

## VATP7

Installation : Avārijas apgaismojums

Project number : 1

Customer :

Processed by : Artūrs Karulis

Date : 14.02.2018

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.

Object : VATP7  
Installation : Avārijas apgaismojums  
Project number : 1  
Date : 14.02.2018

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## 1 Luminaire data

### 1.1 AWEX, AXNU/6W/B/SE (AXNU/6W/B/SE)

#### 1.1.1 Data sheet

Manufacturer: AWEX

AXNU/6W/B/SE

AXNU/6W/B/SE

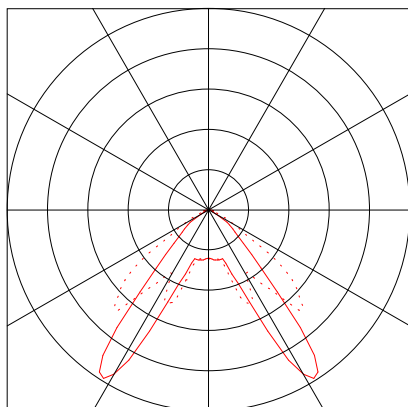
#### Luminaire data

Luminaire efficiency : 100.1%  
Luminaire efficacy : 103.44 lm/W  
Classification : A40 100.0% ↑0.0%  
CIE Flux Codes : 51 93 99 100 100  
UGR 4H 8H : 34.7 / 37.5  
Power : 6 W  
Luminous flux : 620.6 lm

Dimensions : Ø200 mm x 55 mm

#### Equipped with

Quantity : 1  
Designation : AXNU/6W/B/SE  
Colour : 0  
Luminous flux : 620 lm



Object : VATP7  
Installation : Avārijas apgaismojums  
Project number : 1  
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## 1 Luminaire data

### 1.2 AWEX, AXNR/6W/B/SE (AXNR/6W/B/SE)

#### 1.2.1 Data sheet

Manufacturer: AWEX

AXNR/6W/B/SE

AXNR/6W/B/SE

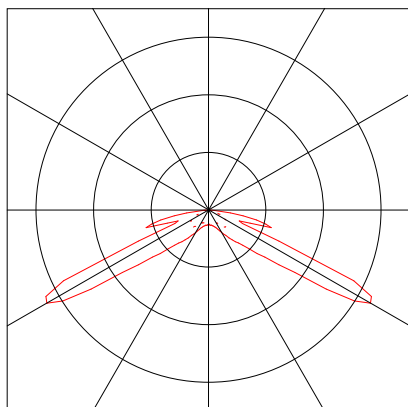
#### Luminaire data

Luminaire efficiency : 100%  
Luminaire efficacy : 100 lm/W  
Classification : A20 100.0% ↑0.0%  
CIE Flux Codes : 21 61 92 100 100  
UGR 4H 8H : 49.2 / 37.6  
Power : 6 W  
Luminous flux : 600 lm

Dimensions : Ø200 mm x 55 mm

#### Equipped with

Quantity : 1  
Designation : AXNR/6W/B/SE  
Colour : 0  
Luminous flux : 600 lm



Object : VATP7  
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## 1 Luminaire data

### 1.3 AWEX, AXPU/1W - CB (AXPU/1W - CB)

#### 1.3.1 Data sheet

Manufacturer: AWEX

AXPU/1W - CB

AXPU/1W - CB

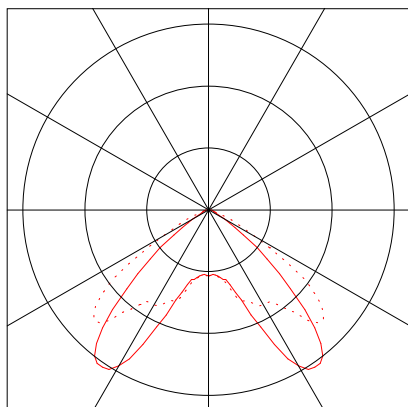
#### Luminaire data

Luminaire efficiency : 99.9%  
Luminaire efficacy : 149.85 lm/W  
Classification : A40 100.0% ↑0.0%  
CIE Flux Codes : 49 92 99 100 100  
UGR 4H 8H : 29.1 / 31.9  
Power : 1 W  
Luminous flux : 149.9 lm

#### Equipped with

Quantity : 1  
Designation : AXPU/1W - CB  
Colour : 0  
Luminous flux : 150 lm

Dimensions : Ø100 mm x 35 mm



Object : VATP7  
Installation : Avārijas apgaismojums  
Project number : 1  
Date : 14.02.2018

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## 1 Luminaire data

### 1.4 AWEX, AXPR/1W - CB (AXPR/1W - CB)

#### 1.4.1 Data sheet

Manufacturer: AWEX

AXPR/1W - CB

AXPR/1W - CB

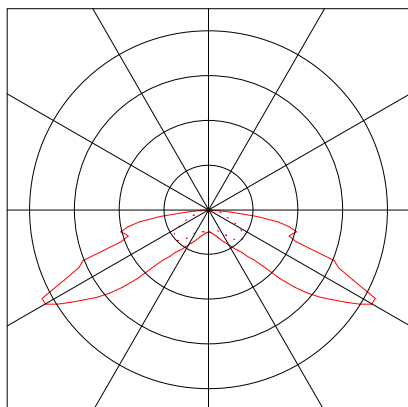
#### Luminaire data

Luminaire efficiency : 99.9%  
Luminaire efficacy : 159.84 lm/W  
Classification : A20 100.0% ↑0.0%  
CIE Flux Codes : 21 62 92 100 100  
UGR 4H 8H : 43.3 / 32.8  
Power : 1 W  
Luminous flux : 159.8 lm

#### Equipped with

Quantity : 1  
Designation : AXPR/1W - CB  
Colour : 0  
Luminous flux : 160 lm

Dimensions : Ø100 mm x 45 mm



Object : VATP7  
Installation : Avārijas apgaismojums  
Project number : 1  
Date : 14.02.2018

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## 1 Luminaire data

### 1.5 AWEX, ODB\_3x1W - CB (ODB\_3x1W - CB)

#### 1.5.1 Data sheet

Manufacturer: AWEX

ODB\_3x1W - CB

ODB\_3x1W - CB

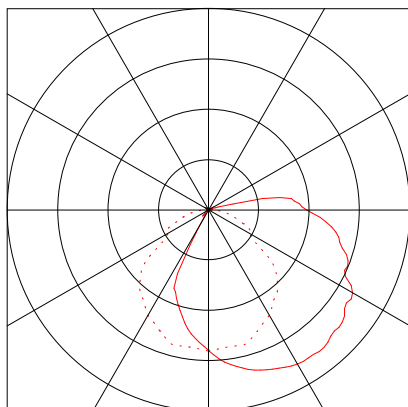
#### Luminaire data

Luminaire efficiency : 99.8%  
Luminaire efficacy : 60.89 lm/W  
Classification : A31 92.3% ↑7.7%  
CIE Flux Codes : 40 67 87 92 100  
UGR 4H 8H : 33.4 / 27.9  
Power : 5.9 W  
Luminous flux : 359.3 lm

#### Equipped with

Quantity : 1  
Designation : OD/3x1W/B  
Colour : 0  
Luminous flux : 360 lm

Dimensions : 170 mm x 70 mm x 190 mm



Object : VATP7  
Installation : Avārijas apgaismojums  
Project number : 1  
Date : 14.02.2018

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## 1 Luminaire data

### 1.6 AWEX, AXNO\_3W\_B (AXN)

#### 1.6.1 Data sheet

**Manufacturer: AWEX**

**AXN      AXNO\_3W\_B**

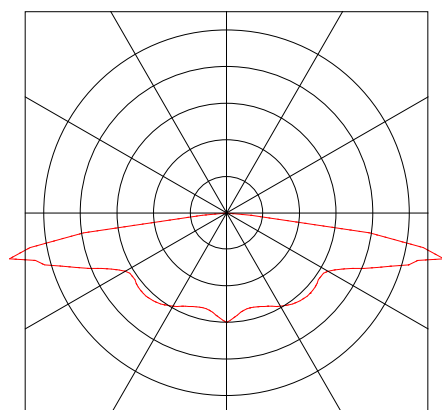
#### **Luminaire data**

Luminaire efficiency : 100.5%  
Luminaire efficacy : 57.66 lm/W  
Classification : A20 100.0% ↑0.0%  
CIE Flux Codes : 23 47 80 100 100  
UGR 4H 8H : 29.5 / 29.5  
Power : 6.1 W  
Luminous flux : 351.8 lm

#### **Equipped with**

Quantity : 1  
Designation : AXNO/3W/B  
Colour : 0  
Luminous flux : 350 lm

Dimensions : Ø200 mm x 37 mm



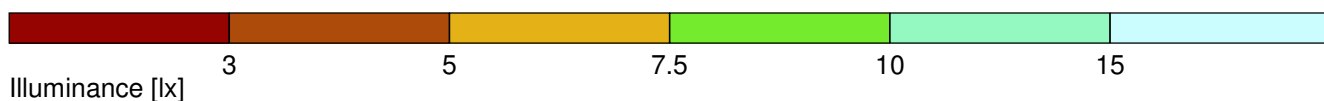
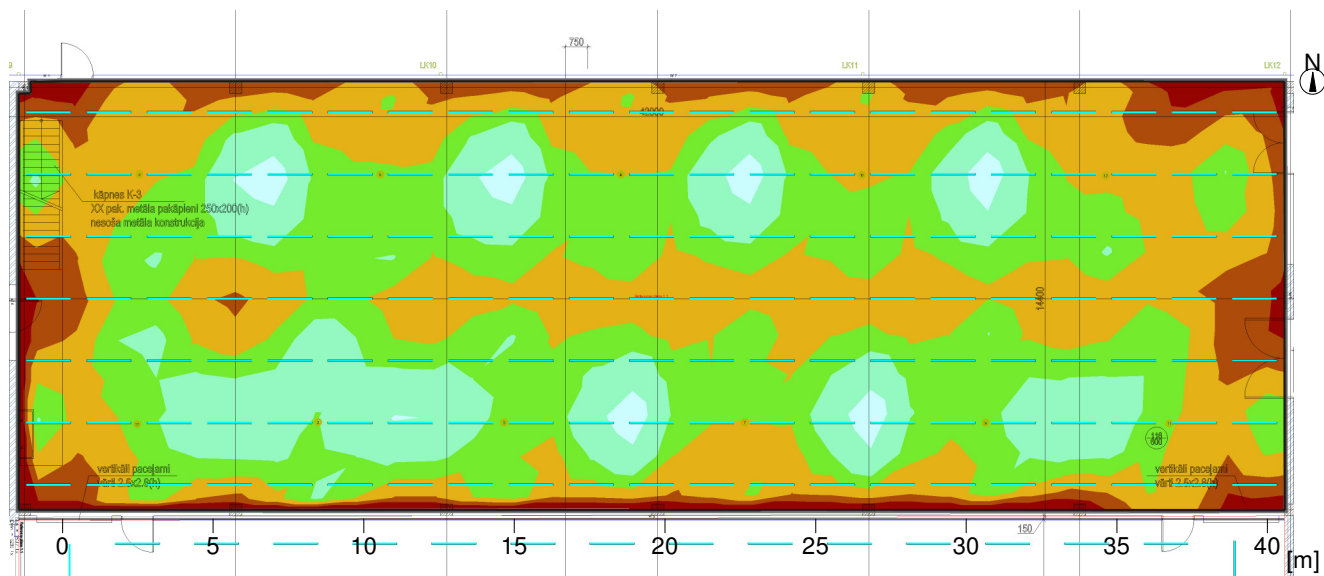
Object : VATP7  
Installation : Avārijas apgaismojums  
Project number : 1  
Date : 14.02.2018

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## 1 116

### 1.1 Summary, 116

#### 1.1.1 Result overview, Evaluation area 1



#### General

Calculation algorithm used  
Height of luminaire plane  
Maintenance factor

High indirect fraction  
6.50 m  
0.80

Total luminous flux of all lamps  
Total power  
Total power per area (596.35 m<sup>2</sup>)

6820.00 lm  
66.0 W  
0.11 W/m<sup>2</sup> (1.46 W/m<sup>2</sup>/100lx)

#### Evaluation area 1

#### Reference plane 1.1

Horizontal  
Em  
Emin  
Emin/Eav (Uo)  
Emin/Emax (Ud)  
UGR (8.0H 2.7H)  
Position

7.58 lx  
2.14 lx  
0.28  
0.12  
≤37.6  
0.00 m

#### Type No.\Make

1 11 **AWEX**  
Order No. : AXNU/6W/B/SE  
Luminaire name : AXNU/6W/B/SE  
Equipment : 1 x AXNU/6W/B/SE 6 W / 620 lm





Object : VATP7  
Installation : Avārijas apgaismojums  
Project number : 1  
Date : 14.02.2018

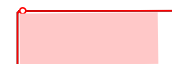
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## 1 116

### 1.2 Calculation results, 116

#### 1.2.1 Table, Reference plane 1.1 (E)

	3.1	2.6	5.4	6.9	4.3	5	5.6	4.7	6.2	7.4	4.5	4.9	5.5	4.4	5.8	7.5	4.6	4.7	5.3	4.3	5.4	7.5	4.6	4.4	5.2	4.1	4.6	6.9		
[m]	7.3	4.4	5.4	5.9	5.9	10.4	12.3	7	6.3	6.3	6	9.8	12.2	6.7	6	6.2	5.7	8.8	11.8	6.6	5.7	6.1	5.5	7.8	11.5	6.7	5.1	5.4		
-2	10	6.1	6.5	7.1	7.7	14.4	17.1	9	7.7	7.6	7.9	13.6	17.2	8.8	7.3	7.1	7.4	12.3	17.2	9	7.1	7	7.2	11.2	<b>17.5</b>	9.7	7	6.6		
-4	6.6	5.3	7	7.9	7.7	11.2	12.8	8.4	8.4	8.4	7.9	11.2	12.8	8.1	7.4	7.5	7.2	10.5	13.1	8.3	7.3	7.4	7.1	10.1	14.1	9.3	7.6	7.7		
-6	3.8	4.6	8.5	9.9	7	6.9	7.9	7.7	9.4	9.6	7	7.9	8.1	6.9	7.6	9	6.5	7.5	8	7	7.4	9	6.6	7.6	8.6	7.6	7.5	9.9		
-8	2.8	3.7	7.2	7.9	5.2	4.3	5.7	7.4	7.6	6	5	6.1	6.6	5.5	5.8	6.1	5.1	5.7	6.2	5.3	5.6	6	5.2	5.9	6.7	5.6	5	6.1		
-10	4	5.1	9.5	10.5	6.8	5.4	7.5	11.5	9.6	7.1	6.5	8.2	9.7	6.9	7.4	7.7	6.5	7	8.8	6.4	7	7.5	6.6	7.1	9.6	6.7	5.8	6.5		
-12	7	5.7	7.8	9.5	10.2	9.6	10.1	10.5	10.5	10.4	10.3	9.4	8.5	7.6	10.1	12.4	8.2	7.2	7.5	7.1	9.4	12.1	8.5	7.4	8.8	9.2	8.8	9		
	9.8	6.2	7.1	9.3	13.2	14	12.7	9.3	11.6	14.5	14.1	10.5	8	7.8	12.7	17.4	9.2	7.4	7.2	7.5	11.8	<b>17.5</b>	9.7	7.8	8.5	12	13.8	12.9		
	6.5	4.4	6.2	7.9	9.3	9.5	9.8	8.8	9.4	10.1	10	8.6	7.3	6.4	9.9	13.1	7.2	6.2	6.3	6.2	9.5	13.7	7.9	6.8	7.7	10	10.7	10.5		
	2.9	2.9	6.8	7.7	4.6	4	6.5	10	7.1	4.5	4.6	7.2	8.3	5	5.2	5.9	4.5	5.6	7.5	4.7	5.1	6.3	4.9	5.9	8.7	6	4.2	5		
	0					5				10				15						20					25			30		35
	Illuminance [lx]																													



Part1

Height of the reference plane	: 0.00 m
Average illuminance	Eav : 7.6 lx
Minimum illuminance	Emin : 2.1 lx
Maximum illuminance	Emax : 17.5 lx
Uniformity Uo	Emin/Eav : 1 : 3.54 (0.28)
Diversity Ud	Emin/Emax : 1 : 8.17 (0.12)



1 116

1.2 Calculation results, 116

1.2.1 Table, Reference plane 1.1 (E)

3.7	(2.1)	2.9	3.1
4.1	3.9	6	4.4
6.2	6.7	9.6	5.5
6.5	6.4	8.6	5.8
7	5.6	5.8	4.9
6.3	5.2	3.6	3
8.9	7.4	3.6	2.9
9.1	7	4.2	4.9
8.9	6.8	5.8	8.8
7.8	6.1	4.9	7.6
7.3	6.3	3	3.4

1)



Part2

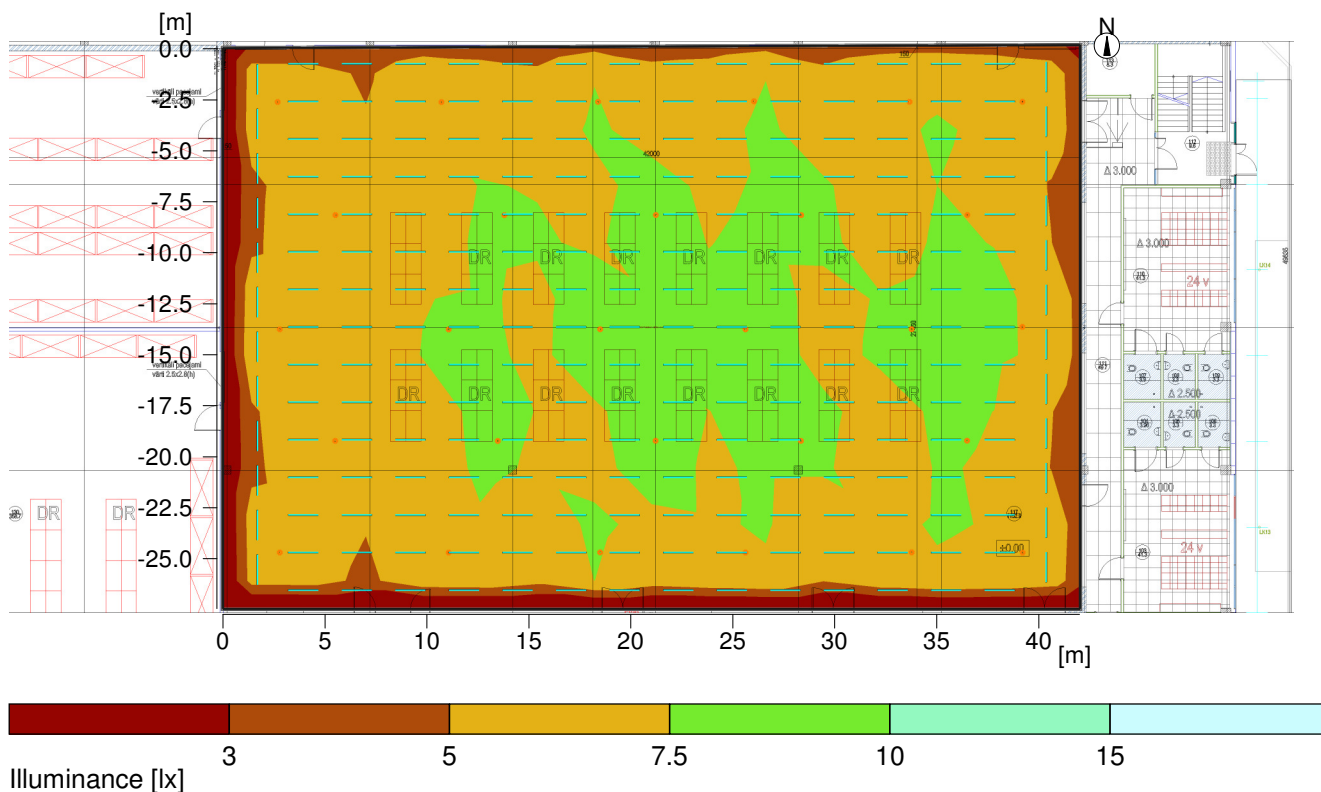
Object : VATP7  
Installation : Avārijas apgaismojums  
Project number : 1  
Date : 14.02.2018

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## 2 117

### 2.1 Summary, 117

#### 2.1.1 Result overview, Evaluation area 1



#### General

Calculation algorithm used  
Height of luminaire plane  
Maintenance factor

Average indirect fraction  
3.00 m  
0.80

Total luminous flux of all lamps  
Total power  
Total power per area (1156.05 m<sup>2</sup>)

9800.00 lm  
170.8 W  
0.15 W/m<sup>2</sup> (2.25 W/m<sup>2</sup>/100lx)

#### Evaluation area 1

#### Reference plane 1.1

Horizontal  
Em  
Emin  
Emin/Eav (Uo)  
Emin/Emax (Ud)  
UGR (12.0H 8.0H)  
Position

6.56 lx  
4.2 lx  
0.64  
0.51  
≤31.1  
0.00 m

#### Type No.\Make

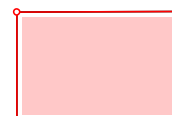
6 28 **AWEX**  
Order No. : AXN  
Luminaire name : AXNO\_3W\_B  
Equipment : 1 x AXNO/3W/B 6.1 W / 350 lm

## 2 117

### 2.2 Calculation results, 117

#### 2.2.1 Table, Reference plane 1.1 (E)

[m]	5.64	5.6	4.45	6.4	5.91	5.26	7.02	5.64	5.97	7.06	5.34	6.53	6.81	6.51	5.85
-2	5.78	6.02	5	6.69	6.49	5.91	7.45	6.38	6.47	7.51	5.94	6.85	7.24	6.92	6.03
-4	(4.2)	6.3	6.36	5.52	7.21	7.04	6.56	7.91	6.73	7.35	7.4	5.93	7.13	6.84	4.57
-6	4.3	6.49	6.59	5.72	7.52	7.34	6.83	8.23	7.07	7.6	7.64	6.1	7.36	7.09	4.78
-8	6.01	6.51	5.49	7.05	7.41	6.67	8.12	7.3	7.56	8.02	6.4	7.28	7.8	7.48	6.58
-10	6.23	6.65	5.5	7.21	7.57	6.71	[8.29]	7.39	7.69	8.17	6.43	7.44	7.96	7.5	6.6
-12	4.45	6.55	6.51	5.86	7.71	7.08	6.81	8.21	7.1	7.64	7.61	6.19	7.43	7.11	4.85
-14	4.25	6.39	6.36	5.61	7.55	6.9	6.54	8.04	6.86	7.4	7.41	5.91	7.24	6.98	4.68
-16	5.69	6.08	4.88	6.48	6.85	6	7.5	6.62	6.88	7.32	5.61	6.64	7.3	7.03	6.14
-18	5.52	5.62	4.27	6.15	6.25	5.4	7.13	5.89	6.35	6.74	4.87	6.26	6.83	6.58	5.95
-20															
-22															
-24															
-26															
	5	10	15	20	25	30	35	40	[m]						
Illuminance [lx]															

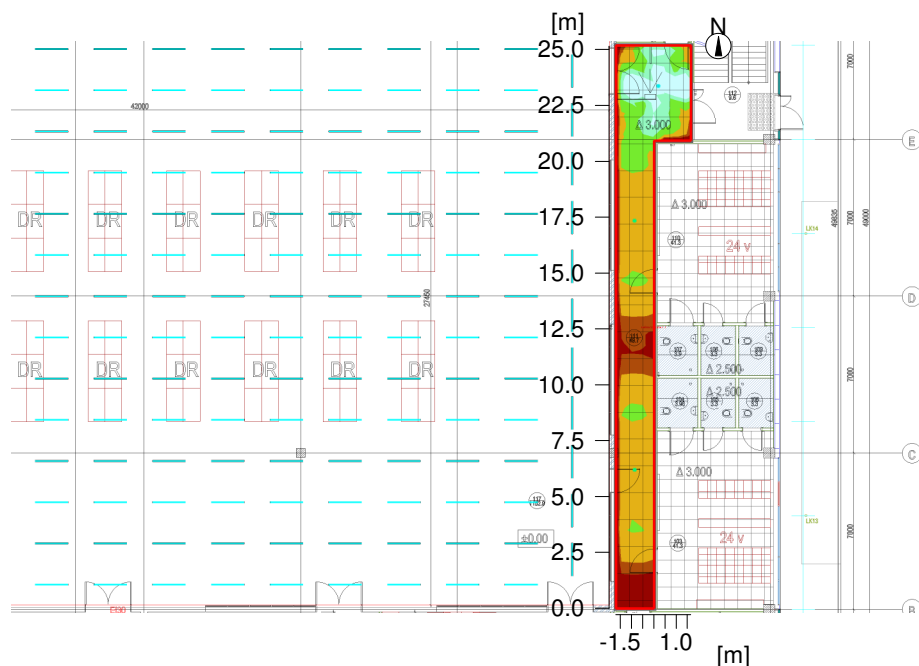


Height of the reference plane	: 0.00 m
Average illuminance	Eav : 6.56 lx
Minimum illuminance	Emin : 4.2 lx
Maximum illuminance	Emax : 8.29 lx
Uniformity Uo	Emin/Eav : 1 : 1.56 (0.64)
Diversity Ud	Emin/Emax : 1 : 1.97 (0.51)

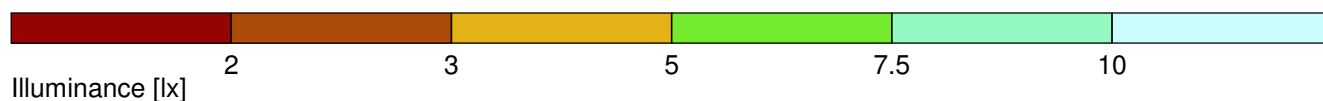
### 3 111

#### 3.1 Summary, 111

##### 3.1.1 Result overview, Evaluation area 1



NUM	1. MĀKŠINĀTĀJĀS TĒLMAS	LAUKS
109	Tualetes un dušas telpa	3.3
110	Garderobe	41.3
111	Galēnība	49.7
112	Kāpņu telpa	9.6
113	Saimniecības telpa	9.6
114	Printēšanas telpa	48.0
115	Kvalitātes laboratorija	50.1
116	Plastmasas ražošanas	600.0
117	Ražošanas telpa	1152.9
118	Tehniskā un inženieru	72.4
119	Kvalitātes pārbaudes telpa	73.4
120	Aptiekas telpa	69.0
121	Aptiekas telpa	6.7
122	Tualetes	5.1
123	Tualetes	2.4
124	Tualetes	2.4
125	Tualetes	2.4
126	Tualetes	2.4
127	Galēnība	4.5
128	Tehniskā telpa (bēnītis)	26.0
129	Tehniskā telpa (el)	21.0
130	Pakrošņu telpa	358.7
131	Ekspedīcija	222.9
132	Noliktavas pārzinis	17.0
133	Veidņu noliktava	90.7
134	Granulu noliktava	95.0
135	Noliktava	564.6
136	Preču plāksne	24.9
137	Papīra prese	30.4



#### General

Calculation algorithm used  
 Maintenance factor

Average indirect fraction  
 0.80

Total luminous flux of all lamps  
 Total power  
 Total power per area (49.77 m²)

470.00 lm  
 3.0 W  
 0.06 W/m² (1.29 W/m²/100lx)

#### Evaluation area 1

#### Reference plane 1.1

Horizontal  
 Em 4.68 lx  
 Emin 0.91 lx  
 Emin/Eav (Uo) 0.19  
 Emin/Emax (Ud) 0.06  
 Position 0.75 m

#### Major surfaces

	Em	Uo
M 1.7 (Ceiling)	0.95 lx	0.29
M 1.1 (Wall)	2.22 lx	0.13
M 1.2 (Wall)	2.35 lx	0.26
M 1.3 (Wall)	2.79 lx	0.22
M 1.4 (Wall)	3.43 lx	0.18
M 1.5 (Wall)	2.29 lx	0.12
M 1.6 (Wall)	1.36 lx	0.25

Object : VATP7  
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Date : 14.02.2018



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### 3 111

#### 3.1 Summary, 111

##### 3.1.1 Result overview, Evaluation area 1

###### Type No.\Make

		<b>AWEX</b>	
3	1		Order No. : AXPU/1W - CB
			Luminaire name : AXPU/1W - CB
			Equipment : 1 x AXPU/1W - CB 1 W / 150 lm
4	2		Order No. : AXPR/1W - CB
			Luminaire name : AXPR/1W - CB
			Equipment : 1 x AXPR/1W - CB 1 W / 160 lm

Object : VATP7  
 Installation : Avārijas apgaismojums  
 Project number : 1  
 Date : 14.02.2018



### 3 111

### 3.2 Calculation results, 111

#### 3.2.1 Table, Reference plane 1.1 (E)

	2.6	4.6	7.8	9.9	9.8	7.3	4.2
	4	4.4	5.6	9.2	9	5.2	4.4
[m]	6.4	8.2	6.7	10.4	9.9	6.6	8.6
24	8.4	[14.8]	12.1	9.5	9.5	12.8	[14.8]
	8.4	14.2	11.7	9.6	9.5	12	14.1
	6.5	7.4	6.1	10.4	9.2	5.3	7
	4.5	5.3	6.8	9.5	8.2	5.4	4.1
22	4	5.7	8.5	10	8.3	6.2	3.6
	4.5	5.8	7.1	7.7	5.3	4.4	3.1
	4.8	5.4	5.5	5.7			
	4.9	5.2	5.1	4.3			
20	4.9	5.3	5.2	4.3			
	4.1	4.6	4.4	3.6			
	3.9	4.5	4.3	3.2			
	3.9	4.5	4.3	3.3			
18	3.9	4.4	4.3	3.4			
	3.9	4.4	4.3	3.5			
	3.9	4.4	4.3	3.5			
	3.9	4.5	4.3	3.4			
16	3.9	4.5	4.3	3.3			
	3.9	4.4	4.2	3.3			
	4.2	4.7	4.5	3.8			
	4.8	5.1	5	4.5			
14	4.3	4.5	4.5	4.1			
	3.8	3.9	3.9	3.6			
	3.2	3.3	3.3	3			
	2.4	2.4	2.4	2.3			
	1.9	2	1.9	1.9			
12	1.9	2	1.9	1.8			
	1.9	1.9	1.9	1.8			
	2.1	2.1	2.1	2			
	2.8	2.9	2.9	2.6			
10	3.5	3.6	3.6	3.3			
	4.1	4.2	4.2	3.9			
	4.6	4.9	4.8	4.4			
	4.7	5.2	5	4.4			
8	4	4.5	4.3	3.5			
	3.8	4.5	4.2	3.3			
	3.9	4.5	4.3	3.4			
	3.9	4.4	4.3	3.4			



Part1

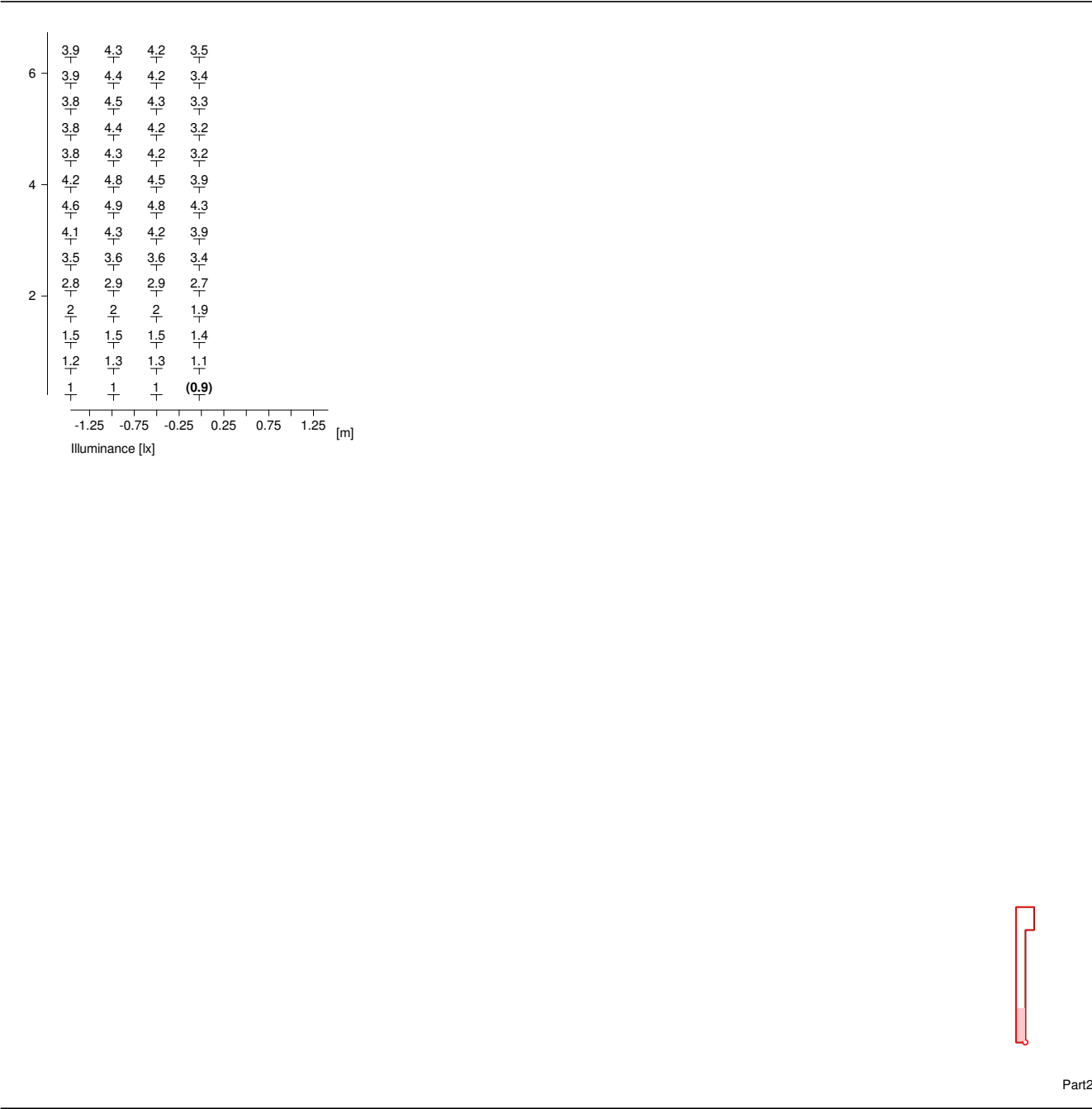
Height of the reference plane	: 0.75 m
Average illuminance	Eav : 4.7 lx
Minimum illuminance	Emin : 0.9 lx
Maximum illuminance	Emax : 14.8 lx
Uniformity Uo	Emin/Eav : 1 : 5.17 (0.19)
Diversity Ud	Emin/Emax : 1 : 16.39 (0.06)



3 111

3.2 Calculation results, 111

3.2.1 Table, Reference plane 1.1 (E)





Object : VATP7  
 Installation : Avārijas apgaismojums  
 Project number : 1  
 Date : 14.02.2018



## 3.2 Calculation results, 111

### 3.2.2 Table, Evaluation area 1, Measuring area 1 (Wall) (E)

[m]	0.8	0.8	0.9	1.2	1.5	2	2.8	8.1	10	4.1	2.4	1.6	1.2	0.9	0.8	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.7														
2.75	1.5	1.6	1.8	1.9	2.3	3	4.5	14.1	18.1	7.2	3.2	2.3	2	1.7	1.5	1.3	1.1	0.9	0.7	0.6	0.6	0.6	0.6	0.7	0.9	1.1	1.3	1.5														
2.25	1.5	1.8	2.7	4.4	4.7	4.4	4.4	7.9	9.1	5.9	3.5	5.1	4.3	3.2	2.1	1.4	1.2	1.1	1	0.9	0.9	0.9	0.9	1	1.1	1.2	1.4	2.1														
1.75	2	2.9	3.6	4.2	4.1	3	3.4	4.1	4.1	3.8	3.1	3.4	4.2	3.7	3.1	2.2	1.6	1.2	1	0.9	0.9	0.9	0.9	1	1.2	1.6	2.2	3.1														
1.25	2.4	2.7	2.9	2.9	2.4	2.3	2.5	2.5	2.6	2.5	2.4	2.2	2.5	2.9	2.6	2.3	1.9	1.5	1.2	1	0.9	0.9	1	1.2	1.5	1.9	2.3	2.6														
0.75	2.1	2.2	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.8	2	1.9	1.7	1.6	1.4	1.2	1.1	1.1	1.2	1.4	1.6	1.7	1.9	2														
0.25	1.8	1.7	1.5	1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.3	1.4	1.3	1.3	1.4	1.5	1.5	1.4	1.3	1.3	1.2	1.2	1.3	1.3	1.4	1.5	1.5	1.4														
	Illuminance [lx]																																									
	2							4							6							8																				



Part1

Average illuminance	Eav	: 2.2 lx
Minimum illuminance	Emin	: 0.3 lx
Maximum illuminance	Emax	: 18.4 lx
Uniformity Uo	Emin/Eav	: 1 : 7.84 (0.13)
Diversity Ud	Emin/Emax	: 1 : 64.85 (0.02)

## 3.2 Calculation results, 111

### 3.2.2 Table, Evaluation area 1, Measuring area 1 (Wall) (E)

---

0.9	1.2	1.6	2.4	4.2	10.1	8	2.7	2	1.4	1.1	0.8	0.7	0.6	0.5	0.4	0.4	0.4	(0.3)	(0.3)
1.7	2	2.3	3.2	7.4	[18.4]	13.8	4.4	3	2.3	1.8	1.6	1.4	1.2	1	0.8	0.6	0.5	0.5	0.4
3.2	4.3	5.2	3.4	6	9.1	7.8	4.3	4.4	4.7	4.2	2.5	1.6	1.2	1	0.9	0.8	0.7	0.6	0.6
3.8	4.2	3.4	3.1	3.7	4.1	4	3.4	2.9	4	4	3.4	2.6	1.7	1.3	0.9	0.8	0.7	0.7	0.7
2.9	2.5	2.2	2.3	2.5	2.5	2.5	2.4	2.2	2.2	2.7	2.7	2.4	2.1	1.6	1.2	1	0.8	0.7	0.7
1.8	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.7	1.6	1.7	1.9	1.9	1.7	1.5	1.3	1.1	0.9	0.8	0.8
1.3	1.3	1.3	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.3	1.2	1.1	1	0.9	0.8
				14					16					18					20 [m]

---

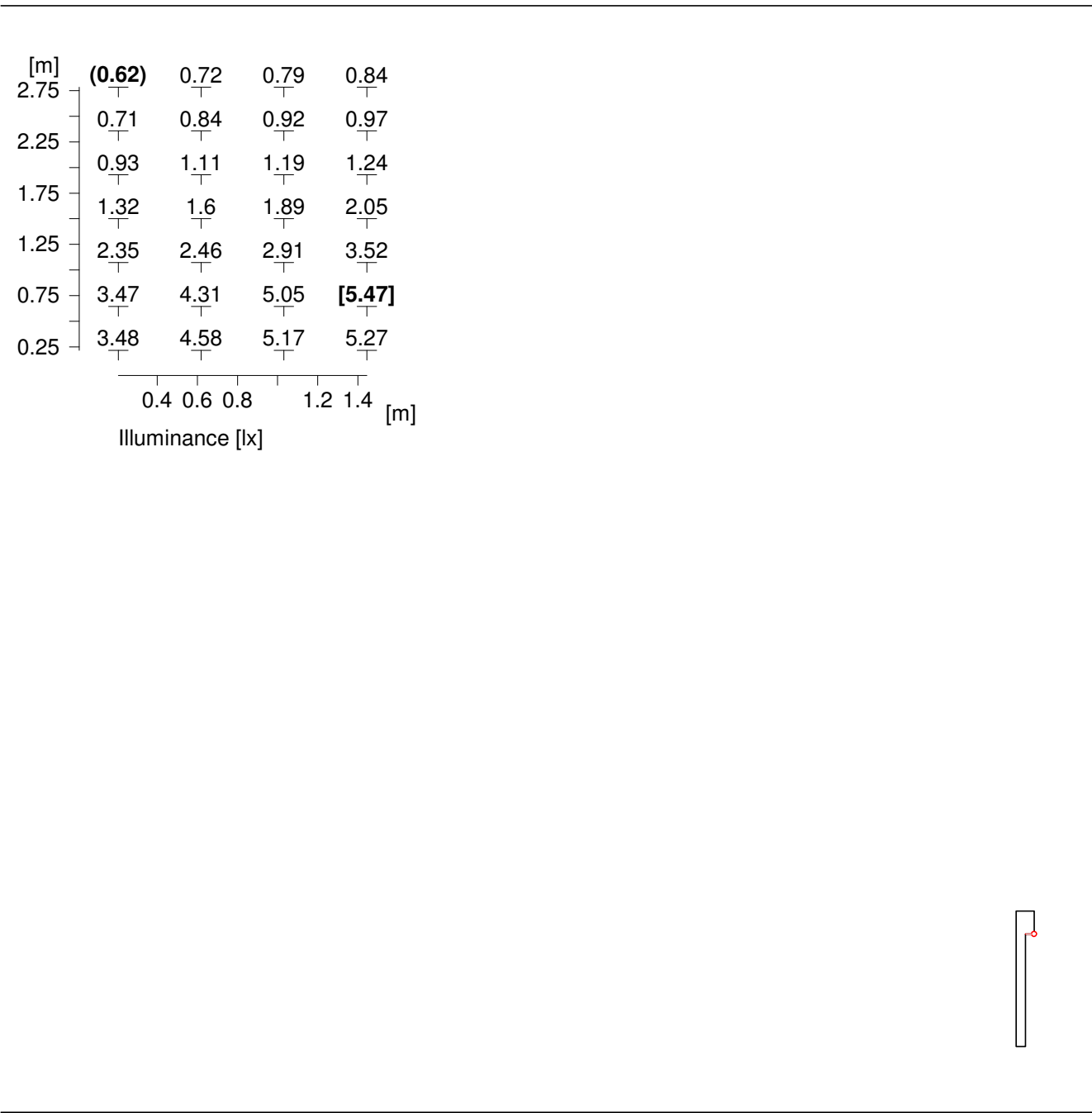


Part2



3.2 Calculation results, 111

3.2.3 Table, Evaluation area 1, Measuring area 2 (Wall) (E)

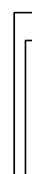


Average illuminance	Eav	: 2.35 lx
Minimum illuminance	Emin	: 0.62 lx
Maximum illuminance	Emax	: 5.47 lx
Uniformity Uo	Emin/Eav	: 1 : 3.79 (0.26)
Diversity Ud	Emin/Emax	: 1 : 8.83 (0.11)

### 3.2 Calculation results, 111

#### 3.2.4 Table, Evaluation area 1, Measuring area 3 (Wall) (E)

[m]	0.65	0.8	0.87	0.86	0.84	0.8	0.72	(0.6)
2.4	1.13	1.64	1.57	1.84	1.5	1.51	1.07	0.81
2.0	2.06	1.99	3.18	4.49	2.61	1.79	1.74	1.21
1.6	3.13	4.56	8.24	<b>[9.92]</b>	7.34	3.92	2.68	2.32
1.2	2.74	3.37	6.26	7.27	5.63	2.83	2.5	2.47
0.8								
0.4								
	0.5	1.0	1.5	2.0	2.5	3.0	3.5	[m]
Illuminance [lx]								



Average illuminance	Eav	: 2.79 lx
Minimum illuminance	Emin	: 0.6 lx
Maximum illuminance	Emax	: 9.92 lx
Uniformity Uo	Emin/Eav	: 1 : 4.61 (0.22)
Diversity Ud	Emin/Emax	: 1 : 16.42 (0.06)

3.2 Calculation results, 111

3.2.5 Table, Evaluation area 1, Measuring area 4 (Wall) (E)



Average illuminance	Eav	: 3.43 lx
Minimum illuminance	Emin	: 0.63 lx
Maximum illuminance	Emax	: 9 lx
Uniformity Uo	Emin/Eav	: 1 : 5.47 (0.18)
Diversity Ud	Emin/Emax	: 1 : 14.35 (0.07)

Object : VATP7  
 Installation : Avārijas apgaismojums  
 Project number : 1  
 Date : 14.02.2018



## 3.2 Calculation results, 111

### 3.2.6 Table, Evaluation area 1, Measuring area 5 (Wall) (E)

[m]	(0,3)	(0,3)	0.4	0.4	0.4	0.5	0.6	0.7	0.8	1	1.4	1.8	2.6	8.3	11.2	4.8	2.5	1.6	1.3	1	0.8	0.6	0.5	0.5	0.4	0.4	0.4	0.4
2.75	0.4	0.5	0.5	0.6	0.8	1	1.2	1.4	1.6	1.9	2.4	2.4	4.3	13.5	<b>19.6</b>	8	3.4	2.5	2.1	1.8	1.6	1.4	1.1	0.9	0.7	0.6	0.6	0.6
2.25	0.6	0.6	0.7	0.8	0.9	1	1.2	1.6	2.5	4.3	4.9	5.3	4.3	7.5	8.9	6.1	3.5	5.6	5.2	3.5	2.2	1.4	1.2	1.1	1	0.9	0.8	0.8
1.75	0.7	0.7	0.7	0.8	0.9	1.2	1.7	2.5	3.4	4	4.1	3	3.3	3.9	4	3.7	3.1	3.3	4.3	3.8	3.2	2.2	1.6	1.2	1	0.9	0.9	0.9
1.25	0.7	0.7	0.8	1	1.2	1.5	2	2.3	2.7	2.7	2.2	2.2	2.3	2.4	2.5	2.4	2.3	2.2	2.4	2.8	2.6	2.3	1.9	1.5	1.2	1	0.9	0.9
0.75	0.8	0.8	0.9	1.1	1.3	1.5	1.7	1.8	1.9	1.7	1.6	1.7	1.7	1.8	1.8	1.8	1.7	1.7	1.7	1.8	2	1.9	1.7	1.5	1.4	1.2	1.1	1.1
0.25	0.8	0.8	0.9	1	1.2	1.3	1.4	1.4	1.3	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.5	1.4	1.4	1.3	1.3	1.2	1.2
	2				4				6				8				10				12							
Illuminance [lx]																												



Part1

Average illuminance	Eav	: 2.3 lx
Minimum illuminance	Emin	: 0.3 lx
Maximum illuminance	Emax	: 19.6 lx
Uniformity Uo	Emin/Eav	: 1 : 8.01 (0.12)
Diversity Ud	Emin/Emax	: 1 : 68.69 (0.01)

Object : VATP7  
 Installation : Avārijas apgaismojums  
 Project number : 1  
 Date : 14.02.2018



## 3.2 Calculation results, 111

### 3.2.6 Table, Evaluation area 1, Measuring area 5 (Wall) (E)

0.4	0.4	0.5	0.5	0.6	0.7	0.9	1.2	1.6	2.3	3.5	10.6	10.3	3.2	2.3	1.6	1.3	1	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.8	0.8	0.6
0.6	0.7	0.9	1.1	1.4	1.5	1.8	2	2.6	3.4	5.7	17.9	16.8	5.2	3.4	2.7	2.1	1.9	1.7	1.6	1.4	1.2	1.2	1.1	1.1	1.2	1.1	1.1	0.9	0.8
0.9	1	1.1	1.2	1.3	2	3	5	5.4	4.1	5.1	8.5	8.2	4.9	4.4	5.4	5	3	2.1	1.6	1.6	1.6	1.7	1.7	1.6	1.8	1.7	1.5	1.5	1.3
0.9	0.9	1.2	1.5	2	3	3.7	4.3	3.7	3	3.5	4	3.9	3.5	3.1	3.9	4.3	3.8	3.1	2.3	1.9	1.7	1.7	1.7	1.9	2.1	2.1	1.8	1.6	1.6
1	1.2	1.4	1.8	2.2	2.5	2.8	2.6	2.2	2.3	2.4	2.5	2.5	2.4	2.3	2.3	2.8	3	2.8	2.7	2.6	2.4	2.2	2.4	3.8	4.2	4.1	3.3	2.2	2
1.1	1.3	1.5	1.7	1.8	2	1.8	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.2	2.5	2.7	2.8	2.8	3	4.4	5.7	6.2	6.1	5.2	3.7	2.4
1.2	1.3	1.4	1.4	1.5	1.4	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.6	1.8	2.2	2.5	2.6	2.8	3.2	4.3	5.9	6.6	6.6	5.3	3.5	2.7
14				16				18				20				22				24 [m]									

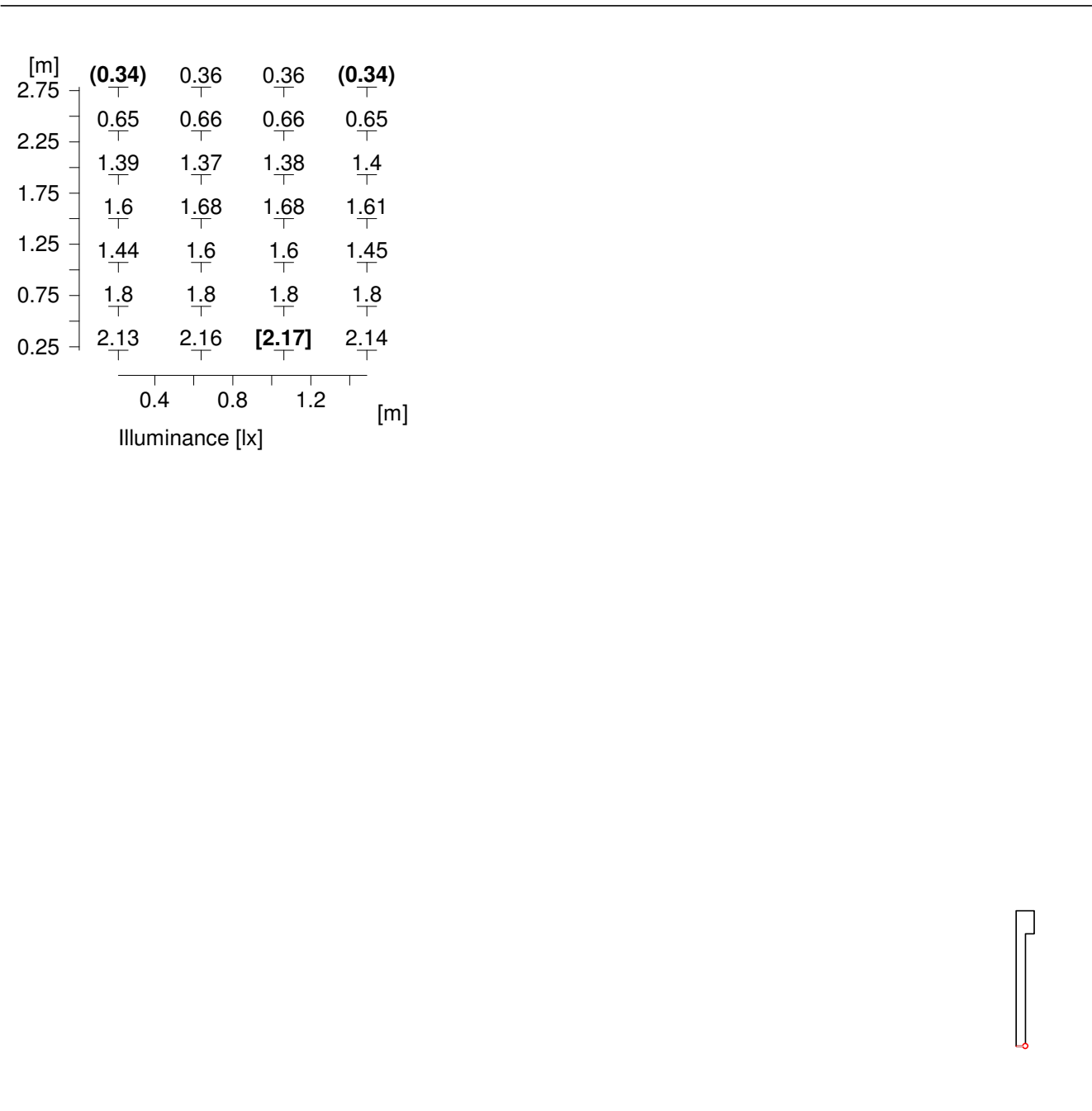


Part2



3.2 Calculation results, 111

3.2.7 Table, Evaluation area 1, Measuring area 6 (Wall) (E)



Average illuminance	Eav	: 1.36 lx
Minimum illuminance	Emin	: 0.34 lx
Maximum illuminance	Emax	: 2.17 lx
Uniformity Uo	Emin/Eav	: 1 : 4.05 (0.25)
Diversity Ud	Emin/Emax	: 1 : 6.47 (0.15)



Object : VATP7  
 Installation : Avārijas apgaismojums  
 Project number : 1  
 Date : 14.02.2018



## 3.2 Calculation results, 111

### 3.2.8 Table, Evaluation area 1, Measuring area 7 (Ceiling) (E)

	0.67	0.79	0.87	0.9	0.89	0.81	0.67
	0.83	1	1.1	1.15	1.13	1.03	0.84
[m]	0.91	1.1	1.21	1.25	1.24	1.14	0.93
24	0.94	1.13	1.24	1.28	1.27	1.17	0.95
	0.94	1.13	1.23	1.26	1.25	1.16	0.94
	0.92	1.1	1.19	1.22	1.2	1.1	0.9
	0.89	1.06	1.14	1.15	1.13	1.02	0.84
22	0.86	1.02	1.08	1.07	1.02	0.91	0.75
	0.85	1	1.03	0.97	0.85	0.77	0.64
	0.85	1	1.01	0.73			
	0.87	1.03	1	0.71			
20	0.92	1.09	1.03	0.74			
	0.98	1.17	1.12	0.78			
	1.09	1.3	1.25	0.86			
	1.28	1.52	1.47	1.04			
18	1.77	1.87	1.88	1.73			
	2.48	2.18	2.23	2.37			
	2.23	2.08	2.11	1.89			
	1.48	1.68	1.65	0.97			
16	1.13	1.35	1.29	0.92			
	0.95	1.14	1.09	0.78			
	0.83	0.99	0.95	0.67			
	0.72	0.86	0.83	0.59			
14	0.64	0.75	0.72	0.53			
	0.56	0.65	0.63	0.48			
	0.51	0.58	0.56	0.44			
	0.46	0.53	0.51	0.41			
	0.44	0.49	0.47	0.4			
12	0.43	0.47	0.46	0.39			
	0.43	0.48	0.46	0.39			
	0.45	0.5	0.49	0.4			
	0.48	0.55	0.53	0.42			
10	0.53	0.61	0.59	0.46			
	0.59	0.69	0.67	0.5			
	0.67	0.8	0.76	0.55			
	0.76	0.91	0.87	0.61			
8	0.87	1.05	1	0.7			
	1.01	1.22	1.16	0.81			
	1.25	1.47	1.42	0.95			
	1.83	1.86	1.86	1.3			



Part1

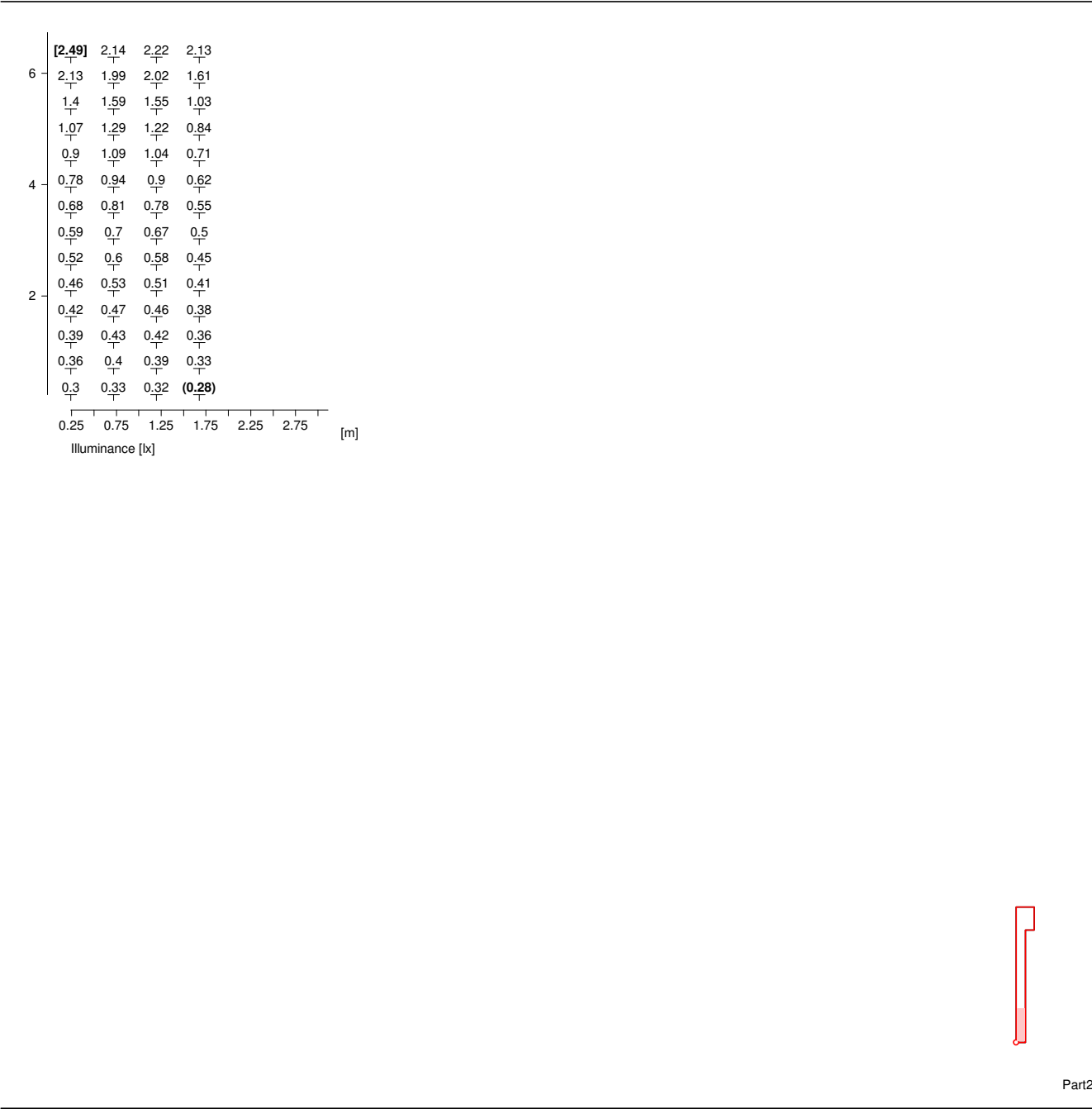
Average illuminance  
 Minimum illuminance  
 Maximum illuminance  
 Uniformity U<sub>0</sub>  
 Diversity U<sub>d</sub>

E<sub>av</sub> : 0.95 lx  
 E<sub>min</sub> : 0.28 lx  
 E<sub>max</sub> : 2.49 lx  
 E<sub>min</sub>/E<sub>av</sub> : 1 : 3.40 (0.29)  
 E<sub>min</sub>/E<sub>max</sub> : 1 : 8.84 (0.11)



3.2 Calculation results, 111

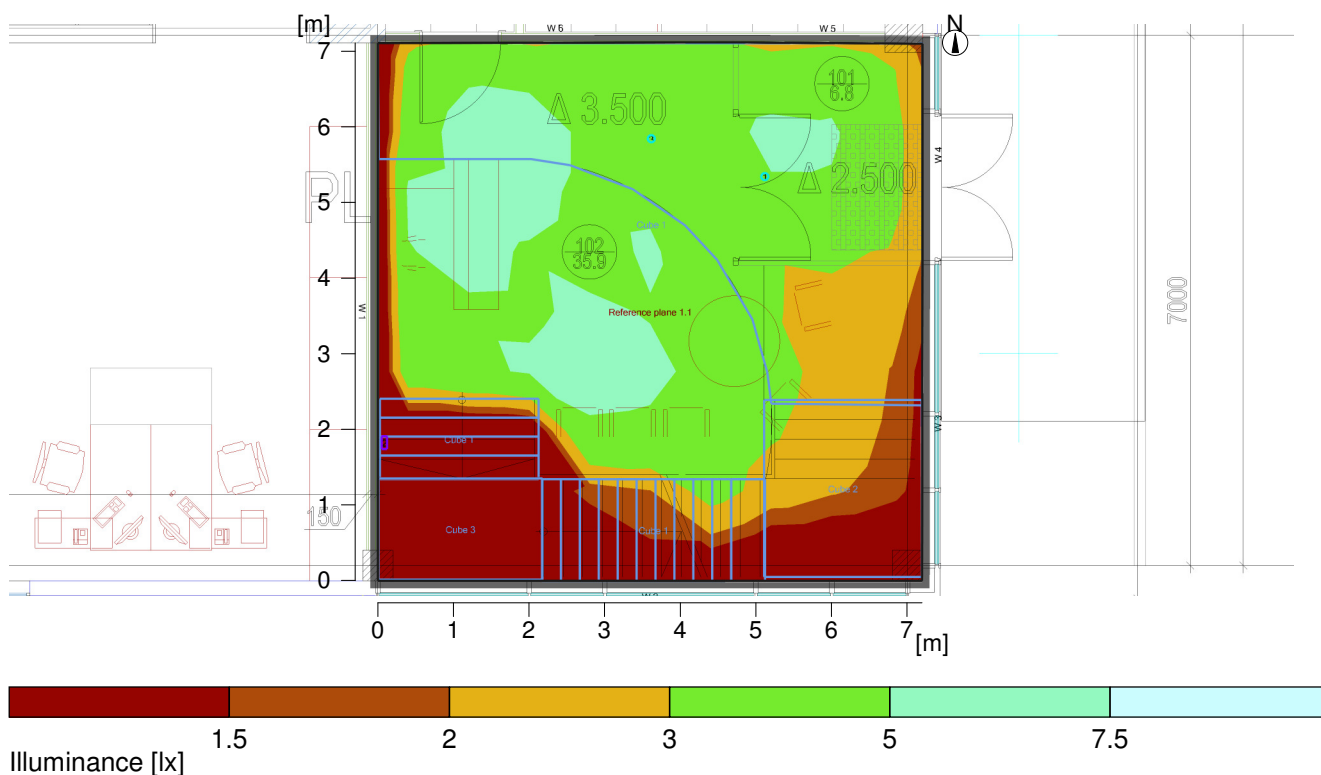
3.2.8 Table, Evaluation area 1, Measuring area 7 (Ceiling) (E)



## 4 102

### 4.2 Summary, 102

#### 4.2.1 Result overview, Evaluation area 1



#### General

Calculation algorithm used  
 Maintenance factor

Average indirect fraction  
 0.80

Total luminous flux of all lamps

660.00 lm

Total power

7.9 W

Total power per area (51.12 m<sup>2</sup>)

0.15 W/m<sup>2</sup> (4.75 W/m<sup>2</sup>/100lx)

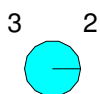
#### Evaluation area 1

#### Reference plane 1.1

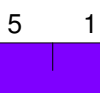
Horizontal  
 Em 3.25 lx  
 Emin 0.1 lx  
 Emin/Eav (Uo) 0.03  
 Emin/Emax (Ud) 0.02  
 Position 0.00 m

#### Type No. Make

##### AWEX



Order No. : AXPU/1W - CB  
 Luminaire name : AXPU/1W - CB  
 Equipment : 1 x AXPU/1W - CB 1 W / 150 lm

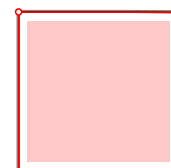
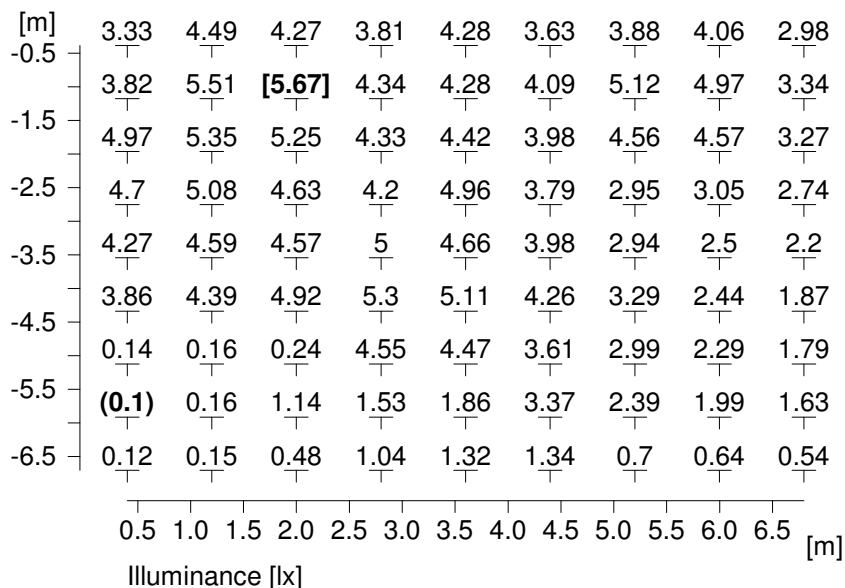


Order No. : ODB\_3x1W - CB  
 Luminaire name : ODB\_3x1W - CB  
 Equipment : 1 x OD/3x1W/B 5.9 W / 360 lm

## 4 102

### 4.3 Calculation results, 102

#### 4.3.1 Table, Reference plane 1.1 (E)

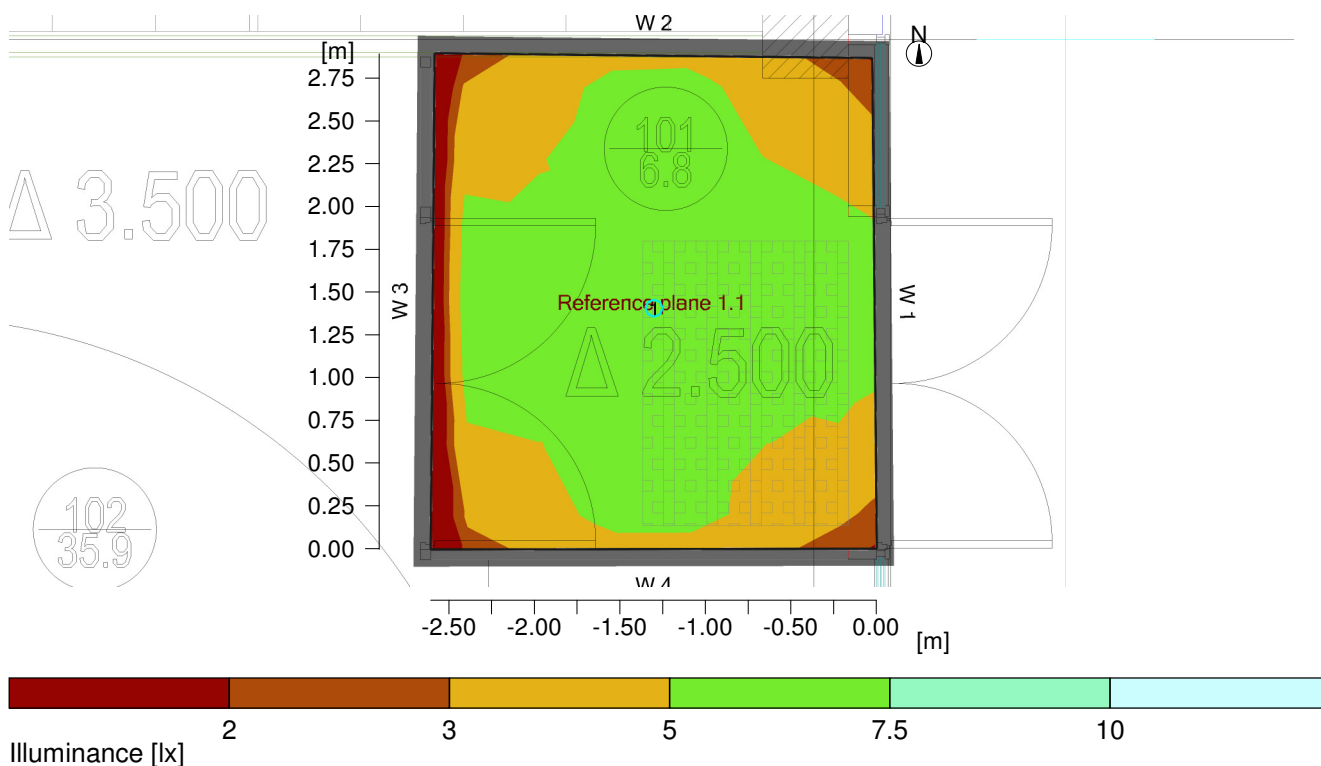


Height of the reference plane	: 0.00 m
Average illuminance	Eav : 3.25 lx
Minimum illuminance	Emin : 0.1 lx
Maximum illuminance	Emax : 5.67 lx
Uniformity Uo	Emin/Eav : 1 : 31.07 (0.03)
Diversity Ud	Emin/Emax : 1 : 54.14 (0.02)

## 5 101

### 5.1 Summary, 101

#### 5.1.1 Result overview, Evaluation area 1



#### General

Calculation algorithm used  
 Height of luminaire plane  
 Maintenance factor

Average indirect fraction  
 3.00 m  
 0.80

Total luminous flux of all lamps  
 Total power  
 Total power per area (7.44 m<sup>2</sup>)

150.00 lm  
 1.0 W  
 0.13 W/m<sup>2</sup> (2.78 W/m<sup>2</sup>/100lx)

#### Evaluation area 1

#### Reference plane 1.1

Horizontal  
 E<sub>m</sub>  
 E<sub>min</sub>  
 E<sub>min</sub>/E<sub>av</sub> (U<sub>o</sub>)  
 E<sub>min</sub>/E<sub>max</sub> (U<sub>d</sub>)  
 UGR (2.0H 2.0H)  
 Position

4.84 lx  
 3 lx  
 0.62  
 0.53  
 ≤31.8  
 0.00 m

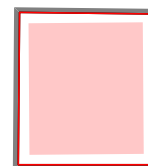
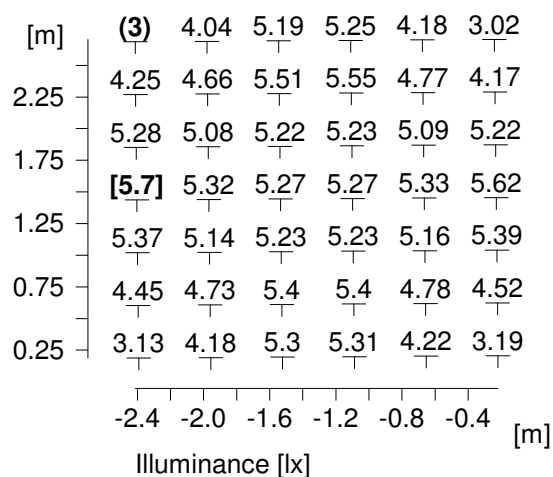
#### Type No. Make

3 1 **AWEX**  
 Order No. : AXPU/1W - CB  
 Luminaire name : AXPU/1W - CB  
 Equipment : 1 x AXPU/1W - CB 1 W / 150 lm

## 5 101

### 5.2 Calculation results, 101

#### 5.2.1 Table, Reference plane 1.1 (E)



Height of the reference plane	: 0.00 m
Average illuminance	Eav : 4.84 lx
Minimum illuminance	Emin : 3 lx
Maximum illuminance	Emax : 5.7 lx
Uniformity Uo	Emin/Eav : 1 : 1.62 (0.62)
Diversity Ud	Emin/Emax : 1 : 1.90 (0.53)

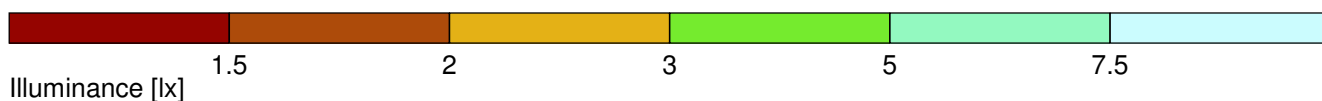
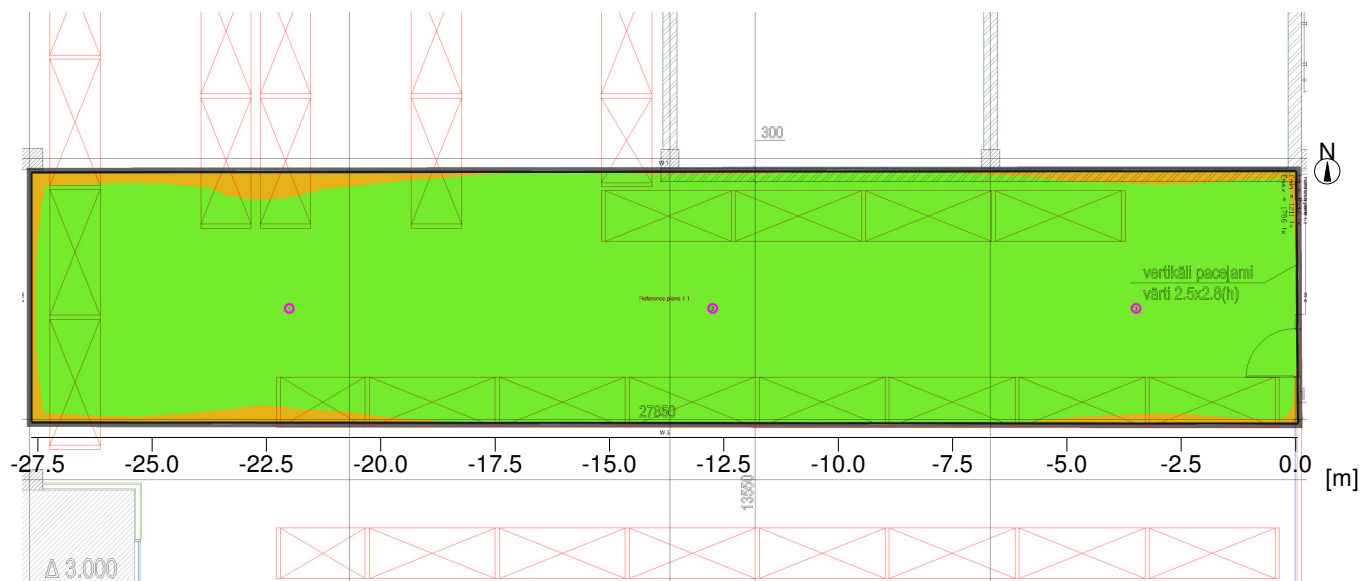
Object : VATP7  
Installation : Avārijas apgaismojums  
Project number : 1  
Date : 14.02.2018

**RELUX®**

## 6 131

### 6.1 Summary, 131

#### 6.1.1 Result overview, Evaluation area 1



#### General

Calculation algorithm used  
Height of luminaire plane  
Maintenance factor

Average indirect fraction  
8.00 m  
0.80

Total luminous flux of all lamps  
Total power  
Total power per area (151.68 m<sup>2</sup>)

1800.00 lm  
18.0 W  
0.12 W/m<sup>2</sup> (3.28 W/m<sup>2</sup>/100lx)

#### Evaluation area 1

#### Reference plane 1.1

Horizontal  
Em  
Emin  
Emin/Eav (Uo)  
Emin/Emax (Ud)  
UGR (0.8H 4.1H)  
Position

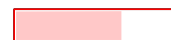
3.62 lx  
2.75 lx  
0.76  
0.62  
<=47.2  
0.00 m

#### Type No.\Make

2 3 **AWEX**  
Order No. : AXNR/6W/B/SE  
Luminaire name : AXNR/6W/B/SE  
Equipment : 1 x AXNR/6W/B/SE 6 W / 600 lm

**RELUX®**

### 6.2.1 Table, Reference plane 1.1 (E)



Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 3.62 lx
Minimum illuminance	Emin	: 2.75 lx
Maximum illuminance	Emax	: 4.42 lx
Uniformity Uo	Emin/Eav	: 1 : 1.31 (0.76)
Diversity Ud	Emin/Emax	: 1 : 1.61 (0.62)





6 131

6.2 Calculation results, 131

6.2.1 Table, Reference plane 1.1 (E)

3.54	3.48	3.4	3.31	3.26	3.17	3.06	3.02	2.98	2.94	2.98	3.07	3.17	3.24
3.93	3.85	3.76	3.65	3.58	3.49	3.35	3.31	3.25	3.24	3.27	3.38	3.47	3.55
4.22	4.13	4.05	3.94	3.86	3.73	3.57	3.53	3.47	3.47	3.51	3.59	3.7	3.74
4.35	4.28	4.17	4.07	3.99	3.84	3.66	3.59	3.54	3.56	3.62	3.69	3.8	3.85
4.36	4.32	4.19	4.09	4.01	3.86	3.72	3.6	3.57	3.57	3.64	3.7	3.81	3.87
4.31	4.23	4.14	4.03	3.95	3.8	3.62	3.56	3.49	3.51	3.57	3.64	3.77	3.8
4.08	3.99	3.92	3.79	3.72	3.6	3.45	3.4	3.35	3.33	3.36	3.47	3.57	3.65
3.72	3.66	3.56	3.46	3.39	3.29	3.16	3.1	3.07	3.04	3.08	3.18	3.28	3.37
<div><div></div><div></div><div></div></div> <div>-7.5-5.0-2.5 [m]</div>													



Part2

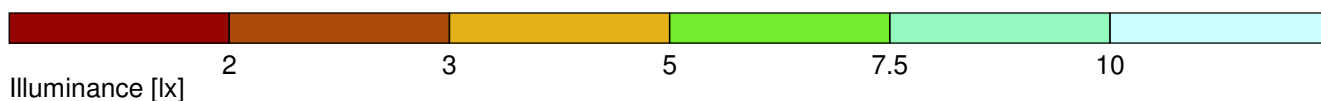
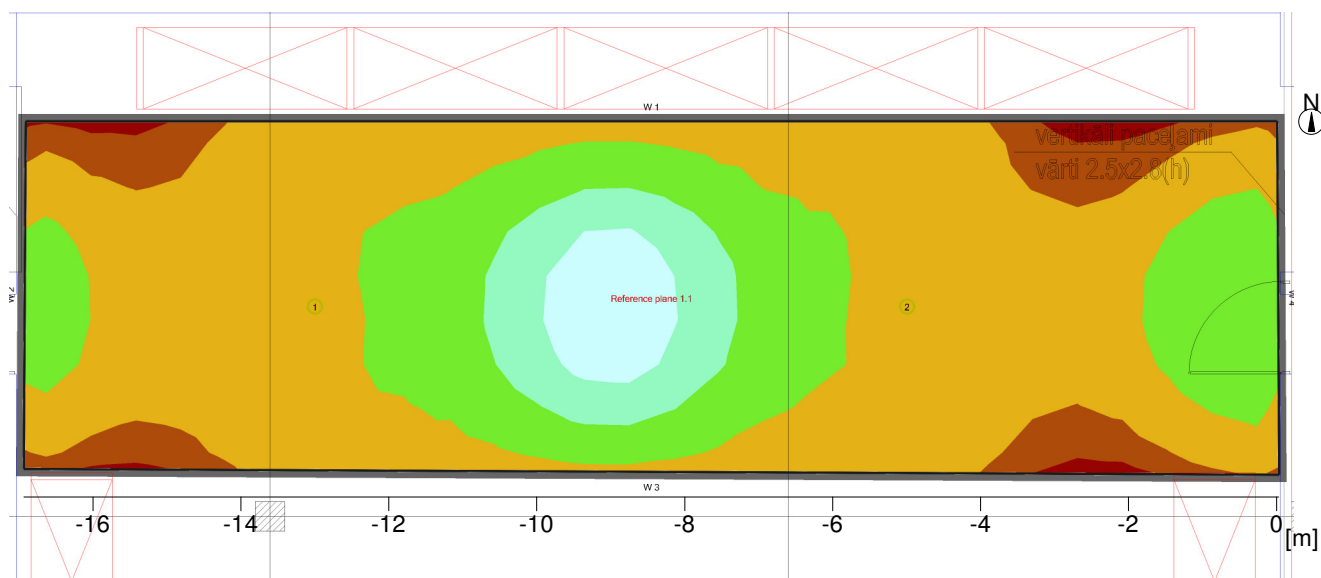
Object : VATP7  
Installation : Avārijas apgaismojums  
Project number : 1  
Date : 14.02.2018

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## 7 130

### 7.1 Summary, 130

#### 7.1.1 Result overview, Evaluation area 1



#### General

Calculation algorithm used  
Height of luminaire plane  
Maintenance factor

Average indirect fraction  
7.50 m  
0.80

Total luminous flux of all lamps  
Total power  
Total power per area (80.11 m<sup>2</sup>)

1240.00 lm  
12.0 W  
0.15 W/m<sup>2</sup> (3.08 W/m<sup>2</sup>/100lx)

#### Evaluation area 1

#### Reference plane 1.1

Horizontal  
Em  
Emin  
Emin/Eav (Uo)  
Emin/Emax (Ud)  
UGR (0.8H 2.7H)  
Position

4.86 lx  
1.92 lx  
0.39  
0.17  
<=37.6  
0.00 m

#### Type No.\Make

1 2 **AWEX**  
Order No. : AXNU/6W/B/SE  
Luminaire name : AXNU/6W/B/SE  
Equipment : 1 x AXNU/6W/B/SE 6 W / 620 lm

Object : VATP7  
 Installation : Avārijas apgaismojums  
 Project number : 1  
 Date : 14.02.2018



## 7 130

### 7.2 Calculation results, 130

#### 7.2.1 Table, Reference plane 1.1 (E)

[m]	2.7	2.2	2.1	2.4	3.1	4.1	4.6	4.6	4.2	4	4.1	4.5	4.9	4.9	4.6	4.1	3.9	4.1	4.4	4.5	4.1	3.2	2.3	(1.9)	2	2.5	3.1	3.6	
-0.5	3.8	3.1	2.8	3	3.5	4	4.4	4.5	4.5	4.7	5.4	6.2	7	7.1	6.4	5.5	4.7	4.5	4.4	4.3	3.9	3.4	2.8	2.5	2.7	3.5	4.4	4.7	
-1.0	5.3	4.1	3.6	3.7	4	4.2	4.4	4.7	5	5.6	6.7	8.2	9.5	9.7	8.4	7	5.7	5	4.7	4.3	4.1	3.8	3.5	3.2	3.7	4.7	5.8	6	
-1.5	6	4.7	4	4	4.2	4.3	4.5	4.8	5.1	5.9	7.4	9.2	11	11.3	9.5	7.8	6.1	5.2	4.7	4.4	4.1	4	3.8	3.6	4.1	5.4	6.7	6.7	
-2.0	6.1	4.7	4.1	4	4.2	4.3	4.4	4.7	5.1	5.9	7.5	9.3	11.2	[11.5]	9.7	7.9	6.1	5.1	4.7	4.3	4.1	4	3.8	3.6	4.2	5.4	6.8	6.9	
-2.5	5.7	4.4	3.8	3.9	4.1	4.3	4.4	4.7	5.1	5.7	7.1	8.7	10.3	10.6	9	7.4	5.8	5.1	4.7	4.3	4.1	3.9	3.6	3.4	3.9	5	6.3	6.4	
-3.0	4.3	3.5	3.1	3.2	3.6	4	4.4	4.5	4.6	5	5.9	7	8	8	7.2	6	5	4.6	4.5	4.3	3.9	3.5	3	2.8	3.1	4	4.9	5.3	
-3.5	3.1	2.5	2.3	2.5	3.1	3.8	4.3	4.3	4.1	4.1	4.5	5.1	5.6	5.7	5.2	4.6	4.1	4	4.2	4.2	3.8	3.1	2.4	2	2.2	2.8	3.6	4	
-4.0																													
	-16				-14						-12				-10							-6				-4			
	Illuminance [lx]																												
	[m]																												

Height of the reference plane	: 0.00 m
Average illuminance	Eav : 4.9 lx
Minimum illuminance	Emin : 1.9 lx
Maximum illuminance	Emax : 11.5 lx
Uniformity Uo	Emin/Eav : 1 : 2.53 (0.39)
Diversity Ud	Emin/Emax : 1 : 5.99 (0.17)

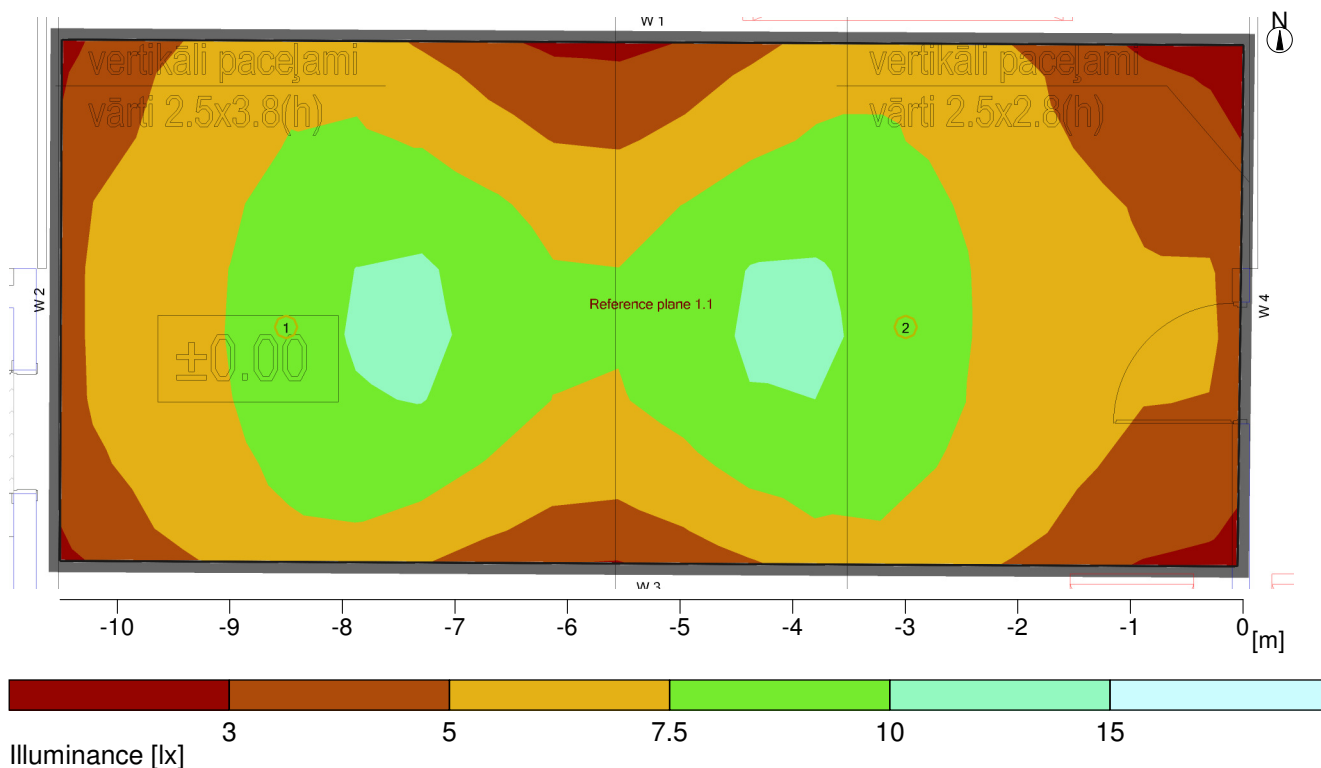
Object : VATP7  
Installation : Avārijas apgaismojums  
Project number : 1  
Date : 14.02.2018

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## 8 131

### 8.1 Summary, 131

#### 8.1.1 Result overview, Evaluation area 1



#### General

Calculation algorithm used  
Height of luminaire plane  
Maintenance factor

Average indirect fraction  
7.50 m  
0.80

Total luminous flux of all lamps  
Total power  
Total power per area (48.42 m<sup>2</sup>)

1240.00 lm  
12.0 W  
0.25 W/m<sup>2</sup> (3.86 W/m<sup>2</sup>/100lx)

#### Evaluation area 1

#### Reference plane 1.1

Horizontal  
E<sub>m</sub> 6.43 lx  
E<sub>min</sub> 2.72 lx  
E<sub>min</sub>/E<sub>av</sub> (U<sub>o</sub>) 0.42  
E<sub>min</sub>/E<sub>max</sub> (U<sub>d</sub>) 0.27  
UGR (2.0H 2.0H) ≤37.6  
Position 0.00 m

#### Type No.\Make

1 2 **AWEX**  
Order No. : AXNU/6W/B/SE  
Luminaire name : AXNU/6W/B/SE  
Equipment : 1 x AXNU/6W/B/SE 6 W / 620 lm

## 8 131

### 8.2 Calculation results, 131

#### 8.2.1 Table, Reference plane 1.1 (E)

[m]	3.61	4.81	6.13	6.7	6.54	5.42	4.19	3.34	3.19	3.91	5.07	6.35	6.74	6.38	5.35	4.08	3.2	(2.72)
-0.5	4.05	5.15	6.28	7.19	7.43	6.88	5.62	4.67	4.5	5.31	6.56	7.39	7.39	6.66	5.63	4.62	3.8	3.4
-1.0	4.78	5.67	6.75	7.99	8.69	8.65	7.59	6.33	6.21	7.19	8.42	8.81	8.29	7.23	6.13	5.3	4.55	4.38
-1.5	5.02	5.86	7.05	8.53	9.53	9.78	8.71	7.27	7.16	8.16	9.61	9.69	8.9	7.6	6.31	5.54	4.88	4.86
-2.0	5.01	5.82	7.13	8.63	9.69	[9.98]	8.95	7.42	7.31	8.38	9.84	9.87	9.01	7.64	6.3	5.55	4.89	4.95
-2.5	4.94	5.78	6.94	8.39	9.35	9.59	8.5	7.1	6.95	7.92	9.36	9.49	8.74	7.49	6.25	5.46	4.78	4.71
-3.0	4.48	5.4	6.49	7.69	8.28	8.13	6.99	5.83	5.64	6.52	7.76	8.3	7.94	6.99	5.87	4.98	4.22	3.93
-3.5	3.75	4.8	5.96	6.81	6.98	6.33	5.06	4.1	3.9	4.63	5.87	6.82	6.95	6.34	5.33	4.26	3.42	3.05
-4.0																		
	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1								
	Illuminance [lx]																	



Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 6.43 lx
Minimum illuminance	Emin	: 2.72 lx
Maximum illuminance	Emax	: 9.98 lx
Uniformity Uo	Emin/Eav	: 1 : 2.36 (0.42)
Diversity Ud	Emin/Emax	: 1 : 3.66 (0.27)