



Instruction manual
BARACUDA Underwater LED
RGB+CCT 2k

Important information

This transcript is for informational purposes only. SpecialGRIP & HungaroFLASH is not responsible for any errors or omissions that may appear in the manual. For comments and suggestions regarding corrections, please contact your nearest SpecialGRIP & HungaroFLASH dealer. Of course, you can update the manual. We reserve the right to make changes without notice.

Precautions and warnings



- This product is intended for professional use exclusively in UNDERWATER FILM shooting pools!
- DESIGNED FOR UNDERWATER USE ONLY.
- Read and follow the safety regulations!
- Do not use in the open air, partially or completely MAY BE DAMAGED.
- Do not open: there are no user-repairable/replaceable parts inside
- Only connect to a network that meets local electrical standards and meets overload and ground short-circuit protection regulations.

More DMX512 resources, notes

More information about DMX-512 control systems is available through the purchase of the following publication, published in the United States by the Institute of Theatre Technology (USITT), titled "Recommended Practices for DMX-512 for Users and Installers, Issue 2." (ISBN: 9780955703522).

USITT connection:

USITT

315 South Crouse Avenue, Suite 200

Syracuse, NY 13210-1844

Phone: 1.800.938.7488 or 1.315.463.6463

www.usitt.org

Additional resources for "Remote Device Management" on DMX512 - RDM

For more information on RDM-DMX512 Control Systems, available in the following document Purchase of ANSI E1.20-2010 Entertainment Technology RDM Remote Device Management over DMX512 Networks.

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Requests for more publications:

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<http://www.estafoundation.org>

SpecialGRIP & HungaroFLASH warranty

SpecialGRIP & HungaroFLASH gives a two-year warranty. Of this, in the first year after the purchase, it is full-fledged, while in the second year it is limited. For more information, please contact your nearest SpecialGRIP & HungaroFLASH dealer or contact <http://www> on our website, [SpecialGRIP](http://www.SpecialGRIP.com) or & [HungaroFLASH.com/dealer-list](http://www.HungaroFLASH.com/dealer-list)

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FOREWORD

Validity of the Instruction Manual








This Instructions for Use are valid for the following BARACUDA products:

1. **BARACUDA Underwater LED RGB+CCT 2000W**

Please read each section of this Guide carefully before using the product. Keep it in either printed or electronic form. Additional product information and descriptions can be presented in the Technical FEATURES section.

ACCESSORIES

All LED Lamp products include:

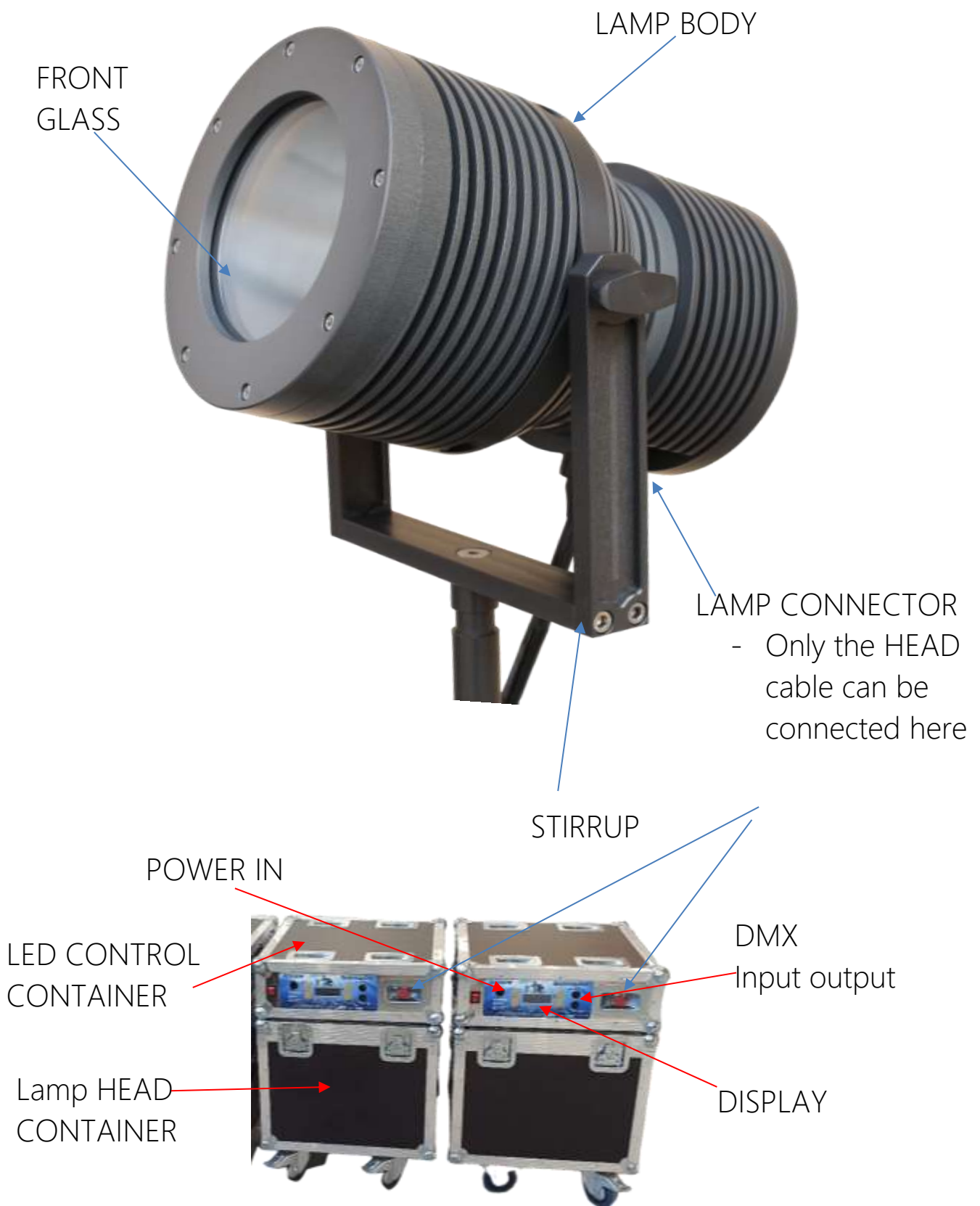
<p>1. Lamp HEAD unit</p>		<ul style="list-style-type: none"> -2000W Total LED power -IP68 -state of the art design -aircraft grade aluminum -hard ANODIZED military grade
<p>2. LED CONTROL unit</p>		<ul style="list-style-type: none"> - 600W Cool WHITE CRI >95 - 600W Warm WHITE CRI >95 - 200W RED - 200W GREEN - 200W BLUE - 200W White
<p>3. Head cable</p>		<p>25 meters special cable – IP69k</p> <ul style="list-style-type: none"> - Up to 7000m certified connector for underwater LAMP - Special CNLINKO connector for LED CONTROLLER
<p>4. Power cable</p>		<p>3m power plug</p> <ul style="list-style-type: none"> - Equipped with POWERCON TRUE 20A connector - 16A rubber power plug
<p>5. Flightcase</p> 	<ul style="list-style-type: none"> - Dual container TOPContainer contains LED control drivers. STACKABLE. 2 handles Forced AIR cooling 	<ul style="list-style-type: none"> - Dual container BOTTOM Container contains LAMP head and cables STACKABLE. 4 handles 4 wheels 
<p>6. User manual</p>		

BARACUDA LED Lamp Parts to Order

Serial number	appellation
HFIP68LEDPC2	AC CABLE – 3 meters (POWERCON+2m cable+fork plug)
HFIP68LEDPC2	HEAD CABLE – 25 meters extension IP69k
Additional parts available	
Barndoor	
Any Custom made part accessory for this system is available up on request	
DMX512 cables	

BARACUDA Underwater LED Lamp Review

Main units and names



OLED DISPLAY/MENU SYSTEM

At the front of the LED CONTROLLER unit are the connectors and the display unit.



This above is the start screen shown on the OLED display for each SpecialGRIP & HungaroFLASH made **BARACUDA** LED Lamp after switching on.

Interpretation:

- Currently active in 2 DMX-channel modes (CH1 brightness INT, CH2 color temperature 2553 Kelvin)
- DMX Starting Address 001
- Current intensity value: 0 percent
- Current Color Temperature: 2553 Kelvin

This default screen is set at the factory, but it is changed during use. The changes are shown by the various MENU items displayed in the 2 or 4 corners of the display. These parameters can be manually increased or decreased using the membrane switches located next to them until the desired value is reached.

PARTS of DISPLAY and MENU, naming example, names may vary during navigation in MENU, just example:



Installation and COMMISSIONING

POWER SUPPLY REQUIREMENTS

The following products are capable of operating on an AC network from 100V to 240V:

1. BARACUDA Underwater LED RGB+CCT 2000W

Operation on AC network

- If the device is connected to a network with a voltage of 100 – 240 volts, then the **BARACUDA** Underwater LED Lamp automatically selects the input voltage from 120 to 240VAC and the frequency from 50 to 60 Hertz. This is due to the built-in power supply. Each device type is capable a peak power of 2000 Watts.
- Since on a 50Hz or 60Hz network the device automatically detects between the two modes, these LED Lamps are able to work in the same way that the network frequency does not affect the flicker free state of the output light.

TABLE 1 BARACUDA Underwater LED L CURRENT-VOLTAGE CONDITIONS

BARACUDA Underwater Led Lamp with proper connection, the current consumption of the Lamp depends on the degree of mains voltage. NEVER CONNECT TO A DIMMERED NETWORK BARACUDA Underwater LED Lámpát!

The following table will help you with the MAXIMUM number of BARACUDA Underwater LED Lights that can be connected to a line [TABLE 1](#). It is forbidden to tie more than these to one line!



ATTENTION!

- The device has an ON/OFF switch, it can only be energized with special ATTENTION by following the following connection sequence:
 1. we connect the POWERCON connector of the network cable to the input of the CONTROLLER
 2. we plug the fork plug into a Power outlet
 3. POWER ON.
 And the order of de-energization is reversed:
 1. Power off
 2. pulling apart the fork plug socket,
 3. disassemble the POWERCON.
- Caution: the PowerCon® connector does NOT have the ability to interrupt 2 5A working current! PowerCon® must not be disconnected under LOAD!
- E.g.: in the case of 90V mains voltage, 1 product can be connected to one line (2 5 Amperes) or 0 products can be connected to one line (for 16 Amp small circuit breakers) or 1 product can be connected to one line 2 4 0VAC (20Amperes) or 2 products can be connected to one line (16Amperes). Further help can be found in [TABLEÁZAT 1](#).

VOLTAGE (AC)	CURRENT (A)	MAXIMUM DEVICE NUMBER 16A	MAXIMUM DEVICE NUMBER 25A
250	8,64	1	2
240	9,00	1	2
230	9,39	1	2
220	9,81	1	2
210	10,28	1	2
200	10,8	1	2
190	11,36	1	2
180	12	1	2
170	12,70	1	1
160	13,50	1	1
150	14,4	1	1
140	15,42	1	1
130	16,61	0	1
120	18,0	0	1
110	19,63	0	1
100	21,6	0	1
90	24	0	1

The connection of the AC Input Connector can be described on page 8 of the section "Wiring the [BARACUDA Underwater LED LAMP Power Plug](#)".

Connecting the device to a 230V (or 120V) network

Devices of this type can receive mains voltage in the following ways:

1. Direct connection to AC using the 230V AC input cable. Cable wiring assistance in "[Wiring the BARACUDA Underwater LED LAMP Power Plug](#)" a little further down here on page 8 .

Wiring the **BARACUDA** Underwater LED LAMP Power Plug

BARACUDA Underwater LED LAMPS are supplied with a 3 meter Mounted Network Cable. If the length of the installed cable is not sufficient, please contact your SpecialGRIP & HungaroFLASH dealer to place an order or change the length of the cable according to the wiring instructions below.

TABLE 2 **BARACUDA** LED LAMP HWIRING CABLE

CAUTION: If any part of the AC INPUT cable/connector is DAMAGED, it is the user's responsibility to ensure that the damaged parts are replaced IMMEDIATELY. The new connector/cable can only be made by SpecialGRIP & HungaroFLASH dealer/service.

Cable Insulation color	appellation
Brown	Phase 90-240VAC
Blue	zero
Yellow/Green	protective ground

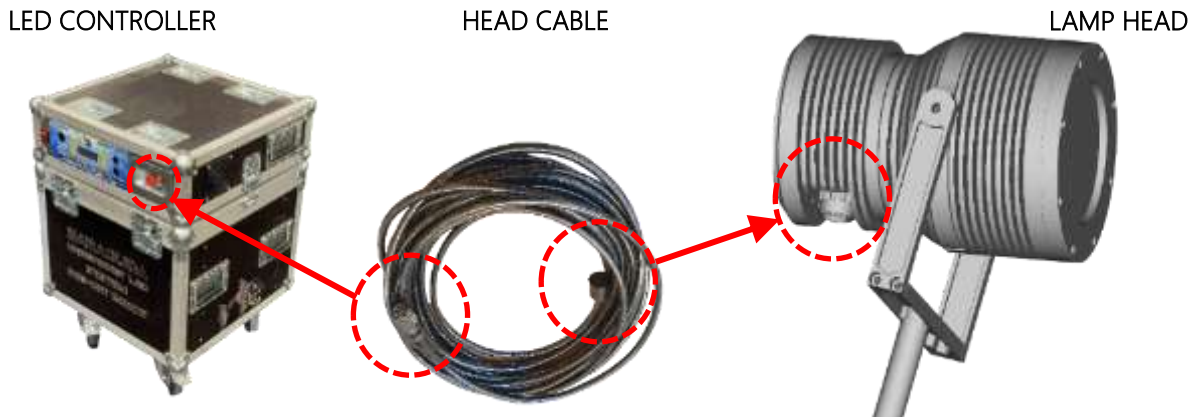


NEUTRIK
POWERCON TRUE 20A

HIGH QUALITY
16A rubber
Power Plug

Connecting the LAMP HEAD and LED CONTROLLER

BARACUDA Underwater LED **Lamp HEAD** can be connected to the **LED CONTROLLER** in the following way:



The connection of the LAMP HEAD and the LED CONTROL is carried out using a specially manufactured 25-meter-long SPECIALLY designed UNDERWATER HEAD cable certified for underwater stresses. This cable with its mounted, certified connectors is included with the **BARACUDA** Underwater LED Lamp.

Wiring the **BARACUDA** Underwater LED LAMP HEAD CABLE

BARACUDA Underwater LED Lamp LAMP HEAD at the bottom of 12 pole built-in Male connector. First, connect the HEAD CABLE to this Built-in MALE connector. Pay attention to the correct polarity. Use the connector's threaded clamp carefully, making sure the threads fit exactly. Then connect the other CNLINKO connector to the LED CONTROLLER. Pay attention to the correct polarity. The correct connection is followed by a "CLICK" sound. Pay attention to the correct track of the cable, do not allow the cable to twist while unwinding on its way. If the length of the installed cable is not sufficient, it cannot be done by an unprofessional specialist. The HEAD CABLE can also be extended with a special connecting cable. We do not provide a wiring aid for this HEAD CABLE sorry. Please contact your SpecialGRIP & HungaroFLASH dealer with the intention of ordering, any length can be ordered.

Special CNLINKO connector for LED CONTROLLER

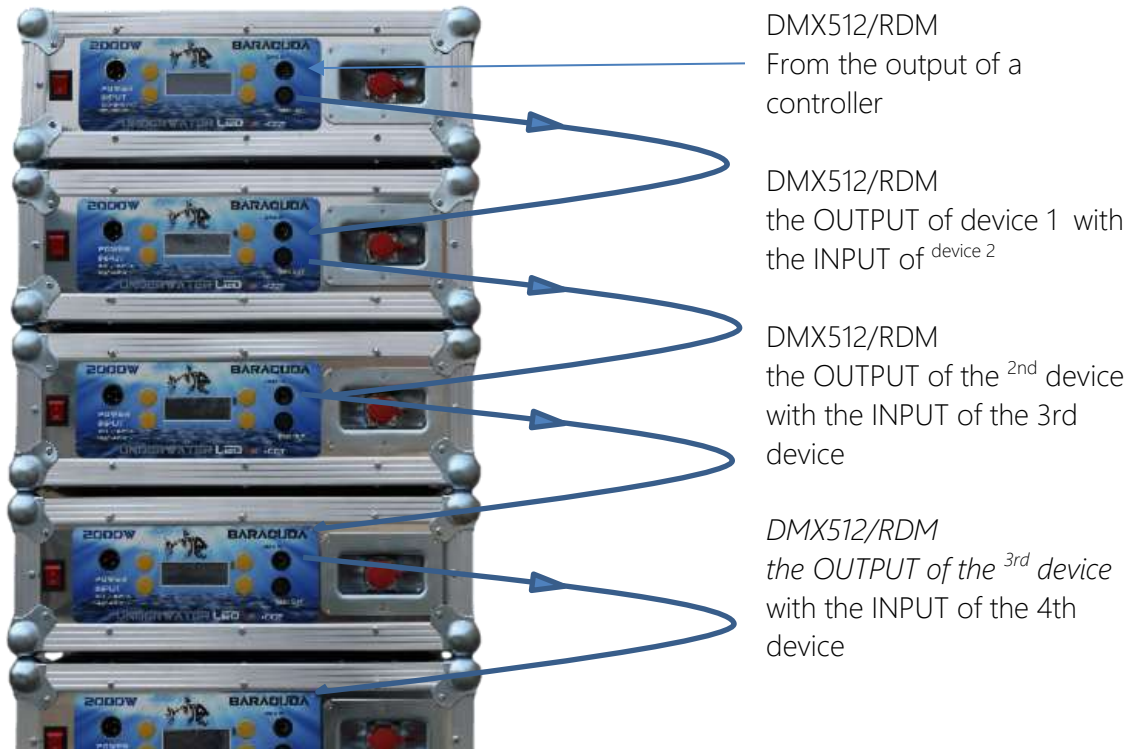


Up to 7000m certified connector for underwater LAMP

CAUTION: If any part of the HEAD cable/connector is DAMAGED, it is the user's responsibility to ensure that the damaged parts are replaced IMMEDIATELY. The new HEAD cable can only be made by SpecialGRIP & HungaroFLASH dealer/service.

Configuration for DMX512/RDM control

Basically, the DMX512 control system allows up to 32 **BARACUDA** Underwater LED lamps to be connected to the DMX512 system in a so-called DAISY-CHAIN "chained in a row" design. The DMX cable starts from the CONTROL UNIT (CONTROL PANEL) and connects to the DMX INPUT of the very first **BARACUDA** Underwater Lamp with the DMX connector. And the next DMX cable goes from the DMX OUTPUT of this number one LED device to the DMX INPUT of the next LED device. (or other DMX standard device for DMX input)



The connector of the DMX cable can only be a 5-pin XLR FEMALE connector on one end of the cable, and a 5-pin XLR MALE connector on the other end can only be

Comment:

Additional connection information is available on the DMX512 networks and systems topic in "Additional DMX512 Resources [Notes](#)" or "[Additional Resources for Remote Device Management on the DMX512 Network - RDM](#)" on page 2. More information on the topic of the BARACUDA Underwater LAMP device DMX titles can be found in the section "Control via DMX -RDM [PAGE 16](#)."

TABLE 3 BARACUDA UNDERWATER LAMP – CONNECTION OF DMX512/RDM CONNECTORS

DMX512 Signal Wire	XLR 5-Pole	The connector for the DMX cable can only be a 5-pin XLR MAMA connector on one end of the cable and on the other end 5-pin XLR PAPA connector can only be
Common (Drain)	1	
DMX512 - negative	2	
DMX512 + positive	3	
	4	Not used
	5	Not used

COMMISSIONING AND PRE-PREPARATION OF THE DEVICE FOR UNDERWATER OPERATION

BARACUDA Underwater LED LAMP is designed to operate ONLY AND EXCLUSIVELY IN UNDERWATER OPERATION. The reason for this is that the cooling of the LED is only adequate under water. When lifted from water, the efficiency of cooling decreases. When operated over air, the LEDs and circuits of the device are compromised. It is forbidden to operate the device in this way.

Steps to install underwater

1. Connect the LAMP BODY with the HEAD CABLE. Pay attention to the polarity. Do not push, force the connector. There is silicone grease on the connector to help the connectors slide together more favorably.
2. Connect the other Special CNLINKO connector of the HEAD CABLE to the LED CONTROLLER. Pay attention to the correct polarity. Unwind the HEAD CABLE professionally and place it in the right way.
3. Connect to the 230V (or 120V) network as above
4. Connect it to the DMX512 network as above or you can control it manually in MANUAL mode
5. Turn on the Network Switch and for a short time make sure that the machine is working correctly and that it is set up correctly. Make adjustments if necessary.
6. Turn off the network switch.
7. Place the LAMP TEST in the right place under water.
8. Turn on the Network Switch and for a short time make sure that the machine is working correctly and that it is set up correctly. Make adjustments if necessary.
9. The system is ready for operation.

BARACUDA Underwater LED LAMP is suitable for all kinds of fastening techniques. It can also be connected to a wide variety of UNDERWATER TRUSS systems, stages, or other simpler purposes. The device comes with 1 SPIGOT. These SPIGOTS can be quickly fixed with the right tool in a 10mm diameter hole on the stirrup.

Additional hooks and clamps that may be used are not included in the product, but they can also be easily connected to the stirrup with a suitable hole for this purpose with M10 screws (see figures below). The safety chain/rope/wire rope is purchased according to local conditions and is not included in the device. When fixing the devices, always take into account the position / distance of the surrounding objects / lamps and select the location of the BARACUDA Underwater LED product so that there is enough space around it for proper access.

BARACUDA Underwater LED Lamp can be fixed and operated in ANY position.

After mounting/attaching, the device is lowered to the desired angle/direction by loosening and tightening it with the Hand Levers shown in the image below. As soon as the device shines in the right direction, fasten the Hand Levers.



PROTECTIVE GLOVES: No

It is included with the device, but it can be purchased in specialized stores.

Its use is recommended given that they can be formed during improper transport/fastening/storage, sharp burrs/edges on metallic surfaces, which are PROTECTIVE

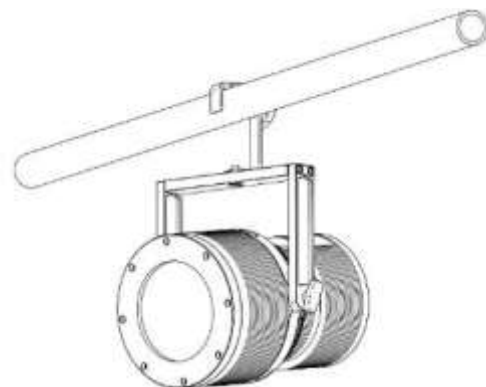
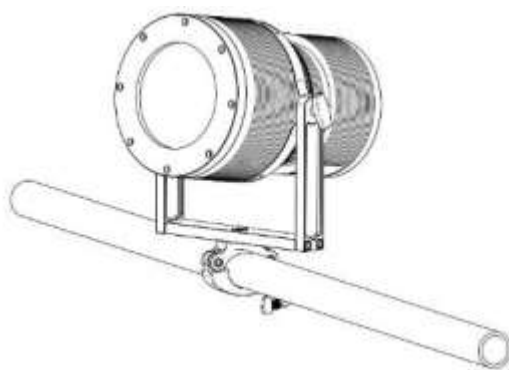
Without gloves, they can cause injuries.



SAFETY ROPE: No

It is an accessory, but it is recommended and perhaps a requirement to use it for all hanging/hanging installations, which the user is obliged to check with the professional authorities. Correct use of safety rope in the

STIRRUPS as shown in the figure above.



USAGE AND SETUP/PROGRAMMING

OLED DISPLAY and MENU SYSTEM

The DISPLAY and MENU system of the **BARACUDA** Underwater LED LAMP devices allows you to adjust between the following modes:

- Device Settings
- DMX Modes
- DEVICE Information
- DMX512 ADDRESS

As soon as the device receives mains power, the following START SCREEN will be visible on the DISPLAY:



- **DMX MODE: KELVIN(2ch)** i.e. 2-channel mode, (see "[Control via DMX](#)", page 16)
- **DMX Address: 001** This is the default setting on all devices .
- If the device receives a DMX signal from the DMX input, this home screen is displayed. If there is a problem with the DMX signal and the machine is not connected to a DMX512 network, the MANUAL MODE SCREEN will be displayed AUTOMATICALLY. In this case, the MULTIFUNCTION PUSH buttons can be used to change the brightness values manually.
- Int: 000 % the BRIGHTNESS is currently 0% i.e. the LAMP is not on. The MULTIFUNCTION BUTTONS on the left can be used to change it up or down.
- Color: 2553K THE COLOR TEMPERATURE IS CURRENTLY 2553 KELVIN i.e. the LAMP is on warm white. The MULTIFUNCTION BUTTONS on the right can be used to change it up or down. Regulation range 2553-5432 Kelvin

All of the multifunction buttons can be accessed remotely via RDM/DMX. For remote access to the DISPLAY and MENU SYSTEM, please visit the CONTROL PULT User Manual.

OLED DISPLAY and MENU SYSTEM navigation

The DISPLAY and MENU SYSTEM includes several categories. You can enter the MENU by holding down the RIGHT MULTIFUNCTION BUTTONS for 3 seconds at the same time.

Navigating in MENU:

- 1 step. Make sure your device is on Network Tenseand ready for operation
- 2 step. Press the RIGHT MULTIFUNCTION BUTTONS at the same time and hold it down. For 3 seconds
- 3 step. Use the UP/DOWN buttons to navigate through various categories/settings. Press **X** to navigate a step BACK or **✓** to get a change accepted in MENU
- 4 step. Change the MENU points according to your wish and finally use the **✓** button to exit

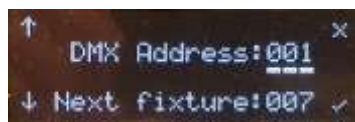
THE MENU - MENU MAP

DMX ACTIVE, connected

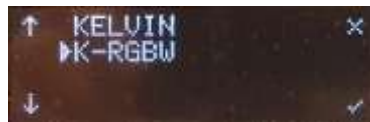


Both RIGHT MULTIFUNCTIONAL PUSH BUTTON press continuously for 3 seconds. After that, you will see the following Screen

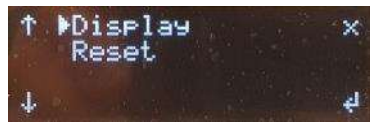
DMX control



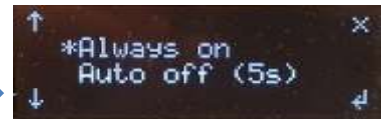
The DMX start address can be changed here. And below it is the next free DMX start address, making it easier for the operator to work.



K-RGBW means 6-channel mode

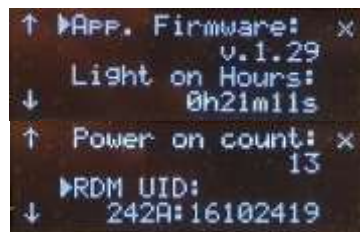


KELVIN means 2-channel mode



After RESET, the following BASIC settings will be activated:

- KELVIN MODE 2ch
- DMX 001
- Int 000%

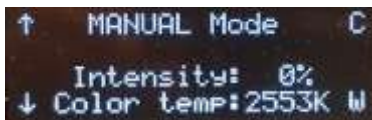


DMX not ACTIVE, or disconnected

Manual control

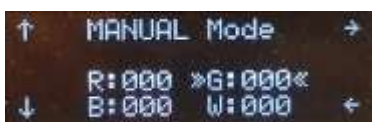
If the **BARACUDA** Underwater LED Lamp was in the DMX ACTIVE state and 6-channel DMX Mode at the time of the DMX cable disconnection, the following screen will be displayed

6-channel MODE



Left two PUSH BUTTONS

It holds for 3 seconds and



On the first screen, below Brightness, you can see the values of the Color Thermometer, exactly the values with which the Lamp last OPERATED.

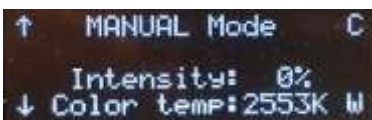
You can switch to the next screen by pressing the two MULTIFUNCTIONAL BUTTONS on the LEFT together and holding them for 3 seconds.

This will display the following screen with the Brightness values of the Red-Green-Blue-White LEDs that you last RAN ON.

Pay attention to the signs in the 4 corners, as they indicate the current function of the nearby MULTIFUNCTION BUTTON.

If the **BARACUDA** Underwater LED Lamp was in the DMX ACTIVE state and 2-channel DMX Mode at the time of DMX cable disconnection , the following screen is displayed

2-channel MODE

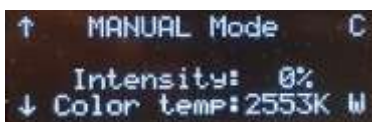


On the first screen, below Brightness, you can see the values of the Color Thermometer, exactly the values with which the Lamp last OPERATED. There is no additional screen here.

Pay attention to the signs in the 4 corners, as they indicate the current function of the nearby MULTIFUNCTION BUTTON.

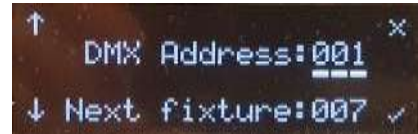
Manually Switch between 2-channel MODE and 6-channel MODE.

BY holding down the two MULTIFUNCTIONAL BUTTONS on the RIGHT for 3 seconds We enter the MENU. We set the desired DMX MODE state. A (see "[Control on DMX](#)", page 16) Then kilépunk from MENU MODE.



DMX Addressing – DMX ADDRESS on display

The current DMX start address of the machine can be displayed and changed. Both RIGHT MULTIFUNCTIONAL PUSH BUTTON press continuously for 3 seconds. After that, you will see the following screen



Select the **✓** button, which, when pressed, will show the current DMX starting address in LARGE CHARACTERS. And in the line below it you will see the DMX Starting address calculated by the **BARACUDA** Underwater Lamp processor, which is none other than the DMX STARTING ADDRESS OF THE NEXT **BARACUDA** Underwater Lamp, according to the current set DMX Mode (also channel number).

To change the DMX starting address:

1. Press and hold the LEFT BUTTONS for 3seconds to enter the MENU system.
2. Press **the ✓** button to change the DMX start address.
3. Use **↑** the /**↓**Up/Down arrows to go to the value of the desired DMX address.
4. Press **✓** to save the DMX value. And at this moment, the calculated DMX starting address of the next device will already be visible on the display .

CHOOSE DMX MODES- DMX MODES on display

See this chapter later in "[Control via DMX](#)" on [page 16](#).

SETTINGS –Settings on display

Under the **DISPLAY** menu, the user can choose from two options,

1. ALWAYS SECULAR THE DISPLAY or
2. It turns off AUTOMATICALLY 5 seconds after the last button press.
The latter in case the Display Light interferes with the Film Rotation.

RESET. After a RESET, the following BASIC settings will be activated: FACTORY DEFAULT settings can be reset in the device

- KELVIN MODE 2ch
- DMX 001
- Int 000%
- 2553 Kelvin

INFORMATION - display

INFORMATION- MENU section provides the following information about the BARACUDA Underwater Lamp:

- Current SOFTWARE version number
- TOTAL HOURS LIT SO FAR
- Total Network Connections Number To Date
- RDM UID Number – Series Number

Control via DMX -RDM

This chapter details how the DMX modes selected in the BARACUDA Underwater Lamp MENU - detailed below - can be used:

- 2 Channel MODE - display: [KELVIN](#)
- 6 Channel MODE - display: [K- RGBW](#)

COMMENT:

These Tables assume that the DMX starting address is always a value of 1. If the DMX starting address has a different value, then the channel marked as 1 in the TABLE will be the starting address and will be followed by the following.

2 CHANNEL MODE - on display: KELVIN

Table 4 shows how the BARACUDA Underwater LAMP responds to some DMX512 value/command on the given DMX channel. (2-channel DMX512) in KELVIN mode (set by [MENU](#)).

TABASOTA 4: KELVIN MODE. DMX CHANNEL LAYOUT (2 Chanel MODE)

DMX channel	DMX range DMX value	Province Percentage	Appellation
1	0-5 6-255	0-1 2-100	WHITE LEDS BRIGHTNESS NO LIGHT! LIGHT control min-max
2	0-255	0-100	COLOR TEMPERATURE 2553-5432 KELVIN

6 CHANNEL MODE - Display: K-RGBW

Table 5 shows how the BARACUDA UNDERWATER LAMP responds to a DMX512 value/command on a given DMX channel. (6-channel DMX512) in K-RGBW mode (which you set it [in MENU](#)).

TABLASAT 5: K-RGBW MODE. DMX CHANNEL LAYOUT (6 CMODES)

DMX channel	DMX range DMX value	Province Percentage	Appellation
1	0-255 6-255	0-100	WHITE LEDS BRIGHTNESS NO LIGHT! LIGHT control min-max
2	0-255	0-100	COLOR TEMPERATURE 2553-5432 KELVIN
3	0-255	0-100	RED brightness
4	0-255	0-100	GREEN brightness
5	0-255	0-100	BLUE brightness
6	0-255	0-100	WHITE brightness

BARACUDA Underwater LAMP RDM variables

The following Tables describe/define all RDM variables related to the **BARACUDA Underwater LAMP** device.

- Table 6, "**BARACUDA Underwater LAMP** device RDM product becomes the main provider"
- Table 7, "**BARACUDA Underwater LAMP** device RDM UID"
- Table 8, "RDM variables of the **BARACUDA Underwater LAMP DEVICE**"

TABLASAT 6: BARACUDA UNDERWATER LAMP DEVICE RDM PRODUCT VARIABLES

Model ID	Manufacturer	Model description	Product Category
0x0001	SpecialGRIP & HungaroFLASH	LED LAMP White/white LED LAMP RGB/Sin Shift LED LAMP UV/ultraviolet	0x0101

TABLASAT 7: BARACUDA UNDERWATER LAMP DEVICE RDM UID

UID/unit ID					
MSB of ESTA 24h	LSB of ESTA 2AH	1st of Unique Seq. 23H (W) 03H (RGB) 21H (UV)	2nd of Unique Seq. XXH (year) Example: 15H = 2015	3rd of Unique Seq. XX H (month) Example: 10H = Oct	4th of Unique Seq. Seq. XXH (Serial Number)

The RDM capable DMX CONTROL DESK is capable of bidirectional communication with equipment discovered on the DMX line after first un "discovery" -discovery- command. In this case, the specific device(s) reports back to the controller which manufacturer and which product is on the DMX line. However, when responding to such a thing, the following sequence of numbers is displayed on the screen of the controller: 242A23151075, which gives the user information according to the protocol detailed in the Table above about the name of the manufacturer of the ready-to-use product discovered on the DMX line (242A=SpecialGRIP & HungaroFLASH) about its type and the date of manufacture -date of Manufacturing- 1510=2015-June, and the SERIAL NUMBER of the product =75)



TABLE 8: BARACUDA UNDERWATER STROBE LUMINAIRE RDM PARAMETERS IDS

GET allowed	SET allowed	PID description	PID value	Comment
Category – Network Management				
-	-	DISC_UNIQUE_BRANCH	0x0001	
-	-	DISC_MUTE	0x0002	
-	-	DISC_UN_MUTE	0x0003	
Category - RDM Information				
-	-	SUPPORTED_PARAMETERS	0x0050	retrieve a packed list of supported PIDs
-	-	PARAMETER_DESCRIPTION	0x0051	retrieve the definition of some manufacturer specific PIDs
Category – Product Information				
-	-	DEVICE_INFO	0x0060	retrieve a variety of information about the device that is normally required by a controller
-	-	DEVICE_MODEL_DESCRIPTION	0x0080	provides a text description for the device model type
-	-	MANUFACTURER_LABEL	0x0081	provides an ASCII text response with the Manufacturer name for the device
-	-	DEVICE_LABEL	0x0082	provides a means of setting a descriptive label for each device
-	-	FACTORY_DEFAULTS	0x0090	instruct a device to revert to its Factory Default user settings
-	-	SOFTWARE_VERSION_LABEL	0x00C0	get a descriptive ASCII text label for the device's operating software version
-	-	BOOT_SOFTWARE_VERSION_ID	0x00C1	retrieve the unique Boot Software Version ID for the device
-	-	BOOT_SOFTWARE_VERSION_LABEL	0x00C2	get a descriptive ASCII text label for the Boot Version of the software
Category - DMX512 Setup				
-	-	DMX_PERSONALITY	0x00E0	set the responder's DMX512 Personality
-	-	DMX_PERSONALITY_DESCRIPTION	0x00E1	get a descriptive ASCII text label for a given DMX512 Personality
-	-	DMX_START_ADDRESS	0x00F0	set or get the DMX512 start address
-	-	SLOT_INFO	0x0120	retrieve basic information about the functionality of the DMX512 slots
-	-	SLOT_DESCRIPTION	0x0121	requesting an ASCII text description for DMX512 slot offsets
-	-	DEFAULT_SLOT_VALUE	0x0122	requesting the default values for the given DMX512 slot offsets
Category – Power/Lamp Settings				
-	-	DEVICE_HOURS	0x0400	retrieve the number of hours of operation the device has been in use
-	-	DEVICE_POWER_CYCLES	0x0405	retrieve the number of Power-up cycles for the device
Category – Control				
-	-	IDENTIFY_DEVICE	0x1000	used for the user to physically identify the device: supported loud, quiet
-	-	RESET_DEVICE	0x1001	instruct the responder to reset itself

CLEANLINESS and CARE

ATTENTION!



Any cleaning/maintenance can be done when the **BARACUDA** Underwater device is in a **CURRENT/VOLTAGE FREE STATE!** Under no circumstances should you open the appliance under current/voltage. Wear appropriate goggles and protective gloves when cleaning. Further service or cleaning not listed here can only be done by **PROFESSIONAL SERVICE**.

Special Cleaning and Care Instructions

Being a closed-solid-state luminaire, unlike most devices/objects, the **BARACUDA** Underwater LAMP devices require very little regular maintenance from the user. This paragraph will show you which part of the luminaire can be removed for cleaning. The **PROTECTIVE GLASS** part of the **BARACUDA** Underwater LAMP device requires special care. Also, a mirror system with a special optical coating requires special attention.

The following is a list of possible/suitable cleaning materials recommended to be used when cleaning the **BARACUDA** Underwater LAMP:

- Fibreless wipes
- Fibre-free and dust-free gloves
- Analytical grade isopropyl alcohol***
- Soapy water.

Note: Analytical grade isopropyl alcohol is suitable for the cleaning of plastic **MIRRORS** and specific coatings of the **BARACUDA** Underwater LAMP Apparatus. If it has not been possible to completely clean the mirror with analytical pure isopropyl alcohol, for example, even fingerprints are visible on it, or traces of smoke machine oil, then it is advisable to carefully wash off the filtrates in soapy water. Then repeat the drying traces of soapy water with analytical grade isopropyl alcohol .

ATTENTION!



Under no circumstances should you use an Ammonia-based cleaning agent or acetone or other solvent solution for **ANY BARACUDA** Underwater LAMP device. These types of cleaning products can cause permanent damage to plastic parts, plastic coatings. If you have any questions about the use of **BARACUDA** Underwater or your employment , please contact your SpecialGRIP & HungaroFLASH technical advisor or ask your dealer for advice.

PROTECTIVE GLASS OFFICER

Please do so in the order below:

1. Turn off the appliance and let it cool **COMPLETELY** .
2. First pour a small amount of analytical grade isopropyl alcohol onto a non-fibrous cloth.
3. Use it to wipe the contaminated surface from the glass, using its frame to ensure that cleaning liquid does not get between the frame and the glass .
4. Use another threadless wipe to wipe dry.

Maintenance and REPAIR

For major problems and other repair and maintenance issues, please contact your SpecialGRIP & HungaroFLASH dealer or service.



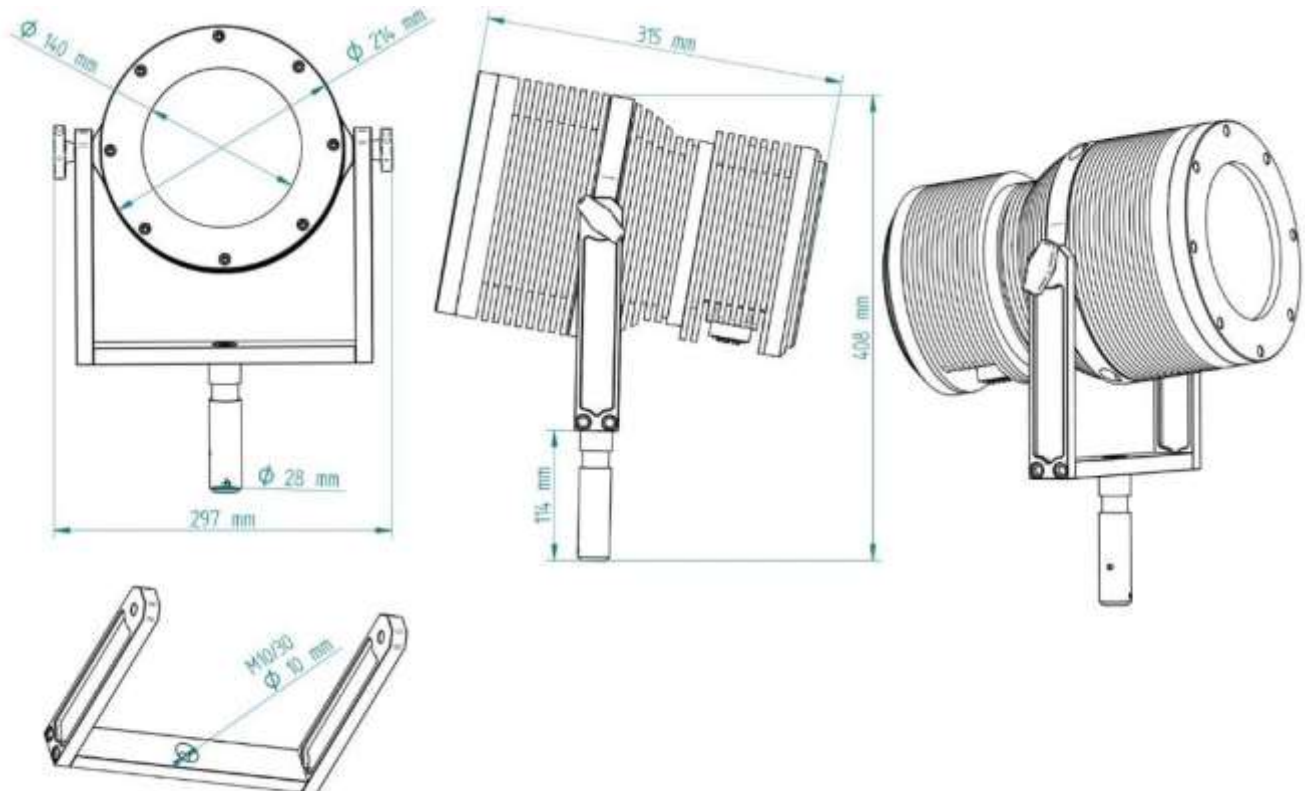
ATTENTION! Taking it apart (better than it was mentioned here) will result in a loss of warranty. For any other problems or for further technical or service questions, please contact your dealer

SPECIFICATIONS

BARACUDA UNDERWATER LAMP device operating characteristics

Light	HIGH BRIGHTNESS WHITE - 2*600w and HIGH BRIGHTNESS RGBW – 4*180W
Lifetime	50000 operating hours
Light beam aperture angle	35-40 degrees
Brightness	200 000 Lumen – 2000W
COLOR temperature	2553 – 5423 Kelvin (VARIABLE)
Light control	12 bit
Flicker immunity	FLICKER FREE
Mains voltage (AC)	100V to 240V (+/- 10%, automatically selected)
Operating current (AC)	20 Amperes (100V) / 9 Amperes (230V)
Power factor	0.95% (with built-in active PFC filter)
Power draw	20A PowerCON
Operating frequency	50/60Hz
Control Systems	DMX512 (1990) / DMX512A (RDM)
Operating temperature	-20 to 40 Celsius
Cooling	WATER COOLING
TOTAL Mass	64 kg -including containers
Mechanics	HARD Extruded Aluminum Housing
Compliance	CE CERTIFICATION
IP protection	IP69
Direction of attachment	any
Weights	LAMP HEAD: 15kg – Controller BOX: 20kg – Cable spool 25m: 8kg

BARACUDA UNDERWATER LAMP DEVICE DIMENSIONS




BARACUDA Underwater LAMP PHOTOMETRY & CHROMACITY REPORT

TABLE 9: BARACUDA UNDERWATER Chromacity REPORT

HungaroFLASH

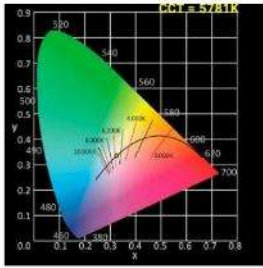
Report of Photometry & Chromaticity for Light Source

Tested by Lighting Passport



Product Description

Product Name	BARACUDA Underwater LED 2K
Sample Number	
Date(YYYY/MM/DD)	2022.02.16 10:21:44
Manufacturer	SGH
Tester	Zoltan Ajtay with a Spectrum Genius
Temperature(?)	25C
Re. Humidity(%)	64%

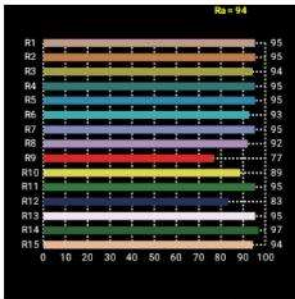


CCT = 5781K

Photometry and Chromaticity 100%CW at 5 meter distance

CIE_x	0,3263	Duv	-0,0012
CIE_y	0,3375	?d(nm)	485,0
CIE_u'	0,2040	Purity(%)	6
CIE_v'	0,4748	FWHM(nm)	41
CCT(K)	5781	SP ratio	2,30
Illuminance(lx)	1276	PPFD(μmol/?s)	7,9
λp (nm)	447	CRI(Ra)	94
TLCI(Qa)	96,8	CQS	93,0
GAI BB8	94,8	GAI BB15	103
TM-30 Rf	91	TM-30 Rg	101

CIE1931 Chromaticity Diagram



Ra = 94

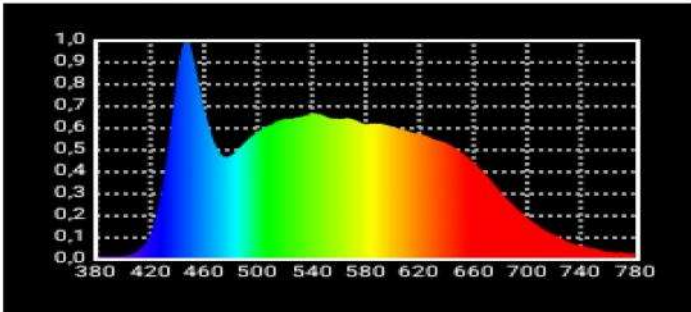
Qa	91	Re(thru R1~R15)	92
R1	95,0	R6	93,1
R2	95,0	R7	95,0
R3	94,0	R8	92,3
R4	95,0	R9	77,2
R5	95,9	R10	88,9
		R11	94,9
		R12	83,2
		R13	94,8
		R14	97,1
		R15	94,4

Flicker Frequency(Hz)

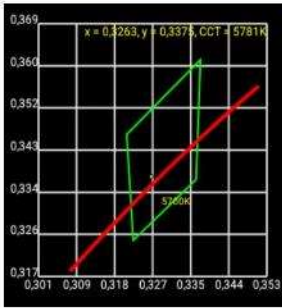
Flicker Index

Flicker FREE %


NA



Spectral Distribution



C78.377-2008



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BARACUDA Underwater LAMP Illuminance (ft-meter) (lux-fc)

Table 10: Illuminance – Cone of the light

Beam Angle 30°

