

Saobraćajnica Stara Varoš

Content

Saobraćajnica Stara Varoš

 Saobraćajnica Stara Varoš

 Thorn Lighting - IP 36L70-740 NR BS 3550 CL2 M60 ANT (1xIP36L70-740NR 77W)..... 3

 Ulica Sara Varos: Alternative 1

 Planning results..... 6

 Ulica Sara Varos: Alternative 1 / Roadway 1 (M5)

 Results summary.....7

 Table..... 8

 Isolines..... 11

 Value chart..... 13

 Ulica Sara Varos: Alternative 1 / Sidewalk 1 (P2)

 Results summary.....15

 Table..... 16

 Isolines..... 17

 Value chart..... 18

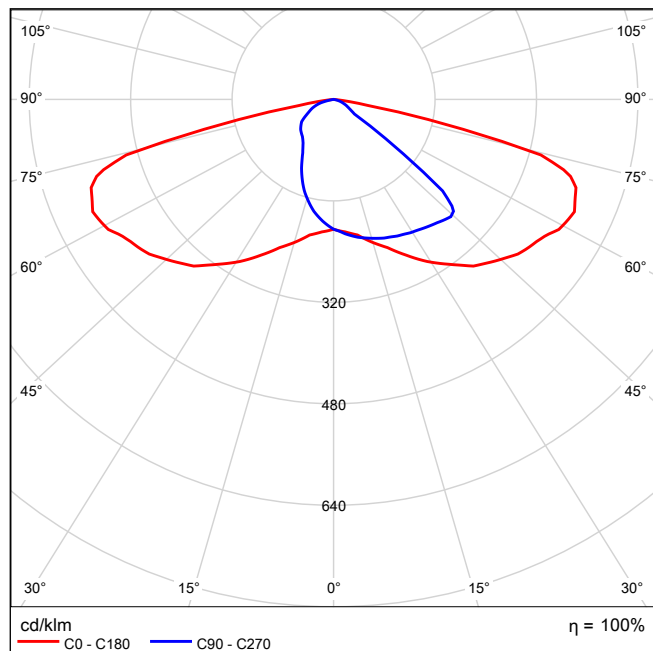
Thorn Lighting 96276041 (STD - standard) IP 36L70-740 NR BS 3550 CL2 M60 ANT 1xIP36L70-740NR 77W / Thorn Lighting - IP 36L70-740 NR BS 3550 CL2 M60 ANT (1xIP36L70-740NR 77W)

Thorn Lighting 96276041 (STD - standard) IP 36L70-740 NR BS 3550 CL2 M60 ANT 1xIP36L70-740NR 77W

See our luminaire catalog for an image of the luminaire.

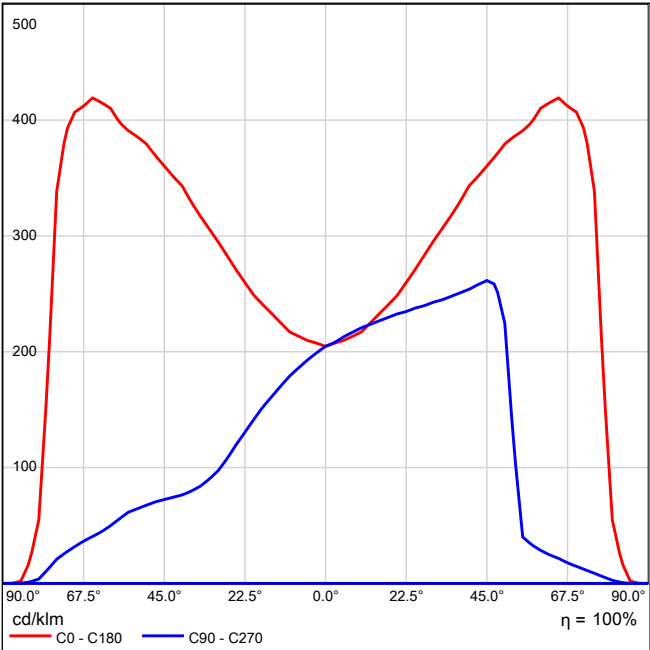
Light output ratio: 100.01%
Lamp luminous flux: 11337 lm
Luminaire luminous flux: 11338 lm
Power: 77.0 W
Luminous efficacy: 147.2 lm/W

Luminous emittance 1 / Polar LDC



Thorn Lighting 96276041 (STD - standard) IP 36L70-740 NR BS 3550 CL2 M60 ANT 1xIP36L70-740NR 77W / Thorn Lighting - IP 36L70-740 NR BS 3550 CL2 M60 ANT (1xIP36L70-740NR 77W)

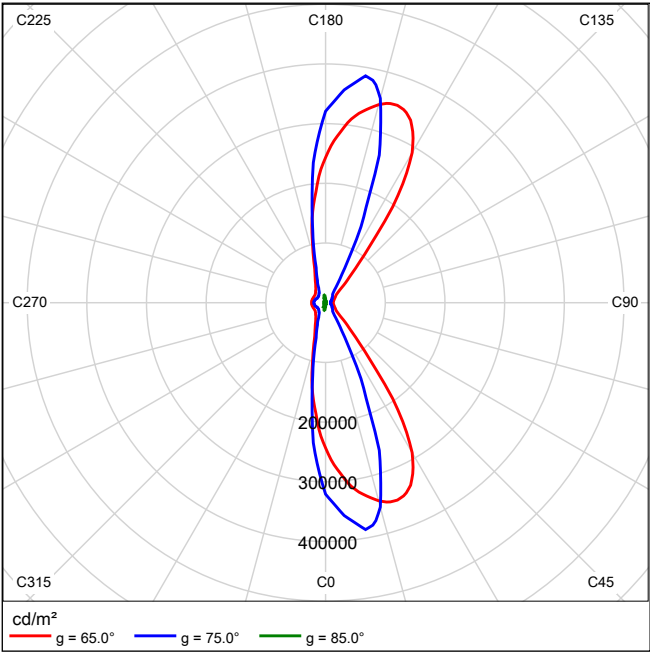
Luminous emittance 1 / Linear LDC



It is not possible to generate a cone diagram, as the light distribution is asymmetrical.

Thorn Lighting 96276041 (STD - standard) IP 36L70-740 NR BS 3550 CL2 M60 ANT 1xIP36L70-740NR 77W / Thorn Lighting - IP 36L70-740 NR BS 3550 CL2 M60 ANT (1xIP36L70-740NR 77W)

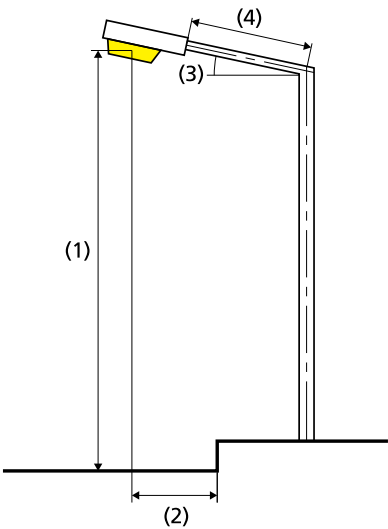
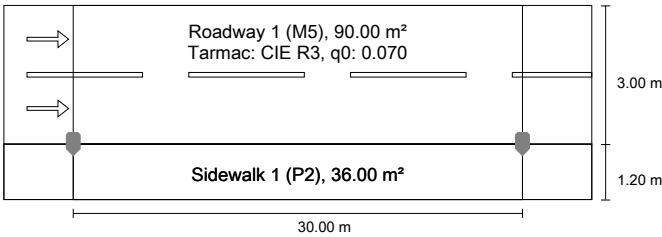
Luminous emittance 1 / Luminance diagram



It is not possible to generate a UGR diagram, as the light distribution is asymmetrical.

Ulica Sara Varos according to EN 13201:2015

Thorn Lighting 96276041 (STD - standard) IP 36L70-740 NR BS 3550 CL2 M60 ANT



Results for valuation fields
Maintenance factor: 0.67

Roadway 1 (M5)				
Lm [cd/m²] ≥ 0.50	Uo ≥ 0.35	UI ≥ 0.40	EIR ≥ 0.30	Tl [%]
✓ 2.10	✓ 0.60	✓ 0.51	✓ 0.89	* 17

Sidewalk 1 (P2)	
Em [lx] ≥ 10.00 ≤ 15.00	Emin [lx] ≥ 2.00
✗ 22.42	✓ 7.30

* Informative, not part of the valuation

Results for energy efficiency indicators

Power density indicator (Dp)	0.024 W/lxm²
Energy consumption density	
Arrangement: IP 36L70-740 NR BS 3550 CL2 M60 ANT (308.0 kWh/yr)	2.4 kWh/m² yr

Lamp:	1xIP36L70-740NR 77W
Luminous flux (luminaire):	11337.95 lm
Luminous flux (lamp):	11337.00 lm
Operating Hours	
4000 h:	100.0 %, 77.0 W
W/km:	2541.0
Arrangement:	single side bottom
Pole distance:	30.000 m
Boom inclination (3):	0.0°
Boom length (4):	0.100 m
Light centre height (1):	6.000 m
Light overhang (2):	0.000 m

ULR:	-1.00
ULOR:	0.00
Maximum luminous intensities	
at 70° and above	558 cd/klm *
at 80° and above	84.7 cd/klm *
at 90° and above	0.00 cd/klm *
Luminous intensity class:	G*3

Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.

* Luminous intensity values in [cd/klm] for calculating luminous intensity class refer to the output flux of the luminaire, according EN 13201:2015.

Arrangement complies with glare index class D.5

Roadway 1 (M5)

Maintenance factor: 0.67
Grid: 10 x 6 Points

Lm [cd/m²] ≥ 0.50	Uo ≥ 0.35	UI ≥ 0.40	EIR ≥ 0.30	TI [%]
✓ 2.10	✓ 0.60	✓ 0.51	✓ 0.89	* 17

* Informative, not part of the valuation

Assigned Observer (2):

Observer	Position [m]	Lm [cd/m²] ≥ 0.50	Uo ≥ 0.35	UI ≥ 0.40	TI [%]
Observer 1	(-60.000, 1.950, 1.500)	2.10	0.61	0.51	17
Observer 2	(-60.000, 3.450, 1.500)	2.20	0.60	0.57	15

Roadway 1 (M5)

Horizontal illuminance [lx]

3.950	41.3	39.0	25.2	16.0	12.0	12.0	16.0	25.2	39.0	41.3
3.450	43.9	40.2	25.1	15.8	11.8	11.8	15.8	25.1	40.2	43.9
2.950	46.0	40.7	24.7	15.4	11.5	11.5	15.4	24.7	40.7	46.0
2.450	47.3	40.5	24.0	14.8	11.0	11.0	14.8	24.0	40.5	47.3
1.950	47.2	39.3	23.0	14.2	10.4	10.4	14.2	23.0	39.3	47.2
1.450	46.0	37.4	21.7	13.2	9.72	9.72	13.2	21.7	37.4	46.0
m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500

Grid: 10 x 6 Points

Em [lx]	Emin [lx]	Emax [lx]	g1	g2
27.0	9.72	47.3	0.361	0.206

Observer 1

Luminance with dry roadway [cd/m²]

3.950	1.29	1.33	1.30	1.29	1.44	1.73	2.00	2.17	2.08	1.43
3.450	1.38	1.42	1.43	1.52	1.71	1.97	2.32	2.41	2.32	1.54
2.950	1.49	1.50	1.55	1.73	2.05	2.37	2.64	2.67	2.51	1.67
2.450	1.59	1.66	1.78	1.99	2.34	2.74	2.98	2.98	2.66	1.78
1.950	1.66	1.79	2.02	2.30	2.66	3.03	3.26	3.21	2.76	1.85
1.450	1.69	1.85	2.11	2.36	2.70	3.04	3.26	3.18	2.72	1.90
m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500

Grid: 10 x 6 Points

Lm [cd/m²]	Lmin [cd/m²]	Lmax [cd/m²]	g1	g2
2.10	1.29	3.26	0.613	0.395

Luminance with new lamp [cd/m²]

3.950	1.92	1.99	1.95	1.92	2.15	2.58	2.98	3.25	3.11	2.13
3.450	2.07	2.12	2.13	2.27	2.55	2.94	3.46	3.60	3.46	2.30
2.950	2.22	2.24	2.31	2.59	3.05	3.53	3.94	3.98	3.74	2.49
2.450	2.38	2.47	2.66	2.97	3.50	4.09	4.45	4.44	3.96	2.66
1.950	2.47	2.67	3.02	3.43	3.97	4.52	4.87	4.79	4.11	2.76
1.450	2.52	2.75	3.14	3.53	4.03	4.53	4.87	4.74	4.06	2.83
m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500

Grid: 10 x 6 Points

Lm [cd/m²]	Lmin [cd/m²]	Lmax [cd/m²]	g1	g2
3.14	1.92	4.87	0.613	0.395

Observer 2

Luminance with dry roadway [cd/m²]

3.950	1.32	1.39	1.41	1.46	1.55	1.85	2.11	2.25	2.13	1.45
3.450	1.43	1.48	1.54	1.69	1.93	2.15	2.47	2.50	2.36	1.58
2.950	1.57	1.65	1.75	1.93	2.26	2.60	2.81	2.79	2.56	1.70
2.450	1.67	1.80	2.02	2.26	2.61	2.96	3.16	3.09	2.70	1.82
1.950	1.72	1.87	2.14	2.44	2.82	3.22	3.39	3.30	2.80	1.88
1.450	1.62	1.77	2.02	2.31	2.68	3.03	3.27	3.16	2.70	1.87
m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500

Grid: 10 x 6 Points

Lm [cd/m ²]	Lmin [cd/m ²]	Lmax [cd/m ²]	g1	g2
2.20	1.32	3.39	0.601	0.390

Luminance with new lamp [cd/m²]

3.950	1.97	2.08	2.11	2.18	2.32	2.77	3.15	3.36	3.18	2.16
3.450	2.14	2.21	2.30	2.52	2.88	3.21	3.69	3.73	3.53	2.35
2.950	2.34	2.46	2.62	2.87	3.38	3.89	4.20	4.16	3.81	2.54
2.450	2.49	2.69	3.01	3.38	3.89	4.42	4.71	4.62	4.04	2.72
1.950	2.57	2.79	3.19	3.64	4.21	4.80	5.05	4.92	4.17	2.81
1.450	2.42	2.64	3.02	3.45	4.00	4.53	4.88	4.72	4.03	2.79
m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500

Grid: 10 x 6 Points

Lm [cd/m ²]	Lmin [cd/m ²]	Lmax [cd/m ²]	g1	g2
3.28	1.97	5.05	0.601	0.390

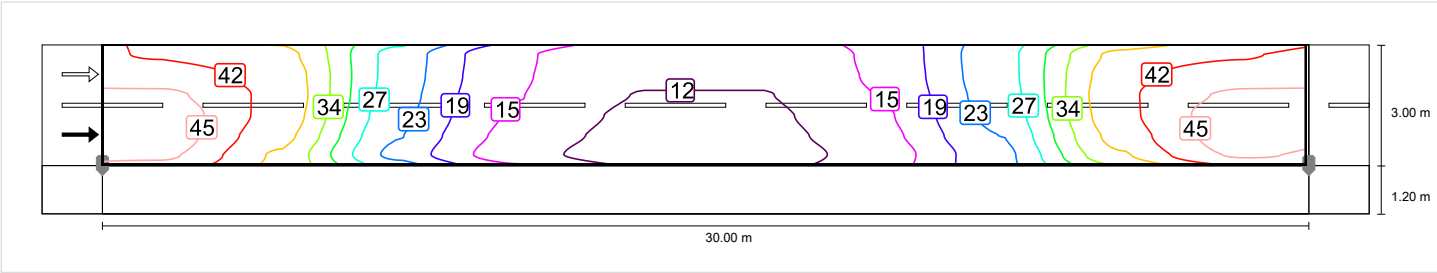
Roadway 1 (M5)

Maintenance factor: 0.67
Grid: 10 x 6 Points

Lm [cd/m²]	Uo	UI	EIR	TI [%]
≥ 0.50	≥ 0.35	≥ 0.40	≥ 0.30	
✓ 2.10	✓ 0.60	✓ 0.51	✓ 0.89	* 17

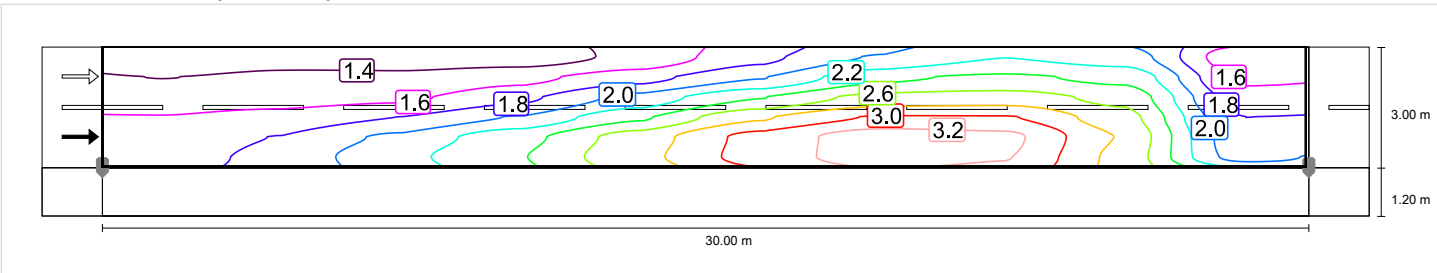
* Informative, not part of the valuation

Horizontal illuminance

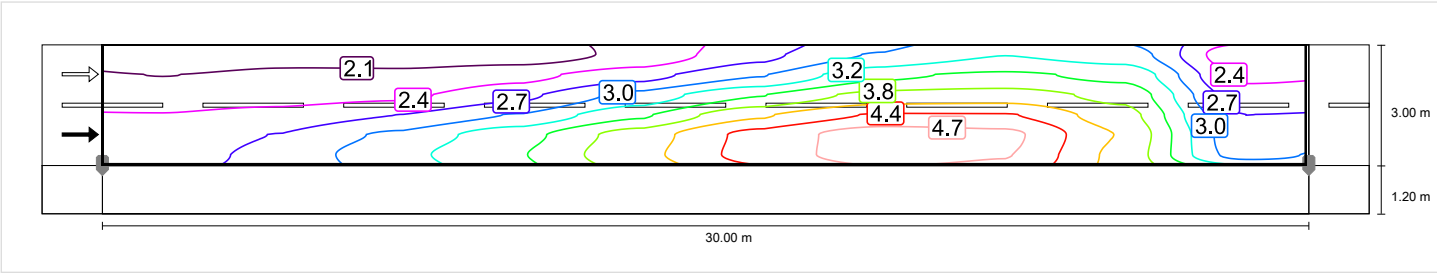


Observer 1

Luminance with dry roadway

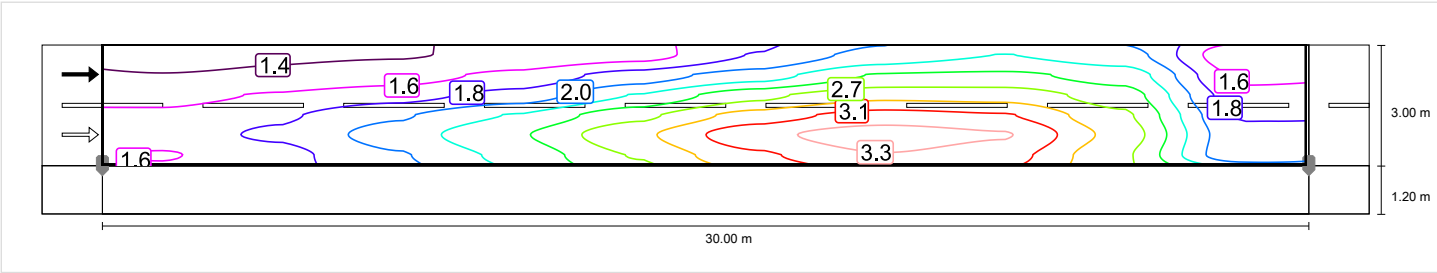


Luminance with new lamp

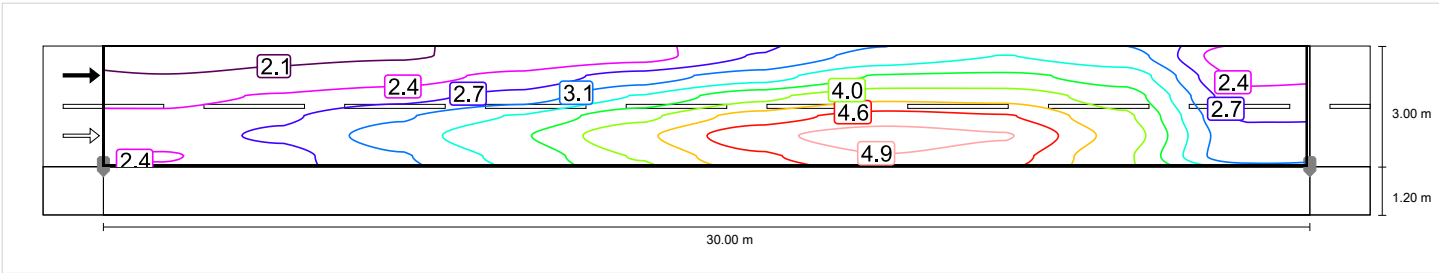


Observer 2

Luminance with dry roadway



Luminance with new lamp



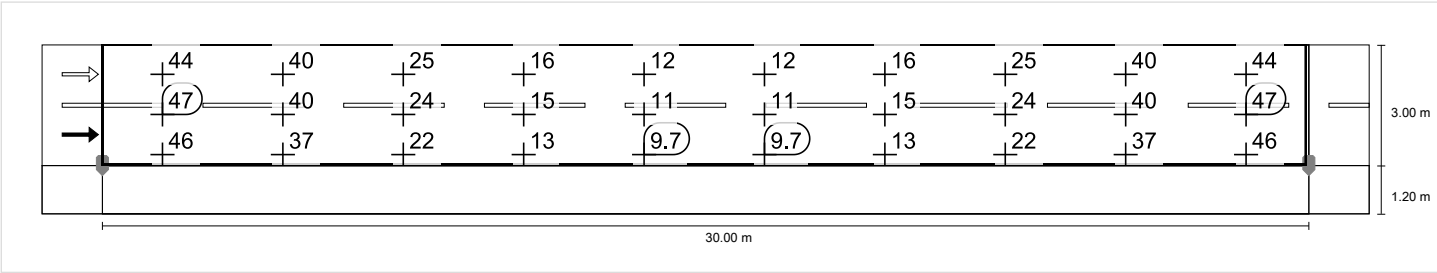
Roadway 1 (M5)

Maintenance factor: 0.67
Grid: 10 x 6 Points

Lm [cd/m²] ≥ 0.50	Uo ≥ 0.35	UI ≥ 0.40	EIR ≥ 0.30	TI [%]
✓ 2.10	✓ 0.60	✓ 0.51	✓ 0.89	* 17

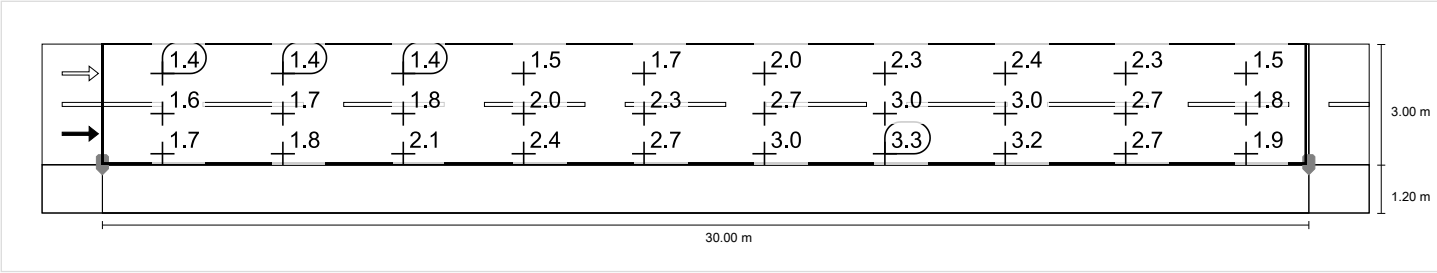
* Informative, not part of the valuation

Horizontal illuminance

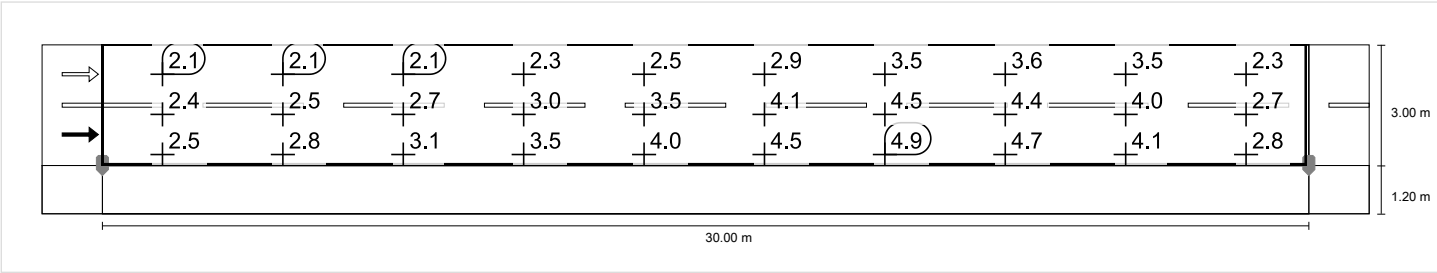


Observer 1

Luminance with dry roadway

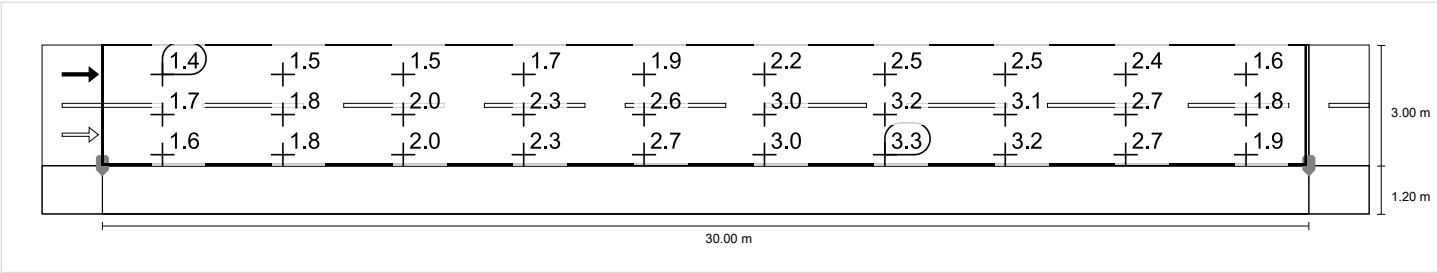


Luminance with new lamp

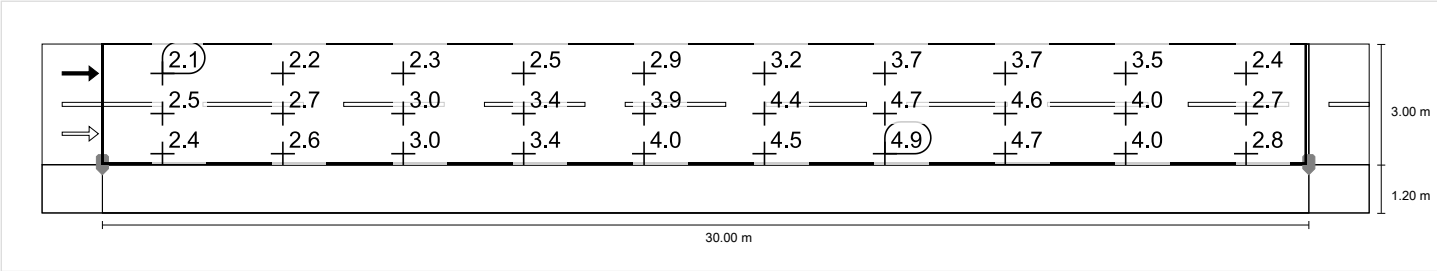


Observer 2

Luminance with dry roadway



Luminance with new lamp



Sidewalk 1 (P2)

Maintenance factor: 0.67

Grid: 10 x 3 Points

Em [lx] ≥ 10.00 ≤ 15.00	Emin [lx] ≥ 2.00
✗ 22.42	✓ 7.30

Sidewalk 1 (P2)

Horizontal illuminance [lx]

1.000	44.8	35.4	20.3	12.1	8.87	8.87	12.1	20.3	35.4	44.8
0.600	41.6	32.7	18.7	11.1	8.15	8.15	11.1	18.7	32.7	41.6
0.200	37.9	30.1	17.1	10.0	7.30	7.30	10.0	17.1	30.1	37.9
m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500

Grid: 10 x 3 Points

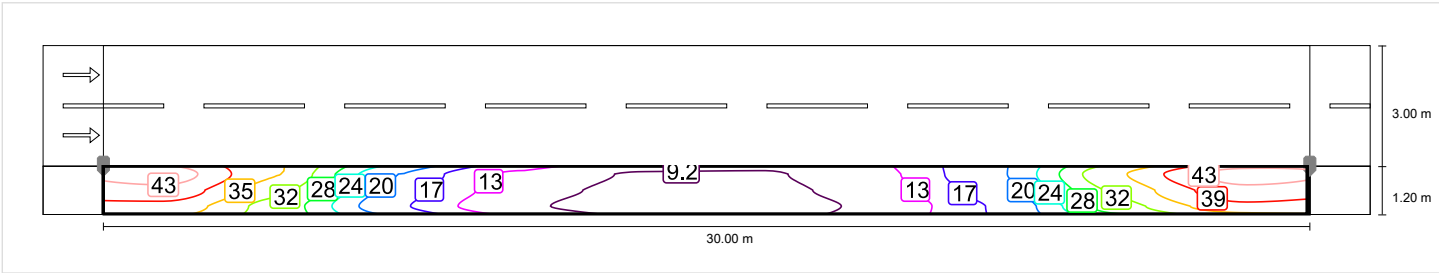
Em [lx]	Emin [lx]	Emax [lx]	g1	g2
22.4	7.30	44.8	0.325	0.163

Sidewalk 1 (P2)

Maintenance factor: 0.67
Grid: 10 x 3 Points

Em [lx]	Emin [lx]
≥ 10.00	≥ 2.00
≤ 15.00	
✖ 22.42	✔ 7.30

Horizontal illuminance



Sidewalk 1 (P2)

Maintenance factor: 0.67
Grid: 10 x 3 Points

Em [lx] ≥ 10.00 ≤ 15.00	Emin [lx] ≥ 2.00
✗ 22.42	✓ 7.30

Horizontal illuminance

