

13

A monochromatic light of wavelength $5.2 \times 10^{-7} \text{ m}$ is incident normally on a diffraction grating, the third order lines are formed at an angle of 51.3° to the normal of the grating.

What is the number of lines per millimetre of the grating?

A

$$2.0 \times 10^{-6}$$

B

$$5.0 \times 10^2$$

C

$$5.0 \times 10^5$$

D

$$2.0 \times 10^6$$

