condensing

FUSE 1 x 2,5 A

 **telpro CE**

Test n°: 2010 - 790 Date: 27 - 9 - 2010

Mark: THELIGHT 2 Models Serial n°: 6 / 0

REPORT

ELECTROMAGNETIC COMPATIBILITY

Test Laboratory, CE mark



TESTS AND MEASURES REQUESTED:

DIRECTIVE:

2004/108/CE Electromagnetic Compatibility (E. M. C.)

STANDARD:

(CEC) EN 61000-6-1:2008 Electromagnetic compatibility, Generic immunity standard, Residential and light industry

(CEC) EN 61000-6-3:2008 Electromagnetic compatibility, Generic EMI standard, Residential and light industry

EN 301489-1 v1.3.1 (2008-02) Radio Electric Spectrum Protection (7 - 8 GHz Band)

(CEC) EN 61000-3-2:2001/A2:2008 Harmonic current emissions a. c. Mains

(CEC) EN 61000-3-3 1997/A2:2008 Voltage fluctuations and Flicker a. c. Mains

UNE-EN 55015:2007+A1:2008+A2:2008 EM of electrical lighting and similar equipment (CISPR 15:2005)



Laboratorio de Ensayos, marcado CE

Test Laboratory, CE mark



Marca Mark	THELIGHT
Modelo Model	4LONG high power LED luminary + VAC Control Unit 8LIGHT high power LED luminary + VAC Control Unit
Descripción Description	Luminary for cine and TV
ENSAYOS Y MEDIDAS TESTS AND MEASUREMENTS Norma Standard	Seguridad Eléctrica. (Electric Safety) EN 61 000-6-1:2005 EN 61 000-6-3:2005 EN 61000-3-2:2001/A2:2005 EN 61000-3-3:1997/A2:2005 EN 55015:2007+A1:2008+A2:2008 EN 301489-1 v1.8.1 (2008-02)
Resultado en el informe de los ensayos N° Show in summary in test report N°	2010-788 2010-790
Verificado Verified	V
Fecha Date	27-8-2010
Sello de la compañía y firma Company seal and signature F. J. Garcia Ing. T. Telecom.	

DECLARATION OF CONFORMITY TO EMC DIRECTIVE 2004/108 EC

MANUFACTURER'S NAME: Thelight luminary for cine and tv, S.L.
MANUFACTURER'S ADDRESS: Plaza Val 1
22148 Colungo
HUESCA – SPAIN
info@thelight.com.es
www.thelight.com.es

declares that the products

MODELS: 4LIGHT LED panel, 6LIGHT LED panel, 4LONG LED panel
VDC Control Unit, VAC Control Unit, AC/DC Control Unit
4LONG-STUDIO, 3LONG-STUDIO, 2LONG-STUDIO, 6LIGHT-STUDIO,
5LIGHT-STUDIO, 4LIGHT-STUDIO, 3LIGHT-STUDIO, 2LIGHT-STUDIO.

MANUFACTURED BY: Thelight luminary for cine and tv, S.L.
MANUFACTURED IN: Badalona (BARCELONA) SPAIN
MARK: THELIGHT

COMPLY WITH THE CE DIRECTIVES:

GENERAL SECURITY:

2001/95/CE

EN 60598-1:2003+A1:2006 Luminaries: general requirements

DIRECTIVE:

2004/108/CE Electromagnetic Compatibility (E.M.C.)

ELECTROMAGNETIC COMPATIBILITY:

THELIGHT is intended to Electromagnetic Environment E2 (Commercial and light industrial).

STANDARD:

EN 61000-6-1:2005. Electromagnetic Compatibility, Generic immunity standard. Residential and light industry.

EN 61000-6-3:2005. Electromagnetic Compatibility, Generic EMI standard. Residential and light industry.

(IEC) EN 61000-6-4: 2005. Generic. Industrial environments emission (radiated)

EN 301489-1 v1.8.1 (2008-02) Radio Electric Spectrum (1 – 6 GHz Band)

EN 61000-3-2:2001/A2:2006 Harmonic current emissions a.c. Mains

EN 61000-3-3:1997/A2:2006 Voltage fluctuations and Flicker a.c. Mains

UNE-EN 55015:2007+A1:2008+A2:2009 EMI of electrical lighting and similar equipment (CISPR 15:2005)

EN 55015-1:2006 Lighting and similar equipment radioelectric radiation (conducted emissions, radiated current)

Badalona, 27th August 2012



A handwritten signature in black ink, appearing to read 'Javier Fdez. De Valderrama'.

Javier Fdez. De Valderrama
Authorized Administrator

WARRANTY

THELIGHT high power LED light equipments are guaranteed to be free from defects in workmanship and parts in a warranty period of two (2) years from the date of purchase. Defects that occur within this warranty period, under normal use and care will be repaired or replaced at THELIGHT discretion, solely at our option with no charge for parts or labour.

In the event of the equipment malfunction, contact the dealer from which you purchased the product. Please note that you will not be reimbursed for the cost of bringing the equipment to the THELIGHT Repair Centre.

THELIGHT reserves the right to replace the product or relevant part with the same or equivalent product or part, rather than repair it. Where a replacement is provided the products or part replaced becomes the property of THELIGHT. THELIGHT may replace parts with refurbished parts. Replacement of the product or a part does not extend or restart the Warranty period.

Returns or exchanges from the customers will be accepted within 15 days of delivery and will not include the actual shipping costs. Item(s) must be in original packaging and condition, must not be assembled, and must include its original user manual.

This warranty does not cover any damage resulting from:

- Failure to follow the instructions in the instruction manual;
- Repair, modification or overhaul not conducted by any authorized THELIGHT personnel.
- Fire, natural disaster, act of God, lightning, abnormal voltage, etc;
- Submergence in water (flooding), exposure to alcohol or other beverages, infiltration of sand or mud, physical shock, or dropping of the equipment and other unnatural causes.

This warranty only applies to the lamp head and the Control Unit and not to the accessories, such as the diffuser or barn doors, nor does it apply to the fuses and other consumables provided.

Any consequential damages arising from failure of the equipment, such as expenses incurred in taking pictures or recording images or loss of expected profit, will not be reimbursed whether they occur during the warranty period or not.

Parts essential to the servicing of the light equipment (that is, components required to maintain the functions and quality of the fixture) will be available for a period of five years after the product is discontinued.

THELIGHT Luminary for cine and tv, S.L.
www.thelight.com.es

The total or partial reproduction of this guide is prohibited without the express written permission of THELIGHT.
THELIGHT technology is protected under Spanish license laws with international patents pending.
Information and specifications in this document are subject to change without notice.
2012 © Copyright THELIGHT. All rights reserved

