

The Highfield School

Artificial Grass Pitch

Project code: SSL3394
Date: 28-03-2025

Designer: ME

Description: Football Match Play:
Maintained average illuminance >200 lux
Uniformity Ratio (Ev.min/Ev.ave) >0.60

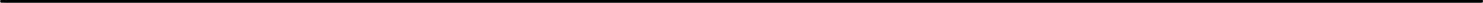
All luminaires have a zero upward light ratio without the use of additional accessories.

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

Office 2
Empingham House
Ayston Road
Uppingham
LE15 9NY

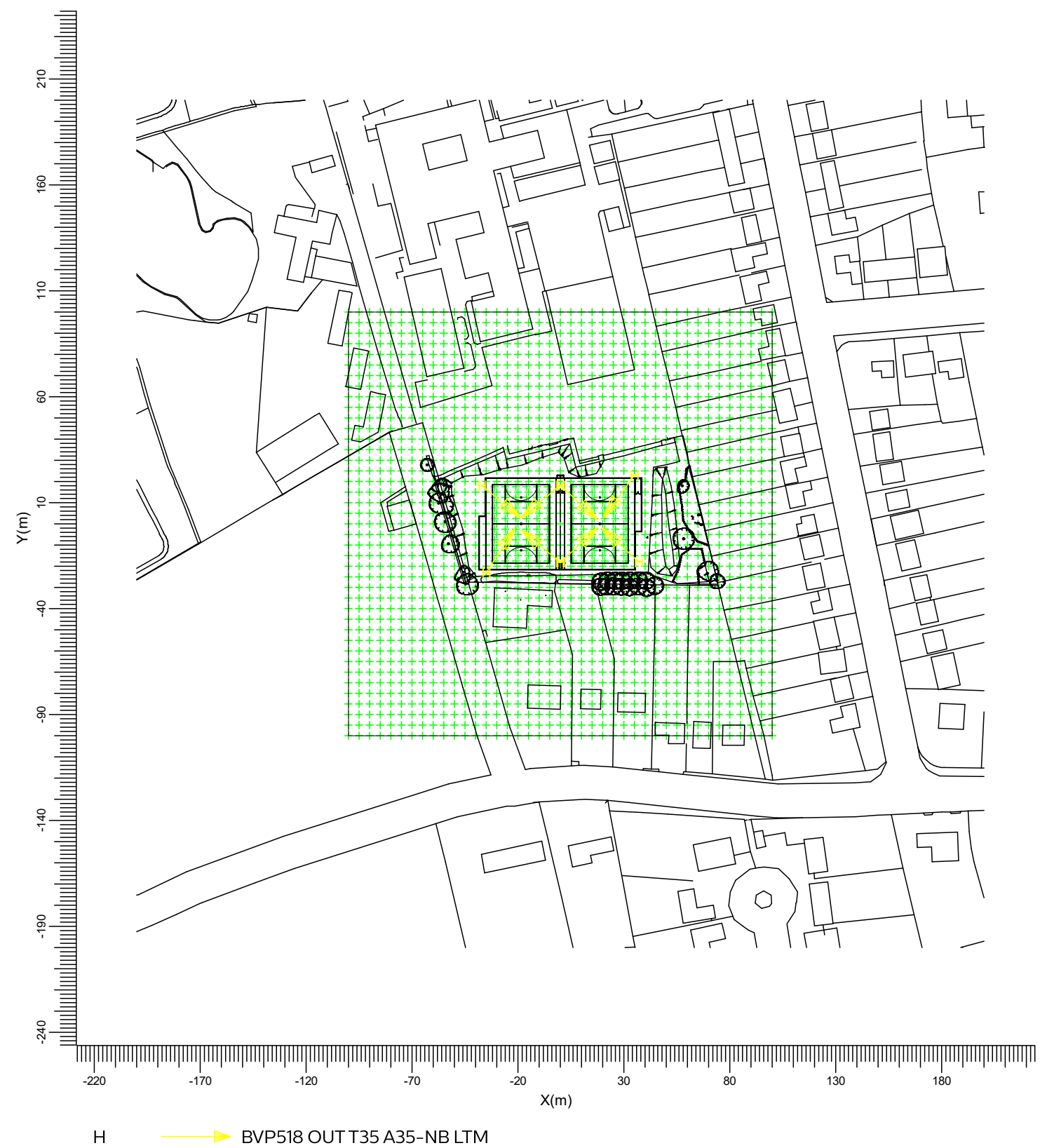
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1. Project Description

1.1 Top Project Overview



Scale
1:2500

2. Summary

2.1 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
H	8	BVP518 OUT T35 A35-NB LTM	1 * LED1720-4S/740	1006.0	1 * 172000

The total installed power: 8.05 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code	Power (kWatt)
	H	
Football West	4	-
Football East	4	-
Spillage	8	-

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	H	
East Column1	1	1.01
East Column2	1	1.01
East Column3	1	1.01
East Column4	1	1.01
West Column1	1	1.01
West Column2	1	1.01
West Column3	1	1.01
West Column4	1	1.01

2.2 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	Football West	0.95
2	Football East	0.95
3	Spillage	1.00

(II)luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave Min/AveMin/Max		
Football West	1	Surface Illuminance	lux	223	0.71	0.53
Football East	2	Surface Illuminance	lux	222	0.70	0.54
Spillage	3	Surface Illuminance	lux	18.4	0.00	0.00

Obtrusive Light Calculations:

Switching Mode	ULR
1	0.00

Switching Mode	ULR
2	0.00
3	0.00

3. Calculation Results

3.1 Football West: Graphical Table

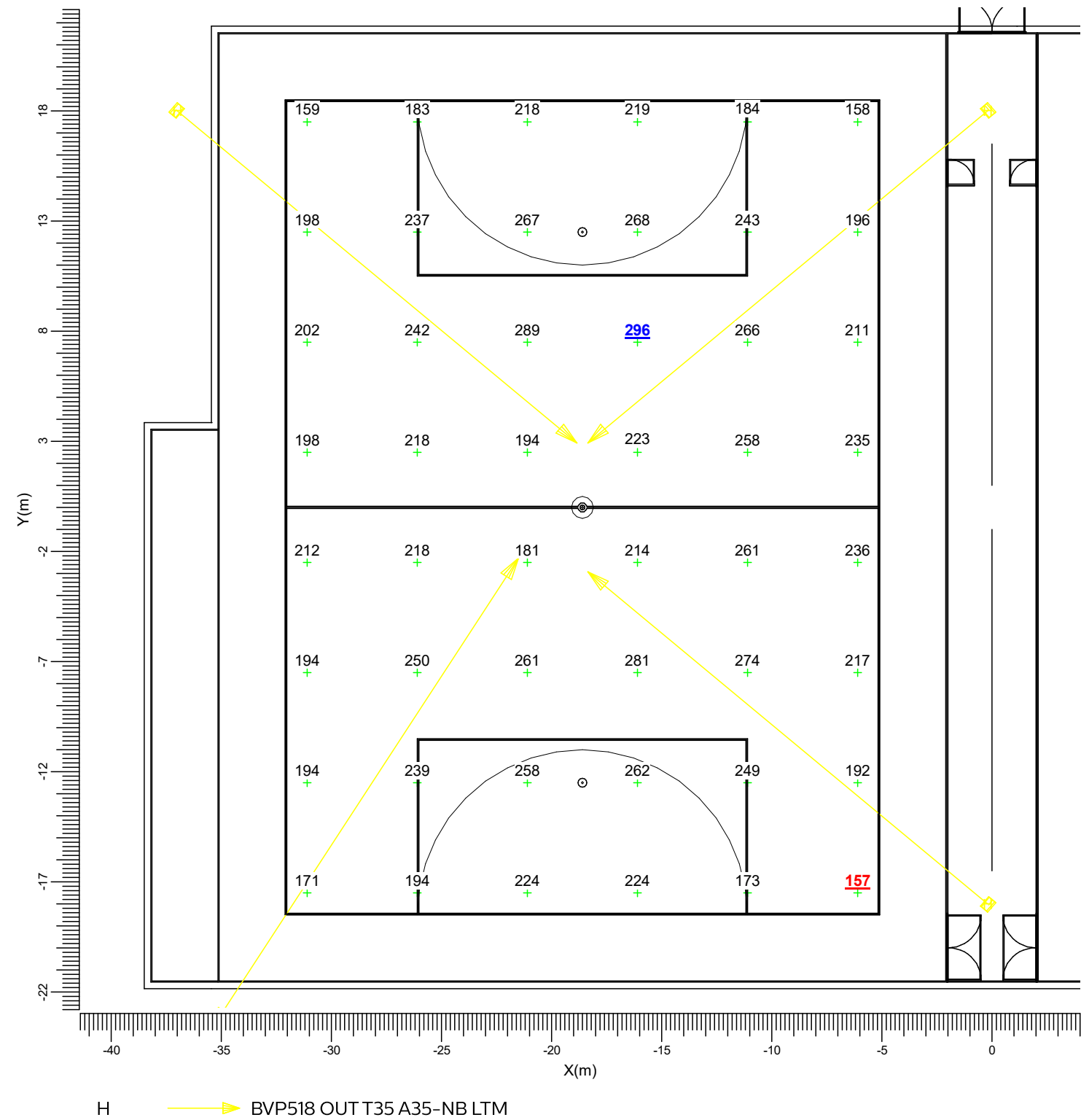
Football West

Grid

: Football West at Z = -0.00 m

Calculation

: Surface Illuminance (lux)

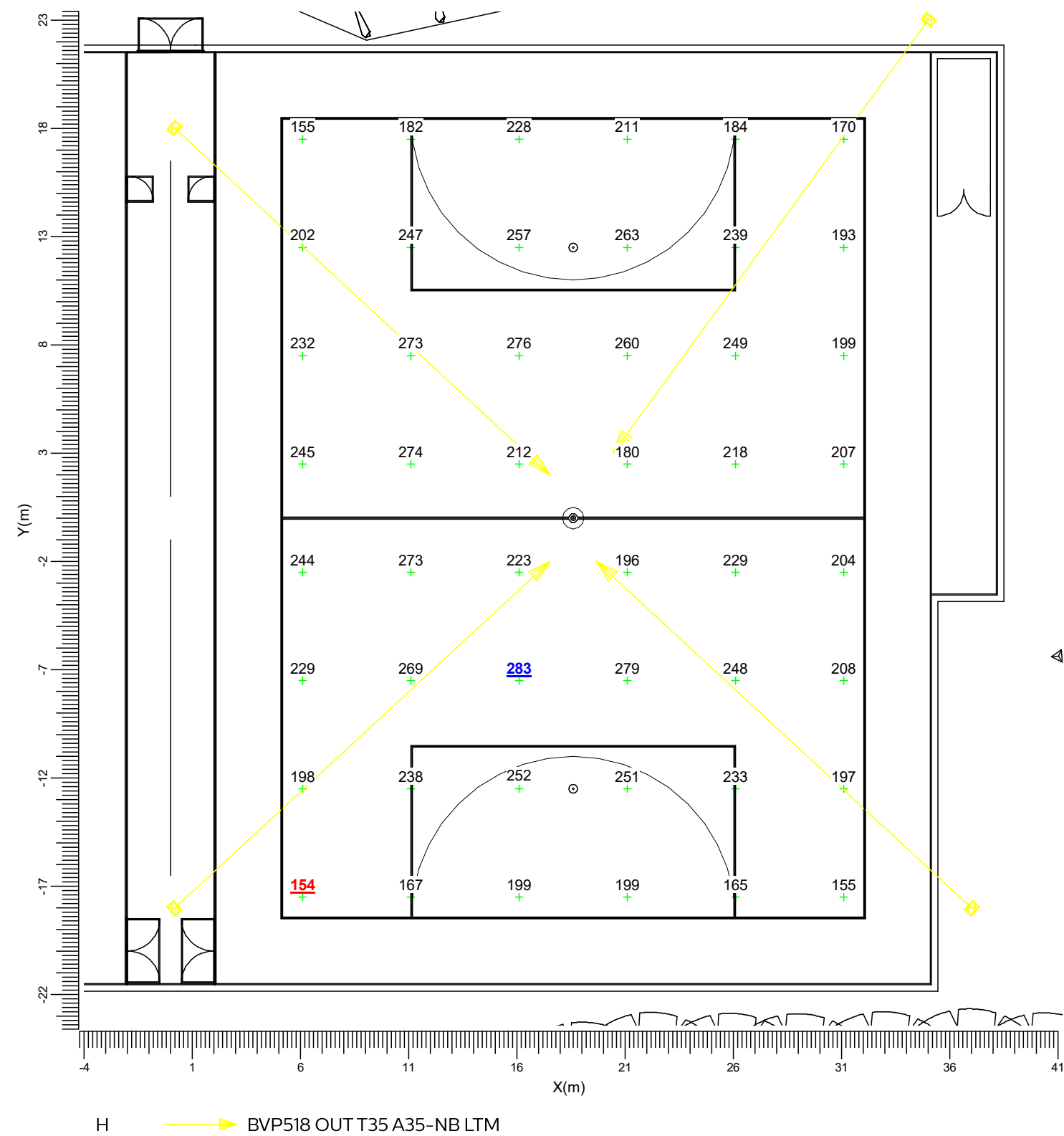


3.2 Football East: Graphical Table

Football East

Grid : Football East at Z = -0.00 m

Calculation : Surface Illuminance (lux)

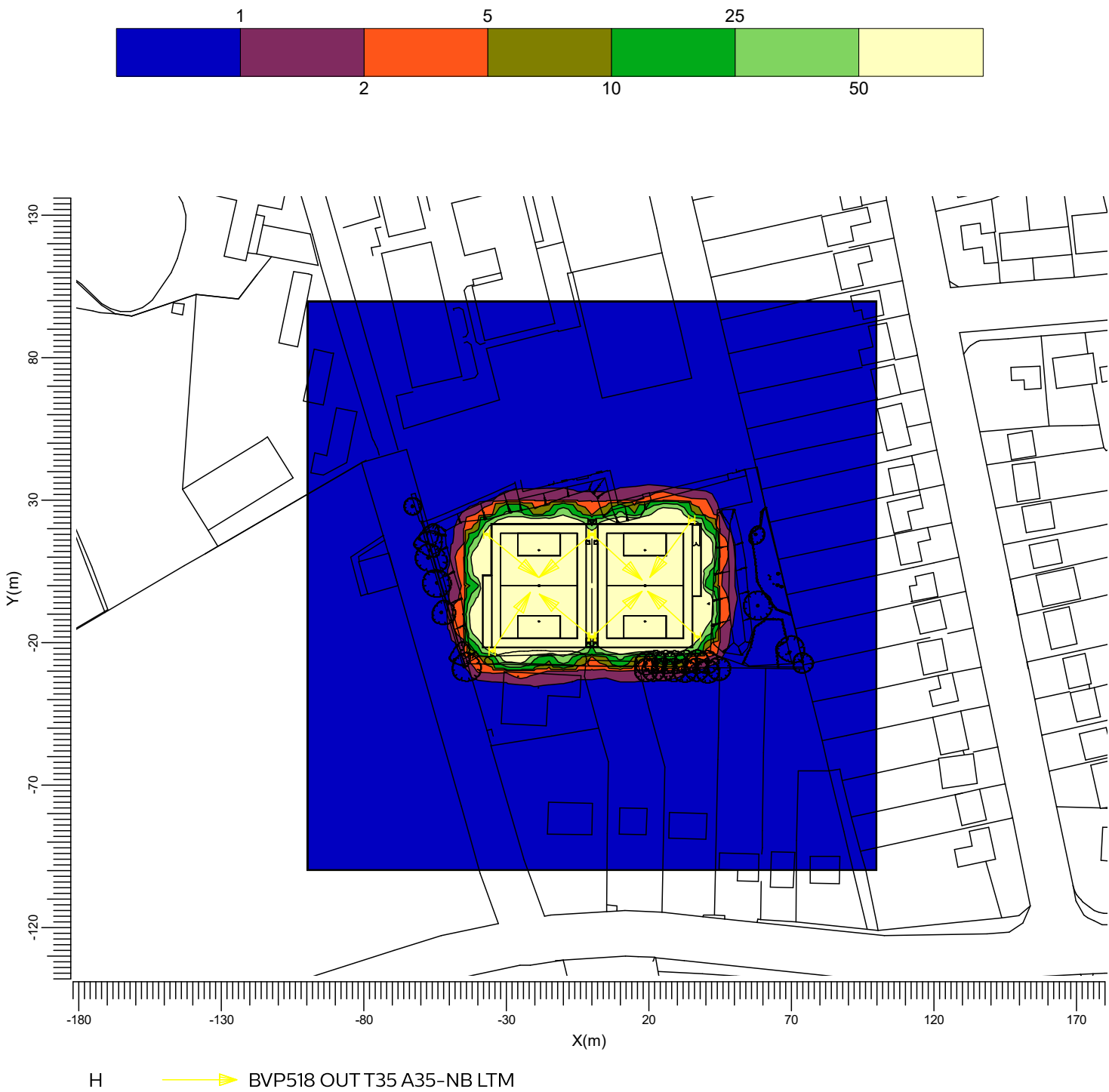


3.3 Spillage: Filled Iso Contour

Spillage

Grid : Spillage at Z = -0.00 m

Calculation : Surface Illuminance (lux)



Average	Min/Ave	Min/Max	Project maintenance factor	Scale
18.4	0.00	0.00	1.00	1:2000

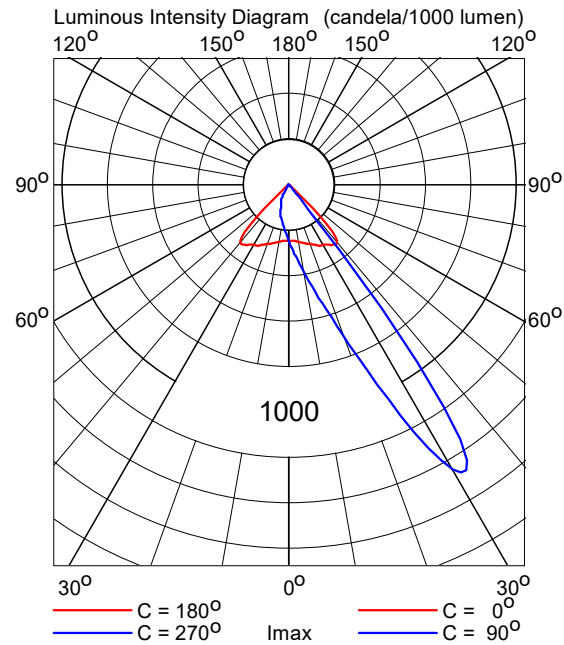
4. Luminaire Details

4.1 Project Luminaires

OptiVision LED gen3.5 2022
BVP518 OUT T35 1xLED1720-4S/740/740 E3/D4I A35-NB LTM

Light output ratios	
DLOR	: 0.71
ULOR	: 0.00
TLOR	: 0.71
Ballast	: E3/D4I
Lamp flux	: 172000 lm
Luminaire wattage	: 1006.0 W
Measurement code	: LVM2047600

Note: Luminaire data not from database.



5. Installation Data

5.1 Legends

Project Luminaires:				
Code	Qty	Luminaire Type	Lamp Type	Flux (lm)
H	8	BVP518 OUT T35 A35-NB LTM	1 * LED1720-4S/740	1 * 172000

Switching Modes:	
Code	Switching Mode
1	Football West
2	Football East
3	Spillage

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	3
1 * H	-37.00	18.00	11.00	-39.7	65.0	0.0	80	-	80
1 * H	-35.00	-23.00	11.00	56.9	66.0	0.0	80	-	80
1 * H	-0.20	-18.00	11.00	140.3	65.0	0.0	80	-	80
1 * H	-0.20	18.00	11.00	-140.3	65.0	-0.0	80	-	80
1 * H	0.20	-18.00	11.00	42.7	65.0	0.0	-	80	80
1 * H	0.20	18.00	11.00	-42.7	65.0	-0.0	-	80	80
1 * H	35.00	23.00	11.00	-126.0	66.0	0.0	-	80	80
1 * H	37.00	-18.00	11.00	137.3	65.0	-0.0	-	80	80