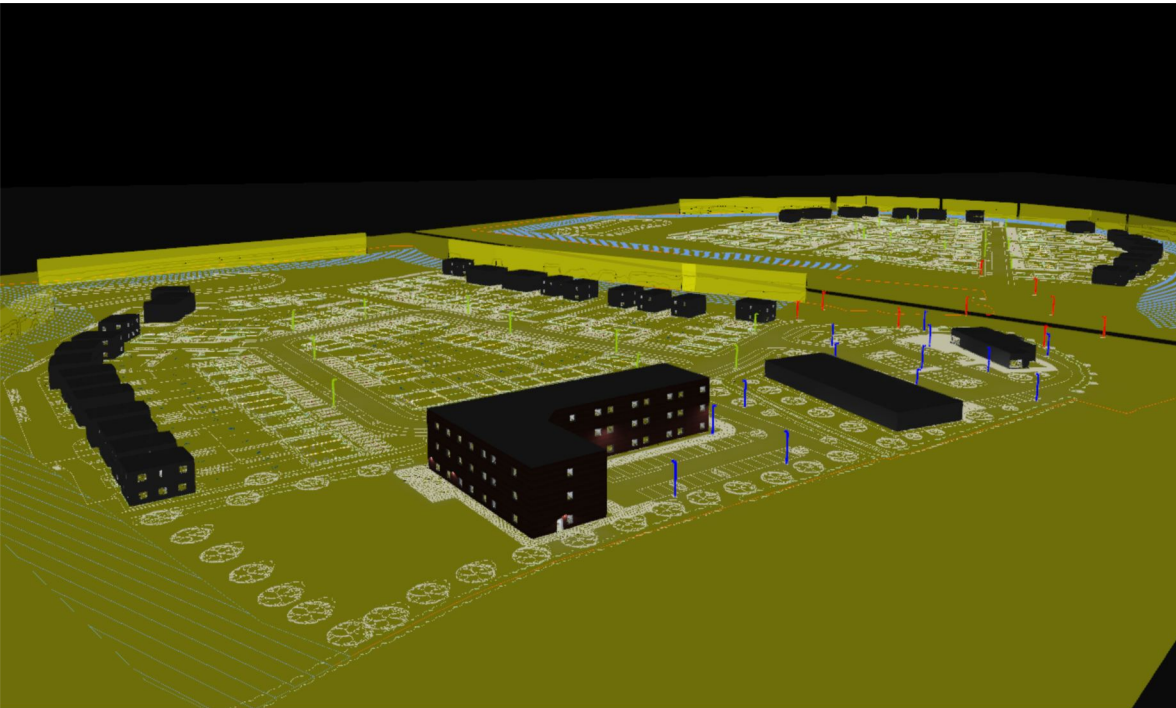




Description

Indicative Light Spill Diagram.

- > All lighting calculations have been conducted based on the Lighting Strategy detailed within Lighting Impact Assessment 4143-DFL-ELG-XX-RP-EO-13001-S3.
- > Not for construction.
- > Initial light levels shown.
- > Maintenance Factor of Luminaires has been set to 1 to represent a worst-case scenario.
- > Light spill diagram does not consider blocking or shading effects of light limiting objects and represents worst-case horizontal light spill at ground floor level.
- > No foliage has been modelled.
- > Light spill diagram to be read in conjunction with Lighting Impact Assessment:
4143-DFL-ELG-XX-RP-EO-13001-S3.

Isolux contours shown:

- 5.0 Lux
- 1.0 Lux
- 0.4 Lux
- 0.2 Lux

Double glazing for the windows of the Care Home and Residential dwellings has been modelled using a transmission factor of 70% as per Appendix 1 of LG10 (Page 76).

Ecological Receptors:

PSER Grids have been modelled at a height of 10m from Ground Level

Spacing points are 1m x 1m.

Site 1 (Obtrusive light scene)

Summary



Site 1 (Obtrusive light scene)

Summary

General information on the obtrusive light calculation

Standard	EN 12464-2:2014
Zone	Environmental Zone E2
Period under review	Post-curfew
Apply limits for	General lighting

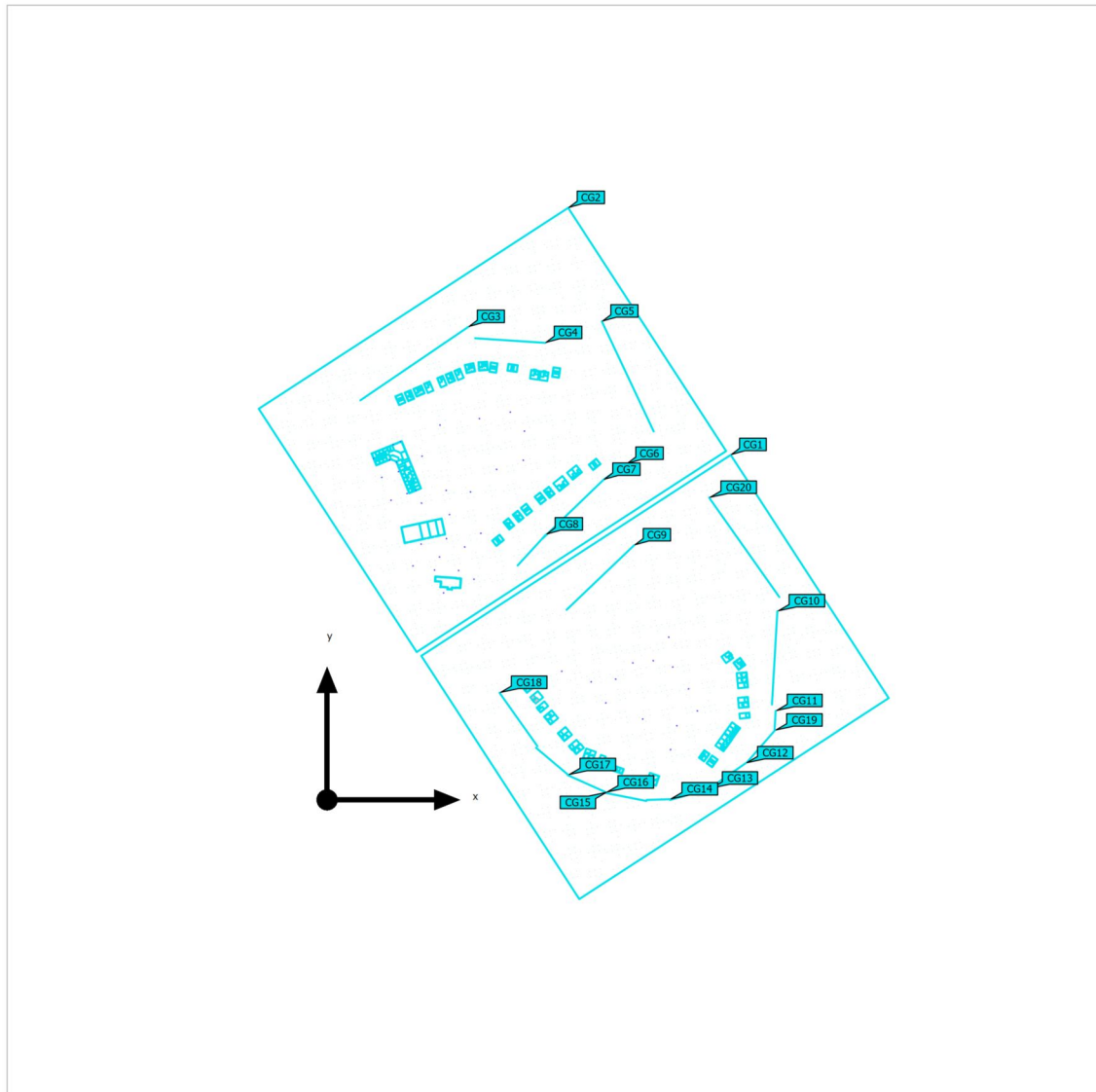
General obtrusive light scene results

Symbol	Calculated	Threshold value	Check
R _{UL}	0.0 %	≤ 5.0 %	✓
R _{ULO}	0.0 %	–	

Flux ratios are also calculated using only luminaires in the obtrusive lighting scene.

Site 1 (Light scene 1)

Calculation objects



Site 1 (Light scene 1)

Calculation objects

Calculation surfaces

Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
North Parcel - Light Spill Diagram Perpendicular illuminance Height: 0.000 m	7.20 lx	0.00 lx	792 lx	0.00	0.00	CG2
PSER 001 Grid 1 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.007 lx	-	-	CG3
PSER 001 Grid 2 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.006 lx	-	-	CG4
PSER 002 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.005 lx	-	-	CG5
PSER 003 - Grid 1 Perpendicular illuminance Height: 5.000 m	0.000 lx	0.00 lx	0.002 lx	-	-	CG6
PSER 003 - Grid 2 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.011 lx	-	0.00	CG7
PSER 003 - Grid 3 Perpendicular illuminance Height: 5.000 m	0.011 lx	0.00 lx	0.080 lx	0.00	0.00	CG8
PSER 004 Perpendicular illuminance Height: 5.000 m	0.002 lx	0.00 lx	0.009 lx	-	-	CG9
PSER 005 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.007 lx	-	-	CG10
PSER 005 Grid 2 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.005 lx	-	-	CG20
PSER 006 - Grid 1 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.002 lx	-	-	CG11

Site 1 (Light scene 1)

Calculation objects

PSER 006 - Grid 2 Perpendicular illuminance Height: 5.000 m	0.000 lx	0.00 lx	0.004 lx	-	-	CG19
PSER 006 - Grid 3 Perpendicular illuminance Height: 5.000 m	0.004 lx	0.00 lx	0.025 lx	-	0.00	CG12
PSER 006 - Grid 4 Perpendicular illuminance Height: 5.000 m	0.005 lx	0.00 lx	0.018 lx	-	0.00	CG13
PSER 006 - Grid 5 Perpendicular illuminance Height: 5.000 m	0.003 lx	0.00 lx	0.017 lx	-	0.00	CG14
PSER 006 - Grid 6 Perpendicular illuminance Height: 5.000 m	0.002 lx	0.00 lx	0.010 lx	-	0.00	CG15
PSER 006 - Grid 7 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.006 lx	-	-	CG16
PSER 007 - Grid 1 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.005 lx	-	-	CG17
PSER 007 - Grid 2 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.005 lx	-	-	CG18
South Parcel - Light Spill Diagram Perpendicular illuminance Height: 0.000 m	1.44 lx	0.00 lx	846 lx	0.00	0.00	CG1

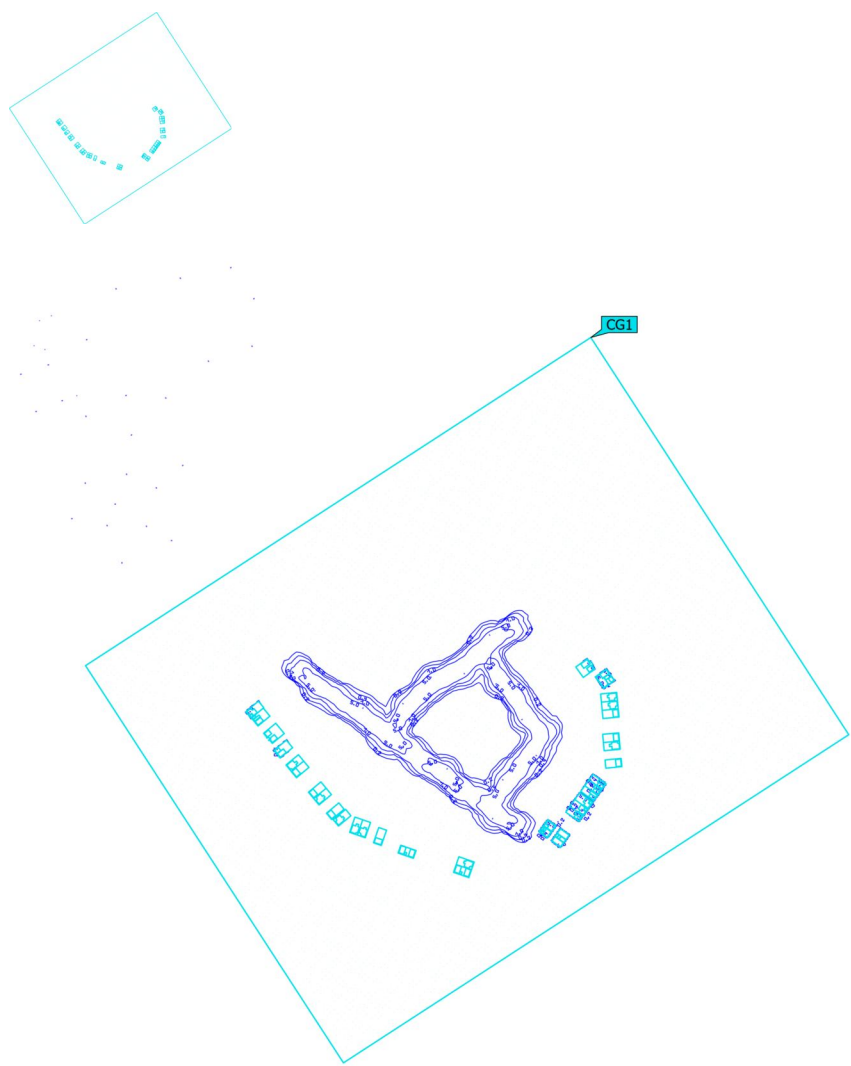
Utilisation profile: DIALux presetting (5.1.4 Standard (outdoor transportation area))

Notes on planning:

The calculation of the results is based purely on the direct light component. The effect of reflected light has not been considered.

Site 1 (Light scene 1)

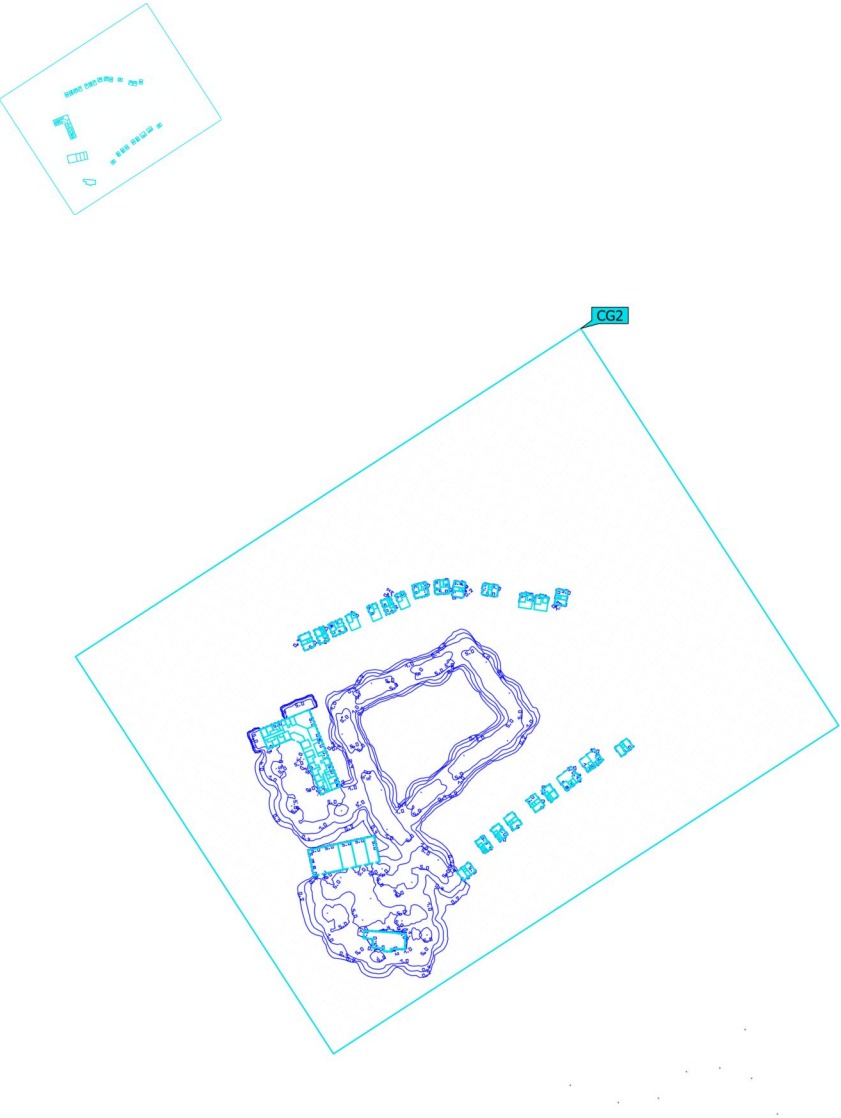
South Parcel - Light Spill Diagram



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
South Parcel - Light Spill Diagram Perpendicular illuminance Height: 0.000 m	1.44 lx	0.00 lx	846 lx	0.00	0.00	CG1

Site 1 (Light scene 1)

North Parcel - Light Spill Diagram



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
North Parcel - Light Spill Diagram Perpendicular illuminance Height: 0.000 m	7.20 lx	0.00 lx	792 lx	0.00	0.00	CG2

Site 1 (Light scene 1)

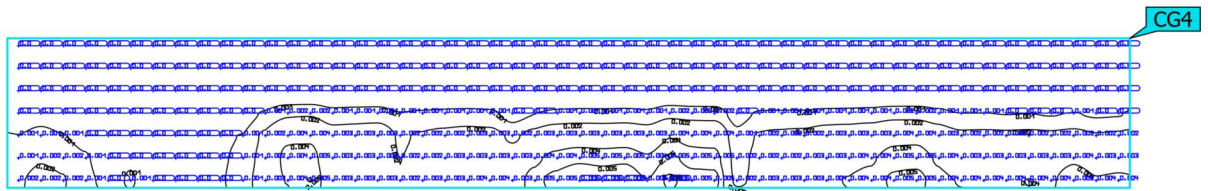
PSER 001 Grid 1



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 001 Grid 1 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.007 lx	-	-	CG3

Site 1 (Light scene 1)

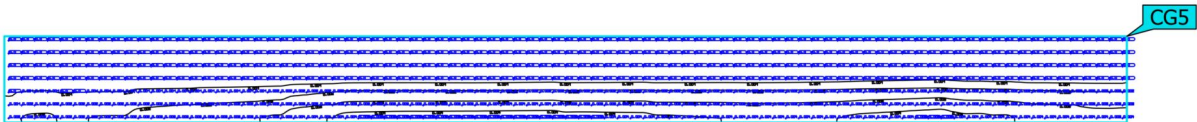
PSER 001 Grid 2



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 001 Grid 2 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.006 lx	-	-	CG4

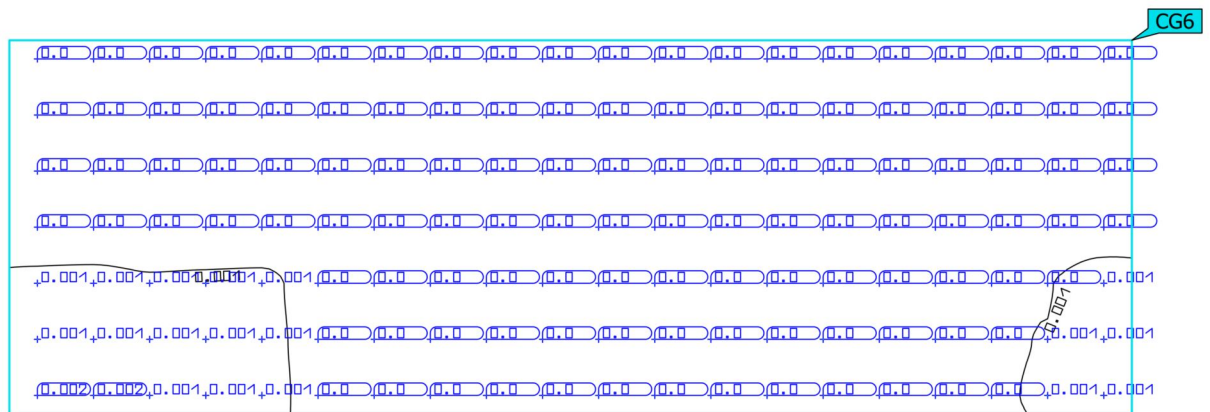
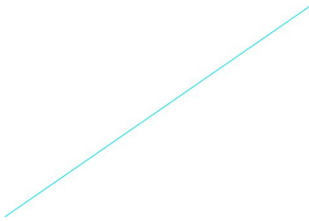
Site 1 (Light scene 1)

PSER 002



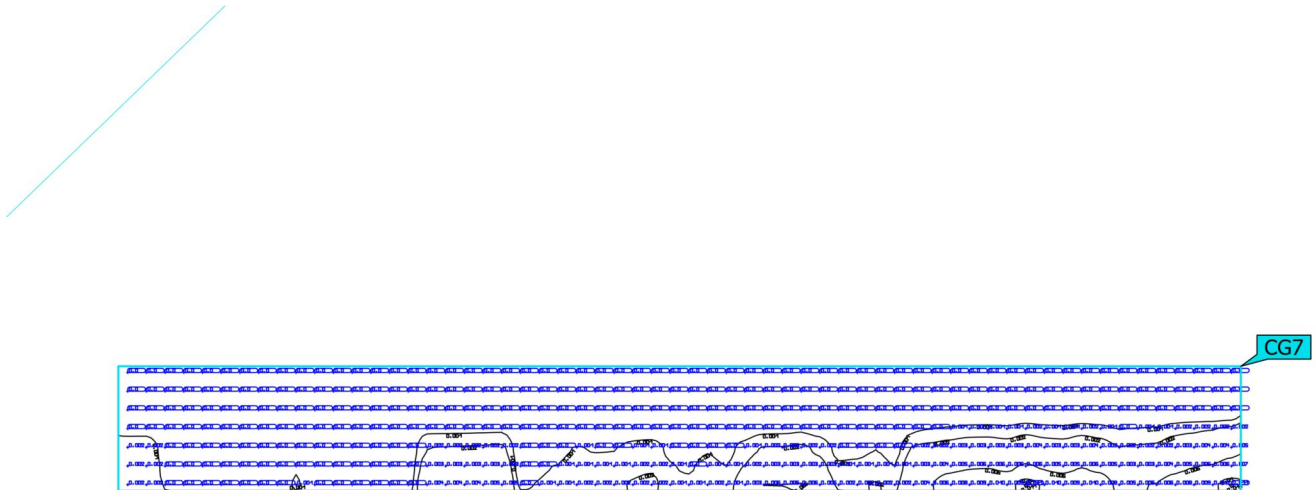
Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 002 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.005 lx	-	-	CG5

Site 1 (Light scene 1)

PSER 003 - Grid 1

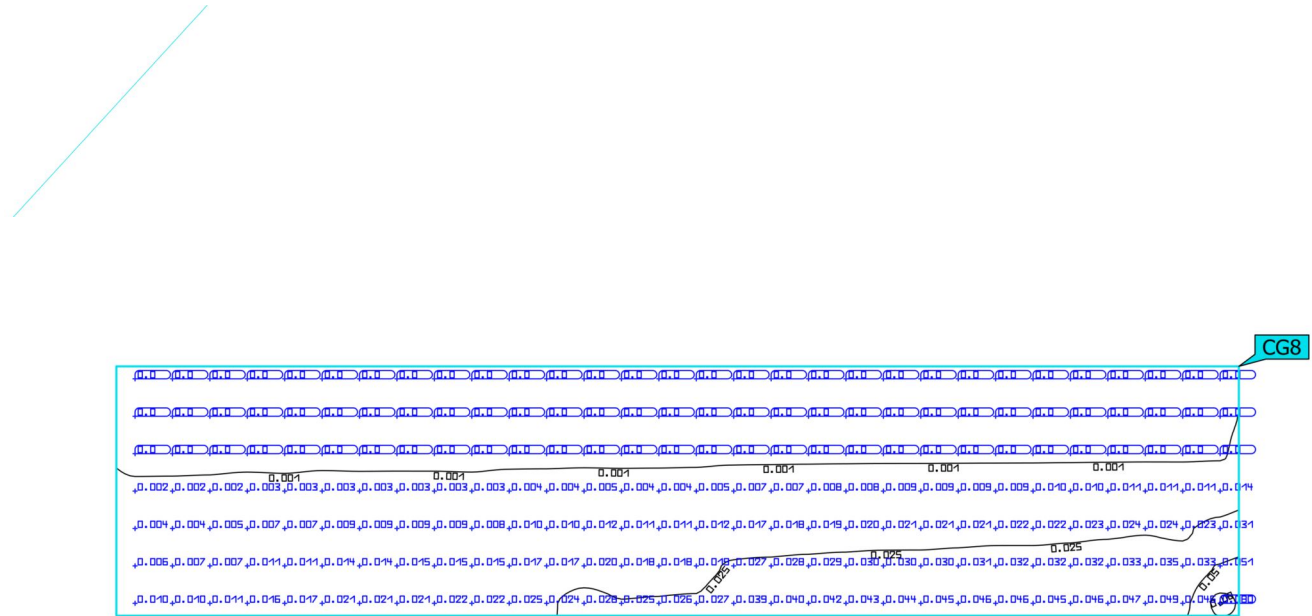
Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 003 - Grid 1 Perpendicular illuminance Height: 5.000 m	0.000 lx	0.00 lx	0.002 lx	-	-	CG6

Site 1 (Light scene 1)
PSER 003 - Grid 2



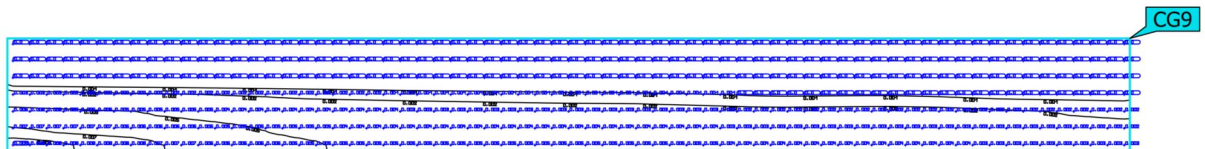
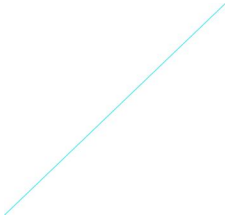
Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 003 - Grid 2 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.011 lx	-	0.00	CG7

Site 1 (Light scene 1)

PSER 003 - Grid 3

Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 003 - Grid 3 Perpendicular illuminance Height: 5.000 m	0.011 lx	0.00 lx	0.080 lx	0.00	0.00	CG8

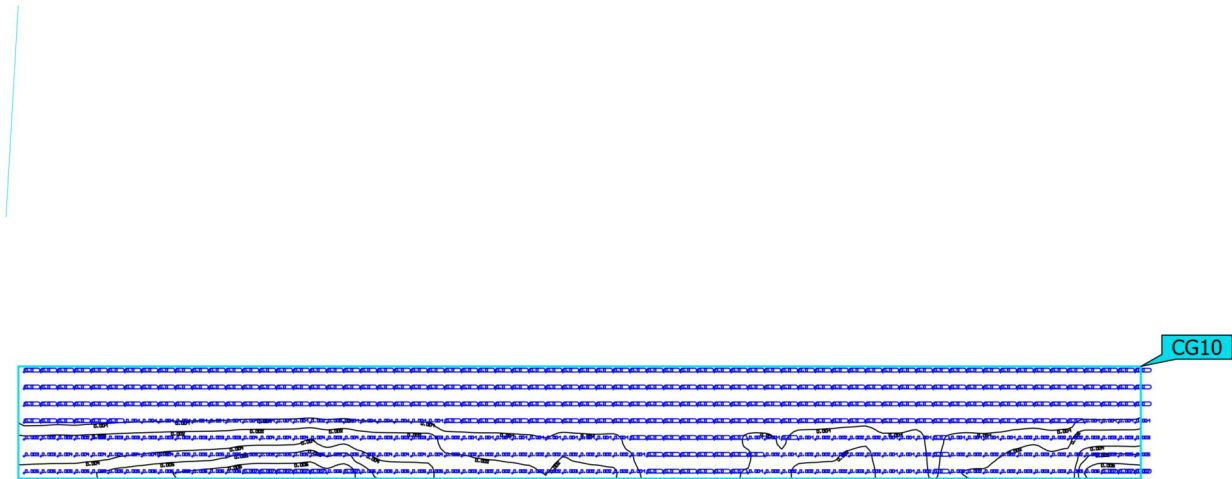
Site 1 (Light scene 1)

PSER 004

Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 004 Perpendicular illuminance Height: 5.000 m	0.002 lx	0.00 lx	0.009 lx	-	-	CG9

Site 1 (Light scene 1)

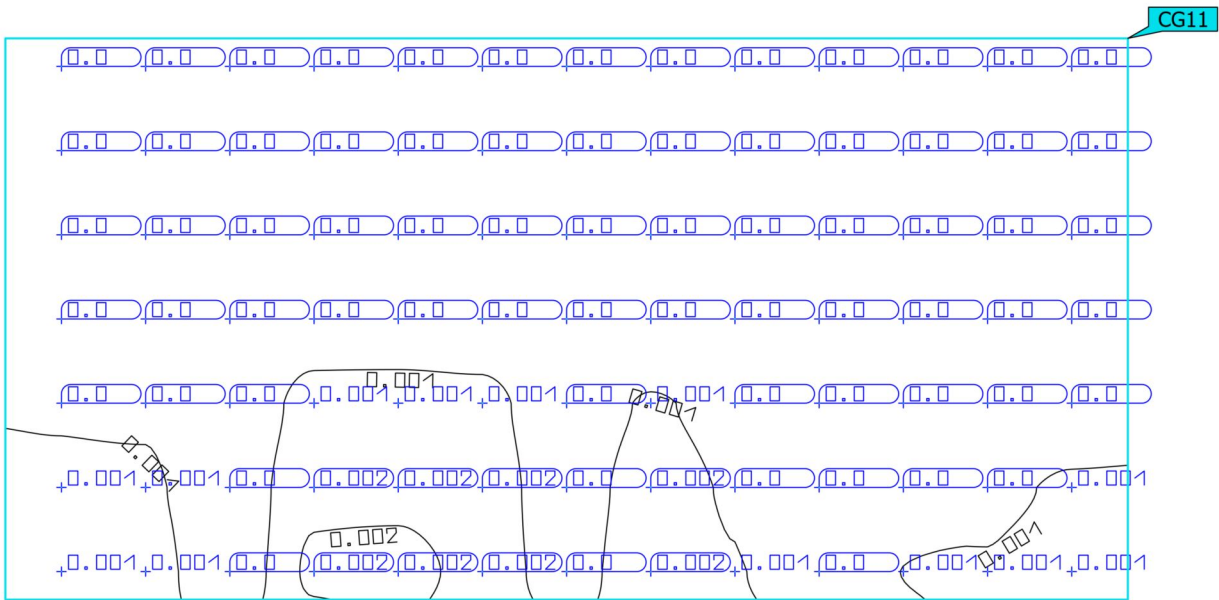
PSER 005



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 005 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.007 lx	-	-	CG10

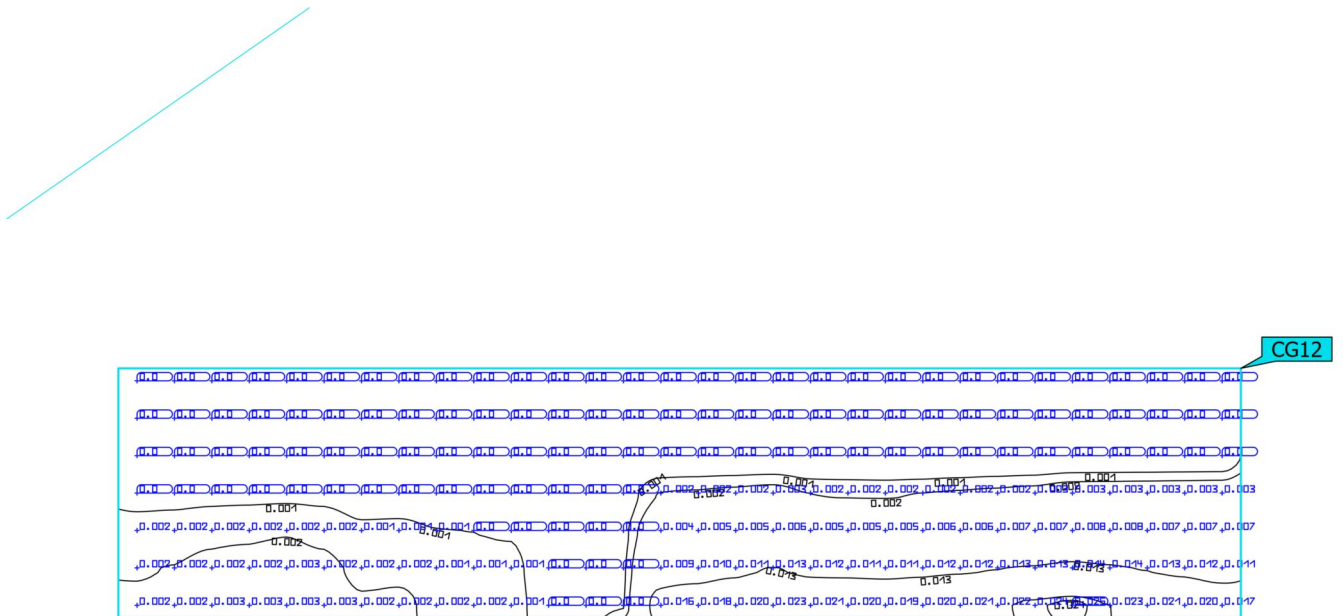
Site 1 (Light scene 1)

PSER 006 - Grid 1



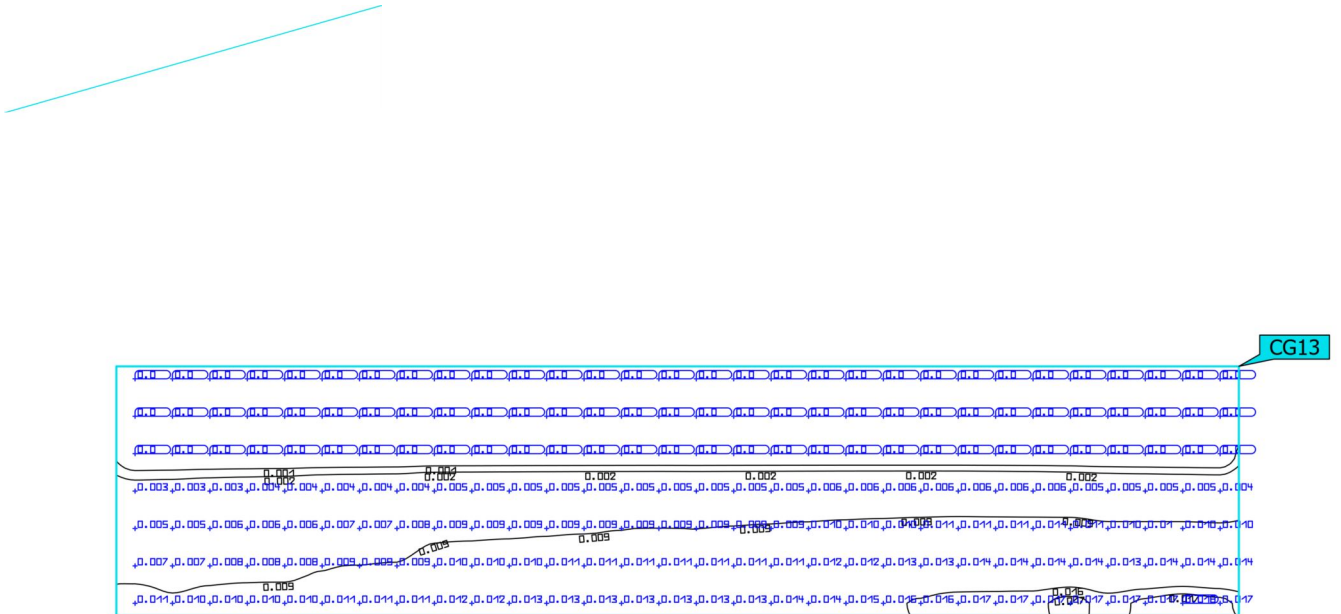
Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 006 - Grid 1 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.002 lx	-	-	CG11

Site 1 (Light scene 1)
PSER 006 - Grid 3



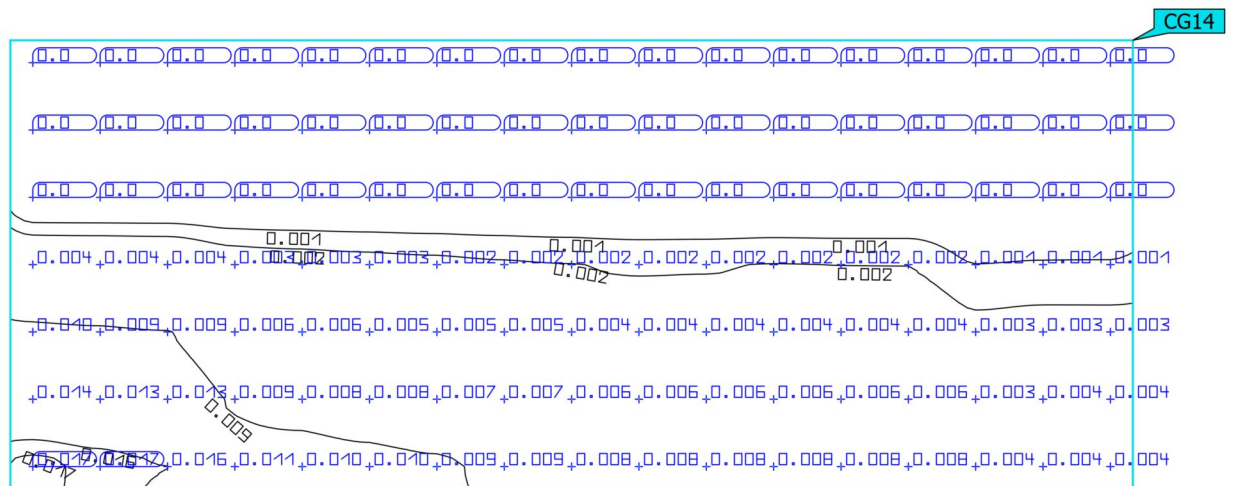
Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 006 - Grid 3 Perpendicular illuminance Height: 5.000 m	0.004 lx	0.00 lx	0.025 lx	-	0.00	CG12

Site 1 (Light scene 1)
PSER 006 - Grid 4



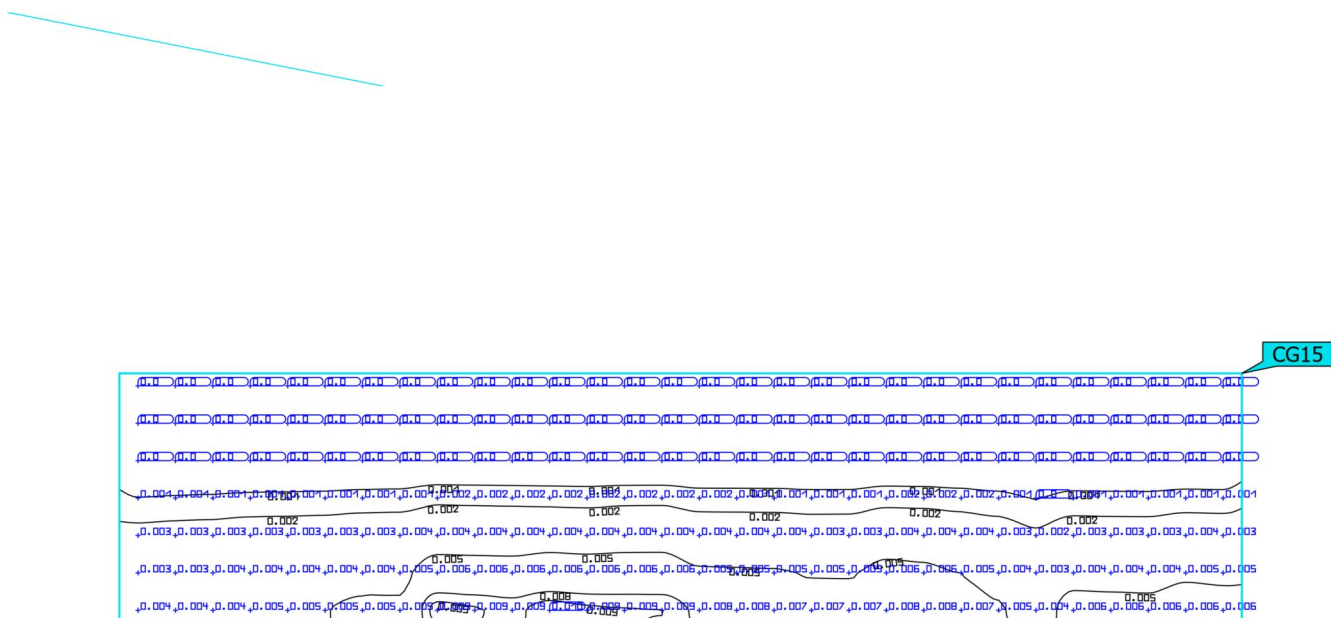
Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 006 - Grid 4 Perpendicular illuminance Height: 5.000 m	0.005 lx	0.00 lx	0.018 lx	-	0.00	CG13

Site 1 (Light scene 1)

PSER 006 - Grid 5

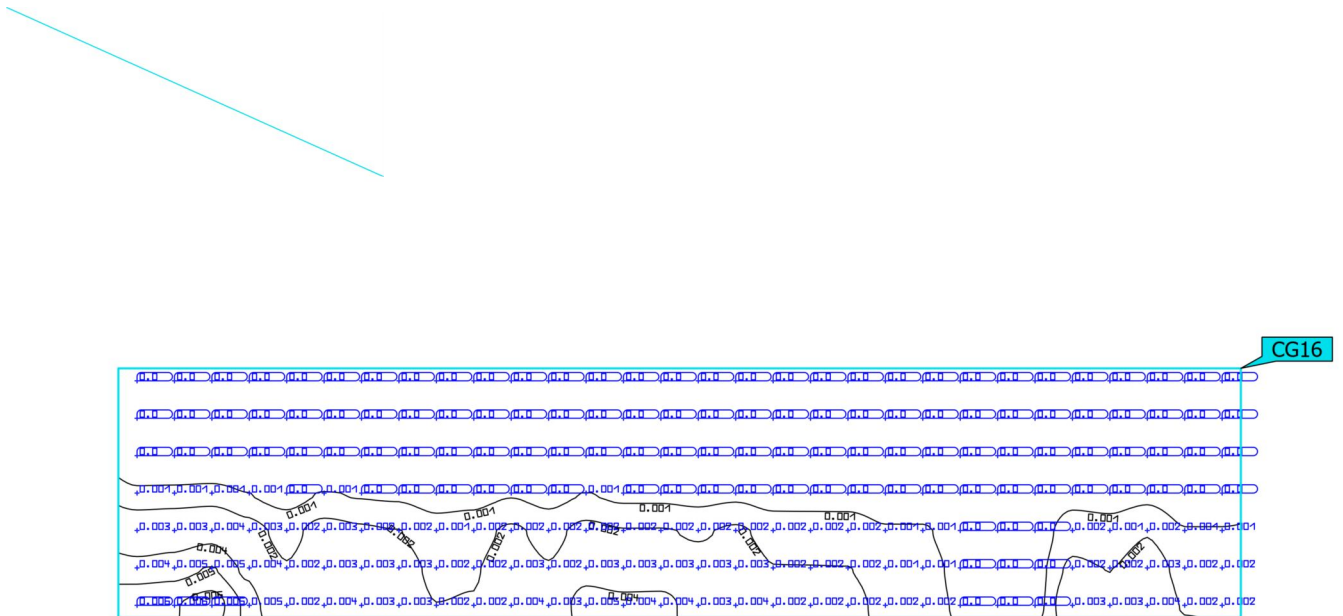
Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 006 - Grid 5 Perpendicular illuminance Height: 5.000 m	0.003 lx	0.00 lx	0.017 lx	-	0.00	CG14

Site 1 (Light scene 1)
PSER 006 - Grid 6



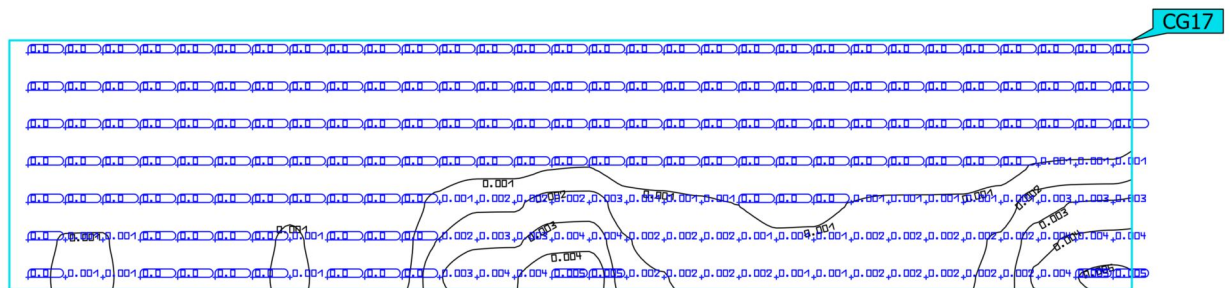
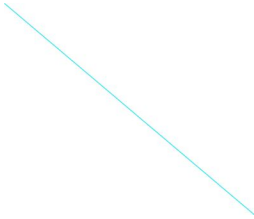
Properties	E	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 006 - Grid 6 Perpendicular illuminance Height: 5.000 m	0.002 lx	0.00 lx	0.010 lx	-	0.00	CG15

Site 1 (Light scene 1)
PSER 006 - Grid 7

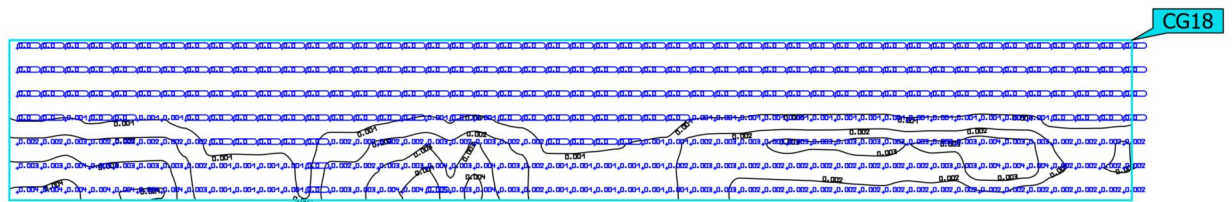
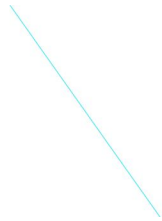


Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 006 - Grid 7 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.006 lx	-	-	CG16

Site 1 (Light scene 1)

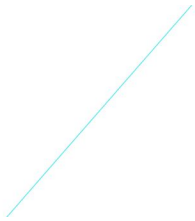
PSER 007 - Grid 1

Site 1 (Light scene 1)

PSER 007 - Grid 2

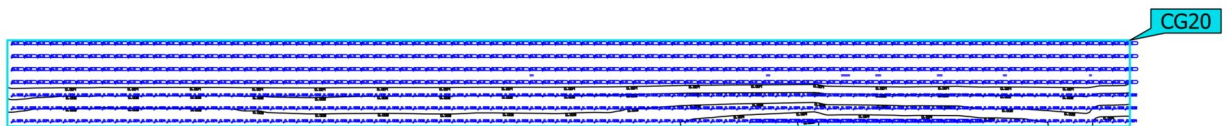
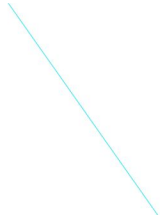
Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 007 - Grid 2 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.005 lx	-	-	CG18

Site 1 (Light scene 1)

PSER 006 - Grid 2

Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 006 - Grid 2	0.000 lx	0.00 lx	0.004 lx	-	-	CG19
Perpendicular illuminance						
Height: 5.000 m						

Site 1 (Light scene 1)

PSER 005 Grid 2

Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
PSER 005 Grid 2 Perpendicular illuminance Height: 5.000 m	0.001 lx	0.00 lx	0.005 lx	-	-	CG20

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

Notes on planning:

The calculation of the results is based purely on the direct light component. The effect of reflected light has not been considered.