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Chroma-Q® Studio Force II™

The Natural Choice for Studio Lighting



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Description

Using a homogenised LED source capable of delivering variable colour temperature, plus/minus green shift control and the ability to produce deep saturated colours when needed, the Studio Force II is specifically designed for TV Broadcast and film applications but also performs particularly well in other situations demanding high quality tuneable white light such as touring key lights, exhibitions, corporate events and theatre lighting.

The Studio Force II uses the Chroma-Q ColorSure™ technologies to deliver consistent colour across fixtures.

The Studio Force II™ is available in 12, 48 & 72 inches with respectively 4, 16 and 24 individual cells control.



KEY FEATURES

- **Full spectrum tuneable white light engine**
- **High intensity homogenised output**
- **Extremely smooth uniform wash**
- 2,800K - 6,500 K CCT Variable white
- Variable mired shift (green shift)
- Extreme output – 6,500, 24,000 and 36,000 lumens
- Superb smooth dimming
- Ideal for TV Broadcast and film
- PowerCON TRUE1 input and output for easy daisy chaining of fixtures
- Hidden quick release lever for tilt adjustment
- User select engine frequency from 750 to 24,000 Hz (menu, RDM and Control channel)



Designed for

The Studio Force II was SPECIFICALLY designed with TV Broadcast and film in mind where high quality light is the number one criteria.

But there are many other applications where Studio Force II can be use for the same reasons: exhibitions, car show, corporate events and theatre, touring key lights

If quality of light is important, then Studio Force II is the right fixture.



Additional features

- Flat sides to fit units close to each other
- Single hand tilt lock
- Yoke for floor and rigging
- Sliding slot for accessories mount
- Touch display for addressing
- Quick focus key
- Quick Link for wireless radio option



Tool-less lock

The hidden lever gives user quick access to unlock/lock the fixture tilt mechanism without using any tools and leaves the fixture side flat to place them next to each other without any gap.





Three different sizes

The Studio Force II™ is available in:

Studio Force II 12	12"	4 cells
Studio Force II 48	48"	16 cells
Studio Force II 72	72"	24 cells





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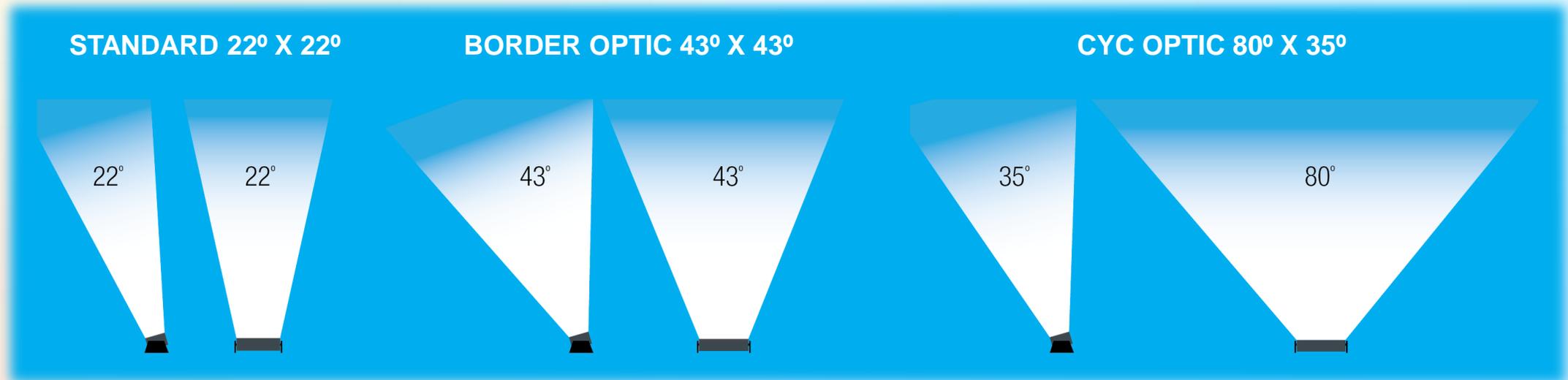
Accessories





Studio Force II comes standard with a $22^\circ \times 22^\circ$ beam angle optics, 2 additional lenses can be position in front the standard optics i.e. borders lens or cyc lens

See ordering information for lenses part numbers



Chroma-Q ColorSure™

- The inherent variation between individual LED emitters means colour can vary from fixture to fixture. Chroma-Q's ColorSure is a proprietary system to ensure fixtures within the same product range provide consistent output regardless of when they are manufactured.
- A complex range of processes for selecting (binning) individual LED emitters; calibrating LED light engines in house to a uniform standard and sophisticated firmware and software ensures exceptional fixture to fixture consistency.



Why the coloured LED's in a white light?

- The primary purpose of the Studio Force II is to provide a beautiful variable white light. While white LED's can be sufficient to achieve a good white points along the Planckian locus, varying its green-shift requires red, green and blue LED's. 
- Adding these coloured LED to the Studio Force II gave additional possibilities like being able to generate saturated colours.



Tuneable light engine

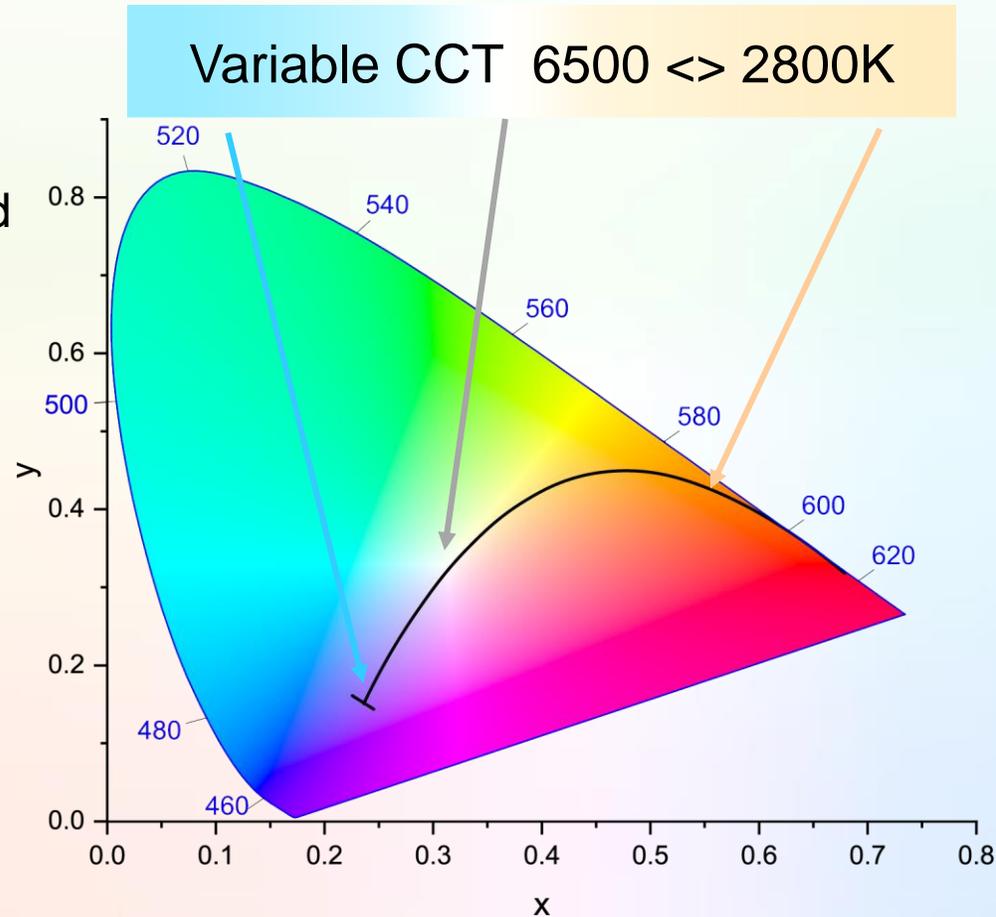
Variable CCT 2800 to 6500K

+/- green shift +2 to -2

Red, Green, Blue, White individual control

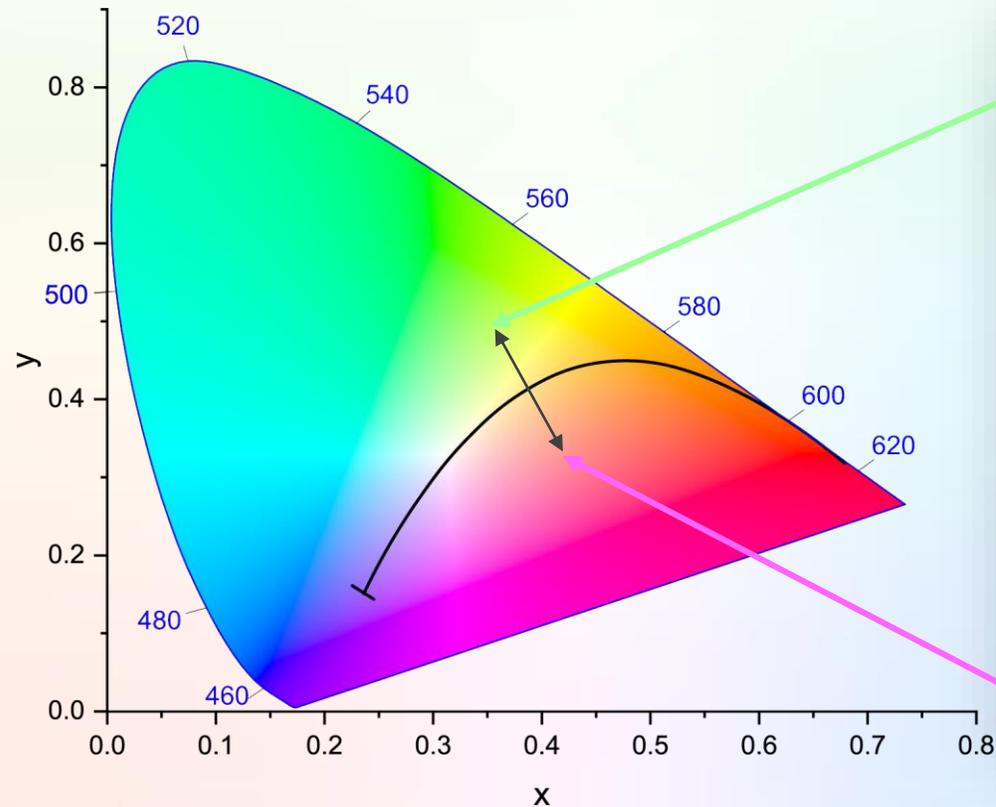
The meaning of Tuneable

Studio Force II KHi mode has a dedicated Correlated Colour Temperature control from 2800 to 6500 Kelvin on the Planckian locus AKA black body locus.





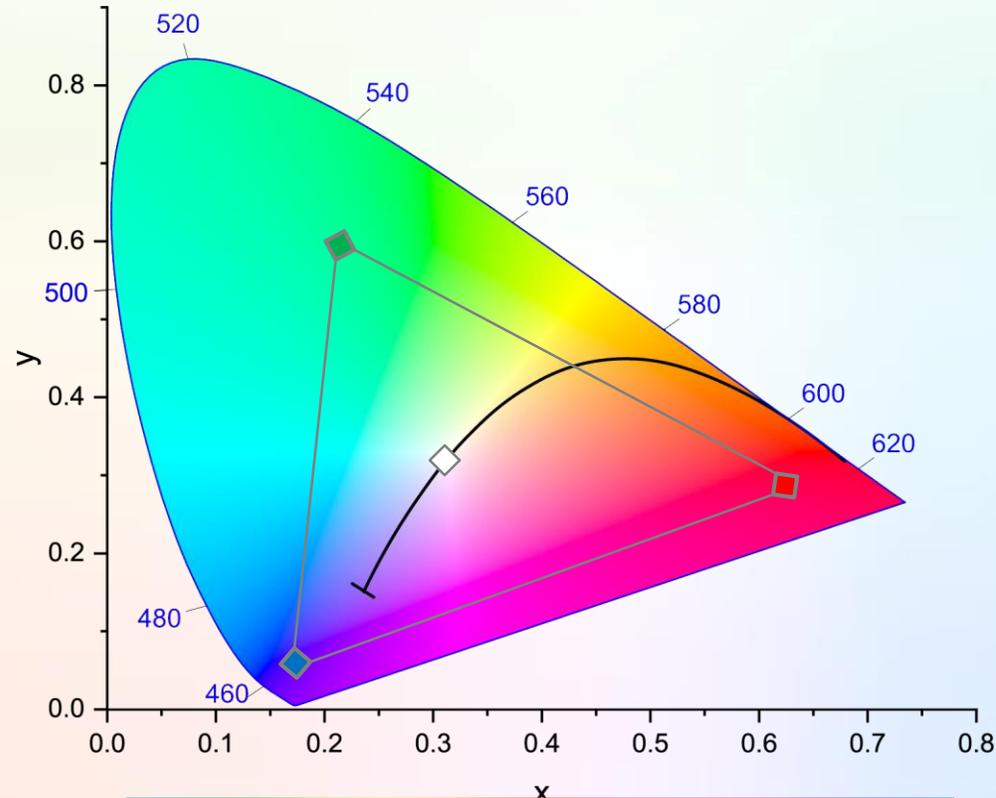
The meaning of Tuneable



The HUE control allows for a +/- Green shift of 2 between 2800 and 6500K



The meaning of Tuneable

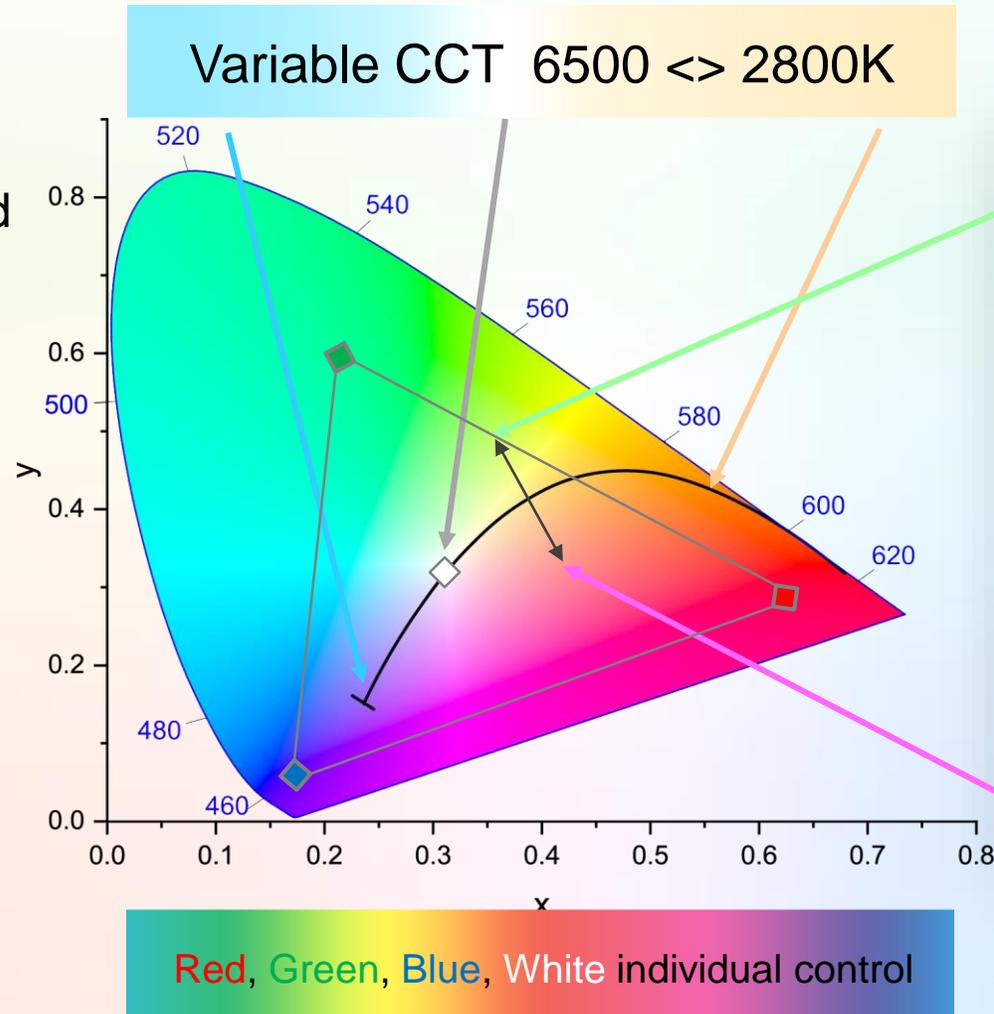


Red, Green, Blue, White individual control

Red, Green, Blue and White control allows for deep saturated colours when needed

The meaning of Tuneable

Studio Force II KHi mode has a dedicated Correlated Colour Temperature control from 2800 to 6500 Kelvin on the Planckian locus AKA black body locus.



The HUE control allows for a +/- Green shift of 2 between 2800 and 6500K

Red, Green, Blue and White control allows for deep saturated colours when needed

Control modes

- **KHi** (Kelvin, Hue and Intensity)
- **HSi** (Hue, Saturation and Intensity)
- **RGBW** (Red, Green, Blue, White)
- **RGB** (Red, Green, Blue, white is automatically controlled)
- **Cine-Q** (Intensity, Kelvin, Hue, Red, Green, Blue, White, X-fade)
- **Extended** (Control channel)

Grouping

- **All** (The entire fixture as single cell)
- **X4** (cells group by 4)
- **Single** (individual cell)
- **Odd/Even** (ever other cell)

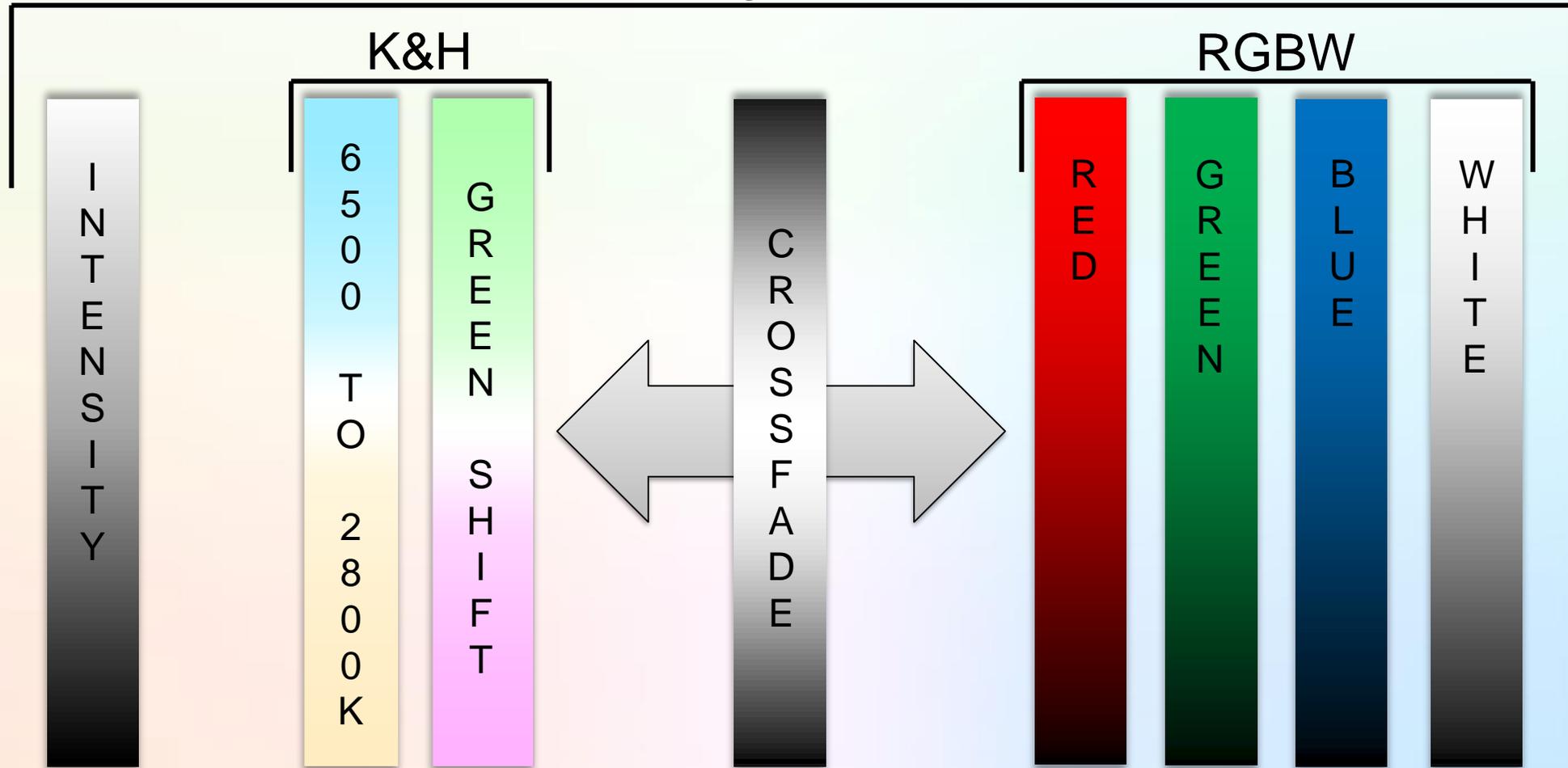


- While KHi mode makes it easy to choose a white point and tune it, users can't make any other colours.
- Using RGBW makes it possible to do almost every colour and white point but it's not always easy to find the right colour temperature and tune it.
- Cine-Q brings the best of both worlds, it has KHi and RGBW control plus an additional control to cross-fade between the modes.



Cine-Q channel mapping

Single cell



New control channel

- Studio Force II is the first Chroma-Q fixture to feature a dedicated DMX control channel.
- It allows remote override of certain settings such as engine frequency, fan speed, Dimmer curve and DMX Lost state. Over time more functions will be added.
- To override a settings, set the value of the channel to the desire setting and leave it there for minimum 5 sec, then the channel can be set back to 0 and the fixture will retain that settings until it is changed again or the power is cycle. At the point the fixture will default back to the last settings set by the menu or RDM.



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New control channel

Function name	Default	From	To	Description
				<i>Values must be held for 5 sec before its function is activated</i>
Control channel				
No Function		0	2	
Reserve for future use		3	40	
Fan Speed Off (if possible)		41	42	Fan will never start, fixture output can be reduced or limited
Fan Speed Low		43	44	Slow fan speed (fixture output can be reduced or limited)
Fixed fan speed = full		45	46	Maximum speed on fan
Fixed fan speed = full, regulated light output intensity	X	47	48	Maximum speed on fan but only when needed
No Function		67	70	
PWM 750		71	72	Set PMW rate @ 750Hz
PWM 1500		73	74	Set PMW rate @ 1500Hz
PWM 3000		75	76	Set PMW rate @ 3000Hz
PWM 6000	X	77	78	Set PMW rate @ 6000Hz
PWM 12000		79	80	Set PMW rate @ 12000Hz
PWM 24000		81	82	Set PMW rate @ 24000Hz
No Function		85	150	
DMX Lost default Fixture stay to the last state	X	151	152	
DMX Lost default Fixture goes black		153	154	
Reserve for future use		155	156	
DMX Lost default fixture to save look		157	158	
Reserve for future use		159	248	
No Function		249	255	

Studio Force II V12

Fixture Model
Studio Force II V12 (4400K)

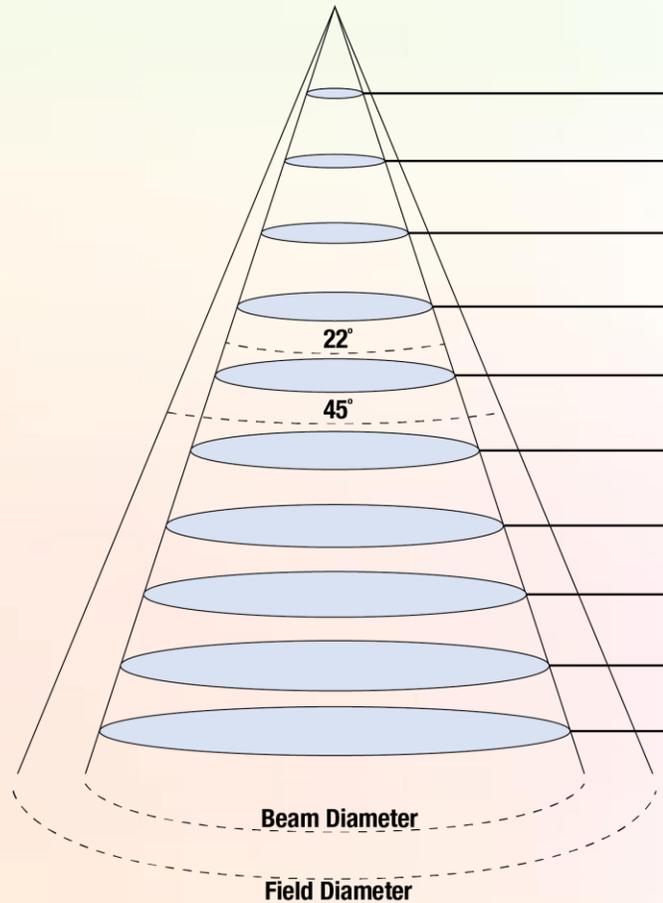
Field
45°

Beam
22°

Candelas
31000 Cd

Lumens
6500 lm

Watts
150 w

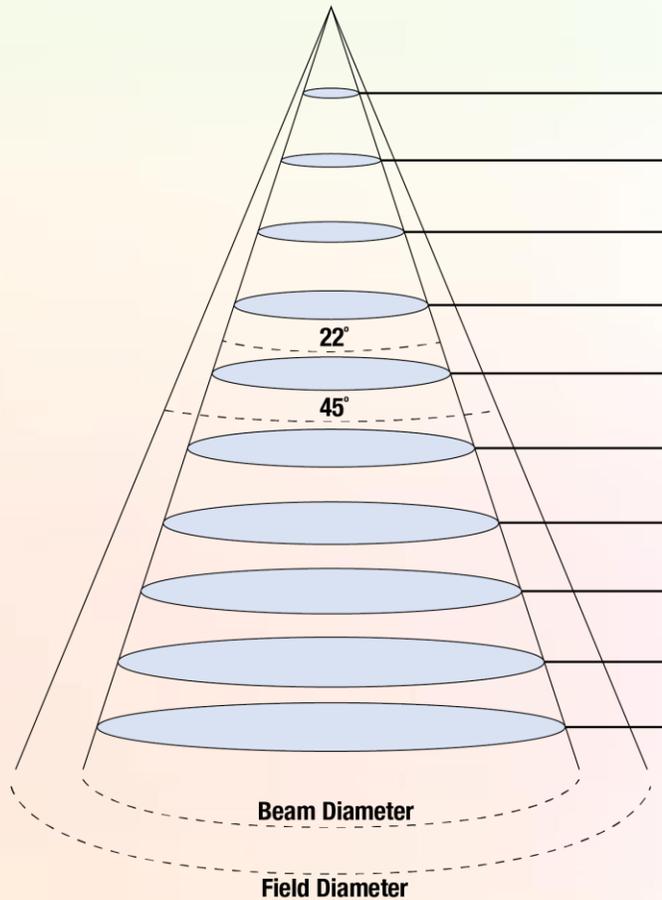


Throw Distance		Field Spread		Beam Spread		Full On	
M	FT	M	FT	M	FT	LUX	FC
1	3.3	0.8	2.7	0.4	1.3	31000	2880.0
2	6.6	1.7	5.4	0.8	2.6	7750	720.0
3	9.8	2.5	8.2	1.2	3.8	3444	320.0
4	13.1	3.3	10.9	1.6	5.1	1938	180.0
5	16.4	4.1	13.6	1.9	6.4	1240	115.2
6	19.7	5.0	16.3	2.3	7.7	861	80.0
7	23.0	5.8	19.0	2.7	8.9	633	58.8
8	26.2	6.6	21.7	3.1	10.2	484	45.0
9	29.5	7.5	24.5	3.5	11.5	383	35.6
10	32.8	8.3	27.2	3.9	12.8	310	28.8



Studio Force II V48

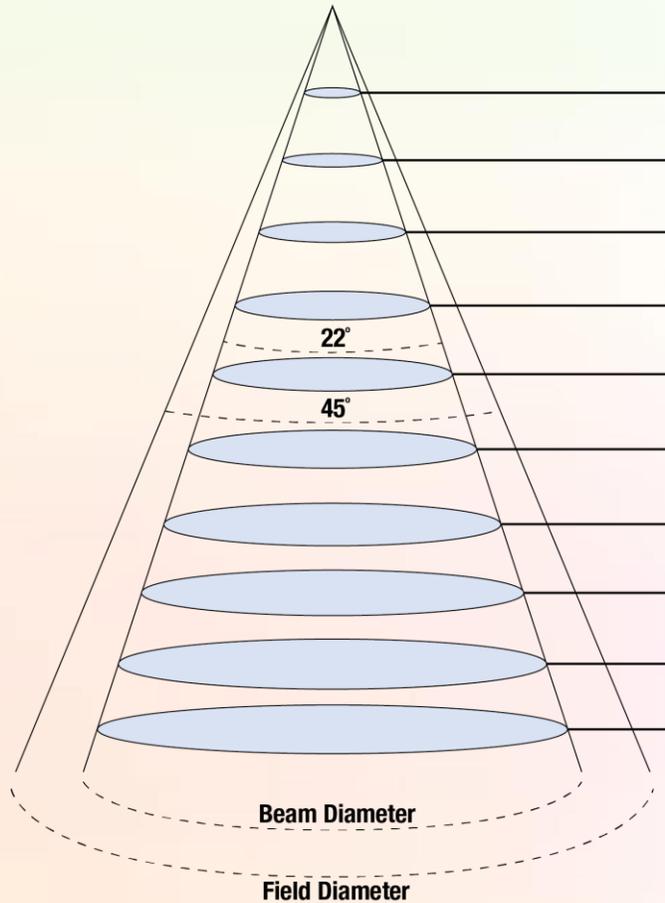
Fixture Model Studio Force II V48 (4400K) **Field** 45° **Beam** 22° **Candelas** 103000 Cd **Lumens** 24000 lm **Watts** 550 w



Throw Distance		Field Spread		Beam Spread		Full On	
M	FT	M	FT	M	FT	LUX	FC
1	3.3	0.8	2.7	0.4	1.3	103000	9569.0
2	6.6	1.7	5.4	0.8	2.6	25750	2392.3
3	9.8	2.5	8.2	1.2	3.8	11444	1063.2
4	13.1	3.3	10.9	1.6	5.1	6438	598.1
5	16.4	4.1	13.6	1.9	6.4	4120	382.8
6	19.7	5.0	16.3	2.3	7.7	2861	265.8
7	23.0	5.8	19.0	2.7	8.9	2102	195.3
8	26.2	6.6	21.7	3.1	10.2	1609	149.5
9	29.5	7.5	24.5	3.5	11.5	1272	118.1
10	32.8	8.3	27.2	3.9	12.8	1030	95.7

Studio Force II V72

Fixture Model Studio Force II V72 (4400K)
 Field 45°
 Beam 22°
 Candelas 146500 Cd
 Lumens 36000 lm
 Watts 800 w



Throw Distance		Field Spread		Beam Spread		Full On	
M	FT	M	FT	M	FT	LUX	FC
1	3.3	0.8	2.7	0.4	1.3	146500	13610.3
2	6.6	1.7	5.4	0.8	2.6	36625	3402.6
3	9.8	2.5	8.2	1.2	3.8	16278	1512.3
4	13.1	3.3	10.9	1.6	5.1	9156	850.6
5	16.4	4.1	13.6	1.9	6.4	5860	544.4
6	19.7	5.0	16.3	2.3	7.7	4069	378.1
7	23.0	5.8	19.0	2.7	8.9	2990	277.8
8	26.2	6.6	21.7	3.1	10.2	2289	212.7
9	29.5	7.5	24.5	3.5	11.5	1809	168.0
10	32.8	8.3	27.2	3.9	12.8	1465	136.1

Studio Force II V12

Net Dimensions

Length: 335mm / 13.2"

Width: 218mm / 8.6"

Height: 190mm / 7.5"

Net Weight: 5kg / 11.0lbs

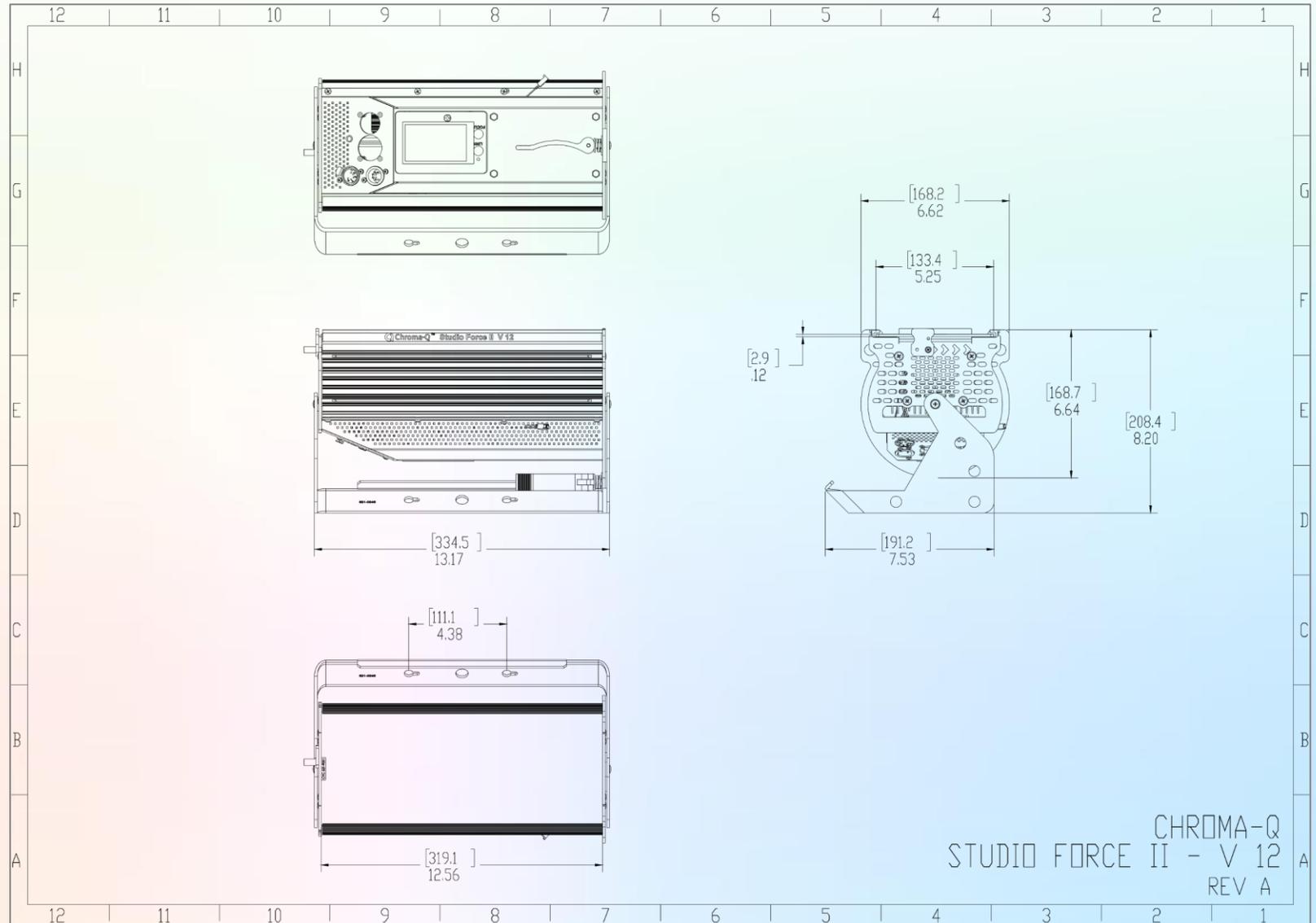
Shipping Dimensions:

Length: 432mm / 17"

Width: 279mm / 11"

Height: 343mm / 13.5"

Shipping Weight: 7kg / 15.5lbs



Studio Force II V48

Net Dimensions

Length: 1,181mm / 46.5"

Width: 165mm / 6.5"

Height: 191mm / 7.5"

Net Weight: 18 Kg / 40 lbs

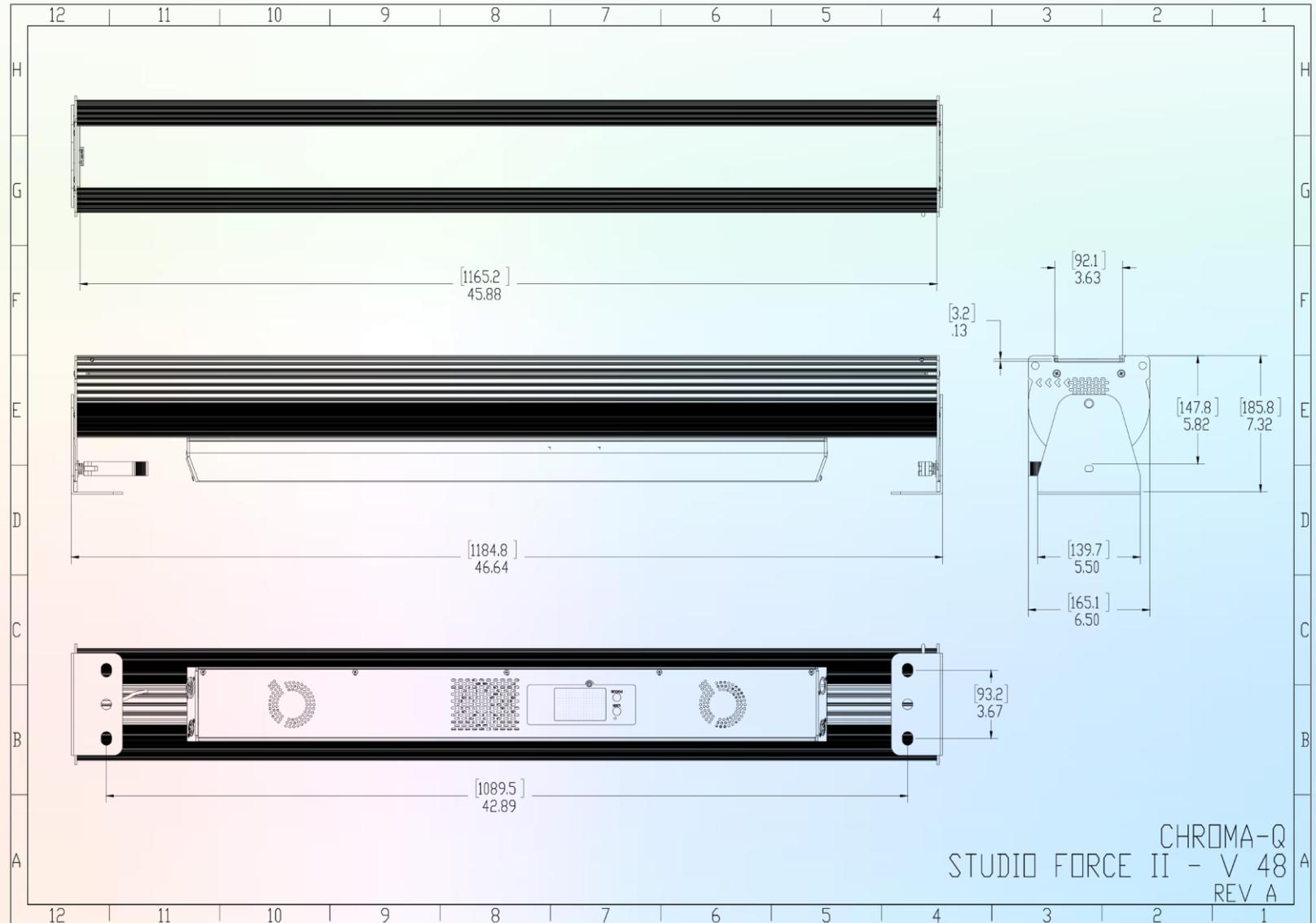
Shipping Dimensions:

Length: 1,295mm / 51"

Width: 305mm / 12"

Height: 320mm / 12.5"

Shipping Weight: 21 Kg / 46 lbs



Studio Force II V72

Net Dimensions

Length: 1,759mm / 69.25"

Width: 165mm / 6.5"

Height: 191mm / 7.5"

Net Weight: 24kg / 53lbs

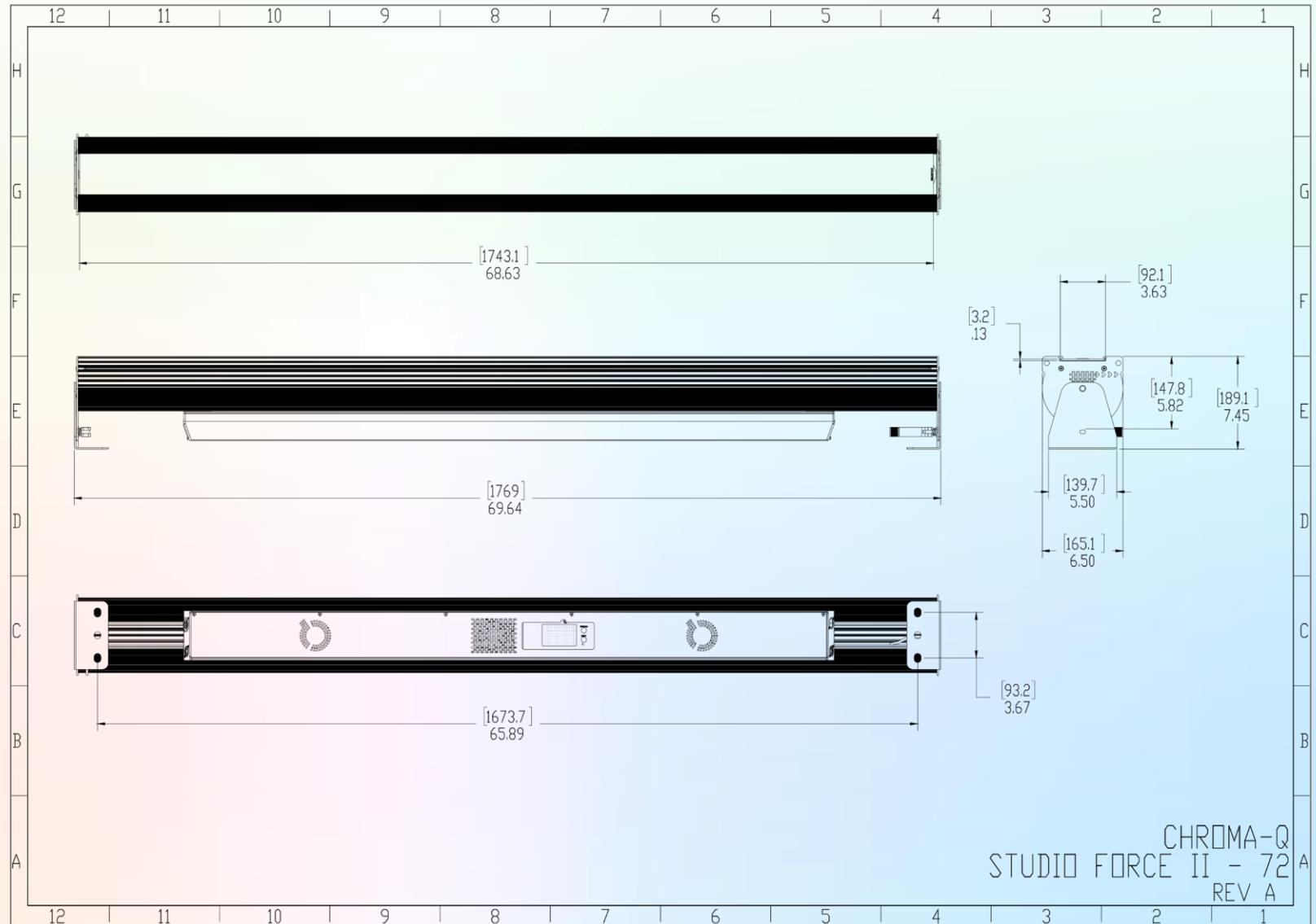
Shipping Dimensions:

Length: 1,855mm / 73"

Width: 305mm / 12"

Height: 320mm / 12.5"

Shipping Weight: 27 kg / 60 lbs



Studio Force II 12 Specs

- Power Supply: Built-in
- Power Input Rating: 100-240V AC 50-60Hz 160VA
- Power Factor: 0.99 @ 120V AC, 0.97 @ 240V AC
- Power Consumption: 150W @ 120V AC, 133W @ 240V AC
- Idle Power Consumption: 8W @ 120V AC, 10W @ 240V AC
- Typical Power & Current: Measurements done with all LEDs at maximum intensity. *Measurements made at nominal voltage. Allow for a deviation of +/- 10%*
- Power Connectors In/Out: Neutrik powerCON TRUE1
- Data Connectors In/Out: Neutrik XLR 5-pin
- Max Fixtures in Series: 10 x fixtures @120V, 22 x Fixtures @240V
- Control Protocol: ANSI E1.11 USITT DMX 512-A
- Cooling System: Combined convection and forced air - 1 fan
- Operating Temperature: 0°C to 40°C
- Construction: Anodised aluminium extrusion
- Colour: Black / White
- Built-In Hardware: Yoke and quick release lever for tilt adjustment
- IP Rating: IP20
- Control Modes: RGBW, RGB, KHi, HSi, Cine-Q. Grouping x1, X4, Odd/Even
- Dimming Curve: Linear
- Hot Lumen Output (Combined): 6,500 lm
- Optics: Fully homogenised lenses
- Beam Angle: 22° (approx.)
- Beam Distribution: Symmetrical direct illumination
- CCT: Adjustable 2800 - 6500K
- Colour Gamut: Performance enhanced
- CRI: 92 @ 3200K, 94 @ 4400K, 94 @ 5600K
- TM-30 Rf (Fidelity Index): 92 @ 3200K, 94 @ 4400K, 90 @ 5600K
- LED Life: L70 at 50,000 hours
- Approvals: CISPR 32:2015 /EN 55032:2015, CISPR 24:2010/EN 55024:2010, IEC 60598-2- 17:1984 + A1:1987+A2:1990 used in conjunction with IEC 60598-1: 2008 (Seventh Edition) FCC Part 15 Subpart B:2015 & ICES-003:2016 CSA C22.2 No. 166:2015-06 UL 1573:2003/R:2014-01

Studio Force II 48 Specs

- Power Supply: Built-in
- Power Input Rating: 100-240V AC 50-60Hz 550VA
- Power Factor: 0.97 @ 120V AC, 0.92 @ 240V AC
- Power Consumption: 550W @ 120V AC, 550W @ 240V AC
- Idle Power Consumption: 27W @ 120V, AC 30W @ 240V AC
- Typical Power & Current: Measurements done with all LEDs at maxi- mum intensity. *Measurements made at nominal voltage. Allow for a deviation of +/- 10%*
- Power Connectors In/Out: Neutrik powerCON TRUE1
- Data Connectors In/Out: Neutrik XLR 5-pin
- Max Fixtures in Series: 3 x fixtures @110V, 6 x Fixtures @240V
- Control Protocol: ANSI E1.11 USITT DMX 512-A
- Cooling System: Combined convection and forced air - 2 fan
- Operating Temperature: 0°C to 40°C
- Construction: Anodised aluminium extrusion
- Colour: Black / White
- Built-In Hardware: Quick release lever for tilt adjustment
- IP Rating: IP20
- Control Modes: RGBW, RGB, KHi, HSi, Cine-Q. Grouping x1, X4, Odd/Even
- Dimming Curve: Linear
- Hot Lumen Output (Combined): 24,000 lm
- Optics: Fully homogenised lenses
- Beam Angle: 22° (approx.)
- Beam Distribution: Symmetrical direct illumination
- CCT: Adjustable 2800 - 6500K
- Colour Gamut: Performance enhanced
- CRI: 92 @ 3200K, 94 @ 4400K, 94 @ 5600K
- TM-30 Rf (Fidelity Index) 92 @ 3200K, 94 @ 4400K, 90 @ 5600K
- LED Life: L70 at 50,000 hours
- Approvals: CISPR 32:2015 /EN 55032:2015, CISPR 24:2010/EN 55024:2010, IEC 60598-2-17:1984 + A1:1987+A2:1990 used in conjunction with IEC 60598-1: 2008 (Seventh Edition) FCC Part 15 Subpart B:2015 & ICES-003:2016 CSA C22.2 No. 166:2015-06 UL 1573:2003
- R:2014-01

Studio Force II 72 Specs

- Power Supply: Built-in
- Power Input Rating: 100-240V AC 50-60Hz 800VA
- Power Factor: 0.97 @ 120V AC, 0.92 @ 240V AC
- Power Consumption: 800W @ 120V AC, 800W @ 240V AC
- Inrush Current: 80A @ 120V AC
- Idle Power Consumption: 44W @ 120V AC, 46W @ 240V AC
- Typical Power & Current: Measurements done with all LEDs at maximum intensity. *Measurements made at nominal voltage. Allow for a deviation of +/- 10%*
- Power Connectors In/Out: Neutrik powerCON TRUE1
- Data Connectors In/Out: Neutrik XLR 5-pin
- Max Fixtures in Series: 2 x fixtures @110V, 4 x Fixtures @240V
- Control Protocol: ANSI E1.11 USITT DMX 512-A
- Cooling System: Combined convection and forced air - 2 fan
- Operating Temperature: 0°C to 40°C
- Construction: Anodised aluminium extrusion
- Colour: Black / White
- Built-In Hardware: Quick release lever for tilt adjustment
- IP Rating: IP20
- Control Modes: RGBW, RGB, KHi, HSi, Cine-Q. Grouping x1, X4, Odd/Even
- Dimming Curve: Linear
- Hot Lumen Output (Combined): 36,000 lm
- Optics: Fully homogenised lenses
- Beam Angle: 22° (approx.)
- Beam Distribution: Symmetrical direct illumination
- CCT: Adjustable 2800 - 6500K
- Colour Gamut: Performance enhanced
- CRI: 92 @ 3200K, 94 @ 4400K, 94 @ 5600K
- TM-30 Rf (Fidelity Index): 92 @ 3200K, 94 @ 4400K, 90 @ 5600K
- Lamp Life: L70 at 50,000 hours
- Approvals: CISPR 32:2015 / EN 55032:2015, CISPR 24:2010/EN 55024:2010, IEC 60598-2-17:1984 + A1:1987+A2:1990 used in conjunction with IEC 60598-1: 2008 (Seventh Edition) FCC Part 15 Subpart B:2015 & ICES-003:2016 CSA C22.2 No. 166:2015-06 UL 1573:2003/ R:2014-01

AC P/N	Description
CHSF2V12	STUDIO FORCE II 12
CHSF2V12W	STUDIO FORCE II 12 WHITE BODY
CHSF2V12LR	STUDIO FORCE II 12 w/LumenRadio RF
CHSF2V48	STUDIO FORCE II 48
CHSF2V48W	STUDIO FORCE II 48 WHITE BODY
CHSF2V48LR	STUDIO FORCE II 48 w/LumenRadio RF
CHSF2V72	STUDIO FORCE II 72
CHSF2V72A	STUDIO FORCE II 72 WHITE BODY
CHSF2V72LR	STUDIO FORCE II 72 w/LumenRadio RF

AC P/N	Description
CHCFBL12	Border Lens for Color Force II 12
CHCFCL12	Cyc Lens for Color Force II 12
CHCFECL12	Egg Crate Louvre for Color Force II 12 - Black
CHCFHTH12	Half Top Hat for Color Force 12 II - Black
CHCFBD12	Barndoor for Color Force 12 II - Black
CHCFTH12	Top Hat for Color Force 12 II – Black
CHCFZH12	Zip Hood for Color Force 12 II
CHCFBL48	Border Lens for Color Force 48 II
CHCFCL48	Cyc Lens for Color Force 48 II
CHCFBL72	Border Lens for Color Force 72 II
CHCFCL72	Cyc Lens for Color Force 72 II
CHUSBLOADER II	Firmware Uploader II



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More information

- Brochure, specs sheets and video available @:
<http://www.chroma-q.com/sf2>



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