

Longford Greyford Stadium

100m x 60m

Project code: 502393677/6292697
Date: 24-06-2025

Designer: Signify

Description: Proposal based on:
Philips BVP528 OptiVisionGen3.5 LED Floodlight.
18no. Floodlights used in total.
The column positions are fixed and are 15m in height.
Column setback from side line is 3.2m.

Pitch:
384Lux Maintained Avg achieved with Uniformity;
Min/Ave=>0.73
Min/Max=>0.58

Exercise Track and Walkway - P4
LumistreetGen2 BGP291 2KLM DXRN1 727 post top mounted at 6m.

With the Maintenance Factor of 0.95.
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.

Signify

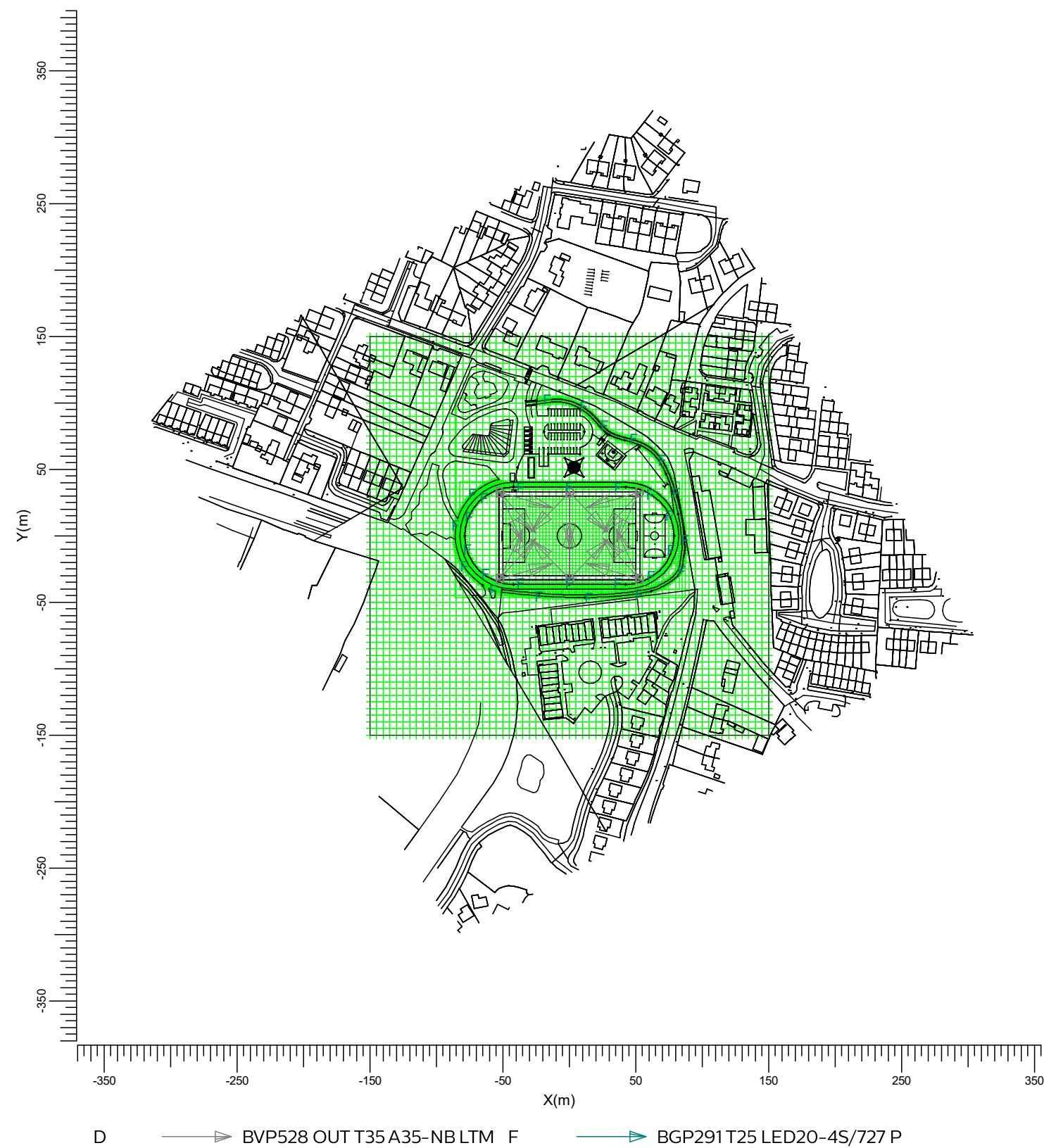
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1. Project Description

1.1 Top Project Overview



2. Summary

2.1 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
D	18	BVP528 OUT T35 A35-NB LTM	1 * LED2590-4S/740	1505.9	1 * 259000
F	29	BGP291 T25 LED20-4S/727 PSD DR XN1 FG	1 * LED20-4S/727	14.6	1 * 2000

The total installed power: 27.53 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code		Power (kWatt)
	D	F	
Main Pitch	18	0	27.11
Exercise Track/Walkway	0	29	0.42
Overspill	18	29	27.53

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code		Power (kWatt)
	D	F	
centre	6	0	9.04
outer	12	0	18.07
Individuals	0	29	0.42

2.2 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	Main Pitch	0.95
2	Exercise Track/Walkway	0.76
3	Overspill	1.00

(II)luminance Calculations:

Calculation	Switching Mode	Type	Unit	Ave	Min	Max	Min/Ave	Min/Max
Pitch	1	Surface Illuminance	lux	383			0.73	0.58
Exercise Track	2	Surface Illuminance	lux	7.70	1.05		0.14	
Walkway	2	Surface Illuminance	lux	7.84	1.00		0.13	
Overspill	3	Surface Illuminance	lux			497.4		

Obtrusive Light Calculations:

Switching Mode	ULR
1	0.00
2	0.00
3	0.00

3. Calculation Results

3.1 Pitch: Graphical Table

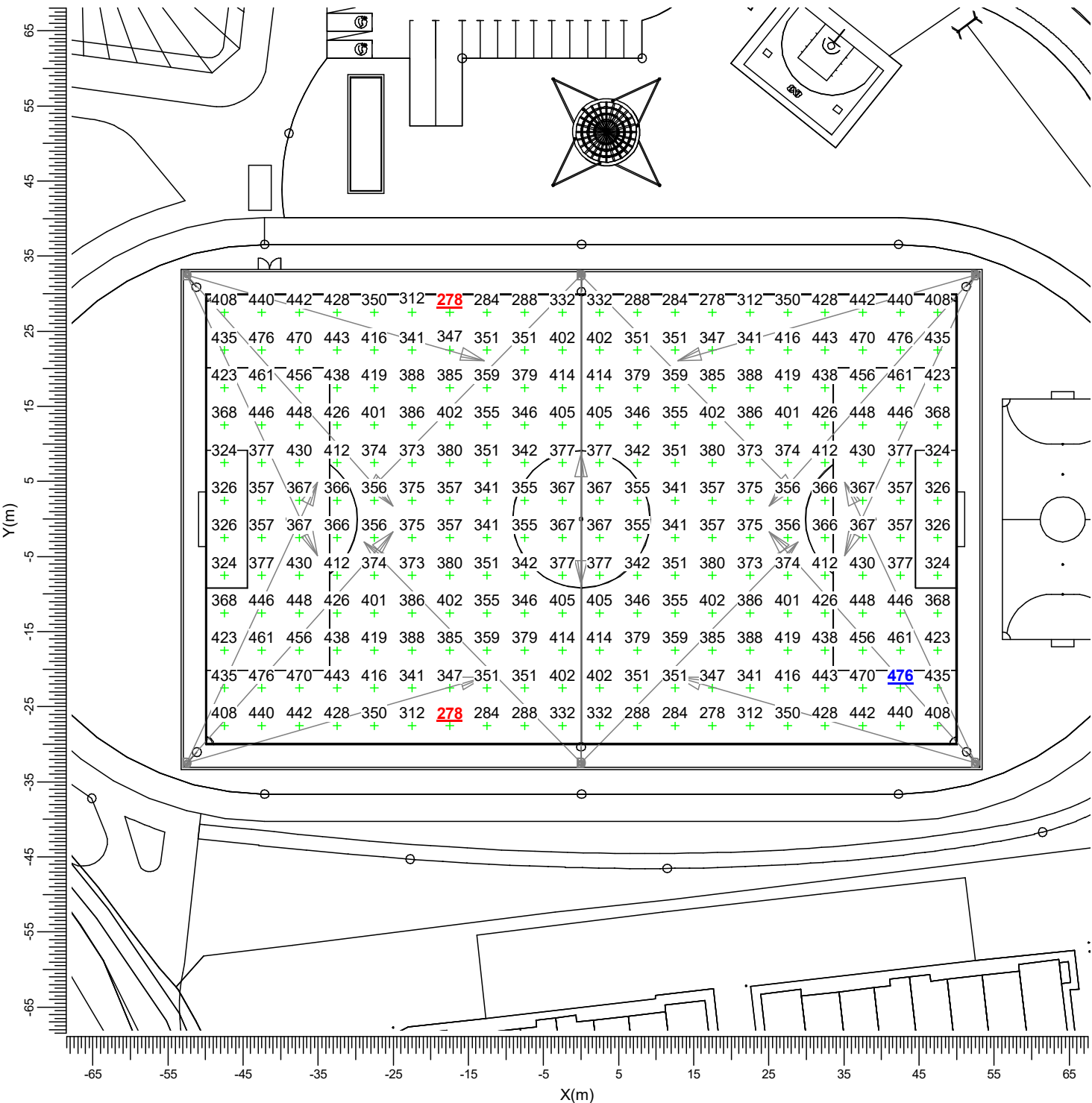
Main Pitch

Grid

: Pitch at Z = -0.00 m

Calculation

: Surface Illuminance (lux)



D —> BVP528 OUT T35 A35-NB LTM

Average
383

Min/Ave
0.73

Min/Max
0.58

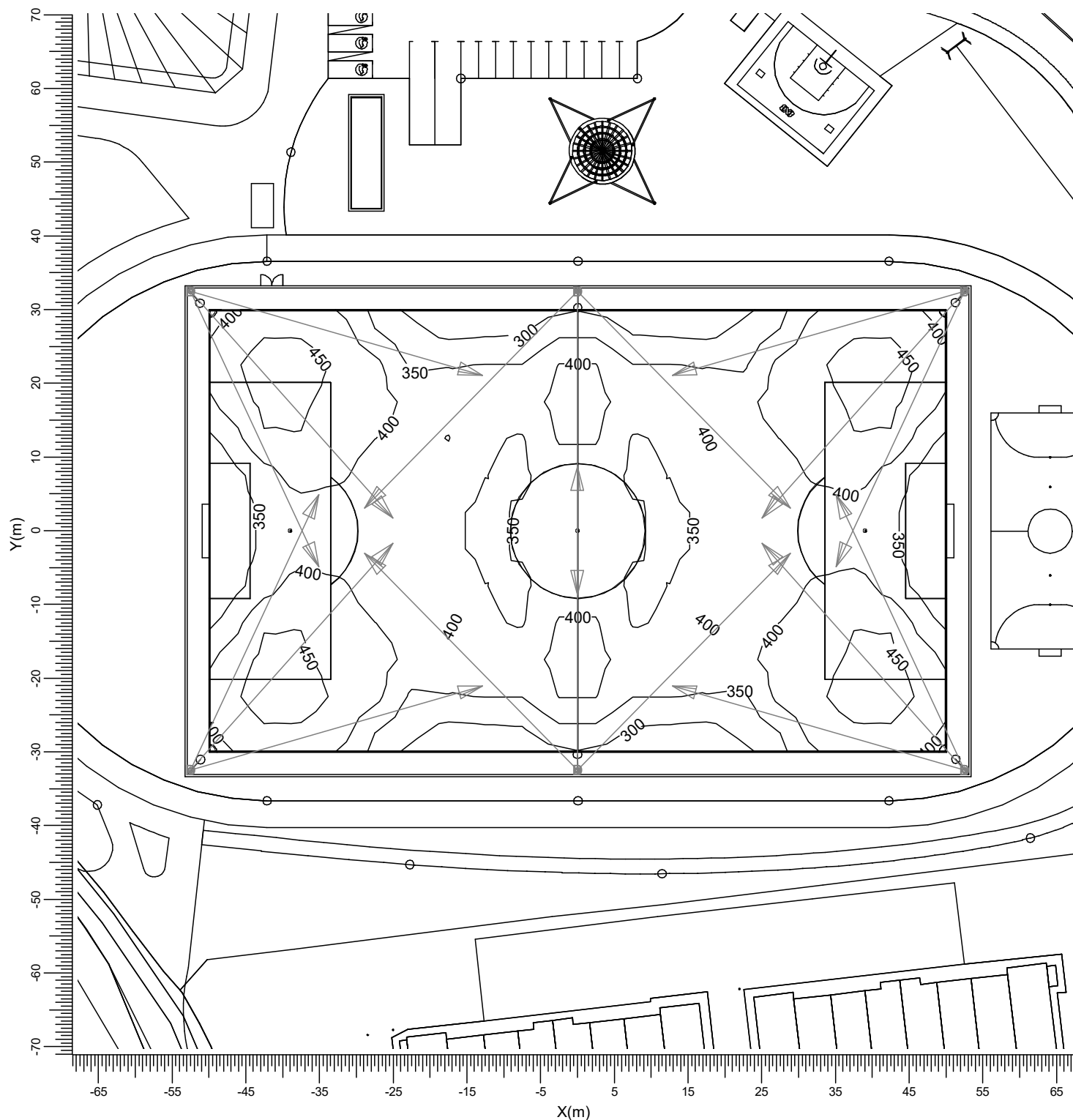
Project maintenance factor
0.95

Scale
1:750

3.2 Pitch: Iso Contour

Main Pitch

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



D —> BVP528 OUT T35 A35-NB LTM

Average
383

Min/Ave
0.73

Min/Max
0.58

Project maintenance factor
0.95

Scale
1:750

3.3 Pitch: Filled Iso Contour

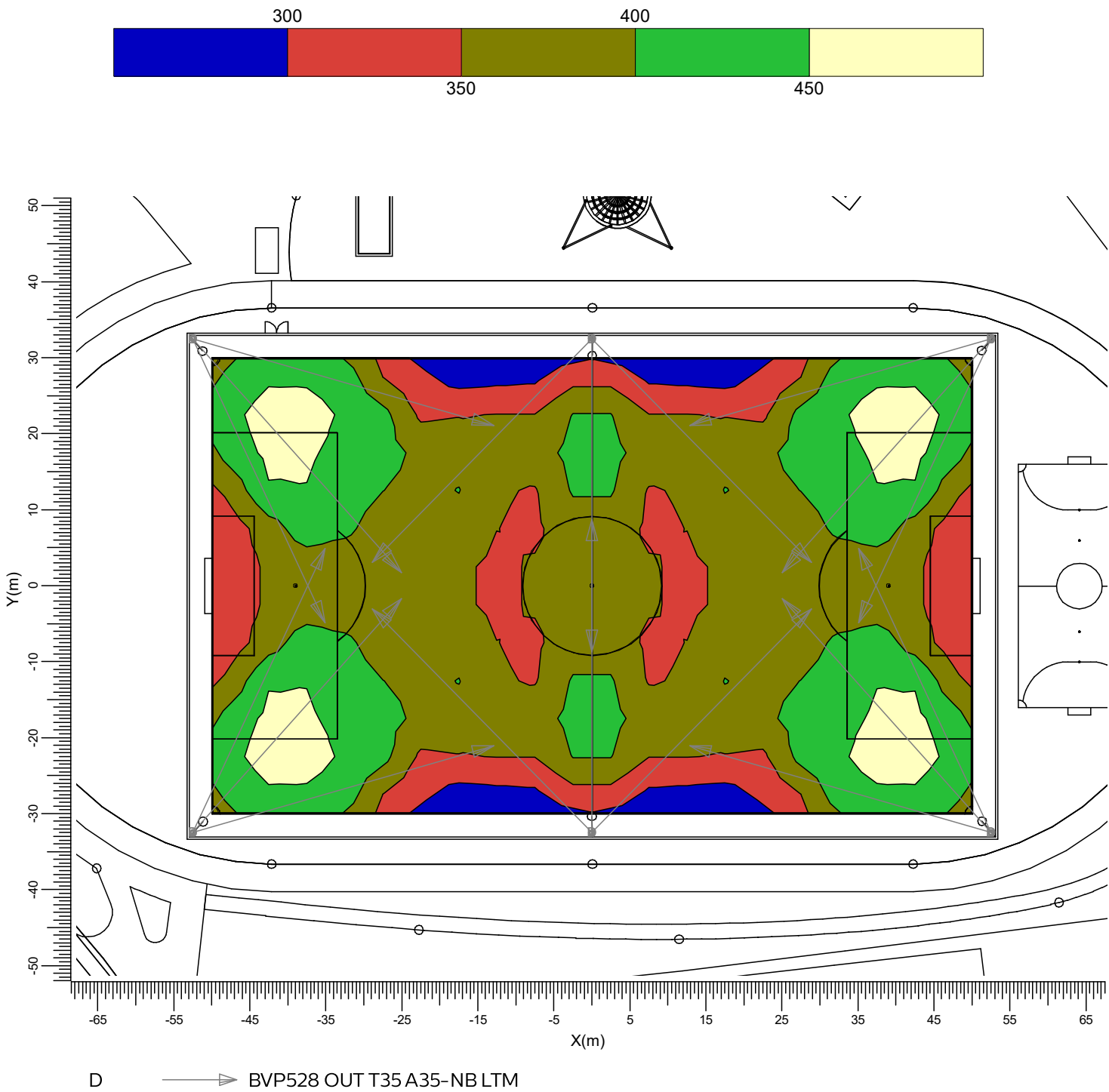
Main Pitch

Grid

Calculation

: Pitch at Z = -0.00 m

: Surface Illuminance (lux)



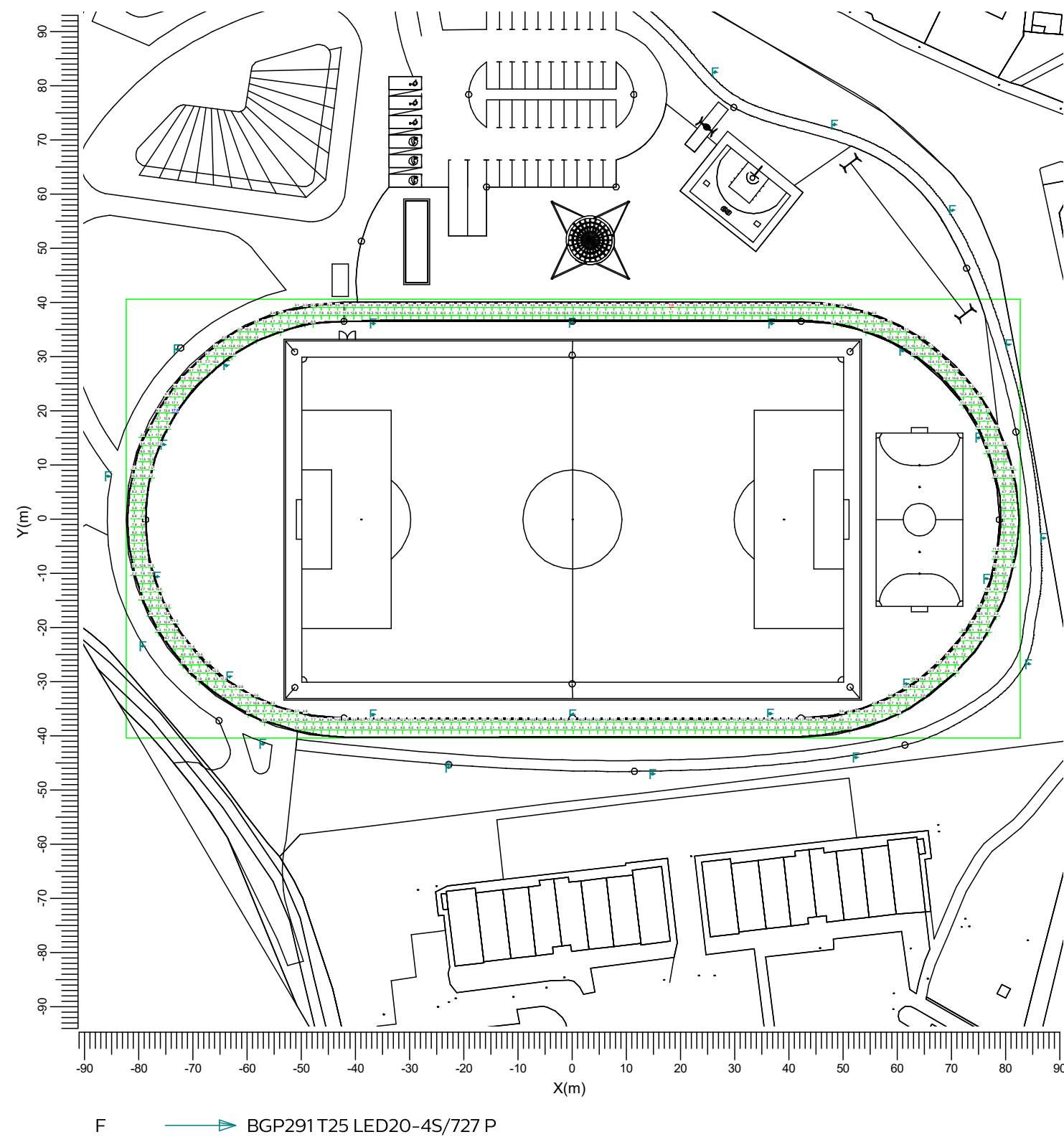
Average 383	Min/Ave 0.73	Min/Max 0.58	Project maintenance factor 0.95	Scale 1:750
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3.4 Exercise Track: Graphical Table

Exercise Track/Walkway

Grid : Exercise Track at Z = 0.00 m

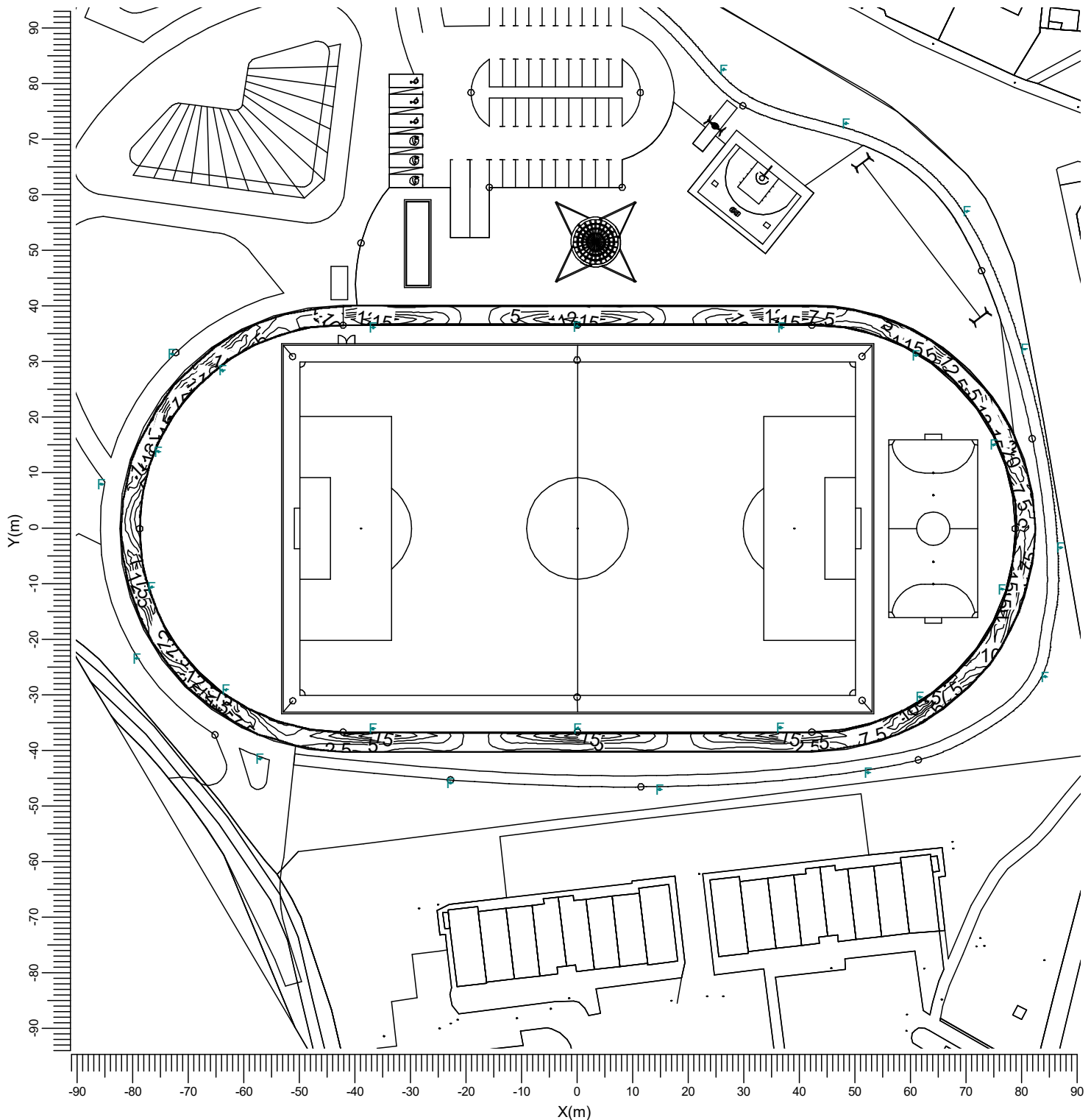
Calculation : Surface Illuminance (lux)



Average 7.70	Minimum 1.05	Min/Ave 0.14	Project maintenance factor 0.76	Scale 1:1000
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Exercise Track/Walkway

Grid : Exercise Track at Z = 0.00 m
Calculation : Surface Illuminance (lux)



F BGP291 T25 LED20-4S/727 P

Scale
1:1000

3.6 Exercise Track: Filled Iso Contour

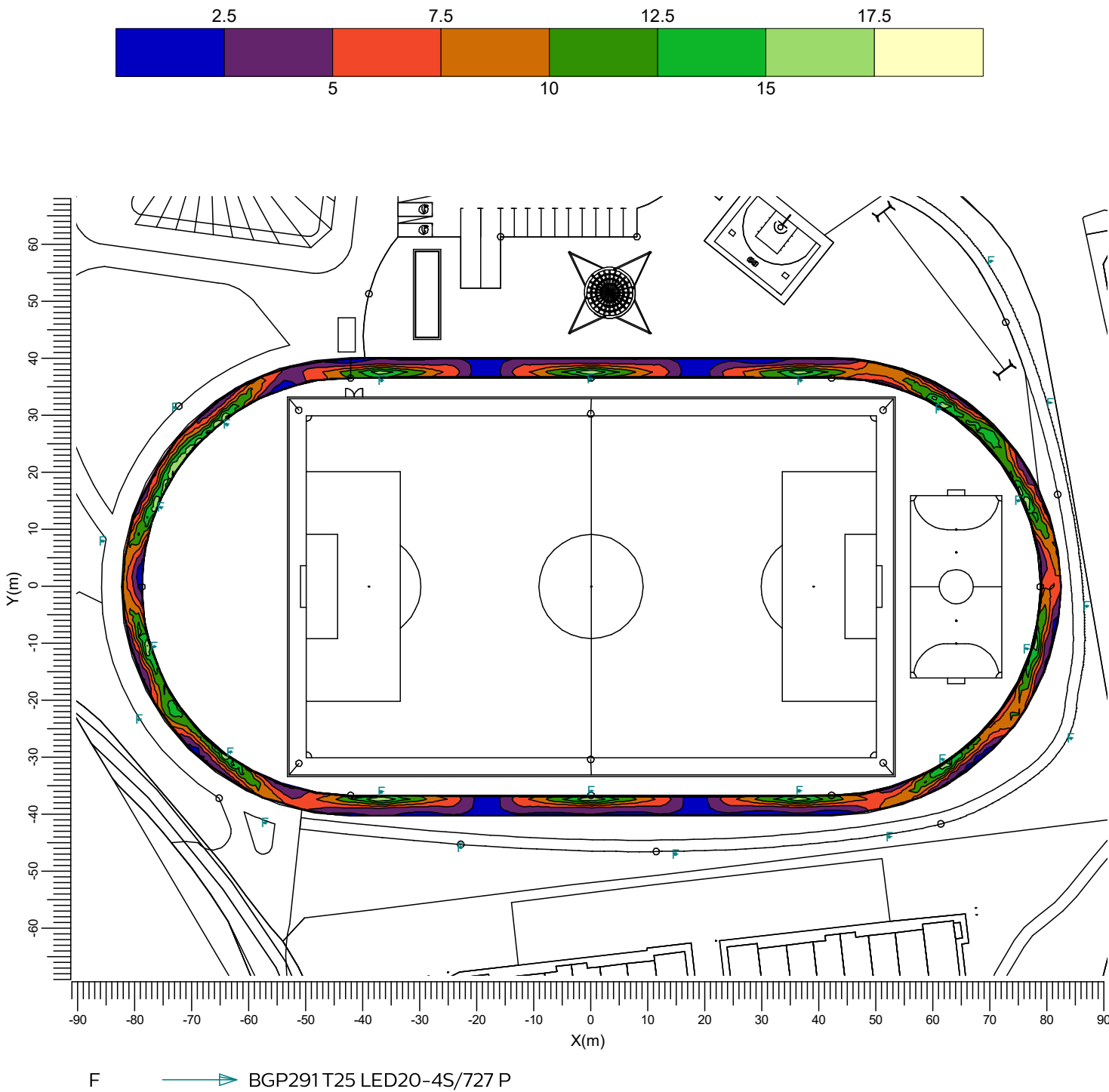
Exercise Track/Walkway

Grid

Calculation

: Exercise Track at Z = 0.00 m

: Surface Illuminance (lux)



Average
7.70

Minimum
1.05

Min/Ave
0.14

Project maintenance factor
0.76

Scale
1:1000

3.7 Walkway: Graphical Table

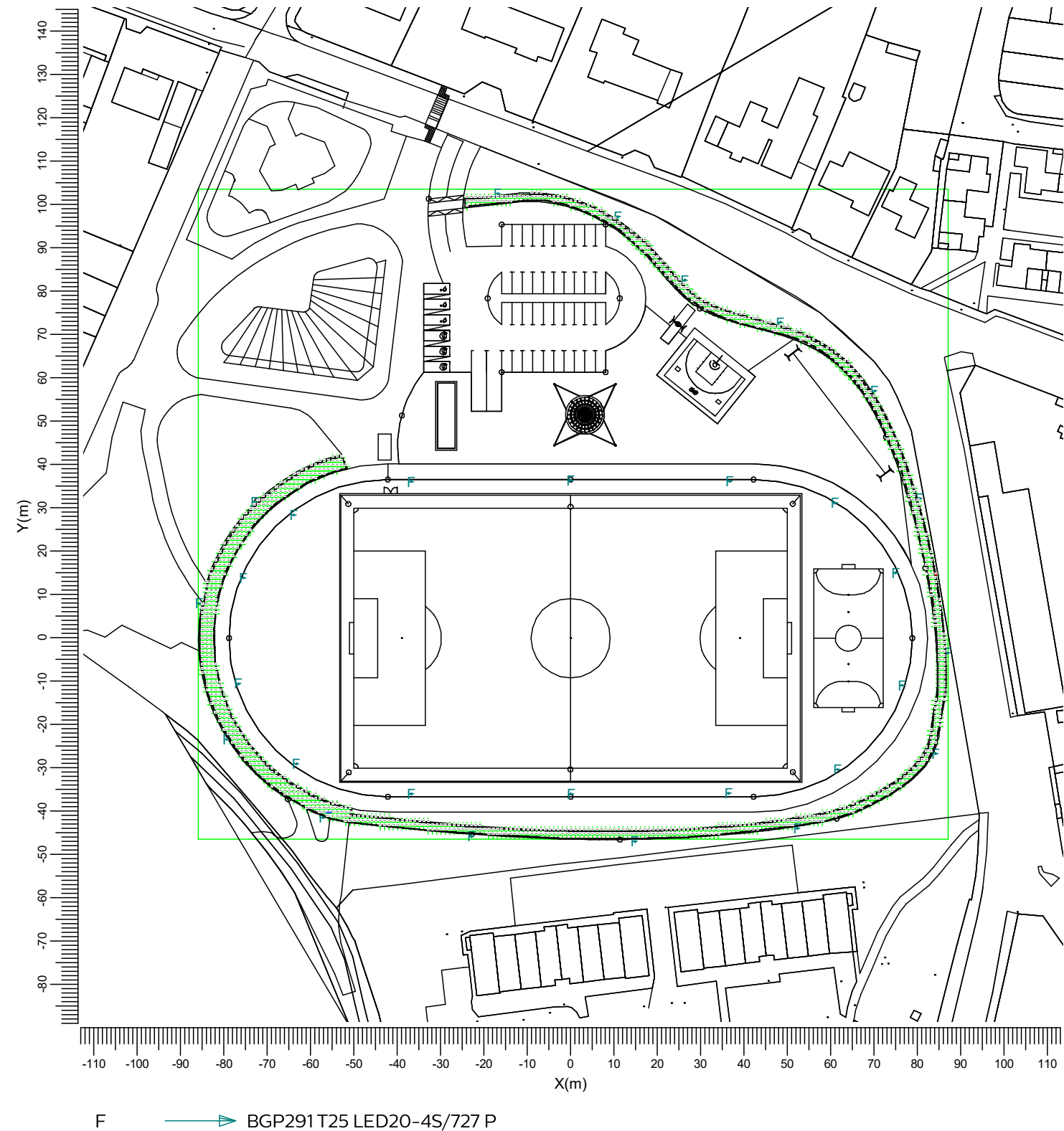
Exercise Track/Walkway

Grid

Calculation

: Walkway at Z = 0.00 m

: Surface Illuminance (lux)



Average	Minimum	Min/Ave	Project maintenance factor	Scale
7.84	1.00	0.13	0.76	1:1250

3.8 Walkway: Iso Contour

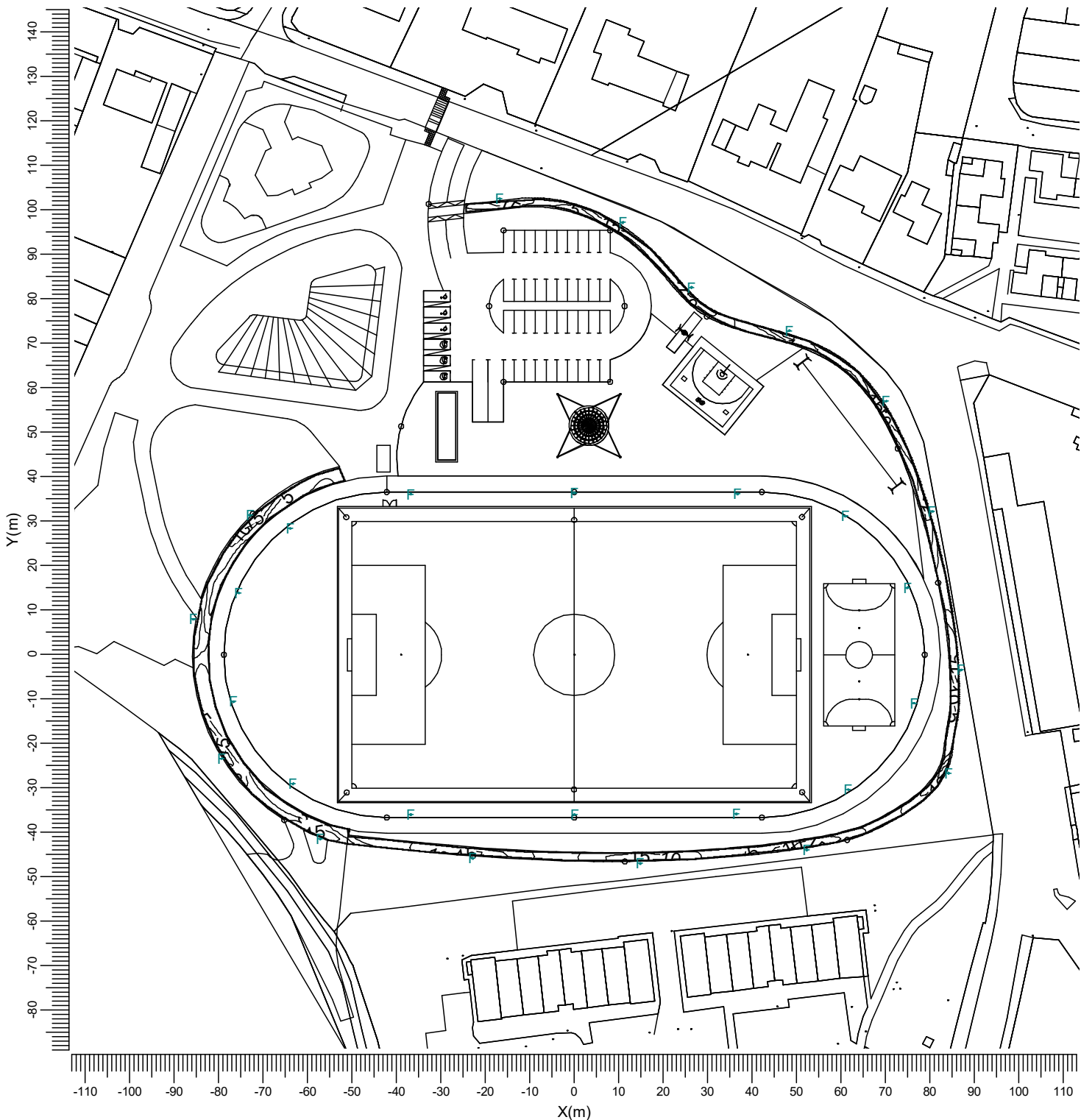
Exercise Track/Walkway

Grid

Calculation

: Walkway at Z = 0.00 m

: Surface Illuminance (lux)



F

 BGP291 T25 LED20-4S/727 P

Average
7.84

Minimum
1.00

Min/Ave
0.13

Project maintenance factor
0.76

Scale
1:1250

3.9 Walkway: Filled Iso Contour

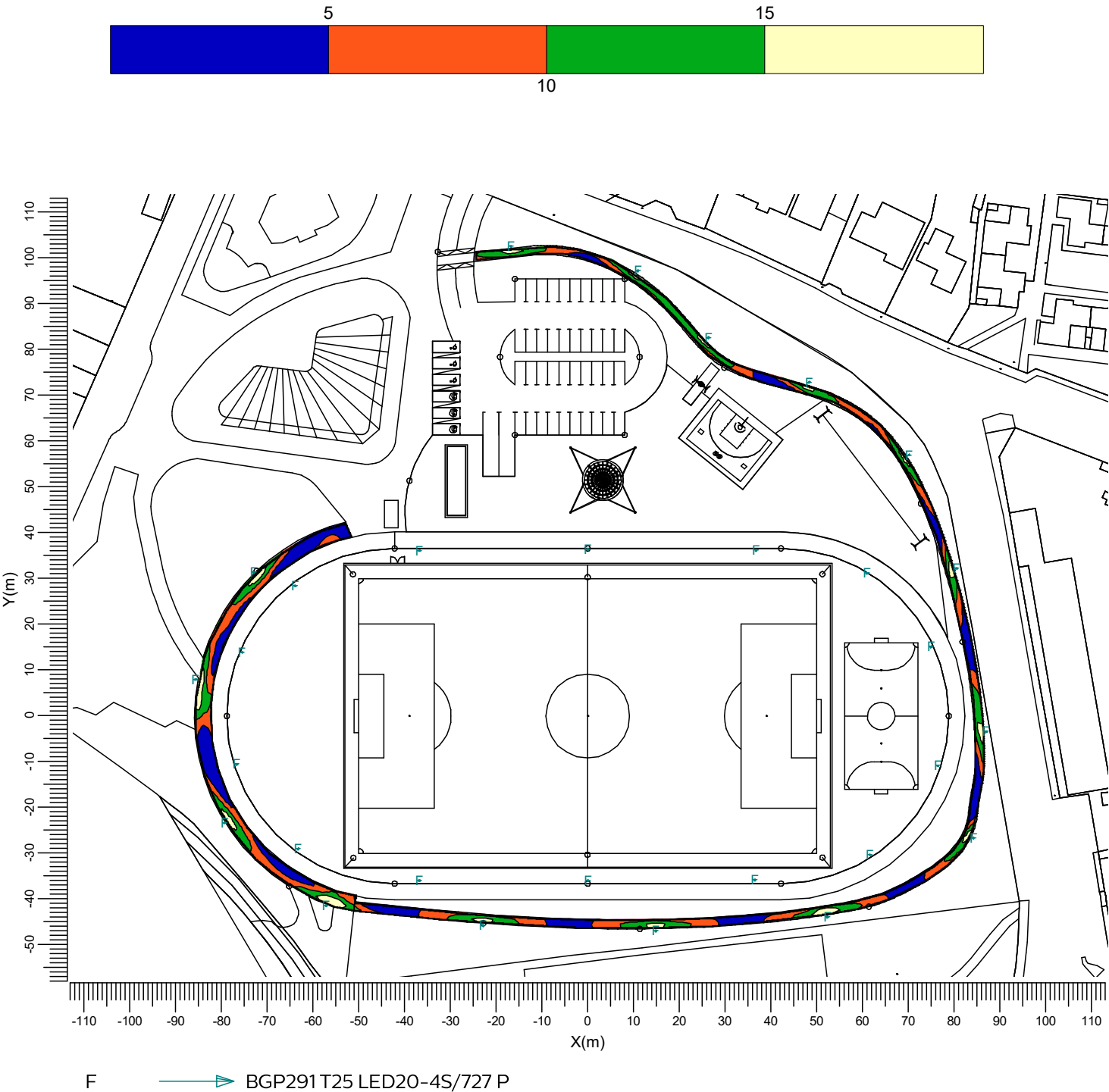
Exercise Track/Walkway

Grid

Calculation

: Walkway at Z = 0.00 m

: Surface Illuminance (lux)



Average	Minimum	Min/Ave	Project maintenance factor	Scale
7.84	1.00	0.13	0.76	1:1250

3.10 Overspill: Graphical Table

Overspill

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



D — BVP528 OUT T35 A35-NB LTM F — BGP291 T25 LED20-4S/727 P

Maximum
497.4

Project maintenance factor
1.00

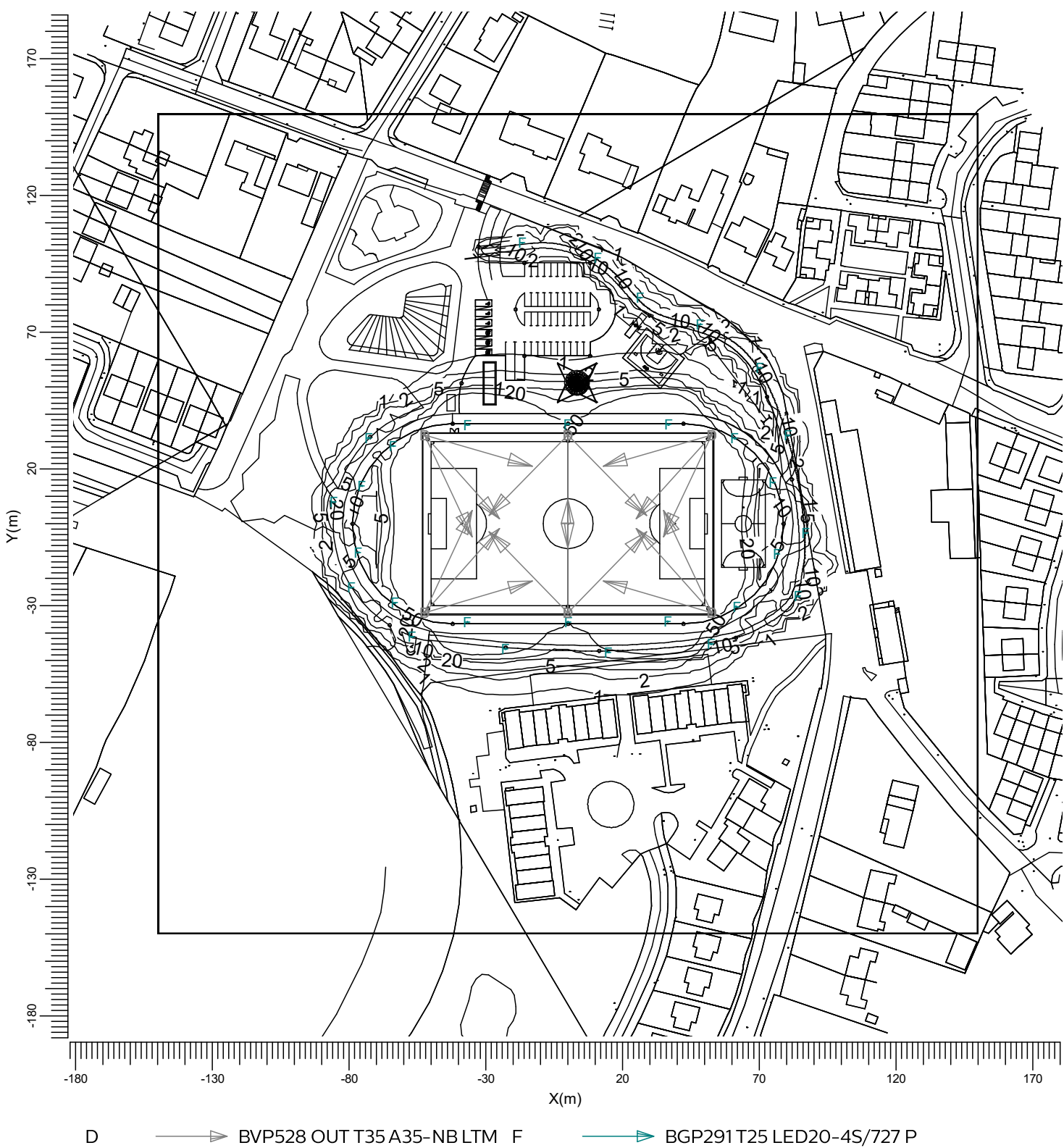
Scale
1:2000

3.11 Overspill: Iso Contour

Overspill

Grid : Overspill at Z = -0.00 m

Calculation : Surface Illuminance (lux)



Maximum
497.4

Project maintenance factor
1.00

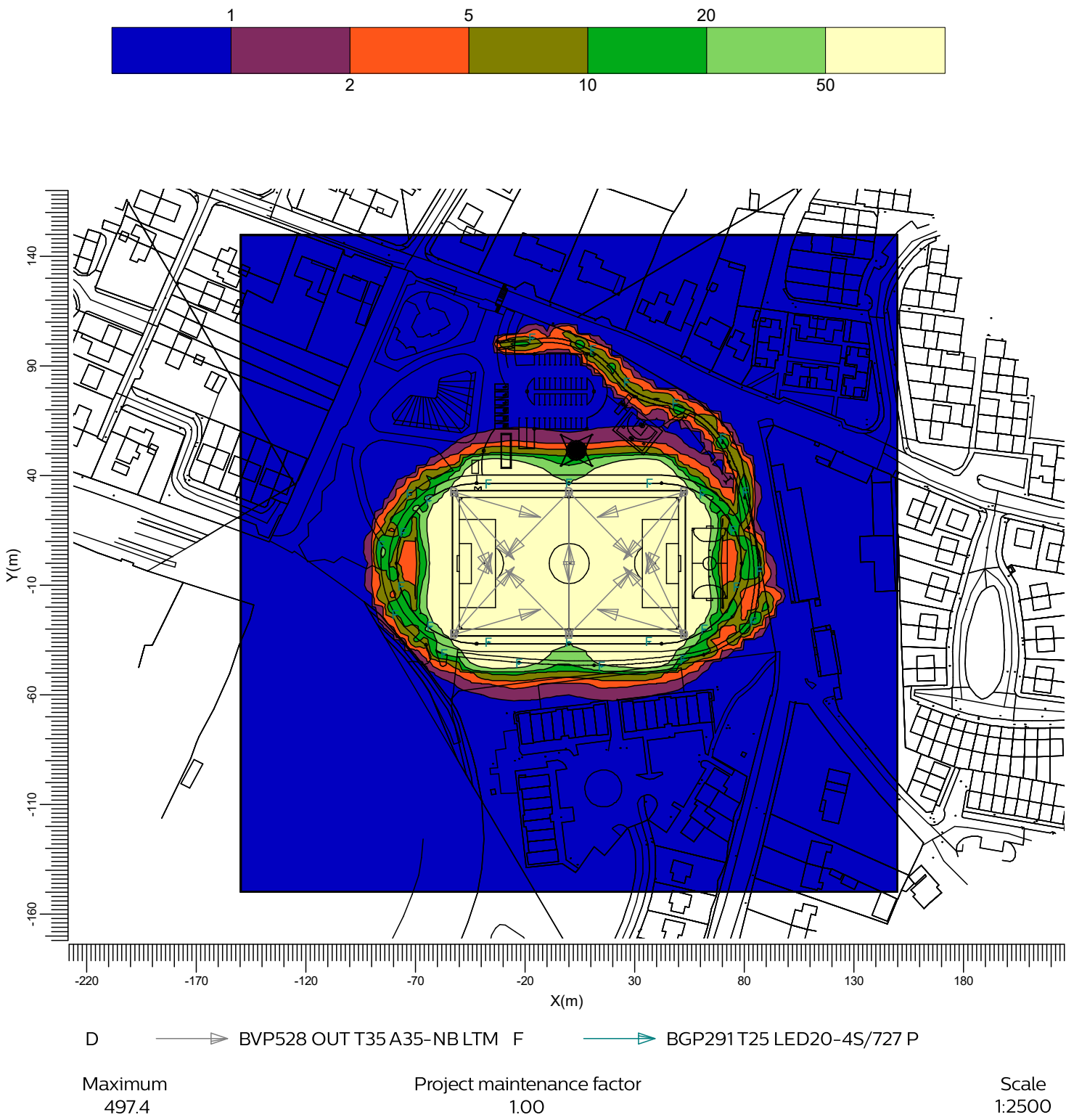
Scale
1:2000

3.12 Overspill: Filled Iso Contour

Overspill

Grid : Overspill at Z = -0.00 m

Calculation : Surface Illuminance (lux)



4. Luminaire Details

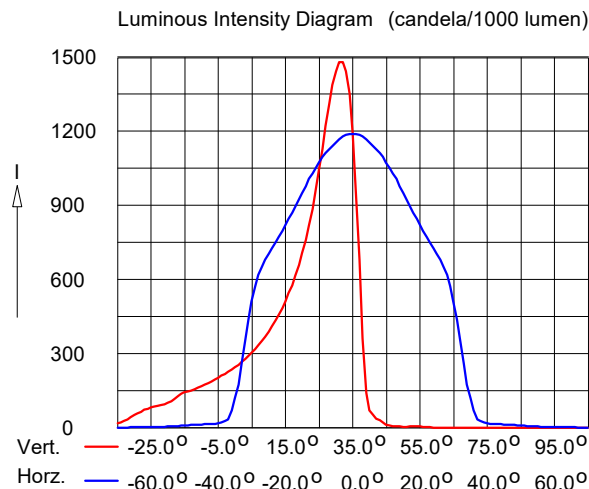
4.1 Project Luminaires

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

Light output ratios

DLOR	: 0.71
ULOR	: 0.00
TLOR	: 0.71
ULR	: 0.000
Ballast	: E3/D4I
Lamp flux	: 259000 lm
Luminaire wattage	: 1505.9 W
Measurement code	: LVM2047600
CIE Code	: 87 99 100 100 71

Note: Luminaire data not from database.

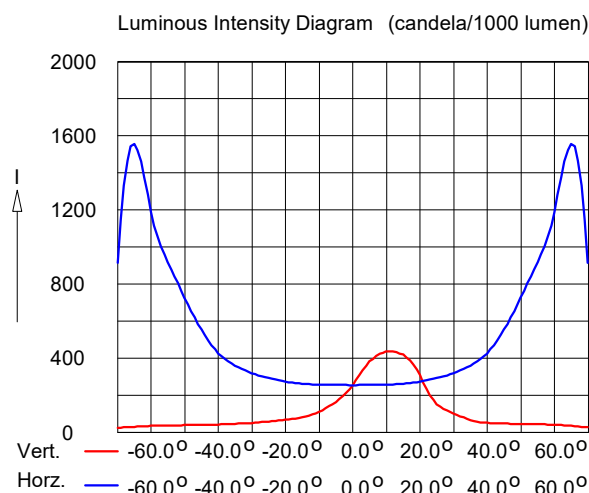


BGP291 T25 LED20-4S PSD DR 1xLED20-4S/727/2700 XN1 FG

Light output ratios

DLOR	: 0.87
ULOR	: 0.00
TLOR	: 0.87
ULR	: 0.000
Lamp flux	: 2000 lm
Luminaire wattage	: 14.6 W
Measurement code	: LVM189200A
CIE Code	: 38 70 99 100 87

Note: Luminaire data not from database.



5. Installation Data

5.1 Legends

Project Luminaires:

Code	Qty	Luminaire Type	Lamp Type	Flux (lm)
D	18	BVP528 OUT T35 A35-NB LTM	1 * LED2590-4S/740	1 * 259000
F	29	BGP291 T25 LED20-4S/727 PSD DR XN1 FG	1 * LED20-4S/727	1 * 2000

Switching Modes:

Code	Switching Mode
1	Main Pitch
2	Exercise Track/Walkway
3	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	3
1 * F	-85.58	7.95	6.00	-85.58	7.95	0.00	-10.6	0.0	0.0	0.000	-	+	+
1 * F	-79.22	-23.40	6.00	-79.22	-23.40	0.00	35.6	0.0	0.0	0.000	-	+	+
1 * F	-76.56	-10.60	6.00	-76.56	-10.60	0.00	-157.9	0.0	0.0	0.000	-	+	+
1 * F	-75.40	13.82	6.00	-75.40	13.82	0.00	151.4	0.0	0.0	0.000	-	+	+
1 * F	-72.87	31.31	6.00	-72.87	31.31	0.00	-41.4	0.0	0.0	0.000	-	+	+
1 * F	-63.83	28.38	6.00	-63.83	28.38	0.00	135.2	0.0	0.0	0.000	-	+	+
1 * F	-63.15	-29.07	6.00	-63.15	-29.07	0.00	-132.9	0.0	0.0	0.000	-	+	+
1 * F	-57.07	-41.48	6.00	-57.07	-41.48	0.00	69.4	0.0	0.0	0.000	-	+	+
1 * D	-52.50	-32.50	15.00	-12.91	-21.06	0.00	16.1	70.0	0.0	0.002	+	-	+
1 * D	-52.50	-32.50	15.00	-25.08	-1.73	0.00	48.3	70.0	0.0	0.002	+	-	+
1 * D	-52.50	-32.50	15.00	-35.08	4.85	0.00	65.0	70.0	0.0	0.002	+	-	+
1 * D	-52.50	32.50	15.00	-12.91	21.06	0.00	-16.1	70.0	-0.0	0.002	+	-	+
1 * D	-52.50	32.50	15.00	-25.08	1.73	0.00	-48.3	70.0	-0.0	0.002	+	-	+
1 * D	-52.50	32.50	15.00	-35.08	-4.85	0.00	-65.0	70.0	-0.0	0.002	+	-	+
1 * F	-36.73	-36.06	6.00	-36.73	-36.06	0.00	-89.4	0.0	0.0	0.000	-	+	+
1 * F	-36.70	36.10	6.00	-36.70	36.10	0.00	91.3	0.0	0.0	0.000	-	+	+
1 * F	-22.78	-45.82	6.00	-22.78	-45.82	0.00	86.0	0.0	0.0	0.000	-	+	+
1 * F	-16.65	102.55	6.00	-16.65	102.55	0.00	-84.6	0.0	0.0	0.000	-	+	+
1 * D	-0.00	-32.50	15.00	0.00	8.71	0.00	90.0	70.0	0.0	0.002	+	-	+
1 * D	-0.00	-32.50	15.00	28.87	-3.09	0.00	45.5	70.0	0.0	0.002	+	-	+
1 * D	-0.00	-32.50	15.00	-28.87	-3.09	0.00	134.5	70.0	-0.0	0.002	+	-	+
1 * D	-0.00	32.50	15.00	0.00	-8.71	0.00	-90.0	70.0	-0.0	0.002	+	-	+
1 * D	-0.00	32.50	15.00	28.87	3.09	0.00	-45.5	70.0	-0.0	0.002	+	-	+
1 * D	-0.00	32.50	15.00	-28.87	3.09	0.00	-134.5	70.0	0.0	0.002	+	-	+
1 * F	-0.00	36.36	6.00	0.00	36.36	0.00	90.0	0.0	0.0	0.000	-	+	+
1 * F	0.11	-36.02	6.00	0.11	-36.02	0.00	-89.6	0.0	0.0	0.000	-	+	+
1 * F	11.01	97.20	6.00	11.01	97.20	0.00	-124.0	0.0	0.0	0.000	-	+	+

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	3
1 * F	14.88	-46.95	6.00	14.88	-46.95	0.00	90.3	0.0	0.0	0.000	-	+	+
1 * F	26.41	82.57	6.00	26.41	82.57	0.00	-132.4	0.0	0.0	0.000	-	+	+
1 * F	36.58	-35.85	6.00	36.58	-35.85	0.00	-89.6	0.0	0.0	0.000	-	+	+
1 * F	36.79	36.13	6.00	36.79	36.13	0.00	91.6	0.0	0.0	0.000	-	+	+
1 * F	48.42	72.85	6.00	48.42	72.85	0.00	-118.1	0.0	0.0	0.000	-	+	+
1 * F	52.37	-43.94	6.00	52.37	-43.94	0.00	101.0	0.0	0.0	0.000	-	+	+
1 * D	52.50	-32.50	15.00	12.91	-21.06	0.00	163.9	70.0	-0.0	0.002	+	-	+
1 * D	52.50	-32.50	15.00	25.08	-1.73	0.00	131.7	70.0	-0.0	0.002	+	-	+
1 * D	52.50	-32.50	15.00	35.08	4.85	0.00	115.0	70.0	-0.0	0.002	+	-	+
1 * D	52.50	32.50	15.00	12.91	21.06	0.00	-163.9	70.0	0.0	0.002	+	-	+
1 * D	52.50	32.50	15.00	25.08	1.73	0.00	-131.7	70.0	0.0	0.002	+	-	+
1 * D	52.50	32.50	15.00	35.08	-4.85	0.00	-115.0	70.0	0.0	0.002	+	-	+
1 * F	61.03	31.13	6.00	61.03	31.13	0.00	56.3	0.0	0.0	0.000	-	+	+
1 * F	61.70	-30.37	6.00	61.70	-30.37	0.00	-51.5	0.0	0.0	0.000	-	+	+
1 * F	70.23	56.98	6.00	70.23	56.98	0.00	-147.2	0.0	0.0	0.000	-	+	+
1 * F	75.04	15.06	6.00	75.04	15.06	0.00	29.7	0.0	0.0	0.000	-	+	+
1 * F	76.51	-10.93	6.00	76.51	-10.93	0.00	-14.0	0.0	0.0	0.000	-	+	+
1 * F	80.57	32.21	6.00	80.57	32.21	0.00	-175.7	0.0	0.0	0.000	-	+	+
1 * F	84.25	-26.68	6.00	84.25	-26.68	0.00	137.0	0.0	0.0	0.000	-	+	+
1 * F	87.05	-3.49	6.00	87.05	-3.49	0.00	-170.4	0.0	0.0	0.000	-	+	+