

Hurstpierpoint College

West Astro

Project code: 26005A
Date: 09-01-2026

Designer: SJB Design

Description: Update to existing lighting

Due to the location of the lighting to the road we have used LEDs that use internal louvres and a warm white light to reduce perceived glare.

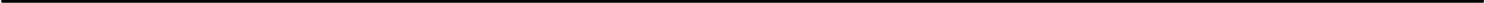
The colour temperature of the lights are 3000K.

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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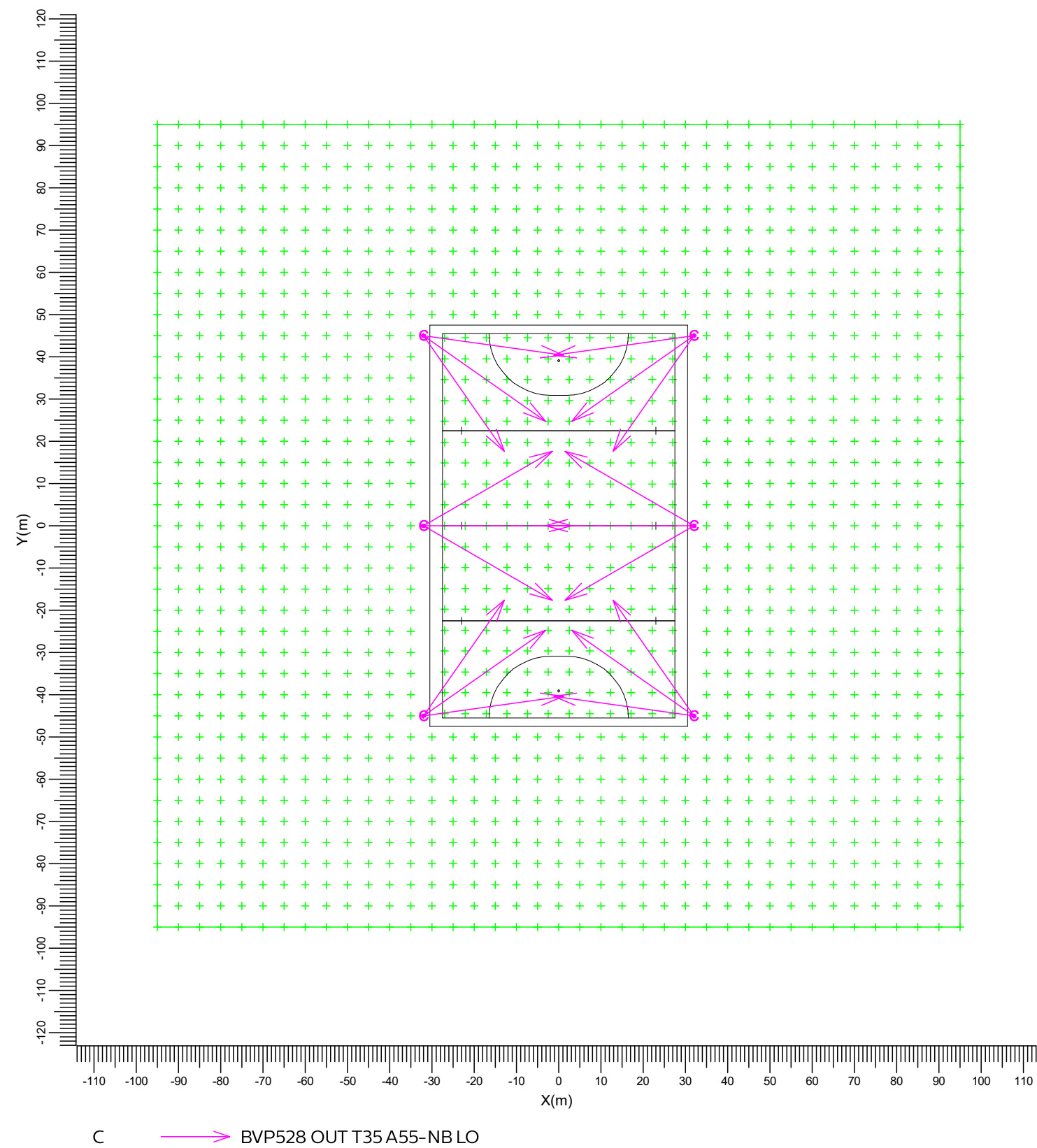
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1. Project Description

1.1 Top Project Overview



Scale
1:1250

2. Summary

2.1 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
C	18	BVP528 OUT T35 A55-NB LO	1 * LED2590-4S/740	1505.9	1 * 259000

The total installed power: 27.11 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code	Power (kWatt)
	C	
All on	18	27.11
Spillage	18	27.11

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	C	
Col 1	12	18.07
Col 2	6	9.04

2.2 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	All on	0.90
2	Spillage	1.00

(II)luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave Min/Ave
Hockey	1	Surface Illuminance	lux	354 0.70
Spillage	1	Surface Illuminance	lux	

Glare Rating for Grid of Observers:

Calculation	Switching Mode	Observer Grid	Reference Grid	Reflectance	GR-Max
Glare	1	Hockey	Hockey	0.25	47.0

Obtrusive Light Calculations:

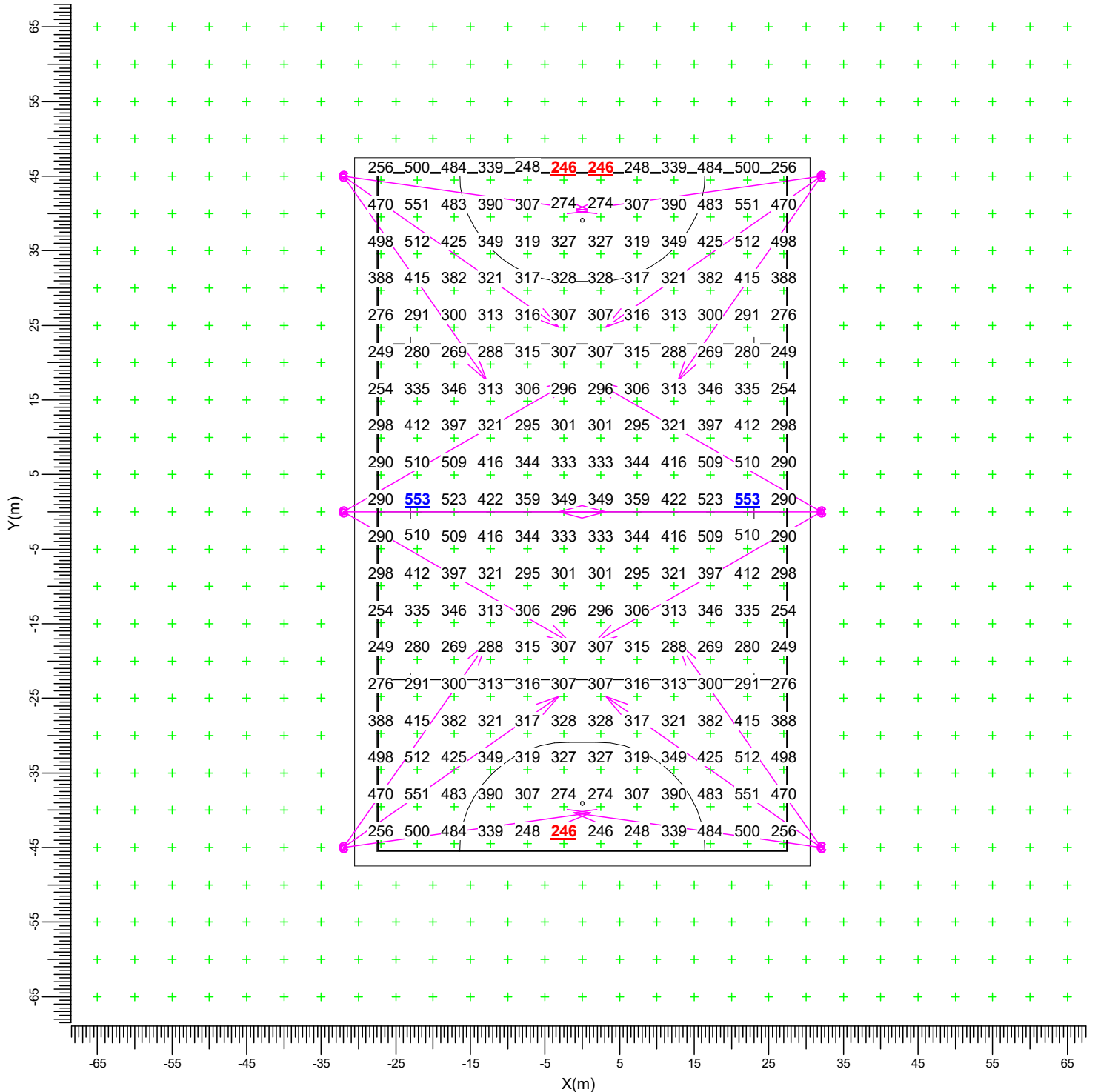
Switching Mode	ULR
1	0.00
2	0.00

3. Calculation Results

3.1 Hockey: Graphical Table

All on

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



C → BVP528 OUT T35 A55-NB LO

Average
354

Min/Ave
0.70

Project maintenance factor
0.90

Scale
1:750

All on

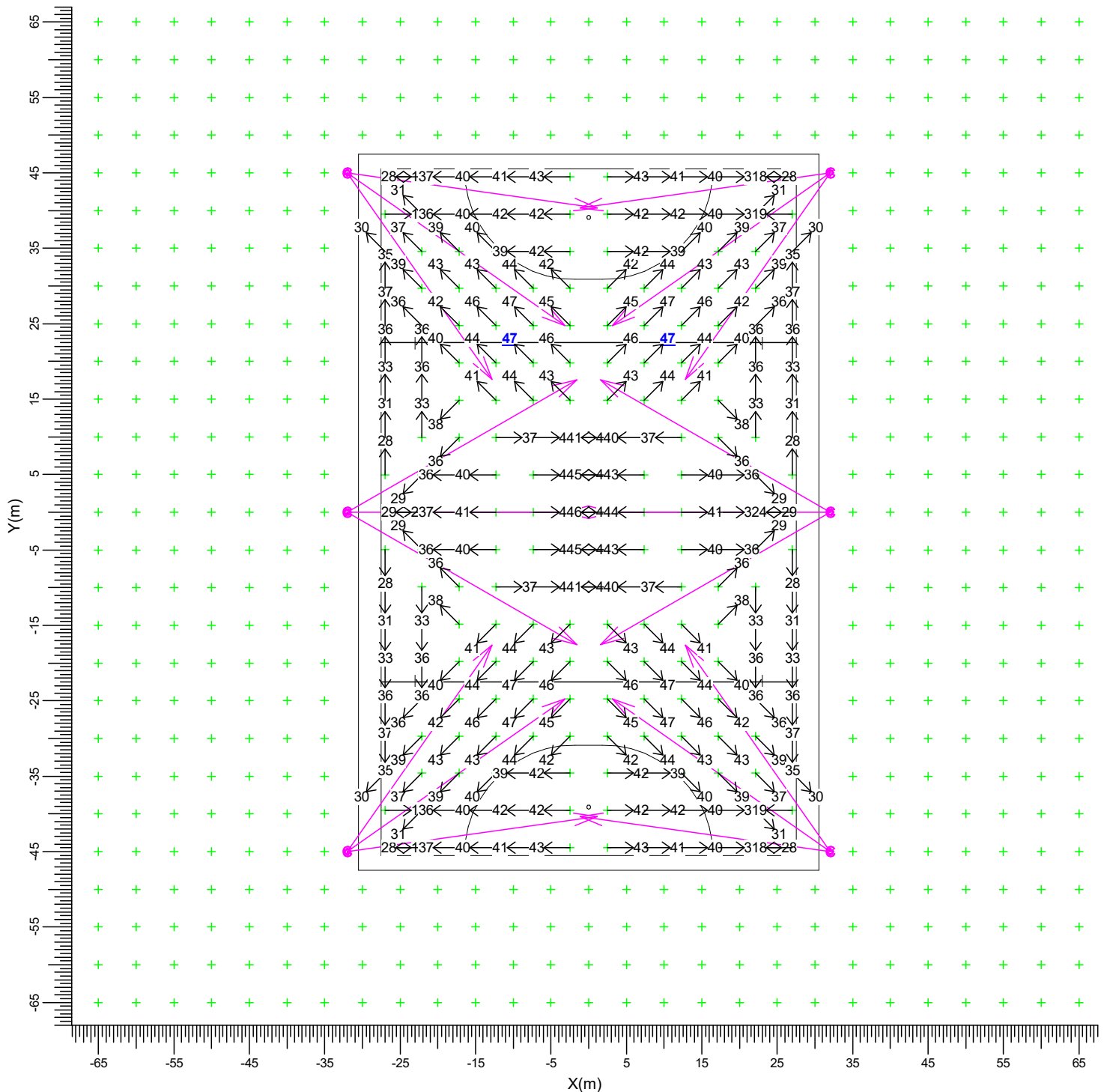
The figure displays a 2D plot of a rectangular domain. The horizontal axis is labeled $X(m)$ and the vertical axis is labeled $Y(m)$, both ranging from -110 to 110. The domain is defined by a black rectangular boundary with a width of 60 units and a height of 60 units. The corners of the domain are marked with the number 5. Inside the domain, a grid of green '+' markers is shown. A magenta network of lines and arrows connects points on the boundary and within the grid. The network consists of magenta lines connecting points on the boundary to points within the grid, and magenta arrows indicating the direction of flow or movement. The magenta lines form a complex pattern, with some lines connecting points on the boundary to points within the grid, and others connecting points within the grid to points on the boundary. The magenta arrows indicate the direction of flow or movement, with some arrows pointing towards the center of the domain and others pointing away from the center. The magenta lines and arrows are drawn with a thickness of 2 pixels. The green '+' markers are drawn with a size of 10 pixels. The black rectangular boundary is drawn with a thickness of 2 pixels. The axes are drawn with a thickness of 2 pixels. The labels $X(m)$ and $Y(m)$ are drawn in a black font with a size of 14 pixels. The numbers -110, -100, -90, -80, -70, -60, -50, -40, -30, -20, -10, 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110 are drawn in a black font with a size of 12 pixels. The number 5 is drawn in a black font with a size of 14 pixels. The magenta lines and arrows are drawn with a color of magenta. The green '+' markers are drawn with a color of green. The black rectangular boundary is drawn with a color of black. The axes are drawn with a color of black. The labels $X(m)$ and $Y(m)$ are drawn with a color of black. The numbers -110, -100, -90, -80, -70, -60, -50, -40, -30, -20, -10, 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110 are drawn with a color of black. The number 5 is drawn with a color of black.

Scale
1:1250

3.3 Glare: Graphical Table

All on

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



C → BVP528 OUT T35 A55-NB LO

Project maintenance factor
0.90

Scale
1:750

4. Luminaire Details

4.1 Project Luminaires

OptiVision LED gen3.5 2022
BVP528 OUT T35 1xLED2590-4S/740/740 E3/D4I A55-NB LO

Light output ratios	
DLOR	: 0.58
ULOR	: 0.00
TLOR	: 0.58
Ballast	: E3/D4I
Lamp flux	: 259000 lm
Luminaire wattage	: 1505.9 W
Measurement code	: LVM20482U1

Note: Luminaire data not from database.

