Christ's Hospital School - Padel Courts

GigaTera LED System

Date: 25-07-2024
Customer: Christ's Hospital School

Designer: Ben Leslie - Christy Lighting Masts Ltd

Description: 4no Padel Court

Required Lighting
Average Illuminance - 300lux / Uniformity - 0.5

Floodlight Type
04no GigaTera MAFA Plus200 LED Floodlight @200W
6m Fence Mounted

Lighting Results - Court 1
Average Illuminance: 361lux / Uniformity: 0.53

Lighting Results - Court 2
Average Illuminance: 393lux / Uniformity: 0.58

Lighting Results - Court 3
Average Illuminance: 373lux / Uniformity: 0.58

Lighting Results - Court 4
Average Illuminance: 366lux / Uniformity: 0.52

Maintenance Factor: 0.9

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.

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Table of Contents

1. Summary **3**

1.1 Observer Information 3
1.2 Project Luminaires 3
1.3 Calculation Results 3

2. Calculation Results **5**

2.1 Padel Court 1: Graphical Table 5
2.2 Padel Court 2: Graphical Table 6
2.3 Padel Court 3: Graphical Table 7
2.4 Padel Court 4: Graphical Table 8
2.5 Spill Area: Graphical Table 9
2.6 Spill Area: Iso Contour 10
2.7 Spill Area: Filled Iso Contour 11

3. Installation Data **12**

3.1 Legends 12
3.2 Luminaire Positioning and Orientation 12

1. Summary

1.1 Observer Information

Code	Observer	Position		
		X (m)	Y (m)	Z (m)
Bb	House 1	-199.84	210.92	1.50
Cc	House 2	-155.92	208.00	1.50
Dd	House 3	-103.85	215.62	1.50

1.2 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
B	16	MAH250-B50NGP Peak 52.5	1 * S3030	250.2	1 * 36253

The total installed power: 4.00 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code	Power (kWatt)
	B	
All On	16	4.00
Court 1	4	1.00
Court 2	4	1.00
Court 3	4	1.00
Court 4	4	1.00

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	B	
Court 10	1	0.25
Court 11	1	0.25
Court 12	1	0.25
Court 2	4	1.00
Court 3	4	1.00
Court 5	1	0.25
Court 6	1	0.25
Court 7	1	0.25
Court 8	1	0.25
Court 9	1	0.25

1.3 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	All On	0.90
2	Court 1	0.90
3	Court 2	0.90
4	Court 3	0.90
5	Court 4	0.90

(Il)luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave	Min/Ave	Min/Max
Padel Court 1	1	Surface Illuminance	lux	361	0.53	0.34
Padel Court 2	1	Surface Illuminance	lux	393	0.58	0.36
Padel Court 3	1	Surface Illuminance	lux	374	0.58	0.37
Padel Court 4	1	Surface Illuminance	lux	366	0.52	0.32
Spill Area	1	Surface Illuminance	lux	46.9	0.01	0.00

Obtrusive Light Calculations:

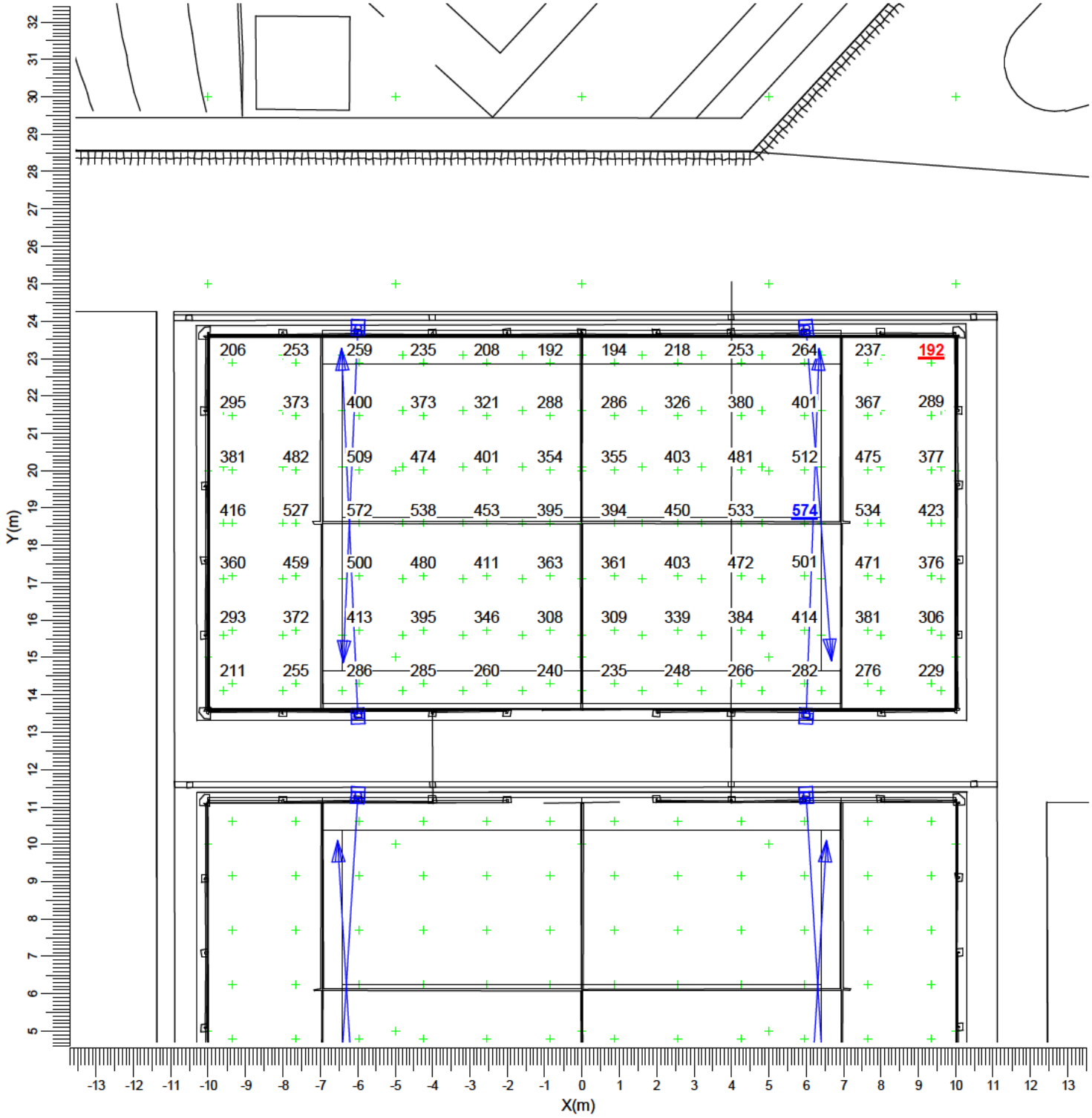
Switching Mode	Observer Code	Luminaire Code	Position			Aiming Angles			Maximum Intensity (cd)
			X (m)	Y (m)	Z (m)	Rot.	Tilt90	Tilt0	
1	Bb	B	-6.00	13.50	6.00	92.58	58.44	0.00	707
1	Cc	B	-6.00	13.50	6.00	92.58	58.44	0.00	1048
1	Dd	B	-6.00	13.50	6.00	92.58	58.44	0.00	1497

2. Calculation Results

2.1 Padel Court 1: Graphical Table

All On

Grid : Padel Court Fence1 at Z = -0.00 m
Calculation : Surface Illuminance (lux)



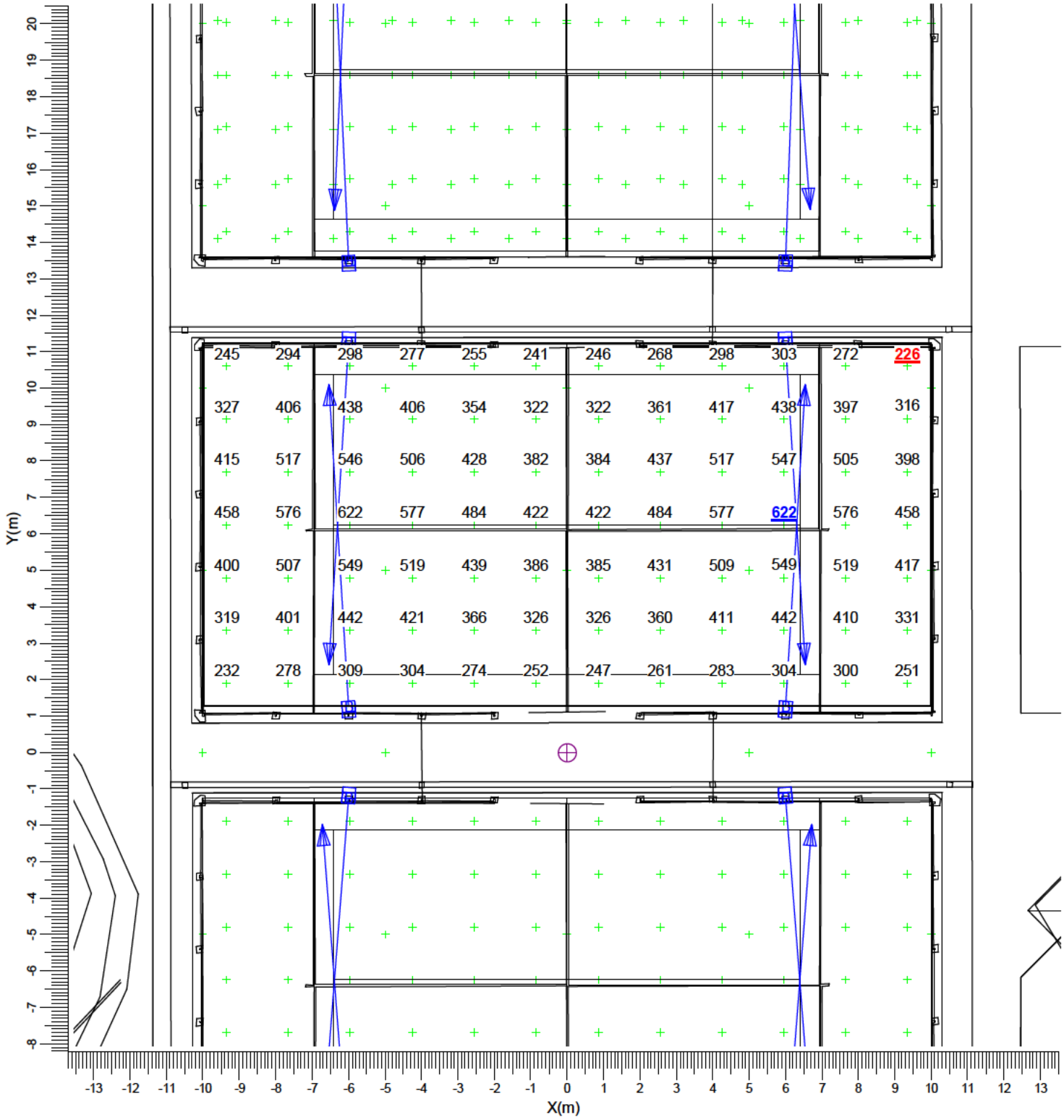
B → MAH250-B50NGP Peak 52.5

Average	Min/Ave	Min/Max	Project maintenance factor	Scale
361	0.53	0.34	0.90	1:150

2.2 Padel Court 2: Graphical Table

All On

Grid : Padel Court Fence2 at Z = -0.00 m
Calculation : Surface Illuminance (lux)



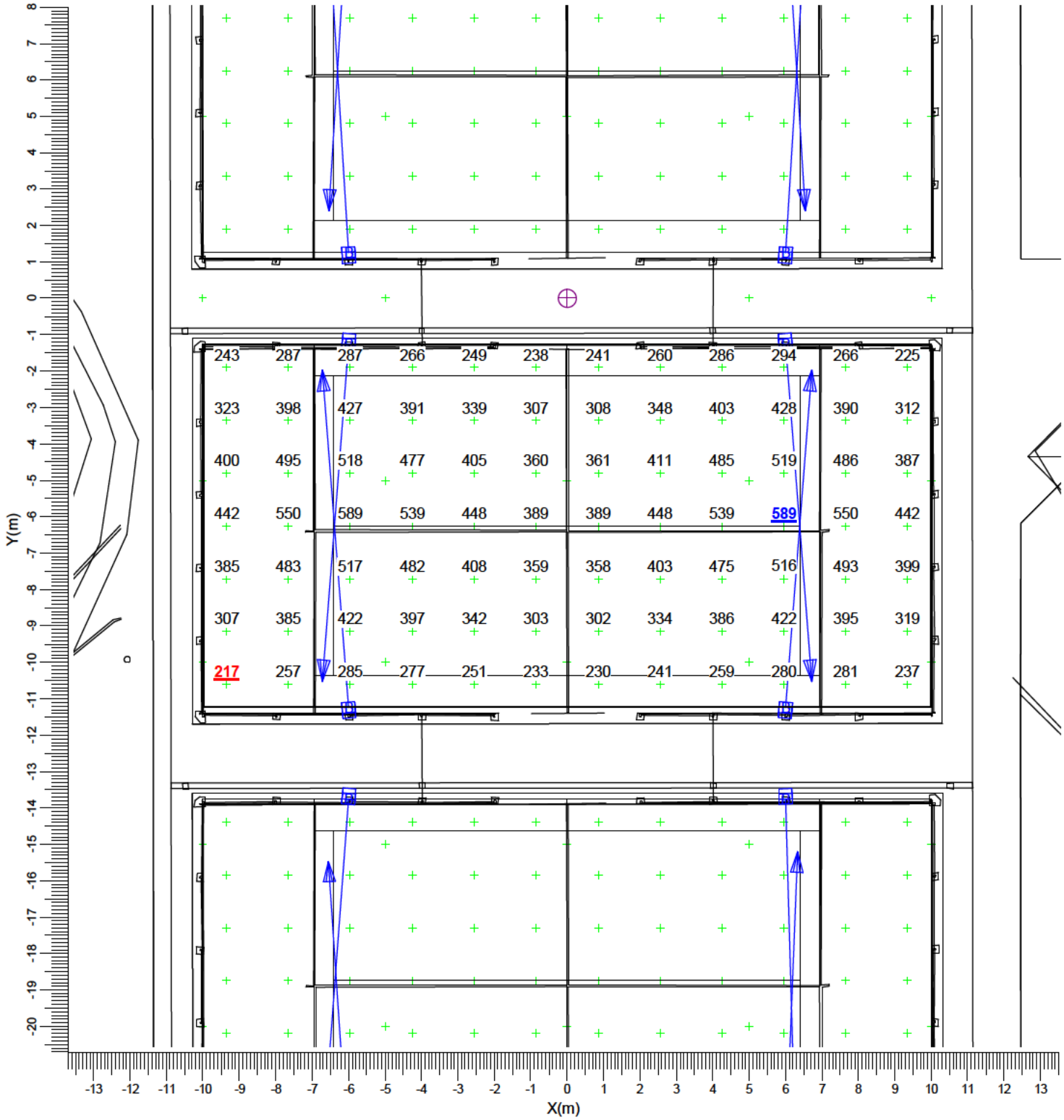
B → MAH250-B50NGP Peak 52.5

Average	Min/Ave	Min/Max	Project maintenance factor	Scale
393	0.58	0.36	0.90	1:150

2.3 Padel Court 3: Graphical Table

All On

Grid : Padel Court Fence3 at Z = -0.00 m
Calculation : Surface Illuminance (lux)



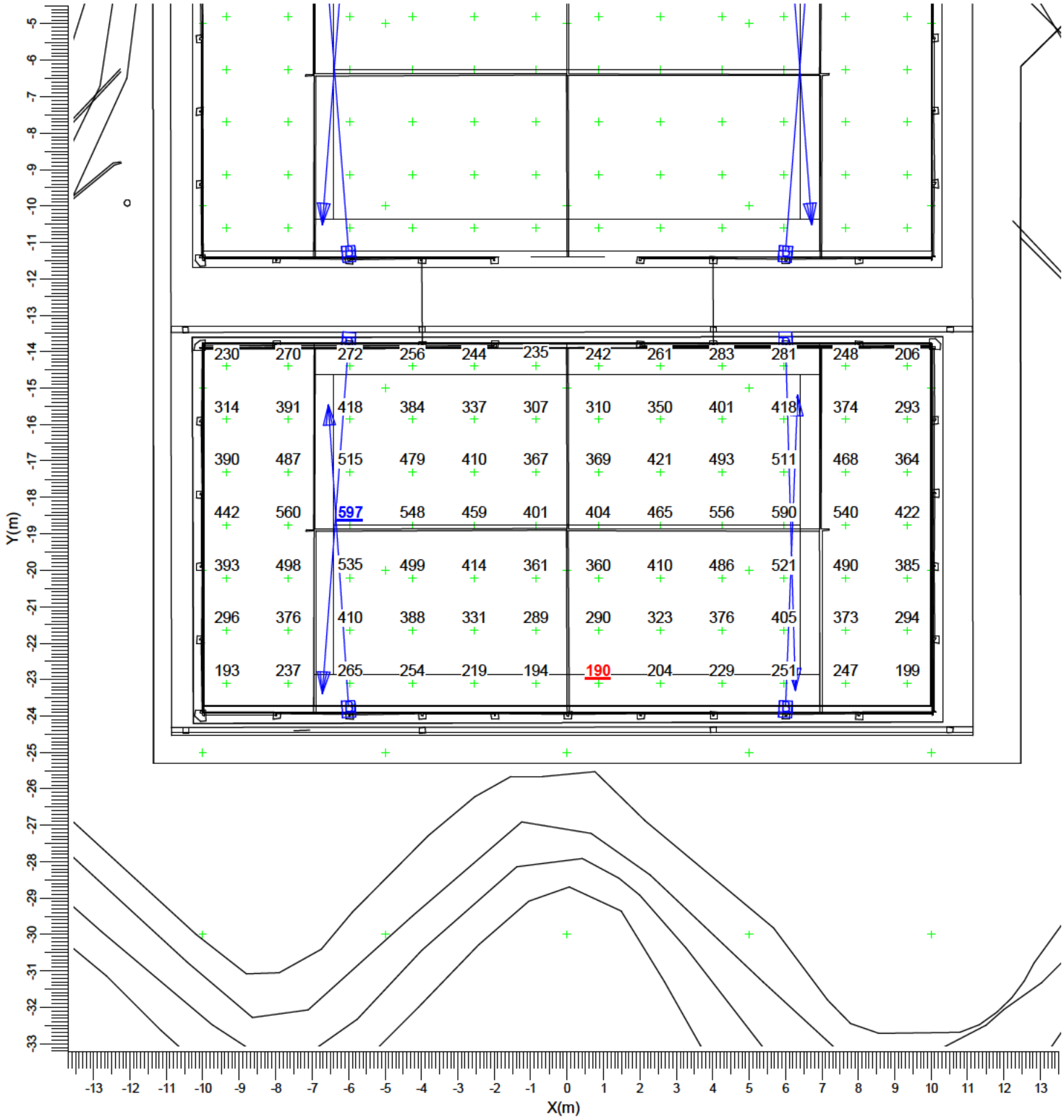
B → MAH250-B50NGP Peak 52.5

Average	Min/Ave	Min/Max	Project maintenance factor	Scale
374	0.58	0.37	0.90	1:150

2.4 Padel Court 4: Graphical Table

All On

Grid : Padel Court Fence4 at Z = -0.00 m
Calculation : Surface Illuminance (lux)



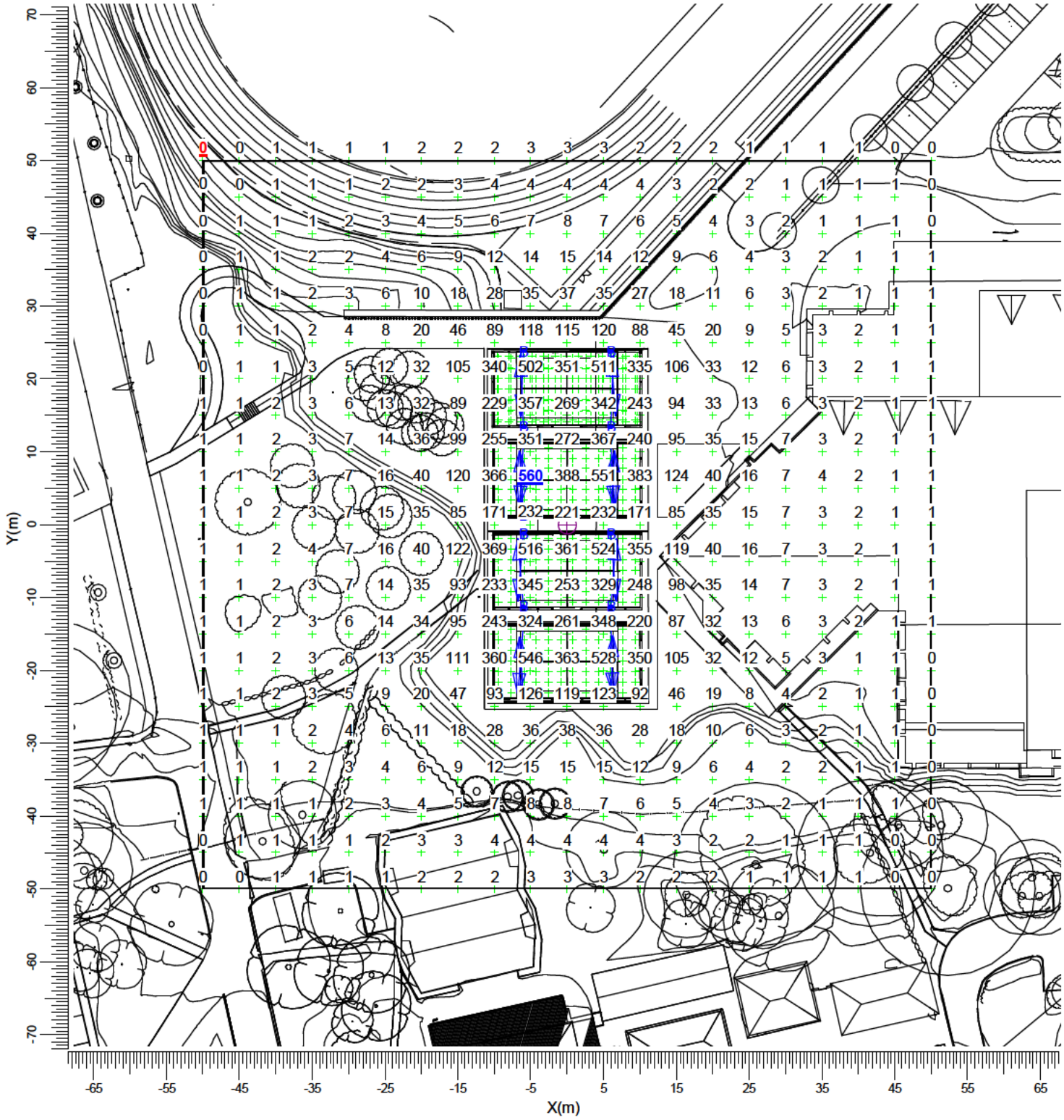
B → MAH250-B50NGP Peak 52.5

Average	Min/Ave	Min/Max	Project maintenance factor	Scale
366	0.52	0.32	0.90	1:150

2.5 Spill Area: Graphical Table

All On

Grid : Spill Area at Z = -0.00 m
Calculation : Surface Illuminance (lux)



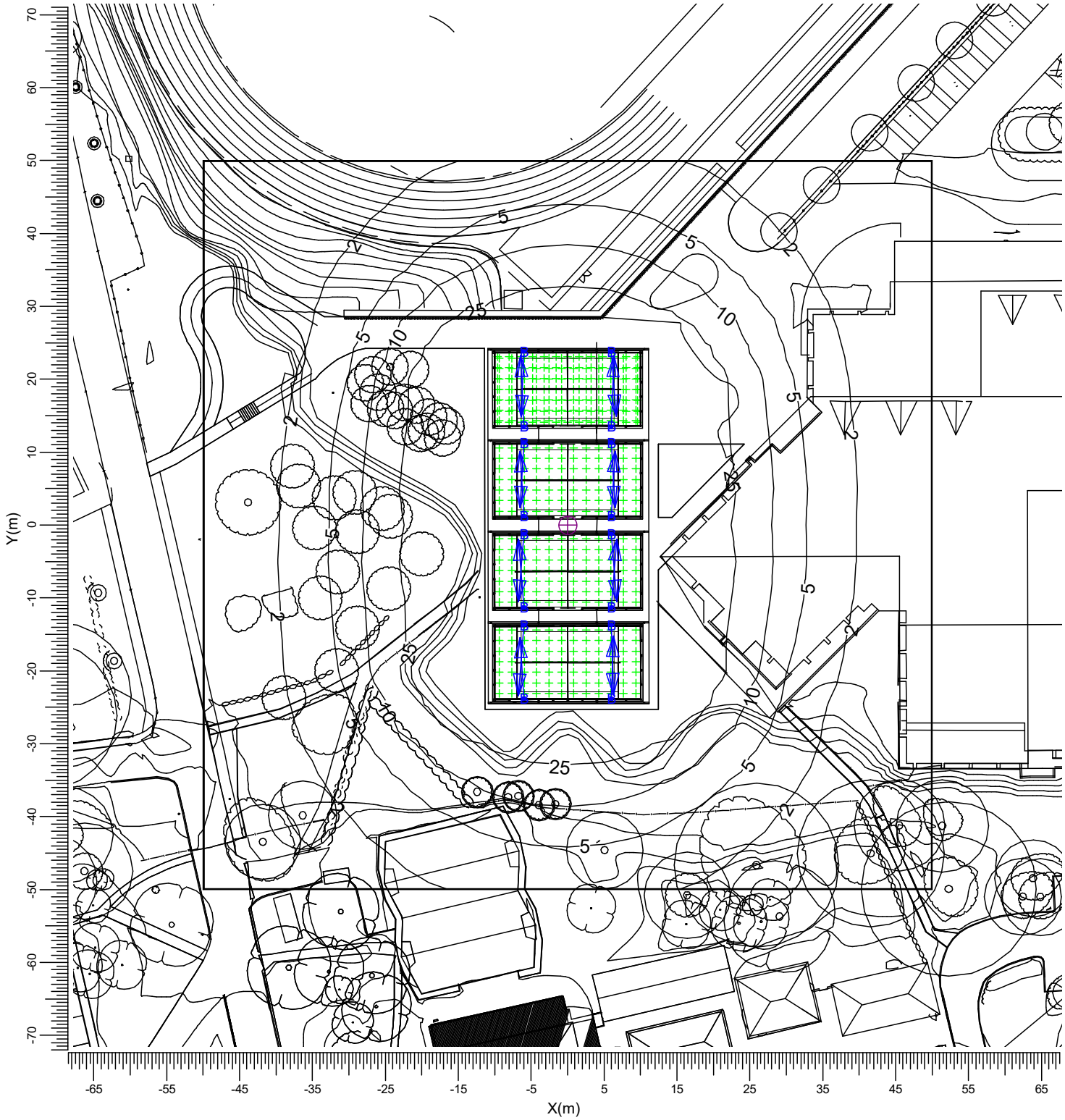
B → MAH250-B50NGP Peak 52.5

Average	Min/Ave	Min/Max	Project maintenance factor	Scale
46.9	0.01	0.00	0.90	1:750

2.6 Spill Area: Iso Contour

All On

Grid : Spill Area at Z = -0.00 m
Calculation : Surface Illuminance (lux)



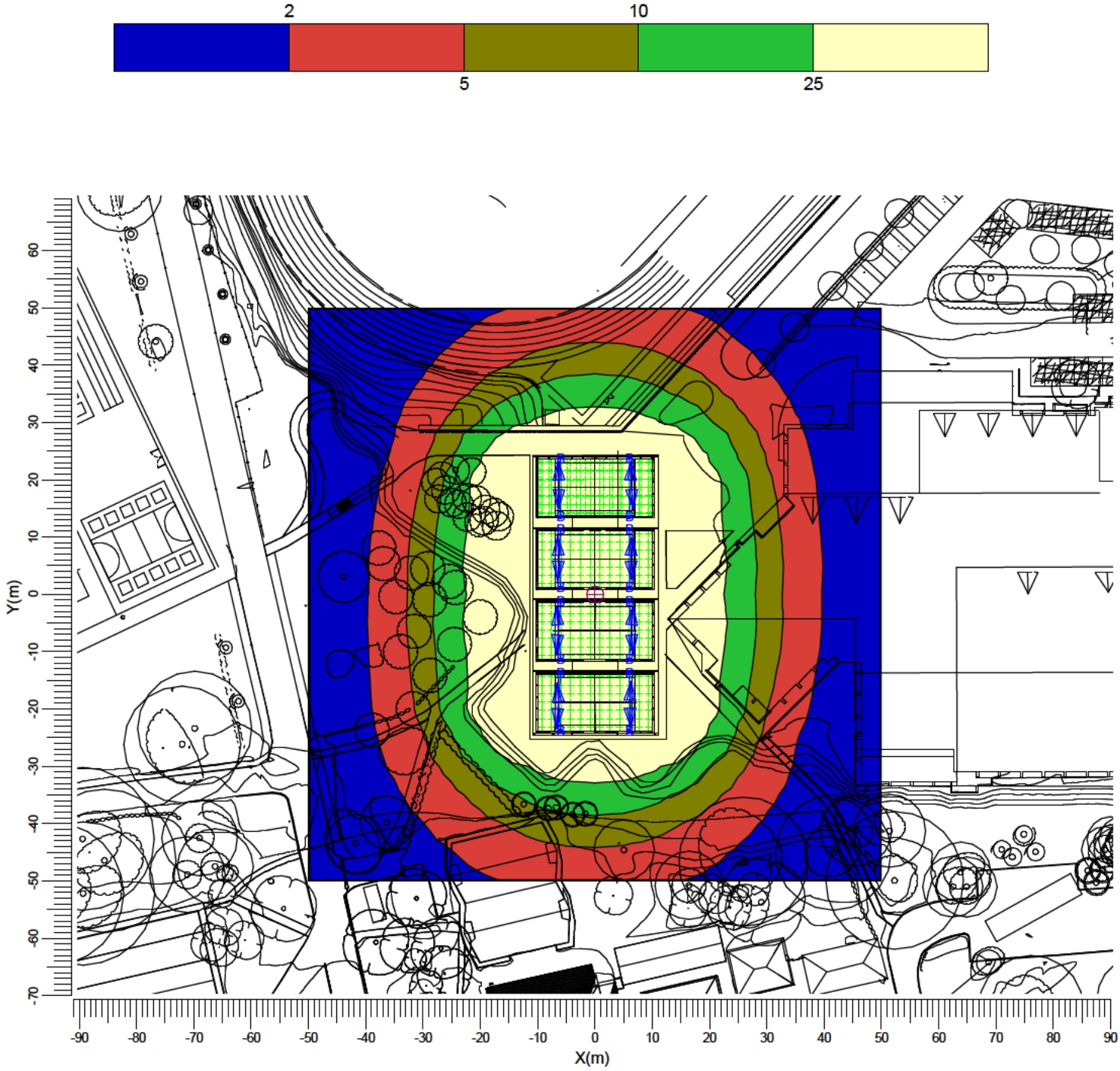
B → MAH250-B50NGP Peak 52.5

Average	Min/Ave	Min/Max	Project maintenance factor	Scale
46.9	0.01	0.00	0.90	1:750

2.7 Spill Area: Filled Iso Contour

All On

Grid : Spill Area at Z = -0.00 m
Calculation : Surface Illuminance (lux)



B → MAH250-B50NGP Peak 52.5

Average	Min/Ave	Min/Max	Project maintenance factor	Scale
46.9	0.01	0.00	0.90	1:1000

3. Installation Data

3.1 Legends

Project Luminaires:

Code	Qty	Luminaire Type	Lamp Type	Flux (lm)
B	16	MAH250-B50NGP Peak 52.5	1 * S3030	1 * 36253

Switching Modes:

Code	Switching Mode
1	All On
2	Court 1
3	Court 2
4	Court 3
5	Court 4

3.2 Luminaire Positioning and Orientation

Qty and Code	Position			Aiming Angles			Switching Modes				
	X (m)	Y (m)	Z (m)	Rot.	Tilt90	Tilt0	1	2	3	4	5
1 * B	-6.00	-23.75	6.00	93.9	54.1	0.0	+	-	-	-	+
1 * B	-6.00	-13.75	6.00	-94.3	58.2	0.0	+	-	-	-	+
1 * B	-6.00	-11.25	6.00	94.4	57.2	0.0	+	-	-	+	-
1 * B	-6.00	-1.25	6.00	-94.4	57.2	0.0	+	-	-	+	-
1 * B	-6.00	1.25	6.00	93.5	55.9	0.0	+	-	+	-	-
1 * B	-6.00	11.25	6.00	-93.5	55.9	0.0	+	-	+	-	-
1 * B	-6.00	13.50	6.00	92.6	58.4	0.0	+	+	-	-	-
1 * B	-6.00	23.75	6.00	-92.5	56.0	0.0	+	+	-	-	-
1 * B	6.00	-23.75	6.00	87.8	55.0	0.0	+	-	-	-	+
1 * B	6.00	-13.75	6.00	-88.4	57.8	0.0	+	-	-	-	+
1 * B	6.00	-11.25	6.00	85.6	57.2	0.0	+	-	-	+	-
1 * B	6.00	-1.25	6.00	-85.6	57.2	0.0	+	-	-	+	-
1 * B	6.00	1.25	6.00	86.5	55.9	0.0	+	-	+	-	-
1 * B	6.00	11.25	6.00	-86.5	55.9	0.0	+	-	+	-	-
1 * B	6.00	13.50	6.00	87.9	58.4	0.0	+	+	-	-	-
1 * B	6.00	23.75	6.00	-85.6	55.9	0.0	+	+	-	-	-