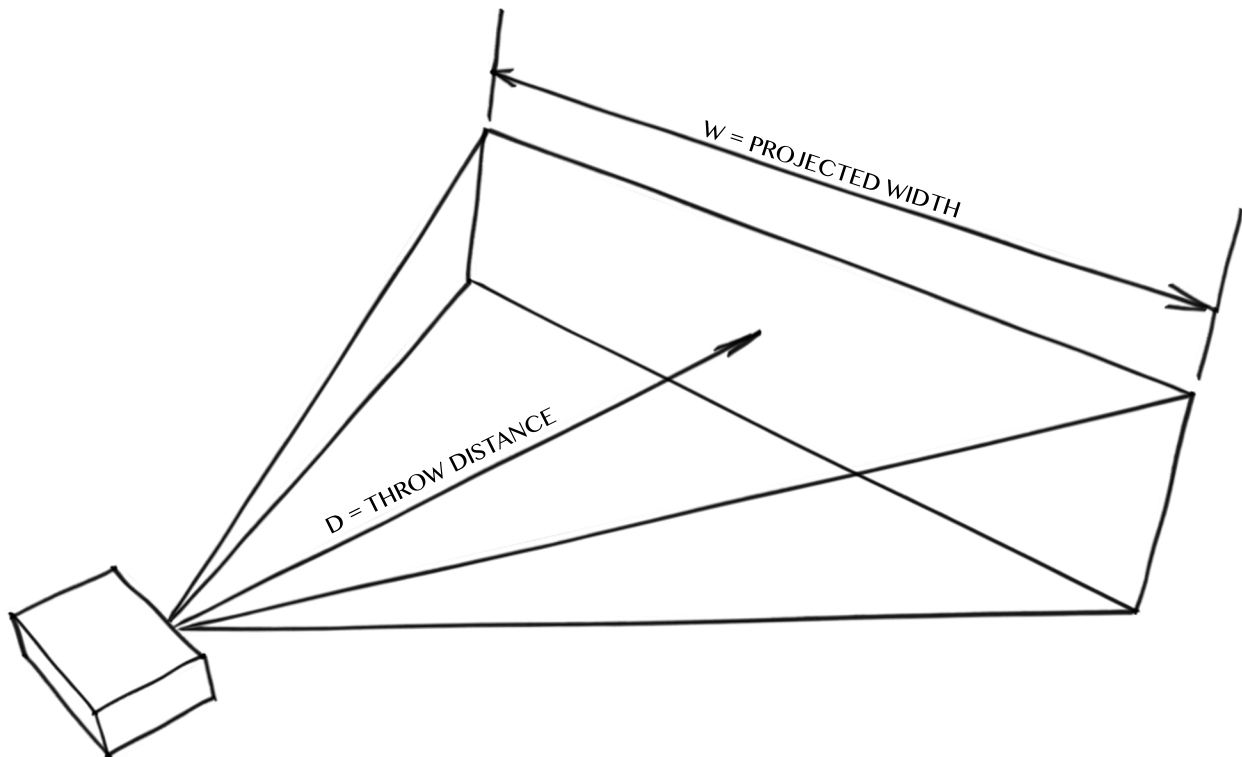


SELECTING A PROJECTOR FOR LIVE PERFORMANCE

Selecting the correct projector for a project can be an intimidating endeavor without the appropriate information. Luckily, the manufacturer provides all of the necessary information right on the box. The two biggest concerns in selecting a projector for live performance are throw ratio and lumens.

Throw ratio is the mathematical ratio that describes the relationship of throw distance (distance from projector to projection surface) and the resulting width of the projected image. The mathematical formula to determine throw ratio is D/W - throw distance divided by projected width. Likewise, $W \times \text{throw ratio} = \text{desired throw distance}$.



For instance, a throw ratio 2:1 means the projector will need 2' of throw distance for every 1' of projector width. In this case, if you wanted to project an image 20' wide, the requisite throw distance would need to be 40'.

Lumens is a term used to measure the brightness of a projector output. In basic terms, the higher the lumens of a projector, the brighter the projected image. When using projections for live performance, the projector must be bright enough to compete with stage lighting.

Typically speaking, if a projector is used in conjunction with bright stage lighting, a minimum of 2000-3500 lumens is required for bright image output. For high-end professional installations, one might even go as high as 20,000 lumens.