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iT12 Fresnel™

For all-environment smooth area wash lighting, the iT12 Fresnel™ has all the tools, features, controls, and light qualities to deliver outstanding static Fresnel-style performance, whatever the elements can throw at it.



Light source

iSE-MSL-TE™ 500W LED Engine (Patented)

Light output

11.000 lm (integrating sphere), 8.560 lm (goniophotometer)

Zoom range

7° - 70°

Effects

Framing Shutters, Iris, Frost, Optional drop-in module with Static gobo wheel, Rotating gobo wheel and Animation Wheel

Joining the Robe iSERIES, the IP65-protected iT12 Fresnel™ will manage any inclement weather. Our revolutionary, self-managing, low-maintenance ingress protection technology ensures peace of mind for theatres, television, and concerts, indoors or out.

Maintaining the renowned Multi-Spectral colour finesse of the T-series, the iT12 Fresnel™ contains an iSE-MSL-TE™ 500W LED IP65-rated Engine generating over 11.000 lm (integrating sphere) from the fixture. With all the advantages of cost, exchange or replacement in the field, this LED technology provides identical colour characteristics, responses, and control with T-series luminaires for absolute colour consistency throughout your Robe installation.

TRANSFERABLE ENGINE technology has all the advantages of cost, field exchange, or replacement, and the ability to keep up with LED development to ensure exceptionally long fixture life. With typical lumen maintenance of L70/B50 40.000 hours, the 4-year 20.000-hour warranty gives peace of mind. With a choice of RGB, CMY, or individual colour emitter control for advanced users, the luminaire contains factory-calibrated whites; a variable CCT from 2.700 – 8.000K; our DataSwatch pre-programmed colour library with 237 colours and tones; adjustable CRI from 80 to 95+ and lamp selectable Tungsten emulation.

Traditional Fresnel lenses contain their essential beam softening annular ridge design, making them susceptible to catching unwanted debris, thereby obstructing their beam. To maintain consistently high lumen output, even with the rigours of outdoor performance, including water, dirt, dust, haze, and smoke, we have designed and patented the F2L™ lens as the raised ridges of the concentric annular sections are within the fixture, giving a smooth outer surface to prevent a build-up of debris.

Our unique parCoat™ hydrophobic, oleophobic-resistant coating further aids clear optics by allowing easy removal of deposits without scratching or damage.

The soft-edged beam uses a 10:1 ratio 7° - 70° motorised zoom to give maximum task flexibility.

For framing, an optional drop-in, motorised internal barndoor module features four individually positionable doors with +/- 90° module rotation. MagFrost™ quick change 5° medium and 10° wide frosts come fitted as standard. A scrim with graduated filter positional control and +/- 180° rotation gives additional beam control to remove unsightly hot spots.

Our patented BARS™ (Brake Attribute Retention System) locks the motorised zoom firmly in place for consistent, accurate replayability of lighting cues even when power cycled.

At the heart of iT12 Fresnel™ protection is RAINS™ (Robe Automatic Ingress Protection System). This highly advanced patented technology not only prevents ingress. It actively manages the fixture's internal microclimate, removing internal moisture build-up caused by constant heating and cooling to provide maximum protection for electronics. With simplified maintenance procedures, we have revolutionised the way outdoor fixtures are managed and protected.

Streamlined preparation saves time. The iT12 Fresnel™ runs an ingenious Self Pressure Test to check internal pressure. Requiring no special tools and taking under 3 minutes, the test provides an error message if gaskets and covers were not replaced correctly, or locking screws incorrectly tightened, ensuring maximum protection.

Their lightweight magnesium alloy covers, with aluminium alloy substructure, provide a dust-free environment for the optics, thereby eliminating the need for frequent cleaning, routine maintenance, and UV damage to plastic parts.

For extreme cold, the patented POLAR+™ power-saving standby mode maintains internal temperature, ensuring operability down to -50°C. For ultimate protection, the fixture is also available with a harsh environment finish.

Ideally suited for remote outdoor installations, REAP™, the Robe Ethernet Access Portal communication software, viewed as a web browser, shows real-time fixture monitoring of all parameters, including complete RAINS™ status information such as pressure and internal saturation levels.

By including NFC (Near-Field Communication) technology, you can access setup, diagnostic and performance features, even without power, directly from your mobile device using the Robe Com app.

iT12 Fresnel™ - Robe reliability in all weathers

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Technical Specification

Source

- Light source type: iSE-MSL-TE™ 500W LED Engine (Patented)
- LED life expectancy: min. 40.000 hours
- Colour rendition: CRI: 95, CRI R9: 96, TM30-18 Rf: 92, TM30-18 Rg: 106, TLCI: 91
- Typical lumen maintenance: L70/B50 @ 40.000 hours
- Light source warranty: 4 years or 20.000 hours

Optical system

- Robe's proprietary optical design
- High-efficiency zoom optical system, ratio 10:1
- Zoom range: 7° - 70°
- Fixture total lumen output:
  - 11.000 lm (integrating sphere)
  - 8.560 lm (goniophotometer)
- Illuminance: 10.250 lx @ 5 m
- parCoat™ (particle resistant coating) unique hydrophobic and oleophobic coating helps prevent water, dirt, dust, haze and smoke from adhering to the output lens
- F2L™ Fresnel-lens system, comprising two lenses engineered with a smooth outer surface to eliminate the debris accumulation commonly found on outdoor Fresnel lenses

Main features

- Factory calibrated whites and colours via the new RCC™ (Robe Colour Calibration) system, automatic or on-call self-re-calibration of the LED engine without the use of any external tool (Patent pending)
- Colour mixing: CMY/RGB or RGBAL
- White light: Variable CCT 2.700K - 8.000K
- DataSwatch™ filters: pre-programmed 237 colours and tones including most used whites 2.700K, 3.200K, 4.200K, 5.600K
- Tungsten lamp effect: 750W, 1.000W, 1.200W, 2.000W, 2.500W lamp emulation for whites from 2.700K to 4200K (red shift and thermal delay)
- + - Green correction function
- Adjustable CRI: from 80 to 95+
- Frosts: MagFrost™ - magnetic paddle fast change system providing exchangeable frosts containing as standard a medium 5° for instant softening of the projected gobo or framing shutters, and a wide 10° for even wash, both specifically selected for theatre and TV use
- 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
- Dimmer profile selection: Linear, Square law
- Cpulse™ special flicker-free management for HD and UHD cameras, ready for 8K and 16K
- Extremely quiet operation suitable for all types of production in Theatre and TV
- 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.
- BARS™ - Brake Attribute Retention System (Patented) applied for Focus and Zoom stepper motors
- POLAR+™ for power saving and instant operation in extremely cold weather conditions

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, 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
- Epass™: Ethernet pass through switch which sustains Ethernet integrity, when the fixture has no power, to automatically maintain network connectivity
- RAINS™ (Robe Automatic Ingress Neutralization System) manages humidity, temperature and pressure control using an active monitoring system to automatically remove any moisture detected within the fixture and provides constant monitoring to ensure peak performance
- DMX Protocol modes: 8
- Control channels: 24, 28, 35, 39, 32, 36, 43, 47
- Variable CCT: 8 bit
- + - Green correction: 8 bit
- Colour mixing: 8 or 16 bit (internal 18 bit)
- Frost: 8 bit
- Zoom: 8 or 16 bit
- Dimmer: 8 or 16 bit (internal 18 bit)

Thermal specification

- Maximum ambient temperature: 50 °C (122°F)
- Maximum surface temperature: 90 °C (176 °F)
- Minimum operating temperature: -50 °C (-58 °F)
- Total heat dissipation: max. 1125 BTU/h (calculated)

Electrical specification and connections

- Power supply: Electronic auto-ranging
- Input voltage range: 100-240 V, 50/60 Hz
- Power consumption: Max. 600 W
- Power connector in/out: IP 65 Neutrik powerCON TRUE1 in/out
- DMX and RDM data in/out: IP65 Locking 5-pin XLR connectors
- Ethernet port in/out: IP65 RJ45 for Embedded Epass™ switch 10/100 Mbps

Approvals

- CE Compliant
- cETLus Compliant

Mechanical specification

- Height: 534 mm (21.02") with yoke
- Width: 385 mm (15.51")
- Depth: 653 mm (26.18")
- Weight:
  - 23.8 kg (52.4 lbs)
  - 25.3 kg (55.77 lbs) with optional framing shutters module
- Ingress protection rating: IP65

Rigging

- Mounting horizontally or vertically via mounting yoke
- Mounting points: M12 bolt
- Safety cable attachment point

Included items

- User Manual
- Gel frame adaptor
- Power cord including powerCON TRUE1 In connector:
  - US:13052277-01
  - EU:13052276-01

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Optional accessories

- iT12 iSE-MSL-TE™ 500W LED Engine: 14080098
- Doughty Trigger Clamp
- Safety wire 36 kg: 99011963
- Floor stand: 10981014
- Frost 0.5° (exchange) assembled: 10980583
- Frost 3.5° (exchange) assembled: 10980668
- Frost 10° (exchange) assembled: 10980497
- Frost 20° (exchange) assembled: 10980574
- Frost 30° (exchange) assembled: 10980584
- iT12 Profile lens module: 10981030
- iT12 PC lens module: 10981028
- Drop-in gobo and animation wheel module: 10980968
- Drop-in framing and iris module: 10980969
- Drop-in module open gate: 10981008
- Single Top Loader Case: 10120323
- Single Top Loader Trolley case: 10120324
- Dual Top Loader Case: 10120325
- Foam Shell: 20020468

Legal

- iT12 Fresnel™ is a Trademark of Robe lighting s. r. o.
- iT12 Fresnel™ is patented by Robe lighting s. r. o. and is protected by one or more pending or issued patents