

KEYE™

CLAYPAKY
AN OSRAM BUSINESS

ENGLISH



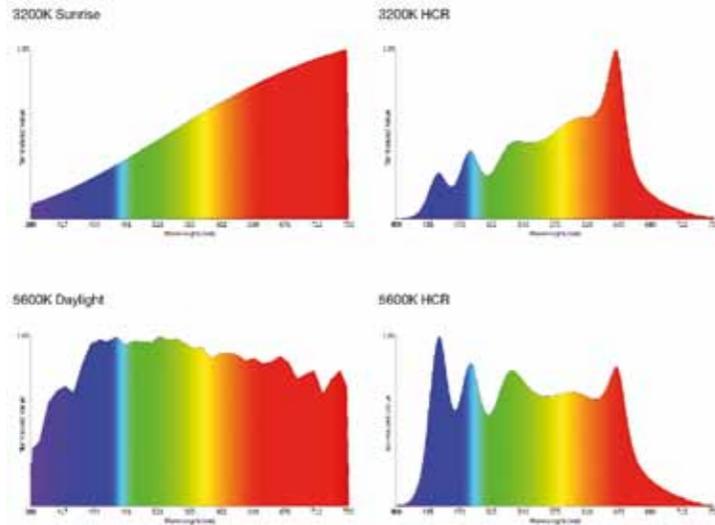


K-EYE™

**EVERY COLOR, EVERY NUANCE
AND EVERY SHADE
WITH THE HIGHEST CRI**

K-EYE HCR is a LED washlight which provides total control over the quality of all forms of white or colored light. The new HCR technology used in the K-EYE is an exclusive electronic platform developed by Claypaky in conjunction with Osram to meet the needs of lighting designers all over the world who were not fully satisfied with the performance of LED devices in comparison with traditional lamps, in particular because of their incomplete color range, poor color rendering index and lack of consistency. All these limitations have been overcome in the K-EYE HCR, and it is finally possible to produce every color, every nuance and every shade with satisfactory quality. The heart of the K-EYE HCR washlight is a LED light source consisting of a module with six colors: besides the three “classic” basic red, green and blue colors, Claypaky has added amber, cyan and lime. This exclusive Claypaky device provides a very wide color range with excellent color spectrum coverage.

THE "HCR" TECHNOLOGY INNOVATION



HCR stands for High Color Rendering, and HCR technology delivers superior light quality and performance.

The K-EYE range was designed to produce a light as close as possible to natural light. Until now, the completeness of the full spectrum achieved with the K-EYE was possible only with a halogen lamp.

AN EXCLUSIVE LIGHT SOURCE

K-EYE 6-COLOR CHIP



6-COLOR LED SOURCE: R-G-B + AMBER + CYAN + LIME

The heart of the K-EYE washlight is a LED light source based on 6 colors in one chip: DEEP RED, GREEN and INDIGO BLUE, along with additional AMBER, CYAN and LIME.

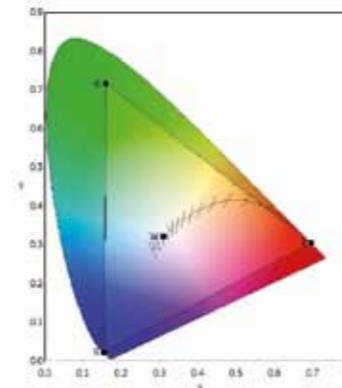
WIDE COLOR GAMUT

This 6-color chip guarantees broader coverage of the COLOR GAMUT (figure 1).

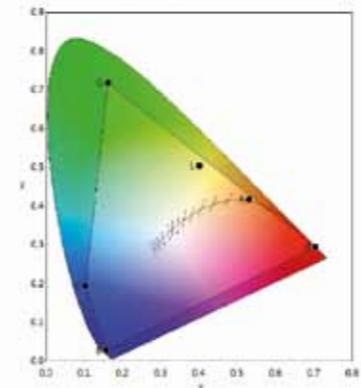
RGBW vs 6-COLORS

The colors AMBER, CYAN and LIME have been identified as perfect complements to the wavelength gaps of the colors in the usual RGBW system (figure 2).

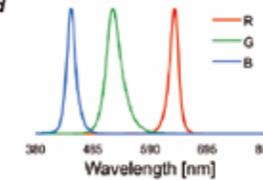
RGBW GAMUT



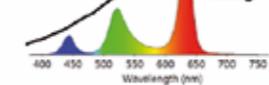
6-COLORS GAMUT (HCR Technology)



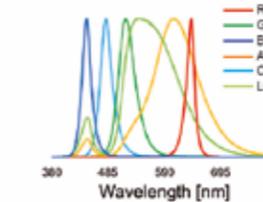
RGB Led 3000K CRI33



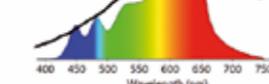
1kW Halog.



HCR 3000K CRI98



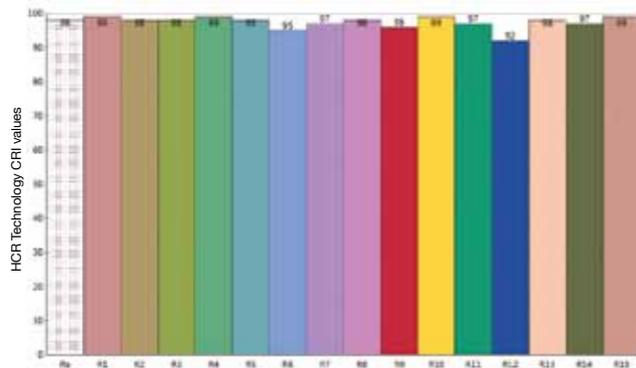
1kW Halog.



PROPRIETARY, ADVANCED SOFTWARE

The brand new sophisticated software algorithm is the brain of this system, ensuring the total control over the unit.

The light produced by the K-EYE has a CRI reaching values that have never been achieved before by LEDs: the typical CRI value is 97 and it goes up to 99. These value were previously possible only with traditional technology.



The CRI values are consistently above 97 at any color temperature, from 2500K to 8000K.

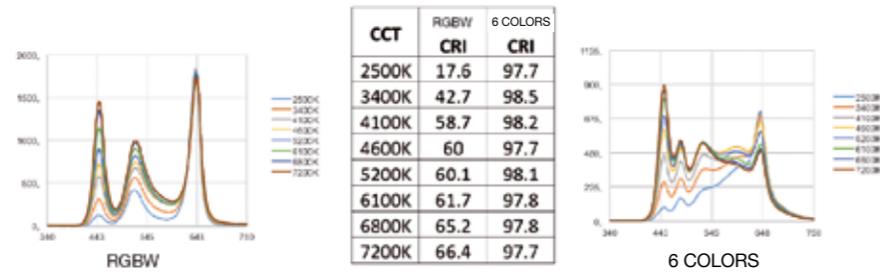


Photo for illustrative purpose only - Photo credit: Ralph Larmann



ENHANCED OPTICAL SYSTEM

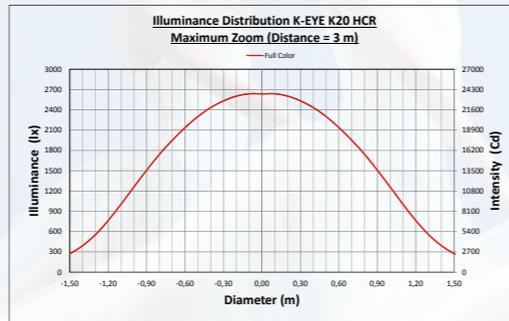
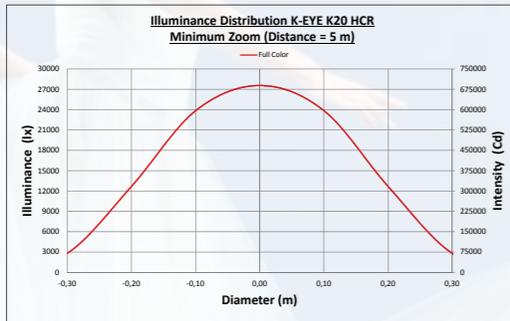


ADVANCED OPTICS

The K-EYE HCR fits an extremely high quality optical unit, with proprietary lenses that guarantee even light diffusion and eliminate stray reflections. Special "rods" - optical bars with reflective internal surface - convey the light output from each LED of the lens. All light dispersion is eliminated. The light emitted is enhanced and the colors are perfectly mixed and uniform. A dedicated pc lens is at the top of each rod.

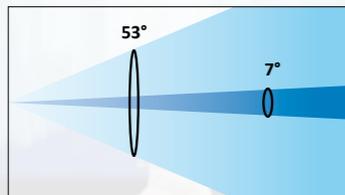
MAXIMUM BEAM UNIFORMITY

The advanced optics guarantee well-defined light dynamics at minimum aperture and optimize beam uniformity at maximum aperture in wash mode.



WIDE LINEAR ZOOM

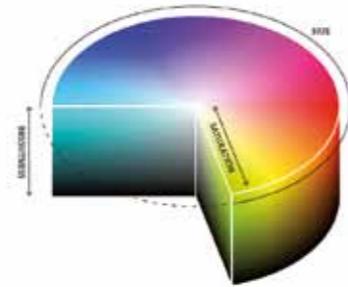
The zoom ranges from 7 to 53 degrees. It may go from one beam angle to another either very quickly or slowly and gradually.



THEATRE

THE RICHEST COLOR MANAGEMENT EVER

OPERATING MODES



The projector can work in 4 operating modes: RAW Mode, HSL, RGB emulation and CMY emulation. RAW Mode enables specific control of each color. HSL Mode is based on a complex algorithm for a new type of management of both color and white light. In this mode, the CRI is kept constantly above 97, irrespective of color temperature.

HSL MODE: HUE AND SATURATION

- **HUE:** The Linear Hue setting defines the target point color in the HSV color representation system (range from 0° (Red) to 360°).
- **HUE FINE:** it is the 16-bit Hue setting.
- **SATURATION:** Linear Saturation setting, define the INTENSITY/PURITY of the color at a constant lightness level. It ranges from 100% (pure color) to 0% (white).

HSL MODE: CROSSFADE, PATH AND TINT

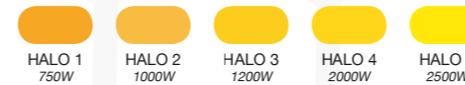
- **CROSSFADE:** Faded Transition with selectable timing between two sets of color points. In accordance with the selected PATH, during the faded transition all the intermediate colors along the route will be displayed.
- **PATH:** Selection of the different types of route from one color to the other (example: along a straight line connecting directly the two points; clockwise or counterclockwise along the saturated color on the gamut border connecting the two points).
- **TINT:** Linear Tint setting, defines the target point correction toward Green (or Magenta).

RGB AND CMY EMULATION

- **RGB Mode:** the projector functions in the same way as a classic RGB projector. The HUE channel turns RED. The HUE FINE channel turns GREEN. The SATURATION channel turns BLUE.
- **CMY Mode:** the projector functions in the same way as a classic CMY projector. The HUE channel turns CYAN. The HUE FINE channel turns MAGENTA. The SATURATION channel turns YELLOW.

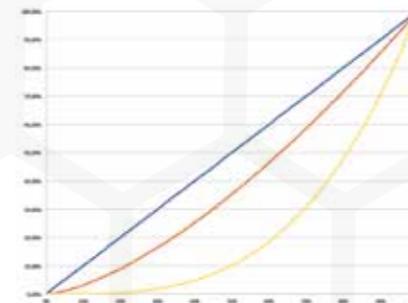
HALO SIMULATION

The projector offers a number of other functions, activated through the specific channel: with INCANDESCENCE EMULATION all parameters are set to emulate the dynamics of an incandescent lamp, specifically the dimmer curve and the color temperature. 5 different types of incandescence are available.



GAMMA WAVE

There are different chromatic curves for each color.



DEDICATED CTO CHANNEL

A dedicated CTO channel from 8000K to 2500K is active to set the projector at the required color temperature.



- The color temperature control channel can operate in two modes.
- In Filt(er) mode, a digital CTO filter (from 8000K to 2500K) is inserted over any color set.
 - In White mode, a digital CTI filter (from 8000K to 2500K) is inserted over white light only.

This feature makes color temperature management and programming quicker. Both modes are available in RGB, HSL and CMY, whereas only White mode works in RAW.

COLOR MACRO

Dedicated color macro channel with more than 40 digital filters. (More filters will be implemented in the next programmed FW updates).

Color	Lee Filter	Description
0	-	Macro OFF
1	4	Med Bast Amber
2	9	Pale Amber Gold
3	19	Fire
4	26	Bright Red
5	35	Light Pink
6	58	Lavender
7	68	Sky Blue
8	71	Tokyo Blue
9	103	Straw
10	111	Dark Pink
11	115	Peacock Blue
12	116	Med Blue-Green
13	117	Steel Blue
14	124	Dark Green
15	128	Bright Pink
16	131	Marine Blue
17	132	Med Blue
18	134	Golden Amber
19	136	Pale Lavender
20	138	Pale Green
21	141	Bright Blue
22	147	Apricot
23	154	Pale Rose
24	161	Slate Blue
25	165	Daylight Blue
26	169	Lilac Tint
27	180	Dark Lavender
28	182	Light Red
29	200	Double C.T. Blue
30	201	Full C.T. Blue
31	202	1/2 C.T. Blue
32	203	1/4 C.T. Blue
33	204	Full C.T. Orange
34	205	1/2 C.T. Orange
35	206	1/4 C.T. Orange
36	241	Lee Fluor 5700K
37	242	Lee Fluor 4300K
38	248	1/2 Minus Green
39	328	Follies Pink
40	706	King Fals Lavender
41	711	Cold Blue
42	728	Steel Green
43	747	Easy White
44	Rosco	Rose Tint

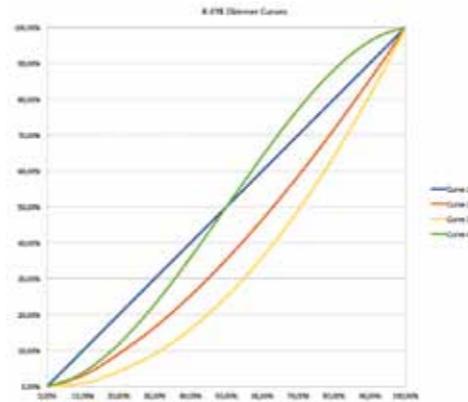


CAR SHOWROOMS

STATE-OF-THE-ART, 16 BIT ELECTRONIC DIMMER

16-BIT ELECTRONIC DIMMER

K-EYE HCR offers a very precise 16-bit electronic dimmer with a choice of different dimmer curves: standard, conventional, linear and exponential. Beam dimming is very gradual, and you can especially appreciate the precision and cleanness of the dimming at low brightness, from 0 to 5% of maximum illumination, where lights normally encounter more problems. The K-EYE also features a high-speed, electronic stop-strobe function.



CONTROL AND ELECTRONICS

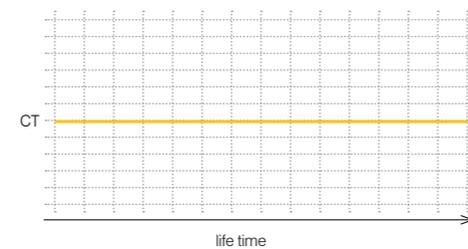
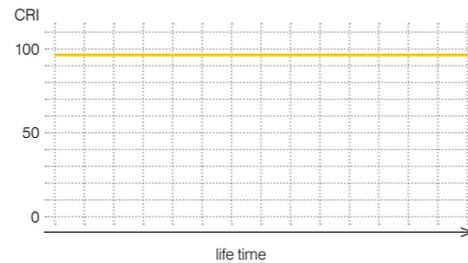
VERY SILENT OPERATIONS



One very interesting feature is the silence of this unit, thanks to the LED-engine cooling system, which was specially designed for this light.

PERFECTLY HOMOGENEOUS LUMEN OUTPUT

All the K-EYE HCR versions have a perfectly homogeneous lumen output, thanks to a source calibration and color balancing procedure which is carried out on every single light during the production testing stage. Furthermore, the control algorithm of each fixture compensates for drifts in color due to ageing on the basis of a model stored in the unit's memory that simulates typical behaviour during its working life. These sophisticated features together ensure color consistency both between one light and another, and over time.



EVENTS

Photo for illustrative purpose only - Photo credit: Ralph Larmann

A COMPLETE FAMILY FOR EVERY NEEDS

K20 (37 LEDs); K10 (19 LEDs)

The K-EYE HCR moving head range is available in two versions: K20 with 37 LEDs and K10 with 19 LEDs. It is the most advanced LED color changer available for use in theatres, television studios, exhibitions, showrooms and fashion shows.



K20	37 LEDs	750VA	11,000 lm
K10	19 LEDs	450VA	5,500 lm

HCR STATIC MODELS: S20 AND S10

Static HCR versions are also available with a square shape, intended specifically for backdrop wash illumination, offering the same optical, electronic and lighting characteristics as the dynamic versions.



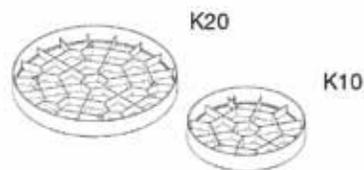
S20	32 LEDs	500VA	8,500 lm
S10	17 LEDs	300VA	4,250 lm

The K-EYE will also be highly appreciated in every field as a key light, thanks to its excellent color rendering index and many white light and color control possibilities.

OPTIONAL ACCESSORIES

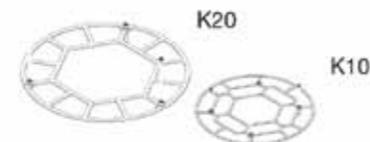
TOP HAT

An optional Top Hat can be applied to the front lens and pulls out automatically together with the zoom (it works as frost/gel holder as well).



OUTER FRAME FOR DIFFUSER / GEL FILTERS

An optional outer frame for diffuser or gel filters.



K-EYE HCR K20 AND K10	
Category:	Advanced moving head LED washlight

LIGHT SOURCE	
Source:	6-color LED module
LED Type:	R+G+B+Cyan+Amber+Lime
Number of LEDs:	37 (K20); 19 (K10)
LED Life Expectancy:	min. 50,000 hours
Typical Lumen Output:	11,000 (K20) - 5,500 (K10)
Color temperature:	2500K-8000K
CRI	>97 (up to 99)

OPTICAL SYSTEM	
Optics	6-color LED module + rod-bar mixing system + front lens
Zoom	7°- 53°, linear and motorized

COLOR SYSTEM AND EFFECTS	
Color system	R+G+B+Cyan+Amber+Lime LED module
CTO	Linear from 2500K to 8000K
Control of the colors	RAW mode, HSL mode, RGB mode, CMY mode
-RAW mode	Enable specific control of each color
-HSL mode	Color control function, based on algorithm
-HSL parameters	HUE, HUE fine, Saturation, Crossfade, Path, Tint
-RGB mode	The projectors works in the same way as a classical RGB fixture
-CMY mode	The projectors works in the same way as a classical CMY fixture
Halo Emulation	750W, 1000W, 1200W, 2000W, 2500W lamp emulation
Gamma Wave	Different chromatic curves for each color
Macro	Dedicated color macro channel with 80 pre-selected colors
Dimmer	16 bit electronic
Strobe	24 flash/sec

CONSTRUCTION	
Structure	In aluminium with die-cast plastic cover
Handles	Two side handles for transportation
Device locking	PAN and TILT mechanisms for transportation
Protection Rating	IP20

MOVEMENT	
PAN range	540°
TILT range	210°
PAN Resolution	PAN = 2.11° - PAN FINE = 0.008°
TILT Resolution	TILT = 0.960° - TILT FINE = 0.004°

THERMAL SPECIFICATIONS	
Minimum distance of illuminated objects	0.2 meters (8")
Minimum distance from flammable materials	0.2 meters (8")
Max ambient temperature	40°C (104°F)
Max temperature of the external surface	90°C (194°F)
Safety devices	Bipolar circuit breaker with thermal protection. Automatic break in power supply in case of overheating. Forced ventilation with axial fans.

ELECTRICAL SPECIFICATIONS	
AC power input	Neutrik PowerCON TRUE1 (IP65)
Input Voltage	100-240V 50/60 Hz
Power supply switching	Automatic
Input Power	750VA (K20), 450VA (K10)
Certifications	CE, cETLus

MECHANICAL SPECIFICATIONS		
	K20	K10
Height	605mm (23.82in)	497mm (19.57in)
Width	488mm (19.21in)	391mm (15.39in)
Depth	332mm (13.07in)	293mm (11.53in)
Weight	22.5Kg (49.6lbs)	16.5Kg (36.38lbs)

CONTROL AND PROGRAMMING	
DMX 512 control channels	32 / 19
Control signal	USITT DMX 512
Protocols	RDM, WebServer and Art-Net
Display	Graphic LCD backlit b/w Display
Display battery	Long life self-charging buffer battery
Pan/Tilt Resolution	16 bit
Dimmer Resolution	16 bit
Movement control	Vectorial
DMX signal connection	5 pole XLR input and output
Firmware update	Software upload through DMX input

RIGGING AND INSTALLATION	
Working position	Any
Hanging system	2x fast-lock omega clamps (1/4 turn) on the base
Optional	48-51mm, max300Kg clamps; Ø 4mm, length 680mm safety cable

ACCESSORIES	
Optional frame for external gels and frost filters	
Optional top hat	
Foam Shell	
Flight Case for 2 x K20 units (incl. 2 foam shells)	
Flight Case for 4 x K10 units (incl. 4 foam shells)	

K-EYE HCR S20 AND S10	
Category:	Advanced LED-based washlight

LIGHT SOURCE	
Source:	6-color LED module
LED Type:	R+G+B+Cyan+Amber+Lime
Number of LEDs:	32 (S20); 17 (S10)
LED Life Expectancy:	min. 50,000 hours
Typical Lumen Output:	8,500 lumen (S20); 4,250 lumen (S10)
Color temperature:	2500K-8000K
CRI	>97 (up to 99)

OPTICAL SYSTEM	
Optics	6-color LED module + rod-bar mixing system + front lens
Zoom	7°- 53°, linear and motorized

COLOR SYSTEM AND EFFECTS	
Color system	R+G+B+Cyan+Amber+Lime LED module
CTO	Linear from 2500K to 8000K
Control of the colors	RAW mode, HSL mode, RGB mode, CMY mode
-RAW mode	Enable specific control of each color
-HSL mode	Color control function, based on algorithm
-HSL parameters	HUE, HUE fine, Saturation, Crossfade, Path, Tint
-RGB mode	The projectors works in the same way as a classical RGB fixture
-CMY mode	The projectors works in the same way as a classical CMY fixture
Halo Emulation	750W, 1000W, 1200W, 2000W, 2500W lamp emulation
Gamma Wave	Different chromatic curves for each color
Macro	Dedicated color macro channel with 80 pre-selected colors
Dimmer	16 bit electronic
Strobe	24 flash/sec

CONSTRUCTION	
Structure	Structure in aluminium with die-cast plastic cover
Protection Rating	IP20

THERMAL SPECIFICATIONS	
Minimum distance of illuminated objects	0.2 meters (8")
Minimum distance from flammable materials	0.2 meters (8")
Max ambient temperature	40°C (104°F)
Max temperature of the external surface	90°C (194°F)
Safety devices	Bipolar circuit breaker with thermal protection. Automatic break in power supply in case of overheating. Forced ventilation with axial fans.

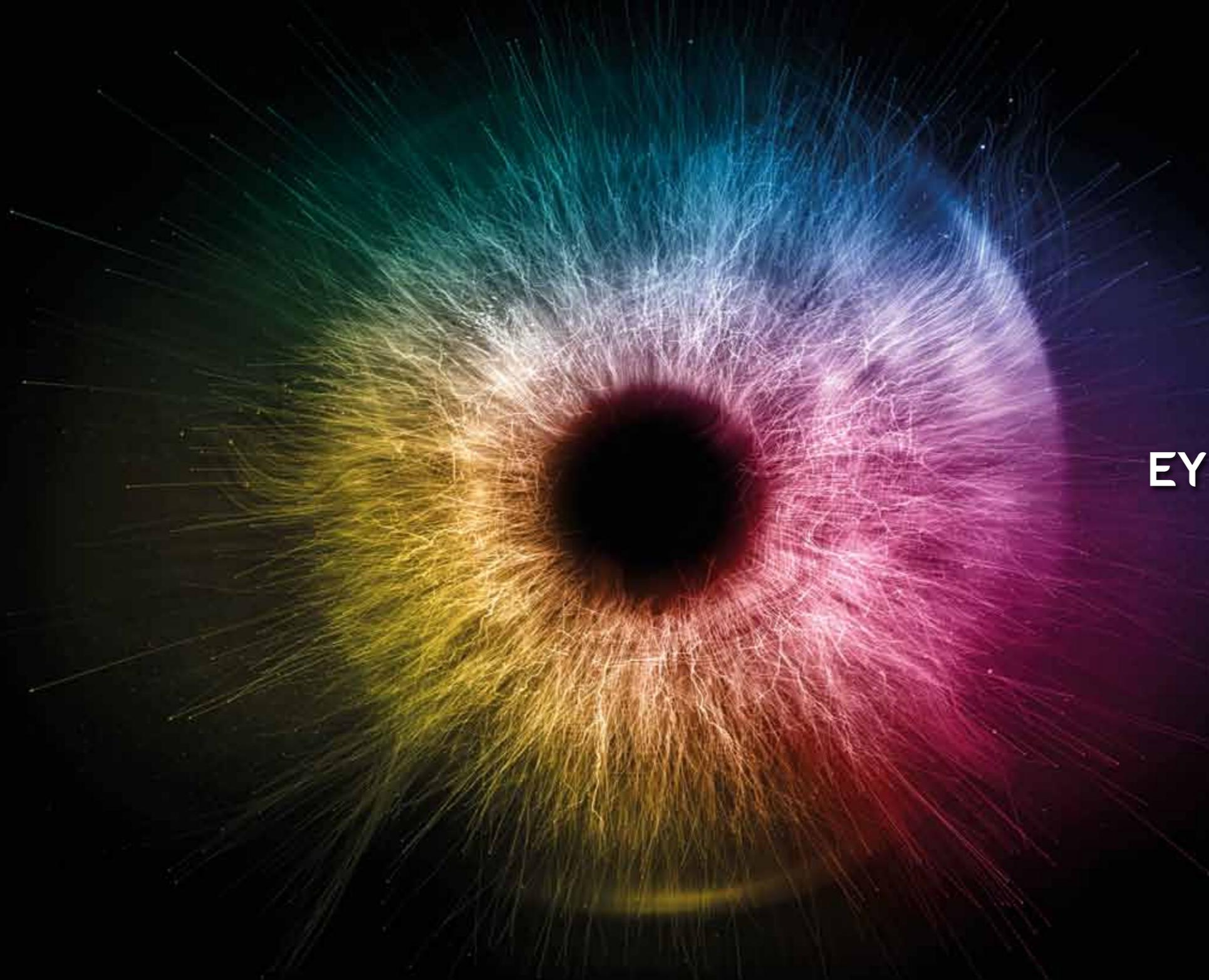
ELECTRICAL SPECIFICATIONS	
AC power input	Neutrik PowerCON TRUE1 (IP65)
Input Voltage	100-240V 50/60 Hz
Power supply switching	Automatic
Input Power	500VA (S20), 300VA (S10)
Certifications	CE, cETLus

MECHANICAL SPECIFICATIONS		
	S20	S10
Height	473mm (18.62in)	461mm (18.15in)
Width	395mm (15.55in)	265mm (10.43in)
Depth	300mm (11.81in)	300mm (11.81in)
Weight	17Kg (37.5lbs)	12Kg (26.5lbs)

CONTROL AND PROGRAMMING	
DMX 512 control channels	27 / 31
Control signal	USITT DMX 512
Protocols	RDM, WebServer and Art-Net
Display	Graphic LCD backlit b/w Display
Display battery	Long life self-charging buffer battery
Dimmer Resolution	16 bit
DMX signal connection	5 pole XLR input and output
Firmware update	Software upload through DMX input

RIGGING AND INSTALLATION	
Working position	Any
Hanging system	2x fast-lock omega clamps (1/4 turn) on the base
Optional	48-51mm, max300Kg clamps; Ø 4mm, length 680mm safety cable

ACCESSORIES	
Optional frame for external gels and frost filters	
Optional top hat	
Foam Shell	
Flight Case for 2 x S20 units (incl. 2 foam shells)	
Flight Case for 4 x S10 units (incl. 4 foam shells)	



EYES NEVER LIE.

CRI>97, UP TO 99

K[•]EYE™



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