ARRI Lighting, Lighting Laboratory R. Krämer, 2024-02-01



Photobiological Safety of ARRI L-Series, classic SkyPanel, SkyPanel X and Orbiter

General Information

ARRI is measuring the photobiological safety according to DIN EN 62471:2009 (IEC 62471:2006 modified), "Photobiological safety of lamps and lamp systems".

In contrast to the standard which claims a measurement in a distance of 20 cm ARRI is measuring in the distance which is stated as minimum operation distance at the type plate of the fixtures. Hence the risk group classification is valid for the minimum distance as stated at the type plate.

Reason for this is the fact that it's not possible to use the measurement devices or sensors in only 20 cm distance from our high power fixtures which have a power up to 18 ... 24 kW. Heat could damage the sensors, this distances are not practically relevant and last but not least measuring in the near field could lead to additional errors. To handle all of our fixtures in the same manner we're generally measuring in the minimum distance as stated at the type plate and which mustn't be undercut by the user.

		Risk Group classification					
fixture	distance	Risk Group	Near UV	Actinic UV	Blue Light	IR	Thermal
type		overall	(eye)	(skin and eye)	(Retina)	(eye, cataract)	(Retina)
L5-C	0,5 m	1	0	0	1	0	0
L5-TT	0,5 m	1	0	0	1	0	0
L5-DT	0,5 m	1	0	0	1	0	0
170			0	0		0	
L7-C	0,5 m	1	0	0	1	0	0
L7-TT	0,5 m	1	0 0	0	1	0	0
L7-DT	0,5 m	1	0	0	1	0	0
L10-C	1,0 m	1	0	0	1	0	0
L10-TT	1,0 m	1	0	Ő	1	0	ŇŎ
L10-DT	1,0 m	1	0	0	1	0	0
2.0 2.	.,•					C	\mathcal{I}
S30-C	1,0 m	1	0	0	1	8.0	0
S30-RP *)	1,0 m	1	0	0	14	0	0
					ND		
S60-C	1,0 m	11	0	0 ()	1	0	0
S60-RP *)	1,0 m		0	R0	1	0	0
0100.0			AN		0	0	0
S120-C	1,0 m	0	0	0	0	0	0
S360-C	1,0 m	0	0	0	0	0	0
0000-0	r,0 m		0	0	0	0	0
SkyPanel X	1,0 m	1	0	0	1	0	0
,		-	-	-	-	-	-
Orbiter	0,5 m	2	0	0	2	0	0
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Summary of Risk Groups for ARRI L-Series, classic SkyPanel, SkyPanel X and Orbiter in given minimum distances:

*) S30/S60-RP:

RG0 when used with phosphor plate.

RG1 when used without phosphor plate.