

ColorSource Series



Type(s)

Project

Date

Notes

GENERAL INFORMATION

ColorSource Spot Pearl is a variable white-light LED array that utilizes a mix of two different white LEDs. This mixture enables you to set the color temperature anywhere between 2700 K and 6500 K.

The Pearl array includes the same great feature set and high quality construction as its full color siblings, including an impressively bright output and simple user interface.

Designed for installations that depend heavily on white light such as studios, houses of worship, and architectural installations, this array features flicker-free operation and an incredibly smooth dimming curve.

APPLICATIONS

- Houses of worship
- Universities and schools
- Studios
- Hospitality
- Retail
- Exhibition centers
- Meeting rooms
- Clubs

PRODUCT FEATURES

- Variable white light using 2700 K and 6500 K LEDs
- Simple user interface with seven-segment display
- powerCON® in and thru
- DMX/RDM in and thru (5-pin XLR)
- Optically calibrated
- Tour-ready, aluminum housing
- Combine with available adapters to transform your fixture into a fully functional Fresnel or CYC light

ORDERING INFORMATION

ColorSource Spot Pearl Light Engine with Shutter Barrel

(For use with fixed-field lens tubes only)

MODEL	DESCRIPTION	ETL PART NUMBER	CE PART NUMBER
CSSPOTPRLS	ColorSource Spot Pearl with shutter barrel, black	7413A1061	7413A1261

ColorSource Spot Pearl Light Engine Body

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

MODEL	DESCRIPTION	ETL PART NUMBER	CE PART NUMBER
CSSPOTPRL	ColorSource Spot Pearl, body only, black	7413A1060	7413A1260

Color options: -1 = white, -5 = silver gray, -8 = custom colors

Fixture ships with a soft-focus diffuser an A-sized gobo holder and a 1.5 m powerCON power-input cable with a connector of choice. See page 5 for connector options.

Please note: Lens tubes to be ordered separately.



PRODUCT SPECIFICATIONS

Source

LED details	60 Lumileds LUXEON® C LEDs
Max lumens	9,235
Lumens per watt	46
L70 rating (hours to 70% output)*	36,000 hours (estimate pending testing data)

Color

Colors used	Warm white, cool white
Color temperature range	2700–6500 K
Calibrated array	Yes
Red shift	No

Optical

Beam angle range	Swappable lens tubes between 5–90 degrees
Gate size	79.24 mm
Aperture size	6.25 in – 14 in (depending on lens tube)
Pattern projection	Yes
Pattern size	A or B
Camera flicker control/ Hz range	1,200 Hz (default) and 25,000 Hz (via RDM)

Control

Input method	DMX-512 via 5-pin XLR connector
Protocols	DMX512/RDM
Modes (footprint)	3 modes (See page 5)
RDM configuration	Yes
UI type	Seven-segment display and buttons
Local control	Yes
Onboard presets	Yes (12)
Onboard sequences	No
Onboard effects	No
FixtureLink	Yes
Notes	Local level control via UI

***Note about LED luminaire lifetime:** All LED sources experience some lessening of light output and some color shift over time. LED output will vary with thermal conditions. Based on the LED manufacturer’s B50 L70 specification, a ColorSource Spot Pearl luminaire will achieve ~70% of its initial output after an estimated 36,000 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 color performance, necessitating slight adjustments to presets, cues or programs.

Electrical

Voltage range	100 V–240 VAC, 50/60 Hz
Input method	powerCON in and thru
Inrush	28 A (first half-cycle) at 120 V 46 A (first half-cycle) at 230 V
Fixtures per circuit*	7 (20 A switched circuit, R20 module or similar)
Wattage (typical/standby)	199 W / 1.87 W at 120 V 194 W / 0.87 W at 230 V
Current draw	1.67 A at 120 V 0.83 A at 240 V

*Note: All measurements are for 120 V, 60 Hz. Results may vary in different regions.

Thermal

Ambient operating temp	0°–40° C (32°–104° F)
Fan (controllable)	Yes (No)
Droop compensation	Yes
dB range	21.2 dBA average at 1 m
BTUs/hour	679

Physical

Materials	Die-cast aluminum and plastic
Color options	Black, white, silver or custom color
Mounting options	Hanging yoke
IP rating	IP20
Weight	7.7 kg (17 lb) (without lens)
Included accessories	Hanging yoke, 1.5 m power cable, soft-focus diffuser in an A-size gobo holder
Notes	See page 5 for power cable options

Warranty

Full fixture	5 years
LED array	10 years

Regulatory and Compliance

Approved regulatory standards	cETLus Listed Conforms to UL 1573 Listed Conforms to UL 924 Listed Certified to CSA C22.2 No. 166 Listed Certified to CSA C22.2 No. 141 Listed CE Compliant EAC Compliant
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PRODUCT FEATURES



Compatible with Fresnel and CYC adapters



VERSITILE

ColorSource Spot Pearl can also be used with the Fresnel and CYC adapters to use throughout your venue.

WARM TO COOL

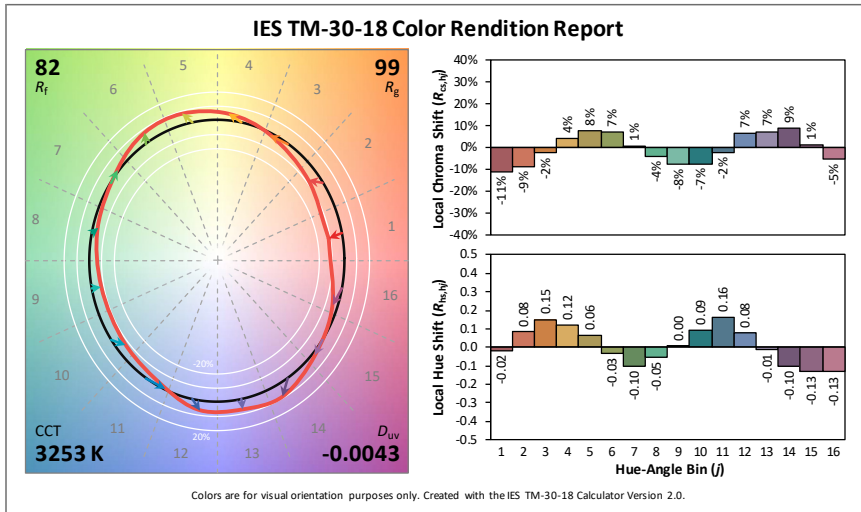
Fixtures provide a full range of bright white light from 2700 K to 6500 K.

GREAT FOR STUDIOS

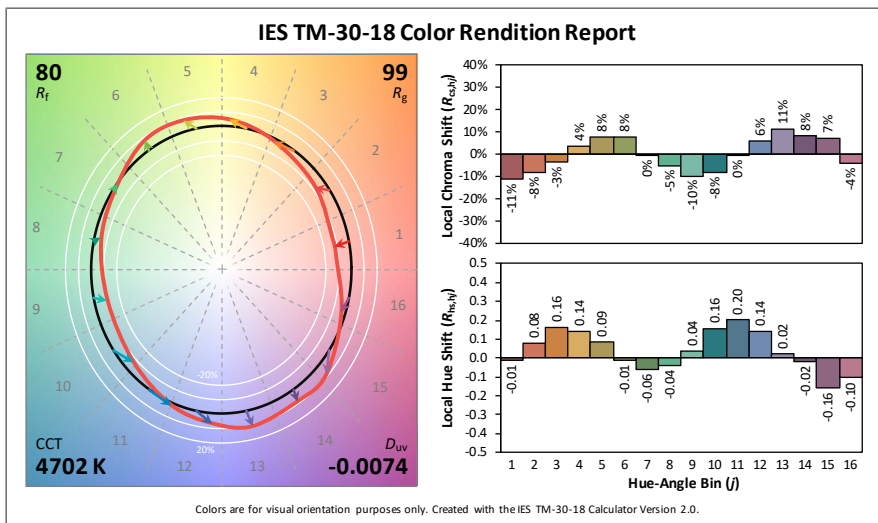
With refresh rates up to 25,000 Hz, there is no need to worry about flicker on camera.

COLOR METRIC INFORMATION

COLORSOURCE SPOT PEARL 3200 K TM-30-18

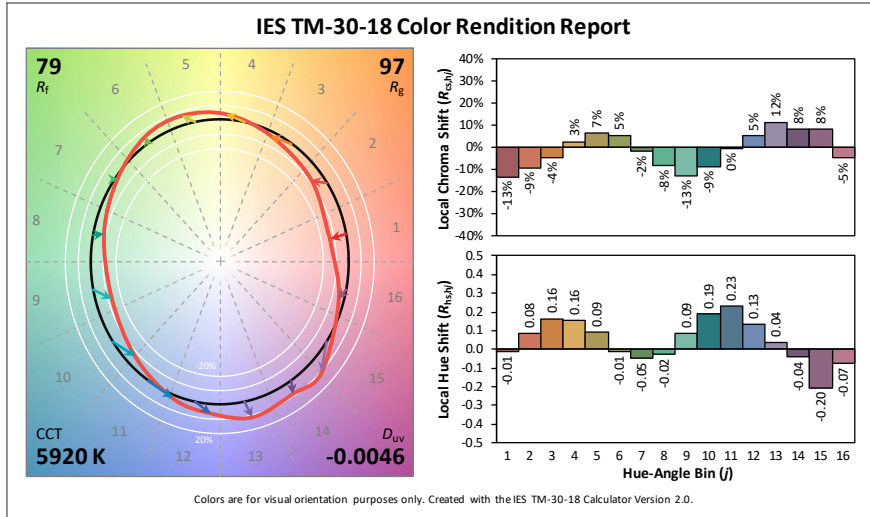


COLORSOURCE SPOT PEARL 4500 K TM-30-18



COLOR METRIC INFORMATION

COLORSOURCE SPOT PEARL 5600 K TM-30-18



Additional Color Metrics

	CS SPOT 3200 K	CS SPOT 5600 K
CRI R_a (R_g)	82 (14)	82 (15)
TLCI	66	62

PHOTOMETRY INFORMATION

Degrees and Lumens

DEGREE	MAXIMUM OUTPUT FIELD LUMENS	DISTANCE TO ACHIEVE 50 FC
5	6,018	112.0 ft / 34.2 m
10	7,298	81.0 ft / 24.7 m
14	7,613	57.5 ft / 17.6 m
19 EDLT	7,538	45.5 ft / 13.9 m
26 EDLT	9,003	38.0 ft / 11.6 m
36 EDLT	8,059	27.3 ft / 8.4 m
50 EDLT	9,031	19.6 ft / 6.0 m
70	9,422	15.2 ft / 4.7 m
90	9,000	13.1 ft / 4.0 m
15-30	8,269	39.9 ft / 12.2 m
25-50	9,299	26.5 ft / 8.1 m

See [ColorSource Spot Photometry Guide](#) for full photometry information.

ADDITIONAL ORDERING INFORMATION

Fixture Accessories

MODEL	DESCRIPTION	PART NUMBER	
400CC	C-clamp	7060A2009 (not CE)	
400SC	Safety cable	7060A1022	
400PH-A	Pattern holder (A size) (included)	7060A1013	
400PH-B	Pattern holder (B size)	7060A1014	
400PH-G	Glass pattern holder	7060A1019	
400RS	Drop-In iris	7060A1012	
400CF	Color frame (6.25 in)	7060A3043	
407CF	7.5 in square color frame	7061A3007	
400DN	Donut	7060A1015	
400TH	Top hat	PSF1021	
400PTH6	Top hat, 7.5 in/191 mm, black	PSF1023	
410TH	Top hat, 12 in/305 mm (for 10° lens tube), black	PSF1024	
405TH	Top hat, 14 in/356 mm (for 5° lens tube), black	PSF1025	
400HH	Half hat	PSF10216	
DPSJ-X	25 ft powerCON-to-Edison input power cable with inline switch	7400B7030 (not CE)	

Power Input Cables

Use information below to order 5 ft power input leads with factory-fitted connectors. CE fixtures ship with powerCON to bare end cables in the box.

MODEL	DESCRIPTION	PART NUMBER	
DPA-A	5 ft powerCON to parallel blade U-ground (Edison) connector	7410B7037-A (not CE)	
DPA-B	5 ft powerCON to 20 A two-pin and ground (stage pin) connector	7410B7037-B (not CE)	
DPA-C	5 ft powerCON to grounded 20 A twistlock connector	7410B7037-C (not CE)	
DPA-X	5 ft powerCON to bare-end power input lead	7410B7037-X (not CE)	

Power Thru Jumpers

Note: Power thru jumpers connect to a fixture's output (thru) connector to provide a link to successive fixtures.

MODEL	DESCRIPTION	PART NUMBER	
DPJ-5	5 ft powerCON-to-powerCON fixture-to-fixture jumper	7410B7020	
DPJ-10	10 ft powerCON-to-powerCON fixture-to-fixture jumper	7410B7010	

Diffusers

The Soft Focus Diffuser fits into a standard A-size pattern holder and delivers beautiful, homogenized light. You can also use the Soft Focus Diffuser with patterns for dappled and soft-edge projections.

The Smooth Wash Diffuser is used when extra-smooth blending of multiple ColorSource Spot luminaires is required. The smooth wash diffuser is placed into the gel-frame slot of the lens tube.

MODEL	DESCRIPTION	PART NUMBER	
S4LED-SFD	Soft Focus Diffuser (included)	7460A4019	
S4LED-SWD6	Smooth Wash Diffuser for 6.25 in gel frame slots	7460K1001	
S4LED-SWD7	Smooth Wash Diffuser for 7.5 in gel frame slots	7460K1002	
S4LED-SWD12	Smooth Wash Diffuser for 10° lens tubes	7460K1003	
S4LED-SWD14	Smooth Wash Diffuser for 5° lens tubes	7460K1004	

RJ45 to XLR Adapter Cables

MODEL	DESCRIPTION	PART NUMBER	
W6538	RJ45 to female 5-pin XLR adapter (6 ft)	W6538	
W6539	RJ45 to male 5-pin XLR adapter (6 ft)	W6539	

PREFERRED LENSING OPTIONS

(Lenses sold separately)

Fixed Beam Lenses

MODEL	DESCRIPTION	PART NUMBER	
LED50LT	LED-specific 50° EDLT lens	7460A2008	
LED50LT-1	LED-specific 50° EDLT (white) lens	7460A2008-1	
436EDLT	36° EDLT lens	7060A2048	
436EDLT-1	36° EDLT (white) lens	7060A2048-1	
426EDLT	26° EDLT lens	7060A2047	
426EDLT-1	26° EDLT (white) lens	7060A2047-1	
419EDLT	19° EDLT lens	7060A2046	
419EDLT-1	19° EDLT (white) lens	7060A2046-1	
490LT	90° lens	7060A2052-K	
490LT-1	90° (white) lens	7060A2052-1K	
470LT	70° lens	7060A2051-K	
470LT-1	70° (white) lens	7060A2051-1K	
414LT	14° lens	7060A2050-K	
414LT-1	14° (white) lens	7060A2050-1K	
410LT	10° lens	7060A2001-K	
410LT-1	10° (white) lens	7060A2001-1K	
405LT	5° lens	7060A2000-K	
405LT-1	5° (white) lens	7060A2000-1K	

Zoom Lens Assemblies

Use with light-engine body models.

MODEL	DESCRIPTION	PART NUMBER	
41530LT	Source Four 15°–30° Zoom lens	7060A2030-K	
42550LT	Source Four 25°–50° Zoom lens	7060A2032-K	

LED Adapters

MODEL	DESCRIPTION	PART NUMBER	
S4LEDCYC	LED CYC adapter	7460A2011	
S4LEDFRES	LED Fresnel adapter	7460A2016	

CONTROL**DMX Input Channel Profiles**

DMX Channel	CT (Variable color temperature)	Dir (Direct)	1CH (One channel) Controls Preset #1
1	Intensity	Intensity	Intensity
2	Color temperature	Warm white	
3		Cool white	
4		Strobe*	

*Use DMX values of 0 or 255 for no strobe. Use values of 1–254 to increase the strobe rate from 1–33 Hz.

PHYSICAL

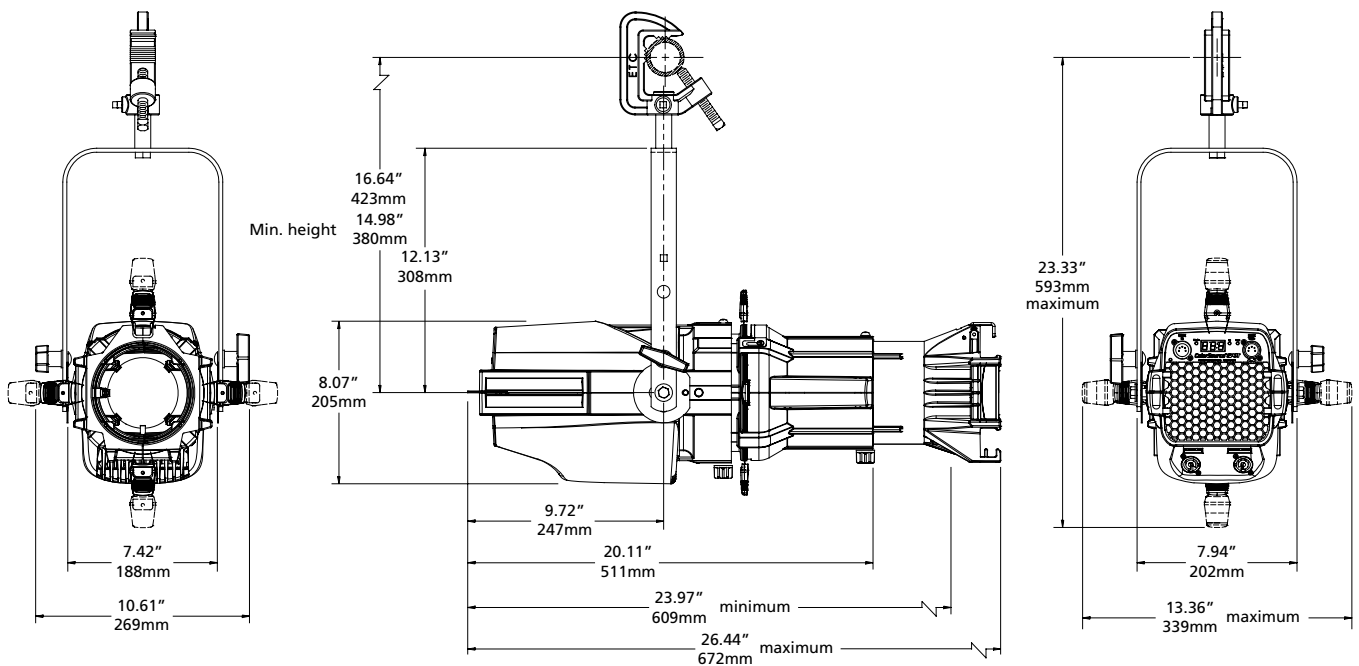
ColorSource Spot Pearl Weights

	WEIGHT*		SHIPPING WEIGHT	
	lb	kg	lb	kg
With Barrel	17.0	7.7	22.0	10.0
Without Barrel	13.0	5.9	16.3	7.4

*Does not include mounting hardware or lens tube

ColorSource Spot Pearl Dimensions

	HEIGHT		WIDTH		DEPTH	
	in	mm	in	mm	in	mm
ColorSource Spot Pearl	23.33	593	13.36	339	26.44	672



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