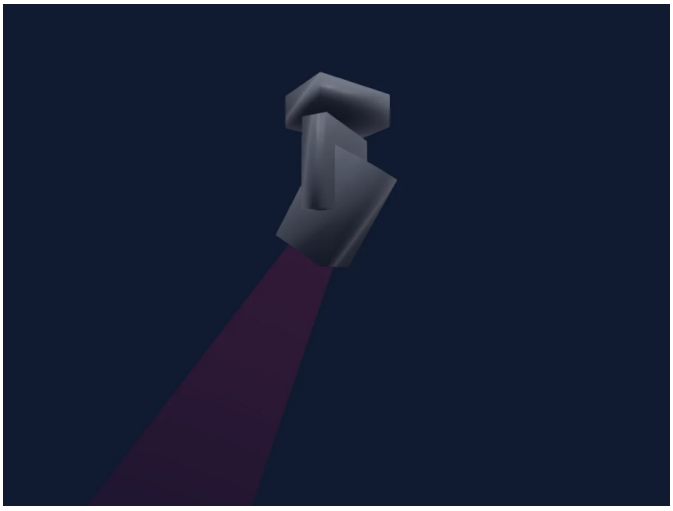
Event Lighting

M1H420W



Manufacturer	**Event Lighting**
Type	**Profile spot**
DMX modes	**4**
DMX footprint	**20, 22, 29, 30 channels**
Beam angle	**3.5-40°**
Pan range	**540°**
Tilt range	**265°**
Size (W × H × D)	**240 × 402 × 229 mm**
GDTF fixture type	**35DD904B-9CF5-4486-A363-C4…**

Controls

Focus · Frost · Iris · Prism · Prism rotation · Zoom · CMY colour mixing · Colour temperature · Colour wheel · Strobe · Dimmer · Pan and tilt · Gobos · Gobo rotation

Safety-relevant functions

Fixture reset · Service functions

DMX modes

Basic 1	20 ch
Basic 2	22 ch
Standard	29 ch
Extended	30 ch

Basic 1

20 channels

Ch	Function	Default	DMX values
1	Pan	127	
2	Tilt	127	
3	X YSpeed	0	
4	Shutter / Strobe	32	0–31 Closed 32–63 Open 64–65 Slow Strobe 66–94 Strobe 95–95 Fast Strobe 96–127 Open 128–159 Pulse Effects 160–191 Open 192–192 Random Strobe min 193–222 Random Strobe 223–223 Random Strobe max 224–255 Open
5	Dimmer	0	0–254 Close 255–255 Open

Basic 1 (continued)

Ch	Function	Default	DMX values
6	Color Wheel	0	0–2 Open (wheel slot 1) 3–5 OPEN+RED (wheel slot 1) 6–8 RED (wheel slot 2) 9–11 RED+BLUE (wheel slot 2) 12–14 BLUE (wheel slot 3) 15–17 BLUE+GREEN (wheel slot 3) 18–20 GREEN (wheel slot 4) 21–23 GREEN+YELLOW (wheel slot 4) 24–26 YELLOW (wheel slot 5) 27–29 YELLOW+PINK (wheel slot 5) 30–32 PINK (wheel slot 6) 33–35 PINK+SKY BLUE (wheel slot 6) 36–38 SKY BLUE (wheel slot 7) 39–41 SKY BLUE+ORANGE (wheel slot 7) 42–44 ORANGE (wheel slot 8) 45–47 ORANGE+MAGENTA (wheel slot 8) 48–50 MAGENTA (wheel slot 9) 51–53 MAGENTA+OPEN (wheel slot 9) 54–56 Open (wheel slot 1) 57–59 OPEN+RED (wheel slot 1) 60–62 RED (wheel slot 2) 63–65 RED+BLUE (wheel slot 2) 66–68 BLUE (wheel slot 3) 69–71 BLUE+GREEN (wheel slot 3) 72–74 GREEN (wheel slot 4) 75–77 GREEN+YELLOW (wheel slot 4) 78–80 YELLOW (wheel slot 5) 81–83 YELLOW+PINK (wheel slot 5) 84–86 PINK (wheel slot 6) 87–89 PINK+SKY BLUE (wheel slot 6) 90–92 SKY BLUE (wheel slot 7) 93–95 SKY BLUE+ORANGE (wheel slot 7) 96–98 ORANGE (wheel slot 8) 99–101 ORANGE+MAGENTA (wheel slot 8) 102–103 MAGENTA (wheel slot 9) 104–106 MAGENTA+OPEN (wheel slot 9) 107–119 Open (wheel slot 1) 120–132 RED (wheel slot 2) 133–145 BLUE (wheel slot 3) 146–158 GREEN (wheel slot 4) 159–171 YELLOW (wheel slot 5) 172–184 PINK (wheel slot 6) 185–197 SKY BLUE (wheel slot 7) 198–210 ORANGE (wheel slot 8) 211–223 MAGENTA (wheel slot 9) 224–224 CW Spin Stop 225–238 CW Spin 239–239 CW Spin Fast 240–240 CCW Stop 241–254 CCW Spin 255–255 CCW Spin Fast
7	Cyan	0	
8	Magenta	0	
9	Yellow	0	
10	C TO	0	0–254 6000K 255–255 2700K

Basic 1 (continued)

Ch	Function	Default	DMX values
11	Gobo	0	0–5 Open (wheel slot 1) 6–11 Gobo 1 (wheel slot 2) 12–17 Gobo 2 (wheel slot 3) 18–23 Gobo 3 (wheel slot 4) 24–29 Gobo 4 (wheel slot 5) 30–35 Gobo 5 (wheel slot 6) 36–41 Gobo 6 (wheel slot 7) 42–47 Gobo 7 (wheel slot 8) 48–53 Open (wheel slot 1) 54–59 Gobo 1 (wheel slot 2) 60–65 Gobo 2 (wheel slot 3) 66–71 Gobo 3 (wheel slot 4) 72–77 Gobo 4 (wheel slot 5) 78–83 Gobo 5 (wheel slot 6) 84–89 Gobo 6 (wheel slot 7) 90–97 Gobo 7 (wheel slot 8) 98–115 Gobo 1 (wheel slot 2) 116–133 Gobo 2 (wheel slot 3) 134–151 Gobo 3 (wheel slot 4) 152–169 Gobo 4 (wheel slot 5) 170–187 Gobo 5 (wheel slot 6) 188–205 Gobo 6 (wheel slot 7) 206–223 Gobo 7 (wheel slot 8) 224–224 CW Spin Stop 225–238 CW Spin 239–239 CW Spin Fast 240–240 CCW Spin Stop 241–254 CCW Spin 255–255 CCW Spin Fast
12	Gobo Rotation	0	0–191 0-360 degrees 192–192 CW Animate Stop 193–206 CW Animate 207–207 CW Animate Fast 208–208 CCW Animate Stop 209–222 CCW Animate 223–223 CCW Animate Fast 224–224 CW Spin Stop 225–238 CW Spin 239–239 CW Spin Fast 240–240 CCW Spin Stop 241–254 CCW Spin 255–255 CCW Spin Fast

Basic 1 (continued)

Ch	Function	Default	DMX values
13	Gobo 2	0	0–6 Open (wheel slot 1) 7–13 Gobo 1 (wheel slot 2) 14–20 Gobo 2 (wheel slot 3) 21–27 Gobo 3 (wheel slot 4) 28–34 Gobo 4 (wheel slot 5) 35–41 Gobo 5 (wheel slot 6) 42–48 Gobo 6 (wheel slot 7) 49–55 Open (wheel slot 1) 56–62 Gobo 1 (wheel slot 2) 63–69 Gobo 2 (wheel slot 3) 70–76 Gobo 3 (wheel slot 4) 77–83 Gobo 4 (wheel slot 5) 84–90 Gobo 5 (wheel slot 6) 91–97 Gobo 6 (wheel slot 7) 98–118 Gobo 1 (wheel slot 2) 119–139 Gobo 2 (wheel slot 3) 140–160 Gobo 3 (wheel slot 4) 161–181 Gobo 4 (wheel slot 5) 182–202 Gobo 5 (wheel slot 6) 203–223 Gobo 6 (wheel slot 7) 224–224 CW Spin Stop 225–238 CW Spin 239–239 CW Spin Fast 240–240 CCW Spin Stop 241–254 CCW Spin 255–255 CCW Spin Fast
14	Prism	0	0–63 Open 64–255 3F Prism
15	Prism Rotation	0	
16	Frost1	1	0–254 Close 255–255 Open
17	Focus	0	
18	Zoom	127	
19	Iris	0	0–190 Open 191–191 Small 192–206 slow 207–207 fast 208–222 slow 223–223 fast 224–238 slow 239–239 fast 240–254 slow 255–255 fast
20	Control1	0	0–7 NoFeature 8–15 RESET ALL 16–23 RESET PAN/TILT 24–31 RESET COLOR WHEEL 32–39 RESET ROTATING GOBO 40–47 Reserved 1 48–55 OTHER RESET 56–63 DISPLAY ON 64–71 DISPLAY OFF 72–87 Reserved 2 88–95 Hibernation 96–255 Reserved 3

Basic 2

22 channels

Ch	Function	Default	DMX values
1	Pan	127	
2	Pan Fine	255	Fine byte of Pan
3	Tilt	127	
4	Tilt Fine	255	Fine byte of Tilt
5	X YSpeed	0	
6	Shutter / Strobe	32	0–31 Closed 32–63 Open 64–65 Slow Strobe 66–94 Strobe 95–95 Fast Strobe 96–127 Open 128–159 Pulse Effects 160–191 Open 192–192 Random Strobe min 193–222 Random Strobe 223–223 Random Strobe max 224–255 Open
7	Dimmer	0	0–254 Close 255–255 Open

Basic 2 (continued)

Ch	Function	Default	DMX values
8	Color Wheel	0	0–2 Open (wheel slot 1) 3–5 OPEN+RED (wheel slot 1) 6–8 RED (wheel slot 2) 9–11 RED+BLUE (wheel slot 2) 12–14 BLUE (wheel slot 3) 15–17 BLUE+GREEN (wheel slot 3) 18–20 GREEN (wheel slot 4) 21–23 GREEN+YELLOW (wheel slot 4) 24–26 YELLOW (wheel slot 5) 27–29 YELLOW+PINK (wheel slot 5) 30–32 PINK (wheel slot 6) 33–35 PINK+SKY BLUE (wheel slot 6) 36–38 SKY BLUE (wheel slot 7) 39–41 SKY BLUE+ORANGE (wheel slot 7) 42–44 ORANGE (wheel slot 8) 45–47 ORANGE+MAGENTA (wheel slot 8) 48–50 MAGENTA (wheel slot 9) 51–53 MAGENTA+OPEN (wheel slot 9) 54–56 Open (wheel slot 1) 57–59 OPEN+RED (wheel slot 1) 60–62 RED (wheel slot 2) 63–65 RED+BLUE (wheel slot 2) 66–68 BLUE (wheel slot 3) 69–71 BLUE+GREEN (wheel slot 3) 72–74 GREEN (wheel slot 4) 75–77 GREEN+YELLOW (wheel slot 4) 78–80 YELLOW (wheel slot 5) 81–83 YELLOW+PINK (wheel slot 5) 84–86 PINK (wheel slot 6) 87–89 PINK+SKY BLUE (wheel slot 6) 90–92 SKY BLUE (wheel slot 7) 93–95 SKY BLUE+ORANGE (wheel slot 7) 96–98 ORANGE (wheel slot 8) 99–101 ORANGE+MAGENTA (wheel slot 8) 102–103 MAGENTA (wheel slot 9) 104–106 MAGENTA+OPEN (wheel slot 9) 107–119 Open (wheel slot 1) 120–132 RED (wheel slot 2) 133–145 BLUE (wheel slot 3) 146–158 GREEN (wheel slot 4) 159–171 YELLOW (wheel slot 5) 172–184 PINK (wheel slot 6) 185–197 SKY BLUE (wheel slot 7) 198–210 ORANGE (wheel slot 8) 211–223 MAGENTA (wheel slot 9) 224–224 CW Spin Stop 225–238 CW Spin 239–239 CW Spin Fast 240–240 CCW Stop 241–254 CCW Spin 255–255 CCW Spin Fast
9	Cyan	0	
10	Magenta	0	
11	Yellow	0	
12	C TO	0	0–254 6000K 255–255 2700K

Basic 2 (continued)

Ch	Function	Default	DMX values
13	Gobo	0	0–5 Open (wheel slot 1) 6–11 Gobo 1 (wheel slot 2) 12–17 Gobo 2 (wheel slot 3) 18–23 Gobo 3 (wheel slot 4) 24–29 Gobo 4 (wheel slot 5) 30–35 Gobo 5 (wheel slot 6) 36–41 Gobo 6 (wheel slot 7) 42–47 Gobo 7 (wheel slot 8) 48–53 Open (wheel slot 1) 54–59 Gobo 1 (wheel slot 2) 60–65 Gobo 2 (wheel slot 3) 66–71 Gobo 3 (wheel slot 4) 72–77 Gobo 4 (wheel slot 5) 78–83 Gobo 5 (wheel slot 6) 84–89 Gobo 6 (wheel slot 7) 90–97 Gobo 7 (wheel slot 8) 98–115 Gobo 1 (wheel slot 2) 116–133 Gobo 2 (wheel slot 3) 134–151 Gobo 3 (wheel slot 4) 152–169 Gobo 4 (wheel slot 5) 170–187 Gobo 5 (wheel slot 6) 188–205 Gobo 6 (wheel slot 7) 206–223 Gobo 7 (wheel slot 8) 224–224 CW Spin Stop 225–238 CW Spin 239–239 CW Spin Fast 240–240 CCW Spin Stop 241–254 CCW Spin 255–255 CCW Spin Fast
14	Gobo Rotation	0	0–191 0-360 degrees 192–192 CW Animate Stop 193–206 CW Animate 207–207 CW Animate Fast 208–208 CCW Animate Stop 209–222 CCW Animate 223–223 CCW Animate Fast 224–224 CW Spin Stop 225–238 CW Spin 239–239 CW Spin Fast 240–240 CCW Spin Stop 241–254 CCW Spin 255–255 CCW Spin Fast

Basic 2 (continued)

Ch	Function	Default	DMX values
15	Gobo 2	0	0–6 Open (wheel slot 1) 7–13 Gobo 1 (wheel slot 2) 14–20 Gobo 2 (wheel slot 3) 21–27 Gobo 3 (wheel slot 4) 28–34 Gobo 4 (wheel slot 5) 35–41 Gobo 5 (wheel slot 6) 42–48 Gobo 6 (wheel slot 7) 49–55 Open (wheel slot 1) 56–62 Gobo 1 (wheel slot 2) 63–69 Gobo 2 (wheel slot 3) 70–76 Gobo 3 (wheel slot 4) 77–83 Gobo 4 (wheel slot 5) 84–90 Gobo 5 (wheel slot 6) 91–97 Gobo 6 (wheel slot 7) 98–118 Gobo 1 (wheel slot 2) 119–139 Gobo 2 (wheel slot 3) 140–160 Gobo 3 (wheel slot 4) 161–181 Gobo 4 (wheel slot 5) 182–202 Gobo 5 (wheel slot 6) 203–223 Gobo 6 (wheel slot 7) 224–224 CW Spin Stop 225–238 CW Spin 239–239 CW Spin Fast 240–240 CCW Spin Stop 241–254 CCW Spin 255–255 CCW Spin Fast
16	Prism	0	0–63 Open 64–255 3F Prism
17	Prism Rotation	0	
18	Frost1	1	0–254 Close 255–255 Open
19	Focus	0	
20	Zoom	127	
21	Iris	0	0–190 Open 191–191 Small 192–206 slow 207–207 fast 208–222 slow 223–223 fast 224–238 slow 239–239 fast 240–254 slow 255–255 fast
22	Control1	0	0–7 NoFeature 8–15 RESET ALL 16–23 RESET PAN/TILT 24–31 RESET COLOR WHEEL 32–39 RESET ROTATING GOBO 40–47 Reserved 1 48–55 OTHER RESET 56–63 DISPLAY ON 64–71 DISPLAY OFF 72–87 Reserved 2 88–95 Hibernation 96–255 Reserved 3

Standard

29 channels

Ch	Function	Default	DMX values
1	Pan	127	
2	Pan Fine	255	Fine byte of Pan
3	Tilt	127	
4	Tilt Fine	255	Fine byte of Tilt
5	X YSpeed	0	
6	Shutter Mode	0	0–15 Strobe 16–31 Pluse Open 32–47 Pluse Closed 48–63 Random 64–255 TBD
7	Shutter / Strobe	255	0–31 closed 32–222 Strobe · min 0.5–24.9 Hz 223–223 Strobe · max 25 Hz 224–255 Open
8	Dimmer	0	0–254 Close 255–255 Open
9	Color1Mode	0	0–15 Indexed 16–31 Indexed with Blackout 32–47 Forward Spin 48–63 Reverse Spin 64–79 Continuous 80–111 Color Bounce 112–255 TBD
10	Color Wheel	0	0–13 Open (wheel slot 1) 14–27 OPEN+RED (wheel slot 1) 28–41 RED (wheel slot 2) 42–55 RED+BLUE (wheel slot 2) 56–69 BLUE (wheel slot 3) 70–83 BLUE+GREEN (wheel slot 3) 84–97 GREEN (wheel slot 4) 98–111 GREEN+YELLOW (wheel slot 4) 112–125 YELLOW (wheel slot 5) 126–139 YELLOW+PINK (wheel slot 5) 140–153 PINK (wheel slot 6) 154–167 PINK+SKY BLUE (wheel slot 6) 168–181 SKY BLUE (wheel slot 7) 182–195 SKY BLUE+ORANGE (wheel slot 7) 196–209 ORANGE (wheel slot 8) 210–223 ORANGE+MAGENTA (wheel slot 8) 224–237 MAGENTA (wheel slot 9) 238–255 MAGENTA+OPEN (wheel slot 9)
11	Cyan	0	
12	Magenta	0	
13	Yellow	0	
14	C TO	0	0–254 6000K 255–255 2700K
15	Gobo1Wheel Mode	0	0–15 Indexed 16–31 Backout 32–47 Forward Spin 48–63 Reverse Spin 64–79 Continuous 80–95 Shake 96–255 TBD

Standard (continued)

Ch	Function	Default	DMX values
16	Gobo	0	0–31 Open (wheel slot 1) 32–63 Gobo 1 (wheel slot 2) 64–95 Gobo 2 (wheel slot 3) 96–127 Gobo 3 (wheel slot 4) 128–159 Gobo 4 (wheel slot 5) 160–191 Gobo 5 (wheel slot 6) 192–223 Gobo 6 (wheel slot 7) 224–255 Gobo 7 (wheel slot 8)
17	Gobo1Pos Mode	0	0–15 Continuous 16–31 Forward Spin 32–47 Reverse Spin 48–63 Animate>>> 64–79 Animate>>>BO 80–95 Animate<<< 96–111 Animate<<<BO 112–255 TBD
18	Gobo Rotation	0	0–254 0-360 DEG 255–255 max
19	Gobo2Wheel Mode	0	0–15 Indexed 16–31 Backout 32–47 Forward Spin 48–63 Reverse Spin 64–79 Continuous 80–95 Shake 96–255 TBD
20	Gobo 2	0	0–35 Open (wheel slot 1) 36–71 Gobo 1 (wheel slot 2) 72–107 Gobo 2 (wheel slot 3) 108–143 Gobo 3 (wheel slot 4) 144–179 Gobo 4 (wheel slot 5) 180–215 Gobo 5 (wheel slot 6) 216–255 Gobo 6 (wheel slot 7)
21	Prism	0	0–63 Open 64–255 3F Prism
22	Prism Rotation	0	
23	Frost1	1	0–254 Close 255–255 Open
24	Focus Mode	0	0–15 Focus Continuous 16–31 5m Autofocus 32–47 7point5 m Autofocus 48–63 10m Autofocus 64–95 15m Autofocus 96–255 greater than 20m Autofocus
25	Focus	128	0–254 Focus In 255–255 Focus Out
26	Zoom	127	
27	Iris Mode	0	0–15 Index 16–31 Pulse opening w CW Blackout 32–47 Pulse opening w CCW Blackout 48–63 Pulse closing w CW Blackout 64–255 Pulse closing w CCW Blackout
28	Iris	0	0–126 Open 127–254 Slow2Fast-2 255–255 Small

Standard (continued)

Ch	Function	Default	DMX values
29	Control1	0	0–7 NoFeature 8–15 RESET ALL 16–23 RESET PAN/TILT 24–31 RESET COLOR WHEEL 32–39 RESET ROTATING GOBO 40–47 Reserved 1 48–55 OTHER RESET 56–63 DISPLAY ON 64–71 DISPLAY OFF 72–87 Reserved 2 88–95 Hibernation 96–255 Reserved 3

Extended

30 channels

Ch	Function	Default	DMX values
1	Pan	127	
2	Pan Fine	255	Fine byte of Pan
3	Tilt	127	
4	Tilt Fine	255	Fine byte of Tilt
5	X YSpeed	0	
6	Pan Tilt Mode	0	0–15 Normal 16–31 Movement with Blackout 32–255 TBD
7	Shutter Mode	0	0–15 Strobe 16–31 Pluse Open 32–47 Pluse Closed 48–63 Random 64–255 TBD
8	Shutter / Strobe	255	0–31 closed 32–222 Strobe · min 0.5–24.9 Hz 223–223 Strobe · max 25 Hz 224–255 Open
9	Dimmer	0	0–254 Close 255–255 Open
10	Color1Mode	0	0–15 Indexed 16–31 Indexed with Blackout 32–47 Forward Spin 48–63 Reverse Spin 64–79 Continuous 80–111 Color Bounce 112–255 TBD

Extended (continued)

Ch	Function	Default	DMX values
11	Color Wheel	0	0–13 Open (wheel slot 1) 14–27 OPEN+RED (wheel slot 1) 28–41 RED (wheel slot 2) 42–55 RED+BLUE (wheel slot 2) 56–69 BLUE (wheel slot 3) 70–83 BLUE+GREEN (wheel slot 3) 84–97 GREEN (wheel slot 4) 98–111 GREEN+YELLOW (wheel slot 4) 112–125 YELLOW (wheel slot 5) 126–139 YELLOW+PINK (wheel slot 5) 140–153 PINK (wheel slot 6) 154–167 PINK+SKY BLUE (wheel slot 6) 168–181 SKY BLUE (wheel slot 7) 182–195 SKY BLUE+ORANGE (wheel slot 7) 196–209 ORANGE (wheel slot 8) 210–223 ORANGE+MAGENTA (wheel slot 8) 224–237 MAGENTA (wheel slot 9) 238–255 MAGENTA+OPEN (wheel slot 9)
12	Cyan	0	
13	Magenta	0	
14	Yellow	0	
15	C TO	0	0–254 6000K 255–255 2700K
16	Gobo1Wheel Mode	0	0–15 Indexed 16–31 Backout 32–47 Forward Spin 48–63 Reverse Spin 64–79 Continuous 80–95 Shake 96–255 TBD
17	Gobo	0	0–31 Open (wheel slot 1) 32–63 Gobo 1 (wheel slot 2) 64–95 Gobo 2 (wheel slot 3) 96–127 Gobo 3 (wheel slot 4) 128–159 Gobo 4 (wheel slot 5) 160–191 Gobo 5 (wheel slot 6) 192–223 Gobo 6 (wheel slot 7) 224–255 Gobo 7 (wheel slot 8)
18	Gobo1Pos Mode	0	0–15 Continuous 16–31 Forward Spin 32–47 Reverse Spin 48–63 Animate>>> 64–79 Animate>>>BO 80–95 Animate<< 96–111 Animate<<<BO 112–255 TBD
19	Gobo Rotation	0	0–254 0-360 DEG 255–255 max
20	Gobo2Wheel Mode	0	0–15 Indexed 16–31 Backout 32–47 Forward Spin 48–63 Reverse Spin 64–79 Continuous 80–95 Shake 96–255 TBD

Extended (continued)

Ch	Function	Default	DMX values
21	Gobo 2	0	0–35 Open (wheel slot 1) 36–71 Gobo 1 (wheel slot 2) 72–107 Gobo 2 (wheel slot 3) 108–143 Gobo 3 (wheel slot 4) 144–179 Gobo 4 (wheel slot 5) 180–215 Gobo 5 (wheel slot 6) 216–255 Gobo 6 (wheel slot 7)
22	Prism	0	0–63 Open 64–255 3F Prism
23	Prism Rotation	0	
24	Frost1	1	0–254 Close 255–255 Open
25	Focus Mode	0	0–15 Focus Continuous 16–31 5m Autofocus 32–47 7point5 m Autofocus 48–63 10m Autofocus 64–95 15m Autofocus 96–255 greater than 20m Autofocus
26	Focus	128	0–254 Focus In 255–255 Focus Out
27	Zoom	127	
28	Iris Mode	0	0–15 Index 16–31 Pulse opening w CW Blackout 32–47 Pulse opening w CCW Blackout 48–63 Pulse closing w CW Blackout 64–255 Pulse closing w CCW Blackout
29	Iris	0	0–126 Open 127–254 Slow2Fast-2 255–255 Small
30	Control1	0	0–7 NoFeature 8–15 RESET ALL 16–23 RESET PAN/TILT 24–31 RESET COLOR WHEEL 32–39 RESET ROTATING GOBO 40–47 Reserved 1 48–55 OTHER RESET 56–63 DISPLAY ON 64–71 DISPLAY OFF 72–87 Reserved 2 88–95 Hibernation 96–255 Reserved 3