

RAIL BALTICA HARJUMAA PÕHITRASSI RAUDTEETARISTU I ETAPI E HITUSTÖÖD /RAIL BALTICA MAIN RAILWAY INFRASTRUCTURE WORKS, HARJU COUNTRY, PHASE I

Põõrangute ja hooldusteede valgustamine

Contacts



Projekteerija
Mihkel Oitsalu

Estgrid OÜ

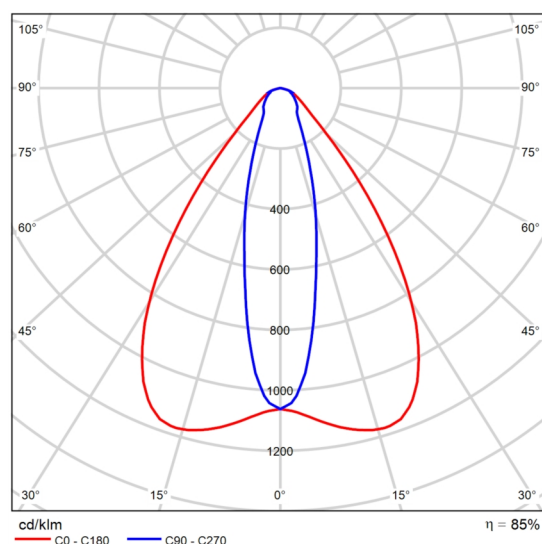
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Product data sheet

Philips - BVP651 T25 1 xLED650-4S/740 S



P	420.0 W
Φ_{Lamp}	66000 lm
$\Phi_{\text{Luminaire}}$	56181 lm
η	85.12 %
Luminous efficacy	133.8 lm/W
CCT	3000 K
CRI	100



Polar LDC

ClearFlood Large – The best solution for 1:1 retrofit ClearFlood Large is designed to meet the requirements of a wide range of floodlighting applications. It also includes all the necessary control features and interfaces to make it future-proof and even more efficient. ClearFlood Large lets you choose the exact number of lumens you need for your application. Incorporating extremely high-efficiency optics and state-of-the-art LEDs, it is a highly competitive solution offering an outstanding lux/euro ratio and energy savings of up to 50% (without the use of additional controls). The wide choice of optics ensures maximum application coverage. ClearFlood Large is easy to install ? you simply plug it in and select the best option for your needs. Perfect for replacing conventional technology and enabling intelligent lighting control while retaining the same electrical installation and poles.

Tailor made solution : For tuned project solutions Philips can support with the exclusive L-Tune tool :build required flux to the best balance of life,maintained flux, energy,cost and product type.

Glare evaluation according to UGR												
p Ceiling		70	70	50	50	30	70	70	50	50	30	
p Walls		50	30	50	30	30	50	30	50	30	30	
p Floor		20	20	20	20	20	20	20	20	20	20	
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis					
2H	2H	25.1	26.1	25.3	26.3	26.5	20.9	21.9	21.1	22.1	22.3	
	3H	25.8	26.7	26.1	27.0	27.2	22.7	23.6	23.0	23.8	24.1	
	4H	26.1	27.0	26.5	27.3	27.6	23.6	24.4	23.9	24.7	25.0	
	6H	26.3	27.1	26.6	27.4	27.7	23.7	24.5	24.1	24.8	25.1	
	8H	26.3	27.1	26.6	27.4	27.7	23.7	24.5	24.1	24.8	25.1	
	12H	26.2	27.0	26.6	27.3	27.6	23.7	24.4	24.0	24.7	25.0	
4H	2H	25.1	26.0	25.5	26.3	26.5	21.6	22.5	21.9	22.7	23.0	
	3H	26.0	26.8	26.4	27.1	27.4	23.5	24.3	23.9	24.6	24.9	
	4H	26.5	27.2	26.9	27.5	27.9	24.5	25.2	24.9	25.5	25.9	
	6H	26.8	27.4	27.2	27.8	28.1	24.7	25.3	25.2	25.7	26.1	
	8H	26.8	27.4	27.3	27.8	28.2	24.7	25.3	25.2	25.7	26.1	
	12H	26.8	27.3	27.2	27.7	28.1	24.7	25.2	25.1	25.6	26.0	
8H	4H	26.6	27.1	27.0	27.5	27.9	24.7	25.2	25.1	25.6	26.0	
	6H	26.9	27.4	27.4	27.8	28.2	25.0	25.4	25.4	25.8	26.3	
	8H	27.0	27.4	27.5	27.8	28.3	25.0	25.4	25.5	25.8	26.3	
	12H	27.0	27.3	27.5	27.7	28.2	25.0	25.3	25.5	25.8	26.3	
12H	4H	26.5	27.0	27.0	27.4	27.9	24.7	25.2	25.1	25.6	26.0	
	6H	26.9	27.3	27.4	27.7	28.2	25.0	25.4	25.5	25.8	26.3	
	8H	27.0	27.3	27.5	27.8	28.3	25.0	25.3	25.5	25.8	26.3	
Variation of the observer position for the luminaire distances S												
S = 1.0H		+2.2 / -0.9					+0.2 / -0.2					
S = 1.5H		+4.0 / -1.3					+0.4 / -0.5					
S = 2.0H		+5.7 / -1.8					+0.7 / -1.3					
Standard table		BK03					BK05					
Correction summand		8.7					7.1					
Corrected glare indices referring to 96000lm Total luminous flux												

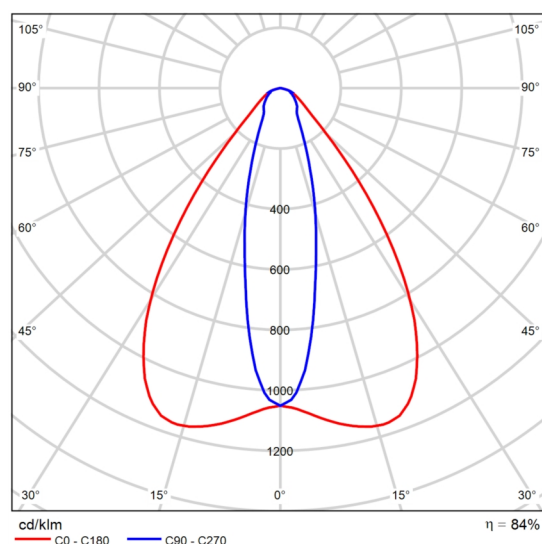
UGR diagram (SHR: 0.25)

Product data sheet

Philips - BVP651 T25 1 xLED800-4S/740 S



P	540.0 W
Φ_{Lamp}	80000 lm
$\Phi_{Luminaire}$	67396 lm
η	84.25 %
Luminous efficacy	124.8 lm/W
CCT	3000 K
CRI	100



Polar LDC

ClearFlood Large – The best solution for 1:1 retrofit ClearFlood Large is designed to meet the requirements of a wide range of floodlighting applications. It also includes all the necessary control features and interfaces to make it future-proof and even more efficient. ClearFlood Large lets you choose the exact number of lumens you need for your application. Incorporating extremely high-efficiency optics and state-of-the-art LEDs, it is a highly competitive solution offering an outstanding lux/euro ratio and energy savings of up to 50% (without the use of additional controls). The wide choice of optics ensures maximum application coverage. ClearFlood Large is easy to install - you simply plug it in and select the best option for your needs. Perfect for replacing conventional technology and enabling intelligent lighting control while retaining the same electrical installation and poles.

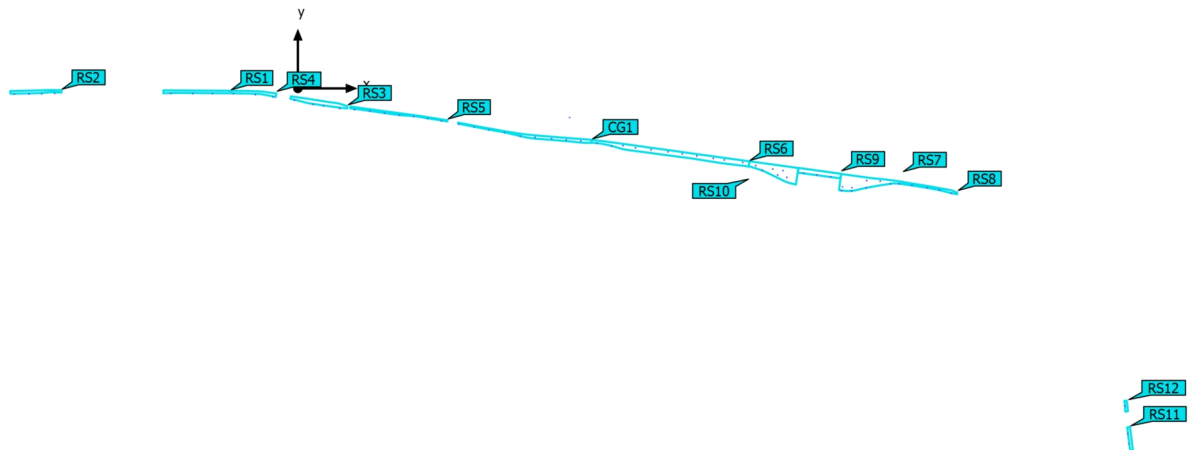
Tailor made solution : For tuned project solutions Philips can support with the exclusive L-Tune tool :build required flux to the best balance of life,maintained flux, energy,cost and product type.

Glare evaluation according to UGR												
p Ceiling	70	70	50	50	30	70	70	50	50	30		
p Walls	50	30	50	30	30	50	30	50	30	30		
p Floor	20	20	20	20	20	20	20	20	20	20		
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis					
2H	2H	25.7	26.7	26.0	26.9	27.1	21.5	22.5	21.8	22.7	22.9	
	3H	26.4	27.3	26.7	27.6	27.8	23.3	24.2	23.6	24.5	24.7	
	4H	26.8	27.6	27.1	27.9	28.2	24.2	25.1	24.5	25.3	25.6	
	6H	26.9	27.7	27.3	28.0	28.3	24.4	25.2	24.7	25.5	25.8	
	8H	26.9	27.7	27.3	28.0	28.3	24.3	25.1	24.7	25.4	25.7	
	12H	26.9	27.6	27.2	27.9	28.3	24.3	25.0	24.7	25.4	25.7	
4H	2H	25.8	26.6	26.1	26.9	27.2	22.2	23.1	22.6	23.4	23.7	
	3H	26.7	27.4	27.0	27.7	28.1	24.2	24.9	24.5	25.2	25.5	
	4H	27.2	27.8	27.5	28.2	28.5	25.1	25.8	25.5	26.1	26.5	
	6H	27.4	28.0	27.9	28.4	28.8	25.4	26.0	25.8	26.3	26.7	
	8H	27.5	28.0	27.9	28.4	28.8	25.4	25.9	25.8	26.3	26.7	
	12H	27.4	27.9	27.9	28.3	28.8	25.3	25.8	25.8	26.2	26.7	
8H	4H	27.2	27.7	27.6	28.1	28.5	25.3	25.9	25.7	26.2	26.6	
	6H	27.6	28.0	28.0	28.4	28.9	25.6	26.0	26.1	26.5	26.9	
	8H	27.6	28.0	28.1	28.4	28.9	25.6	26.0	26.1	26.4	26.9	
	12H	27.6	27.9	28.1	28.4	28.9	25.6	25.9	26.1	26.4	26.9	
12H	4H	27.2	27.7	27.6	28.1	28.5	25.3	25.8	25.8	26.2	26.6	
	6H	27.5	27.9	28.0	28.4	28.8	25.6	26.0	26.1	26.4	26.9	
	8H	27.6	27.9	28.1	28.4	28.9	25.6	26.0	26.1	26.4	26.9	
Variation of the observer position for the luminaire distances S												
S = 1.0H		+2.2 / -0.9					+0.2 / -0.2					
S = 1.5H		+4.0 / -1.3					+0.4 / -0.5					
S = 2.0H		+5.7 / -1.8					+0.7 / -1.3					
Standard table		BK03					BK05					
Correction summand		9.2					7.7					
Corrected glare indices referring to 80000lm Total luminous flux												

UGR diagram (SHR: 0.25)

Site 1 (Light scene 1)

Calculation objects



Site 1 (Light scene 1)

Calculation objects

Surface result objects

Properties	Ø	min	max	U _o (g ₁)	g ₂	Index
Surface result object 2 Perpendicular illuminance (adaptive) Height: 0.000 m	21.7 lx	5.75 lx	46.3 lx	0.26	0.12	RS1
Surface result object 2 Luminance Height: 0.000 m	1.38 cd/m ²	0.37 cd/m ²	2.95 cd/m ²	0.27	0.13	RS1
Surface result object 3 Perpendicular illuminance (adaptive) Height: 0.000 m	24.2 lx	8.19 lx	37.9 lx	0.34	0.22	RS2
Surface result object 3 Luminance Height: 0.000 m	1.54 cd/m ²	0.52 cd/m ²	2.41 cd/m ²	0.34	0.22	RS2
Surface result object 4 Perpendicular illuminance (adaptive) Height: 0.000 m	26.1 lx	8.20 lx	54.6 lx	0.31	0.15	RS3
Surface result object 4 Luminance Height: 0.000 m	1.66 cd/m ²	0.52 cd/m ²	3.48 cd/m ²	0.31	0.15	RS3
Surface result object 5 Perpendicular illuminance (adaptive) Height: 0.000 m	21.7 lx	8.38 lx	33.7 lx	0.39	0.25	RS4
Surface result object 5 Luminance Height: 0.000 m	1.38 cd/m ²	0.53 cd/m ²	2.15 cd/m ²	0.38	0.25	RS4
Surface result object 6 Perpendicular illuminance (adaptive) Height: -0.000 m	32.9 lx	15.9 lx	44.6 lx	0.48	0.36	RS5
Surface result object 6 Luminance Height: -0.000 m	2.10 cd/m ²	1.01 cd/m ²	2.84 cd/m ²	0.48	0.36	RS5
Surface result object 7 Perpendicular illuminance (adaptive) Height: 0.000 m	25.2 lx	6.11 lx	52.1 lx	0.24	0.12	RS6

Site 1 (Light scene 1)

Calculation objects

Surface result object 7 Luminance Height: 0.000 m	1.61 cd/m ²	0.39 cd/m ²	3.32 cd/m ²	0.24	0.12	RS6
Surface result object 8 Perpendicular illuminance (adaptive) Height: 0.000 m	30.8 lx	8.31 lx	64.3 lx	0.27	0.13	RS7
Surface result object 8 Luminance Height: 0.000 m	1.96 cd/m ²	0.53 cd/m ²	4.09 cd/m ²	0.27	0.13	RS7
Surface result object 9 Perpendicular illuminance (adaptive) Height: 0.000 m	20.2 lx	8.09 lx	37.0 lx	0.40	0.22	RS8
Surface result object 9 Luminance Height: 0.000 m	1.28 cd/m ²	0.51 cd/m ²	2.35 cd/m ²	0.40	0.22	RS8
Surface result object 10 Perpendicular illuminance (adaptive) Height: -0.000 m	26.8 lx	10.1 lx	42.4 lx	0.38	0.24	RS9
Surface result object 10 Luminance Height: -0.000 m	1.70 cd/m ²	0.64 cd/m ²	2.70 cd/m ²	0.38	0.24	RS9
Surface result object 11 Perpendicular illuminance (adaptive) Height: 0.000 m	31.5 lx	6.41 lx	71.3 lx	0.20	0.090	RS10
Surface result object 11 Luminance Height: 0.000 m	2.00 cd/m ²	0.41 cd/m ²	4.54 cd/m ²	0.21	0.090	RS10
Surface result object 12 Perpendicular illuminance (adaptive) Height: 0.000 m	20.0 lx	7.07 lx	36.6 lx	0.35	0.19	RS11
Surface result object 12 Luminance Height: 0.000 m	1.27 cd/m ²	0.45 cd/m ²	2.33 cd/m ²	0.35	0.19	RS11
Surface result object 13 Perpendicular illuminance (adaptive) Height: 0.000 m	18.1 lx	9.46 lx	24.9 lx	0.52	0.38	RS12

Site 1 (Light scene 1)

Calculation objects

Surface result object 13	1.15 cd/m ²	0.60 cd/m ²	1.59 cd/m ²	0.52	0.38	RS12
Luminance						
Height: 0.000 m						

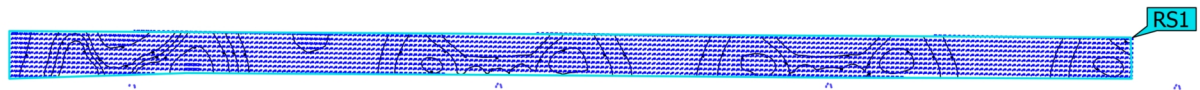
Calculation surfaces

Properties	\bar{E}	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 11	20.0 lx	2.29 lx	52.6 lx	0.11	0.044	CG1
Perpendicular illuminance						
Height: 0.000 m						

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

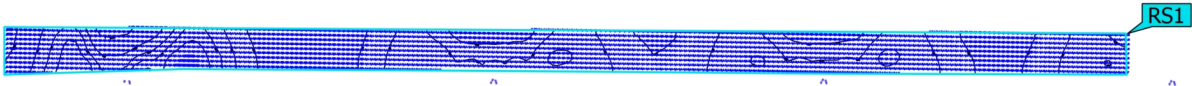
Surface result object 2



Properties	\bar{E}	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Surface result object 2 Perpendicular illuminance (adaptive) Height: 0.000 m	21.7 lx	5.75 lx	46.3 lx	0.26	0.12	RS1

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)
Surface result object 2

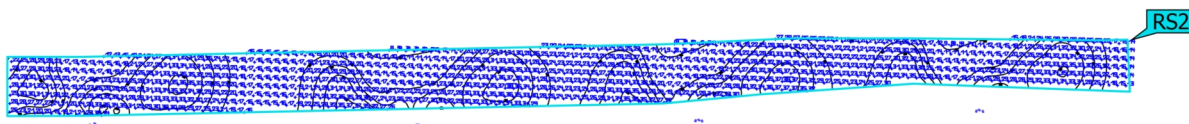


Properties	Ø	min	max	U _o (g ₁)	g ₂	Index
Surface result object 2 Luminance Height: 0.000 m	1.38 cd/m ²	0.37 cd/m ²	2.95 cd/m ²	0.27	0.13	RS1

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 3

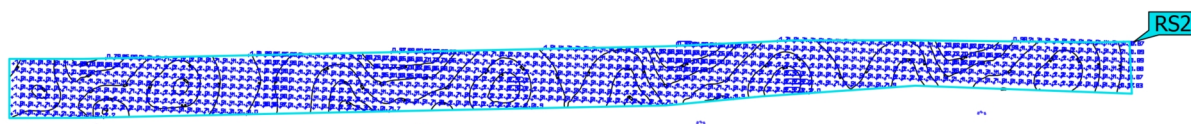


Properties	\bar{E}	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Surface result object 3 Perpendicular illuminance (adaptive) Height: 0.000 m	24.2 lx	8.19 lx	37.9 lx	0.34	0.22	RS2

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

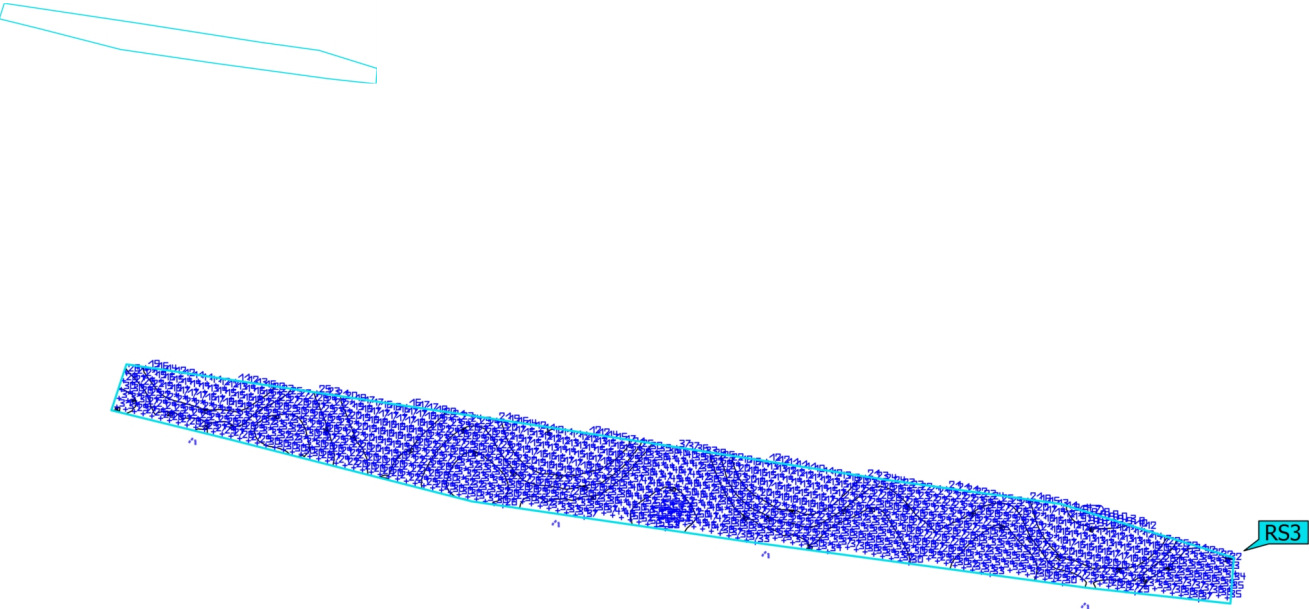
Surface result object 3



Properties	Ø	min	max	U ₀ (g ₁)	g ₂	Index
Surface result object 3 Luminance Height: 0.000 m	1.54 cd/m ²	0.52 cd/m ²	2.41 cd/m ²	0.34	0.22	RS2

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

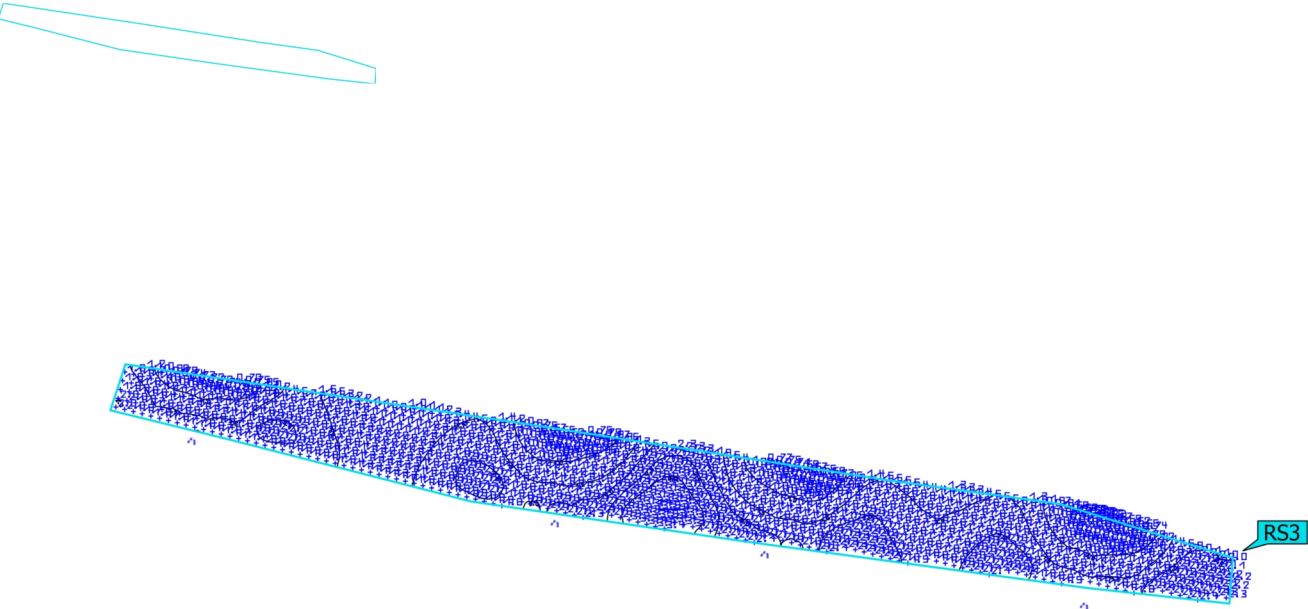
Site 1 (Light scene 1)
Surface result object 4



Properties	\bar{E}	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Surface result object 4 Perpendicular illuminance (adaptive) Height: 0.000 m	26.1 lx	8.20 lx	54.6 lx	0.31	0.15	RS3

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)
Surface result object 4

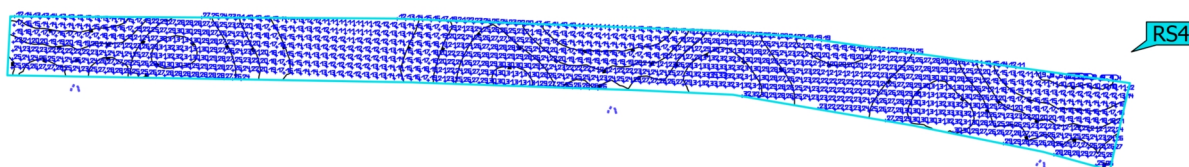


Properties	Ø	min	max	U ₀ (g ₁)	g ₂	Index
Surface result object 4 Luminance Height: 0.000 m	1.66 cd/m ²	0.52 cd/m ²	3.48 cd/m ²	0.31	0.15	RS3

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 5

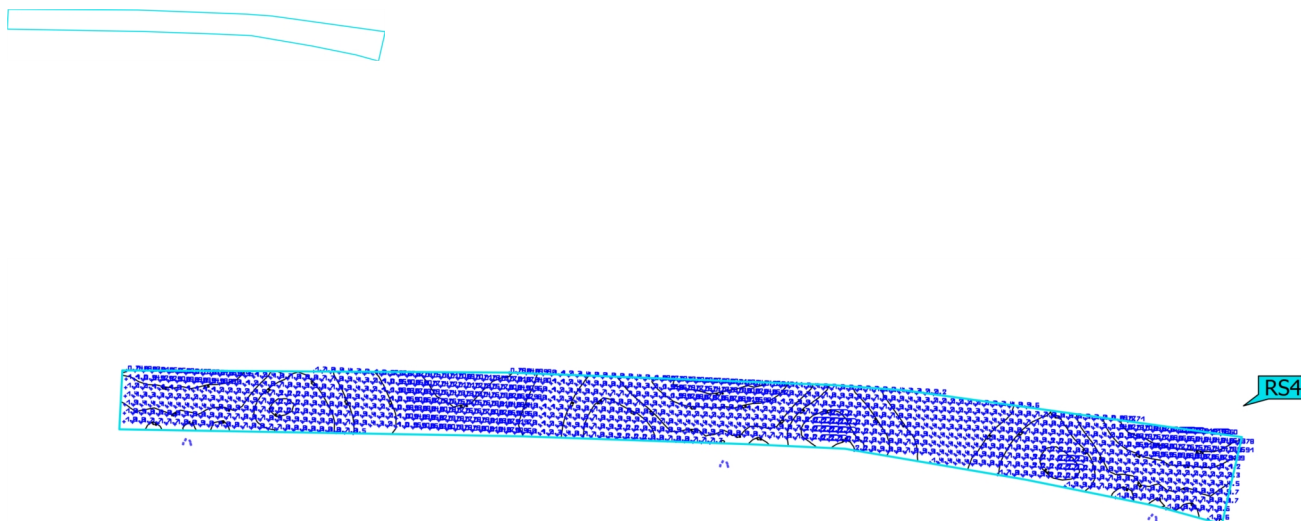


Properties	\bar{E}	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Surface result object 5 Perpendicular illuminance (adaptive) Height: 0.000 m	21.7 lx	8.38 lx	33.7 lx	0.39	0.25	RS4

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 5

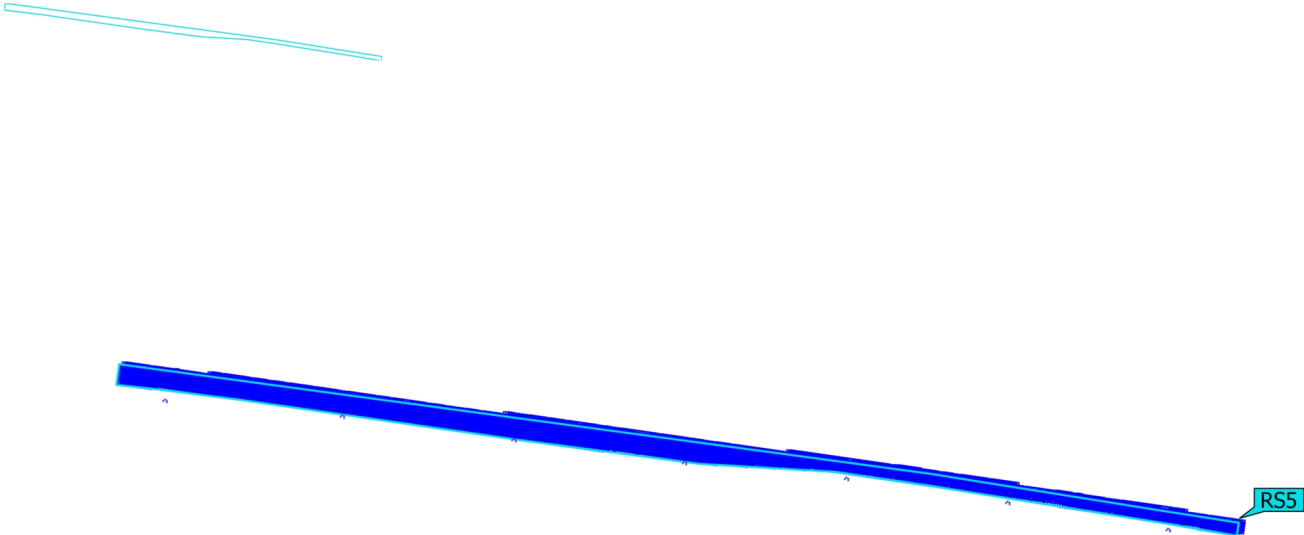


Properties	Ø	min	max	U _o (g ₁)	g ₂	Index
Surface result object 5 Luminance Height: 0.000 m	1.38 cd/m ²	0.53 cd/m ²	2.15 cd/m ²	0.38	0.25	RS4

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 6

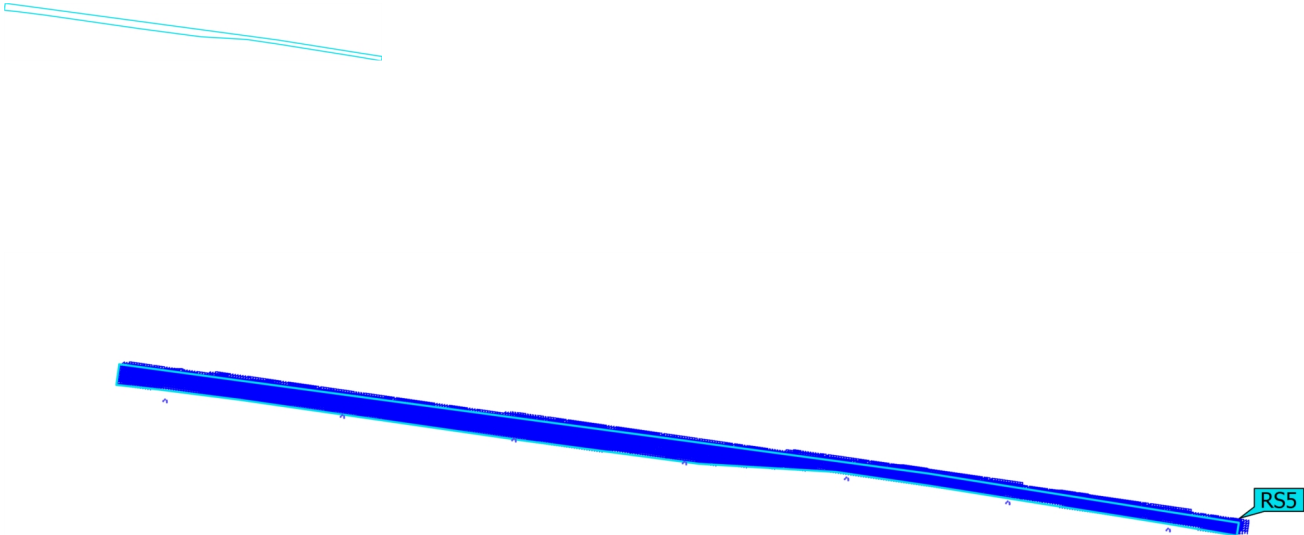


Properties	\bar{E}	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Surface result object 6 Perpendicular illuminance (adaptive) Height: -0.000 m	32.9 lx	15.9 lx	44.6 lx	0.48	0.36	RS5

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 6

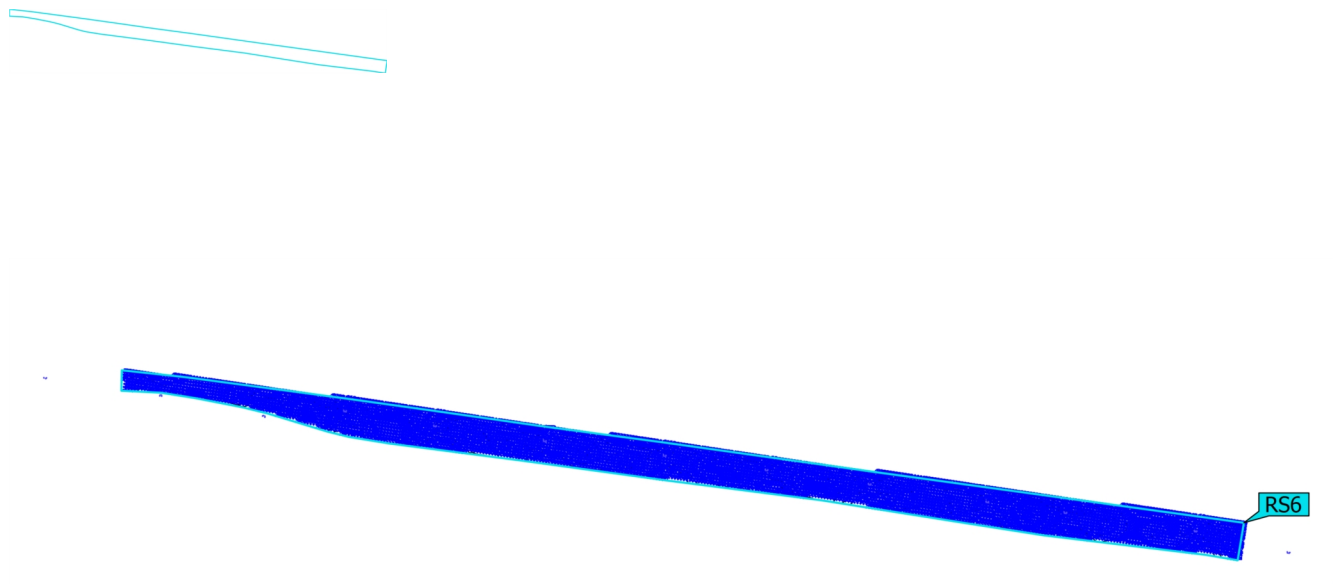


Properties	Ø	min	max	U _o (g ₁)	g ₂	Index
Surface result object 6	2.10 cd/m ²	1.01 cd/m ²	2.84 cd/m ²	0.48	0.36	RS5
Luminance						
Height: -0.000 m						

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 7

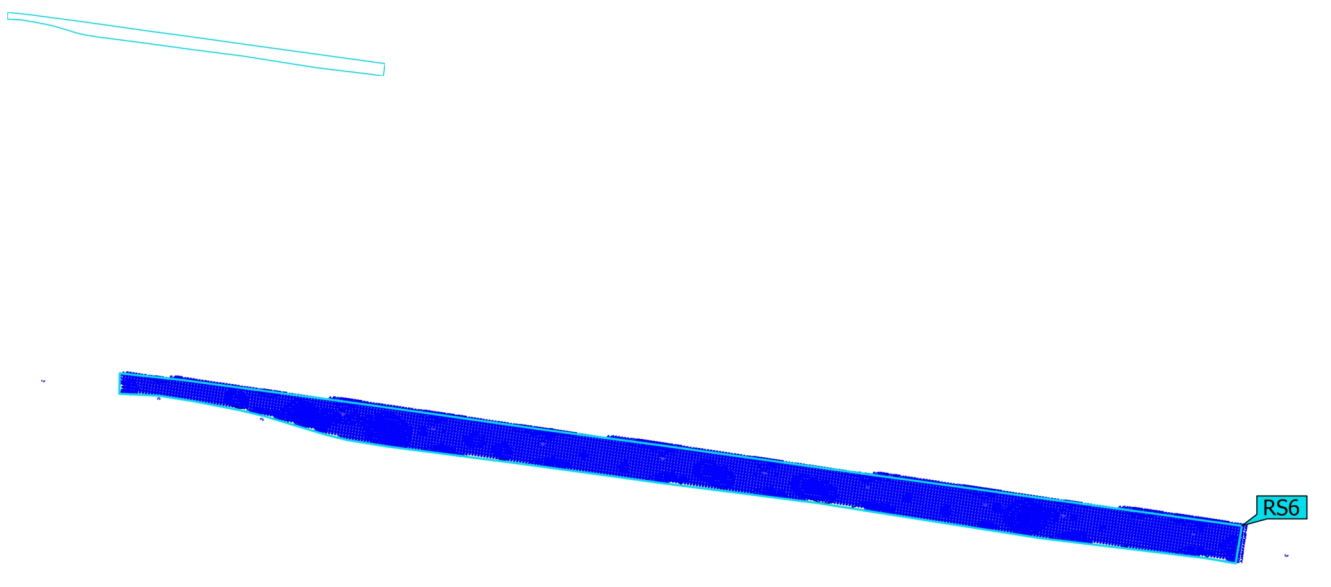


Properties	\bar{E}	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Surface result object 7 Perpendicular illuminance (adaptive) Height: 0.000 m	25.2 lx	6.11 lx	52.1 lx	0.24	0.12	RS6

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 7

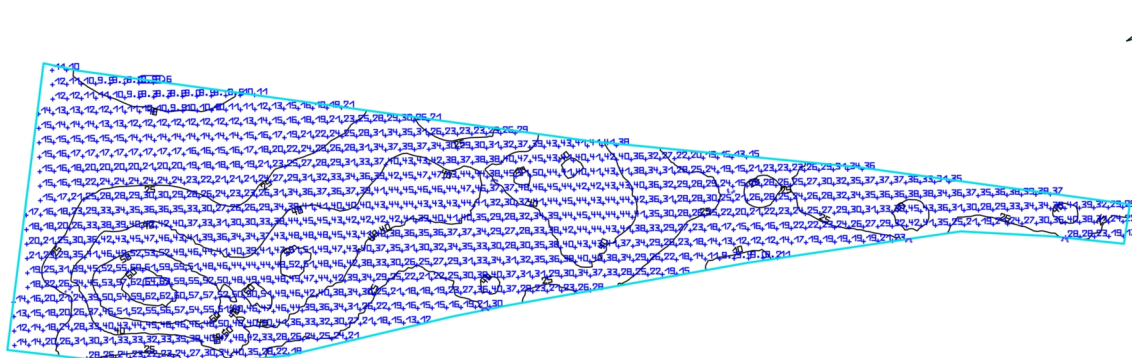


Properties	Ø	min	max	U _o (g ₁)	g ₂	Index
Surface result object 7 Luminance Height: 0.000 m	1.61 cd/m ²	0.39 cd/m ²	3.32 cd/m ²	0.24	0.12	RS6

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 8

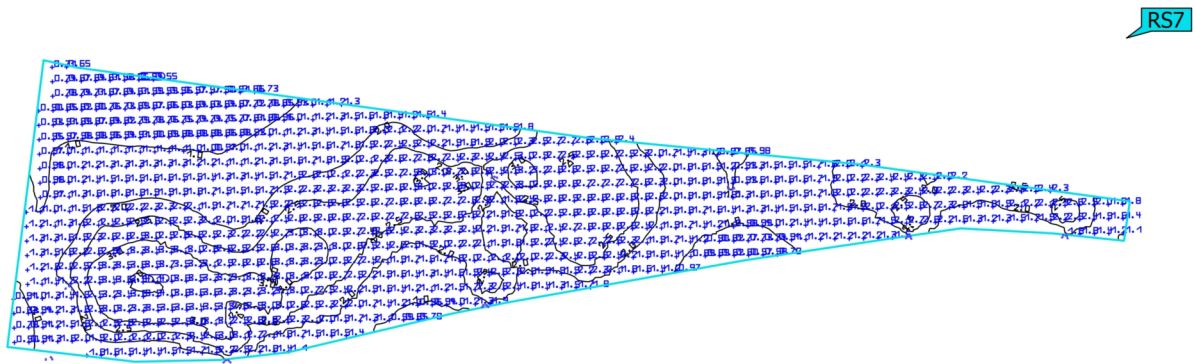
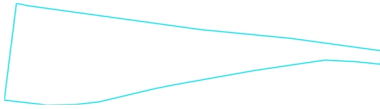


Properties	Ē	E _{min}	E _{max}	U _o (g ₁)	g ₂	Index
Surface result object 8	30.8 lx	8.31 lx	64.3 lx	0.27	0.13	RS7
Perpendicular illuminance (adaptive)						
Height: 0.000 m						

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

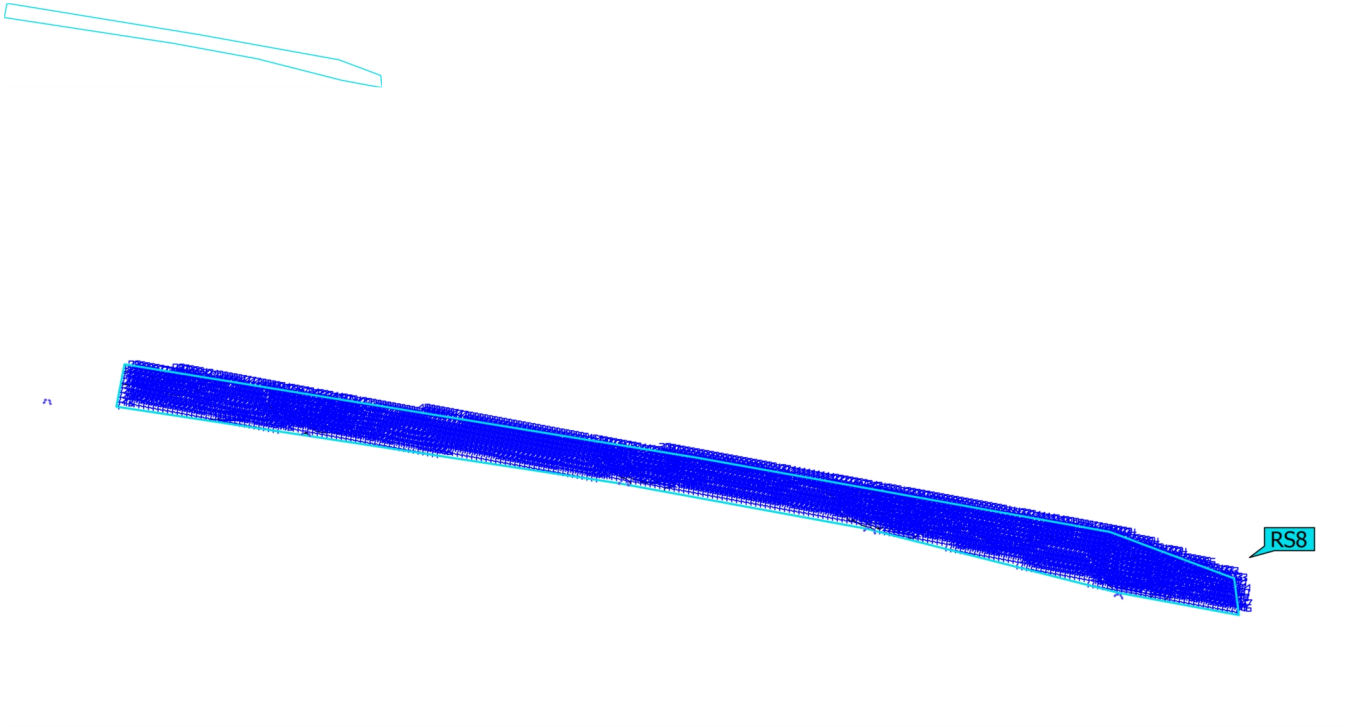
Surface result object 8



Properties	Ø	min	max	U ₀ (g ₁)	g ₂	Index
Surface result object 8 Luminance Height: 0.000 m	1.96 cd/m ²	0.53 cd/m ²	4.09 cd/m ²	0.27	0.13	RS7

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)
Surface result object 9

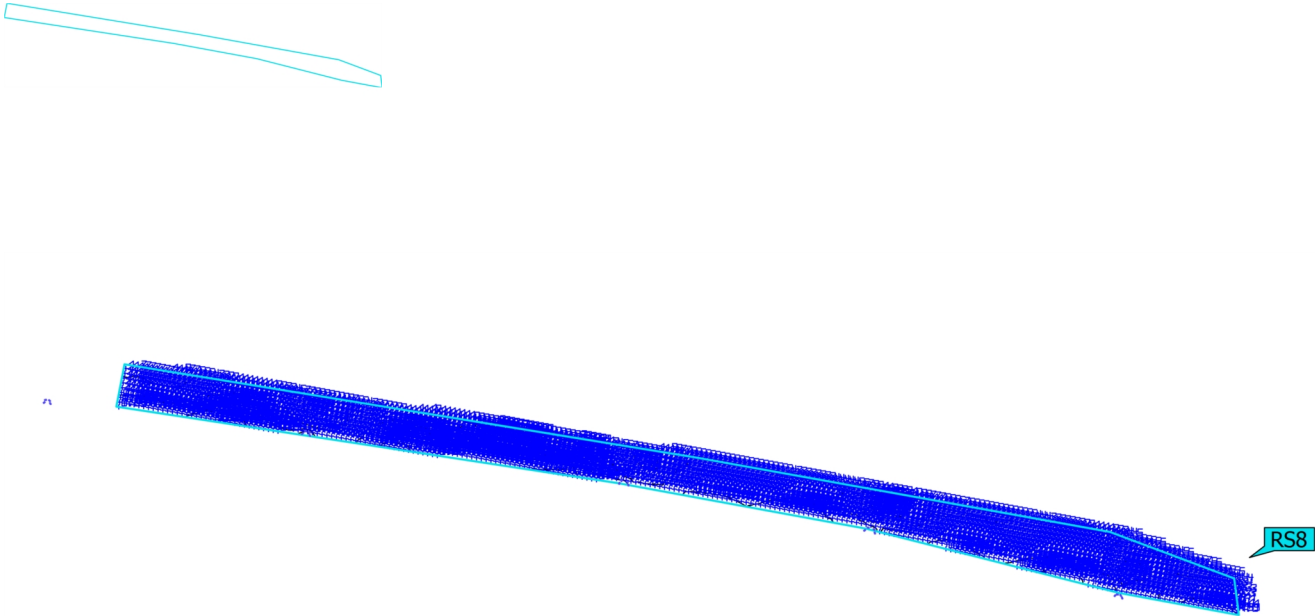


Properties	\bar{E}	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Surface result object 9 Perpendicular illuminance (adaptive) Height: 0.000 m	20.2 lx	8.09 lx	37.0 lx	0.40	0.22	RS8

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 9

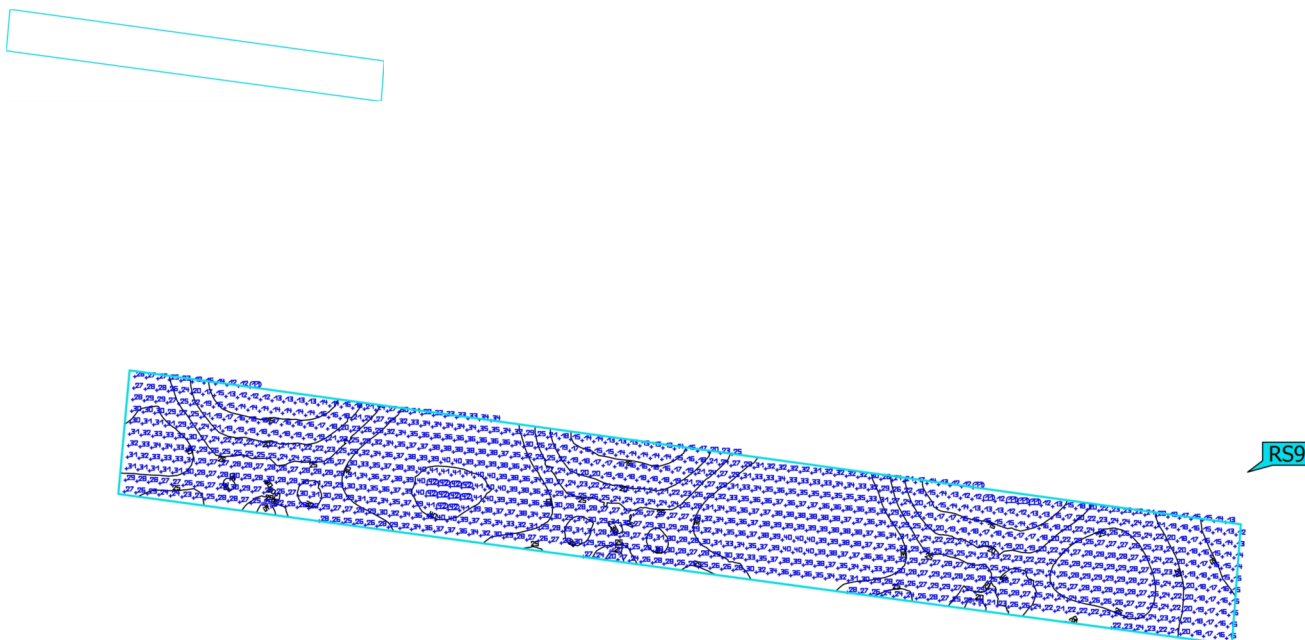


Properties	Ø	min	max	U _o (g ₁)	g ₂	Index
Surface result object 9 Luminance Height: 0.000 m	1.28 cd/m ²	0.51 cd/m ²	2.35 cd/m ²	0.40	0.22	RS8

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 10

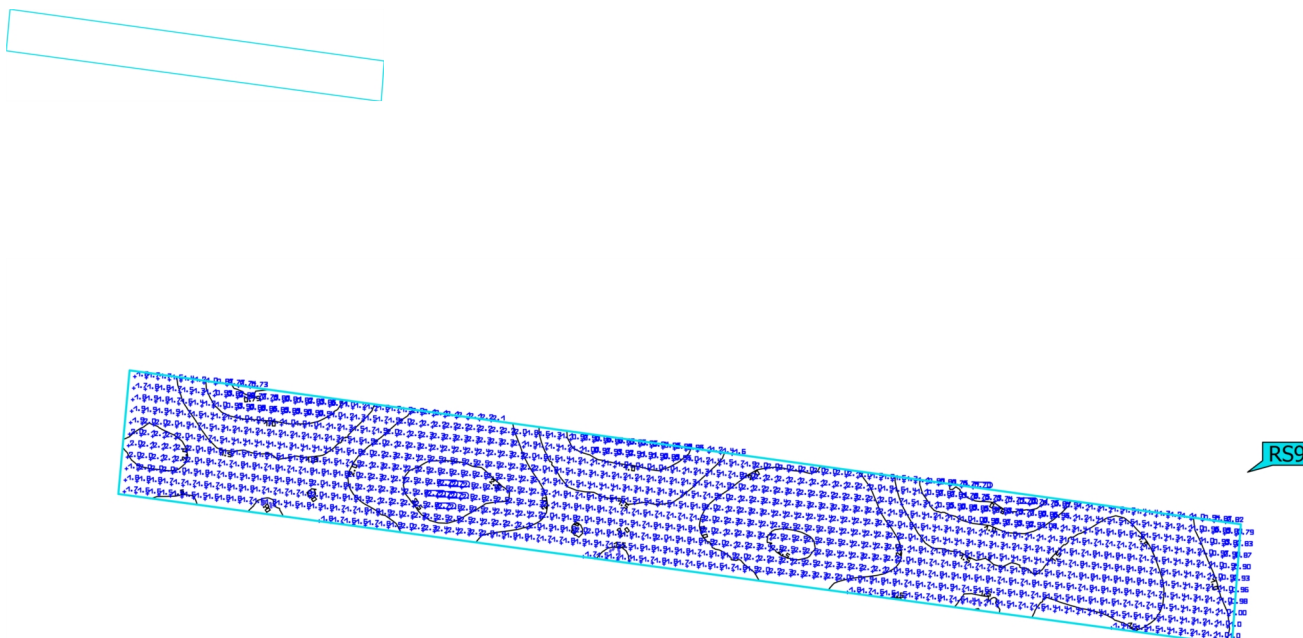


Properties	Ē	E _{min}	E _{max}	U _o (g ₁)	g ₂	Index
Surface result object 10	26.8 lx	10.1 lx	42.4 lx	0.38	0.24	RS9
Perpendicular illuminance (adaptive)						
Height: -0.000 m						

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 10

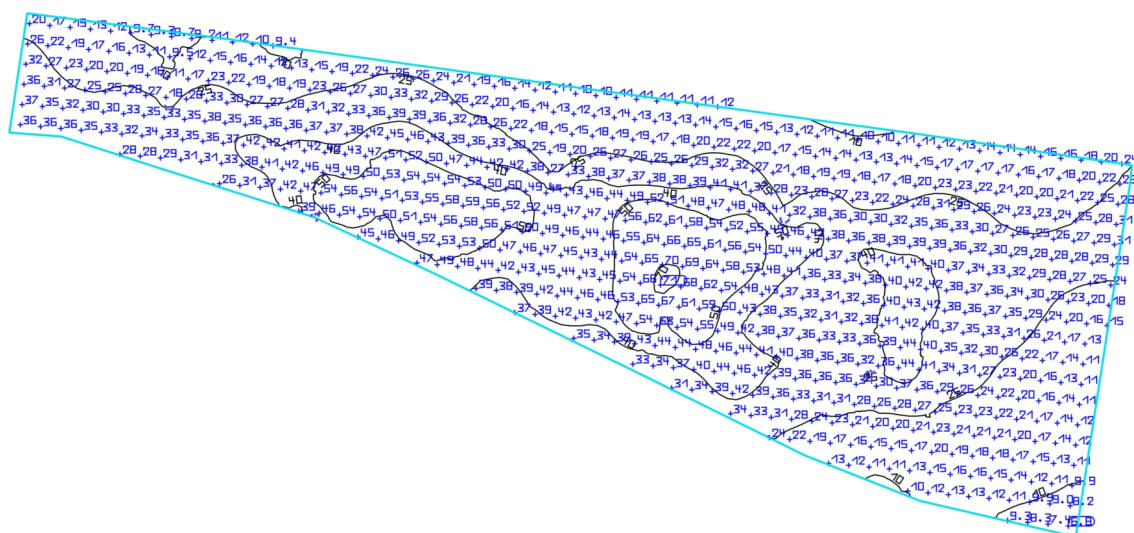
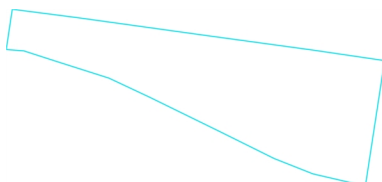


Properties	Ø	min	max	U _o (g ₁)	g ₂	Index
Surface result object 10 Luminance Height: -0.000 m	1.70 cd/m ²	0.64 cd/m ²	2.70 cd/m ²	0.38	0.24	RS9

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 11

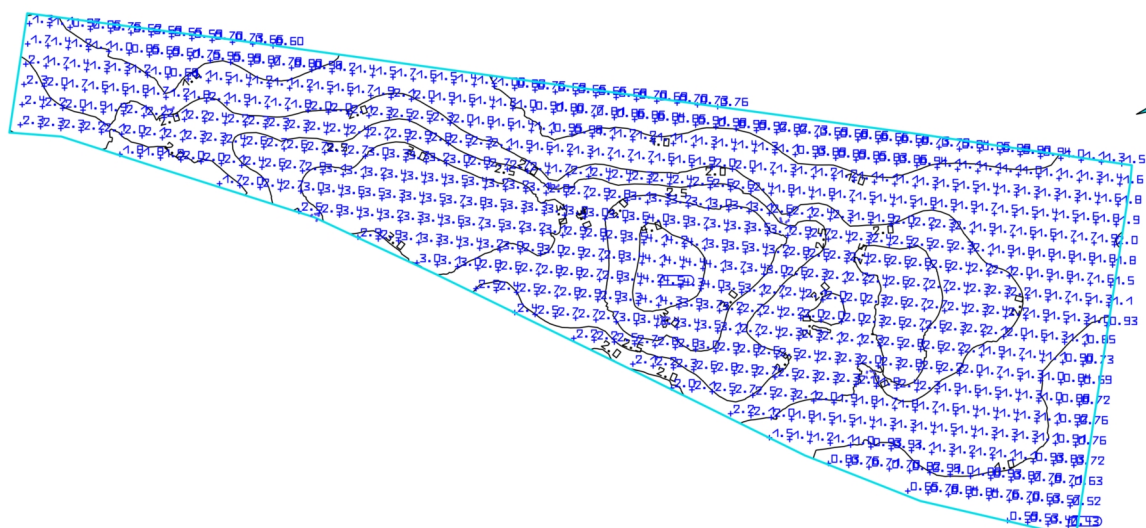
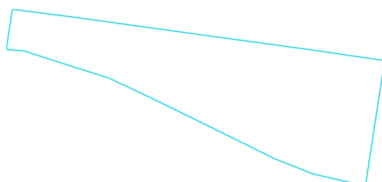


Properties	Ē	E _{min}	E _{max}	U _o (g ₁)	g ₂	Index
Surface result object 11	31.5 lx	6.41 lx	71.3 lx	0.20	0.090	RS10
Perpendicular illuminance (adaptive)						
Height: 0.000 m						

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 11

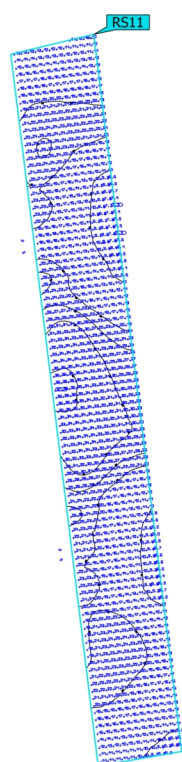


Properties	Ø	min	max	U _o (g ₁)	g ₂	Index
Surface result object 11	2.00 cd/m ²	0.41 cd/m ²	4.54 cd/m ²	0.21	0.090	RS10
Luminance						
Height: 0.000 m						

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 12

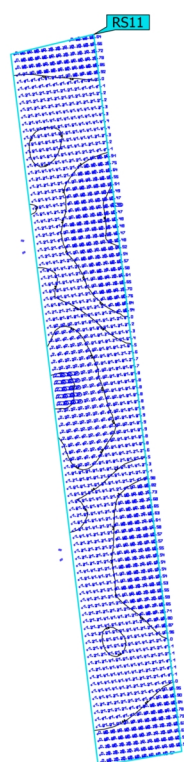


Properties	\bar{E}	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Surface result object 12 Perpendicular illuminance (adaptive) Height: 0.000 m	20.0 lx	7.07 lx	36.6 lx	0.35	0.19	RS11

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 12

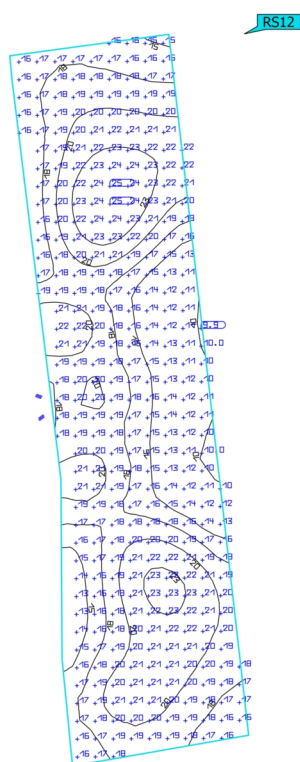


Properties	Ø	min	max	U _o (g ₁)	g ₂	Index
Surface result object 12 Luminance Height: 0.000 m	1.27 cd/m ²	0.45 cd/m ²	2.33 cd/m ²	0.35	0.19	RS11

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 13

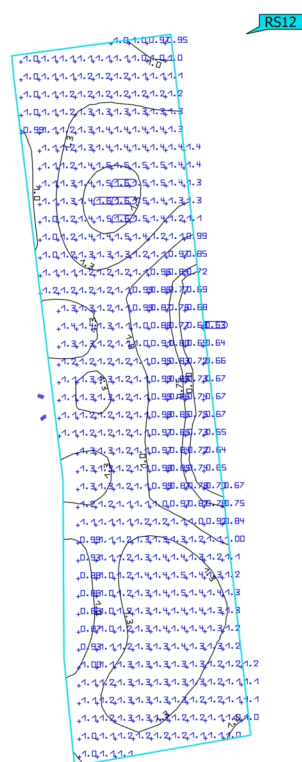


Properties	\bar{E}	E_{min}	E_{max}	$U_0 (g_1)$	g_2	Index
Surface result object 13	18.1 lx	9.46 lx	24.9 lx	0.52	0.38	RS12
Perpendicular illuminance (adaptive)						
Height: 0.000 m						

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Surface result object 13

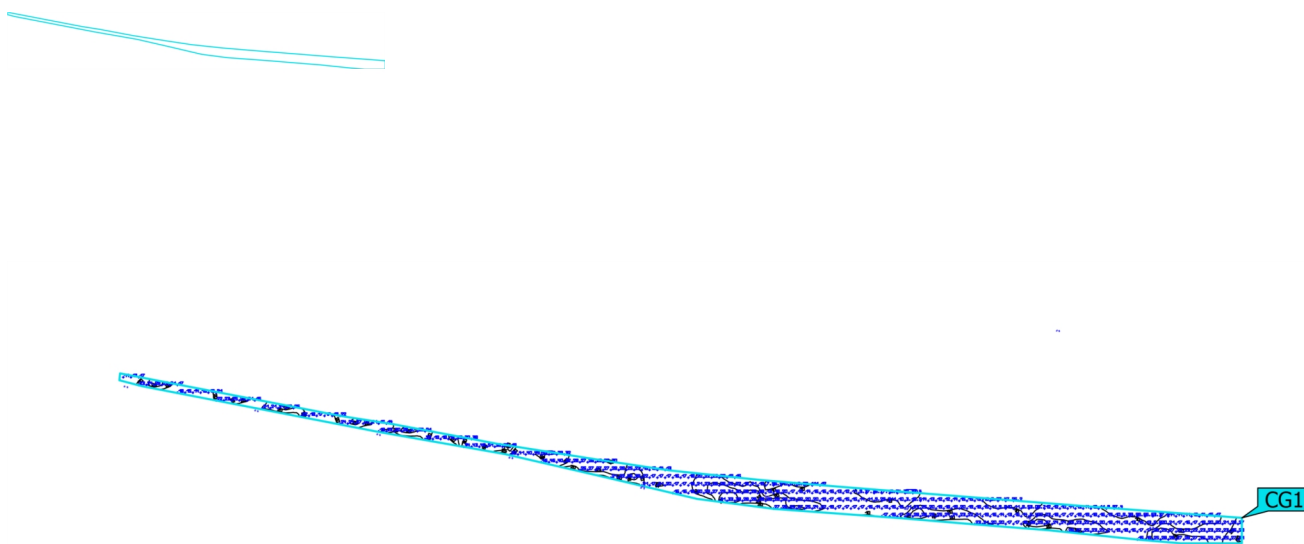


Properties	Ø	min	max	U _o (g ₁)	g ₂	Index
Surface result object 13 Luminance Height: 0.000 m	1.15 cd/m ²	0.60 cd/m ²	1.59 cd/m ²	0.52	0.38	RS12

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Site 1 (Light scene 1)

Calculation surface 11



Properties	\bar{E}	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 11 Perpendicular illuminance Height: 0.000 m	20.0 lx	2.29 lx	52.6 lx	0.11	0.044	CG1

Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))