

# THE best laser safety calculation, analysis, and classification software... period

#### **VERSION 5.5** now shipping

If you use, design, modify, integrate, apply, manufacture, or manage lasers, you need this software. GL Services has created the most comprehensive solution for anyone who needs to determine laser-based risk

**LaserSafe PC is kept compliant with the current**, in-place regulations and standards:

- IEC EN60825-1:2014
- 21CFR1040.10/.11
- ANSI Z136.1-2014
- IEC EN207/208

LaserSafe PC has an easy and intuitive input deck which makes it simple to enter the data you have to get the results you need.

LaserSafe PC generates results in seconds instead of the hours it requires you to scans through over 600 pages of federal code and international standards, select the correct data, and calculate a (correct) result.

LaserSafe PC has an interactive guide (Assistant) and look-up tables help you understand where and what in the standards applies. Perfect for beginners and educators as well as seasoned professionals in the laser safety field.

LaserSafe PC automatically generates appropriate labeling and signage to both US and International standards. One of the first items of review during an OSHA inspection or EHS/SIH audit.

LaserSafe PC users receive unlimited feature, performance, and integrated changes related to updated standards and regulations- delivered upon launch of application. Annual updates are available for 55% of the full license cost. You will always be kept up to date.





FlyOuts

Laser Operations



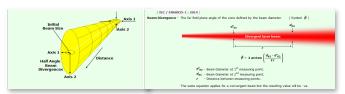
In-Depth Calculation Details



Calculation Details and PPE & Filter Selection



Classification Detail



Assistant (interactive Guide)



Labeling and Signage

### **Emission Sources:**

Lasers - Intra-Beam Exposure	Small (point) Sources Large (extended) Sources	Gaussian (1/e, 1/e², d₃ and FWHM) or Flat Top Profiles
LEDs	Includes built in CIE Luminosity Curve	
Fibre Optics	Single mode or Multi mode (Step & Graded Index)	
Diffuse Reflection Sources	Reflectance or Measured Value Inputs	
Scanning Beam Sources	Includes Waveform Selection	

### **Operation Mode:**

CW	Continuous Wave
Pulse Train	Continuously Repetitive Pulse Output
Single Pulse	Single Pulse Operation

### **Results:**

Quick	All results colour coded for rapid appraisal of hazard
Details	Limiting MPEs
	Eye & Skin MPE Excess
	Accessible Emissions
	Classification (& Hazard Levels)
	NOHD & Extended NOHD
	Safety Spectacle Results
	Miscellaneous Useful Results
	IEC and ANSI "Conversion Bubbles".
Information	Correction factors $(C_1 - C_7, C_A, C_B, C_c, C_E, C_P, K_\lambda, k_1, k_2)$
	Time breaks (T <sub>1</sub> & T <sub>2</sub> )
	Pulse summing
	Angular Subtense & Acceptance Angles
	LB Number Correction factors + Pulse Summing
Classification	AELs (Classes 1 to 3B, I - IIIb)
	Conditions 1, 2 or 3 Calculation Details
Hazard Levels	AELs (Classes 1 to 3B) for Fibre Optics
	Conditions 1-3 Calculation Details
Safety Labels	Signage for equipment and enclosures.
	Signage shown for calculated Product Class.

## MPE & AEL Lookup Tables:

AELs	For all Classes and Standards
MPEs	Ocular & Skin
Correction Factors	Factors for all Standards
Time Breaks	For all Standards
Classification Conditions	Apertures & Measurement Distances

## Miscellaneous:

Notes	Notes on Safety Issues and Result Interpretations
Colour Help	Shows the approximate colour of visible wavelengths with CIE Photopic and Scotopic Efficiency Values.
Lens Calculator	Calculates the effect of lenses on diverging and converging laser beams - and more.

**LEARN MORE, DOWNLOAD DEMO, ORDER HERE** 



