

The Little black book of lighting
For Film and Video



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Introduction to Lighting with Kino Flos

There are two kinds of light in this world: The hard kind and the soft kind. We like our light soft. And cool. All soft light all the time. What's not to like? Kinos are easy on the eyes, flattering on the talent, low on power needs, and high on versatility and portability. Lighting techniques for Kino Flos are pretty much like they are for soft light from sunlight bounced off a white card or tungsten light through a softbox . . . except ours comes with this "little black book of lighting" to help you out.

Lighting Tips

Kino Flo light fixtures offer a lightweight, low energy, cool alternative to conventional hot lights such as incandescent par lights. The goal usually is to light a scene for film or video that looks like what we see in the real world. Light quality can be characterized by how "hard" or "soft" the shadow is.

The light you get from one instrument may be hard, and cast dense shadows such you might see when direct sunlight casts the shadow of a tree on the ground. A softer shadow might be made by sunlight diffused through some clouds. Fixture placement is the first step to producing a softer style of lighting with Kino Flos. Where you place the light is important because the closer the Kino Flo is to the subject, the softer the effect of the light. The same Kino Flo moved farther away from the subject will make the shadows sharper.

Lighting choices differ from job to job, and from scene

to scene, but the fundamentals stay the same whether you're lighting a two-person interview in a boardroom or giant monkey on a Hollywood soundstage. Following are three basics for lighting:

Key lighting The main light source for a shot is called the key light. Bringing the Kino Flo in as close as possible produces a diffused, even wrap of illumination. Hard lights, such as from a fresnel source, will produce hard shadows. Either may be preferable depending on the final look you want.

Fill lighting Filling in the shadow side of the key light with a smaller Kino Flo is common. When turned in a vertical position, a Kino Flo fill will cast a slightly harder beam than the key source, which often is desirable.

Separation lighting Also known as a "hair light", the separation light keeps the subject from blending into the background. Usually, it is positioned above and behind the subject.



Diva-Lite Fixtures
For location and studio. Compact, dimming, switching Diva-Lites used for EFP, especially for lighting interviews.



4Bank Systems
For location and studio. 4ft and 2ft 4Banks are versatile production units: key, fill, chromakey, and set practical lighting.



Foto-Flo System
For location and studio. The 4-tube softlight has a removable ballast. It is used for key, fill and chromakey. Preferred for fashion and portrait photography.



Kamio Ring Lights
A camera-mounted light, the dimming Kamio runs on 12VDC, for close ups and news field reporting.



ParaBeams DMX

For studio lighting. Bright, broad beam spread for TV broadcast sets, film/video production stages. Also used on film, photo, video stages as key, fill sources.



Image 85 DMX

For studio lighting. Used for key, fill, chromakey and bluescreen visual effects lighting.



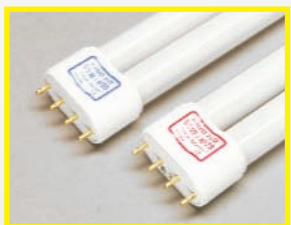
Image 45 DMX

For studio lighting. Used for key, fill, chromakey and bluescreen visual effects lighting.



True Match T12 Lamps

Full spectrum high output daylight and tungsten. Used in 4Banks, Foto-Flos and Image fixtures.



True Match Compacts

Full spectrum high output daylight and tungsten. Used in Diva-Lite and ParaBeam fixtures.

Lighting Interviews

On location and in the Studio

Professional video productions most often choose Kino Flo's Diva-Lite and 4Bank fixtures for lighting interview sets on location and in the studio. Why? Because these versatile, cool sources produce an award-winning quality of soft light with very little power or set up time. Diva-Lite and 4Bank kits use both daylight and tungsten quality lamps (CRI 95), and come with barn doors, focusing louvers, center mounts, flicker-free electronic ballasts, and other light control features.

Diva-Lites vs 4Bank Systems

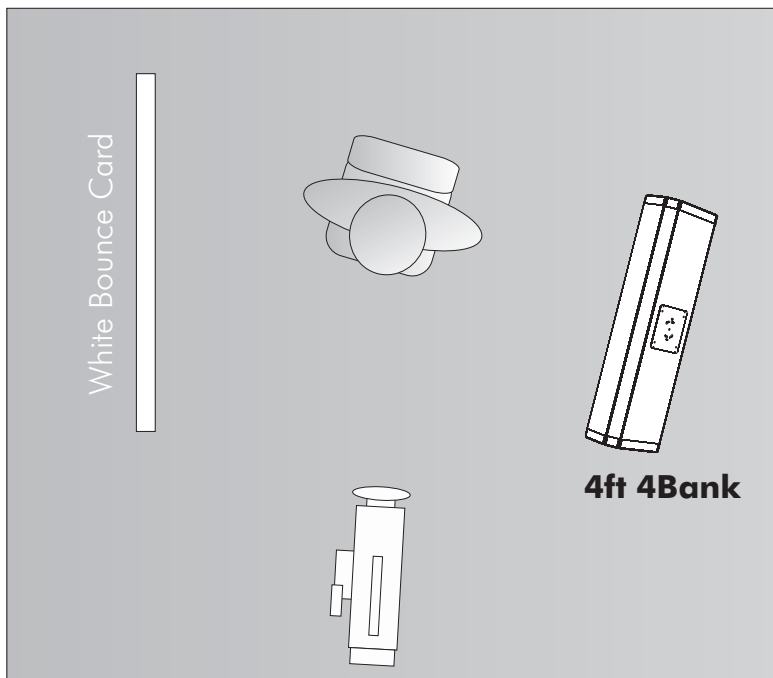
Diva-Lites are compact, portable and have built-in dimming/switching ballasts, which makes them ideal for location video shooting. A Diva-Lite 400 (four-lamp) delivers the same amount of light as a 1,000 Watt incandescent softlight, using only two amps of power. It is most often employed as a key light, about three to eight feet from the subject. A kit includes the fixture plus a diffuser called a Flozier to further soften the light. The smaller two-lamp Diva-Lite 200 is most often used as a fill source.

The 4Bank is a large four lamp fixture that delivers a softer, wider spread of light than the Diva-Lite. Although longer than a Diva-Lite, it is more versatile. For example, the 4Bank ballast is separate from the fixture, making the fixture very lightweight and easy to handle. It can even be taped to a ceiling. Its special design allows lamps to operate outside the fixture for use in very tight locations. In addition, a new style of 4Bank, the Foto-Flo 400, has a ballast that can attach to the fixture like a Diva-Lite or be used remote from the fixture like a 4Bank ballast.



Bill Holshevnikoff

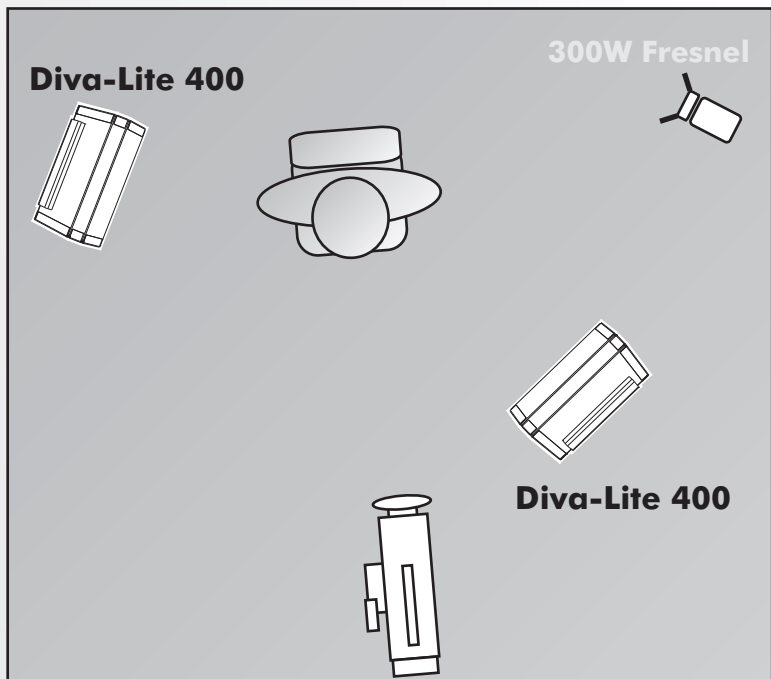
Interior Interview





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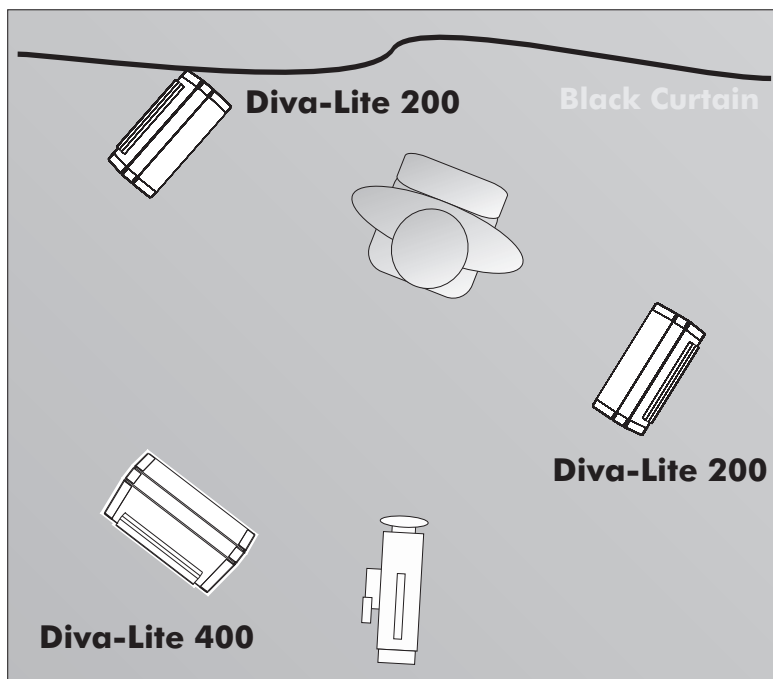
Interior Interview





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Portrait Style Lighting



Broadcast Studio Lighting

Lighting designers looking for alternatives to conventional hot lights often design TV news sets with Kino Flo's True Match® Studio Lighting. True Match systems combine award-winning fixture designs with Kino Flo lamps tuned to the spectral sensitivity curves of HD and digital studio cameras. No matter the size of the studio, Kino Flos display rich, balanced color quality while cutting back power costs ten-fold.

Key lighting a four-person news desk, for example, takes between three to six Kino Flo fixtures depending on the height at which the fixtures are hung, and the distance from the subjects. For side fill sources, only two Kino Flos are needed. For separation lights behind the subjects, expect to use three to six just like the number used for key lighting. The size and spacing of key, fill and separation lights will vary from studio to studio depending on the set design.

Choosing Lights for the Studio

Smaller studios with eight feet to 12 feet overhead are best lighted with Kino Flo ParaBeam and ParaZip fixtures, low profile designs that can light a subject 15 feet away. ParaBeam and ParaZip 200s (fixtures using just two lamps) are the best when lighting tight spaces with ceilings from eight to nine feet high. Often, you are only lighting one or two people at a time on a set this small.

For mid-size studios with ceilings at 10 feet to 14 feet, ParaBeam and ParaZip 400s, Image 45s and 85s can do the job very efficiently in various combinations as key, fill and separation lights.

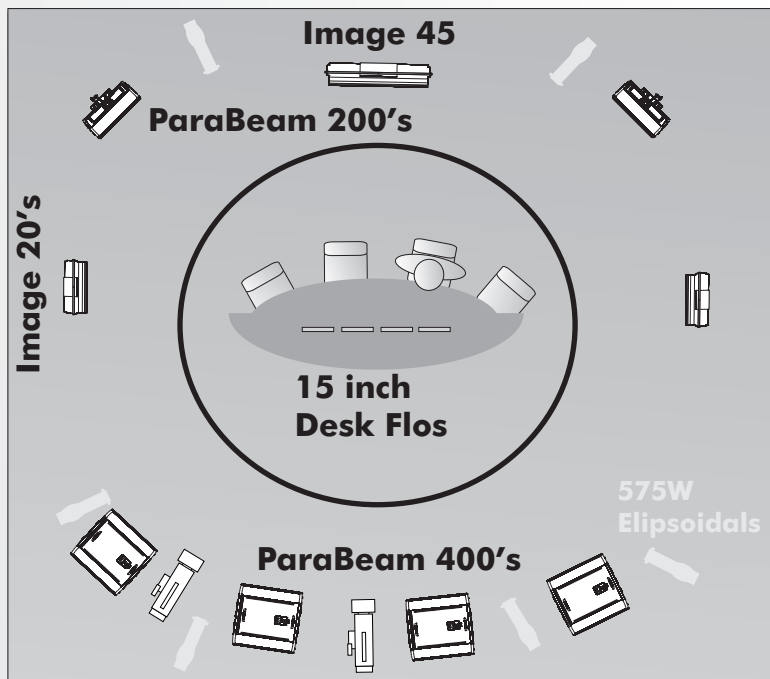
Large area lighting for larger news sets or for lighting studio audiences generally falls to the larger ParaBeams and VistaBeams (not shown in this handbook).

All studios lighted with the Kino Flo True Match system often combine Kino Flo softlights with small, energy efficient tungsten focused sources to add a pleasing balance of color, depth and contrast to the image. Lamp life is rated at more than 10,000 hours, resulting in lamp replacement savings compared to tungsten lamps that last 300 hours. Energy savings include reduced power consumption and lower air conditioning costs. For example, a ParaBeam 400 produces the same amount of light as a 2,000 Watt incandescent softlight using $1/10^{\text{th}}$ less power and heat.



Ken Seagren

Studio: Parabeam and Image Fixtures

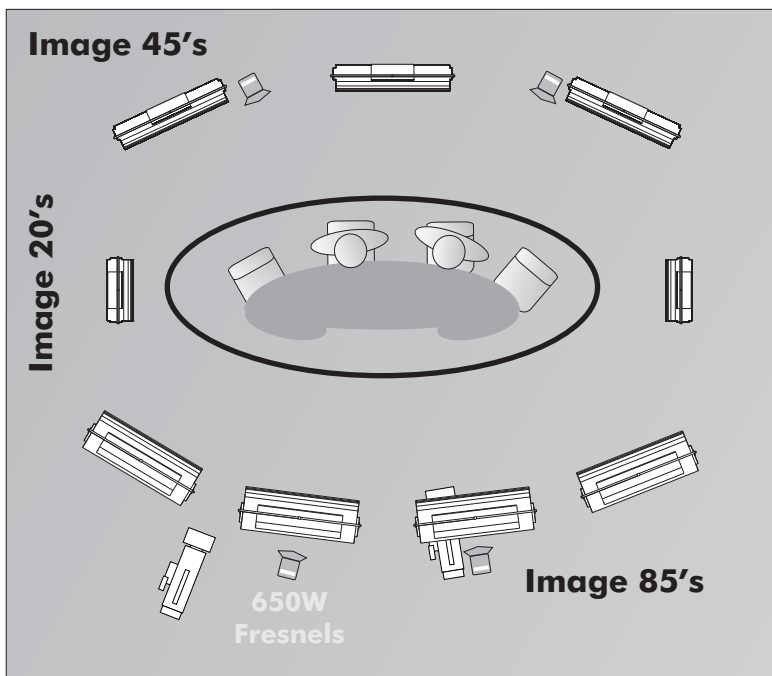




Anchor Desk: Image Fixtures

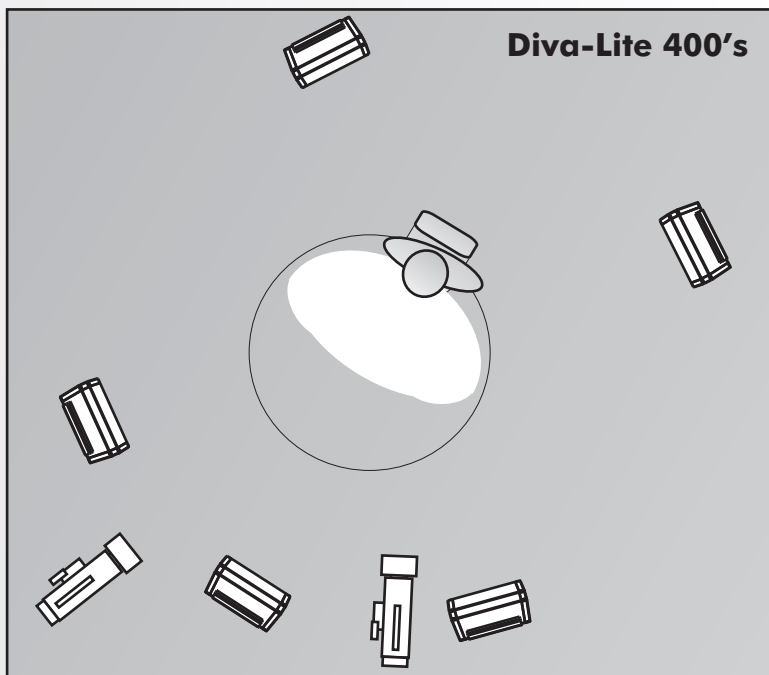


Steve Goraum



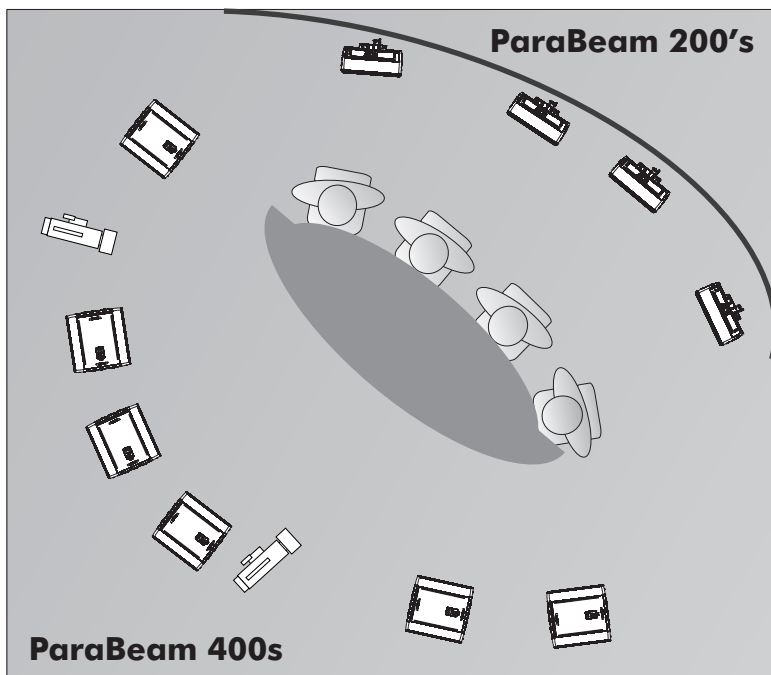


One Person News Desk





Anchor Desk: ParaBeams



Chromakey and Visual Effects

Chromakey, Virtual Studio, Bluescreen, Greenscreen

Lighting for visual effects stages comes down to three rules that are the same for a small TV weather chromakey set or a multi-story movie studio bluescreen stage.

- ▶ Light the screen evenly from top to bottom, and from side to side.
- ▶ Light the set to the proper saturation of color.
- ▶ Keep the background color off the foreground subjects.

Kino Flo Image 85 and 45 fixtures, as well as 4ft 4Bank Systems produce the best visual effects lighting for any size set in film and video production. To achieve the three rules of visual effects lighting, the Kino Flos need to be mounted facing the set wall at a distance roughly half the set wall's height. For example, if a chromakey wall is 12 feet high, a row of Kino Flos generally is placed six feet in front of the wall. The same technique is true for film sets.

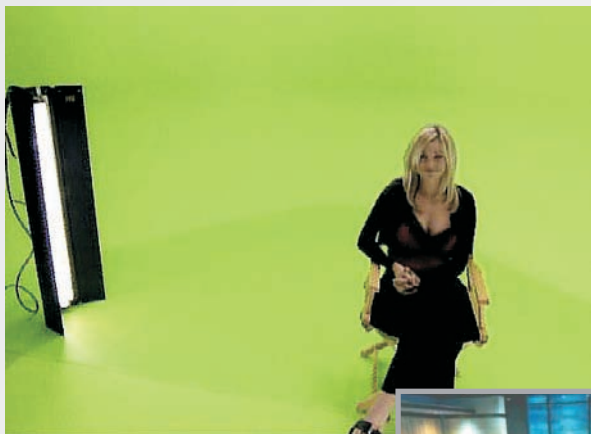
The spacing between each Kino Flo in a row varies, but usually the fixtures are about five to eight feet apart when measured from the center of one fixture to the center of the next fixture.

The number of fixtures in a row and the number of rows used to light a visual effects set depends on how bright you want the reflected color (i.e.: more fixtures means a brighter blue or green wall).

Visual Effects and True Match Lamps

Film lighting generally needs Kino Flo Visual Effects blue or green spiked lamps to achieve the best color saturation. When lighting for film, it's best to build a stage away from the visual effects bluescreen or greenscreen wall to avoid color spilling onto the foreground.

Video lighting is better with Kino Flo True Match® 3200K or 5500K lamps. It is more practical to light any colored walls (and floor) evenly as described above with the True Match tungsten or daylight quality lamps. If the foreground is “poisoned” with blue or green light, then Kino Flo separation lights from behind must be used to “wash” the color off the subjects.

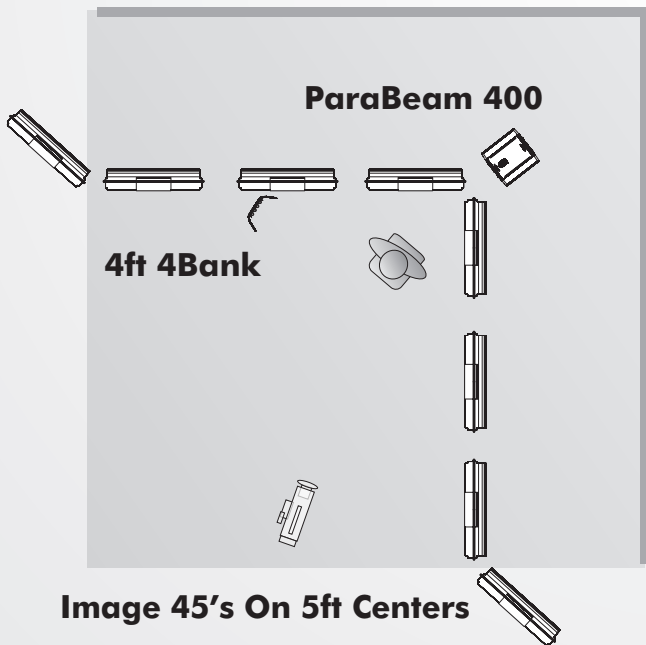


Ultimate Corp.

Virtual Studio



Top View





Bluescreen Stage

Side View

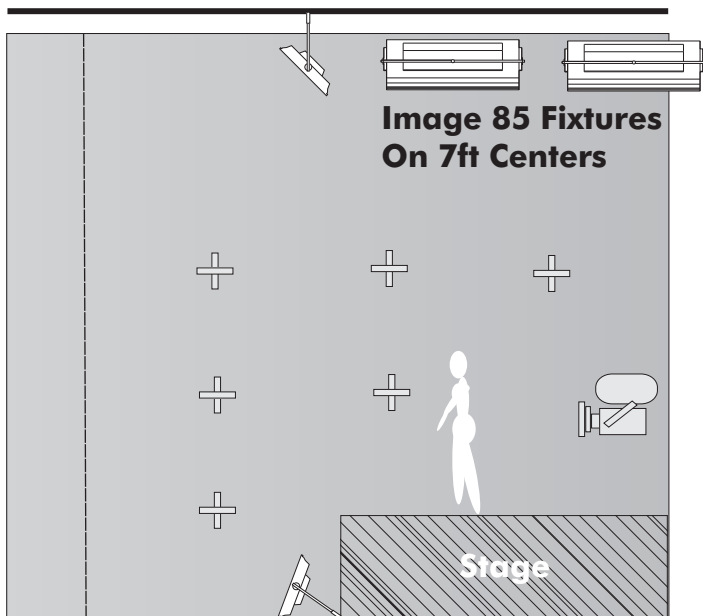
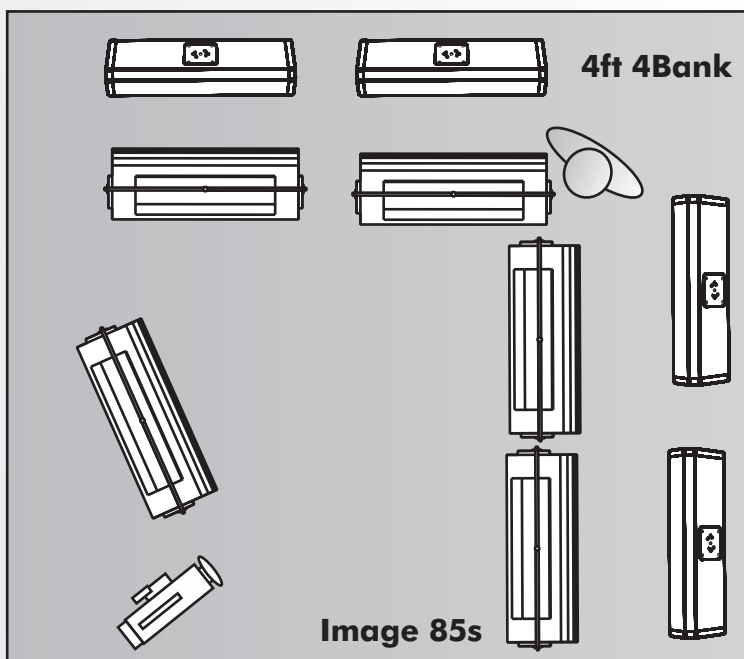




Image 85 cyc lights; 4Bank separation lights



Tabletop

Tabletop lighting uses many of the same instruments you'd expect to find on a larger scale set. Kino Flo Diva-Lites, Foto-Flos and 4Banks are best for large soft keys. You can “paint” in specular highlights with smaller Kino Flos such as Double and Single fixtures.

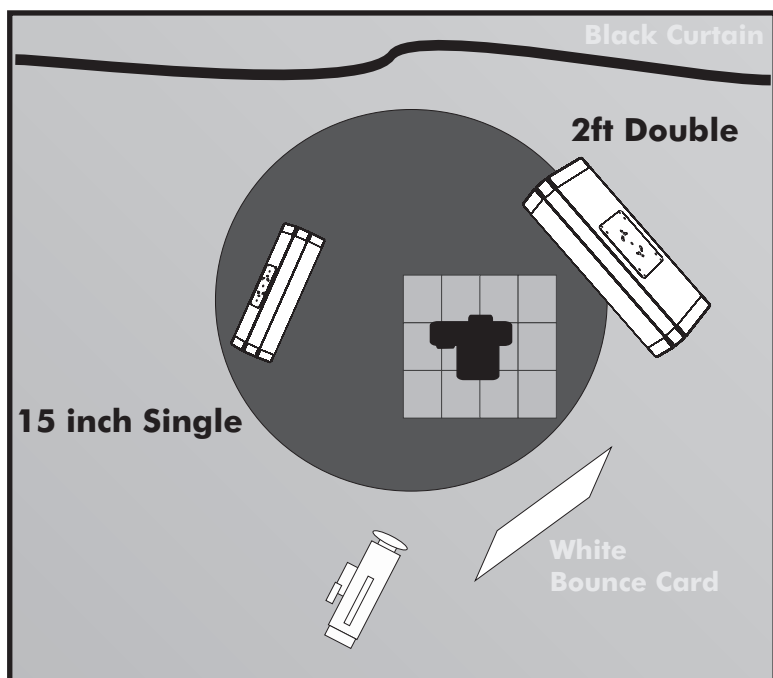
Because Kino Flos are cool compared to conventional lighting sources, they can be left on for hours at a time without heating up the items on the table or the camera operator. Correct color temperature and color rendering True Match® lamps ensure that the colors you see through the lens are what you capture on video or film.

Art reproduction studios and museums often photograph priceless art works and historical objects using Kino Flo True Match daylight lamps because the tubes display true daylight color without any harmful ultra violet (UV) rays that might damage the valuable subjects.



Bill Holshevnikoff

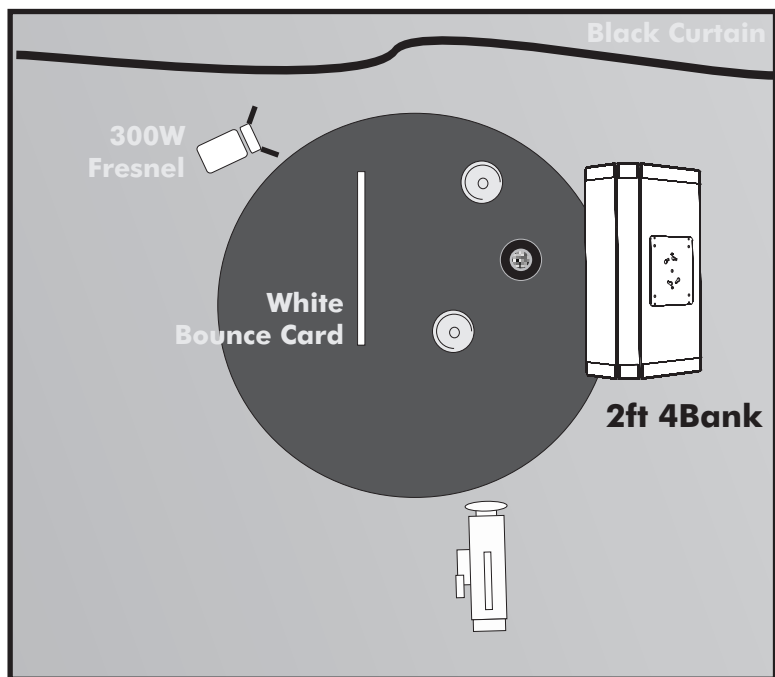
Table Top: Dark Object





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Table Top: Mixed Objects





KINO FLO® LIGHTING SYSTEMS

www.KinoFlo-Lighting.com