Studie verejneho osvetleni - cyklostesta soubezne s chod

Installation :

Project number :
Customer :
Processed by :
Date : 20.12.2007

Project description:
Cyklostezka soubezne s chodnikem - smiseny provoz

1. Zadani:

celkova sirka	5m
umisteni stozaru od hrany komunikace	0.5m

2. Pozadavky dle CSN EN 13201 - S3:

prumerna hodnota osvetlenosti	> 7.5lx
minimalni hodnota osvetlenosti	> 1.5lx

3. Variantni zpracovani studie:

- vyska stozaru 6m, resp. 8m
- umisteni svitidla primo na sloupu, na vylozniku 0.5m, resp. na vylozniku 1m
- osvetlovaci soustava jednostranna

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.

1 Luminaire data

1.1 70W HID 240V CL1 EFL + HIT-CE 7... ()

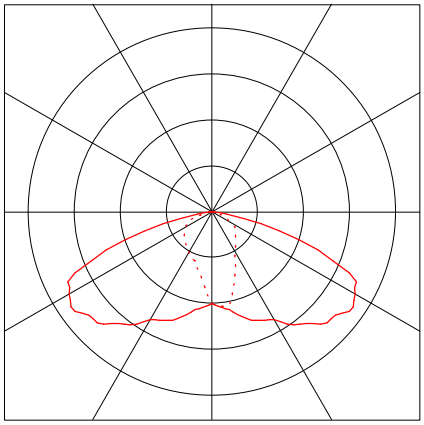
1.1.1 Data sheet

Manufacturer:

70W HID 240V CL1 EFL + HIT-CE 70W [V3L5]

Luminaire data		
Luminaires efficiency	:	62.7% (A30)
Control gear	:	
System power	:	84 W
Length	:	645 mm
Width	:	280 mm
Height	:	180 mm

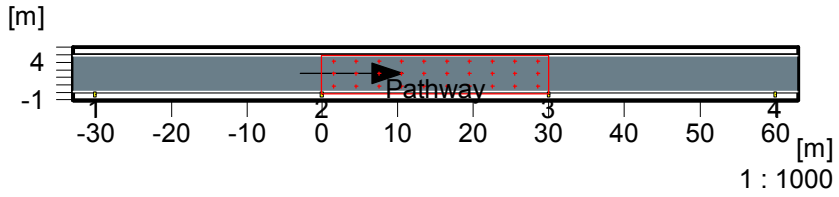
Equipped with		
Number of	:	1
Designation	:	HIT-CE
Power	:	70 W
Colour	:	
Luminous flux	:	6900 lm



2 Cyklostezka soubezne s chodnikem var. 1

2.1 Description, Cyklostezka soubezne s chodnikem var. 1

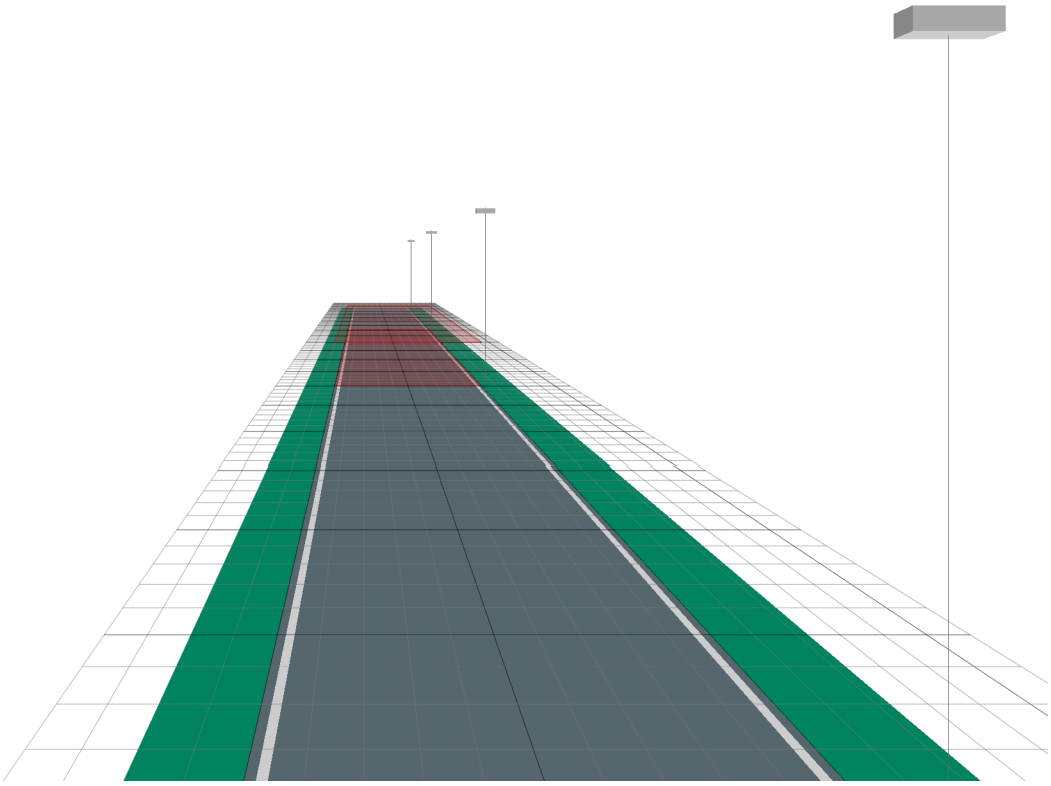
2.1.1 Floor plan



Pathway		Luminaire type	: 70W HID 240V CL1 EFL + HIT-CE 7(
Road layout	: without central reservation	Luminaire placing	: Right row
Width of roadway	: 5.00 m	photometric centre height	: 6.00 m
No. of lanes	: 1	Luminaire spacing	: 30.00 m
Road surface category	: R3	Luminaires - outreach	: -0.13 m
q0	: 0.07	Inclination	: 0.00°

2.1 Description, Cyklostezka soubezne s chodnikem var. 1

2.1.2 3D view, View from the left



2 Cyklostezka soubezne s chodnikem var. 1

2.2 Summary, Cyklostezka soubezne s chodnikem var. 1

2.2.1 Result overview, Pathway

Luminaire data

Manufacturer :
Order No. : 70W HID 240V CL1 EFL + HIT-CE 70W [V3L5] ()
Luminaire name : 70W HID 240V CL1 EFL + HIT-CE 70W [V3L5]
Equipment : 1 x HIT-CE 70 W / 6900 lm

Road layout		: without central reservation	Luminaire placing		: Right row
Width of roadway	(b)	: 5.00 m	photometric centre height.	(h)	: 6.00 m
No. of lanes		: 1	Luminaire spacing	(a)	: 30.00 m
Road surface category		: R3	Luminaires - outreach	(u)	: -0.13 m
q0		: 0.07	Inclination	(δ)	: 0.00°
Right hand drivers			Reduction factor		: 0.60

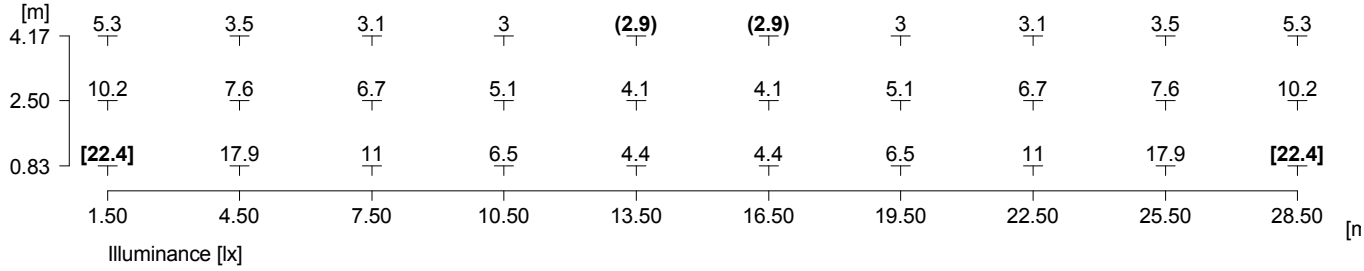
Horizontal illuminance E

Average : 7.6 lx
Minimum : 2.9 lx

2 Cyklostezka soubezne s chodnikem var. 1

2.3 Calculation results, Cyklostezka soubezne s chodnikem var. 1

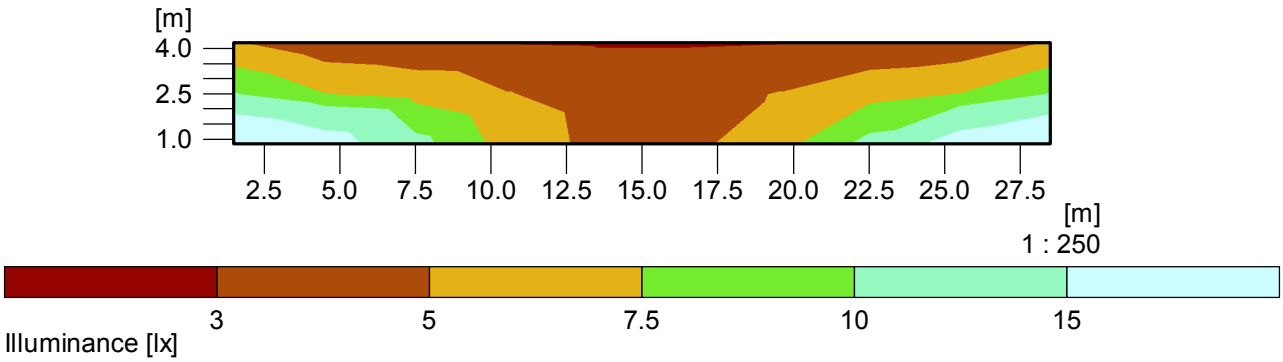
2.3.1 Table, Pathway (E horizontal)



Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 7.6 lx
Minimum illuminance	Emin	: 2.9 lx
Maximum illuminance	Emax	: 22.4 lx
Uniformity g1	min/average	: 1 : 2.6 (0.4)
Uniformity g2	min/max	: 1 : 7.7 (0.1)

2.3 Calculation results, Cyklostezka soubezne s chodnikem var. 1

2.3.2 Pseudo colours, Pathway (E horizontal)

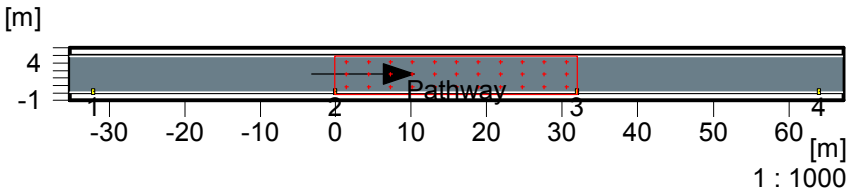


Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 7.6 lx
Minimum illuminance	Emin	: 2.9 lx
Maximum illuminance	Emax	: 22.4 lx
Uniformity g1	min/average	: 1 : 2.6 (0.4)
Uniformity g2	min/max	: 1 : 7.7 (0.1)

3 Cyklostezka soubezne s chodnikem var. 2

3.1 Description, Cyklostezka soubezne s chodnikem var. 2

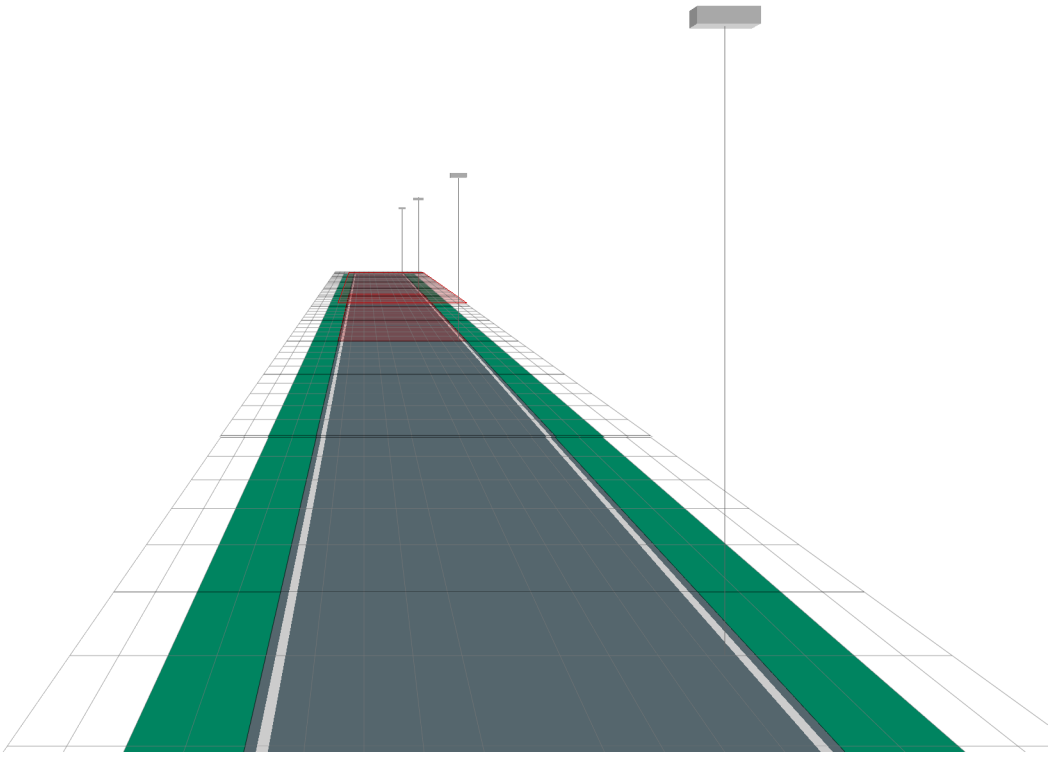
3.1.1 Floor plan



Pathway		Luminaire type	: 70W HID 240V CL1 EFL + HIT-CE 7(
Road layout	: without central reservation	Luminaire placing	: Right row
Width of roadway	: 5.00 m	photometric centre height	: 6.50 m
No. of lanes	: 1	Luminaire spacing	: 32.00 m
Road surface category	: R3	Luminaires - outreach	: 0.32 m
q0	: 0.07	Inclination	: 0.00°

3.1 Description, Cyklostezka soubezne s chodnikem var. 2

3.1.2 3D view, View from the left



3 Cyklostezka soubezne s chodnikem var. 2

3.2 Summary, Cyklostezka soubezne s chodnikem var. 2

3.2.1 Result overview, Pathway

Luminaire data

Manufacturer :
Order No. : 70W HID 240V CL1 EFL + HIT-CE 70W [V3L5] ()
Luminaire name : 70W HID 240V CL1 EFL + HIT-CE 70W [V3L5]
Equipment : 1 x HIT-CE 70 W / 6900 lm

Road layout		: without central reservation	Luminaire placing		: Right row
Width of roadway	(b)	: 5.00 m	photometric centre height.	(h)	: 6.50 m
No. of lanes		: 1	Luminaire spacing	(a)	: 32.00 m
Road surface category		: R3	Luminaires - outreach	(u)	: 0.32 m
q0		: 0.07	Inclination	(δ)	: 0.00°
Right hand drivers			Reduction factor		: 0.60

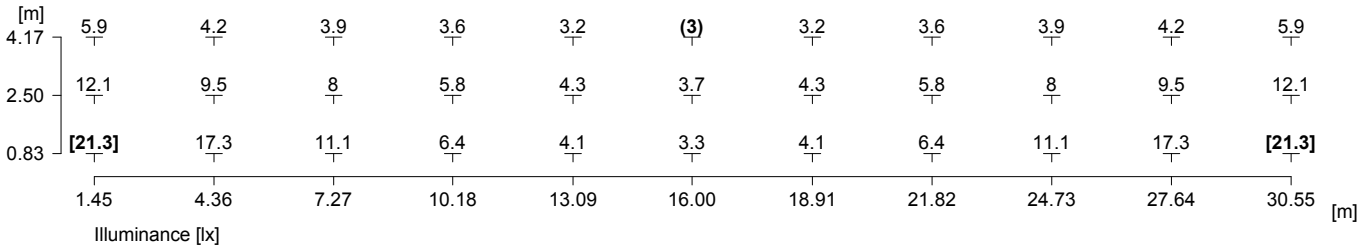
Horizontal illuminance E

Average : 7.6 lx
Minimum : 3 lx

3 Cyklostezka soubezne s chodnikem var. 2

3.3 Calculation results, Cyklostezka soubezne s chodnikem var. 2

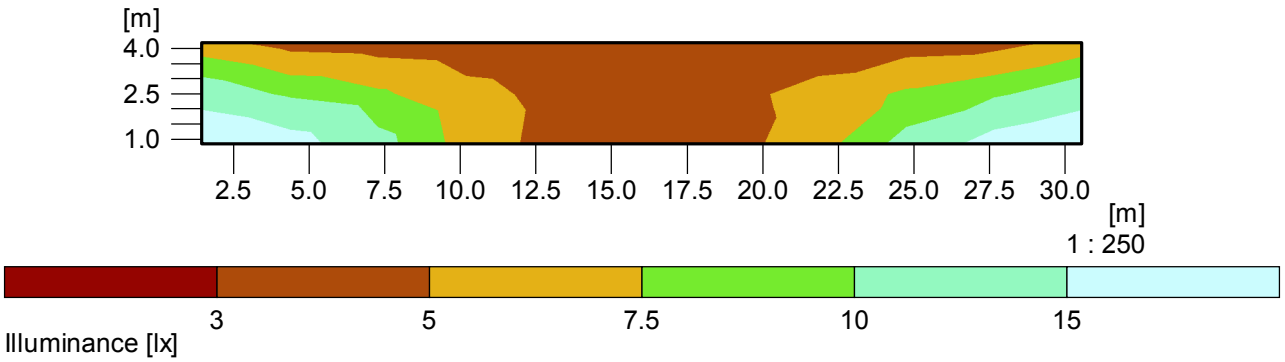
3.3.1 Table, Pathway (E horizontal)



Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 7.6 lx
Minimum illuminance	Emin	: 3 lx
Maximum illuminance	Emax	: 21.3 lx
Uniformity g1	min/average	: 1 : 2.5 (0.4)
Uniformity g2	min/max	: 1 : 7 (0.1)

3.3 Calculation results, Cyklostezka soubezne s chodnikem var. 2

3.3.2 Pseudo colours, Pathway (E horizontal)

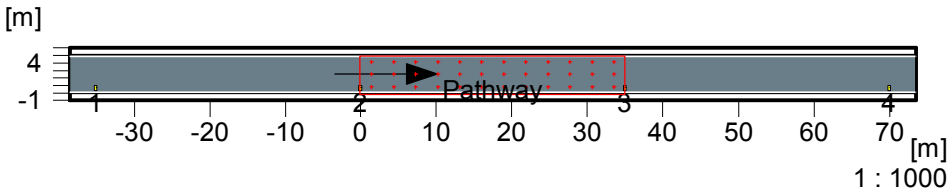


Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 7.6 lx
Minimum illuminance	Emin	: 3 lx
Maximum illuminance	Emax	: 21.3 lx
Uniformity g1	min/average	: 1 : 2.5 (0.4)
Uniformity g2	min/max	: 1 : 7 (0.1)

4 Cyklostezka soubezne s chodnikem var. 3

4.1 Description, Cyklostezka soubezne s chodnikem var. 3

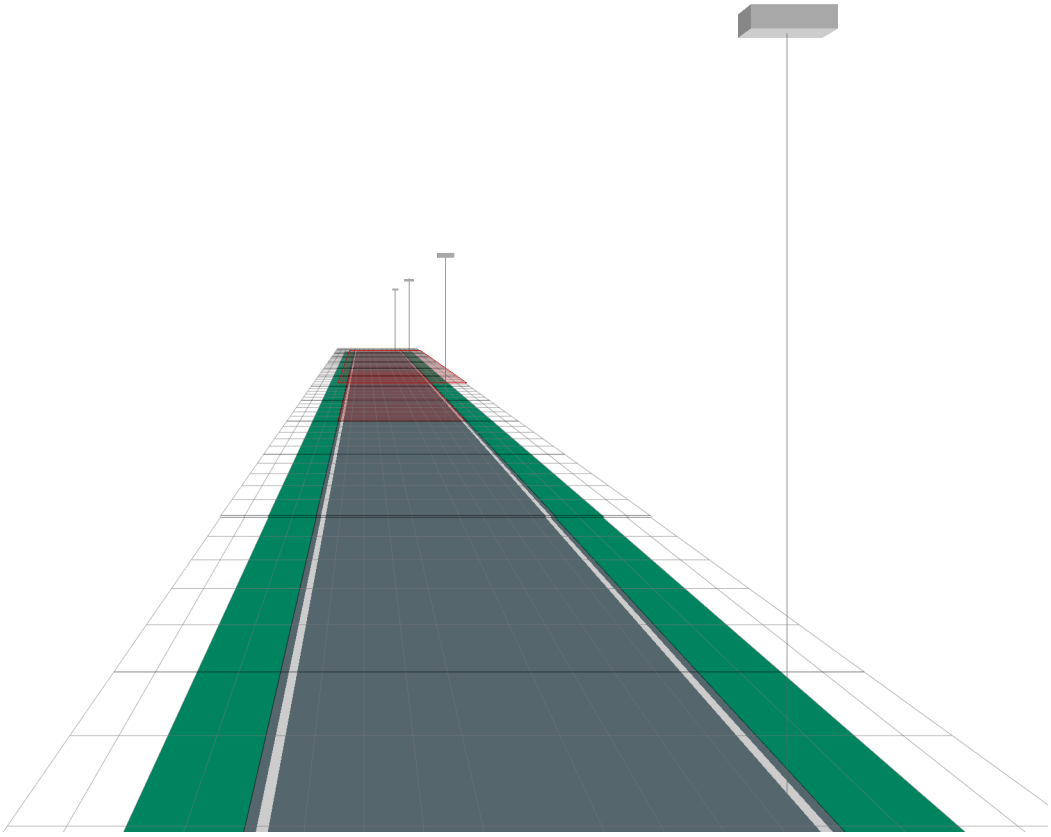
4.1.1 Floor plan



Pathway		Luminaire type	: 70W HID 240V CL1 EFL + HIT-CE 7(
Road layout	: without central reservation	Luminaire placing	: Right row
Width of roadway	: 5.00 m	photometric centre height	: 6.50 m
No. of lanes	: 1	Luminaire spacing	: 35.00 m
Road surface category	: R3	Luminaires - outreach	: 0.82 m
q0	: 0.07	Inclination	: 0.00°

4.1 Description, Cyklostezka soubezne s chodnikem var. 3

4.1.2 3D view, View from the left



4 Cyklostezka soubezne s chodnikem var. 3

4.2 Summary, Cyklostezka soubezne s chodnikem var. 3

4.2.1 Result overview, Pathway

Luminaire data

Manufacturer :
Order No. : 70W HID 240V CL1 EFL + HIT-CE 70W [V3L5] ()
Luminaire name : 70W HID 240V CL1 EFL + HIT-CE 70W [V3L5]
Equipment : 1 x HIT-CE 70 W / 6900 lm

Road layout		: without central reservation	Luminaire placing		: Right row
Width of roadway	(b)	: 5.00 m	photometric centre height.	(h)	: 6.50 m
No. of lanes		: 1	Luminaire spacing	(a)	: 35.00 m
Road surface category		: R3	Luminaires - outreach	(u)	: 0.82 m
q0		: 0.07	Inclination	(δ)	: 0.00°
Right hand drivers			Reduction factor		: 0.60

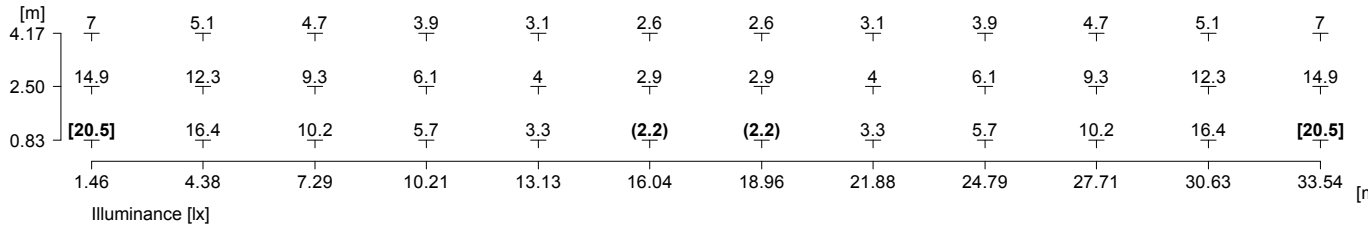
Horizontal illuminance E

Average : 7.5 lx
Minimum : 2.2 lx

4 Cyklostezka soubezne s chodnikem var. 3

4.3 Calculation results, Cyklostezka soubezne s chodnikem var. 3

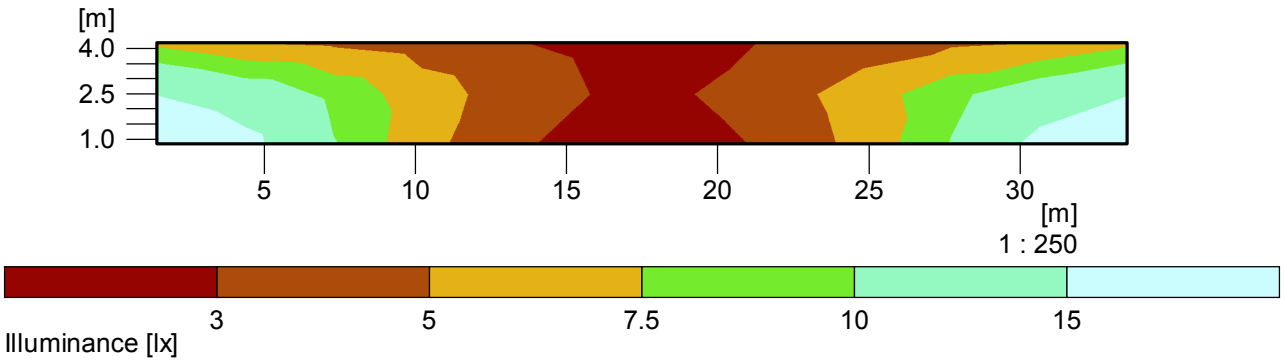
4.3.1 Table, Pathway (E horizontal)



Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 7.5 lx
Minimum illuminance	Emin	: 2.2 lx
Maximum illuminance	Emax	: 20.5 lx
Uniformity g1	min/average	: 1 : 3.4 (0.3)
Uniformity g2	min/max	: 1 : 9.2 (0.1)

4.3 Calculation results, Cyklostezka soubezne s chodnikem var. 3

4.3.2 Pseudo colours, Pathway (E horizontal)

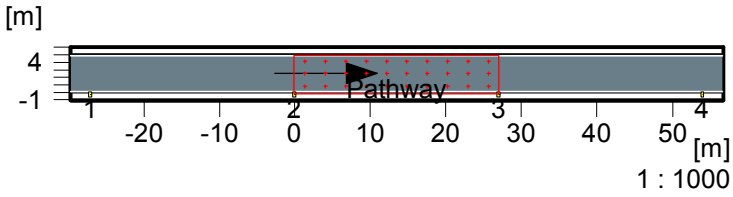


Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 7.5 lx
Minimum illuminance	Emin	: 2.2 lx
Maximum illuminance	Emax	: 20.5 lx
Uniformity g1	min/average	: 1 : 3.4 (0.3)
Uniformity g2	min/max	: 1 : 9.2 (0.1)

5 Cyklostezka soubezne s chodnikem var. 4

5.1 Description, Cyklostezka soubezne s chodnikem var. 4

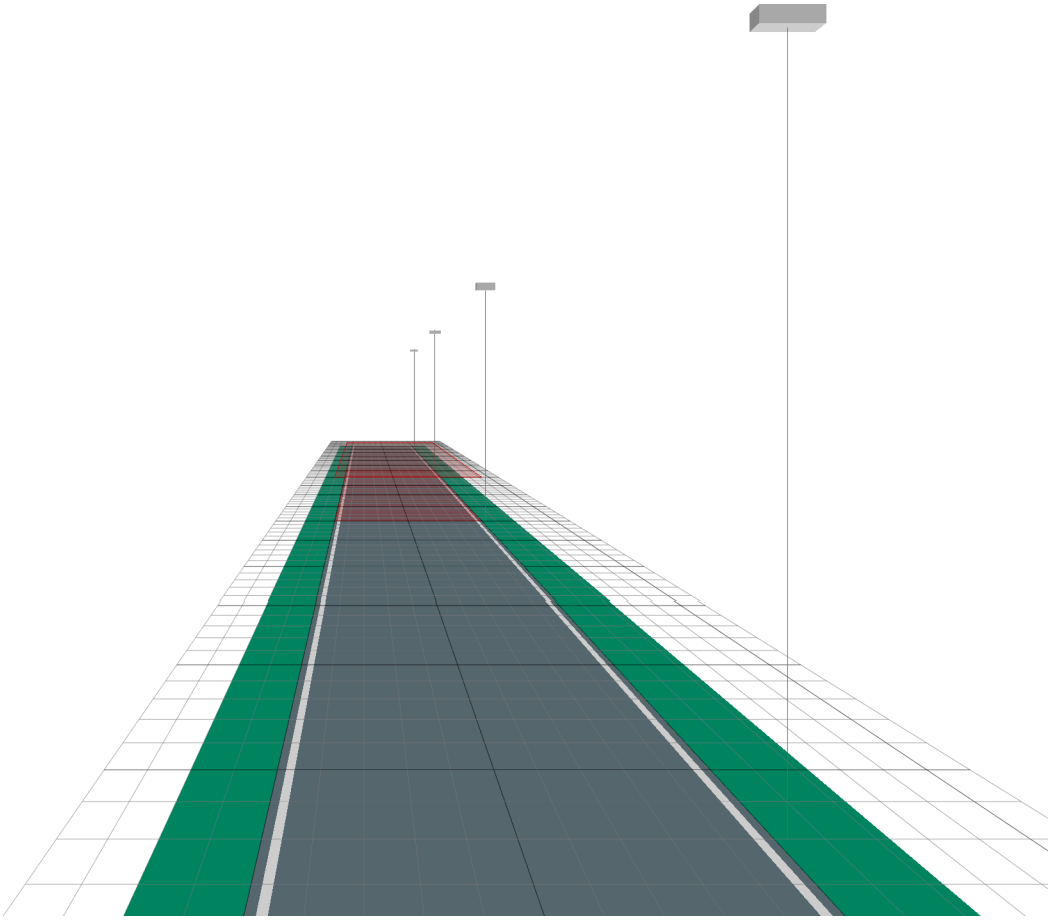
5.1.1 Floor plan



Pathway		Luminaire type	:CIVIC 1 70W HID 240V CL1 EFL + HIT-CE 7(
Road layout	: without central reservation	Luminaire placing	: Right row
Width of roadway	: 5.00 m	photometric centre height	:8.00 m
No. of lanes	: 1	Luminaire spacing	: 27.00 m
Road surface category	: R3	Luminaires - outreach	: -0.13 m
q0	: 0.07	Inclination	: 0.00°

5.1 Description, Cyklostezka soubezne s chodnikem var. 4

5.1.2 3D view, View from the left



5 Cyklostezka soubezne s chodnikem var. 4

5.2 Summary, Cyklostezka soubezne s chodnikem var. 4

5.2.1 Result overview, Pathway

Luminaire data

Manufacturer :
Order No. : 70W HID 240V CL1 EFL + HIT-CE 70W [V3L5] ()
Luminaire name : 70W HID 240V CL1 EFL + HIT-CE 70W [V3L5]
Equipment : 1 x HIT-CE 70 W / 6900 lm

Road layout		: without central reservation	Luminaire placing		: Right row
Width of roadway	(b)	: 5.00 m	photometric centre height.	(h)	: 8.00 m
No. of lanes		: 1	Luminaire spacing	(a)	: 27.00 m
Road surface category		: R3	Luminaires - outreach	(u)	: -0.13 m
q0		: 0.07	Inclination	(δ)	: 0.00°
Right hand drivers			Reduction factor		: 0.60

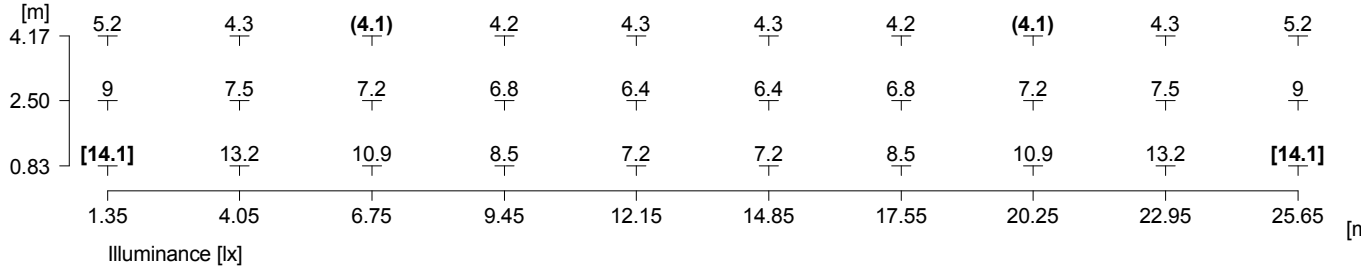
Horizontal illuminance E

Average : 7.5 lx
Minimum : 4.1 lx

5 Cyklostezka soubezne s chodnikem var. 4

5.3 Calculation results, Cyklostezka soubezne s chodnikem var. 4

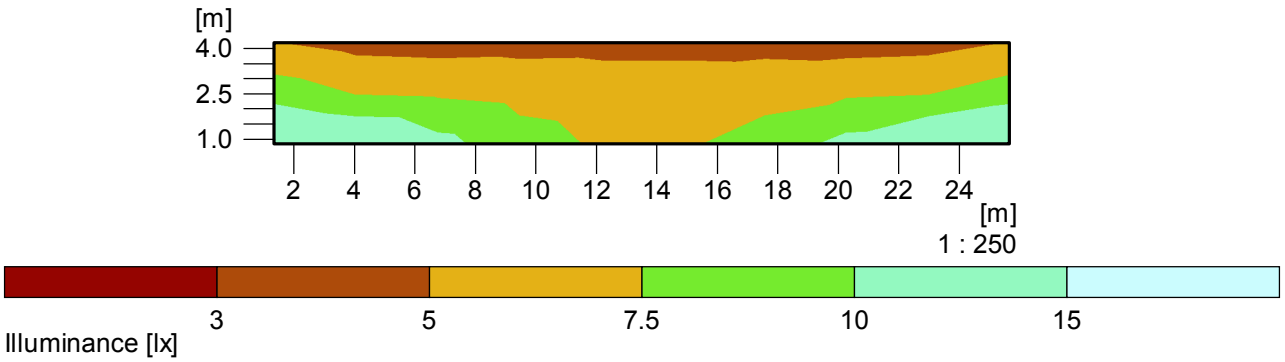
5.3.1 Table, Pathway (E horizontal)



Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 7.5 lx
Minimum illuminance	Emin	: 4.1 lx
Maximum illuminance	Emax	: 14.1 lx
Uniformity g1	min/average	: 1 : 1.8 (0.5)
Uniformity g2	min/max	: 1 : 3.5 (0.3)

5.3 Calculation results, Cyklostezka soubezne s chodnikem var. 4

5.3.2 Pseudo colours, Pathway (E horizontal)

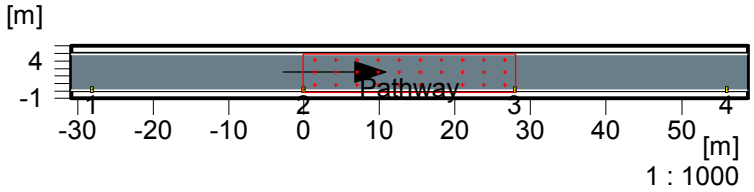


Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 7.5 lx
Minimum illuminance	Emin	: 4.1 lx
Maximum illuminance	Emax	: 14.1 lx
Uniformity g1	min/average	: 1 : 1.8 (0.5)
Uniformity g2	min/max	: 1 : 3.5 (0.3)

6 Cyklostezka soubezne s chodnikem var. 5

6.1 Description, Cyklostezka soubezne s chodnikem var. 5

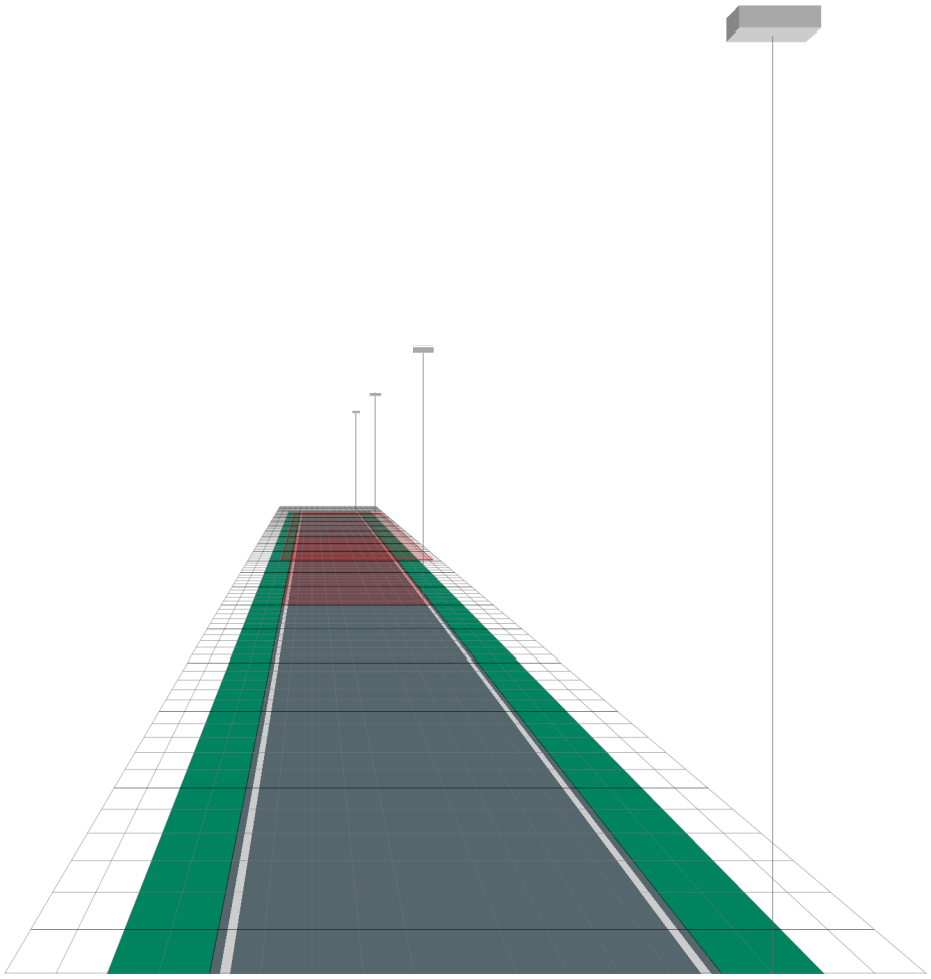
6.1.1 Floor plan



Pathway		Luminaire type	: 70W HID 240V CL1 EFL + HIT-CE 7(
Road layout	: without central reservation	Luminaire placing	: Right row
Width of roadway	: 5.00 m	photometric centre height	: 8.50 m
No. of lanes	: 1	Luminaire spacing	: 28.00 m
Road surface category	: R3	Luminaires - outreach	: 0.32 m
q0	: 0.07	Inclination	: 0.00°

6.1 Description, Cyklostezka soubezne s chodnikem var. 5

6.1.2 3D view, View from the left



6 Cyklostezka soubezne s chodnikem var. 5

6.2 Summary, Cyklostezka soubezne s chodnikem var. 5

6.2.1 Result overview, Pathway

Luminaire data

Manufacturer :
Order No. : 70W HID 240V CL1 EFL + HIT-CE 70W [V3L5] ()
Luminaire name : 70W HID 240V CL1 EFL + HIT-CE 70W [V3L5]
Equipment : 1 x HIT-CE 70 W / 6900 lm

Road layout		: without central reservation	Luminaire placing		: Right row
Width of roadway	(b)	: 5.00 m	photometric centre height.	(h)	: 8.50 m
No. of lanes		: 1	Luminaire spacing	(a)	: 28.00 m
Road surface category		: R3	Luminaires - outreach	(u)	: 0.32 m
q0		: 0.07	Inclination	(δ)	: 0.00°
Right hand drivers			Reduction factor		: 0.60

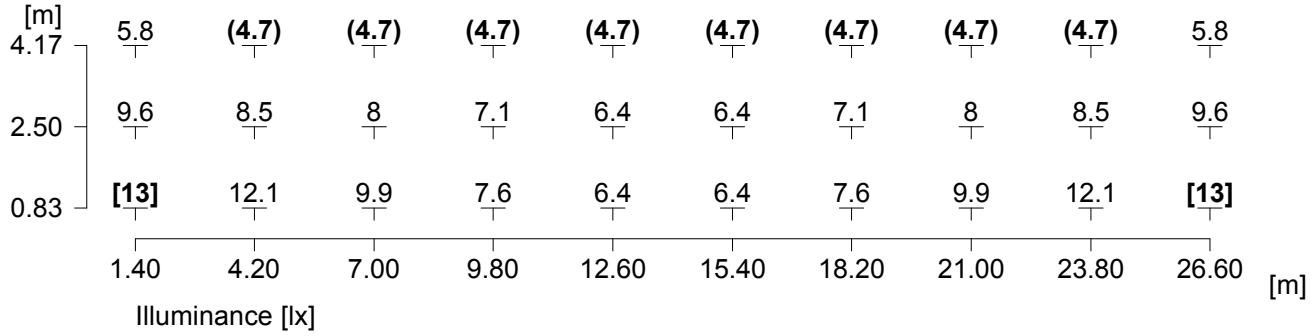
Horizontal illuminance E

Average : 7.5 lx
Minimum : 4.7 lx

6 Cyklostezka soubezne s chodnikem var. 5

6.3 Calculation results, Cyklostezka soubezne s chodnikem var. 5

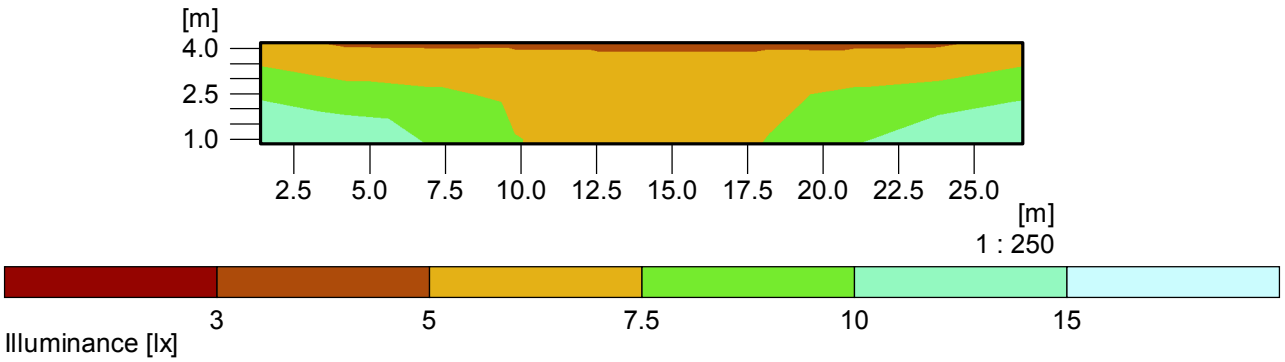
6.3.1 Table, Pathway (E horizontal)



Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 7.5 lx
Minimum illuminance	Emin	: 4.7 lx
Maximum illuminance	Emax	: 13 lx
Uniformity g1	min/average	: 1 : 1.6 (0.6)
Uniformity g2	min/max	: 1 : 2.8 (0.4)

6.3 Calculation results, Cyklostezka soubezne s chodnikem var. 5

6.3.2 Pseudo colours, Pathway (E horizontal)

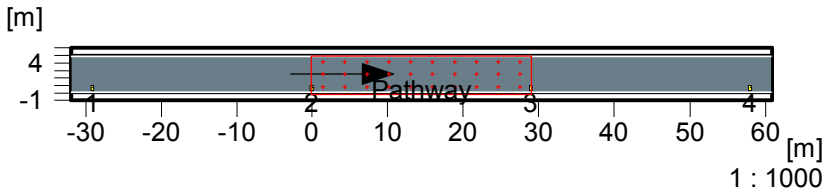


Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 7.5 lx
Minimum illuminance	Emin	: 4.7 lx
Maximum illuminance	Emax	: 13 lx
Uniformity g1	min/average	: 1 : 1.6 (0.6)
Uniformity g2	min/max	: 1 : 2.8 (0.4)

7 Cyklostezka soubezne s chodnikem var. 6

7.1 Description, Cyklostezka soubezne s chodnikem var. 6

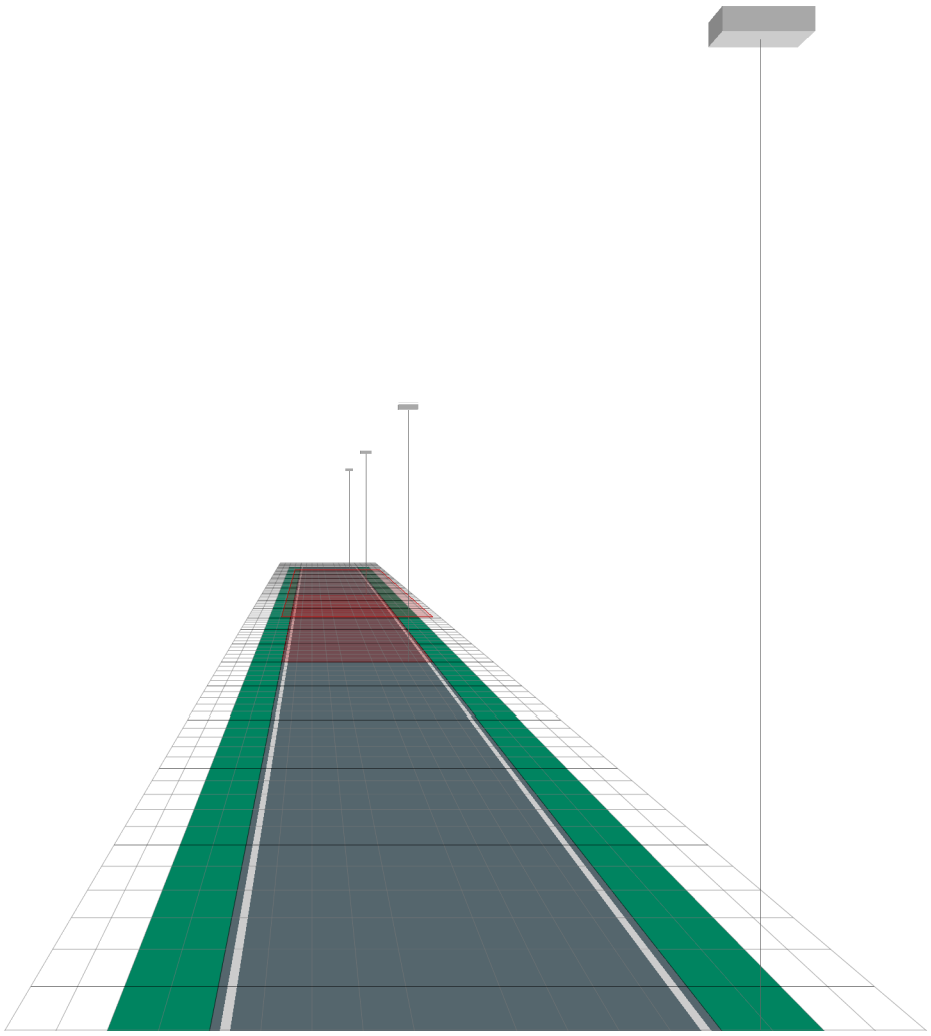
7.1.1 Floor plan



Pathway		Luminaire type	:CIVIC 1 70W HID 240V CL1 EFL + HIT-CE 7(
Road layout	: without central reservation	Luminaire placing	: Right row
Width of roadway	: 5.00 m	photometric centre height	:8.50 m
No. of lanes	: 1	Luminaire spacing	: 29.00 m
Road surface category	: R3	Luminaires - outreach	: 0.82 m
q0	: 0.07	Inclination	: 0.00°

7.1 Description, Cyklostezka soubezne s chodnikem var. 6

7.1.2 3D view, View from the left



7 Cyklostezka soubezne s chodnikem var. 6

7.2 Summary, Cyklostezka soubezne s chodnikem var. 6

7.2.1 Result overview, Pathway

Luminaire data

Manufacturer :
Order No. : 70W HID 240V CL1 EFL + HIT-CE 70W [V3L5] ()
Luminaire name : 70W HID 240V CL1 EFL + HIT-CE 70W [V3L5]
Equipment : 1 x HIT-CE 70 W / 6900 lm

Road layout		: without central reservation	Luminaire placing		: Right row
Width of roadway	(b)	: 5.00 m	photometric centre height.	(h)	: 8.50 m
No. of lanes		: 1	Luminaire spacing	(a)	: 29.00 m
Road surface category		: R3	Luminaires - outreach	(u)	: 0.82 m
q0		: 0.07	Inclination	(δ)	: 0.00°
Right hand drivers			Reduction factor		: 0.60

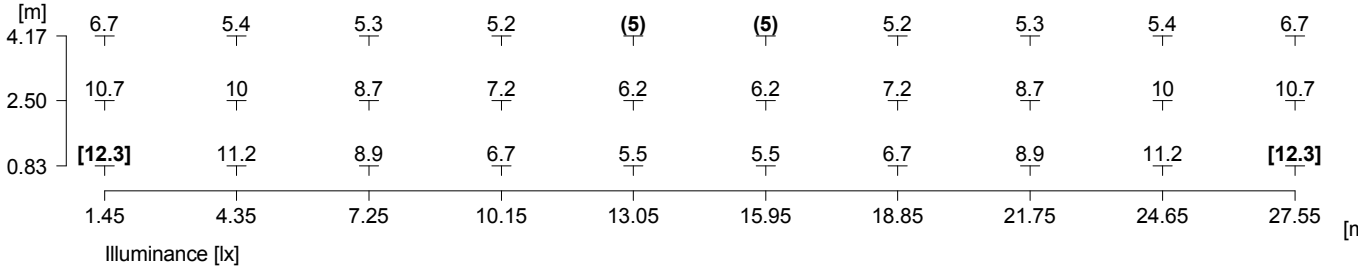
Horizontal illuminance E

Average : 7.7 lx
Minimum : 5 lx

7 Cyklostezka soubezne s chodnikem var. 6

7.3 Calculation results, Cyklostezka soubezne s chodnikem var. 6

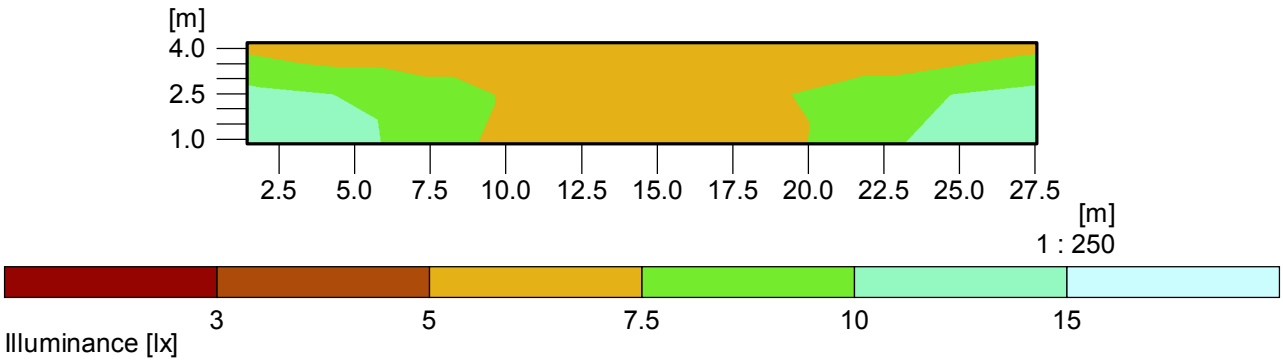
7.3.1 Table, Pathway (E horizontal)



Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 7.7 lx
Minimum illuminance	Emin	: 5 lx
Maximum illuminance	Emax	: 12.3 lx
Uniformity g1	min/average	: 1 : 1.5 (0.7)
Uniformity g2	min/max	: 1 : 2.5 (0.4)

7.3 Calculation results, Cyklostezka soubezne s chodnikem var. 6

7.3.2 Pseudo colours, Pathway (E horizontal)



Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 7.7 lx
Minimum illuminance	Emin	: 5 lx
Maximum illuminance	Emax	: 12.3 lx
Uniformity g1	min/average	: 1 : 1.5 (0.7)
Uniformity g2	min/max	: 1 : 2.5 (0.4)