

Ballyfermot FC

D-373415 - Rev 0

Project code: 0400504946
Date: 09-10-2020

Designer: Signify

Description: 500 Lux Average Design
6x 15m Columns

For Designer Assumptions and Signify Terms and Conditions
please see "Signify D-373415 - Ballyfermot FC - Rev 0 500
Lux Drawing.pdf"

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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CalcuLuX Area 7.9.0.0

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1. Project Description

1.1 Description

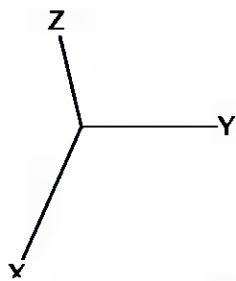
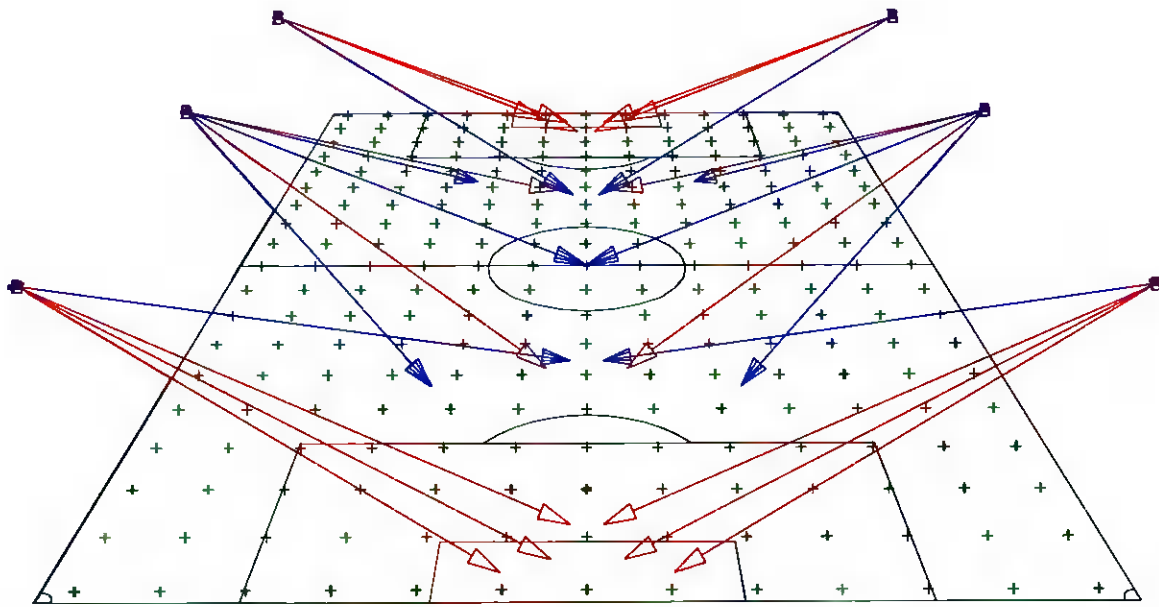
500 Lux Average Design
6x 15m Columns

Results Overview
503.2 Lux Average
0.7 Min/Ave
0.5 Min/Max
45.3 Max Glare

For 250 Lux Switching dim all lanterns to 50% output
For 150 Lux Switching dim all lanterns to 30% output

Products Used
16x BVP528 1xLED2220/757 OUT T15 50K A55-NB
10x BVP528 1xLED2220/757 OUT T15 50K A55-MB
note: on site tilt equals Tilt90 value minus 55 degrees.

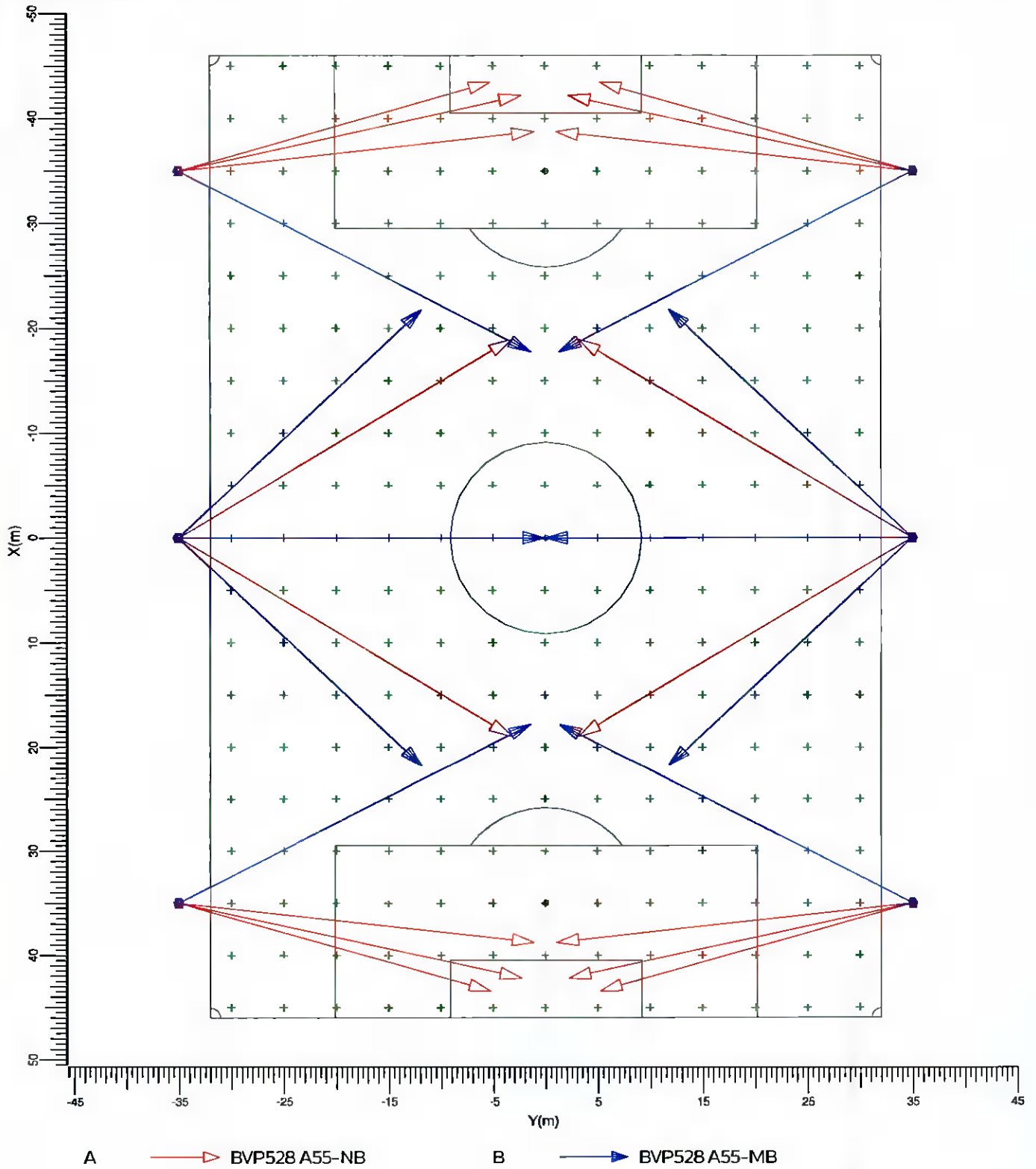
1.2 3-D Project Overview



A  BVP528 A55-NB

B  BVP528 A55-MB

1.3 Top Project Overview



Scale
1:500

2. Summary

2.1 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
A	16	BVP528 A55-NB	1 * LED2220/757 OUT T15 50K	1500.0	1 * 222600
B	10	BVP528 A55-MB	1 * LED2220/757 OUT T15 50K	1500.0	1 * 222600

The total installed power: 39.00 (kWatt)

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code		Power (kWatt)
	A	B	
Corners	12	4	24.00
Middle	4	6	15.00

2.2 Calculation Results

(I) Luminance Calculations:

Calculation	Type	Unit	Ave Min/AveMin/Max
Football 10x10	Surface Illuminance	lux	503 0.70 0.50

Glare Rating for Grid of Observers:

Calculation	Observer Grid	Reference Grid	Reflectance	GR-Max
Football 10x10 Glare	Football 10x10	Football 10x10	0.25	45.3

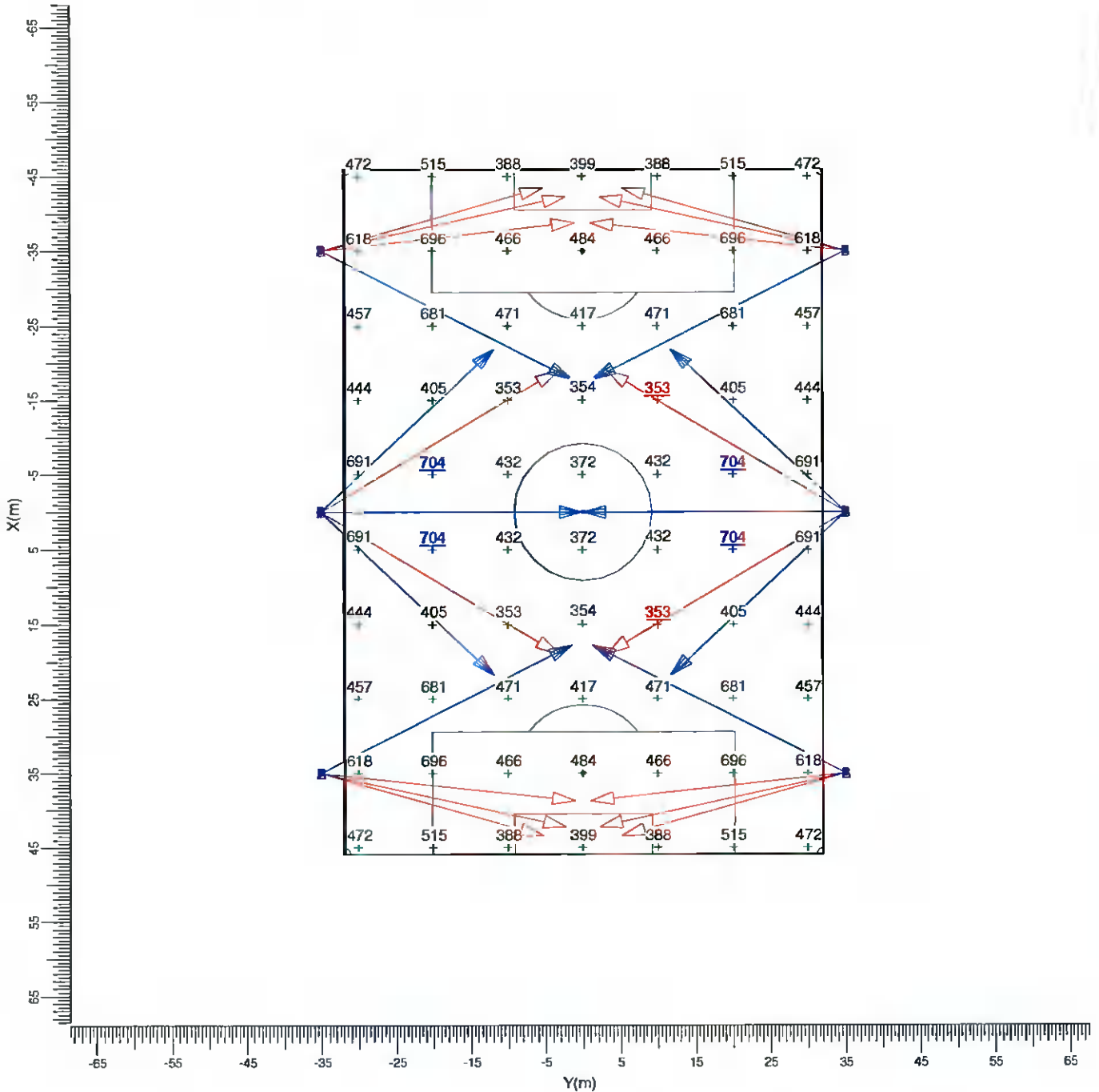
Obtrusive Light Calculations:

The upward light ratio (ULR) is 0.00.

3. Calculation Results

3.1 Football 10x10: Graphical Table

Grid : Football 10x10 at Z = -0.00 m
Calculation : Surface Illuminance (lux)

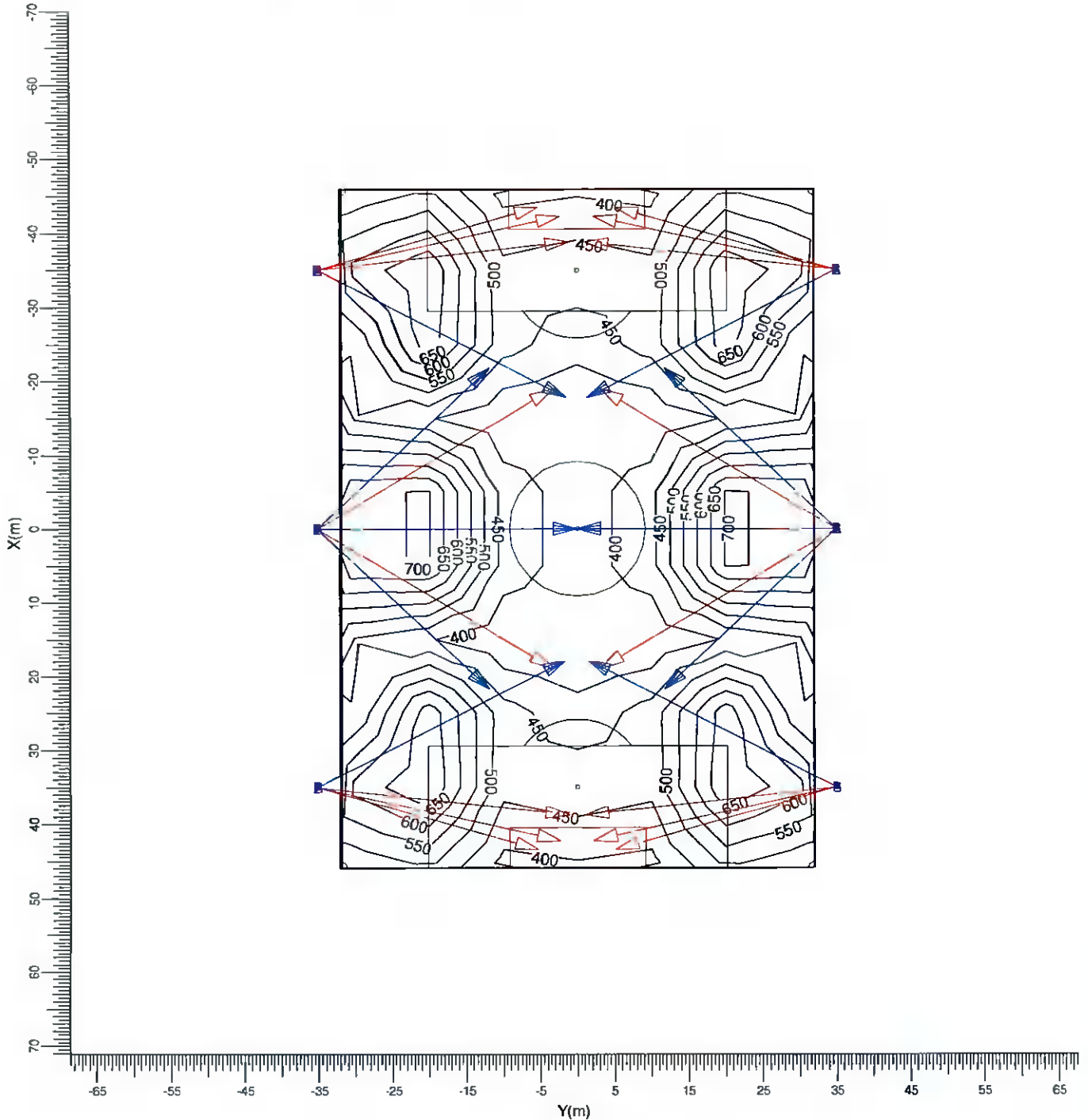


A BVP528 A55-NB B BVP528 A55-MB

Average 503	Min/Ave 0.70	Min/Max 0.50	Project maintenance factor 0.90	Scale 1:750
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3.2 Football 10x10: Iso Contour

Grid : Football 10x10 at Z = -0.00 m
Calculation : Surface Illuminance (lux)



A BVP528 A55-NB

B BVP528 A55-MB

Average
503

Min/Ave
0.70

Min/Max
0.50

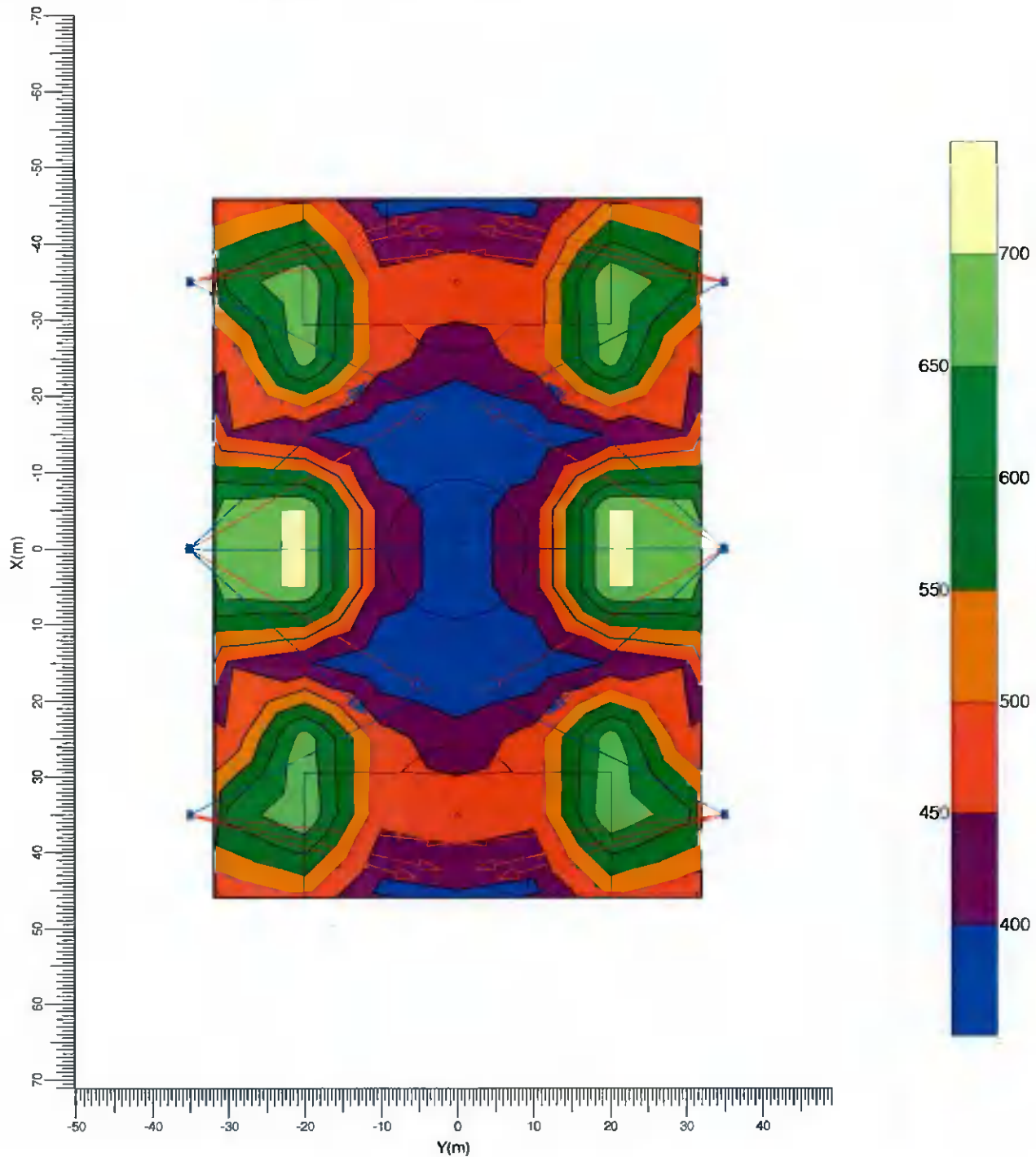
Project maintenance factor
0.90

Scale
1:750

3.3 Football 10x10: Filled Iso Contour

Grid
Calculation

Football 10x10 at Z = -0.00 m
Surface Illuminance (lux)



A ▶ BVP528 A55-NB

B ▶ BVP528 A55-MB

Average
503

Min/Ave
0.70

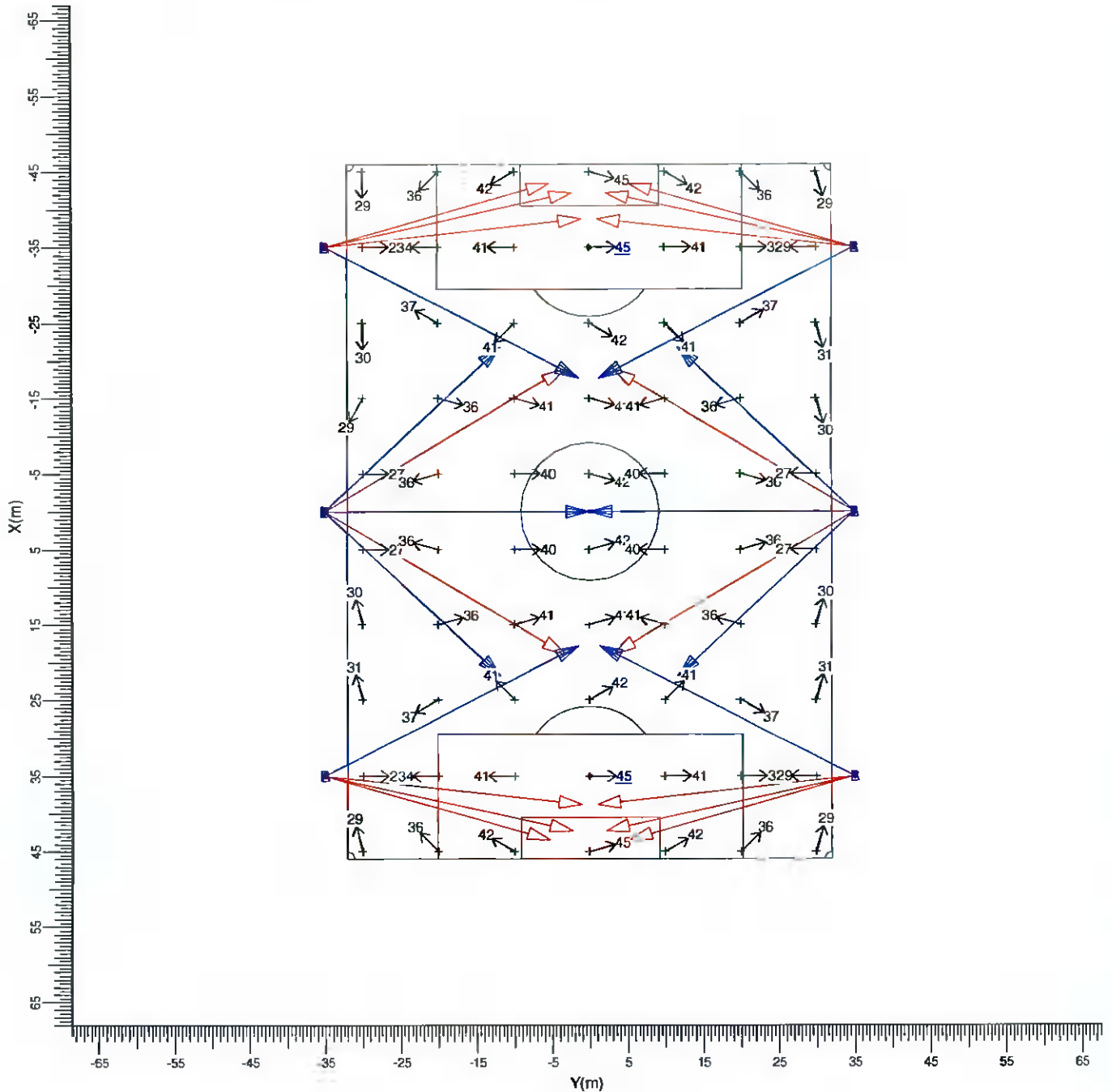
Min/Max
0.50

Project maintenance factor
0.90

Scale
1.750

3.4 Football 10x10 Glare: Graphical Table

Grid of Observers : Football 10x10
 Calculation : Glare Rating
 Grid for Background Luminance: Football 10x10 (Reflectance: 0.25)
 Vertical Viewing Angle : -2.0 deg



A → BVP528 A55-NB B → BVP528 A55-MB

Project maintenance factor
0.90

Scale
1:750

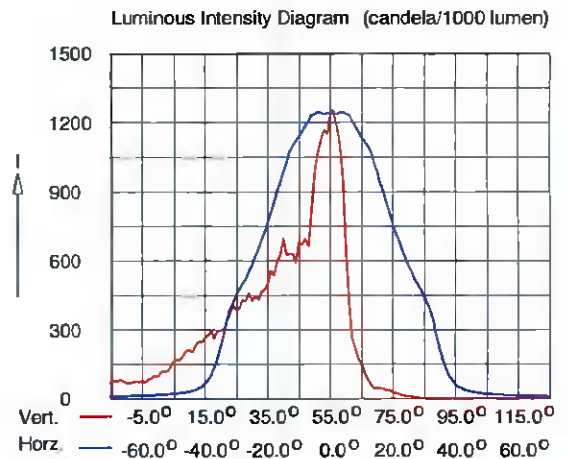
4. Luminaire Details

4.1 Project Luminaires

OptiVision LED
BVP528 1xLED2220/757 OUT T15 50K A55-NB

Light output ratios
DLOR : 0.84
ULOR : 0.00
TLOR : 0.84
Lamp flux : 222600 lm
Luminaire wattage : 1500.0 W
Measurement code : PRELIMA55N

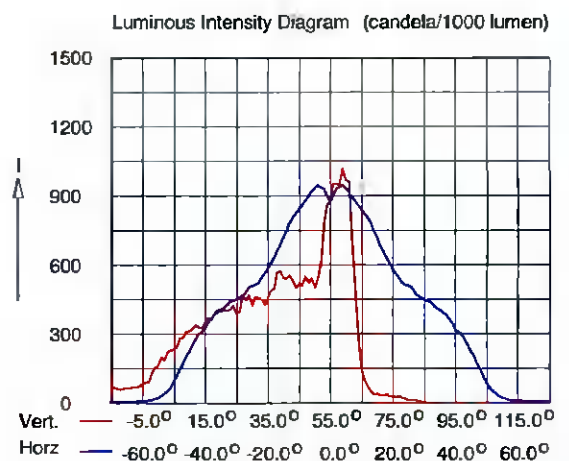
Note: Luminaire data not from database.



OptiVision LED
BVP528 1xLED2220/757 OUT T15 50K A55-MB

Light output ratios
DLOR : 0.83
ULOR : 0.00
TLOR : 0.83
Lamp flux : 222600 lm
Luminaire wattage : 1500.0 W
Measurement code : PRELIMA55M

Note: Luminaire data not from database.



5. Installation Data

5.1 Legends

Project Luminaires:

Code	Qty	Luminaire Type	Lamp Type	Flux (lm)
A	16	BVP528 A55-NB	1 * LED2220/757 OUT T15 50K	1 * 222600
B	10	BVP528 A55-MB	1 * LED2220/757 OUT T15 50K	1 * 222600

Arrangements:

Code	Arrangement
1	Middle
2	Corners

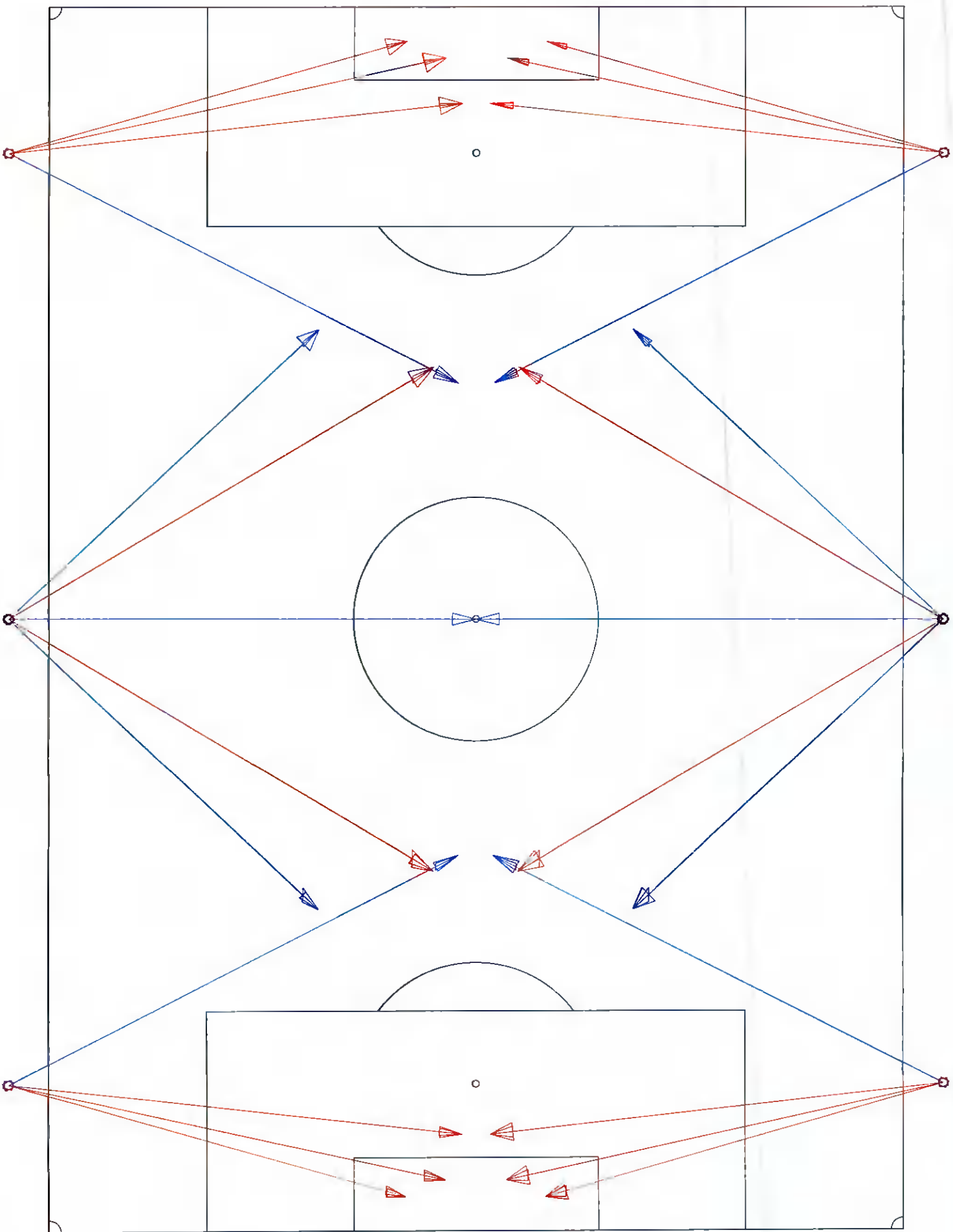
5.2 Luminaire Positioning and Orientation

Qty and Code	Position			Aiming Points			Aiming Angles			ULR	Arr
	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	Rot.	Tilt90	Tilt0		
1 * B	-0.00	-35.00	15.00	0.00	0.00	0.00	90.0	66.8	0.0	0.00	1
1 * A	-0.00	-35.00	15.00	18.97	-3.18	0.00	59.2	68.0	-0.0	0.00	1
1 * A	-0.00	-35.00	15.00	-18.97	-3.18	0.00	120.8	68.0	0.0	0.00	1
1 * B	-0.00	-35.00	15.00	21.81	-11.78	0.00	46.8	64.8	0.0	0.00	1
1 * B	-0.00	-35.00	15.00	-21.81	-11.78	0.00	133.2	64.8	0.0	0.00	1
1 * B	-0.00	35.00	15.00	0.00	-0.00	0.00	-90.0	66.8	0.0	0.00	1
1 * A	-0.00	35.00	15.00	18.97	3.18	0.00	-59.2	68.0	0.0	0.00	1
1 * A	-0.00	35.00	15.00	-18.97	3.18	0.00	-120.8	68.0	-0.0	0.00	1
1 * B	-0.00	35.00	15.00	21.81	11.78	0.00	-46.8	64.8	0.0	0.00	1
1 * B	-0.00	35.00	15.00	-21.81	11.78	0.00	-133.2	64.8	0.0	0.00	1
1 * A	-35.00	-35.00	15.00	-42.19	-2.25	0.00	102.4	65.9	0.0	0.00	2
1 * A	-35.00	-35.00	15.00	-43.43	-5.23	0.00	105.8	64.1	0.0	0.00	2
1 * A	-35.00	-35.00	15.00	-38.76	-1.05	0.00	96.3	66.3	0.0	0.00	2
1 * B	-35.00	-35.00	15.00	-17.76	-1.33	0.00	62.9	68.4	0.0	0.00	2
1 * A	-35.00	35.00	15.00	-42.19	2.25	0.00	-102.4	65.9	0.0	0.00	2
1 * A	-35.00	35.00	15.00	-43.43	5.23	0.00	-105.8	64.1	0.0	0.00	2
1 * A	-35.00	35.00	15.00	-38.76	1.05	0.00	-96.3	66.3	-0.0	0.00	2
1 * B	-35.00	35.00	15.00	-17.76	1.33	0.00	-62.9	68.4	-0.0	0.00	2
1 * A	35.00	-35.00	15.00	42.19	-2.25	0.00	77.6	65.9	0.0	0.00	2
1 * A	35.00	-35.00	15.00	43.43	-5.23	0.00	74.2	64.1	0.0	0.00	2
1 * A	35.00	-35.00	15.00	38.76	-1.05	0.00	83.7	66.3	-0.0	0.00	2
1 * B	35.00	-35.00	15.00	17.76	-1.33	0.00	117.1	68.4	-0.0	0.00	2
1 * A	35.00	35.00	15.00	42.19	2.25	0.00	-77.6	65.9	0.0	0.00	2
1 * A	35.00	35.00	15.00	43.43	5.23	0.00	-74.2	64.1	0.0	0.00	2
1 * A	35.00	35.00	15.00	38.76	1.05	0.00	-83.7	66.3	0.0	0.00	2
1 * B	35.00	35.00	15.00	17.76	1.33	0.00	-117.1	68.4	0.0	0.00	2

Key:

BVP528 1xLED220/757 OUT T15 50K A55-NB

BVP528 1xLED220/757 OUT T15 50K A55-MB



PHILIPS **Interact** **hive**
 MODULAR LIGHTING INSTRUMENTS
PHILIPS **hive**
COLORKINETICS

@signify

Project Name
Ballyfermot FC

Project Number
0400504946

Scale & Sheet Size
1:125 @ A0

Drawing Name
PROPOSED LIGHTING LAYOUT

Rev DSR no
 0 D-373415

Comment
 Initial proposal

Date
 09/10/20

LWS
 MD

KAM
 DM

PROPOSAL
 (NOT FOR CONSTRUCTION)

- Notes:
- 1) Unless agreed otherwise, the lighting proposal produced by the Lighting Application Specialist (LAS) team of Philips Lighting UK&I is not intended for construction purposes, as it does not take into account the elimination of health and safety risks at this stage. For further details please refer to sheet number **DWG 00**
 - 2) Do not scale for this drawing

LiAS Design Notes

This preliminary design is produced by the Lighting Application Specialist (LiAS) team of Signify UK based on information supplied by the Customer for the purpose of identifying suitable products and costing the proposal. This design cannot be used for Construction, as this design does not purport to eliminate health and safety risks as a CDM Regulation risk assessment has not been undertaken.

Depending on the level of information received, a number of assumptions may have been applied in order to create an indicative lighting proposal and costing model, according to lighting industry guidelines and incorporating industry best practice methods. These assumptions are documented below and will require confirmation by the Principle Designer (which is not Signify UK) during the detailed design phase.



Project Specific Assumptions

- Column locations have been assumed.
- Where column heights have not been provided/specified, these have been assumed to be 15m.

Generic Assumptions (unless specifically informed differently)

- Preliminary Design proposals produced by the Signify LiAS Team are not to be used for installation purposes. It is the responsibility of the Principle Designer and/or Principle Contractor to ensure all Installation and Maintenance can be done in a safe manner, carried out by competent persons, based on their agreed Risk Assessments and Method Statements.
- The Luminaire Maintenance Factors have been based on 6-year cleaning intervals within an E3/E4 Environmental Zone and it is assumed that lamp/luminaire failures will be replaced on a 'spot replacement'.
- Energy consumptions have been based on the luminaire/s having Constant Light Output (CLO) enabled and the quoted wattage/s are the average over 100,000 hours (without dimming).
- The design calculations produced by Signify do not account for the effect obstructions, such as trees, will cause.
- Signify has not been provided with utility plans showing Buried, Above Ground or Overhead utilities. Therefore, all column/luminaire locations are indicative and are subject to review/verification by the Principle Designer.
- Unless stated otherwise, Signify has not visited site. Therefore, all column/luminaire locations are indicative and are subject to an onsite verification arranged/performed by the Principle Designer.
- Signify has not produced any Private Cable Network electrical calculations or reviewed the DNO network to confirm power supplies to the proposed lighting.
- Signify has not performed any asset condition testing and therefore assumes that any existing lighting columns/wall mounted brackets are structurally capable of supporting the weight & windage of the proposed luminaire/s. This must be verified by the Principle Designer before installation works commence.
- Unless stated otherwise, Signify is not supplying the new lighting columns (including brackets etc) and therefore it is the responsibility of the Principle Designers to confirm that all proposed equipment is suitable for the intended locations (e.g. raise & lower, ground condition, foundation type, saline environment, etc).
- Unless stated otherwise, luminaires will be supplied in their standard colour.

Luminaire Schedule

	BVP528 1xLED2220/757 OUT T15 50K A55-NB
	BVP528 1xLED2220/757 OUT T15 50K A55-MB

Philips Lighting Contacts

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Mark Davies, Lighting Application Specialist - 07979935894 - Mark.Davies@Signify.com

Quotes & Orders - 01483 446070 - Lighting.Sales.Outdoor@Signify.com



Lighting Proposal Terms and Conditions of Use

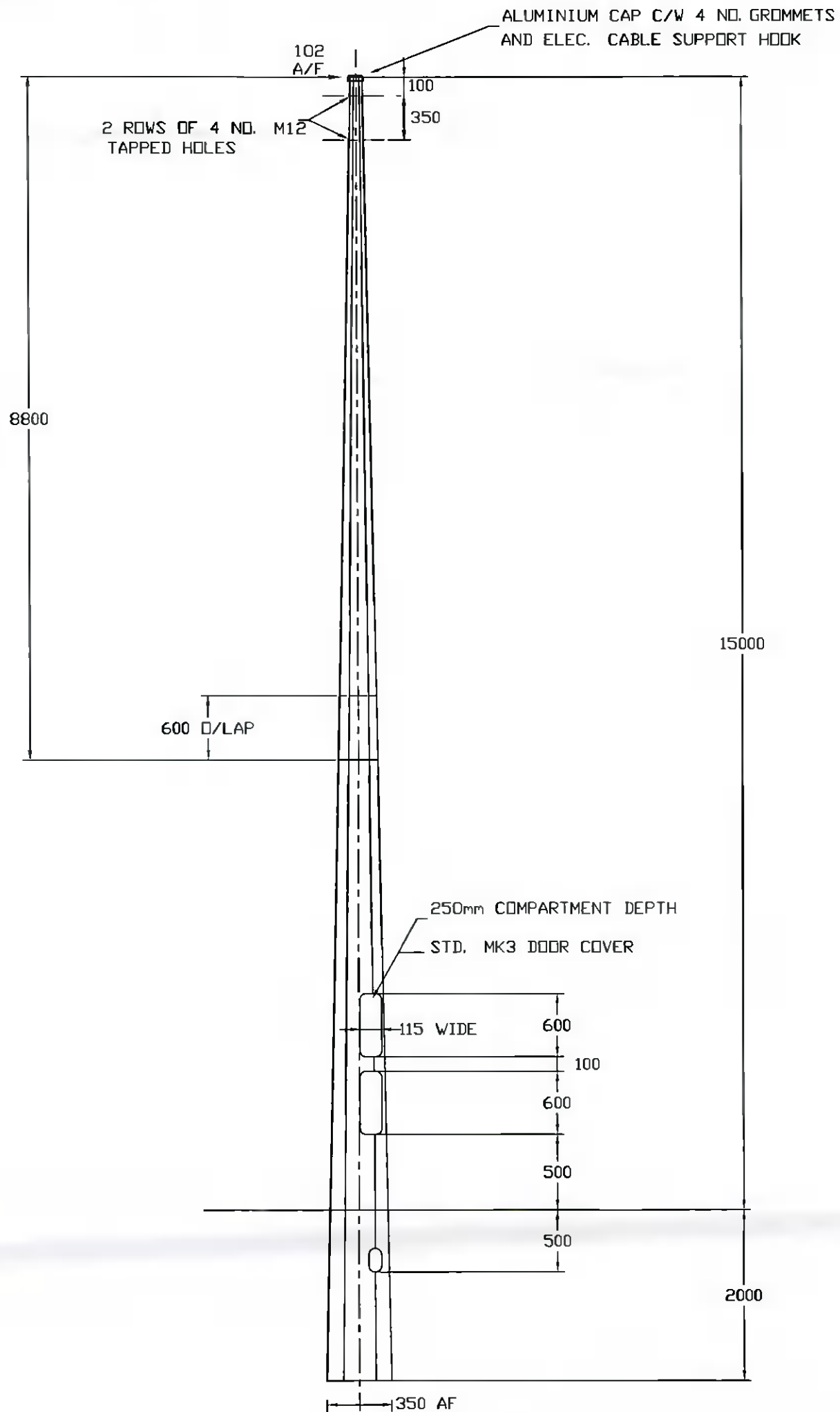
These terms apply to the use of this preliminary proposal produced by Signify UK. This "Proposal" is understood to mean this document, a CAD drawing, lighting calculations, written documents, verbal conversations or any medium used to demonstrate or communicate the proposed lighting scheme using products from Signify's brands. A "Customer" is the person or organisation for whom the Proposal is intended. The "CDM Regulations" means The Construction, Design and Management Regulations 2015, the Safety, Health & Welfare at Work Act 2005, The Construction (Design & Management) Regulations (Northern Ireland) 2015.

This Proposal is for guidance only and cannot be relied upon for purposes of installation or Health and Safety.

The supply and installation of this lighting scheme are subject to a contract being agreed between Customer and Signify.

PROPOSAL
(NOT FOR CONSTRUCTION)

Rev	DSR no.	Comment	Date	LIAS	KAM	Project Number	Project Name
0	D-373415	Initial proposal	09/10/20		DM	0400504946	Ballyfermot FC
						Scale & Sheet Size	Drawing Name
						NTS @ A3	LiAS DESIGN NOTES & LUMINAIRE SCHEDULE
						Sheet No	
						DWG 00	



MAST DESIGN STANDARD AND WIND CODE : -
 TECHNICAL REPORT No. 7. & CP3 Pt. 2.
 E. G. = 175Kg & 1.8m² (MUST INCLUDE BRACKETRY)
 BASIC WIND SPEED = 52 m/s
 B/MOMENT @ GROUND LEVEL = 101.2KNm
 HORIZONTAL LOAD = 0.95KN

NOTE: 2 NO. SECTIONS TO BE SITE ASSEMBLED

FINISH : GALVANISED TO BS EN 1461
 ALL DIMENSIONS ARE IN MILLIMETRES.

DRAWN:	MATERIAL:	DATE:	MODIFICATION:	NAME:	REF:
HM	S355JR				
CHECKED:	WEIGHT:				
HM	418 KG-GALV.				
DATE:	SCALE:				
11/09/03	NOT TO SCALE				
TOLERANCE:	TITLE:				
BS5649 PT2.	15.0m HEAVY DUTY FLOODLIGHT POLE : MEDWAY ROOT MOUNTED				

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 METAL COMPANY LIMITED

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 THORNABY, CLEVELAND, TS17 9LT.
 ENGLAND, UNITED KINGDOM.
 TELEPHONE: (01642) 766242
 (01642) 765509

DRAWING No:
 CC3848

