



# **iFORTE®LTX**

The desire to make outdoor LED luminaires brighter, throw even further and be equivalent to older discharge-lamped fixtures has long been sought but never achieved. Until now!

Redefining the boundaries of intensity, optical excellence, and performance while retaining our renowned reputation for theatrical precision, the iSERIES IP65-rated Robe iFORTE® LTX WB is the next-generation unrivalled multi-use WashBeam luminaire for live concert touring, indoors or out!

Generating over 355.000 lux at 5 metres, we are proud to have attained all-weather stadium-level performance with this groundbreaking fixture.

In line with its incredible power, the iFORTE® LTX WB creates imposing visual statements with its domineering, solid beam from the imposing 245 mm front lens. You will never be short of impact.

With innovative optics to attain absolute WashBeam functionality, the FORTE® LTX WB can operate in various ways. The standard Optical Range Mode permits the widest 3.5° - 52°coverage. Using the iris, you can narrow the beam for 2°- 52° coverage. The Long Throw Mode, using xR7™ technology, provides an ultra-tight 0.7° - 2° beam to deliver crisp, incisive beams without any intensity loss usually found when engaging an iris over long distances making it the perfect partner for our industry-standard RoboSpot™ remotely controlled follow spot system.

The iFORTE® LTX WB features camFIT™, meaning its pre-wired and pre-balanced for the quick addition of the dedicated IP65-rated Robospot™ camera if required. You don't need a separate fixture, simply add the camera. Naturally, you can purchase the iFORTE® LTX FS which already has the camera added. The digital camera has parCoat™ lens coating protection, ensuring picture quality even in inclement weather.

We have listened to your feedback requesting an additional Epass™ ethernet port so the fixture can both receive and send ethernet and have a separate dedicated camera output. This is the first fixture to have this facility.

The iFORTE® LTX WB is not all about power. It is feature-rich, containing controls and effects commensurate with a fixture of this stature. With Plano framing shutters, two animation wheels, a gobo wheel, patented dual 6-facet overlaying prisms and two interchangeable frosts, you have all the creative tools you need.

Data capturing iSE<sup>TM</sup> TRANSFERABLE ENGINE IP65-rated technology offers all the advantages of field exchange, cost-effective replacement, and the ability to keep up with LED development to ensure exceptionally long fixture life.

You can face all weathers with absolute confidence as this iSERIES fixture contains RAINS™, our patented active management system. This 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 simple maintenance procedures, Robe® has revolutionised how outdoor fixtures are managed and protected.

There is no need to worry about extreme cold either. When activated, our POLAR+ standby mode technology maintains the fixtures sensors, and communication channels remain live while reducing power consumption. POLAR+™ maintains the internal temperature, allowing instant operability down to minus 50 degrees centigrade!

The iFORTE® LTX WB adds up to a comprehensive single package of versatile high output LED Washbeam and long throw Follow spot with stadium-level performance specifically designed for indoor and outdoor use.



FORTE LTX WB





# Robe's iSE-TE™ - TRANSFERABLE ENGINE guides performance lighting into the great outdoors.

Our reputation for innovative design, hard-earned over nearly 30 years, is the result of asking questions, listening to customers, and repeatedly redefining the boundaries of technology.

We have the most forward-thinking engineers and designers in our industry. **TRANSFERABLE ENGINES** addressed the problem that white source LED engines do not last forever and vary in colour consistency over time. We then met the clamour to extend these to task-specific engines, such as the HCF (High Colour Fidelity) variant. Finally, we wanted to extend these engines and all their inherent advantages to our outdoor luminaires.

Exploiting the advantages of **TRANSFERABLE ENGINES** without introducing complicated procedures to handle the challenges of humidity and moisture, an intensive developmental process resulted in the IP65-rated iSE-TE™ White LED engines for our iSERIES range of outdoor profiles- the iFORTE®, iESPRITE® and iPAINTE®. With identical DMX maps and performance, similar weights and form factors, these **TRANSFERABLE ENGINE** equipped IP65 protected fixtures can be seamlessly interchanged with their indoor equivalents and be used together, even on the same truss, without consequence.

The IP65-rated **iSE-TE™** engines still enable easy, rapid engine exchange, data harvesting and source selection without compromising their protection, allowing engine changes in the field. To ensure the very best performance and consistency, they are again designed, developed, patented and manufactured within our factory in the Czech Republic.

Every Robe **iSE-TE<sup>TM</sup> TRANSFERABLE ENGINE** has its own, unique, memory. All engine data stays with the engine, meaning when you transfer it to a new fixture, the data travels with it.

All data stored on the **iSE TRANSFERABLE ENGINE** is easily accessible through Near Field Communication (NFC) technology via the ROBE COM app. This provides direct access to the engine information. This includes engine type and serial number; full module installation history; intensity compared to initial performance; hours worked, and much more.









All data is available without powering the engine while sitting on your shelf, giving you the same instant accessibility. Furthermore, when the module is installed in a fixture, the data is available directly from the fixture display.

Our **ise transferable engines** are fast-changing, taking under 5 minutes. They require no special tools, complex procedures or return to workshop or agent. With no alignment or calibration needed you have a rapid "lamp-like" exchange.

Robe **iSE TRANSFERABLE ENGINES** are very economical, costing approximately twice the price of high-performance discharge lamps.

Combined with the advantages of LED, you now have the tools available to maintain a high level of light consistency across your inventory.

Transferable means a new engine at a lower cost, compared to a replacement engine at a far higher price. With no warranty or reduced LED lifetime issues, they carry a four-year 20.000-hour warranty.

Another benefit of the self-referencing engines is their ability, via our unique software, to give you a visual performance reference. Being able to quickly set the outputs to a consistent level, even while the fixtures are up in the rig, will save you a lot of time in the pressurised world of touring.

Robe fixtures utilising the **iSE TRANSFERABLE ENGINES** technology have been deliberately designed with built in capacity to take advantage of possible future LED engine development. This forethought, combined with their ease of transfer, will give you an even greater luminaire longevity.

In line with our stringent Green Policy, when the engines have reached the end of their life, we have the Robe **iSE TRANSFERABLE ENGINES** free return for recycling offer, making them very Eco-friendly.

The **iSE TRANSFERABLE ENGINES** concept pioneers a new era in IP-rated luminaires using white source LED engines. It gives you the ability to cost-effectively maintain a high level of quality light consistency across your inventory while ensuring the highest level of return on your investment.







Are you looking for the ultimate long throw, high output, all-environment LED WashBeam or Follow spot for true, stadium-level reach capable of outperforming all others? Your answer – The Robe® iFORTE® LTX WB and iFORTE® LTX FS!

Redefining the boundaries of output, optical excellence, and performance while retaining all the subtleties of theatrical precision, these iSERIES IP65-rated Robe® fixtures are truly the next-generation unrivalled WashBeam and remote-controlled camera equipped follow spot luminaires for live concert touring,

Our latest, most powerful, internally designed, developed, patented, and manufactured iSE- $\mathsf{TE}^\mathsf{TM}$ 1000W XP (Xtra Performance) IP65-rated White LED TRANSFERABLE ENGINE produces an incredible, industry leading 355.000 lx at 5 m. They will never be wanting in terms of reach and impact!

Data capturing TRANSFERABLE ENGINE technology offers all the advantages of field exchange, costeffective replacement, and the ability to keep up with LED development to ensure exceptionally long fixture life. With typical lumen maintenance of L70/B50 50.000 hours, the 4-year 20.000-hour warranty gives peace of mind, whatever the weather.

In line with its outstanding performance, the iFORTE® LTX luminaires create imposing visual statements with their domineering, solid beam from the 245 mm front lens.

With innovative optics to attain absolute WashBeam functionality, the FORTE® LTX WB can operate in various ways. The standard Optical Range Mode permits the widest 3.5° - 52° coverage. Using the iris, you can narrow the beam for 2°- 52° coverage. The Long Throw Mode, using xR7™ technology, provides an ultra-tight 0.7°- 2° beam to deliver crisp, incisive beams without any intensity loss usually found when engaging an iris over long distances.

Colour generation is via a CMY colour mixing system. With two colour wheels and a variable CTO of 3.000 - 6.700K, you have all the tools to cover everything from the densest saturates to the most refined pastel shades. ChromaTint<sup>TM</sup> patented green content control software allows fast adjustment, especially useful for broadcast users.

The PLANO4™ four individual plane blade system, with 120° module rotation, delivers precise, endlessly repeatable framing without shape restriction.

The iFORTE® LTX WB and iFORTE® LTX FS are not all about power. They are packed full of features and effects, including; One rotating, indexable gobo wheel with 5 replaceable gobos; Two aluminium animation wheels with variable speed and directional control; Two independently controlled stackable prisms-one 6-facet circular and one 6-facet linear; Two MagFrost™ interchangeable 1° and 20° frosts.

The luminaires feature our advanced L3™ 18-bit dimming system, and Cpulse™ flicker-free management for the latest camera systems. Both are equipped with Epass™ in and out ports for automatically maintained network connectivity and a separate, dedicated camera port.

The iFORTE® LTX WB features camFIT™, meaning its pre-wired and pre-balanced for the addition of the dedicated IP65-rated Robospot™ camera if required. Together with EMS™ (Electronic Motion Stabiliser) technology for instant stop and hysteresis elimination, the iFORTE™ LTX WB and FS are the perfect RoboSpot partner.

Removing the need for pre-use pan and tilt calibration, MAPS™ (motionless Absolute Positioning System) allows fixtures to calibrated without movement. This also removes audience distraction while resetting during a performance.

The highly advanced patented RAINS™ (Robe Automatic Ingress Protection System) technology 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 simple maintenance procedures, Robe has revolutionised how outdoor fixtures are managed and protected. Streamlined preparation saves time.

These units run an ingenious Self Pressure Test to check internal pressure. Requiring no special tools and taking under 3 minutes, the test provides an error message where gaskets and covers were not replaced correctly or locking screws incorrectly tightened, ensuring maximum protection.

To maintain consistently high lumen output, even with the rigours of outdoor performance, water, dirt, dust, haze, and smoke are repelled from the front lens and camera lens with our unique parCoat™ hydrophobic, oleophobic-resistant coating. Furthermore, it allows easy removal of deposits without scratching or damage.

For operation in extreme cold, the iFORTE® LTX WB and FS models contain our innovative POLAR+TM technology. This special standby mode maintains sensors and communication while reducing power consumption. When activated, POLAR+™ will automatically maintain an internal temperature level, allowing instant operability down to minus 50 degrees centigrade!

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.

Our iFORTE® LTX WB and FS provide highly versatile packages of extreme output LED WashBeam and long throw Follow spot luminaires, specifically designed for indoor and outdoor use.

#### iFORTE® LTX - Robe reliability in all weathers.

#### Source

- Light source type: iSE-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: 55.000 lm (integrated sphere) 43.800 lm (goniophotometer)
  - Colour temperature output: 6.700K
  - CRI: 70, remotely selectable filters for CRI 80 and CRI 90
  - Illuminance: 355.000 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

#### ptical System

- Robe's proprietary optical design
- High-efficiency 13-lens zoom optical system, ratio: 15:1 Zoom range: 3.5° - 52° (standard optical zoom)
- 52° (follow spot mode using optical zoom + iris) 0.7° - 2° (long throw follow spot mode - using iris)
- Output lens diameter: 245 mm

# Dynamic Effects and Features 4 1

- Cvan: 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: 5 rotating, indexable and replaceable breakup and aerial gobos + beam reducer + open, patented slot & lock system
- Animation wheel: 2 Aluminium animation wheels, used alone or in combination with gobos, rotating in both
- directions at variable speed Prism 1: Independent 6-facet linear prism rotating in both directions at variable speed
- Prism 2: Independent 6-facet circular prism rotating in both directions at variable speed

- □ MagFrost<sup>™</sup> 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 5° for even wash, both specifically selected for theatre and TV use
- Iris: Motorized, stepless, pulse effects up to 3 Hz
- xR7<sup>™</sup> eXtreme Reach Follow Spot technology enables you to achieve unprecedented light levels, even the narrowest beam angle of 0.7 degrees
- Motorized zoom and focus
- 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.
- POLAR+™ for power saving and instant operation in extremely cold weather conditions
- CamFit™ Prewired for later camera installation

#### 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<sup>™</sup> 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: 1
- Control channels: 54
- Pan & Tilt resolution: 16 bit
- CMY & CTO: 8 bit
- Colour wheel positioning: 16 bit
- Framing shutters module movement & rotation: 8 bit
- Rotating gobo wheel positioning: 8 bit
- Gobo indexing & rotation: 16 bit
- Animation wheel: 8 bit
- Animation wheel rotation: 8 bit
- Iris: 16 bit
- Frost: 8 bit Zoom: 16 bit
- Focus: 16 bit
- Dimmer: 16 bit (internal 18 bit)

#### <u>Movement</u>

- 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
- MAPS™ Motionless absolute positioning system for Pan & Tilt (Patented)

#### **Rotating Gobos**

- 5x rotating glass gobos + beam reducer
- Outside diameter: 30.8 mm
- Image diameter: 25.0 mm
- Max. thickness: 3.5 mm
- High temperature borofloat or better glass
- Patented slot & lock system for easy replacement of gobos

#### Effect Wheel

- Dual animation whee
- Material: Aluminium
- Diameter: 112 mm
- Can be used alone or in combination with rotating gobos
- Rotating in both directions at variable speed

# Framing Shutters System

- Shutters: 4 Blades, each with separate movement and +- 25° rotation control
- Movement: Smooth with variable speed, ultra-fast for creating
- Rotation: +- 60° of the complete framing system

## Camera - iFORTE LTX FS

- Type: XNZ-L6320A
- Resolution: 1920 x 1080, 16:9 Full HD (1080p) resolution support
- Zoom: 32x optical zoom 32x digital zoom
- Vision: Day & Night (ICR), WDR (120dB), Defog
- Streaming: H.265, H.264, MJPEG Codec, Multiple streaming
- Minimum illumination: 0.05 lux
- parCoat™ (particle resistant coating) unique hydrophobic and oleophobic coating helps prevent water, dirt, dust, haze and smoke from adhering to the output lens

#### <u>Thermal Specification</u>

- Maximum ambient temperature: 50°C (122°F) Maximum surface temperature: 100°C (212°F)
- Minimum operating temperature: -50°C (-58°F)
- Total heat dissipation: max. 3200 BTU/h (calculated)

#### Electrical Specification and Connections

- Power supply: Electronic auto-ranging
- Input voltage range: 100-240 V, 50/60 Hz
- Power consumption: max. 1.250 W Power connector in: IP65 Neutrik powerCON TRUE1
- DMX and RDM data in/out: IP65 Locking 3-pin & 5-pin XLR connectors
- Ethernet port out: RJ45 camera video output
- Ethernet port in/out: IP65 RJ45, for Embedded Epass™ switch 10/100 Mbps

#### **Approvals**

- **CE** Compliant
- cETLus Compliant

# Mechanical Specification

- Height: 904 mm (35.6") head in vertical position
- Width: 480 mm (18.89") Depth: 335 mm (13.1") head in vertical position
- Weight: iFORTE LTX 49 kg (108.42 lbs) iFORTE LTX FS 49 kg (108.42 lbs)
- Ingress protection rating: IP65

#### 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 Power cord including powerCON TRUE1 In connector: EU:13052276-01
- 2° Beam reductor for long throw follow spot operation RoboSpot Camera for iFORTE® LTX FS
- Balancing Weight Cover for CamFit: 10981009

## ptional Accessories

- iForte iSE-TE™ 1.000W XP White LED Engine: 14080091 iForte iSE-TE™ 1.000W HCF White LED Engine: 14080082

- CamFit kit: 10980885 Frost 0.5° (exchange) assembled: 10980581
- Frost 1° (exchange) assembled: 10980564
- Frost 3.5° (exchange) assembled: 10981037
- Frost 5° (exchange) assembled: 10980565
- Frost 10° (exchange) assembled: 10980556
- Frost 20° (exchange) assembled: 10980577
- Frost 30° (exchange) assembled: 10980582
- Doughty Trigger Clamp: 17030386 Safety wire 50 kg: 99011957
- Single Top Loader Case: 10120326
- Dual Top Loader Case: 10120327 Foam Shell: 20020475

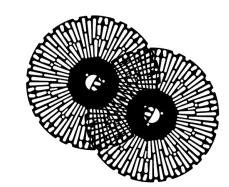
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- iFORTE® LTX and iFORTE® LTX FS are Registered
- Trademarks of Robe lighting s. r. o. iFORTE® LTX and iFORTE® LTX FS are patented by Robe lighting s. r. o. and protected by one or more pending or issued patents



# Animation Wheels

For increased effect capability, there are two animation wheels. One is inserted into the beam horizontally, the other vertically. Individually rotatable in both directions with variable speed control, the animation wheels can be combined with gobos. creating unlimited animated effects.





#### Colour Wheel 1





















### Rotating Gobo Wheel 1

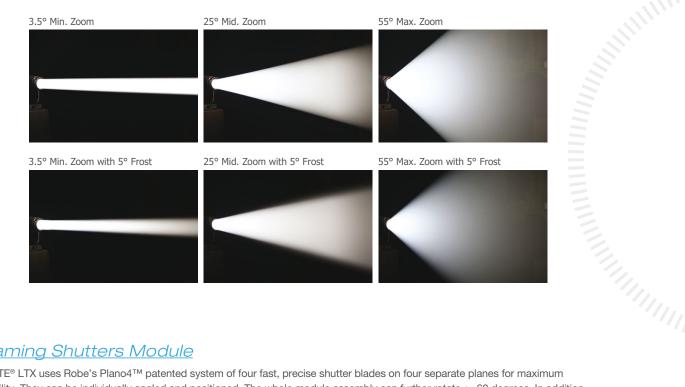












# Framing Shutters Module

iFORTE® LTX uses Robe's Plano4™ patented system of four fast, precise shutter blades on four separate planes for maximum flexibility. They can be individually angled and positioned. The whole module assembly can further rotate +- 60 degrees. In addition to soft focusing, additional softening can be applied with the light 1° frost, giving the edge extra diffusion, often required in TV and

Shutters are precisely calibrated in the factory to ensure maximum accuracy and repeatability of programmed framing shapes.





















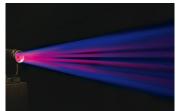
6-facet circular and linear rotating prisms









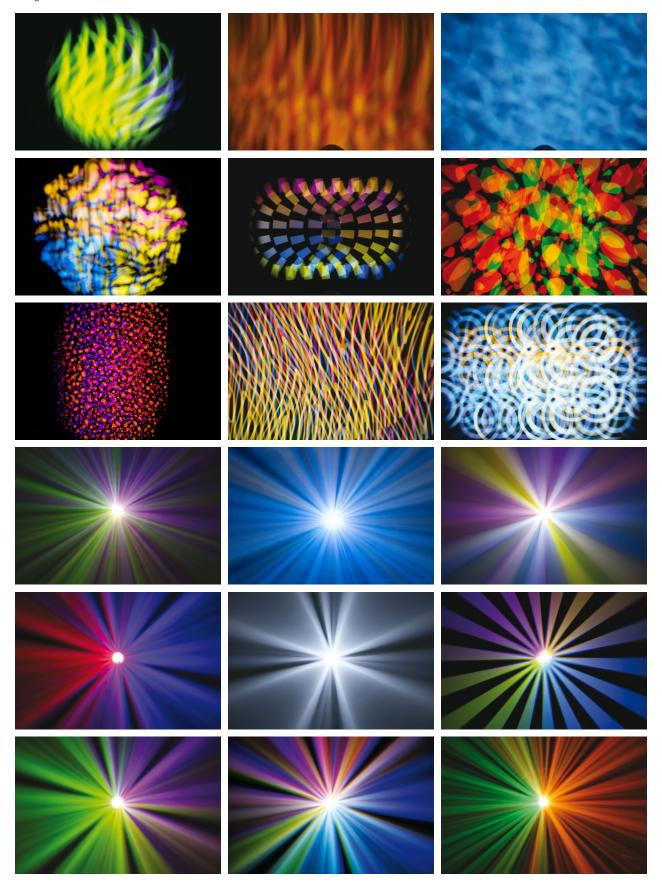




# Impressive Aerial and Graphic Effects

iFORTE® LTX will excite you with unlimited possibilities for animations and mid-air effects thanks to two gobo wheels with carefully selected break-up and aerial gobos, which can be further combined with a 6-facet circular or 6-facet linear rotating prism or with both, with animation wheel, split colours and a special multi-colour filter.

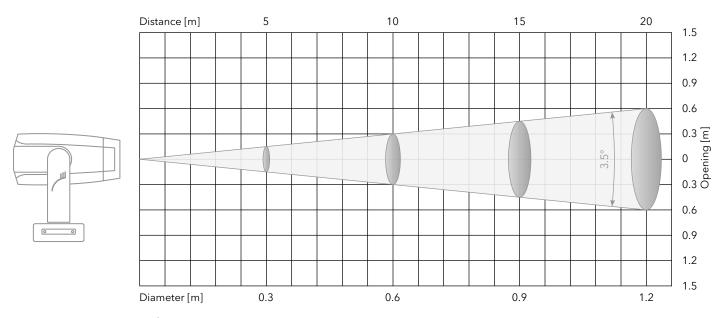
By using these features, you will achieve eye-catching animations and effects like clouds, rain, water, fire and more abstract morphing images.



# Photometric report

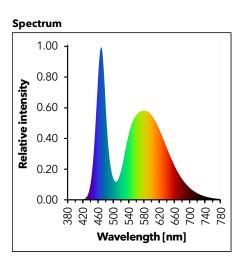
# Beam angle 3.5° - Min. zoom - CRI 70

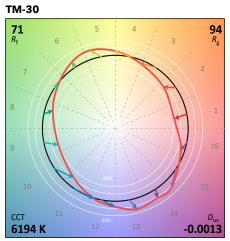
Beam angle	Total lumen output (integrating sphere)	<b>Total lumen output</b> (goniophotometer)	Peak candela	Power
3.5°	23056 lm	21958 lm	8377525 cd	1085 W

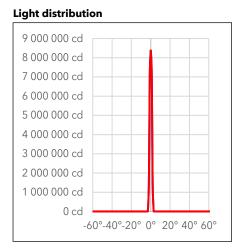


#### Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	335101/31132	83775/7783	37233/3459	20944/1946	9308/865	5236/486	3351/311	21958
Auto Fan Mode	332649/30904	83162/7726	36961/3434	20791/1932	9240/858	5198/483	3326/309	21797
Quiet Fan Mode	213753/19858	53438/4965	23750/2206	13360/1241	5938/552	3340/310	2138/199	14006







Color temperature	CCT*	6194 K
Color Deviation from Black	Duv	-0.0013
Color Coordinate CIE 1931	х	0.3188
Color Coordinate Cit. 1731	у	0.3261
Color Coordinate	u	0.2032
Color Coordinate	V	0.3118

Color rendering index	CRI	72
Red component	CRI R9	-27
Color fidelity	TM30 Rf	71
Color gamut	TM30 Rg	94
Television consistency Index	TLCI	45

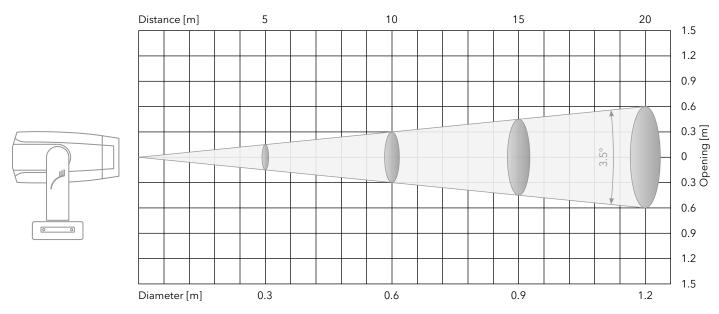
<sup>\*</sup>CCT measured in integrating sphere



# Photometric report

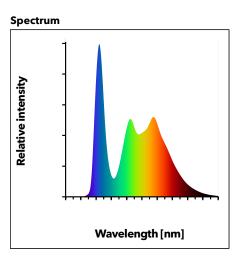
# Beam angle 3.5° - Min. zoom - CRI 80

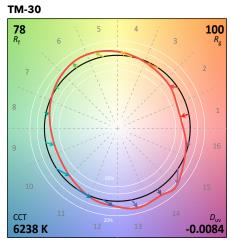
Beam angle	Total lumen output (integrating sphere)	Total lumen output	Peak candela	Power
3.5°	18157 lm	17292 lm	6597475 cd	1085 W

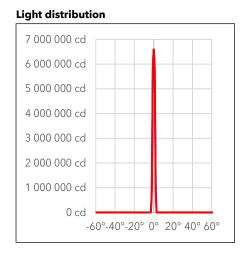


#### Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	263899/24517	65975/6129	29322/2724	16494/1532	7331/681	4123/383	2639/245	17292
Auto Fan Mode	261968/24338	65492/6084	29108/2704	16373/1521	7277/676	4093/380	2620/243	17166
Quiet Fan Mode	168335/15639	42084/3910	18704/1738	10521/977	4676/434	2630/244	1683/156	11030







7/10

Color temperature	CCT*	6238 K
Color Deviation from Black	Duv	-0.0084
Color Coordinate CIE 1931	x	0.3192
Color Coordinate CIL 1731	у	0.3135
Color Coordinate	u	0.2085
Color Coordinate	v	0.3072

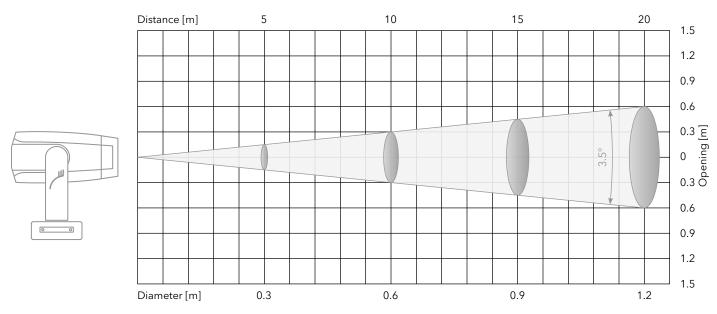
Color rendering index	CRI	83
Red component	CRI R9	16
Color fidelity	TM30 Rf	78
Color gamut	TM30 Rg	100
Television consistency Index	TLCI	61

<sup>\*</sup>CCT measured in integrating sphere

# Photometric report

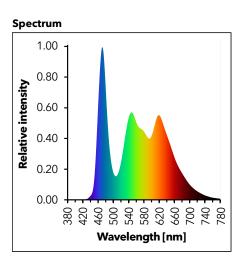
# Beam angle 3.5° - Min. zoom - CRI 90

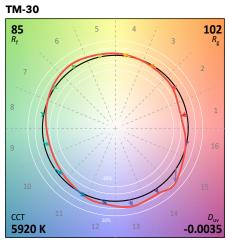
Beam angle	Total lumen output (integrating sphere)	<b>Total lumen output</b> (goniophotometer)	Peak candela	Power
3.5°	19399 lm	18475 lm	5871275 cd	1085 W

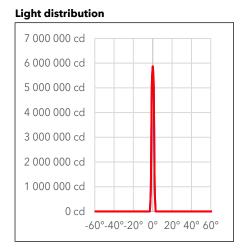


#### Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	234851/21818	58713/5455	26095/2424	14678/1364	6524/606	3670/341	2349/218	18475
Auto Fan Mode	233133/21659	58283/5415	25904/2407	14571/1354	6476/602	3643/338	2331/217	18340
Quiet Fan Mode	149806/13917	37452/3479	16645/1546	9363/870	4161/387	2341/217	1498/139	11785







Color temperature	CCT*	5920 K
Color Deviation from Black	Duv	-0.0035
Color Coordinate CIE 1931	x	0.3239
Color Coordinate CIL 1731	у	0.3267
Color Coordinate	u	0.2066
Color Coordinate	v	0.3125

Color rendering index	CRI	88
Red component	CRI R9	39
Color fidelity	TM30 Rf	85
Color gamut	TM30 Rg	102
Television consistency Index	TLCI	77

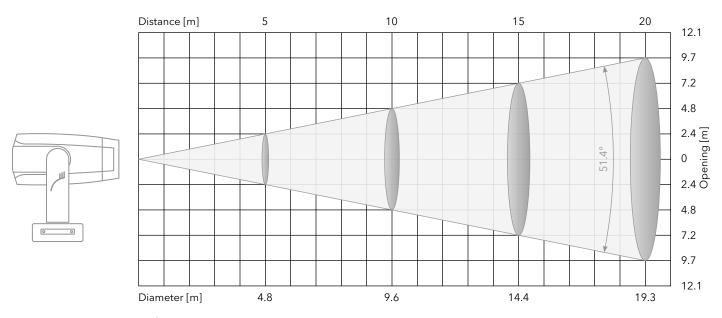
<sup>\*</sup>CCT measured in integrating sphere



# Photometric report

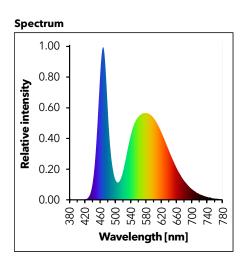
# Field angle 51.4° - Max. zoom - CRI 70

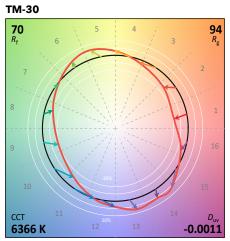
Field angle	Total lumen output (integrating sphere)	<b>Total lumen output</b> (goniophotometer)	Peak candela	Power
51.4°	52985 lm	42388 lm	92300 cd	1187 W

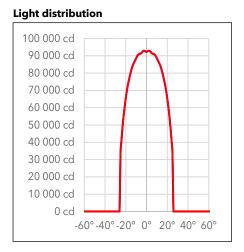


#### Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	3692/343	923/86	410/38	231/21	103/10	58/5	37/3.4	42388
Auto Fan Mode	3665/340	916/85	407/38	229/21	102/9	57/5	37/3.4	42078
Quiet Fan Mode	2355/219	589/55	262/24	147/14	65/6	37/3.4	24/2.2	27038







Color temperature	CCT*	6366 K
Color Deviation from Black	Duv	-0.0011
Color Coordinate CIE 1931	x	0.3159
Color Coordinate CIL 1731	у	0.3238
Color Coordinate	u	0.2020
Color Coordinate	v	0.3107

Color rendering index	CRI	71
Red component	CRI R9	-29
Color fidelity	TM30 Rf	70
Color gamut	TM30 Rg	94
Television consistency Index	TLCI	44

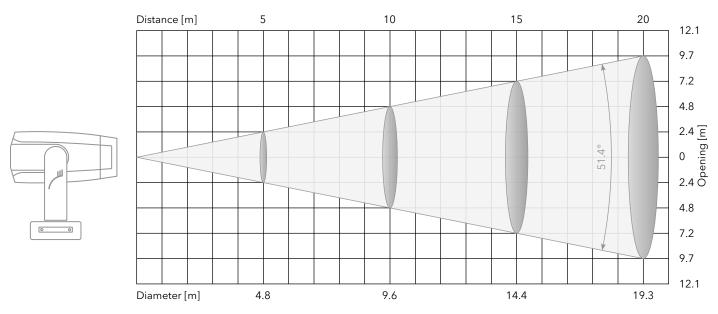
<sup>\*</sup>CCT measured in integrating sphere



# Photometric report

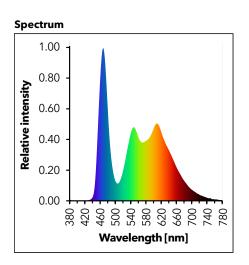
# Field angle 51.4° - Max. zoom - CRI 80

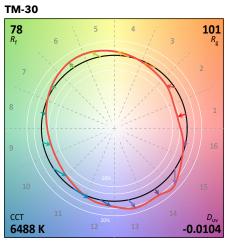
Field angle	Total lumen output (integrating sphere)	<b>Total lumen output</b> (goniophotometer)	Peak candela	Power
51.4°	41336 lm	33069 lm	72000 cd	1187 W

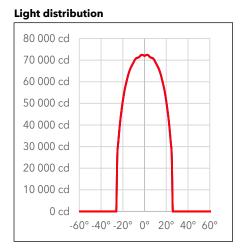


#### Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	2880/268	720/67	320/30	180/17	80/7	45/4.2	29/2.7	33069
Auto Fan Mode	2859/266	715/66	318/30	179/17	79/7	45/4.2	29/2.7	32827
Quiet Fan Mode	1824/169	456/42	203/19	114/11	51/4.7	29/2.6	18/1.7	20944







Color temperature	CCT*	6488 K
Color Deviation from Black	Duv	-0.0104
Color Coordinate CIE 1931	x	0.3160
Color Coordinate CIE 1731	у	0.3069
Color Coordinate	u	0.2089
Color Coordinate	V	0.3043

Color rendering index	CRI	83
Red component	CRI R9	18
Color fidelity	TM30 Rf	78
Color gamut	TM30 Rg	101
Television consistency Index	TLCI	60

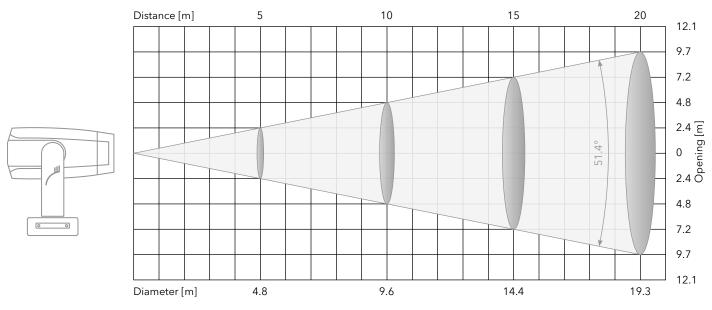
<sup>\*</sup>CCT measured in integrating sphere



# Photometric report

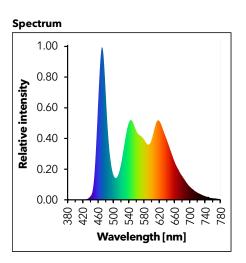
# Field angle 51.4° - Max. zoom - CRI 90

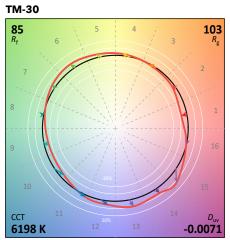
Field angle	Total lumen output (integrating sphere)	<b>Total lumen output</b> (goniophotometer)	Peak candela	Power
51.4°	36191 lm	28953 lm	63025 cd	1187 W

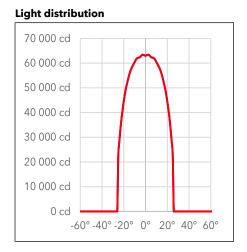


#### Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	2521/234	630/59	280/26	158/15	70/7	39/3.7	25/2.3	28953
Auto Fan Mode	2503/233	626/58	278/26	156/15	70/6	39/3.6	25/2.3	28741
Quiet Fan Mode	1597/148	399/37	177/16	100/9	44/4.1	25/2.3	16/1.5	18341







Color temperature	CCT*	6198 K
Color Deviation from Black	Duv	-0.0071
Color Coordinate CIE 1931	х	0.3197
Color Coordinate CIL 1731	у	0.3163
Color Coordinate	u	0.2077
Color Coordinate	v	0.3083

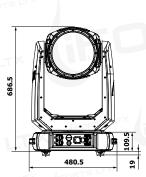
Color rendering index	CRI	89
Red component	CRI R9	45
Color fidelity	TM30 Rf	85
Color gamut	TM30 Rg	103
Television consistency Index	TLCI	76

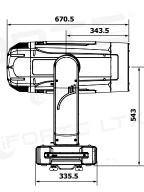
<sup>\*</sup>CCT measured in integrating sphere

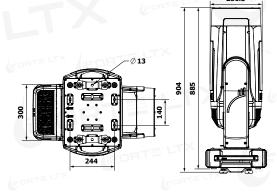




















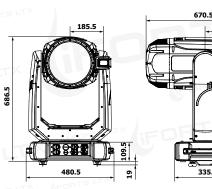


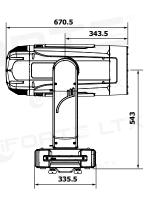


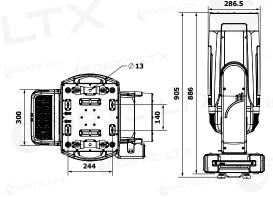


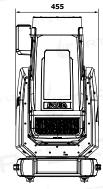
























# FORTE LTX F5 TRANSFERABLE ENGINE



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