

Dallas, USA - Caruth Auditorium, a beautiful concert hall at the heart of Southern Methodist University's Meadows School of the Arts, is enjoying the benefits of a new stage lighting upgrade from Vari-Lite and Strand. The system, which includes power-saving LED technology and a flexible power and control solution, was specified by leading theater planning consultancy Schuler Shook and installed by Batts Audio, Video, and Lighting.

The 490-seat venue hosts recitals and symphonic and choral concerts, as well as serving as a teaching space. It is also home to the grand C.B. Fisk Opus 101 pipe organ, which forms an ornate backdrop to the performance area.

"We wanted a system that could function for live events, and provide a good, flat field for televised events," says Steve Woods, head of the Meadows School's Master of Fine Arts Stage Design program. "The lighting needed to deliver a quality white light, but also to transform the stage and auditorium with color when needed. We wanted the auditorium lighting to visually enhance the sonic content and give the audience an immersive experience."

The Schuler Shook team, led by Jack Hagler, with theater specialist Jean Gonzalez-Hill, worked closely with Woods on the specification. From the outset, it was clear that the existing tungsten source lighting would be replaced with an entirely LED system. However, in a venue with such finely-tuned acoustics, power efficiency was not the only consideration.

"Our main requirement was silence from the lighting fixtures," says Woods. "The original system used PAR 64 fixtures, which

when dimmed can make popping sounds as the metal cools, while tungsten fixtures can also produce filament noise."

Meeting these noise level limits was the project's biggest challenge, says Gonzalez-Hill. "Avoiding fixture noise was paramount . . . We worked closely with Strand to find solutions that could work with the sensitive acoustic nature of the room, and provide the required lighting levels. The acoustic requirements meant we could not use LED ellipsoidal fixtures currently on the market as front light."

The solution was to use 25 Strand 200F LED FRESNEL fixtures for front-light, a choice made viable by Strand's new fanless mode which is 6dB quieter, thus preserving the hall's extremely low noise level. Another 12 200F fixtures are used to provide white down-light over the performance platform. Here, it was vital to deliver a minimum 90 foot-candles of illumination for the orchestra, as their music stands do not carry their own lights. "The 200F FRESNELs provide a soft, smooth field of light," says Woods.

Providing a color changing wash for the performance area, plus additional white light where needed, are 12 convection-cooled Vari-Lite SL PUNCHLITE 220s, chosen for their silent operation. Strand SPX LED WW ellipsoidal fixtures, with their secure locking shutter system, deliver a precise down-light on the pipe organ, while colorful uplight options come from five Vari-Lite SL BAR 660 color changing LED fixtures, which offer quiet operation in Studio Mode.

The auditorium now has superior lighting results, with fewer fixtures, a consistent lumen output, and lower energy



consumption. Given the projected longevity of the LED equipment, SMU should expect to see even greater savings in maintenance and labor, and the lamp replacement cost has disappeared. Caruth is engaged for 300 days in the year, and the new LED system removes the daily burden of replacing burned-out lamps and color.

Reflecting Caruth's range of uses, from classroom to professional recital space, the control system specification called for a solution that could be pre-programmed with various standard looks, while also being capable of running a fully busked or designed show. Gonzalez-Hill specified two 12-circuit Strand RELAYRACK panels for reliable power circuit switching, and a Strand VISION. NET system offering remote touchscreen access to presets and controls.

Touchscreens are located backstage left and right, while a third touchscreen can be brought into the space if needed for easy programming or focus calls. "With the backstage system we are able to program a variety of rehearsal looks," says Woods. "In the past, every light in the space would be turned on in the morning and off late at night. Now only the fixtures needed are engaged."

"The end result is great, a much brighter room with a lower heat load, reduced power load, and greatly reduced maintenance costs," says Gonzalez-Hill. "The color-changing fixtures provide the team with capabilities they didn't have before the renovation, and the system is simple enough for everyone to use without a large amount of training."

Woods concludes, "Once the new system was in place and operational, I saw nothing but smiles." ■

PRODUCTS FEATURED: STRAND 200F LED FRESNELS SL PUNCHLITE 220 STRAND SPX LED WW SL BAR 660

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CONSULTANT/INSTALLER: Schuler Shook

LIGHTING APPLICATION: EDUCATION