

Lighting Design

Installation : Haulage Yard

Project number : LP190125

Customer : Switch Spalding

Processed by : RHB

Date : 10.04.2019

Project description:

All calculations have been based on the information provided, plus the accompanying drawings and verbal information received.

BT Associates t/a Lumineux take no responsibility for the maintenance regime and can only guarantee light levels at start of life.

Our lighting designs are based on relevant lighting guides in conjunction with best practice. The Lumineux LDT files used to produce this design are specific to the Lumineux fittings included herein. A new lighting design must be produced should an alternative fitting be required. The optics of different fittings are rarely the same even if the lumen output is identical. Using an alternate fitting without a design could make the scheme non-compliant with relevant lighting guides.

Emergency scheme is to be checked and confirmed with local building or fire control officer and ultimately approved by the owner of the building. Any emergency calculations that have been completed have been based on 0.5 lux for open areas and 1 lux for escape routes. In general information with regard to positioning of fire fighting and call points is unknown and hence the design does not consider this requirement. Emergency lighting for High Risk areas should be considered additional to this design.

The absence of an emergency scheme within the design does not indicate one is not required, rather that the brief has suggested that this is either already in existence or will be supplied by another source.

Please ensure that this lighting scheme complies with all your requirements before placing order with our sales team.

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.

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1 Luminaire data

1.1 Lumineux Lighting, FL200 Series LED Floodlight 20... (401089-BL)

1.1.1 Data sheet

Manufacturer: Lumineux Lighting

401089-BL FL200 Series LED Floodlight 200W 400K Black

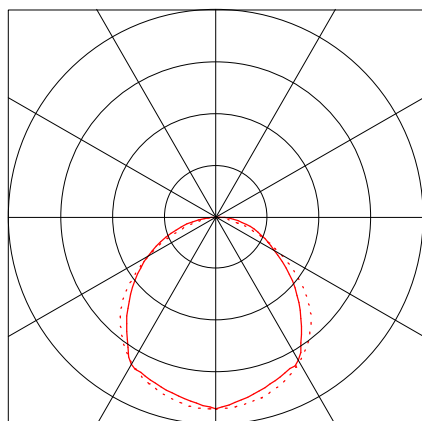
Luminaire data

Luminaire efficiency : 98.8%
Luminaire efficacy : 95.63 lm/W
Classification : A40 ↓100.0% ↑0.0%
CIE Flux Codes : 50 83 97 100 99
UGR 4H 8H : 27.7 / 27.0
Power : 201 W
Luminous flux : 19221.5 lm

Equipped with

Quantity : 1
Designation : LED
Colour :
Luminous flux : 19455 lm

Dimensions : 423 mm x 352 mm x 60 mm

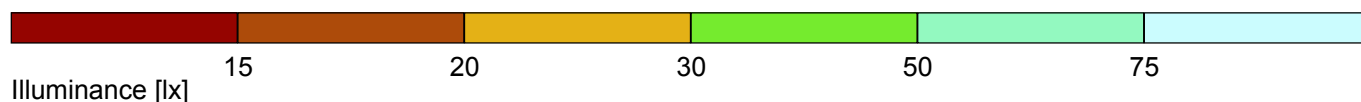
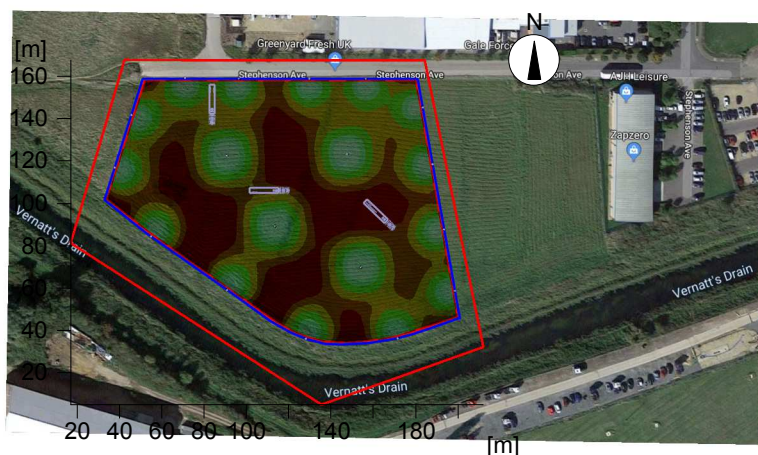


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2 Haulage Yard+ Middle

2.1 Summary, Haulage Yard+ Middle

2.1.1 Result overview, Yard



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	7.99 m
Maintenance factor	0.85

Total luminous flux of all lamps	856020 lm
Total power	8844 W
Total power per area (23132.74 m²)	0.38 W/m²

Illuminance

Average illuminance	Eav	29 lx
Minimum illuminance	Emin	8 lx
Maximum illuminance	Emax	121 lx
Uniformity Uo	Emin/Em	1:3.7 (0.27)
Diversity Ud	Emin/Emax	1:15.6 (0.06)

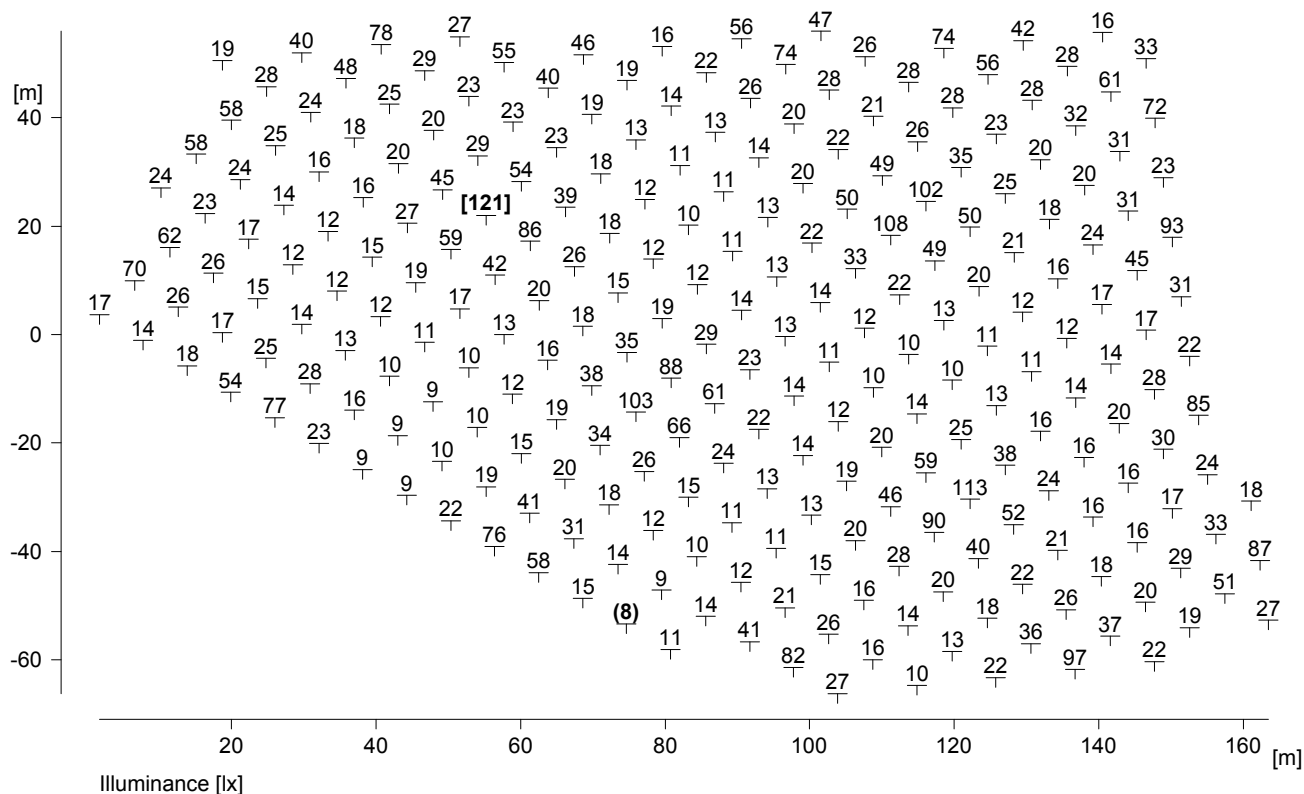
Type No. Make

2	44	Luminaireux Lighting
	Order No.	: 401089-BL
	Luminaire name	: FL200 Series LED Floodlight 200W 400K Black
	Equipment	: 1 x LED 201 W / 19455 lm

2 Haulage Yard+ Middle

2.2 Calculation results, Haulage Yard+ Middle

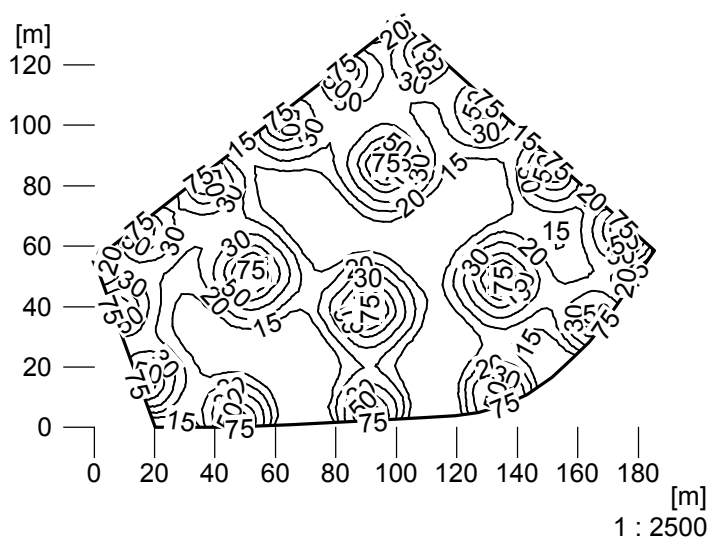
2.2.1 Table, Yard (E)



Height of the reference plane	: 0.00 m
Average illuminance	Eav : 29 lx
Minimum illuminance	Emin : 8 lx
Maximum illuminance	Emax : 121 lx
Uniformity Uo	Emin/Eav : 1 : 3.70 (0.27)
Diversity Ud	Emin/Emax : 1 : 15.63 (0.06)

2.2 Calculation results, Haulage Yard+ Middle

2.2.2 Isolines representation, Yard (E)

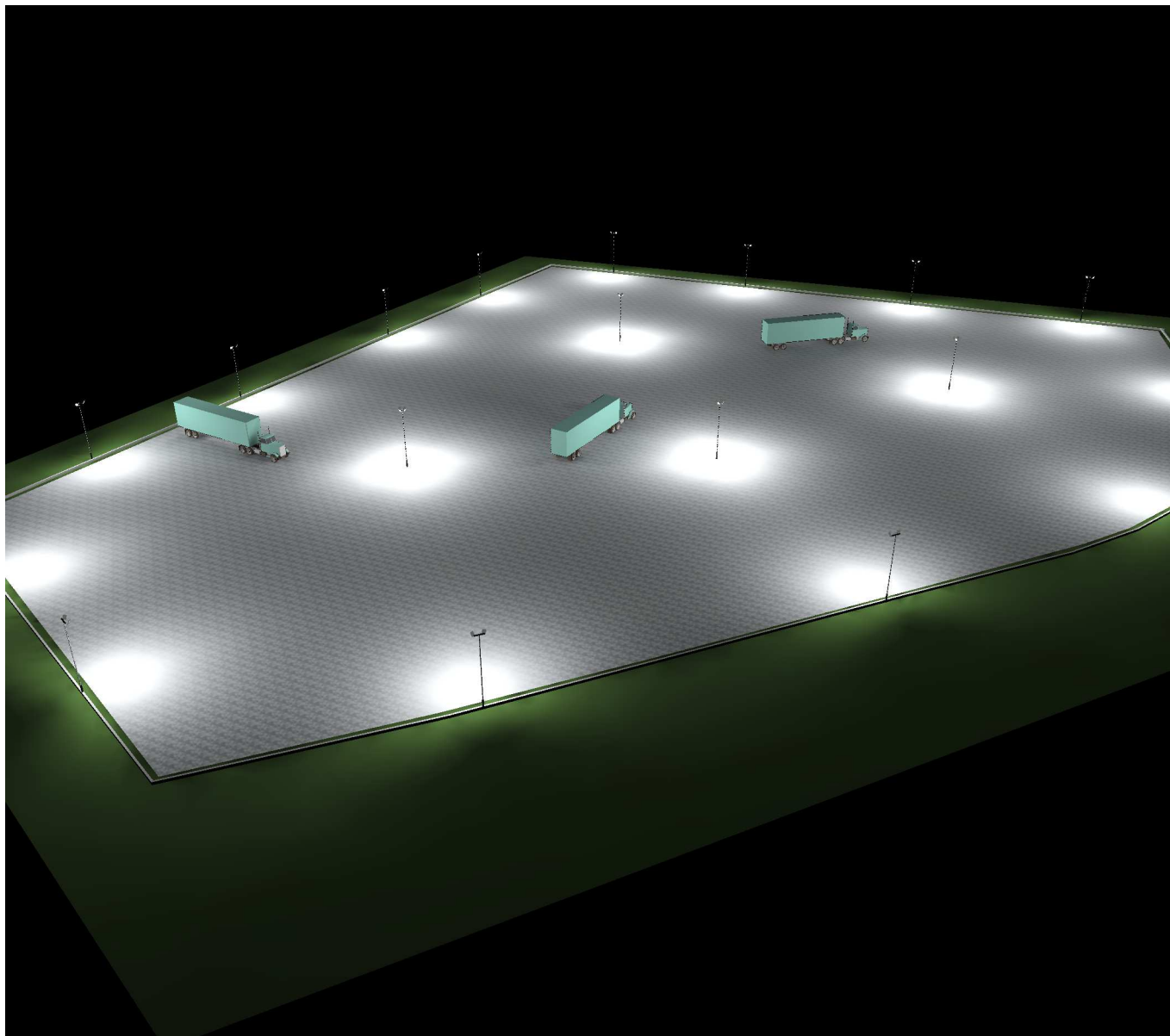


Illuminance [lx]

Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 29 lx
Minimum illuminance	Emin	: 8 lx
Maximum illuminance	Emax	: 121 lx
Uniformity Uo	Emin/Eav	: 1 : 3.70 (0.27)
Diversity Ud	Emin/Emax	: 1 : 15.63 (0.06)

2.2 Calculation results, Haulage Yard+ Middle

2.2.3 3D luminance, View 1



Luminance in the scene

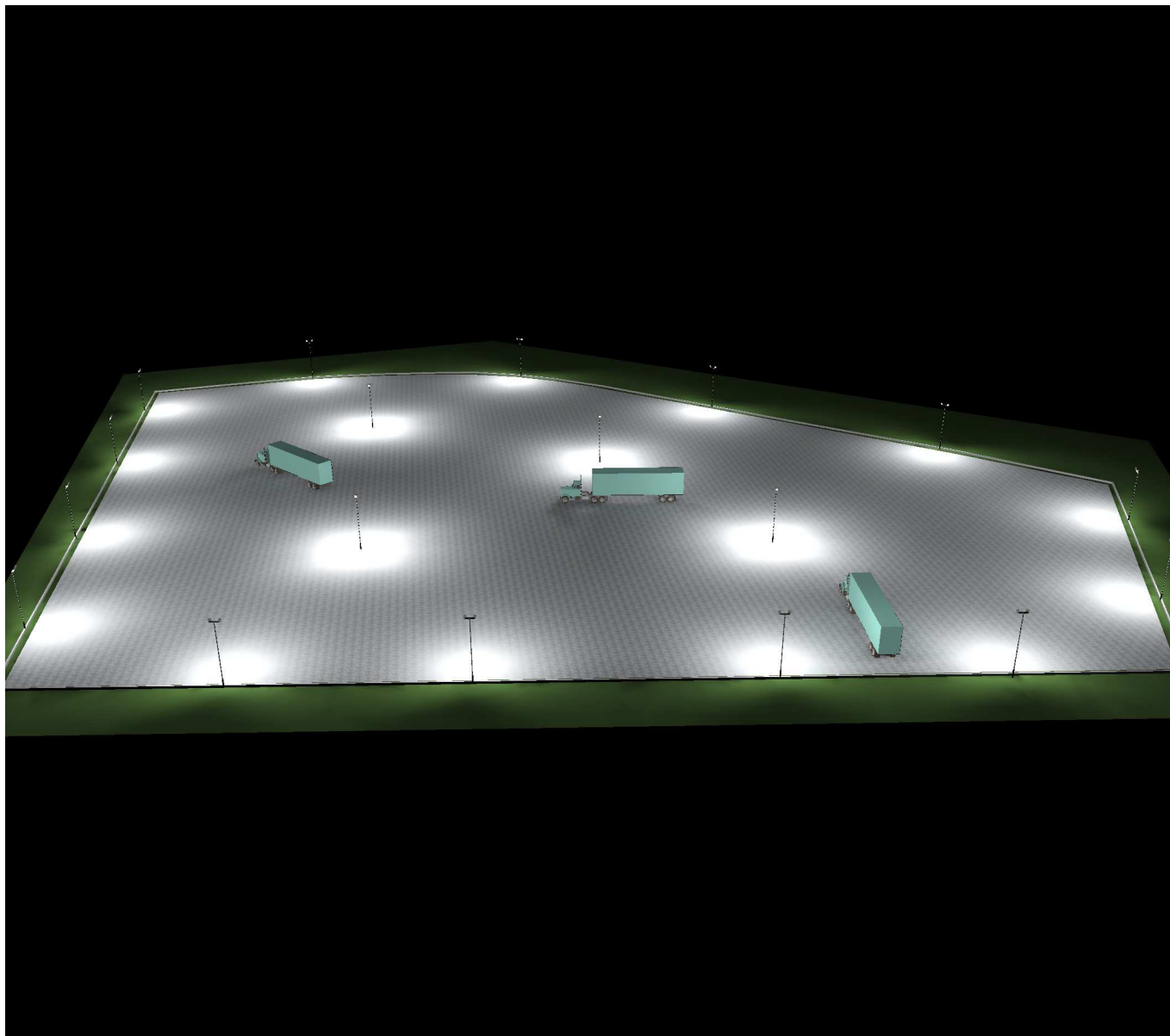
Minimum: : 0 cd/m²

Maximum: : 17.6 cd/m²

Without consideration of the luminaire geometry

2.2 Calculation results, Haulage Yard+ Middle

2.2.4 3D luminance, View 2



Luminance in the scene

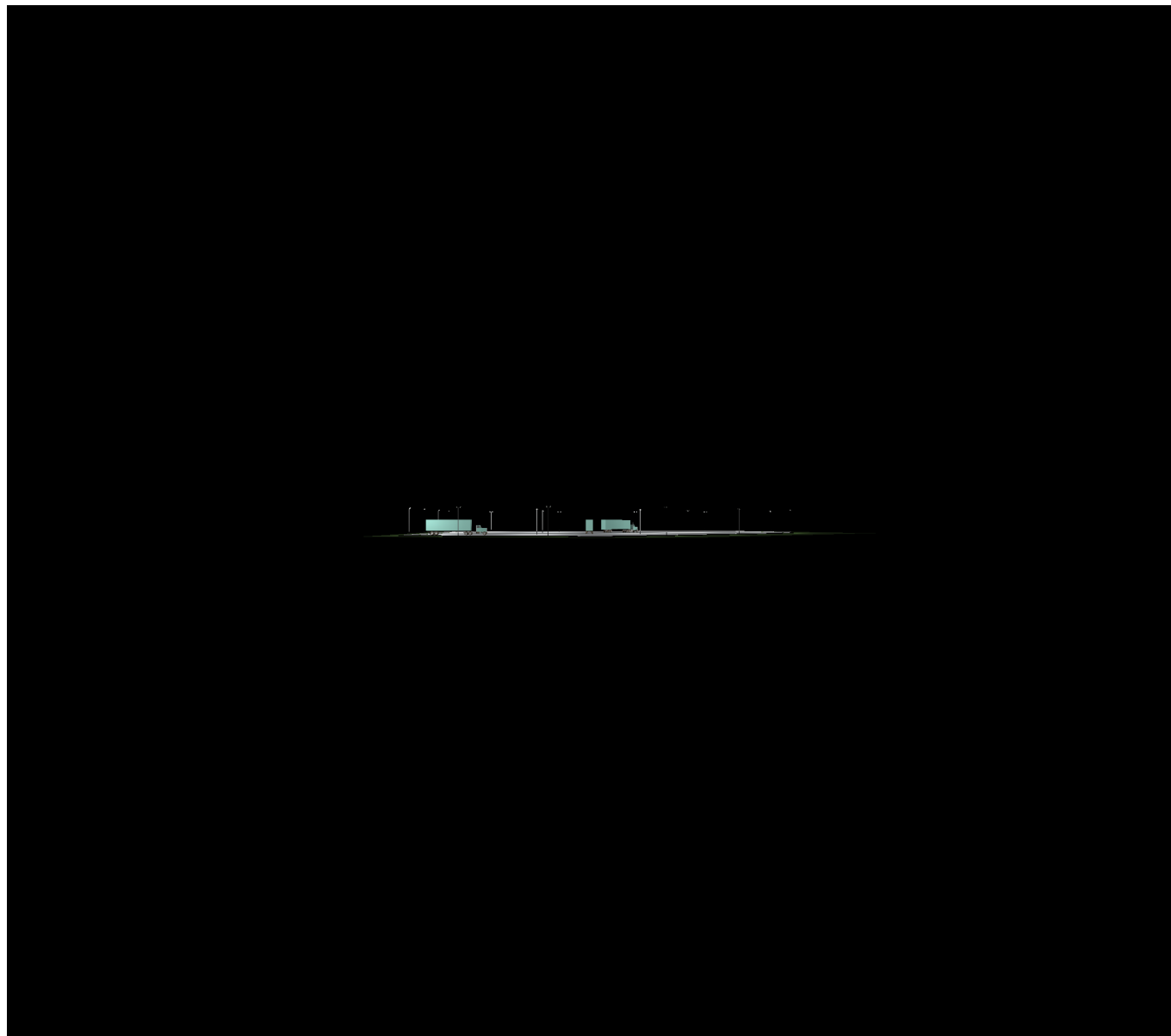
Minimum: : 0 cd/m²

Maximum: : 17.6 cd/m²

Without consideration of the luminaire geometry

2.2 Calculation results, Haulage Yard+ Middle

2.2.5 3D luminance, View from the left



Luminance in the scene

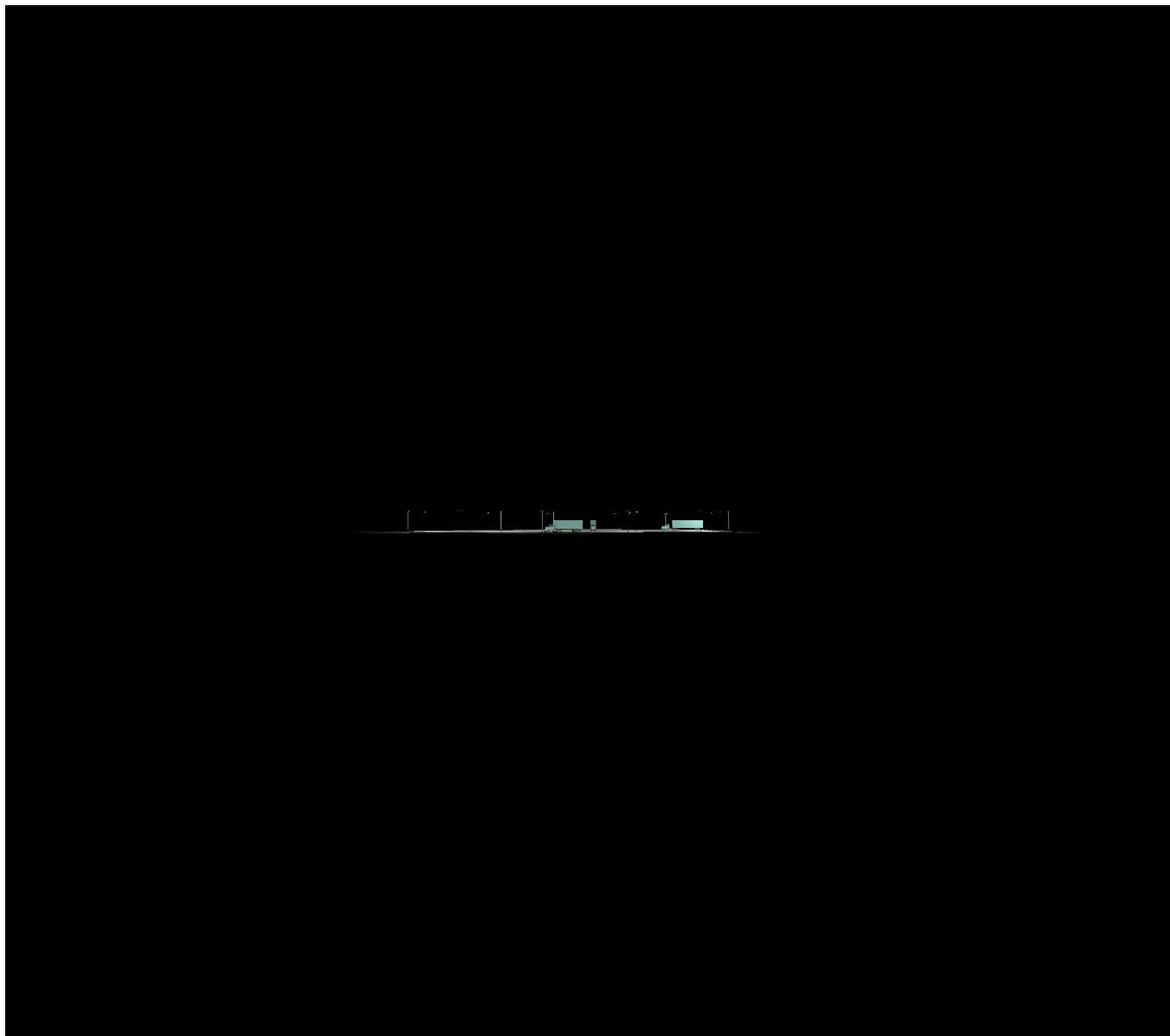
Minimum: : 0 cd/m²

Maximum: : 17.6 cd/m²

Without consideration of the luminaire geometry

2.2 Calculation results, Haulage Yard+ Middle

2.2.6 3D luminance, View from the right



Luminance in the scene

Minimum: : 0 cd/m²

Maximum: : 17.6 cd/m²

Without consideration of the luminaire geometry

2.2 Calculation results, Haulage Yard+ Middle

2.2.8 3D pseudo colours, View 2 (E)

