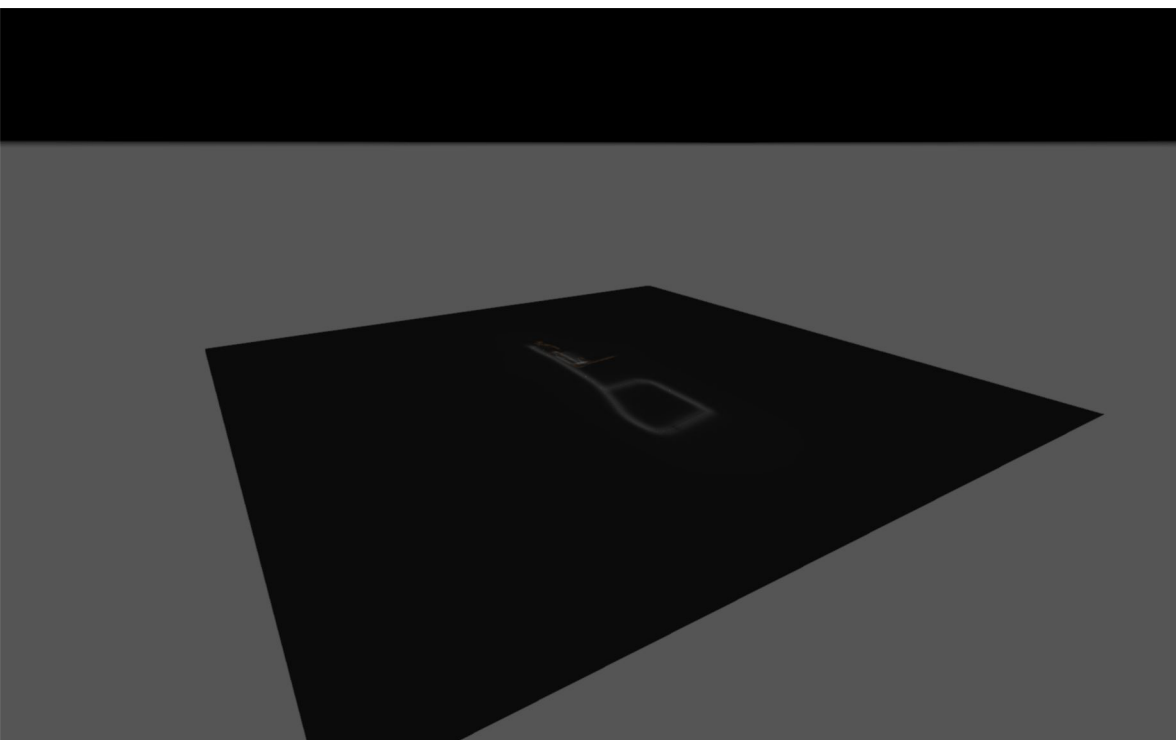




FERBANE CONVENT

Object

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Preface

Notes on planning:

The energy consumption quantities do not take into account light scenes and their dimming levels.

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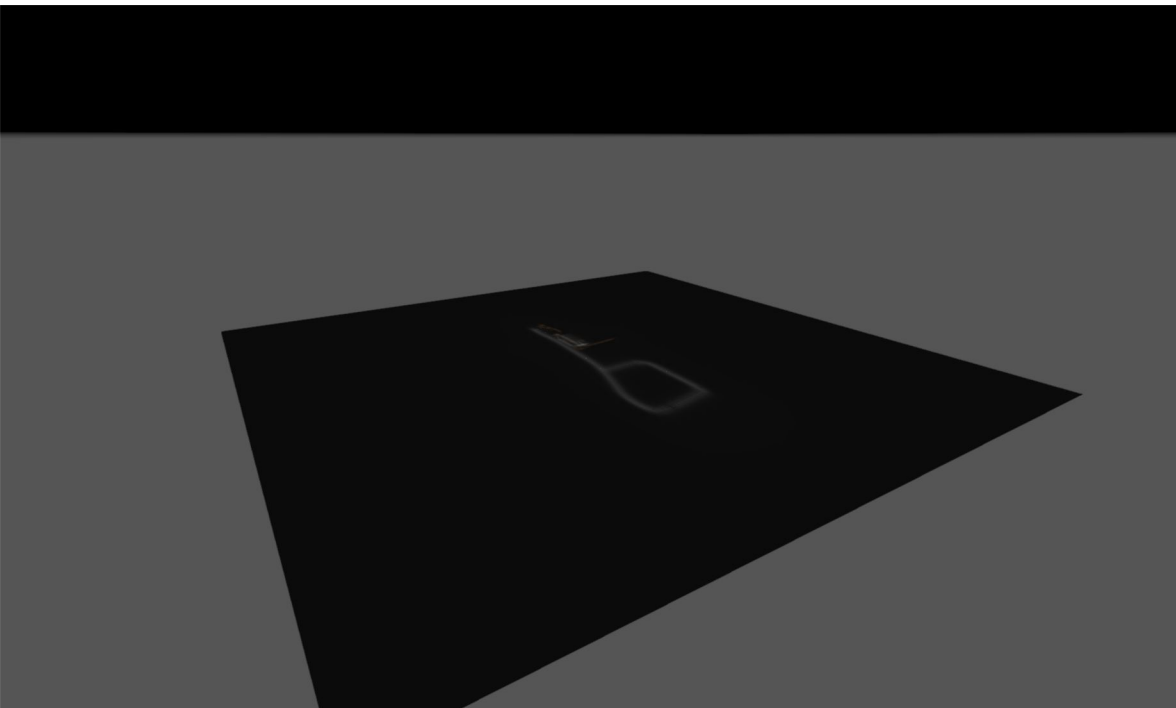
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Description

Luminaire list

 Φ_{total}

280982 lm

 P_{total}

3202.7 W

Luminous efficacy

87.7 lm/W

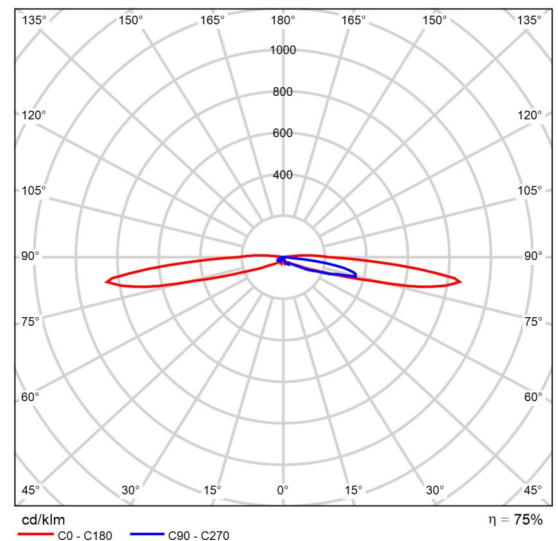
pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy	Index
114	Philips	BCB500I-509741e7-518e-408f-b577-1280ebaf11b2	BCB500 LED25-4S/830 PSU A	20.0 W	1874 lm	93.8 lm/W	
15	Philips	BGP307I-20c894bd-c08f-45de-881f-5044016b5230	BGP307 LED25-4S/727 PSD DM10 BL2	18.6 W	1350 lm	72.6 lm/W	
21	Philips	BGP702I-39bd766d-7a45-48a3-8398-3a75438817dc	BGP702 T25 LED20-4S/420 PSA DM11 BL2 FG	13.0 W	746 lm	57.5 lm/W	22
13	Unilamp	6061-0-7-681-XX	I-BRICK H-Ramp - CVDA	3.9 W	62 lm	15.8 lm/W	
16	Unilamp	9045-9-3-523-91	Mini Quark Square	20.0 W	1914 lm	95.7 lm/W	

Product data sheet

Philips - BCB500 LED25-4S/830 PSU A



Article No.	BCB500I-509741e7-518e-408f-b577-1280ebaf11b2
P	20.0 W
Φ_{Lamp}	2500 lm
$\Phi_{\text{Luminaire}}$	1874 lm
η	74.96 %
Luminous efficacy	93.8 lm/W
CCT	3000 K
CRI	80



Polar LDC

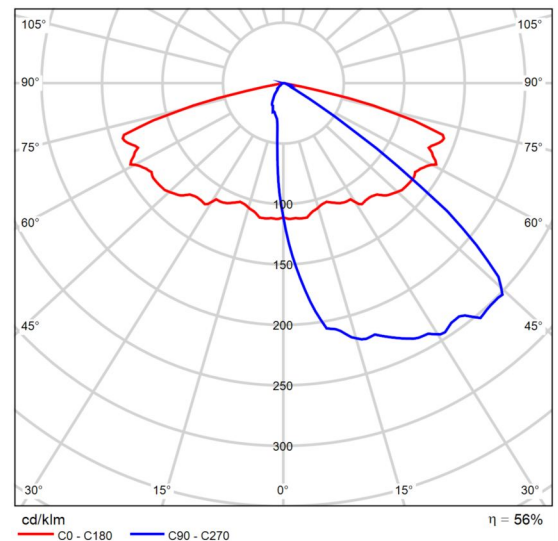
OptiSpace is a creative bollard solution which enables you to build a more attractive, citizen-centric inner-city space by avoiding verticalisation of the urban landscape. OptiSpace delivers all this and more while delivering an attractive TCO for your investment. Enabled by the different control options, you can reduce energy consumption and minimise TCO further. And thanks to the excellent and optimised light distribution options, you can maximise spacing between the bollards, thereby minimising the number of light points needed to be installed. To support different design schemes, OptiSpace is also available in different colours: Philips Ultra Dark Grey is the standard colour and other colours are available on request.

Product data sheet

Philips - BGP307 LED25-4S/727 PSD DM10 BL2



Article No.	BGP307I-20c894bd-c08f-45de-881f-5044016b5230
P	18.6 W
Φ_{Lamp}	2432 lm
$\Phi_{\text{Luminaire}}$	1350 lm
η	55.51 %
Luminous efficacy	72.6 lm/W
CCT	3000 K
CRI	70



Polar LDC

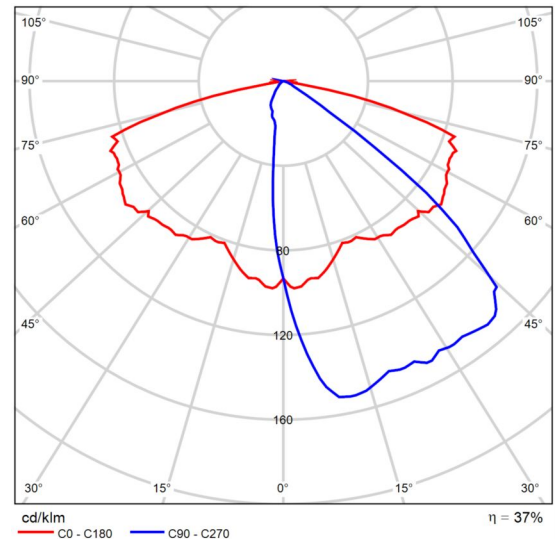
The ClearWay Gen2 enables you to enjoy the benefits of LED technology for urban lighting right from the start. This new second generation of the luminaire builds on the strengths of its predecessor and is designed to further minimise your Total Cost of Ownership. The ClearWay Gen2 significantly improves the most important aspects of the street-lighting experience compared to conventional urban lighting. Ideal for new streets and for renovating existing installations, this affordable range of urban ClearWay lighting solutions combines clean design, high-quality light with significant energy and maintenance savings. In short, ClearWay Gen2 means good-quality light with all the added benefits of LED – energy savings and long lifetime. Offering more benefits, yet packaged in a thinner and lighter design which makes it easier to install.

Product data sheet

Philips - BGP702 T25 LED20-4S/420 PSA DM11 BL2 FG



Article No.	BGP702I-39bd766d-7a45-48a3-8398-3a75438817dc
P	13.0 W
Φ_{Lamp}	2000 lm
$\Phi_{\text{Luminaire}}$	746 lm
η	37.31 %
Luminous efficacy	57.5 lm/W
CCT	2000 K
CRI	36
Index	22



Polar LDC

Luma gen2 is the next generation of the Luma LED luminaire family, fully optimised to become your long-term lighting and innovation partner. While keeping the distinctive design characteristics of the first generation, Luma gen2 gives you the benefits of the latest technologies thanks to its future-proof System Ready architecture, use of optimised Ledgine LED and optical platform ensuring best-in-class lighting performance in a broad range of applications. It also offers improved serviceability. Installation has also become easier and faster, and thanks to the Service tag, you have access to all relevant documentations onsite. Also, the cable feed-through has been redesigned and access to the gear components is easy thanks to top down tool-less access. Luma gen2 also offers all connectivity and dimming options available today and thanks to being System Ready, it can also to be paired with lighting management systems such as Interact City or existing and upcoming sensor innovations. The Luma gen2 has been developed to optimise and simplify spare part repair and maintenance work using a new plug-and-play GearFlex module

Product data sheet

Philips - BGP702 T25 LED20-4S/420 PSA DM11 BL2 FG

containing all electrical components in an easy to handle and accessible box inside the housing. As a company conscious about the impact of light on the environment and biodiversity, we also equipped the Luma gen2 with dedicated light recipes that help with maintaining the optimal ecosystems for bats or preserve a dark night sky.

Product data sheet

Unilamp - I-BRICK H-Ramp - CVDA



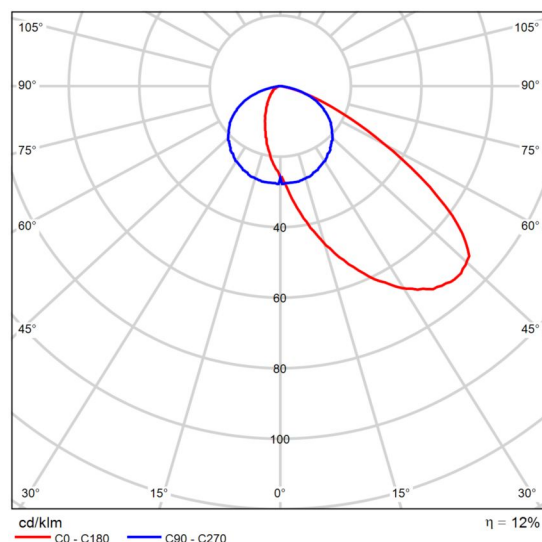
Article No.	6061-0-7-681-XX
P	3.9 W
Φ_{Lamp}	530 lm
$\Phi_{\text{Luminaire}}$	62 lm
η	11.65 %
Luminous efficacy	15.8 lm/W
CCT	3000 K
CRI	80

Description

I-BRICK is a range of wall recessed luminaires with LED light sources. The glare-free cover enables I-BRICK to be installed in most places where a comfortable illumination is needed. The high quality LED chip from world renowned manufacturers allow for less energy consumption with acceptable lighting levels. I-BRICK family is available in 5 different front covers in 2 sizes. The shallow housing can be installed in either wall or step where recess depth is limited. The high quality LED driver is integrated inside the luminaire for ease of installation. They are widely used to illuminate stairways, pathways and walls.

Spec

- Designed, Manufactured and tested according to IEC 60598-1, IEC 60598-2-1, IEC 60598-2-2 and VDE regulations.
- LM6 die-cast aluminium body.
- GFR polymer recess box.
- Stainless steel screws.
- Nano Ceramic surface conversion.
- Double layer coating.
- Polycarbonate or Safety glass cover.
- Post-cured silicone gasket.



Polar LDC

Product data sheet

Unilamp - I-BRICK H-Ramp - CVDA

- High quality LED module and driver.
- GFR PA6.6 terminal block.
- Weather proof grommet.
- Installation work has to be carried on according to the enclosed product manual.

Product data sheet

Unilamp - Mini Quark Square



Article No.	9045-9-3-523-91
P	20.0 W
Φ_{Lamp}	2120 lm
$\Phi_{\text{Luminaire}}$	1914 lm
η	90.27 %
Luminous efficacy	95.7 lm/W
CCT	2700 K
CRI	80

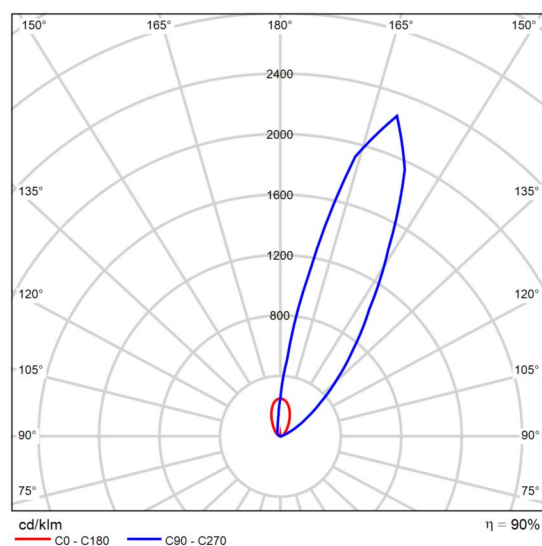
Description

QUARK a family walk-over and drive-over inground uplighter with shallow housing for minimum recess depth and able to withstand loads up to 1,000kg. Designed to be used with high power LED in SMD and COB. The light distribution is available in asymmetric, bi-symmetric, narrow beam, medium beam, wide beam and elliptical beam. The color temperature is available in 2700K, 3000K and 4000K. QUARK can be installed with gel-filled IP rated connecting devices, which are available as an accessory. It can be used to illuminate plants, flagpoles, columns, walls, building facades and also architectural works and landmarks.

QUARK has to be installed in the ground together with the ground-recessed housing which bears the load pressure. The neoprene cable is pre-wired from the factory with anti-condensation kit to ensure that the humidity could not be penetrated into the luminaire. It is available in 2 sizes with fixed light output and dimmable.

spec

- Designed, Manufactured and Tested according to IEC 60598-1, IEC 60598-2-1, IEC 60598-2-13 and VDE regulations.
- Marine grade 316 stainless steel front cover.



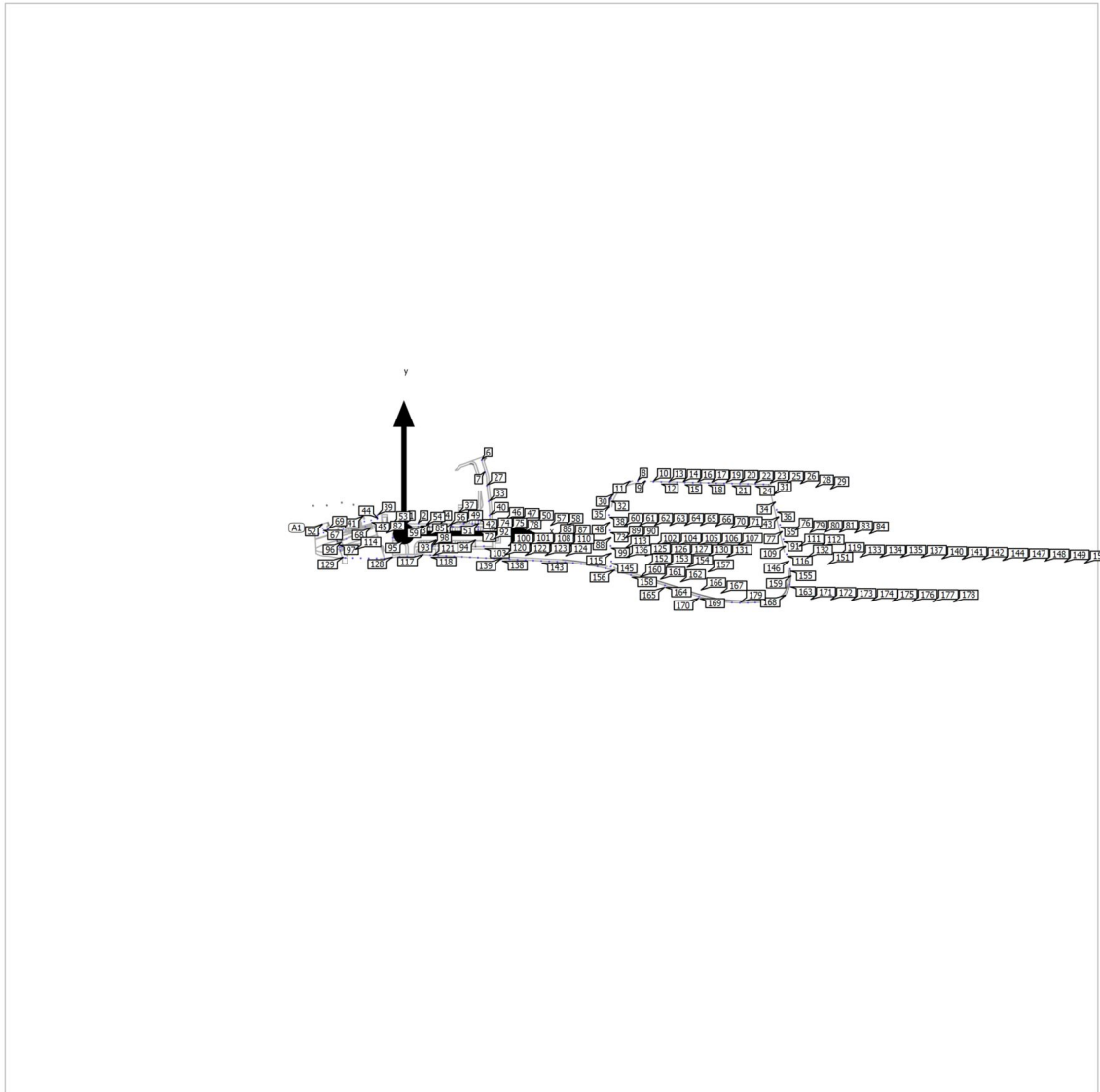
Polar LDC

Product data sheet

Unilamp - Mini Quark Square

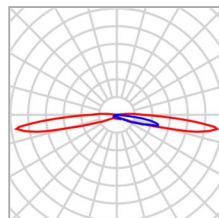
- LM6 die-cast aluminium body.
- GFR polymer recess housing.
- Stainless steel screws.
- Nano Ceramic surface conversion.
- Double layer coating.
- Safety glass cover.
- Post-cured silicone gasket.
- High quality LED module and driver.
- High efficiency reflector.
- Molded Lens from renowned manufacturer.
- M20 cable gland.
- Pre-wired with outdoor cable.
- Installation work has to be carried on according to the enclosed product manual.
- For ground recess application, the water drainage system must be tested to ensure that it is working sufficiency and efficiency.

Site 1

Luminaire layout plan

Site 1

Luminaire layout plan



Manufacturer	Philips	P	20.0 W
Article No.	BCB500I-509741e7-518e-408f-b577-1280ebaf11b2	$\Phi_{\text{Luminaire}}$	1874 lm
Article name	BCB500 LED25-4S/830 PSU A		
Fitting	1x LED25-4S/830		

5 x Philips BCB500 LED25-4S/830 PSU A

Type	Line arrangement	X	Y	Mounting height	Luminaire
1st luminaire (X/Y/Z)	2.796 m / 8.677 m / 1.000 m	2.796 m	8.677 m	1.000 m	1
X-direction	5 pcs., Centre - centre, 9.668 m	12.465 m	8.677 m	1.000 m	2
		22.133 m	8.677 m	1.000 m	3
		31.801 m	8.677 m	1.000 m	4
		41.470 m	8.677 m	1.000 m	5
Arrangement	A1				

Individual luminaires

X	Y	Mounting height	Luminaire
200.921 m	45.350 m	1.000 m	8
207.607 m	45.081 m	1.000 m	9
214.597 m	44.837 m	1.000 m	10
194.270 m	44.818 m	1.000 m	11

Site 1

Luminaire layout plan

X	Y	Mounting height	Luminaire
221.239 m	44.633 m	1.000 m	12
227.998 m	44.473 m	1.000 m	13
234.730 m	44.191 m	1.000 m	14
241.624 m	44.090 m	1.000 m	15
248.522 m	43.956 m	1.000 m	16
254.912 m	43.805 m	1.000 m	17
261.549 m	43.728 m	1.000 m	18
268.435 m	43.466 m	1.000 m	19
275.310 m	43.352 m	1.000 m	20
282.119 m	43.078 m	1.000 m	21
288.844 m	42.908 m	1.000 m	22
295.545 m	42.782 m	1.000 m	23
302.221 m	42.717 m	1.000 m	24
309.105 m	42.552 m	1.000 m	25
188.256 m	42.328 m	1.000 m	26
315.980 m	39.338 m	1.000 m	28
182.718 m	37.791 m	1.000 m	29
179.731 m	33.532 m	1.000 m	30
317.723 m	33.183 m	1.000 m	31
177.779 m	29.727 m	1.000 m	32
318.913 m	26.765 m	1.000 m	34
176.294 m	22.649 m	1.000 m	35
320.497 m	20.582 m	1.000 m	36
176.447 m	16.094 m	1.000 m	38

Site 1

Luminaire layout plan

X	Y	Mounting height	Luminaire
64.052 m	14.153 m	0.000 m	42
321.767 m	14.147 m	1.000 m	43
64.042 m	11.387 m	0.000 m	46
176.842 m	9.413 m	1.000 m	48
64.031 m	8.655 m	0.000 m	51
323.417 m	7.544 m	1.000 m	55
63.823 m	6.311 m	0.000 m	63
63.811 m	3.117 m	0.000 m	72
177.118 m	2.771 m	1.000 m	73
-5.516 m	2.541 m	0.000 m	75
324.805 m	1.372 m	1.000 m	77
64.079 m	0.062 m	0.000 m	79
177.639 m	-3.913 m	1.000 m	88
326.287 m	-4.974 m	1.000 m	91
177.725 m	-10.441 m	1.000 m	99
327.493 m	-11.205 m	1.000 m	109
177.958 m	-17.128 m	1.000 m	115
329.006 m	-17.533 m	1.000 m	116
16.061 m	-18.261 m	1.000 m	117
22.772 m	-18.354 m	1.000 m	118
29.832 m	-18.728 m	1.000 m	119
36.163 m	-18.970 m	1.000 m	120
2.849 m	-19.341 m	1.000 m	121
9.540 m	-19.370 m	1.000 m	122

Site 1

Luminaire layout plan

X	Y	Mounting height	Luminaire
43.326 m	-19.450 m	1.000 m	123
-3.847 m	-19.726 m	1.000 m	124
50.132 m	-19.747 m	1.000 m	125
57.074 m	-20.148 m	1.000 m	126
63.669 m	-20.253 m	1.000 m	127
-10.272 m	-20.435 m	1.000 m	128
-52.930 m	-20.602 m	1.000 m	129
-50.519 m	-20.650 m	1.000 m	130
-43.770 m	-20.773 m	1.000 m	131
70.397 m	-20.851 m	1.000 m	132
-37.013 m	-20.859 m	1.000 m	133
-30.259 m	-21.066 m	1.000 m	134
-23.532 m	-21.066 m	1.000 m	135
-16.823 m	-21.082 m	1.000 m	136
77.271 m	-21.204 m	1.000 m	137
84.063 m	-21.563 m	1.000 m	138
90.880 m	-21.888 m	1.000 m	139
97.760 m	-22.245 m	1.000 m	140
104.529 m	-22.596 m	1.000 m	141
111.331 m	-22.949 m	1.000 m	142
118.101 m	-23.299 m	1.000 m	143
124.910 m	-23.649 m	1.000 m	144
178.401 m	-23.731 m	1.000 m	145
330.529 m	-23.927 m	1.000 m	146

Site 1

Luminaire layout plan

X	Y	Mounting height	Luminaire
131.718 m	-23.998 m	1.000 m	147
138.579 m	-24.356 m	1.000 m	148
145.419 m	-25.082 m	1.000 m	149
152.387 m	-25.948 m	1.000 m	150
159.427 m	-27.020 m	1.000 m	151
166.424 m	-28.282 m	1.000 m	152
177.982 m	-28.455 m	1.000 m	153
173.589 m	-29.720 m	1.000 m	154
331.953 m	-30.279 m	1.000 m	155
180.726 m	-31.607 m	1.000 m	156
187.968 m	-33.525 m	1.000 m	157
195.237 m	-35.602 m	1.000 m	158
332.427 m	-36.835 m	1.000 m	159
202.495 m	-37.718 m	1.000 m	160
209.762 m	-39.878 m	1.000 m	161
217.036 m	-42.075 m	1.000 m	162
331.674 m	-43.786 m	1.000 m	163
224.363 m	-44.345 m	1.000 m	164
231.681 m	-46.648 m	1.000 m	165
239.000 m	-49.070 m	1.000 m	166
246.470 m	-51.687 m	1.000 m	167
327.458 m	-53.182 m	1.000 m	168
253.718 m	-53.924 m	1.000 m	169
260.952 m	-55.860 m	1.000 m	170

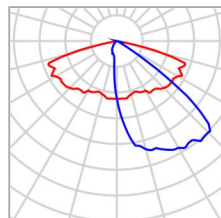
Site 1

Luminaire layout plan

X	Y	Mounting height	Luminaire
321.833 m	-57.063 m	1.000 m	171
268.068 m	-57.463 m	1.000 m	172
315.303 m	-58.229 m	1.000 m	173
275.061 m	-58.547 m	1.000 m	174
308.676 m	-58.765 m	1.000 m	175
282.002 m	-59.155 m	1.000 m	176
302.146 m	-59.205 m	1.000 m	177
295.472 m	-59.435 m	1.000 m	178
288.794 m	-59.492 m	1.000 m	179

Site 1

Luminaire layout plan



Manufacturer	Philips	P	18.6 W
Article No.	BGP307I-20c894bd-c08f-45de-881f-5044016b5230	Φ _{Luminaire}	1350 lm
Article name	BGP307 LED25-4S/727 PSD DM10 BL2		
Fitting	1x LED25-4S/727		

Individual luminaires

X	Y	Mounting height	Luminaire
51.403 m	8.820 m	4.000 m	49
58.823 m	8.674 m	4.000 m	50
5.837 m	6.460 m	4.000 m	57
17.242 m	6.357 m	4.000 m	59
24.686 m	6.349 m	4.000 m	60
33.781 m	6.345 m	4.000 m	61
48.824 m	6.345 m	4.000 m	62
41.623 m	6.270 m	4.000 m	64
56.440 m	6.193 m	4.000 m	65
17.292 m	-10.981 m	4.000 m	101
24.792 m	-11.000 m	4.000 m	102
33.793 m	-11.009 m	4.000 m	104

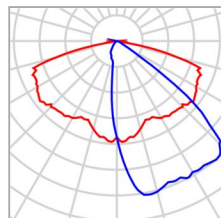
Site 1

Luminaire layout plan

X	Y	Mounting height	Luminaire
41.318 m	-11.016 m	4.000 m	105
48.818 m	-11.023 m	4.000 m	106
56.318 m	-11.030 m	4.000 m	107

Site 1

Luminaire layout plan



Manufacturer	Philips	P	13.0 W
Article No.	BGP702I-39bd766d-7a45-48a3-8398-3a75438817dc	$\Phi_{\text{Luminaire}}$	746 lm
Article name	BGP702 T25 LED20-4S/420 PSA DM11 BL2 FG		
Fitting	1x LED20-4S/420		
Index	22		

Individual luminaires

X	Y	Mounting height	Luminaire
67.167 m	62.972 m	4.000 m	6
69.881 m	52.833 m	4.000 m	7
71.516 m	41.288 m	4.000 m	27
73.128 m	27.754 m	4.000 m	33
46.755 m	17.211 m	4.000 m	37
-22.821 m	15.950 m	4.000 m	39
73.801 m	15.736 m	4.000 m	40
-35.555 m	15.189 m	4.000 m	41
-70.605 m	8.290 m	4.000 m	52
-49.198 m	7.652 m	4.000 m	53
-49.043 m	7.561 m	4.000 m	54

Site 1

Luminaire layout plan

X	Y	Mounting height	Luminaire
-65.246 m	3.750 m	4.000 m	69
-60.331 m	2.276 m	4.000 m	76
12.227 m	0.012 m	4.000 m	80
38.809 m	0.000 m	4.000 m	81
81.385 m	-3.109 m	4.000 m	86
-9.468 m	-3.566 m	4.000 m	87
27.296 m	-6.005 m	4.000 m	93
61.239 m	-6.035 m	4.000 m	94
-0.213 m	-6.454 m	4.000 m	95
68.709 m	-11.004 m	4.000 m	103

Site 1

Luminaire layout plan



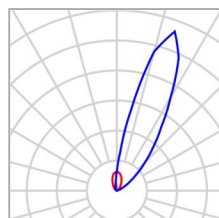
Manufacturer	Unilamp	P	3.9 W
Article No.	6061-0-7-681-XX	$\Phi_{\text{Luminaire}}$	62 lm
Article name	I-BRICK H-Ramp - CVDA		
Fitting	1x LED 3.9W(24Vdc) 3000K 530 lm		

Individual luminaires

X	Y	Mounting height	Luminaire
-33.133 m	6.408 m	2.000 m	58
-31.277 m	2.628 m	2.000 m	74
-38.400 m	-0.151 m	2.000 m	82
-43.741 m	-2.280 m	2.000 m	85
-54.503 m	-4.438 m	0.500 m	89
-49.701 m	-4.626 m	2.000 m	90
-57.740 m	-5.542 m	0.500 m	92
-26.942 m	-10.388 m	0.500 m	98
-34.929 m	-10.909 m	0.500 m	100
-42.961 m	-11.432 m	0.500 m	110
-50.449 m	-12.141 m	0.500 m	112
-51.713 m	-13.126 m	0.500 m	113
-54.903 m	-14.154 m	0.500 m	114

Site 1

Luminaire layout plan



Manufacturer	Unilamp	P	20.0 W
Article No.	9045-9-3-523-91	$\Phi_{\text{Luminaire}}$	1914 lm
Article name	Mini Quark Square		
Fitting	1x LED 16W 2700K 2120 lm		

Individual luminaires

X	Y	Mounting height	Luminaire
-22.955 m	12.736 m	-0.087 m	44
-28.255 m	11.636 m	-0.087 m	45
-33.955 m	10.636 m	-0.087 m	47
-40.955 m	7.236 m	-0.087 m	56
-20.555 m	5.636 m	-0.087 m	66
-69.755 m	4.636 m	-0.087 m	67
-23.855 m	4.636 m	-0.087 m	68
-52.255 m	3.736 m	-0.087 m	70
-73.755 m	3.536 m	-0.087 m	71
-68.955 m	0.736 m	-0.087 m	78
-72.855 m	-0.264 m	-0.087 m	83
-57.155 m	-1.064 m	-0.087 m	84
-54.455 m	-7.764 m	-0.087 m	96

Site 1

Luminaire layout plan

X	Y	Mounting height	Luminaire
-55.855 m	-8.064 m	-0.087 m	97
-53.555 m	-11.164 m	-0.087 m	108
-55.055 m	-11.464 m	-0.087 m	111

Site 1

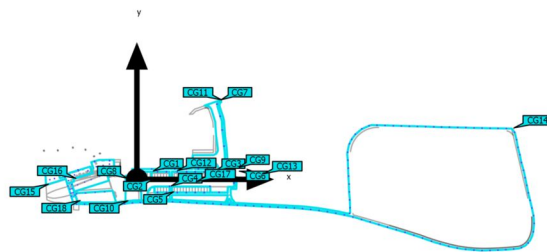
Luminaire list

Φ_{total} 280982 lm	P_{total} 3202.7 W	Luminous efficacy 87.7 lm/W
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pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy	Index
114	Philips	BCB500I-509741e7-518e-408f-b577-1280ebaf11b2	BCB500 LED25-4S/830 PSU A	20.0 W	1874 lm	93.8 lm/W	
15	Philips	BGP307I-20c894bd-c08f-45de-881f-5044016b5230	BGP307 LED25-4S/727 PSD DM10 BL2	18.6 W	1350 lm	72.6 lm/W	
21	Philips	BGP702I-39bd766d-7a45-48a3-8398-3a75438817dc	BGP702 T25 LED20-4S/420 PSA DM11 BL2 FG	13.0 W	746 lm	57.5 lm/W	22
13	Unilamp	6061-0-7-681-XX	I-BRICK H-Ramp - CVDA	3.9 W	62 lm	15.8 lm/W	
16	Unilamp	9045-9-3-523-91	Mini Quark Square	20.0 W	1914 lm	95.7 lm/W	

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
Calculation surface 1 Perpendicular illuminance Height: 0.000 m	20.8 lx	10.1 lx	31.8 lx	0.49	0.32	CG1
Calculation surface 2 Perpendicular illuminance Height: 0.000 m	25.6 lx	11.2 lx	37.6 lx	0.44	0.30	CG2
Calculation surface 3 Horizontal illuminance Height: 0.000 m	29.9 lx	9.38 lx	81.5 lx	0.31	0.12	CG3
Calculation surface 3 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	17.5 lx	4.23 lx	61.5 lx	0.24	0.069	CG3
Calculation surface 3 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	18.9 lx	2.94 lx	85.5 lx	0.16	0.034	CG3
Calculation surface 4 Horizontal illuminance Height: 0.000 m	25.1 lx	13.0 lx	35.7 lx	0.52	0.36	CG4
Calculation surface 4 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	19.3 lx	7.31 lx	38.6 lx	0.38	0.19	CG4
Calculation surface 4 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	16.1 lx	4.32 lx	38.4 lx	0.27	0.11	CG4
Calculation surface 5 Horizontal illuminance Height: 0.000 m	24.7 lx	12.3 lx	36.4 lx	0.50	0.34	CG5
Calculation surface 5 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	18.6 lx	6.78 lx	38.1 lx	0.36	0.18	CG5
Calculation surface 5 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	20.2 lx	6.73 lx	38.3 lx	0.33	0.18	CG5

Site 1 (Light scene 1)

Calculation objects

Calculation surface 6 Horizontal illuminance Height: 0.000 m	36.0 lx	10.0 lx	113 lx	0.28	0.088	CG6
Calculation surface 6 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	15.4 lx	3.35 lx	36.6 lx	0.22	0.092	CG6
Calculation surface 6 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	12.9 lx	1.66 lx	34.1 lx	0.13	0.049	CG6
Calculation surface 7 Perpendicular illuminance Height: 0.000 m	8.69 lx	0.26 lx	50.0 lx	0.030	0.005	CG7
Calculation surface 8 Horizontal illuminance Height: 0.000 m	9.30 lx	2.17 lx	38.9 lx	0.23	0.056	CG8
Calculation surface 8 Vertical illuminance Rotation: 0.0°, Height: 0.500 m	10.6 lx	2.31 lx	131 lx	0.22	0.018	CG8
Calculation surface 8 Vertical illuminance Rotation: 180.0°, Height: 0.500 m	12.8 lx	2.91 lx	226 lx	0.23	0.013	CG8
Calculation surface 9 Perpendicular illuminance Height: 0.000 m	17.8 lx	1.34 lx	82.9 lx	0.075	0.016	CG9
Calculation surface 10 Perpendicular illuminance Height: 0.000 m	10.0 lx	3.53 lx	19.1 lx	0.35	0.18	CG10
Calculation surface 11 Horizontal illuminance Height: 0.000 m	9.11 lx	0.78 lx	16.6 lx	0.086	0.047	CG11
Calculation surface 11 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	7.83 lx	0.77 lx	22.2 lx	0.098	0.035	CG11
Calculation surface 11 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	8.00 lx	0.83 lx	21.0 lx	0.10	0.040	CG11

Site 1 (Light scene 1)

Calculation objects

Calculation surface 12 Perpendicular illuminance Height: 0.000 m	20.5 lx	13.4 lx	28.6 lx	0.65	0.47	CG12
Calculation surface 13 Horizontal illuminance Height: 0.000 m	26.5 lx	24.2 lx	28.7 lx	0.91	0.84	CG13
Calculation surface 13 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	15.5 lx	11.5 lx	18.3 lx	0.74	0.63	CG13
Calculation surface 13 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	14.7 lx	12.4 lx	18.3 lx	0.84	0.68	CG13
Calculation surface 14 Horizontal illuminance Height: 0.000 m	4.05 lx	0.088 lx	26.2 lx	0.022	0.003	CG14
Calculation surface 14 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	14.9 lx	0.74 lx	307 lx	0.050	0.002	CG14
Calculation surface 14 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	14.5 lx	1.12 lx	285 lx	0.077	0.004	CG14
Calculation surface 15 Horizontal illuminance Height: 0.000 m	6.36 lx	0.00 lx	18.7 lx	0.00	0.00	CG15
Calculation surface 15 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	14.3 lx	1.82 lx	178 lx	0.13	0.010	CG15
Calculation surface 15 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	7.78 lx	0.014 lx	79.7 lx	0.002	0.000	CG15
Calculation surface 16 Horizontal illuminance Height: 0.000 m	2.65 lx	0.26 lx	13.9 lx	0.098	0.019	CG16
Calculation surface 16 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	5.34 lx	1.62 lx	54.8 lx	0.30	0.030	CG16

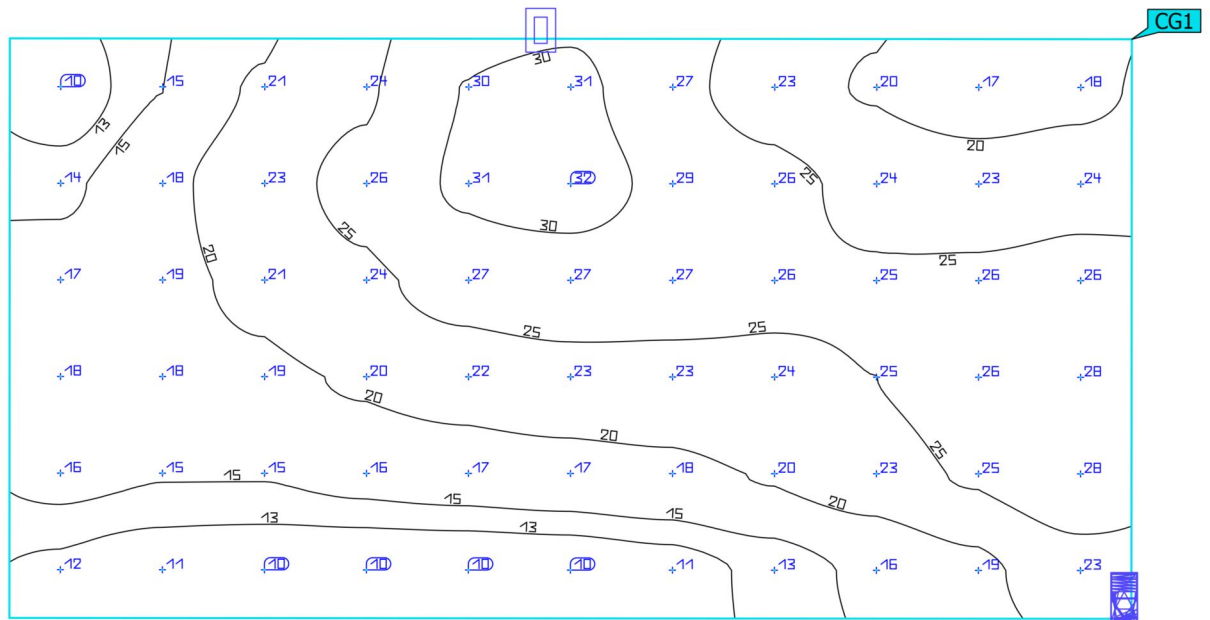
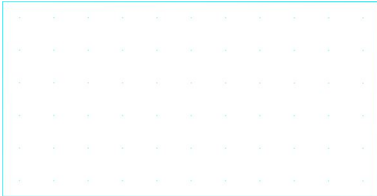
Site 1 (Light scene 1)

Calculation objects

Calculation surface 16 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	4.61 lx	0.24 lx	70.8 lx	0.052	0.003	CG16
Calculation surface 17 Horizontal illuminance Height: 0.000 m	7.72 lx	0.88 lx	82.0 lx	0.11	0.011	CG17
Calculation surface 17 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	32.9 lx	3.18 lx	256 lx	0.097	0.012	CG17
Calculation surface 17 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	19.9 lx	0.10 lx	140 lx	0.005	0.001	CG17
Calculation surface 18 Horizontal illuminance Height: 0.000 m	11.9 lx	2.54 lx	40.0 lx	0.21	0.064	CG18
Calculation surface 18 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	16.1 lx	5.15 lx	89.6 lx	0.32	0.057	CG18
Calculation surface 18 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	14.4 lx	1.16 lx	120 lx	0.081	0.010	CG18

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

Site 1 (Light scene 1)

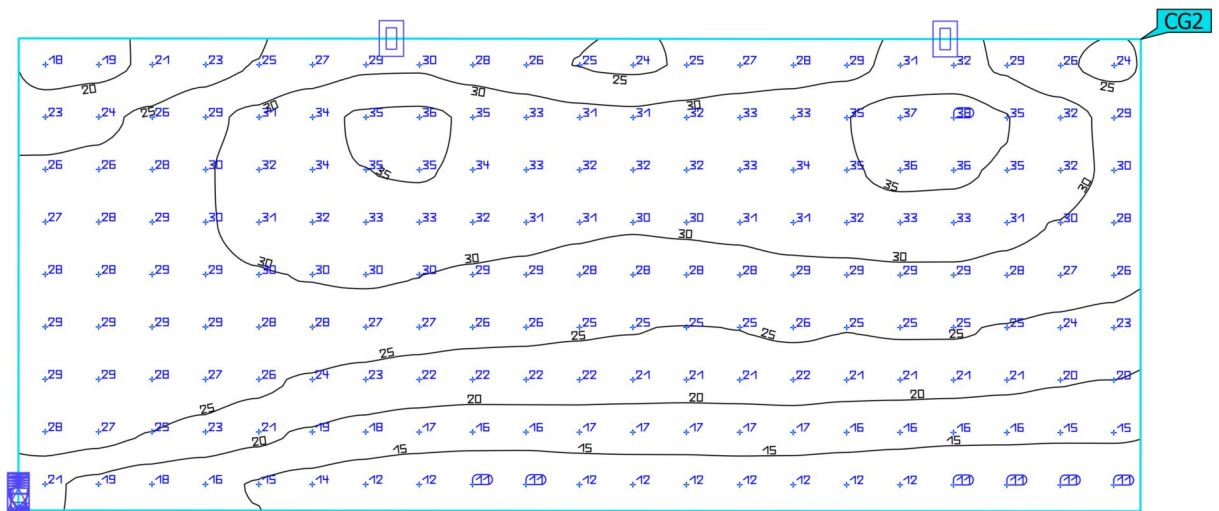
Calculation surface 1

Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 1	20.8 lx	10.1 lx	31.8 lx	0.49	0.32	CG1
Perpendicular illuminance						
Height: 0.000 m						

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

Site 1 (Light scene 1)

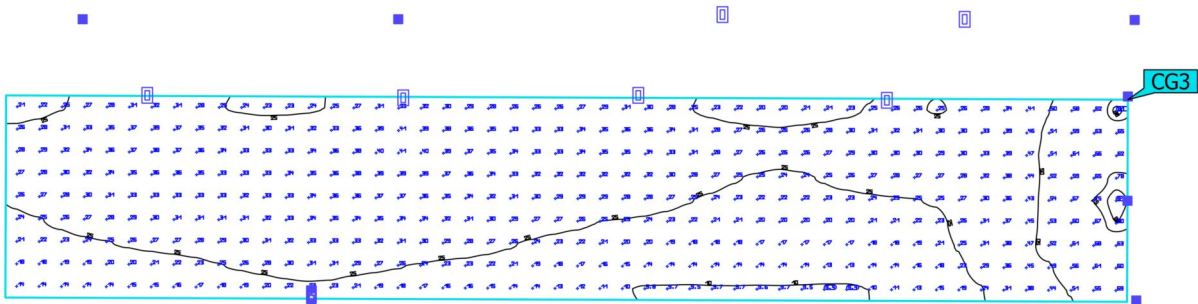
Calculation surface 2



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 2	25.6 lx	11.2 lx	37.6 lx	0.44	0.30	CG2
Perpendicular illuminance						
Height: 0.000 m						

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

Site 1 (Light scene 1)
Calculation surface 3

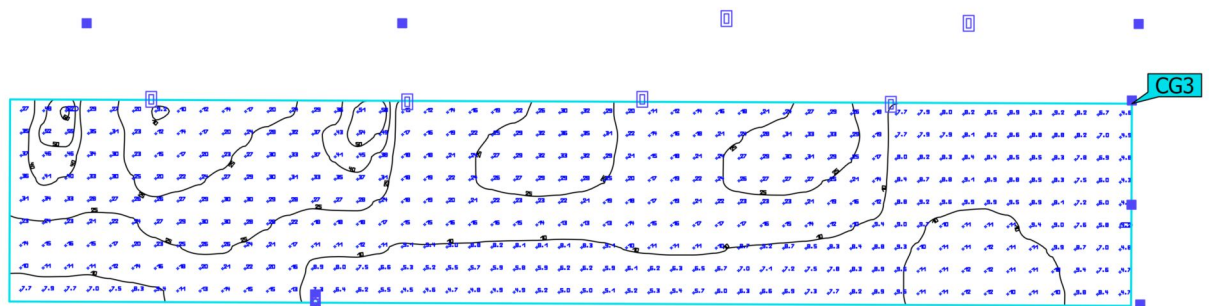


Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 3	29.9 lx	9.38 lx	81.5 lx	0.31	0.12	CG3
Horizontal illuminance						
Height: 0.000 m						

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

Site 1 (Light scene 1)

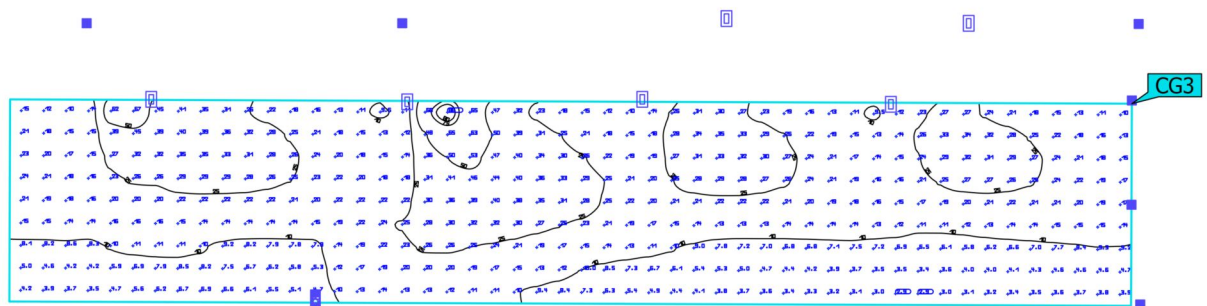
Calculation surface 3



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 3	17.5 lx	4.23 lx	61.5 lx	0.24	0.069	CG3
Vertical illuminance						
Rotation: 0.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)

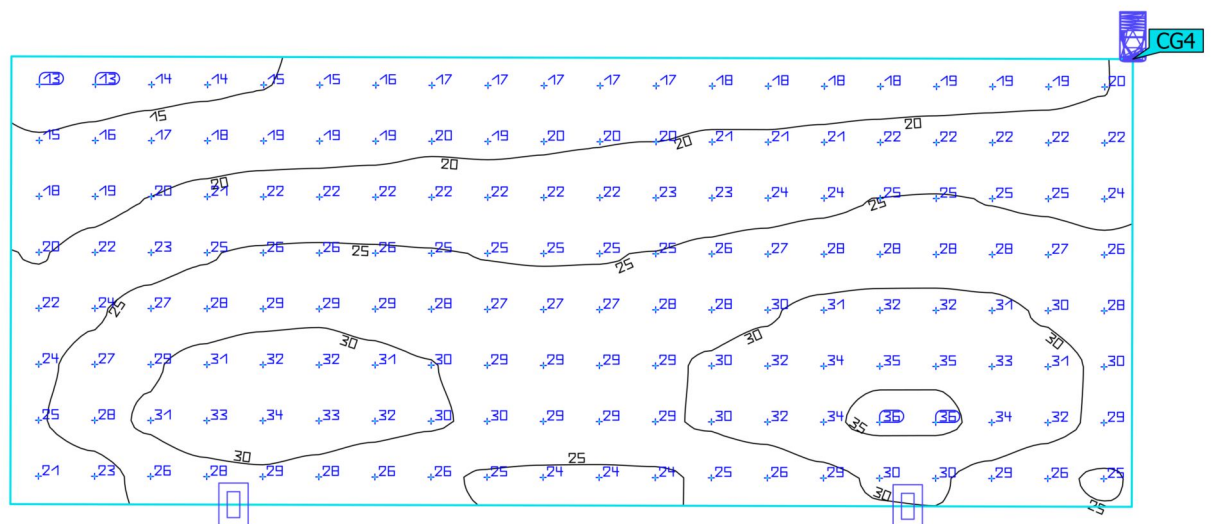
Calculation surface 3

Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Calculation surface 3	18.9 lx	2.94 lx	85.5 lx	0.16	0.034	CG3
Vertical illuminance						
Rotation: 180.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)

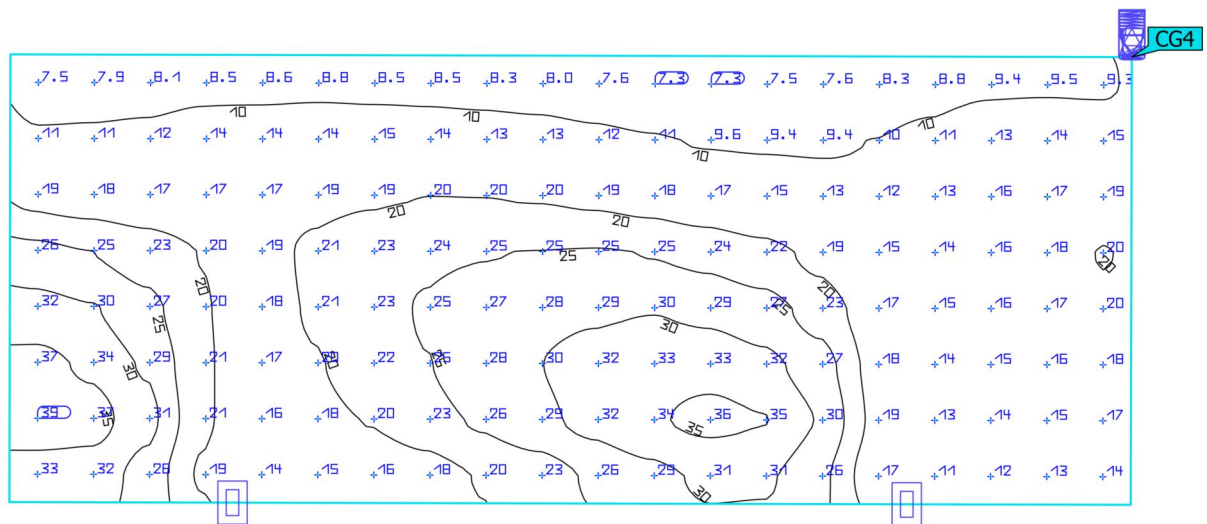
Calculation surface 4



Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Calculation surface 4	25.1 lx	13.0 lx	35.7 lx	0.52	0.36	CG4
Horizontal illuminance						
Height: 0.000 m						

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

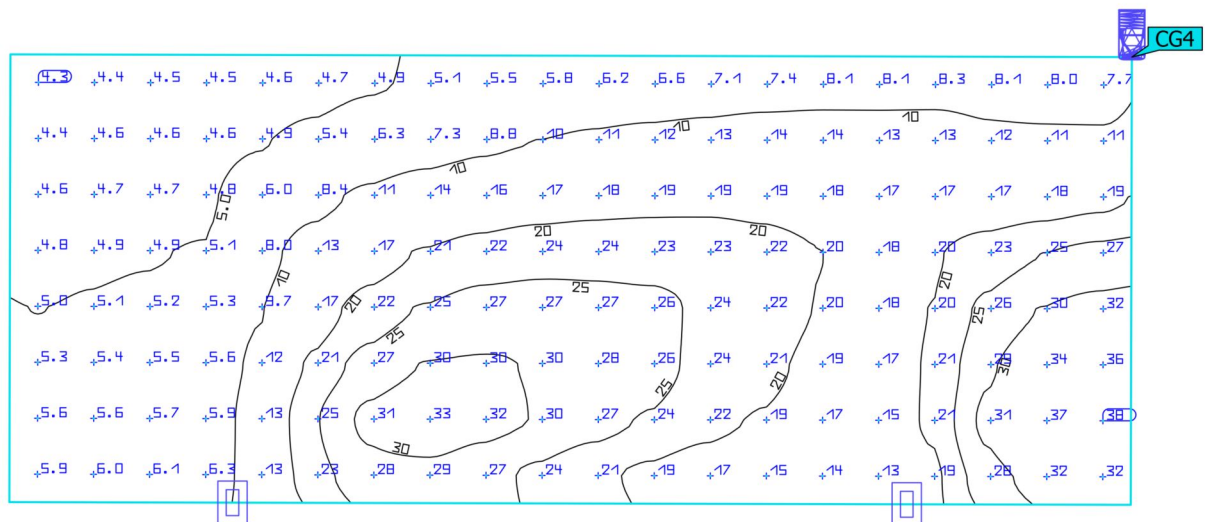
Site 1 (Light scene 1)

Calculation surface 4

Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Calculation surface 4 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	19.3 lx	7.31 lx	38.6 lx	0.38	0.19	CG4

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

Site 1 (Light scene 1)

Calculation surface 4

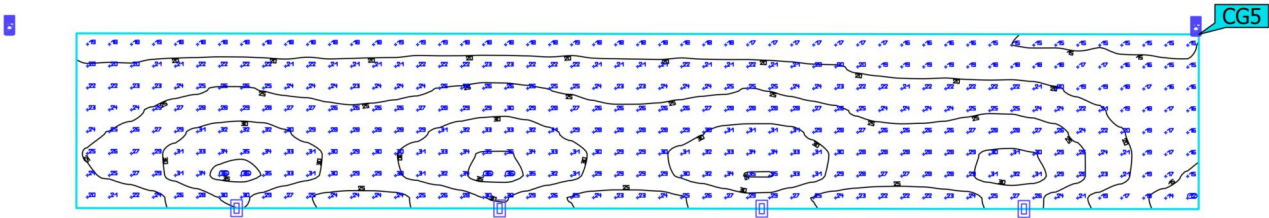
Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 4	16.1 lx	4.32 lx	38.4 lx	0.27	0.11	CG4
Vertical illuminance						
Rotation: 180.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)

Calculation surface 5

Calculation surface 5



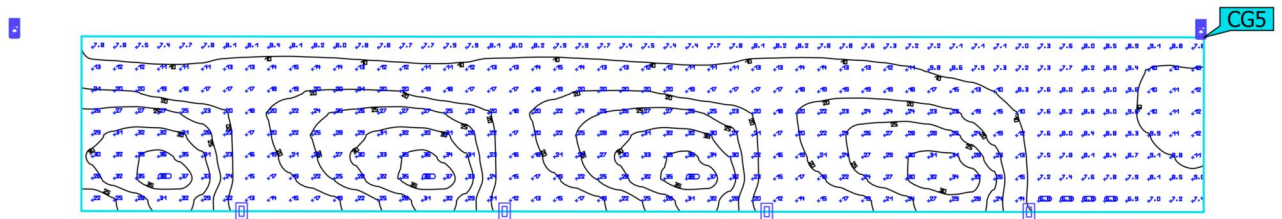
Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 5 Horizontal illuminance Height: 0.000 m	24.7 lx	12.3 lx	36.4 lx	0.50	0.34	CG5

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

Site 1 (Light scene 1)

Calculation surface 5

Calculation surface 5

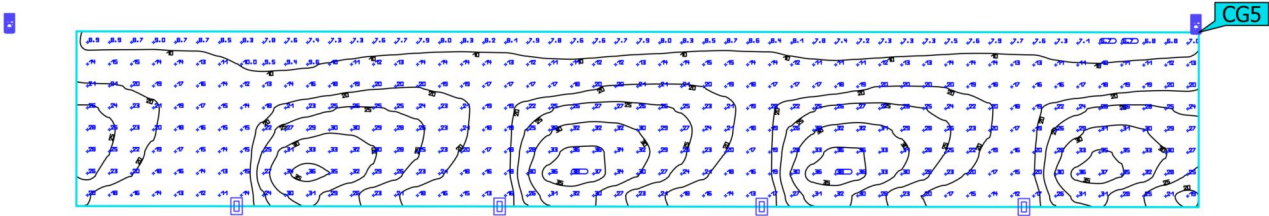


Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Calculation surface 5	18.6 lx	6.78 lx	38.1 lx	0.36	0.18	CG5
Vertical illuminance						
Rotation: 0.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)
Calculation surface 5

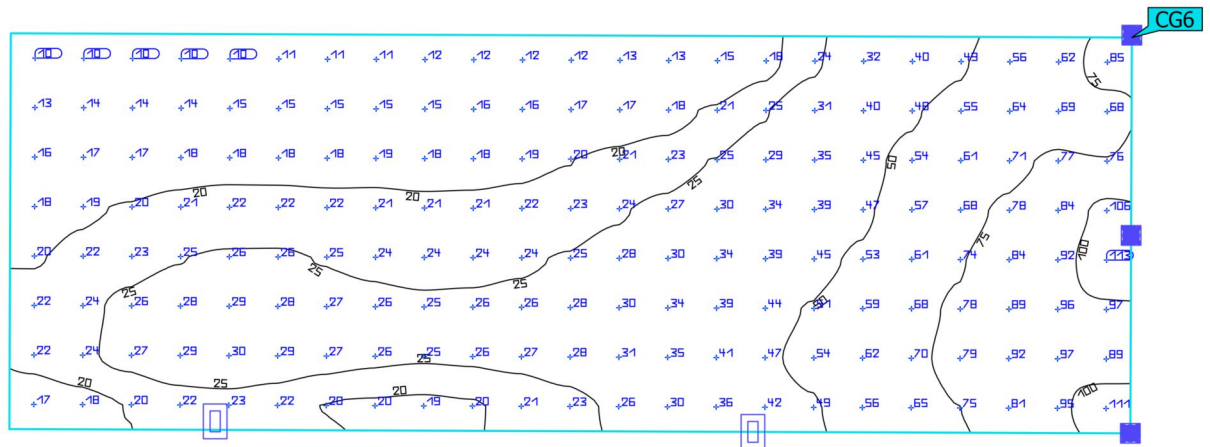
Calculation surface 5



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 5 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	20.2 lx	6.73 lx	38.3 lx	0.33	0.18	CG5

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

Site 1 (Light scene 1)

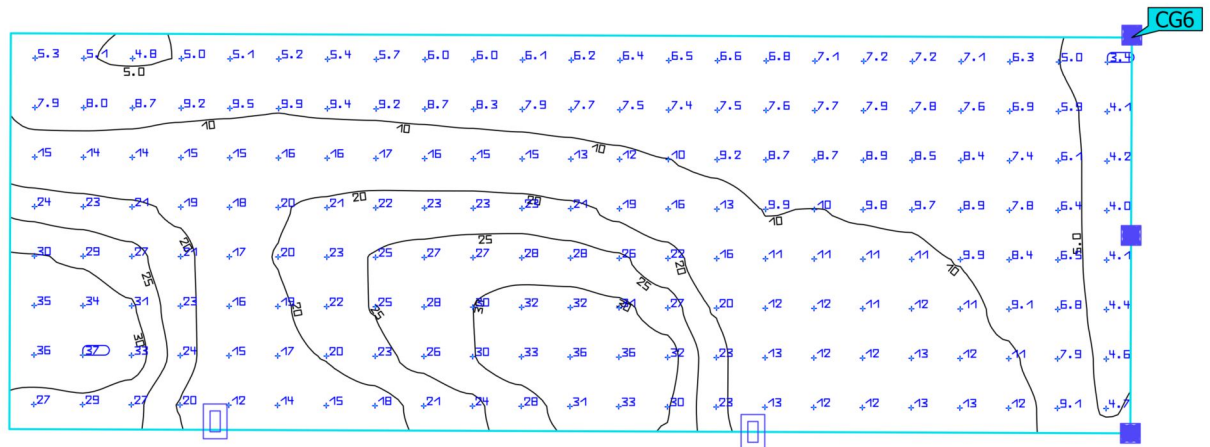
Calculation surface 6

Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Calculation surface 6	36.0 lx	10.0 lx	113 lx	0.28	0.088	CG6
Horizontal illuminance						
Height: 0.000 m						

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

Site 1 (Light scene 1)

Calculation surface 6

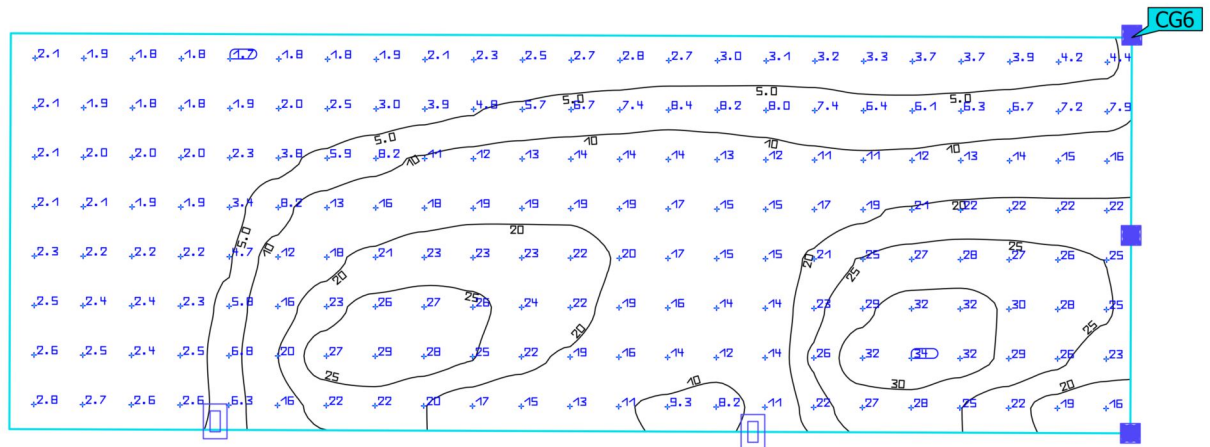


Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_0 (g_1)$	g_2	Index
Calculation surface 6	15.4 lx	3.35 lx	36.6 lx	0.22	0.092	CG6
Vertical illuminance						
Rotation: 0.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)

Calculation surface 6

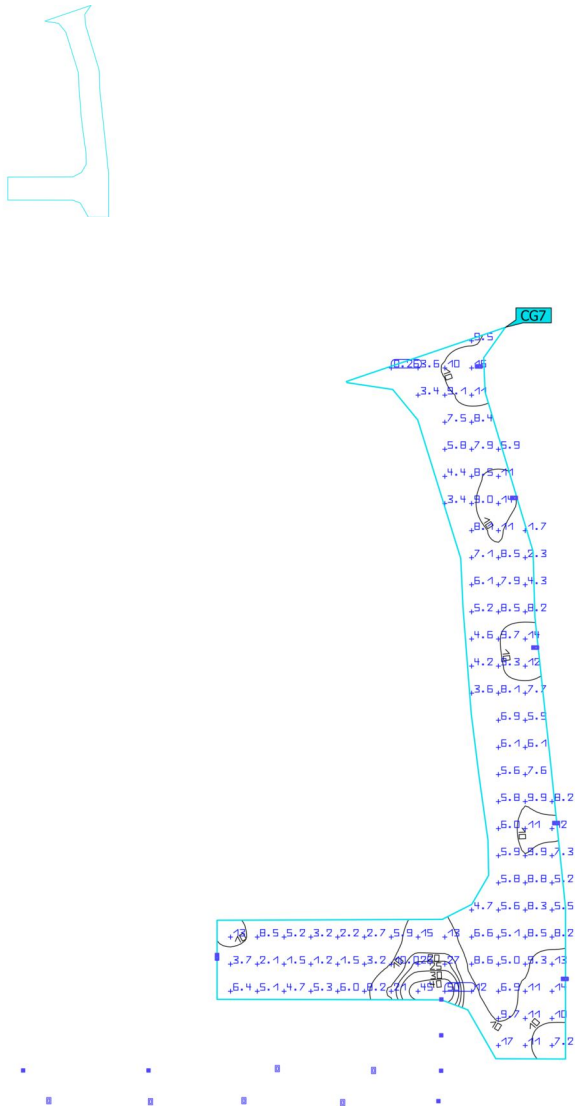


Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 6	12.9 lx	1.66 lx	34.1 lx	0.13	0.049	CG6
Vertical illuminance						
Rotation: 180.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)

Calculation surface 7

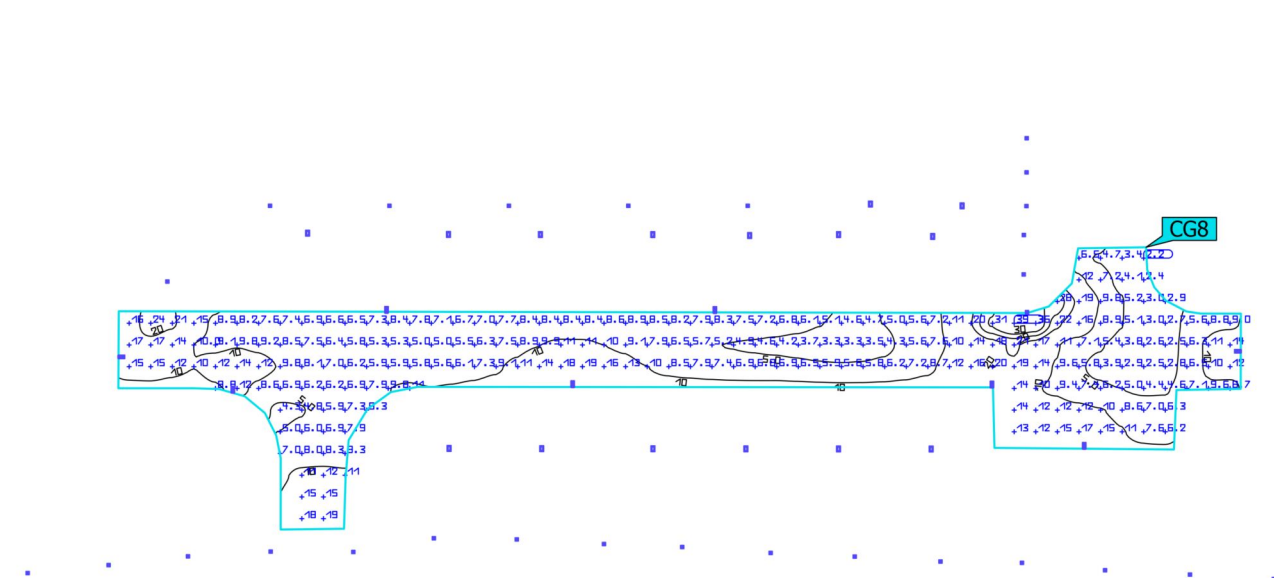


Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Calculation surface 7 Perpendicular illuminance Height: 0.000 m	8.69 lx	0.26 lx	50.0 lx	0.030	0.005	CG7

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

Site 1 (Light scene 1)

Calculation surface 8

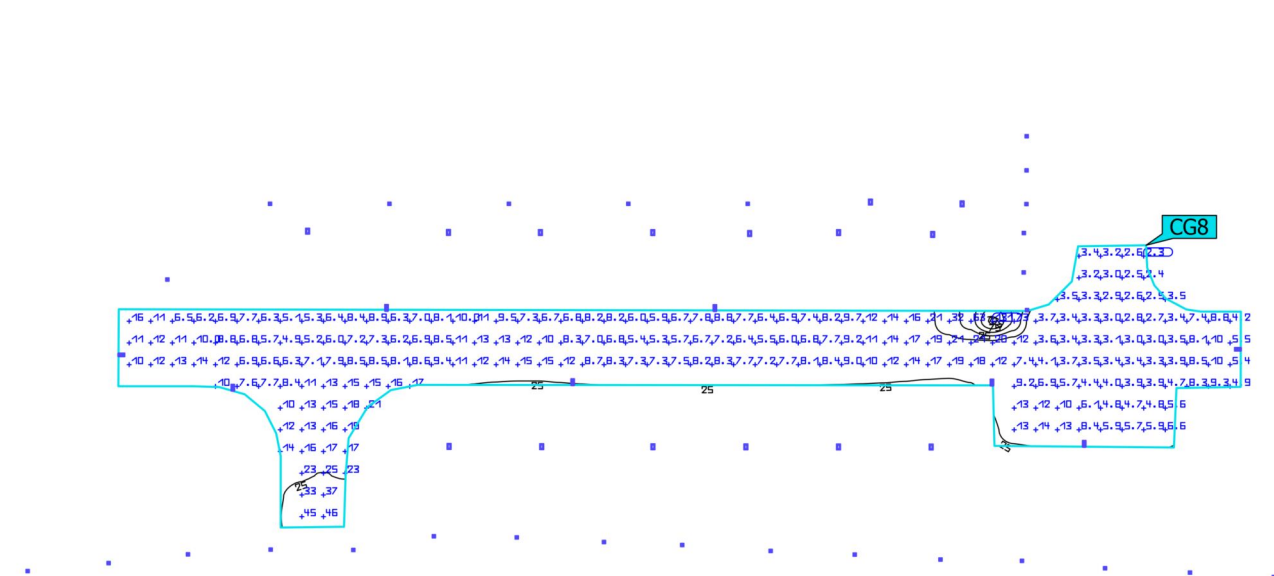


Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 8	9.30 lx	2.17 lx	38.9 lx	0.23	0.056	CG8
Horizontal illuminance						
Height: 0.000 m						

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

Site 1 (Light scene 1)

Calculation surface 8

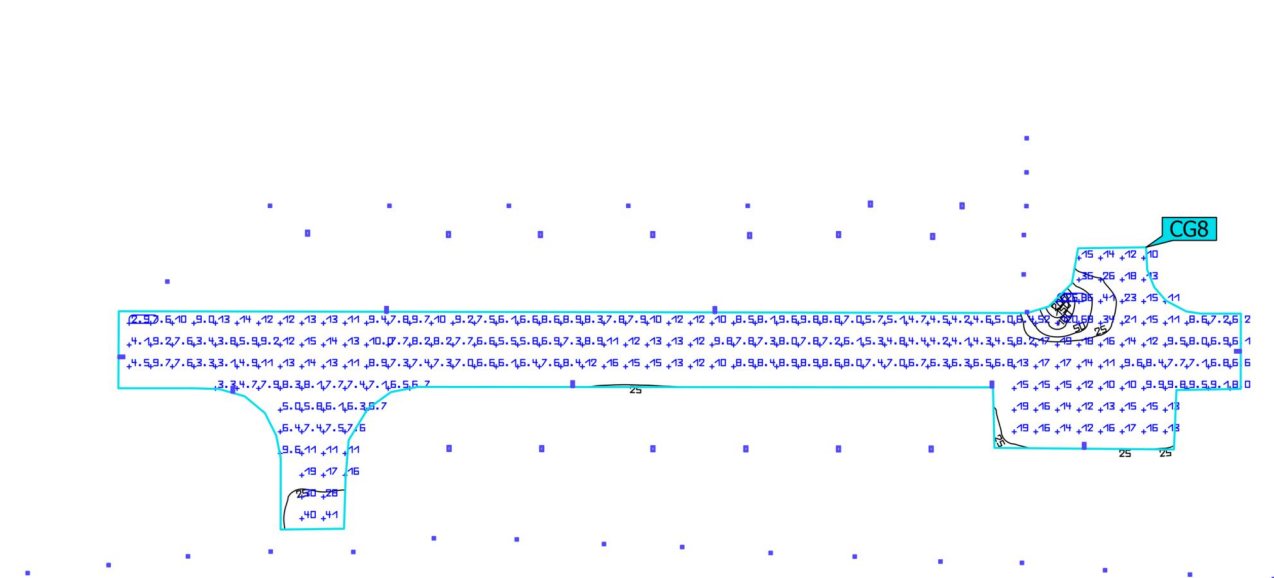


Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 8	10.6 lx	2.31 lx	131 lx	0.22	0.018	CG8
Vertical illuminance						
Rotation: 0.0°, Height: 0.500 m						

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

Site 1 (Light scene 1)

Calculation surface 8

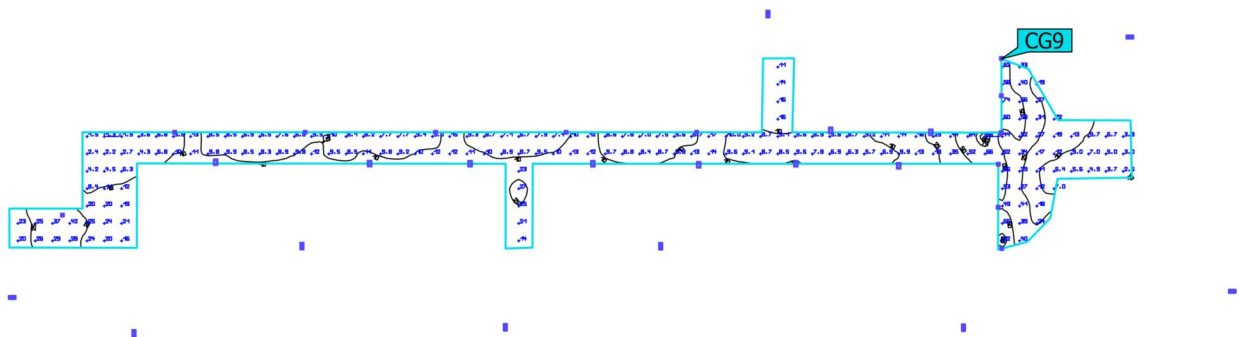


Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_0 (g_1)$	g_2	Index
Calculation surface 8	12.8 lx	2.91 lx	226 lx	0.23	0.013	CG8
Vertical illuminance						
Rotation: 180.0°, Height: 0.500 m						

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

Site 1 (Light scene 1)

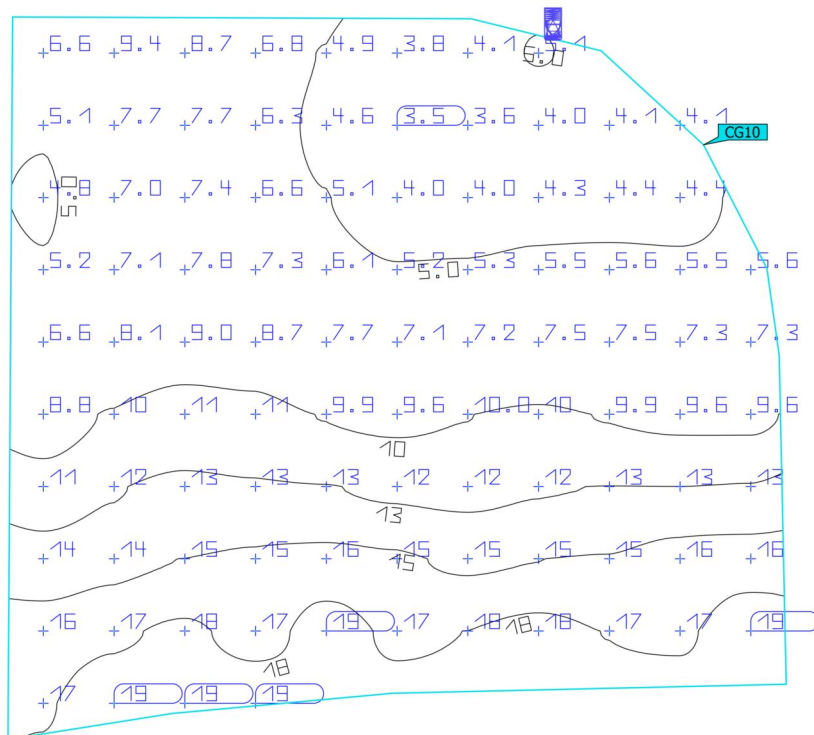
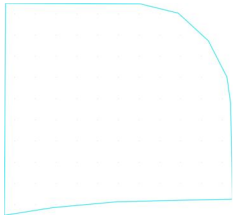
Calculation surface 9



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 9 Perpendicular illuminance Height: 0.000 m	17.8 lx	1.34 lx	82.9 lx	0.075	0.016	CG9

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

Site 1 (Light scene 1)

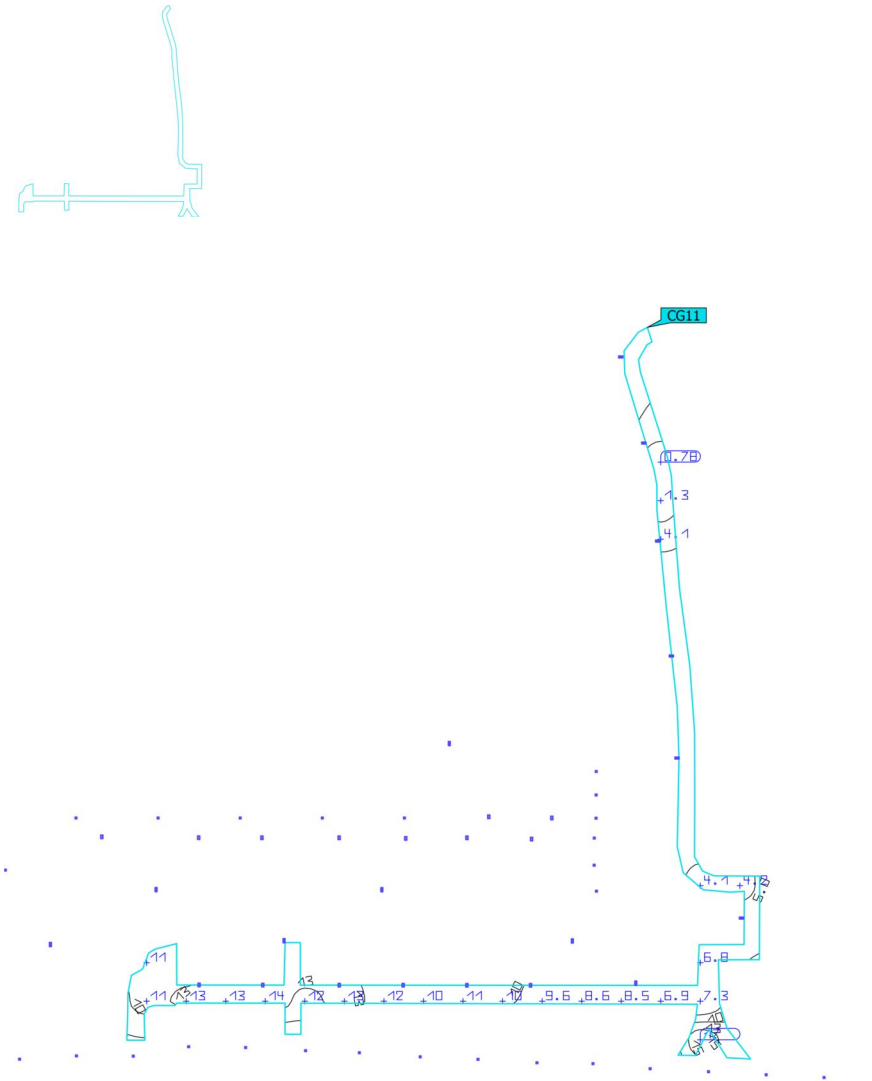
Calculation surface 10

Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 10	10.0 lx	3.53 lx	19.1 lx	0.35	0.18	CG10
Perpendicular illuminance						
Height: 0.000 m						

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

Site 1 (Light scene 1)

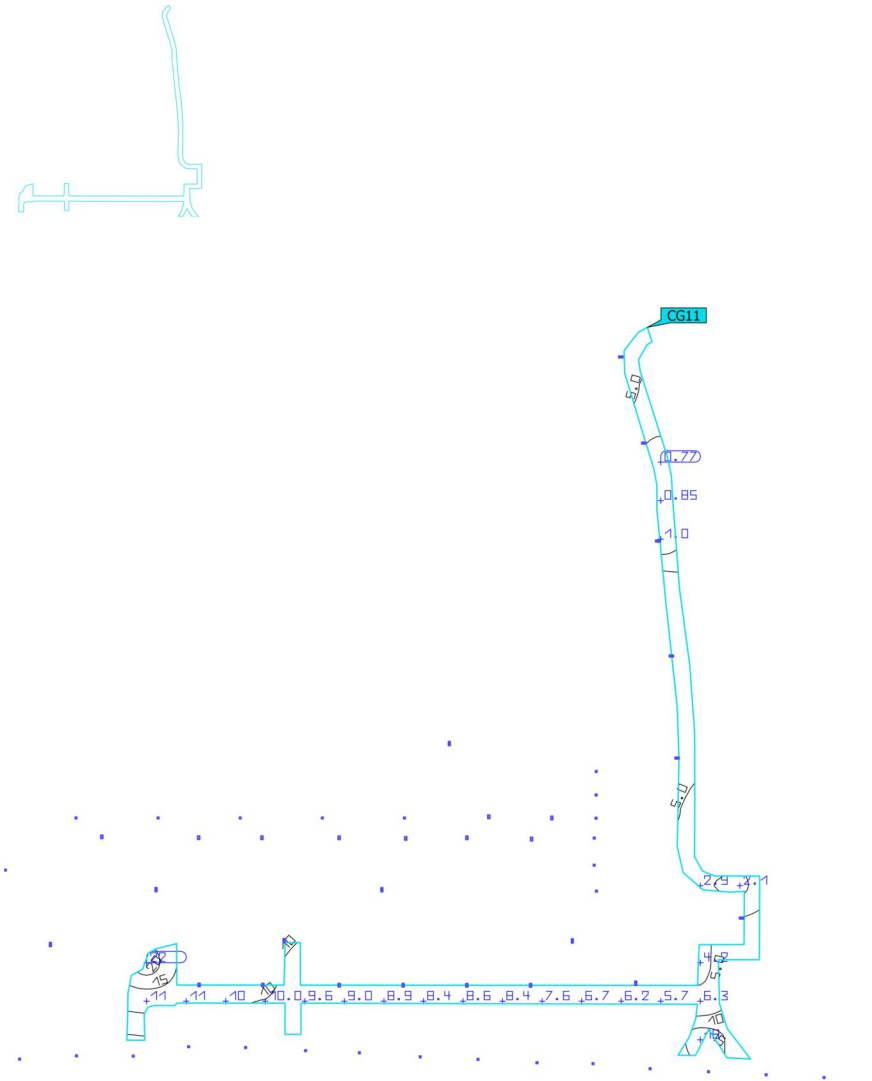
Calculation surface 11



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 11 Horizontal illuminance Height: 0.000 m	9.11 lx	0.78 lx	16.6 lx	0.086	0.047	CG11

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

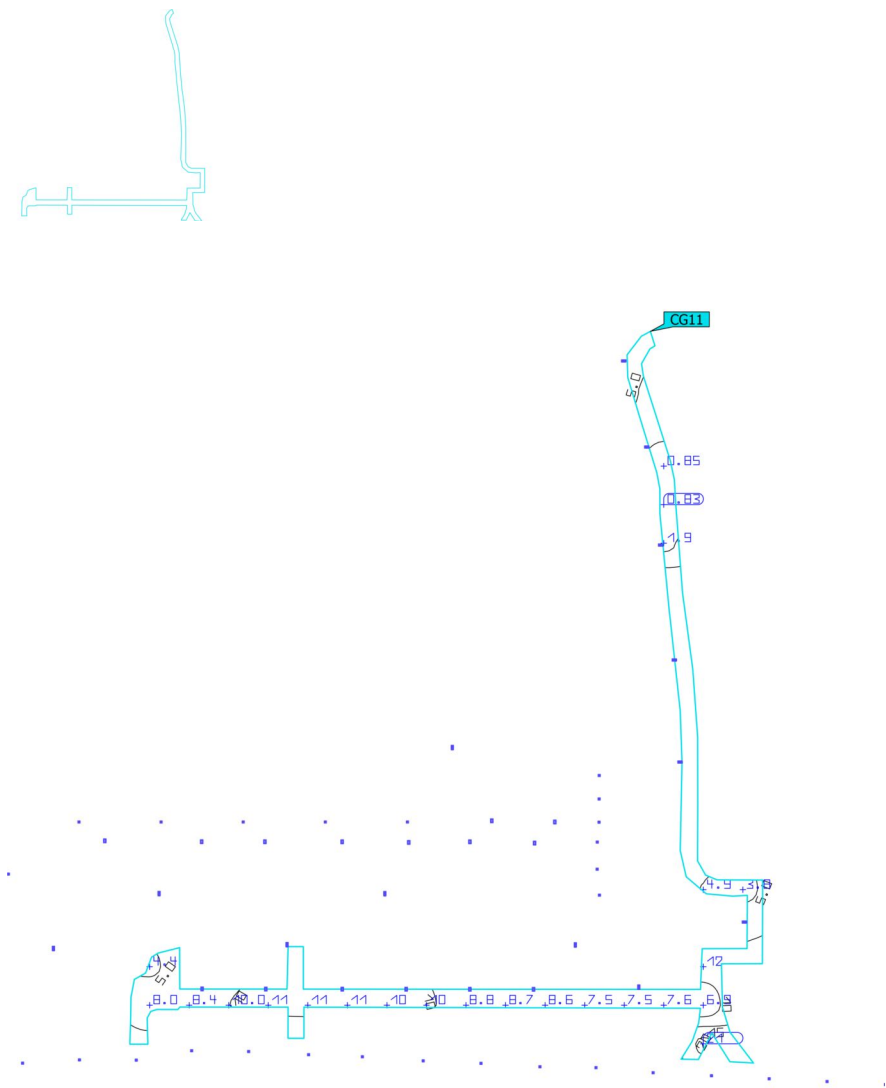
Site 1 (Light scene 1)

Calculation surface 11

Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 11	7.83 lx	0.77 lx	22.2 lx	0.098	0.035	CG11
Vertical illuminance						
Rotation: 0.0°, Height: 1.500 m						

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

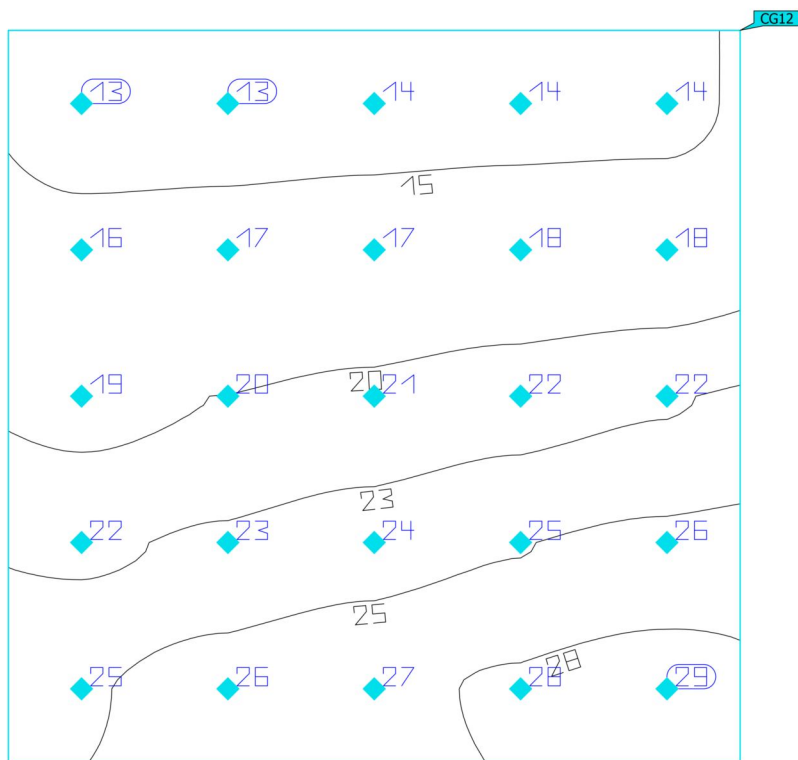
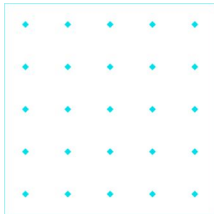
Site 1 (Light scene 1)
Calculation surface 11



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 11 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	8.00 lx	0.83 lx	21.0 lx	0.10	0.040	CG11

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

Site 1 (Light scene 1)

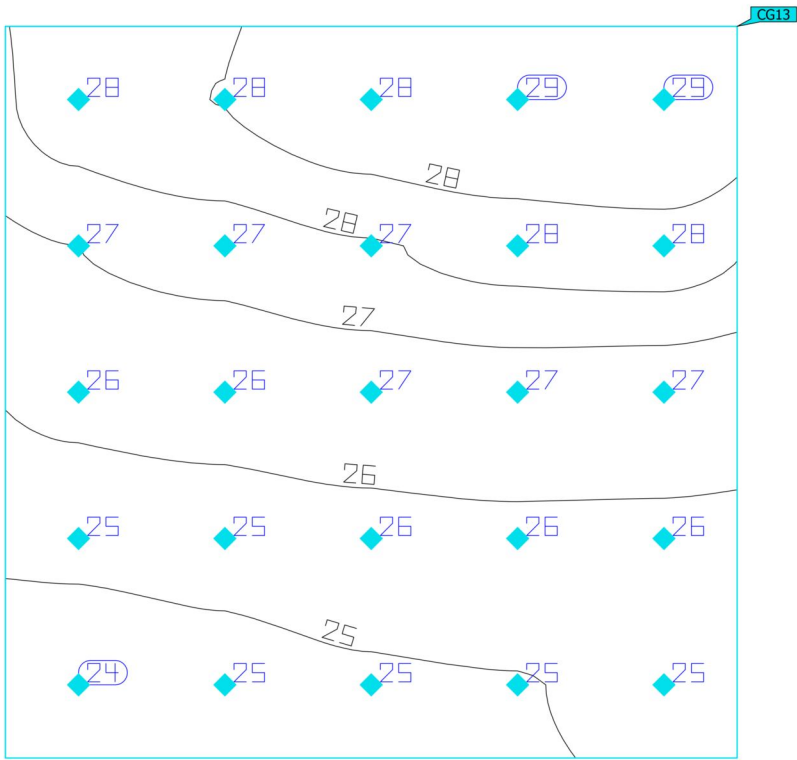
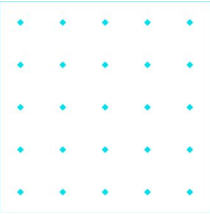
Calculation surface 12

Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 12 Perpendicular illuminance Height: 0.000 m	20.5 lx	13.4 lx	28.6 lx	0.65	0.47	CG12

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

Site 1 (Light scene 1)

Calculation surface 13

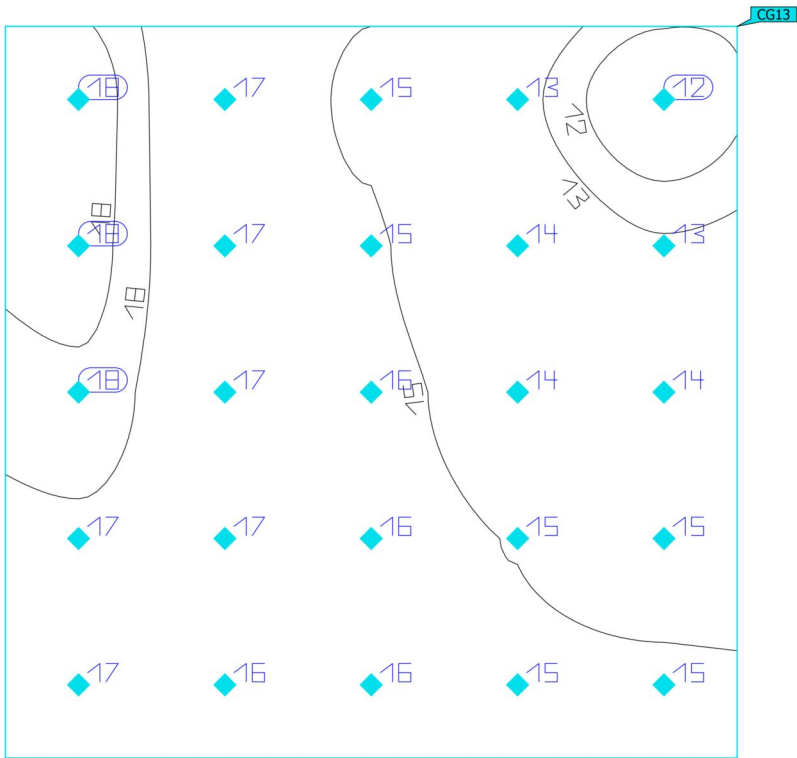
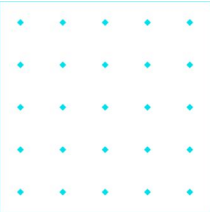


Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 13 Horizontal illuminance Height: 0.000 m	26.5 lx	24.2 lx	28.7 lx	0.91	0.84	CG13

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

Site 1 (Light scene 1)

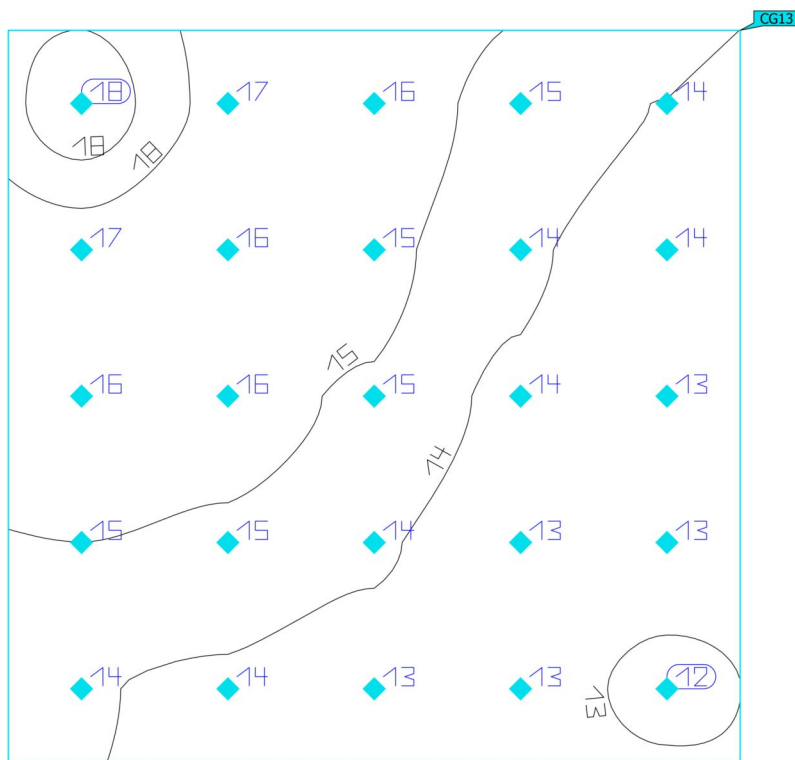
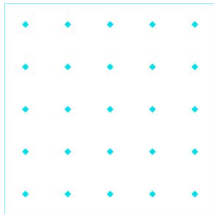
Calculation surface 13



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 13 Vertical illuminance Rotation: 0.0°, Height: 1.500 m	15.5 lx	11.5 lx	18.3 lx	0.74	0.63	CG13

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

Site 1 (Light scene 1)

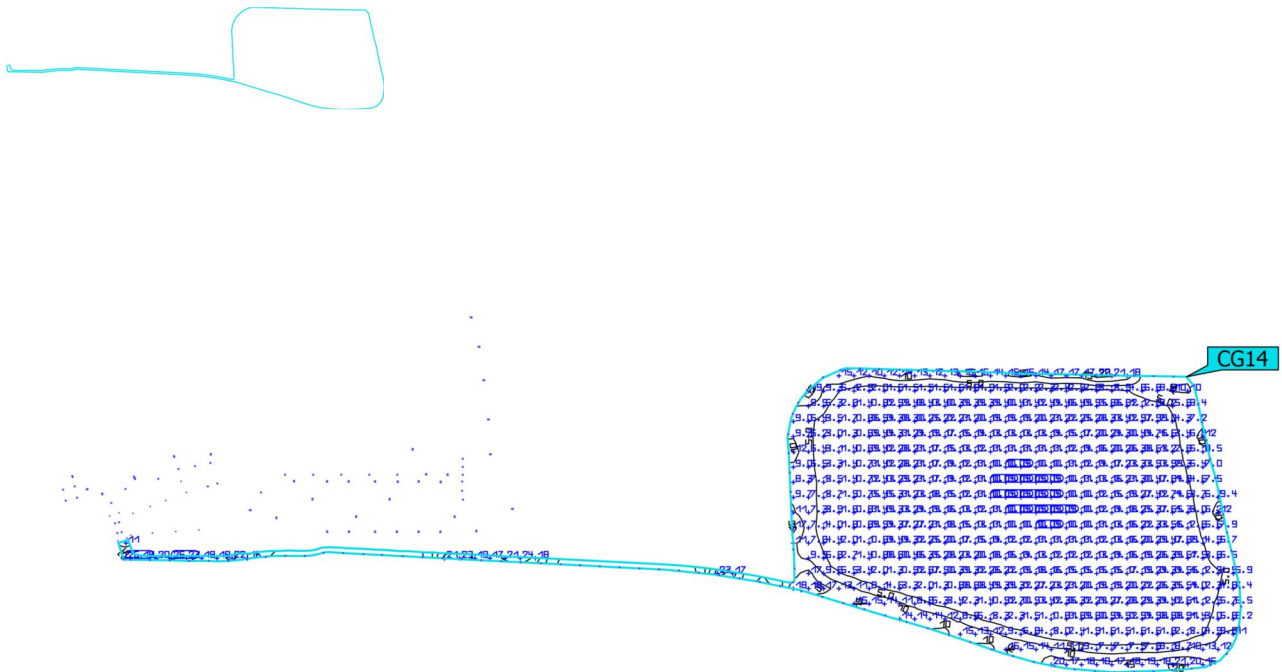
Calculation surface 13

Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 13	14.7 lx	12.4 lx	18.3 lx	0.84	0.68	CG13
Vertical illuminance						
Rotation: 180.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)

Calculation surface 14

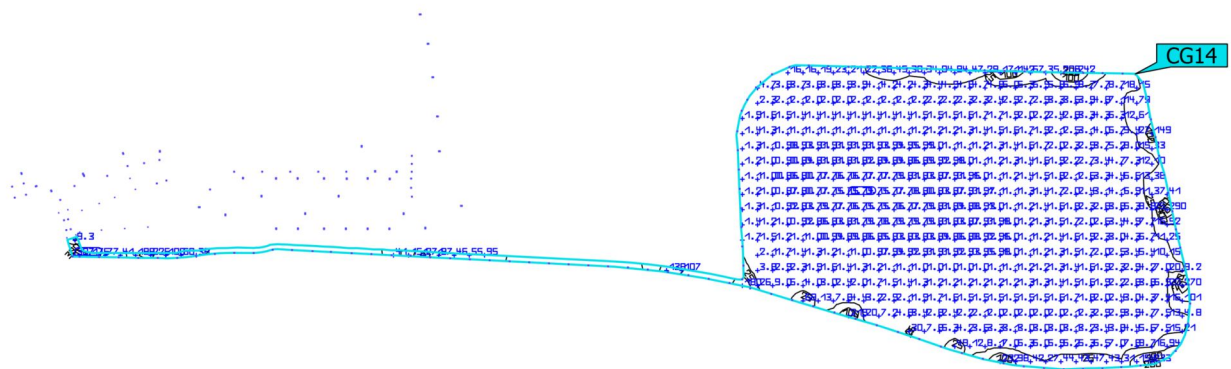


Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_0 (g_1)$	g_2	Index
Calculation surface 14	4.05 lx	0.088 lx	26.2 lx	0.022	0.003	CG14
Horizontal illuminance						
Height: 0.000 m						

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

Site 1 (Light scene 1)

Calculation surface 14

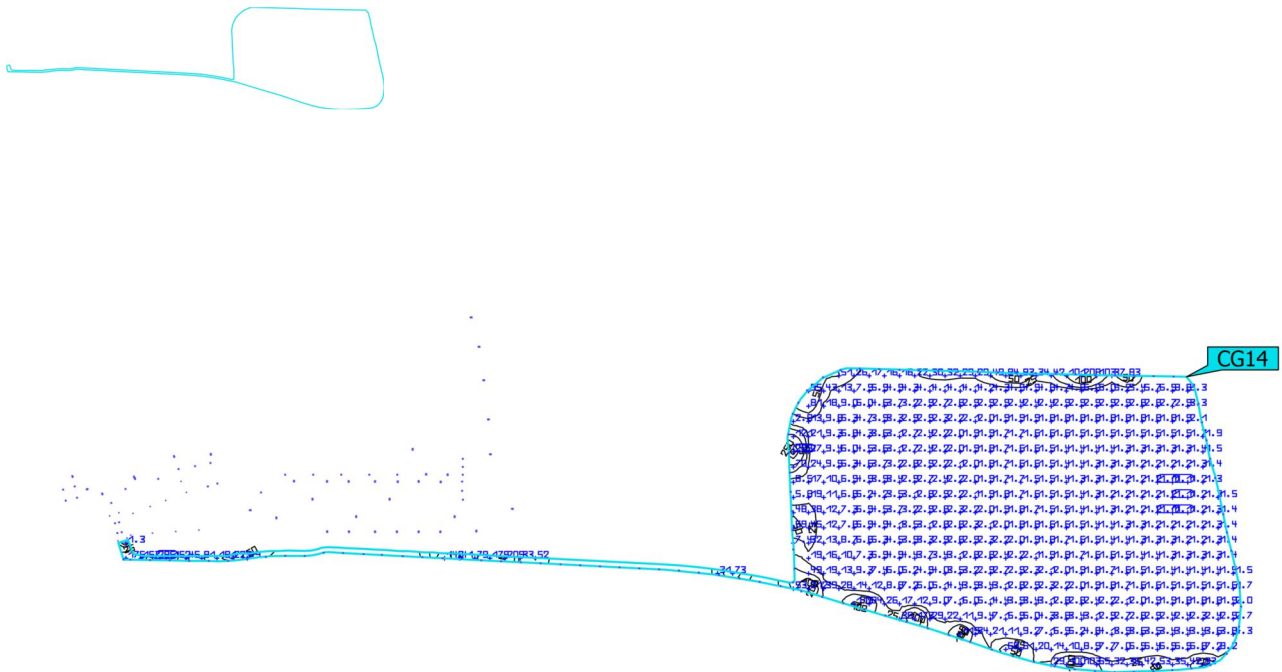


Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 14	14.9 lx	0.74 lx	307 lx	0.050	0.002	CG14
Vertical illuminance						
Rotation: 0.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)

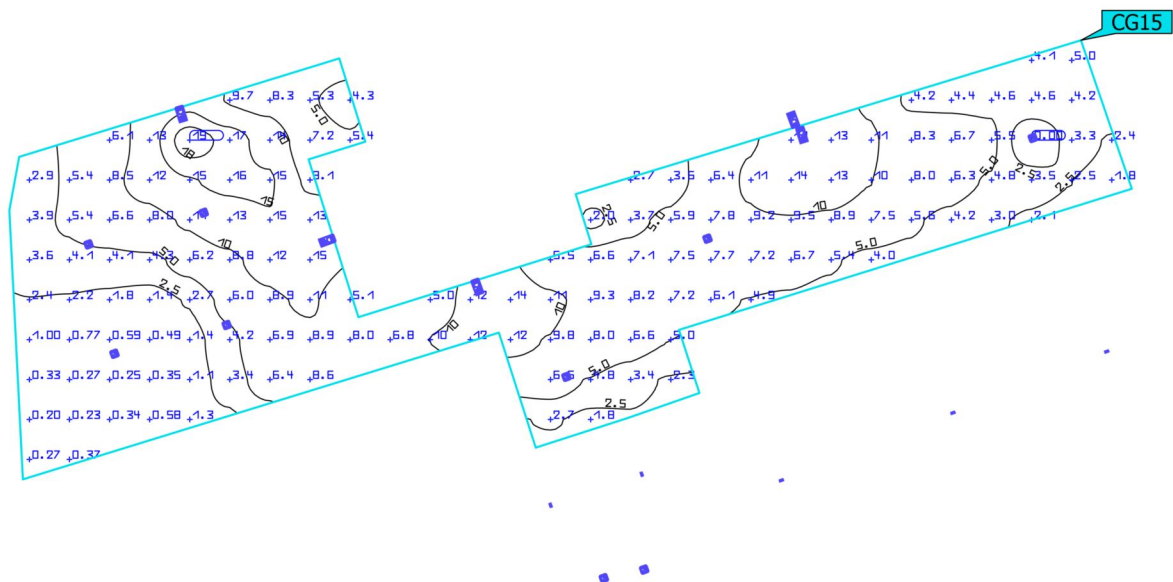
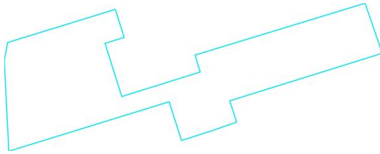
Calculation surface 14



Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Calculation surface 14	14.5 lx	1.12 lx	285 lx	0.077	0.004	CG14
Vertical illuminance						
Rotation: 180.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)

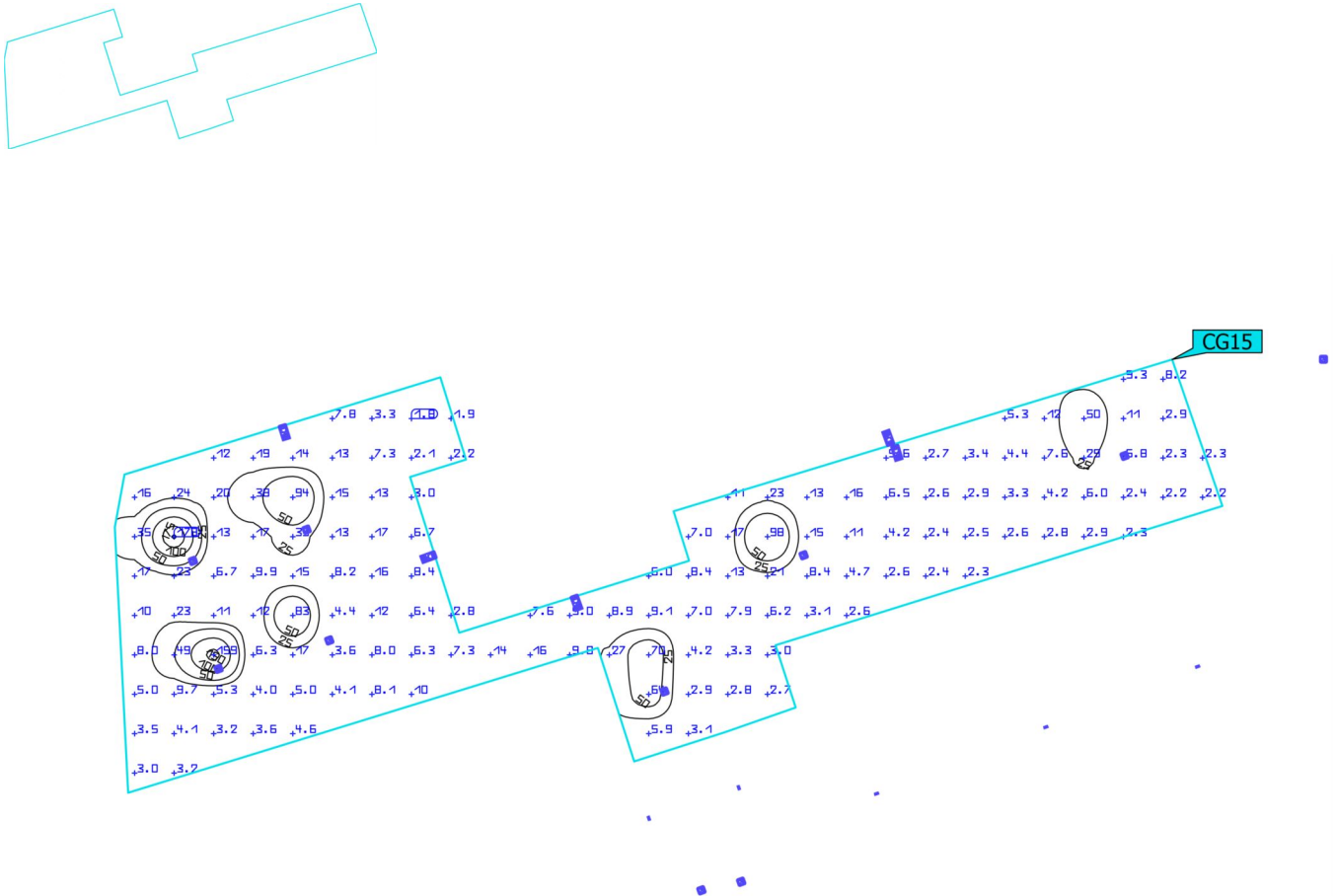
Calculation surface 15

Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Calculation surface 15	6.36 lx	0.00 lx	18.7 lx	0.00	0.00	CG15
Horizontal illuminance						
Height: 0.000 m						

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

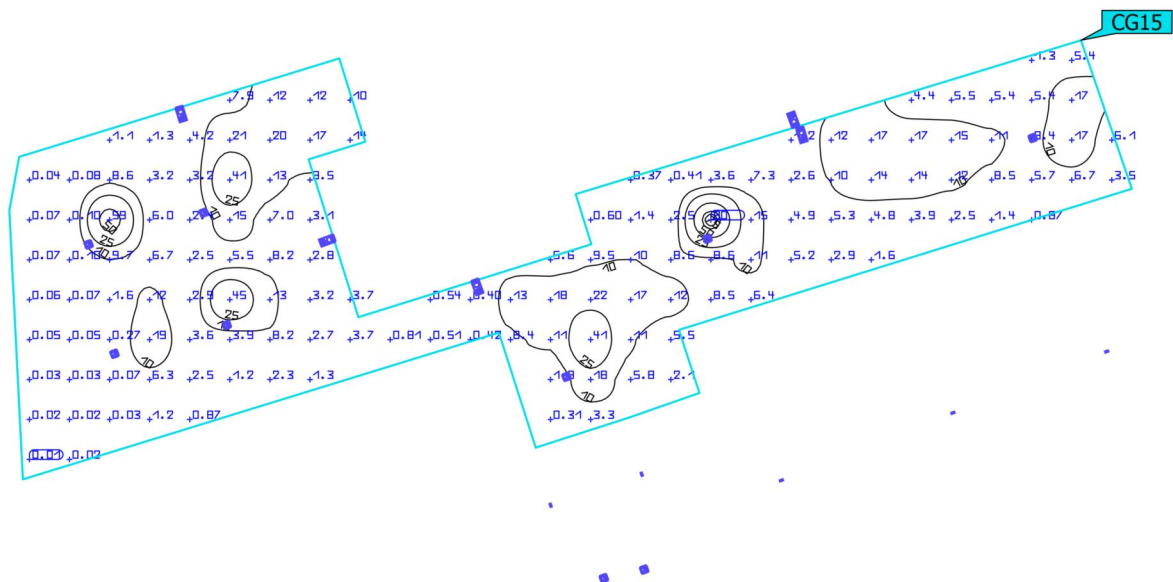
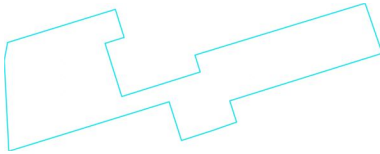
Site 1 (Light scene 1)

Calculation surface 15



Site 1 (Light scene 1)

Calculation surface 15

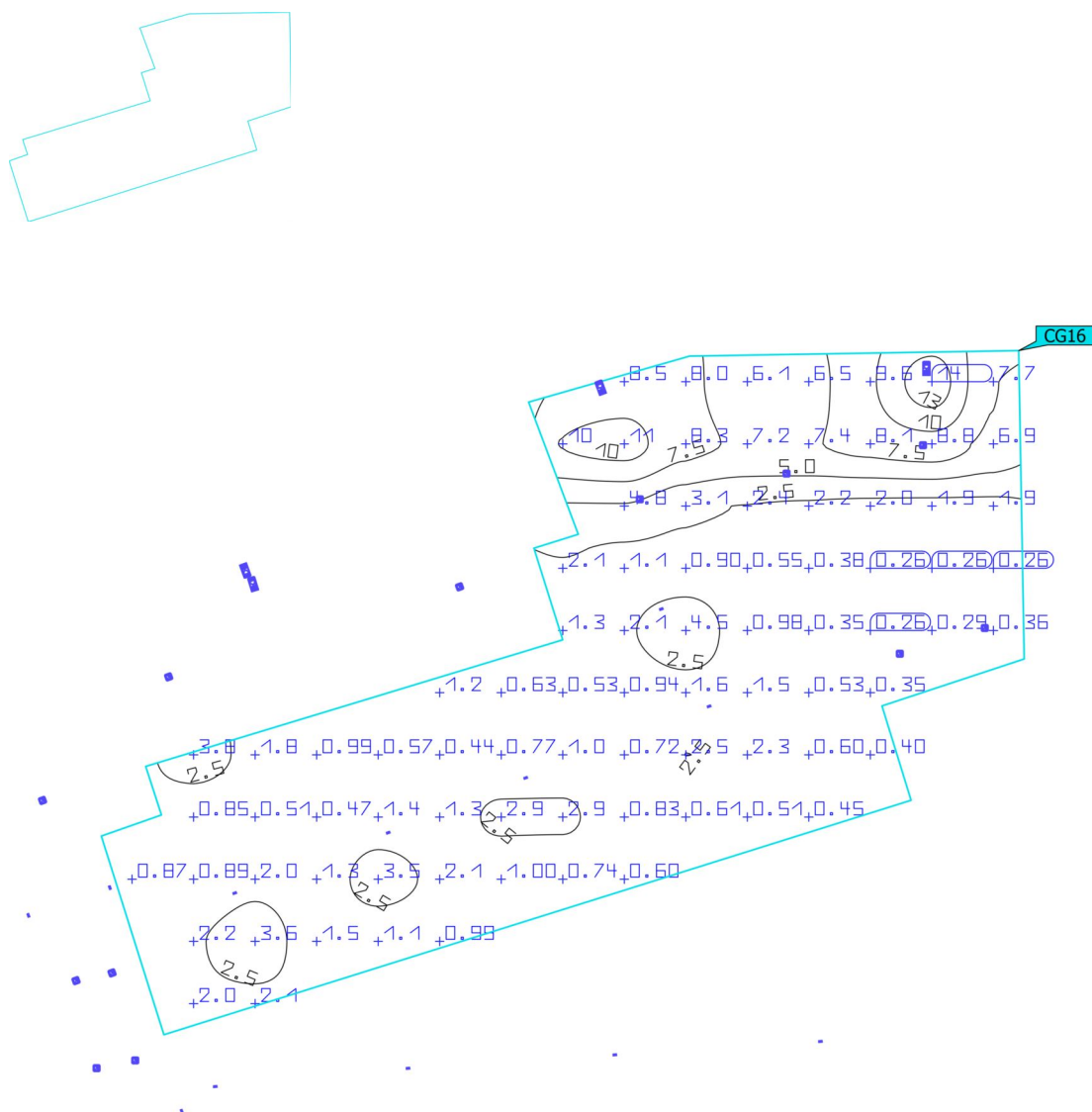


Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Calculation surface 15	7.78 lx	0.014 lx	79.7 lx	0.002	0.000	CG15
Vertical illuminance						
Rotation: 180.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)

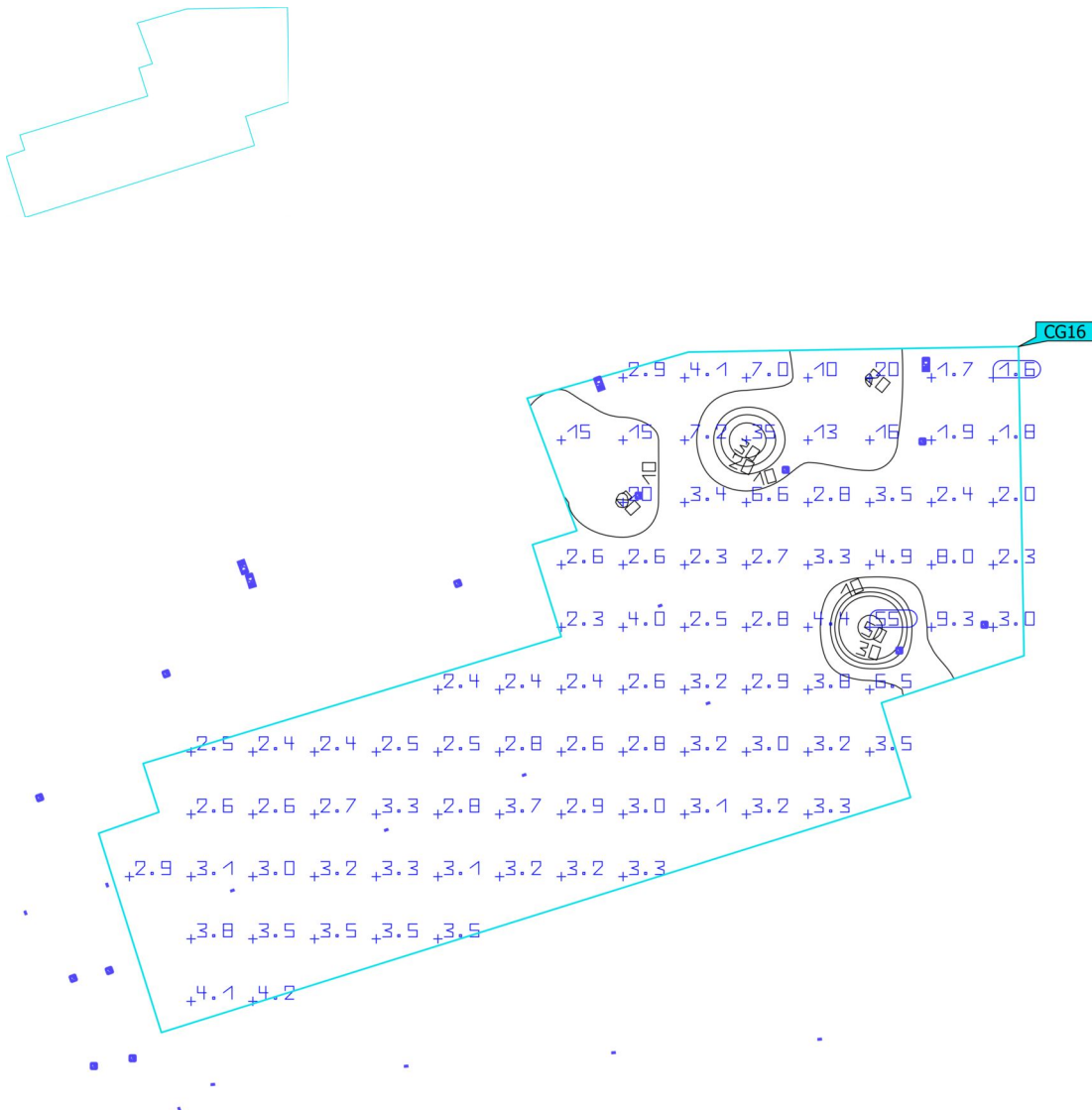
Calculation surface 16



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 16 Horizontal illuminance Height: 0.000 m	2.65 lx	0.26 lx	13.9 lx	0.098	0.019	CG16

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

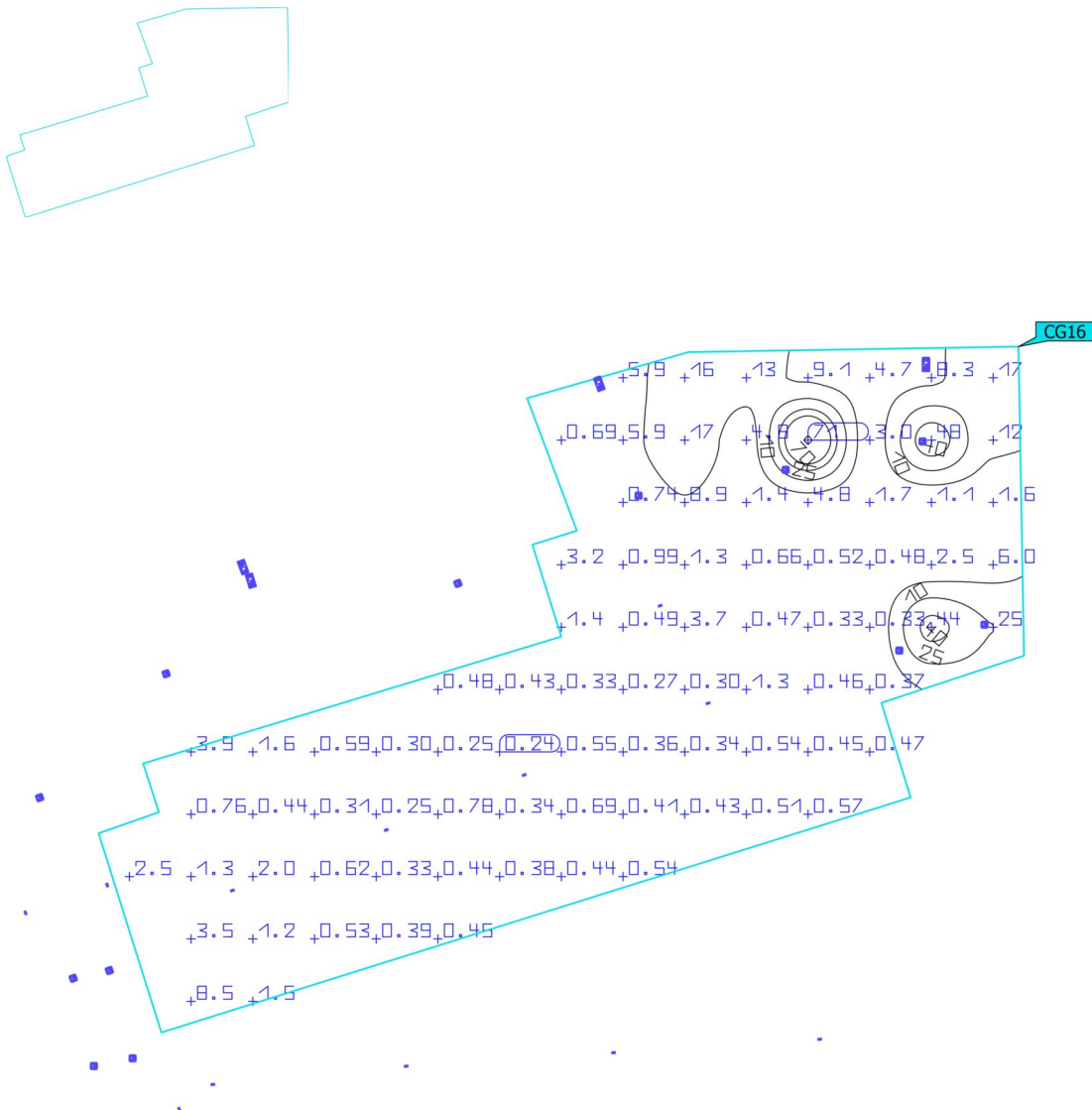
Site 1 (Light scene 1)

Calculation surface 16

Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 16	5.34 lx	1.62 lx	54.8 lx	0.30	0.030	CG16
Vertical illuminance						
Rotation: 0.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)

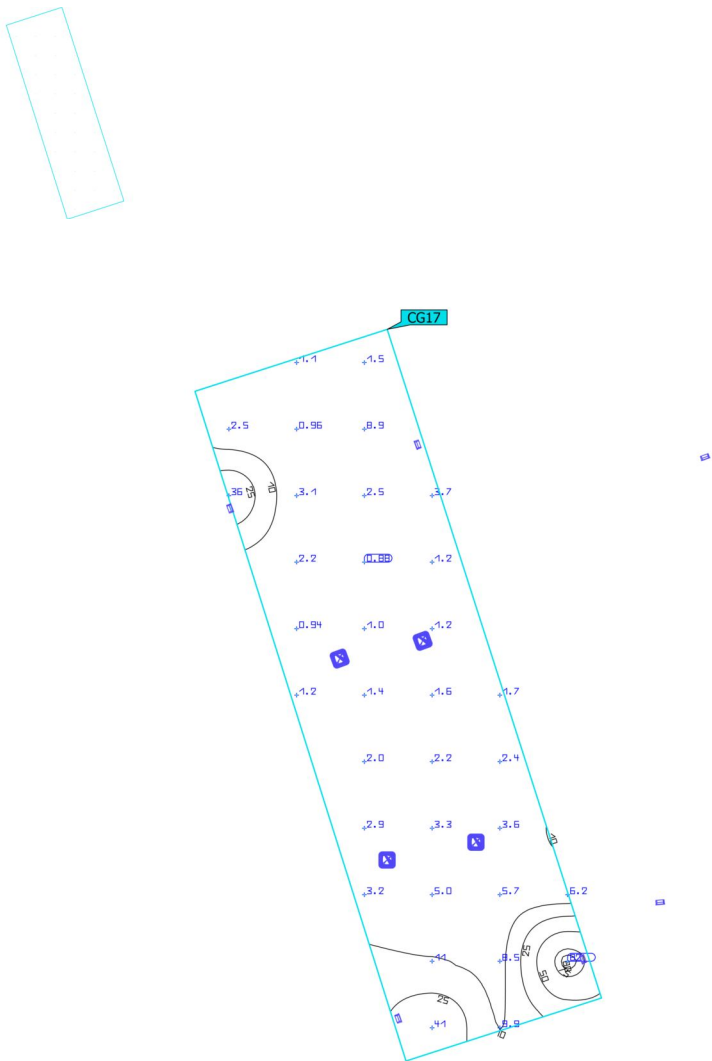
Calculation surface 16

Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Calculation surface 16	4.61 lx	0.24 lx	70.8 lx	0.052	0.003	CG16
Vertical illuminance						
Rotation: 180.0°, Height: 1.500 m						

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

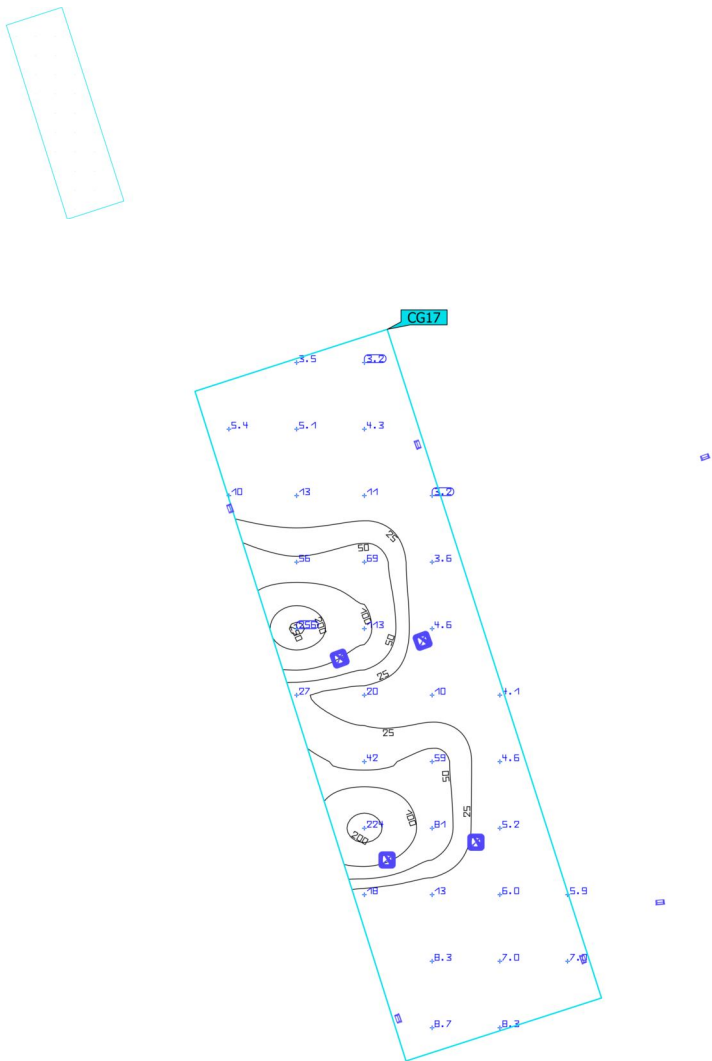
Site 1 (Light scene 1)

Calculation surface 17



Site 1 (Light scene 1)

Calculation surface 17

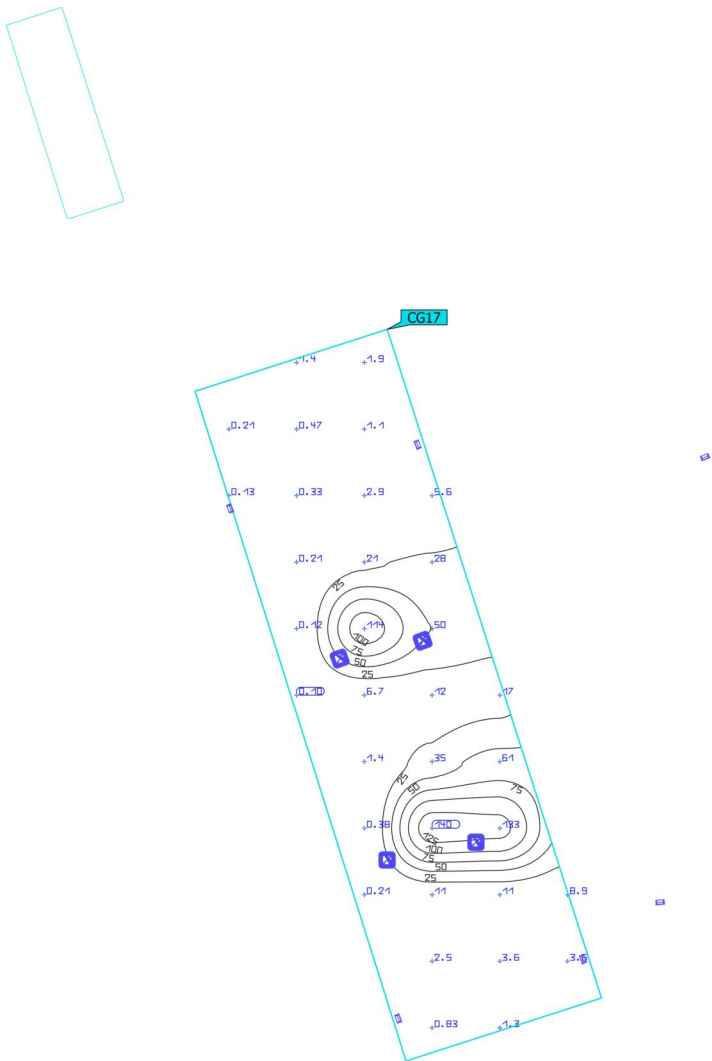


Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 17	32.9 lx	3.18 lx	256 lx	0.097	0.012	CG17
Vertical illuminance						
Rotation: 0.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)

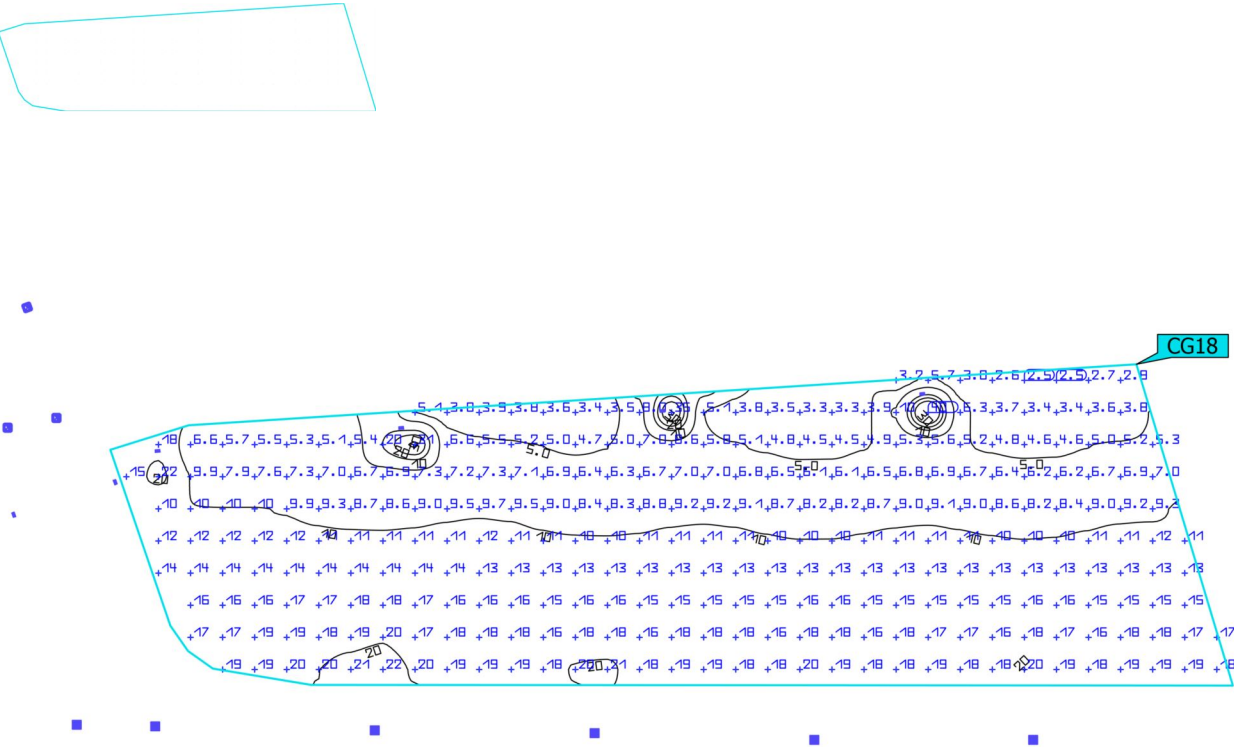
Calculation surface 17



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 17 Vertical illuminance Rotation: 180.0°, Height: 1.500 m	19.9 lx	0.10 lx	140 lx	0.005	0.001	CG17

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

Site 1 (Light scene 1)
Calculation surface 18

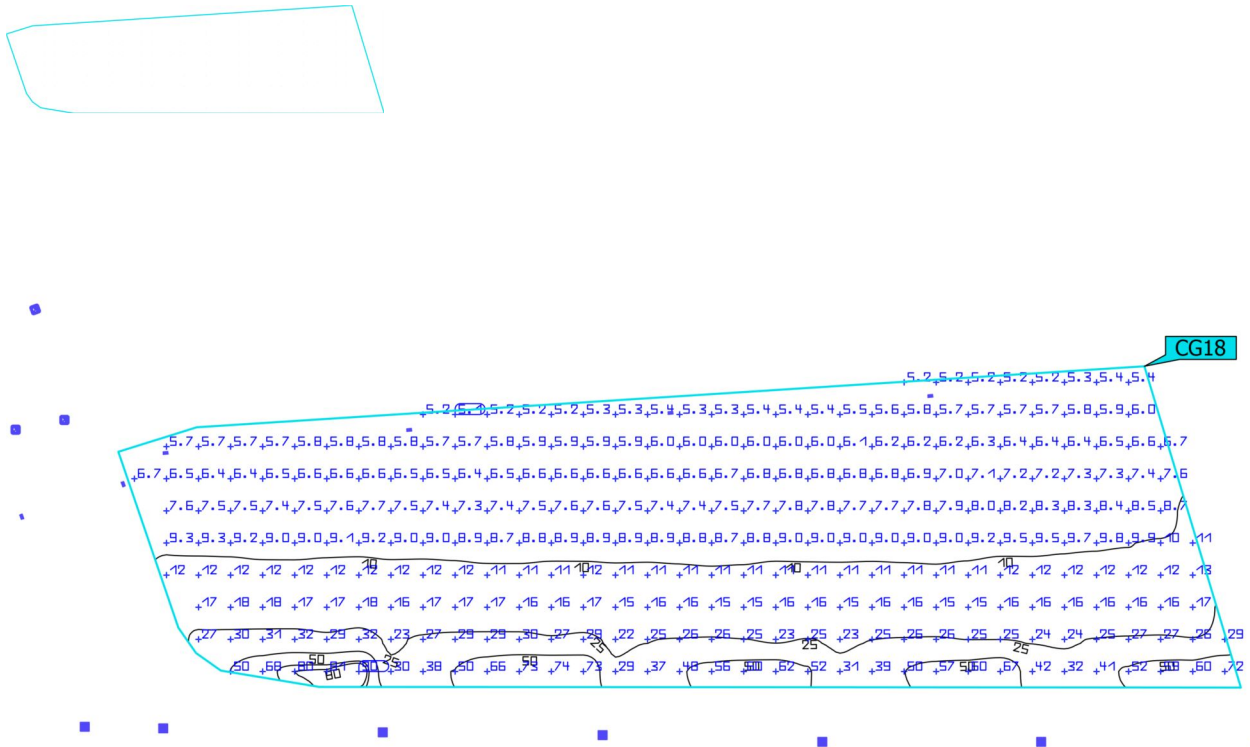


Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 18 Horizontal illuminance Height: 0.000 m	11.9 lx	2.54 lx	40.0 lx	0.21	0.064	CG18

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

Site 1 (Light scene 1)

Calculation surface 18

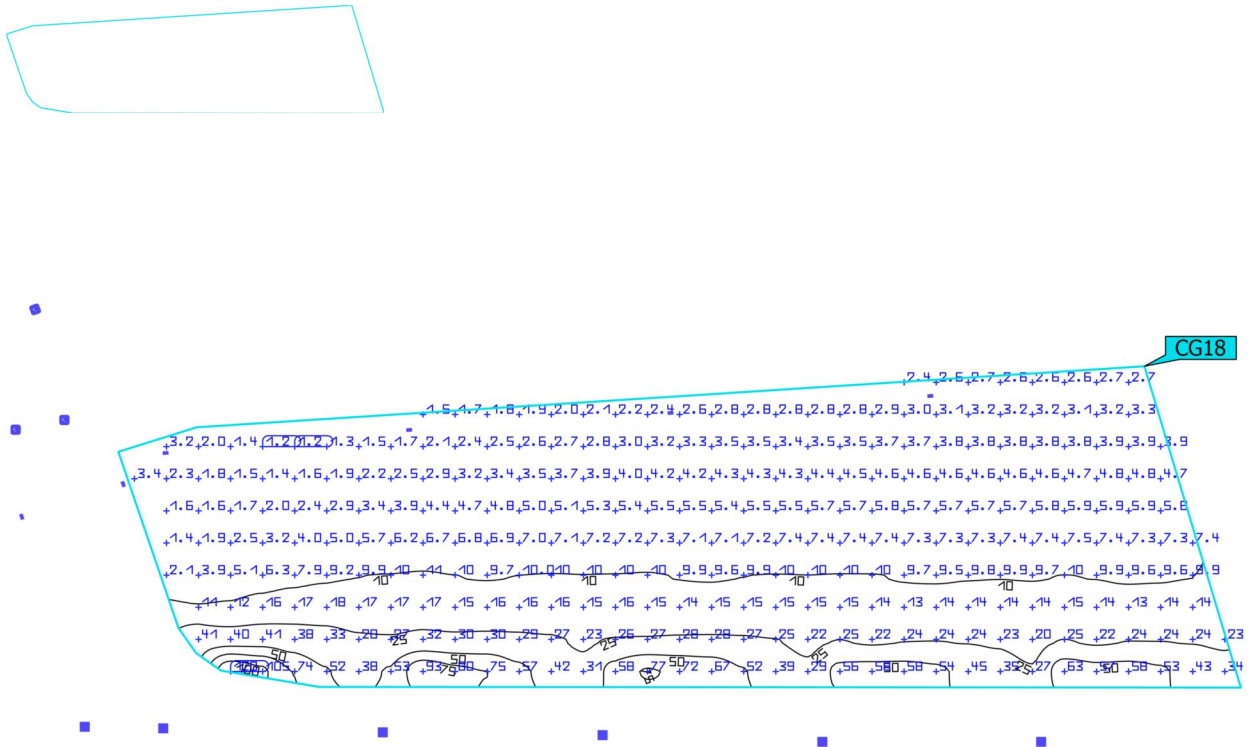


Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 18	16.1 lx	5.15 lx	89.6 lx	0.32	0.057	CG18
Vertical illuminance						
Rotation: 0.0°, Height: 1.500 m						

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

Site 1 (Light scene 1)

Calculation surface 18



Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Calculation surface 18	14.4 lx	1.16 lx	120 lx	0.081	0.010	CG18
Vertical illuminance						
Rotation: 180.0°, Height: 1.500 m						

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

Glossary

A

A	Formula symbol for a surface in the geometry
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B

Background area	The background area borders the direct ambient area according to DIN EN 12464-1 and reaches up to the borders of the room. In larger rooms, the background area is at least 3 m wide. It is located horizontally at floor level.
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C

CCT	(Engl. correlated colour temperature) Body temperature of a thermal radiator which serves to describe its light colour. Unit: Kelvin [K]. The lesser the numerical value the redder; the greater the numerical value the bluer the light colour. The colour temperature of gas-discharge lamps and semi-conductors are termed "correlated colour temperature" in contrast to the colour temperature of thermal radiators. Allocation of the light colours to the colour temperature ranges acc. to EN 12464-1: Light colour - colour temperature [K] warm white (ww) < 3,300 K neutral white (nw) ≥ 3,300 – 5,300 K daylight white (dw) > 5,300 K
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Clearance height	The designation for the distance between upper edge of the floor and bottom edge of the ceiling (in the completely furnished status of room).
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Control group	A group of luminaires that are dimmed and controlled together. For each lighting scene, a control group provides its own dimming value. All luminaires within a control group share this dimming value. The control groups with their luminaires are automatically determined by DIALux on the basis of the created light scenes and their luminaire groups.
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CRI	(Engl. colour rendering index) Designation for the colour rendering index of a luminaire or a lamp acc. to DIN 6169: 1976 or CIE 13.3: 1995. The general colour rendering index Ra (or CRI) is a dimensionless figure that describes the quality of a white light source in regards to its similarity with the remission spectra of defined 8 test colours (see DIN 6169 or CIE 1974) to a reference light source.
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Glossary

D

Daylight autonomy	Describes what percentage of the daily working time the required illuminance is met by daylight. The nominal illuminance is used from the room profile, unlike described in EN 17037. The calculation is not done in the centre of the room but at the placed sensor measuring point. A room is considered sufficiently supplied with daylight if it achieves at least 50% daylight autonomy.
Daylight factor	Ratio of the illuminance achieved solely by daylight incidence at a point in the inside to the horizontal illuminance in the outer area under an unobstructed sky. Formula symbol: D (Engl. daylight factor) Unit: %
Daylight quotient effective area	A calculation surface within which the daylight quotient is calculated.

E

Energy evaluation	Based on an hourly calculation procedure for daylight in indoor spaces, considering the project geometry and any existing daylight control systems. Orientation and location of the project are also considered. The calculation uses the specified system power of the luminaires to determine the energy demand. A linear relationship between power and luminous flux in the dimmed state is assumed for daylight-controlled luminaires. Times of use and nominal illuminance are determined from the usage profiles of the spaces. Switched-on luminaires that are explicitly excluded from control also consider the specified times-of-use. The daylight control systems use a simplified control logic that closes them at an outdoor horizontal illuminance of 27,500lx. The calendar year 2022 is used as a reference only. It is not a simulation of this year. The reference year is only used to assign the days of the week to the calculated results. The changeover to summer time is not considered. The reference sky type used is the average sky described in CIE 110 without direct sunlight. The method was developed together with the Fraunhofer Institute for Building Physics and is available for review by the Joint Working Group 1 ISO TC 274 as an extension of the previous annual regression-based method.
Environmental zones	The assessment of intrusive light and light immission depends on the environment of the lighting installation. Depending on the standard, 4-6 different zones are defined, ranging from highly protected areas in natural settings to urban areas, commercial zones, and industrial zones.
Eta (η)	(light output ratio) The light output ratio describes what percentage of the luminous flux of a free radiating lamp (or LED module) is emitted by the luminaire when installed. Unit: %

Glossary

G

g_1	Often also U_o (Engl. overall uniformity) Designates the overall uniformity of the illuminance on a surface. It is the quotient from E_{min} to $\bar{E}$ and is required, for instance, in standards for illumination of workstations.
g_2	Actually it designates the "non-uniformity" of the illuminance on a surface. It is the quotient of E_{min} to E_{max} and is generally only relevant for certifying the emergency lighting acc. to EN 1838.

I

Illuminance	Describes the ratio of the luminous flux that strikes a certain surface to the size of this surface ($lm/m^2 = lx$). The illuminance is not tied to an object surface. It can be determined anywhere in space (inside or outside). The illuminance is not a product feature because it is a recipient value. Luxometers are used for measuring. Unit: Lux Abbreviation: lx Formula symbol: E
Illuminance, adaptive	For the determining of the middle adaptive illuminance on a surface, this is rastered "adaptively". In the area of large illuminance differences within the surface, the raster is subdivided finer; within lesser differences, a rougher classification is made.
Illuminance, horizontal	Illuminance that is calculated or measured on a horizontal (level) surface (this can be for example a table top or the floor). The horizontal illuminance is usually identified by the formula letter E_h .
Illuminance, perpendicular	Illuminance that is calculated or measured plumb-vertical to a surface. This needs to be taken into account for tilted surfaces. If the surface is horizontal or vertical, then there is no difference between the perpendicular and the horizontal or vertical illuminance.
Illuminance, vertical	Illuminance that is calculated or measured on a vertical surface (this can be for example the front of some shelves). The vertical illuminance is usually identified by the formula letter E_v .

K

k_s	The glare effect of a light source can be described by the glare metric k_s . It relates the solid angle of the glaring light source as seen from the point of immission, the ambient luminance, and the maximum allowable luminance.
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Glossary

L

LENI	(Engl. lighting energy numeric indicator) Lighting energy numeric indicator acc. to EN 15193 Unit: kWh/(m² * a)
LLMF	(Engl. lamp lumen maintenance factor)/acc. to CIE 97: 2005 Lamp flux maintenance factor that takes the luminous flux reduction into account of a luminaire or an LED module in the course of the operating time. The lamp flux maintenance factor is specified as a decimal digit and can have a maximum value of 1 (no luminous flux reduction existing).
LMF	(Engl. luminaire maintenance factor)/acc. to CIE 97: 2005 Luminaire maintenance factor that takes the soiling into account of the luminaire in the course of the operating time. The luminaire maintenance factor is specified as a decimal digit and can have a maximum value of 1 (no soiling existing).
LSF	(Engl. lamp survival factor)/acc. to CIE 97: 2005 Lamp survival factor that takes the total failure into account of a luminaire in the course of the operating time. The lamp survival factor is specified as a decimal digit and can have a maximum value of 1 (no failures existing within the time concerned or prompt replacement after the failure).
Luminance	Dimension for the "brightness impression" that the human eye has of a surface. The surface itself can emit light thereby or light striking it can be reflected (emitter value). It is the only photometric value that the human eye can perceive. Unit: Candela per square metre Abbreviation: cd/m² Formula symbol: L
Luminous efficacy	Ratio of the emitted luminous flux Φ [lm] to the absorbed electrical power P [W] Unit: lm/W. This ratio can be formed for the lamp or LED module (lamp or module light output), the lamp or module with control gear (system light output) and the complete luminaire (luminaire light output).
Luminous flux	Dimension for the total light output that is emitted from one light source in all directions. It is thus an "emitter value" that specifies the entire emitting output. The luminous flux of a light source can only be determined in a laboratory. A difference is made between the lamp or LED module luminous flux and the luminaire luminous flux. Unit: Lumen Abbreviation: lm Formula symbol: Φ

Glossary

Luminous intensity	Describes the intensity of the light in a certain direction (emitter value). The luminous intensity is a matter of the luminous flux Φ that is emitted in a certain spherical angle Ω. The radiation characteristics of a light source are presented graphically in a light distribution curve (LDC). The luminous intensity is an SI base unit. Unit: Candela Abbreviation: cd Formula symbol: I
M	
Maintenance factor	See MF
MF	(Engl. maintenance factor)/acc. to CIE 97: 2005 Maintenance factor as decimal number between 0 and 1 that describes the ratio of the new value of a photometric planning parameter (e.g. of the illuminance) to a maintenance value after a certain time. The maintenance factor takes into account the soiling of luminaires and rooms as well as the luminous flux reduction and the failure of light sources. The maintenance factor is taken into account either overall or determined in detail acc. to CIE 97: 2005 by the formula $RMF \times LMF \times LLMF \times LSF$.
O	
Obtrusive light/Light immission	To protect the nocturnal environment and minimize problems for humans, flora, and fauna, it is necessary to limit obtrusive light (also known as light pollution), which can cause serious physiological and ecological issues for individuals and the environment. Light immission refers to the disturbing influence of emitted light from artificial light sources.
Operating times	The assessment of obtrusive light and light immission depends on the operating times of the lighting installation. Depending on the standard, 1-3 different operating times are specified. In the absence of specific details, an operating time between 06:00 and 22:00 can be assumed.
P	
P	(Engl. power) Electric power consumption Unit: watt Abbreviation: W

Glossary

R

$R_{(UG)} \text{ max}$	Measure of the psychological glare in indoor spaces. In addition to the luminance of luminaires, the level of the $R_{(UG)}$ value also depends on the observer position, the viewing direction and the ambient luminance. The calculation is made according to the table method, see CIE 117. Among other things, EN 12464-1:2021 specifies maximum permissible $R_{(UG)}$- values $R_{(UGL)}$ for various indoor workplaces.
R_{DLO}	The ratio of the luminous flux emitted below the horizontal plane to the total lamp luminous flux of a luminaire or lighting installation in its operational position.
R_G	The glare directly caused by luminaires of an outdoor lighting installation is determined using the CIE Glare Rating (RG) method. To calculate this, the equivalent veiling luminance of the surroundings is needed. There are four options for determining this: • An exact calculation according to CIE 112, based on the scene area. • A simplified method according to EN 12464-2, based on the scene area. • Using a custom calculation area to determine the equivalent veiling luminance. • Specifying a fixed value for easy comparability.
R_{UF}	upward flux ratio The ratio of the luminous flux emitted directly or reflected above the horizontal plane to the luminous flux that cannot be avoided under ideal conditions to achieve the illuminance level on a deliberately illuminated area.
R_{UL}	upward light ratio The ratio of the luminous flux emitted above the horizontal plane to the luminous flux of a luminaire or lighting installation in its operational position. The luminaire efficiency is considered in this calculation.
R_{ULO}	upward light output ratio The ratio of the luminous flux emitted above the horizontal plane to the total lamp luminous flux of a luminaire or lighting installation in its operational position.
Reflection factor	The reflection factor of a surface describes how much of the striking light is reflected back. The reflection factor is defined by the colour of the surface.
RMF	(Engl. room maintenance factor)/acc. to CIE 97: 2005 Room maintenance factor that takes the soiling into account of the space encompassing surfaces in the course of the operating time. The room maintenance factor is specified as a decimal digit and can have a maximum value of 1 (no soiling existing).
$RUG \text{ (max)}$	(unified glare rating) Measure for the psychological glare effect in interiors. In addition to luminaire luminance, the RUG value also depends on the position of the observer, the viewing direction and the ambient luminance. Among other things, EN 12464-1 specifies maximum permissible RUG values for various indoor workplaces.

Glossary

RUG observer	Calculation point in the room, for the DIALux the RUG value is determined. The location and height of the calculation point should correspond to the typical observer position (position and eye level of the user).
S	
Surrounding area	The ambient area directly borders the area of the visual task and should be planned with a width of at least 0.5 m according to DIN EN 12464-1. It is at the same height as the area of the visual task.
V	
Visual task area	The area that is needed for carrying out the visual task in accordance with DIN EN 12464-1. The height corresponds with the height at which the visual task is executed.
W	
Wall zone	Circumferential area between working plane and walls which is not taken into account for the calculation.
Working plane	Virtual measuring or calculation surface at the height of the visual task that generally follows the room geometry. The working plane may also feature a wall zone.