DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
1	1	Intensity High	0	0-65535	16-Bit control of Dimming
2	2	Intensity Low			
3	3	Pan High	32767	0-65535	540° Total Pan Rotation
4	4	Pan Low			
5	5	Tilt High	32767	0-65535	270° Total Tilt
6	6	Tilt Low			
7	7	Focus High	32767	0-65535	Focus control Default value 50% Focus range
8	8	Focus Low			
9	9	Zoom High	32767	0-65535	Zoom control Default value 50% zoom range
10	10	Zoom Low			
11	11	Cyan	0	0 - 255	Cyan Color Control 0-100% saturation
12	12	Yellow	0	0 - 255	Yellow Color Control 0-100% saturation
13	13	Magenta	0	0 - 255	Magenta Color Control 0-100% saturation
14	14	CTO Wheel	0	0 - 255	CTO Color Control 0-100% saturation
15	15	Color Adjustment (Color Wheel 2)	0	0 - 255	8-bit control of Color Adjustment (Color Wheel 2) .
				0 - 30	Open
				31 - 60	CRI Booster
				61 - 90	1/2 Minus Green
				91-120	1/4 Minus Green
				121--180	CTB
				181-255	Reserved
16	16	Color Wheel 1 (Color Wheel)	0	0 - 255	8-bit control of Color Wheel. (spin speed slow to fast from control channel) OPEN (centered at 0)
				0-31	Open
				32-63	Red Center - 48
				64-95	Dark Blue Center - 80
				96-127	Yellow Center - 112
				128-159	Kelly Green Center - 144
				160-191	Amber Center - 176
				192-223	Congo Blue Center - 208
				224-255	Open

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
17	17	Color Wheel 1 Control	0	0 - 255	
				0 - 5	Linear Movement using shortest (quickest) path.
				6 - 10	Linear Movement using normal (longest) path.
				11 - 15	Wheel Spin CW (Forward)
				16 - 20	Wheel Spin STOP
				21 - 25	Wheel Spin CCW (Reverse)
				26 - 56	Color Shake Quickest Path (Slow to Fast) For fastest shake set color timing to 0
				57 - 87	Color Shake Normal Path (Slow to Fast) For fastest shake set color timing to 0
				88 - 255	Reserved Values
18	18	Gobo Wheel 1 (Fixed)	0	0-255	8-bit control of Gobo Wheel See channel 19 for control options
				0 - 20	Open - No Gobo
				21 - 41	Gobo 1 Leafy Breakup
				42 - 62	Gobo 2 Medium Circle
				63 - 83	Gobo 3 Square Pile
				84 - 104	Gobo 4 Confusion
				105 - 125	Gobo 5 Dust
				126 - 146	Gobo 6 Neurons
				147 - 167	Gobo 7 Radial Breakup
				168 - 188	Gobo 8 Staples
				189 - 209	Gobo 9 Blobs
				210 - 230	Gobo 10 Pipes Breakup
				231 - 255	Open - No Gobo
19	19	Gobo Wheel 1 Control	0	0 - 255	Used as a control channel for different movement options for Gobo Wheel 1 (Channel 18)
				0 - 5	Gobo Selection using shortest (quickest) path.
				6 - 10	Gobo Selection using normal (longest) path.
				11 - 20	Reserved Values
				21 - 50	Wheel Spin CW Forward (Fast to Slow)
				51 - 60	Wheel Spin STOP
				61 - 90	Wheel Spin CCW Reverse (Slow to Fast)
				91 - 120	Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0
				121 - 150	Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0
				151 - 180	Reserved Values
				181 - 210	Reserved Values
				211 - 255	Reserved Values

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
20	20	Gobo Wheel 2	0	0 - 255	8-bit control of Gobo Wheel 2. See channel 21 for Index/Rotation See channel 23 for control options.
				0 - 5	Open - No Gobo
				6 - 10	Gobo 1 Night Sky Index
				11 - 15	Gobo 2 New Twirler Index
				16 - 20	Gobo 3 Bricked Out Index
				21 - 25	Gobo 4 Horzonal Slits Index
				26 - 30	Gobo 5 Super Alpha Rays Index
				31 - 35	Gobo 6 Honey Comb Reverse Index
				36 - 40	Gobo 7 On the Rocks ndex
				41 - 45	Open - No Gobo
				46 - 50	Gobo 1 Night Sky Rotate
				51 - 55	Gobo 2 New Twirler Rotate
				56 - 60	Gobo 3 Bricked Out Rotate
				61 - 65	Gobo 4 Horzonal Slits Rotate
				66 - 70	Gobo 5 Super Alpha Rays Rotate
				71 - 75	Gobo 6 Honey Comb Reverse Rotate
				76 - 80	Gobo 7 On the Rocks Rotate
				81 - 85	Open - No Gobo
				86 - 90	Gobo 1 Night Sky Rotate Mega Stepping
				91 - 95	Gobo 2 New Twirler Rotate Mega Stepping
				96 - 100	Gobo 3 Bricked Out Rotate Mega Stepping
				101 - 105	Gobo 4 Horzonal Slits Rotate Mega Stepping
				106 - 110	Gobo 5 Super Alpha Rays Rotate Mega Stepping
				111 - 115	Gobo 6 Honey Comb Reverse Rotate Mega Stepping
				116 - 120	Gobo 7 On the Rocks Rotate Mega Stepping
				121 - 255	Open - No Gobo
21	21	Gobo Wheel 2 Rotate/Index High Byte	32767	0 - 65535	16-bit control of index and rotation of gobo wheel 2.
				0 - 32756	Rotate Fast to Slow <<<
22	22	Low Byte		32757 - 32780	Rotation STOP
				32781 - 65535	Rotate Slow to Fast >>>

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
23	23	Gobo Wheel 2 Control	0	0 - 255	Used as a control channel for different movement options for Gobo Wheel 2 (Channel 20)
				0 - 5	Gobo Selection using shortest (quickest) path.
				6 - 10	Gobo Selection using normal (longest) path.
				11 - 20	Reserved Values
				21 - 50	Wheel Spin CW Forward (Fast to Slow)
				51 - 60	Wheel Spin STOP
				61 - 90	Wheel Spin CCW Reverse (Slow to Fast)
				91 - 120	Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0
				121 - 150	Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0
				151 - 180	Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0
				181 - 210	Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0
				211 - 255	Reserved Values
24	24	VLFX (Gobo Wheel 3)	0	0 - 255	8-bit control of VLFX (Gobo Wheel 3). See Channel 27 for control options.
				0 -10	Open - No Gobo
				11 -33	Gobo 1 Amoeboid chamber Index
				34 -56	Gobo 2 Dichrofusion Index
				57 -79	Gobo 3 Concurrent Index
				80 -90	Open - No Gobo
				91 -113	Gobo 1 Amoeboid chamber Rotate
				114 -136	Gobo 2 Dichrofusion Rotate
				137 -159	Gobo 3 Concurrent Rotate
				160 -170	Open - No Gobo
				171 -193	Gobo 1 Amoeboid chamber Rotate Mega Stepping
				194 -216	Gobo 2 Dichrofusion Rotate Mega Stepping
				217 -239	Gobo 3 Concurrent Rotate Mega Stepping
				240 -255	Open - No Gobo
25	25	VLFX (Gobo Wheel 3) Rotate/Index High Byte	32767	0 - 65535	16-bit control of index and rotation of VLFX (Gobo wheel 3).
				0 - 32756	Rotate Fast to Slow <<<
26	26	Low Byte		32757 - 32780	Rotation STOP
				32781 - 65535	Rotate Slow to Fast >>>

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
27	27	VLFX Gobo Wheel 3 Control	0	0 - 255	Used as a control channel for different movement options for Gobo Wheel 3 (24)
				0 - 5	Gobo Selection using shortest (quickest) path.
				6 - 10	Gobo Selection using normal (longest) path.
				11 - 20	Reserved Values
				21 - 50	Wheel Spin CW Forward (Fast to Slow)
				51 - 60	Wheel Spin STOP
				61 - 90	Wheel Spin CCW Reverse (Slow to Fast)
				91 - 120	Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0
				121 - 150	Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0
				151 - 180	Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0
				181 - 210	Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0
				211 - 255	Reserved Values
28	28	Iris	0	0-255	Iris size control
				0 - 200	Iris beam size open to closed
				201 - 255	Iris pulse slow to fast
29	29	Frame 1A	0	0 - 255	Controls Framing Shutter 1A from Open (DMX 0) to Full (DMX 255).
30	30	Frame 1B	0	0 - 255	Controls Framing Shutter 1B from Open (DMX 0) to Full (DMX 255).
31	31	Frame 2A	0	0 - 255	Controls Framing Shutter 2A from Open (DMX 0) to Full (DMX 255).
32	32	Frame 2B	0	0 - 255	Controls Framing Shutter 2B from Open (DMX 0) to Full (DMX 255).
33	33	Frame 3A	0	0 - 255	Controls Framing Shutter 3A from Open (DMX 0) to Full (DMX 255).
34	34	Frame 3B	0	0 - 255	Controls Framing Shutter 3B from Open (DMX 0) to Full (DMX 255).
35	35	Frame 4A	0	0 - 255	Controls Framing Shutter 4A from Open (DMX 0) to Full (DMX 255).
36	36	Frame 4B	0	0 - 255	Controls Framing Shutter 4B from Open (DMX 0) to Full (DMX 255).
37	37	Frame Rotate	128	0 - 255	Controls Framing Shutter mechanism from +/- 60°

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
38	38	Prism 1 (Triangular)	0	0 - 255	Controls Prism mechanism with following values.
				0 - 5	Open
				6 - 10	Index
				11 - 15	Rotate Normal
				16 - 20	Rotate with Mega Stepping
				21 - 255	Reserved Values
39	39	Prism 1 (Index/Rotate) High Byte	32767	0 - 65535	16-bit control of prism rotation and index.
				0 - 32756	Rotate Fast to Slow <<<
40	40	Low Byte		32757 - 32780	Rotation STOP
				32781 - 65535	Rotate Slow to Fast >>>
41	41	Prism 2 (Flat)	0	0 - 255	Controls Prism mechanism with following values.
				0 - 5	Open
				6 - 10	Index
				11 - 15	Rotate Normal
				16 - 20	Rotate with Mega Stepping
				21 - 255	Reserved Values
42	42	Prism 2 (Index/Rotate) High Byte	32767	0 - 65535	16-bit control of prism rotation and index.
				0 - 32756	Rotate Fast to Slow <<<
43	43	Low Byte		32757 - 32780	Rotation STOP
				32781 - 65535	Rotate Slow to Fast >>>
44	44	Frost	0	0-255	Control of dual frost
				0 - 10	No Frost
				11 - 20	Frost 1 (light)
				21 - 25	Frost 2 (heavy)
				26 - 36	Open
				37-255	Both Frost 1 & 2 (very heavy)
45	45	Strobe	0	0 - 5	Shutter open
				6 - 10	Shutter closed
				11 - 125	Strobe Slow>>>>>>>Fast 0.5Hz-30Hz
				126 - 130	Shutter open
				131 - 245	Strobe Random/Random Sync* Slow>>>>>>>>Fast
				246 - 250	Shutter open
				251 - 255	Shutter closed *See Programmers channel for mode slection

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
46	46	Future use channel	0		Channel reserved for future use
47	47	Programmers Channel	0		Functions do not require 3 second DMX rule, except as noted. Mode will change once DMX level is reached
				0-40	Idle
				41 - 45	Dimming Curve Linear (3 second rule)
				46 - 50	Dimming Curve S-Curve (3 second rule)
				51 - 55	Dimming Curve Square Curve (Default)** (3 second rule)
				56 - 60	Dimmer Snap On
				61 - 65	Dimmer Snap Off (Default)
				66 - 75	Reserved Values
				76 - 80	Edge Tracking On
				81 - 85	Edge Tracking Off (Default
				86 - 90	Reserved Values
				91 - 95	Color Snap Off (Default)
				96 - 100	Color Snap On (de-activates color timing channel)
				101 - 105	Reserved Values
				106 - 110	Strobe Random (Default)
				111 - 115	Strobe Random Sync
				116 - 255	Reserved Values
	48	Focus Timing	255	0 - 255	Adjustment of fixture timing to control Pan/Tilt mechanisms. See Timing Channel Values
	49	Optics Timing	255	0 - 255	Adjustment of fixture timing to control lensing mechanisms. See Timing Channel Values.
	50	Color Timing	255	0 - 255	Adjustment of fixture timing to control color mechanisms. See Timing Channel Values.
	51	Beam Timing	255	0 - 255	Adjustment of fixture timing to control beam shaping mechanisms. See Timing Channel Values.
	52	Gobo Timing	255	0 - 255	Adjustment of fixture timing to control gobo mechanisms. See Timing Channel Values.

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
48	53	Fan Control	0	0 - 255	Dynamically control fan speed vs LED Output operation. Control values as follows . . .
				0-4	Automatic fan/output adjustment (Default)
				05 - 255	Linear control of fan speed and LED max output* DMX 5 =Highest Constant Fan Speed (Standard mode) DMX 255 = Lowest Constant Fan Speed (Whisper mode) * Standard mode only. Function is dec-activated if Studio or Boost modes are selected via Dmx or User Interface **Note channel is deactivated by default. The function requires activation for use. Activation is from the UI or the luminaire control channel
49	54	Luminaire Control	0	0 - 255	Control Channel used for full fixture settings Set discrete value of desired effect, wait >3 sec then set value to 0 (Idle).
				0 - 5	Idle (Default to 0)
				6 - 10	Full Luminaire ReCal - also used to wake from shutdown
				11 - 15	Fixture Shutdown
				16 - 20	ReBoot
				21 - 25	Display - Menu On (Will unlock if locked)
				26 - 30	Display - Menu Off
				31 - 85	Reserved
				86 - 90	Status Check
				91 - 95	Side Hang Disable (Default)
				96 - 100	Side Hang Enable
				101 - 110	Reserved
				111 - 115	Standard Mode (Default)
				116 - 120	Studio Mode
				121 - 125	Whisper Mode
				126 - 135	Reserved
				136 - 140	Fan On (Default)
				141 - 145	Fan Auto
				146 - 148	Fan Control On
				149 - 150	Fan Control Off (Default)
				151 - 155	ReCal Position
				156 - 160	ReCal Color
				161 - 165	ReCal Beam
				166 - 170	ReCal Optics
				171 - 175	ReCal Gobo
				176 - 180	Reset fixture to defaults

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
49	54	Luminaire Control - continued	0	181 - 185	CTB Correction Off (Default)
				186 - 190	CTB Correction On
				191 - 195	Reserved
				196	LED Refresh 900Hz
				197	LED Refresh 910Hz
				198	LED Refresh 920Hz
				199	LED Refresh 930Hz
				200	LED Refresh 940Hz
				201	LED Refresh 950Hz
				202	LED Refresh 960Hz
				203	LED Refresh 980Hz
				204	LED Refresh 990Hz
				205	LED Refresh 1000Hz
				206	LED Refresh 1500Hz (Default)
				207	LED Refresh 2500Hz
				208	LED Refresh 3000Hz
				209	LED Refresh 3500Hz
				210	LED Refresh 4000Hz
				211	LED Refresh 4500Hz
				212	LED Refresh 5000Hz
				213	LED Refresh 5500Hz
				214	LED Refresh 6000Hz
				215	LED Refresh 6500Hz
				216	LED Refresh 7000Hz
				217	LED Refresh 7500Hz
				218	LED Refresh 8000Hz
				219	LED Refresh 8500Hz
				220	LED Refresh 9000Hz
				221	LED Refresh 10KHz
				222	LED Refresh 10.5KHz
				223	LED Refresh 11KHz
				224	LED Refresh 11.5KHz
				225	LED Refresh 12.5KHz
				226	LED Refresh 13KHz
				227	LED Refresh 13.5KHz
				228	LED Refresh 14KHz
				229	LED Refresh 14.5KHz

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
49	54	Luminaire Control - continued	0	181 - 185	CTB Correction Off (Default)
				186 - 190	CTB Correction On
				191 - 195	Reserved
				196	LED Refresh 900Hz
				197	LED Refresh 910Hz
				198	LED Refresh 920Hz
				199	LED Refresh 930Hz
				200	LED Refresh 940Hz
				201	LED Refresh 950Hz
				202	LED Refresh 960Hz
				203	LED Refresh 980Hz
				204	LED Refresh 990Hz
				205	LED Refresh 1000Hz
				206	LED Refresh 1500Hz (Default)
				207	LED Refresh 2500Hz
				208	LED Refresh 3000Hz
				209	LED Refresh 3500Hz
				210	LED Refresh 4000Hz
				211	LED Refresh 4500Hz
				212	LED Refresh 5000Hz
				213	LED Refresh 5500Hz
				214	LED Refresh 6000Hz
				215	LED Refresh 6500Hz
				216	LED Refresh 7000Hz
				217	LED Refresh 7500Hz
				218	LED Refresh 8000Hz
				219	LED Refresh 8500Hz
				220	LED Refresh 9000Hz
				221	LED Refresh 10KHz
				222	LED Refresh 10.5KHz
				223	LED Refresh 11KHz
				224	LED Refresh 11.5KHz
				225	LED Refresh 12.5KHz
				226	LED Refresh 13KHz
				227	LED Refresh 13.5KHz
				228	LED Refresh 14KHz
				229	LED Refresh 14.5KHz

Timing Channel Values

DMX	% VALUES	TIME (SEC)
0		Full Speed
1		0.2
2		0.4
3	1	0.6
4		0.8
5	2	1
6		1.2
7		1.4
8	3	1.6
9		1.8
10	4	2
11		2.2
12		2.4
13	5	2.6
14		2.8
15	6	3
16		3.2
17		3.4
18	7	3.6
19		3.8
20	8	4
21		4.2
22		4.4
23	9	4.6
24		4.8
25	10	5
26		5.2
27		5.4
28	11	5.6
29		5.8
30		6
31	12	6.2
32		6.4
33	13	6.6
34		6.8
35		7
36	14	7.2
37		7.4
38	15	7.6
39		7.8
40		8
41	16	8.2
42		8.4
43	17	8.6
44		8.8
45		9
46	18	9.2
47		9.4
48	19	9.6
49		9.8
50		10
51	20	10.2
52		10.4
53		10.6
54	21	11
55		11
56	22	12
57		12
58		13
59	23	13
60		14
61	24	14
62		14
63		15
64	25	15
65		16
66	26	16
67		16
68		17
69	27	17
70		18
71	28	18
72		18
73		19
74	29	19
75		20
76	30	20
77		20
78		21
79	31	21
80		21
81		22
82	32	22
83		23
84	33	23
85		23
86		24
87	34	24
88		25
89	35	25
90		25
91		26
92	36	26
93		27
94	37	27
95		27
96		28
97	38	28
98		29
99	39	29
100		29
101		30
102	40	30
103		30
104		31
105	41	31
106		32
107	42	32
108		32
109		33
110	43	33
111		34
112	44	34
113		34
114		35
115	45	35
116		36
117	46	36
118		36
119		37
120	47	37
121		38
122	48	38
123		38
124		39
125	49	39
126		39
127		40
128	50	40
129		41
130	51	41
131		41

Timing Channel Values - continued

DMX	% VALUES	TIME (SEC)
132		42
133	52	42
134		43
135	53	43
136		43
137		44
138	54	44
139		45
140	55	45
141		45
142		46
143	56	46
144		47
145	57	47
146		47
147		48
148	58	48
149		49
150	59	49
151		49
152		50
153	60	50
154		50
155		51
156	61	51
157		52
158	62	52
159		52
160		53
161	63	53
162		54
163	64	54
164		54
165		55
166	65	55
167		56
168	66	56
169		56
170		57
171	67	57
172		58
173	68	58
174		58
175		59
176	69	59
177		59
178		60
179	70	60
180		65
181	71	65
182		65
183		70
184	72	70
185		75
186	73	75
187		75
188		80
189	74	80
190		85
191	75	85
192		85
193		90
194	76	90
195		95
196	77	95
197		95
198		100
199	78	100
200		110
201	79	110
202		110
203		120
204	80	120
205		120
206	81	130
207		130
208		140
209	82	140
210		140
211		150
212	83	150
213		160
214	84	160
215		160
216		170
217	85	170
218		180
219	86	180
220		180
221		190
222	87	190
223		200
224	88	200
225		200
226		210
227	89	210
228		210
229		220
230	90	220
231		230
232	91	230
233		230
234		240
235	92	240
236		250
237	93	250
238		250
239		260
240	94	260
241		270
242	95	270
243		270
244		280
245	96	280
246		290
247	97	290
248		290
249		300
250	98	300
251		310
252	99	310
253		310
254		310
255	100	Follows Cue Data