

Lighting for high-speed video



Light Basics

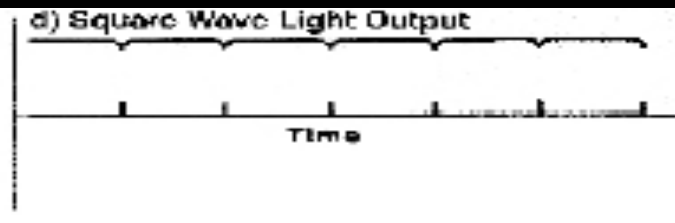
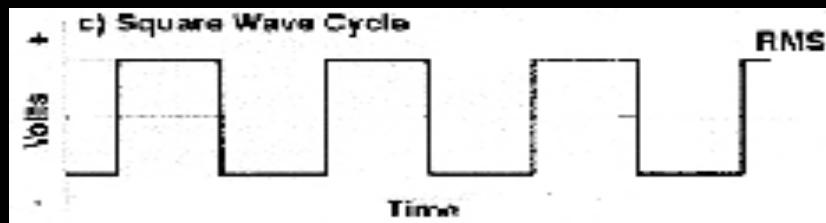


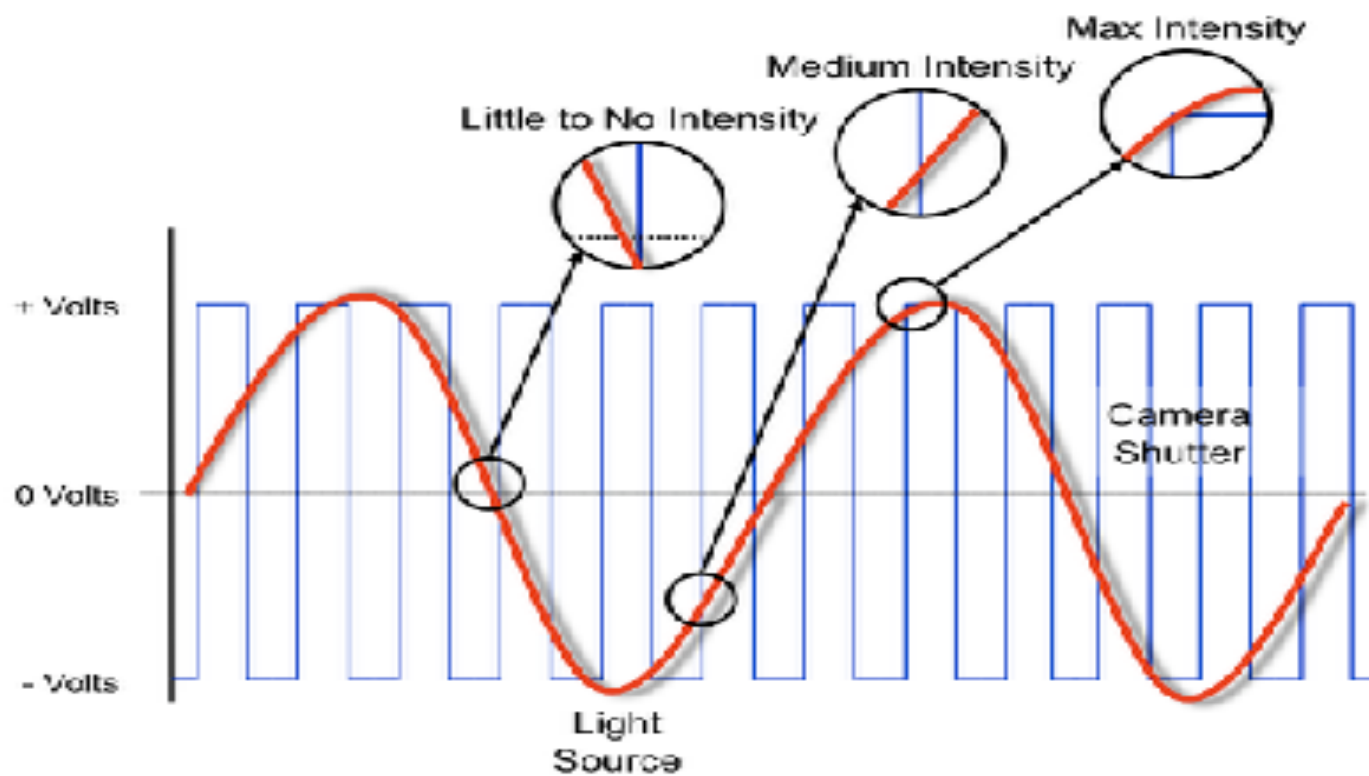
$$\text{-----} \times 25 \text{ fps} = 1/50 \text{ sec.}$$

180°

25 fps	1/50 sec.
50 fps	1/100 sec.
100 fps	1/200 sec.
200 fps	1/400 sec.
400 fps	1/800 sec.
800 fps	1/1600 sec.
1600 fps	1/3200 sec.
3200 fps	1/6400 sec.
6400 fps	1/12800 sec.

Measuring Flicker



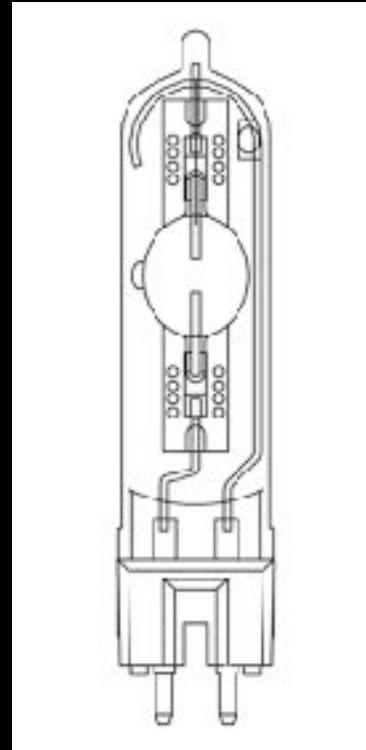


Arc Movement – in HMI (discharge) Lamps

Movement you can see around the edges of the beam.

Often people call this “flicker” but it is not.

The cause is the movement of the arc itself.



Global Shutter

The entire photodiodes (pixels) of the sensor are read at the same time.

Rolling Shutter

The photodiodes (pixels) of the sensor are read by scanning across the scene rapidly, either vertically or horizontally. Not all parts of the image of the scene are recorded at exactly the same instant.

Flicker and Arc Movement definitions



Series 400 Special High Speed Ballast

 **dedolight**[®]
PRECISION LIGHTING INSTRUMENTS



High Speed Ballast

DEB1200D



Speed Ballast

DEB1200D



30K LabLight

LUMINYS

Parabolic or Linear:

- 30,000 W
- 5400° K
- CRI 96+



Power Supply:

220 VAC, 12 amps
(50-60Hz)



6.5K BlastLight

LUMINYS

Parabolic or Linear:

- 6,500 W
- 5400° K
- CRI 96+



SunSource 1500Watt LED

LUMINYS

- 1500 W
- Any-Weather Light Fixture
- Narrow Beam Angle
- Consistent 5000° Kelvin
- 100-250 VAC Power Supply
- Dimmable And Flicker-Free



SunBlast LED 2400Watt

LUMINYS

- Impact durability to 500G
- Up to 2400 W
- Consistent 5000° K
- Flicker-free to 1,000,000 fps

