

Redbank Playing Field

LED Lighting to Full Sized Pitch

Project code: CLS017
Date: 01-06-2020

Designer: Michael Eastman

Description: 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.

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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)
S	12	BVP528 A35-NB	1 * LED2220/740 OUT T15 50K	1500.0	1 * 222600

The total installed power: 18.00 (kWatt)

Number of Luminaires Per Switching Mode:

Switching Mode	Luminaire Code	Power (kWatt)
	S	
Full Sized Pitch	12	18.00
spill	12	18.00

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	S	
Free	0	0.00
Mast 1	8	12.00
Mast 2	4	6.00

2.2 Calculation Results

Switching Modes:

Code	Switching Mode	Maintenance factor
1	Full Sized Pitch	0.90
2	spill	1.00

(II)luminance Calculations:

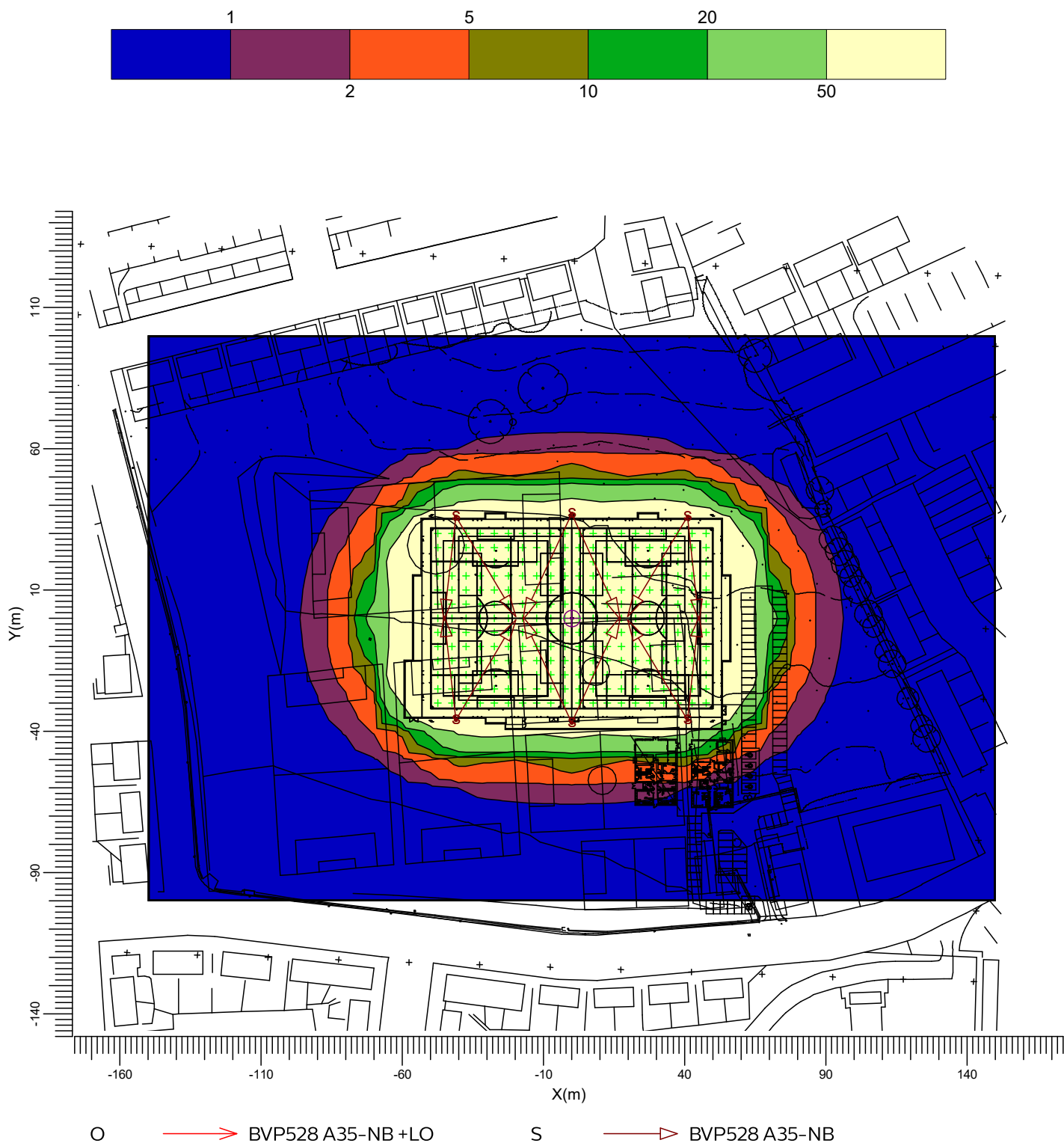
Calculation	Switching Mode	Type	Unit	Ave Min/AveMin/Max		
Spillage	2	Surface Illuminance	lux			
Vertical Spillage	2	Horizontal Illuminance	lux			
Football	1	Surface Illuminance	lux	251	0.70	0.55

3. Calculation Results

3.1 Spillage: Filled Iso Contour

spill

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



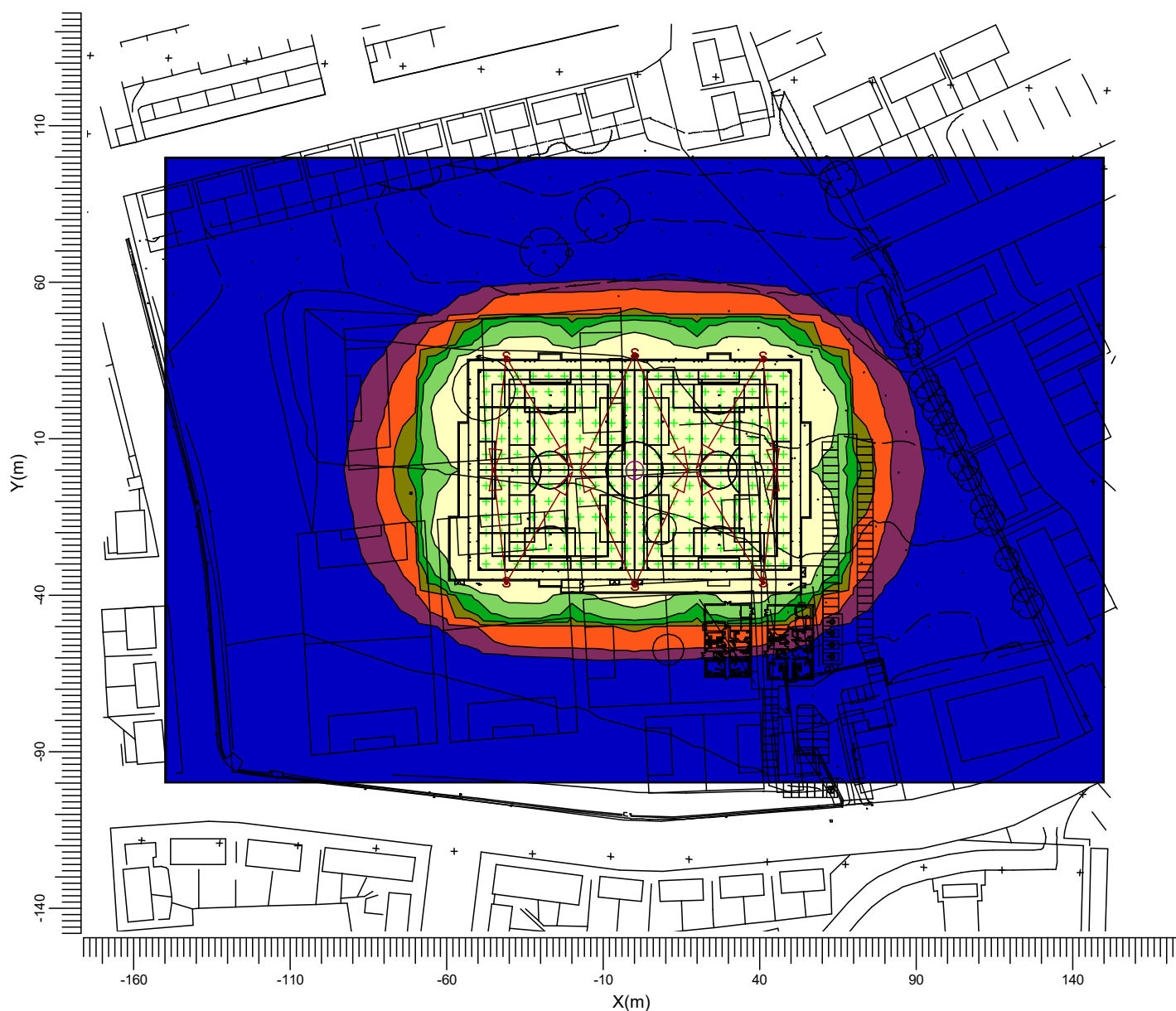
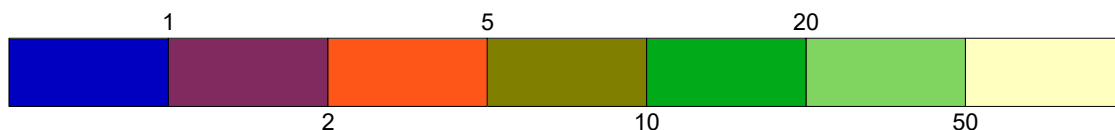
Project maintenance factor
1.00

Scale
1:2000

3.2 Vertical Spillage: Filled Iso Contour

spill

Grid : Spillage at Z = -0.00 m
Calculation : Horizontal Illuminance (lux)
Height above grid : 1.80 m



O → BVP528 A35-NB +LO

S → BVP528 A35-NB

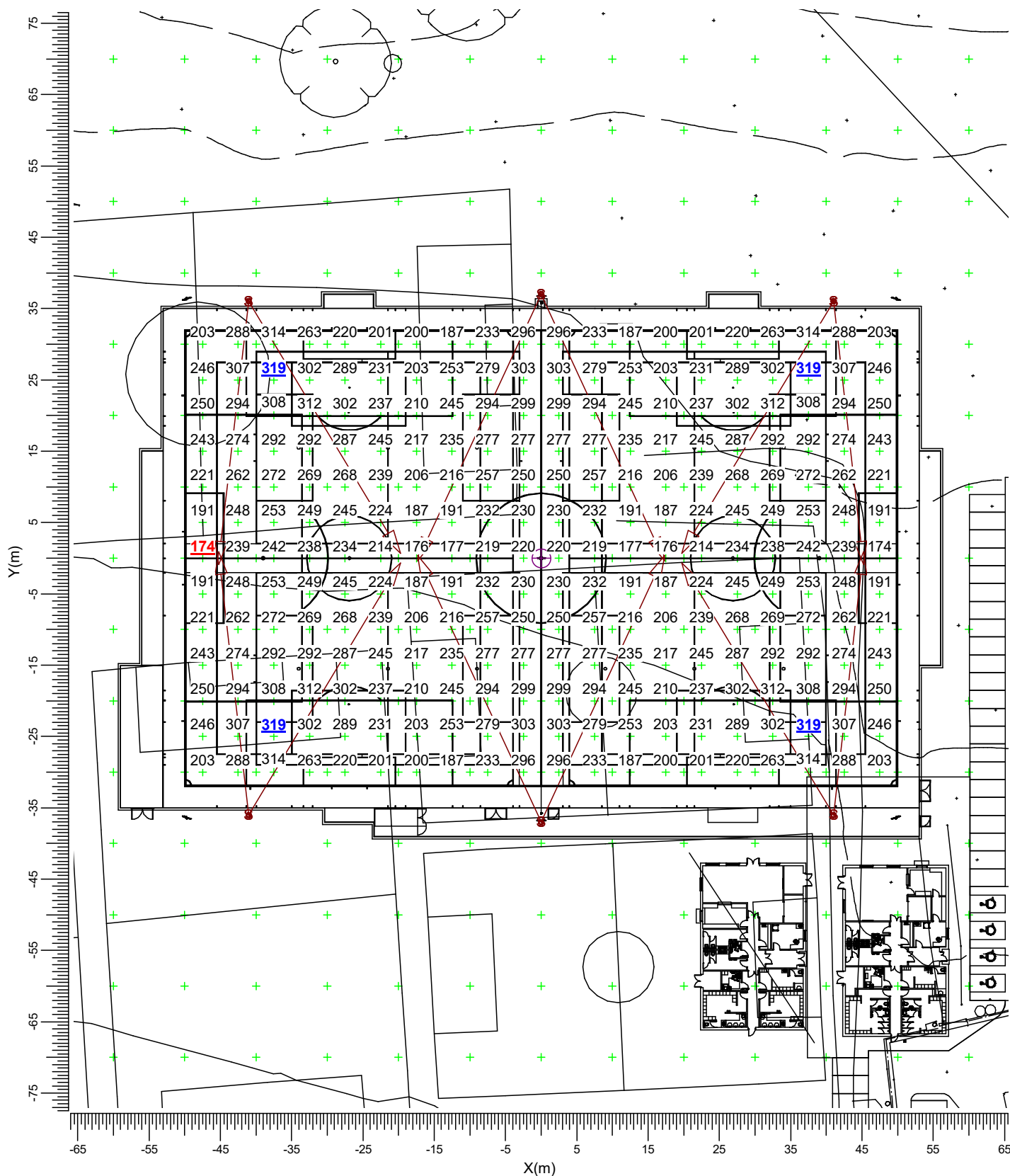
Project maintenance factor
1.00

Scale
1:2000

3.3 Football: Graphical Table

Full Sized Pitch

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



O

→ BVP528 A35-NB +LO

S

→ BVP528 A35-NB

Average
251

Min/Ave
0.70

Min/Max
0.55

Project maintenance factor
0.90

Scale
1:750

4. Luminaire Details

4.1 Project Luminaires

OptiVision LED

BVP528 1xLED2220/740 OUT T15 50K A35-NB

Light output ratios

DLOR : 0.88

ULOR : 0.00

TLOR : 0.88

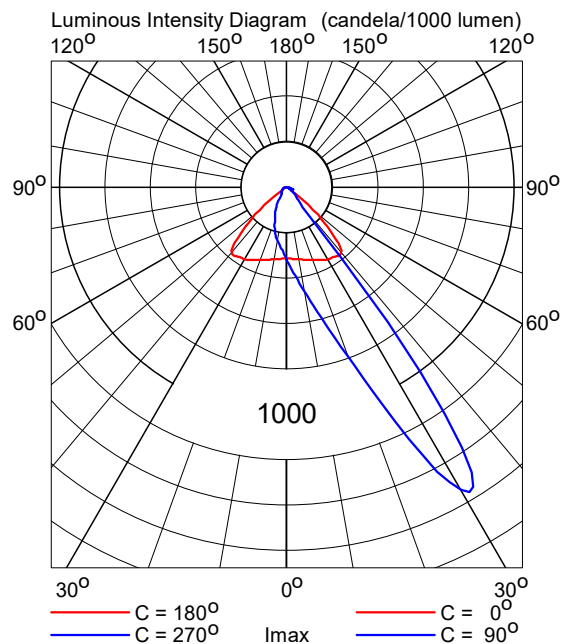
Ballast : N/A

Lamp flux : 222600 lm

Luminaire wattage : 1500.0 W

Measurement code : LVM2044500

Note: Luminaire data not from database.



5. Installation Data

5.1 Legends

Project Luminaires:

Code	Qty	Luminaire Type	Lamp Type	Flux (lm)
S	12	BVP528 A35-NB	1 * LED2220/740 OUT T15 50K	1 * 222600

Switching Modes:

Code	Switching Mode
1	Full Sized Pitch
2	spill

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
1 * S	-41.00	-36.00	15.00	58.9	70.0	-0.0	+	+
1 * S	-41.00	-36.00	15.00	96.5	68.0	-0.0	+	+
1 * S	-41.00	36.00	15.00	-58.9	70.0	0.0	+	+
1 * S	-41.00	36.00	15.00	-96.5	68.0	0.0	+	+
1 * S	-0.00	-37.00	15.00	65.2	70.0	0.0	+	+
1 * S	-0.00	-37.00	15.00	114.8	70.0	-0.0	+	+
1 * S	-0.00	37.00	15.00	-65.2	70.0	-0.0	+	+
1 * S	-0.00	37.00	15.00	-114.8	70.0	0.0	+	+
1 * S	41.00	-36.00	15.00	121.1	70.0	0.0	+	+
1 * S	41.00	-36.00	15.00	83.5	68.0	0.0	+	+
1 * S	41.00	36.00	15.00	-121.1	70.0	-0.0	+	+
1 * S	41.00	36.00	15.00	-83.5	68.0	-0.0	+	+