

**TYPE: 9423**

**SERIAL NUMBER: 650**

**DATE : 28-Jan-21**

**CATHODE RADIANT SENSITIVITY**

16mm diameter circle at the centre of the photo-cathode illuminated.

Wavelength (nm)	Q.E.%	mA/W
121.6	13.7	13.4
140.0	9.7	11.0
160.0	8.1	10.4
180.0	5.5	8.1
200.0	1.4	2.3

**PHOTOMULTIPLIER GAIN AND DARK CURRENT**

Gain	Volts	Dark current (nA)
$10^6$	2275	0.115
$10^7$	2740	0.75

**PHOTON COUNTING CHARACTERISTICS**

The optimum operating voltage depends on the application, the sensitivity of the measuring electronics and the chosen voltage distribution.

For reference we have shown the signal and background counting plateau obtained with the ETL AD1 integral amplifier discriminator with a 1mV threshold (50 Ohms). The photomultiplier is operated with the cathode at negative EHT in a uniform (R) voltage divider network with  $k-d1 = 2R$ . The suggested operating voltage is 2450 volts and the background at this voltage is 26 counts per second. The operating voltage is 100 volts above the point at which the count rate increase first falls below 0.2% / volt.

**PMT TYPE : 9423 S/No 650**  
Photon Counting Plateau Characteristic

