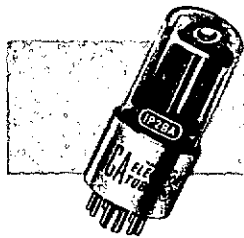


RCA-1P28A



PHOTOMULTIPLIER TUBE

9-Stage, Side-On Type
S-5 Response

This bulletin is to be used in conjunction with the bulletin for RCA-1P28.

RCA-1P28A is a 9-stage, side-on type photomultiplier tube identical with the RCA-1P28 except that its luminous sensitivity rating is higher and its sensitivity above the wavelength of 5800 angstroms is controlled. This control is important in applications where a high-level of sensitivity in the red region of the spectral-response characteristic is required. The degree of this controlled sensitivity in the red region is specified by a "red-to-white" ratio of anode currents. Anode current is measured first using a tungsten-lamp source, and then measured with a red filter interposed between the light source and phototube. The "red-to-white" ratio is greater than 7% for the 1P28A.

The anode current comprising the "white" portion of this ratio is measured with a light input of 10 microlumens. The light source is a tungsten-

filament lamp having a lime-glass envelope. It is operated at a color temperature of 2870° K.

The anode current comprising the "red" portion of the ratio is measured under conditions identical with the "white" measurement except that the light input of 10 microlumens is transmitted through a red filter (Corning C.S. No.2-112—manufactured by the Corning Glass Works, Corning, N.Y., or equivalent) which has the following characteristics: the transmittance of all wavelengths from 3000 to 5790 angstroms is less than 0.5%; the 37% transmittance point lies between 6030 and 6070 angstroms; the transmittance from 6400 to 7000 angstroms is greater than 80%; and the difference between the wavelengths where transmittance is 15% and 60% is not greater than 150 angstroms.

DATA

Characteristics Range Values for Equipment Design:

Under conditions with dc supply voltage (E) across a voltage divider providing 1/10 of E between cathode and dynode No.1; 1/10 of E for each succeeding dynode stage; and 1/10 of E between dynode No.9 and anode.

With E = 1000 volts

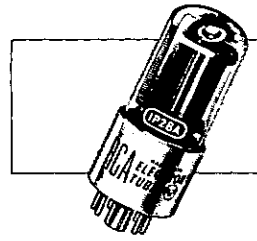
	Min.	Typical	Max.	
Sensitivity:				
Luminous ^a	35	200	500	A/lm
"Red-to-White" Ratio	7	—	—	%

^aUnder the following conditions: The light source is a tungsten-filament lamp having a lime-glass envelope. It is operated at a color temperature of 2870° K and a light input of 10 microlumens is used.

Information furnished by RCA is believed to be accurate and reliable. However, no responsibility is assumed by RCA for its use; nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of RCA.



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