

# LU Dabas zinātņu akadēmiskais centrs, 728

Installation : Sestais Sils/Silica/Siteco

Project number : 12

Customer : Sestais Sils

Processed by : Jānis Kārklīšs

Date : 27.07.2011

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

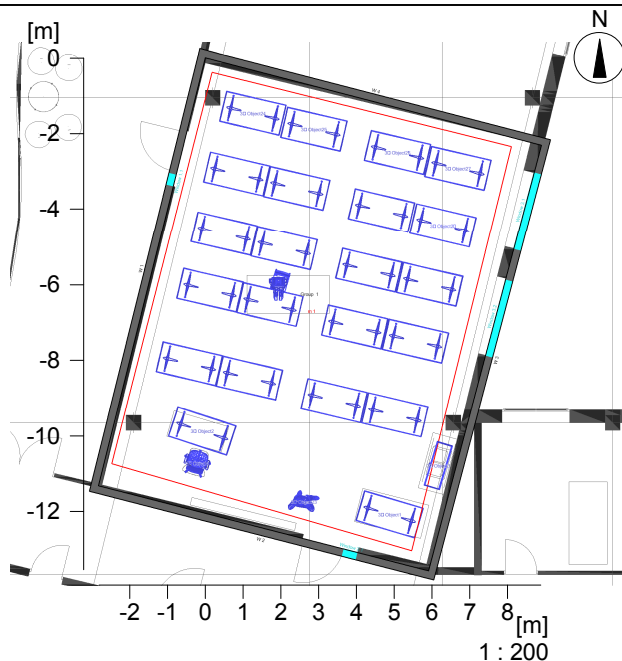
Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.

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# 1 Room 1

## 1.1 Description, Room 1

### 1.1.1 Floor plan

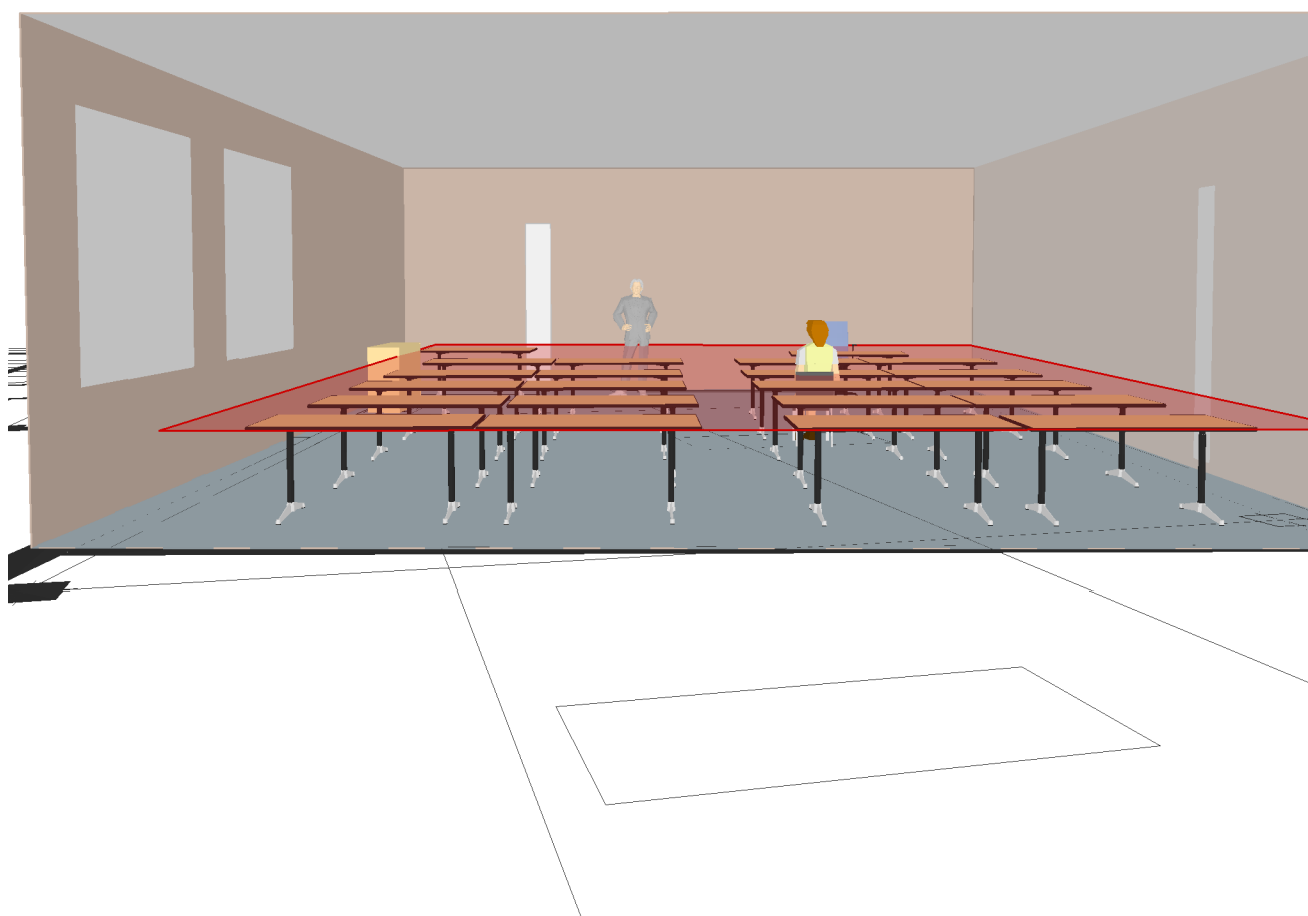


Wall	x	y	Length	Reflectance	Structural elements
1	16.39 m	23.83 m	11.65 m	70.0 %	Pi : Pillar
2	25.09 m	21.60 m	8.99 m	50.0 %	Tr : Partition
3	28.07 m	32.84 m	11.63 m	50.0 %	Wo : Real working surface
4	19.20 m	35.14 m	9.17 m	50.0 %	m : Virtual measuring area
Floor				50.0 %	S : Skylight
Ceiling				80.0 %	W : Picture
Room height		3.50 m			Wi : Window
Height of reference plane		----			DF : Door
					F : Furniture

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## 1.1 Description, Room 1

### 1.1.2 3D view, View 1

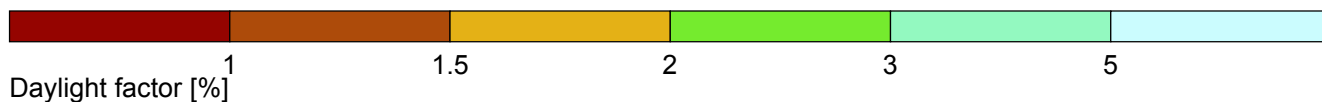
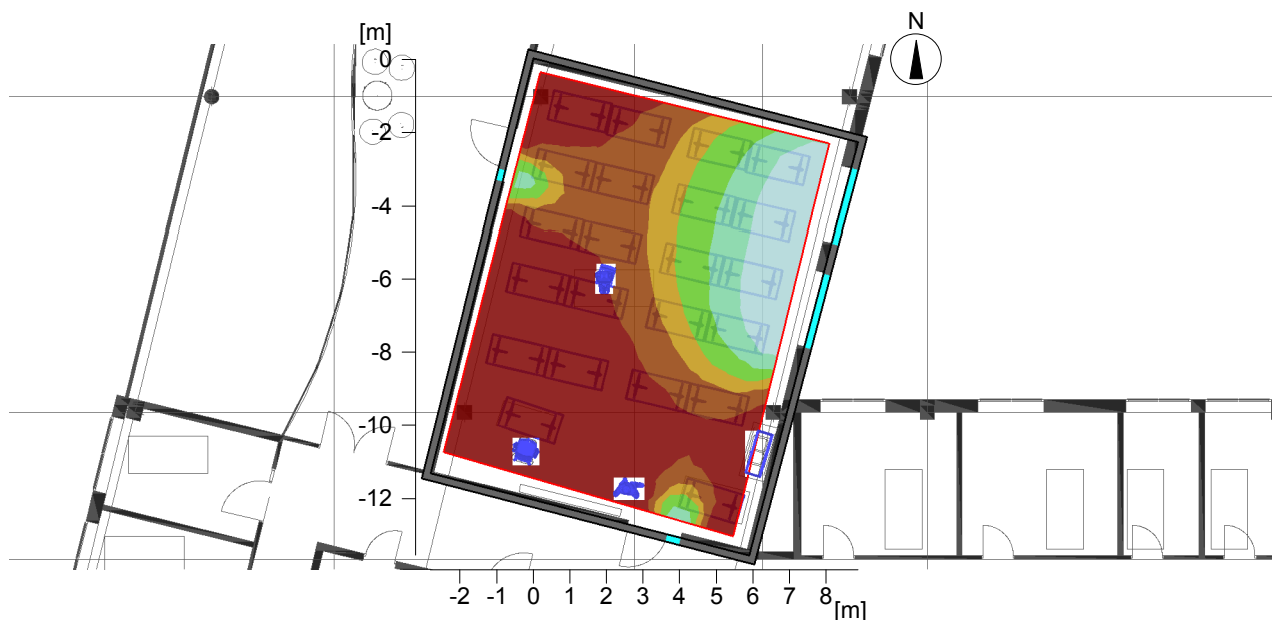


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## 1.2 Summary, Room 1

### 1.2.1 Result overview, Measuring area (virtual) 1



#### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.75 m
Calculation mode used:	Overcast sky acc. CIE
Date, Time:	21.03. 10:28 (TST 10:34)

#### Geographical data:

Location	: Riga
Latitude (degrees)	: 42.30 °
Longitude (degrees)	: 18.20 °
North angle	: 0.00 °

#### Daylight factor:

Average daylight ratio	Dav	: 1.9
Minimum daylight ratio	Dmin	: 0.2
Maximum daylight ratio	Dmax	: 12

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### 1.3 Calculation results, Room 1

#### 1.3.1 3D luminance, View 1

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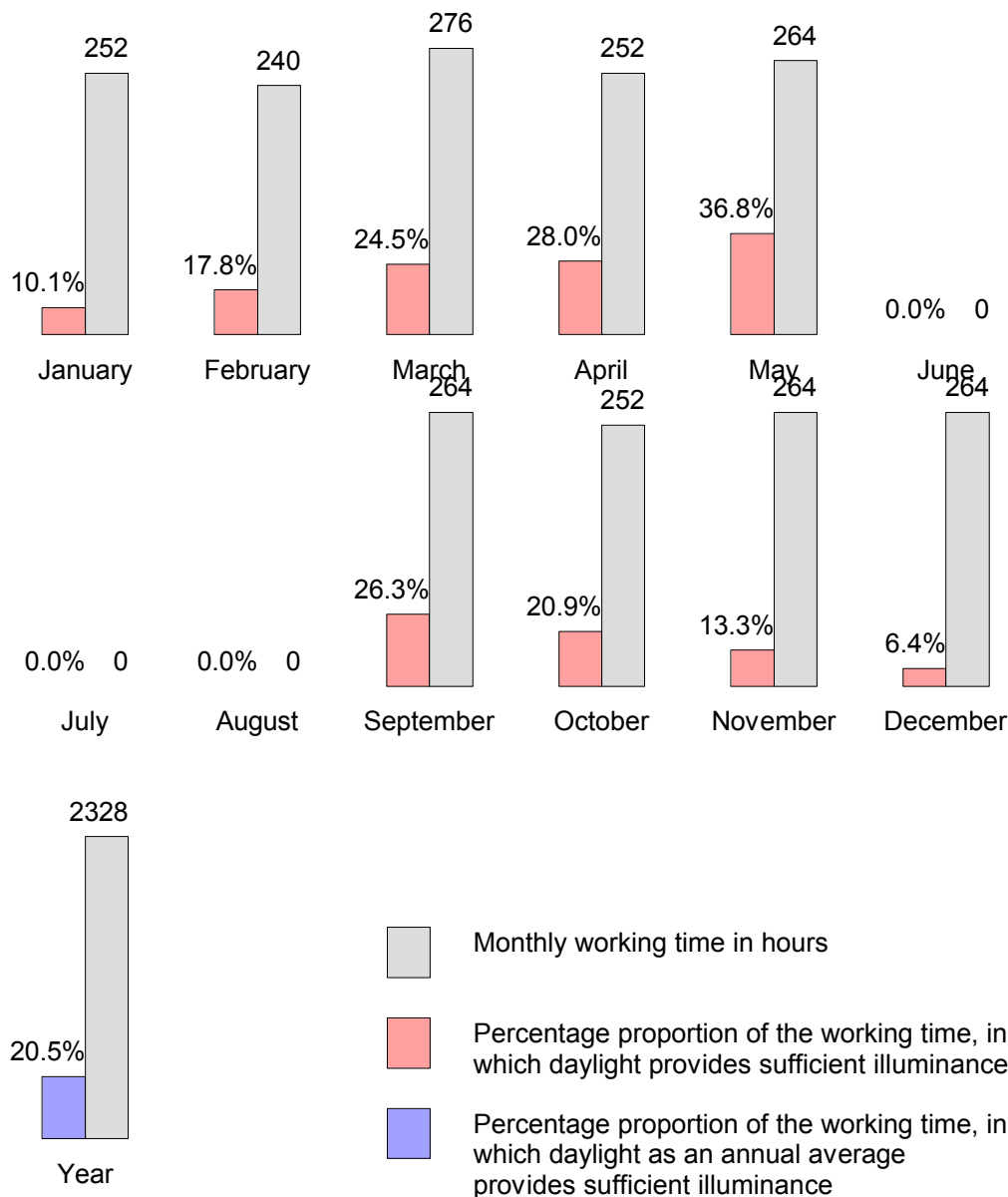
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Luminance in the scene  
Minimum: : 0 cd/m<sup>2</sup>  
Maximum: : 331 cd/m<sup>2</sup>

# 1 Room 1

## 1.4 Economics

### 1.4.1 Evaluation of the isolux diagrams

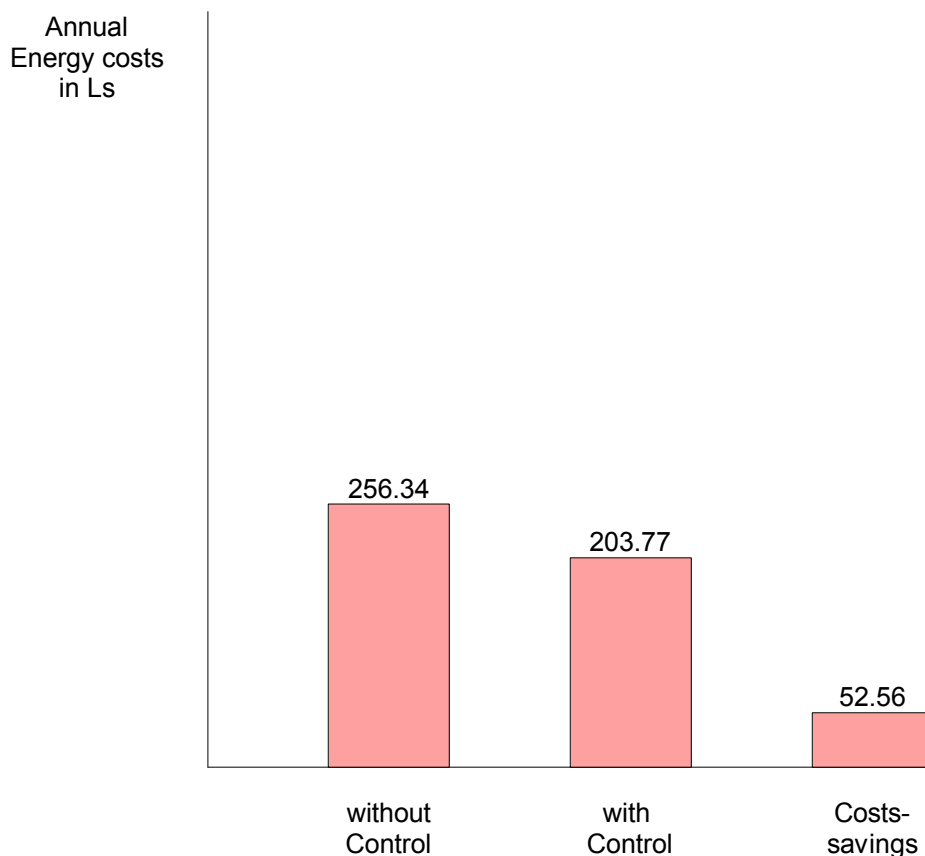


Location:	Rīga	Selected minimum illuminance:	500 Lux
Longitude (degrees):	18.2	Daylight factor:	1.90 %
Latitude (degrees):	42.3	Required exterior illuminance:	26315.8 Lux
daily working time:	08:00 - 20:00	1. Holiday periods:	01.06. - 31.08.

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## 1.4 Economics

### 1.4.2 Cost comparison with and without light control



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Location:	Rīga	Selected minimum illuminance:	500 Lux
Longitude (degrees):	18.2	Daylight factor:	1.90 %
Latitude (degrees):	42.3	Required exterior illuminance:	26315.8 Lux
daily working time:	08:00 - 20:00	1. Holiday periods:	01.06. - 31.08.
Number of Luminaires:	11		
Total Power/Luminaire:	91 Watts		
Current tariff per KWh:	0.11 Ls		