

Taibach RFC

LED Floodlighting

Date:

06-10-2025

Designer:

Andrew Poplett

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

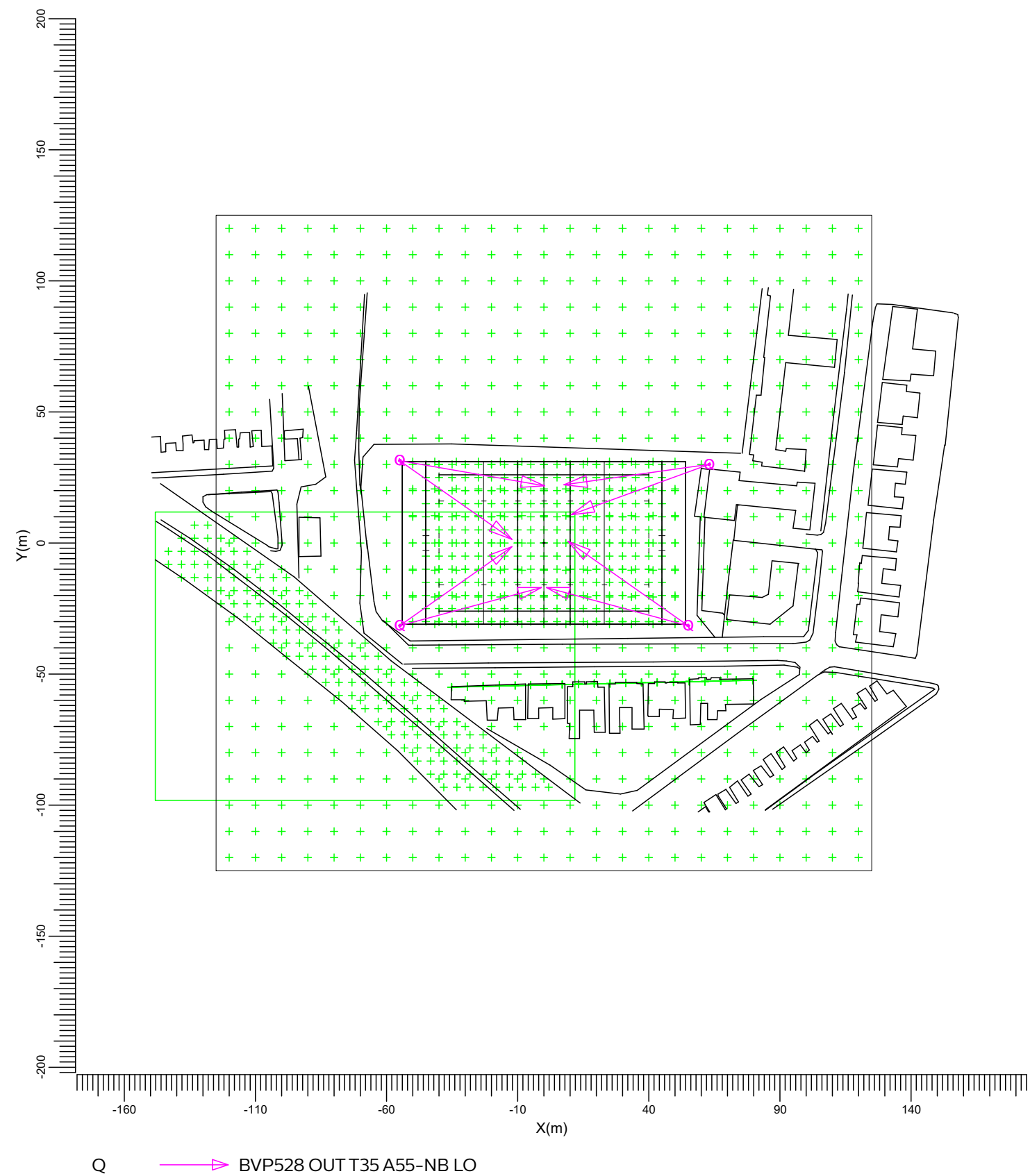
1.1 Description

Pitch:- 100lux
90m x 62m (Post to Post) + try zone

Columns:-
4 X 15.0m

Luminaires:-
*8 x BVP528 OUT T35 1xLED2590-4S/740 A55-NB LO

1.2 Top Project Overview



2. Summary

2.1 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
Q	8	BVP528 OUT T35 A55-NB LO	1 * LED2590-4S/740	1505.9	1 * 259000

The total installed power: 12.05 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code	Power (kWatt)
	Q	
1st Pitch	8	12.05
All On	8	12.05

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	Q	
Point1	2	3.01
Point2	2	3.01
Point3	2	3.01
Point4	2	3.01

2.2 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	1st Pitch	0.90
2	All On	1.00

(II)luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave	Max Min/AveMin/Max
13 x 7 Grid	1	Surface Illuminance	lux	110	0.39 0.19
5m x 5m Grid	1	Surface Illuminance	lux	109	0.50 0.24
Spillage	2	Surface Illuminance	lux	18.7	0.00 0.00
M4 Motorway	2	Surface Illuminance	lux		0.25
Ev Houses	1	Surface Illuminance	lux		6.42

3. Calculation Results

3.1 13 x 7 Grid: Graphical Table

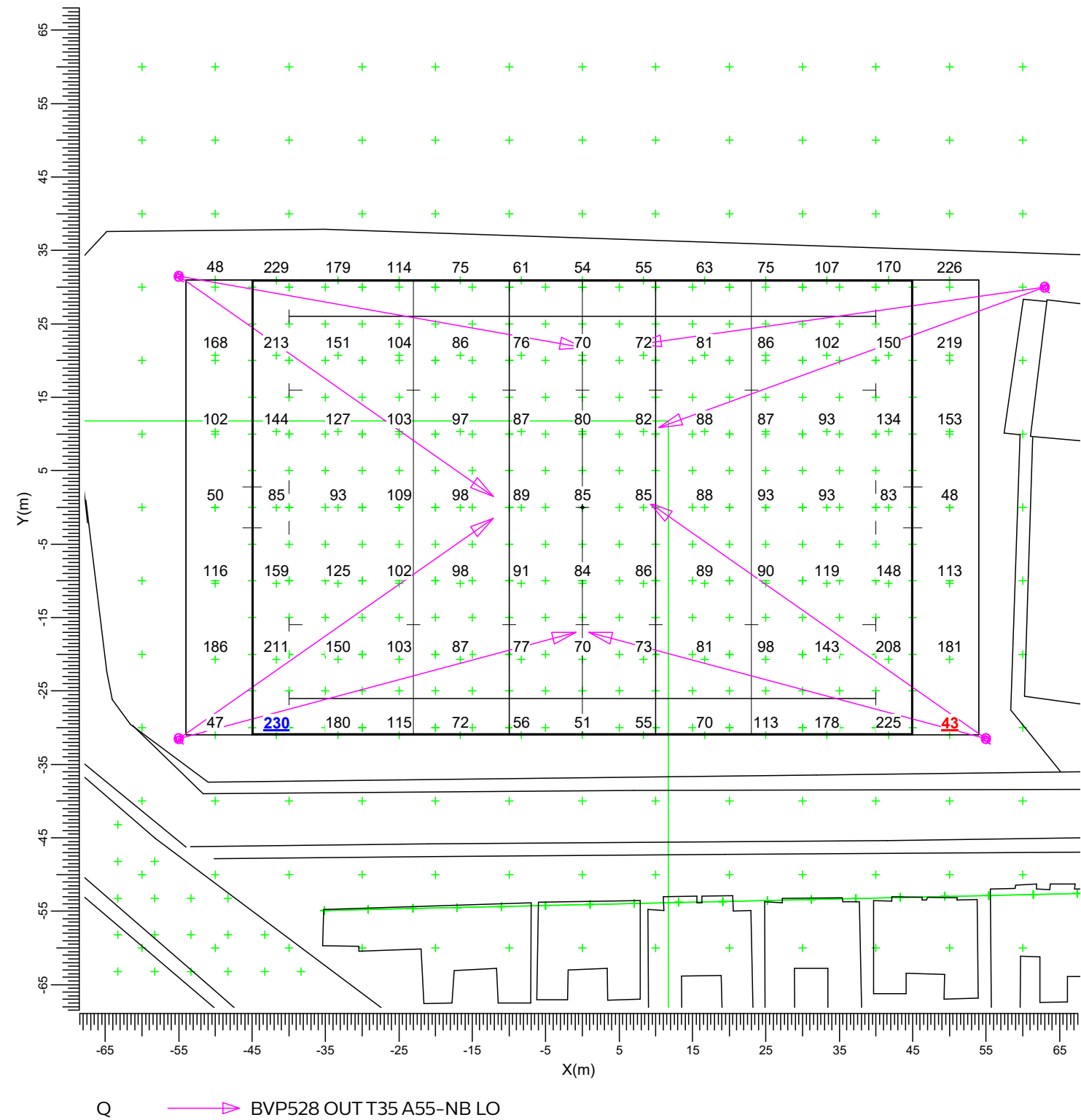
1st Pitch

Grid

: 13 x 7 Grid at Z = -0.00 m

Calculation

: Surface Illuminance (lux)



Average	Min/Ave	Min/Max	Project maintenance factor	Scale
110	0.39	0.19	0.90	1:750

1st Pitch

Scale
1:750

3.3 Spillage: Graphical Table

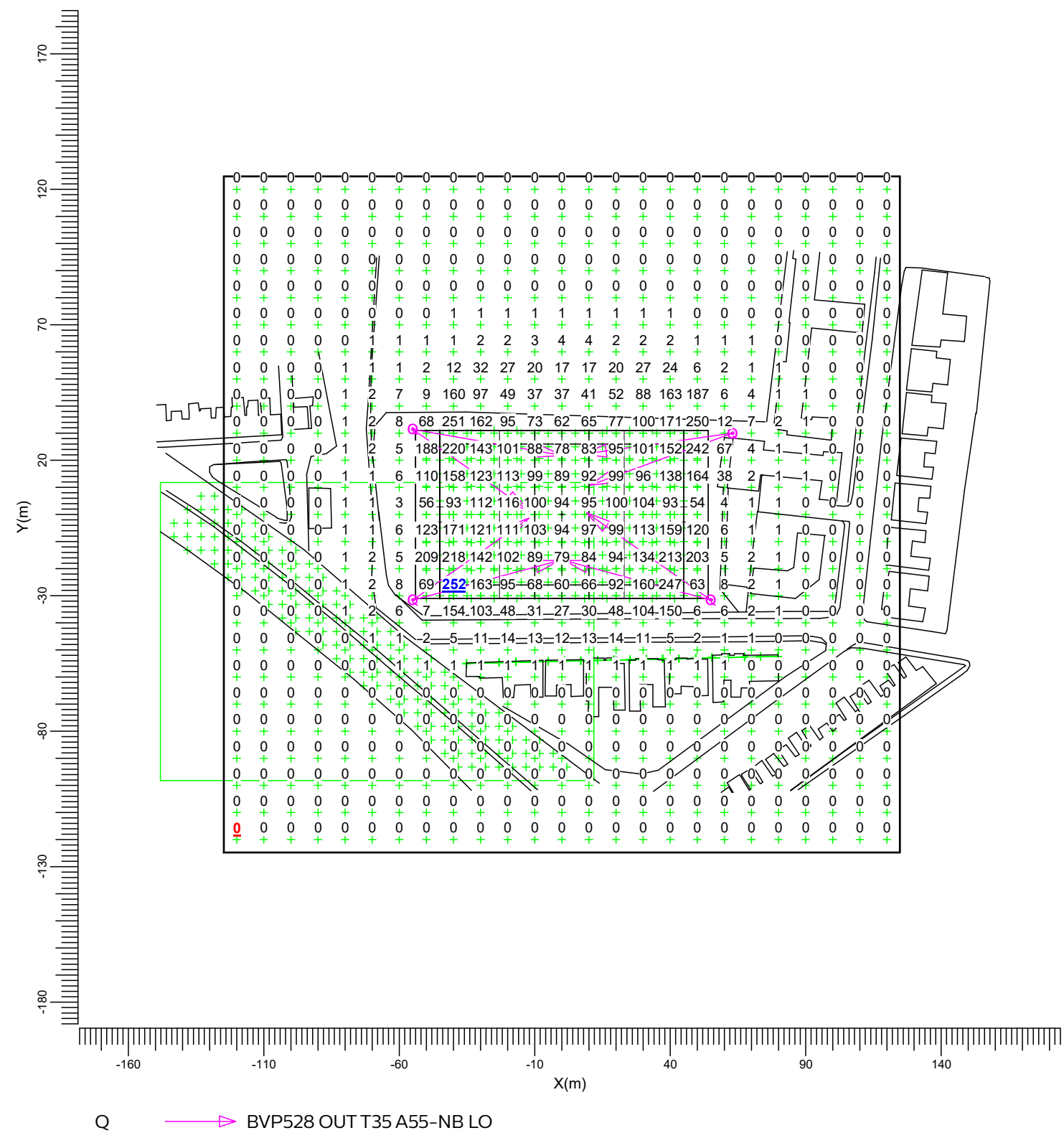
All On

Grid

: Spillage at Z = -0.00 m

Calculation

: Surface Illuminance (lux)



Average	Min/Ave	Min/Max	Project maintenance factor	Scale
18.7	0.00	0.00	1.00	1:2000

3.4 Spillage: Iso Contour

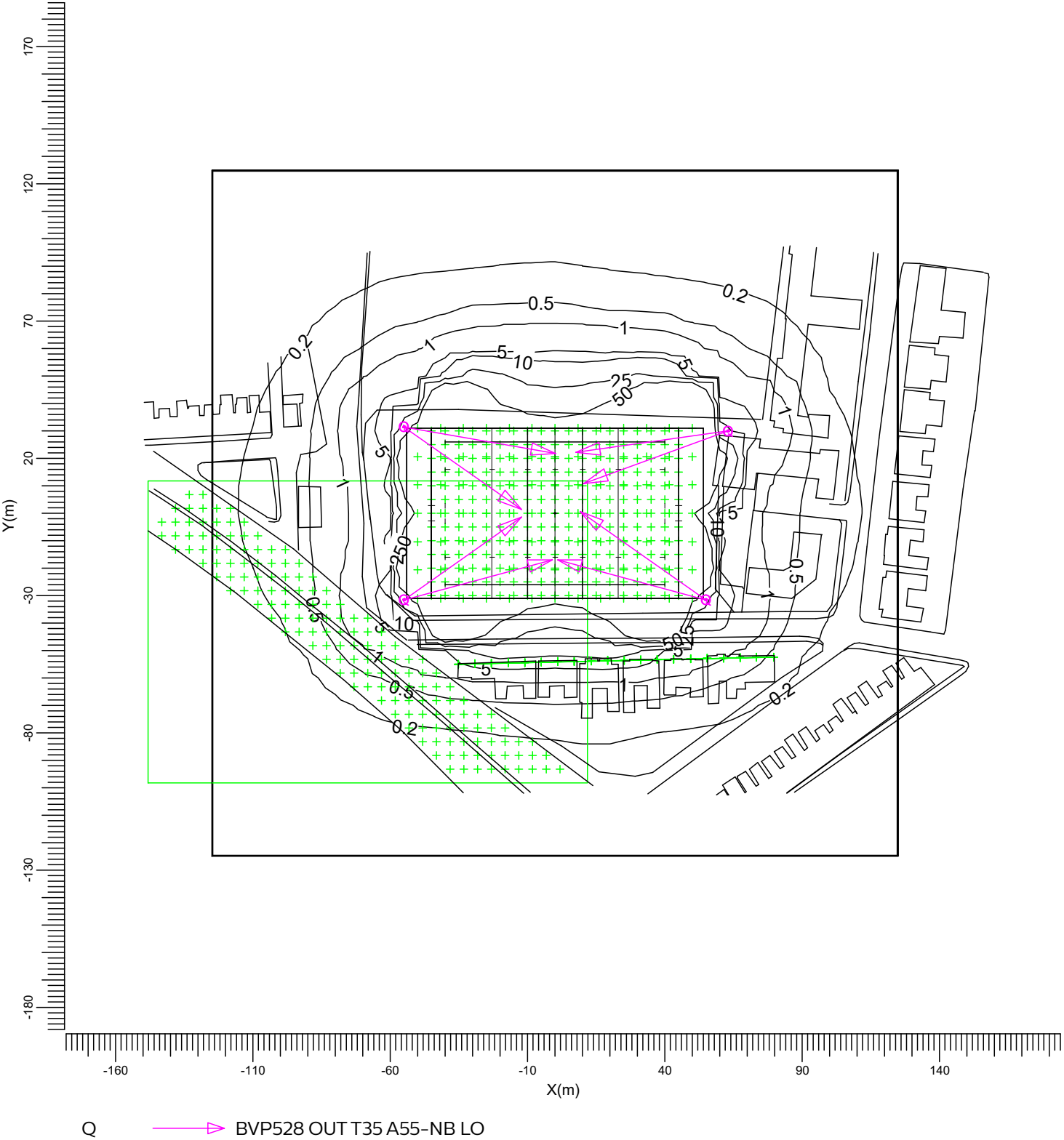
All On

Grid

Calculation

: Spillage at Z = -0.00 m

: Surface Illuminance (lux)



Average	Min/Ave	Min/Max	Project maintenance factor	Scale
18.7	0.00	0.00	1.00	1:2000

3.5 Spillage: Filled Iso Contour

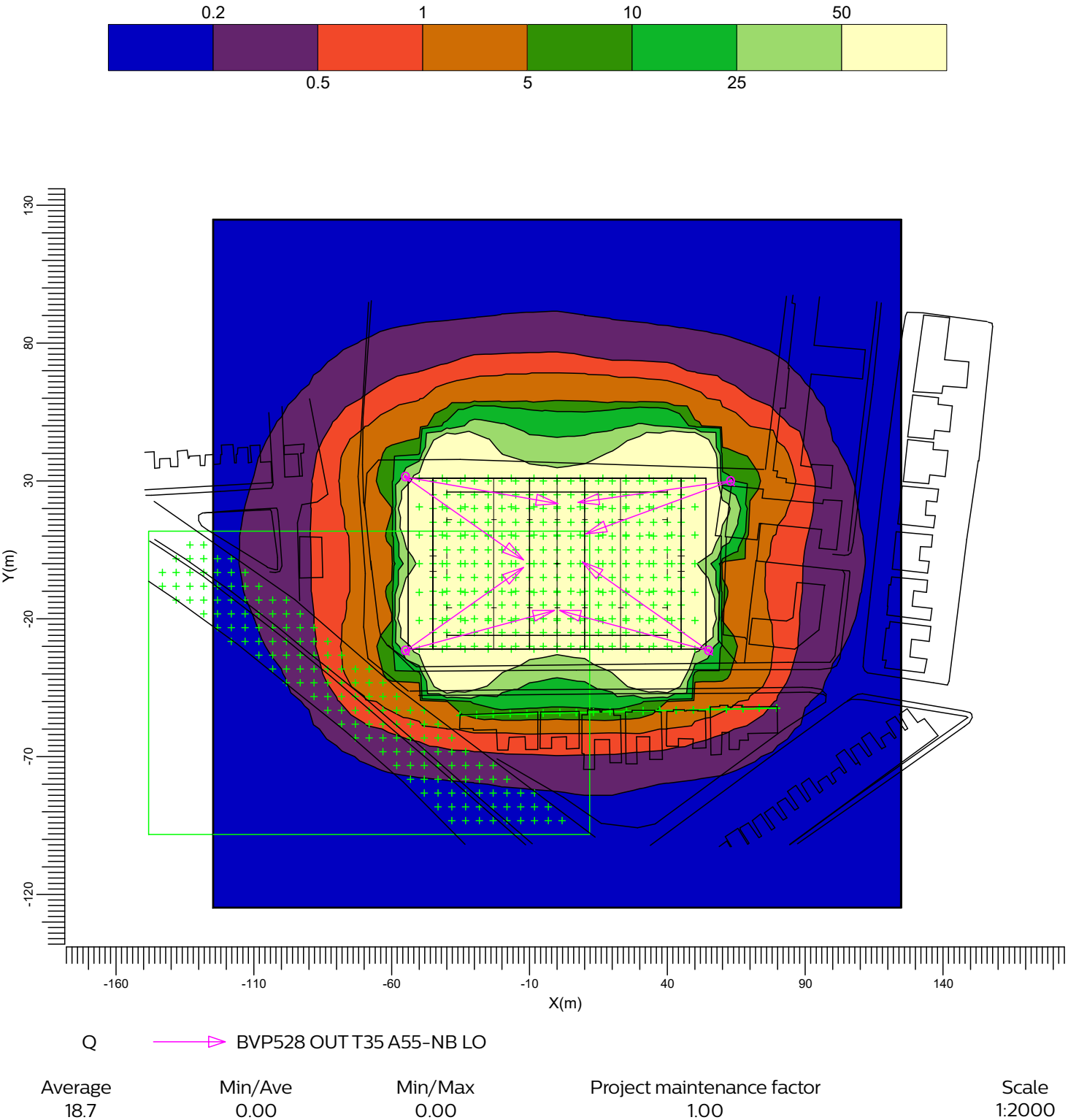
All On

Grid

Calculation

: Spillage at Z = -0.00 m

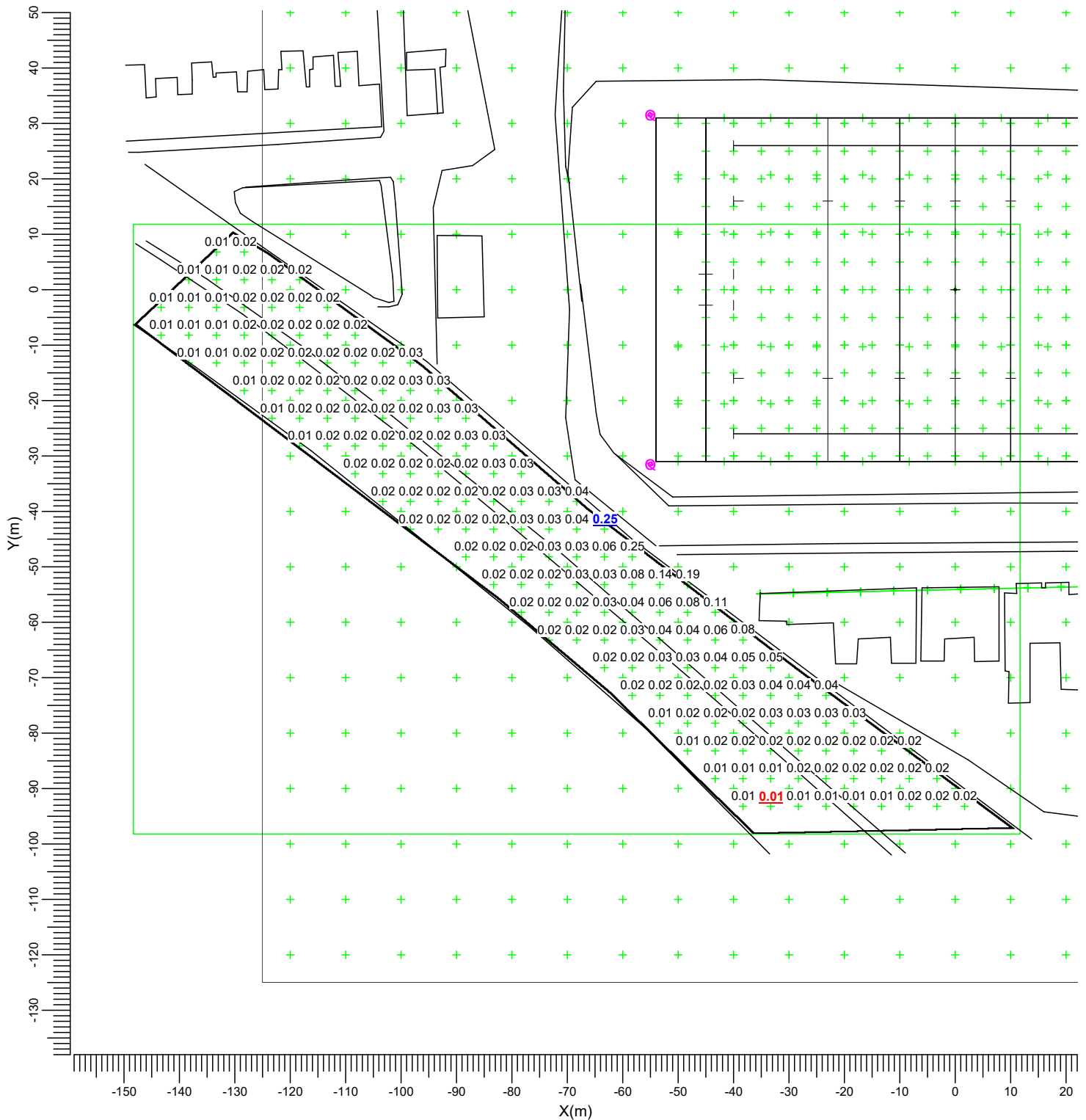
: Surface Illuminance (lux)



3.6 M4 Motorway: Graphical Table

All On

Grid : M4 Motorway at Z = 10.00 m
Calculation : Surface Illuminance (lux)



Q: BVP528 OUT T35 A55-NB LO

Maximum
0.25

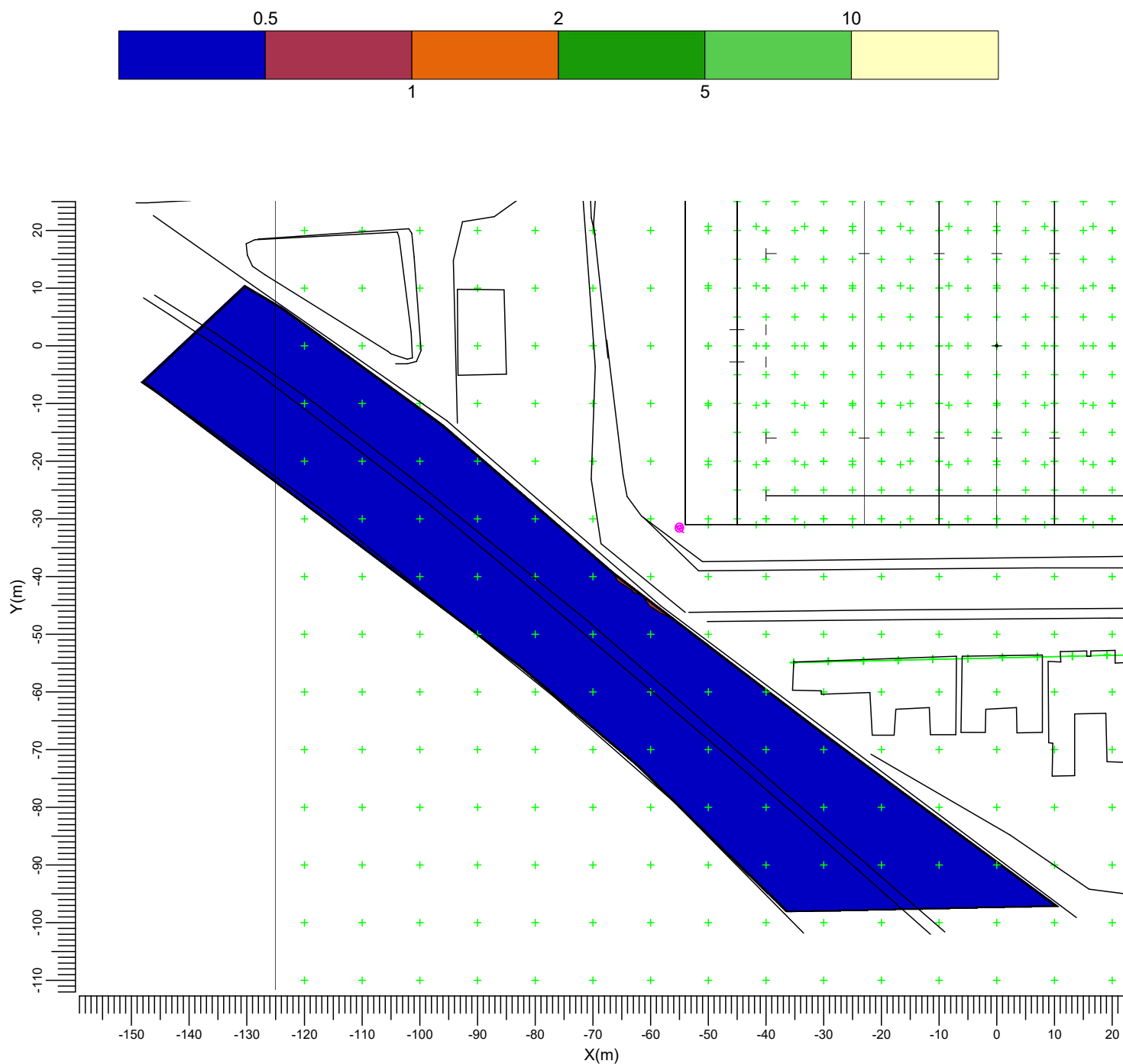
Project maintenance factor
1.00

Scale
1:1000

3.7 M4 Motorway: Filled Iso Contour

All On

Grid : M4 Motorway at Z = 10.00 m
Calculation : Surface Illuminance (lux)



Q: BVP528 OUT T35 A55-NB LO

Maximum
0.25Project maintenance factor
1.00Scale
1:1000

3.8 Ev Houses: Graphical Table

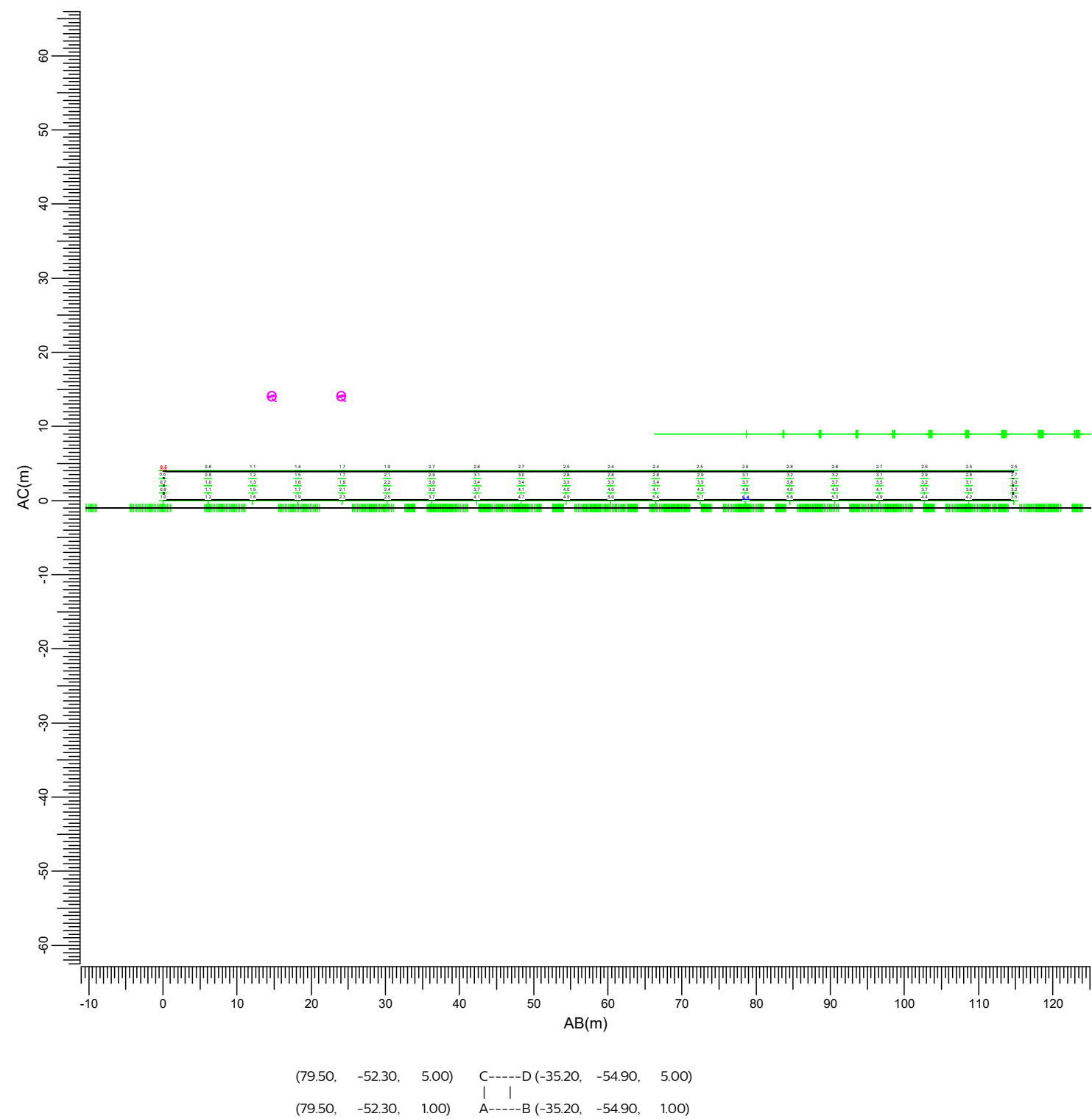
1st Pitch

Grid

Calculation

: Ev Houses

: Surface Illuminance (lux)



Maximum
6.42

Project maintenance factor
0.90

Scale
1:750

3.9 Ev Houses: Filled Iso Contour

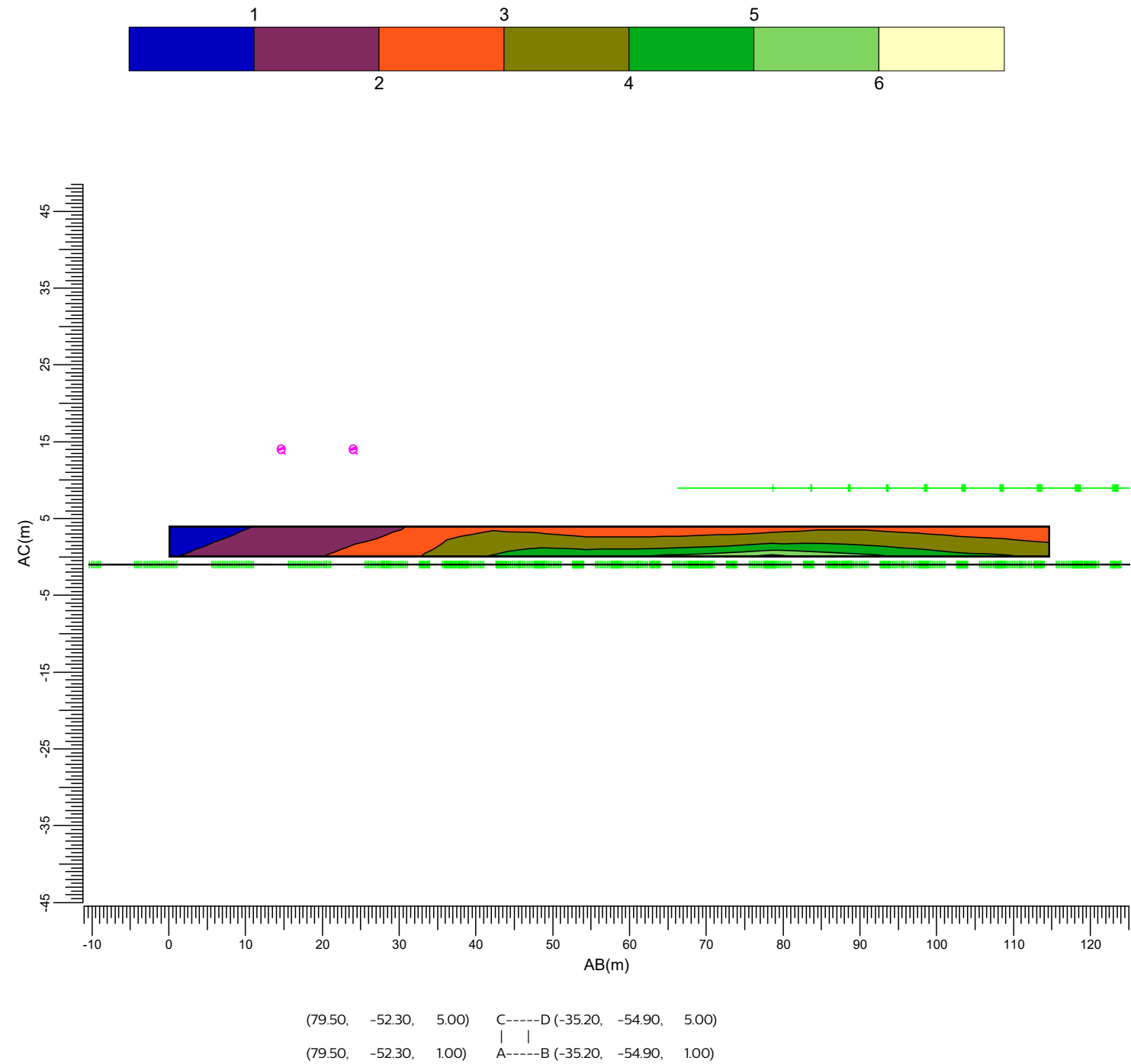
1st Pitch

Grid

Calculation

: Ev Houses

: Surface Illuminance (lux)



Q : BVP528 OUT T35 A55-NB LO

Maximum
6.42

Project maintenance factor
0.90

Scale
1:750

4. Luminaire Details

4.1 Project Luminaires

OptiVision LED gen3.5 2022
BVP528 OUT T35 1xLED2590-4S/740/740 E3/D4I A55-NB LO

Light output ratios	
DLOR	: 0.58
ULOR	: 0.00
TLOR	: 0.58
Ballast	: E3/D4I
Lamp flux	: 259000 lm
Luminaire wattage	: 1505.9 W
Measurement code	: LVM20482U1

Note: Luminaire data not from database.

