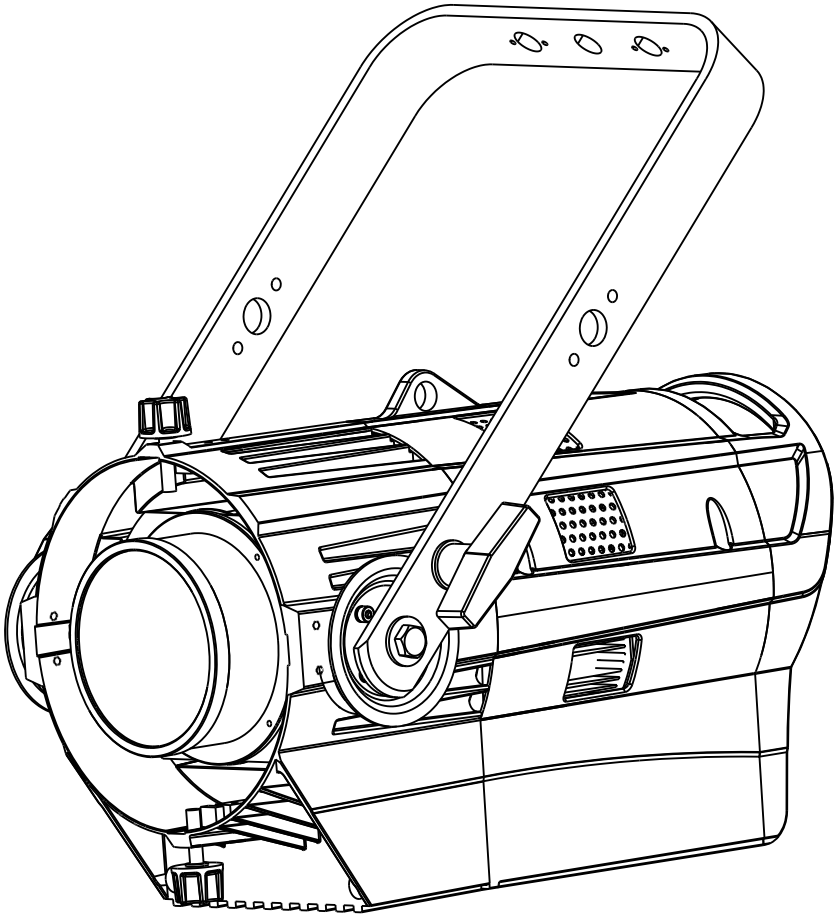
BT-PROFILE
6C20 ENGINE



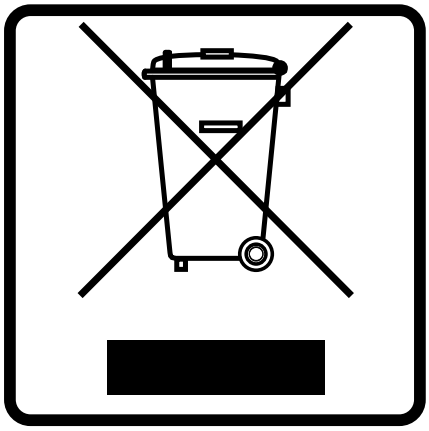
ENGLISH
Operation Manual

Other languages can be downloaded from:
WWW.BRITEQ-LIGHTING.COM

CE

Version: 1.0

BRITEQ®
LIGHT RESEARCH



EN - DISPOSAL OF THE DEVICE
Dispose of the unit and used batteries in an environment friendly manner according to your country regulations.

FR - DÉCLASSER L'APPAREIL
Débarrassez-vous de l'appareil et des piles usagées de manière écologique
Conformément aux dispositions légales de votre pays.

NL - VERWIJDEREN VAN HET APPARAAT
Verwijder het toestel en de gebruikte batterijen op een milieuvriendelijke manier conform de in uw land geldende voorschriften.

DU - ENTSORGUNG DES GERÄTS
Entsorgen Sie das Gerät und die Batterien auf umweltfreundliche Art und Weise gemäß den Vorschriften Ihres Landes.

ES - DESHACERSE DEL APARATO
Reciclar el aparato y pilas usadas de forma ecologica conforme a las disposiciones legales de su pais.

PT - COMO DESFAZER-SE DA UNIDADE
Tente reciclar a unidade e as pilhas usadas respeitando o ambiente e em conformidade com as normas vigentes no seu país.

OPERATION MANUAL

Thank you for buying this Briteq® product. To take full advantage of all possibilities and for your own safety, please read these operating instructions very carefully before you start using this unit.

FEATURES

- This LED profile spotlight features powerful 280W multi-color LED technology.
- It is a perfect replacement for energy consuming 2kW halogen lamps in theaters!
- The 6-color RGBALC LED cluster (red, green, blue, amber, lime, cyan) guarantees:
    - Perfect white presets between 1800K and 10000K with high CRI >90Ra
    - Rich color selection with the same color presets as in the BT-THEATRE HD2 and BT-PROFILE HD
    - Very realistic amber drift (dim-to-warm) emulation of traditional halogen lamps
- Color calibration system makes color differences between different batches a thing of the past
- Very quiet operation with low-noise cooling fan and different fan presets (live, studio, power)
- Can be used in standalone mode, without any DMX control
- DMX-controlled: 8 different channel modes for maximum flexibility
- RDM functionality for easy remote installation
- Flicker-free TV shooting thanks to adjustable high speed LED refresh rate
- Fast and slow dimmer response
- OLED display for easy navigation through the setup menu
- Lock function to prevent unwanted change of settings
- 5-pin DXM in/outputs + PowerCON TRUE1 compatible in/outputs for easy daisy-chaining.

Multiple optics available (ETC source four compatible):

- BT-PROFILE 1530 OPTIC (15°-30° zoom range)
- BT-PROFILE 2550 OPTIC (25°-50° zoom range)
- Fixed aperture optics on special order only

The optional optics have:

- Specially coated optics for sharply defined projections
- Four profile blades specially coated for minimal reflections
- Lockable compartment for use of the optionally available:
    - GOBO Holder
    - IRIS (recommended for best projection results)
- Optical cylinder can be rotated and locked in any position

BEFORE USE

- Before you start using this unit, please check if there's no transportation damage. Should there be any, do not use the device and consult your dealer first.
- **Important:** This device left our factory in perfect condition and well packaged. It is necessary for the user to strictly follow the safety instructions and warnings in this user manual. Any damage caused by mishandling is not subject to warranty. The dealer will not accept responsibility for any resulting defects or problems caused by disregarding this user manual.
- Keep this booklet in a safe place for future consultation. If you sell the fixture, be sure to add this user manual.

Check the contents:

Check that the carton contains the following items:

- BT-PROFILE 6C20 ENGINE
- Power cable
- Safety cable
- English operating instructions, other languages can be downloaded from our website.

SAFETY INSTRUCTIONS:

CAUTION: To reduce the risk of electric shock, do not remove the top cover. No user-serviceable parts inside. Refer servicing to qualified service personnel only.

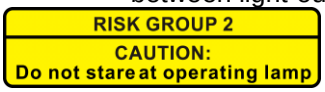
The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the use or the presence of un-insulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying this appliance.

This symbol means: indoor use only

This symbol means: Read instructions

This symbol determines: the minimum distance from lighted objects. The minimum distance between light-output and the illuminated surface must be more than 1 meters



CAUTION: Do not stare at operating lamp.
May be harmful to the eyes.

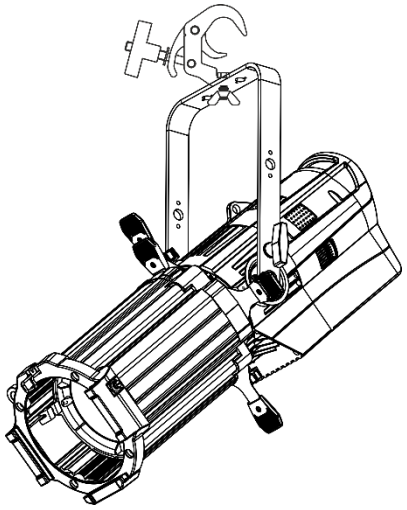
- To protect the environment, please try to recycle the packing material as much as possible.
- To prevent fire or shock hazard, do not expose this appliance to rain or moisture.
- To avoid condensation to be formed inside, allow the unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condense sometimes prevents the unit from working at full performance or may even cause damages.
- This unit is for indoor use only.
- Don’t place metal objects or spill liquid inside the unit. Electric shock or malfunction may result. If a foreign object enters the unit, immediately disconnect the mains power.
- Locate the fixture in a well-ventilated spot, away from any flammable materials and/or liquids. The fixture must be fixed at least 50cm from surrounding walls.
- Don’t cover any ventilation openings as this may result in overheating.
- Prevent use in dusty environments and clean the unit regularly.
- Keep the unit away from children.
- Inexperienced persons should not operate this device.
- Maximum safe ambient temperature is 40°C. Don’t use this unit at higher ambient temperatures.
- Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
- Allow the device about 10 minutes to cool down before to start servicing.
- Always unplug the unit when it is not used for a longer time or before to start servicing.
- The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.
- Check that the available voltage is not higher than the one stated on the unit.
- The power cord should always be in perfect condition. Switch the unit immediately off when the power cord is squashed or damaged. It must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Never let the power-cord come into contact with other cables!
- This fixture must be earthed in order to comply with safety regulations.
- Don’t connect the unit to any dimmer pack.
- Always use an appropriate and certified safety cable when installing the unit.
- In order to prevent electric shock, do not open the cover. Apart from the mains fuse there are no user serviceable parts inside.
- **Never** repair a fuse or bypass the fuse holder. **Always** replace a damaged fuse with a fuse of the same type and electrical specifications!
- In the event of serious operating problems, stop using the fixture and contact your dealer immediately.
- The housing and the lenses must be replaced if they are visibly damaged.
- Please use the original packing when the device is to be transported.
- Due to safety reasons it is prohibited to make unauthorized modifications to the unit.

Important: Never look directly into the light source! Don’t use the effect in the presence of persons suffering from epilepsy.

OVERHEAD RIGGING

<u>Important:</u> The installation must be carried out by qualified service personal only. Improper installation can result in serious injuries and/or damage to property. Overhead rigging requires extensive experience! Working load limits should be respected, certified installation materials should be used, the installed device should be inspected regularly for safety.

- Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
- Locate the fixture in a well-ventilated spot, far away from any flammable materials and/or liquids. The fixture must be fixed **at least 50cm** from surrounding walls.
- The device should be installed out of reach of people and outside areas where persons may walk by or be seated.
- Before rigging make sure that the installation area can hold a minimum point load of 10times the device's weight.
- Always use a certified safety cable that can hold 12times the weight of the device when installing the unit. This secondary safety attachment should be installed in a way that no part of the installation can drop more than 20cm if the main attachment fails.
- The device should be well fixed; a free-swinging mounting is dangerous and may not be considered!
- Don't cover any ventilation openings as this may result in overheating.
- The operator has to make sure that the safety-relating and machine-technical installations are approved by an expert before using them for the first time. The installations should be inspected every year by a skilled person to be sure that safety is still optimal.



SETUP MENU / HOW TO SETUP

With the setup menu you can fully configure the projector. All settings are preserved when the unit is disconnected from the mains.

■ [MENU] button: press to enter / leave the setup menu.
► [ENTER] button: press to select / confirm or store the current menu option or value.
▲/▼ [UP/DOWN] button: press to navigate the setup menu or change a value.

All passwords of this product are <UP>, <DOWN>,<UP>, <DOWN>, <ENTER>)

Level 0	Level 1	Level 2	Remarks
Static	Red	0-255	*Combine [RED][GREEN][BLUE][LIME][AMBER][CYAN] to create an infinite range of colors (0-255). PS: Color settings are not used when a CCT or COLOR PRESET is selected.*
	Green	0-255	
	Blue	0-255	
	Amber	0-255	
	Lime	0-255	
	Cyan	0-255	
	Strobe	0-25	*Set the value of the [STROBE](0-25Hz).*
	Dimmer	0-255	*Master dimmer of all static colors and presets*
	CCT Pre	None - 10000K	*The different CCT values can be selected in static mode. Choose "NONE" if you want to use the separate color settings or color presets.*
	Col Pre	None - Col48	*The 48 color presets can be selected in static mode. Choose "NONE" if you want to use the separate color settings or CCT-presets.*
Address	001-512		*Set the DMX ADDRESS*
Run mode	DMX		*[DMX] Using the DMX 512 controller to control [SLAVE] Master/Slave operation. [STATIC] use the settings from the STATIC menu.*
	Static		
	Slave		
Personality	UNO		*Use the menu to select desired channel mode*
	DOS		

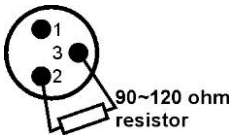
	Basic		
	SSP		
	Tour		
	TR16		
	HSIC		
	CMY		
Auto Program	Auto 1		*Selects automatic AUTO program and AUTO program speed.* *Programs [CUSTOM 1] to [CUSTOM 2] are fully pre-programmed and can be edited in [EDIT] mode.*
	…		
	Auto 10		
	Pr.01		*Enter the [EDIT] mode to edit the custom programs [PROGRAM01] to [PROGRAM2].* *Each custom program has 30 scenes that can be edited.* *Fade transition time, time 0-255 unit is second, fade time setting should be less than time setting.* *After editing the program, Play in AUTO.*
	Pr.02		
Edit	Program01		
	Program02		
	Upload		*Select [UPLOAD] to upload the custom programs*
Setting	Reset		*Restore factory settings*
	Dimmer	Dim4	*Dimming curves Off (fast) and DIM4 (slow) ;*
		Off	
	Dimming curves	Linear	
		Square	
		Inv. SQ Law	
		S-curve	
	Tungsten fade	On / Off	*Enables/disables the tungsten emulation*
	DMX error	Save	*Hold after loss of DMX signal*
		Black	*Blackout after loss of DMX signal*
	PWM rate	1200Hz	*Sets the PWM frequency*
		2400Hz	
		4000Hz	
		6000Hz	
		25000Hz	
	Perform	Live	*Automatic rotation of fan*
		Power	*Fast rotation of fan， all power*
		Studio	*Fan mode low speed*
	Disp key	On/Off	*Locks display (passcode is :* *<UP>, <DOWN >, <UP>, <DOWN>, <ENTER>)*
	Disp Time	On	*Display backlight always on*
		10s	*Turns off display backlight after:* *10s/30s/2min of inactivity*
		30s	
		2min	
Info	Fixture Hours		*Hours of fixture use*
	Version		*Software versions*
	RDM	UID	*Check fixture's ID*
		Label	*Check fixture's LABEL*

ELECTRICAL INSTALLATION

Important: The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.

Electrical installation for two or more units in DMX-mode:

- The DMX-protocol is a widely used high speed signal to control intelligent light equipment. You need to "daisy chain" your DMX controller and all the connected units.
- Pin layout XLR-3pin: Pin1 = GND ~ Pin2 = Negative signal (-) ~ Pin3 = Positive signal (+)
- To prevent strange behavior of the light effects, due to interferences, you must use a 90Ω to 120Ω terminator at the end of the chain. Never use Y-splitter cables, this simply won't work!
- Make sure that all units are connected to the mains.
- Each unit in the chain needs to have its proper starting address so it knows which commands from the controller it has to decode.



USE IN STAND-ALONE (STATIC) MODE

- In the setup menu: select [RUN MODE] and choose the option [STATIC]
- Now you can set the desired output manually:
  - **Set any desired color:** combine the settings of the different separate colors
  - **Set one of the color presets:** choose [COL PRESETS] and select one of the 48 presets
  - **Set one of the CCT presets:** choose [CCT PRESETS] and select one of the CCT-presets
- Choose the option [DIMMER] and set the desired light output.

Remark: *if you don't use the preset options, both should be set to "NONE" to select any desired color.*

RDM FUNCTIONS / REMOTE SETUP

RDM means "**R**emote **D**evice **M**anagement". This projector works with a brief set of RDM-functions which means that it can setup a bi-directional communication with an RDM-compatible DMX-controller. Some of these functions are briefly explained below, others will be added in the future.

- The DMX-controller sends out a "discovery command", all RDM devices respond and send their unique device ID.
- The DMX-controller asks each RDM device for some basic data so it knows which devices are connected. The projector will respond:
  - **Device name:** BT-PROFILE 6C20
  - **Manufacturer:** Briteq®
  - **Category:** LED Dimmer
  - **Firmware:** x.x.x.x (firmware version of the projector)
  - **DMX address:** xxx (current DMX start address of the projector)
  - **DMX footprint:** xx (number of DMX-channels used by the projector)
  - **Personality:** xx (current personality [or DMX-working mode] used by the projectors)
  - **Temperature:** xx°C Temperature of the LED engine
- The DMX-controller can send certain commands to each RDM device which allow remote setup of the units. Thanks to this the projector can be setup remotely.

The following functions can be managed remotely:

No more need to take a ladder and set all units one by one!

- **DMX START ADDRESS:** The start address can be set remotely from 001 to xxx.
- **PERSONALITY:** The DMX working mode (DMX-chart) can be set remotely.

These 2 functions make it possible to prepare a complete DMX-patch of all projectors on the DMX-controller and send these data to all projectors at once. More functions will be added later.

DMX CHARTS

UNO	DOS	Function	Value	
1	1	Dimmer	000-255	
-	2	Dimmer fine	000-255	

HSIC	CMY	Basic	SSP	Tour	TR16	Function	Value	
1	-	-	-	-	-	Intensity	000-255	
2	-	-	-	-	-	Hue	000-255	
3	-	-	-	-	-	Hue fine	000-255	
4	-	-	-	-	-	Saturation	000-255	
-	1	1	1	1	1	Dimmer	000-255	
-	-	-	-	-	2	Dimmer fine	000-255	
-	-	-	2	2	3	Red	000-255	
-	-	-	-	-	4	Red fine	000-255	
-	-	-	3	3	5	Green	000-255	
-	-	-	-	-	6	Green fine	000-255	
-	-	-	4	4	7	Blue	000-255	
-	-	-	-	-	8	Blue fine	000-255	
-	-	-	5	5	9	Amber	000-255	
-	-	-	-	-	10	Amber fine	000-255	
-	-	-	6	6	11	Lime	000-255	
-	-	-	-	-	12	Lime fine	000-255	
-	2	-	7	7	13	Cyan	000-255	
-	-	-	-	-	14	Cyan fine	000-255	
-	3	-	-	-	-	Magenta	000-255	
-	4	-	-	-	-	Yellow	000-255	
-	5	2	-	8	15	Color presets	000-010	Disabled
							011-255	Color presets
5	6	3	-	9	16	CCT	000-009	Disabled
							010	1800K
							025	2200K
							040	2700K
							055	3000K
							070	3200K
							085	4000K
							100	4500K
							115	5000K
							130	5600K
							145	6000K
							160	6500K
							175	7000K
							190	8000K
							205	10000K
							255	10000K
6	7	4	-	10	17	Tint correction	000-016	Disabled
							017-116	Magenta 99% <> 1%
							117-139	Neutral (no effect)
							140-239	Green 1% <> 99%
							240-255	Green 100%
-	8	-	-	11	18	Auto	000-040	Disabled

							041-050	Auto 1
							051-060	Auto 2
							061-070	Auto 3
							071-080	Auto 4
							081-090	Auto 5
							091-100	Auto 6
							101-110	Auto 7
							111-120	Auto 8
							121-130	Auto 9
							131-140	Auto 10
							141-150	Custom 1
							151-160	Custom 2
							161-255	No function
-	9	-	-	12	19	Auto speed	000-255	
7	10	-	8	13	20	Strobe	000-009	Open
							010-099	Strobe (0-25Hz)
							100-109	Open
							110-179	Lightning strobe
							018-189	Open
							190-255	Random strobe
8	11	-	-	14	21	Control	000-010	No function
							011-015	Tungsten fade On (0s delay)
							016-020	Tungsten fade off (0s delay)
							021-100	No function
							101-110	Dimmer off (3s delay)
							111-120	Dimmer Dim4 (3s delay)
							121-150	No function
							151-160	PWM: 1200Hz (3s delay)
							161-170	PWM: 2400Hz (3s delay)
							171-180	PWM: 4000Hz (3s delay)
							181-190	PWM: 6000Hz (3s delay)
							191-200	PWM: 25000Hz (3s delay)
							201-210	All reset (3s delay)
							211-255	No function

MAINTENANCE

- Make sure the area below the installation place is free from unwanted persons during servicing.
- Switch off the unit, unplug the mains cable and wait until the unit has been cooled down.

During inspection the following points should be checked:

- All screws used for installing the device and any of its parts should be tightly fastened and may not be corroded.
- Housings, fixations and installations spots (ceiling, truss, suspensions) should be totally free from any deformation.
- When an optical lens is visibly damaged due to cracks or deep scratches, it must be replaced.
- The mains cables must be in impeccable condition and should be replaced immediately when even a small problem is detected.
- In order to protect the device from overheat the cooling fans (if any) and ventilation openings should be cleaned monthly.
- The interior of the device should be cleaned annually using a vacuum cleaner or air-jet.

- The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics.
    - Clean with a soft cloth using normal glass cleaning products.
    - Always dry the parts carefully.

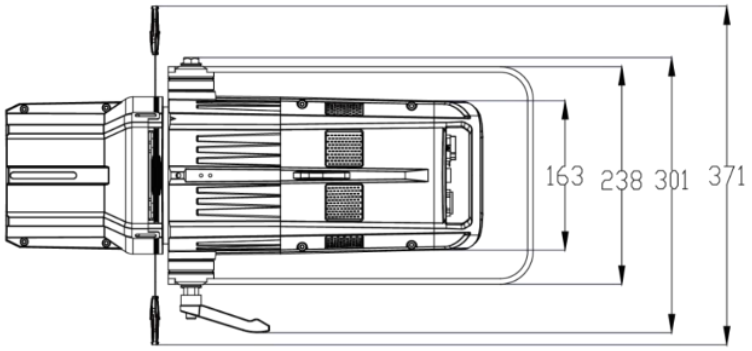
Attention: We strongly recommend internal cleaning to be carried out by qualified personnel!

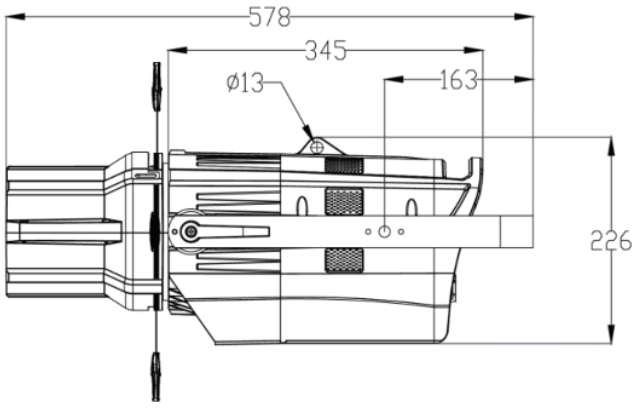
SPECIFICATIONS

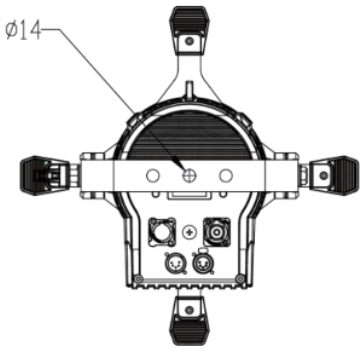
This unit is radio-interference suppressed. This product meets the requirements of the current European and national guidelines. Conformity has been established and the relevant statements and documents have been deposited by the manufacturer.

Mains Input:	AC 100 - 240V, 50/60Hz
Fuse:	T6.3A / 250V (20x5mm)
Power consumption (max):	290 Watts
Power connections:	PowerCON TRUE1 compatible connector, input / output
Power Linking capacity:	6A @ 240V
DMX connections:	5 pin-XLR male / female inputs + outputs
Lamp:	RGBALC LED 280W
CRI:	>90
IP-Rating:	IP20
Operating Temperature:	0°C – 45°C
Size:	See drawing
Weight (LED engine):	6,54 kg

DIMENSIONS:

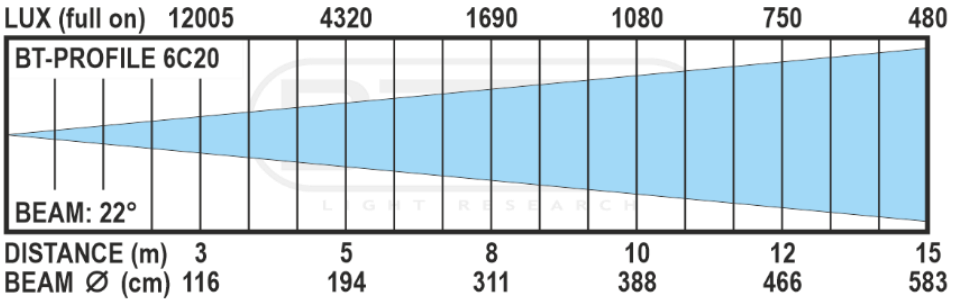


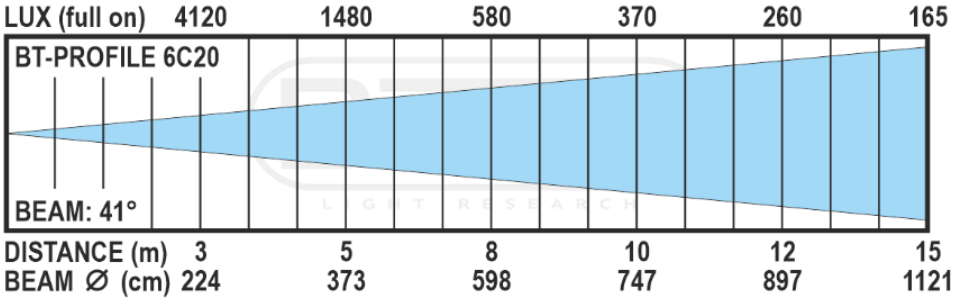




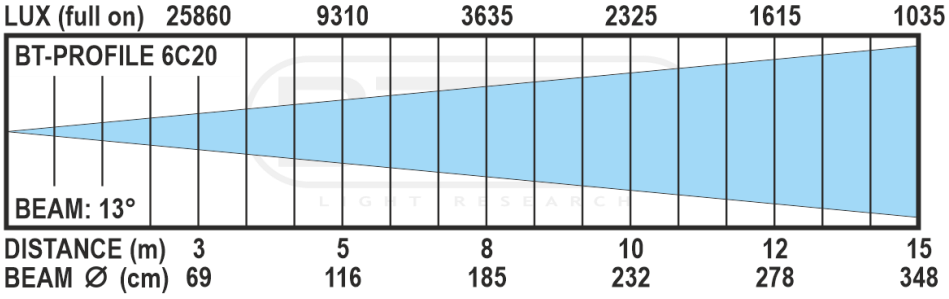
LUX CHARTS

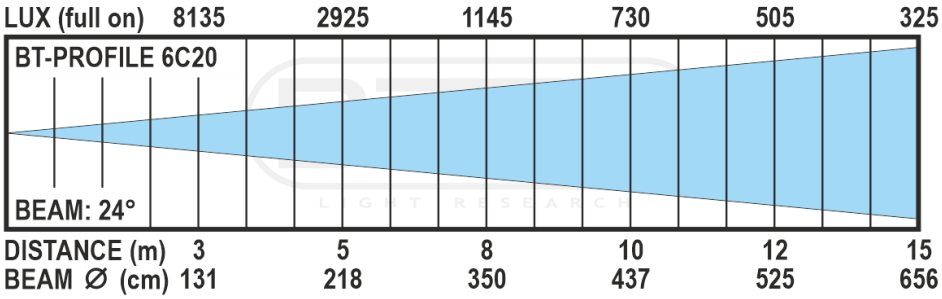
25° - 50° lens + Iris





15°-30° lens + Iris





ANNEX 1 ➔ COLOR PRESETS + LEE / ROSCO FILTER NAMES + CIE 1931 X/Y coordinates

PRESET	VALUE	COLOR NAME		X	Y
	000-010	NO FUNCTION			
COLOR 1	011-015	L176	Loving Amber	0.407	0.321
COLOR 2	016-020	R40	Light Salmon	0.499	0.321
COLOR 3	021-025	L24	Scarlet	0.561	0.296
COLOR 4	026-030	L164	Flame Red	0.659	0.302
COLOR 5	031-035	L747	Easy White	0.389	0.344
COLOR 6	036-040	R303	Warm Peach	0.448	0.353
COLOR 7	041-045	L08	Dark Salmon	0.498	0.347
COLOR 8	046-050	L25	Sunset Red	0.566	0.359
COLOR 9	051-055	L04	Medium Bastard Amber	0.370	0.335
COLOR 10	056-060	L237	C.I.D. (To Tungsten)	0.430	0.365
COLOR 11	061-065	R321	Soft Golden Amber	0.477	0.406
COLOR 12	066-070	L652	Urban Sodium	0.535	0.399
COLOR 13	071-075	L212	L.C.T. Yellow (Y1)	0.340	0.363
COLOR 14	076-080	L765	LEE Yellow	0.389	0.412
COLOR 15	081-085	L513	Ice and a Slice	0.380	0.447
COLOR 16	086-090	L100	Spring Yellow	0.410	0.502
COLOR 17	091-095	L244	LEE Plus Green	0.324	0.388
COLOR 18	096-100	R4430	Cal Color 30 Green	0.318	0.440
COLOR 19	101-105	L122	Fern Green	0.234	0.543
COLOR 20	106-110	L90	Dark Yellow Green	0.184	0.641
COLOR 21	111-115	L243	LEE Fluorescent 3600K	0.286	0.370
COLOR 22	116-120	R92	Turquoise	0.235	0.360
COLOR 23	121-125	R94	Kelly Green	0.185	0.459
COLOR 24	126-130	L327	Forest Green	0.162	0.496
COLOR 25	131-135	L191	Cosmetic Aqua Blue	0.300	0.318
COLOR 26	136-140	L728	Steel Green	0.256	0.302
COLOR 27	141-145	L117	Steel Blue	0.223	0.278
COLOR 28	146-150	L354	Special Steel Blue	0.173	0.265
COLOR 29	151-155	L53	Paler Lavender	0.284	0.284
COLOR 30	156-160	L501	New Color Blue	0.246	0.249
COLOR 31	161-165	L174	Dark Steel Blue	0.204	0.205
COLOR 32	166-170	L165	Daylight Blue	0.159	0.158
COLOR 33	171-175	L136	Pale Lavender	0.288	0.254
COLOR 34	176-180	L194	Surprise Pink	0.240	0.183
COLOR 35	181-185	L142	Pale Violet	0.209	0.148
COLOR 36	186-190	L700	Perfect Lavender	0.177	0.070
COLOR 37	191-195	L35	Light Pink	0.335	0.289
COLOR 38	196-200	L794	Pretty 'n Pink	0.335	0.251
COLOR 39	201-205	L328	Follies Pink	0.335	0.180
COLOR 40	206-210	L795	Magical Magenta	0.327	0.138
COLOR 41	211-215	L154	Pale Rose	0.350	0.318
COLOR 42	216-220	L127	Smokey Pink	0.397	0.265
COLOR 43	221-225	L192	Flesh Pink	0.410	0.237
COLOR 44	226-230	L332	Special Rose Pink	0.465	0.193
COLOR 45	231-235	L790	Moroccan Pink	0.378	0.324
COLOR 46	236-240	L157	Pink	0.457	0.272
COLOR 47	241-245	R332	Cherry Rose	0.489	0.295
COLOR 48	246-250	L128	Cool LED Bright Pink	0.570	0.263
	251-255	NO FUNCTION			

The information might be modified without prior notice
You can download the latest version of this user manual on our website: www.briteq-lighting.com

MAILING LIST

EN: Subscribe today to our mailing list for the latest product news!
FR: Inscrivez-vous à notre liste de distribution si vous souhaitez suivre l'actualité de nos produits!
NL: Abonneer je vandaag nog op onze mailinglijst en ontvang ons laatste product nieuws!
DE: Abonnieren Sie unseren Newsletter und erhalten Sie aktuelle Produktinformationen!
ES: Suscríbete hoy a nuestra lista de correo para recibir las últimas noticias!
PT: Inscreva-se hoje na nossa mailing list para estar a par das últimas notícias!

WWW.BRITEQ-LIGHTING.COM

Copyright © 2024 by BEGLEC NV
't Hofveld 2C ~ B1702 Groot-Bijgaarden ~ Belgium
Reproduction or publication of the content in any manner, without express permission of the publisher, is prohibited.