

## GENERAL INFORMATION

The **Source Four LED Studio HD** lighting fixture features the newest technology in high-output LEDs. This luminaire is ideal for video, film and other 'white light only' applications. With its rugged die-cast enclosure and easy to operate user interface, the Source Four LED Studio HD will be a powerful tool for any lighting professional. The fixture can be configured to operate under console control for studio systems or in stand-alone 'no console required' settings for location lighting.

Explore new opportunities by pairing with incandescent light from the ETC's original Source Four line of fixtures to provide maximum flexibility and range.

### Source Four LED Studio HD™

The Source Four LED Studio HD fixture combines high-output white LEDs with carefully selected LED colours from the Selador® x7 Color System™ to create a beautiful white light without all the spectral gaps normally associated with LED lighting. Easily adjust colour temperature from 2700K-6500K.

Source Four LED light engines work with all Source Four lens tubes to deliver a high quality controllable beam of LED light. For the best results it is highly recommended that EDLT versions are used. We also offer a special LED only version of the 50° lens tube.

## AVAILABLE FROM



## ORDERING INFORMATION

### Source Four CE LED Studio HD Light Engine with Shutter Barrel

(For use with fixed field lens tubes only)

PART NO	DESCRIPTION
7460A1221	Source Four LED Studio HD w/shutter barrel, Black
7460A1221-1	Source Four LED Studio HD w/shutter barrel, White
7460A1221-5	Source Four LED Studio HD w/shutter barrel, Silver Grey

### Source Four LED Studio HD Light Engine - Body only

(For use with zoom lens tubes and retrofit of existing fixtures)

PART NO	DESCRIPTION
7460A1220	Source Four LED Studio HD - Body only, Black
7460A1220-1	Source Four LED Studio HD - Body only, White
7460A1220-5	Source Four LED Studio HD - Body only, Silver Grey

Fixture ships with 1.5m PowerCon to bare ends power input lead and soft focus diffuser in gobo holder.

**Please note: Lens tubes to be ordered separately.**

## SPECIFICATIONS

## GENERAL

- 60 LED array
- IP20-rated for indoor use
- CE compliant
- Power and DMX in/thru connections for easy setup
- User-friendly control interface with multiple modes and fixture settings

## PHYSICAL

- Rugged die-cast all-metal housing
- Available in black, white, silver grey. Custom colour by request
- Positive locking double-clutch yoke
- Slot for glass or stainless steel or film gobo patterns and Soft Focus Diffuser
- Wide accessory slot with sliding cover for motorised effect devices, A-size goboes or optional drop-in iris

## ELECTRICAL

- 100VAC to 240VAC 50/60 Hz universal power input
- Power factor 0.94
- Max. consumption (see table on page three)
- Neutrik power in and thru connections
- Up to 9 fixtures (15A max) may be linked via power in/thru connectors per 15A circuit
- Requires power from a non-dim source

## LED\*

- 50,000 hour LED life (50,000 hours to 70% intensity)
- 60 2.5W LED emitters

\*See additional LED notes on page three

## COLOUR

- Array use warm and cool white light emitters with additional deep colour emitters to provide a temperature range from 2700K-6500K
- Provides variable white light with deep spectral richness
- Broad-spectrum colour interacts seamlessly with conventional incandescent and discharge light sources
- Exclusive optional red-shift option emulates tungsten dimming performance
- Beautifully illuminates skin tones and other objects for natural appearance and high colour rendering
- Also available with Lustr+, Daylight, or Tungsten LED arrays

## OPTICAL

- Use the included soft-focus diffuser for creating washes or soft light
- Best performance using ETC's EDLT lens tubes
- Use all ETC Source Four Interchangeable lens barrels: 5°, 10°, 14°, 19°, 26°, 36°, 50°, 70°, and 90° field angles as well as 19°, 26°, 36°, and 50° EDLT lenses
- For better performance use the new LED-specific 50° barrel

## CONTROL

- DMX512 in and thru via five-pin XLR connectors
- Multiple control options including RGB, strobe, and console-free Master/Slave mode
- See DMX Control Table for additional information
- 15-bit virtual dimming engine provides smooth, high quality theatrical fades and minimizes colour shift during dimming
- RDM functionality for address and setting changes

## THERMAL

- Ambient operating temperature -20°C to 40°C)
- Active electronic thermal management for droop-free operation
- Quiet fan cooling

## THERMAL (CONT.)

- Fixture is designed for continuous operation up to 40°C ambient temperature and requires free flow of air around fixture housing

## ADDITIONAL ORDERING INFORMATION

## Power Input Cables

PART NO	DESCRIPTION
7401B7008	1.5m PowerCon to bare-end power input cable 3x1mm2 (Spare)
Tba	7.5m PowerCon w/in-line switch to bare-end power input cable 3x1mm2

## Power Thru Jumper cables

Note: Power thru jumper cables connect to fixture's output (thru) connector to provide link to successive fixtures

PART NO	DESCRIPTION
7410K1101	1m PowerCon to bare end power thru cable 3x1.5mm2
7410K1102	1m PowerCon to PowerCon fixture-to-fixture jumper cable 3x1.5mm2
7410K1103	2m PowerCon to PowerCon fixture-to-fixture jumper cable 3x1.5mm2
7410K1104	5m PowerCon to PowerCon fixture-to-fixture jumper cable 3x1.5mm2
7410K1105	1m fixture-to-fixture twin jumper cable with both power and DMX connectors, 3x1.5mm2
7410K1106	2m fixture-to-fixture twin jumper cable with both power and DMX connectors, 3x1.5mm2
7410K1107	5m fixture-to-fixture twin jumper cable with both power and DMX connectors, 3x1.5mm2

## Diffusers

PART NO	DESCRIPTION
7060A4019	Source Four LED Soft Focus Diffuser (Spare)
7460K1006	S4 LED - Soft Focus Diffuser Permant Installation Kit (magnets + diffuser)
7060K1001	Source Four LED Smooth Wash Diffuser for use in <b>159mm</b> Colour Frames (19°-26°-36° and 50° Lens Tubes)
7060K1002	Source Four LED Smooth Wash Diffuser for use in <b>190mm</b> Colour Frames (14°-50° LED-70°-90° and Zoom Lens Tubes)
7060K1003	Source Four LED Smooth Wash Diffuser for use in <b>305mm</b> Colour Frames (10° Lens Tube)
7060K1004	Source Four LED Smooth Wash Diffuser for use in <b>356mm</b> Colour Frames (5° Lens Tube)

The Soft Focus Diffuser delivers beautiful homogenised light when not in sharp focus. Also, use in combination with gobo patterns for dappled and soft edge projections.

The Smooth Wash Diffuser is used when extra-smooth blending of multiple Source Four LED fixtures is required. The smooth wash diffuser is placed into the gel frame slot of the lens tube.

## RECOMMENDED LENSING OPTIONS

(Lens Tubes sold separately)

## Fixed Field Lens Tube Assemblies

PART NO	DESCRIPTION
7460A2008	LED specific 50° EDLT Lens Tube, Black
7460A2008-1	LED specific 50° EDLT Lens Tube, White
7060A2048	36° EDLT Lens Tube, Black
7060A2048-1	36° EDLT Lens Tube, White
7060A2047	26° EDLT Lens Tube, Black
7060A2047-1	26° EDLT Lens Tube, White
7060A2046	19° EDLT Lens Tube, Black
7060A2046-1	19° EDLT Lens Tube, White
7060A2052-K	90° Lens Tube, Black
7060A2052-K1	90° Lens Tube, White
7060A2051-K	70° Lens Tube, Black
7060A2051-K1	70° Lens Tube, White
7060A2050-K	14° Lens Tube, Black
7060A2050-K1	14° Lens Tube, White
7060A2001-K	10° Lens Tube, Black
7060A2001-K1	10° Lens Tube, White
7060A2000-K	5° Lens Tube, Black
7060A2000-K1	5° Lens Tube, White

## Zoom Lens Tube Assemblies

Use with light engine body only models.

PART NO	DESCRIPTION
7060A2030-K	15°-30° Zoom Lens Tube w. Shutter barrel, Black
7060A2030-K1	15°-30° Zoom Lens Tube w. Shutter barrel, White
7060A2030-K	25°-50° Zoom Lens Tube w. Shutter barrel, Black
7060A2030-K1	25°-50° Zoom Lens Tube w. Shutter barrel, White

## Power Consumption at Full Capacity

MODEL	VOLTAGE (V)	CURRENT (A)	MAX POWER (W)
S4 LED Studio HD™	230	0.576	124.3

## ADDITIONAL ORDERING INFORMATION

## Fixture Accessories

PART NO	DESCRIPTION
7060A1012	Source Four Drop-In Iris
7060A1075	Source Four Size B Metal Gobo Holder
7060A1075-1	Source Four Size B Glass Gobo Holder
7060A1074	Source Four Size A Metal Gobo Holder (For use in Iris slot)
7060A1074-1	Source Four Size A Glass Gobo Holder (For use in Iris slot)

## NOTES ABOUT LED LUMINAIRES

All LED sources experience some lessening of light output and some colour shift over time. LED output will vary with thermal conditions. Based on the LED manufacturer's B50 L70 specification, a Selador luminaire will achieve ~70% of its initial output after 50,000 hours of typical usage. In individual situations, LEDs will be used for different durations and at different levels. This can eventually lead to minor alterations in colour performance, necessitating slight adjustment to presets, cues or programs.

## CRI AND CQS RATINGS

Source Four LED fixtures were evaluated for CRI and CQS performance using measured output spectrum and optimized mix solutions for a best spectral match to black body sources at 3200K and 5600K.

FIXTURE	CRI	CQS	Color Fidelity	Duv
S4 LED Studio HD Reg at 3200K	94	95	93	0.000
S4 LED Studio HD Reg at 5600K	91	87	86	0.000

All Source Four LED luminaire versions provide excellent colour rendering to the eye, particularly at higher colour temperature settings such as 5600K. In most cases the Duv is 0.000. A Duv rating of 0.000 indicates that the colour mix used is exactly on the black body line, with no green or magenta tint.

CONTROL OPTIONS

User settings on Source Four LED Studio HD fixtures allow multiple operational modes and settings for either console operation via DMX protocol or stand-alone operation. The expanded LCD display provides easy navigation to all possible settings and options. Some of the setting options are:

- Multiple DMX choices for multiple operational modes
- Multiple dimming curve options
- Preset color temperatures and sequences for stand-alone (no console required) operation
- White point selection – i.e. 3200K, 5600K, etc
- Loss of data behavior options – instant off, hold last look for two minutes, etc
- Output modes – three output options that offer the user a choice between maximum output and maximum consistency

See the user manual for a complete explanation of all of the control settings and options for the Source Four LED.

Quick Setups

To assist in managing the numerous control and fixture behavior choices, five combinations of operational settings are available to quickly get started. These settings are specifically created for different applications and are easily accessible at the fixture display. Each setting can then be modified as required to take advantage of all of the possible control features.

Setting Title	Profile	Description	Typical Features*
General	Direct	Factory Default: For general purpose use including interior architectural applications	<ul style="list-style-type: none"> <li>• Standard dimming curve</li> <li>• Regulated output for color consistency</li> </ul>
Stage	HSI Plus 7 Enabled	Theatrical lighting: Duplicates the color and dimming behavior of tungsten stage lighting fixtures	<ul style="list-style-type: none"> <li>• Incandescent dimming curve</li> <li>• Regulated output for color consistency</li> <li>• 3200K white point setting</li> </ul>
XT Arch	HSI	Exterior architectural lighting: Provides a high degree of color consistency in high ambient temperature environments	<ul style="list-style-type: none"> <li>• Standard dimming curve</li> <li>• Protected output</li> <li>• 3200 white point setting</li> </ul>
High Impact	RGB	Event lighting: Enables quickest response, simple RGB control and strobe channel for maximum effect usage	<ul style="list-style-type: none"> <li>• Quick dimming curve</li> <li>• Boost mode for maximum intensity</li> <li>• 5600K white point setting</li> </ul>
Studio	Studio	Studio Factory Default: Enables three parameter control of white light (intensity, white point, and tint) via DMX from console or from fixture display – no console required	<ul style="list-style-type: none"> <li>• Linear dimming curve</li> <li>• Regulated output mode for color consistency</li> </ul>

\*See user manual for complete list of features for each Quick Setup

CONTROL OPTIONS

DMX Input Channel Profiles

DMX Profile	DMX Channels	Channel Assignments	Notes
Studio	6 (Ch. 4 not used)	1 – Intensity 2 – Color Point (CCT) 3 – Tint 4 – n/a 5 – Strobe 6 – Fan Control	Controls fixture as a white light unit. If no DMX, i.e. console input, is present, fixture can be adjusted for these three parameters on the UI at the back of the unit.
Direct	10	1 – Red 2 – RedOrange 3 – Mint 4 – Blue 5 – Indigo 6 – N/A 7 – N/A 8 – Intensity 9 – Strobe 10 – Fan Control	Direct control of each individual color with a separate master intensity channel. Color calibration of LEDs is not active in this mode. This profile will produce additive color cross-fades.
HSI	6	1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe 6 – Fan Control	High resolution hue (two-channels), saturation, and intensity control. HSI mode will produce color cross-fades around the color space.
HSIC	7	1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe 6 – Fan Control 7 – Color Point (CCT)	High-resolution hue, saturation and intensity control as above, with the addition of a color point channel to adjust the color temperature of the fixture in both white light and color. Color cross-fade performance is the same as HSI.
RGB	6 (Ch. 4 not used)	1 – Red 2 – Green 3 – Blue 4 – n/a 5 – Strobe 6 – Fan Control	Effectively addresses all seven colors via three channels of control. RGB profile will produce additive color cross-fades.

Additional profile options

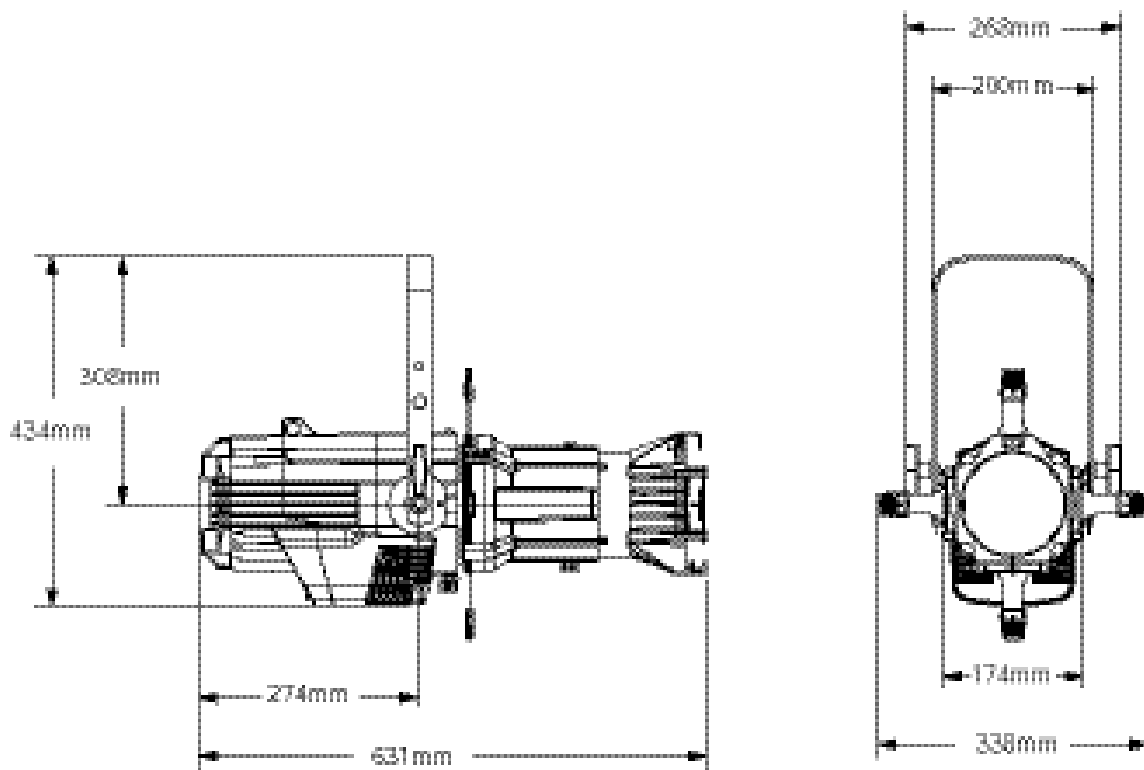
Plus 7	Seven additional color control channels are available in RGB, HSI, and HSIC input profile settings. For example HSI with 'Plus 7' enabled becomes a 15-channel profile:	1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe 6 – Fan Control 7 – n/a 8 – Plus7 Control on/off 9 – Red 10 – RedOrange 11 – Mint 12 – Blue 13 – Indigo	The desired color and intensity is achieved by using the HSI or RGB channels  Placing channel seven at a value over 51% gives the fixture a 15-channel profile.  Channels 9-15 represent the native colors of the fixture and allow the operator to adjust individual color channels to fine tune the color output.
Strobe	Variable strobe control: 0% is no strobe. The fixture output will strobe more rapidly as the strobe channel value approaches 100%.		

PHYSICAL

Source Four LED Weights and Dimensions

	WEIGHT*	SHIPPING WEIGHT
	kgs	kgs
With Barrel	8.3	12.7
Without Barrel	6.5	10.4

\* Does not include mounting hardware or lens tube



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