

# DMX Channel Index

impression<sup>®</sup>  
X4 XL



DMX Channel Index Rev. 20211203-01  
From software v. 1.47



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## 1 Normal Mode (norm) 26 DMX Channels:

Channel	Function	Time and Value	DMX	HEX	%
<b>1) PAN High</b>	Pan coarse	0° - 643°	0..255	00..FF	0..100
<b>2) PAN Low</b>	Pan fine		0..255	00..FF	0..100
<b>3) Tilt High</b>	Tilt coarse	0° - 295°	0..255	00..FF	0..100
<b>4) Tilt Low</b>	Tilt fine		0..255	00..FF	0..100
<b>5) Color (fixed)</b>	Colors adjustable via RGB		0..7	00..07	0..2..5
	Color 01 - Red <sup>1)</sup>		8..15	08..0F	3..5.5
	Color 02 - Amber <sup>1)</sup>		16..23	10..17	6..8.5
	Color 03 - Warm Yellow <sup>1)</sup>		24..31	18..1F	9..12.5
	Color 04 - Yellow <sup>1)</sup>		32..39	20..27	13..15.5
	Color 05 - Green <sup>1)</sup>		40..47	28..2F	16..18.5
	Color 06 - Turquoise <sup>1)</sup>		48..55	30..37	19..21.5
	Color 07 - Cyan <sup>1)</sup>		56..63	38..3F	22..24.5
	Color 08 - Blue <sup>1)</sup>		64..71	40..47	25..27.5
	Color 09 - Lavender <sup>1)</sup>		72..79	48..4F	28..30.5
	Color 10 - Malve <sup>1)</sup>		80..87	50..57	31..34.5
	Color 11 - Magenta <sup>1)</sup>		88..95	58..5F	35..37.5
	Color 12 - Pink <sup>1)</sup>		96..103	60..67	38..40.5
	White - CTO	3200K	104..111	68..6F	41..43.5
	White	5600K	112..119	70..77	44..46.5
	White - CTB	7200K	120..127	78..7F	47..49.5
	Rainbow Effect Stop <sup>2)</sup>		128	80	50
Rainbow Effect <sup>3)</sup>	slow - fast	129..223	81..DF	51..88	
Random colors	slow - fast	224..255	E0..FF	89..100	
<b>6) Red</b>	Color mixing system - Red	0 - 100%	0..255	00..FF	0..100
<b>7) Green</b>	Color mixing system - Green	0 - 100%	0..255	00..FF	0..100
<b>8) Blue</b>	Color mixing system - Blue	0 - 100%	0..255	00..FF	0..100
<b>9) White</b>	Color mixing system - White	0 - 100%	0..255	00..FF	0..100
<b>10) Shutter</b>	Shutter closed		0..15	00..0F	0..5.5
	Shutter pulse random	slow – fast	16..47	10..2F	6..18.5
	Fade on, snap off (random patterns)	slow – fast	48..79	30..4F	19..31
	Snap on, fade off (random patterns)	slow – fast	80..111	50..6F	32..43
	Fade on, fade off (random patterns)	slow – fast	112..143	70..8F	44..56
	Strobe random	5s - 0.1s	144..199	90..C7	57..77
	Strobe effect slow - fast	1 Hz - 10 Hz	200..239	C8..EF	78..94
	Shutter open		240..255	F0..FF	95..100
<b>11) Dimmer</b>	Intensity	0 - 100%	0..255	0..FF	0..100
<b>12) CTO</b>	No CTO		0..7	0..07	0..2.5
	Continuous color temperature correction	Applicable for ALL colors	8..255	08..FF	3..100
<b>13) Special</b>	Pattern Block 1 → See channel 17		0..3	00..03	0..1
	Pattern Block 2 → See channel 17		4..7	04..07	2..3
	Pattern Block 3 → See channel 17		8..11	08..0B	3..4
	Pattern Block 4 → See channel 17		12..15	0C..0F	5..6
	Pattern Block 5 → See channel 17		16..19	10..13	6..7
	Pattern Block 6 → See channel 17		20..23	14..17	8..9
	Pattern Block 7 → See channel 17		24..27	18..1B	9..10
	Pattern Block 8 → See channel 17		28..31	1C..1F	11..12
	Pattern Block 9 → See channel 17		32..35	20..23	12..13
	Pattern Block 10 → See channel 17		36..39	24..27	14..15

Channel	Function	Time and Value	DMX	HEX	%
	<b>Enable Animation</b>		80..83	50..53	31..32
	→ use channel 17 to select → use channel 18 so set step → use channel 19 to start / for speed				
	Set Dimmer to soft mode		84..87	54..57	33..34
	Change PWM frequency		100..200	64..C8	40..78
	Set Maximum Zoom to 247	> 1 sec	208..211	D0..D3	82..83
	Set Maximum Zoom to 255	> 1 sec	212..215	D4..D7	84..85
	Set Zoom to normal	> 1 sec	216..219	D8..DB	85..86
	Set Zoom to inverted	> 1 sec	220..223	DC..DF	86..87
	<b>RESET</b>	> 1 sec	250..255	FA..FF	98..100
<b>14) Movement macros</b>	<b>No macros</b>		0	00	0
	<b>Movement</b>   <b>Size</b>   <b>Phase</b>   Use "Speed" to adjust				
	PAN   1   0°		01..01	01..01	0.5
	1   90°		02..03	02..03	1.0
	1   180°		04..05	04..05	1.7
	1   270°		06..07	06..07	2.5
	PAN   2   0°		08..09	08..09	3.3
	2   90°		10..11	0A..0B	4.1
	2   180°		12..13	0C..0D	4.9
	2   270°		14..15	0E..0F	5.7
	PAN   3   0°		16..17	11..11	6.5
	3   90°		18..19	12..13	7.3
	3   180°		20..21	14..15	8.0
	3   270°		22..23	16..17	8.8
	PAN   4   0°		24..25	18..19	9.6
	4   90°		26..27	1A..1B	10.4
	4   180°		28..29	1C..1D	11.2
	4   270°		30..31	1E..1F	12
	TILT   size / phase see PAN		32..63	20..3F	13..25
	PAN / TILT   size / phase see PAN		64..95	40..5F	26..37
	PAN / TILT (inverse)   size / phase see PAN		96..127	60..7F	38..50
	Circle   size / phase see PAN		128..159	80..9F	51..62
	Circle (inverse)   size / phase see PAN		160..191	A0..BF	63..75
	Lying eight   size / phase see PAN		193..223	C0..DF	76..87
	Random movement   size / phase see PAN		224..255	E0..FF	88..100
<b>15) Pan / Tilt Speed</b>	Pan/Tilt movement speed from controller		0..1	00..01	0..0.5
	Pan/Tilt, slow – fast Use this channel for the speed of the macros on channel 14.		02..255	02..FF	1..100
<b>16) Zoom</b>	Wide (flood) - narrow (spot)	50° - 7°	0...255	00...FF	0...100
<b>17) Pattern / Animation</b>	No pattern		0..2	00..02	0..1
	Pre-defined patterns / animations <sup>4) 5)</sup>	See Special Channel 13	03..253	03..FD	2..99
	Activates direct access to LED Lenses	See Channel 18 - 26	254..255	FE..FF	100
<b>18) Pattern Section 1 <sup>4)</sup></b>	Direct activation of lenses 1 thru 8 <sup>4)</sup>	Activation in binary style	0...255	00...FF	0...100
<b>19) Pattern Section 2 <sup>5)</sup></b>	Direct activation of lenses 9 thru 16 <sup>5)</sup>	Activation in binary style	0...255	00...FF	0...100
<b>20) Pattern Section 3</b>	Direct activation of lenses 17 thru 19	Activation in binary style	0...255	00...FF	0...100
<b>21) Pattern Section 4</b>	Direct activation of lenses 20 thru 27	Activation in binary style	0...255	00...FF	0...100

Channel	Function	Time and Value	DMX	HEX	%
<b>22) Pattern Section 5</b>	Direct activation of lenses 28 thru 35	Activation in binary style	0...255	00...FF	0...100
<b>23) Pattern Section 6</b>	Direct activation of lenses 36 thru 38	Activation in binary style	0...255	00...FF	0...100
<b>24) Pattern Section 7</b>	Direct activation of lenses 39 thru 46	Activation in binary style	0...255	00...FF	0...100
<b>25) Pattern Section 8</b>	Direct activation of lenses 47 thru 54	Activation in binary style	0...255	00...FF	0...100
<b>26) Pattern Section 9</b>	Direct activation of lens 55	Activation in binary style	0...255	00...FF	0...100

## 2 Compressed Mode (comp) 16 DMX Channels:

Channel	Function	Time and Value	DMX	HEX	%	
<b>1) PAN High</b>	Pan coarse	0° - 643°	0..255	00..FF	0..100	
<b>2) PAN Low</b>	Pan fine		0..255	00..FF	0..100	
<b>3) Tilt High</b>	Tilt coarse	0° - 295°	0..255	00..FF	0..100	
<b>4) Tilt Low</b>	Tilt fine		0..255	00..FF	0..100	
<b>5) Color (fixed)</b>	Colors adjustable via RGB		0..7	00..07	0..2.5	
	Color 01 - Red <sup>1)</sup>		8..15	08..0F	3..5.5	
	Color 02 - Amber <sup>1)</sup>		16..23	10..17	6..8.5	
	Color 03 - Warm Yellow <sup>1)</sup>		24..31	18..1F	9..12.5	
	Color 04 - Yellow <sup>1)</sup>		32..39	20..27	13..15.5	
	Color 05 - Green <sup>1)</sup>		40..47	28..2F	16..18.5	
	Color 06 - Turquoise <sup>1)</sup>		48..55	30..37	19..21.5	
	Color 07 - Cyan <sup>1)</sup>		56..63	38..3F	22..24.5	
	Color 08 - Blue <sup>1)</sup>		64..71	40..47	25..27.5	
	Color 09 - Lavender <sup>1)</sup>		72..79	48..4F	28..30.5	
	Color 10 - Mauve <sup>1)</sup>		80..87	50..57	31..34.5	
	Color 11 - Magenta <sup>1)</sup>		88..95	58..5F	35..37.5	
	Color 12 - Pink <sup>1)</sup>		96..103	60..67	38..40.5	
	White – CTO	Color temperature 3200K		104..111	68..6F	41..43.5
	White	Color temperature 5600K		112..119	70..77	44..46.5
	White – CTB	Color temperature 7200K		120..127	78..7F	47..49.5
Rainbow Effect Stop <sup>2)</sup>			128	80	50	
Rainbow Effect <sup>3)</sup>	slow - fast		129..223	81..DF	51..88	
Rainbow Effect, random colors	slow - fast		224..255	E0..FF	89..100	
<b>6) Red</b>	Color mixing system - Red	0 - 100%	0..255	00..FF	0..100	
<b>7) Green</b>	Color mixing system - Green	0 - 100%	0..255	00..FF	0..100	
<b>8) Blue</b>	Color mixing system - Blue	0 - 100%	0..255	00..FF	0..100	
<b>9) White</b>	Color mixing system - White	0 - 100%	0..255	00..FF	0..100	
<b>10) Shutter</b>	Shutter closed		0..15	00..0F	0..5.5	
	Shutter pulse random	slow – fast	16..47	10..2F	6..18.5	
	Fade on, snap off (random patterns)	slow – fast	48..79	30..4F	19..31	
	Snap on, fade off (random patterns)	slow – fast	80..111	50..6F	32..43	
	Fade on, fade off (random patterns)	slow – fast	112..143	70..8F	44..56	
	Strobe random	5s - 0.1s	144..199	90..C7	57..77	
	Strobe effect slow – fast	1 Hz - 10 Hz	200..239	C8..EF	78..94	
	Shutter open		240..255	F0..FF	95..100	
<b>11) Dimmer</b>	Intensity	0 - 100%	0..255	0..FF	0..100	
<b>12) Zoom</b>	Wide (flood) - narrow (spot)	50° - 7°	0..255	00..FF	0..100	
<b>13) Special</b>	Pattern Block 1 → See channel 14		0..3	00..03	0..1	
	Pattern Block 2 → See channel 14		4..7	04..07	2..3	
	Pattern Block 3 → See channel 14		8..11	08..0B	3..4	
	Pattern Block 4 → See channel 14		12..15	0C..0F	5..6	
	Pattern Block 5 → See channel 14		16..19	10..13	6..7	
	Pattern Block 6 → See channel 14		20..23	14..17	8..9	
	Pattern Block 7 → See channel 14		24..27	18..1B	9..10	
	Pattern Block 8 → See channel 14		28..31	1C..1F	11..12	
	Pattern Block 9 → See channel 14		32..35	20..23	12..13	
	Pattern Block 10 → See channel 14		36..39	24..27	14..15	

Channel	Function	Time and Value	DMX	HEX	%
	<b>Enable Animation</b>		80..83	50..53	31..32
	→ use channel 14 to select → use channel 15 so set step → use channel 16 to start / for speed				
	Set Dimmer to soft mode		84..87	54..57	33..34
	Change PWM frequency		100..200	64..C8	40..78
	Set Maximum Zoom to 247	> 1 sec	208..211	D0..D3	82..83
	Set Maximum Zoom to 255	> 1 sec	212..215	D4..D7	84..85
	Set Zoom to normal	> 1 sec	216..219	D8..DB	85..86
	Set Zoom to inverted	> 1 sec	220..223	DC..DF	86..87
	<b>RESET</b>	> 1 sec	250..255	FA..FF	98..100
<b>14) Pattern / Animation</b>	No pattern		0..2	00..02	0..1
	Pre-defined patterns / animations <sup>4)5)</sup>	See Special Channel 13	03..253	03..FD	2..99
<b>15) A-Step <sup>4)</sup></b>	Animation step <sup>4)</sup>	See Special Channel 13	00..255	00..FF	0..100
<b>16) A-Speed <sup>5)</sup></b>	Animation start / speed <sup>5)</sup>	See Special Channel 13	00..255	00..FF	0..100

### 3 Extended Mode (high) 27 DMX Channels:

Channel	Function	Time and Value	DMX	HEX	%	
<b>1) PAN High</b>	Pan coarse	0° - 643°	0..255	00..FF	0..100	
<b>2) PAN Low</b>	Pan fine		0..255	00..FF	0..100	
<b>3) Tilt High</b>	Tilt coarse	0° - 295°	0..255	00..FF	0..100	
<b>4) Tilt Low</b>	Tilt fine		0..255	00..FF	0..100	
<b>5) Red High</b>	Color mixing system – Red	0 - 100%	0..255	00..FF	0..100	
<b>6) Red Low</b>	Color mixing system – Red-Low		0..255	00..FF	0..100	
<b>7) Green High</b>	Color mixing system – Green	0 - 100%	0..255	00..FF	0..100	
<b>8) Green Low</b>	Color mixing system – Green-Low		0..255	00..FF	0..100	
<b>9) Blue High</b>	Color mixing system – Blue	0 - 100%	0..255	00..FF	0..100	
<b>10) Blue Low</b>	Color mixing system – Blue-Low		0..255	00..FF	0..100	
<b>11) White High</b>	Color mixing system – White	0 - 100%	0..255	00..FF	0..100	
<b>12) White Low</b>	Color mixing system – White-Low		0..255	00..FF	0..100	
<b>13) Shutter</b>	Shutter closed		0..15	00..0F	0..5.5	
	Shutter pulse random	slow – fast	16..47	10..2F	6..18.5	
	Fade on, snap off (random patterns)	slow – fast	48..79	30..4F	19..31	
	Snap on, fade off (random patterns)	slow – fast	80..111	50..6F	32..43	
	Fade on, fade off (random patterns)	slow – fast	112..143	70..8F	44..56	
	Strobe random	5s - 0.1s	144..199	90..C7	57..77	
	Strobe effect slow – fast	1 Hz - 10 Hz	200..239	C8..EF	78..94	
	Shutter open		240..255	F0..FF	95..100	
<b>14) Dimmer-High</b>	Intensity coarse	0 - 100%	0..255	0..FF	0..100	
<b>15) Dimmer-Low</b>	Intensity fine		0..255	0..FF	0..100	
<b>16) Zoom</b>	Wide (flood) - narrow (spot)	50° - 7°	0..255	00..FF	0..100	
<b>17) Special</b>	Pattern Block 1 → See channel 18		0..3	00..03	0..1	
	Pattern Block 2 → See channel 18		4..7	04..07	2..3	
	Pattern Block 3 → See channel 18		8..11	08..0B	3..4	
	Pattern Block 4 → See channel 18		12..15	0C..0F	5..6	
	Pattern Block 5 → See channel 18		16..19	10..13	6..7	
	Pattern Block 6 → See channel 18		20..23	14..17	8..9	
	Pattern Block 7 → See channel 18		24..27	18..1B	9..10	
	Pattern Block 8 → See channel 18		28..31	1C..1F	11..12	
	Pattern Block 9 → See channel 18		32..35	20..23	12..13	
	Pattern Block 10 → See channel 18		36..39	24..27	14..15	
	<b>Enable Animation</b>			<b>80..83</b>	<b>50..53</b>	<b>31..32</b>
		→ use channel 18 to select → use channel 19 so set step → use channel 20 to start/for speed				
		Set Dimmer to soft mode		84..87	54..57	33..34
		Change PWM frequency		100..200	64..C8	40..78
		Set Maximum Zoom to 247	> 1 sec	208..211	D0..D3	82..83
		Set Maximum Zoom to 255	> 1 sec	212..215	D4..D7	84..85
		Set Zoom to normal	> 1 sec	216..219	D8..DB	85..86
	Set Zoom to inverted	> 1 sec	220..223	DC..DF	86..87	
	<b>RESET</b>	> 1 sec	250..255	FA..FF	98..100	
<b>18) Pattern</b>	No pattern		0..2	00..02	0..1	
	Pre-defined patterns / animations <sup>4)5)</sup>	See Special Channel 17	03..253	03..FD	2..99	
	Activates direct access to LED Lenses		254..255	FE..FF	100	

Channel	Function	Time and Value	DMX	HEX	%
<b>19) Pattern Section 1</b> <sup>4)</sup>	Direct activation of lenses 1 thru 8 <sup>4)</sup>	Activation in binary style	0...255	00...FF	0...100
<b>20) Pattern Section 2</b> <sup>5)</sup>	Direct activation of lenses 9 thru 16 <sup>5)</sup>	Activation in binary style	0...255	00...FF	0...100
<b>21) Pattern Section 3</b>	Direct activation of lenses 17 thru 19	Activation in binary style	0...255	00...FF	0...100
<b>22) Pattern Section 4</b>	Direct activation of lenses 20 thru 27	Activation in binary style	0...255	00...FF	0...100
<b>23) Pattern Section 5</b>	Direct activation of lenses 28 thru 35	Activation in binary style	0...255	00...FF	0...100
<b>24) Pattern Section 6</b>	Direct activation of lenses 36 thru 38	Activation in binary style	0...255	00...FF	0...100
<b>25) Pattern Section 7</b>	Direct activation of lenses 39 thru 46	Activation in binary style	0...255	00...FF	0...100
<b>26) Pattern Section 8</b>	Direct activation of lenses 47 thru 54	Activation in binary style	0...255	00...FF	0...100
<b>27) Pattern Section 9</b>	Direct activation of lens 55	Activation in binary style	0...255	00...FF	0...100

<sup>1)</sup> The predefined colors can be used as start-colors for the Rainbow effect. Please select first a desired start-color before you activate the rainbow effect. All **IMPRESSION X4XL** will then start from that color and will execute the rainbow effect synchronously. Different **IMPRESSION X4XL** can have different start-colors but will still execute the rainbow effect synchronously. If you choose a color different from the ones marked with <sup>1)</sup> in the tables above the rainbow start-color will be red.

<sup>2)</sup> Rainbow-effect Stop will pause this function. After resuming the rainbow-effect will be continued from the current color.

<sup>3)</sup> The Rainbow-effect will run synchronously only if started from one of the predefined colors (see also <sup>1)</sup> before).

<sup>4)</sup> If the Animation mode is activated through Special Channel set to DMX = 80..83 then the Function of this Channel is:

Animation step		00..255	00..FF	0..100
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*Use this Chanel to select the starting point of the animation.*

<sup>5)</sup> If the Animation mode is activated through Special Channel set to DMX = 80..83 then the Function of this Channel is:

Animation start / speed		00..255	00..FF	0..100
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*Use this Chanel to start the animation by setting the speed to run it.*



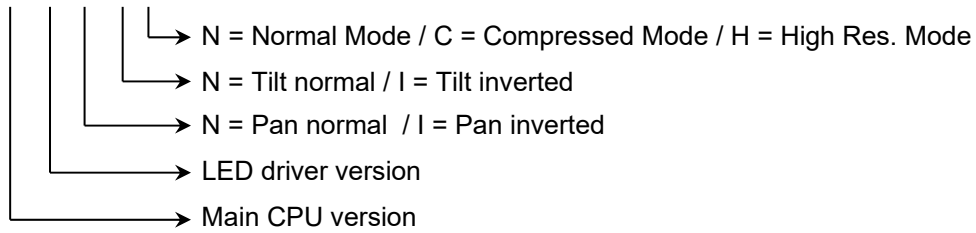
**Locking and unlocking the Control Panel**

Please lock and unlock the control panel by pressing the menu keys **MODE & ENTER & UP** at the same time.

**Additional Display Indications**

As a default you'll find the following additional information in the first row of the LCD display:

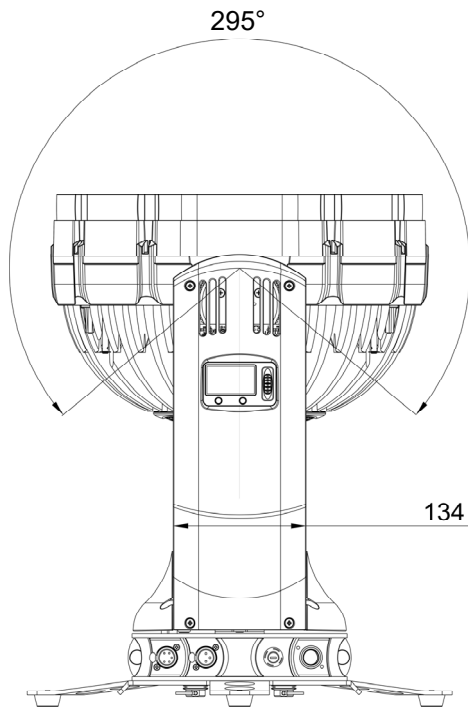
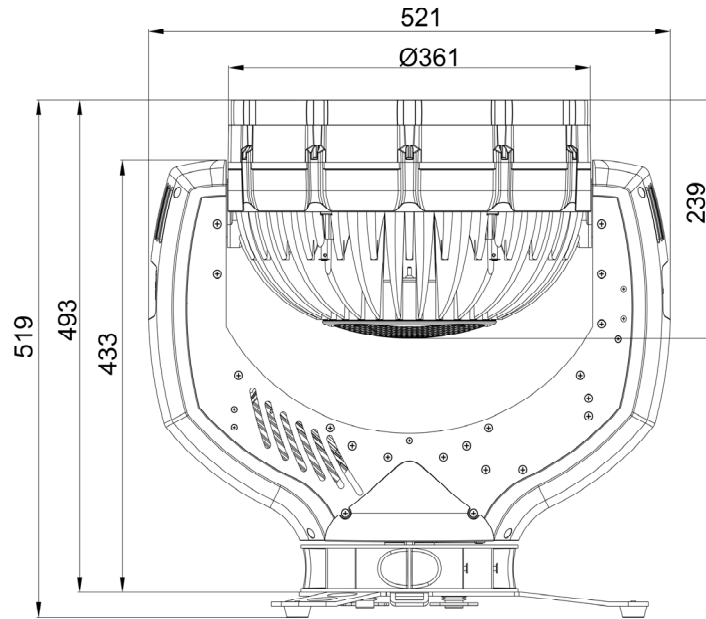
Vxx/xx/xx/xx/x



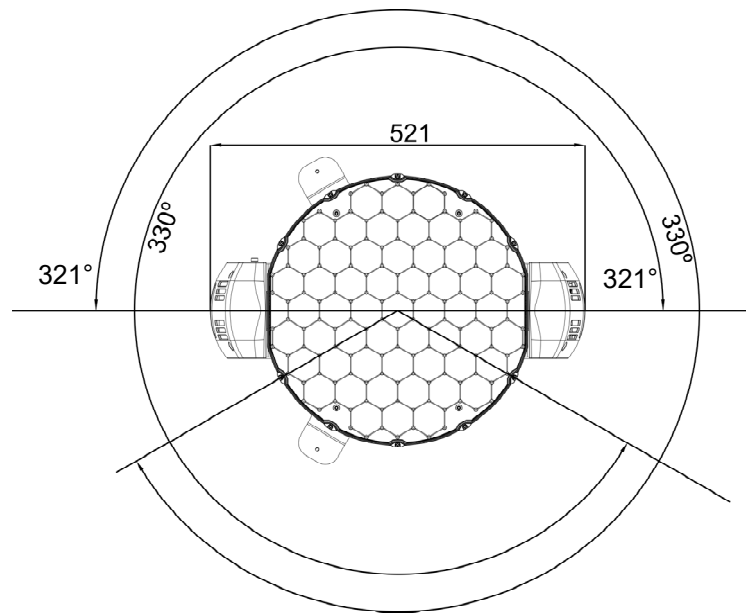
## 4 Technical Specifications:

<b>Power supply</b>	
<b>Power consumption</b>	1200 VA (Watt)
<b>Power Input</b>	~100-240 V AC, 50-60 Hz (wide range input)
<b>Fuse protection</b>	Micro-fuse 5x20 mm, T12A
<b>Operational Parameters</b>	
<b>Max. Ambient Temperature</b>	5° - 45°C (integrated overheating switch)
<b>Mounting Position</b>	Any (see relevant chapter)
<b>Lighting System - Additive Color mixing</b>	
<b>LED Type</b>	55 x Osram Ostar RGBW multi-chip
<b>Lifetime</b>	50,000 h
Wavelength optimized for maximum presentable color space	
<b>Optical System</b>	
Full RGBW / High efficient Collimator cluster	
<b>Shutter / Dimmer (8/16 Bit)</b>	
Strobe- Effect with variable speed between 1 - 10 flashes per second, Random-Strobe, Pulse-Effects	
Continuous Dimmer 0 - 100%	
<b>Zoom</b>	
7 to 50 degree continuous zoom	
<b>Optical Patterns</b>	
Several hundred pre-defined beam patterns with direct access and manipulation	
<b>DMX Control</b>	
Standard USITT DMX-512, 3/5 pin XLR: [+]=Pin 3 / [-]=Pin 2 / [Ground]=Pin 1 / Pin 4&5 N.C. The DMX- Addressing starts at the DMX channel [001].	
<b>Pan / Tilt (8/16 Bit)</b>	
<b>Pan- movement</b>	<b>643° in min. 3,2 seconds (Position Feedback)</b>
<b>Tilt- movement</b>	<b>295° in min. 1,5 seconds (Position Feedback)</b>
<b>Weights and Measures</b>	
<b>Width of the base</b>	<b>521 mm</b>
<b>Length of the base</b>	<b>361 mm</b>
<b>height (head vertical)</b>	<b>519 mm (incl. standing foot/tripod)</b>
<b>Weight (net)</b>	<b>31.0 kg</b>

## 5 Dimensions



Tilt range:  $295^\circ$



Pan range:  $643^\circ$

