

Bruce Castle

Playzone Floodlighting

Date: 14-01-2026

Designer: Ben Leslie

Description: MUGA 30*20m

4no 250W GigaTera MAFgen2 3000K LED Luminaires
Control: Front Louvre / Rear Louvre
Mounted to 8m fence posts.

Lighting Requirements
Average Illuminance: >120ux
Required Uniformity: >0.65

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.

Christy Lighting Ltd

Unit 9 Freebournes Park

14 Freebournes Road

Witham

Essex

CM8 3ZJ

Telephone: 01245 451 212

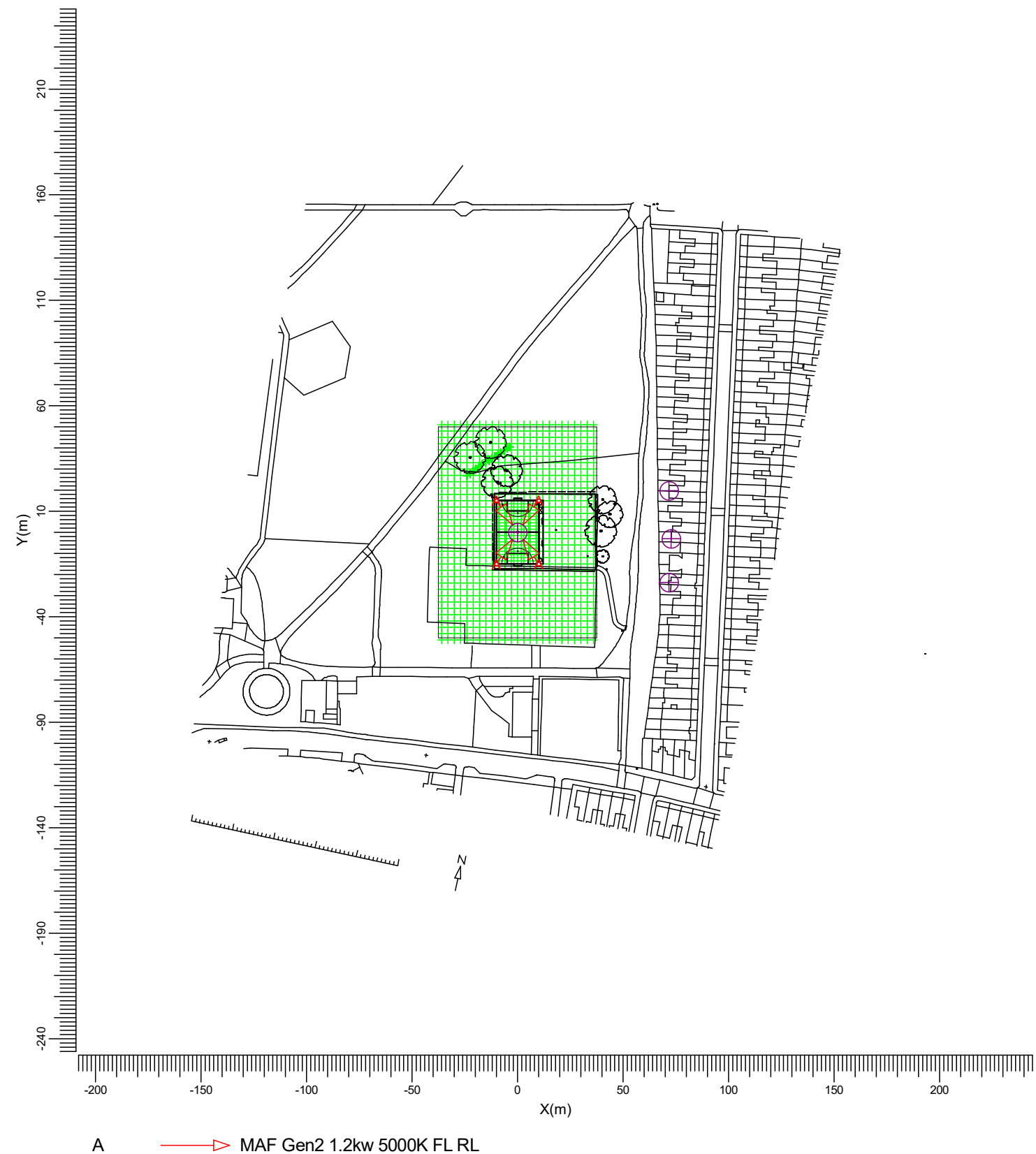
E-Mail: bleslie@christyuk.com

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1. Project Description

1.1 Top Project Overview



Scale
1:2500

2. Summary

2.1 Observer Information

Code	Observer	Position		
		X (m)	Y (m)	Z (m)
Aa	TV Camera	-0.00	-0.00	1.75
Bb	Property 1	71.77	19.75	1.50
Cc	Property 2	72.66	-3.13	1.50
Dd	Property 3	71.70	-23.77	1.50

2.2 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
A	4	MAF Gen2 1.2kw 5000K FL RL	1 * 3000K LED 180W	250.0	1 * 32680

Code	Maintenance factor	
	Luminaire	Lamp
A	1.00	0.90

The total installed power: 1.00 (kWatt)

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	A	
Centre2	0	0.00
Centre3	0	0.00
Corner Cols2	4	1.00
Corner Cols3	0	0.00

2.3 Calculation Results

(II)luminance Calculations:

Calculation	Type	Unit	Ave	Min	Max	Min/Ave	Min/Max
Five-a-side Football-LED	Surface Illuminance	lux	132			0.77	0.56
Spill Area-LED	Horizontal Illuminance	lux	14.0			0.00	0.00
Spill Area-LED-v	Illuminance -> Aa	lux	0.79			0.00	0.00
T1 Vertical Calcs	Illuminance -> Aa	lux	0.00	0.00	0.06		
T2 Vertical Calcs	Surface Illuminance	lux	0.00	0.00	0.04		

Obtrusive Light Calculations:

Observer Code	Luminaire Code	Position			Aiming Angles			Maximum Intensity (cd)
		X (m)	Y (m)	Z (m)	Rot.	Tilt90	Tilt0	
Bb	A	-10.00	15.00	8.00	-56.30	60.00	-0.00	1
Cc	A	-10.00	-15.00	8.00	56.30	60.00	0.00	0
Dd	A	10.00	15.00	8.00	-123.70	60.00	0.00	0

3. Calculation Results

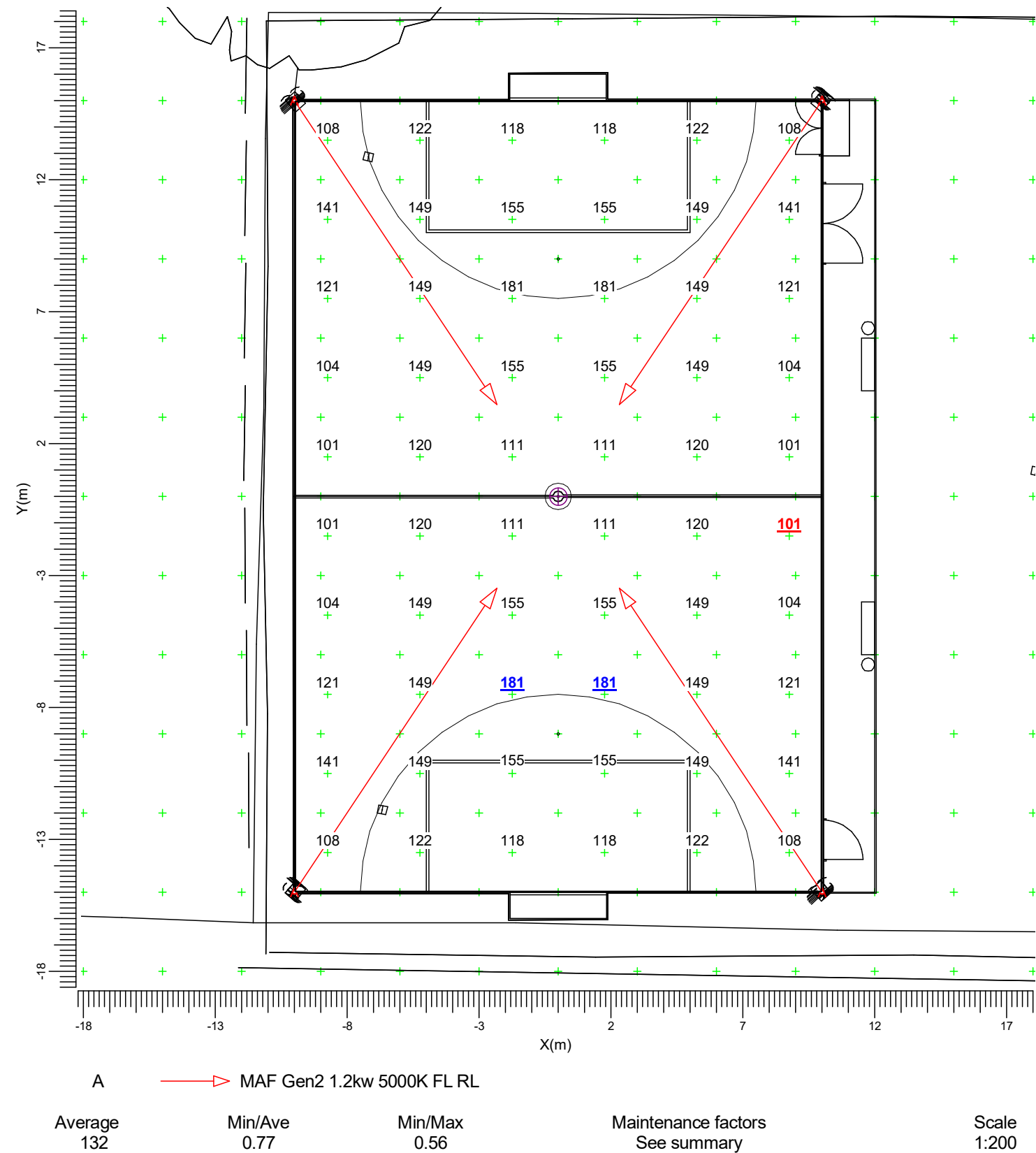
3.1 Five-a-side Football-LED: Graphical Table

Grid

Calculation

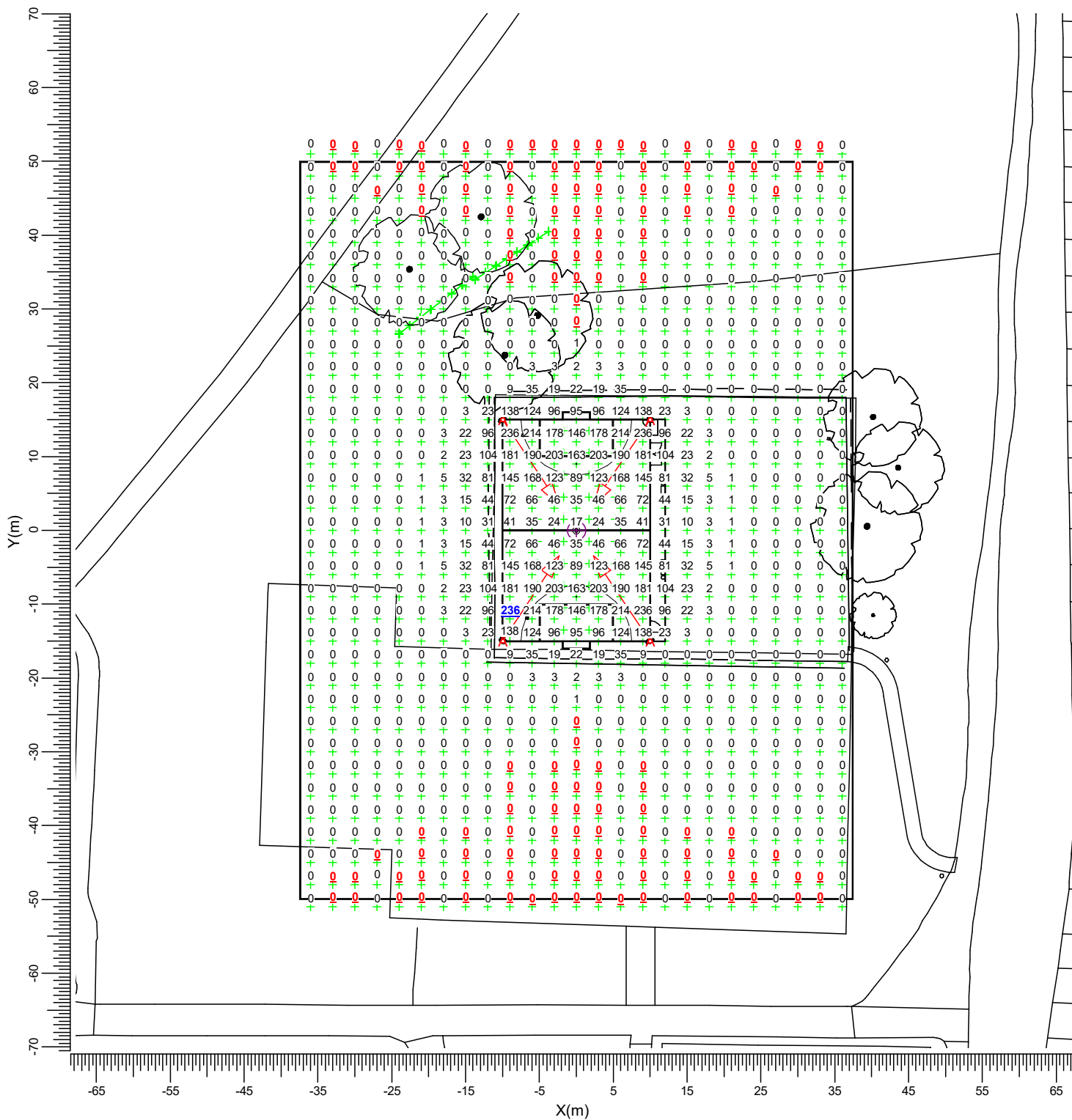
: Five-a-side Football at Z = -0.00 m

: Surface Illuminance (lux)



3.2 Spill Area-LED: Graphical Table

Grid : Spill Area at Z = -0.00 m
 Calculation : Horizontal Illuminance (lux)
 Height above grid : 2.00 m



A ———▶ MAF Gen2 1.2kw 5000K FL RL

Average
14.0

Min/Ave
0.00

Min/Max
0.00

Maintenance factors
See summary

Scale
1:750

3.3 Spill Area-LED: Iso Contour

Grid

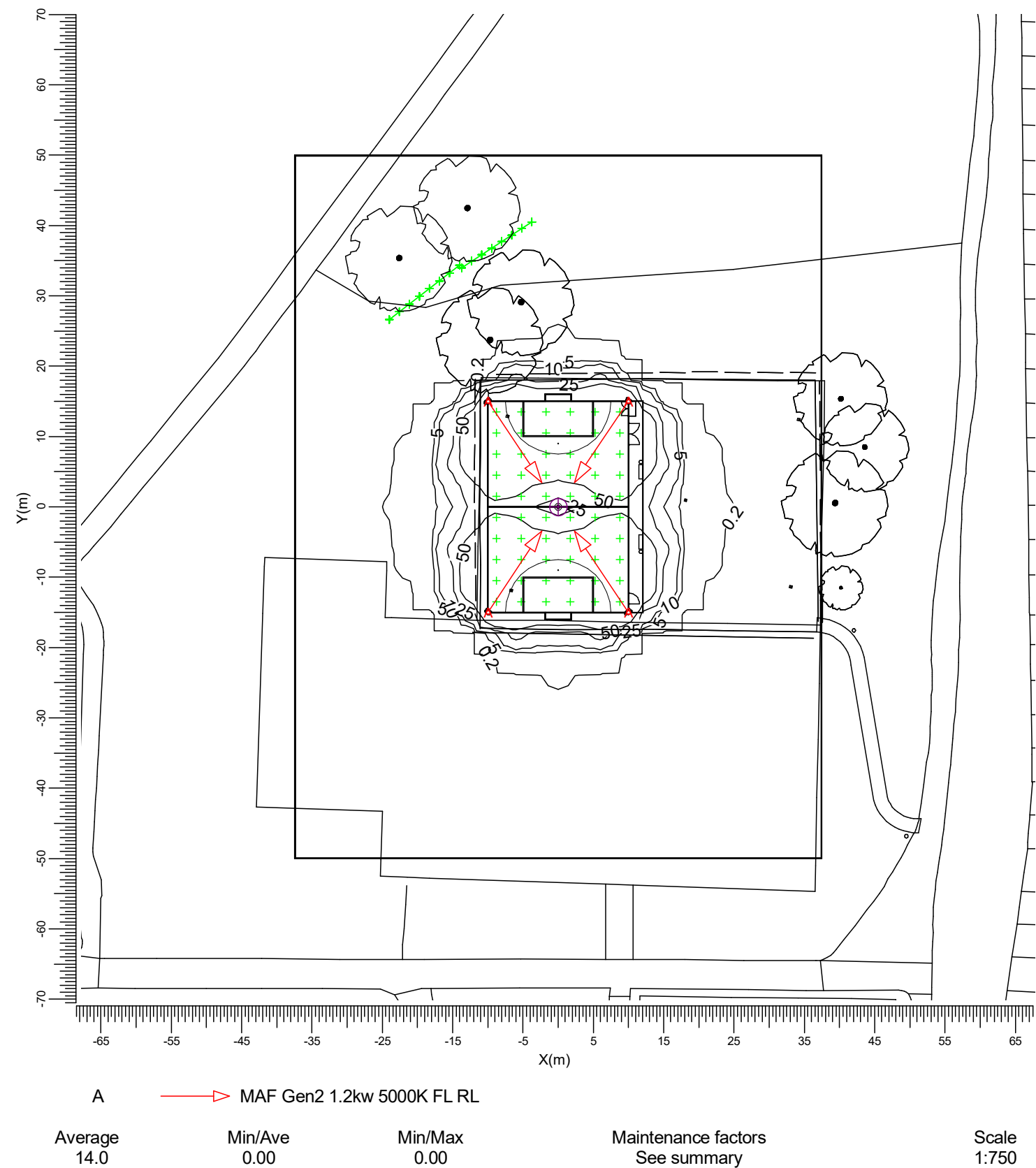
Calculation

Height above grid

: Spill Area at Z = -0.00 m

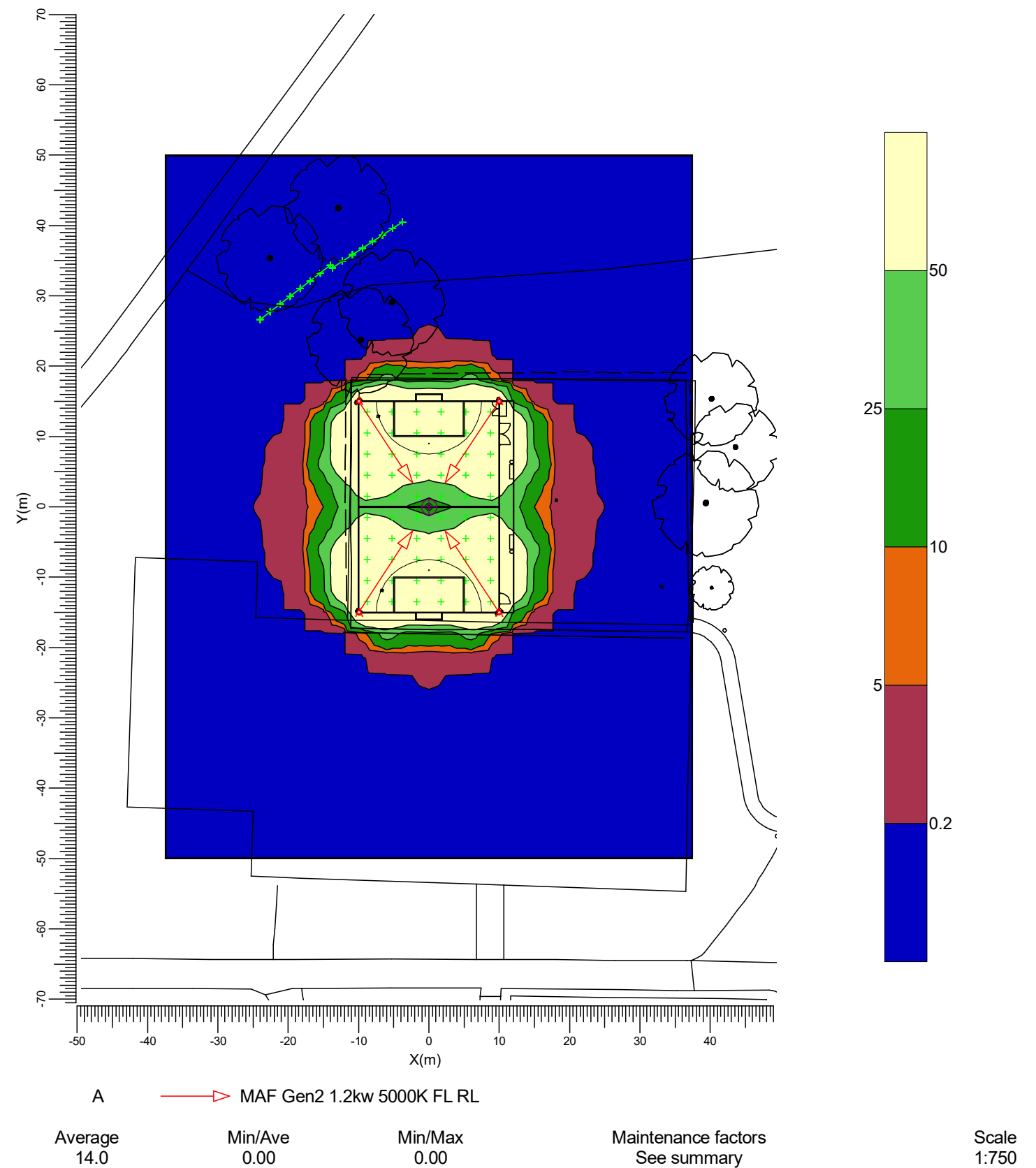
: Horizontal Illuminance (lux)

: 2.00 m



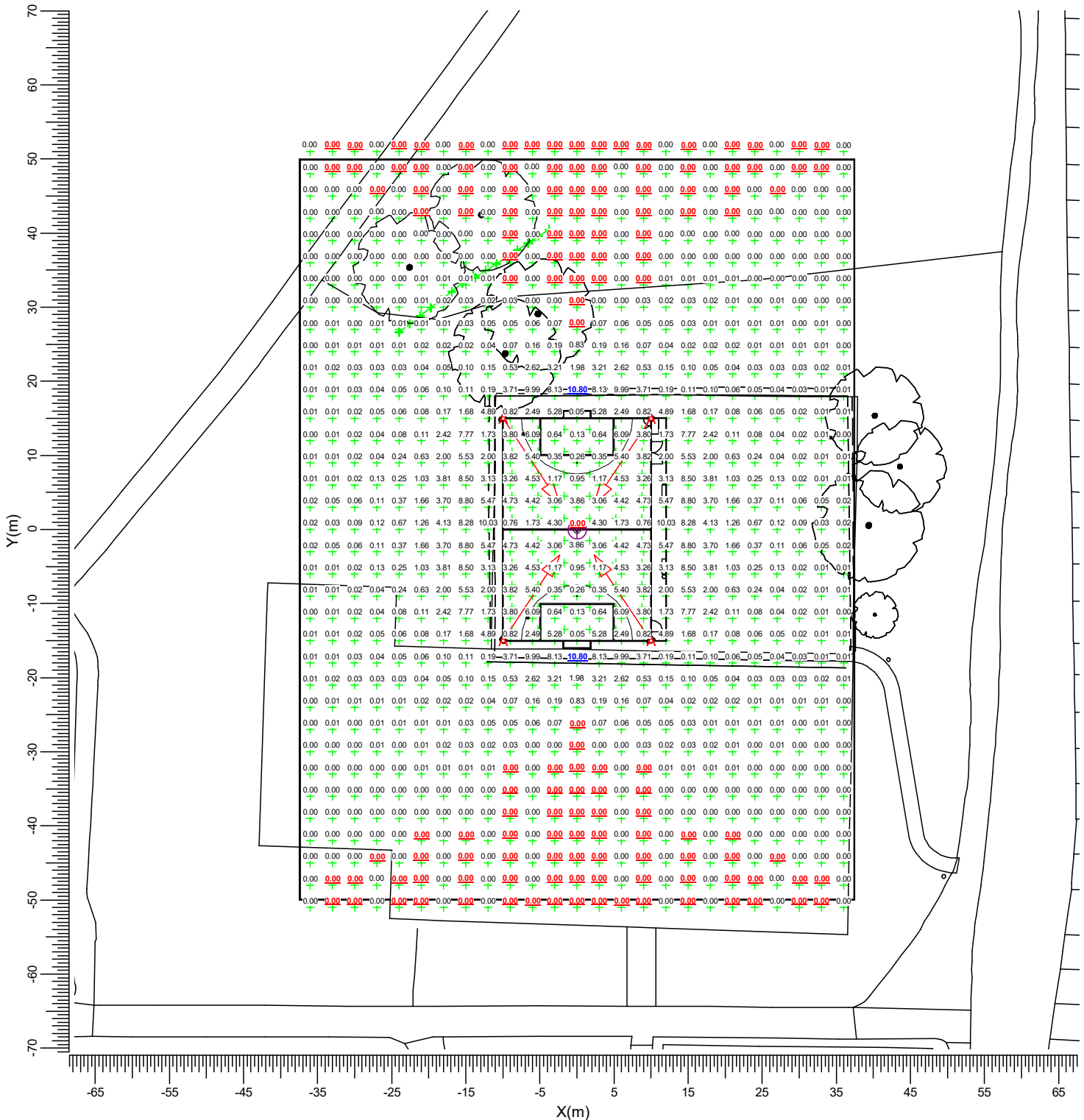
3.4 Spill Area-LED: Filled Iso Contour

Grid : Spill Area at Z = -0.00 m
Calculation : Horizontal Illuminance (lux)
Height above grid : 2.00 m



3.5 Spill Area-LED-v: Graphical Table

Grid : Spill Area at Z = -0.00 m
 Calculation : Illuminance towards TV Camera (lux)
 Height above grid : 2.00 m



A ———▶ MAF Gen2 1.2kw 5000K FL RL

Average
0.79

Min/Ave
0.00

Min/Max
0.00

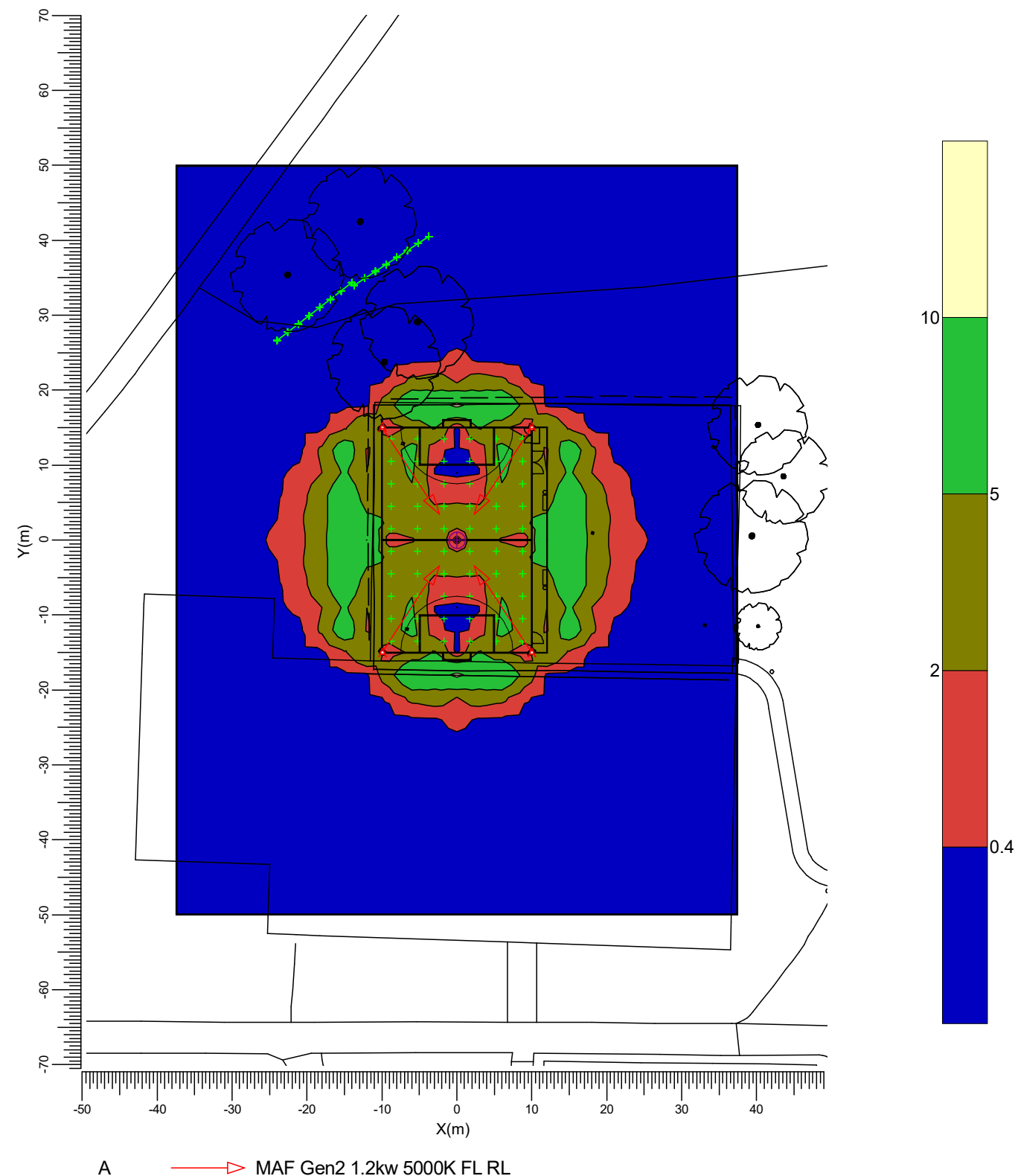
Maintenance factors
See summary

Scale
1:750

3.7 Spill Area-LED-v: Filled Iso Contour

Grid
Calculation
Height above grid

: Spill Area at Z = -0.00 m
: Illuminance towards TV Camera (lux)
: 2.00 m

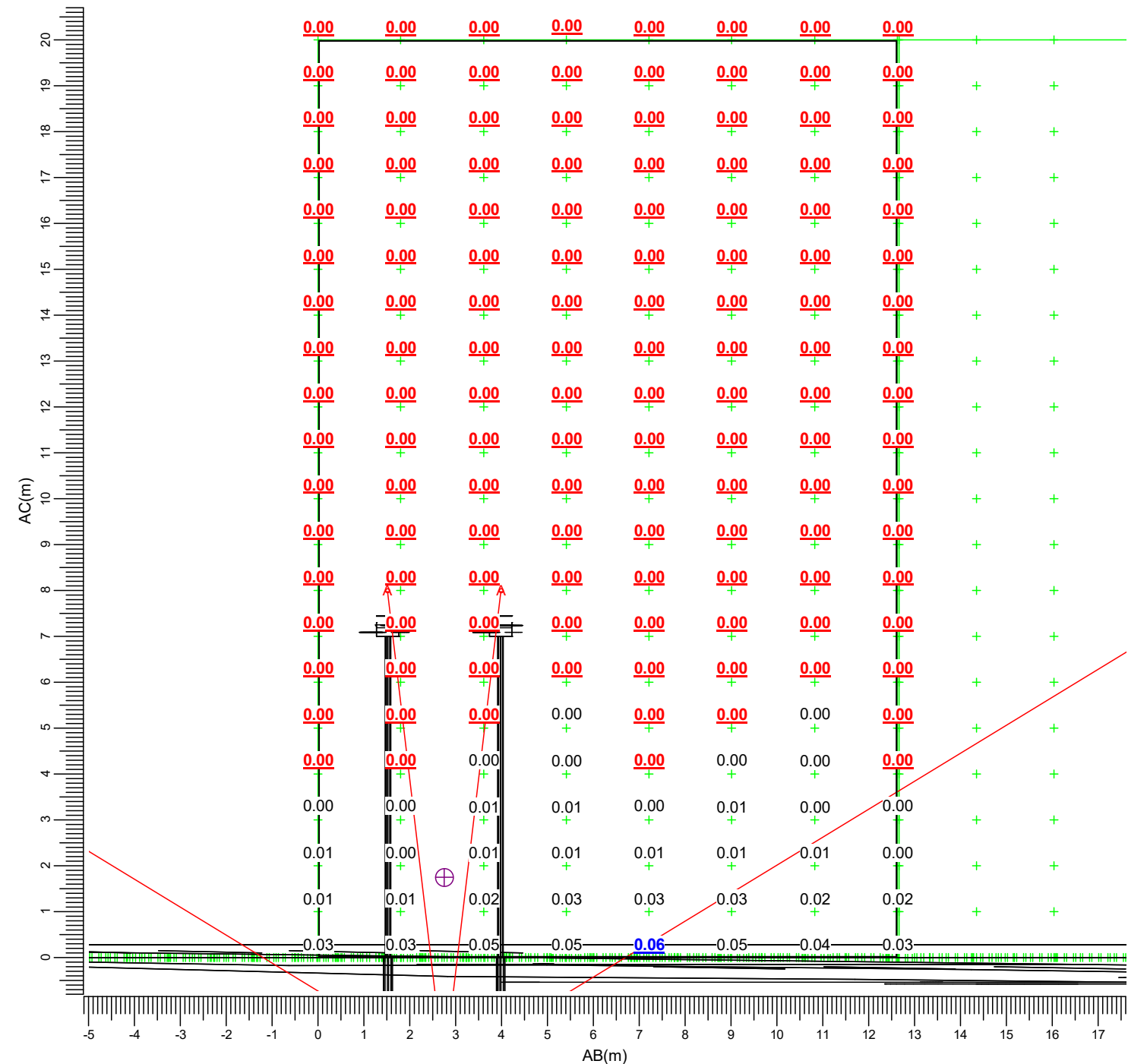


3.8 T1 Vertical Calcs: Graphical Table

Grid : T1 Grid

Calculation : Illuminance towards TV Camera (lux)

Height above grid : 0.00 m



(-24.00, 26.62, 20.00) C-----D (-14.00, 34.33, 20.00)
(-24.00, 26.62, -0.00) A-----B (-14.00, 34.33, -0.00)

A  MAF Gen2 1.2kw 5000K FL RL

Average0.00

Minimum0.00

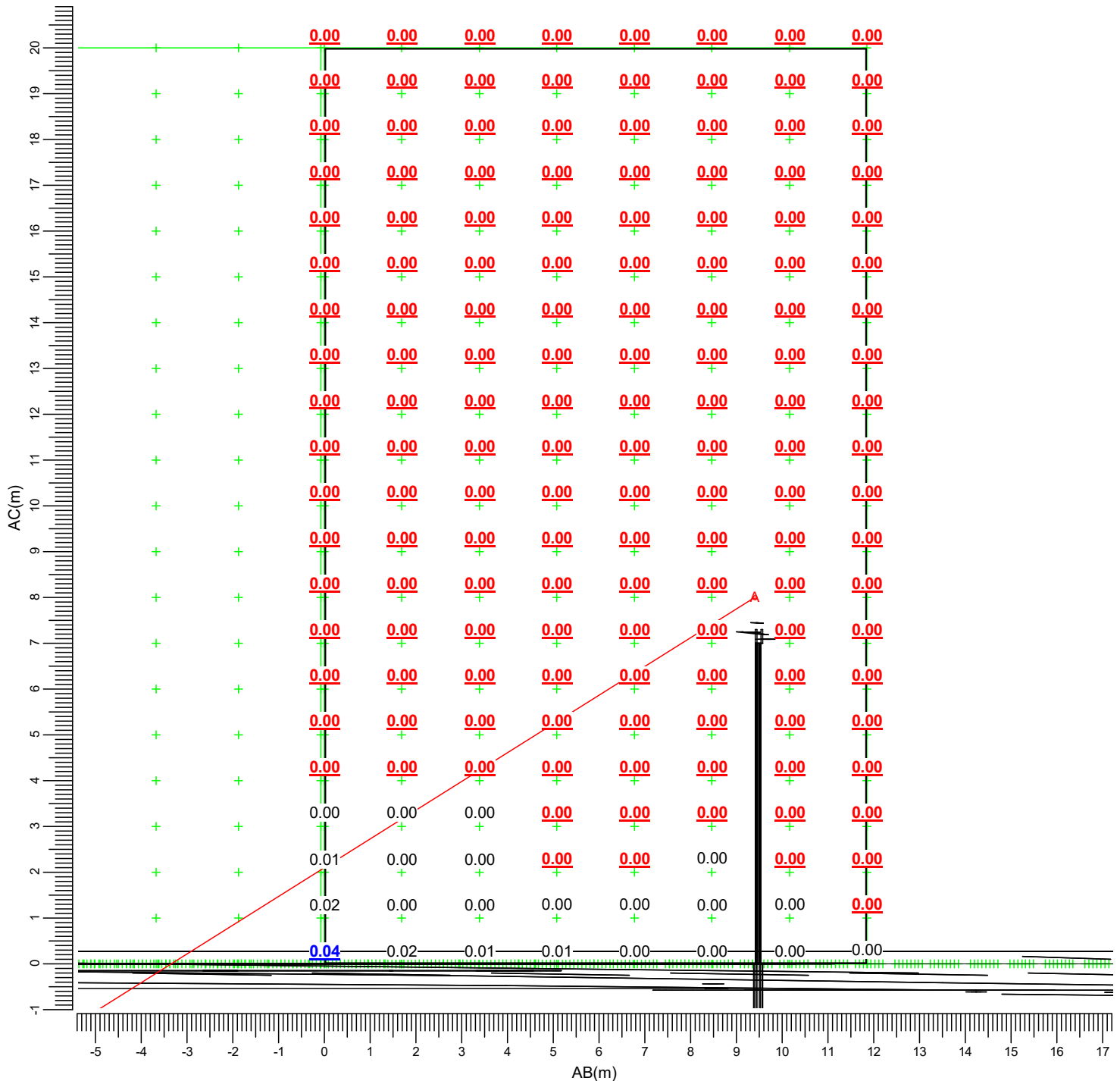
Maximum0.06

Maintenance factors
See summary

Scale
1:125

3.9 T2 Vertical Calcs: Graphical Table

Grid : T2 Grid
Calculation : Surface Illuminance (lux)



(-13.70, 34.00, 20.00) C-----D (-3.78, 40.50, 20.00)
 (-13.70, 34.00, -0.00) A-----B (-3.78, 40.50, -0.00)

A ———> MAF Gen2 1.2kw 5000K FL RL

Average
0.00

Minimum
0.00

Maximum
0.04

Maintenance factors
See summary

Scale
1:125

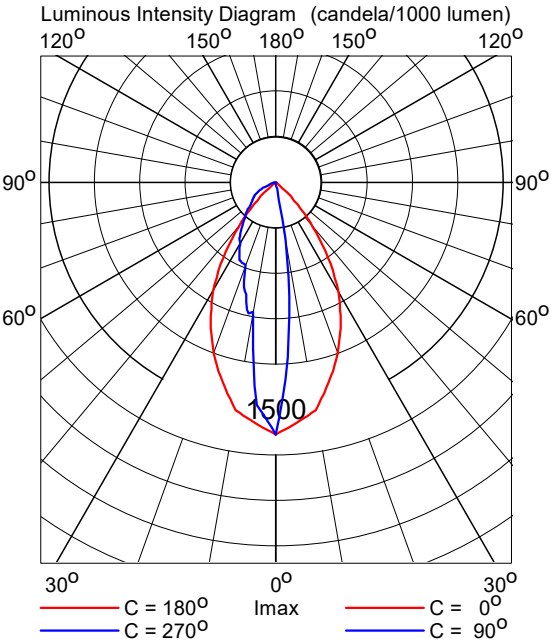
4. Luminaire Details

4.1 Project Luminaires

MAF Gen2 1.2kw 3000K FL RL 1xLED 250W

Light output ratios	
DLOR	: 1.00
ULOR	: 0.00
TLOR	: 1.00
Lamp flux	: 32680 lm
Luminaire wattage	: 250.0 W
Measurement code	: MAF Gen2 1
Luminaire maintenance factor	: 1.00
Lamp maintenance factor	: 0.90

Note: Luminaire data not from database.



5. Installation Data

5.1 Legends

Project Luminaires:			
Code	Qty	Luminaire Type	Lamp Type
A	4	MAF Gen2 1.2kw 5000K FL RL	1 * 3000K LED 180W
			Flux (lm)
			1 * 32680

5.2 Luminaire Positioning and Orientation

Qty and Code	Position			Aiming Angles		
	X (m)	Y (m)	Z (m)	Rot.	Tilt90	Tilt0
1 * A	-10.00	-15.00	8.00	56.3	60.0	0.0
1 * A	-10.00	15.00	8.00	-56.3	60.0	-0.0
1 * A	10.00	-15.00	8.00	123.7	60.0	-0.0
1 * A	10.00	15.00	8.00	-123.7	60.0	0.0