

## Topic 021

### Outdoor Lighting Design-Basics

Lighting for the outdoor stage includes both open air and semi-enclosed facilities. Productions may include dramas, pageants, , operas, dance, concerts, rock shows, ceremonies, parades, and other variety or theatrical events. The outdoor facility may vary from an open field, to a semi-enclosed stadium, to a special facility constructed for theatre or music. Often the stage is enclosed or covered and the audience is not. Sometimes just the reverse is true.

Many outdoor facilities are orientated so that the sun illuminates the stage, from behind the audience. This usually promotes maximum visibility and usually keeps the direct vision of the sun from the audience. More sophisticated facilities will enclosed the stage with a 'stagehouse', some offering full 'flying' facilities. Often outdoor events are 'timed' to begin in the evening before sunset, and end in the dark of night.

The one fundamental concept that the lighting designer working on an outdoor stage must learn is: IT ISN'T EASY TO COMPETE WITH MOTHER NATURE. Stage lighting during a bright sunny day is almost impossible and has no impact. Stage lighting during a cloudy or overcast day may have some impact but usually at best provides basic illumination. During the day, the designer may need to provide 100's of kilowatts of lighting to provide even a minor impression on a stage. The lighting may only tend to fill in the shadows at best. If suddenly a cloud passes over the sun, the stage lighting levels will seem to rise drastically. Once the sun has started to set however, a fixture of just 1 kilowatt can appear brighter to the audience than the 100's of kilowatts previously required to provide the same visual impression.

I regularly design the lighting at Canada's largest outdoor professional musical theatre - Rainbow Stage (stage is enclosed). The facility is located in one of Winnipeg's largest and nicest parks, not far from the city centre. The 2500 seat facility is semi-enclosed under a 200 foot diameter geodesic dome, with a view of the trees, below. Act 1 usually starts at 8:00 pm and requires almost all lighting to be at FULL due to the high ambient daylight levels in the auditorium - and the lighting is hardly even noticeable. Slowly - but steadily as the sun starts to set, the lighting becomes more and more noticeable. It is necessary to make constant adjustments to compensate for the darkening ambient daylight. By the time the sun has set, much less light is required to give the same impression as was needed, minutes earlier.

Outdoor events usually involve large venues with large audiences. In this respect the most powerful and efficient stage lighting fixtures are used. The 1000 watt Par64 fixture is one popular choice for outdoor lighting applications, due to its compact size, low weight and high efficiency. H.I.D. (high intensity discharge) fixtures are also used, with automated color changers and mechanical dimmers. High power followspots are also quite common for o outdoor events.