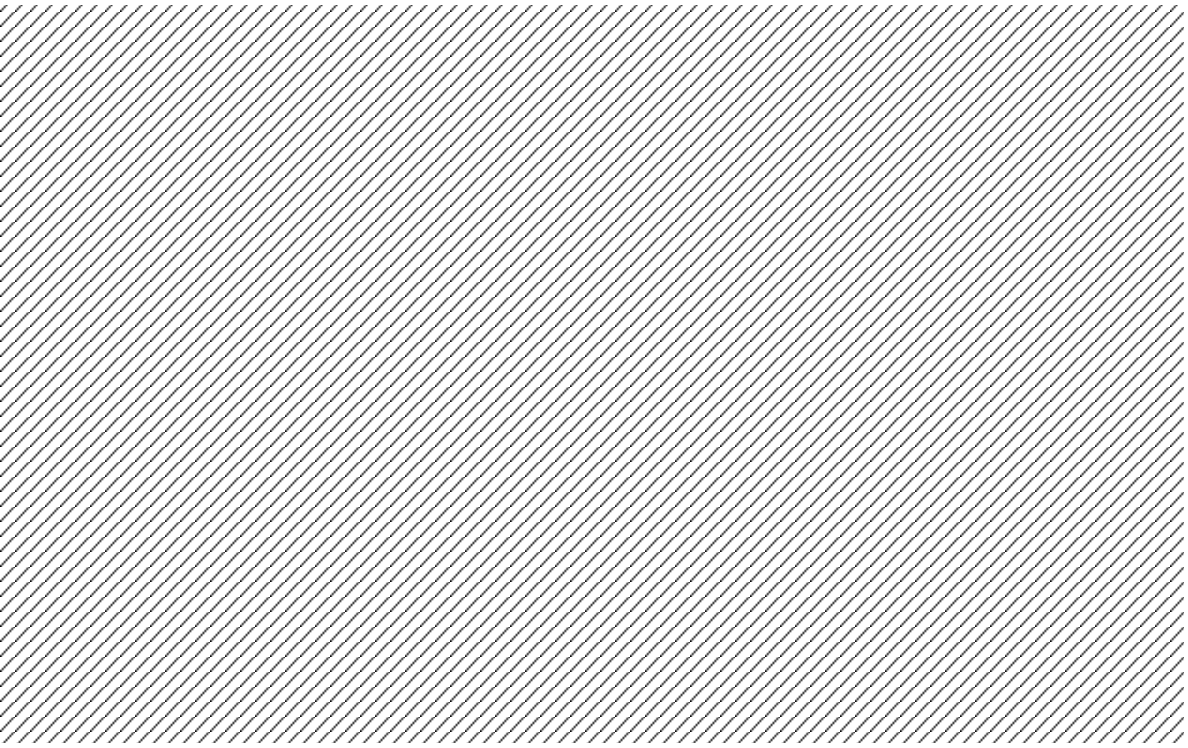
Date 23.12.2020

Schréder
Experts in lightability™



Lighting of Tbilisi-Sagarejo-Bakurtsikhe road - Typical cross sections of secondary roads RQ11 on bridge - with Izylum luminaires

Object
Tbilisi-Sagarejo-Bakurtsikhe road - Typical cross sections of secondary roads RQ11 on bridge

Object
Tbilisi-Sagarejo-Bakurtsikhe road - Typical cross sections of secondary roads RQ11 on bridge

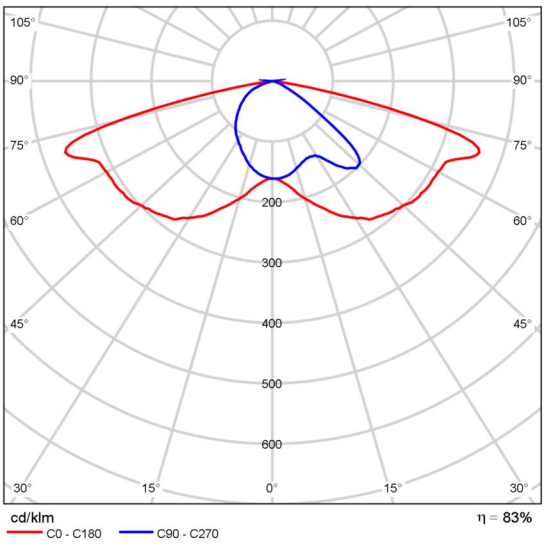
Content

Product data sheets

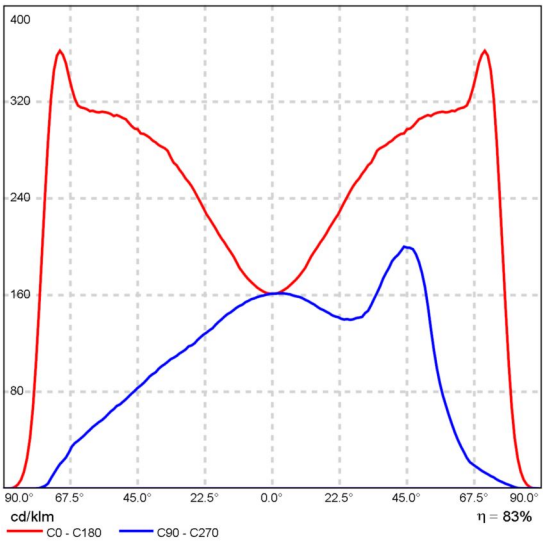
Product data sheet

SCHREDER IZYLUM 2 / 5305 / 40 LEDs 800mA NW 740 101W / / 449412

Article No.	
P	101.0 W
Φ_{Lamp}	14949 lm
$\Phi_{Luminaire}$	12454 lm
η	83.31 %
Luminous efficacy	123.3 lm/W
CCT	4000 K
CRI	70



Polar LDC



Linear LDC

CONCEPT
Family of 5 road LED luminaires: 1, 2, 3, 4, 5
Applications:
Dimensions (mm):
•Width: 352
•Height: 94
•Length: 604
Weight (kg): 6,3
Recommended height installation: between 4m and 15m+m
For optimal heat dissipation, the driver and LED engine are in separate compartments and juxtaposed in a horizontal section

HOUSING & FINISH
•Housing in high-pressure, die-cast aluminium, polyester powder coated
•Direct and tool free access to housing with driver compartment and optical unit by pushing the two clips at the bottom of the luminaire. Closing of the luminaire is confirmed with a clear, loud clicking sound (minimum of 110dB), audible even in a noisy road or urban environment.
•Colour: AKZO grey 900 sanded

Product data sheet

SCHREDER IZYLUM 2 / 5305 / 40 LEDs 800mA NW 740 101W / / 449412

•Luminaire CxS: 0.028m²
•Tightness - driver & optical: IP66/IP67
•Impact resistance: IK 09

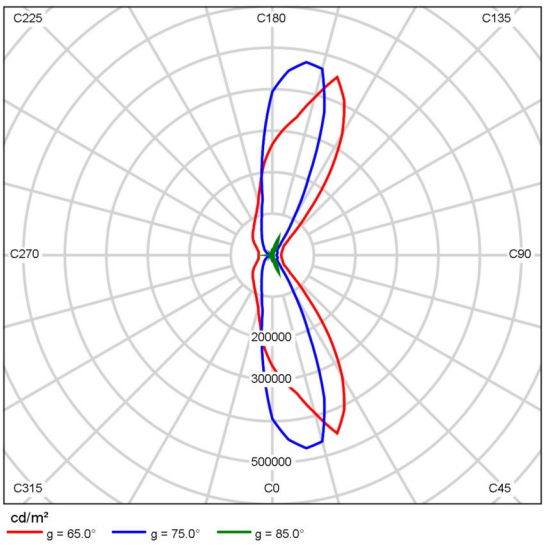
INSTALLATION
•Universal fixation in high-pressure, die-cast aluminium
•For Diameter 60mm: 42-48 & 60mm tightened with 2 stainless steel screws, 32mm with a reducer kit
•For Diameter 76mm: 60mm & 76mm tightened with 2 stainless steel screws, 32 & 42-48mm with a reducer kit
•Switching from post-top to side-entry without disconnection from luminaire or the pole (even with precable version)
•Allows tilt of 130°
•Tool free access for maintenance

OPTICAL UNIT
•Available with high power & mid power LED's with the same body
•Protected against lens degradation with a 5mm thick extra-clear hardened glass
•Various photometric distributions: from narrow road to motorway, medium and large area
•CRI > 70
•ULR: 0%
LED lumen depreciation
•Lifetime residual flux @ Tq=25°C @ 100.000 hrs

ELECTRICAL
•Class I or Class II
•Input voltage: 220-240V - 50-60Hz
•Power factor > 95% at full load
•10kV, 10kA surge protection

STANDARDS & CERTIFICATIONS
•CE
•ENEC
•LM79-80
•ETL
•ROHS
•All measurements in ISO17025 accredited laboratory

OPTIONS
•Other RAL or AKZO colours
•Other light distributions
•Back light control
•NW or WW LEDs
•OWLET remote management
•Custom dimming profile; Constant Lumen Output (CLO); Bi-Power
•Photocell
•Motion detection
•Bluetooth



Luminance diagram

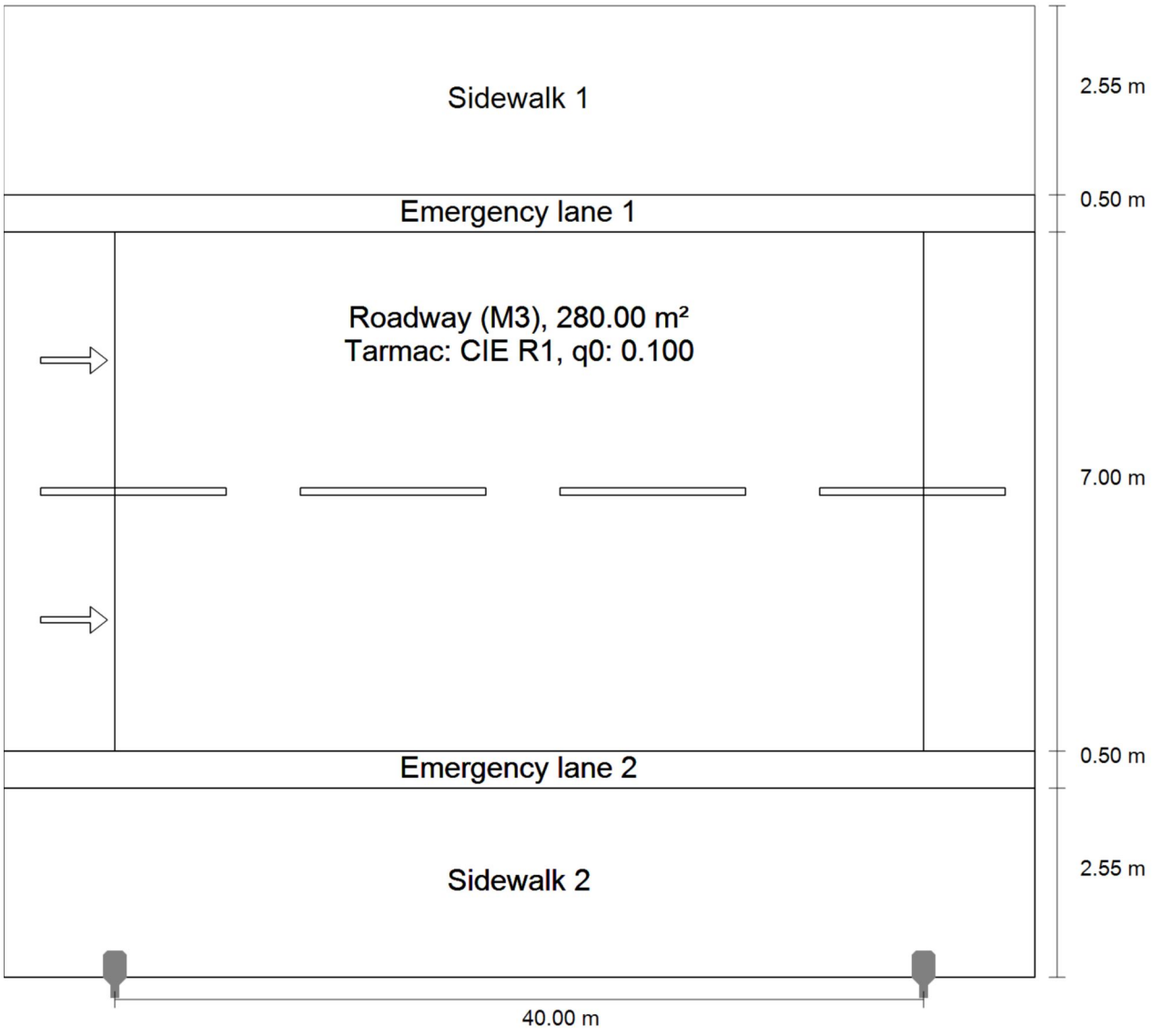
Product data sheet

SCHREDER IZYLUM 2 / 5305 / 40 LEDs 800mA NW 740 101W / / 449412

IZYLUM 2 – YOUR OPTICAL UNIT CONFIGURATION:
- Optic: 5305 Matrix: 449412
- Protector: [Glass Extra Clear, Flat, Smooth]
- Source: 40 LEDs 800mA NW 740
- Power (W): 101
- Tightness optical unit: IP66/IP67
- Specifications may differ per country and be changed without notice due to continuous R&D on our products. (*) Tolerance of 7% on flux data.

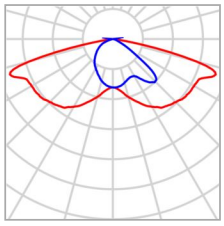
Tbilisi-Sagarejo-Bakurtsikhe road - Typical cross sections of secondary roads RQ11 on bridge · Альтернатива 1

Summary (according to EN 13201:2015)



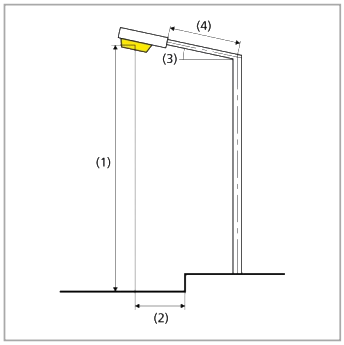
Tbilisi-Sagarejo-Bakurtsikhe road - Typical cross sections of secondary roads RQ11 on bridge · Альтернатива 1

Summary (according to EN 13201:2015)



Manufacturer	SCHREDER	P	101.0 W
Article No.		Φ_{Lamp}	14949 lm
Article name	IZYLUM 2 / 5305 / 40 LEDs 800mA NW 740 101W / / 449412	$\Phi_{Luminaire}$	12454 lm
		η	83.31 %
Fitting	1x 40 LEDs 800mA NW 740		

IZYLUM 2 / 5305 / 40 LEDs 800mA NW 740 101W / / 449412 (single side bottom)



Pole distance	40.000 m
(1) Light spot height	8.000 m
(2) Light point overhang	-2.950 m
(3) Boom inclination	0.0°
(4) Boom length	0.020 m
Annual operating hours	4000 h: 100.0 %, 101.0 W
Consumption	2525.0 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°: 679 cd/klm ≥ 80°: 128 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*2

Tbilisi-Sagarejo-Bakurtsikhe road - Typical cross sections of secondary roads RQ11 on bridge · Альтернатива 1

Summary (according to EN 13201:2015)

Glare index class	D.3

Results for valuation fields

	Symbol	Calculated	Target	Check
Roadway (M3)	L_{av}	1.21 cd/m²	≥ 1.00 cd/m²	✓
	U_o	0.58	≥ 0.40	✓
	U_l	0.80	≥ 0.60	✓
	TI	15 %	≤ 15 %	✓
	R_{EI}	0.30	≥ 0.30	✓

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

Results for energy efficiency indicators

	Symbol	Calculated	Consumption
Tbilisi-Sagarejo-Bakurtsikhe road - Typical cross sections of secondary roads RQ11 on bridge	D_p	0.030 W/lx*m²	-
IZYLUM 2 / 5305 / 40 LEDs 800mA NW 740 101W / / 449412 (single side bottom)	D_e	1.4 kWh/m² yr	404.0 kWh/yr

Tbilisi-Sagarejo-Bakurtsikhe road - Typical cross sections of secondary roads RQ11 on bridge · Альтернатива 1

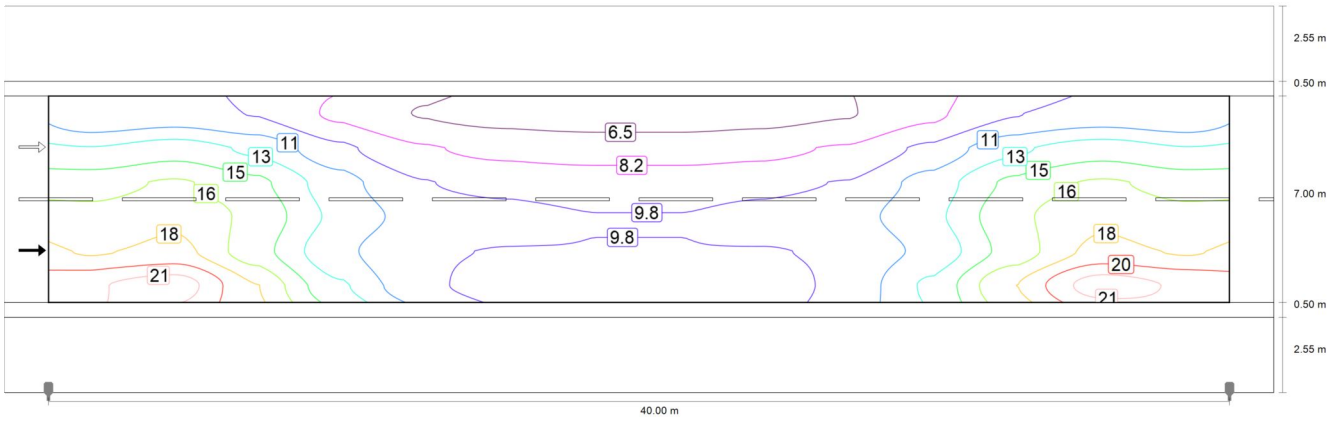
Roadway (M3)

Results for valuation field

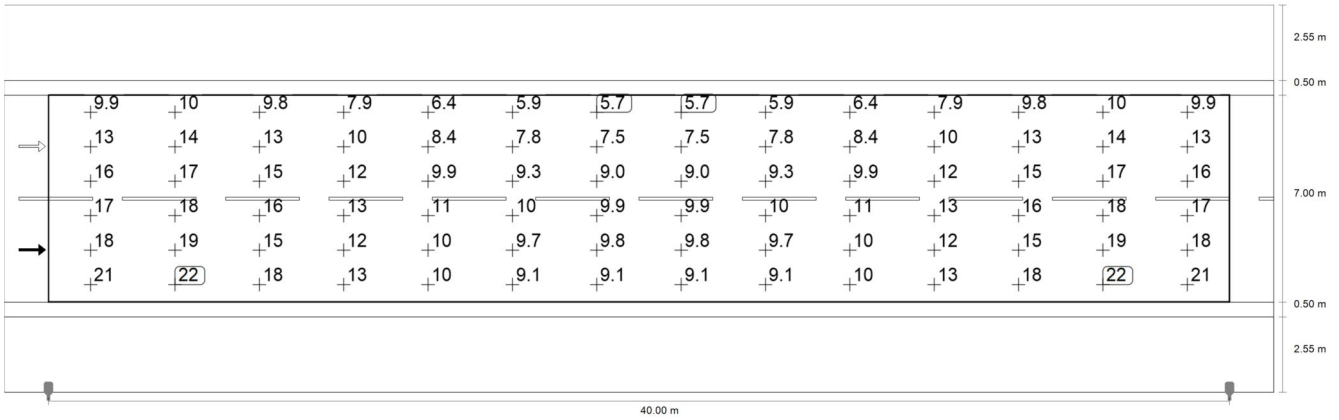
	Symbol	Calculated	Target	Check
Roadway (M3)	L_{av}	1.21 cd/m²	≥ 1.00 cd/m²	✓
	U_o	0.58	≥ 0.40	✓
	U_l	0.80	≥ 0.60	✓
	TI	15 %	≤ 15 %	✓
	R_{EI}	0.30	≥ 0.30	✓

Results for observer

	Symbol	Calculated	Target	Check
Observer 1 Position: -60.000 m, 4.800 m, 1.500 m	L_{av}	1.21 cd/m²	≥ 1.00 cd/m²	✓
	U_o	0.58	≥ 0.40	✓
	U_l	0.80	≥ 0.60	✓
	TI	15 %	≤ 15 %	✓
Observer 2 Position: -60.000 m, 8.300 m, 1.500 m	L_{av}	1.24 cd/m²	≥ 1.00 cd/m²	✓
	U_o	0.58	≥ 0.40	✓
	U_l	0.83	≥ 0.60	✓
	TI	5 %	≤ 15 %	✓



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

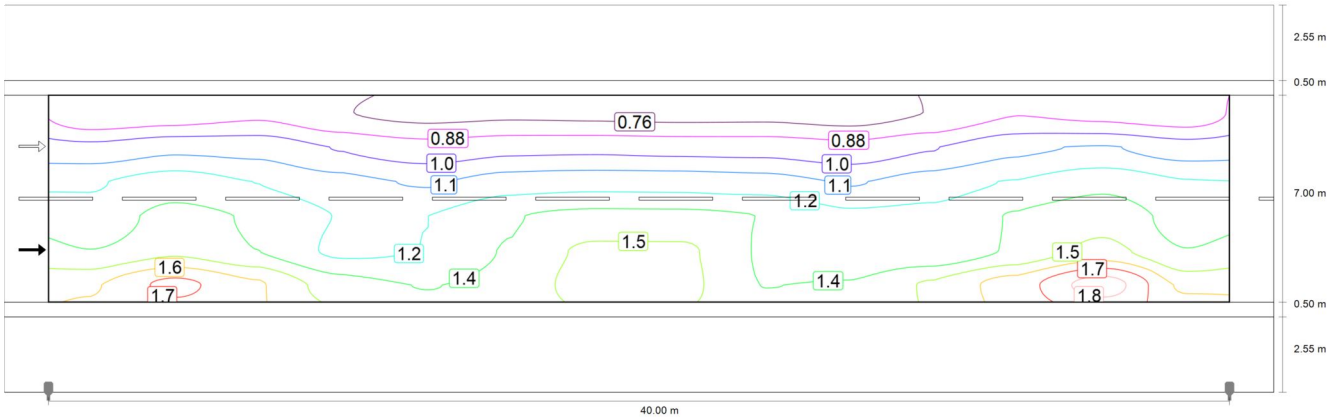


Maintenance value, horizontal illuminance [lx] (Value grid)

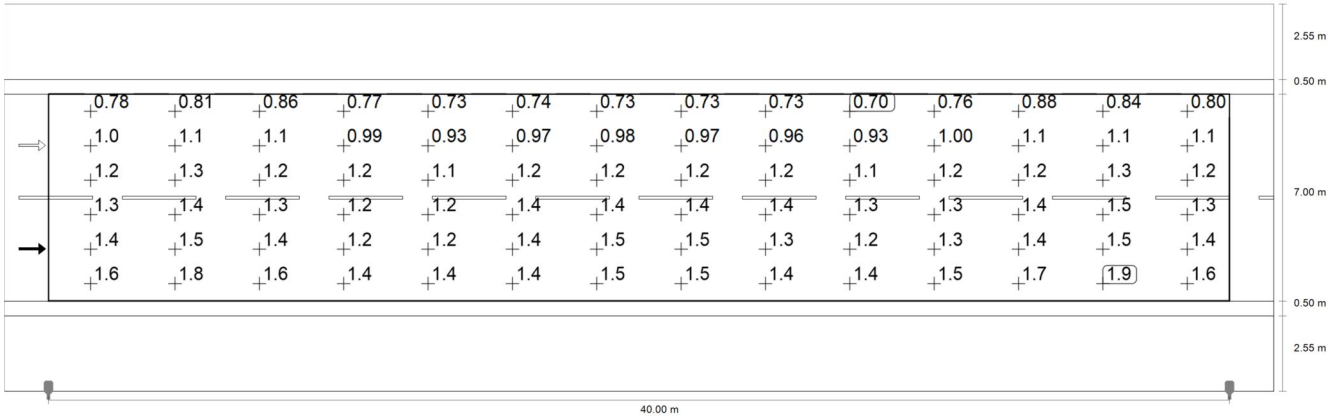
m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
9.467	9.94	10.46	9.76	7.86	6.45	5.95	5.72	5.72	5.95	6.45	7.86	9.76	10.46	9.94
8.300	13.19	14.05	12.79	10.21	8.36	7.77	7.52	7.52	7.77	8.36	10.21	12.79	14.05	13.19
7.133	15.77	16.60	15.13	12.13	9.91	9.33	9.05	9.05	9.33	9.91	12.13	15.13	16.60	15.77
5.967	17.06	17.85	15.92	12.69	10.81	10.33	9.86	9.86	10.33	10.81	12.69	15.92	17.85	17.06
4.800	17.89	18.55	15.45	11.91	10.12	9.74	9.78	9.78	9.74	10.12	11.91	15.45	18.55	17.89
3.633	21.09	22.15	18.06	13.40	10.26	9.08	9.06	9.06	9.08	10.26	13.40	18.06	22.15	21.09

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

	E_{av}	E_{min}	E_{max}	g_1	g_2
Maintenance value, horizontal illuminance	12.1 lx	5.72 lx	22.2 lx	0.472	0.258



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

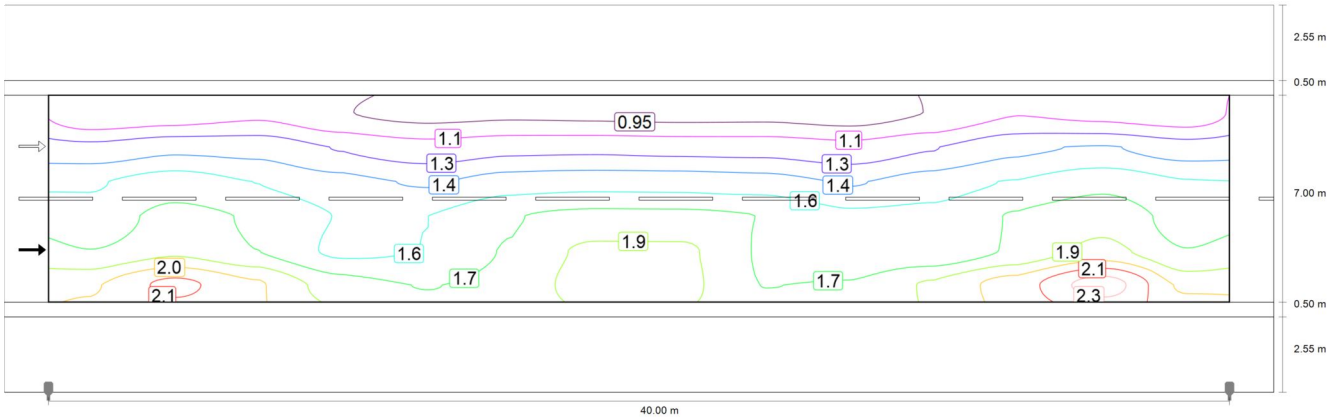


Observer 1: Maintenance value, luminance with dry roadway [cd/m²] (Value grid)

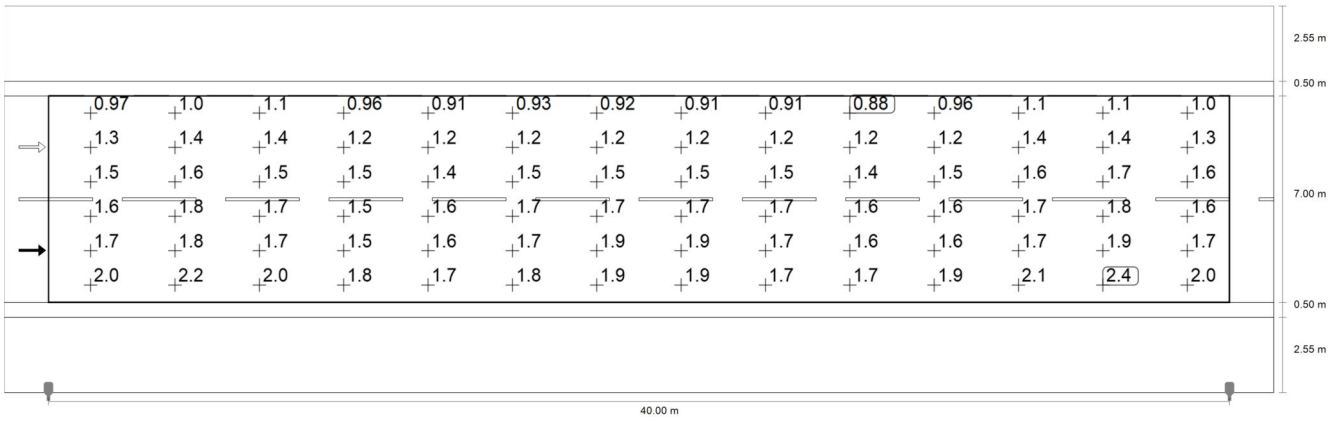
m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
9.467	0.78	0.81	0.86	0.77	0.73	0.74	0.73	0.73	0.73	0.70	0.76	0.88	0.84	0.80
8.300	1.04	1.10	1.09	0.99	0.93	0.97	0.98	0.97	0.96	0.93	1.00	1.10	1.13	1.06
7.133	1.23	1.31	1.24	1.16	1.11	1.19	1.21	1.20	1.18	1.11	1.18	1.25	1.33	1.25
5.967	1.29	1.40	1.35	1.24	1.24	1.35	1.40	1.40	1.36	1.26	1.27	1.37	1.45	1.31
4.800	1.36	1.46	1.36	1.22	1.24	1.37	1.51	1.50	1.35	1.25	1.26	1.38	1.52	1.37
3.633	1.59	1.75	1.61	1.42	1.36	1.40	1.54	1.51	1.36	1.37	1.49	1.65	1.90	1.58

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

	L_{av}	L_{min}	L_{max}	g_1	g_2
Observer 1: Maintenance value, luminance with dry roadway	1.21 cd/m²	0.70 cd/m²	1.90 cd/m²	0.581	0.370



Observer 1: Luminance with new installation [cd/m²] (Iso-illuminance curves)

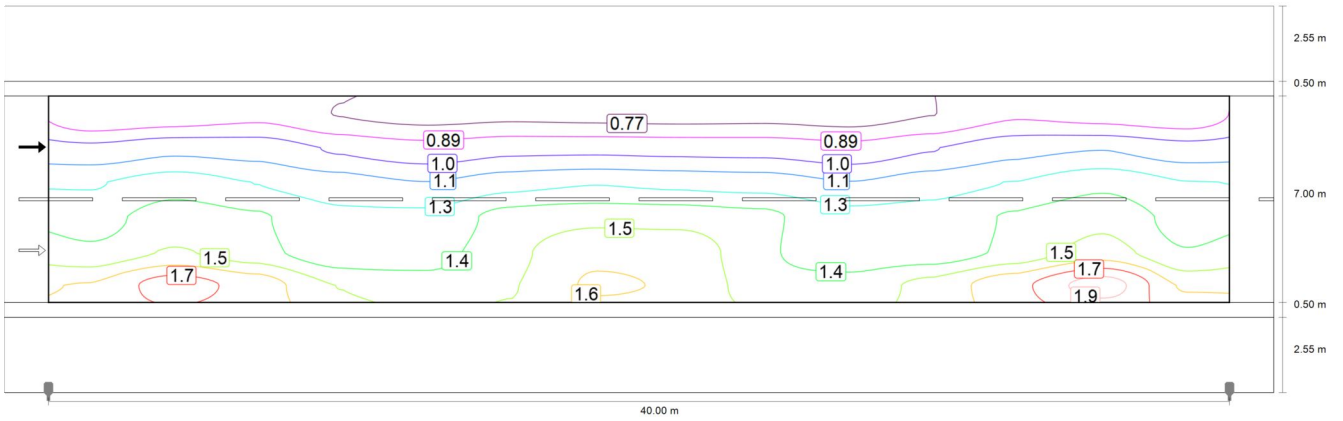


Observer 1: Luminance with new installation [cd/m²] (Value grid)

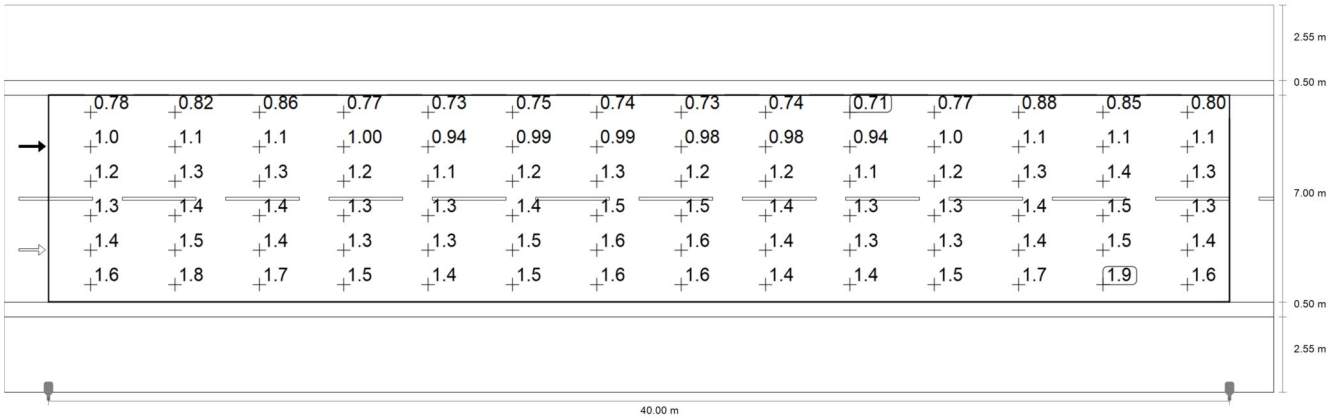
m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
9.467	0.97	1.01	1.07	0.96	0.91	0.93	0.92	0.91	0.91	0.88	0.96	1.10	1.05	1.00
8.300	1.30	1.37	1.36	1.24	1.17	1.22	1.22	1.21	1.21	1.16	1.24	1.37	1.41	1.33
7.133	1.54	1.63	1.55	1.45	1.39	1.48	1.51	1.50	1.47	1.39	1.47	1.56	1.66	1.56
5.967	1.62	1.75	1.69	1.54	1.55	1.69	1.75	1.75	1.70	1.57	1.59	1.71	1.81	1.64
4.800	1.71	1.82	1.70	1.52	1.55	1.71	1.88	1.88	1.69	1.56	1.57	1.72	1.90	1.71
3.633	1.98	2.19	2.02	1.78	1.70	1.75	1.92	1.89	1.70	1.72	1.87	2.07	2.37	1.97

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

	L_{av}	L_{min}	L_{max}	g_1	g_2
Observer 1: Luminance with new installation	1.51 cd/m²	0.88 cd/m²	2.37 cd/m²	0.581	0.370



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

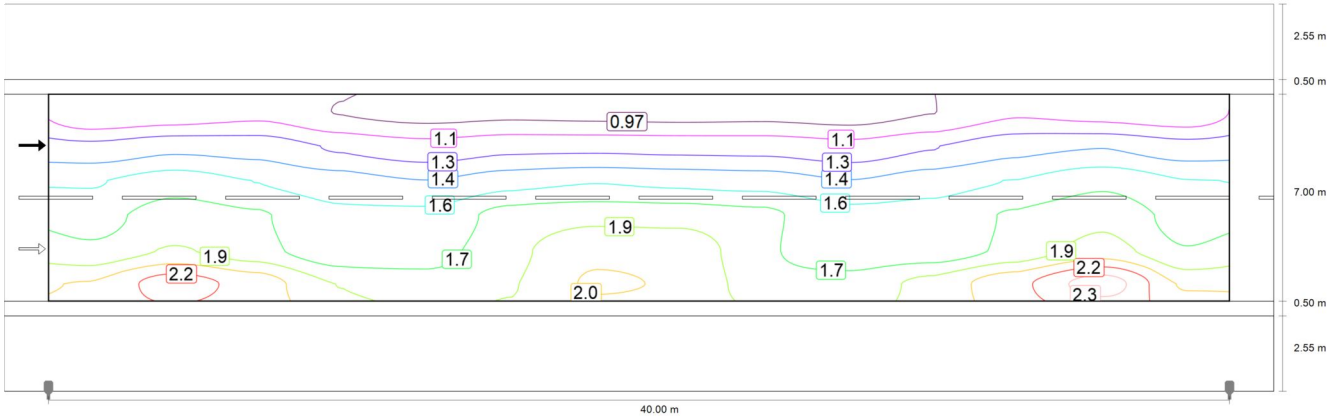


Observer 2: Maintenance value, luminance with dry roadway [cd/m²] (Value grid)

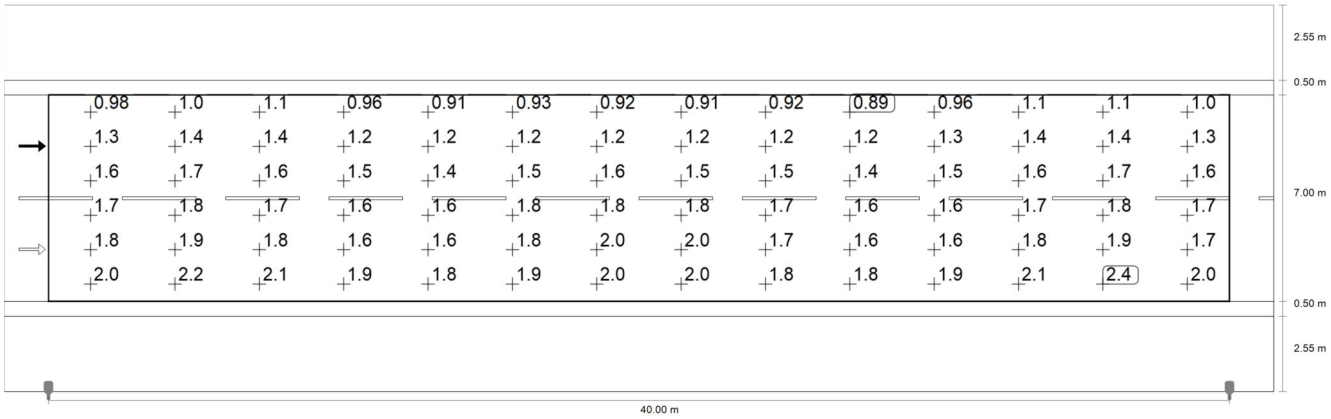
m	1.429	4.286	7.143	10.000	12.857	15.714	18.571	21.429	24.286	27.143	30.000	32.857	35.714	38.571
9.467	0.78	0.82	0.86	0.77	0.73	0.75	0.74	0.73	0.74	0.71	0.77	0.88	0.85	0.80
8.300	1.05	1.11	1.09	1.00	0.94	0.99	0.99	0.98	0.98	0.94	1.01	1.10	1.13	1.07
7.133	1.25	1.32	1.25	1.19	1.14	1.21	1.25	1.23	1.21	1.14	1.20	1.26	1.35	1.26
5.967	1.33	1.44	1.39	1.28	1.28	1.42	1.47	1.46	1.40	1.29	1.30	1.39	1.47	1.32
4.800	1.41	1.51	1.42	1.29	1.32	1.46	1.59	1.58	1.40	1.30	1.30	1.41	1.55	1.38
3.633	1.62	1.80	1.68	1.49	1.43	1.49	1.63	1.60	1.42	1.43	1.53	1.70	1.92	1.60

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

	L_{av}	L_{min}	L_{max}	g_1	g_2
Observer 2: Maintenance value, luminance with dry roadway	1.24 cd/m²	0.71 cd/m²	1.92 cd/m²	0.577	0.373



Observer 2: Luminance with new installation [cd/m²] (Iso-illuminance curves)



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

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
9.467	0.98	1.02	1.08	0.96	0.91	0.93	0.92	0.91	0.92	0.89	0.96	1.10	1.06	1.01
8.300	1.31	1.39	1.36	1.25	1.18	1.24	1.24	1.23	1.22	1.18	1.26	1.38	1.41	1.33
7.133	1.56	1.65	1.57	1.49	1.42	1.52	1.56	1.54	1.51	1.42	1.50	1.57	1.69	1.57
5.967	1.66	1.81	1.74	1.60	1.61	1.78	1.84	1.82	1.75	1.61	1.63	1.74	1.84	1.66
4.800	1.76	1.88	1.77	1.61	1.65	1.82	1.99	1.97	1.75	1.62	1.62	1.76	1.93	1.73
3.633	2.03	2.24	2.10	1.86	1.79	1.86	2.04	2.01	1.78	1.78	1.91	2.12	2.39	2.00

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

	L_{av}	L_{min}	L_{max}	g_1	g_2
Observer 2: Luminance with new installation	1.55 cd/m^2	0.89 cd/m^2	2.39 cd/m^2	0.577	0.373