

# Tonna RFC- Training pitch

## Training Pitch LED

Date: 05-11-2025

Designer: Andy Poplett

Description: The design has been completed using the Philips Asymmetric OptiVision LED GEN 3 3000k Floodlights. A total of 6no have been used to achieve an average of 100lux.

Floodlights are mounted on 6 x 15 metre columns

ALL floodlights fitted with LTM integral louvres to reduce spill and glare.

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.

## Signify

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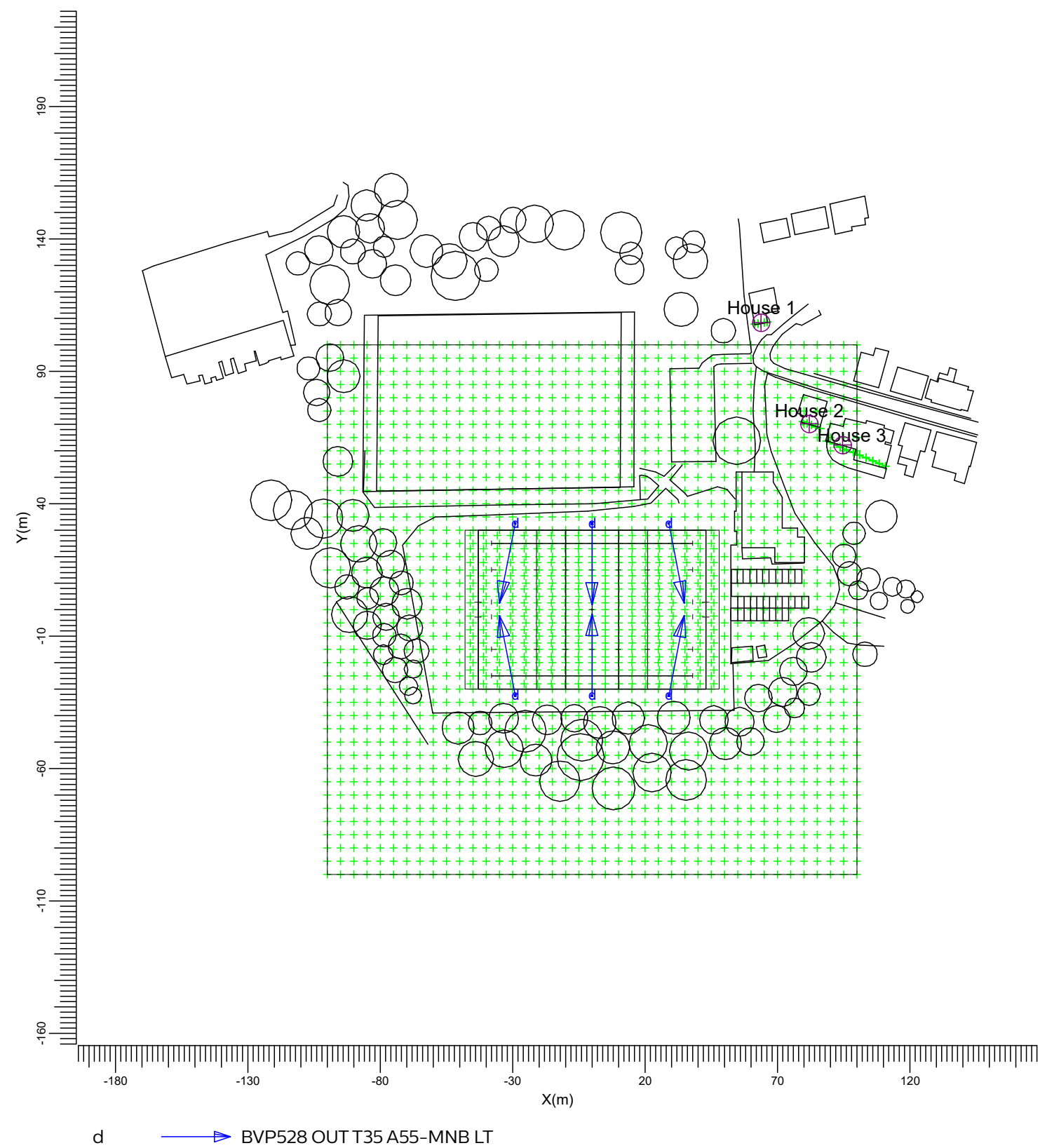
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1. Project Description

1.1 Top Project Overview



Scale  
1:2000

## 2. Summary

### 2.1 Observer Information

| Code | Observer              | Position |        |       |
|------|-----------------------|----------|--------|-------|
|      |                       | X (m)    | Y (m)  | Z (m) |
| Aa   | Observer 1 - House 1  | 63.80    | 108.40 | 1.50  |
| Bb   | Observer 2 - House 2  | 82.00    | 70.20  | 1.50  |
| Cc   | Observer 3 - House .3 | 94.70    | 62.10  | 1.50  |

### 2.2 Project Luminaires

| Code | Qty | Luminaire Type             | Lamp Type          | Power (W) | Flux (lm)  |
|------|-----|----------------------------|--------------------|-----------|------------|
| d    | 6   | BVP528 OUT T35 A55-MNB LTM | 1 * LED2470-4S/730 | 1498.6    | 1 * 247000 |

The total installed power: 8.99 (kWatt)

Number of Luminaires Per Switching Mode:

| Switching Mode | Luminaire Code | Power (kWatt) |
|----------------|----------------|---------------|
|                | d              |               |
| Main Pitch     | 6              | 8.99          |
| Spillage       | 6              | 8.99          |

Number of Luminaires Per Arrangement:

| Arrangement | Luminaire Code | Power (kWatt) |
|-------------|----------------|---------------|
|             | d              |               |
| Point       | 4              | 5.99          |
| Point1      | 2              | 3.00          |

### 2.3 Calculation Results

Switching Modes:

| Code | Switching Mode | Maintenance factor |
|------|----------------|--------------------|
| 1    | Main Pitch     | 0.90               |
| 2    | Spillage       | 1.00               |

(II)luminance Calculations:

| Calculation | Switching Mode | Type                | Unit | Ave  | Max  | Min/Ave | Min/Max |
|-------------|----------------|---------------------|------|------|------|---------|---------|
| Rugby       | 1              | Surface Illuminance | lux  | 123  | 0.51 | 0.32    |         |
| Spillage    | 2              | Surface Illuminance | lux  | 21.6 | 0.00 | 0.00    |         |
| Ev House 1  | 2              | Surface Illuminance | lux  |      | 0.34 |         |         |
| Ev House 2  | 2              | Surface Illuminance | lux  |      | 0.71 |         |         |
| Ev House 3  | 2              | Surface Illuminance | lux  |      | 0.62 |         |         |

Obtrusive Light Calculations:

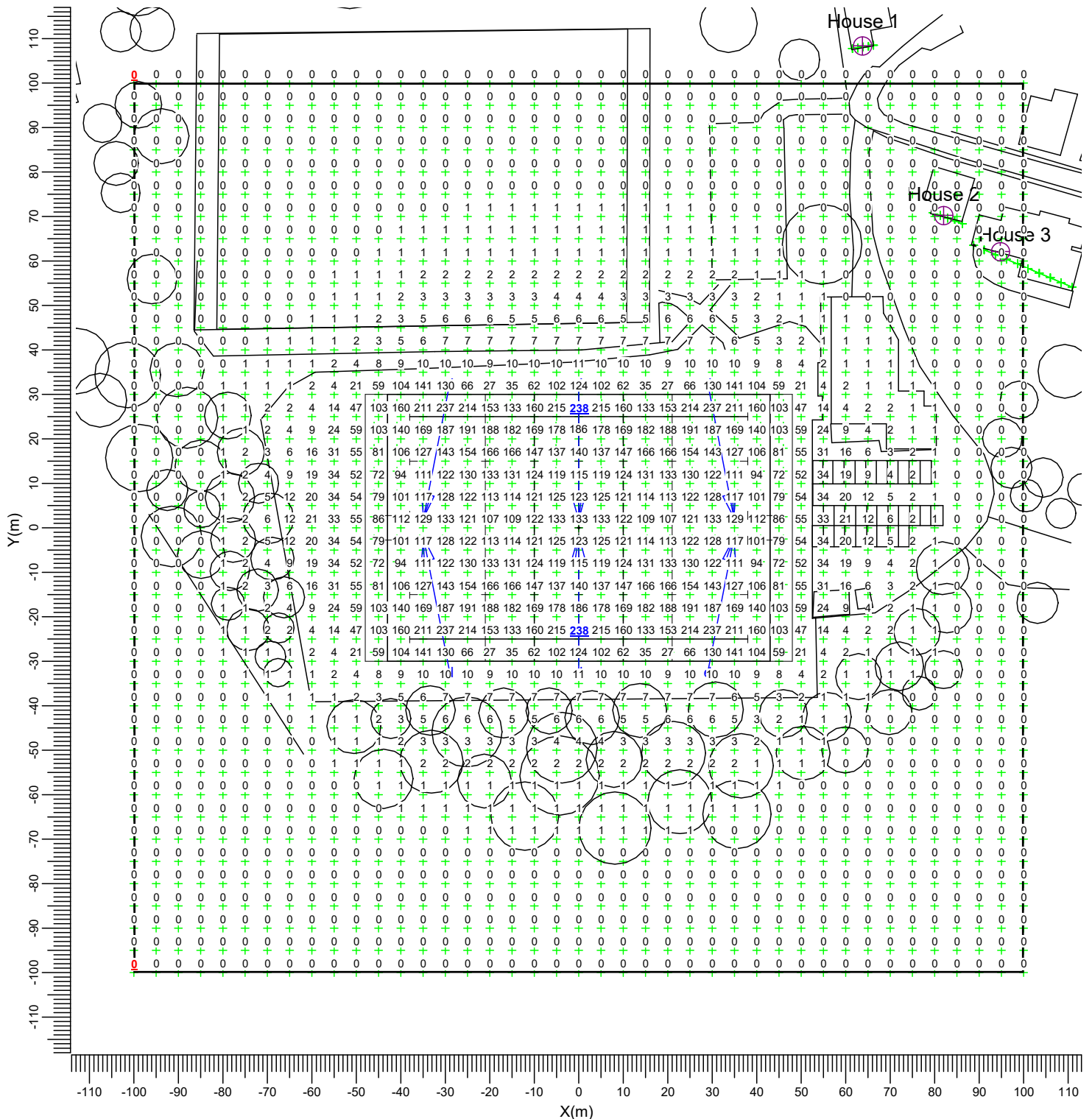
| Switching<br>Mode | Observer<br>Code | Luminaire<br>Code | Position |        |       | Aiming Angles |        |       | Maximum<br>Intensity (cd) |
|-------------------|------------------|-------------------|----------|--------|-------|---------------|--------|-------|---------------------------|
|                   |                  |                   | X (m)    | Y (m)  | Z (m) | Rot.          | Tilt90 | Tilt0 |                           |
| 1                 | Aa               | d                 | 29.00    | -32.50 | 15.00 | 79.00         | 64.00  | -0.00 | 3552                      |
| 1                 | Bb               | d                 | 29.00    | -32.50 | 15.00 | 79.00         | 64.00  | -0.00 | 5220                      |
| 1                 | Cc               | d                 | 29.00    | -32.50 | 15.00 | 79.00         | 64.00  | -0.00 | 4402                      |
| Switching<br>Mode | ULR              |                   |          |        |       |               |        |       |                           |
| 1                 | 0.00             |                   |          |        |       |               |        |       |                           |
| 2                 | 0.00             |                   |          |        |       |               |        |       |                           |



## 3.2 Spillage: Graphical Table

## Spillage

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



d BVP528 OUT T35 A55-MNB LT

Average  
21.6

Min/Ave  
0.00

Min/Max  
0.00

Project maintenance factor  
1.00

Scale  
1:1250

3.3 Spillage: Iso Contour

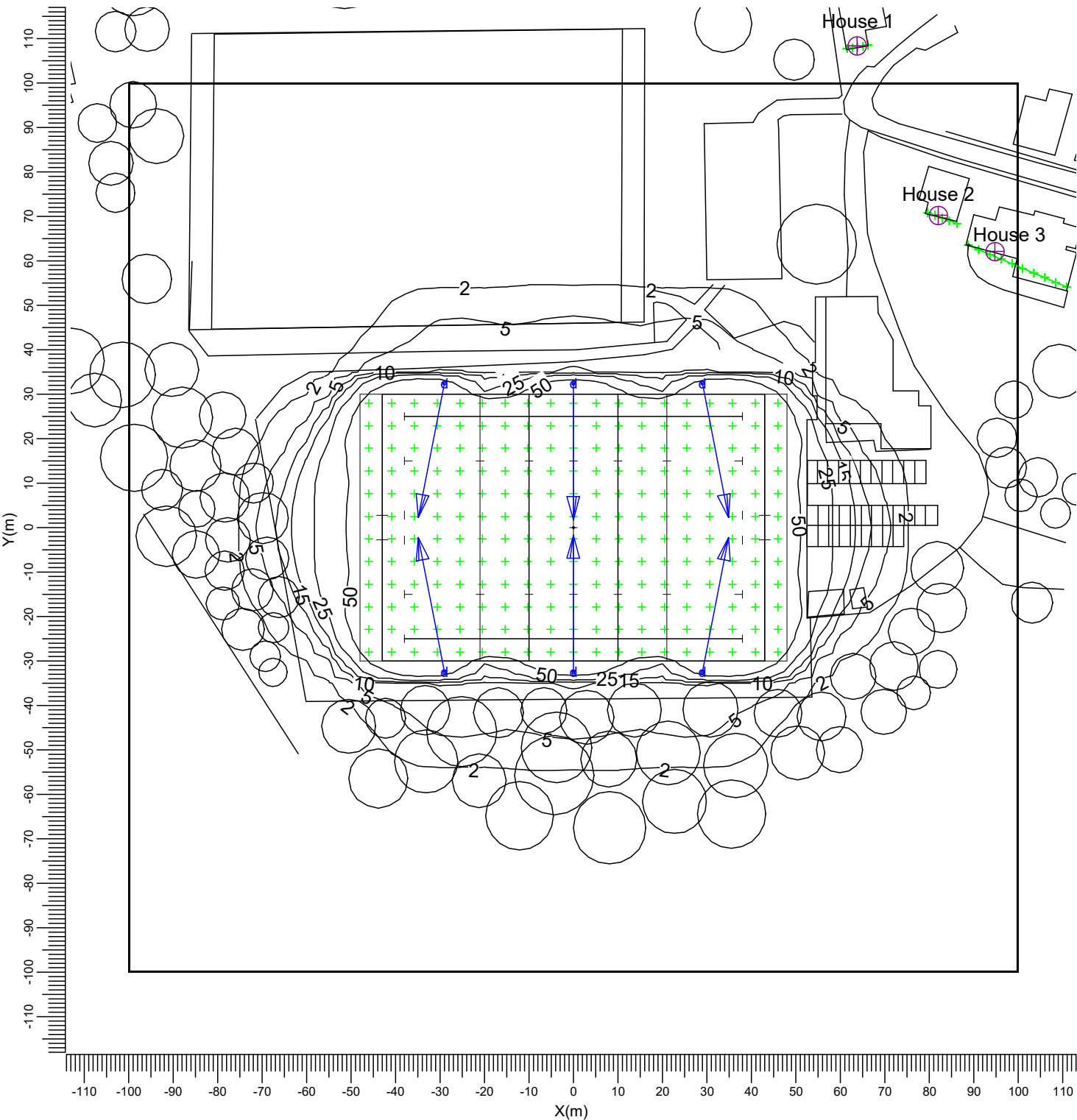
Spillage

Grid

Calculation

: Spillage at Z = -0.00 m

: Surface Illuminance (lux)



d       BVP528 OUT T35 A55-MNB LT

|         |         |         |                            |        |
|---------|---------|---------|----------------------------|--------|
| Average | Min/Ave | Min/Max | Project maintenance factor | Scale  |
| 21.6    | 0.00    | 0.00    | 1.00                       | 1:1250 |

3.4 Spillage: Filled Iso Contour

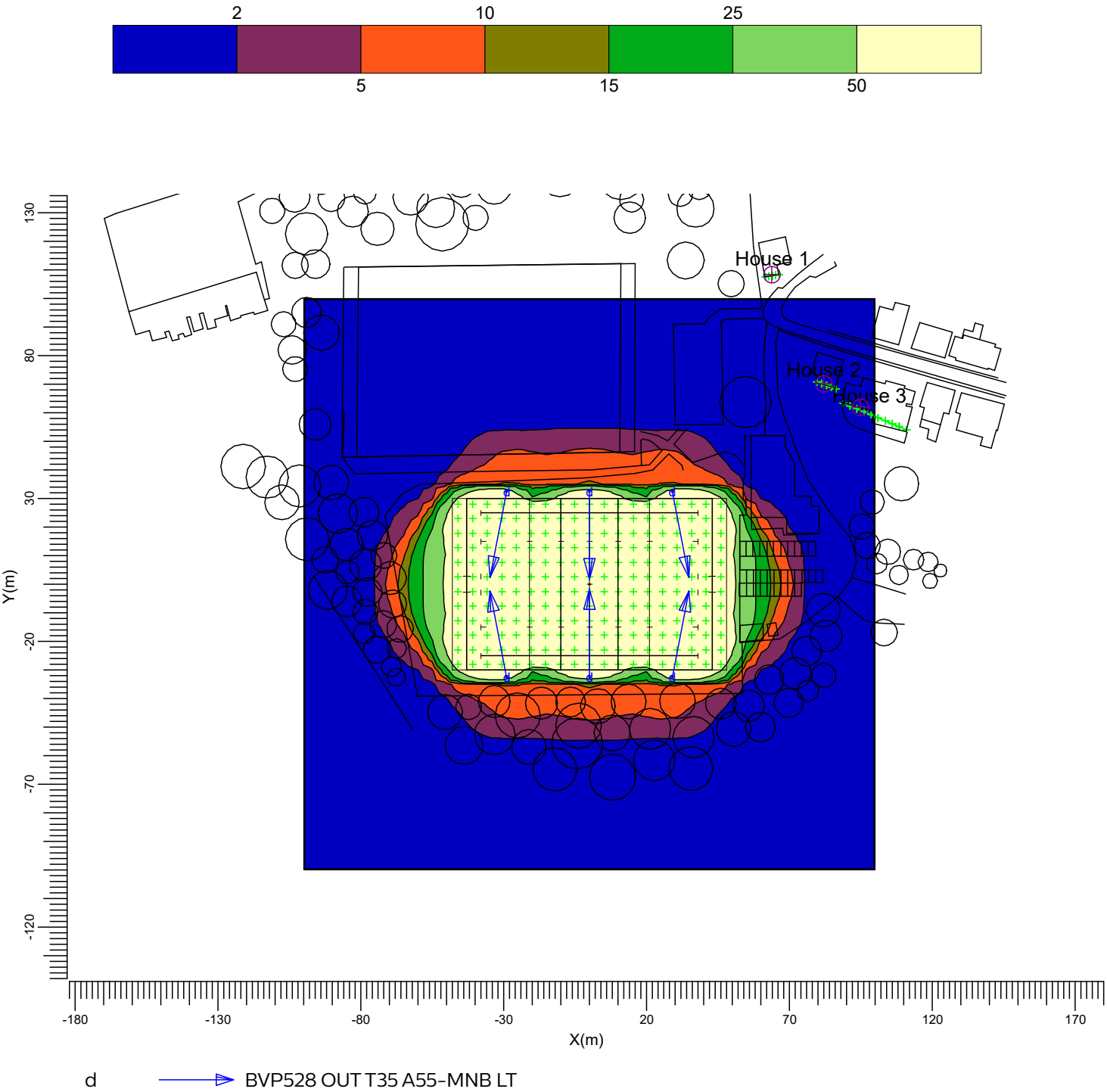
Spillage

Grid

Calculation

: Spillage at Z = -0.00 m

: Surface Illuminance (lux)

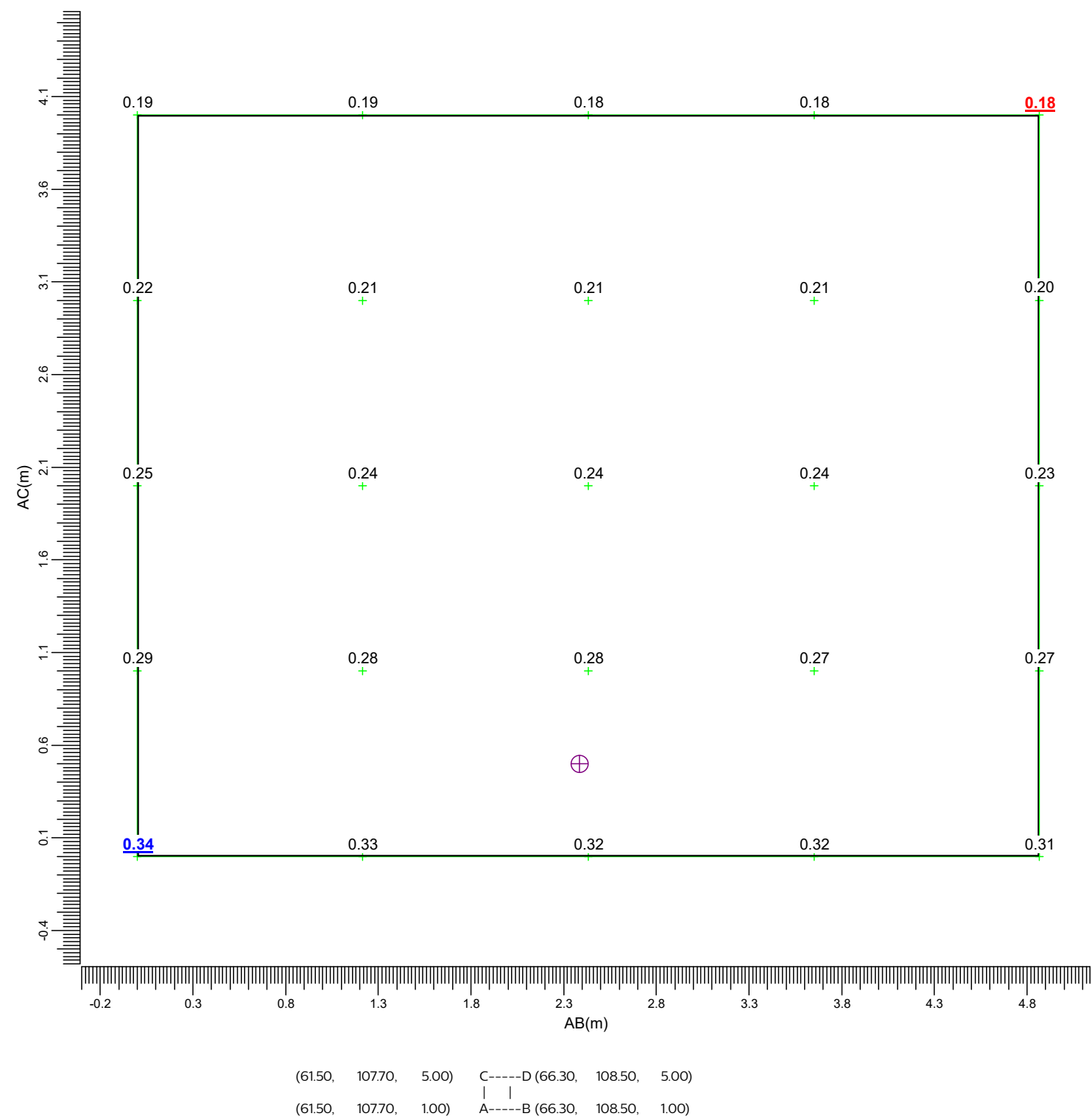


3.5 Ev House 1: Graphical Table

Spillage

Grid : Ev House 1

Calculation : Surface Illuminance (lux)



d : BVP528 OUT T35 A55-MNB LTM

Maximum0.34

Project maintenance factor1.00

Scale1:30

3.6 Ev House 2: Graphical Table

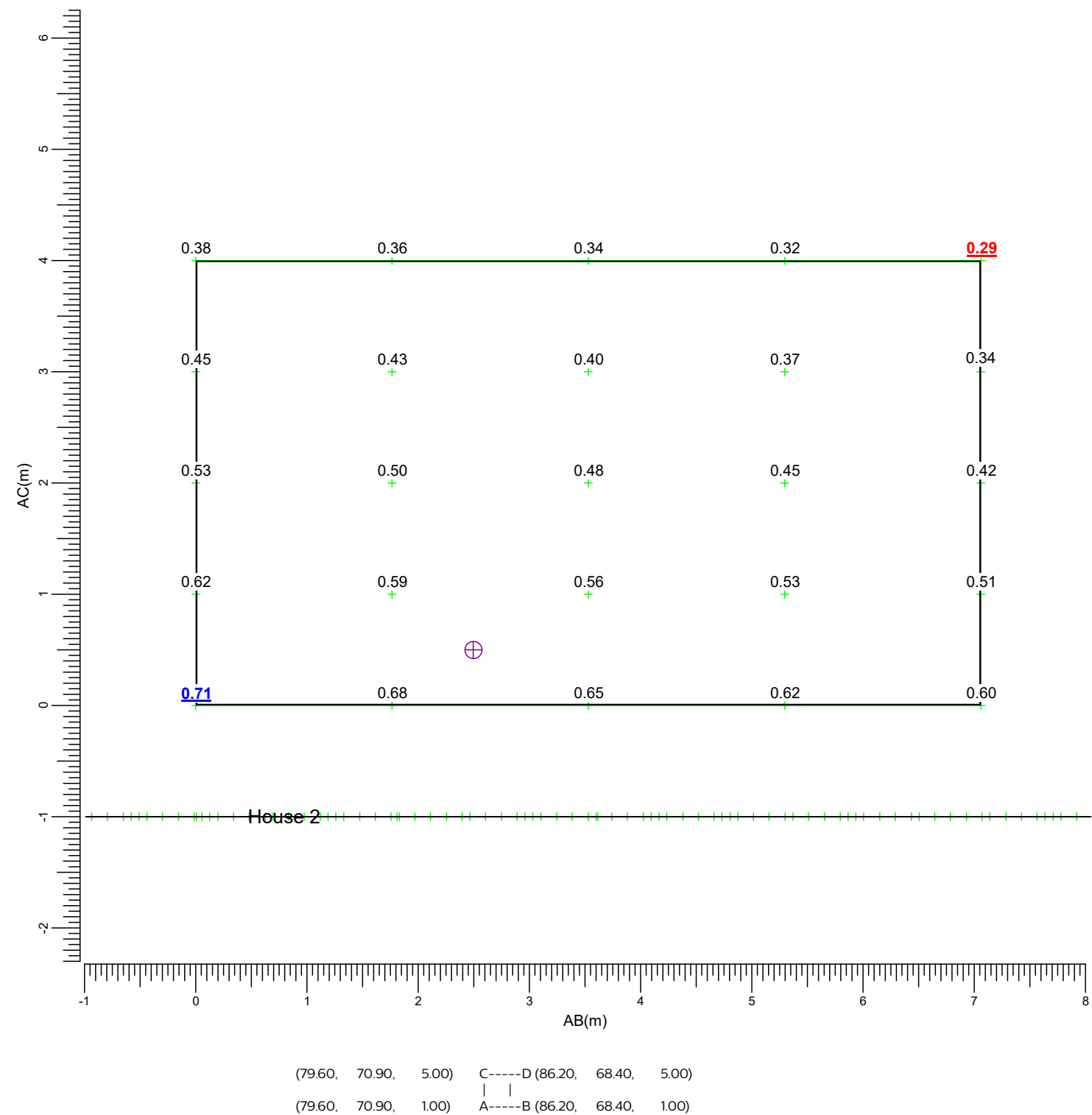
Spillage

Grid

Calculation

: Ev House 2

: Surface Illuminance (lux)



d : BVP528 OUT T35 A55-MNB LTM

Maximum  
0.71

Project maintenance factor  
1.00

Scale  
1:50

3.7 Ev House 3: Graphical Table

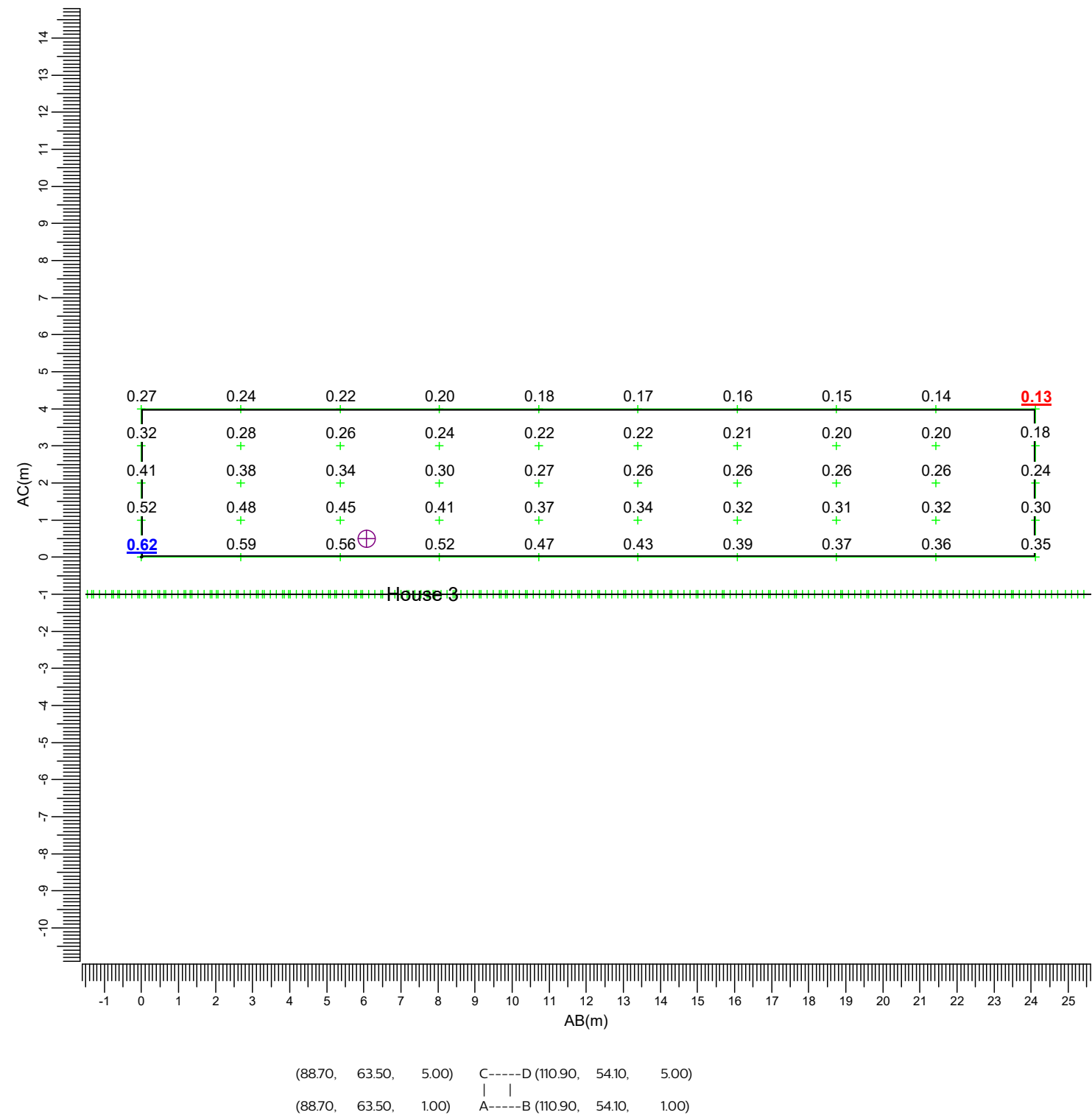
Spillage

Grid

Calculation

: Ev House 3

: Surface Illuminance (lux)



d: BVP528 OUT T35 A55-MNB LTM

Maximum0.62

Project maintenance factor1.00

Scale1:150

## 4. Luminaire Details

### 4.1 Project Luminaires

OptiVision LED gen3.5 2022  
BVP528 OUT T35 1xLED2470-4S/730/730 E3/D4I A55-MNB LTM

Light output ratios  
DLOR : 0.61  
ULOR : 0.00  
TLOR : 0.61  
Ballast : E3/D4I  
Lamp flux : 247000 lm  
Luminaire wattage : 1498.6 W  
Measurement code : LVM2I005U1

Note: Luminaire data not from database.

