

# SULLY - 653SX WW

650SX - LED 115 W



- **Type:** Profile spot
- **Source:** LED 115 W
- **Optics:** 28° to 54° zoom  
28° to 54° configuration possible
- **Colour temperature:** Warm white

Profile spot

## The new classic theatre zoom profile in LED version

The Sully 650SX Series is a variable zoom profile range featuring a high-quality 115 W warm white LED source (CRI = 98) that delivers a first-class white light and an output that far exceeds 1000 W tungsten luminaires and nearly matches that of 1200 W tungsten models. Combining this new LED engine with the proven optics of the renowned 600SX Series, Sully profile offers accurate framing and superb gobo projection. The LED compartment of the Sully profile can be swapped with those of the 600SX Series (as well as with those of Aledin 630SX or Quincy 420SX Series). It is equally happy on stage, overhead, on side booms or prosceniums, in opera houses, theatres and studios.

### Features

- **Multi-function double gate:** simultaneous use of gobos and iris. Sharp focus of both gobo and shutter
- **Shutter gate:** up to 8 shutters. Remove shutters for easy maintenance or tuck fully inside gate for secure transport
- **User-friendly shutter-lock system:** secures shutters' setting in any circumstances (locking efficient up to 4 shutters)
- **Universal gobo holder:** "A" size glass and metal gobo
- **Lens tube lock feature:** secures rotating lens tube against unwanted movement
- **90° rotating lens tube / gate / front accessories holder:** rotation of the projected image is always possible – no need to move the yoke
- **Internal glass filter holder:** long term use of durable coloured, dichroic or textured glass
- **Adjustable response time:** choice of fast or slow dimming for tungsten-like simulation - adjustment by DMX protocol
- **Ethernet-DMX node:** data IN through RJ45 connector; data OUT through DMX for daisy chaining
- **Universal data control:** compatible with DMX, RDM, Art-Net, sACN protocols
- **Remote setup:** all parameters can be adjusted by RDM protocol or by web interface
- **PWM adjustment:** choice of different PWM dimming frequencies - continuous mode available
- **DMX:** 8 or 16 bit dimming and strobe function
- **Dimming parameters:** choice of square or linear dimming curves
- **Local setup (optional):** dMX address and mode, dimming curve and response time through 4-button display with automatic light switch-off
- **Easy focus reference:** graduated scale on side of the unit; fast and easy refocusing
- **Tilt reference on hanging yoke:** index for rapid re-positioning

### Optical

- **Long life:** outstanding operational lifetime expectation, no need to replace lamps, low maintenance
- **Very high quality white:** CRI>95 / TM-30 Rf>92 Rg>97 / TLCI>97
- **Choice of colour temperature:** warm or cool white LED compartment can be easily swapped
- **High output:** almost matching the lumen output of a 1200 W Tungsten 600SX profile
- **SX optical system:** double condenser optics for exceptional optical quality
- **Optional coated double condenser optics:** up to 15% more light output
- **Variable zoom optics:** sharp focus at every beam angle. Independent control of image size and focus. Focus handles on both sides
- **Electronic dimmer:** dimming without clipping or cut-out at low intensity levels; high quality smoothing
- **No colour shift:** colour temperature remains the same when dimming

### Construction

- **Made in France** : fully manufactured in Robert Juliat premises retaining complete control over all aspects of quality
- **Interchangeable lamp bases:** with 600SX (1000/1200 W tungsten) series
- **PSU:** built-in electronic flicker-free power supply for easy, plug-and-play installation
- **Power connectors:** neutriK® powerCON TRUE1 TOP IN and OUT connectors for daisy chaining
- **Silent-running cooling fans:** ideal for TV studios and opera houses
- **Electronic thermal management system:** ensures maximum performance of the system without any risk of overheating
- **Bodywork:** strong sheet metal construction for durability
- **Captive knobs and handles:** additional security when working at height or in transit
- **Spare parts and accessories:** interchangeable across the tungsten, discharge or LED ranges, reducing running costs
- **Easy access to all parts:** easy cleaning and maintenance

Picture:653SX

DSEN381\_653SX\_WW - 02/10/2023

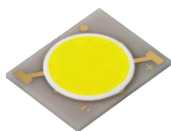
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ROBERT JULIAT

**Source** (Light quality report(s) available at the end of the document)



- **Lamp type:** LED
- **Power:** 115 W

LED specifications	Power *	Lumen output*	Colour temperature*	Life*	CRI*
LED 115W WW	115 W	11 400 lm	3000K	60 000 h	98

(\*) manufacturer's data

### Optics

#### Characteristics

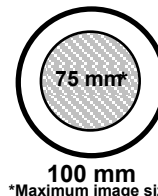
- **Type:** Zoom
- **Range:** 28° to 54° (Field angle)  
28° to 54° configuration possible
- **Focal length:** 86 - 160 mm

#### Gel filter

- **Shape:** Square
- **Standard size:** 180x180 mm (7.1x7.1 in)
- **Optional size:** 185x185 mm (7.3x7.3 in)

#### Gobo

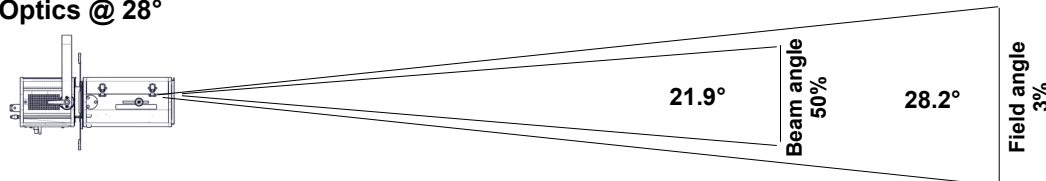
- **Size:** A
- **Material:** Metal  
Glass



### Photometrics (Photometrics report(s) available at the end of the document)

optics: 28°-54° / Standard

#### • Optics @ 28°



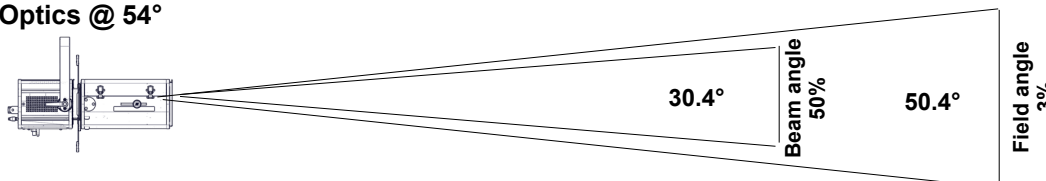
**Beam intensity**  
56 700 cd

**Field lumens**  
6 450 lm

**Efficacy**  
49 lm/W

<b>Distance</b>	3 m	5 m	7 m	10 m	12 m	15 m
<b>Diameter</b>	1.5 m	2.5 m	3.5 m	5 m	6 m	7.5 m
<b>Illumination</b>	6 400 lux	2 300 lux	1 200 lux	570 lux	400 lux	260 lux
<b>Distance</b>	10 ft	15 ft	25 ft	35 ft	40 ft	50 ft
<b>Diameter</b>	5 ft	7.5 ft	12.6 ft	17.6 ft	20.1 ft	25.1 ft
<b>Illumination</b>	570 fc	260 fc	95 fc	47 fc	36 fc	23 fc

#### • Optics @ 54°



**Beam intensity**  
25 800 cd

**Field lumens**  
7 520 lm

**Efficacy**  
57 lm/W

<b>Distance</b>	3 m	5 m	7 m	10 m	12 m	15 m
<b>Diameter</b>	2.8 m	4.7 m	6.6 m	9.4 m	11.3 m	14.1 m
<b>Illumination</b>	2 900 lux	1 050 lux	530 lux	260 lux	180 lux	120 lux
<b>Distance</b>	10 ft	15 ft	25 ft	35 ft	40 ft	50 ft
<b>Diameter</b>	9.4 ft	14.1 ft	23.5 ft	32.9 ft	37.6 ft	47.1 ft
<b>Illumination</b>	260 fc	120 fc	42 fc	22 fc	17 fc	11 fc

### Remote control

- **Data protocol:** USITT DMX512-A  
RDM / Art-Net / sACN

- **Data IN connector:** 5 pins XLR mâle + etherCON RJ45
- **Data OUT connector:** 5 pins XLR femelle



#### • DMX chart:

##### Mode 1 (1 channels)

Dimmer

##### Mode 2 (2 channels)

Dimmer  
Dimmer fine

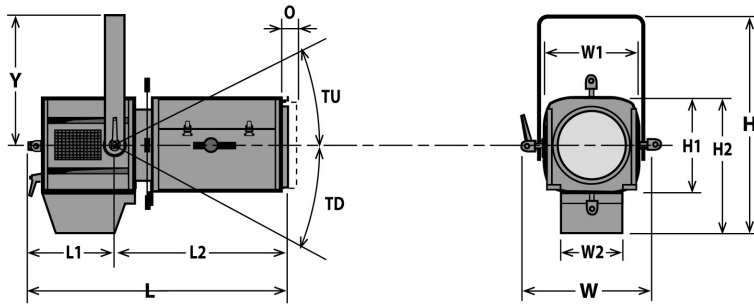
##### Mode 3 (5 channels)

Dimmer  
Strobe duration  
Strobe speed  
Response time  
Control mode

##### Mode 4 (6 channels)

Dimmer  
Dimmer fine  
Strobe duration  
Strobe speed  
Response time  
Control mode

## Dimensions and weight



**Weight:** 12.2 kg (26.8 lbs)

Height	Length	Width	Yoke	Tilt	Option
H= 473 mm (18.6 in)	L= 564 mm (22.2 in)	W= 330 mm (13 in)	Y= 280 mm (11 in)	TU= 63°	O= 25 mm (1 in)
H1= 208 mm (8.2 in)	L1= 240 mm (9.4 in)	W1= 208 mm (8.2 in)		TD= 90°	
H2= 294 mm (11.6 in)	L2= 324 mm (12.8 in)	W2= 136 mm (5.4 in)			

## Shipping

- **Weight :** 15.2 kg (33.4 lbs)
- **Volume :** .13 m<sup>3</sup> (4.59 ft<sup>3</sup>)

## Installation

- **Minimum distance to illuminated surface:** 0.8 m ( 2.6 ft )
- **Operating position:**



## Construction

- **Housing:** Steel sheet - Aluminium
- **Colour:** Black
- **Cooling:** Low noise variable fan
- **Maximum ambient temperature (Ta):** 40°C (104°F)
- **Maximum case temperature (Tc):** 52°C (125.6°F)
- **Total heat dissipation:** 444 BTU/h
- **Ingress Protection (IP) rating:** IP20

## Electrical compatibility

- 220/230 V - 50 Hz
- 245 V - 50 Hz
- 110/120 V - 60 Hz
- 208 V - 60 Hz
- 220/230 V - 60 Hz
- 100 V - 50 Hz
- 100 V - 60 Hz
- Selector: automatic detection

## Power input



- **Type:** removable power cord with Neutrik powerCON TRUE1 TOP connector (included)
- **Cable:** H07RNF 3G1.5
- **Length:** 3 m (9.8 ft)
- **Power connector:** CEE 7/7 (2P+E NF/Schuko)

## Power consumption

Voltage	Frequency	Current	Power	Power factor
230 V	50 Hz	0.7 A	130 W	0.81
120 V	60 Hz	1.15 A	135 W	0.98
100 V	60 Hz	1.4 A	135 W	0.96

## Power Supply Unit

- **PSU:** Internal - Electronic PSU - Flicker free with PFC
- **Control:** / DMX
- **Protection:** Mains: 2x 6.3A 5x20 T fuses /
- **Power thru:** Neutrik powerCON TRUE1 TOP - Maximum of 22 units (230 V) / 12 units (120 V)

## Approvals



## Warranty

- **Fixture: 3 years**
- See General Sales Condition on website







## Acoustics

- **Noise level:** < 22,8 dB(A)











## Model


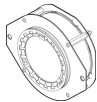
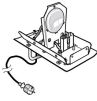
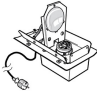

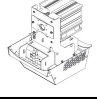
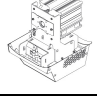
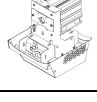

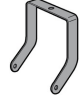

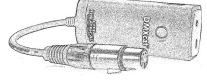



<b>653SX WW</b>	LED 115 W Profile spot - 653SX WW Sully - Warm White - 28/54°
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## Options

<b>CAV600E</b>	Double slot front cassette for 185x185mm accessories	
<b>CAV600</b>	Double slot front cassette for 180x180mm accessories	
<b>APH 68LEDM</b>	Double-condenser set for Led profile	
<b>PCP1716A</b>	16A blue 2P+E 6h IEC60309 power connector	
<b>FCD600PV</b>	Angled yoke	
<b>DISP2</b>	Display and keyboard for local setup	

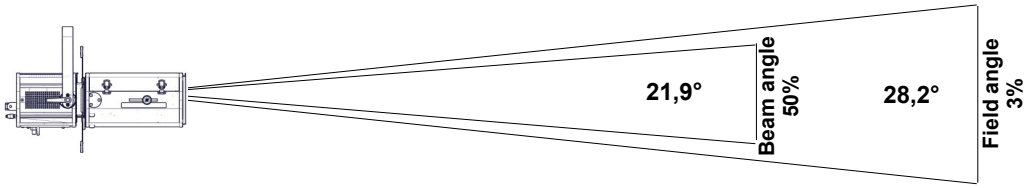
## Accessories

<b>D8</b>	Shutter for SX series <b>4 included</b>	
<b>PF500M2</b>	180x180mm metal filter holder <b>1 included</b>	
<b>SGUX</b>	Universal "A" size gobo-holder (metal, glass, frosted glass) <b>1 included</b>	
<b>IWSX755</b>	Drop-in iris (monoplane) with holder - Poids: 0.26 Kg	
<b>D8</b>	Shutter for SX series	
<b>PF600M2</b>	185x185mm metal filter holder	
<b>G500</b>	180x180mm safety grid	
<b>CAV600A</b>	Double slot front cassette for 180x180mm accessories - Poids: 0.43 Kg	
<b>CAV600AE</b>	Double slot front cassette for 185x185mm accessories - Poids: 0.45 Kg	
<b>RPF613</b>	180x180mm front extension cassette for 215x215mm accessories without fan (recommended for dark colours on 613SX/663SX) - Poids: 1.5 Kg	

<b>RPF613E</b>	180x180mm front extension cassette for 245x245mm accessories without fan (recommended for dark colours on 613SX/663SX)	
<b>APH 68LED</b>	Double-condenser set for Led profile - Poids: 0.58 Kg	
<b>T/600SX</b>	Lamp compartment for 1000/1200W tungsten GX9,5 lamps - 3 meter power cable with CEE 7/7 (2P+T NF/SCHUKO) connector - Poids: 1.36 Kg	
<b>T/600VSX</b>	Lamp compartment for 1000/1200W tungsten G22 lamps with fan - 3 meter power cable with CEE 7/7 (2P+T NF/SCHUKO) connector - Poids: 2.03 Kg	
<b>T/650DSX4C</b>	SULLY 200W LED compartment with display - 4 colours - 3 meter power cable with CEE 7/7 (2P+T NF/SCHUKO) connector - Poids: 2.88 Kg	
<b>T/650DSXCW</b>	SULLY 115W LED compartment with display - Cool White - 3 meter power cable with CEE 7/7 (2P+T NF/SCHUKO) connector - Poids: 2.33 Kg	
<b>T/650DSXWW</b>	SULLY 115W LED compartment with display - Warm White - 3 meter power cable with CEE 7/7 (2P+T NF/SCHUKO) connector - Poids: 2.33 Kg	
<b>T/650SXCW</b>	SULLY 115W LED compartment - Cool White - 3 meter power cable with CEE 7/7 (2P+T NF/SCHUKO) connector - Poids: 2.27 Kg	
<b>VD120</b>	120x120mm frosted glass	
<b>FCD600</b>	Angled yoke	
<b>TH600</b>	180x180mm "Top hat" (without safety cable) - ø150mm / 150mm long	
<b>DMXcat</b>	Bluetooth DMX/RDM Multifunction test tool - City Theatrical DMXcat®	
<b>876</b>	Hook clamp 40x10mm with 28mm M10 screw for Ø35 to 50mm pipes - SWL: 50Kg - Poids: 1.25 Kg	
<b>880</b>	Hook clamp 40x10mm with 28mm M10 screw for Ø50 to 63mm pipes - SWL: 50Kg - Poids: 1.36 Kg	
<b>CS2</b>	Safety cable Ø3 mm L= 600mm - SWL: 75 Kg	

• Optics @ 28°

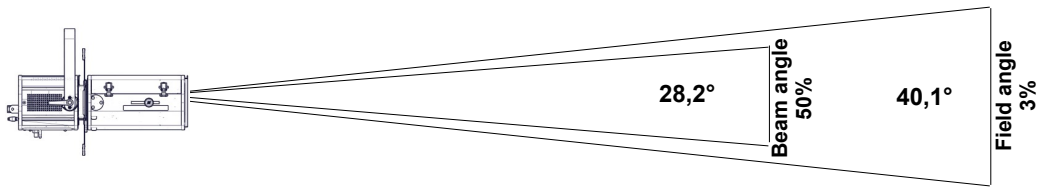
Field lumens	Beam lumens	Efficacy	Beam intensity	CCT	Delta uv
6 450 Lm	4 730 Lm	49 Lm/W	56 700 Cd	3 030 K	0.0031



Distance	3 m	5 m	7 m	10 m	12 m	15 m
Field diameter	1,5 m	2,5 m	3,5 m	5 m	6 m	7,5 m
Illumination	6 400 lux	2 300 lux	1 200 lux	570 lux	400 lux	260 lux
Distance	10 ft	15 ft	25 ft	35 ft	40 ft	50 ft
Field diameter	5 ft	7,5 ft	12,6 ft	17,6 ft	20,1 ft	25,1 ft
Illumination	570 fc	260 fc	95 fc	47 fc	36 fc	23 fc

• Optics @ 41°

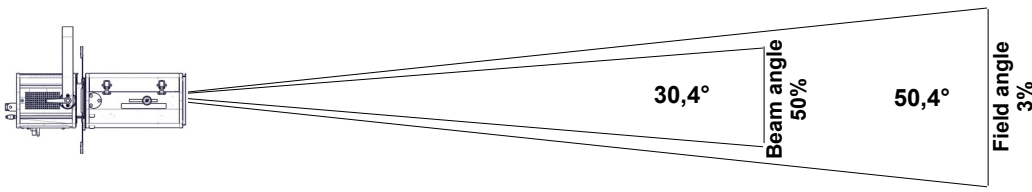
Field lumens	Beam lumens	Efficacy	Beam intensity	CCT	Delta uv
6 650 Lm	5 240 Lm	51 Lm/W	30 500 Cd	3 050 K	0.0029



Distance	3 m	5 m	7 m	10 m	12 m	15 m
Field diameter	2,2 m	3,6 m	5,1 m	7,3 m	8,8 m	10,9 m
Illumination	3 400 lux	1 250 lux	630 lux	310 lux	220 lux	140 lux
Distance	10 ft	15 ft	25 ft	35 ft	40 ft	50 ft
Field diameter	7,3 ft	10,9 ft	18,2 ft	25,5 ft	29,2 ft	36,5 ft
Illumination	310 fc	140 fc	49 fc	25 fc	20 fc	13 fc

• Optics @ 54°

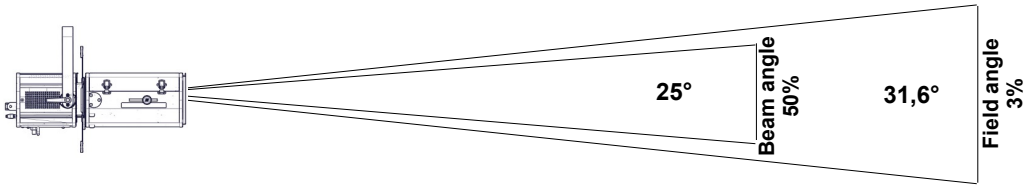
Field lumens	Beam lumens	Efficacy	Beam intensity	CCT	Delta uv
7 520 Lm	5 920 Lm	57 Lm/W	25 800 Cd	3 020 K	0.0031



Distance	3 m	5 m	7 m	10 m	12 m	15 m
Field diameter	2,8 m	4,7 m	6,6 m	9,4 m	11,3 m	14,1 m
Illumination	2 900 lux	1 050 lux	530 lux	260 lux	180 lux	120 lux
Distance	10 ft	15 ft	25 ft	35 ft	40 ft	50 ft
Field diameter	9,4 ft	14,1 ft	23,5 ft	32,9 ft	37,6 ft	47,1 ft
Illumination	260 fc	120 fc	42 fc	22 fc	17 fc	11 fc

• Optics @ 28°

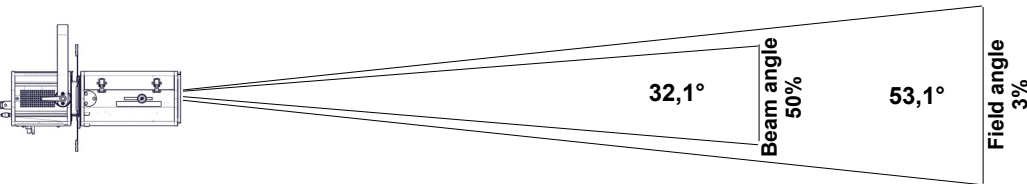
Field lumens	Beam lumens	Efficacy	Beam intensity	CCT	Delta uv
7 160 Lm			68 500 Cd	3 100 K	



Distance	3 m	5 m	7 m	10 m	12 m	15 m
Field diameter	1,7 m	2,8 m	4 m	5,7 m	6,8 m	8,5 m
Illumination	7 700 lux	2 750 lux	1 400 lux	690 lux	480 lux	310 lux
Distance	10 ft	15 ft	25 ft	35 ft	40 ft	50 ft
Field diameter	5,7 ft	8,5 ft	14,1 ft	19,8 ft	22,6 ft	28,3 ft
Illumination	690 fc	310 fc	110 fc	60 fc	43 fc	28 fc

• Optics @ 54°

Field lumens	Beam lumens	Efficacy	Beam intensity	CCT	Delta uv
8 530 Lm			29 000 Cd	3 060 K	



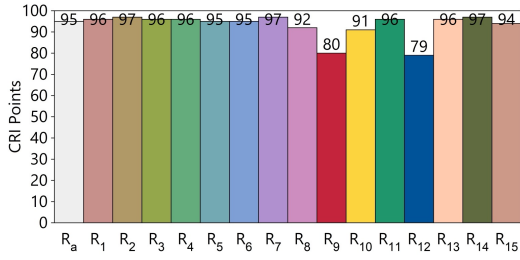
Distance	3 m	5 m	7 m	10 m	12 m	15 m
Field diameter	3 m	5 m	7 m	10 m	12 m	15 m
Illumination	3 250 lux	1 200 lux	600 lux	300 lux	210 lux	130 lux
Distance	10 ft	15 ft	25 ft	35 ft	40 ft	50 ft
Field diameter	10 ft	15 ft	25 ft	35 ft	40 ft	50 ft
Illumination	300 fc	130 fc	47 fc	24 fc	19 fc	12 fc



# Light quality report

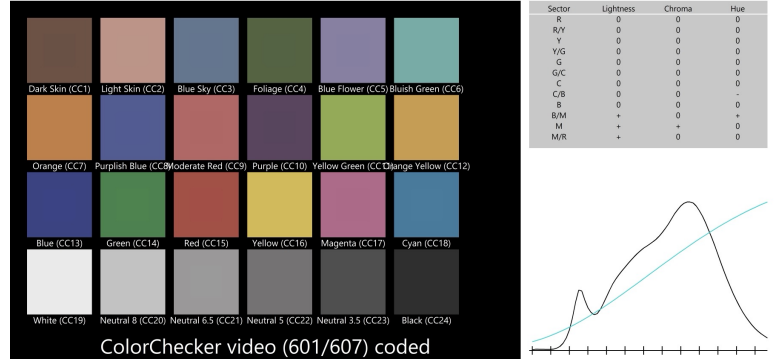
CCT	DeltaUV	CRI Ra	CRI R9	CQS Qa	TM30-18 Rf	TM30-18 Rg	TLCI	SSI [P2994]
2 990K	0.0029	95	80	95	93	98	97	86

## CRI - CIE Colour Rendering Index

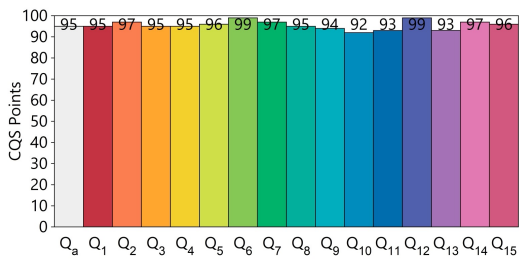


## TLCI - Television Lighting Consistency Index

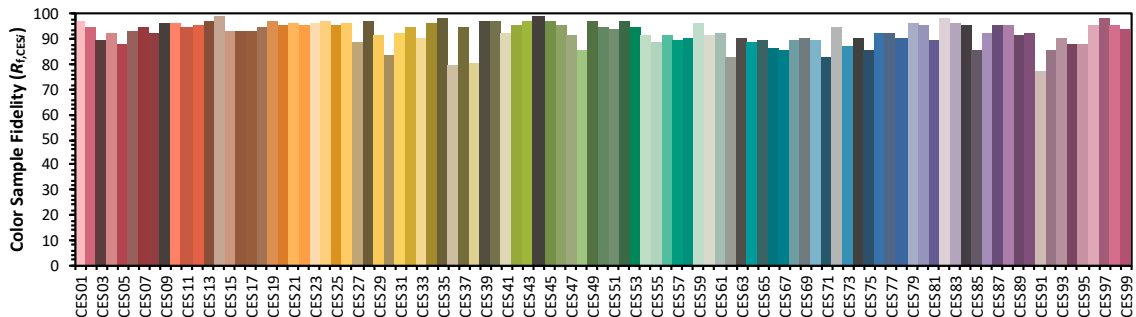
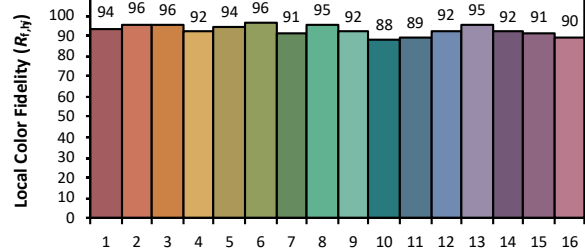
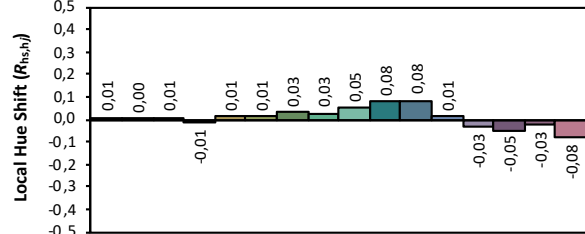
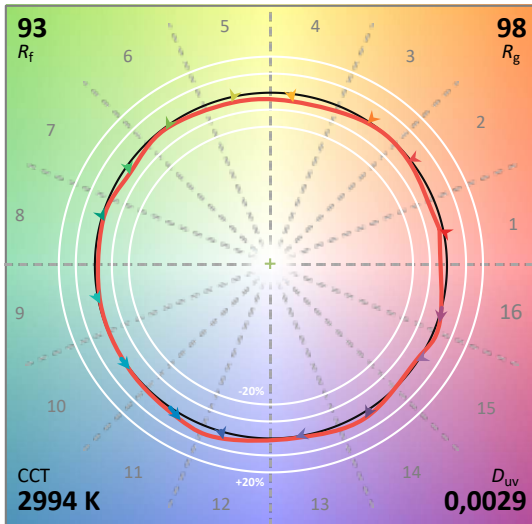
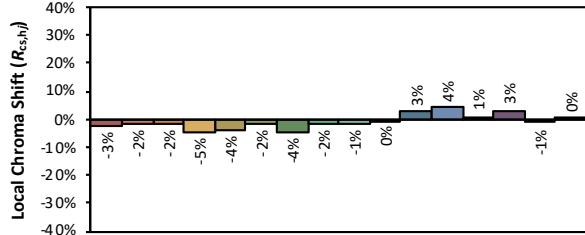
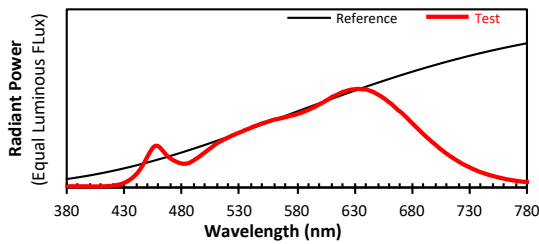
Test : CCT = P2994 (+0.5)  
 TLCI-2012 : 97 (P2994)



## CQS - NIST Colour Quality Scale



## ANSI/IES TM-30-18 Colour Rendition Report



Colours are for visual orientation purposes only. Created with the IES TM-30-18 Calculator Version 2.00