

LiDL Newport Glan Llyn

Installation : Carpark

Project number : D-589513

Customer : LiDL

Processed by : Signify

Date : 20.09.2024

Project description:

Maintenance Factor 0.79

No obstructions are considered in these lighting calculations.

Lighting levels take into account approximated spill light from the stores sales area.

Lighting levels 15 Lux Ave with 25% uniformity.

The nominal values shown in this report are the result of precision calculations, based upon precisely positioned luminaires in a fixed relationship to each other and to the area under examination. In practice the values may vary due to tolerances on luminaires, luminaire positioning, reflection properties and electrical supply.

The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

This exclusion of liability applies irrespective of the legal grounds for both damages and consequential damages suffered by users and third parties.

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1 LiDL Carpark

1.1 Description, LiDL Carpark

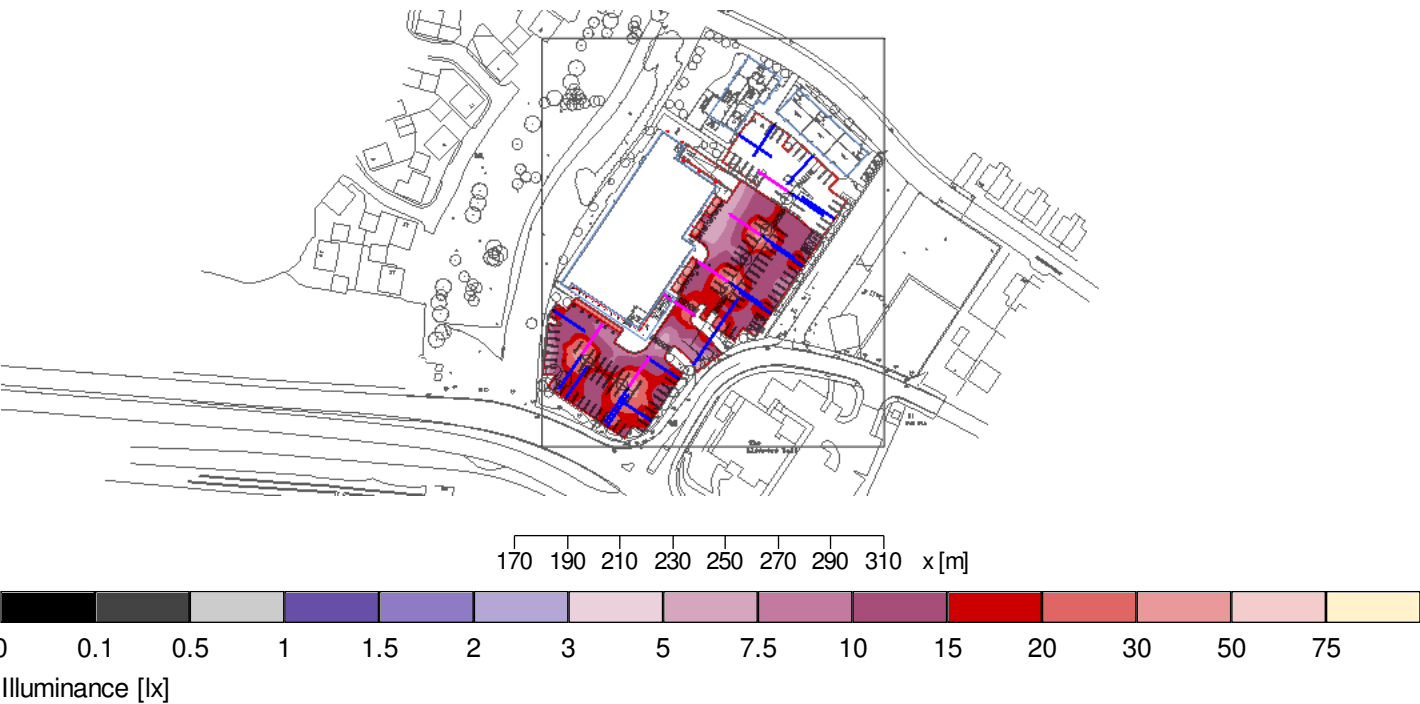
1.1.1 Floor plan



1 LiDL Carpark

1.2 Summary, LiDL Carpark

1.2.1 Result overview, Main Carpark



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.79
Total luminous flux	228480 lm
Total power	1089 W
Total power per area (20150.00 m²)	0.05 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	15.3 lx
Minimum illuminance	E_{min}	4.7 lx
Maximum illuminance	E_{max}	54.6 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	1:3.23 (0.31)
Diversity U_d	E_{min}/E_{max}	1:11.5 (0.09)

Type No.\Make

Philips Lighting

3	18 x	Order No.	: !910770202405
		Luminaire name	: LumiStreet BGP213 LED49-4S/740 I DX10 7024 D9 48/60 6m Column
		Equipment	: 1 x LED-HB 940-11500 lm-4S/740 1 W / 4900 lm
4	6 x	Order No.	: !910770202407
		Luminaire name	: LumiStreet BGP213 LED75-4S/740 I DX10 7024 D9 48/60 6m Column
		Equipment	: 1 x LED-HB 940-11500 lm-4S/740 1 W / 7500 lm

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1 LiDL Carpark

1.2 Summary, LiDL Carpark

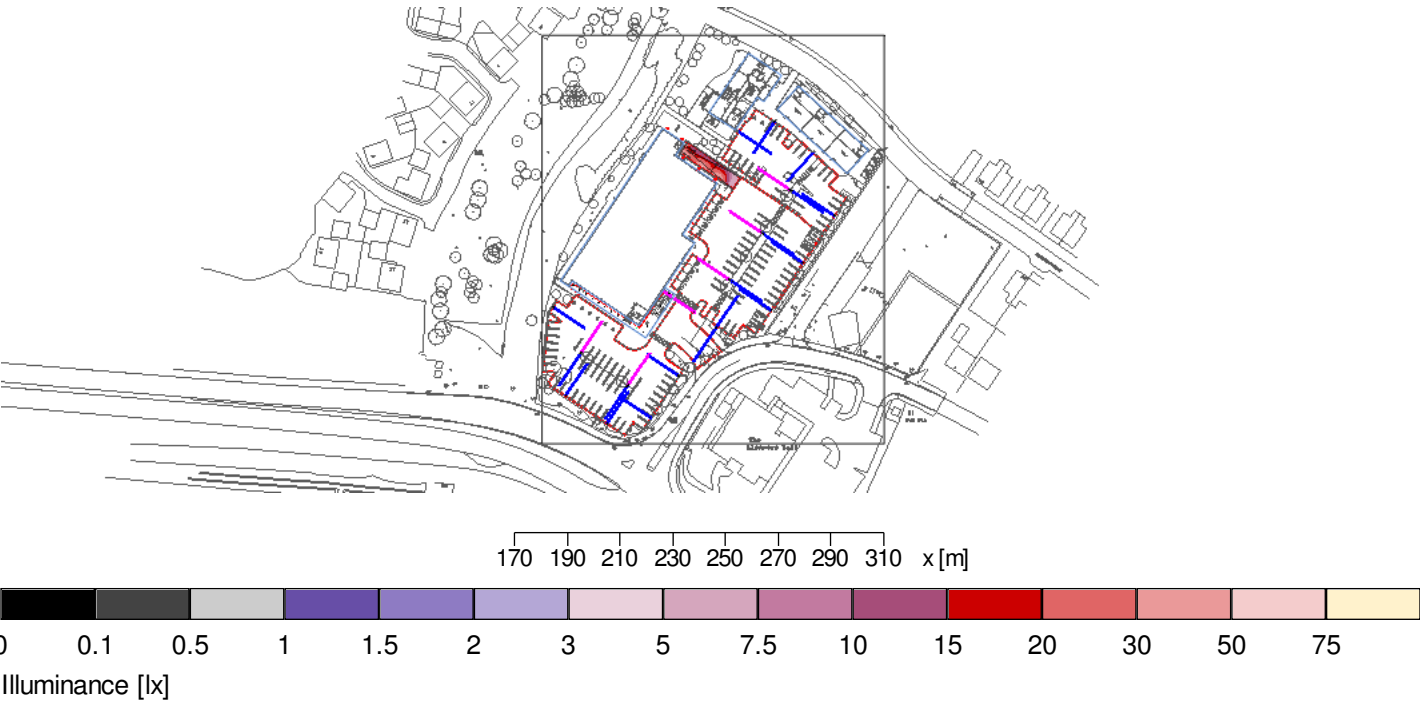
1.2.1 Result overview, Main Carpark

7 18 x Order No. : !
 Luminaire name : LL-Canopy
Equipment : 1 x DLED-4000 33.5 W / 2260 lm

9 21 x Order No. : !1300mm Linear Luminaire
 Luminaire name : LL-E with Adjustable Bracket
Equipment : 1 x LED23S/840/- 22 W / 2600 lm

1.2 Summary, LiDL Carpark

1.2.2 Result overview, Lorry Bay



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.79
Total luminous flux	228480 lm
Total power	1089 W
Total power per area (20150.00 m²)	0.05 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	21.5 lx
Minimum illuminance	E_{min}	5.1 lx
Maximum illuminance	E_{max}	53.6 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	1:4.24 (0.24)
Diversity U_d	E_{min}/E_{max}	1:10.6 (0.09)

Type No.\Make

Philips Lighting

3	18 x	Order No.	: !910770202405
		Luminaire name	: LumiStreet BGP213 LED49-4S/740 I DX10 7024 D9 48/60 6m Column
		Equipment	: 1 x LED-HB 940-11500 lm-4S/740 1 W / 4900 lm
4	6 x	Order No.	: !910770202407
		Luminaire name	: LumiStreet BGP213 LED75-4S/740 I DX10 7024 D9 48/60 6m Column
		Equipment	: 1 x LED-HB 940-11500 lm-4S/740 1 W / 7500 lm

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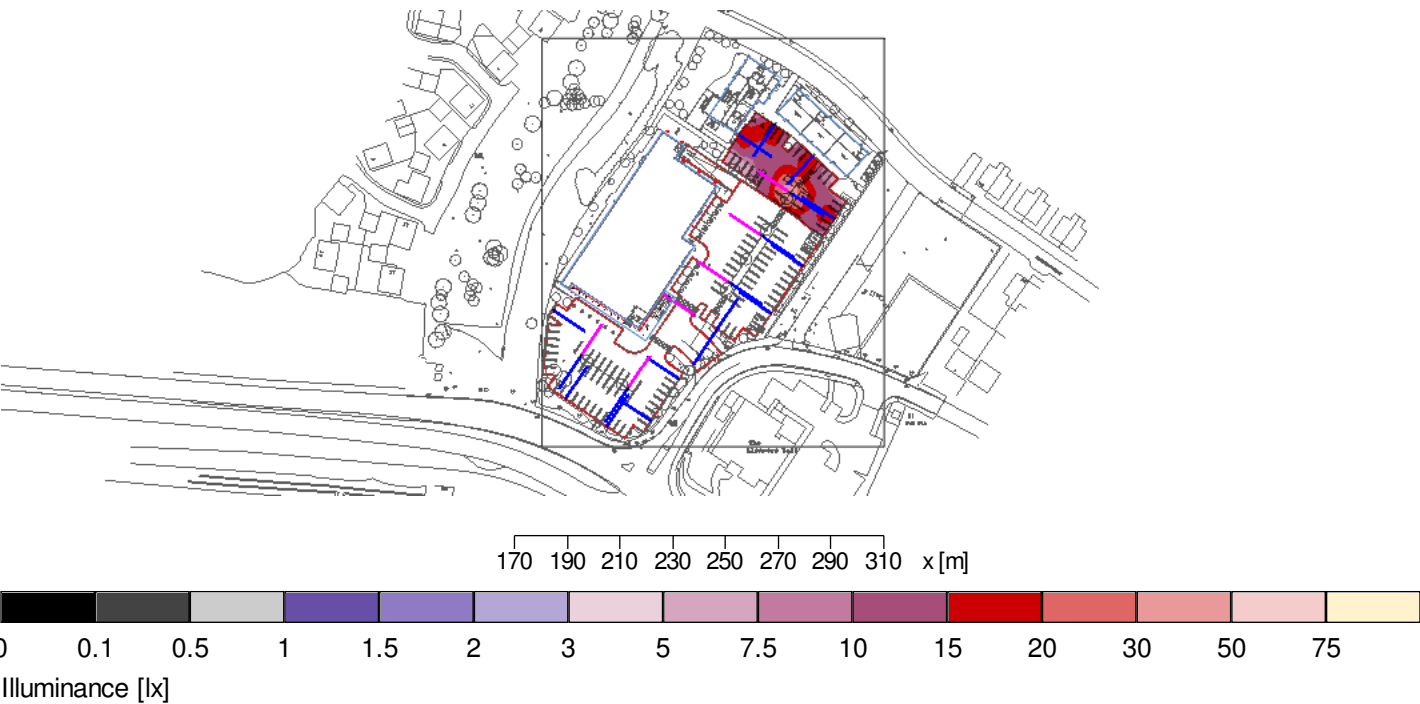
1.2 Summary, LiDL Carpark

1.2.2 Result overview, Lorry Bay

7	18 x	Order No.	: !
		Luminaire name	: LL-Canopy
		Equipment	: 1 x DLED-4000 33.5 W / 2260 lm
9	21 x	Order No.	: !1300mm Linear Luminaire
		Luminaire name	: LL-E with Adjustable Bracket
		Equipment	: 1 x LED23S/840/- 22 W / 2600 lm

1.2 Summary, LiDL Carpark

1.2.3 Result overview, Adjacent Carpark



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.79
Total luminous flux	228480 lm
Total power	1089 W
Total power per area (20150.00 m²)	0.05 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	15.4 lx
Minimum illuminance	E_{min}	4.8 lx
Maximum illuminance	E_{max}	39 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	1:3.18 (0.31)
Diversity U_d	E_{min}/E_{max}	1:8.06 (0.12)

Type No.\Make

Philips Lighting

3	18 x	Order No.	: !910770202405
		Luminaire name	: LumiStreet BGP213 LED49-4S/740 I DX10 7024 D9 48/60 6m Column
		Equipment	: 1 x LED-HB 940-11500 lm-4S/740 1 W / 4900 lm
4	6 x	Order No.	: !910770202407
		Luminaire name	: LumiStreet BGP213 LED75-4S/740 I DX10 7024 D9 48/60 6m Column
		Equipment	: 1 x LED-HB 940-11500 lm-4S/740 1 W / 7500 lm

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1.2 Summary, LiDL Carpark

1.2.3 Result overview, Adjacent Carpark

7	18 x	Order No.	: !
		Luminaire name	: LL-Canopy
		Equipment	: 1 x DLED-4000 33.5 W / 2260 lm
9	21 x	Order No.	: !1300mm Linear Luminaire
		Luminaire name	: LL-E with Adjustable Bracket
		Equipment	: 1 x LED23S/840/- 22 W / 2600 lm

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2 LiDL Carpark Spill Light

2.1 Description, LiDL Carpark Spill Light

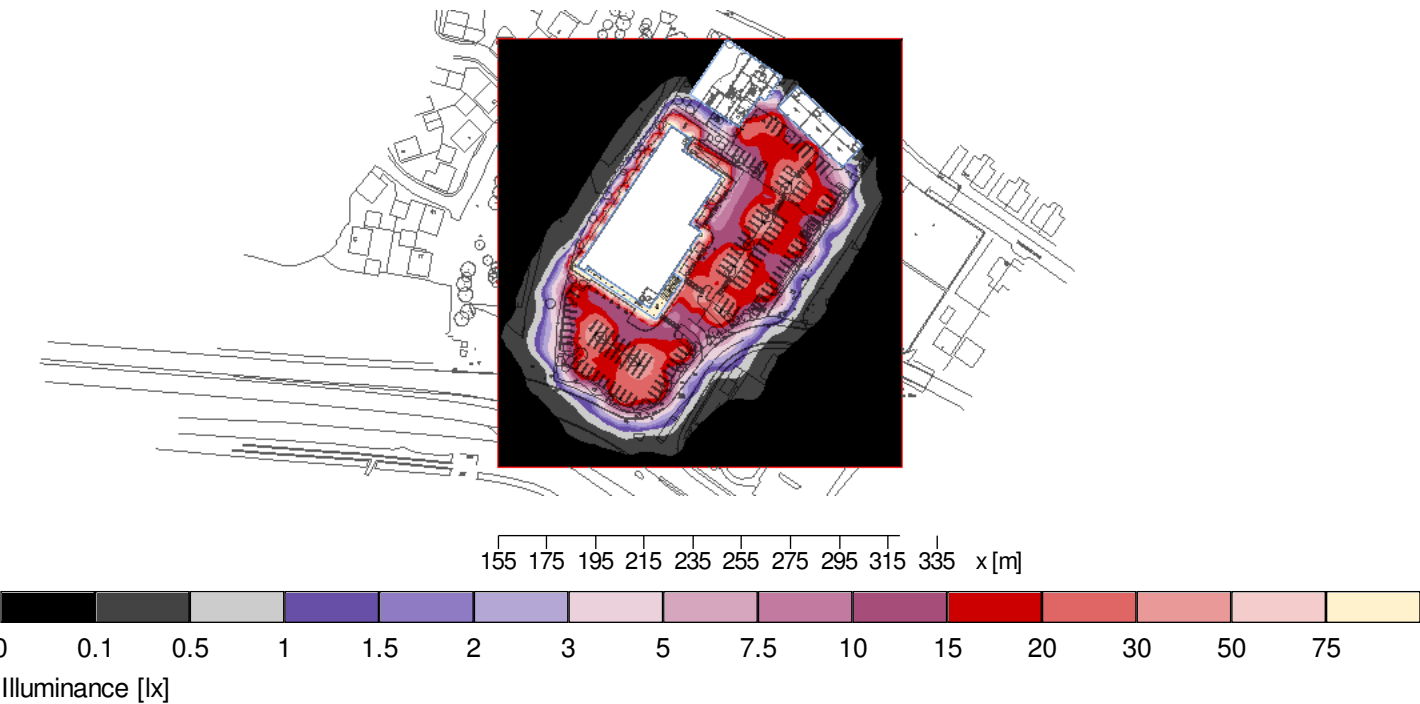
2.1.1 Floor plan



2 LiDL Carpark Spill Light

2.2 Summary, LiDL Carpark Spill Light

2.2.1 Result overview, Evaluation area 1



General	
Calculation algorithm used	Average indirect fraction
Maintenance factor	1.00
Total luminous flux	228480.00 lm
Total power	1089.0 W
Total power per area (28875.00 m²)	0.04 W/m² (0.53 W/m²/100lx)

Evaluation area 1	Reference plane 1.1
	Horizontal
$\bar{E}_m$	7.06 lx
E_{min}	0 lx
$E_{min}/\bar{E}_m (U_0)$	---
$E_{min}/E_{max} (U_d)$	---
Position	0.00 m

Type No.\Make

318 x	Philips Lighting	
	Order No.	: !910770202405
	Luminaire name	: LumiStreet BGP213 LED49-4S/740 I DX10 7024 D9 48/60 6m Column
	Equipment	: 1 x LED-HB 940-11500 lm-4S/740 1 W / 4900 lm

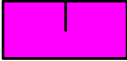
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2 LiDL Carpark Spill Light

2.2 Summary, LiDL Carpark Spill Light

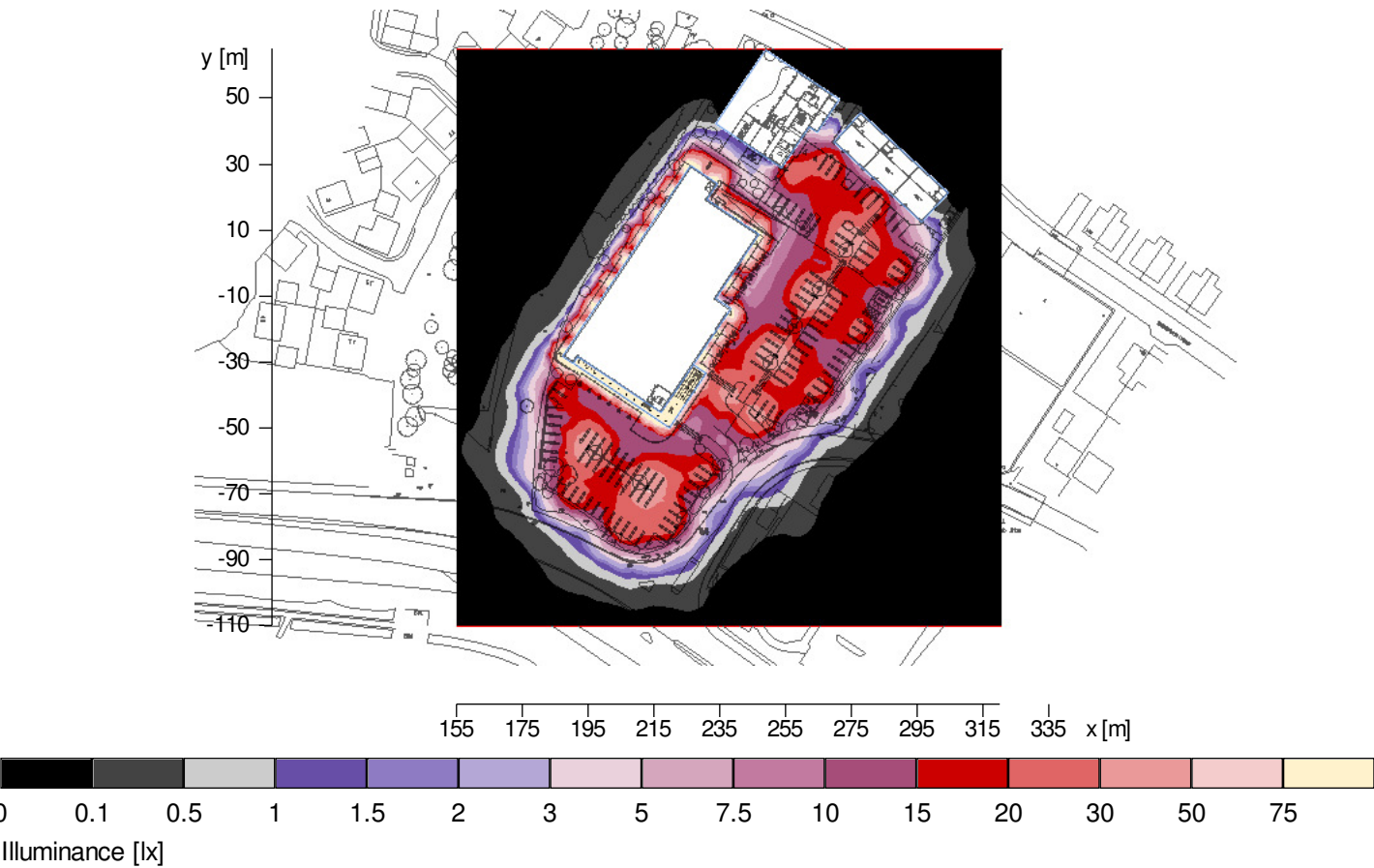
2.2.1 Result overview, Evaluation area 1

4	6 x	Order No.	: !910770202407
		Luminaire name	: LumiStreet BGP213 LED75-4S/740 I DX10 7024 D9 48/60 6m Column
		Equipment	: 1 x LED-HB 940-11500 lm-4S/740 1 W / 7500 lm
7	18 x	Order No.	: !
		Luminaire name	: LL-Canopy
		Equipment	: 1 x DLED-4000 33.5 W / 2260 lm
9	21 x	Order No.	: !1300mm Linear Luminaire
		Luminaire name	: LL-E with Adjustable Bracket
		Equipment	: 1 x LED23S/840/- 22 W / 2600 lm

2 LiDL Carpark Spill Light

2.3 Calculation results, LiDL Carpark Spill Light

2.3.1 Pseudo colours, Reference plane 1.1 (E)

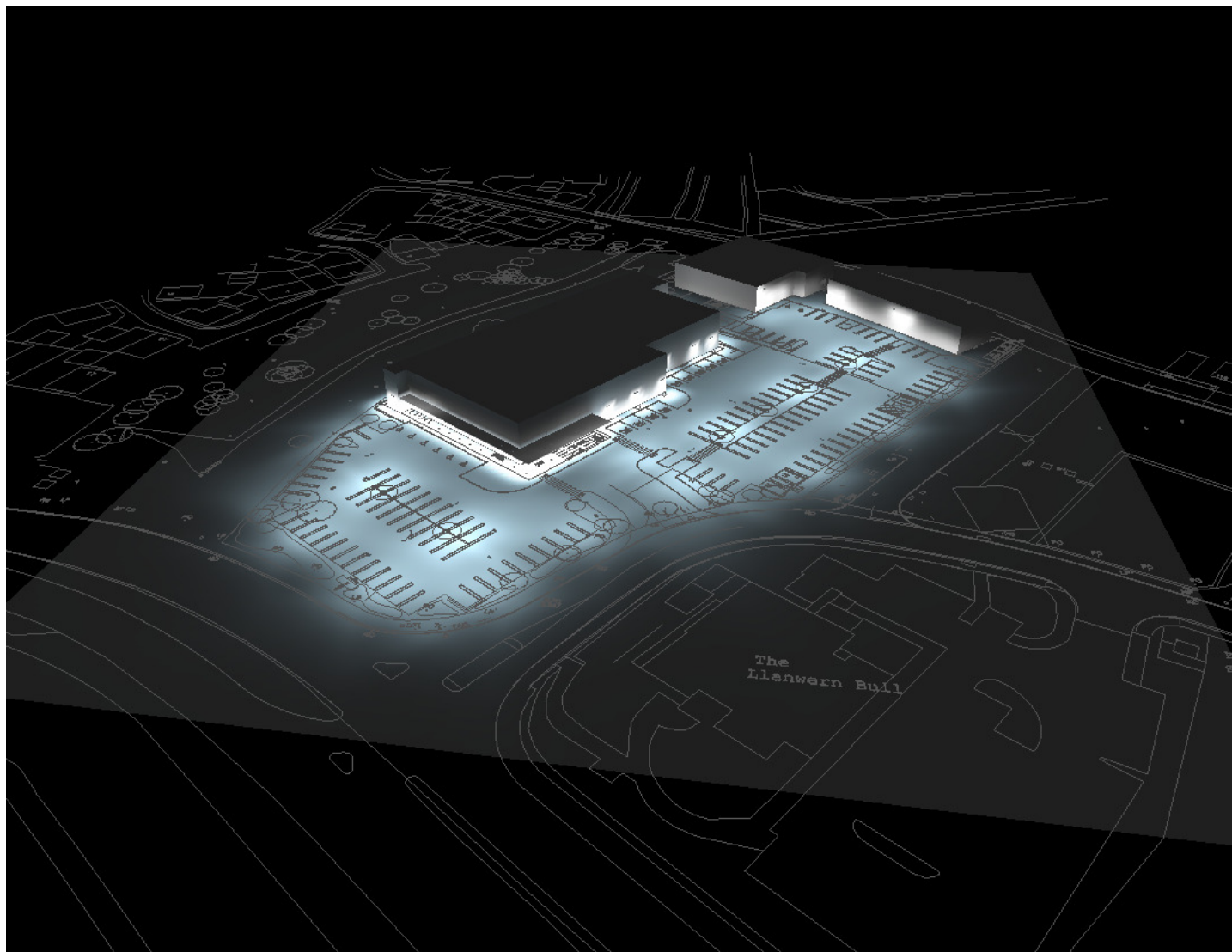


Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 7 lx
Minimum illuminance	E_{min}	: 0 lx
Maximum illuminance	E_{max}	: 167 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	: ---
Diversity U_d	E_{min}/E_{max}	: ---

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2.3 Calculation results, LiDL Carpark Spill Light

2.3.2 3D luminance, View 1



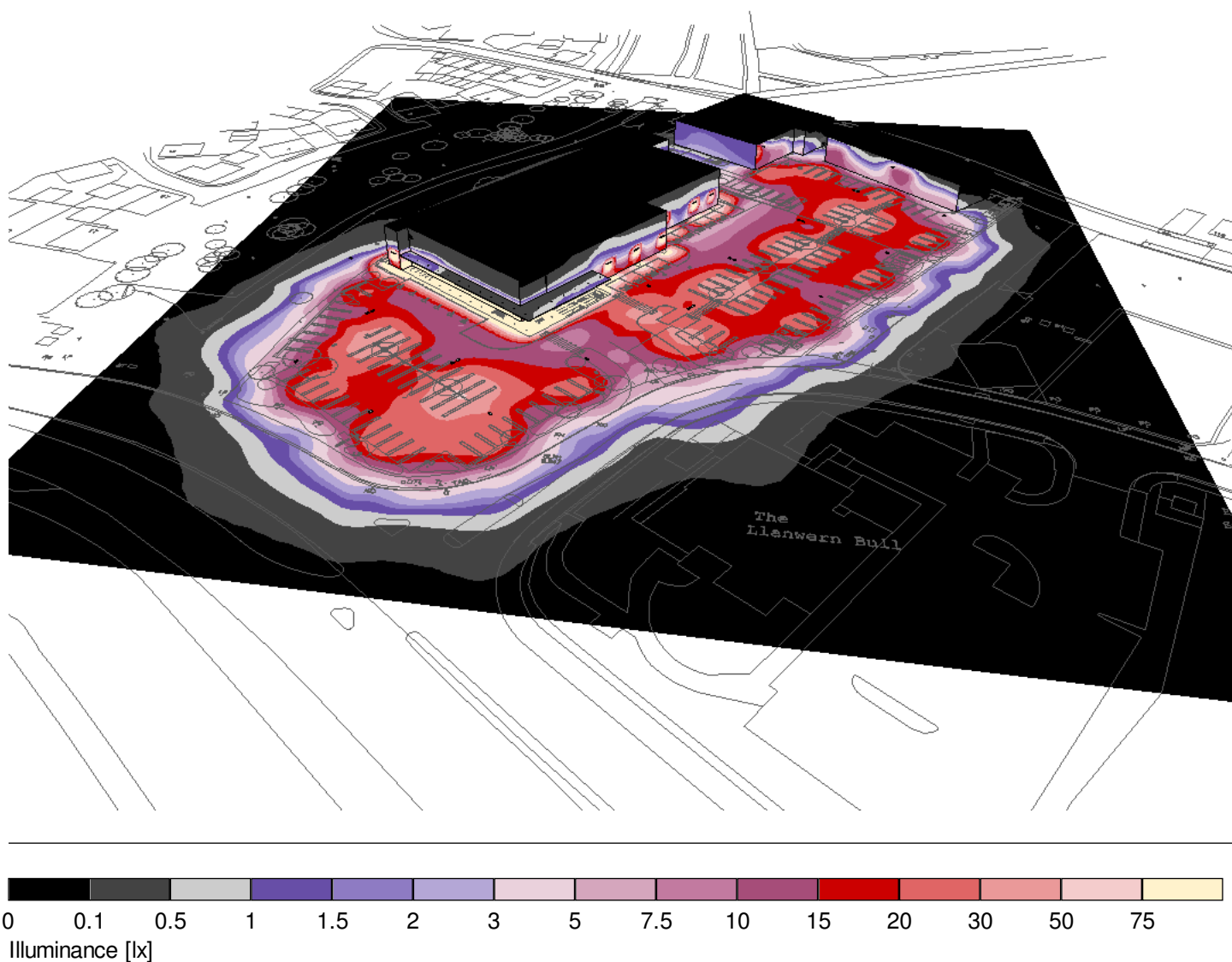
Luminance in the scene

Minimum: : 0 cd/m²
Maximum: : 28.7 cd/m²

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2.3 Calculation results, LiDL Carpark Spill Light

2.3.3 3D pseudo colours, View 1 (E)



NOT FOR CONSTRUCTION