ADVANCED ILLUMINATION
An Exaktera Company

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

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 62471		
IP Rating	IP50		
Lumen Maintenance	L70 = 50,000 hours		

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

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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.

Model Name/Number:

AL116
AL126
AL143
AL150
AL179
AL247
AL295
AL4424
AL4554
AL46120
AL-S025300
BL128
BL138
BL168
BL193
BL245
BL313
BL5420
BL-S050075
BL-S1-00150
BLxxyy
BL2-xxyy
BT050050
BT100100
BT200100
BXxxyy
CBxxyy
CXxxyy
DF196
DF198
DF241
DF242
DL067
DL071
DL080
DL097
DL110
DL151
DL194
DL2230
DL225
FDxxyy
FXxxyy
LL137
LL158
LL163
LL167
LL174
LL230
LL232
LL2912
LL3024
LL3148
RL112
RL121
RL127
RL1424
RL152
RL208
RL2115
RL2316
RL3536
RL36120
RL3940
RL4260
RL5064
RL-S052120
SL073
SL112
SL1236
SL147
SL162
SL164
SL191
SL223
SL2430
SL243
SL244
SL256
SL2507
SL4301
SL-S050075
SL-S100150

Intertek
http://www.intertek.com/

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Manufacturer:

Advanced illumination
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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: April 27, 2023