

External

Installation : Tata Steel, Turbine Hall, Port Talbot

Project number : 30877

Customer :

Processed by : Kieran Davies

Date : 02.03.2021

Project description:

Maintenance Factor = 0.8

Reflectance's Used = 30/20

Working Plane = 0m

Positions as per others.

- Project for Approval / Discussion

- Luminaires and positions as requested levels and uniformity representative of this and should be confirmed suitable prior to order.

- Please note all quantities are strictly budgetary, Subject to fully scaled (Preferably AutoCAD) drawings being submitted.

- Any emergency lighting design layouts and results as well as product types must be approved by the local Fire Authority prior to any installation.

- Drawings have been scaled from a PDF and quantities should be classed as budgetary only until the dimensions have been checked and confirmed correct.

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.

Designed by Kieran Davies

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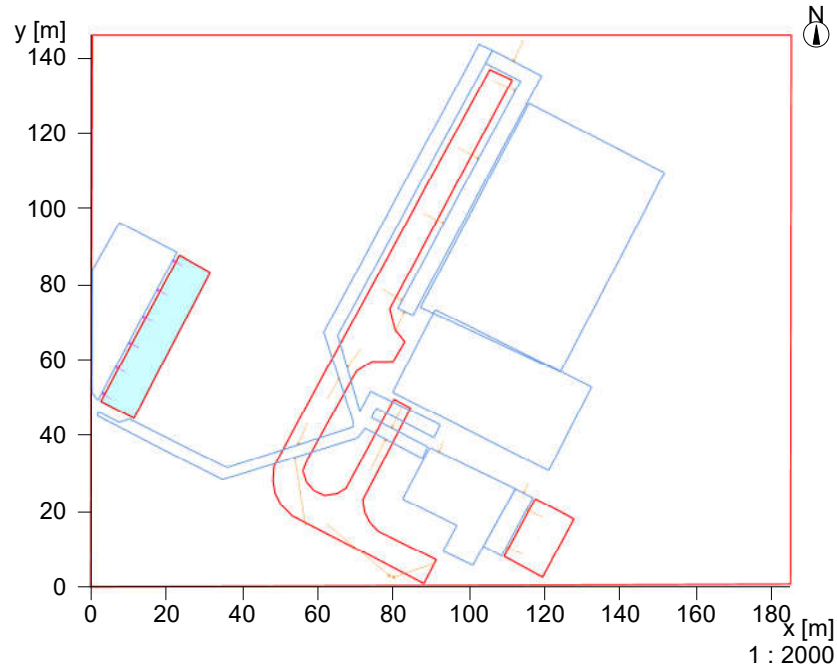
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1 External

1.1 Description, External

1.1.1 Floor plan

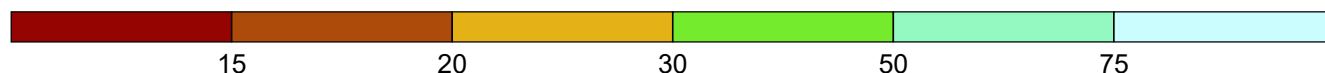
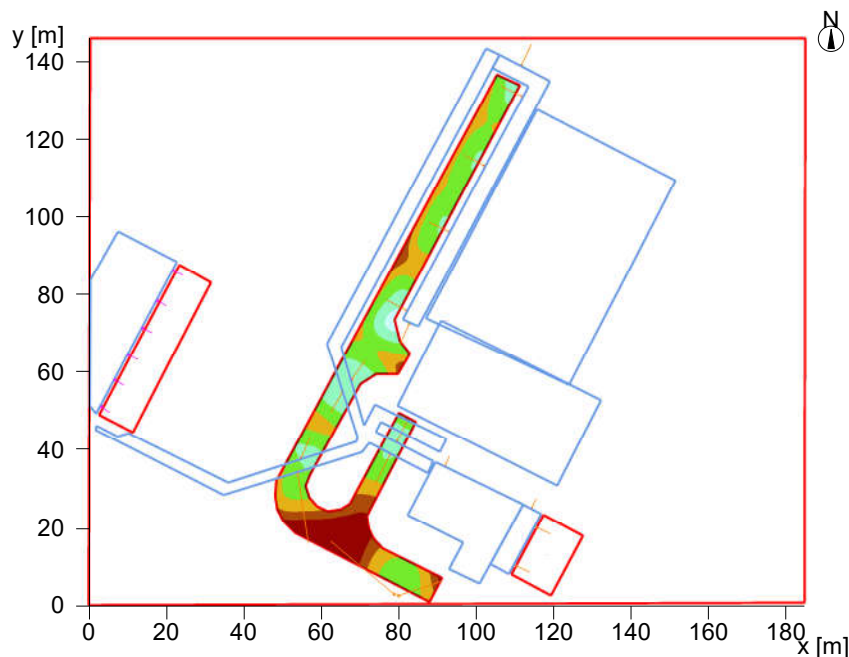


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1 External

1.2 Summary, External

1.2.1 Result overview, Roadway



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	381000 lm
Total power	3000 W
Total power per area (26902.52 m ²)	0.11 W/m ²

Illuminance

Average illuminance	Em	32.9 lx
Minimum illuminance	Emin	7.6 lx
Maximum illuminance	Emax	81.6 lx
Uniformity Uo	Emin/Em	1:4.3 (0.23)
Diversity Ud	Emin/Emax	1:10.7 (0.09)

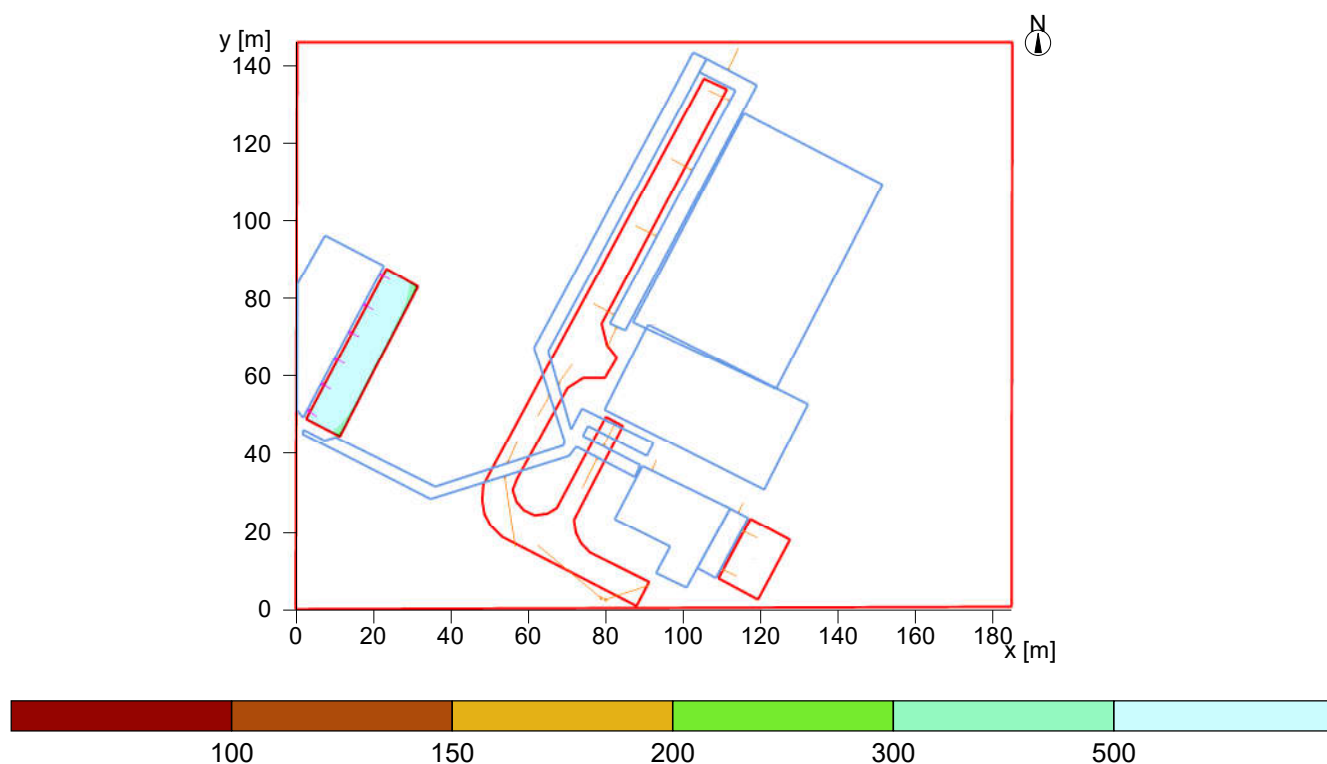
Type No.Make

Luceco	
2	6
	Order No. : LFP200B140F
	Luminaire name : Guardian Pro Floodlight 200W 26000Lm
	Equipment : 1 x LED 200 W / 26000 lm
3	18
	Order No. : LFP100B140F
	Luminaire name : Guardian Pro Floodlight 100W 12500Lm
	Equipment : 1 x LED 100 W / 12500 lm

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1.2 Summary, External

1.2.2 Result overview, Pump Area



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	381000 lm
Total power	3000 W
Total power per area (26902.52 m ²)	0.11 W/m ²

Illuminance

Average illuminance	Em	183 lx
Minimum illuminance	Emin	39 lx
Maximum illuminance	Emax	319 lx
Uniformity Uo	Emin/Em	1:4.66 (0.21)
Diversity Ud	Emin/Emax	1:8.1 (0.12)

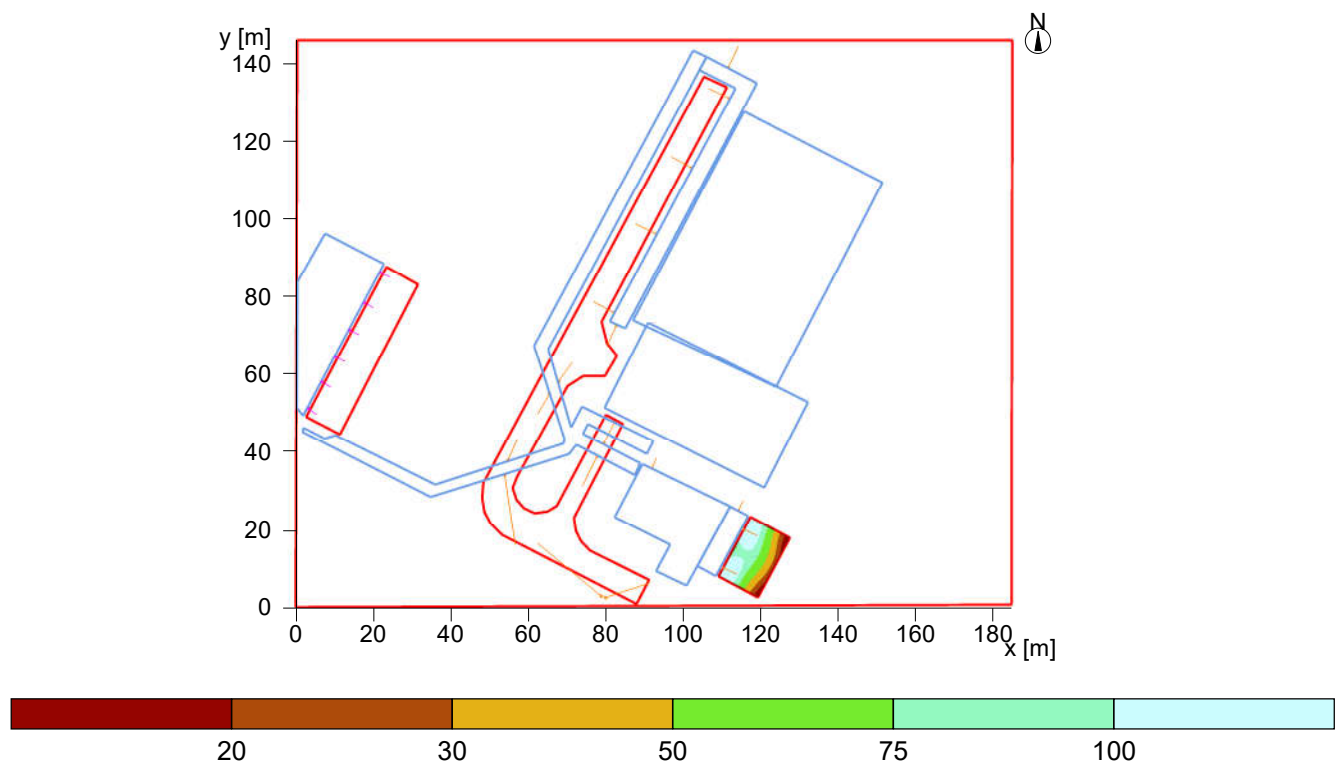
Type No.Make

Luceco	
2	6
	Order No. : LFP200B140F
	Luminaire name : Guardian Pro Floodlight 200W 26000Lm
	Equipment : 1 x LED 200 W / 26000 lm
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1.2 Summary, External

1.2.3 Result overview, Overspill Lighting



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	381000 lm
Total power	3000 W
Total power per area (26902.52 m ²)	0.11 W/m ²

Illuminance

Average illuminance	Em	56 lx
Minimum illuminance	Emin	12 lx
Maximum illuminance	Emax	134 lx
Uniformity Uo	Emin/Em	1:4.58 (0.22)
Diversity Ud	Emin/Emax	1:11 (0.09)

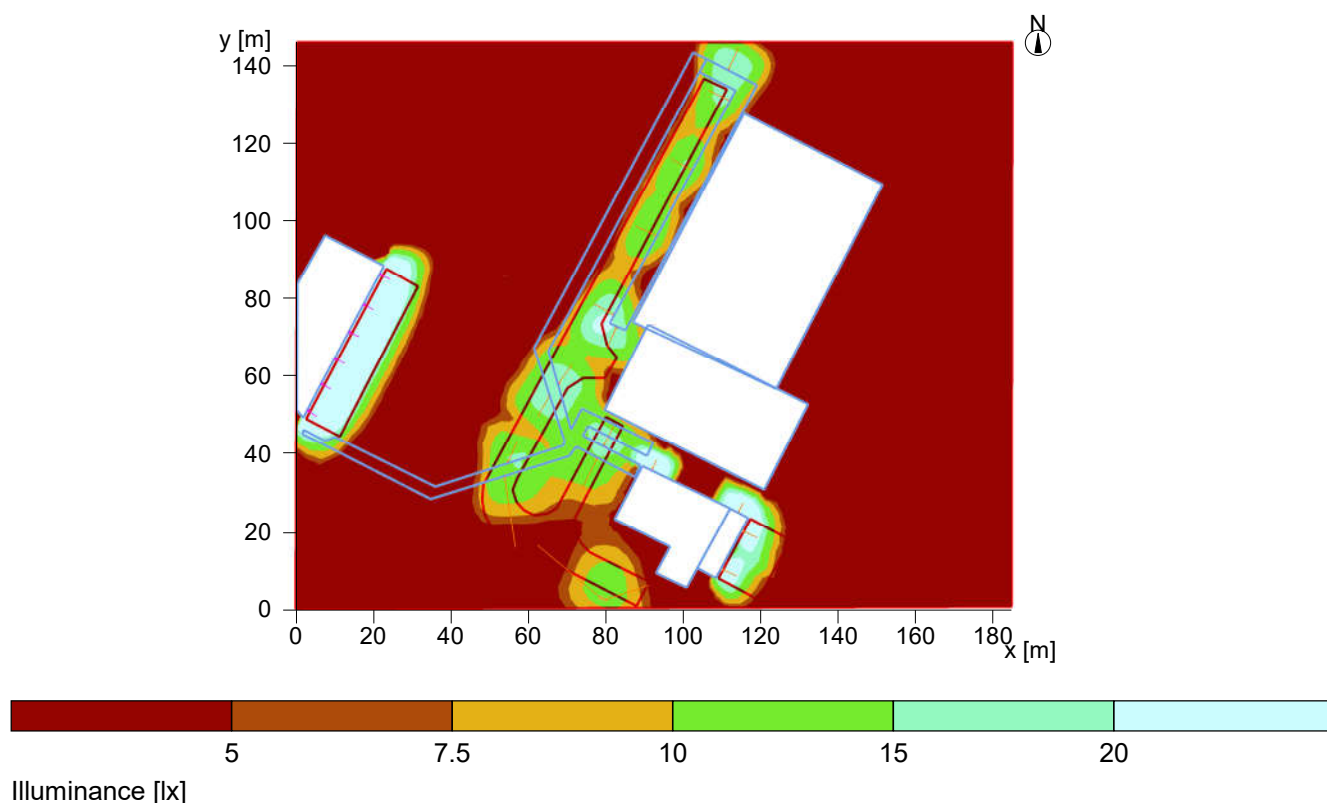
Type No. Make

Luceco	
2	6
	Order No. : LFP200B140F
	Luminaire name : Guardian Pro Floodlight 200W 26000Lm
	Equipment : 1 x LED 200 W / 26000 lm
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1.2 Summary, External

1.2.4 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	381000.00 lm
Total power	3000.0 W
Total power per area (26902.51 m ²)	0.11 W/m ² (0.91 W/m ² /100lx)

Evaluation area 1

Reference plane 1.1

Horizontal	
Em	12.3 lx
Emin	0 lx
Emin/Em (Uo)	---
Emin/Emax (Ud)	---
Position	0.00 m

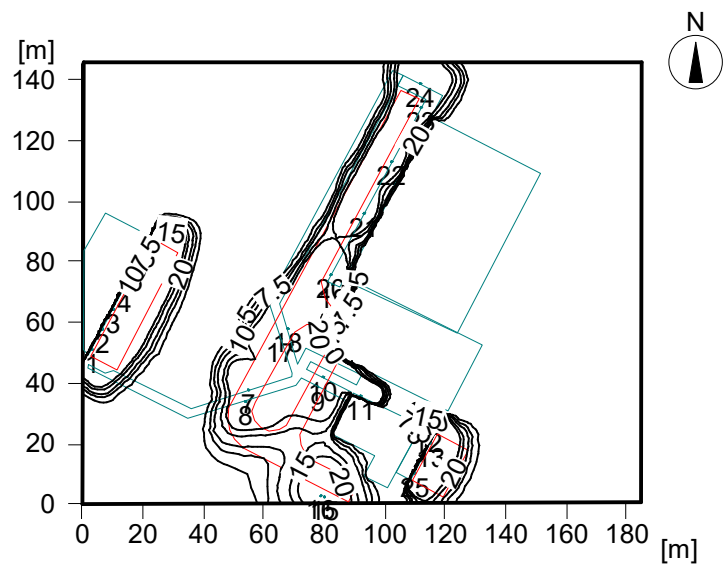
Type No. Make

Luceco	
2 6	Order No. : LFP200B140F
	Luminaire name : Guardian Pro Floodlight 200W 26000Lm
	Equipment : 1 x LED 200 W / 26000 lm
3 18	Order No. : LFP100B140F
	Luminaire name : Guardian Pro Floodlight 100W 12500Lm
	Equipment : 1 x LED 100 W / 12500 lm

1 External

1.3 Calculation results, External

1.3.1 Isolines representation, Floor (E)

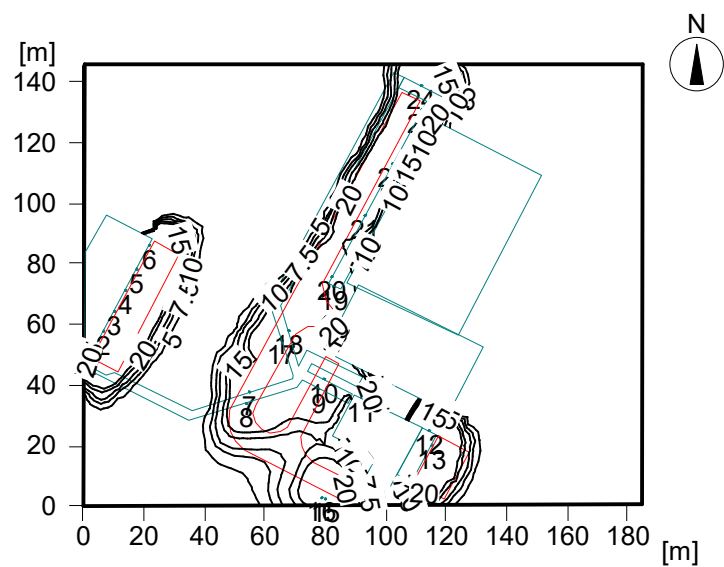


Illuminance [lx]

Average illuminance	Em	: 10 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 293 lx
Uniformity Uo	Emin/Em	: ---
Diversity Ud	Emin/Emax	: ---

1.3 Calculation results, External

1.3.2 Isolines representation, Reference plane 1.1 (E)

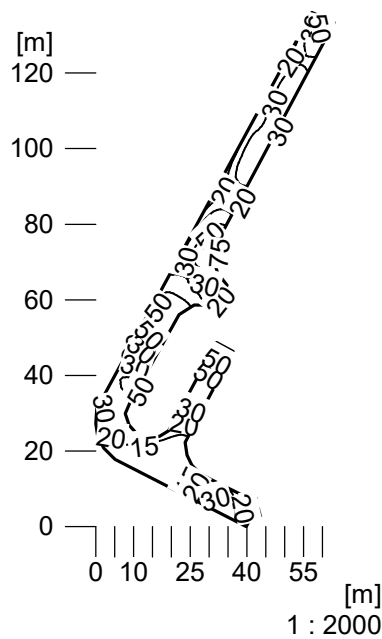


Illuminance [lx]

Height reference plane	: 0.00 m
Average illuminance	Em : 12 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 274 lx
Uniformity Uo	Emin/Em : ---
Diversity Ud	Emin/Emax : ---

1.3 Calculation results, External

1.3.3 Isolines representation, Roadway (E)

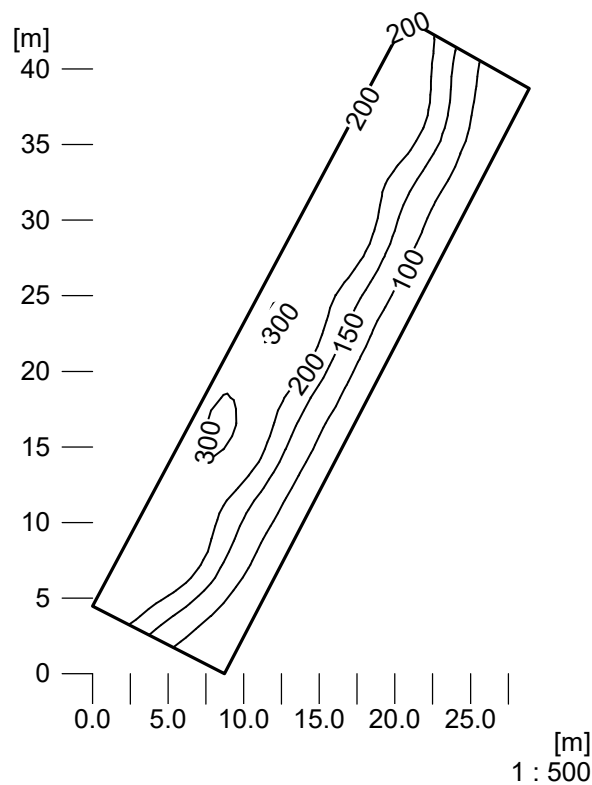


Illuminance [lx]

Height reference plane	: 0.00 m
Average illuminance	Em : 32.9 lx
Minimum illuminance	Emin : 7.6 lx
Maximum illuminance	Emax : 81.6 lx
Uniformity Uo	Emin/Em : 1 : 4.30 (0.23)
Diversity Ud	Emin/Emax : 1 : 10.68 (0.09)

1.3 Calculation results, External

1.3.4 Isolines representation, Pump Area (E)

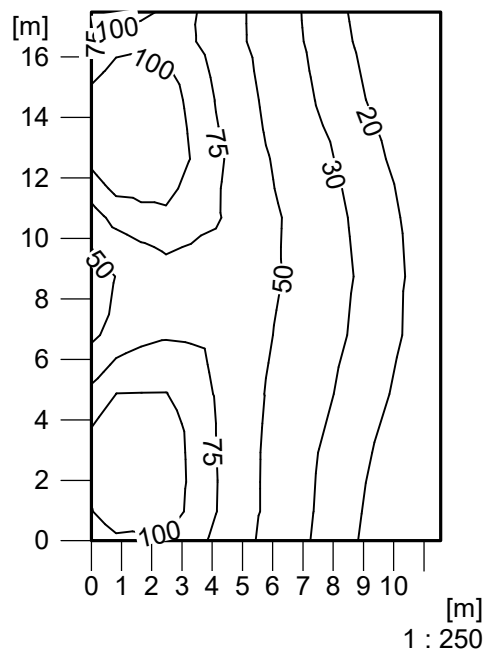


Illuminance [lx]

Height reference plane	: 0.00 m
Average illuminance	Em : 183 lx
Minimum illuminance	Emin : 39 lx
Maximum illuminance	Emax : 319 lx
Uniformity Uo	Emin/Em : 1 : 4.66 (0.21)
Diversity Ud	Emin/Emax : 1 : 8.10 (0.12)

1.3 Calculation results, External

1.3.5 Isolines representation, Overspill Lighting (E)



Illuminance [lx]

Height reference plane	: 0.00 m
Average illuminance	Em : 56 lx
Minimum illuminance	Emin : 12 lx
Maximum illuminance	Emax : 134 lx
Uniformity Uo	Emin/Em : 1 : 4.58 (0.22)
Diversity Ud	Emin/Emax : 1 : 10.98 (0.09)