

School - Cafeteria

Installation : Hexal-s Pendant mounted (1x 36 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

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

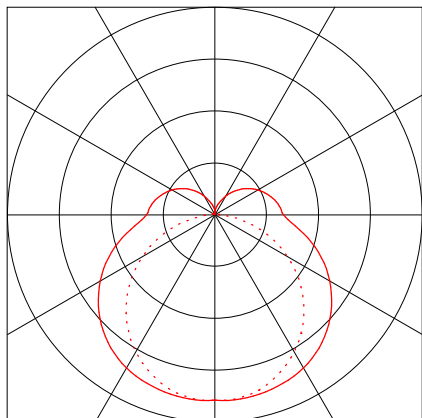
Montageart: Anbau, abgehängt

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



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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

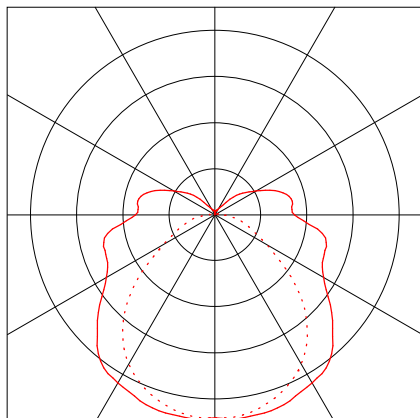
Montageart: Anbau, abgehängt

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 : Hexal-s Pendant mounted (1x 36 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

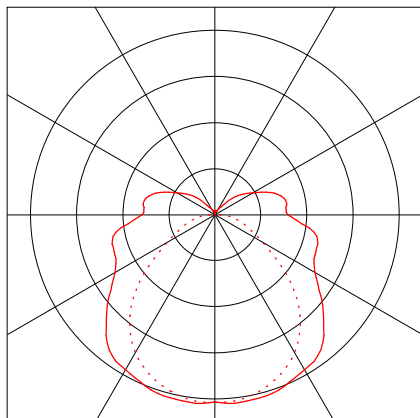
Montageart: Anbau, abgehängt

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, Hexal-s (5LJ 914 7-1C)

1.4.1 Data sheet

Manufacturer: Siteco

5LJ 914 7-1C Lichtbandsystem Hexal-s

Gehäuse aus Stahlblech mit wölbstrukturierter Oberfläche, mit weißem, schlagzähem Kunststofflack beschichtet
direkt strahlend

Schutzart: IP 20

Schutzklasse: SK I

Montageart: Anbau, abgehängt

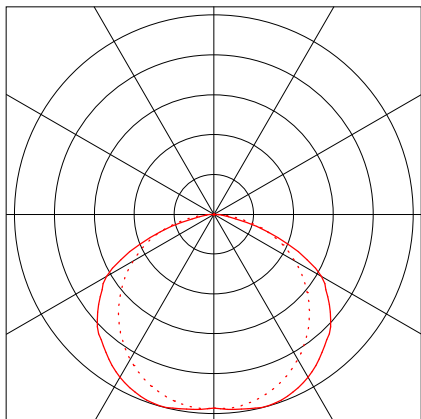
Werkseinstellung, Fassungsstellung: breit strahlend (21506)

Luminaire data

Luminaires efficiency : 80.9% (A40)
Control gear : EVG
System power : 34 W
Length : 1255 mm
Width : 132 mm
Height : 85 mm

Equipped with

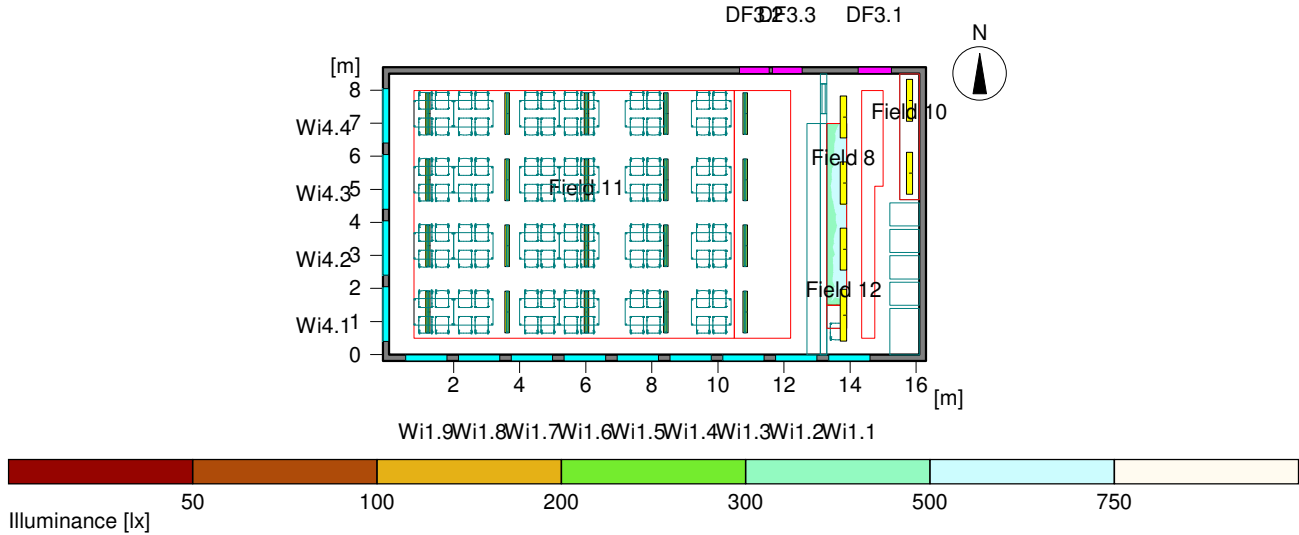
Number of : 1
Designation : FD
Power : 36 W
Colour :
Luminous flux : 3200 lm



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	107300 lm
Total power	1206 W
Total power per area (136.43 m ²)	8.84 W/m ²

Illuminance

Average illuminance	Eav	499 lx
Minimum illuminance	Emin	388 lx
Maximum illuminance	Emax	555 lx
Uniformity g1	Emin/Em	1:1.28 (0.78)
Uniformity g2	Emin/Emax	1:1.43 (0.7)

Type No.\Make

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

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2 Raum

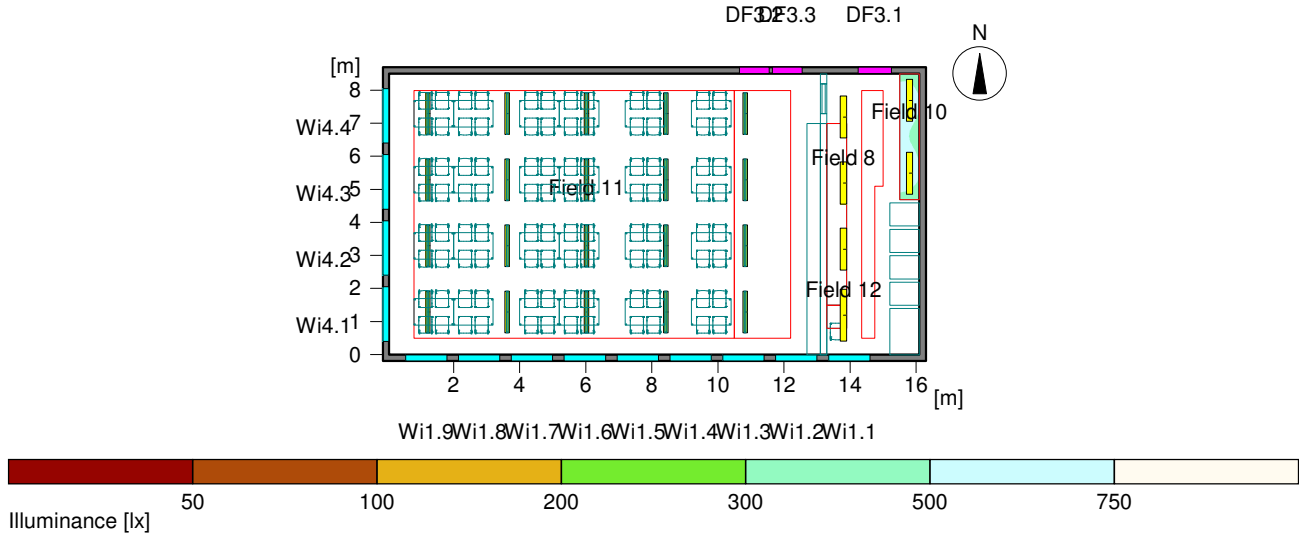
2.1 Summary, Raum

2.1.1 Result overview, Essen

7	20	Order No.	: 5LJ 914 7-1C/
		Luminaire name	: Hexal-s
		Equipment	: 1 x FD 36 W / 3200 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	107300 lm
Total power	1206 W
Total power per area (136.43 m ²)	8.84 W/m ²

Illuminance

Average illuminance	Eav	531 lx
Minimum illuminance	Emin	372 lx
Maximum illuminance	E _{max}	635 lx
Uniformity g1	Emin/Em	1:1.43 (0.7)
Uniformity g2	Emin/E _{max}	1:1.71 (0.59)

Type No.\Make

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

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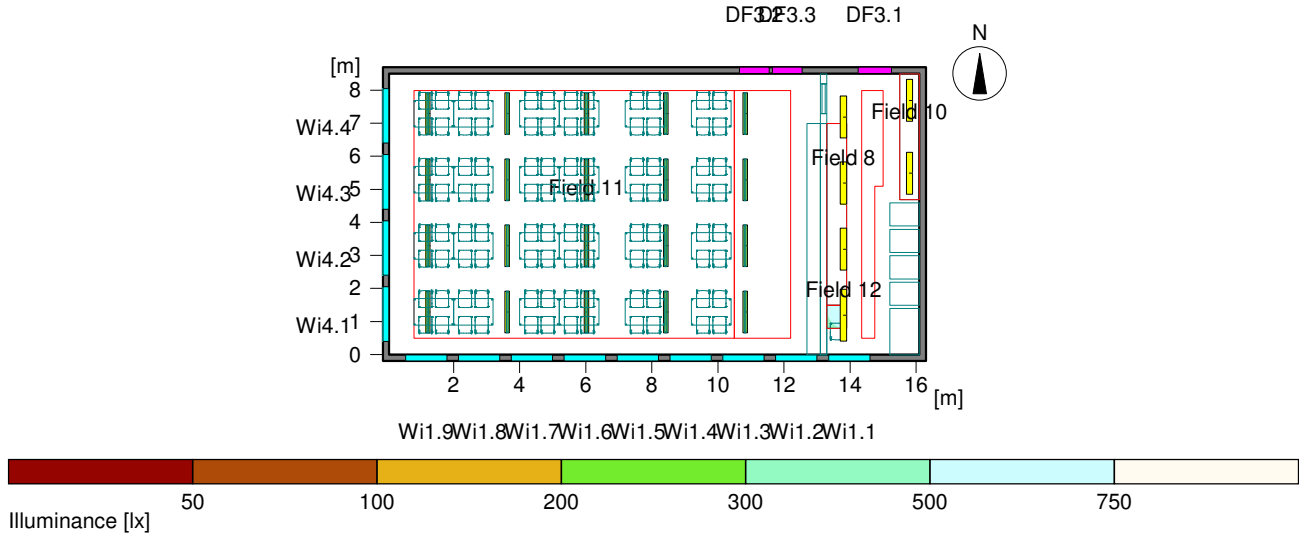
2.1 Summary, Raum

2.1.2 Result overview, Essen

7	20	Order No.	: 5LJ 914 7-1C/
		Luminaire name	: Hexal-s
		Equipment	: 1 x FD 36 W / 3200 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	107300 lm
Total power	1206 W
Total power per area (136.43 m ²)	8.84 W/m ²

Illuminance

Average illuminance	Eav	527 lx
Minimum illuminance	Emin	466 lx
Maximum illuminance	E _{max}	569 lx
Uniformity g1	E _{min} /E _m	1:1.13 (0.88)
Uniformity g2	E _{min} /E _{max}	1:1.22 (0.82)

Type No.\Make

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

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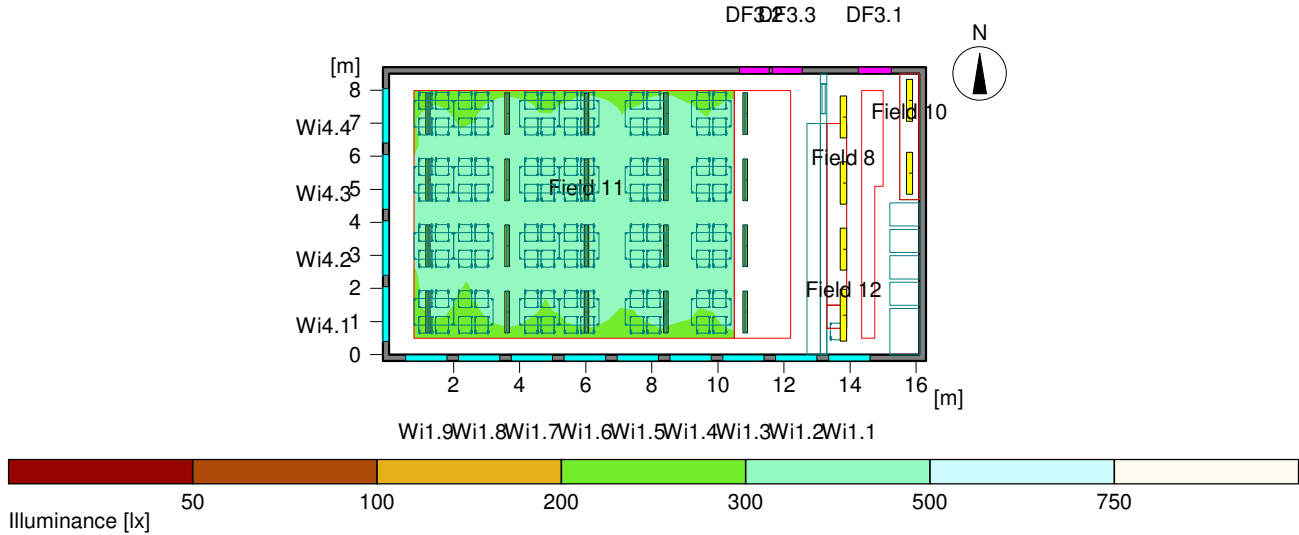
2.1 Summary, Raum

2.1.3 Result overview, Kasse

7	20	Order No.	: 5LJ 914 7-1C/
		Luminaire name	: Hexal-s
		Equipment	: 1 x FD 36 W / 3200 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	107300 lm
Total power	1206 W
Total power per area (136.43 m ²)	8.84 W/m ²

Illuminance

Average illuminance	E _{av}	339 lx
Minimum illuminance	E _{min}	244 lx
Maximum illuminance	E _{max}	408 lx
Uniformity g ₁	E _{min} /E _m	1:1.39 (0.72)
Uniformity g ₂	E _{min} /E _{max}	1:1.68 (0.6)

Type No.\Make

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

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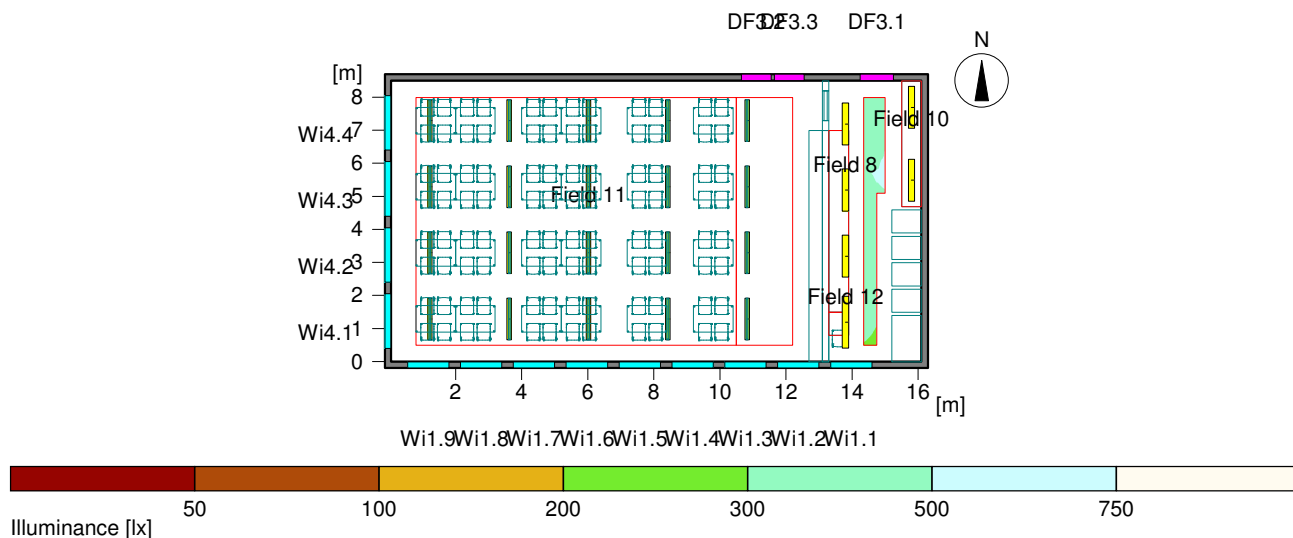
2.1 Summary, Raum

2.1.4 Result overview, Nutzebene

7	20	Order No.	: 5LJ 914 7-1C/
		Luminaire name	: Hexal-s
		Equipment	: 1 x FD 36 W / 3200 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	107300 lm
Total power	1206 W
Total power per area (136.43 m ²)	8.84 W/m ²

Illuminance

Average illuminance	Eav	425 lx
Minimum illuminance	Emin	280 lx
Maximum illuminance	Emax	506 lx
Uniformity g1	Emin/Em	1:1.52 (0.66)
Uniformity g2	Emin/Emax	1:1.8 (0.55)

Type No.\Make

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

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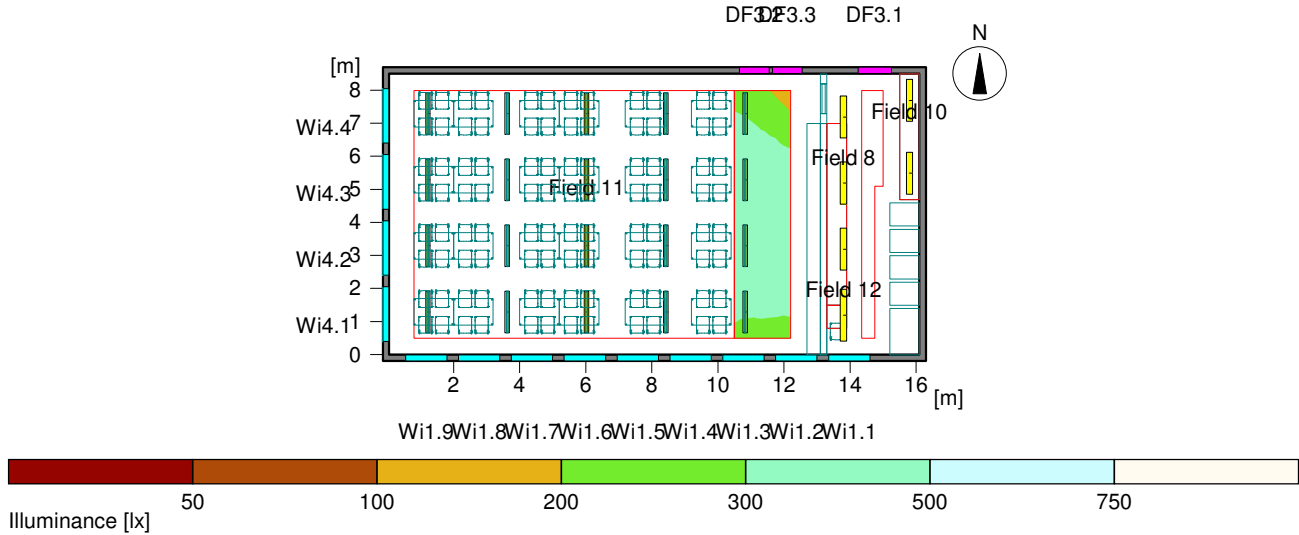
2.1 Summary, Raum

2.1.5 Result overview, Küchenboden

7	20	Order No.	: 5LJ 914 7-1C/
		Luminaire name	: Hexal-s
		Equipment	: 1 x FD 36 W / 3200 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	107300 lm
Total power	1206 W
Total power per area (136.43 m ²)	8.84 W/m ²

Illuminance

Average illuminance	Eav	322 lx
Minimum illuminance	Emin	151 lx
Maximum illuminance	E _{max}	389 lx
Uniformity g1	Emin/Em	1:2.13 (0.47)
Uniformity g2	Emin/E _{max}	1:2.58 (0.39)

Type No.\Make

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

Object : School - Cafeteria
Installation : Hexal-s Pendant mounted (1x 36 W)
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2.1 Summary, Raum

2.1.6 Result overview, Measuring area (virtual) 10

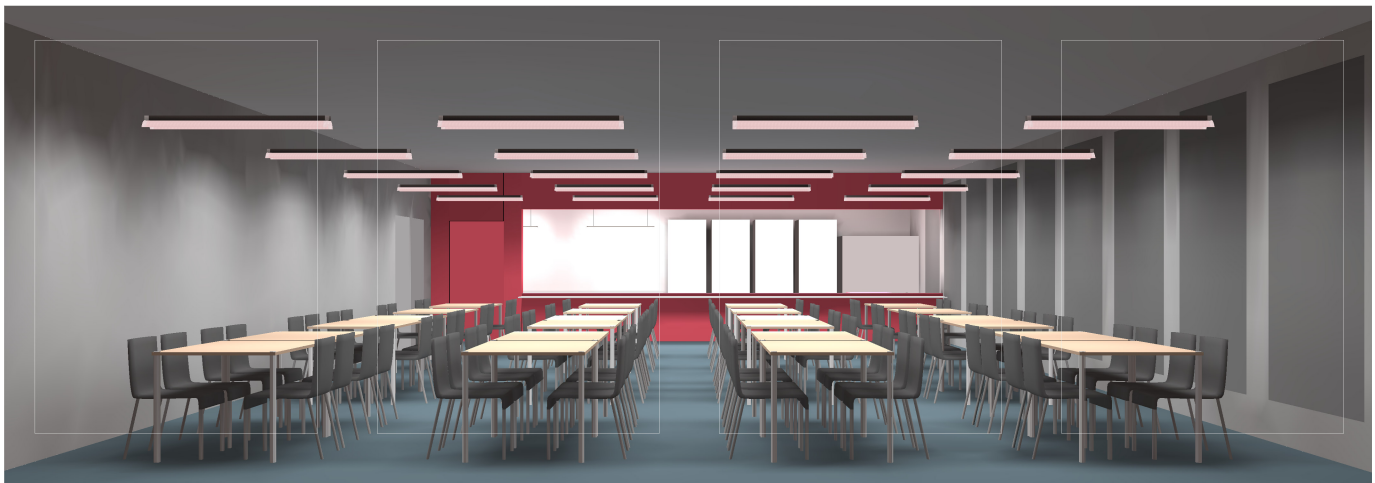
7	20	Order No.	: 5LJ 914 7-1C/
		Luminaire name	: Hexal-s
		Equipment	: 1 x FD 36 W / 3200 lm

Object : School - Cafeteria
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2 Raum

2.2 Calculation results, Raum

2.2.1 3D luminance, Ansicht von links



Luminance in the scene
Minimum: : 0 cd/m²
Maximum: : 121 cd/m²