NEW PROFESSIONAL CONTENDER

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The history of the Fresnel lamp reveals it to have been one of the most successful of designs, with the Fresnel lens invented just over 200 years ago in 1822 by French physicist Augustin Fresnel. Originally, they were mainly used in lighthouses and are often still in use today in many places, such as theatres, that require the wash light over a particular area.

The design was adopted by early filmmakers to create Fresnel lighting fixtures, with sizes between 2-inches for a 150W Tungsten lamp to 24.6-inches for 24,000W heads. The design consists of a stepped lens with concentric circles, and meaning the fixture can be focused with a soft edge on the beam of light. It also means the fixture can be kept at a lower weight due to the lens having thinner glass in the centre.

This works well when the source light is small, as the light is easier to focus. The iconic Brute utilised carbon arcs, where the spark crossed the air gap creating a tiny point source of high intensity daylight balanced light with a great deal of punch. The Brute was phased out a few decades ago now, of course, as it had limitations for today's photographic needs. In many ways it was a 'Space Shuttle' or 'Concorde' of its time, when we had brilliant inventions, yet had nothing else to match the output when it was deemed unsuitable. In some ways the technology went backwards. More on that another day.

Fast forward to today, and we now have many soft LED lighting fixtures offering a much wider control of colour management, lighting intensity and overall control, long with lower heat output and much less power draw. This makes the LED the fixture-of-choice for many applications where a soft light is required.

There are many LED panel lights on the market now, and they have all become very sophisticated, yet they cannot create a focussed beam of light like a Fresnel fixture, of course. That was the ultimate 'Holy Grail' in film lighting for many years, as the technical challenges are immense. It is relatively easy to create a soft LED panel light, yet when it comes to making an LED Fresnel type fixture it starts to get quite difficult.

One of the many challenges is the size of the chipset needed to create the colour mixing control with many colour variations. By their nature they need separate LEDs for each colour, all ideally in the exact sweet spot of the focus for the lens. This has been extremely challenging technically.

Enter the Aputure ElectroStorm XT26!

The Aputure ElectroStorm XT26, paired with the F14 Fresnel electronic modifier, represents a significant leap in professional lighting, particularly for filmmakers seeking high-performance and versatile lighting solutions. Aputure has positioned the ElectroStorm XT26 as a competitor to industry stalwarts such as ARRI, a very high bar to match.

Overview

The ElectroStorm XT26 is a high-output LED light designed to provide powerful and consistent illumination in a variety of settings. The head features a COB (chip-on-board) LED, with a chipset to produce accurate colour throughout its variable bi-colour range from 2,700K to 6,500K, and this allows for a bright, concentrated beam. The unit packs 2,600 Watts of intense output. Aputure states the Electro Storm XT26 approaches the brightness of industry-standard 12,000W Tungsten Fresnels and 4,000W HMIs, making it one of the most powerful point-source LEDs on the market to date.

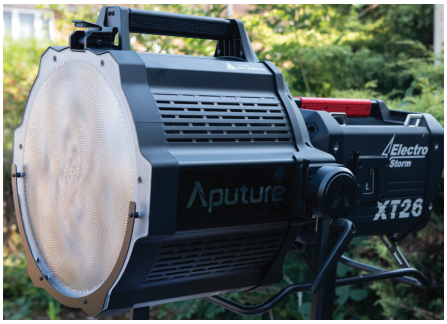
Key features

A redesigned heatsink with advanced liquid-cooling technology in one highlight. LEDs generate heat and cooling is needed, although nowhere near that of a comparable light-output fixture. There is a fan installed below the unit with three settings between silent (30dB) to high-speed mode at 60.5dB.

Then there is an interesting removable heavy-duty yoke with positive V-shaped connections. This can be removed for better ergonomics, or it can now be used with the new (optional) motorised yoke that allows smooth remote operation of pan and tilt adjustments when suspended or rigged in hard-to-reach areas. Many other heads would require a separate large remote head unit, so that's an interesting feature.

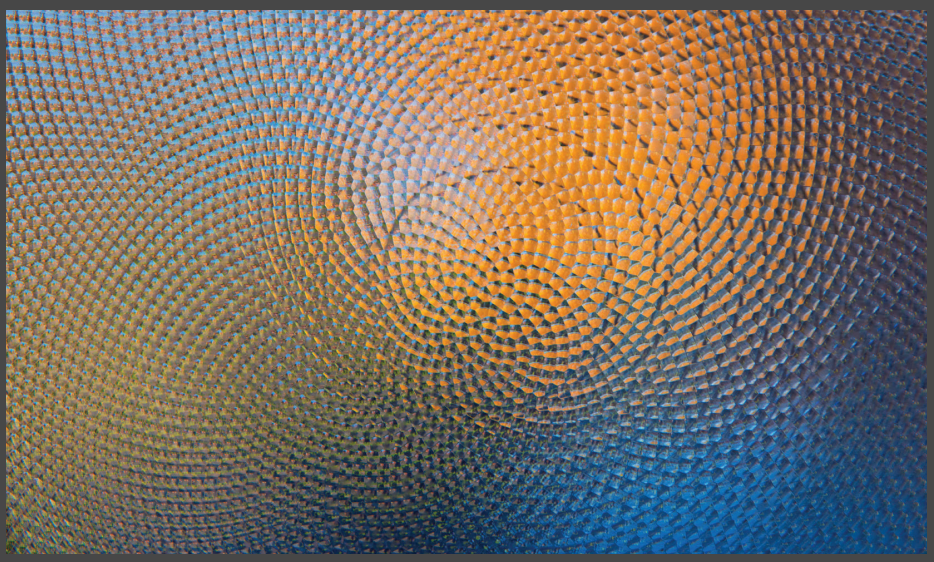
> **"Aputure has a reputation for solid build quality... and the XT26 is no exception"**

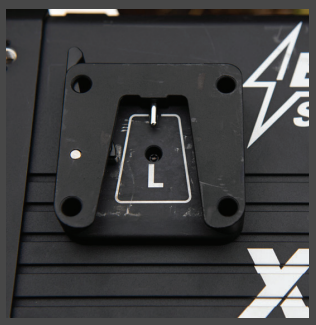
Aputure has also been busy creating a new accessory mount. The A-Mount features both the universal Bowens mount and an all-new electronic A-Mount, making it very adaptable. The A-Mount



Images: Photos by John Keedwell.

> "A strong feature-set provides good value for the price"





compatible with A-Mount Reflectors (20º / 35º / 50º) and the new 14-inch F14 Fresnel. A-Mount communicates data for both optimised colour accuracy and motorised focus control, along with higher stability, durability, and optimisation for heavy-duty modifiers.

F14 Fresnel

The chipset on the XT26 is 3-inches (75mm in diameter), still quite a large light source to focus compared to HMI or Tungsten lamps. Due to the laws of physics on focussing I mention at the start, a Fresnel type lens needs to be utilised for effective control. The Fresnel lens is unlike the traditional concentric circle lens Fresnel lenses, and has a overlapping concentric circles effect. This makes the lens much thinner and lighter.

Use cases

- **Film & Television**: the XT26's powerful output and versatility make it suitable for use as a key light, fill light, or even a backlight in film and television production. The ability to focus the light using the F14 Fresnel makes it ideal for creating dramatic effects, such as strong highlights or controlled shadows.
- **Photography**: for photographers, the XT26 and F14 combination offers the flexibility to shape and control light with precision. It can be used for portrait photography, fashion shoots, and even product photography.
- **Live Events**: the robust output and durability of the XT26 make it suitable for use in live events, concerts, and theatrical productions. The Fresnel attachment allows for a range of lighting effects, from broad washes of light to tight spotlights.
- **Studio Work**: In a controlled studio environment, the XT26 and F14 Fresnel provide reliable, consistent lighting that can be easily adjusted to fit the needs of the shoot. Whether used in a small photography studio or a large film set, the combination offers versatility and control.

Advantages of the Aputure ElectroStorm XT26 and F14 Fresnel

- **High Output**: the XT26 is a powerful light, capable of producing significant lumens, making it suitable for both small and large-scale productions. This high output is particularly beneficial when shooting in environments with high ambient light or when a strong key light is needed.
- **Versatility**: with the F14 Fresnel, the XT26 can produce a wide range of lighting effects. The beam can be easily focused or spread, providing flexibility that is essential in dynamic shooting environments.
- **Build Quality & Portability**: Aputure has a reputation for solid build quality, and the XT26 is no exception. It's durable enough for fieldwork but still lightweight and portable, making it easy to transport and set up.
- **Advanced Features**: the XT26 comes with features like wireless control, colour temperature adjustments, and nine effects modes, offering a level of control and customisation that's essential for professional work.

Disadvantages Compared to Other Manufacturers

- **Colour Accuracy**: While the XT26 offers good colour accuracy, some users may find that it does not match the precision of ARRI's high-end lights, which are known for their impeccable colour rendering and consistency. This difference, while subtle, can be crucial in high-end productions where exact colour reproduction is necessary.
- **Heat Management**: although LED lights generally run cooler than traditional tungsten lights, the XT26 can still produce a significant amount of heat at high output levels. This might require additional cooling measures in prolonged shoots, whereas some higher-end models like ARRI lights have more advanced cooling systems.
- **Beam Quality**: the XT26 with the F14 Fresnel produces a strong, focused beam of light, but it may not be as smooth or refined as the light from an ARRI Fresnel. ARRI's lenses and optics are industry-leading, offering a beam quality that is difficult to match. For productions where beam quality is paramount, the XT26 might fall slightly short.
- **Limited Ecosystem**: ARRI offers an extensive ecosystem of lighting accessories, controls, and modifiers that are well-integrated and widely supported in the industry. While Aputure has a growing range of accessories, it still lacks the extensive ecosystem that ARRI provides, which could be a limitation for some users.

Comparison to ARRI

When comparing the Aputure ElectroStorm XT26 to a similar ARRI product, such as the ARRI L7-C Fresnel, a few key differences stand out:

- **Cost**: the ARRI L7-C is significantly less expensive than the Aputure XT26, at around five times the price when kitted-out with the F14 Fresnel, making ARRI the more accessible and cost-effective option.
- **Beam Quality**: ARRI Fresnels are renowned for their beam quality, smoothness, and precise control, which may be slightly better than the XT26. However, the best way to check for yourself is by testing side-by-side in a studio, and see what you prefer.
- **Colour Accuracy**: the colour accuracy is very similar, crucial for high-end film and television work. The ARRI L7-C has a colour range between 2,800K -10,000K with a TLCI that is better than 96 between 3,200K to 6,500K. The XT26 has a lower colour range between 2,700K-6,500K, with an TLCI of 98.
- **IP Rating**: the Aputure XT26 has an impressive higher weather/dust IP rating of IP65 compared to the lower IP20 of the ARRI L7-C.
- **Versatility & Features**: the XT26 offers a strong feature set with wireless control and effects modes, providing good value for the price, though ARRI lights may offer more advanced features and better integration with professional lighting systems. Again, it would be best to test for yourself.

How good is the light beam?

The beam of light produced by the Aputure XT26 paired with the F14 Fresnel is highly-usable for a variety of professional applications. The Fresnel lens allows for smooth beam shaping, offering a good balance of focus and softness. The XT26's beam is bright and can be finely adjusted, but in terms of sheer optical quality, ARRI remains the gold standard in the industry. Compared to high-end ARRI Fresnels, the beam quality might lack the same level of refinement.

Conclusion

While it potentially may not fully-match the beam quality and colour accuracy of top-tier ARRI lights, the XT26 is a highly-capable tool. For filmmakers, photographers and studios, the XT26 has a higher cost, yet represents an excellent choice in providing professional-level lighting.

They have done a great job with the F14 Fresnel modifier, and this combination offers a compelling package for professionals looking for a versatile, high-output lighting solution. Overall, the XT26 stands-out for its advanced features and robust build quality, making it a strong contender in the market.

> "It represents an excellent choice for professional-level lighting"