

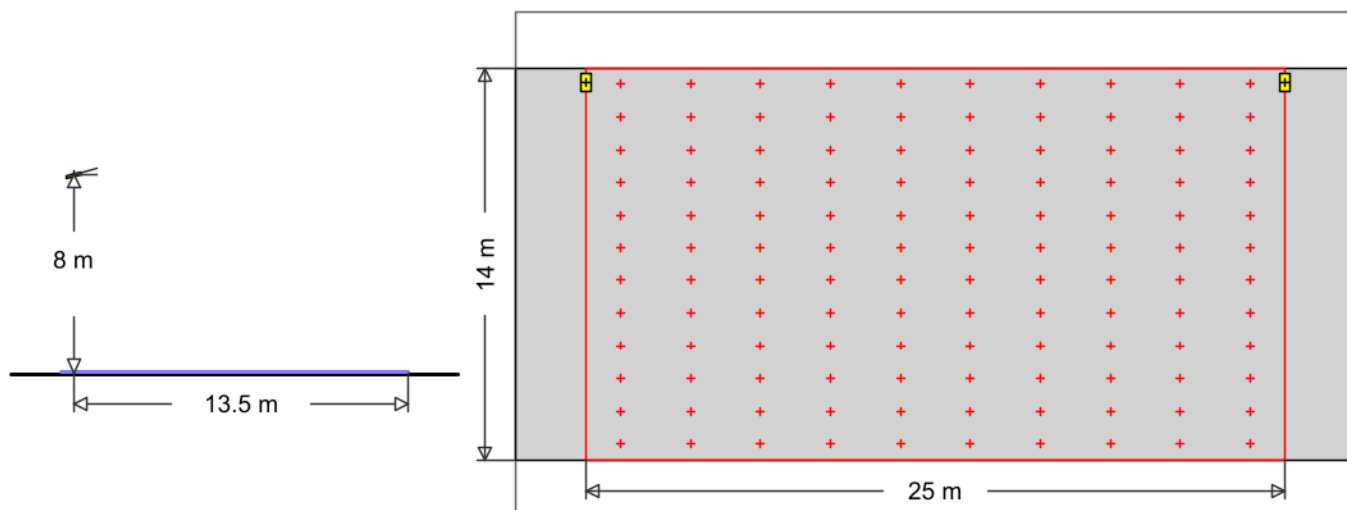
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 1 36

### 1.1 Summary, 36

#### 1.1.1 Result overview, 36



37



Order No.  
Luminaire name

Equipment

109 W / 14446 lm

#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 25.00 m  
 Overhang : 0.50 m  
 Abs. position : 13.50 m  
 Load/km : 4360 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 8.00 m  
 Tilt : 15.00 °  
 Glare index class : D2  
 Lum. intensity class : G\*1

#### Road

Width : 14.00 m Lanes : 4  
 Surface : R3, q0=0.07



#### Luminance

Calculation field: 25m x 14m (10 x 12 pts)

Observer

4 : x=-60.00m, y=12.25m, z=1.50m  
 3 : x=-60.00m, y=8.75m, z=1.50m  
 2 : x=-60.00m, y=5.25m, z=1.50m  
 1 : x=-60.00m, y=1.75m, z=1.50m

| Lane        | $\bar{L}_m$                   | $U_o$       | $U_l$       | $ft_l$    | $RE_l$      |
|-------------|-------------------------------|-------------|-------------|-----------|-------------|
| 4:(y=12.25) | 1.16 cd/m <sup>2</sup>        | 0.45        | 0.81        | 11        | 0.61        |
| 3:(y=8.75)  | 1.23 cd/m <sup>2</sup>        | 0.43        | 0.79        | 10        |             |
| 2:(y=5.25)  | 1.30 cd/m <sup>2</sup>        | 0.42        | 0.80        | 7         |             |
| 1:(y=1.75)  | 1.36 cd/m <sup>2</sup>        | 0.41        | 0.93        | 4         | 0.60        |
| M3          | $\geq 1.00$ cd/m <sup>2</sup> | $\geq 0.40$ | $\geq 0.60$ | $\leq 15$ | $\geq 0.30$ |

#### Illuminance

Calculation field: 25m x 14m (10 x 12 pts)

Object : Modernizacja Biała Podlaska  
Installation : Oprawy drogowe  
Project number :  
Date : 28.04.2023



## 1 36

### 1.1 Summary, 36

#### 1.1.1 Result overview, 36

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 22 lx       | 11.2 lx   | 0.52  | 0.32  |

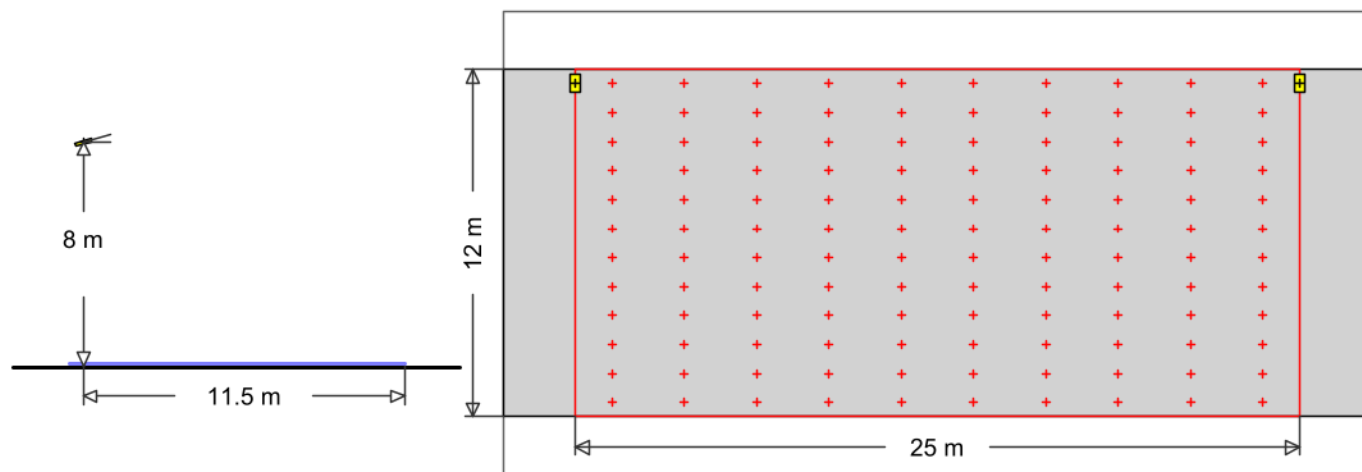
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 2 37

### 2.1 Summary, 37

#### 2.1.1 Result overview, 37



37



Order No.  
Luminaire name

Equipment

109 W / 14446 lm

#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 25.00 m  
 Overhang : 0.50 m  
 Abs. position : 11.50 m  
 Load/km : 4360 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 8.00 m  
 Tilt : 15.00 °  
 Glare index class : D2  
 Lum. intensity class : G\*1

#### Road

Width : 12.00 m Lanes : 4  
 Surface : R3, q0=0.07



#### Luminance

Calculation field: 25m x 12m (10 x 12 pts)

Observer

4 : x=-60.00m, y=10.50m, z=1.50m  
 3 : x=-60.00m, y=7.50m, z=1.50m  
 2 : x=-60.00m, y=4.50m, z=1.50m  
 1 : x=-60.00m, y=1.50m, z=1.50m

| Lane        | $\bar{L}_m$               | $U_o$   | $U_l$   | $f_{TI}$ | $REI$   |
|-------------|---------------------------|---------|---------|----------|---------|
| 4:(y=10.50) | 1.25 cd/m <sup>2</sup>    | 0.53    | 0.82    | 10       | 0.65    |
| 3:(y=7.50)  | 1.32 cd/m <sup>2</sup>    | 0.52    | 0.78    | 10       |         |
| 2:(y=4.50)  | 1.39 cd/m <sup>2</sup>    | 0.51    | 0.81    | 8        |         |
| 1:(y=1.50)  | 1.44 cd/m <sup>2</sup>    | 0.50    | 0.84    | 5        | 0.71    |
| M3          | >= 1.00 cd/m <sup>2</sup> | >= 0.40 | >= 0.60 | <= 15    | >= 0.30 |

#### Illuminance

Calculation field: 25m x 12m (10 x 12 pts)

Object : Modernizacja Biała Podlaska  
Installation : Oprawy drogowe  
Project number :  
Date : 28.04.2023



## 2 37

### 2.1 Summary, 37

#### 2.1.1 Result overview, 37

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 23 lx       | 13.9 lx   | 0.61  | 0.40  |

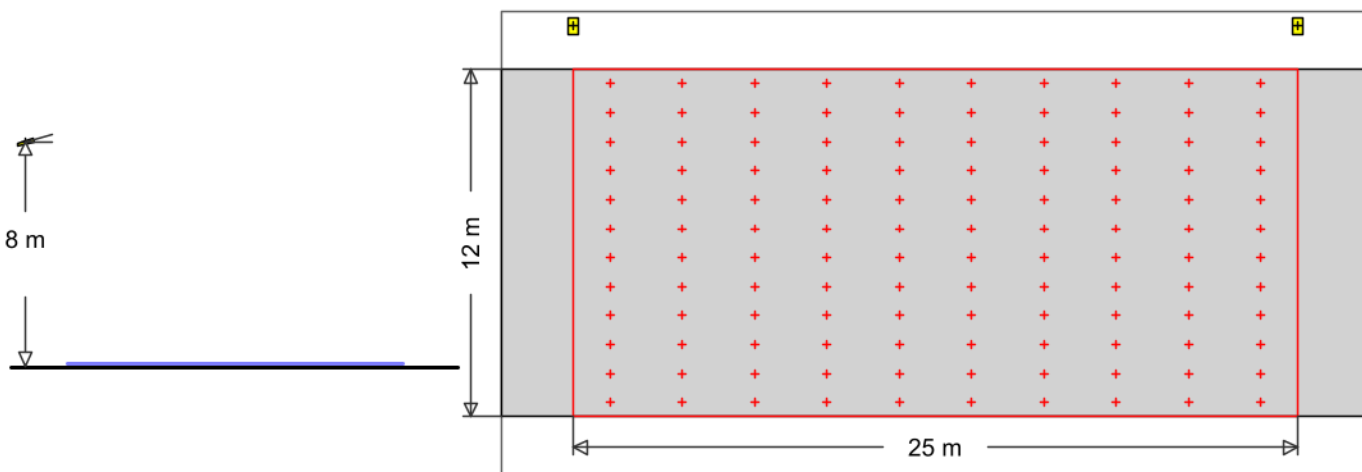
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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### 3 38

#### 3.1 Summary, 38

##### 3.1.1 Result overview, 38



37



Order No.  
Luminaire name

Equipment

109 W / 14446 lm

#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 25.00 m  
 Overhang : -1.50 m  
 Abs. position : 13.50 m  
 Load/km : 4360 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 8.00 m  
 Tilt : 15.00 °  
 Glare index class : D2  
 Lum. intensity class : G\*1

#### Road

Width : 12.00 m Lanes : 4  
 Surface : R3, q0=0.07



#### Luminance

Calculation field: 25m x 12m (10 x 12 pts)

Observer

4 : x=-60.00m, y=10.50m, z=1.50m  
 3 : x=-60.00m, y=7.50m, z=1.50m  
 2 : x=-60.00m, y=4.50m, z=1.50m  
 1 : x=-60.00m, y=1.50m, z=1.50m

| Lane        | $\bar{L}_m$               | $U_o$   | $U_i$   | $f_{TI}$ | $REI$   |
|-------------|---------------------------|---------|---------|----------|---------|
| 4:(y=10.50) | 1.08 cd/m <sup>2</sup>    | 0.48    | 0.78    | 12       | 0.85    |
| 3:(y=7.50)  | 1.16 cd/m <sup>2</sup>    | 0.45    | 0.82    | 10       |         |
| 2:(y=4.50)  | 1.25 cd/m <sup>2</sup>    | 0.43    | 0.81    | 6        |         |
| 1:(y=1.50)  | 1.33 cd/m <sup>2</sup>    | 0.42    | 0.93    | 4        | 0.64    |
| M3          | >= 1.00 cd/m <sup>2</sup> | >= 0.40 | >= 0.60 | <= 15    | >= 0.30 |

#### Illuminance

Calculation field: 25m x 12m (10 x 12 pts)

Object : Modernizacja Biała Podlaska  
Installation : Oprawy drogowe  
Project number :  
Date : 28.04.2023



### **3 38**

#### **3.1 Summary, 38**

##### **3.1.1 Result overview, 38**

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 21 lx       | 11.0 lx   | 0.52  | 0.32  |

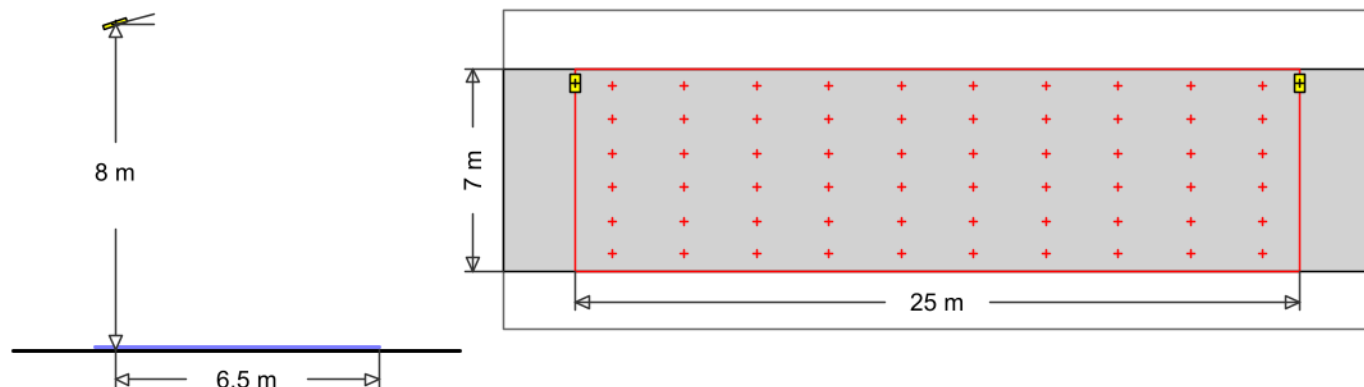
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 4 39

### 4.1 Summary, 39

#### 4.1.1 Result overview, 39



37



Order No.  
Luminaire name

Equipment

109 W / 14446 lm

#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 25.00 m  
 Overhang : 0.50 m  
 Abs. position : 6.50 m  
 Load/km : 4360 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot centre) : 8.00 m  
 Tilt : 15.00 °  
 Glare index class : D2  
 Lum. intensity class : G\*1

#### Road

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



#### Luminance

Calculation field: 25m x 7m (10 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       | $\bar{L}_m$               | $U_o$   | $U_l$   | $ft_l$ | $RE_l$  |
|------------|---------------------------|---------|---------|--------|---------|
| 2:(y=5.25) | 1.57 cd/m <sup>2</sup>    | 0.64    | 0.81    | 8      | 0.61    |
| 1:(y=1.75) | 1.68 cd/m <sup>2</sup>    | 0.63    | 0.79    | 8      | 0.80    |
| M3         | >= 1.00 cd/m <sup>2</sup> | >= 0.40 | >= 0.60 | <= 15  | >= 0.30 |

#### Illuminance

Calculation field: 25m x 7m (10 x 6 pts)

| $E_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------|-----------|-------|-------|
| 26 lx | 14.1 lx   | 0.55  | 0.41  |

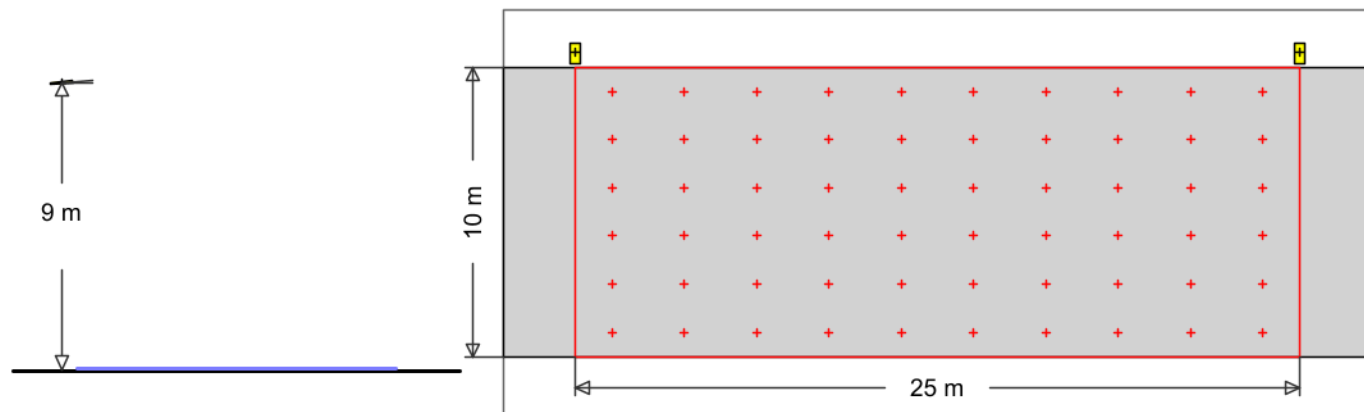
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 5 40

### 5.1 Summary, 40

#### 5.1.1 Result overview, 40



46



Order No.  
Luminaire name

Equipment

132 W / 19636 lm

#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 25.00 m  
 Overhang : -0.50 m  
 Abs. position : 10.50 m  
 Load/km : 5280 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 9.00 m  
 Tilt : 5.00 °  
 Glare index class : D4  
 Lum. intensity class : G\*4

#### Road

Width : 10.00 m Lanes : 2  
 Surface : R3, q0=0.07



#### Luminance

Calculation field: 25m x 10m (10 x 6 pts)

Observer

2 : x=-60.00m, y=7.50m, z=1.50m

1 : x=-60.00m, y=2.50m, z=1.50m

| Lane       | $\bar{L}_m$                   | $U_o$       | $U_l$       | $ft_l$    | $RE_l$      |
|------------|-------------------------------|-------------|-------------|-----------|-------------|
| 2:(y=7.50) | 1.82 cd/m <sup>2</sup>        | 0.55        | 0.73        | 8         | 0.68        |
| 1:(y=2.50) | 2.01 cd/m <sup>2</sup>        | 0.51        | 0.86        | 5         | 0.44        |
| M2         | $\geq 1.50$ cd/m <sup>2</sup> | $\geq 0.40$ | $\geq 0.70$ | $\leq 10$ | $\geq 0.35$ |

#### Illuminance

Calculation field: 25m x 10m (10 x 6 pts)

| $E_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------|-----------|-------|-------|
| 33 lx | 22 lx     | 0.68  | 0.54  |



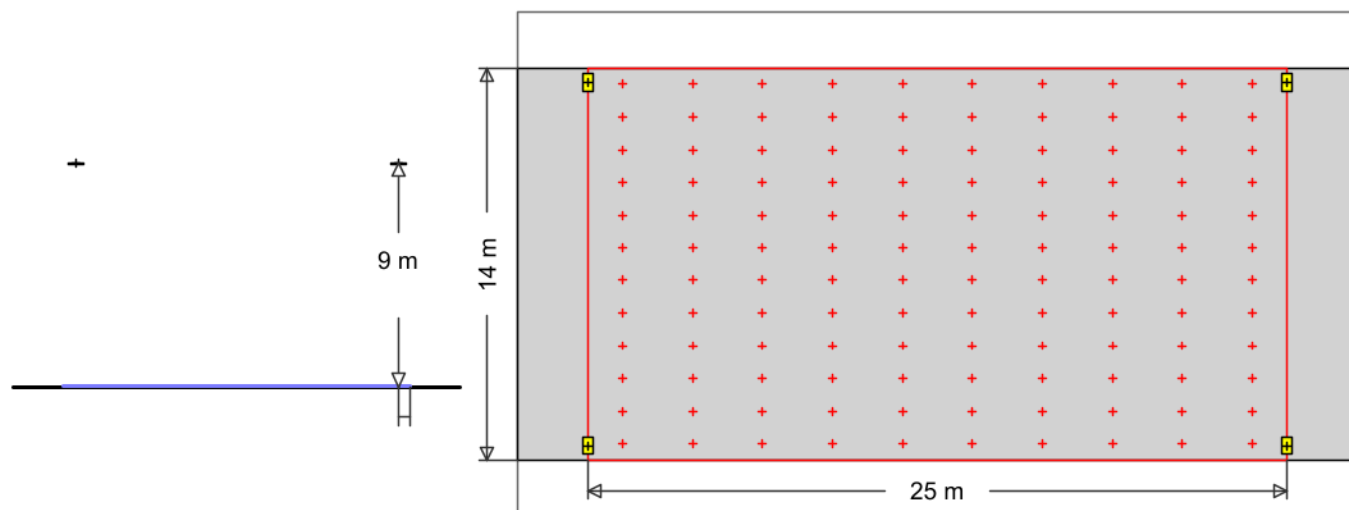
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 6 41

### 6.1 Summary, 41

#### 6.1.1 Result overview, 41



30



Order No.  
Luminaire name

Equipment

55 W / 8524 lm

#### MyLumRow

|                          |              |                       |          |
|--------------------------|--------------|-----------------------|----------|
| Luminaire placing        | : Both sides | Maintenance factor    | : 0.80   |
| Luminaire spacing        | : 25.00 m    | Height (phot. centre) | : 9.00 m |
| Overhang                 | : 0.50 m     | Tilt                  | : 0.00 ° |
| Abs. position            | : 0.50 m     | Glare index class     | : D5     |
| Load/km                  | : 4400 W/km  | Lum. intensity class  | : G*2    |
| Upward light ratio (ULR) | : 0.00       |                       |          |

#### Road

|         |               |       |     |
|---------|---------------|-------|-----|
| Width   | : 14.00 m     | Lanes | : 4 |
| Surface | : R3, q0=0.07 |       |     |



#### Luminance

Calculation field: 25m x 14m (10 x 12 pts)

Observer

|   |                                |
|---|--------------------------------|
| 4 | : x=-60.00m, y=12.25m, z=1.50m |
| 3 | : x=-60.00m, y=8.75m, z=1.50m  |
| 2 | : x=-60.00m, y=5.25m, z=1.50m  |
| 1 | : x=-60.00m, y=1.75m, z=1.50m  |

| Lane        | $\bar{L}_m$               | $U_o$   | $U_l$   | $ft_l$ | $REI$   |
|-------------|---------------------------|---------|---------|--------|---------|
| 4:(y=12.25) | 1.69 cd/m <sup>2</sup>    | 0.63    | 0.91    | 8      | 0.68    |
| 3:(y=8.75)  | 1.71 cd/m <sup>2</sup>    | 0.73    | 0.87    | 10     |         |
| 2:(y=5.25)  | 1.71 cd/m <sup>2</sup>    | 0.73    | 0.87    | 10     |         |
| 1:(y=1.75)  | 1.69 cd/m <sup>2</sup>    | 0.63    | 0.91    | 8      | 0.68    |
| M2          | >= 1.50 cd/m <sup>2</sup> | >= 0.40 | >= 0.70 | <= 10  | >= 0.35 |

#### Illuminance

Calculation field: 25m x 14m (10 x 12 pts)

Object : Modernizacja Biała Podlaska  
Installation : Oprawy drogowe  
Project number :  
Date : 28.04.2023



## 6 41

### 6.1 Summary, 41

#### 6.1.1 Result overview, 41

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 24 lx       | 15.6 lx   | 0.66  | 0.58  |

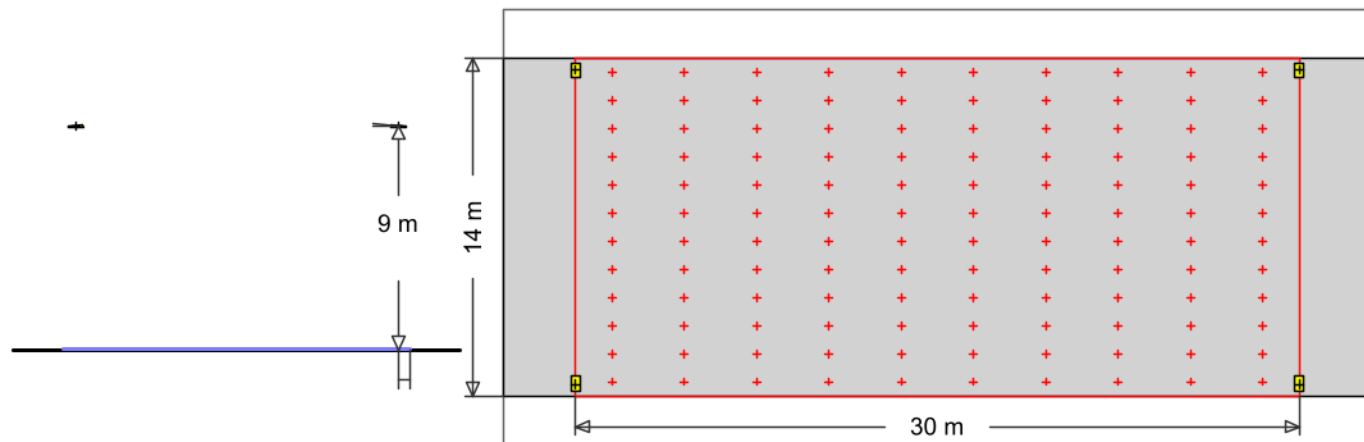
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 7 42

### 7.1 Summary, 42

#### 7.1.1 Result overview, 42



42



Order No.  
Luminaire name

Equipment

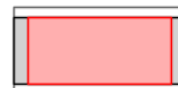
55 W / 8447 lm

#### MyLumRow

|                          |              |                       |          |
|--------------------------|--------------|-----------------------|----------|
| Luminaire placing        | : Both sides | Maintenance factor    | : 0.80   |
| Luminaire spacing        | : 30.00 m    | Height (phot. centre) | : 9.00 m |
| Overhang                 | : 0.50 m     | Tilt                  | : 5.00 ° |
| Abs. position            | : 0.50 m     | Glare index class     | : D4     |
| Load/km                  | : 3667 W/km  | Lum. intensity class  | : n/a    |
| Upward light ratio (ULR) | : 0.00       |                       |          |

#### Road

|         |               |       |     |
|---------|---------------|-------|-----|
| Width   | : 14.00 m     | Lanes | : 4 |
| Surface | : R3, q0=0.07 |       |     |



#### Luminance

Calculation field: 30m x 14m (10 x 12 pts)

Observer

|   |                                |
|---|--------------------------------|
| 4 | : x=-60.00m, y=12.25m, z=1.50m |
| 3 | : x=-60.00m, y=8.75m, z=1.50m  |
| 2 | : x=-60.00m, y=5.25m, z=1.50m  |
| 1 | : x=-60.00m, y=1.75m, z=1.50m  |

| Lane        | $L_m$                     | $U_o$   | $U_l$   | $ftI$ | $REI$   |
|-------------|---------------------------|---------|---------|-------|---------|
| 4:(y=12.25) | 1.67 cd/m <sup>2</sup>    | 0.45    | 0.82    | 7     | 0.39    |
| 3:(y=8.75)  | 1.69 cd/m <sup>2</sup>    | 0.52    | 0.92    | 9     |         |
| 2:(y=5.25)  | 1.69 cd/m <sup>2</sup>    | 0.52    | 0.92    | 9     |         |
| 1:(y=1.75)  | 1.67 cd/m <sup>2</sup>    | 0.45    | 0.82    | 7     | 0.39    |
| M2          | >= 1.50 cd/m <sup>2</sup> | >= 0.40 | >= 0.70 | <= 10 | >= 0.35 |

#### Illuminance

Calculation field: 30m x 14m (10 x 12 pts)

Object : Modernizacja Biała Podlaska  
Installation : Oprawy drogowe  
Project number :  
Date : 28.04.2023



## 7 42

### 7.1 Summary, 42

#### 7.1.1 Result overview, 42

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 24 lx       | 7.87 lx   | 0.32  | 0.21  |

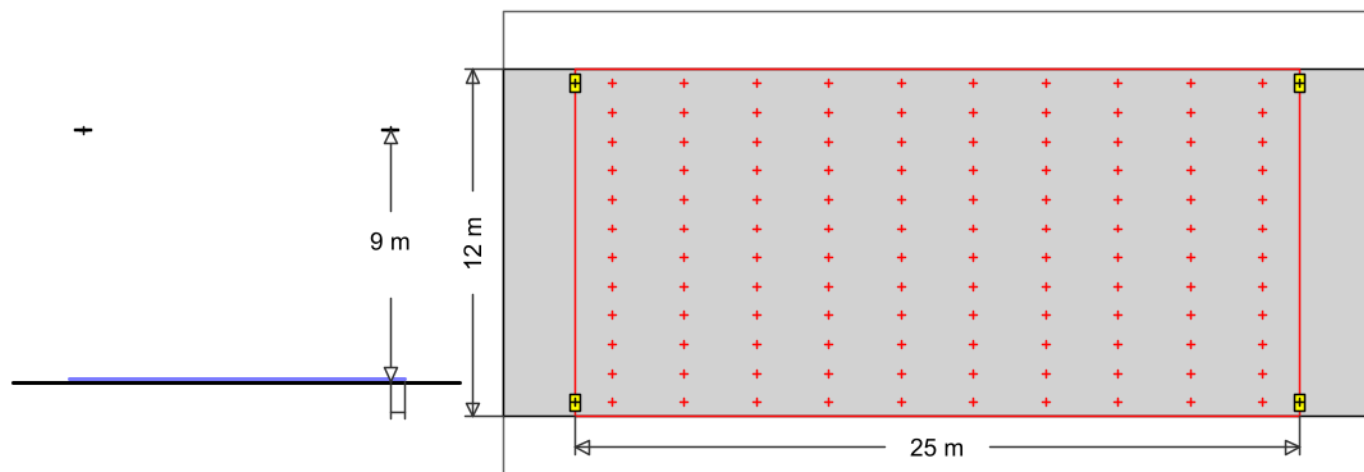
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 8 43

### 8.1 Summary, 43

#### 8.1.1 Result overview, 43



30



Order No.  
Luminaire name

Equipment

55 W / 8524 lm

#### MyLumRow

Luminaire placing : Both sides  
 Luminaire spacing : 25.00 m  
 Overhang : 0.50 m  
 Abs. position : 0.50 m  
 Load/km : 4400 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 9.00 m  
 Tilt : 0.00 °  
 Glare index class : D5  
 Lum. intensity class : G\*2

#### Road

Width : 12.00 m Lanes : 4  
 Surface : R3, q0=0.07



#### Luminance

Calculation field: 25m x 12m (10 x 12 pts)

Observer

4 : x=-60.00m, y=10.50m, z=1.50m  
 3 : x=-60.00m, y=7.50m, z=1.50m  
 2 : x=-60.00m, y=4.50m, z=1.50m  
 1 : x=-60.00m, y=1.50m, z=1.50m

| Lane        | $\bar{L}_m$               | $U_o$   | $U_l$   | $f_{TI}$ | $R_{EI}$ |
|-------------|---------------------------|---------|---------|----------|----------|
| 4:(y=10.50) | 1.89 cd/m <sup>2</sup>    | 0.66    | 0.90    | 8        | 0.68     |
| 3:(y=7.50)  | 1.91 cd/m <sup>2</sup>    | 0.75    | 0.89    | 10       |          |
| 2:(y=4.50)  | 1.91 cd/m <sup>2</sup>    | 0.75    | 0.89    | 10       |          |
| 1:(y=1.50)  | 1.89 cd/m <sup>2</sup>    | 0.66    | 0.90    | 8        | 0.68     |
| M2          | >= 1.50 cd/m <sup>2</sup> | >= 0.40 | >= 0.70 | <= 10    | >= 0.35  |

#### Illuminance

Calculation field: 25m x 12m (10 x 12 pts)

Object : Modernizacja Biała Podlaska  
Installation : Oprawy drogowe  
Project number :  
Date : 28.04.2023



## 8 43

### 8.1 Summary, 43

#### 8.1.1 Result overview, 43

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 26 lx       | 19.3 lx   | 0.73  | 0.63  |

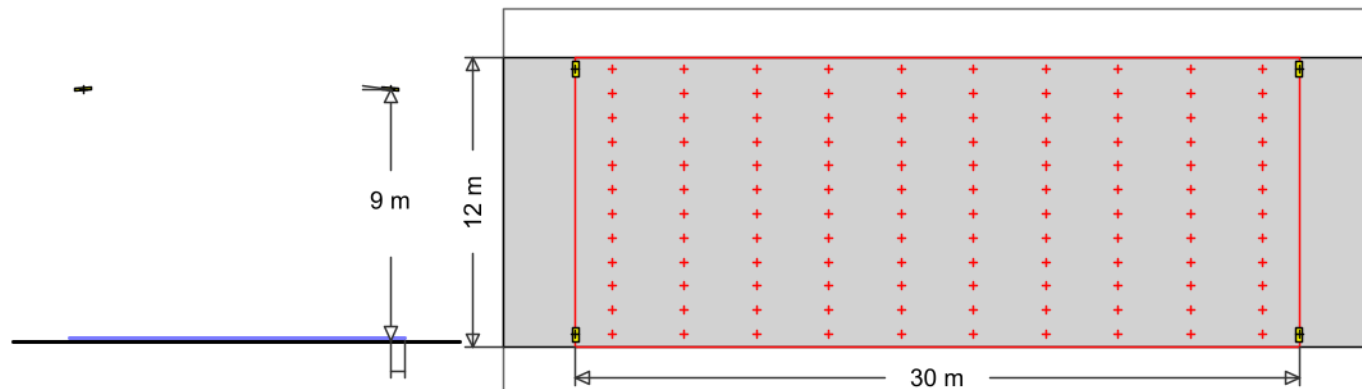
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 9 44

### 9.1 Summary, 44

#### 9.1.1 Result overview, 44



25

Order No.  
Luminaire name

Equipment

51.5 W / 6722 lm

#### MyLumRow

|                          |              |                       |          |
|--------------------------|--------------|-----------------------|----------|
| Luminaire placing        | : Both sides | Maintenance factor    | : 0.80   |
| Luminaire spacing        | : 30.00 m    | Height (phot. centre) | : 9.00 m |
| Overhang                 | : 0.50 m     | Tilt                  | : 5.00 ° |
| Abs. position            | : 0.50 m     | Glare index class     | : D4     |
| Load/km                  | : 3433 W/km  | Lum. intensity class  | : n/a    |
| Upward light ratio (ULR) | : 0.00       |                       |          |

#### Road

|         |               |       |     |
|---------|---------------|-------|-----|
| Width   | : 12.00 m     | Lanes | : 4 |
| Surface | : R3, q0=0.07 |       |     |



#### Luminance

Calculation field: 30m x 12m (10 x 12 pts)

Observer

|   |                                |
|---|--------------------------------|
| 4 | : x=-60.00m, y=10.50m, z=1.50m |
| 3 | : x=-60.00m, y=7.50m, z=1.50m  |
| 2 | : x=-60.00m, y=4.50m, z=1.50m  |
| 1 | : x=-60.00m, y=1.50m, z=1.50m  |

| Lane        | $\bar{L}_m$               | $U_o$   | $U_i$   | $ft_I$ | $REI$   |
|-------------|---------------------------|---------|---------|--------|---------|
| 4:(y=10.50) | 1.50 cd/m <sup>2</sup>    | 0.45    | 0.81    | 7      | 0.41    |
| 3:(y=7.50)  | 1.51 cd/m <sup>2</sup>    | 0.51    | 0.89    | 10     |         |
| 2:(y=4.50)  | 1.51 cd/m <sup>2</sup>    | 0.51    | 0.89    | 10     |         |
| 1:(y=1.50)  | 1.50 cd/m <sup>2</sup>    | 0.45    | 0.81    | 7      | 0.41    |
| M2          | >= 1.50 cd/m <sup>2</sup> | >= 0.40 | >= 0.70 | <= 10  | >= 0.35 |

#### Illuminance

Calculation field: 30m x 12m (10 x 12 pts)

Object : Modernizacja Biała Podlaska  
Installation : Oprawy drogowe  
Project number :  
Date : 28.04.2023



## 9 44

### 9.1 Summary, 44

#### 9.1.1 Result overview, 44

|             |           |       |       |
|-------------|-----------|-------|-------|
| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
| 22 lx       | 6.90 lx   | 0.31  | 0.20  |



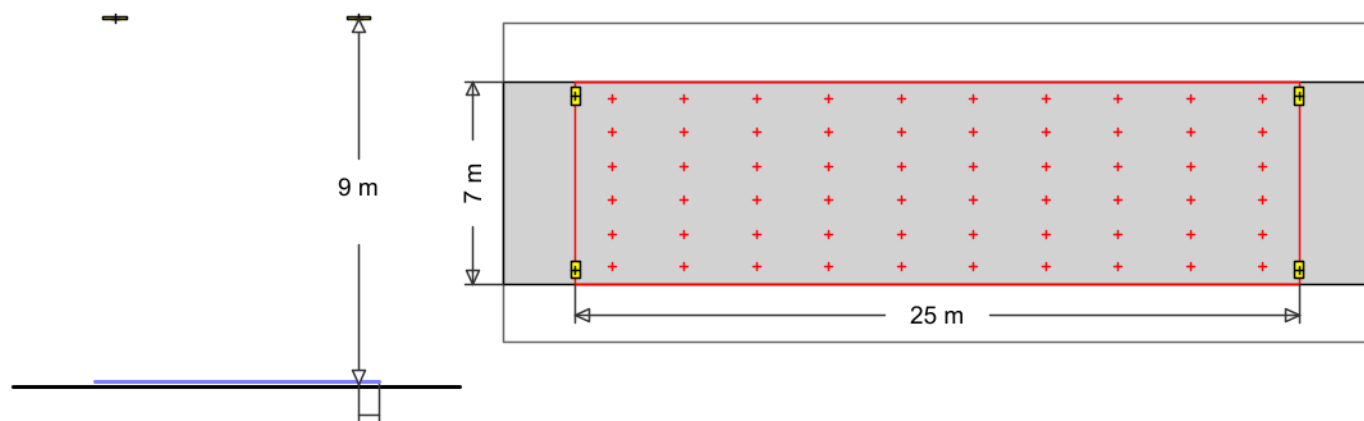
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 10 45

### 10.1 Summary, 45

#### 10.1.1 Result overview, 45



9 Order No.  
 Luminaire name  
 Equipment

38.8 W / 5457 lm

#### MyLumRow

|                          |              |                      |          |
|--------------------------|--------------|----------------------|----------|
| Luminaire placing        | : Both sides | Maintenance factor   | : 0.80   |
| Luminaire spacing        | : 25.00 m    | Height (phot centre) | : 9.00 m |
| Overhang                 | : 0.50 m     | Tilt                 | : 0.00 ° |
| Abs. position            | : 0.50 m     | Glare index class    | : D6     |
| Load/km                  | : 3104 W/km  | Lum. intensity class | : G*3    |
| Upward light ratio (ULR) | : 0.00       |                      |          |

#### Road

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



#### Luminance

Calculation field: 25m x 7m (10 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       | $\bar{L}_m$               | $U_o$   | $U_l$   | $ftI$ | $REI$   |
|------------|---------------------------|---------|---------|-------|---------|
| 2:(y=5.25) | 1.55 cd/m <sup>2</sup>    | 0.84    | 0.90    | 9     | 0.82    |
| 1:(y=1.75) | 1.55 cd/m <sup>2</sup>    | 0.84    | 0.90    | 9     | 0.82    |
| M2         | >= 1.50 cd/m <sup>2</sup> | >= 0.40 | >= 0.70 | <= 10 | >= 0.35 |

#### Illuminance

Calculation field: 25m x 7m (10 x 6 pts)

| $E_m$   | $E_{min}$ | $U_o$ | $U_d$ |
|---------|-----------|-------|-------|
| 20.0 lx | 15.9 lx   | 0.80  | 0.69  |

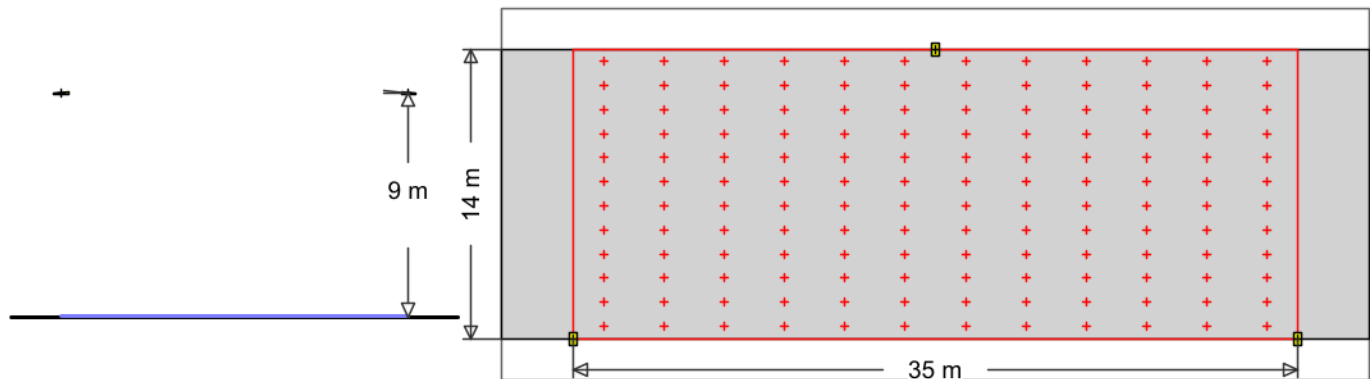
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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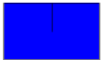
## 11 46

### 11.1 Summary, 46

#### 11.1.1 Result overview, 46



43



Order No.  
Luminaire name

Equipment

68 W / 9994 lm

#### MyLumRow

|                          |                    |                       |          |
|--------------------------|--------------------|-----------------------|----------|
| Luminaire placing        | : Staggered layout | Maintenance factor    | : 0.80   |
| Luminaire spacing        | : 35.00 m          | Height (phot. centre) | : 9.00 m |
| Overhang                 | : 0.00 m           | Tilt                  | : 5.00 ° |
| Abs. position            | : 0.00 m           | Glare index class     | : D4     |
| Load/km                  | : 3886 W/km        | Lum. intensity class  | : n/a    |
| Upward light ratio (ULR) | : 0.00             |                       |          |

#### Road

|         |               |       |     |
|---------|---------------|-------|-----|
| Width   | : 14.00 m     | Lanes | : 4 |
| Surface | : R3, q0=0.07 |       |     |



#### Luminance

Calculation field: 35m x 14m (12 x 12 pts)

Observer

|   |                                |
|---|--------------------------------|
| 4 | : x=-60.00m, y=12.25m, z=1.50m |
| 3 | : x=-60.00m, y=8.75m, z=1.50m  |
| 2 | : x=-60.00m, y=5.25m, z=1.50m  |
| 1 | : x=-60.00m, y=1.75m, z=1.50m  |

| Lane        | $\bar{L}_m$               | $U_o$   | $U_l$   | $ft_l$ | $RE_l$  |
|-------------|---------------------------|---------|---------|--------|---------|
| 4:(y=12.25) | 1.64 cd/m <sup>2</sup>    | 0.53    | 0.84    | 10     | 0.44    |
| 3:(y=8.75)  | 1.66 cd/m <sup>2</sup>    | 0.65    | 0.85    | 9      |         |
| 2:(y=5.25)  | 1.66 cd/m <sup>2</sup>    | 0.71    | 0.85    | 9      |         |
| 1:(y=1.75)  | 1.65 cd/m <sup>2</sup>    | 0.61    | 0.84    | 10     | 0.44    |
| M2          | >= 1.50 cd/m <sup>2</sup> | >= 0.40 | >= 0.70 | <= 10  | >= 0.35 |

#### Illuminance

Calculation field: 35m x 14m (12 x 12 pts)

Object : Modernizacja Biała Podlaska  
Installation : Oprawy drogowe  
Project number :  
Date : 28.04.2023



## 11 46

### 11.1 Summary, 46

#### 11.1.1 Result overview, 46

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 24 lx       | 8.37 lx   | 0.35  | 0.22  |

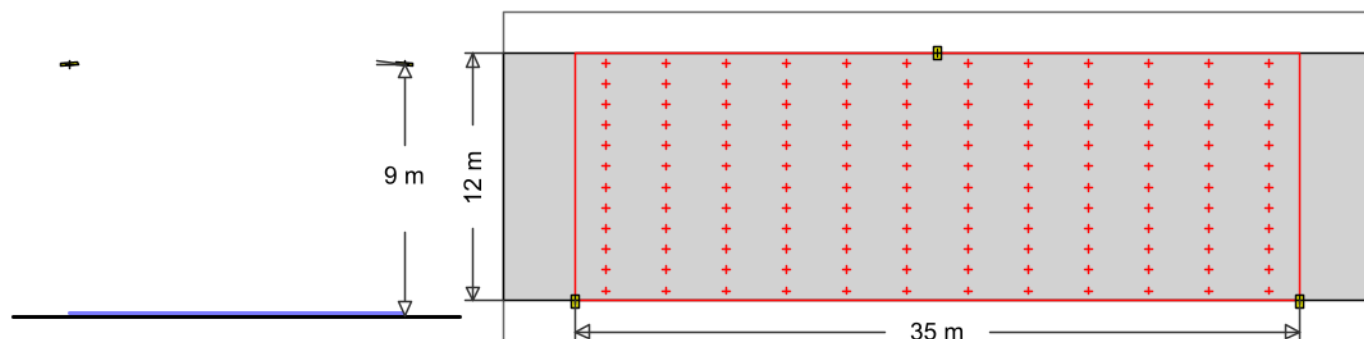
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 12 47

### 12.1 Summary, 47

#### 12.1.1 Result overview, 47



31



Order No.  
Luminaire name

Equipment

68 W / 10085 lm

#### MyLumRow

|                          |                    |                       |          |
|--------------------------|--------------------|-----------------------|----------|
| Luminaire placing        | : Staggered layout | Maintenance factor    | : 0.80   |
| Luminaire spacing        | : 35.00 m          | Height (phot. centre) | : 9.00 m |
| Overhang                 | : 0.00 m           | Tilt                  | : 5.00 ° |
| Abs. position            | : 0.00 m           | Glare index class     | : D3     |
| Load/km                  | : 3886 W/km        | Lum. intensity class  | : G*1    |
| Upward light ratio (ULR) | : 0.00             |                       |          |

#### Road

|         |               |       |     |
|---------|---------------|-------|-----|
| Width   | : 12.00 m     | Lanes | : 4 |
| Surface | : R3, q0=0.07 |       |     |



#### Luminance

Calculation field: 35m x 12m (12 x 12 pts)

Observer

|   |                                |
|---|--------------------------------|
| 4 | : x=-60.00m, y=10.50m, z=1.50m |
| 3 | : x=-60.00m, y=7.50m, z=1.50m  |
| 2 | : x=-60.00m, y=4.50m, z=1.50m  |
| 1 | : x=-60.00m, y=1.50m, z=1.50m  |

| Lane        | $\bar{L}_m$               | $U_o$   | $U_l$   | $f_{TI}$ | $REI$   |
|-------------|---------------------------|---------|---------|----------|---------|
| 4:(y=10.50) | 1.53 cd/m <sup>2</sup>    | 0.70    | 0.83    | 9        | 0.74    |
| 3:(y=7.50)  | 1.55 cd/m <sup>2</sup>    | 0.76    | 0.87    | 10       |         |
| 2:(y=4.50)  | 1.55 cd/m <sup>2</sup>    | 0.76    | 0.87    | 10       |         |
| 1:(y=1.50)  | 1.53 cd/m <sup>2</sup>    | 0.75    | 0.83    | 9        | 0.74    |
| M2          | >= 1.50 cd/m <sup>2</sup> | >= 0.40 | >= 0.70 | <= 10    | >= 0.35 |

#### Illuminance

Calculation field: 35m x 12m (12 x 12 pts)

Object : Modernizacja Biała Podlaska  
Installation : Oprawy drogowe  
Project number :  
Date : 28.04.2023



## 12 47

### 12.1 Summary, 47

#### 12.1.1 Result overview, 47

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 22 lx       | 13.6 lx   | 0.63  | 0.47  |

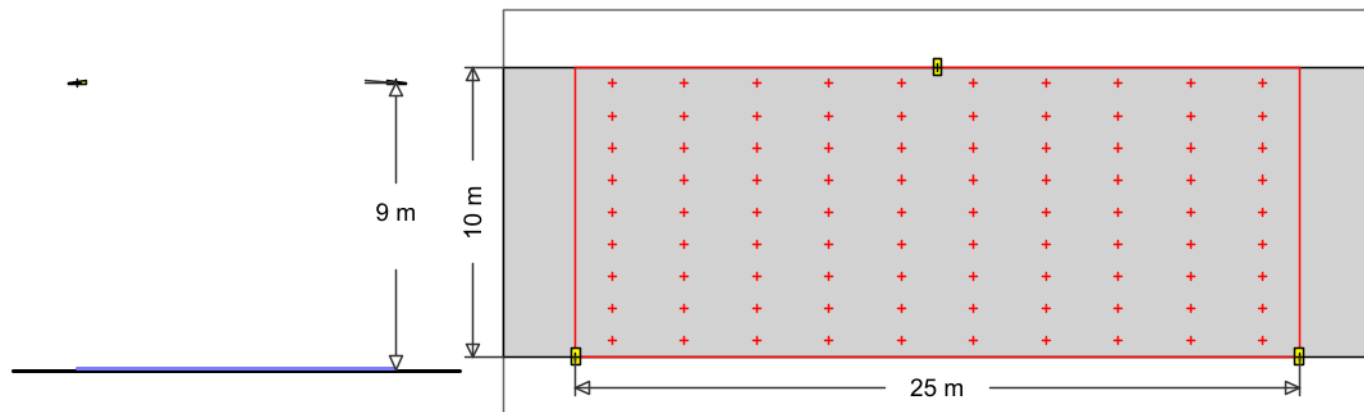
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 13 48

### 13.1 Summary, 48

#### 13.1.1 Result overview, 48



10

Order No.  
Luminaire name

Equipment

51.5 W / 6806 lm

#### MyLumRow

Luminaire placing : Staggered layout  
 Luminaire spacing : 25.00 m  
 Overhang : 0.00 m  
 Abs. position : 0.00 m  
 Load/km : 4120 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 9.00 m  
 Tilt : 5.00 °  
 Glare index class : D4  
 Lum. intensity class : G\*2

#### Road

Width : 10.00 m Lanes : 3  
 Surface : R3, q0=0.07



#### Luminance

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

Observer

3 : x=-60.00m, y=8.33m, z=1.50m

2 : x=-60.00m, y=5.00m, z=1.50m

1 : x=-60.00m, y=1.67m, z=1.50m

| Lane       | $\bar{L}_m$               | $U_o$   | $U_l$   | $f_{TI}$ | $REI$   |
|------------|---------------------------|---------|---------|----------|---------|
| 3:(y=8.33) | 1.57 cd/m <sup>2</sup>    | 0.82    | 0.90    | 7        | 0.76    |
| 2:(y=5.00) | 1.59 cd/m <sup>2</sup>    | 0.82    | 0.94    | 7        |         |
| 1:(y=1.67) | 1.57 cd/m <sup>2</sup>    | 0.83    | 0.90    | 7        | 0.76    |
| M2         | >= 1.50 cd/m <sup>2</sup> | >= 0.40 | >= 0.70 | <= 10    | >= 0.35 |

#### Illuminance

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

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 22 lx       | 18.4 lx   | 0.84  | 0.72  |

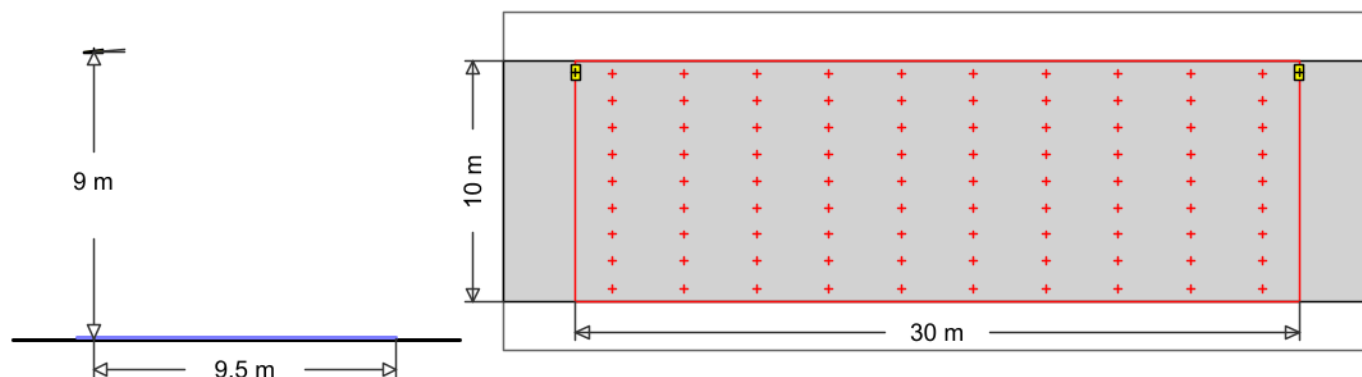
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 14 49

### 14.1 Summary, 49

#### 14.1.1 Result overview, 49



39



Order No.  
Luminaire name

Equipment

68 W / 9851 lm

#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 30.00 m  
 Overhang : 0.50 m  
 Abs. position : 9.50 m  
 Load/km : 2267 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 9.00 m  
 Tilt : 5.00 °  
 Glare index class : D4  
 Lum. intensity class : G\*2

#### Road

Width : 10.00 m Lanes : 3  
 Surface : R3, q0=0.07



#### Luminance

Calculation field: 30m x 10m (10 x 9 pts)

Observer

3 : x=-60.00m, y=8.33m, z=1.50m

2 : x=-60.00m, y=5.00m, z=1.50m

1 : x=-60.00m, y=1.67m, z=1.50m

| Lane       | $\bar{L}_m$               | $U_o$   | $U_l$   | $f_{TI}$ | $REI$   |
|------------|---------------------------|---------|---------|----------|---------|
| 3:(y=8.33) | 1.00 cd/m <sup>2</sup>    | 0.50    | 0.85    | 10       | 0.53    |
| 2:(y=5.00) | 1.08 cd/m <sup>2</sup>    | 0.48    | 0.87    | 11       |         |
| 1:(y=1.67) | 1.15 cd/m <sup>2</sup>    | 0.46    | 0.79    | 5        | 0.43    |
| M3         | >= 1.00 cd/m <sup>2</sup> | >= 0.40 | >= 0.60 | <= 15    | >= 0.30 |

#### Illuminance

Calculation field: 30m x 10m (10 x 9 pts)

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 16.9 lx     | 6.95 lx   | 0.41  | 0.26  |

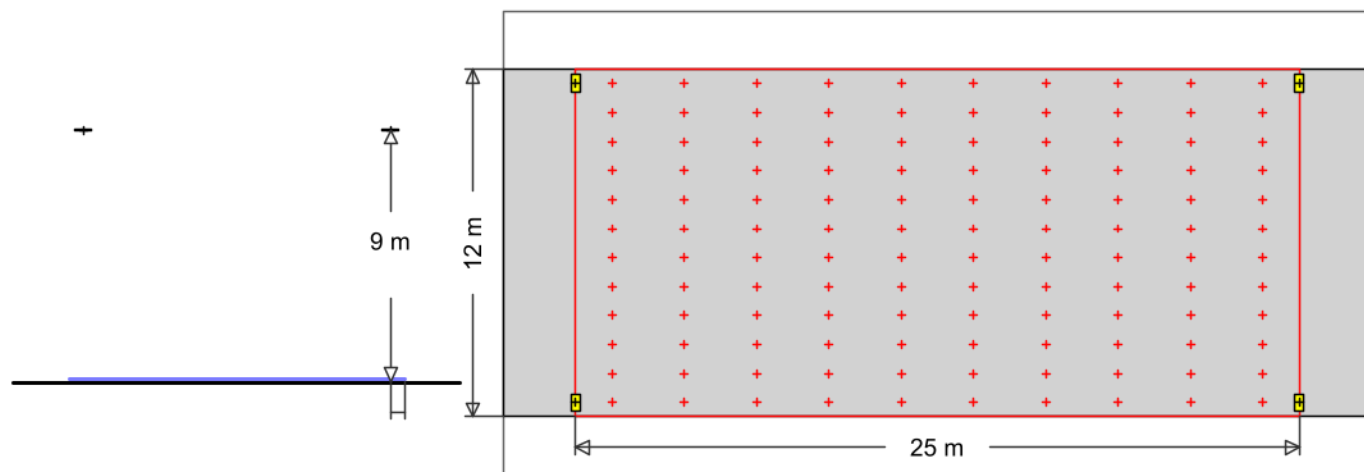
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 15 50

### 15.1 Summary, 50

#### 15.1.1 Result overview, 50



10

Order No.  
Luminaire name

Equipment

51.5 W / 6806 lm

#### MyLumRow

Luminaire placing : Both sides  
 Luminaire spacing : 25.00 m  
 Overhang : 0.50 m  
 Abs. position : 0.50 m  
 Load/km : 4120 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 9.00 m  
 Tilt : 0.00 °  
 Glare index class : D6  
 Lum. intensity class : G\*3

#### Road

Width : 12.00 m Lanes : 4  
 Surface : R3, q0=0.07



#### Luminance

Calculation field: 25m x 12m (10 x 12 pts)

Observer

4 : x=-60.00m, y=10.50m, z=1.50m  
 3 : x=-60.00m, y=7.50m, z=1.50m  
 2 : x=-60.00m, y=4.50m, z=1.50m  
 1 : x=-60.00m, y=1.50m, z=1.50m

| Lane        | $\bar{L}_m$               | $U_o$   | $U_i$   | $f_{TI}$ | $R_{EI}$ |
|-------------|---------------------------|---------|---------|----------|----------|
| 4:(y=10.50) | 1.48 cd/m <sup>2</sup>    | 0.67    | 0.91    | 8        | 0.68     |
| 3:(y=7.50)  | 1.50 cd/m <sup>2</sup>    | 0.76    | 0.87    | 9        |          |
| 2:(y=4.50)  | 1.50 cd/m <sup>2</sup>    | 0.76    | 0.87    | 9        |          |
| 1:(y=1.50)  | 1.48 cd/m <sup>2</sup>    | 0.67    | 0.91    | 8        | 0.68     |
| M3          | >= 1.00 cd/m <sup>2</sup> | >= 0.40 | >= 0.60 | <= 15    | >= 0.30  |

#### Illuminance

Calculation field: 25m x 12m (10 x 12 pts)



Object : Modernizacja Biała Podlaska  
Installation : Oprawy drogowe  
Project number :  
Date : 28.04.2023



## 15 50

### 15.1 Summary, 50

#### 15.1.1 Result overview, 50

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 21 lx       | 15.2 lx   | 0.72  | 0.62  |

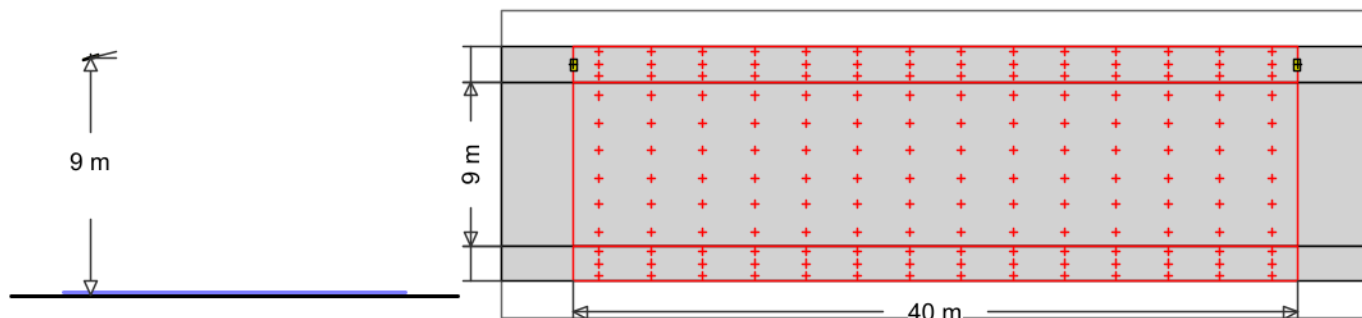
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 36 72

### 36.1 Summary, 72

#### 36.1.1 Result overview, 72



43



Order No.  
Luminaire name

Equipment

68 W / 9994 lm

#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 40.00 m  
 Overhang : -1.00 m  
 Abs. position : 10.00 m  
 Load/km : 1700 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 9.00 m  
 Tilt : 15.00 °  
 Glare index class : D1  
 Lum. intensity class : n/a

#### Road

Width : 9.00 m Lanes : 2  
 Surface : R3, q0=0.07



#### Luminance

Calculation field: 40m x 9m (14 x 6 pts)

Observer

2 : x=-60.00m, y=6.75m, z=1.50m

1 : x=-60.00m, y=2.25m, z=1.50m

| Lane       | $\bar{L}_m$                   | $U_o$       | $U_l$       | $ft_l$    | $RE_l$      |
|------------|-------------------------------|-------------|-------------|-----------|-------------|
| 2:(y=6.75) | 0.80 cd/m <sup>2</sup>        | 0.49        | 0.67        | 13        | 0.37        |
| 1:(y=2.25) | 0.92 cd/m <sup>2</sup>        | 0.45        | 0.80        | 8         | 0.40        |
| M4         | $\geq 0.75$ cd/m <sup>2</sup> | $\geq 0.40$ | $\geq 0.60$ | $\leq 15$ | $\geq 0.30$ |

#### Illuminance

Calculation field: 40m x 9m (14 x 6 pts)

| $E_m$   | $E_{min}$ | $U_o$ | $U_d$ |
|---------|-----------|-------|-------|
| 13.6 lx | 4.07 lx   | 0.30  | 0.13  |

Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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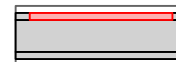
## 36 72

### 36.1 Summary, 72

#### 36.1.1 Result overview, 72

##### CH1 (General surface, left)

Width : 2.00 m  
 Kerb distance : 0.00 m Abs. position : 9.00 m



##### Illuminance

Calculation field: 40m x 2m (14 x 3 pts)

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 8.25 lx     | 1.14 lx    | 0.14  | 0.05  |
| P4 | >= 5.00 lx  | >= 1.00 lx |       |       |

##### CH1 (General surface, right)

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



##### Illuminance

Calculation field: 40m x 2m (14 x 3 pts)

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 6.35 lx     | 4.00 lx    | 0.63  | 0.39  |
| P4 | >= 5.00 lx  | >= 1.00 lx |       |       |

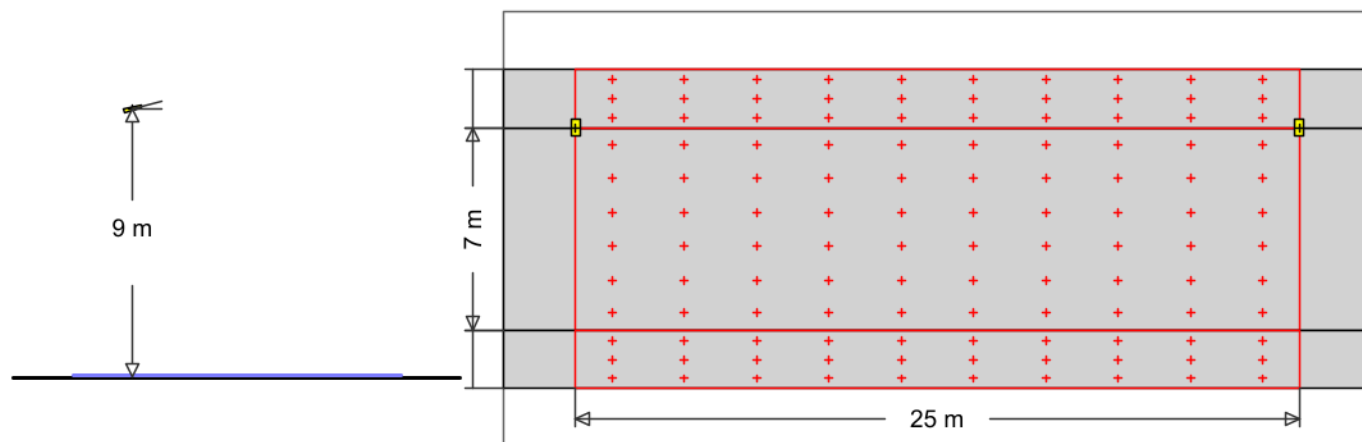
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 37 73

### 37.1 Summary, 73

#### 37.1.1 Result overview, 73



3 Order No.  
 Luminaire name  
 Equipment

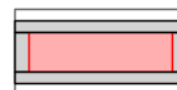
32.1 W / 4590 lm

#### MyLumRow

|                          |             |                       |           |
|--------------------------|-------------|-----------------------|-----------|
| Luminaire placing        | : Left row  | Maintenance factor    | : 0.80    |
| Luminaire spacing        | : 25.00 m   | Height (phot. centre) | : 9.00 m  |
| Overhang                 | : 0.00 m    | Tilt                  | : 15.00 ° |
| Abs. position            | : 7.00 m    | Glare index class     | : D5      |
| Load/km                  | : 1284 W/km | Lum. intensity class  | : n/a     |
| Upward light ratio (ULR) | : 0.00      |                       |           |

#### Road

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



#### Luminance

Calculation field: 25m x 7m (10 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       | $\bar{L}_m$               | $U_o$   | $U_l$   | $ft_l$ | $RE_l$  |
|------------|---------------------------|---------|---------|--------|---------|
| 2:(y=5.25) | 0.92 cd/m <sup>2</sup>    | 0.49    | 0.81    | 11     | 0.37    |
| 1:(y=1.75) | 1.03 cd/m <sup>2</sup>    | 0.48    | 0.77    | 8      | 0.37    |
| M4         | >= 0.75 cd/m <sup>2</sup> | >= 0.40 | >= 0.60 | <= 15  | >= 0.30 |

#### Illuminance

Calculation field: 25m x 7m (10 x 6 pts)

| $E_m$   | $E_{min}$ | $U_o$ | $U_d$ |
|---------|-----------|-------|-------|
| 12.2 lx | 6.90 lx   | 0.57  | 0.41  |

Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023



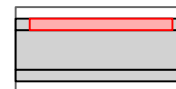
## 37 73

### 37.1 Summary, 73

#### 37.1.1 Result overview, 73

##### CH1 (General surface, left)

Width : 2.00 m  
 Kerb distance : 0.00 m Abs. position : 7.00 m



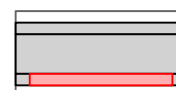
##### Illuminance

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

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 5.05 lx     | 3.39 lx    | 0.67  | 0.52  |
| P4 | >= 5.00 lx  | >= 1.00 lx |       |       |

##### CH1 (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)

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 5.72 lx     | 3.69 lx    | 0.64  | 0.44  |
| P4 | >= 5.00 lx  | >= 1.00 lx |       |       |

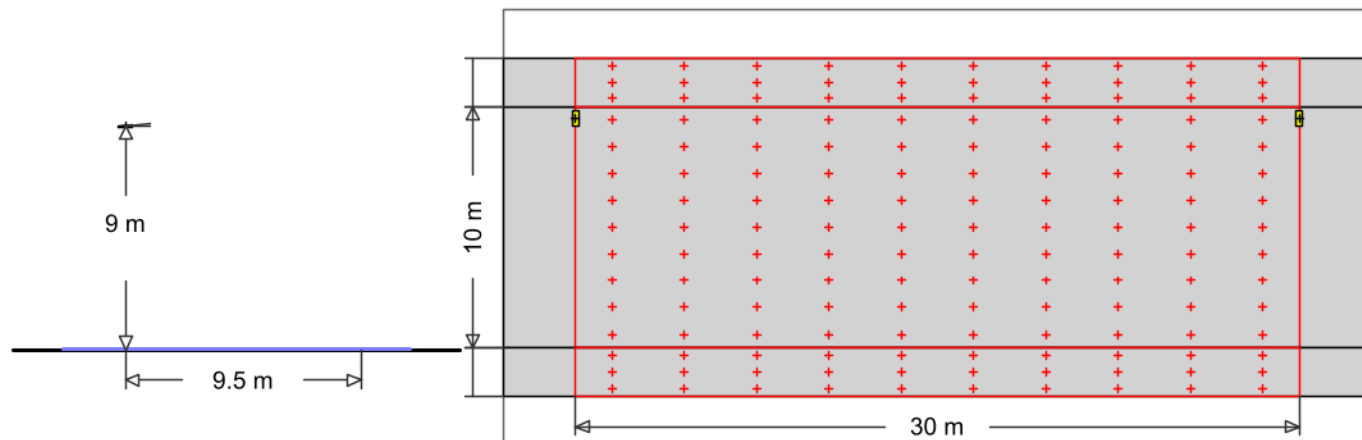
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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## 62 98

### 62.1 Summary, 98

#### 62.1.1 Result overview, 98



19



Order No.  
Luminaire name

Equipment

38.8 W / 5322 lm

#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 30.00 m  
 Overhang : 0.50 m  
 Abs. position : 9.50 m  
 Load/km : 1293 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 9.00 m  
 Tilt : 5.00 °  
 Glare index class : D5  
 Lum. intensity class : G\*2

#### Road

Width : 10.00 m Lanes : 3  
 Surface : R3, q0=0.07



#### Luminance

Calculation field: 30m x 10m (10 x 9 pts)

Observer

3 : x=-60.00m, y=8.33m, z=1.50m

2 : x=-60.00m, y=5.00m, z=1.50m

1 : x=-60.00m, y=1.67m, z=1.50m

| Lane       | $\bar{L}_m$               | $U_o$   | $U_l$   | $f_{TI}$ | $REI$   |
|------------|---------------------------|---------|---------|----------|---------|
| 3:(y=8.33) | 0.53 cd/m <sup>2</sup>    | 0.51    | 0.85    | 8        | 0.53    |
| 2:(y=5.00) | 0.57 cd/m <sup>2</sup>    | 0.49    | 0.87    | 9        |         |
| 1:(y=1.67) | 0.61 cd/m <sup>2</sup>    | 0.47    | 0.78    | 5        | 0.44    |
| M5         | >= 0.50 cd/m <sup>2</sup> | >= 0.35 | >= 0.40 | <= 15    | >= 0.30 |

#### Illuminance

Calculation field: 30m x 10m (10 x 9 pts)

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 9.06 lx     | 3.67 lx   | 0.41  | 0.25  |

Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

**RELUX®**

## 62 98

### 62.1 Summary, 98

#### 62.1.1 Result overview, 98

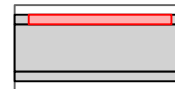
##### CH1 (General surface, left)

Width : 2.00 m  
 Kerb distance : 0.00 m Abs. position : 10.00 m

##### Illuminance

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

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 5.84 lx     | 2.13 lx    | 0.36  | 0.18  |
| P4 | >= 5.00 lx  | >= 1.00 lx |       |       |



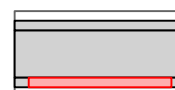
##### CH1 (General surface, right)

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

##### Illuminance

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

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 4.38 lx     | 3.24 lx    | 0.74  | 0.55  |
| P5 | >= 3.00 lx  | >= 0.60 lx |       |       |



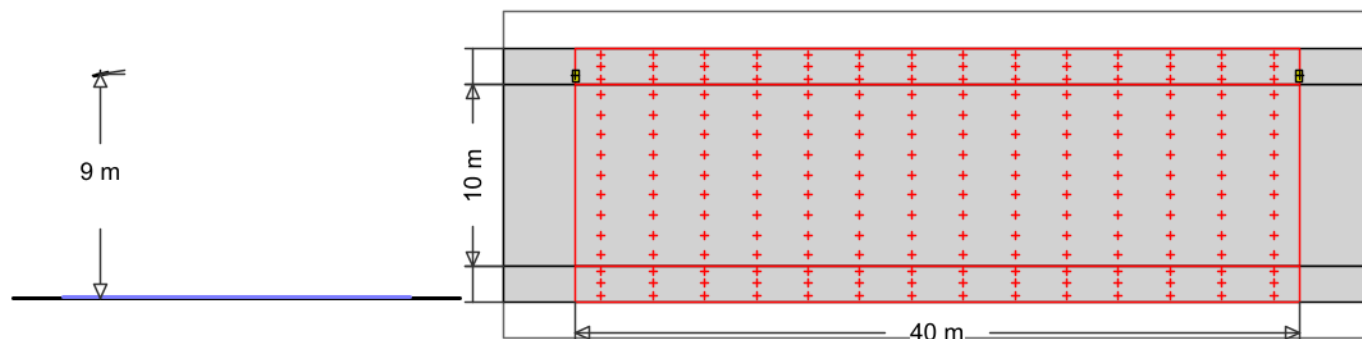
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

**RELUX®**

**63 99**

## 63.1 Summary, 99

### 63.1.1 Result overview, 99



38



Order No.  
Luminaire name

Equipment

55 W / 8326 lm

#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 40.00 m  
 Overhang : -0.50 m  
 Abs. position : 10.50 m  
 Load/km : 1375 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 9.00 m  
 Tilt : 10.00 °  
 Glare index class : D3  
 Lum. intensity class : n/a

#### Road

Width : 10.00 m Lanes : 3  
 Surface : R3, q0=0.07



#### Luminance

Calculation field: 40m x 10m (14 x 9 pts)

Observer

3 : x=-60.00m, y=8.33m, z=1.50m  
 2 : x=-60.00m, y=5.00m, z=1.50m  
 1 : x=-60.00m, y=1.67m, z=1.50m

| Lane       | $\bar{L}_m$               | $U_o$   | $U_l$   | $f_{Tl}$ | $REI$   |
|------------|---------------------------|---------|---------|----------|---------|
| 3:(y=8.33) | 0.57 cd/m <sup>2</sup>    | 0.53    | 0.71    | 13       | 0.58    |
| 2:(y=5.00) | 0.62 cd/m <sup>2</sup>    | 0.50    | 0.76    | 12       |         |
| 1:(y=1.67) | 0.67 cd/m <sup>2</sup>    | 0.48    | 0.75    | 6        | 0.53    |
| M5         | >= 0.50 cd/m <sup>2</sup> | >= 0.35 | >= 0.40 | <= 15    | >= 0.30 |

#### Illuminance

Calculation field: 40m x 10m (14 x 9 pts)

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 10.0 lx     | 3.16 lx   | 0.32  | 0.15  |



Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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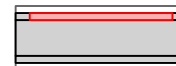
## 63 99

### 63.1 Summary, 99

#### 63.1.1 Result overview, 99

##### CH1 (General surface, left)

Width : 2.00 m  
 Kerb distance : 0.00 m Abs. position : 10.00 m



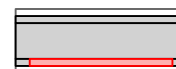
##### Illuminance

Calculation field: 40m x 2m (14 x 3 pts)

|    | $\bar{E}_m$    | $E_{min}$      | $U_o$ | $U_d$ |
|----|----------------|----------------|-------|-------|
|    | 7.35 lx        | 1.38 lx        | 0.19  | 0.07  |
| P4 | $\geq 5.00$ lx | $\geq 1.00$ lx |       |       |

##### CH1 (General surface, right)

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



##### Illuminance

Calculation field: 40m x 2m (14 x 3 pts)

|    | $\bar{E}_m$    | $E_{min}$      | $U_o$ | $U_d$ |
|----|----------------|----------------|-------|-------|
|    | 5.32 lx        | 3.64 lx        | 0.68  | 0.47  |
| P5 | $\geq 3.00$ lx | $\geq 0.60$ lx |       |       |

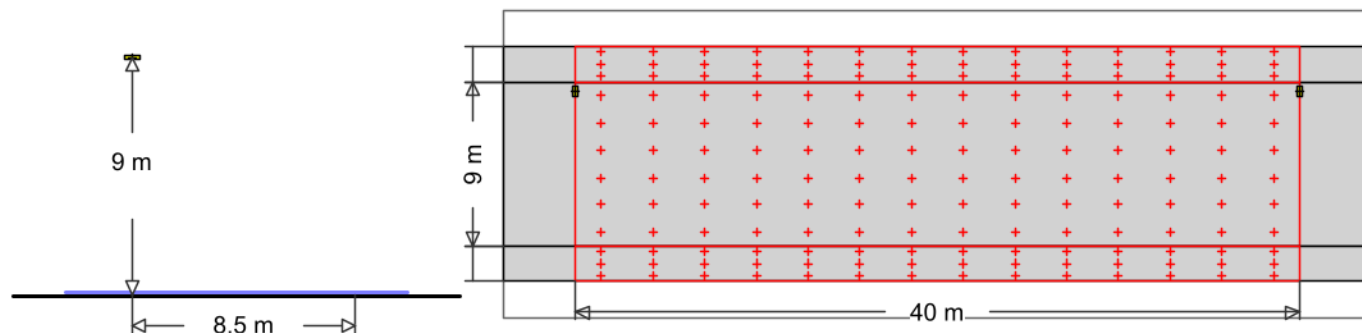
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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**64 100**

## 64.1 Summary, 100

### 64.1.1 Result overview, 100



10

Order No.  
Luminaire name

Equipment

51.5 W / 6806 lm

#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 40.00 m  
 Overhang : 0.50 m  
 Abs. position : 8.50 m  
 Load/km : 1288 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 9.00 m  
 Tilt : 0.00 °  
 Glare index class : D6  
 Lum. intensity class : G\*3

#### Road

Width : 9.00 m Lanes : 2  
 Surface : R3, q0=0.07



#### Luminance

Calculation field: 40m x 9m (14 x 6 pts)

Observer

2 : x=-60.00m, y=6.75m, z=1.50m

1 : x=-60.00m, y=2.25m, z=1.50m

| Lane       | $\bar{L}_m$                   | $U_o$       | $U_l$       | $ft_l$    | $RE_l$      |
|------------|-------------------------------|-------------|-------------|-----------|-------------|
| 2:(y=6.75) | 0.53 cd/m <sup>2</sup>        | 0.45        | 0.62        | 13        | 0.78        |
| 1:(y=2.25) | 0.57 cd/m <sup>2</sup>        | 0.43        | 0.57        | 8         | 0.52        |
| M5         | $\geq 0.50$ cd/m <sup>2</sup> | $\geq 0.35$ | $\geq 0.40$ | $\leq 15$ | $\geq 0.30$ |

#### Illuminance

Calculation field: 40m x 9m (14 x 6 pts)

| $\bar{E}_m$ | $E_{min}$ | $U_o$ | $U_d$ |
|-------------|-----------|-------|-------|
| 7.42 lx     | 3.80 lx   | 0.51  | 0.25  |

Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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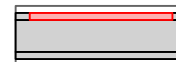
## 64 100

### 64.1 Summary, 100

#### 64.1.1 Result overview, 100

##### CH1 (General surface, left)

Width : 2.00 m  
 Kerb distance : 0.00 m Abs. position : 9.00 m



##### Illuminance

Calculation field: 40m x 2m (14 x 3 pts)

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 7.97 lx     | 2.85 lx    | 0.36  | 0.20  |
| P4 | >= 5.00 lx  | >= 1.00 lx |       |       |

##### CH1 (General surface, right)

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



##### Illuminance

Calculation field: 40m x 2m (14 x 3 pts)

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 4.61 lx     | 3.05 lx    | 0.66  | 0.47  |
| P5 | >= 3.00 lx  | >= 0.60 lx |       |       |

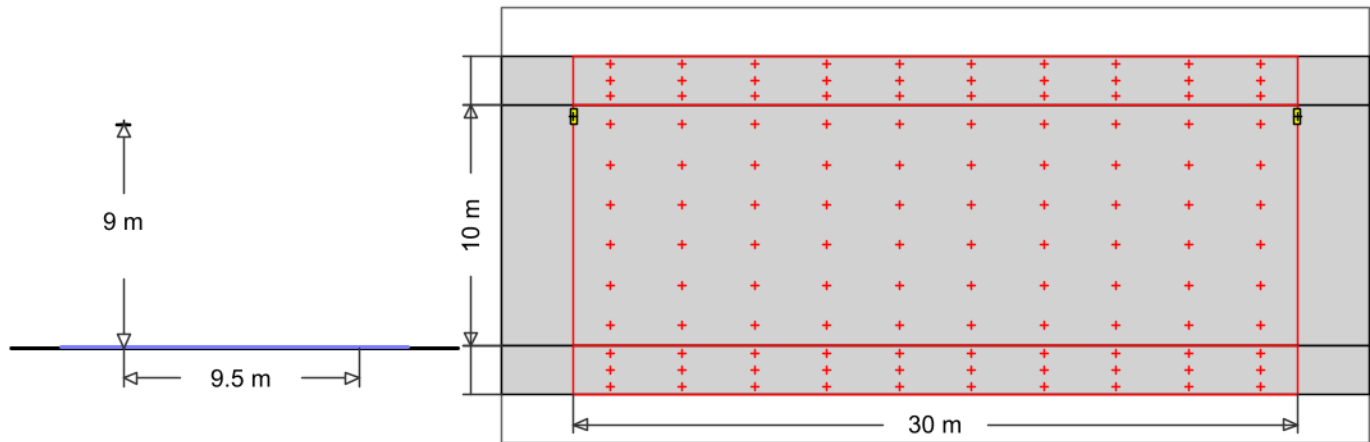
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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**79 115**

## 79.1 Summary, 115

### 79.1.1 Result overview, 115



7



Order No.  
Luminaire name

Equipment

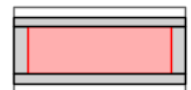
25.6 W / 3879 lm

#### MyLumRow

|                          |            |                       |          |
|--------------------------|------------|-----------------------|----------|
| Luminaire placing        | : Left row | Maintenance factor    | : 0.80   |
| Luminaire spacing        | : 30.00 m  | Height (phot. centre) | : 9.00 m |
| Overhang                 | : 0.50 m   | Tilt                  | : 0.00 ° |
| Abs. position            | : 9.50 m   | Glare index class     | : D6     |
| Load/km                  | : 853 W/km | Lum. intensity class  | : G*3    |
| Upward light ratio (ULR) | : 0.00     |                       |          |

#### Road

|         |               |       |     |
|---------|---------------|-------|-----|
| Width   | : 10.00 m     | Lanes | : 2 |
| Surface | : R3, q0=0.07 |       |     |



#### Luminance

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

Observer

2 : x=-60.00m, y=7.50m, z=1.50m

1 : x=-60.00m, y=2.50m, z=1.50m

| Lane       | $\bar{L}_m$               | $U_o$   | $U_l$   | $ft_l$ | $RE_l$  |
|------------|---------------------------|---------|---------|--------|---------|
| 2:(y=7.50) | 0.38 cd/m <sup>2</sup>    | 0.42    | 0.78    | 10     | 0.77    |
| 1:(y=2.50) | 0.41 cd/m <sup>2</sup>    | 0.40    | 0.70    | 6      | 0.37    |
| M6         | >= 0.30 cd/m <sup>2</sup> | >= 0.35 | >= 0.40 | <= 20  | >= 0.30 |

#### Illuminance

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

| $E_m$   | $E_{min}$ | $U_o$ | $U_d$ |
|---------|-----------|-------|-------|
| 5.46 lx | 3.56 lx   | 0.65  | 0.39  |

Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

**RELUX®**

## 79 115

### 79.1 Summary, 115

#### 79.1.1 Result overview, 115

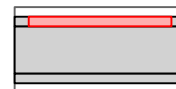
##### CH1 (General surface, left)

Width : 2.00 m  
 Kerb distance : 0.00 m Abs. position : 10.00 m

##### Illuminance

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

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 6.06 lx     | 3.36 lx    | 0.55  | 0.39  |
| P4 | >= 5.00 lx  | >= 1.00 lx |       |       |



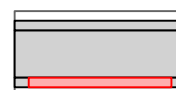
##### CH1 (General surface, right)

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

##### Illuminance

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

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 2.75 lx     | 1.91 lx    | 0.69  | 0.54  |
| P6 | >= 2.00 lx  | >= 0.40 lx |       |       |



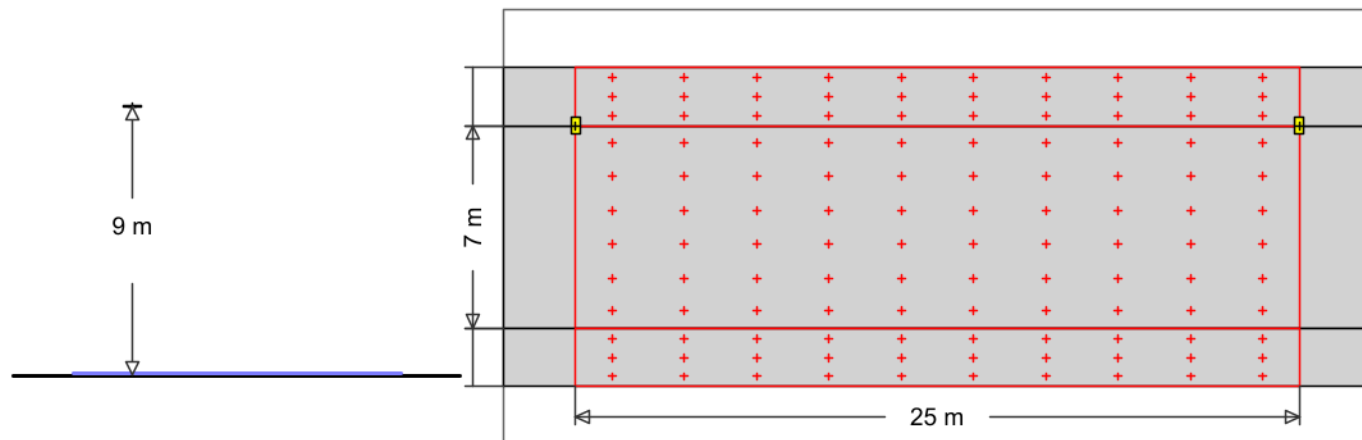
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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**80 116**

## 80.1 Summary, 116

### 80.1.1 Result overview, 116



16

Order No.  
Luminaire name



Equipment

19.3 W / 2928 lm

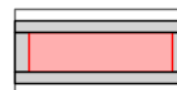
#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 25.00 m  
 Overhang : 0.00 m  
 Abs. position : 7.00 m  
 Load/km : 772 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 9.00 m  
 Tilt : 0.00 °  
 Glare index class : D6  
 Lum. intensity class : G\*3

#### Road

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



#### Luminance

Calculation field: 25m x 7m (10 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       | $\bar{L}_m$               | $U_o$   | $U_l$   | $ftI$ | $REI$   |
|------------|---------------------------|---------|---------|-------|---------|
| 2:(y=5.25) | 0.43 cd/m <sup>2</sup>    | 0.62    | 0.84    | 7     | 0.62    |
| 1:(y=1.75) | 0.48 cd/m <sup>2</sup>    | 0.61    | 0.84    | 5     | 0.52    |
| M6         | >= 0.30 cd/m <sup>2</sup> | >= 0.35 | >= 0.40 | <= 20 | >= 0.30 |

#### Illuminance

Calculation field: 25m x 7m (10 x 6 pts)

| $E_m$   | $E_{min}$ | $U_o$ | $U_d$ |
|---------|-----------|-------|-------|
| 6.84 lx | 4.04 lx   | 0.59  | 0.45  |

Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

**RELUX®**

**80 116**

## 80.1 Summary, 116

### 80.1.1 Result overview, 116

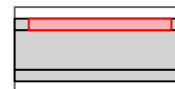
#### CH1 (General surface, left)

Width : 2.00 m  
 Kerb distance : 0.00 m Abs. position : 7.00 m

#### Illuminance

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

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 5.00 lx     | 2.63 lx    | 0.53  | 0.32  |
| P4 | >= 5.00 lx  | >= 1.00 lx |       |       |



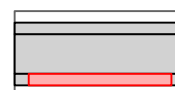
#### CH1 (General surface, right)

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

#### Illuminance

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

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 4.50 lx     | 3.50 lx    | 0.78  | 0.61  |
| P6 | >= 2.00 lx  | >= 0.40 lx |       |       |



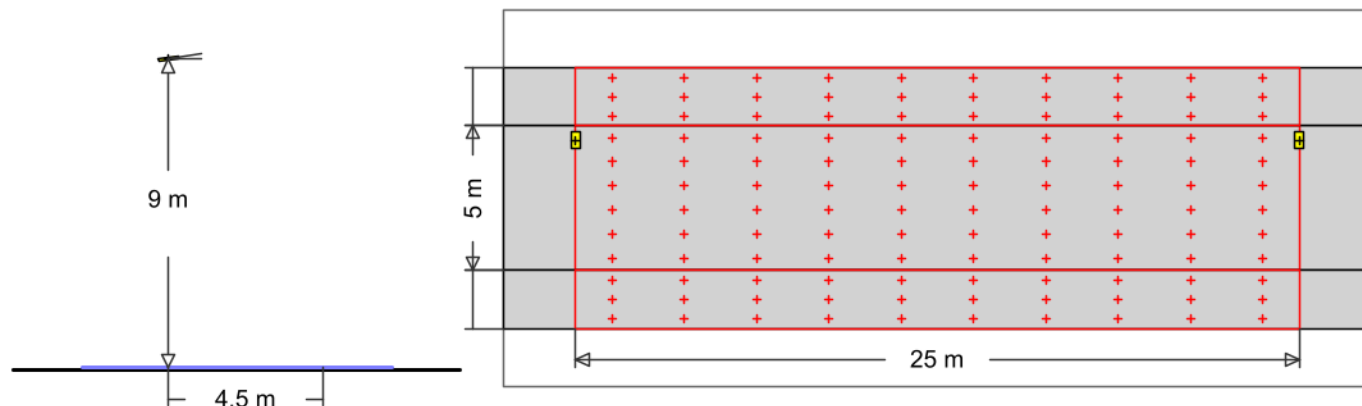
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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**86 122**

## 86.1 Summary, 122

### 86.1.1 Result overview, 122



6



Order No.  
Luminaire name

Equipment

19.3 W / 3002 lm

#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 25.00 m  
 Overhang : 0.50 m  
 Abs. position : 4.50 m  
 Load/km : 772 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot. centre) : 9.00 m  
 Tilt : 10.00 °  
 Glare index class : D4  
 Lum. intensity class : n/a

#### Road

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



#### Luminance

Calculation field: 25m x 5m (10 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       | $\bar{L}_m$               | $U_o$   | $U_l$   | $ft_l$ | $RE_l$  |
|------------|---------------------------|---------|---------|--------|---------|
| 2:(y=3.75) | 0.44 cd/m <sup>2</sup>    | 0.65    | 0.88    | 6      | 0.76    |
| 1:(y=1.25) | 0.47 cd/m <sup>2</sup>    | 0.68    | 0.87    | 6      | 0.76    |
| M6         | >= 0.30 cd/m <sup>2</sup> | >= 0.35 | >= 0.40 | <= 20  | >= 0.30 |

#### Illuminance

Calculation field: 25m x 5m (10 x 6 pts)

| $E_m$   | $E_{min}$ | $U_o$ | $U_d$ |
|---------|-----------|-------|-------|
| 5.78 lx | 4.21 lx   | 0.73  | 0.58  |



Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

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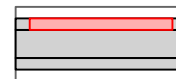
## 86 122

### 86.1 Summary, 122

#### 86.1.1 Result overview, 122

##### CH1 (General surface, left)

Width : 2.00 m  
 Kerb distance : 0.00 m Abs. position : 5.00 m



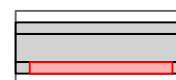
##### Illuminance

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

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 4.73 lx     | 3.03 lx    | 0.64  | 0.47  |
| P4 | >= 5.00 lx  | >= 1.00 lx |       |       |

##### CH1 (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)

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 4.40 lx     | 3.59 lx    | 0.82  | 0.68  |
| P6 | >= 2.00 lx  | >= 0.40 lx |       |       |

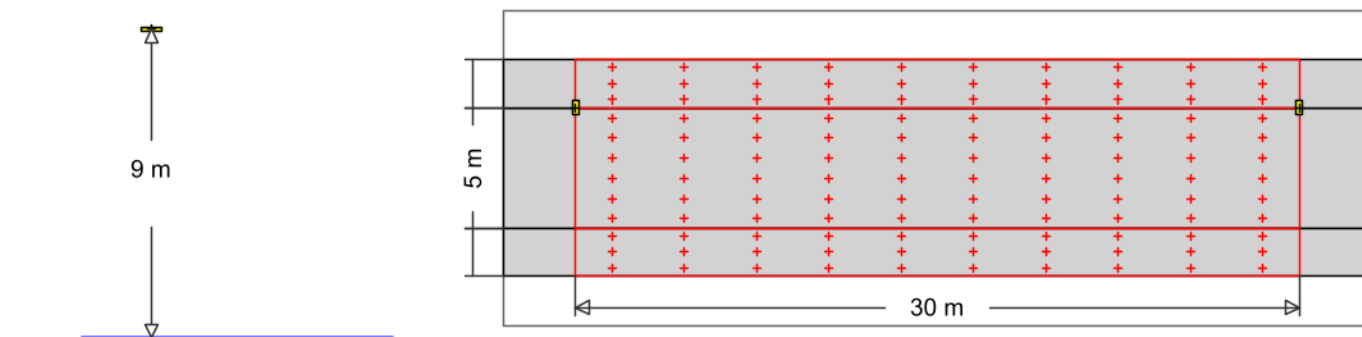
Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

**RELUX®**

**88 124**

## 88.1 Summary, 124

### 88.1.1 Result overview, 124



12

Order No.  
Luminaire name

Equipment

25.6 W / 3878 lm

#### MyLumRow

Luminaire placing : Left row  
 Luminaire spacing : 30.00 m  
 Overhang : 0.00 m  
 Abs. position : 5.00 m  
 Load/km : 853 W/km  
 Upward light ratio (ULR) : 0.00

Maintenance factor : 0.80  
 Height (phot centre) : 9.00 m  
 Tilt : 0.00 °  
 Glare index class : D6  
 Lum. intensity class : G\*6

#### Road

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



#### Luminance

Calculation field: 30m x 5m (10 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       | $\bar{L}_m$               | $U_o$   | $U_l$   | $ftl$ | $REl$   |
|------------|---------------------------|---------|---------|-------|---------|
| 2:(y=3.75) | 0.40 cd/m <sup>2</sup>    | 0.67    | 0.67    | 5     | 0.82    |
| 1:(y=1.25) | 0.43 cd/m <sup>2</sup>    | 0.66    | 0.71    | 4     | 0.91    |
| M6         | >= 0.30 cd/m <sup>2</sup> | >= 0.35 | >= 0.40 | <= 20 | >= 0.30 |

#### Illuminance

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

| $E_m$   | $E_{min}$ | $U_o$ | $U_d$ |
|---------|-----------|-------|-------|
| 6.28 lx | 3.76 lx   | 0.60  | 0.45  |

Object : Modernizacja Biała Podlaska  
 Installation : Oprawy drogowe  
 Project number :  
 Date : 28.04.2023

**RELUX®**

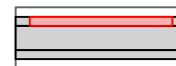
## 88 124

### 88.1 Summary, 124

#### 88.1.1 Result overview, 124

##### CH1 (General surface, left)

Width : 2.00 m  
 Kerb distance : 0.00 m Abs. position : 5.00 m



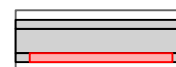
##### Illuminance

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

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 5.24 lx     | 2.81 lx    | 0.54  | 0.36  |
| P4 | >= 5.00 lx  | >= 1.00 lx |       |       |

##### CH1 (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)

|    | $\bar{E}_m$ | $E_{min}$  | $U_o$ | $U_d$ |
|----|-------------|------------|-------|-------|
|    | 5.88 lx     | 4.13 lx    | 0.70  | 0.52  |
| P6 | >= 2.00 lx  | >= 0.40 lx |       |       |