

Heath Lane

Artificial Turf Pitch

Project code: SSL3505
Date: 30-05-2025

Designer: ME

Description: Existing Floodlighting Design

Hockey match play:
Maintained average illuminance >350 lux
Uniformity Ratio (Ev.min/Ev.ave) >0.70

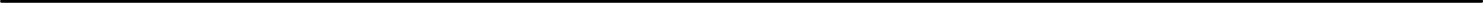
All luminaires have a zero upward light ratio without the use of additional accessories.

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.

Surfacing Standards LTD

1a Perth House
Corbygate Business Park
Corby
Northants
NN17 5JG

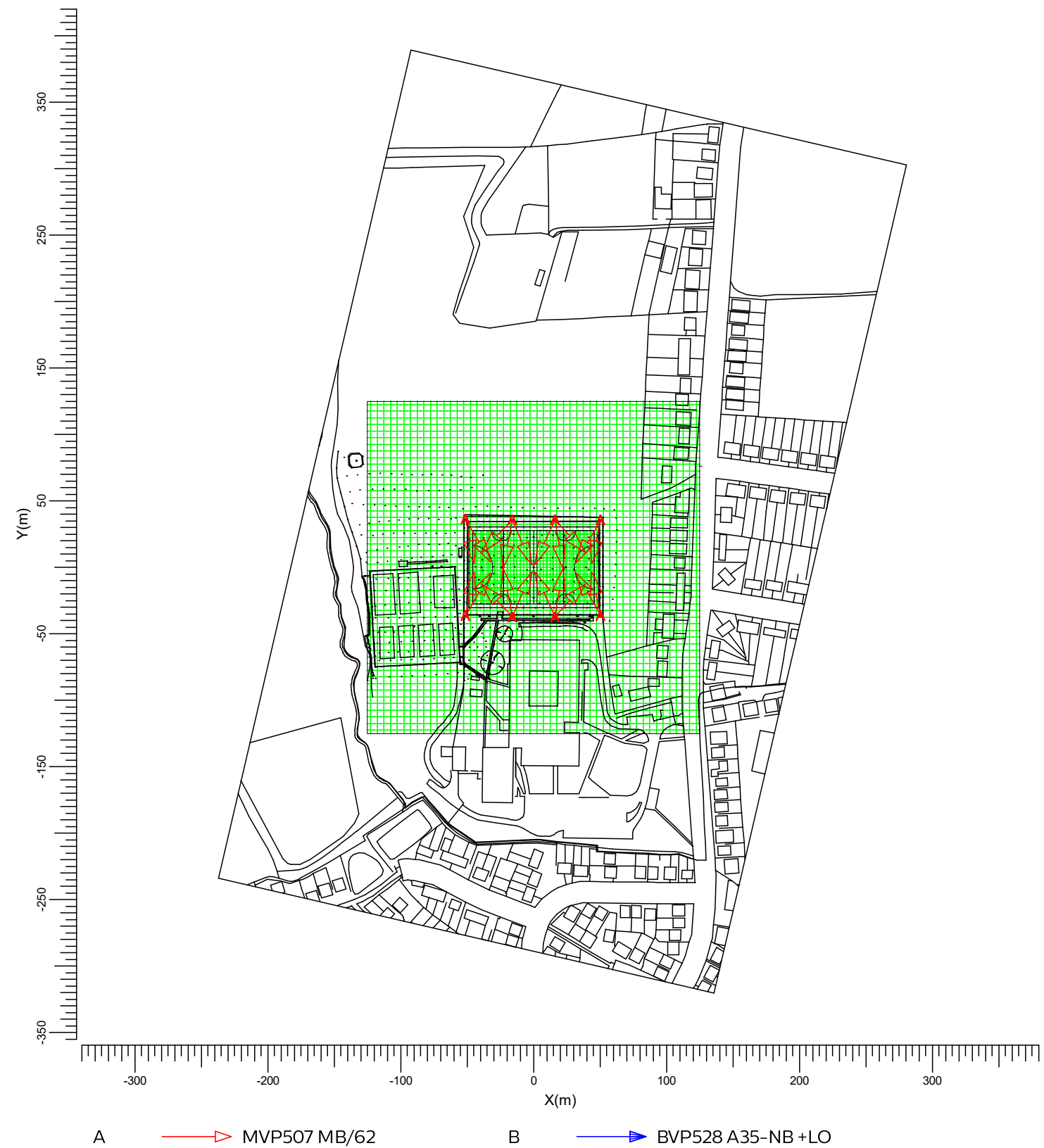
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1. Project Description

1.1 Top Project Overview



Scale
1:4000

2. Summary

2.1 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
A	20	MVP507 MB/62	1 * MHN-FC2000W/400V/740	2119.0	1 * 210000

The total installed power: 42.38 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code	Power (kWatt)
	A	
350lux Switching	20	42.38
Spillage Switching	20	42.38

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	A	
Mast	6	12.71
Mast Corner 2	6	12.71
Mast1	0	0.00
Point	4	8.48

2.2 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	350lux Switching	0.90
2	Spillage Switching	1.00

(II)luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave Min/AveMin/Max		
Hockey	1	Surface Illuminance	lux	361	0.74	0.54
Spillage Grid	2	Surface Illuminance	lux			
Horizontal @ 1.8m	2	Horizontal Illuminance	lux			

Obtrusive Light Calculations:

Switching Mode	ULR
1	0.00
2	0.00

3. Calculation Results

3.1 Hockey: Graphical Table

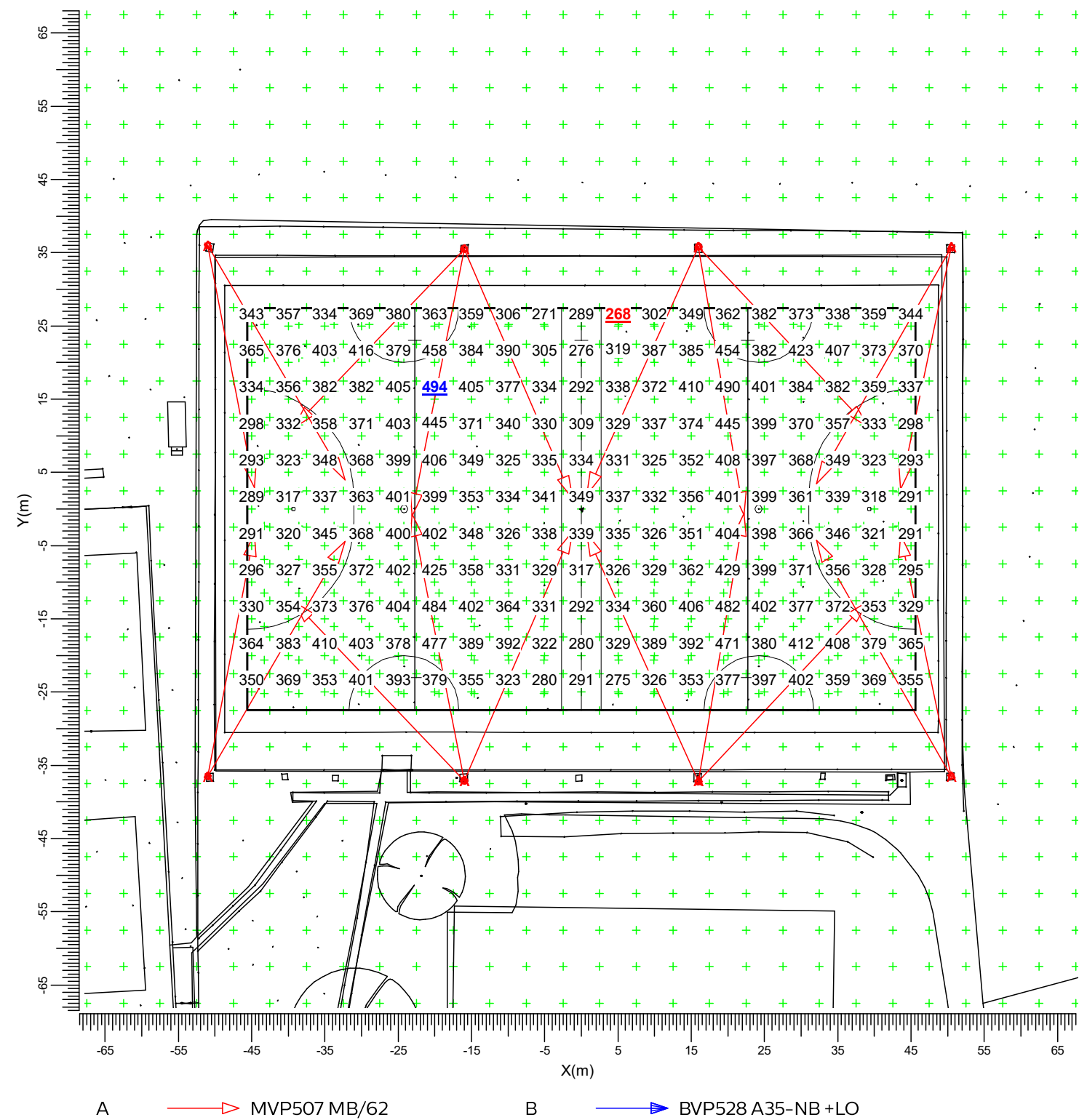
350lux Switching

Grid

: Hockey at Z = -0.00 m

Calculation

: Surface Illuminance (lux)



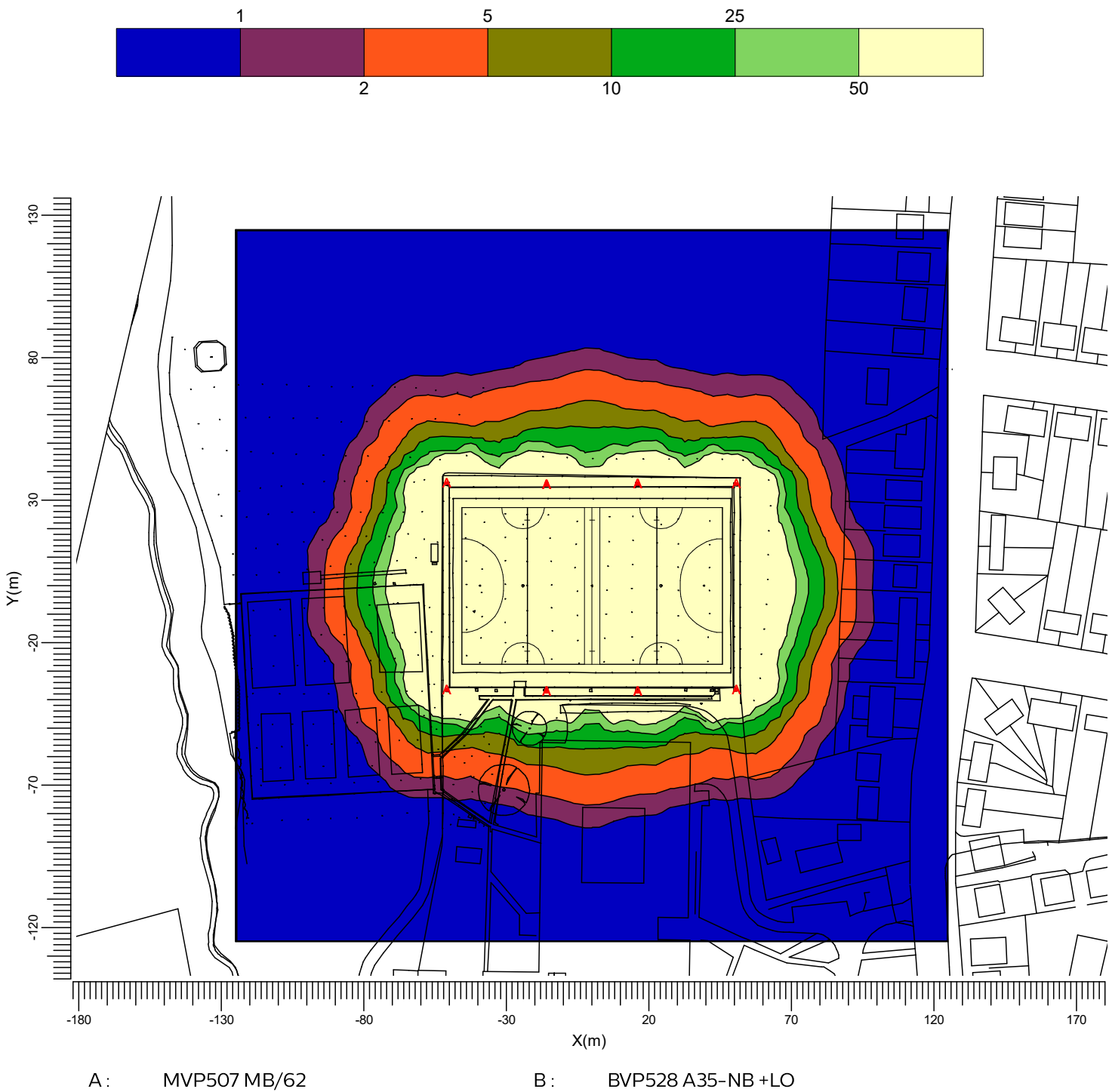
Average	Min/Ave	Min/Max	Project maintenance factor	Scale
361	0.74	0.54	0.90	1:750

3.2 Spillage Grid: Filled Iso Contour

Spillage Switching

Grid
Calculation

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



A: MVP507 MB/62

B: BVP528 A35-NB +LO

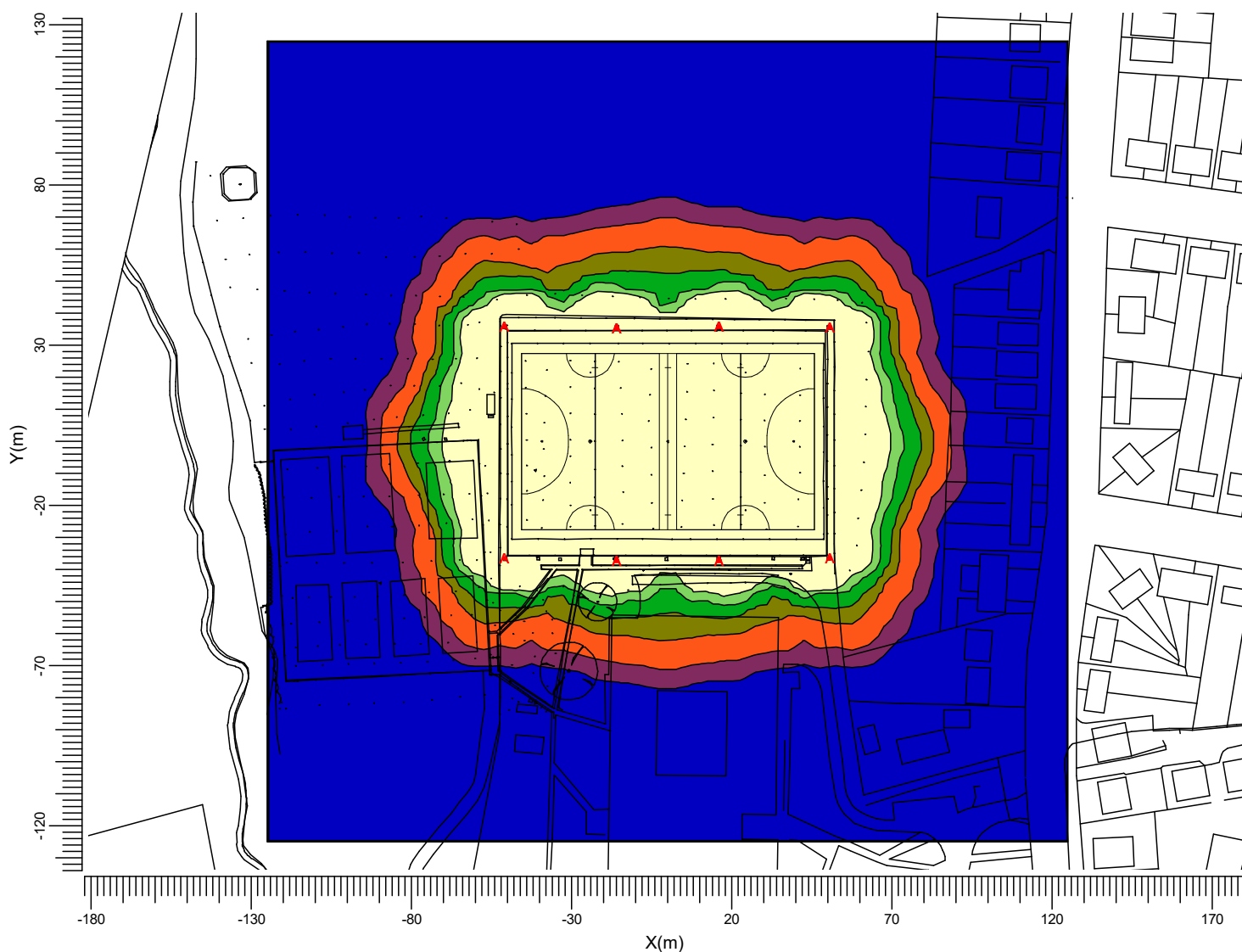
Project maintenance factor
1.00

Scale
1:2000

3.3 Horizontal @ 1.8m: Filled Iso Contour

Spillage Switching

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



A: MVP507 MB/62

B: BVP528 A35-NB +LO

Project maintenance factor
1.00

Scale
1:2000

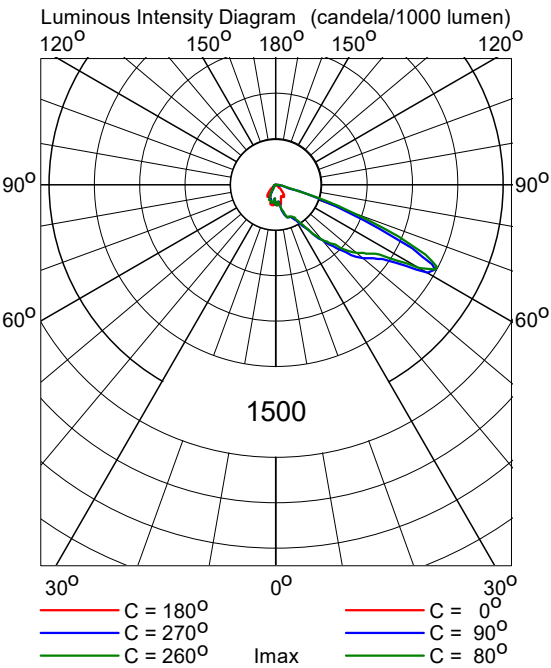
4. Luminaire Details

4.1 Project Luminaires

OptiVision
MVP507 1xMHN-FC2000W/400V/740 MB/62



Light output ratios
DLOR : 0.85
ULOR : 0.00
TLOR : 0.85
Ballast : Conventional
Lamp flux : 210000 lm
Luminaire wattage : 2119.0 W
Measurement code : LVMA700000



5. Installation Data

5.1 Legends

Project Luminaires:

Code	Qty	Luminaire Type	Lamp Type	Flux (lm)
A	20	MVP507 MB/62	1 * MHN-FC2000W/400V/740	1 * 210000

Switching Modes:

Code	Switching Mode
1	350lux Switching
2	Spillage Switching

5.2 Luminaire Positioning and Orientation

Qty and Code	Position			Aiming Angles			Switching Modes	
	X (m)	Y (m)	Z (m)	Rot.	Tilt90	Tilt0	1	2
1 * A	-51.00	-36.50	15.00	59.7	68.0	-0.0	+	+
1 * A	-51.00	-36.50	15.00	79.1	66.0	-0.0	+	+
1 * A	-51.00	36.00	15.00	-59.7	68.0	0.0	+	+
1 * A	-51.00	36.00	15.00	-79.1	66.0	0.0	+	+
1 * A	-16.00	-37.10	15.00	66.5	68.0	-0.0	+	+
1 * A	-16.00	-37.10	15.00	101.0	68.0	-0.0	+	+
1 * A	-16.00	-37.10	15.00	133.5	66.0	-0.0	+	+
1 * A	-16.00	35.50	15.00	-66.5	68.0	0.0	+	+
1 * A	-16.00	35.50	15.00	-101.0	68.0	0.0	+	+
1 * A	-16.00	35.50	15.00	-133.5	66.0	0.0	+	+
1 * A	16.00	-37.20	15.00	80.4	68.0	-0.0	+	+
1 * A	16.00	-37.20	15.00	114.3	68.0	-0.0	+	+
1 * A	16.00	-37.20	15.00	46.8	66.0	-0.0	+	+
1 * A	16.00	35.80	15.00	-80.4	68.0	0.0	+	+
1 * A	16.00	35.80	15.00	-114.3	68.0	0.0	+	+
1 * A	16.00	35.80	15.00	-46.8	66.0	0.0	+	+
1 * A	50.50	-36.50	15.00	119.7	68.0	-0.0	+	+
1 * A	50.50	-36.50	15.00	101.8	66.0	-0.0	+	+
1 * A	50.50	35.70	15.00	-119.7	68.0	0.0	+	+
1 * A	50.50	35.70	15.00	-101.8	66.0	0.0	+	+