

# Lighting studies

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## WHAT ARE THE BENEFITS OF A LIGHTING STUDY?

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To Sécurlite, lighting is not just the provision of light, but a factor for safety, ambience, and energy transition. This is why our Design Office is there to answer your requests in the best way possible.

In concrete terms, a lighting report will be carried out of the area for your project, taking into account the dimensions of the space, the luminaire installation height, the activity in the area being studied, the surroundings, and the colour of the walls and floors.

Once this report has been produced, our lighting study department will analyse it in the light of the standards to be complied with, using the most appropriate models and the most appropriate number of fittings.

There are many advantages to having a lighting study done:

- Optimizing the number of lighting points.
- Simulating the illuminance levels achieved in accordance with current standards.
- Basis for forecasting other possible additional changes that may need to be made.
- Comparing current installations with the proposed improvements.

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## RGE INTERIOR LIGHTING STUDY: QUALITY CERTIFICATION

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The French quality mark “RGE” (“Recognized as Environmentally Friendly”) is recognition granted by the public authorities and the ADEME (French Agency for Ecological Transition) to professionals in the construction and renewable energies sector as part of a quality policy.

Sécurlite has been awarded *OPQIBI – RGE* interior lighting study certification. This defines a set of criteria to be met by Design Offices who must ensure service provisions that are of high quality and respect the environment.

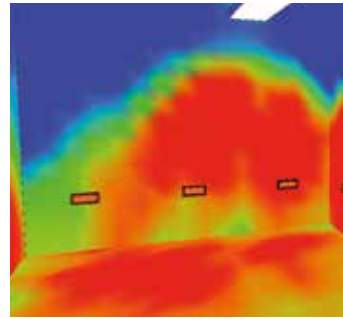




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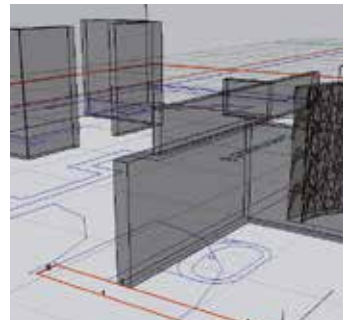
The motorized photogoniometer in our laboratory enables us to immediately measure photometric characteristics for luminaires, including special productions.



Lighting simulations are performed in accordance with the EN 12464 standard using RELUX® Pro, one of the best professional programmes on the market, in order to guarantee thorough, objective results.



3D visualisations make it possible to give an idea of the feel of the light and to assess the accuracy of the calculations.

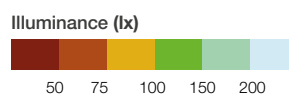


From the information you give us (measurements, plans, .dwg or .dxf files, etc.) we re-create the lighting conditions for your project.

To be able to carry out an accurate study that meets your request as well as possible, we need the following information:

- Type of buildings (new build or refurbishment),
- Dimensions of the spaces or drawings in .dwg or .dxf format,
- Colour of floors, walls, and ceilings,
- Maintenance factor.

This information will enable us to obtain an accurate result and a simulation as close as possible to the real situation.



## General

Calculation algorithm used  
Height of luminaire plane (m)  
Maintenance factor

Average indirect fraction

2.50 m

Installation height for lighting fixtures.

0.90

Installation maintenance factor

(allows for loss of light output and soiling of the luminaire).

Luminous flux from all the lamps  
Total power  
Total power per unit area ( $24 \text{ m}^2$ )

10,625 lm

90.0 W

Total power consumed for the space.

 $3 \text{ W} / \text{m}^2$  ( $2.44 \text{ W} / \text{m}^2 / 100 \text{ lx}$ )

Useful power per m<sup>2</sup> and useful power per m<sup>2</sup> for 100 lux.

Measurement surface

Horizontal  
usable plane

Em  
Emin  
Emin / Em (Uo)

123 | x

77 lx

0.62

Average illuminance measured at floor level.

Minimum illuminance measured at floor level.

Uniformity (the closer the result is to 1, the more even the light distribution).

UGR (1.0 H 16.0 H)  
Position $\leq 22.8$ 

0.00 m

The UGR factor gives an idea of the discomfort glare within the OBSERVER's visual field with respect to the background luminance.

The higher the value, the greater the likelihood of discomfort glare.

Type	No.	Make
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②	Secur-lite:	
⑤	Order code:	10620400
	Luminaire name:	Voila white 2400 LED module 4000 K AV
	Lamps:	1 x LED module

C and C': distance between the walls and the end luminaires. To maintain uniformity of illumination, C' will be taken as being close to C divided by 2.

Thus for a luminaire spacing  $C$  of 2 m, the distance  $C'$  between the walls and the end luminaires will be 1 m.

Number of luminaires used in the space.

Type number of luminaire used throughout the project.