

IEC 62471 Photobiological Safety of Lamps and Lamp Systems

With reference to EN 62471:2008 sources of optical radiation are classified into risk groups subject to their potential photobiological hazard.

This classification takes place through a risk assessment, which is conducted on the either individual components or the final product based on information obtained from the manufacturer.

If a source is assigned to a "safe" group (Exempt Group), or to a low risk group (Risk Group 1), it would not be needed for a detailed workplace evaluation, since there is no photobiological safety hazard issue.

Sources are classified into the following four groups according to hazard, based on the emission limit as well as permissible exposure time before hazard exceeded:

Exempt

No Photobiological Hazard

Group 1 (Low-Risk)

No Photobiological hazard under normal behavioral limitations

Group 2 (Moderate-Risk)

Does not pose a hazard due to aversion response to bright light or thermal discomfort

Group 3 (High-Risk)

Hazardous even for momentary exposure



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Identifying Classifications:

On each Advanced illumination Data Sheet there is a "General Specifications" section on the first page.

Within this table there is a section labeled **Photobiogolical Risk Factor IEC 62471** (see Fig. 1). In here, the risk factor levels are broken down by color available with the selected light. (See Fig. 1)

Electrical Specifications	Color	24v Current	All Other Controls
	365,375,385,395,405	N/A	0.15 A Max Per 75mm
	625, 660, 730	N/A	0.34 A Max Per 75mm
	455, 470, 505, 530, 590, 850, 940, WHI	N/A	0.27 A Max Per 75mm
Normal Operating Temperature	0 - 60 °C		
Weight (g)	Varies by size; see page 2		
Standard Cable Information	Up to 2 meters (80") long - 105 °C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor IEC 62471	Exempt Applicable Wavelengths: 850, 940 Group 1 (Low-Risk) Applicable Wavelengths: 455, 470, 505, 530, 590, 625, 660, 730, WHI Group 2 (Moderate Risk) Applicable Wavelengths: 365, 375, 385, 395, 405		
Compliance	CE ROHS IEC 624 I		
IP Rating	IP50		
Lumen Maintenance	L70 = 50,000 hours		

Fig. 1 Example location of IEC rating on data sheet of AL295.



The following Ai products have been tested and classified by Intertek Testing Services.

Specific wavelength IEC classifications can be found on AI data sheet pages.

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<mark>lodel Name/Numl</mark>	per:		
AL116	DL151	SL147	
AL126	DL194	SL162	
AL143	DL2230	SL164	
AL150	DL225	SL191	
AL179	FD2xxyy	SL223	
AL247	FX2xxyy	SL2430	
AL295	LL137	SL243	
AL325	LL158	SL244	
AL4424	LL163	SL256	
AL4554	LL167	SL2507	
AL46120	LL174	SL4301	
AL-S025300	LL232	SL-S050075	
BL128	LL2912	SL-S100150	
BL138	LL3024		
BL168	LL3148		
BL193	LL330		
BL245	RL112		
BL313	RL121		
BL5420	RL127		
BL-S050075	RL1424	Interte	
BL-S100150	RL152		
BL2-xxyy	RL208	http://www.inter	
BT050050	RL2115		

RL2316

RL3536

RL36120

RL3940 RL4260

RL5064

SL073

RL-S052120

intertek.com/

DL097 SL112 DL110 SL1236

BT100100 BT200100

DF196

DF198

DF241 DF242

DL067

DL071



Manufacturer:

Advanced illumination 440 State Garage Road Rochester, VT 05767 (802) 767-3830 (802) 767-2636 (fax)

The undersigned declares that the above named equipment conforms to the above Standard(s) and Directive(s).

Signature:

Name: Kiyomi Monro

Position: Vice President, LED Group

Date: January 31, 2025