


|  |              |                          |                       |                      |
|--|--------------|--------------------------|-----------------------|----------------------|
|  | △            |                          |                       |                      |
|  | △            |                          |                       |                      |
|  | △            |                          |                       |                      |
| Änderung:  | Bezeichnung: |                          | erstellt:             | Datum:               |
| Ausschreibung  |              |                          |                       |                      |
| Bauwerksskizze:  |              |                          |                       |                      |
| Ausführungsplanung:  |              |                          |                       | Datum                |
|  |              |                          | bearb.                | 01/2025              |
|  |              |                          | gez.                  | 01/2025              |
|  |              |                          | gepr.                 | 01/2025              |
| statisch und konstruktiv geprüft:  |              | geometrisch geprüft:     |                       | vertraglich geprüft: |
| Eintragungen Dritter:  |              | architektonisch geprüft: |                       | Baufreigabe:         |
| Auftraggeber:<br><br><b>Stadt Leipzig</b><br>Mobilitäts- und Tiefbauamt |              | Bauausführung:           |                       | Ausführungsplanung:  |
| Plancode:  |              |                          |                       |                      |
| Baumaßnahme: Ersatzneubau Georg-Schwarz-Brücken<br>einschließlich Umbau Am Ritterschloßchen  |              |                          |                       | Projekt:             |
| Art des Planes/Bauteil:<br>Elektrotechnik 50 Hz Bauwerk 12<br>Beleuchtungsberechnung Bauzustand  |              |                          | Maßstab:              |                      |
|  |              |                          | Plannummer:<br>2.9-60 |                      |

# Beleuchtungsanlage

Anlage : Georg-Schwarz-Brücken

Projektnummer : 310852

Kunde : Stadt Leipzig, Verkehrs- und Tiefbauamt

Bearbeiter : M. Hübner

Datum : 18.12.2024

## Projektbeschreibung:

Im Zuge der lichttechnischen Berechnung wird die Einhaltung der DB Ril 813.05A02 an den Zuwegungen und Bahnsteigen der an den Georg-Schwarz-Brücken angrenzenden Verkehrsstation Leipzig-Leutzsch überprüft.

### 1.2 nicht überdachte Bahnsteige mit geringem Reisendenaufkommen:

$E_m = 10 \text{ lx}$ ;  $U_0 = 0,25$ ;  $GRL = 50$ ;  $R_a = 40$

### 3.1.2 Gehwege und/oder Rampen als Zugänge zu nicht überdachten Bahnsteigen mit geringem Reisendenaufkommen:

$E_m = 5\text{-}20 \text{ lx}$ ;  $U_0 = 0,30$ ;  $R_a = 20$

### 3.2.1 Treppen als Zugang zu nicht überdachten Bahnsteigen mit geringem Reisendenaufkommen

$E_m = 20 \text{ lx}$ ;  $U_0 = 0,40$ ;  $R_a = 40$

### 3.3.1 Personenüberführung ohne Überdachung (Einhausung) mit geringem Reisendenaufkommen

$E_m = 20 \text{ lx}$ ;  $U_0 = 0,40$ ;  $R_a = 20$

Die nachfolgenden Werte basieren auf exakten Berechnungen an kalibrierten Lampen, Leuchten und deren Anordnung, wobei in der Praxis graduelle, nicht vermeidbare Abweichungen auftreten können. Für die angegebenen Daten werden sämtliche Gewährleistungsansprüche wegbedungen.

Der Haftungsausschluss gilt unabhängig des Rechtsgrundes für Schäden wie auch für Folgeschäden bei Anwendern und Dritten.

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Objekt : Beleuchtungsanlage  
Anlage : Georg-Schwarz-Brücken  
Projektnummer : 310852  
Datum : 18.12.2024

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Datum : 18.12.2024

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1

Leuchtendaten

1.1

Designplan Leuchten - Designpl..., Tuscan 650 mm 1419 lm ... (GD890-2-1500NW-...)

1.1.1

Datenblatt

Hersteller: Designplan Leuchten - Designplan Lighting Ltd.

GD890-2-1500NW-XW-CB

Tuscan 650 mm 1419 lm opal SKII DB-Spezifikationen

Leuchtendaten

Leuchten-Wirkungsgrad

: 100%

Leuchten-Lichtausbeute

: 88.69 lm/W

Klassifikation

: A30 ↓99.5% ↑0.5%

CIE Flux Codes

: 42 73 92 100 101

UGR 4H 8H

: 22.7 / 25.6

Leistung

: 16 W

Lichtstrom

: 1431.2 lm

Bestückung mit

Anzahl

: 1

Bezeichnung

: LED

Farbe

: 4000K

Lichtstrom

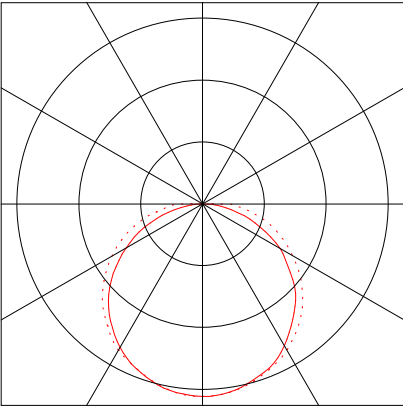
: 1419 lm

Farbwiedergabe

: 1 B

Abmessungen

: 650 mm x 150 mm x 80 mm



1.1 Designplan Leuchten - Designpl..., Tuscan 650 mm 1419 lm ... (GD890-2-1500NW-...)

1.1.2 Blendungsbewertung nach RUG

| Reflexionsgrade  |     |                      |      |      |      |      |                       |      |      |      |      |     |
|------------------|-----|----------------------|------|------|------|------|-----------------------|------|------|------|------|-----|
| Decke            |     | 0.7                  | 0.7  | 0.5  | 0.5  | 0.3  |                       | 0.7  | 0.7  | 0.5  | 0.5  | 0.3 |
| Wände            |     | 0.5                  | 0.3  | 0.5  | 0.3  | 0.3  |                       | 0.5  | 0.3  | 0.5  | 0.3  | 0.3 |
| Boden            |     | 0.2                  | 0.2  | 0.2  | 0.2  | 0.2  |                       | 0.2  | 0.2  | 0.2  | 0.2  | 0.2 |
| Raum Abmessungen |     | Blick in C0 Richtung |      |      |      |      | Blick in C90 Richtung |      |      |      |      |     |
| x                | y   |                      |      |      |      |      |                       |      |      |      |      |     |
| 2H               | 2H  | 18.7                 | 20.4 | 19.1 | 20.8 | 21.1 | 19.9                  | 21.6 | 20.2 | 21.9 | 22.2 |     |
|                  | 3H  | 20.2                 | 21.8 | 20.6 | 22.1 | 22.4 | 22.0                  | 23.5 | 22.4 | 23.9 | 24.2 |     |
|                  | 4H  | 20.8                 | 22.2 | 21.1 | 22.6 | 22.9 | 23.0                  | 24.5 | 23.4 | 24.8 | 25.2 |     |
|                  | 6H  | 21.1                 | 22.5 | 21.5 | 22.9 | 23.3 | 23.9                  | 25.3 | 24.3 | 25.7 | 26.1 |     |
|                  | 8H  | 21.2                 | 22.5 | 21.6 | 22.9 | 23.3 | 24.3                  | 25.7 | 24.7 | 26.0 | 26.4 |     |
|                  | 12H | 21.2                 | 22.5 | 21.6 | 22.9 | 23.3 | 24.8                  | 26.0 | 25.2 | 26.4 | 26.8 |     |
| 4H               | 2H  | 19.7                 | 21.2 | 20.1 | 21.5 | 21.9 | 20.5                  | 22.0 | 20.9 | 22.4 | 22.7 |     |
|                  | 3H  | 21.3                 | 22.6 | 21.7 | 23.0 | 23.4 | 22.8                  | 24.1 | 23.2 | 24.5 | 24.9 |     |
|                  | 4H  | 22.1                 | 23.2 | 22.5 | 23.6 | 24.1 | 24.0                  | 25.2 | 24.4 | 25.6 | 26.0 |     |
|                  | 6H  | 22.5                 | 23.6 | 23.0 | 24.0 | 24.4 | 25.1                  | 26.1 | 25.5 | 26.6 | 27.0 |     |
|                  | 8H  | 22.7                 | 23.6 | 23.1 | 24.1 | 24.5 | 25.6                  | 26.6 | 26.1 | 27.0 | 27.5 |     |
|                  | 12H | 22.8                 | 23.7 | 23.3 | 24.1 | 24.6 | 26.1                  | 27.0 | 26.6 | 27.5 | 28.0 |     |
| 8H               | 4H  | 22.6                 | 23.6 | 23.1 | 24.0 | 24.5 | 24.3                  | 25.3 | 24.8 | 25.7 | 26.2 |     |
|                  | 6H  | 23.3                 | 24.1 | 23.7 | 24.6 | 25.0 | 25.5                  | 26.4 | 26.0 | 26.8 | 27.3 |     |
|                  | 8H  | 23.6                 | 24.3 | 24.1 | 24.8 | 25.3 | 26.2                  | 26.9 | 26.7 | 27.4 | 27.9 |     |
|                  | 12H | 23.7                 | 24.4 | 24.3 | 24.9 | 25.4 | 26.9                  | 27.5 | 27.4 | 28.0 | 28.5 |     |
| 12H              | 4H  | 22.8                 | 23.7 | 23.2 | 24.1 | 24.6 | 24.3                  | 25.2 | 24.8 | 25.7 | 26.2 |     |
|                  | 6H  | 23.5                 | 24.3 | 24.0 | 24.8 | 25.2 | 25.7                  | 26.4 | 26.2 | 26.9 | 27.4 |     |
|                  | 8H  | 23.9                 | 24.5 | 24.4 | 25.0 | 25.5 | 26.3                  | 27.0 | 26.9 | 27.5 | 28.0 |     |

Abstand der Leuchten: 0.25

|               |                                       |                        |                              |
|---------------|---------------------------------------|------------------------|------------------------------|
| Hersteller    | : Designplan Leuchten - Designplan Li | Wirkungsgrad           | : 100%                       |
| Bestellnummer | : GD890-2-1500NW-XW-CB                | Leuchten-Lichtausbeute | : 88.69 lm/W (A30)           |
| Leuchtenname  | : Tuscan 650 mm 1419 lm opal SKII     | Lichtverteilung        | : sym. zu C0-C180 / C90-C270 |
|               | DB-Spezifikationen                    | Ausstrahlungswinkel    | : 114.9° C0-C180             |
| Bestückung    | : 1 x LED 16 W / 1419 lm              |                        | 126.0° C90-C270              |
| Abmessungen   | : L 650 mm x B 150 mm x H 80 mm       |                        |                              |
| Dateiname     | : GD890-2-1500NW-XW-CB                |                        |                              |

1

Leuchtendaten

1.2

Schmidt-Strahl GmbH, Bahnsteigleuchte-Curso... (PSH-395540-pA-G...)

1.2.1

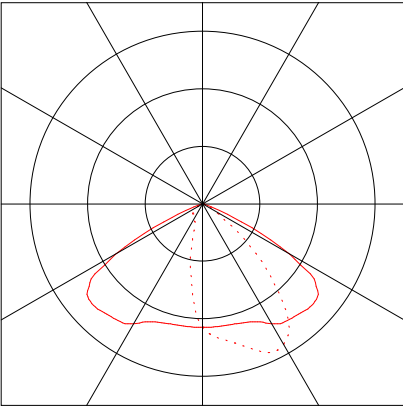
Datenblatt

Hersteller: Schmidt-Strahl GmbH

PSH-395540-pA-G2-76-RAL9007-12W

Bahnsteigleuchte-Curso pA LED-12W-SKII-4000K-RA80

|                        |                            |                |                    |
|------------------------|----------------------------|----------------|--------------------|
| Leuchtendaten          |                            | Bestückung mit |                    |
| Leuchten-Wirkungsgrad  | : 100%                     | Anzahl         | : 1                |
| Leuchten-Lichtausbeute | : 104.17 lm/W              | Bezeichnung    | : LED-Curso-pA-12W |
| Klassifikation         | : A50 ↓100.0% ↑0.0%        |                |                    |
| CIE Flux Codes         | : 57 94 100 100 100        | Farbe          | : 4000             |
| Blendung               | : G*5 / D6                 | Lichtstrom     | : 1250 lm          |
| Leistung               | : 12 W                     | Farbwiedergabe | : 80               |
| Lichtstrom             | : 1248 lm                  |                |                    |
| Abmessungen            | : 530 mm x 530 mm x 230 mm |                |                    |



Objekt : Beleuchtungsanlage  
Anlage : Georg-Schwarz-Brücken  
Projektnummer : 310852  
Datum : 18.12.2024

## **1.2 Schmidt-Strahl GmbH, Bahnsteigleuchte-Curso... (PSH-395540-pA-G...)**

### **1.2.2 Blendungsbewertung nach RUG**

---

RUG tabellarische Methode nicht anwendbar.

1

Leuchtendaten

1.3

Schmidt–Strahl (Rademacher), 50W DBL Curso Bahnstei... (PSH-395521/VA/R...)

1.3.1

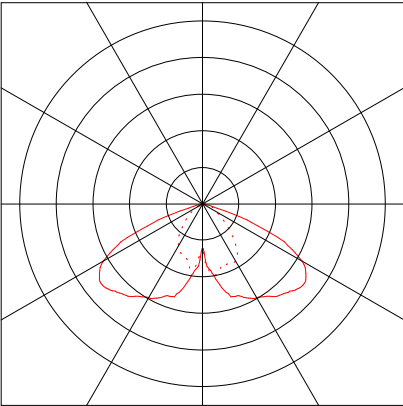
Datenblatt

Hersteller: Schmidt–Strahl (Rademacher)

PSH-395521/VA/RAL9007

50W DBL Curso Bahnsteigleuchte

| Leuchtendaten          |                            | Bestückung mit |                 |
|------------------------|----------------------------|----------------|-----------------|
| Leuchten-Wirkungsgrad  | : 74.3%                    | Anzahl         | : 1             |
| Leuchten-Lichtausbeute | : 47.28 lm/W               | Bezeichnung    | : HST-Sodinette |
| Klassifikation         | : A40 ↓100.0% ↑0.0%        |                | 50W(Ra25)       |
| CIE Flux Codes         | : 50 86 99 100 75          | Farbe          | : 2000K         |
| Blendung               | : G*5 / D6                 | Lichtstrom     | : 4200 lm       |
| Leistung               | : 66 W                     | Farbwiedergabe | : 4             |
| Lichtstrom             | : 3133.1 lm                |                |                 |
| Abmessungen            | : 530 mm x 530 mm x 500 mm |                |                 |



### **1.3 Schmidt–Strahl (Rademacher), 50W DBL Curso Bahnstei... (PSH-395521/VA/R...)**

#### **1.3.2 Blendungsbewertung nach RUG**

---

RUG tabellarische Methode nicht anwendbar.

1

Leuchtendaten

1.4

Schmidt–Strahl (Rademacher), 70W DBL Curso Bahnstei... (PSH-395523/VA/R...)

1.4.1

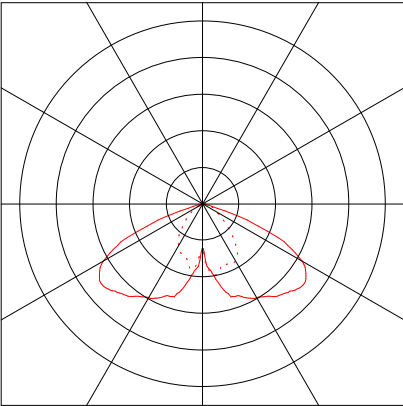
Datenblatt

Hersteller: Schmidt–Strahl (Rademacher)

PSH-395523/VA/RAL9007

70W DBL Curso Bahnsteigleuchte

| Leuchtendaten          |                            | Bestückung mit |                 |
|------------------------|----------------------------|----------------|-----------------|
| Leuchten-Wirkungsgrad  | : 74.3%                    | Anzahl         | : 1             |
| Leuchten-Lichtausbeute | : 57.29 lm/W               | Bezeichnung    | : HST-Sodinette |
| Klassifikation         | : A40 ↓100.0% ↑0.0%        |                | 70W(Ra25)       |
| CIE Flux Codes         | : 50 86 99 100 75          | Farbe          | : 2000K         |
| Blendung               | : G*5 / D6                 | Lichtstrom     | : 6400 lm       |
| Leistung               | : 83 W                     | Farbwiedergabe | : 4             |
| Lichtstrom             | : 4774.3 lm                |                |                 |
| Abmessungen            | : 530 mm x 530 mm x 500 mm |                |                 |



## **1.4 Schmidt–Strahl (Rademacher), 70W DBL Curso Bahnstei... (PSH-395523/VA/R...)**

### **1.4.2 Blendungsbewertung nach RUG**

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RUG tabellarische Methode nicht anwendbar.



Objekt : Beleuchtungsanlage  
Anlage : Georg-Schwarz-Brücken  
Projektnummer : 310852  
Datum : 18.12.2024

## 2 Außenbereich 2

### 2.1 Beschreibung, Außenbereich 2

#### 2.1.1 Leuchten- und Raumelemente

Produktdaten:

| Typ | Anz. | Fabrikat |
|-----|------|----------|
|-----|------|----------|

## 2 Außenbereich 2

### 2.1 Beschreibung, Außenbereich 2

#### 2.1.1 Leuchten- und Raumelemente

##### Gestaltungselemente

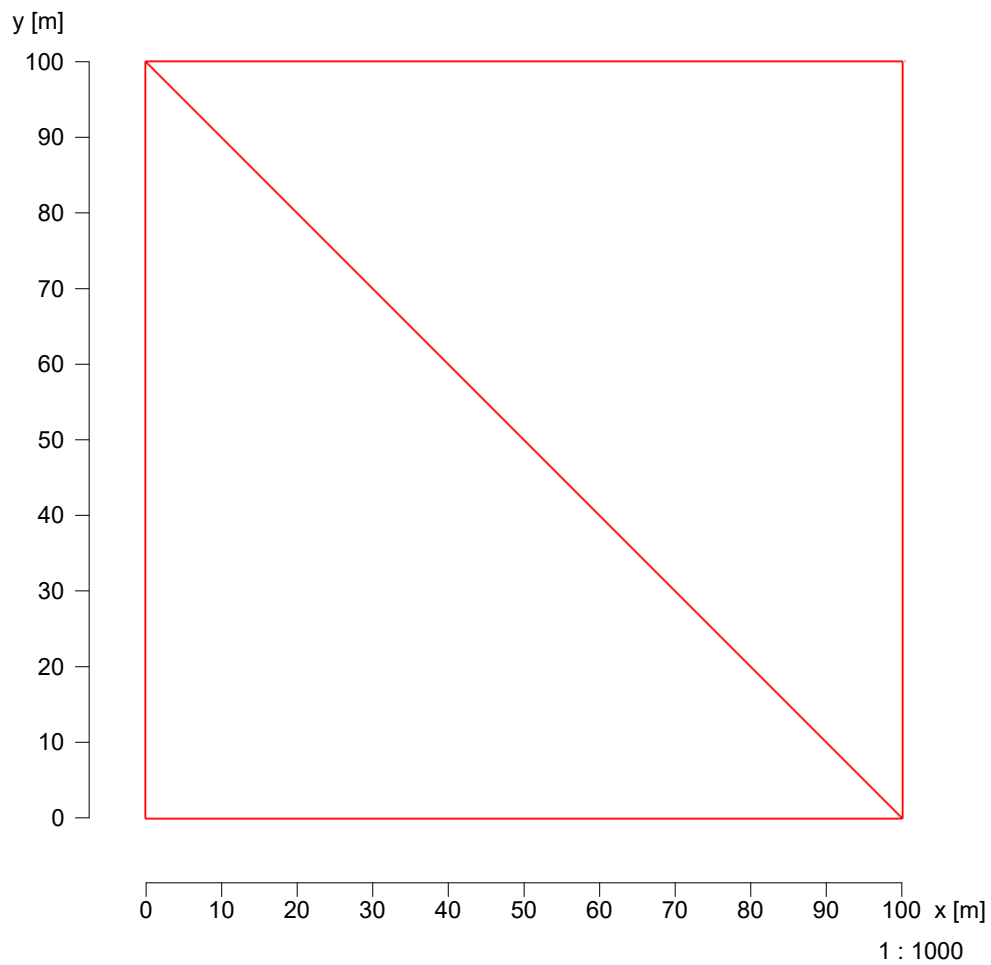
##### Messfläche

| Nr.        | xm[m] | ym[m] | zm[m] | Länge  | Breite | z-Achse | Drehwinkel |         |
|------------|-------|-------|-------|--------|--------|---------|------------|---------|
|            |       |       |       |        |        |         | L-Achse    | Q-Achse |
| Nutze. 1.1 | 0.00  | 0.00  | 0.00  | 100.00 | 100.00 | 0.00    | 0.00       | 0.00    |

## 2.1 Beschreibung, Außenbereich 2

### 2.1.2 Grundriss

---



Objekt : Beleuchtungsanlage  
Anlage : Georg-Schwarz-Brücken  
Projektnummer : 310852  
Datum : 18.12.2024

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

###### Produktdaten:

Typ Anz. Fabrikat

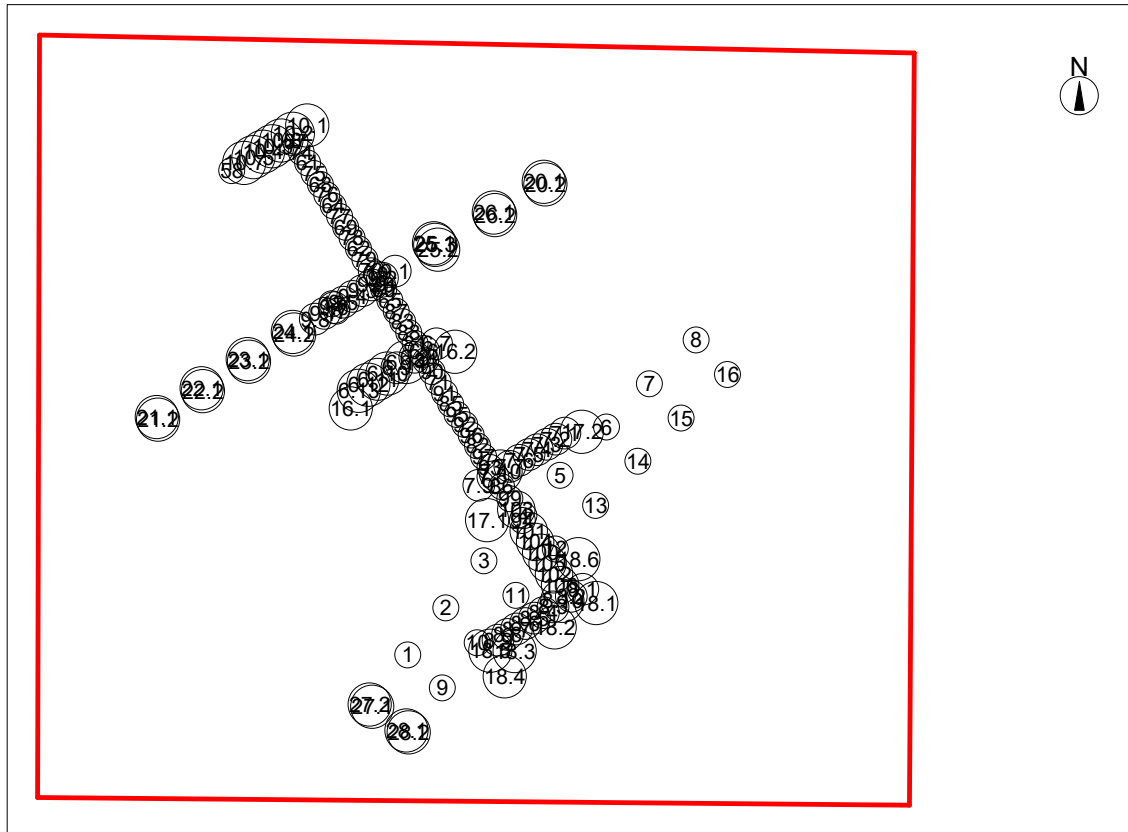
|  |      |   |  |
|--|------|---|--|
|  |      | <b>Designplan Leuchten - Designplan Lighting Ltd.</b> |  |
| 1  | 85 x | Bestell Nr.   | : GD890-2-1500NW-XW-CB                               |
|   |      | Leuchtenname  | : Tuscan 650 mm 1419 lm opal SKII DB-Spezifikationen |
|  |      | Bestückung  | : 1 x LED 16 W / 1419 lm                             |
|  |      | <b>Schmidt-Strahl GmbH</b>                            |  |
| 2  | 18 x | Bestell Nr.   | : PSH-395540-pA-G2-76-RAL9007-12W                    |
|   |      | Leuchtenname  | : Bahnsteigleuchte-Curso pA LED-12W-SKII-4000K-RA80  |
|  |      | Bestückung  | : 1 x LED-Curso-pA-12W 12 W / 1250 lm                |
|  |      | <b>Schmidt-Strahl (Rademacher)</b>                    |  |
| 3  | 11 x | Bestell Nr.   | : PSH-395521/VA/RAL9007                              |
|   |      | Leuchtenname  | : 50W DBL Curso Bahnsteigleuchte                     |
|  |      | Bestückung  | : 1 x HST-Sodinette 50W(Ra25) 66 W / 4200 lm         |
| 4  | 21 x | Bestell Nr.   | : PSH-395523/VA/RAL9007                              |
|  |      | Leuchtenname  | : 70W DBL Curso Bahnsteigleuchte                     |
|  |      | Bestückung  | : 1 x HST-Sodinette 70W(Ra25) 83 W / 6400 lm         |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

Boden mit Leuchten- und Sensorpositionen:



### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

| Nr.   | Mittelpunkt |        |       | Drehwinkel um |        |         | Zielkoordinaten |        |        |
|---|-------------|--------|-------|---------------|--------|---------|-----------------|--------|--------|
|   | X [m]       | Y [m]  | Z [m] | Z [°]         | C0 [°] | C90 [°] | Xa [m]          | Ya [m] | Za [m] |
| <b>Designplan Leuchten - Designplan Lighting Ltd. Tuscan 650 mm 1419 lm</b> |             |        |       |               |        |         |                 |        |        |
| <b>opal SKII DB-Spezifikationen GD890-2-1500NW-XW-CB</b>                    |             |        |       |               |        |         |                 |        |        |
| 6.7   | 112.07      | 127.35 | 2.46  | 210.50        | 0.00   | 0.00    | 112.07          | 127.35 | 1.12   |
| 6.6   | 108.50      | 125.18 | 10.08 | 210.50        | 0.00   | 0.00    | 108.50          | 125.18 | 7.67   |
| 6.8   | 105.92      | 123.60 | 10.98 | 212.09        | 0.00   | 0.00    | 105.92          | 123.60 | 7.67   |
| 6.14  | 103.56      | 122.17 | 10.98 | 212.09        | 0.00   | 0.00    | 103.56          | 122.17 | 7.68   |
| 6.9   | 100.94      | 120.60 | 9.38  | 212.09        | 0.00   | 0.00    | 100.94          | 120.60 | 6.08   |
| 6.10  | 98.27       | 119.01 | 8.90  | 212.09        | 0.00   | 0.00    | 98.28           | 119.01 | 5.60   |
| 6.11  | 95.58       | 117.35 | 7.40  | 212.09        | 0.00   | 0.00    | 95.57           | 117.35 | 4.00   |
| 6.12  | 92.95       | 115.80 | 6.66  | 212.09        | 0.00   | 0.00    | 92.95           | 115.80 | 3.36   |
| 6.13  | 90.26       | 114.13 | 5.22  | 212.09        | 0.00   | 0.00    | 90.26           | 114.13 | 1.92   |
| 7.1   | 148.13      | 102.24 | 3.94  | 30.34         | 0.00   | 0.00    | 148.13          | 102.25 | 0.48   |
| 7.2   | 145.53      | 100.60 | 5.54  | 30.34         | 0.00   | 0.00    | 145.53          | 100.59 | 2.08   |
| 7.3   | 143.02      | 99.14  | 5.86  | 30.34         | 0.00   | 0.00    | 143.01          | 99.14  | 2.40   |
| 7.4   | 140.40      | 97.61  | 7.46  | 30.34         | 0.00   | 0.00    | 140.40          | 97.61  | 4.00   |
| 7.5   | 138.02      | 96.23  | 8.42  | 30.34         | 0.00   | 0.00    | 138.02          | 96.23  | 5.12   |
| 7.6   | 135.28      | 94.64  | 9.38  | 30.34         | 0.00   | 0.00    | 135.28          | 94.64  | 5.92   |
| 7.7   | 132.65      | 92.95  | 10.98 | 30.34         | 0.00   | 0.00    | 132.65          | 92.95  | 7.52   |
| 7.10  | 130.05      | 91.48  | 11.14 | 30.34         | 0.00   | 0.00    | 130.05          | 91.48  | 7.84   |
| 7.8   | 127.86      | 89.95  | 10.08 | 30.34         | 0.00   | 0.00    | 127.85          | 89.95  | 7.67   |
| 7.9   | 123.92      | 87.60  | 2.30  | 210.34        | 0.00   | 0.00    | 123.92          | 87.60  | 0.00   |
| 8.1   | 153.11      | 58.42  | 2.46  | 212.01        | 0.00   | 0.00    | 153.07          | 58.47  | 0.00   |
| 8.2   | 149.86      | 56.43  | 10.08 | 212.01        | 0.00   | 0.00    | 149.86          | 56.43  | 7.67   |
| 8.10  | 147.34      | 55.15  | 11.14 | 35.78         | 0.00   | 0.00    | 147.34          | 55.15  | 7.67   |
| 8.3   | 144.73      | 53.45  | 10.98 | 210.15        | 0.00   | 0.00    | 144.73          | 53.45  | 7.52   |
| 8.4   | 142.09      | 51.89  | 9.38  | 210.15        | 0.00   | 0.00    | 142.09          | 51.89  | 5.92   |
| 8.5   | 139.50      | 50.30  | 8.58  | 210.15        | 0.00   | 0.00    | 139.51          | 50.30  | 5.28   |
| 8.6   | 137.04      | 48.78  | 7.62  | 210.15        | 0.00   | 0.00    | 137.04          | 48.78  | 4.00   |
| 8.7   | 134.55      | 47.30  | 6.18  | 210.15        | 0.00   | 0.00    | 134.55          | 47.29  | 2.72   |
| 8.8   | 131.98      | 45.71  | 5.38  | 210.15        | 0.00   | 0.00    | 131.98          | 45.71  | 2.08   |
| 8.9   | 129.33      | 44.13  | 3.78  | 210.15        | 0.00   | 0.00    | 129.33          | 44.13  | 0.48   |
| 9.1   | 100.43      | 147.74 | 3.36  | 212.09        | 0.00   | 0.00    | 100.43          | 147.74 | 0.85   |
| 9.2   | 96.84       | 145.75 | 10.08 | 212.09        | 0.00   | 0.00    | 96.84           | 145.75 | 0.85   |
| 9.9   | 93.87       | 143.83 | 11.30 | 212.09        | 0.00   | 0.00    | 93.87           | 143.83 | 7.84   |
| 9.3   | 91.26       | 142.23 | 10.50 | 212.09        | 0.00   | 0.00    | 91.26           | 142.23 | 7.04   |
| 9.4   | 88.54       | 140.62 | 9.06  | 212.09        | 0.00   | 0.00    | 88.54           | 140.62 | 5.60   |
| 9.5   | 85.92       | 139.02 | 8.58  | 212.09        | 0.00   | 0.00    | 85.92           | 139.02 | 4.96   |
| 9.6   | 83.27       | 137.49 | 6.82  | 212.09        | 0.00   | 0.00    | 83.27           | 137.49 | 3.36   |
| 9.7   | 80.61       | 135.86 | 6.34  | 212.09        | 0.00   | 0.00    | 80.61           | 135.86 | 2.88   |
| 9.8   | 78.01       | 134.24 | 4.74  | 212.09        | 0.00   | 0.00    | 78.01           | 134.24 | 1.28   |
| 10.1  | 75.73       | 188.62 | 2.46  | 210.15        | 0.00   | 0.00    | 75.77           | 188.57 | 0.00   |
| 10.2  | 71.71       | 186.27 | 7.08  | 210.15        | 0.00   | 0.00    | 71.71           | 186.27 | 4.97   |
| 10.8  | 68.50       | 184.39 | 8.10  | 35.78         | 0.00   | 0.00    | 68.50           | 184.39 | 4.98   |
| 10.3  | 65.95       | 182.77 | 7.46  | 210.15        | 0.00   | 0.00    | 65.95           | 182.77 | 4.16   |
| 10.4  | 63.33       | 181.26 | 5.86  | 210.15        | 0.00   | 0.00    | 63.33           | 181.26 | 2.56   |
| 10.5  | 60.69       | 179.68 | 5.38  | 210.15        | 0.00   | 0.00    | 60.69           | 179.68 | 2.08   |
| 10.7  | 58.08       | 178.08 | 3.78  | 210.15        | 0.00   | 0.00    | 58.08           | 178.08 | 0.48   |
| 67  | 72.30       | 184.15 | 11.38 | 300.64        | 0.00   | 0.00    | 72.30           | 184.15 | 5.10   |
| 74  | 74.08       | 181.14 | 11.58 | 300.64        | 0.00   | 0.00    | 74.08           | 181.14 | 5.30   |
| 61  | 75.86       | 178.13 | 11.78 | 300.64        | 0.00   | 0.00    | 75.86           | 178.13 | 5.50   |
| 75  | 77.65       | 175.12 | 11.98 | 300.64        | 0.00   | 0.00    | 77.65           | 175.12 | 5.70   |
| 68  | 79.43       | 172.11 | 12.18 | 300.64        | 0.00   | 0.00    | 79.43           | 172.11 | 5.91   |
| 76  | 81.22       | 169.10 | 12.28 | 300.64        | 0.00   | 0.00    | 81.22           | 169.10 | 6.11   |
| 64  | 83.00       | 166.09 | 12.38 | 300.64        | 0.00   | 0.00    | 83.00           | 166.09 | 6.31   |
| 77  | 84.78       | 163.07 | 12.58 | 300.64        | 0.00   | 0.00    | 84.78           | 163.07 | 6.51   |
| 69  | 86.57       | 160.06 | 12.78 | 300.64        | 0.00   | 0.00    | 86.57           | 160.06 | 6.71   |
| 78  | 88.35       | 157.05 | 12.98 | 300.64        | 0.00   | 0.00    | 88.35           | 157.05 | 6.91   |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|     |        |        |       |        |      |      |        |        |      |
|-----|--------|--------|-------|--------|------|------|--------|--------|------|
| 62  | 90.14  | 154.04 | 13.18 | 300.64 | 0.00 | 0.00 | 90.14  | 154.04 | 7.11 |
| 79  | 91.92  | 151.03 | 13.48 | 300.64 | 0.00 | 0.00 | 91.92  | 151.03 | 7.32 |
| 70  | 93.72  | 147.85 | 13.58 | 299.70 | 0.00 | 0.00 | 93.72  | 147.85 | 7.53 |
| 80  | 97.21  | 142.56 | 13.58 | 300.27 | 0.00 | 0.00 | 97.21  | 142.56 | 7.67 |
| 65  | 98.98  | 139.53 | 13.58 | 300.27 | 0.00 | 0.00 | 98.97  | 139.53 | 7.67 |
| 87  | 100.74 | 136.51 | 13.58 | 300.27 | 0.00 | 0.00 | 100.74 | 136.51 | 7.67 |
| 83  | 102.50 | 133.49 | 13.58 | 300.27 | 0.00 | 0.00 | 102.50 | 133.49 | 7.67 |
| 88  | 104.27 | 130.46 | 13.58 | 300.27 | 0.00 | 0.00 | 104.27 | 130.47 | 7.67 |
| 81  | 106.03 | 127.44 | 13.58 | 300.27 | 0.00 | 0.00 | 106.03 | 127.44 | 7.67 |
| 84  | 108.99 | 122.56 | 13.58 | 300.27 | 0.00 | 0.00 | 108.99 | 122.56 | 7.67 |
| 90  | 110.75 | 119.54 | 13.58 | 300.27 | 0.00 | 0.00 | 110.75 | 119.54 | 7.67 |
| 71  | 112.52 | 116.52 | 13.58 | 300.27 | 0.00 | 0.00 | 112.52 | 116.52 | 7.67 |
| 91  | 114.28 | 113.49 | 13.58 | 300.27 | 0.00 | 0.00 | 114.28 | 113.49 | 7.67 |
| 85  | 116.05 | 110.47 | 13.58 | 300.27 | 0.00 | 0.00 | 116.04 | 110.47 | 7.67 |
| 95  | 117.81 | 107.45 | 13.58 | 300.27 | 0.00 | 0.00 | 117.81 | 107.45 | 7.67 |
| 92  | 119.98 | 104.71 | 13.58 | 300.27 | 0.00 | 0.00 | 119.99 | 104.71 | 7.67 |
| 96  | 121.75 | 101.68 | 13.58 | 300.27 | 0.00 | 0.00 | 121.75 | 101.68 | 7.67 |
| 82  | 123.51 | 98.66  | 13.58 | 300.27 | 0.00 | 0.00 | 123.51 | 98.66  | 7.67 |
| 97  | 125.28 | 95.64  | 13.58 | 300.27 | 0.00 | 0.00 | 125.28 | 95.64  | 7.67 |
| 93  | 127.04 | 92.62  | 13.58 | 300.27 | 0.00 | 0.00 | 127.04 | 92.62  | 7.67 |
| 86  | 130.33 | 87.26  | 13.58 | 300.27 | 0.00 | 0.00 | 130.33 | 87.26  | 7.67 |
| 99  | 132.64 | 83.81  | 13.58 | 300.27 | 0.00 | 0.00 | 132.64 | 83.81  | 7.67 |
| 103 | 134.40 | 80.79  | 13.58 | 300.27 | 0.00 | 0.00 | 134.40 | 80.79  | 7.67 |
| 94  | 136.17 | 77.77  | 13.58 | 300.27 | 0.00 | 0.00 | 136.17 | 77.77  | 7.67 |
| 101 | 137.93 | 74.74  | 13.58 | 300.27 | 0.00 | 0.00 | 137.93 | 74.74  | 7.67 |
| 104 | 139.69 | 71.72  | 13.58 | 300.27 | 0.00 | 0.00 | 139.69 | 71.72  | 7.67 |
| 100 | 141.46 | 68.70  | 13.58 | 300.27 | 0.00 | 0.00 | 141.46 | 68.70  | 7.67 |
| 105 | 143.22 | 65.68  | 13.58 | 300.27 | 0.00 | 0.00 | 143.22 | 65.68  | 7.67 |
| 102 | 144.99 | 62.65  | 13.58 | 300.27 | 0.00 | 0.00 | 144.99 | 62.65  | 7.67 |
| 106 | 146.75 | 59.63  | 13.58 | 300.27 | 0.00 | 0.00 | 146.75 | 59.63  | 7.67 |

##### Schmidt-Strahl GmbH Bahnsteigleuchte-Curso pA

##### LED-12W-SKII-4000K-RA80 PSH-395540-pA-G2-76-RAL9007-12W

|      |        |        |      |        |      |      |        |        |      |
|------|--------|--------|------|--------|------|------|--------|--------|------|
| 16.1 | 87.99  | 109.20 | 5.89 | 301.50 | 0.00 | 0.00 | 89.97  | 110.42 | 1.12 |
| 16.2 | 117.25 | 125.05 | 5.89 | 119.79 | 0.00 | 0.00 | 115.23 | 123.90 | 1.12 |
| 17.1 | 126.23 | 77.79  | 5.89 | 299.51 | 0.00 | 0.00 | 128.73 | 79.21  | 0.00 |
| 17.2 | 152.81 | 102.58 | 5.89 | 135.55 | 0.00 | 0.00 | 150.80 | 100.53 | 0.00 |
| 18.1 | 156.90 | 54.55  | 5.89 | 31.56  | 0.00 | 0.00 | 155.48 | 56.86  | 0.32 |
| 18.2 | 145.22 | 47.77  | 5.89 | 30.04  | 0.00 | 0.00 | 143.86 | 50.12  | 0.32 |
| 18.3 | 133.97 | 41.05  | 5.89 | 33.15  | 0.00 | 0.00 | 132.48 | 43.32  | 0.32 |
| 18.4 | 131.21 | 34.02  | 5.89 | 303.44 | 0.00 | 0.00 | 133.47 | 35.51  | 0.32 |
| 18.5 | 127.18 | 41.21  | 5.89 | 305.26 | 0.00 | 0.00 | 129.39 | 42.78  | 0.32 |
| 18.6 | 151.86 | 66.87  | 5.89 | 121.14 | 0.00 | 0.00 | 149.54 | 65.46  | 0.32 |
| 25.1 | 111.37 | 155.58 | 6.69 | 29.23  | 0.00 | 0.00 | 109.77 | 158.47 | 0.00 |
| 25.3 | 111.65 | 155.08 | 6.69 | 209.23 | 0.00 | 0.00 | 113.04 | 152.60 | 0.85 |
| 25.2 | 112.51 | 153.76 | 6.69 | 210.00 | 0.00 | 0.00 | 114.17 | 150.97 | 0.00 |
| 17   | 83.98  | 136.46 | 6.69 | 210.01 | 0.00 | 0.00 | 85.57  | 133.67 | 0.00 |
| 18   | 82.65  | 138.55 | 6.69 | 30.76  | 0.00 | 0.00 | 80.97  | 141.37 | 0.00 |
| 19   | 95.25  | 146.91 | 7.39 | 30.76  | 0.00 | 0.00 | 93.37  | 149.97 | 0.00 |
| 20   | 96.83  | 144.00 | 7.39 | 210.76 | 0.00 | 0.00 | 98.67  | 140.87 | 0.00 |
| 58   | 54.51  | 175.96 | 5.89 | 299.36 | 0.00 | 0.00 | 56.97  | 177.37 | 0.00 |

##### Schmidt-Strahl (Rademacher) 50W DBL Curso Bahnsteigleuchte

##### PSH-395521/VA/RAL9007

|      |        |        |      |        |      |      |        |        |      |
|------|--------|--------|------|--------|------|------|--------|--------|------|
| 20.1 | 142.19 | 172.80 | 6.55 | 29.23  | 0.00 | 0.00 | 141.70 | 173.67 | 0.85 |
| 20.2 | 142.58 | 172.05 | 6.55 | 210.00 | 0.00 | 0.00 | 143.09 | 171.18 | 0.85 |
| 21.2 | 33.90  | 106.02 | 6.55 | 210.00 | 0.00 | 0.00 | 34.40  | 105.15 | 0.85 |
| 22.2 | 46.48  | 114.07 | 6.55 | 210.00 | 0.00 | 0.00 | 46.98  | 113.20 | 0.85 |
| 23.2 | 59.42  | 122.30 | 6.55 | 210.00 | 0.00 | 0.00 | 59.93  | 121.43 | 0.85 |
| 24.2 | 72.10  | 129.92 | 6.55 | 210.00 | 0.00 | 0.00 | 72.60  | 129.05 | 0.85 |
| 26.2 | 128.50 | 163.43 | 6.55 | 210.00 | 0.00 | 0.00 | 129.01 | 162.56 | 0.85 |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|  |        |        |      |        |      |      |        |        |      |
|--|--------|--------|------|--------|------|------|--------|--------|------|
| 27.1   | 94.03  | 25.44  | 5.75 | 231.41 | 0.00 | 0.00 | 94.87  | 24.77  | 0.00 |
| 27.2   | 93.29  | 26.03  | 5.75 | 50.71  | 0.00 | 0.00 | 92.47  | 26.67  | 0.00 |
| 28.1   | 103.62 | 18.78  | 5.75 | 55.71  | 0.00 | 0.00 | 102.77 | 19.37  | 0.00 |
| 28.2   | 104.28 | 18.25  | 5.75 | 230.59 | 0.00 | 0.00 | 105.07 | 17.57  | 0.00 |
| Schmidt-Strahl (Rademacher) 70W DBL Curso Bahnsteigleuchte |        |        |      |        |      |      |        |        |      |
| PSH-395523/VA/RAL9007                                      |        |        |      |        |      |      |        |        |      |
| 21.1   | 33.50  | 106.77 | 6.55 | 29.23  | 0.00 | 0.00 | 33.01  | 107.65 | 0.85 |
| 22.1   | 46.09  | 114.82 | 6.55 | 29.23  | 0.00 | 0.00 | 45.59  | 115.70 | 0.85 |
| 23.1   | 59.03  | 123.05 | 6.55 | 29.23  | 0.00 | 0.00 | 58.54  | 123.92 | 0.85 |
| 24.1   | 71.70  | 130.67 | 6.55 | 29.23  | 0.00 | 0.00 | 71.21  | 131.55 | 0.85 |
| 26.1   | 128.11 | 164.19 | 6.55 | 29.23  | 0.00 | 0.00 | 127.62 | 165.06 | 0.85 |
| 1  | 103.97 | 40.03  | 5.75 | 229.50 | 0.00 | 0.00 | 104.72 | 39.39  | 0.16 |
| 2  | 114.69 | 53.17  | 5.75 | 229.50 | 0.00 | 0.00 | 115.44 | 52.53  | 0.16 |
| 3  | 125.36 | 66.40  | 5.75 | 229.50 | 0.00 | 0.00 | 126.11 | 65.76  | 0.16 |
| 4  | 136.59 | 79.12  | 5.75 | 229.50 | 0.00 | 0.00 | 137.34 | 78.48  | 0.16 |
| 5  | 146.76 | 90.44  | 5.75 | 229.50 | 0.00 | 0.00 | 147.51 | 89.79  | 0.16 |
| 6  | 159.76 | 103.94 | 5.75 | 229.50 | 0.00 | 0.00 | 160.51 | 103.30 | 0.16 |
| 7  | 171.81 | 116.06 | 5.75 | 229.50 | 0.00 | 0.00 | 172.56 | 115.42 | 0.16 |
| 8  | 184.92 | 128.42 | 5.75 | 229.50 | 0.00 | 0.00 | 185.67 | 127.78 | 0.16 |
| 9  | 113.63 | 30.78  | 5.75 | 50.51  | 0.00 | 0.00 | 112.89 | 31.39  | 0.32 |
| 10   | 123.46 | 43.43  | 5.75 | 50.51  | 0.00 | 0.00 | 122.72 | 44.04  | 0.32 |
| 11   | 134.31 | 56.68  | 5.75 | 50.51  | 0.00 | 0.00 | 133.57 | 57.28  | 0.32 |
| 12   | 145.42 | 69.75  | 5.75 | 50.51  | 0.00 | 0.00 | 144.69 | 70.36  | 0.32 |
| 13   | 156.71 | 81.97  | 5.75 | 50.51  | 0.00 | 0.00 | 155.97 | 82.58  | 0.32 |
| 14   | 168.58 | 94.33  | 5.75 | 50.51  | 0.00 | 0.00 | 167.84 | 94.94  | 0.32 |
| 15   | 180.67 | 106.47 | 5.75 | 50.51  | 0.00 | 0.00 | 179.94 | 107.08 | 0.32 |
| 16   | 193.69 | 118.74 | 5.75 | 50.51  | 0.00 | 0.00 | 192.96 | 119.35 | 0.32 |

##### Gestaltungselemente

###### Messfläche

| Nr.                          | xm[m]  | ym[m] | zm[m] | Länge | Breite | z-Achse | Drehwinkel |         |
|------------------------------|--------|-------|-------|-------|--------|---------|------------|---------|
|                              |        |       |       |       |        |         | L-Achse    | Q-Achse |
| Behelfsbrücke, hinterer Teil |        |       |       |       |        |         |            |         |
|                              | 144.83 | 55.07 | 7.90  | 62.01 | 95.17  | 31.13   | 0.00       | 0.00    |
| Stufe 1                      |        |       |       |       |        |         |            |         |
| M 11.1                       | 129.88 | 42.91 | 0.52  | 1.62  | 2.41   | 31.00   | 0.00       | 0.00    |
| Stufe 2                      |        |       |       |       |        |         |            |         |
| M 11.2                       | 130.14 | 43.07 | 0.68  | 1.62  | 2.41   | 31.00   | 0.00       | 0.00    |
| Stufe 3                      |        |       |       |       |        |         |            |         |
| M 11.3                       | 130.41 | 43.23 | 0.84  | 1.62  | 2.41   | 31.00   | 0.00       | 0.00    |
| Stufe 4                      |        |       |       |       |        |         |            |         |
| M 11.4                       | 130.67 | 43.39 | 1.00  | 1.62  | 2.41   | 31.00   | 0.00       | 0.00    |
| Stufe 5                      |        |       |       |       |        |         |            |         |
| M 11.5                       | 130.94 | 43.55 | 1.16  | 1.62  | 2.41   | 31.00   | 0.00       | 0.00    |
| Stufe 6                      |        |       |       |       |        |         |            |         |
| M 11.6                       | 131.21 | 43.71 | 1.32  | 1.62  | 2.41   | 31.00   | 0.00       | 0.00    |
| Stufe 7                      |        |       |       |       |        |         |            |         |
| M 11.7                       | 131.47 | 43.87 | 1.48  | 1.62  | 2.41   | 31.00   | 0.00       | 0.00    |
| Stufe 8                      |        |       |       |       |        |         |            |         |
| M 11.8                       | 131.74 | 44.03 | 1.64  | 1.62  | 2.41   | 31.00   | 0.00       | 0.00    |
| Stufe 9                      |        |       |       |       |        |         |            |         |
| M 11.9                       | 132.00 | 44.19 | 1.80  | 1.62  | 2.41   | 31.00   | 0.00       | 0.00    |
| Stufe 10                     |        |       |       |       |        |         |            |         |
| M 11.10                      | 132.27 | 44.35 | 1.96  | 1.62  | 2.41   | 31.00   | 0.00       | 0.00    |



### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|          |        |       |      |      |      |       |      |      |
|----------|--------|-------|------|------|------|-------|------|------|
| Stufe 11 |        |       |      |      |      |       |      |      |
| M 11.1.1 | 132.53 | 44.51 | 2.12 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 12 |        |       |      |      |      |       |      |      |
| M 11.1.2 | 132.80 | 44.67 | 2.28 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 13 |        |       |      |      |      |       |      |      |
| M 11.1.3 | 133.07 | 44.83 | 2.44 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 14 |        |       |      |      |      |       |      |      |
| M 11.1.4 | 133.33 | 44.99 | 2.60 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Podest   |        |       |      |      |      |       |      |      |
| M 11.1.5 | 133.60 | 45.15 | 2.76 | 3.50 | 3.54 | 31.00 | 0.00 | 0.00 |
| Stufe 15 |        |       |      |      |      |       |      |      |
| M 11.1.6 | 135.74 | 46.44 | 2.92 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 16 |        |       |      |      |      |       |      |      |
| M 11.1.7 | 136.01 | 46.60 | 3.08 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 17 |        |       |      |      |      |       |      |      |
| M 11.1.8 | 136.27 | 46.76 | 3.24 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 18 |        |       |      |      |      |       |      |      |
| M 11.1.9 | 136.54 | 46.92 | 3.40 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 19 |        |       |      |      |      |       |      |      |
| M 11.2.0 | 136.80 | 47.08 | 3.56 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 20 |        |       |      |      |      |       |      |      |
| M 11.2.1 | 137.07 | 47.24 | 3.72 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 21 |        |       |      |      |      |       |      |      |
| M 11.2.2 | 137.33 | 47.39 | 3.88 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 22 |        |       |      |      |      |       |      |      |
| M 11.2.3 | 137.60 | 47.55 | 4.04 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 23 |        |       |      |      |      |       |      |      |
| M 11.2.4 | 137.87 | 47.71 | 4.20 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 24 |        |       |      |      |      |       |      |      |
| M 11.2.5 | 138.13 | 47.87 | 4.36 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 25 |        |       |      |      |      |       |      |      |
| M 11.2.6 | 138.40 | 48.03 | 4.52 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 26 |        |       |      |      |      |       |      |      |
| M 11.2.7 | 138.66 | 48.19 | 4.68 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 27 |        |       |      |      |      |       |      |      |
| M 11.2.8 | 138.93 | 48.35 | 4.84 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 28 |        |       |      |      |      |       |      |      |
| M 11.2.9 | 139.19 | 48.51 | 5.00 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 29 |        |       |      |      |      |       |      |      |
| M 11.3.0 | 139.46 | 48.67 | 5.16 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Podest   |        |       |      |      |      |       |      |      |
| M 11.3.1 | 139.73 | 48.83 | 5.32 | 3.50 | 3.54 | 31.00 | 0.00 | 0.00 |
| Stufe 30 |        |       |      |      |      |       |      |      |
| M 11.3.2 | 141.87 | 50.12 | 5.48 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 31 |        |       |      |      |      |       |      |      |
| M 11.3.3 | 142.13 | 50.28 | 5.64 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 32 |        |       |      |      |      |       |      |      |
| M 11.3.4 | 142.40 | 50.44 | 5.80 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 33 |        |       |      |      |      |       |      |      |
| M 11.3.5 | 142.67 | 50.60 | 5.96 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 34 |        |       |      |      |      |       |      |      |
| M 11.3.6 | 142.93 | 50.76 | 6.12 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 35 |        |       |      |      |      |       |      |      |
| M 11.3.7 | 143.20 | 50.92 | 6.28 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 36 |        |       |      |      |      |       |      |      |
| M 11.3.8 | 143.46 | 51.08 | 6.44 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |
| Stufe 37 |        |       |      |      |      |       |      |      |
| M 11.3.9 | 143.73 | 51.24 | 6.60 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|          |        |        |      |      |      |        |      |      |
|----------|--------|--------|------|------|------|--------|------|------|
| Stufe 38 |        |        |      |      |      |        |      |      |
| M 11.4   | 143.99 | 51.40  | 6.76 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 |
| Stufe 39 |        |        |      |      |      |        |      |      |
| M 11.4   | 144.26 | 51.56  | 6.92 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 |
| Stufe 40 |        |        |      |      |      |        |      |      |
| M 11.4   | 144.53 | 51.72  | 7.08 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 |
| Stufe 41 |        |        |      |      |      |        |      |      |
| M 11.4   | 144.79 | 51.88  | 7.24 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 |
| Stufe 42 |        |        |      |      |      |        |      |      |
| M 11.4   | 145.06 | 52.04  | 7.40 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 |
| Stufe 43 |        |        |      |      |      |        |      |      |
| M 11.4   | 145.32 | 52.19  | 7.56 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 |
| Stufe 44 |        |        |      |      |      |        |      |      |
| M 11.4   | 145.59 | 52.35  | 7.72 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 |
| Podest   |        |        |      |      |      |        |      |      |
| M 11.4   | 145.85 | 52.51  | 7.88 | 3.50 | 3.54 | 31.00  | 0.00 | 0.00 |
| Stufe 1  |        |        |      |      |      |        |      |      |
| M 12.1   | 148.12 | 103.64 | 0.20 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 2  |        |        |      |      |      |        |      |      |
| M 12.2   | 147.85 | 103.49 | 0.36 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 3  |        |        |      |      |      |        |      |      |
| M 12.3   | 147.58 | 103.33 | 0.52 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 4  |        |        |      |      |      |        |      |      |
| M 12.4   | 147.32 | 103.17 | 0.68 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 5  |        |        |      |      |      |        |      |      |
| M 12.5   | 147.05 | 103.01 | 0.84 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 6  |        |        |      |      |      |        |      |      |
| M 12.6   | 146.78 | 102.86 | 1.00 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 7  |        |        |      |      |      |        |      |      |
| M 12.7   | 146.52 | 102.70 | 1.16 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 8  |        |        |      |      |      |        |      |      |
| M 12.8   | 146.25 | 102.54 | 1.32 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 9  |        |        |      |      |      |        |      |      |
| M 12.9   | 145.98 | 102.39 | 1.48 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 10 |        |        |      |      |      |        |      |      |
| M 12.1   | 145.71 | 102.23 | 1.64 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 11 |        |        |      |      |      |        |      |      |
| M 12.1   | 145.45 | 102.07 | 1.80 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 12 |        |        |      |      |      |        |      |      |
| M 12.1   | 145.18 | 101.91 | 1.96 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 13 |        |        |      |      |      |        |      |      |
| M 12.1   | 144.91 | 101.76 | 2.12 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 14 |        |        |      |      |      |        |      |      |
| M 12.1   | 144.65 | 101.60 | 2.28 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Podest   |        |        |      |      |      |        |      |      |
| M 12.1   | 144.38 | 101.44 | 2.44 | 3.49 | 3.53 | 210.50 | 0.00 | 0.00 |
| Stufe 15 |        |        |      |      |      |        |      |      |
| M 12.1   | 142.23 | 100.17 | 2.60 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 16 |        |        |      |      |      |        |      |      |
| M 12.1   | 141.96 | 100.01 | 2.76 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 17 |        |        |      |      |      |        |      |      |
| M 12.1   | 141.69 | 99.86  | 2.92 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 18 |        |        |      |      |      |        |      |      |
| M 12.1   | 141.42 | 99.70  | 3.08 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 19 |        |        |      |      |      |        |      |      |
| M 12.2   | 141.16 | 99.54  | 3.24 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 20 |        |        |      |      |      |        |      |      |
| M 12.2   | 140.89 | 99.39  | 3.40 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|          |        |        |      |      |      |        |      |      |
|----------|--------|--------|------|------|------|--------|------|------|
| Stufe 21 |        |        |      |      |      |        |      |      |
| M 12.2.2 | 140.62 | 99.23  | 3.56 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 22 |        |        |      |      |      |        |      |      |
| M 12.2.3 | 140.36 | 99.07  | 3.72 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 23 |        |        |      |      |      |        |      |      |
| M 12.2.4 | 140.09 | 98.91  | 3.88 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 24 |        |        |      |      |      |        |      |      |
| M 12.2.5 | 139.82 | 98.76  | 4.04 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 25 |        |        |      |      |      |        |      |      |
| M 12.2.6 | 139.55 | 98.60  | 4.20 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 26 |        |        |      |      |      |        |      |      |
| M 12.2.7 | 139.29 | 98.44  | 4.36 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 27 |        |        |      |      |      |        |      |      |
| M 12.2.8 | 139.02 | 98.28  | 4.52 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 28 |        |        |      |      |      |        |      |      |
| M 12.2.9 | 138.75 | 98.13  | 4.68 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 29 |        |        |      |      |      |        |      |      |
| M 12.3.0 | 138.49 | 97.97  | 4.84 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 30 |        |        |      |      |      |        |      |      |
| M 12.3.1 | 138.22 | 97.81  | 5.00 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Podest   |        |        |      |      |      |        |      |      |
| M 12.3.2 | 137.95 | 97.65  | 5.16 | 3.49 | 3.53 | 210.50 | 0.00 | 0.00 |
| Stufe 31 |        |        |      |      |      |        |      |      |
| M 12.3.3 | 135.80 | 96.39  | 5.32 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 32 |        |        |      |      |      |        |      |      |
| M 12.3.4 | 135.53 | 96.23  | 5.48 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 33 |        |        |      |      |      |        |      |      |
| M 12.3.5 | 135.26 | 96.07  | 5.64 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 34 |        |        |      |      |      |        |      |      |
| M 12.3.6 | 135.00 | 95.91  | 5.80 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 35 |        |        |      |      |      |        |      |      |
| M 12.3.7 | 134.73 | 95.76  | 5.96 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 36 |        |        |      |      |      |        |      |      |
| M 12.3.8 | 134.46 | 95.60  | 6.12 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 37 |        |        |      |      |      |        |      |      |
| M 12.3.9 | 134.19 | 95.44  | 6.28 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 38 |        |        |      |      |      |        |      |      |
| M 12.4.0 | 133.93 | 95.28  | 6.44 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 39 |        |        |      |      |      |        |      |      |
| M 12.4.1 | 133.66 | 95.13  | 6.60 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 40 |        |        |      |      |      |        |      |      |
| M 12.4.2 | 133.39 | 94.97  | 6.76 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 41 |        |        |      |      |      |        |      |      |
| M 12.4.3 | 133.13 | 94.81  | 6.92 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 42 |        |        |      |      |      |        |      |      |
| M 12.4.4 | 132.86 | 94.66  | 7.08 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 43 |        |        |      |      |      |        |      |      |
| M 12.4.5 | 132.59 | 94.50  | 7.24 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 44 |        |        |      |      |      |        |      |      |
| M 12.4.6 | 132.33 | 94.34  | 7.40 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 45 |        |        |      |      |      |        |      |      |
| M 12.4.8 | 132.06 | 94.18  | 7.56 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Stufe 45 |        |        |      |      |      |        |      |      |
| M 12.4.9 | 131.79 | 94.03  | 7.72 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 |
| Podest   |        |        |      |      |      |        |      |      |
| M 12.4.7 | 131.52 | 93.87  | 7.88 | 3.49 | 3.53 | 210.50 | 0.00 | 0.00 |
| Stufe 1  |        |        |      |      |      |        |      |      |
| M 19.1   | 58.61  | 176.85 | 0.52 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|          |       |        |      |      |      |       |      |      |  |
|----------|-------|--------|------|------|------|-------|------|------|--|
| Stufe 2  |       |        |      |      |      |       |      |      |  |
| M 19.2   | 58.88 | 177.01 | 0.68 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 3  |       |        |      |      |      |       |      |      |  |
| M 19.3   | 59.14 | 177.17 | 0.84 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 4  |       |        |      |      |      |       |      |      |  |
| M 19.4   | 59.41 | 177.33 | 1.00 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 5  |       |        |      |      |      |       |      |      |  |
| M 19.5   | 59.67 | 177.49 | 1.16 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 6  |       |        |      |      |      |       |      |      |  |
| M 19.6   | 59.94 | 177.65 | 1.32 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 7  |       |        |      |      |      |       |      |      |  |
| M 19.7   | 60.20 | 177.81 | 1.48 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 8  |       |        |      |      |      |       |      |      |  |
| M 19.8   | 60.47 | 177.97 | 1.64 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 9  |       |        |      |      |      |       |      |      |  |
| M 19.9   | 60.74 | 178.13 | 1.80 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 10 |       |        |      |      |      |       |      |      |  |
| M 19.10  | 61.00 | 178.29 | 1.96 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 11 |       |        |      |      |      |       |      |      |  |
| M 19.11  | 61.27 | 178.45 | 2.12 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 12 |       |        |      |      |      |       |      |      |  |
| M 19.12  | 61.53 | 178.61 | 2.28 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Podest   |       |        |      |      |      |       |      |      |  |
| M 19.15  | 61.79 | 178.78 | 2.41 | 3.51 | 3.56 | 31.00 | 0.00 | 0.00 |  |
| Stufe 13 |       |        |      |      |      |       |      |      |  |
| M 19.13  | 63.93 | 180.06 | 2.64 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 14 |       |        |      |      |      |       |      |      |  |
| M 19.14  | 64.20 | 180.22 | 2.80 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 15 |       |        |      |      |      |       |      |      |  |
| M 19.16  | 64.47 | 180.38 | 2.92 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 16 |       |        |      |      |      |       |      |      |  |
| M 19.17  | 64.74 | 180.54 | 3.08 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 17 |       |        |      |      |      |       |      |      |  |
| M 19.18  | 65.00 | 180.70 | 3.24 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 18 |       |        |      |      |      |       |      |      |  |
| M 19.19  | 65.27 | 180.85 | 3.40 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 19 |       |        |      |      |      |       |      |      |  |
| M 19.20  | 65.54 | 181.01 | 3.56 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 20 |       |        |      |      |      |       |      |      |  |
| M 19.21  | 65.80 | 181.17 | 3.72 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 21 |       |        |      |      |      |       |      |      |  |
| M 19.22  | 66.07 | 181.33 | 3.88 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 22 |       |        |      |      |      |       |      |      |  |
| M 19.23  | 66.33 | 181.49 | 4.04 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 23 |       |        |      |      |      |       |      |      |  |
| M 19.24  | 66.60 | 181.65 | 4.20 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 24 |       |        |      |      |      |       |      |      |  |
| M 19.25  | 66.86 | 181.81 | 4.36 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 25 |       |        |      |      |      |       |      |      |  |
| M 19.26  | 67.13 | 181.97 | 4.52 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 26 |       |        |      |      |      |       |      |      |  |
| M 19.27  | 67.40 | 182.13 | 4.68 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 27 |       |        |      |      |      |       |      |      |  |
| M 19.28  | 67.66 | 182.29 | 4.84 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Podest   |       |        |      |      |      |       |      |      |  |
| M 19.29  | 67.93 | 182.45 | 5.10 | 3.56 | 3.65 | 31.00 | 0.00 | 0.00 |  |
| Stufe 1  |       |        |      |      |      |       |      |      |  |
| M 14.1   | 78.30 | 133.44 | 1.32 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|          |       |        |      |      |      |       |      |      |  |
|----------|-------|--------|------|------|------|-------|------|------|--|
| Stufe 2  |       |        |      |      |      |       |      |      |  |
| M 14.2   | 78.56 | 133.60 | 1.48 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 3  |       |        |      |      |      |       |      |      |  |
| M 14.3   | 78.83 | 133.76 | 1.64 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 4  |       |        |      |      |      |       |      |      |  |
| M 14.4   | 79.10 | 133.92 | 1.80 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 5  |       |        |      |      |      |       |      |      |  |
| M 14.5   | 79.36 | 134.08 | 1.96 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 6  |       |        |      |      |      |       |      |      |  |
| M 14.6   | 79.63 | 134.24 | 2.12 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 7  |       |        |      |      |      |       |      |      |  |
| M 14.7   | 79.89 | 134.40 | 2.28 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 8  |       |        |      |      |      |       |      |      |  |
| M 14.8   | 80.16 | 134.56 | 2.44 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 9  |       |        |      |      |      |       |      |      |  |
| M 14.9   | 80.42 | 134.72 | 2.60 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 10 |       |        |      |      |      |       |      |      |  |
| M 14.10  | 80.69 | 134.88 | 2.76 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 11 |       |        |      |      |      |       |      |      |  |
| M 14.11  | 80.96 | 135.04 | 2.92 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 12 |       |        |      |      |      |       |      |      |  |
| M 14.12  | 81.22 | 135.20 | 3.08 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 13 |       |        |      |      |      |       |      |      |  |
| M 14.13  | 81.49 | 135.36 | 3.24 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Podest   |       |        |      |      |      |       |      |      |  |
| M 14.14  | 81.75 | 135.52 | 3.40 | 3.07 | 2.83 | 31.00 | 0.00 | 0.00 |  |
| Stufe 14 |       |        |      |      |      |       |      |      |  |
| M 14.15  | 83.90 | 136.81 | 3.56 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 15 |       |        |      |      |      |       |      |      |  |
| M 14.16  | 84.16 | 136.97 | 3.72 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 16 |       |        |      |      |      |       |      |      |  |
| M 14.17  | 84.43 | 137.13 | 3.88 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 17 |       |        |      |      |      |       |      |      |  |
| M 14.18  | 84.69 | 137.29 | 4.04 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 18 |       |        |      |      |      |       |      |      |  |
| M 14.19  | 84.96 | 137.45 | 4.20 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 19 |       |        |      |      |      |       |      |      |  |
| M 14.20  | 85.22 | 137.61 | 4.36 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 20 |       |        |      |      |      |       |      |      |  |
| M 14.21  | 85.49 | 137.77 | 4.52 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 21 |       |        |      |      |      |       |      |      |  |
| M 14.22  | 85.76 | 137.93 | 4.68 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 22 |       |        |      |      |      |       |      |      |  |
| M 14.23  | 86.02 | 138.09 | 4.84 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 23 |       |        |      |      |      |       |      |      |  |
| M 14.24  | 86.29 | 138.25 | 5.00 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 24 |       |        |      |      |      |       |      |      |  |
| M 14.25  | 86.55 | 138.40 | 5.16 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 25 |       |        |      |      |      |       |      |      |  |
| M 14.26  | 86.82 | 138.56 | 5.32 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 26 |       |        |      |      |      |       |      |      |  |
| M 14.27  | 87.08 | 138.72 | 5.48 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Podest   |       |        |      |      |      |       |      |      |  |
| M 14.28  | 87.35 | 138.88 | 5.64 | 3.07 | 2.83 | 31.00 | 0.00 | 0.00 |  |
| Stufe 27 |       |        |      |      |      |       |      |      |  |
| M 14.29  | 89.49 | 140.17 | 5.80 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 28 |       |        |      |      |      |       |      |      |  |
| M 14.30  | 89.76 | 140.33 | 5.96 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|          |       |        |      |      |      |       |      |      |  |
|----------|-------|--------|------|------|------|-------|------|------|--|
| Stufe 29 |       |        |      |      |      |       |      |      |  |
| M 14.31  | 90.02 | 140.49 | 6.12 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 30 |       |        |      |      |      |       |      |      |  |
| M 14.32  | 90.29 | 140.65 | 6.28 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 31 |       |        |      |      |      |       |      |      |  |
| M 14.33  | 90.56 | 140.81 | 6.44 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 32 |       |        |      |      |      |       |      |      |  |
| M 14.34  | 90.82 | 140.97 | 6.60 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 33 |       |        |      |      |      |       |      |      |  |
| M 14.35  | 91.09 | 141.13 | 6.76 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 34 |       |        |      |      |      |       |      |      |  |
| M 14.36  | 91.35 | 141.29 | 6.92 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 35 |       |        |      |      |      |       |      |      |  |
| M 14.37  | 91.62 | 141.45 | 7.08 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 36 |       |        |      |      |      |       |      |      |  |
| M 14.38  | 91.89 | 141.61 | 7.24 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 37 |       |        |      |      |      |       |      |      |  |
| M 14.39  | 92.15 | 141.77 | 7.40 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 38 |       |        |      |      |      |       |      |      |  |
| M 14.40  | 92.42 | 141.93 | 7.56 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Stufe 39 |       |        |      |      |      |       |      |      |  |
| M 14.41  | 92.68 | 142.09 | 7.72 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 |  |
| Podest   |       |        |      |      |      |       |      |      |  |
| M 14.42  | 92.95 | 142.25 | 7.88 | 3.07 | 2.83 | 31.00 | 0.00 | 0.00 |  |
| Stufe 1  |       |        |      |      |      |       |      |      |  |
| M 15.1   | 89.79 | 112.34 | 1.32 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 2  |       |        |      |      |      |       |      |      |  |
| M 15.2   | 90.06 | 112.50 | 1.48 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 3  |       |        |      |      |      |       |      |      |  |
| M 15.3   | 90.32 | 112.66 | 1.64 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 4  |       |        |      |      |      |       |      |      |  |
| M 15.4   | 90.59 | 112.82 | 1.80 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 5  |       |        |      |      |      |       |      |      |  |
| M 15.5   | 90.85 | 112.98 | 1.96 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 6  |       |        |      |      |      |       |      |      |  |
| M 15.6   | 91.12 | 113.14 | 2.12 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 7  |       |        |      |      |      |       |      |      |  |
| M 15.7   | 91.38 | 113.30 | 2.28 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 8  |       |        |      |      |      |       |      |      |  |
| M 15.8   | 91.65 | 113.46 | 2.44 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 9  |       |        |      |      |      |       |      |      |  |
| M 15.9   | 91.92 | 113.62 | 2.60 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 10 |       |        |      |      |      |       |      |      |  |
| M 15.10  | 92.18 | 113.78 | 2.76 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 11 |       |        |      |      |      |       |      |      |  |
| M 15.11  | 92.45 | 113.94 | 2.92 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 12 |       |        |      |      |      |       |      |      |  |
| M 15.12  | 92.71 | 114.10 | 3.08 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 13 |       |        |      |      |      |       |      |      |  |
| M 15.13  | 92.98 | 114.25 | 3.24 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Podest   |       |        |      |      |      |       |      |      |  |
| M 15.14  | 93.24 | 114.41 | 3.40 | 3.50 | 3.54 | 31.00 | 0.00 | 0.00 |  |
| Stufe 14 |       |        |      |      |      |       |      |      |  |
| M 15.15  | 95.39 | 115.70 | 3.56 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 15 |       |        |      |      |      |       |      |      |  |
| M 15.16  | 95.65 | 115.86 | 3.72 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |
| Stufe 16 |       |        |      |      |      |       |      |      |  |
| M 15.17  | 95.92 | 116.02 | 3.88 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 |  |

Objekt : Beleuchtungsanlage  
 Anlage : Georg-Schwarz-Brücken  
 Projektnummer : 310852  
 Datum : 18.12.2024

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|  |        |        |      |       |       |        |      |      |  |
|--|--------|--------|------|-------|-------|--------|------|------|--|
| Stufe 17                               |        |        |      |       |       |        |      |      |  |
| M 15.18                                | 96.18  | 116.18 | 4.04 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 18                               |        |        |      |       |       |        |      |      |  |
| M 15.19                                | 96.45  | 116.34 | 4.20 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 19                               |        |        |      |       |       |        |      |      |  |
| M 15.20                                | 96.72  | 116.50 | 4.36 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 20                               |        |        |      |       |       |        |      |      |  |
| M 15.21                                | 96.98  | 116.66 | 4.52 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 21                               |        |        |      |       |       |        |      |      |  |
| M 15.22                                | 97.25  | 116.82 | 4.68 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 22                               |        |        |      |       |       |        |      |      |  |
| M 15.23                                | 97.51  | 116.98 | 4.84 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 23                               |        |        |      |       |       |        |      |      |  |
| M 15.24                                | 97.78  | 117.14 | 5.00 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 24                               |        |        |      |       |       |        |      |      |  |
| M 15.25                                | 98.04  | 117.30 | 5.16 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 25                               |        |        |      |       |       |        |      |      |  |
| M 15.26                                | 98.31  | 117.46 | 5.32 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 26                               |        |        |      |       |       |        |      |      |  |
| M 15.27                                | 98.58  | 117.62 | 5.48 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Podest                                 |        |        |      |       |       |        |      |      |  |
| M 15.28                                | 98.84  | 117.78 | 5.64 | 3.50  | 3.54  | 31.00  | 0.00 | 0.00 |  |
| Stufe 27                               |        |        |      |       |       |        |      |      |  |
| M 15.29                                | 100.98 | 119.07 | 5.80 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 28                               |        |        |      |       |       |        |      |      |  |
| M 15.30                                | 101.25 | 119.22 | 5.96 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 29                               |        |        |      |       |       |        |      |      |  |
| M 15.31                                | 101.52 | 119.38 | 6.12 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 30                               |        |        |      |       |       |        |      |      |  |
| M 15.32                                | 101.78 | 119.54 | 6.28 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 31                               |        |        |      |       |       |        |      |      |  |
| M 15.33                                | 102.05 | 119.70 | 6.44 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 32                               |        |        |      |       |       |        |      |      |  |
| M 15.34                                | 102.31 | 119.86 | 6.60 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 33                               |        |        |      |       |       |        |      |      |  |
| M 15.35                                | 102.58 | 120.02 | 6.76 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 34                               |        |        |      |       |       |        |      |      |  |
| M 15.36                                | 102.84 | 120.18 | 6.92 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 35                               |        |        |      |       |       |        |      |      |  |
| M 15.37                                | 103.11 | 120.34 | 7.08 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 36                               |        |        |      |       |       |        |      |      |  |
| M 15.38                                | 103.38 | 120.50 | 7.24 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 37                               |        |        |      |       |       |        |      |      |  |
| M 15.39                                | 103.64 | 120.66 | 7.40 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 38                               |        |        |      |       |       |        |      |      |  |
| M 15.40                                | 103.91 | 120.82 | 7.56 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Stufe 39                               |        |        |      |       |       |        |      |      |  |
| M 15.41                                | 104.17 | 120.98 | 7.72 | 1.62  | 2.41  | 31.00  | 0.00 | 0.00 |  |
| Podest                                 |        |        |      |       |       |        |      |      |  |
| M 15.42                                | 104.44 | 121.14 | 7.88 | 3.50  | 3.54  | 31.00  | 0.00 | 0.00 |  |
| Zuweg Lift - Bstg 3                    |        |        |      |       |       |        |      |      |  |
|  | 131.11 | 73.34  | 0.06 | 12.60 | 16.95 | 31.06  | 0.00 | 0.00 |  |
| Zuweg Treppe - Bstg 3                  |        |        |      |       |       |        |      |      |  |
|  | 148.29 | 103.63 | 0.06 | 7.50  | 8.57  | 301.91 | 0.00 | 0.00 |  |
| Zuweg Bstg 4                           |        |        |      |       |       |        |      |      |  |
|  | 124.80 | 44.51  | 0.38 | 43.51 | 40.97 | 300.62 | 0.00 | 0.00 |  |
| Zugang 1 Treppe Ritterschlösschen Str. |        |        |      |       |       |        |      |      |  |
|  | 88.59  | 114.69 | 1.18 | 7.57  | 9.86  | 301.04 | 0.00 | 0.00 |  |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|                                      |        |      |         |         |        |       |      |  |
|--------------------------------------|--------|------|---------|---------|--------|-------|------|--|
| Zugang 2 Lift Ritterschlösschen Str. |        |      |         |         |        |       |      |  |
| 111.33                               | 128.34 | 1.18 | 8.38    | 11.67   | 23.45  | 0.00  | 0.00 |  |
| Bahnsteig 3                          |        |      |         |         |        |       |      |  |
| 92.59                                | 29.39  | 0.22 | 129.50  | 121.90  | 312.96 | 0.00  | 0.00 |  |
| Bahnsteig 4                          |        |      |         |         |        |       |      |  |
| 102.55                               | 19.97  | 0.42 | 133.52  | 122.89  | 322.66 | 0.00  | 0.00 |  |
| Mittelbahnsteig 1/2                  |        |      |         |         |        |       |      |  |
| 27.24                                | 106.90 | 0.88 | 2338.33 | 3201.56 | 304.24 | 0.00  | 0.00 |  |
| Behelfsbrücke, vorderer Teil         |        |      |         |         |        |       |      |  |
| 94.08                                | 145.28 | 7.69 | 27.54   | 44.30   | 29.19  | -3.30 | 0.00 |  |
| Nutze. 1.1                           |        |      |         |         |        |       |      |  |
| 0.00                                 | 0.00   | 0.00 | 247.92  | 216.16  | 359.50 | 0.00  | 0.00 |  |

##### Sonstige

| Nr.           | xm[m]  | ym[m]  | zm[m] | Länge | Breite | z-Achse | Drehwinkel<br>L-Achse | Q-Achse | rho[%] |
|---------------|--------|--------|-------|-------|--------|---------|-----------------------|---------|--------|
| Behelfsbrücke |        |        |       |       |        |         |                       |         |        |
| Q 1           | 66.55  | 184.85 | 7.62  | 62.01 | 95.17  | 31.13   | 0.00                  | 0.00    | 50     |
| Stufe 1       |        |        |       |       |        |         |                       |         |        |
| Q 1.1         | 129.88 | 42.91  | 0.32  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 2       |        |        |       |       |        |         |                       |         |        |
| Q 1.2         | 130.14 | 43.07  | 0.48  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 3       |        |        |       |       |        |         |                       |         |        |
| Q 1.3         | 130.41 | 43.23  | 0.64  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 4       |        |        |       |       |        |         |                       |         |        |
| Q 1.4         | 130.67 | 43.39  | 0.80  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 5       |        |        |       |       |        |         |                       |         |        |
| Q 1.5         | 130.94 | 43.55  | 0.96  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 6       |        |        |       |       |        |         |                       |         |        |
| Q 1.6         | 131.21 | 43.71  | 1.12  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 7       |        |        |       |       |        |         |                       |         |        |
| Q 1.7         | 131.47 | 43.87  | 1.28  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 8       |        |        |       |       |        |         |                       |         |        |
| Q 1.8         | 131.74 | 44.03  | 1.44  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 9       |        |        |       |       |        |         |                       |         |        |
| Q 1.9         | 132.00 | 44.19  | 1.60  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 10      |        |        |       |       |        |         |                       |         |        |
| Q 1.10        | 132.27 | 44.35  | 1.76  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 11      |        |        |       |       |        |         |                       |         |        |
| Q 1.11        | 132.53 | 44.51  | 1.92  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 12      |        |        |       |       |        |         |                       |         |        |
| Q 1.12        | 132.80 | 44.67  | 2.08  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 13      |        |        |       |       |        |         |                       |         |        |
| Q 1.13        | 133.07 | 44.83  | 2.24  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 14      |        |        |       |       |        |         |                       |         |        |
| Q 1.14        | 133.33 | 44.99  | 2.40  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Podest        |        |        |       |       |        |         |                       |         |        |
| Q 1.15        | 133.60 | 45.15  | 2.56  | 3.50  | 3.54   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 15      |        |        |       |       |        |         |                       |         |        |
| Q 1.16        | 135.74 | 46.44  | 2.72  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 16      |        |        |       |       |        |         |                       |         |        |
| Q 1.17        | 136.01 | 46.60  | 2.88  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 17      |        |        |       |       |        |         |                       |         |        |
| Q 1.18        | 136.27 | 46.76  | 3.04  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 18      |        |        |       |       |        |         |                       |         |        |
| Q 1.19        | 136.54 | 46.92  | 3.20  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |
| Stufe 19      |        |        |       |       |        |         |                       |         |        |
| Q 1.20        | 136.80 | 47.08  | 3.36  | 1.62  | 2.41   | 31.00   | 0.00                  | 0.00    | 50     |



Objekt : Beleuchtungsanlage  
 Anlage : Georg-Schwarz-Brücken  
 Projektnummer : 310852  
 Datum : 18.12.2024

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|          |        |        |      |      |      |        |      |      |    |
|----------|--------|--------|------|------|------|--------|------|------|----|
| Stufe 20 |        |        |      |      |      |        |      |      |    |
| Q 1.21   | 137.07 | 47.24  | 3.52 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 21 |        |        |      |      |      |        |      |      |    |
| Q 1.22   | 137.33 | 47.39  | 3.68 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 22 |        |        |      |      |      |        |      |      |    |
| Q 1.23   | 137.60 | 47.55  | 3.84 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 23 |        |        |      |      |      |        |      |      |    |
| Q 1.24   | 137.87 | 47.71  | 4.00 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 24 |        |        |      |      |      |        |      |      |    |
| Q 1.25   | 138.13 | 47.87  | 4.16 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 25 |        |        |      |      |      |        |      |      |    |
| Q 1.26   | 138.40 | 48.03  | 4.32 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 26 |        |        |      |      |      |        |      |      |    |
| Q 1.27   | 138.66 | 48.19  | 4.48 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 27 |        |        |      |      |      |        |      |      |    |
| Q 1.28   | 138.93 | 48.35  | 4.64 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 28 |        |        |      |      |      |        |      |      |    |
| Q 1.29   | 139.19 | 48.51  | 4.80 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 29 |        |        |      |      |      |        |      |      |    |
| Q 1.30   | 139.46 | 48.67  | 4.96 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Podest   |        |        |      |      |      |        |      |      |    |
| Q 1.31   | 139.73 | 48.83  | 5.12 | 3.50 | 3.54 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 30 |        |        |      |      |      |        |      |      |    |
| Q 1.32   | 141.87 | 50.12  | 5.28 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 31 |        |        |      |      |      |        |      |      |    |
| Q 1.33   | 142.13 | 50.28  | 5.44 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 32 |        |        |      |      |      |        |      |      |    |
| Q 1.34   | 142.40 | 50.44  | 5.60 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 33 |        |        |      |      |      |        |      |      |    |
| Q 1.35   | 142.67 | 50.60  | 5.76 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 34 |        |        |      |      |      |        |      |      |    |
| Q 1.36   | 142.93 | 50.76  | 5.92 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 35 |        |        |      |      |      |        |      |      |    |
| Q 1.37   | 143.20 | 50.92  | 6.08 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 36 |        |        |      |      |      |        |      |      |    |
| Q 1.38   | 143.46 | 51.08  | 6.24 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 37 |        |        |      |      |      |        |      |      |    |
| Q 1.39   | 143.73 | 51.24  | 6.40 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 38 |        |        |      |      |      |        |      |      |    |
| Q 1.40   | 143.99 | 51.40  | 6.56 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 39 |        |        |      |      |      |        |      |      |    |
| Q 1.41   | 144.26 | 51.56  | 6.72 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 40 |        |        |      |      |      |        |      |      |    |
| Q 1.42   | 144.53 | 51.72  | 6.88 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 41 |        |        |      |      |      |        |      |      |    |
| Q 1.43   | 144.79 | 51.88  | 7.04 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 42 |        |        |      |      |      |        |      |      |    |
| Q 1.44   | 145.06 | 52.04  | 7.20 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 43 |        |        |      |      |      |        |      |      |    |
| Q 1.45   | 145.32 | 52.19  | 7.36 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 44 |        |        |      |      |      |        |      |      |    |
| Q 1.46   | 145.59 | 52.35  | 7.52 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |
| Podest   |        |        |      |      |      |        |      |      |    |
| Q 1.47   | 145.85 | 52.51  | 7.68 | 3.50 | 3.54 | 31.00  | 0.00 | 0.00 | 50 |
| Stufe 1  |        |        |      |      |      |        |      |      |    |
| Q 5.1    | 148.12 | 103.64 | 0.00 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |
| Stufe 2  |        |        |      |      |      |        |      |      |    |
| Q 5.2    | 147.85 | 103.49 | 0.16 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|          |        |        |      |      |      |        |      |      |    |  |
|----------|--------|--------|------|------|------|--------|------|------|----|--|
| Stufe 3  |        |        |      |      |      |        |      |      |    |  |
| Q 5.3    | 147.58 | 103.33 | 0.32 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 4  |        |        |      |      |      |        |      |      |    |  |
| Q 5.4    | 147.32 | 103.17 | 0.48 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 5  |        |        |      |      |      |        |      |      |    |  |
| Q 5.5    | 147.05 | 103.01 | 0.64 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 6  |        |        |      |      |      |        |      |      |    |  |
| Q 5.6    | 146.78 | 102.86 | 0.80 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 7  |        |        |      |      |      |        |      |      |    |  |
| Q 5.7    | 146.52 | 102.70 | 0.96 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 8  |        |        |      |      |      |        |      |      |    |  |
| Q 5.8    | 146.25 | 102.54 | 1.12 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 9  |        |        |      |      |      |        |      |      |    |  |
| Q 5.9    | 145.98 | 102.39 | 1.28 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 10 |        |        |      |      |      |        |      |      |    |  |
| Q 5.10   | 145.71 | 102.23 | 1.44 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 11 |        |        |      |      |      |        |      |      |    |  |
| Q 5.11   | 145.45 | 102.07 | 1.60 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 12 |        |        |      |      |      |        |      |      |    |  |
| Q 5.12   | 145.18 | 101.91 | 1.76 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 13 |        |        |      |      |      |        |      |      |    |  |
| Q 5.13   | 144.91 | 101.76 | 1.92 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 14 |        |        |      |      |      |        |      |      |    |  |
| Q 5.14   | 144.65 | 101.60 | 2.08 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Podest   |        |        |      |      |      |        |      |      |    |  |
| Q 5.15   | 144.38 | 101.44 | 2.24 | 3.49 | 3.53 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 15 |        |        |      |      |      |        |      |      |    |  |
| Q 5.16   | 142.23 | 100.17 | 2.40 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 16 |        |        |      |      |      |        |      |      |    |  |
| Q 5.17   | 141.96 | 100.01 | 2.56 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 17 |        |        |      |      |      |        |      |      |    |  |
| Q 5.18   | 141.69 | 99.86  | 2.72 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 18 |        |        |      |      |      |        |      |      |    |  |
| Q 5.19   | 141.42 | 99.70  | 2.88 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 19 |        |        |      |      |      |        |      |      |    |  |
| Q 5.20   | 141.16 | 99.54  | 3.04 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 20 |        |        |      |      |      |        |      |      |    |  |
| Q 5.21   | 140.89 | 99.39  | 3.20 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 21 |        |        |      |      |      |        |      |      |    |  |
| Q 5.22   | 140.62 | 99.23  | 3.36 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 22 |        |        |      |      |      |        |      |      |    |  |
| Q 5.23   | 140.36 | 99.07  | 3.52 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 23 |        |        |      |      |      |        |      |      |    |  |
| Q 5.24   | 140.09 | 98.91  | 3.68 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 24 |        |        |      |      |      |        |      |      |    |  |
| Q 5.25   | 139.82 | 98.76  | 3.84 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 25 |        |        |      |      |      |        |      |      |    |  |
| Q 5.26   | 139.55 | 98.60  | 4.00 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 26 |        |        |      |      |      |        |      |      |    |  |
| Q 5.27   | 139.29 | 98.44  | 4.16 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 27 |        |        |      |      |      |        |      |      |    |  |
| Q 5.28   | 139.02 | 98.28  | 4.32 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 28 |        |        |      |      |      |        |      |      |    |  |
| Q 5.29   | 138.75 | 98.13  | 4.48 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 29 |        |        |      |      |      |        |      |      |    |  |
| Q 5.30   | 138.49 | 97.97  | 4.64 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 30 |        |        |      |      |      |        |      |      |    |  |
| Q 5.31   | 138.22 | 97.81  | 4.80 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|          |        |        |      |      |      |        |      |      |    |  |
|----------|--------|--------|------|------|------|--------|------|------|----|--|
| Podest   |        |        |      |      |      |        |      |      |    |  |
| Q 5.32   | 137.95 | 97.65  | 4.96 | 3.49 | 3.53 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 31 |        |        |      |      |      |        |      |      |    |  |
| Q 5.33   | 135.80 | 96.39  | 5.12 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 32 |        |        |      |      |      |        |      |      |    |  |
| Q 5.34   | 135.53 | 96.23  | 5.28 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 33 |        |        |      |      |      |        |      |      |    |  |
| Q 5.35   | 135.26 | 96.07  | 5.44 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 34 |        |        |      |      |      |        |      |      |    |  |
| Q 5.36   | 135.00 | 95.91  | 5.60 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 35 |        |        |      |      |      |        |      |      |    |  |
| Q 5.37   | 134.73 | 95.76  | 5.76 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 36 |        |        |      |      |      |        |      |      |    |  |
| Q 5.38   | 134.46 | 95.60  | 5.92 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 37 |        |        |      |      |      |        |      |      |    |  |
| Q 5.39   | 134.19 | 95.44  | 6.08 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 38 |        |        |      |      |      |        |      |      |    |  |
| Q 5.40   | 133.93 | 95.28  | 6.24 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 39 |        |        |      |      |      |        |      |      |    |  |
| Q 5.41   | 133.66 | 95.13  | 6.40 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 40 |        |        |      |      |      |        |      |      |    |  |
| Q 5.42   | 133.39 | 94.97  | 6.56 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 41 |        |        |      |      |      |        |      |      |    |  |
| Q 5.43   | 133.13 | 94.81  | 6.72 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 42 |        |        |      |      |      |        |      |      |    |  |
| Q 5.44   | 132.86 | 94.66  | 6.88 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 43 |        |        |      |      |      |        |      |      |    |  |
| Q 5.45   | 132.59 | 94.50  | 7.04 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 44 |        |        |      |      |      |        |      |      |    |  |
| Q 5.46   | 132.33 | 94.34  | 7.20 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 45 |        |        |      |      |      |        |      |      |    |  |
| Q 5.48   | 132.06 | 94.18  | 7.36 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 45 |        |        |      |      |      |        |      |      |    |  |
| Q 5.49   | 131.79 | 94.03  | 7.52 | 1.60 | 2.42 | 210.50 | 0.00 | 0.00 | 50 |  |
| Podest   |        |        |      |      |      |        |      |      |    |  |
| Q 5.47   | 131.52 | 93.87  | 7.68 | 3.49 | 3.53 | 210.50 | 0.00 | 0.00 | 50 |  |
| Stufe 1  |        |        |      |      |      |        |      |      |    |  |
| Q 2.1    | 58.61  | 176.85 | 0.32 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |  |
| Stufe 2  |        |        |      |      |      |        |      |      |    |  |
| Q 2.2    | 58.88  | 177.01 | 0.48 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |  |
| Stufe 3  |        |        |      |      |      |        |      |      |    |  |
| Q 2.3    | 59.14  | 177.17 | 0.64 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |  |
| Stufe 4  |        |        |      |      |      |        |      |      |    |  |
| Q 2.4    | 59.41  | 177.33 | 0.80 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |  |
| Stufe 5  |        |        |      |      |      |        |      |      |    |  |
| Q 2.5    | 59.67  | 177.49 | 0.96 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |  |
| Stufe 6  |        |        |      |      |      |        |      |      |    |  |
| Q 2.6    | 59.94  | 177.65 | 1.12 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |  |
| Stufe 7  |        |        |      |      |      |        |      |      |    |  |
| Q 2.7    | 60.20  | 177.81 | 1.28 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |  |
| Stufe 8  |        |        |      |      |      |        |      |      |    |  |
| Q 2.8    | 60.47  | 177.97 | 1.44 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |  |
| Stufe 9  |        |        |      |      |      |        |      |      |    |  |
| Q 2.9    | 60.74  | 178.13 | 1.60 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |  |
| Stufe 10 |        |        |      |      |      |        |      |      |    |  |
| Q 2.10   | 61.00  | 178.29 | 1.76 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |  |
| Stufe 11 |        |        |      |      |      |        |      |      |    |  |
| Q 2.11   | 61.27  | 178.45 | 1.92 | 1.62 | 2.41 | 31.00  | 0.00 | 0.00 | 50 |  |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|          |       |        |      |      |      |       |      |      |    |  |
|----------|-------|--------|------|------|------|-------|------|------|----|--|
| Stufe 12 |       |        |      |      |      |       |      |      |    |  |
| Q 2.12   | 61.53 | 178.61 | 2.08 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Podest   |       |        |      |      |      |       |      |      |    |  |
| Q 2.13   | 61.80 | 178.77 | 2.24 | 3.50 | 3.54 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 13 |       |        |      |      |      |       |      |      |    |  |
| Q 2.14   | 63.93 | 180.07 | 2.40 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 14 |       |        |      |      |      |       |      |      |    |  |
| Q 2.15   | 64.20 | 180.22 | 2.56 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 15 |       |        |      |      |      |       |      |      |    |  |
| Q 2.16   | 64.47 | 180.38 | 2.72 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 16 |       |        |      |      |      |       |      |      |    |  |
| Q 2.17   | 64.74 | 180.54 | 2.88 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 17 |       |        |      |      |      |       |      |      |    |  |
| Q 2.18   | 65.00 | 180.70 | 3.04 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 18 |       |        |      |      |      |       |      |      |    |  |
| Q 2.19   | 65.27 | 180.85 | 3.20 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 19 |       |        |      |      |      |       |      |      |    |  |
| Q 2.20   | 65.54 | 181.01 | 3.36 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 20 |       |        |      |      |      |       |      |      |    |  |
| Q 2.21   | 65.80 | 181.17 | 3.52 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 21 |       |        |      |      |      |       |      |      |    |  |
| Q 2.22   | 66.07 | 181.33 | 3.68 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 22 |       |        |      |      |      |       |      |      |    |  |
| Q 2.23   | 66.33 | 181.49 | 3.84 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 23 |       |        |      |      |      |       |      |      |    |  |
| Q 2.24   | 66.60 | 181.65 | 4.00 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 24 |       |        |      |      |      |       |      |      |    |  |
| Q 2.25   | 66.86 | 181.81 | 4.16 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 25 |       |        |      |      |      |       |      |      |    |  |
| Q 2.26   | 67.13 | 181.97 | 4.32 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 26 |       |        |      |      |      |       |      |      |    |  |
| Q 2.27   | 67.40 | 182.13 | 4.48 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 27 |       |        |      |      |      |       |      |      |    |  |
| Q 2.28   | 67.66 | 182.29 | 4.64 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Podest   |       |        |      |      |      |       |      |      |    |  |
| Q 2.29   | 67.93 | 182.45 | 4.80 | 3.50 | 3.54 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 1  |       |        |      |      |      |       |      |      |    |  |
| Q 3.1    | 78.30 | 133.44 | 1.12 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 2  |       |        |      |      |      |       |      |      |    |  |
| Q 3.2    | 78.56 | 133.60 | 1.28 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 3  |       |        |      |      |      |       |      |      |    |  |
| Q 3.3    | 78.83 | 133.76 | 1.44 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 4  |       |        |      |      |      |       |      |      |    |  |
| Q 3.4    | 79.10 | 133.92 | 1.60 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 5  |       |        |      |      |      |       |      |      |    |  |
| Q 3.5    | 79.36 | 134.08 | 1.76 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 6  |       |        |      |      |      |       |      |      |    |  |
| Q 3.6    | 79.63 | 134.24 | 1.92 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 7  |       |        |      |      |      |       |      |      |    |  |
| Q 3.7    | 79.89 | 134.40 | 2.08 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 8  |       |        |      |      |      |       |      |      |    |  |
| Q 3.8    | 80.16 | 134.56 | 2.24 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 9  |       |        |      |      |      |       |      |      |    |  |
| Q 3.9    | 80.42 | 134.72 | 2.40 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 10 |       |        |      |      |      |       |      |      |    |  |
| Q 3.10   | 80.69 | 134.88 | 2.56 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 11 |       |        |      |      |      |       |      |      |    |  |
| Q 3.11   | 80.96 | 135.04 | 2.72 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|          |       |        |      |      |      |       |      |      |    |  |
|----------|-------|--------|------|------|------|-------|------|------|----|--|
| Stufe 12 |       |        |      |      |      |       |      |      |    |  |
| Q 3.12   | 81.22 | 135.20 | 2.88 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 13 |       |        |      |      |      |       |      |      |    |  |
| Q 3.13   | 81.49 | 135.36 | 3.04 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Podest   |       |        |      |      |      |       |      |      |    |  |
| Q 3.14   | 81.75 | 135.52 | 3.20 | 3.07 | 2.83 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 14 |       |        |      |      |      |       |      |      |    |  |
| Q 3.15   | 83.90 | 136.81 | 3.36 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 15 |       |        |      |      |      |       |      |      |    |  |
| Q 3.16   | 84.16 | 136.97 | 3.52 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 16 |       |        |      |      |      |       |      |      |    |  |
| Q 3.17   | 84.43 | 137.13 | 3.68 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 17 |       |        |      |      |      |       |      |      |    |  |
| Q 3.18   | 84.69 | 137.29 | 3.84 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 18 |       |        |      |      |      |       |      |      |    |  |
| Q 3.19   | 84.96 | 137.45 | 4.00 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 19 |       |        |      |      |      |       |      |      |    |  |
| Q 3.20   | 85.22 | 137.61 | 4.16 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 20 |       |        |      |      |      |       |      |      |    |  |
| Q 3.21   | 85.49 | 137.77 | 4.32 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 21 |       |        |      |      |      |       |      |      |    |  |
| Q 3.22   | 85.76 | 137.93 | 4.48 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 22 |       |        |      |      |      |       |      |      |    |  |
| Q 3.23   | 86.02 | 138.09 | 4.64 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 23 |       |        |      |      |      |       |      |      |    |  |
| Q 3.24   | 86.29 | 138.25 | 4.80 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 24 |       |        |      |      |      |       |      |      |    |  |
| Q 3.25   | 86.55 | 138.40 | 4.96 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 25 |       |        |      |      |      |       |      |      |    |  |
| Q 3.26   | 86.82 | 138.56 | 5.12 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 26 |       |        |      |      |      |       |      |      |    |  |
| Q 3.27   | 87.08 | 138.72 | 5.28 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Podest   |       |        |      |      |      |       |      |      |    |  |
| Q 3.28   | 87.35 | 138.88 | 5.44 | 3.07 | 2.83 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 27 |       |        |      |      |      |       |      |      |    |  |
| Q 3.29   | 89.49 | 140.17 | 5.60 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 28 |       |        |      |      |      |       |      |      |    |  |
| Q 3.30   | 89.76 | 140.33 | 5.76 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 29 |       |        |      |      |      |       |      |      |    |  |
| Q 3.31   | 90.02 | 140.49 | 5.92 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 30 |       |        |      |      |      |       |      |      |    |  |
| Q 3.32   | 90.29 | 140.65 | 6.08 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 31 |       |        |      |      |      |       |      |      |    |  |
| Q 3.33   | 90.56 | 140.81 | 6.24 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 32 |       |        |      |      |      |       |      |      |    |  |
| Q 3.34   | 90.82 | 140.97 | 6.40 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 33 |       |        |      |      |      |       |      |      |    |  |
| Q 3.35   | 91.09 | 141.13 | 6.56 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 34 |       |        |      |      |      |       |      |      |    |  |
| Q 3.36   | 91.35 | 141.29 | 6.72 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 35 |       |        |      |      |      |       |      |      |    |  |
| Q 3.37   | 91.62 | 141.45 | 6.88 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 36 |       |        |      |      |      |       |      |      |    |  |
| Q 3.38   | 91.89 | 141.61 | 7.04 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 37 |       |        |      |      |      |       |      |      |    |  |
| Q 3.39   | 92.15 | 141.77 | 7.20 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 38 |       |        |      |      |      |       |      |      |    |  |
| Q 3.40   | 92.42 | 141.93 | 7.36 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |

### 3 Georg-Schwarz-Brücken

#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|          |       |        |      |      |      |       |      |      |    |  |
|----------|-------|--------|------|------|------|-------|------|------|----|--|
| Stufe 39 |       |        |      |      |      |       |      |      |    |  |
| Q 3.41   | 92.68 | 142.09 | 7.52 | 1.19 | 1.70 | 31.00 | 0.00 | 0.00 | 50 |  |
| Podest   |       |        |      |      |      |       |      |      |    |  |
| Q 3.42   | 92.95 | 142.25 | 7.68 | 3.07 | 2.83 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 1  |       |        |      |      |      |       |      |      |    |  |
| Q 4.1    | 89.79 | 112.34 | 1.12 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 2  |       |        |      |      |      |       |      |      |    |  |
| Q 4.2    | 90.06 | 112.50 | 1.28 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 3  |       |        |      |      |      |       |      |      |    |  |
| Q 4.3    | 90.32 | 112.66 | 1.44 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 4  |       |        |      |      |      |       |      |      |    |  |
| Q 4.4    | 90.59 | 112.82 | 1.60 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 5  |       |        |      |      |      |       |      |      |    |  |
| Q 4.5    | 90.85 | 112.98 | 1.76 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 6  |       |        |      |      |      |       |      |      |    |  |
| Q 4.6    | 91.12 | 113.14 | 1.92 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 7  |       |        |      |      |      |       |      |      |    |  |
| Q 4.7    | 91.38 | 113.30 | 2.08 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 8  |       |        |      |      |      |       |      |      |    |  |
| Q 4.8    | 91.65 | 113.46 | 2.24 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 9  |       |        |      |      |      |       |      |      |    |  |
| Q 4.9    | 91.92 | 113.62 | 2.40 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 10 |       |        |      |      |      |       |      |      |    |  |
| Q 4.10   | 92.18 | 113.78 | 2.56 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 11 |       |        |      |      |      |       |      |      |    |  |
| Q 4.11   | 92.45 | 113.94 | 2.72 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 12 |       |        |      |      |      |       |      |      |    |  |
| Q 4.12   | 92.71 | 114.10 | 2.88 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 13 |       |        |      |      |      |       |      |      |    |  |
| Q 4.13   | 92.98 | 114.25 | 3.04 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Podest   |       |        |      |      |      |       |      |      |    |  |
| Q 4.14   | 93.24 | 114.41 | 3.20 | 3.50 | 3.54 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 14 |       |        |      |      |      |       |      |      |    |  |
| Q 4.15   | 95.39 | 115.70 | 3.36 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 15 |       |        |      |      |      |       |      |      |    |  |
| Q 4.16   | 95.65 | 115.86 | 3.52 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 16 |       |        |      |      |      |       |      |      |    |  |
| Q 4.17   | 95.92 | 116.02 | 3.68 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 17 |       |        |      |      |      |       |      |      |    |  |
| Q 4.18   | 96.18 | 116.18 | 3.84 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 18 |       |        |      |      |      |       |      |      |    |  |
| Q 4.19   | 96.45 | 116.34 | 4.00 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 19 |       |        |      |      |      |       |      |      |    |  |
| Q 4.20   | 96.72 | 116.50 | 4.16 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 20 |       |        |      |      |      |       |      |      |    |  |
| Q 4.21   | 96.98 | 116.66 | 4.32 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 21 |       |        |      |      |      |       |      |      |    |  |
| Q 4.22   | 97.25 | 116.82 | 4.48 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 22 |       |        |      |      |      |       |      |      |    |  |
| Q 4.23   | 97.51 | 116.98 | 4.64 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 23 |       |        |      |      |      |       |      |      |    |  |
| Q 4.24   | 97.78 | 117.14 | 4.80 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 24 |       |        |      |      |      |       |      |      |    |  |
| Q 4.25   | 98.04 | 117.30 | 4.96 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 25 |       |        |      |      |      |       |      |      |    |  |
| Q 4.26   | 98.31 | 117.46 | 5.12 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |
| Stufe 26 |       |        |      |      |      |       |      |      |    |  |
| Q 4.27   | 98.58 | 117.62 | 5.28 | 1.62 | 2.41 | 31.00 | 0.00 | 0.00 | 50 |  |

Objekt : Beleuchtungsanlage  
 Anlage : Georg-Schwarz-Brücken  
 Projektnummer : 310852  
 Datum : 18.12.2024

### 3 Georg-Schwarz-Brücken

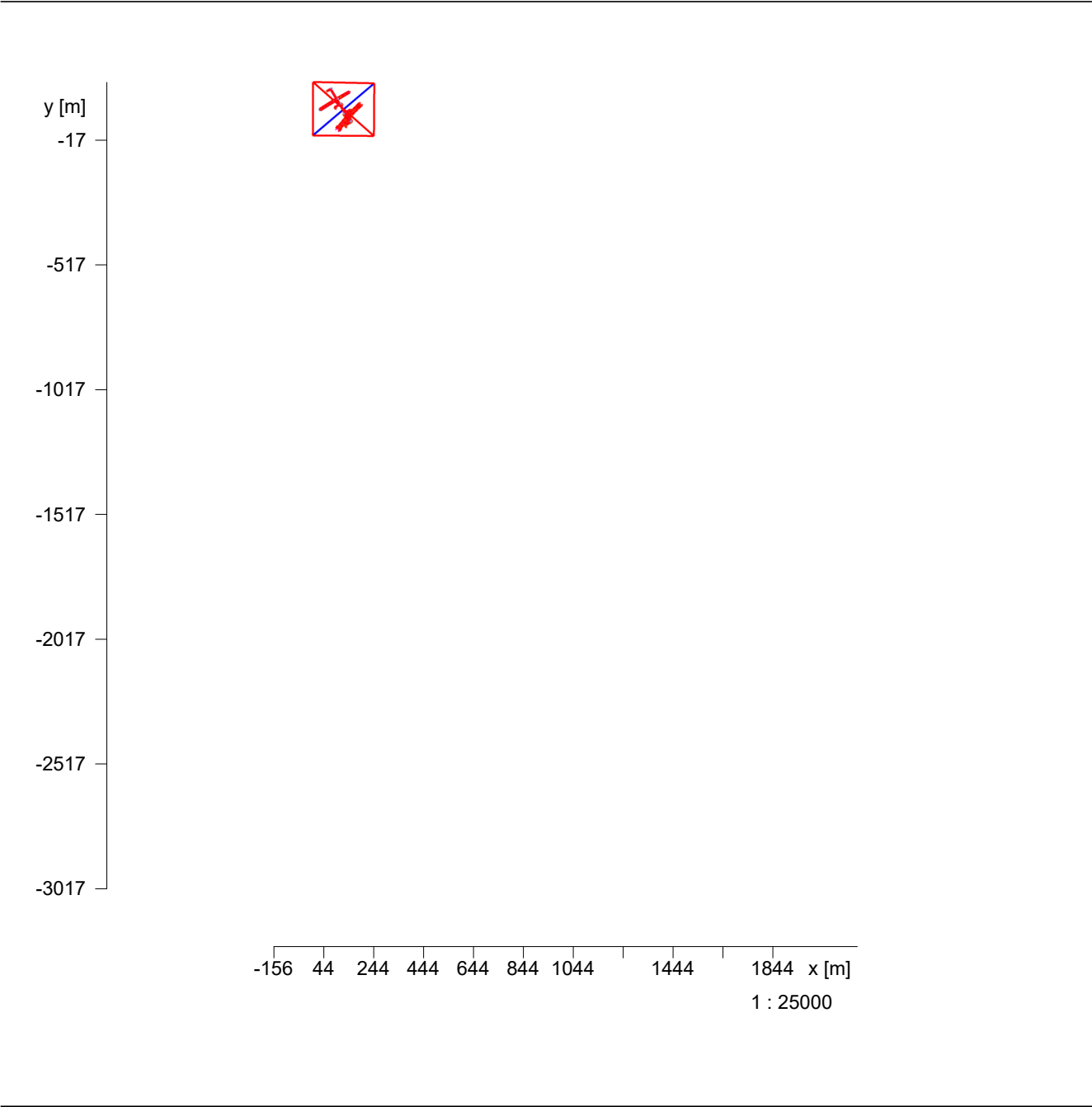
#### 3.1 Beschreibung, Georg-Schwarz-Brücken

##### 3.1.1 Leuchten- und Raumelemente

|                                |        |        |       |        |        |        |       |      |    |  |
|--------------------------------|--------|--------|-------|--------|--------|--------|-------|------|----|--|
| Podest                         |        |        |       |        |        |        |       |      |    |  |
| Q 4.28                         | 98.84  | 117.78 | 5.44  | 3.50   | 3.54   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 27                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.29                         | 100.98 | 119.07 | 5.60  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 28                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.30                         | 101.25 | 119.22 | 5.76  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 29                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.31                         | 101.52 | 119.38 | 5.92  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 30                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.32                         | 101.78 | 119.54 | 6.08  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 31                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.33                         | 102.05 | 119.70 | 6.24  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 32                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.34                         | 102.31 | 119.86 | 6.40  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 33                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.35                         | 102.58 | 120.02 | 6.56  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 34                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.36                         | 102.84 | 120.18 | 6.72  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 35                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.37                         | 103.11 | 120.34 | 6.88  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 36                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.38                         | 103.38 | 120.50 | 7.04  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 37                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.39                         | 103.64 | 120.66 | 7.20  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 38                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.40                         | 103.91 | 120.82 | 7.36  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Stufe 39                       |        |        |       |        |        |        |       |      |    |  |
| Q 4.41                         | 104.17 | 120.98 | 7.52  | 1.62   | 2.41   | 31.00  | 0.00  | 0.00 | 50 |  |
| Podest                         |        |        |       |        |        |        |       |      |    |  |
| Q 4.42                         | 104.44 | 121.14 | 7.68  | 3.50   | 3.54   | 31.00  | 0.00  | 0.00 | 50 |  |
| Zuweg 1 Bstg 3                 |        |        |       |        |        |        |       |      |    |  |
| Q 2                            | 123.44 | 88.81  | -0.16 | 12.75  | 17.11  | 31.06  | 0.00  | 0.00 | 50 |  |
| Zuweg 2 Bstg 3                 |        |        |       |        |        |        |       |      |    |  |
| Q 3                            | 148.22 | 103.64 | -0.16 | 7.66   | 8.72   | 301.91 | 0.00  | 0.00 | 50 |  |
| Zuweg Bstg 4                   |        |        |       |        |        |        |       |      |    |  |
| Q 4                            | 146.44 | 69.97  | 0.16  | 43.67  | 41.14  | 300.62 | 0.00  | 0.00 | 50 |  |
| Zuweg BW 03                    |        |        |       |        |        |        |       |      |    |  |
| Q 5                            | 93.68  | 106.34 | 0.96  | 7.71   | 10.01  | 301.04 | 0.00  | 0.00 | 50 |  |
| Zuweg BW 03                    |        |        |       |        |        |        |       |      |    |  |
| Q 6                            | 116.84 | 119.17 | 0.96  | 8.53   | 11.81  | 23.45  | 0.00  | 0.00 | 50 |  |
| Bahnsteigkörper Bstg 3         |        |        |       |        |        |        |       |      |    |  |
| Q 7                            | 188.26 | 132.03 | 0.00  | 112.72 | 106.42 | 312.96 | 0.00  | 0.00 | 50 |  |
| Bahnsteigkörper Bstg 4         |        |        |       |        |        |        |       |      |    |  |
| Q 8                            | 113.19 | 29.89  | 0.00  | 96.74  | 120.04 | 322.66 | 0.00  | 0.00 | 50 |  |
| Bahnsteigkörper Mittelbstg 1/2 |        |        |       |        |        |        |       |      |    |  |
| Q 9                            | 29.13  | 99.05  | 0.80  | 124.11 | 90.97  | 304.24 | 0.00  | 0.00 | 50 |  |
| Behelfsbrücke                  |        |        |       |        |        |        |       |      |    |  |
| Q 10                           | 96.21  | 146.41 | 7.62  | 29.78  | 45.62  | 29.19  | -3.30 | 0.00 | 50 |  |

3.1 Beschreibung, Georg-Schwarz-Brücken

3.1.2 Grundriss

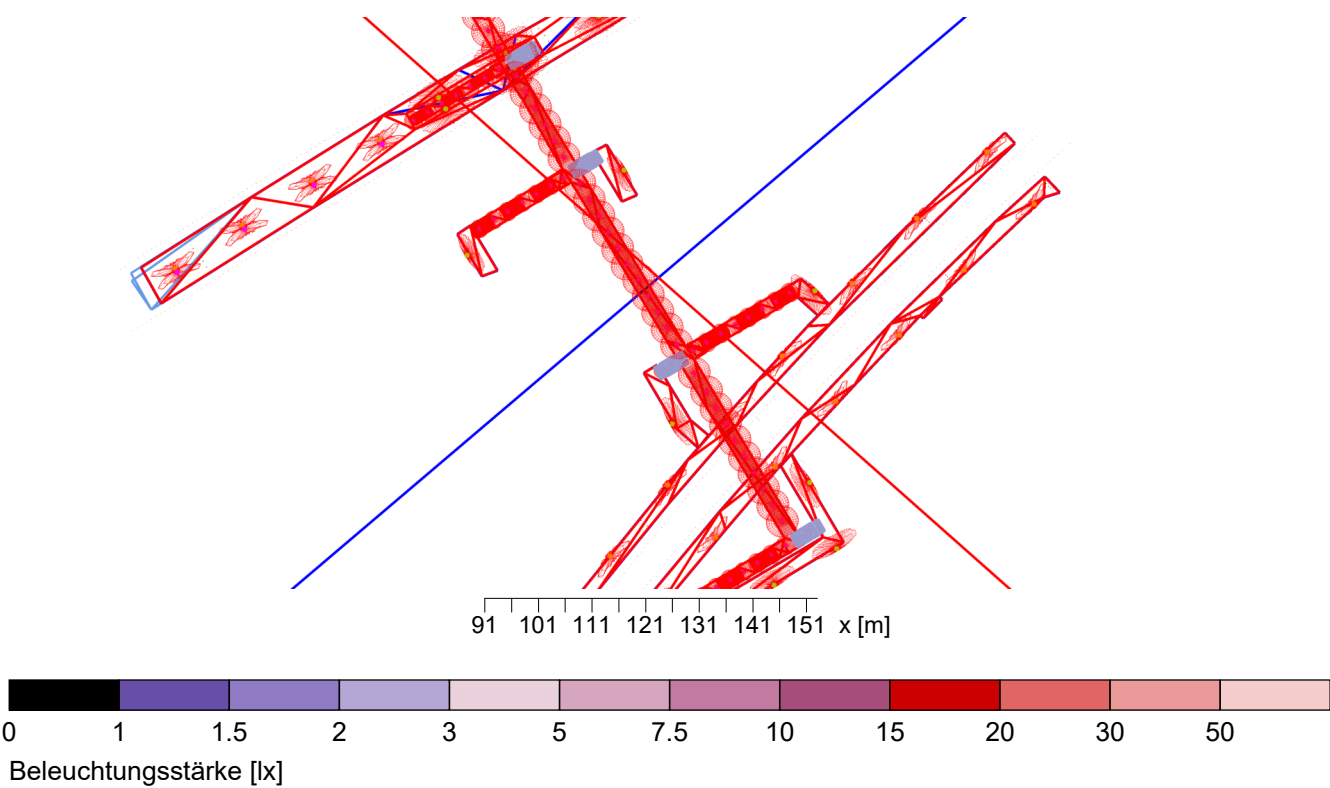




3 Georg-Schwarz-Brücken

3.2 Zusammenfassung, Georg-Schwarz-Brücken

3.2.1 Ergebnisübersicht, Behelfsbrücke, hinterer Teil



|   |                         |
|---|-------------------------|
| Allgemein   |                         |
| Verwendeter Rechenalgorithmus   | Direktanteil            |
| Position  | 7.78 m                  |
| Wartungsfaktor  | 0.80                    |
| Leuchtenlichtstrom  | 0 lm                    |
| Behelfsbrücke, hinterer Teil Behelfsbrücke, hinterer Teil                     |                         |
| Nutzungsprofil: 3.3.1 Personenüberführung ohne Überdachung lt.1.2 (Ra >20.00) |                         |
| Horizontal  |                         |
| $\bar{E}_m$   | 36.7 lx ( $\geq 20$ lx) |
| $E_{min}$   | 24.4 lx                 |
| $E_{min}/\bar{E}_m (U_o)$   | 0.67 ( $\geq 0.40$ )    |
| $E_{min}/E_{max} (U_d)$   | 0.24                    |
| Position  | 0.12 m                  |
| Hauptoberflächen  | $\bar{E}_m$ $U_o$       |

Typ Anz. Fabrikat


|   |      |  |  |
|---|------|--|--|
|   |      | Designplan Leuchten - Designplan Lighting Ltd. |  |
| 1 | 85 x | Bestell Nr.                                    | : GD890-2-1500NW-XW-CB                               |
|   |      | Leuchtenname                                   | : Tuscan 650 mm 1419 lm opal SKII DB-Spezifikationen |
|   |      | Bestückung                                     | : 1 x LED 16 W / 1419 lm                             |


Objekt : Beleuchtungsanlage  
Anlage : Georg-Schwarz-Brücken  
Projektnummer : 310852  
Datum : 18.12.2024


### 3 Georg-Schwarz-Brücken

#### 3.2 Zusammenfassung, Georg-Schwarz-Brücken

##### 3.2.1 Ergebnisübersicht, Behelfsbrücke, hinterer Teil

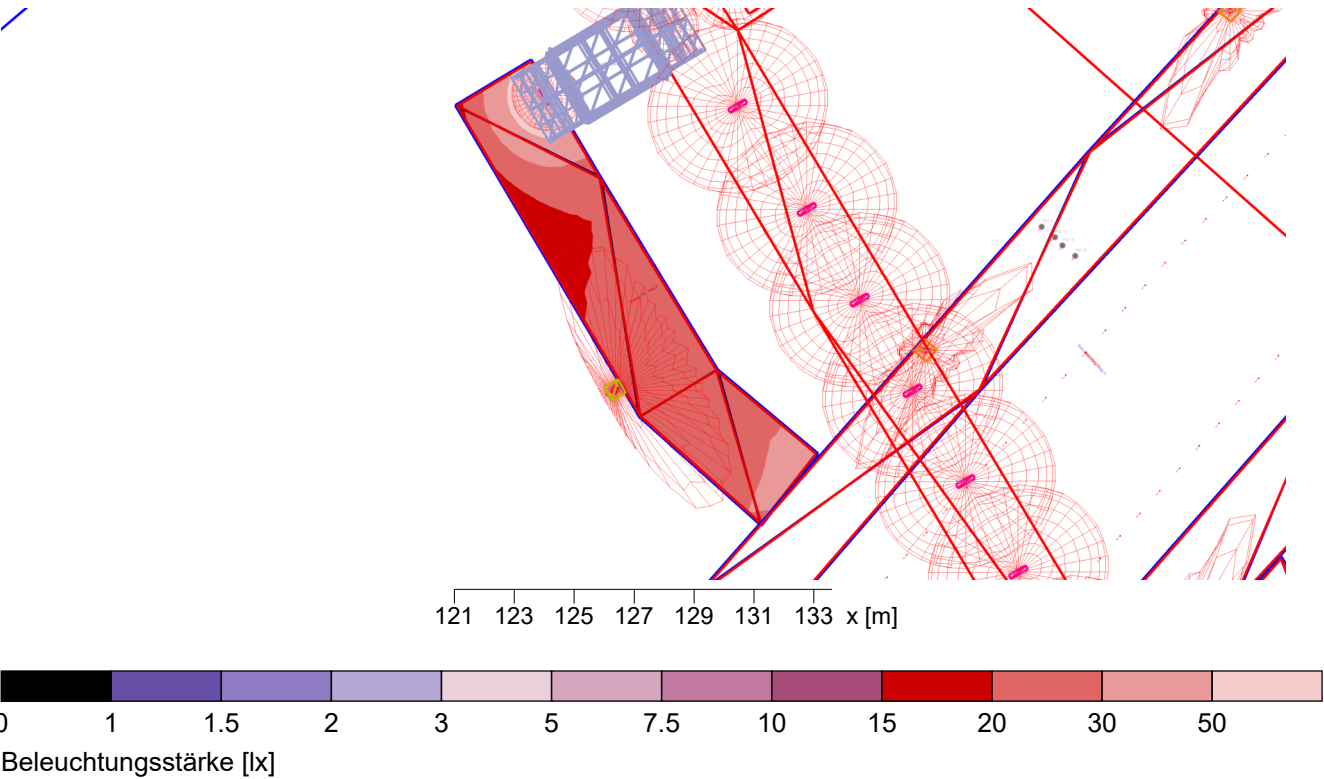
2 18 x **Schmidt-Strahl GmbH**  
 Bestell Nr. : PSH-395540-pA-G2-76-RAL9007-12W  
Leuchtenname : Bahnsteigleuchte-Curso pA LED-12W-SKII-4000K-RA80  
Bestückung : 1 x LED-Curso-pA-12W 12 W / 1250 lm

3 11 x **Schmidt-Strahl (Rademacher)**  
 Bestell Nr. : PSH-395521/VA/RAL9007  
Leuchtenname : 50W DBL Curso Bahnsteigleuchte  
Bestückung : 1 x HST-Sodinette 50W(Ra25) 66 W / 4200 lm

4 21 x  
 Bestell Nr. : PSH-395523/VA/RAL9007  
Leuchtenname : 70W DBL Curso Bahnsteigleuchte  
Bestückung : 1 x HST-Sodinette 70W(Ra25) 83 W / 6400 lm

3.2 Zusammenfassung, Georg-Schwarz-Brücken

3.2.2 Ergebnisübersicht, Zuweg Lift - Bstg 3



|                               |              |
|-------------------------------|--------------|
| Allgemein                     |              |
| Verwendeter Rechenalgorithmus | Direktanteil |
| Position                      | 0.04 m       |
| Wartungsfaktor                | 0.80         |
| Leuchtenlichtstrom            | 0 lm         |

|                               |   |
|-------------------------------|---|
| Zuweg Lift - Bstg 3           | Zuweg Lift - Bstg 3   |
| Nutzungsprofil: 3.1.2 Gehwege | und/oder Rampen mit geringem bis hohem Reisendenaufkommen (Ra >20.00) |
| $\bar{E}_m$                   | Horizontal 27.2 lx ( $\geq 10$ lx)                                    |
| $E_{min}$                     | 16.9 lx   |
| $E_{min}/\bar{E}_m (U_o)$     | 0.62 ( $\geq 0.30$ )  |
| $E_{min}/E_{max} (U_d)$       | 0.22  |
| Position                      | 0.02 m  |




|                  |             |       |
|------------------|-------------|-------|
| Hauptoberflächen | $\bar{E}_m$ | $U_o$ |
|------------------|-------------|-------|

Typ    Anz.    Fabrikat

|  |      |   |
|--|------|---|
| Designplan Leuchten - Designplan Lighting Ltd. |      |   |
| 1  | 85 x | Bestell Nr. : GD890-2-1500NW-XW-CB                                |
|  |      | Leuchtenname : Tuscan 650 mm 1419 lm opal SKII DB-Spezifikationen |
|  |      | Bestückung : 1 x LED 16 W / 1419 lm                               |

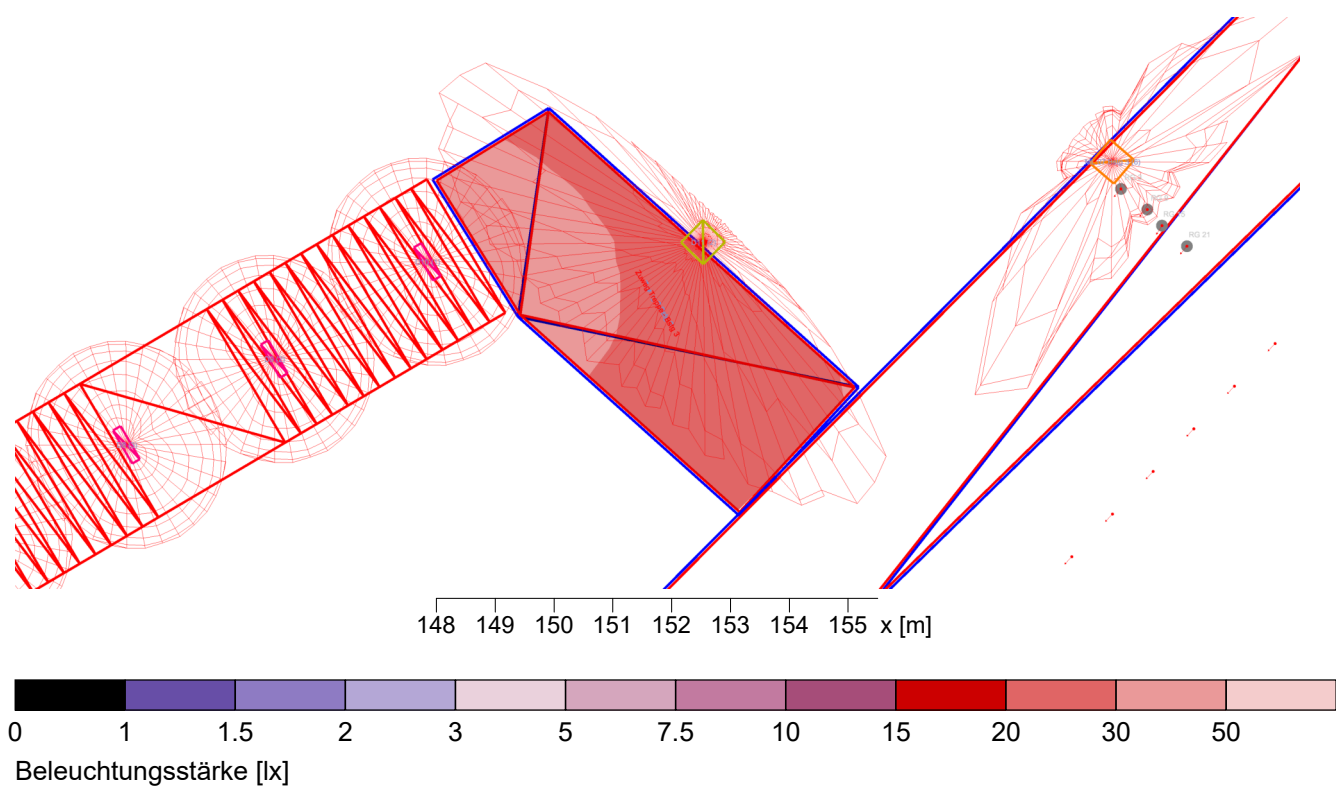
## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.2 Ergebnisübersicht, Zuweg Lift - Bstg 3

|   |      |                                    |   |
|---|------|------------------------------------|---|
|   |      | <b>Schmidt-Strahl GmbH</b>         |   |
| 2   | 18 x | Bestell Nr.                        | : PSH-395540-pA-G2-76-RAL9007-12W                   |
|  |      | Leuchtenname                       | : Bahnsteigleuchte-Curso pA LED-12W-SKII-4000K-RA80 |
|   |      | Bestückung                         | : 1 x LED-Curso-pA-12W 12 W / 1250 lm               |
|   |      | <b>Schmidt-Strahl (Rademacher)</b> |   |
| 3   | 11 x | Bestell Nr.                        | : PSH-395521/VA/RAL9007                             |
|  |      | Leuchtenname                       | : 50W DBL Curso Bahnsteigleuchte                    |
|   |      | Bestückung                         | : 1 x HST-Sodinette 50W(Ra25) 66 W / 4200 lm        |
| 4   | 21 x | Bestell Nr.                        | : PSH-395523/VA/RAL9007                             |
|  |      | Leuchtenname                       | : 70W DBL Curso Bahnsteigleuchte                    |
|   |      | Bestückung                         | : 1 x HST-Sodinette 70W(Ra25) 83 W / 6400 lm        |

3.2 Zusammenfassung, Georg-Schwarz-Brücken

3.2.3 Ergebnisübersicht, Zuweg Treppe - Bstg 3



| Allgemein                     |              |
|-------------------------------|--------------|
| Verwendeter Rechenalgorithmus | Direktanteil |
| Position                      | 0.04 m       |
| Wartungsfaktor                | 0.80         |
| Leuchtenlichtstrom            | 0 lm         |

| Zuweg Treppe - Bstg 3   |         | Zuweg Treppe - Bstg 3 |
|---|---------|-----------------------|
| Nutzungsprofil: 3.1.2 Gehwege und/oder Rampen mit geringem bis hohem Reisendenaufkommen (Ra >20.00) |         | Horizontal            |
| $\bar{E}_m$   | 29.6 lx | ( $\geq 10$ lx)       |
| $E_{min}$   | 25.2 lx |                       |
| $E_{min}/\bar{E}_m (U_o)$   | 0.85    | ( $\geq 0.30$ )       |
| $E_{min}/E_{max} (U_d)$   | 0.65    |                       |
| Position  | 0.02 m  |                       |


| Hauptoberflächen | $\bar{E}_m$ | $U_o$ |
|------------------|-------------|-------|
|------------------|-------------|-------|


Typ    Anz.    Fabrikat


|  |      |   |
|--|------|---|
| Designplan Leuchten - Designplan Lighting Ltd. |      |   |
| 1  | 85 x | Bestell Nr. : GD890-2-1500NW-XW-CB                                |
|  |      | Leuchtenname : Tuscan 650 mm 1419 lm opal SKII DB-Spezifikationen |
|  |      | Bestückung : 1 x LED 16 W / 1419 lm                               |

## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.3 Ergebnisübersicht, Zuweg Treppe - Bstg 3

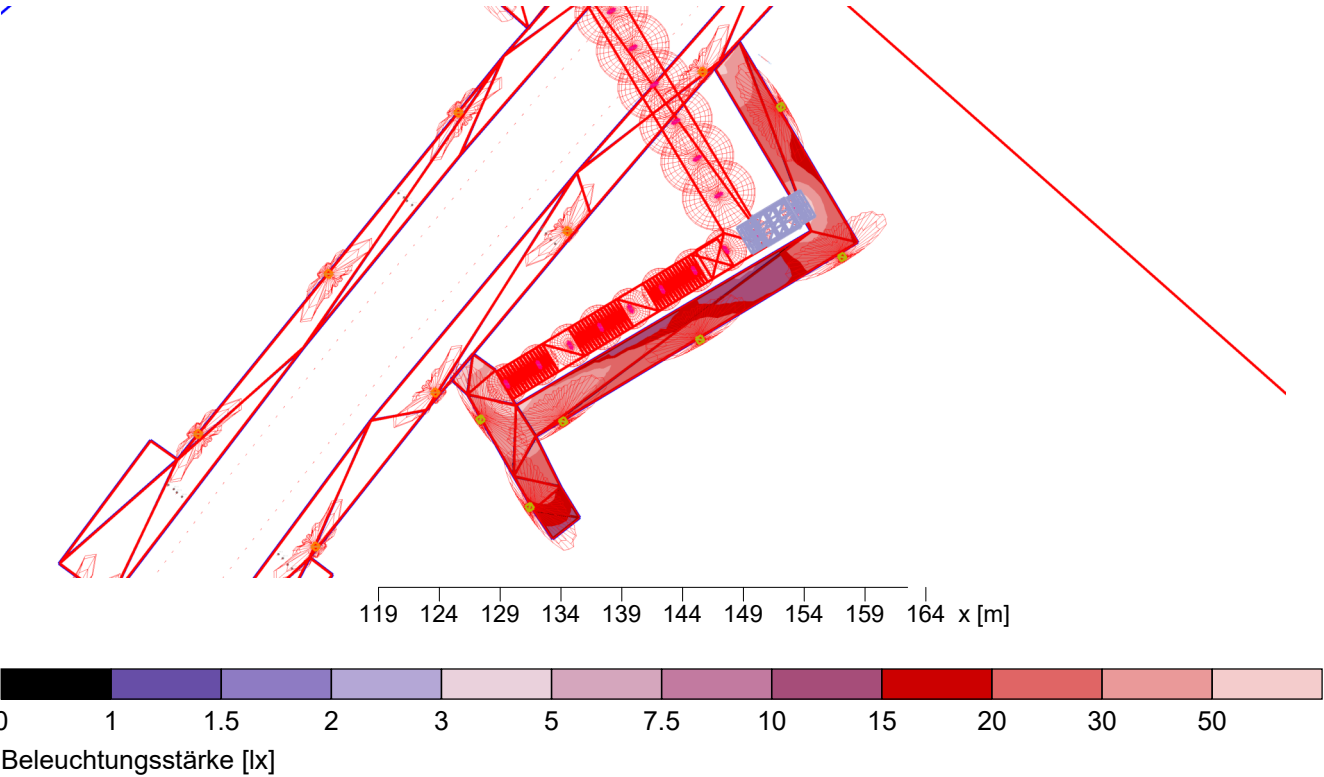
|   |      |                            |   |
|---|------|----------------------------|---|
|   |      | <b>Schmidt-Strahl GmbH</b> |   |
| 2   | 18 x | Bestell Nr.                | : PSH-395540-pA-G2-76-RAL9007-12W                   |
|  |      | Leuchtenname               | : Bahnsteigleuchte-Curso pA LED-12W-SKII-4000K-RA80 |
|   |      | Bestückung                 | : 1 x LED-Curso-pA-12W 12 W / 1250 lm               |

|   |      |                                    |  |
|---|------|------------------------------------|--|
|   |      | <b>Schmidt-Strahl (Rademacher)</b> |  |
| 3   | 11 x | Bestell Nr.                        | : PSH-395521/VA/RAL9007                      |
|  |      | Leuchtenname                       | : 50W DBL Curso Bahnsteigleuchte             |
|   |      | Bestückung                         | : 1 x HST-Sodinette 50W(Ra25) 66 W / 4200 lm |

|   |      |              |  |
|---|------|--------------|--|
| 4   | 21 x | Bestell Nr.  | : PSH-395523/VA/RAL9007                      |
|  |      | Leuchtenname | : 70W DBL Curso Bahnsteigleuchte             |
|   |      | Bestückung   | : 1 x HST-Sodinette 70W(Ra25) 83 W / 6400 lm |

3.2 Zusammenfassung, Georg-Schwarz-Brücken

3.2.4 Ergebnisübersicht, Zuweg Bstg 4



|                               |              |
|-------------------------------|--------------|
| <b>Allgemein</b>              |              |
| Verwendeter Rechenalgorithmus | Direktanteil |
| Position                      | 0.36 m       |
| Wartungsfaktor                | 0.80         |
| Leuchtenlichtstrom            | 0 lm         |

|   |                                       |
|---|---------------------------------------|
| <b>Zuweg Bstg 4</b>   | <b>Zuweg Bstg 4</b>                   |
| Nutzungsprofil: 3.1.2 Gehwege und/oder Rampen mit geringem bis hohem Reisendenaufkommen (Ra >20.00) |                                       |
| $\bar{E}_m$   | Horizontal<br>28.8 lx ( $\geq 10$ lx) |
| $E_{min}$   | 10.1 lx                               |
| $E_{min}/\bar{E}_m (U_o)$   | 0.35 ( $\geq 0.30$ )                  |
| $E_{min}/E_{max} (U_d)$   | 0.13                                  |
| Position  | 0.02 m                                |

|                         |             |       |
|-------------------------|-------------|-------|
| <b>Hauptoberflächen</b> | $\bar{E}_m$ | $U_o$ |
|-------------------------|-------------|-------|


Typ    Anz.    Fabrikat


|   |      |   |
|---|------|---|
|   |      | <b>Designplan Leuchten - Designplan Lighting Ltd.</b>             |
| 1 | 85 x | Bestell Nr. : GD890-2-1500NW-XW-CB                                |
|   |      | Leuchtenname : Tuscan 650 mm 1419 lm opal SKII DB-Spezifikationen |
|   |      | Bestückung : 1 x LED 16 W / 1419 lm                               |


Objekt : Beleuchtungsanlage  
Anlage : Georg-Schwarz-Brücken  
Projektnummer : 310852  
Datum : 18.12.2024

## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.4 Ergebnisübersicht, Zuweg Bstg 4

2 18 x **Schmidt-Strahl GmbH**  
 Bestell Nr. : PSH-395540-pA-G2-76-RAL9007-12W  
Leuchtenname : Bahnsteigleuchte-Curso pA LED-12W-SKII-4000K-RA80  
Bestückung : 1 x LED-Curso-pA-12W 12 W / 1250 lm

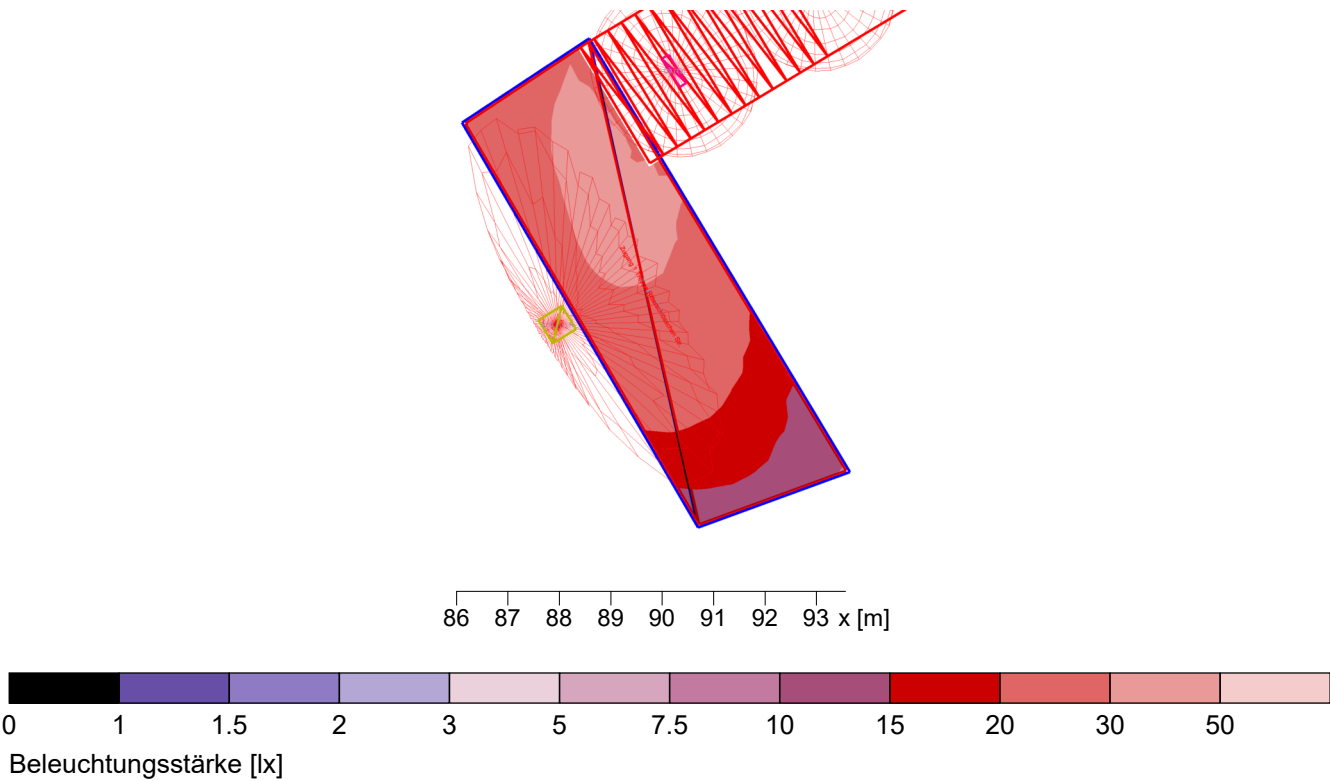
3 11 x **Schmidt-Strahl (Rademacher)**  
 Bestell Nr. : PSH-395521/VA/RAL9007  
Leuchtenname : 50W DBL Curso Bahnsteigleuchte  
Bestückung : 1 x HST-Sodinette 50W(Ra25) 66 W / 4200 lm

4 21 x  
 Bestell Nr. : PSH-395523/VA/RAL9007  
Leuchtenname : 70W DBL Curso Bahnsteigleuchte  
Bestückung : 1 x HST-Sodinette 70W(Ra25) 83 W / 6400 lm



3.2 Zusammenfassung, Georg-Schwarz-Brücken

3.2.5 Ergebnisübersicht, Zugang 1 Treppe Ritterschlösschen Str.



Allgemein

|                               |              |
|-------------------------------|--------------|
| Verwendeter Rechenalgorithmus | Direktanteil |
| Position                      | 1.16 m       |
| Wartungsfaktor                | 0.80         |
| Leuchtenlichtstrom            | 0 lm         |

Zugang 1 Treppe Ritterschlösschen Str. Zugang 1 Treppe Ritterschlösschen Str.

Nutzungsprofil: 3.1.2 Gehwege und/oder Rampen mit geringem bis hohem Reisendenaufkommen (Ra >20.00)

|                           |            |                 |
|---------------------------|------------|-----------------|
|                           | Horizontal |                 |
| $\bar{E}_m$               | 24.7 lx    | ( $\geq 10$ lx) |
| $E_{min}$                 | 10.6 lx    |                 |
| $E_{min}/\bar{E}_m (U_o)$ | 0.43       | ( $\geq 0.30$ ) |
| $E_{min}/E_{max} (U_d)$   | 0.31       |                 |
| Position                  | 0.02 m     |                 |




|                  |             |       |
|------------------|-------------|-------|
| Hauptoberflächen | $\bar{E}_m$ | $U_o$ |
|------------------|-------------|-------|

Typ    Anz.    Fabrikat

|   |      |   |
|---|------|---|
|   |      | <b>Designplan Leuchten - Designplan Lighting Ltd.</b>             |
| 1 | 85 x | Bestell Nr. : GD890-2-1500NW-XW-CB                                |
|   |      | Leuchtenname : Tuscan 650 mm 1419 lm opal SKII DB-Spezifikationen |
|   |      | Bestückung : 1 x LED 16 W / 1419 lm                               |

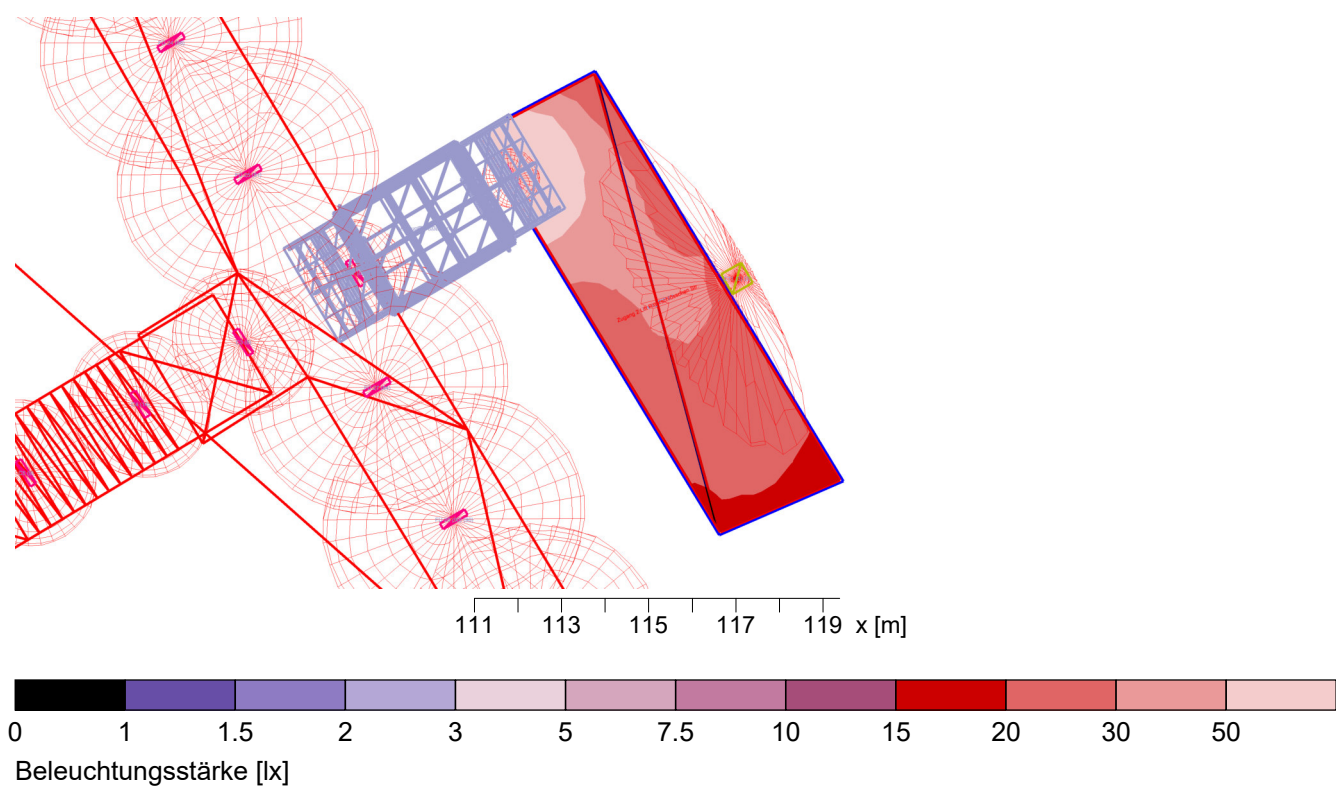
## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.5 Ergebnisübersicht, Zugang 1 Treppe Ritterschlösschen Str.

|   |      |                                    |   |
|---|------|------------------------------------|---|
|   |      | <b>Schmidt-Strahl GmbH</b>         |   |
| 2   | 18 x | Bestell Nr.                        | : PSH-395540-pA-G2-76-RAL9007-12W                   |
|  |      | Leuchtenname                       | : Bahnsteigleuchte-Curso pA LED-12W-SKII-4000K-RA80 |
|   |      | Bestückung                         | : 1 x LED-Curso-pA-12W 12 W / 1250 lm               |
|   |      | <b>Schmidt-Strahl (Rademacher)</b> |   |
| 3   | 11 x | Bestell Nr.                        | : PSH-395521/VA/RAL9007                             |
|  |      | Leuchtenname                       | : 50W DBL Curso Bahnsteigleuchte                    |
|   |      | Bestückung                         | : 1 x HST-Sodinette 50W(Ra25) 66 W / 4200 lm        |
| 4   | 21 x | Bestell Nr.                        | : PSH-395523/VA/RAL9007                             |
|  |      | Leuchtenname                       | : 70W DBL Curso Bahnsteigleuchte                    |
|   |      | Bestückung                         | : 1 x HST-Sodinette 70W(Ra25) 83 W / 6400 lm        |

3.2 Zusammenfassung, Georg-Schwarz-Brücken

3.2.6 Ergebnisübersicht, Zugang 2 Lift Ritterschlösschen Str.



Allgemein

|                               |              |
|-------------------------------|--------------|
| Verwendeter Rechenalgorithmus | Direktanteil |
| Position                      | 1.16 m       |
| Wartungsfaktor                | 0.80         |
| Leuchtenlichtstrom            | 0 lm         |

Zugang 2 Lift Ritterschlösschen Str.

Nutzungsprofil: 3.1.2 Gehwege und/oder Rampen mit geringem bis hohem Reisendenaufkommen (Ra >20.00)

|                           |            |                 |
|---------------------------|------------|-----------------|
|                           | Horizontal |                 |
| $\bar{E}_m$               | 39.6 lx    | ( $\geq 10$ lx) |
| $E_{min}$                 | 17.5 lx    |                 |
| $E_{min}/\bar{E}_m (U_o)$ | 0.44       | ( $\geq 0.30$ ) |
| $E_{min}/E_{max} (U_d)$   | 0.08       |                 |
| Position                  | 0.02 m     |                 |




|                  |             |       |
|------------------|-------------|-------|
| Hauptoberflächen | $\bar{E}_m$ | $U_o$ |
|------------------|-------------|-------|

Typ    Anz.    Fabrikat

|   |      |   |
|---|------|---|
| 1 | 85 x | <b>Designplan Leuchten - Designplan Lighting Ltd.</b>             |
|   |      | Bestell Nr. : GD890-2-1500NW-XW-CB                                |
|   |      | Leuchtenname : Tuscan 650 mm 1419 lm opal SKII DB-Spezifikationen |
|   |      | Bestückung : 1 x LED 16 W / 1419 lm                               |

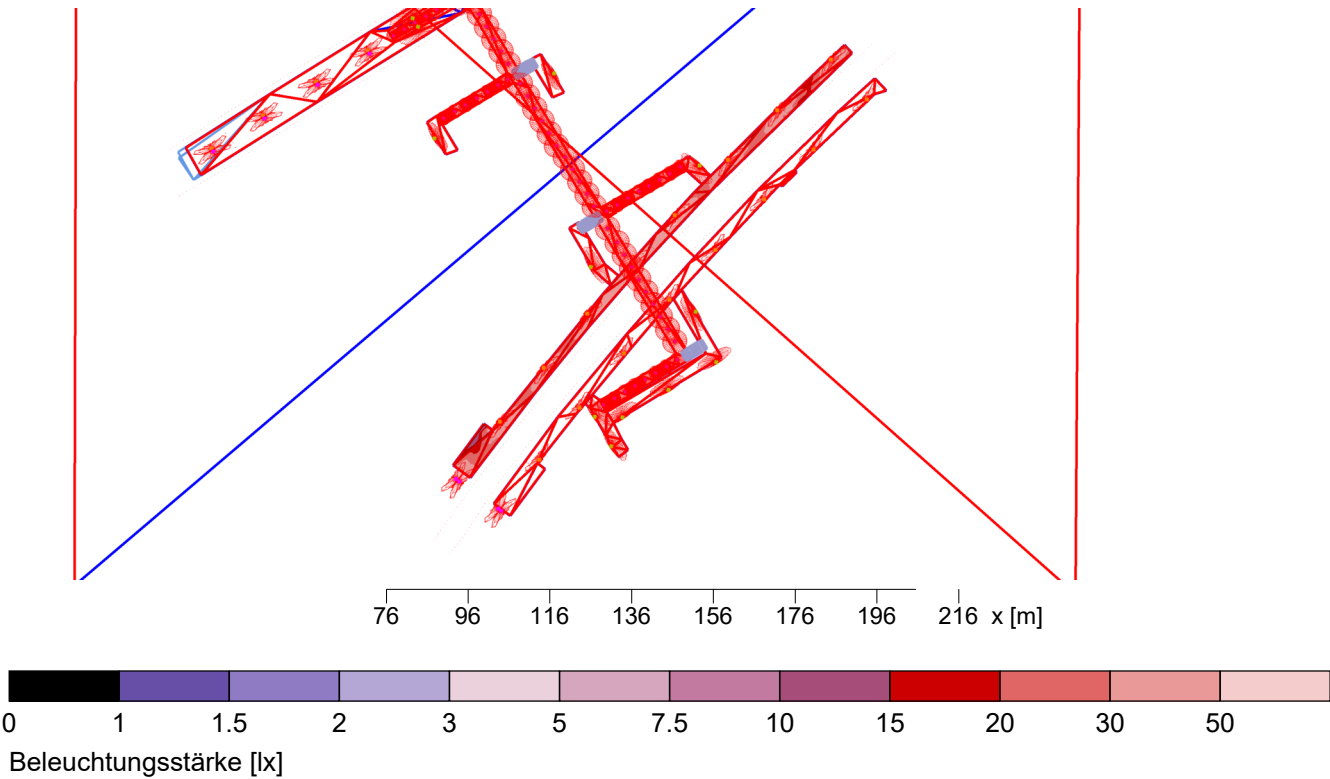
## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.6 Ergebnisübersicht, Zugang 2 Lift Ritterschlösschen Str.

|   |      |                                    |   |
|---|------|------------------------------------|---|
|   |      | <b>Schmidt-Strahl GmbH</b>         |   |
| 2   | 18 x | Bestell Nr.                        | : PSH-395540-pA-G2-76-RAL9007-12W                   |
|  |      | Leuchtenname                       | : Bahnsteigleuchte-Curso pA LED-12W-SKII-4000K-RA80 |
|   |      | Bestückung                         | : 1 x LED-Curso-pA-12W 12 W / 1250 lm               |
|   |      | <b>Schmidt-Strahl (Rademacher)</b> |   |
| 3   | 11 x | Bestell Nr.                        | : PSH-395521/VA/RAL9007                             |
|  |      | Leuchtenname                       | : 50W DBL Curso Bahnsteigleuchte                    |
|   |      | Bestückung                         | : 1 x HST-Sodinette 50W(Ra25) 66 W / 4200 lm        |
| 4   | 21 x | Bestell Nr.                        | : PSH-395523/VA/RAL9007                             |
|  |      | Leuchtenname                       | : 70W DBL Curso Bahnsteigleuchte                    |
|   |      | Bestückung                         | : 1 x HST-Sodinette 70W(Ra25) 83 W / 6400 lm        |

3.2 Zusammenfassung, Georg-Schwarz-Brücken

3.2.7 Ergebnisübersicht, Bahnsteig 3



Allgemein

|                               |              |
|-------------------------------|--------------|
| Verwendeter Rechenalgorithmus | Direktanteil |
| Position                      | 0.20 m       |
| Wartungsfaktor                | 0.80         |
| Leuchtenlichtstrom            | 0 lm         |

Bahnsteig 3

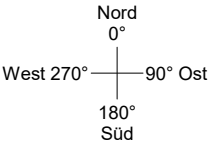
Nutzungsprofil: 1.2 mit geringem Reisendenaufkommen (Ra >40.00)

|                           |            |                 |
|---------------------------|------------|-----------------|
|                           | Horizontal |                 |
| $\bar{E}_m$               | 34.6 lx    | ( $\geq 10$ lx) |
| $E_{min}$                 | 10.8 lx    |                 |
| $E_{min}/\bar{E}_m (U_o)$ | 0.31       | ( $\geq 0.25$ ) |
| $E_{min}/E_{max} (U_d)$   | 0.15       |                 |
| Position                  | 0.02 m     |                 |

Beobachter Rg

$L_{ve} = 0.1 \text{ cd/m}^2$ ,  $\bar{E}_i = 43 \text{ lx}$ ,  $\rho = 20 \%$

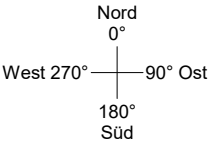
| Nr. | Bezeichnung | Position           | $R_{G,max}$ | Richtung   |
|-----|-------------|--------------------|-------------|------------|
| 16  | RG 16       | 141 m/82.6 m/1.6 m | 38.6        | 231° (-2°) |



Beobachter TI

$\bar{L}_i = 2.75 \text{ cd/m}^2$ ,  $\bar{E}_i = 43 \text{ lx}$ ,  $\rho = 20 \%$

| Nr. | Bezeichnung | Position           | $f_{TI,max}$ | Richtung  |
|-----|-------------|--------------------|--------------|-----------|
| 1   | TI 1        | 166 m/104 m/2.42 m | 2.6          | 47° (-1°) |



| Hauptoberflächen | $\bar{E}_m$ | $U_o$ |
|------------------|-------------|-------|
|------------------|-------------|-------|

Objekt : Beleuchtungsanlage  
Anlage : Georg-Schwarz-Brücken  
Projektnummer : 310852  
Datum : 18.12.2024

## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

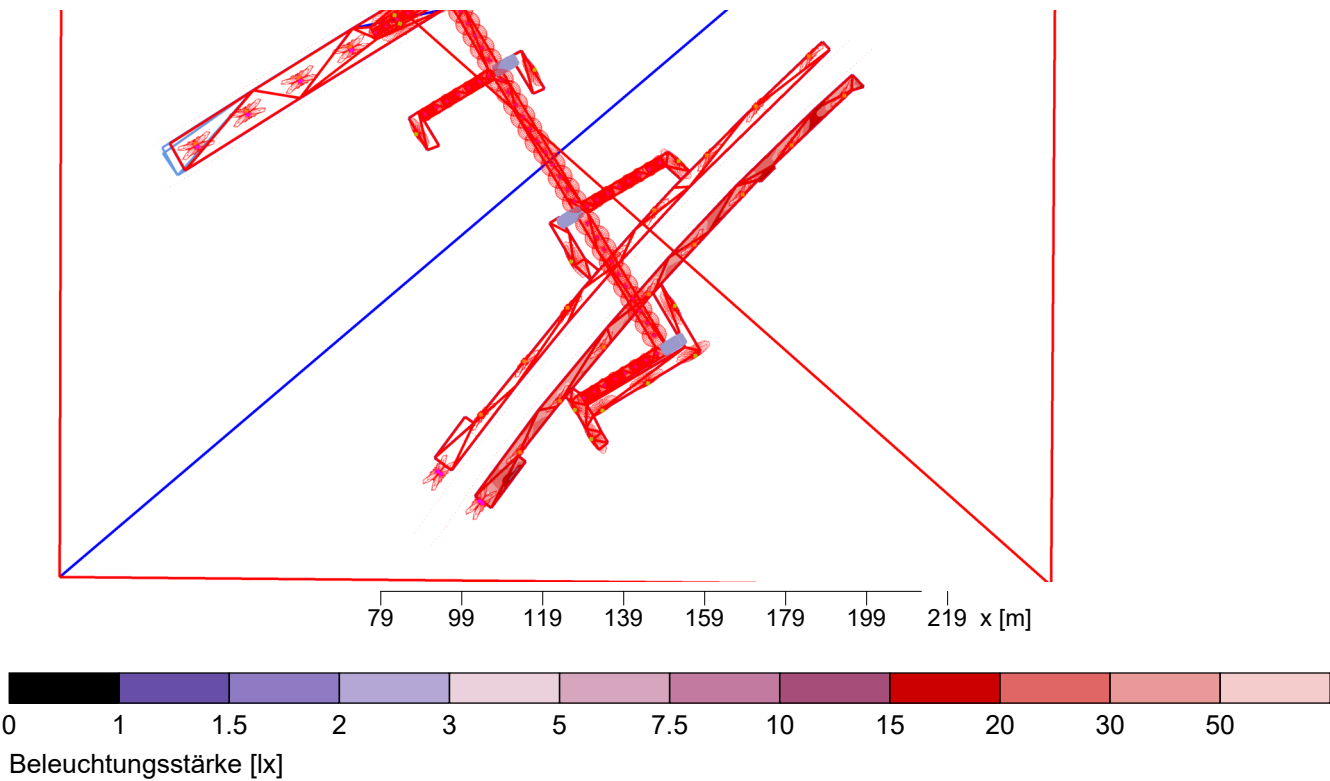
### 3.2.7 Ergebnisübersicht, Bahnsteig 3

Typ Anz. Fabrikat

|   |      |   |
|---|------|---|
|   |      | <b>Designplan Leuchten - Designplan Lighting Ltd.</b>             |
| 1 | 85 x | Bestell Nr. : GD890-2-1500NW-XW-CB                                |
|   |      | Leuchtenname : Tuscan 650 mm 1419 lm opal SKII DB-Spezifikationen |
|   |      | Bestückung : 1 x LED 16 W / 1419 lm                               |
|   |      | <b>Schmidt-Strahl GmbH</b>  |
| 2 | 18 x | Bestell Nr. : PSH-395540-pA-G2-76-RAL9007-12W                     |
|   |      | Leuchtenname : Bahnsteigleuchte-Curso pA LED-12W-SKII-4000K-RA80  |
|   |      | Bestückung : 1 x LED-Curso-pA-12W 12 W / 1250 lm                  |
|   |      | <b>Schmidt-Strahl (Rademacher)</b>                                |
| 3 | 11 x | Bestell Nr. : PSH-395521/VA/RAL9007                               |
|   |      | Leuchtenname : 50W DBL Curso Bahnsteigleuchte                     |
|   |      | Bestückung : 1 x HST-Sodinette 50W(Ra25) 66 W / 4200 lm           |
| 4 | 21 x | Bestell Nr. : PSH-395523/VA/RAL9007                               |
|   |      | Leuchtenname : 70W DBL Curso Bahnsteigleuchte                     |
|   |      | Bestückung : 1 x HST-Sodinette 70W(Ra25) 83 W / 6400 lm           |

3.2 Zusammenfassung, Georg-Schwarz-Brücken

3.2.8 Ergebnisübersicht, Bahnsteig 4



Allgemein

|                               |              |
|-------------------------------|--------------|
| Verwendeter Rechenalgorithmus | Direktanteil |
| Position                      | 0.40 m       |
| Wartungsfaktor                | 0.80         |
| Leuchtenlichtstrom            | 0 lm         |

Bahnsteig 4

Nutzungsprofil: 1.2 mit geringem Reisendenaufkommen (Ra >40.00)

|                           |            |                 |
|---------------------------|------------|-----------------|
|                           | Horizontal |                 |
| $\bar{E}_m$               | 36.6 lx    | ( $\geq 10$ lx) |
| $E_{min}$                 | 11.1 lx    |                 |
| $E_{min}/\bar{E}_m (U_o)$ | 0.30       | ( $\geq 0.25$ ) |
| $E_{min}/E_{max} (U_d)$   | 0.15       |                 |
| Position                  | 0.02 m     |                 |

Beobachter Rg

$L_{ve} = 0.1 \text{ cd/m}^2$ ,  $\bar{E}_i = 46 \text{ lx}$ ,  $\rho = 20 \%$

| Nr. | Bezeichnung | Position          | $R_{G,max}$ | Richtung   |
|-----|-------------|-------------------|-------------|------------|
| 1   | RG 1        | 196 m/123 m/1.6 m | 36.4        | 213° (-2°) |

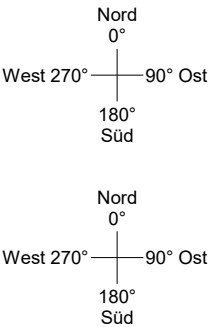
Beobachter TI

$\bar{L}_i = 2.91 \text{ cd/m}^2$ ,  $\bar{E}_i = 46 \text{ lx}$ ,  $\rho = 20 \%$

| Nr. | Bezeichnung | Position           | $f_{TI,max}$ | Richtung  |
|-----|-------------|--------------------|--------------|-----------|
| 1   | TI 1        | 196 m/126 m/2.62 m | 3            | 48° (-1°) |

Hauptoberflächen

|             |       |
|-------------|-------|
| $\bar{E}_m$ | $U_o$ |
|-------------|-------|



### 3.2 Zusammenfassung, Georg-Schwarz-Brücken

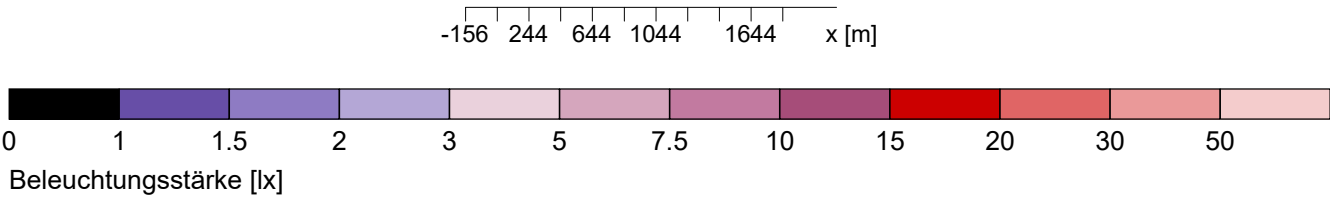
#### 3.2.8 Ergebnisübersicht, Bahnsteig 4

| Typ   | Anz. | Fabrikat  |
|---|------|---|
| <div>1</div> <div>85 x</div> <div></div> |      | <b>Designplan Leuchten - Designplan Lighting Ltd.</b>             |
|   |      | Bestell Nr. : GD890-2-1500NW-XW-CB                                |
|   |      | Leuchtenname : Tuscan 650 mm 1419 lm opal SKII DB-Spezifikationen |
|   |      | Bestückung : 1 x LED 16 W / 1419 lm                               |
| <div>2</div> <div>18 x</div> <div></div> |      | <b>Schmidt-Strahl GmbH</b>  |
|   |      | Bestell Nr. : PSH-395540-pA-G2-76-RAL9007-12W                     |
|   |      | Leuchtenname : Bahnsteigleuchte-Curso pA LED-12W-SKII-4000K-RA80  |
|   |      | Bestückung : 1 x LED-Curso-pA-12W 12 W / 1250 lm                  |
| <div>3</div> <div>11 x</div> <div></div> |      | <b>Schmidt-Strahl (Rademacher)</b>                                |
|   |      | Bestell Nr. : PSH-395521/VA/RAL9007                               |
|   |      | Leuchtenname : 50W DBL Curso Bahnsteigleuchte                     |
|   |      | Bestückung : 1 x HST-Sodinette 50W(Ra25) 66 W / 4200 lm           |
| <div>4</div> <div>21 x</div> <div></div> |      |   |
|   |      | Bestell Nr. : PSH-395523/VA/RAL9007                               |
|   |      | Leuchtenname : 70W DBL Curso Bahnsteigleuchte                     |
|   |      | Bestückung : 1 x HST-Sodinette 70W(Ra25) 83 W / 6400 lm           |



3.2 Zusammenfassung, Georg-Schwarz-Brücken

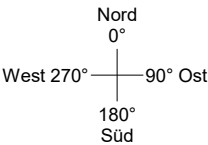
3.2.9 Ergebnisübersicht, Mittelbahnsteig 1/2



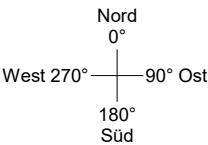
|                               |              |
|-------------------------------|--------------|
| Allgemein                     |              |
| Verwendeter Rechenalgorithmus | Direktanteil |
| Position                      | 0.86 m       |
| Wartungsfaktor                | 0.80         |
| Leuchtenlichtstrom            | 0 lm         |

|   |                         |
|---|-------------------------|
| Mittelbahnsteig 1/2   | Mittelbahnsteig 1/2     |
| Nutzungsprofil: 1.2 mit geringem Reisendenaufkommen (Ra >40.00) |                         |
|   | Horizontal              |
| $\bar{E}_m$   | 35.2 lx ( $\geq 10$ lx) |
| $E_{min}$   | 10.5 lx                 |
| $E_{min}/\bar{E}_m (U_o)$                                       | 0.30 ( $\geq 0.25$ )    |
| $E_{min}/E_{max} (U_d)$   | 0.13                    |
| Position  | 0.02 m                  |

|  |             |                  |                    |
|--|-------------|------------------|--------------------|
| Beobachter Rg  |             |                  |                    |
| $L_{ve} = 0.1 \text{ cd/m}^2$ , $\bar{E}_i = 44 \text{ lx}$ , $\rho = 20 \%$ |             |                  |                    |
| Nr.  | Bezeichnung | Position         | R <sub>G,max</sub> |
| 11   | RG 11       | 38 m/109 m/1.6 m | 34.6               |
|  |             |                  | Richtung 58° (-2°) |



|   |             |                     |                     |
|---|-------------|---------------------|---------------------|
| Beobachter TI   |             |                     |                     |
| $\bar{L}_i = 2.8 \text{ cd/m}^2$ , $\bar{E}_i = 44 \text{ lx}$ , $\rho = 20 \%$ |             |                     |                     |
| Nr.   | Bezeichnung | Position            | f <sub>TI,max</sub> |
| 1   | TI 1        | 99.3 m/153 m/3.08 m | 2.1                 |
| 2   | TI 2        | 135 m/162 m/3.08 m  | 2.2                 |
|   |             |                     | Richtung 61° (-1°)  |
|   |             |                     | 60° (-1°)           |



3.2 Zusammenfassung, Georg-Schwarz-Brücken

3.2.9 Ergebnisübersicht, Mittelbahnsteig 1/2

Hauptoberflächen

$\bar{E}_m$

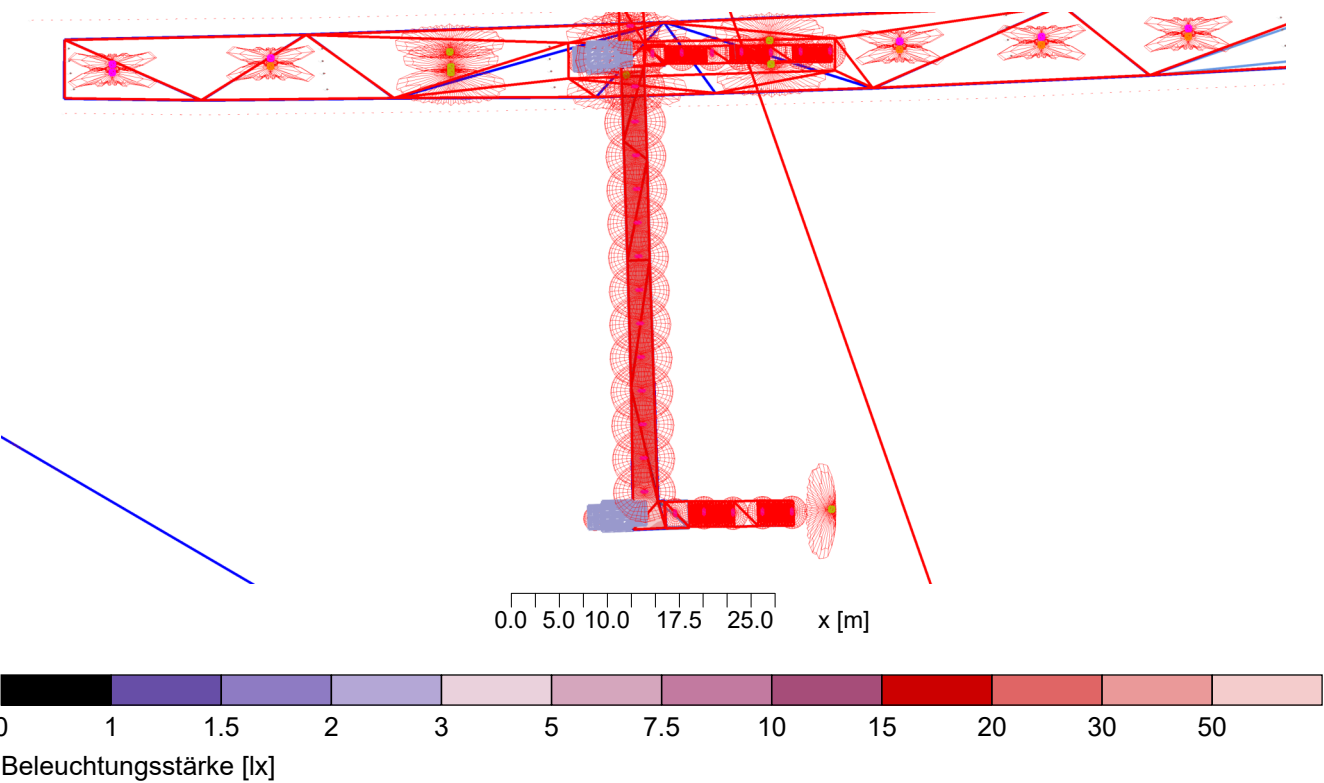
$U_o$

Typ    Anz.    Fabrikat

|  |      |   |
|--|------|---|
| <b>Designplan Leuchten - Designplan Lighting Ltd.</b>                              |      |   |
| 1  | 85 x | Bestell Nr. : GD890-2-1500NW-XW-CB                                |
|   |      | Leuchtenname : Tuscan 650 mm 1419 lm opal SKII DB-Spezifikationen |
|  |      | Bestückung : 1 x LED 16 W / 1419 lm                               |
| <b>Schmidt-Strahl GmbH</b>   |      |   |
| 2  | 18 x | Bestell Nr. : PSH-395540-pA-G2-76-RAL9007-12W                     |
|   |      | Leuchtenname : Bahnsteigleuchte-Curso pA LED-12W-SKII-4000K-RA80  |
|  |      | Bestückung : 1 x LED-Curso-pA-12W 12 W / 1250 lm                  |
| <b>Schmidt-Strahl (Rademacher)</b>   |      |   |
| 3  | 11 x | Bestell Nr. : PSH-395521/VA/RAL9007                               |
|   |      | Leuchtenname : 50W DBL Curso Bahnsteigleuchte                     |
|  |      | Bestückung : 1 x HST-Sodinette 50W(Ra25) 66 W / 4200 lm           |
| 4  | 21 x | Bestell Nr. : PSH-395523/VA/RAL9007                               |
|  |      | Leuchtenname : 70W DBL Curso Bahnsteigleuchte                     |
|  |      | Bestückung : 1 x HST-Sodinette 70W(Ra25) 83 W / 6400 lm           |

3.2 Zusammenfassung, Georg-Schwarz-Brücken

3.2.10 Ergebnisübersicht, Behelfsbrücke, vorderer Teil






|   |                         |
|---|-------------------------|
| Allgemein   |                         |
| Verwendeter Rechenalgorithmus   | Direktanteil            |
| Position  | 7.67 m                  |
| Wartungsfaktor  | 0.80                    |
| Leuchtenlichtstrom  | 0 lm                    |
| Behelfsbrücke, vorderer Teil Behelfsbrücke, vorderer Teil                     |                         |
| Nutzungsprofil: 3.3.1 Personenüberführung ohne Überdachung lt.1.2 (Ra >20.00) |                         |
| Horizontal  |                         |
| $\bar{E}_m$   | 29.9 lx ( $\geq 20$ lx) |
| $E_{min}$   | 23.4 lx                 |
| $E_{min}/\bar{E}_m (U_o)$   | 0.78 ( $\geq 0.40$ )    |
| $E_{min}/E_{max} (U_d)$   | 0.24                    |
| Position  | 0.02 m (rot: -3.3°/0°)  |
| Hauptoberflächen  | $\bar{E}_m$ $U_o$       |

| Typ | Anz. | Fabrikat  |
|-----|------|---|
| 1   | 85 x | Designplan Leuchten - Designplan Lighting Ltd.                    |
|     |      | Bestell Nr. : GD890-2-1500NW-XW-CB                                |
|     |      | Leuchtenname : Tuscan 650 mm 1419 lm opal SKII DB-Spezifikationen |
|     |      | Bestückung : 1 x LED 16 W / 1419 lm                               |

Objekt : Beleuchtungsanlage  
Anlage : Georg-Schwarz-Brücken  
Projektnummer : 310852  
Datum : 18.12.2024

## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.10 Ergebnisübersicht, Behelfsbrücke, vorderer Teil

|   |      |                                    |   |
|---|------|------------------------------------|---|
|   |      | <b>Schmidt-Strahl GmbH</b>         |   |
| 2   | 18 x | Bestell Nr.                        | : PSH-395540-pA-G2-76-RAL9007-12W                   |
|  |      | Leuchtenname                       | : Bahnsteigleuchte-Curso pA LED-12W-SKII-4000K-RA80 |
|   |      | Bestückung                         | : 1 x LED-Curso-pA-12W 12 W / 1250 lm               |
|   |      | <b>Schmidt-Strahl (Rademacher)</b> |   |
| 3   | 11 x | Bestell Nr.                        | : PSH-395521/VA/RAL9007                             |
|  |      | Leuchtenname                       | : 50W DBL Curso Bahnsteigleuchte                    |
|   |      | Bestückung                         | : 1 x HST-Sodinette 50W(Ra25) 66 W / 4200 lm        |
| 4   | 21 x | Bestell Nr.                        | : PSH-395523/VA/RAL9007                             |
|  |      | Leuchtenname                       | : 70W DBL Curso Bahnsteigleuchte                    |
|   |      | Bestückung                         | : 1 x HST-Sodinette 70W(Ra25) 83 W / 6400 lm        |

## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.11 Ergebnisübersicht, Messflächen Treppe Bstg 4 (11)



#### Horizontale Beleuchtungsstärke

| Nr.   | Messfläche | Raster | $\bar{E}_m$ | $E_{min}$ | $E_{max}$ | $U_o$ | $U_d$ |
|-------|------------|--------|-------------|-----------|-----------|-------|-------|
| 11.1  | Stufe 1    | 4 x 30 | 57.1 lx     | 39.7 lx   | 66.9 lx   | 0.70  | 0.59  |
| 11.2  | Stufe 2    | 4 x 30 | 58.3 lx     | 38.8 lx   | 69.3 lx   | 0.67  | 0.56  |
| 11.3  | Stufe 3    | 4 x 30 | 58.2 lx     | 36.8 lx   | 70.5 lx   | 0.63  | 0.52  |
| 11.4  | Stufe 4    | 4 x 30 | 57.2 lx     | 35 lx     | 70.4 lx   | 0.61  | 0.50  |
| 11.5  | Stufe 5    | 4 x 30 | 55 lx       | 30.9 lx   | 67.6 lx   | 0.56  | 0.46  |
| 11.6  | Stufe 6    | 4 x 30 | 51 lx       | 25.9 lx   | 63.9 lx   | 0.51  | 0.40  |
| 11.7  | Stufe 7    | 4 x 30 | 51.7 lx     | 37.2 lx   | 60 lx     | 0.72  | 0.62  |
| 11.8  | Stufe 8    | 4 x 30 | 49.1 lx     | 35 lx     | 57.1 lx   | 0.71  | 0.61  |
| 11.9  | Stufe 9    | 4 x 30 | 47.2 lx     | 33.4 lx   | 55.2 lx   | 0.71  | 0.60  |
| 11.10 | Stufe 10   | 4 x 30 | 46.4 lx     | 32.3 lx   | 54.4 lx   | 0.70  | 0.59  |
| 11.11 | Stufe 11   | 4 x 30 | 46.8 lx     | 31.7 lx   | 55.1 lx   | 0.68  | 0.58  |
| 11.12 | Stufe 12   | 4 x 30 | 47.9 lx     | 31.1 lx   | 57.4 lx   | 0.65  | 0.54  |
| 11.13 | Stufe 13   | 4 x 30 | 48.3 lx     | 29.2 lx   | 59.3 lx   | 0.60  | 0.49  |
| 11.14 | Stufe 14   | 4 x 30 | 48.2 lx     | 26.9 lx   | 61.1 lx   | 0.56  | 0.44  |
| 11.15 | Podest     | 6 x 7  | 51.2 lx     | 44.6 lx   | 60.2 lx   | 0.87  | 0.74  |
| 11.16 | Stufe 15   | 4 x 30 | 43.7 lx     | 27 lx     | 53 lx     | 0.62  | 0.51  |
| 11.17 | Stufe 16   | 4 x 30 | 43.3 lx     | 24.7 lx   | 53.6 lx   | 0.57  | 0.46  |
| 11.18 | Stufe 17   | 4 x 30 | 42.3 lx     | 21.9 lx   | 53.4 lx   | 0.52  | 0.41  |
| 11.19 | Stufe 18   | 4 x 30 | 44.7 lx     | 33.1 lx   | 52.6 lx   | 0.74  | 0.63  |
| 11.20 | Stufe 19   | 4 x 30 | 43.6 lx     | 31.8 lx   | 51.2 lx   | 0.73  | 0.62  |
| 11.21 | Stufe 20   | 4 x 30 | 42.6 lx     | 30.6 lx   | 50.4 lx   | 0.72  | 0.61  |
| 11.22 | Stufe 21   | 4 x 30 | 42.2 lx     | 29.3 lx   | 50.3 lx   | 0.69  | 0.58  |
| 11.23 | Stufe 22   | 4 x 30 | 42.3 lx     | 28.5 lx   | 50.8 lx   | 0.67  | 0.56  |
| 11.24 | Stufe 23   | 4 x 30 | 42.7 lx     | 27.5 lx   | 51.8 lx   | 0.64  | 0.53  |
| 11.25 | Stufe 24   | 4 x 30 | 43.2 lx     | 26.2 lx   | 53.3 lx   | 0.61  | 0.49  |
| 11.26 | Stufe 25   | 4 x 30 | 43.2 lx     | 24.6 lx   | 54.6 lx   | 0.57  | 0.45  |
| 11.27 | Stufe 26   | 4 x 30 | 42.8 lx     | 22.2 lx   | 55.4 lx   | 0.52  | 0.40  |
| 11.28 | Stufe 27   | 4 x 30 | 43 lx       | 19.5 lx   | 55.7 lx   | 0.45  | 0.35  |
| 11.29 | Stufe 28   | 4 x 30 | 47.5 lx     | 35 lx     | 55.5 lx   | 0.74  | 0.63  |
| 11.30 | Stufe 29   | 4 x 30 | 47.7 lx     | 34.6 lx   | 55.9 lx   | 0.72  | 0.62  |
| 11.31 | Podest     | 6 x 7  | 49.1 lx     | 40.6 lx   | 57.1 lx   | 0.83  | 0.71  |
| 11.32 | Stufe 30   | 4 x 30 | 41.9 lx     | 31.1 lx   | 48.3 lx   | 0.74  | 0.64  |
| 11.33 | Stufe 31   | 4 x 30 | 42.3 lx     | 30.7 lx   | 49 lx     | 0.73  | 0.63  |
| 11.34 | Stufe 32   | 4 x 30 | 43 lx       | 30.3 lx   | 50.3 lx   | 0.71  | 0.60  |
| 11.35 | Stufe 33   | 4 x 30 | 43.8 lx     | 29.8 lx   | 51.9 lx   | 0.68  | 0.58  |
| 11.36 | Stufe 34   | 4 x 30 | 44.7 lx     | 29.2 lx   | 53.5 lx   | 0.65  | 0.55  |

Objekt : Beleuchtungsanlage  
 Anlage : Georg-Schwarz-Brücken  
 Projektnummer : 310852  
 Datum : 18.12.2024

## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.11 Ergebnisübersicht, Messflächen Treppe Bstg 4 (11)

|                        |        |                |                |                |             |             |
|------------------------|--------|----------------|----------------|----------------|-------------|-------------|
| 11.37 Stufe 35         | 4 x 30 | 45.1 lx        | 27.8 lx        | 54.9 lx        | 0.62        | 0.51        |
| 11.38 Stufe 36         | 4 x 30 | 44.6 lx        | 26 lx          | 55.6 lx        | 0.58        | 0.47        |
| 11.39 Stufe 37         | 4 x 30 | 43.4 lx        | 23.2 lx        | 55.2 lx        | 0.54        | 0.42        |
| 11.40 Stufe 38         | 4 x 30 | 41.3 lx        | 20 lx          | 53.6 lx        | 0.48        | 0.37        |
| 11.41 Stufe 39         | 4 x 30 | 43.1 lx        | 31.5 lx        | 51.1 lx        | 0.73        | 0.62        |
| 11.42 Stufe 40         | 4 x 30 | 41.3 lx        | 30.2 lx        | 49.3 lx        | 0.73        | 0.61        |
| 11.43 Stufe 41         | 4 x 30 | 41.7 lx        | 28.9 lx        | 48.2 lx        | 0.69        | 0.60        |
| 11.44 Stufe 42         | 4 x 30 | 41.7 lx        | 28.1 lx        | 48.1 lx        | 0.68        | 0.59        |
| 11.45 Stufe 43         | 4 x 30 | 42.4 lx        | 27.7 lx        | 49.3 lx        | 0.65        | 0.56        |
| 11.46 Stufe 44         | 4 x 30 | 43.6 lx        | 27.1 lx        | 51.3 lx        | 0.62        | 0.53        |
| 11.47 Podest           | 6 x 7  | 50.4 lx        | 42.5 lx        | 56.6 lx        | 0.84        | 0.75        |
| <b>Zusammenfassung</b> |        | <b>47.5 lx</b> | <b>19.5 lx</b> | <b>70.5 lx</b> | <b>0.41</b> | <b>0.28</b> |

## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.12 Ergebnisübersicht, Messflächen Treppe Bstg 3 (12)



#### Horizontale Beleuchtungsstärke

| Nr.   | Messfläche | Raster | $\bar{E}_m$ | $E_{min}$ | $E_{max}$ | $U_o$ | $U_d$ |
|-------|------------|--------|-------------|-----------|-----------|-------|-------|
| 12.1  | Stufe 1    | 4 x 30 | 39.2 lx     | 29.9 lx   | 45.2 lx   | 0.76  | 0.66  |
| 12.2  | Stufe 2    | 4 x 30 | 41.8 lx     | 31.2 lx   | 48.9 lx   | 0.75  | 0.64  |
| 12.3  | Stufe 3    | 4 x 30 | 43.8 lx     | 31.3 lx   | 52.2 lx   | 0.71  | 0.60  |
| 12.4  | Stufe 4    | 4 x 30 | 45.1 lx     | 30.7 lx   | 54.6 lx   | 0.68  | 0.56  |
| 12.5  | Stufe 5    | 4 x 30 | 45.4 lx     | 29.2 lx   | 56.5 lx   | 0.64  | 0.52  |
| 12.6  | Stufe 6    | 4 x 30 | 44.6 lx     | 26.9 lx   | 57.2 lx   | 0.60  | 0.47  |
| 12.7  | Stufe 7    | 4 x 30 | 42.8 lx     | 23.5 lx   | 56.5 lx   | 0.55  | 0.42  |
| 12.8  | Stufe 8    | 4 x 30 | 41.4 lx     | 19.8 lx   | 54.6 lx   | 0.48  | 0.36  |
| 12.9  | Stufe 9    | 4 x 30 | 43.3 lx     | 31.9 lx   | 52.1 lx   | 0.74  | 0.61  |
| 12.10 | Stufe 10   | 4 x 30 | 41.8 lx     | 30.6 lx   | 50.5 lx   | 0.73  | 0.61  |
| 12.11 | Stufe 11   | 4 x 30 | 41.3 lx     | 29.5 lx   | 49.9 lx   | 0.71  | 0.59  |
| 12.12 | Stufe 12   | 4 x 30 | 41.6 lx     | 28.7 lx   | 50.5 lx   | 0.69  | 0.57  |
| 12.13 | Stufe 13   | 4 x 30 | 42.6 lx     | 28.3 lx   | 52.2 lx   | 0.66  | 0.54  |
| 12.14 | Stufe 14   | 4 x 30 | 44.1 lx     | 27.5 lx   | 54.7 lx   | 0.62  | 0.50  |
| 12.15 | Podest     | 6 x 7  | 52.1 lx     | 47.3 lx   | 57.4 lx   | 0.91  | 0.82  |
| 12.16 | Stufe 15   | 4 x 30 | 47.6 lx     | 31.7 lx   | 57 lx     | 0.67  | 0.56  |
| 12.17 | Stufe 16   | 4 x 30 | 48.2 lx     | 30.2 lx   | 58.5 lx   | 0.63  | 0.52  |
| 12.18 | Stufe 17   | 4 x 30 | 47.6 lx     | 28.2 lx   | 59.2 lx   | 0.59  | 0.48  |
| 12.19 | Stufe 18   | 4 x 30 | 46.2 lx     | 25.4 lx   | 58.7 lx   | 0.55  | 0.43  |
| 12.20 | Stufe 19   | 4 x 30 | 44 lx       | 21.7 lx   | 57.1 lx   | 0.49  | 0.38  |
| 12.21 | Stufe 20   | 4 x 30 | 45.8 lx     | 33.2 lx   | 54.7 lx   | 0.73  | 0.61  |
| 12.22 | Stufe 21   | 4 x 30 | 44.1 lx     | 31.7 lx   | 53 lx     | 0.72  | 0.60  |
| 12.23 | Stufe 22   | 4 x 30 | 43.1 lx     | 30.2 lx   | 51.9 lx   | 0.70  | 0.58  |
| 12.24 | Stufe 23   | 4 x 30 | 43.1 lx     | 29.1 lx   | 51.9 lx   | 0.68  | 0.56  |
| 12.25 | Stufe 24   | 4 x 30 | 43.7 lx     | 28.5 lx   | 53.2 lx   | 0.65  | 0.54  |
| 12.26 | Stufe 25   | 4 x 30 | 44.8 lx     | 27.8 lx   | 55.2 lx   | 0.62  | 0.50  |
| 12.27 | Stufe 26   | 4 x 30 | 45.6 lx     | 26.5 lx   | 57.4 lx   | 0.58  | 0.46  |
| 12.28 | Stufe 27   | 4 x 30 | 45.8 lx     | 24.8 lx   | 59.2 lx   | 0.54  | 0.42  |
| 12.29 | Stufe 28   | 4 x 30 | 45.4 lx     | 22.3 lx   | 60.1 lx   | 0.49  | 0.37  |
| 12.30 | Stufe 29   | 4 x 30 | 50.8 lx     | 37.3 lx   | 60.2 lx   | 0.73  | 0.62  |
| 12.31 | Stufe 30   | 4 x 30 | 50.7 lx     | 36.9 lx   | 60.3 lx   | 0.73  | 0.61  |
| 12.32 | Podest     | 6 x 7  | 51.3 lx     | 42.9 lx   | 60.5 lx   | 0.83  | 0.71  |
| 12.33 | Stufe 31   | 4 x 30 | 41.8 lx     | 31.2 lx   | 49.2 lx   | 0.75  | 0.63  |
| 12.34 | Stufe 32   | 4 x 30 | 41.9 lx     | 30.7 lx   | 49.5 lx   | 0.73  | 0.62  |
| 12.35 | Stufe 33   | 4 x 30 | 42.3 lx     | 30.4 lx   | 50.3 lx   | 0.72  | 0.60  |
| 12.36 | Stufe 34   | 4 x 30 | 43 lx       | 29.8 lx   | 51.6 lx   | 0.69  | 0.58  |

Objekt : Beleuchtungsanlage  
 Anlage : Georg-Schwarz-Brücken  
 Projektnummer : 310852  
 Datum : 18.12.2024

## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.12 Ergebnisübersicht, Messflächen Treppe Bstg 3 (12)

|                        |        |              |                |                |             |             |
|------------------------|--------|--------------|----------------|----------------|-------------|-------------|
| 12.37 Stufe 35         | 4 x 30 | 43.9 lx      | 29.5 lx        | 53.4 lx        | 0.67        | 0.55        |
| 12.38 Stufe 36         | 4 x 30 | 44.9 lx      | 29 lx          | 55.2 lx        | 0.65        | 0.53        |
| 12.39 Stufe 37         | 4 x 30 | 45.4 lx      | 27.7 lx        | 56.7 lx        | 0.61        | 0.49        |
| 12.40 Stufe 38         | 4 x 30 | 45.2 lx      | 25.8 lx        | 57.5 lx        | 0.57        | 0.45        |
| 12.41 Stufe 39         | 4 x 30 | 44.4 lx      | 23.2 lx        | 57.1 lx        | 0.52        | 0.41        |
| 12.42 Stufe 40         | 4 x 30 | 42.6 lx      | 19.8 lx        | 55.8 lx        | 0.46        | 0.36        |
| 12.43 Stufe 41         | 4 x 30 | 45.1 lx      | 32.2 lx        | 53.8 lx        | 0.71        | 0.60        |
| 12.44 Stufe 42         | 4 x 30 | 45.1 lx      | 31.1 lx        | 52.5 lx        | 0.69        | 0.59        |
| 12.45 Stufe 43         | 4 x 30 | 44.8 lx      | 29.8 lx        | 52.1 lx        | 0.67        | 0.57        |
| 12.46 Stufe 44         | 4 x 30 | 45.3 lx      | 29.1 lx        | 52.7 lx        | 0.64        | 0.55        |
| 12.48 Stufe 45         | 4 x 30 | 46.6 lx      | 28.8 lx        | 54.7 lx        | 0.62        | 0.53        |
| 12.49 Stufe 45         | 4 x 30 | 48.3 lx      | 28.3 lx        | 57.3 lx        | 0.58        | 0.49        |
| 12.47 Podest           | 6 x 7  | 60.4 lx      | 52.6 lx        | 68.8 lx        | 0.87        | 0.76        |
| <b>Zusammenfassung</b> |        | <b>48 lx</b> | <b>19.8 lx</b> | <b>68.8 lx</b> | <b>0.41</b> | <b>0.29</b> |



3.2 Zusammenfassung, Georg-Schwarz-Brücken

3.2.13 Ergebnisübersicht, Messflächen Treppe am Ritterschlösschen (19)



Horizontale Beleuchtungsstärke

| Nr.             | Messfläche | Raster | $\bar{E}_m$ | $E_{min}$ | $E_{max}$ | $U_o$ | $U_d$ |
|-----------------|------------|--------|-------------|-----------|-----------|-------|-------|
| 19.1            | Stufe 1    | 4 x 30 | 45.3 lx     | 32 lx     | 53.8 lx   | 0.71  | 0.59  |
| 19.2            | Stufe 2    | 4 x 30 | 47.2 lx     | 32.2 lx   | 57 lx     | 0.68  | 0.56  |
| 19.3            | Stufe 3    | 4 x 30 | 48.1 lx     | 30.9 lx   | 59.4 lx   | 0.64  | 0.52  |
| 19.4            | Stufe 4    | 4 x 30 | 47.6 lx     | 28.5 lx   | 60.4 lx   | 0.60  | 0.47  |
| 19.5            | Stufe 5    | 4 x 30 | 45.7 lx     | 25 lx     | 59.6 lx   | 0.55  | 0.42  |
| 19.6            | Stufe 6    | 4 x 30 | 42.9 lx     | 21.3 lx   | 57.4 lx   | 0.50  | 0.37  |
| 19.7            | Stufe 7    | 4 x 30 | 44.2 lx     | 33.2 lx   | 54.1 lx   | 0.75  | 0.61  |
| 19.8            | Stufe 8    | 4 x 30 | 43.6 lx     | 31.8 lx   | 52 lx     | 0.73  | 0.61  |
| 19.9            | Stufe 9    | 4 x 30 | 42.8 lx     | 30.5 lx   | 50.9 lx   | 0.71  | 0.60  |
| 19.10           | Stufe 10   | 4 x 30 | 43.1 lx     | 30 lx     | 51.2 lx   | 0.69  | 0.58  |
| 19.11           | Stufe 11   | 4 x 30 | 44.3 lx     | 29.8 lx   | 53.1 lx   | 0.67  | 0.56  |
| 19.12           | Stufe 12   | 4 x 30 | 45.8 lx     | 29.2 lx   | 55.8 lx   | 0.64  | 0.52  |
| 19.15           | Podest     | 6 x 7  | 48 lx       | 27 lx     | 57.4 lx   | 0.56  | 0.47  |
| 19.13           | Stufe 13   | 4 x 30 | 48.3 lx     | 32.5 lx   | 56.1 lx   | 0.67  | 0.58  |
| 19.14           | Stufe 14   | 4 x 30 | 52 lx       | 40.4 lx   | 58.6 lx   | 0.78  | 0.69  |
| 19.16           | Stufe 15   | 4 x 30 | 48.3 lx     | 30.3 lx   | 59.3 lx   | 0.63  | 0.51  |
| 19.17           | Stufe 16   | 4 x 30 | 47.6 lx     | 28.1 lx   | 59.9 lx   | 0.59  | 0.47  |
| 19.18           | Stufe 17   | 4 x 30 | 46.3 lx     | 24.8 lx   | 58.8 lx   | 0.53  | 0.42  |
| 19.19           | Stufe 18   | 4 x 30 | 44.4 lx     | 20.9 lx   | 56.5 lx   | 0.47  | 0.37  |
| 19.20           | Stufe 19   | 4 x 30 | 46.2 lx     | 33.2 lx   | 53.7 lx   | 0.72  | 0.62  |
| 19.21           | Stufe 20   | 4 x 30 | 44.6 lx     | 31.6 lx   | 51.7 lx   | 0.71  | 0.61  |
| 19.22           | Stufe 21   | 4 x 30 | 44 lx       | 30.3 lx   | 50.9 lx   | 0.69  | 0.60  |
| 19.23           | Stufe 22   | 4 x 30 | 47.4 lx     | 40.6 lx   | 51.3 lx   | 0.86  | 0.79  |
| 19.24           | Stufe 23   | 4 x 30 | 48.9 lx     | 41.6 lx   | 53.1 lx   | 0.85  | 0.78  |
| 19.25           | Stufe 24   | 4 x 30 | 50.8 lx     | 42.8 lx   | 55.4 lx   | 0.84  | 0.77  |
| 19.26           | Stufe 25   | 4 x 30 | 52.3 lx     | 43.5 lx   | 57.7 lx   | 0.83  | 0.75  |
| 19.27           | Stufe 26   | 4 x 30 | 53.1 lx     | 44 lx     | 59.2 lx   | 0.83  | 0.74  |
| 19.28           | Stufe 27   | 4 x 30 | 47.2 lx     | 21.8 lx   | 59.9 lx   | 0.46  | 0.36  |
| 19.29           | Podest     | 6 x 7  | 54.2 lx     | 43.4 lx   | 61.6 lx   | 0.80  | 0.70  |
| Zusammenfassung |            |        | 48.4 lx     | 20.9 lx   | 61.6 lx   | 0.43  | 0.34  |

## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.14 Ergebnisübersicht, Messflächen Treppe Bahnsteig 1/2 (14)



#### Horizontale Beleuchtungsstärke

| Nr.   | Messfläche | Raster | $\bar{E}_m$ | $E_{min}$ | $E_{max}$ | $U_o$ | $U_d$ |
|-------|------------|--------|-------------|-----------|-----------|-------|-------|
| 14.1  | Stufe 1    | 4 x 20 | 58.9 lx     | 45.8 lx   | 68.2 lx   | 0.78  | 0.67  |
| 14.2  | Stufe 2    | 4 x 20 | 60.2 lx     | 45.6 lx   | 70.7 lx   | 0.76  | 0.64  |
| 14.3  | Stufe 3    | 4 x 20 | 60.7 lx     | 44.3 lx   | 72.7 lx   | 0.73  | 0.61  |
| 14.4  | Stufe 4    | 4 x 20 | 59.8 lx     | 40.8 lx   | 73.4 lx   | 0.68  | 0.56  |
| 14.5  | Stufe 5    | 4 x 20 | 57.5 lx     | 36.6 lx   | 72.5 lx   | 0.64  | 0.51  |
| 14.6  | Stufe 6    | 4 x 20 | 54.3 lx     | 31.7 lx   | 70.3 lx   | 0.58  | 0.45  |
| 14.7  | Stufe 7    | 4 x 20 | 56.3 lx     | 43 lx     | 67.3 lx   | 0.76  | 0.64  |
| 14.8  | Stufe 8    | 4 x 20 | 55.6 lx     | 39.7 lx   | 64.7 lx   | 0.71  | 0.61  |
| 14.9  | Stufe 9    | 4 x 20 | 53.6 lx     | 37 lx     | 62.3 lx   | 0.69  | 0.59  |
| 14.10 | Stufe 10   | 4 x 20 | 53.2 lx     | 35.4 lx   | 61.5 lx   | 0.66  | 0.57  |
| 14.11 | Stufe 11   | 4 x 20 | 53.9 lx     | 34.2 lx   | 62.8 lx   | 0.63  | 0.54  |
| 14.12 | Stufe 12   | 4 x 20 | 54.8 lx     | 33 lx     | 65.2 lx   | 0.60  | 0.51  |
| 14.13 | Stufe 13   | 4 x 20 | 56.5 lx     | 31.6 lx   | 68.9 lx   | 0.56  | 0.46  |
| 14.14 | Podest     | 7 x 5  | 71.6 lx     | 64.8 lx   | 80.3 lx   | 0.91  | 0.81  |
| 14.15 | Stufe 14   | 4 x 20 | 70.9 lx     | 52.2 lx   | 86.5 lx   | 0.74  | 0.60  |
| 14.16 | Stufe 15   | 4 x 20 | 71.4 lx     | 50.5 lx   | 91 lx     | 0.71  | 0.55  |
| 14.17 | Stufe 16   | 4 x 20 | 69.7 lx     | 47.1 lx   | 91 lx     | 0.68  | 0.52  |
| 14.18 | Stufe 17   | 4 x 20 | 67.3 lx     | 42.1 lx   | 88.6 lx   | 0.63  | 0.48  |
| 14.19 | Stufe 18   | 4 x 20 | 66.3 lx     | 50.7 lx   | 85.5 lx   | 0.76  | 0.59  |
| 14.20 | Stufe 19   | 4 x 20 | 60.9 lx     | 46.3 lx   | 79.5 lx   | 0.76  | 0.58  |
| 14.21 | Stufe 20   | 4 x 20 | 56 lx       | 42.4 lx   | 72.3 lx   | 0.76  | 0.59  |
| 14.22 | Stufe 21   | 4 x 20 | 52.1 lx     | 39.1 lx   | 66.4 lx   | 0.75  | 0.59  |
| 14.23 | Stufe 22   | 4 x 20 | 48.4 lx     | 36.4 lx   | 60.2 lx   | 0.75  | 0.60  |
| 14.24 | Stufe 23   | 4 x 20 | 45.3 lx     | 33.9 lx   | 54.3 lx   | 0.75  | 0.63  |
| 14.25 | Stufe 24   | 4 x 20 | 44.3 lx     | 31.3 lx   | 51.9 lx   | 0.71  | 0.60  |
| 14.26 | Stufe 25   | 4 x 20 | 44.6 lx     | 28.7 lx   | 53.5 lx   | 0.64  | 0.54  |
| 14.27 | Stufe 26   | 4 x 20 | 45 lx       | 26.6 lx   | 55.3 lx   | 0.59  | 0.48  |
| 14.28 | Podest     | 7 x 5  | 53 lx       | 49.4 lx   | 56.6 lx   | 0.93  | 0.87  |
| 14.29 | Stufe 27   | 4 x 20 | 46.1 lx     | 30.8 lx   | 54.7 lx   | 0.67  | 0.56  |
| 14.30 | Stufe 28   | 4 x 20 | 46.6 lx     | 28.7 lx   | 55.4 lx   | 0.62  | 0.52  |
| 14.31 | Stufe 29   | 4 x 20 | 46.1 lx     | 26 lx     | 55.1 lx   | 0.56  | 0.47  |
| 14.32 | Stufe 30   | 4 x 20 | 44.5 lx     | 22.6 lx   | 54.1 lx   | 0.51  | 0.42  |
| 14.33 | Stufe 31   | 4 x 20 | 47.2 lx     | 35.8 lx   | 52.7 lx   | 0.76  | 0.68  |
| 14.34 | Stufe 32   | 4 x 20 | 46.3 lx     | 34.1 lx   | 51.9 lx   | 0.74  | 0.66  |
| 14.35 | Stufe 33   | 4 x 20 | 46.2 lx     | 33.3 lx   | 51.8 lx   | 0.72  | 0.64  |
| 14.36 | Stufe 34   | 4 x 20 | 46.8 lx     | 32.9 lx   | 52.5 lx   | 0.70  | 0.63  |

Objekt : Beleuchtungsanlage  
 Anlage : Georg-Schwarz-Brücken  
 Projektnummer : 310852  
 Datum : 18.12.2024

## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.14 Ergebnisübersicht, Messflächen Treppe Bahnsteig 1/2 (14)

|                        |        |                |                |              |             |             |
|------------------------|--------|----------------|----------------|--------------|-------------|-------------|
| 14.37 Stufe 35         | 4 x 20 | 48.1 lx        | 32.7 lx        | 54.2 lx      | 0.68        | 0.60        |
| 14.38 Stufe 36         | 4 x 20 | 49.5 lx        | 32.6 lx        | 56.4 lx      | 0.66        | 0.58        |
| 14.39 Stufe 37         | 4 x 20 | 50.8 lx        | 31.4 lx        | 58.6 lx      | 0.62        | 0.54        |
| 14.40 Stufe 38         | 4 x 20 | 51.2 lx        | 29.4 lx        | 60.4 lx      | 0.57        | 0.49        |
| 14.41 Stufe 39         | 4 x 20 | 50.9 lx        | 26.7 lx        | 61.3 lx      | 0.52        | 0.44        |
| 14.42 Podest           | 7 x 5  | 58.2 lx        | 55.9 lx        | 62 lx        | 0.96        | 0.90        |
| <b>Zusammenfassung</b> |        | <b>56.5 lx</b> | <b>22.6 lx</b> | <b>91 lx</b> | <b>0.40</b> | <b>0.25</b> |

## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

### 3.2.15 Ergebnisübersicht, Messflächen Treppe Zugang Georg-Schwarz-Straße (15)



#### Horizontale Beleuchtungsstärke

| Nr.   | Messfläche | Raster | $\bar{E}_m$ | $E_{min}$ | $E_{max}$ | $U_o$ | $U_d$ |
|-------|------------|--------|-------------|-----------|-----------|-------|-------|
| 15.1  | Stufe 1    | 4 x 30 | 31.4 lx     | 22.5 lx   | 36.8 lx   | 0.72  | 0.61  |
| 15.2  | Stufe 2    | 4 x 30 | 32.9 lx     | 23.3 lx   | 38.8 lx   | 0.71  | 0.60  |
| 15.3  | Stufe 3    | 4 x 30 | 34.8 lx     | 24.6 lx   | 41.3 lx   | 0.71  | 0.59  |
| 15.4  | Stufe 4    | 4 x 30 | 37 lx       | 25.3 lx   | 44.3 lx   | 0.68  | 0.57  |
| 15.5  | Stufe 5    | 4 x 30 | 39.3 lx     | 26.1 lx   | 47.8 lx   | 0.66  | 0.55  |
| 15.6  | Stufe 6    | 4 x 30 | 41.6 lx     | 26.7 lx   | 51.3 lx   | 0.64  | 0.52  |
| 15.7  | Stufe 7    | 4 x 30 | 43 lx       | 26.2 lx   | 54.3 lx   | 0.61  | 0.48  |
| 15.8  | Stufe 8    | 4 x 30 | 43.2 lx     | 24.8 lx   | 56 lx     | 0.58  | 0.44  |
| 15.9  | Stufe 9    | 4 x 30 | 42.1 lx     | 22.2 lx   | 56.1 lx   | 0.53  | 0.40  |
| 15.10 | Stufe 10   | 4 x 30 | 40.1 lx     | 19 lx     | 54.6 lx   | 0.47  | 0.35  |
| 15.11 | Stufe 11   | 4 x 30 | 43.7 lx     | 32.7 lx   | 52.7 lx   | 0.75  | 0.62  |
| 15.12 | Stufe 12   | 4 x 30 | 42.8 lx     | 31.7 lx   | 51.8 lx   | 0.74  | 0.61  |
| 15.13 | Stufe 13   | 4 x 30 | 42.9 lx     | 31 lx     | 51.8 lx   | 0.72  | 0.60  |
| 15.14 | Podest     | 6 x 7  | 47.8 lx     | 41.6 lx   | 53.4 lx   | 0.87  | 0.78  |
| 15.15 | Stufe 14   | 4 x 30 | 41.8 lx     | 31.3 lx   | 48.8 lx   | 0.75  | 0.64  |
| 15.16 | Stufe 15   | 4 x 30 | 42.6 lx     | 31.3 lx   | 50.2 lx   | 0.73  | 0.62  |
| 15.17 | Stufe 16   | 4 x 30 | 43.6 lx     | 31.1 lx   | 51.8 lx   | 0.71  | 0.60  |
| 15.18 | Stufe 17   | 4 x 30 | 44.6 lx     | 30.9 lx   | 53.8 lx   | 0.69  | 0.57  |
| 15.19 | Stufe 18   | 4 x 30 | 45.6 lx     | 30.2 lx   | 55.6 lx   | 0.66  | 0.54  |
| 15.20 | Stufe 19   | 4 x 30 | 45.8 lx     | 28.7 lx   | 57 lx     | 0.63  | 0.50  |
| 15.21 | Stufe 20   | 4 x 30 | 45.1 lx     | 26.7 lx   | 57.6 lx   | 0.59  | 0.46  |
| 15.22 | Stufe 21   | 4 x 30 | 43.4 lx     | 23.7 lx   | 56.9 lx   | 0.54  | 0.42  |
| 15.23 | Stufe 22   | 4 x 30 | 41.1 lx     | 20.2 lx   | 55.1 lx   | 0.49  | 0.37  |
| 15.24 | Stufe 23   | 4 x 30 | 43.1 lx     | 32.5 lx   | 52.8 lx   | 0.75  | 0.61  |
| 15.25 | Stufe 24   | 4 x 30 | 42.9 lx     | 31.4 lx   | 51.5 lx   | 0.73  | 0.61  |
| 15.26 | Stufe 25   | 4 x 30 | 42.6 lx     | 30.2 lx   | 51.1 lx   | 0.71  | 0.59  |
| 15.27 | Stufe 26   | 4 x 30 | 43.2 lx     | 29.8 lx   | 52 lx     | 0.69  | 0.57  |
| 15.28 | Podest     | 6 x 7  | 49.4 lx     | 44.7 lx   | 54.5 lx   | 0.90  | 0.82  |
| 15.29 | Stufe 27   | 4 x 30 | 44.6 lx     | 32.3 lx   | 52.9 lx   | 0.72  | 0.61  |
| 15.30 | Stufe 28   | 4 x 30 | 46.2 lx     | 32.5 lx   | 55.3 lx   | 0.70  | 0.59  |
| 15.31 | Stufe 29   | 4 x 30 | 47.8 lx     | 32.4 lx   | 58.1 lx   | 0.68  | 0.56  |
| 15.32 | Stufe 30   | 4 x 30 | 49.3 lx     | 31.9 lx   | 60.8 lx   | 0.65  | 0.53  |
| 15.33 | Stufe 31   | 4 x 30 | 49.9 lx     | 30.5 lx   | 62.8 lx   | 0.61  | 0.49  |
| 15.34 | Stufe 32   | 4 x 30 | 49.5 lx     | 28.7 lx   | 63.7 lx   | 0.58  | 0.45  |
| 15.35 | Stufe 33   | 4 x 30 | 48.5 lx     | 25.5 lx   | 63.1 lx   | 0.53  | 0.40  |
| 15.36 | Stufe 34   | 4 x 30 | 46.3 lx     | 21.6 lx   | 61 lx     | 0.47  | 0.35  |

Objekt : Beleuchtungsanlage  
 Anlage : Georg-Schwarz-Brücken  
 Projektnummer : 310852  
 Datum : 18.12.2024

## 3.2 Zusammenfassung, Georg-Schwarz-Brücken

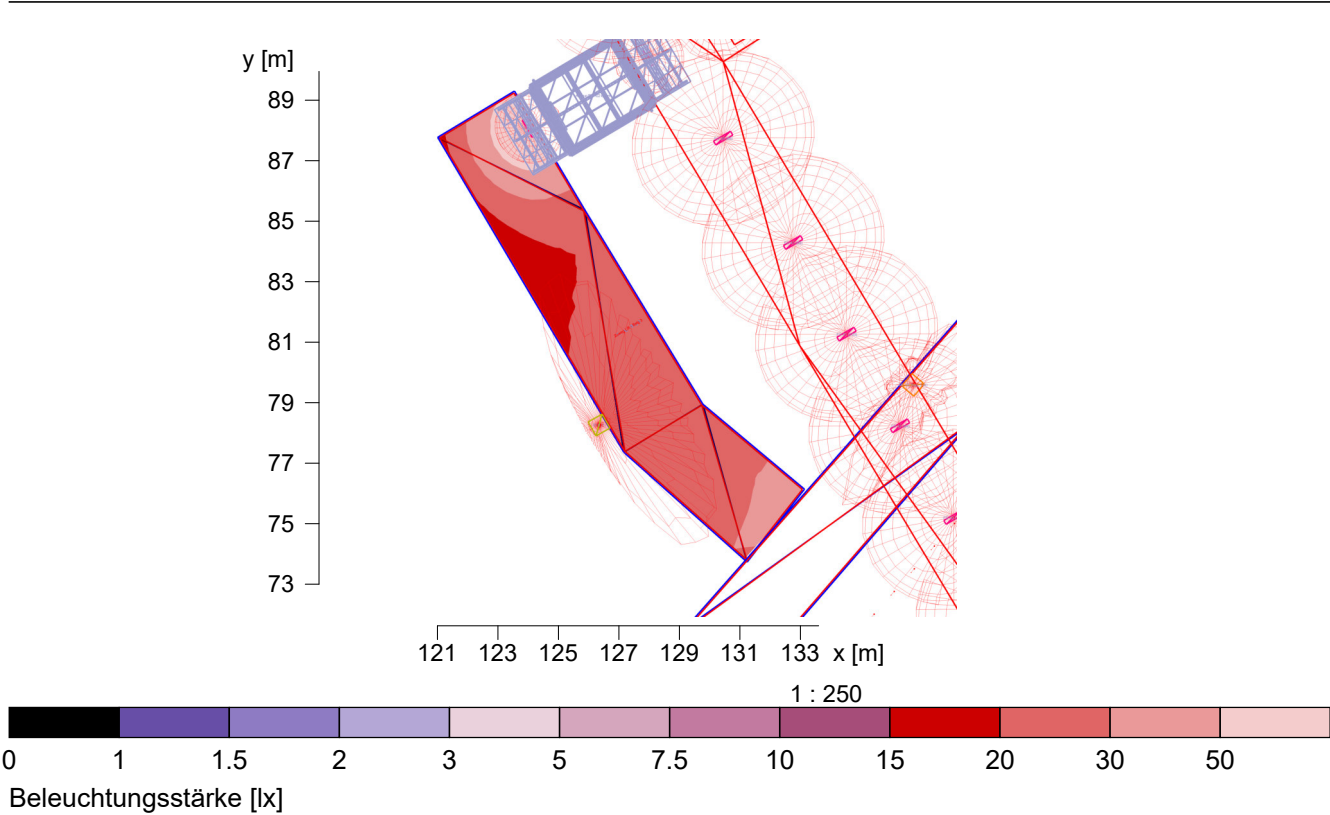
### 3.2.15 Ergebnisübersicht, Messflächen Treppe Zugang Georg-Schwarz-Straße (15)

|                        |        |                |              |                |             |             |
|------------------------|--------|----------------|--------------|----------------|-------------|-------------|
| 15.37 Stufe 35         | 4 x 30 | 48.6 lx        | 34.1 lx      | 58.5 lx        | 0.70        | 0.58        |
| 15.38 Stufe 36         | 4 x 30 | 48.6 lx        | 32.8 lx      | 56.9 lx        | 0.68        | 0.58        |
| 15.39 Stufe 37         | 4 x 30 | 48.2 lx        | 31.4 lx      | 56.4 lx        | 0.65        | 0.56        |
| 15.40 Stufe 38         | 4 x 30 | 49.1 lx        | 30.8 lx      | 57.5 lx        | 0.63        | 0.54        |
| 15.41 Stufe 39         | 4 x 30 | 50.9 lx        | 30.6 lx      | 60.4 lx        | 0.60        | 0.51        |
| 15.42 Podest           | 6 x 7  | 64.1 lx        | 55.2 lx      | 72.5 lx        | 0.86        | 0.76        |
| <b>Zusammenfassung</b> |        | <b>47.6 lx</b> | <b>19 lx</b> | <b>72.5 lx</b> | <b>0.40</b> | <b>0.26</b> |

### 3 Georg-Schwarz-Brücken

#### 3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

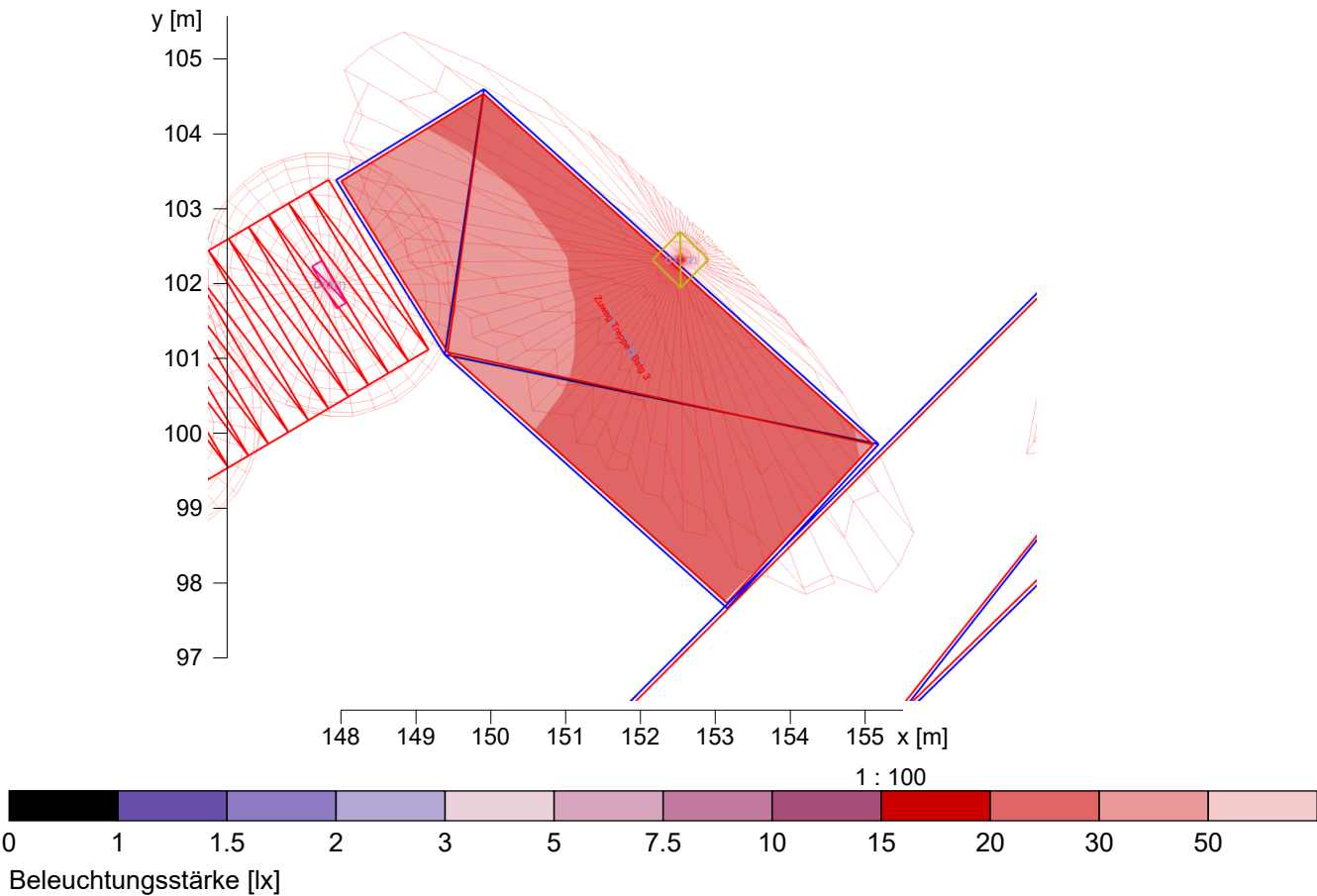
##### 3.3.1 Falschfarben, Zuweg Lift - Bstg 3 (E)



|                             |                     |                   |
|-----------------------------|---------------------|-------------------|
| Höhe der Nutzebene          |                     | : 0.06 m          |
| Mittlere Beleuchtungsstärke | $\bar{E}_m$         | : 27.2 lx         |
| Minimale Beleuchtungsstärke | $E_{min}$           | : 16.9 lx         |
| Maximale Beleuchtungsstärke | $E_{max}$           | : 75.8 lx         |
| Gleichmäßigkeit $U_0$       | $E_{min}/\bar{E}_m$ | : 1 : 1.61 (0.62) |

3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

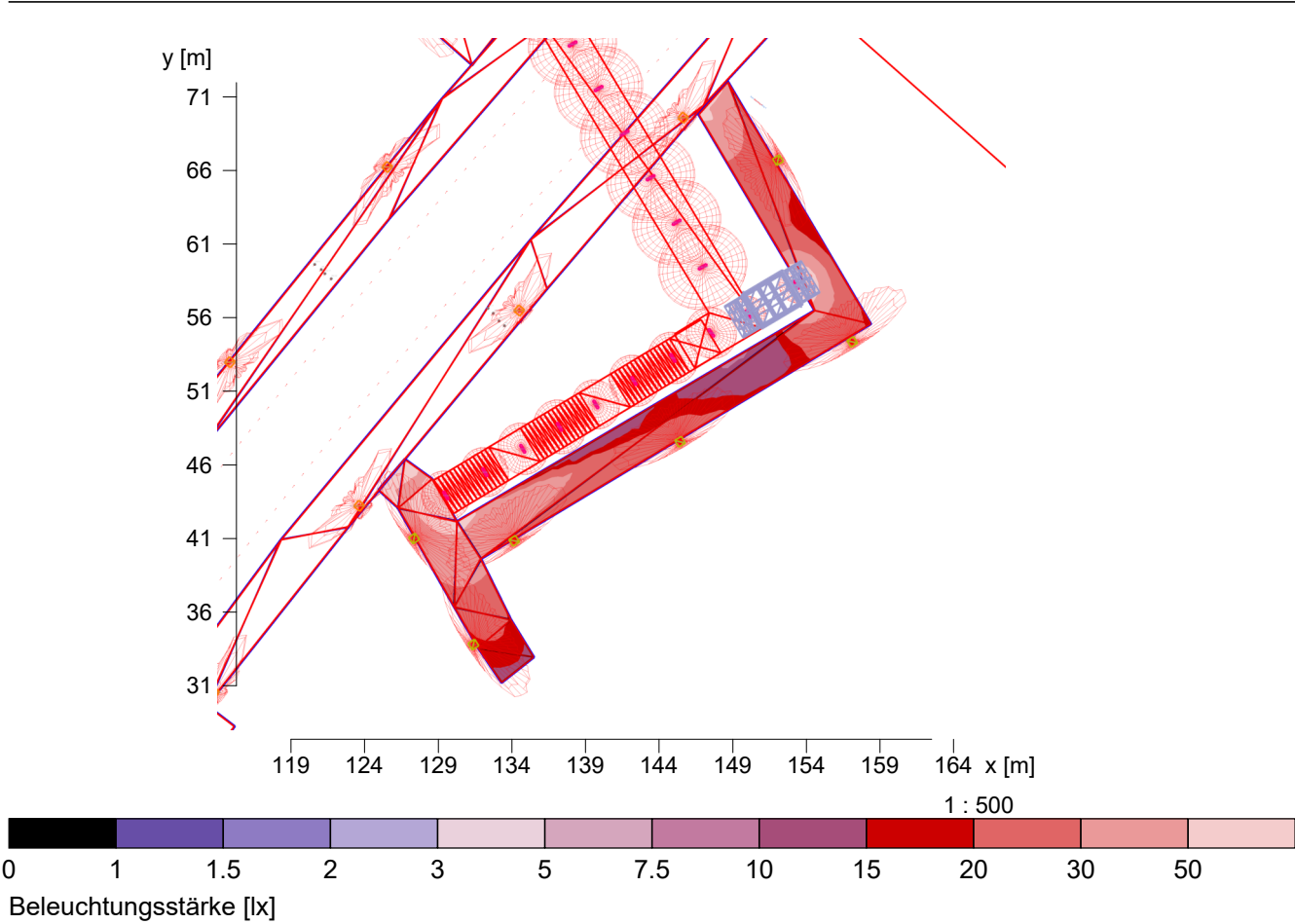
3.3.2 Falschfarben, Zuweg Treppe - Bstg 3 (E)



|                             |                     |                   |
|-----------------------------|---------------------|-------------------|
| Höhe der Nutzebene          |                     | : 0.06 m          |
| Mittlere Beleuchtungsstärke | $\bar{E}_m$         | : 29.6 lx         |
| Minimale Beleuchtungsstärke | $E_{min}$           | : 25.2 lx         |
| Maximale Beleuchtungsstärke | $E_{max}$           | : 39 lx           |
| Gleichmäßigkeit $U_0$       | $E_{min}/\bar{E}_m$ | : 1 : 1.17 (0.85) |

3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

3.3.3 Falschfarben, Zuweg Bstg 4 (E)

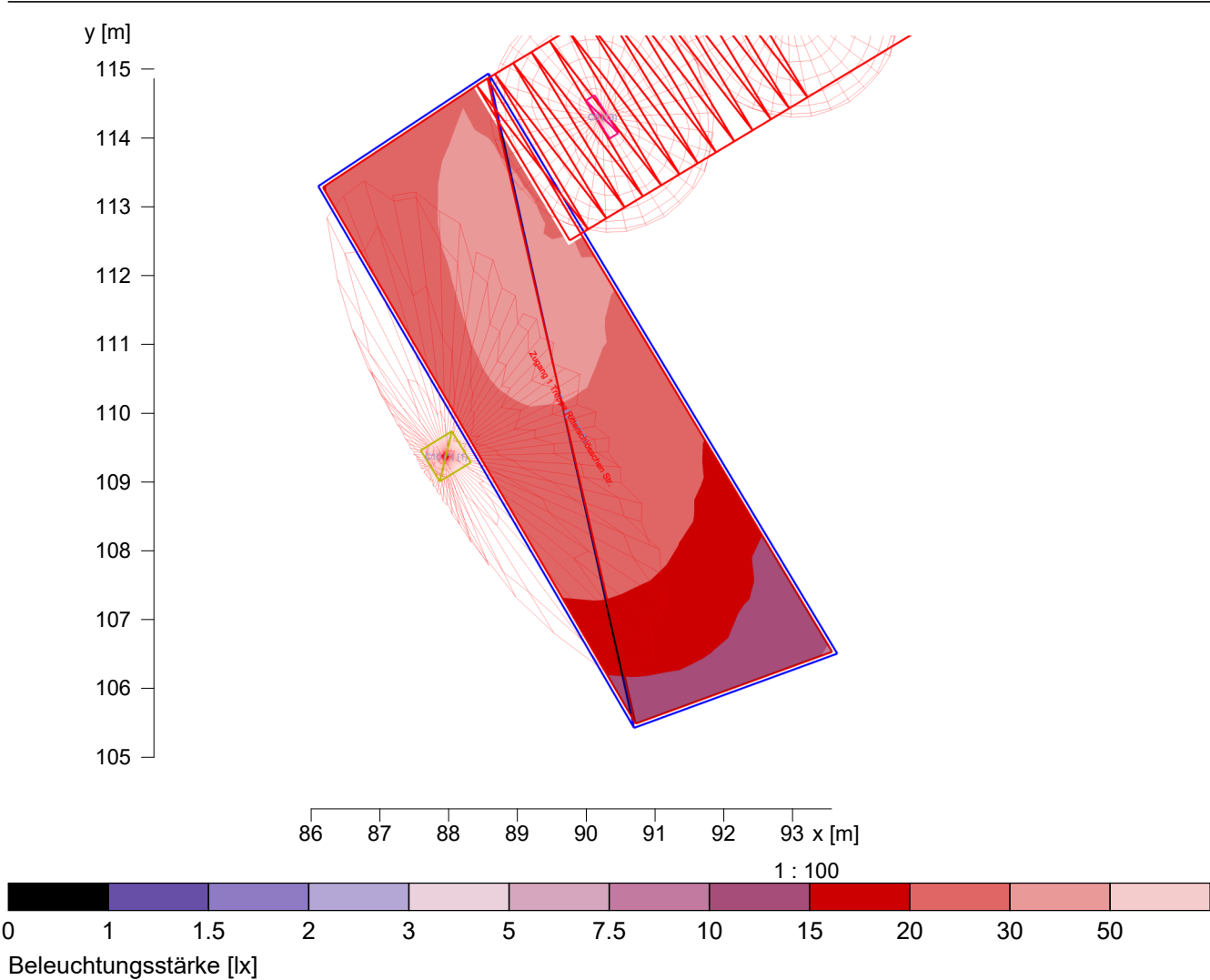


|                             |                     |                   |
|-----------------------------|---------------------|-------------------|
| Höhe der Nutzebene          |                     | : 0.38 m          |
| Mittlere Beleuchtungsstärke | $\bar{E}_m$         | : 28.8 lx         |
| Minimale Beleuchtungsstärke | $E_{min}$           | : 10.1 lx         |
| Maximale Beleuchtungsstärke | $E_{max}$           | : 75.6 lx         |
| Gleichmäßigkeit $U_0$       | $E_{min}/\bar{E}_m$ | : 1 : 2.84 (0.35) |



3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

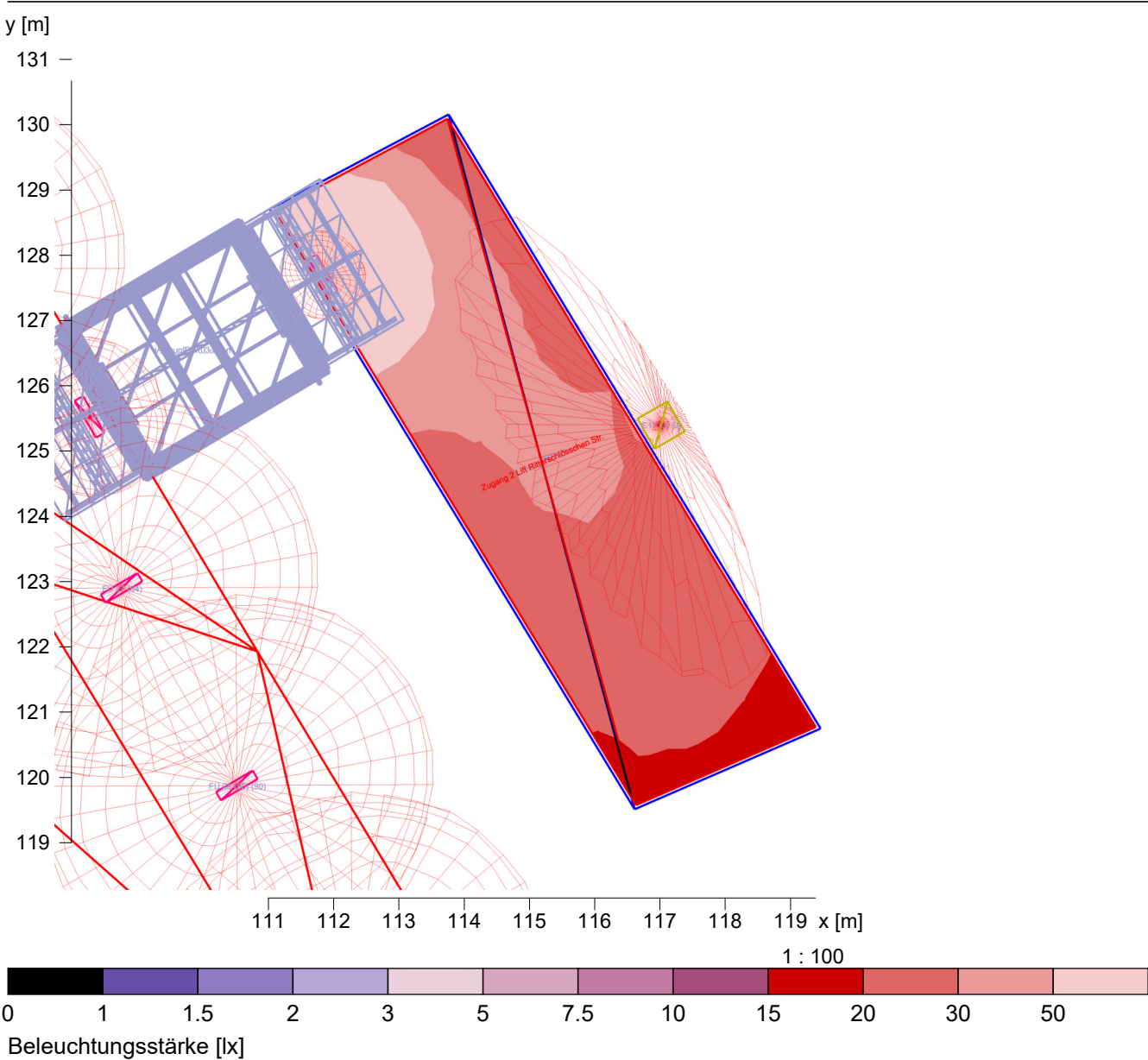
3.3.4 Falschfarben, Zugang 1 Treppe Ritterschlösschen Str. (E)



|                             |                     |                   |
|-----------------------------|---------------------|-------------------|
| Höhe der Nutzebene          |                     | : 1.18 m          |
| Mittlere Beleuchtungsstärke | $\bar{E}_m$         | : 24.7 lx         |
| Minimale Beleuchtungsstärke | $E_{min}$           | : 10.6 lx         |
| Maximale Beleuchtungsstärke | $E_{max}$           | : 34.5 lx         |
| Gleichmäßigkeit $U_0$       | $E_{min}/\bar{E}_m$ | : 1 : 2.32 (0.43) |

3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

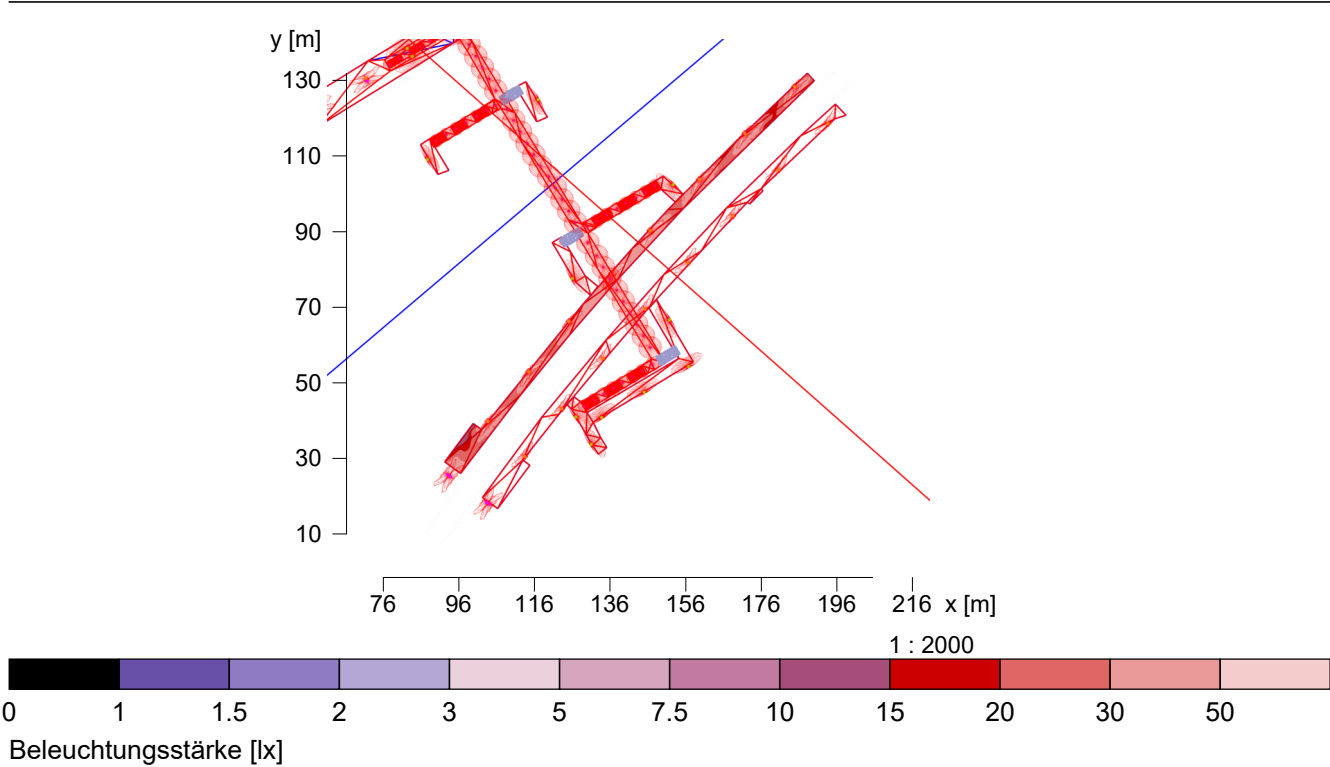
3.3.5 Falschfarben, Zugang 2 Lift Ritterschlösschen Str. (E)



|                             |                     |                   |
|-----------------------------|---------------------|-------------------|
| Höhe der Nutzebene          |                     | : 1.18 m          |
| Mittlere Beleuchtungsstärke | $\bar{E}_m$         | : 40 lx           |
| Minimale Beleuchtungsstärke | $E_{min}$           | : 17 lx           |
| Maximale Beleuchtungsstärke | $E_{max}$           | : 227 lx          |
| Gleichmäßigkeit $U_0$       | $E_{min}/\bar{E}_m$ | : 1 : 2.26 (0.44) |

3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

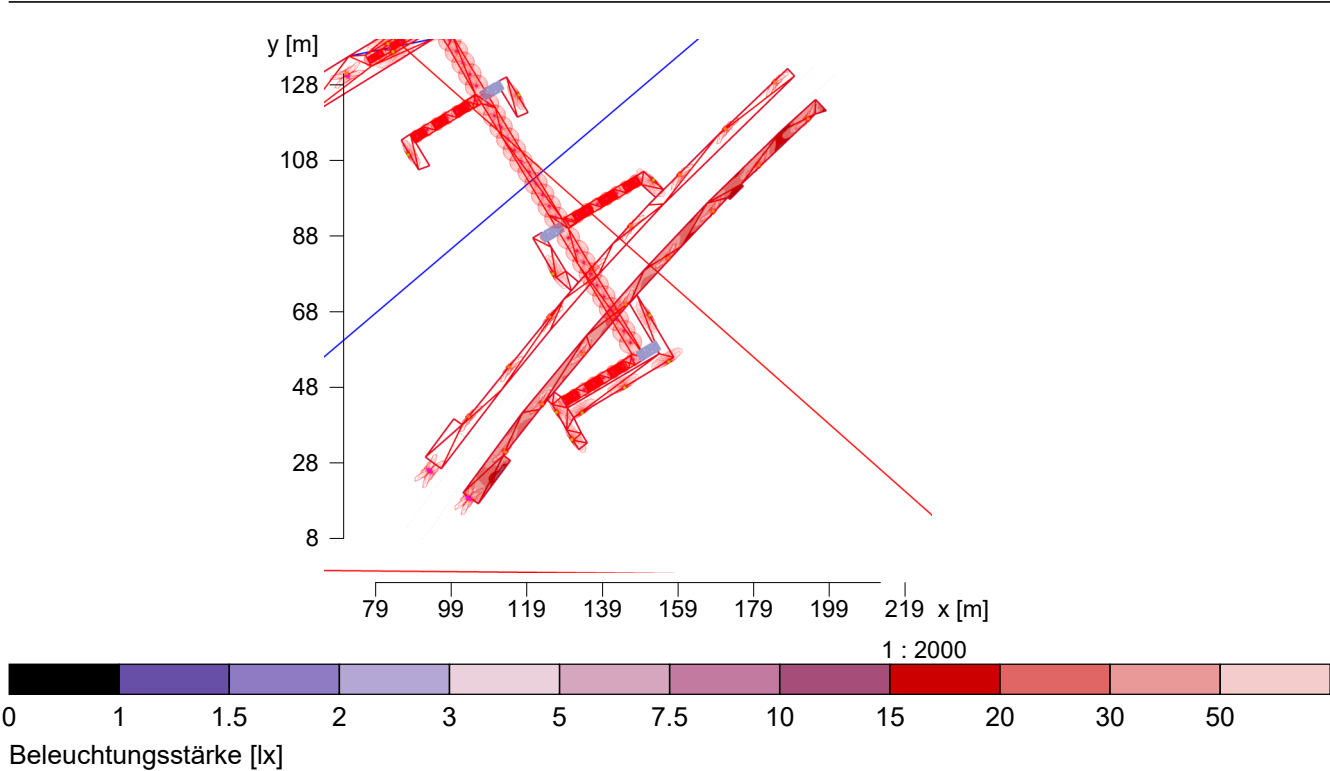
3.3.6 Falschfarben, Bahnsteig 3 (E)



|                             |                     |                   |
|-----------------------------|---------------------|-------------------|
| Höhe der Nutzebene          |                     | : 0.22 m          |
| Mittlere Beleuchtungsstärke | $\bar{E}_m$         | : 34.6 lx         |
| Minimale Beleuchtungsstärke | $E_{min}$           | : 10.8 lx         |
| Maximale Beleuchtungsstärke | $E_{max}$           | : 69.7 lx         |
| Gleichmäßigkeit $U_0$       | $E_{min}/\bar{E}_m$ | : 1 : 3.21 (0.31) |

3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

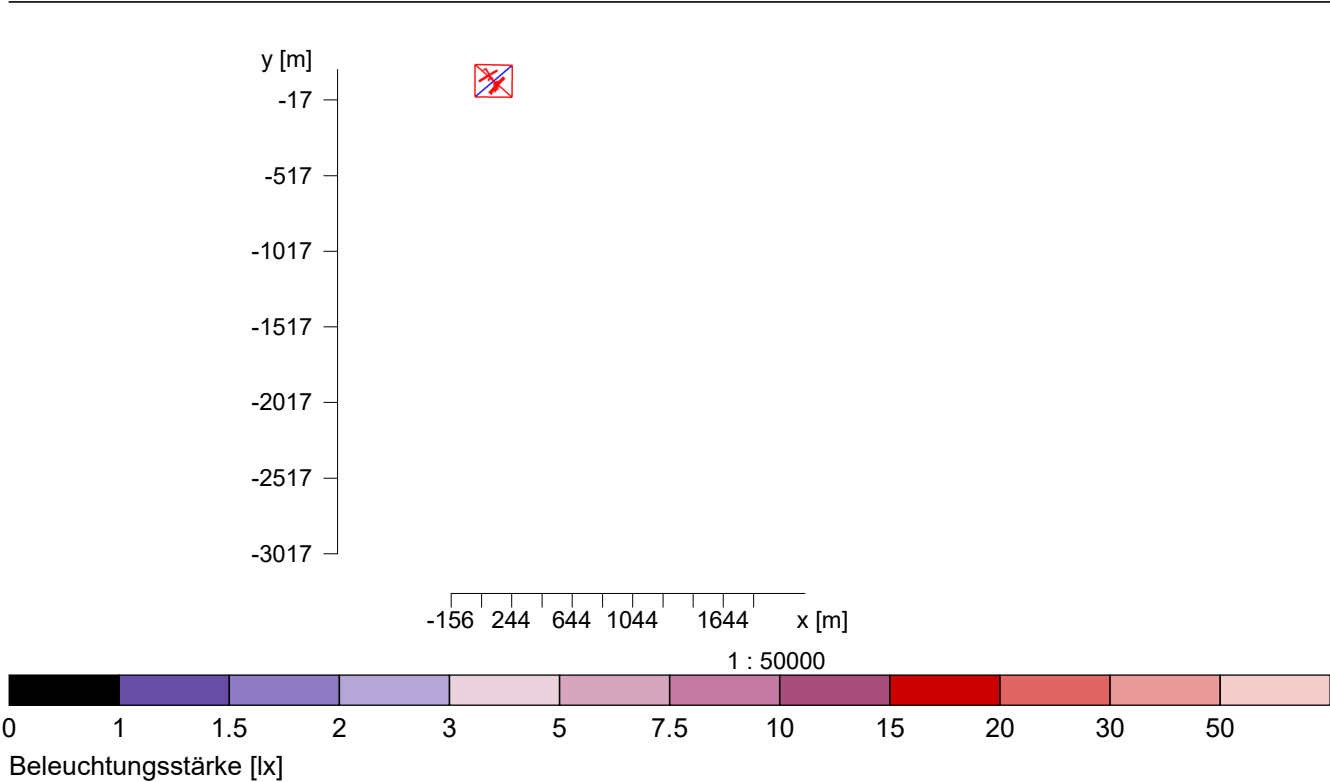
3.3.7 Falschfarben, Bahnsteig 4 (E)



|                             |                     |                   |
|-----------------------------|---------------------|-------------------|
| Höhe der Nutzebene          |                     | : 0.42 m          |
| Mittlere Beleuchtungsstärke | $\bar{E}_m$         | : 36.6 lx         |
| Minimale Beleuchtungsstärke | $E_{min}$           | : 11.1 lx         |
| Maximale Beleuchtungsstärke | $E_{max}$           | : 75.4 lx         |
| Gleichmäßigkeit $U_o$       | $E_{min}/\bar{E}_m$ | : 1 : 3.28 (0.30) |

3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

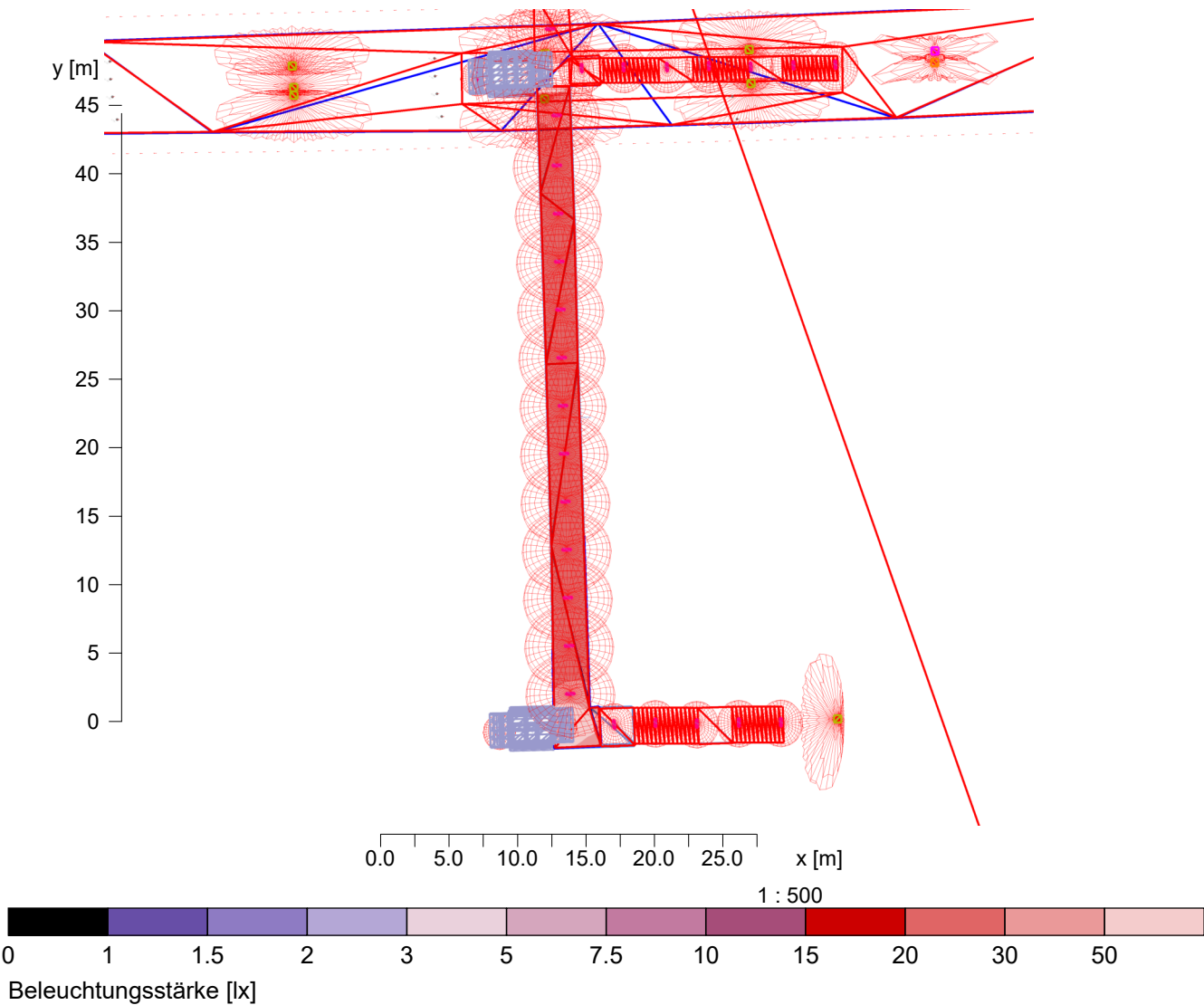
3.3.8 Falschfarben, Mittelbahnsteig 1/2 (E)



|                             |                     |                   |
|-----------------------------|---------------------|-------------------|
| Höhe der Nutzebene          |                     | : 0.88 m          |
| Mittlere Beleuchtungsstärke | $\bar{E}_m$         | : 35.2 lx         |
| Minimale Beleuchtungsstärke | $E_{min}$           | : 10.5 lx         |
| Maximale Beleuchtungsstärke | $E_{max}$           | : 80.2 lx         |
| Gleichmäßigkeit $U_0$       | $E_{min}/\bar{E}_m$ | : 1 : 3.37 (0.30) |

3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

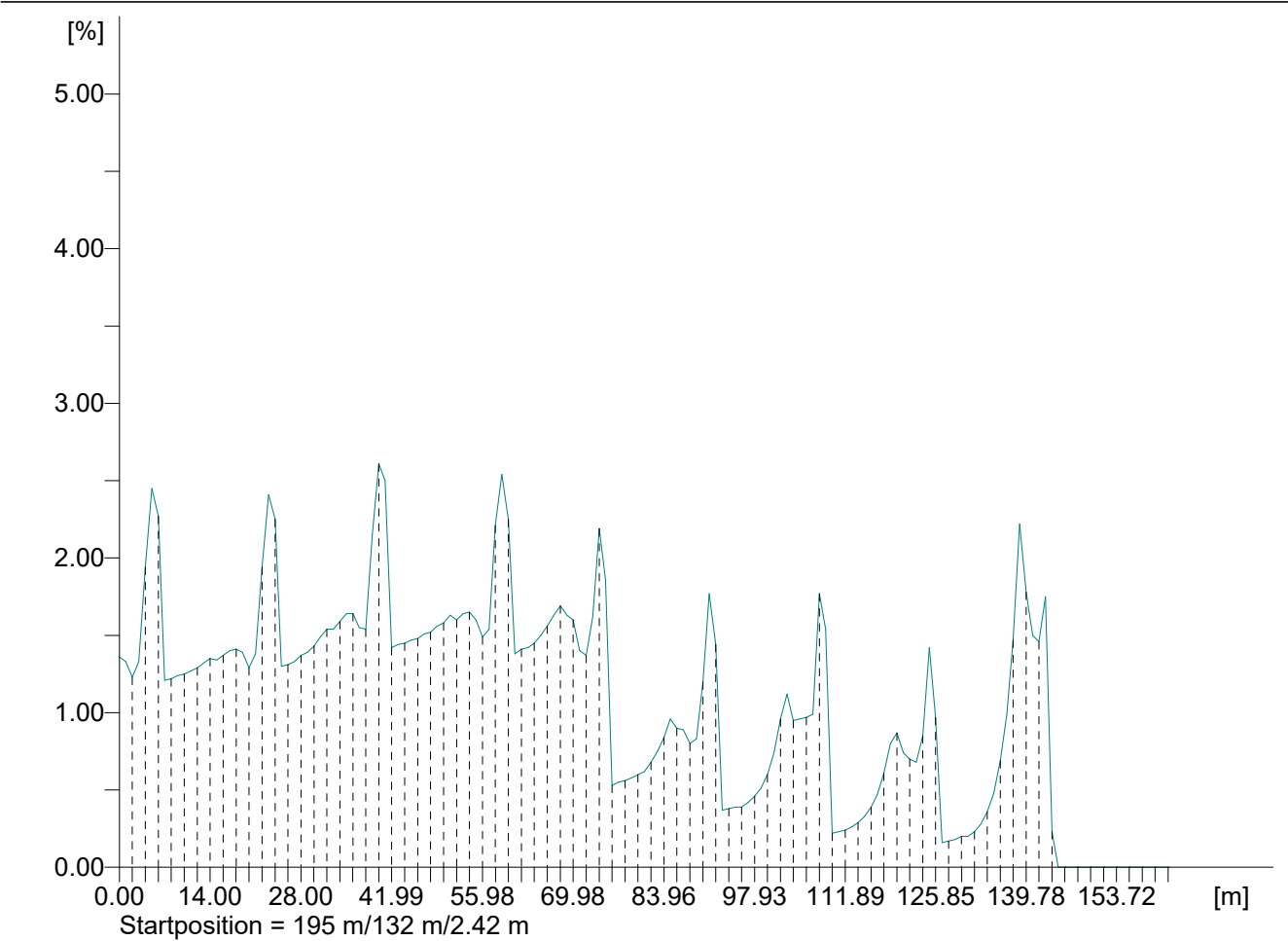
3.3.9 Falschfarben, Behelfsbrücke, vorderer Teil (E)



|                             |                     |                   |
|-----------------------------|---------------------|-------------------|
| Mittlere Beleuchtungsstärke | $\bar{E}_m$         | : 29.8 lx         |
| Minimale Beleuchtungsstärke | $E_{min}$           | : 23.4 lx         |
| Maximale Beleuchtungsstärke | $E_{max}$           | : 97.4 lx         |
| Gleichmäßigkeit $U_o$       | $E_{min}/\bar{E}_m$ | : 1 : 1.28 (0.78) |

3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

3.3.10 Schnittdarstellung TI - TI 1



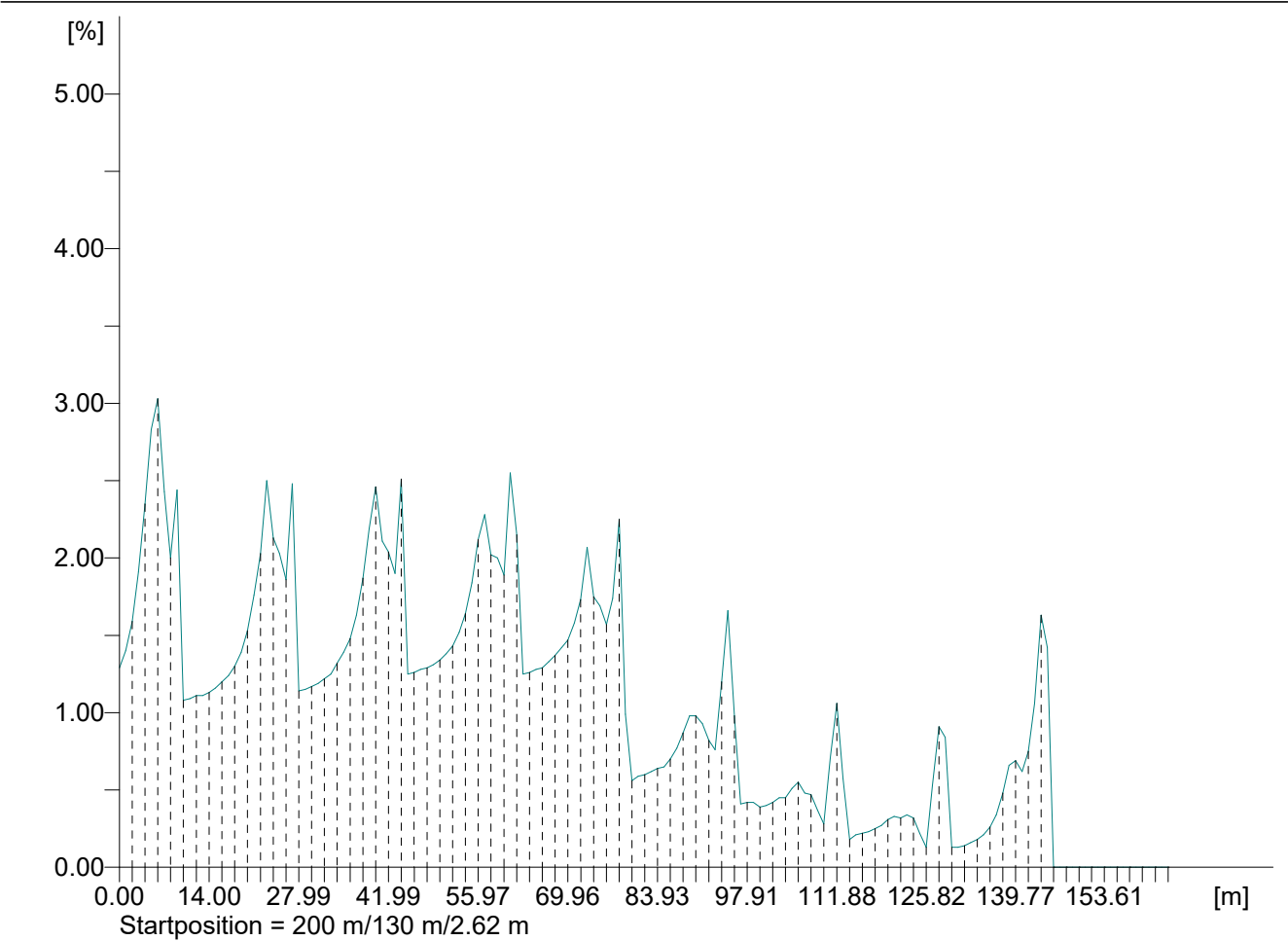
$\bar{L}_i = 2.75 \text{ cd/m}^2$ ,  $\bar{E}_i = 43 \text{ lx}$ ,  $\rho = 20 \%$

| Nr. | Bezeichnung | Position           | $f_{TI,max}$ | Richtung  |
|-----|-------------|--------------------|--------------|-----------|
| 1   | TI 1        | 166 m/104 m/2.42 m | 2.6          | 47° (-1°) |

Nord  
0°  
West 270° — 90° Ost  
180°  
Süd

3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

3.3.11 Schnittdarstellung TI - TI 1



$\bar{L}_i = 2.91 \text{ cd/m}^2$ ,  $\bar{E}_i = 46 \text{ lx}$ ,  $\rho = 20 \%$

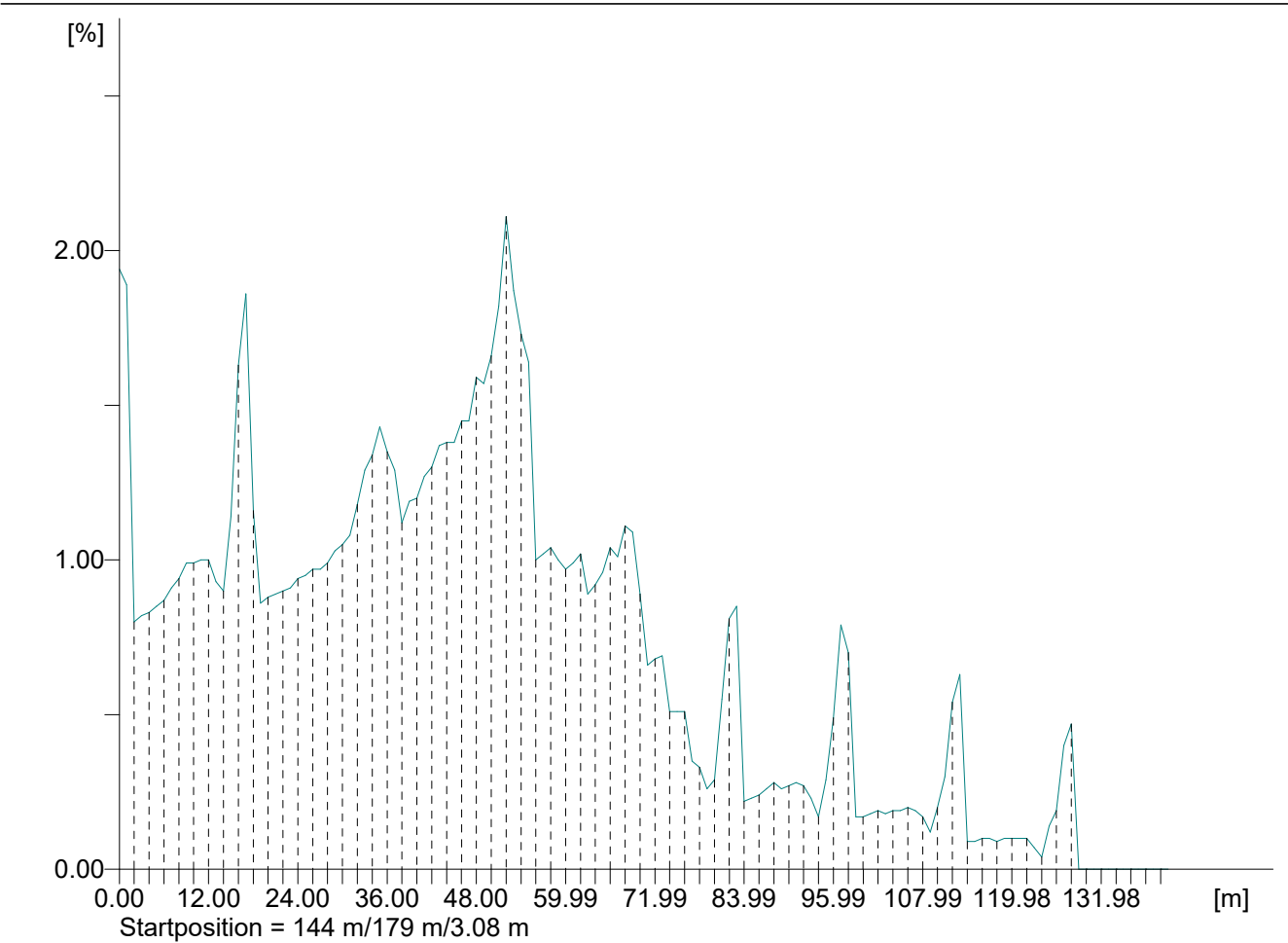
| Nr. | Bezeichnung | Position           | $f_{TI,max}$ | Richtung  |
|-----|-------------|--------------------|--------------|-----------|
| 1   | TI 1        | 196 m/126 m/2.62 m | 3            | 48° (-1°) |

Nord  
0°  
West 270° — 90° Ost  
180°  
Süd



3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

3.3.12 Schnittdarstellung TI - TI 1



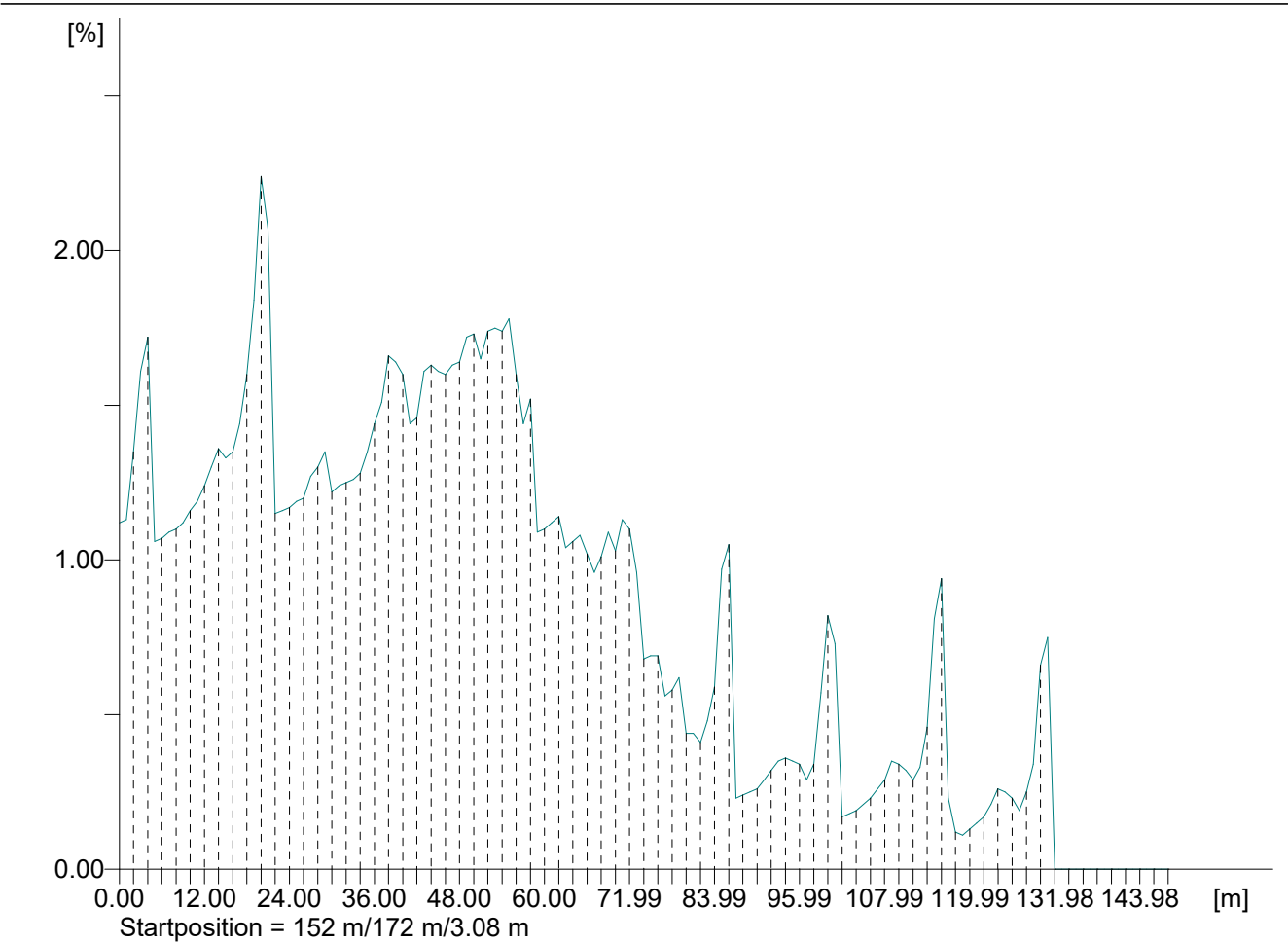
$\bar{L}_i = 2.8 \text{ cd/m}^2$ ,  $\bar{E}_i = 44 \text{ lx}$ ,  $\rho = 20 \%$

| Nr. | Bezeichnung | Position            | f <sub>TI,max</sub> | Richtung  |
|-----|-------------|---------------------|---------------------|-----------|
| 1   | TI 1        | 99.3 m/153 m/3.08 m | 2.1                 | 61° (-1°) |
| 2   | TI 2        | 135 m/162 m/3.08 m  | 2.2                 | 60° (-1°) |

Nord  
0°  
West 270° — 90° Ost  
180°  
Süd

3.3 Berechnungsergebnisse, Georg-Schwarz-Brücken

3.3.13 Schnittdarstellung TI - TI 2



$\bar{L}_i = 2.8 \text{ cd/m}^2$ ,  $\bar{E}_i = 44 \text{ lx}$ ,  $\rho = 20 \%$

| Nr. | Bezeichnung | Position            | $f_{TI,max}$ | Richtung  |
|-----|-------------|---------------------|--------------|-----------|
| 1   | TI 1        | 99.3 m/153 m/3.08 m | 2.1          | 61° (-1°) |
| 2   | TI 2        | 135 m/162 m/3.08 m  | 2.2          | 60° (-1°) |

