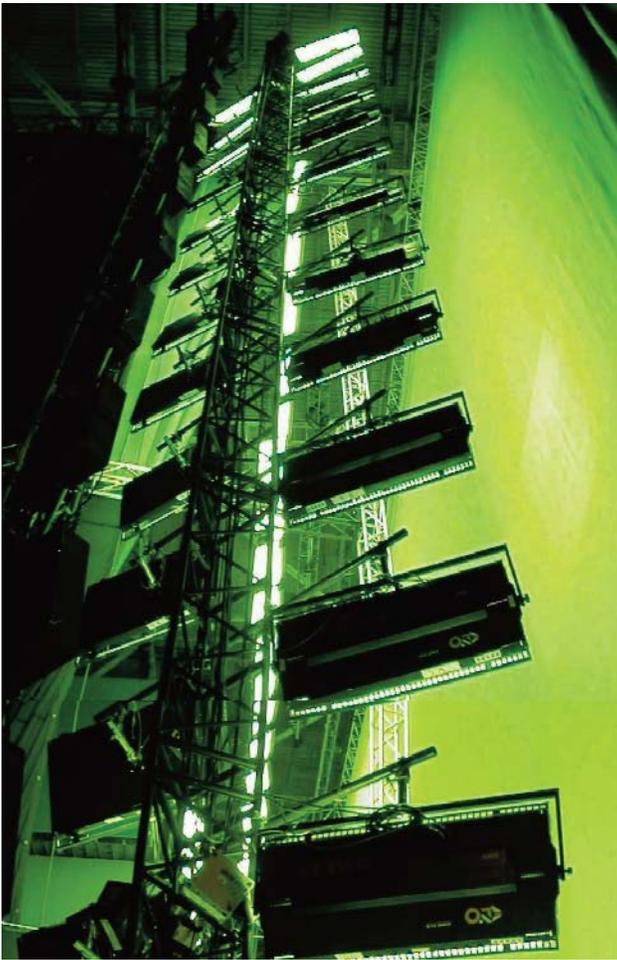


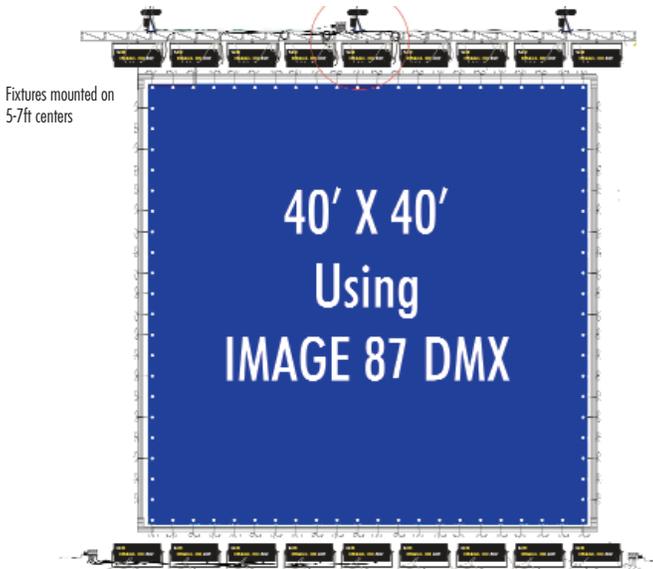
# Blue and Green Screen



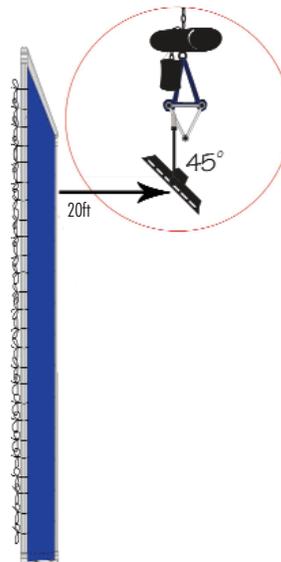
## ▼ Lighting Blue/Green Screens

When lighting bluescreen or greenscreen stages, the rule of thumb is to place the fixtures in front at about half the distance of the screen height, with the fixtures tilted down at a 45° angle. For example, if the screen is 20ft (7m) high, the lights should be hung 8-10ft (3-3.5m) in front of the screen.

Image 87 fixtures are usually rigged in rows on 7ft (2m) centers. Image 47 and 4Bank fixtures are rigged in rows on 5ft (1.5m) centers. A row at the top and bottom of a screen will increase brightness of the blue or green reflected light, and on screens higher than 20ft (7m), the light will be brighter and more evenly spread.



Front View



Side View

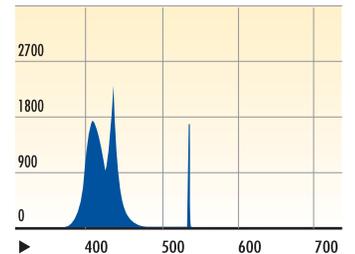
## ▼ Blue/Green Screen Lamps



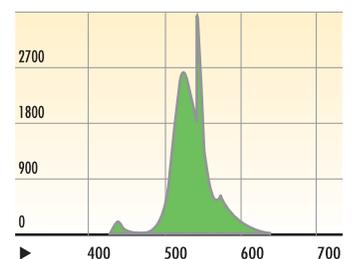
Each Kino Flo® Visual Effects lamp displays a narrow band of light energy in the color spectrum. The phosphor inside each lamp produces a desired color, measured in nanometers (nm) at the highest point in the energy level. The colors include two types of blue light, and two hues of green light. The **420nm blue** and the **525nm green** are often used in traveling matte photography on bluescreen and greenscreen stages. Other colors available from Kino Flo include gold, pink and red for set design work.

## ▼ Blue/Green Spectral Charts

### Blue 420nm



### Green 525nm



Kino Flo recommends safety-coated **420nm** blue lamps for bluescreen and safety-coated **525nm** green lamps for greenscreen applications. The safety-coating cuts the ultraviolet end of the color spectrum to produce a cleaner matte.

For more about lighting blue and green screens with Kino Flo lamps, see FAQs on page 60, or visit our website at [www.kinoflo.com](http://www.kinoflo.com).

# Virtual Studio and Chroma Key



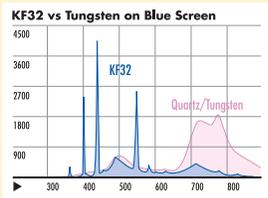
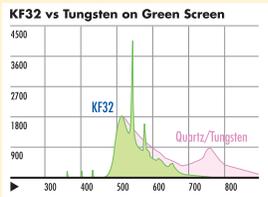
20' x 20' (7m x 7m) visual effects green cyc and floor lighted from above with Kino Flo Image fixtures, lamped with True Match® 3200K full spectrum tubes.

Lighting a virtual studio to match a real world scene such as a news anchor desk or a casual outdoor setting requires a clean, evenly lighted blue or green stage. Kino Flo is the leader in visual effects and virtual studio lighting. The HD Kino Flos produce very soft, energy efficient cyclorama lighting essential to digital compositing.

Note: Foreground subjects often are lighted differently than the cyclorama.

**• Rigging:** Virtual Studios come in many sizes, but the rule of thumb is: measure the wall height and hang the Kino Flos half the distance downstage. The fixtures hang in a row on 5ft to 7ft centers (1.5 – 2m) side by side, usually at the same height as the stage wall being lighted.

**• Fixtures:** Different fixtures produce different kinds of soft light: the Image 87 and 47 are the softest, with the most even beam spread. They cover the most area with the fewest number of fixtures. However, ParaBeam and ParaZip fixtures are popular on mid-size to small stages because they do not hang down as far as the Image 87 fixtures. Their shallow profile is ideal for lighting wide low cyc wall areas.



**• Energy Savings:** Kino Flo softlights require little power, and do not overheat the stage. The charts at right show the energy savings of a ParaBeam 410 compared to a virtual studio lighted with incandescent softlights.

**• Features:** Kino Flo Image 87 and Image 47 fixtures, along with the ParaBeams and Imara fixtures, come with onboard studio grade features such as DMX dimming and/or DMX lamp switching controls, mounting systems, diffusion frames, focusing louvers and built-in AC power cords. Kino Flo location systems are popular for smaller studios because they can be removed from the overhead mounts and used in the field. The 4Bank, Tegra and Diva-Lite fixtures are sometimes used because of their in-studio/on-location versatility.

**• Lamping Up:** Virtual studios use Kino Flo True Match® KF32 (3200K) lamps more than any other lamp. However, when the studios are used for film and high end HD shooting, the Kino Flo fixtures take specially designed spiked blue and spiked green visual effects tubes, for the deepest color saturation possible. All lamps last for thousands of hours.

Image 87's, Image 47's. . . . . Page 38  
 Imara . . . . . Page 36  
 4Bank Systems. . . . . Page 14  
 Tegra 4Bank. . . . . Page 29  
 ParaBeams. . . . . Page 40  
 ParaZips. . . . . Page 42

Kino Flo delivers award-winning lighting that's easy on the environment and the pocketbook. Compare the energy and cost savings of a ParaBeam and a tungsten softlight:

### ▼ Energy Efficient

Fixture	F.C. @ 10ft or 3m	Wattage	Amperage
ParaBeam 410 (55Watt KF32 x 4 Lamps)*	70 FC/800 LUX	220W	2 Amps
Tungsten Softlight (500W x 4 Bulbs)	70 FC/800 LUX	2,000W	20 Amps

\*95 CRI lamps; Lower CRI lamps have higher lumens

### ▼ Lower Air Conditioning Costs

Fixture	Amps per Fixture	BTU/Hour*
ParaBeam 410 (55Watt KF32 x 4 Lamps)	2 Amps	750 BTU's
Tungsten Softlight (500W x 4 Bulbs)	20 Amps	6,824 BTU's

\*1 Watt/hour = 3.412 BTU/hour lumens

### ▼ Lamp Savings

Fixture	400 Hours	2,000 Hours	5,000 Hours	Cost/Hr*
ParaBeam 410 (55Watt KF32 x 4 Lamps)	—	—	\$100/fixture	\$.02/Hr
Tungsten Softlight (500W x 4 Bulbs)	\$60	\$300	\$600/fixture	\$.12/Hr

\*Approx. hours of studio operation/1 year



Image fixtures globed with 3200K lamps lighting virtual studio background, as well as dancers in the foreground.

For more on bluescreen/greenscreen lighting, see our FAQ section, page 60 or [www.kinoflo.com](http://www.kinoflo.com).