

School - Cafeteria

Installation : Comfolight2 Surface mounted (1x 54 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

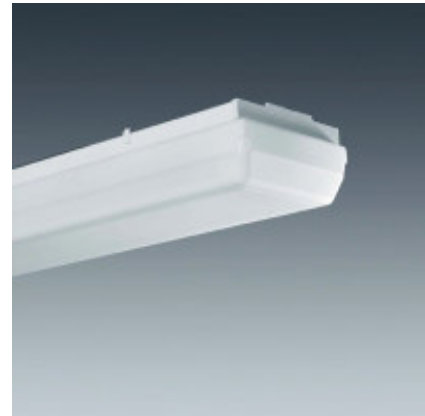
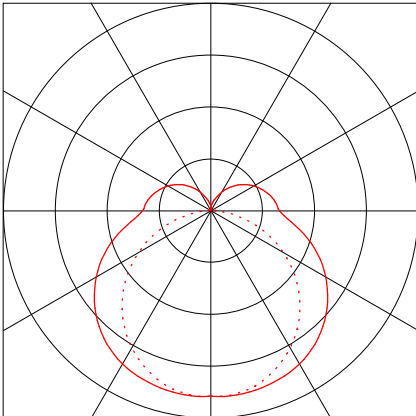
Montageart: Anbau, abgehängt

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

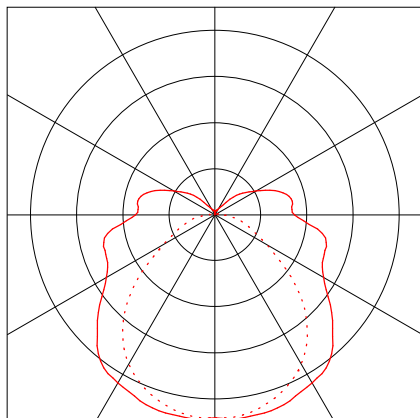
Montageart: Anbau, abgehängt

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 : Comfolight2 Surface mounted (1x 54 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

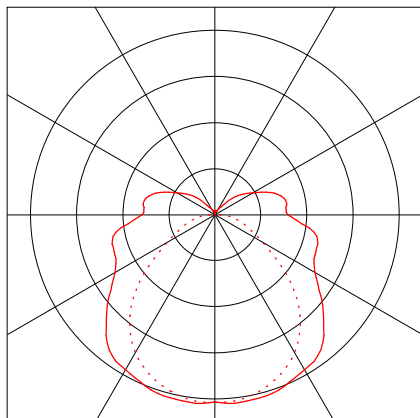
Montageart: Anbau, abgehängt

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, COMFOLIGHT 2 (5MF 214 7-1HS)

1.4.1 Data sheet

Manufacturer: Siteco

5MF 214 7-1HS Einzelleuchte für Deckenanbau COMFOLIGHT 2

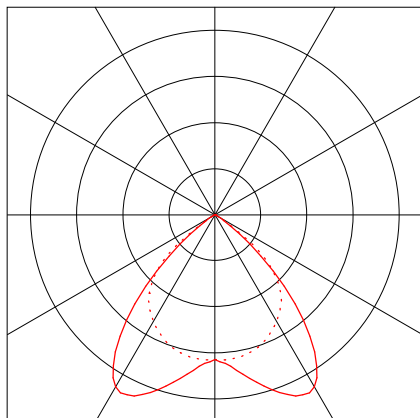
Gehäuse aus Aluminium-Strangpreßprofil
BAP65-Spiegelraster, matt, (L <= 1000 cd / m² rundum)
direkt strahlend
Schutzart:IP 20
Schutzklasse: SK I
Montageart: Anbau

Luminaire data

Luminaires efficiency : 74.8% (A50)
Control gear : EVG
System power : 61 W
Length : 1254 mm
Width : 162 mm
Height : 56 mm

Equipped with

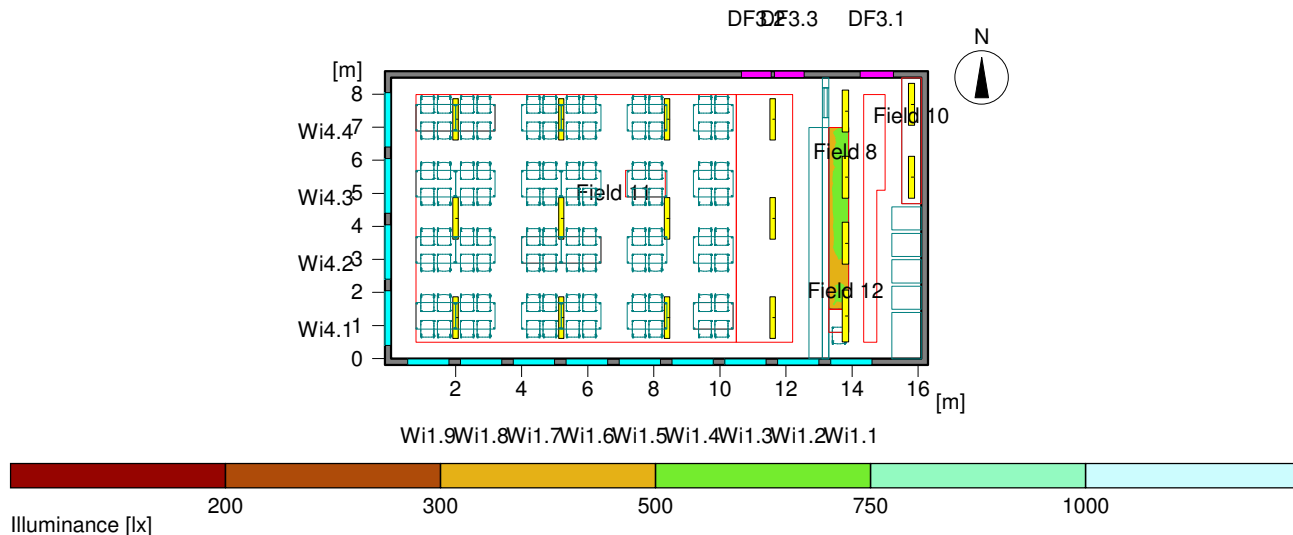
Number of : 1
Designation : FDH
Power : 54 W
Colour :
Luminous flux : 4450 lm



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	96700 lm
Total power	1258 W
Total power per area (136.43 m ²)	9.22 W/m ²

Illuminance

Average illuminance	E _{av}	502 lx
Minimum illuminance	E _{min}	399 lx
Maximum illuminance	E _{max}	559 lx
Uniformity g1	E _{min} /E _m	1:1.26 (0.79)
Uniformity g2	E _{min} /E _{max}	1:1.4 (0.71)

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

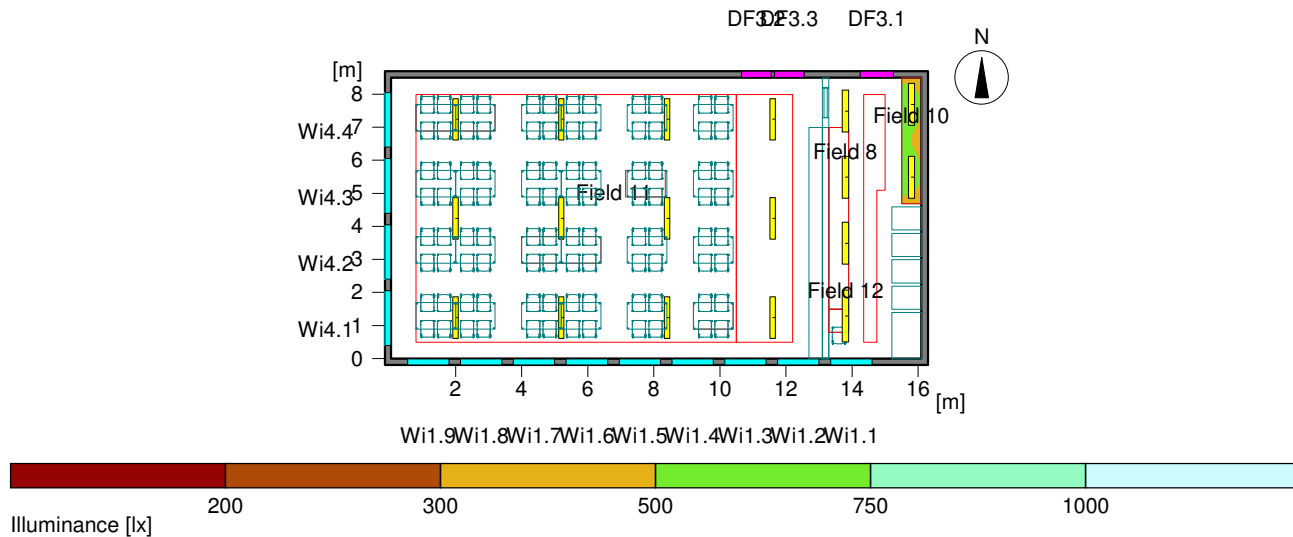
2.1 Summary, Raum

2.1.1 Result overview, Essen

4	12	Order No.	: 5MF 214 7-1HS
		Luminaire name	: COMFOLIGHT 2
		Equipment	: 1 x FDH 54 W / 4450 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	96700 lm
Total power	1258 W
Total power per area (136.43 m ²)	9.22 W/m ²

Illuminance

Average illuminance	Eav	533 lx
Minimum illuminance	Emin	363 lx
Maximum illuminance	E _{max}	632 lx
Uniformity g1	Emin/Em	1:1.47 (0.68)
Uniformity g2	Emin/E _{max}	1:1.74 (0.58)

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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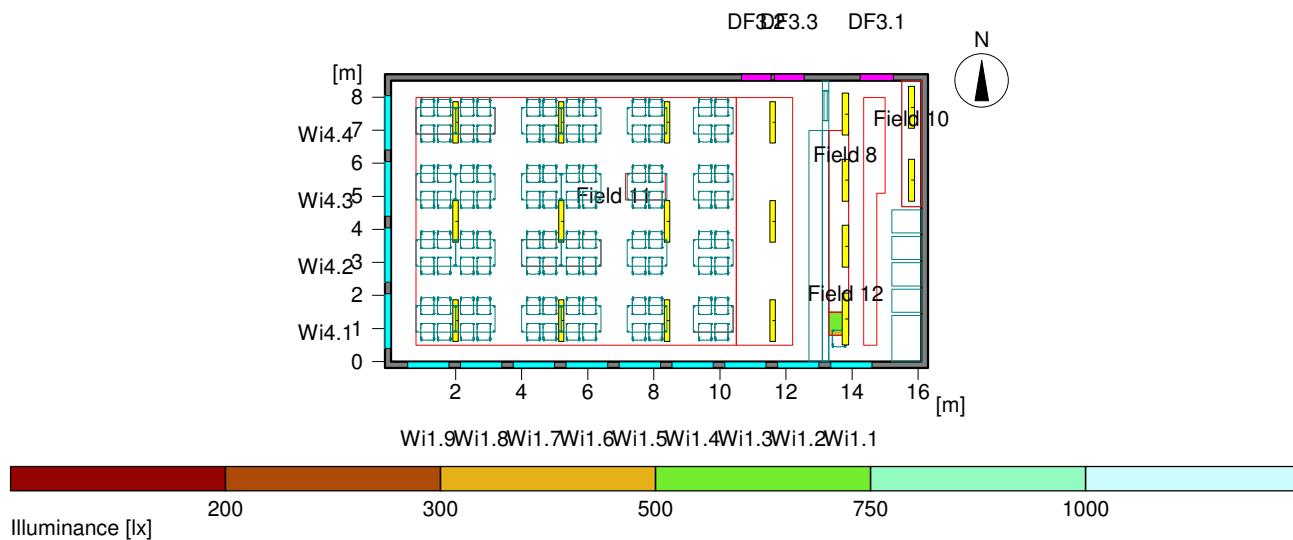
2.1 Summary, Raum

2.1.2 Result overview, Essen

4	12	Order No.	: 5MF 214 7-1HS
		Luminaire name	: COMFOLIGHT 2
		Equipment	: 1 x FDH 54 W / 4450 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	96700 lm
Total power	1258 W
Total power per area (136.43 m ²)	9.22 W/m ²

Illuminance

Average illuminance	Eav	526 lx
Minimum illuminance	Emin	485 lx
Maximum illuminance	Emax	555 lx
Uniformity g1	Emin/Em	1:1.08 (0.92)
Uniformity g2	Emin/Emax	1:1.14 (0.87)

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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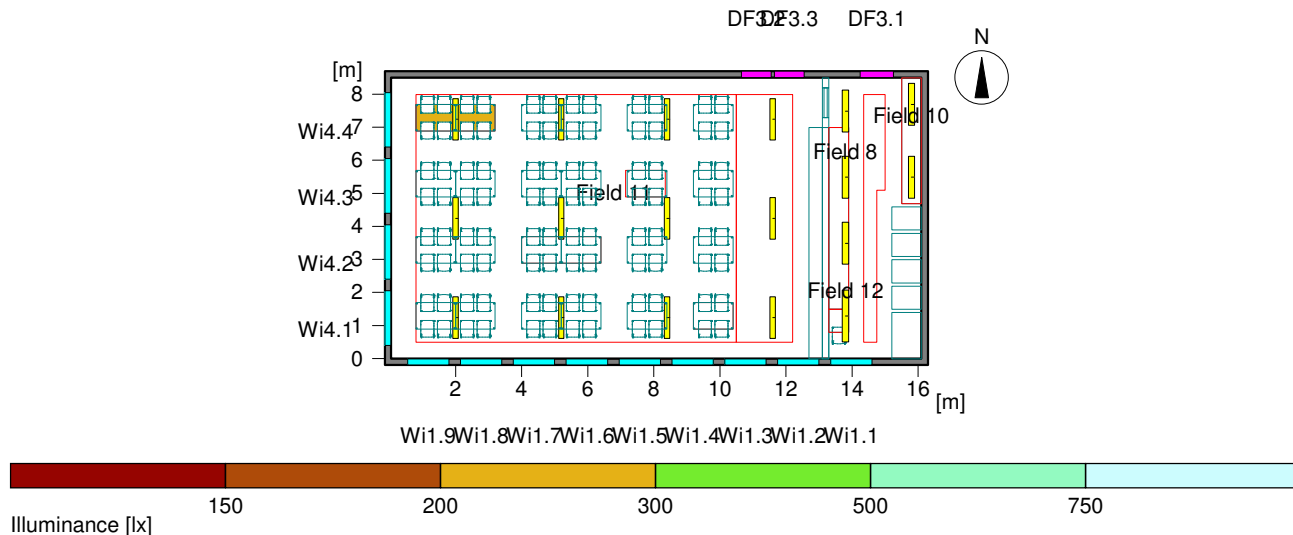
2.1 Summary, Raum

2.1.3 Result overview, Kasse

4	12	Order No.	: 5MF 214 7-1HS
		Luminaire name	: COMFOLIGHT 2
		Equipment	: 1 x FDH 54 W / 4450 lm

2.1 Summary, Raum

2.1.4 Result overview, Tisch1



General

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

Total luminous flux of all lamps	96700 lm
Total power	1258 W
Total power per area (136.43 m ²)	9.22 W/m ²

Illuminance

Average illuminance	E _{av}	255 lx
Minimum illuminance	E _{min}	207 lx
Maximum illuminance	E _{max}	283 lx
Uniformity g1	E _{min} /E _m	1:1.23 (0.81)
Uniformity g2	E _{min} /E _{max}	1:1.37 (0.73)

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 : Comfolight2 Surface mounted (1x 54 W
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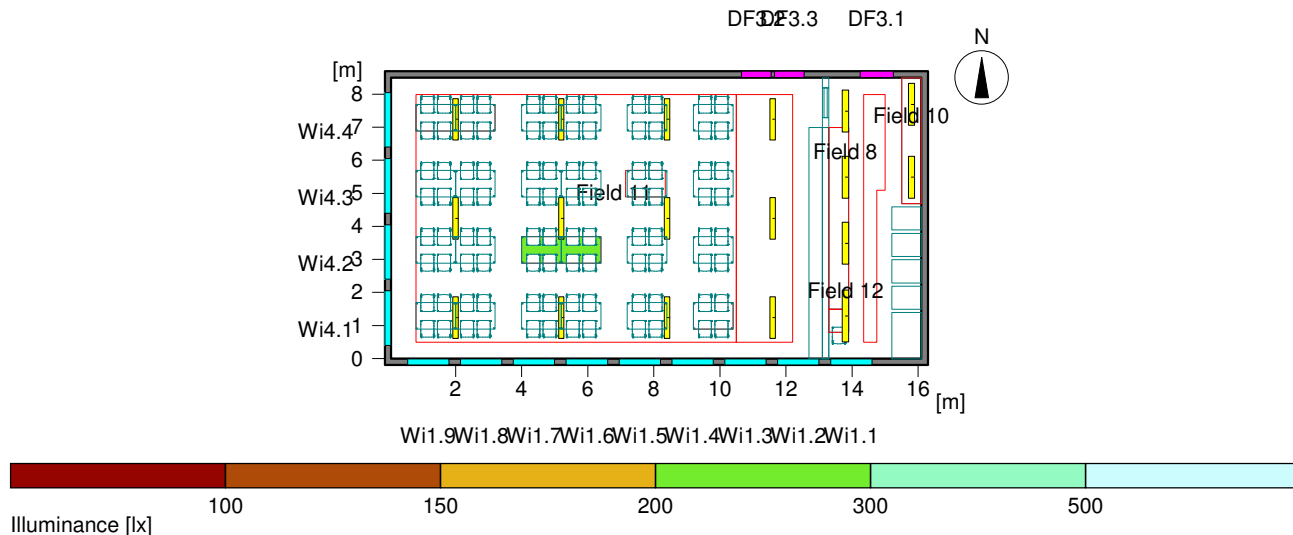
2.1 Summary, Raum

2.1.4 Result overview, Tisch1

4	12	Order No.	: 5MF 214 7-1HS
		Luminaire name	: COMFOLIGHT 2
		Equipment	: 1 x FDH 54 W / 4450 lm

2.1 Summary, Raum

2.1.5 Result overview, Tisch2



General

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

Total luminous flux of all lamps	96700 lm
Total power	1258 W
Total power per area (136.43 m ²)	9.22 W/m ²

Illuminance

Average illuminance	E _{av}	241 lx
Minimum illuminance	E _{min}	217 lx
Maximum illuminance	E _{max}	261 lx
Uniformity g1	E _{min} /E _m	1:1.12 (0.9)
Uniformity g2	E _{min} /E _{max}	1:1.2 (0.83)

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 : Comfolight2 Surface mounted (1x 54 W)
Project number : Standard example
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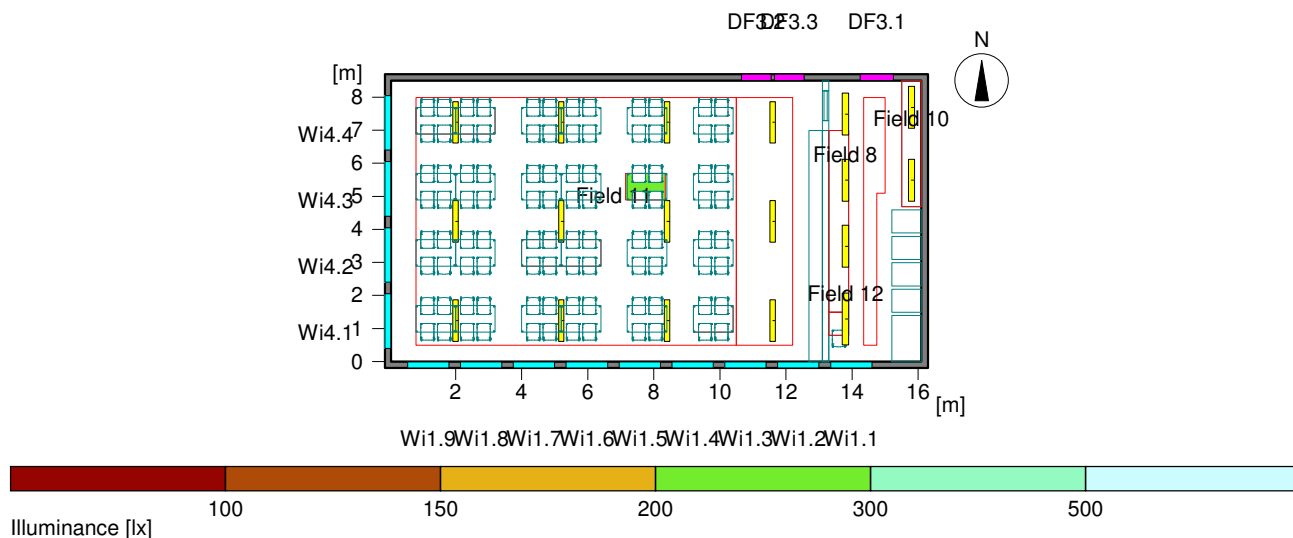
2.1 Summary, Raum

2.1.5 Result overview, Tisch2

4	12	Order No.	: 5MF 214 7-1HS
		Luminaire name	: COMFOLIGHT 2
		Equipment	: 1 x FDH 54 W / 4450 lm

2.1 Summary, Raum

2.1.6 Result overview, Tisch3



General

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

Total luminous flux of all lamps	96700 lm
Total power	1258 W
Total power per area (136.43 m ²)	9.22 W/m ²

Illuminance

Average illuminance	Eav	247 lx
Minimum illuminance	Emin	226 lx
Maximum illuminance	Emax	272 lx
Uniformity g1	Emin/Em	1:1.09 (0.91)
Uniformity g2	Emin/Emax	1:1.21 (0.83)

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 : Comfolight2 Surface mounted (1x 54 W
Project number : Standard example
Date : 01.2008

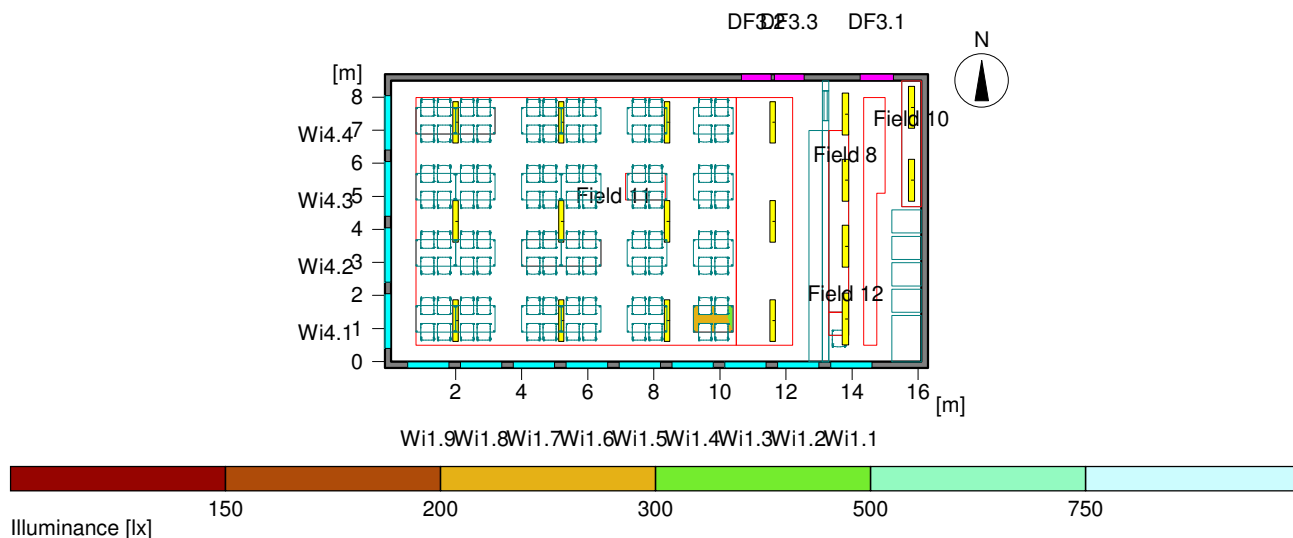
2.1 Summary, Raum

2.1.6 Result overview, Tisch3

4	12	Order No.	: 5MF 214 7-1HS
		Luminaire name	: COMFOLIGHT 2
		Equipment	: 1 x FDH 54 W / 4450 lm

2.1 Summary, Raum

2.1.7 Result overview, Tisch4



General

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

Total luminous flux of all lamps	96700 lm
Total power	1258 W
Total power per area (136.43 m ²)	9.22 W/m ²

Illuminance

Average illuminance	Eav	291 lx
Minimum illuminance	Emin	269 lx
Maximum illuminance	Emax	309 lx
Uniformity g1	Emin/Em	1:1.08 (0.92)
Uniformity g2	Emin/Emax	1:1.15 (0.87)

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 : Comfolight2 Surface mounted (1x 54 W
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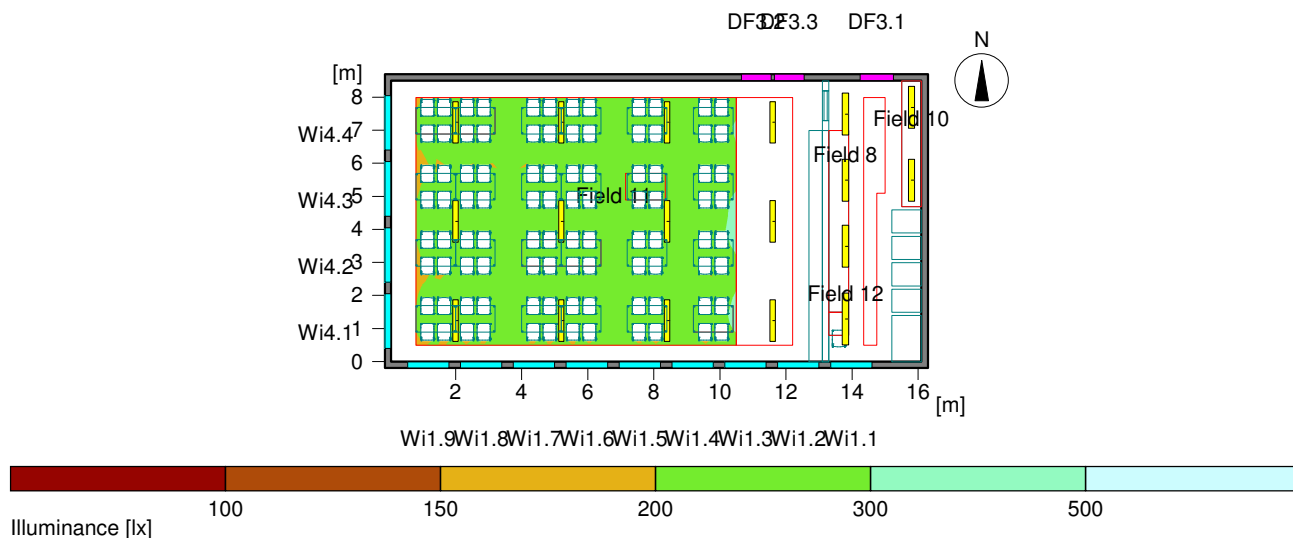
2.1 Summary, Raum

2.1.7 Result overview, Tisch4

4	12	Order No.	: 5MF 214 7-1HS
		Luminaire name	: COMFOLIGHT 2
		Equipment	: 1 x FDH 54 W / 4450 lm

2.1 Summary, Raum

2.1.8 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	96700 lm
Total power	1258 W
Total power per area (136.43 m ²)	9.22 W/m ²

Illuminance

Average illuminance	E _{av}	247 lx
Minimum illuminance	E _{min}	188 lx
Maximum illuminance	E _{max}	303 lx
Uniformity g1	E _{min} /E _m	1:1.31 (0.76)
Uniformity g2	E _{min} /E _{max}	1:1.61 (0.62)

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
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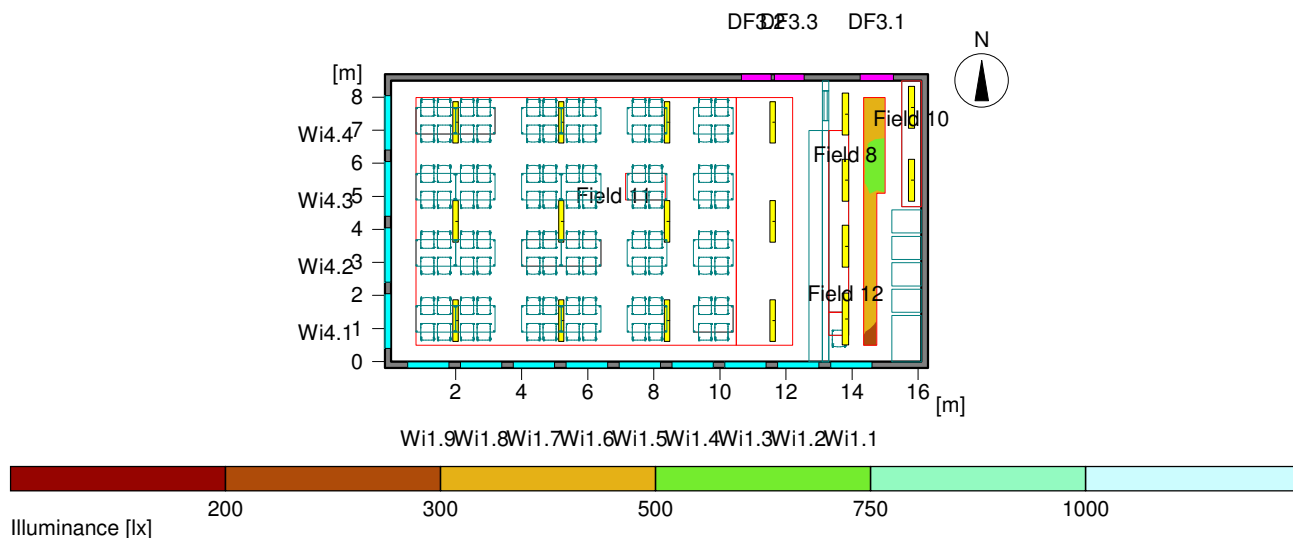
2.1 Summary, Raum

2.1.8 Result overview, Nutzebene

4	12	Order No.	: 5MF 214 7-1HS
		Luminaire name	: COMFOLIGHT 2
		Equipment	: 1 x FDH 54 W / 4450 lm

2.1 Summary, Raum

2.1.9 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	96700 lm
Total power	1258 W
Total power per area (136.43 m ²)	9.22 W/m ²

Illuminance

Average illuminance	Eav	430 lx
Minimum illuminance	Emin	266 lx
Maximum illuminance	Emax	516 lx
Uniformity g1	Emin/Em	1:1.61 (0.62)
Uniformity g2	Emin/Emax	1:1.94 (0.52)

Type No.\Make

Type	No.	Make
1	2	Siteco
		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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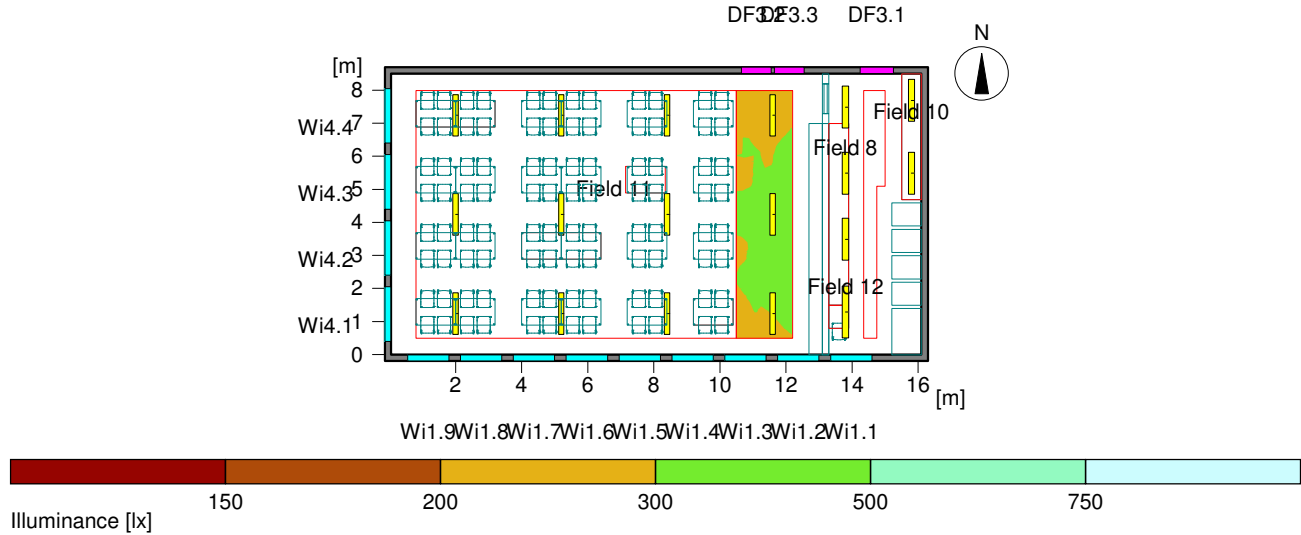
2.1 Summary, Raum

2.1.9 Result overview, Küchenboden

4	12	Order No.	: 5MF 214 7-1HS
		Luminaire name	: COMFOLIGHT 2
		Equipment	: 1 x FDH 54 W / 4450 lm

2.1 Summary, Raum

2.1.10 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	96700 lm
Total power	1258 W
Total power per area (136.43 m ²)	9.22 W/m ²

Illuminance

Average illuminance	Eav	302 lx
Minimum illuminance	Emin	200 lx
Maximum illuminance	E _{max}	392 lx
Uniformity g1	Emin/Em	1:1.51 (0.66)
Uniformity g2	Emin/E _{max}	1:1.96 (0.51)

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
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2.1 Summary, Raum

2.1.10 Result overview, Measuring area (virtual) 10

4	12	Order No.	: 5MF 214 7-1HS
		Luminaire name	: COMFOLIGHT 2
		Equipment	: 1 x FDH 54 W / 4450 lm

Object : School - Cafeteria
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Project number : Standard example
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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: : 131 cd/m²