

ANNEX 1

The effective irradiance E_{ery} of ultraviolet radiation shall be determined as follows:

$$E_{ery} = \int_{\lambda=250 \text{ nm}}^{\lambda=400 \text{ nm}} E_{\lambda}(\lambda) \cdot S_{ery}(\lambda) \cdot d\lambda,$$

and the effective dose H_{ery} of ultraviolet radiation shall be determined as follows:

$$H_{ery} = \int_0^t \int_{\lambda=250 \text{ nm}}^{\lambda=400 \text{ nm}} E_{\lambda}(\lambda, t) \cdot S_{ery}(\lambda) \cdot d\lambda \cdot dt.$$

The relative spectral sensitivity factor $S_{ery}(\lambda)$ shall be determined as follows:

$S_{ery}(\lambda)$ [dimensionless] 250 nm–400 nm

Wavelength [nm]	$S_{ery}(\lambda)$
$250 \leq \lambda \leq 298$	1
$298 < \lambda \leq 328$	$10^{0.094(298-\lambda)}$
$328 < \lambda \leq 400$	$10^{0.015(140-\lambda)}$