

Getting the Lighting Right For A School's Multi-Purpose Hall

Providing a cost-effective stage lighting rig that is flexible enough to handle the wildly varying performances and events a typical school multi-purpose hall can stage is a challenge. Providing one that is cost-effective, versatile and looks both exciting and modern might seem like a big ask in a budget-conscious installation. In this article we're going to examine how to choose appropriate theatrical luminaires that can drastically improve your venue's lighting, without going overboard on luminaires.

What Does Lighting Add, Anyway?

Getting the lighting right can make an enormous difference to a performance. At its most basic, it allows us to illuminate the performers, whilst giving us the control to hide stuff we don't want the audience to see. But there's so much more to it than that. By merely changing from one coloured wash to another, you can instantly change the location and time of day without moving a single piece of set. It goes further, with variation in the colour and lighting angles, you can enhance the drama of a scene by suggesting motives, emotion and intention. Lighting is a subtle art – at its best, the audience should be completely unaware of its presence, despite it constantly guiding the audience on where to look, and what to think.

Anatomy of a Lighting Rig

Just like anything else, a typical lighting rig is made up of many different parts, all working together to make a cohesive whole. There are many different types of luminaires, all with their own strengths and weaknesses. Some luminaires are there to provide the vital job of illuminating the stage. Others are there to help provide that extra visual flourish that makes the difference between a flat stage, and one that's visually interesting and emotive. In our typical setup here, we're going to look at the major components: the front light, the back light, the beam lights, the specials, and the gobo breakups. We're going to look at their purpose, and the lamp choices that go along with each task.

For the luminaires covering the overall stage wash, it is common practice to divide the stage up into discrete areas. Areas overlap somewhat with each other (to provide one cohesive wash should they all be up at the same time) and are generally 3-5m in diameter each. For this typical stage, we have allowed for six areas of light in two rows of three.



Front Light

The front light serves an obvious purpose: it's to provide front-on lighting of the performers so the audience can see them. Ideally, the front light should be coming from an angle of 45 degrees off the horizontal plane, although anywhere between 30 to 60 degrees is generally acceptable. This provides the most natural and pleasing angle on to a performer, and leaves their facial expressions in particular natural and easy to read. When lit straight-on, performers often look very flat and two-dimensional. With a few more lights available, front lighting is done from 45 degrees either side of centre to provide better shaping around the subject. Using two different tint colours provides flexibility in mood on-stage.

The ETC Source Four Jr Zoom is a low-cost alternative to the Source Four series, perfect for general lighting duties such as the front wash. We have allowed for twelve (two per area) ETC Source Four Jr Zooms here to provide front lighting from two angles (and in two colours) for each area.



Specials

While the front light provides a general front-on wash of the stage, it does not allow for specific highlighting of performers, or the hard edged "spotlight" look that is a staple of theatrical shows. Fixed angle profiles are perfect for this sort of task. Not only are they a little brighter than a similarly rated variable beam counterpart, but they are easier and simpler to focus and configure, making it easy to set and forget them across the stage.

The ETC Source Four 19 degree has been chosen as it is a higher-rated fixture with significantly more output than the Source Four Jr used for the front wash. This will help it read well against the background wash. It is a powerful, professional fixture with excellent optics and a highly efficient lamp. The 19 degree beam angle should be good at covering 1 person, or a small group of people standing close together at typical throws.

Back Light

The back light is the secret weapon in any lighting designer's arsenal. While back lighting may seem unimportant at first, it serves so many purposes it is almost as indispensable as the front light. For starters, lighting performers from the front only even when using two at 45 degrees to each other, leaves the performance looking flat and two-dimensional. Adding in back light, especially in a different colour to the front light, helps highlight the hair, shoulders and arms and dramatically increases the depth of performers on-stage. The back light is also a common place to introduce bold colours, giving the set visual interest, and providing the lighting designer the tools needed to change setting and mood dramatically.

Fresnel wash lights, such as the Combi 12 F, are perfect for providing a soft spread of light on stage. This is ideal for back or top light. The Combi 12 F is a more powerful version of its smaller sibling, the Combi 05 F. A more powerful backlight allows the use of stronger, bolder colours, yet still have them read against the bright whites of the front light. Twelve Combi 12 Fs have been included here to provide two colours of backlight per area.



Gobo Breakups

With the basics taken care of, it's now time to add a few extra fixtures that help make the stage pop out and excite the audience. The audience may not realise it's happening, but an interesting scene that feels immersive can help enormously in engaging the audience with the action on-stage. Such is the role of gobo breakups. A mottled breakup on-stage can help emote the outdoors, or sunlight trickling through an unseen window. Beyond drama productions, breakups can also help add interest to an otherwise uniform stage, and with a little haze or smoke in the air, the broken-up beams also add interest to the space in the air around the performers as well.

Two ETC Source Four 36 degrees are used for the gobo break up. Just as with the specials, the brighter 750W HPL lamp helps cut through the other luminaires providing a wash, and the hard and sharp optics of a profile are a necessary part in properly projecting the gobo image on-stage. 36 degrees provides a nice wide spread to help cover a respectable amount of the stage.



Beam Lighting

It may have begun with the humble par-can in the 60's, but the thin, coloured beams of light has never gotten old, and still looks great on any stage. In a concert or dance environment, providing spreads of brightly coloured, intense light gives the stage impact and also introduces new colour to the stage without needing to completely saturate it in light. A little smoke or haze in the air also helps improve the impact by picking up the beams. The ETC Source Four PAR is a great, low-cost way to add these bold, striking looks. It is a modern replacement for the older and unsafe PAR64. It includes four different lenses to provide a variable beam angle from very narrow spot, to wide flood. Should your show not require the rock'n'roll look of beams cutting through the air, then you can swap in the wide lenses and use the pars for high side light instead.



WMX-Dimmer

The WMX is a high-quality, wall-mounted, 12-channel (2.4KVA) dimmer rack specifically designed for contracting and theatre applications.



WM-Patch

The Jands WM-Patch is a wall/rack mounting patch panel system that can be configured by the end user to suit the requirements of most projects.

Putting It Together

So there you have it. Without breaking the bank, we've turned what could have been a very basic and boring rig into one with a huge amount of flexibility and interest. The final equipment list sits at:

- 12x ETC Source Four Junior Zooms (for front light)
- 2x ETC Source Four 19 Degrees (for specials)
- 12x Spotlight Combi 12 Fs (for back light)
- 2x ETC Source Four 36 Degrees (for breakups)
- 8x ETC Source Four PARs with Enhanced Aluminium Reflector (for beam lighting)

Twenty-four to thirty-six channels (two to three racks) of dimming, using a product such as the Jands WMX or FPX dimmer rack will help power this rig nicely. A compact, affordable console such as the ETC Smartfade 1248 will provide excellent control and recording of the stage lighting. Put all these parts together and you end up with a system that can remain flexible, expressive and versatile enough to suit the wide range of events likely to be staged in the multi-purpose hall. Most importantly, it can all be done without breaking the bank!

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