

South Holland Wellbeing & Fitness Hub

Football Pitch - GigaTera

Date: 17-09-2026

Designer: Ben Leslie - Christy Lighting Masts

Description: Football Pitch 97m / 61m
Playing Lines 91m/55m

Maintained Illuminance: 200lux
Uniformity 0.60

Luminaire Source: 8no. MAFGen2 1.25kW GigaTera Floodlights
Lamp Source: LED FL RL

6no. 14m Christy Raise & Lower Floodlighting Masts

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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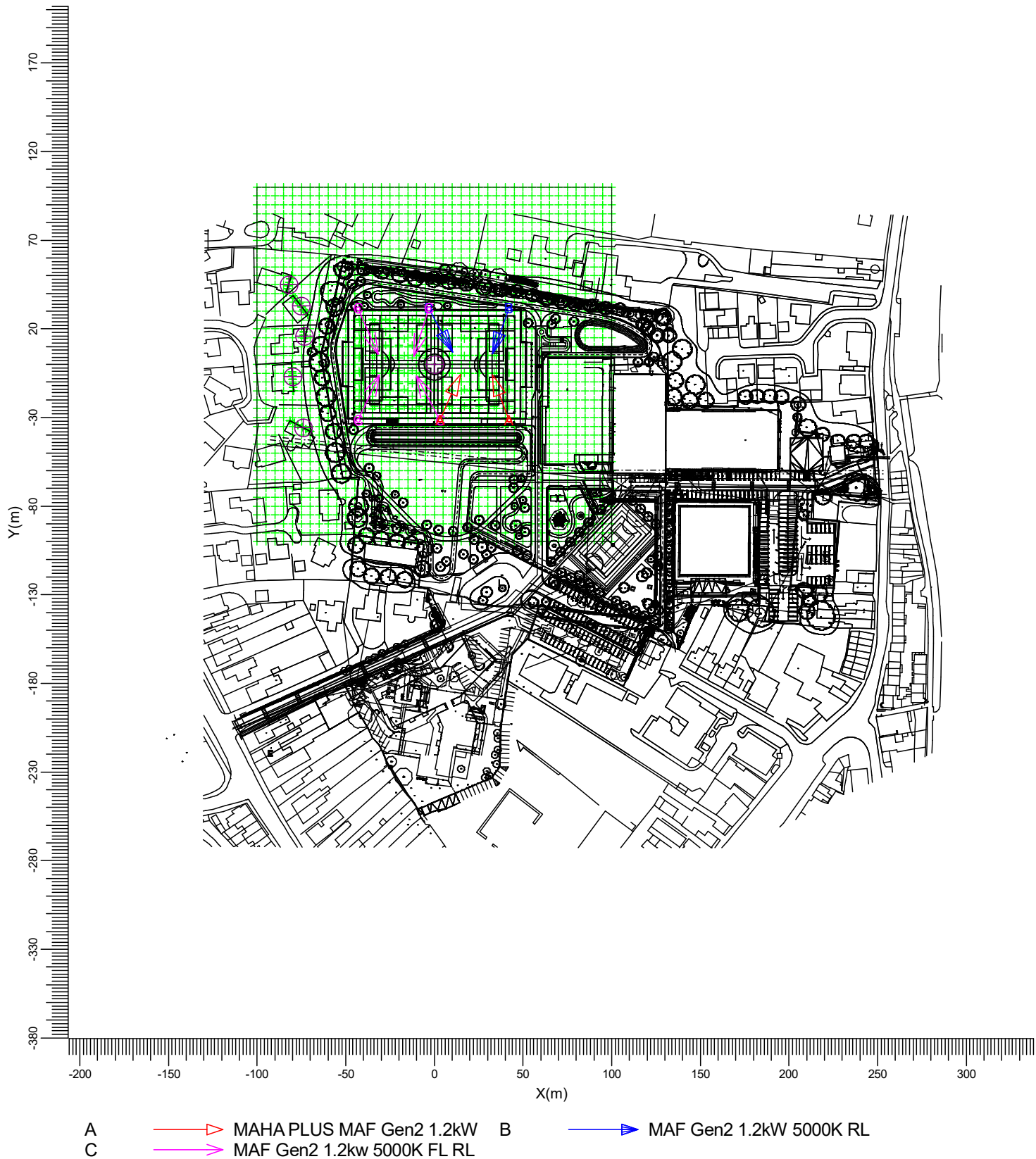
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1. Project Description

1.1 Top Project Overview



Scale
1:3000

2. Summary

2.1 Observer Information

Code	Observer	Position		
		X (m)	Y (m)	Z (m)
Aa	TV Camera	-0.00	-0.00	1.80
Bb	House 1 1.8m	-73.84	-35.65	1.50
Cc	House 2 1.8m	-79.87	-7.00	1.50
Dd	House 3 1.8m	-73.27	16.00	1.50
Ee	House 4 1.8m	-75.19	33.06	1.50
Ff	House 5 1.5m	-82.00	44.84	1.50

2.2 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
A	2	MAHA PLUS MAF Gen2 1.2kW 5000K	1 * LED 1.2kW	1200.0	1 * 183330
B	2	MAF Gen2 1.2kW 5000K RL	1 * LED 1.2kW	1250.0	1 * 189093
C	4	MAF Gen2 1.2kw 5000K FL RL	1 * LED 1.2kW	1250.0	1 * 163406

The total installed power: 9.90 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code			Power (kWatt)
	A	B	C	
200Lux Switching	2	2	4	9.90
Half Pitch Switching	0	0	4	5.00
All On	2	2	4	9.90

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code			Power (kWatt)
	A	B	C	
Centre Columns6	1	0	1	2.45
Centre Columns7	0	1	1	2.50
Corner Columns10	0	0	1	1.25
Corner Columns11	0	0	1	1.25
Corner Columns12	0	1	0	1.25
Corner Columns13	1	0	0	1.20

2.3 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	200Lux Switching	0.95
2	Half Pitch Switching	0.70
3	All On	1.00

(II)luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave	Min	Max	Min/Ave	Min/Max
Football - 200lux	1	Surface Illuminance	lux	203			0.64	0.36
Spill Calcs-1.8mAGL	1	Horizontal Illuminance	lux		0.0			

Calculation	Switching Mode	Type	Unit	Ave	Min	Max	Min/Ave	Min/Max
House 1 Grid	1	Illuminance -> Aa	lux			0.46		
House 2 Grid	1	Illuminance -> Aa	lux			1.63		
House 3 Grid	1	Illuminance -> Aa	lux			2.09		
House 4 Grid	1	Illuminance -> Aa	lux			0.62		
House 5 Grid	1	Illuminance -> Aa	lux			0.15		

Glare Rating for Grid of Observers:

Calculation	Switching Mode	Observer Grid	Reference Grid	Reflectance	GR-Max
Glare Calculation	1	Football 8*11	Football 8*11	0.25	45.6

Obtrusive Light Calculations:

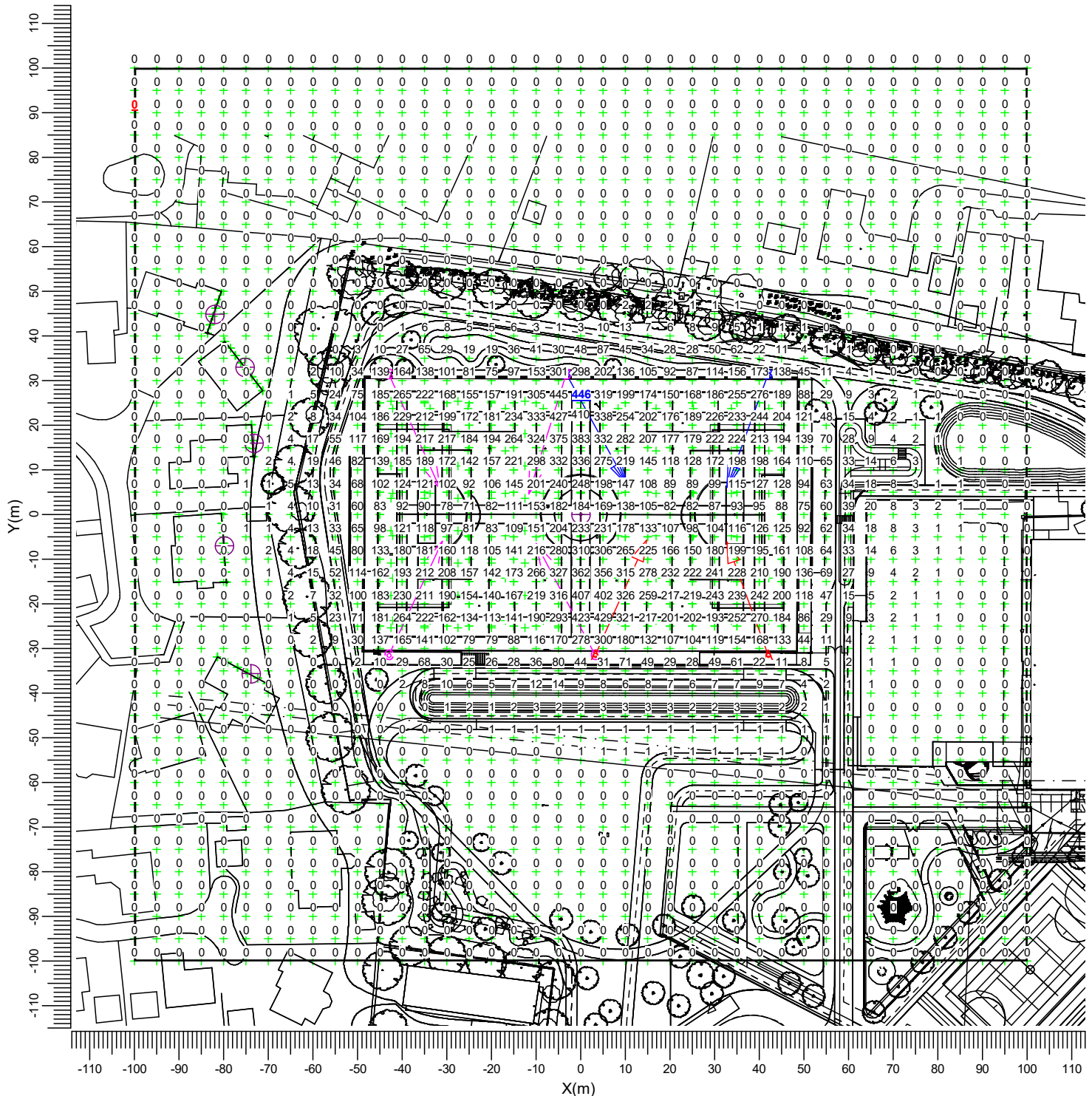
Switching Mode	Observer Code	Luminaire Code	Position			Aiming Angles			Maximum Intensity (cd)
			X (m)	Y (m)	Z (m)	Rot.	Tilt90	Tilt0	
1	Bb	C	-43.00	31.50	15.00	-66.03	62.00	0.00	930
1	Cc	C	-43.00	31.50	15.00	-66.03	62.00	0.00	692
1	Dd	C	-43.00	-31.50	15.00	64.83	62.00	0.00	1326
1	Ee	C	-43.00	-31.50	15.00	64.83	62.00	0.00	492
1	Ff	A	42.00	-31.50	15.00	110.00	61.00	-0.00	369

Switching Mode	ULR
1	0.00
2	0.00
3	0.00

3.2 Spill Calcs-1.8mAGL: Graphical Table

200Lux Switching

Grid : Spill Grid at Z = -0.00 m
 Calculation : Horizontal Illuminance (lux)
 Height above grid : 1.80 m



A → MAHA PLUS MAF Gen2 1.2kW B → MAF Gen2 1.2kW 5000K RL
 C → MAF Gen2 1.2kW 5000K FL RL

Minimum
0.0

Project maintenance factor
0.95

Scale
1:1250

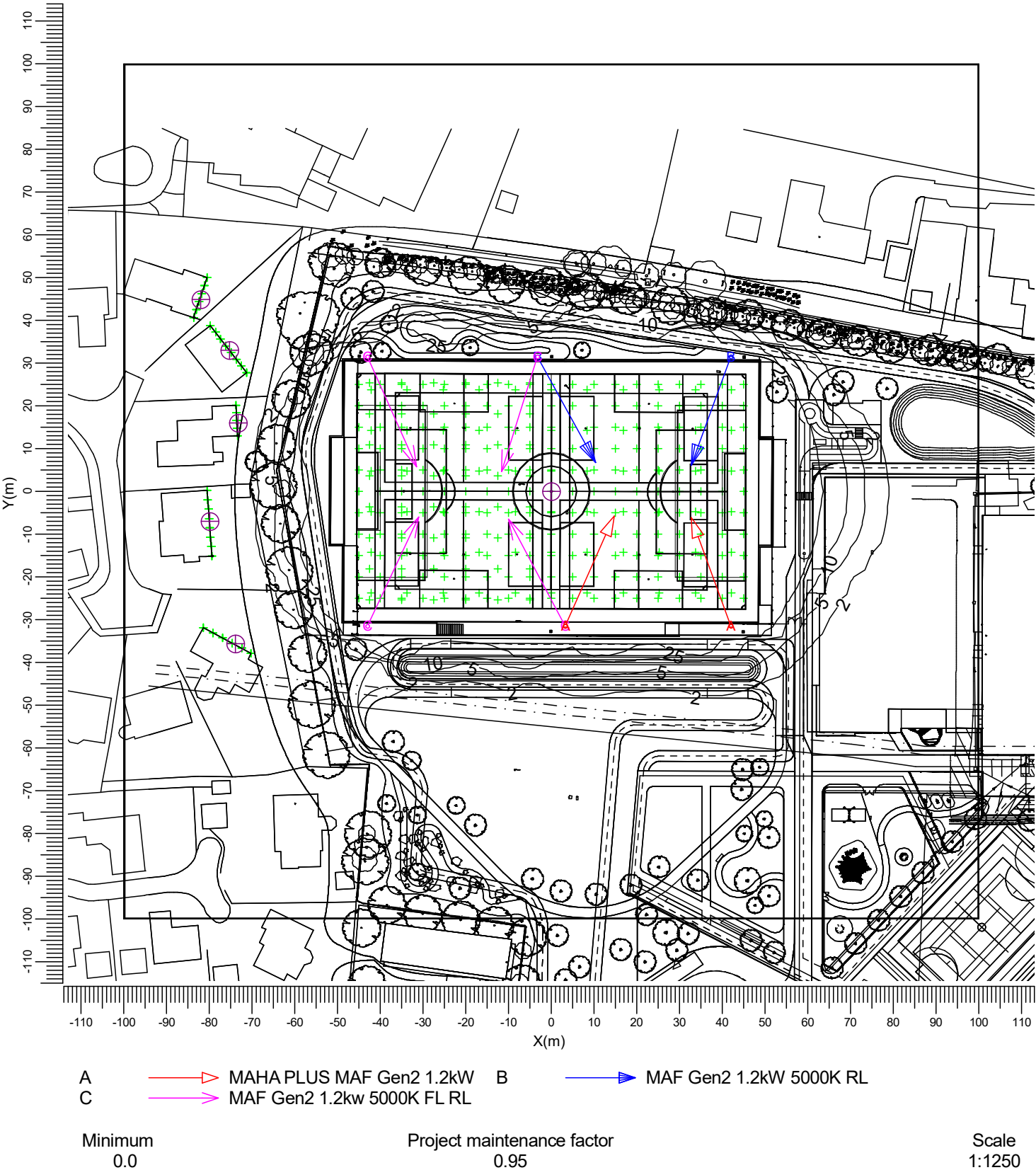
3.3 Spill Calcs-1.8mAGL: Iso Contour

200Lux Switching

Grid : Spill Grid at Z = -0.00 m

Calculation : Horizontal Illuminance (lux)

Height above grid : 1.80 m



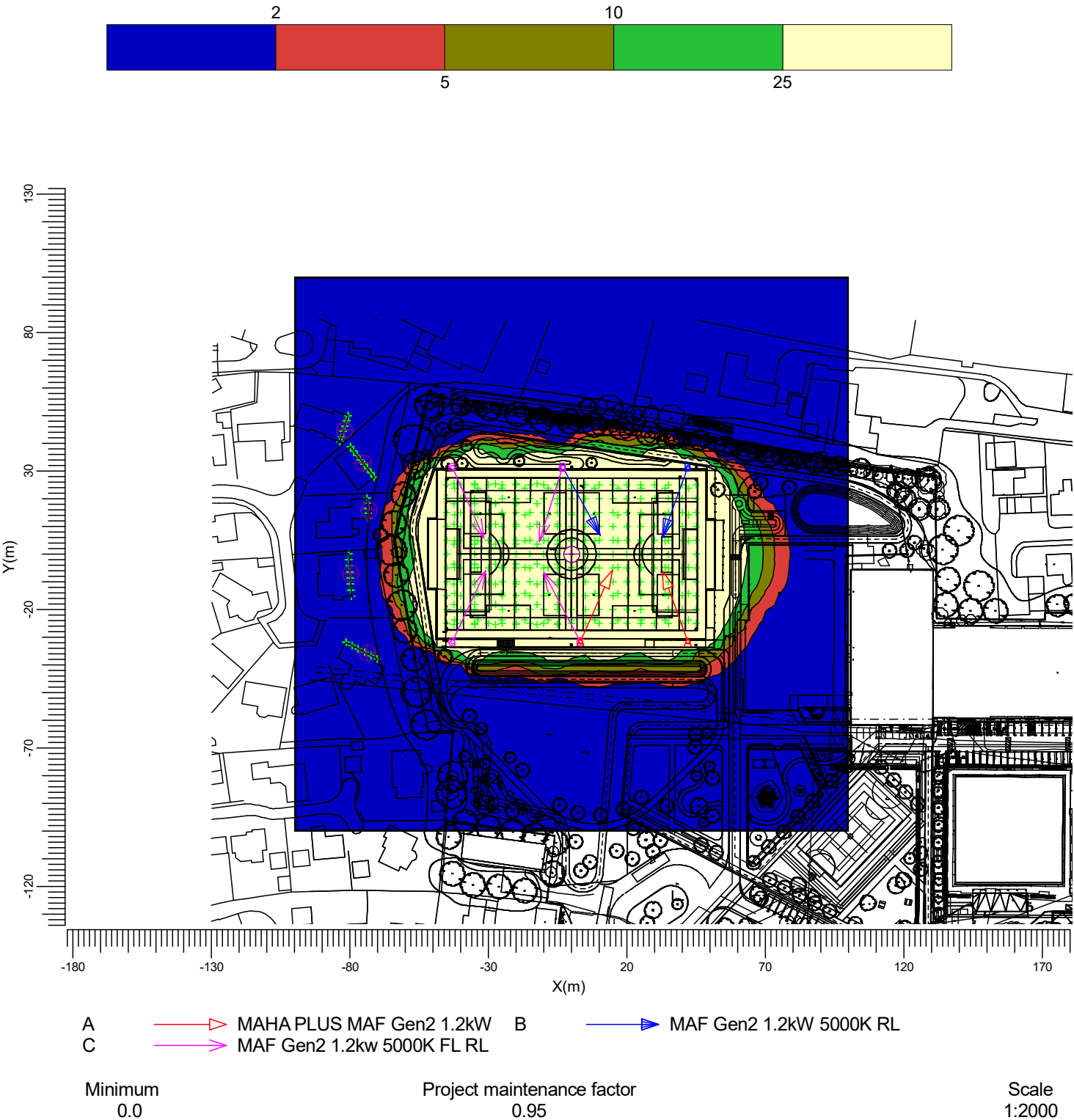
3.4 Spill Calcs-1.8mAGL: Filled Iso Contour

200Lux Switching

Grid : Spill Grid at Z = -0.00 m

Calculation : Horizontal Illuminance (lux)

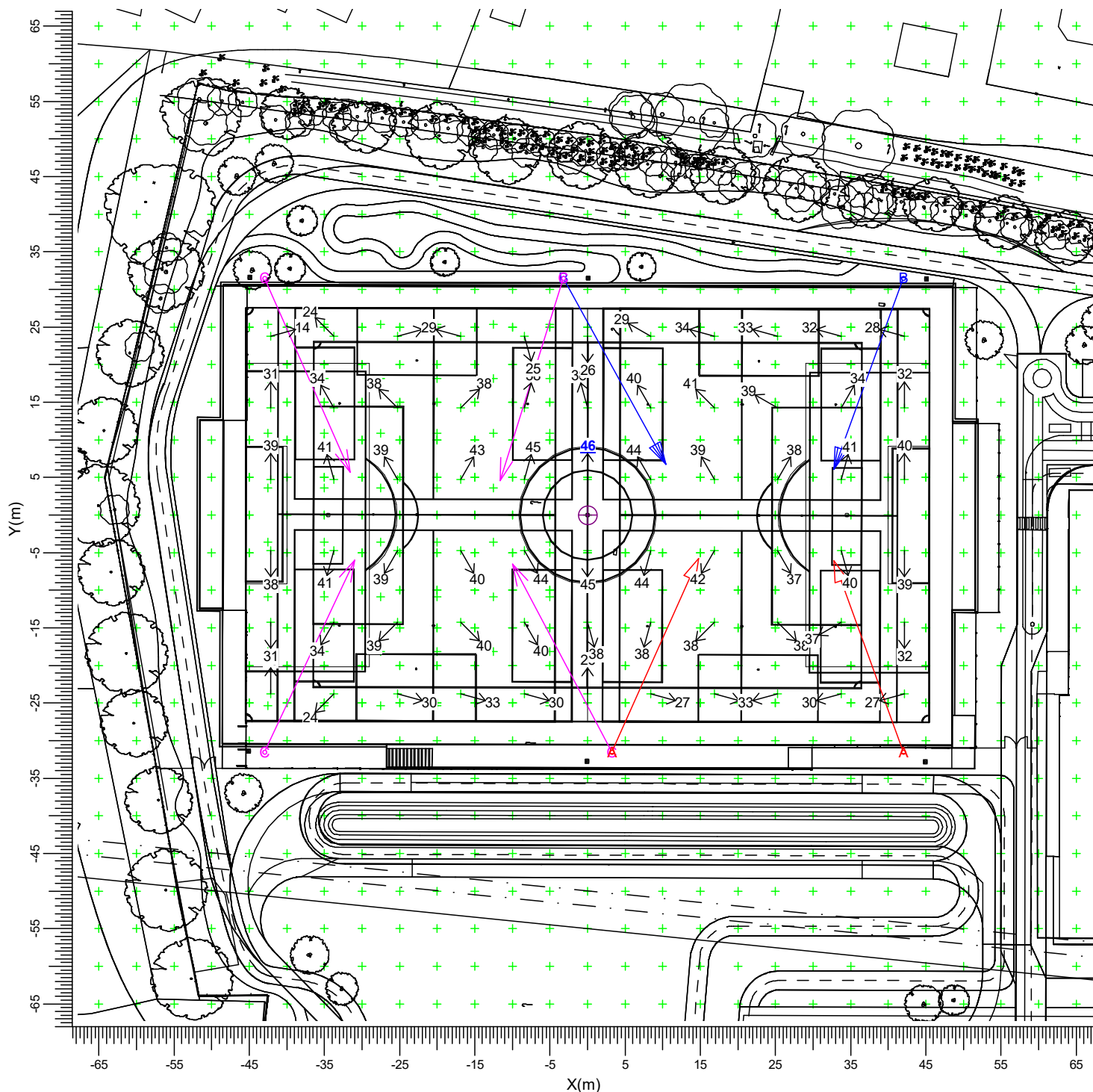
Height above grid : 1.80 m



3.5 Glare Calculation: Graphical Table

200Lux Switching

Grid of Observers : Football 8*11
 Calculation : Glare Rating
 Grid for Background Luminance : Football 8*11 (Reflectance: 0.25)
 Vertical Viewing Angle : -2.0 deg



A → MAHA PLUS MAF Gen2 1.2kW B → MAF Gen2 1.2kW 5000K RL
 C → MAF Gen2 1.2kW 5000K FL RL

Maximum
45.6

Project maintenance factor
0.95

Scale
1:750

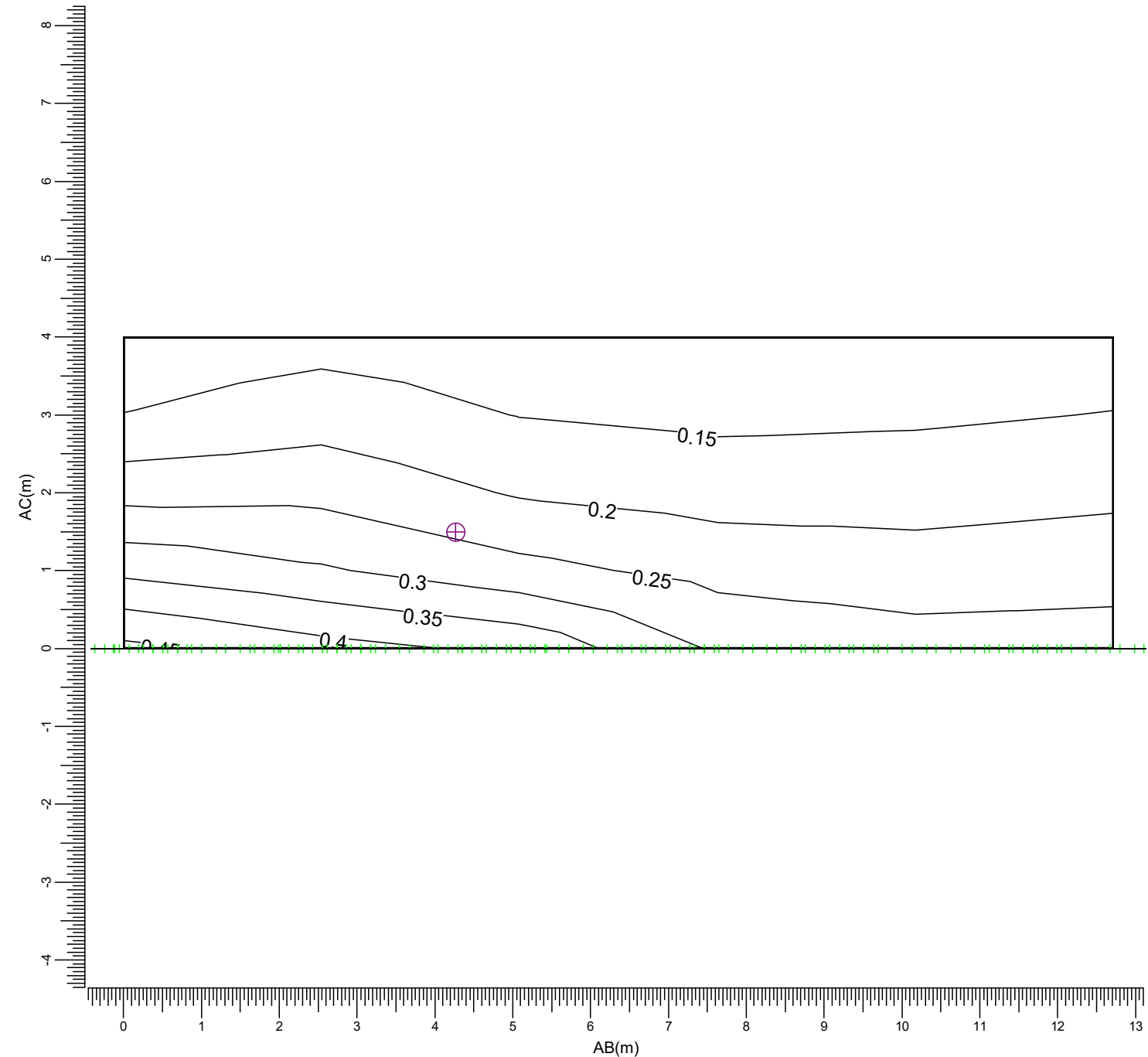
3.6 House 1 Grid: Iso Contour

200Lux Switching

Grid : House 1 Grid

Calculation : Illuminance towards TV Camera (lux)

Height above grid : 0.00 m



A

C

MAHA PLUS MAF Gen2 1.2kW

MAF Gen2 1.2kw 5000K FL RL

B

MAF Gen2 1.2kW 5000K RL

Maximum

0.46

Project maintenance factor

0.95

Scale

1:75

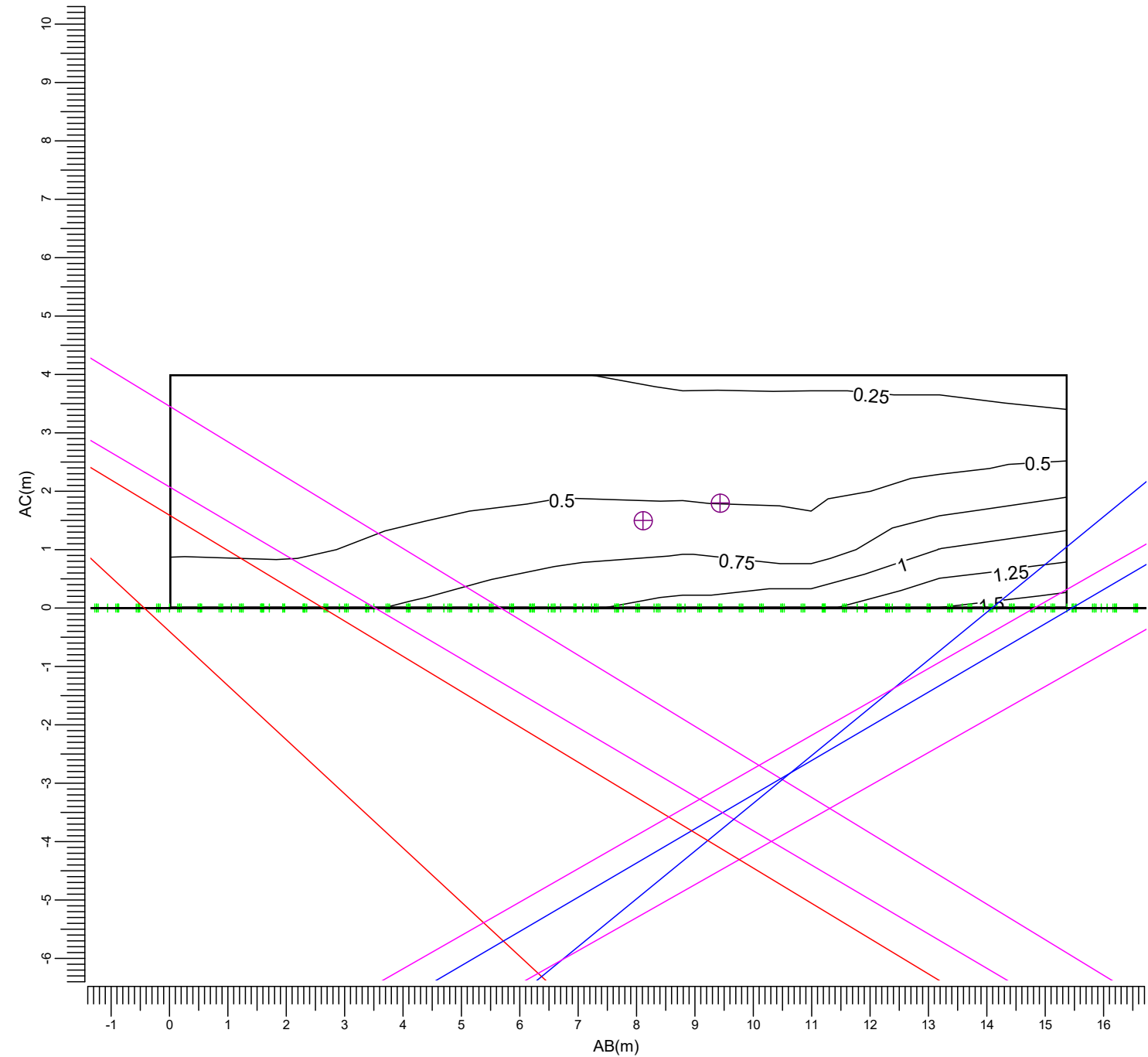
3.7 House 2 Grid: Iso Contour

200Lux Switching

Grid : House 2 Grid

Calculation : Illuminance towards TV Camera (lux)

Height above grid : 0.00 m



(-79.39, -15.10, 4.00)	C-----D	(-80.48, 0.25, 4.00)
(-79.39, -15.10, 0.00)	A-----B	(-80.48, 0.25, 0.00)

A	MAHA PLUS MAF Gen2 1.2kW	B	MAF Gen2 1.2kW 5000K RL
C	MAF Gen2 1.2kw 5000K FL RL		

Maximum 1.63	Project maintenance factor 0.95	Scale 1:100
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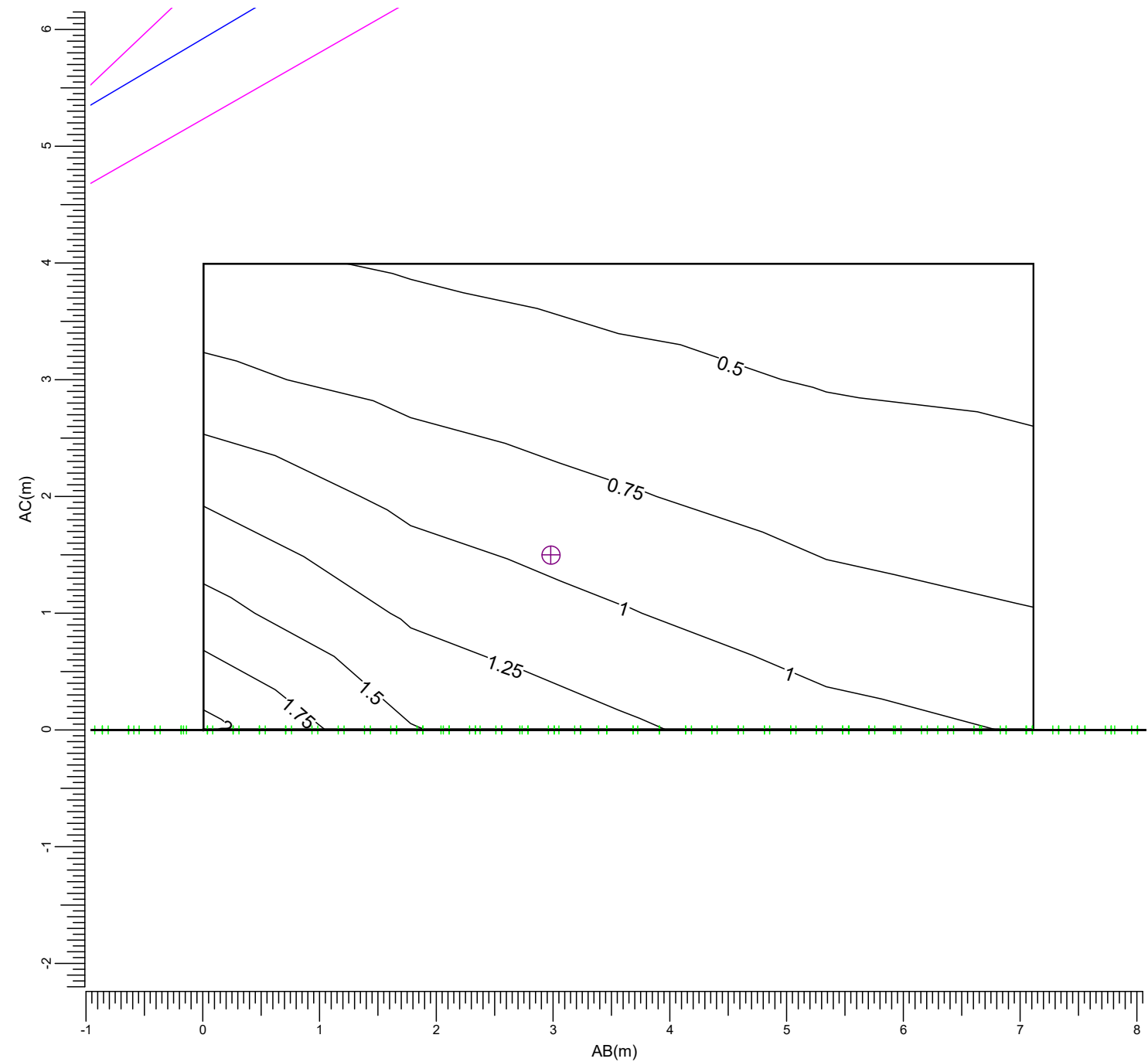
3.8 House 3 Grid: Iso Contour

200Lux Switching

Grid : House 3 Grid

Calculation : Illuminance towards TV Camera (lux)

Height above grid : 0.00 m



(-73.41, 13.01, 4.00)	C-----D	(-73.73, 20.12, 4.00)
(-73.41, 13.01, 0.00)	A-----B	(-73.73, 20.12, 0.00)

A	→	MAHA PLUS MAF Gen2 1.2kW	B	→	MAF Gen2 1.2kW 5000K RL
C	→	MAF Gen2 1.2kw 5000K FL RL			

Maximum 2.09	Project maintenance factor 0.95	Scale 1:50
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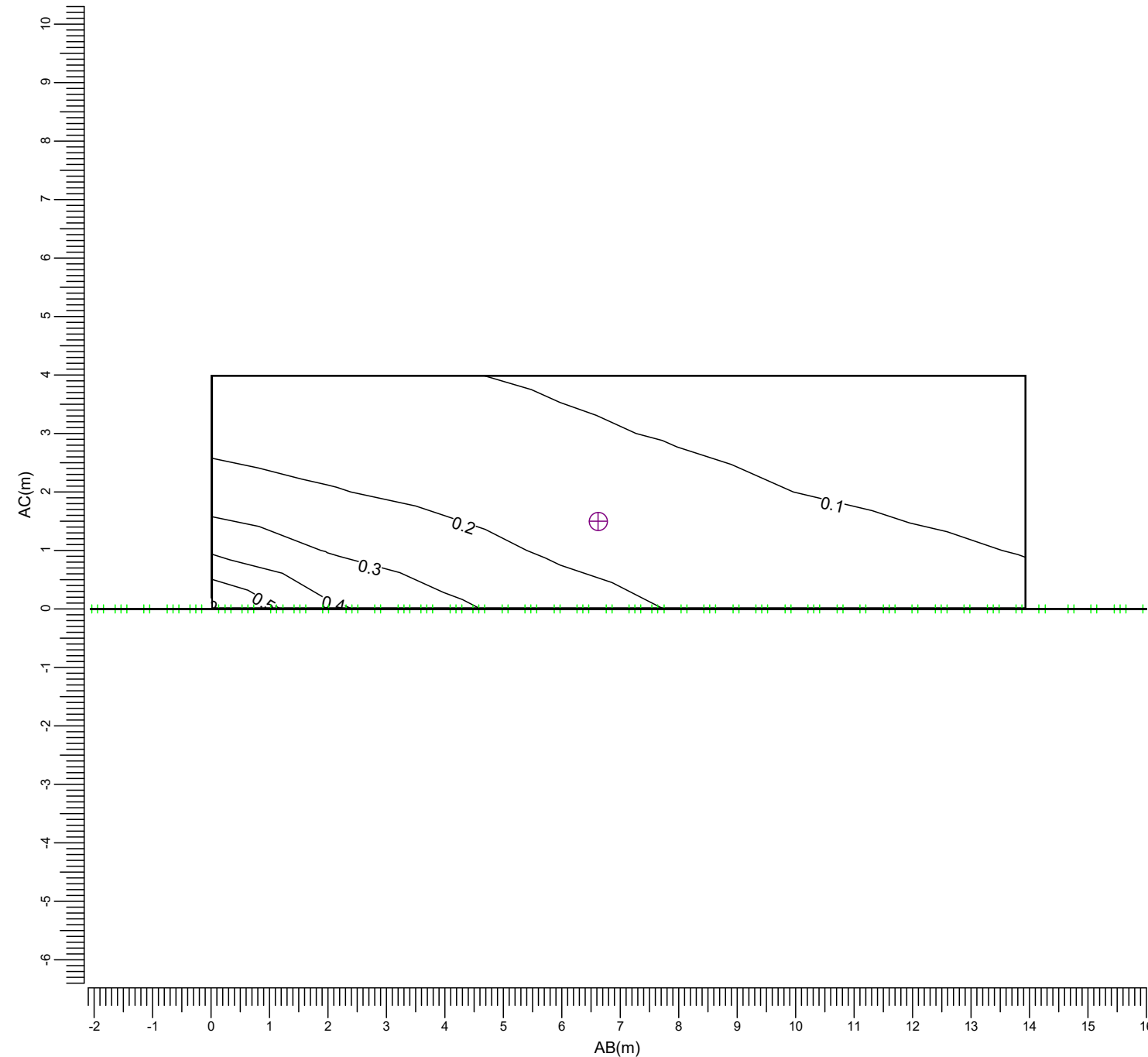
3.9 House 4 Grid: Iso Contour

200Lux Switching

Grid : House 4 Grid

Calculation : Illuminance towards TV Camera (lux)

Height above grid : 0.00 m



A

C

MAHA PLUS MAF Gen2 1.2kW

MAF Gen2 1.2kw 5000K FL RL

B

MAF Gen2 1.2kW 5000K RL

Maximum

0.62

Project maintenance factor

0.95

Scale

1:100

3.10 House 5 Grid: Iso Contour

200Lux Switching

Grid : House 5 Grid

Calculation : Illuminance towards TV Camera (lux)

Height above grid : 0.00 m

