

BoldenTennis Club

Courts 1-3 6m BVP518 A35-NB+LO

Project code: 0400877065, D-515396

Date: 09-06-2023

Designer: LiAS UK & I - Steve Johnston

Description: Designed to meet LTA minimum Standards
PPA = 400-500lux (maintained) 0.70, in/ave Uniformity.
TPA = 300-400lux (maintained) 0.60, in/ave Uniformity.

All floodlights mounted at 8.2 metres

Design completed using a total of 18no Philips
OptiVision BVP518 LED asymmetric floodlights.

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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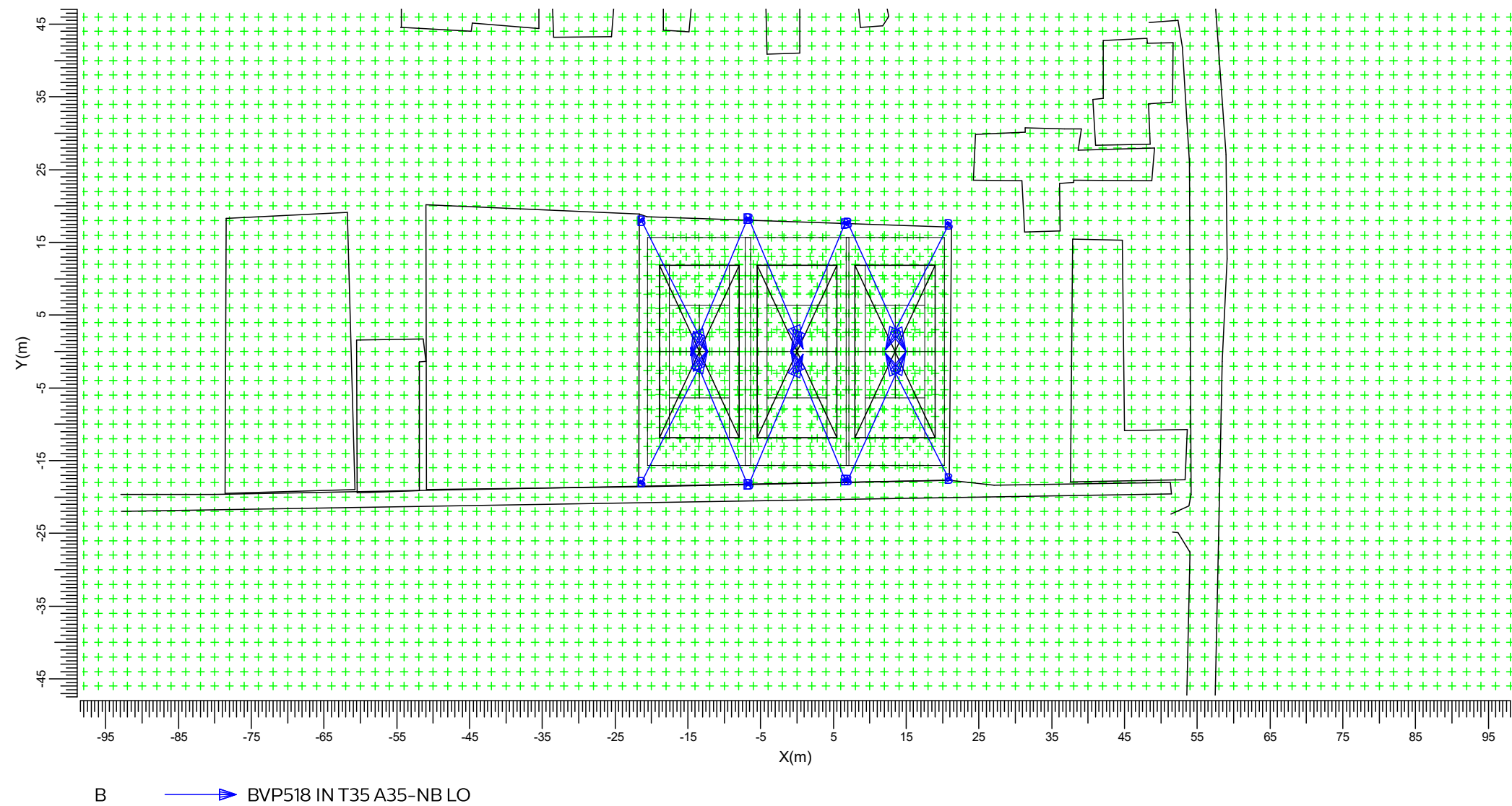
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Table of Contents

1.	Project Description	3
1.1	Top Project Overview	3
2.	Summary	4
2.1	Project Luminaires	4
2.2	Calculation Results	5
3.	Calculation Results	6
3.1	Court 1 PPA: Graphical Table	6
3.2	Court 1 TPA: Graphical Table	7
3.3	Court 2 PPA: Graphical Table	8
3.4	Court 2 TPA: Graphical Table	9
3.5	Court 3 PPA: Graphical Table	10
3.6	Court 3 TPA: Graphical Table	11
3.7	Spiilage: Graphical Table	12
3.8	Spiilage: Iso Contour	13
3.9	Spiilage: Filled Iso Contour	14
4.	Luminaire Details	15
4.1	Project Luminaires	15
5.	Installation Data	16
5.1	Legends	16
5.2	Luminaire Positioning and Orientation	16

1. Project Description

1.1 Top Project Overview



Scale
1:750

2. Summary

2.1 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
B	12	BVP518 IN T35 A35-NB LO	1 * LED1470-4S/740	827.1	1 * 147000

The total installed power: 9.93 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code	Power (kWatt)
	B	
Court 1	4	3.31
Court 2	4	3.31
Court 3	4	3.31
All ON	12	9.93

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	B	
CT 3 baseline Left	2	1.65
CT 3 baseline Right	2	1.65
Court 1 Right Baseline	2	1.65
Court 2 Left Baseline	2	1.65
Court 2 Rightt Baseline	2	1.65
Court 3 Left Baseline	2	1.65

2.2 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	Court 1	0.90
2	Court 2	0.90
3	Court 3	0.90
4	All ON	1.00

(II)luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave Min/AveMin/Max		
Court 1 PPA	1	Surface Illuminance	lux	515	0.71	0.56
Court 1 TPA	1	Surface Illuminance	lux	485	0.60	0.46
Court 2 PPA	2	Surface Illuminance	lux	507	0.71	0.57
Court 2 TPA	2	Surface Illuminance	lux	471	0.61	0.45
Court 3 PPA	3	Surface Illuminance	lux	488	0.75	0.62
Court 3 TPA	3	Surface Illuminance	lux	456	0.62	0.48
Spillage	4	Surface Illuminance	lux	25.0	0.00	0.00

Obtrusive Light Calculations:

Switching Mode	ULR
1	0.00
2	0.00
3	0.00
4	0.00

3. Calculation Results

3.1 Court 1 PPA: Graphical Table

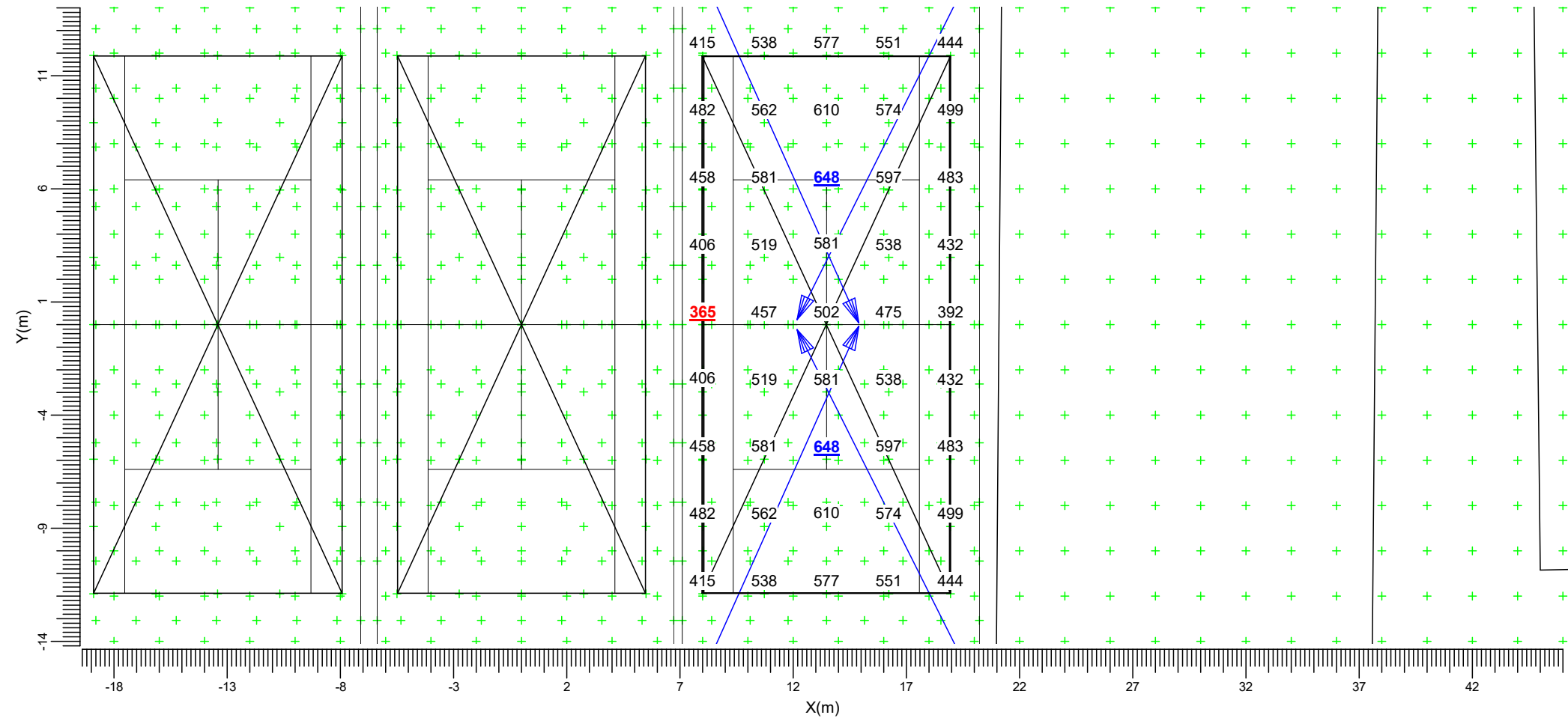
Court 1

Grid

: Court 1 PPA at Z = -0.00 m

Calculation

: Surface Illuminance (lux)



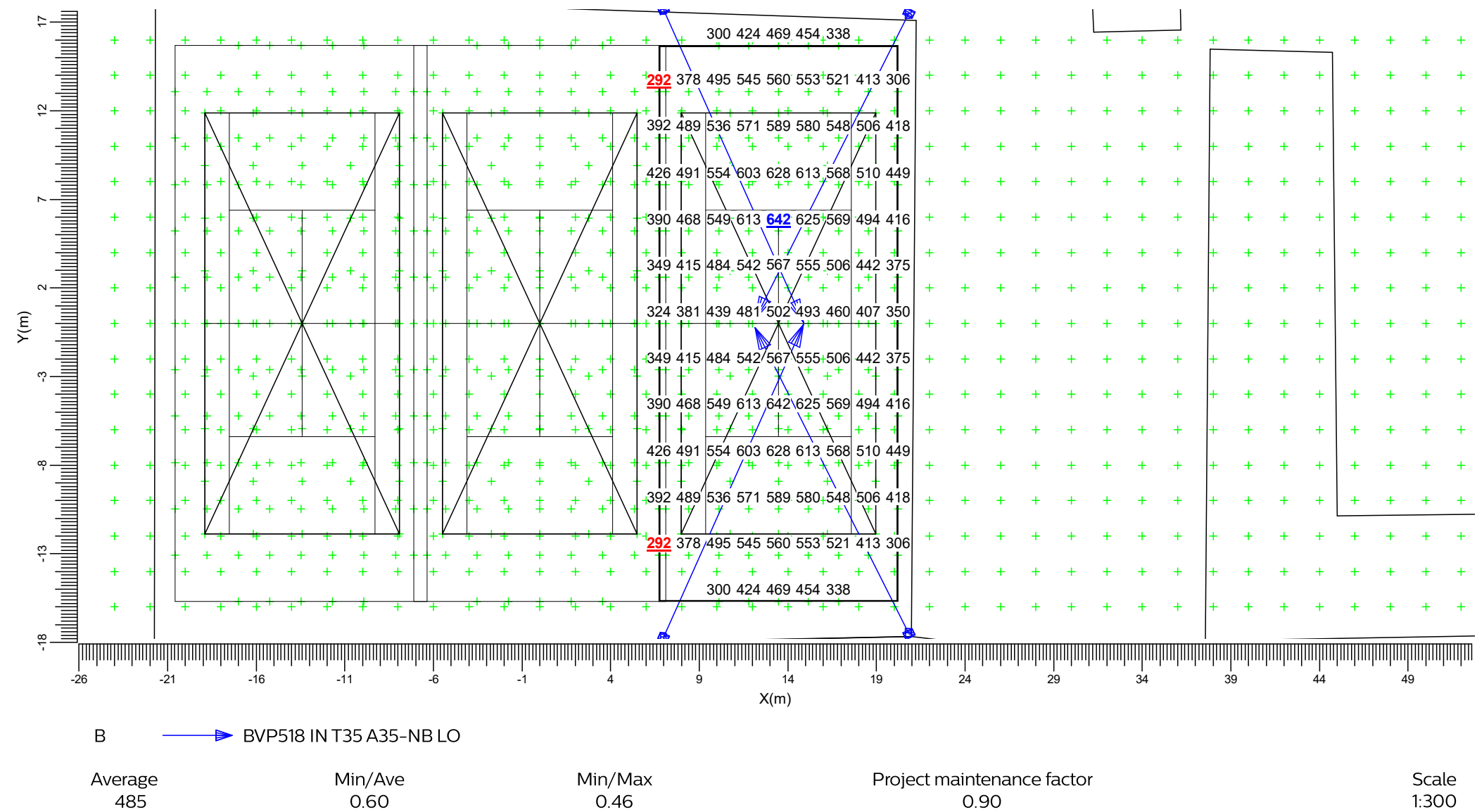
B		BVP518 IN T35 A35-NB LO			
Average	Min/Ave	Min/Max	Project maintenance factor	Scale	
515	0.71	0.56	0.90	1:250	

3.2 Court 1 TPA: Graphical Table

Court 1

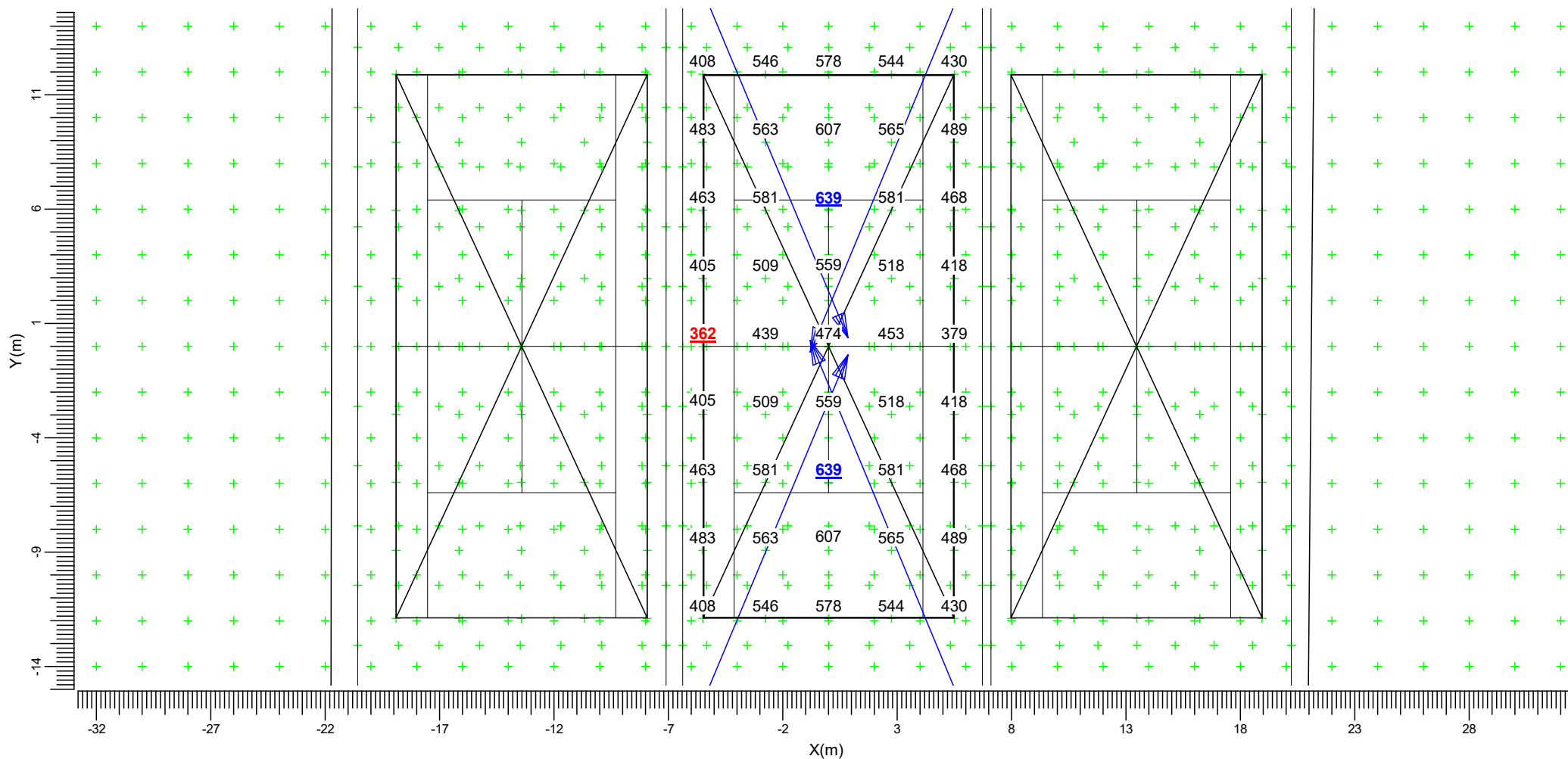
Grid : Court 1 TPA at Z = -0.00 m

Calculation : Surface Illuminance (lux)



Court 2

Grid : Court 2 PPA at Z = -0.00 m
Calculation : Surface Illuminance (lux)



B BVP518 IN T35 A35-NB LO

Average
507

Min/Ave
0.71

Min/Max
0.57

Project maintenance factor
0.90

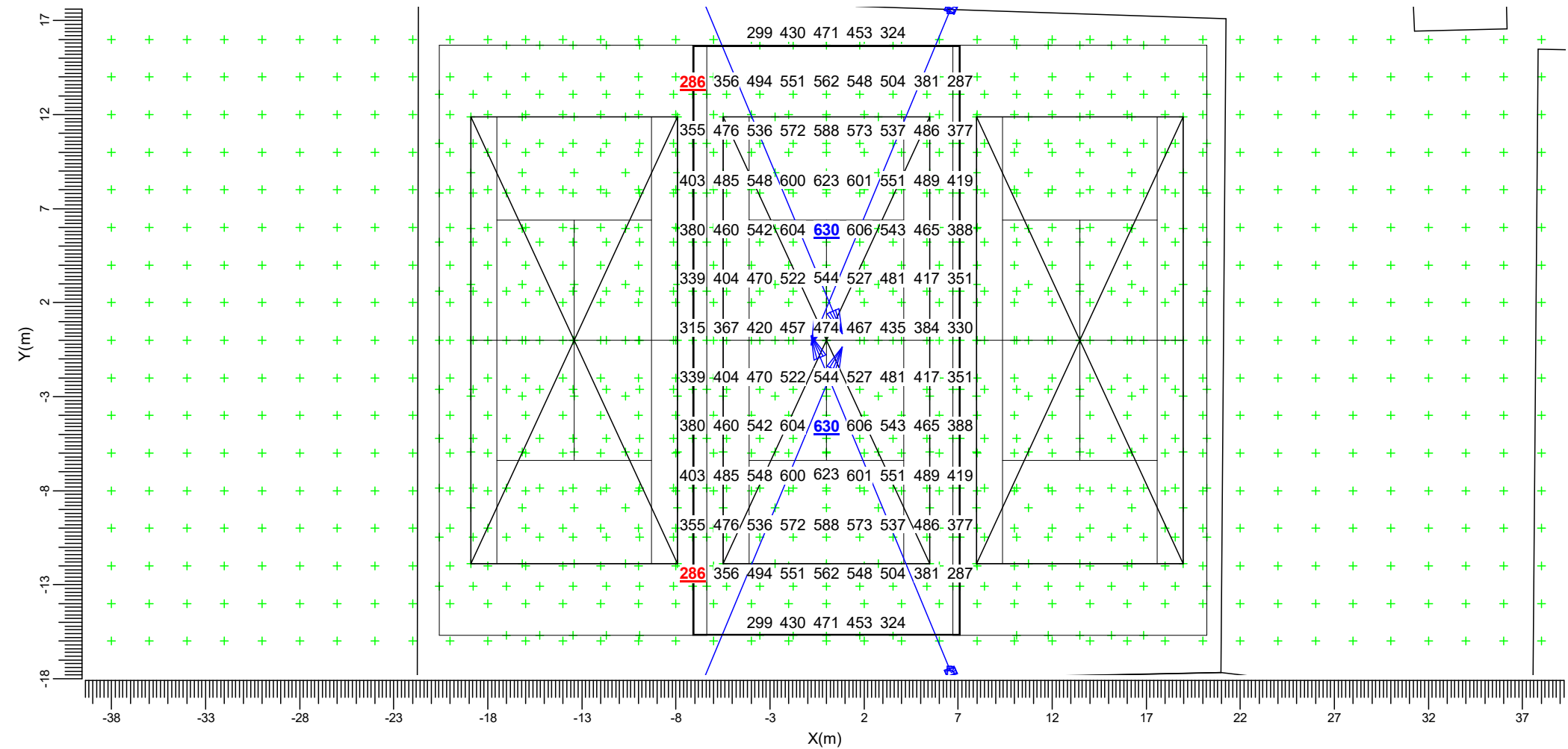
Scale
1:250

3.4 Court 2 TPA: Graphical Table

Court 2

Grid : Court 2 TPA at Z = -0.00 m

Calculation : Surface Illuminance (lux)



B  BVP518 IN T35 A35-NB LO

Average 471

Min/Ave 0.61

Min/Max 0.45

Project maintenance factor 0.90

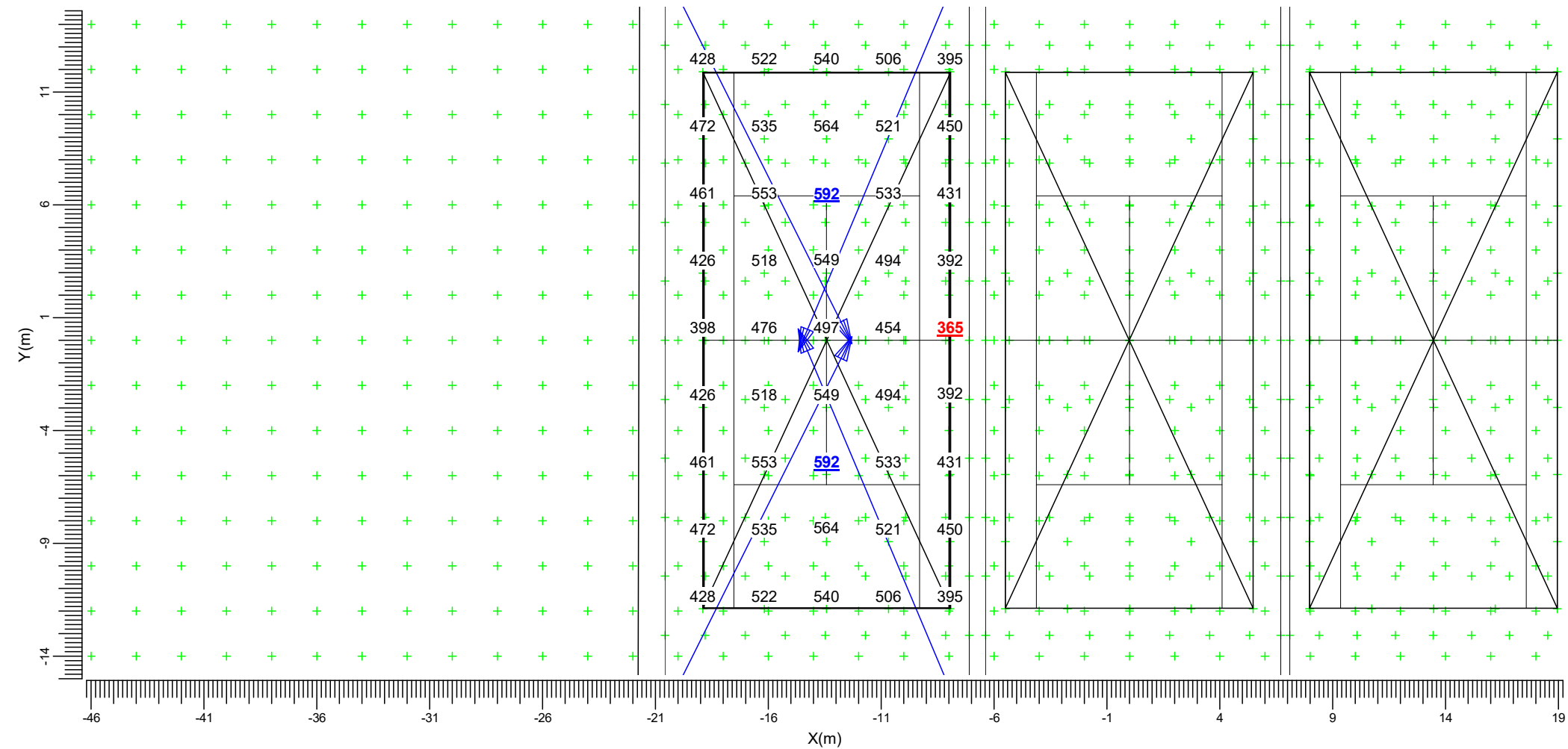
Scale 1:300

3.5 Court 3 PPA: Graphical Table

Court 3

Grid : Court 3 PPA at Z = -0.00 m

Calculation : Surface Illuminance (lux)



B  BVP518 IN T35 A35-NB LO

Average 488

Min/Ave 0.75

Min/Max 0.62

Project maintenance factor 0.90

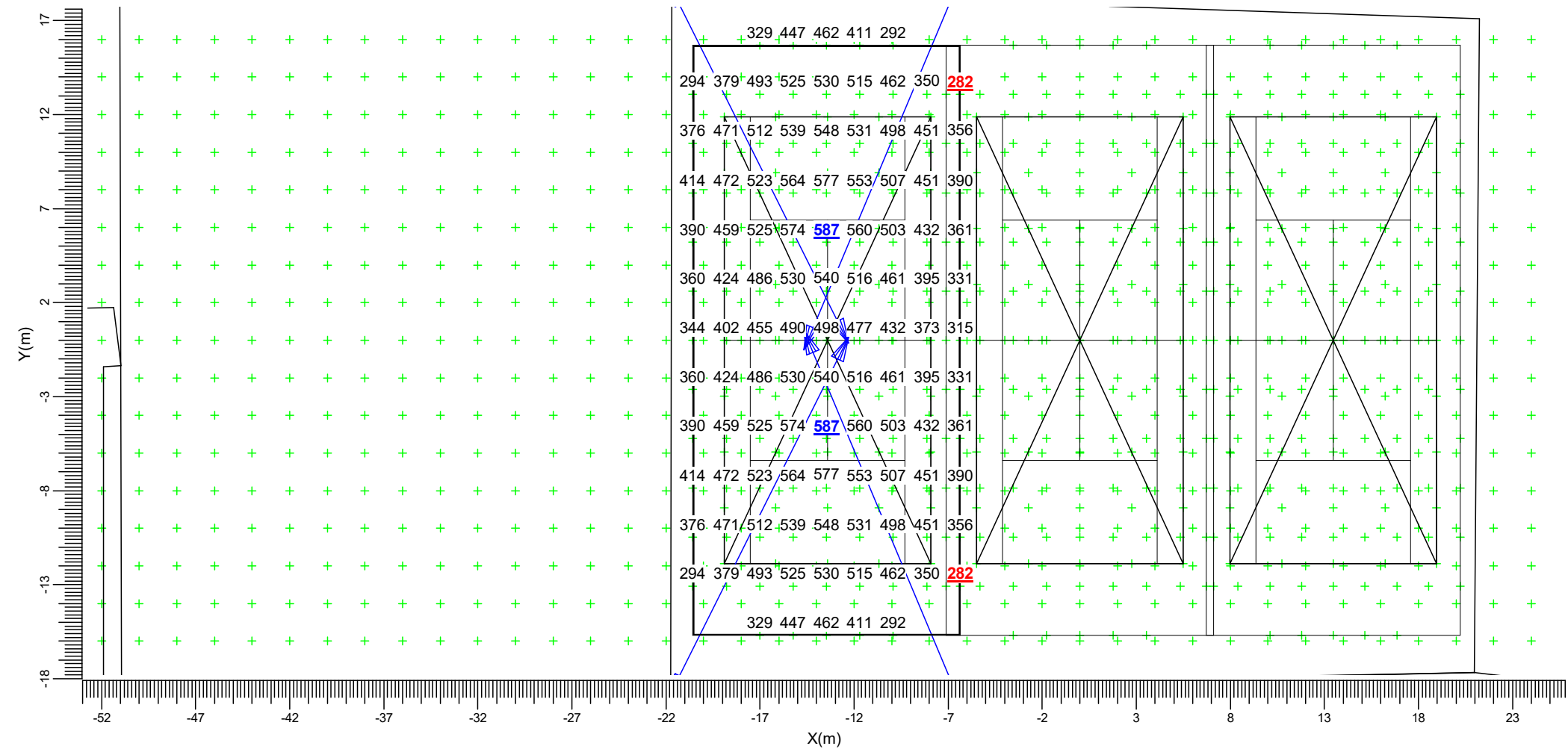
Scale 1:250

3.6 Court 3 TPA: Graphical Table

Court 3

Grid : Court 3 TPA at Z = -0.00 m

Calculation : Surface Illuminance (lux)



B

→ BVP518 IN T35 A35-NB LO

Average
456

Min/Ave
0.62

Min/Max
0.48

Project maintenance factor
0.90

Scale
1:300

3.7 Spiilage: Graphical Table

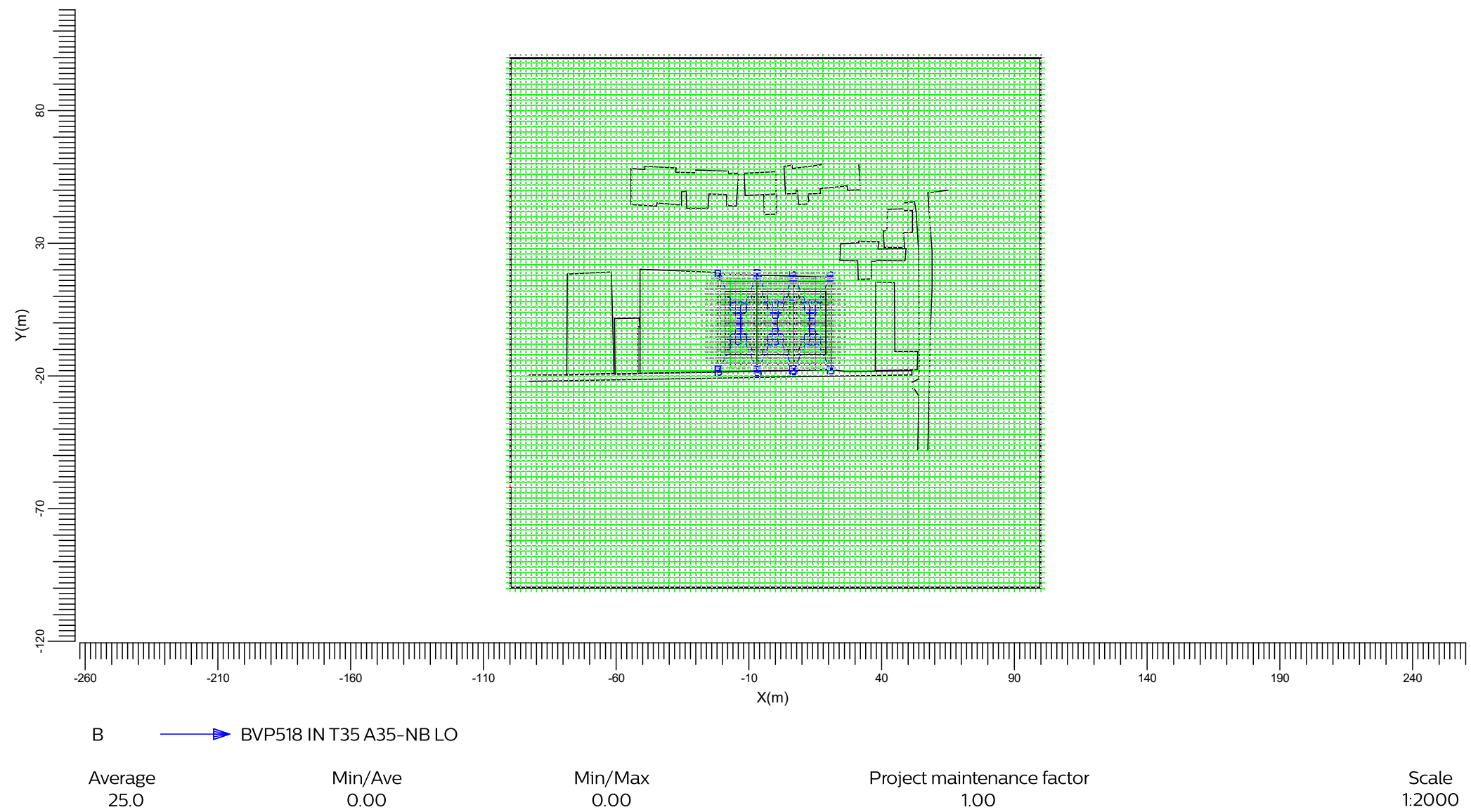
All ON

Grid

Calculation

: Spiilage at Z = -0.00 m

: Surface Illuminance (lux)



3.8 Spiilage: Iso Contour

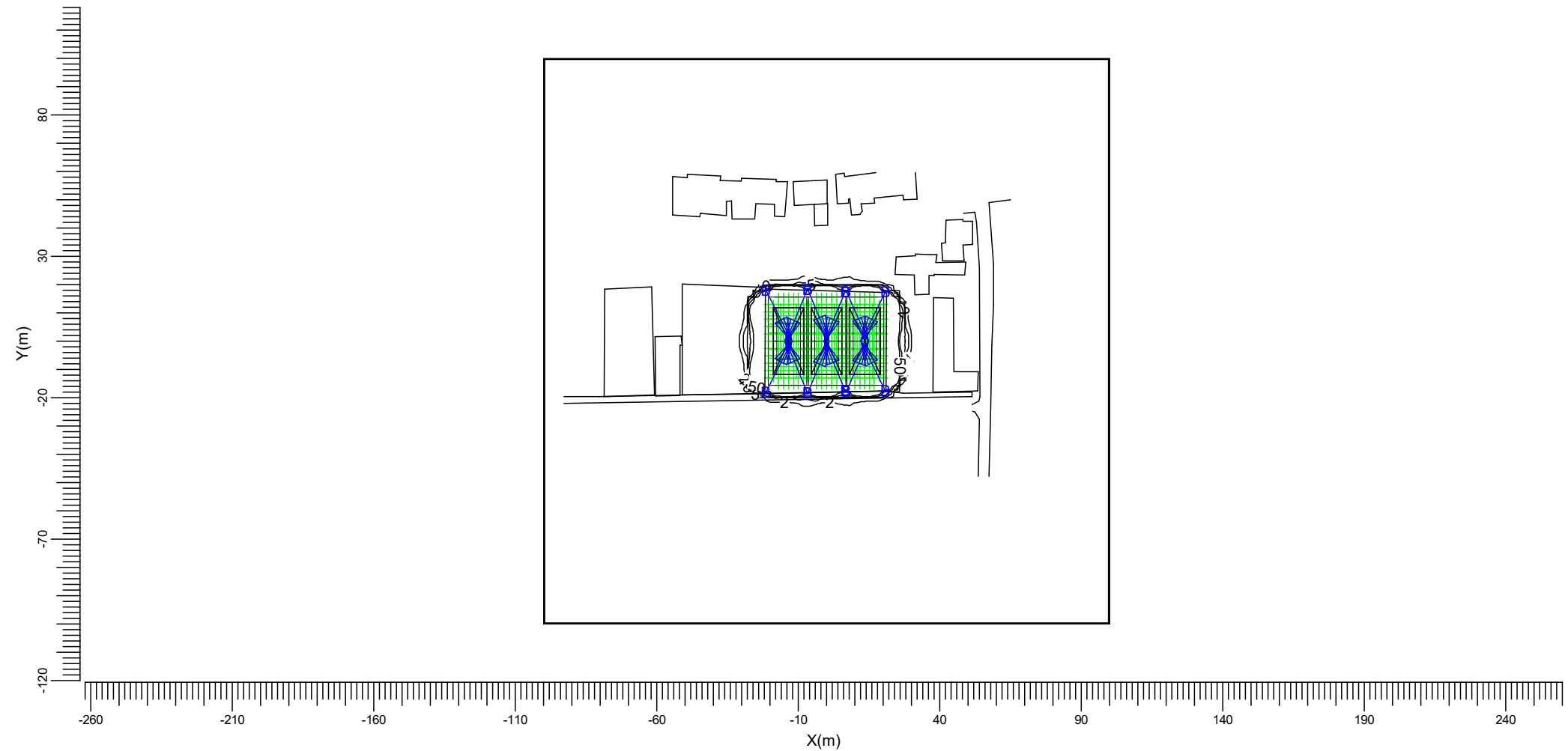
All ON

Grid

Calculation

: Spiilage at Z = -0.00 m

: Surface Illuminance (lux)



B

→

BVP518 IN T35 A35-NB LO

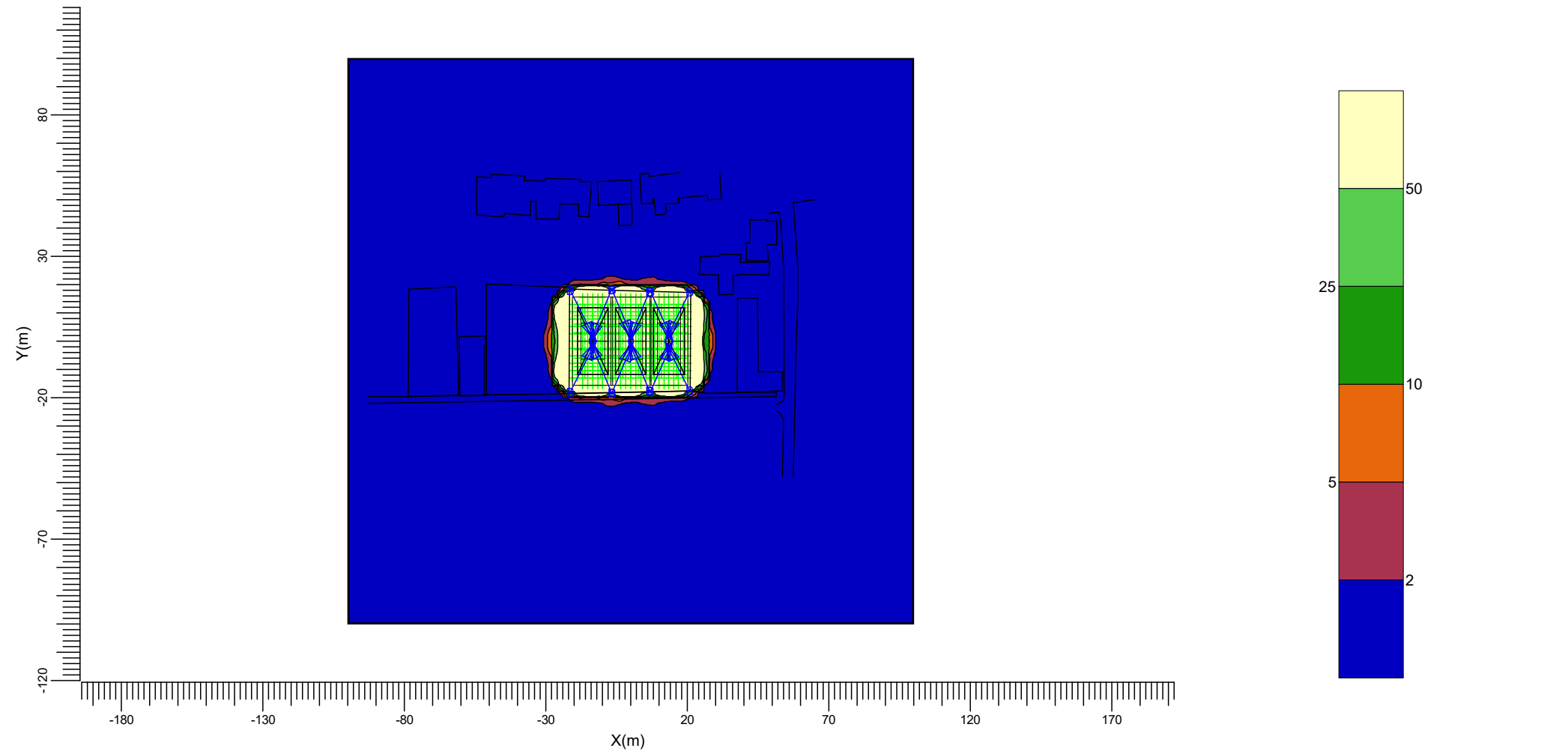
Average	Min/Ave	Min/Max	Project maintenance factor	Scale
25.0	0.00	0.00	1.00	1:2000

3.9 Spillage: Filled Iso Contour

All ON

Grid : Spillage at Z = -0.00 m

Calculation : Surface Illuminance (lux)



B BVP518 IN T35 A35-NB LO

Average
25.0

Min/Ave
0.00

Min/Max
0.00

Project maintenance factor
1.00

Scale
1:2000

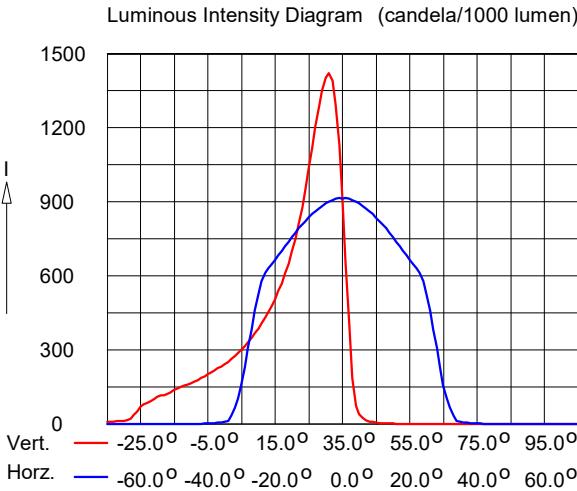
4. Luminaire Details

4.1 Project Luminaires

OptiVision LED gen3.5 2022
BVP518 IN T35 1xLED1470-4S/740/740 E3/D4I A35-NB LO

Light output ratios	
DLOR	: 0.58
ULOR	: 0.00
TLOR	: 0.58
Ballast	: E3/D4I
Lamp flux	: 147000 lm
Luminaire wattage	: 827.1 W
Measurement code	: LVM2047300

Note: Luminaire data not from database.



5. Installation Data

5.1 Legends

Project Luminaires:

Code	Qty	Luminaire Type	Lamp Type	Flux (lm)
B	12	BVP518 IN T35 A35-NB LO	1 * LED1470-4S/740	1 * 147000

Arrangements:

Code	Arrangement
1	Court 1 Right Baseline
2	Court 3 Left Baseline
3	CT 3 baseline Left
4	Court 2 Left Baseline
5	Court 2 Rightt Baseline
6	CT 3 baseline Right

Switching Modes:

Code	Switching Mode
1	Court 1
2	Court 2
3	Court 3
4	All ON

5.2 Luminaire Positioning and Orientation

Qty and Code	Position			Aiming Points			Aiming Angles			ULR	Arr.	Switching Modes			
	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	Rot.	Tilt90	Tilt0			1	2	3	4
1 * B	-6.80	-18.20	8.20	-14.66	0.51	0.00	112.8	68.0	0.0	0.00	1	-	-	+	+
1 * B	-6.80	18.20	8.20	-14.66	-0.51	0.00	-112.8	68.0	-0.0	0.00	1	-	-	+	+
1 * B	-21.35	-18.00	8.20	-12.29	0.16	0.00	63.5	68.0	0.0	0.00	2	-	-	+	+
1 * B	-21.35	18.00	8.20	-12.29	-0.16	0.00	-63.5	68.0	-0.0	0.00	2	-	-	+	+
1 * B	7.00	-17.70	8.20	14.89	-0.07	0.00	65.9	67.0	0.0	0.00	3	+	-	-	+

Qty and Code	Position			Aiming Points			Aiming Angles			ULR	Arr.	Switching Modes			
	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	Rot.	Tilt90	Tilt0			1	2	3	4
1 * B	7.00	17.70	8.20	14.89	0.07	0.00	-65.9	67.0	-0.0	0.00	3	+	-	-	+
1 * B	-6.60	-18.20	8.20	0.85	-0.37	0.00	67.3	67.0	0.0	0.00	4	-	+	-	+
1 * B	-6.60	18.20	8.20	0.85	0.37	0.00	-67.3	67.0	-0.0	0.00	4	-	+	-	+
1 * B	6.60	-17.60	8.20	-0.80	0.24	0.00	112.5	67.0	0.0	0.00	5	-	+	-	+
1 * B	6.60	17.60	8.20	-0.80	-0.24	0.00	-112.5	67.0	-0.0	0.00	5	-	+	-	+
1 * B	20.82	-17.50	8.20	12.16	-0.23	0.00	116.6	67.0	0.0	0.00	6	+	-	-	+
1 * B	20.82	17.50	8.20	12.16	0.23	0.00	-116.6	67.0	-0.0	0.00	6	+	-	-	+