

# SULLY - 654CSX CW

650SX - LED 115 W



- **Type:** Profile spot
- **Source:** LED 115 W
- **Optics:** 16° to 35° zoom  
16° to 35° configuration possible
- **Colour temperature:** Cool White
- **Standard:** 110 V North american

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 cool white LED source that delivers a first-class white light and an output that exceeds a 2500 W tungsten luminaire equipped with CTB filter. 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, where "daylight" rendering is required.

### 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
- **Choice of colour temperature:** warm or cool white LED compartment can be easily swapped
- **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
- **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:654SX

DSEN388\_654CSX\_CW - 05/06/2023

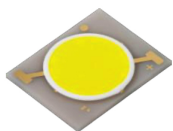
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ROBERT JULIAT

**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*	CRI*
LED 115W CW	115 W	14 300 lm	5700K	93

(\*) manufacturer's data

### Optics

#### Characteristics

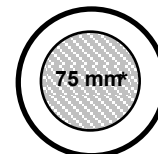
- **Type:** Zoom
- **Beam range:** 16° to 35°  
16° to 35° configuration possible
- **Focal length:** 131 - 268 mm

#### Gel filter

- **Shape:** Square
- **Standard size:** 191x191 mm (7.5x7.5 in)

#### Gobo

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

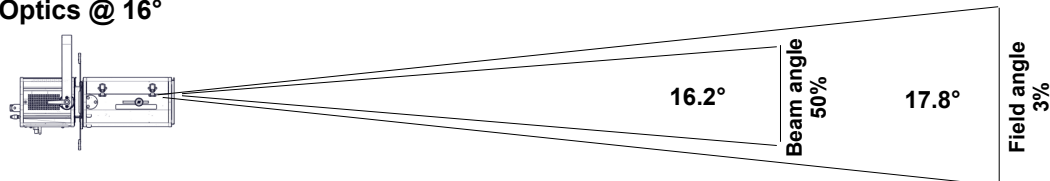


100 mm  
\*Maximum image size

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

optics: 16°-35° / Standard

#### • Optics @ 16°



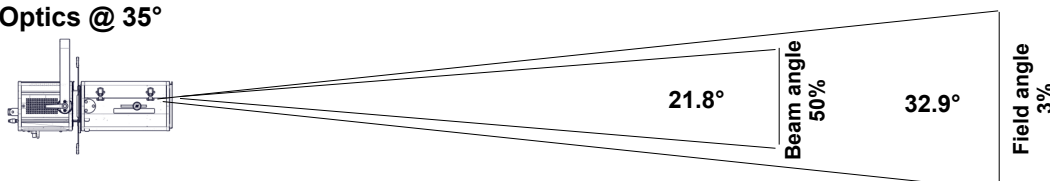
**Beam intensity**  
162 300 cd

**Field lumens**  
8 040 lm

**Efficacy**  
61 lm/W

<b>Distance</b>	5 m	10 m	15 m	20 m	25 m	30 m
<b>Diameter</b>	1.6 m	3.1 m	4.7 m	6.3 m	7.8 m	9.4 m
<b>Illumination</b>	6 500 lux	1 650 lux	730 lux	410 lux	260 lux	190 lux
<b>Distance</b>	15 ft	35 ft	50 ft	65 ft	80 ft	100 ft
<b>Diameter</b>	4.7 ft	11 ft	15.7 ft	20.4 ft	25.1 ft	31.3 ft
<b>Illumination</b>	730 fc	140 fc	65 fc	39 fc	26 fc	17 fc

#### • Optics @ 35°



**Beam intensity**  
69 000 cd

**Field lumens**  
8 760 lm

**Efficacy**  
66 lm/W

<b>Distance</b>	5 m	10 m	15 m	20 m	25 m	30 m
<b>Diameter</b>	3 m	5.9 m	8.9 m	11.8 m	14.8 m	17.7 m
<b>Illumination</b>	2 800 lux	700 lux	310 lux	180 lux	120 lux	80 lux
<b>Distance</b>	15 ft	35 ft	50 ft	65 ft	80 ft	100 ft
<b>Diameter</b>	8.9 ft	20.7 ft	29.5 ft	38.4 ft	47.2 ft	59.1 ft
<b>Illumination</b>	310 fc	60 fc	28 fc	17 fc	11 fc	7 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

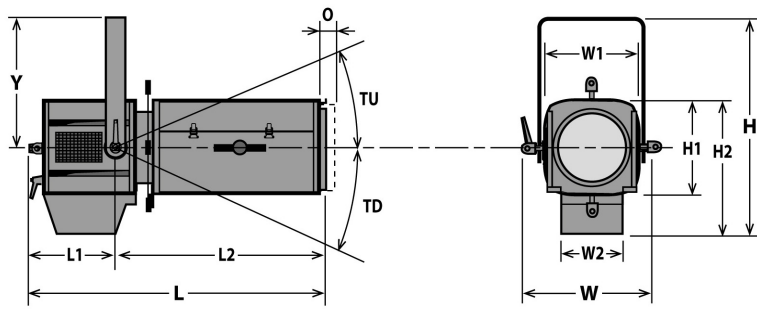
##### Mode 3 (5 channels)

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:** 13.6 kg (29.9 lbs)

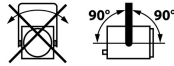
Height	Length	Width	Yoke	Tilt	Option
H= 473 mm (18.6 in)	L= 696 mm (27.4 in)	W= 330 mm (13 in)	Y= 280 mm (11 in)	TU= 63°	O= 25 mm (1 in)
H1= 208 mm (8.2 in)	L1= 240 mm (9.4 in)	W1= 208 mm (8.2 in)		TD= 90°	
H2= 294 mm (11.6 in)	L2= 456 mm (18 in)	W2= 136 mm (5.4 in)			

## Shipping

- **Weight :** 16.6 kg (36.5 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:** 461 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:** 14 AWG SJ type (UL/CSA)
- **Length:** 1.5 m (4.9 ft)
- **Power connector:** without connector

## Power consumption

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

## Warranty

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

## Approvals







## Acoustics

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












## Model



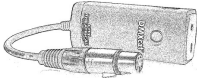



<b>654CSX CW</b>	LED 115 W Profile spot - 654CSX CW Sully - Cool White - 16/35° - North american standard
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## Options

<b>CAV600C</b>	Double slot front cassette for 191x191mm (7-1/2") accessories	
<b>APH 68LEDM</b>	Double-condenser set for Led profile	
<b>FCD600PV</b>	Angled yoke	
<b>DISP2</b>	Display and keyboard for local setup	

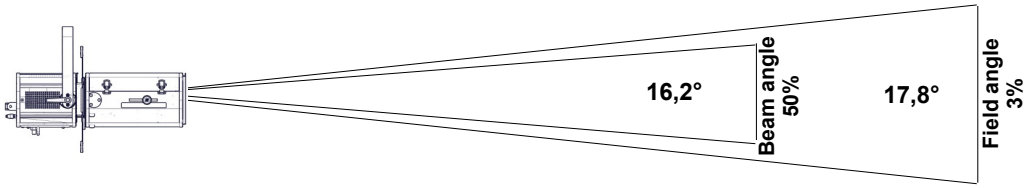
## Accessories

<b>D8</b>	Shutter for SX series <b>4 included</b>	
<b>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>G500</b>	180x180mm safety grid	
<b>CAV600AC</b>	Double slot front cassette for 191x191mm (7-1/2") accessories - Poids: 0.45 Kg	
<b>APH 68LED</b>	Double-condenser set for Led profile - Poids: 0.58 Kg	
<b>LPCAR-X4</b>	Ø152mm Plano-convex lens with anti-reflective coating for 6X4SX profile - Poids: 0.57 Kg	
<b>T/650CDSX4C</b>	SULLY 200W LED compartment with display - 4 colours - North American standard - 1,50m UL/CSA power cable without plug - Poids: 2.88 Kg	
<b>T/650CDSXCW</b>	SULLY 115W LED compartment with display - Cool White - North American standard - 1,50m UL/CSA power cable without plug - Poids: 2.33 Kg	
<b>T/650CDSXWW</b>	SULLY 115W LED compartment with display - Warm White - North American standard - 1,50m UL/CSA power cable without plug - Poids: 2.33 Kg	
<b>T/650CSXWW</b>	SULLY 115W LED compartment - Warm White - North American standard - 1,50m UL/CSA power cable without plug - Poids: 2.27 Kg	

<b>VD120</b>	120x120mm frosted glass	
<b>FCD600</b>	Angled yoke	
<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 @ 16°

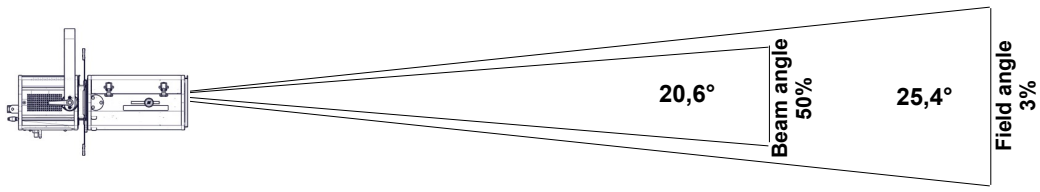
Field lumens	Beam lumens	Efficacy	Beam intensity	CCT	Delta uv
8 040 Lm	7 270 Lm	61 Lm/W	162 300 Cd	5 320 K	0.0027



Distance	5 m	10 m	15 m	20 m	25 m	30 m
Field diameter	1,6 m	3,1 m	4,7 m	6,3 m	7,8 m	9,4 m
Illumination	6 500 lux	1 650 lux	730 lux	410 lux	260 lux	190 lux
Distance	15 ft	35 ft	50 ft	65 ft	80 ft	100 ft
Field diameter	4,7 ft	11 ft	15,7 ft	20,4 ft	25,1 ft	31,3 ft
Illumination	730 fc	140 fc	65 fc	39 fc	26 fc	17 fc

• Optics @ 26°

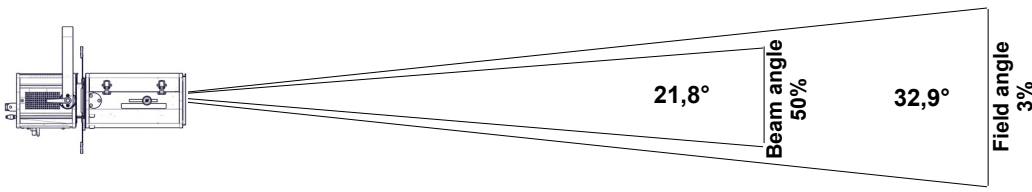
Field lumens	Beam lumens	Efficacy	Beam intensity	CCT	Delta uv
8 150 Lm	7 330 Lm	62 Lm/W	85 600 Cd	5 400 K	0.0025



Distance	5 m	10 m	15 m	20 m	25 m	30 m
Field diameter	2,3 m	4,5 m	6,8 m	9 m	11,3 m	13,5 m
Illumination	3 450 lux	860 lux	390 lux	220 lux	140 lux	100 lux
Distance	15 ft	35 ft	50 ft	65 ft	80 ft	100 ft
Field diameter	6,8 ft	15,8 ft	22,5 ft	29,3 ft	36,1 ft	45,1 ft
Illumination	390 fc	70 fc	35 fc	21 fc	14 fc	9 fc

• Optics @ 35°

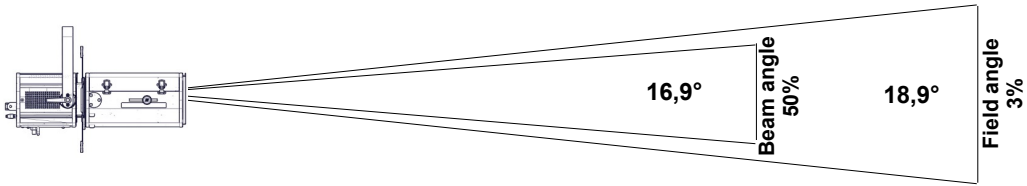
Field lumens	Beam lumens	Efficacy	Beam intensity	CCT	Delta uv
8 760 Lm	7 940 Lm	66 Lm/W	69 000 Cd	5 220 K	0.0024



Distance	5 m	10 m	15 m	20 m	25 m	30 m
Field diameter	3 m	5,9 m	8,9 m	11,8 m	14,8 m	17,7 m
Illumination	2 800 lux	700 lux	310 lux	180 lux	120 lux	80 lux
Distance	15 ft	35 ft	50 ft	65 ft	80 ft	100 ft
Field diameter	8,9 ft	20,7 ft	29,5 ft	38,4 ft	47,2 ft	59,1 ft
Illumination	310 fc	60 fc	28 fc	17 fc	11 fc	7 fc

• Optics @ 16°

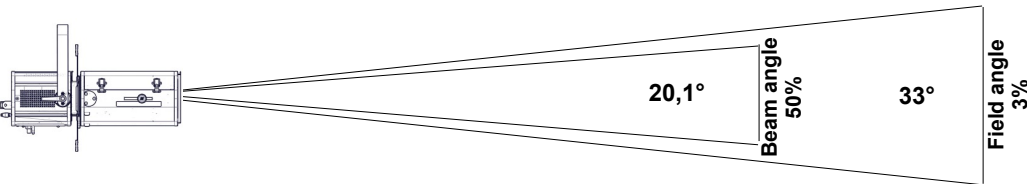
Field lumens	Beam lumens	Efficacy	Beam intensity	CCT	Delta uv
9 270 Lm			183 900 Cd	5 530 K	



<b>Distance</b>	5 m	10 m	15 m	20 m	25 m	30 m
<b>Field diameter</b>	1,7 m	3,3 m	5 m	6,7 m	8,3 m	10 m
<b>Illumination</b>	7 400 lux	1 850 lux	820 lux	460 lux	300 lux	210 lux
<b>Distance</b>	15 ft	35 ft	50 ft	65 ft	80 ft	100 ft
<b>Field diameter</b>	5 ft	11,7 ft	16,6 ft	21,6 ft	26,6 ft	33,3 ft
<b>Illumination</b>	820 fc	160 fc	75 fc	44 fc	29 fc	19 fc

• Optics @ 35°

Field lumens	Beam lumens	Efficacy	Beam intensity	CCT	Delta uv
9 850 Lm			79 200 Cd	5 450 K	

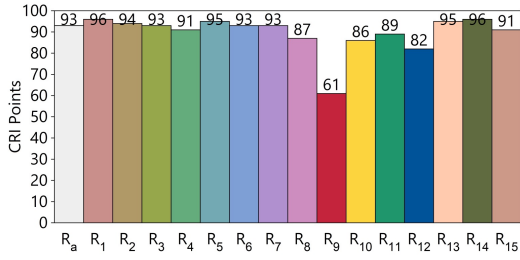


<b>Distance</b>	5 m	10 m	15 m	20 m	25 m	30 m
<b>Field diameter</b>	3 m	5,9 m	8,9 m	11,8 m	14,8 m	17,8 m
<b>Illumination</b>	3 200 lux	800 lux	360 lux	200 lux	130 lux	90 lux
<b>Distance</b>	15 ft	35 ft	50 ft	65 ft	80 ft	100 ft
<b>Field diameter</b>	8,9 ft	20,7 ft	29,6 ft	38,5 ft	47,4 ft	59,2 ft
<b>Illumination</b>	360 fc	65 fc	32 fc	19 fc	13 fc	8 fc

# Light quality report

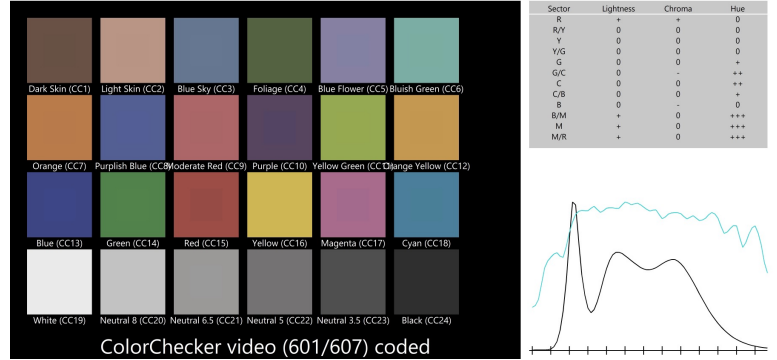
CCT	DeltaUV	CRI Ra	CRI R9	CQS Qa	TM30-18 Rf	TM30-18 Rg	TLCI	SSI [D5356]
5 360K	0.0032	93	61	93	92	102	89	71

## CRI - CIE Colour Rendering Index

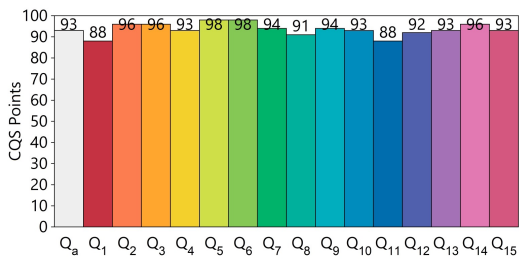


## TLCI - Television Lighting Consistency Index

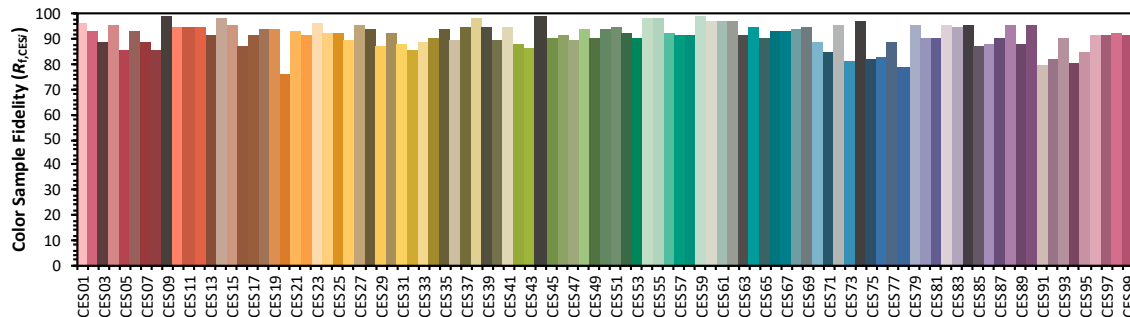
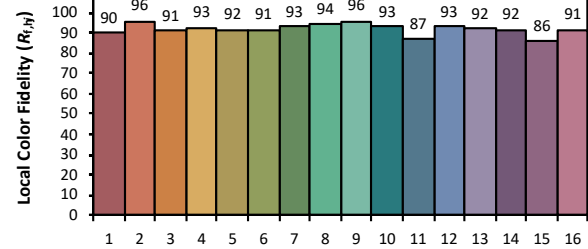
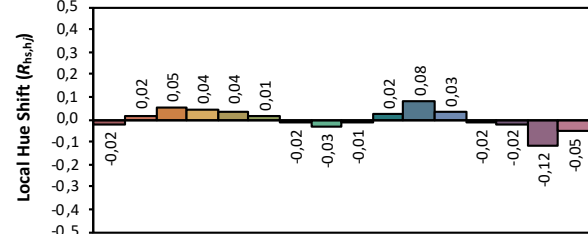
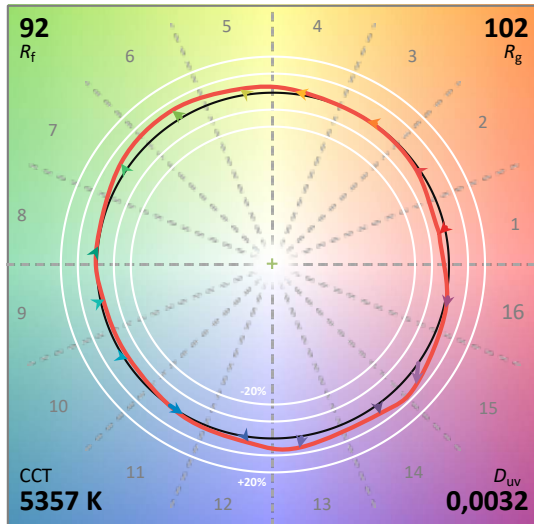
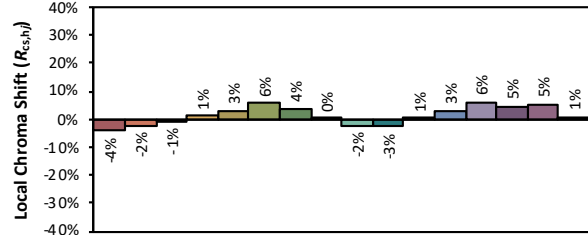
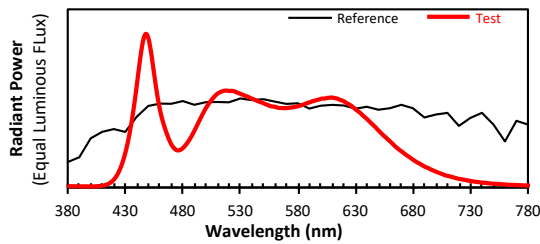
Test : CCT = D5357 (0.0)  
 TLCI-2012 : 89 (D5357)



## 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