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OBJEDNATEL: Město Kolín, Karlovo náměstí 78, 280 12, Kolín I				Č. PARE:
VYPRACOVAL: Ing.Pavel Sněhota		ODPOVĚDNÝ PROJEKTANT: Ing. Pavel Sněhota		
AKCE: Rekonstrukce VO Prokopa Velikého				
PŘÍLOHA: Světelně technický výpočet				Č. PŘÍLOHY: <b>A1</b>
STUPEŇ: DVZ	DATUM: 01/2022	MĚŘÍTKO: -	FORMÁT: -	

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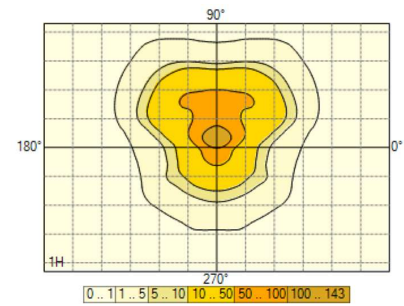
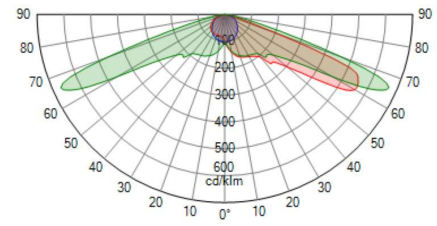
## 1. Fixtures

### 1.1. TECEO 1 24 LEDs 700mA WW Flat, Glass Extra Clear, Smooth 5121 Back light 372592



Type	TECEO 1
Reflector	5121
Source	24 LEDs 700mA WW
Protector	Flat, Glass Extra Clear, Smooth
Setting	
Source flux	6,0 klm
G-Class	4

Luminaire wattage	55,0 W
Source wattage	55,0 W
Efficacy	76 lm/W
Luminaire flux	4,158 klm
MF	0,80
Matrix	372592

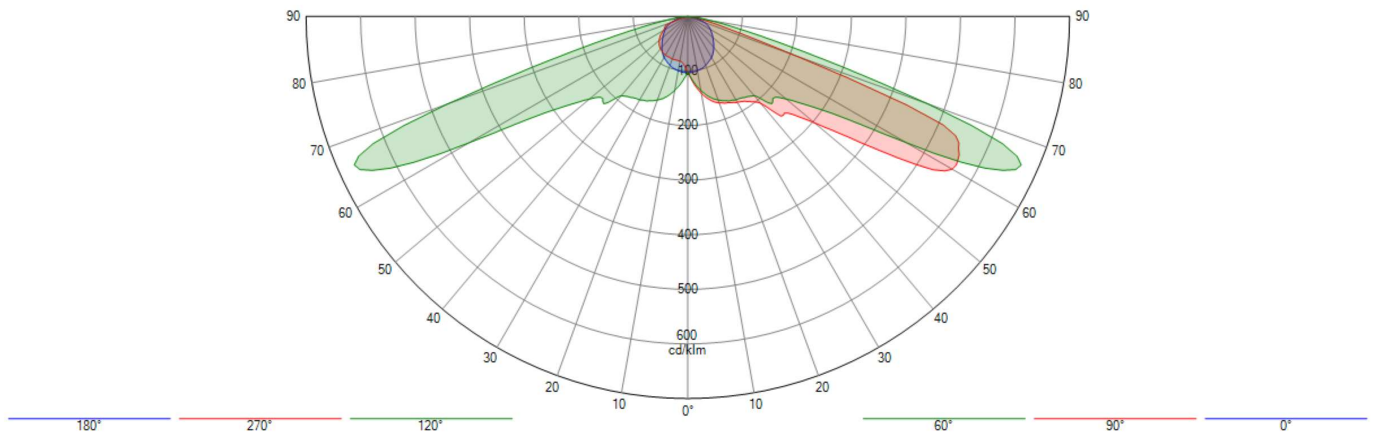


## 2. Photometric documents

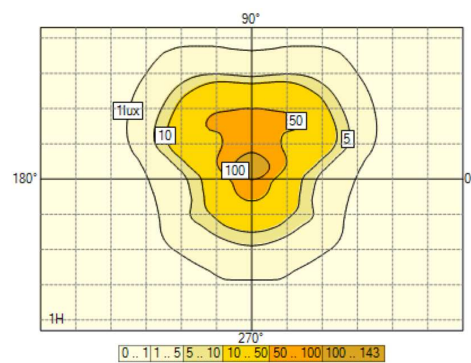
### 2.1. TECEO 1 24 LEDs 700mA WW Flat, Glass Extra Clear, Smooth 5121 Back light 372592

372592

Polar/Cartesian diagram



Isolux



Utilization curve



## 3. Results

### 3.1. Grid summary

- Wall left (IL)

#### 1. Y negative illuminance

	Ave (A)(lux)	Min/Ave (%)	Min/Max (%)	Min (lux)	Max (lux)
Dynamic cross section	1,06	0	0	0,00	5,46

- Single lane with level (IL)

P5 (IL : Min = 0,60 lux Ave = 3,00 lux)

#### 1. Z positive illuminance

	Ave (A)(lux)	Min/Ave (%)	Min/Max (%)	Min (lux)	Max (lux)
Dynamic cross section	7,83	10	3	0,75	24,43



- Multi-lanes (IL)

P5 (IL : Min = 0,60 lux Ave = 3,00 lux)

#### 1. Z positive illuminance

	Ave (A)(lux)	Min/Ave (%)	Min/Max (%)	Min (lux)	Max (lux)
Dynamic cross section	7,44	20	7	1,48	20,46



- Single lane with level (IL) (1)

P4 (IL : Min = 1,00 lux Ave = 5,00 lux)

#### 1. Z positive illuminance

	Ave (A)(lux)	Min/Ave (%)	Min/Max (%)	Min (lux)	Max (lux)
Dynamic cross section	6,43	49	32	3,16	9,94



- Wall right (IL)

#### 1. Y positive illuminance

	Ave (A)(lux)	Min/Ave (%)	Min/Max (%)	Min (lux)	Max (lux)
Dynamic cross section	1,25	2	0	0,02	4,06

## 4. Summary power

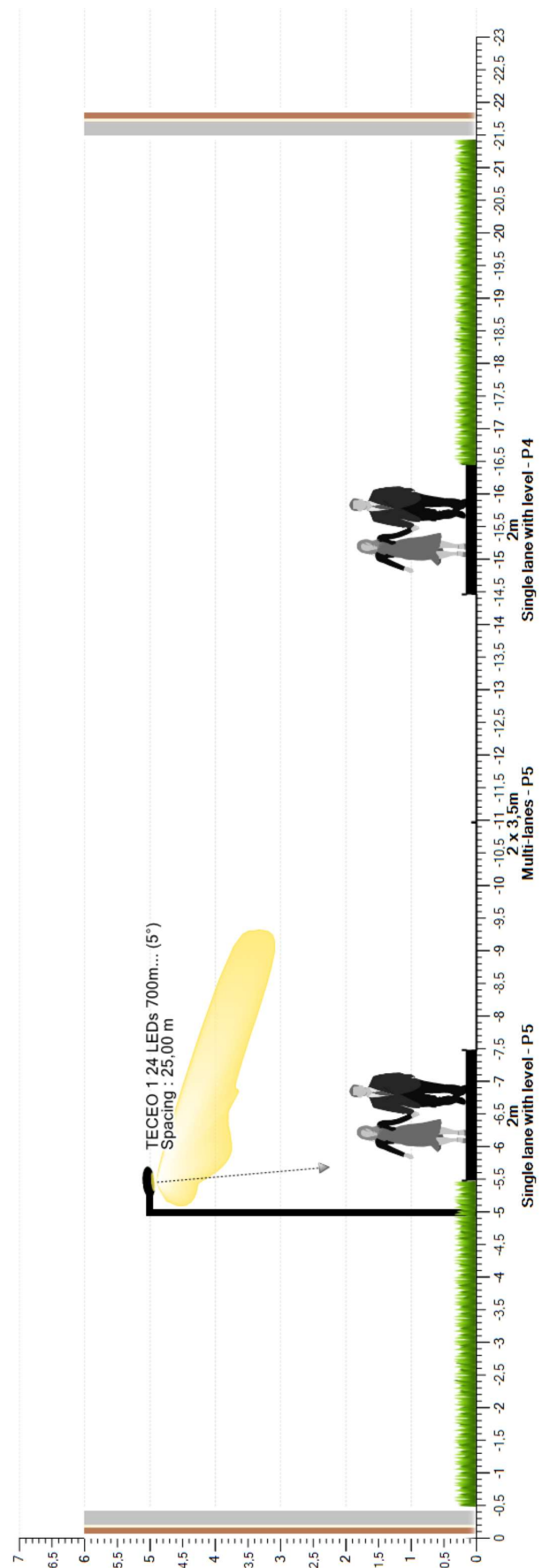
### 4.1. Dynamic cross section

Fixture	Qty	Dimming	Power / Fixture	Total
TECEO 1 24 LEDs 700mA WW Flat, Glass Extra Clear, Smooth 5121 Back light 372592	40	100 %	55 W	2200 W

Total : 2200 W



## 5. Cross section

### 5.1. 2D View



## 6. Dynamic cross section

### 6.1. Matrix description

Ph. color	Matrix	Description	Source flux [klm]	Luminaire flux [klm]	Efficacy [lm/W]	MF	Height	Fixture
	372592	TECEO 1 24 LEDs 700mA WW Flat, Glass Extra Clear, Smooth 5121 Back light	6,048	4,158	76	0,800	5 x 5,00	

### 6.2. Luminaire positions

	N°	Position			Luminaire							Target		
		X [m]	Y [m]	Z [m]	Matrix	Description	Az [°]	Incl [°]	Rot [°]	Flux [klm]	MF	X [m]	Y [m]	Z [m]
<input checked="" type="checkbox"/>	1	-25,00	-4,80	5,00	372592	TECEO 1 24 LEDs 700mA WW Flat, Glass Extra ...	180,0	5,0	0,0	6,048	0,800	-25,00	-5,24	0,00
<input checked="" type="checkbox"/>	2	0,00	-4,80	5,00	372592	TECEO 1 24 LEDs 700mA WW Flat, Glass Extra ...	180,0	5,0	0,0	6,048	0,800	0,00	-5,24	0,00
<input checked="" type="checkbox"/>	3	25,00	-4,80	5,00	372592	TECEO 1 24 LEDs 700mA WW Flat, Glass Extra ...	180,0	5,0	0,0	6,048	0,800	25,00	-5,24	0,00
<input checked="" type="checkbox"/>	4	50,00	-4,80	5,00	372592	TECEO 1 24 LEDs 700mA WW Flat, Glass Extra ...	180,0	5,0	0,0	6,048	0,800	50,00	-5,24	0,00
<input checked="" type="checkbox"/>	5	75,00	-4,80	5,00	372592	TECEO 1 24 LEDs 700mA WW Flat, Glass Extra ...	180,0	5,0	0,0	6,048	0,800	75,00	-5,24	0,00

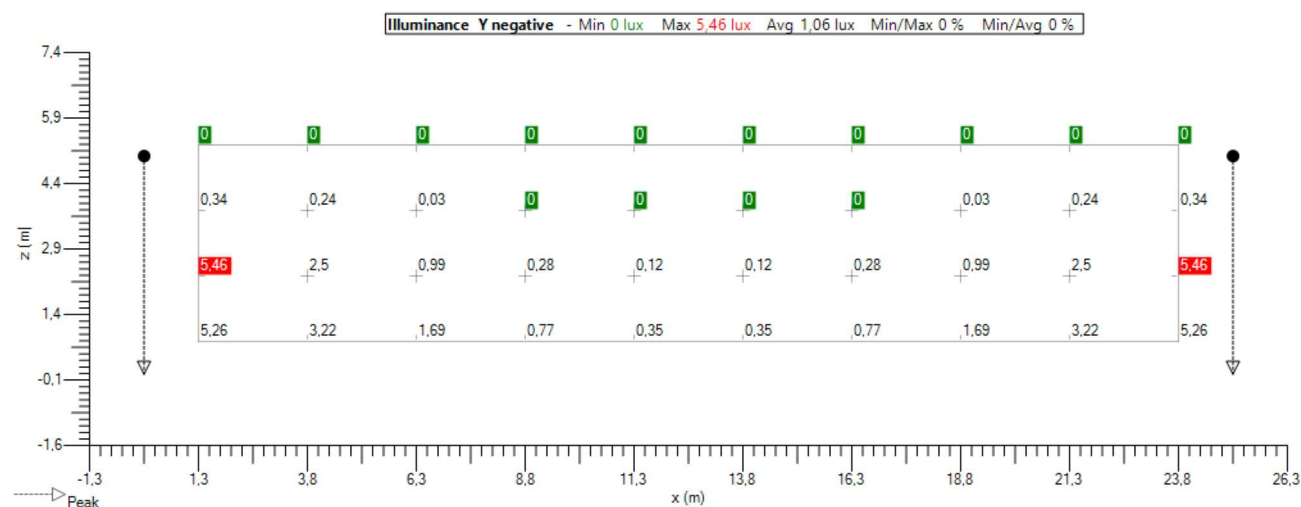
### 6.3. Luminaire groups

Linear															
	N°	Position			Luminaire					Dimension			Rotation		
		X [m]	Y [m]	Z [m]	Matrix	Az [°]	Incl [°]	Rot [°]	Dim [%]	Count	Spacing [m]	Size [m]	X [°]	Y [°]	Z [°]
<input checked="" type="checkbox"/>	1	-25,00	-4,80	5,00	372592	180,0	5,0	0,0	100	5	25,00	100,00	0,0	0,0	0,0

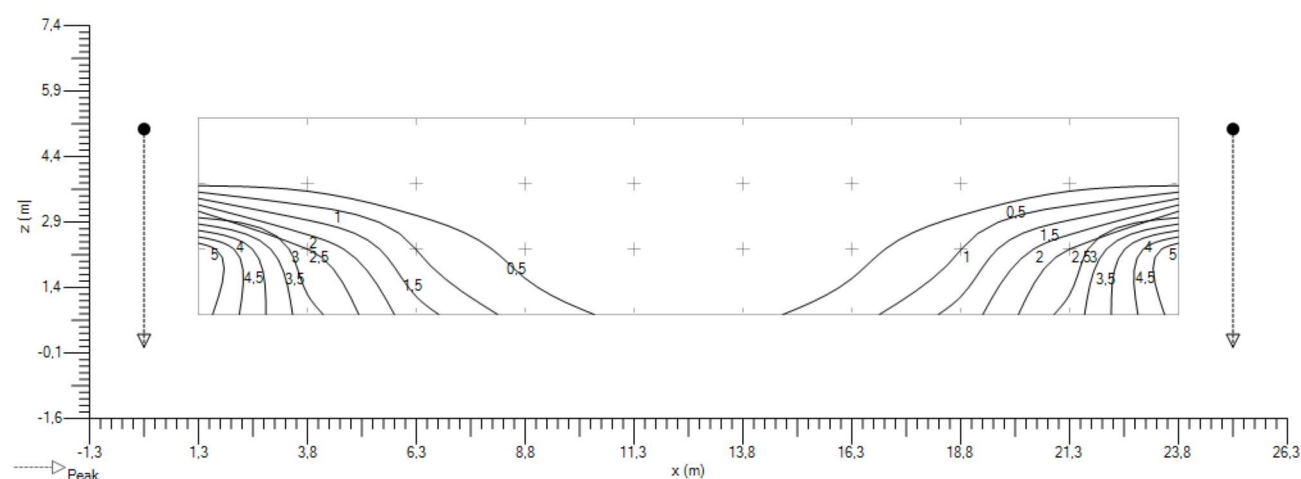


## 6.4. Wall left (IL) - Y negative illuminance

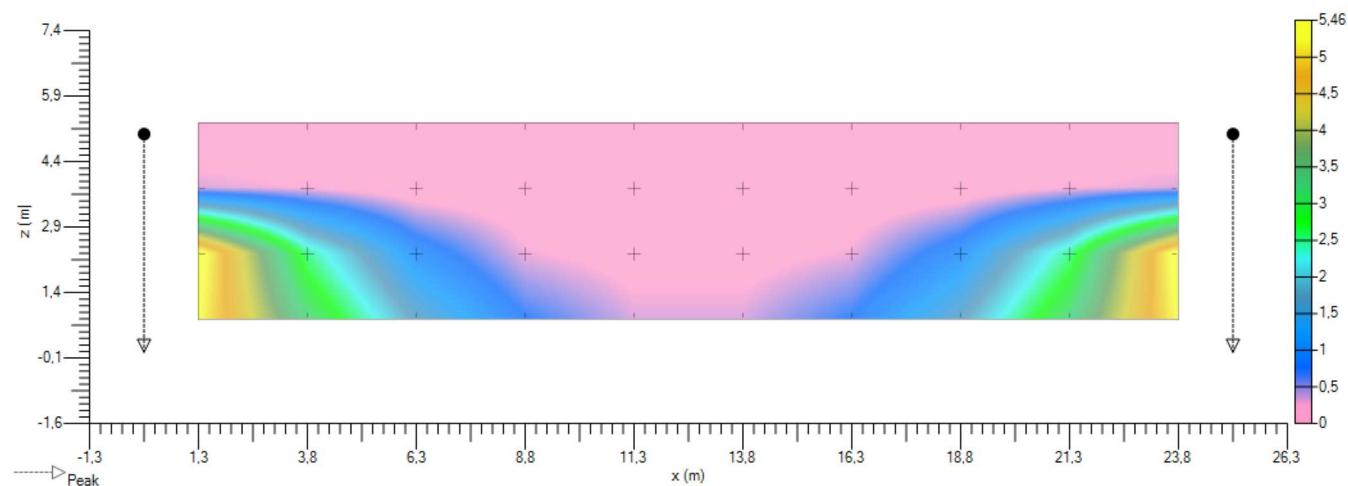
Values



Isolevel

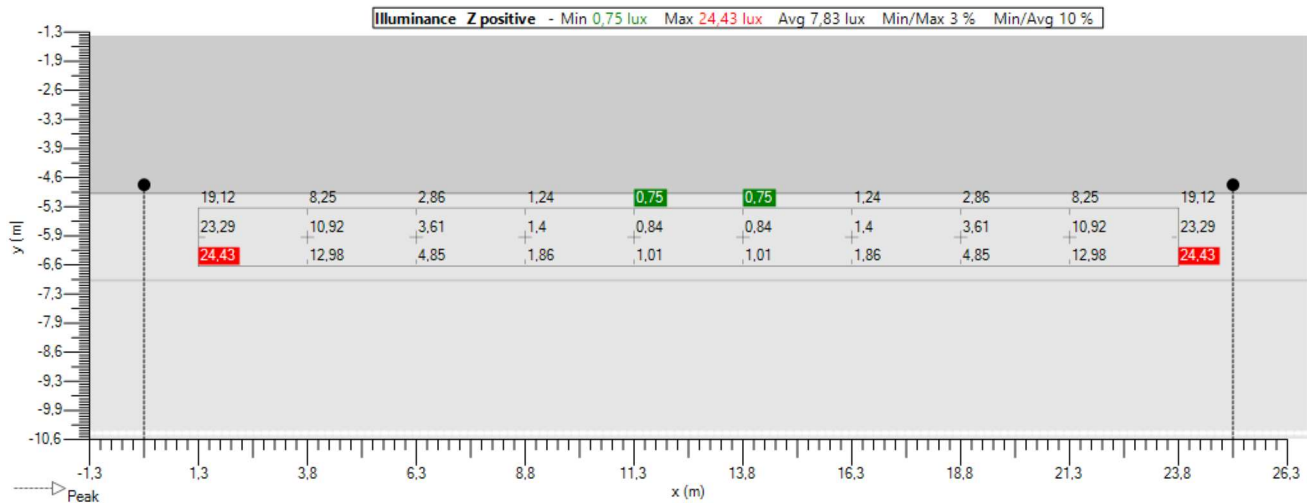


Shading

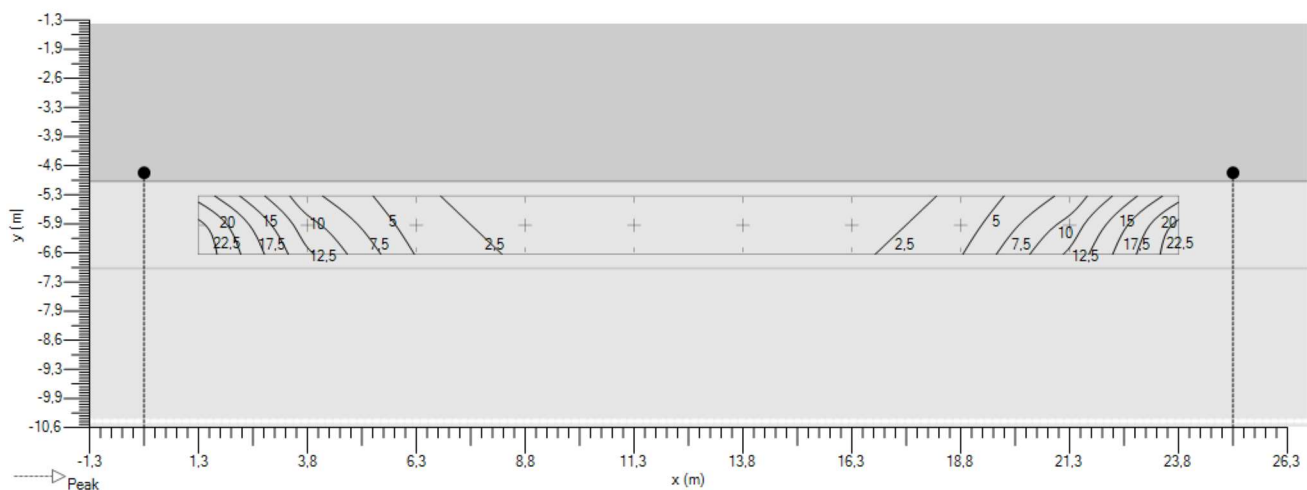


## 6.5. Single lane with level (IL) - Z positive illuminance

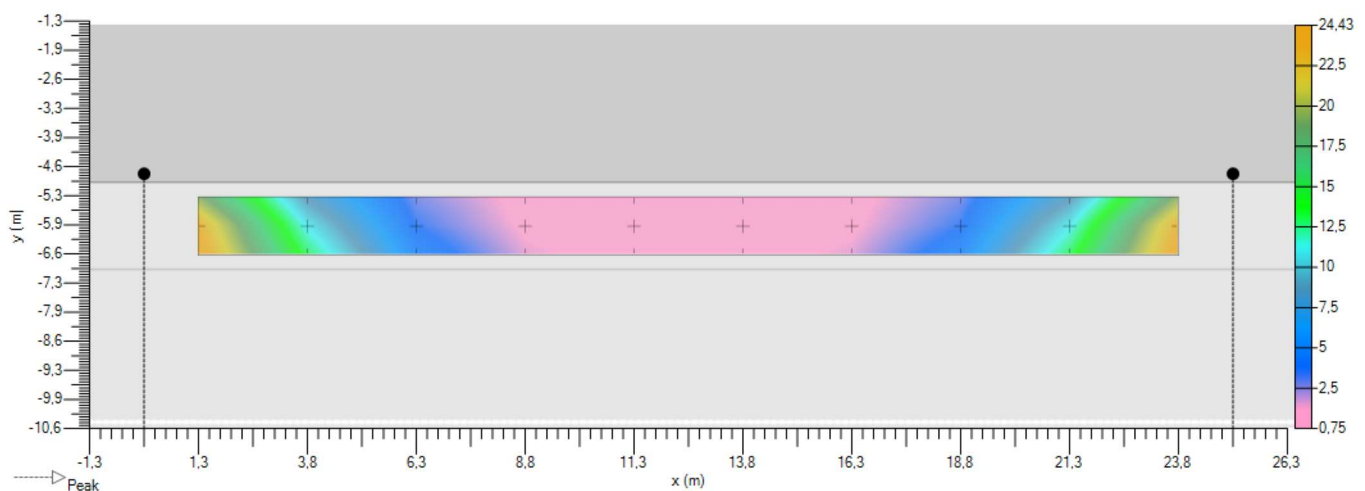
## Values



## Isolevel

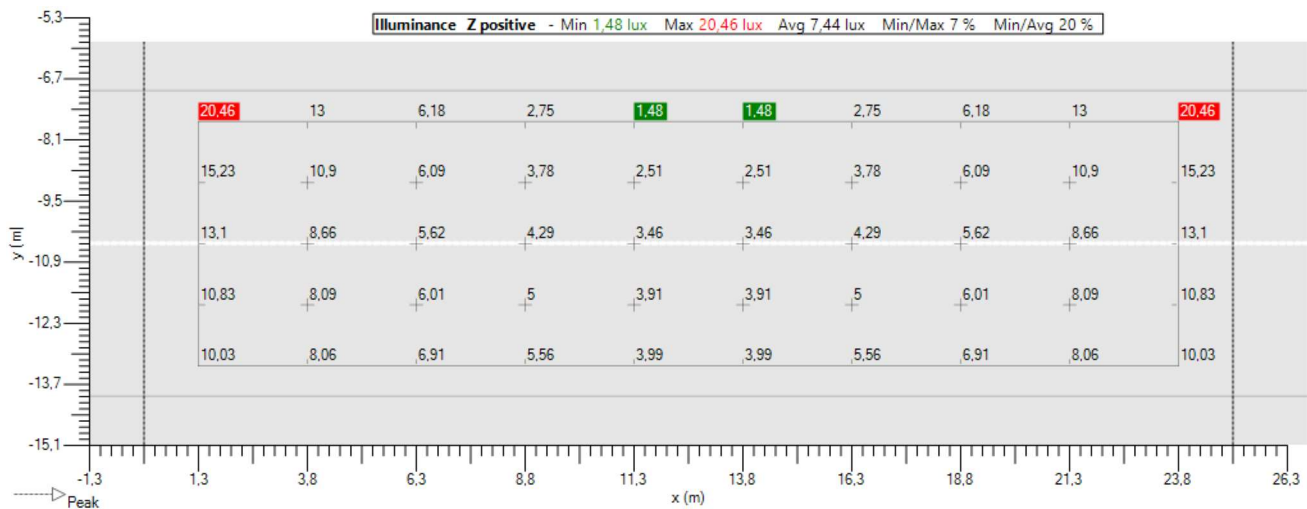


## Shading

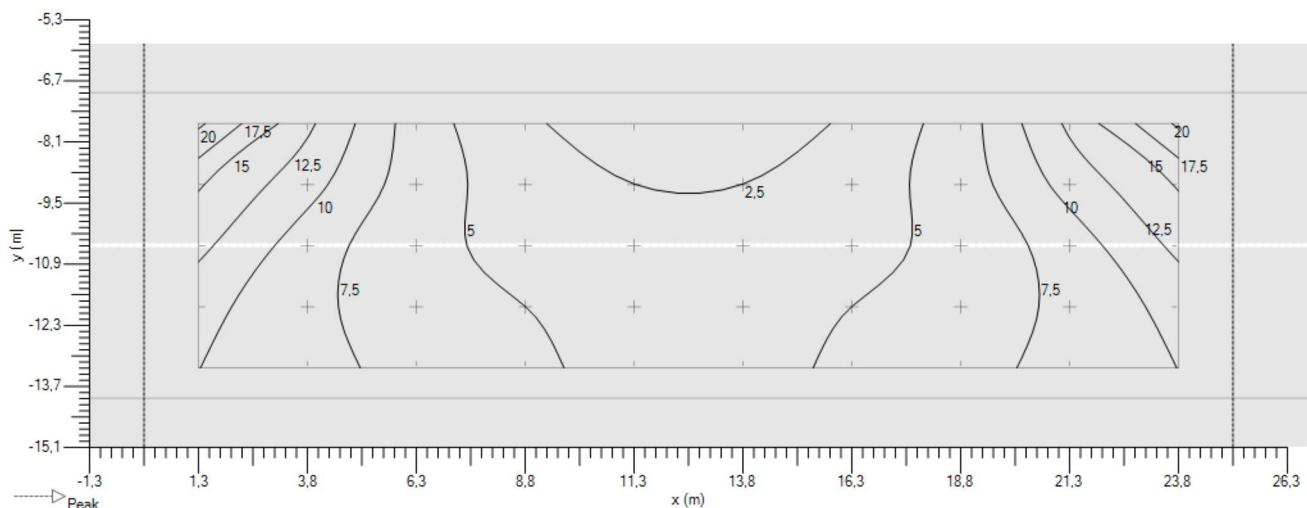


## 6.6. Multi-lanes (IL) - Z positive illuminance

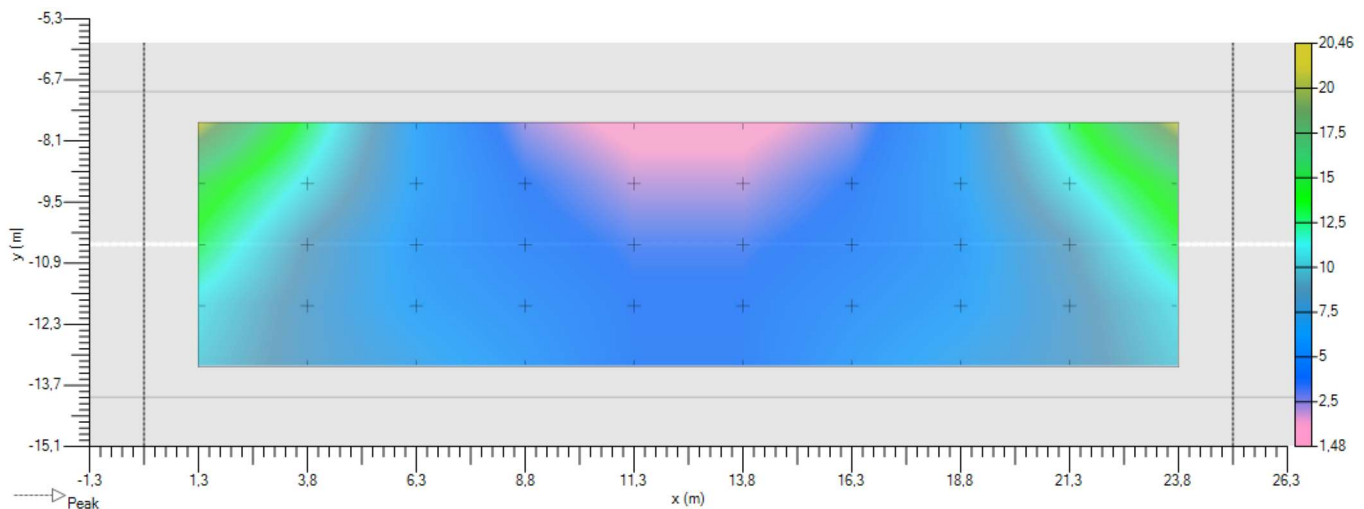
Values



Isolevel

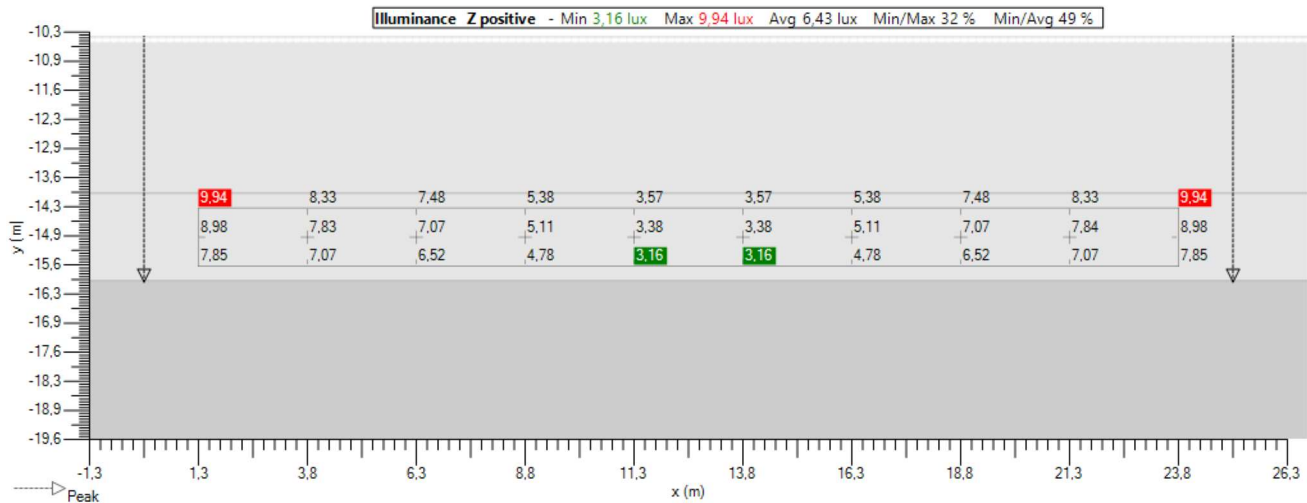


Shading

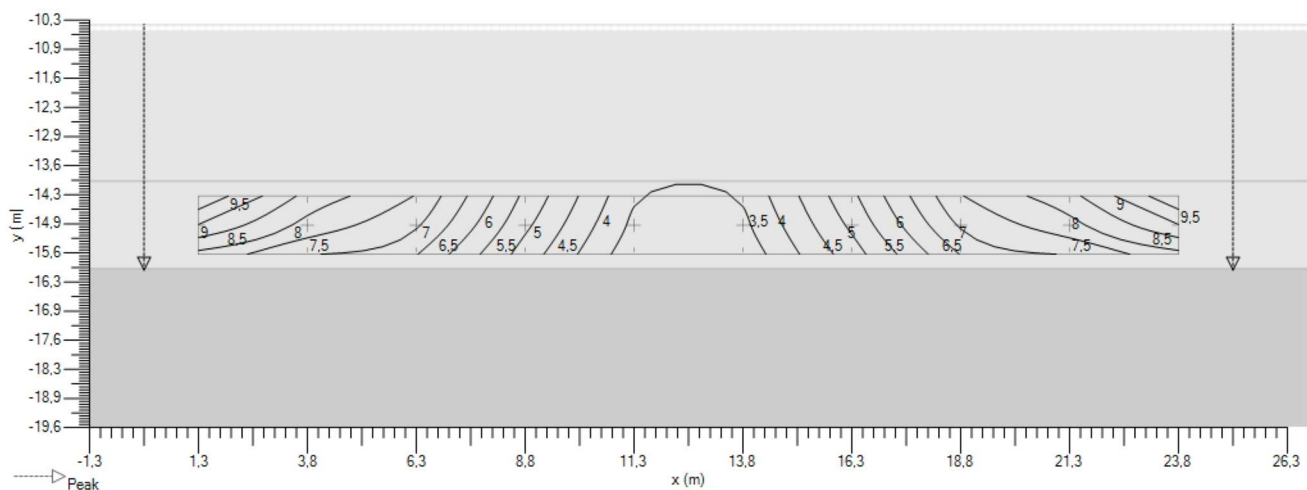


## 6.7. Single lane with level (IL) (1) - Z positive illuminance

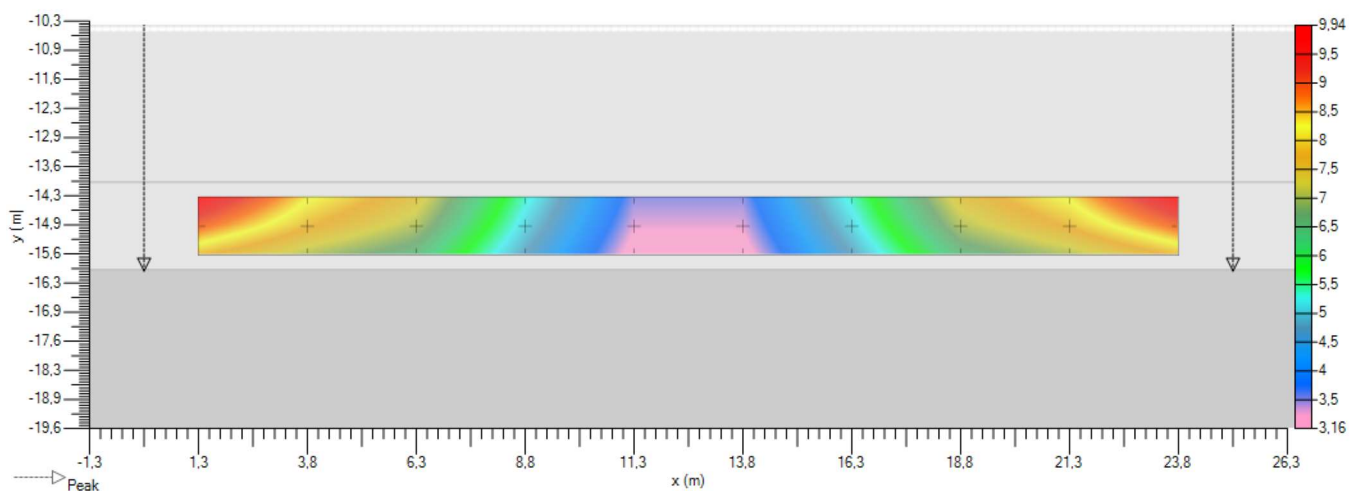
Values



Isolevel

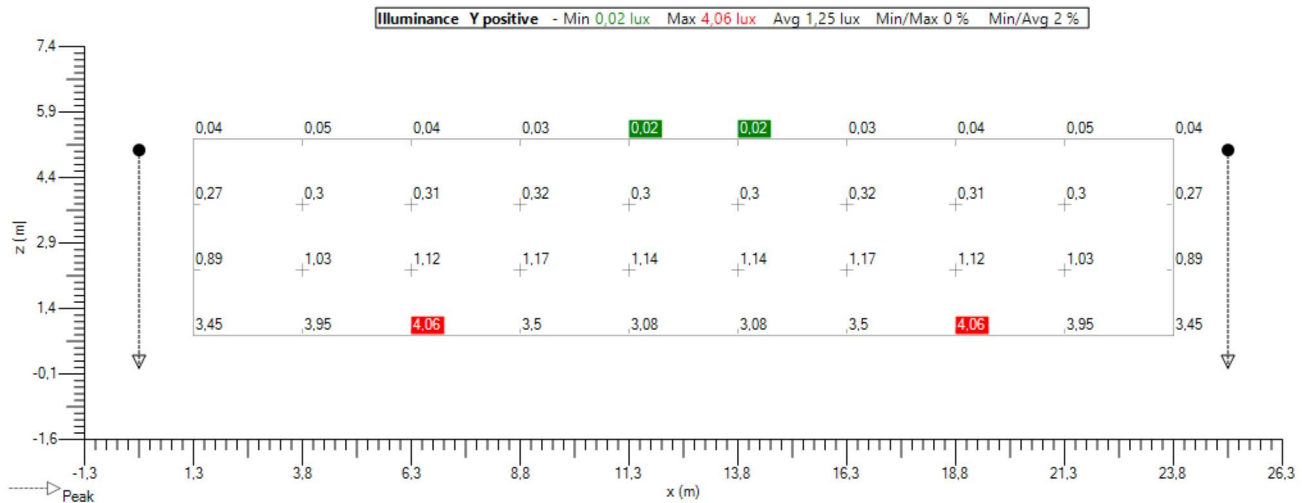


Shading

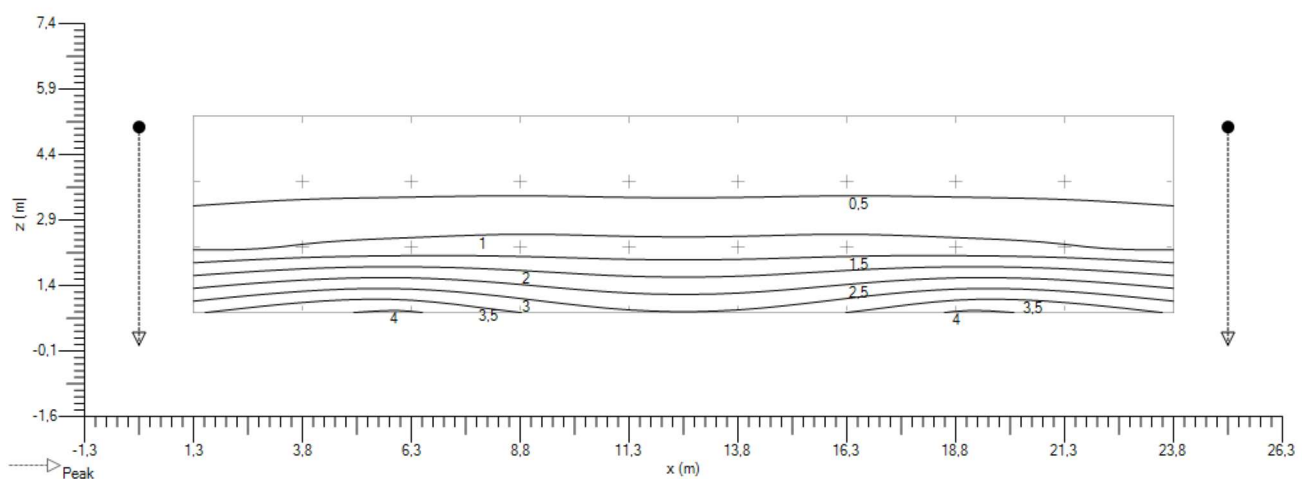


## 6.8. Wall right (IL) - Y positive illuminance

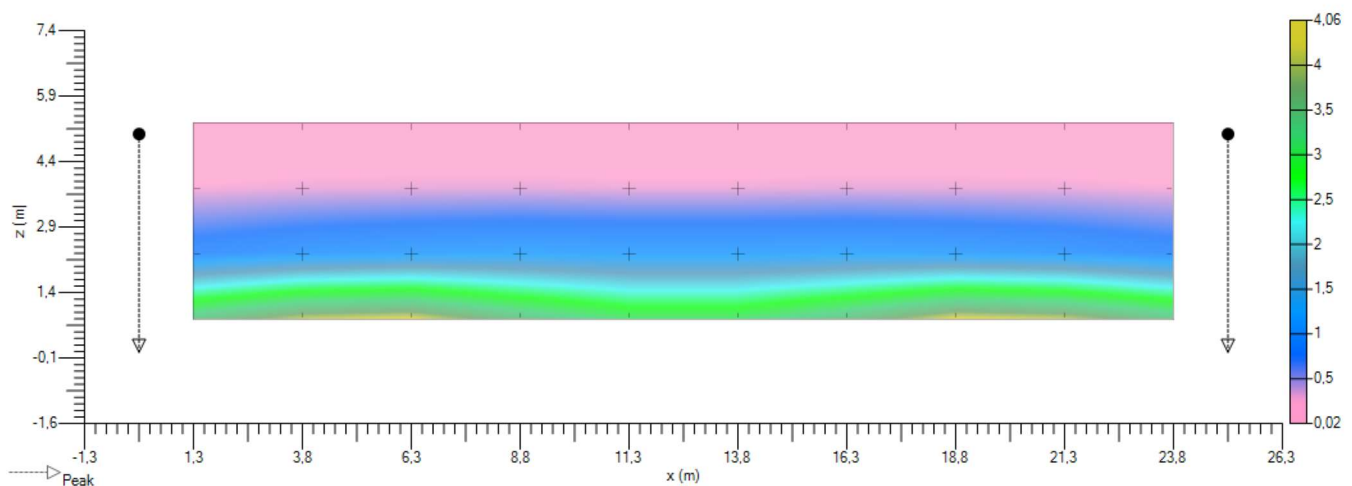
Values



Isolevel



Shading



## 7. Grids

### 7.1. Wall left (IL)

#### General

Type : Grid rectangular XZ

Use Exclusion : -

En : ☒Colour : 

#### Geometry

##### Origin

X : Y : Z :  m

##### Rotation

X : Y : Z :  °

##### Dimension

Count X : Count Z : Spacing X : Spacing Z :  mSize X : Size Z :  m

### 7.2. Single lane with level (IL)

#### General

Type : Grid rectangular XY

Use Exclusion : -

En : ☒Colour : 

#### Geometry

##### Origin

X : Y : Z :  m

##### Rotation

X : Y : Z :  °

##### Dimension

Count X : Count Y : Spacing X : Spacing Y :  mSize X : Size Y :  m

## 7.3. Multi-lanes (IL)

## General

Type : Grid rectangular XY

Use Exclusion : -

En : ☒Colour : 

## Geometry

## Origin

X :  Y :  Z :  m

## Rotation

X :  Y :  Z :  °

## Dimension

Count X :	<input type="text" value="10"/>	Count Y :	<input type="text" value="5"/>
Spacing X :	<input type="text" value="2,50"/>	Spacing Y :	<input type="text" value="1,40"/> m
Size X :	<input type="text" value="22,50"/>	Size Y :	<input type="text" value="5,60"/> m

## 7.4. Single lane with level (IL) (1)

## General

Type : Grid rectangular XY

Use Exclusion : -

En : ☒Colour : 

## Geometry

## Origin

X :  Y :  Z :  m

## Rotation

X :  Y :  Z :  °

## Dimension

Count X :	<input type="text" value="10"/>	Count Y :	<input type="text" value="3"/>
Spacing X :	<input type="text" value="2,50"/>	Spacing Y :	<input type="text" value="0,67"/> m
Size X :	<input type="text" value="22,50"/>	Size Y :	<input type="text" value="1,33"/> m

## 7.5. Wall right (IL)

## General

Type : Grid rectangular XZ

Use Exclusion : -

En : ☒Colour : 

## Geometry

## Origin

X : Y : Z :  m

## Rotation

X : Y : Z :  °

## Dimension

Count X : Count Z : Spacing X : Spacing Z :  mSize X : Size Z :  m