

EXTERNAL LIGHTING

Installation : DLC SOUTHAMPTON

Project number : LS0707

Customer : EBS

Processed by : LS

Date : 09.04.2024

Project description:

SAMPLE CALCULATION BASED ON:

6M COLUMNS ASSUMED FIXED TO PADEL COURT FENCING

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 Luminaire data

1.1 BELL Lighting Limited, Skyline Virtus 150W-300W 4000K Asy... (11491)

1.1.1 Data sheet

Manufacturer: BELL Lighting Limited

11491 Skyline Virtus 150W-300W 4000K Asymmetric Floodlight

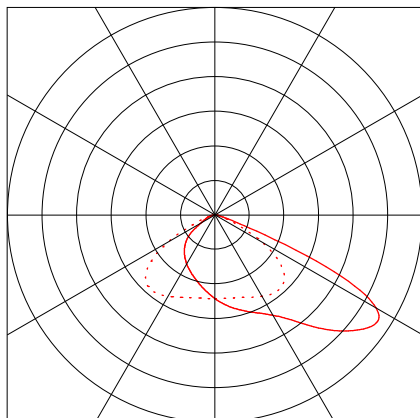
Luminaire data

Luminaire efficiency : 100%
Luminaire efficacy : 153.64 lm/W
Classification : A40 ↓100.0% ↑0.0%
CIE Flux Codes : 41 84 99 100 100
UGR 4H 8H : 38.2 / 32.1
Power : 225 W
Luminous flux : 34568 lm

Equipped with

Quantity : 1
Designation : LED 840
Colour : 4000K
Luminous flux : 34568 lm
Colour reproduction : 80

Dimensions : 380 mm x 380 mm x 75 mm

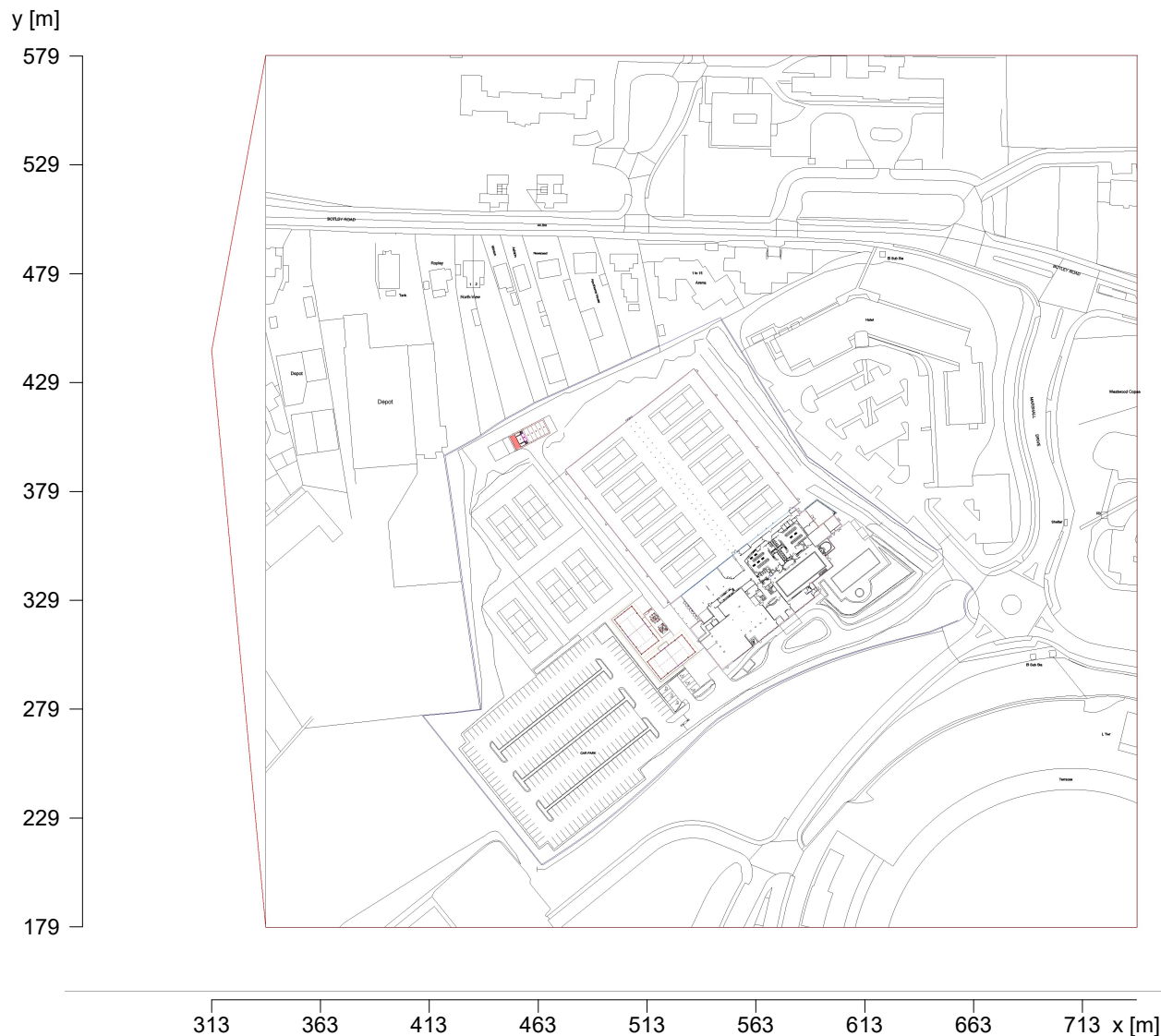




2 Exterior 1

2.1 Description, Exterior 1

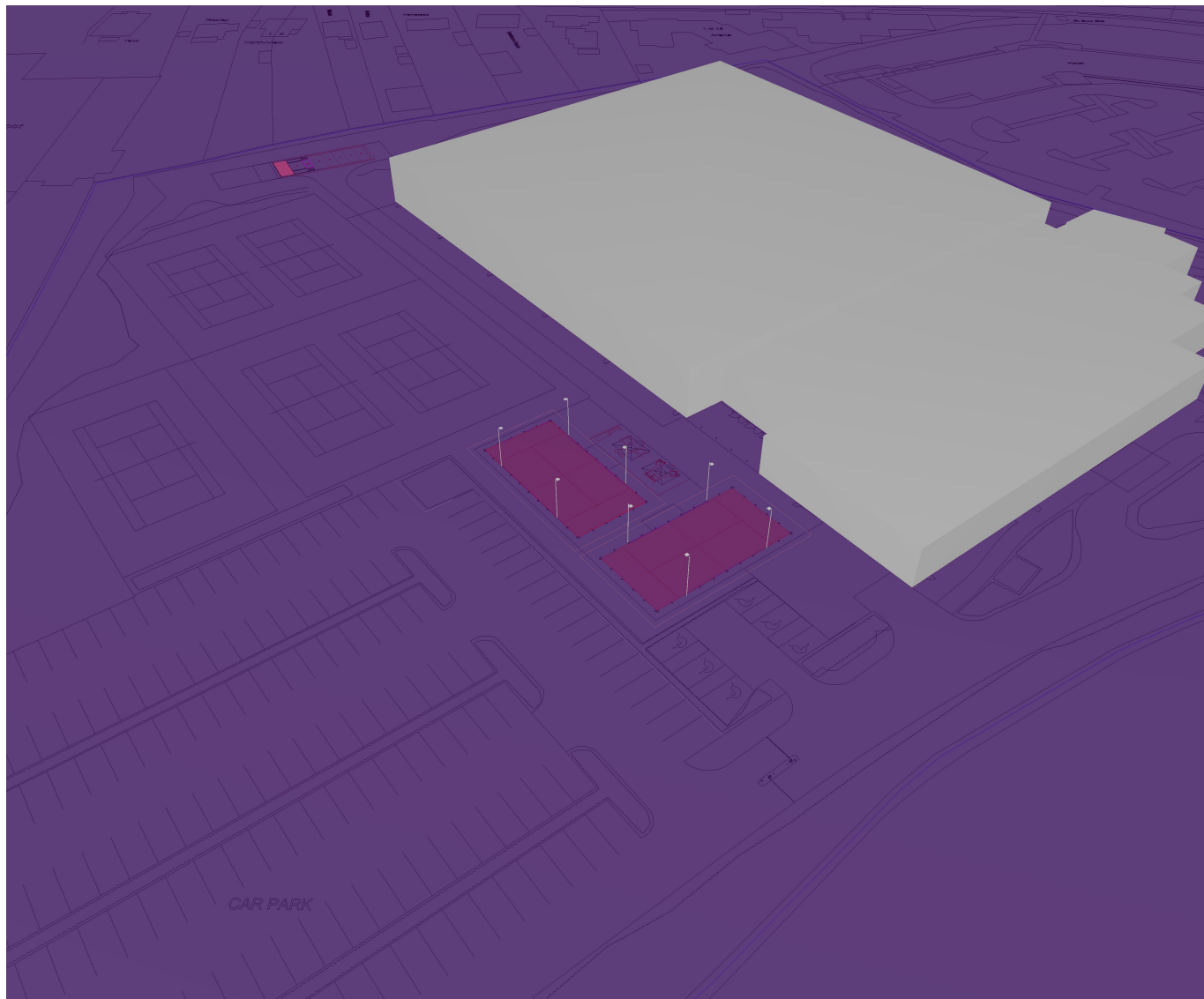
2.1.1 Floor plan





2.1 Description, Exterior 1

2.1.2 3D view, View 1



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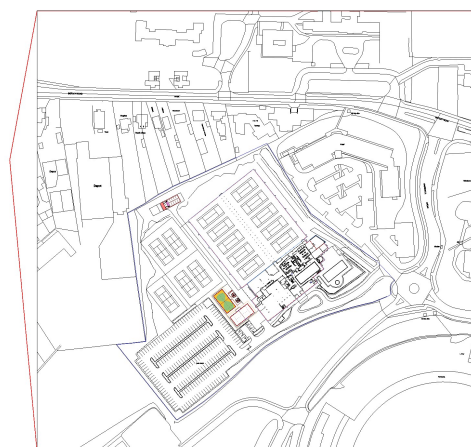


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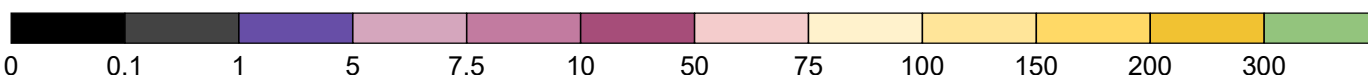
2 Exterior 1

2.2 Summary, Exterior 1

2.2.1 Result overview, PADEL 1



313 363 413 463 513 563 613 663 713 x [m]



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	5.96 m
Maintenance factor	0.85

Total luminous flux	276544 lm
Total power	1800 W
Total power per area (164962.53 m ²)	0.01 W/m ²

Illuminance

Average illuminance	$\bar{E}_m$	288 lx
Minimum illuminance	E_{min}	178 lx
Maximum illuminance	E_{max}	340 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.62 (0.62)
Diversity U_d	E_{min}/E_{max}	1:1.91 (0.52)

Type No. \Make

2	8 x	BELL Lighting Limited
		Order No. : 11491
		Luminaire name : Skyline Virtus 150W-300W 4000K Asymmetric Floodlight
		Equipment : 1 x LED 840 225 W / 34568 lm

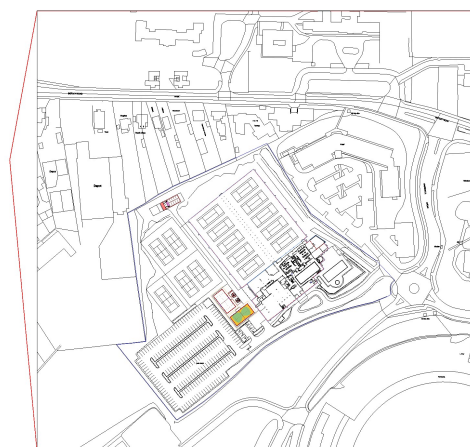
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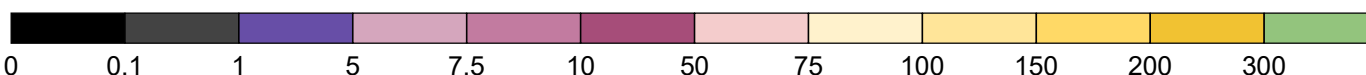
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2.2 Summary, Exterior 1

2.2.2 Result overview, PADEL 2



313 363 413 463 513 563 613 663 713 x [m]



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	5.96 m
Maintenance factor	0.85

Total luminous flux	276544 lm
Total power	1800 W
Total power per area (164962.53 m ²)	0.01 W/m ²

Illuminance

Average illuminance	$\bar{E}_m$	288 lx
Minimum illuminance	E_{min}	178 lx
Maximum illuminance	E_{max}	348 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.62 (0.62)
Diversity U_d	E_{min}/E_{max}	1:1.95 (0.51)

Type No. \Make

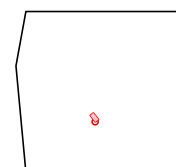
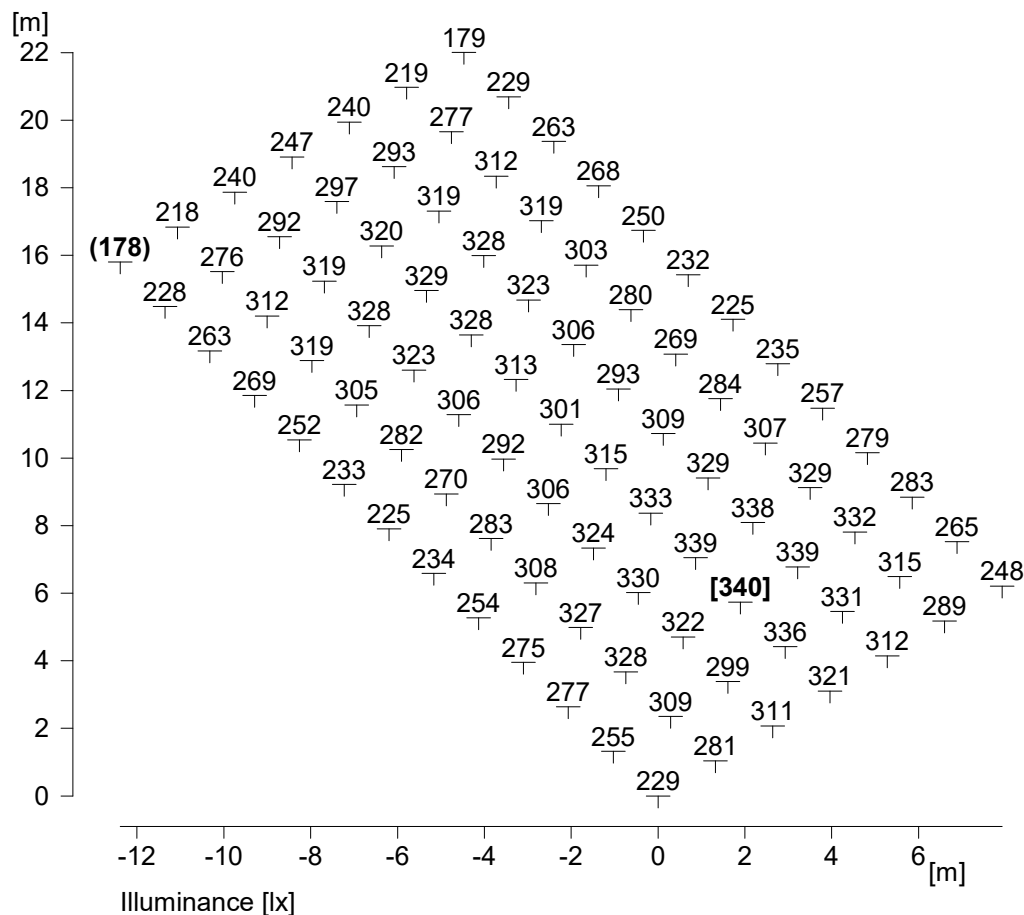
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		Order No. : 11491
		Luminaire name : Skyline Virtus 150W-300W 4000K Asymmetric Floodlight
		Equipment : 1 x LED 840 225 W / 34568 lm



2 Exterior 1

2.3 Calculation results, Exterior 1

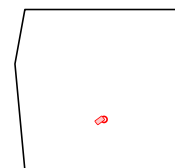
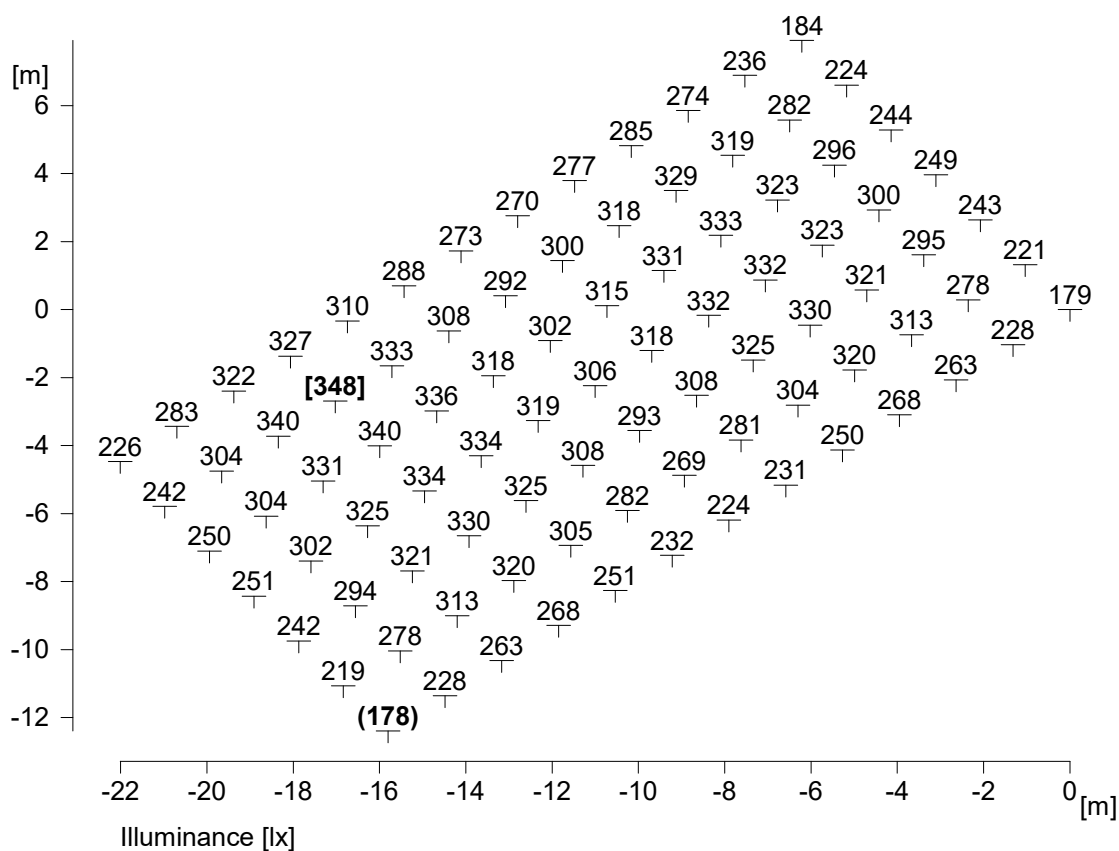
2.3.1 Table, PADEL 1 (E)



Height reference plane	:	0.00 m
Average illuminance	$\bar{E}_m$	: 288 lx
Minimum illuminance	E_{min}	: 178 lx
Maximum illuminance	E_{max}	: 340 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	: 1 : 1.62 (0.62)

2.3 Calculation results, Exterior 1

2.3.2 Table, PADEL 2 (E)

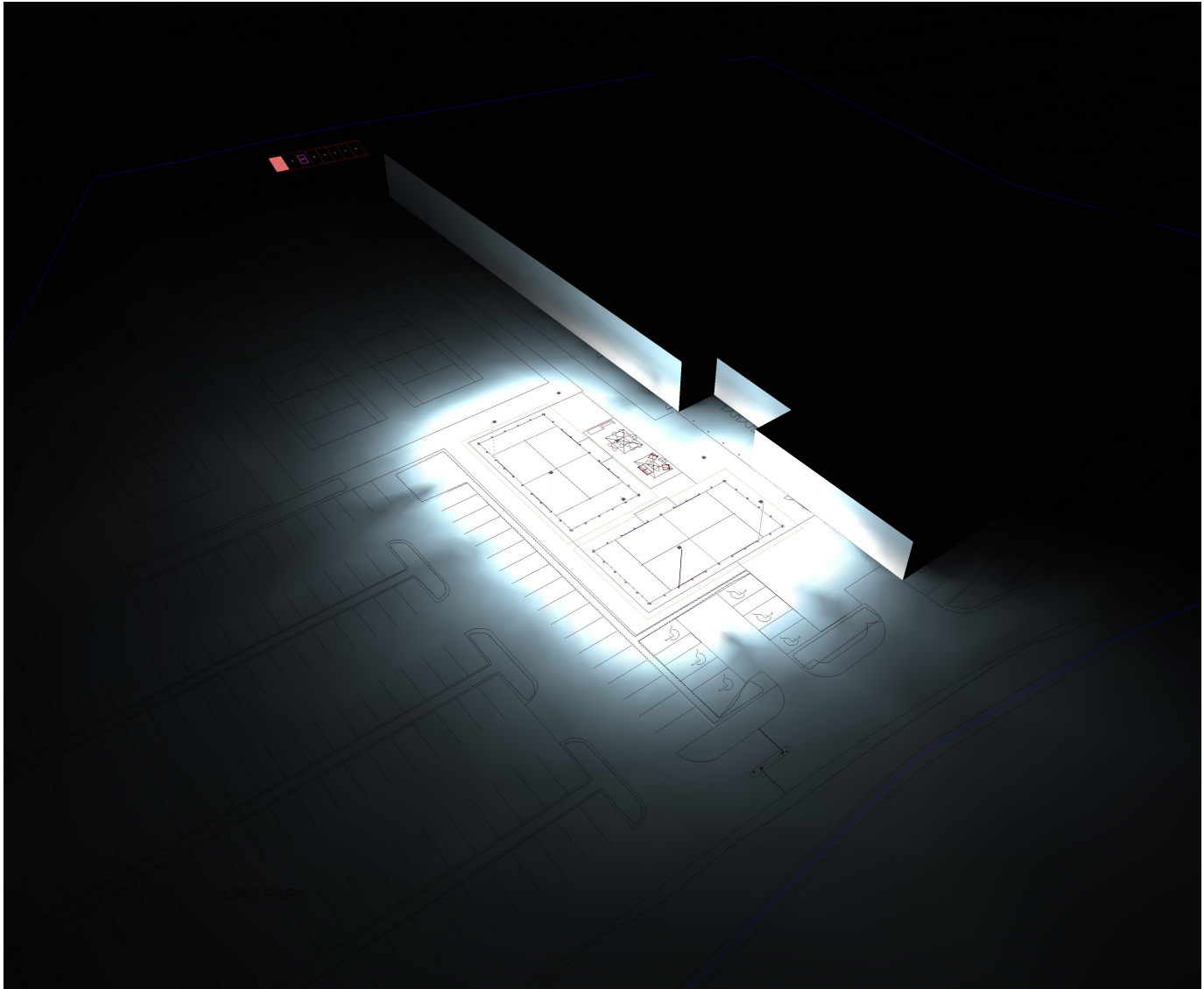


Height reference plane	: 0.00 m
Average illuminance	$\bar{E}_m$: 288 lx
Minimum illuminance	E_{min} : 178 lx
Maximum illuminance	E_{max} : 348 lx
Uniformity U_o	$E_{min}/\bar{E}_m$: 1 : 1.62 (0.62)



2.3 Calculation results, Exterior 1

2.3.3 3D luminance, View 1





2.3 Calculation results, Exterior 1

2.3.4 3D pseudo colours, View 1 (E)

