

FAMÍLIA SANTOS - LUMINOTÉCNICO

Projeto Luminotécnico para Renato Felício (Família Santos - FS).

Object

RFSJ 42 CONJUNTO J CASA 42 - TAGUATINGA-NORTE - CEP 42.142-808

Preliminary remarks

Notes on planning:

The energy consumption quantities do not take into account light scenes and their dimming levels.

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Residência FS - Building 1 - Térreo

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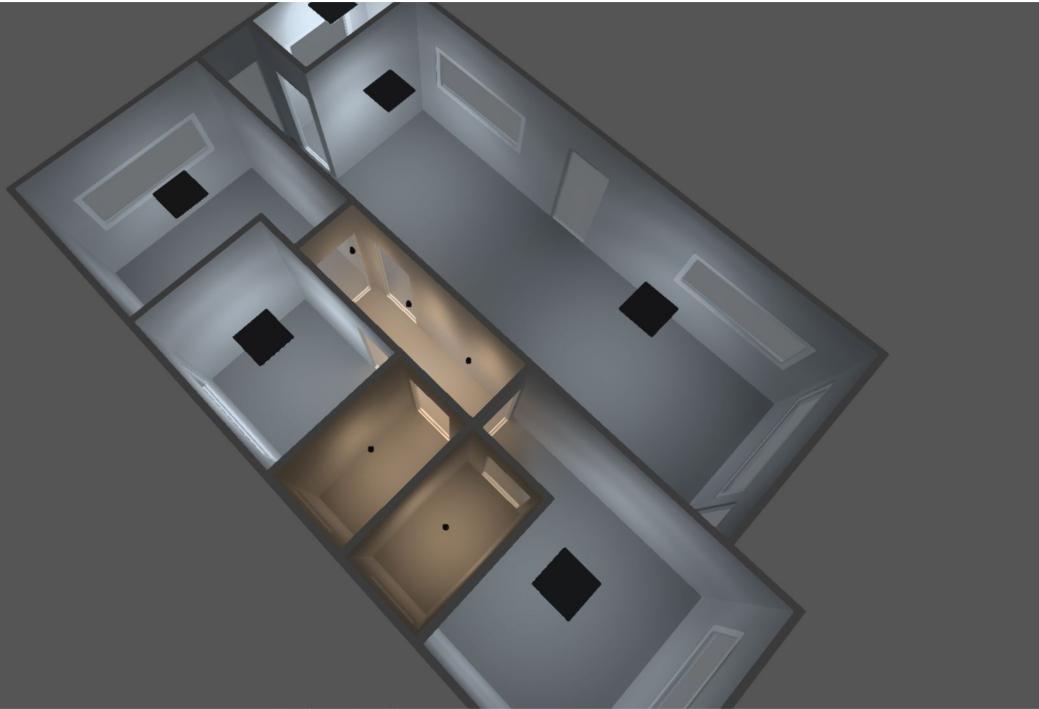
Contacts



Estudante
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Description

Projeto Luminotécnico moderno, atendendo a pedidos da FS, primando por tecnologia LED, com pontos de leitura, luzes de descanso, entre outras melhorias em sua casa.

Estudante

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Luminaire list

Φ_{total} 30200 lm	P_{total} 323.0 W	Luminous efficacy 93.5 lm/W
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pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
5	PROLED	L710396	Downlight COB12 - WW	13.0 W	1000 lm	76.9 lm/W
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W
5	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

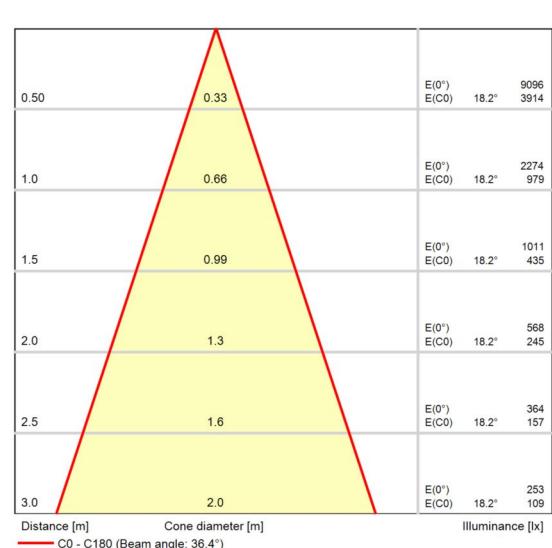
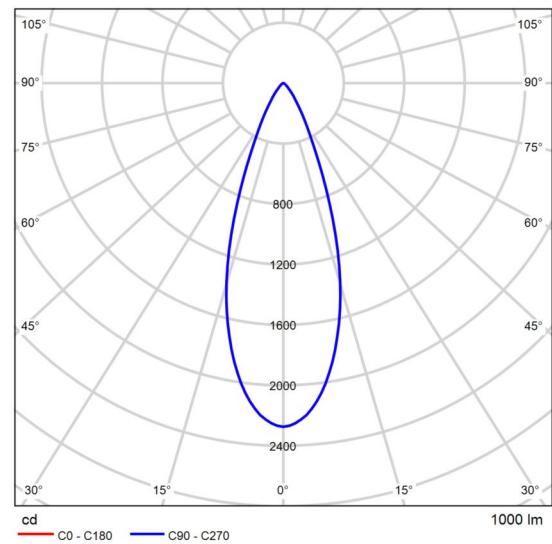
Product data sheet

PROLED Downlight COB12 - WW



Article No.	L710396
P	13.0 W
$\Phi_{\text{Luminaire}}$	1000 lm
Luminous efficacy	76.9 lm/W
CCT	3000 K
CRI	80

PROLED Downlight for standard indoor illumination



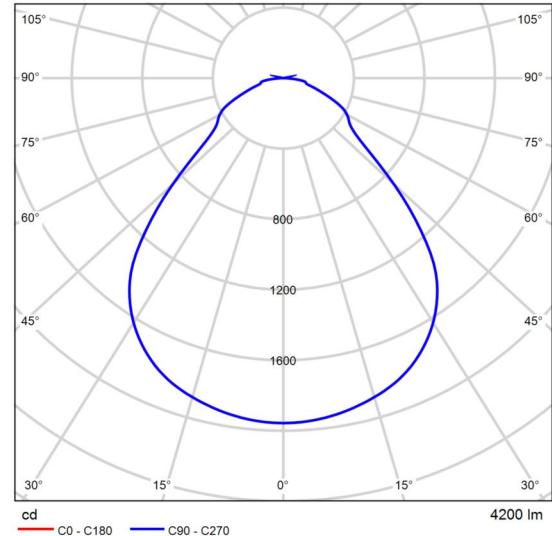
Product data sheet

PROLED LED Panel Dynamic White Dali DT8



Article No.	L80000DY
P	43.0 W
$\Phi_{\text{Luminaire}}$	4200 lm
Luminous efficacy	97.7 lm/W
CCT	3000 K
CRI	80

- slim LED PANEL
- for grid ceiling 600 x 600mm and 625 x 625mm
- colour temperature is continuously adjustable from 3000K to 5700K
- with microprism diffusor (UGR < 19)
- for wall or ceiling mounting (with optional mounting bracket)
- for suspension (with optional suspension set)
- DALI (DT8), DMX/RDM, 1-10V or RF version available



Polar LDC

Glare evaluation according to UGR											
ρ	Ceiling	70	70	50	50	30	70	70	50	50	30
ρ	Walls	50	30	50	30	30	50	30	50	30	30
ρ	Floor	20	20	20	20	20	20	20	20	20	20
X	Y	Viewing direction at right angles to lamp axis				Viewing direction parallel to lamp axis					
2H	2H	15.8	17.0	16.1	17.2	17.4	15.8	17.0	16.1	17.2	17.4
3H	3H	16.8	17.9	17.1	18.1	18.4	16.8	17.9	17.1	18.1	18.4
4H	4H	17.2	18.2	17.5	18.5	18.7	17.2	18.2	17.5	18.5	18.7
6H	6H	17.6	18.5	17.9	18.8	19.1	17.6	18.5	17.9	18.8	19.1
8H	8H	17.9	18.8	18.2	19.1	19.4	17.9	18.8	18.2	19.1	19.4
12H	12H	18.0	18.9	18.4	19.2	19.6	18.0	18.9	18.4	19.2	19.6
4H	2H	16.2	17.2	16.6	17.5	17.8	16.2	17.2	16.6	17.5	17.8
3H	3H	17.5	18.3	17.8	18.6	19.0	17.5	18.3	17.8	18.6	19.0
4H	4H	17.9	18.7	18.3	19.0	19.4	17.9	18.7	18.3	19.0	19.4
6H	6H	18.5	19.2	18.9	19.6	20.0	18.5	19.2	18.9	19.6	20.0
8H	8H	18.9	19.5	19.3	19.9	20.3	18.9	19.5	19.3	19.9	20.3
12H	12H	19.2	19.7	19.6	20.2	20.6	19.2	19.7	19.6	20.2	20.6
8H	4H	18.1	18.8	18.6	19.2	19.6	18.1	18.8	18.6	19.2	19.6
6H	6H	19.0	19.5	19.4	19.9	20.4	19.0	19.5	19.4	19.9	20.4
8H	8H	19.5	19.9	19.9	20.4	20.8	19.5	19.9	19.9	20.4	20.8
12H	12H	19.9	20.2	20.3	20.7	21.2	19.9	20.2	20.3	20.7	21.2
12H	4H	18.2	18.7	18.6	19.2	19.6	18.2	18.7	18.6	19.2	19.6
6H	6H	19.1	19.5	19.5	20.0	20.5	19.1	19.5	19.5	20.0	20.5
8H	8H	19.6	20.0	20.1	20.5	21.0	19.6	20.0	20.1	20.5	21.0
Variation of the observer position for the luminaire distances S											
S = 1.0H		+0.3	/ -0.4				+0.3	/ -0.4			
S = 1.5H		+0.5	/ -0.5				+0.5	/ -0.5			
S = 2.0H		+1.1	/ -0.9				+1.1	/ -0.9			
Standard table		BK05				BK05					
Correction summand		1.8				1.8					
Corrected glare indices referring to 4200lm Total luminous flux											

UGR diagram (SHR: 0.25)

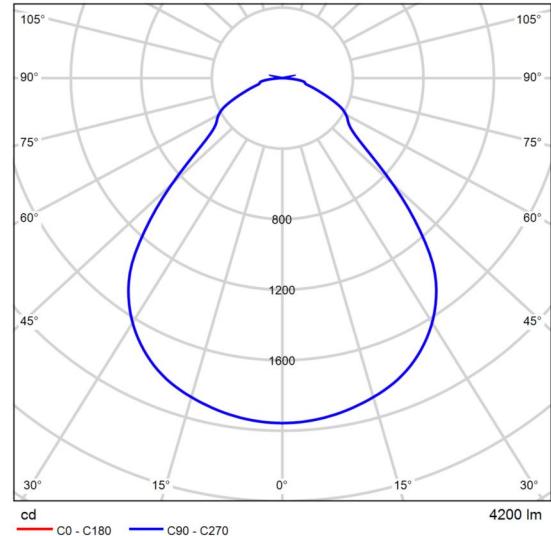
Product data sheet

PROLED LED Panel Dynamic White Dali DT8



Article No.	L80000DY
P	43.0 W
$\Phi_{\text{Luminaire}}$	4200 lm
Luminous efficacy	97.7 lm/W
CCT	4000 K
CRI	80

- slim LED PANEL
- for grid ceiling 600 x 600mm and 625 x 625mm
- colour temperature is continuously adjustable from 3000K to 5700K
- with microprism diffusor (UGR < 19)
- for wall or ceiling mounting (with optional mounting bracket)
- for suspension (with optional suspension set)
- DALI (DT8), DMX/RDM, 1-10V or RF version available



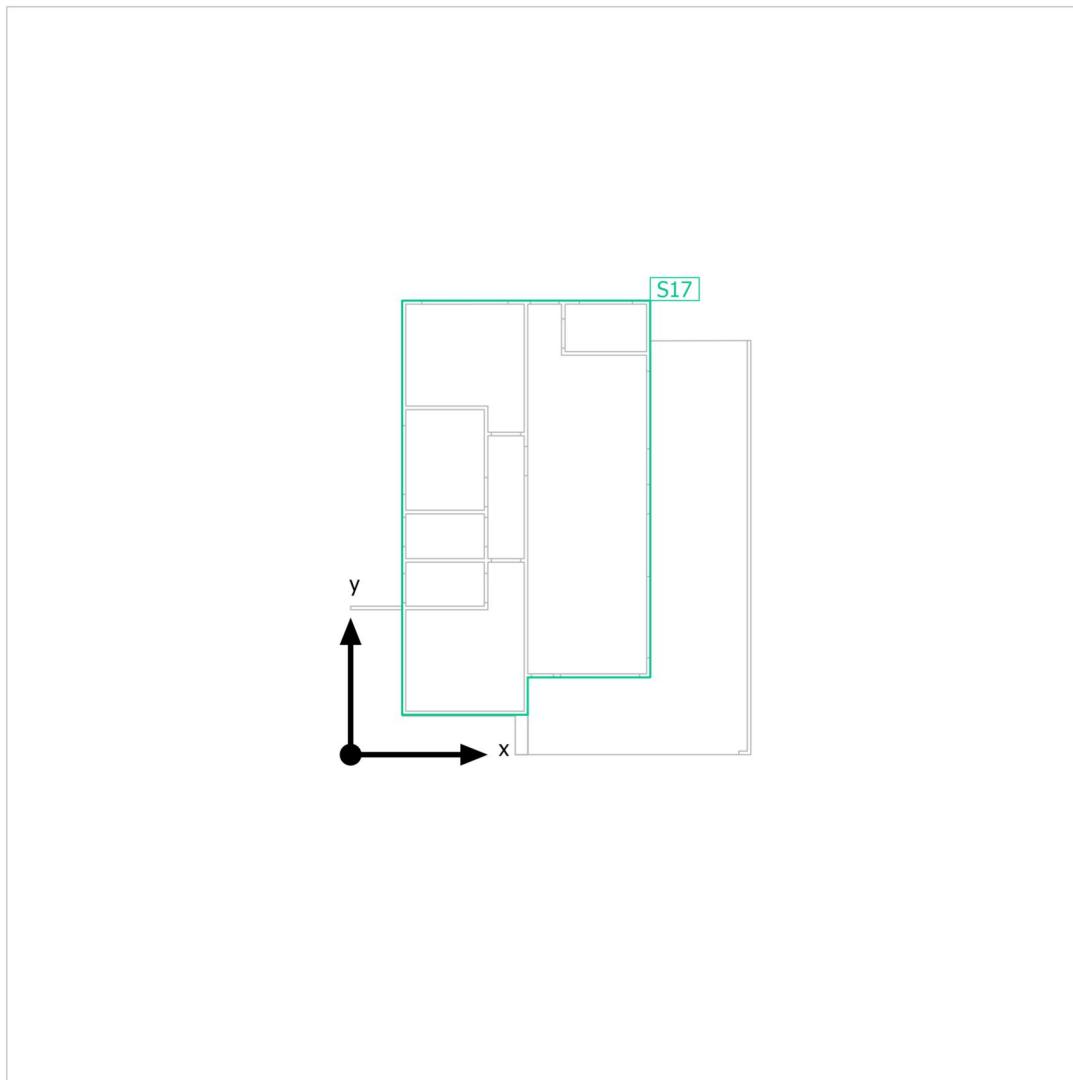
Polar LDC

Glare evaluation according to UGR												
ρ	70	70	50	50	30	70	70	50	50	30	30	
ρ	50	30	50	30	30	50	30	50	30	30	30	
ρ	20	20	20	20	20	20	20	20	20	20	20	
Room size X Y	Viewing direction at right angles to lamp axis										Viewing direction parallel to lamp axis	
2H 2H	15.8	17.0	16.1	17.2	17.4	15.8	17.0	16.1	17.2	17.4		
3H 3H	16.8	17.9	17.1	18.1	18.4	16.8	17.9	17.1	18.1	18.4		
4H 4H	17.2	18.2	17.5	18.5	18.7	17.2	18.2	17.5	18.5	18.7		
6H 6H	17.6	18.5	17.9	18.8	19.1	17.6	18.5	17.9	18.8	19.1		
8H 8H	17.9	18.8	18.2	19.1	19.4	17.9	18.8	18.2	19.1	19.4		
12H 12H	18.0	18.9	18.4	19.2	19.6	18.0	18.9	18.4	19.2	19.6		
4H 2H	16.2	17.2	16.6	17.5	17.8	16.2	17.2	16.6	17.5	17.8		
3H 3H	17.5	18.3	17.8	18.6	19.0	17.5	18.3	17.8	18.6	19.0		
4H 4H	17.9	18.7	18.3	19.0	19.4	17.9	18.7	18.3	19.0	19.4		
6H 6H	18.5	19.2	18.9	19.6	20.0	18.5	19.2	18.9	19.6	20.0		
8H 8H	18.9	19.5	19.3	19.9	20.3	18.9	19.5	19.3	19.9	20.3		
12H 12H	19.2	19.7	19.6	20.2	20.6	19.2	19.7	19.6	20.2	20.6		
8H 4H	18.1	18.8	18.6	19.2	19.6	18.1	18.8	18.6	19.2	19.6		
6H 6H	19.0	19.5	19.4	19.9	20.4	19.0	19.5	19.4	19.9	20.4		
8H 8H	19.5	19.9	19.9	20.4	20.8	19.5	19.9	19.9	20.4	20.8		
12H 12H	19.9	20.2	20.3	20.7	21.2	19.9	20.2	20.3	20.7	21.2		
12H 4H	18.2	18.7	18.6	19.2	19.6	18.2	18.7	18.6	19.2	19.6		
6H 6H	19.1	19.5	19.5	20.0	20.5	19.1	19.5	19.5	20.0	20.5		
8H 8H	19.6	20.0	20.1	20.5	21.0	19.6	20.0	20.1	20.5	21.0		
Variation of the observer position for the luminaire distances S												
S = 1.0H	+0.3 / -0.4											+0.3 / -0.4
S = 1.5H	+0.5 / -0.5											+0.5 / -0.5
S = 2.0H	+1.1 / -0.9											+1.1 / -0.9
Standard table	BK05											BK05
Correction summand	1.8											1.8
Corrected glare indices referring to 4200lm Total luminous flux												

UGR diagram (SHR: 0.25)

Residência FS

Calculation objects



Residência FS

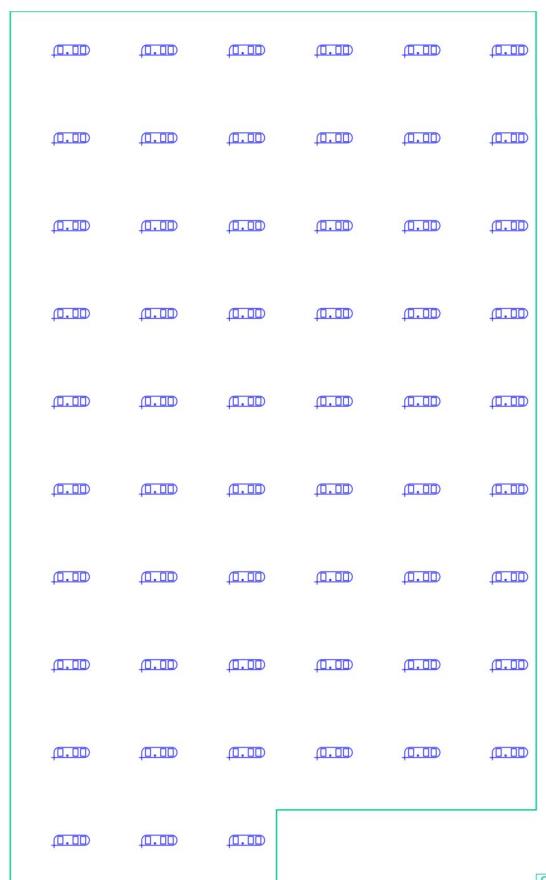
Calculation objects

Surface result objects

Properties	\emptyset	min	max	g_1	g_2	Index
Surface result object 1 Perpendicular illuminance (adaptive) Height: 3.000 m	0.00 lx	0.00 lx	0.00 lx	-	-	S17
Surface result object 1 Luminance Height: 3.000 m	0.00 cd/m ²	0.00 cd/m ²	0.00 cd/m ²	-	-	S17

Utilisation profile: DIALux presetting, Standard (outdoor transportation area)

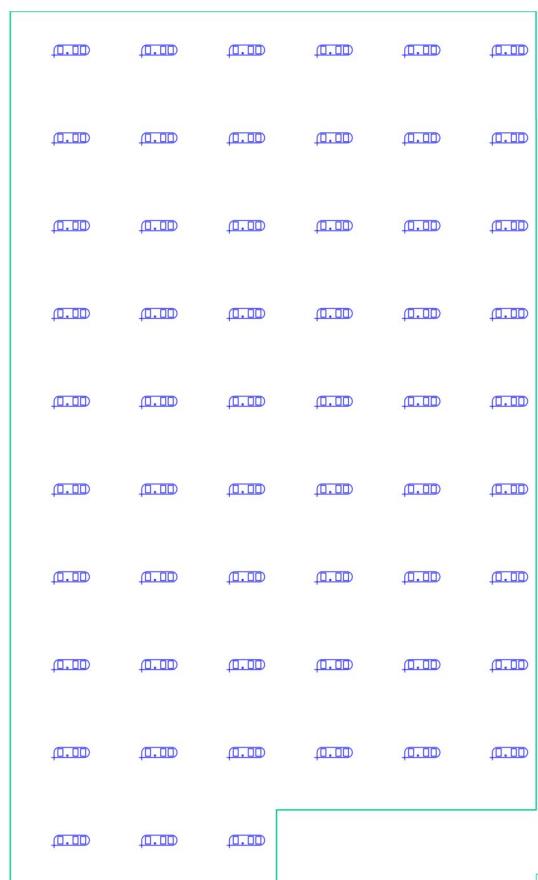
Residência FS

Surface result object 1

Properties	\bar{E}	E_{\min}	E_{\max}	g_1	g_2	Index
Surface result object 1 Perpendicular illuminance (adaptive) Height: 3.000 m	0.00 lx	0.00 lx	0.00 lx	-	-	[S17]

Utilisation profile: DIALux presetting, Standard (outdoor transportation area)

Residência FS

Surface result object 1

Properties	\emptyset	min	max	g_1	g_2	Index
Surface result object 1	0.00 cd/m ²	0.00 cd/m ²	0.00 cd/m ²	-	-	[S17]
Luminance						
Height: 3.000 m						

Utilisation profile: DIALux presetting, Standard (outdoor transportation area)

Building 1

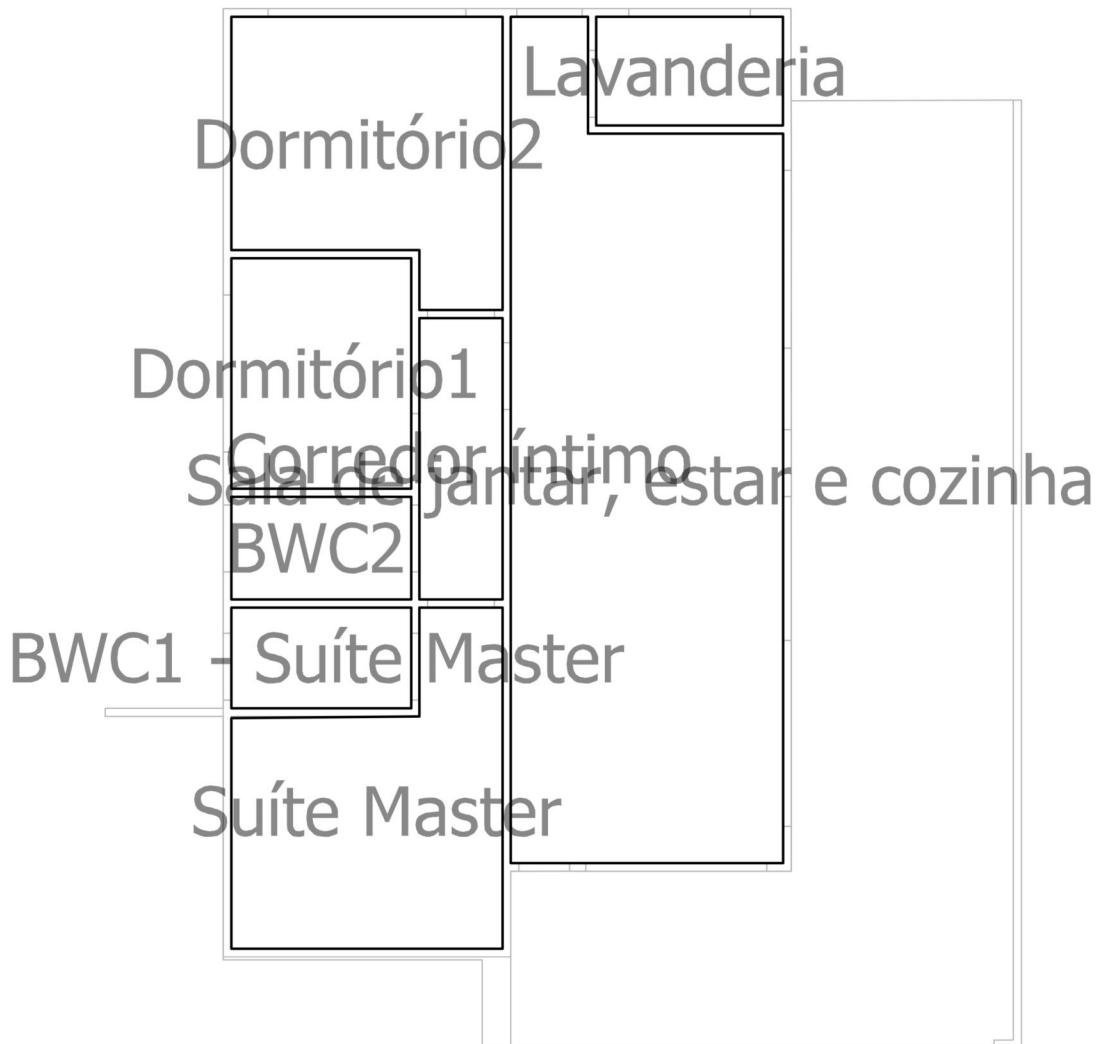
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
30200 lm	323.0 W	93.5 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
5	PROLED	L710396	Downlight COB12 - WW	13.0 W	1000 lm	76.9 lm/W
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W
5	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

Building 1 · Térreo

Room List (Energy evaluation)



Building 1 · Térreo

Room List (Energy evaluation)

BWC1 - Suíte Master

P_{total} 13.0 W	A_{Room} 2.72 m ²	Lighting power density $4.78 \text{ W/m}^2 = 2.11 \text{ W/m}^2/100 \text{ lx (Room)}$	$\bar{E}_{\text{perpendicular (Workplane)}}$ 227 lx
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pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
1	PROLED	L710396	Downlight COB12 - WW	13.0 W	1000 lm

BWC2

P_{total} 13.0 W	A_{Room} 2.77 m ²	Lighting power density $4.69 \text{ W/m}^2 = 1.89 \text{ W/m}^2/100 \text{ lx (Room)}$	$\bar{E}_{\text{perpendicular (Workplane)}}$ 248 lx
-----------------------	-----------------------------------	--------------------------------------------------------------------------------------------------	--------------------------------------------------------

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
1	PROLED	L710396	Downlight COB12 - WW	13.0 W	1000 lm

Corredor íntimo

P_{total} 39.0 W	A_{Room} 3.52 m ²	Lighting power density $11.09 \text{ W/m}^2 = 2.33 \text{ W/m}^2/100 \text{ lx (Room)}$	$\bar{E}_{\text{perpendicular (Workplane)}}$ 476 lx
-----------------------	-----------------------------------	---------------------------------------------------------------------------------------------------	--------------------------------------------------------

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
3	PROLED	L710396	Downlight COB12 - WW	13.0 W	1000 lm

Building 1 · Térreo

Room List (Energy evaluation)

Dormitório1

P_{total} 43.0 W	A_{Room} 6.23 m ²	Lighting power density $6.90 \text{ W/m}^2 = 2.09 \text{ W/m}^2/100 \text{ lx (Room)}$	$\bar{E}_{\text{perpendicular (Workplane)}}$ 331 lx
-----------------------	-----------------------------------	-------------------------------------------------------------------------------------------	--------------------------------------------------------

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm

Dormitório2

P_{total} 43.0 W	A_{Room} 10.26 m ²	Lighting power density $4.19 \text{ W/m}^2 = 1.74 \text{ W/m}^2/100 \text{ lx (Room)}$	$\bar{E}_{\text{perpendicular (Workplane)}}$ 241 lx
-----------------------	------------------------------------	-------------------------------------------------------------------------------------------	--------------------------------------------------------

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm

Lavanderia

P_{total} 43.0 W	A_{Room} 3.05 m ²	Lighting power density $14.10 \text{ W/m}^2 = 3.38 \text{ W/m}^2/100 \text{ lx (Room)}$	$\bar{E}_{\text{perpendicular (Workplane)}}$ 417 lx
-----------------------	-----------------------------------	--------------------------------------------------------------------------------------------	--------------------------------------------------------

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm

Building 1 · Térreo

Room List (Energy evaluation)

Sala de jantar, estar e cozinha

P_{total}	A_{Room}	Lighting power density	$\bar{E}_{\text{perpendicular (Workplane)}}$		
86.0 W	31.21 m ²	2.76 W/m ² = 1.48 W/m ² /100 lx (Room)	186 lx		
pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
2	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm

Suíte Master

P_{total}	A_{Room}	Lighting power density	$\bar{E}_{\text{perpendicular (Workplane)}}$		
43.0 W	10.80 m ²	3.98 W/m ² = 1.80 W/m ² /100 lx (Room)	221 lx		
pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm

Building 1 · Térreo

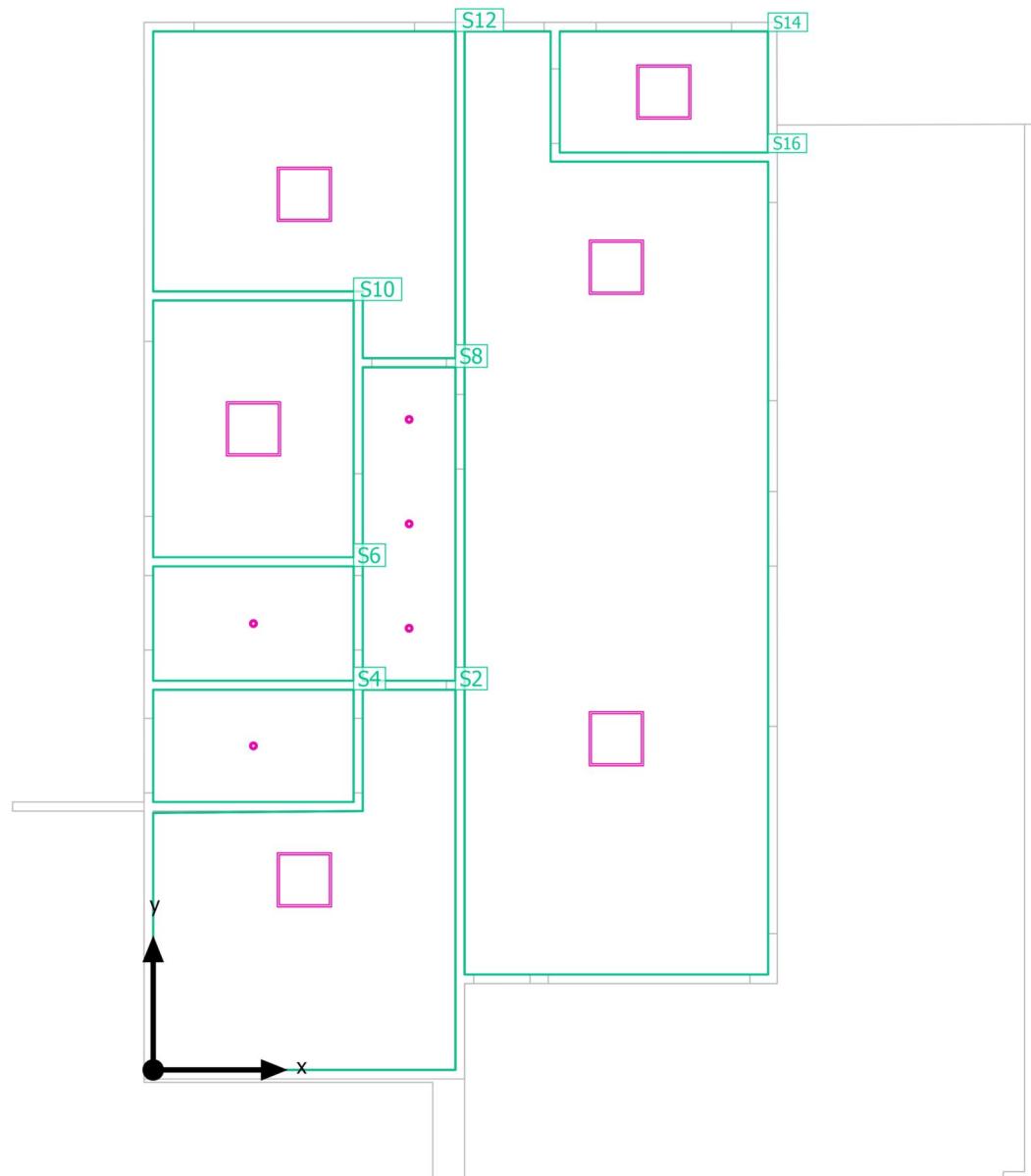
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
30200 lm	323.0 W	93.5 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
5	PROLED	L710396	Downlight COB12 - WW	13.0 W	1000 lm	76.9 lm/W
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W
5	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

Building 1 · Térreo

Calculation objects



Building 1 · Térreo

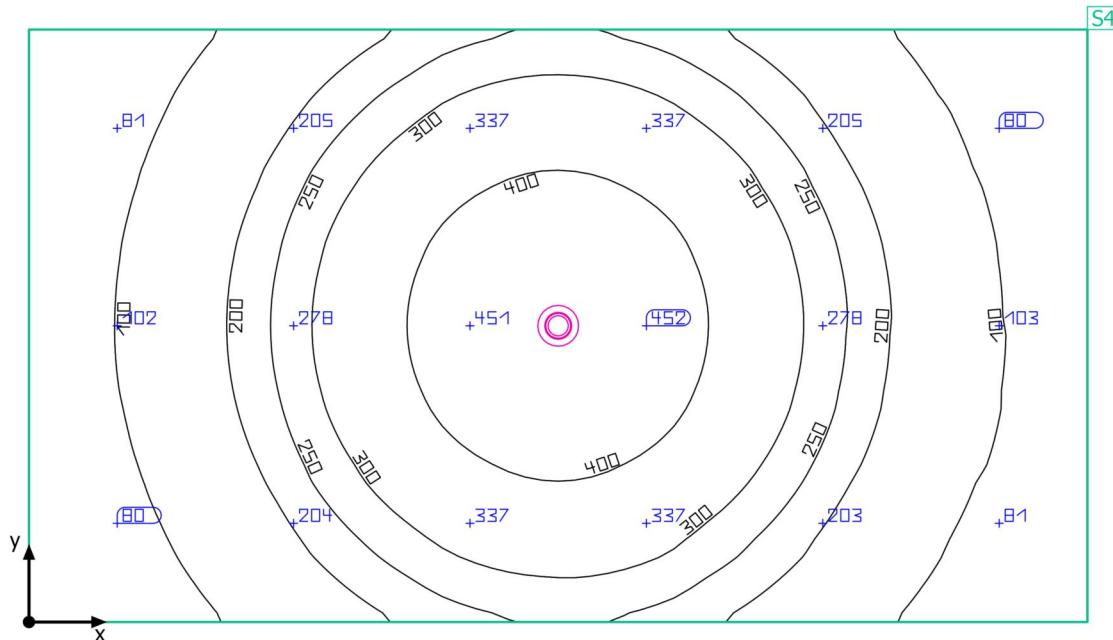
Calculation objects

Work planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (Suíte Master) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.000 m	221 lx (≥ 100 lx) 	54.5 lx	441 lx	0.25	0.12	S2
Workplane (BWC1 - Suíte Master) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.000 m	227 lx (≥ 200 lx) 	49.9 lx	480 lx	0.22	0.10	S4
Workplane (BWC2) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.000 m	248 lx (≥ 200 lx) 	49.6 lx	484 lx	0.20	0.10	S6
Workplane (Corredor íntimo) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.000 m	476 lx (≥ 100 lx) 	204 lx	647 lx	0.43	0.32	S8
Workplane (Dormitório1) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.000 m	331 lx (≥ 100 lx) 	187 lx	444 lx	0.56	0.42	S10
Workplane (Dormitório2) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.000 m	241 lx (≥ 100 lx) 	73.6 lx	425 lx	0.31	0.17	S12
Workplane (Sala de jantar, estar e cozinha) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.000 m	186 lx (≥ 200 lx) 	25.8 lx	425 lx	0.14	0.061	S14
Workplane (Lavanderia) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.000 m	417 lx (≥ 500 lx) 	300 lx	504 lx	0.72	0.60	S16

Building 1 · Térreo · BWC1 - Suíte Master

Summary



Building 1 · Térreo · BWC1 - Suíte Master

Summary

Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	227 lx	$\geq 200 \text{ lx}$	✓	S4
	g_1	0.22	-	-	S4
Consumption values	Consumption	[7 - 11] kWh/a	max. 100 kWh/a	✓	
Lighting power density	Room	4.78 W/m ²	-	-	
		2.11 W/m ² /100 lx	-	-	

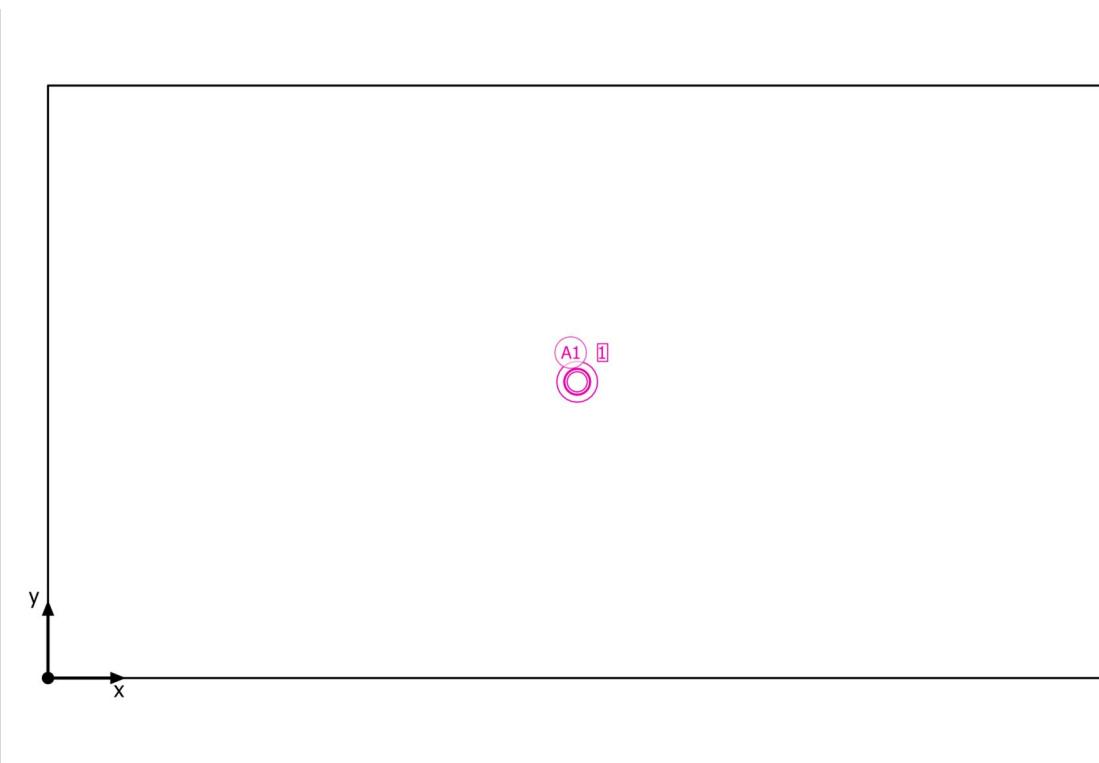
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

Luminaire list

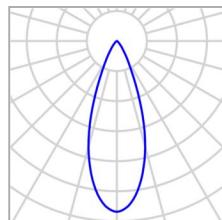
pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	PROLED	L710396	Downlight COB12 - WW	13.0 W	1000 lm	76.9 lm/W

Building 1 · Térreo · BWC1 - Suíte Master

Luminaire layout plan



Building 1 · Térreo · BWC1 - Suíte Master

Luminaire layout plan

Manufacturer	PROLED
Article No.	L710396
Article name	Downlight COB12 - WW

1 x PROLED Downlight COB12 - WW

Type	Field Arrangement	X	Y	Mounting height	Luminaire
1st luminaire (X/Y/Z)	1.102 m / 0.617 m / 2.910 m	1.102 m	0.617 m	2.910 m	[1]
X-direction	1 pcs., Centre - centre, 2.205 m				
Y-direction	1 pcs., Centre - centre, 1.234 m				
Arrangement	A1				

Building 1 · Térreo · BWC1 - Suíte Master

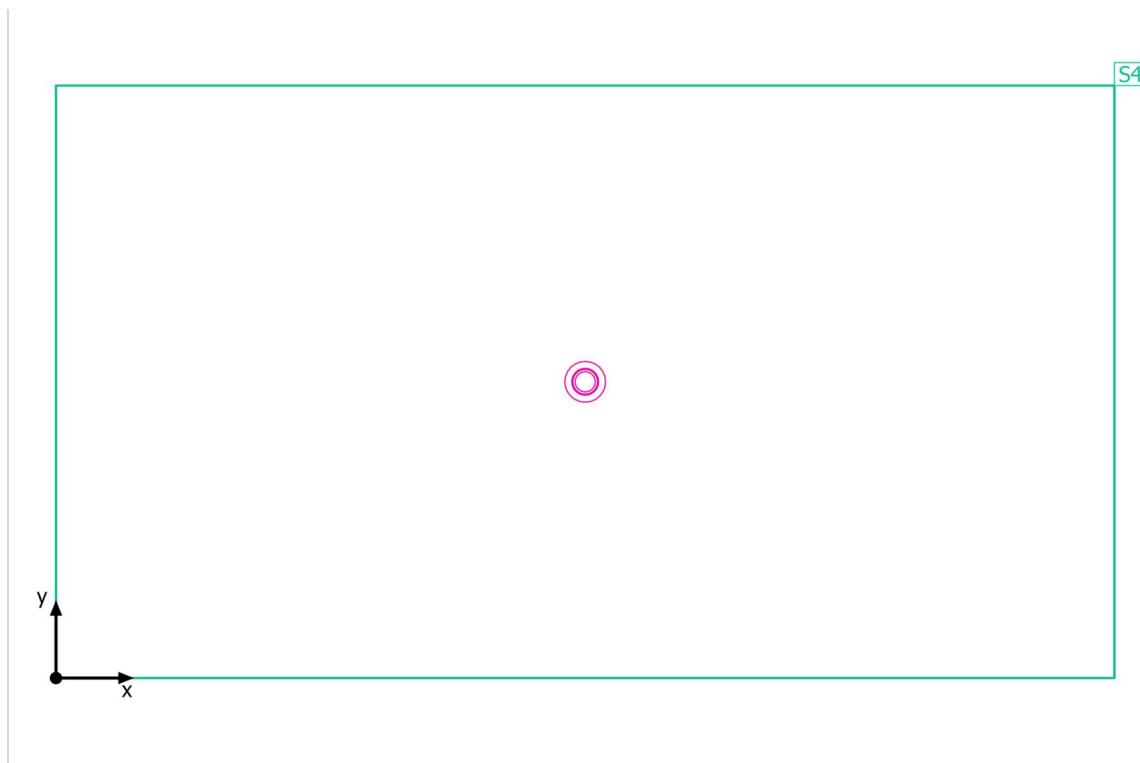
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
1000 lm	13.0 W	76.9 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	PROLED	L710396	Downlight COB12 - WW	13.0 W	1000 lm	76.9 lm/W

Building 1 · Térreo · BWC1 - Suíte Master

Calculation objects



Building 1 · Térreo · BWC1 - Suíte Master

Calculation objects

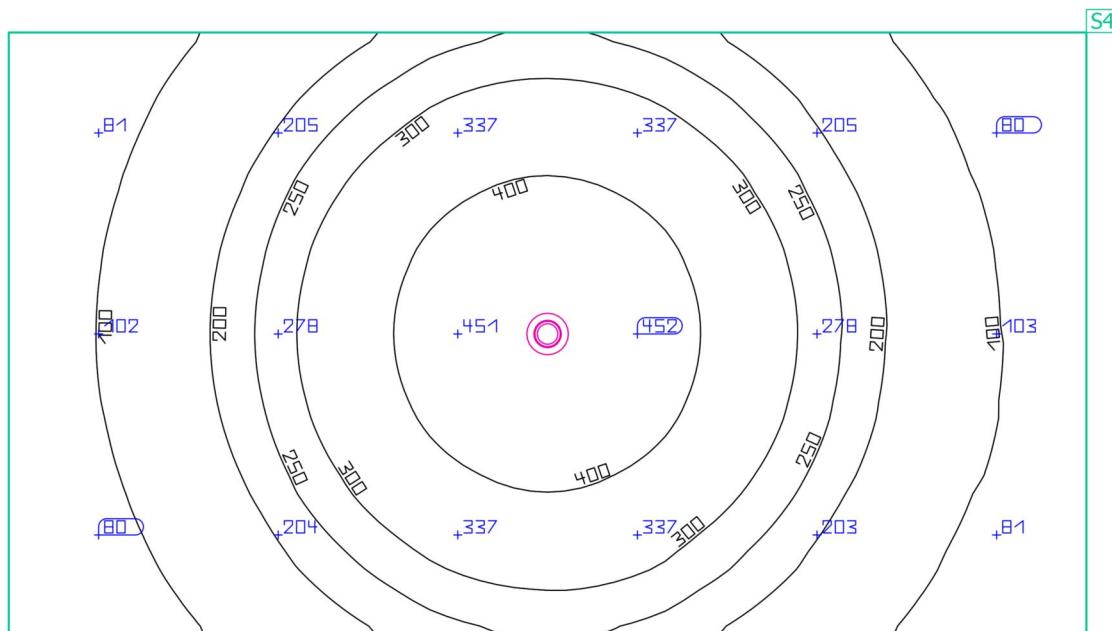
Work planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (BWC1 - Suíte Master) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.000 m	227 lx (≥ 200 lx) 	49.9 lx	480 lx	0.22	0.10	S4

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

Building 1 · Térreo · BWC1 - Suíte Master

Workplane (BWC1 - Suíte Master)

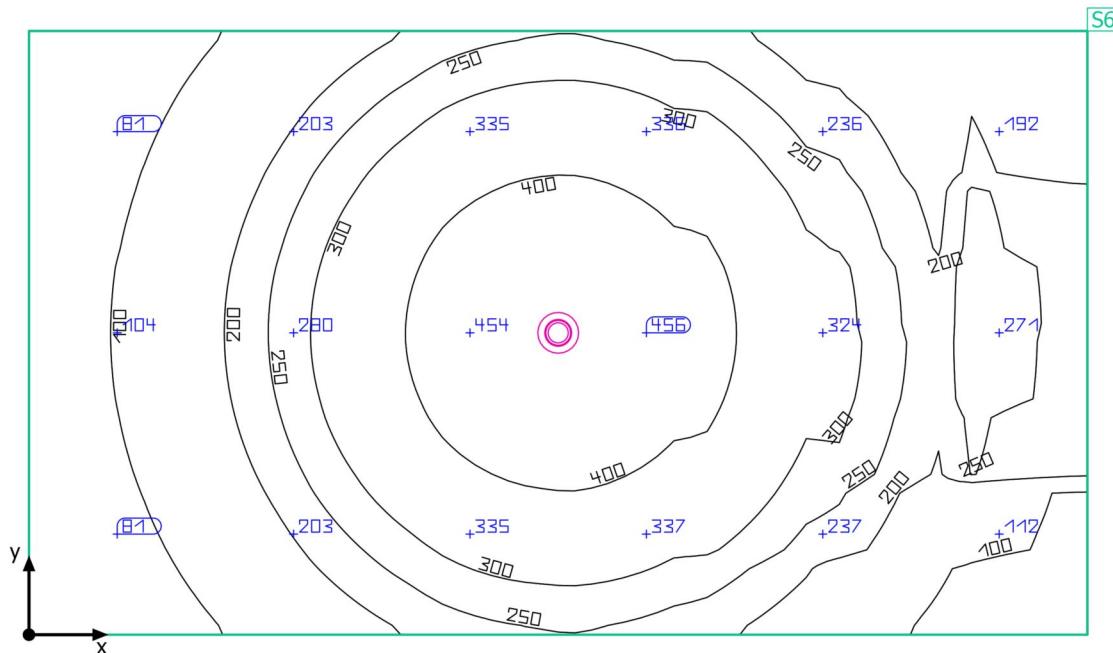


Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (BWC1 - Suíte Master) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.000 m	227 lx (≥ 200 lx) 	49.9 lx	480 lx	0.22	0.10	S4

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

Building 1 · Térreo · BWC2

Summary



Building 1 · Térreo · BWC2

Summary

Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	248 lx	$\geq 200 \text{ lx}$	✓	S6
	g_1	0.20	-	-	S6
Consumption values	Consumption	[7 - 11] kWh/a	max. 100 kWh/a	✓	
Lighting power density	Room	4.69 W/m ²	-	-	
		1.89 W/m ² /100 lx	-	-	

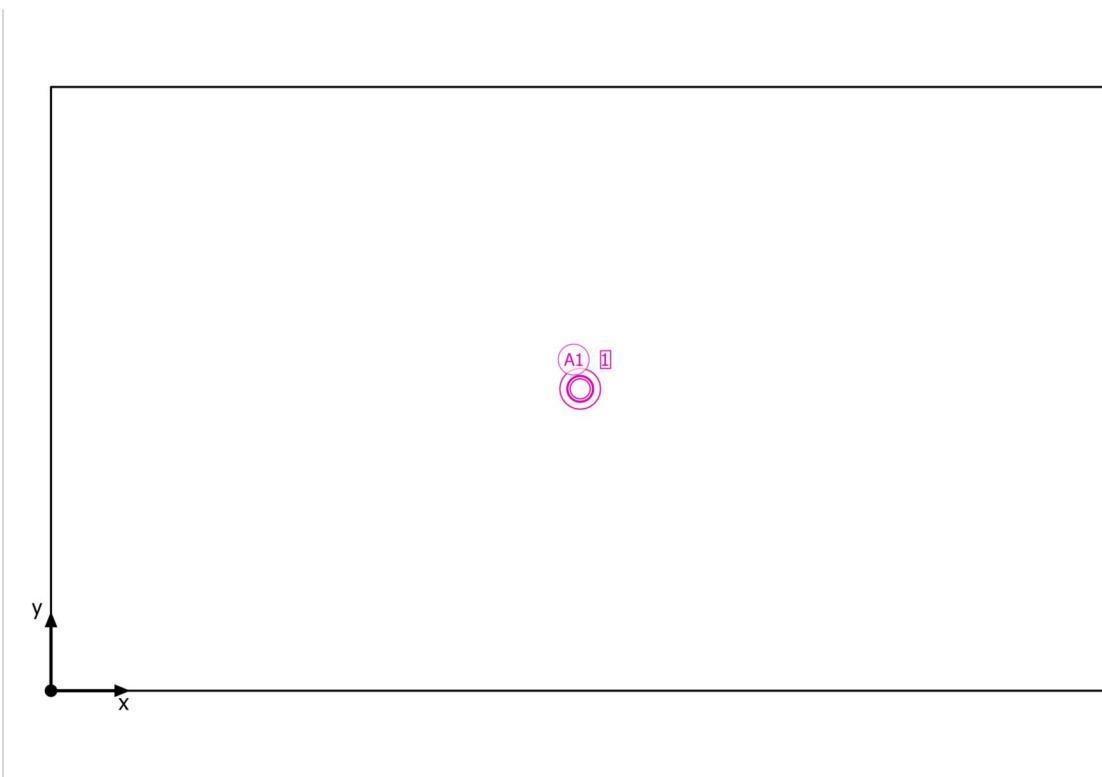
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

Luminaire list

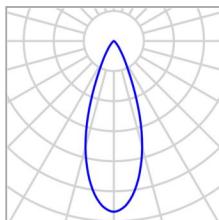
pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	PROLED	L710396	Downlight COB12 - WW	13.0 W	1000 lm	76.9 lm/W

Building 1 · Térreo · BWC2

Luminaire layout plan



Building 1 · Térreo · BWC2

Luminaire layout plan

Manufacturer	PROLED
Article No.	L710396
Article name	Downlight COB12 - WW

1 x PROLED Downlight COB12 - WW

Type	Field Arrangement	X	Y	Mounting height	Luminaire
1st luminaire (X/Y/Z)	1.102 m / 0.629 m / 2.910 m	1.102 m	0.629 m	2.910 m	[1]
X-direction	1 pcs., Centre - centre, 2.205 m				
Y-direction	1 pcs., Centre - centre, 1.258 m				
Arrangement	A1				

Building 1 · Térreo · BWC2

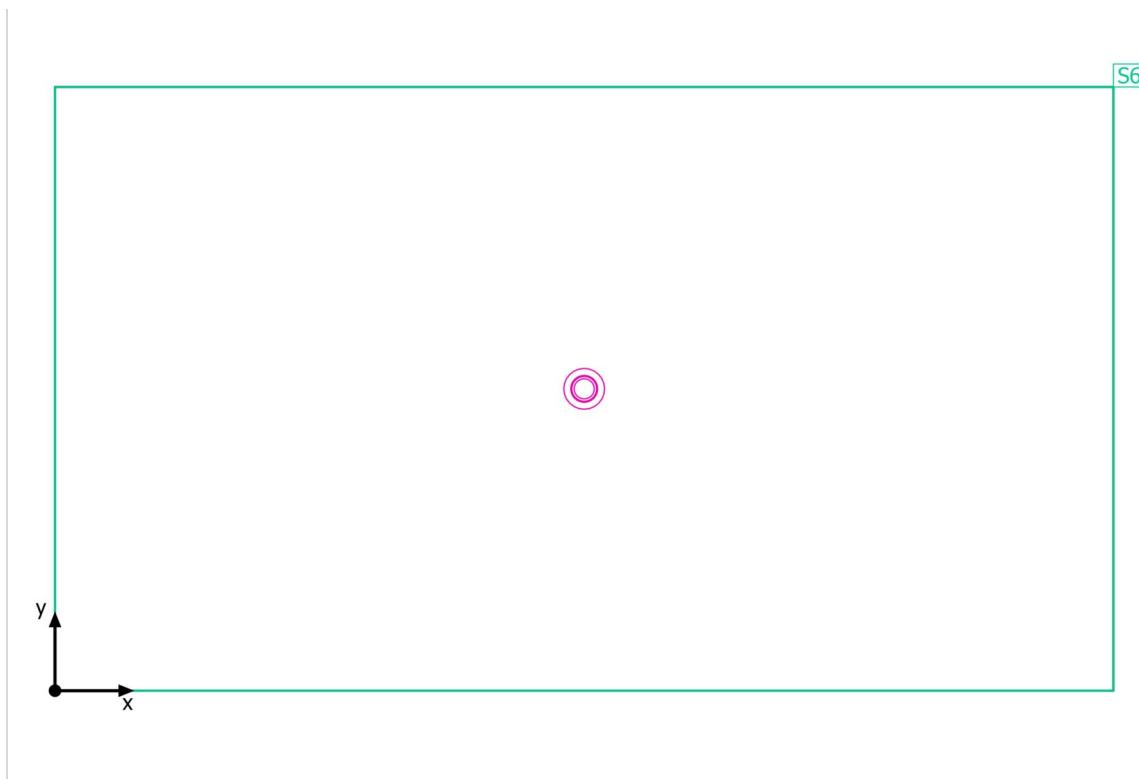
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
1000 lm	13.0 W	76.9 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	PROLED	L710396	Downlight COB12 - WW	13.0 W	1000 lm	76.9 lm/W

Building 1 · Térreo · BWC2

Calculation objects



Building 1 · Térreo · BWC2

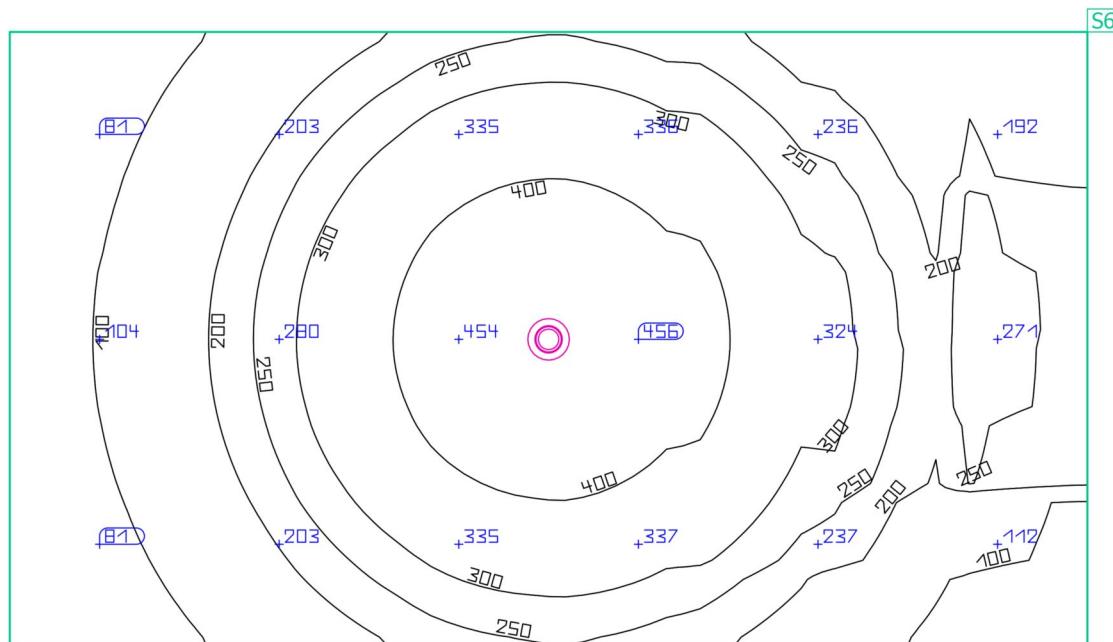
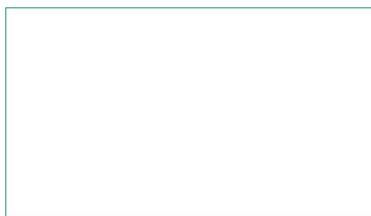
Calculation objects

Work planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (BWC2)	248 lx	49.6 lx	484 lx	0.20	0.10	S6
Perpendicular illuminance (adaptive)	(≥ 200 lx)					
Height: 0.800 m, Wall zone: 0.000 m	✓					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

Building 1 · Térreo · BWC2

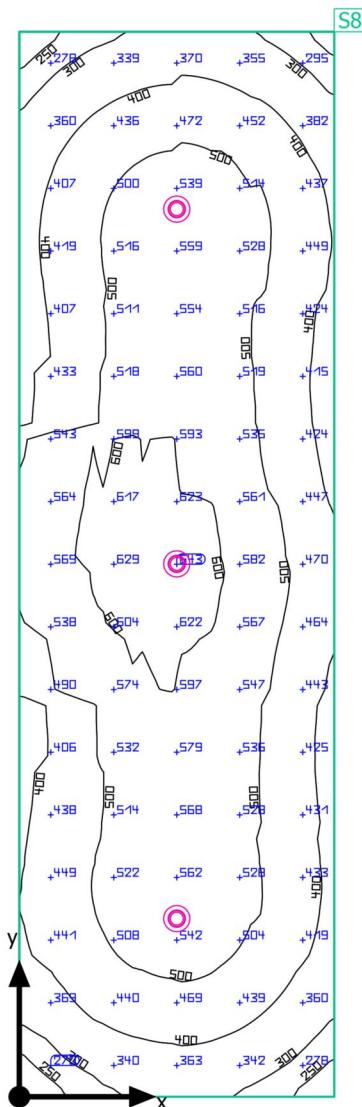
Workplane (BWC2)

Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (BWC2)	248 lx	49.6 lx	484 lx	0.20	0.10	S6
Perpendicular illuminance (adaptive)	(≥ 200 lx)					
Height: 0.800 m, Wall zone: 0.000 m	✓					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

Building 1 · Térreo · Corredor íntimo

Summary



Building 1 · Térreo · Corredor íntimo

Summary

Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	476 lx	$\geq 100 \text{ lx}$	✓	S8
	g_1	0.43	-	-	S8
Consumption values	Consumption	75 kWh/a	max. 150 kWh/a	✓	
Lighting power density	Room	11.09 W/m ²	-	-	
		2.33 W/m ² /100 lx	-	-	

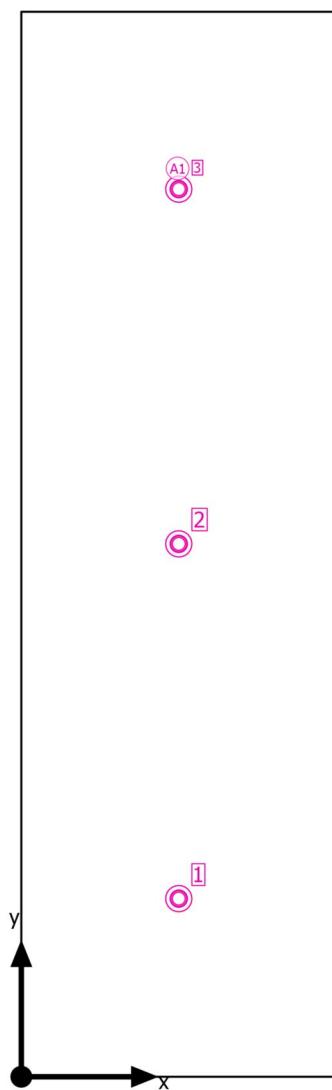
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Rest rooms

Luminaire list

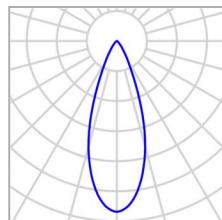
pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
3	PROLED	L710396	Downlight COB12 - WW	13.0 W	1000 lm	76.9 lm/W

Building 1 · Térreo · Corredor íntimo

Luminaire layout plan



Building 1 · Térreo · Corredor íntimo

Luminaire layout plan

Manufacturer	PROLED
Article No.	L710396
Article name	Downlight COB12 - WW

3 x PROLED Downlight COB12 - WW

Type	Field Arrangement	X	Y	Mounting height	Luminaire
1st luminaire (X/Y/Z)	0.510 m / 0.577 m / 2.910 m	0.510 m	0.577 m	2.910 m	[1]
X-direction	1 pcs., Centre - centre, 1.020 m	0.510 m	1.726 m	2.910 m	[2]
Y-direction	3 pcs., Centre - centre, 1.149 m	0.510 m	2.875 m	2.910 m	[3]
Arrangement	A1				

Building 1 · Térreo · Corredor íntimo

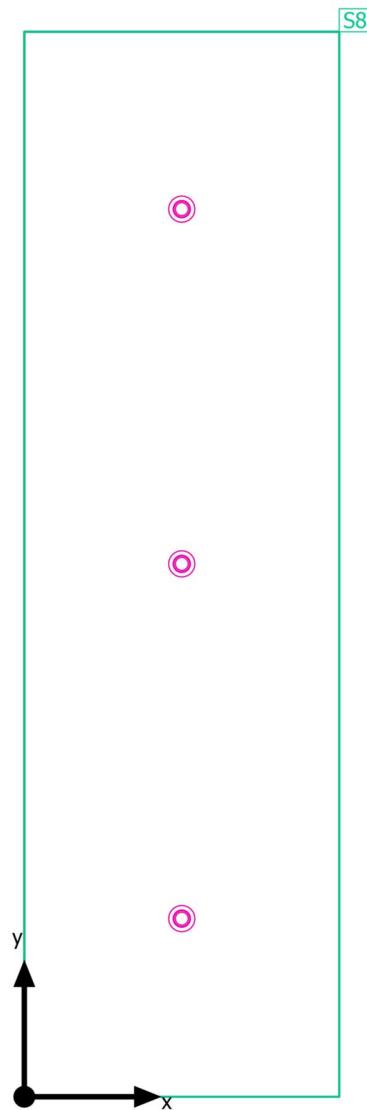
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
3000 lm	39.0 W	76.9 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
3	PROLED	L710396	Downlight COB12 - WW	13.0 W	1000 lm	76.9 lm/W

Building 1 · Térreo · Corredor íntimo

Calculation objects



Building 1 · Térreo · Corredor íntimo

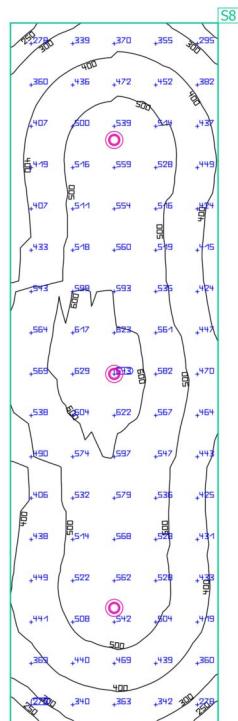
Calculation objects

Work planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (Corredor íntimo)	476 lx	204 lx	647 lx	0.43	0.32	S8
Perpendicular illuminance (adaptive)	(≥ 100 lx)					
Height: 0.800 m, Wall zone: 0.000 m	✓					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Rest rooms

Building 1 · Térreo · Corredor íntimo
Workplane (Corredor íntimo)

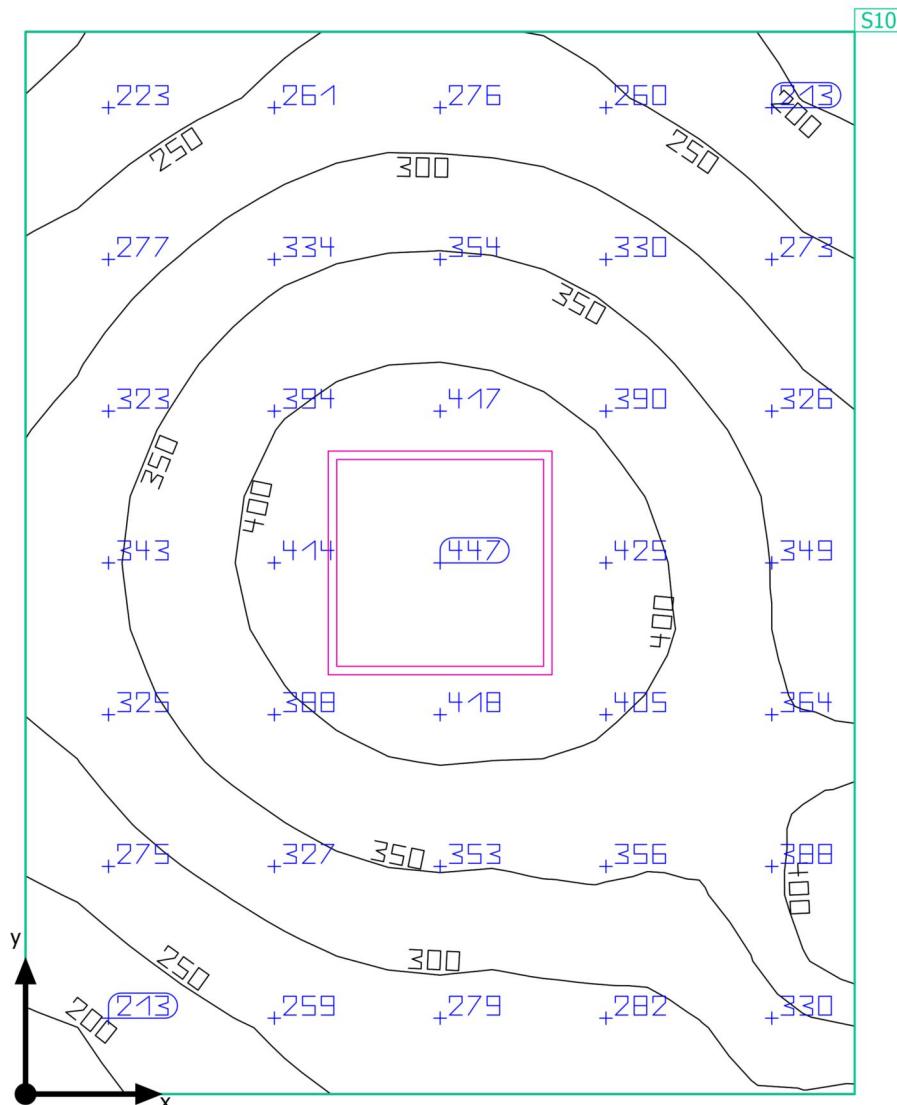


Properties	E (Target)	E_{\min}	E_{\max}	g_1	g_2	Index
Workplane (Corredor íntimo)	476 lx	204 lx	647 lx	0.43	0.32	S8
Perpendicular illuminance (adaptive)	(≥ 100 lx)					
Height: 0.800 m, Wall zone: 0.000 m	✓					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Rest rooms

Building 1 · Térreo · Dormitório1

Summary



Building 1 · Térreo · Dormitório1

Summary

Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	331 lx	$\geq 100 \text{ lx}$	✓	S10
	g_1	0.56	-	-	S10
Consumption values	Consumption	[52 - 83] kWh/a	max. 250 kWh/a	✓	
Lighting power density	Room	6.90 W/m ²	-	-	
		2.09 W/m ² /100 lx	-	-	

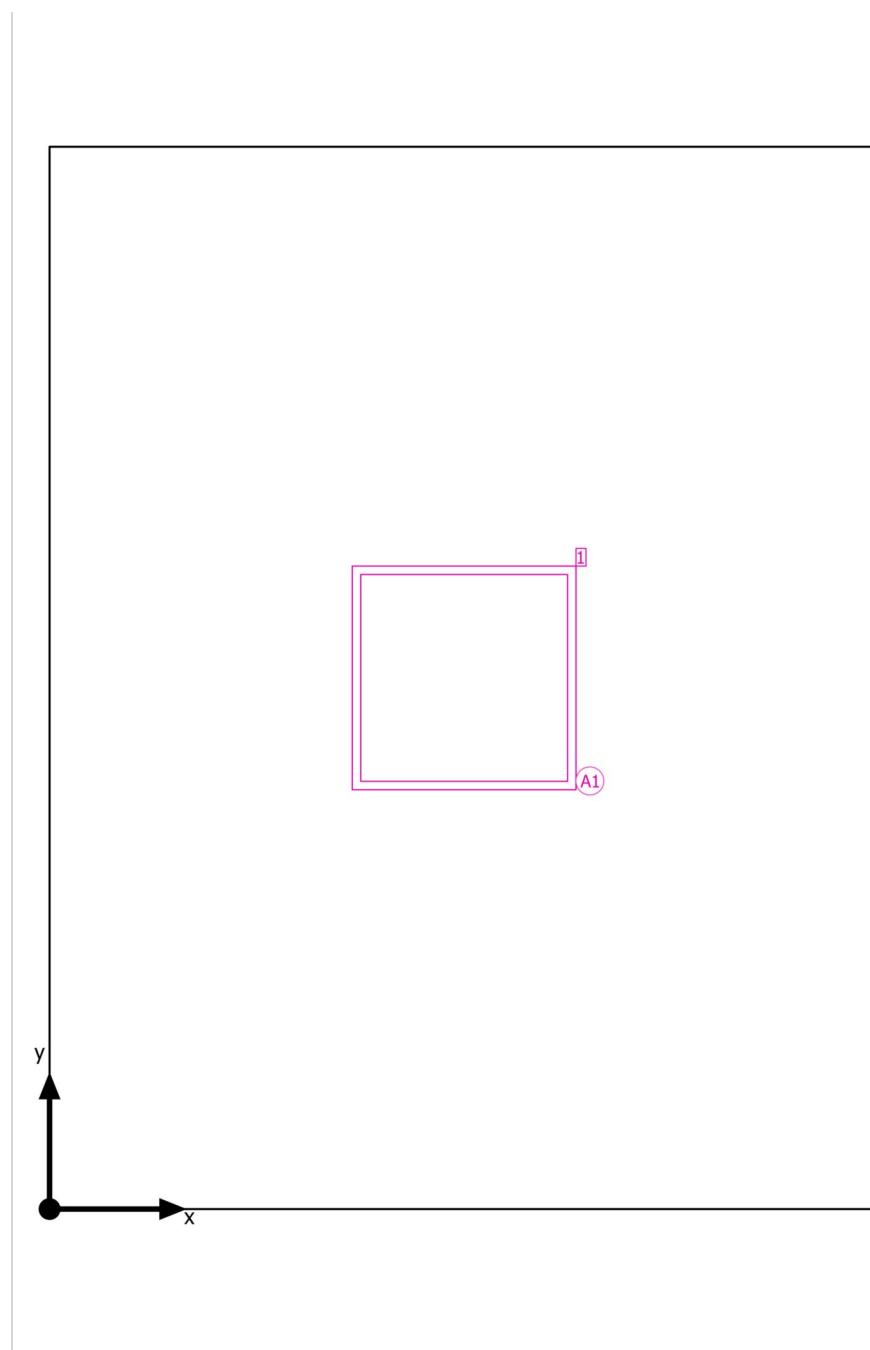
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Rest rooms

Luminaire list

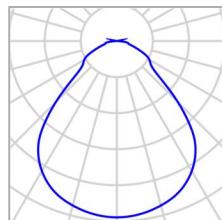
pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

Building 1 · Térreo · Dormitório1

Luminaire layout plan



Building 1 · Térreo · Dormitório1

Luminaire layout plan

Manufacturer	PROLED
Article No.	L80000DY
Article name	LED Panel Dynamic White Dali DT8

1 x PROLED LED Panel Dynamic White Dali DT8

Type	Field Arrangement	X	Y	Mounting height	Luminaire
1st luminaire (X/Y/Z)	1.102 m / 1.413 m / 2.800 m	1.102 m	1.413 m	2.800 m	1
X-direction	1 pcs., Centre - centre, 2.205 m				
Y-direction	1 pcs., Centre - centre, 2.825 m				
Arrangement	A1				

Building 1 · Térreo · Dormitório1

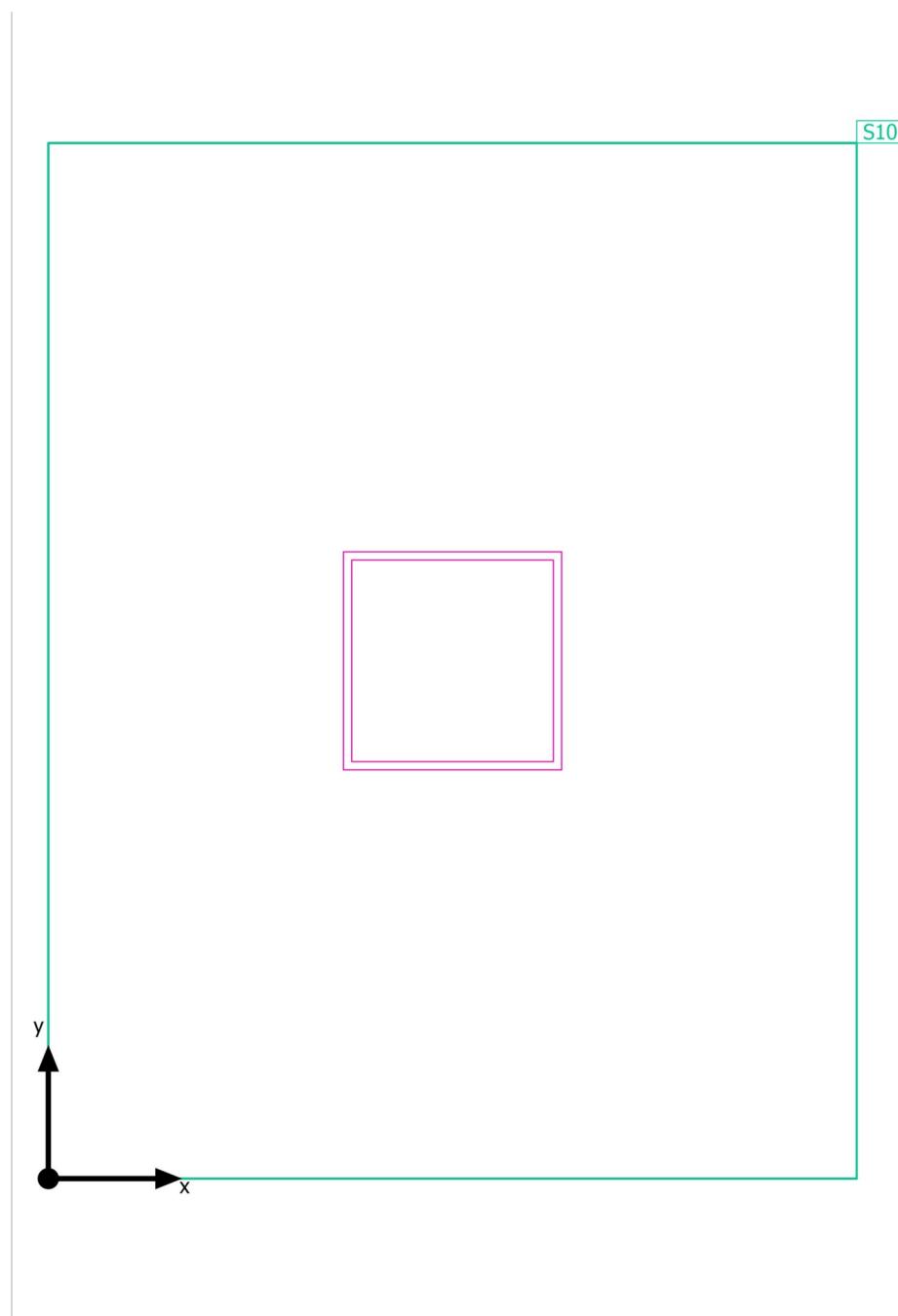
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
4200 lm	43.0 W	97.7 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

Building 1 · Térreo · Dormitório1

Calculation objects



Building 1 · Térreo · Dormitório1

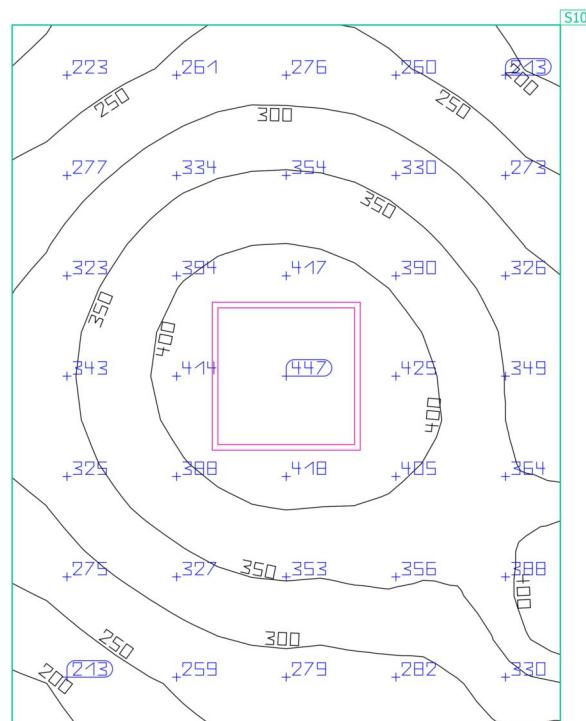
Calculation objects

Work planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (Dormitório1)	331 lx	187 lx	444 lx	0.56	0.42	S10
Perpendicular illuminance (adaptive)	(≥ 100 lx)					
Height: 0.800 m, Wall zone: 0.000 m	✓					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Rest rooms

Building 1 · Térreo · Dormitório1

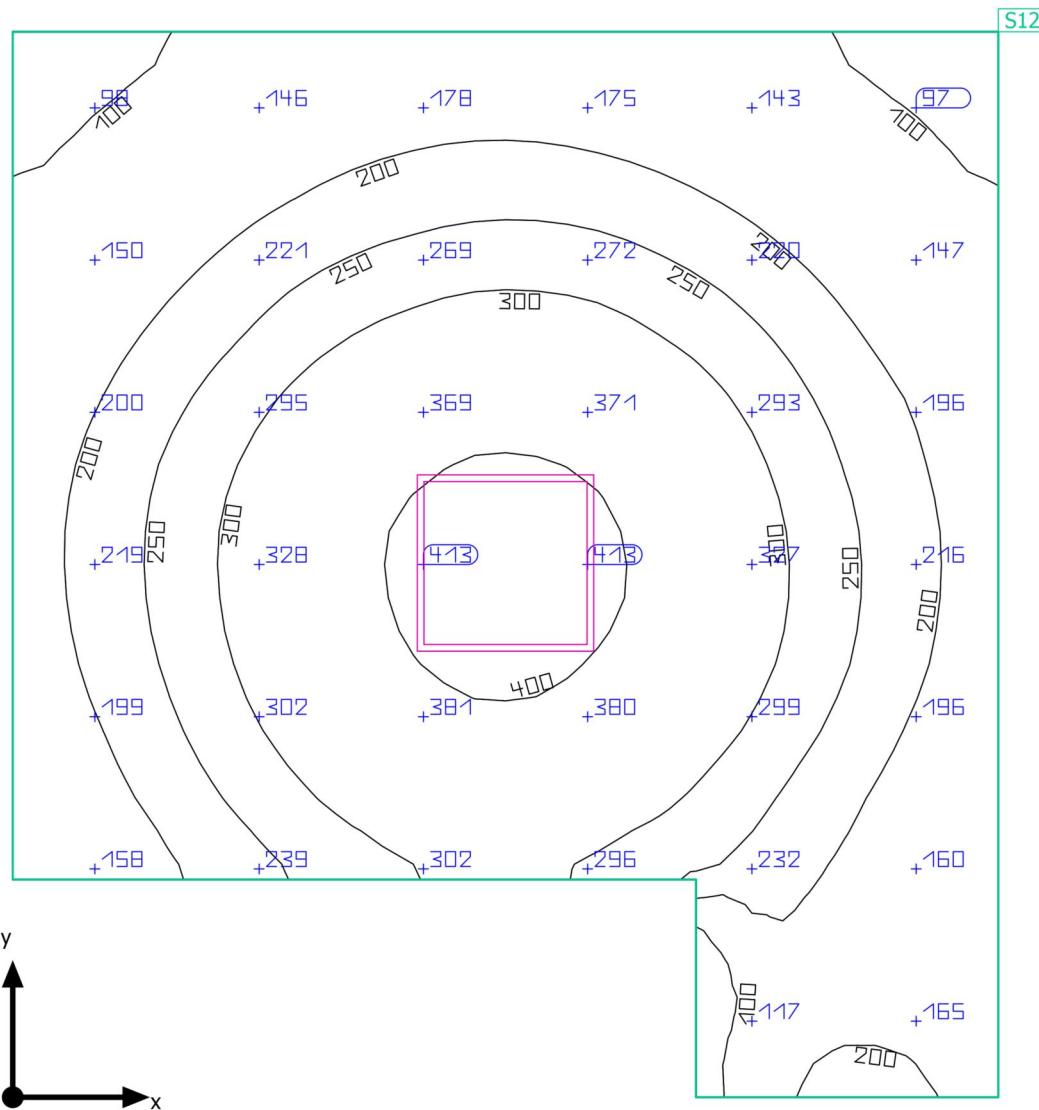
Workplane (Dormitório1)

Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (Dormitório1)	331 lx	187 lx	444 lx	0.56	0.42	S10
Perpendicular illuminance (adaptive)	(≥ 100 lx)					
Height: 0.800 m, Wall zone: 0.000 m	✓					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Rest rooms

Building 1 · Térreo · Dormitório2

Summary



Building 1 · Térreo · Dormitório2

Summary

Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	241 lx	$\geq 100 \text{ lx}$	✓	S12
	g_1	0.31	-	-	S12
Consumption values	Consumption	[52 - 83] kWh/a	max. 400 kWh/a	✓	
Lighting power density	Room	4.19 W/m ²	-	-	
		1.74 W/m ² /100 lx	-	-	

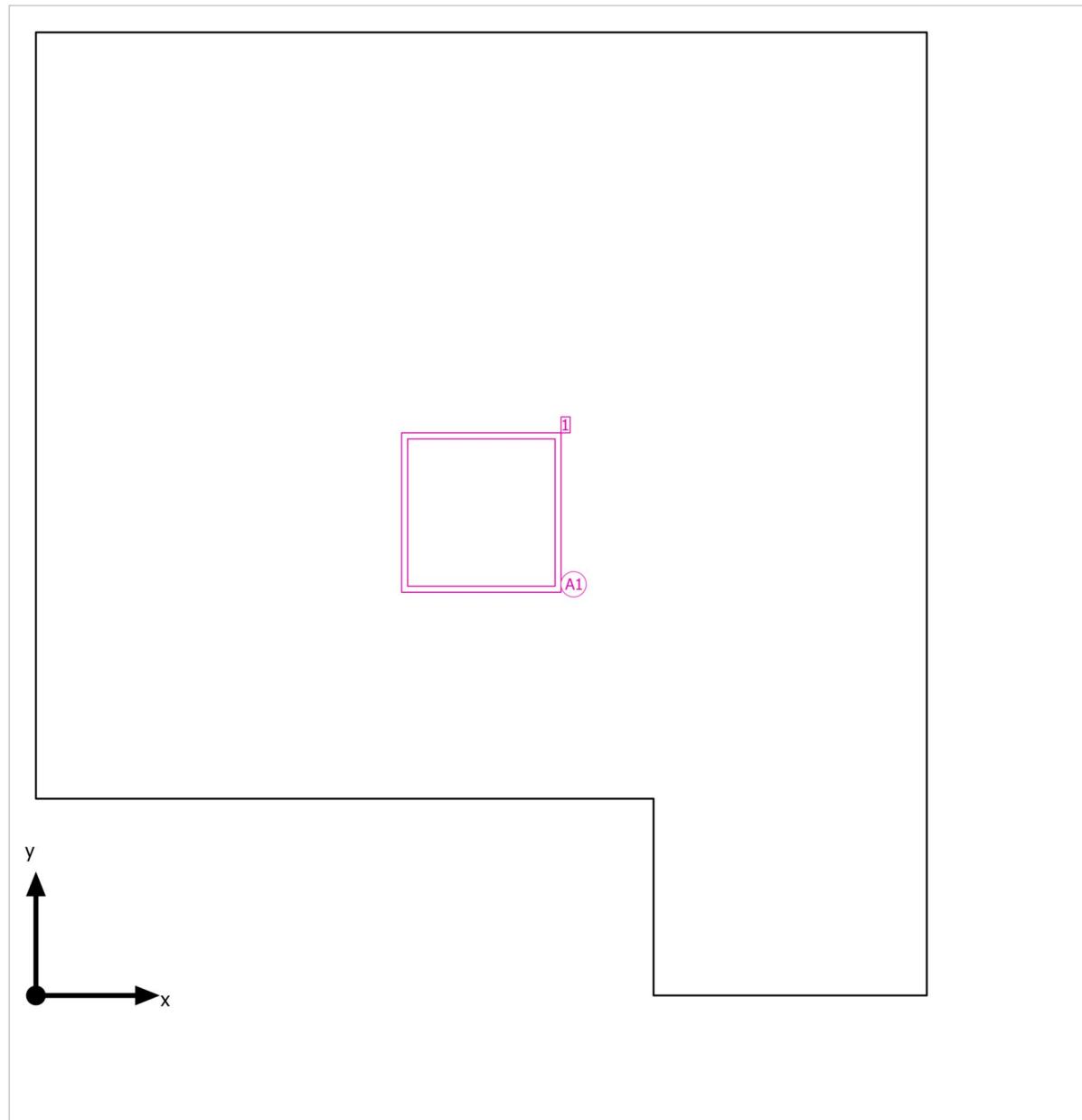
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Rest rooms

Luminaire list

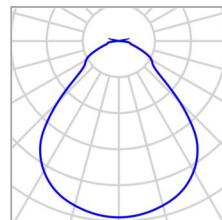
pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

Building 1 · Térreo · Dormitório2

Luminaire layout plan



Building 1 · Térreo · Dormitório2

Luminaire layout plan

Manufacturer	PROLED
Article No.	L80000DY
Article name	LED Panel Dynamic White Dali DT8

1 x PROLED LED Panel Dynamic White Dali DT8

Type	Field Arrangement	X	Y	Mounting height	Luminaire
1st luminaire (X/Y/Z)	1.662 m / 1.802 m / 2.800 m	1.662 m	1.802 m	2.800 m	1
X-direction	1 pcs., Centre - centre, 3.324 m				
Y-direction	1 pcs., Centre - centre, 3.605 m				
Arrangement	A1				

Building 1 · Térreo · Dormitório2

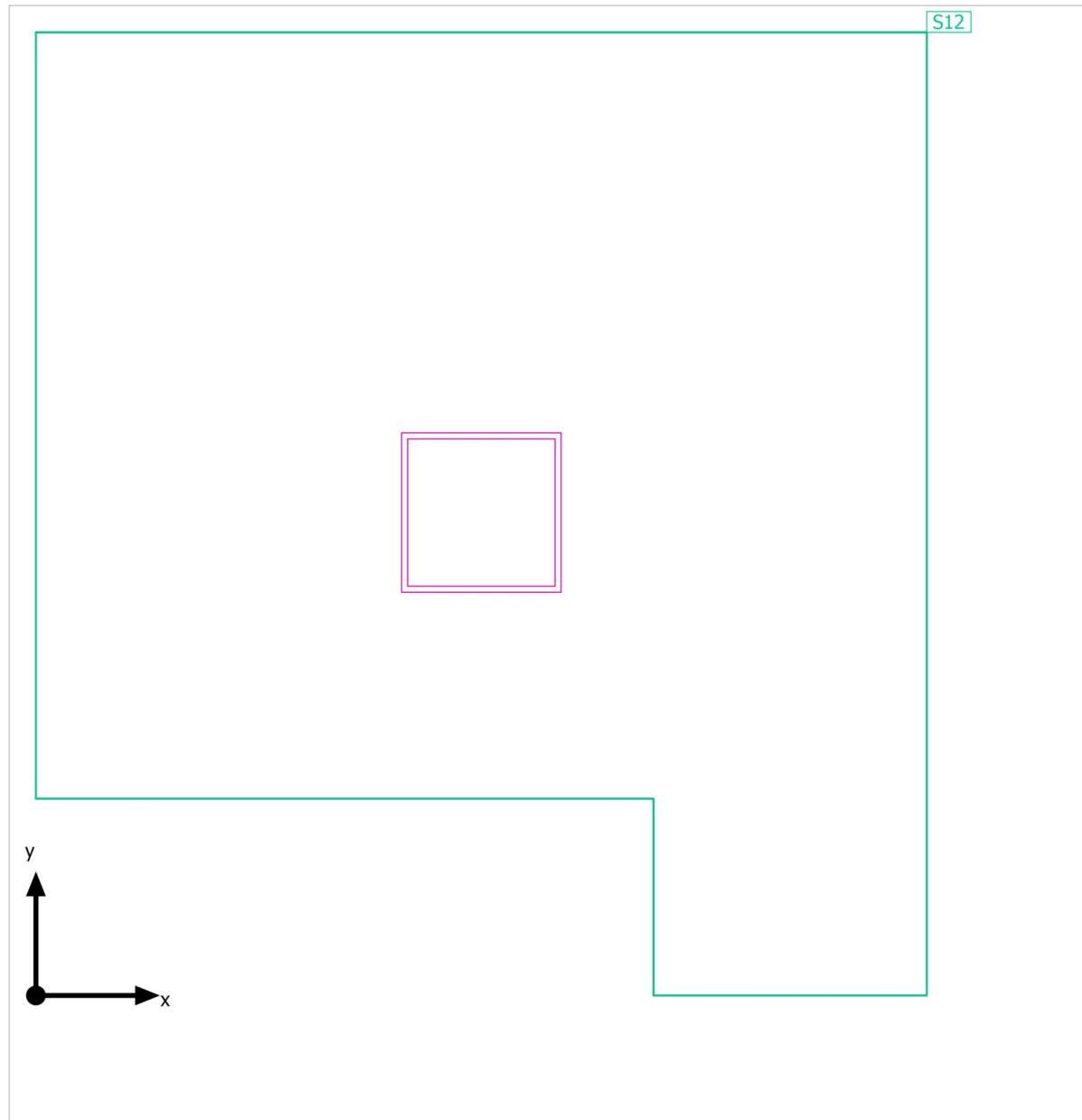
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
4200 lm	43.0 W	97.7 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

Building 1 · Térreo · Dormitório2

Calculation objects



Building 1 · Térreo · Dormitório2

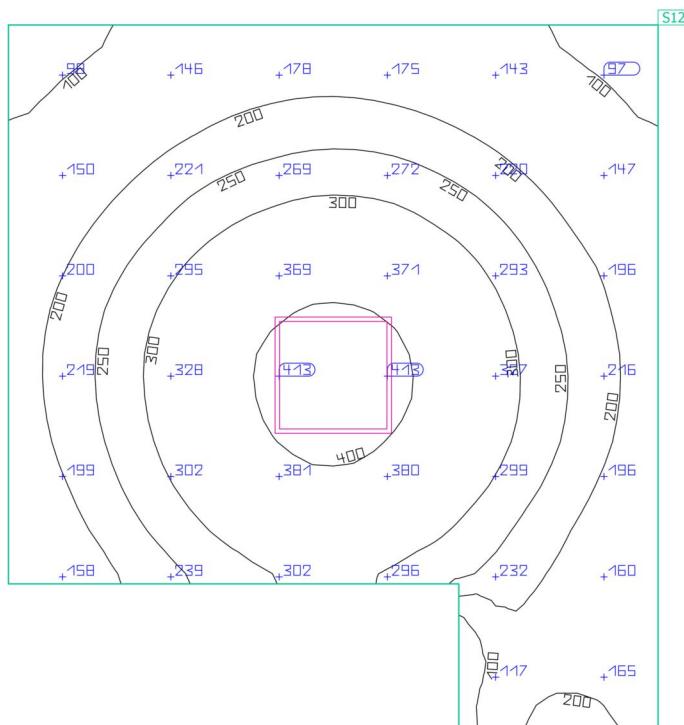
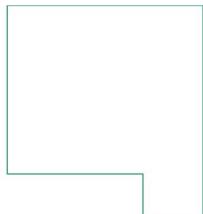
Calculation objects

Work planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (Dormitório2)	241 lx	73.6 lx	425 lx	0.31	0.17	S12
Perpendicular illuminance (adaptive)	(≥ 100 lx)					
Height: 0.800 m, Wall zone: 0.000 m	✓					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Rest rooms

Building 1 · Térreo · Dormitório2

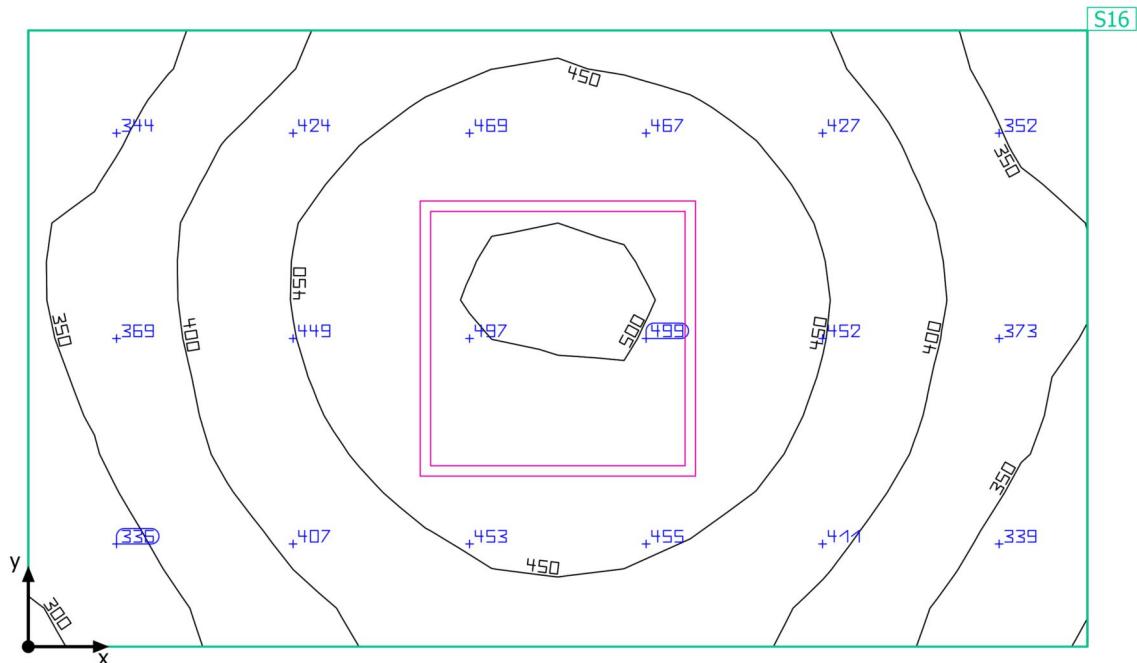
Workplane (Dormitório2)

Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (Dormitório2)	241 lx	73.6 lx	425 lx	0.31	0.17	S12
Perpendicular illuminance (adaptive)	(≥ 100 lx)					
Height: 0.800 m, Wall zone: 0.000 m	✓					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Rest rooms

Building 1 · Térreo · Lavanderia

Summary



Building 1 · Térreo · Lavanderia

Summary

Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	417 lx	$\geq 500 \text{ lx}$	X	S16
	g_1	0.72	-	-	S16
Consumption values	Consumption	[22 - 35] kWh/a	max. 150 kWh/a	✓	
Lighting power density	Room	14.10 W/m ²	-	-	
		3.38 W/m ² /100 lx	-	-	

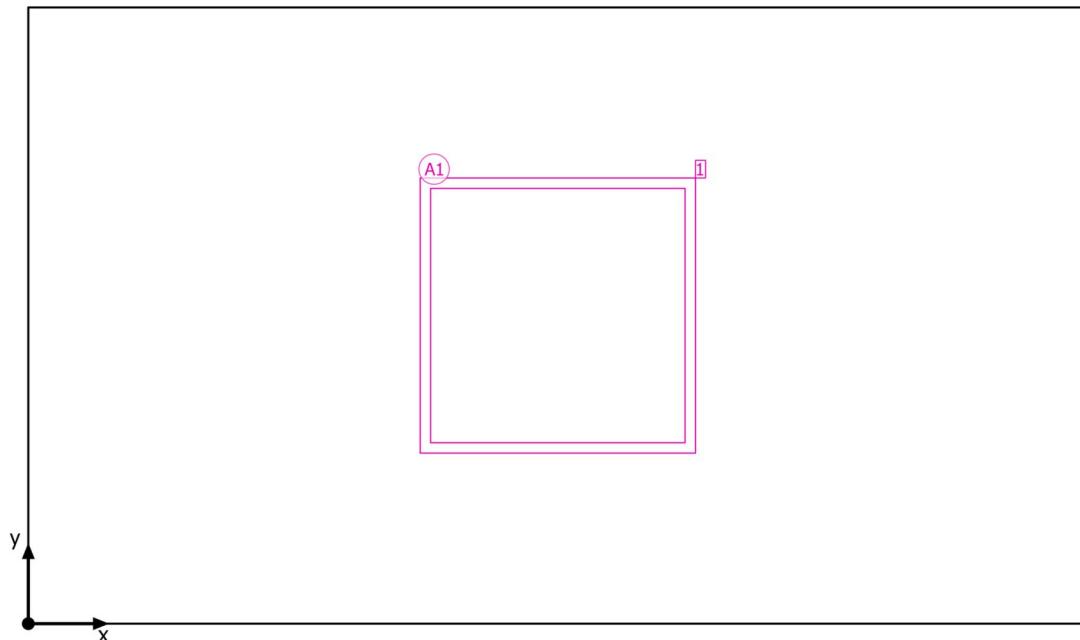
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Sanitation rooms

Luminaire list

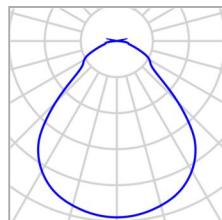
pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

Building 1 · Térreo · Lavanderia

Luminaire layout plan



Building 1 · Térreo · Lavanderia

Luminaire layout plan

Manufacturer	PROLED
Article No.	L80000DY
Article name	LED Panel Dynamic White Dali DT8

1 x PROLED LED Panel Dynamic White Dali DT8

Type	Field Arrangement	X	Y	Mounting height	Luminaire
1st luminaire (X/Y/Z)	1.145 m / 0.666 m / 2.800 m	1.145 m	0.666 m	2.800 m	[1]
X-direction	1 pcs., Centre - centre, 2.289 m				
Y-direction	1 pcs., Centre - centre, 1.333 m				
Arrangement	A1				

Building 1 · Térreo · Lavanderia

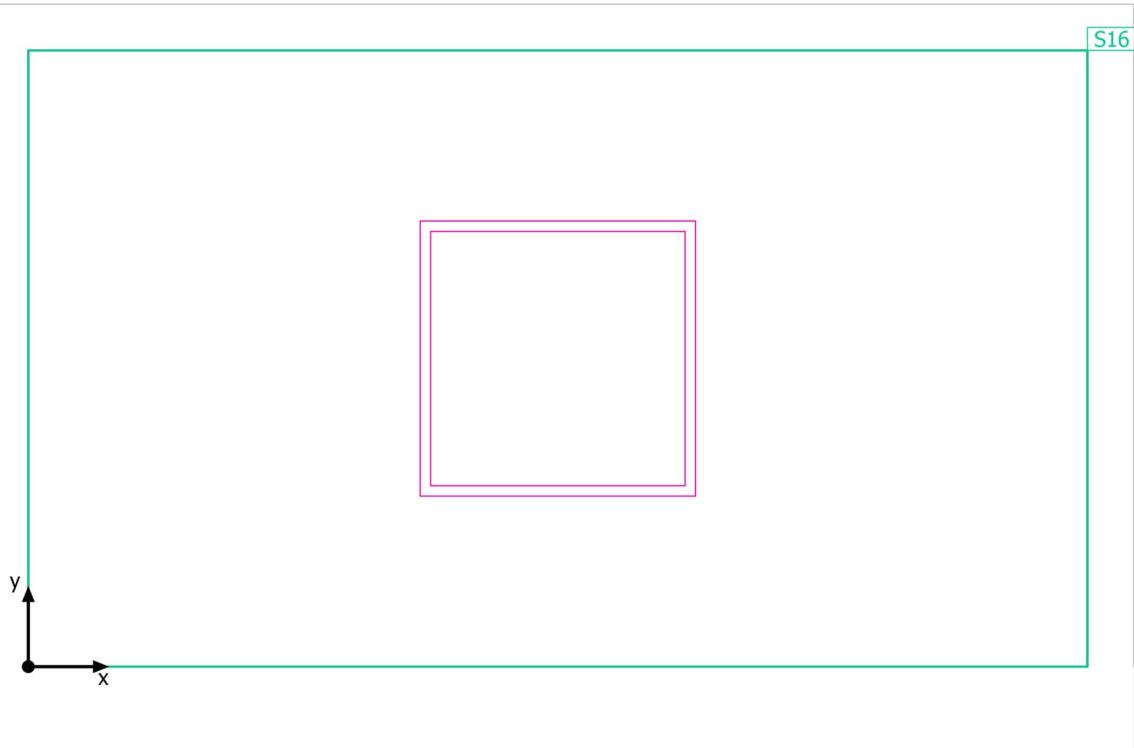
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
4200 lm	43.0 W	97.7 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

Building 1 · Térreo · Lavanderia

Calculation objects



Building 1 · Térreo · Lavanderia

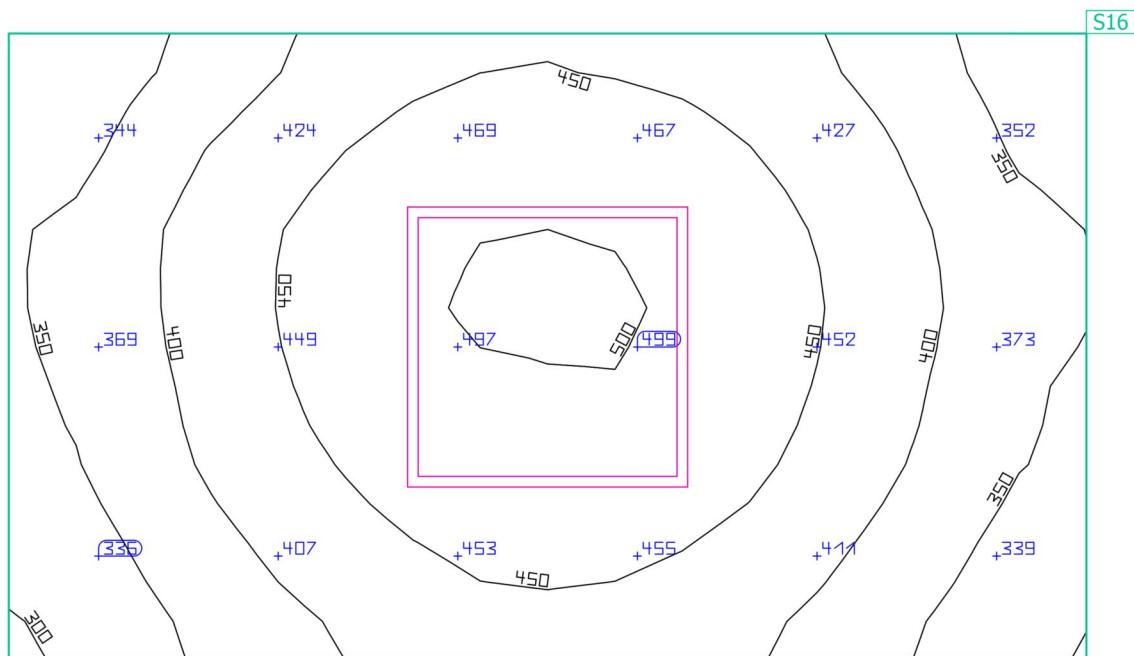
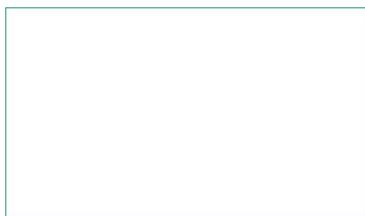
Calculation objects

Work planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (Lavanderia)	417 lx	300 lx	504 lx	0.72	0.60	S16
Perpendicular illuminance (adaptive)	(≥ 500 lx)					
Height: 0.800 m, Wall zone: 0.000 m	✗					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Sanitation rooms

Building 1 · Térreo · Lavanderia
Workplane (Lavanderia)



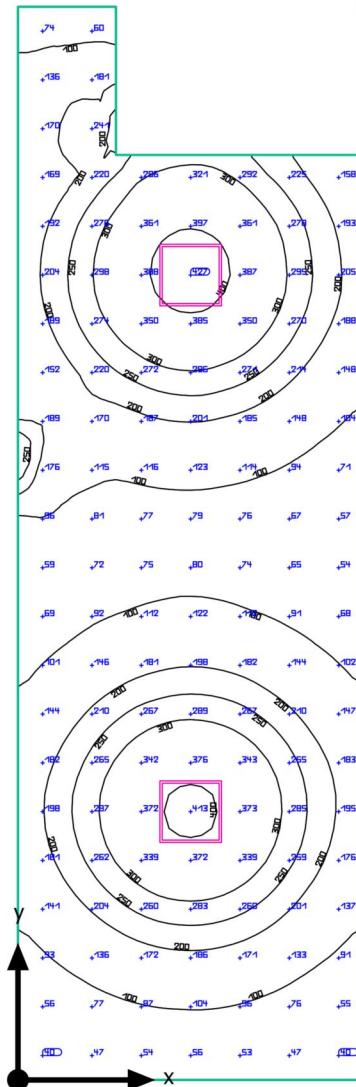
Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (Lavanderia)	417 lx	300 lx	504 lx	0.72	0.60	S16
Perpendicular illuminance (adaptive)	(≥ 500 lx)					
Height: 0.800 m, Wall zone: 0.000 m	X					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Sanitation rooms

Building 1 · Térreo · Sala de jantar, estar e cozinha

Summary

S14



Building 1 · Térreo · Sala de jantar, estar e cozinha

Summary

Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	186 lx	$\geq 200 \text{ lx}$	X	S14
	g_1	0.14	-	-	S14
Consumption values	Consumption	[250 - 340] kWh/a	max. 1100 kWh/a	✓	
Lighting power density	Room	2.76 W/m ²	-	-	
		1.48 W/m ² /100 lx	-	-	

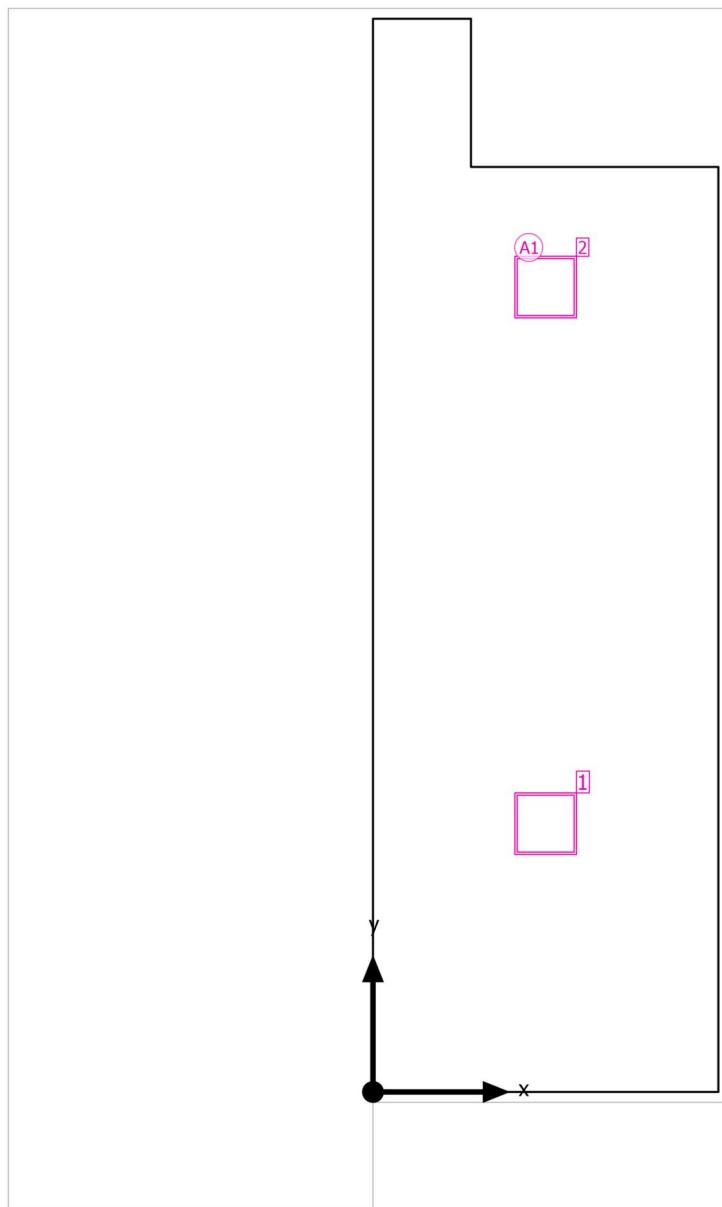
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Canteens, pantries

Luminaire list

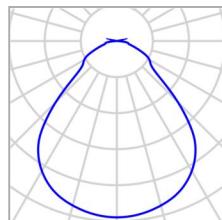
pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

Building 1 · Térreo · Sala de jantar, estar e cozinha

Luminaire layout plan



Building 1 · Térreo · Sala de jantar, estar e cozinha

Luminaire layout plan

Manufacturer	PROLED
Article No.	L80000DY
Article name	LED Panel Dynamic White Dali DT8

2 x PROLED LED Panel Dynamic White Dali DT8

Type	Field Arrangement	X	Y	Mounting height	Luminaire
1st luminaire (X/Y/Z)	1.669 m / 2.594 m / 2.800 m	1.669 m	2.594 m	2.800 m	[1]
X-direction	1 pcs., Centre - centre, 3.339 m	1.669 m	7.782 m	2.800 m	[2]
Y-direction	2 pcs., Centre - centre, 5.188 m				
Arrangement	A1				

Building 1 · Térreo · Sala de jantar, estar e cozinha

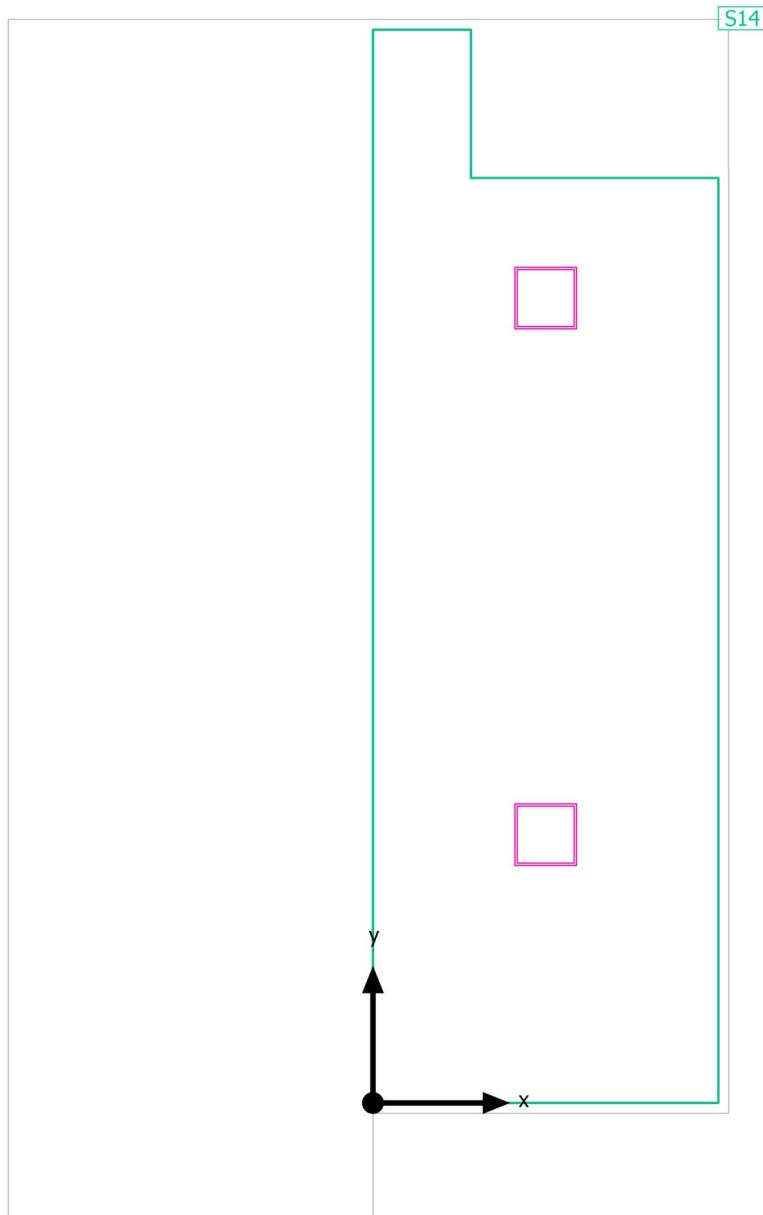
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
8400 lm	86.0 W	97.7 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

Building 1 · Térreo · Sala de jantar, estar e cozinha

Calculation objects



Building 1 · Térreo · Sala de jantar, estar e cozinha

Calculation objects

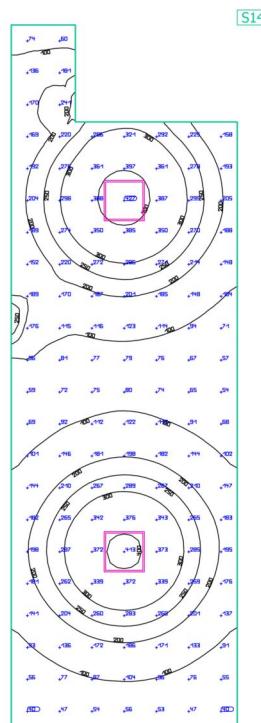
Work planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (Sala de jantar, estar e cozinha)	186 lx	25.8 lx	425 lx	0.14	0.061	S14
Perpendicular illuminance (adaptive)	(≥ 200 lx)					
Height: 0.800 m, Wall zone: 0.000 m	✗					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Canteens, pantries

Building 1 · Térreo · Sala de jantar, estar e cozinha

Workplane (Sala de jantar, estar e cozinha)

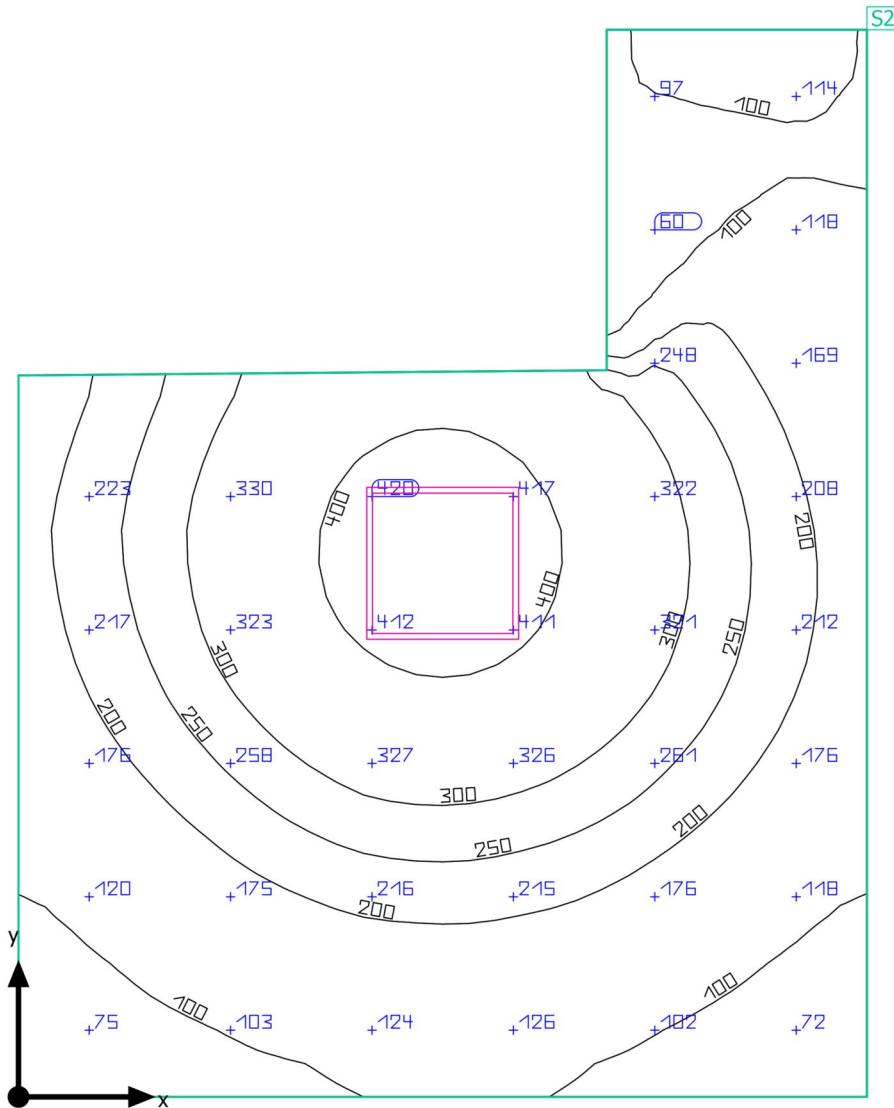


Properties	\bar{E} (Target)	E_{\min}	E_{\max}	g_1	g_2	Index
Workplane (Sala de jantar, estar e cozinha)	186 lx	25.8 lx	425 lx	0.14	0.061	S14
Perpendicular illuminance (adaptive)	(≥ 200 lx)					
Height: 0.800 m, Wall zone: 0.000 m	X					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Canteens, pantries

Building 1 · Térreo · Suíte Master

Summary



Building 1 · Térreo · Suíte Master

Summary

Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	221 lx	$\geq 100 \text{ lx}$	✓	S2
	g_1	0.25	-	-	S2
Consumption values	Consumption	[52 - 83] kWh/a	max. 400 kWh/a	✓	
Lighting power density	Room	3.98 W/m ²	-	-	
		1.80 W/m ² /100 lx	-	-	

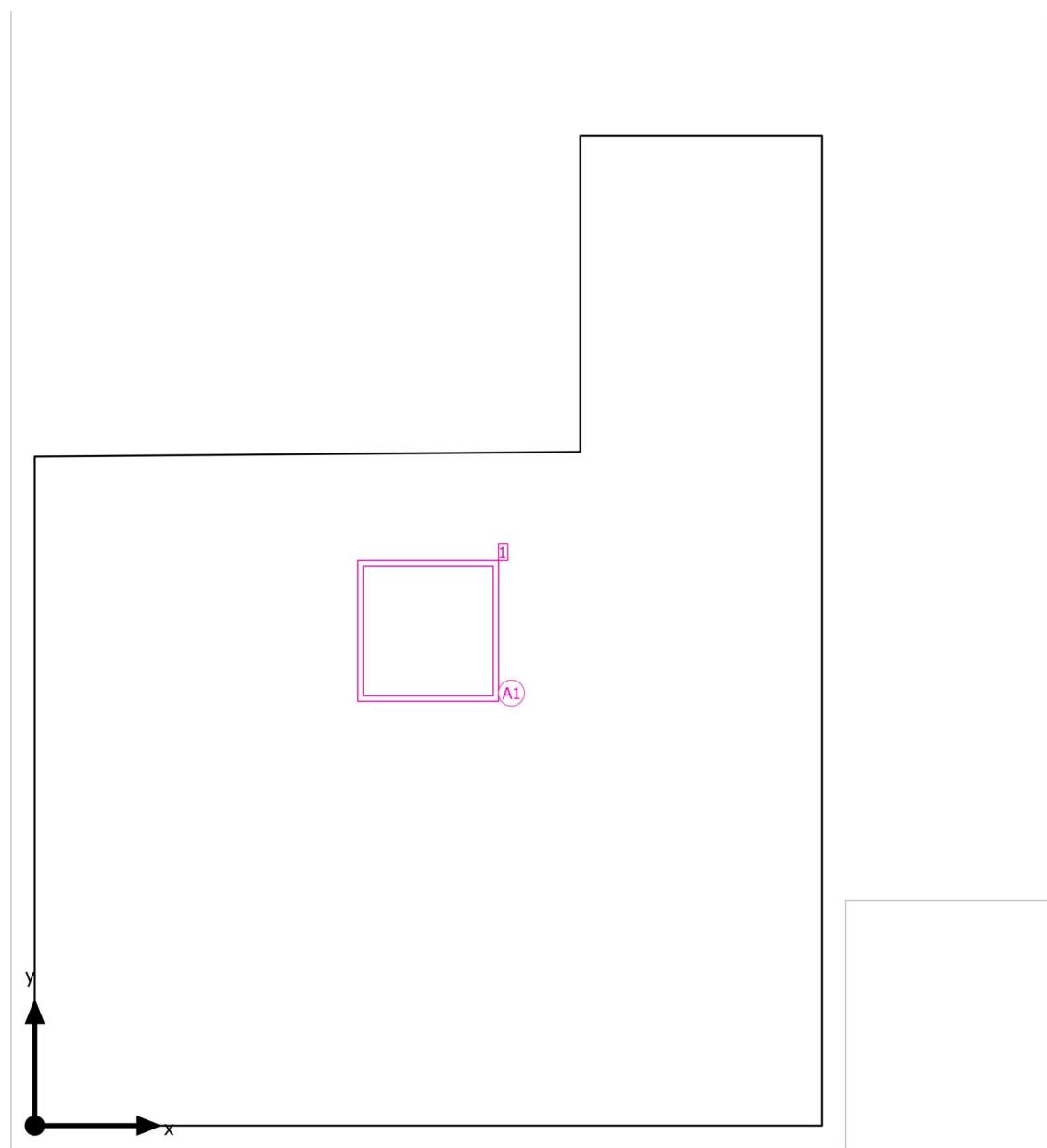
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Rest rooms

Luminaire list

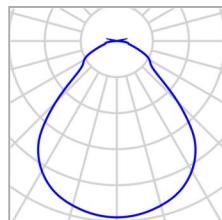
pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

Building 1 · Térreo · Suíte Master

Luminaire layout plan



Building 1 · Térreo · Suíte Master

Luminaire layout plan

Manufacturer	PROLED
Article No.	L80000DY
Article name	LED Panel Dynamic White Dali DT8

1 x PROLED LED Panel Dynamic White Dali DT8

Type	Field Arrangement	X	Y	Mounting height	Luminaire
1st luminaire (X/Y/Z)	1.662 m / 2.091 m / 2.800 m	1.662 m	2.091 m	2.800 m	1
X-direction	1 pcs., Centre - centre, 3.324 m				
Y-direction	1 pcs., Centre - centre, 4.182 m				
Arrangement	A1				

Building 1 · Térreo · Suíte Master

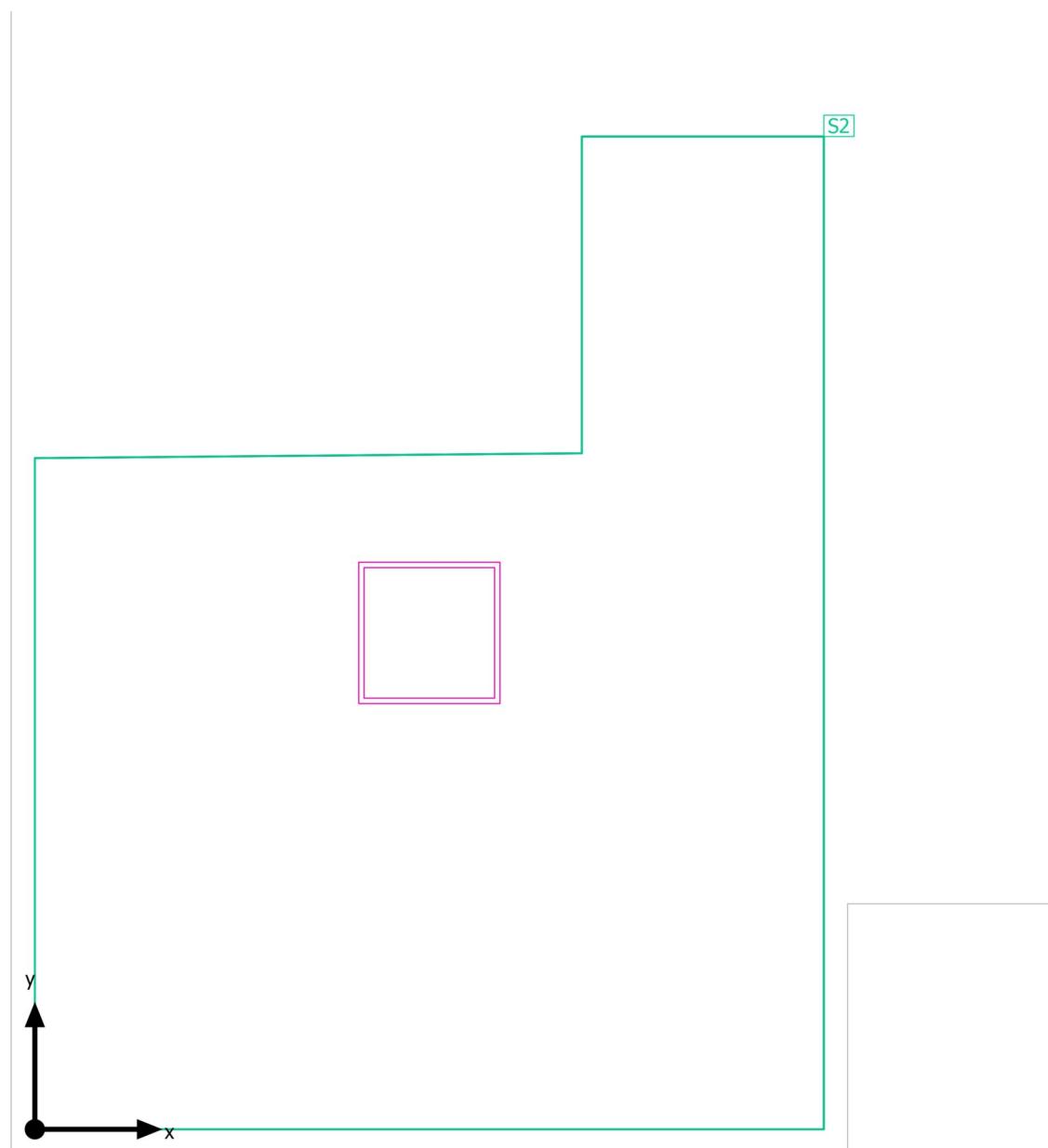
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
4200 lm	43.0 W	97.7 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	PROLED	L80000DY	LED Panel Dynamic White Dali DT8	43.0 W	4200 lm	97.7 lm/W

Building 1 · Térreo · Suíte Master

Calculation objects



Building 1 · Térreo · Suíte Master

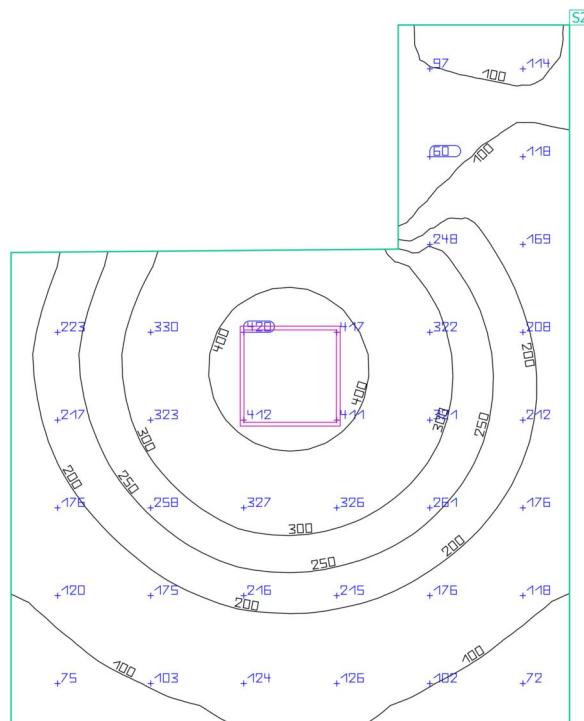
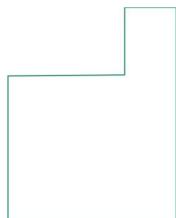
Calculation objects

Work planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	g_1	g_2	Index
Workplane (Suíte Master)	221 lx	54.5 lx	441 lx	0.25	0.12	S2
Perpendicular illuminance (adaptive)	(≥ 100 lx)					
Height: 0.800 m, Wall zone: 0.000 m	✓					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Rest rooms

Building 1 · Térreo · Suíte Master
Workplane (Suíte Master)



Properties	\bar{E} (Target)	E_{\min}	E_{\max}	g_1	g_2	Index
Workplane (Suíte Master)	221 lx	54.5 lx	441 lx	0.25	0.12	S2
Perpendicular illuminance (adaptive)	(≥ 100 lx)					
Height: 0.800 m, Wall zone: 0.000 m	✓					

Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Rest rooms

Glossary

A

A

Formula symbol for a surface in the geometry

B

Background area

The background area borders the direct ambient area according to DIN EN 12464-1 and reaches up to the borders of the room. In larger rooms, the background area is at least 3 m wide. It is located horizontally at floor level.

C

CCT

(Engl. correlated colour temperature)

Body temperature of a thermal radiator which serves to describe its light colour. Unit: Kelvin [K]. The lesser the numerical value the redder; the greater the numerical value the bluer the light colour. The colour temperature of gas-discharge lamps and semiconductors are termed "correlated colour temperature" in contrast to the colour temperature of thermal radiators.

Allocation of the light colours to the colour temperature ranges acc. to EN 12464-1:

Light colour - colour temperature [K]

warm white (ww) < 3,300 K

neutral white (nw) ≥ 3,300 – 5,300 K

daylight white (dw) > 5.300 K

Clearance height

The designation for the distance between upper edge of the floor and bottom edge of the ceiling (in the completely furnished status of room).

CRI

(Engl. colour rendering index)

Designation for the colour rendering index of a luminaire or a lamp acc. to DIN 6169: 1976 or CIE 13.3: 1995.

The general colour rendering index Ra (or CRI) is a dimensionless figure that describes the quality of a white light source in regards to its similarity with the remission spectra of defined 8 test colours (see DIN 6169 or CIE 1974) to a reference light source.

D

Daylight factor

Ratio of the illuminance achieved solely by daylight incidence at a point in the inside to the horizontal illuminance in the outer area under an unobstructed sky.

Formula symbol: D (Engl. daylight factor)

Unit: %

Glossary

Daylight quotient effective area	A calculation surface within which the daylight quotient is calculated.
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E

Eta (η)	(light output ratio) The light output ratio describes what percentage of the luminous flux of a free radiating lamp (or LED module) is emitted by the luminaire when installed. Unit: %
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G

g1	Often also Uo (Engl. overall uniformity) Designates the overall uniformity of the illuminance on a surface. It is the quotient from Emin to \bar{E} and is required, for instance, in standards for illumination of workstations.
g2	Actually it designates the "non-uniformity" of the illuminance on a surface. It is the quotient of Emin to Emax and is generally only relevant for certifying the emergency lighting acc. to EN 1838.

I

Illuminance	Describes the ratio of the luminous flux that strikes a certain surface to the size of this surface ($\text{lm/m}^2 = \text{lx}$). The illuminance is not tied to an object surface. It can be determined anywhere in space (inside or outside). The illuminance is not a product feature because it is a recipient value. Luxometers are used for measuring. Unit: Lux Abbreviation: lx Formula symbol: E
Illuminance, adaptive	For the determining of the middle adaptive illuminance on a surface, this is rastered "adaptively". In the area of large illuminance differences within the surface, the raster is subdivided finer; within lesser differences, a rougher classification is made.
Illuminance, horizontal	Illuminance that is calculated or measured on a horizontal (level) surface (this can be for example a table top or the floor). The horizontal illuminance is usually identified by the formula letter Eh.
Illuminance, perpendicular	Illuminance that is calculated or measured plumb-vertical to a surface. This needs to be taken into account for tilted surfaces. If the surface is horizontal or vertical, then there is no difference between the perpendicular and the horizontal or vertical illuminance.

Glossary

Illuminance, vertical	Illuminance that is calculated or measured on a vertical surface (this can be for example the front of some shelves). The vertical illuminance is usually identified by the formula letter E_v .
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L

LENI	(Engl. lighting energy numeric indicator) Lighting energy numeric indicator acc. to EN 15193 Unit: kWh/m ² year
LLMF	(Engl. lamp lumen maintenance factor)/acc. to CIE 97: 2005 Lamp flux maintenance factor that takes the luminous flux reduction into account of a luminaire or an LED module in the course of the operating time. The lamp flux maintenance factor is specified as a decimal digit and can have a maximum value of 1 (no luminous flux reduction existing).
LMF	(Engl. luminaire maintenance factor)/acc. to CIE 97: 2005 Luminaire maintenance factor that takes the soiling into account of the luminaire in the course of the operating time. The luminaire maintenance factor is specified as a decimal digit and can have a maximum value of 1 (no soiling existing).
LSF	(Engl. lamp survival factor)/acc. to CIE 97: 2005 Lamp survival factor that takes the total failure into account of a luminaire in the course of the operating time. The lamp survival factor is specified as a decimal digit and can have a maximum value of 1 (no failures existing within the time concerned or prompt replacement after the failure).
Luminance	Dimension for the "brightness impression" that the human eye has of a surface. The surface itself can emit light thereby or light striking it can be reflected (emitter value). It is the only photometric value that the human eye can perceive. Unit: Candela per square metre Abbreviation: cd/m ² Formula symbol: L
Luminous efficacy	Ratio of the emitted luminous flux Φ [lm] to the absorbed electrical power P [W] Unit: lm/W. This ratio can be formed for the lamp or LED module (lamp or module light output), the lamp or module with control gear (system light output) and the complete luminaire (luminaire light output).

Glossary

Luminous flux	Dimension for the total light output that is emitted from one light source in all directions. It is thus an "emitter value" that specifies the entire emitting output. The luminous flux of a light source can only be determined in a laboratory. A difference is made between the lamp or LED module luminous flux and the luminaire luminous flux. Unit: Lumen Abbreviation: lm Formula symbol: Φ
Luminous intensity	Describes the intensity of the light in a certain direction (emitter value). The luminous intensity is a matter of the luminous flux Φ that is emitted in a certain spherical angle Ω . The radiation characteristics of a light source are presented graphically in a light distribution curve (LDC). The luminous intensity is an SI base unit. Unit: Candela Abbreviation: cd Formula symbol: I
<hr/>	
M	
Maintenance factor	See MF
MF	(Engl. maintenance factor)/acc. to CIE 97: 2005 Maintenance factor as decimal number between 0 and 1 that describes the ratio of the new value of a photometric planning parameter (e.g. of the illuminance) to a maintenance value after a certain time. The maintenance factor takes into account the soiling of luminaires and rooms as well as the luminous flux reduction and the failure of light sources. The maintenance factor is taken into account either overall or determined in detail acc. to CIE 97: 2005 by the formula RMF x LMF x LLMF x LSF.
<hr/>	
P	
P	(Engl. power) Electric power consumption Unit: watt Abbreviation: W
<hr/>	
R	
Reflection factor	The reflection factor of a surface describes how much of the striking light is reflected back. The reflection factor is defined by the colour of the surface.

Glossary

RMF

(Engl. room maintenance factor)/acc. to CIE 97: 2005

Room maintenance factor that takes the soiling into account of the space encompassing surfaces in the course of the operating time. The room maintenance factor is specified as a decimal digit and can have a maximum value of 1 (no soiling existing).

S

Surrounding area

The ambient area directly borders the area of the visual task and should be planned with a width of at least 0.5 m according to DIN EN 12464-1. It is at the same height as the area of the visual task.

U

UGR (max)

(unified glare rating)

Measure for the psychological glare effect in interiors.

In addition to luminaire luminance, the UGR value also depends on the position of the observer, the viewing direction and the ambient luminance. Among other things, EN 12464-1 specifies maximum permissible UGR values for various indoor workplaces.

UGR observer

Calculation point in the room, for the DIALux the UGR value is determined. The location and height of the calculation point should correspond to the typical observer position (position and eye level of the user).

V

Visual task area

The area that is needed for carrying out the visual task in accordance with DIN EN 12464-1. The height corresponds with the height at which the visual task is executed.

W

Wall zone

Circumferential area between working plane and walls which is not taken into account for the calculation.

Workplane

Virtual measuring or calculation surface at the height of the visual task that generally follows the room geometry. The working plane may also feature a wall zone.
