

# FORTE® Fresnel

Forte means Excellence, Speciality, Strength. Our FORTE® Fresnel wash lives up to its name! With revolutionary TRANSFERABLE ENGINE technology giving you the ability to maintain light quality, combined with a fixture packed full of specialist innovation, you have the ultimate high-output wash luminaire ready to lead you into the future.

**Light source**

TE™ 1.000W XP White LED TRANSFERABLE ENGINE

**Light output**

up to 40.500 lm, 41.000 lx @5m, Cpulse™ special flicker free management for HD and UHD cameras, ready for 8K and 16K

**Zoom range**

6° - 61°

**Effects**

Internal barndoor system with +/- 90° rotation, Cpulse™ - Flicker Free Management, L3™ dimming system for ultra-smooth fade to black



Never be short of output again as the FORTE® Fresnel, with its classically soft beam, delivers powerful, intense washes of light without losing theatrical subtlety or control, providing the most velvety-smooth washes possible, fit to grace any stage.

Delivering powerful, intense washes of light without losing theatrical subtlety or control, the FORTE® Fresnel with its classically soft beam, provides the most velvety-smooth washes possible, fit to grace any stage.

Harnessing the immense strength of the engine through its 200mm front lens, the FORTE® Fresnel, with its wide-ranging 10:1 ratio 6°- 61-degree zoom, offers a viable alternative to traditional 2.5 KW and 4 KW HMI Fresnels, within its class-leading sub 40 Kg frame.

Ensuring high output big statement washes, the TE™ 1.000W XP (Xtra Performance) White 6.700 K LED Transferable Engine generates a blistering 90.200 lumens. With the FORTE® Fresnel outputting 40.500 lumens (integrating sphere) from the front of the fixture, you have unsurpassed power and exceptional beam quality.

Our revolutionary self-referencing, data-capturing engines, easily changed within five minutes, are all designed, developed and manufactured within our factory (Robe patented technology). The L70/B50 ratings of 50.000 hours and 4-Year, 20.000-hour warranty assure longevity.

Maintaining Robe's reputation for exceptional colour mixing, the CMY system provides beautifully smooth colour transitions from the subtlest pastels to the brashest saturates. Combined with two colour wheels, CRI 80 and 90 filters, and a variable CTO from 3.000 - 6.700 K, you have total FORTE® Fresnel colour finesse.

The FORTE® Fresnel has unsurpassed levels of beam control, including medium and light frosts; RotaScrim™ graduated filter with position control, +/- 180° rotation and edge colour correction; and the rapid 4Door™ internal barndoor system for accurate individual leaf control and +/- 90° module rotation to ensure maximum flexibility.

FORTE® Fresnel comfortably operates within any noise-sensitive environment, as it features specialised noise-dampening engineering and an array of fan control options. AirLOC™ (Less Optical Cleaning) technology greatly reduces the level of airborne particles drawn over the optical elements, improving light quality and time between routine maintenance.

For film and television work, our Cpulse™ flicker-free software is ideally suited for the latest camera systems, removing any on-screen flicker. The dedicated plus and minus green control channel simplifies picture control.

For theatrical suitability, our advanced L3™ Low Light Linearity dimming, for ultra-smooth fade to black, in combination with lamp size-specific Tungsten Emulation, provide seamless integration with traditional lighting rigs.

EMS™ (Electronic Motion Stabiliser) technology for instant stop and hysteresis elimination removes unwanted fixture tremble usually associated with larger fixtures.

FORTE® Fresnel has a comprehensive protocol suite; USITT DMX 512, RDM, ArtNet, MA Net, MA Net 2, and sACN; REAP™ (Robe Ethernet Access Portal) for direct communication over Ethernet networks; Epass for maintained network connectivity; CRMX Wireless DMX control is available on request. These allow easy integration into any control network.

### **FORTE® Fresnel - Intensity, Subtlety, Controlled**

# Technical Specification

## Source

- Light source type: TE™ 1.000W XP White LED Engine (Patented):
  - XP - Xtra Performance Engine for maximum light output and optimal colour characteristics
  - LED Engine output: 90.200 lm
  - Fixture total lumen output:
    - 40.500 lm (integrating sphere)
    - 33.033 lm (goniophotometer)
  - Colour temperature output: 6.700 K
  - CRI: 70, remotely selectable filters for CRI 80 and CRI 90
  - Illuminance: 41.000 lx @ 5 m
- Light source type: TE™ 1.000W HCF White LED Engine (Patented):
  - HCF - High Colour Fidelity Engine for the best light quality and colour rendition
  - LED Engine output: 55.000 lm
  - Fixture total lumen output:
    - 27.880 lm (integrating sphere)
    - 22.462 lm (goniophotometer)
  - Colour temperature output: 6.000K
  - CRI: 96, TLCI: 97, TM-30-18 Rf: 92, TM-30-18 Rg: 99
  - Illuminance: 27.880 lx @ 5 m
- LED life expectancy: min. 50.000 hours
- Typical lumen maintenance: L70/B50 @ 50.000 hours
- Light source warranty: 4 years or 20.000 hours

## Optical system

- Robe's proprietary optical design
- High-efficiency 13-lens zoom optical system, ratio: 10:1
- Zoom range: 6° - 61°
- Output lens diameter: 200 mm

## Dynamic Effects and Features

- Cyan: 0 - 100%
- Magenta: 0 - 100%
- Yellow: 0 - 100%

- Variable CTO: 3.000K - 6.700K
- ChromaTint™ - Patented plus / minus green correction function
- Colour Wheel 1: 5 fixed dichroic colours + white
- Colour Wheel 2: 5 fixed dichroic colours + white
- 4Door™ - Internal Barndoors with individual control of the four leaves for added beam control of wash light, with +/- 90° module rotation. (Patented)
- MagFrost™ - Magnetic paddle fast change system providing exchangeable frosts containing as standard light 5° and medium 10° frost filters
- RotaScrim™ - Internal Scrim module with graduated filter position control for asymmetrical style lighting of drapes and unwanted hotspot removal from scenery. The entire module can be rotated +/- 180°. (Patented)
- Motorized zoom
- Edge colour correction
- Electronic strobe effect with variable speed up to 20 Hz, pre-programmed random strobe & pulse effects
- High resolution electronic dimming: 0 - 100%
- L3™ - (Low Light Linearity) Imperceptible 18 bit dimming for ultra smooth fade to black
- Extremely quiet operation suitable for all types of production in Theatre and TV
- Cpulse™ special flicker-free management for HD and UHD cameras, ready for 8K and 16K
- AirLOC™ (Less Optical Cleaning) technology greatly reduces the level of airborne particles drawn over the optical elements. This increases the overall performance, light quality and time between routine cleaning and maintenance.

## Control and programming

- Setting & Addressing: ROBE Navigation System 2 (RNS2)
- Display: QVGA Robe touch screen with battery backup, gravitation sensor for auto screen positioning, operation memory service log with RTC, stand-alone operation with 3 editable programs (each up to 100 steps), built-in analyser for easy fault finding, NFC app controller
- Protocols: USITT DMX-512, RDM, ArtNet, MA Net, MA Net2, sACN
- REAP™ - Robe Ethernet Access Portal
- Wireless CRMX™ technology from Lumen Radio - on request
- Epass™: Ethernet pass through switch which sustains Ethernet integrity, when the fixture has no power, to automatically maintain network connectivity
- DMX Protocol modes: 1
- Control channels: 35
- Pan & Tilt resolution: 16 bit
- CMY & CTO: 8 bit
- + - Green correction: 8 bit
- Colour wheel positioning: 16 bit
- Internal barndoor module movement & rotation: 8 bit
- Internal scrim module movement & rotation: 8 bit
- Iris: 16 bit
- Frost: 8 bit
- Zoom: 16 bit
- Edge colour correction: 8 bit

- Dimmer: 16 bit (internal 18 bit)

## **Movement**

- Pan movement: 540°
- Tilt movement: 270°
- Movement control: Standard and Speed
- Controllable speed of Pan & Tilt movement
- EMS™: Electronic Motion Stabilizer system for Pan & Tilt reducing beam deviation caused by truss movement or vibration (Patented)
- Automatic Pan & Tilt position correction

## **Internal barndoors**

- Patented 4Door™ internal barndoors module:
  - Barndoors with individual control of the four leaves
  - Rotation: +/- 90° of the entire module

## **Internal Scrim**

- Patented RotaScrim™ internal Scrim module:
  - Graduated filter position control
  - Rotation: +/- 180° of the entire module

## **Thermal specification**

- Maximum ambient temperature: 45°C (113°F)
- Maximum surface temperature: 100°C (212°F)
- Minimum operating temperature: -5°C (23°F)
- Total heat dissipation: max. 3200 BTU/h (calculated)

## **Noise Levels**

- Sound pressure level:
  - 21 dB(A) at 1 m (Super quiet mode)
  - 33 dB(A) at 1 m (quiet mode)
  - 44 dB(A) at 1 m (auto mode)
- Sound power level:
  - 29 dB(A) (Super quiet mode)
  - 41 dB(A) (quiet mode)
  - 52 dB(A) (auto mode)

## Electrical specification and connections

- Power supply: Electronic auto-ranging
- Input voltage range: 100-240 V, 50/60 Hz
- Power consumption: max. 1250 W
- Power connector in: Neutrik powerCON TRUE1
- DMX and RDM data in/out: Locking 3-pin & 5-pin XLR
- Ethernet port in/out: RJ45 for Embedded Epass™ switch 10/100 Mbps
- USB connector (series A) for lightmaster purposes

## Approvals

- CE Compliant
- cETLus Compliant

## Mechanical specification

- Height: 843 mm (33.2") - head in vertical position
- Width: 483.5 mm (19")
- Depth: 335 mm (13.1") - head in vertical position
- Weight: 38.08 kg (83.95 lbs)
- Ingress protection rating: IP20

## Rigging

- Mounting positions: 0°, 32°, 90°
- Universal operating position
- Mounting points: 5 pairs of 1/4-turn locking points
- 2x Omega adaptors with 1/4-turn quick locks
- Safety cable attachment point
- Pan & Tilt transport locks

## Included items

- User Manual
- Omega Adaptor CL-regular 2 pcs: 10980033
- Power cord including powerCON TRUE1 In connector
- Top hat: 10980591
- Gel frame adaptor: 99016721

## Optional accessories

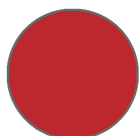
- Gel frame: 10980561
- Module of PC lens: 10980611
- Doughty Trigger Clamp: 17030386
- Omega Adaptor Tall CL - 2 pcs in box: 10980501
- Safety wire 50 kg: 99011957
- Single Top Loader Case: 10120267-01
- Dual Top Loader Case: 10120268
- Foam Shell: 20020395-01

## Legal

- FORTE® Fresnel is Registered Trademark of Robe lighting s. r. o.
- FORTE® Fresnel is patented by Robe lighting s. r. o. and is protected by one or more pending or issued patents

## Gobos&Colours

### Colour Wheel 1



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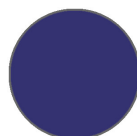
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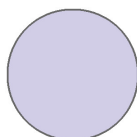
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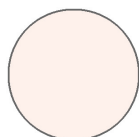
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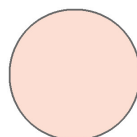
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