

August 11, 1955

WL-5997
Image Intensifier

The WL-5997 is a high vacuum tube designed to transduce x-radiation to visible radiation by electronic means. This tube produces an image of reduced size having a brightness increase of at least 200 times. X-radiation passing through the subject impinges on an input fluorescent screen 5 inches in diameter; a photo-electric surface in intimate contact with the input fluorescent screen converts the x-ray image to an electron image. The electron image is focused and accelerated toward a metal-backed phosphor screen one inch in diameter. The resulting fluorescent image is viewed in true orientation to the subject, by a suitable optical system, and nearly in original size. Fluoroscopy can be performed in a lighted room without dark adaptation of the observer's eyes.

GENERAL DATA

Brightness Intensification 200 x min.
Minification Ratio (Approx.) 5:1
Definition of unfiltered tube
 45-mesh over 50% (min.) of screen area
 35-mesh over 95% (min.) of screen area

Operating Voltages:

Output Screen Voltage	30 max.	kv.
No. 5 Lens	4.8	kv.
No. 4 Lens	1.8	kv.
No. 3 Lens	0.68	kv.
No. 2 Lens	0.2	kv.
No. 1 Lens		ground
Cathode		ground
Operating Current	250	µa

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