

Ideal-Lume® Pro

The ideal viewing environment luminaire for professional video monitors.

Product Information Sheet

Model #P-ST120-GM65, 120 volt, 60 Hz

Color: Black

Size: L25.75" x W2.125" x H3.75"

Lamp: 6500K, 94 C.R.I., 12,000 hour (approximate), T12 fluorescent, 24" long, 20 Watt

Warranty: 3 years (limited) on fixture and ballast, 1 year on lamp (please contact our office for help)

Other features:

Rotating mechanical baffle tube for variable control of illumination

Color corrected and UV filtered for CIE D65 video white point performance (+/- 0.005 x/y)

Fixture is custom made in the USA

On/off rocker switch

Heavy-duty electronic ballast for instant start, quiet, low heat, energy-efficient operation

Clear, acrylic, wrap-around diffusor lens (not needed or recommended in many cases)

6 ft. power cord with grounded plug

Mounting screws with drywall anchors, and nylon zip ties included

UL listed

MSRP: \$379.95

Award winning viewing environment technology!

Reduce eye strain!

Promote accurate color perception!

Preserve maximum resolution and correct geometry!

Reveal nuances in hue and shading!

Eliminate glare and reflections!

Aids in prolonging the life of your monitor!

Color correct for all color television standards!

In the mid 1980's the Society of Motion Picture and Television Engineers (SMPTE) conducted human factors research to identify optimum standards for the viewing conditions in professional monitor environments. Their work addressed issues applicable to all forms of electronic displays. These findings, as set forth in their 'Recommended Practices Document #166: Critical Viewing Conditions For Evaluation Of Color Television Pictures', should be applied to any critical monitor viewing environment. SMPTE's work focused not just on helping the viewer see the picture correctly but also on making the viewing experience comfortable over a long period of time, minimizing eye strain as an example.

All TVs require a darkened room for critical viewing due to their inherent limitations in light output and/or the desire for optimum contrast ratio and color saturation. The color, point of origin, and intensity of light in a viewing environment all affect the quality of image obtainable from any monitor, as well as the amount of viewer fatigue experienced. A small fluorescent fixture, with a proper 'color temperature' lamp, placed behind the monitor, fulfills much of what is needed to achieve the SMPTE recommendations pertaining to ambient light in the room.

Viewing a monitor in a darkened room can cause eye strain in as little as 30 minutes. This is primarily due to the iris opening and closing dramatically as scenes change from dark to light on the screen. For a vivid demonstration of how frequently light levels change throughout a typical program, turn your back to a TV in a darkened room and notice how much the light changes in the room, both in intensity and frequency. Providing a small amount of light behind the set 'biases' the iris and moderates human vision's adaptive mechanisms, resulting in more relaxed viewing. Glare and reflections are then dramatically reduced, by eliminating any light source from striking the front of the set. Colors appear richer and blacks darker. Contrast and brightness controls can be turned down. Doing this will prevent over-saturation of phosphors, thereby reducing the risk of 'screen burn-in' and preserving

maximum sharpness and detail. This also preserves correct picture geometry on CRT-based displays and actually prolongs the life of picture tubes. Phosphor life will also be extended for plasma panels and LCD monitors with adjustable cold-cathode backlighting.

The fluorescent lamp included in this product is manufactured in Canada for GretagMacbeth and features a patented mix of seven rare phosphors that performs exceptionally well. The 'Color Rendering Index' (CRI) is 94 out of 100. CRI is the measurement of a light's ability to render pigments recognizable according to a prescribed standard. Put another way, it's the ability of a light source to illuminate colors in a predictable balance. Most types of light use a standard element heated to a reference temperature to measure CRI. Illuminants rated at 5000 Kelvins or higher are referenced to natural daylight at varying times of day. The color temperature of **Ideal-Lume Pro's** lamp is 6500 Kelvins. This color of white light is the same as that displayed on a correctly calibrated video monitor. Another more comprehensive and exacting method of measuring an illuminant's color performance, is called its 'Spectral Power Distribution' (SPD). **Ideal-Lume Pro's** SPD curve comes closest to matching the CIE D65 point's spectral graph of any fluorescent currently available. While the eye strain benefits will continue throughout the rated life of the lamp, color shift will start to occur as the lamp ages. This is true for all fluorescent lamps. When maintaining optimum color accuracy is critical, the lamp should be replaced at about 6,000 hours of use. We also recommend operating the lamp over night, without the baffle tube or diffuser in place, when first opening the product. Let it warm up 20 minutes before critical use thereafter

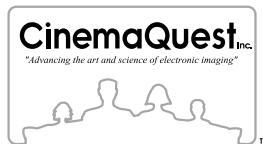
A light of this type, placed behind the monitor, provides more than enough light in most rooms for critical viewing. Illuminate the wall behind the display to produce an even glow surrounding the screen. The SMPTE ideal recommends that the wall behind the monitor be a matte, neutral color to further preserve correct color perception. Colors classified as neutral by the Munsell Color Order System, range from black to white through the gray scale. SMPTE suggests Munsell's 'nearly-neutrals' can be used elsewhere in the viewing environment but not within the field of view while observing the monitor. The lighter wall colors in most rooms invariably reflect so much light that most users of **Ideal-Lume Pro** require some amount of light reduction.

SMPTE's research discovered that the optimum level of bias lighting for extended viewing should be 10% of the peak white output of the display device. The most spectrally accurate method for regulating bias light level is to paint the wall with the correct value (shade) of Munsell neutral gray. This is difficult to determine without a light meter and/or some experimentation. For a more practical method, **Ideal-Lume Pro's** output can be reduced incrementally by using the rotating baffle included.

In the absence of a light meter, there is a simple way to determine when the light is producing the correct amount of illumination on the wall behind the set. Joe Kane Productions' 'Digital Video Essentials' optical disc program series all contain a still-frame reference pattern labeled "Ambient Light Reference" that can be displayed on the screen to provide a visual comparison. Mr. Kane chaired the SMPTE Professional/Studio Monitor Working Group mentioned previously and produced this title to help consumers and technicians alike optimize their video displays and multi-channel audio systems. Another DVD including a test pattern of this type is: Ovation MultiMedia's 'Avia II Guide to Home Theater'. These titles are available from our online store.

Available accessories:

Replacement lamp:	\$23.95
Munsell 10-Step Neutral Value Scale (a fan deck of reference color samples, from black to white)	\$55.95



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