



Yerevan, Yervand Qochar street

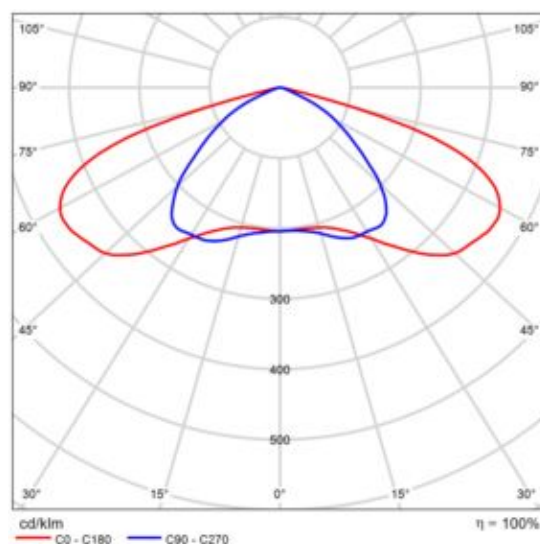
One luminaire in the center of each direction

Product data sheet

Vizulo - Lapwing 60 W 32 LED



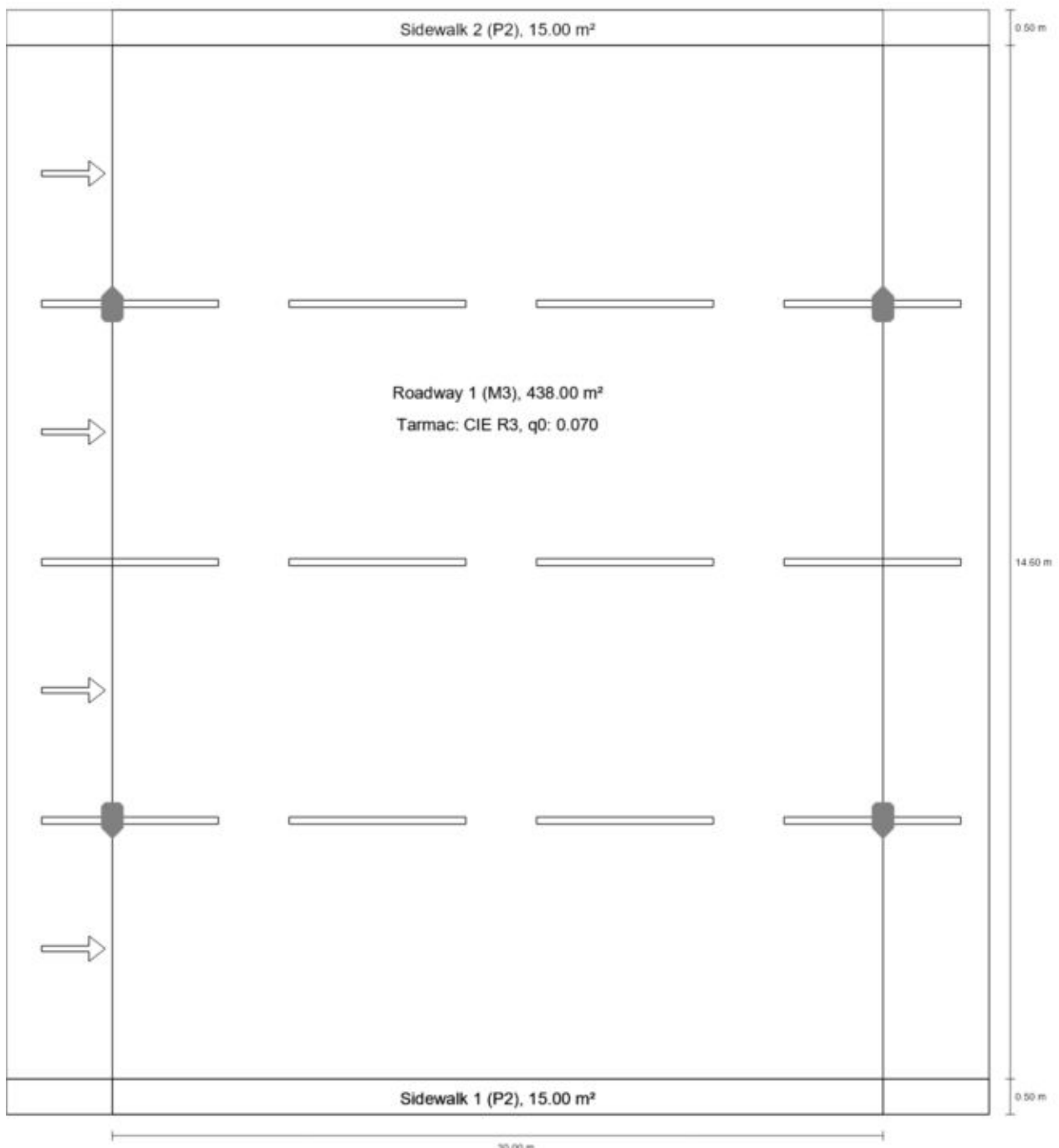
Article No.	6000540138 LWHE 060 730 L38 AB032
P	60.0 W
Φ_{Lamp}	9000 lm
$\Phi_{\text{Luminaire}}$	9000 lm
η	100.00 %
Luminous efficacy	150.0 lm/W
CCT	3000 K
CRI	70



Polar LDC

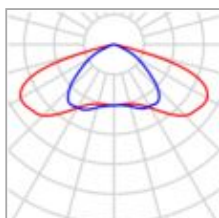
Street 1

Summary (according to EN 13201:2015)



Street 1

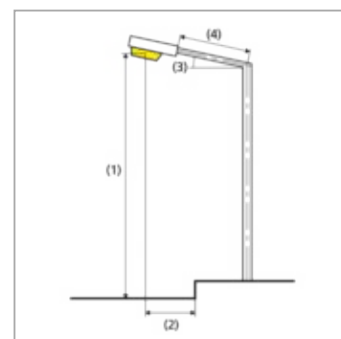
Summary (according to EN 13201:2015)



Manufacturer	Vizulo	P	60.0 W
Article No.	6000540138 LWHE 060 730 L38 AB032	Φ_{Lamp}	9000 lm
Article name	Lapwing 60 W 32 LED	$\Phi_{\text{Luminaire}}$	9000 lm
Fitting	1x 32 LED MOD AB	η	100.00 %

Lapwing 60 W 32 LED (both sides opposite)

Pole distance	30.000 m
(1) Light spot height	8.000 m
(2) Light point overhang	3.650 m
(3) Boom inclination	0.0°
(4) Boom length	0.000 m
Annual operating hours	4000 h: 100.0 %, 60.0 W
Wattage / route	3960.0 W/km
ULR / ULOR	0.00 / 0.00
Max. luminous intensities	$\geq 70^\circ$: 274 cd/klm
Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	$\geq 80^\circ$: 12.6 cd/klm $\geq 90^\circ$: 0.00 cd/klm
Luminous intensity class	G*6
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.	
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
Sidewalk 2 (P2)	$E_{av}^{(1)}$	15.81 lx	–	
	$E_{min}^{(1)}$	9.36 lx	–	
Roadway 1 (M3)	$L_{av}^{(2)}$	1.31 cd/m ²	≥ 1.20 cd/m ²	✓
	U_o	0.50	≥ 0.40	✓
	U_l	0.66	≥ 0.60	✓
	$TI^{(2)}$	9 %	≤ 12 %	✓
	$REI^{(1)}$	0.63	–	
Sidewalk 1 (P2)	$E_{av}^{(1)}$	15.81 lx	–	
	$E_{min}^{(1)}$	9.36 lx	–	

(1) Informative, not part of the valuation

(2) Setpoint changed by the planner, deviant to the norm

Results for energy efficiency indicators

	Symbol	Calculated	Energy Consumption
Street 1	D_p	0.012 W/lx*m ²	–
Lapwing 60 W 32 LED (both sides opposite)	D_e	1.0 kWh/m ² yr	480.0 kWh/yr

Street 1

Roadway 1 (M3)

Results for valuation field

	Symbol	Calculated	Target	Check
Roadway 1 (M3)	$L_{av}^{(2)}$	1.31 cd/m ²	≥ 1.20 cd/m ²	✓
	U_o	0.50	≥ 0.40	✓
	U_l	0.66	≥ 0.60	✓
	$Tl^{(2)}$	9 %	≤ 12 %	✓
	$R_{EI}^{(1)}$	0.63	–	

Results for observer

	Symbol	Calculated	Target	Check
Observer 1 Position: -60.000 m, 2.325 m, 1.500 m	$L_{av}^{(2)}$	1.31 cd/m ²	≥ 1.20 cd/m ²	✓
	U_o	0.50	≥ 0.40	✓
	U_l	0.66	≥ 0.60	✓
	$Tl^{(2)}$	7 %	≤ 12 %	✓
Observer 2 Position: -60.000 m, 5.975 m, 1.500 m	$L_{av}^{(2)}$	1.32 cd/m ²	≥ 1.20 cd/m ²	✓
	U_o	0.52	≥ 0.40	✓
	U_l	0.72	≥ 0.60	✓
	$Tl^{(2)}$	9 %	≤ 12 %	✓
Observer 3 Position: -60.000 m, 9.625 m, 1.500 m	$L_{av}^{(2)}$	1.32 cd/m ²	≥ 1.20 cd/m ²	✓
	U_o	0.52	≥ 0.40	✓
	U_l	0.72	≥ 0.60	✓
	$Tl^{(2)}$	9 %	≤ 12 %	✓

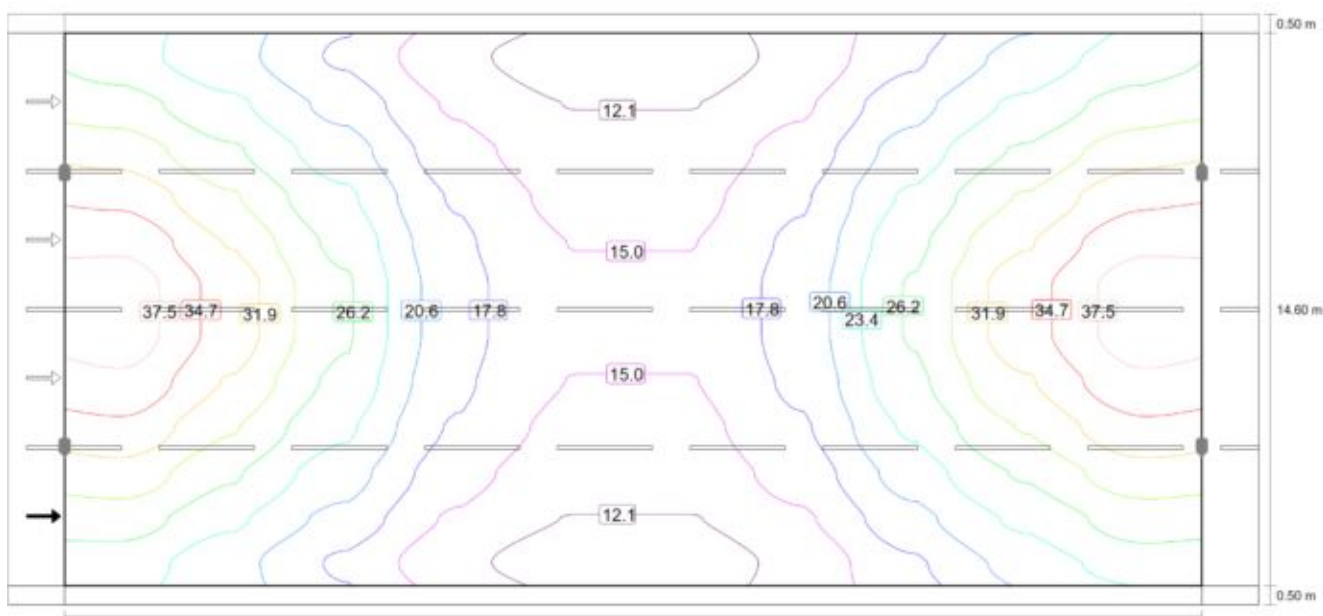
Street 1

Roadway 1 (M3)

	Symbol	Calculated	Target	Check
Observer 4 Position: -60.000 m, 13.275 m, 1.500 m	$L_{av}^{(2)}$	1.31 cd/m ²	$\geq 1.20 \text{ cd/m}^2$	✓
	U_o	0.50	≥ 0.40	✓
	U_l	0.66	≥ 0.60	✓
	$TI^{(2)}$	7 %	$\leq 12 \%$	✓

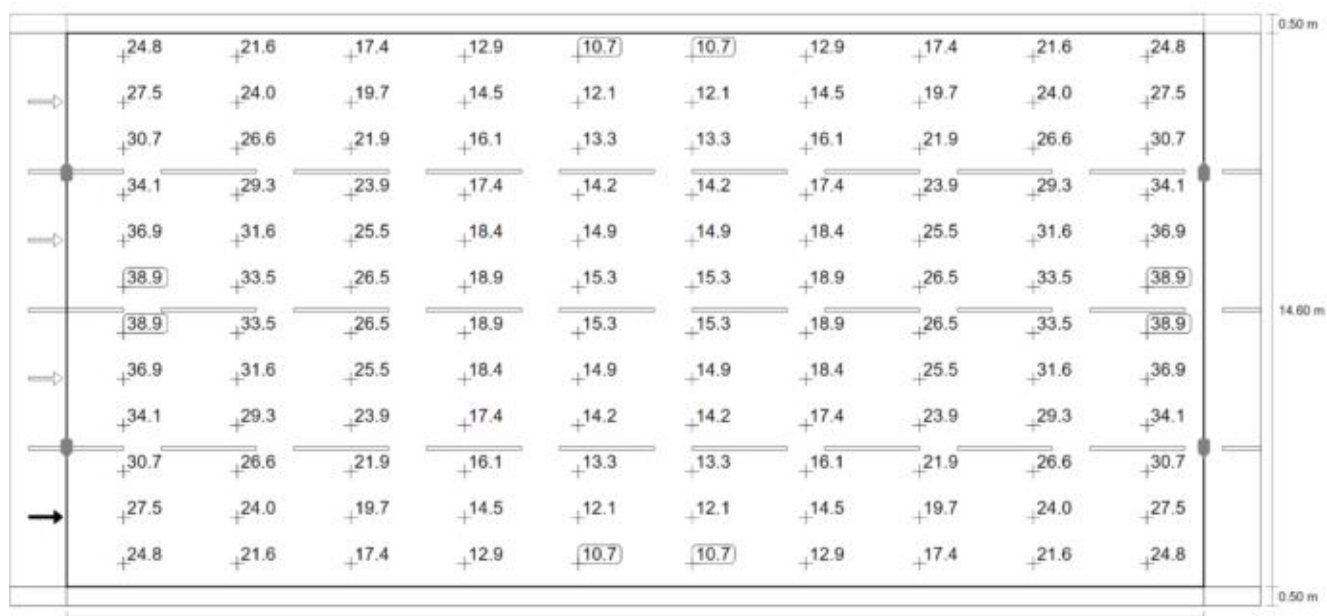
(1) Informative, not part of the valuation

(2) Setpoint changed by the planner, deviant to the norm



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

Street 1

Roadway 1 (M3)

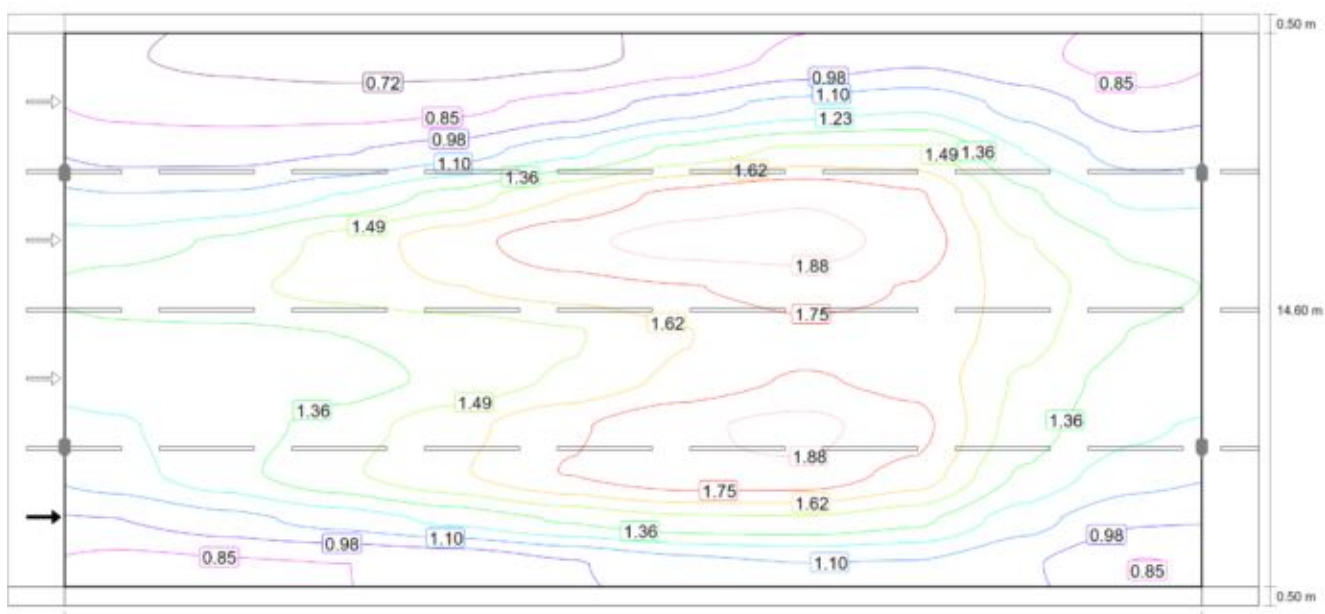
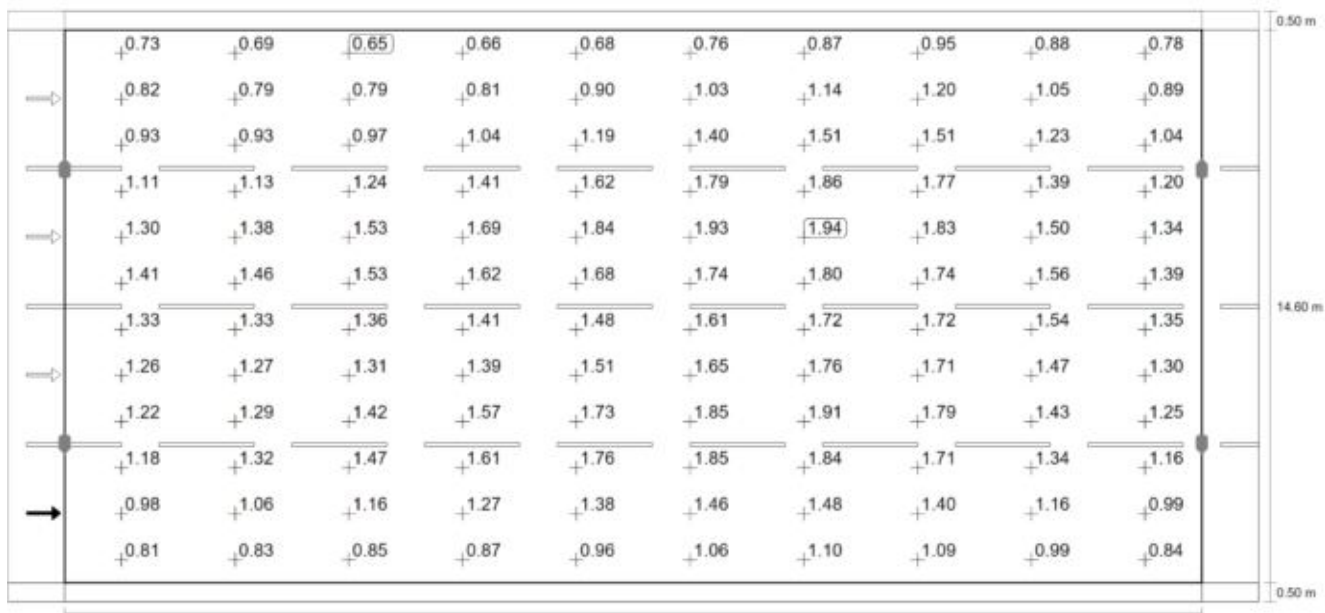
Maintenance value, horizontal illuminance [lx] (Value grid)

m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
14.492	24.75	21.59	17.36	12.90	10.73	10.73	12.90	17.36	21.59	24.75
13.275	27.55	23.99	19.71	14.52	12.07	12.07	14.52	19.71	23.99	27.55
12.058	30.74	26.58	21.87	16.11	13.28	13.28	16.11	21.87	26.58	30.74
10.842	34.06	29.27	23.89	17.43	14.23	14.23	17.43	23.89	29.27	34.06
9.625	36.93	31.65	25.50	18.35	14.91	14.91	18.35	25.50	31.65	36.93
8.408	38.91	33.49	26.50	18.92	15.27	15.27	18.92	26.50	33.49	38.91
7.192	38.91	33.49	26.50	18.92	15.27	15.27	18.92	26.50	33.49	38.91
5.975	36.93	31.65	25.50	18.35	14.91	14.91	18.35	25.50	31.65	36.93
4.758	34.06	29.27	23.89	17.43	14.23	14.23	17.43	23.89	29.27	34.06
3.542	30.74	26.58	21.87	16.11	13.28	13.28	16.11	21.87	26.58	30.74
2.325	27.55	23.99	19.71	14.52	12.07	12.07	14.52	19.71	23.99	27.55
1.108	24.75	21.59	17.36	12.90	10.73	10.73	12.90	17.36	21.59	24.75

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

	E_{av}	E_{min}	E_{max}	$U_o (g_1)$	g_2
Maintenance value, horizontal illuminance	22.4 lx	10.7 lx	38.9 lx	0.48	0.28

Street 1

Roadway 1 (M3)Observer 1: Maintenance value, luminance with dry roadway [cd/m^2] (Iso-illuminance curves)Observer 1: Maintenance value, luminance with dry roadway [cd/m^2] (Value grid)

m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
14.492	0.73	0.69	0.65	0.66	0.68	0.76	0.87	0.95	0.88	0.78
13.275	0.82	0.79	0.79	0.81	0.90	1.03	1.14	1.20	1.05	0.89
12.058	0.93	0.93	0.97	1.04	1.19	1.40	1.51	1.51	1.23	1.04

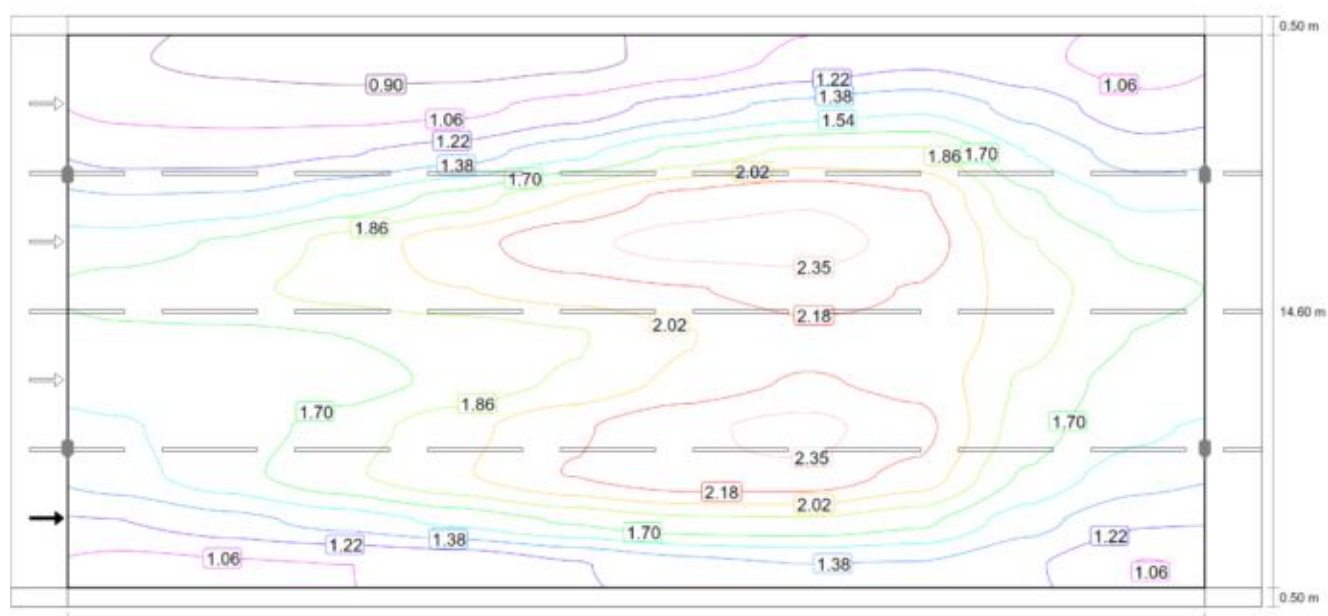
Street 1

Roadway 1 (M3)

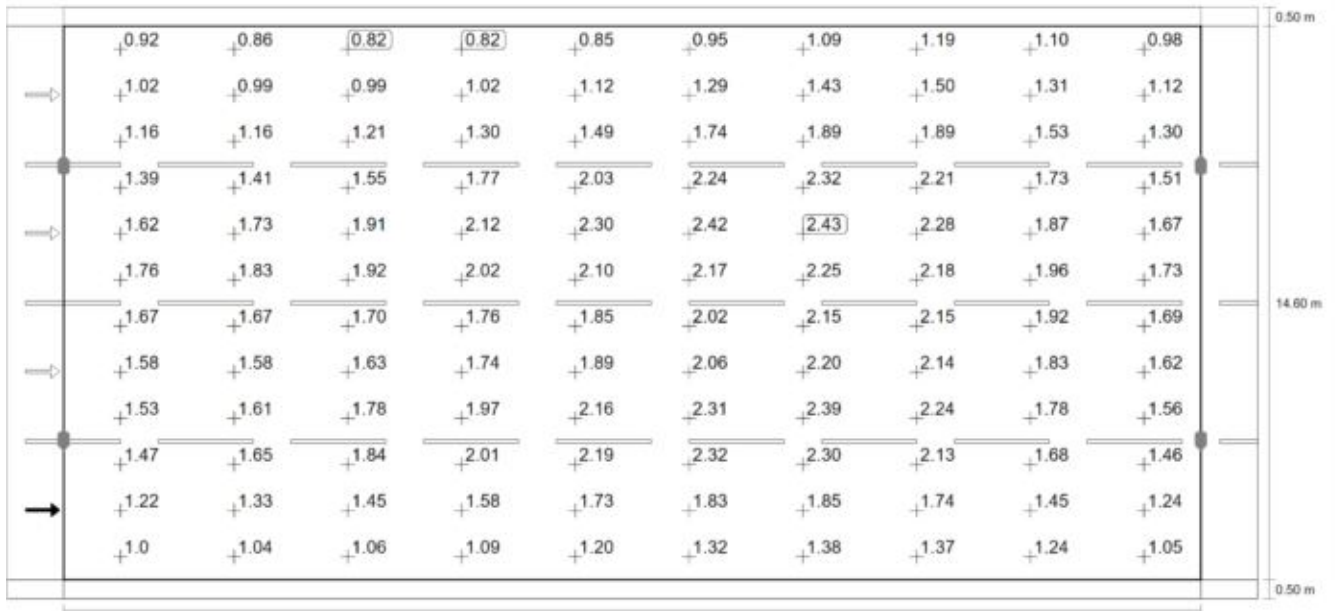
m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
10.842	1.11	1.13	1.24	1.41	1.62	1.79	1.86	1.77	1.39	1.20
9.625	1.30	1.38	1.53	1.69	1.84	1.93	1.94	1.83	1.50	1.34
8.408	1.41	1.46	1.53	1.62	1.68	1.74	1.80	1.74	1.56	1.39
7.192	1.33	1.33	1.36	1.41	1.48	1.61	1.72	1.72	1.54	1.35
5.975	1.26	1.27	1.31	1.39	1.51	1.65	1.76	1.71	1.47	1.30
4.758	1.22	1.29	1.42	1.57	1.73	1.85	1.91	1.79	1.43	1.25
3.542	1.18	1.32	1.47	1.61	1.76	1.85	1.84	1.71	1.34	1.16
2.325	0.98	1.06	1.16	1.27	1.38	1.46	1.48	1.40	1.16	0.99
1.108	0.81	0.83	0.85	0.87	0.96	1.06	1.10	1.09	0.99	0.84

Observer 1: Maintenance value, luminance with dry roadway [cd/m^2] (Value chart)

	L_{av}	L_{min}	L_{max}	$U_o (g_1)$	g_2
Observer 1: Maintenance value, luminance with dry roadway	1.31 cd/m^2	0.65 cd/m^2	1.94 cd/m^2	0.50	0.34

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

Street 1

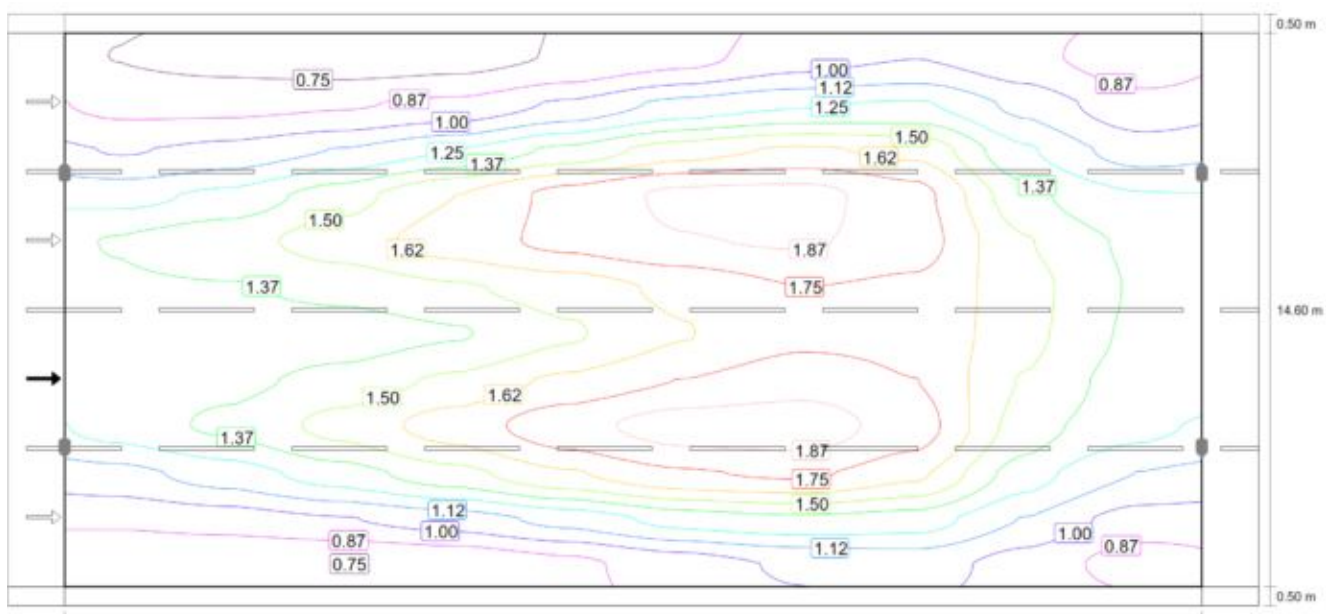
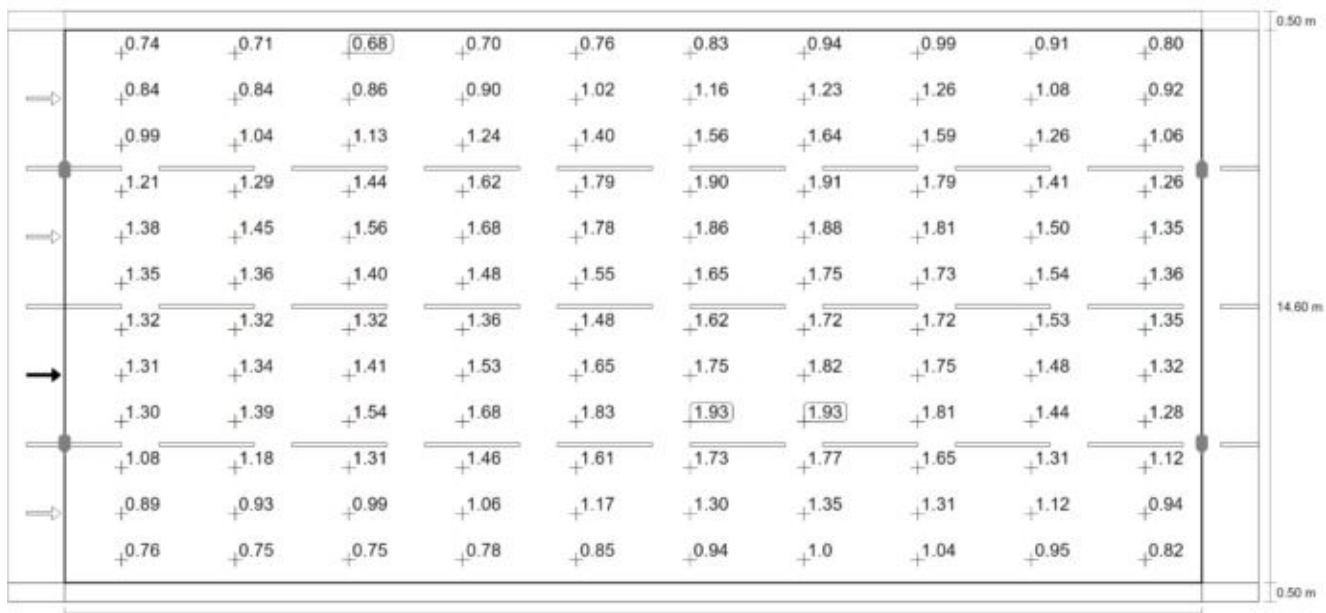
Roadway 1 (M3)Observer 1: Luminance with new installation [cd/m²] (Value grid)

m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
14.492	0.92	0.86	0.82	0.82	0.85	0.95	1.09	1.19	1.10	0.98
13.275	1.02	0.99	0.99	1.02	1.12	1.29	1.43	1.50	1.31	1.12
12.058	1.16	1.16	1.21	1.30	1.49	1.74	1.89	1.89	1.53	1.30
10.842	1.39	1.41	1.55	1.77	2.03	2.24	2.32	2.21	1.73	1.51
9.625	1.62	1.73	1.91	2.12	2.30	2.42	2.43	2.28	1.87	1.67
8.408	1.76	1.83	1.92	2.02	2.10	2.17	2.25	2.18	1.96	1.73
7.192	1.67	1.67	1.70	1.76	1.85	2.02	2.15	2.15	1.92	1.69
5.975	1.58	1.58	1.63	1.74	1.89	2.06	2.20	2.14	1.83	1.62
4.758	1.53	1.61	1.78	1.97	2.16	2.31	2.39	2.24	1.78	1.56
3.542	1.47	1.65	1.84	2.01	2.19	2.32	2.30	2.13	1.68	1.46
2.325	1.22	1.33	1.45	1.58	1.73	1.83	1.85	1.74	1.45	1.24
1.108	1.01	1.04	1.06	1.09	1.20	1.32	1.38	1.37	1.24	1.05

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	1.64 cd/m ²	0.82 cd/m ²	2.43 cd/m ²	0.50	0.34

Street 1

Roadway 1 (M3)Observer 2: Maintenance value, luminance with dry roadway [cd/m^2] (Iso-illuminance curves)Observer 2: Maintenance value, luminance with dry roadway [cd/m^2] (Value grid)

m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
14.492	0.74	0.71	0.68	0.70	0.76	0.83	0.94	0.99	0.91	0.80
13.275	0.84	0.84	0.86	0.90	1.02	1.16	1.23	1.26	1.08	0.92
12.058	0.99	1.04	1.13	1.24	1.40	1.56	1.64	1.59	1.26	1.06

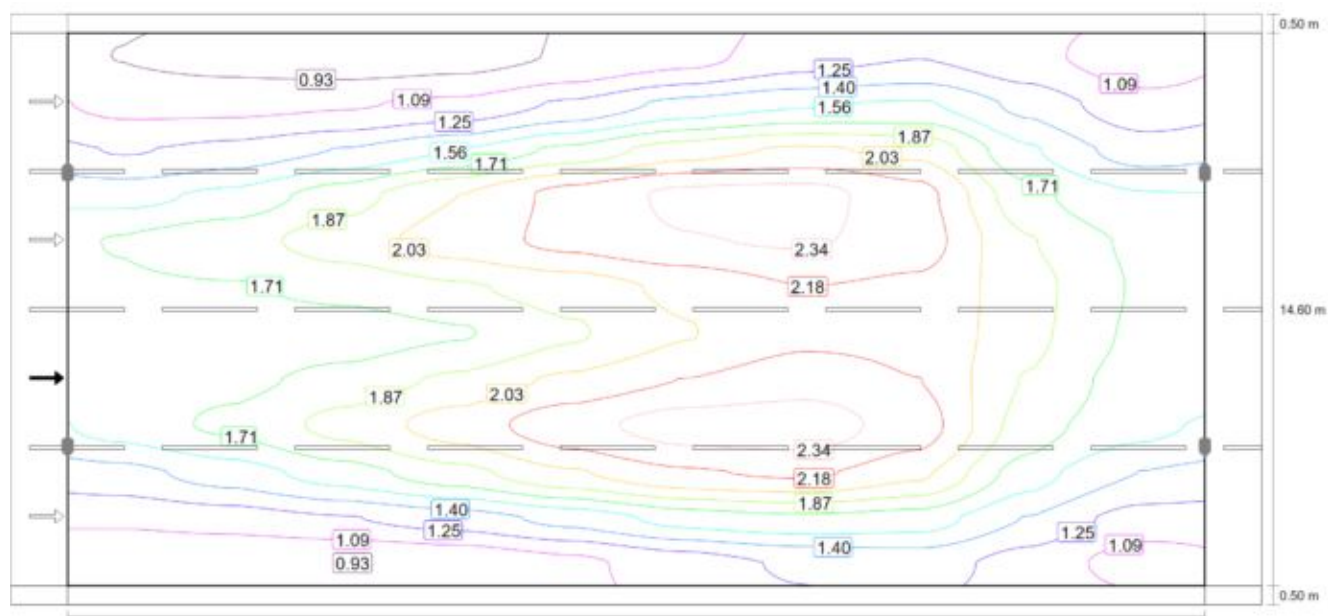
Street 1

Roadway 1 (M3)

m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
10.842	1.21	1.29	1.44	1.62	1.79	1.90	1.91	1.79	1.41	1.26
9.625	1.38	1.45	1.56	1.68	1.78	1.86	1.88	1.81	1.50	1.35
8.408	1.35	1.36	1.40	1.48	1.55	1.65	1.75	1.73	1.54	1.36
7.192	1.32	1.32	1.32	1.36	1.48	1.62	1.72	1.72	1.53	1.35
5.975	1.31	1.34	1.41	1.53	1.65	1.75	1.82	1.75	1.48	1.32
4.758	1.30	1.39	1.54	1.68	1.83	1.93	1.93	1.81	1.44	1.28
3.542	1.08	1.18	1.31	1.46	1.61	1.73	1.77	1.65	1.31	1.12
2.325	0.89	0.93	0.99	1.06	1.17	1.30	1.35	1.31	1.12	0.94
1.108	0.76	0.75	0.75	0.78	0.85	0.94	1.01	1.04	0.95	0.82

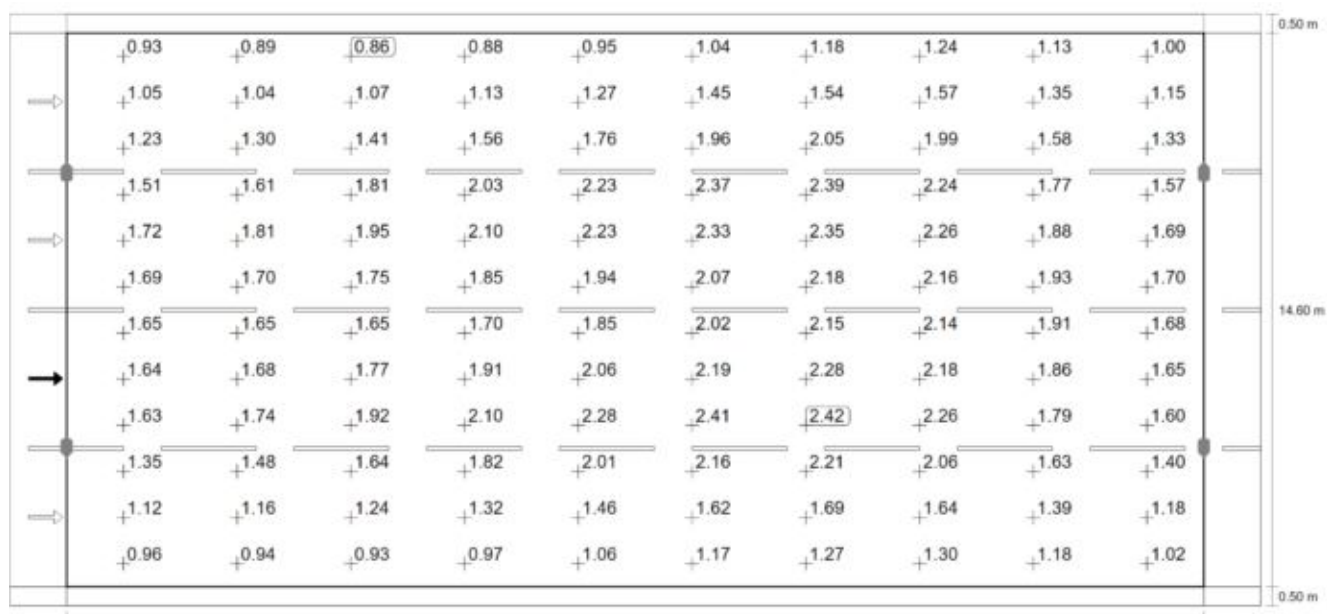
Observer 2: Maintenance value, luminance with dry roadway [cd/m^2] (Value chart)

	L_{av}	L_{min}	L_{max}	$U_o (g_1)$	g_2
Observer 2: Maintenance value, luminance with dry roadway	1.32 cd/m^2	0.68 cd/m^2	1.93 cd/m^2	0.52	0.35

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

Street 1

Roadway 1 (M3)



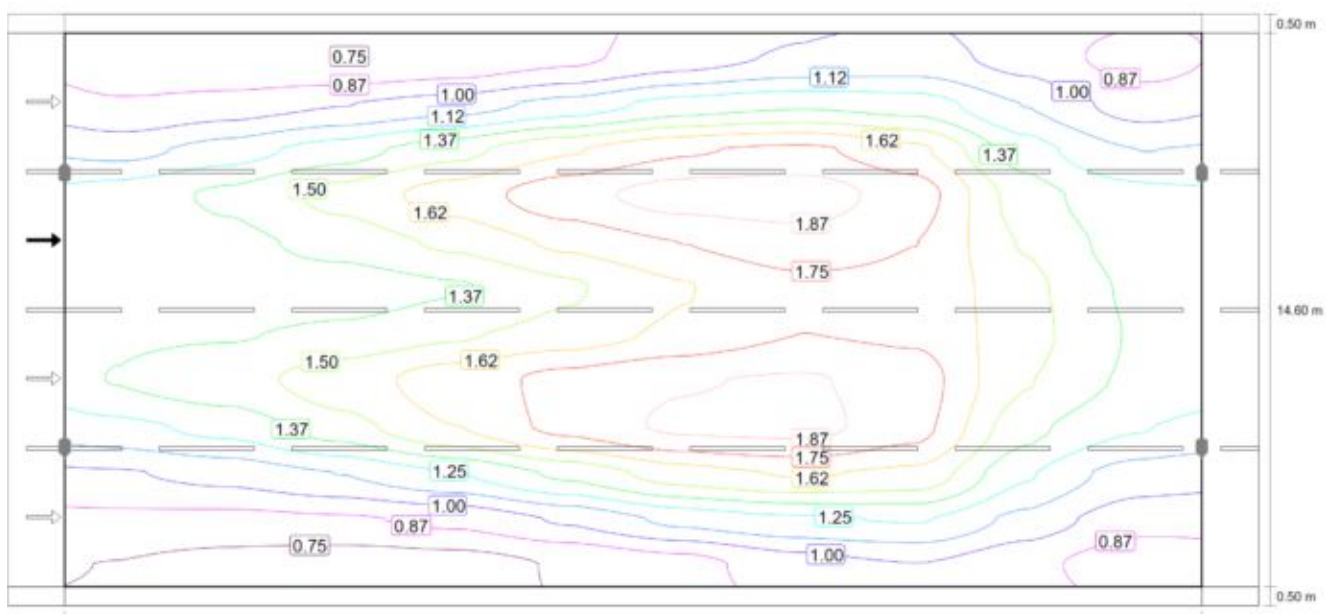
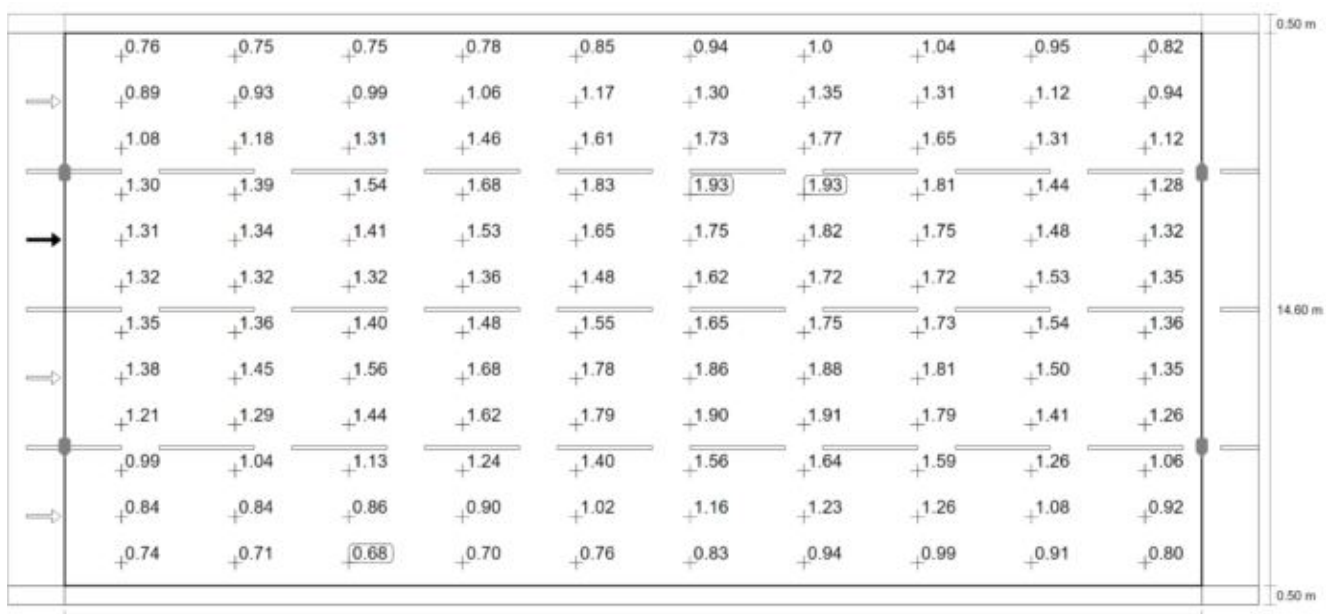
Observer 2: Luminance with new installation [cd/m²] (Value grid)

m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
14.492	0.93	0.89	0.86	0.88	0.95	1.04	1.18	1.24	1.13	1.00
13.275	1.05	1.04	1.07	1.13	1.27	1.45	1.54	1.57	1.35	1.15
12.058	1.23	1.30	1.41	1.56	1.76	1.96	2.05	1.99	1.58	1.33
10.842	1.51	1.61	1.81	2.03	2.23	2.37	2.39	2.24	1.77	1.57
9.625	1.72	1.81	1.95	2.10	2.23	2.33	2.35	2.26	1.88	1.69
8.408	1.69	1.70	1.75	1.85	1.94	2.07	2.18	2.16	1.93	1.70
7.192	1.65	1.65	1.65	1.70	1.85	2.02	2.15	2.14	1.91	1.68
5.975	1.64	1.68	1.77	1.91	2.06	2.19	2.28	2.18	1.86	1.65
4.758	1.63	1.74	1.92	2.10	2.28	2.41	2.42	2.26	1.79	1.60
3.542	1.35	1.48	1.64	1.82	2.01	2.16	2.21	2.06	1.63	1.40
2.325	1.12	1.16	1.24	1.32	1.46	1.62	1.69	1.64	1.39	1.18
1.108	0.96	0.94	0.93	0.97	1.06	1.17	1.27	1.30	1.18	1.02

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	1.65 cd/m²	0.86 cd/m²	2.42 cd/m²	0.52	0.35

Street 1

Roadway 1 (M3)Observer 3: Maintenance value, luminance with dry roadway [cd/m^2] (Iso-illuminance curves)Observer 3: Maintenance value, luminance with dry roadway [cd/m^2] (Value grid)

m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
14.492	0.76	0.75	0.75	0.78	0.85	0.94	1.01	1.04	0.95	0.82
13.275	0.89	0.93	0.99	1.06	1.17	1.30	1.35	1.31	1.12	0.94
12.058	1.08	1.18	1.31	1.46	1.61	1.73	1.77	1.65	1.31	1.12

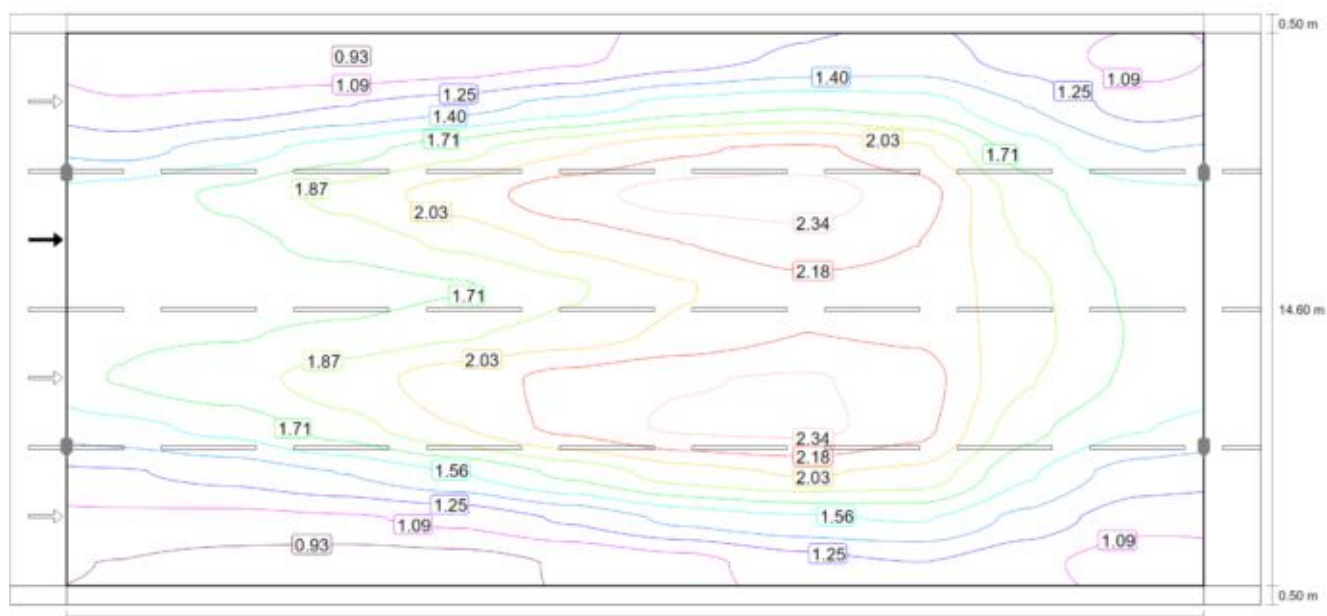
Street 1

Roadway 1 (M3)

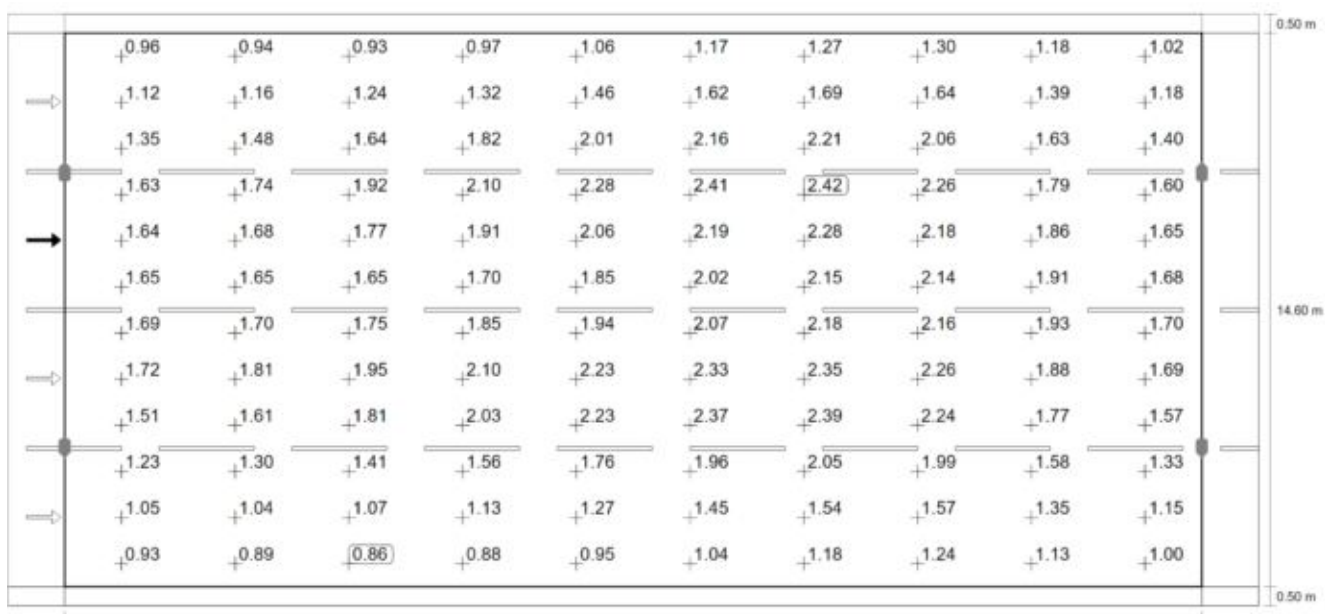
m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
10.842	1.30	1.39	1.54	1.68	1.83	1.93	1.93	1.81	1.44	1.28
9.625	1.31	1.34	1.41	1.53	1.65	1.75	1.82	1.75	1.48	1.32
8.408	1.32	1.32	1.32	1.36	1.48	1.62	1.72	1.72	1.53	1.35
7.192	1.35	1.36	1.40	1.48	1.55	1.65	1.75	1.73	1.54	1.36
5.975	1.38	1.45	1.56	1.68	1.78	1.86	1.88	1.81	1.50	1.35
4.758	1.21	1.29	1.44	1.62	1.79	1.90	1.91	1.79	1.41	1.26
3.542	0.99	1.04	1.13	1.24	1.40	1.56	1.64	1.59	1.26	1.06
2.325	0.84	0.84	0.86	0.90	1.02	1.16	1.23	1.26	1.08	0.92
1.108	0.74	0.71	0.68	0.70	0.76	0.83	0.94	0.99	0.91	0.80

Observer 3: Maintenance value, luminance with dry roadway [cd/m^2] (Value chart)

	L_{av}	L_{min}	L_{max}	$U_o (g_1)$	g_2
Observer 3: Maintenance value, luminance with dry roadway	1.32 cd/m^2	0.68 cd/m^2	1.93 cd/m^2	0.52	0.35

Observer 3: Luminance with new installation [cd/m^2] (Iso-illuminance curves)

Street 1

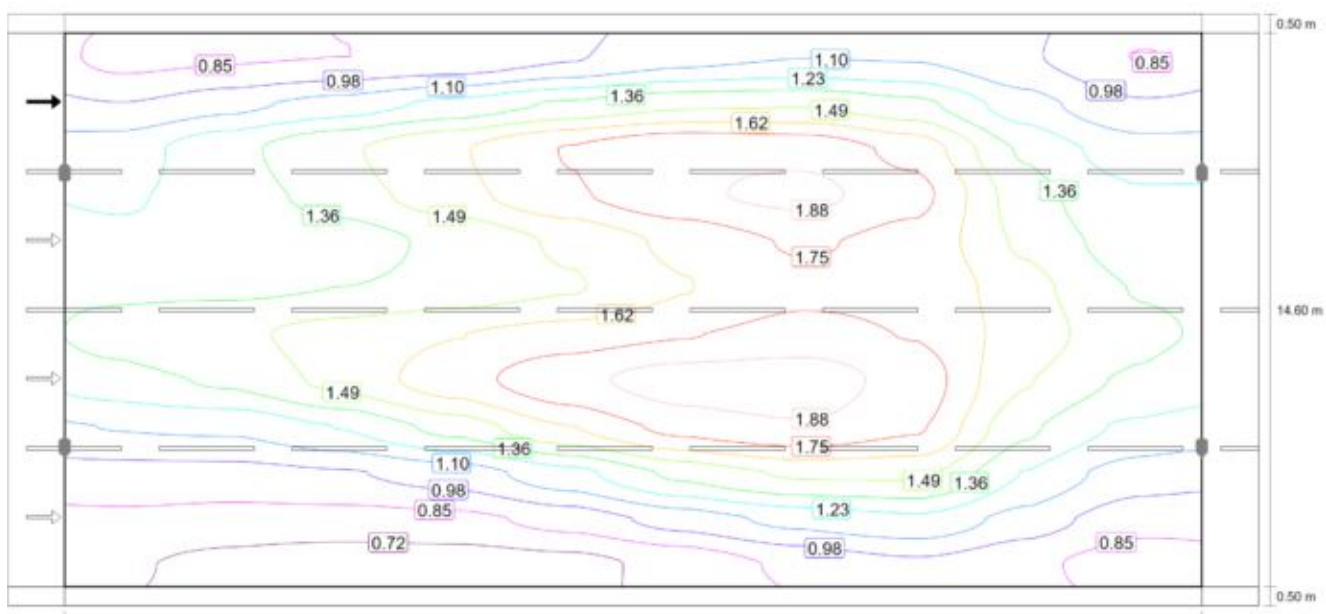
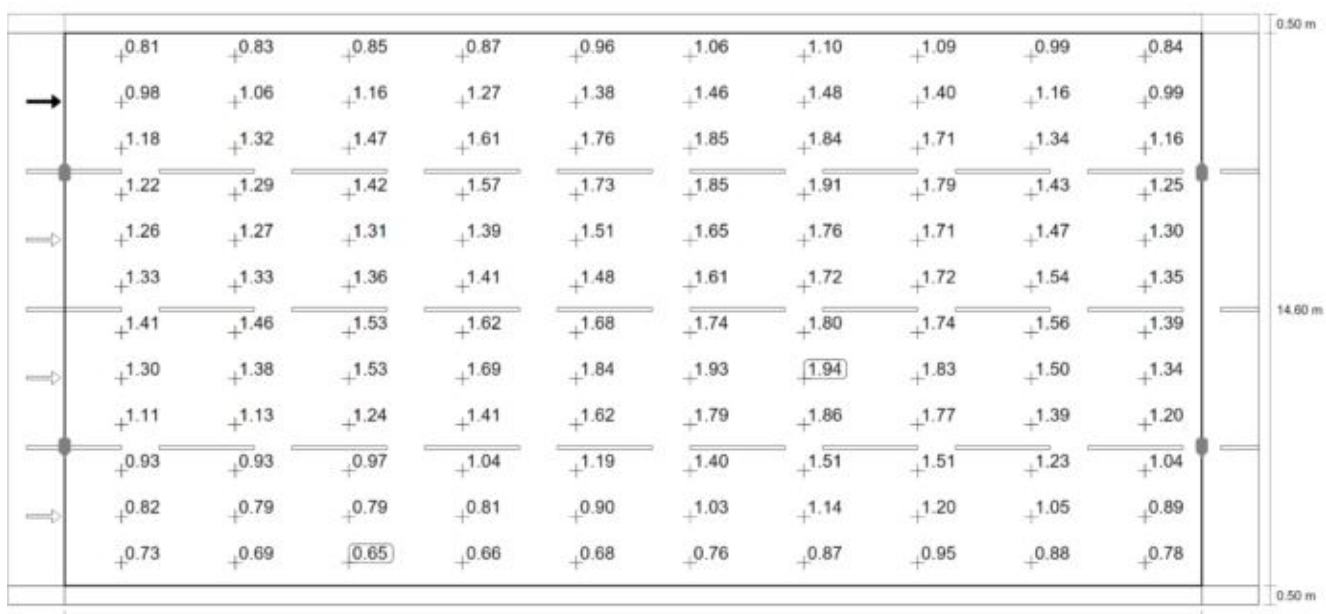
Roadway 1 (M3)Observer 3: Luminance with new installation [cd/m²] (Value grid)

m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
14.492	0.96	0.94	0.93	0.97	1.06	1.17	1.27	1.30	1.18	1.02
13.275	1.12	1.16	1.24	1.32	1.46	1.62	1.69	1.64	1.39	1.18
12.058	1.35	1.48	1.64	1.82	2.01	2.16	2.21	2.06	1.63	1.40
10.842	1.63	1.74	1.92	2.10	2.28	2.41	2.42	2.26	1.79	1.60
9.625	1.64	1.68	1.77	1.91	2.06	2.19	2.28	2.18	1.86	1.65
8.408	1.65	1.65	1.65	1.70	1.85	2.02	2.15	2.14	1.91	1.68
7.192	1.69	1.70	1.75	1.85	1.94	2.07	2.18	2.16	1.93	1.70
5.975	1.72	1.81	1.95	2.10	2.23	2.33	2.35	2.26	1.88	1.69
4.758	1.51	1.61	1.81	2.03	2.23	2.37	2.39	2.24	1.77	1.57
3.542	1.23	1.30	1.41	1.56	1.76	1.96	2.05	1.99	1.58	1.33
2.325	1.05	1.04	1.07	1.13	1.27	1.45	1.54	1.57	1.35	1.15
1.108	0.93	0.89	0.86	0.88	0.95	1.04	1.18	1.24	1.13	1.00

Observer 3: Luminance with new installation [cd/m²] (Value chart)

	L _{av}	L _{min}	L _{max}	U _o (g ₁)	g ₂
Observer 3: Luminance with new installation	1.65 cd/m ²	0.86 cd/m ²	2.42 cd/m ²	0.52	0.35

Street 1

Roadway 1 (M3)Observer 4: Maintenance value, luminance with dry roadway [cd/m^2] (Iso-illuminance curves)Observer 4: Maintenance value, luminance with dry roadway [cd/m^2] (Value grid)

m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
14.492	0.81	0.83	0.85	0.87	0.96	1.06	1.10	1.09	0.99	0.84
13.275	0.98	1.06	1.16	1.27	1.38	1.46	1.48	1.40	1.16	0.99
12.058	1.18	1.32	1.47	1.61	1.76	1.85	1.84	1.71	1.34	1.16

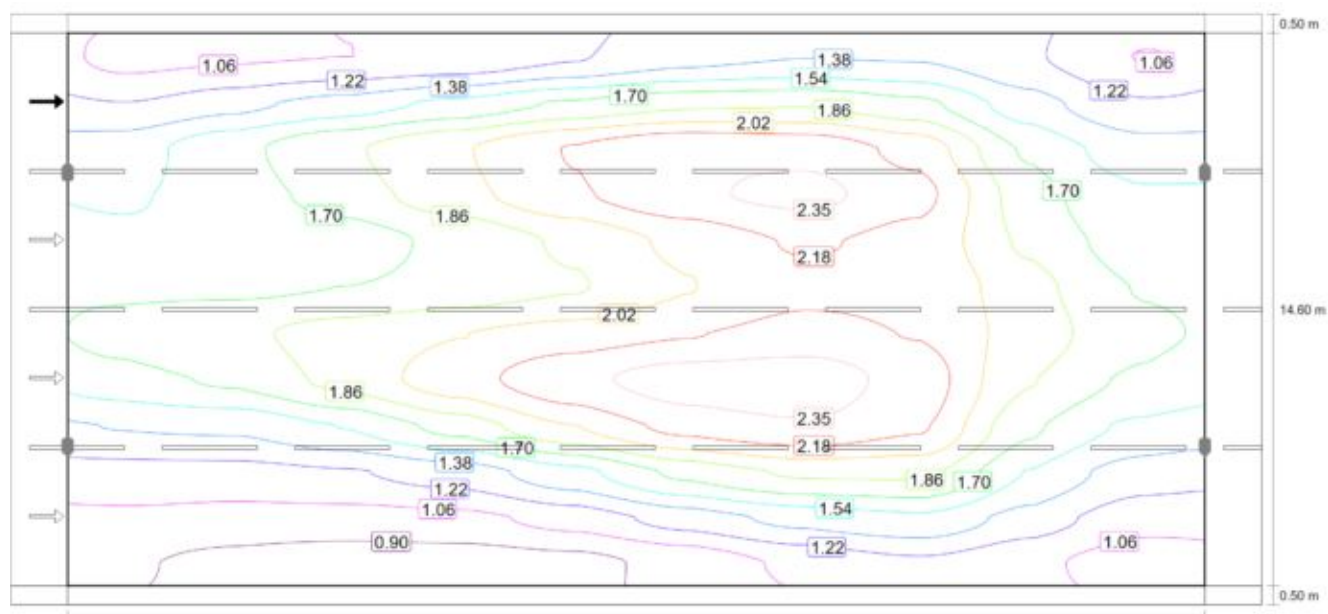
Street 1

Roadway 1 (M3)

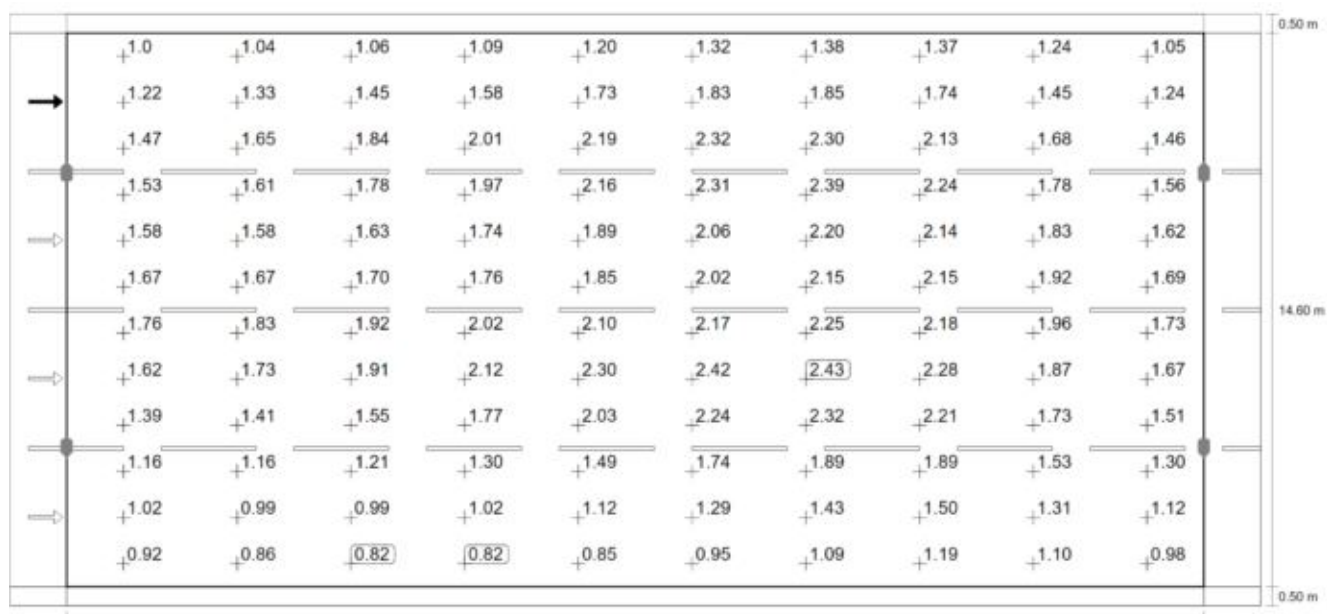
m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
10.842	1.22	1.29	1.42	1.57	1.73	1.85	1.91	1.79	1.43	1.25
9.625	1.26	1.27	1.31	1.39	1.51	1.65	1.76	1.71	1.47	1.30
8.408	1.33	1.33	1.36	1.41	1.48	1.61	1.72	1.72	1.54	1.35
7.192	1.41	1.46	1.53	1.62	1.68	1.74	1.80	1.74	1.56	1.39
5.975	1.30	1.38	1.53	1.69	1.84	1.93	1.94	1.83	1.50	1.34
4.758	1.11	1.13	1.24	1.41	1.62	1.79	1.86	1.77	1.39	1.20
3.542	0.93	0.93	0.97	1.04	1.19	1.40	1.51	1.51	1.23	1.04
2.325	0.82	0.79	0.79	0.81	0.90	1.03	1.14	1.20	1.05	0.89
1.108	0.73	0.69	0.65	0.66	0.68	0.76	0.87	0.95	0.88	0.78

Observer 4: Maintenance value, luminance with dry roadway [cd/m^2] (Value chart)

	L_{av}	L_{min}	L_{max}	$U_o (g_1)$	g_2
Observer 4: Maintenance value, luminance with dry roadway	1.31 cd/m^2	0.65 cd/m^2	1.94 cd/m^2	0.50	0.34

Observer 4: Luminance with new installation [cd/m^2] (Iso-illuminance curves)

Street 1

Roadway 1 (M3)

Observer 4: Luminance with new installation [cd/m²] (Value grid)

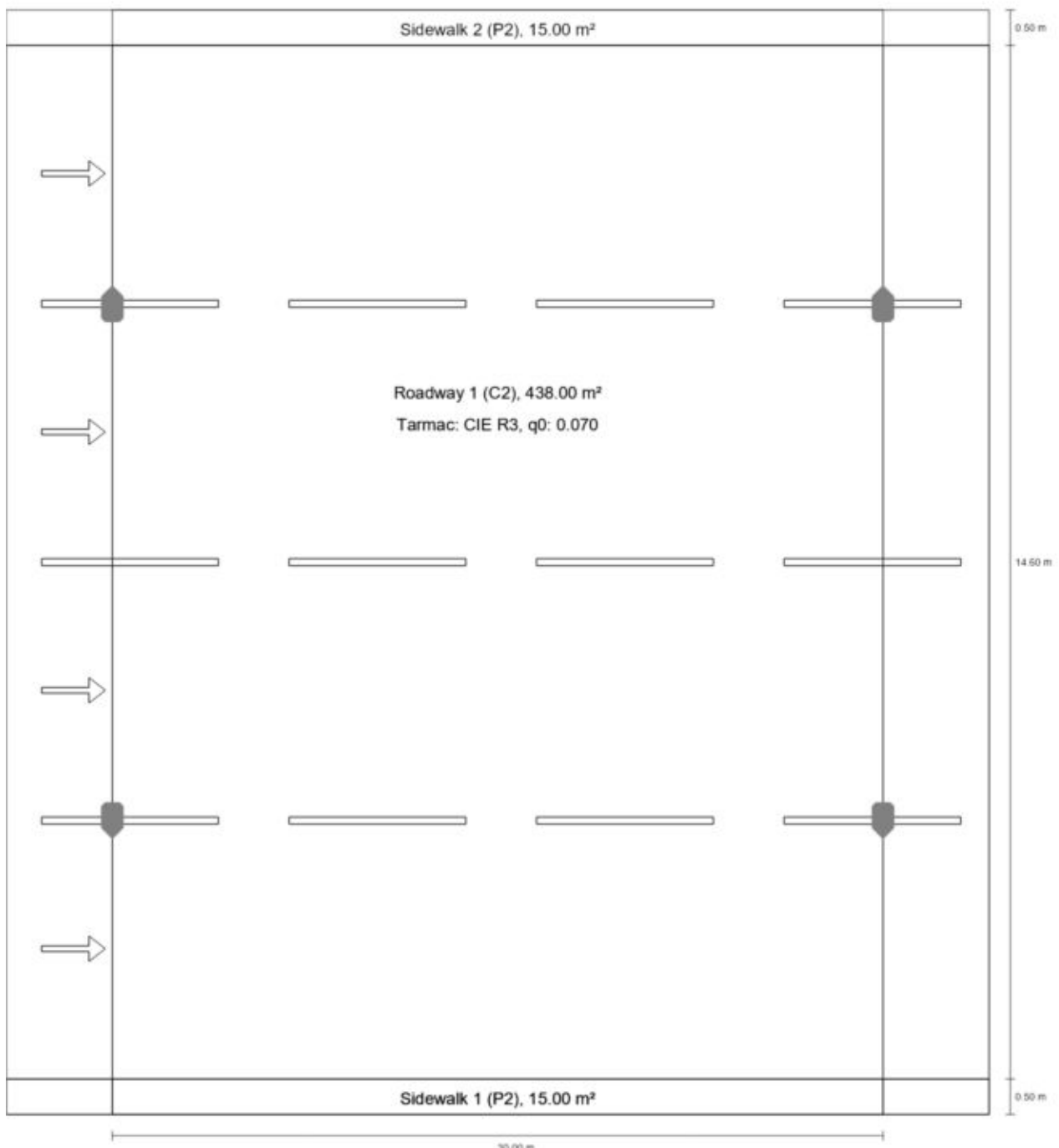
m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
14.492	1.01	1.04	1.06	1.09	1.20	1.32	1.38	1.37	1.24	1.05
13.275	1.22	1.33	1.45	1.58	1.73	1.83	1.85	1.74	1.45	1.24
12.058	1.47	1.65	1.84	2.01	2.19	2.32	2.30	2.13	1.68	1.46
10.842	1.53	1.61	1.78	1.97	2.16	2.31	2.39	2.24	1.78	1.56
9.625	1.58	1.58	1.63	1.74	1.89	2.06	2.20	2.14	1.83	1.62
8.408	1.67	1.67	1.70	1.76	1.85	2.02	2.15	2.15	1.92	1.69
7.192	1.76	1.83	1.92	2.02	2.10	2.17	2.25	2.18	1.96	1.73
5.975	1.62	1.73	1.91	2.12	2.30	2.42	2.43	2.28	1.87	1.67
4.758	1.39	1.41	1.55	1.77	2.03	2.24	2.32	2.21	1.73	1.51
3.542	1.16	1.16	1.21	1.30	1.49	1.74	1.89	1.89	1.53	1.30
2.325	1.02	0.99	0.99	1.02	1.12	1.29	1.43	1.50	1.31	1.12
1.108	0.92	0.86	0.82	0.82	0.85	0.95	1.09	1.19	1.10	0.98

Observer 4: Luminance with new installation [cd/m²] (Value chart)

	L _{av}	L _{min}	L _{max}	U _o (g ₁)	g ₂
Observer 4: Luminance with new installation	1.64 cd/m²	0.82 cd/m²	2.43 cd/m²	0.50	0.34

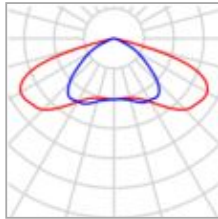
Street 2

Summary (according to EN 13201:2015)



Street 2

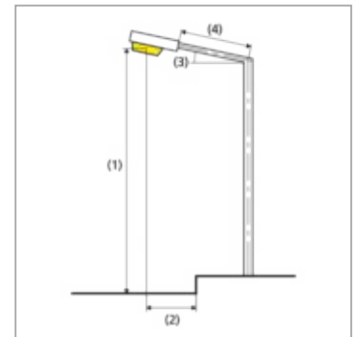
Summary (according to EN 13201:2015)



Manufacturer	Vizulo	P	60.0 W
Article No.	6000540138 LWHE 060 730 L38 AB032	Φ_{Lamp}	9000 lm
Article name	Lapwing 60 W 32 LED	$\Phi_{\text{Luminaire}}$	9000 lm
Fitting	1x 32 LED MOD AB	η	100.00 %

Lapwing 60 W 32 LED (both sides opposite)

Pole distance	30.000 m
(1) Light spot height	8.000 m
(2) Light point overhang	3.650 m
(3) Boom inclination	0.0°
(4) Boom length	0.000 m
Annual operating hours	4000 h: 100.0 %, 60.0 W
Wattage / route	3960.0 W/km
ULR / ULOR	0.00 / 0.00
Max. luminous intensities	$\geq 70^\circ$: 274 cd/klm $\geq 80^\circ$: 12.6 cd/klm $\geq 90^\circ$: 0.00 cd/klm
Luminous intensity class	G*6
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.	
Glare index class	D.6
MF	0.80



Street 2

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
Sidewalk 2 (P2)	$E_{av}^{(1)}$	15.81 lx	–	
	$E_{min}^{(1)}$	9.36 lx	–	
Roadway 1 (C2)	E_{av}	22.44 lx	≥ 20.00 lx	✓
	$U_o^{(2)}$	0.48	≥ 0.35	✓
Sidewalk 1 (P2)	$E_{av}^{(1)}$	15.81 lx	–	
	$E_{min}^{(1)}$	9.36 lx	–	

(1) Informative, not part of the valuation

(2) Setpoint changed by the planner, deviant to the norm

Results for energy efficiency indicators

	Symbol	Calculated	Energy Consumption
Street 2	D_p	0.012 W/lx*m ²	–
Lapwing 60 W 32 LED (both sides opposite)	D_e	1.0 kWh/m ² yr	480.0 kWh/yr

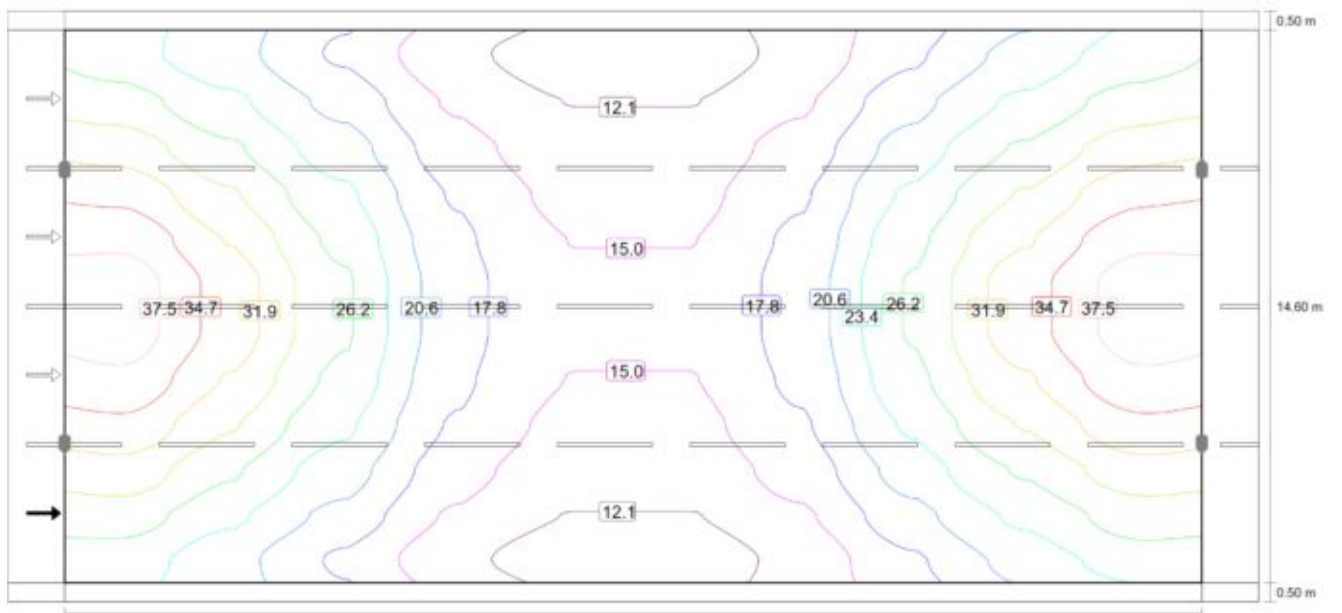
Street 2

Roadway 1 (C2)

Results for valuation field

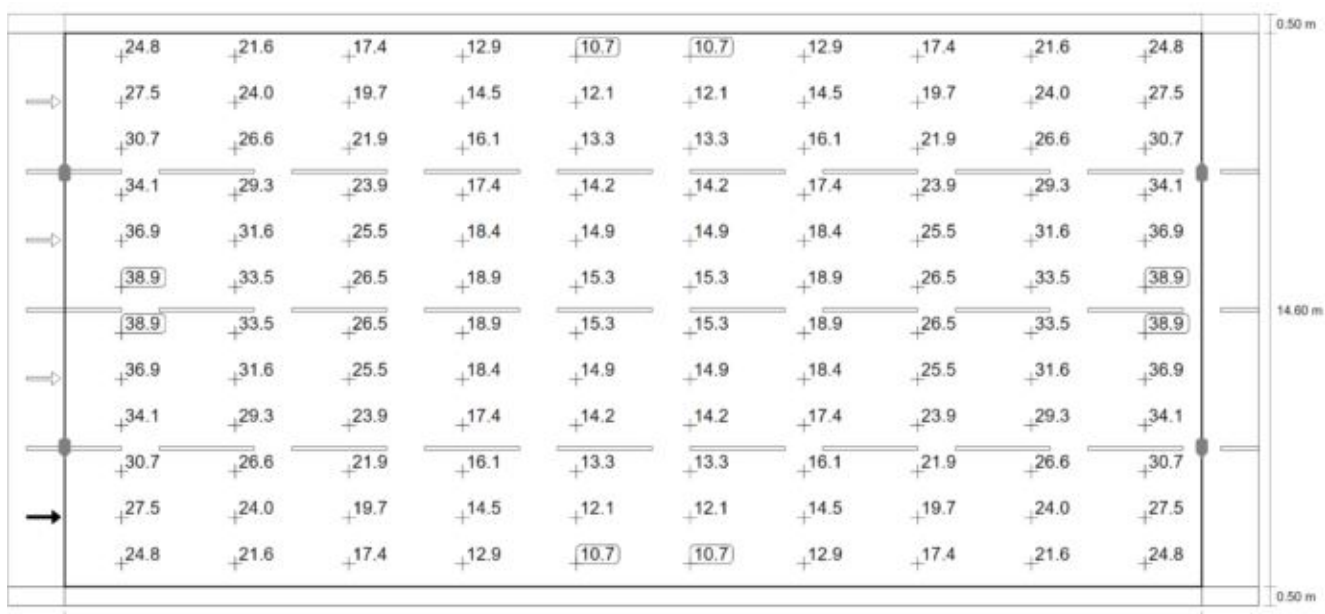
	Symbol	Calculated	Target	Check
Roadway 1 (C2)	E_{av}	22.44 lx	≥ 20.00 lx	✓
	$U_o^{(2)}$	0.48	≥ 0.35	✓

(2) Setpoint changed by the planner, deviant to the norm



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

Street 2

Roadway 1 (C2)

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

m	1.500	4.500	7.500	10.500	13.500	16.500	19.500	22.500	25.500	28.500
14.492	24.75	21.59	17.36	12.90	10.73	10.73	12.90	17.36	21.59	24.75
13.275	27.55	23.99	19.71	14.52	12.07	12.07	14.52	19.71	23.99	27.55
12.058	30.74	26.58	21.87	16.11	13.28	13.28	16.11	21.87	26.58	30.74
10.842	34.06	29.27	23.89	17.43	14.23	14.23	17.43	23.89	29.27	34.06
9.625	36.93	31.65	25.50	18.35	14.91	14.91	18.35	25.50	31.65	36.93
8.408	38.91	33.49	26.50	18.92	15.27	15.27	18.92	26.50	33.49	38.91
7.192	38.91	33.49	26.50	18.92	15.27	15.27	18.92	26.50	33.49	38.91
5.975	36.93	31.65	25.50	18.35	14.91	14.91	18.35	25.50	31.65	36.93
4.758	34.06	29.27	23.89	17.43	14.23	14.23	17.43	23.89	29.27	34.06
3.542	30.74	26.58	21.87	16.11	13.28	13.28	16.11	21.87	26.58	30.74
2.325	27.55	23.99	19.71	14.52	12.07	12.07	14.52	19.71	23.99	27.55
1.108	24.75	21.59	17.36	12.90	10.73	10.73	12.90	17.36	21.59	24.75

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

	E_{av}	E_{min}	E_{max}	$U_o (g_1)$	g_2
Maintenance value, horizontal illuminance	22.4 lx	10.7 lx	38.9 lx	0.48	0.28