

Date

11.7.2021



**Sverepec ZS + MS**

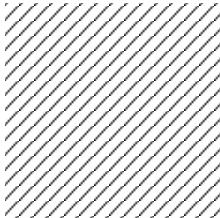
## Luminaire list

$\Phi_{\text{total}}$	$P_{\text{total}}$	Luminous efficacy
586042 lm	5009.3 W	117.0 lm/W

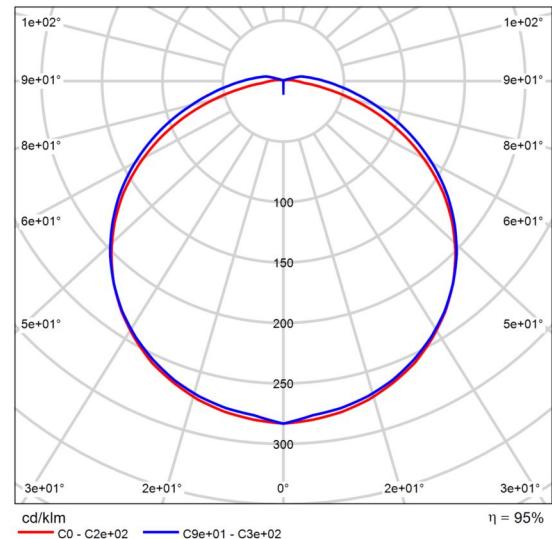
pcs.	Manufacturer	Article No.	Article name	P	$\Phi$	Luminous efficacy
20	BRIGHTSOL	BS01P4K3	BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm 6UN	35.5 W	4957 lm	139.6 lm/W
81	BRIGHTSOL	BS02O4K4	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm 0UNL	40.0 W	4757 lm	118.9 lm/W
19	BRIGHTSOL	BS02U4K1	BS02U4K18UN 20,7W 4K 1700lm IP54 D28 8UN	20.7 W	1700 lm	82.1 lm/W
9	BRIGHTSOL	BS04U4K2	BS04U4K24UNK 24W 4K 2250lm IP54 D33 4UNK	24.0 W	2250 lm	93.7 lm/W
15	BRIGHTSOL	BS06U4K3	BS06U4K30UNL 30W 4K 3270lm line IP40 UGR19 0UNL 1200mm	30.0 W	3269 lm	109.0 lm/W

## Product data sheet

BRIGHTSOL BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm



Article No.	BS01P4K36UN
P	35.5 W
$\Phi_{\text{Lamp}}$	5227 lm
$\Phi_{\text{Luminaire}}$	4957 lm
$\eta$	94.84 %
Luminous efficacy	139.6 lm/W
CCT	4000 K
CRI	80



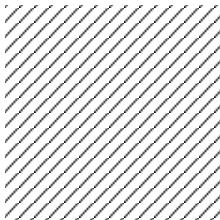
Polar LDC

Glare evaluation according to UGR											
$\rho$	70	70	50	50	30	70	70	50	50	30	$\rho$
$\rho$	50	30	50	30	30	50	30	50	30	30	$\rho$
$\rho$	20	20	20	20	20	20	20	20	20	20	$\rho$
X	Viewing direction at right angles to lamp axis										Viewing direction parallel to lamp axis
2H	20.3	21.7	20.7	22.0	22.3	19.6	21.0	20.0	21.3	21.6	
3H	21.9	23.2	22.3	23.5	23.9	21.2	22.4	21.5	22.7	23.1	
4H	22.6	23.8	23.0	24.1	24.5	21.8	23.0	22.2	23.3	23.7	
6H	23.0	24.1	23.4	24.5	24.9	22.3	23.4	22.8	23.8	24.2	
8H	23.2	24.2	23.6	24.6	25.0	22.6	23.6	23.0	24.0	24.4	
12H	23.2	24.3	23.7	24.7	25.1	22.7	23.8	23.2	24.2	24.6	
4H	20.9	22.1	21.3	22.4	22.8	20.4	21.5	20.8	21.9	22.3	
3H	22.7	23.7	23.1	24.1	24.5	22.1	23.1	22.5	23.5	23.9	
4H	23.5	24.4	23.9	24.8	25.3	22.9	23.8	23.3	24.2	24.7	
6H	24.0	24.9	24.5	25.3	25.8	23.5	24.3	24.0	24.8	25.3	
8H	24.2	25.0	24.7	25.5	26.0	23.8	24.6	24.3	25.0	25.5	
12H	24.4	25.1	24.9	25.6	26.1	24.1	24.8	24.6	25.3	25.8	
8H	23.7	24.5	24.2	25.0	25.5	23.2	24.0	23.7	24.4	24.9	
6H	24.5	25.1	25.0	25.6	26.2	24.1	24.7	24.6	25.2	25.7	
8H	24.8	25.4	25.3	25.9	26.4	24.5	25.0	25.0	25.5	26.1	
12H	25.0	25.5	25.6	26.1	26.6	24.8	25.3	25.4	25.9	26.5	
12H	23.8	24.5	24.3	25.0	25.5	23.2	23.9	23.8	24.4	24.9	
6H	24.6	25.1	25.7	26.2	26.2	24.2	24.7	24.7	25.2	25.8	
8H	24.9	25.4	25.5	26.0	26.5	24.6	25.1	25.2	25.6	26.2	
Variation of the observer position for the luminaire distances S											
S = 1.0H	+0.1 / -0.1				+0.1 / -0.1						
S = 1.5H	+0.2 / -0.3				+0.2 / -0.3						
S = 2.0H	+0.4 / -0.5				+0.3 / -0.6						
Standard table	BK06				BK06						
Correction summand	7.6				7.1						
Corrected glare indices referring to 5227lm Total luminous flux											

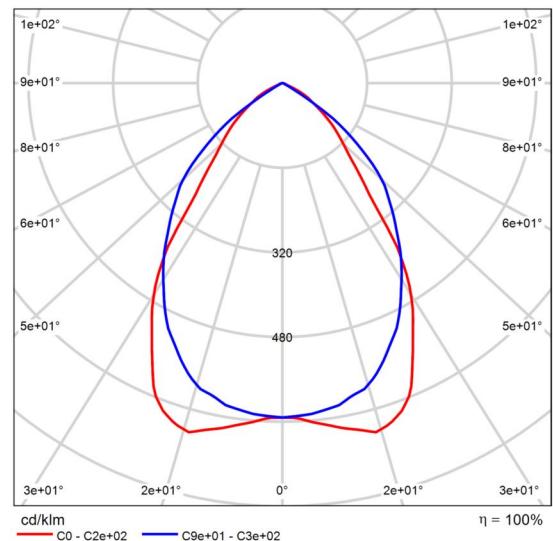
UGR diagram (SHR: 0.25)

## Product data sheet

BRIGHTSOL BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm



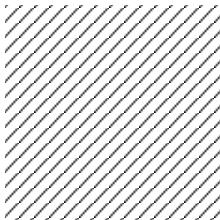
Article No.	BS02O4K40UNL
P	40.0 W
$\Phi_{\text{Lamp}}$	4760 lm
$\Phi_{\text{Luminaire}}$	4757 lm
$\eta$	99.93 %
Luminous efficacy	118.9 lm/W
CCT	4000 K
CRI	82



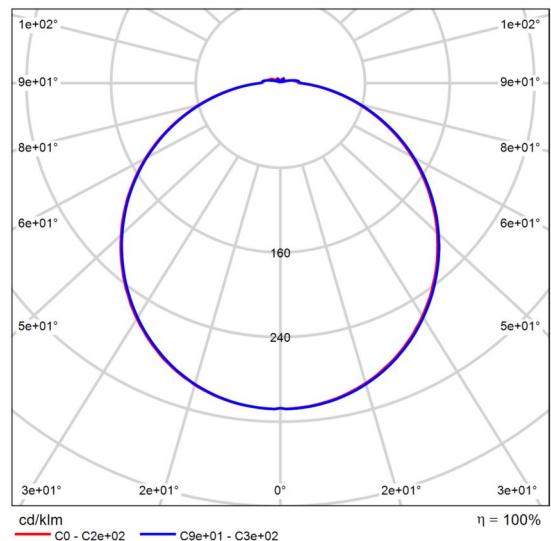
Polar LDC

## Product data sheet

BRIGHTSOL BS02U4K18UN 20,7W 4K 1700lm IP54 D28



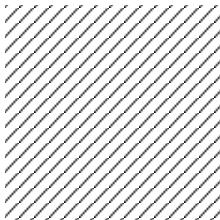
Article No.	BS02U4K18UN
P	20.7 W
$\Phi_{\text{Lamp}}$	1700 lm
$\Phi_{\text{Luminaire}}$	1700 lm
$\eta$	100.00 %
Luminous efficacy	82.1 lm/W
CCT	4000 K
CRI	80



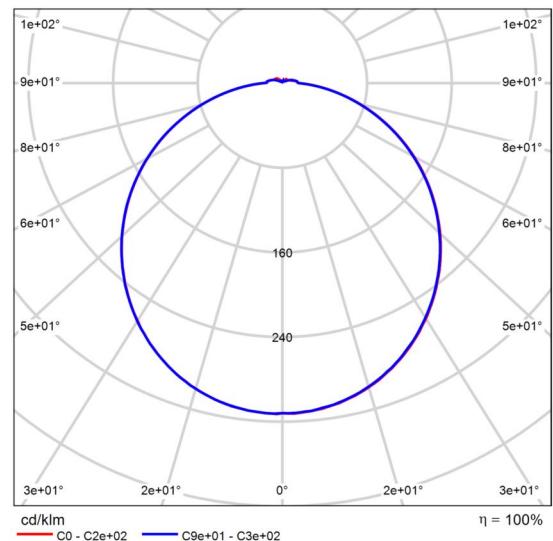
Polar LDC

## Product data sheet

BRIGHTSOL BS04U4K24UNK 24W 4K 2250lm IP54 D33



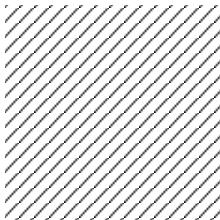
Article No.	BS04U4K24UNK
P	24.0 W
$\Phi_{\text{Lamp}}$	2250 lm
$\Phi_{\text{Luminaire}}$	2250 lm
$\eta$	100.00 %
Luminous efficacy	93.7 lm/W
CCT	4000 K
CRI	80



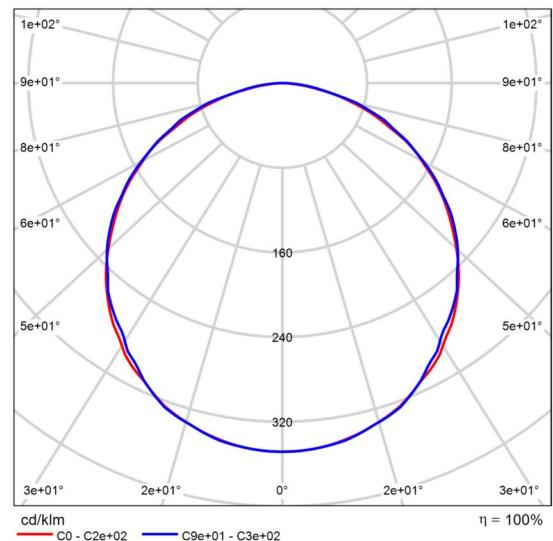
Polar LDC

## Product data sheet

BRIGHTSOL BS06U4K30UNL 30W 4K 3270lm line IP40 UGR19 1200mm



Article No.	BS06U4K30UNL
P	30.0 W
$\Phi_{\text{Lamp}}$	3270 lm
$\Phi_{\text{Luminaire}}$	3269 lm
$\eta$	99.97 %
Luminous efficacy	109.0 lm/W
CCT	4000 K
CRI	85



Site 1

## Luminaire list

$\Phi_{\text{total}}$	$P_{\text{total}}$	Luminous efficacy
6800 lm	82.8 W	82.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	$\Phi$	Luminous efficacy
4	BRIGHTSOL	BS02U4K1	BS02U4K18UN 20,7W 4K 1700lm IP54 D28 8UN	20.7 W	1700 lm	82.1 lm/W

Building 1 · 1PP

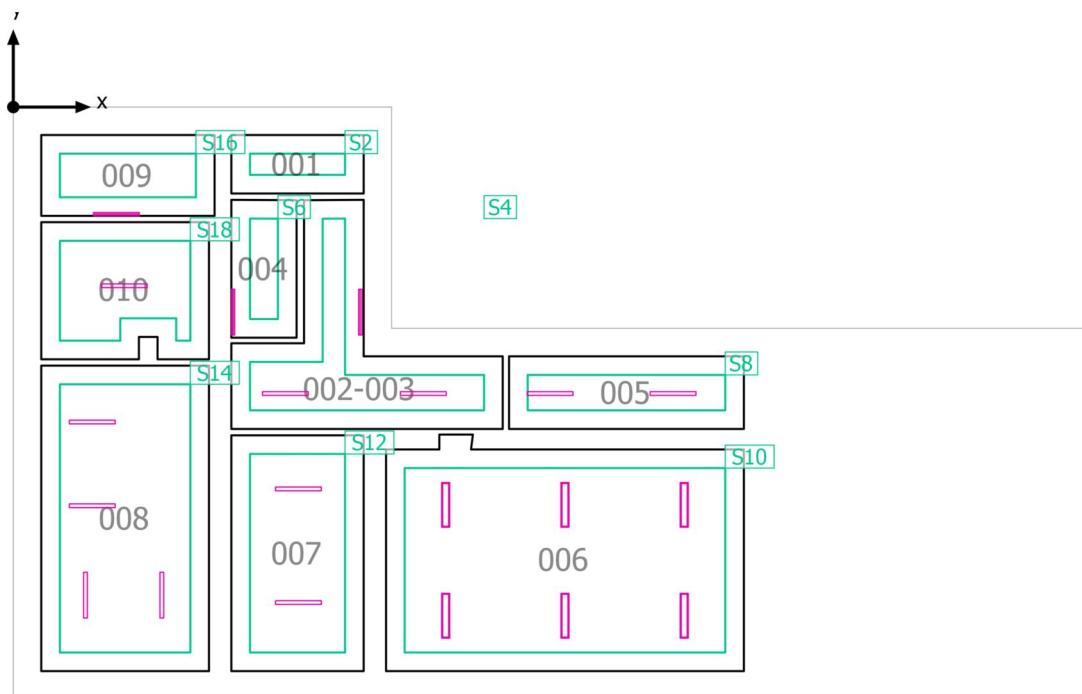
## Luminaire list

$\Phi_{\text{total}}$	$P_{\text{total}}$	Luminous efficacy
97940 lm	737.0 W	132.9 lm/W

pcs.	Manufacturer	Article No.	Article name	P	$\Phi$	Luminous efficacy
14	BRIGHTSOL	BS01P4K3	BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm 6UN	35.5 W	4957 lm	139.6 lm/W
6	BRIGHTSOL	BS02O4K4	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm 0UNL	40.0 W	4757 lm	118.9 lm/W

Building 1 · 1PP

## Calculation objects



Building 1 · 1PP

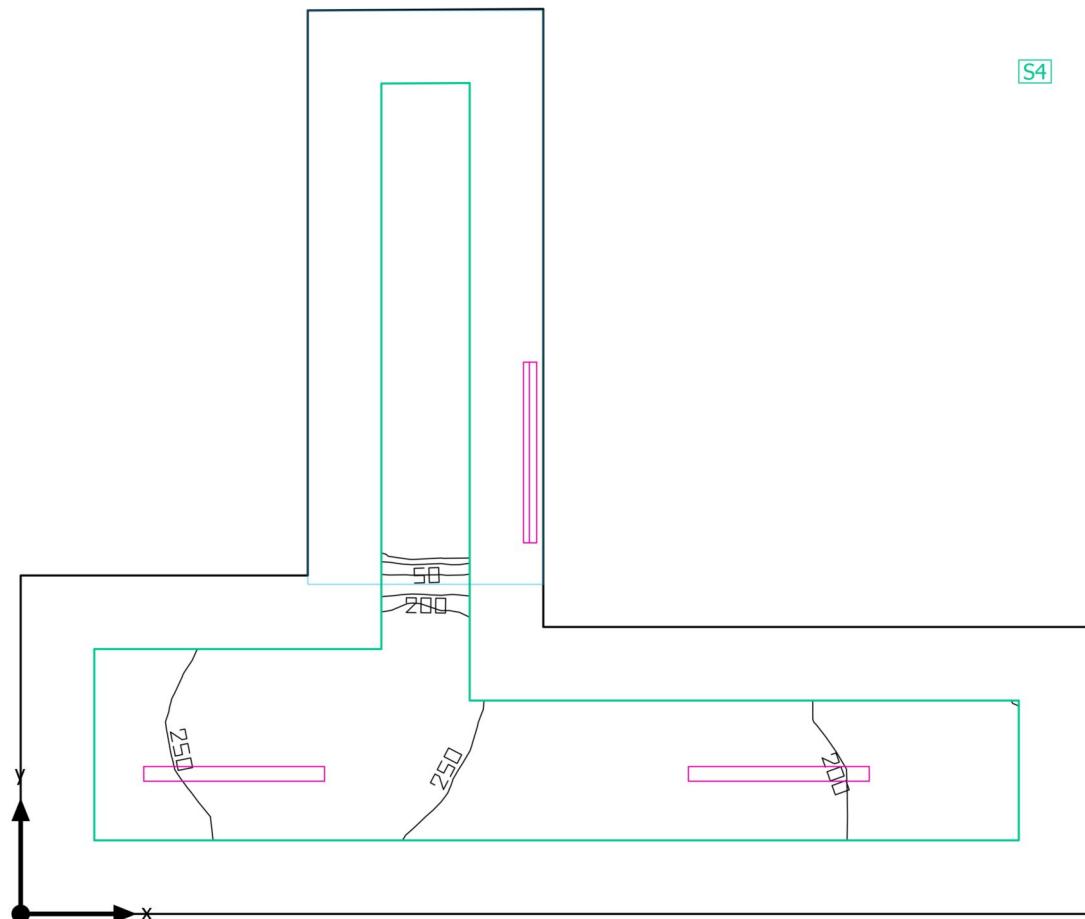
## Calculation objects

### Work planes

Properties	$\bar{E}$ (Target)	$E_{min}$	$E_{max}$	$g_1$	$g_2$	Index
Workplane (001) Perpendicular illuminance (adaptive) Height: 0.001 m, Wall zone: 0.500 m	0.00 lx ( $\geq 500$ lx) 	0.00 lx	0.00 lx	-	-	S2
Workplane (002-003) Perpendicular illuminance (adaptive) Height: 0.000 m, Wall zone: 0.500 m	182 lx ( $\geq 100$ lx) 	0.00 lx	288 lx	0.00	0.00	S4
Workplane (004) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	349 lx ( $\geq 100$ lx) 	86.4 lx	883 lx	0.25	0.098	S6
Workplane (005) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	287 lx ( $\geq 100$ lx) 	213 lx	321 lx	0.74	0.66	S8
Workplane (006) Perpendicular illuminance (adaptive) Height: 1.000 m, Wall zone: 0.500 m	421 lx ( $\geq 300$ lx) 	249 lx	558 lx	0.59	0.45	S10
Workplane (007) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	242 lx ( $\geq 100$ lx) 	161 lx	288 lx	0.67	0.56	S12
Workplane (008) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	317 lx ( $\geq 200$ lx) 	130 lx	414 lx	0.41	0.31	S14
Workplane (009) Perpendicular illuminance (adaptive) Height: 0.000 m, Wall zone: 0.500 m	131 lx ( $\geq 100$ lx) 	84.0 lx	165 lx	0.64	0.51	S16
Workplane (010) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	167 lx ( $\geq 100$ lx) 	106 lx	223 lx	0.63	0.48	S18

Building 1 · 1PP · 002-003

## Summary



Building 1 · 1PP · 002-003

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	182 lx	$\geq 100 \text{ lx}$		S4
	$g_1$	0.00	-	-	S4
Consumption values	Consumption	[88 - 120] kWh/a	max. 800 kWh/a		
Lighting power density	Room	4.93 W/m <sup>2</sup>	-	-	
		2.70 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	11.62 W/m <sup>2</sup>	-	-	
		6.37 W/m <sup>2</sup> /100 lx	-	-	

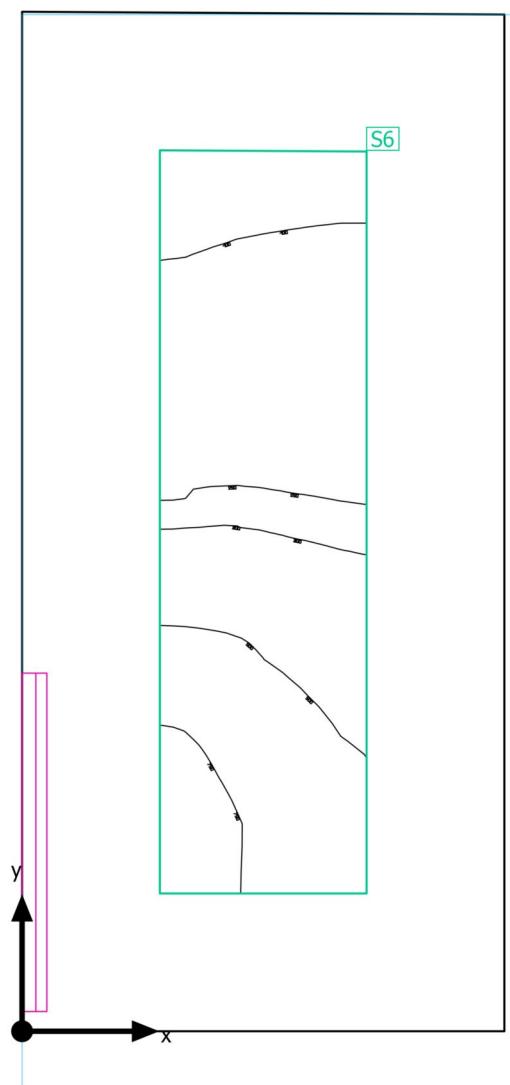
Utilisation profile: Educational premises - Educational buildings, Circulation areas, corridors

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	$\Phi$	Luminous efficacy
3	BRIGHTSOL	BS01P4K3	BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm 6UN	35.5 W	4957 lm	139.6 lm/W

Building 1 · 1PP · 004

## Summary



Building 1 · 1PP · 004

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	349 lx	$\geq 100 \text{ lx}$		S6
	$g_1$	0.25	-	-	S6
Consumption values	Consumption	6 kWh/a	max. 250 kWh/a		
Lighting power density	Room	5.49 W/m <sup>2</sup>	-	-	
		1.57 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	17.56 W/m <sup>2</sup>	-	-	
		5.03 W/m <sup>2</sup> /100 lx	-	-	

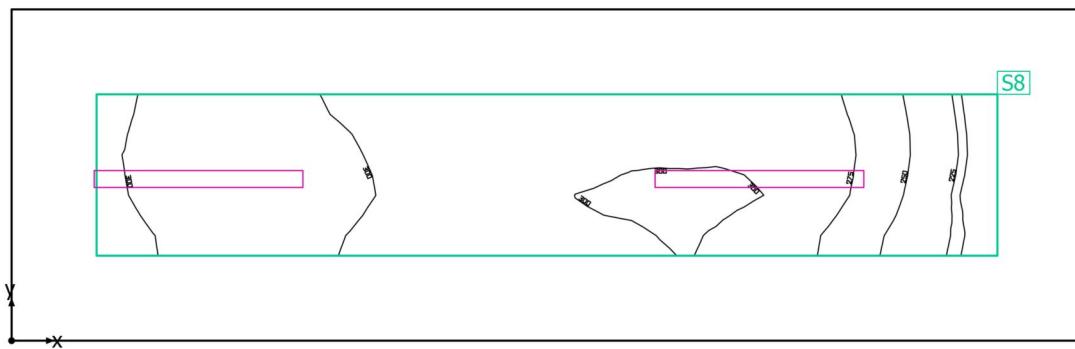
Utilisation profile: General areas inside buildings - Store rooms and cold stores, Store and stockrooms

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	$\Phi$	Luminous efficacy
1	BRIGHTSOL	BS01P4K3	BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm 6UN	35.5 W	4957 lm	139.6 lm/W

Building 1 · 1PP · 005

## Summary



Building 1 · 1PP · 005

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	287 lx	$\geq 100 \text{ lx}$		S8
	$g_1$	0.74	-	-	S8
Consumption values	Consumption	[7 - 12] kWh/a	max. 450 kWh/a		
Lighting power density	Room	5.78 W/m <sup>2</sup>	-	-	
		2.01 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	14.10 W/m <sup>2</sup>	-	-	
		4.90 W/m <sup>2</sup> /100 lx	-	-	

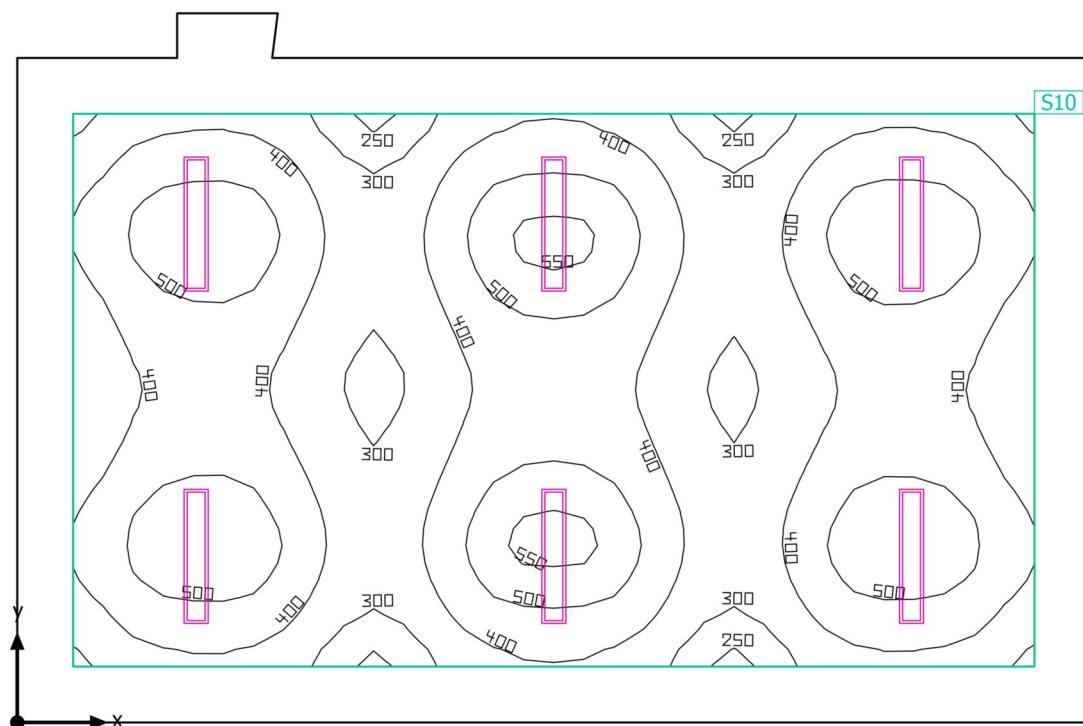
Utilisation profile: General areas inside buildings - Store rooms and cold stores, Store and stockrooms

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	$\Phi$	Luminous efficacy
2	BRIGHTSOL	BS01P4K3	BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm 6UN	35.5 W	4957 lm	139.6 lm/W

Building 1 · 1PP · 006

## Summary



Building 1 · 1PP · 006

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	421 lx	$\geq 300$ lx	✓	S10
	$g_1$	0.59	-	-	S10
Consumption values	Consumption	[710 - 970] kWh/a	max. 2050 kWh/a	✓	
Lighting power density	Room	4.18 W/m <sup>2</sup>	-	-	
		0.99 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	5.64 W/m <sup>2</sup>	-	-	
		1.34 W/m <sup>2</sup> /100 lx	-	-	

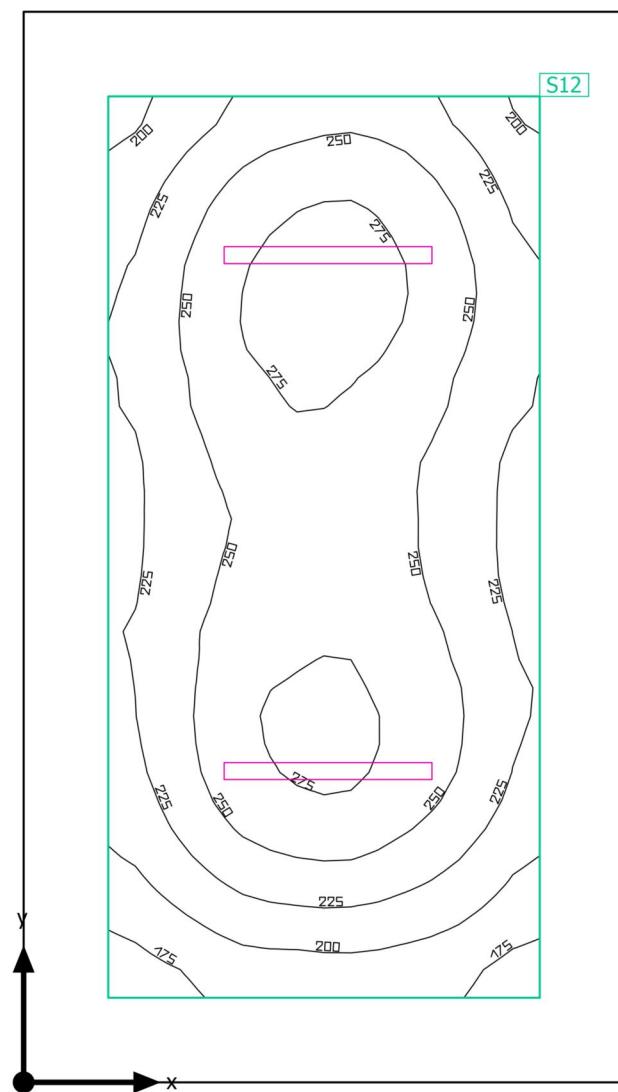
Utilisation profile: Educational premises - Educational buildings, Sports halls, gymnasiums, swimming pools

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
6	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 1PP · 007

## Summary



Building 1 · 1PP · 007

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	242 lx	$\geq 100 \text{ lx}$	✓	S12
	$g_1$	0.67	-	-	S12
Consumption values	Consumption	12 kWh/a	max. 800 kWh/a	✓	
Lighting power density	Room	3.16 W/m <sup>2</sup>	-	-	
		1.31 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	5.23 W/m <sup>2</sup>	-	-	
		2.16 W/m <sup>2</sup> /100 lx	-	-	

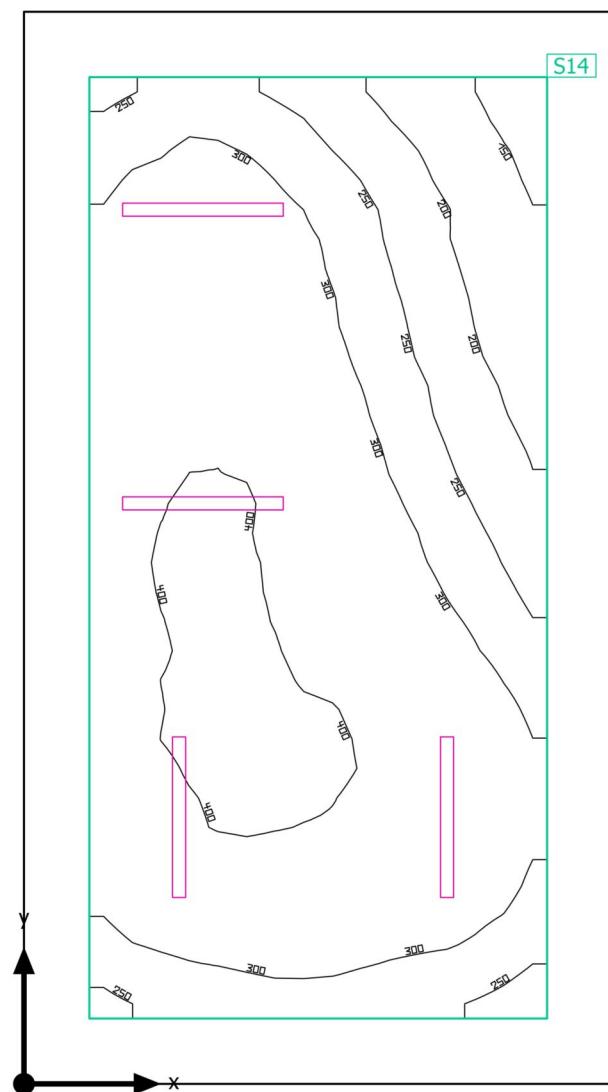
Utilisation profile: General areas inside buildings - Store rooms and cold stores, Store and stockrooms

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	BRIGHTSOL	BS01P4K3	BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm 6UN	35.5 W	4957 lm	139.6 lm/W

Building 1 · 1PP · 008

## Summary



Building 1 · 1PP · 008

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	317 lx	$\geq 200 \text{ lx}$	✓	S14
	$g_1$	0.41	-	-	S14
Consumption values	Consumption	[190 - 320] kWh/a	max. 1300 kWh/a	✓	
Lighting power density	Room	3.85 W/m <sup>2</sup>	-	-	
		1.22 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	5.63 W/m <sup>2</sup>	-	-	
		1.78 W/m <sup>2</sup> /100 lx	-	-	

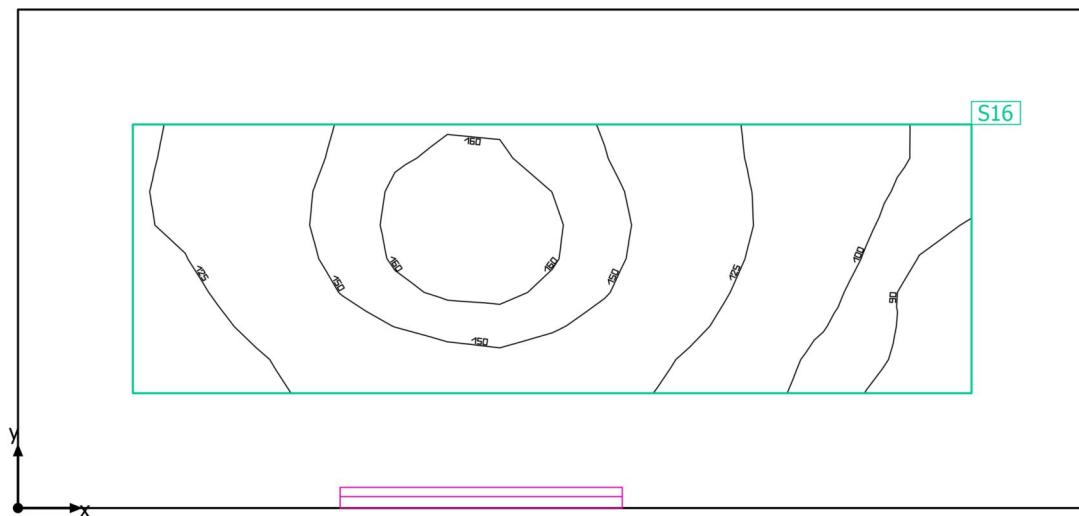
Utilisation profile: Industrial activities and crafts - Power stations, Side rooms, e.g. pump rooms, condenser rooms, switchboards

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	BRIGHTSOL	BS01P4K3	BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm 6UN	35.5 W	4957 lm	139.6 lm/W

Building 1 · 1PP · 009

## Summary



Building 1 · 1PP · 009

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	131 lx	$\geq 100 \text{ lx}$	✓	S16
	$g_1$	0.64	-	-	S16
Consumption values	Consumption	[25 - 39] kWh/a	max. 400 kWh/a	✓	
Lighting power density	Room	3.52 W/m <sup>2</sup>	-	-	
		2.68 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	8.31 W/m <sup>2</sup>	-	-	
		6.33 W/m <sup>2</sup> /100 lx	-	-	

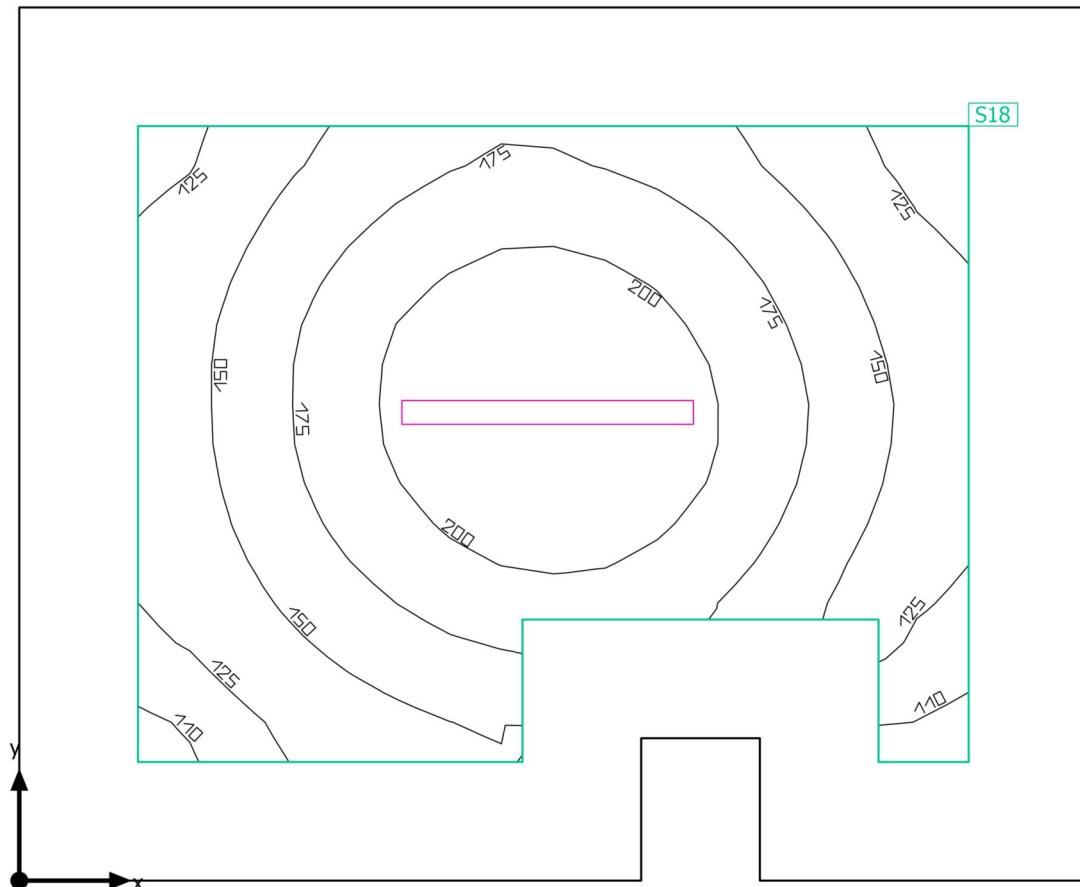
Utilisation profile: Educational premises - Educational buildings, Circulation areas, corridors

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	BRIGHTSOL	BS01P4K3	BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm 6UN	35.5 W	4957 lm	139.6 lm/W

Building 1 · 1PP · 010

## Summary



Building 1 · 1PP · 010

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	167 lx	$\geq 100 \text{ lx}$	✓	S18
	$g_1$	0.63	-	-	S18
Consumption values	Consumption	[4 - 6] kWh/a	max. 600 kWh/a	✓	
Lighting power density	Room	2.18 W/m <sup>2</sup>	-	-	
		1.31 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	4.19 W/m <sup>2</sup>	-	-	
		2.51 W/m <sup>2</sup> /100 lx	-	-	

Utilisation profile: General areas inside buildings - Store rooms and cold stores, Store and stockrooms

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	BRIGHTSOL	BS01P4K3	BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm 6UN	35.5 W	4957 lm	139.6 lm/W

Building 1 · 1NP

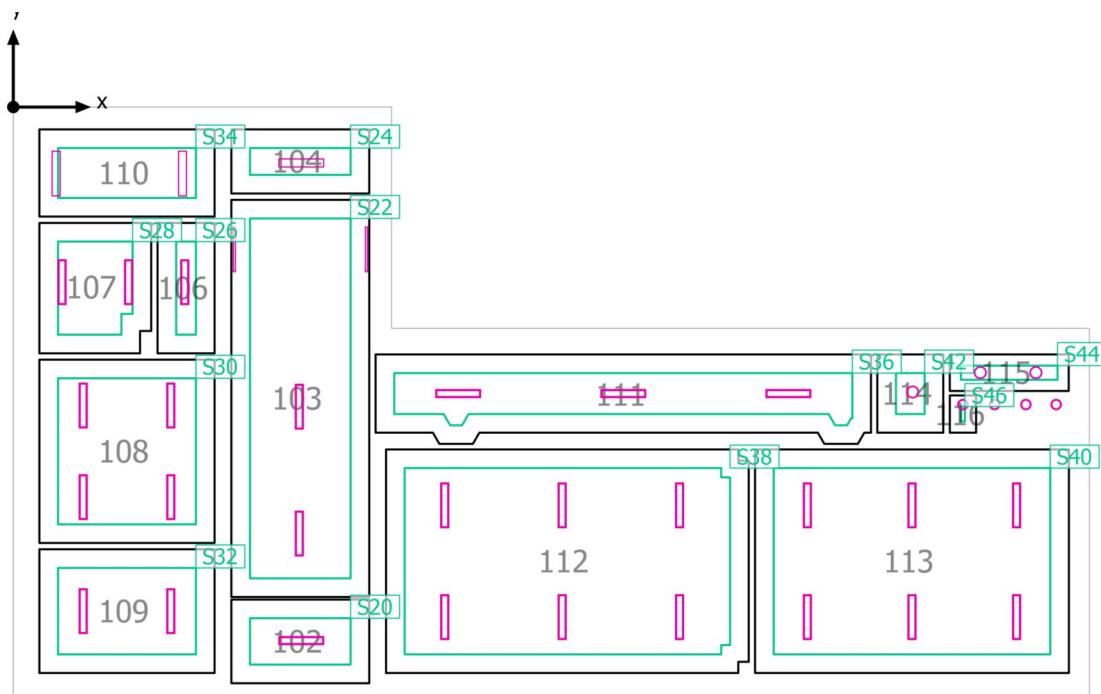
## Luminaire list

$\Phi_{\text{total}}$	$P_{\text{total}}$	Luminous efficacy
158334 lm	1384.8 W	114.3 lm/W

pcs.	Manufacturer	Article No.	Article name	P	$\Phi$	Luminous efficacy
27	BRIGHTSOL	BS02O4K4	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm 0UNL	40.0 W	4757 lm	118.9 lm/W
4	BRIGHTSOL	BS02U4K1	BS02U4K18UN 20,7W 4K 1700lm IP54 D28 8UN	20.7 W	1700 lm	82.1 lm/W
3	BRIGHTSOL	BS04U4K2	BS04U4K24UNK 24W 4K 2250lm IP54 D33 4UNK	24.0 W	2250 lm	93.7 lm/W
5	BRIGHTSOL	BS06U4K3	BS06U4K30UNL 30W 4K 3270lm line IP40 UGR19 0UNL 1200mm	30.0 W	3269 lm	109.0 lm/W

Building 1 · 1NP

## Calculation objects



Building 1 · 1NP

## Calculation objects

### Work planes

Properties	$\bar{E}$ (Target)	$E_{min}$	$E_{max}$	$g_1$	$g_2$	Index
Workplane (102) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	399 lx (≥ 100 lx) 	295 lx	471 lx	0.74	0.63	S20
Workplane (103) Perpendicular illuminance (adaptive) Height: 0.000 m, Wall zone: 0.500 m	248 lx (≥ 100 lx) 	133 lx	327 lx	0.54	0.41	S22
Workplane (104) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	174 lx (≥ 100 lx) 	142 lx	196 lx	0.82	0.72	S24
Workplane (106) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	417 lx (≥ 200 lx) 	309 lx	479 lx	0.74	0.65	S26
Workplane (107) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.500 m	565 lx (≥ 500 lx) 	361 lx	740 lx	0.64	0.49	S28
Workplane (108) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.500 m	588 lx (≥ 500 lx) 	452 lx	669 lx	0.77	0.68	S30
Workplane (109) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	430 lx (≥ 300 lx) 	312 lx	541 lx	0.73	0.58	S32
Workplane (110) Perpendicular illuminance (adaptive) Height: 0.000 m, Wall zone: 0.500 m	167 lx (≥ 150 lx) 	154 lx	181 lx	0.92	0.85	S34
Workplane (111) Perpendicular illuminance (adaptive) Height: 0.000 m, Wall zone: 0.500 m	242 lx (≥ 200 lx) 	176 lx	286 lx	0.73	0.62	S36
Workplane (112) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.500 m	405 lx (≥ 300 lx) 	263 lx	514 lx	0.65	0.51	S38
Workplane (113) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.500 m	463 lx (≥ 300 lx) 	316 lx	562 lx	0.68	0.56	S40

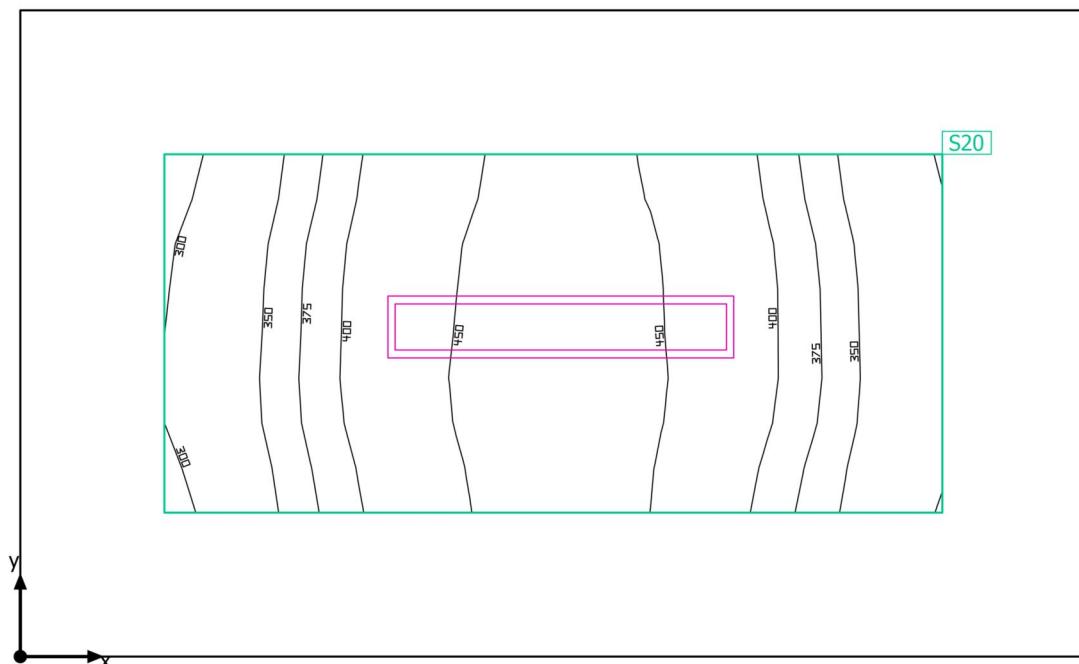
Building 1 · 1NP

## Calculation objects

Workplane (114) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	208 lx (≥ 200 lx) 	197 lx	214 lx	0.95	0.92	S42
Workplane (115) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.300 m	507 lx (≥ 200 lx) 	430 lx	552 lx	0.85	0.78	S44
Workplane (116) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.300 m	449 lx (≥ 200 lx) 	447 lx	452 lx	1.00	0.99	S46

Building 1 · 1NP · 102

## Summary



Building 1 · 1NP · 102

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	399 lx	$\geq 100 \text{ lx}$		S20
	$g_1$	0.74	-	-	S20
Consumption values	Consumption	[49 - 77] kWh/a	max. 300 kWh/a		
Lighting power density	Room	4.82 W/m <sup>2</sup>	-	-	
		1.21 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	11.90 W/m <sup>2</sup>	-	-	
		2.98 W/m <sup>2</sup> /100 lx	-	-	

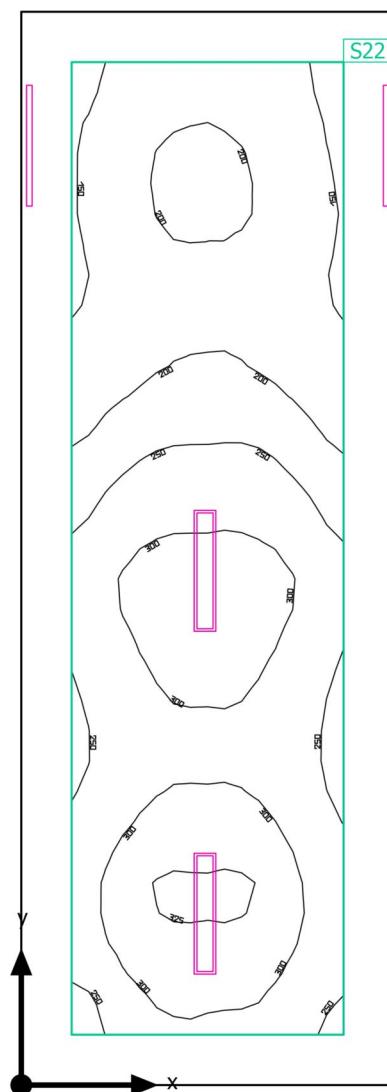
Utilisation profile: Places of public assembly - General areas, Entrance halls

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	$\Phi$	Luminous efficacy
1	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 1NP · 103

## Summary



Building 1 · 1NP · 103

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	248 lx	$\geq 100 \text{ lx}$	✓	S22
	$g_1$	0.54	-	-	S22
Consumption values	Consumption	150 kWh/a	max. 1400 kWh/a	✓	
Lighting power density	Room	3.55 W/m <sup>2</sup>	-	-	
		1.43 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	5.37 W/m <sup>2</sup>	-	-	
		2.17 W/m <sup>2</sup> /100 lx	-	-	

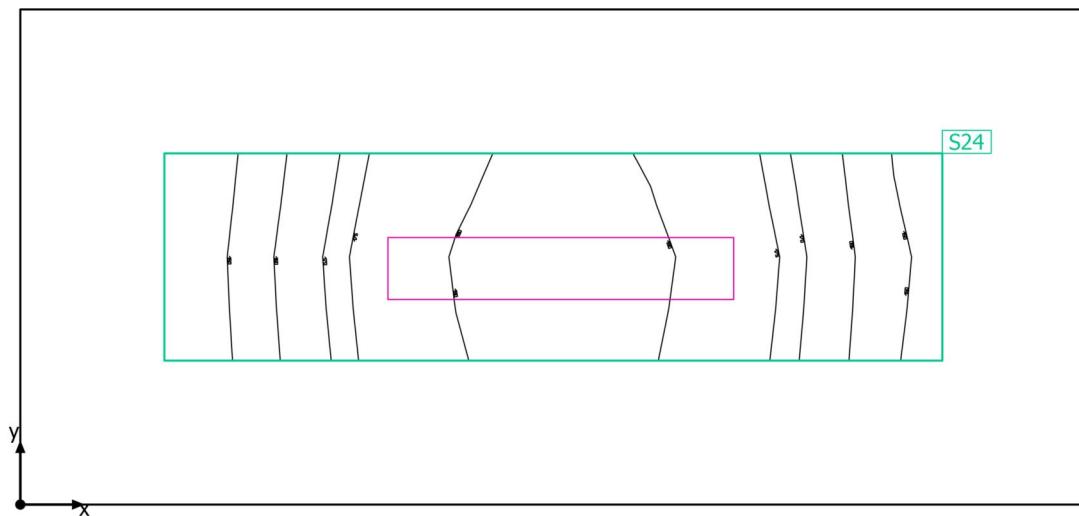
Utilisation profile: Educational premises - Educational buildings, Circulation areas, corridors

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	BRIGHTSOL	BS02O4K4	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm 0UNL	40.0 W	4757 lm	118.9 lm/W
2	BRIGHTSOL	BS06U4K3	BS06U4K30UNL 30W 4K 3270lm line IP40 UGR19 0UNL 1200mm	30.0 W	3269 lm	109.0 lm/W

Building 1 · 1NP · 104

## Summary



Building 1 · 1NP · 104

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	174 lx	$\geq 100 \text{ lx}$		S24
	$g_1$	0.82	-	-	S24
Consumption values	Consumption	[36 - 58] kWh/a	max. 250 kWh/a		
Lighting power density	Room	4.71 W/m <sup>2</sup>	-	-	
		2.71 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	15.43 W/m <sup>2</sup>	-	-	
		8.87 W/m <sup>2</sup> /100 lx	-	-	

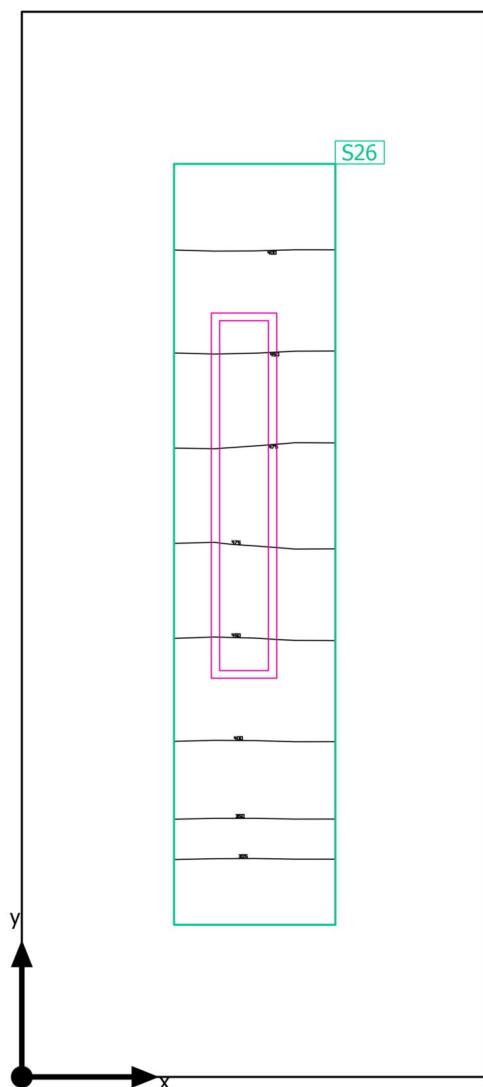
Utilisation profile: Places of public assembly - General areas, Entrance halls

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	$\Phi$	Luminous efficacy
1	BRIGHTSOL	BS06U4K30UNL	BS06U4K30UNL 30W 4K 3270lm line IP40 UGR19 1200mm	30.0 W	3269 lm	109.0 lm/W

Building 1 · 1NP · 106

## Summary



Building 1 · 1NP · 106

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	417 lx	≥ 200 lx	✓	S26
	g <sub>1</sub>	0.74	-	-	S26
Consumption values	Consumption	77 kWh/a	max. 200 kWh/a	✓	
Lighting power density	Room	7.47 W/m <sup>2</sup>	-	-	
		1.79 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	30.19 W/m <sup>2</sup>	-	-	
		7.23 W/m <sup>2</sup> /100 lx	-	-	

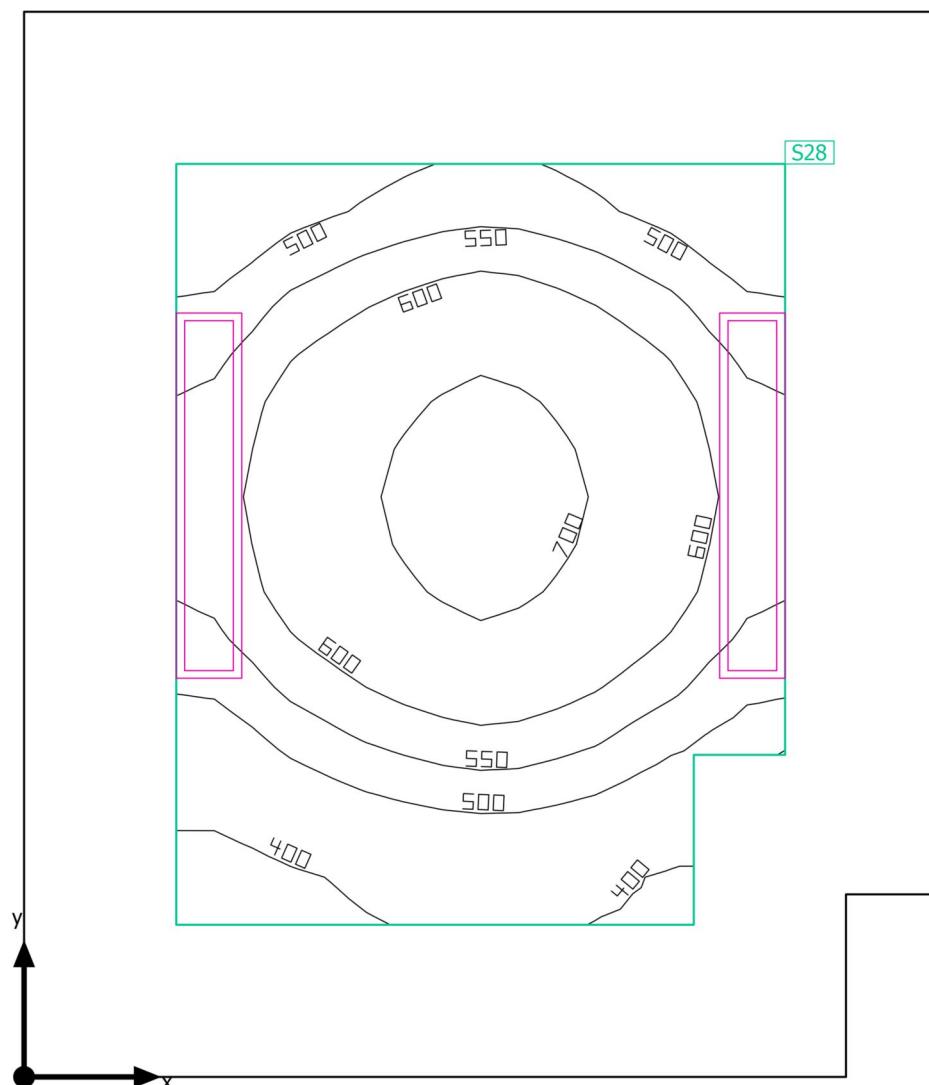
Utilisation profile: Places of public assembly - General areas, Entrance halls

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 1NP · 107

## Summary



Building 1 · 1NP · 107

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	565 lx	$\geq 500 \text{ lx}$	✓	S28
	$g_1$	0.64	-	-	S28
Consumption values	Consumption	[140 - 220] kWh/a	max. 400 kWh/a	✓	
Lighting power density	Room	7.75 W/m <sup>2</sup>	-	-	
		1.37 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	16.55 W/m <sup>2</sup>	-	-	
		2.93 W/m <sup>2</sup> /100 lx	-	-	

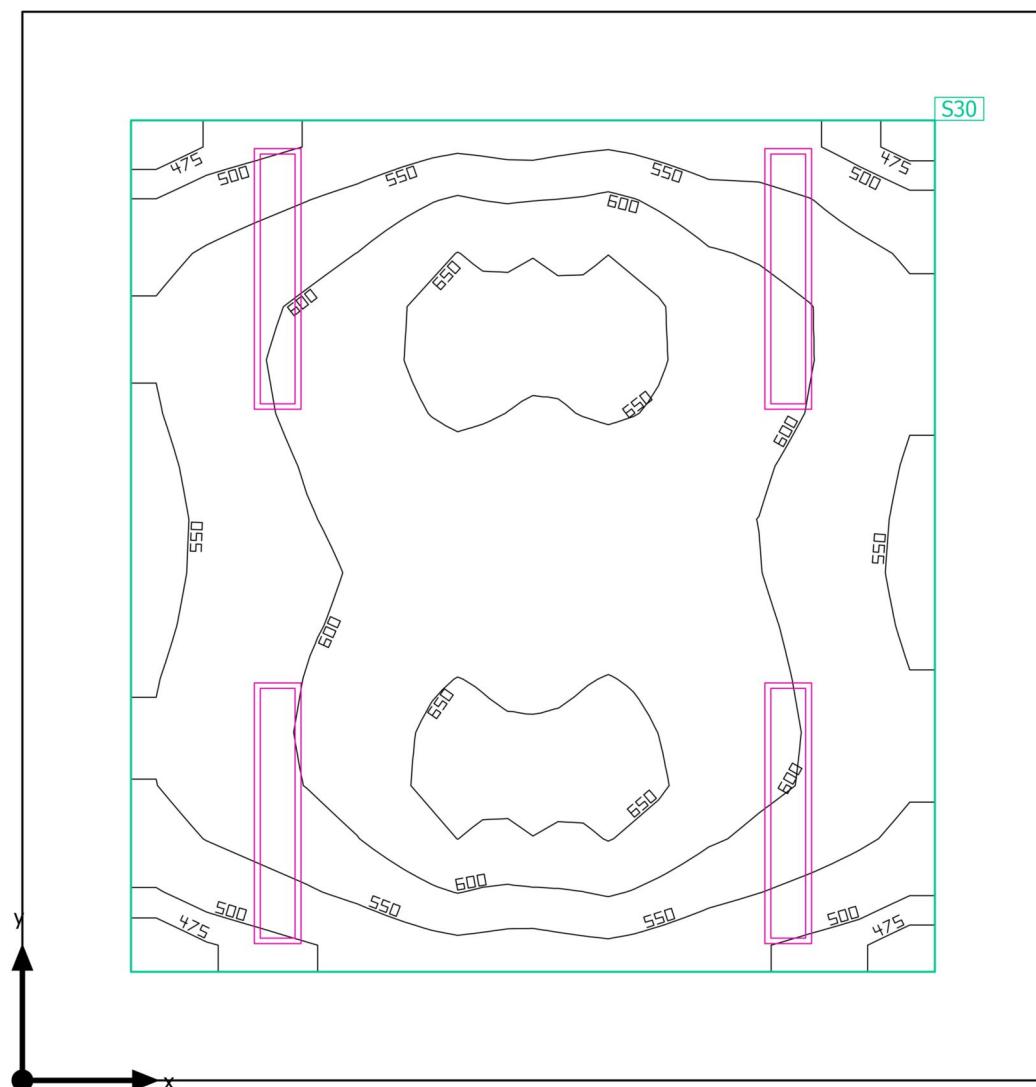
Utilisation profile: DIALux presetting, Standard (office)

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 1NP · 108

## Summary



Building 1 · 1NP · 108

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	588 lx	$\geq 500 \text{ lx}$	✓	S30
	$g_1$	0.77	-	-	S30
Consumption values	Consumption	[280 - 440] kWh/a	max. 850 kWh/a	✓	
Lighting power density	Room	6.92 W/m <sup>2</sup>	-	-	
		1.18 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	11.03 W/m <sup>2</sup>	-	-	
		1.88 W/m <sup>2</sup> /100 lx	-	-	

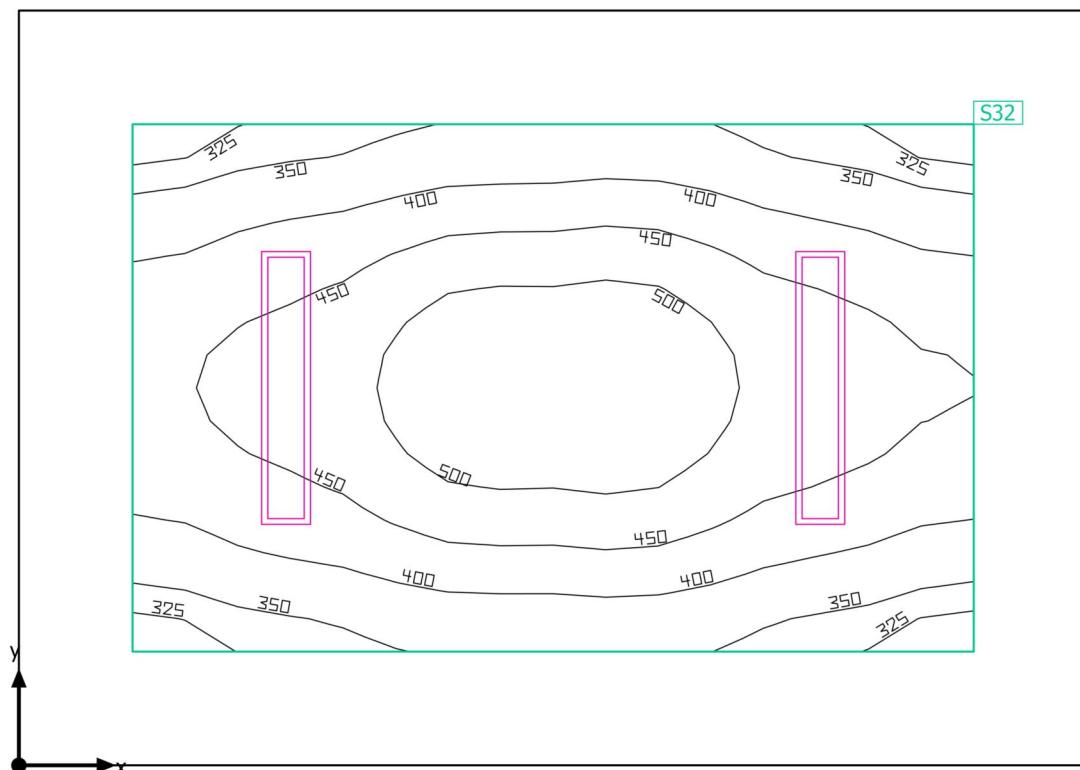
Utilisation profile: DIALux presetting, Standard (office)

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 1NP · 109

## Summary



Building 1 · 1NP · 109

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	430 lx	$\geq 300$ lx	✓	S32
	$g_1$	0.73	-	-	S32
Consumption values	Consumption	[97 - 150] kWh/a	max. 550 kWh/a	✓	
Lighting power density	Room	5.13 W/m <sup>2</sup>	-	-	
		1.19 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	9.32 W/m <sup>2</sup>	-	-	
		2.17 W/m <sup>2</sup> /100 lx	-	-	

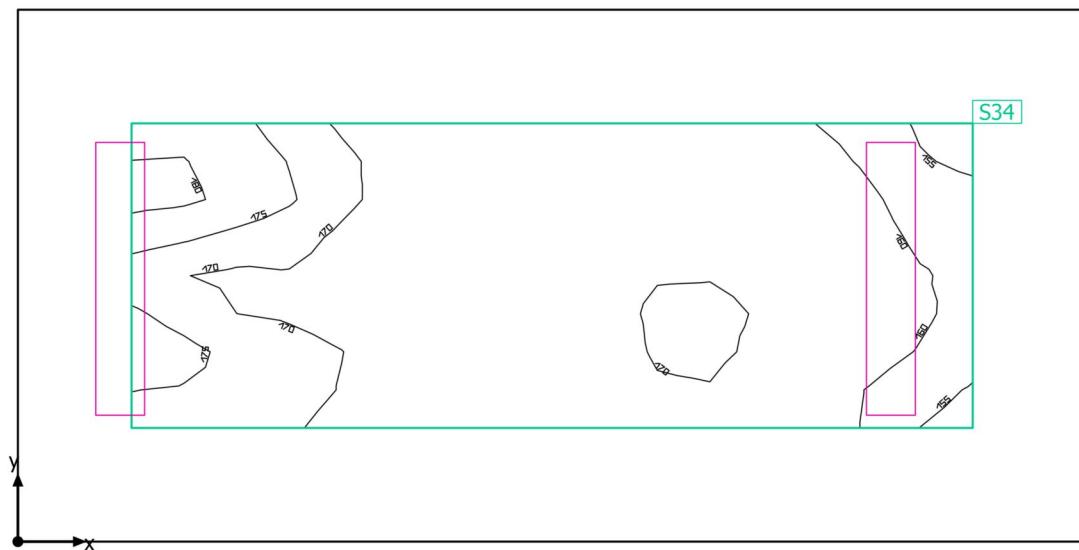
Utilisation profile: Educational premises - Educational buildings, Classroom

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 1NP · 110

## Summary



Building 1 · 1NP · 110

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	167 lx	$\geq 150$ lx	✓	S34
	$g_1$	0.92	-	-	S34
Consumption values	Consumption	[42 - 66] kWh/a	max. 400 kWh/a	✓	
Lighting power density	Room	5.46 W/m <sup>2</sup>	-	-	
		3.27 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	12.10 W/m <sup>2</sup>	-	-	
		7.26 W/m <sup>2</sup> /100 lx	-	-	

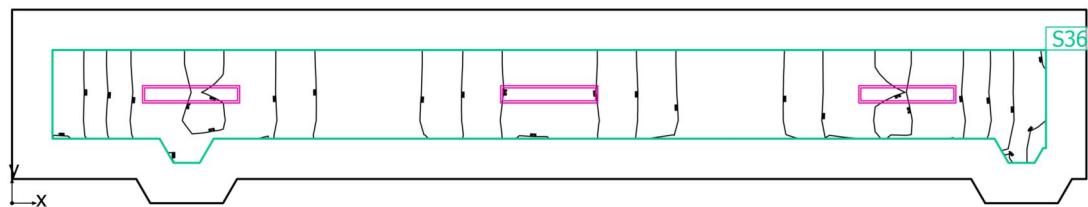
Utilisation profile: Educational premises - Educational buildings, Stairs

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	BRIGHTSOL	BS06U4K30UNL	BS06U4K30UNL 30W 4K 3270lm line IP40 UGR19 1200mm	30.0 W	3269 lm	109.0 lm/W

Building 1 · 1NP · 111

## Summary



Building 1 · 1NP · 111

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	242 lx	$\geq 200$ lx	✓	S36
	$g_1$	0.73	-	-	S36
Consumption values	Consumption	[83 - 130] kWh/a	max. 1050 kWh/a	✓	
Lighting power density	Room	4.20 W/m <sup>2</sup>	-	-	
		1.73 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	8.69 W/m <sup>2</sup>	-	-	
		3.58 W/m <sup>2</sup> /100 lx	-	-	

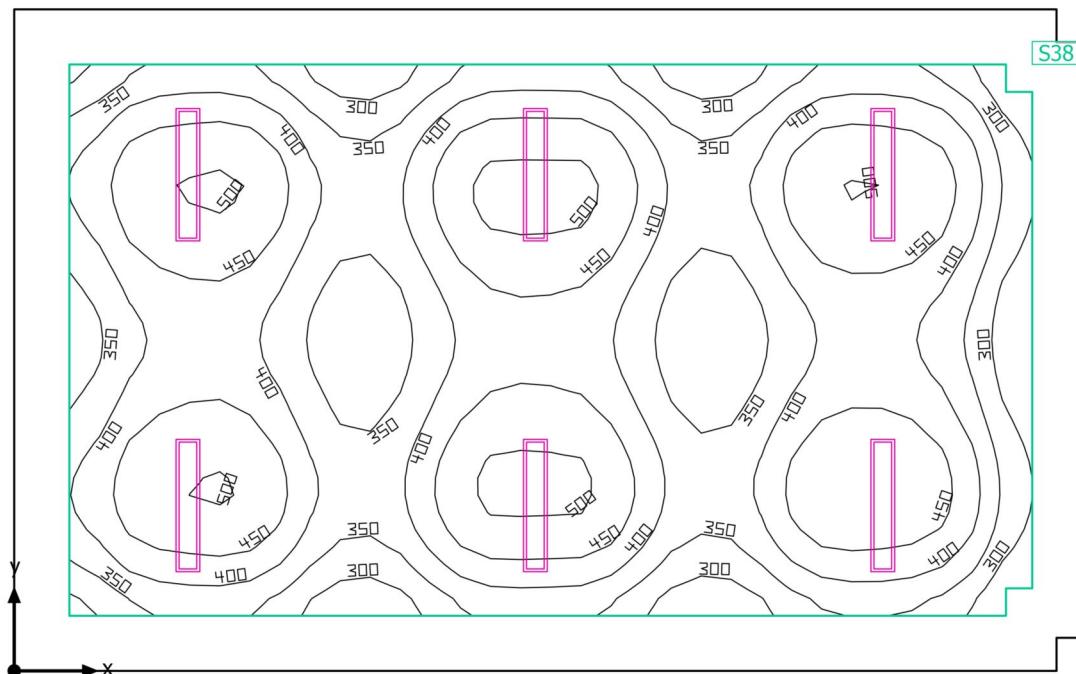
Utilisation profile: Educational premises - Educational buildings, Circulation areas, corridors

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
3	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 1NP · 112

## Summary



Building 1 · 1NP · 112

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	405 lx	$\geq 300$ lx	✓	S38
	$g_1$	0.65	-	-	S38
Consumption values	Consumption	[290 - 460] kWh/a	max. 2050 kWh/a	✓	
Lighting power density	Room	4.12 W/m <sup>2</sup>	-	-	
		1.02 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	5.51 W/m <sup>2</sup>	-	-	
		1.36 W/m <sup>2</sup> /100 lx	-	-	

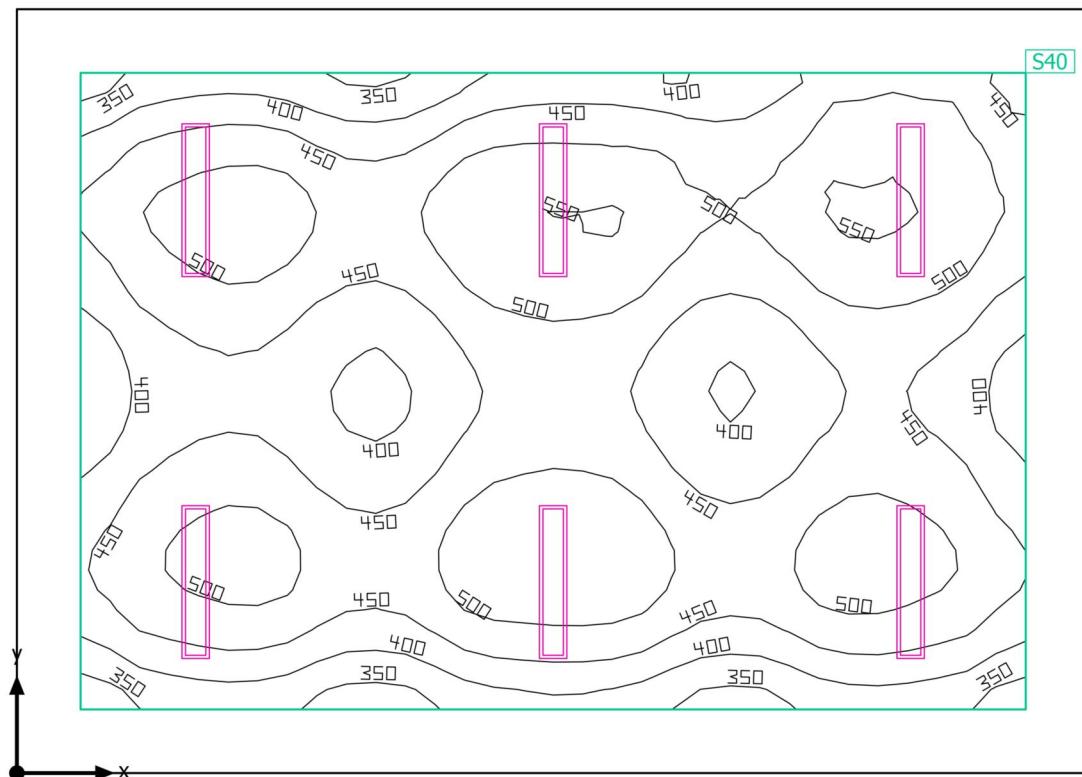
Utilisation profile: Educational premises - Educational buildings, Classroom

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
6	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 1NP · 113

## Summary



Building 1 · 1NP · 113

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	463 lx	$\geq 300 \text{ lx}$	✓	S40
	$g_1$	0.68	-	-	S40
Consumption values	Consumption	[290 - 460] kWh/a	max. 1800 kWh/a	✓	
Lighting power density	Room	4.75 W/m <sup>2</sup>	-	-	
		1.03 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	6.47 W/m <sup>2</sup>	-	-	
		1.40 W/m <sup>2</sup> /100 lx	-	-	

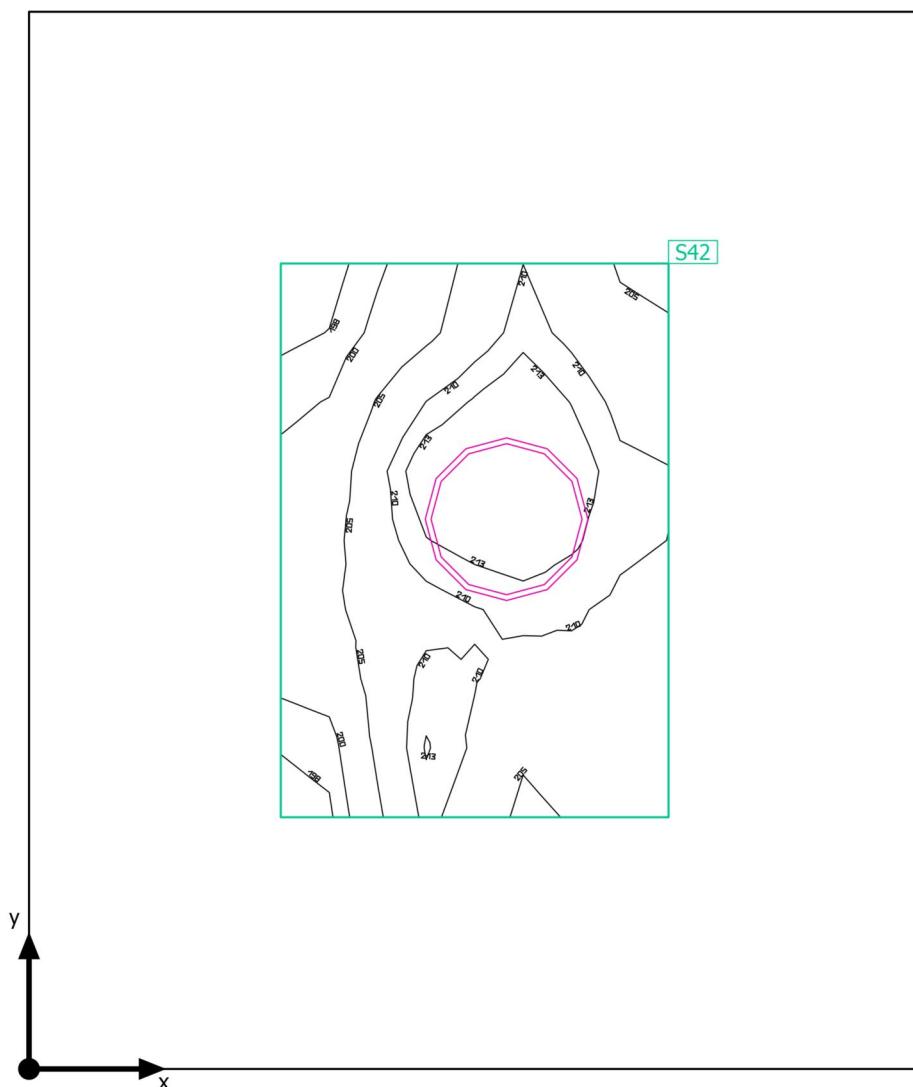
Utilisation profile: Educational premises - Educational buildings, Classroom

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
6	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 1NP · 114

## Summary



Building 1 · 1NP · 114

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	208 lx	$\geq 200 \text{ lx}$	✓	S42
	$g_1$	0.95	-	-	S42
Consumption values	Consumption	[12 - 20] kWh/a	max. 150 kWh/a	✓	
Lighting power density	Room	6.46 W/m <sup>2</sup>	-	-	
		3.11 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	28.34 W/m <sup>2</sup>	-	-	
		13.65 W/m <sup>2</sup> /100 lx	-	-	

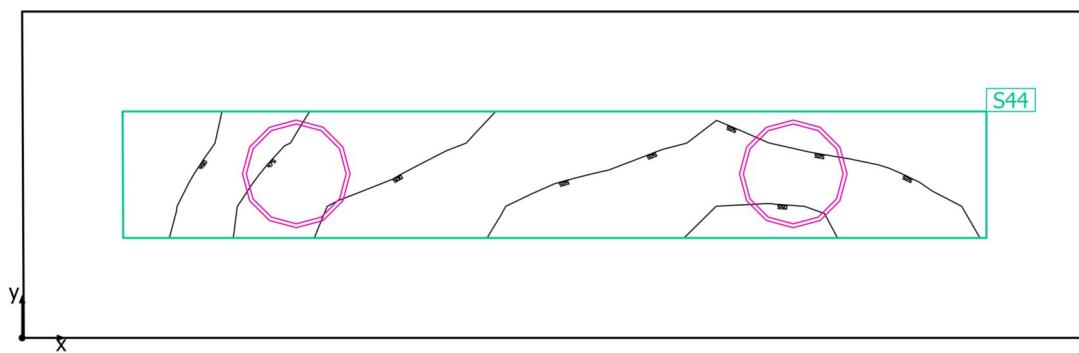
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	BRIGHTSOL	BS04U4K2	BS04U4K24UNK 24W 4K 2250lm IP54 D33 4UNK	24.0 W	2250 lm	93.7 lm/W

Building 1 · 1NP · 115

## Summary



Building 1 · 1NP · 115

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	507 lx	$\geq 200 \text{ lx}$	✓	S44
	$g_1$	0.85	-	-	S44
Consumption values	Consumption	[25 - 40] kWh/a	max. 150 kWh/a	✓	
Lighting power density	Room	15.34 W/m <sup>2</sup>	-	-	
		3.02 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	48.72 W/m <sup>2</sup>	-	-	
		9.60 W/m <sup>2</sup> /100 lx	-	-	

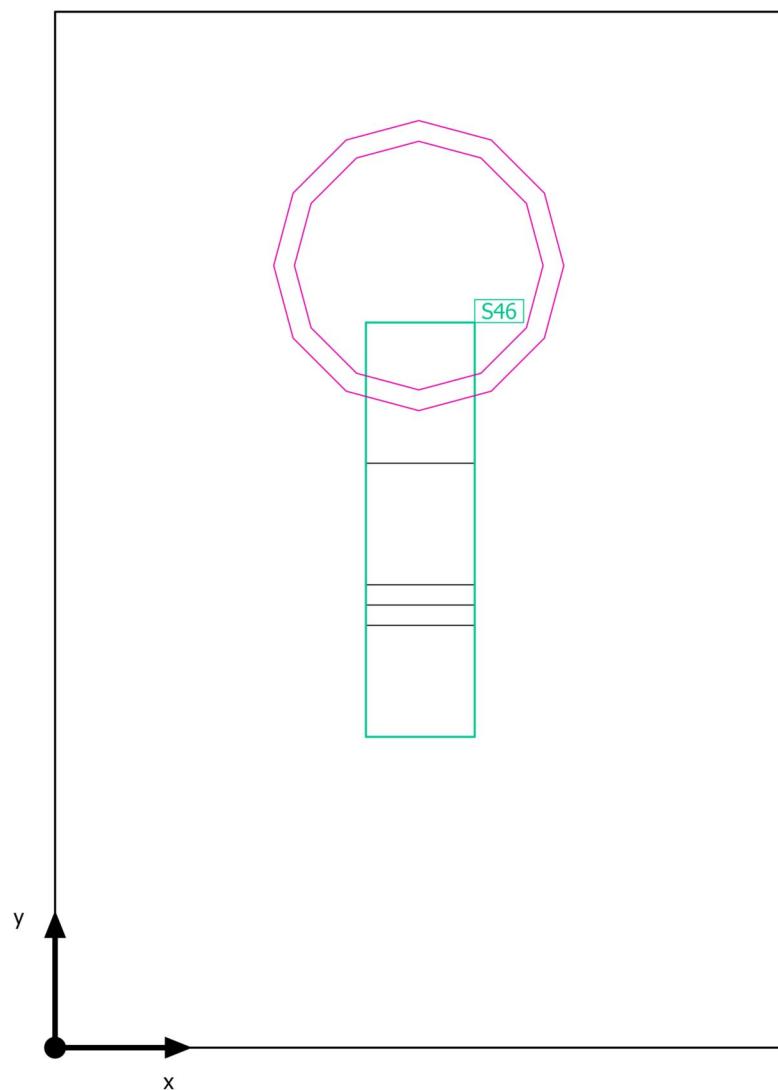
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	BRIGHTSOL	BS04U4K2	BS04U4K24UNK 24W 4K 2250lm IP54 D33 4UNK	24.0 W	2250 lm	93.7 lm/W

Building 1 · 1NP · 116

## Summary



Building 1 · 1NP · 116

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	449 lx	$\geq 200 \text{ lx}$	✓	S46
	$g_1$	1.00	-	-	S46
Consumption values	Consumption	17 kWh/a	max. 50 kWh/a	✓	
Lighting power density	Room	29.36 W/m <sup>2</sup>	-	-	
		6.53 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	492.86 W/m <sup>2</sup>	-	-	
		109.68 W/m <sup>2</sup> /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	BRIGHTSOL	BS02U4K1	BS02U4K18UN 20,7W 4K 1700lm IP54 D28 8UN	20.7 W	1700 lm	82.1 lm/W

Building 1 · 2NP

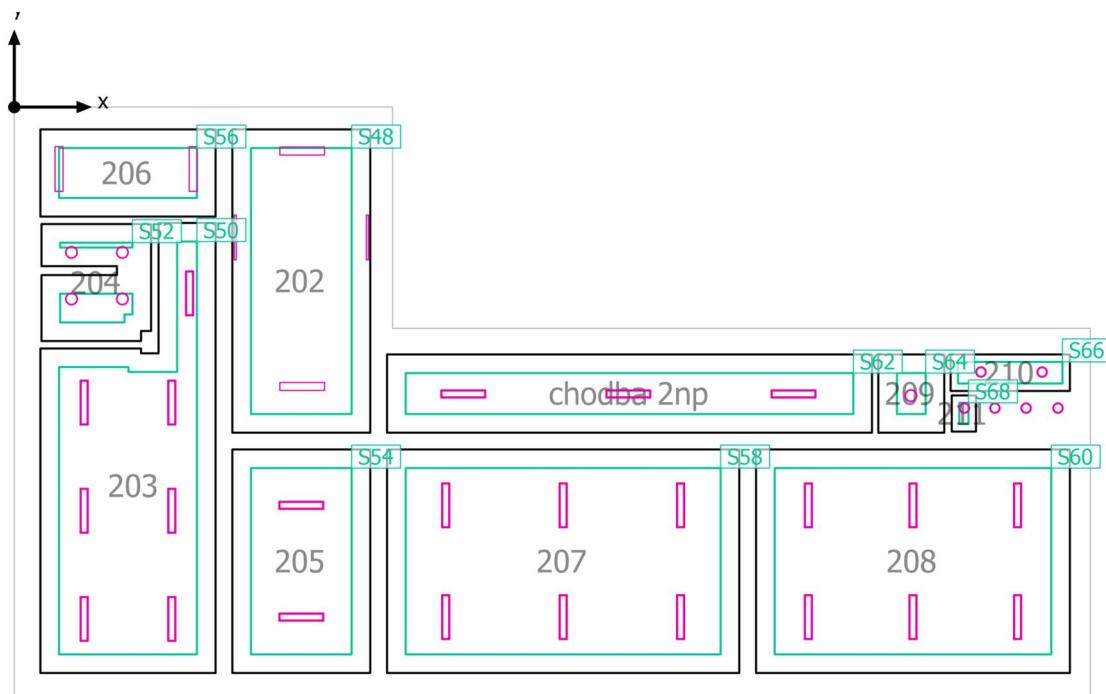
## Luminaire list

$\Phi_{\text{total}}$	$P_{\text{total}}$	Luminous efficacy
155232 lm	1384.2 W	112.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	$\Phi$	Luminous efficacy
24	BRIGHTSOL	BS02O4K4	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm 0UNL	40.0 W	4757 lm	118.9 lm/W
6	BRIGHTSOL	BS02U4K1	BS02U4K18UN 20,7W 4K 1700lm IP54 D28 8UN	20.7 W	1700 lm	82.1 lm/W
5	BRIGHTSOL	BS04U4K2	BS04U4K24UNK 24W 4K 2250lm IP54 D33 4UNK	24.0 W	2250 lm	93.7 lm/W
6	BRIGHTSOL	BS06U4K3	BS06U4K30UNL 30W 4K 3270lm line IP40 UGR19 0UNL 1200mm	30.0 W	3269 lm	109.0 lm/W

Building 1 · 2NP

## Calculation objects



Building 1 · 2NP

## Calculation objects

### Work planes

Properties	$\bar{E}$ (Target)	$E_{min}$	$E_{max}$	$g_1$	$g_2$	Index
Workplane (202) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.500 m	231 lx ( $\geq 150$ lx) 	136 lx	343 lx	0.59	0.40	S48
Workplane (203) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	524 lx ( $\geq 300$ lx) 	318 lx	659 lx	0.61	0.48	S50
Workplane (204) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	253 lx ( $\geq 200$ lx) 	209 lx	301 lx	0.83	0.69	S52
Workplane (205) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	343 lx ( $\geq 300$ lx) 	217 lx	445 lx	0.63	0.49	S54
Workplane (206) Perpendicular illuminance (adaptive) Height: 0.000 m, Wall zone: 0.500 m	154 lx ( $\geq 150$ lx) 	148 lx	160 lx	0.96	0.93	S56
Workplane (207) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	405 lx ( $\geq 300$ lx) 	268 lx	505 lx	0.66	0.53	S58
Workplane (208) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	459 lx ( $\geq 300$ lx) 	313 lx	555 lx	0.68	0.56	S60
Workplane (chodba 2np) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	317 lx ( $\geq 200$ lx) 	195 lx	429 lx	0.62	0.45	S62
Workplane (209) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.500 m	214 lx ( $\geq 200$ lx) 	198 lx	222 lx	0.93	0.89	S64
Workplane (210) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.200 m	312 lx ( $\geq 200$ lx) 	255 lx	356 lx	0.82	0.72	S66

Building 1 · 2NP

## Calculation objects

Workplane (211)

257 lx

251 lx

261 lx

0.98

0.96

S68

Perpendicular illuminance (adaptive)

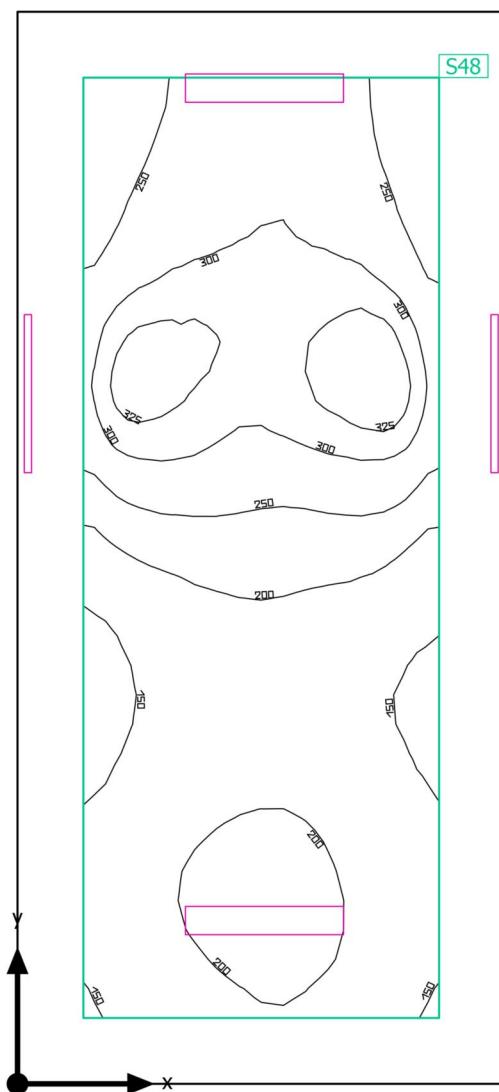
(≥ 200 lx)

Height: 0.800 m, Wall zone: 0.200 m



Building 1 · 2NP · 202

## Summary



Building 1 · 2NP · 202

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	231 lx	$\geq 150$ lx	✓	S48
	$g_1$	0.59	-	-	S48
Consumption values	Consumption	[110 - 130] kWh/a	max. 1100 kWh/a	✓	
Lighting power density	Room	3.98 W/m <sup>2</sup>	-	-	
		1.72 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	6.22 W/m <sup>2</sup>	-	-	
		2.69 W/m <sup>2</sup> /100 lx	-	-	

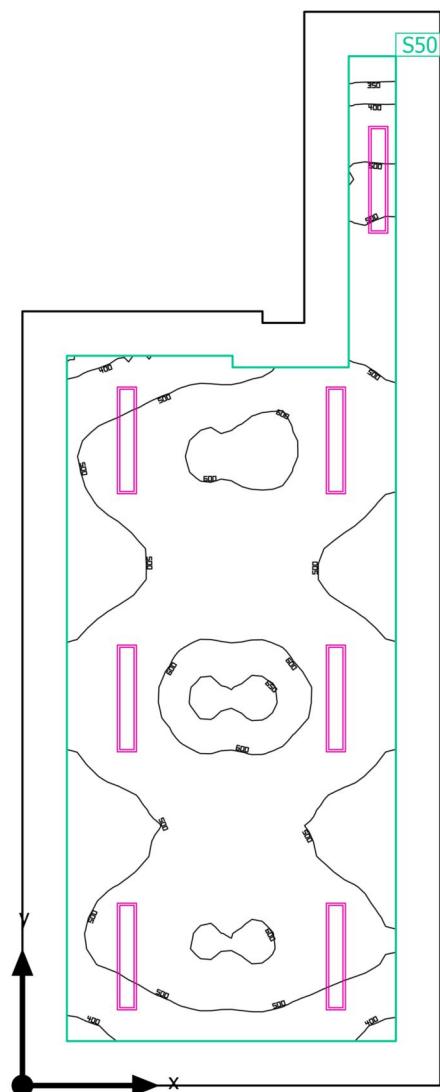
Utilisation profile: Educational premises - Educational buildings, Stairs

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	BRIGHTSOL	BS06U4K30UNL	BS06U4K30UNL 30W 4K 3270lm line IP40 UGR19 1200mm	30.0 W	3269 lm	109.0 lm/W

Building 1 · 2NP · 203

## Summary



Building 1 · 2NP · 203

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	524 lx	$\geq 300$ lx	✓	S50
	$g_1$	0.61	-	-	S50
Consumption values	Consumption	[340 - 540] kWh/a	max. 1650 kWh/a	✓	
Lighting power density	Room	6.08 W/m <sup>2</sup>	-	-	
		1.16 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	9.29 W/m <sup>2</sup>	-	-	
		1.77 W/m <sup>2</sup> /100 lx	-	-	

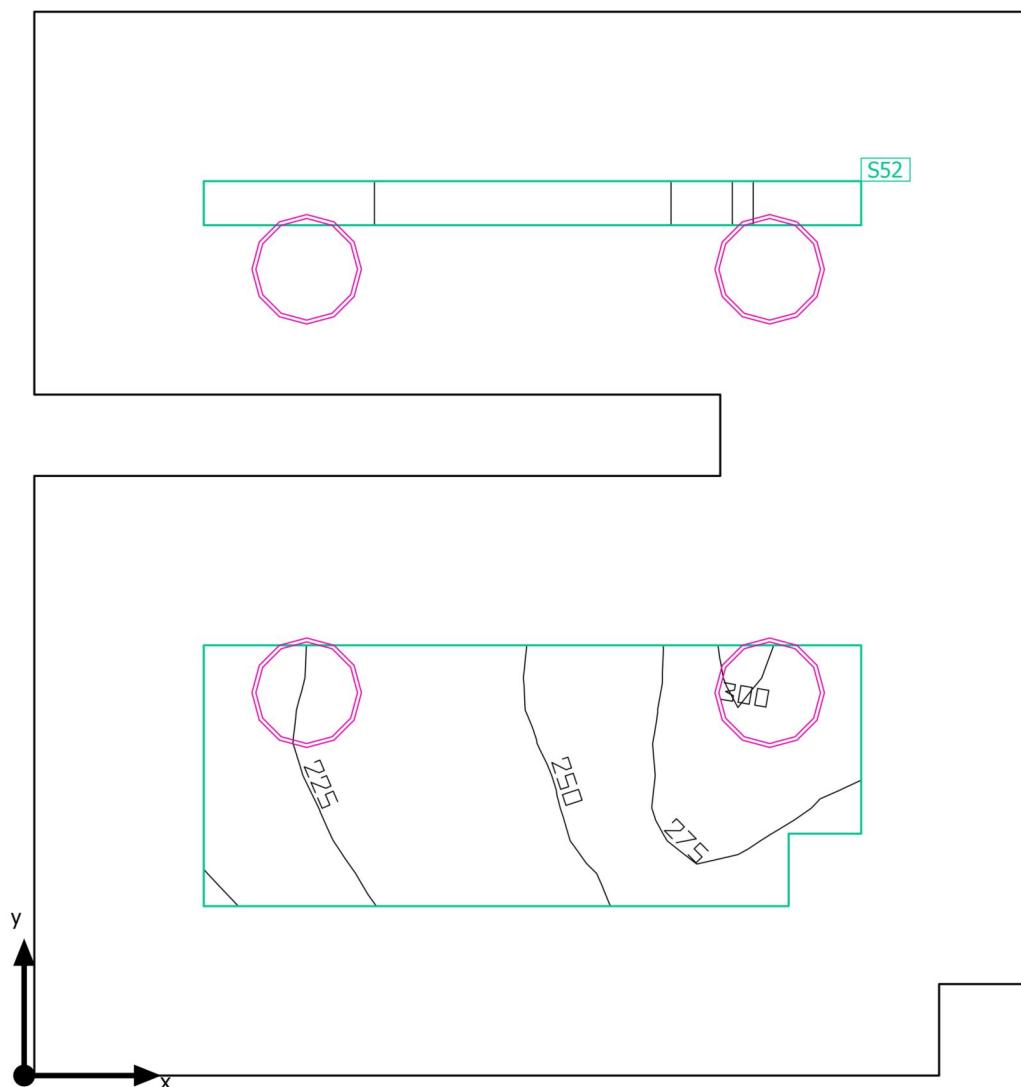
Utilisation profile: Educational premises - Educational buildings, Classroom

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
7	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 2NP · 204

## Summary



Building 1 · 2NP · 204

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	253 lx	$\geq 200 \text{ lx}$	✓	S52
	$g_1$	0.83	-	-	S52
Consumption values	Consumption	[50 - 79] kWh/a	max. 350 kWh/a	✓	
Lighting power density	Room	11.07 W/m <sup>2</sup>	-	-	
		4.37 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	56.46 W/m <sup>2</sup>	-	-	
		22.31 W/m <sup>2</sup> /100 lx	-	-	

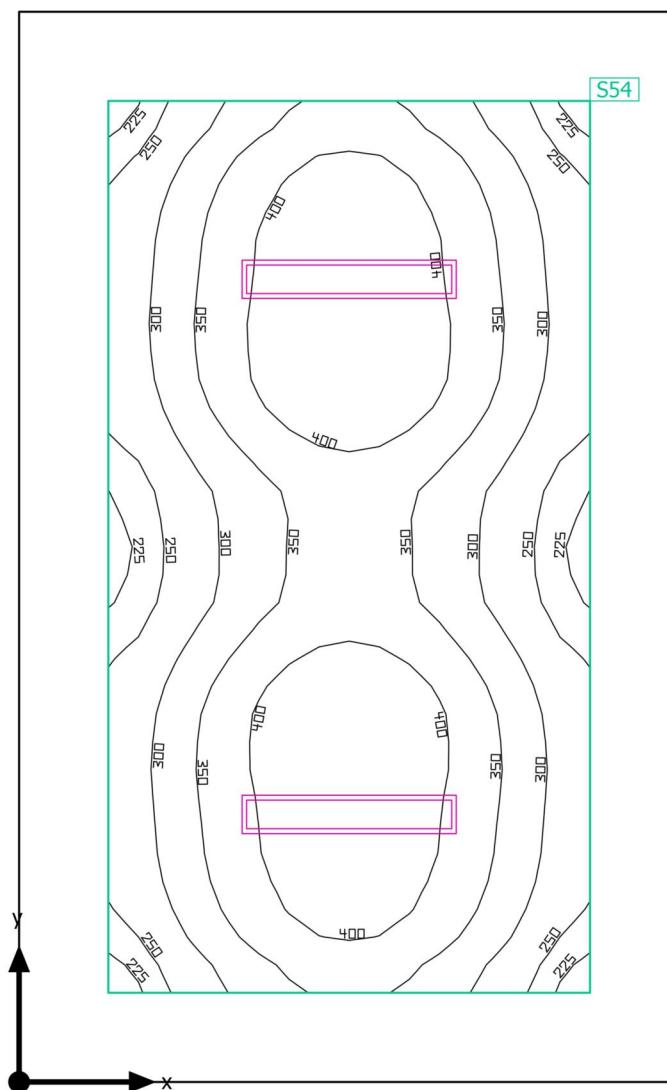
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	BRIGHTSOL	BS04U4K2	BS04U4K24UNK 24W 4K 2250lm IP54 D33 4UNK	24.0 W	2250 lm	93.7 lm/W

Building 1 · 2NP · 205

## Summary



Building 1 · 2NP · 205

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	343 lx	$\geq 300 \text{ lx}$		S54
	$g_1$	0.63	-	-	S54
Consumption values	Consumption	[97 - 150] kWh/a	max. 800 kWh/a		
Lighting power density	Room	3.60 W/m <sup>2</sup>	-	-	
		1.05 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	5.93 W/m <sup>2</sup>	-	-	
		1.73 W/m <sup>2</sup> /100 lx	-	-	

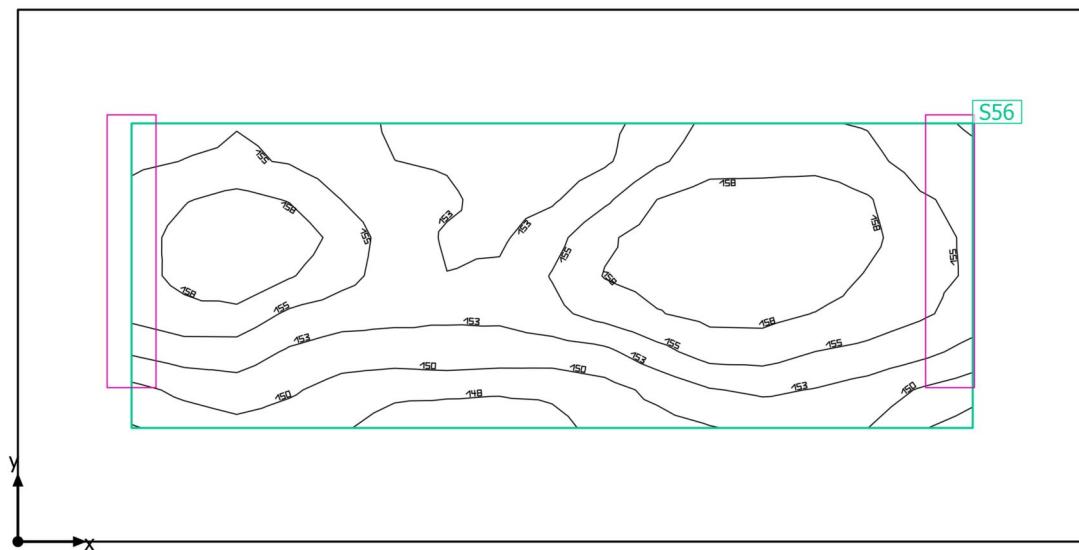
Utilisation profile: Educational premises - Educational buildings, Classroom

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	$\Phi$	Luminous efficacy
2	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 2NP · 206

## Summary



Building 1 · 2NP · 206

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	154 lx	$\geq 150$ lx	✓	S56
	$g_1$	0.96	-	-	S56
Consumption values	Consumption	[42 - 66] kWh/a	max. 400 kWh/a	✓	
Lighting power density	Room	5.46 W/m <sup>2</sup>	-	-	
		3.54 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	12.10 W/m <sup>2</sup>	-	-	
		7.85 W/m <sup>2</sup> /100 lx	-	-	

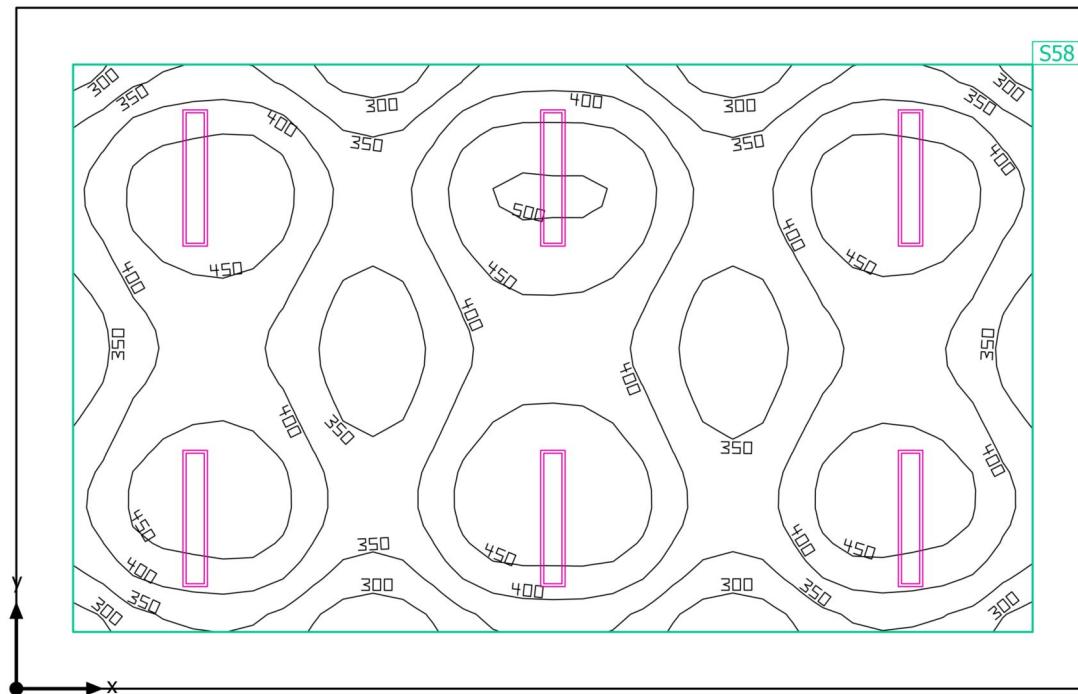
Utilisation profile: Educational premises - Educational buildings, Stairs

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	BRIGHTSOL	BS06U4K30UNL	BS06U4K30UNL 30W 4K 3270lm line IP40 UGR19 1200mm	30.0 W	3269 lm	109.0 lm/W

Building 1 · 2NP · 207

## Summary



Building 1 · 2NP · 207

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	405 lx	$\geq 300$ lx	✓	S58
	$g_1$	0.66	-	-	S58
Consumption values	Consumption	[290 - 460] kWh/a	max. 2000 kWh/a	✓	
Lighting power density	Room	4.23 W/m <sup>2</sup>	-	-	
		1.05 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	5.68 W/m <sup>2</sup>	-	-	
		1.40 W/m <sup>2</sup> /100 lx	-	-	

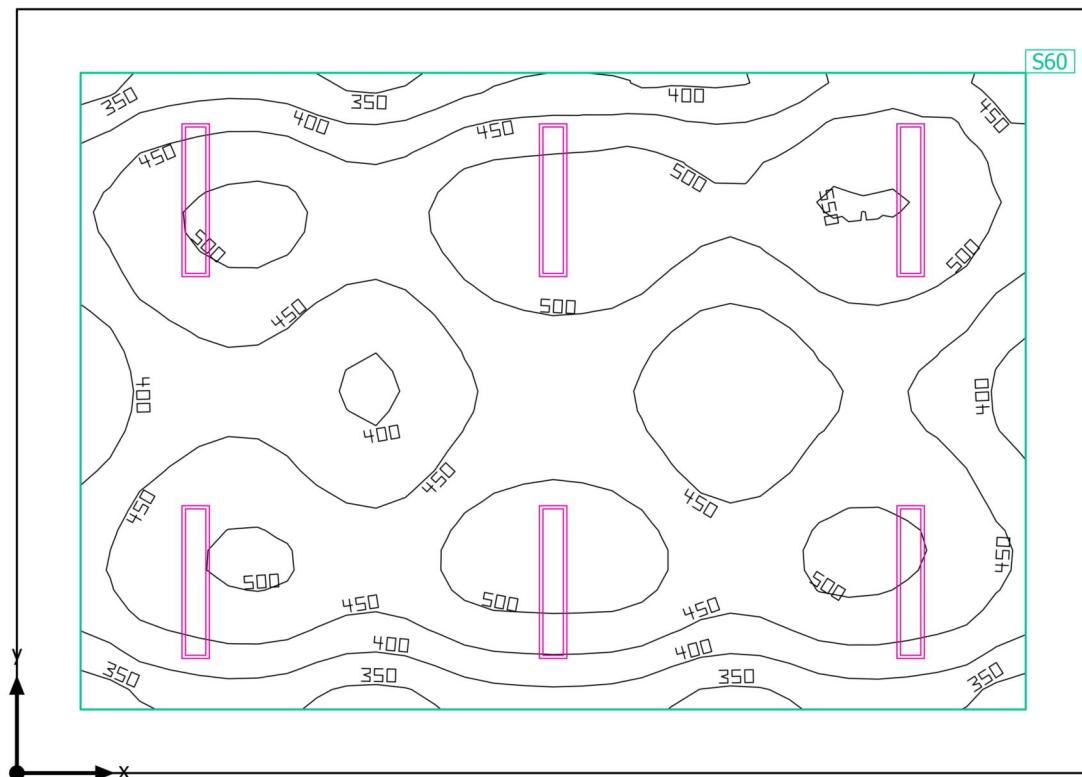
Utilisation profile: Educational premises - Educational buildings, Classroom

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
6	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 2NP · 208

## Summary



Building 1 · 2NP · 208

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	459 lx	$\geq 300 \text{ lx}$	✓	S60
	$g_1$	0.68	-	-	S60
Consumption values	Consumption	[290 - 460] kWh/a	max. 1800 kWh/a	✓	
Lighting power density	Room	4.75 W/m <sup>2</sup>	-	-	
		1.04 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	6.47 W/m <sup>2</sup>	-	-	
		1.41 W/m <sup>2</sup> /100 lx	-	-	

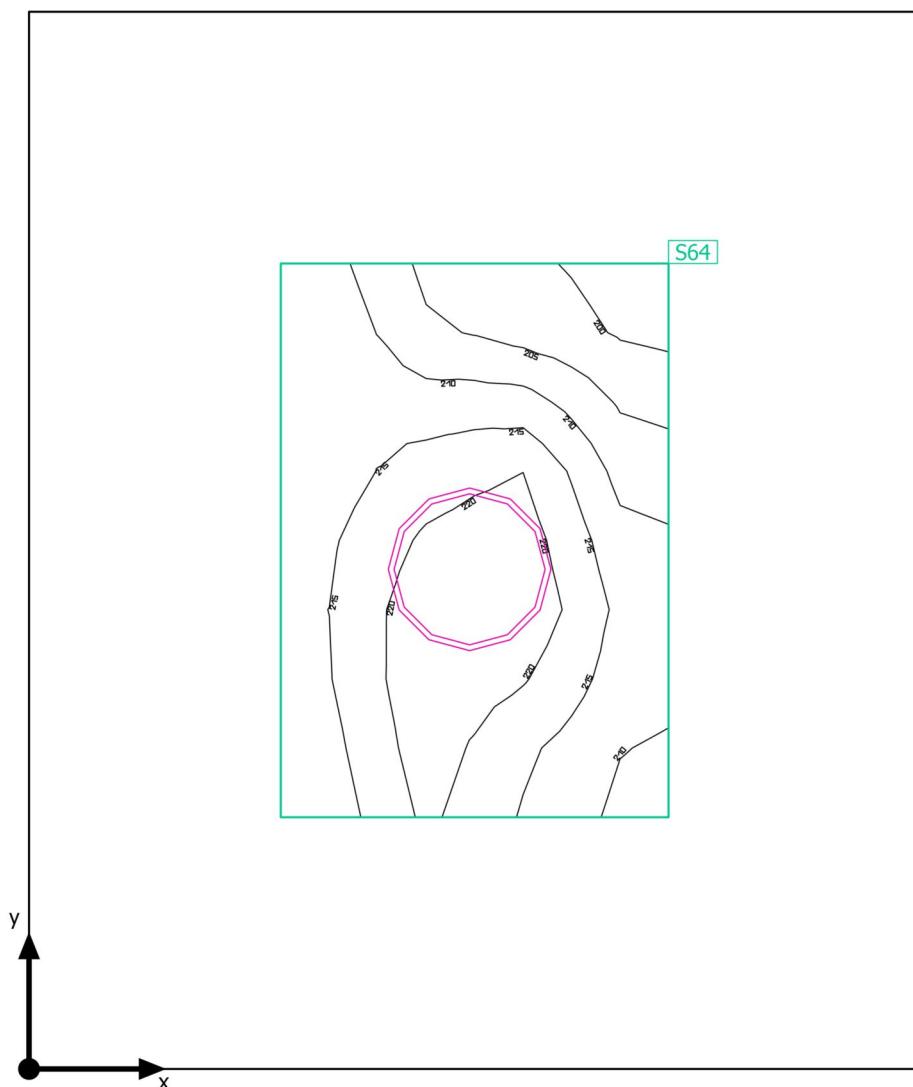
Utilisation profile: Educational premises - Educational buildings, Classroom

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
6	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 2NP · 209

## Summary



Building 1 · 2NP · 209

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	214 lx	$\geq 200 \text{ lx}$	✓	S64
	$g_1$	0.93	-	-	S64
Consumption values	Consumption	[12 - 20] kWh/a	max. 150 kWh/a	✓	
Lighting power density	Room	6.46 W/m <sup>2</sup>	-	-	
		3.02 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	28.34 W/m <sup>2</sup>	-	-	
		13.27 W/m <sup>2</sup> /100 lx	-	-	

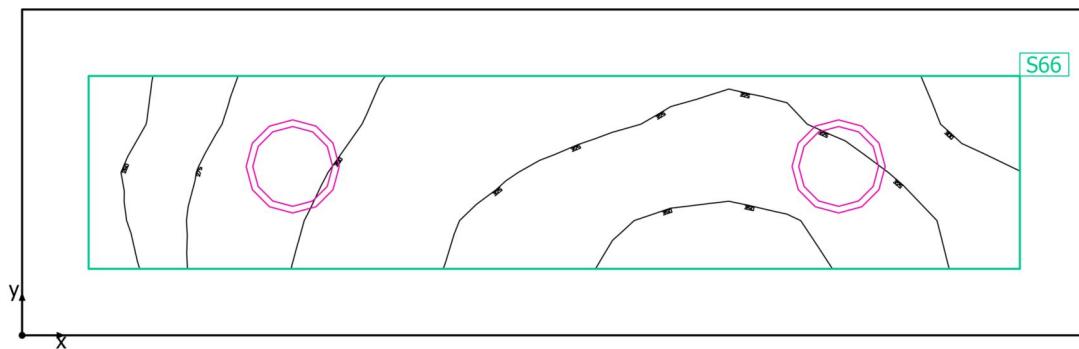
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	BRIGHTSOL	BS04U4K2	BS04U4K24UNK 24W 4K 2250lm IP54 D33 4UNK	24.0 W	2250 lm	93.7 lm/W

Building 1 · 2NP · 210

## Summary



Building 1 · 2NP · 210

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	312 lx	$\geq 200 \text{ lx}$	✓	S66
	$g_1$	0.82	-	-	S66
Consumption values	Consumption	[22 - 34] kWh/a	max. 150 kWh/a	✓	
Lighting power density	Room	13.20 W/m <sup>2</sup>	-	-	
		4.23 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	25.49 W/m <sup>2</sup>	-	-	
		8.17 W/m <sup>2</sup> /100 lx	-	-	

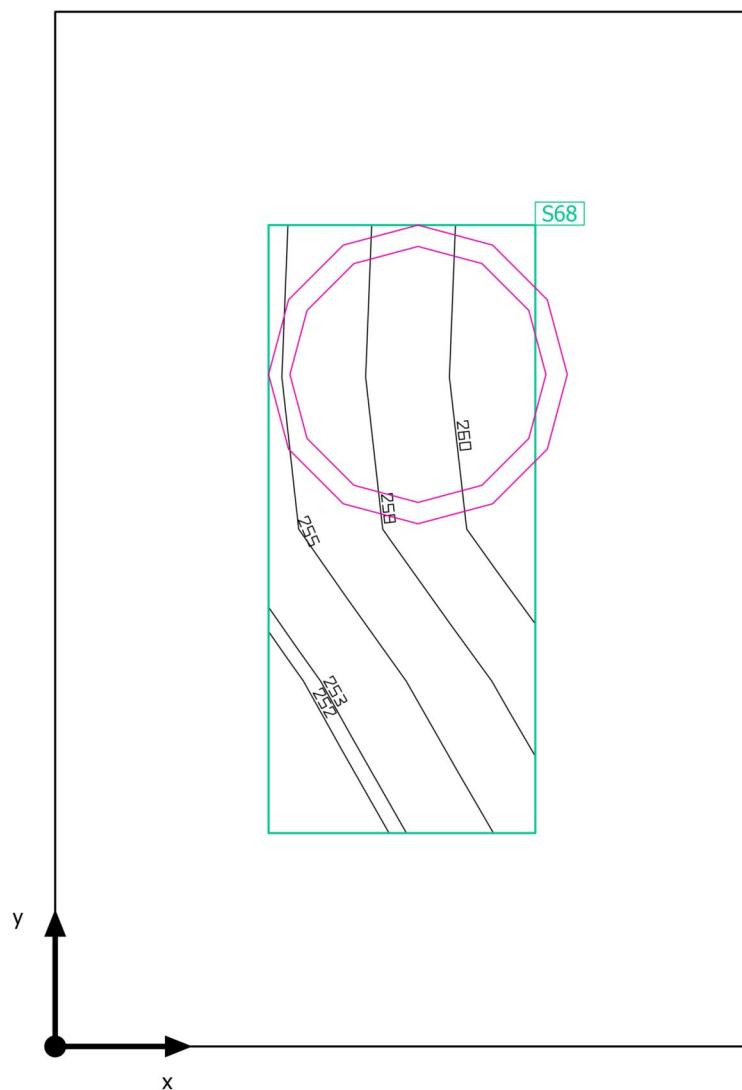
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	BRIGHTSOL	BS02U4K1 8UN	BS02U4K18UN 20,7W 4K 1700lm IP54 D28	20.7 W	1700 lm	82.1 lm/W

Building 1 · 2NP · 211

## Summary



Building 1 · 2NP · 211

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	257 lx	$\geq 200 \text{ lx}$	✓	S68
	$g_1$	0.98	-	-	S68
Consumption values	Consumption	17 kWh/a	max. 50 kWh/a	✓	
Lighting power density	Room	32.83 W/m <sup>2</sup>	-	-	
		12.79 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	145.26 W/m <sup>2</sup>	-	-	
		56.58 W/m <sup>2</sup> /100 lx	-	-	

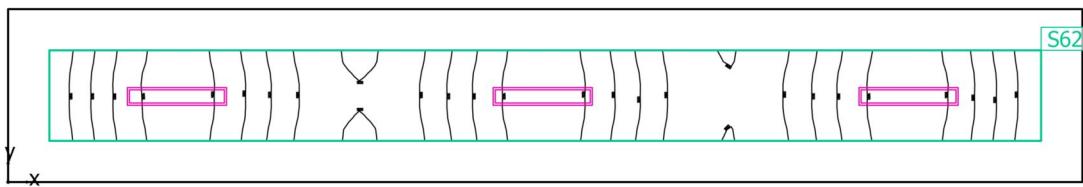
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	BRIGHTSOL	BS02U4K1 8UN	BS02U4K18UN 20,7W 4K 1700lm IP54 D28	20.7 W	1700 lm	82.1 lm/W

Building 1 · 2NP · chodba 2np

## Summary



Building 1 · 2NP · chodba 2np

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	317 lx	$\geq 200 \text{ lx}$	✓	S62
	$g_1$	0.62	-	-	S62
Consumption values	Consumption	[150 - 230] kWh/a	max. 1000 kWh/a	✓	
Lighting power density	Room	4.39 W/m <sup>2</sup>	-	-	
		1.39 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	9.08 W/m <sup>2</sup>	-	-	
		2.87 W/m <sup>2</sup> /100 lx	-	-	

Utilisation profile: Places of public assembly - General areas, Entrance halls

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
3	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 3NP

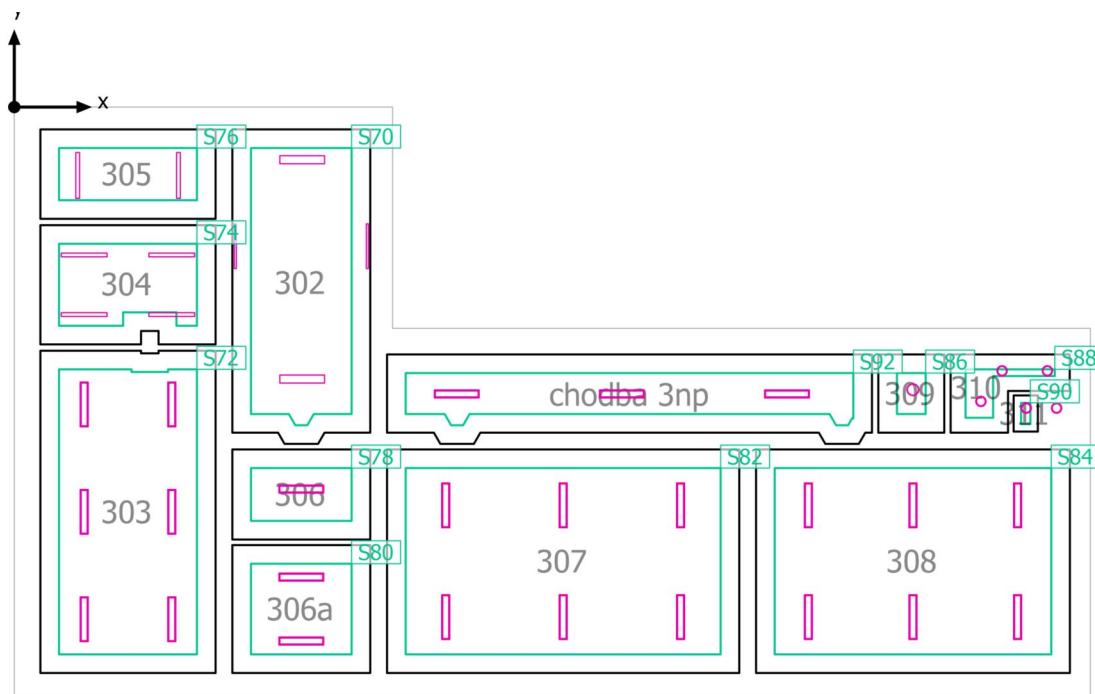
## Luminaire list

$\Phi_{\text{total}}$	$P_{\text{total}}$	Luminous efficacy
167736 lm	1420.5 W	118.1 lm/W

pcs.	Manufacturer	Article No.	Article name	P	$\Phi$	Luminous efficacy
6	BRIGHTSOL	BS01P4K3	BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm 6UN	35.5 W	4957 lm	139.6 lm/W
24	BRIGHTSOL	BS02O4K4	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm 0UNL	40.0 W	4757 lm	118.9 lm/W
5	BRIGHTSOL	BS02U4K1	BS02U4K18UN 20,7W 4K 1700lm IP54 D28 8UN	20.7 W	1700 lm	82.1 lm/W
1	BRIGHTSOL	BS04U4K2	BS04U4K24UNK 24W 4K 2250lm IP54 D33 4UNK	24.0 W	2250 lm	93.7 lm/W
4	BRIGHTSOL	BS06U4K3	BS06U4K30UNL 30W 4K 3270lm line IP40 UGR19 0UNL 1200mm	30.0 W	3269 lm	109.0 lm/W

Building 1 · 3NP

## Calculation objects



Building 1 · 3NP

## Calculation objects

### Work planes

Properties	$\bar{E}$ (Target)	$E_{min}$	$E_{max}$	$g_1$	$g_2$	Index
Workplane (302) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.500 m	186 lx (≥ 150 lx) 	129 lx	251 lx	0.69	0.51	S70
Workplane (303) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	529 lx (≥ 200 lx) 	374 lx	662 lx	0.71	0.56	S72
Workplane (304) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.500 m	563 lx (≥ 500 lx) 	464 lx	610 lx	0.82	0.76	S74
Workplane (305) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.500 m	329 lx (≥ 200 lx) 	300 lx	346 lx	0.91	0.87	S76
Workplane (306) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	358 lx (≥ 300 lx) 	246 lx	433 lx	0.69	0.57	S78
Workplane (306a) Perpendicular illuminance (adaptive) Height: 0.800 m, Wall zone: 0.500 m	514 lx (≥ 300 lx) 	334 lx	717 lx	0.65	0.47	S80
Workplane (307) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.500 m	409 lx (≥ 300 lx) 	265 lx	517 lx	0.65	0.51	S82
Workplane (308) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.500 m	453 lx (≥ 300 lx) 	314 lx	539 lx	0.69	0.58	S84
Workplane (309) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.500 m	209 lx (≥ 200 lx) 	199 lx	215 lx	0.95	0.93	S86
Workplane (310) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.400 m	334 lx (≥ 200 lx) 	282 lx	401 lx	0.84	0.70	S88
Workplane (311) Perpendicular illuminance (adaptive) Height: 0.850 m, Wall zone: 0.200 m	200 lx (≥ 200 lx) 	195 lx	203 lx	0.98	0.96	S90

Building 1 · 3NP

## Calculation objects

Workplane (chodba 3np)

321 lx

173 lx

441 lx

0.54

0.39

S92

Perpendicular illuminance (adaptive)

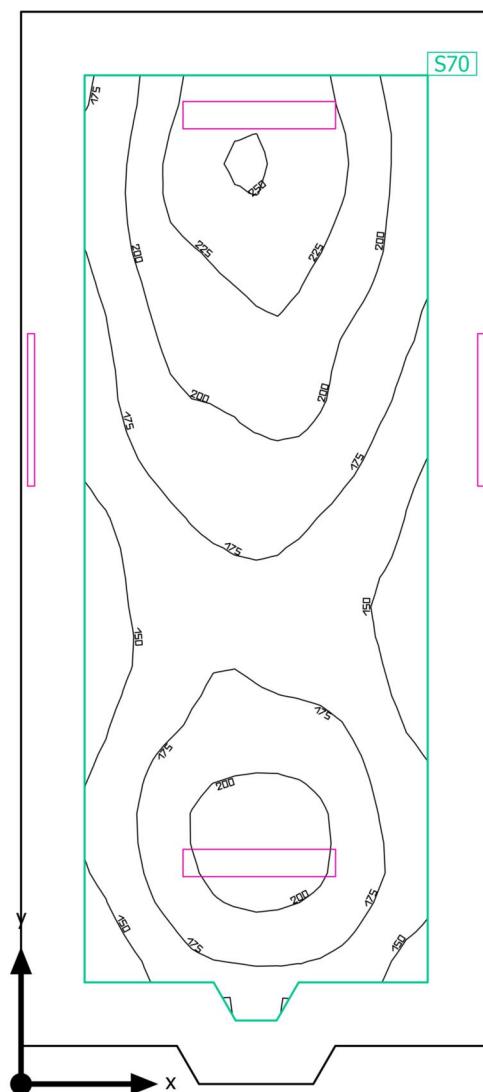
(≥ 200 lx)

Height: 0.850 m, Wall zone: 0.500 m



Building 1 · 3NP · 302

## Summary



Building 1 · 3NP · 302

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	186 lx	$\geq 150$ lx	✓	S70
	$g_1$	0.69	-	-	S70
Consumption values	Consumption	[83 - 130] kWh/a	max. 1100 kWh/a	✓	
Lighting power density	Room	3.94 W/m <sup>2</sup>	-	-	
		2.12 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	6.18 W/m <sup>2</sup>	-	-	
		3.32 W/m <sup>2</sup> /100 lx	-	-	

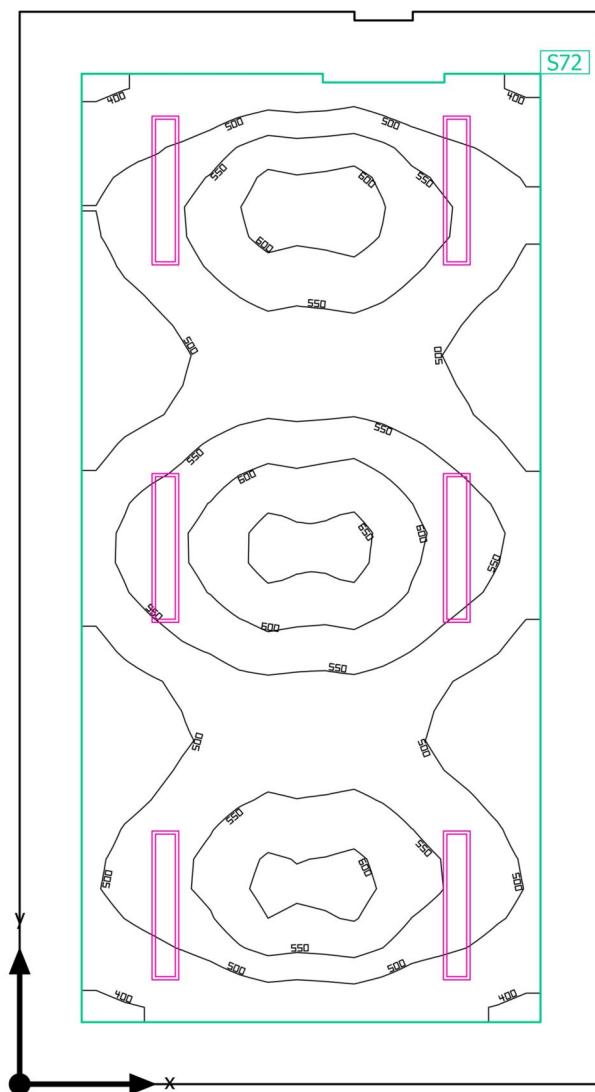
Utilisation profile: Educational premises - Educational buildings, Stairs

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	BRIGHTSOL	BS06U4K3 0UNL	BS06U4K30UNL 30W 4K 3270lm line IP40 UGR19 1200mm	30.0 W	3269 lm	109.0 lm/W

Building 1 · 3NP · 303

## Summary



Building 1 · 3NP · 303

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	529 lx	$\geq 200$ lx	✓	S72
	$g_1$	0.71	-	-	S72
Consumption values	Consumption	[250 - 420] kWh/a	max. 1450 kWh/a	✓	
Lighting power density	Room	5.91 W/m <sup>2</sup>	-	-	
		1.12 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	8.50 W/m <sup>2</sup>	-	-	
		1.61 W/m <sup>2</sup> /100 lx	-	-	

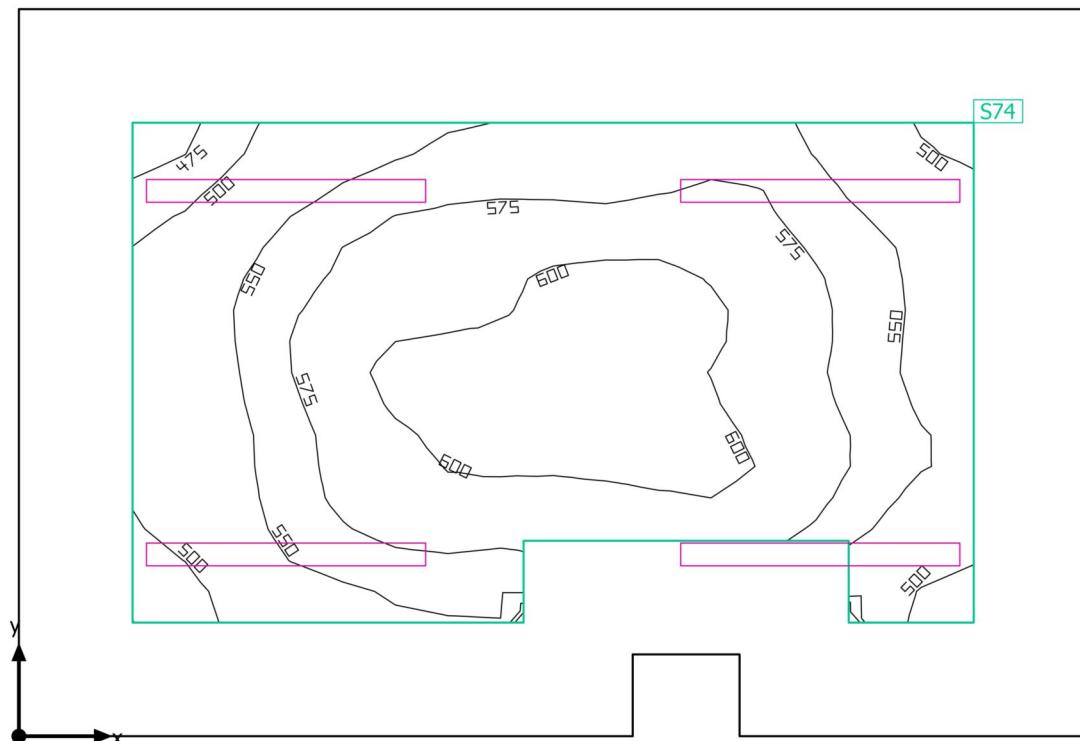
Utilisation profile: Educational premises - Educational buildings, School canteens

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
6	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 3NP · 304

## Summary



Building 1 · 3NP · 304

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	563 lx	$\geq 500 \text{ lx}$	✓	S74
	$g_1$	0.82	-	-	S74
Consumption values	Consumption	[420 - 550] kWh/a	max. 550 kWh/a	✓	
Lighting power density	Room	9.55 W/m <sup>2</sup>	-	-	
		1.69 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	18.62 W/m <sup>2</sup>	-	-	
		3.31 W/m <sup>2</sup> /100 lx	-	-	

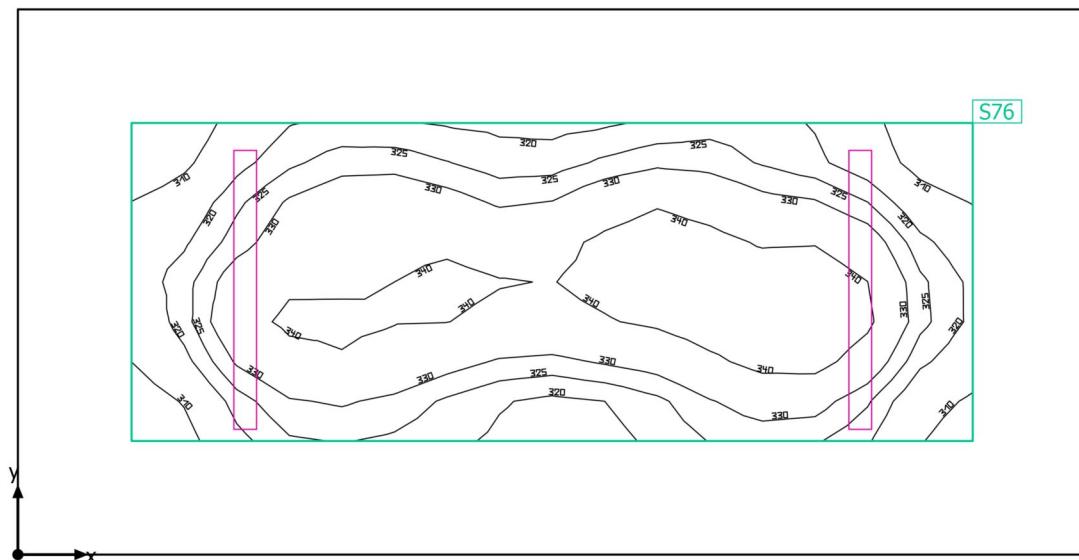
Utilisation profile: Educational premises - Educational buildings, Kitchens

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	BRIGHTSOL	BS01P4K3	BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm 6UN	35.5 W	4957 lm	139.6 lm/W

Building 1 · 3NP · 305

## Summary



Building 1 · 3NP · 305

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	329 lx	$\geq 200$ lx	✓	S76
	$g_1$	0.91	-	-	S76
Consumption values	Consumption	[7 - 12] kWh/a	max. 400 kWh/a	✓	
Lighting power density	Room	6.29 W/m <sup>2</sup>	-	-	
		1.91 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	13.71 W/m <sup>2</sup>	-	-	
		4.17 W/m <sup>2</sup> /100 lx	-	-	

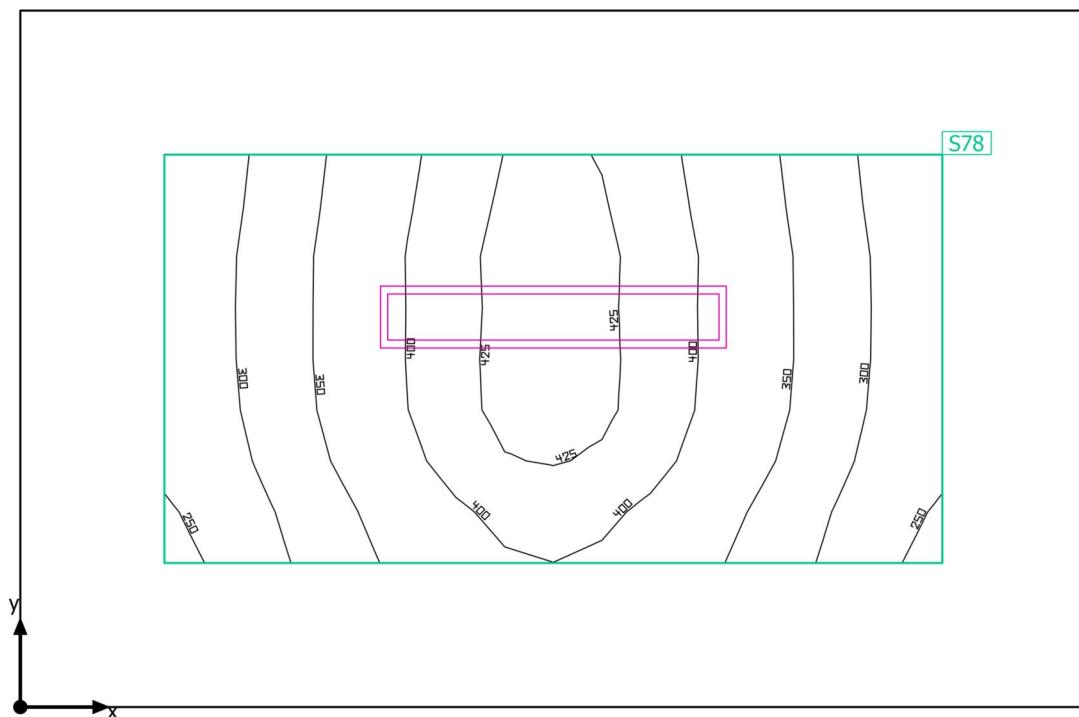
Utilisation profile: General areas inside buildings - Store rooms and cold stores, Store and stockrooms

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	BRIGHTSOL	BS01P4K3	BS01P4K36UN 35,5W 4K 5227lm line IP65 1200mm 6UN	35.5 W	4957 lm	139.6 lm/W

Building 1 · 3NP · 306

## Summary



Building 1 · 3NP · 306

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	358 lx	$\geq 300 \text{ lx}$	✓	S78
	$g_1$	0.69	-	-	S78
Consumption values	Consumption	77 kWh/a	max. 350 kWh/a	✓	
Lighting power density	Room	4.47 W/m <sup>2</sup>	-	-	
		1.25 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	10.45 W/m <sup>2</sup>	-	-	
		2.92 W/m <sup>2</sup> /100 lx	-	-	

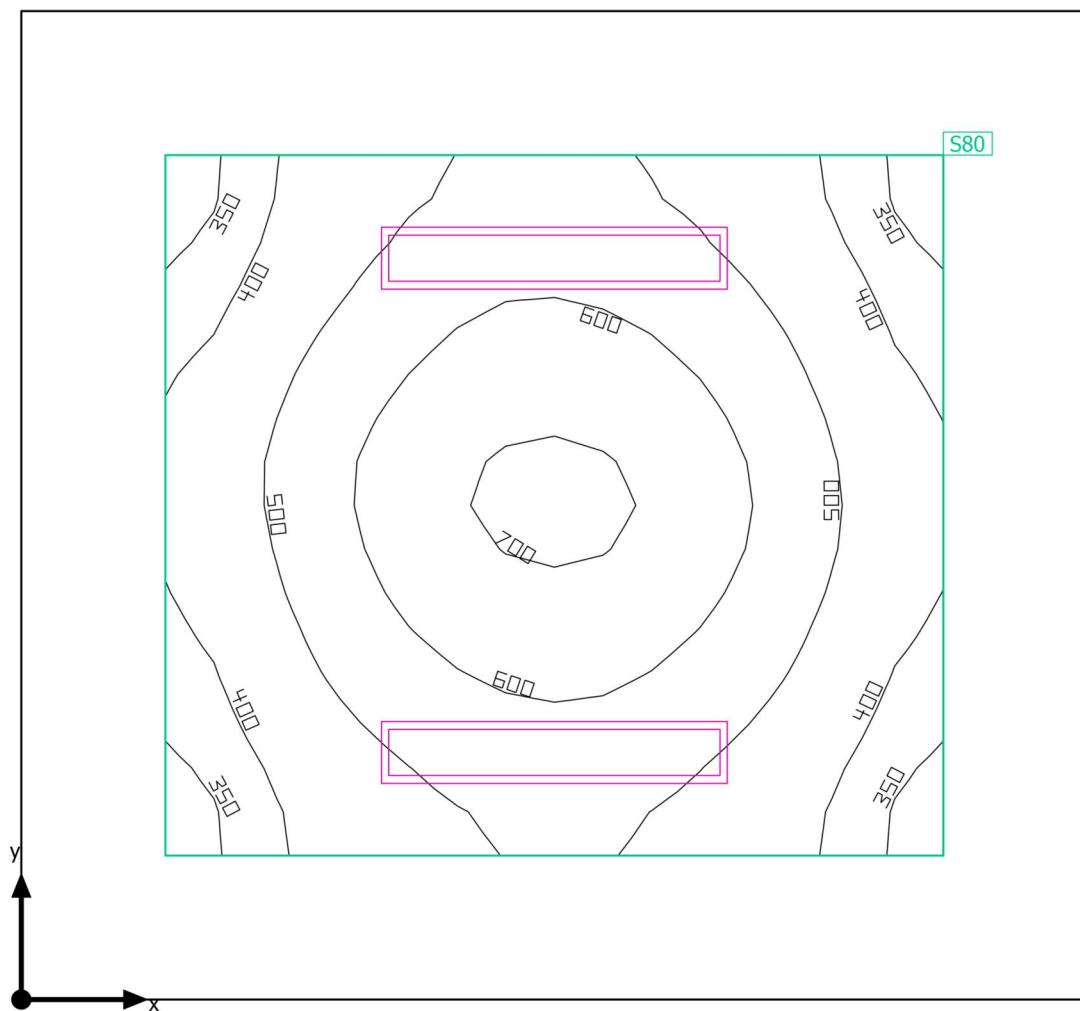
Utilisation profile: Educational premises - Educational buildings, Classroom

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 3NP · 306a

## Summary



Building 1 · 3NP · 306a

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	514 lx	$\geq 300$ lx	✓	S80
	$g_1$	0.65	-	-	S80
Consumption values	Consumption	[97 - 150] kWh/a	max. 450 kWh/a	✓	
Lighting power density	Room	6.30 W/m <sup>2</sup>	-	-	
		1.22 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	12.18 W/m <sup>2</sup>	-	-	
		2.37 W/m <sup>2</sup> /100 lx	-	-	

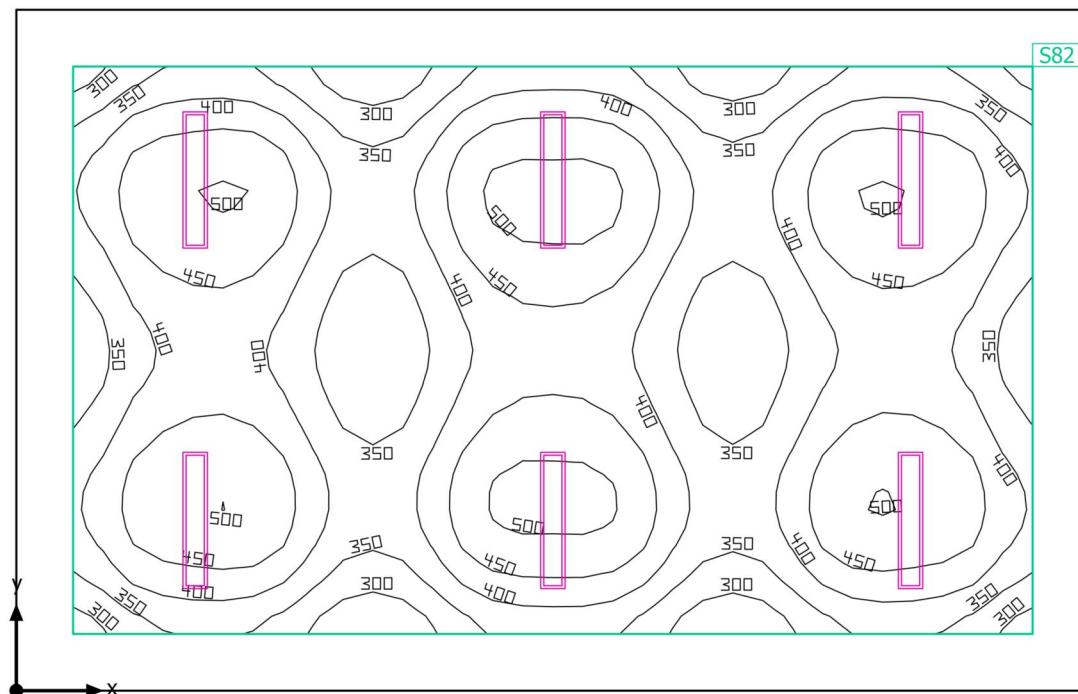
Utilisation profile: Educational premises - Educational buildings, Classroom

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
2	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 3NP · 307

## Summary



Building 1 · 3NP · 307

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	409 lx	$\geq 300$ lx	✓	S82
	$g_1$	0.65	-	-	S82
Consumption values	Consumption	[290 - 460] kWh/a	max. 2000 kWh/a	✓	
Lighting power density	Room	4.23 W/m <sup>2</sup>	-	-	
		1.03 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	5.68 W/m <sup>2</sup>	-	-	
		1.39 W/m <sup>2</sup> /100 lx	-	-	

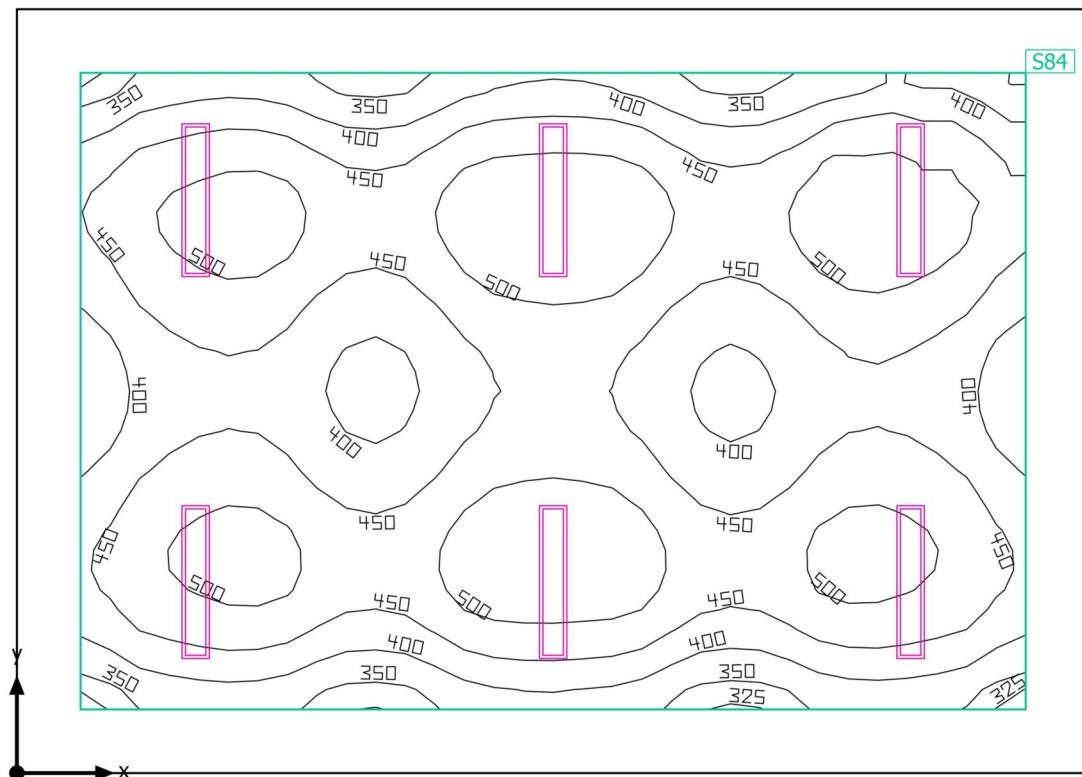
Utilisation profile: Educational premises - Educational buildings, Classroom

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
6	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 3NP · 308

## Summary



Building 1 · 3NP · 308

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	453 lx	$\geq 300 \text{ lx}$	✓	S84
	$g_1$	0.69	-	-	S84
Consumption values	Consumption	[290 - 460] kWh/a	max. 1800 kWh/a	✓	
Lighting power density	Room	4.75 W/m <sup>2</sup>	-	-	
		1.05 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	6.47 W/m <sup>2</sup>	-	-	
		1.43 W/m <sup>2</sup> /100 lx	-	-	

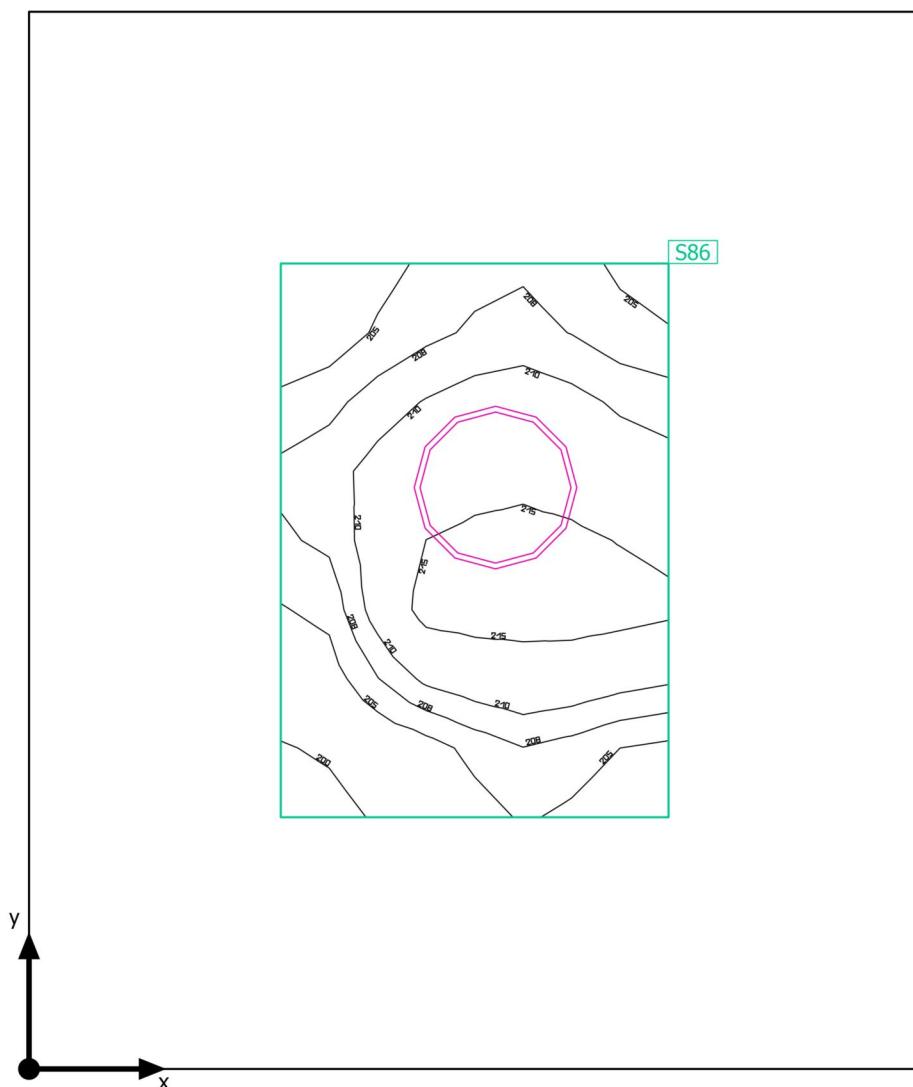
Utilisation profile: Educational premises - Educational buildings, Classroom

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
6	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W

Building 1 · 3NP · 309

## Summary



Building 1 · 3NP · 309

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	209 lx	$\geq 200 \text{ lx}$	✓	S86
	$g_1$	0.95	-	-	S86
Consumption values	Consumption	[12 - 20] kWh/a	max. 150 kWh/a	✓	
Lighting power density	Room	6.46 W/m <sup>2</sup>	-	-	
		3.09 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	28.34 W/m <sup>2</sup>	-	-	
		13.56 W/m <sup>2</sup> /100 lx	-	-	

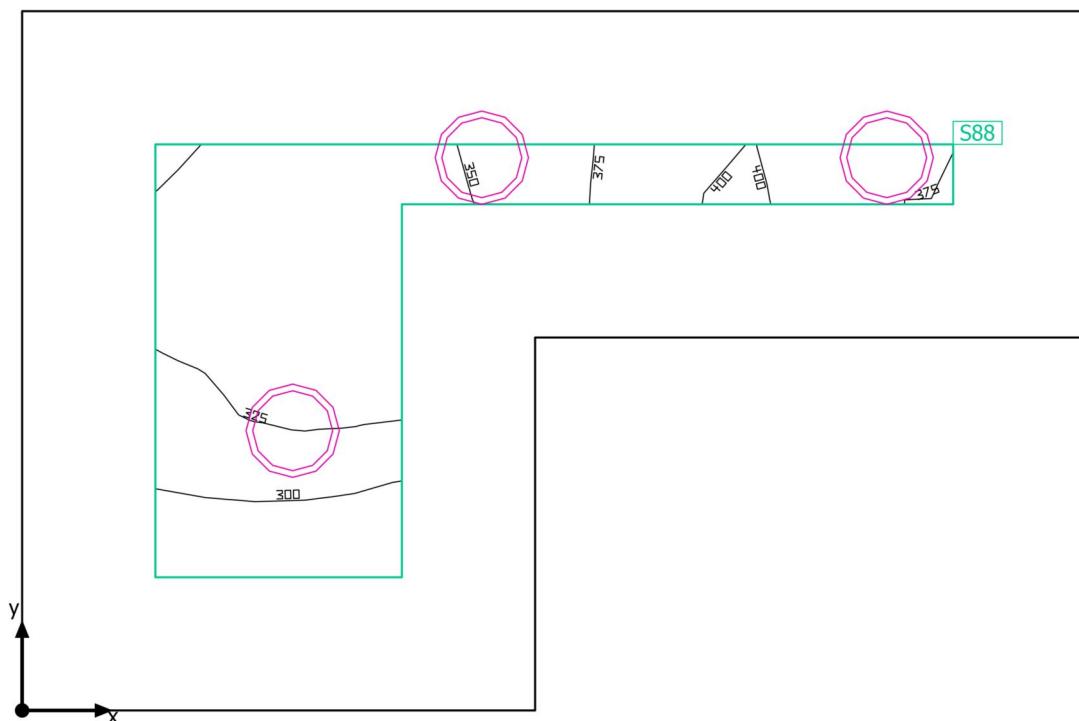
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	BRIGHTSOL	BS04U4K2	BS04U4K24UNK 24W 4K 2250lm IP54 D33 4UNK	24.0 W	2250 lm	93.7 lm/W

Building 1 · 3NP · 310

## Summary



Building 1 · 3NP · 310

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	334 lx	$\geq 200 \text{ lx}$	✓	S88
	$g_1$	0.84	-	-	S88
Consumption values	Consumption	[32 - 51] kWh/a	max. 200 kWh/a	✓	
Lighting power density	Room	12.79 W/m <sup>2</sup>	-	-	
		3.83 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	49.29 W/m <sup>2</sup>	-	-	
		14.78 W/m <sup>2</sup> /100 lx	-	-	

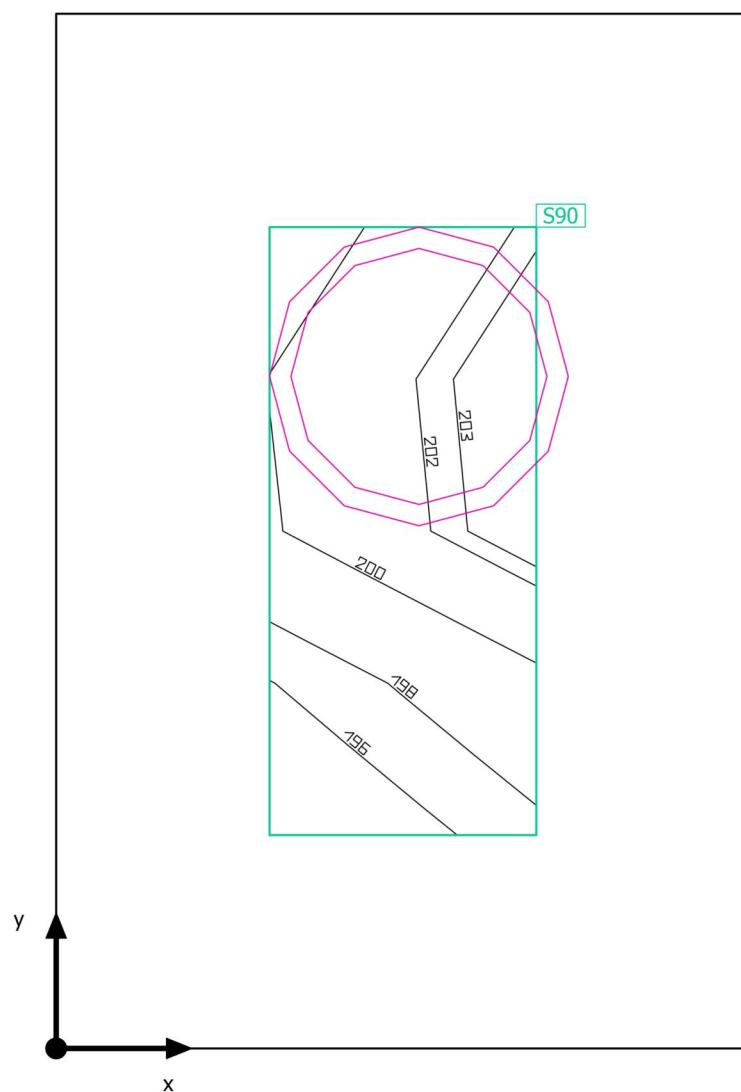
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
3	BRIGHTSOL	BS02U4K1 8UN	BS02U4K18UN 20,7W 4K 1700lm IP54 D28	20.7 W	1700 lm	82.1 lm/W

Building 1 · 3NP · 311

## Summary



Building 1 · 3NP · 311

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	200 lx	$\geq 200$ lx	✓	S90
	g1	0.98	-	-	S90
Consumption values	Consumption	17 kWh/a	max. 50 kWh/a	✓	
Lighting power density	Room	32.83 W/m <sup>2</sup>	-	-	
		16.43 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	145.26 W/m <sup>2</sup>	-	-	
		72.72 W/m <sup>2</sup> /100 lx	-	-	

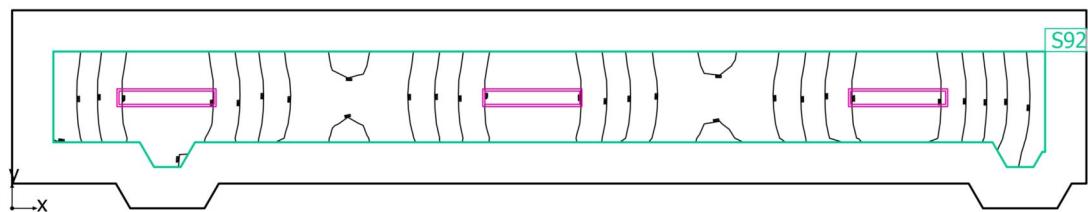
Utilisation profile: General areas inside buildings - Rest, sanitation and first aid rooms, Cloakrooms, washrooms, bathrooms, toilets

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	BRIGHTSOL	BS02U4K1 8UN	BS02U4K18UN 20,7W 4K 1700lm IP54 D28	20.7 W	1700 lm	82.1 lm/W

Building 1 · 3NP · chodba 3np

## Summary



Building 1 · 3NP · chodba 3np

## Summary

### Results

	Symbol	Calculated	Target	Check	Index
Workplane	$\bar{E}_{\text{perpendicular}}$	321 lx	$\geq 200$ lx	✓	S92
	$g_1$	0.54	-	-	S92
Consumption values	Consumption	[83 - 130] kWh/a	max. 1000 kWh/a	✓	
Lighting power density	Room	4.29 W/m <sup>2</sup>	-	-	
		1.34 W/m <sup>2</sup> /100 lx	-	-	
	Workplane	8.88 W/m <sup>2</sup>	-	-	
		2.77 W/m <sup>2</sup> /100 lx	-	-	

Utilisation profile: Educational premises - Educational buildings, Circulation areas, corridors

### Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
3	BRIGHTSOL	BS02O4K4 0UNL	BS02O4K40UNL 40W 4K 4760lm line IP40 1200mm	40.0 W	4757 lm	118.9 lm/W