

04 Effect of Duty Cycle on Projector Lamp Life

Because the electrode temperatures in a digital cinema lamp are higher than in a cinema film lamp, the electrodes are depleted faster. Lamps require a large start-up current, and it is generally accepted that start-up timing (duty cycle) can be optimized to improve lumen maintenance and in turn lamp operating life. This effect is especially notable for higher wattage digital cinema lamps. The lamp should be turned off whenever an intermission exceeds the sum of [lamp cooldown time (typically 10 minutes)] + [lamp stabilization time (typically 6 minutes)] + [projector stabilization time]. This can increase lamp life.

