

SURFACELUX SPORTS LIGHTING ENGINEERS

KING DAVID SCHOOL

TENNIS

RUGBY

FOOTBALL

HOCKEY

ATHLETICS

GREYHOUND

SPEEDWAY

CYCLING

GOLF

BMX

COMPLETE TURNKEY PROJECT SERVICES

DESIGN | INSTALLATION | UPGRADING
ADDITIONS | MAINTENANCE | EST. 2005





King David school - Manchester

MUGA LED - 200lux

Date: 14-11-2025

Description:

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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1. Project Description

1.1 Description

Maintenance Factor:- 0.90

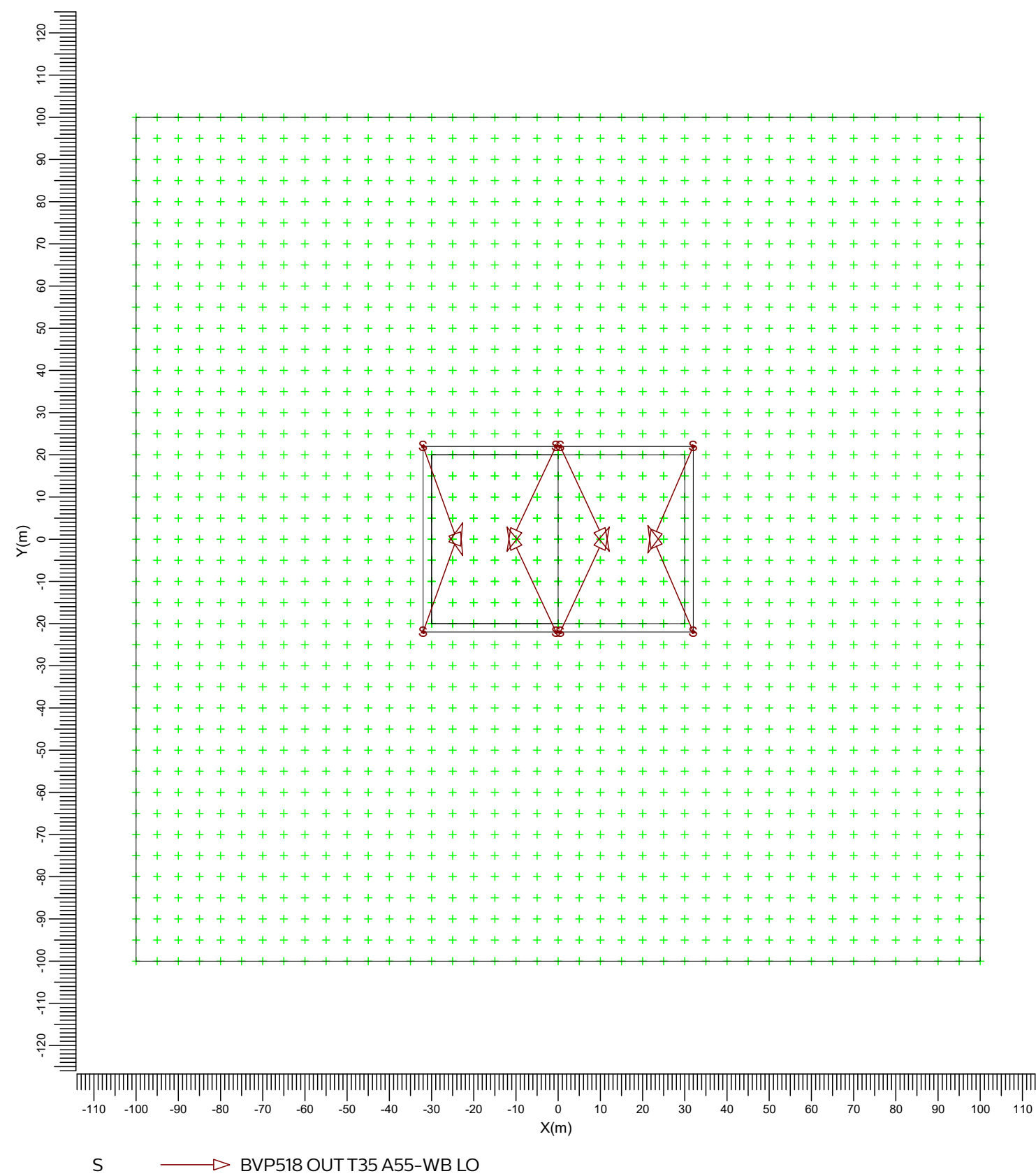
Pitch 60m x 40m (fence area 64 x 44m)

The design has been completed using the Philips Asymmetric OptiVision LED GEN 3.5 BVP518 Floodlights. A total of 8no have been used to achieve an average of 200lux.

Floodlights are mounted on 6 x 10 metre columns

ALL Floodlights fitted with integral louvres to reduce spill and glare.

1.2 Top Project Overview



Scale
1:1250

2. Summary

2.1 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
S	8	BVP518 OUT T35 A55-WB LO	1 * LED1720-4S/740	1006.0	1 * 172000

The total installed power: 8.05 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code	Power (kWatt)
	S	
Main Pitch	8	8.05
Half Pitch	4	4.02
All ON	8	8.05

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	S	
Centre 1	2	2.01
Centre 2	2	2.01
Corner 1	2	2.01
Corner 2	2	2.01

2.2 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	Main Pitch	0.95
2	Half Pitch	0.95
3	All ON	1.00

(II)luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave Min/AveMin/Max		
Pitch 60 m x 40 m	1	Surface Illuminance	lux	212	0.64	0.30
Half Pitch	2	Surface Illuminance	lux	166	0.74	0.47
Spillage	3	Surface Illuminance	lux	20.4	0.00	0.00

Obtrusive Light Calculations:

Switching Mode	ULR
1	0.00
2	0.00
3	0.00

3. Calculation Results

3.1 Pitch 60 m x 40 m: Graphical Table

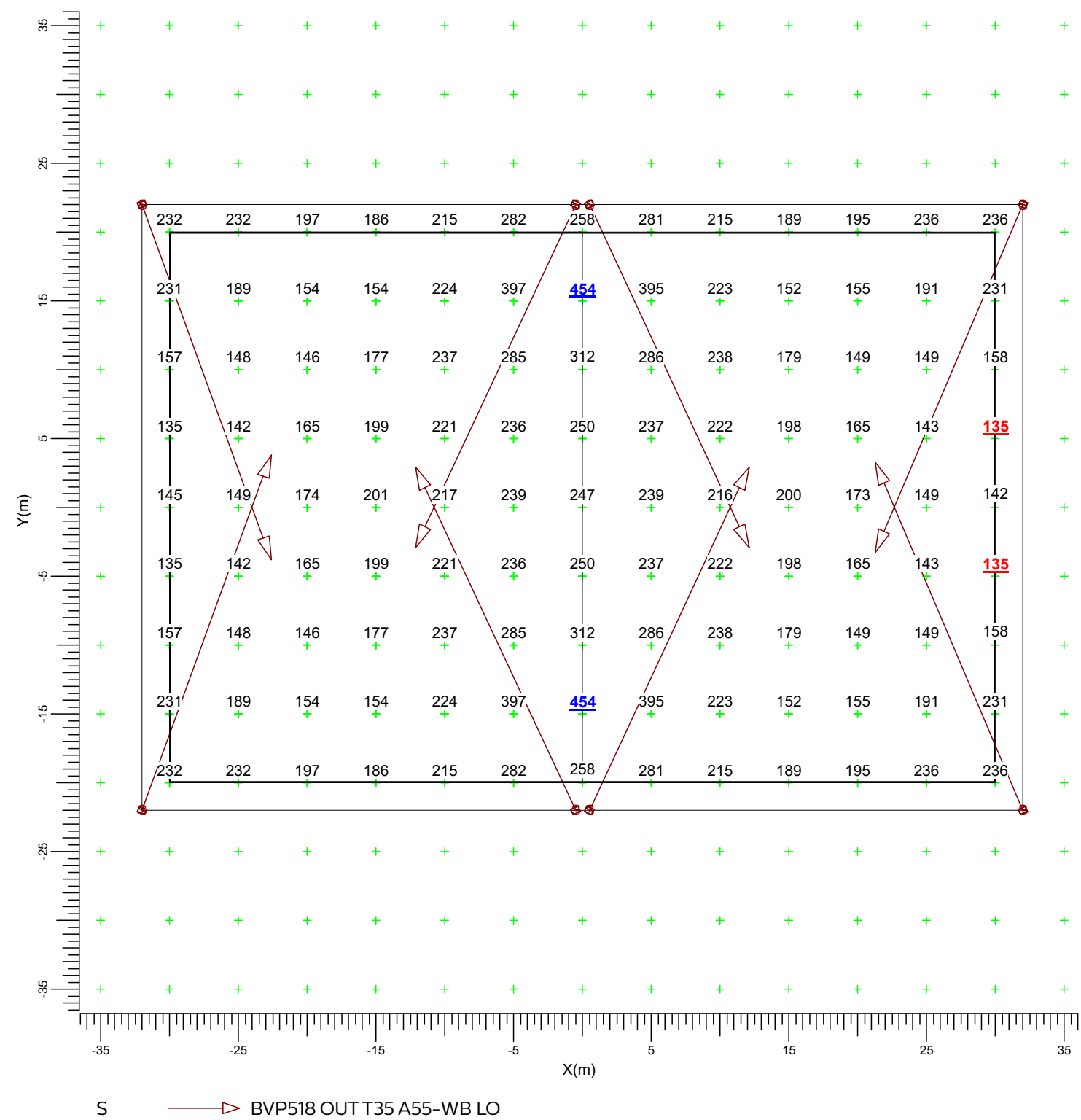
Main Pitch

Grid

: Pitch 60 m x 40 m at Z = -0.00 m

Calculation

: Surface Illuminance (lux)

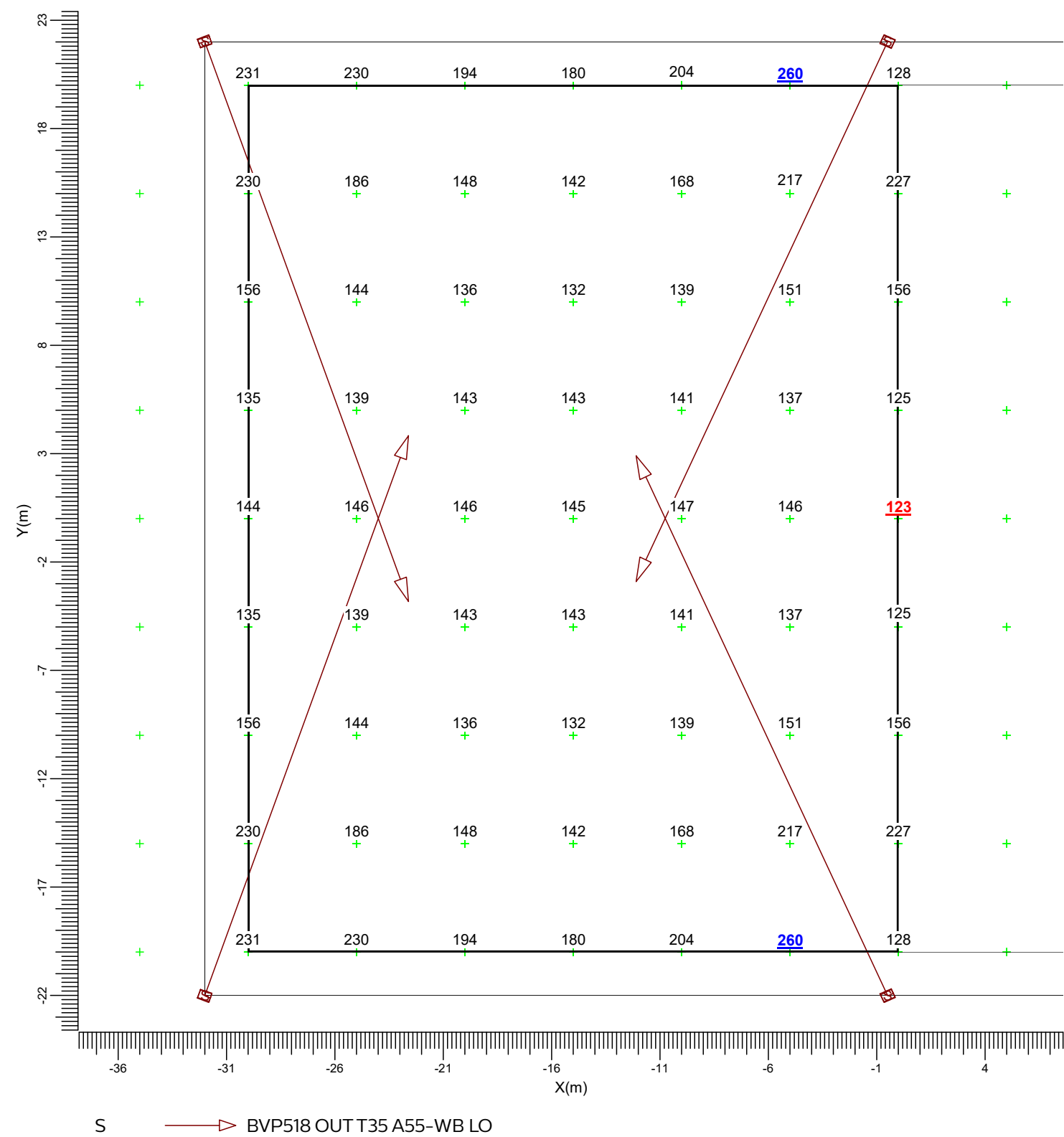


3.2 Half Pitch: Graphical Table

Half Pitch

Grid : Half Pitch at Z = -0.00 m

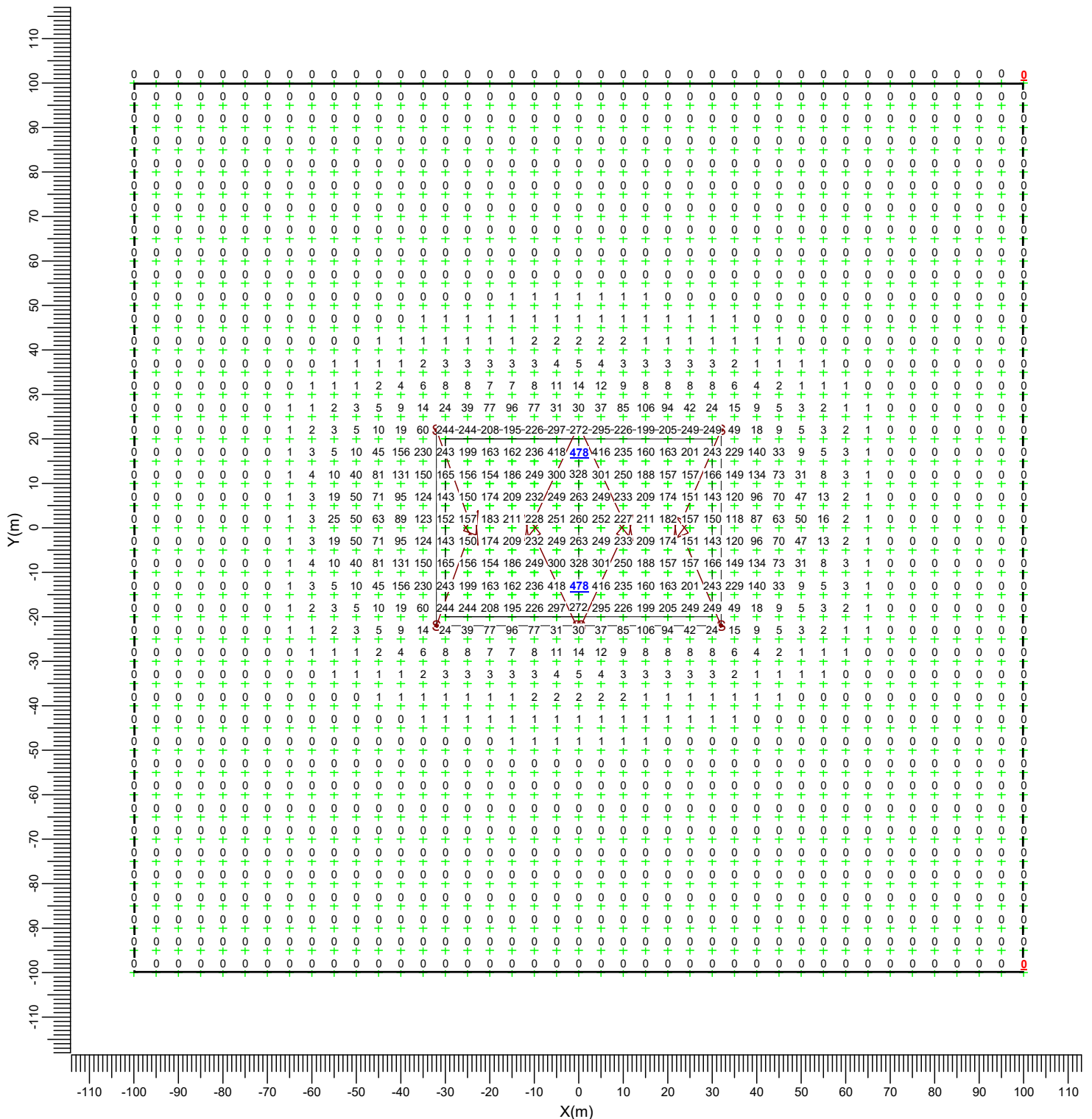
Calculation : Surface Illuminance (lux)



3.3 Spillage: Graphical Table

All ON

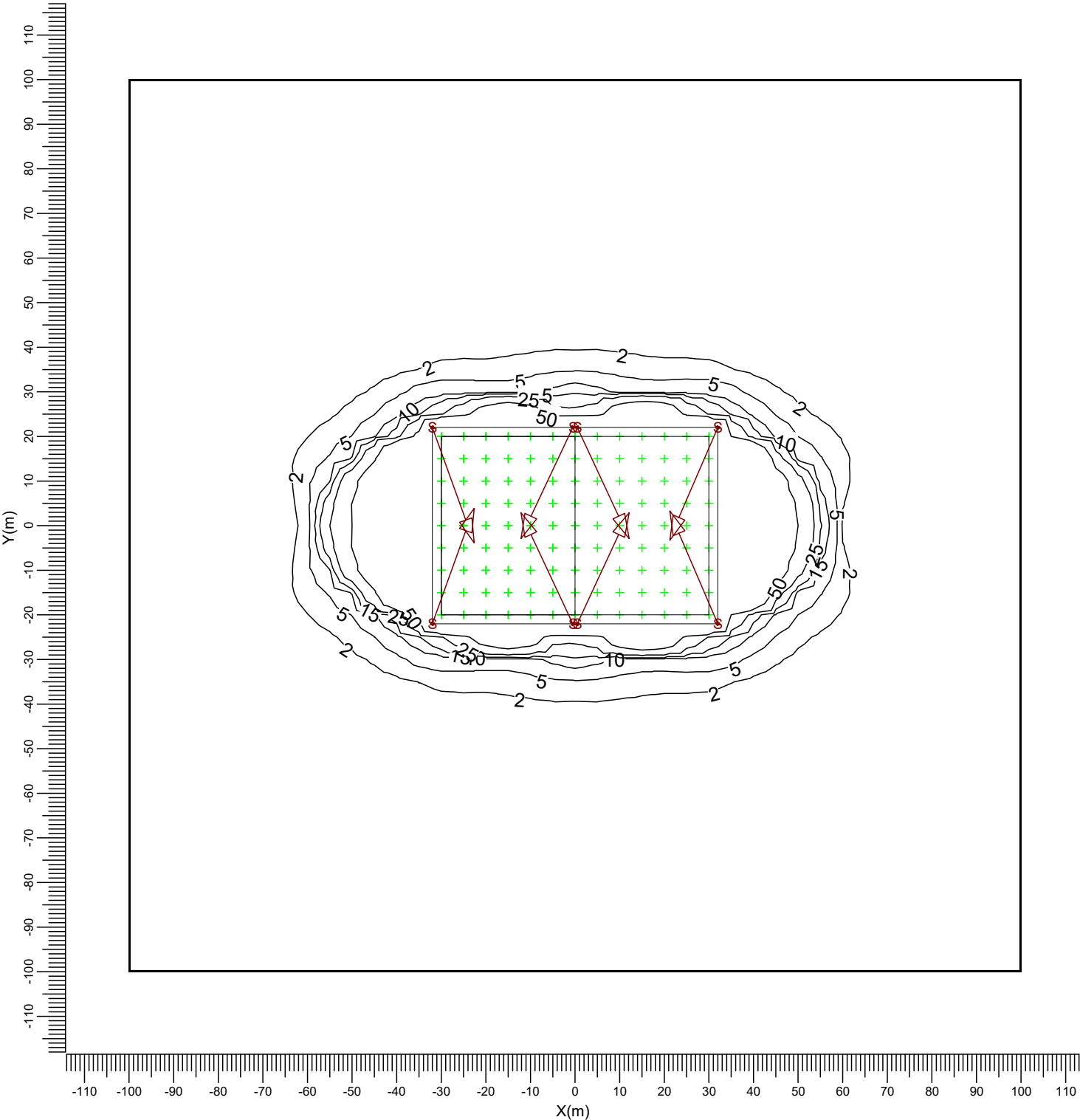
Grid : Spillage at Z = -0.00 m
Calculation : Surface Illuminance (lux)

S  BVP518 OUT T35 A55-WB LOAverage
20.4Min/Ave
0.00Min/Max
0.00Project maintenance factor
1.00Scale
1:1250

3.4 Spillage: Iso Contour

All ON

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



S ———> BVP518 OUT T35 A55-WB LO

Average
20.4

Min/Ave
0.00

Min/Max
0.00

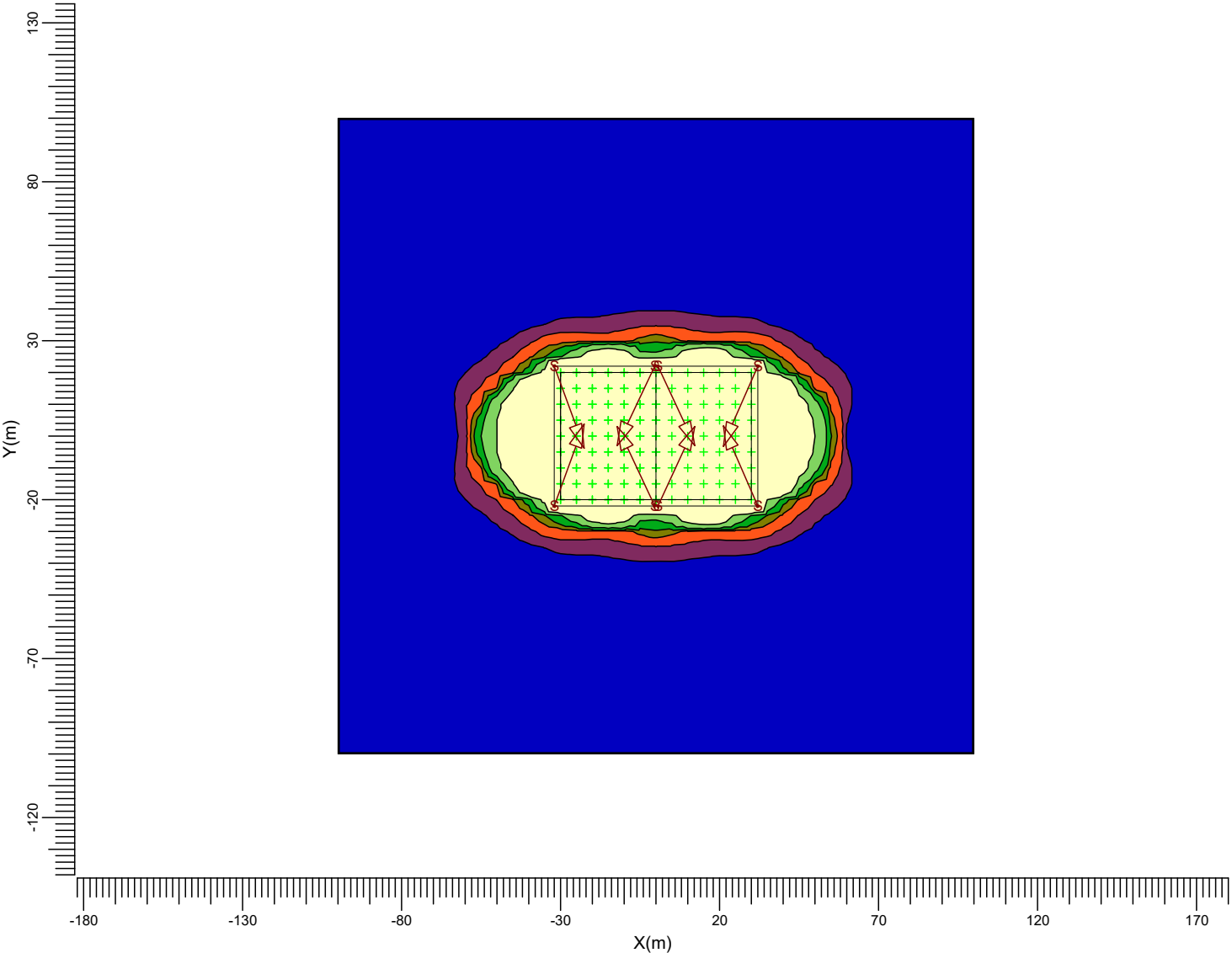
Project maintenance factor
1.00

Scale
1:1250

3.5 Spillage: Filled Iso Contour

All ON

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



S ———> BVP518 OUT T35 A55-WB LO

Average	Min/Ave	Min/Max	Project maintenance factor	Scale
20.4	0.00	0.00	1.00	1:2000

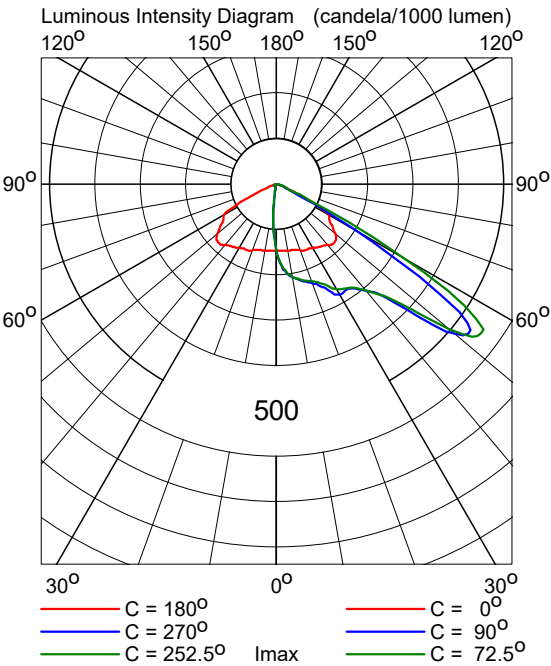
4. Luminaire Details

4.1 Project Luminaires

OptiVision LED gen3.5 2022
BVP518 OUT T35 1xLED1720-4S/740/740 E3/D4I A55-WB LO

Light output ratios
DLOR : 0.63
ULOR : 0.00
TLOR : 0.63
Ballast : E3/D4I
Lamp flux : 172000 lm
Luminaire wattage : 1006.0 W
Measurement code : LVA2202020

Note: Luminaire data not from database.



SURFACELUX SPORTS LIGHTING ENGINEERS

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