

Afon Taf School

Date: 26-02-2025
Designer: Andy Poplett
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.

Signify
Unit 3
Guildford Business Park
Guildford
Surrey
GU2 8XG
Mobile Phone: 0044 7810 832266
E-Mail: andrew.poplett@signify.com

CalcuLuX Area 7.9.0.0

Table of Contents

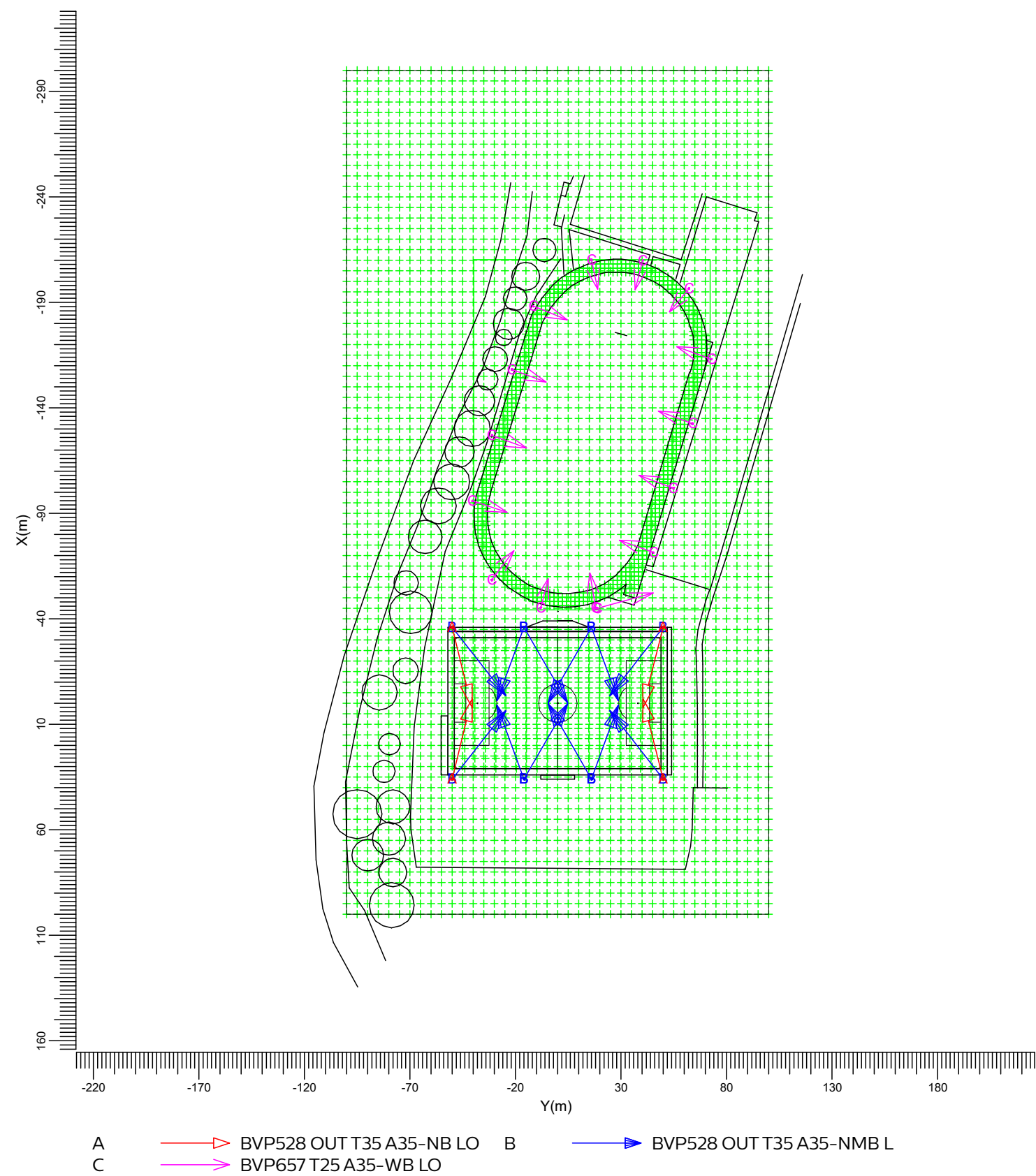
1.	Project Description	3
1.1	Description	3
1.2	Top Project Overview	4
2.	Summary	5
2.1	Project Luminaires	5
2.2	Calculation Results	5
3.	Calculation Results	6
3.1	Football: Graphical Table	6
3.2	Track: Graphical Table	7
3.3	Eh Spillage @0m: Graphical Table	8
3.4	Eh Spillage @0m: Iso Contour	9
3.5	Eh Spillage @0m: Filled Iso Contour	10
3.6	Eh Spillage @2m: Graphical Table	11
3.7	Eh Spillage @2m: Iso Contour	12
3.8	Eh Spillage @2m: Filled Iso Contour	13
4.	Luminaire Details	14
4.1	Project Luminaires	14

1. Project Description

1.1 Description

Maintenance Factor:- 0.90

1.2 Top Project Overview



2. Summary

2.1 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
A	4	BVP528 OUT T35 A35-NB LO	1 * LED2590-4S/740	1505.9	1 * 259000
B	12	BVP528 OUT T35 A35-NMB LO	1 * LED2590-4S/740	1505.9	1 * 259000
C	15	BVP657 T25 A35-WB LO	1 * LED930-4S	530.6	1 * 93000

The total installed power: 32.05 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code			Power (kWatt)
	A	B	C	
Main Pitch	4	12	0	24.09
Track	0	0	15	7.96
All ON	4	12	15	32.05

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code			Power (kWatt)
	A	B	C	
Centre 1	0	8	0	12.05
Corner 3	4	4	0	12.05
Individuals	0	0	15	7.96

2.2 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	Main Pitch	0.90
2	Track	0.90
3	All ON	1.00

(II)luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave Min/AveMin/Max		
Football	1	Surface Illuminance	lux	274	0.70	0.54
Track	2	Surface Illuminance	lux	120	0.51	0.25
Eh Spillage @0m	3	Surface Illuminance	lux			
Eh Spillage @2m	3	Horizontal Illuminance	lux			

Obtrusive Light Calculations:

Switching Mode	ULR
1	0.00
2	0.00
3	0.00

3. Calculation Results

3.1 Football: Graphical Table

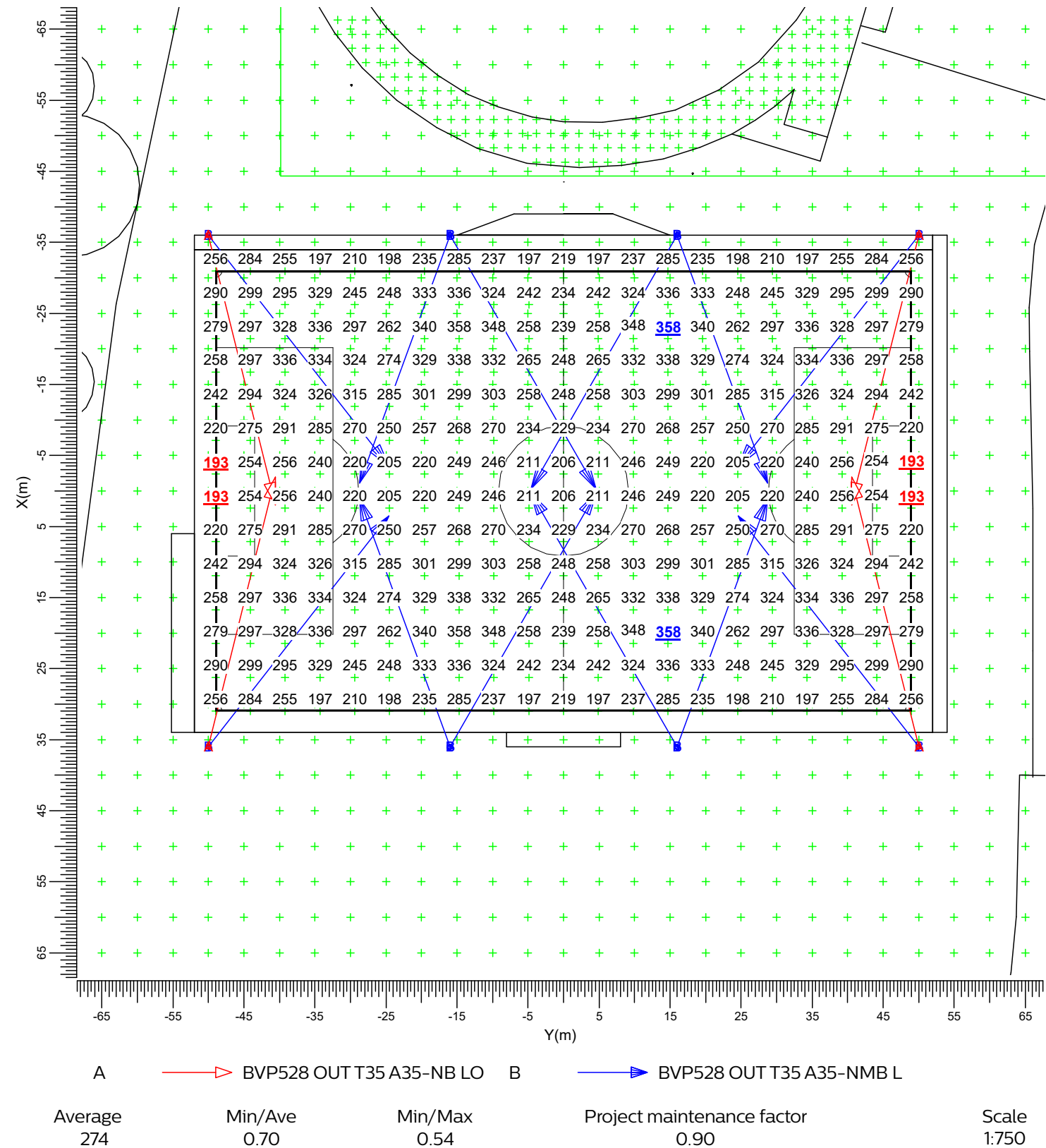
Main Pitch

Grid

Calculation

: Football at Z = -0.00 m

: Surface Illuminance (lux)

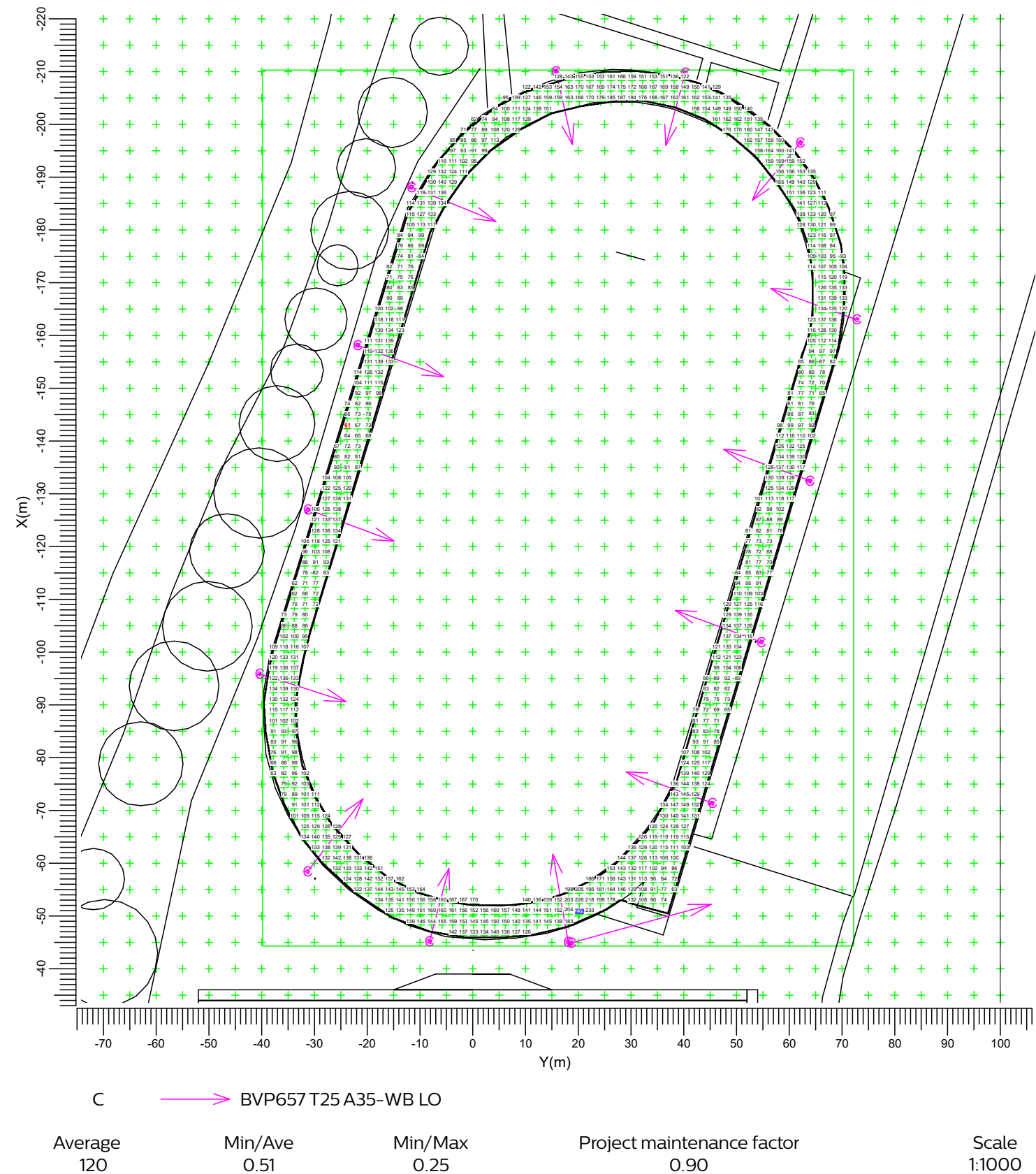


3.2 Track: Graphical Table

Track

Grid : Track at Z = -0.00 m

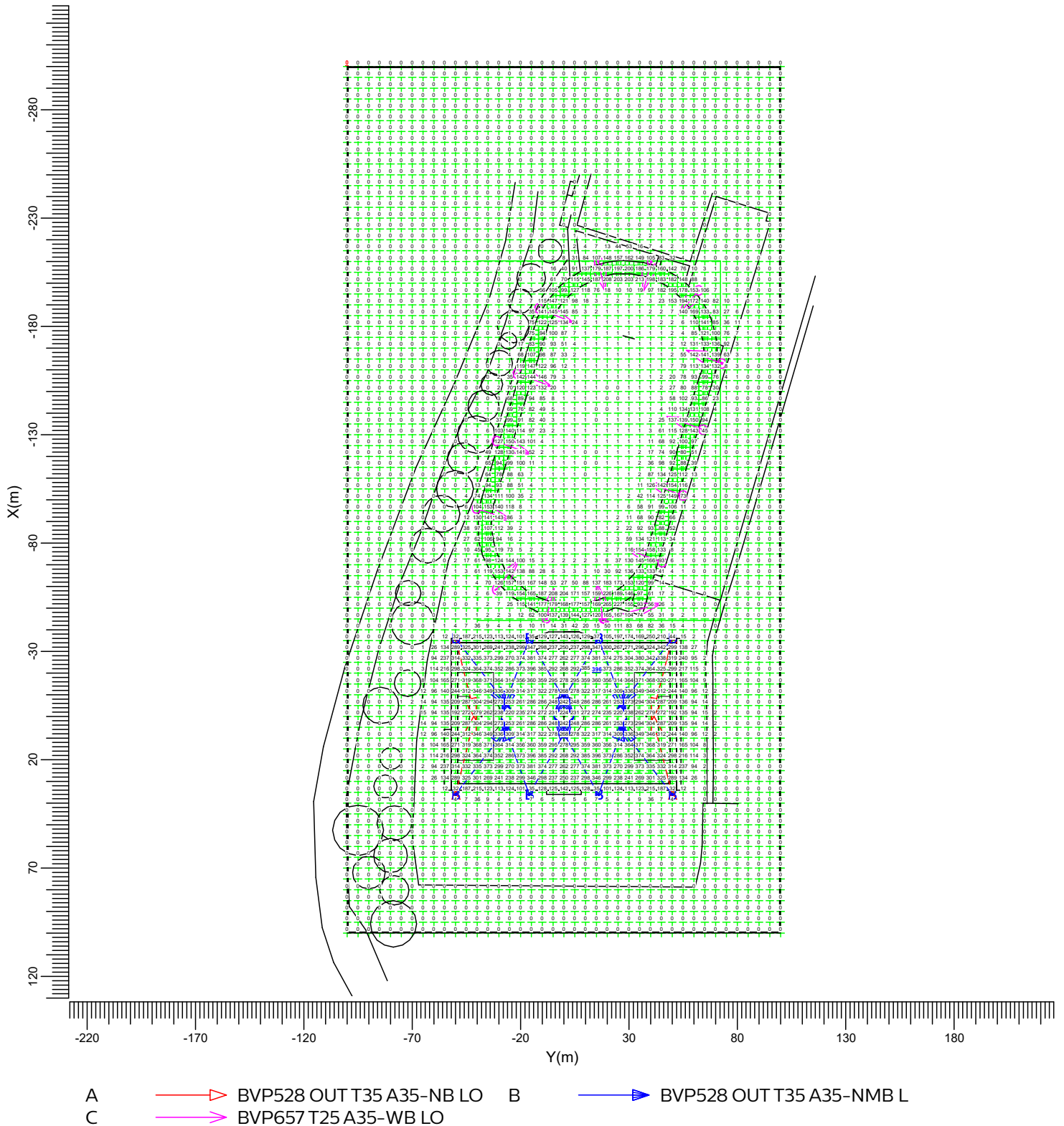
Calculation : Surface Illuminance (lux)



3.3 Eh Spillage @0m: Graphical Table

All ON

Grid : Eh Spillage @0m at Z = -0.00 m
Calculation : Surface Illuminance (lux)



Project maintenance factor
1.00

Scale
1:2500

3.4 Eh Spillage @0m: Iso Contour

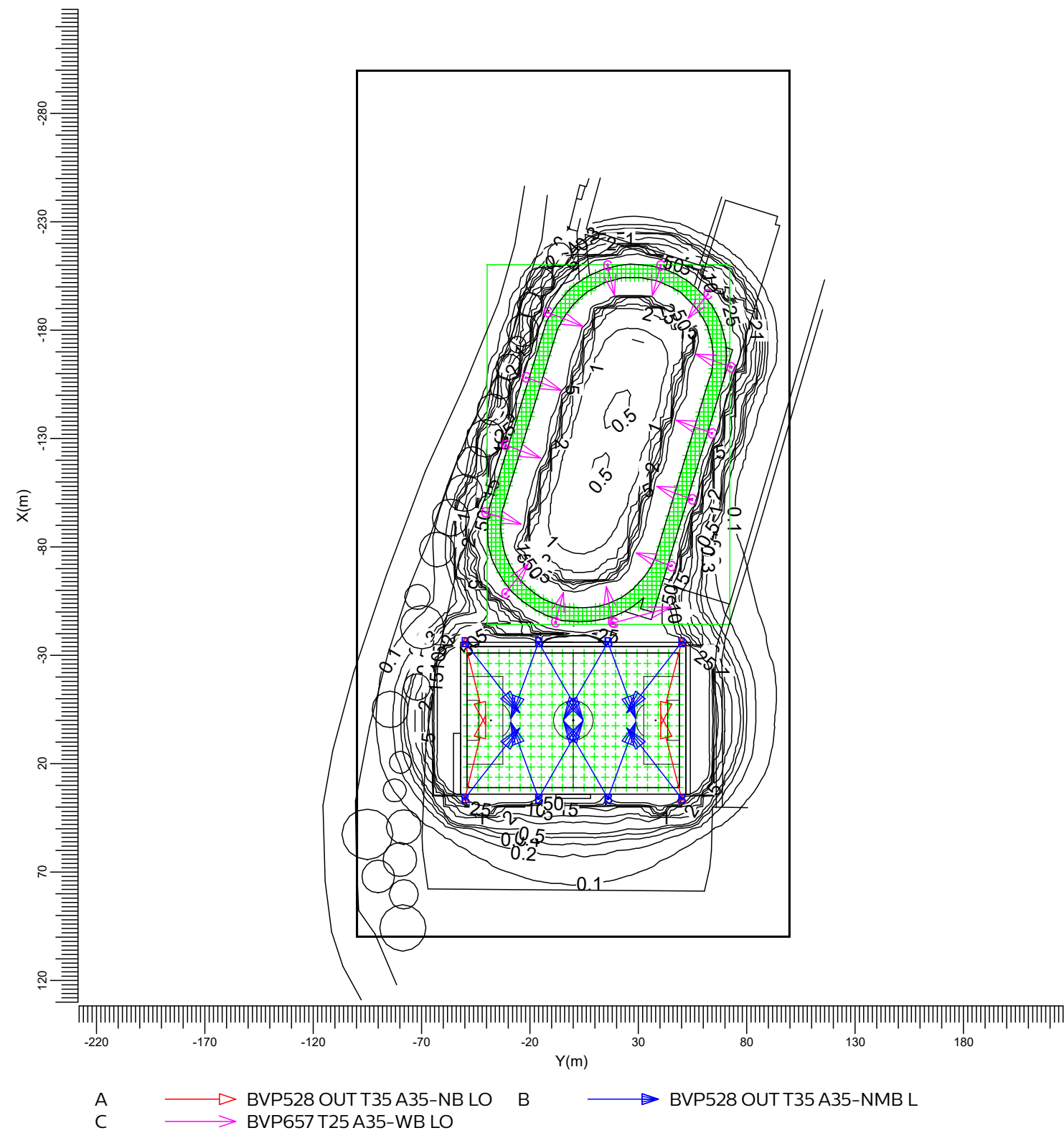
All ON

Grid

Calculation

: Eh Spillage @0m at Z = -0.00 m

: Surface Illuminance (lux)



Project maintenance factor

1.00

Scale

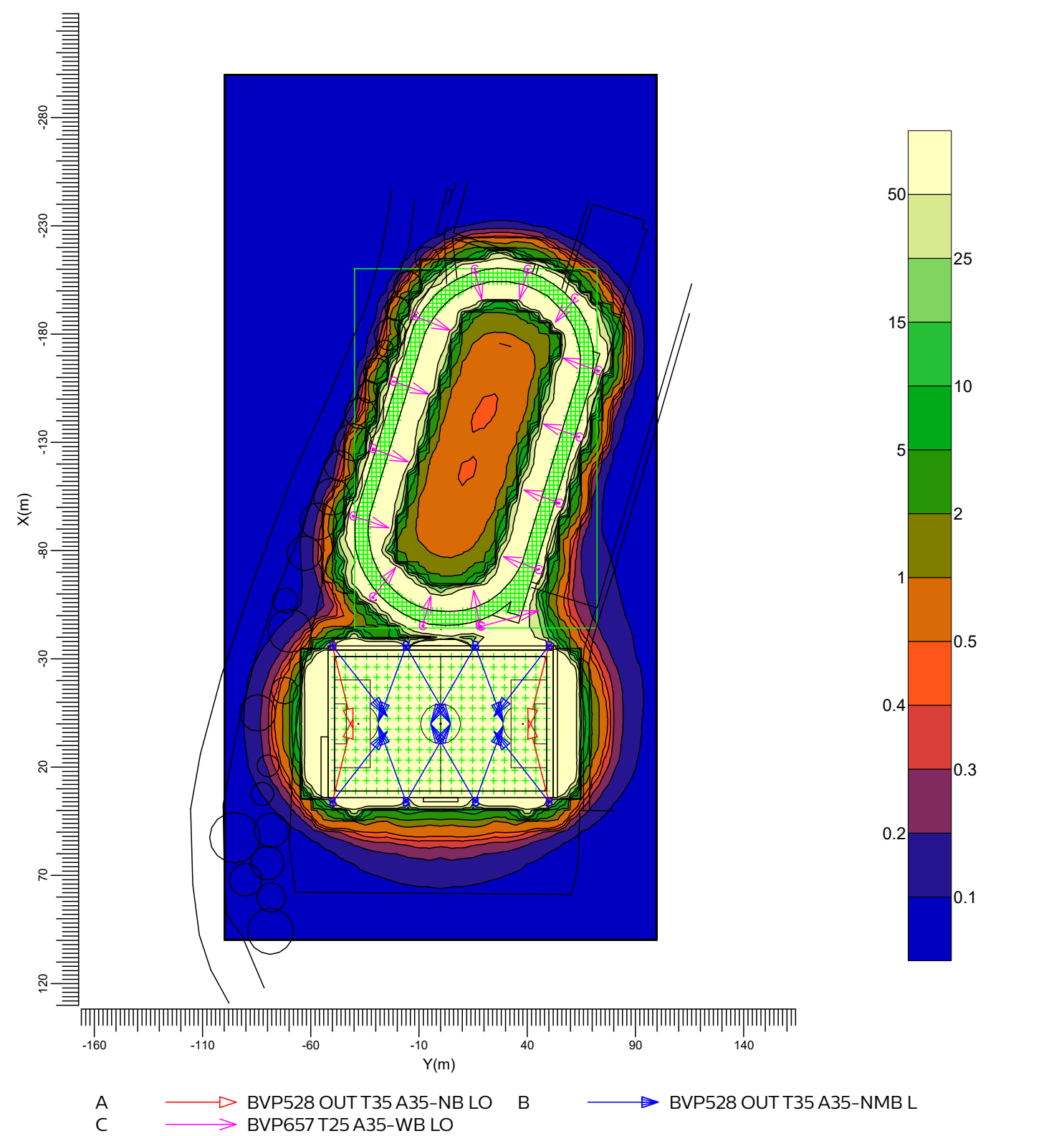
1:2500

3.5 Eh Spillage @0m: Filled Iso Contour

All ON

Grid : Eh Spillage @0m at Z = -0.00 m

Calculation : Surface Illuminance (lux)



- A→ BVP528 OUT T35 A35-NB LO
- B→ BVP528 OUT T35 A35-NMB L
- C→ BVP657 T25 A35-WB LO

Project maintenance factor
1.00

Scale
1:2500

ALL ON

Scale
1:2500

3.7 Eh Spillage @2m: Iso Contour

All ON

Grid

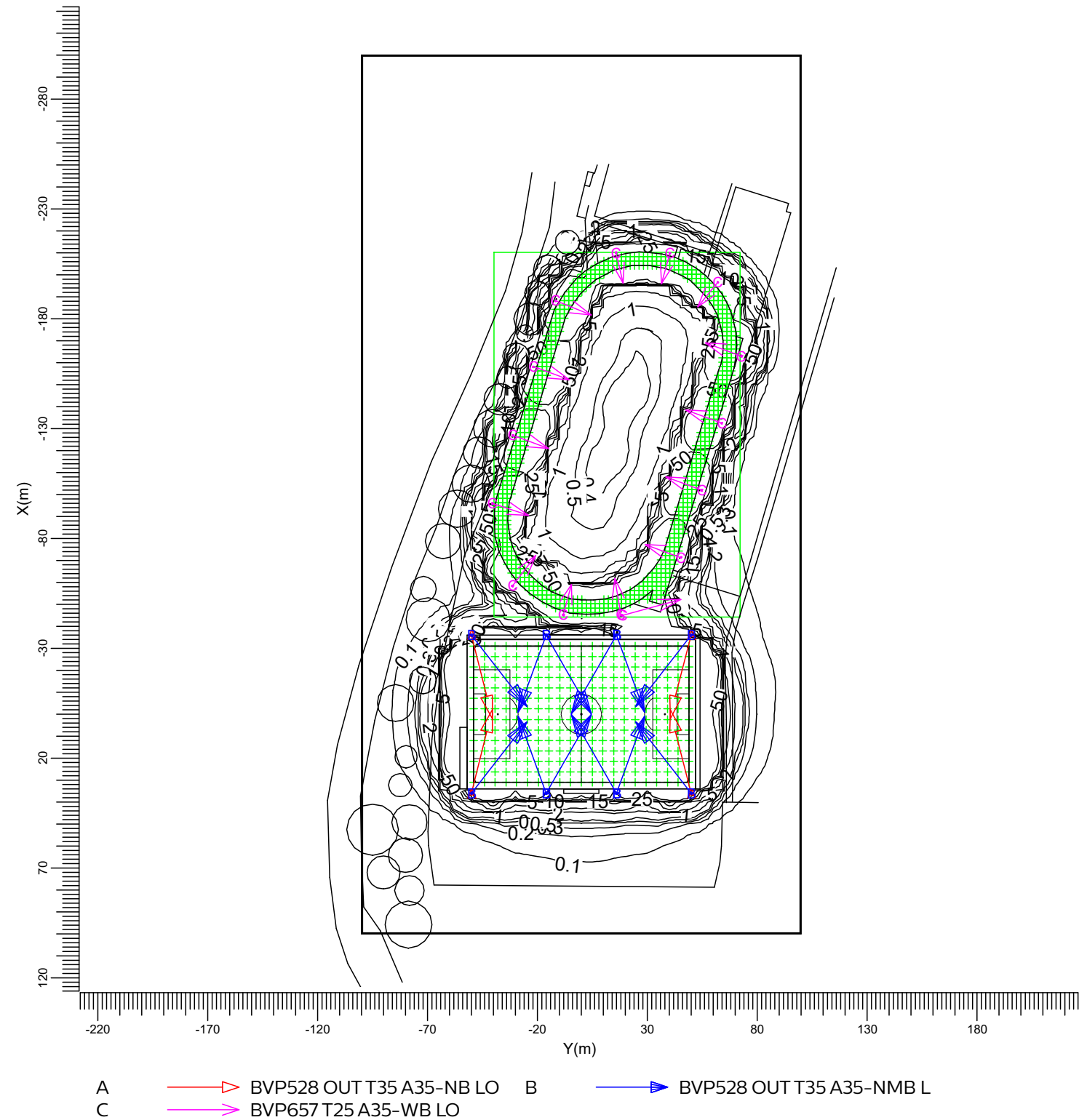
Calculation

Height above grid

: Eh Spillage @0m at Z = -0.00 m

: Horizontal Illuminance (lux)

: 2.00 m



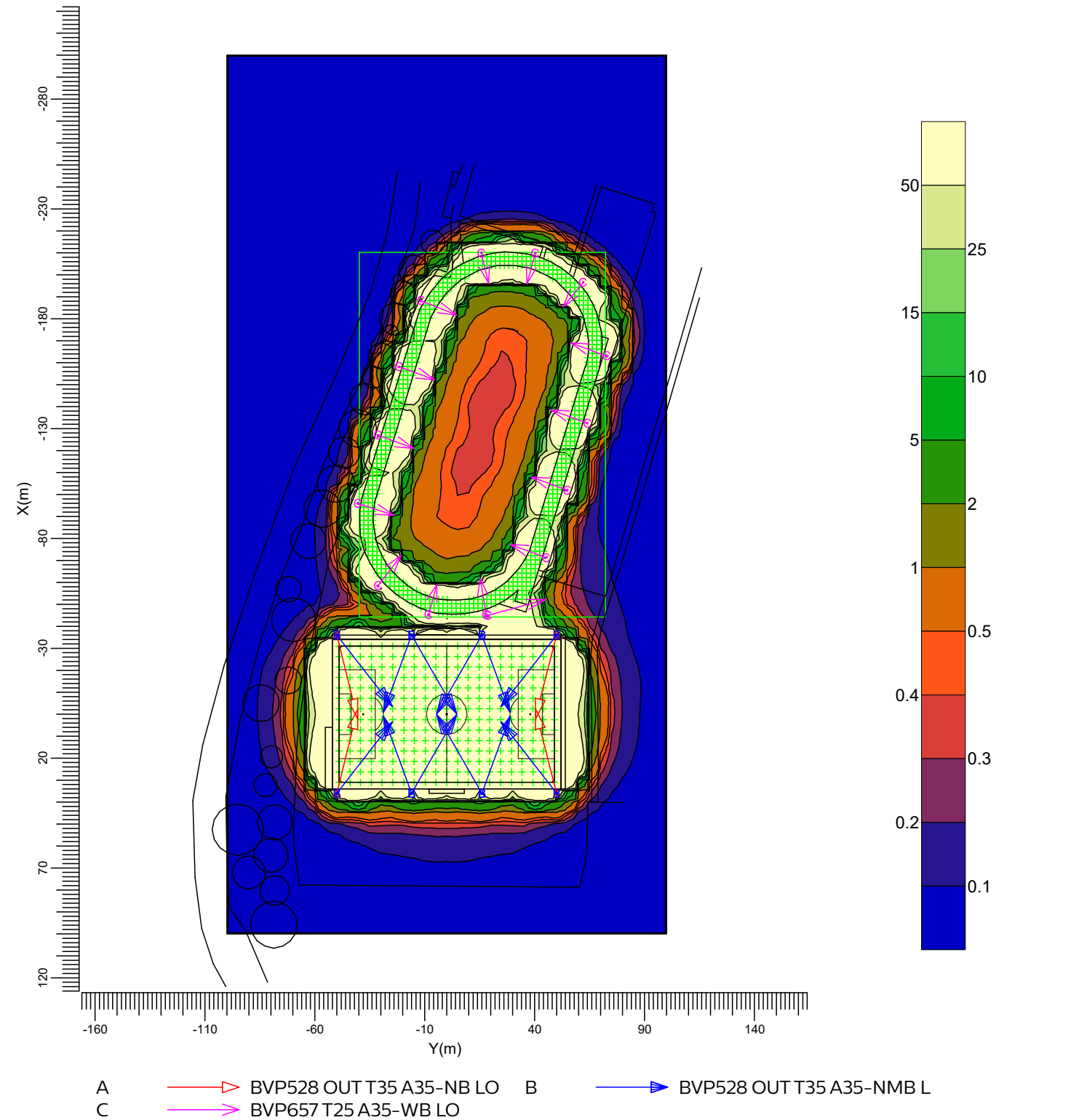
3.8 Eh Spillage @2m: Filled Iso Contour

All ON

Grid : Eh Spillage @0m at Z = -0.00 m

Calculation : Horizontal Illuminance (lux)

Height above grid : 2.00 m



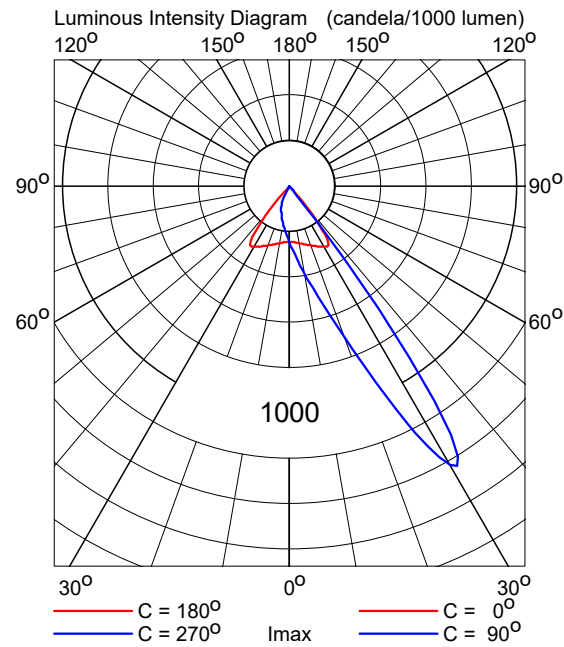
4. Luminaire Details

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
Ballast	: E3/D4I
Lamp flux	: 259000 lm
Luminaire wattage	: 1505.9 W
Measurement code	: LVM2047300

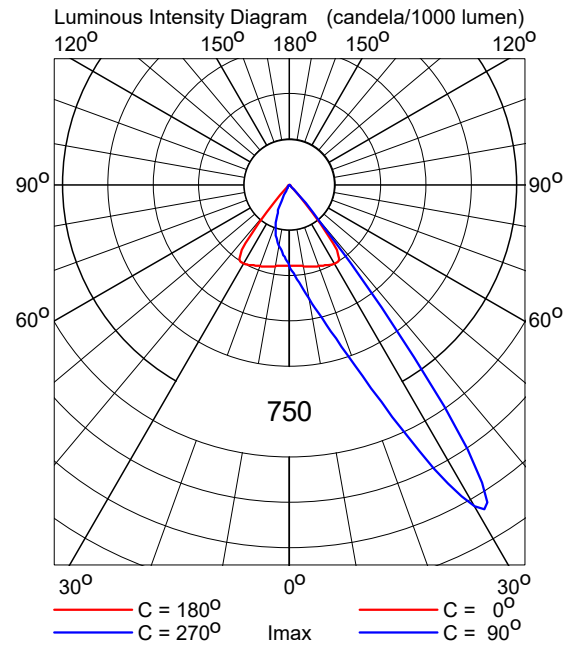
Note: Luminaire data not from database.



OptiVision LED gen3.5 2022
BVP528 OUT T35 1xLED2590-4S/740/740 E3/D4I A35-NMB 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	: LVM2L47600

Note: Luminaire data not from database.



ClearFlood gen2
BVP657 T25 1xLED930-4S/740 FP A35-WB LO

Light output ratios	
DLOR	: 0.71
ULOR	: 0.00
TLOR	: 0.71
Ballast	: FP
Lamp flux	: 93000 lm
Luminaire wattage	: 530.6 W
Measurement code	: LVA2405041

Note: Luminaire data not from database.

