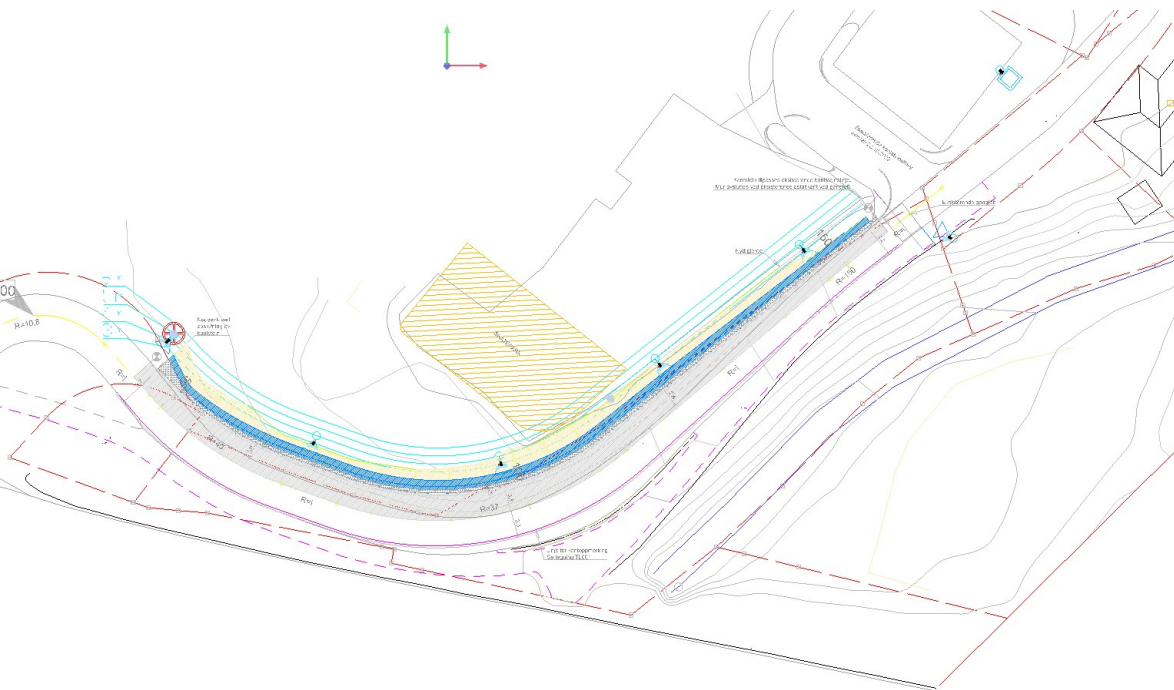




Ny belysning breddeutvidelse Markastien

Det er valgt å ta utgangspunkt i armatur BGP701 T25 LED65-4S/730 DM32, da Eviny på vegne av Ålesund kommune har denne lagerført
Det er valgt å beholde eksisterende armatur i tremast nærmest fylkevegen - Denne er simulert ved hjelp av lignende LED armatur

Contacts

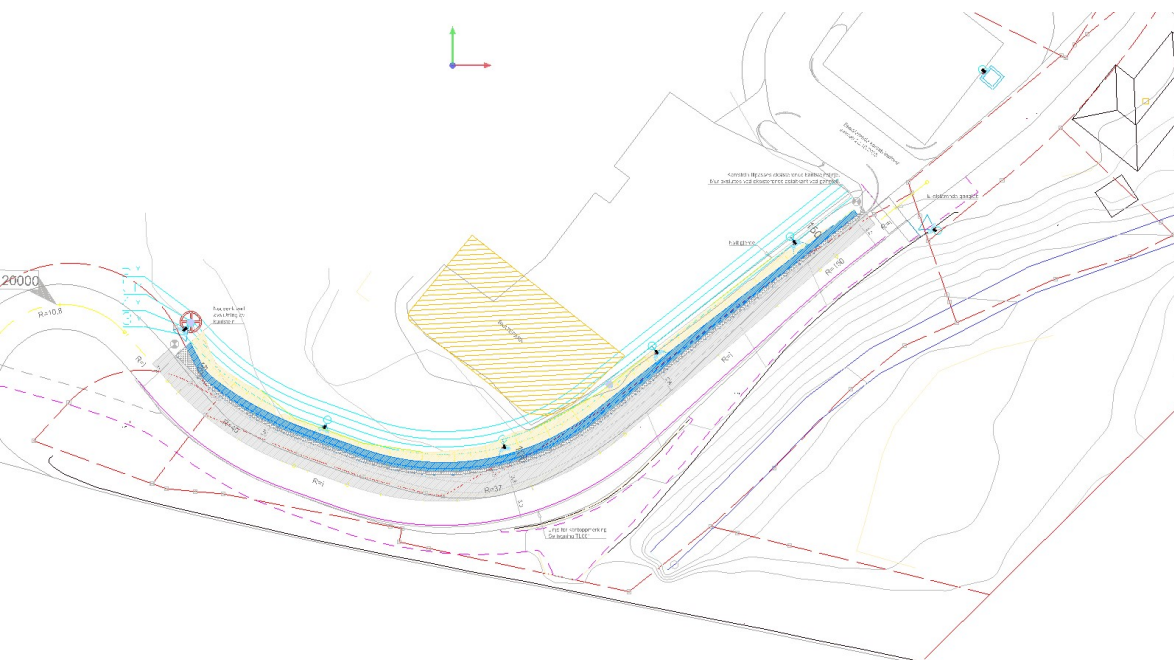


RIE

Jørgen Nyhus-Solli

Asplan Viak

jorgen.nyhussolli@asplanviak.no



Description

Lyspunktshøydene oppgitt i beregningen er basert på standardlengder for lysmaster, og tar høyde for høydeforskjellen mellom veg og masteplasseringen. Mastehøyde er oppgitt på tegning IN001

Armatur BGP293 T25 LED90-4S/730 DM12 representerer eksisterende lyspunkt som ble prosjektert i 2019, og er medtatt for å se på lysforholdene i grensesnittet mellom nytt eksisterende anlegg.

Armatur BGP703 T25 LED169-4S/730 DM32 representer eksisterende høytrykk-natrium lampe i tremast som skal beholdes. Denne ble oppgitt til å være rundt 150W av kontaktperson hos Eviny

Det er valgt å gå for samme løsning når det gjelder belysning av overgangsfelt som det er gjort lengre oppe i Markastien. Denne løsningen sikrer et høyere lysnivå ved overgangen, men er ikke fullt så sterk som standard intensivbelysning iht V124

RIE

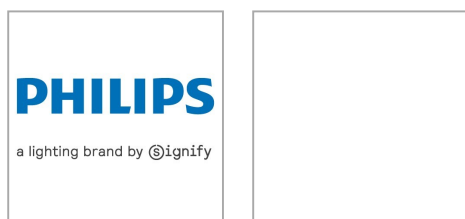
Jørgen Nyhus-Solli

Asplan Viak

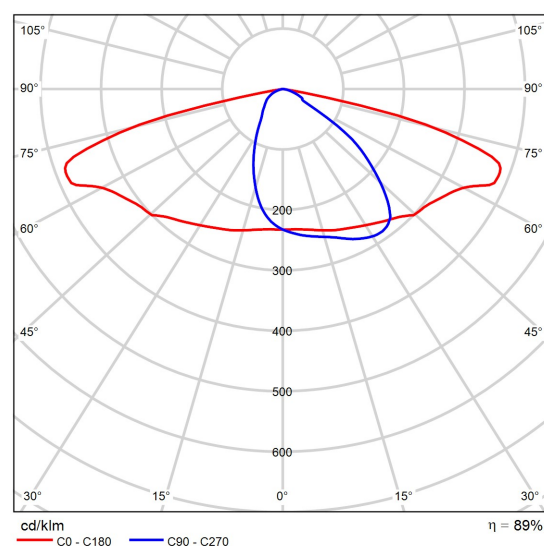
jorgen.nyhussolli@asplanviak.no

Product data sheet

Philips - BGP293 T25 LED90-4S/730 PSA DM12 FG



Article No.	BGP283I-59a546cc-3 078-4f8c- ae17-8fdb202da048
P	50.3 W
Φ_{Lamp}	9000 lm
$\Phi_{\text{Luminaire}}$	7987 lm
η	88.75 %
Luminous efficacy	158.6 lm/W
CCT	3000 K
CRI	70



Polar LDC

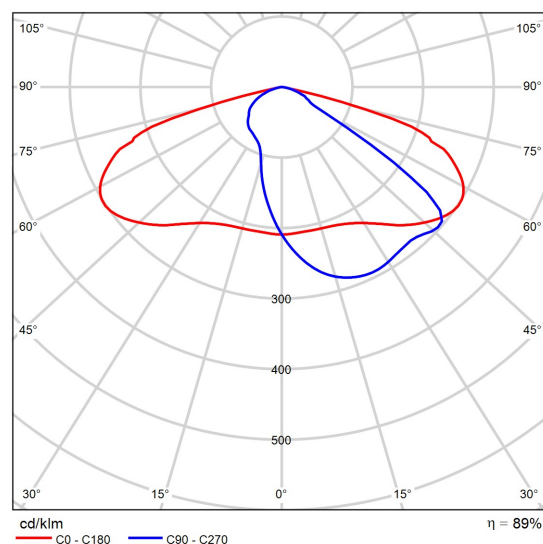
Increasing numbers of municipalities are having to upgrade large-scale conventional street lighting installations with energy efficient LED technology. But they are having to do this with smaller and smaller budgets. That's why the new generation of LumiStreet has been upgraded and designed to provide a solution to this challenge, it is the ideal solution for performing point-to-point replacement of conventional lighting. LumiStreet gen2 achieves this by offering high efficiency, low Total Cost of Ownership, and ease of installation and maintenance. The ease of installation and maintenance is enabled by the Philips Service tag. Moreover, the Philips SR (System Ready) socket makes it future-ready and you can pair this luminaire with lighting control and software applications such as Interact City.

Product data sheet

Philips - BGP701 T25 LED65-4S/730 PSA DM32 FG



Article No.	BGP701I-6ae0f6f3-b01f-4551-90d3-f305bd2bd452
P	43.1 W
Φ_{Lamp}	6500 lm
$\Phi_{\text{Luminaire}}$	5790 lm
η	89.08 %
Luminous efficacy	134.3 lm/W
CCT	3000 K
CRI	70



Polar LDC

Luma gen2 is the next generation of the Luma LED luminaire family, fully optimized 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 optimized 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 optimize and simplify spare part repair and maintenance work using a new plug & play GearFlex module containing all electrical components in an easy to handle and accessible box inside the housing. As a company conscious about

Product data sheet

Philips - BGP701 T25 LED65-4S/730 PSA DM32 FG

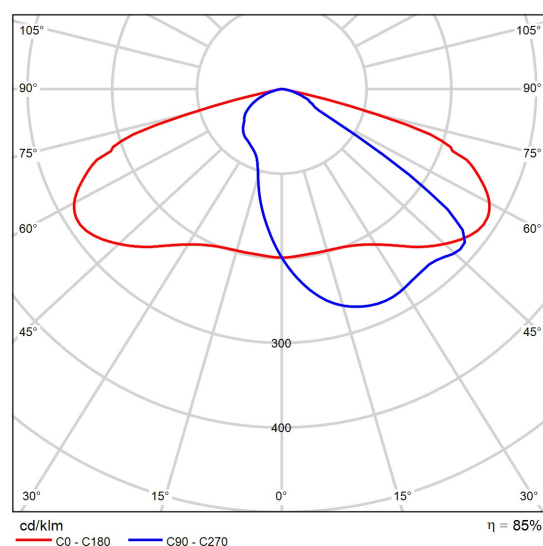
the impact of light on the environment and biodiversity, we also equipped the Luma gen2 with dedicated light recipes that help with maintaining the optimal ecosystems for bats or preserve a dark night sky.

Product data sheet

Philips - BGP703 T25 LED169-4S/730 PSA DM32 FG



Article No.	BGP703I-b58dc8a7-bc7d-47ca-be7f-8408b9933d60
P	113.4 W
Φ_{Lamp}	16900 lm
$\Phi_{\text{Luminaire}}$	14335 lm
η	84.82 %
Luminous efficacy	126.5 lm/W
CCT	3000 K
CRI	70



Polar LDC

Luma gen2 is the next generation of the Luma LED luminaire family, fully optimized 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 optimized 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 optimize and simplify spare part repair and maintenance work using a new plug & play GearFlex module containing all electrical components in an easy to handle and accessible box inside the housing. As a company conscious about

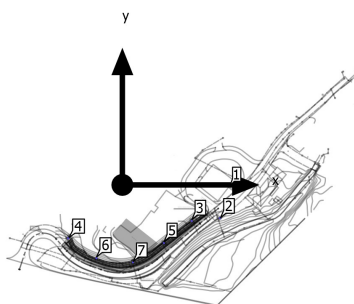
Product data sheet

Philips - BGP703 T25 LED169-4S/730 PSA DM32 FG

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.

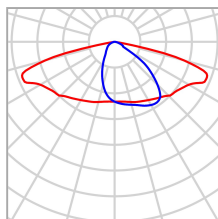
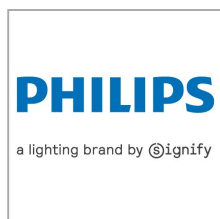
Site 1

Luminaire layout plan



Site 1

Luminaire layout plan



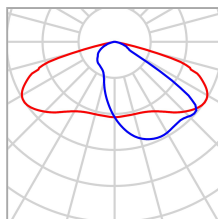
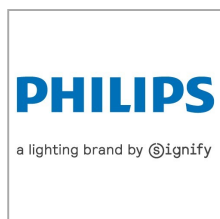
Manufacturer	Philips	P	50.3 W
Article No.	BGP283I-59a546cc-3 078-4f8c- ae17-8fdb202da048	$\Phi_{\text{Luminaire}}$	7987 lm
Article name	BGP293 T25 LED90-4S/730 PSA DM12 FG		
Fitting	1x LED90-4S/730		

Individual luminaires

X	Y	Mounting height	Luminaire
69.165 m	-0.533 m	8.007 m	1

Site 1

Luminaire layout plan



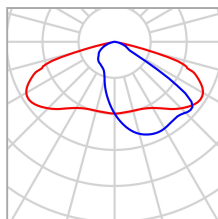
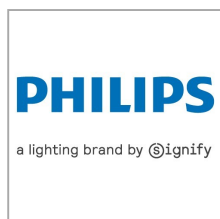
Manufacturer	Philips	P	43.1 W
Article No.	BGP701I-6ae0f6f3-b01f-4551-90d3-f305bd2bd452	$\Phi_{\text{Luminaire}}$	5790 lm
Article name	BGP701 T25 LED65-4S/730 PSA DM32 FG		
Fitting	1x LED65-4S/730		

Individual luminaires

X	Y	Mounting height	Luminaire
63.134 m	-21.573 m	7.949 m	2
44.679 m	-23.103 m	8.343 m	3
26.667 m	-37.372 m	8.020 m	5
-16.681 m	-47.159 m	7.519 m	6
6.763 m	-49.746 m	8.420 m	7

Site 1

Luminaire layout plan



Manufacturer	Philips	P	113.4 W
Article No.	BGP703I-b58dc8a7-bc7d-47ca-be7f-8408b9933d60	$\Phi_{\text{Luminaire}}$	14335 lm
Article name	BGP703 T25 LED169-4S/730 PSA DM32 FG		
Fitting	1x LED169-4S/730		

Individual luminaires

X	Y	Mounting height	Luminaire
-34.752 m	-34.194 m	8.607 m	4

Site 1

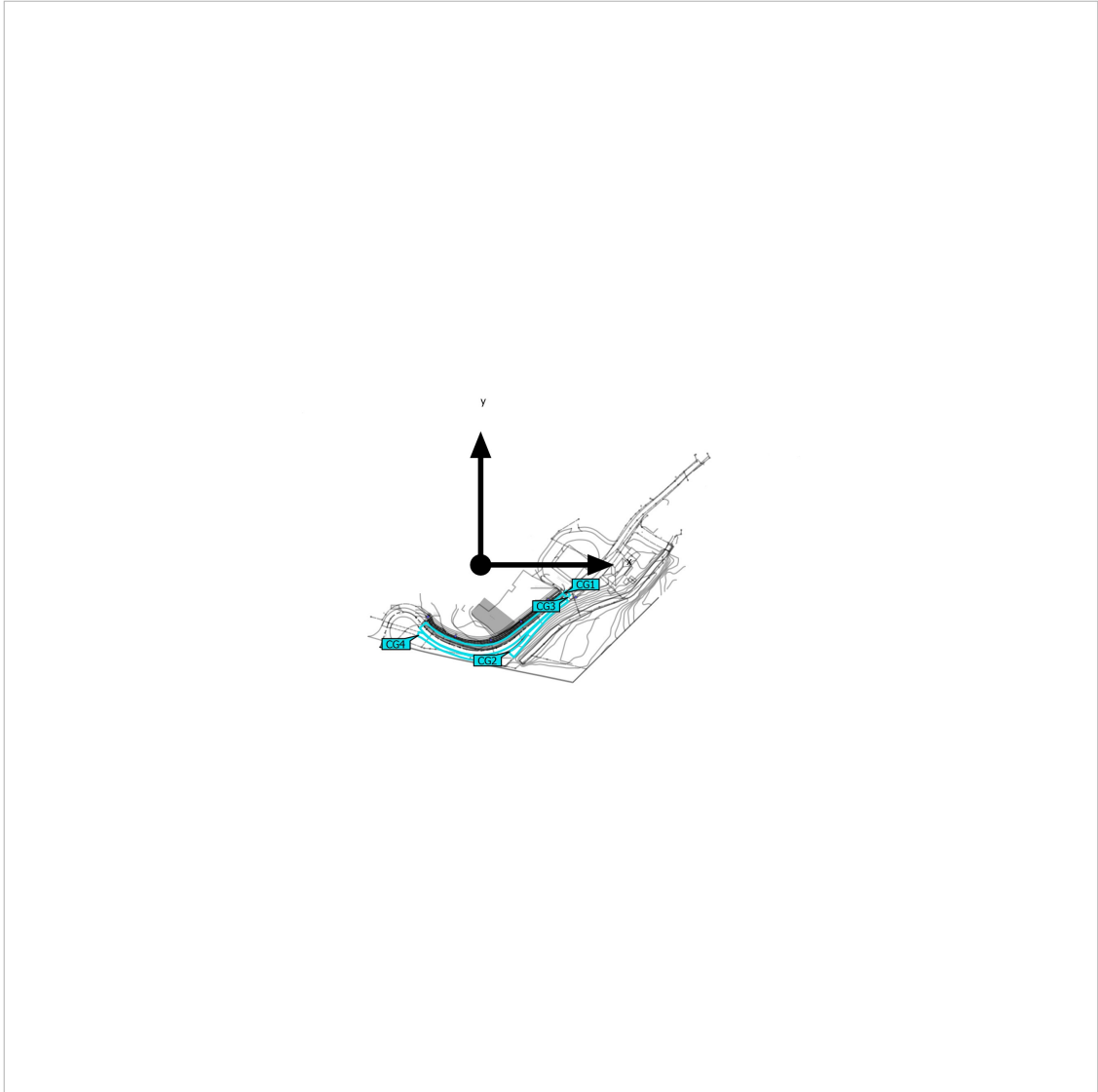
Luminaire list

Φ_{total} 51272 lm	P_{total} 379.2 W	Luminous efficacy 135.2 lm/W
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pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
1	Philips	BGP283I-5 9a546cc-3 078-4f8c- ae17-8fdb 202da048	BGP293 T25 LED90-4S/730 PSA DM12 FG	50.3 W	7987 lm	158.6 lm/W
5	Philips	BGP701I-6 ae0f6f3- b01f-4551- 90d3- f305bd2bd 452	BGP701 T25 LED65-4S/730 PSA DM32 FG	43.1 W	5790 lm	134.3 lm/W
1	Philips	BGP703I- b58dc8a7- bc7d-47ca- be7f-8408 b9933d60	BGP703 T25 LED169-4S/730 PSA DM32 FG	113.4 W	14335 lm	126.5 lm/W

Site 1 (Light scene 1)

Calculation objects



Site 1 (Light scene 1)

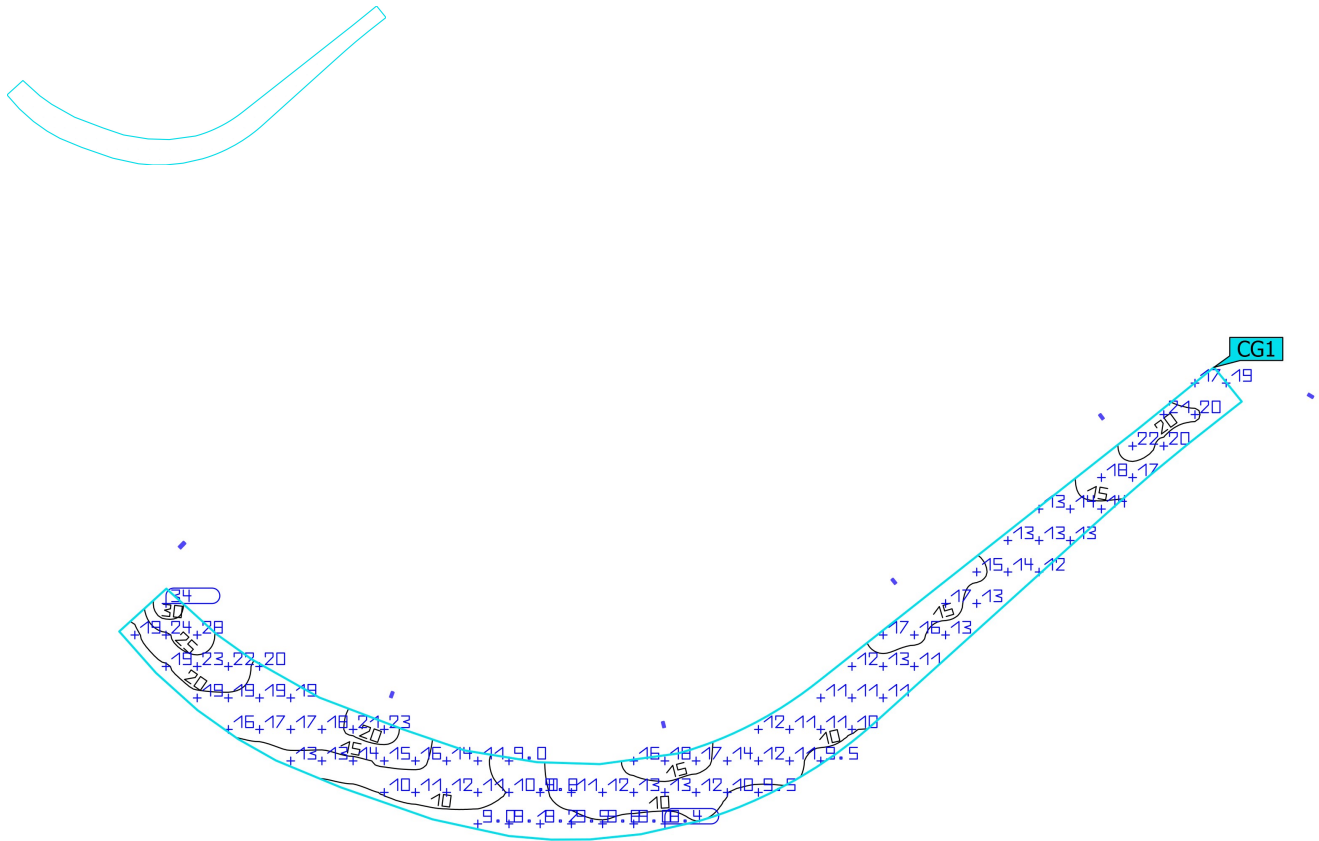
Calculation objects

Calculation surfaces

Properties	$\bar{E}$	E_{min}	E_{max}	$U_o (g_1)$	g_2	Index
Kjørebane (C4: $E_m > 10\text{ lx}$ og $U_o > 0.4$) Perpendicular illuminance Height: 0.000 m	14.7 lx	8.39 lx	34.0 lx	0.57	0.25	CG1
Fortau topp (P3: $E_m > 7.5\text{ lx}$ og $E_{min} \geq 1.5\text{ lx}$) Perpendicular illuminance Height: 0.000 m	9.28 lx	2.01 lx	22.3 lx	0.22	0.090	CG2
Overgangsfelt (C2: $E_m > 20\text{ lx}$ og $U_o \geq 0.4$) Perpendicular illuminance Height: 0.000 m	20.2 lx	16.4 lx	25.3 lx	0.81	0.65	CG3
Fortau nedre (P3: $E_m > 7.5\text{ lx}$ og $E_{min} \geq 1.5\text{ lx}$) Perpendicular illuminance Height: 0.000 m	7.89 lx	2.46 lx	16.4 lx	0.31	0.15	CG4

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

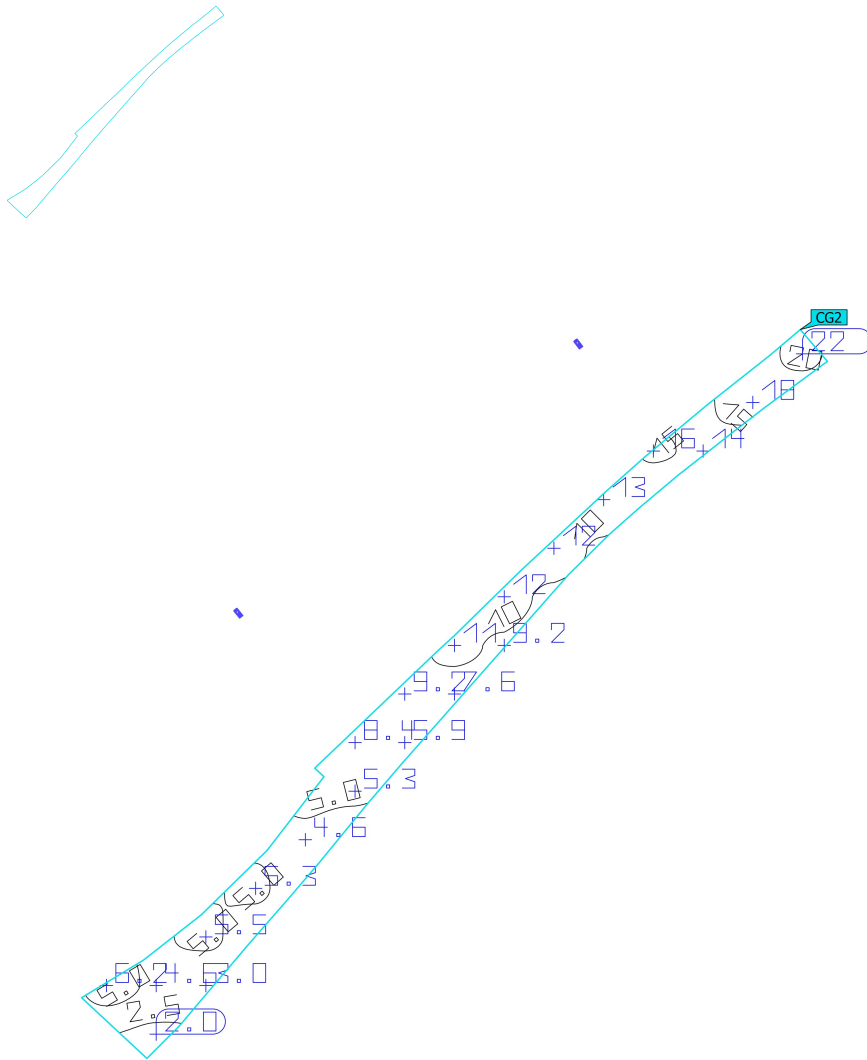
Site 1 (Light scene 1)

Kjørebane (C4: $E_m > 10\text{lx}$ og $U_o > 0.4$)

Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Kjørebane (C4: $E_m > 10\text{lx}$ og $U_o > 0.4$)	14.7 lx	8.39 lx	34.0 lx	0.57	0.25	CG1
Perpendicular illuminance						
Height: 0.000 m						

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

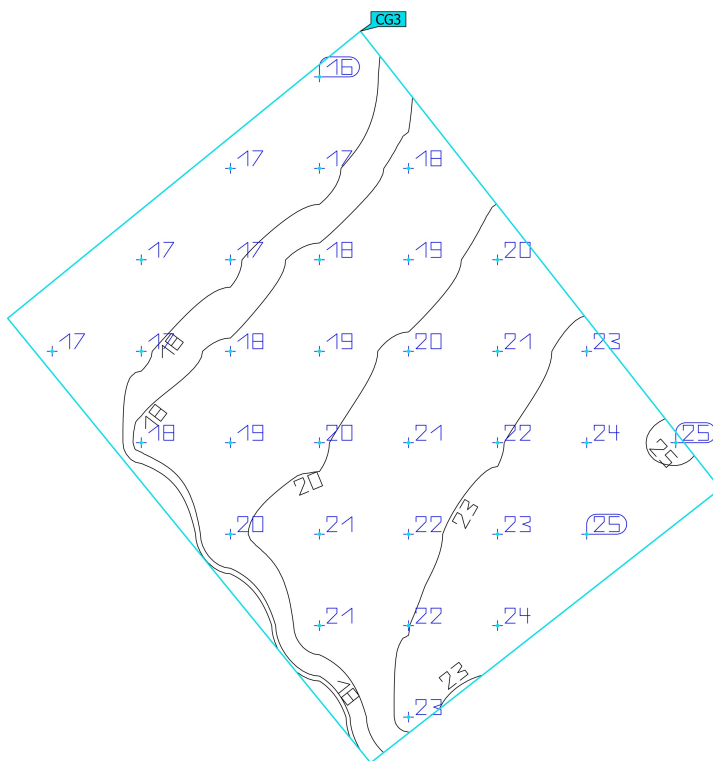
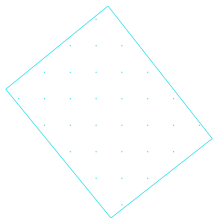
Site 1 (Light scene 1)

Fortau topp (P3: $E_m > 7.5 \text{ lx}$ og $E_{\min} \geq 1.5 \text{ lx}$)

Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Fortau topp (P3: $E_m > 7.5 \text{ lx}$ og $E_{\min} \geq 1.5 \text{ lx}$)	9.28 lx	2.01 lx	22.3 lx	0.22	0.090	CG2
Perpendicular illuminance						
Height: 0.000 m						

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

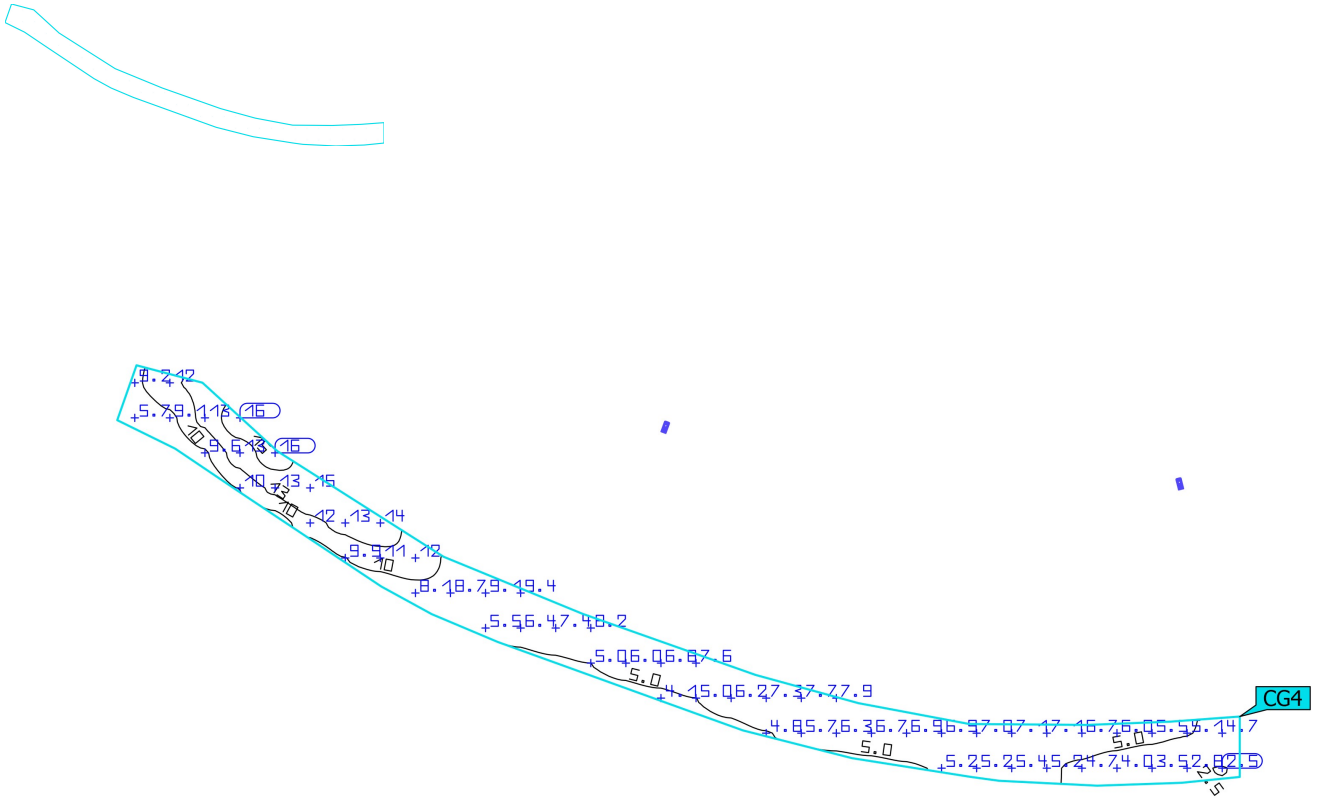
Site 1 (Light scene 1)

Overgangsfelt (C2: $E_m > 20 \text{ lx}$ og $U_o \geq 0.4$)

Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Overgangsfelt (C2: $E_m > 20 \text{ lx}$ og $U_o \geq 0.4$)	20.2 lx	16.4 lx	25.3 lx	0.81	0.65	CG3
Perpendicular illuminance						
Height: 0.000 m						

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

Site 1 (Light scene 1)

Fortau nedre (P3: $E_m > 7.5 \text{ lx}$ og $E_{\min} \geq 1.5 \text{ lx}$)

Properties	$\bar{E}$	$E_{\min}$	$E_{\max}$	$U_o (g_1)$	g_2	Index
Fortau nedre (P3: $E_m > 7.5 \text{ lx}$ og $E_{\min} \geq 1.5 \text{ lx}$)	7.89 lx	2.46 lx	16.4 lx	0.31	0.15	CG4
Perpendicular illuminance						
Height: 0.000 m						

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