# CHARLES - 964CSX

#### 9605X - LED 600 W



Type: Profile spot
Source: LED 600 W
Optics: 15° to 40° zoom

Colour temperature: Cool White
 Standard: 110 V North american

# The bright new classic in LED profile technology with mighty output

Sharing its technology, output and quality of light with Oz and Alice, Robert Juliat presents its brilliant range of LED profiles, the Charles 960SX series. This range of 600W LED profiles is available in 3 variable zoom ranges and exhibits a high optical efficiency with a 6000K colour temperature and a CRI in excess of 90. Smooth electronic dimming and an in-built, flicker-free power supply gives silent operation and packs a high output that reaches 80% of the renowned 2.5 kW HID D'Artagnan capabilities.

#### **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 voke
- Internal glass filter holder: long term use of durable coloured, dichroic or textured glass
- XLR7 connector: for fan cooled front extension cassette (recommended for dark colours)
- Adjustable response time: choice of fast or slow dimming for tungsten-like simulation adjustment by DMX protocol
- Universal data control: compatible with DMX, RDM, Art-Net, sACN protocols
- Remote setup: all parameters can be adjusted by RDM protocol
- DMX: 8 or 16 bit dimming and strobe function
- Local setup: DMX address and mode, dimming curve and response time through 4-button display with automatic light switch-off
- Control: local and DMX
- Dimming parameters: choice of square or linear dimming
- Easy focus reference: graduated scale on side of the unit; fast and easy refocusing
- Tilt reference on hanging yoke: index for rapid repositioning

## **Optical**

- Long life: outstanding operational lifetime expectation, no need to replace lamps, low maintenance
- · Gobo: excellent gobo projection
- 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: compatible powerCON® TRUE1 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
- Moving parts: smooth at all times, even when hot
- 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:964SX



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Source

• Lamp type: LED • Power: 600 W

LED specifications	Power <sup>·</sup>	Lumen output	Colour temperature	Life*	CRI <sup>-</sup> (min)
LED 600W	600 W	32 500 lm	6000K	20 000 h	91

(\*) manufacturer's data

## **Optics**

## Characteristics

• Type: Zoom

• Range: 15° to 40° (Field angle) • Focal length: 110 - 326 mm

#### Gel filter

· Shape: Square

• Standard size: 254x254 mm (10x10 in)

#### Gobo

• Size:

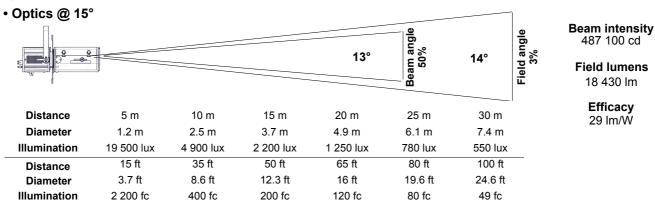
Material: Metal

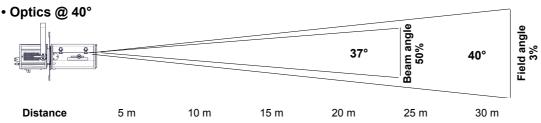
Glass



#### **Photometrics**

optics: 15°-40° / Standard





Distance	5 m	10 m	15 m	20 m	25 m	30 m
Diameter	3.6 m	7.3 m	10.9 m	14.6 m	18.2 m	21.8 m
Illumination	2 700 lux	670 lux	300 lux	170 lux	110 lux	75 lux
Distance	15 ft	35 ft	50 ft	65 ft	80 ft	100 ft
Diameter	10.9 ft	25.5 ft	36.4 ft	47.3 ft	58.2 ft	72.8 ft
Illumination	300 fc	55 fc	27 fc	16 fc	11 fc	7 fc

Beam intensity 66 700 cd

Field lumens 19 590 lm

> **Efficacy** 30 lm/W

#### Remote control

**USITT DMX512-A** · Data protocol:

RDM / Art-Net / sACN

• Data IN connector: 5 pins XLR male + etherCON RJ45

• Data OUT connector 5 pins XLR female



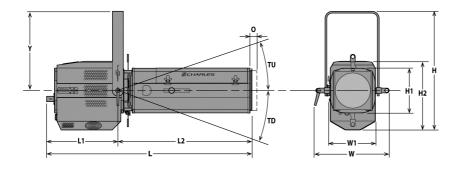




#### DMX chart:

(6 channels)
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### **Dimensions and weight**



Weight: 32.5 kg (71.5 lbs)

Height	Length	Width	Yoke	Tilt	Option
H= 659 mm (25.9 in) H1= 250 mm (9.8 in) H2= 381 mm (15 in)	L= 867 mm (34.1 in) L1= 395 mm (15.6 in) L2= 471 mm (18.5 in)	W= 368 mm (14.5 in) W1= 250 mm (9.8 in)	Y= 440 mm (17.3 in)	TU= 68° TD= 90°	O= 25 mm (1 in)

### **Shipping**

43 kg (94.6 lbs) • Weight :

• Volume : .3 m<sup>3</sup> (10.59 ft<sup>3</sup>)

#### Installation

• Minimum distance to illuminated surface: 0.2 m (0.7 ft)

· Operating position:



#### **Warranty**

• Fixture: 3 years See General Sales Condition on website

**Approvals** 

#### **Acoustics**

• Noise level: < 39,9 dB(A)

#### Construction

· Housing: Steel sheet - Aluminium

• Colour: Black

· Cooling: Variable fans

• Maximum ambient temperature (Ta): 40°C (104°F) • Maximum case temperature (Tc): 65°C (149°F)
• Total heat dissipation: 2 184 BTU/h

Ingress Protection (IP) rating: IP20

## Electrical compatibility

• 220/230 V - 50 Hz • 220/230 V - 60 Hz • 245 V - 50 Hz • 100 V - 50 Hz • 100 V - 60 Hz • 110/120 V - 60 Hz

• 208 V - 60 Hz Selector: automatic detection

### **Power input**



- Type: removable power cord with compatible powerCON® TRUE1 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	
230 V	50 Hz	2.8 A	640 W	0.99	
120 V	60 Hz	5.5 A	649 W	0.99	
100 V	60 Hz	6.7 A	655 W	0.99	

## **Power Supply Unit**

- PSU: Internal Electronic PSU Flicker free with PFC
- Control: Local / DMX
- Protection: Mains: 10A 1P1D breaker UL /
- Power thru: compatible powerCON® TRUE1 Maximum of 5 units (230 V) / 2 units (120 V)

## Model

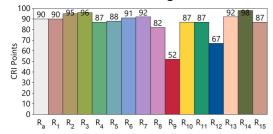
964CSX	LED 600 W Profile spot - 964CSX Charles - Cool White - 15/40° - North american standard
Options	

**Accessories** 

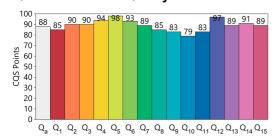
D8	Shutter for SX series	
	4 included	
SGUX	Universal "A" size gobo-holder (metal, glass, frosted glass)  1 included	
IWSX755	Drop-in iris (monoplane) with holder - Weight: 0.26 Kg	
D8	Shutter for SX series	
G1000C	254x254mm safety grid	
RPF960C	Front extension cassette for 254x254mm (10") accessories with XLR7 fan (recommended for dark colours on 960SX) - Weight: 1.7 Kg	
VD120	120x120mm frosted glass	
FCD700	Angled yoke - Weight: 1.62 Kg	
DMXcat	Bluetooth DMX/RDM Multifunction test tool - City Theatrical DMXcat®	
876	Hook clamp 40x10mm with 28mm M10 screw for Ø35 to 50mm pipes - SWL: 50Kg - Weight: 1.25 Kg	
880	Hook clamp 40x10mm with 28mm M10 screw for Ø50 to 63mm pipes - SWL: 50Kg - Weight: 1.36 Kg	
CS2	Safety cable Ø3 mm L= 600mm - SWL: 75 Kg	

ССТ	DeltaUV	CRI Ra	CRI R9	CQS Qa	TM30-18 Rf	TM30-18 Rg	TLCI
5 950K	0.0034	90	52	88	88	95	89

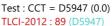
## **CRI - CIE Colour Rendering Index**

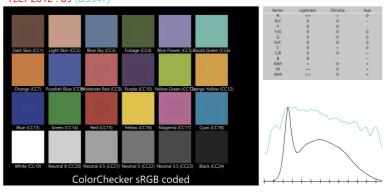


## **CQS - NIST Colour Quality Scale**



## **TLCI - Television Lighting Consistency Index**





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

