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SeaChanger

Nemo Profile

Color-Changing Fixture

Reviewed by: Greg Persinger



The Nemo produces seamless color through the whole color spectrum without any distortion from the color wheels passing through the beam.

Anyone who knows me will tell you that I am a sucker for a good color changer; I believe they offer great bang for the buck. They will also tell you that I like using an ETC Source Four fixture for long throws and pattern projection, and of course, I like any fixture that has good color rendering, long lamp life and low power consumption. Normally you don't find all these features in one fixture—unless you are looking at a SeaChanger Nemo Profile.

The SeaChanger Nemo is the latest addition to the SeaChanger family of color-changing products and the first SeaChanger color-changing fixture to use the new LIFI plasma lamp instead of the standard HPL incandescent lamp used in previous models. However, just because the Nemo has a new lamp technology doesn't mean that it has deviated from its roots in the original SeaChanger.

Some things remain the same

The SeaChanger Nemo Profile still uses the front barrel and lens optics of the Electronic Theatre Controls (ETC) Source Four Ellipsoidal to make a fully functioning profile fixture, but changes out the back end with the SeaChanger color engine and the LIFI plasma lamp assembly. This means the Nemo profile is still compatible with all the standard ETC Source Four accessories such as Gobo holders and Gobos, Top hats, Iris kits, gel frames, and the like. Additionally there is a wash version of the Nemo that uses SeaChanger's own lens system and acts more like a PAR than a profile fixture. All of the features on the wash unit are the same as the profile except for the lens system.

As we have come to expect from SeaChanger, the Nemo is well-built from machined aluminum with precision glass optical lenses and glass color mixing vanes all manufactured to very precise tolerances in Ocean Thin Film's (SeaChanger's parent company's) manufacturing plant.

Setup is straightforward. You install the Nemo Profile by adding an ETC Source Four Ellipsoidal barrel and lens to the main body of the fixture, add a connector to the power cable and a clamp to the yoke, plug it in and set the DMX address on the membrane keypad.

company: **SeaChanger**

product(s): **Nemo Profile Color-Changing Fixture**

phone: **(727) 545-0741**

website: **www.seachangeronline.com**

suggested retail price: **\$3,700**

LIGHTING REVIEW

[Expect] 14 years of lamp life when the LIFI lamp is run 20 hours a week.

Color Changing

The Nemo continues in the footsteps of the previous SeaChanger with its high-quality color mixing provided by cyan, magenta, and yellow color wheels. Even trading the extreme green wheel out for a mechanical dimmer doesn't affect the color mixing of the Nemo, as the wheels have been optimized to the lamp source.

The Nemo produces seamless color through the whole color spectrum without any distortion from the color wheels passing through the beam. From saturated blues and reds, to light pinks and lavenders, the Nemo doesn't disappoint and maintains the color quality we have come to expect from a SeaChanger.

The LIFI Lamp

The plasma lamp in the Nemo is a new solid-state high intensity light source made by Luxim of Sunnyvale, Calif. Branded as LIFI, Luxim's name for the new plasma technology, it gives a higher light output, better color rendering, longer lamp life, and is very energy-efficient.

The LIFI system creates light by using a bulb, about the size of a Tic Tac breath mint, filled with a special mix of gases and embedded in an RF emitter. Connected to the RF emitter is an RF driver powered by a power supply. When powered, the RF driver pushes a high concentration of energy into the emitter, which, in turn, guides the energy into the bulb. The energy that is being driven into the bulb causes the contents of the bulb to vaporize into a plasma state and this plasma state produces a very intense source of light.

Since the bulb is so small and the area of energy is highly focused, the lamp is

very efficient with minimal light losses. Since there is no filament or electrodes to degrade, the lamp life is very high, 15,000 hours for the LIFI compared to 1,500 hours for a long life 750 Watt HPL lamp in a tungsten version of the SeaChanger. That's approximately 14 years of lamp life when the LIFI lamp is run 20 hours a week.

Additionally the Nemo's LIFI lamp uses 320 Watts of power with a light output of 10,000 lumens, which is higher than the output of a 750 HPL incandescent lamp, placing the Nemo's energy efficiency at about 30 delivered lumens per watt. This is about twice as efficient as the typical LED wash fixture and one third more efficient than the standard ETC Source Four Ellipsoidal with a 750-watt lamp.

The LIFI plasma lamp does have a higher color temperature and looks more blue than an incandescent lamp, similar to an arc lamp, but it has good color rendering with a CRI of 92 and, combined with the Nemo and Source Four optics, the field is very flat and even.

Control

The Nemo uses six channels of DMX for control: One channel for each of the three color wheels, one channel for the dimmer wheel, one channel for lamp dimming, and one channel for lamp on and off.

Since the LIFI lamp is always on, similar to an arc lamp, the Nemo requires a mechanical dimming wheel to dim. In addition to the mechanical dimmer wheel, the LIFI lamp can be dimmed with its on-board electronics from full to 20%, which saves both lamp life and energy. Additionally the lamp can be turned off and on remotely via DMX.

While the color and dimming wheels in the Nemo are fast, taking about one second to go from full open to full saturation, changes will not be instantaneous. This probably isn't a big deal with color mixing, but you might notice it if you are trying to do a dead blackout. If it's not fast enough for your application, there is optional software for the Nemo that makes bumps and dead blackouts possible.

Purchasing Advice

The Nemo Profile is a very solid unit and worth the investment if you have the need for it.

The Nemo does have a fan in its LIFI power supply so it is not completely silent like the original SeaChanger but it is not terribly loud. If you need what the Nemo has to offer, you can overlook the fan noise.

Also be sure to buy the optional 16-inch extended yoke for the unit, as the color engine and the LIFI power supply add additional height to the fixture, causing the unit to hit the standard yoke pretty quickly as you focus. I feel the stock 12-inch yoke doesn't give you enough tilt angle to focus and that the Nemo should come with the 16-inch extended yoke as a standard item.

With a manufacturer's suggested retail price (MSRP) of \$3,700, Nemo isn't going to be for everyone, but it is a great investment when you need a high-quality color-changing fixture with a low wattage and a long life lamp that has punch.

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