Cineo Color Fixture DMX Mapping and Programming Information

1. Overview

Cineo has developed a family of color LED products for use in motion picture and television production.

1.1 All Cineo color fixtures use these 4 channels

Dim - CH1 – This is master intensity for the fixture or zone. It uses PAD dimming which means the log curve reduces by 1f Stop (50%) every 50 DMX units. Therefore:

255 – 100% in linear intensity

205 – 50% in linear intensity

155 – 25% in linear intensity

105 – 12.5% in linear intensity

55 – 6.26% in linear intensity

CCT – CH1+1 – The CCT range is 0 = 2700K and 255 = 6500K. CCT units are linear

Saturation - CH1 +2 – Cineo **Saturation** reduces the amount of White light while increasing the amount of RGB color light. 0 = 100% White at selected CCT. 255 = 100% color light with no White. Saturation units are linear.

Hue – CH1 +3 – Hue is R = 0,255, Y = 43, G = 85, C = 127, B = 170, M = 212

1.2 Bi-Color White (CCT range is 2700K – 6500K) - To preserve the quality of white light, Cineo uses 5 channel drivers in all of their color systems. Both 2700K LEDs and 6500K LEDs are used to blend the white CCT. The White light engine of Cineo color fixtures is standalone with RGB being additive on top of the selected CCT of white light.

1.3 RGB-W Mode – Cineo will be releasing a second RGB-W mode in June 2018. The channels are defined as:

Red = CH1

Green = CH1+1

Blue = CH1+2

White = CH1 +3 is CCT, where 0 = 2700K and 255 = 6500K for the center white value

1.4 8 and 16 Bit Modes – Cineo will introduce 16 bit mode into its color fixtures in June 2018. This will give users the option to change from 4 DMX addresses to 8 DMX addresses, with 2 addresses per control.

1.5 Zonal Fixtures – The LightBlade family of Cineo color fixtures also features Zones.

Single Zone- All Cineo Zonal fixtures can also be operated as single Zone fixtures – 4 DMX Addresses in 8 bit mode, 8 DMX addresses in 16bit mode.

Multi-Zone – In Multi-Zone mode, each Zone acts as a stand-alone DMX Fixture. There is no longer any Master DIM or any other Master settings for the entire fixture. Each Zone has separate DMX controls using the same addresses and features described (HSIK, RGBW, 8 bit or 16 bit). When in multizone mode all DMX addresses for each Zone must be sequential and must be preserved as a block.

Below is the previous DMX label giving an overview of the DMX values. However RGBW is not shown here but should be included in future profiles. Also this only shows 8bit and in the next release 16 bit will also be supported.

DMX Mapping Guidelines

Dimming		CCT		Saturation		Hue	
100%	250	2700	000	0%	000	Red	000/255
-1 Stop	200	3200	034	10%	025	Yellow	043
-2 Stops	150	4300	107	20%	050	Green	085
-3 Stops	100	5600	195	50%	128	Cyan	127
-4 Stops	050	6500	255	80%	204	Blue	170
Off	000			100%	255	Magenta	212

Number of Channels and Values per Product

Product	Channels	Values
Maverick3	1	Dim
HS Wave	1	Dim
MAVX	2	Dim, CCT
HSX	2	Dim, CCT
Quantum 120	2	Dim, CCT
Quantum c80	4	Dim, CCT, Sat., Hue
Lightblade LB1K	4/40	Dim, CCT, Sat., Hue
Lightblade Ladder	4/24	Dim, CCT, Sat., Hue

2. List of Cineo Color Fixtures

Cineo has introduced 6 Color Fixtures. Three are 1 Zone only. Cineo has also introduced 3 LightBlade products featuring Zonal Control. These fixtures can be operated in either 1 Zone or max Zone Personalities. The LB Ladder supports 6 Zones, the LB1000 and LB800 (to be introduced at Cinegear in June) support 10 Zones.

Three 1 Zone-Only Fixtures – Standard410, C80, LightBlade

LB Ladder – 1 or 6 Zone Personalities

LB1000, LB800 – 1 or 10 Zone Personalities

LIST OF CINEO COLOR FIXTURES - 5 May 2018 Rev. 1.0

STANDARD 410, C80 and LightBlade			
PERSONALITY	DMX ADDR	ADDR FUNCTION	Range
8bit HSIK	1	DIM	0-100%
	2	CCT	2700-6500K
	3	Saturation	0-100%
	4	HUE	0-255 (0-360°)
8bit RGBW	1	Red	0-100%
	2	Green	0-100%
	3	Blue	0-100%
	4	CCT	2700-6500K
16bit HSIK	1,2	DIM	0-100%
	3,4	CCT	2700-6500K
	5,6	Saturation	0-100%
	7,8	HUE	0-255 (0-360°)
16bit RGBW	1,2	Red	0-100%
	3,4	Green	0-100%
	5,6	Blue	0-100%
	7,8	CCT	2700-6500K

LB Ladder 1 and 6 Zone Options			
PERSONALITY	DMX ADDR	ADDR FUNCTION	Range
8bit HSIK 1 Zone	1	DIM	0-100%
	2	CCT	2700-6500K
	3	Saturation	0-100%
	4	HUE	0-255 (0-360°)
8bit RGBW 1 Zone	1	Red	0-100%
	2	Green	0-100%
	3	Blue	0-100%
	4	CCT	2700-6500K
16bit HSIK 1 Zone	1,2	DIM	0-100%
	3,4	CCT	2700-6500K
	5,6	Saturation	0-100%
	7,8	HUE	0-255 (0-360°)
16bit RGBW 1 Zone	1,2	Red	0-100%
	3,4	Green	0-100%
	5,6	Blue	0-100%
	7,8	CCT	2700-6500K
8bit HSIK 6 Zone	1	DIM - Zone 1 ONLY	0-100%
	2	CCT - Zone 1 ONLY	2700-6500K
	3	Sat - Zone 1 ONLY	0-100%
	4	HUE - Zone 1 ONLY	0-255 (0-360°)
4 Controls * 6 Zones	24 DMX Addr	... Zones 2-6	SAME as 1-4
8bit RGBW 6 Zone	1	Red	0-100%
	2	Green	0-100%
	3	Blue	0-100%
	4	CCT	2700-6500K
4 Controls * 6 Zones	24 DMX Addr	... Zones 2-6	SAME as 1-4
16bit HSIK 6 Zone	1,2	DIM	0-100%
	3,4	CCT	2700-6500K
	5,6	Saturation	0-100%
	7,8	HUE	0-255 (0-360°)
4 Controls * 6 Zones	48 DMX Addr	... Zones 2-6	SAME as 1-4
16bit RGBW 6 Zone	1,2	Red	0-100%
	3,4	Green	0-100%
	5,6	Blue	0-100%
	7,8	CCT	2700-6500K
4 Controls * 6 Zones	48 DMX Addr	... Zones 2-6	SAME as 1-4

LB1000 and LB800 Fixtures - both support 1 and 10 Zone			
PERSONALITY	DMX ADDR	ADDR FUNCTION	Range
8bit HSIK 1 Zone	1	DIM	0-100%
	2	CCT	2700-6500K
	3	Saturation	0-100%
	4	HUE	0-255 (0-360°)
8bit RGBW 1 Zone	1	Red	0-100%
	2	Green	0-100%
	3	Blue	0-100%
	4	CCT	2700-6500K
16bit HSIK 1 Zone	1,2	DIM	0-100%
	3,4	CCT	2700-6500K
	5,6	Saturation	0-100%
	7,8	HUE	0-255 (0-360°)
16bit RGBW 1 Zone	1,2	Red	0-100%
	3,4	Green	0-100%
	5,6	Blue	0-100%
	7,8	CCT	2700-6500K
8bit HSIK 10 Zone	1	DIM - Zone 1 ONLY	0-100%
	2	CCT - Zone 1 ONLY	2700-6500K
	3	Sat - Zone 1 ONLY	0-100%
	4	HUE - Zone 1 ONLY	0-255 (0-360°)
4 Controls * 10 Zones	40 DMX Addr	... Zones 2-10	SAME as 1-4
8bit RGBW 10 Zone	1	Red	0-100%
	2	Green	0-100%
	3	Blue	0-100%
	4	CCT	2700-6500K
4 Controls * 10 Zones	40 DMX Addr	... Zones 2-10	SAME as 1-4
16bit HSIK 10 Zone	1,2	DIM	0-100%
	3,4	CCT	2700-6500K
	5,6	Saturation	0-100%
	7,8	HUE	0-255 (0-360°)
4 Controls * 6 Zones	80 DMX Addr	... Zones 2-10	SAME as 1-4
16bit RGBW 10 Zone	1,2	Red	0-100%
	3,4	Green	0-100%
	5,6	Blue	0-100%
	7,8	CCT	2700-6500K
4 Controls * 6 Zones	80 DMX Addr	... Zones 2-10	SAME as 1-4