

Installation :

Project number : DGU55-27_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

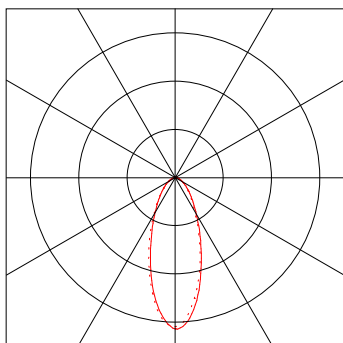
Luminaire data

Luminaire efficiency : 100%
Luminaire efficacy : 100.78 lm/W
Classification : A60 ↓98.5% ↑1.5%
CIE Flux Codes : 74 92 99 98 100
UGR 4H 8H : 48.9 / 48.8
Power : 5.1 W
Luminous flux : 514 lm

Equipped with

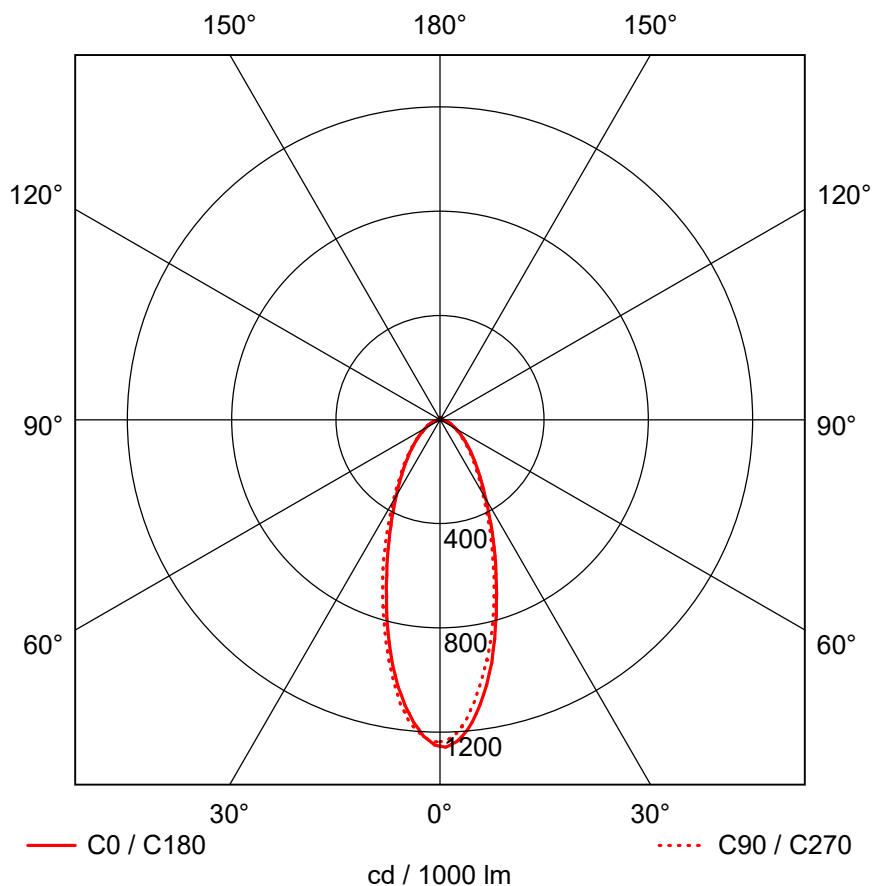
Quantity : 1
Designation :
Colour :
Luminous flux : 514 lm

Dimensions : Ø1 mm x 1 mm



1.1 ()

1.1.2 LDC

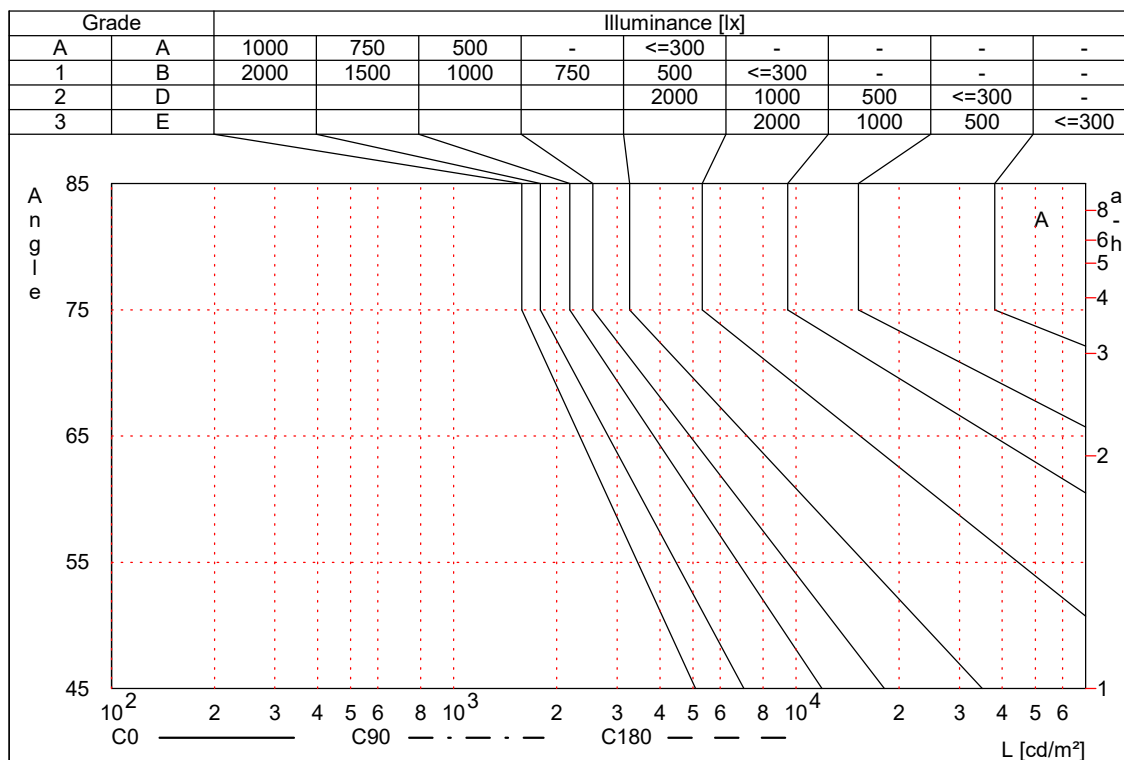


	C0	C90	C180
0°	1254	1236	1254
5°	1197	1156	1167
10°	1033	974	996
15°	823	788	790
20°	630	600	598
25°	474	444	449
30°	351	328	338
35°	267	249	257
40°	206	193	197
45°	159	149	151
50°	122	114	115
55°	93	88	88
60°	70	66	66
65°	52	49	48
70°	38	35	35
75°	23	19	18
80°	8	7	6
85°	4	3	3
90°	1	0	1
cd / 1000 lm			

Manufacturer	:	Efficiency factor	: 100%
Order number	:	Luminaire efficacy	: 100.78 lm/W (A60)
Luminaire name	:	Light distribution	: asymmetric
Equipment	: 1 x 5.1 W / 514 lm	Beam Angle	: 20.0° C0
Dimensions	: D 1 mm x H 1 mm		19.2° C90
File name	:		19.1° C180
			20.5° C270

1.1 ()

1.1.3 Soellner diagram



Manufacturer	:	Efficiency factor	:	100%
Order number	:	Luminaire efficacy	:	100.78 lm/W (A60)
Luminaire name	:	Light distribution	:	asymmetric
Equipment	:	Beam Angle	:	20.0° C0
Dimensions	:		:	19.2° C90
File name	:		:	19.1° C180
			:	20.5° C270

1.1 ()

1.1.4 Luminance chart

	C0	C15	C30	C45	C60	C75	C90	C105	C120	C135	C150	C165
65°	214984	214110	212794	211036	206028	204440	203112	202044	201236	200689	200016	200134
70°	160140	159363	158190	156623	152085	150691	149547	148650	148002	147602	147303	147455
75°	995550	980856	960009	933008	856994	833759	815085	800973	791423	786433	785151	789605
80°	382628	376150	366673	354199	318411	307559	298789	292100	287491	284964	284221	285968
85°	178463	174301	168861	162143	143918	138478	134316	131433	129829	129503	131290	133208

	C180	C195	C210	C225	C240	C255	C270	C285	C300	C315	C330	C345
65°	200608	201439	202627	204172	208200	209660	210946	212056	212991	213752	215401	215415
70°	147891	148613	149620	150912	154181	155409	156498	157450	158264	158940	160508	160522
75°	798835	812840	831621	855177	915344	936512	954497	969298	980916	989351	100647	100409
80°	289870	295927	304140	314509	340610	350198	358547	365657	371529	376162	386592	386109
85°	136195	140252	145379	151576	167400	172527	176584	179571	181489	182337	182950	181346

Luminance [cd/m²]

Manufacturer	:	Efficiency factor	:	100%
Order number	:	Luminaire efficacy	:	100.78 lm/W (A60)
Luminaire name	:	Light distribution	:	asymmetric
Equipment	:	Beam Angle	:	20.0° C0
Dimensions	:		:	19.2° C90
File name	:		:	19.1° C180
			:	20.5° C270

1.1 ()

1.1.5 Glare Rating (RUG)

RUG tabular method not applicable.

1.1 ()

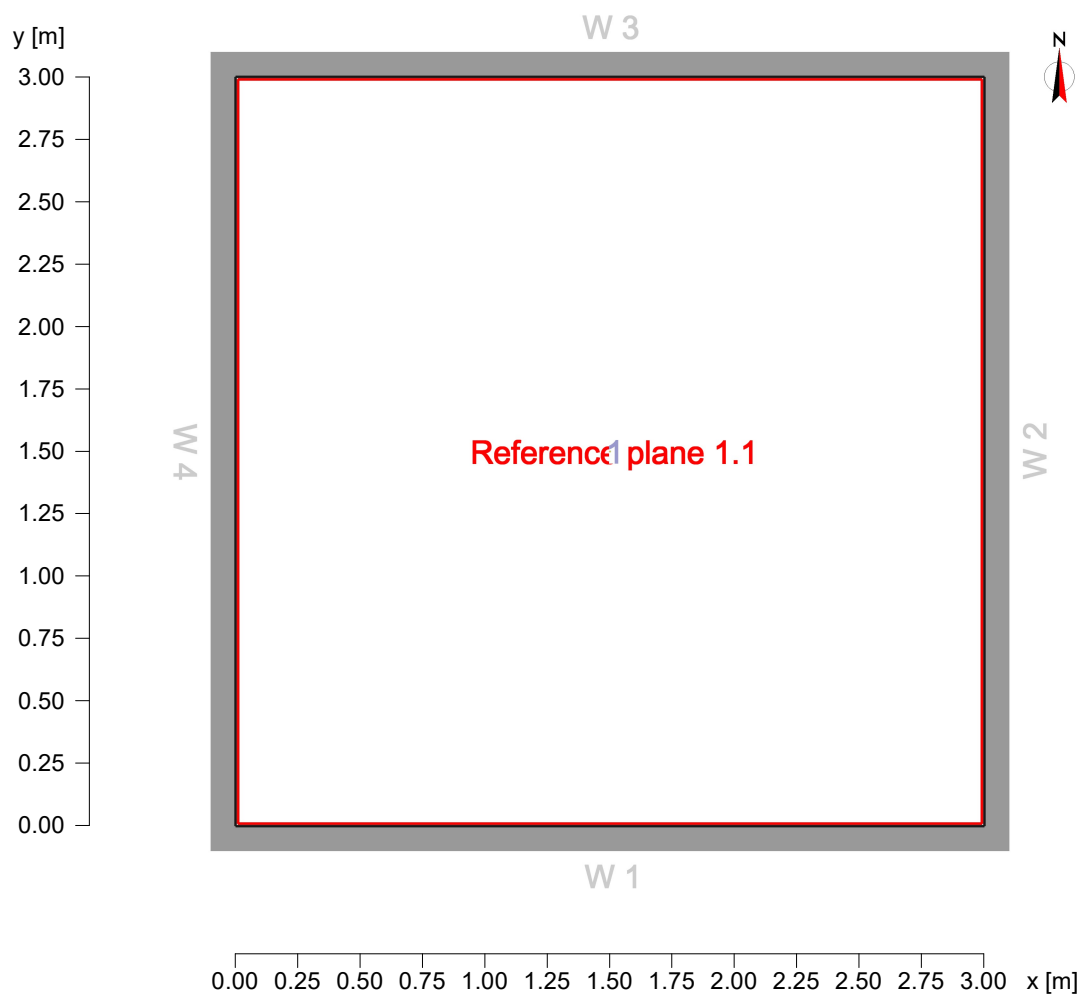
1.1.6 Cone diagram

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:

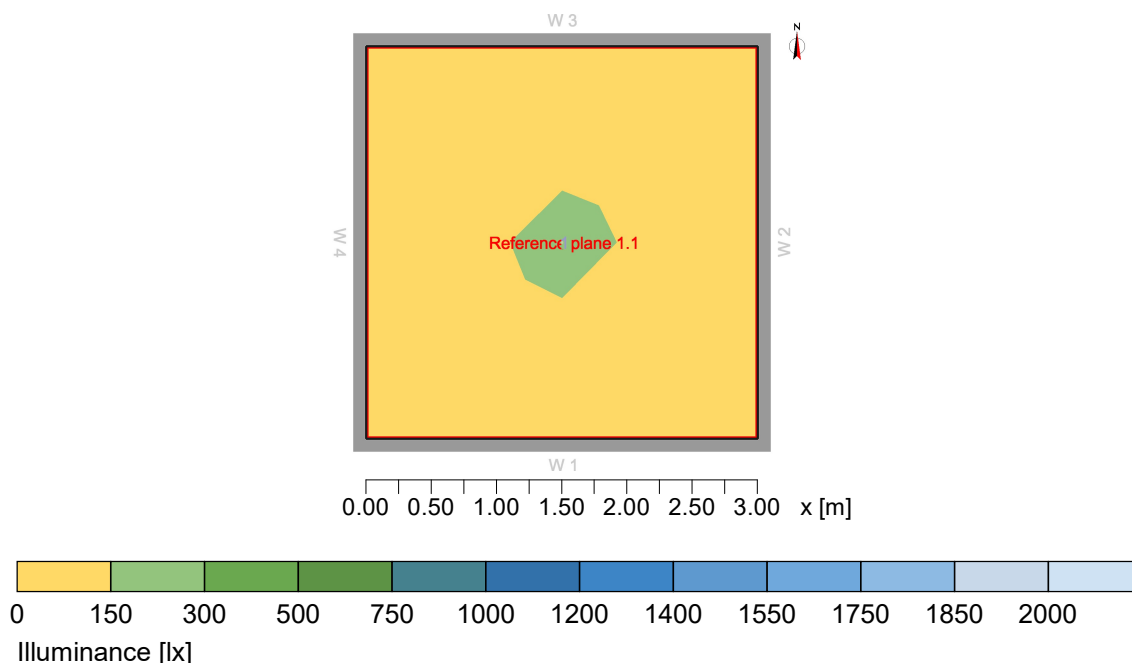
50.0 %
50.0 %
50.0 %
50.0 %

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)

514 lm
 5.1 W
 0.57 W/m² (1.23 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal	cylindrical
\bar{E}_m	46 lx	12.5 lx
E_{min}	9.1 lx	5.9 lx
$E_{min}/\bar{E}_m (U_o)$	0.20	0.47
$E_{min}/E_{max} (U_d)$	0.04	
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.

Type No. \Make


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2 2.5

2.2 Summary, 2.5

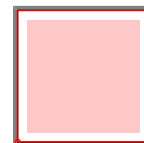
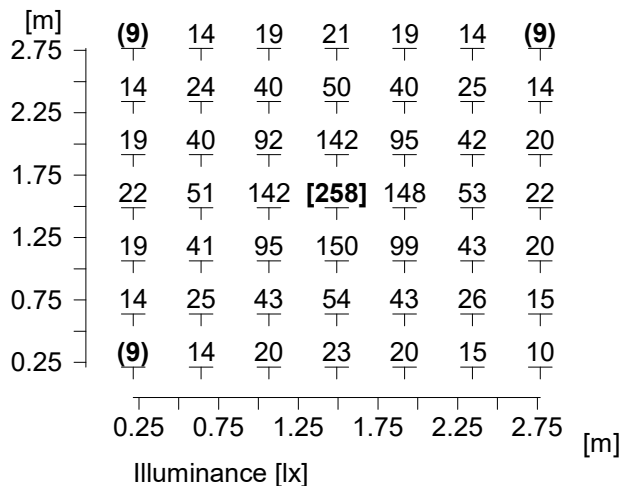
2.2.1 Result overview, Evaluation area 1

1	1 x	Order No.	:
		Luminaire name	:
		Equipment	: 1 x 5.1 W / 514 lm

2 2.5

2.3 Calculation results, 2.5

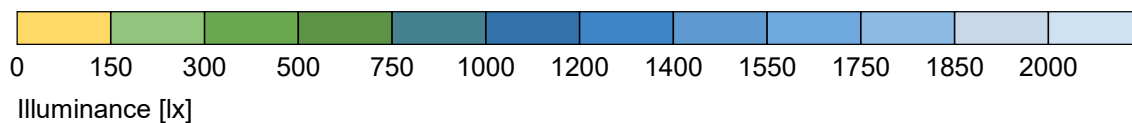
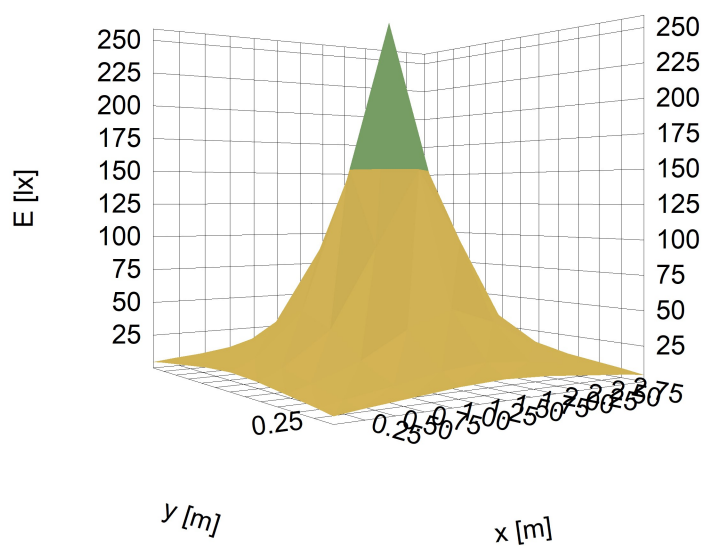
2.3.1 Table, Reference plane 1.1 (E)



Height reference plane		: 1.00 m
Average illuminance	\bar{E}_m	: 46 lx
Minimum illuminance	E_{min}	: 9 lx
Maximum illuminance	E_{max}	: 258 lx
Uniformity U_o	E_{min}/\bar{E}_m	: 1 : 5.06 (0.20)
Diversity U_d	E_{min}/E_{max}	: 1 : 28.38 (0.04)

2.3 Calculation results, 2.5

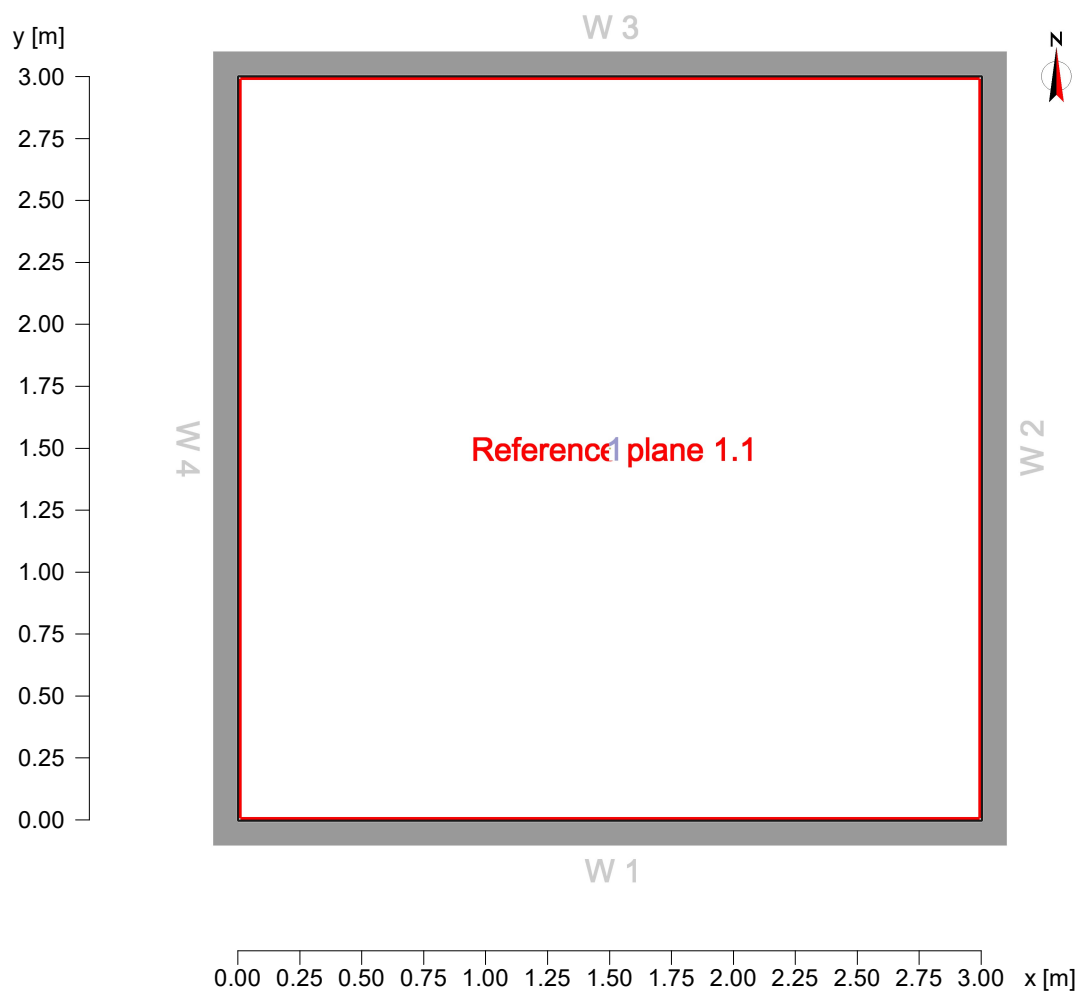
2.3.2 3D mountain plot, Reference plane 1.1 (E)



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:

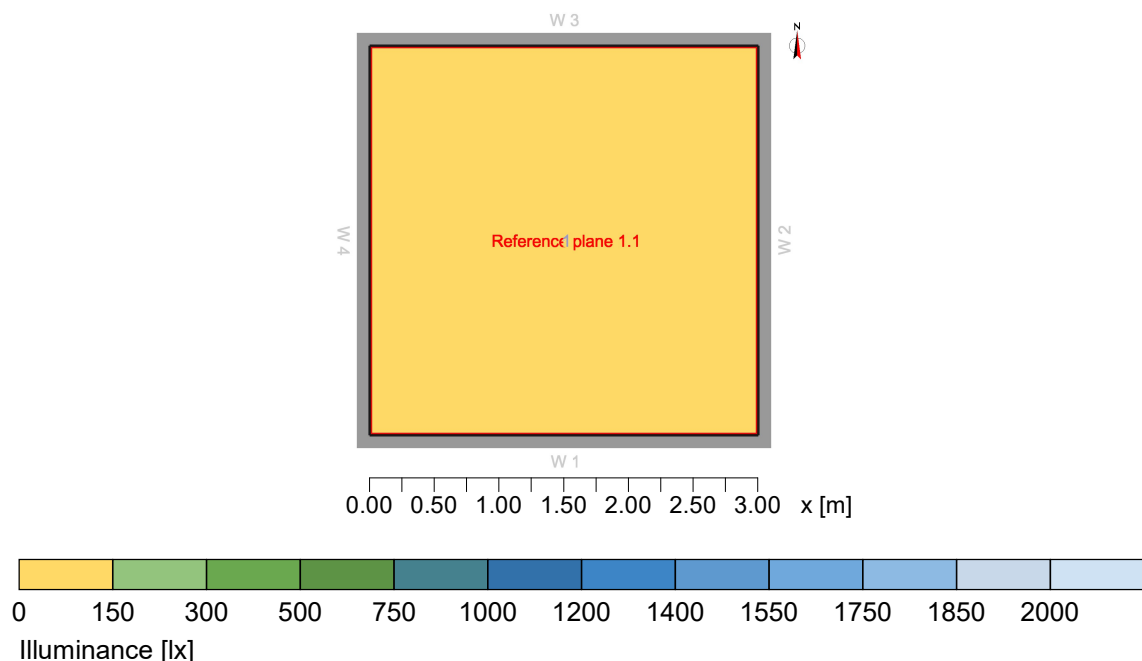
50.0 %
50.0 %
50.0 %
50.0 %

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	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.90
Luminaire luminous flux	514 lm
Total power	5.1 W
Total power per area (9.00 m ²)	0.57 W/m ² (1.38 W/m ² /100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal	cylindrical
\bar{E}_m	41.1 lx	10.9 lx
E_{min}	11.7 lx	5.9 lx
$E_{min}/\bar{E}_m (U_o)$	0.29	0.54
$E_{min}/E_{max} (U_d)$	0.08	
E_z/E_h		0.25
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

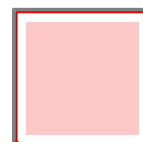
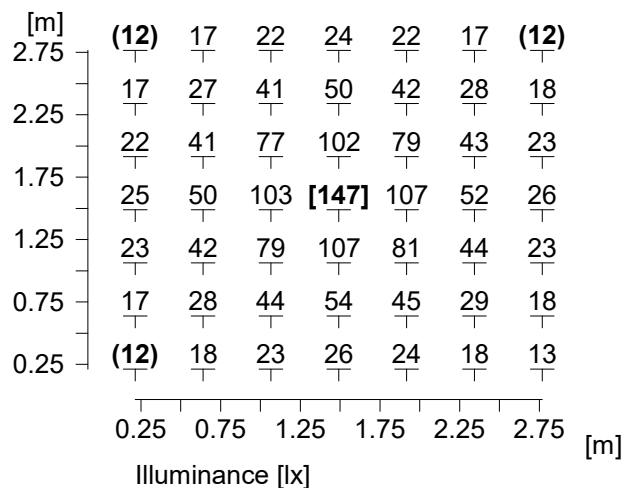
3.2.1 Result overview, Evaluation area 1

1	1 x	Order No.	:
		Luminaire name	:
		Equipment	: 1 x 5.1 W / 514 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	: 41 lx
Minimum illuminance	E_{min}	: 12 lx
Maximum illuminance	E_{max}	: 147 lx
Uniformity U_o	E_{min}/\bar{E}_m	: 1 : 3.50 (0.29)
Diversity U_d	E_{min}/E_{max}	: 1 : 12.54 (0.08)

3.3 Calculation results, 3

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

