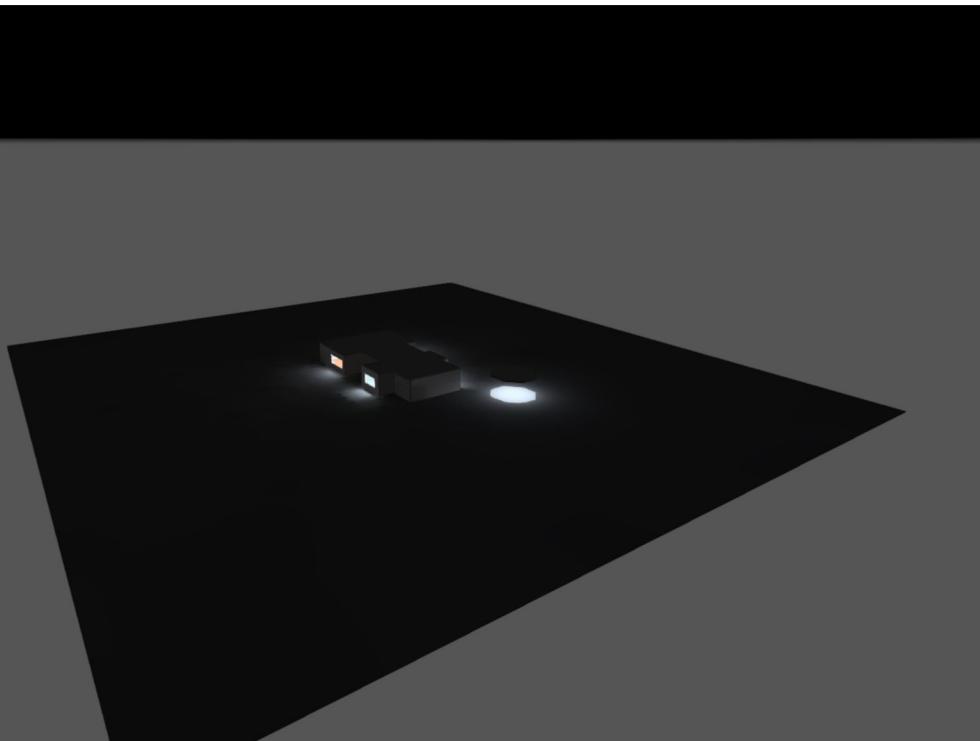


Date

05.01.2025

DIALux



Project

Preface

Notes on planning:

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

Table of Contents

Cover	1
Preface	2
Table of Contents	3
Description	7
Luminaire list	8

Product data sheets

Philips - BY101P LED210S/840 WB PSU (1x)	9
--	---

Site 1

Building 1

Luminaire list	10
----------------------	----

Site 1 - Building 1

Storey 1

Room list / Light scene 1	11
Luminaire list	15
Calculation objects / Light scene 1	16

Site 1 - Building 1 - Storey 1

Room 1

Summary / Light scene 1	18
Luminaire layout plan	20
Luminaire list	23
Calculation objects / Light scene 1	24
Working plane (Room 1) / Light scene 1 / Perpendicular illuminance (adaptive)	26

Site 1 - Building 1 - Storey 1

Room 2

Summary / Light scene 1	27
Luminaire layout plan	29
Luminaire list	31
Calculation objects / Light scene 1	32
Working plane (Room 2) / Light scene 1 / Perpendicular illuminance (adaptive)	34

Table of Contents

Site 1 - Building 1 - Storey 1

Room 3

Summary / Light scene 1	35
Luminaire layout plan	37
Luminaire list	39
Calculation objects / Light scene 1	40
Working plane (Room 3) / Light scene 1 / Perpendicular illuminance (adaptive)	42

Site 1 - Building 1 - Storey 1

Room 4

Summary / Light scene 1	43
Luminaire layout plan	45
Luminaire list	47
Calculation objects / Light scene 1	48
Working plane (Room 4) / Light scene 1 / Perpendicular illuminance (adaptive)	50

Site 1 - Building 1 - Storey 1

Room 5

Summary / Light scene 1	51
Luminaire layout plan	53
Luminaire list	55
Calculation objects / Light scene 1	56
Working plane (Room 5) / Light scene 1 / Perpendicular illuminance (adaptive)	58

Site 1 - Building 1 - Storey 1

Room 6

Summary / Light scene 1	59
Luminaire layout plan	61
Luminaire list	63
Calculation objects / Light scene 1	64
Working plane (Room 6) / Light scene 1 / Perpendicular illuminance (adaptive)	66

Site 1 - Building 1 - Storey 1

Room 7

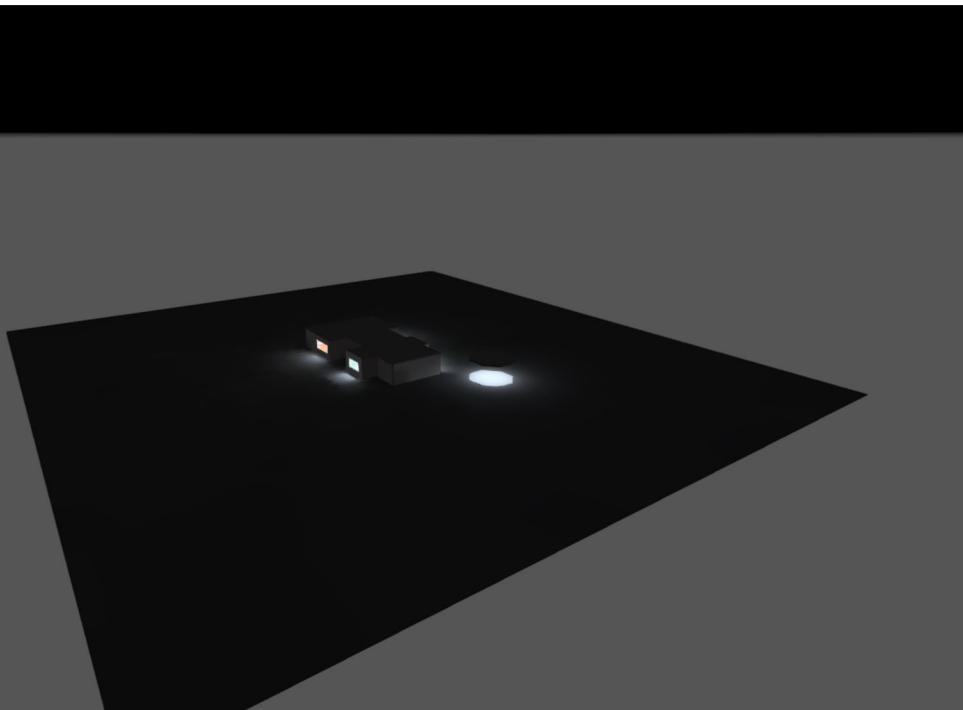
Summary / Light scene 1	67
Luminaire layout plan	69
Luminaire list	71
Calculation objects / Light scene 1	72

Table of Contents

Working plane (Room 7) / Light scene 1 / Perpendicular illuminance (adaptive)	74
Site 1 - Building 1 - Storey 1	
Room 8	
Summary / Light scene 1	75
Luminaire layout plan	77
Luminaire list	79
Calculation objects / Light scene 1	80
Working plane (Room 8) / Light scene 1 / Perpendicular illuminance (adaptive)	82
Site 1 - Building 1 - Storey 1	
Room 9	
Summary / Light scene 1	83
Luminaire layout plan	85
Luminaire list	87
Calculation objects / Light scene 1	88
Working plane (Room 9) / Light scene 1 / Perpendicular illuminance (adaptive)	90
Site 1	
Building 2	
Luminaire list	91
Site 1 - Building 2	
Storey 1	
Room list / Light scene 1	92
Luminaire list	94
Calculation objects / Light scene 1	95
Site 1 - Building 2 - Storey 1	
Room 10	
Summary / Light scene 1	97
Luminaire layout plan	99
Luminaire list	101
Calculation objects / Light scene 1	102
Working plane (Room 10) / Light scene 1 / Perpendicular illuminance (adaptive)	104

Table of Contents

Glossary	105
----------------	-----



Description

Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
717500 lm	5390.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
35	Philips		BY101P LED210S/840 WB PSU	154.0 W	20500 lm	133.1 lm/W

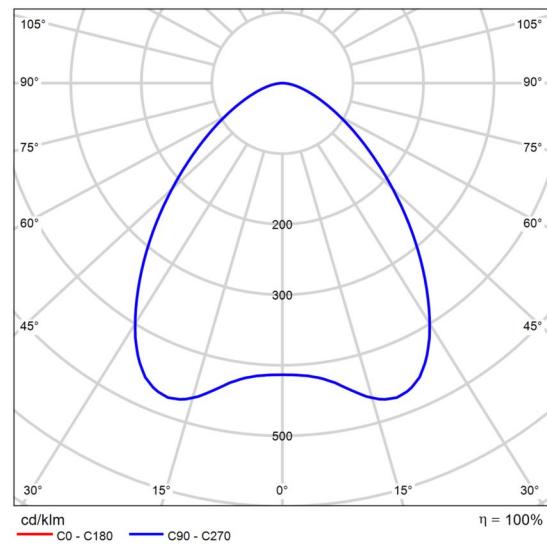
Product data sheet

Philips - BY101P LED210S/840 WB PSU



P	154.0 W
Φ_{Lamp}	20500 lm
$\Phi_{\text{Luminaire}}$	20500 lm
η	100.00 %
Luminous efficacy	133.1 lm/W
CCT	4000 K
CRI	80

A reliable solution for essential projects. CoreLine Value High-bay is the right choice for projects where essential specification and ease of installation are key. It comes with a trusted, high light quality, good service lifetime, energy savings and less maintenance. CoreLine Value High-bay delivers clear benefits for the installer too. The luminaire can be installed on the existing grid, and electrical connection is straightforward – there is no need to open the luminaire for installation and the external IP65 connector makes things easy to handle. A selection of optional accessories are available, including reflectors and a bracket to further increase installation flexibility.



Polar LDC

Glare evaluation according to RUG											
ρ	70	70	50	50	30	70	70	50	50	30	ρ
ρ	50	30	50	30	30	50	30	50	30	30	ρ
ρ	20	20	20	20	20	20	20	20	20	20	ρ
X	Viewing direction at right angles to lamp axis										Viewing direction parallel to lamp axis
2H	27.6	28.8	27.9	29.0	29.3	27.6	28.8	27.9	29.0	29.3	
3H	28.3	29.3	28.6	29.6	29.8	28.3	29.3	28.6	29.6	29.8	
4H	28.5	29.5	28.8	29.7	30.0	28.5	29.5	28.8	29.7	30.0	
6H	28.6	29.6	29.0	29.8	30.2	28.6	29.6	29.0	29.8	30.2	
8H	28.7	29.6	29.0	29.9	30.2	28.7	29.6	29.0	29.9	30.2	
12H	28.7	29.5	29.1	29.9	30.2	28.7	29.5	29.1	29.9	30.2	
4H	27.9	28.9	28.3	29.2	29.5	27.9	28.9	28.3	29.2	29.5	
3H	28.7	29.6	29.1	29.9	30.2	28.7	29.6	29.1	29.9	30.2	
4H	29.1	29.8	29.4	30.1	30.5	29.1	29.8	29.4	30.1	30.5	
6H	29.3	29.9	29.7	30.3	30.7	29.3	29.9	29.7	30.3	30.7	
8H	29.4	30.0	29.8	30.4	30.8	29.4	30.0	29.8	30.4	30.8	
12H	29.4	30.0	29.8	30.4	30.8	29.4	30.0	29.8	30.4	30.8	
8H	29.1	29.8	29.6	30.1	30.6	29.1	29.8	29.6	30.1	30.6	
6H	29.5	30.0	29.9	30.4	30.8	29.5	30.0	29.9	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
12H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H	29.5	29.9	30.0	30.4	30.8	29.5	29.9	30.0	30.4	30.8	
8H	29.6	30.0	30.1	30.5	31.0	29.6	30.0	30.1	30.5	31.0	
12H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0	
4H	29.1	29.7	29.6	30.1	30.5	29.1	29.7	29.6	30.1	30.5	
6H</											

Building 1

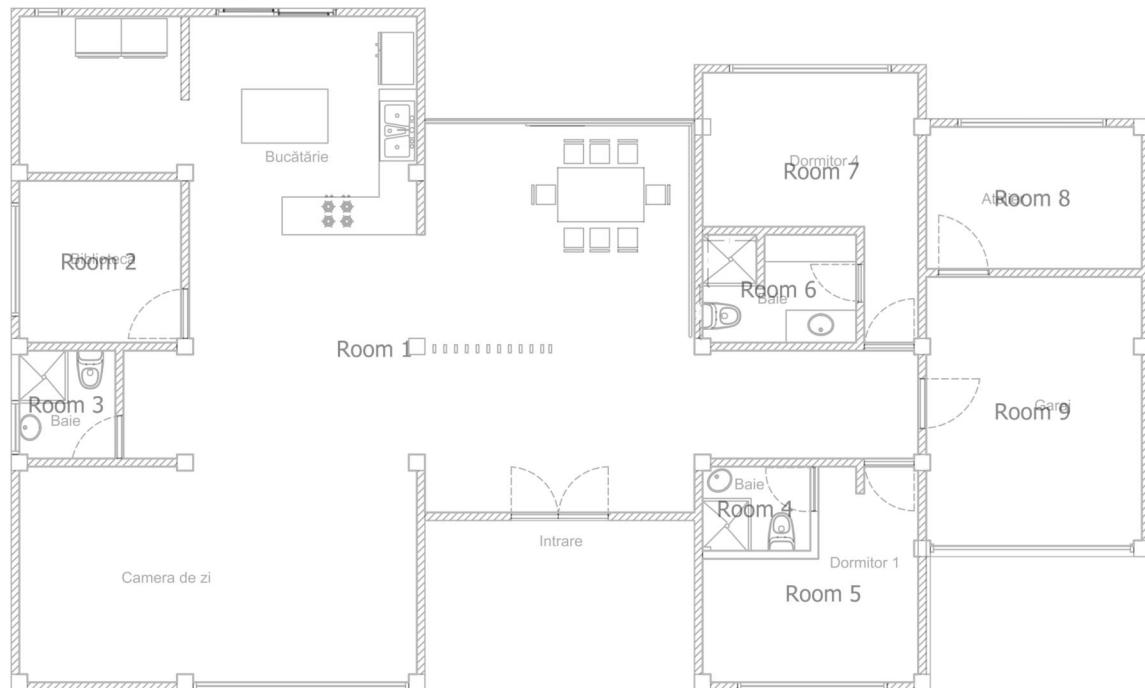
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
697000 lm	5236.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
34	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 1 · Storey 1 (Light scene 1)

Room list



Building 1 · Storey 1 (Light scene 1)

Room list

Room 1

P_{total} 3234.0 W	A_{Room} 120.94 m ²	Lighting power density $26.74 \text{ W/m}^2 = 1.04 \text{ W/m}^2/100 \text{ lx (Space)}$ $28.89 \text{ W/m}^2 = 1.13 \text{ W/m}^2/100 \text{ lx (Working plane)}$	$\bar{E}_{\text{perpendicular (Working plane)}}$ 2563 lx
-------------------------	-------------------------------------	---	---

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
21	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm

Room 2

P_{total} 154.0 W	A_{Room} 8.98 m ²	Lighting power density $17.14 \text{ W/m}^2 = 0.95 \text{ W/m}^2/100 \text{ lx (Space)}$ $32.90 \text{ W/m}^2 = 1.83 \text{ W/m}^2/100 \text{ lx (Working plane)}$	$\bar{E}_{\text{perpendicular (Working plane)}}$ 1797 lx
------------------------	-----------------------------------	---	---

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm

Room 3

P_{total} 154.0 W	A_{Room} 3.54 m ²	Lighting power density $43.49 \text{ W/m}^2 = 1.26 \text{ W/m}^2/100 \text{ lx (Space)}$ $79.81 \text{ W/m}^2 = 2.32 \text{ W/m}^2/100 \text{ lx (Working plane)}$	$\bar{E}_{\text{perpendicular (Working plane)}}$ 3440 lx
------------------------	-----------------------------------	---	---

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm

Building 1 · Storey 1 (Light scene 1)

Room list

Room 4

P_{total} 154.0 W	A_{Room} 3.11 m ²	Lighting power density $49.52 \text{ W/m}^2 = 1.23 \text{ W/m}^2/100 \text{ lx (Space)}$ $89.45 \text{ W/m}^2 = 2.22 \text{ W/m}^2/100 \text{ lx (Working plane)}$	$\bar{E}_{\text{perpendicular (Working plane)}}$ 4021 lx
------------------------	-----------------------------------	---	---

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm

Room 5

P_{total} 308.0 W	A_{Room} 12.19 m ²	Lighting power density $25.28 \text{ W/m}^2 = 1.57 \text{ W/m}^2/100 \text{ lx (Space)}$ $28.20 \text{ W/m}^2 = 1.75 \text{ W/m}^2/100 \text{ lx (Working plane)}$	$\bar{E}_{\text{perpendicular (Working plane)}}$ 1607 lx
------------------------	------------------------------------	---	---

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
2	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm

Room 6

P_{total} 154.0 W	A_{Room} 5.54 m ²	Lighting power density $27.81 \text{ W/m}^2 = 1.37 \text{ W/m}^2/100 \text{ lx (Space)}$ $33.48 \text{ W/m}^2 = 1.65 \text{ W/m}^2/100 \text{ lx (Working plane)}$	$\bar{E}_{\text{perpendicular (Working plane)}}$ 2030 lx
------------------------	-----------------------------------	---	---

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm

Building 1 · Storey 1 (Light scene 1)

Room list

Room 7

P_{total} 308.0 W	A_{Room} 13.54 m ²	Lighting power density $22.74 \text{ W/m}^2 = 1.75 \text{ W/m}^2/100 \text{ lx (Space)}$ $27.28 \text{ W/m}^2 = 2.10 \text{ W/m}^2/100 \text{ lx (Working plane)}$	$\bar{E}_{\text{perpendicular (Working plane)}}$ 1298 lx
------------------------	------------------------------------	---	---

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
2	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm

Room 8

P_{total} 154.0 W	A_{Room} 10.49 m ²	Lighting power density $14.68 \text{ W/m}^2 = 1.18 \text{ W/m}^2/100 \text{ lx (Space)}$ $25.20 \text{ W/m}^2 = 2.03 \text{ W/m}^2/100 \text{ lx (Working plane)}$	$\bar{E}_{\text{perpendicular (Working plane)}}$ 1241 lx
------------------------	------------------------------------	---	---

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm

Room 9

P_{total} 616.0 W	A_{Room} 19.85 m ²	Lighting power density $31.04 \text{ W/m}^2 = 1.25 \text{ W/m}^2/100 \text{ lx (Space)}$ $36.70 \text{ W/m}^2 = 1.48 \text{ W/m}^2/100 \text{ lx (Working plane)}$	$\bar{E}_{\text{perpendicular (Working plane)}}$ 2476 lx
------------------------	------------------------------------	---	---

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
4	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm

Building 1 · Storey 1

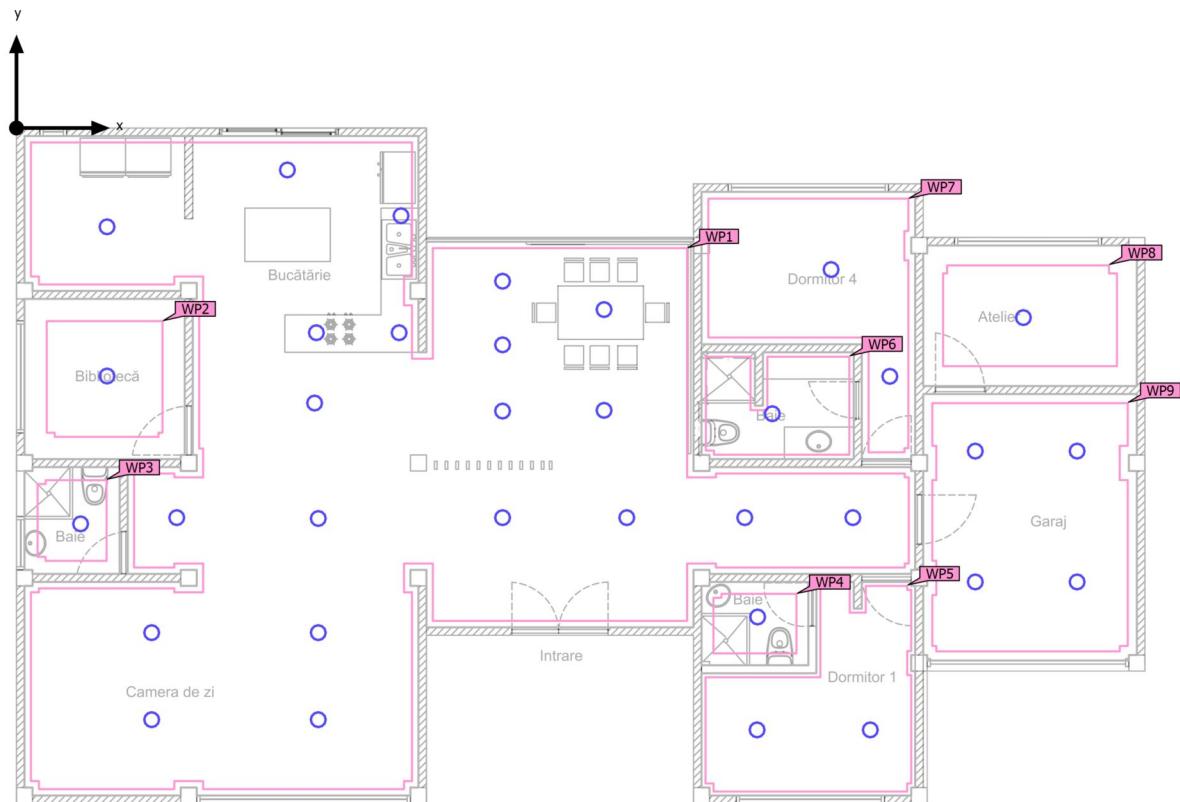
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
697000 lm	5236.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
34	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 1 · Storey 1 (Light scene 1)

Calculation objects



Building 1 · Storey 1 (Light scene 1)

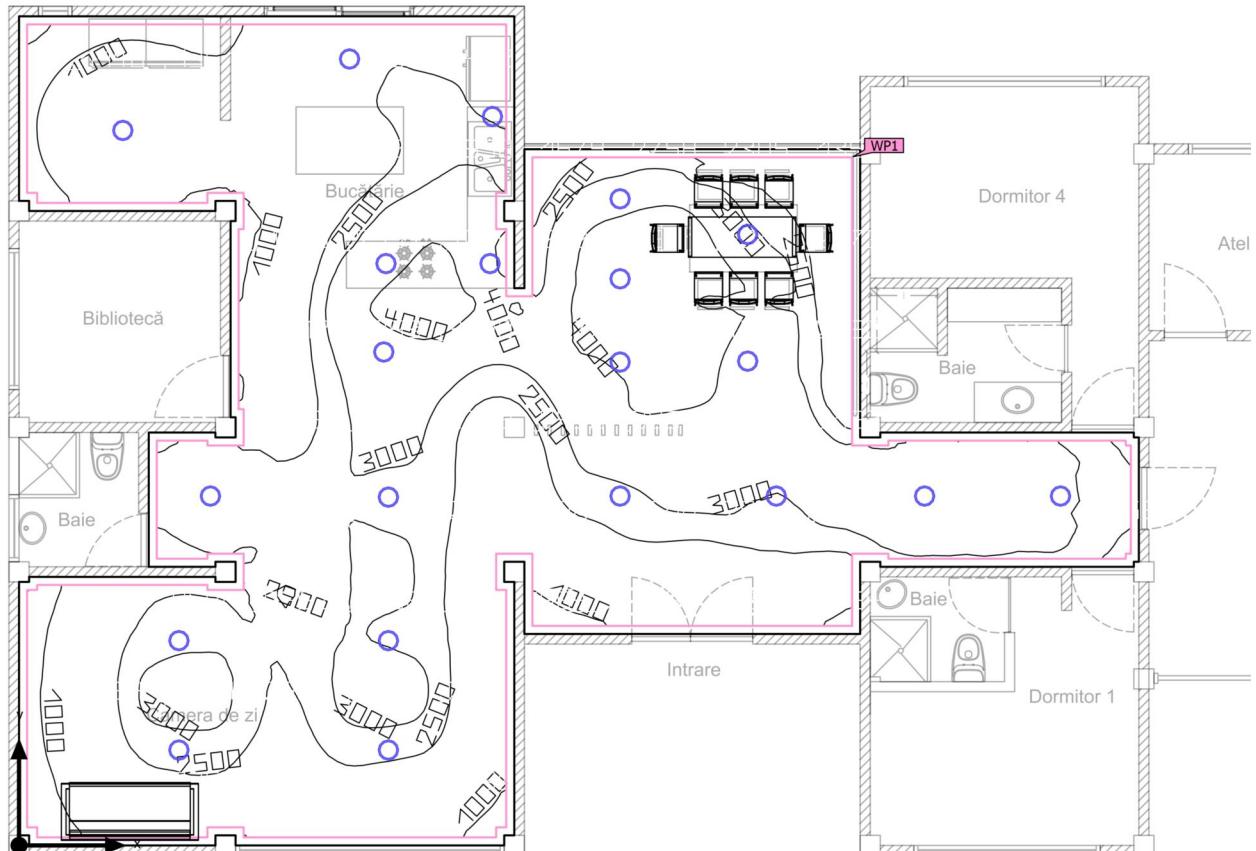
Calculation objects

Working planes

Properties	\bar{E} (Target)	E_{\min}	E_{\max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 1) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.120 m	2563 lx (≥ 500 lx) 	417 lx	4999 lx	0.16 (≥ 0.60) 	0.083	WP1
Working plane (Room 2) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.416 m	1797 lx (≥ 500 lx) 	1225 lx	2042 lx	0.68 (≥ 0.60) 	0.60	WP2
Working plane (Room 3) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.245 m	3440 lx (≥ 500 lx) 	769 lx	3864 lx	0.22 (≥ 0.60) 	0.20	WP3
Working plane (Room 4) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.223 m	4021 lx (≥ 500 lx) 	3806 lx	4177 lx	0.95 (≥ 0.60) 	0.91	WP4
Working plane (Room 5) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.075 m	1607 lx (≥ 500 lx) 	35.6 lx	2583 lx	0.022 (≥ 0.60) 	0.014	WP5
Working plane (Room 6) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.083 m	2030 lx (≥ 500 lx) 	704 lx	2512 lx	0.35 (≥ 0.60) 	0.28	WP6
Working plane (Room 7) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.127 m	1298 lx (≥ 500 lx) 	31.5 lx	2377 lx	0.024 (≥ 0.60) 	0.013	WP7
Working plane (Room 8) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.372 m	1241 lx (≥ 500 lx) 	537 lx	1616 lx	0.43 (≥ 0.60) 	0.33	WP8
Working plane (Room 9) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.171 m	2476 lx (≥ 500 lx) 	1256 lx	3208 lx	0.51 (≥ 0.60) 	0.39	WP9

Building 1 · Storey 1 · Room 1 (Light scene 1)

Summary



Ground area	120.94 m ²
Reflection factors	Ceiling: 70.0 %, Walls: 65.4 %, Floor: 5.7 %
Maintenance factor	0.80 (fixed)

Clearance height	3.000 m
Mounting height	3.000 m
Height Working plane	0.800 m
Wall zone Working plane	0.120 m

Building 1 · Storey 1 · Room 1 (Light scene 1)

Summary

Results

	Symbol	Calculated	Target	Check	Index
Working plane	$\bar{E}_{\text{perpendicular}}$	2563 lx	$\geq 500 \text{ lx}$	✓	WP1
	$U_o(g_1)$	0.16	≥ 0.60	✗	WP1
	Lighting power density	28.89 W/m ²	-		
		1.13 W/m ² /100 lx	-		
Glare valuation ⁽¹⁾	$R_{UG, \text{max}}$	30	≤ 19	✗	
Energy estimation ⁽²⁾	Consumption	[6735 - 8004] kWh/a	max. 4250 kWh/a	✗	
Space	Lighting power density	26.74 W/m ²	-		
		1.04 W/m ² /100 lx	-		

(1) Based on a rectangular space of 16.675 m x 12.350 m and SHR of 0.25.

(2) Calculated using DIN:18599-4.

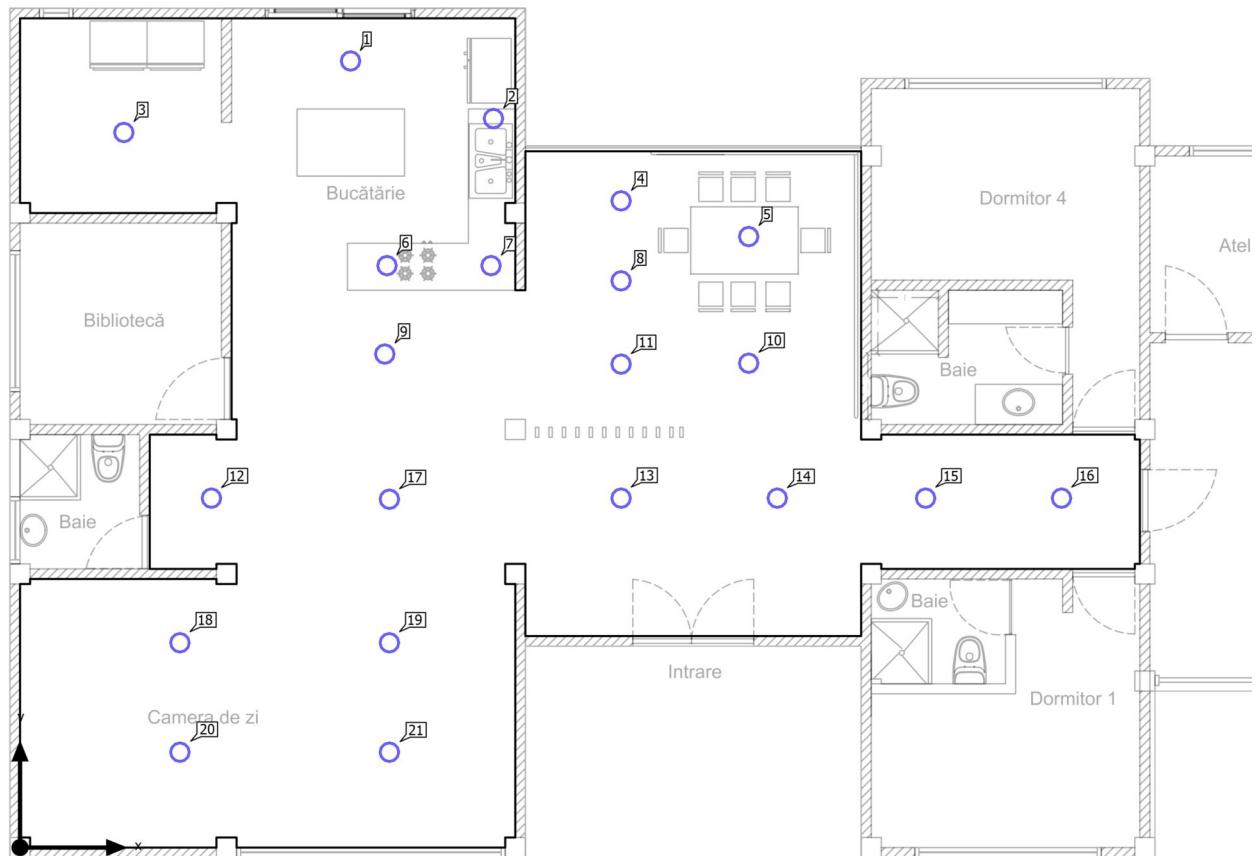
Utilisation profile: DIALux presetting (34.2 Standard (office))

Luminaire list

pcs.	Manufacturer	Article No.	Article name	R _{UG}	P	Φ	Luminous efficacy
21	Philips	BY101P LED210S/840 WB PSU		30	154.0 W	20500 lm	133.1 lm/W

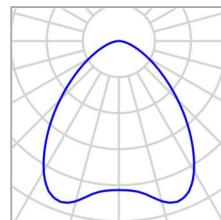
Building 1 · Storey 1 · Room 1

Luminaire layout plan



Building 1 · Storey 1 · Room 1

Luminaire layout plan



Manufacturer	Philips	P	154.0 W
Article name	BY101P LED210S/840 WB PSU	$\Phi_{\text{Luminaire}}$	20500 lm
Fitting	1x		

Individual luminaires

X	Y	Mounting height	Luminaire
4.922 m	11.715 m	3.000 m	1
7.049 m	10.857 m	3.000 m	2
1.545 m	10.650 m	3.000 m	3
8.950 m	9.631 m	3.000 m	4
10.850 m	9.100 m	3.000 m	5
5.464 m	8.667 m	3.000 m	6
7.013 m	8.667 m	3.000 m	7
8.950 m	8.440 m	3.000 m	8
5.431 m	7.350 m	3.000 m	9
10.850 m	7.213 m	3.000 m	10
8.950 m	7.200 m	3.000 m	11
2.850 m	5.204 m	3.000 m	12
8.950 m	5.204 m	3.000 m	13

Building 1 · Storey 1 · Room 1

Luminaire layout plan

X	Y	Mounting height	Luminaire
11.275 m	5.204 m	3.000 m	14
13.484 m	5.204 m	3.000 m	15
15.508 m	5.204 m	3.000 m	16
5.500 m	5.188 m	3.000 m	17
2.381 m	3.050 m	3.000 m	18
5.500 m	3.050 m	3.000 m	19
2.381 m	1.421 m	3.000 m	20
5.500 m	1.421 m	3.000 m	21

Building 1 · Storey 1 · Room 1

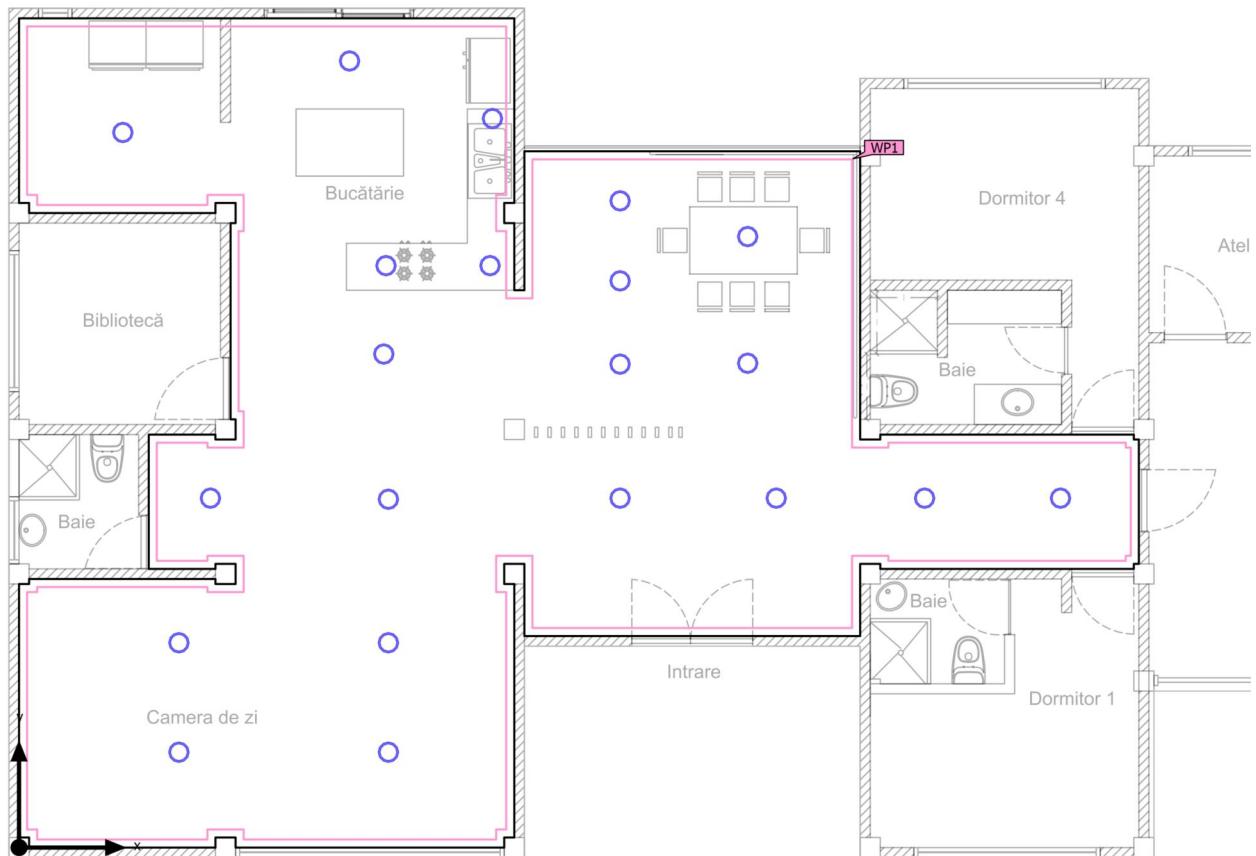
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
430500 lm	3234.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
21	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 1 · Storey 1 · Room 1 (Light scene 1)

Calculation objects



Building 1 · Storey 1 · Room 1 (Light scene 1)

Calculation objects

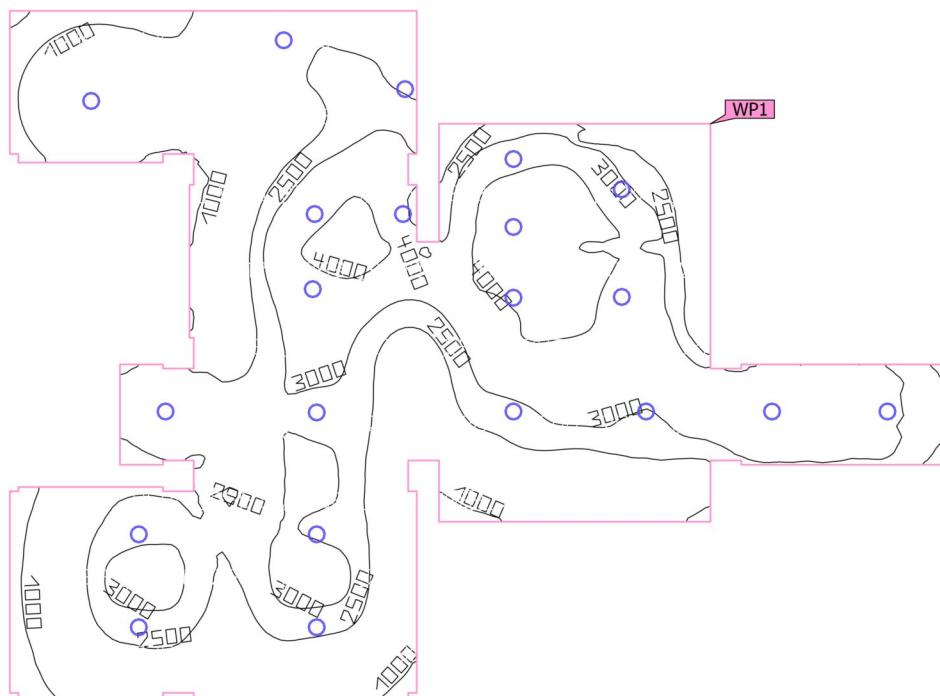
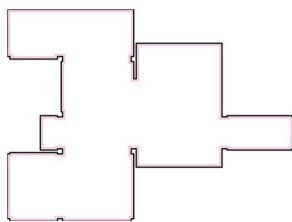
Working planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 1)	2563 lx	417 lx	4999 lx	0.16	0.083	WP1
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.120 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 1 (Light scene 1)

Working plane (Room 1)

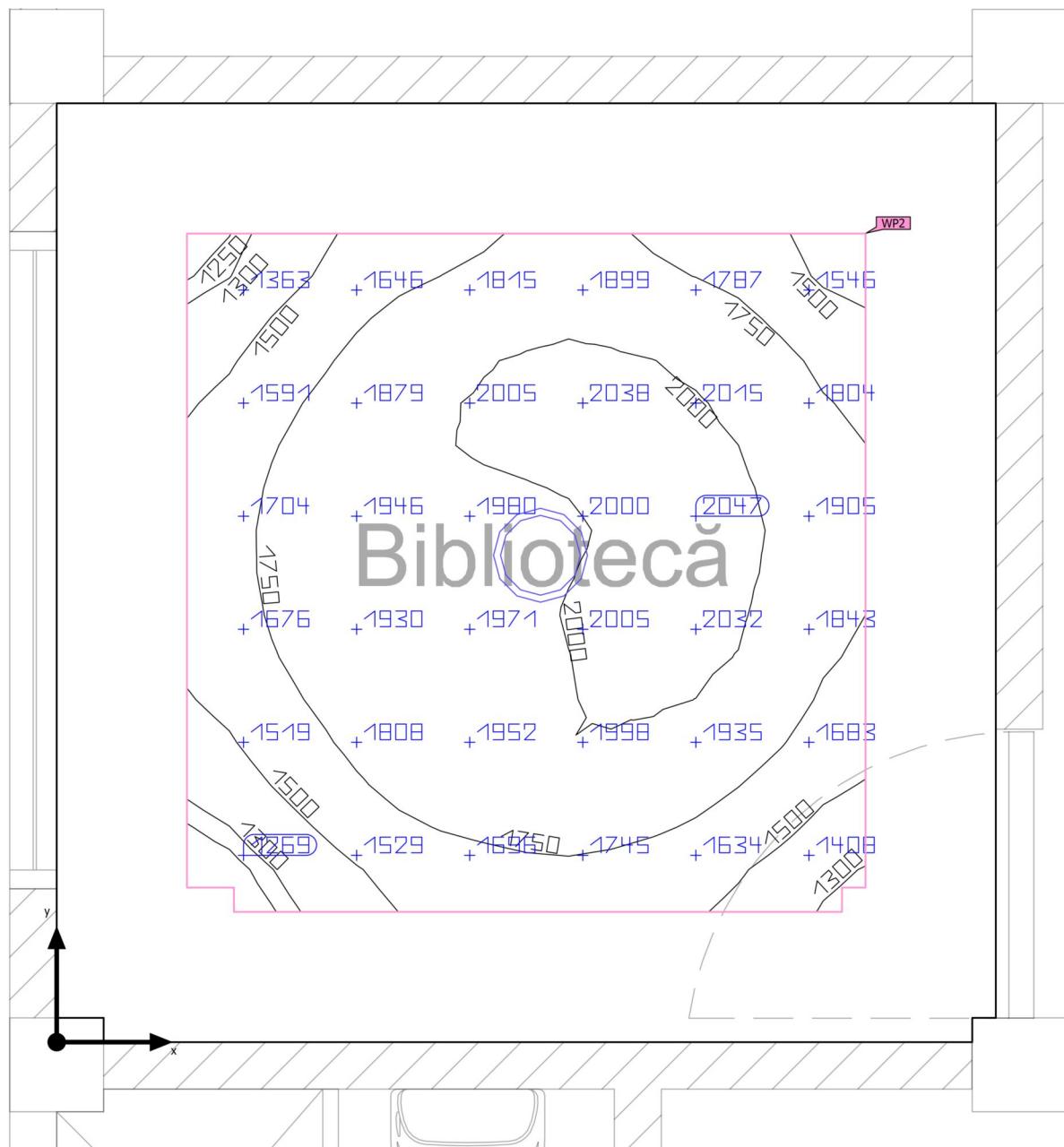


Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 1)	2563 lx	417 lx	4999 lx	0.16	0.083	WP1
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.120 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 2 (Light scene 1)

Summary



Ground area	8.98 m ²
Reflection factors	Ceiling: 70.0 %, Walls: 85.1 %, Floor: 5.7 %
Maintenance factor	0.80 (fixed)

Clearance height	3.000 m
Mounting height	3.000 m
Height Working plane	0.800 m
Wall zone Working plane	0.416 m

Building 1 · Storey 1 · Room 2 (Light scene 1)

Summary

Results

	Symbol	Calculated	Target	Check	Index
Working plane	$\bar{E}_{\text{perpendicular}}$	1797 lx	$\geq 500 \text{ lx}$	✓	WP2
	$U_o(g_1)$	0.68	≥ 0.60	✓	WP2
	Lighting power density	32.90 W/m ²	-		
		1.83 W/m ² /100 lx	-		
Glare valuation ⁽¹⁾	$R_{UG, \text{max}}$	28	≤ 19	✗	
Energy estimation ⁽²⁾	Consumption	[240 - 381] kWh/a	max. 350 kWh/a	✗	
Space	Lighting power density	17.14 W/m ²	-		
		0.95 W/m ² /100 lx	-		

(1) Based on a rectangular space of 3.000 m x 3.000 m and SHR of 0.25.

(2) Calculated using DIN:18599-4.

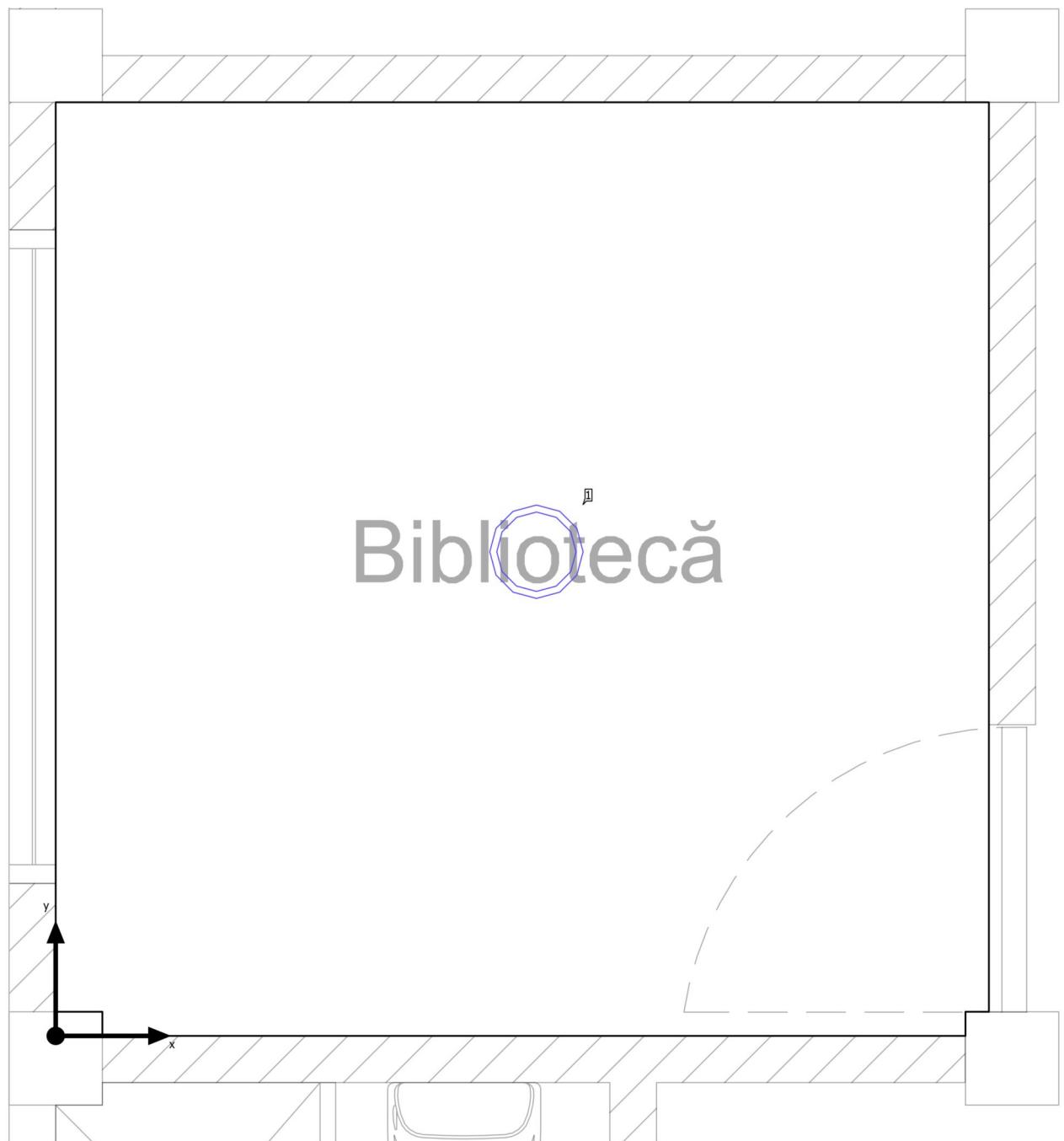
Utilisation profile: DIALux presetting (34.2 Standard (office))

Luminaire list

pcs.	Manufacturer	Article No.	Article name	R _{UG}	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		28	154.0 W	20500 lm	133.1 lm/W

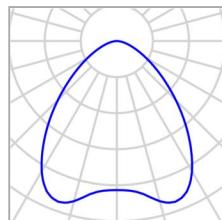
Building 1 · Storey 1 · Room 2

Luminaire layout plan



Building 1 · Storey 1 · Room 2

Luminaire layout plan



Manufacturer	Philips	P	154.0 W
Article name	BY101P LED210S/840 WB PSU	$\Phi_{\text{Luminaire}}$	20500 lm
Fitting	1x		

Individual luminaires

X	Y	Mounting height	Luminaire
1.545 m	1.556 m	3.000 m	1

Building 1 · Storey 1 · Room 2

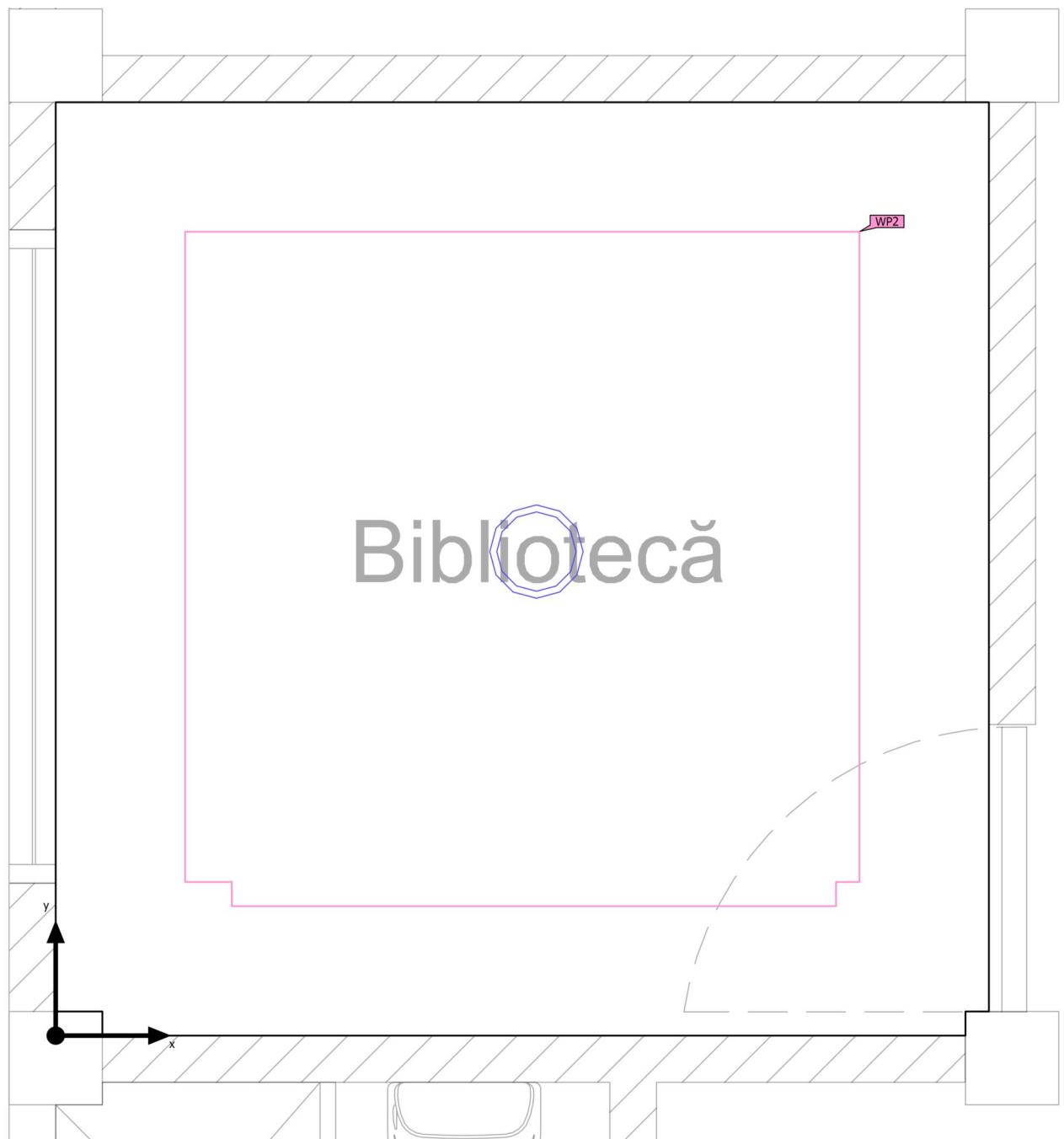
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
20500 lm	154.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 1 · Storey 1 · Room 2 (Light scene 1)

Calculation objects



Building 1 · Storey 1 · Room 2 (Light scene 1)

Calculation objects

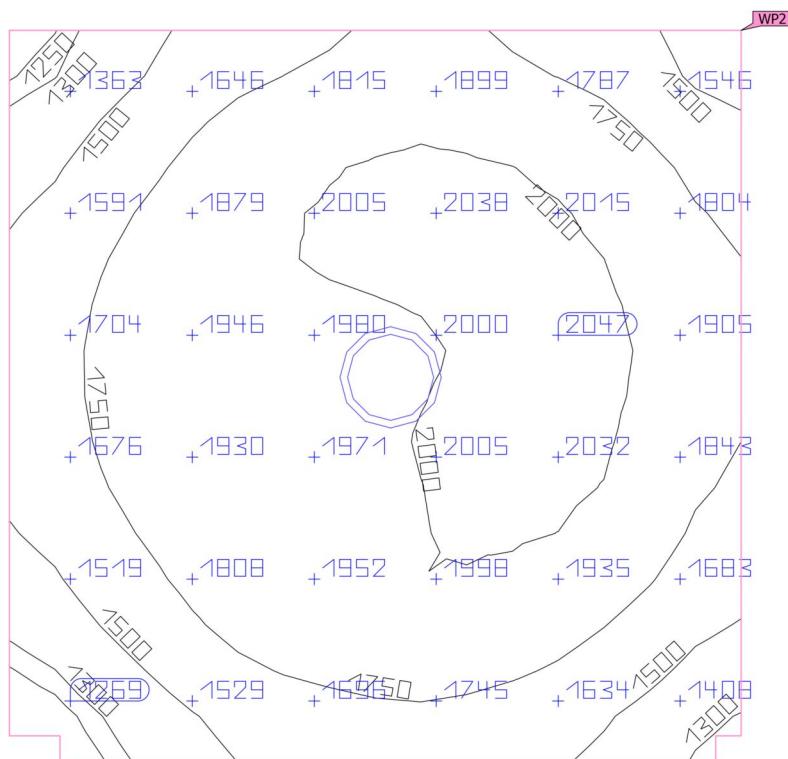
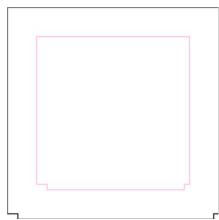
Working planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 2)	1797 lx	1225 lx	2042 lx	0.68	0.60	WP2
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.416 m	✓			✓		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 2 (Light scene 1)

Working plane (Room 2)

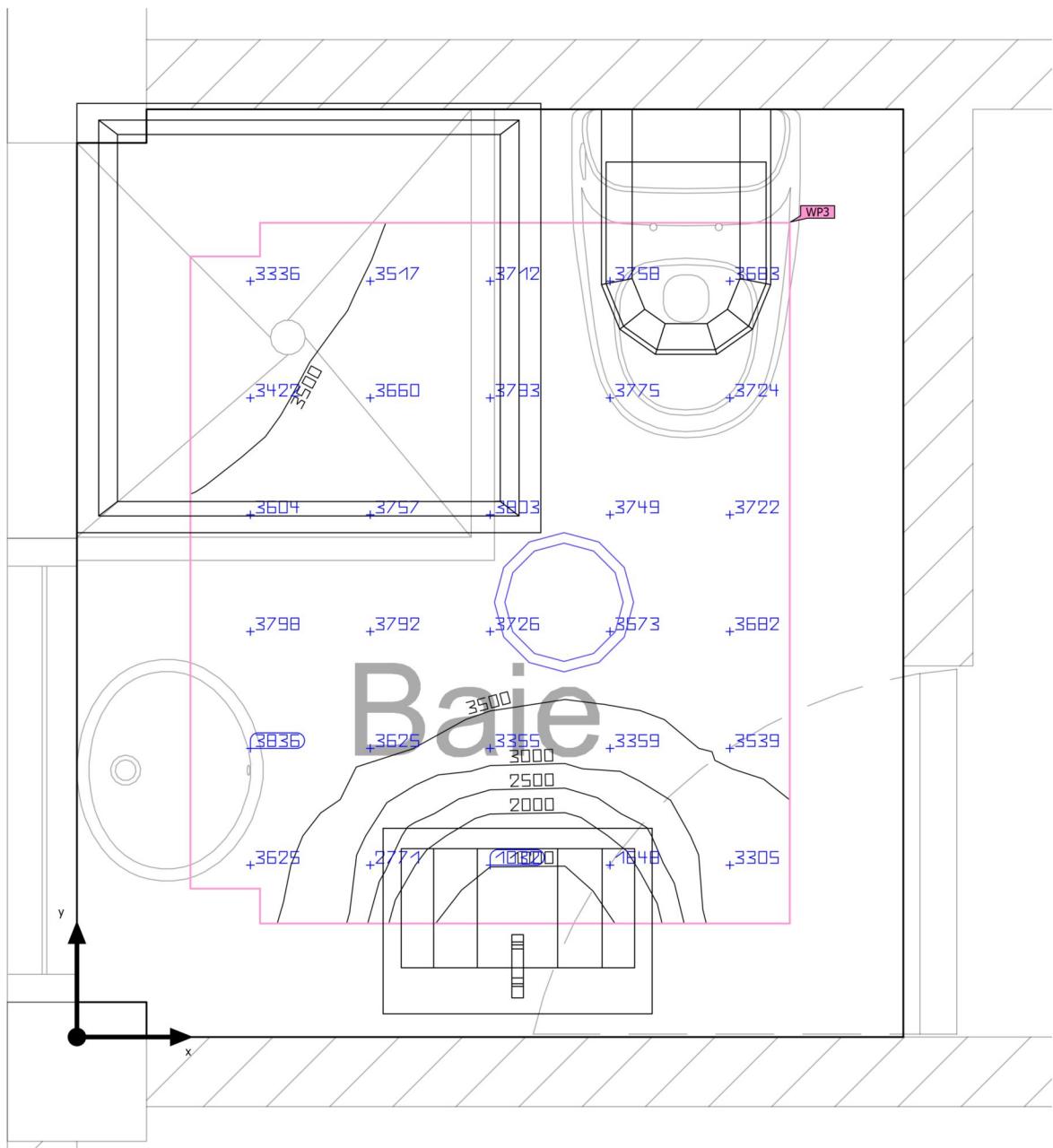


Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 2)	1797 lx	1225 lx	2042 lx	0.68 (≥ 0.60)	0.60	WP2
Perpendicular illuminance (adaptive)	(≥ 500 lx)					
Height: 0.800 m, Wall zone: 0.416 m	✓			✓		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 3 (Light scene 1)

Summary



Ground area	3.54 m ²	Clearance height	3.000 m
Reflection factors	Ceiling: 70.0 %, Walls: 83.8 %, Floor: 70.0 %	Mounting height	3.000 m
Maintenance factor	0.80 (fixed)	Height Working plane	0.800 m
		Wall zone Working plane	0.245 m

Building 1 · Storey 1 · Room 3 (Light scene 1)

Summary

Results

	Symbol	Calculated	Target	Check	Index
Working plane	$\bar{E}_{\text{perpendicular}}$	3440 lx	$\geq 500 \text{ lx}$	✓	WP3
	$U_o (g_1)$	0.22	≥ 0.60	✗	WP3
	Lighting power density	79.81 W/m ²	-		
		2.32 W/m ² /100 lx	-		
Glare valuation ⁽¹⁾	$R_{UG, \text{max}}$	28	≤ 19	✗	
Energy estimation ⁽²⁾	Consumption	381 kWh/a	max. 150 kWh/a	✗	
Space	Lighting power density	43.49 W/m ²	-		
		1.26 W/m ² /100 lx	-		

(1) Based on a rectangular space of 2.000 m x 1.781 m and SHR of 0.25.

(2) Calculated using DIN:18599-4.

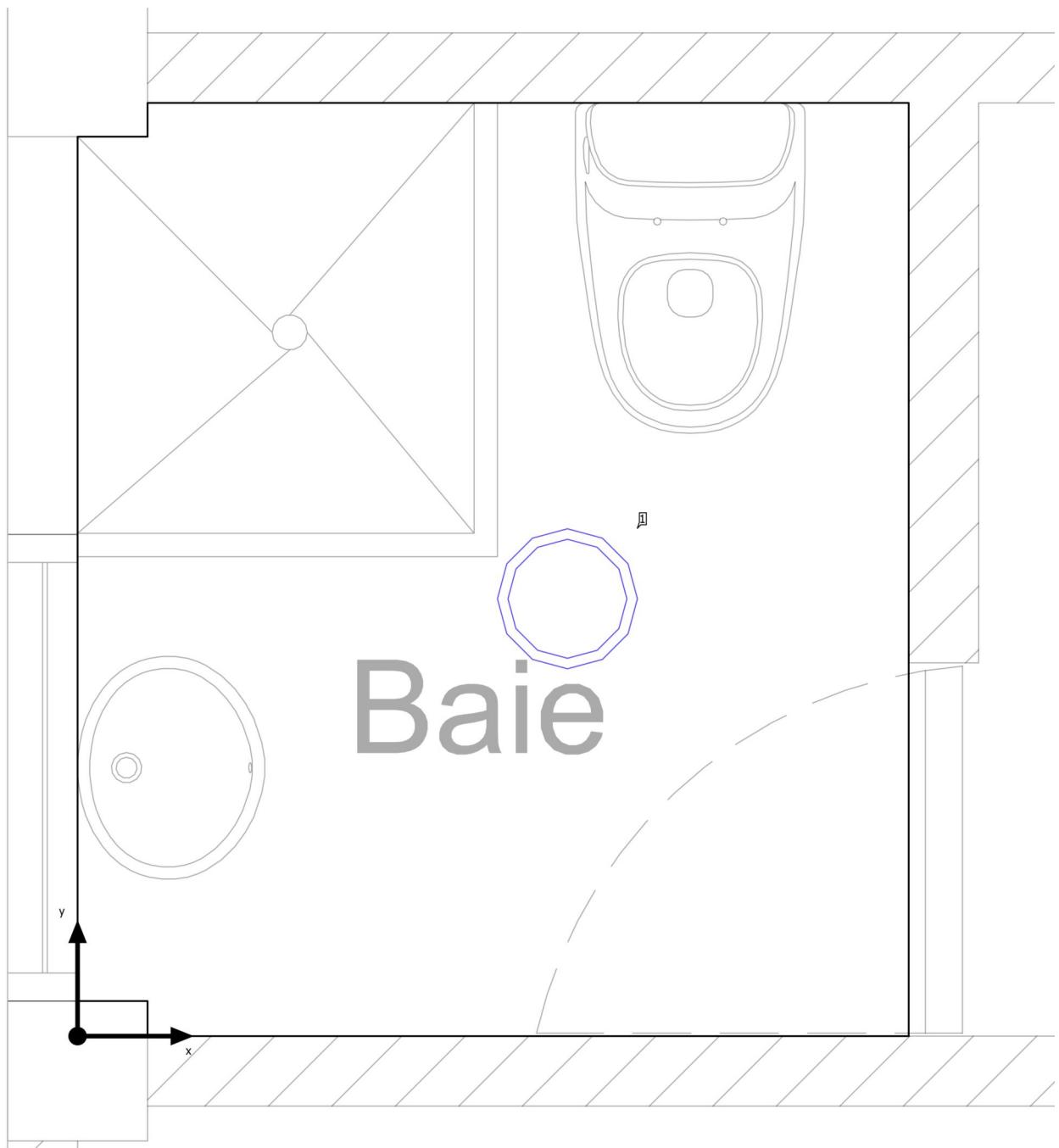
Utilisation profile: DIALux presetting (34.2 Standard (office))

Luminaire list

pcs.	Manufacturer	Article No.	Article name	R _{UG}	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		28	154.0 W	20500 lm	133.1 lm/W

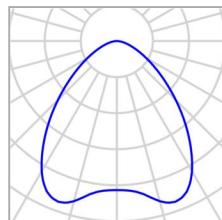
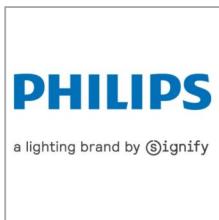
Building 1 · Storey 1 · Room 3

Luminaire layout plan



Building 1 · Storey 1 · Room 3

Luminaire layout plan



Manufacturer	Philips	P	154.0 W
Article name	BY101P LED210S/840 WB PSU	$\Phi_{\text{Luminaire}}$	20500 lm
Fitting	1x		

Individual luminaires

X	Y	Mounting height	Luminaire
1.050 m	0.937 m	3.000 m	1

Building 1 · Storey 1 · Room 3

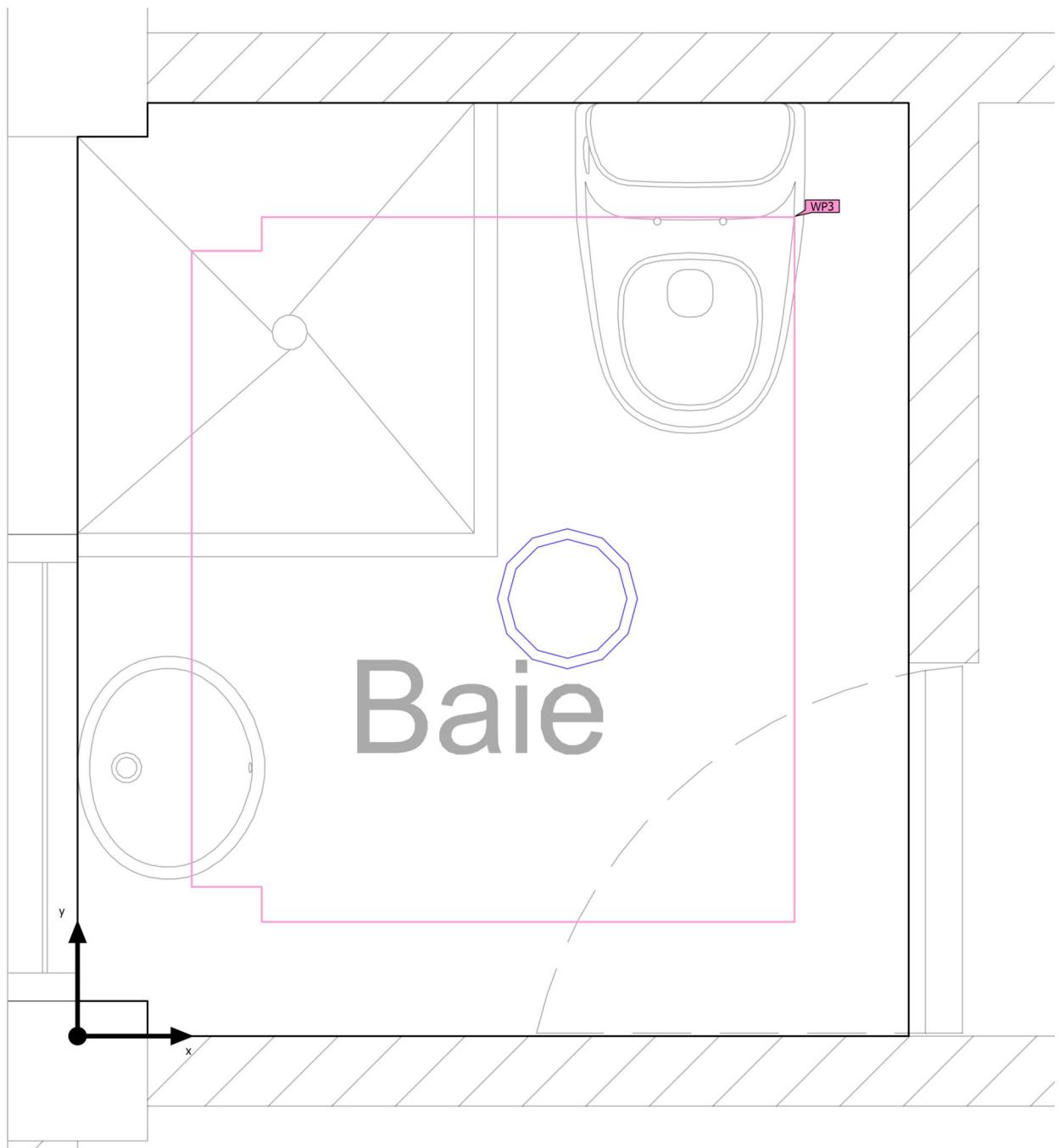
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
20500 lm	154.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 1 · Storey 1 · Room 3 (Light scene 1)

Calculation objects



Building 1 · Storey 1 · Room 3 (Light scene 1)

Calculation objects

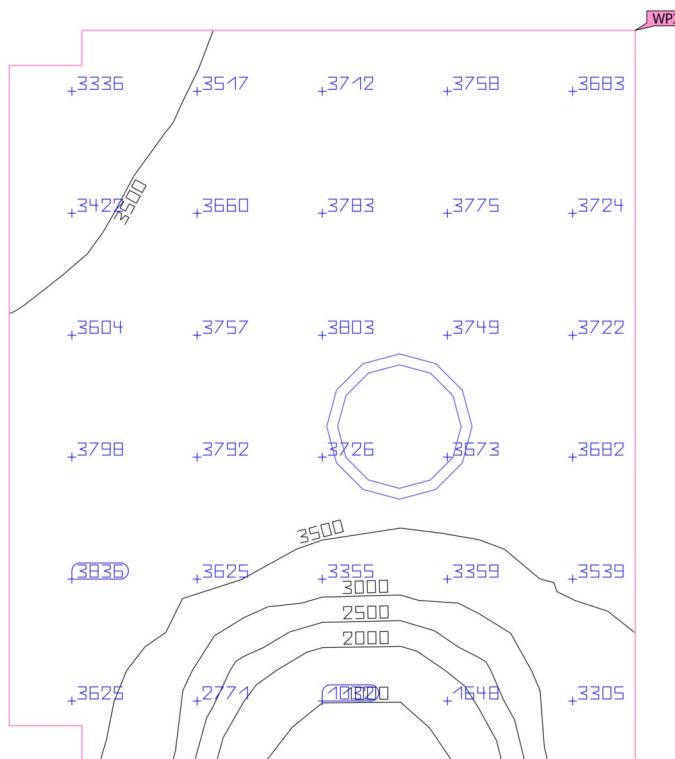
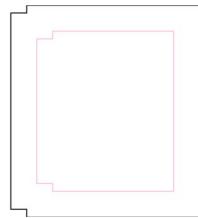
Working planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 3)	3440 lx	769 lx	3864 lx	0.22	0.20	WP3
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.245 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 3 (Light scene 1)

Working plane (Room 3)

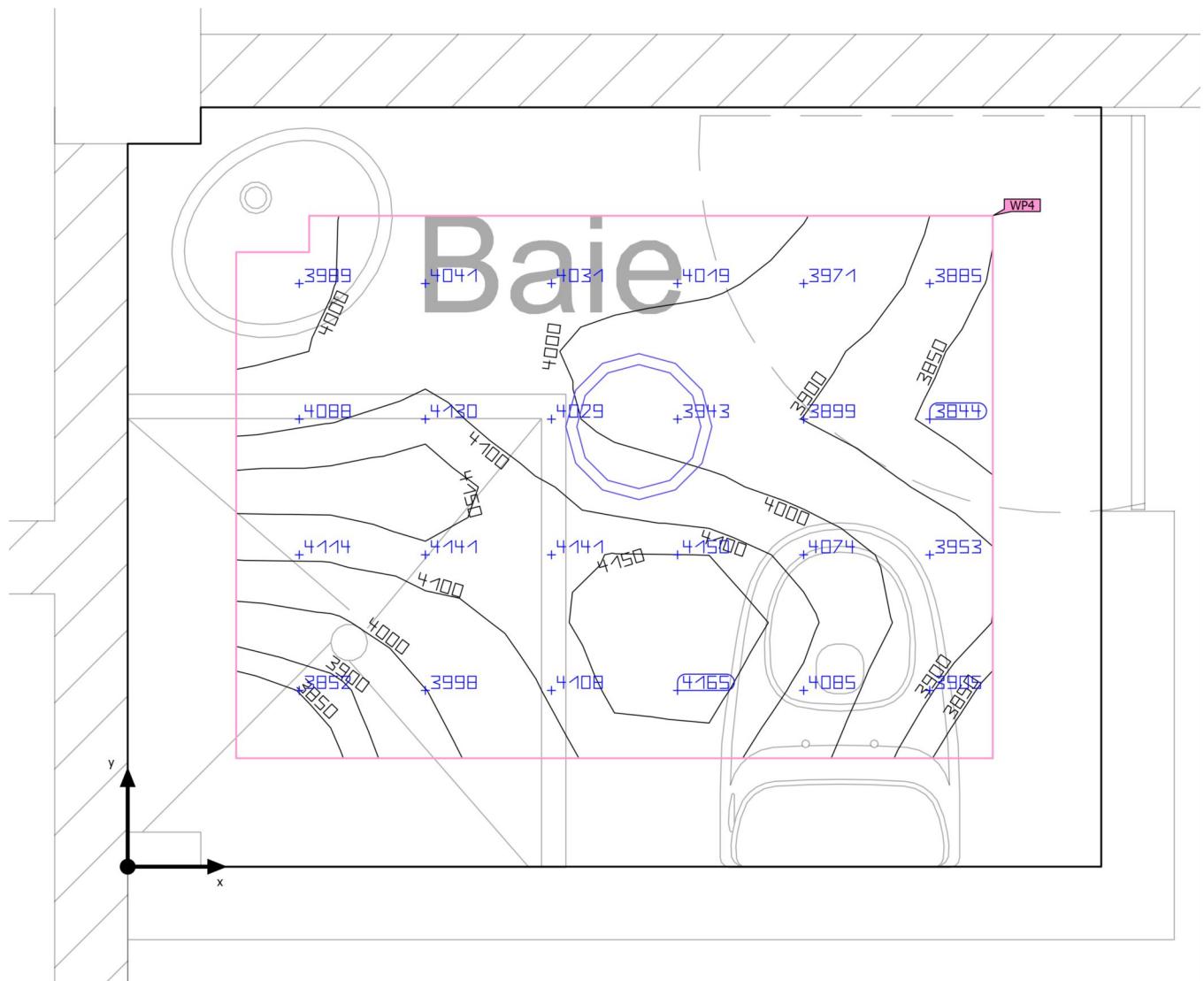


Properties	\bar{E} (Target)	E_{\min}	E_{\max}	$U_0 (g_1)$ (Target)	g_2	Index
Working plane (Room 3)	3440 lx	769 lx	3864 lx	0.22	0.20	WP3
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.245 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 4 (Light scene 1)

Summary



Ground area	3.11 m ²
Reflection factors	Ceiling: 70.0 %, Walls: 83.8 %, Floor: 70.0 %
Maintenance factor	0.80 (fixed)

Clearance height	3.000 m
Mounting height	3.000 m
Height Working plane	0.800 m
Wall zone Working plane	0.223 m

Building 1 · Storey 1 · Room 4 (Light scene 1)

Summary

Results

	Symbol	Calculated	Target	Check	Index
Working plane	$\bar{E}_{\text{perpendicular}}$	4021 lx	$\geq 500 \text{ lx}$	✓	WP4
	$U_o (g_1)$	0.95	≥ 0.60	✓	WP4
	Lighting power density	89.45 W/m ²	-		
		2.22 W/m ² /100 lx	-		
Glare valuation ⁽¹⁾	$R_{UG, \text{max}}$	28	≤ 19	✗	
Energy estimation ⁽²⁾	Consumption	381 kWh/a	max. 150 kWh/a	✗	
Space	Lighting power density	49.52 W/m ²	-		
		1.23 W/m ² /100 lx	-		

(1) Based on a rectangular space of 2.000 m x 1.561 m and SHR of 0.25.

(2) Calculated using DIN:18599-4.

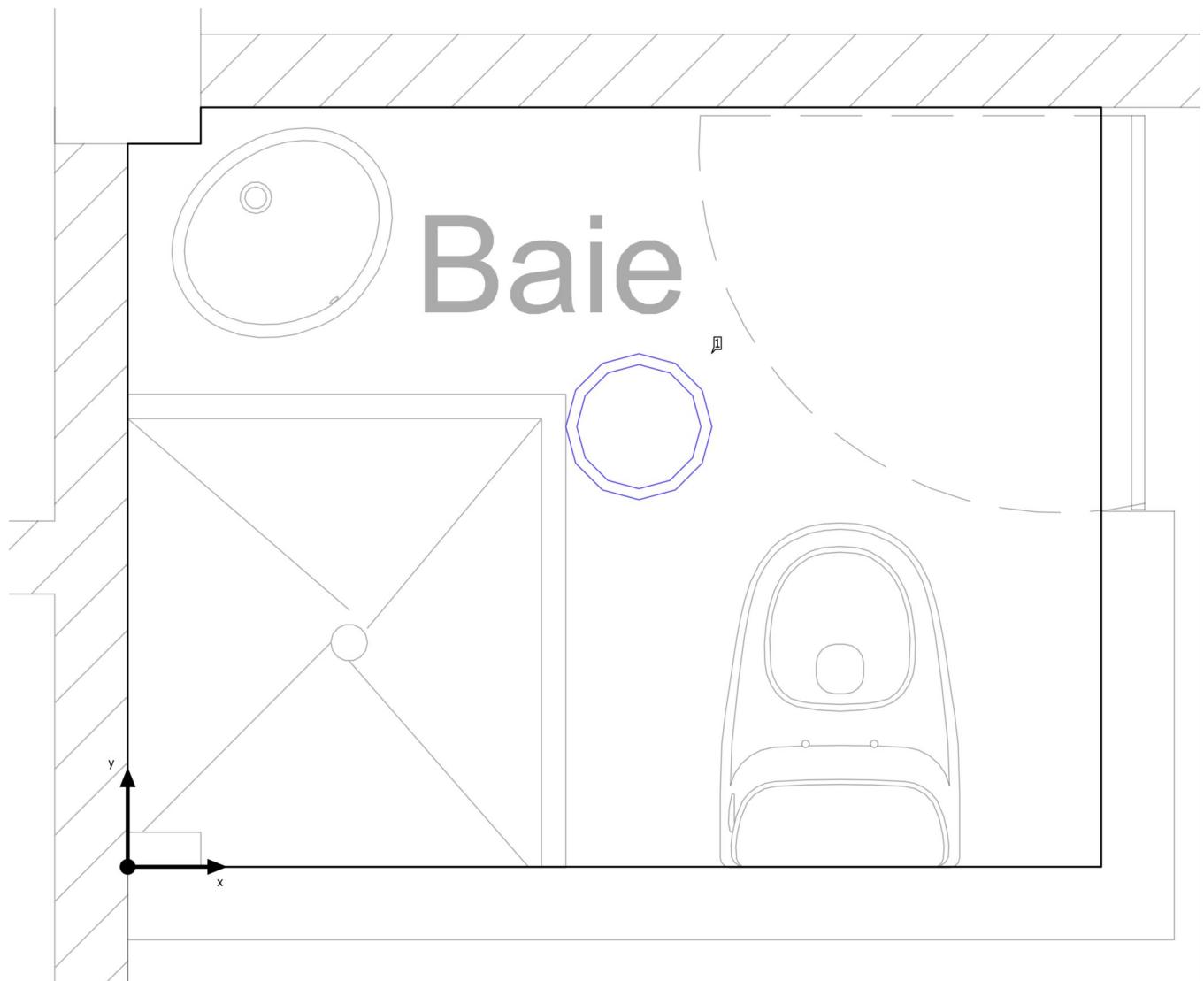
Utilisation profile: DIALux presetting (34.2 Standard (office))

Luminaire list

pcs.	Manufacturer	Article No.	Article name	R _{UG}	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		28	154.0 W	20500 lm	133.1 lm/W

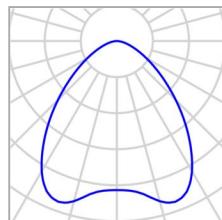
Building 1 · Storey 1 · Room 4

Luminaire layout plan



Building 1 · Storey 1 · Room 4

Luminaire layout plan



Manufacturer	Philips	P	154.0 W
Article name	BY101P LED210S/840 WB PSU	$\Phi_{\text{Luminaire}}$	20500 lm
Fitting	1x		

Individual luminaires

X	Y	Mounting height	Luminaire
1.050 m	0.904 m	3.000 m	1

Building 1 · Storey 1 · Room 4

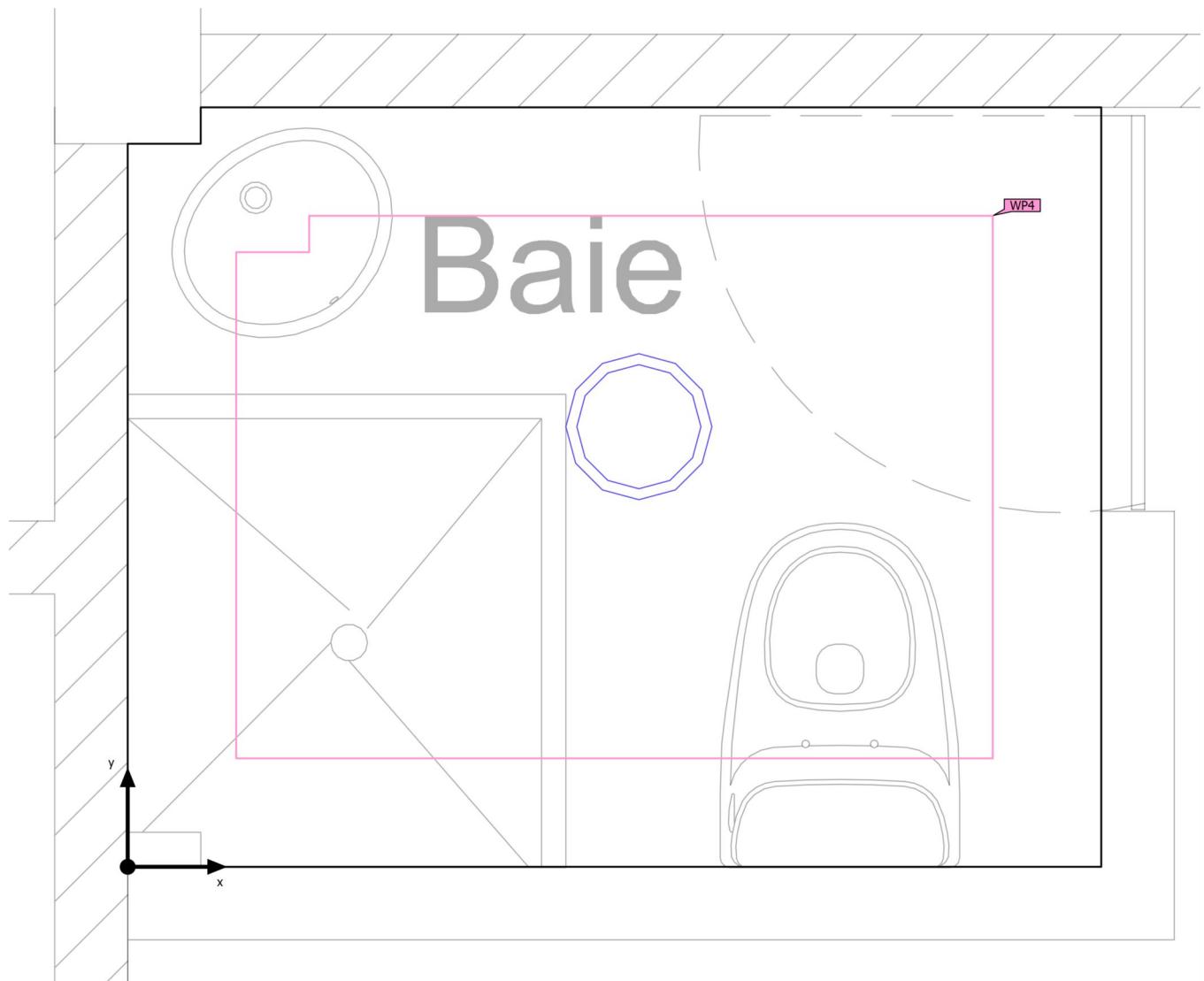
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
20500 lm	154.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 1 · Storey 1 · Room 4 (Light scene 1)

Calculation objects



Building 1 · Storey 1 · Room 4 (Light scene 1)

Calculation objects

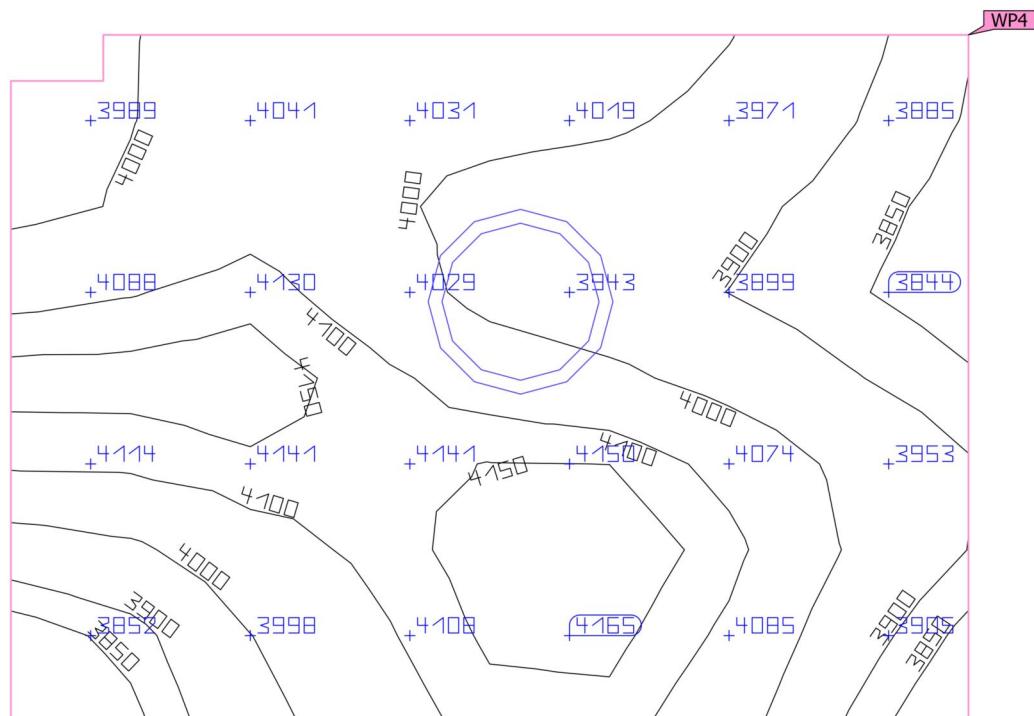
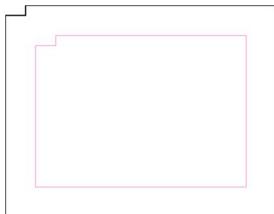
Working planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 4)	4021 lx	3806 lx	4177 lx	0.95	0.91	WP4
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.223 m	✓			✓		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 4 (Light scene 1)

Working plane (Room 4)

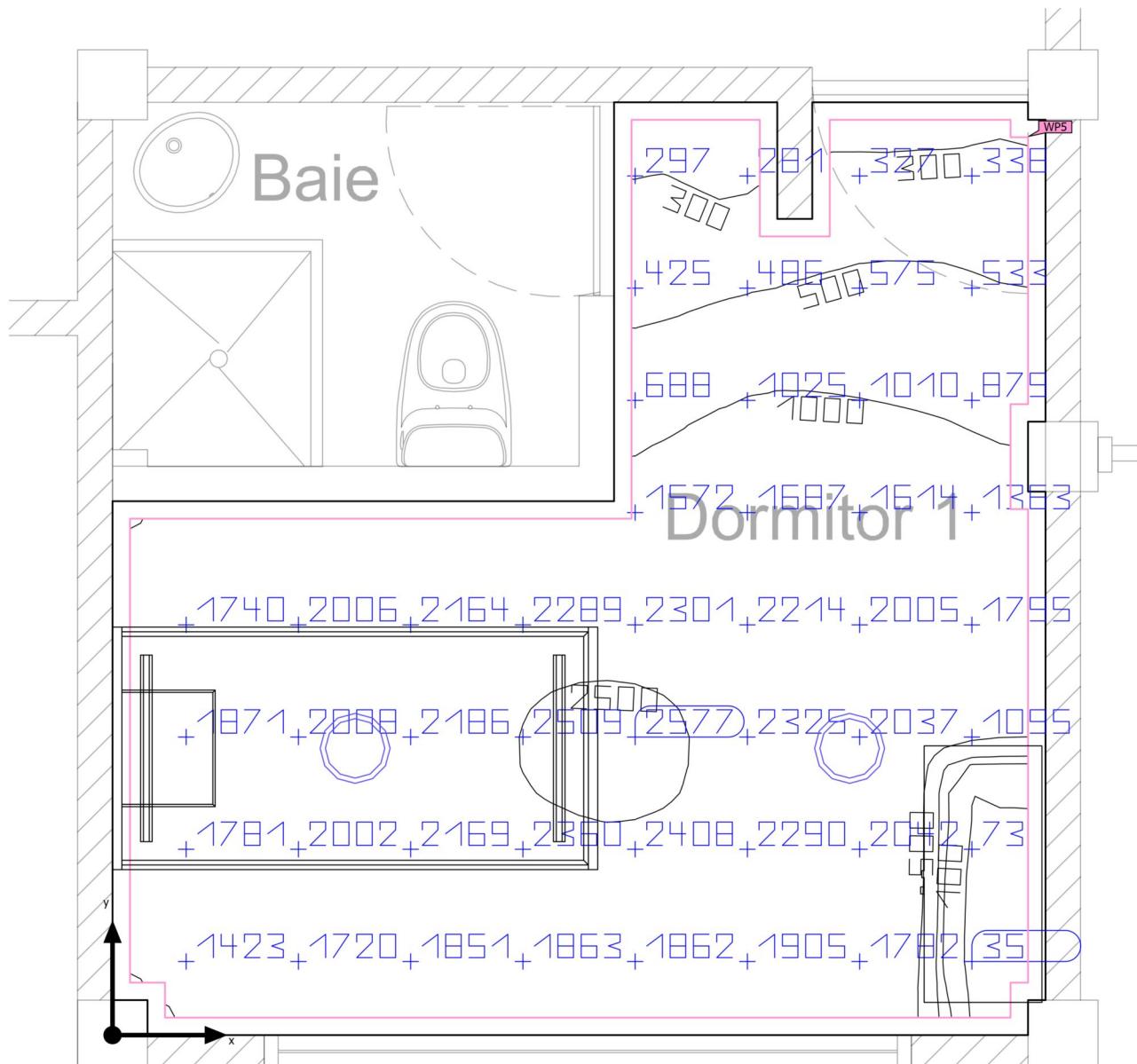


Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_0 (g_1)$ (Target)	g_2	Index
Working plane (Room 4)	4021 lx	3806 lx	4177 lx	0.95	0.91	WP4
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.223 m	✓			✓		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 5 (Light scene 1)

Summary



Ground area	12.19 m ²	Clearance height	3.000 m
Reflection factors	Ceiling: 70.0 %, Walls: 27.0 %, Floor: 35.1 %	Mounting height	3.000 m
Maintenance factor	0.80 (fixed)	Height Working plane	0.800 m
		Wall zone Working plane	0.075 m

Building 1 · Storey 1 · Room 5 (Light scene 1)

Summary

Results

	Symbol	Calculated	Target	Check	Index
Working plane	$\bar{E}_{\text{perpendicular}}$	1607 lx	≥ 500 lx	✓	WP5
	$U_o (g_1)$	0.022	≥ 0.60	✗	WP5
	Lighting power density	28.20 W/m ²	-		
		1.75 W/m ² /100 lx	-		
Glare valuation ⁽¹⁾	$R_{UG, \text{max}}$	29	≤ 19	✗	
Energy estimation ⁽²⁾	Consumption	[480 - 762] kWh/a	max. 450 kWh/a	✗	
Space	Lighting power density	25.28 W/m ²	-		
		1.57 W/m ² /100 lx	-		

(1) Based on a rectangular space of 4.000 m x 4.000 m and SHR of 0.25.

(2) Calculated using DIN:18599-4.

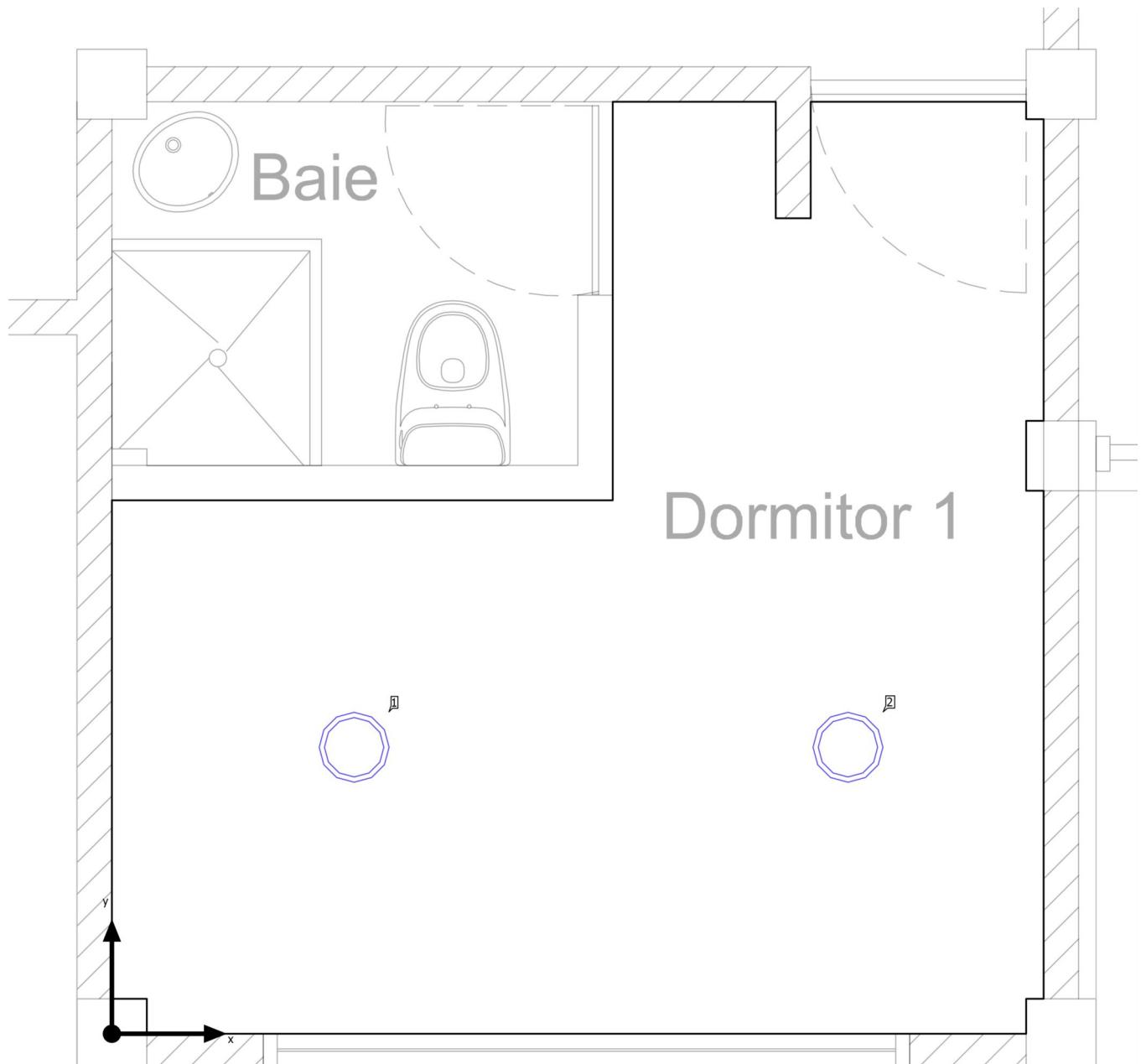
Utilisation profile: DIALux presetting (34.2 Standard (office))

Luminaire list

pcs.	Manufacturer	Article No.	Article name	R _{UG}	P	Φ	Luminous efficacy
2	Philips	BY101P	LED210S/840 WB PSU	29	154.0 W	20500 lm	133.1 lm/W

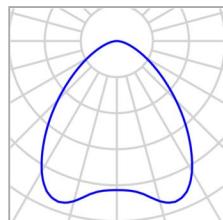
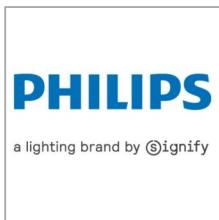
Building 1 · Storey 1 · Room 5

Luminaire layout plan



Building 1 · Storey 1 · Room 5

Luminaire layout plan



Manufacturer	Philips	P	154.0 W
Article name	BY101P LED210S/840 WB PSU	$\Phi_{\text{Luminaire}}$	20500 lm
Fitting	1x		

Individual luminaires

X	Y	Mounting height	Luminaire
1.040 m	1.230 m	3.000 m	[1]
3.160 m	1.230 m	3.000 m	[2]

Building 1 · Storey 1 · Room 5

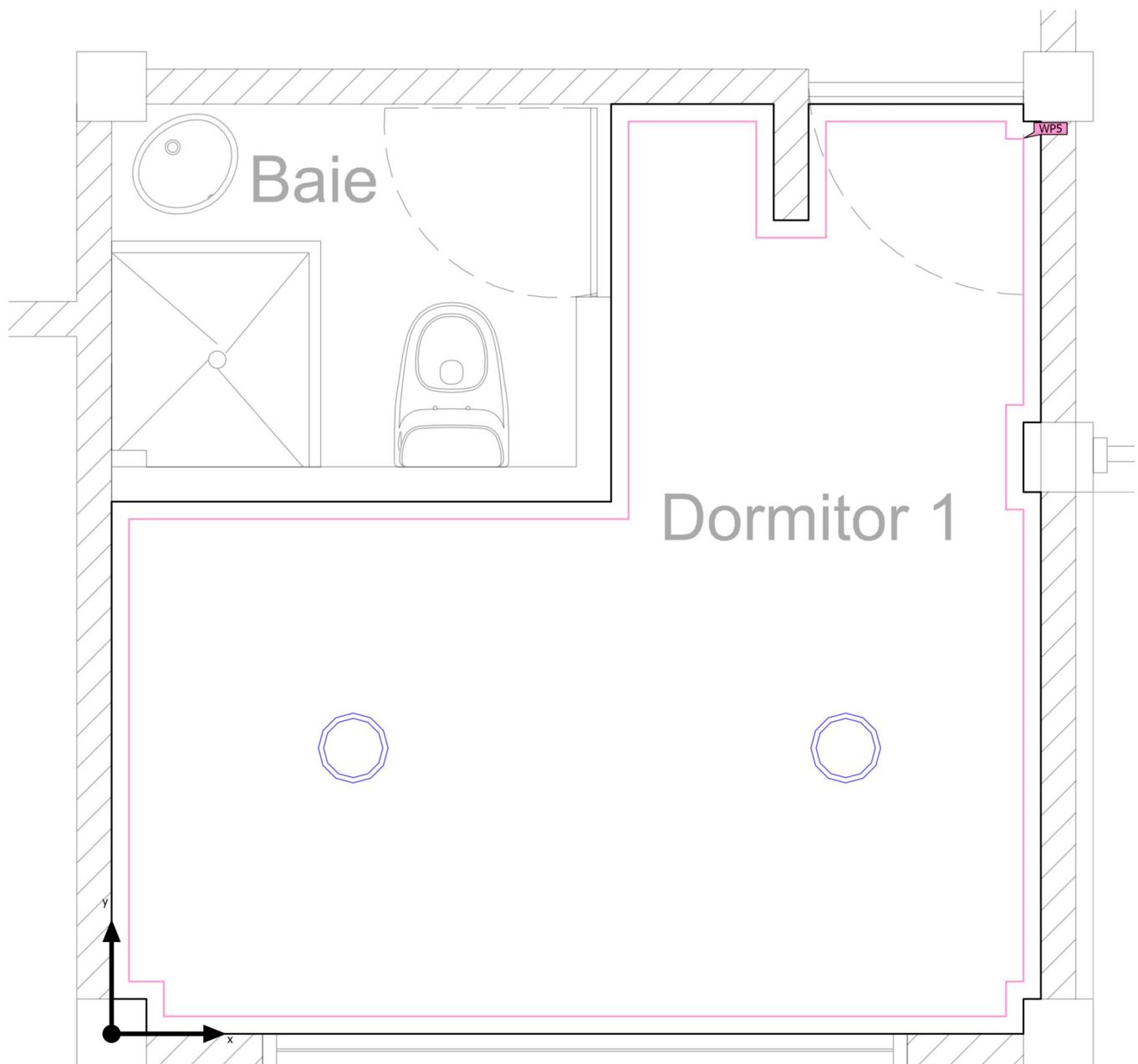
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
41000 lm	308.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 1 · Storey 1 · Room 5 (Light scene 1)

Calculation objects



Building 1 · Storey 1 · Room 5 (Light scene 1)

Calculation objects

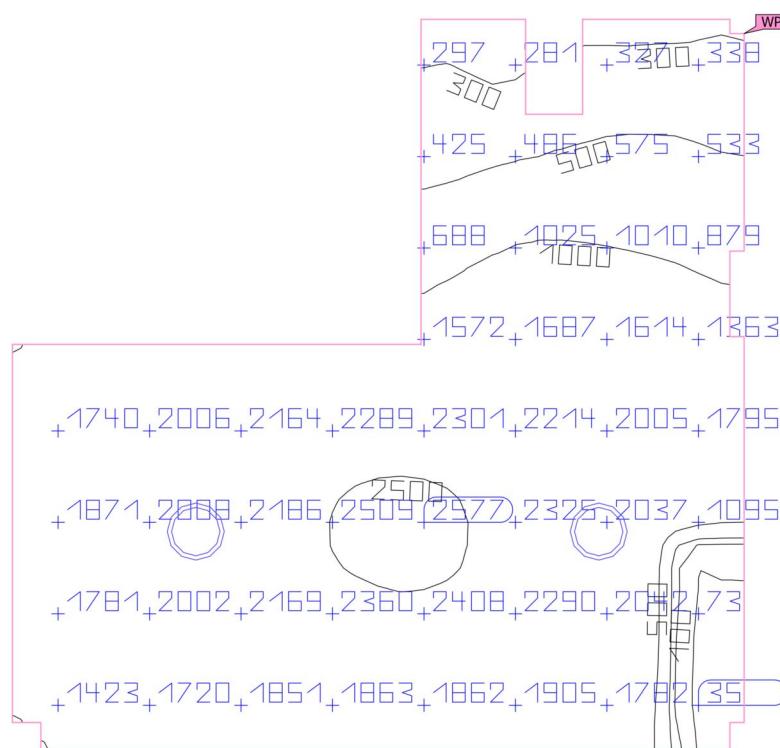
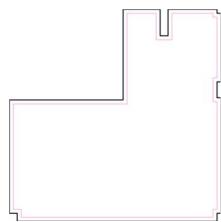
Working planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 5)	1607 lx	35.6 lx	2583 lx	0.022	0.014	WP5
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.075 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 5 (Light scene 1)

Working plane (Room 5)

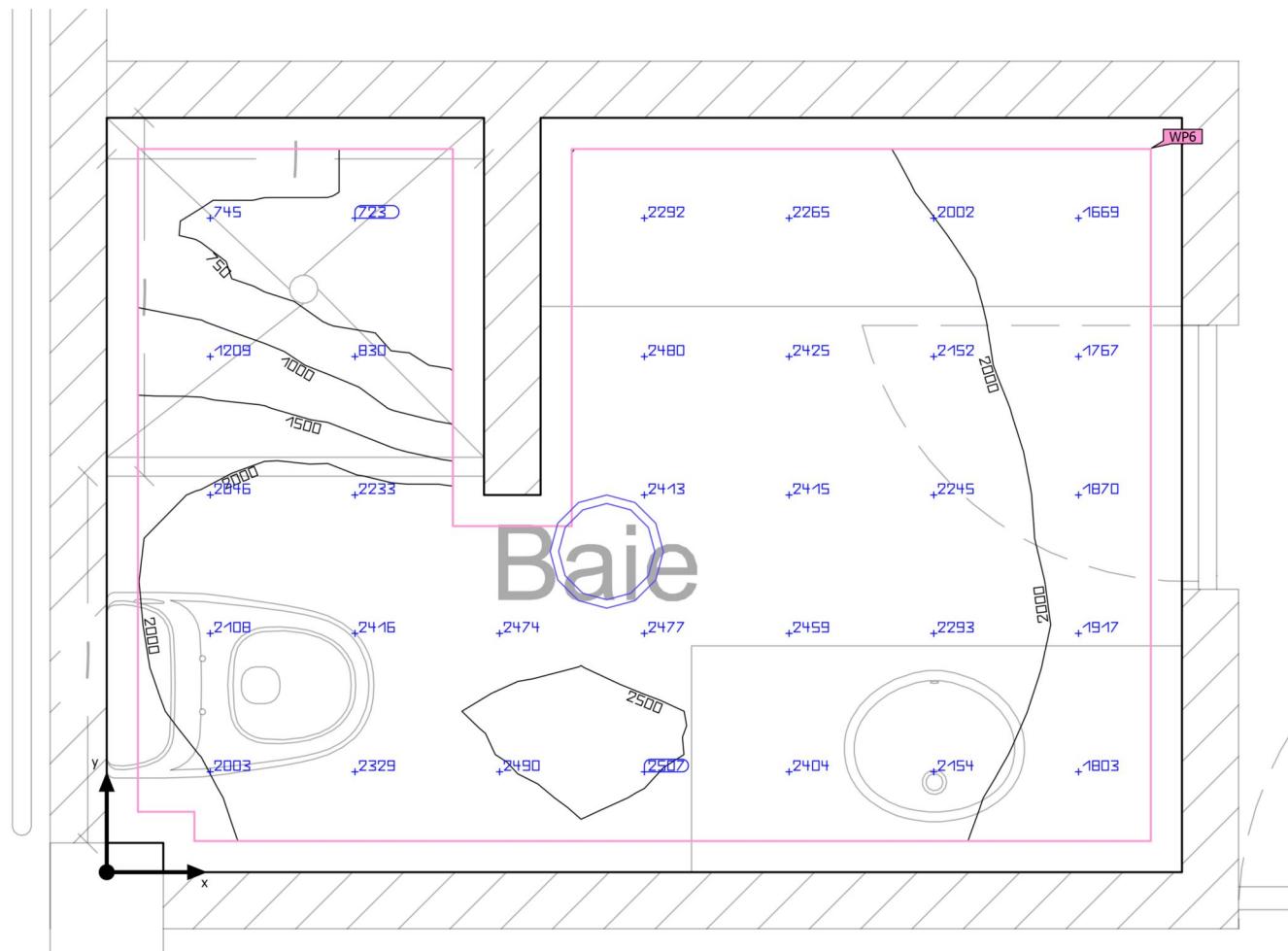


Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 5)	1607 lx	35.6 lx	2583 lx	0.022	0.014	WP5
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.075 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 6 (Light scene 1)

Summary



Ground area	5.54 m ²
Reflection factors	Ceiling: 70.0 %, Walls: 70.7 %, Floor: 70.0 %
Maintenance factor	0.80 (fixed)

Clearance height	3.000 m
Mounting height	3.000 m
Height Working plane	0.800 m
Wall zone Working plane	0.083 m

Building 1 · Storey 1 · Room 6 (Light scene 1)

Summary

Results

	Symbol	Calculated	Target	Check	Index
Working plane	$\bar{E}_{\text{perpendicular}}$	2030 lx	$\geq 500 \text{ lx}$	✓	WP6
	$U_o (g_1)$	0.35	≥ 0.60	✗	WP6
	Lighting power density	33.48 W/m ²	-		
		1.65 W/m ² /100 lx	-		
Glare valuation ⁽¹⁾	$R_{UG, \text{max}}$	28	≤ 19	✗	
Energy estimation ⁽²⁾	Consumption	381 kWh/a	max. 200 kWh/a	✗	
Space	Lighting power density	27.81 W/m ²	-		
		1.37 W/m ² /100 lx	-		

(1) Based on a rectangular space of 2.850 m x 2.000 m and SHR of 0.25.

(2) Calculated using DIN:18599-4.

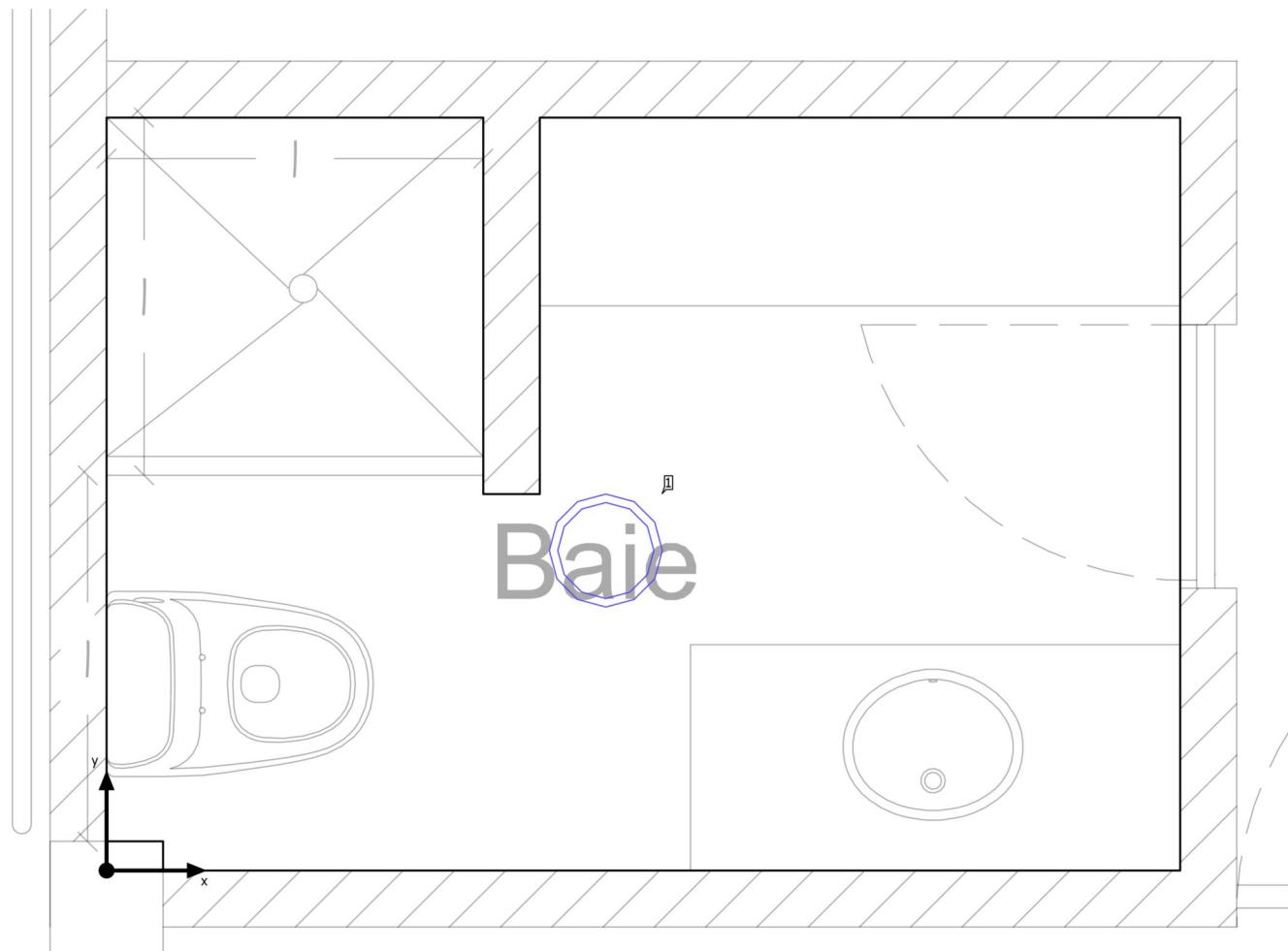
Utilisation profile: DIALux presetting (34.2 Standard (office))

Luminaire list

pcs.	Manufacturer	Article No.	Article name	R _{UG}	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		28	154.0 W	20500 lm	133.1 lm/W

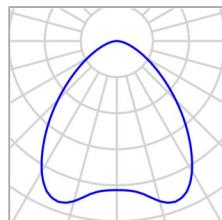
Building 1 · Storey 1 · Room 6

Luminaire layout plan



Building 1 · Storey 1 · Room 6

Luminaire layout plan



Manufacturer	Philips	P	154.0 W
Article name	BY101P LED210S/840 WB PSU	$\Phi_{\text{Luminaire}}$	20500 lm
Fitting	1x		

Individual luminaires

X	Y	Mounting height	Luminaire
1.325 m	0.850 m	3.000 m	1

Building 1 · Storey 1 · Room 6

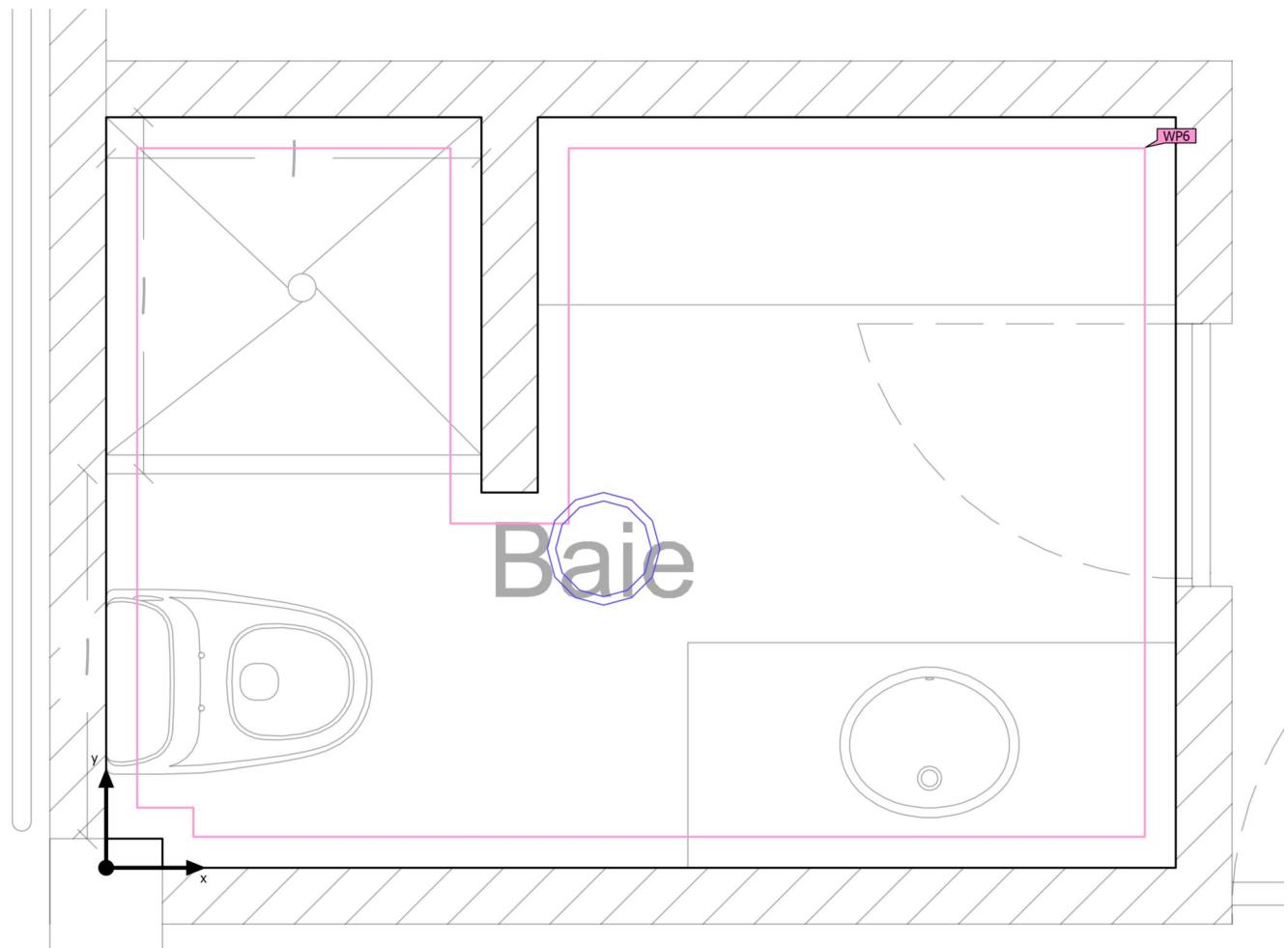
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
20500 lm	154.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 1 · Storey 1 · Room 6 (Light scene 1)

Calculation objects



Building 1 · Storey 1 · Room 6 (Light scene 1)

Calculation objects

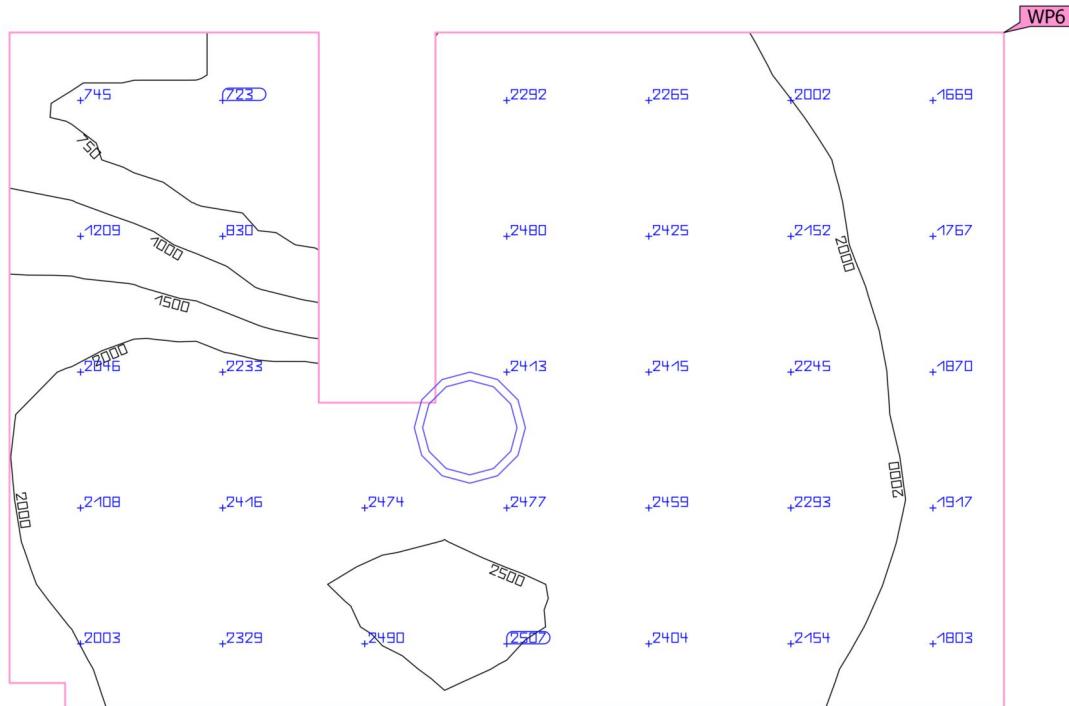
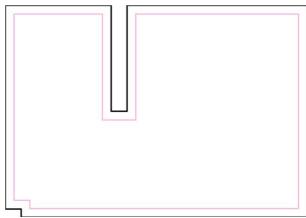
Working planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 6)	2030 lx	704 lx	2512 lx	0.35	0.28	WP6
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.083 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 6 (Light scene 1)

Working plane (Room 6)

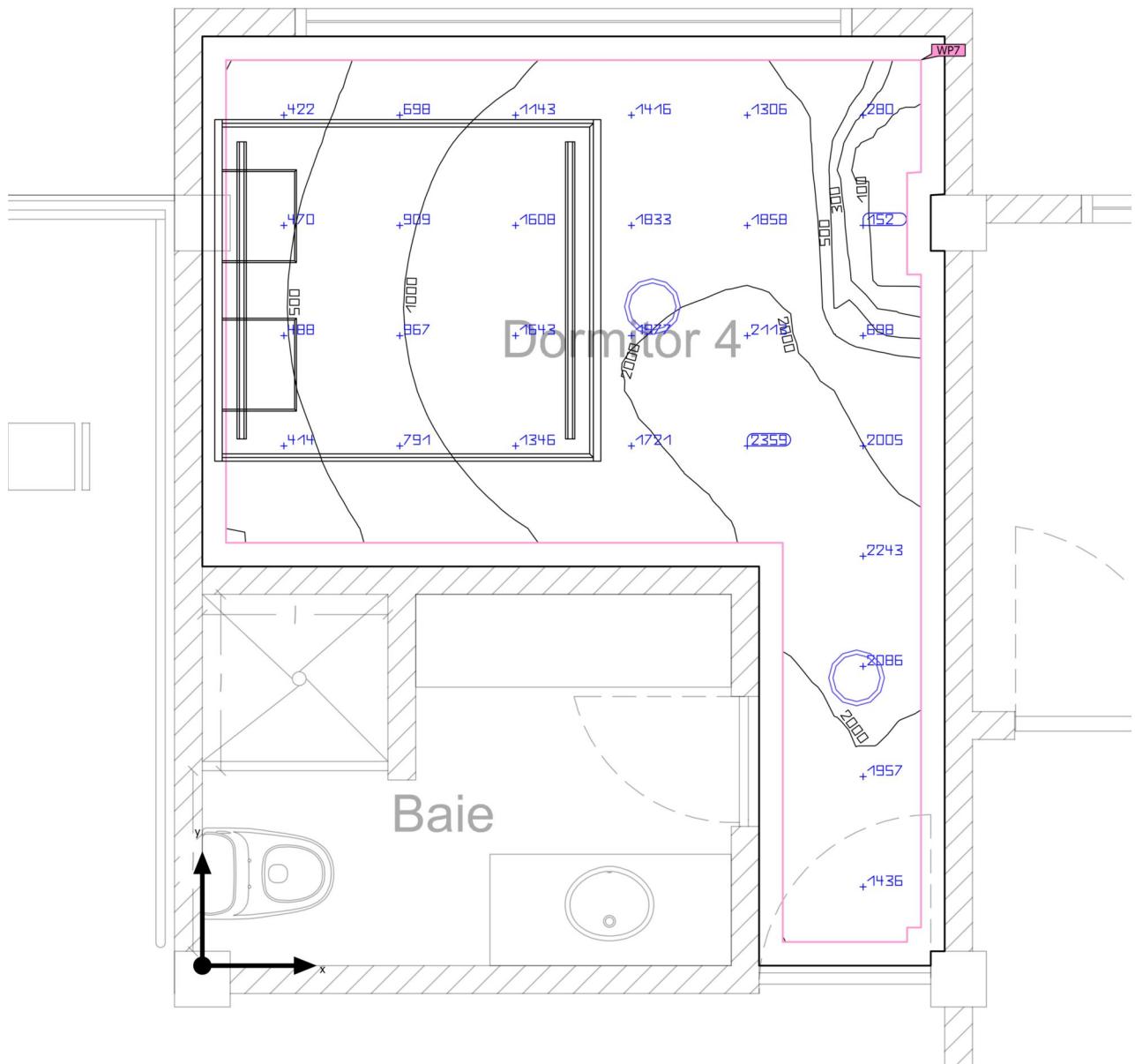


Properties	\bar{E} (Target)	E_{\min}	E_{\max}	$U_0 (g_1)$ (Target)	g_2	Index
Working plane (Room 6)	2030 lx	704 lx	2512 lx	0.35	0.28	WP6
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.083 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 7 (Light scene 1)

Summary



Ground area	13.54 m ²	Clearance height	3.000 m
Reflection factors	Ceiling: 70.0 %, Walls: 27.4 %, Floor: 35.1 %	Mounting height	3.000 m
Maintenance factor	0.80 (fixed)	Height Working plane	0.800 m
		Wall zone Working plane	0.127 m

Building 1 · Storey 1 · Room 7 (Light scene 1)

Summary

Results

	Symbol	Calculated	Target	Check	Index
Working plane	$\bar{E}_{\text{perpendicular}}$	1298 lx	$\geq 500 \text{ lx}$	✓	WP7
	$U_o (g_1)$	0.024	≥ 0.60	✗	WP7
	Lighting power density	27.28 W/m ²	-		
		2.10 W/m ² /100 lx	-		
Glare valuation ⁽¹⁾	$R_{UG, \text{max}}$	30	≤ 19	✗	
Energy estimation ⁽²⁾	Consumption	[480 - 762] kWh/a	max. 500 kWh/a	✗	
Space	Lighting power density	22.74 W/m ²	-		
		1.75 W/m ² /100 lx	-		

(1) Based on a rectangular space of 4.000 m x 5.005 m and SHR of 0.25.

(2) Calculated using DIN:18599-4.

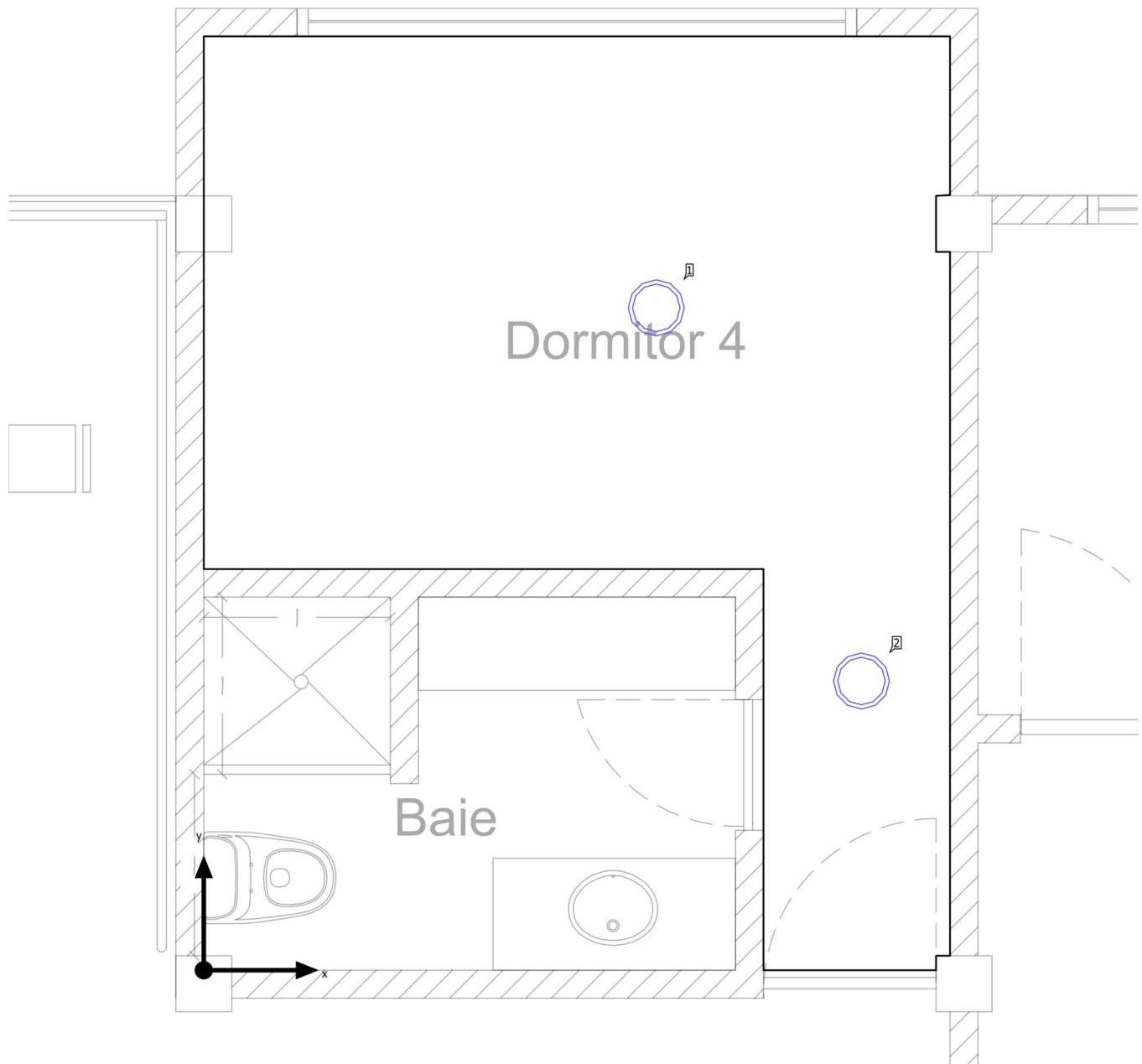
Utilisation profile: DIALux presetting (34.2 Standard (office))

Luminaire list

pcs.	Manufacturer	Article No.	Article name	R _{UG}	P	Φ	Luminous efficacy
2	Philips	BY101P LED210S/840 WB PSU		30	154.0 W	20500 lm	133.1 lm/W

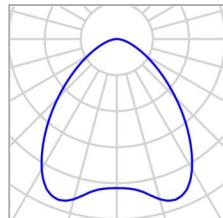
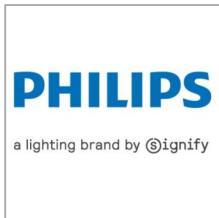
Building 1 · Storey 1 · Room 7

Luminaire layout plan



Building 1 · Storey 1 · Room 7

Luminaire layout plan



Manufacturer	Philips	P	154.0 W
Article name	BY101P LED210S/840 WB PSU	$\Phi_{\text{Luminaire}}$	20500 lm
Fitting	1x		

Individual luminaires

X	Y	Mounting height	Luminaire
2.425 m	3.550 m	3.000 m	[1]
3.525 m	1.550 m	3.000 m	[2]

Building 1 · Storey 1 · Room 7

Luminaire list

Φ_{total}
41000 lm

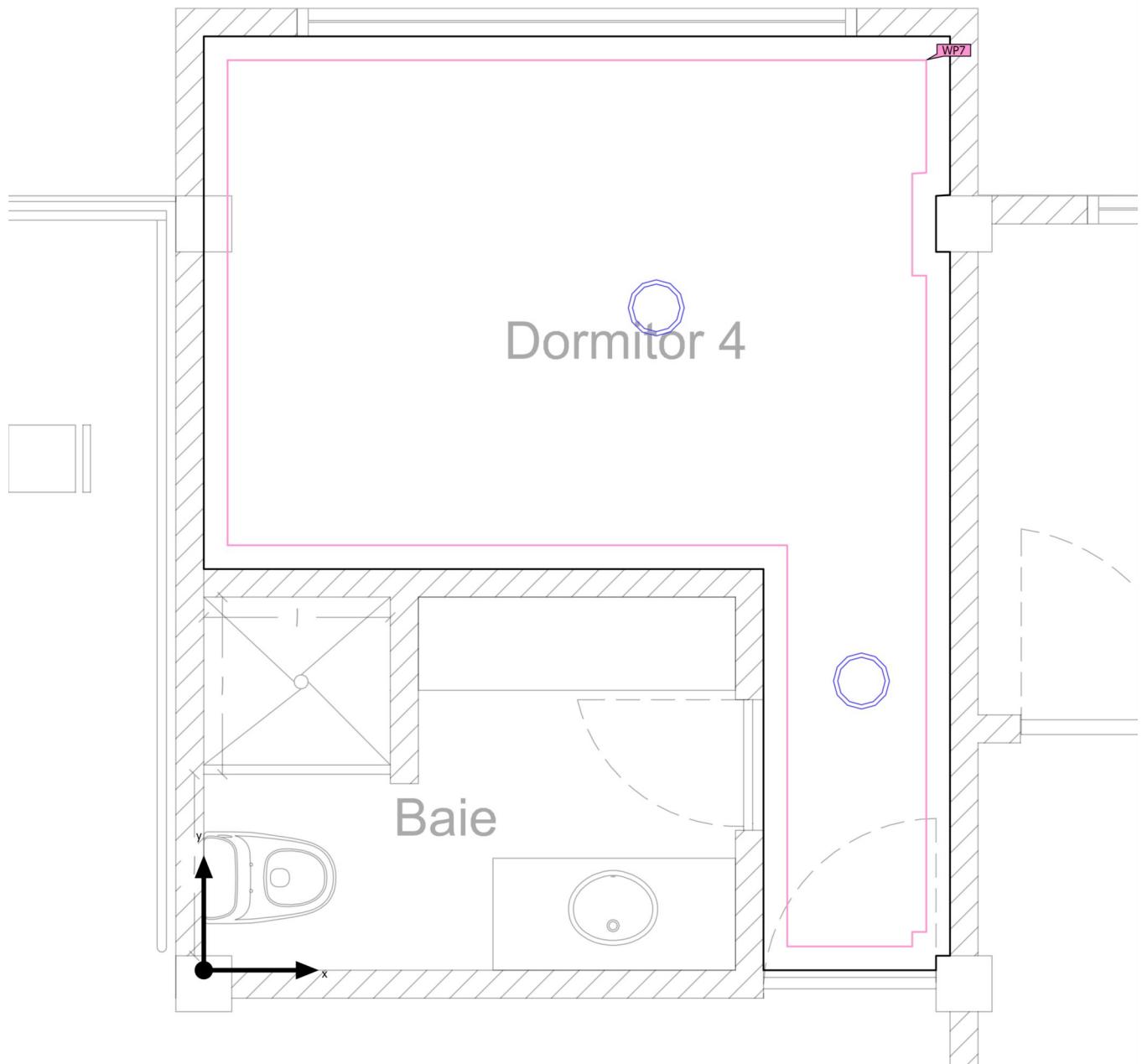
P_{total}
308.0 W

Luminous efficacy
133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 1 · Storey 1 · Room 7 (Light scene 1)

Calculation objects



Building 1 · Storey 1 · Room 7 (Light scene 1)

Calculation objects

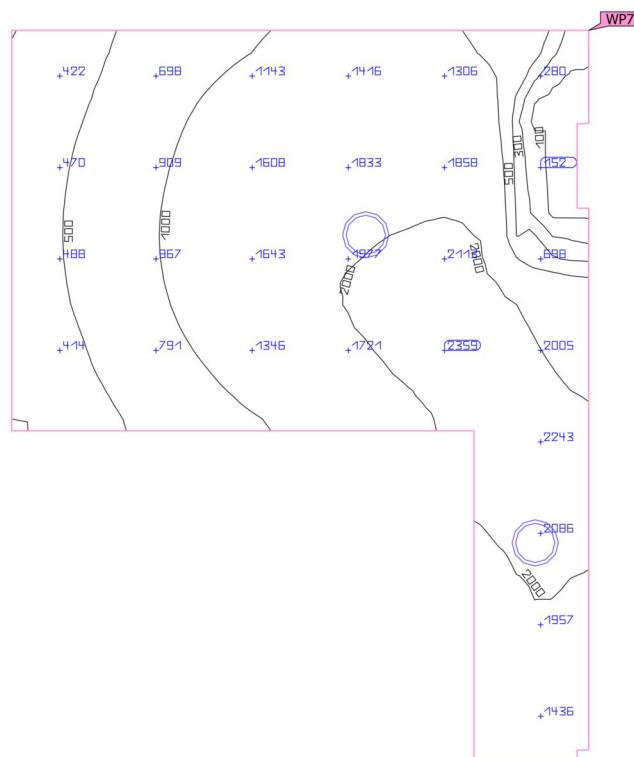
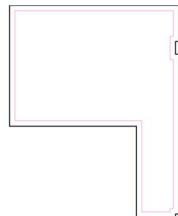
Working planes

Properties	\bar{E} (Target)	E_{\min}	E_{\max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 7)	1298 lx	31.5 lx	2377 lx	0.024	0.013	WP7
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.127 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 7 (Light scene 1)

Working plane (Room 7)

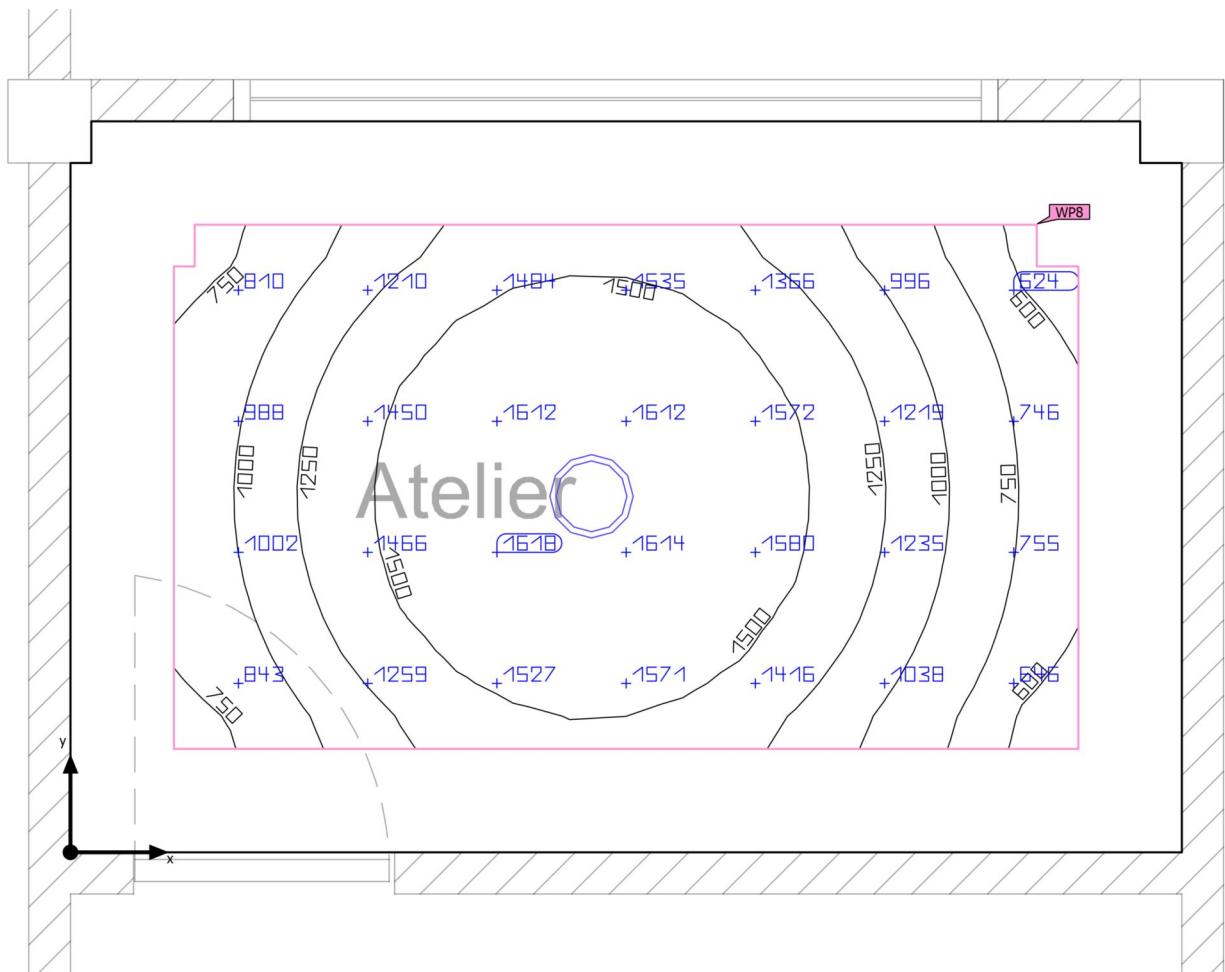


Properties	\bar{E} (Target)	E_{\min}	E_{\max}	$U_0 (g_1)$ (Target)	g_2	Index
Working plane (Room 7)	1298 lx	31.5 lx	2377 lx	0.024	0.013	WP7
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.127 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 8 (Light scene 1)

Summary



Ground area	10.49 m ²	Clearance height	3.000 m
Reflection factors	Ceiling: 70.0 %, Walls: 17.0 %, Floor: 34.2 %	Mounting height	3.000 m
Maintenance factor	0.80 (fixed)	Height Working plane	0.800 m

Building 1 · Storey 1 · Room 8 (Light scene 1)

Summary

Results

	Symbol	Calculated	Target	Check	Index
Working plane	$\bar{E}_{\text{perpendicular}}$	1241 lx	$\geq 500 \text{ lx}$	✓	WP8
	$U_o(g_1)$	0.43	≥ 0.60	✗	WP8
	Lighting power density	25.20 W/m ²	-		
		2.03 W/m ² /100 lx	-		
Glare valuation ⁽¹⁾	$R_{UG, \text{max}}$	29	≤ 19	✗	
Energy estimation ⁽²⁾	Consumption	[240 - 381] kWh/a	max. 400 kWh/a	✓	
Space	Lighting power density	14.68 W/m ²	-		
		1.18 W/m ² /100 lx	-		

(1) Based on a rectangular space of 4.000 m x 2.632 m and SHR of 0.25.

(2) Calculated using DIN:18599-4.

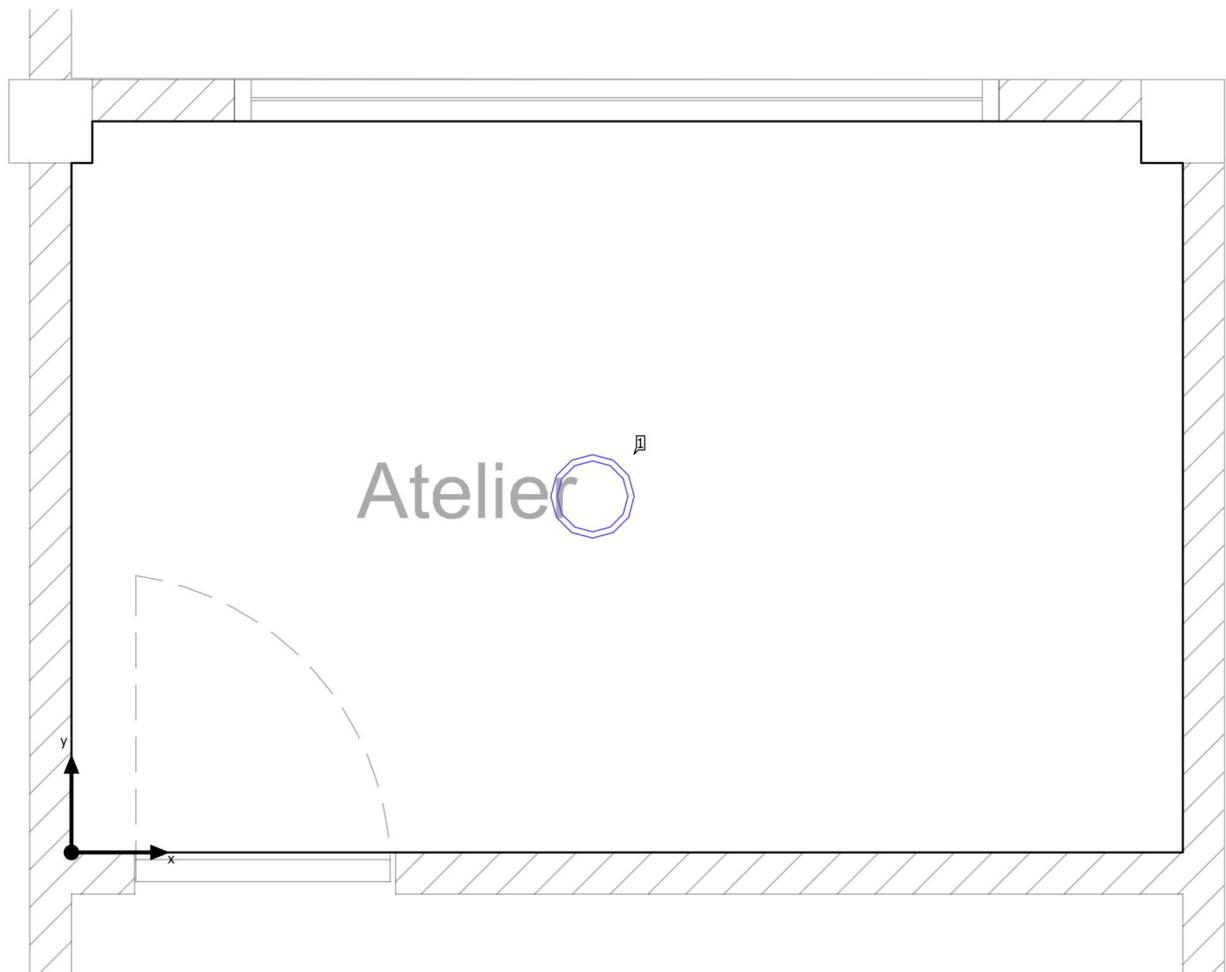
Utilisation profile: DIALux presetting (34.2 Standard (office))

Luminaire list

pcs.	Manufacturer	Article No.	Article name	R _{UG}	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		29	154.0 W	20500 lm	133.1 lm/W

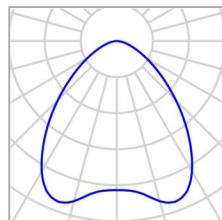
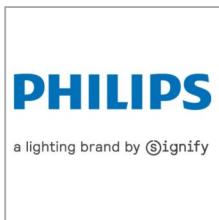
Building 1 · Storey 1 · Room 8

Luminaire layout plan



Building 1 · Storey 1 · Room 8

Luminaire layout plan



Manufacturer	Philips	P	154.0 W
Article name	BY101P LED210S/840 WB PSU	$\Phi_{\text{Luminaire}}$	20500 lm
Fitting	1x		

Individual luminaires

X	Y	Mounting height	Luminaire
1.875 m	1.282 m	3.000 m	1

Building 1 · Storey 1 · Room 8

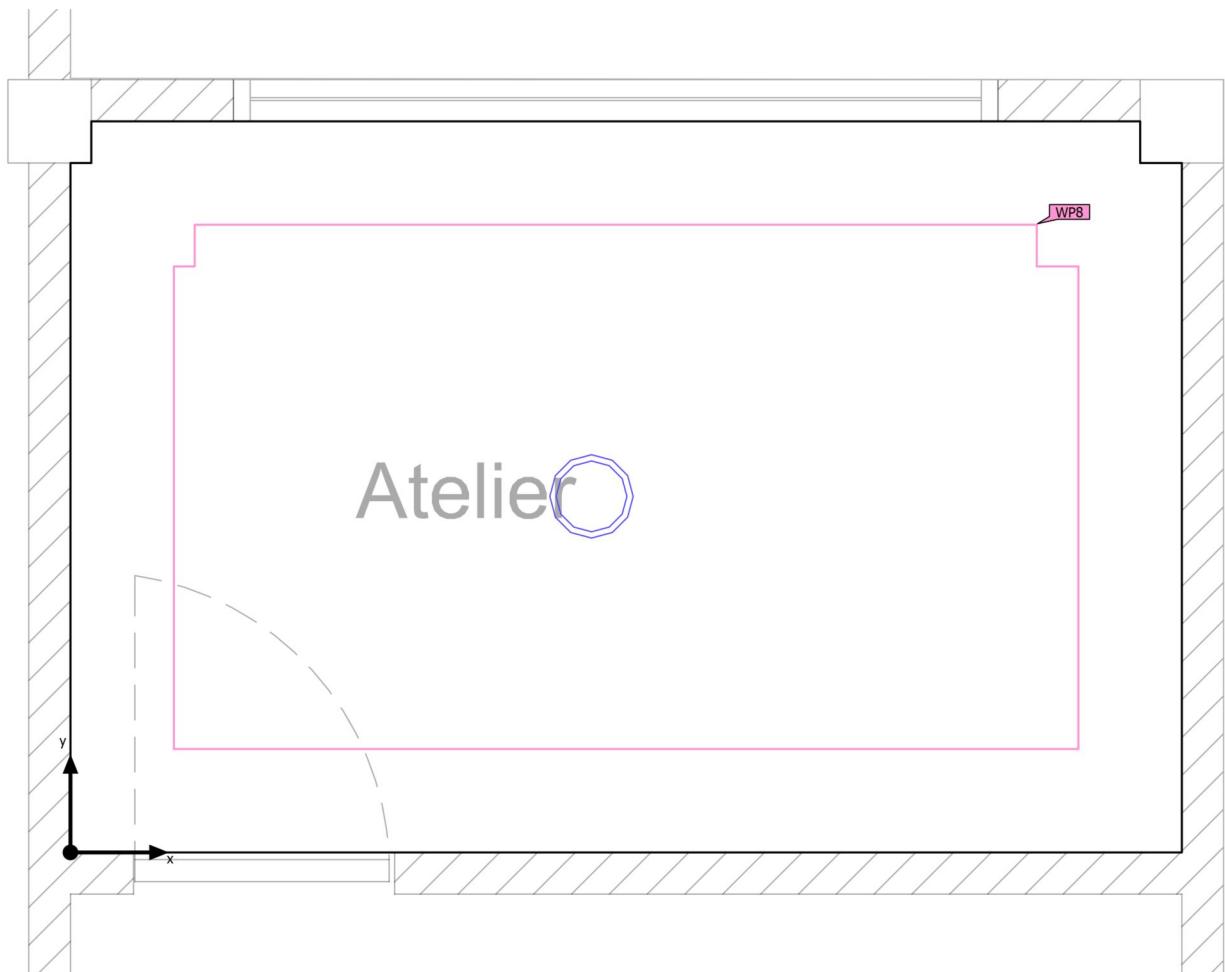
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
20500 lm	154.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 1 · Storey 1 · Room 8 (Light scene 1)

Calculation objects



Building 1 · Storey 1 · Room 8 (Light scene 1)

Calculation objects

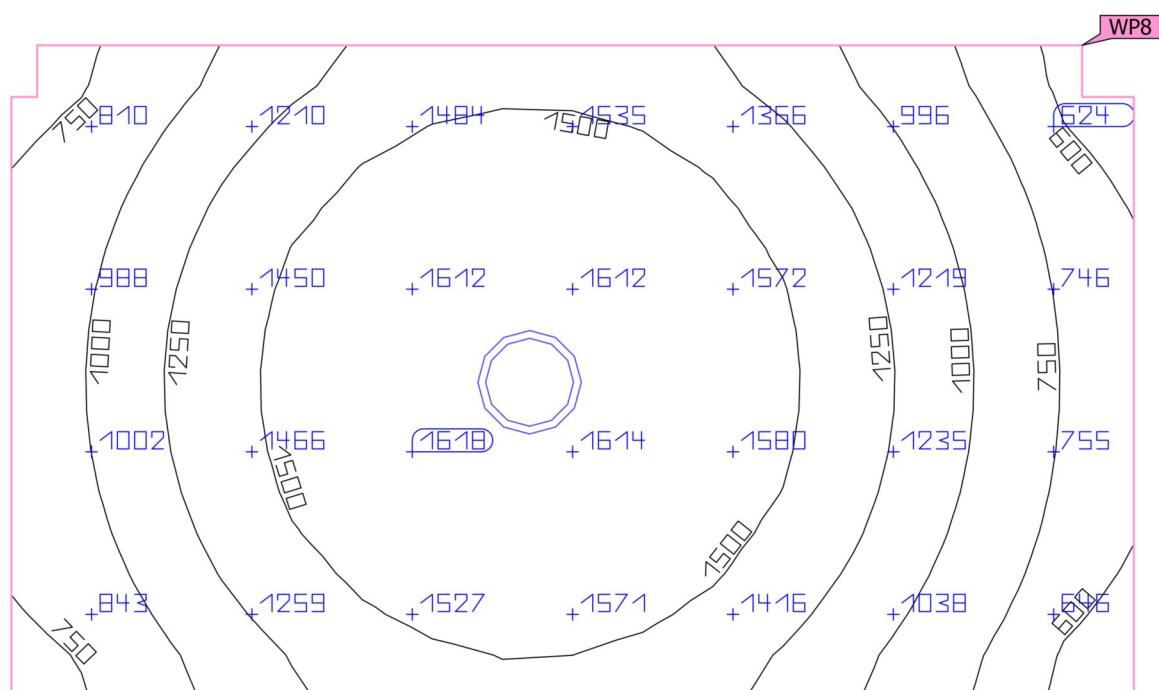
Working planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 8)	1241 lx	537 lx	1616 lx	0.43	0.33	WP8
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.372 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 8 (Light scene 1)

Working plane (Room 8)

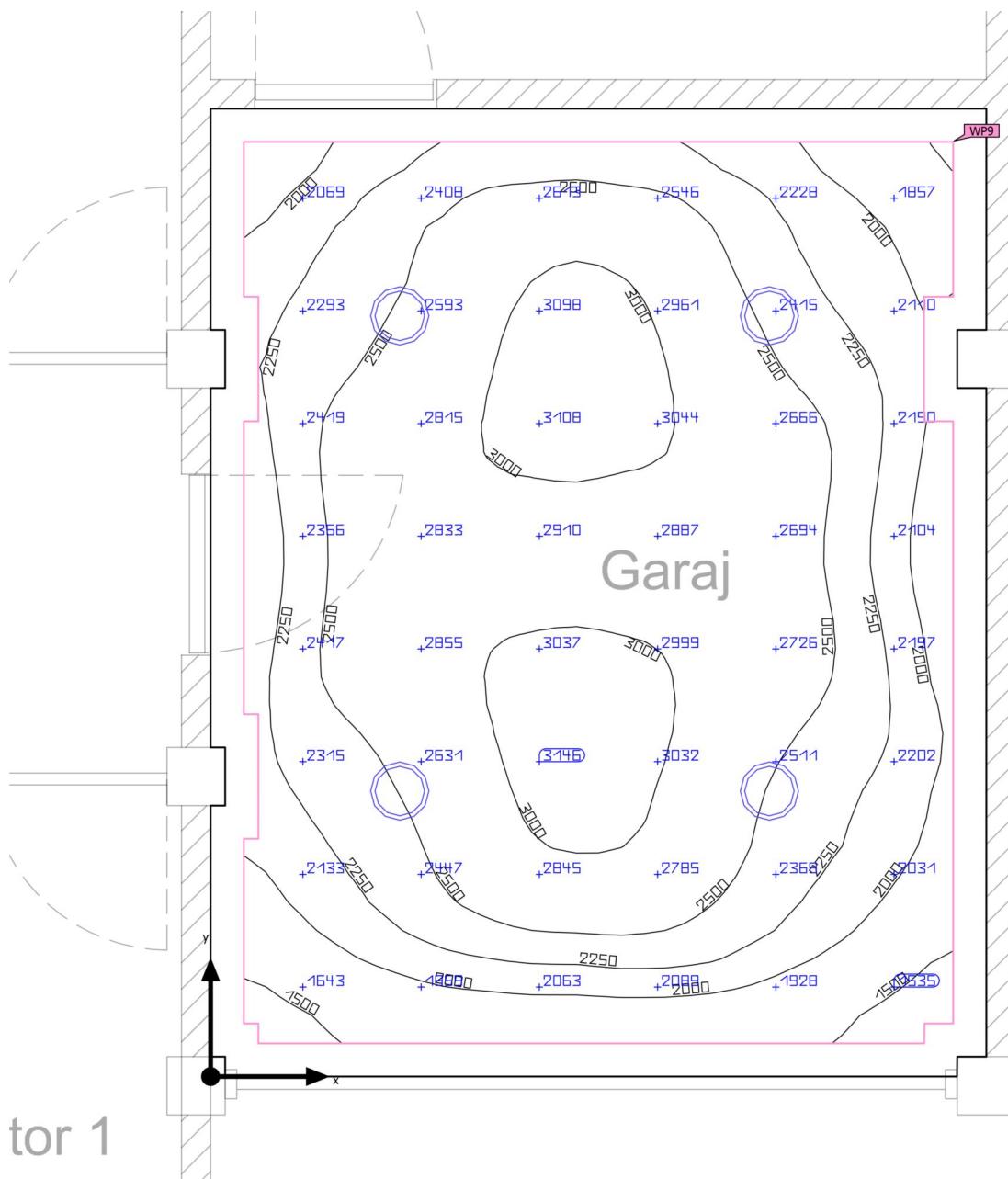


Properties	\bar{E} (Target)	E_{\min}	E_{\max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 8)	1241 lx	537 lx	1616 lx	0.43	0.33	WP8
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.372 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 9 (Light scene 1)

Summary



Ground area	19.85 m ²
Reflection factors	Ceiling: 70.0 %, Walls: 16.7 %, Floor: 34.2 %
Maintenance factor	0.80 (fixed)

Clearance height	3.000 m
Mounting height	3.000 m
Height Working plane	0.800 m
Wall zone Working plane	0.171 m

Building 1 · Storey 1 · Room 9 (Light scene 1)

Summary

Results

	Symbol	Calculated	Target	Check	Index
Working plane	$\bar{E}_{\text{perpendicular}}$	2476 lx	$\geq 500 \text{ lx}$	✓	WP9
	$U_o(g_1)$	0.51	≥ 0.60	✗	WP9
	Lighting power density	36.70 W/m ²	-		
		1.48 W/m ² /100 lx	-		
Glare valuation ⁽¹⁾	$R_{UG, \text{max}}$	30	≤ 19	✗	
Energy estimation ⁽²⁾	Consumption	1525 kWh/a	max. 700 kWh/a	✗	
Space	Lighting power density	31.04 W/m ²	-		
		1.25 W/m ² /100 lx	-		

(1) Based on a rectangular space of 4.990 m x 4.000 m and SHR of 0.25.

(2) Calculated using DIN:18599-4.

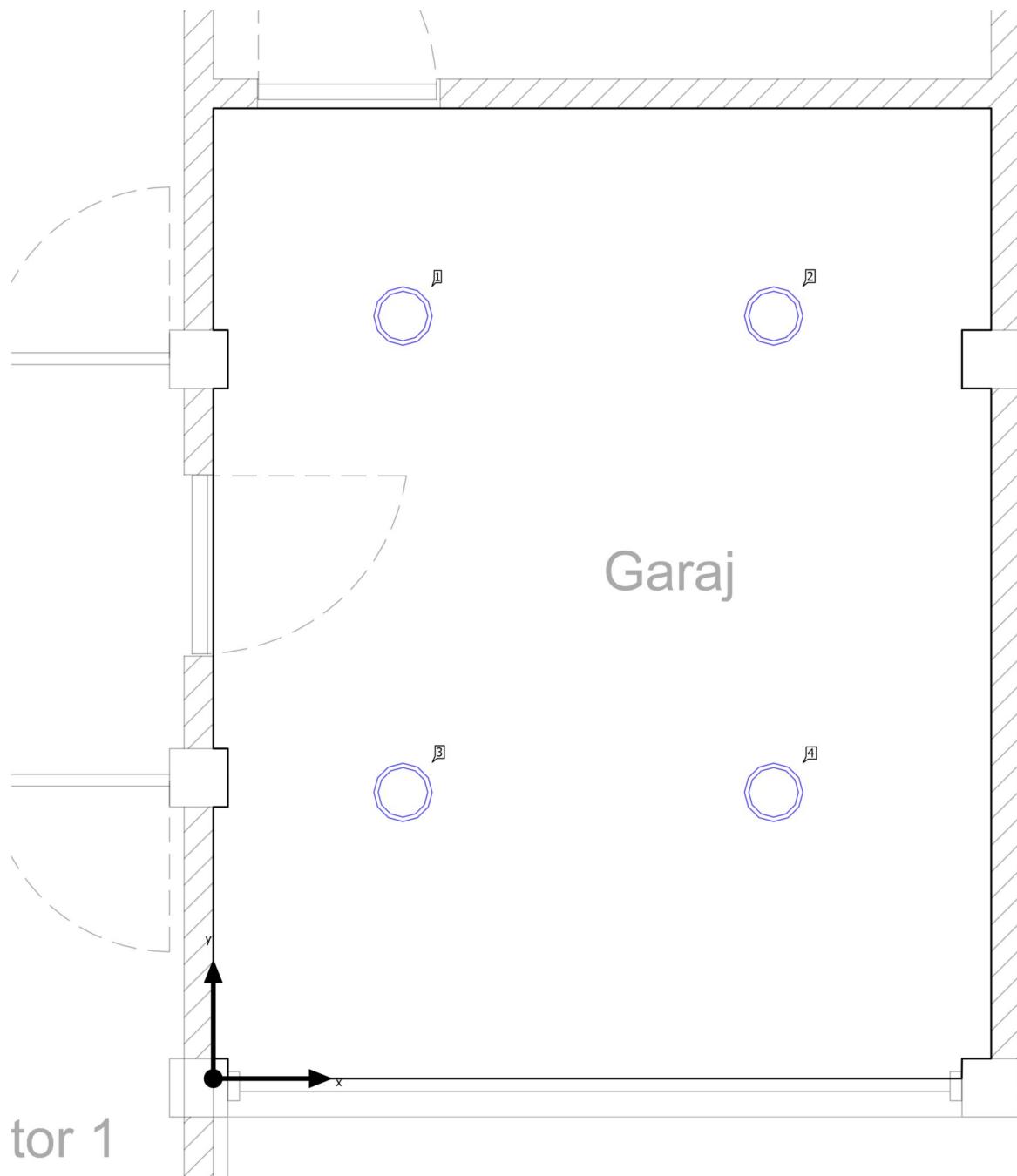
Utilisation profile: DIALux presetting (34.2 Standard (office))

Luminaire list

pcs.	Manufacturer	Article No.	Article name	R _{UG}	P	Φ	Luminous efficacy
4	Philips	BY101P LED210S/840 WB PSU		30	154.0 W	20500 lm	133.1 lm/W

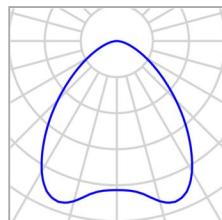
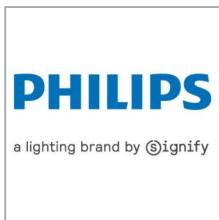
Building 1 · Storey 1 · Room 9

Luminaire layout plan



Building 1 · Storey 1 · Room 9

Luminaire layout plan



Manufacturer	Philips	P	154.0 W
Article name	BY101P LED210S/840 WB PSU	$\Phi_{\text{Luminaire}}$	20500 lm
Fitting	1x		

Individual luminaires

X	Y	Mounting height	Luminaire
0.975 m	3.922 m	3.000 m	1
2.881 m	3.922 m	3.000 m	2
0.975 m	1.472 m	3.000 m	3
2.881 m	1.472 m	3.000 m	4

Building 1 · Storey 1 · Room 9

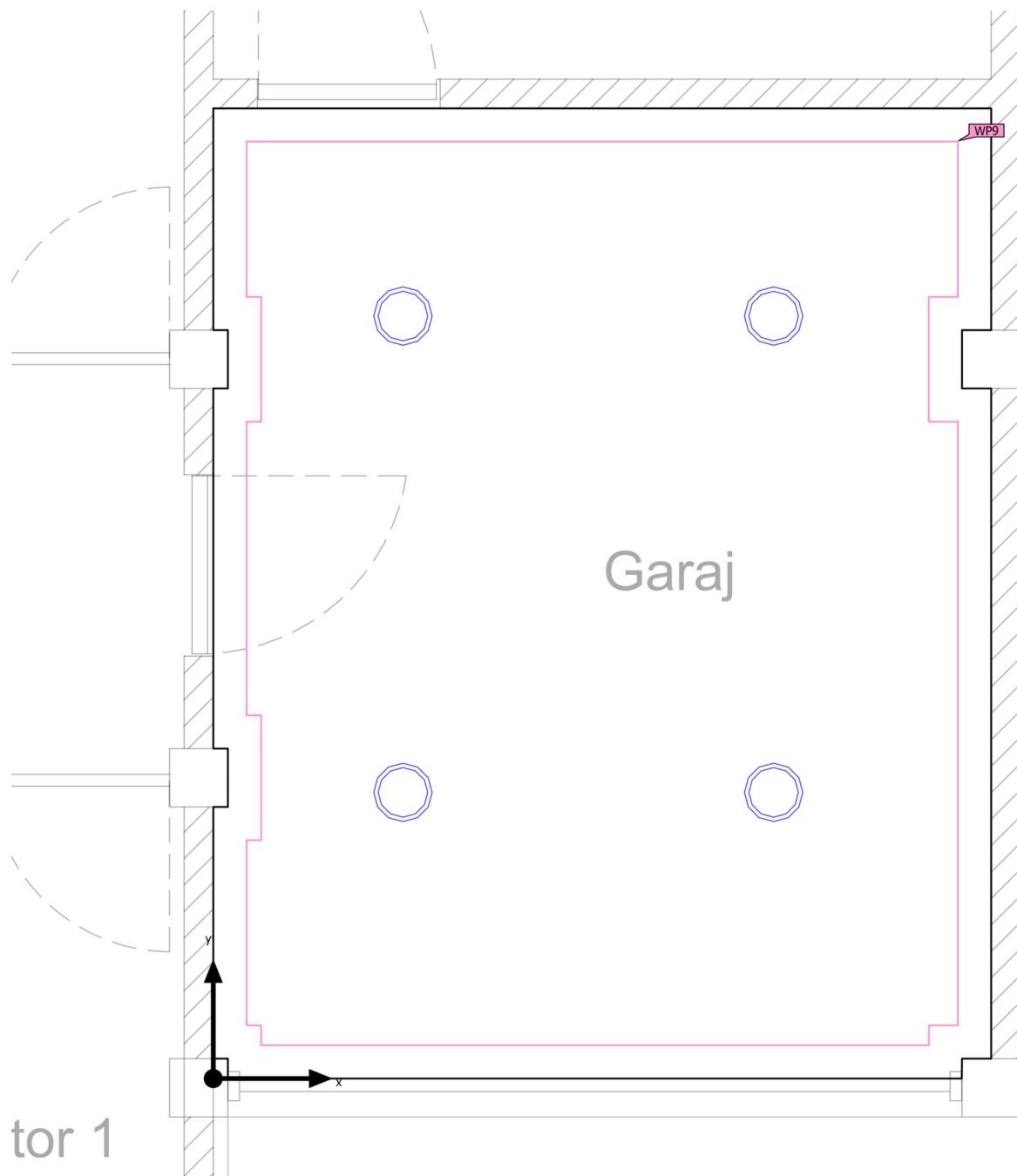
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
82000 lm	616.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 1 · Storey 1 · Room 9 (Light scene 1)

Calculation objects



Building 1 · Storey 1 · Room 9 (Light scene 1)

Calculation objects

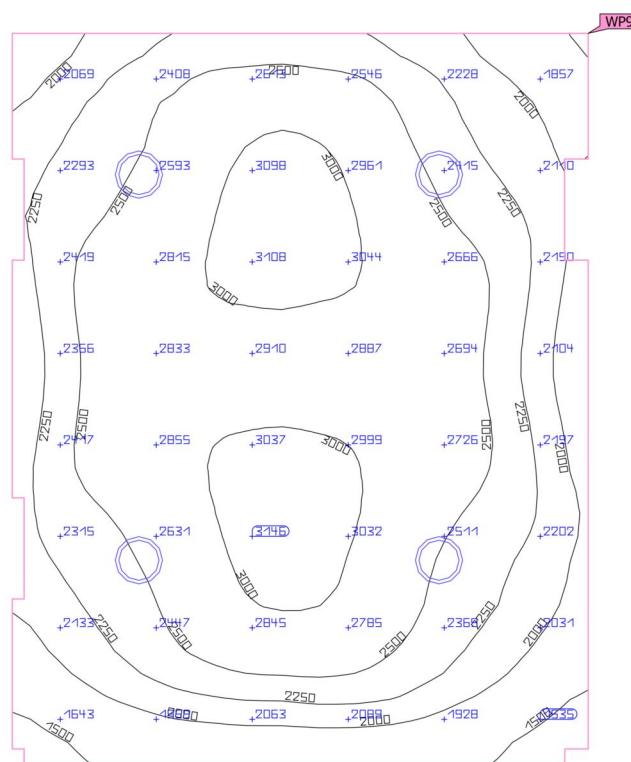
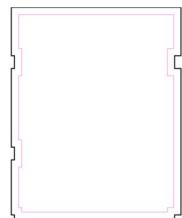
Working planes

Properties	\bar{E} (Target)	E_{\min}	E_{\max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 9)	2476 lx	1256 lx	3208 lx	0.51	0.39	WP9
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.171 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 · Storey 1 · Room 9 (Light scene 1)

Working plane (Room 9)



Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_0 (g_1)$ (Target)	g_2	Index
Working plane (Room 9)	2476 lx	1256 lx	3208 lx	0.51	0.39	WP9
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.171 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 2

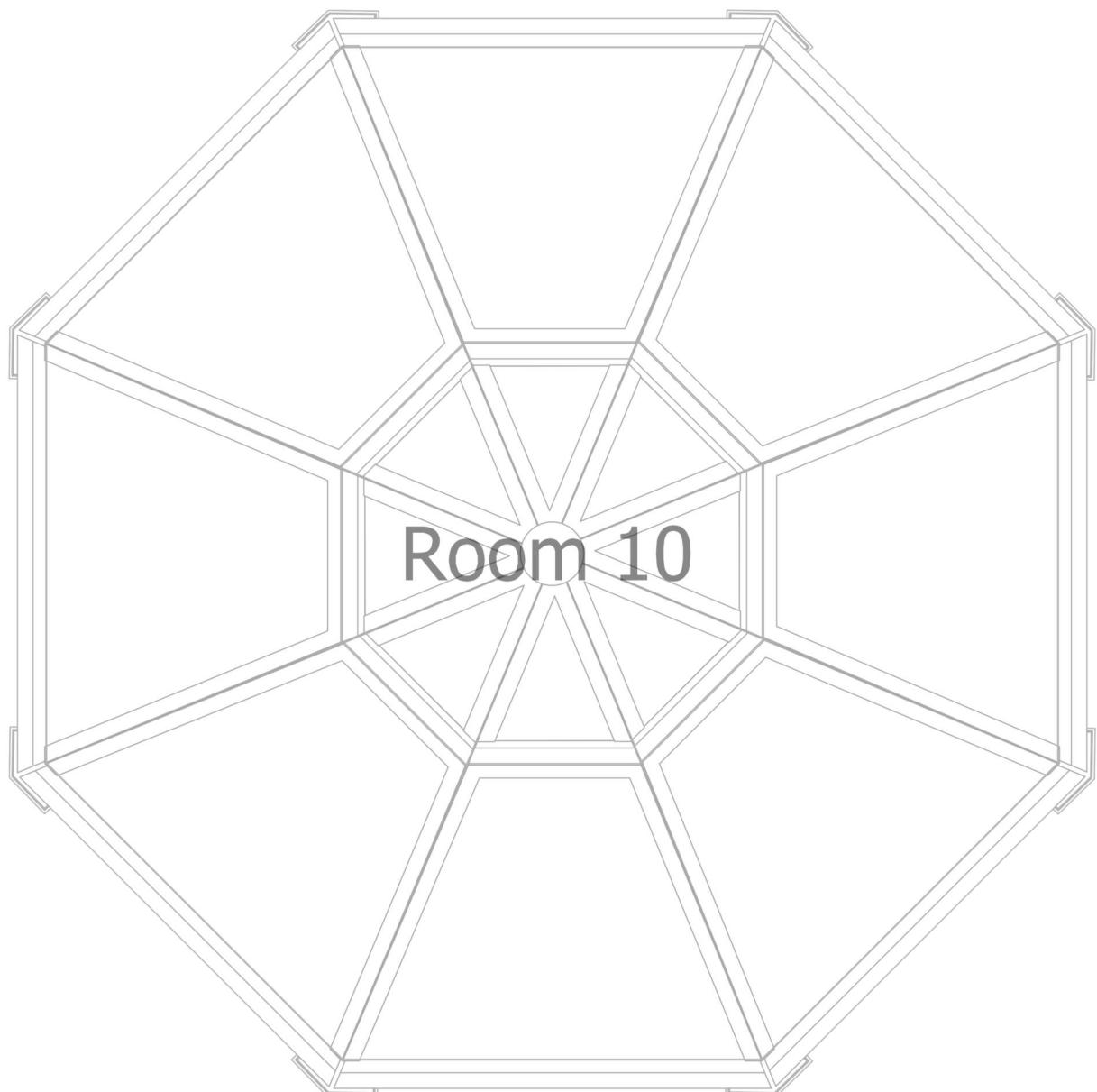
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
20500 lm	154.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 2 · Storey 1 (Light scene 1)

Room list



Building 2 · Storey 1 (Light scene 1)

Room list

Room 10

P_{total} 154.0 W	A_{Room} 26.63 m ²	Lighting power density $5.78 \text{ W/m}^2 = 0.83 \text{ W/m}^2/100 \text{ lx (Space)}$ $7.45 \text{ W/m}^2 = 1.07 \text{ W/m}^2/100 \text{ lx (Working plane)}$	$\bar{E}_{\text{perpendicular (Working plane)}}$ 695 lx
-------------------------------	---	---	--

pcs.	Manufacturer	Article No.	Article name	P	$\Phi_{\text{Luminaire}}$
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm

Building 2 · Storey 1

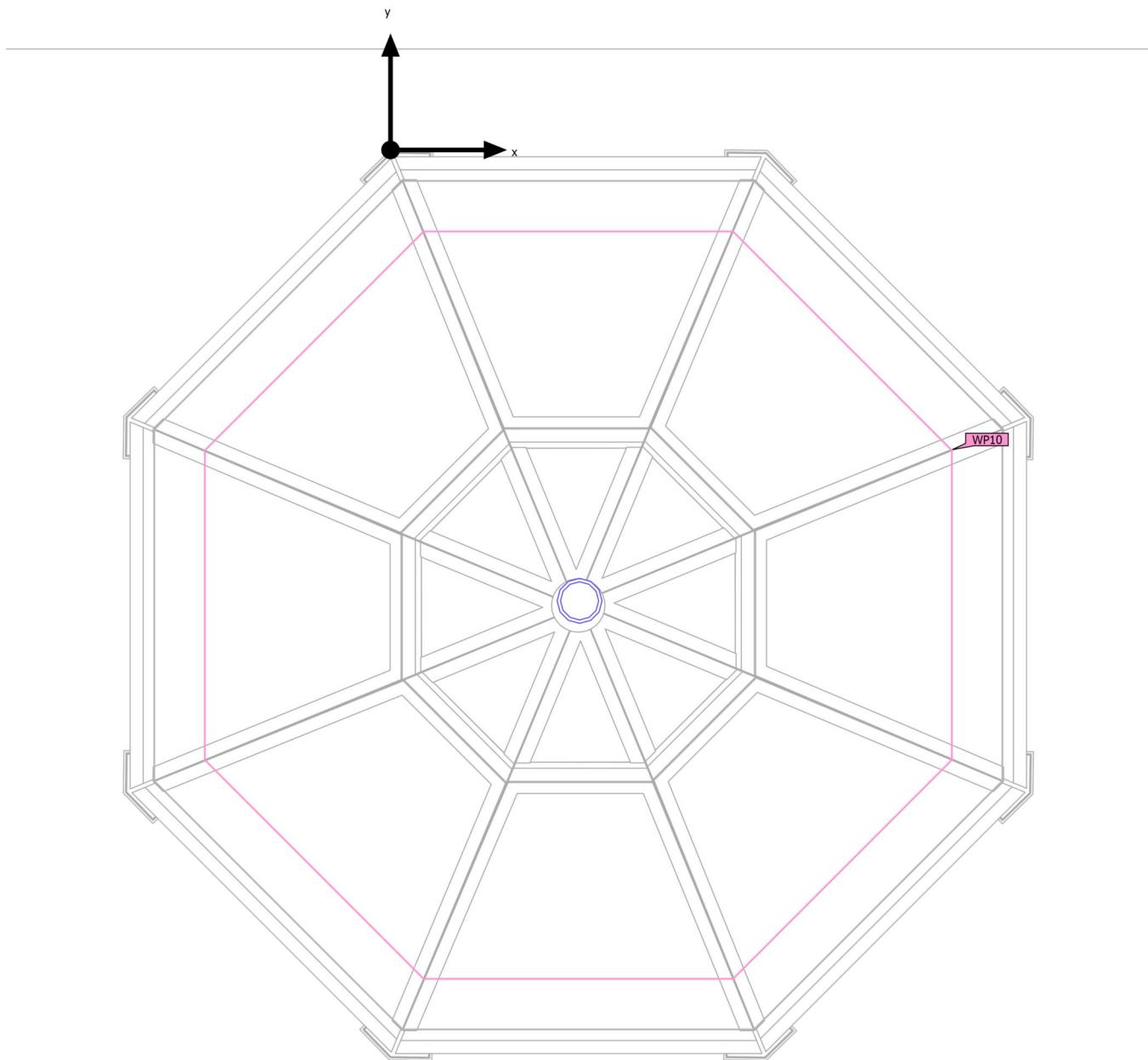
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
20500 lm	154.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 2 · Storey 1 (Light scene 1)

Calculation objects



Building 2 · Storey 1 (Light scene 1)

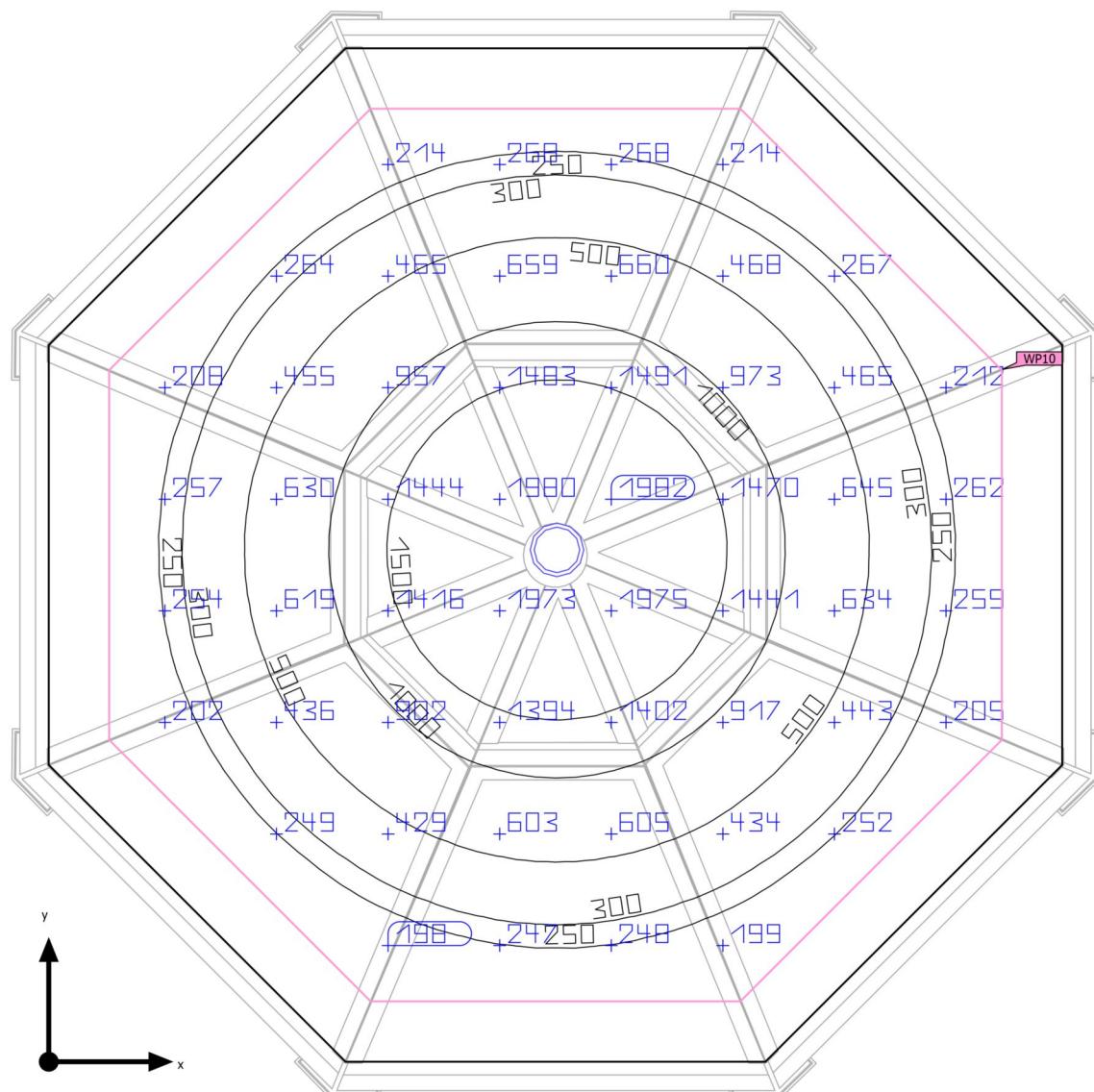
Calculation objects

Working planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 10)	695 lx	154 lx	1983 lx	0.22	0.078	WP10
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.338 m	✓			✗		

Building 2 · Storey 1 · Room 10 (Light scene 1)

Summary



Ground area	26.63 m ²	Clearance height	2.763 m – 2.800 m
Reflection factors	Ceiling: 70.0 %, Walls: 9.6 %, Floor: 34.2 %	Mounting height	2.763 m
Maintenance factor	0.80 (fixed)	Height Working plane	0.800 m
		Wall zone Working plane	0.338 m

Building 2 · Storey 1 · Room 10 (Light scene 1)

Summary

Results

	Symbol	Calculated	Target	Check	Index
Working plane	$\bar{E}_{\text{perpendicular}}$	695 lx	$\geq 500 \text{ lx}$	✓	WP10
	$U_o (g_1)$	0.22	≥ 0.60	✗	WP10
	Lighting power density	7.45 W/m ²	-		
		1.07 W/m ² /100 lx	-		
Glare valuation ⁽¹⁾	$R_{UG, \text{max}}$	30	≤ 19	✗	
Energy estimation ⁽²⁾	Consumption	381 kWh/a	max. 950 kWh/a	✓	
Space	Lighting power density	5.78 W/m ²	-		
		0.83 W/m ² /100 lx	-		

(1) Based on a rectangular space of 5.670 m x 5.670 m and SHR of 0.25.

(2) Calculated using DIN:18599-4.

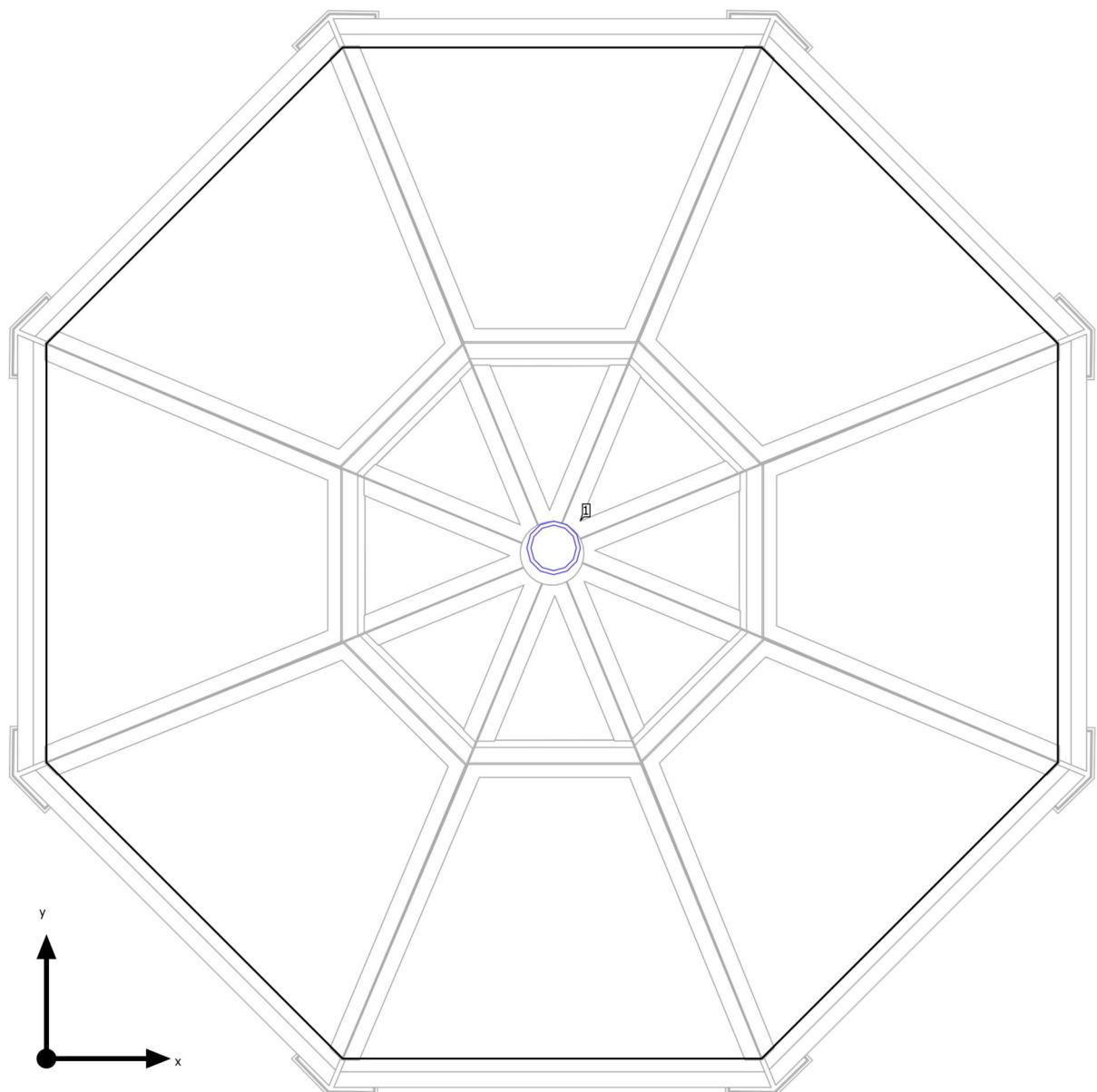
Utilisation profile: DIALux presetting (34.2 Standard (office))

Luminaire list

pcs.	Manufacturer	Article No.	Article name	R _{UG}	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		30	154.0 W	20500 lm	133.1 lm/W

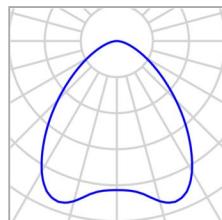
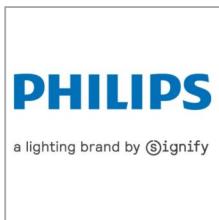
Building 2 · Storey 1 · Room 10

Luminaire layout plan



Building 2 · Storey 1 · Room 10

Luminaire layout plan



Manufacturer	Philips	P	154.0 W
Article name	BY101P LED210S/840 WB PSU	$\Phi_{\text{Luminaire}}$	20500 lm
Fitting	1x		

Individual luminaires

X	Y	Mounting height	Luminaire
2.843 m	2.864 m	2.763 m	1

Building 2 · Storey 1 · Room 10

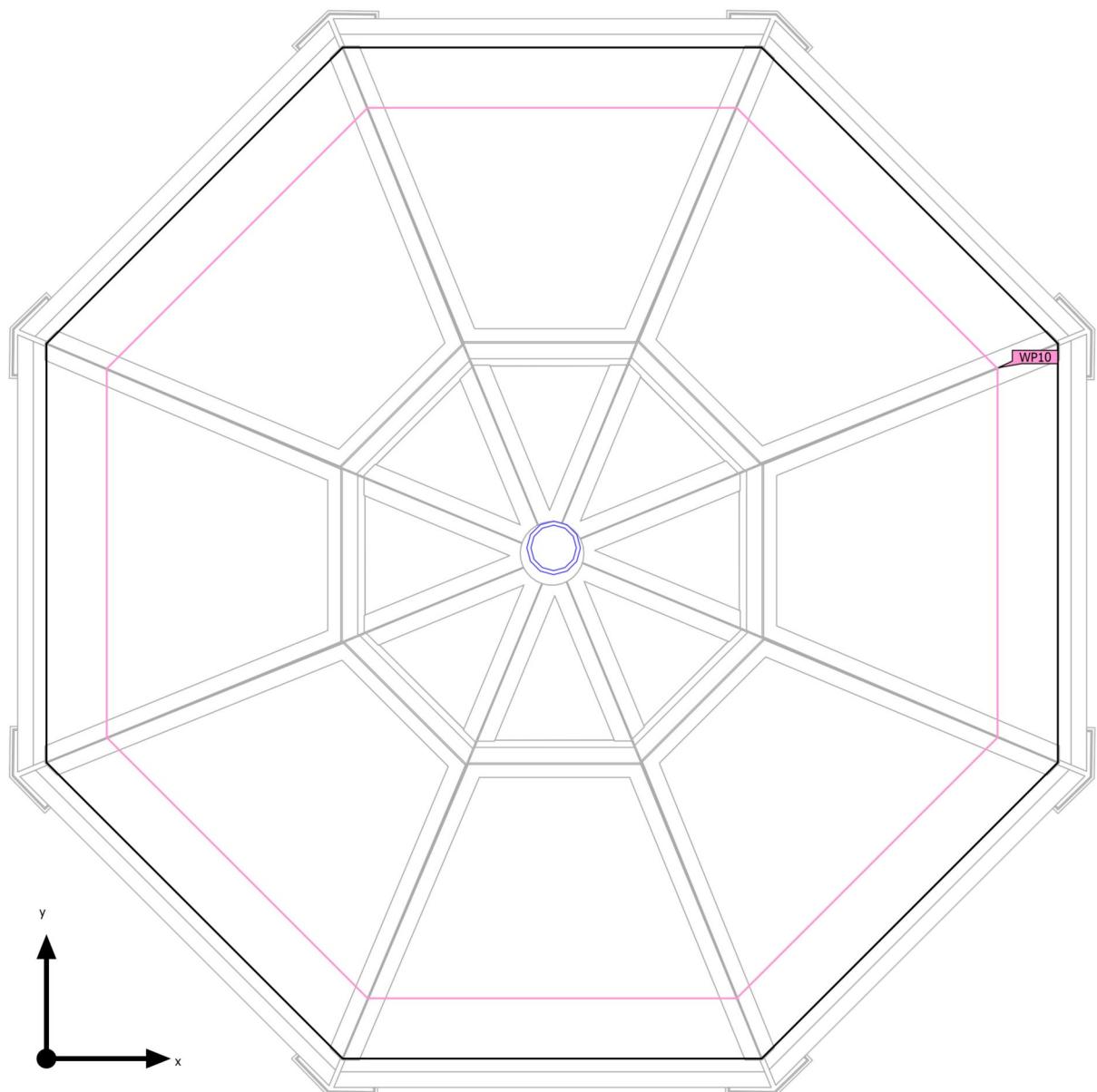
Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
20500 lm	154.0 W	133.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	Philips	BY101P LED210S/840 WB PSU		154.0 W	20500 lm	133.1 lm/W

Building 2 · Storey 1 · Room 10 (Light scene 1)

Calculation objects



Building 2 · Storey 1 · Room 10 (Light scene 1)

Calculation objects

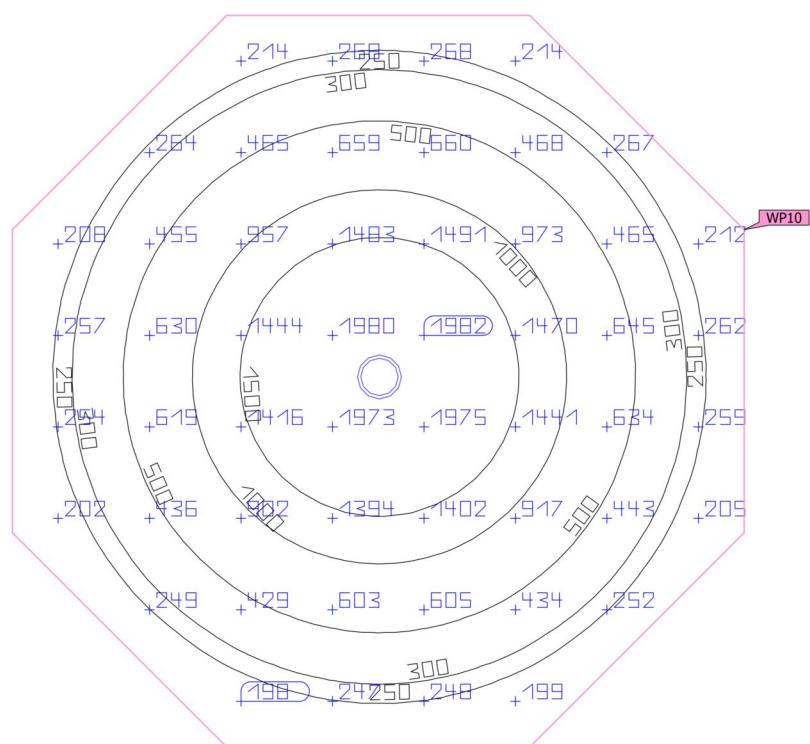
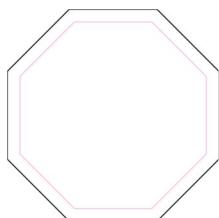
Working planes

Properties	\bar{E} (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 10)	695 lx	154 lx	1983 lx	0.22	0.078	WP10
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.338 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 2 · Storey 1 · Room 10 (Light scene 1)

Working plane (Room 10)



Properties	E (Target)	E_{min}	E_{max}	$U_o (g_1)$ (Target)	g_2	Index
Working plane (Room 10)	695 lx	154 lx	1983 lx	0.22	0.078	WP10
Perpendicular illuminance (adaptive)	(≥ 500 lx)			(≥ 0.60)		
Height: 0.800 m, Wall zone: 0.338 m	✓			✗		

Utilisation profile: DIALux presetting (34.2 Standard (office))

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).

Control group

A group of luminaires that are dimmed and controlled together. For each lighting scene, a control group provides its own dimming value. All luminaires within a control group share this dimming value. The control groups with their luminaires are automatically determined by DIALux on the basis of the created light scenes and their luminaire groups.

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.

Glossary

D

Daylight autonomy	Describes what percentage of the daily working time the required illuminance is met by daylight. The nominal illuminance is used from the room profile, unlike described in EN 17037. The calculation is not done in the centre of the room but at the placed sensor measuring point. A room is considered sufficiently supplied with daylight if it achieves at least 50% daylight autonomy.
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: %
Daylight quotient effective area	A calculation surface within which the daylight quotient is calculated.

E

Energy evaluation	Based on an hourly calculation procedure for daylight in indoor spaces, considering the project geometry and any existing daylight control systems. Orientation and location of the project are also considered. The calculation uses the specified system power of the luminaires to determine the energy demand. A linear relationship between power and luminous flux in the dimmed state is assumed for daylight-controlled luminaires. Times of use and nominal illuminance are determined from the usage profiles of the spaces. Switched-on luminaires that are explicitly excluded from control also consider the specified times-of-use. The daylight control systems use a simplified control logic that closes them at an outdoor horizontal illuminance of 27,500lx. The calendar year 2022 is used as a reference only. It is not a simulation of this year. The reference year is only used to assign the days of the week to the calculated results. The changeover to summer time is not considered. The reference sky type used is the average sky described in CIE 110 without direct sunlight. The method was developed together with the Fraunhofer Institute for Building Physics and is available for review by the Joint Working Group 1 ISO TC 274 as an extension of the previous annual regression-based method.
-------------------	--

Environmental zones	The assessment of intrusive light and light immission depends on the environment of the lighting installation. Depending on the standard, 4-6 different zones are defined, ranging from highly protected areas in natural settings to urban areas, commercial zones, and industrial zones.
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: %

Glossary

G

g_1	Often also U_o (Engl. overall uniformity) Designates the overall uniformity of the illuminance on a surface. It is the quotient from E_{min} to \bar{E} and is required, for instance, in standards for illumination of workstations.
g_2	Actually it designates the "non-uniformity" of the illuminance on a surface. It is the quotient of E_{min} to E_{max} 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 ($lm/m^2 = lx$). 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 E_h .
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.
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 .

K

k_s	The glare effect of a light source can be described by the glare metric k_s . It relates the solid angle of the glaring light source as seen from the point of immission, the ambient luminance, and the maximum allowable luminance.
-------	---

Glossary

L

LENI	(Engl. lighting energy numeric indicator) Lighting energy numeric indicator acc. to EN 15193 Unit: kWh/(m ² * a)
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).
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

Glossary

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

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.

O

Obtrusive light/Light immission

To protect the nocturnal environment and minimize problems for humans, flora, and fauna, it is necessary to limit obtrusive light (also known as light pollution), which can cause serious physiological and ecological issues for individuals and the environment. Light immission refers to the disturbing influence of emitted light from artificial light sources.

Operating times

The assessment of obtrusive light and light immission depends on the operating times of the lighting installation. Depending on the standard, 1-3 different operating times are specified. In the absence of specific details, an operating time between 06:00 and 22:00 can be assumed.

P

P

(Engl. power)

Electric power consumption

Unit: watt

Abbreviation: W

Glossary

R

R_{UG} max	Measure of the psychological glare in indoor spaces. In addition to the luminance of luminaires, the level of the R_{UG} value also depends on the observer position, the viewing direction and the ambient luminance. The calculation is made according to the table method, see CIE 117. Among other things, EN 12464-1:2021 specifies maximum permissible R_{UG} -values R_{UGL} for various indoor workplaces.
R_{DLO}	The ratio of the luminous flux emitted below the horizontal plane to the total lamp luminous flux of a luminaire or lighting installation in its operational position.
R_G	The glare directly caused by luminaires of an outdoor lighting installation is determined using the CIE Glare Rating (RG) method. To calculate this, the equivalent veiling luminance of the surroundings is needed. There are four options for determining this: <ul style="list-style-type: none"> • An exact calculation according to CIE 112, based on the scene area. • A simplified method according to EN 12464-2, based on the scene area. • Using a custom calculation area to determine the equivalent veiling luminance. • Specifying a fixed value for easy comparability.
R_{UF}	upward flux ratio The ratio of the luminous flux emitted directly or reflected above the horizontal plane to the luminous flux that cannot be avoided under ideal conditions to achieve the illuminance level on a deliberately illuminated area.
R_{UL}	upward light ratio The ratio of the luminous flux emitted above the horizontal plane to the luminous flux of a luminaire or lighting installation in its operational position. The luminaire efficiency is considered in this calculation.
R_{ULO}	upward light output ratio The ratio of the luminous flux emitted above the horizontal plane to the total lamp luminous flux of a luminaire or lighting installation in its operational position.
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.
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).
RUG (max)	(unified glare rating) Measure for the psychological glare effect in interiors. In addition to luminaire luminance, the RUG 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 RUG values for various indoor workplaces.

Glossary

RUG observer

Calculation point in the room, for the DIALux the RUG 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).

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.

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.

Working plane

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.
