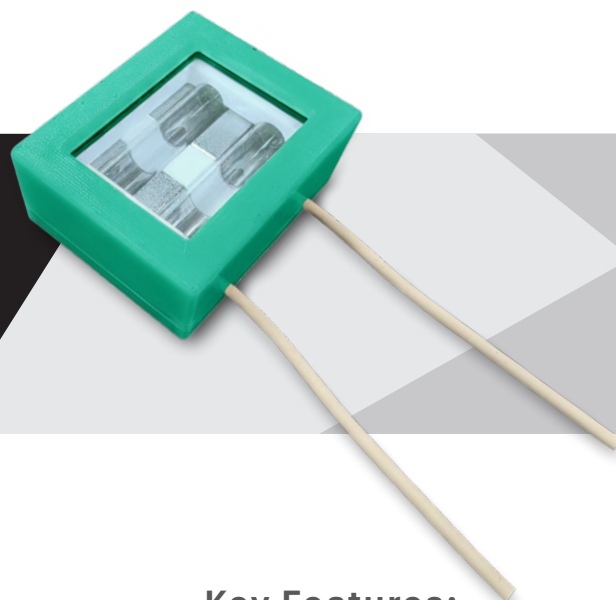




EL09-50 Module, 10W, 250 mm², Excimer lamp



EL09-50

Excelitas® excimer lamps utilize nanosecond duration excitations of exciplex species to generate narrow bandwidth 222 nm ultraviolet light safely and efficiently. The 222 nm wavelength is eye safe and has proven effective at combating a wide variety of microbes, making Excelitas excimer products worthy of consideration in a stand-alone system or integrated into multiple modality disinfection solutions. Long lifetime ensures reliable usage long after other technologies degrade in efficacy or require a bulb replacement.

The Excelitas excimer module encapsulates excimer lamps with an integrated reflector, transverse discharge, and external electrodes that maximize lamp lifetime, all contained in a rugged modular design perfect for small work areas or prototyping, but also capable of tiling to cover larger areas.

Excelitas excimer lamps incorporate proprietary UV filtering technology to enhance human safety by selectively transmitting 222 nm germicidal ultraviolet light while limiting harmful wavelengths in the 254-260 nm range. EL09-50-1 provides a maximum suppression (99%) of 257 nm, offering a stringent level of safety for occupied spaces. EL09-50-2 provides moderate suppression (55%) of 257 nm.

Key Features:

High-intensity emission at 222 nm

>3000 hours lifetime

RoHS Compliant

Applications:

Air disinfection;
viral and other microbes

Surface disinfection;
viral and other microbes

Food processing

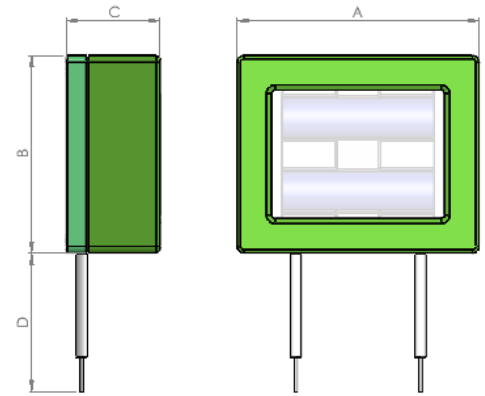
Pharmaceutical processing

Packaging sterilization



Mechanical Specifications:

Dimension	Description	Nominal
A	Width	70 mm
B	Height	50 mm
C	Depth	27 mm
D	Wire Length	120 mm
-	Window Size	50 x 37 mm
-	Weight	158 grams



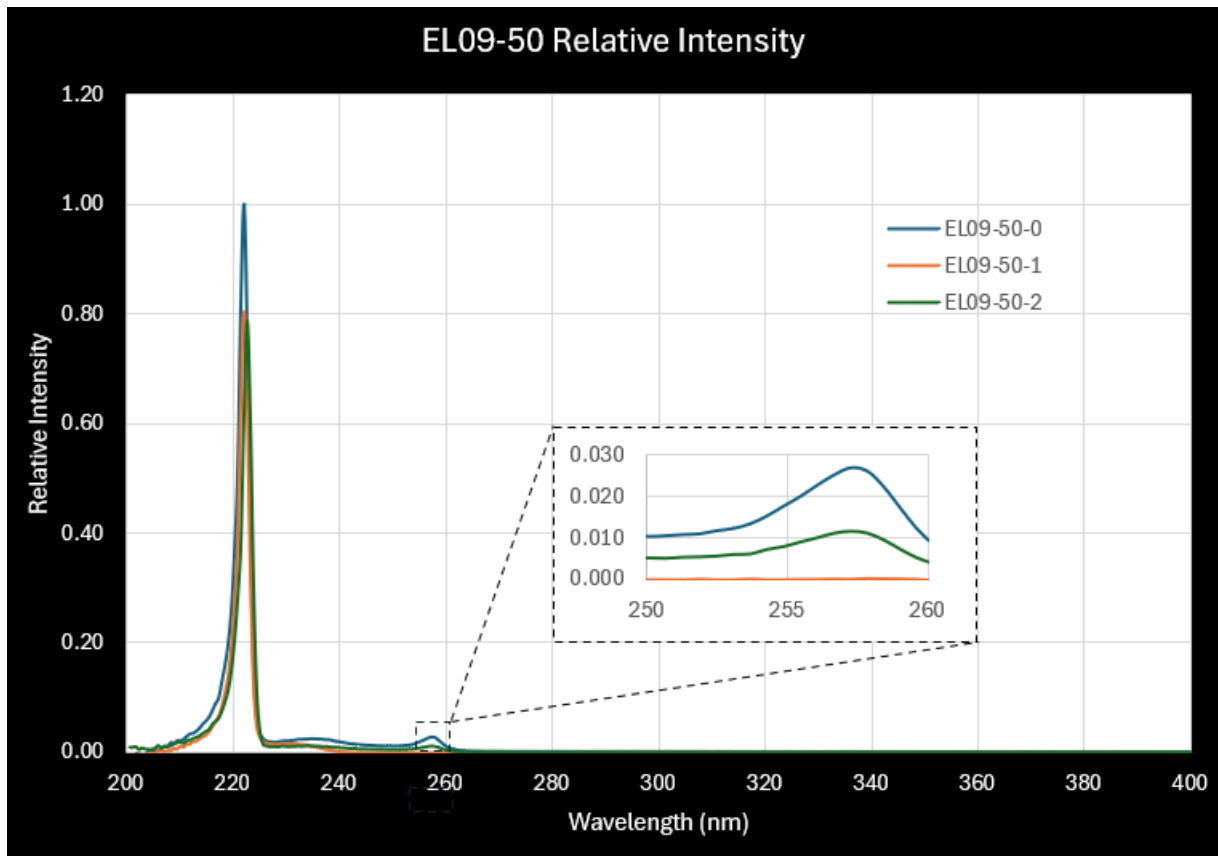
Operating Specifications

Description	Nominal																																				
Power Input	10 Watts																																				
Irradiance*	EL09-50 Irradiance <table><caption>Approximate data from EL09-50 Irradiance graph</caption><thead><tr><th>Distance (cm)</th><th>EL09-50-0 (uW/cm²)</th><th>EL09-50-1 (uW/cm²)</th><th>EL09-50-2 (uW/cm²)</th></tr></thead><tbody><tr><td>0</td><td>8200</td><td>5200</td><td>4800</td></tr><tr><td>2</td><td>4500</td><td>3500</td><td>2500</td></tr><tr><td>4</td><td>2200</td><td>1800</td><td>1200</td></tr><tr><td>6</td><td>1200</td><td>1000</td><td>700</td></tr><tr><td>8</td><td>800</td><td>600</td><td>400</td></tr><tr><td>10</td><td>500</td><td>400</td><td>250</td></tr><tr><td>12</td><td>300</td><td>250</td><td>150</td></tr><tr><td>14</td><td>150</td><td>100</td><td>50</td></tr></tbody></table>	Distance (cm)	EL09-50-0 (uW/cm²)	EL09-50-1 (uW/cm²)	EL09-50-2 (uW/cm²)	0	8200	5200	4800	2	4500	3500	2500	4	2200	1800	1200	6	1200	1000	700	8	800	600	400	10	500	400	250	12	300	250	150	14	150	100	50
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6	1200	1000	700																																		
8	800	600	400																																		
10	500	400	250																																		
12	300	250	150																																		
14	150	100	50																																		
Radiant Flux*	100 mW UV-C																																				
Warm-up time	<100 μsec																																				
Surface Temperature	80°C, Maximum																																				
Lifetime**	>3000 hours typical																																				
Ozone	Minimal emission																																				

*Per Excelitas measurement method

**End of Life - 30% reduction in output from new

Spectral Output



Environmental Specifications

Description	Nominal
Ambient Starting Temperature	0°C Minimum
Operating Humidity	85% Maximum, non-condensing
Environmental Operating Pressure	700 to 1050 hPa
Storage Temperature	60°C Maximum
Storage Humidity	85% Maximum, non-condensing

Notes:

1. Lamps require ambient air cooling, dependent on the application and duty cycle.
2. Operational warnings:
 - Do not touch the lamp module during operation. High voltage applied during operation.
 - Do not place flammable items nearby during operation.
 - For additional precautions, please refer to the lamp specification sheet.
3. For disposal, standard practices apply. No special requirements.

RoHS Compliance

The excimer lamp is designed and built to be fully compliant with the European Union Directive 2015/863/EU – Restriction of the use of certain Hazardous Substances (RoHS) in Electrical and Electronic equipment.



About Excelitas

Excelitas® is a leading provider of advanced, life-enriching technologies that make a difference, serving global market leaders in the life sciences, advanced industrial, next-generation semiconductor and avionics end markets. Headquartered in Pittsburgh, PA, USA, Excelitas is an essential partner in the design, development and manufacture of advanced technologies, offering leading-edge innovation in sensing, detection, imaging, optics and specialty illumination for customers worldwide.

Excelitas is at the forefront of addressing many of the relevant megatrends impacting the world today, including precision medicine, industrial automation, artificial intelligence, and connected devices (IoT).



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