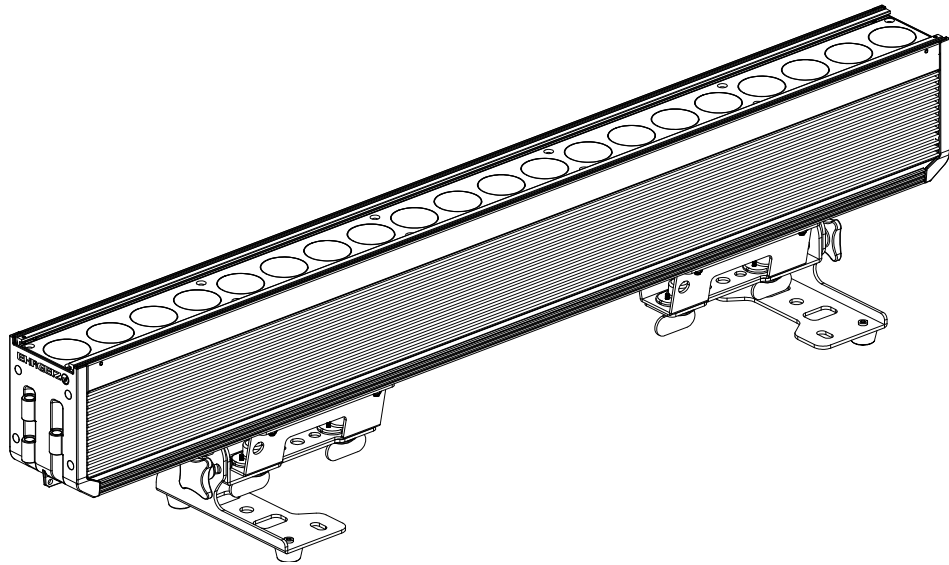


FUSION
by GLP

Fusion Stick FS20

DMX Channel Index



Software version 1.0.1.7



GLP® Fusion Stick FS20 DMX Channel Index – Revision A

This document covers fixture software version 1.0.1.7

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Manufacturer's head office:

German Light Products GmbH (GLP), Industriestrasse 2, 76307 Karlsbad, Germany
Tel (Germany): +49 7248 92719 - 0

Service & Support EMEA:

GLP, Industriestrasse 2, 76307 Karlsbad, Germany
Tel. (Germany): +49 7248 9271955
Email: support@glp.de
www.glp.de

Service & Support USA:

GLP USA, 1145 Arroyo St., Ste. A, 91340 San Fernando, California
Tel (USA): +1 818 767 8899
Support (US): info@germanlightproducts.com
www.germanlightproducts.com

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1. DMX control modes overview

The following DMX control modes are available in the FS20.

DMX Mode 1: Standard provides a virtual color wheel (color presets) and RGBW color mixing. A separate Shutter channel provides strobe, pulse and ramp-up/down effects and a Master dimmer channel controls overall intensity.

Color temperature control is available on a separate CTO channel, and a wide range of pre-programmed static and animated patterns are available. The animated patterns have variable movement and crossfading speed.

A Control / Settings channel lets you configure the fixture remotely via DMX.

Mode 1 Standard

1	Color wheel
2	Red
3	Green
4	Blue
5	White
6	Shutter
7	Master dimmer
8	CTO
9	Pattern select
10	Pattern speed
11	Pattern fade
12	Control/Settings

DMX Mode 2: Advanced provides a virtual color wheel (color presets) and 16-bit RGBW color mixing. A separate Shutter channel provides strobe, pulse and ramp-up/down effects and a Master dimmer channel provides 16-bit control of overall intensity.

Color temperature control is available on a separate CTO channel, and a wide range of pre-programmed static and animated patterns are available. The animated patterns have variable movement and crossfading speed.

A Control / Settings channel lets you configure the fixture remotely via DMX.

Mode 2 Advanced

1	Color wheel
2	Red
3	Red fine
4	Green
5	Green fine
6	Blue
7	Blue fine
8	White
9	White fine
10	Shutter
11	Master dimmer
12	Master dimmer fine
13	CTO
14	Pattern select
15	Pattern speed
16	Pattern fade
17	Control/Settings

DMX Mode 3: RGBW provides RGBW color mixing with a minimal footprint of 4 DMX channels.

Mode 3
RGBW

1	Red
2	Green
3	Blue
4	White

DMX Mode 4: Compressed provides the main control options: RGBW color mixing, shutter effects and overall dimming.

Mode 4
Compressed

1	Red
2	Green
3	Blue
4	White
5	Shutter
6	Master dimmer

DMX Mode 5: Pixel provides a virtual color wheel (color presets) and RGBW color mixing. A separate Shutter channel provides strobe, pulse and ramp-up/down effects and a Master dimmer channel controls overall intensity.

Color temperature control is available on a separate CTO channel, and a wide range of pre-programmed static and animated patterns are available. The animated patterns have variable movement and crossfading speed.

A Control / Settings channel lets you configure the fixture remotely via DMX.

This mode also offers individual pixel-level RGBW color mixing.

Mode 5
Pixel

1	Color wheel
2	Red
3	Green
4	Blue
5	White
6	Shutter
7	Master dimmer
8	CTO
9	Pattern select
10	Pattern speed
11	Pattern fade
12	Control/Settings
13	Pixel 1 Red
14	Pixel 1 Green
15	Pixel 1 Blue
16	Pixel 1 White
17	Pixel 2 Red
18	Pixel 2 Green
19	Pixel 2 Blue
20	Pixel 2 White
...	...
89	Pixel 20 Red
90	Pixel 20 Green
91	Pixel 20 Blue
92	Pixel 20 White

DMX Mode 6: Compressed Pixel

provides individual pixel-level RGBW color mixing.

Mode 6 Compressed Pixel

1	Pixel 1 Red
2	Pixel 1 Green
3	Pixel 1 Blue
4	Pixel 1 White
5	Pixel 2 Red
6	Pixel 2 Green
7	Pixel 2 Blue
8	Pixel 2 White
...	...
77	Pixel 20 Red
78	Pixel 20 Green
79	Pixel 20 Blue
80	Pixel 20 White

DMX Mode 7: Pixel Dimming provides a virtual color wheel (color presets) and RGBW color mixing. A separate Shutter channel provides strobe, pulse and ramp-up/down effects and a Master dimmer channel controls overall intensity.

Color temperature control is available on a separate CTO channel, and a wide range of pre-programmed static and animated patterns are available. The animated patterns have variable movement and crossfading speed.

A Control / Settings channel lets you configure the fixture remotely via DMX.

This mode also offers individual pixel-level dimming.

Mode 7 Pixel Dimming

1	Color wheel
2	Red
3	Green
4	Blue
5	White
6	Shutter
7	Master dimmer
8	CTO
9	Pattern select
10	Pattern speed
11	Pattern fade
12	Control/Settings
13	Pixel 1 Dimming
14	Pixel 2 Dimming
...	...
32	Pixel 20 Dimming

DMX Mode 8: Patterns provides a virtual color wheel (color presets) and RGBW color mixing. A separate Shutter channel provides strobe, pulse and ramp-up/down effects and a Master dimmer channel controls overall intensity.

Color temperature control is available on a separate CTO channel.

A Control / Settings channel lets you configure the fixture remotely via DMX.

Patterns with variable movement and crossfading speed are available, with two layers of pattern overlays. Each pattern layer has RGBW color mixing, shutter effects and dimming.

Mode 8 Patterns	
1	Color wheel
2	Red
3	Green
4	Blue
5	White
6	Shutter
7	Master dimmer
8	CTO
9	Control/Settings
10	Pattern 1 select
11	Pattern 1 speed
12	Pattern 1 fade
13	Pattern 1 red
14	Pattern 1 green
15	Pattern 1 blue
16	Pattern 1 white
17	Pattern 1 shutter
18	Pattern 1 dimmer
19	Pattern 2 select
20	Pattern 2 speed
21	Pattern 2 fade
22	Pattern 2 red
23	Pattern 2 green
24	Pattern 2 blue
25	Pattern 2 white
26	Pattern 2 shutter
27	Pattern 2 dimmer

DMX Mode 9: Rocket provides individual pixel-level RGBW color mixing.

A Control / Settings channel lets you configure the fixture remotely via DMX.

Patterns with variable movement and crossfading speed are available with two layers of pattern overlays. Each pattern layer has RGBW color mixing, shutter effects and dimming.

Mode 9 Rocket	
------------------	--

1	Pixel 1 Red
2	Pixel 1 Green
3	Pixel 1 Blue
4	Pixel 1 White
5	Pixel 2 Red
6	Pixel 2 Green
7	Pixel 2 Blue
8	Pixel 2 White
...	...
77	Pixel 20 Red
78	Pixel 20 Green
79	Pixel 20 Blue
80	Pixel 20 White
81	Shutter
82	Master dimmer
83	Control/Settings
84	Pattern 1 select
85	Pattern 1 speed
86	Pattern 1 fade
87	Pattern 1 red
88	Pattern 1 green
89	Pattern 1 blue
90	Pattern 1 white
91	Pattern 1 shutter
92	Pattern 1 dimmer
93	Pattern 2 select
94	Pattern 2 speed
95	Pattern 2 fade
96	Pattern 2 red
97	Pattern 2 green
98	Pattern 2 blue
99	Pattern 2 white
100	Pattern 2 shutter
101	Pattern 2 dimmer

2. DMX control channel layout

In the following DMX channel layout tables:

- Default settings are indicated with **bold type**.
- Where commands are marked with an asterisk * you must send that value continuously for 3 seconds (or other duration if indicated in the table) to apply the command.
- Where LED orientation commands are marked with two asterisks ** the direction of FX pattern *movement* is reversed compared to the similar commands available earlier on the same channel. The FX pattern *orientation* is unchanged.

DMX Mode 1: Standard

12 DMX Channels

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	Color wheel	No function: RGBW color mixing	0-5	0-2.0%	0	Snap
		LEE 790 - Moroccan Pink	6-10	2.4-3.9%		
		LEE 157 - Pink	11-15	4.3-5.9%		
		LEE 332 - Special Rose Pink	16-20	6.3-7.8%		
		LEE 328 - Follies Pink	21-25	8.2-9.8%		
		LEE 345 - Fuchsia Pink	26-30	10.2-11.8%		
		LEE 194 - Surprise Pink	31-35	12.2-13.7%		
		LEE 181 - Congo Blue	36-40	14.1-15.7%		
		LEE 071 - Tokyo Blue	41-45	16.1-17.6%		
		LEE 120 - Deep Blue	46-50	18.0-19.6%		
		LEE 079 - Just Blue	51-55	20.0-21.6%		
		LEE 132 - Medium Blue	56-60	22.0-23.5%		
		LEE 200 - Double CT Blue	61-65	23.9-25.5%		
		LEE 161 - Slate Blue	66-70	25.9-27.5%		
		LEE 201 - Full CT Blue	71-75	27.8-29.4%		
		LEE 202 - Half CT Blue	76-80	29.8-31.4%		
		LEE 117 - Steel Blue	81-85	31.8-33.3%		
		LEE 353 - Lighter Blue	86-90	33.7-35.3%		
		LEE 118 - Light Blue	91-95	35.7-37.3%		
		LEE 116 - Medium Blue Green	96-100	37.6-39.2%		
		LEE 124 - Dark Green	101-105	39.6-41.2%		
		LEE 139 - Primary Green	106-110	41.6-43.1%		
		LEE 089 - Moss Green	111-115	43.5-45.1%		
		LEE 122 - Fern Green	116-120	45.5-47.1%		
		LEE 738 - JAS Green	121-125	47.5-49.0%		
		LEE 088 - Lime Green	126-130	49.4-51.0%		
		LEE 100 - Spring Yellow	131-135	51.4-52.9%		
		LEE 104 - Deep Amber	136-140	53.3-54.9%		
		LEE 179 - Chrome Orange	141-145	55.3-56.9%		
		LEE 105 - Orange	146-150	57.3-58.8%		
		LEE 021 - Gold Amber	151-155	59.2-60.8%		
		LEE 778 - Millennium Gold	156-160	61.2-62.7%		
		LEE 135 - Deep Golden Amber	161-165	63.1-64.7%		
		LEE 164 - Flame Red	166-170	65.1-66.7%		
		Color wheel rotation forwards fast-slow	171-185	67.1-72.5%		
		Color wheel stops at current color	186-190	72.9-74.5%		
		Color wheel rotation backwards fast-slow	191-205	74.9-80.4%		
		Color wheel stops at current color	206-210	80.8-82.4%		
		Random colors fast-slow	211-225	82.7-88.2%		
		Tungsten simulation	226-230	88.6-90.2%		
Warm white - 3200K	231-235	90.6-92.2%				
Neutral white - 4200K	236-240	92.5-94.1%				
Cool white - 5600K	241-245	94.5-96.1%				
Cool white - 7200K	246-250	96.5-98.0%				
Cool white - 8000K	251-255	98.4-100%				

2	Red	Intensity 0-100%	0-255	0-100%	0	Fade
3	Green	Intensity 0-100%	0-255	0-100%	0	Fade
4	Blue	Intensity 0-100%	0-255	0-100%	0	Fade
5	White	Intensity 0-100%	0-255	0-100%	0	Fade
6	Shutter	Shutter closed	0-15	0-5.9%	0	Snap
		Random strobe	16-47	6.3-18.4%		
		Ramp up slow-fast	48-79	18.8-31.0%		
		Ramp down slow-fast	80-111	31.4-43.5%		
		Ramp up-down slow-fast	112-143	43.9-56.1%		
		Strobe pause 5s – 1s (slow – fast)	144-199	56.5-78.0%		
		Strobe 1Hz – 20 Hz (slow – fast)	200-239	78.4-93.7%		
		Shutter open	240-255	94.1-100%		
7	Dimmer	Master intensity 0-100%	0-255	0-100%	0	Fade
8	CTO	Color temperature cool-warm	0-255	0-100%	0	Fade
9	Pattern selection <i>See also 'Guide to patterns' on page 36</i>	No Pattern – all pixels lit	0-5	0-2.0%	0	Snap
		Static Patterns	6-79	2.4-3.1%		
		Single pixel chase	80-83	31.4-32.5%		
		Single pixel chase and return	84-87	32.9-34.1%		
		2-pixel block chase	88-91	34.5-35.7%		
		2-pixel block bounce	92-95	36.1-37.3%		
		4-pixel block chase	96-99	37.6-38.8%		
		4-pixel block bounce	100-103	39.2-40.4%		
		5-pixel block chase	104-107	40.8-42.0%		
		5-pixel block bounce	108-111	42.4-43.5%		
		5 pixels chase	112-115	43.9-45.1%		
		5 pixels bounce	116-119	45.5-46.7%		
		4 pixels chase	120-123	47.1-48.2%		
		4 pixels bounce	124-127	48.6-49.8%		
		2 pixels to center chase	128-131	50.2-51.4%		
		2 pixels to center bounce	132-135	51.8-52.9%		
		3-pixel block chase	136-139	53.3-54.5%		
		3-pixel block bounce	140-143	54.9-56.1%		
		Fill from left	144-147	56.5-57.6%		
		20-pixel block chase	148-151	58.0-59.2%		
		Alternating single pixels chase	152-153	59.6-60.0%		
		Alternating 4-pixel block chase	154-155	60.4-60.8%		
		Random single pixel / inverted	156-157	61.2-61.6%		
		Random 2 pixels / inverted	158-159	62.0-62.4%		
		Random 3 pixels / inverted	160-161	62.7-63.1%		
		Random 4 pixels / inverted	162-163	63.5-63.9%		
		Random 5 pixels / inverted	164-165	64.3-64.7%		
Random 6 pixels / inverted	166-167	65.1-65.5%				
Random 7 pixels / inverted	168-169	65.9-66.3%				
Random 8 pixels / inverted	170-171	66.7-67.1%				
Random 9 pixels / inverted	172-173	67.5-67.8%				
No function	174-255	68.2-100%				
10	Pattern speed	Pattern speed slow-fast	0-255	0-100%	0	Fade
11	Pattern fade	Pattern intensity 0-100%	0-255	0-100%	0	Fade

Control / Settings						
12	Control / Settings	No function	0-55	0-21.6%	0	Snap
		Dimmer speed smooth*	56-60	22.0-23.5%		
		Dimmer speed fast*	61-65	23.9-25.5%		
		No function	66-70	25.9-27.5%		
		Dimming curve Linear*	71-75	27.8-29.4%		
		Dimming curve Theatrical*	76-80	29.8-31.4%		
		Dimming curve Square Law*	81-85	31.8-33.3%		
		Dimming curve Inverse Square Law*	86-90	33.7-35.3%		
		No Function	91-95	35.7-37.3%		
		No DMX = Hold scene*	96-100	37.6-39.2%		
		No DMX = Blackout*	101-105	39.6-41.2%		
		No DMX = Play stand-alone scene*	106-110	41.6-43.1%		
		No Function	111-115	43.5-45.1%		
		Display backlight On*	116-120	45.5-47.1%		
		Display backlight Off*	121-125	47.5-49.0%		
		No Function	126-140	49.4-54.9%		
		DMX Mode: Standard*	141-145	55.3-56.9%		
		DMX Mode: Advanced*	146-150	57.3-58.8%		
		DMX Mode: Pattern*	151-155	59.2-60.8%		
		DMX Mode: Pixel*	156-160	61.2-62.7%		
		DMX Mode: Compressed*	161-165	63.1-64.7%		
		DMX Mode: Pixel Dim*	166-170	65.1-66.7%		
		No function	171-180	67.1-70.6%		
		Fixture reset	181-185	71.0-72.5%		
		Factory default settings (except DMX address)*	186-190	72.9-74.5%		
		No function	191-230	74.9-90.2%		
		Boot Mode Auto*	231-235	90.6-92.2%		
		Boot Mode DMX*	236-240	92.5-94.1%		
		Boot Mode Play Stand-alone *	241-245	94.5-96.1%		
		Boot Mode Static*	246-250	96.5-98.0%		
No function	251-252	98.4-100%				

DMX Mode 2: Advanced**17 DMX Channels**

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	Color wheel	No function: RGBW color mixing	0-5	0-2.0%	0	Snap
		LEE 790 - Moroccan Pink	6-10	2.4-3.9%		
		LEE 157 - Pink	11-15	4.3-5.9%		
		LEE 332 - Special Rose Pink	16-20	6.3-7.8%		
		LEE 328 - Follies Pink	21-25	8.2-9.8%		
		LEE 345 - Fuchsia Pink	26-30	10.2-11.8%		
		LEE 194 - Surprise Pink	31-35	12.2-13.7%		
		LEE 181 - Congo Blue	36-40	14.1-15.7%		
		LEE 071 - Tokyo Blue	41-45	16.1-17.6%		
		LEE 120 - Deep Blue	46-50	18.0-19.6%		
		LEE 079 - Just Blue	51-55	20.0-21.6%		
		LEE 132 - Medium Blue	56-60	22.0-23.5%		
		LEE 200 - Double CT Blue	61-65	23.9-25.5%		
		LEE 161 - Slate Blue	66-70	25.9-27.5%		
		LEE 201 - Full CT Blue	71-75	27.8-29.4%		
		LEE 202 - Half CT Blue	76-80	29.8-31.4%		
		LEE 117 - Steel Blue	81-85	31.8-33.3%		
		LEE 353 - Lighter Blue	86-90	33.7-35.3%		
		LEE 118 - Light Blue	91-95	35.7-37.3%		
		LEE 116 - Medium Blue Green	96-100	37.6-39.2%		
		LEE 124 - Dark Green	101-105	39.6-41.2%		
		LEE 139 - Primary Green	106-110	41.6-43.1%		
		LEE 089 - Moss Green	111-115	43.5-45.1%		
		LEE 122 - Fern Green	116-120	45.5-47.1%		
		LEE 738 - JAS Green	121-125	47.5-49.0%		
		LEE 088 - Lime Green	126-130	49.4-51.0%		
		LEE 100 - Spring Yellow	131-135	51.4-52.9%		
		LEE 104 - Deep Amber	136-140	53.3-54.9%		
		LEE 179 - Chrome Orange	141-145	55.3-56.9%		
		LEE 105 - Orange	146-150	57.3-58.8%		
		LEE 021 - Gold Amber	151-155	59.2-60.8%		
		LEE 778 - Millennium Gold	156-160	61.2-62.7%		
		LEE 135 - Deep Golden Amber	161-165	63.1-64.7%		
		LEE 164 - Flame Red	166-170	65.1-66.7%		
		Color wheel rotation forwards fast-slow	171-185	67.1-72.5%		
		Color wheel stops at current color	186-190	72.9-74.5%		
		Color wheel rotation backwards fast-slow	191-205	74.9-80.4%		
		Color wheel stops at current color	206-210	80.8-82.4%		
		Random colors fast-slow	211-225	82.7-88.2%		
		Tungsten simulation	226-230	88.6-90.2%		
Warm white - 3200K	231-235	90.6-92.2%				
Neutral white - 4200K	236-240	92.5-94.1%				
Cool white - 5600K	241-245	94.5-96.1%				
Cool white - 7200K	246-250	96.5-98.0%				
Cool white - 8000K	251-255	98.4-100%				

2	Red	Intensity 0-100% (16-bit)	0-255	0-100%	0	Fade
3	Red fine		0-255	0-100%	0	Fade
4	Green	Intensity 0-100% (16-bit)	0-255	0-100%	0	Fade
5	Green fine		0-255	0-100%	0	Fade
6	Blue	Intensity 0-100% (16-bit)	0-255	0-100%	0	Fade
7	Blue fine		0-255	0-100%	0	Fade
8	White	Intensity 0-100% (16-bit)	0-255	0-100%	0	Fade
9	White fine		0-255	0-100%	0	Fade
10	Shutter	Shutter closed	0-15	0-5.9%	0	Snap
		Random strobe	16-47	6.3-18.4%		
		Ramp up slow-fast	48-79	18.8-31.0%		
		Ramp down slow-fast	80-111	31.4-43.5%		
		Ramp up-down slow-fast	112-143	43.9-56.1%		
		Strobe pause 5s – 1s (slow – fast)	144-199	56.5-78.0%		
		Strobe 1Hz – 20 Hz (slow – fast)	200-239	78.4-93.7%		
		Shutter open	240-255	94.1-100%		
11	Dimmer	Master intensity 0-100% (16-bit)	0-255	0-100%	0	Fade
12	Dimmer fine		0-255	0-100%	0	Fade
13	CTO	Color temperature cool-warm	0-255	0-100%	0	Fade
14	Pattern selection <i>See also 'Guide to patterns' on page 36</i>	No Pattern – all pixels lit	0-5	0-2.0%	0	Snap
		Static Patterns	6-79	2.4-3.1%		
		Single pixel chase	80-83	31.4-32.5%		
		Single pixel chase and return	84-87	32.9-34.1%		
		2-pixel block chase	88-91	34.5-35.7%		
		2-pixel block bounce	92-95	36.1-37.3%		
		4-pixel block chase	96-99	37.6-38.8%		
		4-pixel block bounce	100-103	39.2-40.4%		
		5-pixel block chase	104-107	40.8-42.0%		
		5-pixel block bounce	108-111	42.4-43.5%		
		5 pixels chase	112-115	43.9-45.1%		
		5 pixels bounce	116-119	45.5-46.7%		
		4 pixels chase	120-123	47.1-48.2%		
		4 pixels bounce	124-127	48.6-49.8%		
		2 pixels to center chase	128-131	50.2-51.4%		
		2 pixels to center bounce	132-135	51.8-52.9%		
		3-pixel block chase	136-139	53.3-54.5%		
		3-pixel block bounce	140-143	54.9-56.1%		
		Fill from left	144-147	56.5-57.6%		
		20-pixel block chase	148-151	58.0-59.2%		
		Alternating single pixels chase	152-153	59.6-60.0%		
		Alternating 4-pixel block chase	154-155	60.4-60.8%		
		Random single pixel / inverted	156-157	61.2-61.6%		
		Random 2 pixels / inverted	158-159	62.0-62.4%		
		Random 3 pixels / inverted	160-161	62.7-63.1%		
		Random 4 pixels / inverted	162-163	63.5-63.9%		
		Random 5 pixels / inverted	164-165	64.3-64.7%		
		Random 6 pixels / inverted	166-167	65.1-65.5%		
		Random 7 pixels / inverted	168-169	65.9-66.3%		
		Random 8 pixels / inverted	170-171	66.7-67.1%		
Random 9 pixels / inverted	172-173	67.5-67.8%				
No function	174-255	68.2-100%				
15	Pattern speed	Pattern speed slow-fast	0-255	0-100%	0	Fade
16	Pattern fade	Pattern intensity 0-100%	0-255	0-100%	0	Fade

Control / Settings						
17	Control / Settings	No function	0-55	0-21.6%	0	Snap
		Dimmer speed smooth*	56-60	22.0-23.5%		
		Dimmer speed fast*	61-65	23.9-25.5%		
		No function	66-70	25.9-27.5%		
		Dimming curve Linear*	71-75	27.8-29.4%		
		Dimming curve Theatrical*	76-80	29.8-31.4%		
		Dimming curve Square Law*	81-85	31.8-33.3%		
		Dimming curve Inverse Square Law*	86-90	33.7-35.3%		
		No Function	91-95	35.7-37.3%		
		No DMX = Hold scene*	96-100	37.6-39.2%		
		No DMX = Blackout*	101-105	39.6-41.2%		
		No DMX = Play stand-alone scene*	106-110	41.6-43.1%		
		No Function	111-115	43.5-45.1%		
		Display backlight On*	116-120	45.5-47.1%		
		Display backlight Off*	121-125	47.5-49.0%		
		No Function	126-140	49.4-54.9%		
		DMX Mode: Standard*	141-145	55.3-56.9%		
		DMX Mode: Advanced*	146-150	57.3-58.8%		
		DMX Mode: Pattern*	151-155	59.2-60.8%		
		DMX Mode: Pixel*	156-160	61.2-62.7%		
		DMX Mode: Compressed*	161-165	63.1-64.7%		
		DMX Mode: Pixel Dim*	166-170	65.1-66.7%		
		No function	171-180	67.1-70.6%		
		Fixture reset	181-185	71.0-72.5%		
		Factory default settings (except DMX address)*	186-190	72.9-74.5%		
		No function	191-230	74.9-90.2%		
		Boot Mode Auto*	231-235	90.6-92.2%		
		Boot Mode DMX*	236-240	92.5-94.1%		
		Boot Mode Play Stand-alone *	241-245	94.5-96.1%		
		Boot Mode Static*	246-250	96.5-98.0%		
No function	251-252	98.4-100%				

DMX Mode 3: RGBW**4 DMX Channels**

Channel		Command	DMX range	Percent	Default DMX	Fade
1	Red	Intensity 0-100%	0-255	0-100%	0	Fade
2	Green	Intensity 0-100%	0-255	0-100%	0	Fade
3	Blue	Intensity 0-100%	0-255	0-100%	0	Fade
4	White	Intensity 0-100%	0-255	0-100%	0	Fade

DMX Mode 4: Compressed**6 DMX Channels**

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	Red	Intensity 0-100%	0-255	0-100%	0	Fade
2	Green	Intensity 0-100%	0-255	0-100%	0	Fade
3	Blue	Intensity 0-100%	0-255	0-100%	0	Fade
4	White	Intensity 0-100%	0-255	0-100%	0	Fade
5	Shutter	Shutter closed	0-15	0-5.9%	0	Snap
		Random strobe	16-47	6.3-18.4%		
		Ramp up slow-fast	48-79	18.8-31.0%		
		Ramp down slow-fast	80-111	31.4-43.5%		
		Ramp up-down slow-fast	112-143	43.9-56.1%		
		Strobe pause 5s – 1s (slow – fast)	144-199	56.5-78.0%		
		Strobe 1Hz – 20 Hz (slow – fast)	200-239	78.4-93.7%		
Shutter open	240-255	94.1-100%				
6	Dimmer	Master intensity 0-100%	0-255	0-100%	0	Fade

DMX Mode 5: Pixel

92 DMX Channels

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	Color wheel	No function: RGBW color mixing	0-5	0-2.0%	0	Snap
		LEE 790 - Moroccan Pink	6-10	2.4-3.9%		
		LEE 157 - Pink	11-15	4.3-5.9%		
		LEE 332 - Special Rose Pink	16-20	6.3-7.8%		
		LEE 328 - Follies Pink	21-25	8.2-9.8%		
		LEE 345 - Fuchsia Pink	26-30	10.2-11.8%		
		LEE 194 - Surprise Pink	31-35	12.2-13.7%		
		LEE 181 - Congo Blue	36-40	14.1-15.7%		
		LEE 071 - Tokyo Blue	41-45	16.1-17.6%		
		LEE 120 - Deep Blue	46-50	18.0-19.6%		
		LEE 079 - Just Blue	51-55	20.0-21.6%		
		LEE 132 - Medium Blue	56-60	22.0-23.5%		
		LEE 200 - Double CT Blue	61-65	23.9-25.5%		
		LEE 161 - Slate Blue	66-70	25.9-27.5%		
		LEE 201 - Full CT Blue	71-75	27.8-29.4%		
		LEE 202 - Half CT Blue	76-80	29.8-31.4%		
		LEE 117 - Steel Blue	81-85	31.8-33.3%		
		LEE 353 - Lighter Blue	86-90	33.7-35.3%		
		LEE 118 - Light Blue	91-95	35.7-37.3%		
		LEE 116 - Medium Blue Green	96-100	37.6-39.2%		
		LEE 124 - Dark Green	101-105	39.6-41.2%		
		LEE 139 - Primary Green	106-110	41.6-43.1%		
		LEE 089 - Moss Green	111-115	43.5-45.1%		
		LEE 122 - Fern Green	116-120	45.5-47.1%		
		LEE 738 - JAS Green	121-125	47.5-49.0%		
		LEE 088 - Lime Green	126-130	49.4-51.0%		
		LEE 100 - Spring Yellow	131-135	51.4-52.9%		
		LEE 104 - Deep Amber	136-140	53.3-54.9%		
		LEE 179 - Chrome Orange	141-145	55.3-56.9%		
		LEE 105 - Orange	146-150	57.3-58.8%		
		LEE 021 - Gold Amber	151-155	59.2-60.8%		
		LEE 778 - Millennium Gold	156-160	61.2-62.7%		
		LEE 135 - Deep Golden Amber	161-165	63.1-64.7%		
		LEE 164 - Flame Red	166-170	65.1-66.7%		
		Color wheel rotation forwards fast-slow	171-185	67.1-72.5%		
		Color wheel stops at current color	186-190	72.9-74.5%		
		Color wheel rotation backwards fast-slow	191-205	74.9-80.4%		
		Color wheel stops at current color	206-210	80.8-82.4%		
		Random colors fast-slow	211-225	82.7-88.2%		
		Tungsten simulation	226-230	88.6-90.2%		
		Warm white - 3200K	231-235	90.6-92.2%		
		Neutral white - 4200K	236-240	92.5-94.1%		
Cool white - 5600K	241-245	94.5-96.1%				
Cool white - 7200K	246-250	96.5-98.0%				
Cool white - 8000K	251-255	98.4-100%				

2	Red	Intensity 0-100%	0-255	0-100%	0	Fade
3	Green	Intensity 0-100%	0-255	0-100%	0	Fade
4	Blue	Intensity 0-100%	0-255	0-100%	0	Fade
5	White	Intensity 0-100%	0-255	0-100%	0	Fade
6	Shutter	Shutter closed	0-15	0-5.9%	0	Snap
		Random strobe	16-47	6.3-18.4%		
		Ramp up slow-fast	48-79	18.8-31.0%		
		Ramp down slow-fast	80-111	31.4-43.5%		
		Ramp up-down slow-fast	112-143	43.9-56.1%		
		Strobe pause 5s – 1s (slow – fast)	144-199	56.5-78.0%		
		Strobe 1Hz – 20 Hz (slow – fast)	200-239	78.4-93.7%		
		Shutter open	240-255	94.1-100%		
7	Dimmer	Master intensity 0-100%	0-255	0-100%	0	Fade
8	CTO	Color temperature cool-warm	0-255	0-100%	0	Fade
9	Pattern selection <i>See also 'Guide to patterns' on page 36</i>	No Pattern – all pixels lit	0-5	0-2.0%	0	Snap
		Static Patterns	6-79	2.4-3.1%		
		Single pixel chase	80-83	31.4-32.5%		
		Single pixel chase and return	84-87	32.9-34.1%		
		2-pixel block chase	88-91	34.5-35.7%		
		2-pixel block bounce	92-95	36.1-37.3%		
		4-pixel block chase	96-99	37.6-38.8%		
		4-pixel block bounce	100-103	39.2-40.4%		
		5-pixel block chase	104-107	40.8-42.0%		
		5-pixel block bounce	108-111	42.4-43.5%		
		5 pixels chase	112-115	43.9-45.1%		
		5 pixels bounce	116-119	45.5-46.7%		
		4 pixels chase	120-123	47.1-48.2%		
		4 pixels bounce	124-127	48.6-49.8%		
		2 pixels to center chase	128-131	50.2-51.4%		
		2 pixels to center bounce	132-135	51.8-52.9%		
		3-pixel block chase	136-139	53.3-54.5%		
		3-pixel block bounce	140-143	54.9-56.1%		
		Fill from left	144-147	56.5-57.6%		
		20-pixel block chase	148-151	58.0-59.2%		
		Alternating single pixels chase	152-153	59.6-60.0%		
		Alternating 4-pixel block chase	154-155	60.4-60.8%		
		Random single pixel / inverted	156-157	61.2-61.6%		
		Random 2 pixels / inverted	158-159	62.0-62.4%		
		Random 3 pixels / inverted	160-161	62.7-63.1%		
		Random 4 pixels / inverted	162-163	63.5-63.9%		
		Random 5 pixels / inverted	164-165	64.3-64.7%		
Random 6 pixels / inverted	166-167	65.1-65.5%				
Random 7 pixels / inverted	168-169	65.9-66.3%				
Random 8 pixels / inverted	170-171	66.7-67.1%				
Random 9 pixels / inverted	172-173	67.5-67.8%				
No function	174-255	68.2-100%				
10	Pattern speed	Pattern speed slow-fast	0-255	0-100%	0	Fade
11	Pattern fade	Pattern intensity 0-100%	0-255	0-100%	0	Fade

Control / Settings						
12	Control / Settings	No function	0-55	0-21.6%	0	Snap
		Dimmer speed smooth*	56-60	22.0-23.5%		
		Dimmer speed fast*	61-65	23.9-25.5%		
		No function	66-70	25.9-27.5%		
		Dimming curve Linear*	71-75	27.8-29.4%		
		Dimming curve Theatrical*	76-80	29.8-31.4%		
		Dimming curve Square Law*	81-85	31.8-33.3%		
		Dimming curve Inverse Square Law*	86-90	33.7-35.3%		
		No Function	91-95	35.7-37.3%		
		No DMX = Hold scene*	96-100	37.6-39.2%		
		No DMX = Blackout*	101-105	39.6-41.2%		
		No DMX = Play stand-alone scene*	106-110	41.6-43.1%		
		No Function	111-115	43.5-45.1%		
		Display backlight On*	116-120	45.5-47.1%		
		Display backlight Off*	121-125	47.5-49.0%		
		No Function	126-140	49.4-54.9%		
		DMX Mode: Standard*	141-145	55.3-56.9%		
		DMX Mode: Advanced*	146-150	57.3-58.8%		
		DMX Mode: Pattern*	151-155	59.2-60.8%		
		DMX Mode: Pixel*	156-160	61.2-62.7%		
		DMX Mode: Compressed*	161-165	63.1-64.7%		
		DMX Mode: Pixel Dim*	166-170	65.1-66.7%		
		No function	171-180	67.1-70.6%		
		Fixture reset	181-185	71.0-72.5%		
		Factory default settings (except DMX address)*	186-190	72.9-74.5%		
		No function	191-230	74.9-90.2%		
		Boot Mode Auto*	231-235	90.6-92.2%		
		Boot Mode DMX*	236-240	92.5-94.1%		
		Boot Mode Play Stand-alone *	241-245	94.5-96.1%		
		Boot Mode Static*	246-250	96.5-98.0%		
No function	251-252	98.4-100%				
Individual pixel RGBW						
13	Pixel 1 red	Intensity 0-100%	0-255	0-100%	0	Fade
14	Pixel 1 green	Intensity 0-100%	0-255	0-100%	0	Fade
15	Pixel 1 blue	Intensity 0-100%	0-255	0-100%	0	Fade
16	Pixel 1 white	Intensity 0-100%	0-255	0-100%	0	Fade
17	Pixel 2 red	Intensity 0-100%	0-255	0-100%	0	Fade
18	Pixel 2 green	Intensity 0-100%	0-255	0-100%	0	Fade
19	Pixel 2 blue	Intensity 0-100%	0-255	0-100%	0	Fade
20	Pixel 2 white	Intensity 0-100%	0-255	0-100%	0	Fade
21	Pixel 3 red	Intensity 0-100%	0-255	0-100%	0	Fade
22	Pixel 3 green	Intensity 0-100%	0-255	0-100%	0	Fade
23	Pixel 3 blue	Intensity 0-100%	0-255	0-100%	0	Fade
24	Pixel 3 white	Intensity 0-100%	0-255	0-100%	0	Fade
25	Pixel 4 red	Intensity 0-100%	0-255	0-100%	0	Fade
26	Pixel 4 green	Intensity 0-100%	0-255	0-100%	0	Fade
27	Pixel 4 blue	Intensity 0-100%	0-255	0-100%	0	Fade
28	Pixel 4 white	Intensity 0-100%	0-255	0-100%	0	Fade
29	Pixel 5 red	Intensity 0-100%	0-255	0-100%	0	Fade
30	Pixel 5 green	Intensity 0-100%	0-255	0-100%	0	Fade
31	Pixel 5 blue	Intensity 0-100%	0-255	0-100%	0	Fade
32	Pixel 5 white	Intensity 0-100%	0-255	0-100%	0	Fade

33	Pixel 6 red	Intensity 0-100%	0-255	0-100%	0	Fade
34	Pixel 6 green	Intensity 0-100%	0-255	0-100%	0	Fade
35	Pixel 6 blue	Intensity 0-100%	0-255	0-100%	0	Fade
36	Pixel 6 white	Intensity 0-100%	0-255	0-100%	0	Fade
37	Pixel 7 red	Intensity 0-100%	0-255	0-100%	0	Fade
38	Pixel 7 green	Intensity 0-100%	0-255	0-100%	0	Fade
39	Pixel 7 blue	Intensity 0-100%	0-255	0-100%	0	Fade
40	Pixel 7 white	Intensity 0-100%	0-255	0-100%	0	Fade
41	Pixel 8 red	Intensity 0-100%	0-255	0-100%	0	Fade
42	Pixel 8 green	Intensity 0-100%	0-255	0-100%	0	Fade
43	Pixel 8 blue	Intensity 0-100%	0-255	0-100%	0	Fade
44	Pixel 8 white	Intensity 0-100%	0-255	0-100%	0	Fade
45	Pixel 9 red	Intensity 0-100%	0-255	0-100%	0	Fade
46	Pixel 9 green	Intensity 0-100%	0-255	0-100%	0	Fade
47	Pixel 9 blue	Intensity 0-100%	0-255	0-100%	0	Fade
48	Pixel 9 white	Intensity 0-100%	0-255	0-100%	0	Fade
49	Pixel 10 red	Intensity 0-100%	0-255	0-100%	0	Fade
50	Pixel 10 green	Intensity 0-100%	0-255	0-100%	0	Fade
51	Pixel 10 blue	Intensity 0-100%	0-255	0-100%	0	Fade
52	Pixel 10 white	Intensity 0-100%	0-255	0-100%	0	Fade
53	Pixel 11 red	Intensity 0-100%	0-255	0-100%	0	Fade
54	Pixel 11 green	Intensity 0-100%	0-255	0-100%	0	Fade
55	Pixel 11 blue	Intensity 0-100%	0-255	0-100%	0	Fade
56	Pixel 11 white	Intensity 0-100%	0-255	0-100%	0	Fade
57	Pixel 12 red	Intensity 0-100%	0-255	0-100%	0	Fade
58	Pixel 12 green	Intensity 0-100%	0-255	0-100%	0	Fade
59	Pixel 12 blue	Intensity 0-100%	0-255	0-100%	0	Fade
60	Pixel 12 white	Intensity 0-100%	0-255	0-100%	0	Fade
61	Pixel 13 red	Intensity 0-100%	0-255	0-100%	0	Fade
66	Pixel 13 green	Intensity 0-100%	0-255	0-100%	0	Fade
63	Pixel 13 blue	Intensity 0-100%	0-255	0-100%	0	Fade
64	Pixel 13 white	Intensity 0-100%	0-255	0-100%	0	Fade
65	Pixel 14 red	Intensity 0-100%	0-255	0-100%	0	Fade
66	Pixel 14 green	Intensity 0-100%	0-255	0-100%	0	Fade
67	Pixel 14 blue	Intensity 0-100%	0-255	0-100%	0	Fade
68	Pixel 14 white	Intensity 0-100%	0-255	0-100%	0	Fade
69	Pixel 15 red	Intensity 0-100%	0-255	0-100%	0	Fade
70	Pixel 15 green	Intensity 0-100%	0-255	0-100%	0	Fade
71	Pixel 15 blue	Intensity 0-100%	0-255	0-100%	0	Fade
72	Pixel 15 white	Intensity 0-100%	0-255	0-100%	0	Fade
73	Pixel 16 red	Intensity 0-100%	0-255	0-100%	0	Fade
74	Pixel 16 green	Intensity 0-100%	0-255	0-100%	0	Fade
75	Pixel 16 blue	Intensity 0-100%	0-255	0-100%	0	Fade
76	Pixel 16 white	Intensity 0-100%	0-255	0-100%	0	Fade
77	Pixel 17 red	Intensity 0-100%	0-255	0-100%	0	Fade
78	Pixel 17 green	Intensity 0-100%	0-255	0-100%	0	Fade
79	Pixel 17 blue	Intensity 0-100%	0-255	0-100%	0	Fade
80	Pixel 17 white	Intensity 0-100%	0-255	0-100%	0	Fade
81	Pixel 18 red	Intensity 0-100%	0-255	0-100%	0	Fade
82	Pixel 18 green	Intensity 0-100%	0-255	0-100%	0	Fade
83	Pixel 18 blue	Intensity 0-100%	0-255	0-100%	0	Fade
88	Pixel 18 white	Intensity 0-100%	0-255	0-100%	0	Fade

85	Pixel 19 red	Intensity 0-100%	0-255	0-100%	0	Fade
86	Pixel 19 green	Intensity 0-100%	0-255	0-100%	0	Fade
87	Pixel 19 blue	Intensity 0-100%	0-255	0-100%	0	Fade
88	Pixel 19 white	Intensity 0-100%	0-255	0-100%	0	Fade
89	Pixel 20 red	Intensity 0-100%	0-255	0-100%	0	Fade
90	Pixel 20 green	Intensity 0-100%	0-255	0-100%	0	Fade
91	Pixel 20 blue	Intensity 0-100%	0-255	0-100%	0	Fade
92	Pixel 20 white	Intensity 0-100%	0-255	0-100%	0	Fade

DMX Mode 6: Compressed pixel

80 DMX Channels

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	Pixel 1 red	Intensity 0-100%	0-255	0-100%	0	Fade
2	Pixel 1 green	Intensity 0-100%	0-255	0-100%	0	Fade
3	Pixel 1 blue	Intensity 0-100%	0-255	0-100%	0	Fade
4	Pixel 1 white	Intensity 0-100%	0-255	0-100%	0	Fade
5	Pixel 2 red	Intensity 0-100%	0-255	0-100%	0	Fade
6	Pixel 2 green	Intensity 0-100%	0-255	0-100%	0	Fade
7	Pixel 2 blue	Intensity 0-100%	0-255	0-100%	0	Fade
8	Pixel 2 white	Intensity 0-100%	0-255	0-100%	0	Fade
9	Pixel 3 red	Intensity 0-100%	0-255	0-100%	0	Fade
10	Pixel 3 green	Intensity 0-100%	0-255	0-100%	0	Fade
11	Pixel 3 blue	Intensity 0-100%	0-255	0-100%	0	Fade
12	Pixel 3 white	Intensity 0-100%	0-255	0-100%	0	Fade
13	Pixel 4 red	Intensity 0-100%	0-255	0-100%	0	Fade
14	Pixel 4 green	Intensity 0-100%	0-255	0-100%	0	Fade
15	Pixel 4 blue	Intensity 0-100%	0-255	0-100%	0	Fade
16	Pixel 4 white	Intensity 0-100%	0-255	0-100%	0	Fade
17	Pixel 5 red	Intensity 0-100%	0-255	0-100%	0	Fade
18	Pixel 5 green	Intensity 0-100%	0-255	0-100%	0	Fade
19	Pixel 5 blue	Intensity 0-100%	0-255	0-100%	0	Fade
20	Pixel 5 white	Intensity 0-100%	0-255	0-100%	0	Fade
21	Pixel 6 red	Intensity 0-100%	0-255	0-100%	0	Fade
22	Pixel 6 green	Intensity 0-100%	0-255	0-100%	0	Fade
23	Pixel 6 blue	Intensity 0-100%	0-255	0-100%	0	Fade
24	Pixel 6 white	Intensity 0-100%	0-255	0-100%	0	Fade
25	Pixel 7 red	Intensity 0-100%	0-255	0-100%	0	Fade
26	Pixel 7 green	Intensity 0-100%	0-255	0-100%	0	Fade
27	Pixel 7 blue	Intensity 0-100%	0-255	0-100%	0	Fade
28	Pixel 7 white	Intensity 0-100%	0-255	0-100%	0	Fade
29	Pixel 8 red	Intensity 0-100%	0-255	0-100%	0	Fade
30	Pixel 8 green	Intensity 0-100%	0-255	0-100%	0	Fade
31	Pixel 8 blue	Intensity 0-100%	0-255	0-100%	0	Fade
32	Pixel 8 white	Intensity 0-100%	0-255	0-100%	0	Fade
33	Pixel 9 red	Intensity 0-100%	0-255	0-100%	0	Fade
34	Pixel 9 green	Intensity 0-100%	0-255	0-100%	0	Fade
35	Pixel 9 blue	Intensity 0-100%	0-255	0-100%	0	Fade
36	Pixel 9 white	Intensity 0-100%	0-255	0-100%	0	Fade
37	Pixel 10 red	Intensity 0-100%	0-255	0-100%	0	Fade
38	Pixel 10 green	Intensity 0-100%	0-255	0-100%	0	Fade
39	Pixel 10 blue	Intensity 0-100%	0-255	0-100%	0	Fade
40	Pixel 10 white	Intensity 0-100%	0-255	0-100%	0	Fade
41	Pixel 11 red	Intensity 0-100%	0-255	0-100%	0	Fade
42	Pixel 11 green	Intensity 0-100%	0-255	0-100%	0	Fade
43	Pixel 11 blue	Intensity 0-100%	0-255	0-100%	0	Fade
44	Pixel 11 white	Intensity 0-100%	0-255	0-100%	0	Fade
45	Pixel 12 red	Intensity 0-100%	0-255	0-100%	0	Fade
46	Pixel 12 green	Intensity 0-100%	0-255	0-100%	0	Fade
47	Pixel 12 blue	Intensity 0-100%	0-255	0-100%	0	Fade
48	Pixel 12 white	Intensity 0-100%	0-255	0-100%	0	Fade
49	Pixel 13 red	Intensity 0-100%	0-255	0-100%	0	Fade
50	Pixel 13 green	Intensity 0-100%	0-255	0-100%	0	Fade
51	Pixel 13 blue	Intensity 0-100%	0-255	0-100%	0	Fade

52	Pixel 13 white	Intensity 0-100%	0-255	0-100%	0	Fade
53	Pixel 14 red	Intensity 0-100%	0-255	0-100%	0	Fade
54	Pixel 14 green	Intensity 0-100%	0-255	0-100%	0	Fade
55	Pixel 14 blue	Intensity 0-100%	0-255	0-100%	0	Fade
56	Pixel 14 white	Intensity 0-100%	0-255	0-100%	0	Fade
57	Pixel 15 red	Intensity 0-100%	0-255	0-100%	0	Fade
58	Pixel 15 green	Intensity 0-100%	0-255	0-100%	0	Fade
59	Pixel 15 blue	Intensity 0-100%	0-255	0-100%	0	Fade
60	Pixel 15 white	Intensity 0-100%	0-255	0-100%	0	Fade
61	Pixel 16 red	Intensity 0-100%	0-255	0-100%	0	Fade
62	Pixel 16 green	Intensity 0-100%	0-255	0-100%	0	Fade
63	Pixel 16 blue	Intensity 0-100%	0-255	0-100%	0	Fade
64	Pixel 16 white	Intensity 0-100%	0-255	0-100%	0	Fade
65	Pixel 17 red	Intensity 0-100%	0-255	0-100%	0	Fade
66	Pixel 17 green	Intensity 0-100%	0-255	0-100%	0	Fade
67	Pixel 17 blue	Intensity 0-100%	0-255	0-100%	0	Fade
68	Pixel 17 white	Intensity 0-100%	0-255	0-100%	0	Fade
69	Pixel 18 red	Intensity 0-100%	0-255	0-100%	0	Fade
70	Pixel 18 green	Intensity 0-100%	0-255	0-100%	0	Fade
71	Pixel 18 blue	Intensity 0-100%	0-255	0-100%	0	Fade
72	Pixel 18 white	Intensity 0-100%	0-255	0-100%	0	Fade
73	Pixel 19 red	Intensity 0-100%	0-255	0-100%	0	Fade
74	Pixel 19 green	Intensity 0-100%	0-255	0-100%	0	Fade
75	Pixel 19 blue	Intensity 0-100%	0-255	0-100%	0	Fade
76	Pixel 19 white	Intensity 0-100%	0-255	0-100%	0	Fade
77	Pixel 20 red	Intensity 0-100%	0-255	0-100%	0	Fade
78	Pixel 20 green	Intensity 0-100%	0-255	0-100%	0	Fade
79	Pixel 20 blue	Intensity 0-100%	0-255	0-100%	0	Fade
80	Pixel 20 white	Intensity 0-100%	0-255	0-100%	0	Fade

DMX Mode 7: Pixel Dimming**32 DMX Channels**

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	Color wheel	No function: RGBW color mixing	0-5	0-2.0%	0	Snap
		LEE 790 - Moroccan Pink	6-10	2.4-3.9%		
		LEE 157 - Pink	11-15	4.3-5.9%		
		LEE 332 - Special Rose Pink	16-20	6.3-7.8%		
		LEE 328 - Follies Pink	21-25	8.2-9.8%		
		LEE 345 - Fuchsia Pink	26-30	10.2-11.8%		
		LEE 194 - Surprise Pink	31-35	12.2-13.7%		
		LEE 181 - Congo Blue	36-40	14.1-15.7%		
		LEE 071 - Tokyo Blue	41-45	16.1-17.6%		
		LEE 120 - Deep Blue	46-50	18.0-19.6%		
		LEE 079 - Just Blue	51-55	20.0-21.6%		
		LEE 132 - Medium Blue	56-60	22.0-23.5%		
		LEE 200 - Double CT Blue	61-65	23.9-25.5%		
		LEE 161 - Slate Blue	66-70	25.9-27.5%		
		LEE 201 - Full CT Blue	71-75	27.8-29.4%		
		LEE 202 - Half CT Blue	76-80	29.8-31.4%		
		LEE 117 - Steel Blue	81-85	31.8-33.3%		
		LEE 353 - Lighter Blue	86-90	33.7-35.3%		
		LEE 118 - Light Blue	91-95	35.7-37.3%		
		LEE 116 - Medium Blue Green	96-100	37.6-39.2%		
		LEE 124 - Dark Green	101-105	39.6-41.2%		
		LEE 139 - Primary Green	106-110	41.6-43.1%		
		LEE 089 - Moss Green	111-115	43.5-45.1%		
		LEE 122 - Fern Green	116-120	45.5-47.1%		
		LEE 738 - JAS Green	121-125	47.5-49.0%		
		LEE 088 - Lime Green	126-130	49.4-51.0%		
		LEE 100 - Spring Yellow	131-135	51.4-52.9%		
		LEE 104 - Deep Amber	136-140	53.3-54.9%		
		LEE 179 - Chrome Orange	141-145	55.3-56.9%		
		LEE 105 - Orange	146-150	57.3-58.8%		
		LEE 021 - Gold Amber	151-155	59.2-60.8%		
		LEE 778 - Millennium Gold	156-160	61.2-62.7%		
LEE 135 - Deep Golden Amber	161-165	63.1-64.7%				
LEE 164 - Flame Red	166-170	65.1-66.7%				
Color wheel rotation forwards fast-slow	171-185	67.1-72.5%				
Color wheel stops at current color	186-190	72.9-74.5%				
Color wheel rotation backwards fast-slow	191-205	74.9-80.4%				
Color wheel stops at current color	206-210	80.8-82.4%				
Random colors fast-slow	211-225	82.7-88.2%				
Tungsten simulation	226-230	88.6-90.2%				
Warm white - 3200K	231-235	90.6-92.2%				
Neutral white - 4200K	236-240	92.5-94.1%				
Cool white - 5600K	241-245	94.5-96.1%				
Cool white - 7200K	246-250	96.5-98.0%				
Cool white - 8000K	251-255	98.4-100%				

2	Red	Intensity 0-100%	0-255	0-100%	0	Fade
3	Green	Intensity 0-100%	0-255	0-100%	0	Fade
4	Blue	Intensity 0-100%	0-255	0-100%	0	Fade
5	White	Intensity 0-100%	0-255	0-100%	0	Fade
6	Shutter	Shutter closed	0-15	0-5.9%	0	Snap
		Random strobe	16-47	6.3-18.4%		
		Ramp up slow-fast	48-79	18.8-31.0%		
		Ramp down slow-fast	80-111	31.4-43.5%		
		Ramp up-down slow-fast	112-143	43.9-56.1%		
		Strobe pause 5s – 1s (slow – fast)	144-199	56.5-78.0%		
		Strobe 1Hz – 20 Hz (slow – fast)	200-239	78.4-93.7%		
		Shutter open	240-255	94.1-100%		
7	Dimmer	Master intensity 0-100%	0-255	0-100%	0	Fade
8	CTO	Color temperature cool-warm	0-255	0-100%	0	Fade
9	Pattern selection <i>See also 'Guide to patterns' on page 36</i>	No Pattern – all pixels lit	0-5	0-2.0%	0	Snap
		Static Patterns	6-79	2.4-3.1%		
		Single pixel chase	80-83	31.4-32.5%		
		Single pixel chase and return	84-87	32.9-34.1%		
		2-pixel block chase	88-91	34.5-35.7%		
		2-pixel block bounce	92-95	36.1-37.3%		
		4-pixel block chase	96-99	37.6-38.8%		
		4-pixel block bounce	100-103	39.2-40.4%		
		5-pixel block chase	104-107	40.8-42.0%		
		5-pixel block bounce	108-111	42.4-43.5%		
		5 pixels chase	112-115	43.9-45.1%		
		5 pixels bounce	116-119	45.5-46.7%		
		4 pixels chase	120-123	47.1-48.2%		
		4 pixels bounce	124-127	48.6-49.8%		
		2 pixels to center chase	128-131	50.2-51.4%		
		2 pixels to center bounce	132-135	51.8-52.9%		
		3-pixel block chase	136-139	53.3-54.5%		
		3-pixel block bounce	140-143	54.9-56.1%		
		Fill from left	144-147	56.5-57.6%		
		20-pixel block chase	148-151	58.0-59.2%		
		Alternating single pixels chase	152-153	59.6-60.0%		
		Alternating 4-pixel block chase	154-155	60.4-60.8%		
		Random single pixel / inverted	156-157	61.2-61.6%		
		Random 2 pixels / inverted	158-159	62.0-62.4%		
		Random 3 pixels / inverted	160-161	62.7-63.1%		
		Random 4 pixels / inverted	162-163	63.5-63.9%		
Random 5 pixels / inverted	164-165	64.3-64.7%				
Random 6 pixels / inverted	166-167	65.1-65.5%				
Random 7 pixels / inverted	168-169	65.9-66.3%				
Random 8 pixels / inverted	170-171	66.7-67.1%				
Random 9 pixels / inverted	172-173	67.5-67.8%				
No function	174-255	68.2-100%				
10	Pattern speed	Pattern speed slow-fast	0-255	0-100%	0	Fade
11	Pattern fade	Pattern intensity 0-100%	0-255	0-100%	0	Fade

Control / Settings						
12	Control / Settings	No function	0-55	0-21.6%	0	Snap
		Dimmer speed smooth*	56-60	22.0-23.5%		
		Dimmer speed fast*	61-65	23.9-25.5%		
		No function	66-70	25.9-27.5%		
		Dimming curve Linear*	71-75	27.8-29.4%		
		Dimming curve Theatrical*	76-80	29.8-31.4%		
		Dimming curve Square Law*	81-85	31.8-33.3%		
		Dimming curve Inverse Square Law*	86-90	33.7-35.3%		
		No Function	91-95	35.7-37.3%		
		No DMX = Hold scene*	96-100	37.6-39.2%		
		No DMX = Blackout*	101-105	39.6-41.2%		
		No DMX = Play stand-alone scene*	106-110	41.6-43.1%		
		No Function	111-115	43.5-45.1%		
		Display backlight On*	116-120	45.5-47.1%		
		Display backlight Off*	121-125	47.5-49.0%		
		No Function	126-140	49.4-54.9%		
		DMX Mode: Standard*	141-145	55.3-56.9%		
		DMX Mode: Advanced*	146-150	57.3-58.8%		
		DMX Mode: Pattern*	151-155	59.2-60.8%		
		DMX Mode: Pixel*	156-160	61.2-62.7%		
		DMX Mode: Compressed*	161-165	63.1-64.7%		
		DMX Mode: Pixel Dim*	166-170	65.1-66.7%		
		No function	171-180	67.1-70.6%		
		Fixture reset	181-185	71.0-72.5%		
		Factory default settings (except DMX address)*	186-190	72.9-74.5%		
		No function	191-230	74.9-90.2%		
		Boot Mode Auto*	231-235	90.6-92.2%		
		Boot Mode DMX*	236-240	92.5-94.1%		
Boot Mode Play Stand-alone*	241-245	94.5-96.1%				
Boot Mode Static*	246-250	96.5-98.0%				
No function	251-252	98.4-100%				
Individual pixel dimming						
13	Pixel 1	Intensity 0-100%	0-255	0-100%	0	Fade
14	Pixel 2	Intensity 0-100%	0-255	0-100%	0	Fade
15	Pixel 3	Intensity 0-100%	0-255	0-100%	0	Fade
16	Pixel 4	Intensity 0-100%	0-255	0-100%	0	Fade
17	Pixel 5	Intensity 0-100%	0-255	0-100%	0	Fade
18	Pixel 6	Intensity 0-100%	0-255	0-100%	0	Fade
19	Pixel 7	Intensity 0-100%	0-255	0-100%	0	Fade
20	Pixel 8	Intensity 0-100%	0-255	0-100%	0	Fade
21	Pixel 9	Intensity 0-100%	0-255	0-100%	0	Fade
22	Pixel 10	Intensity 0-100%	0-255	0-100%	0	Fade
23	Pixel 11	Intensity 0-100%	0-255	0-100%	0	Fade
24	Pixel 12	Intensity 0-100%	0-255	0-100%	0	Fade
25	Pixel 13	Intensity 0-100%	0-255	0-100%	0	Fade
26	Pixel 14	Intensity 0-100%	0-255	0-100%	0	Fade
27	Pixel 15	Intensity 0-100%	0-255	0-100%	0	Fade
28	Pixel 16	Intensity 0-100%	0-255	0-100%	0	Fade
29	Pixel 17	Intensity 0-100%	0-255	0-100%	0	Fade
30	Pixel 18	Intensity 0-100%	0-255	0-100%	0	Fade
31	Pixel 19	Intensity 0-100%	0-255	0-100%	0	Fade
32	Pixel 20	Intensity 0-100%	0-255	0-100%	0	Fade

DMX Mode 8: Patterns

27 DMX Channels

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	Color wheel	No function: RGBW color mixing	0-5	0-2.0%	0	Snap
		LEE 790 - Moroccan Pink	6-10	2.4-3.9%		
		LEE 157 - Pink	11-15	4.3-5.9%		
		LEE 332 - Special Rose Pink	16-20	6.3-7.8%		
		LEE 328 - Follies Pink	21-25	8.2-9.8%		
		LEE 345 - Fuchsia Pink	26-30	10.2-11.8%		
		LEE 194 - Surprise Pink	31-35	12.2-13.7%		
		LEE 181 - Congo Blue	36-40	14.1-15.7%		
		LEE 071 - Tokyo Blue	41-45	16.1-17.6%		
		LEE 120 - Deep Blue	46-50	18.0-19.6%		
		LEE 079 - Just Blue	51-55	20.0-21.6%		
		LEE 132 - Medium Blue	56-60	22.0-23.5%		
		LEE 200 - Double CT Blue	61-65	23.9-25.5%		
		LEE 161 - Slate Blue	66-70	25.9-27.5%		
		LEE 201 - Full CT Blue	71-75	27.8-29.4%		
		LEE 202 - Half CT Blue	76-80	29.8-31.4%		
		LEE 117 - Steel Blue	81-85	31.8-33.3%		
		LEE 353 - Lighter Blue	86-90	33.7-35.3%		
		LEE 118 - Light Blue	91-95	35.7-37.3%		
		LEE 116 - Medium Blue Green	96-100	37.6-39.2%		
		LEE 124 - Dark Green	101-105	39.6-41.2%		
		LEE 139 - Primary Green	106-110	41.6-43.1%		
		LEE 089 - Moss Green	111-115	43.5-45.1%		
		LEE 122 - Fern Green	116-120	45.5-47.1%		
		LEE 738 - JAS Green	121-125	47.5-49.0%		
		LEE 088 - Lime Green	126-130	49.4-51.0%		
		LEE 100 - Spring Yellow	131-135	51.4-52.9%		
		LEE 104 - Deep Amber	136-140	53.3-54.9%		
		LEE 179 - Chrome Orange	141-145	55.3-56.9%		
		LEE 105 - Orange	146-150	57.3-58.8%		
		LEE 021 - Gold Amber	151-155	59.2-60.8%		
		LEE 778 - Millennium Gold	156-160	61.2-62.7%		
		LEE 135 - Deep Golden Amber	161-165	63.1-64.7%		
		LEE 164 - Flame Red	166-170	65.1-66.7%		
		Color wheel rotation forwards fast-slow	171-185	67.1-72.5%		
		Color wheel stops at current color	186-190	72.9-74.5%		
		Color wheel rotation backwards fast-slow	191-205	74.9-80.4%		
		Color wheel stops at current color	206-210	80.8-82.4%		
		Random colors fast-slow	211-225	82.7-88.2%		
		Tungsten simulation	226-230	88.6-90.2%		
Warm white - 3200K	231-235	90.6-92.2%				
Neutral white - 4200K	236-240	92.5-94.1%				
Cool white - 5600K	241-245	94.5-96.1%				
Cool white - 7200K	246-250	96.5-98.0%				
Cool white - 8000K	251-255	98.4-100%				

2	Red	Intensity 0-100%	0-255	0-100%	0	Fade
3	Green	Intensity 0-100%	0-255	0-100%	0	Fade
4	Blue	Intensity 0-100%	0-255	0-100%	0	Fade
5	White	Intensity 0-100%	0-255	0-100%	0	Fade
6	Shutter	Shutter closed	0-15	0-5.9%	0	Snap
		Random strobe	16-47	6.3-18.4%		
		Ramp up slow-fast	48-79	18.8-31.0%		
		Ramp down slow-fast	80-111	31.4-43.5%		
		Ramp up-down slow-fast	112-143	43.9-56.1%		
		Strobe pause 5s – 1s (slow – fast)	144-199	56.5-78.0%		
		Strobe 1Hz – 20 Hz (slow – fast)	200-239	78.4-93.7%		
	Shutter open	240-255	94.1-100%			
7	Dimmer	Master intensity 0-100%	0-255	0-100%	0	Fade
8	CTO	Color temperature cool-warm	0-255	0-100%	0	Fade
Control / Settings						
9	Control / Settings	No function	0-55	0-21.6%	0	Snap
		Dimmer speed smooth*	56-60	22.0-23.5%		
		Dimmer speed fast*	61-65	23.9-25.5%		
		No function	66-70	25.9-27.5%		
		Dimming curve Linear*	71-75	27.8-29.4%		
		Dimming curve Theatrical*	76-80	29.8-31.4%		
		Dimming curve Square Law*	81-85	31.8-33.3%		
		Dimming curve Inverse Square Law*	86-90	33.7-35.3%		
		No Function	91-95	35.7-37.3%		
		No DMX = Hold scene*	96-100	37.6-39.2%		
		No DMX = Blackout*	101-105	39.6-41.2%		
		No DMX = Play stand-alone scene*	106-110	41.6-43.1%		
		No Function	111-115	43.5-45.1%		
		Display backlight On*	116-120	45.5-47.1%		
		Display backlight Off*	121-125	47.5-49.0%		
		No Function	126-140	49.4-54.9%		
		DMX Mode: Standard*	141-145	55.3-56.9%		
		DMX Mode: Advanced*	146-150	57.3-58.8%		
		DMX Mode: Pattern*	151-155	59.2-60.8%		
		DMX Mode: Pixel*	156-160	61.2-62.7%		
		DMX Mode: Compressed*	161-165	63.1-64.7%		
		DMX Mode: Pixel Dim*	166-170	65.1-66.7%		
		No function	171-180	67.1-70.6%		
		Fixture reset	181-185	71.0-72.5%		
		Factory default settings (except DMX address)*	186-190	72.9-74.5%		
		No function	191-230	74.9-90.2%		
		Boot Mode Auto*	231-235	90.6-92.2%		
Boot Mode DMX*	236-240	92.5-94.1%				
Boot Mode Play Stand-alone *	241-245	94.5-96.1%				
Boot Mode Static*	246-250	96.5-98.0%				
No function	251-252	98.4-100%				

Patterns						
10	Pattern 1 selection <i>See also 'Guide to patterns' on page 36</i>	No Pattern – all pixels lit	0-5	0-2.0%	0	Snap
		Static Patterns	6-79	2.4-3.1%		
		Single pixel chase	80-83	31.4-32.5%		
		Single pixel chase and return	84-87	32.9-34.1%		
		2-pixel block chase	88-91	34.5-35.7%		
		2-pixel block bounce	92-95	36.1-37.3%		
		4-pixel block chase	96-99	37.6-38.8%		
		4-pixel block bounce	100-103	39.2-40.4%		
		5-pixel block chase	104-107	40.8-42.0%		
		5-pixel block bounce	108-111	42.4-43.5%		
		5 pixels chase	112-115	43.9-45.1%		
		5 pixels bounce	116-119	45.5-46.7%		
		4 pixels chase	120-123	47.1-48.2%		
		4 pixels bounce	124-127	48.6-49.8%		
		2 pixels to center chase	128-131	50.2-51.4%		
		2 pixels to center bounce	132-135	51.8-52.9%		
		3-pixel block chase	136-139	53.3-54.5%		
		3-pixel block bounce	140-143	54.9-56.1%		
		Fill from left	144-147	56.5-57.6%		
		20-pixel block chase	148-151	58.0-59.2%		
		Alternating single pixels chase	152-153	59.6-60.0%		
		Alternating 4-pixel block chase	154-155	60.4-60.8%		
		Random single pixel / inverted	156-157	61.2-61.6%		
		Random 2 pixels / inverted	158-159	62.0-62.4%		
		Random 3 pixels / inverted	160-161	62.7-63.1%		
		Random 4 pixels / inverted	162-163	63.5-63.9%		
		Random 5 pixels / inverted	164-165	64.3-64.7%		
Random 6 pixels / inverted	166-167	65.1-65.5%				
Random 7 pixels / inverted	168-169	65.9-66.3%				
Random 8 pixels / inverted	170-171	66.7-67.1%				
Random 9 pixels / inverted	172-173	67.5-67.8%				
No function	174-255	68.2-100%				
11	Pattern 1 speed	Pattern 1 speed slow-fast	0-255	0-100%	0	Fade
12	Pattern 1 fade	Pattern 1 intensity 0-100%	0-255	0-100%	0	Fade
13	Pattern 1 red	Intensity 0-100%	0-255	0-100%	0	Fade
14	Pattern 1 green	Intensity 0-100%	0-255	0-100%	0	Fade
15	Pattern 1 blue	Intensity 0-100%	0-255	0-100%	0	Fade
16	Pattern 1 white	Intensity 0-100%	0-255	0-100%	0	Fade
17	Pattern 1 shutter	Shutter closed	0-15	0-5.9%	0	Snap
		Random strobe	16-47	6.3-18.4%		
		Ramp up slow-fast	48-79	18.8-31.0%		
		Ramp down slow-fast	80-111	31.4-43.5%		
		Ramp up-down slow-fast	112-143	43.9-56.1%		
		Strobe pause 5s – 1s (slow – fast)	144-199	56.5-78.0%		
		Strobe 1Hz – 20 Hz (slow – fast)	200-239	78.4-93.7%		
Shutter open	240-255	94.1-100%				
18	Pattern 1 dimmer	Pattern 1 intensity 0-100%	0-255	0-100%	0	Fade

19	Pattern 2 selection <i>See also 'Guide to patterns' on page 36</i>	No Pattern – all pixels lit	0-5	0-2.0%	0	Snap
		Static Patterns	6-79	2.4-3.1%		
		Single pixel chase	80-83	31.4-32.5%		
		Single pixel chase and return	84-87	32.9-34.1%		
		2-pixel block chase	88-91	34.5-35.7%		
		2-pixel block bounce	92-95	36.1-37.3%		
		4-pixel block chase	96-99	37.6-38.8%		
		4-pixel block bounce	100-103	39.2-40.4%		
		5-pixel block chase	104-107	40.8-42.0%		
		5-pixel block bounce	108-111	42.4-43.5%		
		5 pixels chase	112-115	43.9-45.1%		
		5 pixels bounce	116-119	45.5-46.7%		
		4 pixels chase	120-123	47.1-48.2%		
		4 pixels bounce	124-127	48.6-49.8%		
		2 pixels to center chase	128-131	50.2-51.4%		
		2 pixels to center bounce	132-135	51.8-52.9%		
		3-pixel block chase	136-139	53.3-54.5%		
		3-pixel block bounce	140-143	54.9-56.1%		
		Fill from left	144-147	56.5-57.6%		
		20-pixel block chase	148-151	58.0-59.2%		
		Alternating single pixels chase	152-153	59.6-60.0%		
		Alternating 4-pixel block chase	154-155	60.4-60.8%		
		Random single pixel / inverted	156-157	61.2-61.6%		
		Random 2 pixels / inverted	158-159	62.0-62.4%		
		Random 3 pixels / inverted	160-161	62.7-63.1%		
		Random 4 pixels / inverted	162-163	63.5-63.9%		
Random 5 pixels / inverted	164-165	64.3-64.7%				
Random 6 pixels / inverted	166-167	65.1-65.5%				
Random 7 pixels / inverted	168-169	65.9-66.3%				
Random 8 pixels / inverted	170-171	66.7-67.1%				
Random 9 pixels / inverted	172-173	67.5-67.8%				
No function	174-255	68.2-100%				
20	Pattern 2 speed	Pattern 1 speed slow-fast	0-255	0-100%	0	Fade
21	Pattern 2 fade	Pattern 1 intensity 0-100%	0-255	0-100%	0	Fade
22	Pattern 2 red	Intensity 0-100%	0-255	0-100%	0	Fade
23	Pattern 2 green	Intensity 0-100%	0-255	0-100%	0	Fade
24	Pattern 2 blue	Intensity 0-100%	0-255	0-100%	0	Fade
25	Pattern 2 white	Intensity 0-100%	0-255	0-100%	0	Fade
26	Pattern 2 shutter	Shutter closed	0-15	0-5.9%	0	Snap
		Random strobe	16-47	6.3-18.4%		
		Ramp up slow-fast	48-79	18.8-31.0%		
		Ramp down slow-fast	80-111	31.4-43.5%		
		Ramp up-down slow-fast	112-143	43.9-56.1%		
		Strobe pause 5s – 1s (slow – fast)	144-199	56.5-78.0%		
		Strobe 1Hz – 20 Hz (slow – fast)	200-239	78.4-93.7%		
		Shutter open	240-255	94.1-100%		
27	Pattern 2 dimmer	Pattern 1 intensity 0-100%	0-255	0-100%	0	Fade

DMX Mode 9: Rocket

101 DMX Channels

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	Pixel 1 red	Intensity 0-100%	0-255	0-100%	0	Fade
2	Pixel 1 green	Intensity 0-100%	0-255	0-100%	0	Fade
3	Pixel 1 blue	Intensity 0-100%	0-255	0-100%	0	Fade
4	Pixel 1 white	Intensity 0-100%	0-255	0-100%	0	Fade
5	Pixel 2 red	Intensity 0-100%	0-255	0-100%	0	Fade
6	Pixel 2 green	Intensity 0-100%	0-255	0-100%	0	Fade
7	Pixel 2 blue	Intensity 0-100%	0-255	0-100%	0	Fade
8	Pixel 2 white	Intensity 0-100%	0-255	0-100%	0	Fade
9	Pixel 3 red	Intensity 0-100%	0-255	0-100%	0	Fade
10	Pixel 3 green	Intensity 0-100%	0-255	0-100%	0	Fade
11	Pixel 3 blue	Intensity 0-100%	0-255	0-100%	0	Fade
12	Pixel 3 white	Intensity 0-100%	0-255	0-100%	0	Fade
13	Pixel 4 red	Intensity 0-100%	0-255	0-100%	0	Fade
14	Pixel 4 green	Intensity 0-100%	0-255	0-100%	0	Fade
15	Pixel 4 blue	Intensity 0-100%	0-255	0-100%	0	Fade
16	Pixel 4 white	Intensity 0-100%	0-255	0-100%	0	Fade
17	Pixel 5 red	Intensity 0-100%	0-255	0-100%	0	Fade
18	Pixel 5 green	Intensity 0-100%	0-255	0-100%	0	Fade
19	Pixel 5 blue	Intensity 0-100%	0-255	0-100%	0	Fade
20	Pixel 5 white	Intensity 0-100%	0-255	0-100%	0	Fade
21	Pixel 6 red	Intensity 0-100%	0-255	0-100%	0	Fade
22	Pixel 6 green	Intensity 0-100%	0-255	0-100%	0	Fade
23	Pixel 6 blue	Intensity 0-100%	0-255	0-100%	0	Fade
24	Pixel 6 white	Intensity 0-100%	0-255	0-100%	0	Fade
25	Pixel 7 red	Intensity 0-100%	0-255	0-100%	0	Fade
26	Pixel 7 green	Intensity 0-100%	0-255	0-100%	0	Fade
27	Pixel 7 blue	Intensity 0-100%	0-255	0-100%	0	Fade
28	Pixel 7 white	Intensity 0-100%	0-255	0-100%	0	Fade
29	Pixel 8 red	Intensity 0-100%	0-255	0-100%	0	Fade
30	Pixel 8 green	Intensity 0-100%	0-255	0-100%	0	Fade
31	Pixel 8 blue	Intensity 0-100%	0-255	0-100%	0	Fade
32	Pixel 8 white	Intensity 0-100%	0-255	0-100%	0	Fade
33	Pixel 9 red	Intensity 0-100%	0-255	0-100%	0	Fade
34	Pixel 9 green	Intensity 0-100%	0-255	0-100%	0	Fade
35	Pixel 9 blue	Intensity 0-100%	0-255	0-100%	0	Fade
36	Pixel 9 white	Intensity 0-100%	0-255	0-100%	0	Fade
37	Pixel 10 red	Intensity 0-100%	0-255	0-100%	0	Fade
38	Pixel 10 green	Intensity 0-100%	0-255	0-100%	0	Fade
39	Pixel 10 blue	Intensity 0-100%	0-255	0-100%	0	Fade
40	Pixel 10 white	Intensity 0-100%	0-255	0-100%	0	Fade
41	Pixel 11 red	Intensity 0-100%	0-255	0-100%	0	Fade
42	Pixel 11 green	Intensity 0-100%	0-255	0-100%	0	Fade
43	Pixel 11 blue	Intensity 0-100%	0-255	0-100%	0	Fade
44	Pixel 11 white	Intensity 0-100%	0-255	0-100%	0	Fade
45	Pixel 12 red	Intensity 0-100%	0-255	0-100%	0	Fade
46	Pixel 12 green	Intensity 0-100%	0-255	0-100%	0	Fade
47	Pixel 12 blue	Intensity 0-100%	0-255	0-100%	0	Fade
48	Pixel 12 white	Intensity 0-100%	0-255	0-100%	0	Fade
49	Pixel 13 red	Intensity 0-100%	0-255	0-100%	0	Fade
50	Pixel 13 green	Intensity 0-100%	0-255	0-100%	0	Fade
51	Pixel 13 blue	Intensity 0-100%	0-255	0-100%	0	Fade

52	Pixel 13 white	Intensity 0-100%	0-255	0-100%	0	Fade
53	Pixel 14 red	Intensity 0-100%	0-255	0-100%	0	Fade
54	Pixel 14 green	Intensity 0-100%	0-255	0-100%	0	Fade
55	Pixel 14 blue	Intensity 0-100%	0-255	0-100%	0	Fade
56	Pixel 14 white	Intensity 0-100%	0-255	0-100%	0	Fade
57	Pixel 15 red	Intensity 0-100%	0-255	0-100%	0	Fade
58	Pixel 15 green	Intensity 0-100%	0-255	0-100%	0	Fade
59	Pixel 15 blue	Intensity 0-100%	0-255	0-100%	0	Fade
60	Pixel 15 white	Intensity 0-100%	0-255	0-100%	0	Fade
61	Pixel 16 red	Intensity 0-100%	0-255	0-100%	0	Fade
62	Pixel 16 green	Intensity 0-100%	0-255	0-100%	0	Fade
63	Pixel 16 blue	Intensity 0-100%	0-255	0-100%	0	Fade
64	Pixel 16 white	Intensity 0-100%	0-255	0-100%	0	Fade
65	Pixel 17 red	Intensity 0-100%	0-255	0-100%	0	Fade
66	Pixel 17 green	Intensity 0-100%	0-255	0-100%	0	Fade
67	Pixel 17 blue	Intensity 0-100%	0-255	0-100%	0	Fade
68	Pixel 17 white	Intensity 0-100%	0-255	0-100%	0	Fade
69	Pixel 18 red	Intensity 0-100%	0-255	0-100%	0	Fade
70	Pixel 18 green	Intensity 0-100%	0-255	0-100%	0	Fade
71	Pixel 18 blue	Intensity 0-100%	0-255	0-100%	0	Fade
72	Pixel 18 white	Intensity 0-100%	0-255	0-100%	0	Fade
73	Pixel 19 red	Intensity 0-100%	0-255	0-100%	0	Fade
74	Pixel 19 green	Intensity 0-100%	0-255	0-100%	0	Fade
75	Pixel 19 blue	Intensity 0-100%	0-255	0-100%	0	Fade
76	Pixel 19 white	Intensity 0-100%	0-255	0-100%	0	Fade
77	Pixel 20 red	Intensity 0-100%	0-255	0-100%	0	Fade
78	Pixel 20 green	Intensity 0-100%	0-255	0-100%	0	Fade
79	Pixel 20 blue	Intensity 0-100%	0-255	0-100%	0	Fade
80	Pixel 20 white	Intensity 0-100%	0-255	0-100%	0	Fade
81	Shutter (master)	Shutter closed	0-15	0-5.9%	0	Snap
		Random strobe	16-47	6.3-18.4%		
		Ramp up slow-fast	48-79	18.8-31.0%		
		Ramp down slow-fast	80-111	31.4-43.5%		
		Ramp up-down slow-fast	112-143	43.9-56.1%		
		Strobe pause 5s – 1s (slow – fast)	144-199	56.5-78.0%		
		Strobe 1Hz – 20 Hz (slow – fast)	200-239	78.4-93.7%		
Shutter open	240-255	94.1-100%				
82	Dimmer (master)	Master intensity 0-100%	0-255	0-100%	0	Fade
Control / Settings						
83	Control / Settings	No function	0-55	0-21.6%	0	Snap
		Dimmer speed smooth*	56-60	22.0-23.5%		
		Dimmer speed fast*	61-65	23.9-25.5%		
		No function	66-70	25.9-27.5%		
		Dimming curve Linear*	71-75	27.8-29.4%		
		Dimming curve Theatrical*	76-80	29.8-31.4%		
		Dimming curve Square Law*	81-85	31.8-33.3%		
		Dimming curve Inverse Square Law*	86-90	33.7-35.3%		
		No Function	91-95	35.7-37.3%		
		No DMX = Hold scene*	96-100	37.6-39.2%		
		No DMX = Blackout*	101-105	39.6-41.2%		
		No DMX = Play stand-alone scene*	106-110	41.6-43.1%		
		No Function	111-115	43.5-45.1%		
		Display backlight On*	116-120	45.5-47.1%		
		Display backlight Off*	121-125	47.5-49.0%		
No Function	126-140	49.4-54.9%				

		DMX Mode: Standard*	141-145	55.3-56.9%		
		DMX Mode: Advanced*	146-150	57.3-58.8%		
		DMX Mode: Pattern*	151-155	59.2-60.8%		
		DMX Mode: Pixel*	156-160	61.2-62.7%		
		DMX Mode: Compressed*	161-165	63.1-64.7%		
		DMX Mode: Pixel Dim*	166-170	65.1-66.7%		
		No function	171-180	67.1-70.6%		
		Fixture reset	181-185	71.0-72.5%		
		Factory default settings (except DMX address)*	186-190	72.9-74.5%		
		No function	191-230	74.9-90.2%		
		Boot Mode Auto*	231-235	90.6-92.2%		
		Boot Mode DMX*	236-240	92.5-94.1%		
		Boot Mode Play Stand-alone*	241-245	94.5-96.1%		
		Boot Mode Static*	246-250	96.5-98.0%		
		No function	251-252	98.4-100%		
Patterns						
		No Pattern – all pixels lit	0-5	0-2.0%		
		Static Patterns	6-79	2.4-3.1%		
		Single pixel chase	80-83	31.4-32.5%		
		Single pixel chase and return	84-87	32.9-34.1%		
		2-pixel block chase	88-91	34.5-35.7%		
		2-pixel block bounce	92-95	36.1-37.3%		
		4-pixel block chase	96-99	37.6-38.8%		
		4-pixel block bounce	100-103	39.2-40.4%		
		5-pixel block chase	104-107	40.8-42.0%		
		5-pixel block bounce	108-111	42.4-43.5%		
		5 pixels chase	112-115	43.9-45.1%		
		5 pixels bounce	116-119	45.5-46.7%		
		4 pixels chase	120-123	47.1-48.2%		
		4 pixels bounce	124-127	48.6-49.8%		
		2 pixels to center chase	128-131	50.2-51.4%		
		2 pixels to center bounce	132-135	51.8-52.9%		
		3-pixel block chase	136-139	53.3-54.5%		
		3-pixel block bounce	140-143	54.9-56.1%		
		Fill from left	144-147	56.5-57.6%		
		20-pixel block chase	148-151	58.0-59.2%		
		Alternating single pixels chase	152-153	59.6-60.0%		
		Alternating 4-pixel block chase	154-155	60.4-60.8%		
		Random single pixel / inverted	156-157	61.2-61.6%		
		Random 2 pixels / inverted	158-159	62.0-62.4%		
		Random 3 pixels / inverted	160-161	62.7-63.1%		
		Random 4 pixels / inverted	162-163	63.5-63.9%		
		Random 5 pixels / inverted	164-165	64.3-64.7%		
		Random 6 pixels / inverted	166-167	65.1-65.5%		
		Random 7 pixels / inverted	168-169	65.9-66.3%		
		Random 8 pixels / inverted	170-171	66.7-67.1%		
		Random 9 pixels / inverted	172-173	67.5-67.8%		
		No function	174-255	68.2-100%		
84	Pattern 1 selection See also 'Guide to patterns' on page 36				0	Snap
85	Pattern 1 speed	Pattern 1 speed slow-fast	0-255	0-100%	0	Fade
86	Pattern 1 fade	Pattern 1 intensity 0-100%	0-255	0-100%	0	Fade
87	Pattern 1 red	Intensity 0-100%	0-255	0-100%	0	Fade
88	Pattern 1 green	Intensity 0-100%	0-255	0-100%	0	Fade
89	Pattern 1 blue	Intensity 0-100%	0-255	0-100%	0	Fade
90	Pattern 1 white	Intensity 0-100%	0-255	0-100%	0	Fade

91	Pattern 1 shutter	Shutter closed	0-15	0-5.9%	0	Snap
		Random strobe	16-47	6.3-18.4%		
		Ramp up slow-fast	48-79	18.8-31.0%		
		Ramp down slow-fast	80-111	31.4-43.5%		
		Ramp up-down slow-fast	112-143	43.9-56.1%		
		Strobe pause 5s – 1s (slow – fast)	144-199	56.5-78.0%		
		Strobe 1Hz – 20 Hz (slow – fast)	200-239	78.4-93.7%		
		Shutter open	240-255	94.1-100%		
92	Pattern 1 dimmer	Pattern 1 intensity 0-100%	0-255	0-100%	0	Fade
93	Pattern 2 selection <i>See also 'Guide to patterns' on page 36</i>	No Pattern – all pixels lit	0-5	0-2.0%	0	Snap
		Static Patterns	6-79	2.4-3.1%		
		Single pixel chase	80-83	31.4-32.5%		
		Single pixel chase and return	84-87	32.9-34.1%		
		2-pixel block chase	88-91	34.5-35.7%		
		2-pixel block bounce	92-95	36.1-37.3%		
		4-pixel block chase	96-99	37.6-38.8%		
		4-pixel block bounce	100-103	39.2-40.4%		
		5-pixel block chase	104-107	40.8-42.0%		
		5-pixel block bounce	108-111	42.4-43.5%		
		5 pixels chase	112-115	43.9-45.1%		
		5 pixels bounce	116-119	45.5-46.7%		
		4 pixels chase	120-123	47.1-48.2%		
		4 pixels bounce	124-127	48.6-49.8%		
		2 pixels to center chase	128-131	50.2-51.4%		
		2 pixels to center bounce	132-135	51.8-52.9%		
		3-pixel block chase	136-139	53.3-54.5%		
		3-pixel block bounce	140-143	54.9-56.1%		
		Fill from left	144-147	56.5-57.6%		
		20-pixel block chase	148-151	58.0-59.2%		
		Alternating single pixels chase	152-153	59.6-60.0%		
		Alternating 4-pixel block chase	154-155	60.4-60.8%		
		Random single pixel / inverted	156-157	61.2-61.6%		
		Random 2 pixels / inverted	158-159	62.0-62.4%		
		Random 3 pixels / inverted	160-161	62.7-63.1%		
		Random 4 pixels / inverted	162-163	63.5-63.9%		
		Random 5 pixels / inverted	164-165	64.3-64.7%		
		Random 6 pixels / inverted	166-167	65.1-65.5%		
Random 7 pixels / inverted	168-169	65.9-66.3%				
Random 8 pixels / inverted	170-171	66.7-67.1%				
Random 9 pixels / inverted	172-173	67.5-67.8%				
No function	174-255	68.2-100%				
94	Pattern 2 speed	Pattern 1 speed slow-fast	0-255	0-100%	0	Fade
95	Pattern 2 fade	Pattern 1 intensity 0-100%	0-255	0-100%	0	Fade
96	Pattern 2 red	Intensity 0-100%	0-255	0-100%	0	Fade
97	Pattern 2 green	Intensity 0-100%	0-255	0-100%	0	Fade
99	Pattern 2 blue	Intensity 0-100%	0-255	0-100%	0	Fade
99	Pattern 2 white	Intensity 0-100%	0-255	0-100%	0	Fade
100	Pattern 2 shutter	Shutter closed	0-15	0-5.9%	0	Snap
		Random strobe	16-47	6.3-18.4%		
		Ramp up slow-fast	48-79	18.8-31.0%		
		Ramp down slow-fast	80-111	31.4-43.5%		
		Ramp up-down slow-fast	112-143	43.9-56.1%		
		Strobe pause 5s – 1s (slow – fast)	144-199	56.5-78.0%		
		Strobe 1Hz – 20 Hz (slow – fast)	200-239	78.4-93.7%		
		Shutter open	240-255	94.1-100%		
101	Pattern 2 dimmer	Pattern 1 intensity 0-100%	0-255	0-100%	0	Fade

3. Guide to patterns

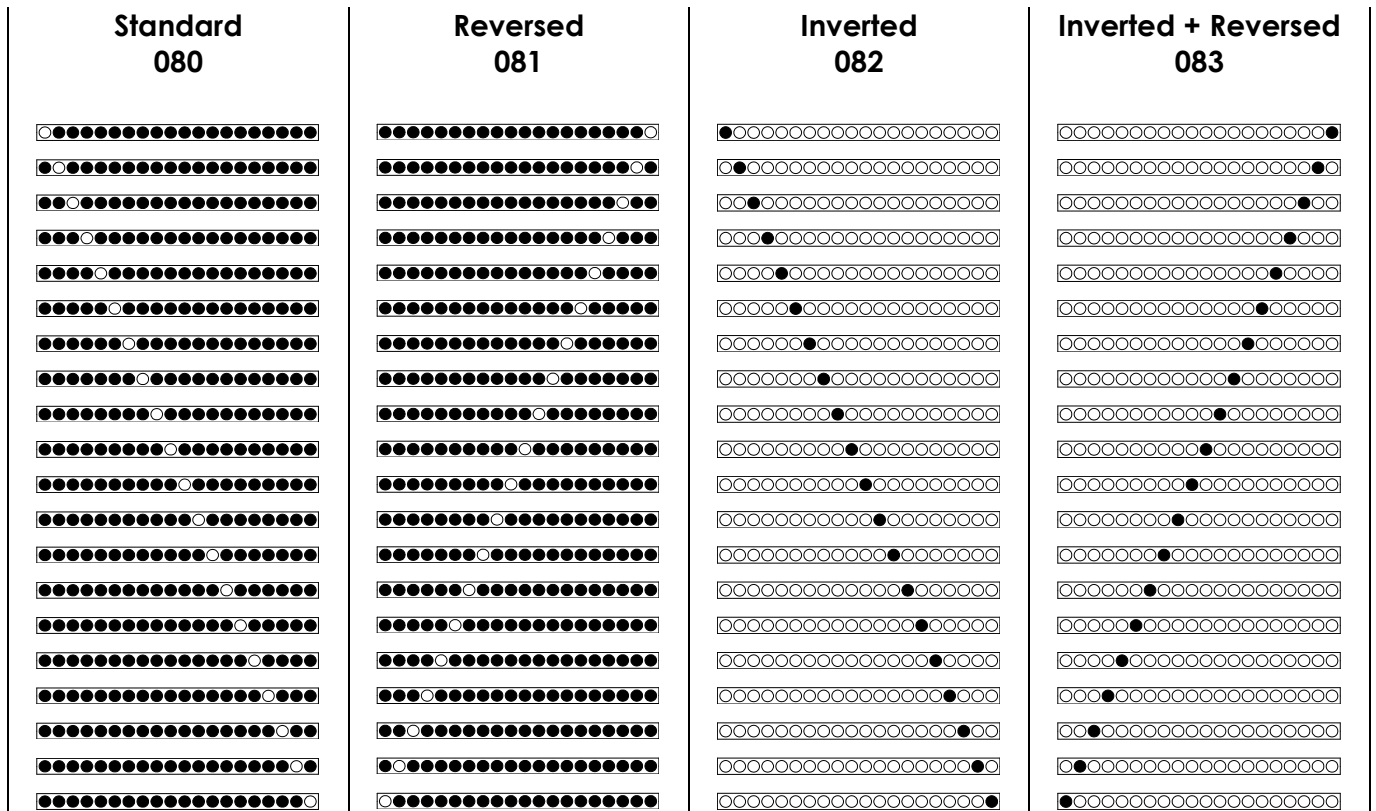
The following tables show the patterns that are available in the DMX modes that have them.

Static patterns

Value	Pattern
000 – 005	
006	
007	
008	
009	
010	
011	
012	
013	
014	
015	
016	
017	
018	
019	
020	
021	
022	
023	
024	
025	
026	

Value	Pattern
027	
028	
029	
030	
031	
032	
033	
034	
035	
036	
037	
038	
039	
040	
041	
042	
043	
044	
045	

All animated patterns are available in four configurations, Standard, Reversed, Inverted and Inverted + Reversed:



Value	Pattern
140 /	
141 /	
142 /	
143	
144 /	
145 /	
146 /	
147	

Value	Pattern
148 /	
149 /	
150 /	
151	
152 /	
153	
154 /	
155	

Random Animations
(Second value inverts animation)

Value	Pattern
156 /	Random 1 Pixel
157	
158 /	Random 2 Pixels
159	
160 /	Random 3 Pixels
161	
162 /	Random 4 Pixels
163	
164 /	Random 5 Pixels
165	
166 /	Random 6 Pixels
167	
168 /	Random 7 Pixels
169	
170 /	Random 8 Pixels
171	
172 /	Random 9 Pixels
173	

