

HARRIS P-45, GEN 3

WHITE PHOSPHOR TECHNOLOGY

WHITE PHOSPHOR

Users who rely on Harris Corporation (Harris), Gen 3 picture clarity, performance and resolution now have the option of a color and contrast variant.

Many military professionals – both U.S. and international – have very specific individual preferences when it comes to their kit. In this sense, the benefits of the Harris Gen 3 P-45 white phosphor option are closely linked with user preference, as well as mission-specific requirements.

BENEFITS

Capitalizes on existing high performance of Gen 3 night vision

Can be incorporated in virtually any Harris image intensifier tube, including the F9800, F9810 and F9815 series

Offers different contrast and color than traditional phosphor

DESCRIPTION

Traditional image intensifier tubes use a P-43 phosphor screen output, resulting in the yellow-green image that has become the signature view through most Gen 3 night vision technology.

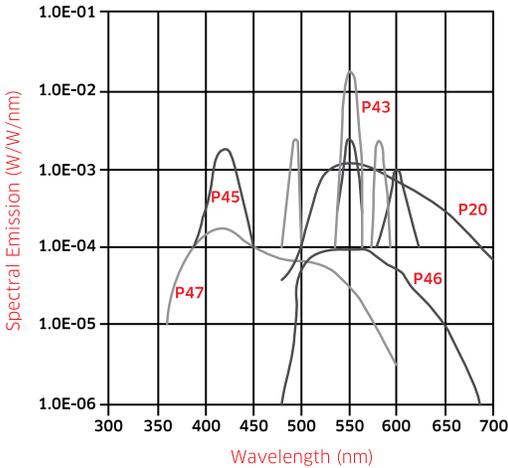
Using a P-45 phosphor screen instead yields an alternate coloration closer to black and white imagery, which some users prefer. Harris proudly offers this option in peak performance Gen 3 tubes.

In a recent field research study, 36 members of the U.S. Maryland National Guard used and compared white and green phosphor technologies. Participants reported that white phosphor enhanced their overall object recognition while providing contrast sensitivity equivalent to green phosphor.

SPECIFICATIONS FOR: **HARRIS P-45, GEN 3, WHITE PHOSPHOR TECHNOLOGY**

	P-45, WB	P-43, GY
Composition	Y ₂ O ₂ S:Tb ¹	Gd ₂ O ₂ S:Tb ² (gadolinium oxysulfide)
Color	white	yellow-green
CIE Color Coordinates	0.263, 0.342	0.337, 0.561
Persistence	Short ¹ Y ₂ O ₂ S:Tb [P45], white [545 nm], 1.5 ms decay, low afterglow, for low-energy X-ray	Medium ² Gd ₂ O ₂ S:Tb [P43], green [peak at 545 nm], 1.5 ms decay to 10%, low afterglow, high X-ray absorption, for X-ray, neutrons and gamma

SPECTRAL OUTPUT COMPARISON



Gen 3 Image Intensifier



Gen 2 traditional phosphor*



Gen 2 white phosphor*



Gen 3 traditional phosphor/P-43*



Gen 3 white phosphor/P-45*

About Harris Corporation

Harris Corporation is a leading technology innovator that creates mission-critical solutions that connect, inform and protect the world. The company's advanced technology provides information and insight to customers operating in demanding environments from ocean to orbit and everywhere in between. Harris has approximately \$8 billion in annual revenue and supports customers in 125 countries through four customer-focused business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems, and Critical Networks.

* Images digitally modified to illustrate comparative differences.

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