

2024.04.08 Calculated analysis of stadium lighting vol.01

Content

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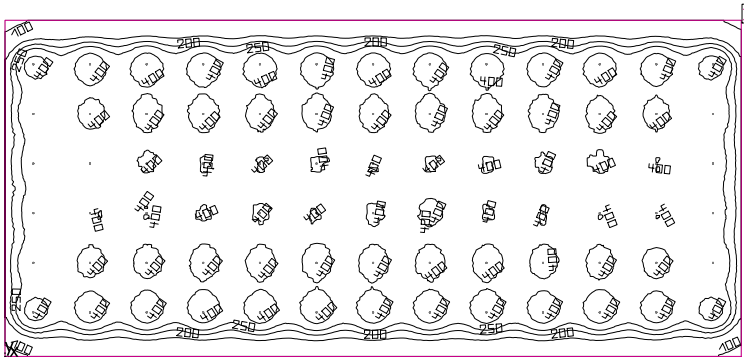
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Room 1



Clearance height: 9.000 m, Reflection factors: Ceiling 70.0%, Walls 50.0%, Floor 20.0%, Maintenance factor: 0.80

Workplane

Surface	Result	Average (Target)	Min	Max	Min/average	Min/max
1 Workplane (Room 1)	Perpendicular illuminance (adaptive) [lx] Height: 0.800 m, Wall zone: 0.000 m	343 (≥ 200)	75.9	498	0.22	0.15

#	Luminaire	Φ(Luminaire) [lm]	Power [W]	Luminous efficacy [lm/W]
78	DIALux -	19539	150.0	130.3
Total via all luminaires		1524042	11700.0	130.3

Lighting power density: $3.03 \text{ W/m}^2 = 0.88 \text{ W/m}^2/100 \text{ lx}$ (Floor area of room 3864.00 m^2)

Consumption: 1950 kWh/a of maximum 135250 kWh/a

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

Room 1

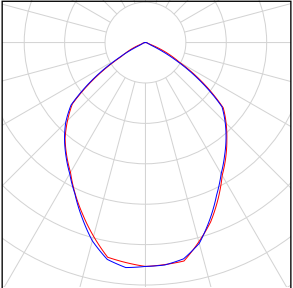
.66	.67	.68	.69	.70	.71	.72	.73	.74	.75	.76	.77	.78
.53	.54	.55	.56	.57	.58	.59	.60	.61	.62	.63	.64	.65
.40	.41	.42	.43	.44	.45	.46	.47	.48	.49	.50	.51	.52
.27	.28	.29	.30	.31	.32	.33	.34	.35	.36	.37	.38	.39
.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26
.1	.2	.3	.4	.5	.6	.7	.8	.9	.10	.11	.12	.13

DIALux

No.	X [m]	Y [m]	Mounting height [m]	Maintenance factor
1	3.538	5.500	6.000	0.80
2	10.615	5.500	6.000	0.80
3	17.692	5.500	6.000	0.80
4	24.769	5.500	6.000	0.80
5	31.846	5.500	6.000	0.80
6	38.923	5.500	6.000	0.80
7	46.000	5.500	6.000	0.80
8	53.077	5.500	6.000	0.80
9	60.154	5.500	6.000	0.80
10	67.231	5.500	6.000	0.80
11	74.308	5.500	6.000	0.80
12	81.385	5.500	6.000	0.80
13	88.462	5.500	6.000	0.80
14	3.538	11.700	7.500	0.80
15	10.615	11.700	7.500	0.80
16	17.692	11.700	7.500	0.80
17	24.769	11.700	7.500	0.80
18	31.846	11.700	7.500	0.80
19	38.923	11.700	7.500	0.80
20	46.000	11.700	7.500	0.80
21	53.077	11.700	7.500	0.80
22	60.154	11.700	7.500	0.80
23	67.231	11.700	7.500	0.80
24	74.308	11.700	7.500	0.80
25	81.385	11.700	7.500	0.80
26	88.462	11.700	7.500	0.80
27	3.538	17.900	8.500	0.80
28	10.615	17.900	8.500	0.80
29	17.692	17.900	8.500	0.80
30	24.769	17.900	8.500	0.80
31	31.846	17.900	8.500	0.80
32	38.923	17.900	8.500	0.80
33	46.000	17.900	8.500	0.80
34	53.077	17.900	8.500	0.80
35	60.154	17.900	8.500	0.80

No.	X [m]	Y [m]	Mounting height [m]	Maintenance factor
36	67.231	17.900	8.500	0.80
37	74.308	17.900	8.500	0.80
38	81.385	17.900	8.500	0.80
39	88.462	17.900	8.500	0.80
40	3.538	24.100	8.500	0.80
41	10.615	24.100	8.500	0.80
42	17.692	24.100	8.500	0.80
43	24.769	24.100	8.500	0.80
44	31.846	24.100	8.500	0.80
45	38.923	24.100	8.500	0.80
46	46.000	24.100	8.500	0.80
47	53.077	24.100	8.500	0.80
48	60.154	24.100	8.500	0.80
49	67.231	24.100	8.500	0.80
50	74.308	24.100	8.500	0.80
51	81.385	24.100	8.500	0.80
52	88.462	24.100	8.500	0.80
53	3.538	30.300	7.500	0.80
54	10.615	30.300	7.500	0.80
55	17.692	30.300	7.500	0.80
56	24.769	30.300	7.500	0.80
57	31.846	30.300	7.500	0.80
58	38.923	30.300	7.500	0.80
59	46.000	30.300	7.500	0.80
60	53.077	30.300	7.500	0.80
61	60.154	30.300	7.500	0.80
62	67.231	30.300	7.500	0.80
63	74.308	30.300	7.500	0.80
64	81.385	30.300	7.500	0.80
65	88.462	30.300	7.500	0.80
66	3.538	36.500	6.000	0.80
67	10.615	36.500	6.000	0.80
68	17.692	36.500	6.000	0.80
69	24.769	36.500	6.000	0.80
70	31.846	36.500	6.000	0.80
71	38.923	36.500	6.000	0.80
72	46.000	36.500	6.000	0.80
73	53.077	36.500	6.000	0.80
74	60.154	36.500	6.000	0.80
75	67.231	36.500	6.000	0.80
76	74.308	36.500	6.000	0.80
77	81.385	36.500	6.000	0.80
78	88.462	36.500	6.000	0.80

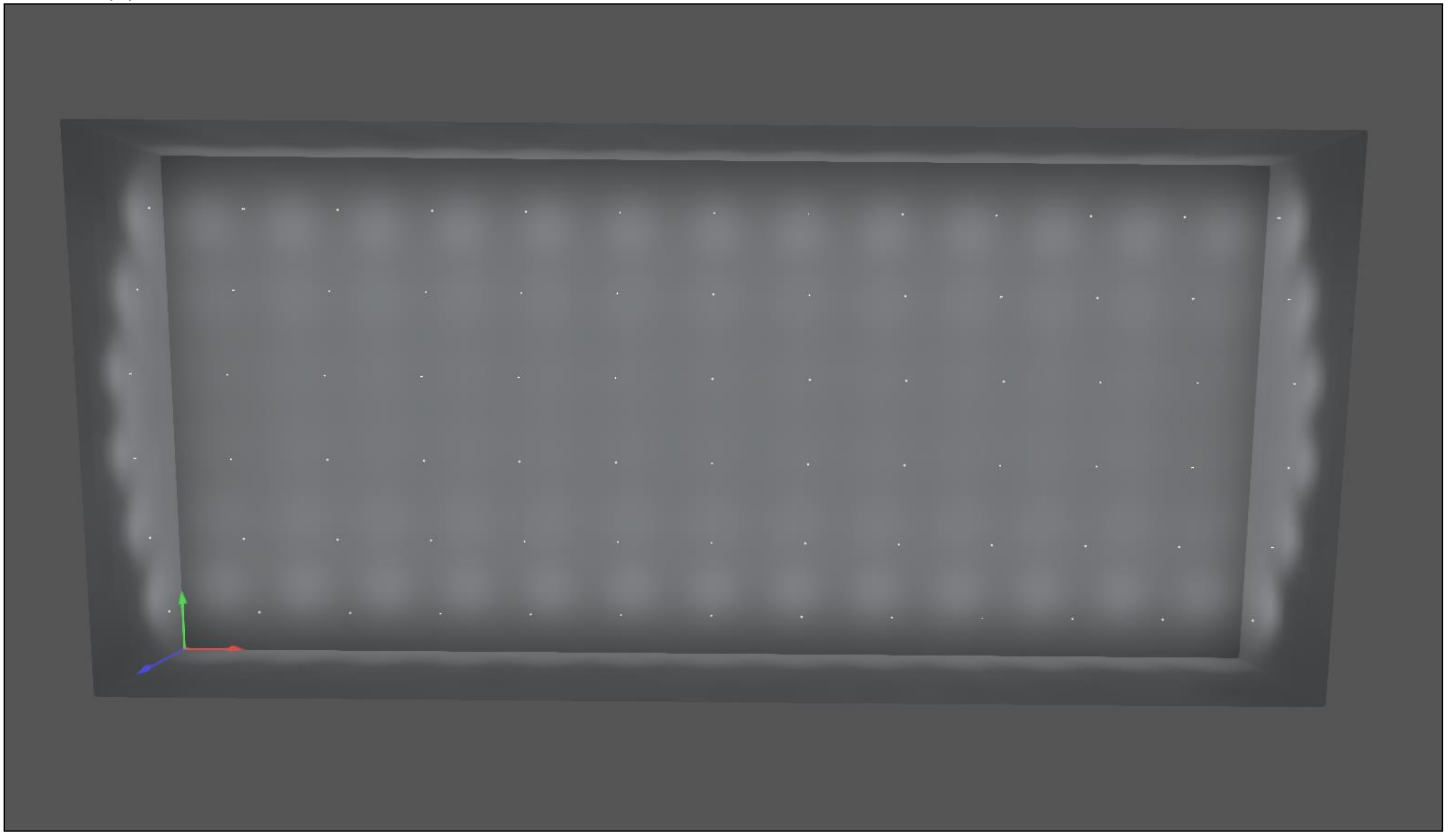
Room 1

Quantity	Luminaire (Luminous emittance)		
78	DIALux - Luminous emittance 1 Fitting: 1xUFO 150W 6500K 90D Light output ratio: 100.20% Lamp luminous flux: 19500 lm Luminaire luminous flux: 19539 lm Power: 150.0 W Luminous efficacy: 130.3 lm/W Colourimetric data 1xUFO 150W 6500K 90D: CCT 6500 K, CRI 100	See our luminaire catalog for an image of the luminaire.	

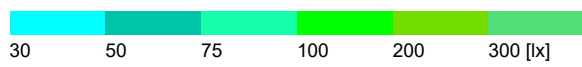
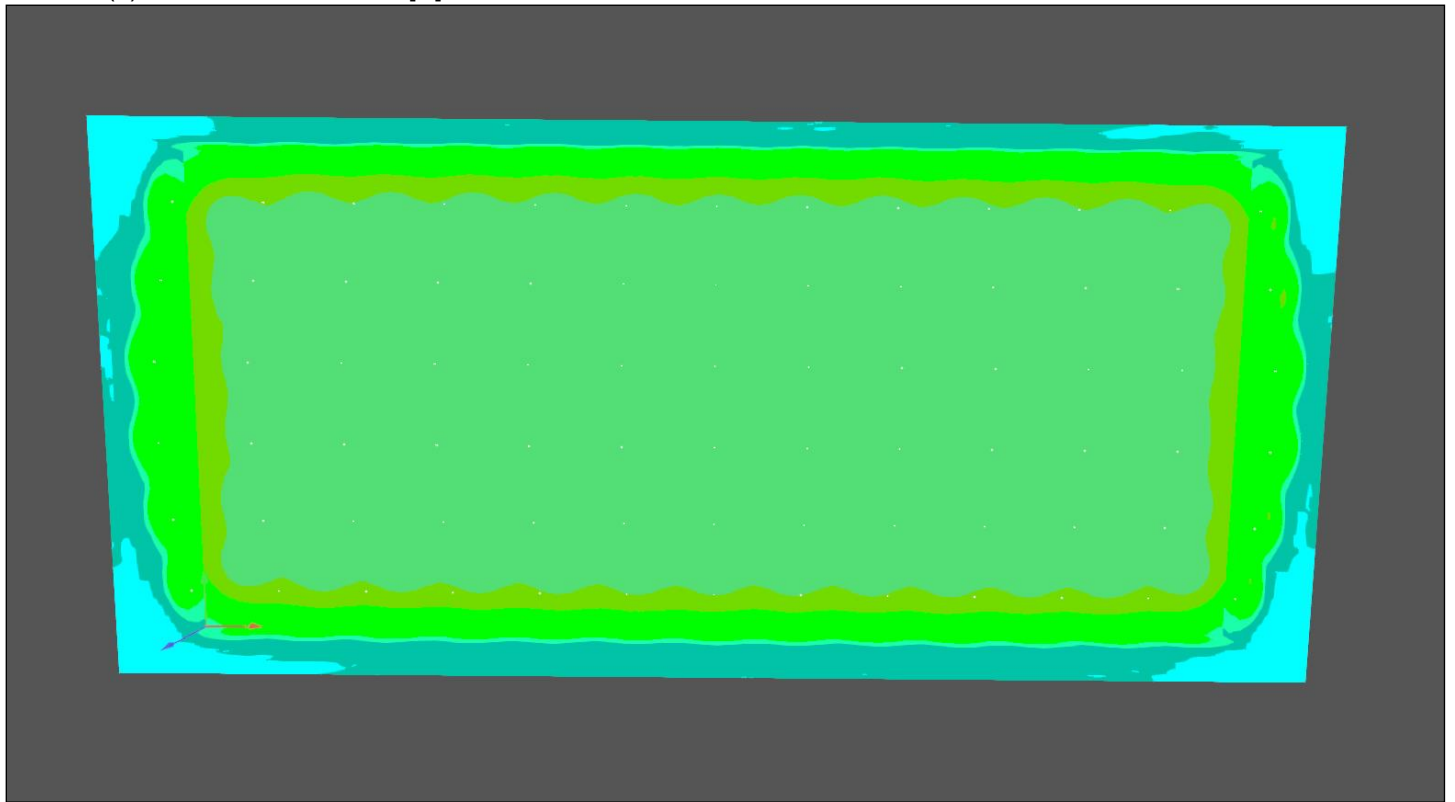
Total lamp luminous flux: 1521000 lm, Total luminaire luminous flux: 1524042 lm, Total Load: 11700.0 W, Luminous efficacy: 130.3 lm/W

Room 1

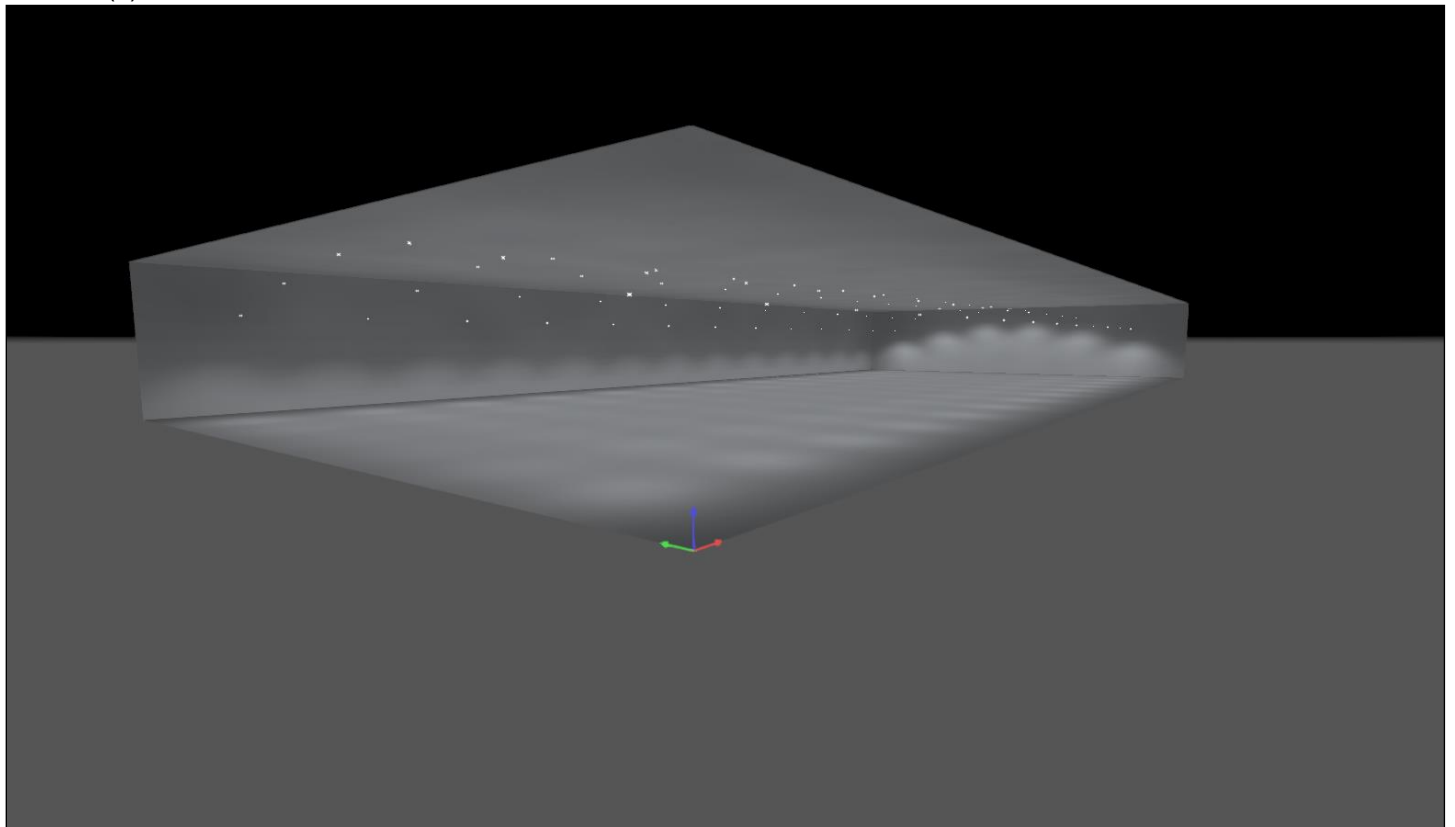
Room 1 (1)



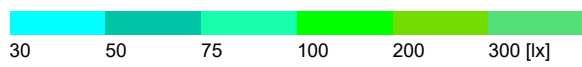
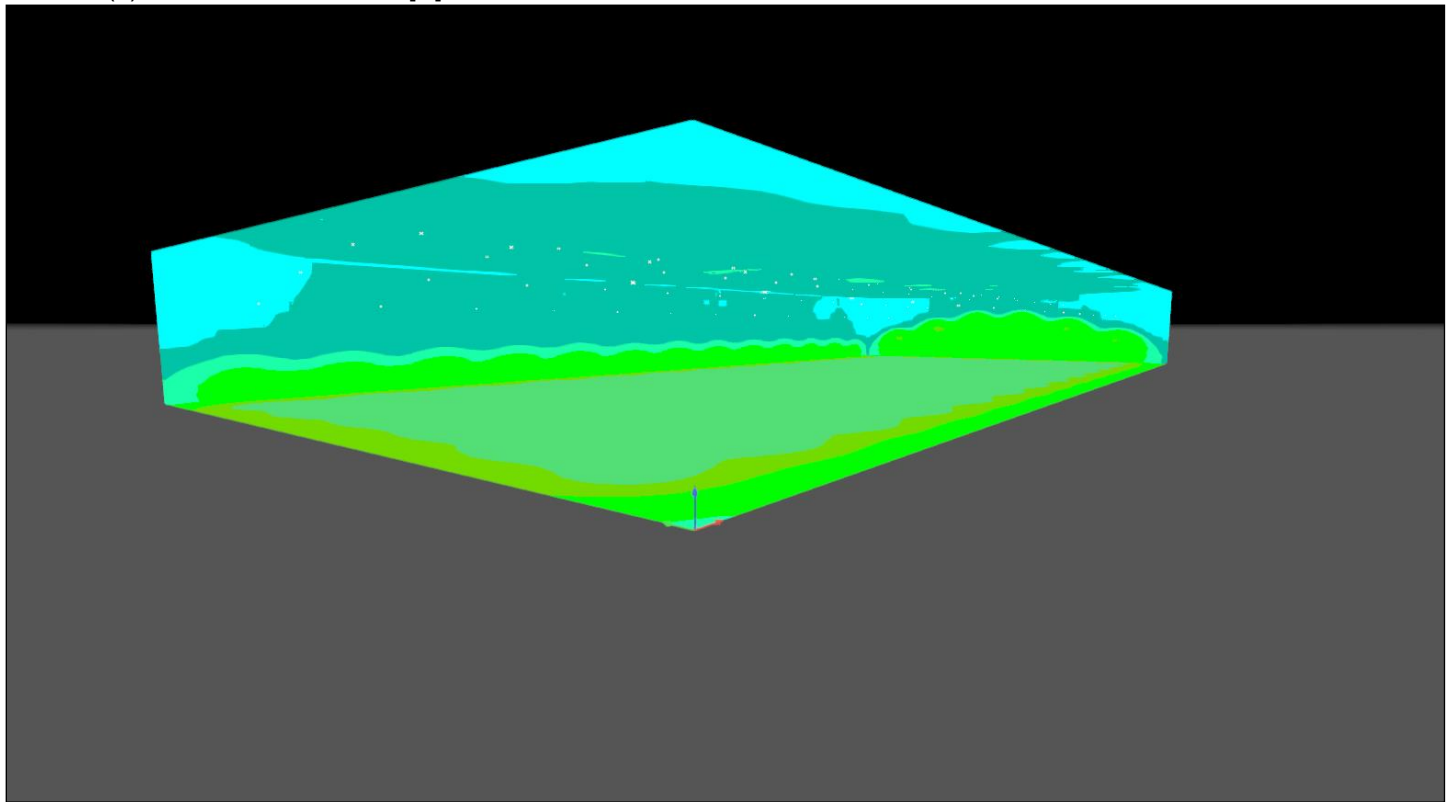
Room 1 (2), Illuminance values in [lx]



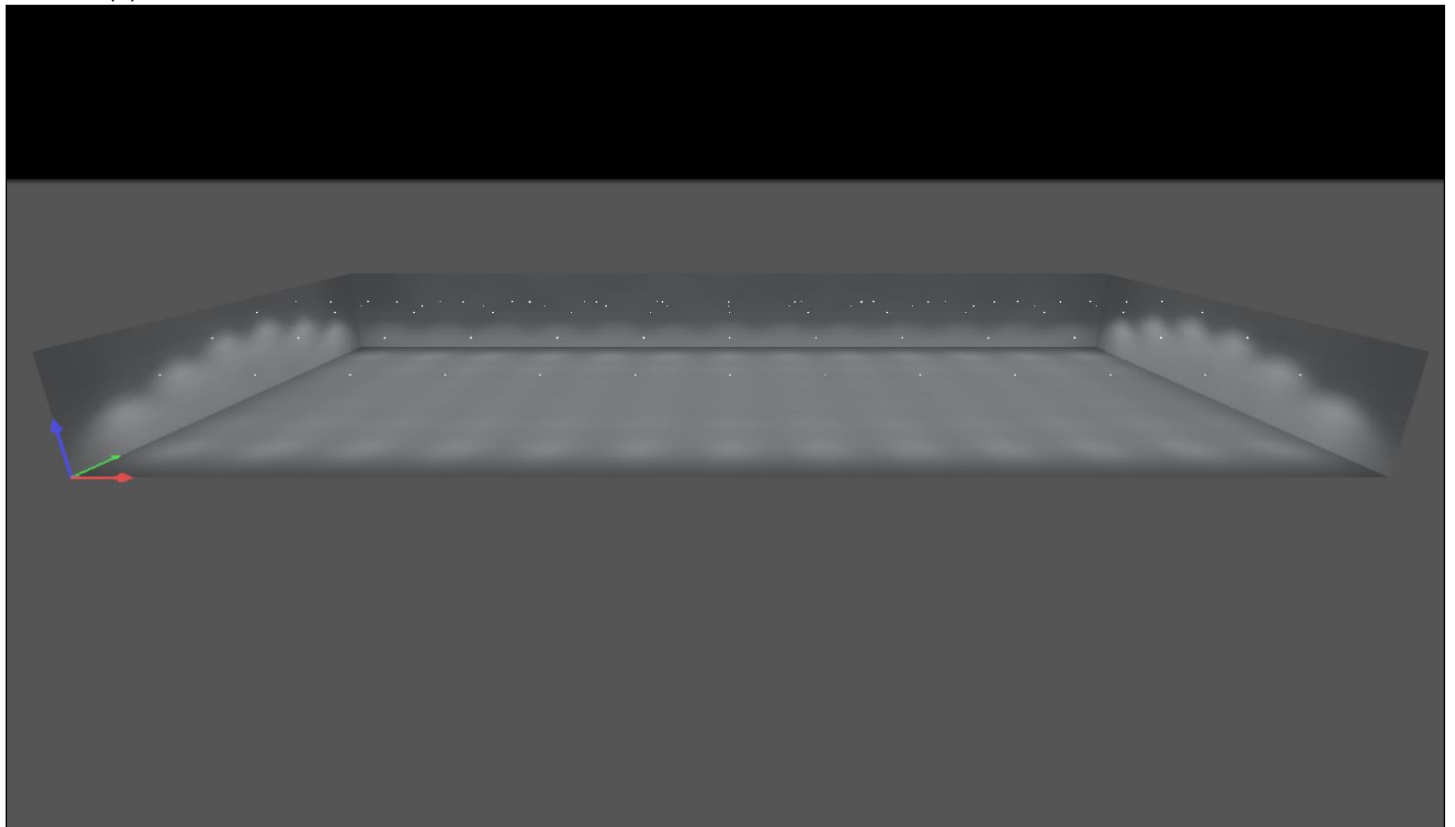
Room 1 (3)



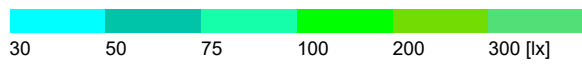
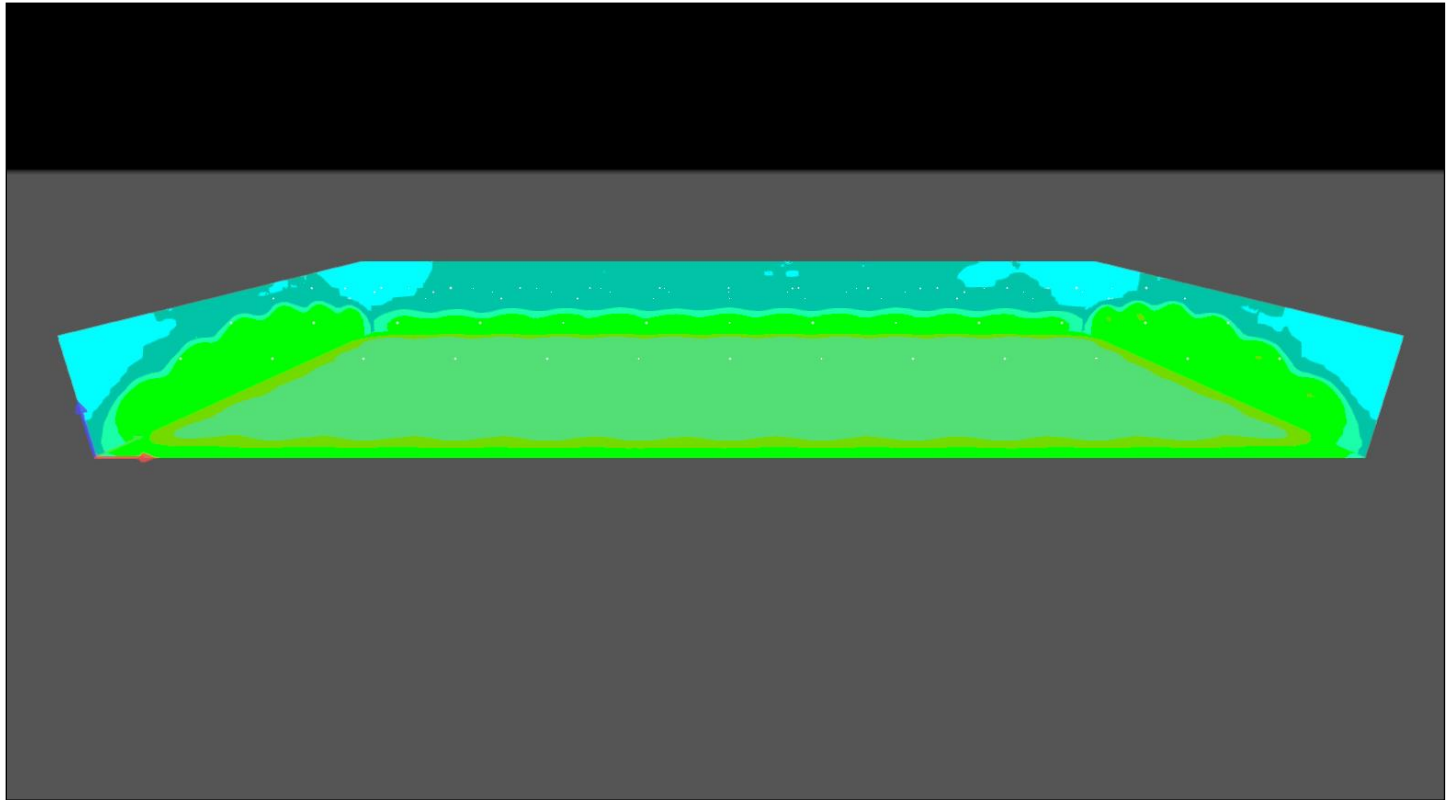
Room 1 (4), Illuminance values in [lx]



Room 1 (5)



Room 1 (6), Illuminance values in [lx]



Workplane (Room 1) / Perpendicular illuminance (adaptive)



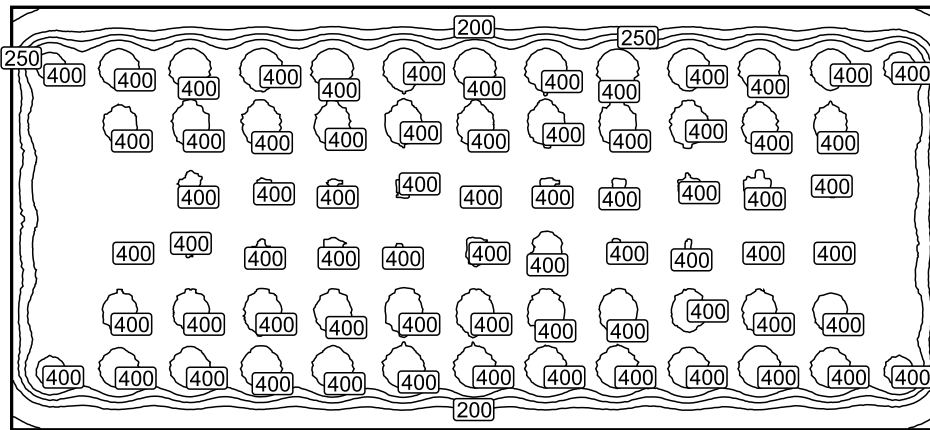
Workplane (Room 1): Perpendicular illuminance (adaptive) (Surface)

Light scene: Light scene 1

Average: 343 lx (Target: ≥ 200 lx), Min: 75.9 lx, Max: 498 lx, Min/average: 0.22, Min/max: 0.15

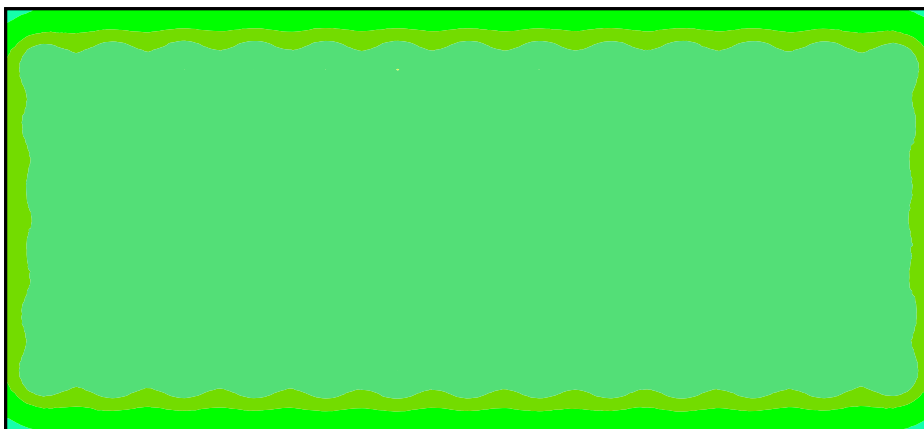
Height: 0.800 m, Wall zone: 0.000 m

Isolines [lx]



Scale: 1 : 750

False colours [lx]



Scale: 1 : 750

Value grid [lx]

12	14	15	16	15	16	16	16	16	16	17	16	16	16	16	17	16	16	16	16	17	16	16	16	15	15	125			
2	3	2	3	3	3	4	3	3	3	3	4	3	3	3	3	4	3	3	3	3	4	3	3	3	2	3	263		
2	4	3	4	3	3	4	3	4	4	3	4	3	4	4	3	4	4	3	4	3	4	4	3	3	4	3	4	299	
2	3	3	3	3	3	4	3	3	3	3	4	3	3	3	3	4	3	3	3	3	4	3	3	3	3	3	3	280	
2	3	3	4	3	3	4	3	4	4	3	4	3	4	4	3	4	4	3	4	3	3	4	3	4	3	3	3	287	
2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	270	
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2	3	3	3	3	3	3	3	3	3	3	4	3	3	3	3	4	3	3	4	3	3	3	3	3	3	3	3	282	
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2	3	3	3	3	3	4	3	3	3	3	4	3	3	3	3	4	3	3	3	3	4	3	3	3	3	3	3	283	
2	4	3	4	3	3	4	3	4	4	3	4	3	4	4	3	4	4	3	4	3	4	4	3	4	3	3	4	298	
2	3	2	3	3	3	3	3	3	3	4	3	3	3	3	4	3	3	3	3	4	3	3	3	3	3	3	2	3	257
12	14	15	16	15	16	16	16	16	16	17	16	16	16	16	17	16	16	16	16	17	16	16	16	15	15	125			

Scale: 1 : 750