

two pole, double throw dead front switches, will make it possible to burn these Photoflood bulbs at half voltage during practice periods and between halves to prolong the life of the bulbs. The average burning life--at full line voltage--of these flood bulbs is about ten hours.

These #4 Photoflood bulbs will give a Watt output of 2500--500 Watts more than the regular 2000 Watt Mazdas. This extra candle power source may enable the cameraman to use semi-slow motion film speed of 24 frames/second or even 32 frames/second for better coaching analysis.

The reflectors should be twenty feet from the floor to the bulb. They may be placed at 25' height but the light loss from this extra 5' is not desirable. If the reflectors are 18', as they are in the Western Reserve gymnasium, heavy duty guards should be used over them. There will be a slight^{light} loss from the use of these guards. At the 20' height, the reflectors will not interfere with the average shots at the basket.

With basketball floor illumination of this type, we have been able to "shoot" coaching films very satisfactorily at the normal or 16 frames/second camera speed. The lenses we use are the 1", f 1.9 in focusing mount. I say "lenses" for we have sometimes used more than one camera to cover a game.

The lights should be in three rows of five each along the length of the floor. The string that runs along the side lines should be in from the boundary lines from 8 to 10 feet, (Fig. 1--1-2-3-4-5, 11-12-13-14-15) and spaced as nearly to 15' apart as is possible, starting with the ones in the center of the lines. However, the lights in the corners, that is, those closest to the end boundaries, should be ten feet from the side and end lines. (Fig. 1--1-5-11-15). One reflector should be directly over the center ring (#8), with one on either side in a mid-line 15' toward each end (lights #7-9). One light should be placed over each basket area just above the inside end of the foul lanes. (lights #6-10). These will not interfere with the players when attempting foul shots or "free throws".

This light placement will give enough overlap of illumination so that there will be no distracting floor shadows from the players. The outside "spill" of light will include a short photographic distance beyond the boundary lines. We