

Abraham Moss Community School

Artificial Turf Pitch

Project code: G-234439
Date: 03-02-2026

Designer: LS

Description: Proposed Lighting Scheme

Football Match Play:
Maintained average illuminance >200 lux
Uniformity Ratio (Ev.min/Ev.ave) >0.60

All luminaires have a zero upward light ratio without the use of additional accessories.

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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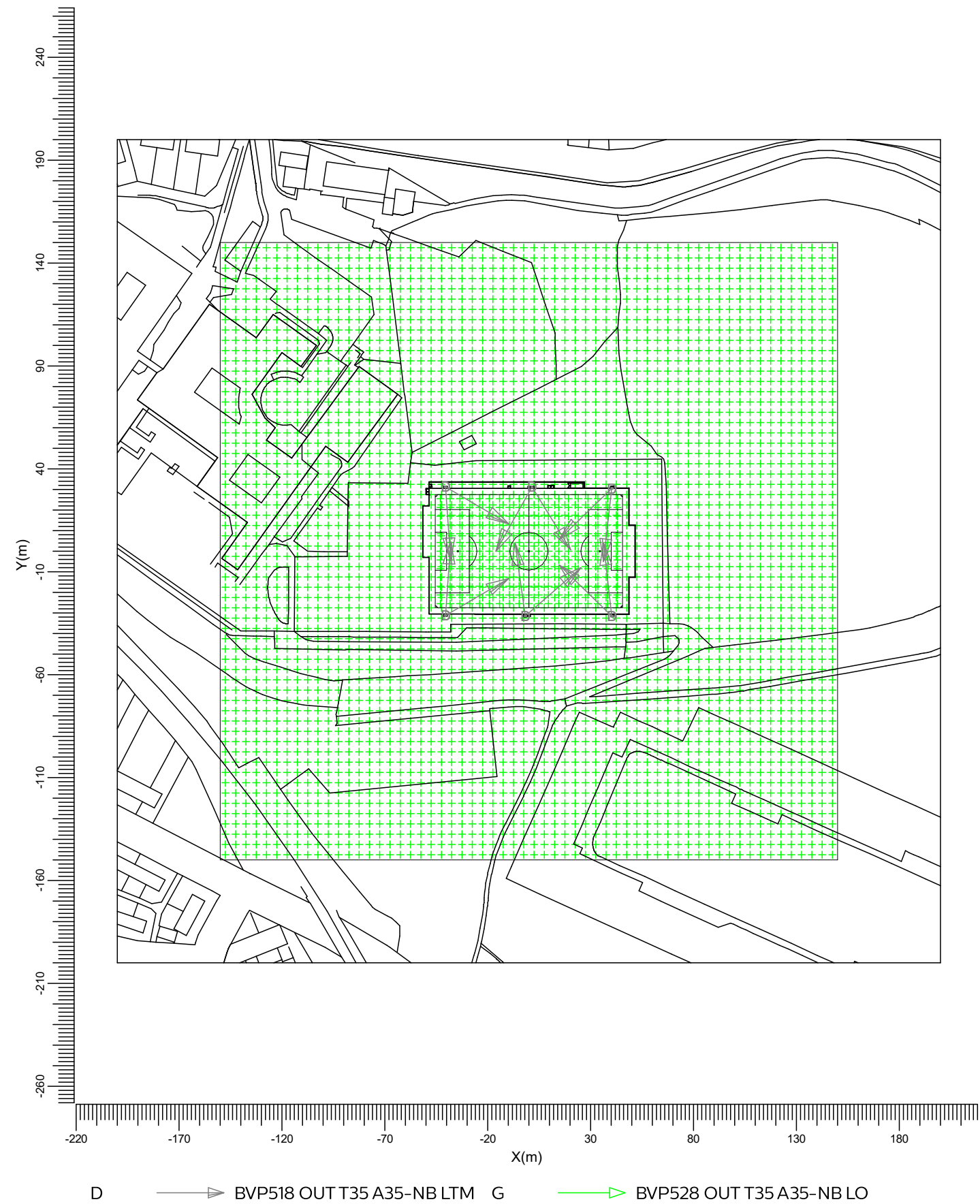
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1. Project Description

1.1 Top Project Overview



Scale
1:2500

2. Summary

2.1 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
D	12	BVP518 OUT T35 A35-NB LTM	1 * LED1720-4S/740	1006.0	1 * 172000

The total installed power: 12.07 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code	Power (kWatt)
	D	
200 Lux	12	12.07
120 Lux	12	12.07
Spillage Switching	12	12.07

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	D	
Centre Stadia	2	2.01
Centre Stadia1	2	2.01
End Stadia	4	4.02
Individuals	4	4.02

2.2 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	200 Lux	0.90
2	120 Lux	0.50
3	Spillage Switching	1.00

(II)luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave Min/AveMin/Max		
200 Lux	1	Surface Illuminance	lux	202	0.65	0.47
120 Lux	2	Surface Illuminance	lux	112	0.65	0.47
Spillage Grid	3	Surface Illuminance	lux			
Spillage Grid Zoomed	3	Surface Illuminance	lux			
Horizontal 3.0m	3	Horizontal Illuminance	lux			
Horizontal 3.0m Zoomed	3	Horizontal Illuminance	lux			

Obtrusive Light Calculations:

Switching Mode	ULR
1	0.00
2	0.00
3	0.00

3. Calculation Results

3.1 200 Lux: Graphical Table

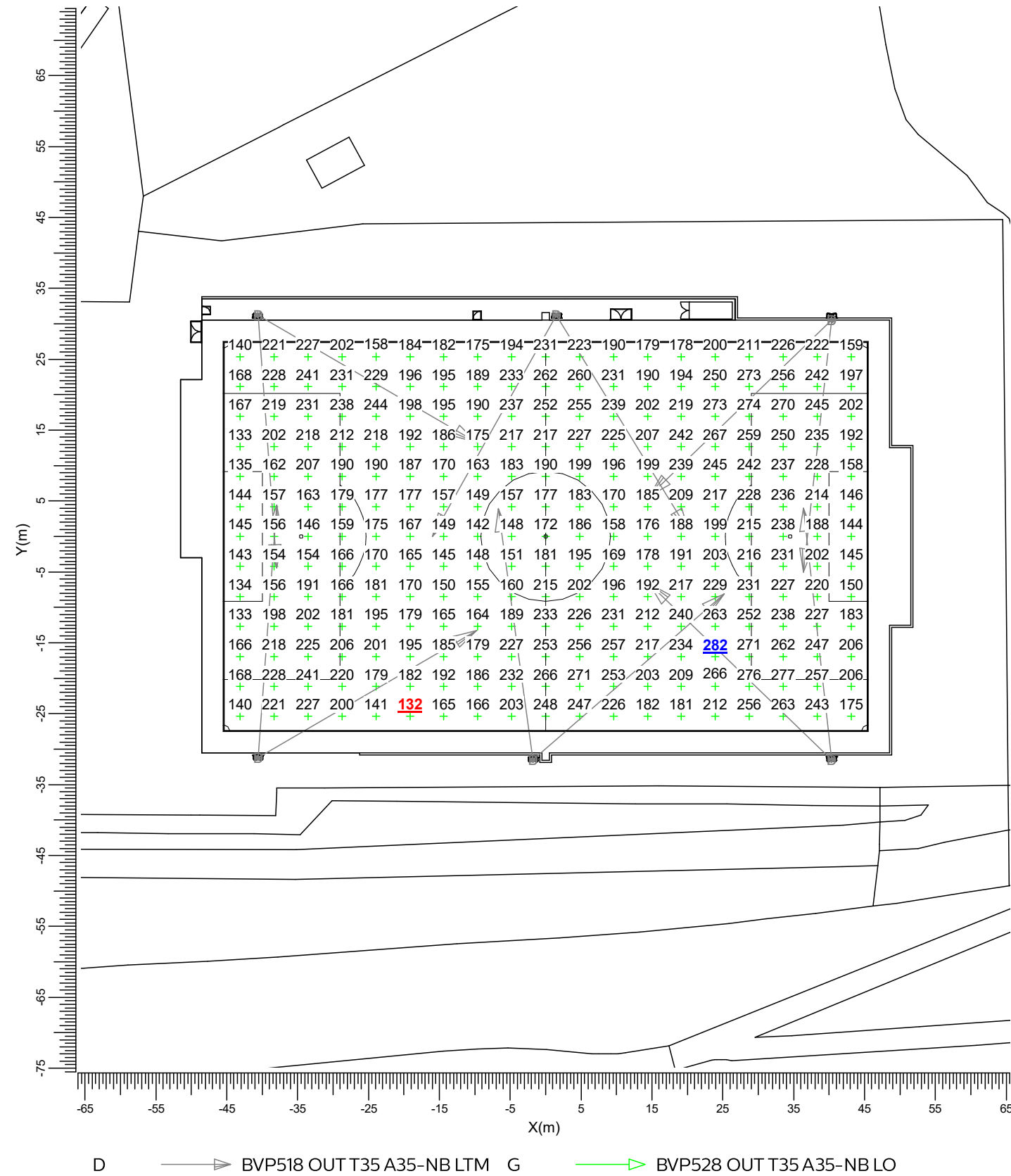
200 Lux

Grid

: Stadia Football at Z = -0.00 m

Calculation

: Surface Illuminance (lux)



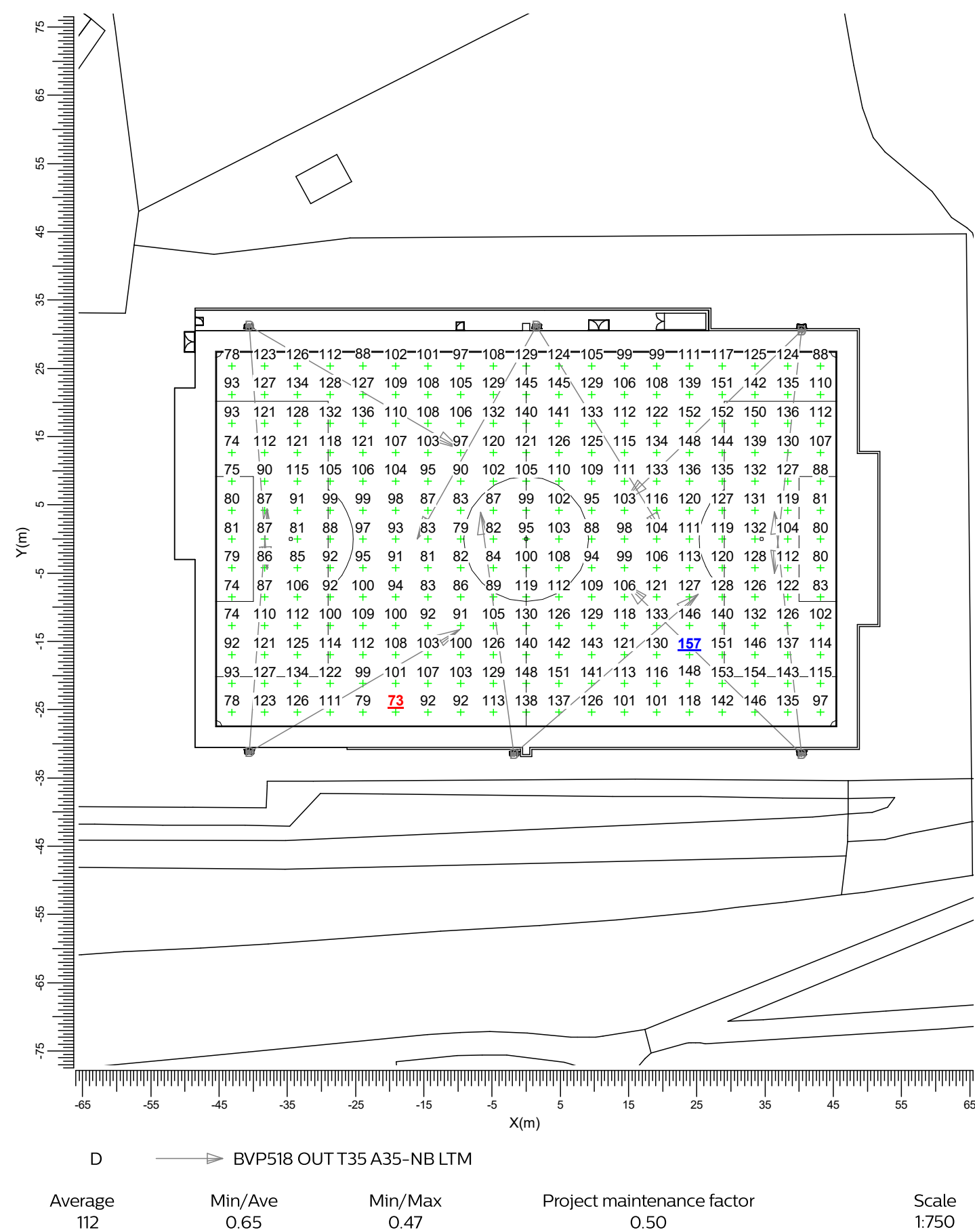
Average	Min/Ave	Min/Max	Project maintenance factor	Scale
202	0.65	0.47	0.90	1:750

3.2 120 Lux: Graphical Table

120 Lux

Grid : Stadia Football at Z = -0.00 m

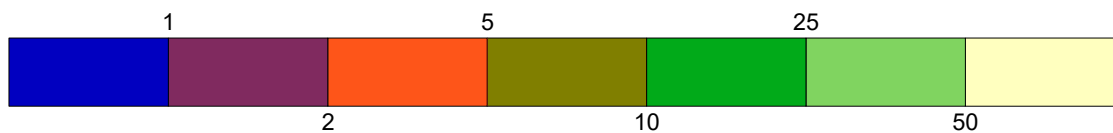
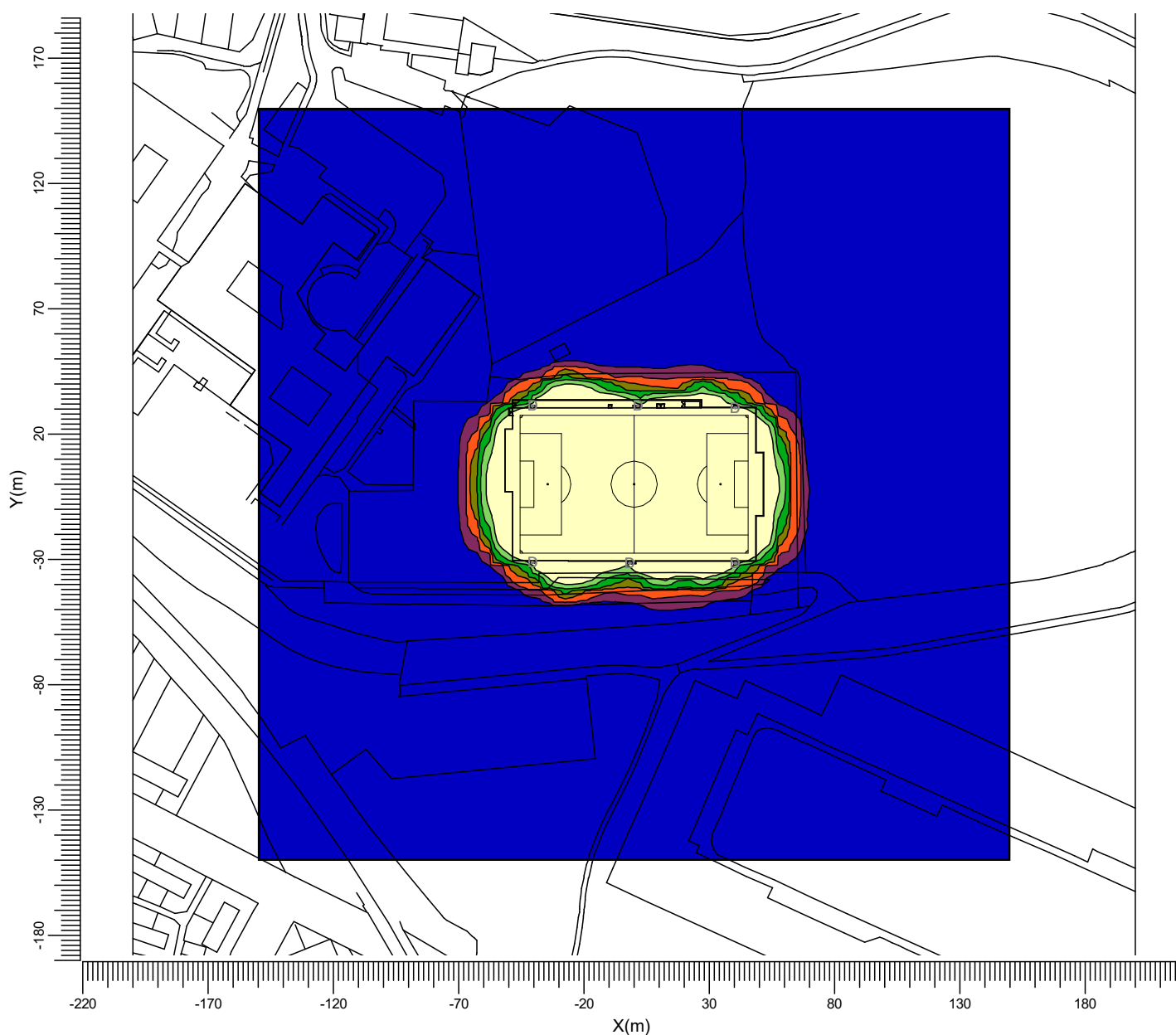
Calculation : Surface Illuminance (lux)



3.3 Spillage Grid: Filled Iso Contour

Spillage Switching

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



D : BVP518 OUT T35 A35-NB LTM

G : BVP528 OUT T35 A35-NB LO

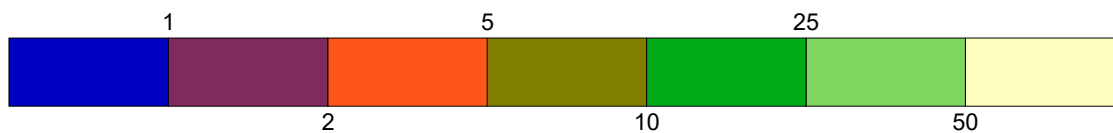
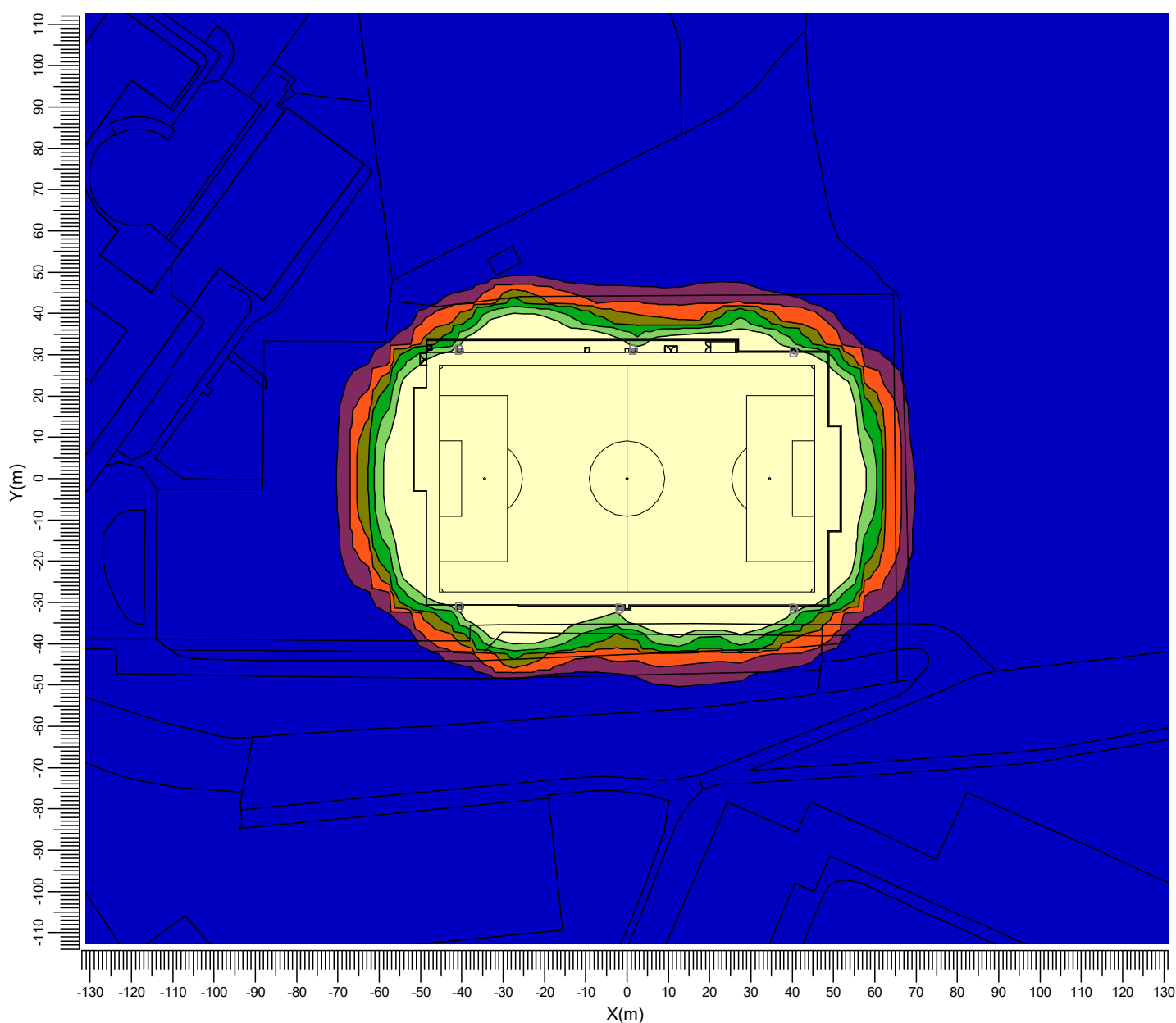
Project maintenance factor
1.00

Scale
1:2500

3.4 Spillage Grid Zoomed: Filled Iso Contour

Spillage Switching

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



D : BVP518 OUT T35 A35-NB LTM

G : BVP528 OUT T35 A35-NB LO

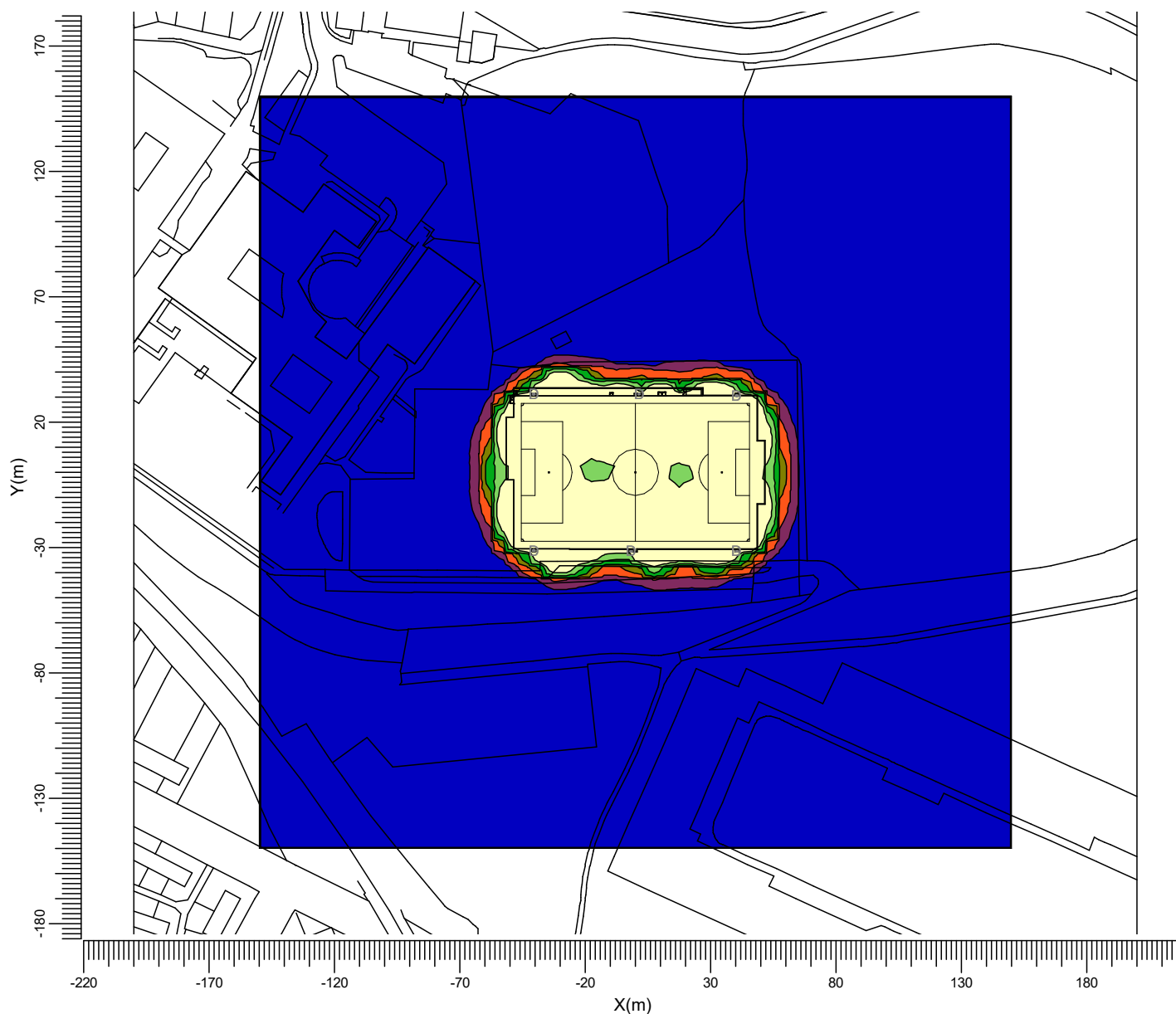
Project maintenance factor
1.00

Scale
1:1500

3.5 Horizontal 3.0m: Filled Iso Contour

Spillage Switching

Grid : Spillage Grid at Z = -0.00 m
Calculation : Horizontal Illuminance (lux)
Height above grid : 3.00 m



D : BVP518 OUT T35 A35-NB LTM

G : BVP528 OUT T35 A35-NB LO

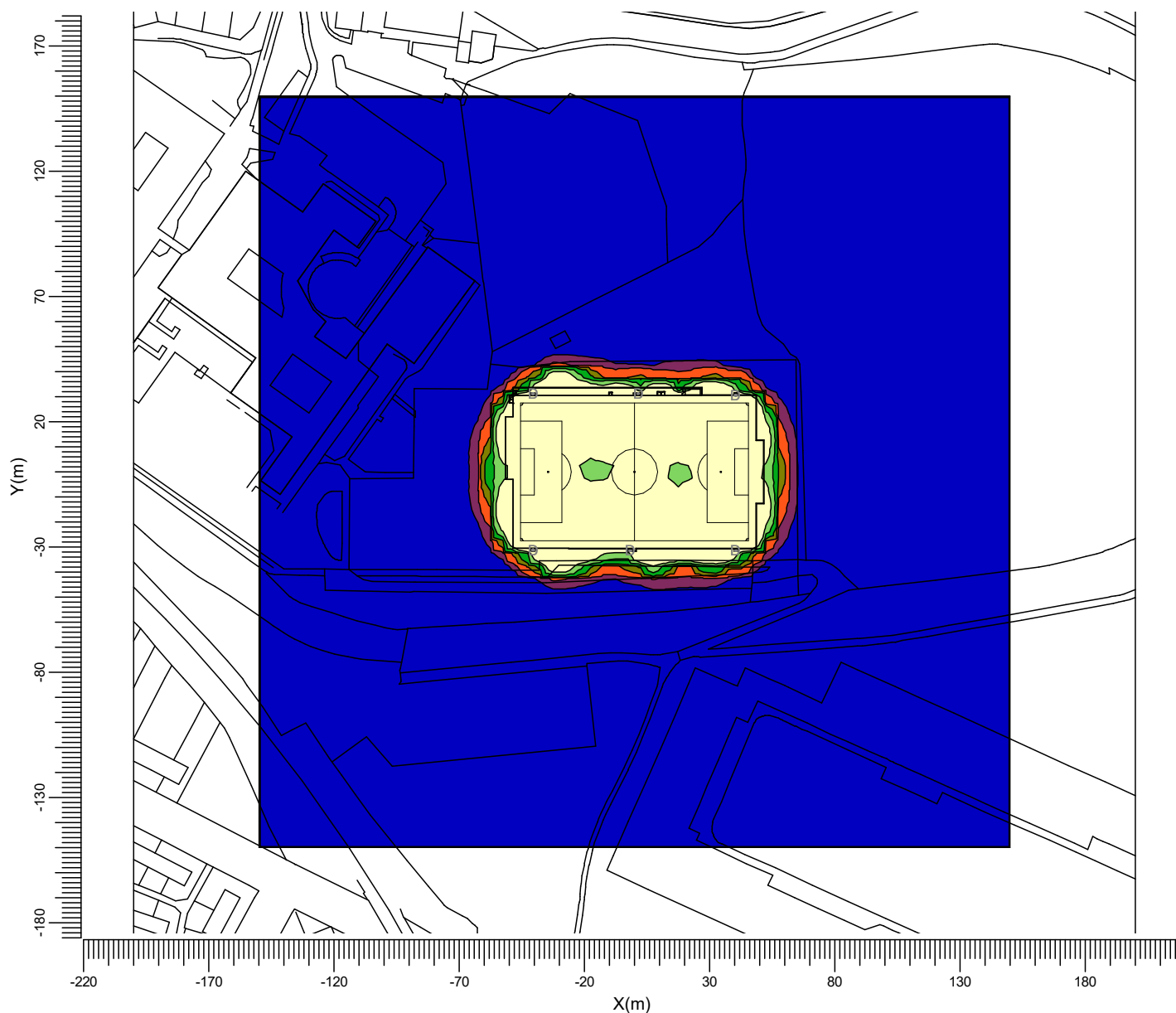
Project maintenance factor
1.00

Scale
1:2500

3.6 Horizontal 3.0m Zoomed: Filled Iso Contour

Spillage Switching

Grid : Spillage Grid at Z = -0.00 m
Calculation : Horizontal Illuminance (lux)
Height above grid : 3.00 m



D : BVP518 OUT T35 A35-NB LTM

G : BVP528 OUT T35 A35-NB LO

Project maintenance factor
1.00

Scale
1:2500

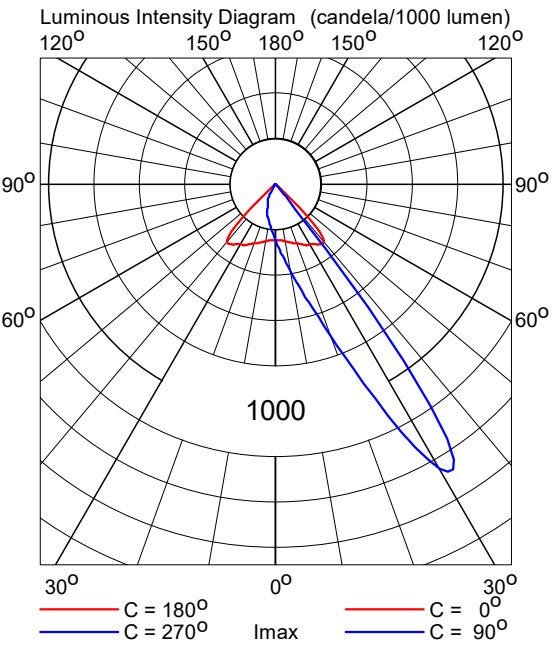
4. Luminaire Details

4.1 Project Luminaires

OptiVision LED gen3.5 2022
BVP518 OUT T35 1xLED1720-4S/740/740 E3/D4I A35-NB LTM

Light output ratios	
DLOR	: 0.71
ULOR	: 0.00
TLOR	: 0.71
Ballast	: E3/D4I
Lamp flux	: 172000 lm
Luminaire wattage	: 1006.0 W
Measurement code	: LVM2047600

Note: Luminaire data not from database.



5. Installation Data

5.1 Legends

Project Luminaires:

Code	Qty	Luminaire Type	Lamp Type	Flux (lm)
D	12	BVP518 OUT T35 A35-NB LTM	1 * LED1720-4S/740	1 * 172000

Switching Modes:

Code	Switching Mode
1	200 Lux
2	120 Lux
3	Spillage Switching

5.2 Luminaire Positioning and Orientation

Qty and Code	Position			Aiming Angles			Switching Modes (%)		
	X (m)	Y (m)	Z (m)	Rot.	Tilt90	Tilt0	1	2	3
1 * D	-40.60	-31.20	13.00	30.2	70.0	-0.0	100	100	100
1 * D	-40.60	-31.20	13.00	85.7	70.0	-0.0	100	100	100
1 * D	-40.60	31.20	13.00	-30.2	70.0	0.0	100	100	100
1 * D	-40.60	31.20	13.00	-85.7	70.0	0.0	100	100	100
1 * D	-1.80	-31.50	13.00	40.9	70.0	0.0	100	100	100
1 * D	-1.80	-31.50	13.00	97.9	70.0	0.0	100	100	100
1 * D	1.50	31.20	13.00	-58.5	70.0	0.0	100	100	100
1 * D	1.50	31.20	13.00	-119.2	70.0	0.0	100	100	100
1 * D	40.35	-31.50	13.00	136.0	70.0	-0.0	100	100	100
1 * D	40.35	-31.50	13.00	96.4	70.0	-0.0	100	100	100
1 * D	40.35	30.50	13.00	-136.0	70.0	0.0	100	100	100
1 * D	40.35	30.50	13.00	-96.4	70.0	0.0	100	100	100