

Modernizacja oświetlenia - Miasto i Gmina Bytów

Installation : Miasto Bytów

Project number : URZĄD MIASTA BYTÓW - ETAP II

Customer :

Processed by :

Date : 30.10.2024

The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

This exclusion of liability applies irrespective of the legal grounds for both damages and consequential damages suffered by users and third parties.

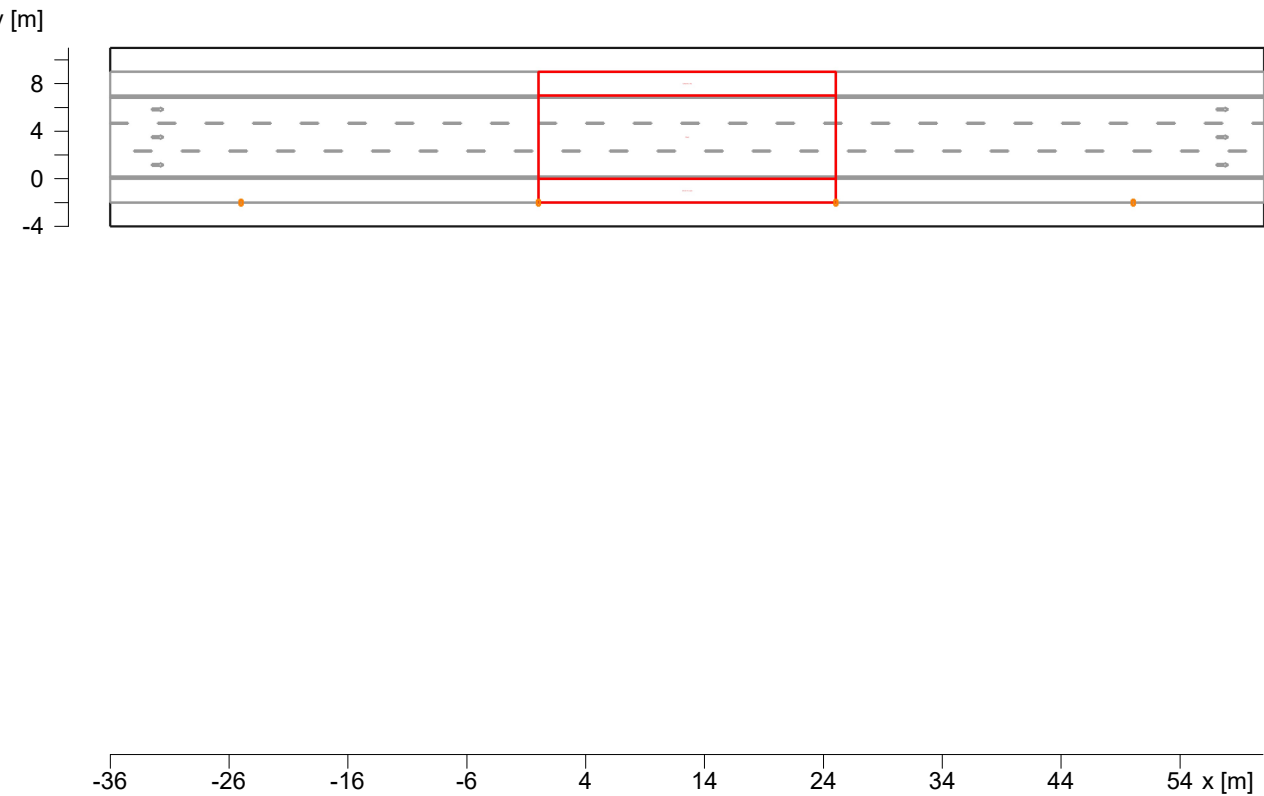
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1 Bytów ul.Zwycięstwa

1.1 Description, Bytów ul.Zwycięstwa

1.1.1 Floor plan



1

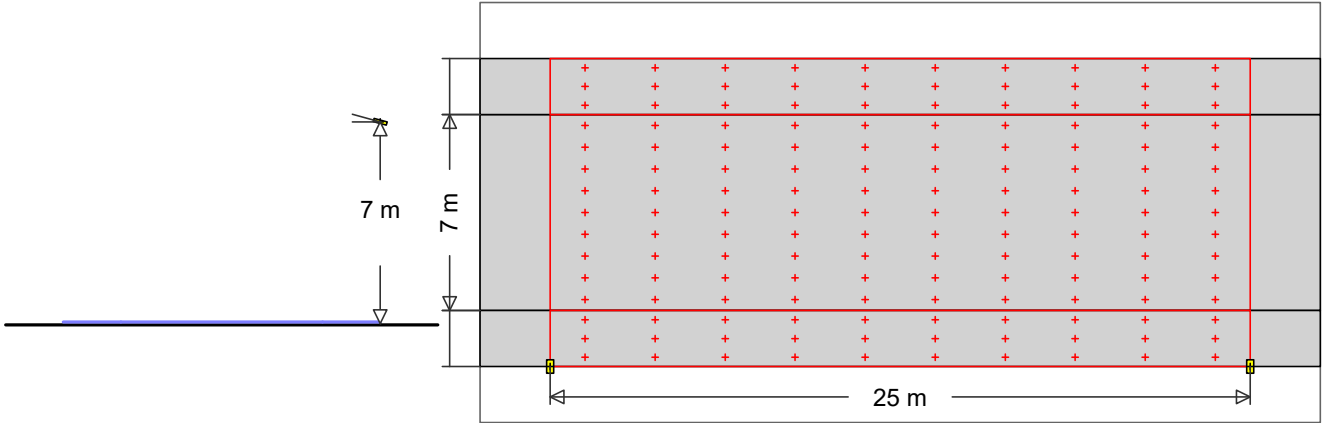
Bytów ul.Zwycięstwa

1.2


Summary, Bytów ul.Zwycięstwa

1.2.1

Result overview, Bytów ul.Zwycięstwa



2



Order No.

Luminaire name

Equipment

:

:

:

Oprawa drogowa 45W 20x130

1 x LED 45 W / 7150 lm

MyLumRow

Luminaire placing

Luminaire spacing

Overhang

Abs. position

Load/km

: Right row

: 25.00 m

: -2.00 m

: -2.00 m

: 1800 W/km

Maintenance factor

Height (phot centre)

Tilt

Glare index class

Lum. intensity class

: 0.80

: 7.00 m

: 15.00 °

: D3

: G*1

Road

Width

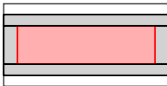
Surface

: 7.00 m

: R3, q0=0.07

Lanes

: 3



Luminance

Calculation field: 25m x 7m (10 x 9 pts)

Observer

3

: x=-60.00m, y=5.83m, z=1.50m

2

: x=-60.00m, y=3.50m, z=1.50m

1

: x=-60.00m, y=1.17m, z=1.50m

Lane	\bar{L}_m	U_o	U_i	f_{TI}	R_{EI}
3:(y=5.83)	0.90 cd/m ²	0.45	0.87	5	0.59
2:(y=3.50)	0.85 cd/m ²	0.47	0.81	7	
1:(y=1.17)	0.80 cd/m ²	0.50	0.72	10	0.72
M4	>= 0.75 cd/m ²	>= 0.40	>= 0.60	<= 15	>= 0.30

Illuminance

Calculation field: 25m x 7m (10 x 9 pts)

\bar{E}_m	E_{min}	U_o	U_d
16.8 lx	8.61 lx	0.51	0.27

Chodnik (General surface, left)

Width

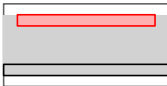
Kerb distance

: 2.00 m

: 0.00 m

Abs. position

: 7.00 m



Illuminance

Calculation field: 25m x 2m (10 x 3 pts)

1

Bytów ul.Zwycięstwa

1.2

Summary, Bytów ul.Zwycięstwa

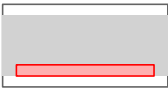
1.2.1

Result overview, Bytów ul.Zwycięstwa

	\bar{E}_m	E_{min}	U_o	U_d
	7.27 lx	5.73 lx	0.79	0.61
P4	>= 5.00 lx	>= 1.00 lx		

Chodnik (General surface, right)

Width	: 2.00 m			
Kerb distance	: 0.00 m	Abs. position		: -0.00 m



Illuminance

Calculation field: 25m x 2m (10 x 3 pts)

	\bar{E}_m	E_{min}	U_o	U_d
	15.2 lx	10.2 lx	0.67	0.39
P1	>= 15.0 lx	>= 3.00 lx		

2

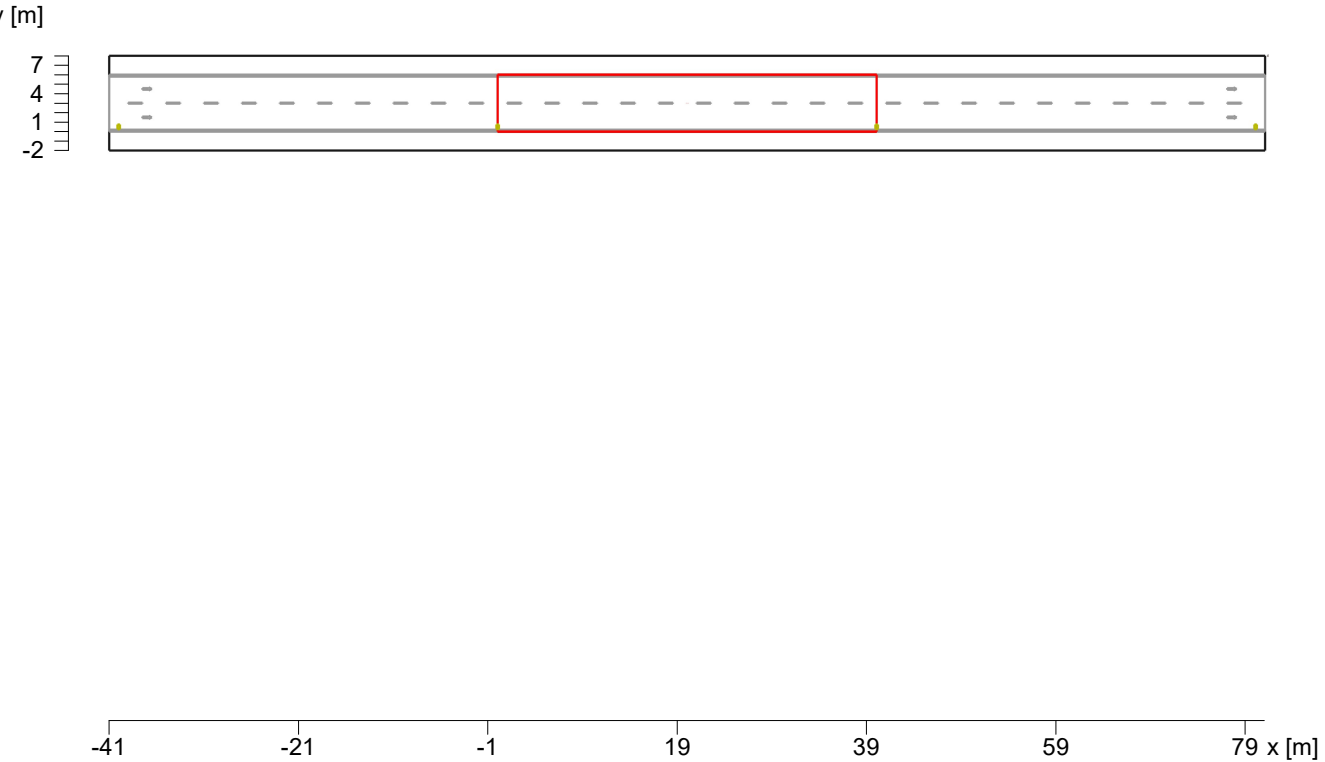
Bytów ul.Floriana Ceynowy

2.1

Description, Bytów ul.Floriana Ceynowy

2.1.1

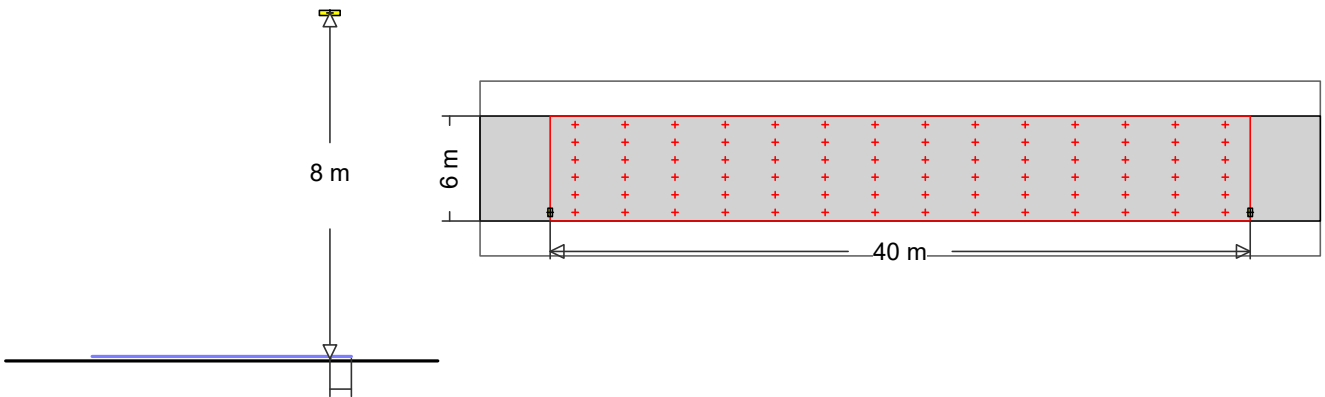
Floor plan




2 Bytów ul.Floriana Ceynowy

2.2 Summary, Bytów ul.Floriana Ceynowy

2.2.1 Result overview, Bytów ul.Floriana Ceynowy



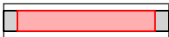
1		Order No.	:	
		Luminaire name	:	Oprawa drogowa 45W 15x150
		Equipment	:	1 x LED 45 W / 6650 lm

MyLumRow

Luminaire placing	: Right row	Maintenance factor	: 0.80
Luminaire spacing	: 40.00 m	Height (phot centre)	: 8.00 m
Overhang	: 0.50 m	Tilt	: 0.00 °
Abs. position	: 0.50 m	Glare index class	: D4
Load/km	: 1125 W/km	Lum. intensity class	: G*2

Road

Width	: 6.00 m	Lanes	: 2
Surface	: R3, q0=0.07		



Luminance

Calculation field: 40m x 6m (14 x 6 pts)

Observer

2	: x=-60.00m, y=4.50m, z=1.50m
1	: x=-60.00m, y=1.50m, z=1.50m

Lane	\bar{E}_m	U_o	U_l	f_{TI}	R_{EI}
2:(y=4.50)	0.70 cd/m ²	0.45	0.47	9	0.65
1:(y=1.50)	0.66 cd/m ²	0.42	0.59	12	0.55
M5	>= 0.50 cd/m ²	>= 0.35	>= 0.40	<= 15	>= 0.30

Illuminance

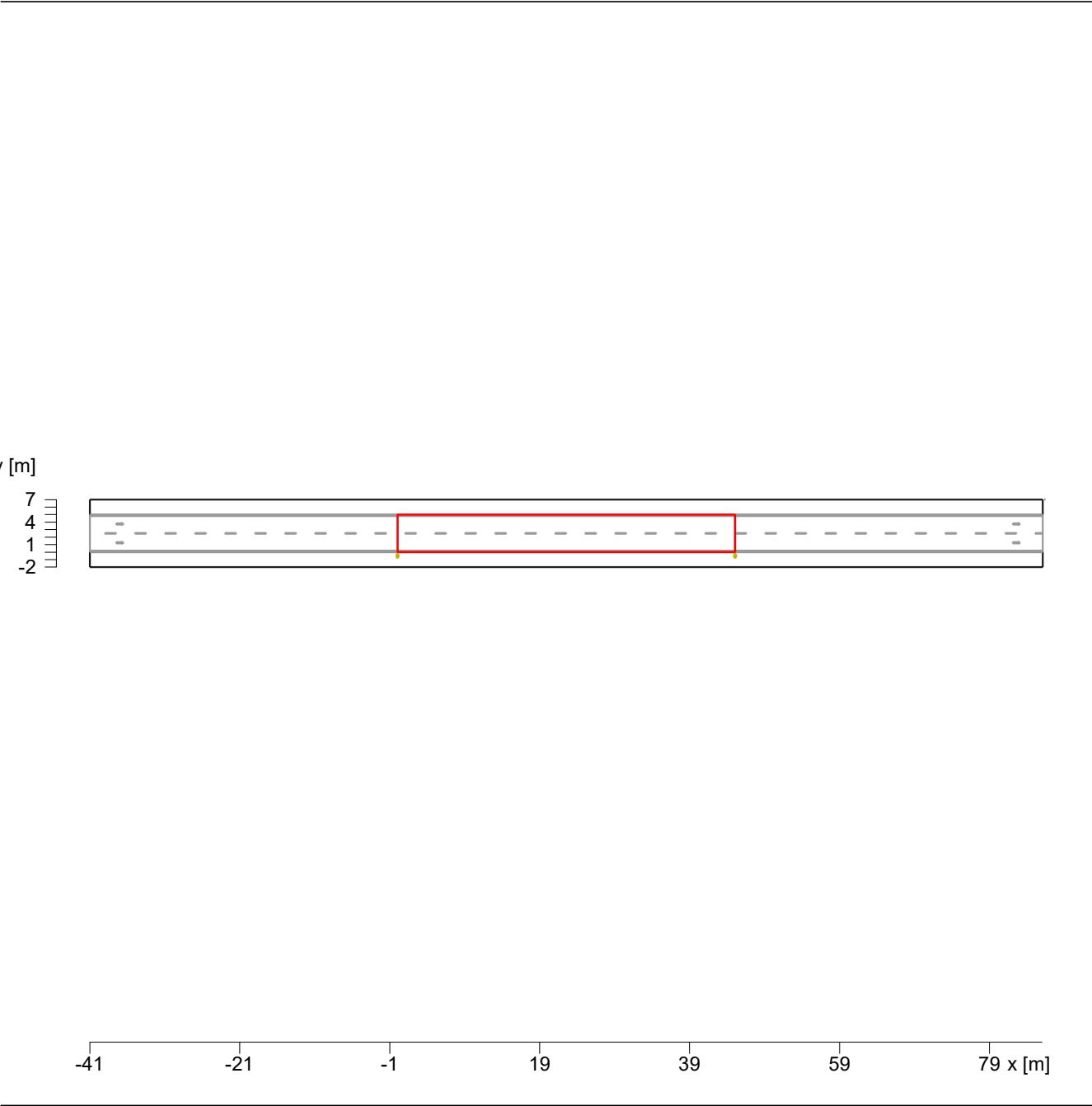
Calculation field: 40m x 6m (14 x 6 pts)

\bar{E}_m	E_{min}	U_o	U_d
9.67 lx	3.11 lx	0.32	0.14

3 Bytów ul. Kazimierza Wielkiego

3.1 Description, Bytów ul. Kazimierza Wielkiego

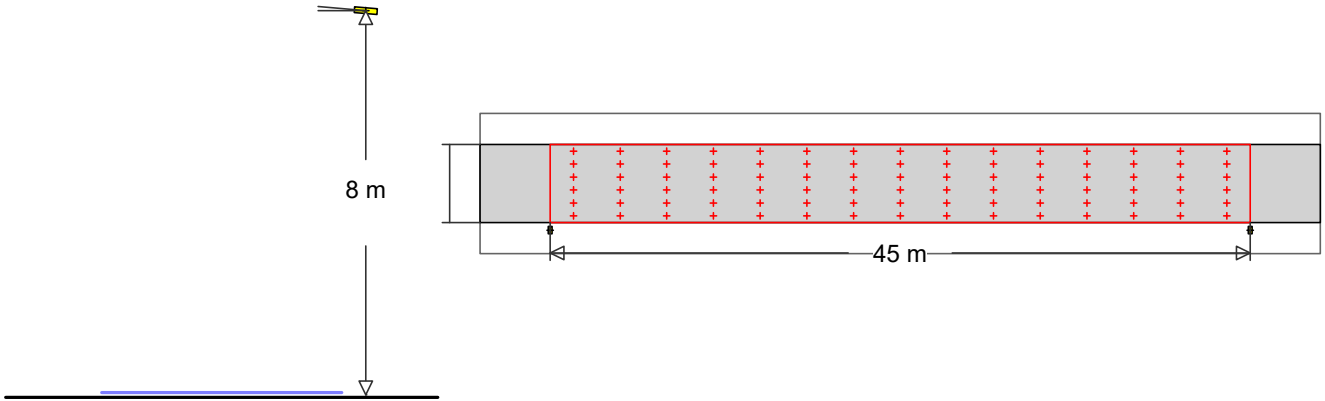
3.1.1 Floor plan




3 Bytów ul. Kazimierza Wielkiego

3.2 Summary, Bytów ul. Kazimierza Wielkiego

3.2.1 Result overview, Bytów ul. Kazimierza Wielkiego



1	Order No.	:	
	Luminaire name	:	Oprawa drogowa 45W 15x150
	Equipment	:	1 x LED 45 W / 6650 lm

MyLumRow

Luminaire placing	: Right row	Maintenance factor	: 0.80
Luminaire spacing	: 45.00 m	Height (phot centre)	: 8.00 m
Overhang	: -0.50 m	Tilt	: 5.00 °
Abs. position	: -0.50 m	Glare index class	: D3
Load/km	: 1000 W/km	Lum. intensity class	: n/a

Road

Width	: 5.00 m	Lanes	: 2
Surface	: R3, q0=0.07		



Luminance

Calculation field: 45m x 5m (15 x 6 pts)

Observer

2	: x=-60.00m, y=3.75m, z=1.50m
1	: x=-60.00m, y=1.25m, z=1.50m

Lane	\bar{E}_m	U_o	U_i	f_{TI}	R_{EI}
2:(y=3.75)	0.60 cd/m ²	0.41	0.41	9	0.73
1:(y=1.25)	0.55 cd/m ²	0.40	0.48	13	0.67
M5	>= 0.50 cd/m ²	>= 0.35	>= 0.40	<= 15	>= 0.30

Illuminance

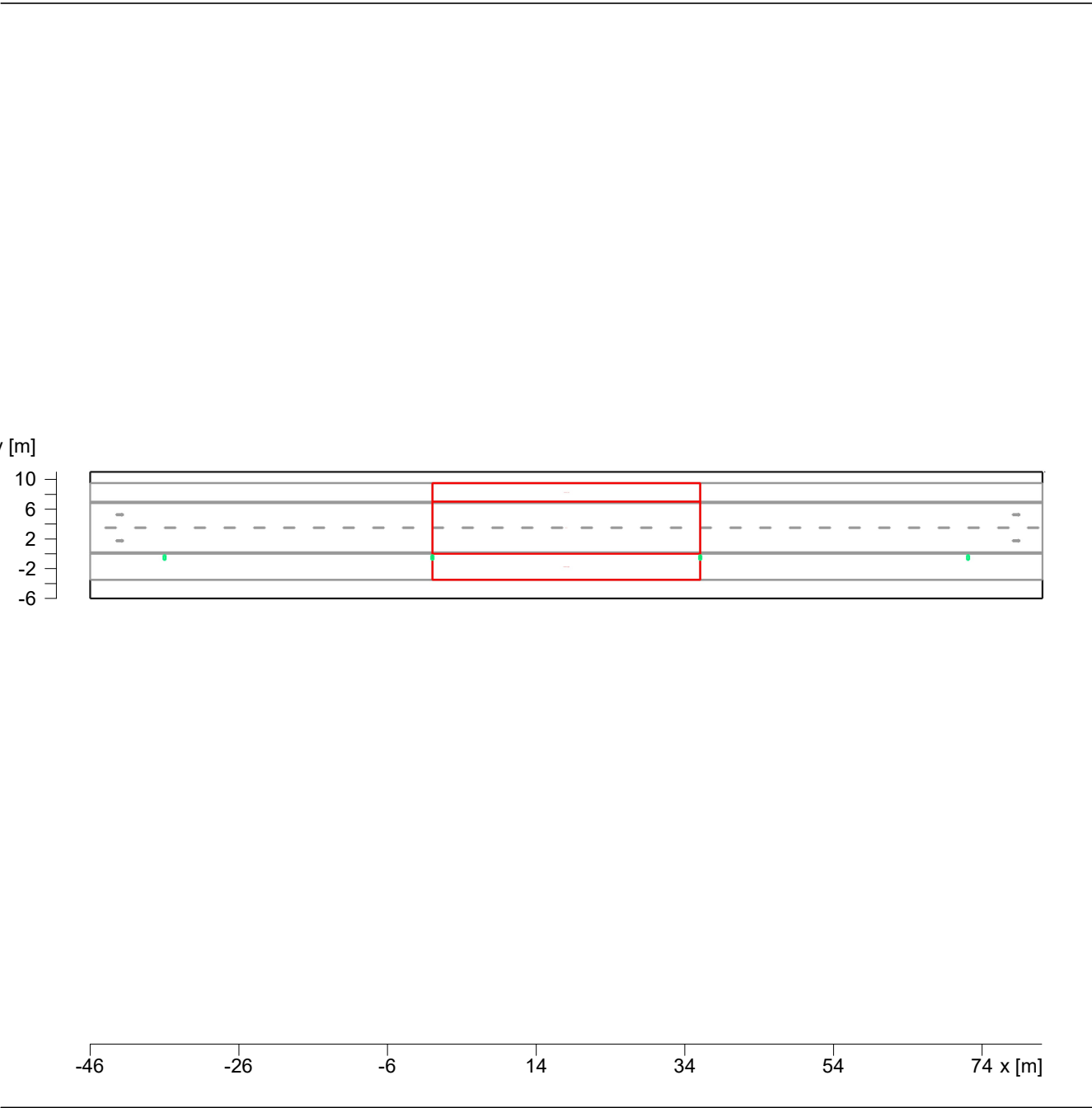
Calculation field: 45m x 5m (15 x 6 pts)

\bar{E}_m	E_{min}	U_o	U_d
8.35 lx	2.19 lx	0.26	0.11

4 Bytów ul.Sucharskiego

4.1 Description, Bytów ul.Sucharskiego

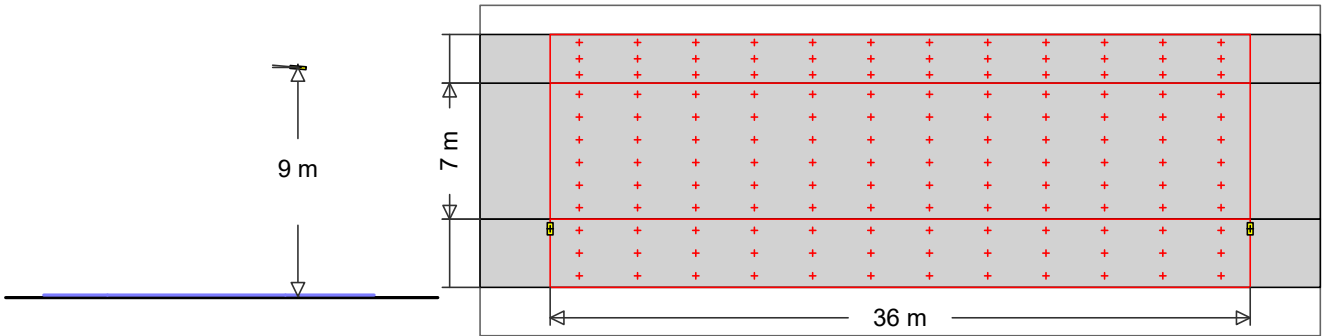
4.1.1 Floor plan




4 Bytów ul.Sucharskiego

4.2 Summary, Bytów ul.Sucharskiego

4.2.1 Result overview, Bytów ul.Sucharskiego



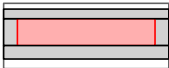
4	Order No.	:	
	Luminaire name	:	Oprawa drogowa 81W 15x150
	Equipment	:	1 x LED 81 W / 12500 lm

MyLumRow

Luminaire placing	: Right row	Maintenance factor	: 0.80
Luminaire spacing	: 36.00 m	Height (phot centre)	: 9.00 m
Overhang	: -0.50 m	Tilt	: 5.00 °
Abs. position	: -0.50 m	Glare index class	: D0
Load/km	: 2250 W/km	Lum. intensity class	: n/a

Road

Width	: 7.00 m	Lanes	: 2
Surface	: R3, q0=0.07		



Luminance

Calculation field: 36m x 7m (12 x 6 pts)

Observer

2	: x=-60.00m, y=5.25m, z=1.50m
1	: x=-60.00m, y=1.75m, z=1.50m

Lane	\bar{E}_m	U_o	U_l	f_{TI}	R_{EI}
2:(y=5.25)	1.14 cd/m ²	0.53	0.70	8	0.66
1:(y=1.75)	1.03 cd/m ²	0.54	0.75	12	0.63
M3	>= 1.00 cd/m ²	>= 0.40	>= 0.60	<= 15	>= 0.30

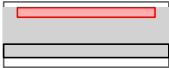
Illuminance

Calculation field: 36m x 7m (12 x 6 pts)

\bar{E}_m	E_{min}	U_o	U_d
15.8 lx	7.44 lx	0.47	0.25

Chodnik (General surface, left)

Width	: 2.50 m		
Kerb distance	: 0.00 m	Abs. position	: 7.00 m



Illuminance

Calculation field: 36m x 2.5m (12 x 3 pts)

	\bar{E}_m	E_{min}	U_o	U_d
	10.7 lx	7.63 lx	0.71	0.51
P3	>= 7.50 lx	>= 1.50 lx		

4 Bytów ul.Sucharskiego

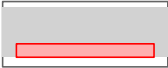
4.2 Summary, Bytów ul.Sucharskiego

4.2.1 Result overview, Bytów ul.Sucharskiego

Chodnik (General surface, right)

Width : 3.50 m

Kerb distance : 0.00 m Abs. position : -0.00 m

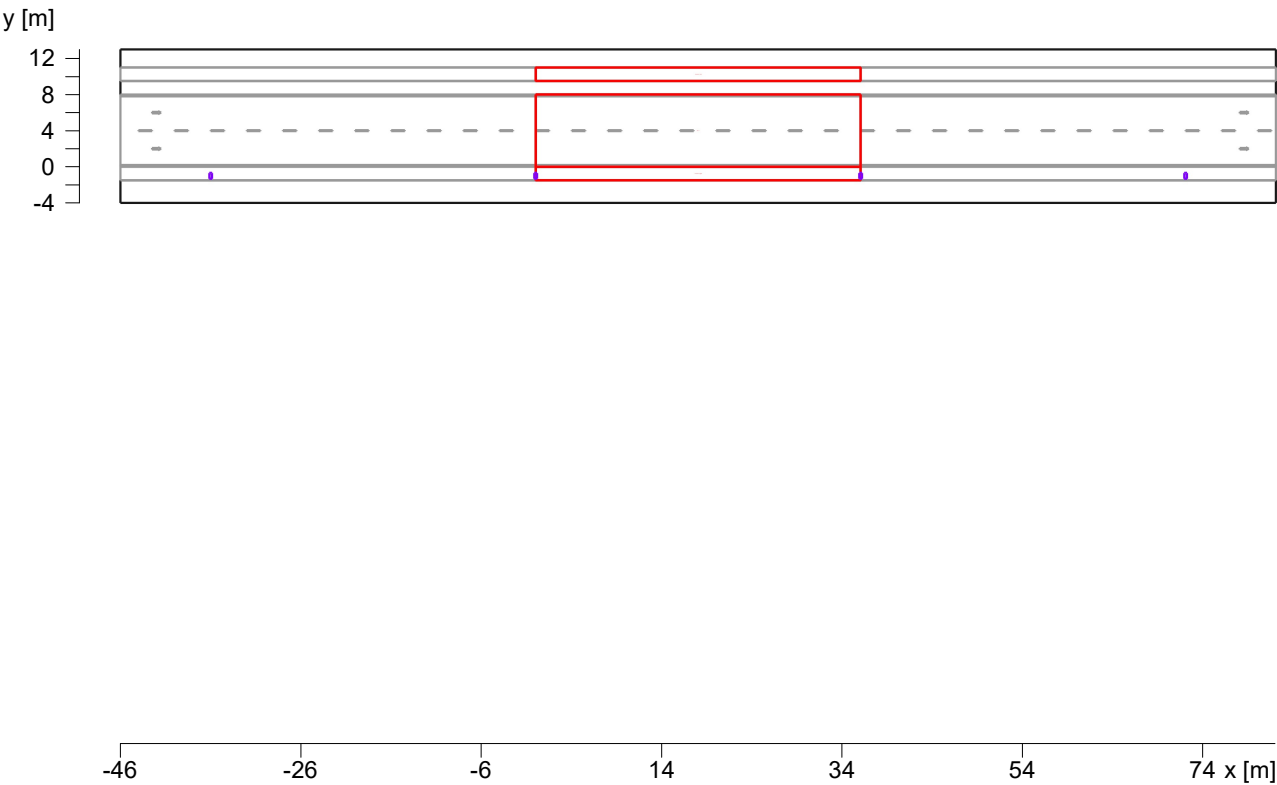


Illuminance	Calculation field: 36m x 3.5m (12 x 3 pts)				
	\bar{E}_m	E_{min}	U_o	U_d	
	10.5 lx	5.34 lx	0.51	0.24	
P3	>= 7.50 lx	>= 1.50 lx			

5 Bytów ul.Szosa Miastecka

5.1 Description, Bytów ul.Szosa Miastecka

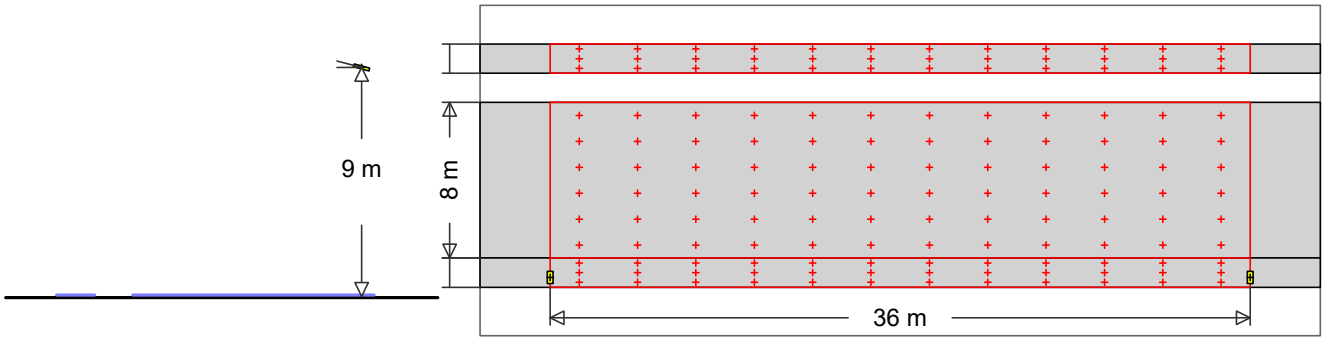
5.1.1 Floor plan




5 Bytów ul.Szosa Miastecka

5.2 Summary, Bytów ul.Szosa Miastecka

5.2.1 Result overview, Bytów ul.Szosa Miastecka



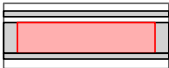
5	Order No.	:	
	Luminaire name	:	Oprawa drogowa 108W 50x155
	Equipment	:	1 x LED 108 W / 17200 lm

MyLumRow

Luminaire placing	: Right row	Maintenance factor	: 0.80
Luminaire spacing	: 36.00 m	Height (phot centre)	: 9.00 m
Overhang	: -1.00 m	Tilt	: 15.00 °
Abs. position	: -1.00 m	Glare index class	: D0
Load/km	: 3000 W/km	Lum. intensity class	: n/a

Road

Width	: 8.00 m	Lanes	: 2
Surface	: R3, q0=0.07		



Luminance

Calculation field: 36m x 8m (12 x 6 pts)

Observer

2 : x=-60.00m, y=6.00m, z=1.50m

1 : x=-60.00m, y=2.00m, z=1.50m

Lane	\bar{E}_m	U_o	U_l	ftI	R_{EI}
2:(y=6.00)	1.29 cd/m ²	0.61	0.84	8	0.68
1:(y=2.00)	1.17 cd/m ²	0.63	0.66	10	0.60
M3	>= 1.00 cd/m ²	>= 0.40	>= 0.60	<= 15	>= 0.30

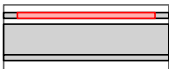
Illuminance

Calculation field: 36m x 8m (12 x 6 pts)

\bar{E}_m	E_{min}	U_o	U_d
22 lx	8.65 lx	0.40	0.20

Chodnik (General surface, left)

Width	: 1.50 m		
Kerb distance	: 1.50 m	Abs. position	: 9.50 m



Illuminance

Calculation field: 36m x 1.5m (12 x 3 pts)

	\bar{E}_m	E_{min}	U_o	U_d
	13.5 lx	9.51 lx	0.71	0.48
P2	>= 10.0 lx	>= 2.00 lx		

5 Bytów ul.Szosa Miastecka

5.2 Summary, Bytów ul.Szosa Miastecka

5.2.1 Result overview, Bytów ul.Szosa Miastecka

Chodnik (General surface, right)

Width

Kerb distance

: 1.50 m

: 0.00 m

Abs. position

: -0.00 m



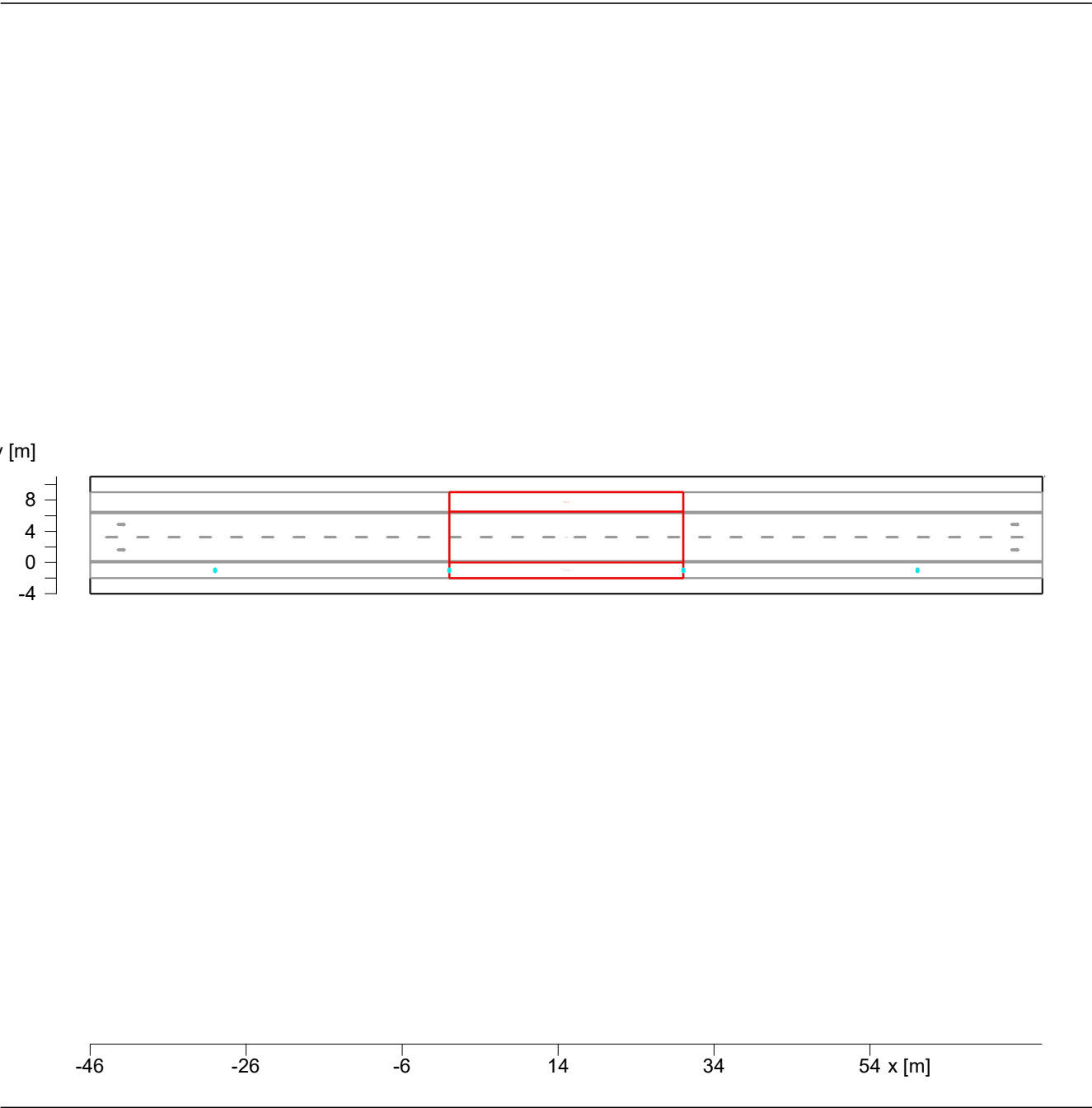
Illuminance

Calculation field: 36m x 1.5m (12 x 3 pts)					
	\bar{E}_m	E_{min}	U_o	U_d	
	17.6 lx	7.22 lx	0.41	0.19	
P1	>= 15.0 lx	>= 3.00 lx			

6 Bytów ul.Zakładowa 1

6.1 Description, Bytów ul.Zakładowa 1

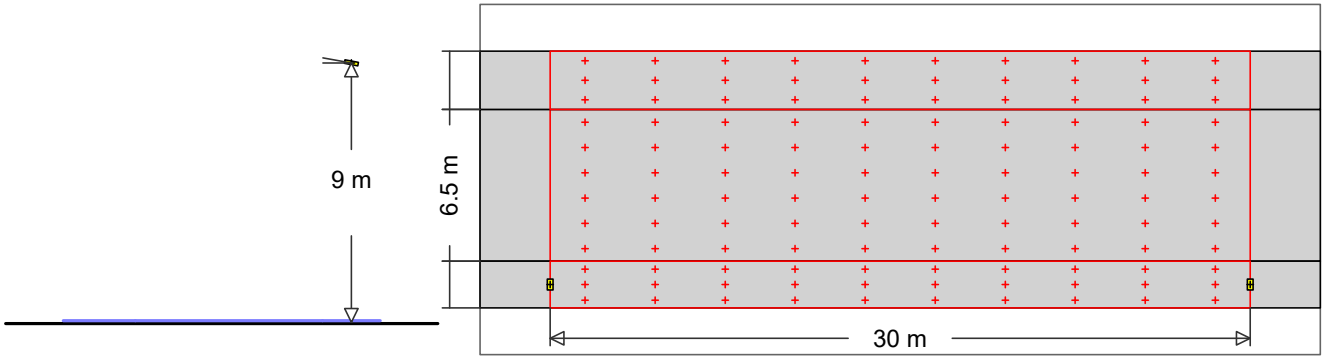
6.1.1 Floor plan




6 Bytów ul.Zakładowa 1

6.2 Summary, Bytów ul.Zakładowa 1

6.2.1 Result overview, Bytów ul.Zakładowa 1



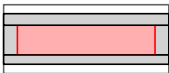
3	Order No.	:	
	Luminaire name	:	Oprawa drogowa 59W 20x130
	Equipment	:	1 x LED 59 W / 9200 lm

MyLumRow

Luminaire placing	: Right row	Maintenance factor	: 0.80
Luminaire spacing	: 30.00 m	Height (phot centre)	: 9.00 m
Overhang	: -1.00 m	Tilt	: 10.00 °
Abs. position	: -1.00 m	Glare index class	: D3
Load/km	: 1967 W/km	Lum. intensity class	: G*2

Road

Width	: 6.50 m	Lanes	: 2
Surface	: R3, q0=0.07		



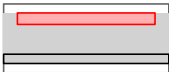
Illuminance

Calculation field: 30m x 6.5m (10 x 6 pts)

	\bar{E}_m	E_{min}	U_o	U_d
	17.3 lx	10.1 lx	0.59	0.36
C3	≥ 15.0 lx		≥ 0.40	

Chodnik (General surface, left)

Width	: 2.50 m		
Kerb distance	: 0.00 m	Abs. position	: 6.50 m



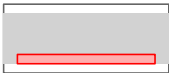
Illuminance

Calculation field: 30m x 2.5m (10 x 3 pts)

	\bar{E}_m	E_{min}	U_o	U_d
	11.3 lx	8.29 lx	0.74	0.48
P2	≥ 10.0 lx	≥ 2.00 lx		

Chodnik (General surface, right)

Width	: 2.00 m		
Kerb distance	: 0.00 m	Abs. position	: -0.00 m



Illuminance

Calculation field: 30m x 2m (10 x 3 pts)

6 Bytów ul.Zakładowa 1

6.2 Summary, Bytów ul.Zakładowa 1

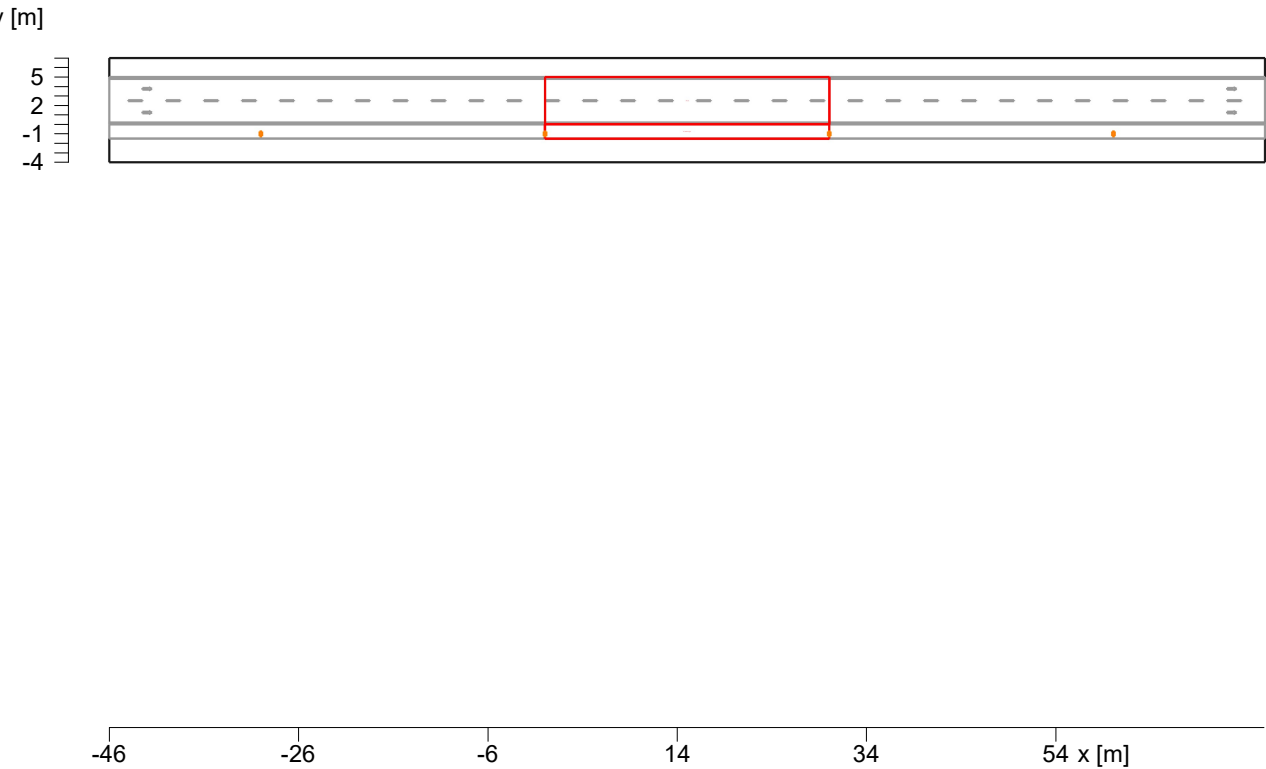
6.2.1 Result overview, Bytów ul.Zakładowa 1

	\bar{E}_m	E_{min}	U_o	U_d
	11.4 lx	8.95 lx	0.79	0.52
P2	>= 10.0 lx	>= 2.00 lx		

7 Bytów ul.Zakładowa 2

7.1 Description, Bytów ul.Zakładowa 2

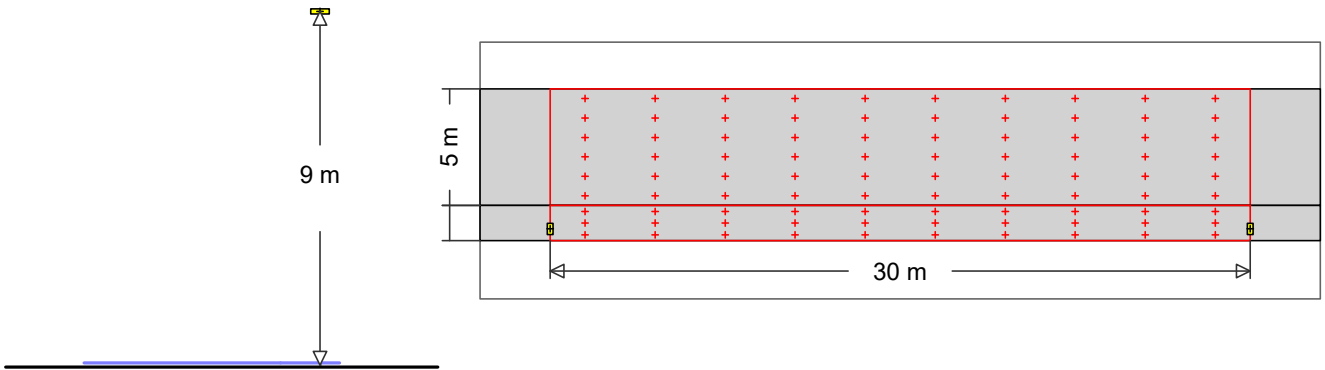
7.1.1 Floor plan




7 Bytów ul.Zakładowa 2

7.2 Summary, Bytów ul.Zakładowa 2

7.2.1 Result overview, Bytów ul.Zakładowa 2



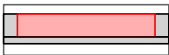
2	Order No.	:	
	Luminaire name	:	Oprawa drogowa 45W 20x130
	Equipment	:	1 x LED 45 W / 7150 lm

MyLumRow

Luminaire placing	: Right row	Maintenance factor	: 0.80
Luminaire spacing	: 30.00 m	Height (phot centre)	: 9.00 m
Overhang	: -1.00 m	Tilt	: 0.00 °
Abs. position	: -1.00 m	Glare index class	: D5
Load/km	: 1500 W/km	Lum. intensity class	: G*5

Road

Width	: 5.00 m	Lanes	: 2
Surface	: R3, q0=0.07		



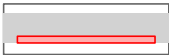
Illuminance

Calculation field: 30m x 5m (10 x 6 pts)

	\bar{E}_m	E_{min}	U_o	U_d
	15.4 lx	8.30 lx	0.54	0.32
C3	≥ 15.0 lx		≥ 0.40	

Chodnik (General surface, right)

Width	: 1.50 m		
Kerb distance	: 0.00 m	Abs. position	: -0.00 m



Illuminance

Calculation field: 30m x 1.5m (10 x 3 pts)

	\bar{E}_m	E_{min}	U_o	U_d
	13.5 lx	9.10 lx	0.67	0.41
P2	≥ 10.0 lx	≥ 2.00 lx		