

Another breakthrough from the leader in color television

D. L. Weber



RCA once again achieves a major innovation in the evolution of living-color television...

NEW RED PHOSPHOR

makes RCA's new HI-LITE Color Picture Tubes

BRIGHTEST IN THE INDUSTRY





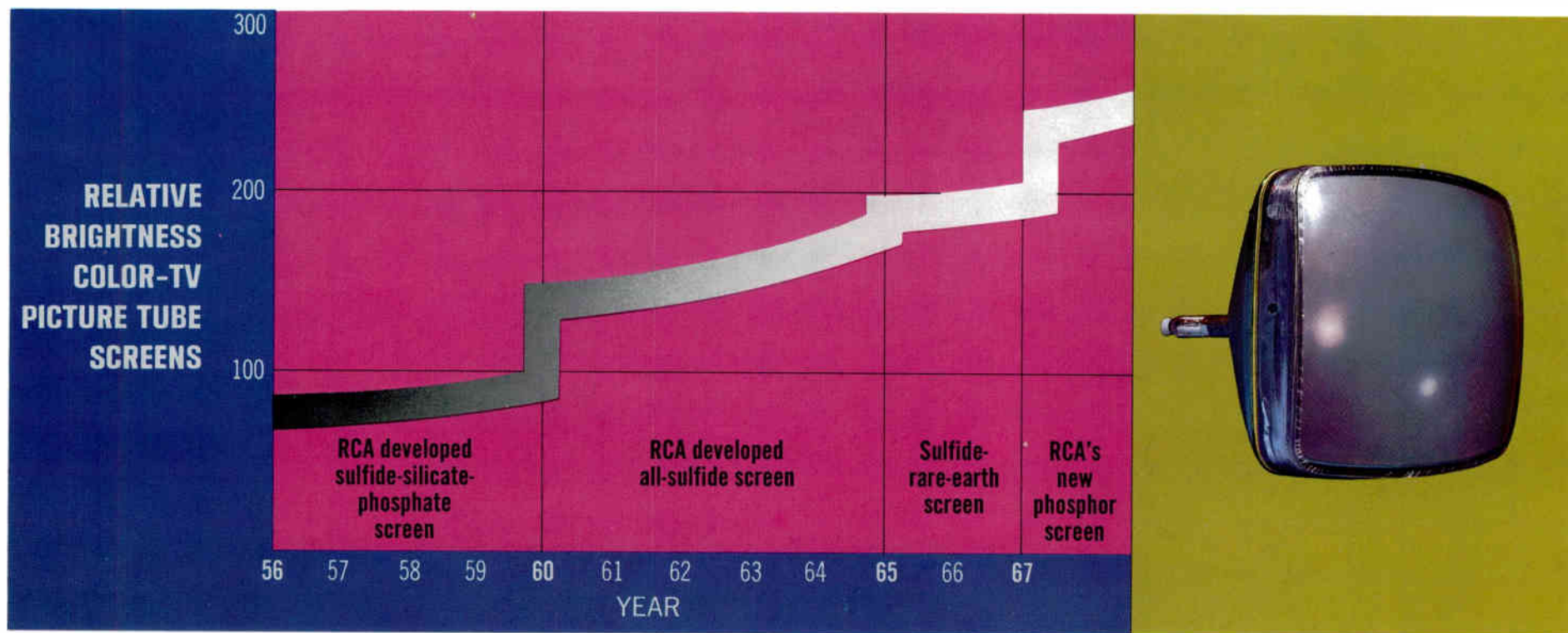
◀ The new RCA red phosphor HI-LITE Tube gives on the average:

40% INCREASE in red phosphor efficiency over the best competitive product

38% INCREASE in high-light brightness over the best competitive product

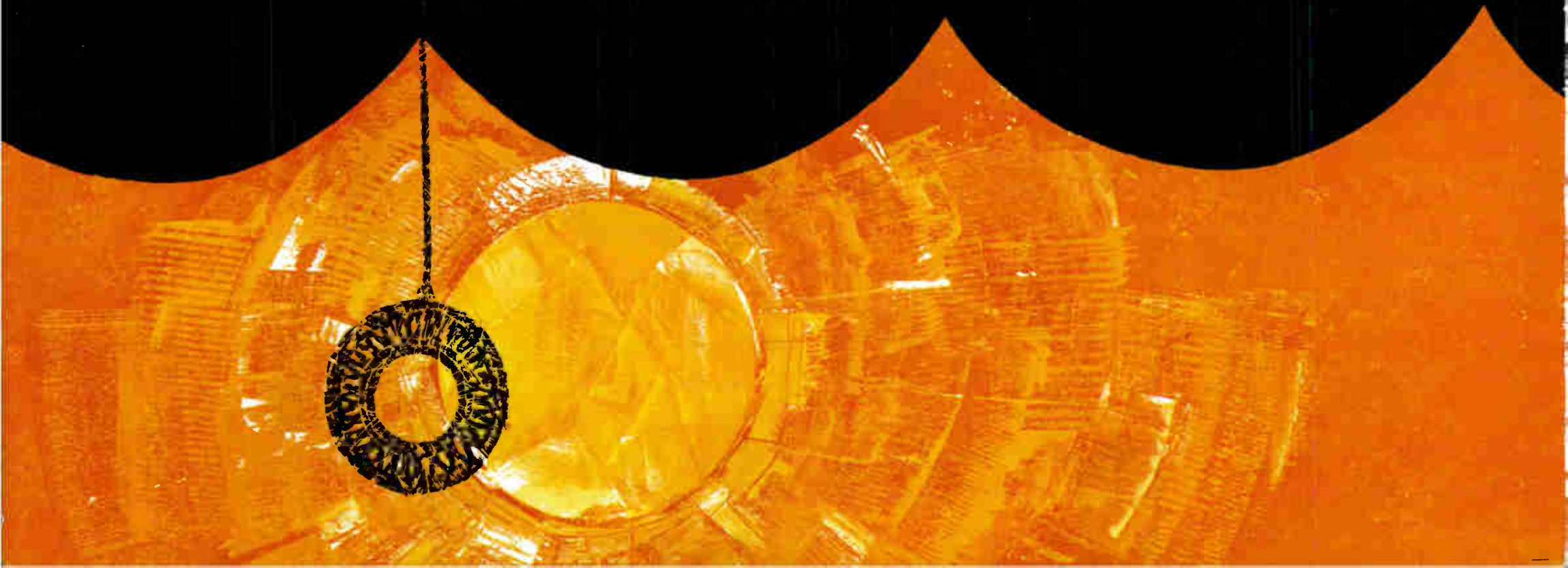
20% INCREASE in white brightness over the best competitive product

40% INCREASE in white brightness over typical competitive product



**Now, color television
comes out into the normal, natural light
of the home environment.**

**No longer is it necessary to draw the shades
or subdue the lights
to enjoy color viewing.**



Color television has always reproduced the spectrum of colors under low ambient-light conditions as well as or better than other color reproduction processes. However, not until the introduction of RCA's new red phosphor have any color picture tubes had sufficient brightness to hold true, saturated colors at high ambient-light levels. RCA provides this brightness in the new HI-LITE Color Picture Tubes.

The outstanding improvement of brightness in RCA's new HI-LITE Color Picture Tubes is attributable to:

FIRST, the combined use of the newest, brightest, most efficient phosphors.

SECOND, RCA's "Aqua-Flo" slurry process for depositing the phosphors on the face panel of the picture tube. The "Aqua-Flo" process makes it possible to attain the full light-output efficiency from the phosphors. No higher efficiency can be obtained by any other screen-application process.

An important contribution of the new red phosphor to color television viewing is the high picture-contrast at high ambient-light levels. High brightness plus high picture-contrast provides full, living color at high ambient-light levels.

Some competitors sacrifice contrast in their color picture tubes in order to gain brightness. Their method: reduce filterglass absorption. The penalty: "washed-out" color pictures at high ambient-light levels.

Early in 1967, RCA will complete the introduction of an entire new family of rectangular HI-LITE Color Picture Tubes featuring the new red phosphor.

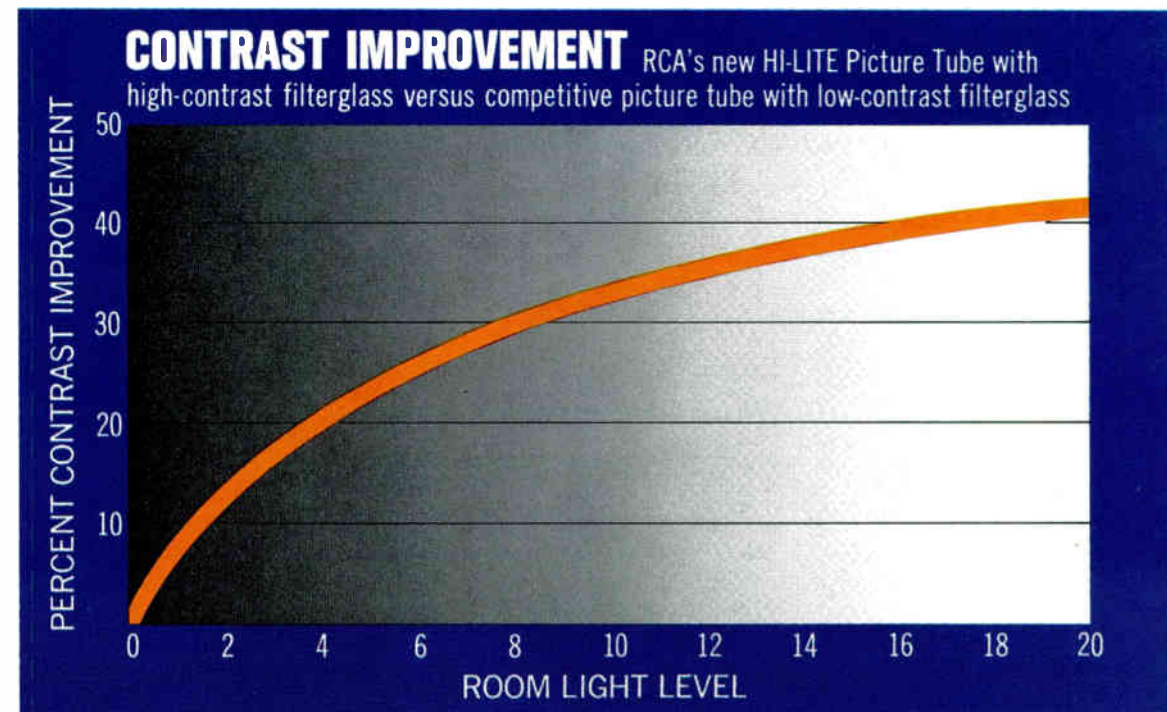
These tubes offer:

BRIGHTNESS WITH IMPROVED CONTRAST

Higher intrinsic brightness of phosphor screen gives higher contrast to pictures: no "wash-out" at high ambient-light levels.

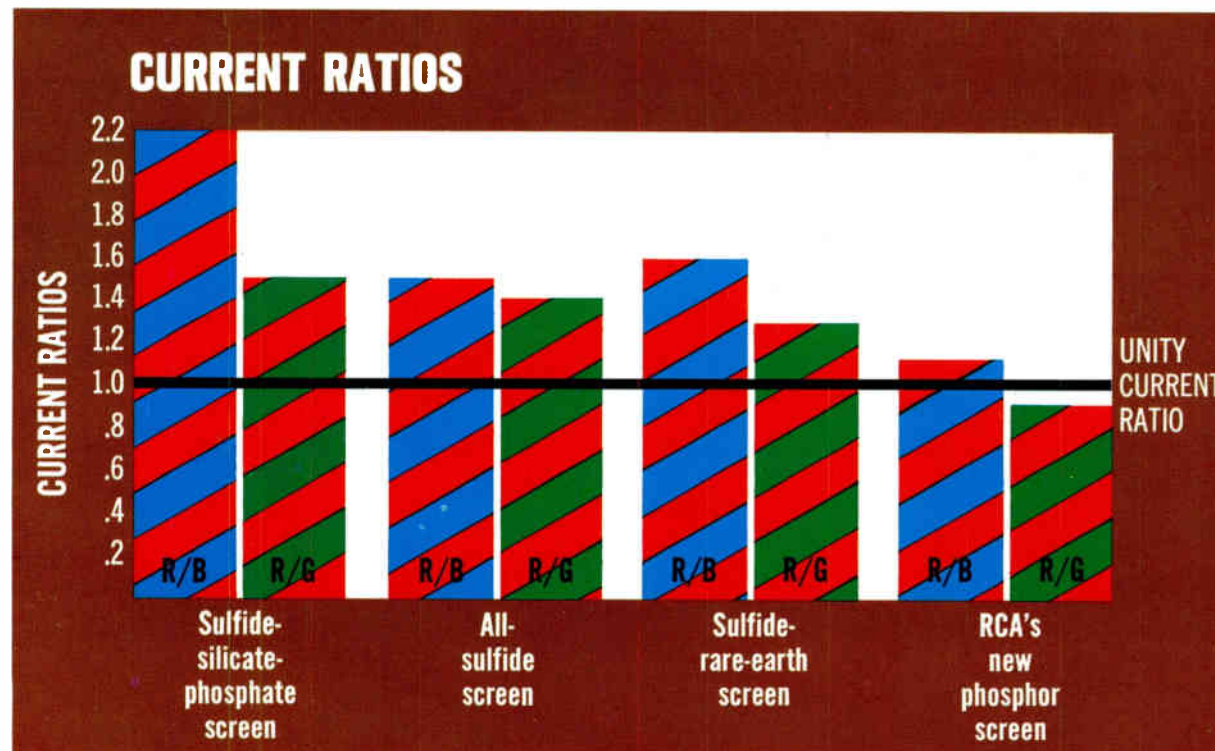
BRIGHTNESS WITH HIGH COLOR SATURATION

Highly efficient phosphors assure true, full hues in high ambient-light levels.



At last! UNITY CURRENT RATIO

Ever since the invention of color television, the available red phosphors have been less efficient than either the green or blue phosphors. Consequently, the red electron-beam current has always been greater than that for the green or blue to produce white light. This imbalance in beam currents causes the size of the red spot to be larger than either the green or blue. Result: red blooming... color fringing.



RCA's new red phosphor achieves the unity current ratio – equal beam current from each electron gun!

The benefits of **UNITY CURRENT RATIO:**

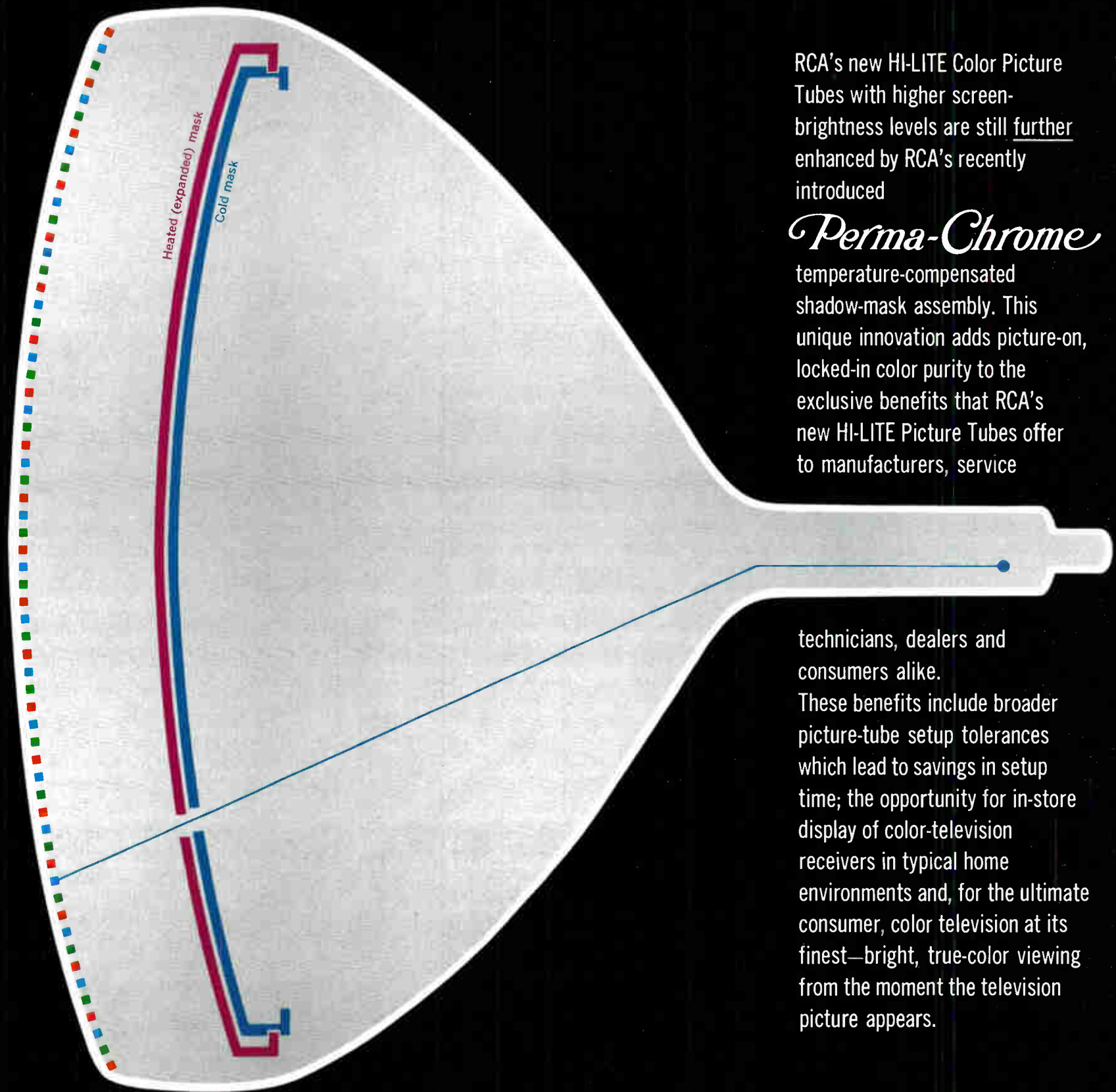
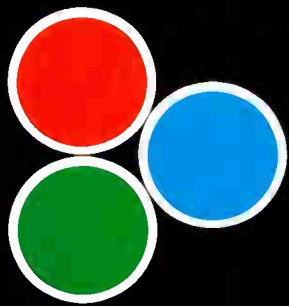
- Elimination of color fringing due to red blooming at high drive conditions for both color and monochrome pictures
- Brighter highlights



Color fringing due to red blooming*...



...eliminated by UNITY CURRENT RATIO



RCA's new HI-LITE Color Picture Tubes with higher screen-brightness levels are still further enhanced by RCA's recently introduced

Perma-Chrome

temperature-compensated shadow-mask assembly. This unique innovation adds picture-on, locked-in color purity to the exclusive benefits that RCA's new HI-LITE Picture Tubes offer to manufacturers, service

technicians, dealers and consumers alike.

These benefits include broader picture-tube setup tolerances which lead to savings in setup time; the opportunity for in-store display of color-television receivers in typical home environments and, for the ultimate consumer, color television at its finest—bright, true-color viewing from the moment the television picture appears.

The new red phosphor

... coming so soon after the recent announcement of *Perma-Chrome*...
once again demonstrates RCA's position of leadership in the color television industry.

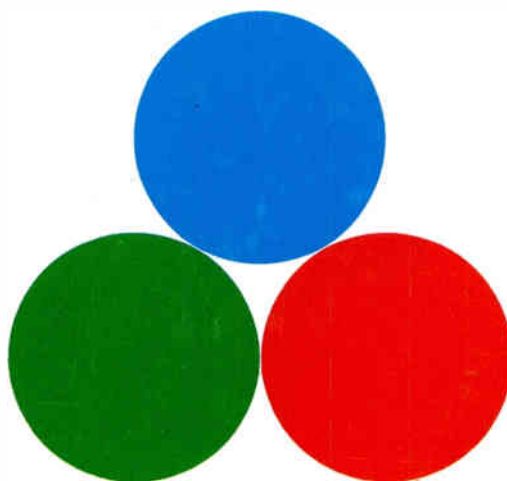
Remember

... the three-gun, shadow-mask color picture tube, standard throughout the industry, was pioneered and developed by RCA.

RCA

will continue to set the pace in product development that assures you — and your customers — the very finest in color television.





RCA Electronic Components and Devices, Harrison, New Jersey



The Most Trusted Name in Electronics