

ESPRITE® FS

Robe, the recognised leader in moving light technology, has made another major leap in innovation. The new ESPRITE FS LED automated luminaire has a fast-change, low-cost, transferable light engine ingeniously solving the problem of performance longevity for those preferring the higher brightness of white source LEDs as an obvious replacement for their aging stock of discharge workhorses.



Light source

TE™ 650W White LED TRANSFERABLE ENGINE



Light output

up to 34.000 lm, 85.000 lx @ 5m, Cpulse™ special flicker free management for HD and UHD cameras, ready for 8K and 16K



Zoom range

5.5° - 50°



Effects

Framing shutters



With our unique, ground-breaking TRANSFERABLE ENGINE technology, we offer a selection of engines. The TE™ 650W HP White LED Engine (HP - High Performance) maximizes output, while the TE™ 650W HCF White LED Engine (HCF - High Colour Fidelity) ensures exceptional colour rendition. Additionally, the TE™ 650W TGW White LED Engine (TGW - Tungsten White) simulates the comforting warmth of tungsten lighting. Now you can fit either engine within the same fixture, without alignment or warranty issues, within five minutes! Without the expense, and complication of needing to have separate luminaires with differing sources, TRANSFERABLE ENGINES give you the right engine, in the right fixture, at the right time!

The revolutionary self-referencing, data capturing engines are all designed, developed and manufactured within our own factory (Patents pending). Performance remains uncompromised with the TE™ 650W HP White 6.700 K LED Engine producing a piercing 34.000 lm, while the TE™ 650W HCF White 6.000 K LED Engine offers 22.800 lm with an exceptional inherent CRI of 96. The TE™ 650W TGW White 3.200 K LED Engine generates 19.500 lm with a CRI of 97, all measurements being integrating sphere. The L70/B50 ratings of 50.000 hours assure longevity.

This is enhanced by our legendary precision optics to produce crystal clear white light. The comprehensive feature set includes: Flat field CMY mixing; variable CTO; remotely selectable CRI 70/80/90 (HP Engine); two fast colour wheels; rotating and static gobo wheels; 6-facet rotating prism; 1° soft edge and 5° even wash frosts; an animation wheel and spectacular multi-colour effects. Quick, accurate, easy framing is provided via our patented fast framing shutter module with individual blade control and +/-60° rotation capability for extra fine control. The ESPRITE[®] Profile by design removes any airflow over the optics, resulting in reduced residue deposits thus extending periods between cleaning.

Furthermore, the unique Hot-Spot feature allows you to move from a flat field beam to a 6:1 ratio hot-spot beam giving uniform intensity when overlaying beam edges to create smooth washes of light. For broadcast users Cpulse[™] flicker-free management system operates beautifully with the latest camera systems and dedicated ChromaTint[™] patented green content control software allows fast adjustment for picture balancing. Our L3[™] Low Light Linearity dimming provides ultra-smooth fade to black for seamless integration into traditional lighting rigs.

The ESPRITE[®] FS is equipped with the digital camera on the head and can be connected with the RoboSpot[™] BaseStation for off-stage follow spot operation seamless integration with traditional lighting rigs.

Technical Specification

Source

- Light source type: TE™ 650W HP White LED Engine (Patented)
 - HP - High Performance Engine for maximum light output and optimal colour characteristics
 - LED Engine output: 55.000 lm
 - Fixture total lumen output:
 - 34.000 lm (integrating sphere)
 - 27.000 lm (goniophotometer)
 - Colour temperature output: 6.700 K
 - CRI: 70, remotely selectable filters for CRI 80 and CRI 90
 - Illuminance: 85.000 lx @ 5 m
- Light source type: TE™ 650W HCF White LED Engine (Patented)
 - HCF - High Colour Fidelity Engine for the best light quality and colour rendition
 - LED Engine output: 37.500 lm
 - Fixture total lumen output:
 - 22.800 lm (integrating sphere)
 - 18.300 lm (goniophotometer)
 - Colour temperature output: 6.000 K
 - CRI: 96, TLCI: 97, TM-30-18 Rf: 92, TM-30-18 Rg: 99
 - Illuminance: 59.000 lx @ 5 m
- Light source type: TE™ 650W TGW White LED Engine (Patented):
 - TGW - Simulates the comforting warmth of tungsten lighting
 - LED Engine output: 30.250 lm
 - Fixture total lumen output:
 - 19.500 lm (integrating sphere)
 - 15.700 lm (goniophotometer)
 - Colour temperature output: 3.200 K
 - CRI: 97, TLCI: 97, TM-30-18 Rf: 93, TM-30-18 Rg: 102
 - Illuminance: 50.000 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: 9:1
- Zoom range: 5.5° - 50°
- Output lens diameter: 150 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
- Framing shutters: Patented Plano4™ framing shutters module with 4 individually positionable blades plus rotation of the complete frame system + - 60°
- Rotating gobo wheel: 7 rotating, indexable and replaceable breakup and aerial gobos + open, patented slot & lock system
- Static gobo wheel: 9 static and replaceable gobos + open
- Animation wheel: Aluminium animation wheel, used alone or in combination with gobos, rotating in both directions at variable speed
- Prism: 6-facet prism rotating in both directions at variable speed
- Iris: Motorized, stepless, pulse effects up to 3 Hz
- Frosts: MagFrost™ - magnetic paddle fast change system providing exchangeable frosts containing as standard a very light 1° for instant softening of the projected gobo or framing shutters, and a medium 5° for even wash, both specifically selected for theatre and TV use
- HSL™ - Hot-Spot Lens for LED profiles: From flat field to 6:1 hot-spot (optional)
- Motorized zoom and focus
- Electronic strobe effect with variable speed up to 20 Hz
- High resolution electronic dimming: 0 - 100%
- L3™ - (Low Light Linearity) Imperceptible 18 bit dimming for ultra smooth fade to black
- 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 2 editable programs (each up to 80 steps), built-in analyser for easy fault finding
- Protocols: USITT DMX-512, RDM, ArtNet, MA Net, MA Net2, sACN
- 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: 4
- Control channels: 49, 42, 50, 43
- Pan & Tilt resolution: 16 bit
- CMY & CTO: 8 bit
- + - Green correction: 8 bit
- Colour wheel positioning: 8 or 16 bit
- Framing shutters module movement & rotation: 8 bit
- Rotating gobo wheel positioning: 8 bit
- Gobo indexing & rotation: 8 or 16 bit
- Static gobo wheel positioning: 8 bit
- Animation wheel: 8 bit
- Animation wheel rotation: 8 bit
- Iris: 8 or 16 bit
- Frost: 8 bit
- Zoom: 8 or 16 bit
- Focus: 8 or 16 bit
- Dimmer: 8 or 16 bit (internal 18 bit)

Movement

- Pan movement: 540°
- Tilt movement: 265°
- Movement control: Standard and Speed
- EMS™: Electronic Motion Stabilizer system for Pan & Tilt reducing beam deviation caused by truss movement or vibration (Patented)
- Automatic Pan & Tilt position correction

Rotating gobos

- 7x rotating glass gobos
- Outside diameter: 26.8 mm
- Image diameter: 23.5 mm
- Thickness: 1.1 mm
- Max. thickness: 3.5 mm
- High temperature borofloat or better glass
- Patented slot & lock system for easy replacement of gobos

Static gobos

- 9x static glass gobos
- Outside diameter: 26.8 mm
- Image diameter: 23.5 mm
- Thickness: 1.1 mm
- Max. thickness: 3.5 mm
- High temperature borofloat or better glass

Effect wheel

- Single animation wheel
- Material: Aluminium
- Can be used alone or in combination with rotating gobos
- Rotating in both directions, variable speed

Framing shutters system

- Patented Plano4™ framing shutters module
- Shutters: 4 Blades, each with separate movement and +- 25° rotation control
- Movement: Smooth with variable speed, ultrafast blade movements for creating mid-air effects
- Rotation: +- 60° of the complete framing system

Camera

- Type: XNZ-L6320A
- Resolution: 1920 x 1080, 16:9 Full HD (1080p) resolution support
- Zoom:
 - 32x optical zoom
 - 32x digital zoom
- Streaming: H.265, H.264, MJPEG Codec, Multiple streaming
- Vision: Day & Night (ICR), WDR (120dB), Defog
- Minimum illumination: 0.05 Lux

Thermal specification

- Maximum ambient temperature: 45°C (113°F)
- Maximum surface temperature: 80°C (176°F)
- Minimum operating temperature: -5°C (23°F)

Noise Levels

- Sound pressure level:
 - 27 dB(A) at 1 m (quiet mode)
 - 42 dB(A) at 1 m (auto mode)
- Sound power level:
 - 35 dB(A) (quiet mode)
 - 50 dB(A) (auto mode)

Electrical specification and connections

- Power supply: Electronic auto-ranging
- Input voltage range: 100-240 V, 50/60 Hz
- Power consumption:
 - Standard mode max. 870 W at 230 V / 50 Hz
 - High-power mode max. 950 W at 230 V / 50 Hz
- Power in connector: Neutrik powerCON TRUE1
- DMX and RDM data in/out: Locking 3-pin & 5-pin XLR
- Ethernet port in: RJ45
- Ethernet port out: RJ45 - camera video output
- Ethernet port in/out: RJ45 (instead of 3-pin XLR) for Embedded Epass™ switch 10/100 Mbps - on request
- USB connector (series A) for lightmaster purposes

Approvals

- CE Compliant
- cETLus Compliant

Mechanical specification

- Height: 733 mm (28.9") - head in vertical position
- Width: 443 mm (17.4")
- Depth: 264 mm (10.4") - head in vertical position
- Weight: 29.4 kg (64.8 lbs)
- Ingress protection rating: IP20

Rigging

- Mounting positions: Horizontally or vertically
- 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
- RoboSpot Camera

Optional accessories

- ESPRITE TE™ 650W HP White LED Engine: 14080066
- ESPRITE TE™ 650W HCF White LED Engine: 14080071
- ESPRITE TE™ 650W TGW White LED Engine: 14080079
- Frost 0.5° (exchange) assembled: 10980583
- Frost 10° (exchange) assembled: 10980497
- Frost 20° (exchange) assembled: 10980574
- Frost 30° (exchange) assembled: 10980584
- FS BMFL/ESPRITE/FORTE/T2 Handles (2 pcs): 10980233
- Hot-Spot lens in gobo holder: 10980483
- Gel frame adaptor: 10980463
- Gel frame: 10980464
- Top Hat: 10980568
- Doughty Trigger Clamp: 17030386
- Omega Adaptor Tall CL-regular (2 pcs): 10980501
- Omega Adaptor T CL (2 pcs): 10980184
- Safety wire 36 kg: 99011963
- Upgrade kit CRMX Universal 260: 99030100
- Single Top Loader Case: 10120254
- Dual Top Loader Case: 10120255
- Foam Shell: 20020357

Legal

- ESPRITE[®] is a Trademark of Robe lighting s. r. o.
- ESPRITE[®] FS is patented by Robe lighting s. r. o. and protected by one or more pending or issued patents

Gobos&Colours

Rotating Gobo Wheel



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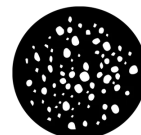
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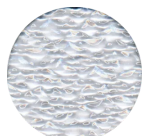
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Static Gobo Wheel



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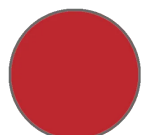


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Colour Wheel 1



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Colour Wheel 2



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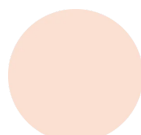
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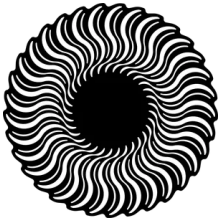


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Animation Wheel



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