

TEST REPORT IEC 62471:2006 Photobiological safety of lamps and lamp systems
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Note:



Test item particulars

Lamp classification group.....: Exempt Group

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	$L_B t = \frac{700}{300} \int L(\lambda, t) B(\lambda) d\lambda \quad \text{W} \cdot \text{m}^{-2} \cdot \text{s}^{-1}$		
	$L_B = \frac{700}{300} \int L_\lambda B(\lambda) d\lambda$		
	$E_B t = \frac{700}{300} \int E_\lambda(\lambda, t) B(\lambda) d\lambda \quad \text{W} \cdot \text{m}^{-2}$		
	$E_B = \frac{700}{300} \int E_\lambda B(\lambda) d\lambda$		
	$L_{IR} = \sum_{780}^{1400} L_\lambda \cdot R(\lambda) \cdot \Delta\lambda \leq \frac{50000}{\alpha} \quad \text{W} \cdot \text{m}^{-2} \cdot \text{sr}^{-1}$		
	$L_{IR} = \sum_{780}^{1400} L_\lambda \cdot R(\lambda) \cdot \Delta\lambda \leq \frac{6000}{\alpha} \quad \text{W} \cdot \text{m}^{-2} \cdot \text{sr}^{-1}$		

IEC 62471			
Clause	Requirement + Test	Result - Remark	Verdict
	The calculation of source hazard values shall be performed by weighting the spectral scan by the appropriate function and calculating the total weighted energy.		P
5.3.3	Measurement uncertainty		P
	The quality of all measurement results must be quantified by an analysis of the uncertainty.		P
6	LAMP CLASSIFICATION		P
	For the purposes of this standard it was decided that the values shall be reported as follows:		P
	– for lamps intended for general lighting service, the hazard values shall be reported as either irradiance or radiance values at a distance which produces an illuminance of 500 lux, but not at a distance less than 200 mm		N
	– for all other light sources, including pulsed lamp sources, the hazard values shall be reported at a distance of 200 mm		P
6.1	Continuous wave lamps		P
6.1.1	Exempt Group		P
	In the except group are lamps, which does not pose any photobiological hazard. The requirement is met by any lamp that does not pose:		P
	– an actinic ultraviolet hazard (ES) within 8-hours exposure (30000 s), nor		P
	– a near-UV hazard (EUVA) within 1000 s, (about 16 min), nor		P



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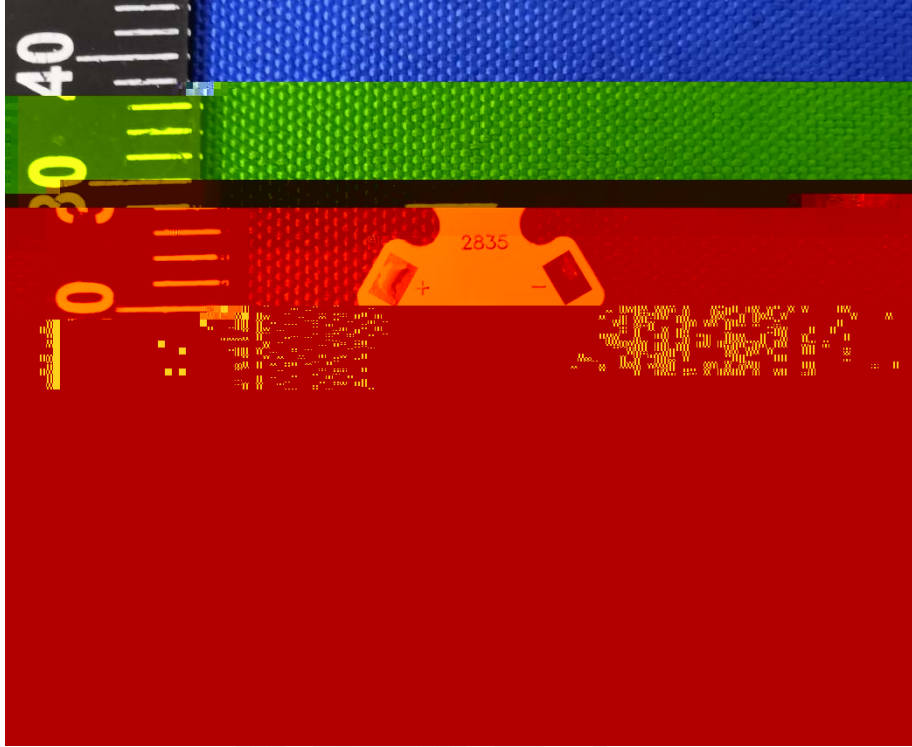
Table 5.4					-
Hazard Name	Relevant equation	Wavelength Range nm	Explosure aperture rad(deg)	Limiting aperture rad(deg)	EL in items of constant irradiance $W.m^{-2}$

Table 5.5					-
Hazard Name	Relevant equation	Wavelength Range nm	Explosure duration Sec	Field of view radians	EL in terms of constant radiance $W.m^{-2}.sr^{-1}$



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The overall view of EUT



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Equipment Description	Model No	BACL#	Manufacturer	Last Cal	Cal Due

End of report