

Installation :

Project number : DGU55-64_IESNA2002

Customer :

Processed by : Marius Smith

Date : 11.03.2025

The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

This exclusion of liability applies irrespective of the legal grounds for both damages and consequential damages suffered by users and third parties.

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1 Luminaire data

1.1 ()

1.1.1 Data sheet

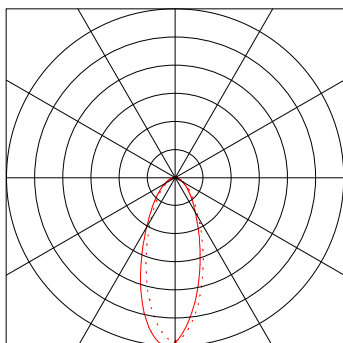
Luminaire data

Luminaire efficiency : 100%
Luminaire efficacy : 111.96 lm/W
Classification : A60 ↓98.5% ↑1.5%
CIE Flux Codes : 72 92 99 98 100
UGR 4H 8H : 47.9 / 49.5
Power : 5.1 W
Luminous flux : 571 lm

Equipped with

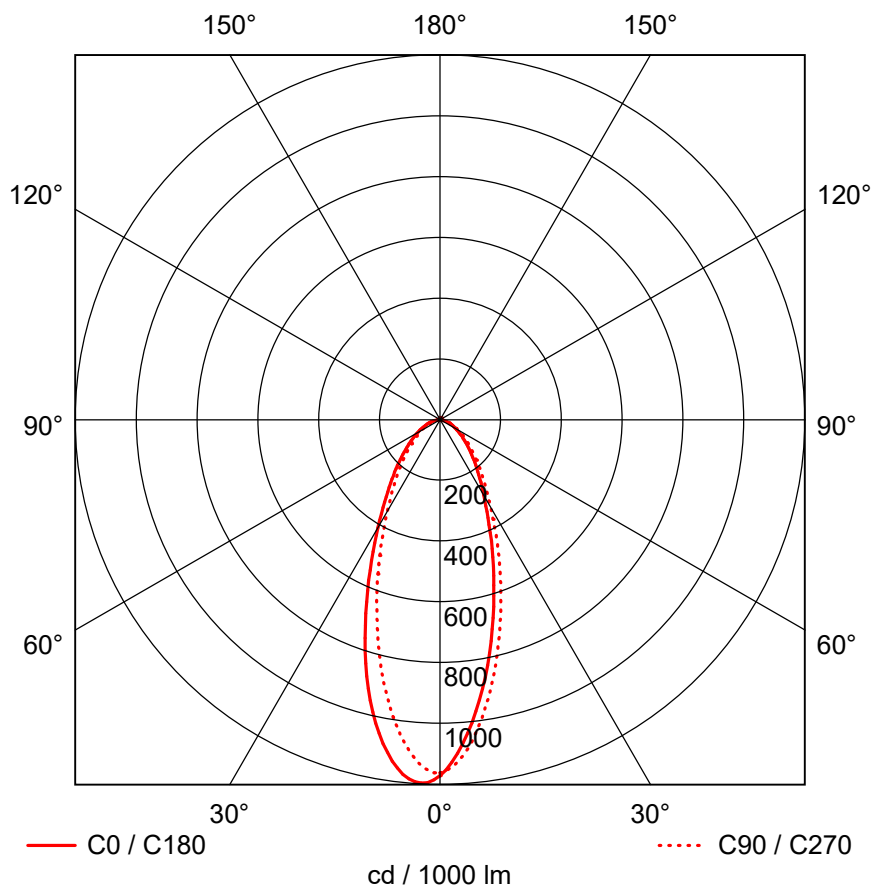
Quantity : 1
Designation :
Colour :
Luminous flux : 571 lm

Dimensions : Ø1 mm x 1 mm



1.1 ()

1.1.2 LDC

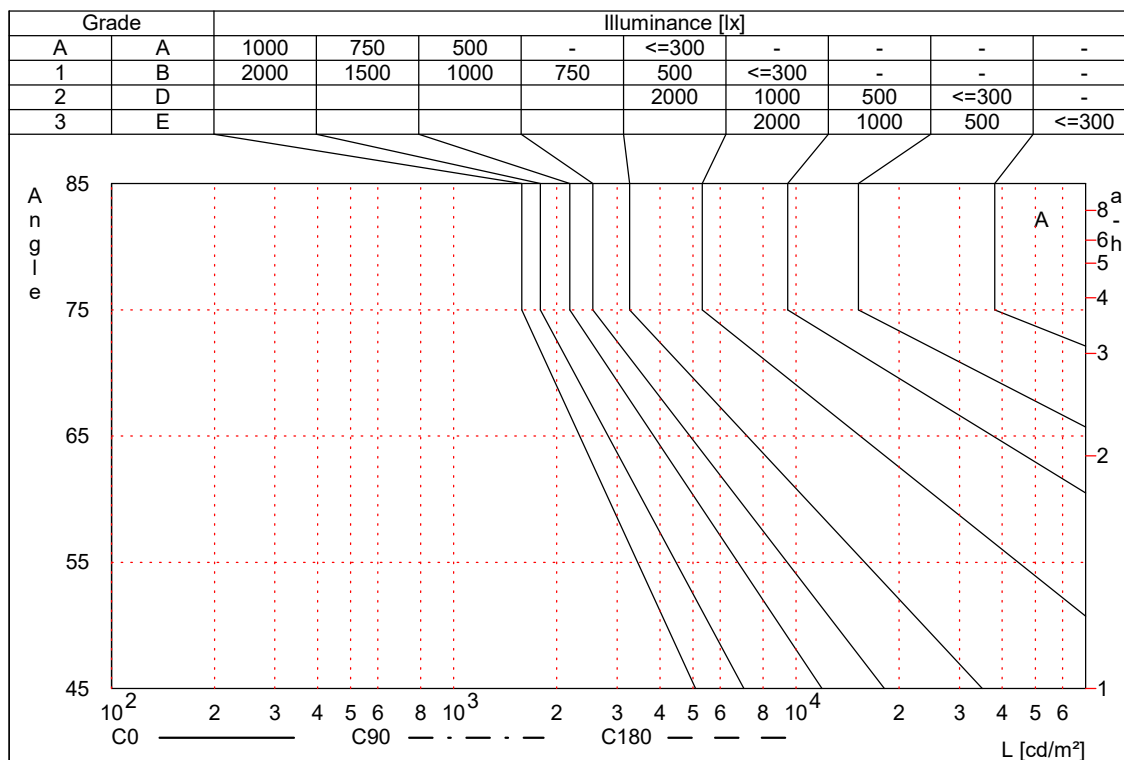


	C0	C90	C180
0°	1171	1161	1171
5°	1036	1081	1186
10°	859	924	1082
15°	675	749	916
20°	513	584	721
25°	381	445	546
30°	288	332	410
35°	222	254	310
40°	173	198	240
45°	134	154	186
50°	104	120	144
55°	79	92	112
60°	59	70	86
65°	44	53	65
70°	29	38	48
75°	12	21	33
80°	5	7	16
85°	2	3	6
90°	1	0	2
cd / 1000 lm			

Manufacturer	:	Efficiency factor	: 100%
Order number	:	Luminaire efficacy	: 111.96 lm/W (A60)
Luminaire name	:	Light distribution	: asymmetric
Equipment	: 1 x 5.1 W / 571 lm	Beam Angle	: 17.2° C0
Dimensions	: D 1 mm x H 1 mm		19.5° C90
File name	:		23.4° C180
			20.3° C270

1.1 ()

1.1.3 Soellner diagram



Manufacturer	:	Efficiency factor	:	100%
Order number	:	Luminaire efficacy	:	111.96 lm/W (A60)
Luminaire name	:	Light distribution	:	asymmetric
Equipment	:	Beam Angle	:	17.2° C0
Dimensions	:		:	19.5° C90
File name	:		:	23.4° C180
			:	20.3° C270

1.1 ()

1.1.4 Luminance chart

	C0	C15	C30	C45	C60	C75	C90	C105	C120	C135	C150	C165
65°	200850	201400	204583	210400	227780	235516	243653	252193	261134	270476	293527	298683
70°	136884	137272	140379	146205	165041	172448	180002	187704	195552	203547	221741	226262
75°	569619	573967	606966	668618	856614	938931	102548	111626	121127	131050	155272	160838
80°	246166	246166	254788	272032	299780	333561	375493	425576	483811	550196	745536	782922
85°	995635	993151	104051	113770	141726	156442	172827	190882	210607	232001	287732	300217

	C180	C195	C210	C225	C240	C255	C270	C285	C300	C315	C330	C345
65°	300913	303002	172965	962900	502693	172611	144252	860244	467235	963227	350207	652202
70°	228417	228206	225631	220689	205925	199049	191671	183793	175414	166533	144268	139217
75°	163359	162834	159263	152646	131770	123267	114522	105534	963050	868327	646880	593923
80°	798258	791544	762780	711966	529793	475870	427224	383855	345763	312948	272032	254788
85°	306204	305696	298690	285188	239829	222843	205702	188403	170948	153337	115009	104794

Luminance [cd/m²]

Manufacturer	:	Efficiency factor	:	100%
Order number	:	Luminaire efficacy	:	111.96 lm/W (A60)
Luminaire name	:	Light distribution	:	asymmetric
Equipment	:	Beam Angle	:	17.2° C0
Dimensions	:		:	19.5° C90
File name	:		:	23.4° C180
			:	20.3° C270

1.1 ()

1.1.5 Glare Rating (RUG)

RUG tabular method not applicable.

1.1 ()

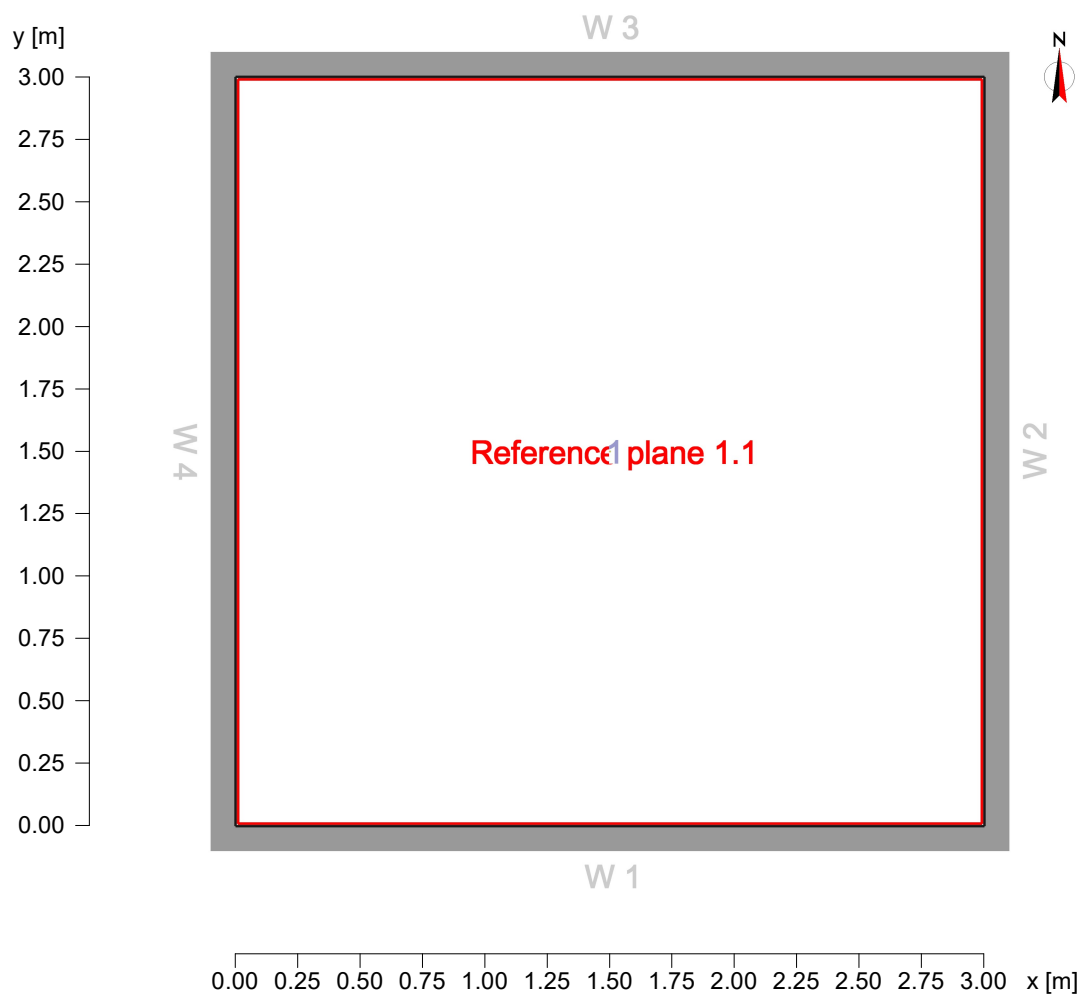
1.1.6 Cone diagram

LDC unsuitable for cone representation

2 2.5

2.1 Description, 2.5

2.1.1 Floor plan



Room data:

W1	:	3.00
W2	:	3.00
W3	:	3.00
W4	:	3.00
W5	:	----
W6	:	----
Floor:	----	20.0 %
Ceiling:	----	70.0 %
Room height [m]:		2.50
Height of ref. plane [m]:		1.00
Height of luminaire plane [m]:		2.50

Reflectance:

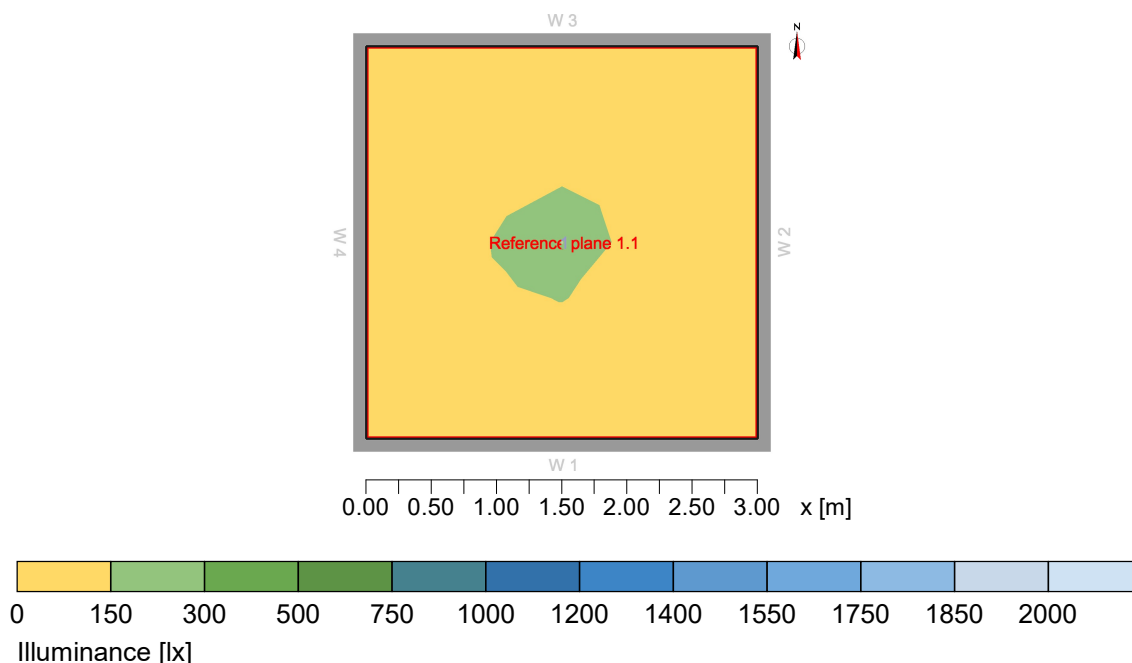
50.0 %
50.0 %
50.0 %
50.0 %

20.0 %
70.0 %
2.50
1.00
2.50

2 2.5

2.2 Summary, 2.5

2.2.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

Average indirect fraction
 2.50 m
 0.90

Luminaire luminous flux
 Total power
 Total power per area (9.00 m²)

571 lm
 5.1 W
 0.57 W/m² (1.12 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal	cylindrical
\bar{E}_m	50.5 lx	14.1 lx
E_{min}	9.7 lx	6.6 lx
$E_{min}/\bar{E}_m (U_o)$	0.19	0.47
$E_{min}/E_{max} (U_d)$	0.04	
E_z/E_h		0.27
Position	1.00 m	1.20 m
RUG (--- ---)	---	

Hints:

- The scene contains luminaires that are unsuitable for the RUG tabular method.

Type No. Make


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2 2.5

2.2 Summary, 2.5

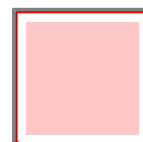
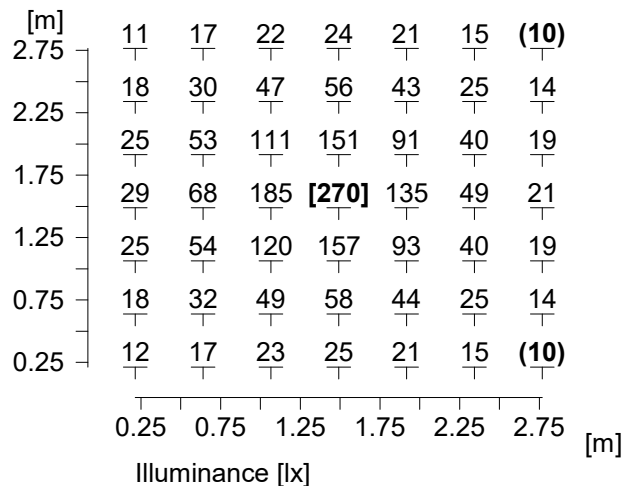
2.2.1 Result overview, Evaluation area 1

1	1 x	Order No.	:
		Luminaire name	:
		Equipment	: 1 x 5.1 W / 571 lm

2 2.5

2.3 Calculation results, 2.5

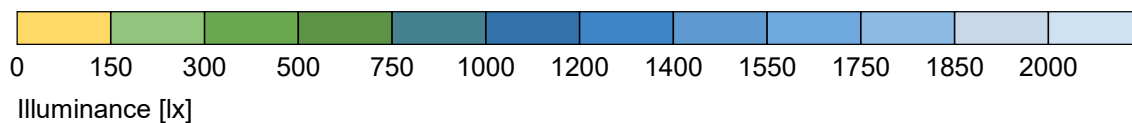
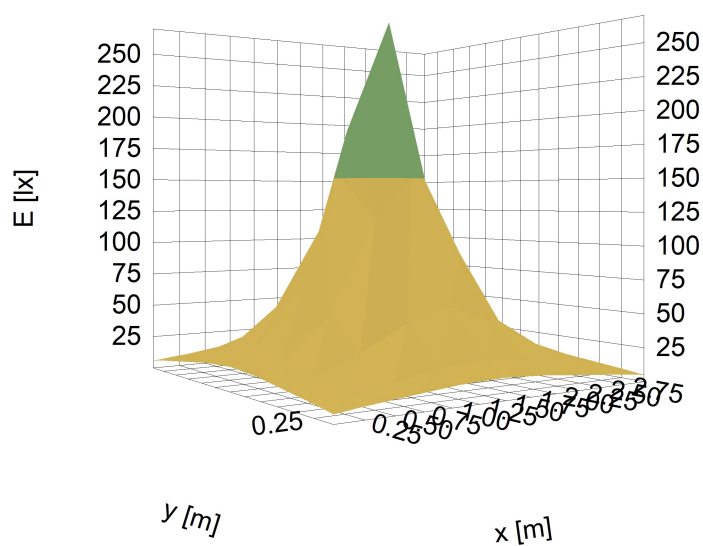
2.3.1 Table, Reference plane 1.1 (E)



Height reference plane		: 1.00 m
Average illuminance	\bar{E}_m	: 50 lx
Minimum illuminance	E_{min}	: 10 lx
Maximum illuminance	E_{max}	: 270 lx
Uniformity U_o	E_{min}/\bar{E}_m	: 1 : 5.21 (0.19)
Diversity U_d	E_{min}/E_{max}	: 1 : 27.84 (0.04)

2.3 Calculation results, 2.5

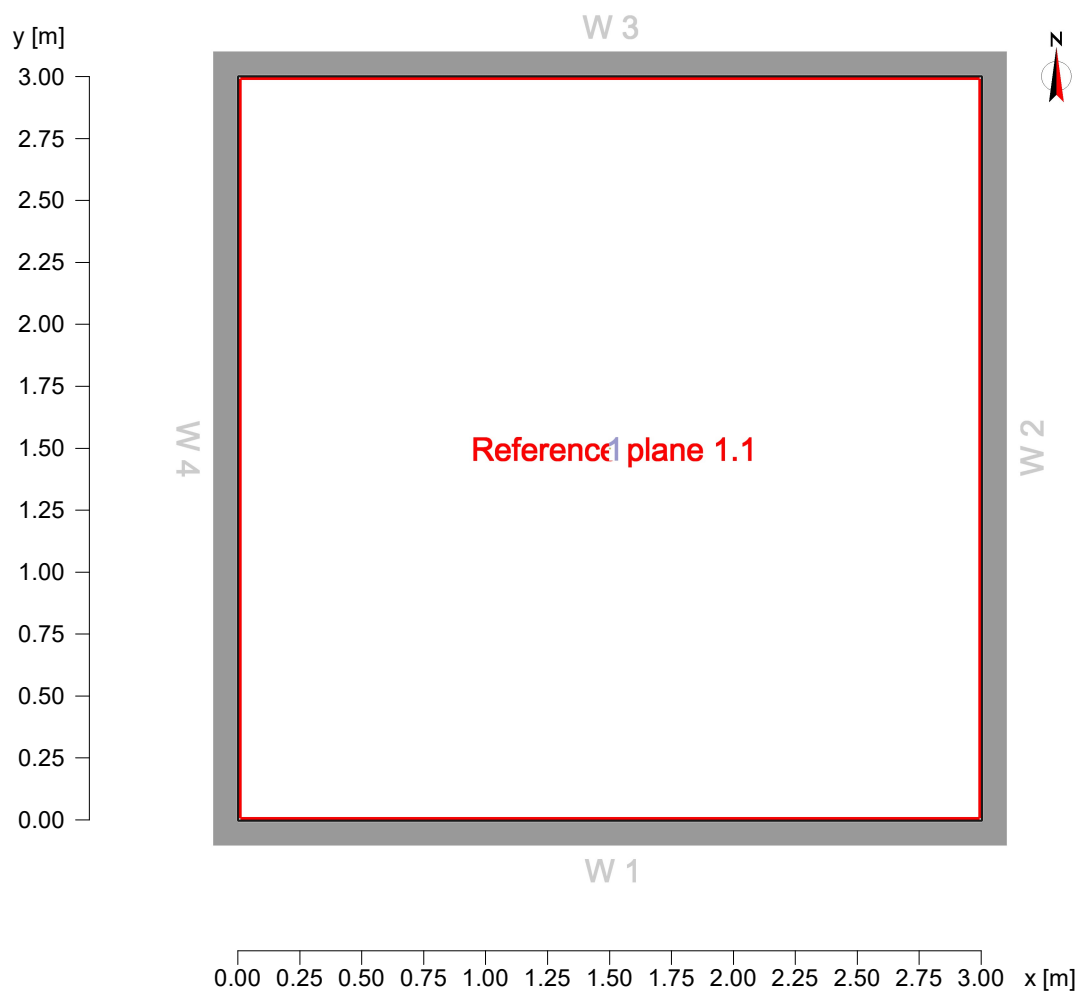
2.3.2 3D mountain plot, Reference plane 1.1 (E)



3 3

3.1 Description, 3

3.1.1 Floor plan



Room data:

W1	:	3.00
W2	:	3.00
W3	:	3.00
W4	:	3.00
W5	:	----
W6	:	----
Floor:	----	20.0 %
Ceiling:	----	70.0 %
Room height [m]:		3.00
Height of ref. plane [m]:		1.00
Height of luminaire plane [m]:		3.00

Reflectance:

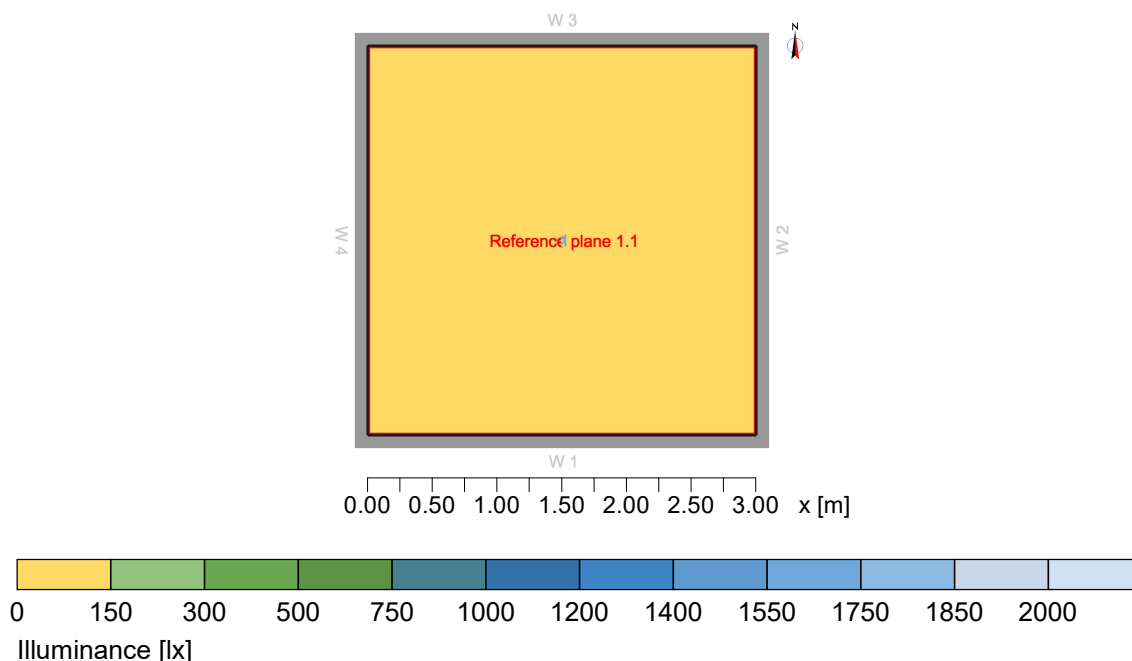
50.0 %
50.0 %
50.0 %
50.0 %

20.0 %
70.0 %
3.00
1.00
3.00

3 3

3.2 Summary, 3

3.2.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

Average indirect fraction
 3.00 m
 0.90

Luminaire luminous flux
 Total power
 Total power per area (9.00 m²)

571 lm
 5.1 W
 0.57 W/m² (1.26 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal	cylindrical
\bar{E}_m	44.9 lx	12.2 lx
E_{min}	12.3 lx	6.6 lx
$E_{min}/\bar{E}_m (U_o)$	0.27	0.54
$E_{min}/E_{max} (U_d)$	0.08	
E_z/E_h		0.26
Position	1.00 m	1.20 m
RUG (--- ---)	---	

Hints:

- The scene contains luminaires that are unsuitable for the RUG tabular method.

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3 3

3.2 Summary, 3

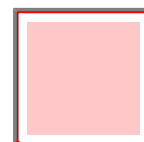
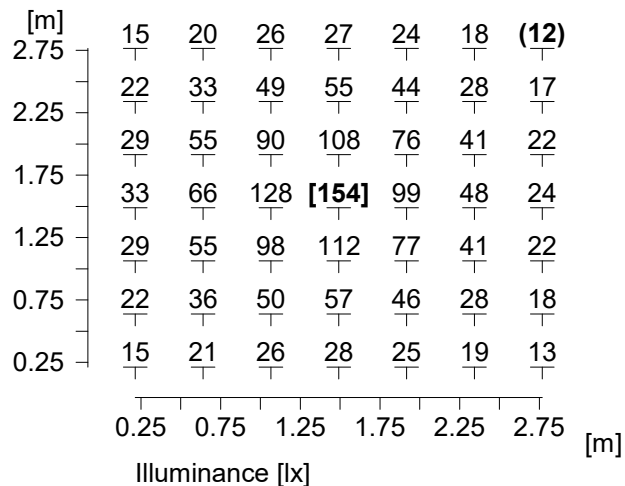
3.2.1 Result overview, Evaluation area 1

1	1 x	Order No.	:
		Luminaire name	:
		Equipment	: 1 x 5.1 W / 571 lm

3 3

3.3 Calculation results, 3

3.3.1 Table, Reference plane 1.1 (E)



Height reference plane		: 1.00 m
Average illuminance	\bar{E}_m	: 45 lx
Minimum illuminance	E_{min}	: 12 lx
Maximum illuminance	E_{max}	: 154 lx
Uniformity U_o	E_{min}/\bar{E}_m	: 1 : 3.64 (0.27)
Diversity U_d	E_{min}/E_{max}	: 1 : 12.50 (0.08)

3.3 Calculation results, 3

3.3.2 3D mountain plot, Reference plane 1.1 (E)

