What is Orbiter?

Orbiter is an ultra-bright, tunable, and directional LED fixture from ARRI. All systems in Orbiter are completely new and designed with versatility in mind. Orbiter’s new six-color light engine delivers a wide color gamut and outstanding color rendition across all color temperatures along with industry-leading, smooth dimming from 100% to 0%. With its changeable optics, Orbiter can transform into many different types of lampheads including projection (profile), open face, soft light, and other future possibilities. Orbiter’s state-of-the-art technology and versatile design make it an optimal lamphead for today and for the future with endless possibilities for updates, configurations, and enhancements.
A Wide Variety of Changeable Optics

Changeable optics is the core innovation in Orbiter. With a wide variety of optics to choose from, Orbiter transforms into the perfect light for your application without sacrificing beam, output, or color equality. The Quick Lighting Mount (QLM) in Orbiter allows for optics with vastly different properties to be connected to the fixture.
ARRI Spectra
State-of-the-art, six-color LED light engine

ARRI is known for creating high-quality lighting products. With the new ARRI Spectra light engine in Orbiter, this commitment is being taken to the next level. Including a red, green, blue, amber, cyan, and lime LED, the ARRI Spectra six-color light engine translates into a wider color gamut, more accurate colors, and most importantly, higher color rendition across the entire CCT range.

Skin tones look amazing and natural. Hues are precisely reproduced and the increased gamut allows for 15% more colors to be created than previous ARRI light engines. Orbiter has a larger CCT range of 2,000 to 20,000 K with ultra-high color rendition across all color temperatures. This next generation in color control will open up new possibilities and produce better colors than ever before.
Orbiter is an extremely bright and powerful, directional LED fixture with an output similar to that of the corresponding HMI systems. Orbiter’s high, yet tunable, ARRI Spectra light engine output can create hard shadows with defined edges. This revolutionary light engine is 76 times smaller than the LED light engine but produces the same power draw and greater output. A dense arrangement of over 190 LEDs gives Orbiter a point-source-like aperture while maintaining full-color tunability with a new six-color LED mixture. These cutting-edge LEDs have never been used before in a luminaire and the arrangement creates a homogeneous color-beam field with amazing brightness.
Technology Unleashed
Fast, powerful, and full of possibilities

A new era of digital lighting is truly upon us. Orbiter is the most technologically advanced luminaire ever to be created for image capture while maintaining superior color fidelity.

With state-of-the-art electronics, Orbiter is able to perform more tasks than previous luminaires. Orbiter’s processor is four times faster than the SkyPanel and its processor is 125 times more memory, setting the stage for extensive software features and updates in the future.

Using a combination of three dimming techniques, Orbiter’s cutting-edge electronics provide smooth dimming down to zero without color changes or jumps.

All of this technology comes in a weatherproof housing which means Orbiter can be used outdoors in rain, snow, and other inclement weather.

Orbiter includes a lightweight internal power supply and a 3-pin XLR battery input for 48 V batteries.
Connectivity
Ready for today, prepared for tomorrow

Communication to and from a luminaire is crucial to create robust networks and dynamic control. Orbiter includes a full suite of input and output connectors which enable communication to the fixture in whatever way is required. With all these connectivity interfaces, Orbiter is not only ready for today’s state-of-the-art communication but is also prepared for whatever the future might bring.
Powerful Software
Packed with amazing features

Orbiter’s new software called LiOS (Lighting Operating System) includes all the innovative and groundbreaking features from SkyPanel plus others, making Orbiter one of the most fully-featured luminaires on the market. LiOS eight-color modes are available including CCT, HSI, Individual color, xy coordinates, gel, source matching, lighting effects, and the new color sensor mode which measures ambient light and allocates it through Orbiter’s output. Other new features in LiOS include simplified DMX modes, operational modes to optimize the fixture’s performance, over 240 slots for favorites to be stored, optics recognition, multi-language support, custom boot screen, and many more still to come.

Removable Control Panel
Easy to use, powerful control

Redesigned from the ground up, the Orbiter control panel is an evolutionary step in light fixture control. Including a 4” full-color display, quick navigation buttons, and integrated sensors, the Orbiter control panel allows for easy control with a graphic user interface. Simplified menu structure and reimagined user interfaces provide one-glance operational views and uncluttered screens. This intuitive design makes changing colors or finding a setting easier than ever before while still maintaining the powerful features Orbiter is known for. In addition, the control panel is removable and can be used handheld with the aid of a 5 or 15 m (16.4 or 49.2 ft) control panel cable.
**Integrated Color Sensor**

Measure ambient light directly on fixture

The new Color Sensor Mode in Orbiter will read the ambient color surrounding the fixture and reproduce the color with great accuracy. There are two measurement types: continuous and momentary. Continuous will constantly measure the ambient color and update the light output accordingly. Momentary will only take one measurement of the ambient color with the press of a button. This new color mode is perfect in situations where the light is changing. Orbiter can automatically adjust for color changes without any interaction.

**Full Suite of Sensors**

Generating more information for more control

A digital light of the future requires data. Orbiter is aware of the world around it with a variety of sensors that allow for advanced operations, smart automations, and a stream of metadata. Included in Orbiter is a color sensor for measuring the ambient light, a 3-axis accelerometer and magnetometer for sensing the pan, tilt, roll, and heading of the fixture, as well as heat sensors for keeping the LEDs and electronics at exactly the right temperature, and an ambient light sensor for automatically dimming the control panel display. All these sensors make for a better user experience and increased control over the fixture. Available data improve workflow also in post production and service.

- Color Sensor
- 3-Axis Accelerometer
- Heat Sensor
- Magnetometer
- Ambient Light Sensor
Broadcast & Media

Broadcasters now have a new tool to illuminate their studios and on-location setups. Orbiter’s projection optic will enable broadcasters to have controlled, high-quality light in the studio. In combination with the SkyPanel, Orbiter is the perfect companion to studio lighting. The open face optic or light-bank option provides either a precise directional output or a soft wrapping field of light. With its battery power, Orbiter can work on the move.

Motion Picture

Orbiter’s amazing output and versatility makes it the perfect directional light fixture for motion picture use. The ability to throw light long distances with open face or projector optics while at the same time being able to serve as a soft light brings the flexibility needed on today’s fast paced film sets. Given its sleek ergonomics and intuitive user interface, the new control panel enables easy handling and control of the luminaire on the fly. The software features and connectivity make Orbiter the ultimate companion for dynamic lighting setups.
The projection optic is the key feature for the theater and live entertainment market. With incredible output that is significantly brighter than comparable products, Orbiter incorporates all the elements needed for theater or live productions. The pristine beam quality creates a precise circle of light that can be shaped with gobos, cutters, and an iris. The ARRI Spectra light engine generates superior white light and a vast array of saturated or merely tinted colors.

The need for continuous lighting in still photography has never been greater and Orbiter fills a critical function in this workflow transition. Using the powerful features of the SkyPanel in Orbiter’s directional source, hard shadows are now attainable with countless color possibilities. Whether bouncing off a surface or pointed directly at the subject, Orbiter will give the output needed with beautiful color rendition. Octagonally shaped light banks convert the point light source into a soft light perfect for beauty shots, changing the light characteristics in just seconds.
Your Choice of Optics

The open face optics produce a high-output, directional beam of light in several different beam angles including 15°, 30°, and 60°. Perfect for throwing light long distances or providing a broad swath of light.

Two kinds of projection optics provide the desired output and quality. The projection optics contain high-end lenses to provide even illumination and color across the entire beam field for superior results. Fixed beam angles available are 15°, 25°, 35°. Wider angles might be added in future. The zoom projection optics allow for flexibility in all kinds of applications.

The dome optics are fabric spheres available in three different diameters – small (approx 0.25 m), medium (approx 0.5 m) and large (approx 0.9 m). The dome emits omnidirectional light, great for illuminating a large area with a beautiful, soft quality of light.

The light bank adapter creates a direct mounting point for Chimera and DoPchoice products. With easy attachment and no additional optical elements needed, the light bank adapter allows for a controlled soft light with amazing output.
Built to Last
Constructed with great care from durable materials

Made in Germany to the high standards for which all ARRI products are known, Orbiter is built to last – constructed from resilient materials and assembled by hand with great care. The combination of an aluminum core with fiberglass-reinforced thermoplastics results in a solid fixture that can withstand heavy daily use.

The electronics have been designed to last beyond a minimum of 25,000 hours, and to be easily serviceable. The LED light engine even allows for recalibration, further enhancing Orbiter’s credentials as a long-lasting, high-quality fixture. As with all ARRI products, a high return on investment is ensured by uncompromising engineering standards.
### Optical System
- **Orbiter**
- **Optical System**
- **Changeable optics**
- **Light Aperture**: 45 mm / 1.78”
- **Beam Angle**: 80° Half Peak Angle, without optics
- **Weight**:
  - Manual Version: approx. 15 kg / 33 lbs
  - Pole Op Version: approx. 16 kg / 37 lbs
- **Handling**:
  - Aluminum yoke with quick release, high strength tilt lock, pole operation option (pan and tilt)
- **Mounting**:
  - 28 mm Spigot (Junior Pin)
- **Tilt Angle**: ±90°
- **Voltage Input Range**: 100 - 260 V~, 50 - 60 Hz
- **Power Consumption**: 400 W Nominal, 500 W Maximum
- **Mains Power Connection**: powerCON TRUE1 TOP (Bare Ends / Schuko / Edison, Japanese, Chinese cables available)
- **Battery Connector**: 3-Pin XLR Connector
- **Battery DC Voltage Range**: 48 Volt
- **White Light**: 2,000 K to 20,000 K continuously variable correlated color temperature
- **Color Modes**: White color grade, SMDs (C, L, T), individual color, color selection, cyan balance, scene matching, lighting effects, and color sensor input
- **Color Temperature Tolerance**:
  - 3,200 to 5,600 K: ±100 K (nominal), ±1/8 Green-Magenta (nominal)
- **Color Rendition**:
  - CRI Average > 98
  - TLCI Average > 95
  - TM-30 Average > 94
- **Green-Magenta Adjustment**: Continuously adjustable (Full Minusgreen to Full Plusgreen)
- **Dimming**: Smooth, 100–0%, continuously
- **Connectivity**:
  - Removable Control Panel via PoE, 5-Pin DMX in and through, Ethernet in and through, 2 x USB-A, USB-C, SD Card, Sync Input, LumenRadio CRMX (DMX & RDM)
- **Remote Device Management (RDM)**
  - 50-2000 DMX standard supported with various 3rd party RDM commands
- **Housing Color**: Blue/silver, black
- **Ambient Temperature Operation**: -20 to +45º C (-4 to +113º F)
- **Protection Class / IP Rating**: I / weatherproof
- **Estimated LED Lifetime (L70)**: 50,000 hours
- **Estimated Color Shift Over Lifetime (CCT)**: ±5 %
- **Certifications**: pending: CE, CB, GS, cNRTLus, FCC, PSE

All specifications are preliminary typical values. Subject to change without notice.

This device has not yet been authorized by the rules of the Federal Communications Commission.

This device is not, and will not be, offered for sale or lease within the United States, until authorization is obtained.
Global service and support for an international industry

ARRI products are renowned all over the world for their precision and durability. Despite this, ARRI values the trust of its customers in after-sales service and support as highly as their trust in the equipment itself. With service centers covering the entire globe, we are never too far away to provide the support you need, wherever you might be.

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