

# CASE STUDY: QolorFLEX Dimmers, LED Tape & Multiverse Wireless DMX



### PROJECT SNAPSHOT

Project Name:

Location: Installation Completion: Lighting Package: Lighting Designer/System Integrator: Lighting Installer: Theater General Manager: Theater Technical Lead: Donors/Grant Organizations: City Theatrical Solution(s):

LED Tape and Wireless DMX Dimming **Control at Peery's Egyptian Theater** Ogden, Utah March 2021 Barbizon, Denver, Colorado

Braden Howard, Barbizon Paul Clough, CR Lighting and Electric Kassi Bybee Theater Operations Manager: Mikenzee "Howie" Heidrich Hayden Wadsworth Dr. Ezekiel R and Edna Wattis Dumke Foundation



Peery's Egyptian

Theater is an historic, architectural jewel in the heart of Ogden,

Utah. This 1924-built, 830-seat theater accommodates live theater, dance, choral, symphonic and multimedia performances as well as film. Peery's Egyptian Theater is also a screening venue for the Sundance Film Festival.

23 QolorFLEX<sup>®</sup> 5x2.5A 900MHz/2.4GHz Multiverse Dimmers (P/N 5942), Custom harnesses, 8 reels of QolorFLEX 5-in-1 LED Tape, Multiverse® Transmitter 900MHz/2.4GHz (P/N 5910)

## CHALLENGES

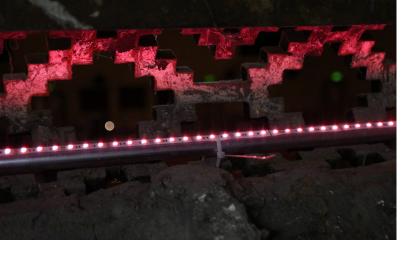
As part of a lighting renovation project at Peery's Egyptian Theater in Ogden, Utah, the design and installation teams were looking to install a reliable wireless DMX system that would allow them to add DMX controllable fixtures. like LED Tape, in locations otherwise impossible to run a wired DMX system. This included faux windows, wall accent grills, and the proscenium grill, all historical details which were originally run with multiple circuits that had three different 2.4 kW dimmers, one for each colored bulb, red, orange, or blue. The team sought a cohesive LED Tape and dimmer solution that could provide versatile, color-changing LED tape accents with robust wireless DMX dimming at low ends of the dimming curve. The ideal LED tape would be similar to the theater's original color accent system, but provide brighter light and more color control.

## SOLUTION

The team used 23 QolorFLEX 5x2.5A Multiverse 900MHz/2.4GHz Dimmers and one Multiverse Transmitter 900MHz/2.4GHz to provide wireless DMX dimming control for 8 reels of QolorFLEX 5-in-1 LED Tape in RGB + Amber + Warm White, which were installed over custom harnesses, to realize their vision of wirelessly controlled LED accent lighting throughout the theater.

## "QolorFLEX and Multiverse products were chosen due to the nature of utilizing a system of components that are cohesive and known to work well together."

- Hayden Wadsworth, Theater Technical Lead. Peery's Egyptian Theater









#### LED TAPE ACCENT & EFFECT LIGHTING

The plan for the new accent light system at Peery's Egyptian Theater was to use it for the many upcoming Broadway-style shows and upcoming events. The main purpose of it is to light up the accents of the theater with beautiful backlighting, but it could also be used to theme or add special effects, whether it's themed lighting for corporate or collegiate events during seating, or audience-interactive lighting actions with surrounding effects that would expand the performing area. For example, the new accent lighting would offer lighting designers for upcoming shows opportunities to create lightning effects like flashes, or to portray magic, and more, based on their creative intent.

The QolorFLEX 5-in-1 RGBAWW LED Tape was installed on pieces of conduit as attachment points in the areas of the faux windows, wall accent grills, and proscenium grill. The LED tape provided rich red and amber colors, similar to the original accent lighting of the theater, but with greater brightness and color-mixing and dimming control.

"The QolorFLEX 5x2.5A Multiverse Dimmers work well together and have an incredible response time to commands from our control consoles. The QolorFLEX 5-in-1 LED Tape has a powerful red and amber color. We are excited to bring this forward to our future shows and the capabilities we will have with this system of light."

- Hayden Wadsworth, Theater Technical Lead, Peery's Egyptian Theater



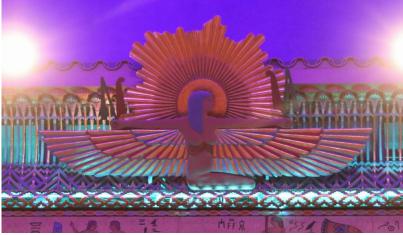
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#### **DUAL BAND WIRELESS DMX**

To broadcast wireless DMX, one Multiverse Transmitter was installed in the proscenium archway on a ledge behind the proscenium grill. This location was selected because it is central within the space and a direct broadcast point.

The installation team opted to use both 2.4GHz and 900MHz bands for the wireless DMX broadcasts to the QolorFLEX 5x2.5A Multiverse Dimmers, depending on the location of installation. The wall accent grills proved to work effectively as Faraday Cages, or enclosures used to block electromagnetic fields, and were challenging locations to reach with wireless DMX signals. Their solution became using both the 900MHz and 2.4GHz bands to broadcast to the dimmers for the faux window and wall accent grill LED tape lighting.

"In the opinion of much of the team taking on this project, City Theatrical is the industry leader of wireless DMX. Our prior experience using SHoW Baby devices has shown reliability and responsive wireless DMX, and dual band Multiverse technology was our perfect solution for this installation."

- Hayden Wadsworth, Theater Technical Lead, Peery's Egyptian Theater

Learn more about QolorFLEX 5x2.5A Multiverse Dimmers, QolorFLEX 5-in-1 LED Tape, Multiverse Transmitter, and City Theatrical's custom manufacturing.





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