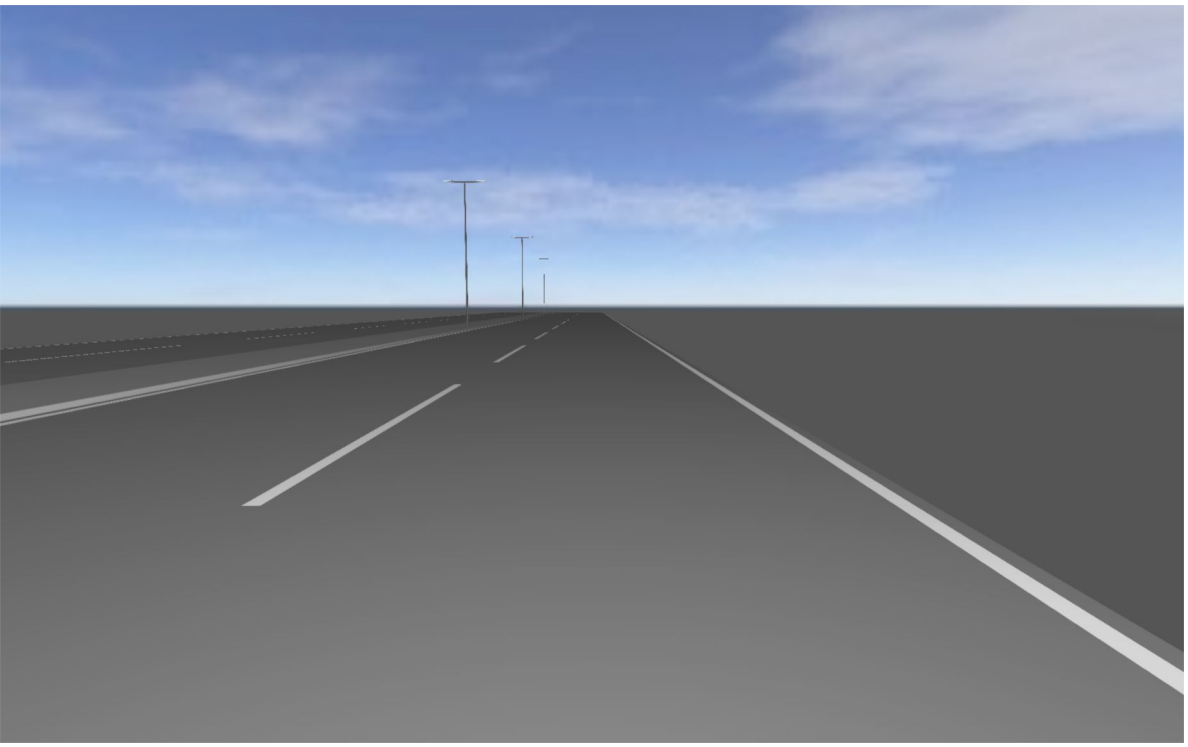


Drum principal 11m x 3m x 11m - Tronson 1 - Sector 3

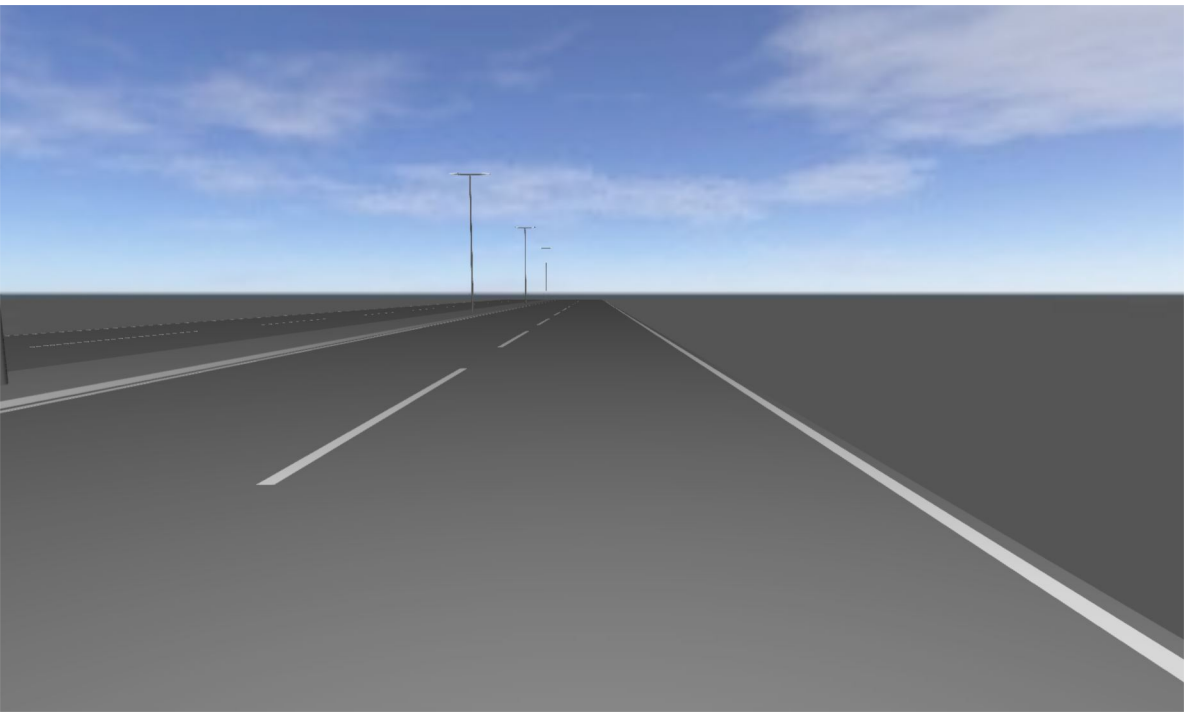
Created with DIALux

Cuprins

Pagină titlu 1
Cuprins 2
Descriere 3
Imagini 4

Street 1 · Alternative 1

Rezumat (până la EN 13201:2015) 5
Roadway 2 (M2) 8
Roadway 1 (M2) 19



Descriere

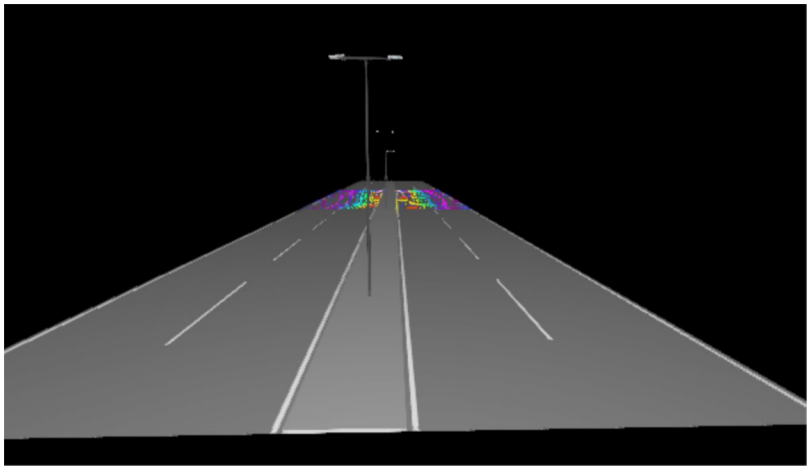
Calcul realizat in conformitate cu standardul SR EN 13201-2:2015

Clasa de iluminat: ME2
MF: 0.80
Date proiectare:
- aranjament: median
- distanta intre stalpi: 40m
- inaltimea de montaj a corpului: 11m
- retragere stalp: 1.5m
- lungime consola: 1m
- unghi de inclinare corp: 0 grd

DIALux

Imagini

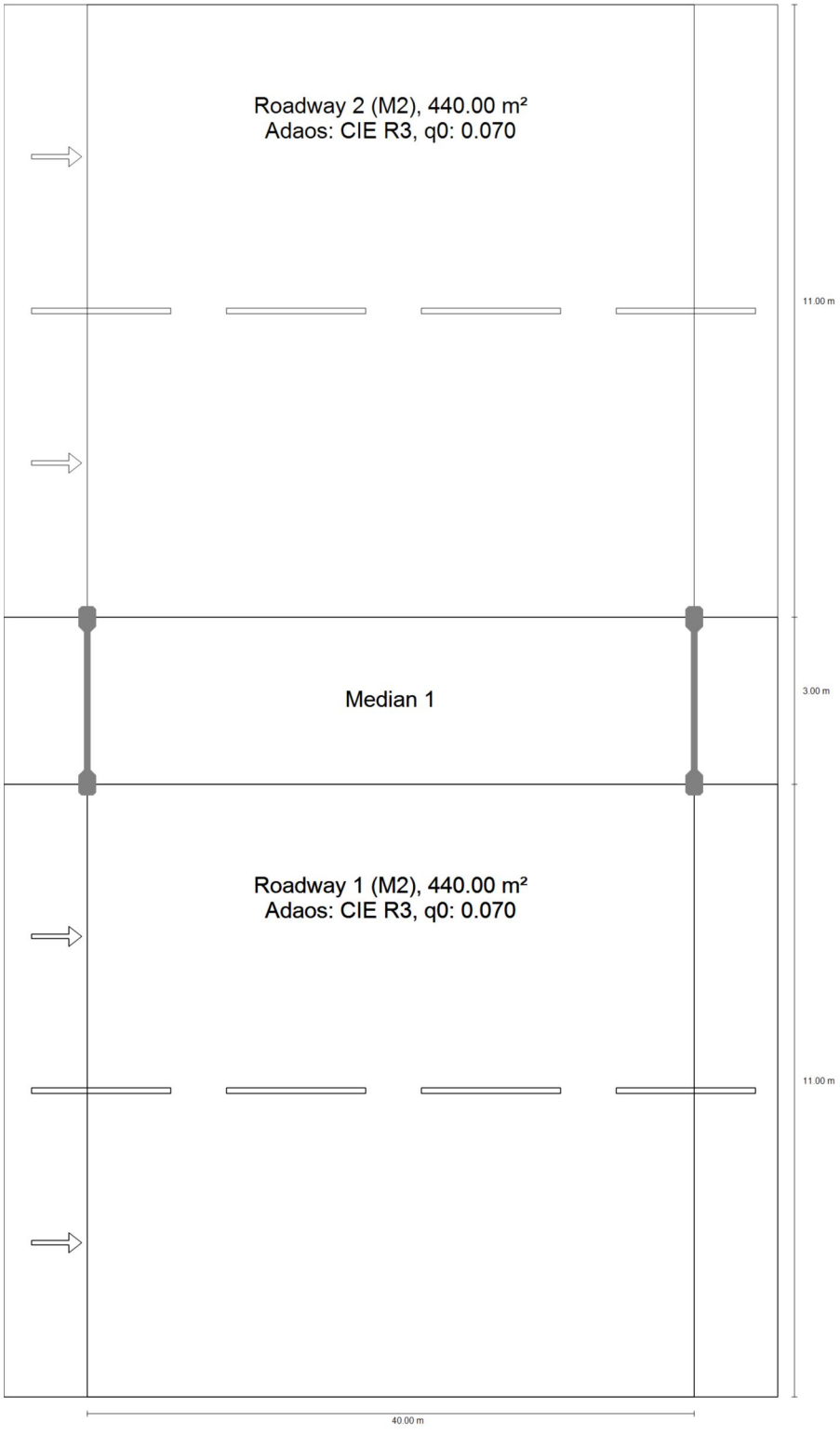
Road scene 1 (6)



DIALux

Street 1

Rezumat (până la EN 13201:2015)

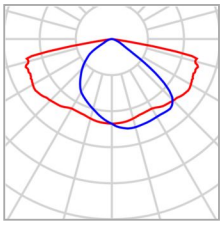


DIALux

Street 1

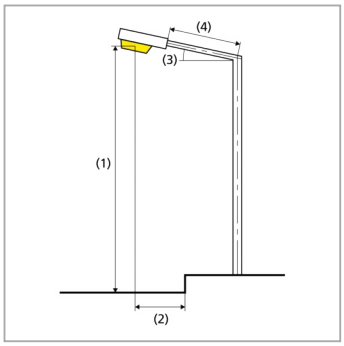
Rezumat (până la EN 13201:2015)





Producător	PHILIPS	P	126.0 W
Nume articol	BGP704 1 xLED210-4S/740 DM11	$\Phi_{Lampă}$	21000 lm
Dotare	1x LED210-4S/740	$\Phi_{Corp\ de\ iluminat}$	18851 lm
		η	89.77 %

BGP704 1 xLED210-4S/740 DM11 (Bandă mediană, 2 per stâlp)



Distanţă stâlp	40.000 m
(1) Înălţimea punctului de lumină	11.000 m
(2) Ieşirea în consolă a punctului de lumină	-0.062 m
(3) Înclinare consolă	0.0°
(4) Lungime consolă	1.000 m
Număr anual de ore de funcţionare	4000 h: 100.0 %, 252.0 W
Consum	6300.0 W/km
ULR / ULOR	0.00 / 0.00
Intensităţi luminoase max. Orice direcţie ce formează unghiul dat cu verticala în jos a corpurilor de iluminat instalate pentru utilizare.	≥ 70°: 633 cd/klm ≥ 80°: 174 cd/klm ≥ 90°: 0.00 cd/klm
Clasă intensitate luminoasă Valorile intensităţii luminoase în [cd/klm] pentru calculul clasei intensităţii luminoase se referă la fluxul luminos al corpului de iluminat, conform EN 13201:2015.	G*1
Clasă index ornamente	D.6

Street 1

Rezumat (până la EN 13201:2015)

Rezultate pentru câmpurile de evaluare

	Mărime	Calculat	Nominal	Conform
Roadway 2 (M2)	L_m	1.50 cd/m²	≥ 1.50 cd/m²	✓
	U_o	0.44	≥ 0.40	✓
	U_l	0.79	≥ 0.70	✓
	TI	10 %	≤ 10 %	✓
	R_{EI}	0.46	≥ 0.35	✓
Roadway 1 (M2)	L_m	1.50 cd/m²	≥ 1.50 cd/m²	✓
	U_o	0.44	≥ 0.40	✓
	U_l	0.79	≥ 0.70	✓
	TI	10 %	≤ 10 %	✓
	R_{EI}	0.46	≥ 0.35	✓

Pentru instalare s-a luat în calcul un factor de întreţinere de 0.80.

Rezultate pentru indicatorii de eficienţă energetică

	Mărime	Calculat	Consum
Street 1	D_p	0.012 W/lx*m²	-
BGP704 1 xLED210-4S/740 DM11 (Bandă mediană)	D_e	1.1 kWh/m² an,	1008.0 kWh/an

Street 1

Roadway 2 (M2)

Rezultate pentru câmpul de evaluare

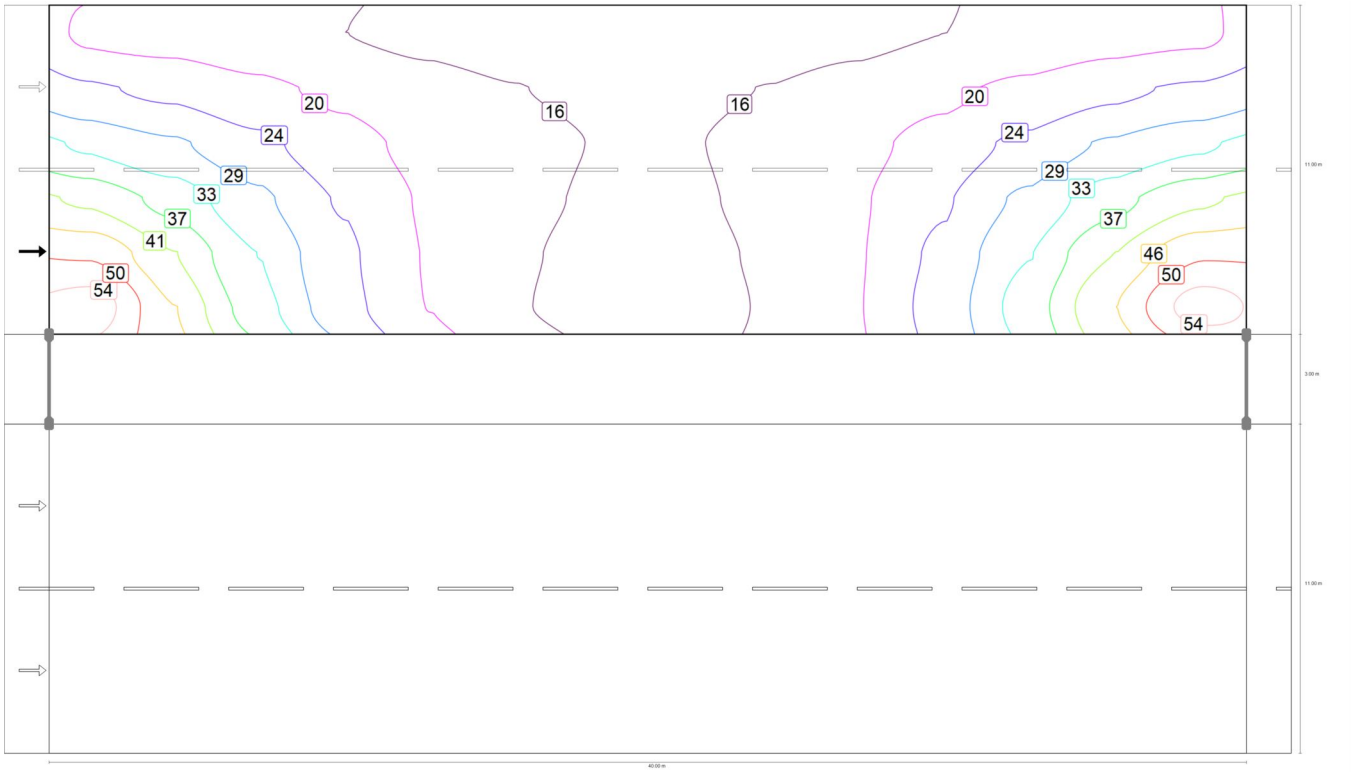
	Mărime	Calculat	Nominal	Conform
Roadway 2 (M2)	L_m	1.50 cd/m²	≥ 1.50 cd/m²	✓
	U_o	0.44	≥ 0.40	✓
	U_l	0.79	≥ 0.70	✓
	TI	10 %	≤ 10 %	✓
	R_{EI}	0.46	≥ 0.35	✓

Rezultate pentru observator

	Mărime	Calculat	Nominal	Conform
Observator 1 Poziţie: -60.000 m, 16.750 m, 1.500 m	L_m	1.50 cd/m²	≥ 1.50 cd/m²	✓
	U_o	0.47	≥ 0.40	✓
	U_l	0.79	≥ 0.70	✓
	TI	10 %	≤ 10 %	✓
Observator 2 Poziţie: -60.000 m, 22.250 m, 1.500 m	L_m	1.69 cd/m²	≥ 1.50 cd/m²	✓
	U_o	0.44	≥ 0.40	✓
	U_l	0.87	≥ 0.70	✓
	TI	7 %	≤ 10 %	✓

Street 1

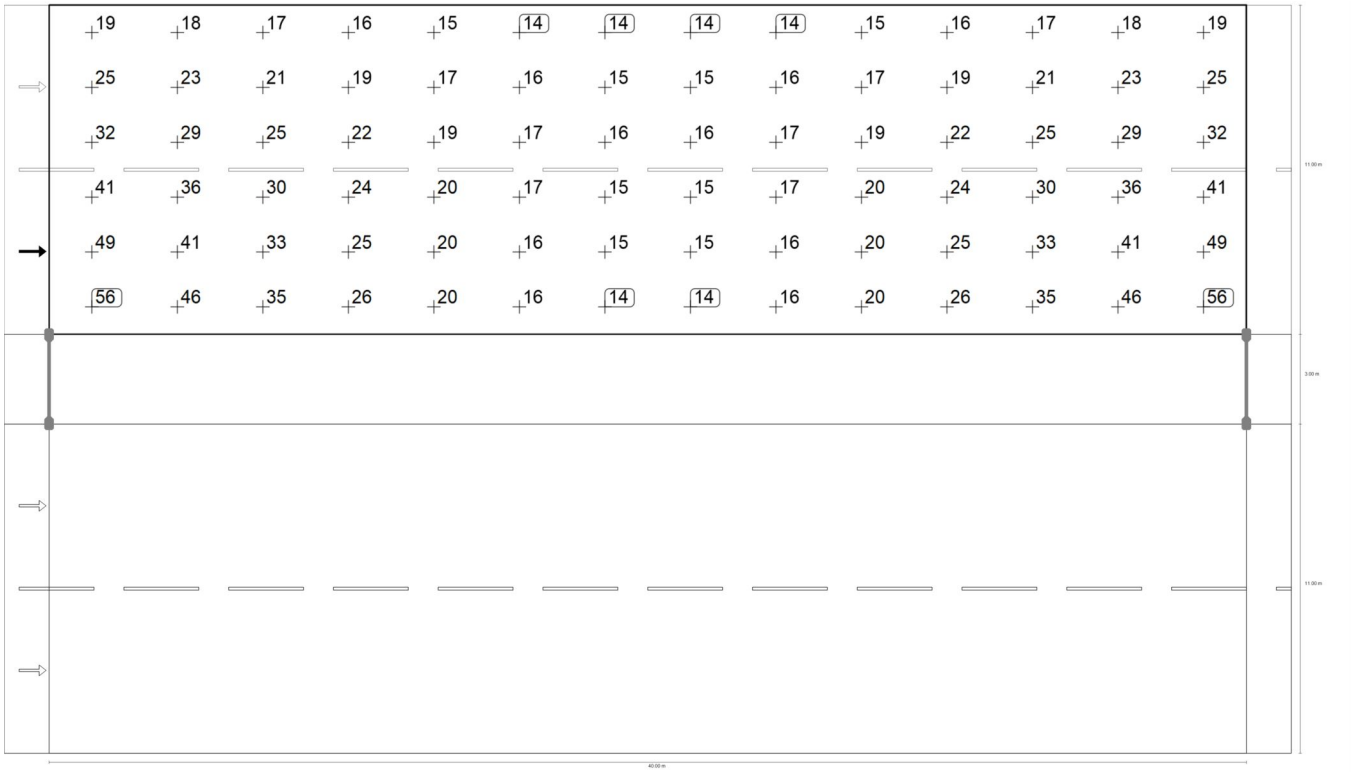
Roadway 2 (M2)



Valoarea de întreţinere, intensitatea de iluminare orizontală [lx] (Linii Isolux)

Street 1

Roadway 2 (M2)



Valoarea de întreţinere, intensitatea de iluminare orizontală [lx] (Raster valoric)

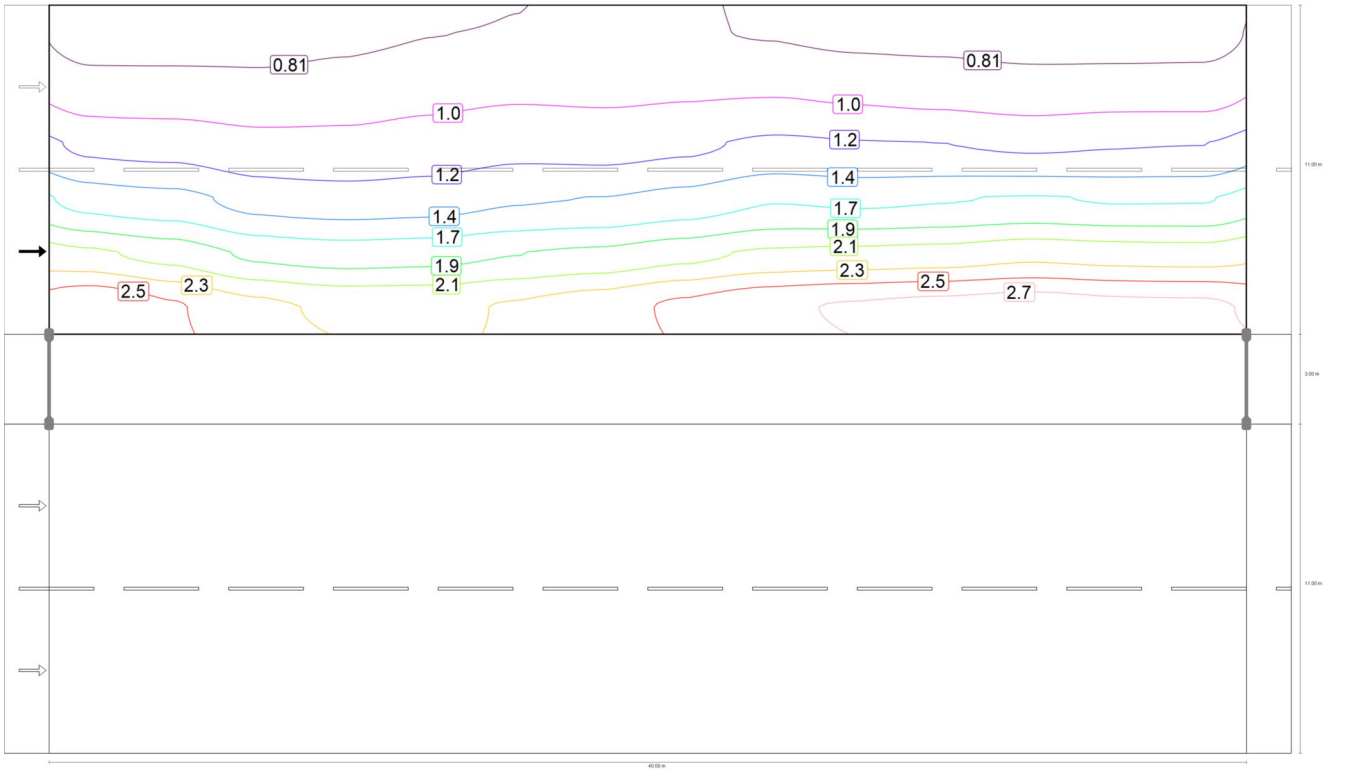
m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
24.083	19.23	18.40	16.97	15.82	14.83	14.06	13.70	13.70	14.06	14.83	15.82	16.97	18.40	19.23
22.250	25.05	23.43	21.19	19.09	17.17	15.92	15.25	15.25	15.92	17.17	19.09	21.19	23.43	25.05
20.417	32.14	29.23	25.44	21.78	18.79	16.80	15.74	15.74	16.80	18.79	21.78	25.44	29.23	32.14
18.583	40.62	35.61	29.52	23.91	19.62	16.85	15.43	15.43	16.85	19.62	23.91	29.52	35.61	40.62
16.750	49.42	41.43	32.77	25.26	19.82	16.45	14.85	14.85	16.45	19.82	25.26	32.77	41.43	49.42
14.917	56.31	45.69	34.80	26.04	19.97	16.21	14.45	14.45	16.21	19.97	26.04	34.80	45.69	56.31

Valoarea de întreţinere, intensitatea de iluminare orizontală [lx] (Tabel de valori)

	E_m	E_{min}	E_{max}	g_1	g_2
Valoarea de întreţinere, intensitatea de iluminare orizontală	23.9 lx	13.7 lx	56.3 lx	0.572	0.243

Street 1

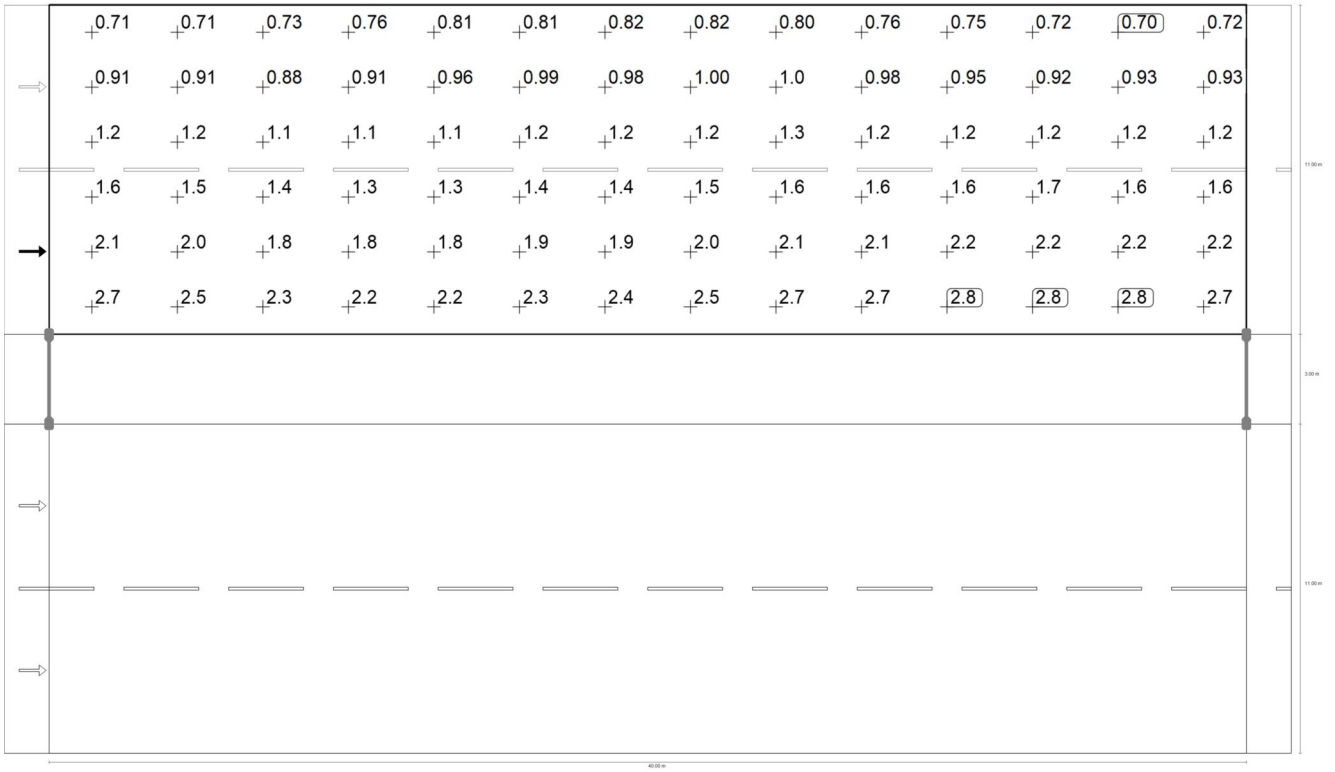
Roadway 2 (M2)



Observator 1: Valoarea de întreţinere, densitatea luminii cu carosabil uscat [cd/m²] (Linii Isolux)

Street 1

Roadway 2 (M2)



Observator 1: Valoarea de întreţinere, densitatea luminii cu carosabil uscat [cd/m²] (Raster valoric)

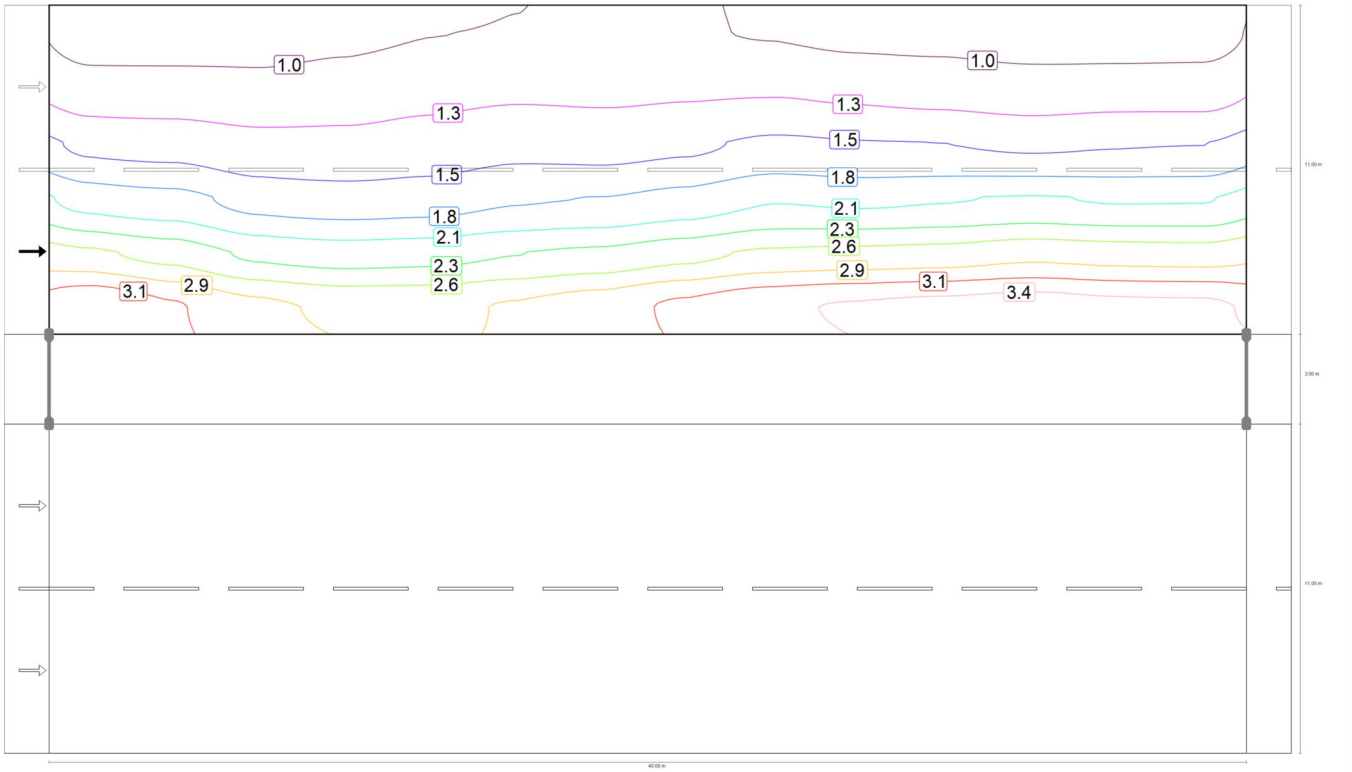
m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
24.083	0.71	0.71	0.73	0.76	0.81	0.81	0.82	0.82	0.80	0.76	0.75	0.72	0.70	0.72
22.250	0.91	0.91	0.88	0.91	0.96	0.99	0.98	1.00	1.00	0.98	0.95	0.92	0.93	0.93
20.417	1.18	1.15	1.09	1.09	1.12	1.17	1.16	1.19	1.27	1.24	1.23	1.20	1.22	1.23
18.583	1.57	1.51	1.36	1.32	1.34	1.42	1.44	1.52	1.64	1.61	1.64	1.66	1.63	1.64
16.750	2.12	2.00	1.82	1.76	1.78	1.86	1.91	2.01	2.11	2.13	2.16	2.23	2.19	2.18
14.917	2.68	2.52	2.34	2.24	2.24	2.30	2.40	2.54	2.66	2.72	2.77	2.81	2.76	2.75

Observator 1: Valoarea de întreţinere, densitatea luminii cu carosabil uscat [cd/m²] (Tabel de valori)

	L_m	L_{min}	L_{max}	g_1	g_2
Observator 1: Valoarea de întreţinere, densitatea luminii cu carosabil uscat	1.50 cd/m²	0.70 cd/m²	2.81 cd/m²	0.470	0.250

Street 1

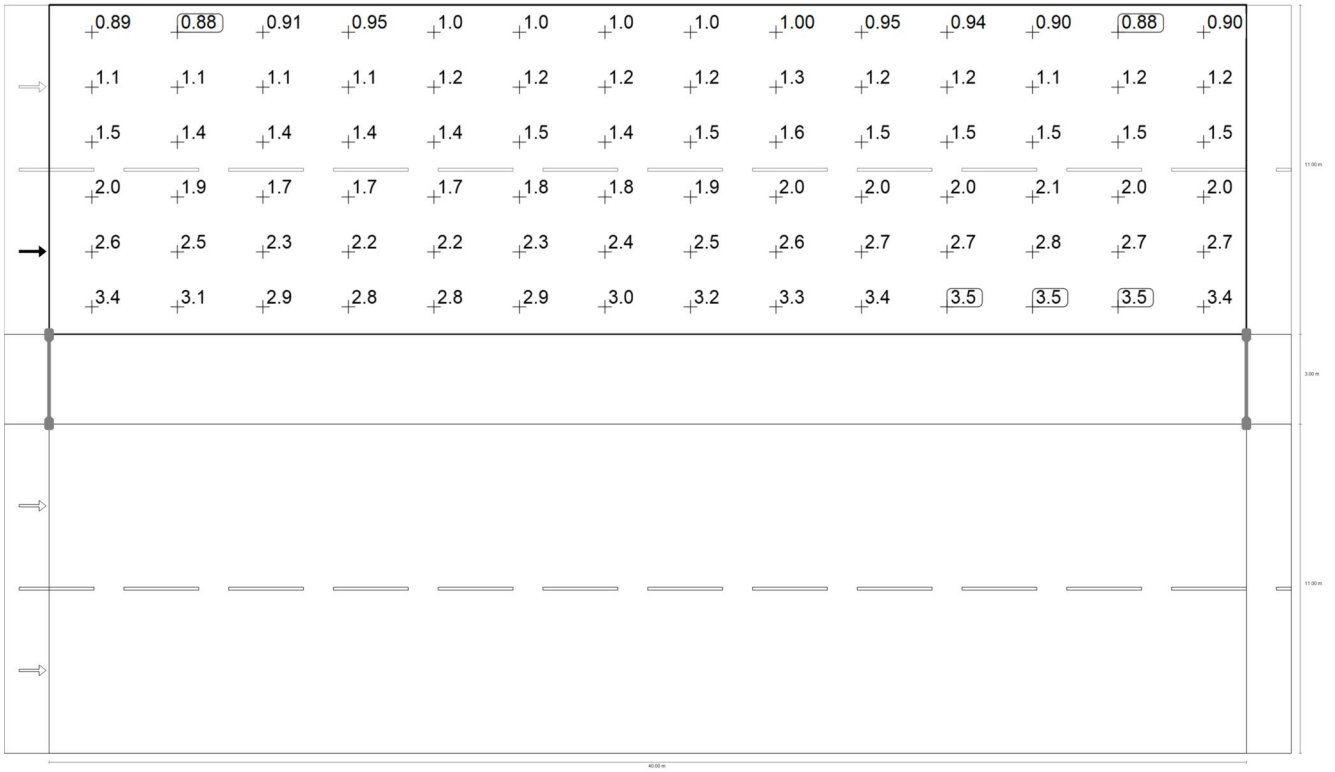
Roadway 2 (M2)



Observator 1: Densitatea luminii la instalaţia nouă [cd/m²] (Linii Isolux)

Street 1

Roadway 2 (M2)



Observator 1: Densitatea luminii la instalaţia nouă [cd/m²] (Raster valoric)

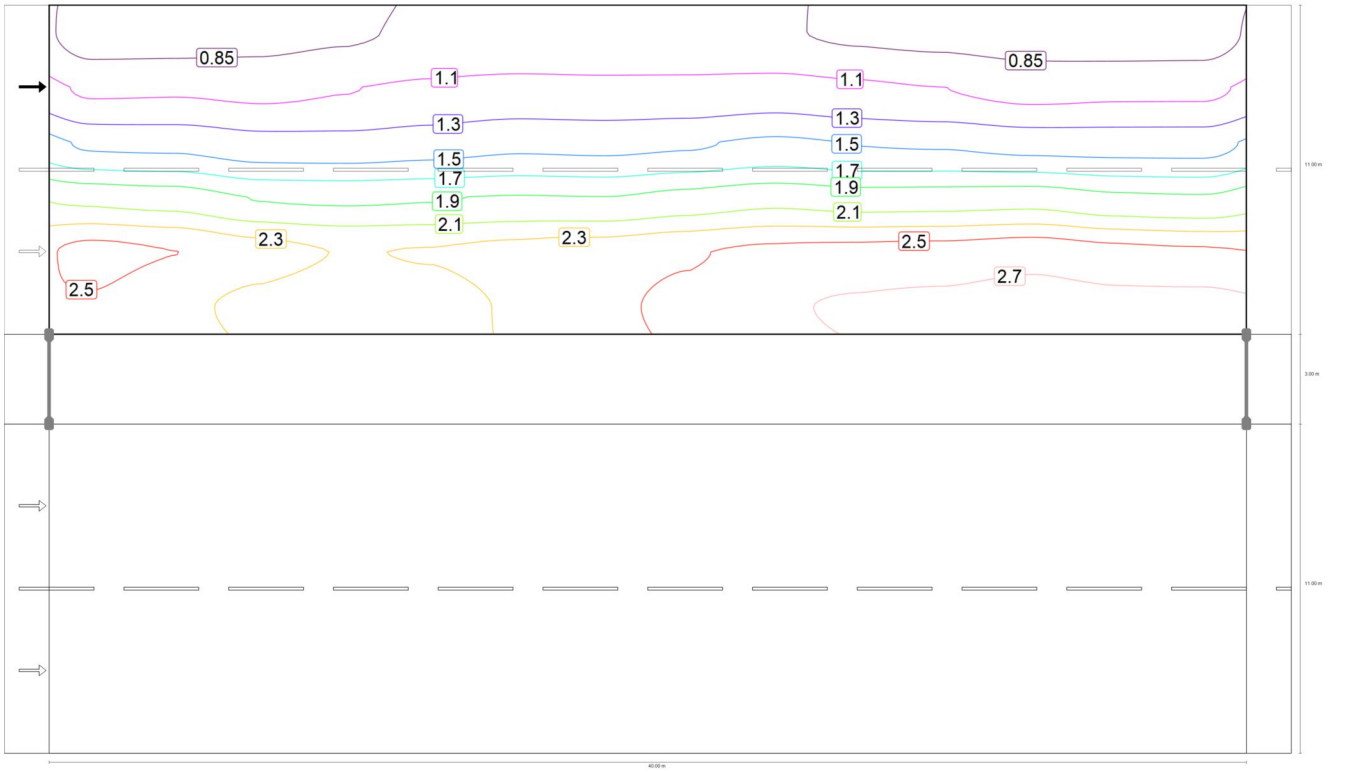
m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
24.083	0.89	0.88	0.91	0.95	1.01	1.01	1.02	1.02	1.00	0.95	0.94	0.90	0.88	0.90
22.250	1.14	1.13	1.10	1.14	1.20	1.24	1.23	1.25	1.25	1.22	1.18	1.14	1.17	1.16
20.417	1.48	1.44	1.36	1.36	1.40	1.47	1.44	1.49	1.59	1.55	1.54	1.49	1.52	1.53
18.583	1.96	1.88	1.70	1.65	1.68	1.78	1.80	1.90	2.05	2.01	2.05	2.08	2.04	2.05
16.750	2.64	2.50	2.27	2.20	2.23	2.32	2.39	2.51	2.64	2.67	2.70	2.79	2.74	2.72
14.917	3.35	3.15	2.93	2.80	2.80	2.88	3.00	3.17	3.33	3.41	3.46	3.51	3.45	3.44

Observator 1: Densitatea luminii la instalaţia nouă [cd/m²] (Tabel de valori)

	L_m	L_{min}	L_{max}	g_1	g_2
Observator 1: Densitatea luminii la instalaţia nouă	1.87 cd/m²	0.88 cd/m²	3.51 cd/m²	0.470	0.250

Street 1

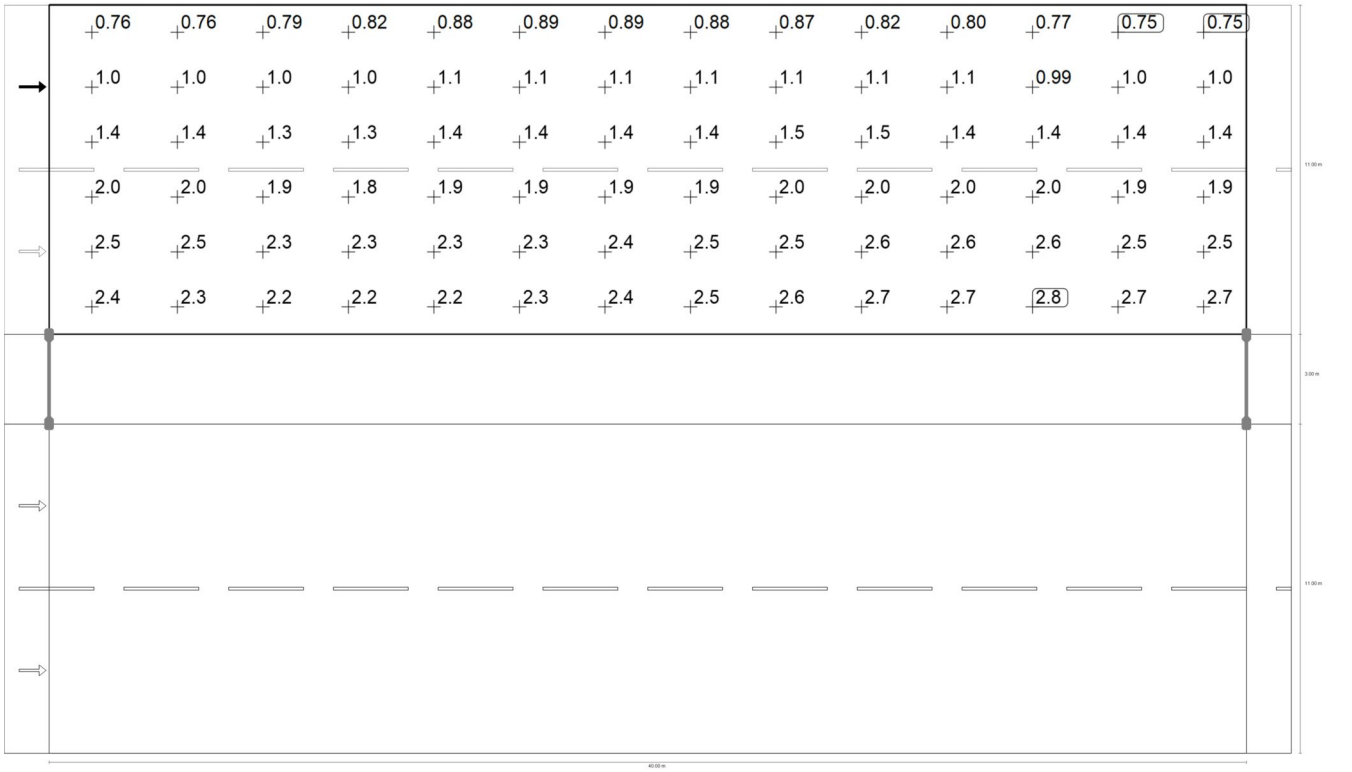
Roadway 2 (M2)



Observator 2: Valoarea de întreţinere, densitatea luminii cu carosabil uscat [cd/m²] (Linii Isolux)

Street 1

Roadway 2 (M2)



Observator 2: Valoarea de întreţinere, densitatea luminii cu carosabil uscat [cd/m²] (Raster valoric)

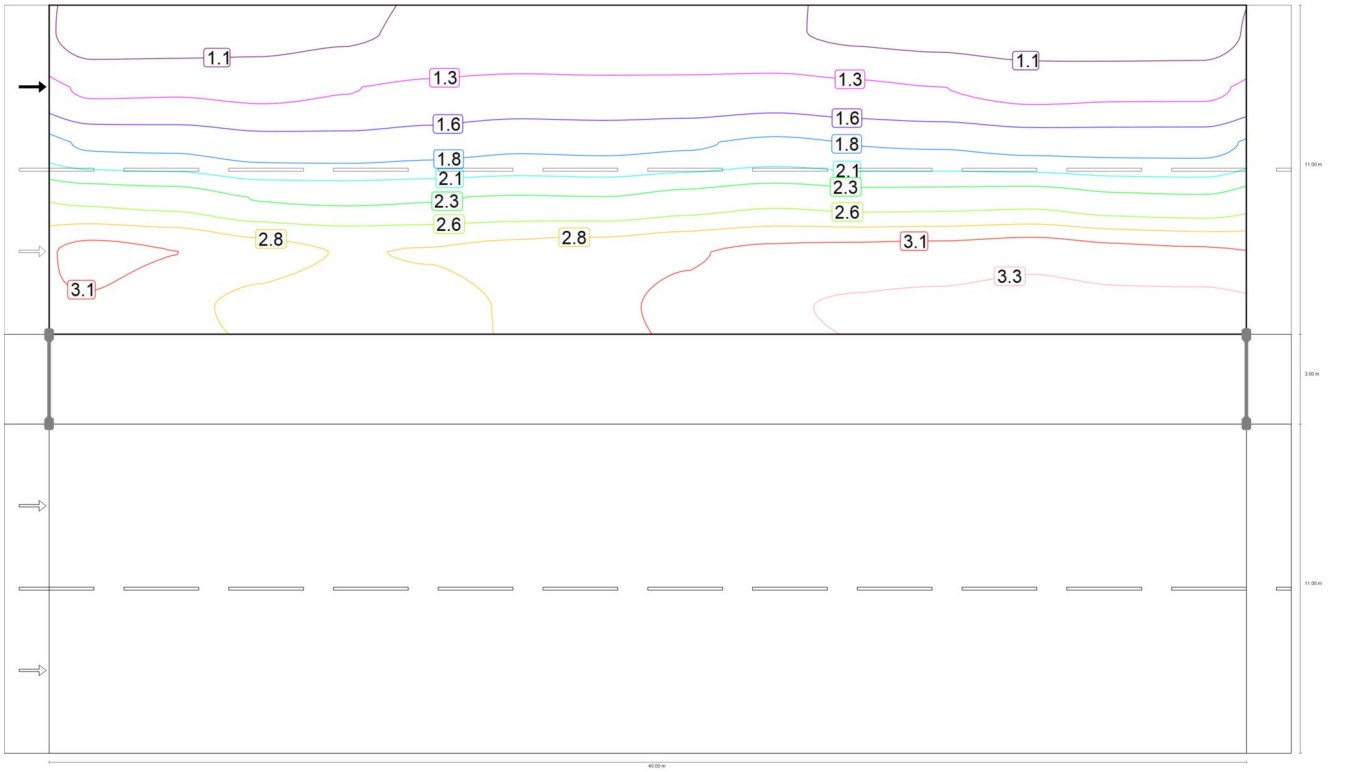
m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
24.083	0.76	0.76	0.79	0.82	0.88	0.89	0.89	0.88	0.87	0.82	0.80	0.77	0.75	0.75
22.250	1.02	1.03	1.00	1.04	1.09	1.12	1.11	1.12	1.14	1.10	1.05	0.99	1.01	1.01
20.417	1.43	1.41	1.34	1.33	1.37	1.42	1.41	1.43	1.50	1.45	1.44	1.39	1.38	1.38
18.583	2.03	1.98	1.85	1.83	1.85	1.88	1.87	1.94	2.02	1.97	1.98	2.00	1.91	1.89
16.750	2.53	2.47	2.35	2.26	2.28	2.33	2.37	2.45	2.53	2.55	2.57	2.62	2.55	2.52
14.917	2.45	2.33	2.22	2.18	2.21	2.29	2.41	2.53	2.64	2.70	2.73	2.78	2.75	2.75

Observator 2: Valoarea de întreţinere, densitatea luminii cu carosabil uscat [cd/m²] (Tabel de valori)

	L_m	L_{min}	L_{max}	g_1	g_2
Observator 2: Valoarea de întreţinere, densitatea luminii cu carosabil uscat	1.69 cd/m²	0.75 cd/m²	2.78 cd/m²	0.441	0.269

Street 1

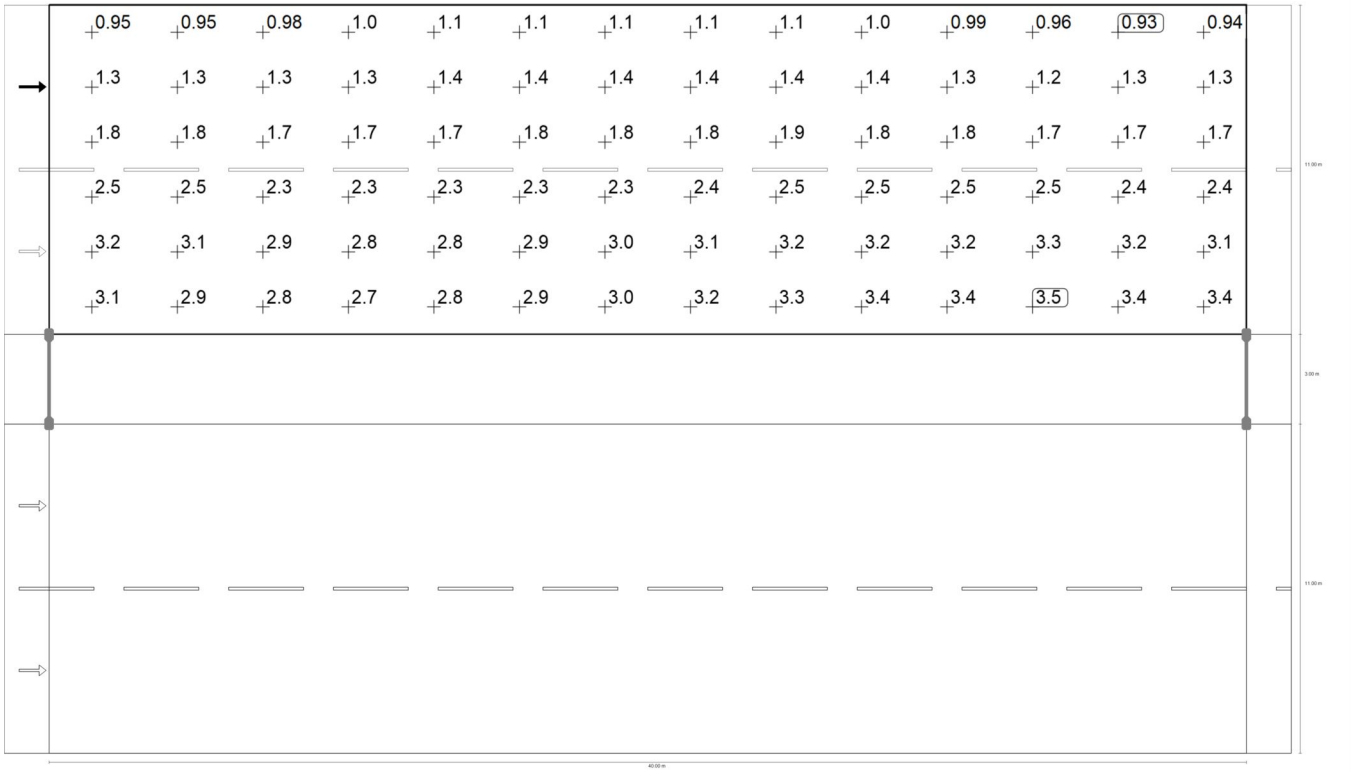
Roadway 2 (M2)



Observator 2: Densitatea luminii la instalaţia nouă [cd/m^2] (Linii Isolux)

Street 1

Roadway 2 (M2)



Observator 2: Densitatea luminii la instalaţia nouă [cd/m²] (Raster valoric)

m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
24.083	0.95	0.95	0.98	1.03	1.10	1.11	1.11	1.10	1.08	1.02	0.99	0.96	0.93	0.94
22.250	1.28	1.29	1.25	1.30	1.36	1.40	1.39	1.40	1.42	1.37	1.31	1.23	1.26	1.26
20.417	1.78	1.76	1.67	1.66	1.71	1.77	1.76	1.79	1.88	1.81	1.80	1.74	1.73	1.73
18.583	2.53	2.48	2.32	2.29	2.31	2.35	2.33	2.43	2.52	2.46	2.47	2.50	2.39	2.36
16.750	3.17	3.09	2.94	2.83	2.85	2.91	2.96	3.06	3.16	3.19	3.21	3.27	3.19	3.14
14.917	3.06	2.91	2.78	2.72	2.76	2.86	3.01	3.17	3.30	3.38	3.41	3.47	3.43	3.43

Observator 2: Densitatea luminii la instalaţia nouă [cd/m²] (Tabel de valori)

	L_m	L_{min}	L_{max}	g_1	g_2
Observator 2: Densitatea luminii la instalaţia nouă	2.12 cd/m²	0.93 cd/m²	3.47 cd/m²	0.441	0.269

Street 1

Roadway 1 (M2)

Rezultate pentru câmpul de evaluare

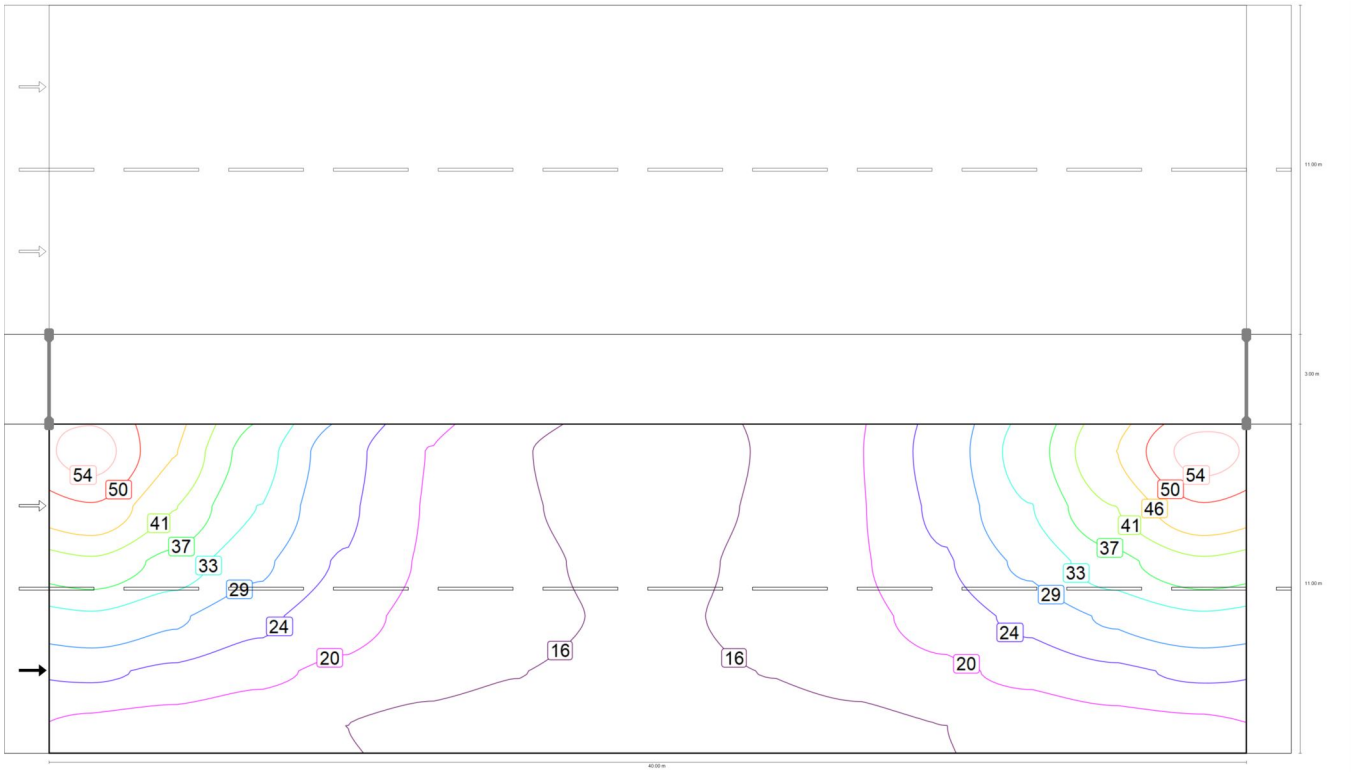
	Mărime	Calculat	Nominal	Conform
Roadway 1 (M2)	L_m	1.50 cd/m²	≥ 1.50 cd/m²	✓
	U_o	0.44	≥ 0.40	✓
	U_l	0.79	≥ 0.70	✓
	TI	10 %	≤ 10 %	✓
	R_{EI}	0.46	≥ 0.35	✓

Rezultate pentru observator

	Mărime	Calculat	Nominal	Conform
Observator 1 Poziţie: -60.000 m, 2.750 m, 1.500 m	L_m	1.69 cd/m²	≥ 1.50 cd/m²	✓
	U_o	0.44	≥ 0.40	✓
	U_l	0.87	≥ 0.70	✓
	TI	7 %	≤ 10 %	✓
Observator 2 Poziţie: -60.000 m, 8.250 m, 1.500 m	L_m	1.50 cd/m²	≥ 1.50 cd/m²	✓
	U_o	0.47	≥ 0.40	✓
	U_l	0.79	≥ 0.70	✓
	TI	10 %	≤ 10 %	✓

Street 1

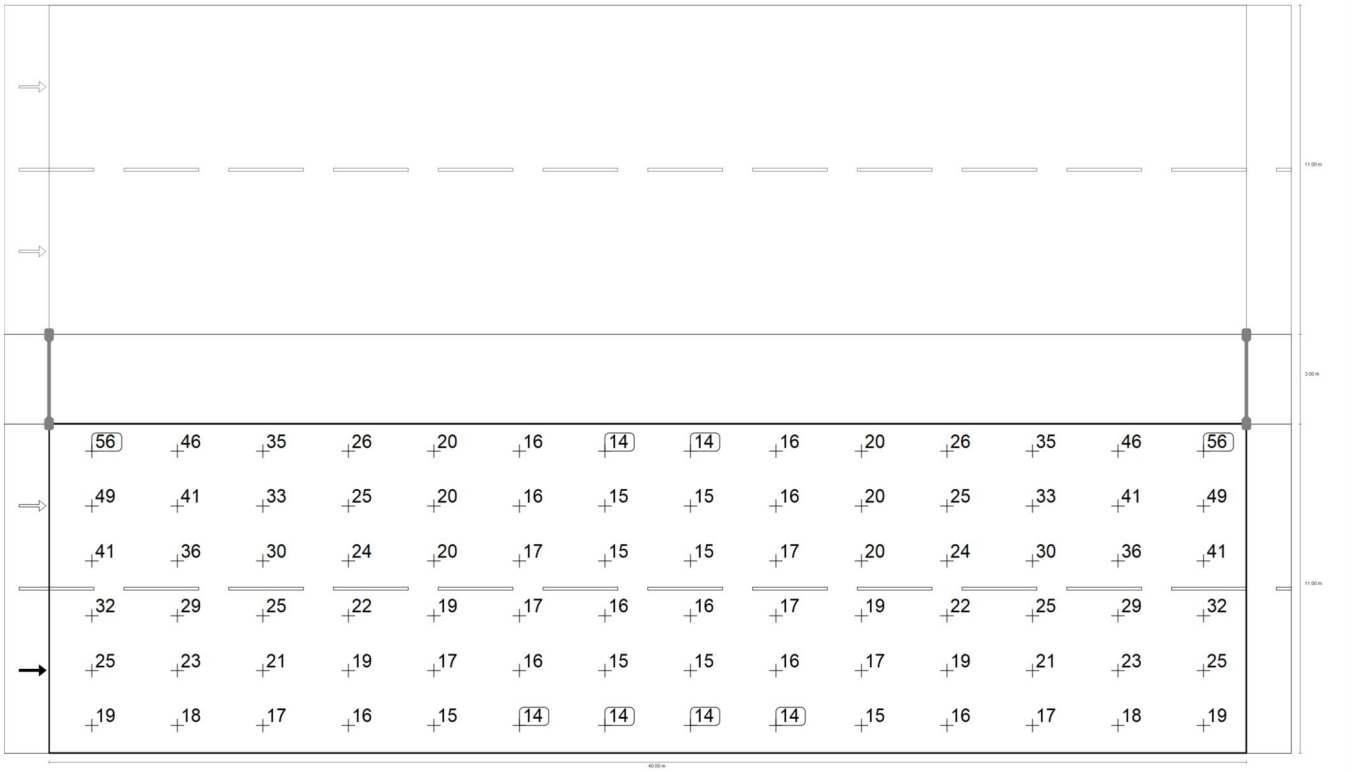
Roadway 1 (M2)



Valoarea de întreţinere, intensitatea de iluminare orizontală [lx] (Linii Isolux)

Street 1

Roadway 1 (M2)



Valoarea de întreţinere, intensitatea de iluminare orizontală [lx] (Raster valoric)

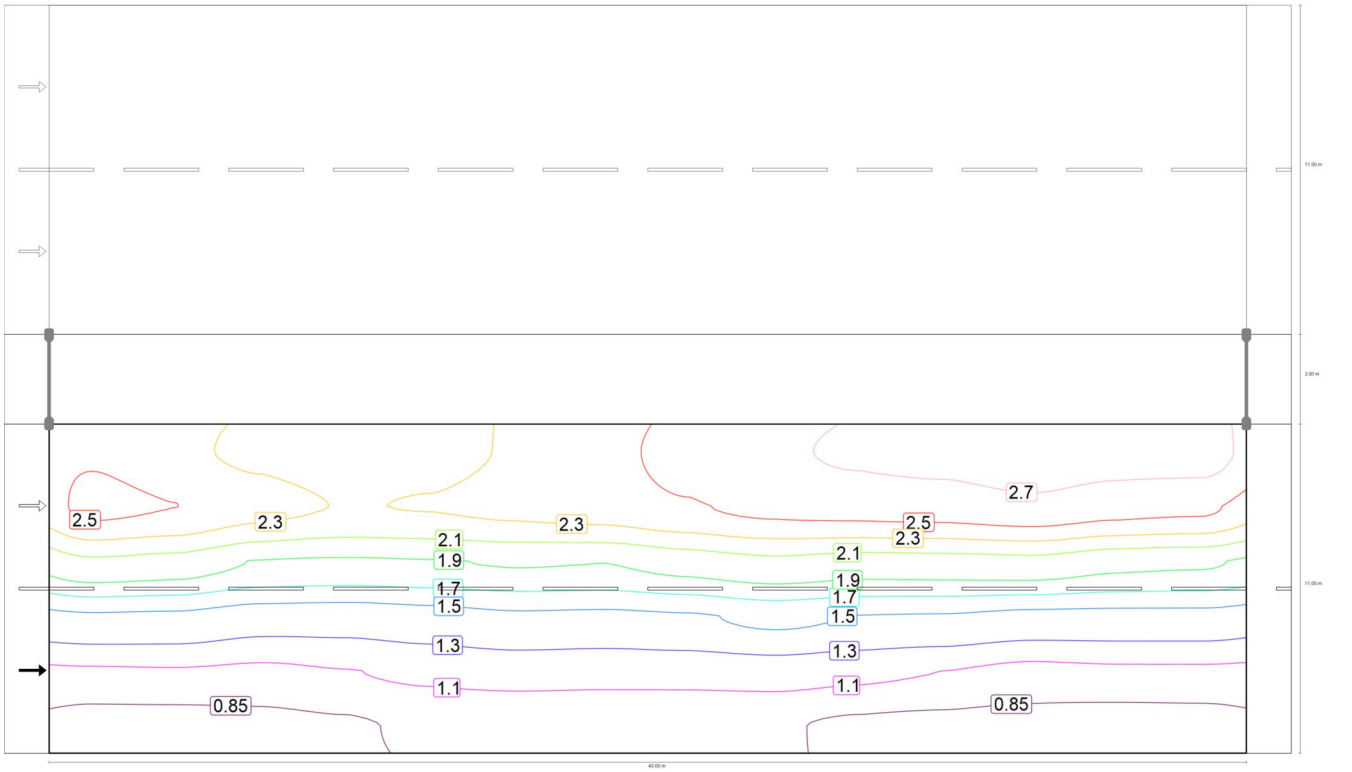
m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
10.083	56.31	45.69	34.80	26.04	19.97	16.21	14.45	14.45	16.21	19.97	26.04	34.80	45.69	56.31
8.250	49.42	41.43	32.77	25.26	19.82	16.45	14.85	14.85	16.45	19.82	25.26	32.77	41.43	49.42
6.417	40.62	35.61	29.52	23.91	19.62	16.85	15.43	15.43	16.85	19.62	23.91	29.52	35.61	40.62
4.583	32.14	29.23	25.44	21.78	18.79	16.80	15.74	15.74	16.80	18.79	21.78	25.44	29.23	32.14
2.750	25.05	23.43	21.19	19.09	17.17	15.92	15.25	15.25	15.92	17.17	19.09	21.19	23.43	25.05
0.917	19.23	18.40	16.97	15.82	14.83	14.06	13.70	13.70	14.06	14.83	15.82	16.97	18.40	19.23

Valoarea de întreţinere, intensitatea de iluminare orizontală [lx] (Tabel de valori)

	E_m	E_{min}	E_{max}	g_1	g_2
Valoarea de întreţinere, intensitatea de iluminare orizontală	23.9 lx	13.7 lx	56.3 lx	0.572	0.243

Street 1

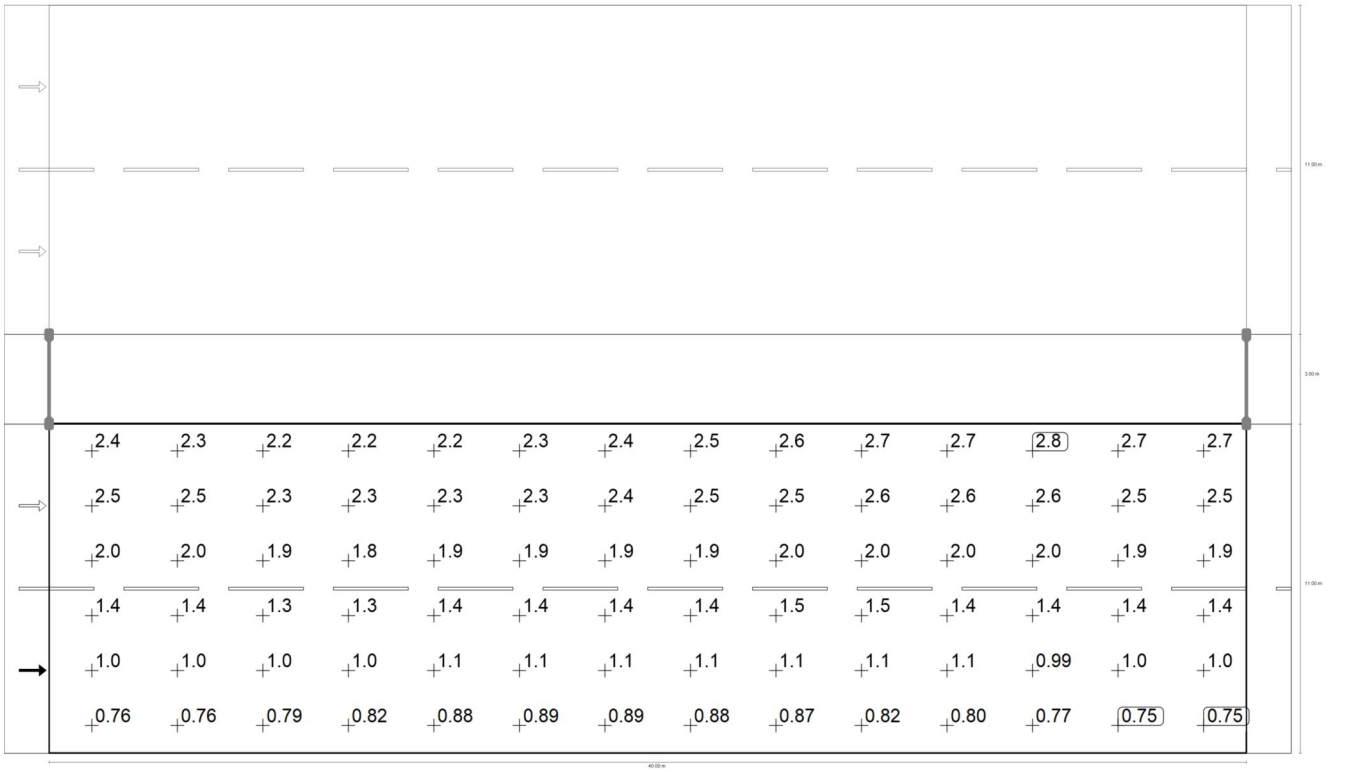
Roadway 1 (M2)



Observator 1: Valoarea de întreţinere, densitatea luminii cu carosabil uscat [cd/m²] (Linii Isolux)

Street 1

Roadway 1 (M2)



Observator 1: Valoarea de întreţinere, densitatea luminii cu carosabil uscat [cd/m²] (Raster valoric)

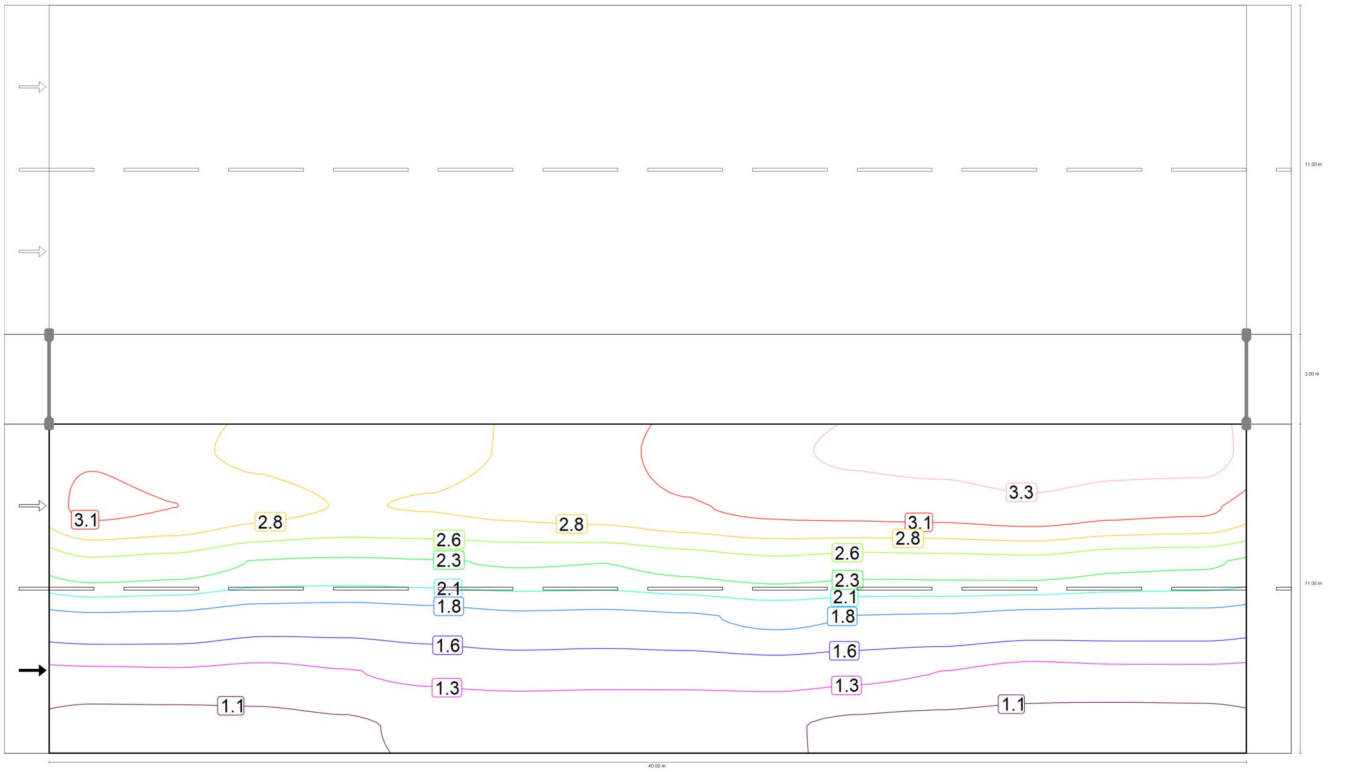
m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
10.083	2.45	2.33	2.22	2.18	2.21	2.29	2.41	2.53	2.64	2.70	2.73	2.78	2.75	2.75
8.250	2.53	2.47	2.35	2.26	2.28	2.33	2.37	2.45	2.53	2.55	2.57	2.62	2.55	2.52
6.417	2.03	1.98	1.85	1.83	1.85	1.88	1.87	1.94	2.02	1.97	1.98	2.00	1.91	1.89
4.583	1.43	1.41	1.34	1.33	1.37	1.42	1.41	1.43	1.50	1.45	1.44	1.39	1.38	1.38
2.750	1.02	1.03	1.00	1.04	1.09	1.12	1.11	1.12	1.14	1.10	1.05	0.99	1.01	1.01
0.917	0.76	0.76	0.79	0.82	0.88	0.89	0.89	0.88	0.87	0.82	0.80	0.77	0.75	0.75

Observator 1: Valoarea de întreţinere, densitatea luminii cu carosabil uscat [cd/m²] (Tabel de valori)

	L_m	L_{min}	L_{max}	g_1	g_2
Observator 1: Valoarea de întreţinere, densitatea luminii cu carosabil uscat	1.69 cd/m²	0.75 cd/m²	2.78 cd/m²	0.441	0.269

Street 1

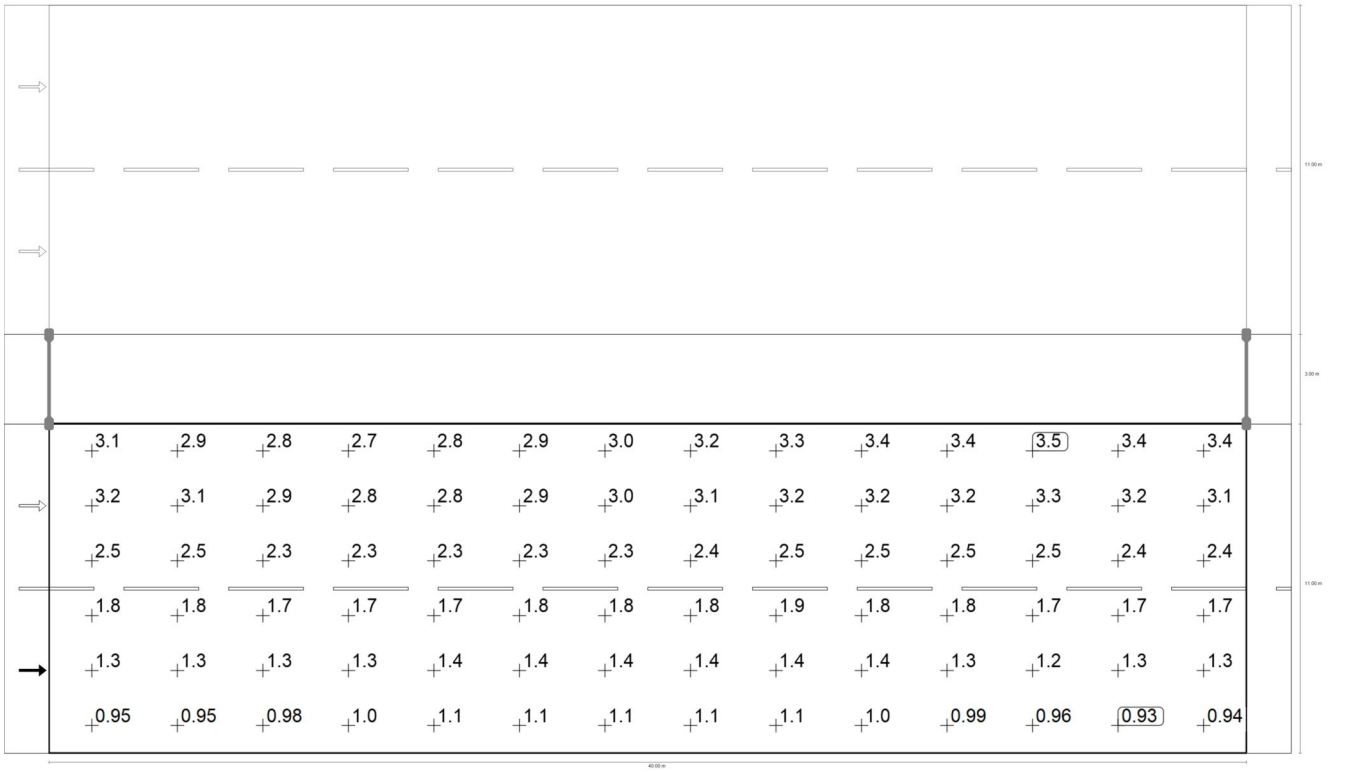
Roadway 1 (M2)



Observator 1: Densitatea luminii la instalaţia nouă [cd/m²] (Linii Isolux)

Street 1

Roadway 1 (M2)



Observator 1: Densitatea luminii la instalaţia nouă [cd/m²] (Raster valoric)

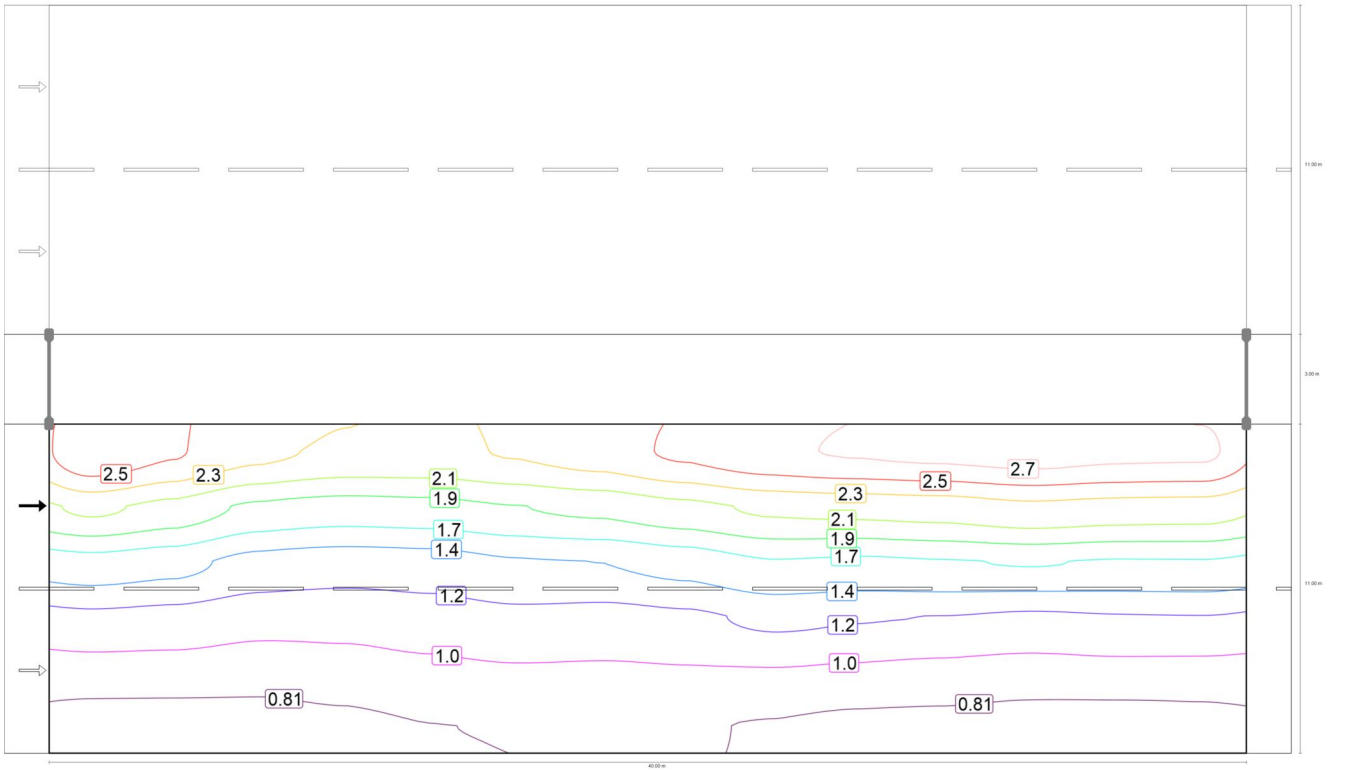
m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
10.083	3.06	2.91	2.78	2.72	2.76	2.86	3.01	3.17	3.30	3.38	3.41	3.47	3.43	3.43
8.250	3.17	3.09	2.94	2.83	2.85	2.91	2.96	3.06	3.16	3.19	3.21	3.27	3.19	3.14
6.417	2.53	2.48	2.32	2.29	2.31	2.35	2.33	2.43	2.52	2.46	2.47	2.50	2.39	2.36
4.583	1.78	1.76	1.67	1.66	1.71	1.77	1.76	1.79	1.88	1.81	1.80	1.74	1.73	1.73
2.750	1.28	1.29	1.25	1.30	1.36	1.40	1.39	1.40	1.42	1.37	1.31	1.23	1.26	1.26
0.917	0.95	0.95	0.98	1.03	1.10	1.11	1.11	1.10	1.08	1.02	0.99	0.96	0.93	0.94

Observator 1: Densitatea luminii la instalaţia nouă [cd/m²] (Tabel de valori)

	L_m	L_{min}	L_{max}	g_1	g_2
Observator 1: Densitatea luminii la instalaţia nouă	2.12 cd/m²	0.93 cd/m²	3.47 cd/m²	0.441	0.269

Street 1

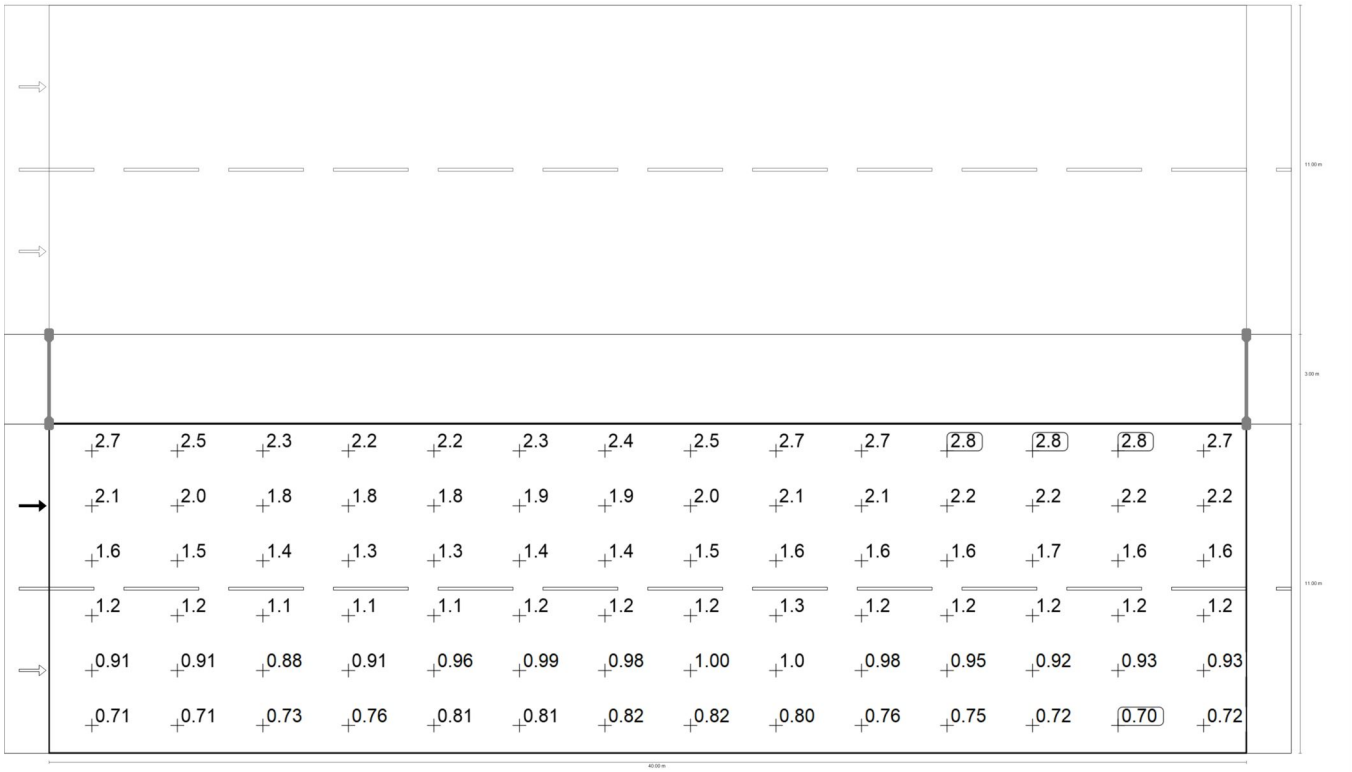
Roadway 1 (M2)



Observator 2: Valoarea de întreţinere, densitatea luminii cu carosabil uscat [cd/m²] (Linii Isolux)

Street 1

Roadway 1 (M2)



Observator 2: Valoarea de întreţinere, densitatea luminii cu carosabil uscat [cd/m²] (Raster valoric)

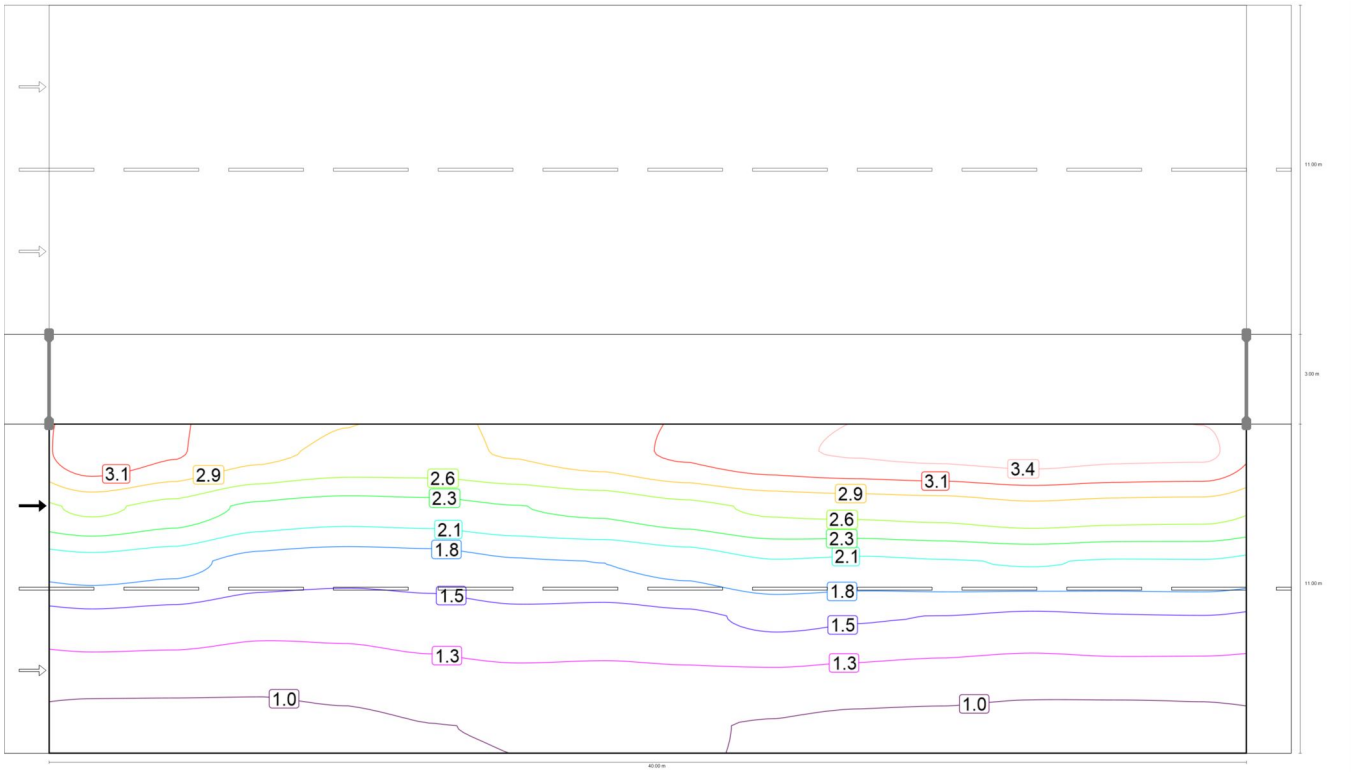
m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
10.083	2.68	2.52	2.34	2.24	2.24	2.30	2.40	2.54	2.66	2.72	2.77	2.81	2.76	2.75
8.250	2.12	2.00	1.82	1.76	1.78	1.86	1.91	2.01	2.11	2.13	2.16	2.23	2.19	2.18
6.417	1.57	1.51	1.36	1.32	1.34	1.42	1.44	1.52	1.64	1.61	1.64	1.66	1.63	1.64
4.583	1.18	1.15	1.09	1.09	1.12	1.17	1.16	1.19	1.27	1.24	1.23	1.20	1.22	1.23
2.750	0.91	0.91	0.88	0.91	0.96	0.99	0.98	1.00	1.00	0.98	0.95	0.92	0.93	0.93
0.917	0.71	0.71	0.73	0.76	0.81	0.81	0.82	0.82	0.80	0.76	0.75	0.72	0.70	0.72

Observator 2: Valoarea de întreţinere, densitatea luminii cu carosabil uscat [cd/m²] (Tabel de valori)

	L_m	L_{min}	L_{max}	g_1	g_2
Observator 2: Valoarea de întreţinere, densitatea luminii cu carosabil uscat	1.50 cd/m²	0.70 cd/m²	2.81 cd/m²	0.470	0.250

Street 1

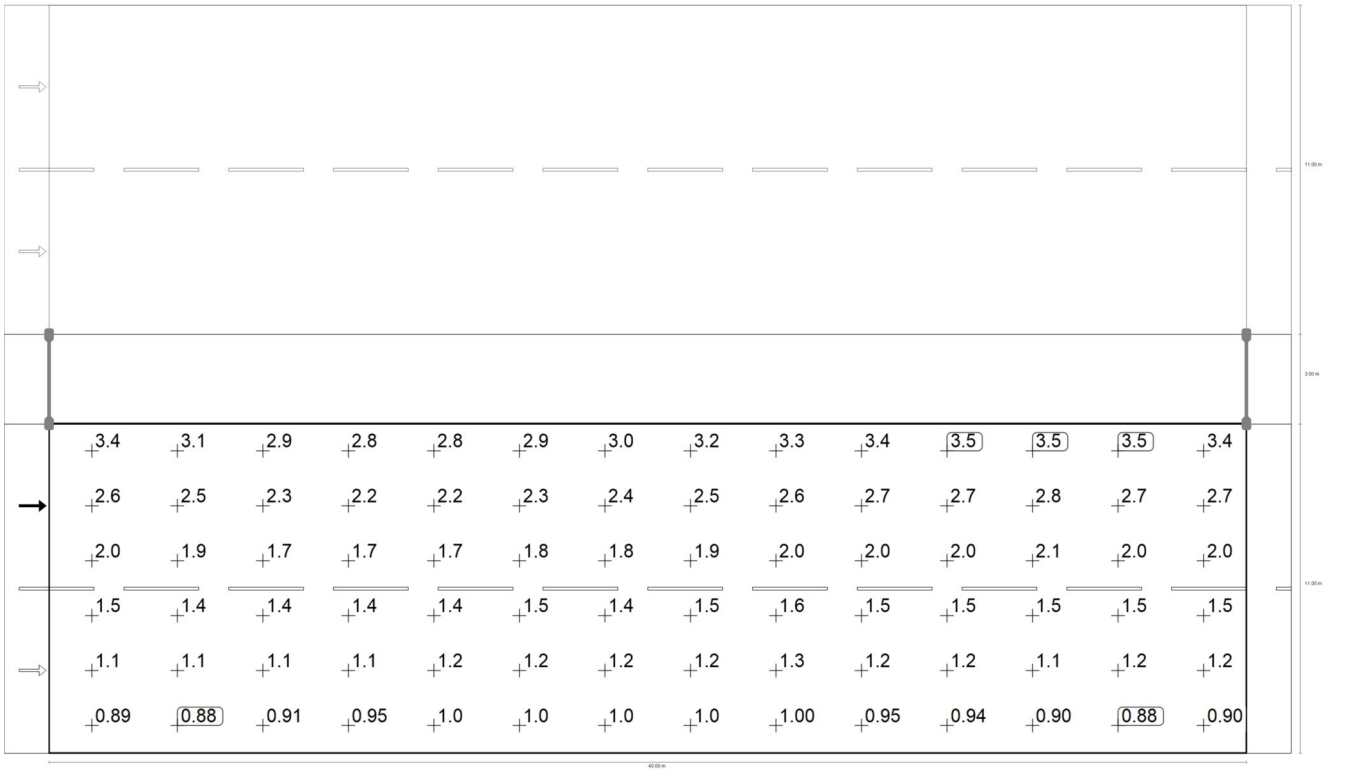
Roadway 1 (M2)



Observator 2: Densitatea luminii la instalaţia nouă [cd/m^2] (Linii Isolux)

Street 1

Roadway 1 (M2)



Observator 2: Densitatea luminii la instalaţia nouă [cd/m²] (Raster valoric)

m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
10.083	3.35	3.15	2.93	2.80	2.80	2.88	3.00	3.17	3.33	3.41	3.46	3.51	3.45	3.44
8.250	2.64	2.50	2.27	2.20	2.23	2.32	2.39	2.51	2.64	2.67	2.70	2.79	2.74	2.72
6.417	1.96	1.88	1.70	1.65	1.68	1.78	1.80	1.90	2.05	2.01	2.05	2.08	2.04	2.05
4.583	1.48	1.44	1.36	1.36	1.40	1.47	1.44	1.49	1.59	1.55	1.54	1.49	1.52	1.53
2.750	1.14	1.13	1.10	1.14	1.20	1.24	1.23	1.25	1.25	1.22	1.18	1.14	1.17	1.16
0.917	0.89	0.88	0.91	0.95	1.01	1.01	1.02	1.02	1.00	0.95	0.94	0.90	0.88	0.90

Observator 2: Densitatea luminii la instalaţia nouă [cd/m²] (Tabel de valori)

	L_m	L_{min}	L_{max}	g_1	g_2
Observator 2: Densitatea luminii la instalaţia nouă	1.87 cd/m²	0.88 cd/m²	3.51 cd/m²	0.470	0.250