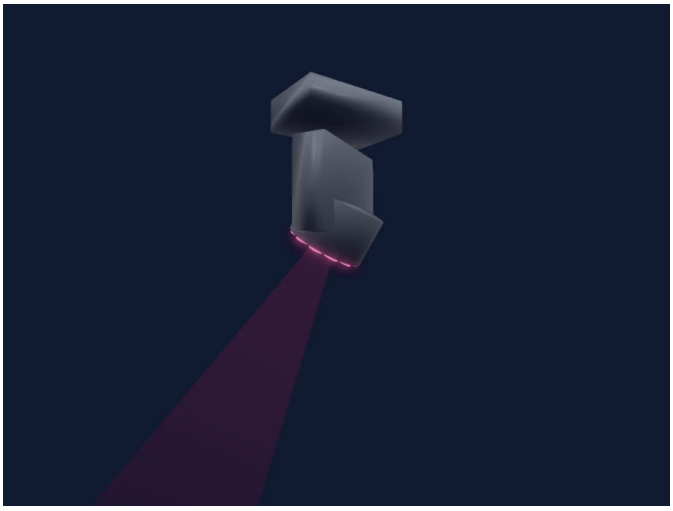
EK Lights

R2 Beam Wash



Manufacturer	**EK Lights**
Type	**Moving head**
DMX modes	**4**
DMX footprint	**16, 17, 43, 86 channels**
Beam angle	**25°**
Pan range	**540°**
Tilt range	**220°**
Heads / cells	**2**
Size (W × H × D)	**292 × 178 × 292 mm**
GDTF fixture type	**409CB458-45F8-49F9-BF13-72…**

Controls

Zoom · Extra LED colours · RGB colour mixing · Colour temperature · Colour wheel · Effect speed · Strobe · Dimmer · Pixel control · Pan and tilt · Movement speed

Safety-relevant functions

Fixture reset · Service functions · Built-in effect programmes

DMX modes

16CH	16 ch
17 CH	17 ch
43CH	43 ch
86CH	86 ch

16CH

16 channels

Ch	Function	Default	DMX values
1	Pan	128	
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	
4	Tilt Fine	0	Fine byte of Tilt
5	Dimmer	0	0–254 Closed 255–255 Open
6	Dimmer Fine	0	Fine byte of Dimmer
7	Red	255	
8	Green	255	
9	Blue	255	
10	Color Add WW	0	
11	C TO	0	0–39 Open 40–40 2700K 41–70 3200K 71–100 4000K 101–130 5600K 131–160 6500K 161–190 7000K 191–220 7500K 221–255 8000K
12	Tint	128	0–127 Magenta 128–128 Open 129–255 Green
13	Zoom	0	0–127 Narrow 128–254 Mid 255–255 Wide
14	Color Macro1	0	0–5 Open 6–10 FX 1 11–15 FX 2 16–20 FX 3 21–25 FX 4 26–30 FX 5 31–35 FX 6 36–40 FX 7 41–45 FX 8 46–50 FX 9 51–55 FX 10 56–60 FX 11 61–65 FX 12 66–70 FX 13 71–75 FX 14 76–80 FX 15 81–85 FX 16 86–90 FX 17 91–95 FX 18 96–100 FX 19 101–255 All On
15	Color Macro1Rate	0	0–5 Static 6–127 Forward Slow - Fast 128–255 Reverse Fast - Slow

16CH (continued)

Ch	Function	Default	DMX values
16	Control1	0	0–5 No Function 6–7 Blackout On 8–9 Blackout Off 10–41 No Function 42–43 Invert Pan On 44–45 Invert Pan Off 46–47 Invert Tilt On 48–49 invert Tilt Off 50–73 No Function 74–75 Dim Response LED 76–77 Dim Response Halogen 78–97 No Function 98–99 Silent Fan 100–101 Auto Fan 102–119 No Function 120–121 PWM 800Hz 122–123 PWM 1200Hz 124–125 PWM 2000Hz 126–127 PWM 3600Hz 128–129 PWM 12000Hz 130–131 PWM 25000Hz 132–139 No Function 140–141 Display On 142–143 Display Off 144–159 No Function 160–161 LED Direction Normal 162–163 LED Direction Mirrored 164–165 Dimmer Curve Linear 166–167 Dimmer Curve Exponential 168–169 Dimmer Curve Logarithmic 170–171 Dimmer Curve S-Curve 172–201 No Function 202–203 RAW Mode 204–205 User Calibrated Mode 206–207 Factory Calibrated Mode 208–221 No Function 222–223 P/T Reset 224–227 No Function 228–229 Zoom Reset 230–235 No Function 236–237 Reset All 238–255 No Function

17 CH

17 channels

Ch	Function	Default	DMX values
1	Pan	128	
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	
4	Tilt Fine	0	Fine byte of Tilt
5	Shutter / Strobe	255	1–5 Open 6–10 Closed 11–33 Pulse Random 34–56 Pulse Open 57–79 Pulse Closed 80–102 Random 103–127 Lightning strobe 1–20 Hz 128–250 Strobe 251–255 Open

17 CH (continued)

Ch	Function	Default	DMX values
6	Dimmer	0	0–254 Closed 255–255 Open
7	Dimmer Fine	0	Fine byte of Dimmer
8	Red	255	
9	Green	255	
10	Blue	255	
11	Color Add WW	0	
12	C TO	0	0–39 Open 40–40 2700K 41–70 3200K 71–100 4000K 101–130 5600K 131–160 6500K 161–190 7000K 191–220 7500K 221–255 8000K
13	Tint	128	0–127 Magenta 128–128 Open 129–255 Green
14	Zoom	0	0–127 Narrow 128–254 Mid 255–255 Wide
15	Color Macro1	0	0–5 Open 6–10 FX 1 11–15 FX 2 16–20 FX 3 21–25 FX 4 26–30 FX 5 31–35 FX 6 36–40 FX 7 41–45 FX 8 46–50 FX 9 51–55 FX 10 56–60 FX 11 61–65 FX 12 66–70 FX 13 71–75 FX 14 76–80 FX 15 81–85 FX 16 86–90 FX 17 91–95 FX 18 96–100 FX 19 101–255 All On
16	Color Macro1Rate	0	0–5 Static 6–127 Forward Slow - Fast 128–255 Reverse Fast - Slow

17 CH (continued)

Ch	Function	Default	DMX values
17	Control1	0	0–5 No Function 6–7 Blackout On 8–9 Blackout Off 10–41 No Function 42–43 Invert Pan On 44–45 Invert Pan Off 46–47 Invert Tilt On 48–49 invert Tilt Off 50–73 No Function 74–75 Dim Response LED 76–77 Dim Response Halogen 78–97 No Function 98–99 Silent Fan 100–101 Auto Fan 102–119 No Function 120–121 PWM 800Hz 122–123 PWM 1200Hz 124–125 PWM 2000Hz 126–127 PWM 3600Hz 128–129 PWM 12000Hz 130–131 PWM 25000Hz 132–139 No Function 140–141 Display On 142–143 Display Off 144–159 No Function 160–161 LED Direction Normal 162–163 LED Direction Mirrored 164–165 Dimmer Curve Linear 166–167 Dimmer Curve Exponential 168–169 Dimmer Curve Logarithmic 170–171 Dimmer Curve S-Curve 172–201 No Function 202–203 RAW Mode 204–205 User Calibrated Mode 206–207 Factory Calibrated Mode 208–221 No Function 222–223 P/T Reset 224–227 No Function 228–229 Zoom Reset 230–235 No Function 236–237 Reset All 238–255 No Function

43CH

43 channels

Ch	Function	Default	DMX values
1	Pan	128	
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	
4	Tilt Fine	0	Fine byte of Tilt
5	Dimmer	0	0–254 Closed 255–255 Open
6	Dimmer Fine	0	Fine byte of Dimmer

43CH (continued)

Ch	Function	Default	DMX values
7	Shutter / Strobe	255	0–5 Open 6–10 Closed 11–33 Pulse Random 34–56 Ramp Up Random 57–79 Ramp Down Random 80–102 Random 103–127 Shutter1StrobeRandomPulse 6 · Lightning 1–15 Hz 128–250 Strobe 251–255 Open
8	Red	255	
9	Red Fine	255	Fine byte of Red
10	Green	255	
11	Green Fine	255	Fine byte of Green
12	Blue	255	
13	Blue Fine	255	Fine byte of Blue
14	Color Add WW	0	
15	Color Add WW Fine	0	Fine byte of Color Add WW
16	Color Macro1	0	
17	Color Macro1Rate	0	
18	C TO	0	0–39 Open 40–40 2700K 41–70 3200K 71–100 4000K 101–130 5600K 131–160 6500K 161–190 7000K 191–220 7500K 221–255 8000K
19	Tint	128	0–127 Magenta 128–128 Open 129–255 Green
20	Zoom	0	0–127 Narrow 128–254 Mid 255–255 Wide
21	Zoom Fine	0	Fine byte of Zoom
22	Effects Sync	0	0–5 Off 6–64 Pattern 1 65–128 Pattern 2 129–255 Running Effects

43CH (continued)

Ch	Function	Default	DMX values
23	Effect	0	0–5 Off 6–10 Selection 1 11–15 Selection 2 16–20 Selection 3 21–25 Selection 4 26–30 Selection 5 31–35 Selection 6 36–40 Selection 7 41–45 Selection 8 46–50 Selection 9 51–55 Selection 10 56–60 Selection 11 61–65 Selection 12 66–70 Selection 13 71–75 Selection 14 76–80 Selection 15 81–85 Selection 16 86–90 Selection 17 91–95 Selection 18 96–100 Selection 19 101–105 Selection 20 106–110 Selection 21 111–115 Selection 22 116–120 Selection 23 121–125 Selection 24 126–130 Selection 25 131–135 Selection 26 136–140 Selection 27 141–145 Selection 28 146–150 Selection 29 151–155 Selection 30 156–160 Selection 31 161–165 Selection 32 166–170 Selection 33 171–175 Selection 34 176–180 Selection 35 181–185 Selection 36 186–190 Selection 37 191–195 Selection 38 196–200 Selection 39 201–205 Selection 40 206–210 Selection 41 211–215 Selection 42 216–220 Selection 43 221–225 Selection 44 226–230 Selection 45 231–235 Selection 46 236–240 Selection 47 241–245 Selection 48 246–250 Selection 49 251–255 Selection 50
24	Effect Speed	0	0–5 Effect Pattern Stop 6–127 Effect Pattern Forward 128–255 Effect Pattern Reverse
25	Effects1Fade	0	
26	Effects1Adjust1	0	0–5 No Function 6–127 Fade 128–255 Wake
27	Dimmer	0	0–254 Closed 255–255 Open
28	Dimmer Fine	0	Fine byte of Dimmer

43CH (continued)

Ch	Function	Default	DMX values
29	Shutter / Strobe	255	0–5 Open 6–10 Closed 11–33 Pulse Random 34–56 Ramp Up Random 57–79 Ramp Down Random 80–102 Random 103–127 Shutter1StrobeRandomPulse 6 · Lightning 1–15 Hz 128–250 Strobe 251–255 Open
30	Red	255	
31	Red Fine	255	Fine byte of Red
32	Green	255	
33	Green Fine	255	Fine byte of Green
34	Blue	255	
35	Blue Fine	255	Fine byte of Blue
36	Color Add WW	0	
37	Color Add WW Fine	0	Fine byte of Color Add WW
38	Color Macro1	0	
39	Color Macro1Rate	0	
40	C TO	0	0–39 Open 40–40 2700K 41–70 3200K 71–100 4000K 101–130 5600K 131–160 6500K 161–190 7000K 191–220 7500K 221–255 8000K
41	Tint	128	0–127 Magenta 128–128 Open 129–255 Green
42	Position MSpeed	0	0–254 Fast 255–255 Sloow

43CH (continued)

Ch	Function	Default	DMX values
43	Control1	0	0–5 No Function 6–7 Blackout On 8–9 Blackout Off 10–41 No Function 42–43 Invert Pan On 44–45 Invert Pan Off 46–47 Invert Tilt On 48–49 invert Tilt Off 50–73 No Function 74–75 Dim Response LED 76–77 Dim Response Halogen 78–97 No Function 98–99 Silent Fan 100–101 Auto Fan 102–119 No Function 120–121 PWM 800Hz 122–123 PWM 1200Hz 124–125 PWM 2000Hz 126–127 PWM 3600Hz 128–129 PWM 12000Hz 130–131 PWM 25000Hz 132–139 No Function 140–141 Display On 142–143 Display Off 144–159 No Function 160–161 LED Direction Normal 162–163 LED Direction Mirrored 164–165 Dimmer Curve Linear 166–167 Dimmer Curve Exponential 168–169 Dimmer Curve Logarithmic 170–171 Dimmer Curve S-Curve 172–201 No Function 202–203 RAW Mode 204–205 User Calibrated Mode 206–207 Factory Calibrated Mode 208–221 No Function 222–223 P/T Reset 224–227 No Function 228–229 Zoom Reset 230–235 No Function 236–237 Reset All 238–255 No Function

86CH

86 channels

Ch	Function	Default	DMX values
1	Pan	128	
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	
4	Tilt Fine	0	Fine byte of Tilt
5	Dimmer	0	
6	Dimmer Fine	0	Fine byte of Dimmer

86CH (continued)

Ch	Function	Default	DMX values
7	Shutter / Strobe	255	0–5 Open 6–10 Closed 11–33 Pulse Random 34–56 Ramp Up Random 57–79 Ramp Down Random 80–102 Random 103–127 Shutter1StrobeRandomPulse 6 · Lightning 1–15 Hz 128–250 Strobe 251–255 Open
8	Reserved 8	0	
9	Reserved 9	0	
10	Reserved 10	0	
11	Reserved 11	0	
12	Reserved 12	0	
13	Reserved 13	0	
14	Reserved 14	0	
15	Reserved 15	0	
16	Reserved 16	0	
17	Reserved 17	0	
18	Reserved 18	0	
19	Reserved 19	0	
20	Reserved 20	0	
21	Reserved 21	0	
22	Reserved 22	0	
23	Reserved 23	0	
24	Reserved 24	0	
25	Reserved 25	0	
26	Reserved 26	0	
27	Reserved 27	0	
28	Reserved 28	0	
29	Reserved 29	0	
30	Reserved 30	0	
31	Reserved 31	0	
32	Reserved 32	0	
33	Reserved 33	0	
34	Reserved 34	0	
35	Reserved 35	0	
36	Reserved 36	0	
37	Reserved 37	0	
38	Reserved 38	0	
39	Reserved 39	0	
40	Reserved 40	0	
41	Reserved 41	0	
42	Reserved 42	0	
43	Reserved 43	0	
44	Reserved 44	0	
45	Reserved 45	0	

86CH (continued)

Ch	Function	Default	DMX values
46	Reserved 46	0	
47	Reserved 47	0	
48	Reserved 48	0	
49	Reserved 49	0	
50	Reserved 50	0	
51	Reserved 51	0	
52	Reserved 52	0	
53	Reserved 53	0	
54	Reserved 54	0	
55	Reserved 55	0	
56	Reserved 56	0	
57	Reserved 57	0	
58	Reserved 58	0	
59	Reserved 59	0	
60	Reserved 60	0	
61	Reserved 61	0	
62	Reserved 62	0	
63	Reserved 63	0	
64	Reserved 64	0	
65	Reserved 65	0	
66	Reserved 66	0	
67	Reserved 67	0	
68	Reserved 68	0	
69	Reserved 69	0	
70	Reserved 70	0	
71	Reserved 71	0	
72	Reserved 72	0	
73	Reserved 73	0	
74	Reserved 74	0	
75	Reserved 75	0	
76	Reserved 76	0	
77	Reserved 77	0	
78	Reserved 78	0	
79	Reserved 79	0	
80	Reserved 80	0	
81	Reserved 81	0	
82	Reserved 82	0	
83	Reserved 83	0	
84	Zoom	0	
85	Zoom Fine	0	Fine byte of Zoom
86	Control1	0	