

TYPE : 9422

SERIAL NUMBER : 1042

DATE : 17-Dec-13

RADIANT CATHODE SENSITIVITY

16 mm diameter circle at centre of photocathode illuminated.

Wavelength (nm)	Q.E. (%)	mA/W
121.6	11.4	11.2
130	11.3	11.9
140	10.0	11.3
150	9.4	11.4
160	10.4	13.4
170	12.8	17.5
180	13.6	19.8
190	14.3	21.9
200	14.1	22.8

PHOTOMULTIPLIER GAIN AND DARK CURRENT

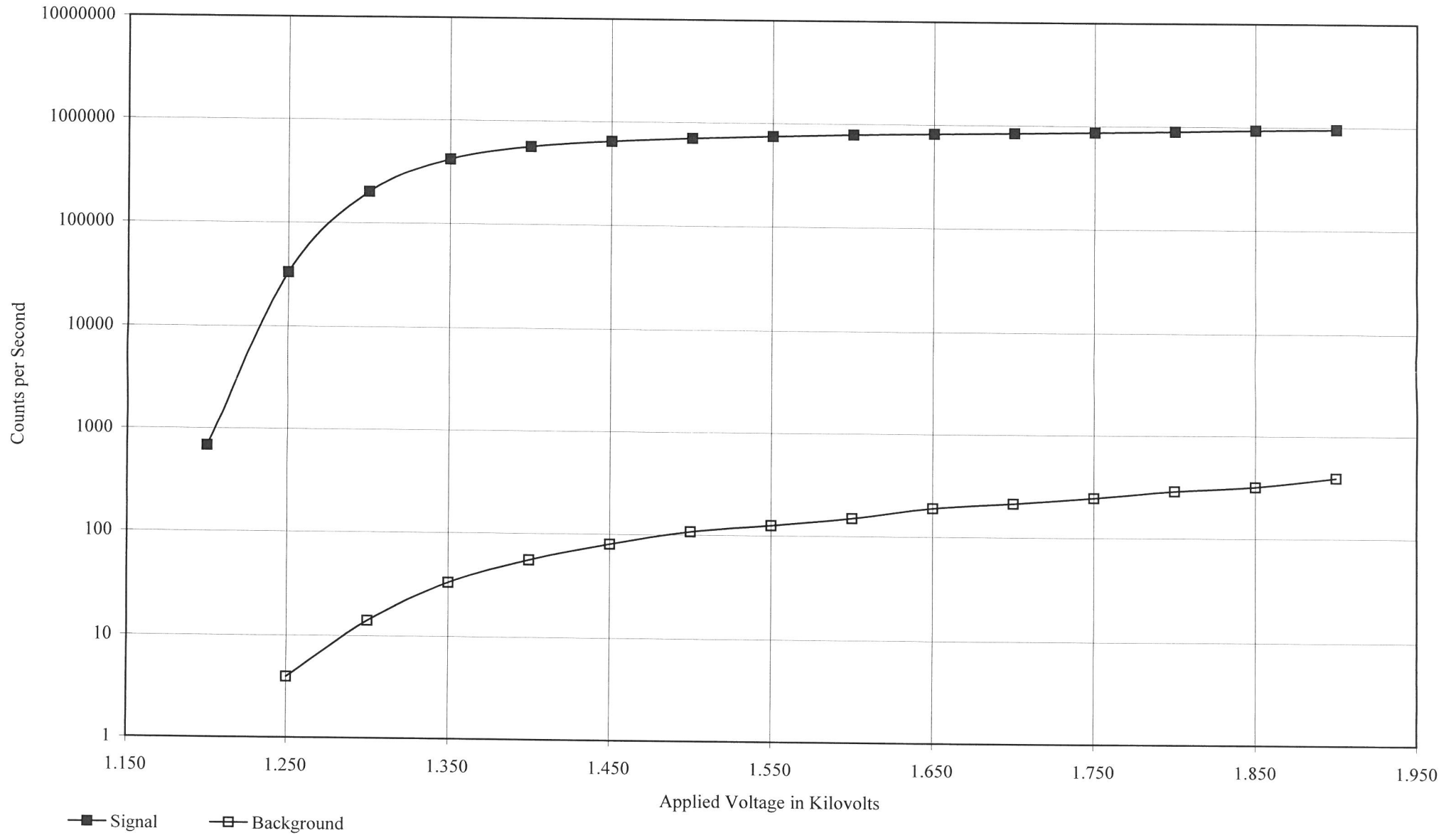
GAIN	VOLTS (V)	DARK CURRENT (nA)
10^6	1386	0.054
10^7	1679	0.65

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 plateaux 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 1550V and the background at this voltage is 125 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: 9422 S/No: 1042
Photon Counting Plateau Characteristic



Electron Tubes Ltd, Spectral response printout

Run Number: 27626
 Tube Type: 9422
 Serial Number: 1042
 Date: 18-Dec-2013

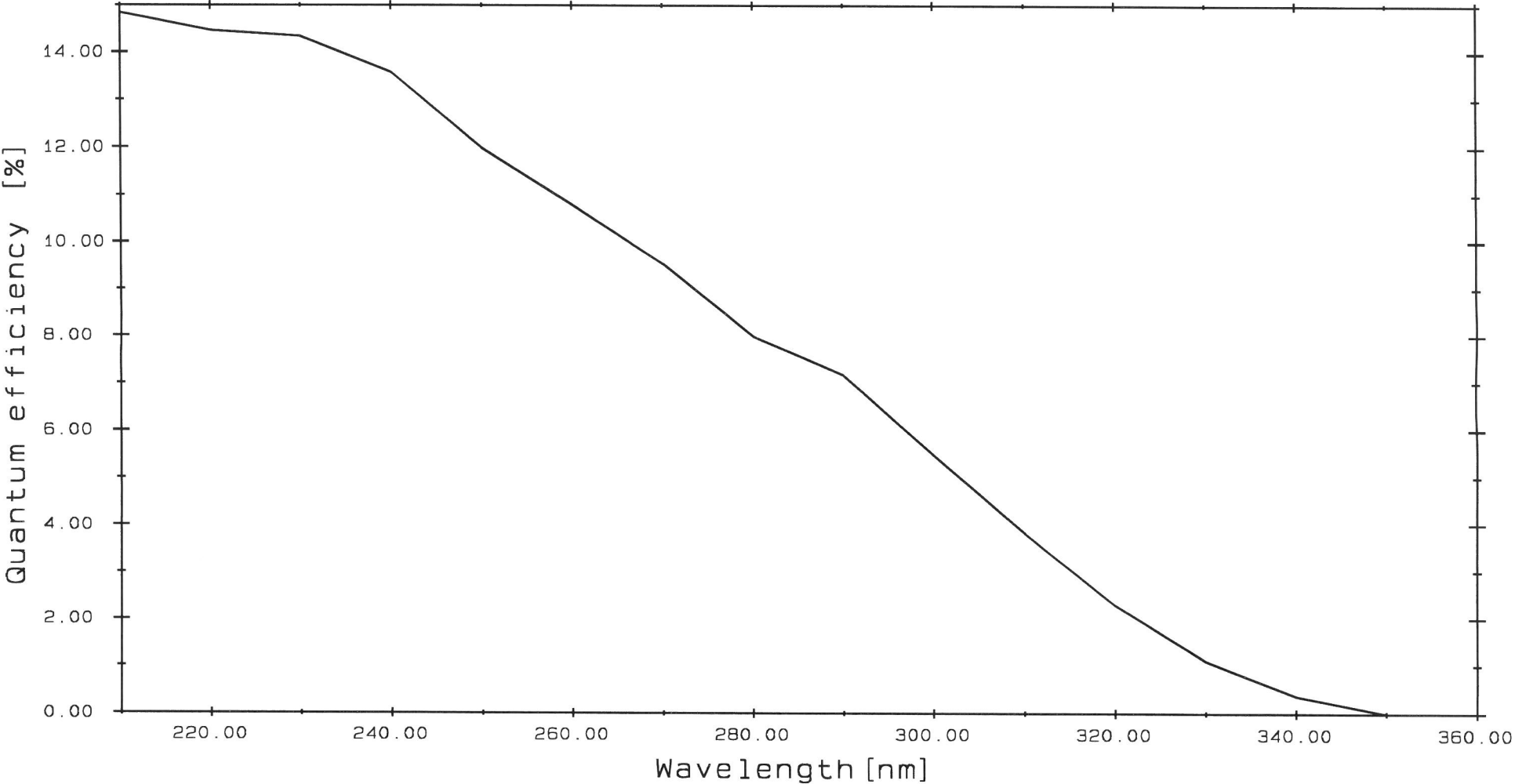
Wavelength [nm]	Responsivity [mA/W]	Quantum Efficiency [%]
210.00	25.13	14.84
220.00	25.67	14.47
230.00	26.59	14.34
240.00	26.26	13.57
250.00	24.14	11.97
260.00	22.60	10.78
270.00	20.74	9.52
280.00	18.01	7.98
290.00	16.76	7.16
300.00	13.25	5.48
310.00	9.54	3.81
320.00	5.92	2.29
330.00	2.91	1.10
340.00	0.99	0.36
350.00	0.00	0.00
360.00	0.00	0.00

Radiant sensitivity	[Micro-Amps per Lumen] =	0.08
Corning Blue	[Micro-Amps per Lumen] =	0.00
Corning Red	[Micro-Amps per Lumen] =	0.00
Wratten 87 Infra Red	[Micro-Amps per Lumen] =	0.00

Tube Type: 9422

Ser. No.: 1042

Date: 18-Dec-2013



Test Run No.: 27626
Ser. No.: 1042