

MERTHYR PRIMARY MUGA

LED Floodlighting

Date: 03-05-2024

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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

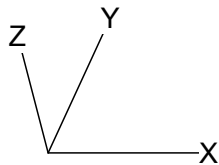
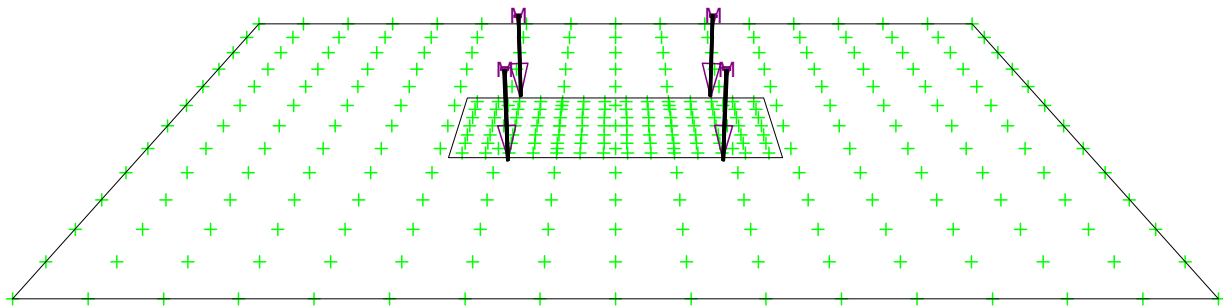
Area 28 x 14m

The design has been completed using the Philips ClearFlood BVP650
46km 4000k LED floodlight.

A total of 4no have been used to achieve an average of 100ux.

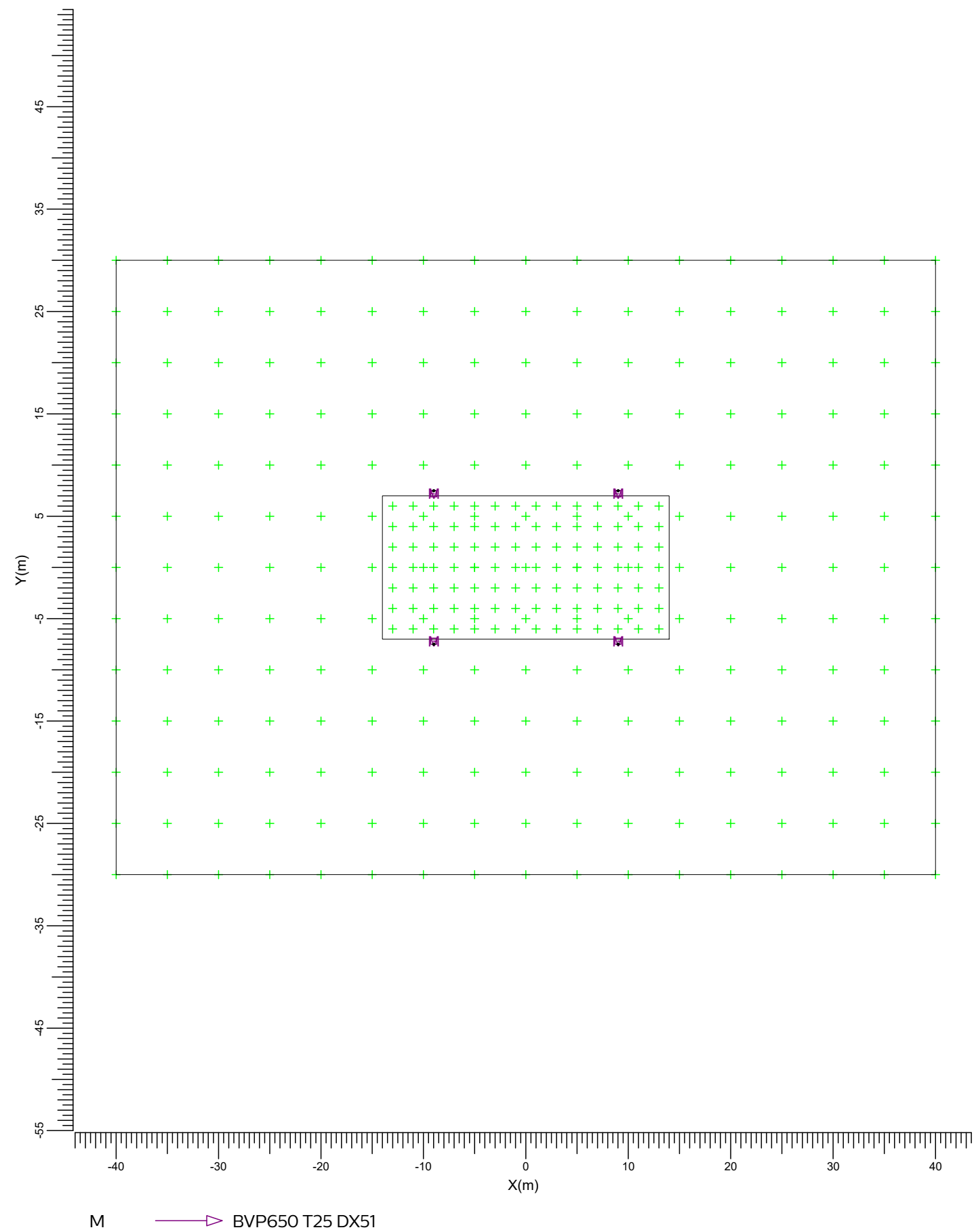
Floodlights are mounted on 4 x 8 metre columns

1.2 3-D Project Overview



M  BVP650 T25 DX51

1.3 Top Project Overview



2. Summary

2.1 Obstacle Information

Obstacle	Transparency (%)	Position		
		X (m)	Y (m)	Z (m)
Pillar	100	-9.00	-7.50	0.00
		9.00	-7.50	0.00
		-9.00	7.50	0.00
		9.00	7.50	0.00

2.2 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
M	4	BVP650 T25 DX51	1 * LED460-4S/740	295.0	1 * 46000

The total installed power: 1.18 (kWatt)

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	M	
Point1	4	1.18

2.3 Calculation Results

(II)luminance Calculations:

Calculation	Type	Unit	Ave Min/AveMin/Max		
MUGA	Surface Illuminance	lux	102	0.74	0.63
Spillage	Surface Illuminance	lux	14.8	0.00	0.00

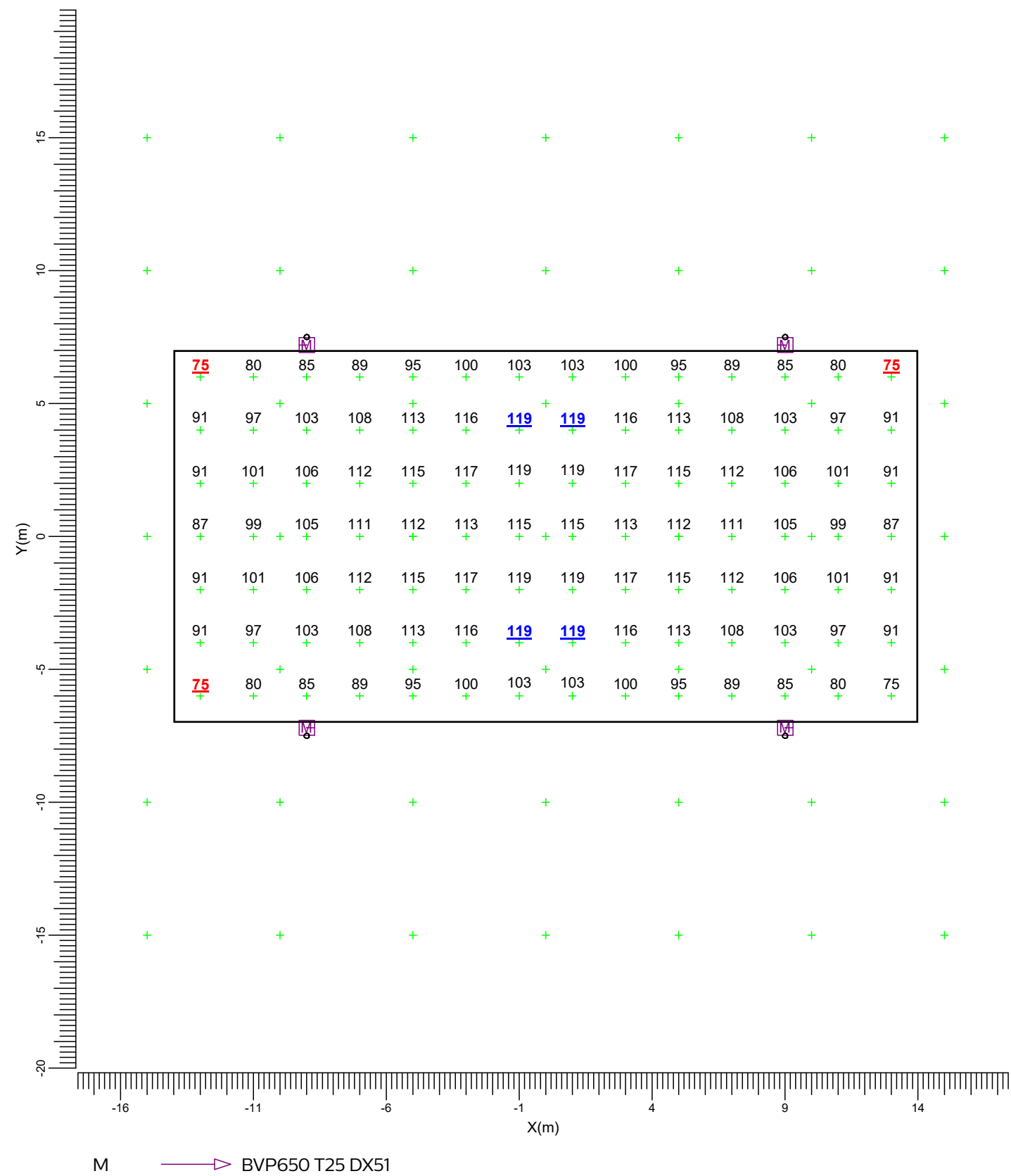
Obtrusive Light Calculations:

The upward light ratio (ULR) is 0.01.

3. Calculation Results

3.1 MUGA: Graphical Table

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



Average 102 Min/Ave 0.74 Min/Max 0.63 Project maintenance factor 0.90 Scale 1:200

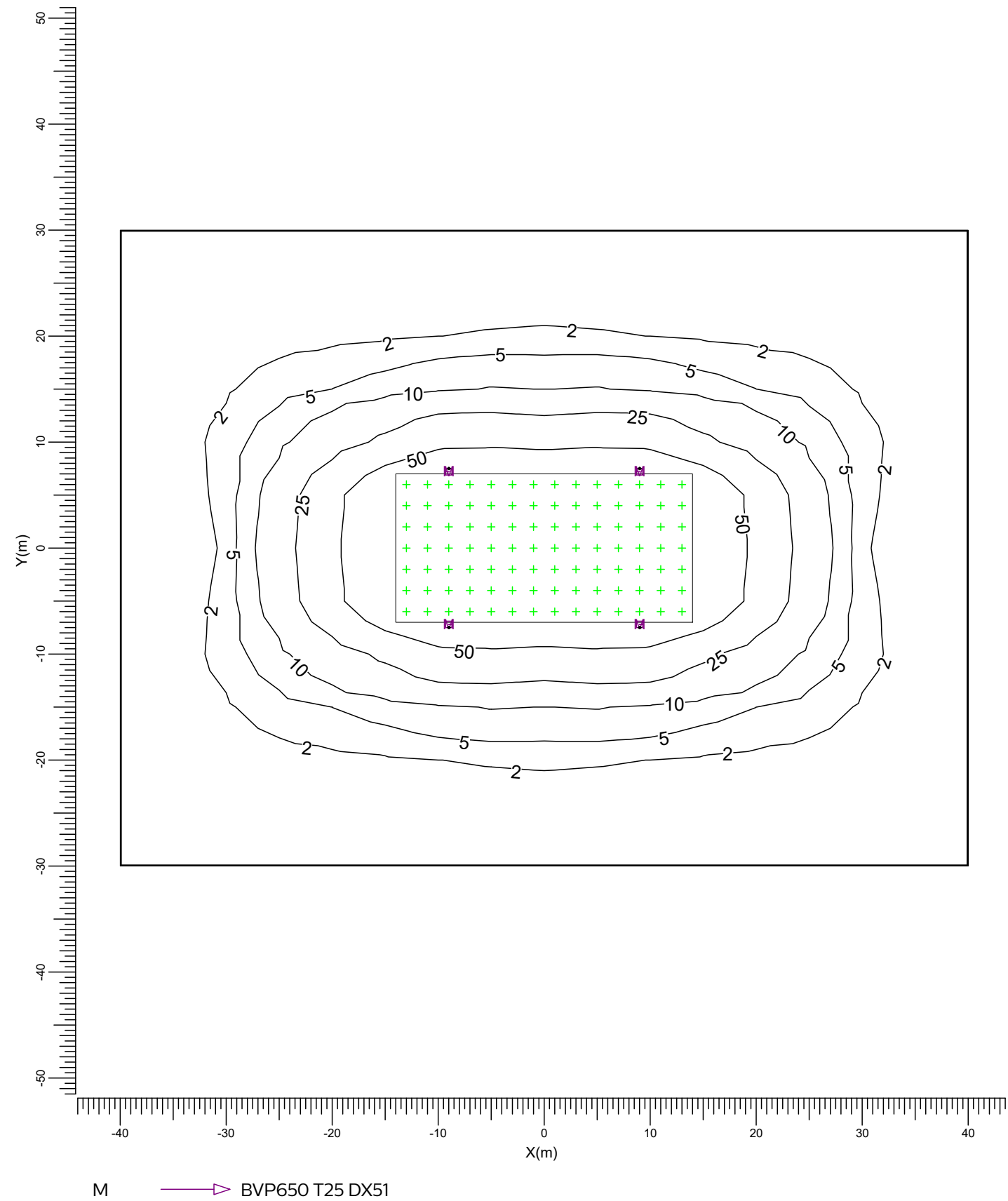
3.2 Spillage: Iso Contour

Grid

Calculation

: Spillage at Z = -0.00 m

: Surface Illuminance (lux)



Average 14.8	Min/Ave 0.00	Min/Max 0.00	Project maintenance factor 0.90	Scale 1:500
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4. Luminaire Details

4.1 Project Luminaires

ClearFlood
BVP650 T25 1 xLED460-4S/740 DX51



Light output ratios	
DLOR	: 0.50
ULOR	: 0.00
TLOR	: 0.50
Ballast	: -
Lamp flux	: 46000 lm
Luminaire wattage	: 295.0 W
Measurement code	: LVE161011D

