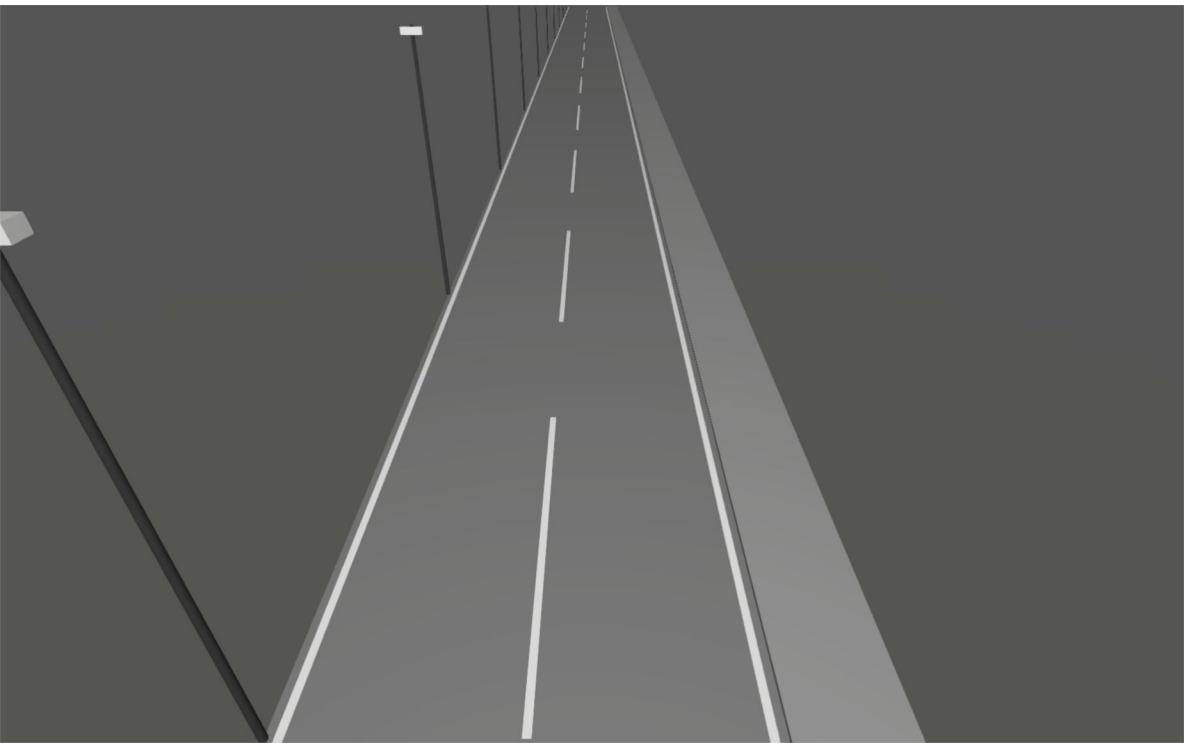
Date 08.04.2025



Kadrina keskväljakuga külgnev sõdutee ja kergliiklustee

Luminaire list

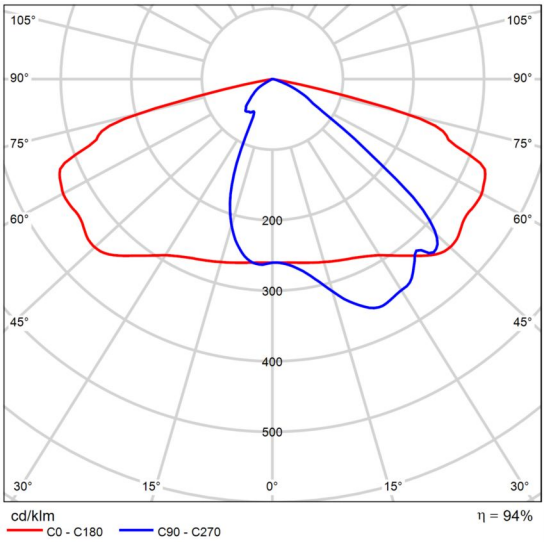
Φ_{total}	P_{total}	Luminous efficacy
40710 lm	265.0 W	153.6 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
10	WE-EF	102-0310-70	AFL120 [S66] IP66:LED-24/24W/3K	26.5 W	4071 lm	153.6 lm/W

Product data sheet

WE-EF - AFL120 [S66] IP66:LED-24/24W/3K

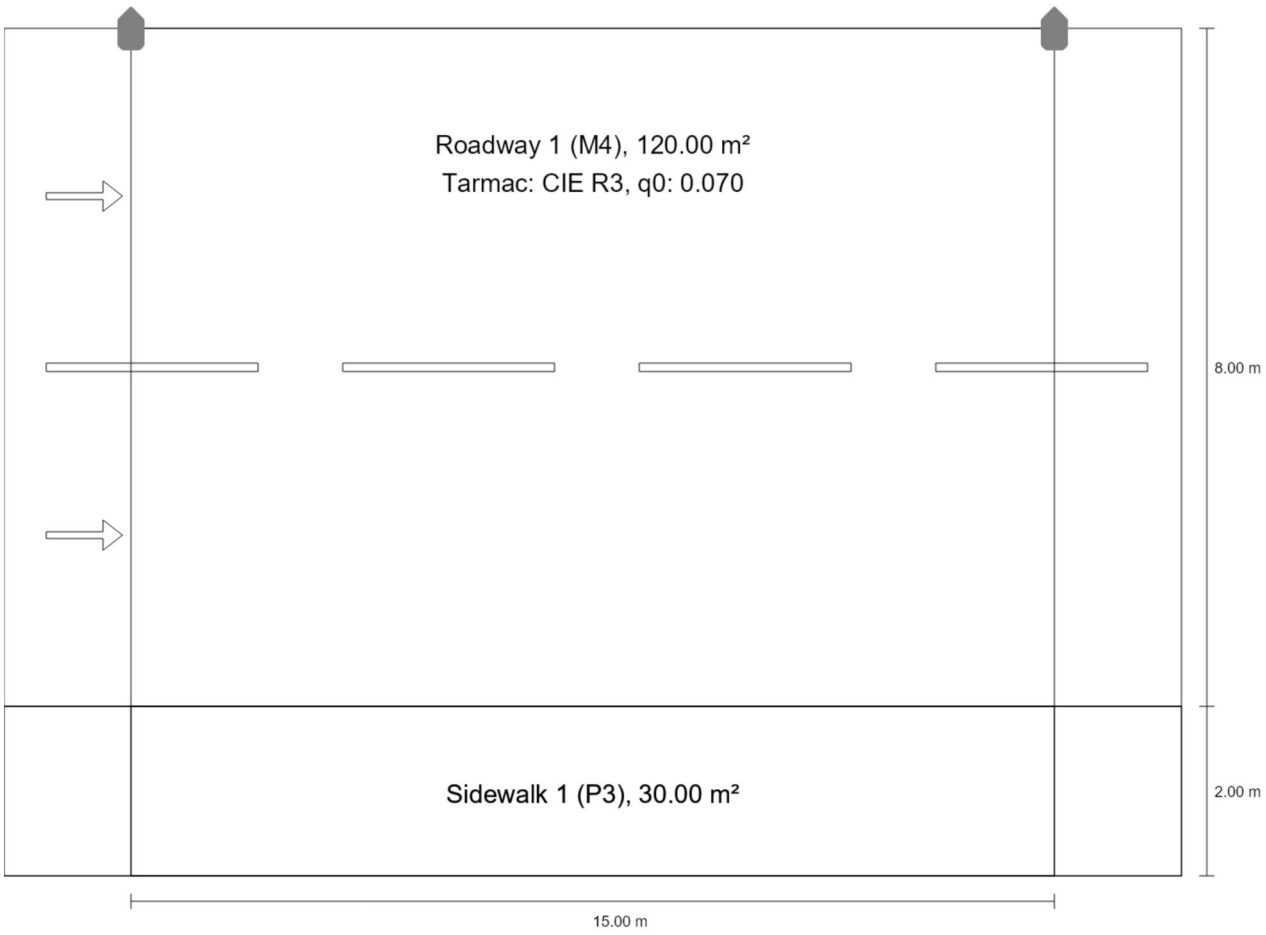
Article No.	102-0310-70
P	26.5 W
Φ_{Lamp}	4320 lm
$\Phi_{Luminaire}$	4071 lm
η	94.24 %
Luminous efficacy	153.6 lm/W
CCT	3000 K
CRI	70



Polar LDC

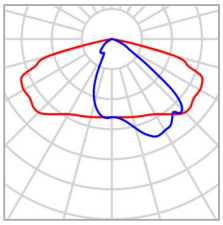
Street 1

Summary (according to EN 13201:2015)



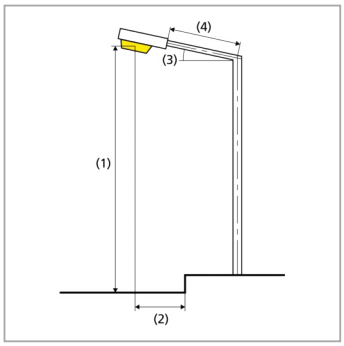
Street 1

Summary (according to EN 13201:2015)



Manufacturer	WE-EF	P	26.5 W
Article No.	102-0310-70	Φ_{Lamp}	4320 lm
Article name	AFL120 [S66] IP66:LED-24/24W/3K	$\Phi_{Luminaire}$	4071 lm
Fitting	24x LED-24/24W/730 - 3000K	η	94.24 %

AFL120 [S66] IP66:LED-24/24W/3K (single side top)



Pole distance	15.000 m
(1) Light spot height	8.000 m
(2) Light point overhang	0.000 m
(3) Boom inclination	0.0°
(4) Boom length	0.000 m
Annual operating hours	4000 h: 100.0 %, 26.5 W
Wattage / route	1775.5 W/km
ULR / ULOR	0.00 / 0.00
Max. luminous intensities Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	≥ 70°: 718 cd/klm ≥ 80°: 57.4 cd/klm ≥ 90°: 0.00 cd/klm
Luminous intensity class The luminous intensity values in [cd/klm] for calculation of the luminous intensity class refer to the luminaire luminous flux according to EN 13201:2015.	G*3
Glare index class	D.6
MF	0.80

Street 1

Summary (according to EN 13201:2015)

Results for valuation fields

A maintenance factor of 0.80 was used for calculating for the installation.

	Symbol	Calculated	Target	Check
Roadway 1 (M4)	L_{av}	0.94 cd/m²	≥ 0.75 cd/m²	✓
	U_o	0.54	≥ 0.40	✓
	U_l	0.90	≥ 0.60	✓
	TI	5 %	≤ 15 %	✓
	R_{EI}	0.69	≥ 0.30	✓
Sidewalk 1 (P3)	E_{av}	8.25 lx	[7.50 - 11.25] lx	✓
	E_{min}	5.96 lx	≥ 1.50 lx	✓

Results for energy efficiency indicators

	Symbol	Calculated	Energy Consumption
Street 1	D_p	0.012 W/lx*m²	–
AFL120 [S66] IP66:LED-24/24W/3K (single side top)	D_e	0.7 kWh/m² yr	106.0 kWh/yr

Street 1

Roadway 1 (M4)

Results for valuation field

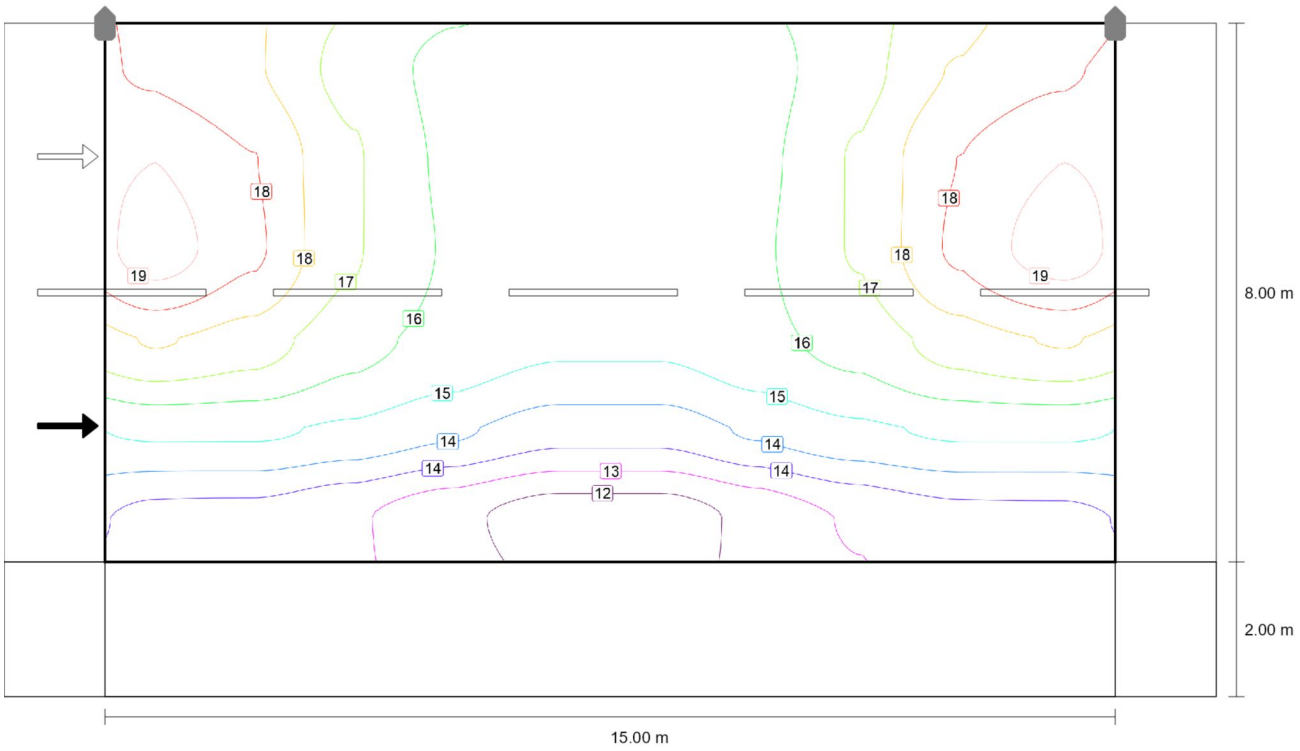
	Symbol	Calculated	Target	Check
Roadway 1 (M4)	L_{av}	0.94 cd/m²	≥ 0.75 cd/m²	✓
	U_o	0.54	≥ 0.40	✓
	U_l	0.90	≥ 0.60	✓
	TI	5 %	≤ 15 %	✓
	R_{EI}	0.69	≥ 0.30	✓

Results for observer

	Symbol	Calculated	Target	Check
Observer 1 Position: -60.000 m, 4.000 m, 1.500 m	L_{av}	1.03 cd/m²	≥ 0.75 cd/m²	✓
	U_o	0.54	≥ 0.40	✓
	U_l	0.90	≥ 0.60	✓
	TI	5 %	≤ 15 %	✓
Observer 2 Position: -60.000 m, 8.000 m, 1.500 m	L_{av}	0.94 cd/m²	≥ 0.75 cd/m²	✓
	U_o	0.56	≥ 0.40	✓
	U_l	0.93	≥ 0.60	✓
	TI	5 %	≤ 15 %	✓

Street 1

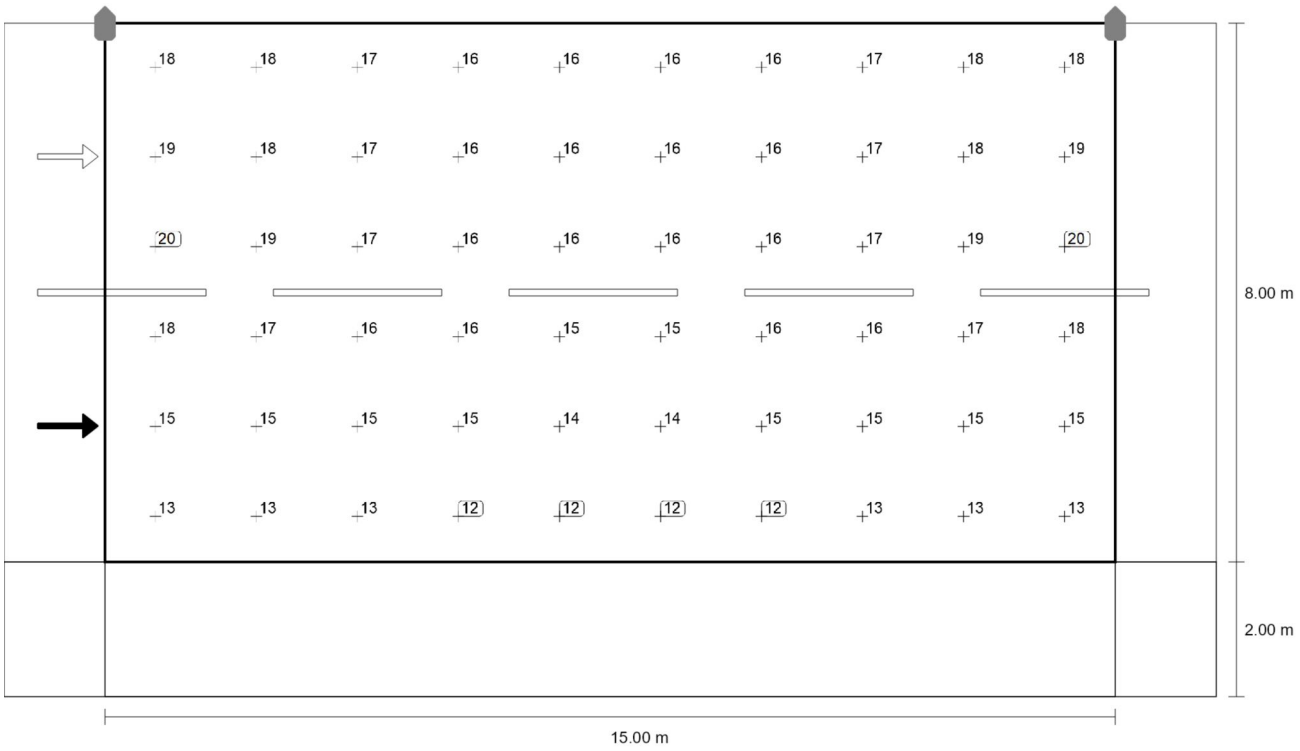
Roadway 1 (M4)



Maintenance value, horizontal illuminance [lx] (Iso-illuminance curves)

Street 1

Roadway 1 (M4)



Maintenance value, horizontal illuminance [lx] (Value grid)

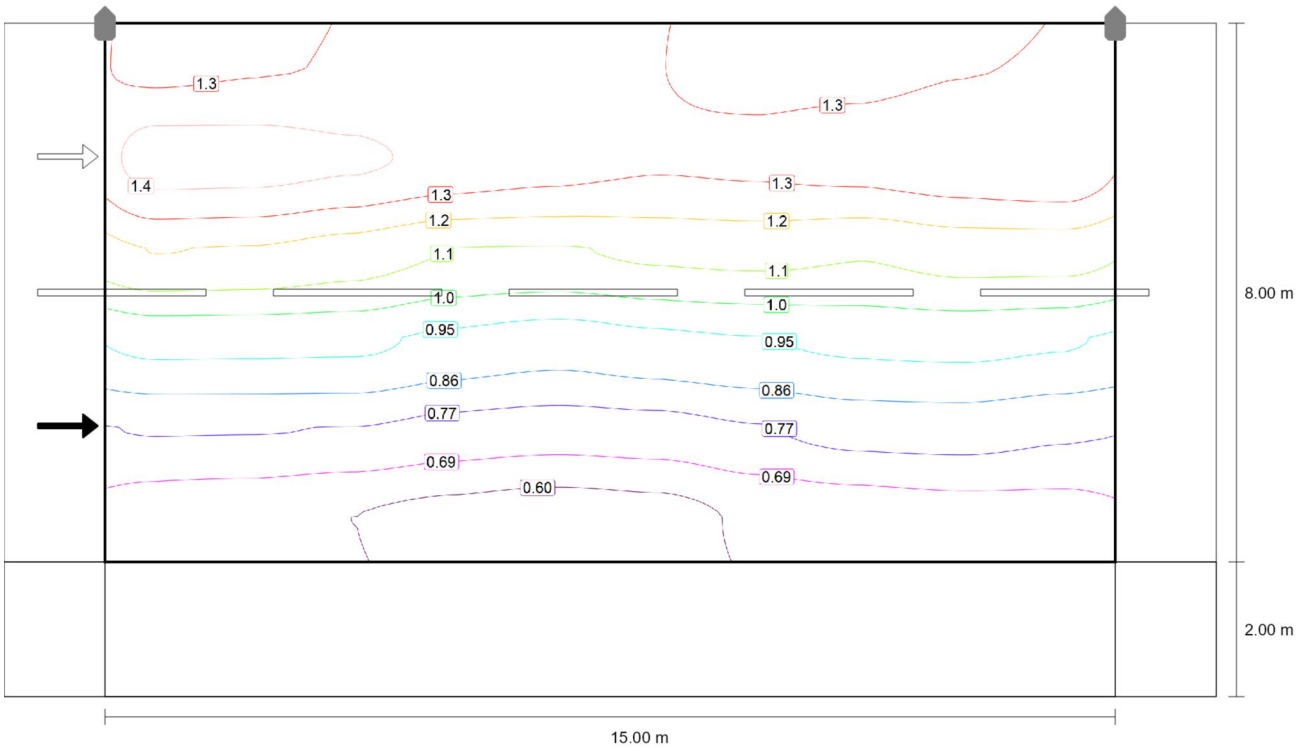
m	0.750	2.250	3.750	5.250	6.750	8.250	9.750	11.250	12.750	14.250
9.333	18.34	17.74	16.54	15.81	15.87	15.87	15.81	16.54	17.74	18.34
8.000	19.28	18.48	16.92	15.87	15.72	15.72	15.87	16.92	18.48	19.28
6.667	19.69	18.62	16.91	15.94	15.78	15.78	15.94	16.91	18.62	19.69
5.333	17.72	17.23	16.31	15.78	15.38	15.38	15.78	16.31	17.23	17.72
4.000	15.35	15.35	15.05	14.55	13.91	13.91	14.55	15.05	15.35	15.35
2.667	13.38	13.32	12.87	12.17	11.55	11.55	12.17	12.87	13.32	13.38

Maintenance value, horizontal illuminance [lx] (Value chart)

	E_{av}	E_{min}	E_{max}	U_o (g_1)	g_2
Maintenance value, horizontal illuminance	15.9 lx	11.5 lx	19.7 lx	0.73	0.59

Street 1

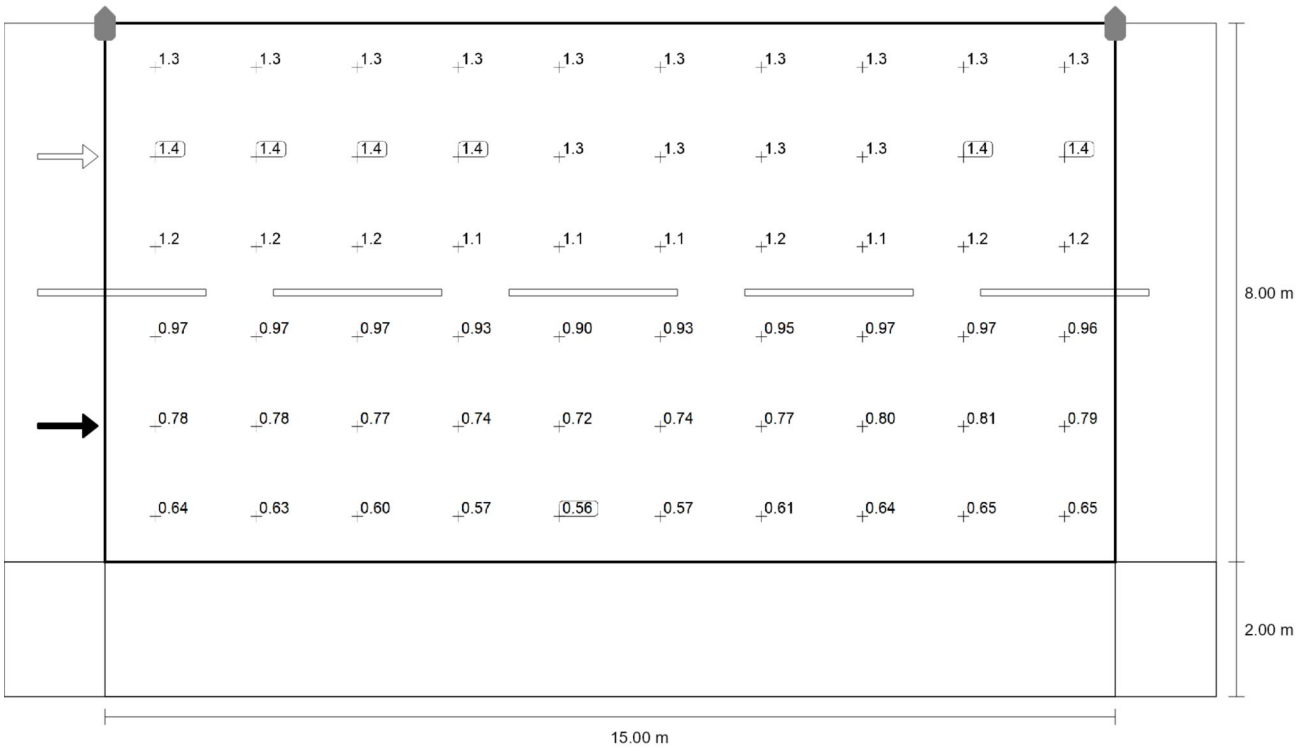
Roadway 1 (M4)



Observer 1: Maintenance value, luminance with dry roadway [cd/m²] (Iso-illuminance curves)

Street 1

Roadway 1 (M4)



Observer 1: Maintenance value, luminance with dry roadway [cd/m²] (Value grid)

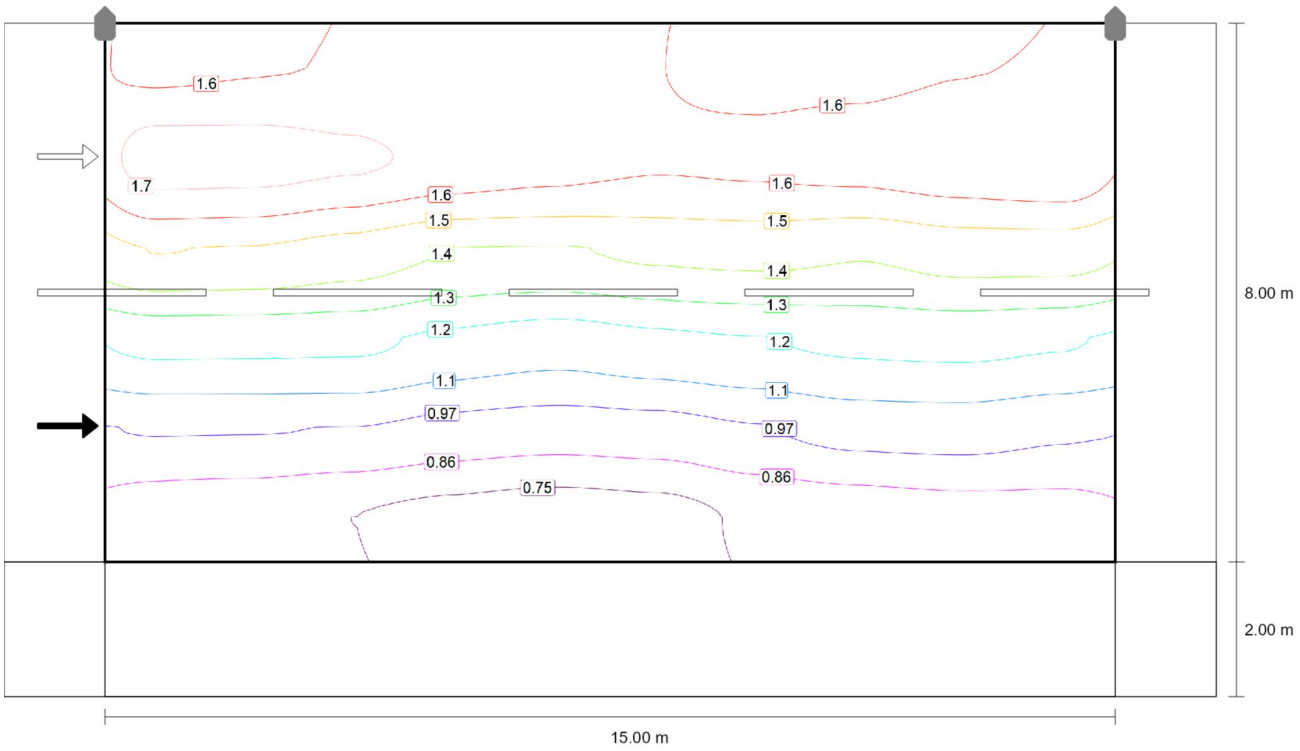
m	0.750	2.250	3.750	5.250	6.750	8.250	9.750	11.250	12.750	14.250
9.333	1.28	1.30	1.30	1.31	1.32	1.30	1.28	1.28	1.30	1.30
8.000	1.43	1.43	1.41	1.37	1.34	1.31	1.32	1.34	1.36	1.38
6.667	1.22	1.21	1.17	1.13	1.12	1.14	1.15	1.13	1.16	1.16
5.333	0.97	0.97	0.97	0.93	0.90	0.93	0.95	0.97	0.97	0.96
4.000	0.78	0.78	0.77	0.74	0.72	0.74	0.77	0.80	0.81	0.79
2.667	0.64	0.63	0.60	0.57	0.56	0.57	0.61	0.64	0.65	0.65

Observer 1: Maintenance value, luminance with dry roadway [cd/m²] (Value chart)

	L_{av}	L_{min}	L_{max}	U_o (g_1)	g_2
Observer 1: Maintenance value, luminance with dry roadway	1.03 cd/m²	0.56 cd/m²	1.43 cd/m²	0.54	0.39

Street 1

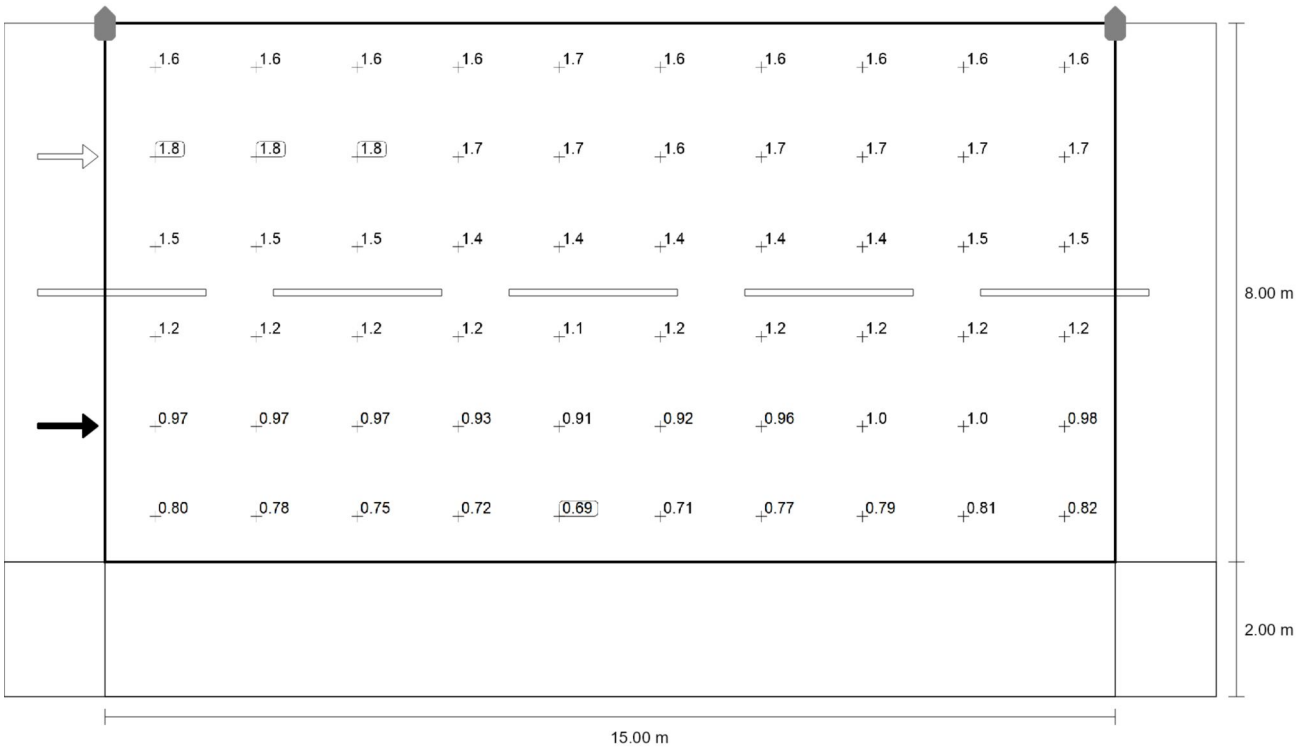
Roadway 1 (M4)



Observer 1: Luminance with new installation [cd/m^2] (Iso-illuminance curves)

Street 1

Roadway 1 (M4)



Observer 1: Luminance with new installation [cd/m²] (Value grid)

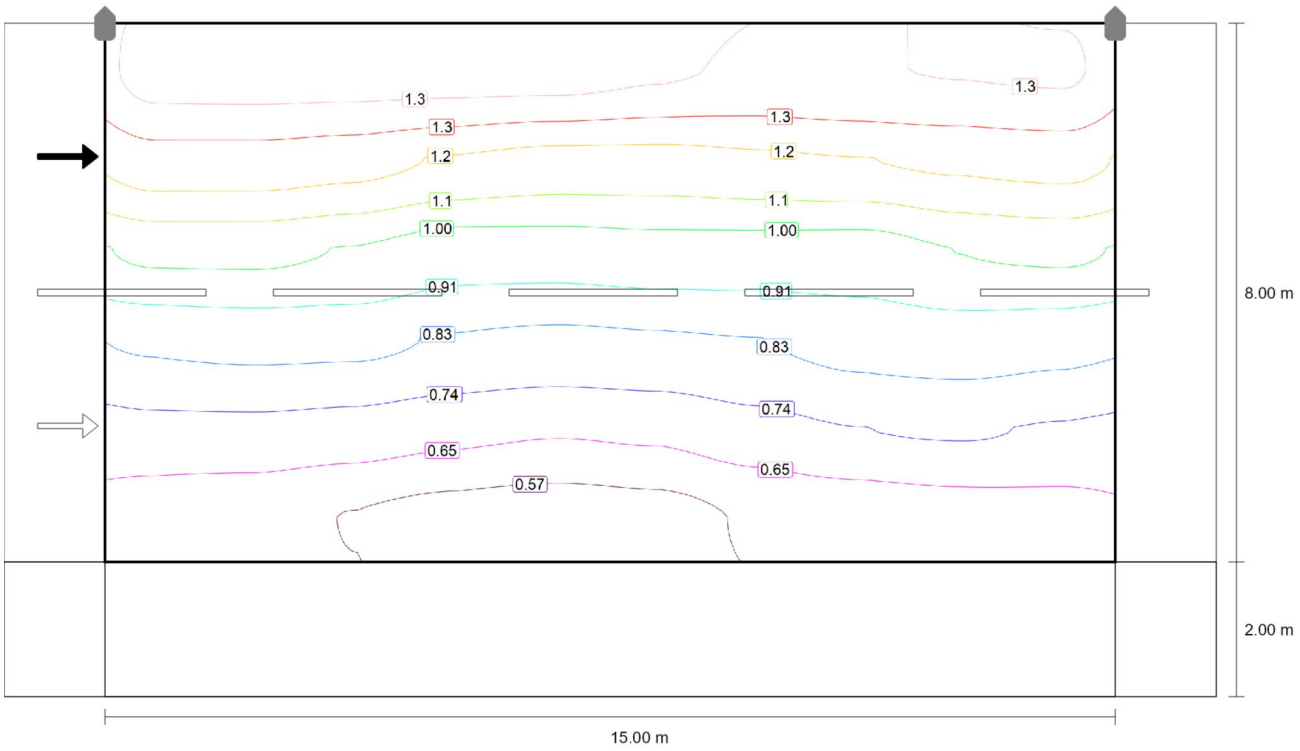
m	0.750	2.250	3.750	5.250	6.750	8.250	9.750	11.250	12.750	14.250
9.333	1.60	1.62	1.63	1.64	1.65	1.63	1.60	1.60	1.62	1.63
8.000	1.79	1.79	1.76	1.71	1.67	1.64	1.65	1.67	1.71	1.73
6.667	1.52	1.51	1.47	1.41	1.40	1.43	1.44	1.42	1.45	1.45
5.333	1.22	1.21	1.21	1.16	1.13	1.16	1.18	1.21	1.22	1.20
4.000	0.97	0.97	0.97	0.93	0.91	0.92	0.96	1.00	1.01	0.98
2.667	0.80	0.78	0.75	0.72	0.69	0.71	0.77	0.79	0.81	0.82

Observer 1: Luminance with new installation [cd/m²] (Value chart)

	L_{av}	L_{min}	L_{max}	U_o (g_1)	g_2
Observer 1: Luminance with new installation	1.28 cd/m²	0.69 cd/m²	1.79 cd/m²	0.54	0.39

Street 1

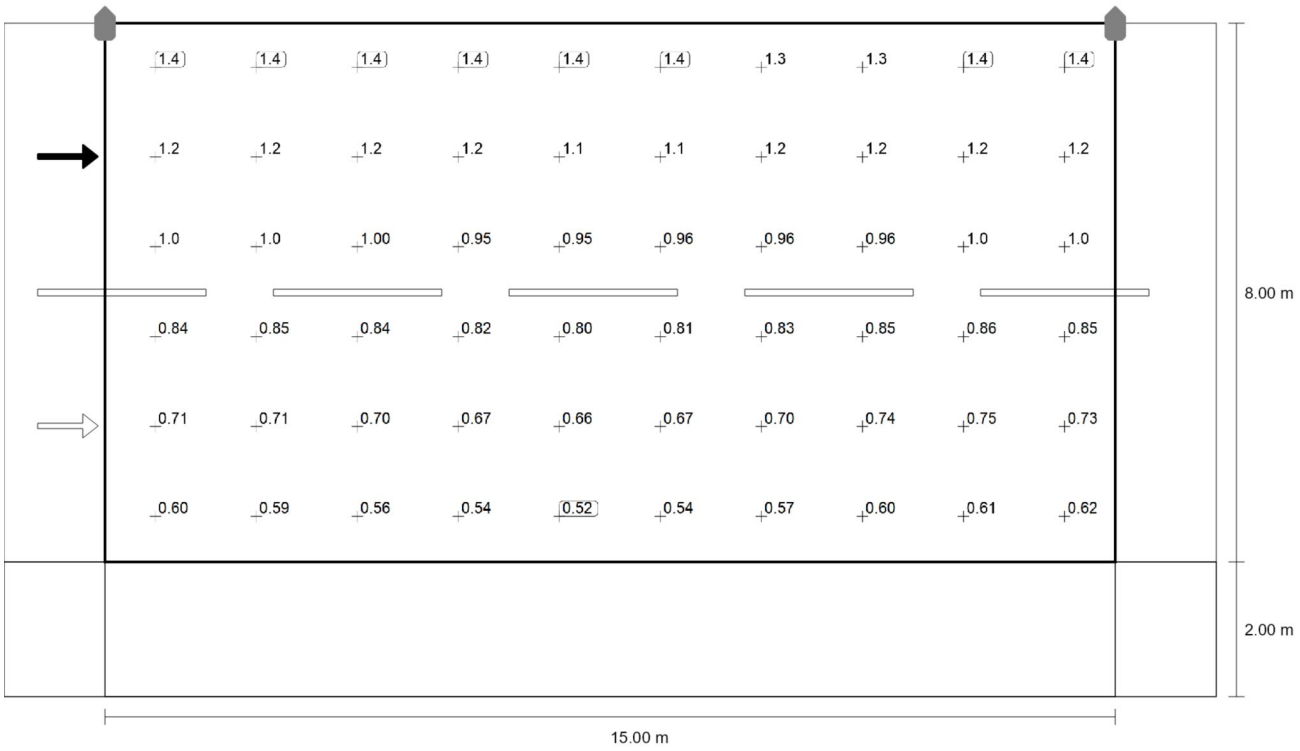
Roadway 1 (M4)



Observer 2: Maintenance value, luminance with dry roadway [cd/m²] (Iso-illuminance curves)

Street 1

Roadway 1 (M4)



Observer 2: Maintenance value, luminance with dry roadway [cd/m²] (Value grid)

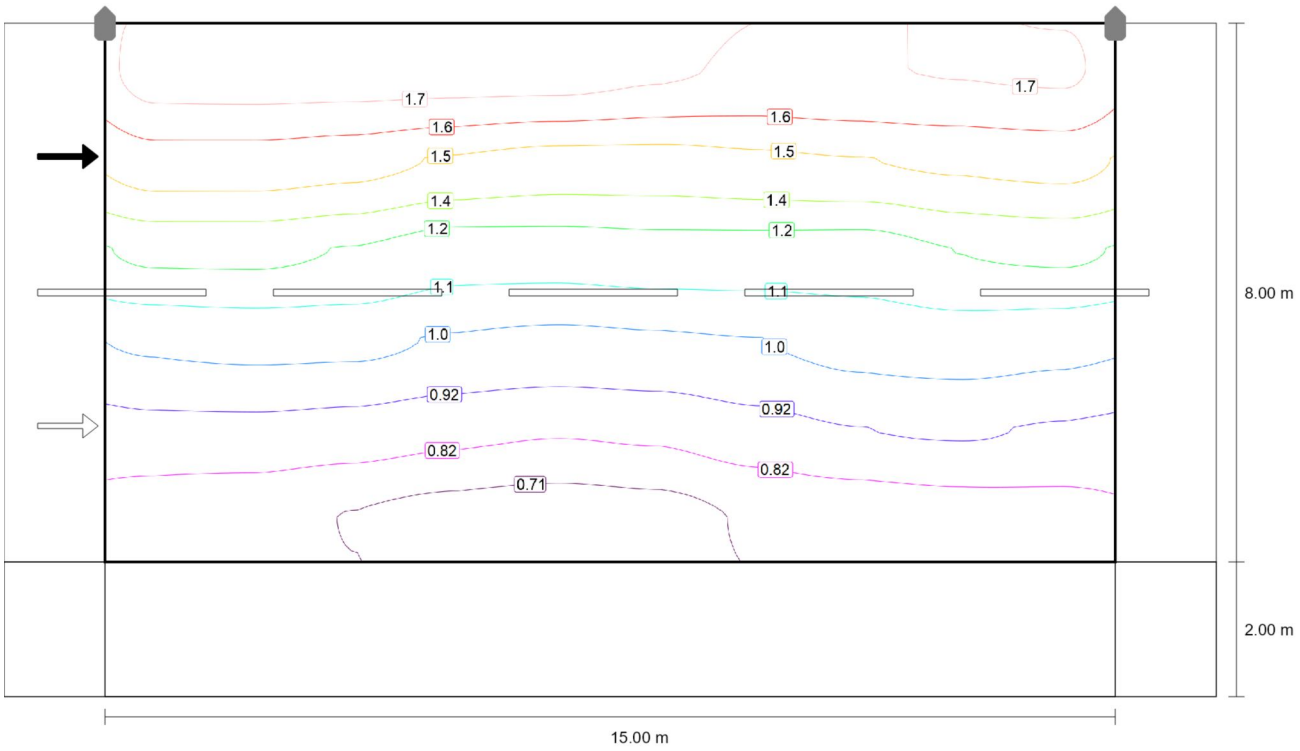
m	0.750	2.250	3.750	5.250	6.750	8.250	9.750	11.250	12.750	14.250
9.333	1.39	1.39	1.39	1.39	1.39	1.36	1.33	1.34	1.35	1.36
8.000	1.22	1.22	1.20	1.16	1.14	1.14	1.15	1.17	1.19	1.20
6.667	1.02	1.02	1.00	0.95	0.95	0.96	0.96	0.96	1.00	1.01
5.333	0.84	0.85	0.84	0.82	0.80	0.81	0.83	0.85	0.86	0.85
4.000	0.71	0.71	0.70	0.67	0.66	0.67	0.70	0.74	0.75	0.73
2.667	0.60	0.59	0.56	0.54	0.52	0.54	0.57	0.60	0.61	0.62

Observer 2: Maintenance value, luminance with dry roadway [cd/m²] (Value chart)

	L_{av}	L_{min}	L_{max}	U_o (g_1)	g_2
Observer 2: Maintenance value, luminance with dry roadway	0.94 cd/m²	0.52 cd/m²	1.39 cd/m²	0.56	0.38

Street 1

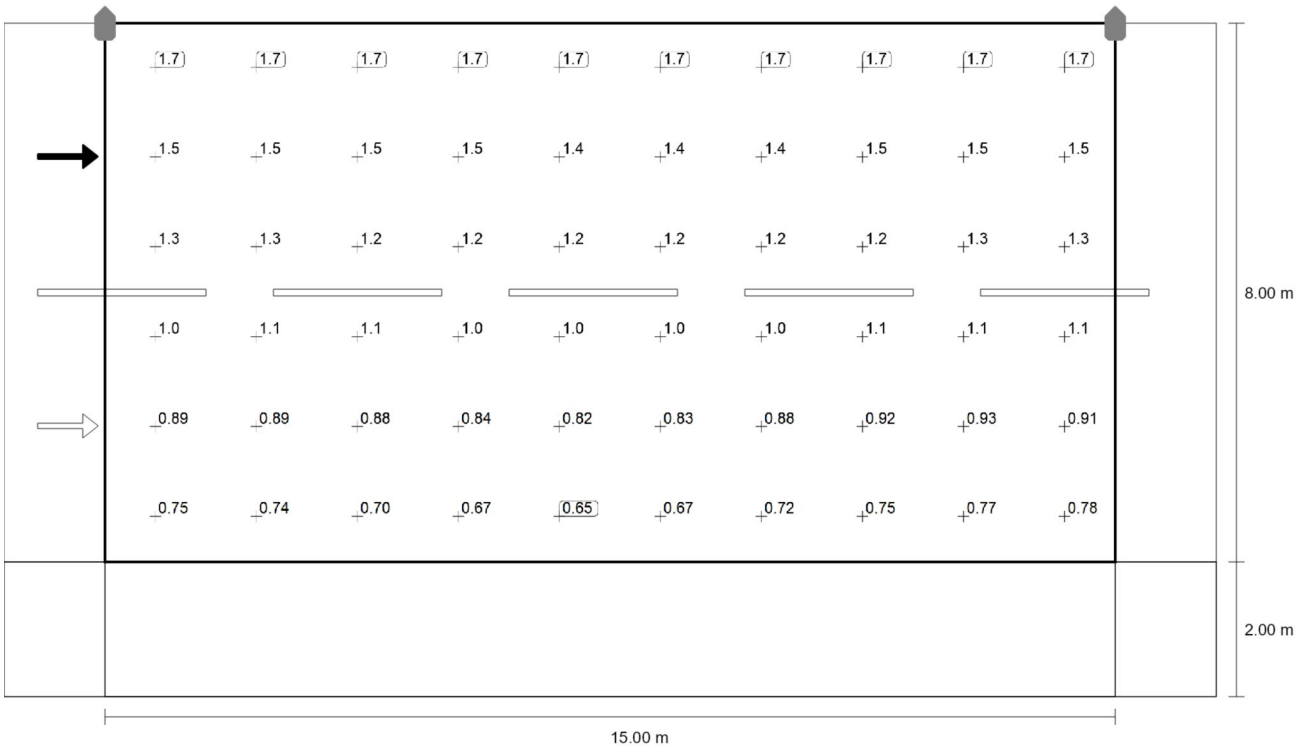
Roadway 1 (M4)



Observer 2: Luminance with new installation [cd/m^2] (Iso-illuminance curves)

Street 1

Roadway 1 (M4)



Observer 2: Luminance with new installation [cd/m²] (Value grid)

m	0.750	2.250	3.750	5.250	6.750	8.250	9.750	11.250	12.750	14.250
9.333	1.73	1.74	1.74	1.73	1.73	1.70	1.67	1.68	1.69	1.70
8.000	1.52	1.52	1.50	1.46	1.42	1.42	1.44	1.46	1.48	1.50
6.667	1.27	1.27	1.24	1.19	1.19	1.20	1.20	1.20	1.25	1.27
5.333	1.05	1.06	1.06	1.02	1.00	1.02	1.03	1.07	1.08	1.06
4.000	0.89	0.89	0.88	0.84	0.82	0.83	0.88	0.92	0.93	0.91
2.667	0.75	0.74	0.70	0.67	0.65	0.67	0.72	0.75	0.77	0.78

Observer 2: Luminance with new installation [cd/m²] (Value chart)

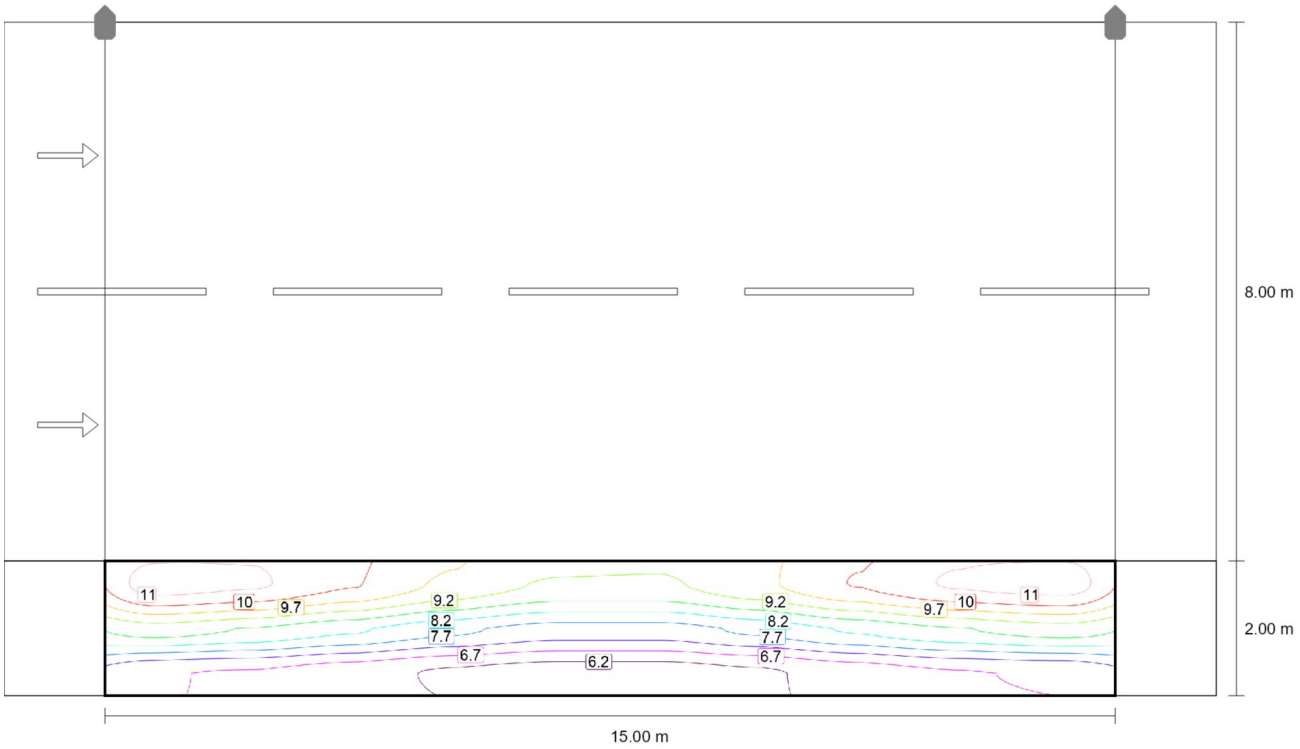
	L_{av}	L_{min}	L_{max}	U_o (g_1)	g_2
Observer 2: Luminance with new installation	1.18 cd/m²	0.65 cd/m²	1.74 cd/m²	0.56	0.38

Street 1

Sidewalk 1 (P3)

Results for valuation field

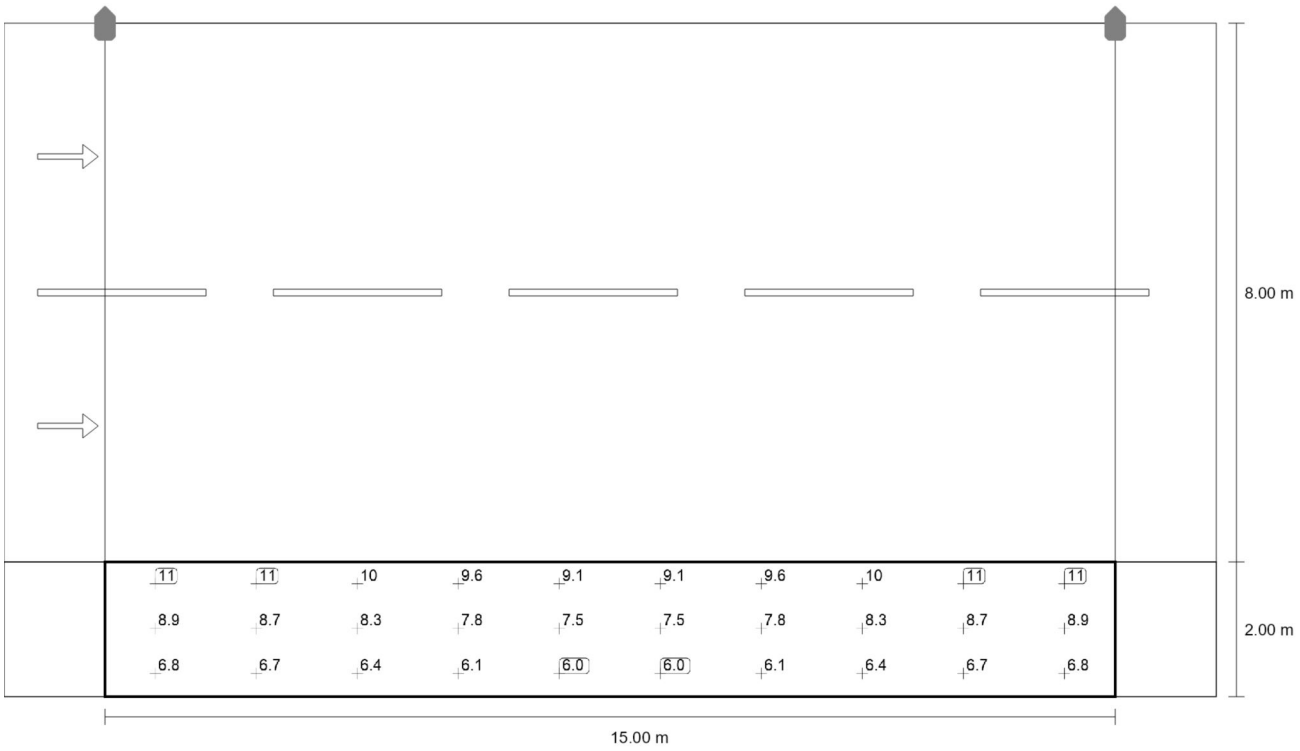
	Symbol	Calculated	Target	Check
Sidewalk 1 (P3)	E_{av}	8.25 lx	[7.50 - 11.25] lx	✓
	E_{min}	5.96 lx	≥ 1.50 lx	✓



Maintenance value, horizontal illuminance [lx] (Iso-illuminance curves)

Street 1

Sidewalk 1 (P3)



Maintenance value, horizontal illuminance [lx] (Value grid)

m	0.750	2.250	3.750	5.250	6.750	8.250	9.750	11.250	12.750	14.250
1.667	10.94	10.76	10.22	9.58	9.13	9.13	9.58	10.22	10.76	10.94
1.000	8.94	8.67	8.27	7.82	7.48	7.48	7.82	8.27	8.67	8.94
0.333	6.75	6.66	6.41	6.13	5.96	5.96	6.13	6.41	6.66	6.75

Maintenance value, horizontal illuminance [lx] (Value chart)

	E_{av}	E_{min}	E_{max}	U_o (g_1)	g_2
Maintenance value, horizontal illuminance	8.25 lx	5.96 lx	10.9 lx	0.72	0.54