



创意源于追求
Own Idea Of Lighting

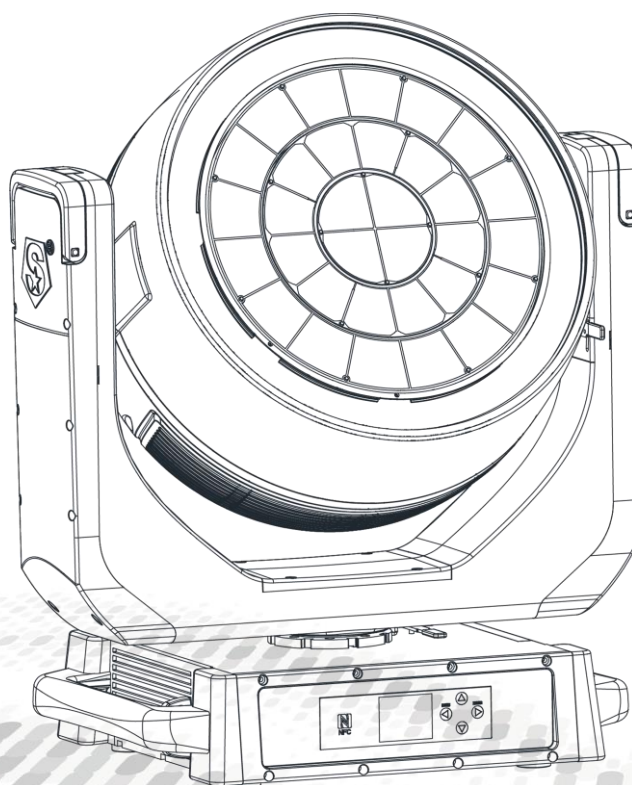
NF9

USER MANUAL



NF9

SS9692



MODEL: SS9692XLEM



广州市雅江光电设备有限公司
Guangzhou Yajiang Photoelectric Equipment Co., Ltd.
电话/Tel: 020-86947788 邮箱/E-mail: sales@yajiang.cn
传真/Fax: 020-86943773 网址/Website: www.yajiang.cn

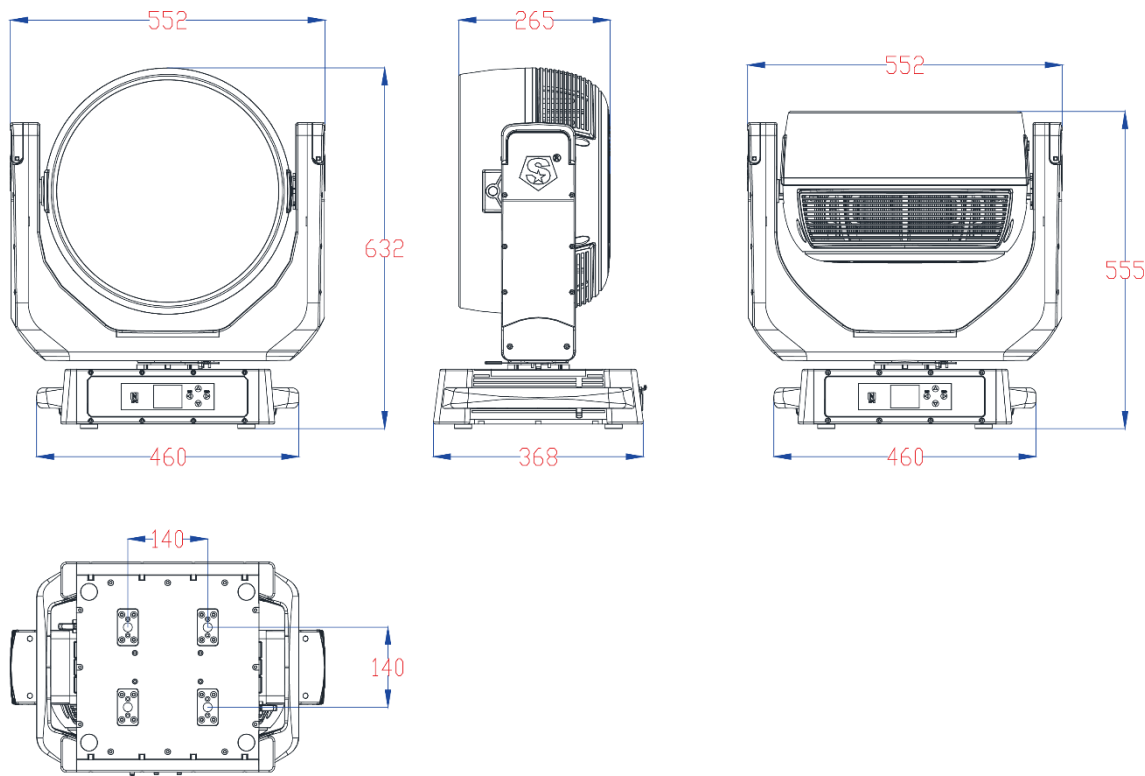
— Since 1985 —

1 PRODUCT

1.1 TECHNICAL SPECIFICATIONS

Type	SS9692XLEM
LED colors	32PCS*50W RGBL LED
Angle	Beam Angle: 3.5°~35°, Field Angle: 6°~ 60°
Power	1800W
Control Protocol	DMX512,RDM,ARTNET,SACN, NFC,CRMV(optional)
Voltage Range	100-240V~
Frequency Range	50/60Hz
Input Current	110V/16.4A,220V/8.2A
Protection	IP66
Operation Temperature	-20℃~45℃
Dimensions	552x368x632mm
Weight	38kg

DIMENSIONS



1.2 Safety Notes

IMPORTANT

- This product must be installed by a qualified professional.
- In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes
- The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

CAUTION!

- Make sure that the available voltage is not higher than stated on the rear panel.
- Do not touch the power cables if your hands are wet.
- The earth wire must always be connected to the ground. Therefore it is essential to connect the yellow/green conductor to earth.
- Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time. The electric connection, repairs and servicing must be carried out by a qualified employee.
- Always disconnect power input cable to completely remove power from unit when not in use or before cleaning or servicing the fixture.
- Do not switch the fixture on and off in short intervals as this would reduce the LED's life.
- Do not touch the device's housing bare hands during its operation (housing becomes hot)! The surface of the product's casing can reach up to 65° C (149° F) during operation. Avoid contact by persons and materials. Do not install the product in a location where there is a risk of accidental contact. Allow the product to cool for at least 10 minutes before handling.
- For replacement use lamps and fuses of same type and rating only.
- Please protect the fixture and avoid destroy during transport and installation. If there is any damage to the coating, the shell may be corroded.
- When hanging LEDs and lanterns, it is necessary to verify that facilities and hooks can bear at least 10 times the weight of lamps and lanterns.
- Fix the safety rope at the correct holes only. Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- The maximum ambient temperature 45°C must never be exceeded. Do not operate the product if the ambient temperature (Ta) exceeds 45° C (115° F).
- During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.

Electrical Warning

- The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person
- For replacement use lamps and fuses of same type and rating only.
- The lens has to be replaced when it is obviously damaged, so that its function is impaired, e. g. due to cracks or deep scratches!

Keep the product well away from flammable materials

- Keep all combustible materials (e.g. fabric, wood, paper) at least 500 mm (20 in.) away from the product.
- Ensure that there is free and unobstructed airflow around the product. Provide a minimum clearance of 150 mm (6 in.) around fans and air vents.
- Do not illuminate surfaces within 1m (3.2ft.) of the product.
- Do not install a fuse that has a higher rating than the one originally installed in the product. Do not bypass fuses.
- Do not stick filters, masks or other materials onto optical components.
- If the fixture seems to be abnormally hot, shows signs of melting or emits smoke, disconnect the fixture from power immediately and allow it to cool. Do not touch the fixture without heatproof safety gloves. Keep the fixture well away from combustible and flammable materials.

**NEVER LOOK DIRECTLY INTO THE LIGHT SOURCE!
RETINA INJURY RISK - MAY INDUCE BLINDNESS!**

Do not point the front of the fixture towards the sun or other strong light sources. The front lens focuses and concentrates light just like a magnifying glass. Strong light can cause internal damage to the fixture, melting components or starting an internal fire within seconds.

To avoid problems from strong light sources:

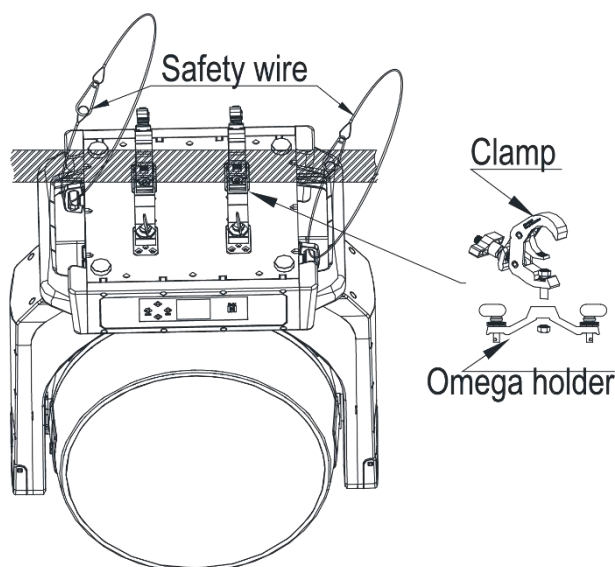
- Do not expose the front of a fixture to sunlight or any other strong light source. Avoid pointing other high-powered beam lights directly at the fixture.
- Do not focus a light beam from one lighting fixture directly towards another.
- For outdoor applications during daylight, make sure that the front face of any fixture is shielded or points away from the sun, even when not in use.
- Do not expose the product to heat (from other lighting fixtures for example).

2 INSTALLATION

2.1 MOUNTING

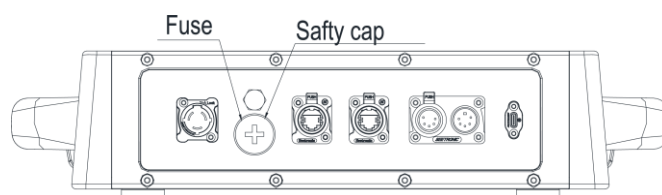
Truss installation

- ◆ Keep all combustible materials (e.g. fabric, wood, paper) at least 500 mm (20 in.) away from the product.
- ◆ For overhead use, always install a safety cable that can hold at least 10 times the weight of the fixture.
- ◆ For overhead installation, the fixture must be always secured with a safety wire that can bear at least 10 times the weight of the fixture;
- ◆ Secure the fixture with a safety cable through the rear safety eye and truss as shown..
- ◆ Ensure that the structure (truss) to which you are attaching the fixture is secure



2.2 Fuse replacement

- ◆ Remove the safety cap by a screwdriver.
- ◆ Fetch the old fuse from safety cap.
- ◆ Install a new fuse.
- ◆ Install the safety cap.



2.3 POWER CONNECTIONS

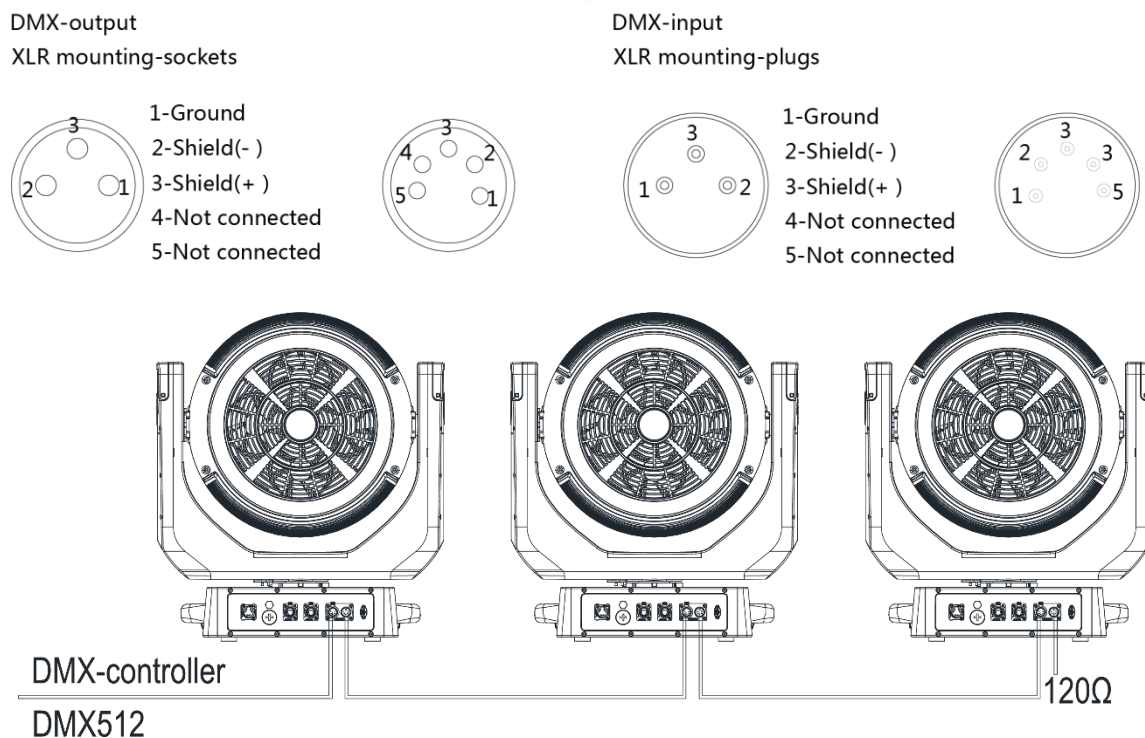
- ◆ This product has an auto-ranging power supply that can work with an input voltage range of 100–240 VAC, 50/60 Hz.

AC Plug

Connection	Wire (U.S.)	Wire(Europe)	Screw Color
AC Live	Black	Brown	Yellow/Brass
AC Neutral	White	Blue	Silver
AC Ground	Green/Yellow	Green/Yellow	Green

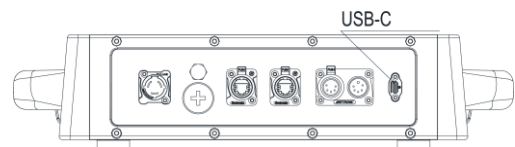
2.4 Data network requirements

- ◆ Connect the DMX512 controller to the units in series. A DMX 512 data link is required in order to control the fixture via DMX. The fixture has 3/5-pin XLR connectors for DMX data input and output.
- ◆ Each unit has N DMX channels so the DMX Addresses should increase by increments of 1, (Nx1)+1, (Nx2)+1, (Nx3)+1...
- ◆ Any DMX address in the range from 001 to 512 may be used.
- ◆ Connect the DMX-output of the first fixture in the DMX chain with the DMX-input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected.
- ◆ Caution: At the last fixture, the DMX-cable has to be terminated with a terminator. Solder a 120 Ω resistor between Signal (-) and Signal (+) into a 3/5-pin XLR-plug and plug it in the DMX-output of the last fixture.



2.5 Update software

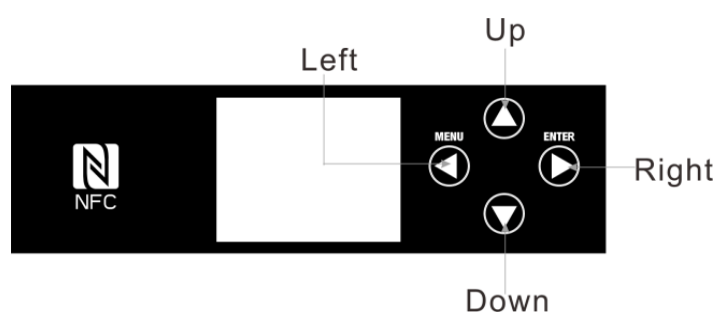
- ◆ Steps of updating software with USB-C interface:
 1. Insert USB-C U dish into USB-C interface
 2. After finding "Upgrade Software" in the menu, Find the corresponding software and click OK



3 FUNCTIONS AND SETTINGS

3.1 DISPLAY OPERATION

- ◆ LEFT: Used to access the menu or to return a previous menu option;
- ◆ RIGHT: Used to select and store the current menu or confirm the current function value or option within a menu;
- ◆ UP: Navigates downwards through the menu list and increases the numeric value when in a function;
- ◆ DOWN: Navigates upwards through the menu list and decreases the numeric value when in a function;
- ◆ When the display locked, please unlock the display as below:
 1. Keep pressing BACK around 5sec, until the display shows inset password.
 2. Press “up down up down, enter” to unlock.



3.2 Menu Map

ADDRESS	001 – 512(Default 001)			DMX address setting
PERSON	HSIC			Use the menu to select desired channel mode
	SSP			
	TOUR(Default)			
	TR16			
	CMY			
	PIXEL RGBL			
	PIXEL FULL			
RUNMODE	DMX512 (Default)			Select Signal
	ARTNET			Default: DMX512
	ARTNET2DMX			CUSTOM 1-2 Set up get into EDIT
	sACN			MENU edit
	DMX+NETWORK	PIXEL ADDRESS	1-512	
	AUTO			
	CUSTOM1			
	CUSTOM2			
OPTION	PAN	OFF(Default)		PAN moving direction selection
	INVERT	ON		
	TILT	OFF(Default)		TILT moving direction selection
	INVERT	ON		
	PAN	630		PAN moving degree selection
	DEGREE	540		

	PERFORM	STUDIO			Fan mode low speed
		POWER			Fast rotation of fan, all power
		LIVE (Default)			Automatic rotation of fan
	BLACKOUT	OFF (Default)			Select OFF blackout without delay
		ON			Select ON Blackout delay 3s
	PT ENCODER	OFF(Default)			XY Encoder switch.
		ON			OFF is close; ON is open.
	DIMMER	DIM4 (Default)			Dimming speed OFF (fast) to DIM4 (slow);
		OFF			
	DIMMER CURVE	LINEAR			Dimmer curves selection
		SQUARE LAW(Default)			
		INV. SQUARE LAW			
		S-CURVE			
	LED PWM	1200Hz (Default)			Sets the PWM frequency
		2400Hz			
		4000Hz			
		6000Hz			
		25000Hz			
	COLOR MODE	RGBL (Default)			DMX channl output RGBL colour
		RGBW			DMX channl output RGBW colour
	DMX ERROR	SAVE (Default)			Hold after loss of DMX signal
		BLACK			Blackout after loss of DMX signal
	DISP TIME	On			Display backlight always on
		30s			Turns off display backlight after 30s/1min/2min of inactivity
		1min (Default)			
		2min			
	DISPLAY LOCK	OFF			Locks display (passcode is <UP>, <DOWN>,<UP>, <DOWN>, <ENTER>)
		ON (Default)			
	LOAD PARA	OFF(Default)			Upload data
		ON			Not upload data
	SETTING	RECOVERY	****		Restore default factory settings.
		CLEAN EDIT1	****		Clean customer self-editing scene 1
		CLEAN EDIT2	****		Clean customer self-editing scene 2
		WDMX HIDE	YES		Hide wireless mode WDMX reset and signal hide and the default is wired mode only
			NO		
	Color Cali	OFF (Default)			Full power mode
		User Calibration	RED	0-255	Manual calibration mode
			GREEN	0-255	
			BLUE	0-255	
			LIME	0-255	
	Factory Calibration			Factory calibration mode	
	NETWORK	NET	2.xxx.xxx.xxx		Net switch off IP mode
		SWITCH	10.xxx.xxx.xxx		Packet group Settings
		UNIVERS	0-255		Default IP

		IP MODE	DEFAULT IP		Customer's IP
			CUSTOM IP		Customer's IP setting
		CUSTOM IP	XX.XX.XX.XX		Net switch off IP mode
	LANGUAGE	****	Chinese		LANGUAGE
			English(Default)		
	WDMX RESET	YES			Do not clear the receiver's message.
		NO			Clear the receiver's message
	SIGNAL	ONLY XLRDMX(Default)			ONLY XLR is wire only
		XLRDMX FIRST			XLR FIRST is wire first
		ONLY WDMX			ONLY WDMX is wireless only
		WDMX FIRST			WDMX FIRS is wireless first
		WDMX TO XLRDMX			WDMX TO DMX is wireless to wired

EDIT	EDIT 1-2	STEP 1-30	PAN	0-255	Edit the custom programs1-30 Select play 【EDIT 1】 in RUNMOEDE CUSTOM 1; Select play 【EDIT 2】 in RUNMOEDE CUSTOM 2
			TITL	0-255	
			ZOOM 1	0-255	
			ZOOM 2	0-255	
			ZOOM 3	0-255	
			RED	0-255	
			GREEN	0-255	
			BLUE	0-255	
			LIME	0-255	
			DDIMMER	0-255	
			STROBE	0-255	
			PRESET COLOR	0-255	
			CCT	0-255	
			STATIC PIXEL	0-255	
			PIXEL EFFECT	0-255	
			FX RED	0-255	
			FX GREEN	0-255	
			FX BLUE	0-255	
			FX WHITE	0-255	
			FX WARM WHITE	0-255	
			TIME	0-255	
			USE	YES/NO	Select YES to run the steps user need.

MANUAL	Auto Test				Auto Test channel
	CHANNEL	PAN	0-255	Manual control channel	
		TITL	0-255		
		ZOOM	0-255		
		RED	0-255		
		GREEN	0-255		
		BLUE	0-255		
		LIME	0-255		
		DDIMMER	0-255		
		STROBE	0-255		
		PRESET COLOR	0-255		

		CCT		0-255	
		STATIC PIXEL		0-255	
		PIXEL EFFECT		0-255	
		FX RED		0-255	
		FX GREEN		0-255	
		FX BLUE		0-255	
		FX WHITE		0-255	
		FX WARM WHITE		0-255	
	CCT	1800K			Preset color temperatures
		2200K			
		2700K			
		3000K			
		3200K			
		4000K			
		4500K			
		5000K			
		5600K			
		6000K			
		6500K			
		7000K			
		8000K			
		10000K			
	PRESET COLOR	COLOR 1			Preset color（See Annex I for details）
		COLOR 2			
		...			
		COLOR 24			
	CMY	CYAN			Cyan、Magenta、Yellow color
		MAGENTA			
		YELLOW			
		C+M			
		C+Y			
		M+Y			
	DEBUG HIDE	NO			Factory testing mode. All stepper motors are not controlled by signal, It only works again after the reset.
		YES			
	RESET	ALL RESET			Select Yes/No to carry out all reset
		XY RESET			Select Yes/No to carry out P/T reset
		ZOOM			Zoom/ Focus/ Prism reset
SERVICE	****	PAN	±127	Pan position fine adjustment	
		TILT	±127	Tilt position fine adjustment	
		ZOOM 1	±127	Zoom position fine adjustment	
		ZOOM 2	±127	Zoom position fine adjustment	
		ZOOM 3	±127	Zoom position fine adjustment	
INFO	FIXTURE HOURS			Hours of fixture use	
	LED USE HOURS			LED use time	

	TEMPERATURE		LED temperature	
	VERSION		Software versions	
	NETWORK		Check network parameter	
	RDM	UID	0x388Axxxxxxx	Check fixture's ID
		LABEL		Check fixture's LABEL
	SYSTEM ERROR	MEMORY IC		Memory IC
		ANGLESENSOR		Angle Sensor
		PAN SENSOR		Pan Sensor
		PAN ENCODER		Pan Encoder
		PAN DRIVEIC		Pan Drive IC
		TILT SENSOR		Tilt Sensor
		TILT ENCODER		Tilt Encoder
		TILT DRIVEIC		Tilt Drive IC
TEMPERATURE		Temperature		
NetworkIc		NetworkIc		
UPDATE SOFTWARE			USB-C Update software	
All passwords of this product are: <UP>, <DOWN>,<UP>, <DOWN>, <ENTER>				

4 USING A DMX512 CONTROLLER

4.1 DMX CONTROL

HSIC (28CH)	Value	Function
1	0-255	PAN
2	0-255	PAN FINE
3	0-255	TITL
4	0-255	TITL FINE
5	0-255	PT SPEED
6	PAN Motor continuous rotation	
	0-63	stop rotation by spinout
	64-127	stop rotation by shortcut
	128-189	Forwards Pan rotation from fast to slow
	190-193	No rotation
	194-255	Backwards Pan rotation from slow to fast
7	0-255	INTENSIYT
8	0-255	HUE
9	0-255	HUE FINE
10	0-255	SATURATION
11	CCT	
	0-9	NO FUNCTION
	10	1800K
	25	2200K
	40	2700K
	55	3000K
	70	3200K
	85	4000K
	100	4500K
	115	5000K
	130	5600K
	145	6000K
	160	6500K
	175	7000K
	190	8000K
	205	10000K
	255	10000K
12	STROBE	
	0-9	NO FUNCTION
	10-99	STROBE FROM (SLOW TO FAST , 0-25Hz)
	100-109	NO FUNCTION
	110-179	LIGHTNING STROBE
	180-189	NO FUNCTION
	190-255	RANDOM STROBE
13	0-255	ZOOM 1
14	0-255	ZOOM 2

15	0-255	ZOOM 3
16	0-255	FX Warm White
17	0-255	FX RED
18	0-255	FX GREEN
19	0-255	FX BLUE
20	0-255	FX WHITE
21	0-255	FX Dimmer
22	FX STROBE	
	0-9	NO FUNCTION
	10-99	STROBE FROM (SLOW TO FAST , 0-25Hz)
	100-109	NO FUNCTION
	110-179	LIGHTNING STROBE
	180-189	NO FUNCTION
	190-255	RANDOM STROBE
23	FX PRESET COLOR	
	0-10	NO FUNCTION
	11-255	PRESET COLOR
24	FX CCT	
	0-9	NO FUNCTION
	10	1800K
	25	2200K
	40	2700K
	55	3000K
	70	3200K
	85	4000K
	100	4500K
	115	5000K
	130	5600K
	145	6000K
	160	6500K
	175	7000K
	190	8000K
	205	10000K
	255	10000K
25	FX STATIC PIXEL	
	0-10	NO FUNCTION
	11-255	STATIC PIXEL
26	FX PIXEL EFFECT	
	0-10	NO FUNCTION
	11-255	PIXEL EFFECT
27	0-255	FX AUTO SPEED ADJUSTMENT(SLOW TO FAST)
28	CONTROL (EXECUTE AFTER 3 SECONDS)	
	0-10	NO FUNCTION
	11-15	PAN/TILT BLACK ACTIVATED
	16-20	PAN/TILT BLACK DEACTIVATED
	21-25	PAN INVERT

	26-30	TILT INVERT
	31-35	PAN/TILT INVERT OFF
	36-40	PAN DEGREE 630
	41-45	PAN DEGREE 540
	46-100	RESERVED
	101-105	STUDIO
	106-110	POWER
	111-115	LIVE
	116-130	RESERVED
	131-135	DIMMER SPEED Halogen
	136-140	DIMMER SPEED LED
	141-145	DIMMER CURVE LINEAR
	146-150	DIMMER CURVE SQUARE LAW
	151-155	DIMMER CURVE INV. SQUARE LAW
	156-160	DIMMER CURVE S-CURVE
	161-165	1200Hz
	166-170	2400Hz
	171-175	4000Hz
	176-180	6000Hz
	181-185	25000Hz
	186-190	RESERVED
	191-195	COLOR MODE RGBL
	196-200	COLOR MODE RGBW
	201-205	ALL RESET
	206-210	XY RESET
	211-215	ZOOM RESET
	216-250	RESERVED
	251-255	NO FUNCTION

SSP (21CH)	TOUR (33CH)	TR16 (44CH)	Value	Function
1	1	1	0-255	PAN
	2	2	0-255	PAN FINE
2	3	3	0-255	TITL
	4	4	0-255	TITL FINE
3	5	5	0-255	PT SPEED
4	6	6	PAN Motor continuous rotation	
			0-63	stop rotation by spinout
			64-127	stop rotation by shortcut
			128-189	Forwards Pan rotation from fast to slow
			190-193	No rotation
			194-255	Backwards Pan rotation from slow to fast
5	7	7	0-255	RED
		8	0-255	RED FINE
6	8	9	0-255	GREEN
		10	0-255	GREEN FINE

7	9	11	0-255	BLUE
		12	0-255	BLUE FINE
8	10	13	0-255	LIME
		14	0-255	LIME FINE
9	11	15	0-255	DIMMER 1
		16	0-255	DIMMER 1 FINE
10	12	17	STROBE 1	
			0-9	NO FUNCTION
			10-99	STROBE FROM (SLOW TO FAST , 0-25Hz)
			100-109	NO FUNCTION
			110-179	LIGHTNING STROBE
			180-189	NO FUNCTION
			190-255	RANDOM STROBE
11	13	18	0-255	ZOOM 1
		19	0-255	DIMMER 2
		20	0-255	DIMMER 2 FINE
		21	STROBE 2	
			0-9	NO FUNCTION
			10-99	STROBE FROM (SLOW TO FAST , 0-25Hz)
			100-109	NO FUNCTION
			110-179	LIGHTNING STROBE
			180-189	NO FUNCTION
			190-255	RANDOM STROBE
12	14	22	0-255	ZOOM 2
		23	0-255	DIMMER 3
		24	0-255	DIMMER 3 FINE
		25	STROBE 3	
			0-9	NO FUNCTION
			10-99	STROBE FROM (SLOW TO FAST , 0-25Hz)
			100-109	NO FUNCTION
			110-179	LIGHTNING STROBE
			180-189	NO FUNCTION
			190-255	RANDOM STROBE
13	15	26	0-255	ZOOM 3
	16	27	PRESET COLOR	
			0-10	NO FUNCTION
			11-255	PRESET COLOR (See Annex I for details)
	17	28	CCT	
			0-9	NO FUNCTION
			10	1800K
			25	2200K
			40	2700K
			55	3000K
			70	3200K
			85	4000K
			100	4500K

			115	5000K
			130	5600K
			145	6000K
			160	6500K
			175	7000K
			190	8000K
			205	10000K
			255	10000K
	18	29	STATIC PIXEL	
			0-10	NO FUNCTION
			11-255	STATIC PIXEL (See Annex 2 for details)
	19	30	PIXEL EFFECT	
			0-10	NO FUNCTION
			11-255	PIXEL EFFECT (See Annex 3 for details)
	20	31	0-255	AUTO SPEED ADJUSTMENT(SLOW TO FAST)
14	21	32	0-255	FX Warm White
15	22	33	0-255	FX RED
16	23	34	0-255	FX GREEN
17	24	35	0-255	FX BLUE
18	25	36	0-255	FX WHITE
19	26	37	0-255	FX Dimmer
20	27	38	FX STROBE	
			0-9	NO FUNCTION
			10-99	STROBE FROM (SLOW TO FAST , 0-25Hz)
			100-109	NO FUNCTION
			110-179	LIGHTNING STROBE
			180-189	NO FUNCTION
			190-255	RANDOM STROBE
	28	39	FX PRESET COLOR	
			0-10	NO FUNCTION
			11-255	PRESET COLOR (See Annex I for details)
	29	40	FX CCT	
			0-9	NO FUNCTION
			10	1800K
			25	2200K
			40	2700K
			55	3000K
			70	3200K
			85	4000K
			100	4500K
			115	5000K
			130	5600K
			145	6000K
			160	6500K
			175	7000K
			190	8000K

			205	10000K
			255	10000K
	30	41	FX STATIC PIXEL	
			0-10	NO FUNCTION
			11-255	STATIC PIXEL (See Annex 2 for details)
	31	42	FX PIXEL EFFECT	
			0-10	NO FUNCTION
			11-255	PIXEL EFFECT (See Annex 3 for details)
	32	43	0-255	FX AUTO SPEED ADJUSTMENT(SLOW TO FAST)
21	33	44	CONTROL (EXECUTE AFTER 3 SECONDS)	
			0-10	NO FUNCTION
			11-15	PAN/TILT BLACK ACTIVATED
			16-20	PAN/TILT BLACK DEACTIVATED
			21-25	PAN INVERT
			26-30	TILT INVERT
			31-35	PAN/TILT INVERT OFF
			36-40	PAN DEGREE 630
			41-45	PAN DEGREE 540
			46-100	RESERVED
			101-105	STUDIO
			106-110	POWER
			111-115	LIVE
			116-130	RESERVED
			131-135	DIMMER SPEED Halogen
			136-140	DIMMER SPEED LED
			141-145	DIMMER CURVE LINEAR
			146-150	DIMMER CURVE SQUARE LAW
			151-155	DIMMER CURVE INV. SQUARE LAW
			156-160	DIMMER CURVE S-CURVE
			161-165	1200Hz
			166-170	2400Hz
			171-175	4000Hz
			176-180	6000Hz
			181-185	25000Hz
			186-190	RESERVED
			191-195	COLOR MODE RGBL
			196-200	COLOR MODE RGBW
			201-205	ALL RESET
			206-210	XY RESET
			211-215	ZOOM RESET
			216-250	RESERVED
			251-255	NO FUNCTION

CMY(31CH)	Value	Function
1	0-255	PAN
2	0-255	PAN FINE

3	0-255	TITL
4	0-255	TITL FINE
5	0-255	PT SPEED
6	PAN Motor continuous rotation	
	0-63	stop rotation by spinout
	64-127	stop rotation by shortcut
	128-189	Forwards Pan rotation from fast to slow
	190-193	No rotation
	194-255	Backwards Pan rotation from slow to fast
7	0-255	CYAN
8	0-255	MAGENT
9	0-255	YELLOW
10	0-255	DIMMER
11	STROBE	
	0-9	NO FUNCTION
	10-99	STROBE FROM (SLOW TO FAST , 0-25Hz)
	100-109	NO FUNCTION
	110-179	LIGHTNING STROBE
	180-189	NO FUNCTION
	190-255	RANDOM STROBE
12	0-255	ZOOM 1
13	0-255	ZOOM 2
14	0-255	ZOOM 3
15	PRESET COLOR	
	0-10	NO FUNCTION
	11-255	PRESET COLOR (See Annex I for details)
16	CCT	
	0-9	NO FUNCTION
	10	1800K
	25	2200K
	40	2700K
	55	3000K
	70	3200K
	85	4000K
	100	4500K
	115	5000K
	130	5600K
	145	6000K
	160	6500K
	175	7000K
	190	8000K
	205	10000K
	255	10000K
17	STATIC PIXEL	
	0-10	NO FUNCTION
	11-255	STATIC PIXEL (See Annex 2 for details)

18	PIXEL EFFECT	
	0-10	NO FUNCTION
	11-255	PIXEL EFFECT (See Annex 3 for details)
19	0-255	AUTO SPEED ADJUSTMENT(SLOW TO FAST)
20	0-255	FX Warm White
21	0-255	FX RED
22	0-255	FX GREEN
23	0-255	FX BLUE
24	0-255	FX WHITE
25	0-255	FX Dimmer
26	FX STROBE	
	0-9	NO FUNCTION
	10-99	STROBE FROM (SLOW TO FAST , 0-25Hz)
	100-109	NO FUNCTION
	110-179	LIGHTNING STROBE
	180-189	NO FUNCTION
	190-255	RANDOM STROBE
27	FX PRESET COLOR	
	0-10	NO FUNCTION
	11-255	PRESET COLOR (See Annex I for details)
28	FX CCT	
	0-9	NO FUNCTION
	10	1800K
	25	2200K
	40	2700K
	55	3000K
	70	3200K
	85	4000K
	100	4500K
	115	5000K
	130	5600K
	145	6000K
	160	6500K
	175	7000K
	190	8000K
	205	10000K
	255	10000K
29	STATIC PIXEL	
	0-10	NO FUNCTION
	11-255	STATIC PIXEL (See Annex 2 for details)
30	PIXEL EFFECT	
	0-10	NO FUNCTION
	11-255	PIXEL EFFECT (See Annex 3 for details)
31	0-255	AUTO SPEED ADJUSTMENT(SLOW TO FAST)
32	CONTROL (EXECUTE AFTER 3 SECONDS)	
	0-10	NO FUNCTION

	11-15	PAN/TILT BLACK ACTIVATED
	16-20	PAN/TILT BLACK DEACTIVATED
	21-25	PAN INVERT
	26-30	TILT INVERT
	31-35	PAN/TILT INVERT OFF
	36-40	PAN DEGREE 630
	41-45	PAN DEGREE 540
	46-100	RESERVED
	101-105	STUDIO
	106-110	POWER
	111-115	LIVE
	116-130	RESERVED
	131-135	DIMMER SPEED Halogen
	136-140	DIMMER SPEED LED
	141-145	DIMMER CURVE LINEAR
	146-150	DIMMER CURVE SQUARE LAW
	151-155	DIMMER CURVE INV. SQUARE LAW
	156-160	DIMMER CURVE S-CURVE
	161-165	1200Hz
	166-170	2400Hz
	171-175	4000Hz
	176-180	6000Hz
	181-185	25000Hz
	186-190	RESERVED
	191-195	COLOR MODE RGBL
	196-200	COLOR MODE RGBW
	201-205	ALL RESET
	206-210	XY RESET
	211-215	ZOOM RESET
	216-250	RESERVED
	251-255	NO FUNCTION

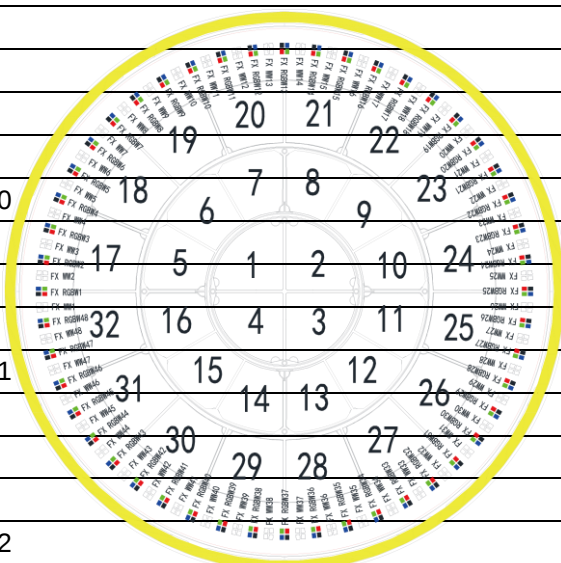
PIXEL RGBL (154CH)	PIXEL RGBL (391CH)	Value	Function
1	1	0-255	PAN
2	2	0-255	PAN FINE
3	3	0-255	TITL
4	4	0-255	TITL FINE
5	5	0-255	PT SPEED
6	6	PAN Motor continuous rotation	
		0-63	stop rotation by spinout
		64-127	stop rotation by shortcut
		128-189	Forwards Pan rotation from fast to slow
		190-193	No rotation
		194-255	Backwards Pan rotation from slow to fast
7	7	PRESET COLOR	

		0-10	NO FUNCTION
		11-255	PRESET COLOR (See Annex I for details)
8	8	CCT	
		0-9	NO FUNCTION
		10	1800K
		25	2200K
		40	2700K
		55	3000K
		70	3200K
		85	4000K
		100	4500K
		115	5000K
		130	5600K
		145	6000K
		160	6500K
		175	7000K
		190	8000K
		205	10000K
		255	10000K
9	9	CONTROL (EXECUTE AFTER 3 SECONDS)	
		11-15	NO FUNCTION
		16-20	PAN/TILT BLACK ACTIVATED
		21-25	PAN/TILT BLACK DEACTIVATED
		26-30	PAN INVERT
		31-35	TILT INVERT
		36-40	PAN/TILT INVERT OFF
		41-45	PAN DEGREE 630
		46-50	PAN DEGREE 540
		51-105	RESERVED
		106-110	STUDIO
		111-115	POWER
		116-120	LIVE
		121-125	RESERVED
		126-140	DIMMER SPEED Halogen
		141-145	DIMMER SPEED LED
		146-150	DIMMER CURVE LINEAR
		151-155	DIMMER CURVE SQUARE LAW
		156-160	DIMMER CURVE INV. SQUARE LAW
		161-165	DIMMER CURVE S-CURVE
		166-170	1200Hz
		171-175	2400Hz
		176-180	4000Hz
		181-185	6000Hz
		186-190	25000Hz
		191-195	RESERVED
		196-200	COLOR MODE RGBL

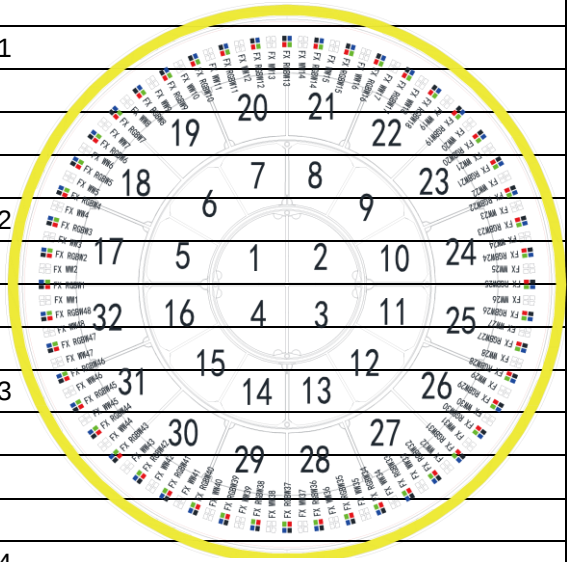
		201-205	COLOR MODE RGBW
		206-210	ALL RESET
		211-215	XY RESET
		216-250	ZOOM RESET
		251-255	RESERVED
		201-205	NO FUNCTION
10	10	0-255	DIMMER 1
11	11	STROBE 1	
		0-9	NO FUNCTION
		10-99	STROBE FROM (SLOW TO FAST , 0-25Hz)
		100-109	NO FUNCTION
		110-179	LIGHTNING STROBE
		180-189	NO FUNCTION
		190-255	RANDOM STROBE
12	12	0-255	ZOOM 1
	13	0-255	DIMMER 2
	14	STROBE 2	
		0-9	NO FUNCTION
		10-99	STROBE FROM (SLOW TO FAST , 0-25Hz)
		100-109	NO FUNCTION
		110-179	LIGHTNING STROBE
		180-189	NO FUNCTION
		190-255	RANDOM STROBE
13	15	0-255	ZOOM 2
	16	0-255	DIMMER 3
	17	STROBE 3	
		0-9	NO FUNCTION
		10-99	STROBE FROM (SLOW TO FAST , 0-25Hz)
		100-109	NO FUNCTION
		110-179	LIGHTNING STROBE
		180-189	NO FUNCTION
		190-255	RANDOM STROBE
14	18	0-255	ZOOM 3
15	19	0-255	FX Warm White/FX Warm White Dimmer
16		0-255	FX RED
17		0-255	FX GREEN
18		0-255	FX BLUE
19		0-255	FX WHITE
20	20	0-255	FX Dimmer
21	21	FX STROBE	
		0-9	NO FUNCTION
		10-99	STROBE FROM (SLOW TO FAST , 0-25Hz)
		100-109	NO FUNCTION
		110-179	LIGHTNING STROBE
		180-189	NO FUNCTION
		190-255	RANDOM STROBE

22	22	FX PRESET COLOR	
		0-10	NO FUNCTION
		11-255	PRESET COLOR (See Annex I for details)
23	23	FX CCT	
		0-9	NO FUNCTION
		10	1800K
		25	2200K
		40	2700K
		55	3000K
		70	3200K
		85	4000K
		100	4500K
		115	5000K
		130	5600K
		145	6000K
		160	6500K
		175	7000K
		190	8000K
		205	10000K
		255	10000K
24		FX STATIC PIXEL	
		0-10	NO FUNCTION
		11-255	STATIC PIXEL (See Annex 4 for details)
25		FX PIXEL EFFECT	
		0-10	NO FUNCTION
		11-255	PIXEL EFFECT (See Annex 5 for details)
26		0-255	FX AUTO SPEED ADJUSTMENT(SLOW TO FAST)
27	24	0-255	RED 1
28	25	0-255	GREEN 1
29	26	0-255	BLUE 1
30	27	0-255	LIME 1
31	28	0-255	RED 2
32	29	0-255	GREEN 2
33	30	0-255	BLUE 2
34	31	0-255	LIME 2
35	32	0-255	RED 3
36	33	0-255	GREEN 3
37	34	0-255	BLUE 3
38	35	0-255	LIME 3
39	36	0-255	RED 4
40	37	0-255	GREEN 4
41	38	0-255	BLUE 4
42	39	0-255	LIME 4
43	40	0-255	RED 5
44	41	0-255	GREEN 5
45	42	0-255	BLUE 5

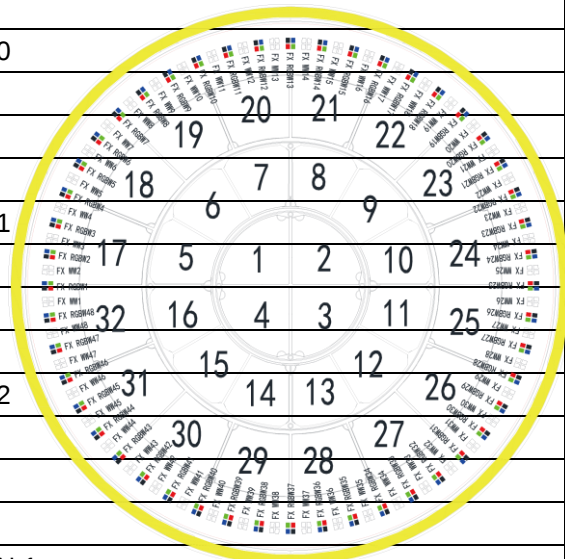
46	43	0-255	LIME 5
47	44	0-255	RED 6
48	45	0-255	GREEN 6
49	46	0-255	BLUE 6
50	47	0-255	LIME 6
51	48	0-255	RED 7
52	49	0-255	GREEN 7
53	50	0-255	BLUE 7
54	51	0-255	LIME 7
55	52	0-255	RED 8
56	53	0-255	GREEN 8
57	54	0-255	BLUE 8
58	55	0-255	LIME 8
59	56	0-255	RED 9
60	57	0-255	GREEN 9
61	58	0-255	BLUE 9
62	59	0-255	LIME 9
63	60	0-255	RED 10
64	61	0-255	GREEN 10
65	62	0-255	BLUE 10
66	63	0-255	LIME 10
67	64	0-255	RED 11
68	65	0-255	GREEN 11
69	66	0-255	BLUE 11
70	67	0-255	LIME 11
71	68	0-255	RED 12
72	69	0-255	GREEN 12
73	70	0-255	BLUE 12
74	71	0-255	LIME 12
75	72	0-255	RED 13
76	73	0-255	GREEN 13
77	74	0-255	BLUE 13
78	75	0-255	LIME 13
79	76	0-255	RED 14
80	77	0-255	GREEN 14
81	78	0-255	BLUE 14
82	79	0-255	LIME 14
83	80	0-255	RED 15
84	81	0-255	GREEN 15
85	82	0-255	BLUE 15
86	83	0-255	LIME 15
87	84	0-255	RED 16
88	85	0-255	GREEN 16
89	86	0-255	BLUE 16
90	87	0-255	LIME 16
91	88	0-255	RED 17



92	89	0-255	GREEN 17
93	90	0-255	BLUE 17
94	91	0-255	LIME 17
95	92	0-255	RED 18
96	93	0-255	GREEN 18
97	94	0-255	BLUE 18
98	95	0-255	LIME 18
99	96	0-255	RED 19
100	97	0-255	GREEN 19
101	98	0-255	BLUE 19
102	99	0-255	LIME 19
103	100	0-255	RED 20
104	101	0-255	GREEN 20
105	102	0-255	BLUE 20
106	103	0-255	LIME 20
107	104	0-255	RED 21
108	105	0-255	GREEN 21
109	106	0-255	BLUE 21
110	107	0-255	LIME 21
111	108	0-255	RED 22
112	109	0-255	GREEN 22
113	110	0-255	BLUE 22
114	111	0-255	LIME 22
115	112	0-255	RED 23
116	113	0-255	GREEN 23
117	114	0-255	BLUE 23
118	115	0-255	LIME 23
119	116	0-255	RED 24
120	117	0-255	GREEN 24
121	118	0-255	BLUE 24
122	119	0-255	LIME 24
123	120	0-255	RED 25
124	121	0-255	GREEN 25
125	122	0-255	BLUE 25
126	123	0-255	LIME 25
127	124	0-255	RED 26
128	125	0-255	GREEN 26
129	126	0-255	BLUE 26
130	127	0-255	LIME 26
131	128	0-255	RED 27
132	129	0-255	GREEN 27
133	130	0-255	BLUE 27
134	131	0-255	LIME 27
135	132	0-255	RED 28
136	133	0-255	GREEN 28
137	134	0-255	BLUE 28



138	135	0-255	LIME 28
139	136	0-255	RED 29
140	137	0-255	GREEN 29
141	138	0-255	BLUE 29
142	139	0-255	LIME 29
143	140	0-255	RED 30
144	141	0-255	GREEN 30
145	142	0-255	BLUE 30
146	143	0-255	LIME 30
147	144	0-255	RED 31
148	145	0-255	GREEN 31
149	146	0-255	BLUE 31
150	147	0-255	LIME 31
151	148	0-255	RED 32
152	149	0-255	GREEN 32
153	150	0-255	BLUE 32
154	151	0-255	LIME 32
	152	0-255	FX RED 1
	153	0-255	FX GREEN 1
	154	0-255	FX BLUE 1
	155	0-255	FX WHITE 1
	156	0-255	FX RED 2
	157	0-255	FX GREEN 2
	158	0-255	FX BLUE 2
	159	0-255	FX WHITE 2
	160	0-255	FX RED 3
	161	0-255	FX GREEN 3
	162	0-255	FX BLUE 3
	163	0-255	FX WHITE 3
	164	0-255	FX RED 4
	165~187	.....	.....
	188	0-255	FX RED 10
	189	0-255	FX GREEN 10
	190	0-255	FX BLUE 10
	191	0-255	FX WHITE 10
	192	0-255	FX RED 11
	193	0-255	FX GREEN 11
	194	0-255	FX BLUE 11
	195	0-255	FX WHITE 11
	196	0-255	FX RED 12
	197	0-255	FX GREEN 12
	198	0-255	FX BLUE 12
	199	0-255	FX WHITE 12
	200	0-255	FX RED 13
	201	0-255	FX GREEN 13
	202	0-255	FX BLUE 13



	203	0-255	FX WHITE 13
	204~227	.....	.....
	228	0-255	FX RED 20
	229	0-255	FX GREEN 20
	230	0-255	FX BLUE 20
	231	0-255	FX WHITE 20
	232	0-255	FX RED 21
	233	0-255	FX GREEN 21
	234	0-255	FX BLUE 21
	235	0-255	FX WHITE 21
	236	0-255	FX RED 22
	237	0-255	FX GREEN 22
	238	0-255	FX BLUE 22
	239	0-255	FX WHITE 22
	240	0-255	FX RED 23
	241	0-255	FX GREEN 23
	242	0-255	FX BLUE 23
	243	0-255	FX WHITE 23
	244~267	.....	.....
	268	0-255	FX RED 30
	269	0-255	FX GREEN 30
	270	0-255	FX BLUE 30
	271	0-255	FX WHITE 30
	272	0-255	FX RED 31
	273	0-255	FX GREEN 31
	274	0-255	FX BLUE 31
	275	0-255	FX WHITE 31
	276	0-255	FX RED 32
	277	0-255	FX GREEN 32
	278	0-255	FX BLUE 32
	279	0-255	FX WHITE 32
	280	0-255	FX RED 33
	281	0-255	FX GREEN 33
	282	0-255	FX BLUE 33
	283	0-255	FX WHITE 33
	284~307	.....	.....
	308	0-255	FX RED 40
	309	0-255	FX GREEN 40
	310	0-255	FX BLUE 40
	311	0-255	FX WHITE 40
	312	0-255	FX RED 41
	313	0-255	FX GREEN 41
	314	0-255	FX BLUE 41
	315	0-255	FX WHITE 41
	316	0-255	FX RED 42
	317	0-255	FX GREEN 42

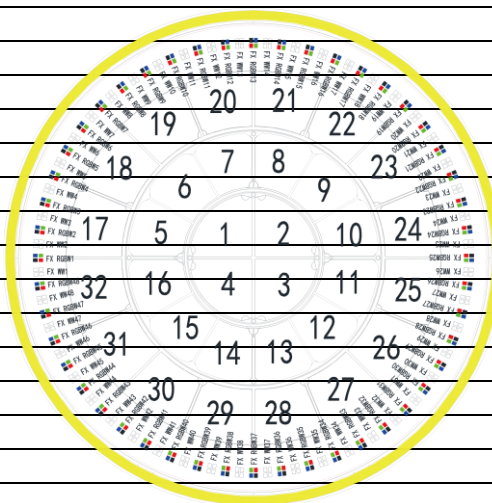
	318	0-255	FX BLUE 42
	319	0-255	FX WHITE 42
	320	0-255	FX RED 43
	321	0-255	FX GREEN 43
	322	0-255	FX BLUE 43
	323	0-255	FX WHITE 43
	284~339	.....	.....
	340	0-255	FX RED 48
	341	0-255	FX GREEN 48
	342	0-255	FX BLUE 48
	343	0-255	FX WHITE 48
	344	0-255	FX Warm White 1
	345	0-255	FX Warm White 2
	346	0-255	FX Warm White 3
	347~352	.....	.....
	353	0-255	FX Warm White 10
	354	0-255	FX Warm White 11
	355	0-255	FX Warm White 12
	356	0-255	FX Warm White 13
	357~362	.....	.....
	363	0-255	FX Warm White 20
	364	0-255	FX Warm White 21
	365	0-255	FX Warm White 22
	366	0-255	FX Warm White 23
	367~372	.....	.....
	373	0-255	FX Warm White 30
	374	0-255	FX Warm White 31
	375	0-255	FX Warm White 32
	376	0-255	FX Warm White 33
	367~382	.....	.....
	383	0-255	FX Warm White 40
	384	0-255	FX Warm White 41
	385	0-255	FX Warm White 42
	386	0-255	FX Warm White 43
	387~390	.....	.....
	391	0-255	FX Warm White 48

Annex 1

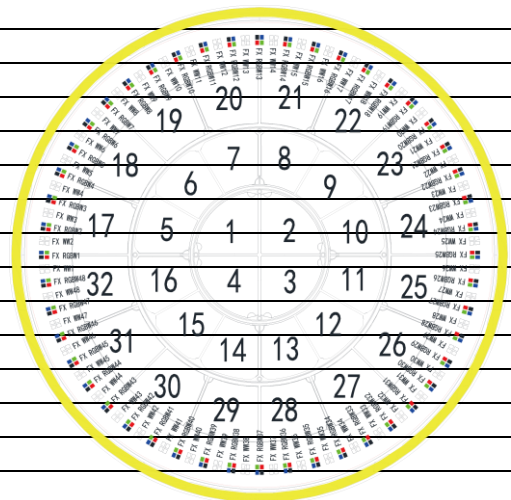
PRESET COLOR	Value	Color Names		x	y
	0-10	NO FUNCTION			
	11-15	RESERVE	Loving Amber	0.407	0.321
COLOR 1	16-20	R40	Light Salmon	0.499	0.321
COLOR 2	21-25	L24	Scarlet	0.561	0.296
COLOR 3	26-30	L164	Flame Red	0.659	0.302
	31-35	RESERVE	Easy White	0.389	0.344
	36-40	RESERVE	Warm Peach	0.448	0.353
COLOR 4	41-45	L08	Dark Salmon	0.498	0.347
COLOR 5	46-50	L25	Sunset Red	0.566	0.359
	51-55	RESERVE	Medium Bastard Amber	0.37	0.335
COLOR 6	56-60	L237	CID(To Tungsten)	0.43	0.365
COLOR 7	61-65	R321	Soft Golden Amber	0.477	0.406
COLOR 8	66-70	L652	Urban Sodium	0.535	0.399
	71-75	RESERVE	LCT Yellow(Y1)	0.34	0.363
COLOR 9	76-80	L765	LEE Yellow	0.389	0.412
COLOR 10	81-85	L513	Ice And A Slice	0.38	0.447
	86-90	RESERVE	Spring Yellow	0.41	0.502
	91-95	RESERVE	LEE Plus Green	0.324	0.388
	96-100	RESERVE	CalColor 30 Green	0.318	0.44
	101-105	RESERVE	Fern Green	0.234	0.543
COLOR 11	106-110	L90	Dark Yellow Green	0.184	0.641
	111-115	RESERVE	LEE Fluorescent3600K	0.286	0.37
COLOR 12	116-120	R92	Tuquoise	0.235	0.36
	121-125	RESERVE	Kelly Green	0.185	0.459
	126-130	RESERVE	Forest Green	0.162	0.496
	131-135	RESERVE	Cosmetic Aqua Blue	0.3	0.318
COLOR 13	136-140	L728	Steel Green	0.256	0.302
COLOR 14	141-145	L117	Steel Blue	0.223	0.278
COLOR 15	146-150	L354	Special Steel Blue	0.173	0.265
	151-155	RESERVE	Paler Lavender	0.284	0.284
COLOR 16	156-160	L501	New Colour Blue	0.246	0.249
COLOR 17	161-165	L174	Dark Steel Blue	0.204	0.205
	166-170	RESERVE	Daylight Blue	0.159	0.158
	171-175	RESERVE	Pale Lavender	0.288	0.254
	176-180	RESERVE	Surprise Pink	0.24	0.183
COLOR 18	181-185	L142	Pale Violet	0.209	0.148
	186-190	RESERVE	Perfect Lavender	0.177	0.07
	191-195	RESERVE	Light Pink	0.335	0.289
COLOR 19	196-200	L794	Pretty'n Pink	0.335	0.251
COLOR 20	201-205	L328	Follies Pink	0.335	0.18
	206-210	RESERVE	Magical Magenta	0.327	0.138
	211-215	RESERVE	Pale Rose	0.35	0.318
COLOR 21	216-220	L127	Smokey Pink	0.397	0.265
COLOR 22	221-225	L192	Flesh Pink	0.41	0.237
	226-230	RESERVE	Special Rose Pink	0.465	0.193
	231-235	RESERVE	Moroccan Pink	0.378	0.324
COLOR 23	236-240	L157	Pink	0.457	0.272
COLOR 24	241-245	R332	Cherry Rose	0.489	0.295
	246-250	RESERVE	Cool LED Bright Pink	0.57	0.263
	251-255	NO FUNCTION			

Annex 2

STATIC PIXEL	
0-10	NO FUNCTION
11-12	1
13-14	2
15-16	3
17-18	4
19-20	5
21-22	6
23-24	7
25-26	8
27-28	9
29-30	10
31-32	11
33-34	12
35-36	13
37-38	14
39-40	15
41-42	16
43-44	17
45-46	18
47-48	19
49-50	20
51-52	21
53-54	22
55-56	23
57-58	24
59-60	25
61-62	26
63-64	27
65-66	28
67-68	29
69-70	30
71-72	31
73-74	32
75-76	1,2
77-78	3,4
79-80	5,6
81-82	7,8
83-84	9,10
85-86	11,12
87-88	13,14
89-90	15,16
91-92	17,18
93-94	19,20
95-96	21,22
97-98	23,24
99-100	25,26
101-102	27,28
103-104	29,30
105-106	31,32
107-108	1,4
109-110	2,3
111-112	5,6,7
113-114	8,9,10
115-116	11,12,13
117-118	14,15,16



119-120	17,18
121-122	19,20
123-124	21,22
125-126	23,24
127-128	25,26
129-130	27,28
131-132	29,30
133-134	31,32
135-136	1,3
137-138	2,4
139-140	5,7
141-142	6,8
143-144	10,12
145-146	14,16
147-148	17,19
149-150	18,20
151-152	21,23
153-154	22,24
155-156	25,27
157-158	26,28
159-160	29,31
161-162	30,32
163-164	1
165-166	2
167-168	3
169-170	4
171-172	5,6,7
173-174	8,9,10
175-176	11,12,13
177-178	14,15,16
179-180	17,18,19,20
181-182	21,22,23,24
183-184	25,26,27,28
185-186	29,30,31,32
187-188	5,8,11,14
189-190	6,9,12,15
191-192	7,10,13,16
193-194	17,21,25,29
195-196	18,22,26,30
197-198	19,23,27,31
199-200	20,24,28,32
201-202	1,2,3,4
203-204	5,6,7,8,9,10
205-206	11,12,13,14,15,16
207-208	17,18,19,20,21,22,23,24
209-210	25,26,27,28,29,30,31,32
211-212	1,4
213-214	2,3
215-216	5,6,7,14,15,16
217-218	8,9,10,11,12,13
219-220	17,18,19,20,29,30,31,32
221-222	21,22,23,24,25,26,27,28
223-224	1,3
225-226	2,4
227-228	5,6,7,11,12,13
229-230	8,9,10,14,15,16
231-232	17,18,19,20,25,26,27,28
233-234	21,22,23,24,29,30,31,32
235-236	1,3



237-238	2,4
239-240	5,7,9,11,13,15
241-242	6,8,10,12,14,16
243-244	17,19,21,23,25,27,29,31
245-246	18,20,22,24,26,28,30,32
247-248	1,2,3,4
249-250	5,6,7,8,9,10,11,12,13,14,15,16
251-252	17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32
253-255	NO FUNCTION

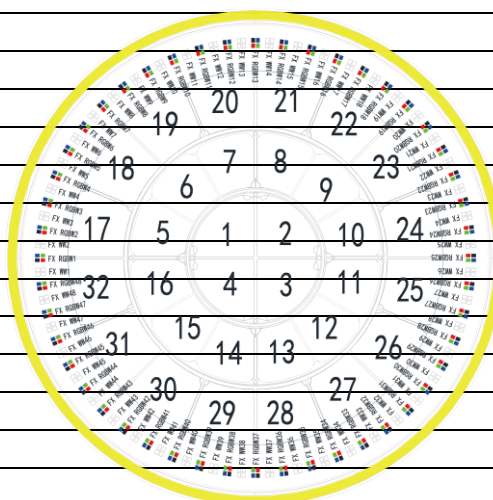
Annex 3

PIXEL EFFECT	
0-10	NO FUNCTION
11-15	1→2→3→...→31→32 cycle
16-20	1→3→5→...→27→29→31 cycle
21-25	2→4→6→...→28→30→32 cycle
26-30	1.2→2.3→...→30.31→31.32 cycle
31-35	1.2→3.4→...→29.30→31.32 cycle
36-40	1.2→11.12...16→17.18...24→3.4→5.6...10→25.26...32 cycle
41-45	1.2.3.4→5.6.7→8.9.10→11.12.13→14.15.16→17.18.19.20→21.22.23.24→25.26.27.28→29.30.31.32 cycle
46-50	1→5.6.7→17.18.19.20→2→8.9.10→21.22.23.24→3→11.12.13→25.26.27.28→4→14.15.16→29.30.31.32 cycle
51-55	1.2.3.4→5.6.7...10→11.12.13...16→17.18.19...24→25.26.27...32 cycle
56-60	1.2.3.4→5.6.7.14.15.16→8.9.10.11.12.13→17.18.19.20.29.30.31.32→21.22.23.24.25.26.27.28 cycle
61-65	32→31→30→...2→1 cycle
66-70	31→29→27→...3→1 cycle
71-75	32→30→28→...4→2 cycle
76-80	32.31→31.30→...3.2→2.1 cycle
81-85	32.31→30.29→...4.3→2.1 cycle
86-90	32.31...25→10.9...5→3.4→24.23...17→16.15...11→2.1 cycle
91-95	32.31.30.29→28.27.26.25→24.23.22.21→20.19.18.17→16.15.14→13.12.11→10.9.8→7.6.5→4.3.2.1 cycle
96-100	32.31.30.29→16.15.14→4→28.27.26.25→13.12.11→3→24.23.22.21→10.9.8→2→
101-105	32.31.30...25→24.23.22...17→16.15.14...11→10.9.8...5→4.3.2.1 cycle
106-110	28.27.25.24.23.22.21→32.31.30.29.20.19.18.17→13.12.11.10.9.8→16.15.14.7.6.5→4.3.2.1 cycle
111-115	1→2→3→4, 17→18→19→...→32 clockwise cycle and 5→6→7→...→16 counterclockwise cycle
116-120	1→2→3→4, 17→18→19→...→32 counterclockwise cycle and 5→6→7→...→16 clockwise cycle
121-125	Red background, (1→2→3→...→31→32) 100% green lightness runs
126-130	Red background, (1.2→3.4→5.6→...→29.30→31.32) 100% green lightness runs
131-135	Red background, (1.2.3.4→5.6.7→...→27.28.29→30.31.32) 100% green lightness runs
136-140	Red background, (1→5.6.7→17.18.19.20→...→4→14.15.16→29.30.31.32) 100% green lightness runs
141-145	Red background, (1→2→3→4, 17→18→19→...→32 clockwise cycle and 5→6→7→...→16 counterclockwise cycle) 100% green lightness runs
146-150	Green background, (1→2→3→...→31→32) 100% blue lightness runs
151-155	Green background, (1.2→3.4→5.6→...→29.30→31.32) 100% blue lightness runs
156-160	Green background, (1.2.3.4→5.6.7→...→27.28.29→30.31.32) 100% blue lightness runs
161-165	Green background, (1→5.6.7→17.18.19.20→...→4→14.15.16→29.30.31.32) 100% blue lightness runs

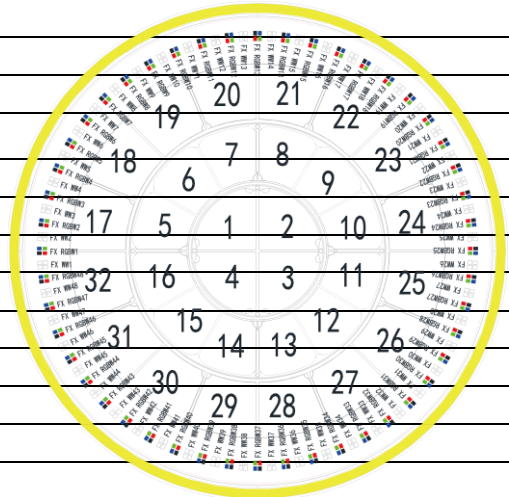
166-170	Green background, (1→2→3→4、17→18→19→...→32 clockwise cycle and 5→6→7→...→16 counterclockwise cycle) 100% blue lightness runs
171-175	Blue background, (1→2→3→...→31→32) 100% green lightness runs
176-180	Blue background, (1.2→3.4→5.6→...→29.30→31.32) 100% green lightness runs
181-185	Blue background, (1.2.3.4→5.6.7→...→27.28.29→30.31.32) 100% green lightness runs
186-190	Blue background, (1→5.6.7→17.18.19.20→...→4→14.15.16→29.30.31.32) 100% green lightness runs
191-195	Blue background, (1→2→3→4、17→18→19→...→32 clockwise cycle and 5→6→7→...→16 counterclockwise cycle) 100% green lightness runs
196-200	White background, (1→2→3→...→31→32) 100% red lightness runs
201-205	White background, (1.2→3.4→5.6→...→29.30→31.32) 100% red lightness runs
206-210	White background, (1.2.3.4→5.6.7→...→27.28.29→30.31.32) 100% red lightness runs
211-215	White background, (1→5.6.7→17.18.19.20→...→4→14.15.16→29.30.31.32) 100% red lightness runs
216-220	White background, (1→2→3→4、17→18→19→...→32 clockwise cycle and 5→6→7→...→16 counterclockwise cycle) 100% red lightness runs
221-225	1-4(RED), 5-16(GREEN), 17-32(BLUE)
226-230	1-4(GREEN), 5-16(BLUE), 17-32(RED)
231-235	1-4(BLUE), 5-16(RED), 17-32(GREEN)
236-240	1-4(CYAN), 5-16(MAGENTA), 17-32(YELLOW)
241-245	1-4(MAGENTA)A, 5-16(YELLOW), 17-32(CYAN)
246-250	1-4(YELLOW), 5-16(CYAN), 17-32(MAGENTA)
251-255	NO FUNCTION

Annex 4

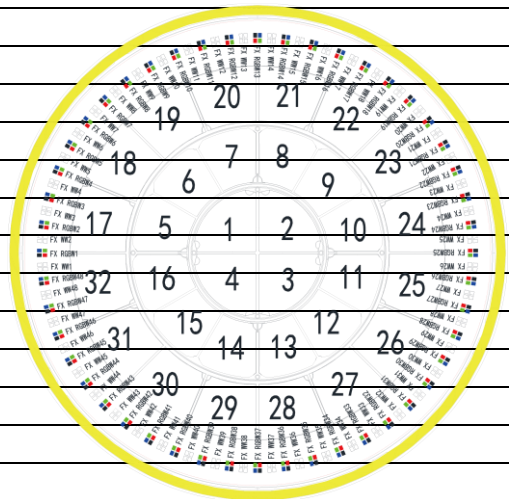
FX STATIC PIXEL	
0-10	NO FUNCTION
11	FX RGBW 1
12	FX RGBW 2
13	FX RGBW 3
14	FX RGBW 4
15	FX RGBW 5
16	FX RGBW 6
17	FX RGBW 7
18	FX RGBW 8
19	FX RGBW 9
20	FX RGBW 10
21	FX RGBW 11
22	FX RGBW 12
23	FX RGBW 13
24	FX RGBW 14
25	FX RGBW 15
26	FX RGBW 16
27	FX RGBW 17
28	FX RGBW 18
29	FX RGBW 19
30	FX RGBW 20
31	FX RGBW 21
32	FX RGBW 22
33	FX RGBW 23
34	FX RGBW 24
35	FX RGBW 25



36	FX RGBW 26
37	FX RGBW 27
38	FX RGBW 28
39	FX RGBW 29
40	FX RGBW 30
41	FX RGBW 31
42	FX RGBW 32
43	FX RGBW 33
44	FX RGBW 34
45	FX RGBW 35
46	FX RGBW 36
47	FX RGBW 37
48	FX RGBW 38
49	FX RGBW 39
50	FX RGBW 40
51	FX RGBW 41
52	FX RGBW 42
53	FX RGBW 43
54	FX RGBW 44
55	FX RGBW 45
56	FX RGBW 46
57	FX RGBW 47
58	FX RGBW 48
59	FX Warm White 1
60	FX Warm White 2
61	FX Warm White 3
62	FX Warm White 4
63	FX Warm White 5
64	FX Warm White 6
65	FX Warm White 7
66	FX Warm White 8
67	FX Warm White 9
68	FX Warm White 10
69	FX Warm White 11
70	FX Warm White 12
71	FX Warm White 13
72	FX Warm White 14
73	FX Warm White 15
74	FX Warm White 16
75	FX Warm White 17
76	FX Warm White 18
77	FX Warm White 19
78	FX Warm White 20
79	FX Warm White 21
80	FX Warm White 22
81	FX Warm White 23
82	FX Warm White 24
83	FX Warm White 25
84	FX Warm White 26
85	FX Warm White 27
86	FX Warm White 28
87	FX Warm White 29
88	FX Warm White 30



89	FX Warm White 31
90	FX Warm White 32
91	FX Warm White 33
92	FX Warm White 34
93	FX Warm White 35
94	FX Warm White 36
95	FX Warm White 37
96	FX Warm White 38
97	FX Warm White 39
98	FX Warm White 40
99	FX Warm White 41
100	FX Warm White 42
101	FX Warm White 43
102	FX Warm White 44
103	FX Warm White 45
104	FX Warm White 46
105	FX Warm White 47
106	FX Warm White 48
107	FX RGBW 1+2+3
108	FX RGBW 4+5+6
109	FX RGBW 7+8+9
110	FX RGBW 10+11+12
111	FX RGBW 13+14+15
112	FX RGBW 16+17+18
113	FX RGBW 19+20+21
114	FX RGBW 22+23+24
115	FX RGBW 25+26+27
116	FX RGBW 28+29+30
117	FX RGBW 31+32+33
118	FX RGBW 34+35+36
119	FX RGBW 37+38+39
120	FX RGBW 40+41+42
121	FX RGBW 43+44+45
122	FX RGBW 46+47+48
123	FX Warm White 1+2+3
124	FX Warm White 4+5+6
125	FX Warm White 7+8+9
126	FX Warm White 10+11+12
127	FX Warm White 13+14+15
128	FX Warm White 16+17+18
129	FX Warm White 19+20+21
130	FX Warm White 22+23+24
131	FX Warm White 25+26+27
132	FX Warm White 28+29+30
133	FX Warm White 31+32+33
134	FX Warm White 34+35+36
135	FX Warm White 37+38+39
136	FX Warm White 40+41+42
137	FX Warm White 43+44+45
138	FX Warm White 46+47+48
139	FX RGBW 1+13+25+37
140	FX RGBW 2+14+26+38
141	FX RGBW 3+15+27+39



142	FX RGBW 4+16+28+40
143	FX RGBW 5+17+29+41
144	FX RGBW 6+18+30+42
145	FX RGBW 7+19+31+43
146	FX RGBW 8+20+32+44
147	FX RGBW 9+21+33+45
148	FX RGBW 10+22+34+46
149	FX RGBW 11+23+35+47
150	FX RGBW 12+24+36+48
151	FX Warm White 1+13+25+37
152	FX Warm White 2+14+26+38
153	FX Warm White 3+15+27+39
154	FX Warm White 4+16+28+40
155	FX Warm White 5+17+29+41
156	FX Warm White 6+18+30+42
157	FX Warm White 7+19+31+43
158	FX Warm White 8+20+32+44
159	FX Warm White 9+21+33+45
160	FX Warm White 10+22+34+46
161	FX Warm White 11+23+35+47
162	FX Warm White 12+24+36+48
163	FX RGBW 1+7+13+19+25+31+37+43
164	FX RGBW 2+8+14+20+26+32+38+44
165	FX RGBW 3+9+15+21+27+33+39+45
166	FX RGBW 4+10+16+22+28+34+40+46
167	FX RGBW 5+11+17+23+29+35+41+47
168	FX RGBW 6+12+18+24+30+36+42+48
169	FX Warm White 1+7+13+19+25+31+37+43
170	FX Warm White 2+8+14+20+26+32+38+44
171	FX Warm White 3+9+15+21+27+33+39+45
172	FX Warm White 4+10+16+22+28+34+40+46
173	FX Warm White 5+11+17+23+29+35+41+47
174	FX Warm White 6+12+18+24+30+36+42+48
175	FX RGBW 1+2+3+...+12
176	FX RGBW 13+14+...+24
177	FX RGBW 25+26+...+36
178	FX RGBW 37+38+...+48
179	FX Warm White 1+2+3+...+12
180	FX Warm White 13+14+...+24
181	FX Warm White 25+26+...+36
182	FX Warm White 37+38+...+48
183-255	NO FUNCTION

