TEST REPORT

IEC 62471:2006

Photobiological safety of lamps and lamp systems

Zero Goo

Herman Huang

[redacted]

Test item particulars

Lamp classification group.....: Exempt Group

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	$Es\ t = \sum_{t}^{400} \sum E\lambda(\lambda,t)\ s_{uv}(\lambda)\ \triangle t\ \triangle \lambda \leq$		
	≤		

	–		

	$L_B\ t = \sum_{300}^{700}\sum_{t} L_\lambda(\lambda,t)\ B(\lambda)\ \triangle t\ \triangle\lambda \leq$	$^{-2}$ $^{-1}$	
	$L_B = \sum_{300}^{700} L_\lambda\ B(\lambda)\ \triangle\lambda \leq$		
		α	
	$E_B\ t = \sum_{300}^{700}\sum_{t} E_\lambda(\lambda,t)\ B(\lambda)\ \triangle t\ \triangle\lambda \leq$	$^{-2}$	
	$E_B = \sum_{300}^{700} E_\lambda\ B(\lambda)\ \triangle\lambda \leq$		
	$L_{IR} = \sum_{38}^{1400} L_\lambda \cdot R(\lambda) \cdot \Delta\lambda \leq \frac{50000}{\alpha \cdot t^{0.25}}$	$W/m^{-2}, sr^{-1}$	
	$L_{IR} = \sum_{780}^{1400} L_\lambda \cdot R(\lambda) \cdot \Delta\lambda \leq \frac{6000}{\alpha}$	$W \cdot m^{-2} \cdot sr^{-1}$	

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	$E_{IR} = \sum_{780}^{3000} E_\lambda \cdot \Delta\lambda \le 18000 \cdot t^{-0,75}$ W·m^{-2}		
	$E_{IR} = \sum_{780}^{3000} E_\lambda \cdot \Delta\lambda \le 100$ W·m^{-2}		
	$E_H \cdot t = \sum_{380}^{3000} \sum_{t} E_\lambda(\lambda,t) \cdot \Delta t \cdot \Delta\lambda \le 20000 \cdot t^{0,25}$ J·m^{-2}		

		℃	

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	α	α	
	△		

BACL
Bay Area Compliance Labs Corp.

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FIN

Table 4.2		
Wavelength **nm**	**Blue-light hazard function** **B( )**	**Burn hazard function** **R( )**
	λ	
		λ
		λ

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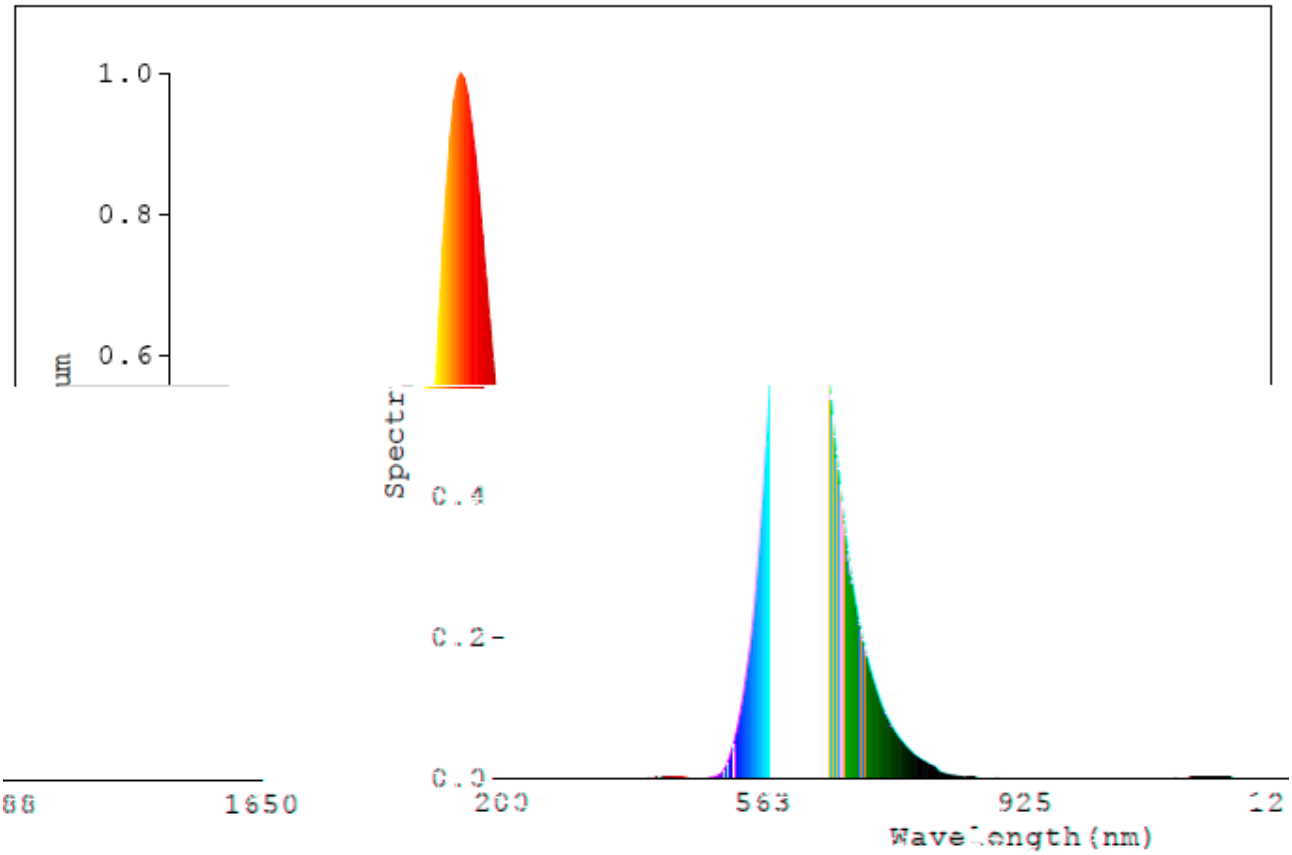
Table 5.4					-
Hazard Name	**Relevant equation**	**Wavelength Range nm**	**Explosure aperture rad(deg)**	**Limiting aperture rad(deg)**	**EL in items of constant irradiance $W.m^{-2}$**
	$\sum_{\Delta\lambda}{}_{\lambda}\ \lambda$				
	$\sum_{\Delta\lambda}{}_{\lambda}$		≤		
	$\sum_{\Delta\lambda}{}_{\lambda}\ \lambda$		≤		
	$\sum_{\lambda}\ \Delta\lambda$		≤		
	$\sum_{\lambda}\ \Delta\lambda$			π	

Table 5.5					-
Hazard Name	**Relevant equation**	**Wavelength Range nm**	**Explosure duration Sec**	**Field of view radians**	**EL in terms of constant radiance $W.m^{-2}.sr^{-1}$)**
	$\sum_{\Delta\lambda}{}_{\lambda}\ \lambda$		≥	√ √	
	$\sum_{\Delta\lambda}{}_{\lambda}\ \lambda$			√	α α
	$\sum_{\Delta\lambda}{}_{\lambda}\ \lambda$				α

	–		


1.0
0.8
0.6
0.4
0.2
0.0
1650
563
925
Wavelength(nm)

EUT - The overall view

DIRECTIONS

End of report