

Plano Convex and Fresnels :



There are three types of lenses going into the body of these theater projectors:

Theater Projector Lens Clear Convex Plan (Clear PC)

Theater Projector Lens Plan Convex hammered (PC antihalation)

Fresnel Lens Theater Projector (Fresnel)

These projectors are the big "classics" of the scene, with the PAR-64s. Their use is multiple but their different lenses destine them for very specific uses. They exist in powers ranging from 300 watts to 2000 watts (for PCs) and up to 12,000 watts (for Fresnels).

PC projectors are the main projectors to make a Face. They allow to project a beam whose opening is adjustable and whose "spot" has a uniformly distributed light.

The hammered lens projector will give a spot at the slightly blurred beam edge, while the clear lens projector will give a sharp edge.

Mainly used in France, clear lens projectors have two interests. The first is that they are easier to "connect" to each other in adjustment. The second is that you can cut the beam quite cleanly with a barn door or aluminum tape.

Fresnel projectors are quite different. If they have the same operating characteristics, they have a brighter beam at the center than at the edges. The use of Fresnel is therefore suitable for toppings ambiances, side or backlight effects.

Profiles :



These projectors are initially used in theater to isolate a decorative element, a character, an object, ... It is a point source of lighting whose beam is "modelable" to wish. The optical system of the cut is a set of clear lenses that allow it to vary its size by adjusting the position of the 2 lenses that allows sharp cut, Iris or projection of gobos. The main characteristic of the cut is its shutters. It is a set of 4 "blades" of metal that focus in the beam to "cut" the light and shape the beam. This system makes it possible to cut the spot of a quadrilateral shape in order to precisely define a zone

to be illuminated (a window, a table, an object ...).

They are used also often in front light wash, with diffusion (R114, R119) to kill the sharpness of the cutting

Most common models: 1 kW and 2 kW, but there is also HMI profiles.

Par64 :



The 3 most common PAR 64 lamps :

PAR64 1Kw CP60

PAR64 1Kw CP61

PAR64 1Kw CP62

The par is a very powerful lamp. It has also a very shiny quality of light and react very deeply with colors. I love it !

The PAR is a projector consisting of a single aluminum cylinder equipped with a lamp. The optical part is reduced to its simplest expression since it is only the lamp itself, whose main characteristics are in the presence of a parabolic reflector alumina build in the bulb (its name! ) and a glass in front of the filament that acts as a "lens". The beam of the PAR is characterized by an ellipsoidal spot (called "banana") in a rather irregular but highly concentrated projection. The only adjustment of the beam is to orient this "banana" according to the coverage and the desired angle, turning the lamp from the back of the projector. The references (CP60, CP61, CP62) are declinations corresponding to the possible openings (CP60: tight beam, CP61: medium beam, CP62: wide beam.). Color question, the PAR-64 has a filter holder on the front of the projector to place a gelatin. It can also be equipped with a slave color changer (also called "scroller").

PAR64 ACLs look at first like PAR64-style projectors. In reality, it is not so! They are very powerful projectors with sometimes spectacular effects. These projectors are mounted in series, since their lamps require a voltage of about 28 volts for their operation. Most of the time, there are two bars of 4 projectors, equipped with straps for the series of lamps. The most common are ACLs in PAR-64 format, in 250-watt lamps. These projectors are used to create effects in the volume of a scene. (effects "fans", "harrows", etc ...). They also exist in the PAR-36 format. The ACL lamps have very short lives (25 hours!), Their effects in a show are often quite brief and very punctual.

The floodlight :



These projectors diffuse a light to illuminate from the front or by transparency the cycloramas. A perfect alignment of a number of this type of projector can evenly illuminate a whole canvas. There

are different kinds of them, symmetricals or asymmetricals (to have the same quantity of light on a cyclorama even if they are hang.

By the way, I copy pasted this explanation of the floodlight which is very academic...All those explanation for those lamps were academic...

Just to tell you that you can do whatever you feel with lamps and it's sometimes relevant to divert the object from its original function !