

# Melody`s Field Renmore

100 x 59m 4000k

Project code: 501608713/6236776  
Date: 29-05-2025

Designer: Signify Commercial Ireland Ltd.

Description: Proposal based on:  
Philips BVP528 OptiVisionGen3.5 LED Floodlight +LO.  
16 no. 4000k Floodlights used in total.  
The column positions are fixed and are 15m in height.  
Column setback from side line is 3m & 8m.

GAA:  
266 Lux Maintained Avg achieved with Uniformity;  
Min/Ave=>0.71  
Min/Max=>0.41

With the Maintenance Factor of 0.90  
Spill light calculated with Maintenance Factor of 1.00.

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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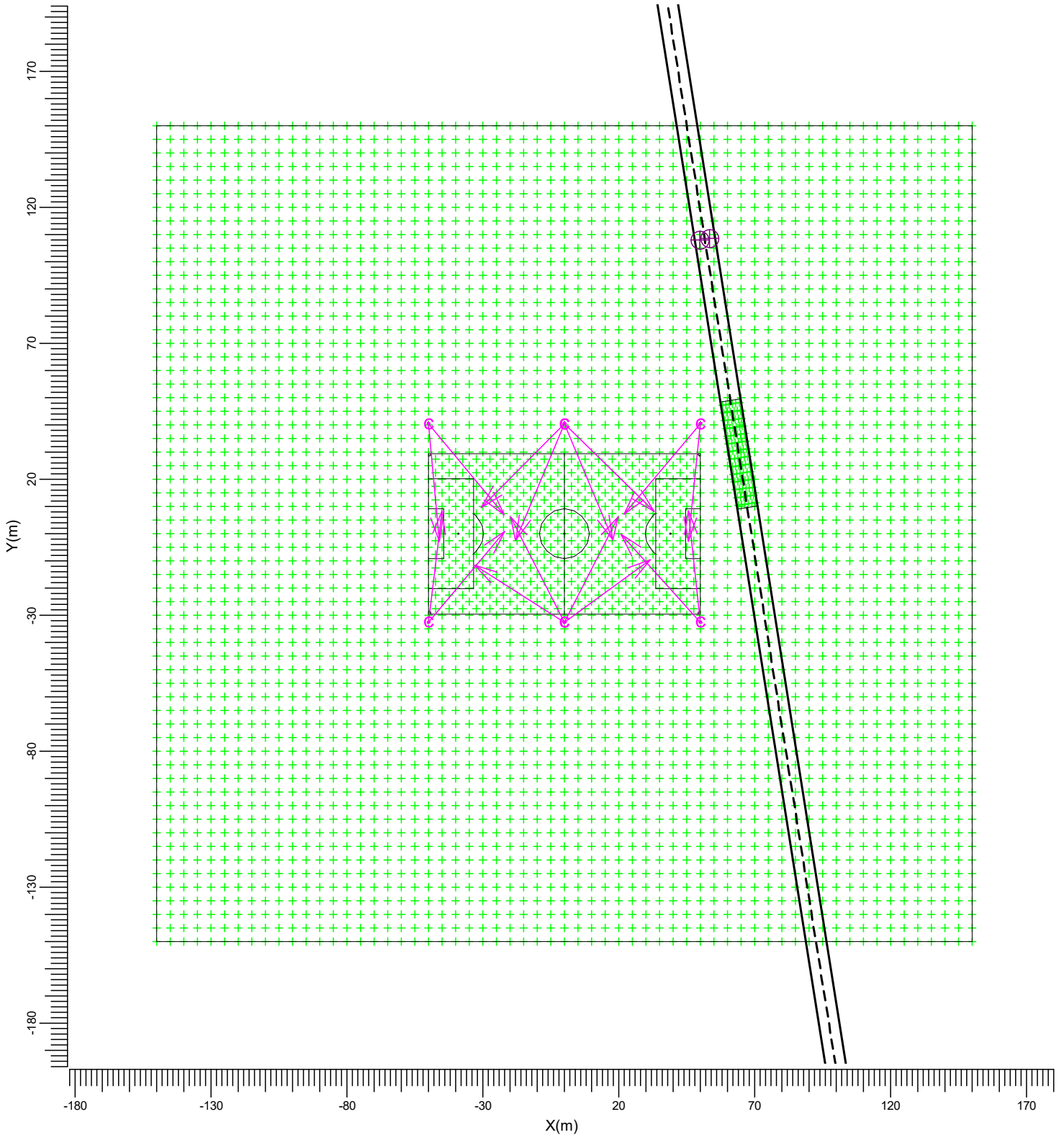
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# 1. Project Description

## 1.1 Top Project Overview



C       BVP528 OUT T35 A35-NB LO

Scale  
1:2000

## 2. Summary

### 2.1 Observer Information

Code	Observer	Position		
		X (m)	Y (m)	Z (m)
Aa	Single Carriageway (O1)	53.49	108.61	1.50
Bb	Single Carriageway (O2)	49.78	108.02	1.50

### 2.2 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
C	16	BVP528 OUT T35 A35-NB LO	1 * LED2590-4S/740	1505.9	1 * 259000

The total installed power: 24.09 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code	Power (kWatt)
	C	
Pitch	16	24.09
Overspill	16	24.09

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	C	
Centre Column1	3	4.52
Centre Column2	1	1.51
Centre Column3	3	4.52
Centre Column4	1	1.51
Corner Column1	2	3.01
Corner Column2	2	3.01
Corner Column3	2	3.01
Corner Column4	2	3.01

### 2.3 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	Pitch	0.90
2	Overspill	1.00

(II)luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave	Min	Max	Min/Ave	Min/Max
Football	1	Surface Illuminance	lux	266	189	463	0.71	0.41
Overspill	2	Surface Illuminance	lux			528.0		

Road Luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave	Min	Max	Min/Ave	Min/Max	TI (%)
Single Carriageway (O1)	1	Luminance -> Aa	cd/m2	1.26	0.01	4.80	0.01	0.00	Undefined
Single Carriageway (O2)	1	Luminance -> Bb	cd/m2	1.25	0.01	4.74	0.01	0.00	Undefined

Obtrusive Light Calculations:

Switching Mode	Observer Code	Adaptation Luminance (cd/m2)	Direction	Threshold Increment (%)
2	Aa	1.00	(0.16, -0.99, 0.00)	0.2
2	Bb	1.00	(0.16, -0.99, 0.00)	0.2

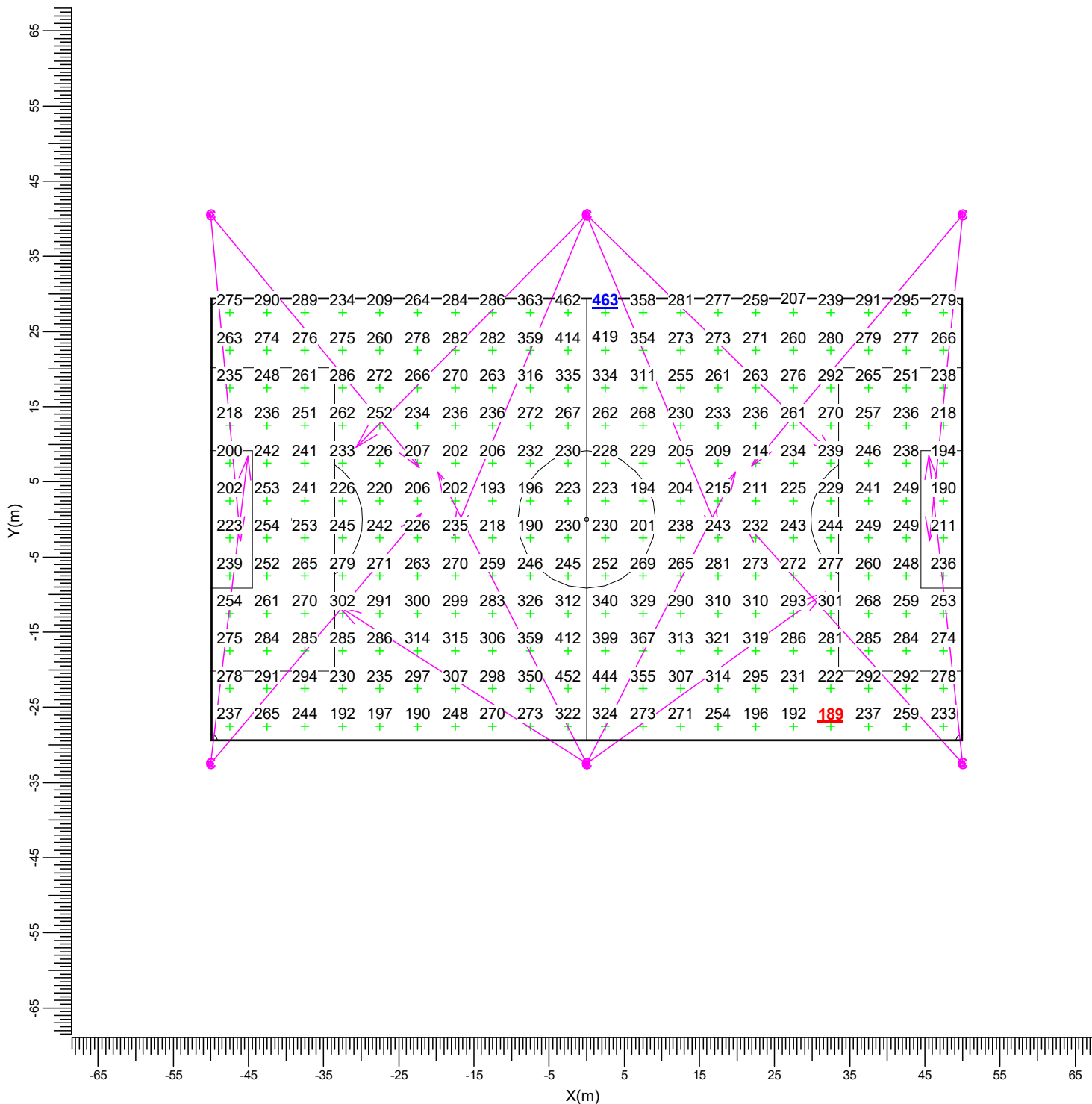
Switching Mode	ULR
1	0.00
2	0.00

### 3. Calculation Results

#### 3.1 Football: Graphical Table

Pitch

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



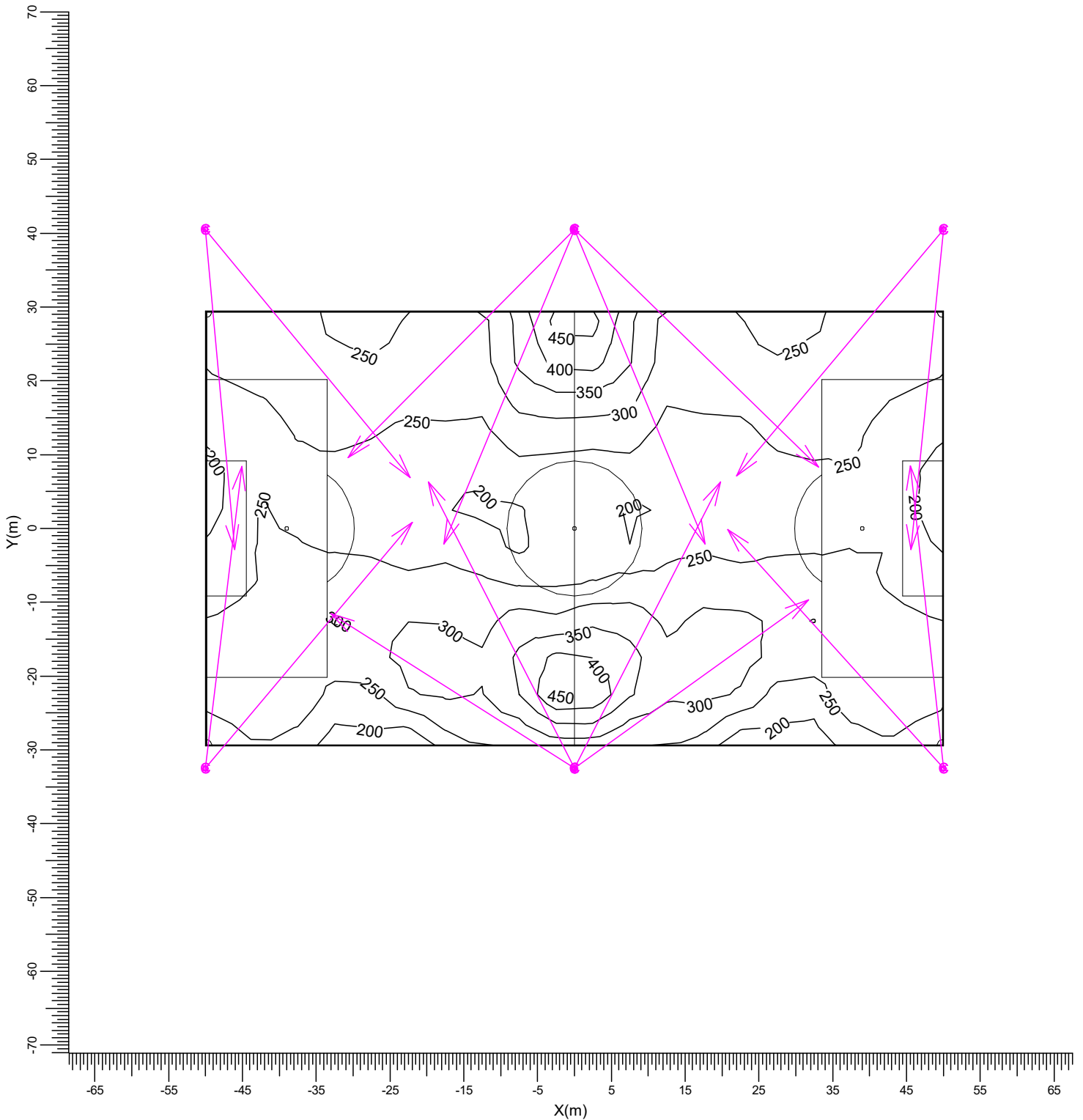
C → BVP528 OUT T35 A35-NB LO

Average	Minimum	Maximum	Min/Ave	Min/Max	Project maintenance factor	Scale
266	189	463	0.71	0.41	0.90	1:750

3.2 Football: Iso Contour

Pitch

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



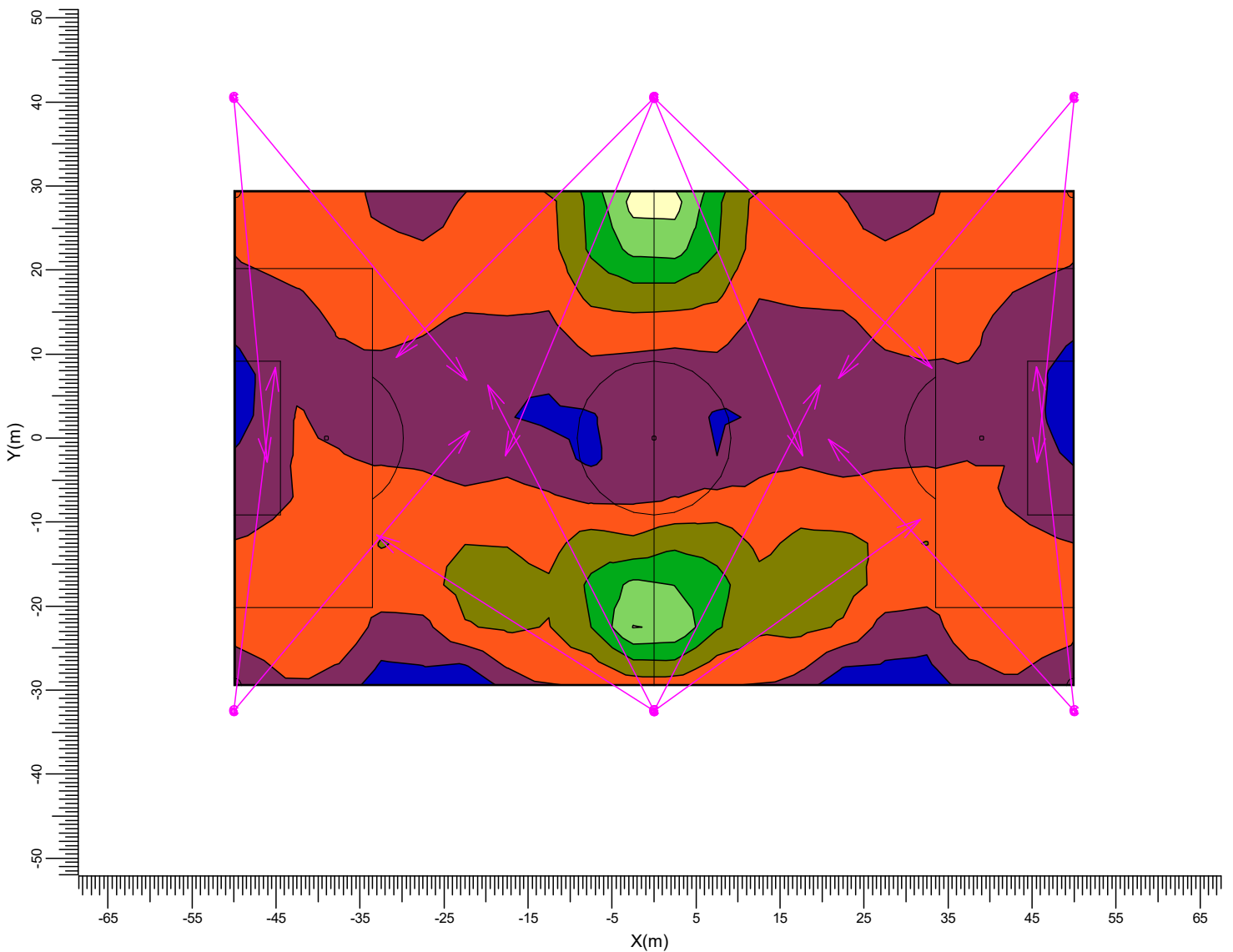
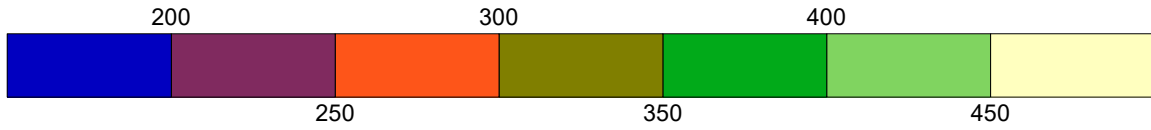
C BVP528 OUT T35 A35-NB LO


Average 266	Minimum 189	Maximum 463	Min/Ave 0.71	Min/Max 0.41	Project maintenance factor 0.90	Scale 1:750
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### 3.3 Football: Filled Iso Contour

Pitch

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



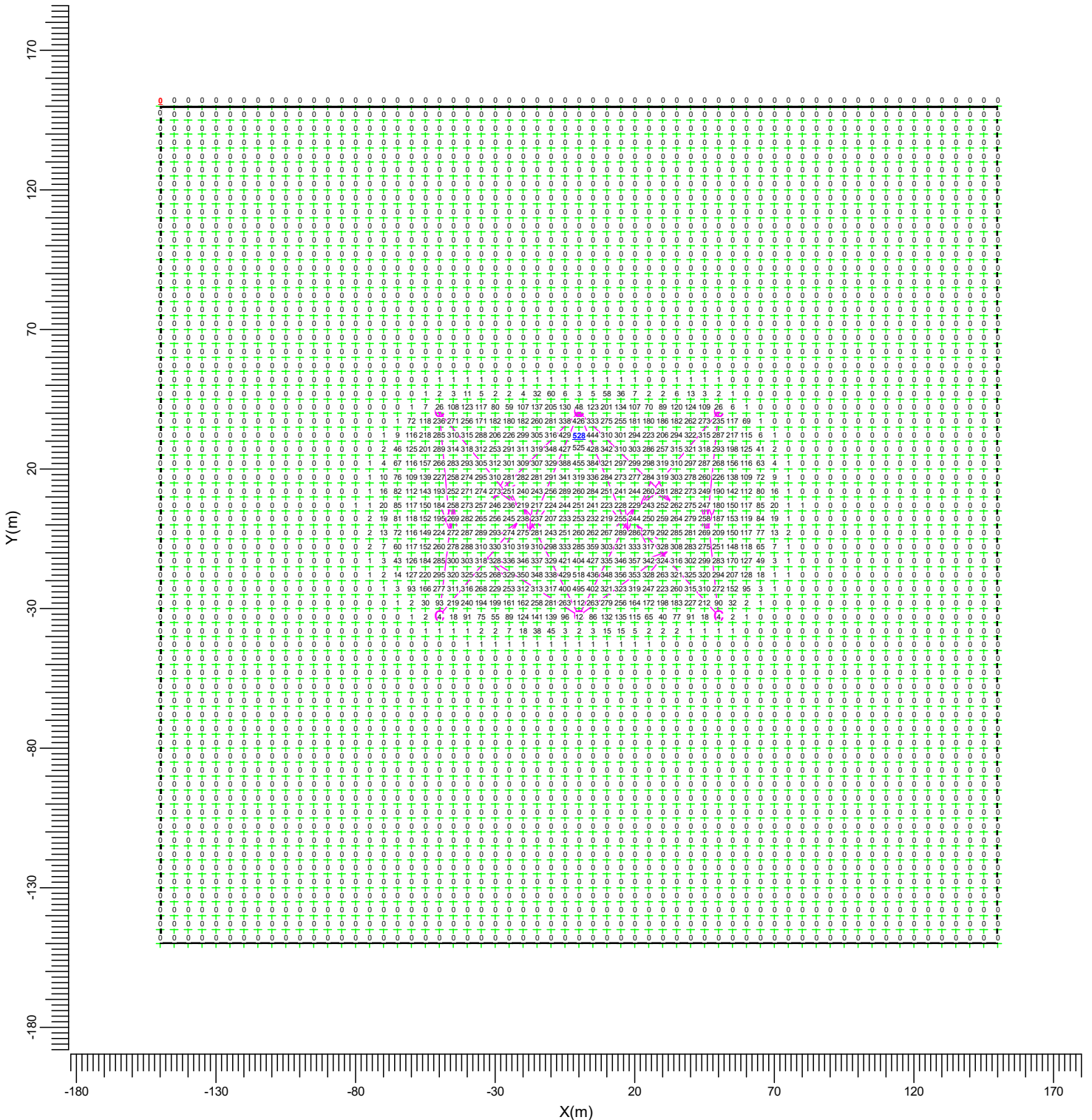
C       BVP528 OUT T35 A35-NB LO

Average 266	Minimum 189	Maximum 463	Min/Ave 0.71	Min/Max 0.41	Project maintenance factor 0.90	Scale 1:750
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3.4 Overspill: Graphical Table

Overspill

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



C → BVP528 OUT T35 A35-NB LO

Maximum  
528.0

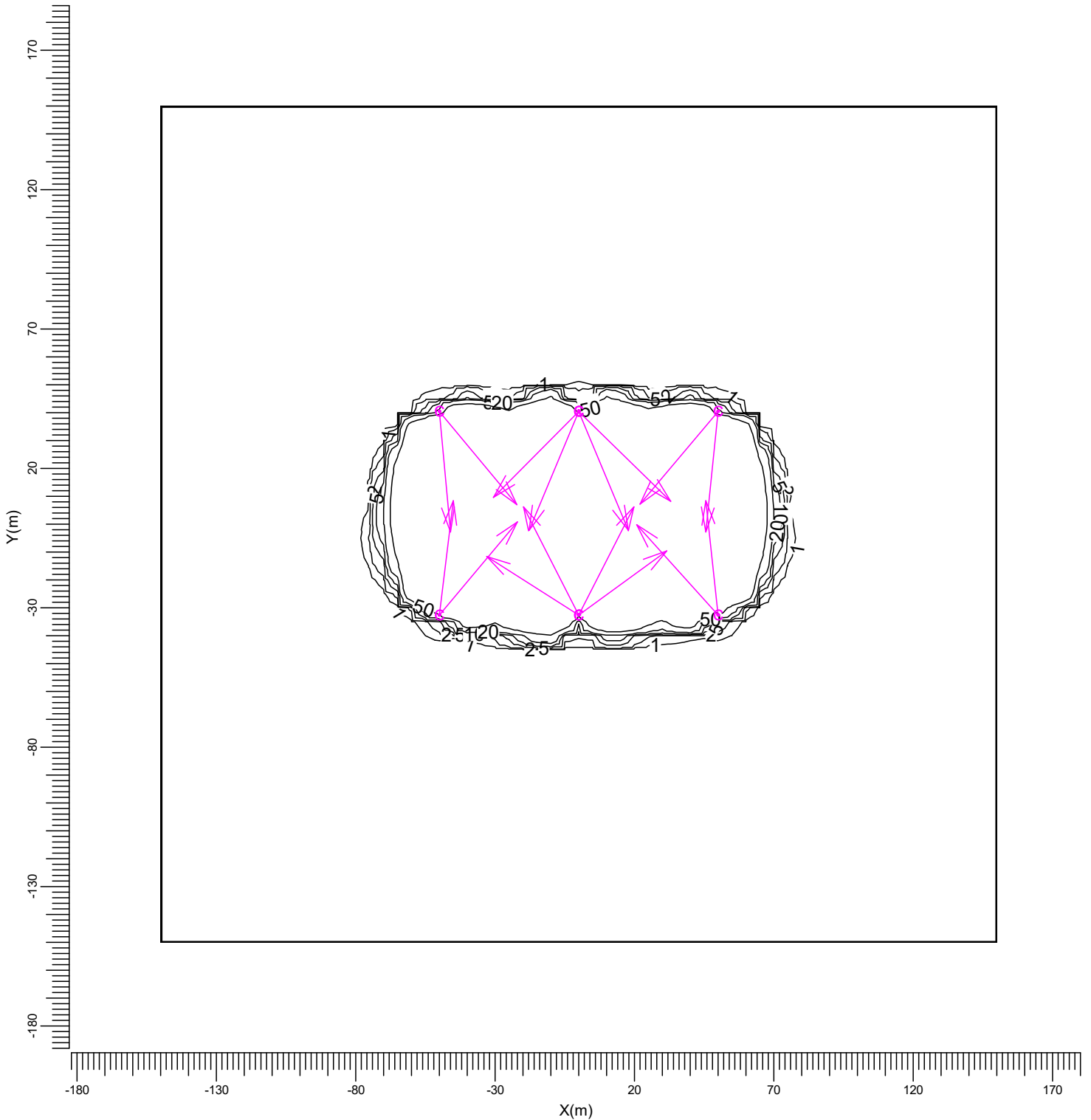
Project maintenance factor  
1.00

Scale  
1:2000

### 3.5 Overspill: Iso Contour

### Overspill

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



C → BVP528 OUT T35 A35-NB LO

Maximum  
528.0

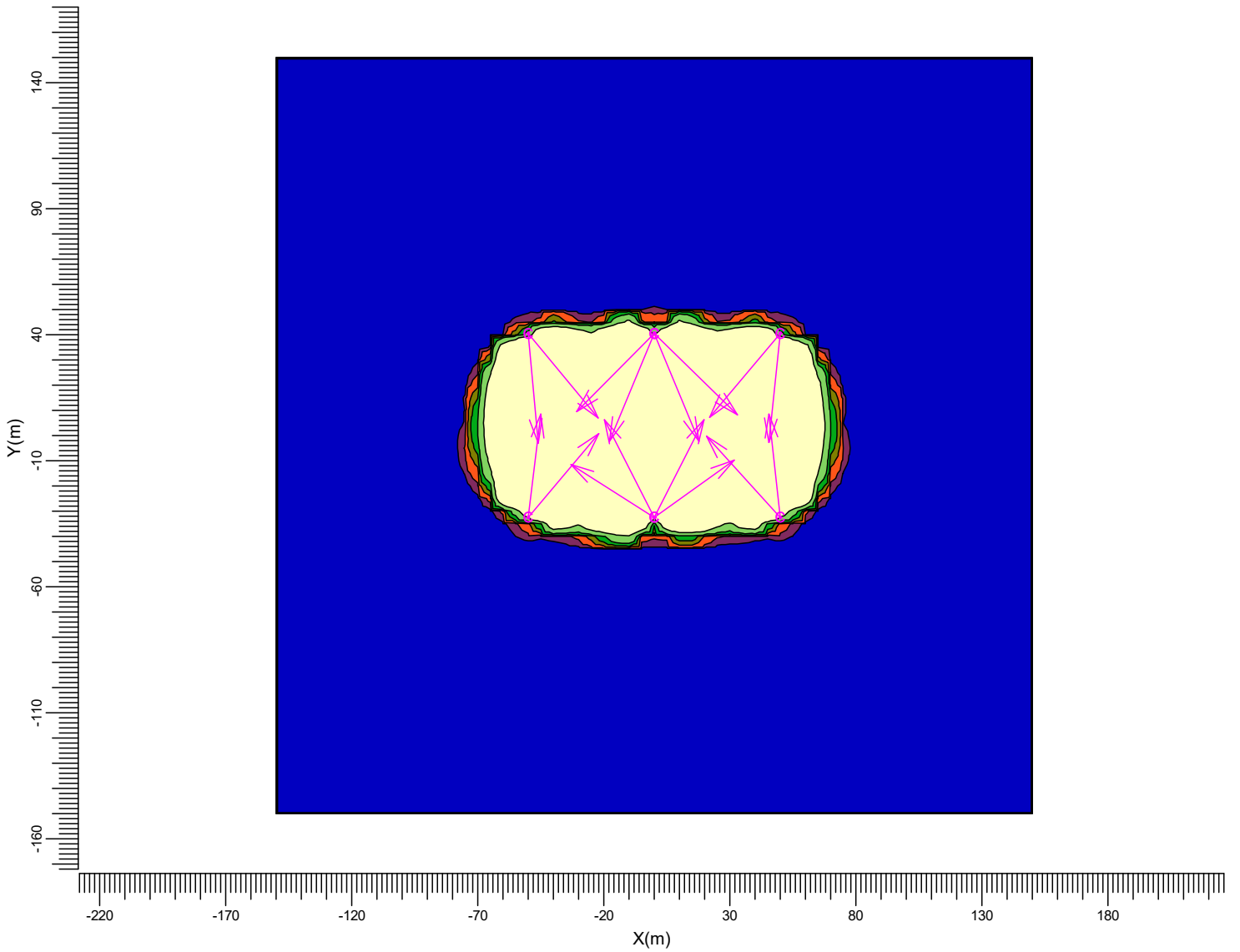
Project maintenance factor  
1.00


Scale  
1:2000

### 3.6 Overspill: Filled Iso Contour

### Overspill

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



C  BVP528 OUT T35 A35-NB LO

Maximum  
528.0

Project maintenance factor  
1.00

Scale  
1:2500

## 4. Luminaire Details

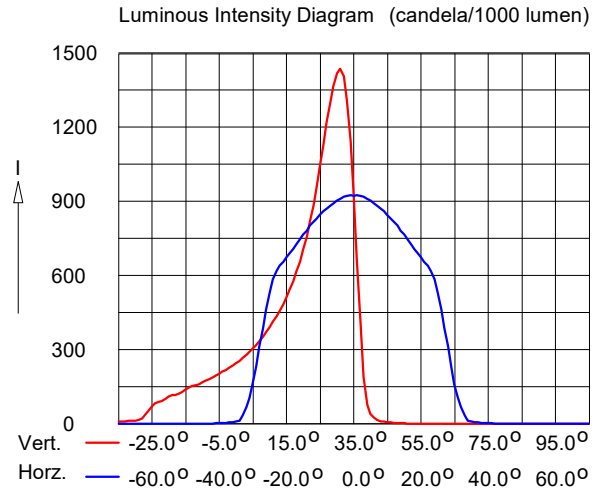
### 4.1 Project Luminaires

OptiVision LED gen3.5 2022  
BVP528 OUT T35 1xLED2590-4S/740/740 E3/D4I A35-NB LO

Light output ratios

DLOR	: 0.59
ULOR	: 0.00
TLOR	: 0.59
ULR	: 0.000
Ballast	: E3/D4I
Lamp flux	: 259000 lm
Luminaire wattage	: 1505.9 W
Measurement code	: LVM2047300
CIE Code	: 96 100 100 100 59

Note: Luminaire data not from database.



## 5. Installation Data

### 5.1 Legends

Project Luminaires:

Code	Qty	Luminaire Type	Lamp Type	Flux (lm)
C	16	BVP528 OUT T35 A35-NB LO	1 * LED2590-4S/740	1 * 259000

Switching Modes:

Code	Switching Mode
1	Pitch
2	Overspill

### 5.2 Luminaire Positioning and Orientation

Qty and Code	Position			Aiming Points			Aiming Angles			ULR	Switching Modes	
	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	Rot.	Tilt90	Tilt0		1	2
1 * C	-50.00	-32.50	15.00	-45.10	8.42	0.00	83.2	70.0	0.0	0.000	+	+
1 * C	-50.00	-32.50	15.00	-21.96	0.84	0.00	49.9	71.0	0.0	0.000	+	+
1 * C	-50.00	40.50	15.00	-46.03	-2.88	0.00	-84.8	71.0	0.0	0.000	+	+
1 * C	-50.00	40.50	15.00	-22.25	6.91	0.00	-50.4	71.0	0.0	0.001	+	+
1 * C	-0.00	-32.50	15.00	-32.96	-11.51	0.00	147.5	69.0	0.0	0.000	+	+
1 * C	-0.00	-32.50	15.00	31.69	-9.64	0.00	35.8	69.0	0.0	0.000	+	+
1 * C	-0.00	-32.50	15.00	19.81	6.30	0.00	63.0	71.0	0.0	0.001	+	+
1 * C	-0.00	-32.50	15.00	-19.81	6.30	0.00	117.0	71.0	-0.0	0.001	+	+
1 * C	-0.00	40.50	15.00	-30.70	9.59	0.00	-134.8	71.0	0.0	0.000	+	+
1 * C	-0.00	40.50	15.00	33.07	8.29	0.00	-44.2	72.0	0.0	0.001	+	+
1 * C	-0.00	40.50	15.00	17.73	-2.13	0.00	-67.4	72.0	0.0	0.001	+	+
1 * C	-0.00	40.50	15.00	-17.73	-2.13	0.00	-112.6	72.0	-0.0	0.001	+	+
1 * C	50.00	-32.50	15.00	45.56	8.47	0.00	96.2	70.0	0.0	0.000	+	+
1 * C	50.00	-32.50	15.00	20.80	-0.17	0.00	132.1	71.0	0.0	0.001	+	+
1 * C	50.00	40.50	15.00	45.58	-2.84	0.00	-95.8	71.0	0.0	0.001	+	+
1 * C	50.00	40.50	15.00	21.99	7.14	0.00	-130.0	71.0	0.0	0.000	+	+