

Project-3-0326

Partner for Contact:
Order No.:
Company:
Customer No.:

Date: 26.03.2024
Operator:



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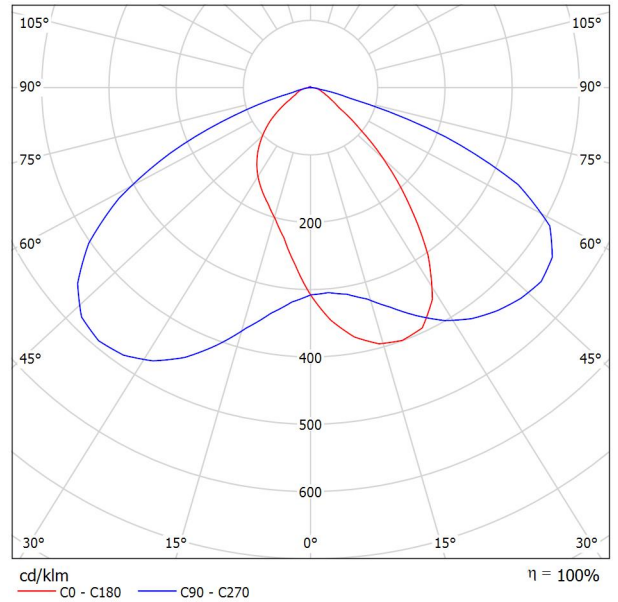


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LED 200W All-in-one solar street light / Luminaire Data Sheet

Luminous emittance 1:

See our luminaire catalog for an image of the luminaire.



Luminaire classification according to CIE: 100
CIE flux code: 51 87 98 100 100

Due to missing symmetry properties, no UGR table can be displayed for this luminaire.



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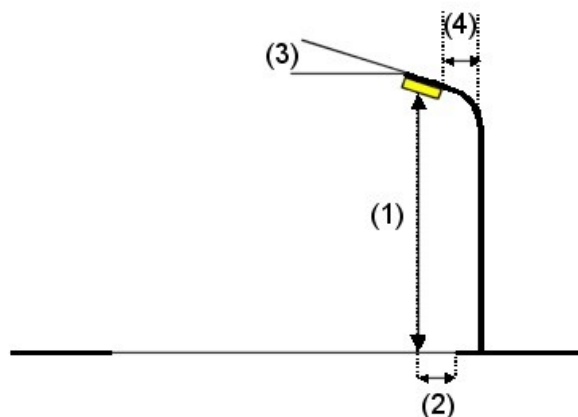
Street 1 / Planning data

Street Profile

Roadway 1 (Width: 15.000 m, Number of lanes: 4, tarmac: R3, q0: 0.070)

Light loss factor: 0.80

Luminaire Arrangements



Luminaire:	LED 200W All-in-one solar street light
Luminous flux (Luminaire):	34038 lm
Luminous flux (Lamps):	34048 lm
Luminaire Wattage:	200.0 W
Arrangement:	Single row, bottom
Pole Distance:	25.000 m
Mounting Height (1):	8.000 m
Height:	8.000 m
Overhang (2):	0.000 m
Boom Angle (3):	10.0 °
Boom Length (4):	0.000 m

Maximum luminous intensities
at 70°: 255 cd/klm
at 80°: 26 cd/klm
at 90°: 11 cd/klm

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

Arrangement complies with luminous intensity class G3.
 Arrangement complies with glare index class D.2.

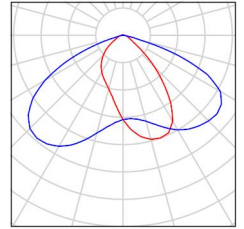


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Street 1 / Luminaire parts list

LED 200W All-in-one solar street light
Article No.: 200W
Luminous flux (Luminaire): 34038 lm
Luminous flux (Lamps): 34048 lm
Luminaire Wattage: 200.0 W
Luminaire classification according to CIE: 100
CIE flux code: 51 87 98 100 100
Fitting: 1 x User defined (Correction Factor
1.000).

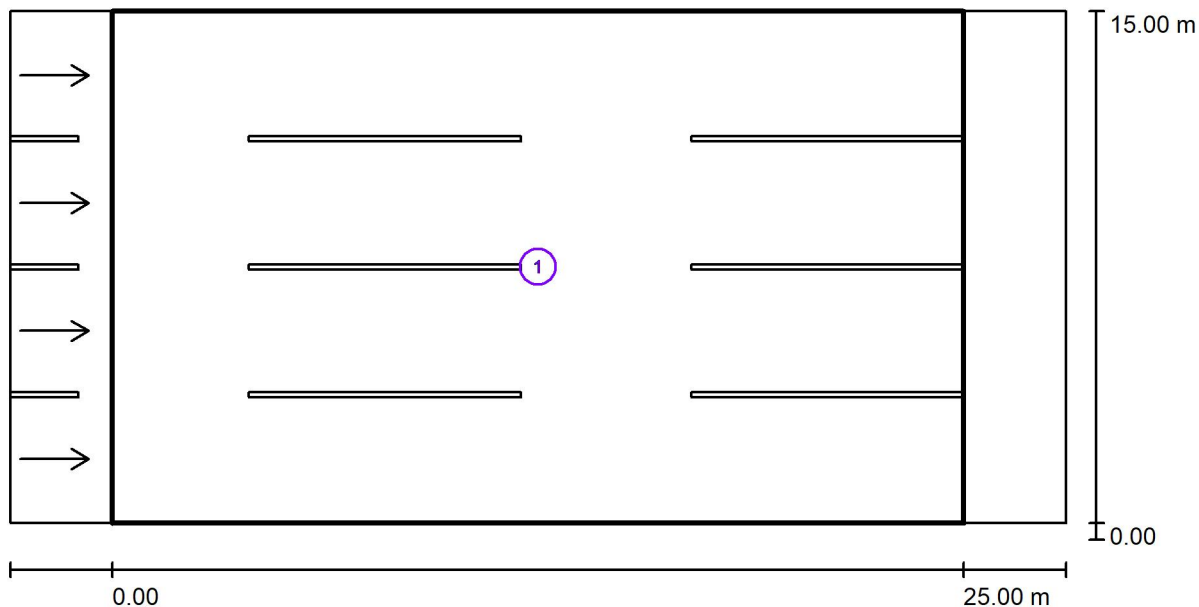
See our luminaire
catalog for an image of
the luminaire.





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Street 1 / Photometric Results



Light loss factor: 0.80

Scale 1:222

Calculation Field List

- 1 Valuation Field Roadway 1
Length: 25.000 m, Width: 15.000 m
Grid: 10 x 12 Points
Accompanying Street Elements: Roadway 1.
tarmac: R3, q0: 0.070
Selected Lighting Class: ME4a

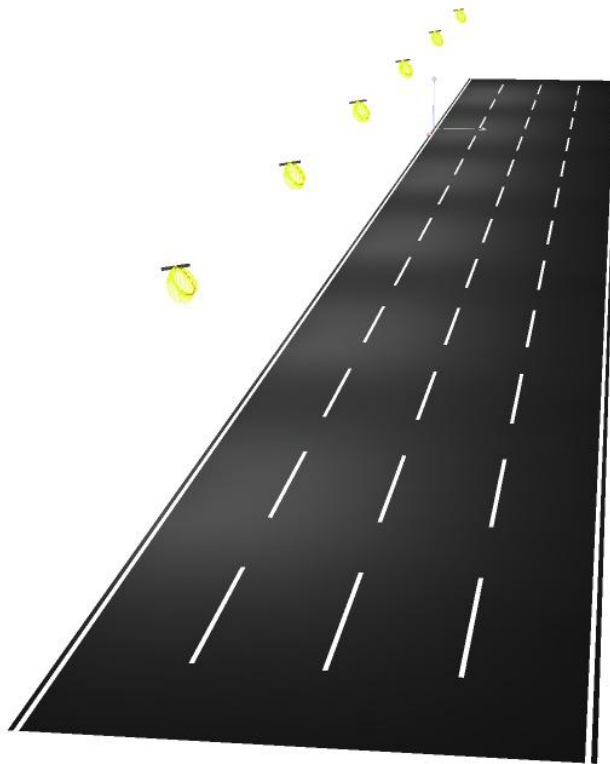
(Not all lighting performance requirements are met.)

	L_{av} [cd/m ²]	U0	UI	TI [%]	SR
Calculated values:	2.51	0.07	0.73	12	0.50
Required values according to class:	≥ 0.75	≥ 0.40	≥ 0.60	≤ 15	≥ 0.50
Fulfilled/Not fulfilled:	✓	✗	✓	✓	✓



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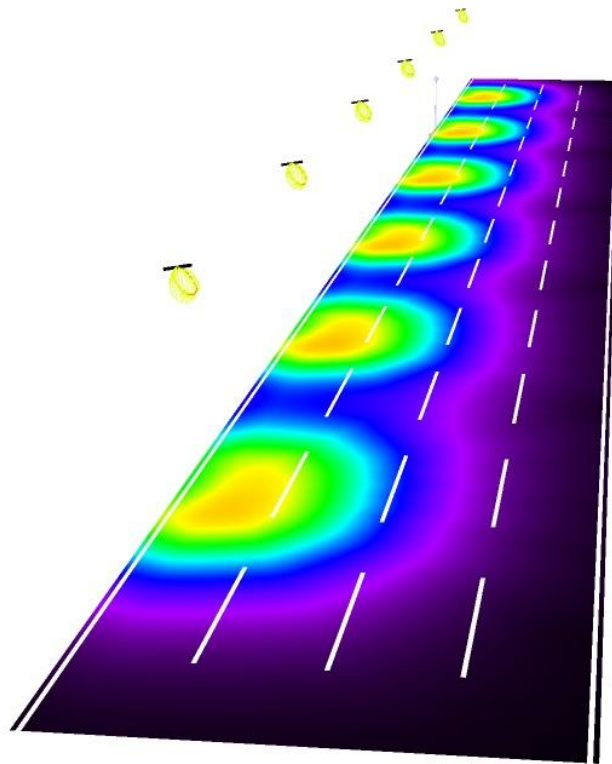
Street 1 / 3D Rendering





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Street 1 / False Color Rendering



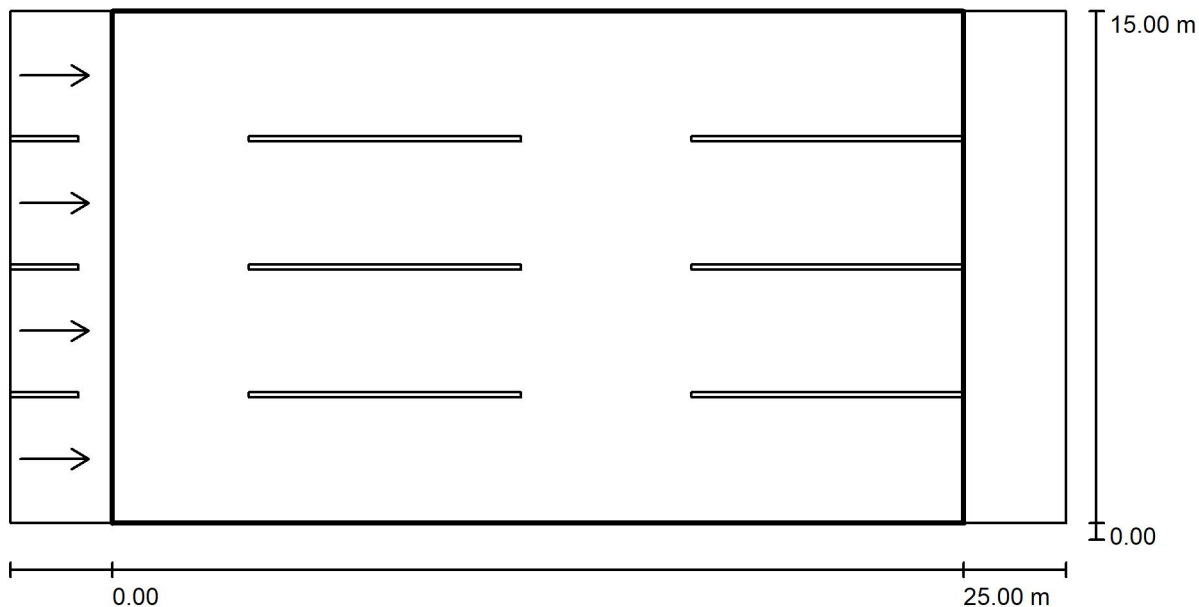
0 25 50 75 100 125 150 175 200

lx



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Street 1 / Valuation Field Roadway 1 / Results overview



Light loss factor: 0.80

Scale 1:222

Grid: 10 x 12 Points

Accompanying Street Elements: Roadway 1.

tarmac: R3, q0: 0.070

Selected Lighting Class: ME4a

(Not all lighting performance requirements are met.)

	L_{av} [cd/m ²]	U0	UI	TI [%]	SR
Calculated values:	2.51	0.07	0.73	12	0.50
Required values according to class:	≥ 0.75	≥ 0.40	≥ 0.60	≤ 15	≥ 0.50
Fulfilled/Not fulfilled:	✓	✗	✓	✓	✓

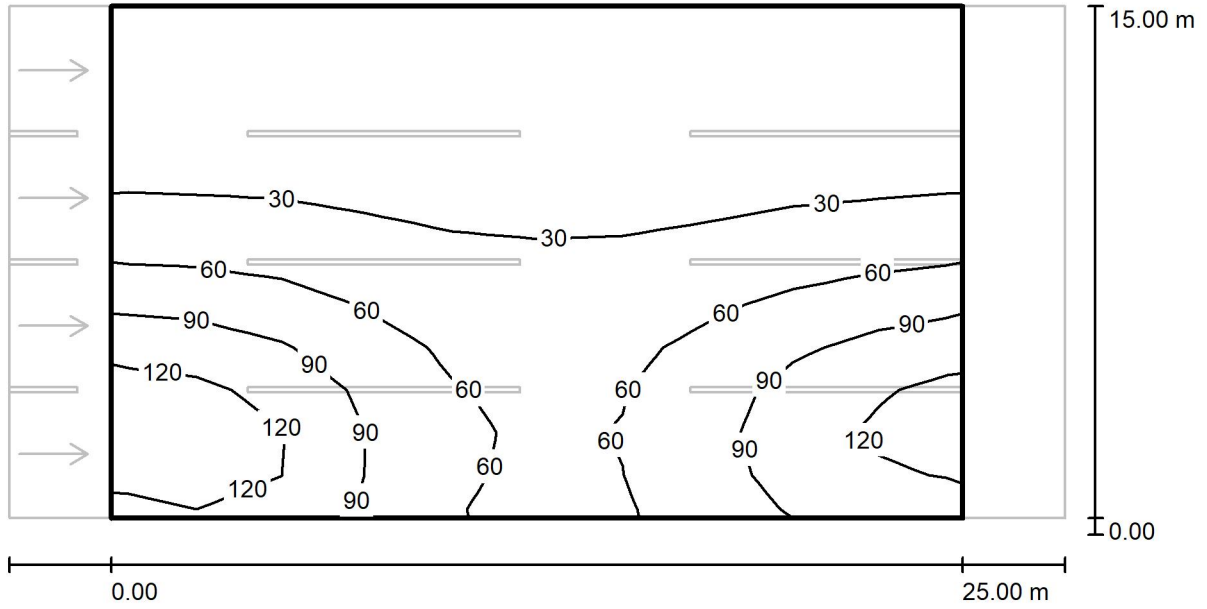
Assigned observer (4 Pieces):

No.	Observer	Position [m]	L_{av} [cd/m ²]	U0	UI	TI [%]
1	Observer 1	(-60.000, 1.875, 1.500)	2.51	0.08	0.77	12
2	Observer 2	(-60.000, 5.625, 1.500)	2.66	0.07	0.83	6
3	Observer 3	(-60.000, 9.375, 1.500)	2.78	0.07	0.76	3
4	Observer 4	(-60.000, 13.125, 1.500)	2.87	0.07	0.73	1



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Street 1 / Valuation Field Roadway 1 / Isolines (E)



Values in Lux, Scale 1 : 222

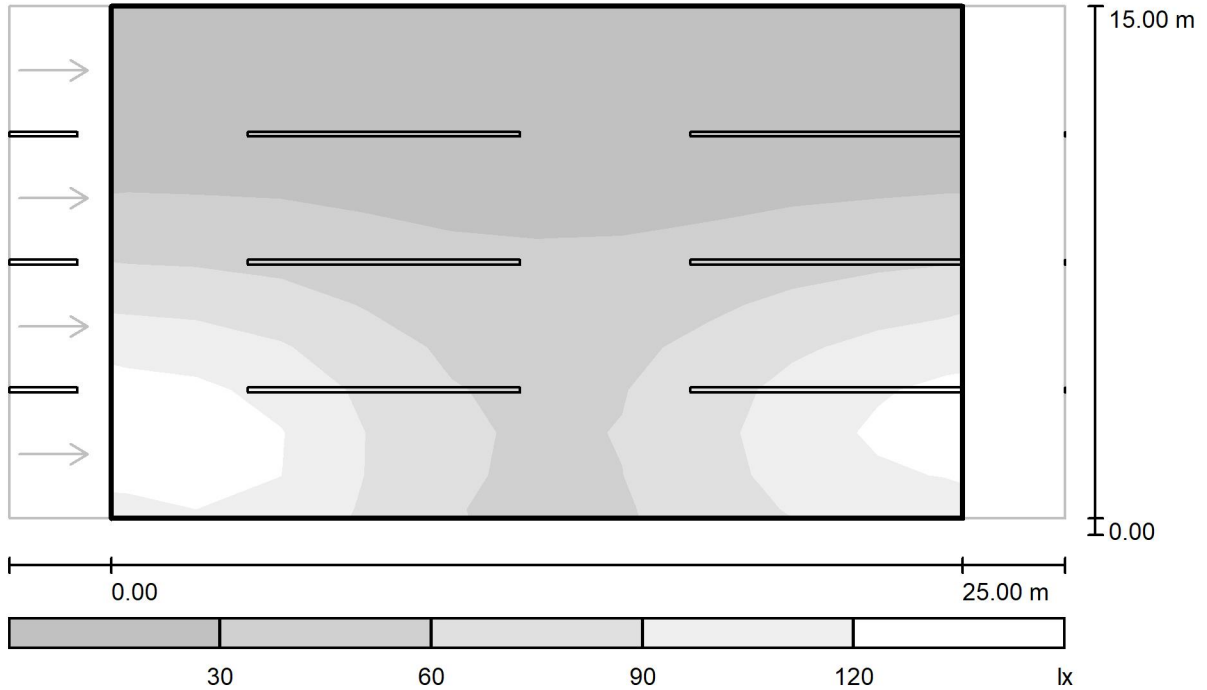
Grid: 10 x 12 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0	E_{min} / E_{max}
50	4.05	140	0.081	0.029



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Street 1 / Valuation Field Roadway 1 / Greyscale (E)



Scale 1 : 222

Grid: 10 x 12 Points

E_{av} [lx]
50

E_{min} [lx]
4.05

E_{max} [lx]
140

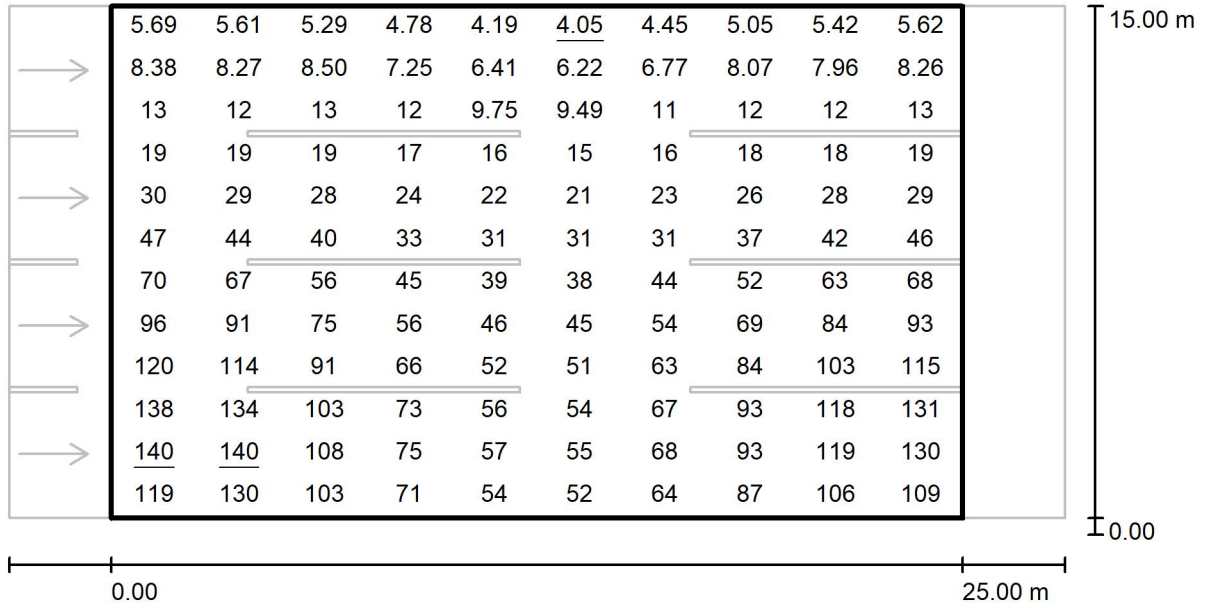
u_0
0.081

E_{min} / E_{max}
0.029



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Street 1 / Valuation Field Roadway 1 / Value Chart (E)



Values in Lux, Scale 1 : 222

Grid: 10 x 12 Points

E_{av} [lx]
50

E_{min} [lx]
4.05

E_{max} [lx]
140

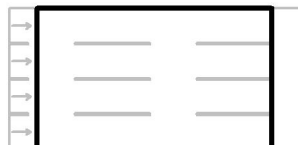
u_0
0.081

E_{min} / E_{max}
0.029



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Street 1 / Valuation Field Roadway 1 / Table (E)



14.375	5.69	5.61	5.29	4.78	4.19	<u>4.05</u>	4.45	5.05	5.42	5.62
13.125	8.38	8.27	8.50	7.25	6.41	6.22	6.77	8.07	7.96	8.26
11.875	13	12	13	12	9.75	9.49	11	12	12	13
10.625	19	19	19	17	16	15	16	18	18	19
9.375	30	29	28	24	22	21	23	26	28	29
8.125	47	44	40	33	31	31	31	37	42	46
6.875	70	67	56	45	39	38	44	52	63	68
5.625	96	91	75	56	46	45	54	69	84	93
4.375	120	114	91	66	52	51	63	84	103	115
3.125	138	134	103	73	56	54	67	93	118	131
1.875	<u>140</u>	<u>140</u>	108	75	57	55	68	93	119	130
0.625	119	130	103	71	54	52	64	87	106	109
m	1.250	3.750	6.250	8.750	11.250	13.750	16.250	18.750	21.250	23.750

Attention: The coordinates refer to the image above. Values in Lux.

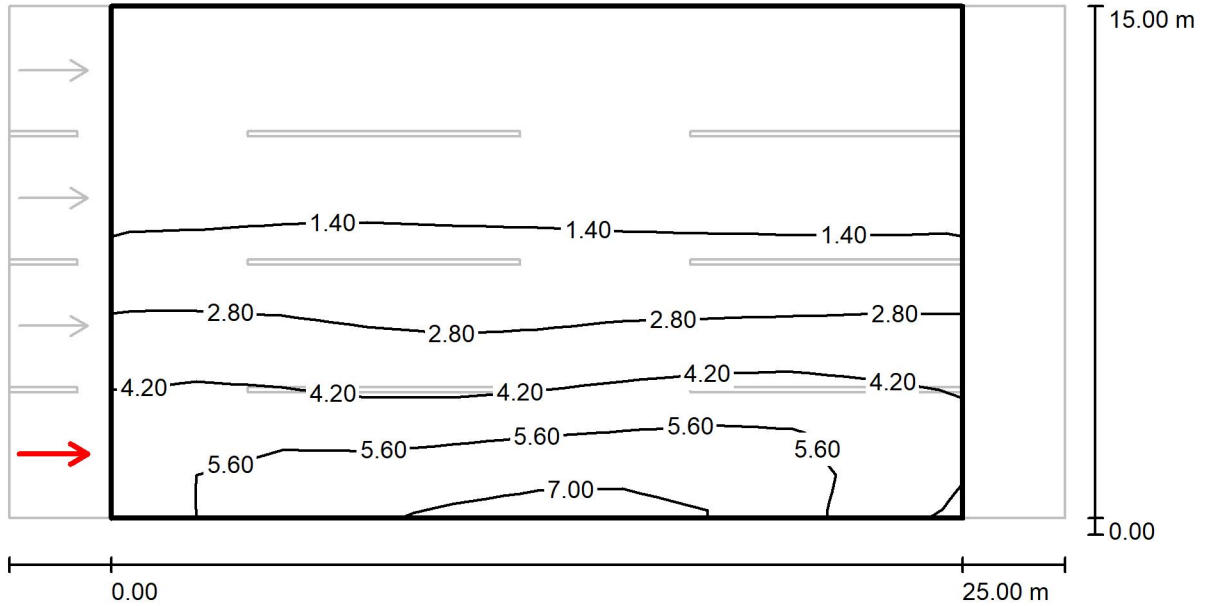
Grid: 10 x 12 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0	E_{min} / E_{max}
50	4.05	140	0.081	0.029



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Street 1 / Valuation Field Roadway 1 / Observer 1 / Isolines (L)



Values in Candela/m², Scale 1 : 222

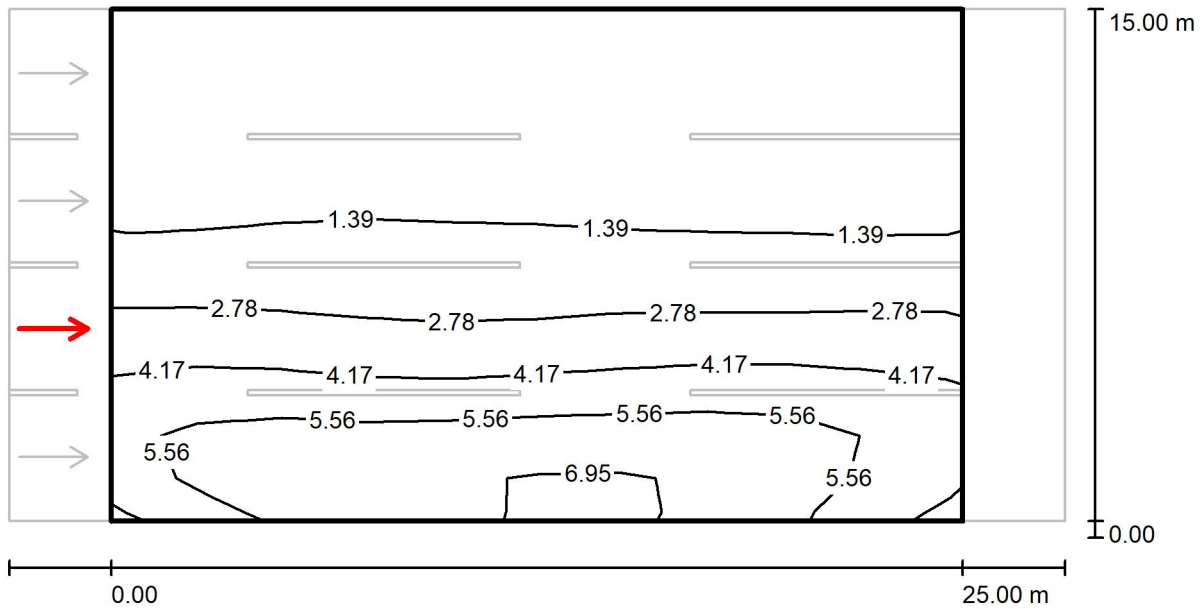
Grid: 10 x 12 Points
Observer Position: (-60.000 m, 1.875 m, 1.500 m)
tarmac: R3, q0: 0.070

	L_{av} [cd/m ²]	U0	UI	TI [%]
Calculated values:	2.51	0.08	0.77	12
Required values according to class ME4a:	≥ 0.75	≥ 0.40	≥ 0.60	≤ 15
Fulfilled/Not fulfilled:	✓	✗	✓	✓



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Street 1 / Valuation Field Roadway 1 / Observer 2 / Isolines (L)



Values in Candela/m², Scale 1 : 222

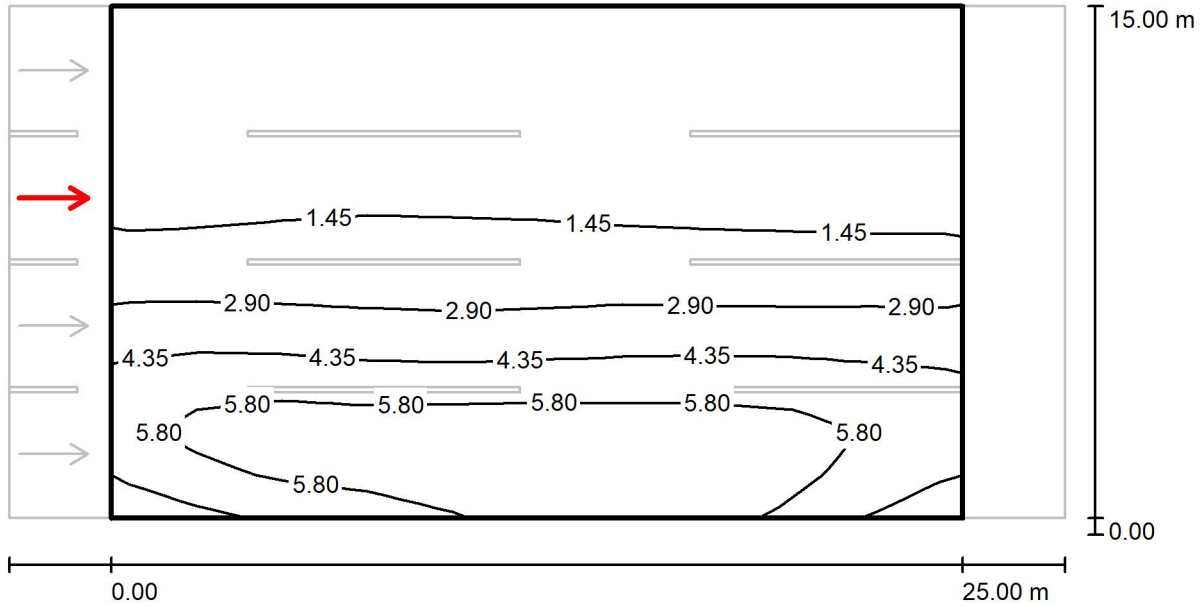
Grid: 10 x 12 Points
Observer Position: (-60.000 m, 5.625 m, 1.500 m)
tarmac: R3, q0: 0.070

	L_{av} [cd/m ²]	U0	UI	TI [%]
Calculated values:	2.66	0.07	0.83	6
Required values according to class ME4a:	≥ 0.75	≥ 0.40	≥ 0.60	≤ 15
Fulfilled/Not fulfilled:	✓	✗	✓	✓



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Street 1 / Valuation Field Roadway 1 / Observer 3 / Isolines (L)



Values in Candela/m², Scale 1 : 222

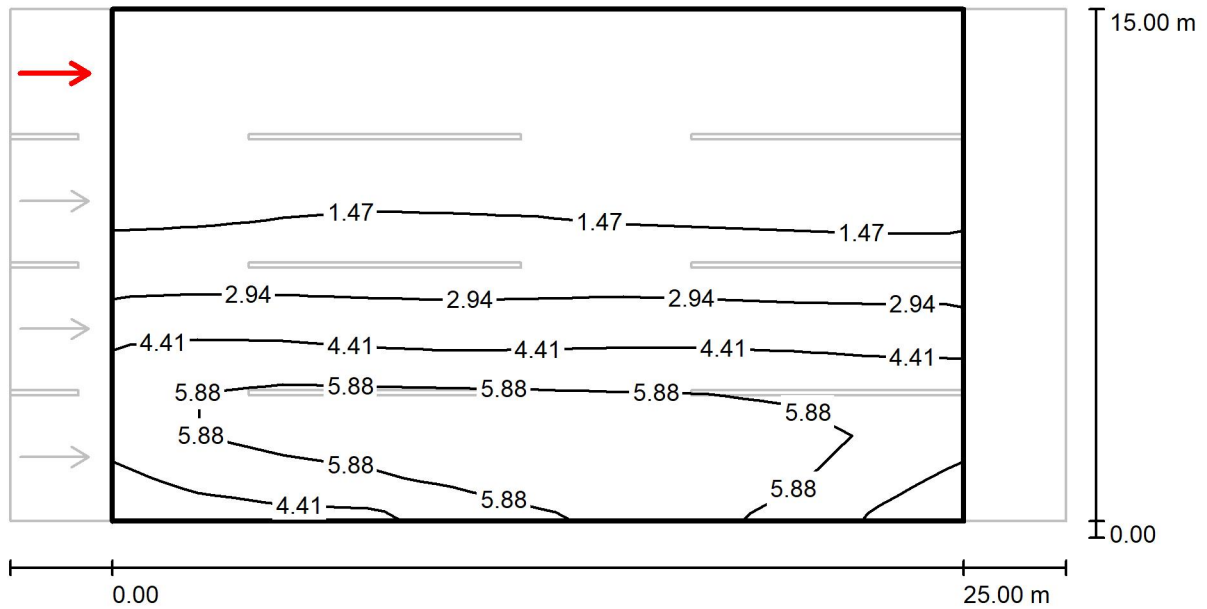
Grid: 10 x 12 Points
 Observer Position: (-60.000 m, 9.375 m, 1.500 m)
 tarmac: R3, q0: 0.070

	L_{av} [cd/m²]	U0	UI	TI [%]
Calculated values:	2.78	0.07	0.76	3
Required values according to class ME4a:	≥ 0.75	≥ 0.40	≥ 0.60	≤ 15
Fulfilled/Not fulfilled:	✓	✗	✓	✓



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Street 1 / Valuation Field Roadway 1 / Observer 4 / Isolines (L)



Values in Candela/m², Scale 1 : 222

Grid: 10 x 12 Points
Observer Position: (-60.000 m, 13.125 m, 1.500 m)
tarmac: R3, q0: 0.070

	L_{av} [cd/m ²]	U0	UI	TI [%]
Calculated values:	2.87	0.07	0.73	1
Required values according to class ME4a:	≥ 0.75	≥ 0.40	≥ 0.60	≤ 15
Fulfilled/Not fulfilled:	✓	✗	✓	✓