

## Sigula Pils iela

Installation : 2.stāvs ofisa telpas

Project number : 78

Customer : Siguldas navada dome

Processed by : Auseklis Mūzis

Date : 26.11.2014

Project description:  
Apgaismojums

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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Object : Sigula Pils iela  
Installation : 2.stāvs ofisa telpas  
Project number : 78  
Date : 26.11.2014

## Luminaire data

### Siteco, LEDVANCE® PENDANT L (0STPLA77303RBF)

#### Data sheet

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Manufacturer: Siteco

**siteco**  
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#### 0STPLA77303RBF downlight-ceiling pendant LEDVANCE® PENDANT L

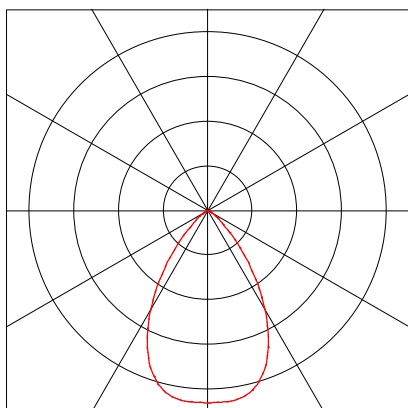
LEDVANCE® PENDANT L, downlight, optical cover: cover panel, of glass, opal, LED light colour: 830, control gear: ECG, with cable with plug, mains connection: 220..240V, AC, 50/60Hz, housing, of aluminium, anodised, white, diameter: 90 mm, protection rating (complete): IP20, insulation class (complete): insulation class II (safety insulation), certification: CE

#### Luminaire data

Luminaire efficiency : 100%  
Luminaire efficacy : 84.85 lm/W  
Classification : A60 100.0% ↑ 0.0%  
CIE Flux Codes : 86 99 100 100 100  
UGR 4H 8H (20%, 50%, 70%)  
C0 / C90 : 24.1 / 24.1  
Control gear : ECG  
System power : 33 W  
Diameter : 90 mm  
Height : 201 mm

#### Equipped with

Quantity : 1  
Designation : LED 3000K /  
CRI >= 80  
Power : 33W  
Colour :  
Luminous flux : 2800 lm



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## Luminaire data

**Siteco, ARKTIKA (0MB252DL80830)**

### Data sheet

Manufacturer: Siteco

**siteco**  
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#### **0MB252DL80830 linear luminaire-ceiling pendant ARKTIKA**

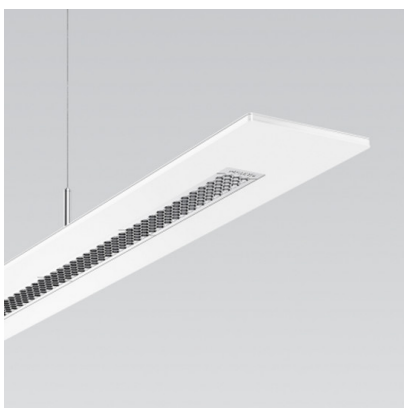
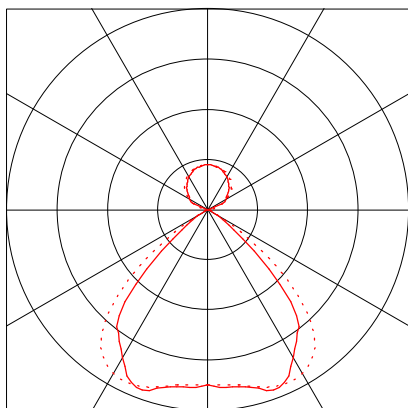
ARKTIKA, linear luminaire, primary anti-glare with honeycomb louvre, of plastic, aluminium vaporised, of PC, of aluminium, light emission: direct/indirect distribution, installation type: suspended mounting, LED light colour: 830, colour temperature: 3000K, control gear: ECG DALI, with terminal, 3-pole, mains connection: 220..240V, 50/60Hz, housing, of aluminium, powder-coated, traffic white (RAL 9016), length: 2.280 mm, width: 120 mm, height: 8mm, protection rating (complete): IP20, insulation class (complete): insulation class I (protective earthing), certification: CE, ENEC in preparation

#### Luminaire data

Luminaire efficiency : 100%  
Luminaire efficacy : 95 lm/W  
Classification : B63 74.4% ↑ 25.6%  
CIE Flux Codes : 73 99 100 74 100  
UGR 4H 8H (20%, 50%, 70%)  
C0 / C90 : 18.3 / 18.9  
Control gear : ECG DALI  
System power : 80 W  
Length : 2280 mm  
Width : 120 mm  
Height : 8 mm

#### Equipped with

Quantity : 1  
Designation : LED 3000K /  
CRI >= 80  
Power : 80W  
Colour :  
Luminous flux : 7600 lm



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## Luminaire data

**Siteco, ARKTIKA (0MB251DL45830)**

### Data sheet

Manufacturer: Siteco

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#### **0MB251DL45830 linear luminaire-ceiling pendant ARKTIKA**

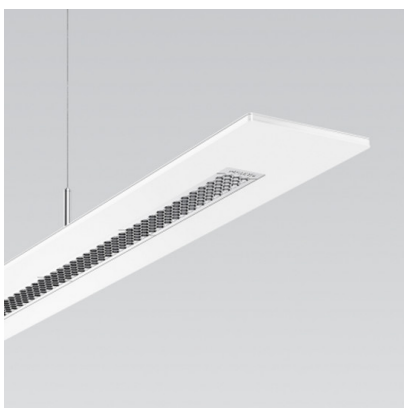
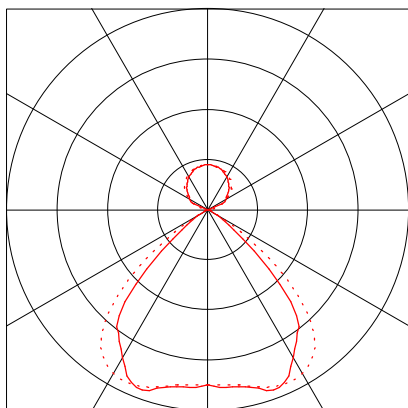
ARKTIKA, linear luminaire, primary anti-glare with honeycomb louvre, of plastic, aluminium vaporised, of PC, of aluminium, light emission: direct/indirect distribution, installation type: suspended mounting, LED light colour: 830, colour temperature: 3000K, control gear: ECG DALI, with terminal, 3+2-pole, max. 2.5mm<sup>2</sup>, mains connection: 220..240V, 50/60Hz, housing, of aluminium, powder-coated, traffic white (RAL 9016), length: 1.250 mm, width: 120 mm, height: 8mm, protection rating (complete): IP20, insulation class (complete): insulation class I (protective earthing), certification: CE, ENEC in preparation

#### Luminaire data

Luminaire efficiency : 100%  
Luminaire efficacy : 85.11 lm/W  
Classification : B63 74.4% ↑25.6%  
CIE Flux Codes : 73 99 100 74 100  
UGR 4H 8H (20%, 50%, 70%)  
C0 / C90 : 18.2 / 18.9  
Control gear : ECG DALI  
System power : 45 W  
Length : 1250 mm  
Width : 120 mm  
Height : 8 mm

#### Equipped with

Quantity : 1  
Designation : LED 3000K /  
CRI >= 80  
Power : 45W  
Colour :  
Luminous flux : 3830 lm





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## Luminaire data

### ERCO, Optec for track (72278.000 V2)

#### Data sheet

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Manufacturer: ERCO

ERCO

#### 72278.000 V2 ceiling mounted luminaire Optec for track

Optec Floodlight

Spherolit lens, oval flood

Cylindrical light head: cast aluminium, powder-coated. 270° tilt.

Housing: plastic, rotatable on 3-circuit adapter through 360°.

Electronic control gear.

ERCO 3-circuit adapter: plastic.

LED module: high-power LEDs on metal-core PCB. SDCM<2. CRI>90. L80/B10 50000h. Collimating lens made of optical polymer. Lens rotatable through 360°.

Protection Class II, GOST

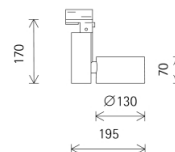
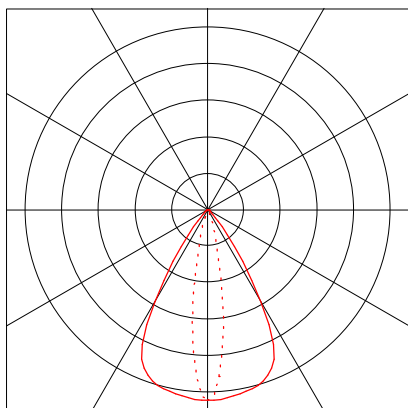
Weight 1.08kg

#### Luminaire data

Luminaire efficiency : 83.6%  
Luminaire efficacy : 79.42 lm/W  
Classification : A70 100.0% ↑0.0%  
CIE Flux Codes : 95 99 100 100 84  
UGR 4H 8H (20%, 50%, 70%)  
C0 / C90 : 18.3 / <10.0  
Control gear :  
System power : 24 W  
Length : 195 mm  
Width : 130 mm  
Height : 170 mm

#### Equipped with

Quantity : 1  
Designation : LED  
Power : 24W  
Colour : 3000  
Luminous flux : 2280 lm  
Colour reproduction : 90



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## Luminaire data

### Siteco, Siteco® Rasterleuchte M LED (5LF519D1ZW002)

#### Data sheet

Manufacturer: Siteco

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#### 5LF519D1ZW002 wall/ceiling washer-ceiling mounted Siteco® Rasterleuchte M LED

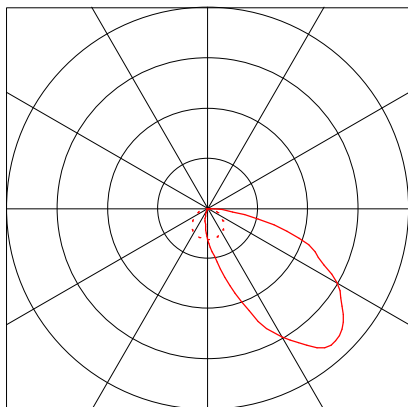
Siteco® louvre luminaire M LED, wall/ceiling washer, primary light control with wallwasher, of aluminium, matt satin finish, light emission: direct distribution, primary light characteristic: asymmetric, installation type: surface-mounted, LED light colour: 830, warm white, colour temperature: 3000K, control gear: ECG DALI, with terminal, 3+2-pole, max. 2.5mm<sup>2</sup>, mains connection: 230V, AC, 50Hz, luminaire housing, of sheet steel, coil coated, pure white, length: 1.207 m, height: 58mm, end cap, of PS, white, protection rating (complete): IP20, insulation class (complete): insulation class I (protective earthing), certification: CE, permissible ambient temperature for indoor applications: ≤ +25°C, standard: EN 50419, packaging unit: 1 piece,

#### Luminaire data

Luminaire efficiency : 100%  
Luminaire efficacy : 67.81 lm/W  
Classification : A20 100.0% ↑0.0%  
CIE Flux Codes : 31 68 93 100 100  
UGR 4H 8H (20%, 50%, 70%)  
C0 / C90 : 33.3 / 25.4  
Control gear : ECG DALI  
System power : 58.4 W  
Length : 1208 mm  
Width : 229 mm  
Height : 58 mm

#### Equipped with

Quantity : 1  
Designation : LED 3000K /  
CRI ≥ 80  
Power : 58W  
Colour :  
Luminous flux : 3960 lm



Object : Sigula Pils iela  
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**Siteco, Siteco® Rasterleuchte M LED (5LF519D1ZW002)**

**Cone diagram**

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LDC unsuitable for cone representation

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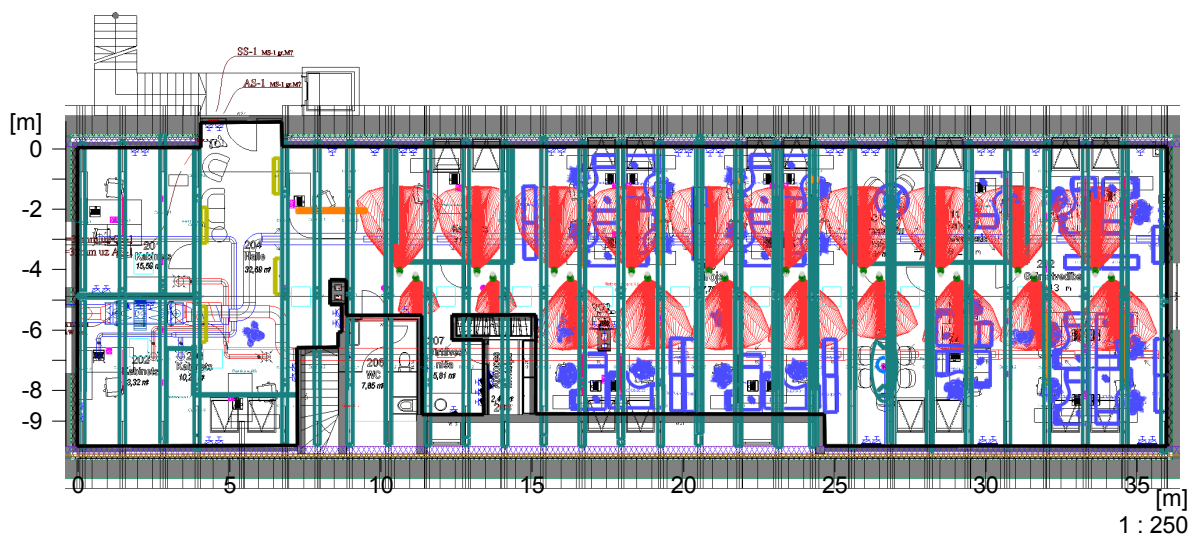
-please put your own address here-


Object : Sigula Pils iela  
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## telpa 2.stāvs

### Description, telpa 2.stāvs

### Floor plan



			ADRESĒ	Pils iela 18, Sigulda		
Būvpr.d.vad.	E.Ziemele	cert.Nr. 50-2516	OBJEKTS	Saimniecības ēkas rekonstrukcija par tīrīšanas ēku		
Izstrādāja	E.Ziemele	cert.Nr. 50-2516	PROJEKTA	24.11.2014.		
PROJEKTA NR:			PROJEKTA NR:	2. stāva plāns. Ventilācijas sistēma.		
 Dīpa iela 44, Rīga, LV1004, 66603080, www.baltexgroup.lv			FILE:		PROJEKTA NR:	STADIJA:
			AVK-3.dwg			
			MĒRĀB:	LAPU SKAITS:	LAPAS:	
			1:100	5		

Object : Sigula Pils iela  
Installation : 2.stāvs ofisa telpas  
Project number : 78  
Date : 26.11.2014



## telpa 2.stāvs

### Description, telpa 2.stāvs

#### Floor plan

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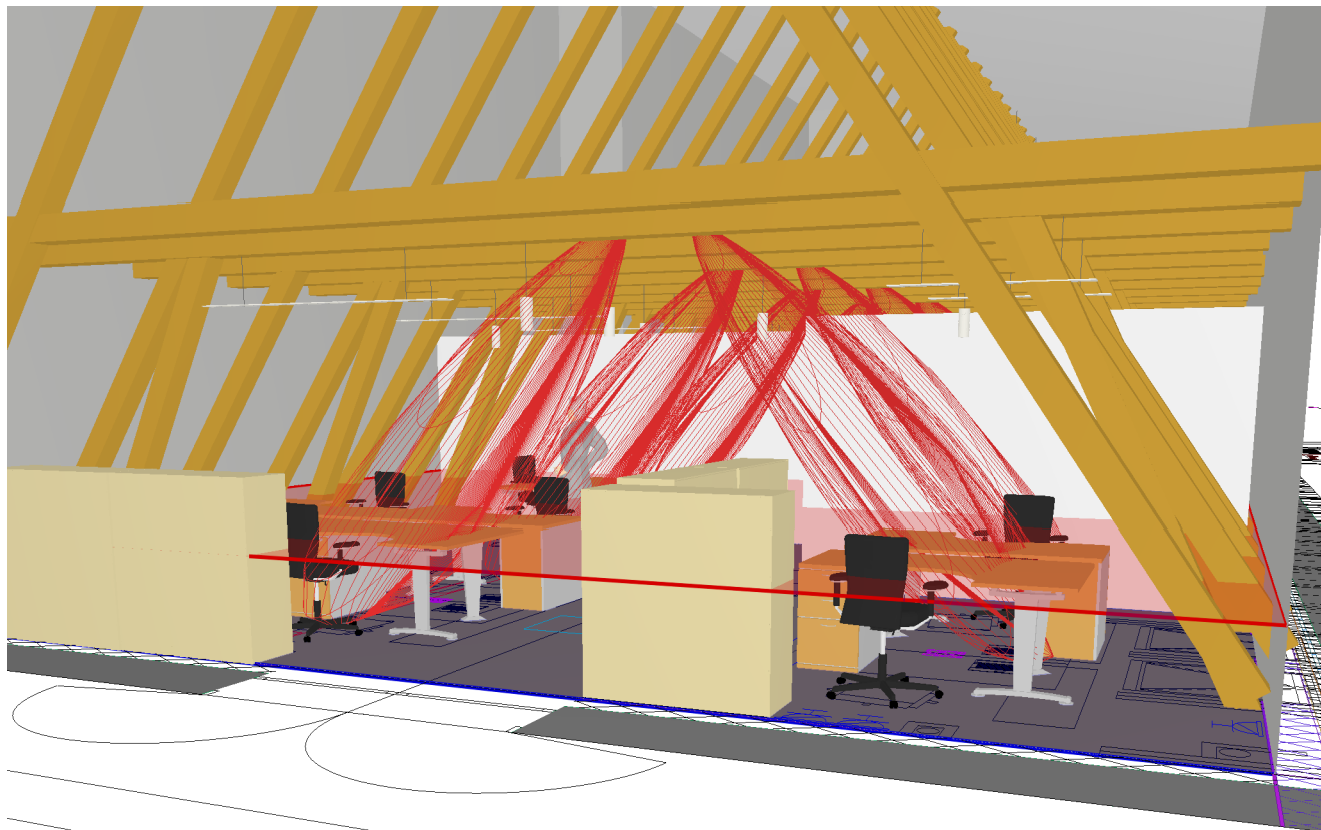
Wall	x	y	Length	Reflectance
1	66.56 m	86.40 m	9.83 m	50.0 %
2	73.84 m	86.43 m	7.27 m	50.0 %
3	73.82 m	89.64 m	3.21 m	50.0 %
4	75.18 m	89.66 m	1.36 m	50.0 %
5	75.18 m	90.15 m	0.49 m	50.0 %
6	75.28 m	90.17 m	0.10 m	50.0 %
7	75.31 m	90.17 m	0.03 m	50.0 %
8	75.30 m	91.06 m	0.90 m	50.0 %
9	74.91 m	91.07 m	0.39 m	50.0 %
10	74.91 m	91.88 m	0.81 m	50.0 %
11	75.45 m	91.87 m	0.53 m	50.0 %
12	75.45 m	90.71 m	1.17 m	50.0 %
13	77.94 m	90.71 m	2.49 m	50.0 %
14	77.95 m	87.44 m	3.27 m	50.0 %
15	79.99 m	87.44 m	2.04 m	50.0 %
16	79.97 m	89.90 m	2.46 m	50.0 %
17	78.93 m	89.90 m	1.04 m	50.0 %
18	78.94 m	90.72 m	0.82 m	50.0 %
19	81.70 m	90.72 m	2.77 m	50.0 %
20	81.70 m	87.47 m	3.26 m	50.0 %
21	91.24 m	87.45 m	9.54 m	50.0 %
22	91.25 m	86.41 m	1.04 m	50.0 %
23	102.54 m	86.40 m	11.29 m	50.0 %
24	102.55 m	96.26 m	9.86 m	50.0 %
25	73.32 m	96.26 m	29.23 m	50.0 %
26	73.31 m	97.12 m	0.86 m	50.0 %
27	70.64 m	97.10 m	2.67 m	50.0 %
28	70.64 m	96.24 m	0.86 m	50.0 %
29	66.57 m	96.22 m	4.07 m	50.0 %
Floor				28.9 %
Ceiling				70.0 %
Room height		7.70 m		
Height of reference plane		0.75 m		

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## Description, telpa 2.stāvs

### 3D view, View 1



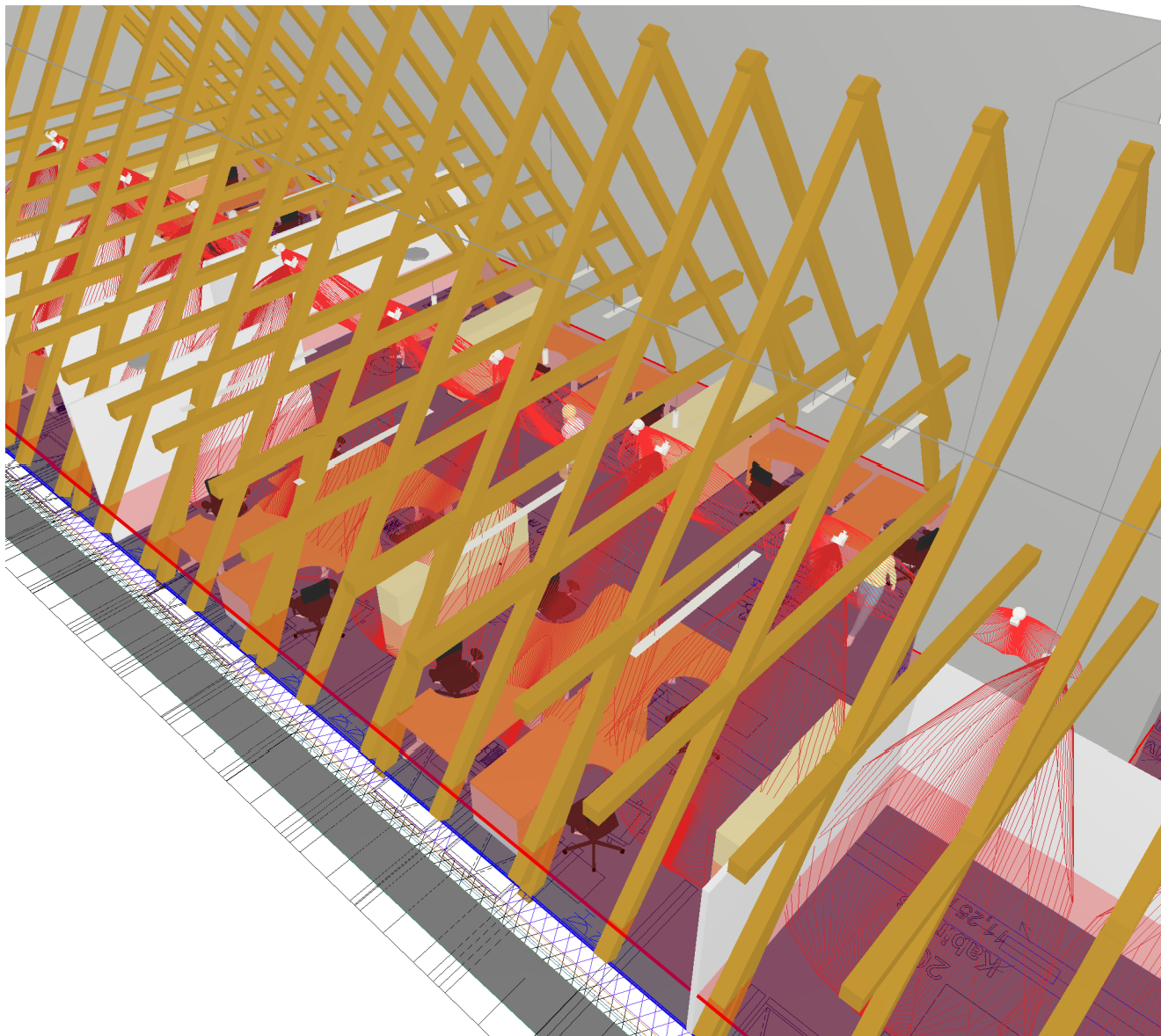
-please put your own address here-

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## Description, telpa 2.stāvs

### 3D view, View 3



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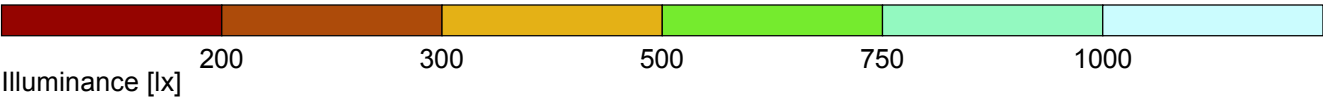
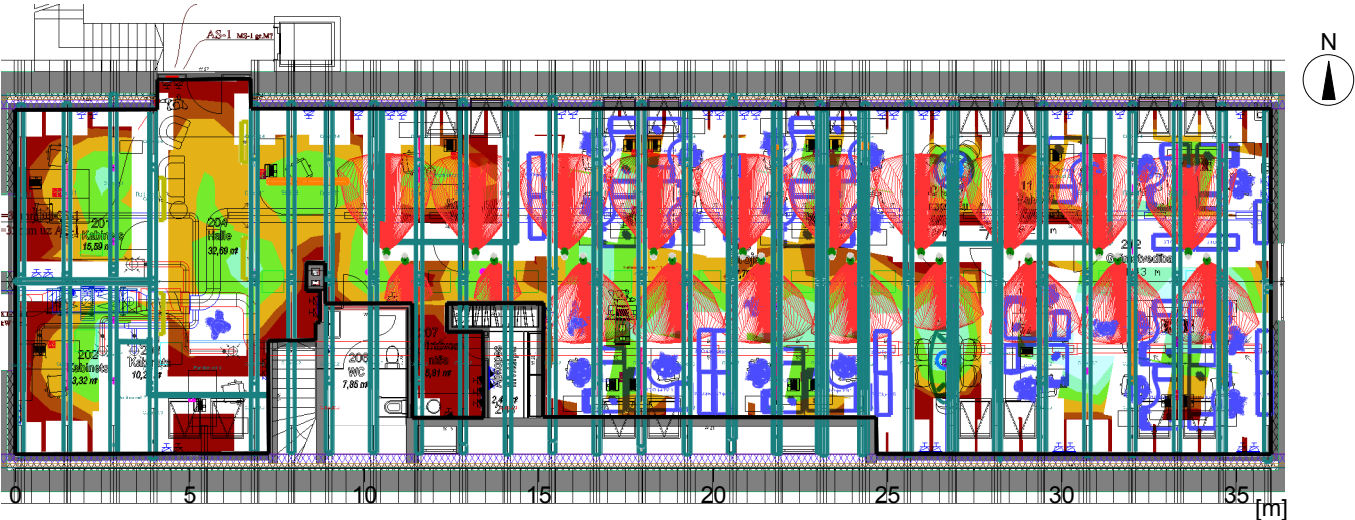
Object : Sigula Pils iela  
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telpa 2.stāvs

Summary, telpa 2.stāvs

Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	221348 lm
Total power	2496.2 W
Total power per area (319.56 m²)	7.81 W/m² (1.66 W/m²/100lx)

Evaluation area 1      Reference plane 1.1

	Horizontal
Em	471 lx
Emin	1 lx
Emin/Eav (Uo)	0.00
Emin/Emax (Ud)	0.00
Position	0.75 m

Type No.\Make

2	18		Siteco	
			Order No.	: 0STPLA77303RBF
			Luminaire name	: LEDVANCE® PENDANT L
3	8		Equipment	: 1 x LED 3000K / CRI >= 80 33W / 2800 lm
			Order No.	: 0MB252DL80830
			Luminaire name	: ARKTIKA
			Equipment	: 1 x LED 3000K / CRI >= 80 80W / 7600 lm





Object : Sigula Pils iela  
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## telpa 2.stāvs


### Summary, telpa 2.stāvs

#### Result overview, Evaluation area 1

4 10 Order No. : 0MB251DL45830  
 Luminaire name : ARKTIKA  
Equipment : 1 x LED 3000K / CRI >= 80 45W / 3830 lm

12 4 Order No. : 5LF519D1ZW002  
 Luminaire name : Siteco® Rasterleuchte M LED  
Equipment : 1 x LED 3000K / CRI >= 80 58W / 3960 lm

8 20 **ERCO**  
 Order No. : 72278.000 V2  
Luminaire name : Optec for track  
Equipment : 1 x LED 24W / 2280 lm

10 2 **XAL GmbH**  
 Order No. : 059-6231517P  
Luminaire name : SONIC e2 LED suspended  
Equipment : 1 x e2 LED 3000K / 5204 lm

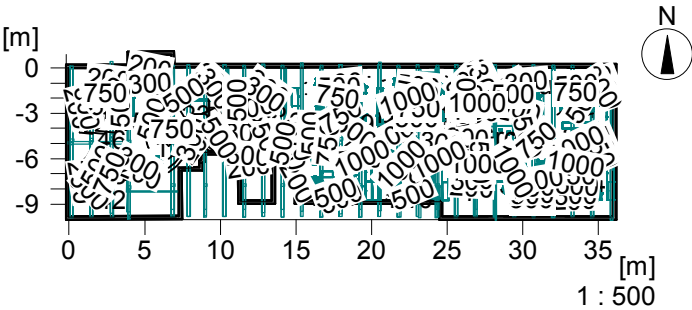
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telpa 2.stāvs

Calculation results, telpa 2.stāvs

Isolines representation, Reference plane 1.1 (E)



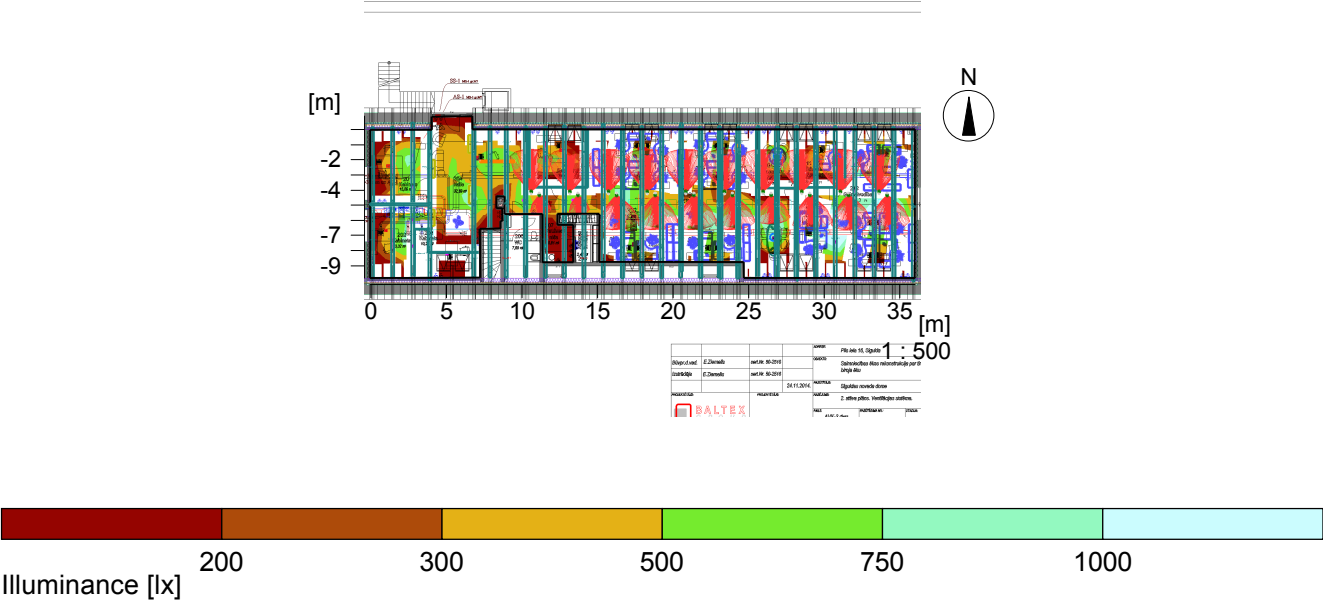
Illuminance [lx]

Height of the reference plane		: 0.75 m
Average illuminance	Eav	: 471 lx
Minimum illuminance	Emin	: 1 lx
Maximum illuminance	Emax	: 1190 lx
Uniformity Uo	Emin/Eav	: 1 : 908.12 (0.00)
Diversity Ud	Emin/Emax	: 1 : 2289.16 (0.00)

Object : Sigula Pils iela  
Installation : 2.stāvs ofisa telpas  
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Calculation results, telpa 2.stāvs  
Pseudo colours, Reference plane 1.1 (E)



Height of the reference plane		: 0.75 m
Average illuminance	Eav	: 471 lx
Minimum illuminance	Emin	: 1 lx
Maximum illuminance	Emax	: 1190 lx
Uniformity Uo	Emin/Eav	: 1 : 908.12 (0.00)
Diversity Ud	Emin/Emax	: 1 : 2289.16 (0.00)

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## Calculation results, telpa 2.stāvs

### 3D luminance, View 1

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Luminance in the scene

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 1420 cd/m<sup>2</sup>

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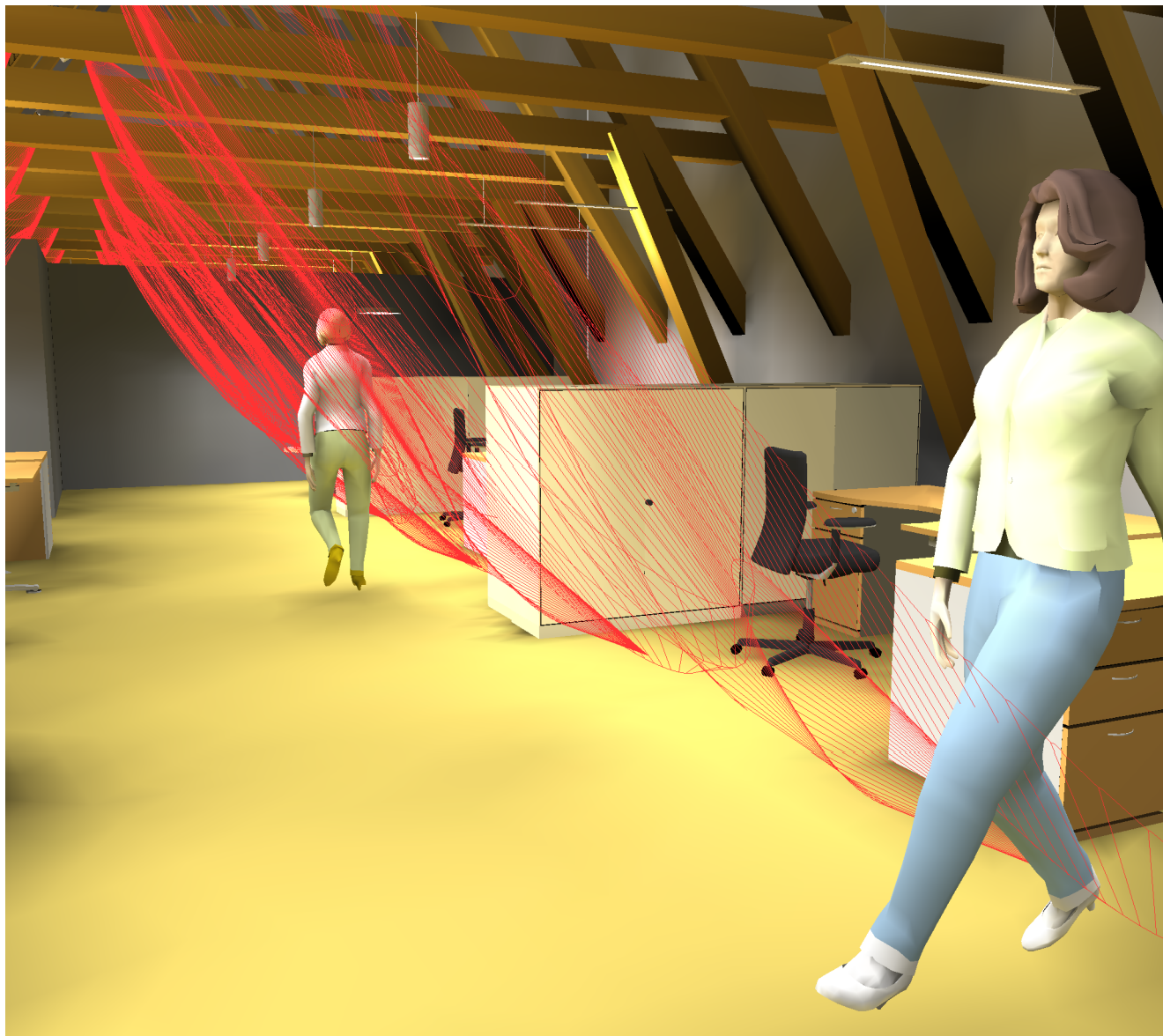
-please put your own address here-

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## Calculation results, telpa 2.stāvs

### 3D luminance, View 4



Luminance in the scene

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 1420 cd/m<sup>2</sup>

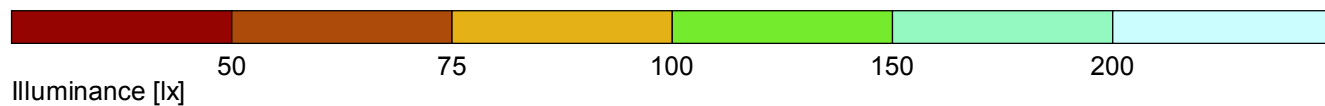
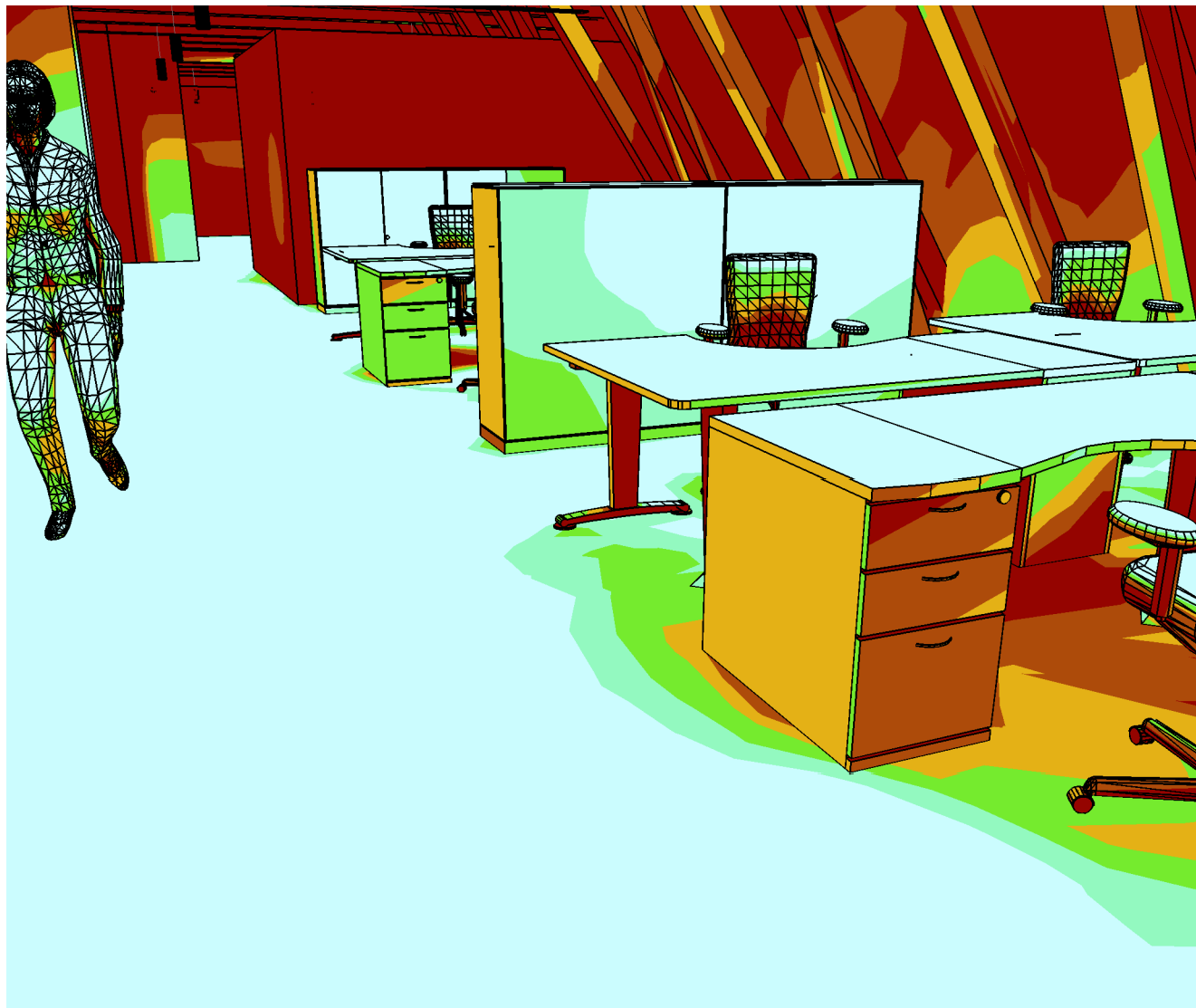
-please put your own address here-

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## Calculation results, telpa 2.stāvs

### 3D pseudo colours, View 2 (E)



Illuminance [lx]

-please put your own address here-

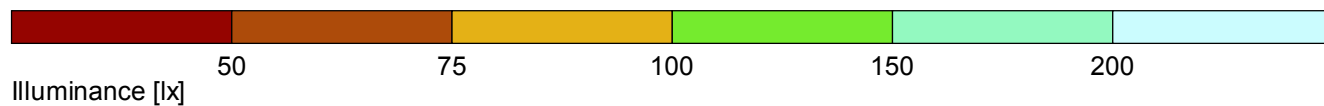
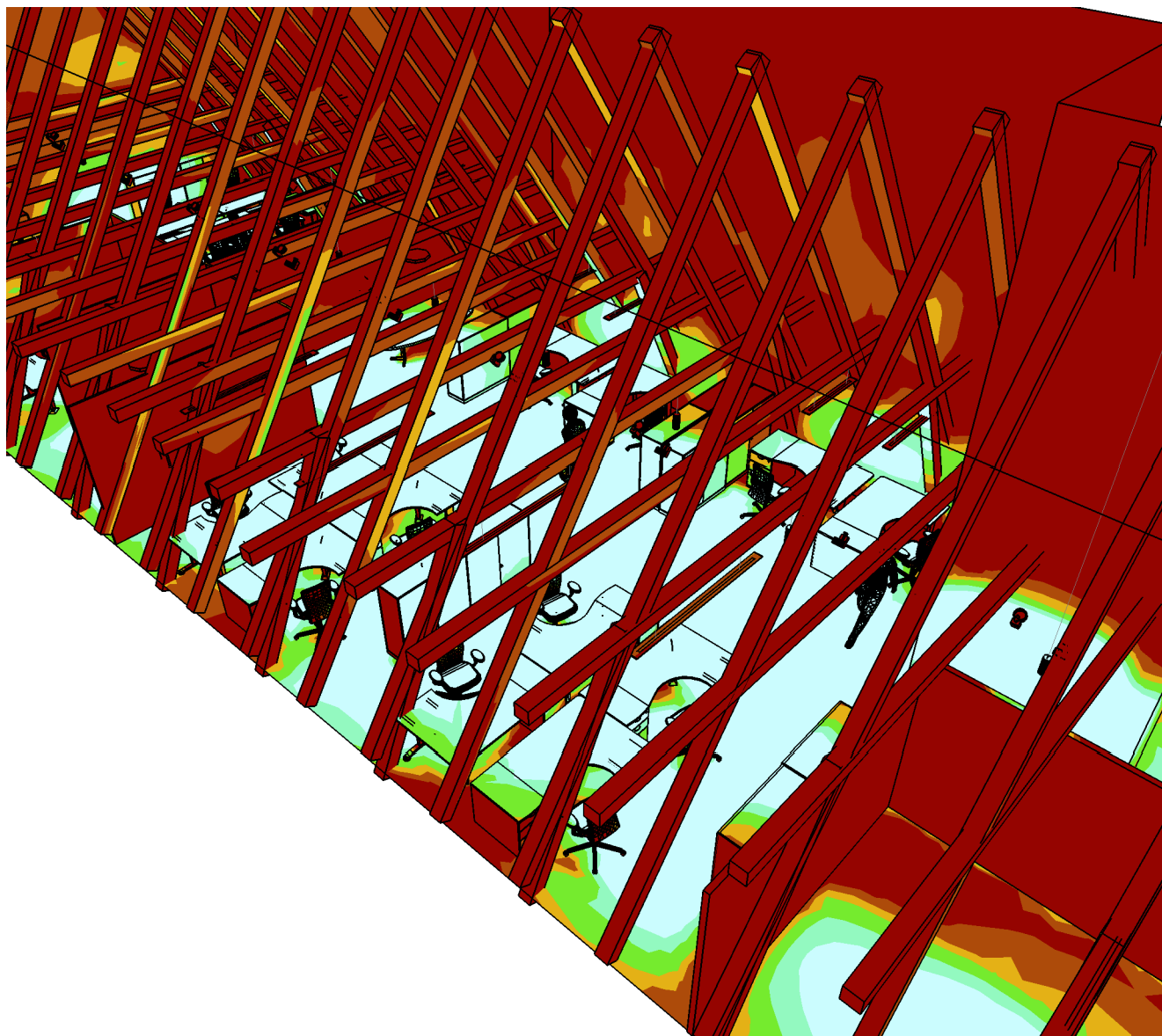


Object : Sigula Pils iela  
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## Calculation results, telpa 2.stāvs

### 3D pseudo colours, View 3 (E)



Illuminance [lx]

-please put your own address here-

Object : Sigula Pils iela  
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## telpa 2.stāvs

### Calculation results, telpa 2.stāvs

#### 3D luminance (raytracing), View from the right

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Luminance in the illustration:

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 1480 cd/m<sup>2</sup>

Artificial light calculation : Direct part, with 2 inter-reflections

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-please put your own address here-



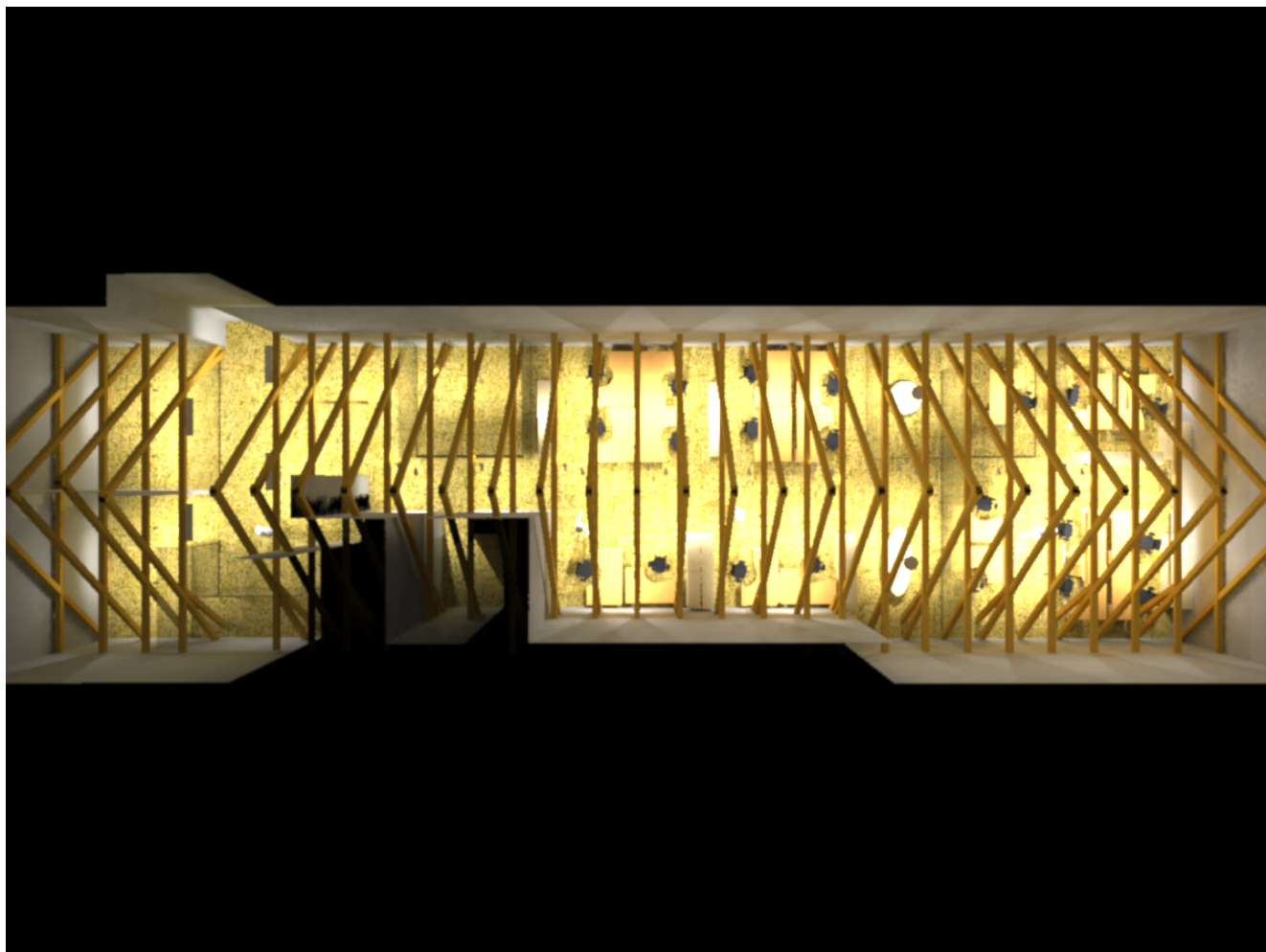
Object : Sigula Pils iela  
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## Calculation results, telpa 2.stāvs

### 3D luminance (raytracing), View from above

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Luminance in the illustration:

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 492 cd/m<sup>2</sup>

Artificial light calculation : Direct part, with 2 inter-reflections

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-please put your own address here-

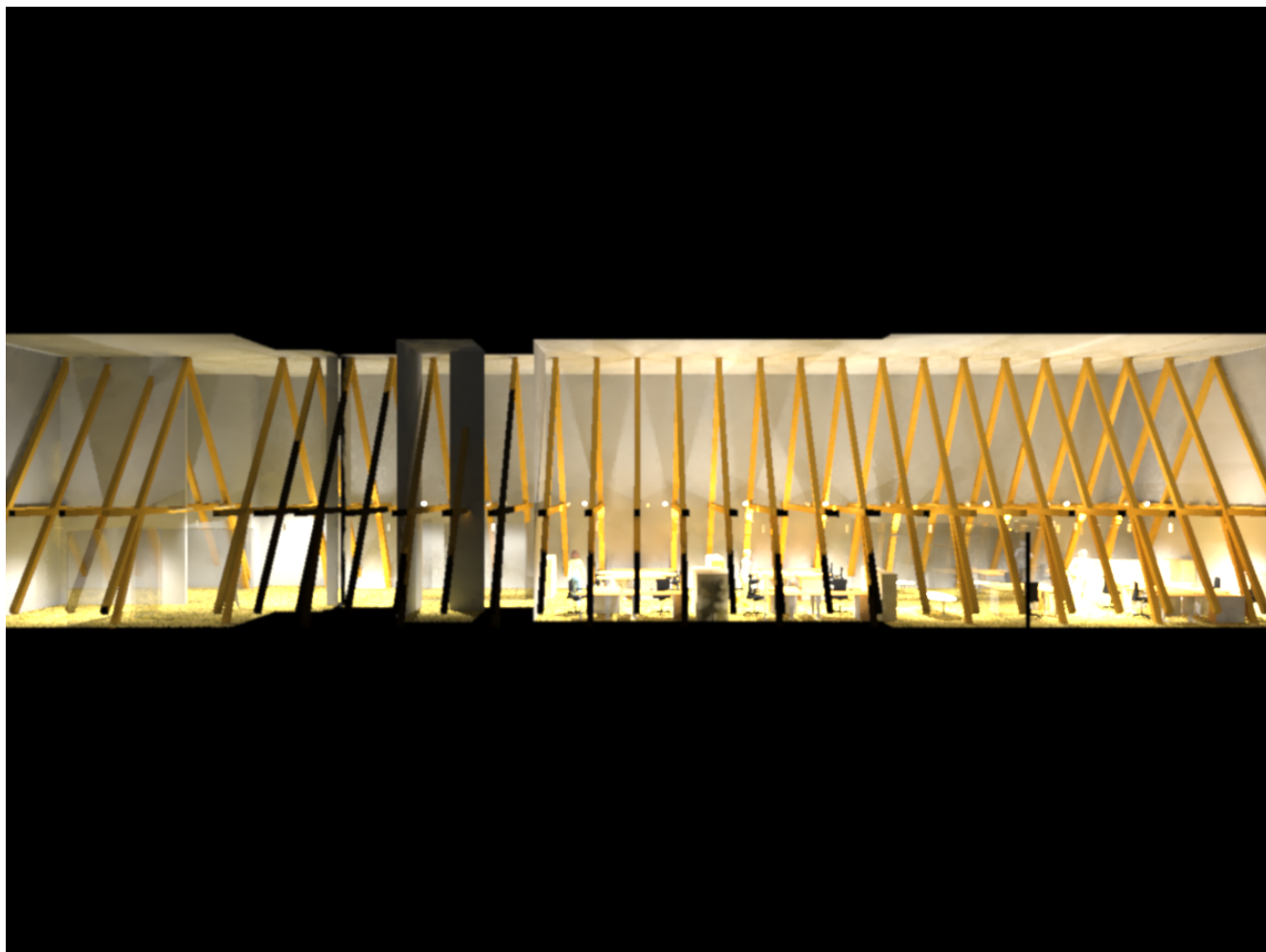
Object : Sigula Pils iela  
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## Calculation results, telpa 2.stāvs

### 3D luminance (raytracing), View from the front

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Luminance in the illustration:

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 633 cd/m<sup>2</sup>

Artificial light calculation : Direct part, with 2 inter-reflections

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-please put your own address here-

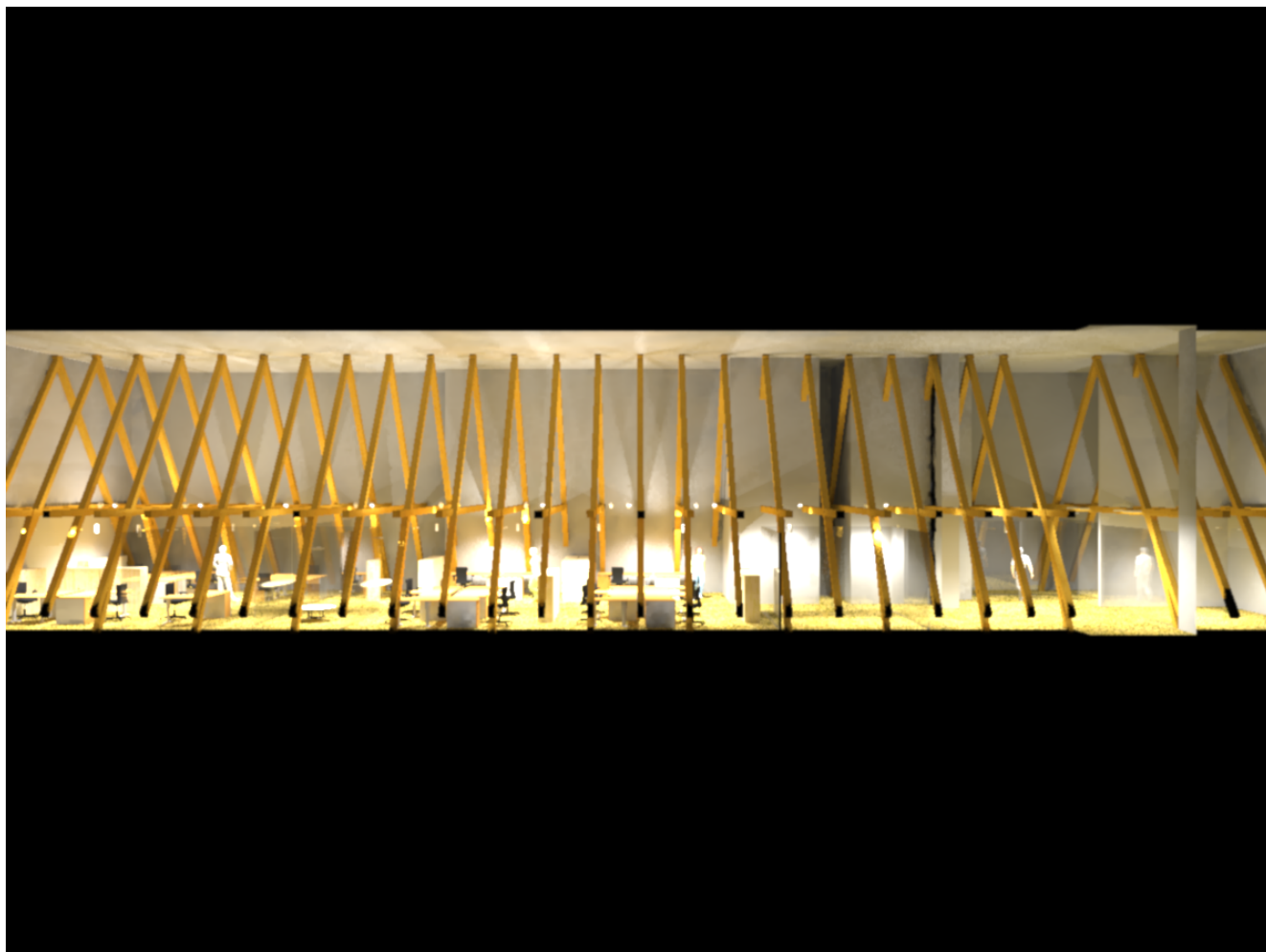
Object : Sigula Pils iela  
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## Calculation results, telpa 2.stāvs

### 3D luminance (raytracing), View from the back

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Luminance in the illustration:

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 1770 cd/m<sup>2</sup>

Artificial light calculation : Direct part, with 2 inter-reflections

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-please put your own address here-

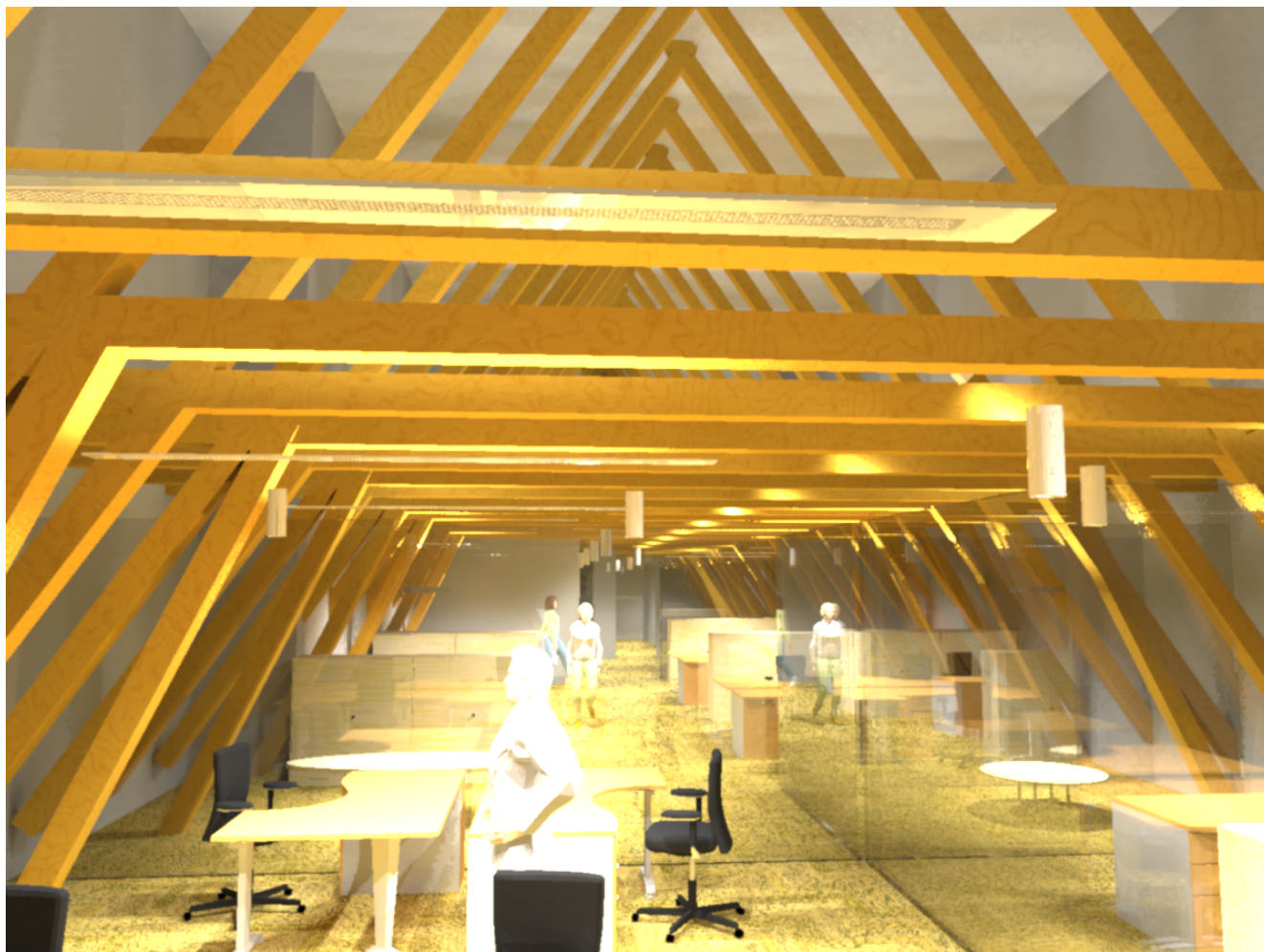
Object : Sigula Pils iela  
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## Calculation results, telpa 2.stāvs

### 3D luminance (raytracing), Variable view

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Luminance in the illustration:

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 1960 cd/m<sup>2</sup>

Artificial light calculation : Direct part, with 2 inter-reflections

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-please put your own address here-



Object : Sigula Pils iela  
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Project number : 78  
Date : 26.11.2014

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## Calculation results, telpa 2.stāvs

### 3D luminance (raytracing), Variable view

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Luminance in the illustration:

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 2060 cd/m<sup>2</sup>

Artificial light calculation : Direct part, with 2 inter-reflections

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-please put your own address here-

Object : Sigula Pils iela  
Installation : 2.stāvs ofisa telpas  
Project number : 78  
Date : 26.11.2014

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light simulation tools

## Calculation results, telpa 2.stāvs

### 3D luminance (raytracing), Variable view

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Luminance in the illustration:

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 2910 cd/m<sup>2</sup>

Artificial light calculation : Direct part, with 2 inter-reflections

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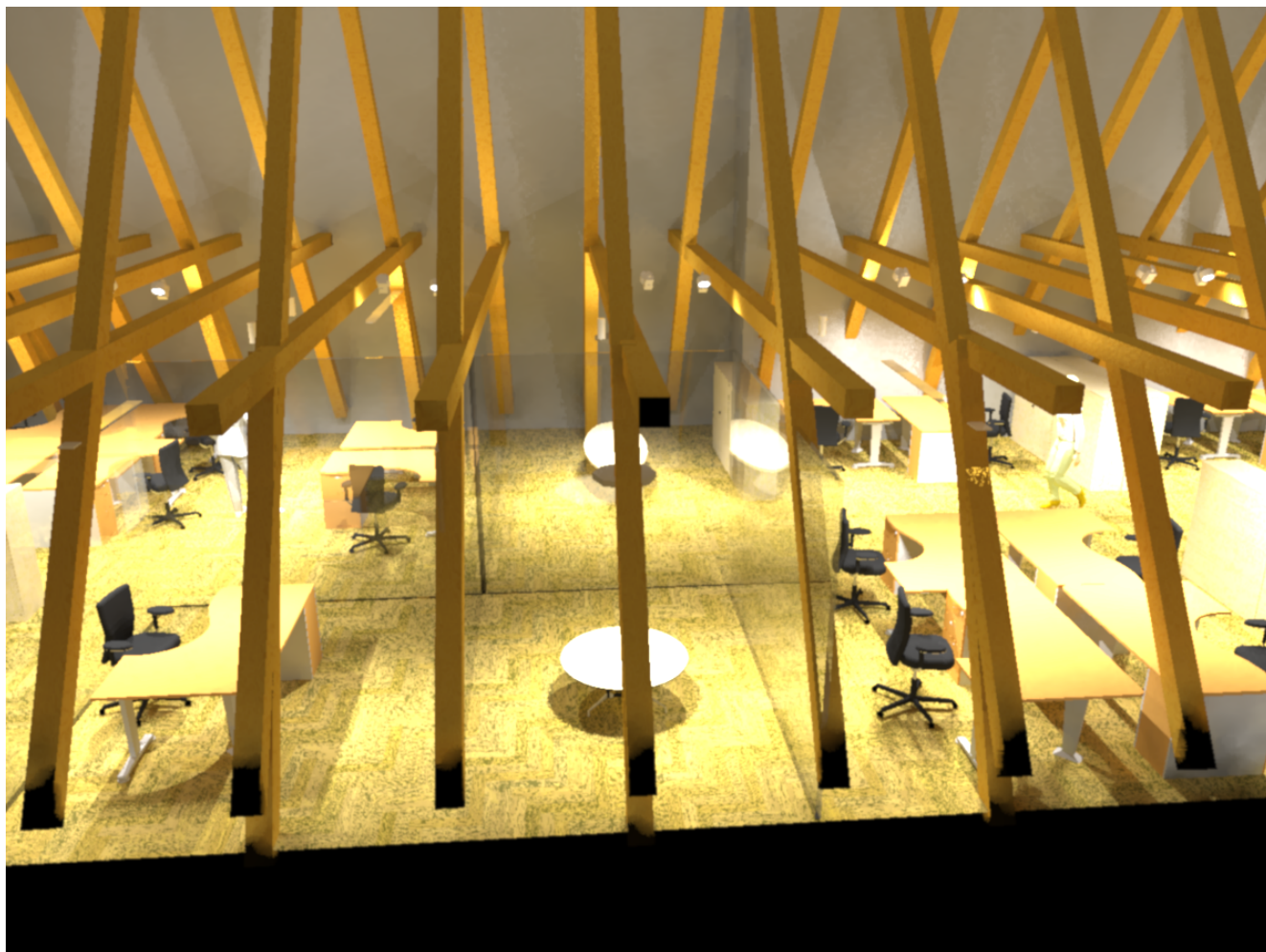
Object : Sigula Pils iela  
Installation : 2.stāvs ofisa telpas  
Project number : 78  
Date : 26.11.2014

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## Calculation results, telpa 2.stāvs

### 3D luminance (raytracing), Variable view

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Luminance in the illustration:

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 1900 cd/m<sup>2</sup>

Artificial light calculation : Direct part, with 2 inter-reflections

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-please put your own address here-



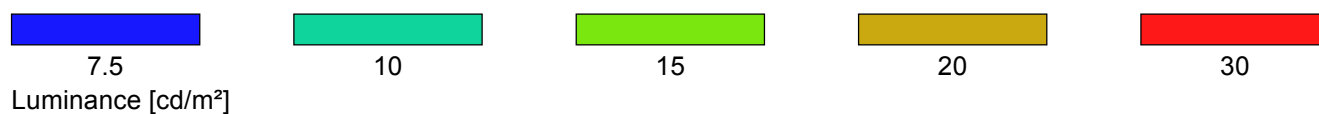
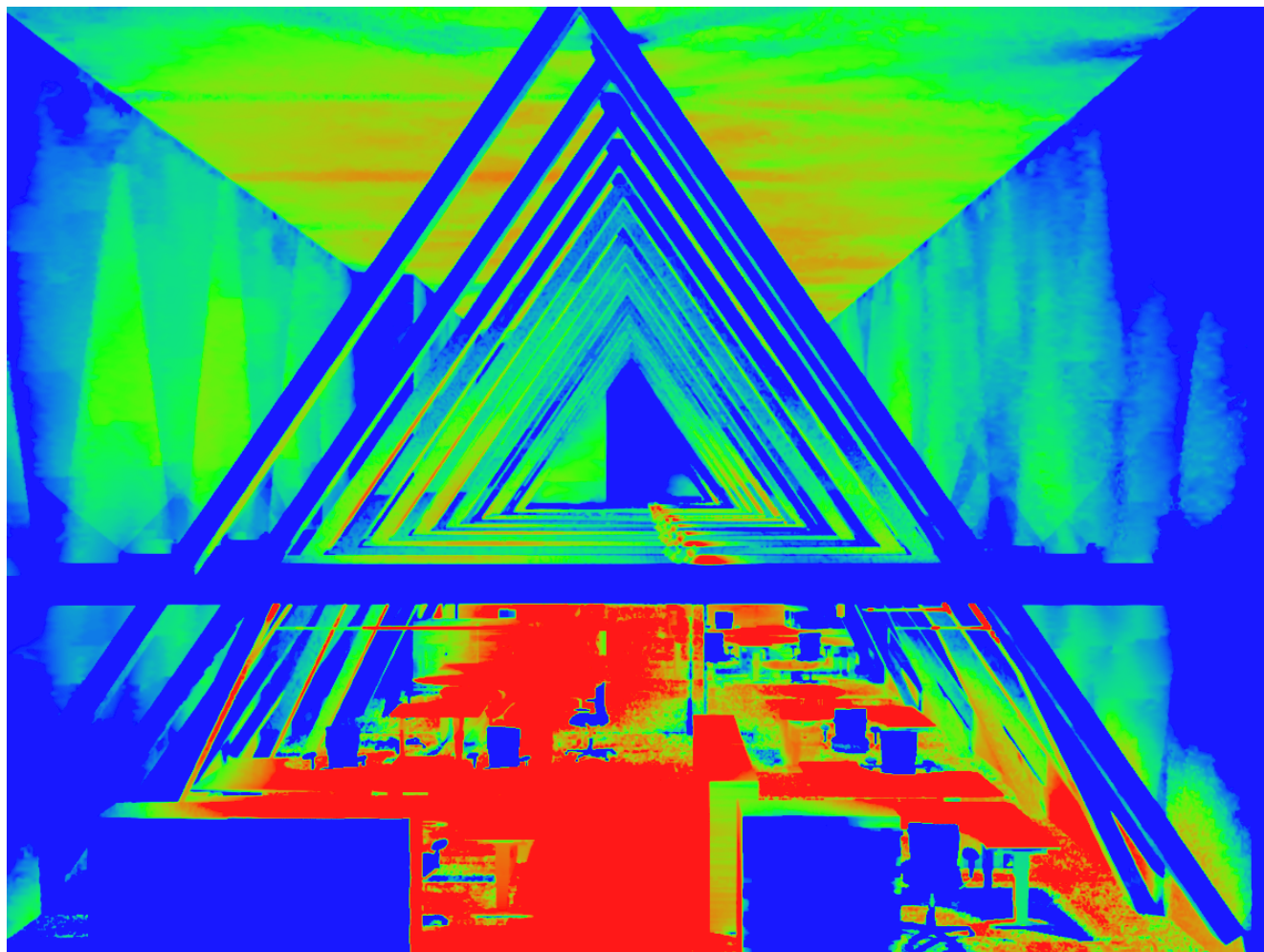
Object : Sigula Pils iela  
Installation : 2.stāvs ofisa telpas  
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## Calculation results, telpa 2.stāvs

### 3D pseudo colours (raytracing), View from the right (E)

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Luminance in the illustration:

Minimum: : 0 cd/m²

Maximum: : 1480 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections

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-please put your own address here-

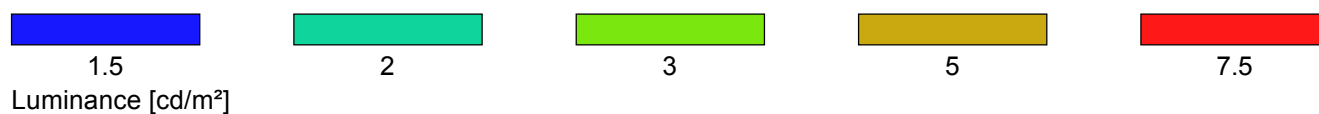
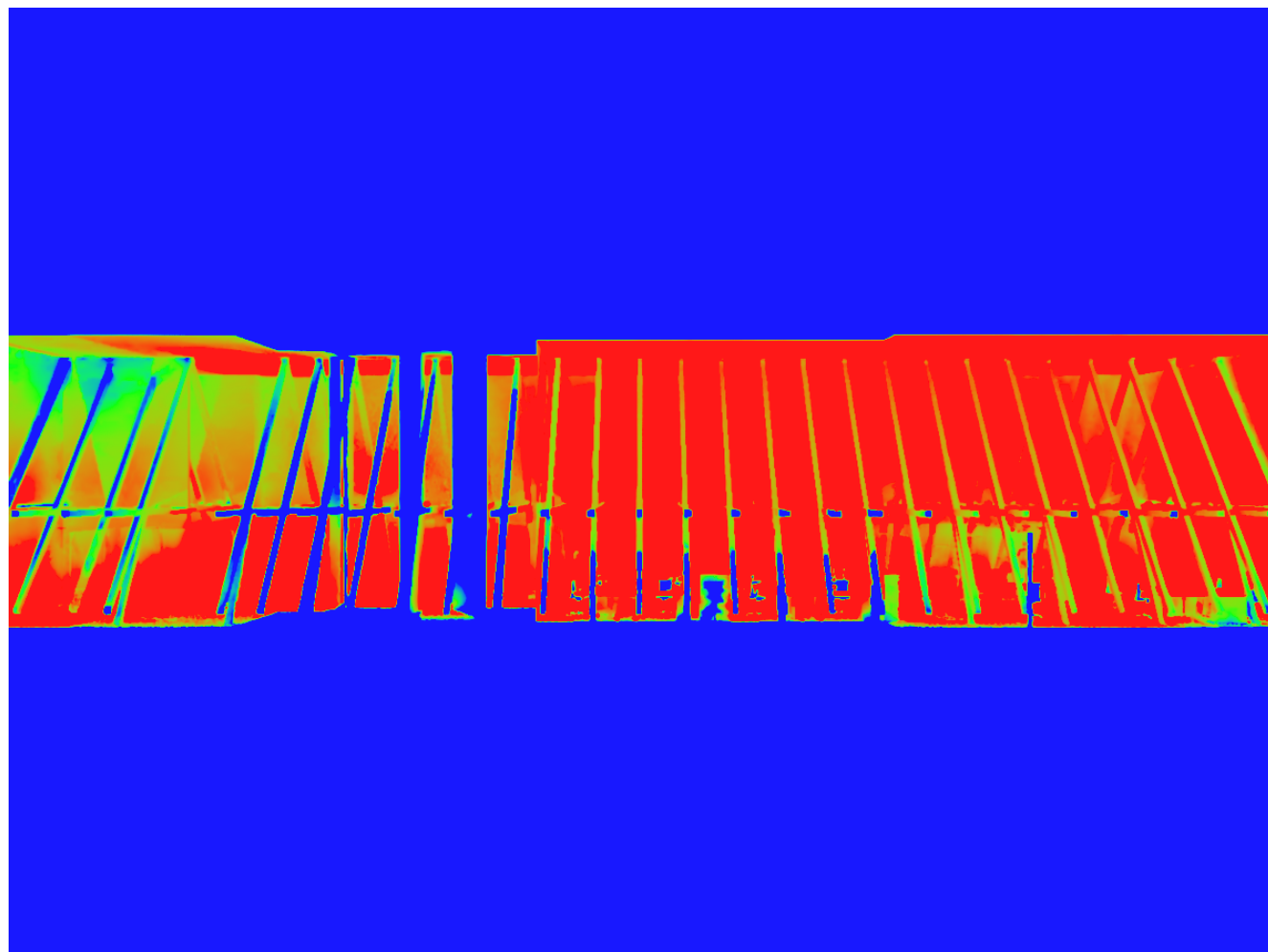


Object : Sigula Pils iela  
Installation : 2.stāvs ofisa telpas  
Project number : 78  
Date : 26.11.2014

## Calculation results, telpa 2.stāvs

### 3D pseudo colours (raytracing), View from the front (E)

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Luminance in the illustration:

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 633 cd/m<sup>2</sup>

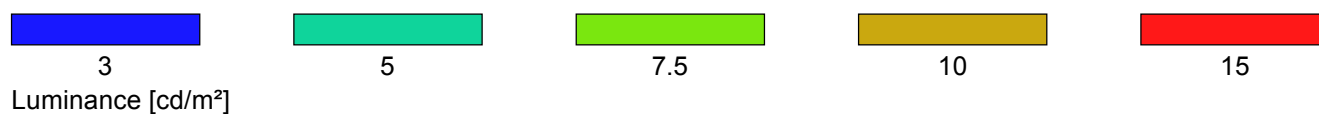
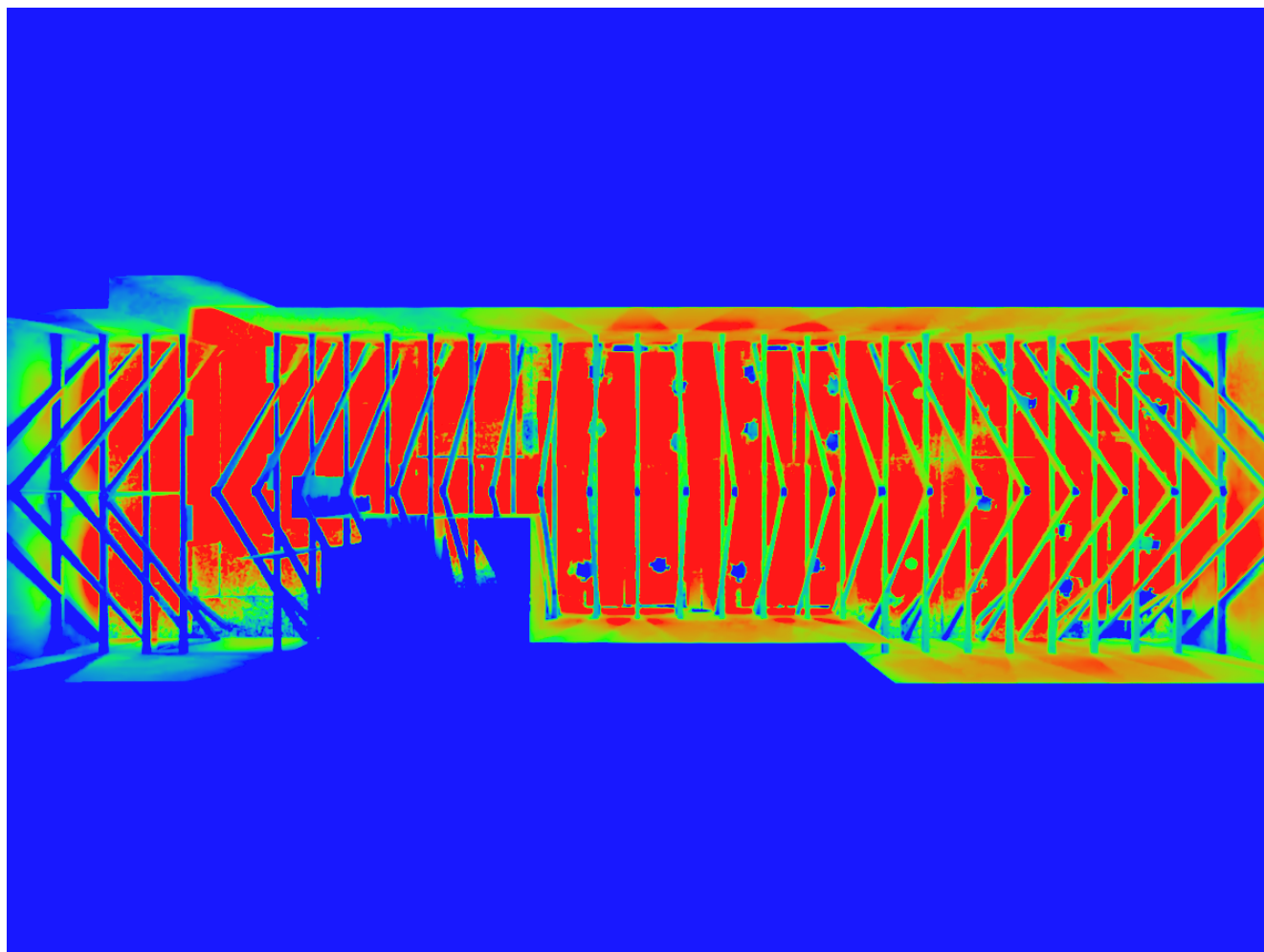
Artificial light calculation : Direct part, with 2 inter-reflections

Object : Sigula Pils iela  
Installation : 2.stāvs ofisa telpas  
Project number : 78  
Date : 26.11.2014

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## Calculation results, telpa 2.stāvs

### 3D pseudo colours (raytracing), View from above (E)



Luminance in the illustration:

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 492 cd/m<sup>2</sup>

Artificial light calculation : Direct part, with 2 inter-reflections

-please put your own address here-