

## School - Cafeteria

Installation : Silhouette Pendant mounted (1x 35 W)

Project number : Standard example

Customer :

Processed by : Siteco

Date : 01.2008

Project description:

Room dimensions L/ B/ H: 16,10/ 8,50/ 2,80 m

According to DIN EN 12 464-1

Maintenance factor 0,67

Reflectance 70/ 50/ 20

Die Ermittlung der Beleuchtungsergebnisse erfolgte verkaufsunterstützend mit größter Sorgfalt auf Basis der uns vorliegenden Unterlagen mit Hilfe von marktüblichen Berechnungsverfahren (z.B. Relux, Dialux).

Eine Garantie / Gewährleistung / Haftung für diese kostenlose Errechnung wird von SITECO nicht übernommen. Wir verweisen in diesem Zusammenhang auf die Leistungen der Lichtplanungs- u. Ingenieurbüros.

The determination of the lighting results is performed on a sales support basis, with great thoroughness, using the documents at our disposal and with the aid of calculating procedures customary in the market (e.g. Relux, Dialux).

A guarantee / warranty / liability for this free calculation is not provided by SITECO. In this respect, we refer to the services of the light planning and engineering office.

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.

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## 1 Luminaire data

### 1.1 Siteco, Europlex (5LJ 234 7-2C)

#### 1.1.1 Data sheet

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**Manufacturer: Siteco**

**5LJ 234 7-2C Wannenleuchte für Deckenanbau oder abgehängte Montage Europlex**

Grundplatte aus Stahlblech, leuchtenweiß (ähnlich RAL 9010)

Opalwanne, PMMA

breit strahlend mit Deckenaufhellung

Schutzart:IP 50

Schutzklasse: SK I

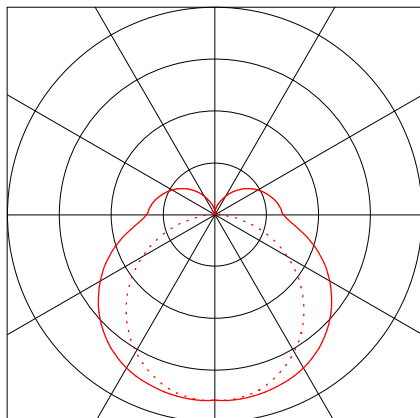
Montageart: Anbau, abgehängt

#### Luminaire data

Luminaires efficiency : 67.5% (B31)  
Control gear : EVG  
System power : 70 W  
Length : 1270 mm  
Width : 185 mm  
Height : 99 mm

#### Equipped with

Number of : 2  
Designation : FD  
Power : 36 W  
Colour :  
Luminous flux : 3200 lm



Object : School - Cafeteria  
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## 1 Luminaire data

### 1.2 Siteco, Europlex (5LJ 235 1-2CX1)

#### 1.2.1 Data sheet

**Manufacturer: Siteco**

**5LJ 235 1-2CX1 Wannenleuchte für Deckenanbau oder abgehängte Montage Europlex**

Grundplatte aus Stahlblech, leuchtenweiß (ähnlich RAL 9010)

Prismenwanne, PMMA

breit strahlend mit Deckenaufhellung

Schutzart:IP 50

Schutzklasse: SK I

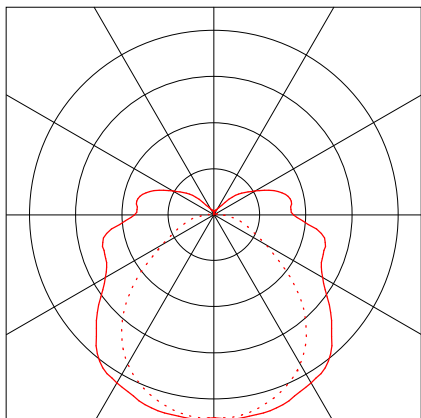
Montageart: Anbau, abgehängt

#### Luminaire data

Luminaires efficiency : 74.9% (B31)  
Control gear : VVG  
System power : 84 W  
Length : 1270 mm  
Width : 185 mm  
Height : 99 mm

#### Equipped with

Number of : 2  
Designation : FD  
Power : 36 W  
Colour :  
Luminous flux : 3350 lm



Object : School - Cafeteria  
Installation : Siluette Pendant mounted (1x 35 W)  
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## 1 Luminaire data

### 1.3 Siteco, Europlex (5LJ 235 1-2EX1)

#### 1.3.1 Data sheet

**Manufacturer: Siteco**

**5LJ 235 1-2EX1 Wannenleuchte für Deckenanbau oder abgehängte Montage Europlex**

Grundplatte aus Stahlblech, leuchtenweiß (ähnlich RAL 9010)

Prismenwanne, PMMA

breit strahlend mit Deckenaufhellung

Schutzart: IP 50

Schutzklasse: SK I

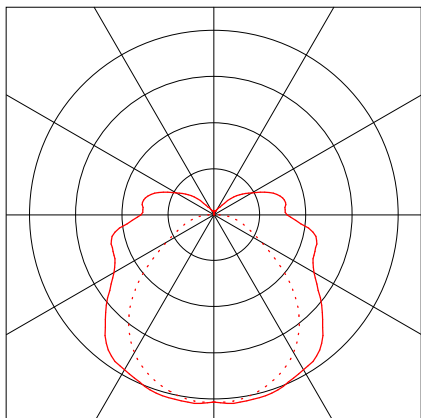
Montageart: Anbau, abgehängt

#### Luminaire data

Luminaires efficiency : 69.1% (B31)  
Control gear : VVG  
System power : 134 W  
Length : 1570 mm  
Width : 185 mm  
Height : 99 mm

#### Equipped with

Number of : 2  
Designation : FD  
Power : 58 W  
Colour :  
Luminous flux : 5200 lm



Object : School - Cafeteria  
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## 1 Luminaire data

### 1.4 Siteco, Siluette (5MJ 223 7-1QS)

#### 1.4.1 Data sheet

**Manufacturer: Siteco**

#### **5MJ 223 7-1QS Einzel- oder Bandleuchte für Deckenanbau oder abgehängte Montage Siluette**

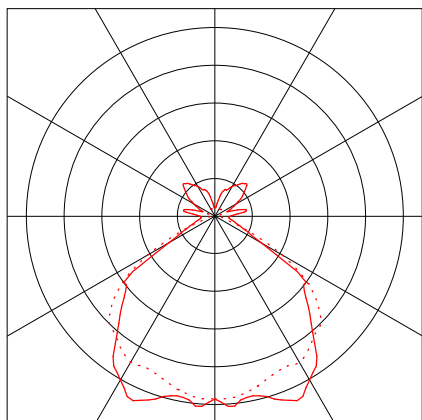
Gehäuse aus Stahlblech, weißaluminium (RAL 9006)  
Alu-Spiegel, symmetrisch strahlend  
Prismenwanne (PMMA), klar  
direkt breit strahlend mit Decken- und Wandaufhellung  
Schutzart:IP 50  
Schutzklasse: SK I  
Montageart: Anbau, abgehängt

#### **Luminaire data**

Luminaires efficiency : 84.2% (B42)  
Control gear : EVG  
System power : 39 W  
Length : 1492 mm  
Width : 214 mm  
Height : 76 mm

#### **Equipped with**

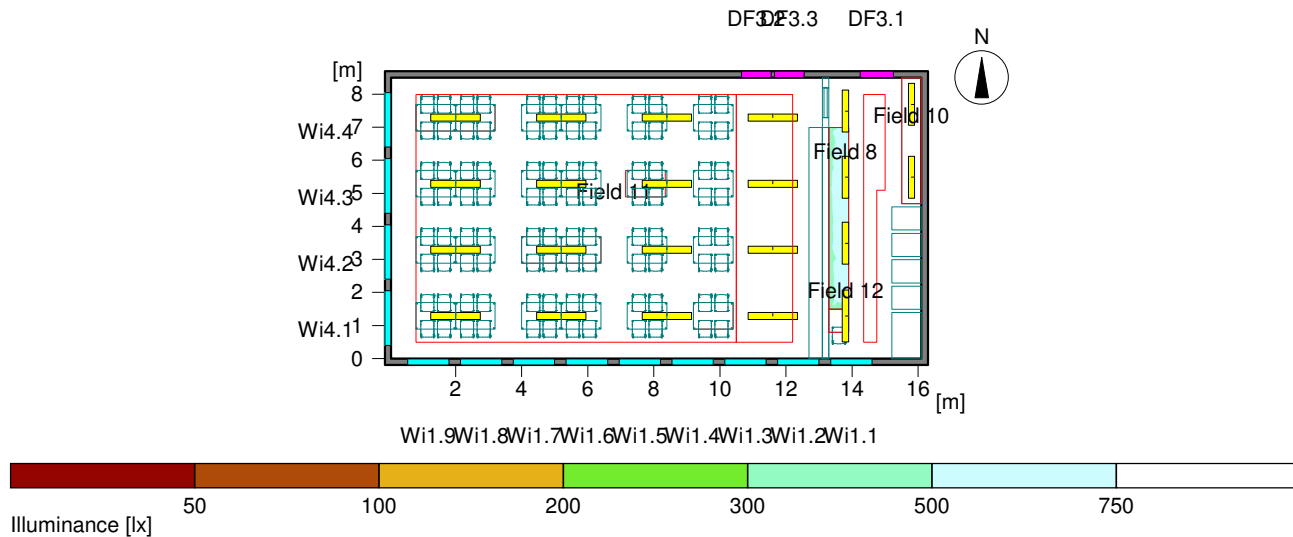
Number of : 1  
Designation : FDH  
Power : 35 W  
Colour :  
Luminous flux : 3300 lm



## 2 Raum

### 2.1 Summary, Raum

#### 2.1.1 Result overview, Essen



#### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.75 m
Maintenance factor	0.67

Total luminous flux of all lamps	96100 lm
Total power	1150 W
Total power per area (136.43 m <sup>2</sup> )	8.43 W/m <sup>2</sup>

#### Illuminance

Average illuminance	Eav	521 lx
Minimum illuminance	Emin	406 lx
Maximum illuminance	Emax	591 lx
Uniformity g1	Emin/Em	1:1.28 (0.78)
Uniformity g2	Emin/Emax	1:1.45 (0.69)

#### Type No.\Make

		<b>Siteco</b>	
2	2	Order No.	: 5LJ 234 7-2C
		Luminaire name	: Europlex
		Equipment	: 2 x FD 36 W / 3200 lm
4	3	Order No.	: 5LJ 235 1-2CX1
		Luminaire name	: Europlex
		Equipment	: 2 x FD 36 W / 3350 lm
5	1	Order No.	: 5LJ 235 1-2EX1
		Luminaire name	: Europlex
		Equipment	: 2 x FD 58 W / 5200 lm

Object : School - Cafeteria  
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## 2 Raum

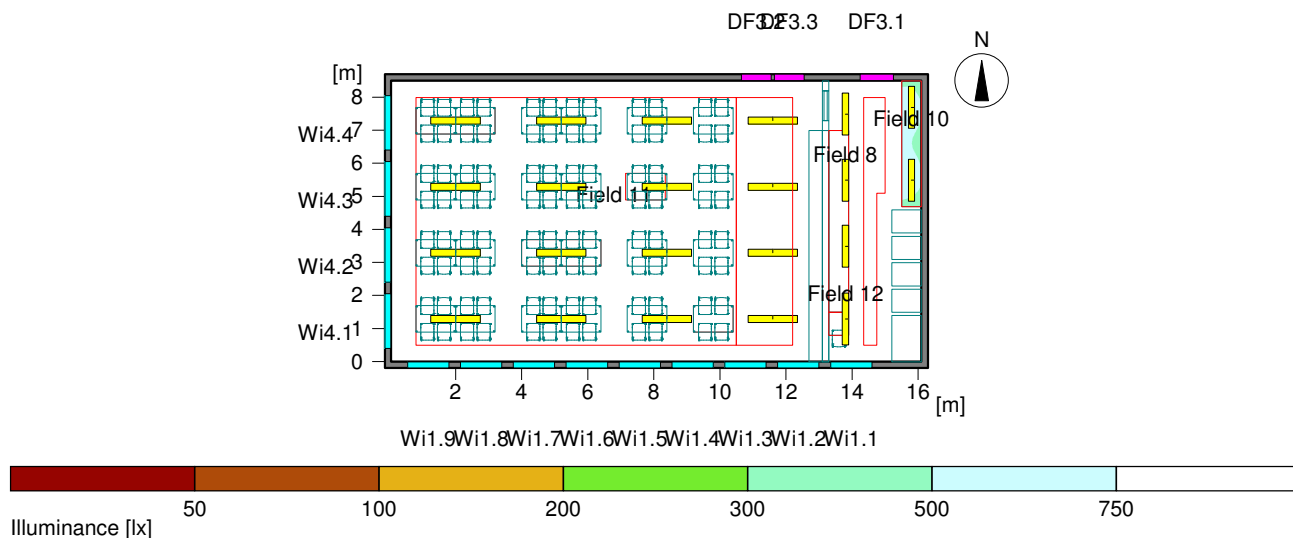
### 2.1 Summary, Raum

#### 2.1.1 Result overview, Essen

8	16	Order No.	: 5MJ 223 7-1QS
		Luminaire name	: Siluette
		Equipment	: 1 x FDH 35 W / 3300 lm

## 2.1 Summary, Raum

### 2.1.2 Result overview, Essen



#### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.75 m
Maintenance factor	0.67

Total luminous flux of all lamps	96100 lm
Total power	1150 W
Total power per area (136.43 m <sup>2</sup> )	8.43 W/m <sup>2</sup>

#### Illuminance

Average illuminance	Eav	538 lx
Minimum illuminance	Emin	367 lx
Maximum illuminance	Emax	639 lx
Uniformity g1	Emin/Em	1:1.47 (0.68)
Uniformity g2	Emin/Emax	1:1.74 (0.57)

#### Type No.\Make

		<b>Siteco</b>	
2	2	Order No.	: 5LJ 234 7-2C
		Luminaire name	: Europlex
		Equipment	: 2 x FD 36 W / 3200 lm
4	3	Order No.	: 5LJ 235 1-2CX1
		Luminaire name	: Europlex
		Equipment	: 2 x FD 36 W / 3350 lm
5	1	Order No.	: 5LJ 235 1-2EX1
		Luminaire name	: Europlex
		Equipment	: 2 x FD 58 W / 5200 lm

Object : School - Cafeteria  
Installation : Siluette Pendant mounted (1x 35 W)  
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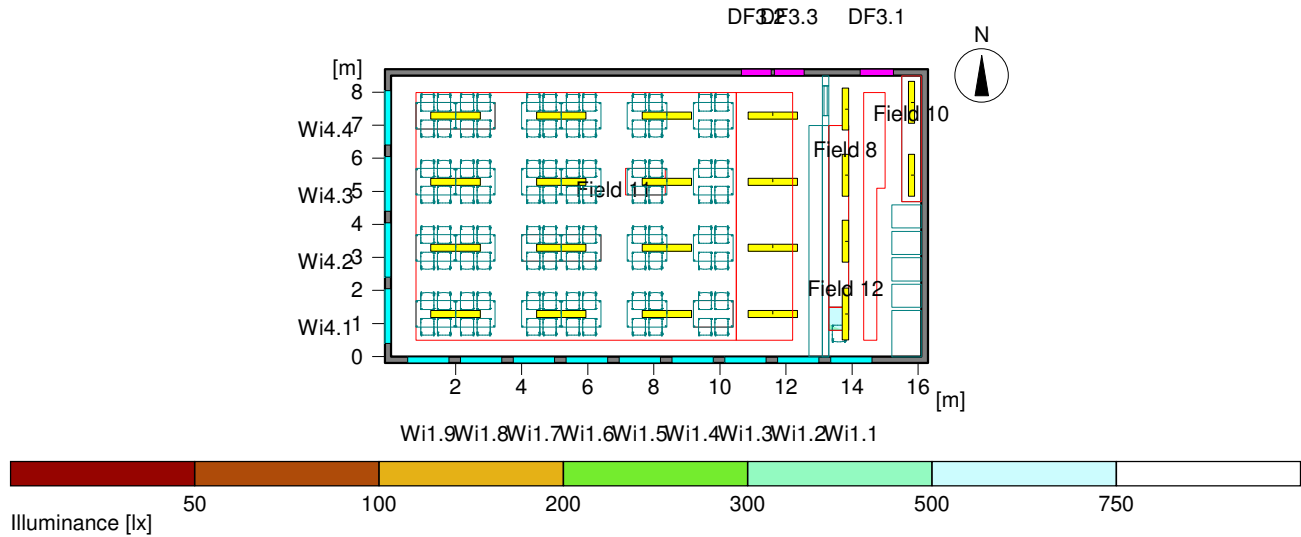
## 2.1 Summary, Raum

### 2.1.2 Result overview, Essen

8	16	Order No.	: 5MJ 223 7-1QS
		Luminaire name	: Siluette
		Equipment	: 1 x FDH 35 W / 3300 lm

## 2.1 Summary, Raum

### 2.1.3 Result overview, Kasse



#### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.85 m
Maintenance factor	0.67

Total luminous flux of all lamps	96100 lm
Total power	1150 W
Total power per area (136.43 m <sup>2</sup> )	8.43 W/m <sup>2</sup>

#### Illuminance

Average illuminance	Eav	539 lx
Minimum illuminance	Emin	480 lx
Maximum illuminance	Emax	577 lx
Uniformity g1	Emin/Em	1:1.12 (0.89)
Uniformity g2	Emin/Emax	1:1.2 (0.83)

#### Type No.\Make

		<b>Siteco</b>	
2	2	Order No.	: 5LJ 234 7-2C
		Luminaire name	: Europlex
		Equipment	: 2 x FD 36 W / 3200 lm
4	3	Order No.	: 5LJ 235 1-2CX1
		Luminaire name	: Europlex
		Equipment	: 2 x FD 36 W / 3350 lm
5	1	Order No.	: 5LJ 235 1-2EX1
		Luminaire name	: Europlex
		Equipment	: 2 x FD 58 W / 5200 lm

Object : School - Cafeteria  
Installation : Siluette Pendant mounted (1x 35 W)  
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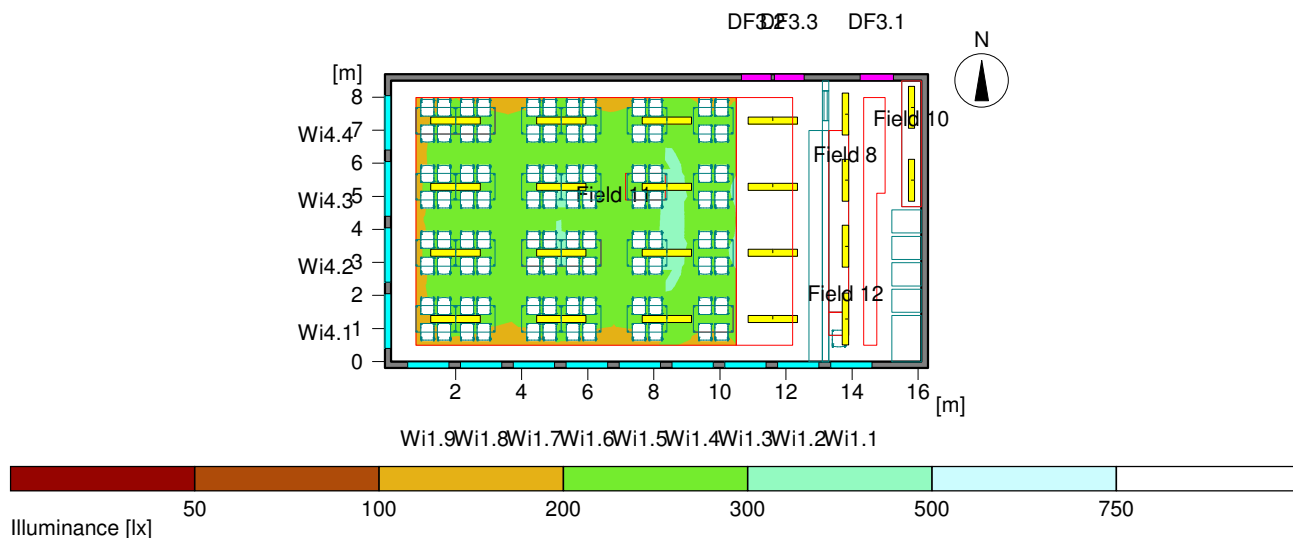
## 2.1 Summary, Raum

### 2.1.3 Result overview, Kasse

8	16	Order No.	: 5MJ 223 7-1QS
		Luminaire name	: Siluette
		Equipment	: 1 x FDH 35 W / 3300 lm

## 2.1 Summary, Raum

### 2.1.4 Result overview, Nutzebene



#### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.75 m
Maintenance factor	0.67

Total luminous flux of all lamps	96100 lm
Total power	1150 W
Total power per area (136.43 m <sup>2</sup> )	8.43 W/m <sup>2</sup>

#### Illuminance

Average illuminance	Eav	250 lx
Minimum illuminance	Emin	176 lx
Maximum illuminance	Emax	316 lx
Uniformity g1	Emin/Em	1:1.42 (0.7)
Uniformity g2	Emin/Emax	1:1.8 (0.56)

#### Type No.\Make

		<b>Siteco</b>	
2	2	Order No.	: 5LJ 234 7-2C
		Luminaire name	: Europlex
		Equipment	: 2 x FD 36 W / 3200 lm
4	3	Order No.	: 5LJ 235 1-2CX1
		Luminaire name	: Europlex
		Equipment	: 2 x FD 36 W / 3350 lm
5	1	Order No.	: 5LJ 235 1-2EX1
		Luminaire name	: Europlex
		Equipment	: 2 x FD 58 W / 5200 lm

Object : School - Cafeteria  
Installation : Siluette Pendant mounted (1x 35 W)  
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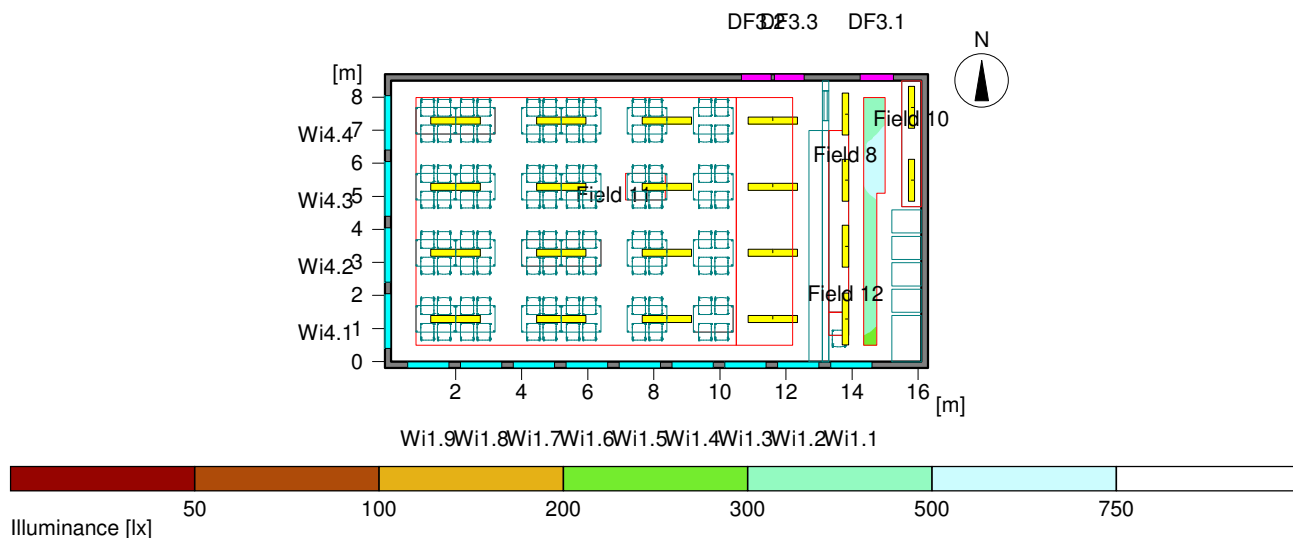
## 2.1 Summary, Raum

### 2.1.4 Result overview, Nutzebene

8	16	Order No.	: 5MJ 223 7-1QS
		Luminaire name	: Siluette
		Equipment	: 1 x FDH 35 W / 3300 lm

## 2.1 Summary, Raum

### 2.1.5 Result overview, Küchenboden



#### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.20 m
Maintenance factor	0.67

Total luminous flux of all lamps	96100 lm
Total power	1150 W
Total power per area (136.43 m <sup>2</sup> )	8.43 W/m <sup>2</sup>

#### Illuminance

Average illuminance	E <sub>av</sub>	438 lx
Minimum illuminance	E <sub>min</sub>	274 lx
Maximum illuminance	E <sub>max</sub>	534 lx
Uniformity g <sub>1</sub>	E <sub>min</sub> /E <sub>m</sub>	1:1.6 (0.63)
Uniformity g <sub>2</sub>	E <sub>min</sub> /E <sub>max</sub>	1:1.95 (0.51)

#### Type No.\Make

		<b>Siteco</b>	
2	2	Order No.	: 5LJ 234 7-2C
		Luminaire name	: Europlex
		Equipment	: 2 x FD 36 W / 3200 lm
4	3	Order No.	: 5LJ 235 1-2CX1
		Luminaire name	: Europlex
		Equipment	: 2 x FD 36 W / 3350 lm
5	1	Order No.	: 5LJ 235 1-2EX1
		Luminaire name	: Europlex
		Equipment	: 2 x FD 58 W / 5200 lm

Object : School - Cafeteria  
Installation : Siluette Pendant mounted (1x 35 W)  
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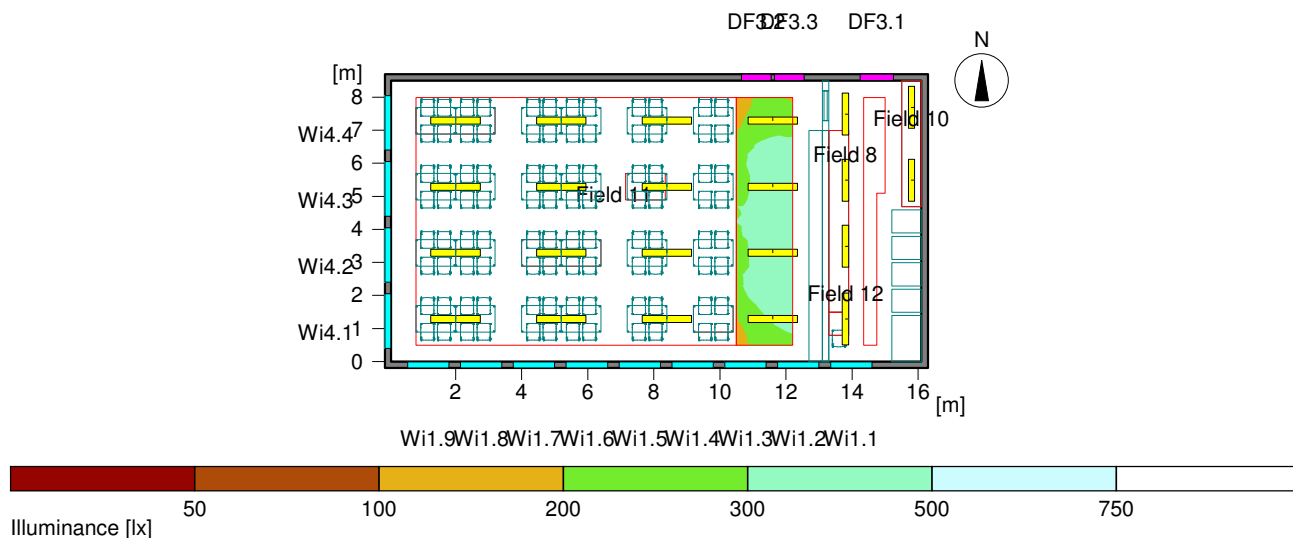
## 2.1 Summary, Raum

### 2.1.5 Result overview, Küchenboden

8	16	Order No.	: 5MJ 223 7-1QS
		Luminaire name	: Siluette
		Equipment	: 1 x FDH 35 W / 3300 lm

## 2.1 Summary, Raum

### 2.1.6 Result overview, Measuring area (virtual) 10



#### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.20 m
Maintenance factor	0.67

Total luminous flux of all lamps	96100 lm
Total power	1150 W
Total power per area (136.43 m <sup>2</sup> )	8.43 W/m <sup>2</sup>

#### Illuminance

Average illuminance	E <sub>av</sub>	304 lx
Minimum illuminance	E <sub>min</sub>	155 lx
Maximum illuminance	E <sub>max</sub>	407 lx
Uniformity g <sub>1</sub>	E <sub>min</sub> /E <sub>m</sub>	1:1.96 (0.51)
Uniformity g <sub>2</sub>	E <sub>min</sub> /E <sub>max</sub>	1:2.63 (0.38)

#### Type No.\Make

		<b>Siteco</b>	
2	2	Order No.	: 5LJ 234 7-2C
		Luminaire name	: Europlex
		Equipment	: 2 x FD 36 W / 3200 lm
4	3	Order No.	: 5LJ 235 1-2CX1
		Luminaire name	: Europlex
		Equipment	: 2 x FD 36 W / 3350 lm
5	1	Order No.	: 5LJ 235 1-2EX1
		Luminaire name	: Europlex
		Equipment	: 2 x FD 58 W / 5200 lm

Object : School - Cafeteria  
Installation : Siluette Pendant mounted (1x 35 W)  
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## 2.1 Summary, Raum

### 2.1.6 Result overview, Measuring area (virtual) 10

8	16	Order No.	: 5MJ 223 7-1QS
		Luminaire name	: Siluette
		Equipment	: 1 x FDH 35 W / 3300 lm

Object : School - Cafeteria  
Installation : Siluette Pendant mounted (1x 35 W)  
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## 2 Raum

### 2.2 Calculation results, Raum

#### 2.2.1 3D luminance, Ansicht von links

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Luminance in the scene  
Minimum: : 0 cd/m<sup>2</sup>  
Maximum: : 126 cd/m<sup>2</sup>