

cream**source**



Sky/SpaceX

DMX IMPLEMENTATION TABLES

For firmware v2.5.0 and above

Introduction

The Creamsource Sky and SpaceX offers a number of different DMX implementation scenarios, in both 8 and 16 bit resolutions. The active scenario can be changed by selecting 'DMX Scenario' from the Main Menu on the fixture.

DMX Refresh Rate

The smoothest dimming will be achieved when the DMX refresh rate on the console is set to 40-44Hz. The dimming may not be as smooth for refresh rates below this.

Smoothing DMX

When the fixture is not in an Effect mode, smoothing of the DMX signal is done to ensure that changes in brightness to not appear 'steppy'. The smoothing is done by interpolation and does not affect the response time of the fixture. Smoothing is automatically disabled when an effect is turned on, or if Camera SYNC is active.

Loss of DMX

If DMX signal is lost, by default the fixture will hold the last received DMX value. Effects will keep running if they have been enabled.

Fan Mode (SpaceX only)

The fan mode can be controlled on the last slot. Note the fan mode is not available on Sky fixtures. The DMX fan mode overrides any manual fan mode settings on the fixture.

SLOT NAME	DMX VALUE	OUTPUT VALUE
Fan Mode	000 ... 009	Auto Fans run variable speed, temperature controlled
	010 ... 049	Quiet Fans will run constantly at low speed
	050 ... 099	Medium Fans will run constantly at medium speed
	100 ... 149	High Fans will run constantly at high speed
	150 ... 249	RESERVED
	250 ... 255	Pause Fans will stop, until maximum safe operating temperature is reached, then will run in Quiet mode. <i>NOTE: This mode should be only used for short periods of time, as it will shorten the lifespan of the LEDs</i>

DMX Implementation Scenario Overview

SCENARIO		BITS	SKY SLOTS	SPACE X SLOTS	DESCRIPTION
1	<i>Pages 4-5</i>	8 Bit	8	9	CCT and RGBWA
2		8 Bit	3	4	CCT
3		8 Bit	6	7	CCT and Hue/Saturation
4		8 Bit	6	7	RGBWA
5		8 Bit	3	4	Hue/Saturation
6	<i>Pages 12-14</i>	16 Bit	18	19	CCT and RGBWA
7		16 Bit	6	7	CCT
8		16 Bit	12	12	CCT and Hue/Saturation
9		16 Bit	12	13	RGBWA
10		16 Bit	6	7	Hue/Saturation
11	<i>Page 6</i>	8 Bit	3	4	xy Coordinates
12		8 Bit	6	7	CCT and xy Coordinates
13	<i>Page 14</i>	16 Bit	6	7	xy Coordinates
14		16 Bit	12	13	CCT and xy Coordinates
15	<i>Pages 6-8</i>	8 Bit	12	13	CCT and Hue/Saturation with Effects
16		8 Bit	15	16	CCT and RGBWA with Effects
17		8 Bit	12	13	CCT and xy Coordinates with Effects
18	<i>Pages 16-17</i>	16 Bit	18	19	CCT and Hue/Saturation with Effects
19		16 Bit	24	25	CCT and RGBWA with Effects
20		16 Bit	18	19	CCT and xy Coordinates with Effects
21	<i>Pages 8-9</i>	8 Bit	4	5	Gels
22		8 Bit	7	8	CCT and Gels
23		8 Bit	13	14	CCT and Gels with Effects
24	<i>Pages 17-18</i>	16 Bit	5	6	Gels
25		16 Bit	11	12	CCT and Gels
26		16 Bit	17	18	CCT and Gels with Effects
27	<i>Pages 10-11</i>	8 Bit	8	9	Gels with Colour Bump
28		8 Bit	11	12	CCT and Gels with Colour Bump
29	<i>Pages 20-21</i>	16 Bit	13	14	Gels with Colour Bump
30		16 Bit	19	20	CCT and Gels with Colour Bump

8-Bit Modes

Scenario 1: 8 Bits - CCT and RGBWA

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	CCT	000 ... 255	2200 ... 15000K
3	Green/Magenta	000 ... 010 011 ... 133 134 135 ... 255	Neutral -100 to -1 Green Neutral +1 to +100 Green
4	CCT-Colour Crossfade	000 ... 255	0 ... 100%
5	Red	000 ... 255	0 ... 100%
6	Green	000 ... 255	0 ... 100%
7	Blue	000 ... 255	0 ... 100%
8	White	000 ... 255	0 ... 100%
9	Amber	000 ... 255	0 ... 100%
10	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 2: 8 Bits - CCT

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	CCT	000 ... 255	2200 ... 15000K
3	Green/Magenta	000 ... 010 011 ... 133 134 135 ... 255	Neutral -100 to -1 Green Neutral +1 to +100 Green
4	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 3: 8 Bits - CCT and Hue/Saturation

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	CCT	000 ... 255	2200 ... 15000K
3	Green/Magenta	000 ... 010 011 ... 133 134 135 ... 255	Neutral -100 to -1 Green Neutral +1 to +100 Green
4	CCT-Colour Crossfade	000 ... 255	0 ... 100%
5	Hue	000 ... 255	0 ... 360 Degrees
6	Saturation	000 ... 255	0 ... 100%
7	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 4: 8 Bits - RGBWA

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	Red	000 ... 255	0 ... 100%
3	Green	000 ... 255	0 ... 100%
4	Blue	000 ... 255	0 ... 100%
5	White	000 ... 255	0 ... 100%
6	Amber	000 ... 255	0 ... 100%
7	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 5: 8 Bits - Hue/Saturation

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	Hue	000 ... 255	0 ... 360 Degrees
3	Saturation	000 ... 255	0 ... 100%
4	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 11: 8 Bits - xy Coordinates

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	x Coordinate	000 ... 255	0 ... 0.8x
3	y Coordinate	000 ... 255	0 ... 0.8y
4	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 12: 8 Bits - CCT and xy Coordinates

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	CCT	000 ... 255	2200 ... 15000K
3	Green/Magenta	000 ... 010 011 ... 133 134 135 ... 255	Neutral -100 to -1 Green Neutral +1 to +100 Green
4	CCT-Colour Crossfade	000 ... 255	0 ... 100%
5	x Coordinate	000 ... 255	0 ... 0.8x
6	y Coordinate	000 ... 255	0 ... 0.8y
7	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 15: 8 Bits - CCT and Hue/Saturation with Effects

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	CCT	000 ... 255	2200 ... 15000K
3	Green/Magenta	000 ... 010 011 ... 133 134 135 ... 255	Neutral -100 to -1 Green Neutral +1 to +100 Green
4	CCT-Colour Crossfade	000 ... 255	0 ... 100%
5	Hue	000 ... 255	0 ... 360 Degrees
6	Saturation	000 ... 255	0 ... 100%
7	Effects Mode	000 ... 255	<i>See Effects Tables</i>
8	Effects Channel 1	000 ... 255	<i>on Page 22-23</i>
9	Effects Channel 2	000 ... 255	
10	Effects Channel 3	000 ... 255	
11	Effects Channel 4	000 ... 255	
12	Effects Channel 5	000 ... 255	
13	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 16: 8 Bits - CCT and RGBWA with Effects

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	CCT	000 ... 255	2200 ... 15000K
3	Green/Magenta	000 ... 010 011 ... 133 134 135 ... 255	Neutral -100 to -1 Green Neutral +1 to +100 Green
4	CCT-Colour Crossfade	000 ... 255	0 ... 100%
5	Red	000 ... 255	0 ... 100%
6	Green	000 ... 255	0 ... 100%
7	Blue	000 ... 255	0 ... 100%
8	White	000 ... 255	0 ... 100%
9	Amber	000 ... 255	0 ... 100%
10	Effects Mode	000 ... 255	<i>See Effects Tables</i>
11	Effects Channel 1	000 ... 255	<i>on Page 22-23</i>
12	Effects Channel 2	000 ... 255	
13	Effects Channel 3	000 ... 255	
14	Effects Channel 4	000 ... 255	
15	Effects Channel 5	000 ... 255	
16	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 17: 8 Bits - CCT and xy Coordinates with Effects

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	CCT	000 ... 255	2200 ... 15000K
3	Green/Magenta	000 ... 010 011 ... 133 134 135 ... 255	Neutral -100 to -1 Green Neutral +1 to +100 Green
4	CCT-Colour Crossfade	000 ... 255	0 ... 100%
5	x Coordinate	000 ... 255	0 ... 0.8x
6	y Coordinate	000 ... 255	0 ... 0.8y
7	Effects Mode	000 ... 255	<i>See Effects Tables</i>
8	Effects Channel 1	000 ... 255	<i>on Page 22-23</i>
9	Effects Channel 2	000 ... 255	
10	Effects Channel 3	000 ... 255	
11	Effects Channel 4	000 ... 255	
12	Effects Channel 5	000 ... 255	
13	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 21: 8 Bits - Gels

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	Gel Library	000 ... 255	<i>See Gel Tables on</i>
3	Gel Swatch	000 ... 255	<i>Page 24-33</i>
4	Gel Source	000 ... 127 128 ... 255	3200K Source 5600K Source
5	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 22: 8 Bits - CCT and Gels

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	CCT	000 ... 255	2200 ... 15000K
3	Green/Magenta	000 ... 010 011 ... 133 134 135 ... 255	Neutral -100 to -1 Green Neutral +1 to +100 Green
4	CCT-Colour Crossfade	000 ... 255	0 ... 100%
5	Gel Library	000 ... 255	<i>See Gel Tables on</i>
6	Gel Swatch	000 ... 255	<i>Page 24-33</i>
7	Gel Source	000 ... 127 128 ... 255	3200K Source 5600K Source
8	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 23: 8 Bits - CCT and Gels with Effects

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	CCT	000 ... 255	2200 ... 15000K
3	Green/Magenta	000 ... 010 011 ... 133 134 135 ... 255	Neutral -100 to -1 Green Neutral +1 to +100 Green
4	CCT-Colour Crossfade	000 ... 255	0 ... 100%
5	Gel Library	000 ... 255	<i>See Gel Tables on</i>
6	Gel Swatch	000 ... 255	<i>Page 24-33</i>
7	Gel Source	000 ... 127 128 ... 255	3200K Source 5600K Source
8	Effects Mode	000 ... 255	<i>See Effects Tables</i>
9	Effects Channel 1	000 ... 255	<i>on Page 22-23</i>
10	Effects Channel 2	000 ... 255	
11	Effects Channel 3	000 ... 255	
12	Effects Channel 4	000 ... 255	
13	Effects Channel 5	000 ... 255	
14	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 27: 8 Bits - Gels with Colour Bump

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	Gel Library	000 ... 255	<i>See Gel Tables on</i>
3	Gel Swatch	000 ... 255	<i>Page 24-33</i>
4	Gel Source	000 ... 127 128 ... 255	3200K Source 5600K Source
5	Bump Red/Cyan	000 ... 010 011 ... 133 134 135 ... 255	Neutral 100% to 0% Cyan Neutral 0% to 100% Red
6	Bump Green/ Magenta	000 ... 010 011 ... 133 134 135 ... 255	Neutral 100% to 0% Magenta Neutral 0% to 100% Green
7	Bump Blue/Yellow	000 ... 010 011 ... 133 134 135 ... 255	Neutral 100% to 0% Yellow Neutral 0% to 100% Blue
8	Bump Saturation	000 ... 010 011 ... 133 134 135 ... 255	Neutral -100% to 0% Saturation Neutral 0% to 100% Saturation
9	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 28: 8 Bits - CCT and Gels with Colour Bump

Note: Colour Bump is only applied to the GEL channel

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1	Master Level	000 ... 255	0 ... 100%
2	CCT	000 ... 255	2200 ... 15000K
3	Green/Magenta	000 ... 010 011 ... 133 134 135 ... 255	Neutral -100 to -1 Green Neutral +1 to +100 Green
4	CCT-Colour Crossfade	000 ... 255	0 ... 100%
5	Gel Library	000 ... 255	<i>See Gel Tables on</i>
6	Gel Swatch	000 ... 255	<i>Page 24-33</i>
7	Gel Source	000 ... 127 128 ... 255	3200K Source 5600K Source
8	Bump Red/Cyan	000 ... 010 011 ... 133 134 135 ... 255	Neutral 100% to 0% Cyan Neutral 0% to 100% Red
9	Bump Green/ Magenta	000 ... 010 011 ... 133 134 135 ... 255	Neutral 100% to 0% Magenta Neutral 0% to 100% Green
10	Bump Blue/Yellow	000 ... 010 011 ... 133 134 135 ... 255	Neutral 100% to 0% Yellow Neutral 0% to 100% Blue
11	Bump Saturation	000 ... 010 011 ... 133 134 135 ... 255	Neutral -100% to 0% Saturation Neutral 0% to 100% Saturation
12	Fan	000 ... 255	See Page 2 (SpaceX only)

16-Bit Modes

Scenario 6: 16 Bits - CCT and RGBWA

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	CCT	00000 ... 65535	2200 ... 15000K
5 HI 6 LO	Green/Magenta	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral -100 to -1 Green Neutral +1 to +100 Green
7 HI 8 LO	CCT-Colour Crossfade	00000 ... 65535	0 ... 100%
9 HI 10 LO	Red	00000 ... 65535	0 ... 100%
11 HI 12 LO	Green	00000 ... 65535	0 ... 100%
13 HI 14 LO	Blue	00000 ... 65535	0 ... 100%
15 HI 16 LO	White	00000 ... 65535	0 ... 100%
17 HI 18 LO	Amber	00000 ... 65535	0 ... 100%
19	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 7: 16 Bits - CCT

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	CCT	00000 ... 65535	2200 ... 15000K
5 HI 6 LO	Green/Magenta	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral -100 to -1 Green Neutral +1 to +100 Green
7	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 8: 16 Bits - CCT and Hue/Saturation

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	CCT	00000 ... 65535	2200 ... 15000K
5 HI 6 LO	Green/Magenta	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral -100 to -1 Green Neutral +1 to +100 Green
7 HI 8 LO	CCT-Colour Crossfade	00000 ... 65535	0 ... 100%
9 HI 10 LO	Hue	00000 ... 65535	0 ... 360 Degrees
11 HI 12 LO	Saturation	00000 ... 65535	0 ... 100%
13	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 9: 16 Bits - RGBWA

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	Red	00000 ... 65535	0 ... 100%
5 HI 6 LO	Green	00000 ... 65535	0 ... 100%
7 HI 8 LO	Blue	00000 ... 65535	0 ... 100%
9 HI 10 LO	White	00000 ... 65535	0 ... 100%
11 HI 12 LO	Amber	00000 ... 65535	0 ... 100%
13	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 10: 16 Bits - Hue/Saturation

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	Hue	00000 ... 65535	0 ... 360 Degrees
5 HI 6 LO	Saturation	00000 ... 65535	0 ... 100%
7	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 13: 16 Bits - xy Coordinates

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	x Coordinate	00000 ... 65535	0 ... 0.8x
5 HI 6 LO	y Coordinate	00000 ... 65535	0 ... 0.8y
7	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 14: 16 Bits - CCT and xy Coordinates

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	CCT	00000 ... 65535	2200 ... 15000K
5 HI 6 LO	Green/Magenta	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral -100 to -1 Green Neutral +1 to +100 Green
7 HI 8 LO	CCT-Colour Crossfade	00000 ... 65535	0 ... 100%
9 HI 10 LO	x Coordinate	00000 ... 65535	0 ... 0.8x
11 HI 12 LO	y Coordinate	00000 ... 65535	0 ... 0.8y
13	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 18: 16 Bits - CCT and Hue/Saturation with Effects

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	CCT	00000 ... 65535	2200 ... 15000K
5 HI 6 LO	Green/Magenta	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral -100 to -1 Green Neutral +1 to +100 Green
7 HI 8 LO	CCT-Colour Crossfade	00000 ... 65535	0 ... 100%
9 HI 10 LO	Hue	00000 ... 65535	0 ... 360 Degrees
11 HI 12 LO	Saturation	00000 ... 65535	0 ... 100%
13	Effects Mode	000 ... 255	<i>See Effects Tables</i>
14	Effects Channel 1	000 ... 255	<i>on Page 22-23</i>
15	Effects Channel 2	000 ... 255	
16	Effects Channel 3	000 ... 255	
17	Effects Channel 4	000 ... 255	
18	Effects Channel 5	000 ... 255	
19	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 19: 16 Bits - CCT and RGBWA with Effects

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	CCT	00000 ... 65535	2200 ... 15000K
5 HI 6 LO	Green/Magenta	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral -100 to -1 Green Neutral +1 to +100 Green
7 HI 8 LO	CCT-Colour Crossfade	00000 ... 65535	0 ... 100%
9 HI 10 LO	Red	00000 ... 65535	0 ... 100%
11 HI 12 LO	Green	00000 ... 65535	0 ... 100%
13 HI 14 LO	Blue	00000 ... 65535	0 ... 100%
15 HI 16 LO	White	00000 ... 65535	0 ... 100%
17 HI 18 LO	Amber	00000 ... 65535	0 ... 100%
19	Effects Mode	000 ... 255	<i>See Effects Tables on Page 22-23</i>
20	Effects Channel 1	000 ... 255	
21	Effects Channel 2	000 ... 255	
22	Effects Channel 3	000 ... 255	
23	Effects Channel 4	000 ... 255	
24	Effects Channel 5	000 ... 255	
25	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 20: 16 Bits - CCT and xy Coordinates with Effects

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	CCT	00000 ... 65535	2200 ... 15000K
5 HI 6 LO	Green/Magenta	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral -100 to -1 Green Neutral +1 to +100 Green
7 HI 8 LO	CCT-Colour Crossfade	00000 ... 65535	0 ... 100%
9 HI 10 LO	x Coordinate	00000 ... 65535	0 ... 0.8x
11 HI 12 LO	y Coordinate	00000 ... 65535	0 ... 0.8y
13	Effects Mode	000 ... 255	<i>See Effects Tables</i>
14	Effects Channel 1	000 ... 255	<i>on Page 22-23</i>
15	Effects Channel 2	000 ... 255	
16	Effects Channel 3	000 ... 255	
17	Effects Channel 4	000 ... 255	
18	Effects Channel 5	000 ... 255	
19	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 24: 16 Bits - Gels

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3	Gel Library	000 ... 255	<i>See Gel Tables on</i>
4	Gel Swatch	000 ... 255	<i>Page 24-33</i>
5	Gel Source	000 ... 127 128 ... 255	3200K Source 5600K Source
6	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 25: 16 Bits - CCT and Gels

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	CCT	00000 ... 65535	2200 ... 15000K
5 HI 6 LO	Green/Magenta	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral -100 to -1 Green Neutral +1 to +100 Green
7 HI 8 LO	CCT-Colour Crossfade	00000 ... 65535	0 ... 100%
9	Gel Library	000 ... 255	<i>See Gel Tables on</i>
10	Gel Swatch	000 ... 255	<i>Page 24-33</i>
11	Gel Source	000 ... 127 128 ... 255	3200K Source 5600K Source
12	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 26: 16 Bits - CCT and Gels with Effects

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	CCT	00000 ... 65535	2200 ... 15000K
5 HI 6 LO	Green/Magenta	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral -100 to -1 Green Neutral +1 to +100 Green
7 HI 8 LO	CCT-Colour Crossfade	00000 ... 65535	0 ... 100%
9	Gel Library	000 ... 255	<i>See Gel Tables on</i>
10	Gel Swatch	000 ... 255	<i>Page 24-33</i>
11	Gel Source	000 ... 127 128 ... 255	3200K Source 5600K Source
12	Effects Mode	000 ... 255	<i>See Effects Tables</i>
13	Effects Channel 1	000 ... 255	<i>on Page 22-23</i>
14	Effects Channel 2	000 ... 255	
15	Effects Channel 3	000 ... 255	
16	Effects Channel 4	000 ... 255	
17	Effects Channel 5	000 ... 255	
18	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 29: 16 Bits - Gels with Colour Bump

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3	Gel Library	000 ... 255	<i>See Gel Tables on Page 24-33</i>
4	Gel Swatch	000 ... 255	
5	Gel Source	000 ... 127 128 ... 255	3200K Source 5600K Source
6 HI 7 LO	Bump Red/Cyan	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral 100% to 0% Red Neutral 0% to 100% Cyan
8 HI 9 LO	Bump Green/ Magenta	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral 100% to 0% Green Neutral 0% to 100% Magenta
10 HI 11 LO	Bump Blue/ Yellow	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral 100% to 0% Blue Neutral 0% to 100% Yellow
12 HI 13 LO	Bump Saturation	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral -100% to 0% Saturation Neutral 0% to 100% Saturation
14	Fan	000 ... 255	See Page 2 (SpaceX only)

Scenario 30: 16 Bits - CCT and Gels with Colour Bump

Note: Colour Bump is only applied to the GEL channel

SLOT NO.	SLOT NAME	DMX VALUE	OUTPUT VALUE
1 HI 2 LO	Master Level	00000 ... 65535	0 ... 100%
3 HI 4 LO	CCT	00000 ... 65535	2200 ... 15000K
5 HI 6 LO	Green/Magenta	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral -100 to -1 Green Neutral +1 to +100 Green
7 HI 8 LO	CCT-Colour Crossfade	00000 ... 65535	0 ... 100%
9	Gel Library	000 ... 255	See Gel Tables on Page 24-33
10	Gel Swatch	000 ... 255	
11	Gel Source	000 ... 127 128 ... 255	3200K Source 5600K Source
12 HI 13 LO	Bump Red/Cyan	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral 100% to 0% Red Neutral 0% to 100% Cyan
14 HI 15 LO	Bump Green/ Magenta	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral 100% to 0% Green Neutral 0% to 100% Magenta
16 HI 17 LO	Bump Blue/ Yellow	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral 100% to 0% Blue Neutral 0% to 100% Yellow
18 HI 19 LO	Bump Saturation	00000 ... 05000 05001 ... 35267 35268 35269 ... 65535	Neutral -100% to 0% Saturation Neutral 0% to 100% Saturation
20	Fan	000 ... 255	See Page 2 (SpaceX only)

Effects Tables for 8-Bit and 16-Bit Modes

Effects Modes

SLOT NAME	DMX VALUE	OUTPUT VALUE
Effects Mode	000 ... 019	No Effect
	020 ... 029	Strobe Effect
	030 ... 039	Random Effect
	040 ... 049	Flash Frames Effect
	050 ... 059	RESERVED
	060 ... 069	RESERVED
	070 ... 079	Colour Cycle Effect
	080 ... 255	RESERVED

Strobe Effect

SLOT NAME	DMX VALUE	OUTPUT VALUE
Effects Mode	020 ... 029	Strobe Effect Selected
Effects Channel 1	000 ... 255	Speed: 1 ... 50 Flashes / Second
Effects Channel 2	000 ... 255	Duty Cycle: (ratio of light ON / OFF time) 1 ... 99 %
Effects Channel 3	000 ... 255	Sync: Restarts effect if bumped to 255 (100%)

Random Effect

SLOT NAME	DMX VALUE	OUTPUT VALUE
Effects Mode	030 ... 039	Random Effect Selected
Effects Channel 1	000 ... 255	Speed: 1 ... 50 Flashes / Second (randomised)
Effects Channel 2	000 ... 255	Flash Length: 1 ... 200ms (randomised)
Effects Channel 3	000 ... 255	Variation in Flash Brightness: 0 ... 100% (randomised)

Flash Frames Effect

SLOT NAME	DMX VALUE	OUTPUT VALUE
Effects Mode	040 ... 049	Flash Frames Effect Selected
Effects Channel 1	000 ... 255	Frames Light is OFF: 1 ... 255 Frames
Effects Channel 2	000 ... 255	Frames Light is ON: 1 ... 255 Frames
Effects Channel 3	000 ... 127 128 ... 255	Effect Enabled: Effect OFF Effect ON

Colour Cycle Effect

SLOT NAME	DMX VALUE	OUTPUT VALUE
Effects Mode	070 ... 079	Colour Cycle Effect Selected
Effects Channel 1	000 ... 255	Speed: 1 ... 100%
Effects Channel 2	000 ... 255	Hue Offset: 0 ... 360 Degrees
Effects Channel 3	000 ... 255	Sync: Restarts effect if bumped to 255 (100%)

Gel Tables for 8-Bit and 16-Bit Modes

SLOT NAME	DMX VALUE	OUTPUT VALUE
Gel Library	000 ... 009	LEE Color Filters
	010 ... 019	LEE Cosmetic
	020 ... 029	LEE 600 Series
	030 ... 039	LEE 700 Series
	040 ... 049	LEE Color Correction
	050 ... 059	Rosco Cinelux
	060 ... 069	Rosco CalColor
	070 ... 079	Rosco Storaro Selection
	080 ... 089	Rosco Color Correction
	090 ... 255	RESERVED

LEE Color Filter (Gel Library DMX Value 0-9)

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	0 ... 1	2	Rose Pink
	2 ... 3	3	Lavender Tint
	4 ... 5	4	Medium Bastard Amber
	6 ... 7	7	Pale Yellow
	8 ... 9	8	Dark Salmon
	10 ... 11	9	Pale Amber Gold
	12 ... 13	10	Medium Yellow
	14 ... 15	13	Straw Tint
	16 ... 17	17	Surprise Peach
	18 ... 19	19	Fire
	20 ... 21	20	Medium Amber
	22 ... 23	21	Gold Amber
	24 ... 25	22	Dark Amber
	26 ... 27	24	Scarlet
	28 ... 29	25	Sunset Red
	30 ... 31	26	Bright Red
	32 ... 33	35	Light Pink
	34 ... 35	36	Medium Pink
	36 ... 37	46	Dark Magenta
	38 ... 39	48	Rose Purple
40 ... 41	52	Light Lavender	
42 ... 43	53	Paler Lavender	
44 ... 45	58	Lavender	
46 ... 47	61	Mist Blue	

LEE Color Filter Continued

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	48 ... 49	63	Pale Blue
	50 ... 51	68	Sky Blue
	52 ... 53	75	Evening Blue
	54 ... 55	79	Just Blue
	56 ... 57	85	Deeper Blue
	58 ... 59	88	Lime Green
	60 ... 61	89	Moss Green
	62 ... 63	90	Dark Yellow Green
	64 ... 65	100	Spring Yellow
	66 ... 67	101	Yellow
	68 ... 69	102	Light Amber
	70 ... 71	103	Straw
	72 ... 73	104	Deep Amber
	74 ... 75	106	Primary Red
	76 ... 77	107	Light Rose
	78 ... 79	108	English Rose
	80 ... 81	109	Light Salmon
	82 ... 83	110	Middle Rose
	84 ... 85	111	Dark Pink
	86 ... 87	113	Magenta
	88 ... 89	115	Peacock Blue
	90 ... 91	117	Steel Blue
	92 ... 93	118	Light Blue
	94 ... 95	120	Deep Blue
	96 ... 97	121	LEE Green
	98 ... 99	122	Fern Green
	100 ... 101	124	Dark Green
	102 ... 103	127	Smokey Pink
	104 ... 105	128	Bright Pink
	106 ... 107	131	Marine Blue
108 ... 109	134	Golden Amber	
110 ... 111	135	Deep Golden Amber	
112 ... 113	136	Pale Lavender	
114 ... 115	137	Special Lavender	
116 ... 117	138	Pale Green	
118 ... 119	140	Summer Blue	
120 ... 121	142	Pale Violet	
122 ... 123	143	Pale Navy Blue	
124 ... 125	144	No Color Blue	
126 ... 127	147	Apricot	
128 ... 129	148	Bright Rose	
130 ... 131	151	Gold Tint	

LEE Color Filter Continued

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	132 ... 133	152	Pale Gold
	134 ... 135	153	Pale Salmon
	136 ... 137	154	Pale Rose
	138 ... 139	156	Chocolate
	140 ... 141	157	Pink
	142 ... 143	159	No Color Straw
	144 ... 145	161	Slate Blue
	146 ... 147	162	Bastard Amber
	148 ... 149	164	Flame Red
	150 ... 151	165	Daylight Blue
	152 ... 153	169	Lilac Tint
	154 ... 155	170	Deep Lavender
	156 ... 157	174	Dark Steel Blue
	158 ... 159	176	Loving Amber
	160 ... 161	180	Dark Lavender
	162 ... 163	182	Light Red
	164 ... 165	192	Flesh Pink
	166 ... 167	194	Surprise Pink
	168 ... 169	195	Zenith Blue
	170 ... 171	196	TRUE Blue
172 ... 173	197	Alice Blue	
174 ... 175	198	Palace Blue	
176 ... 177	199	Regal Blue	
178 ... 255		RESERVED	

LEE Cosmetic (Gel Library DMX Value 10-19)

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	0 ... 1	184	Cosmetic Peach
	2 ... 3	186	Cosmetic Silver Rose
	4 ... 5	187	Cosmetic Rouge
	6 ... 7	188	Cosmetic Highlight
	8 ... 9	189	Cosmetic Silver Moss
	10 ... 11	191	Cosmetic Aqua Blue
	12 ... 13	705	Lily Frost
	14 ... 15	717	Shanklin Frost
	16 ... 17	718	Half Shanklin Frost
	18 ... 19	720	Durham Daylight Frost
	20 ... 21	749	Hampshire Rose
	22 ... 23	750	Durham Frost
	24 ... 25	774	Soft Amber Key 1
	26 ... 27	775	Soft Amber Key 2
	28 ... 29	791	Moroccan Frost
	30 ... 31	217	Blue Diffusion
	32 ... 33	221	Blue Frost
34 ... 35	224	Daylight Blue Frost	
36 ... 255		RESERVED	

LEE 600 Series (Gel Library DMX Value 20-29)

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	0 ... 1	600	Arctic White
	2 ... 3	601	Silver
	4 ... 5	602	Platinum
	6 ... 7	603	Moonlight White
	8 ... 9	604	Full CT 85
	10 ... 11	650	Industry Sodium
	12 ... 13	651	HI Sodium
	14 ... 15	652	Urban Sodium
	16 ... 17	653	LO Sodium
18 ... 255		RESERVED	

LEE 700 Series (Gel Library DMX Value 30-39)

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	0 ... 1	700	Perfect Lavender
	2 ... 3	701	Provence
	4 ... 5	702	Special Pale Lavender
	6 ... 7	703	Cold Lavender
	8 ... 9	704	Lily
	10 ... 11	706	King Fals Lavender
	12 ... 13	708	Cool Lavender
	14 ... 15	709	Electric Lilac
	16 ... 17	710	Spir Special Blue
	18 ... 19	711	Cold Blue
	20 ... 21	712	Bedford Blue
	22 ... 23	714	Elysian Blue
	24 ... 25	715	Cabana Blue
	26 ... 27	716	Mikkel Blue
	28 ... 29	719	Colour Wash Blue
	30 ... 31	721	Berry Blue
	32 ... 33	723	Virgin Blue
	34 ... 35	724	Ocean Blue
	36 ... 37	725	Old Steel Blue
	38 ... 39	728	Steel Green
	40 ... 41	730	Liberty Green
	42 ... 43	731	Dirty Ice
	44 ... 45	733	Damp Squib
	46 ... 47	738	JAS Green
	48 ... 49	742	Bram Brown
	50 ... 51	744	Dirty White
	52 ... 53	746	Brown
	54 ... 55	747	Easy White
	56 ... 57	748	Seedy Pink
	58 ... 59	763	Wheat
	60 ... 61	764	Sun Colour Straw
	62 ... 63	765	LEE Yellow
	64 ... 65	773	Cardbox Amber
	66 ... 67	776	Nectarine
	68 ... 69	778	Millennium Gold
	70 ... 71	779	Bastard Pink
	72 ... 73	781	Terry Red
	74 ... 75	789	Blood Red
	76 ... 77	790	Moroccan Pink
	78 ... 79	794	Pretty 'n Pink
	80 ... 81	795	Magical Magenta
	82 ... 255		RESERVED

LEE Color Correction (Gel Library DMX Value 40-49)

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	0 ... 1	200	Double CTB
	2 ... 3	201	Full CTB
	4 ... 5	281	3/4 CTB
	6 ... 7	202	1/2 CTB
	8 ... 9	203	1/4 CTB
	10 ... 11	218	1/8 CTB
	12 ... 13	287	Double CTO
	14 ... 15	204	Full CTO
	16 ... 17	285	3/4 CTO
	18 ... 19	205	1/2 CTO
	20 ... 21	206	1/4 CTO
	22 ... 23	223	1/8 CTO
	24 ... 25	283	1 1/2 CTB
	26 ... 27	286	1 1/2 CTO
	28 ... 29	441	Full CTS
	30 ... 31	442	1/2 CTS
	32 ... 33	443	1/4 CTS
	34 ... 35	444	1/8 CTS
	36 ... 37	207	Full CTO + 0.3 ND
	38 ... 39	208	Full CTO + 0.6 ND
	40 ... 41	212	L.C.T. Yellow (Y1)
	42 ... 43	213	White Flame Green
	44 ... 45	219	LEE Fluoro Green
	46 ... 47	230	Super Correct LCT Yellow
	48 ... 49	232	Super Correct WF Green
	50 ... 51	236	H.M.I. (to Tungsten)
	52 ... 53	237	C.I.D. (to Tungsten)
	54 ... 55	238	C.S.I. (to Tungsten)
	56 ... 57	241	LEE Fluoro 5700K
	58 ... 59	242	LEE Fluoro 4300K
	60 ... 61	243	LEE Fluoro 3600K
	62 ... 63	244	LEE Plus Green
	64 ... 65	245	1/2 Plus Green
	66 ... 67	246	1/4 Plus Green
	68 ... 69	278	1/8 Plus Green
	70 ... 71	247	LEE Minus Green
	72 ... 73	248	1/2 Minus Green
	74 ... 75	249	1/4 Minus Green
	76 ... 77	279	1/8 Minus Green
	78 ... 255		RESERVED

Rosco Cinelux (Gel Library DMX Value 50-59)

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	0 ... 1	2	Bastard Amber
	2 ... 3	302	Pale Bastard Amber
	4 ... 5	6	No Color Straw
	6 ... 7	8	Pale Gold
	8 ... 9	310	Daffodil
	10 ... 11	12	Straw
	12 ... 13	16	Light Amber
	14 ... 15	316	Gallo Gold
	16 ... 17	17	Light Flame
	18 ... 19	18	Flame
	20 ... 21	318	Mayan Sun
	22 ... 23	21	Golden Amber
	24 ... 25	321	Soft Golden Amber
	26 ... 27	23	Orange
	28 ... 29	325	Henna Sky
	30 ... 31	26	Light Red
	32 ... 33	33	No Colour Pink
	34 ... 35	333	Blush Pink
	36 ... 37	34	Flesh Pink
	38 ... 39	37	Pale Rose Pink
	40 ... 41	41	Salmon
	42 ... 43	42	Deep Salmon
	44 ... 45	44	Middle Rose
	46 ... 47	47	Light Rose Purple
	48 ... 49	51	Surprise Pink
	50 ... 51	60	No Color Blue
	52 ... 53	360	Clearwater
	54 ... 55	62	Booster Blue
	56 ... 57	362	Tipton Blue
	58 ... 59	364	Blue Bell
	60 ... 61	65	Daylight Blue
	62 ... 63	365	Tharon Delft Blue
	64 ... 65	375	Cerulean Blue
	66 ... 67	376	Bermuda Blue
	68 ... 69	77	Green Blue
	70 ... 71	378	Alice Blue
72 ... 73	80	Primary Blue	
74 ... 75	381	Baldassari Blue	
76 ... 77	83	Medium Blue	
78 ... 79	87	Pale Yellow Green	
80 ... 81	88	Light Green	
82 ... 83	89	Moss Green	
84 ... 85	91	Primary Green	

Rosco Cinelux Continued

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	86 ... 87	92	Turquoise
	88 ... 89	93	Blue Green
	90 ... 91	99	Chocolate
	92 ... 255		RESERVED

Rosco CalColor (Gel Library DMX Value 60-69)

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	0 ... 1	4215	15 Blue
	2 ... 3	4230	30 Blue
	4 ... 5	4260	60 Blue
	6 ... 7	4290	90 Blue
	8 ... 9	4307	7 Cyan
	10 ... 11	4315	15 Cyan
	12 ... 13	4330	30 Cyan
	14 ... 15	4360	60 Cyan
	16 ... 17	4390	90 Cyan
	18 ... 19	4415	15 Green
	20 ... 21	4430	30 Green
	22 ... 23	4460	60 Green
	24 ... 25	4490	90 Green
	26 ... 27	4515	15 Yellow
	28 ... 29	4530	30 Yellow
	30 ... 31	4560	60 Yellow
	32 ... 33	4590	90 Yellow
	34 ... 35	4615	15 Red
	36 ... 37	4630	30 Red
	38 ... 39	4660	60 Red
	40 ... 41	4690	90 Red
	42 ... 43	4715	15 Magenta
	44 ... 45	4730	30 Magenta
	46 ... 47	4760	60 Magenta
	48 ... 49	4790	90 Magenta
	50 ... 51	4815	15 Pink
	52 ... 53	4830	30 Pink
	54 ... 55	4860	60 Pink
	56 ... 57	4890	90 Pink
	58 ... 59	4915	15 Lavender
	60 ... 61	4930	30 Lavender
	62 ... 63	4960	60 Lavender
64 ... 65	4990	90 Lavender	
66 ... 255		RESERVED	

Rosco Storaro (Gel Library DMX Value 70-79)

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	0 ... 1	2001	VS Red
	2 ... 3	2002	VS Orange
	4 ... 5	2003	VS Yellow
	6 ... 7	2004	VS Green
	8 ... 9	2005	VS Cyan
	10 ... 11	2006	VS Azure
	12 ... 13	2007	VS Blue
	14 ... 15	2008	VS Indigo
	16 ... 17	2009	VS Violet
	18 ... 19	2010	VS Magenta
	20 ... 255		RESERVED

Rosco Color Correction (Gel Library DMX Value 80-89)

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	0 ... 1	3202	Full CTB
	2 ... 3	3203	3/4 CTB
	4 ... 5	3204	1/2 CTB
	6 ... 7	3206	1/3 CTB
	8 ... 9	3208	1/4 CTB
	10 ... 11	3216	1/8 CTB
	12 ... 13	3220	Double CTB
	14 ... 15	3407	Full CTO
	16 ... 17	3411	3/4 CTO
	18 ... 19	3408	1/2 CTO
	20 ... 21	3409	1/4 CTO
	22 ... 23	3410	1/8 CTO
	24 ... 25	3420	Double CTO
	26 ... 27	3441	Full CTS
	28 ... 29	3442	1/2 CTS
	30 ... 31	3443	1/4 CTS
	32 ... 33	3444	1/8 CTS
	34 ... 35	3304	Full Plusgreen
	36 ... 37	3315	1/2 Plusgreen
	38 ... 39	3316	1/4 Plusgreen
	40 ... 41	3317	1/8 Plusgreen
	42 ... 43	3308	Full Minusgreen
	44 ... 45	3309	3/4 Minusgreen
	46 ... 47	3313	1/2 Minusgreen
	48 ... 49	3314	1/4 Minusgreen
	50 ... 51	3318	1/8 Minusgreen
	52 ... 53	3310	Fluoro Filter

Rosco Color Correction Continued

SLOT NAME	DMX VALUE	GEL #	OUTPUT VALUE
Gel Swatch	54 ... 55	3150	Industrial Vapor
	56 ... 57	3152	Urban Vapor
	58 ... 59	3107	Tough Y-1
	60 ... 61	3134	Tough MT54
	62 ... 63	3106	Tough MTY
	64 ... 65	3102	Tough MT2
	66 ... 255		RESERVED

CCT to DMX conversion

8-Bit $DMX_{CCT} = \frac{CCT - 2200}{50.196}$

16-Bit $DMX_{CCT} = \frac{CCT - 2200}{0.195315}$

x,y Coordinate to DMX conversion

8-Bit $DMX_x = \frac{x_{coordinate} * 255}{0.8}$

$$DMX_y = \frac{y_{coordinate} * 255}{0.8}$$

16-Bit $DMX_x = \frac{x_{coordinate} * 65535}{0.8}$

$$DMX_y = \frac{y_{coordinate} * 65535}{0.8}$$

Notes

Notes

DOCUMENT HISTORY

<i>Revision</i>	<i>Date</i>	<i>Notes</i>
1.0	22-Apr-15	Original Sky Specification, 10 DMX scenarios, Firmware Version 1.0.0
1.1	16-Aug-15	Added compatibility scenarios 11-18 for V0 Sky fixtures, Firmware Version 2.3.0
1.2	11-Sep-15	Document format changes only
1.3	05-Nov-18	Added fan control slot, Firmware Version 2.4.5
2.0	29-Mar-19	Added support for Gels and Effects. Scenarios 1-10 remain the same, 11-30 are new. Firmware Version 2.5.0

