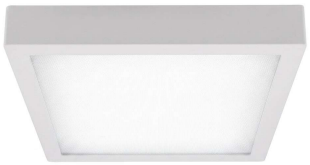
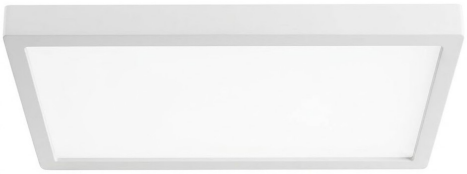
CLEANROOM LIGHTING FIXTURE

ELBAMED LED





Field of application

Cleanroom lighting compliant with **ISO 14644-1 standard, Classes 3–9**. Owing to its absolute capability to prevent particle and microbiological contamination, this luminaire is engineered for lighting:

- Operating theaters and critical care zones (transplant rooms, ICUs)
- Pharmaceutical and biotech manufacturing (aseptic areas intended for sterile processing of drugs and vaccines)
- High-risk medical sectors (neonatology, oncology, burn units)
- Diagnostic and research laboratories

Advantages

- Visual comfort and optical performance
- High energy efficiency
- Ideal for environments requiring strict hygiene
- Low maintenance costs
- Seamless surface preventing dust accumulation
- Easy to clean and resistant to disinfectants
- Easy installation

CE	EN IEC 60598	F	RoHS	IP65	IK 08	⏚	5 YEARS WARRANTY	FROM t_a -20°C TO t_a +40°C	MAX 60W LED

Certified product in accordance with ISO 14644-1 standard, Classes 3–9.

General Specifications

Product name	**ELBAMED LED**
Light source	LED
Color temperature	3000K, 4000K
Color Rendering Index (CRI)	≥80, ≥90
Unified Glare Rating (UGR)	≤19 (glass diffuser + polycarbonate microprismatic diffuser) or (glass diffuser + polycarbonate microprismatic diffuser + opal polycarbonate diffuser) ≤22 (glass diffuser + opal polycarbonate diffuser)
Light distribution type	Symmetrical
Ingress protection rating (dust/water)	IP65
Mechanical impact protection rating	IK08
Relative humidity	Up to 80% at +20°C temperature
Operating temperature range	-20°C....+40°C
Warranty period	5 years

Electrical characteristics

Nominal voltage	230 Vac ± 10%
Surge protection	2 kV
Frequency (Hz)	50 Hz ± 10%
Electrical insulation class	I
Power factor	≥0,95
SDCM (MacAdam ellipses)	3 Step MacAdam
LED lifetime	L70B50, 50.000 hours at ta=25°C
Emergency lighting kit	Depending on the version, the product can be equipped with a 1-hour or 3-hour emergency lighting kit. Batteries used: LiFePO4
Driver	The product supports various luminous flux control options, being available with drivers compatible with ON/OFF, DALI, or 0-10V protocols.

Mechanical characteristics

Structural design:

Housing	Sheet steel, electrostatically powder-coated
Diffuser	Depending on the version, the product diffuser can be made of a package consisting of: - Tempered glass + acrylate (PMMA) opal diffuser - Tempered glass + polycarbonate (PC) microprismatic diffuser - Tempered glass + polycarbonate (PC) microprismatic diffuser + acrylate (PMMA) opal diffuser
Color	The product is finished with a white coating formulated with biocidal active silver ions. This technology provides broad-spectrum antimicrobial properties, demonstrating high efficacy in neutralizing pathogenic microorganisms—including *Staphylococcus aureus* strains (highly resistant bacteria typical of hospital environments)—and inhibiting the growth of fungi (molds).

Optical characteristics

Flux net [lm]				
Power [W]	**830 (3000K, CRI≥80)**	**840 (4000K, CRI≥80)**	**930(3000K, CRI≥90)**	**940 (4000K, CRI≥90)**
10	**1183**	**1231**	**1097**	**1140**
20	**2637**	**2463**	**2193**	**2280**
30	**3550**	**3694**	**3290**	**3420**
40	**4733**	**4925**	**4387**	**4560**
50	**5917**	**6157**	**5483**	**5700**
60	**7100**	**7388**	**6580**	**6840**

Mounting

- Surface-mounted
- Recessed in exposed grid false ceiling
- Ceiling tile thickness ranging from 12 mm to 15 mm
- Recommended technical cavity depth between the ceiling and concrete: minimum 150 mm
- Recessed in plasterboard ceiling
- Plasterboard thickness ranging from 9.5 mm to 12.5 mm, up to 25 mm in special cases
- Recommended technical cavity depth between the plasterboard and concrete: 100 mm to 110 mm

Standards and compliance

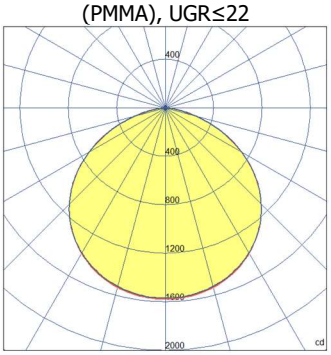
Standards:	- **EN IEC 60598-1** - **EN 60598-2-1** *Complies with ISO Class 3 to 9 requirements in accordance with ISO 14644-1 certification.

In compliance with:

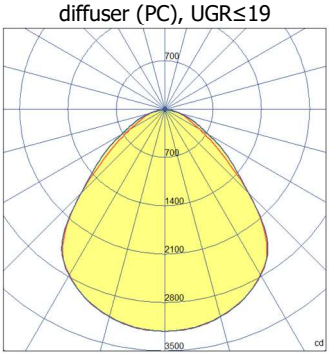
- Electromagnetic Compatibility (EMC) Directive
- Low Voltage Directive (LVD)
- RoHS Directive
- WEEE Directive

Photometric data

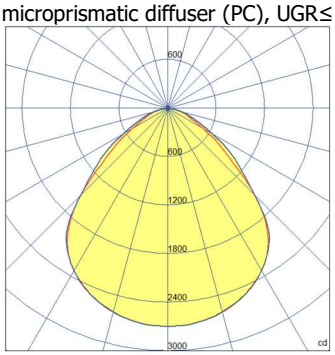
Tempered glass + opal diffuser (PMMA), UGR≤22



Tempered glass + microprismatic diffuser (PC), UGR≤19



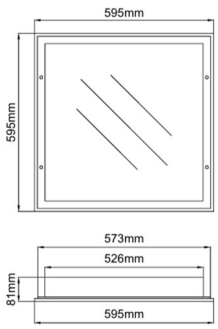
Tempered glass + opal (PMMA) diffuser + microprismatic diffuser (PC), UGR≤19



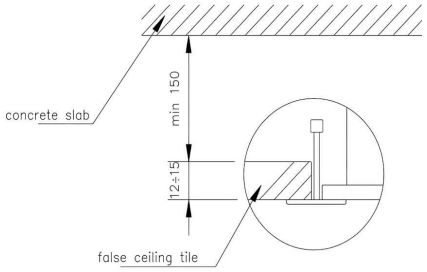
Dimensional characteristics

Recessed mounting

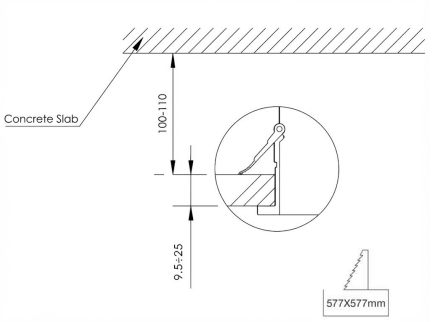
595x595



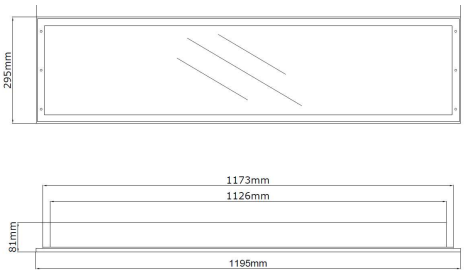
False ceiling mounting system



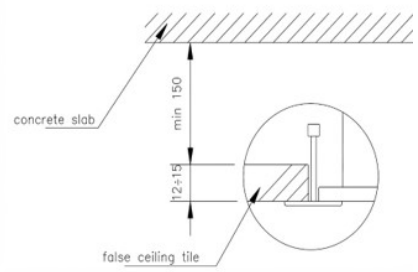
Plasterboard ceiling mounting system



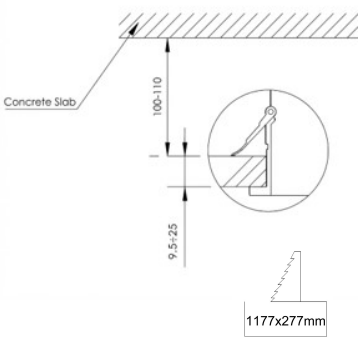
1195x295



False ceiling mounting system

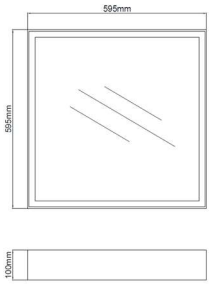


Plasterboard ceiling mounting system

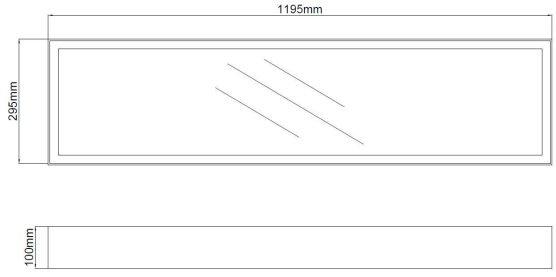


Surface mounting

595x595



1195x295



Annex-product codification

PABCDEFGH – ELBAMED LED

ELBAMED LED		TYPE	CODE	TYPE	CODE
A	DIMENSION	595X595	3	1295X295	4
B	MOUNTING TYPE	SURFACE MOUNTED [AP]	7	SURFACE MOUNTED [AP]	7
		RECESSED-PLASTERBOARD [INCR]	8	RECESSED-PLASTERBOARD [INCR]	8
		RECESSED-FALSE CEILING [INC]	9	RECESSED-FALSE CEILING [INC]	9
C	POWER	10 [W]	1	10 [W]	1
		20 [W]	2	20 [W]	2
		30 [W]	3	30 [W]	3
		40 [W]	4	40 [W]	4
		50 [W]	5	50 [W]	5
		60 [W]	6	60 [W]	6
D	COLOR TEMPERATURE [K]	830 CRI≥80 - 3000K	1	830 CRI≥80 - 3000K	1
		840 CRI≥80 - 4000K	2	840 CRI≥80 - 4000K	2
		930 CRI≥90 - 3000K	3	930 CRI≥90 - 3000K	3
		940 CRI≥90 - 4000K	4	940 CRI≥90 - 4000K	4
E	PRODUCT COLOR	WHITE	1	WHITE	1
		OTHER RAL COLORS	2	OTHER RAL COLORS	2
F	DIFFUSER	Tempered glass + opal (PMMA) diffuser [GO]	1	Tempered glass + opal (PMMA) diffuser [GO]	1
		Tempered glass + microprismatic (PC) diffuser [GM]	2	Tempered glass + microprismatic (PC) diffuser [GM]	2
		Tempered glass + opal (PMMA) diffuser + microprismatic (PC) diffuser [GOM]	3	Tempered glass + opal (PMMA) diffuser + microprismatic (PC) diffuser [GOM]	3
G	LUMINOUS FLUX CONTROL MODE	ON-OFF [ ]	1	ON-OFF [ ]	1
		DALI2 [DA]	2	DALI2 [DA]	2
		0-10V [DIM]	3	0-10V [DIM]	3
H	EMERGENCY LIGHTING KIT	1H	1	1H	1
		3H	2	3H	2
		WITHOUT KIT	3	WITHOUT KIT	3

CODING EXAMPLE : P37621312 – ELBAMED LED 595X595 AP 60W 840 WHITE GOM ON-OFF 3H

Initial luminous flux and active power tolerance is ±10% of the specified value. These values are measured at an ambient temperature of 25°C unless another temperature is specified. ELBA S.A. continuously develops its products. We reserve the right to modify technical specifications to improve our products, without prior notice or public announcement. © ELBA S.A.