



# MJS Transport

Installation : Proposed New Lighting

Project number : 99-31752-LB  
Customer : Elec Center (Stoke)  
Processed by : M.Burgess  
Date : 30.03.2017

Project description:  
Calculation based on standard reflectances.

Room/exterior area dimensions and floor to ceiling/mounting heights issued from wholesaler.

PLEASE NOTE: All room/exterior area dimensions to be checked on-site prior to installation.

Lighting designed to CIBSE guidelines where applicable and/or client requirements, all stated lux values are for overall averages across the room reference plane.

If dimmable luminaires have been specified, then it is the responsibility of the contractor to establish which dimming ballasts/system is required by the lighting control ethos/specification.

Emergency lighting design conforms to BS5266/EN1838 where applicable. Please note that 'points of emphasis' such as locations of fire fighting equipment also require emergency lighting, these locations are to be confirmed by contractor. Please note that the emergency lighting calculation MUST be produced using the emergency lighting calculation facility within this program, failure to use the correct method will show false results.

Ansell to stick to Luminaire Positions on received plans.

ANSELL HAVE KEPT TO THE LUMINAIRE POSITIONS SHOWN ON RECEIVED PLAN. FOR ADDITIONAL AREA ANSELL HAVE USED ORIGINAL POSITIONS.

Revision C: Lighting posts in rear yard reduced from 5 down to 3 under instruction from Martin Johnson Contracts manager.

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.



# 1 Luminaire data

## 1.1 ANSELL, Floodlighting - Mira LED Floodl... (AMLED100)

### 1.1.1 Data sheet

Manufacturer: ANSELL



#### AMLED100 Projector Floodlighting - Mira LED Floodlight

AMLED100

Floodlighting Mira LED Floodlight

Supplied c/w Integral Driver

LED 100W Cool White Windage 0.20

Architectural slim die-cast LED floodlight

100W LED exceeds performance of 150W HQI

Optically textured glass for enhanced light output

Heat sink design provides optimum LED life

Graphite textured paint finish

Pre-wired with 1 metre of rubber insulated cable for ease of installation

40,000 hours average lifetime

Non-dimmable

#### Luminaire data

Absolute Photometry

Luminaire efficacy : 78.34 lm/W

Classification : A50 ↓99.5% ↑0.5%

CIE Flux Codes : 65 93 99 99 100

UGR 4H 8H : 24.3 / 23.3

Control gear : Electronic ballast

Power : 100 W

Luminous flux : 7834.3 lm

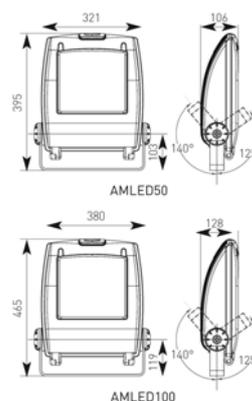
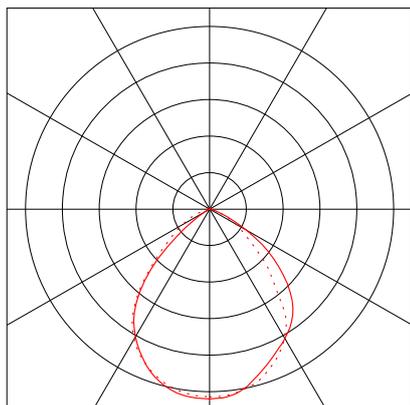
#### Equipped with

Quantity : 1

Designation :

Colour :

Dimensions : 380 mm x 380 mm x 106 mm





# 1 Luminaire data

## 1.2 ANSELL, Floodlighting - Mira LED Floodlight (AMLED50)

### 1.2.1 Data sheet

Manufacturer: ANSELL



#### AMLED50 Projector Floodlighting - Mira LED Floodlight

AMLED50

Floodlighting Mira LED Floodlight

Supplied c/w Integral Driver

LED 50W Cool White Windage 0.14

Architectural slim die-cast LED floodlight

50W LED comparable light output to 70W HQI

Optically textured glass for enhanced light output

Heat sink design provides optimum LED life

Graphite textured paint finish

Pre-wired with 1 metre of rubber insulated cable for ease of installation

40,000 hours average lifetime

Non-dimmable

#### Luminaire data

Absolute Photometry

Luminaire efficacy : 81.78 lm/W

Classification : A50 ↓99.5% ↑0.5%

CIE Flux Codes : 63 93 99 99 100

UGR 4H 8H : 19.4 / 20.8

Control gear : Electronic ballast

Power : 50.4 W

Luminous flux : 4121.7 lm

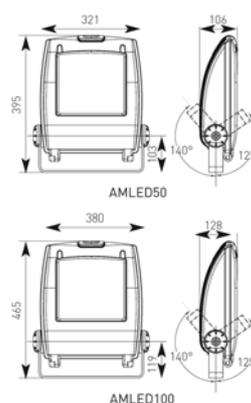
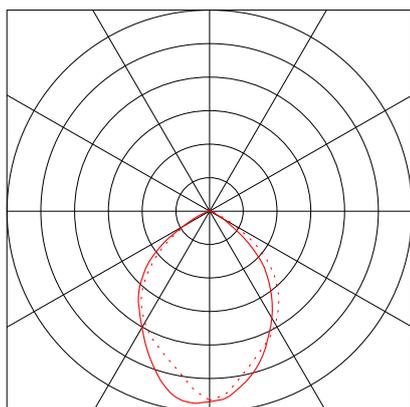
#### Equipped with

Quantity : 1

Designation :

Colour :

Dimensions : 380 mm x 380 mm x 106 mm





# 1 Luminaire data

## 1.3 ANSELL, Floodlighting - Mira LED Floodlight (AMLED30)

### 1.3.1 Data sheet

Manufacturer: ANSELL



#### AMLED30 Projector Floodlighting - Mira LED Floodlight

AMLED30

Floodlighting Mira LED Floodlight

Supplied c/w Integral Driver

LED 30W Cool White Windage 0.08

Architectural slim die-cast LED floodlight

30W LED comparable light output to 35W HQI

Optically textured glass for enhanced light output

Heat sink design provides optimum LED life

Graphite textured paint finish

Pre-wired with 1 metre of rubber insulated cable for ease of installation

40,000 hours average lifetime

Non-dimmable

#### Luminaire data

Absolute Photometry

Luminaire efficacy : 81.63 lm/W

Classification : A50 ↓99.5% ↑0.5%

CIE Flux Codes : 61 92 99 99 100

UGR 4H 8H : 26.3 / 25.9

Control gear : Electronic ballast

Power : 30.7 W

Luminous flux : 2506 lm

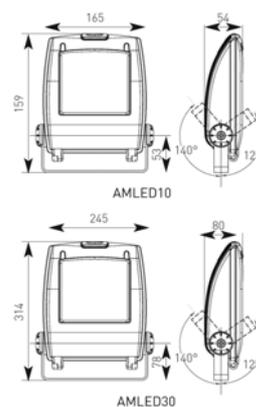
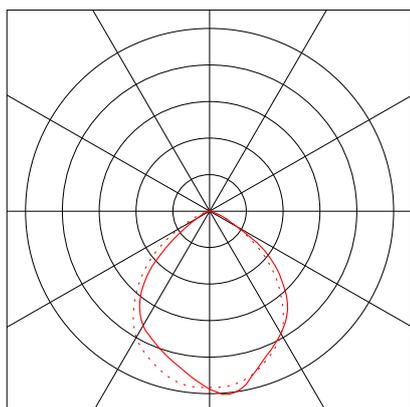
#### Equipped with

Quantity : 1

Designation :

Colour :

Dimensions : 165 mm x 165 mm x 54 mm

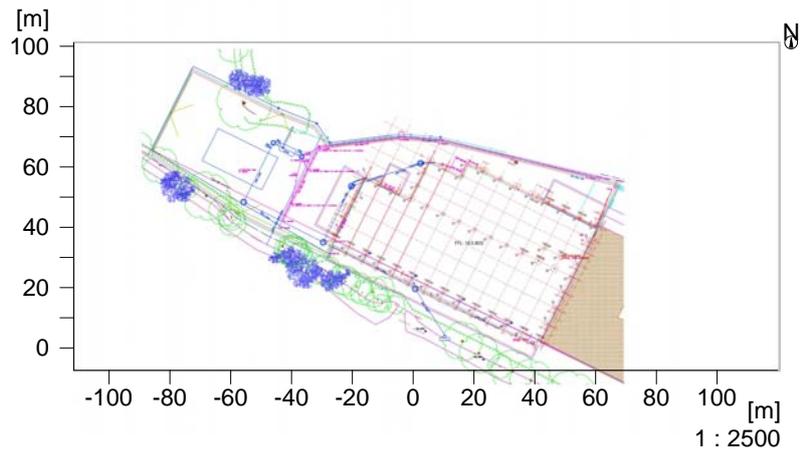


## 2 Exterior 1 - New Plan

### 2.1 Description, Exterior 1 - New Plan

#### 2.1.1 Floor plan

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## 2.1 Description, Exterior 1 - New Plan

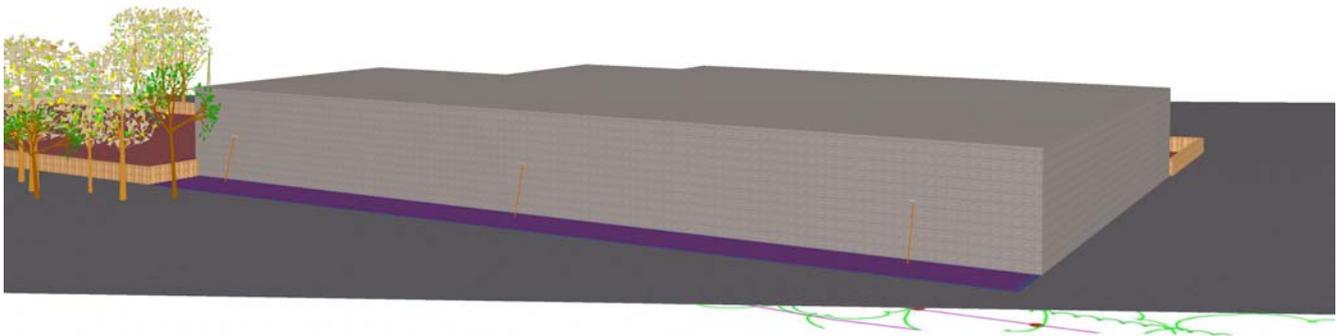
### 2.1.2 3D view, View 1



## 2.1 Description, Exterior 1 - New Plan

### 2.1.3 3D view, View 2

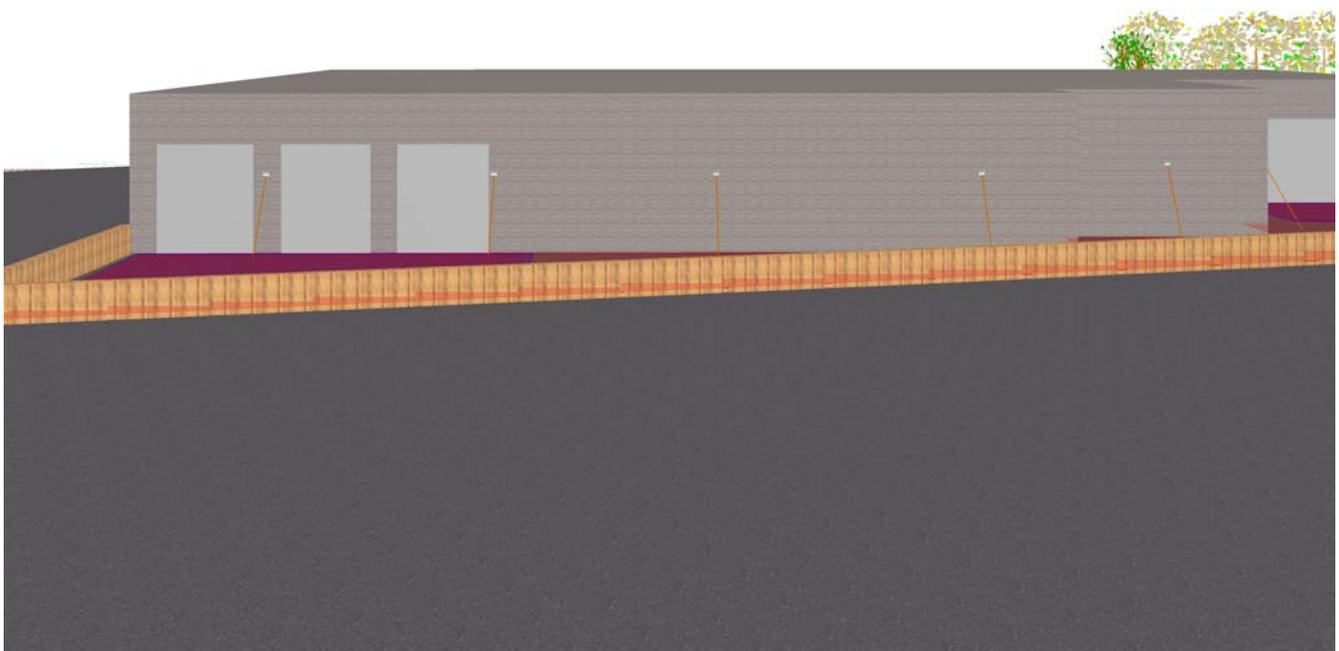
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## 2.1 Description, Exterior 1 - New Plan

### 2.1.4 3D view, View 3

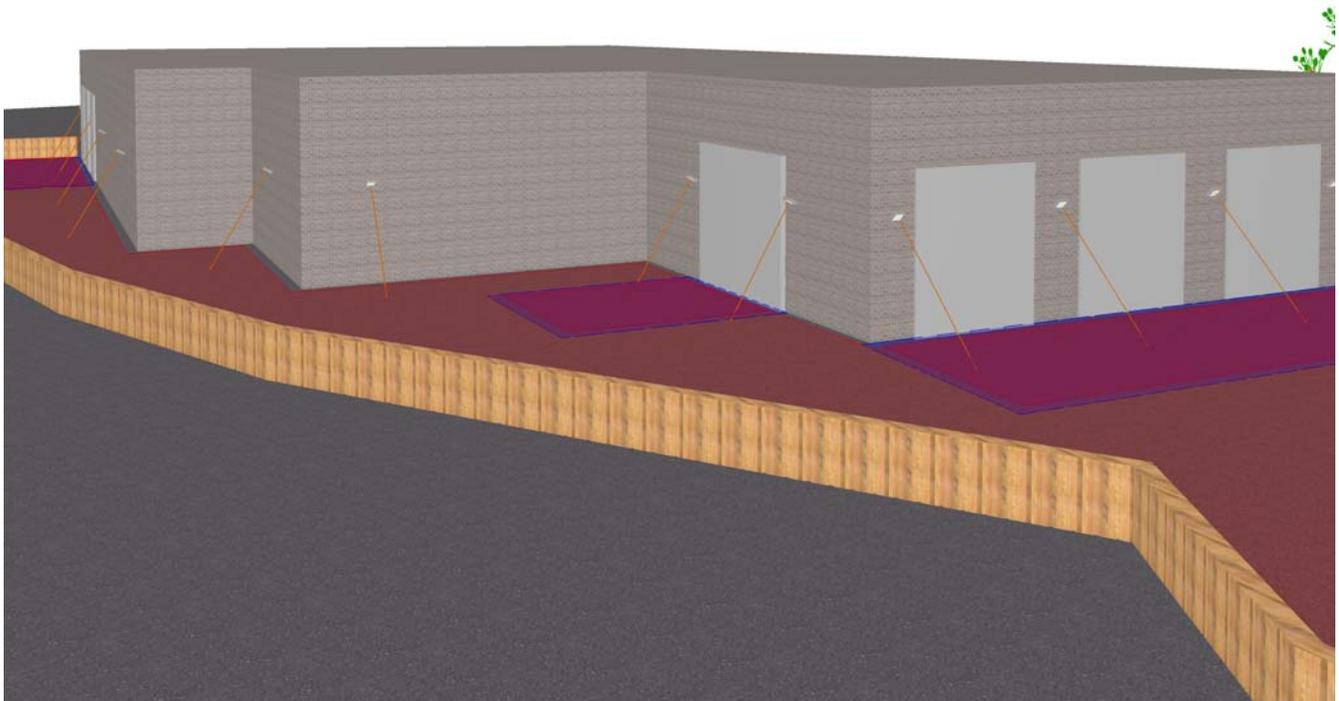
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## 2.1 Description, Exterior 1 - New Plan

### 2.1.5 3D view, View 4

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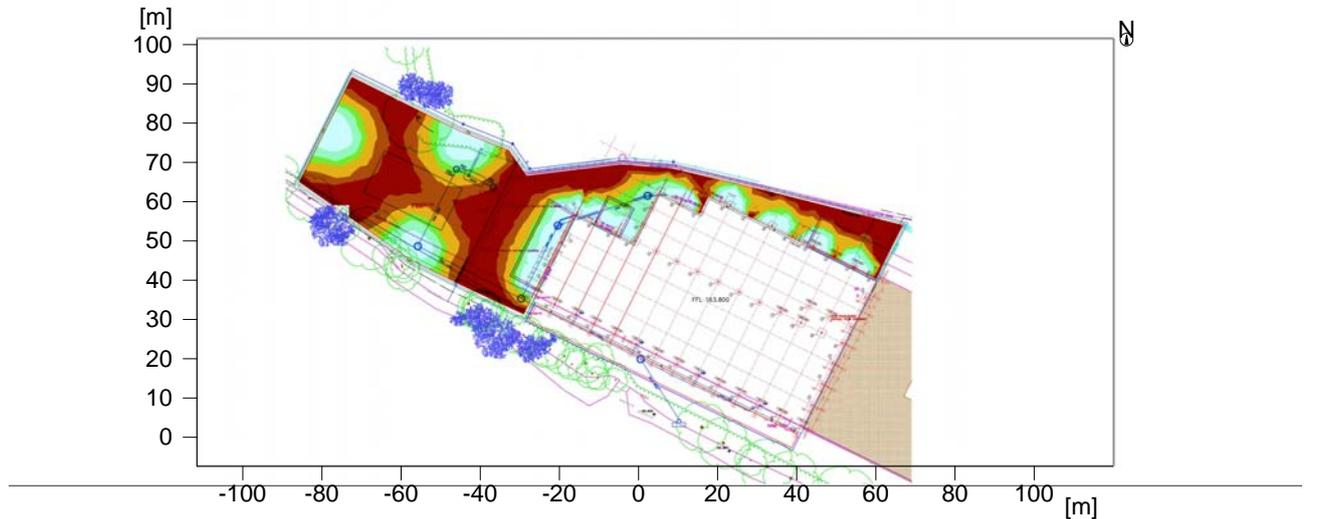




## 2 Exterior 1 - New Plan

### 2.2 Summary, Exterior 1 - New Plan

#### 2.2.1 Result overview, External Reference Plane



#### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.02 m
Maintenance factor	0.80

Total luminous flux of all lamps	109050 lm
Total power	1356 W
Total power per area (25161.24 m <sup>2</sup> )	0.05 W/m <sup>2</sup>

#### Illuminance

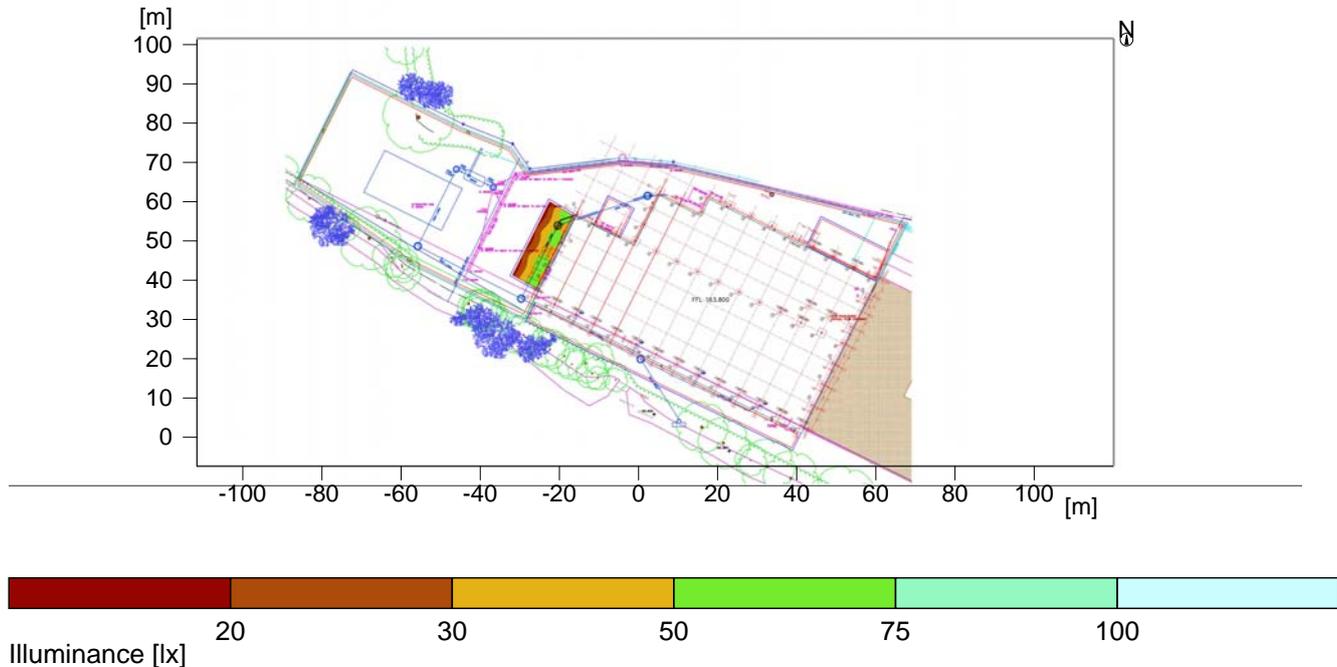
Average illuminance	Eav	16.7 lx
Minimum illuminance	Emin	3.7 lx
Maximum illuminance	E <sub>max</sub>	64.2 lx
Uniformity U <sub>o</sub>	E <sub>min</sub> /E <sub>m</sub>	1:4.53 (0.22)
Diversity U <sub>d</sub>	E <sub>min</sub> /E <sub>max</sub>	1:17.4 (0.06)

#### Type No.\Make

1	6		<b>ANSELL</b>	
			Order No.	: AMLED100
			Luminaire name	: Floodlighting - Mira LED Floodlight
			Equipment	: 1 x 100 W / 7850 lm
3	15		Order No.	: AMLED50
			Luminaire name	: Floodlighting - Mira LED Floodlight
			Equipment	: 1 x 50.4 W / 4130 lm

## 2.2 Summary, Exterior 1 - New Plan

### 2.2.2 Result overview, Door Area 1



#### General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	16520 lm
Total power	201.6 W
Total power per area (176.53 m <sup>2</sup> )	1.14 W/m <sup>2</sup> (2.74 W/m <sup>2</sup> /100lx)

#### Door Area 1

#### Reference plane 2.1

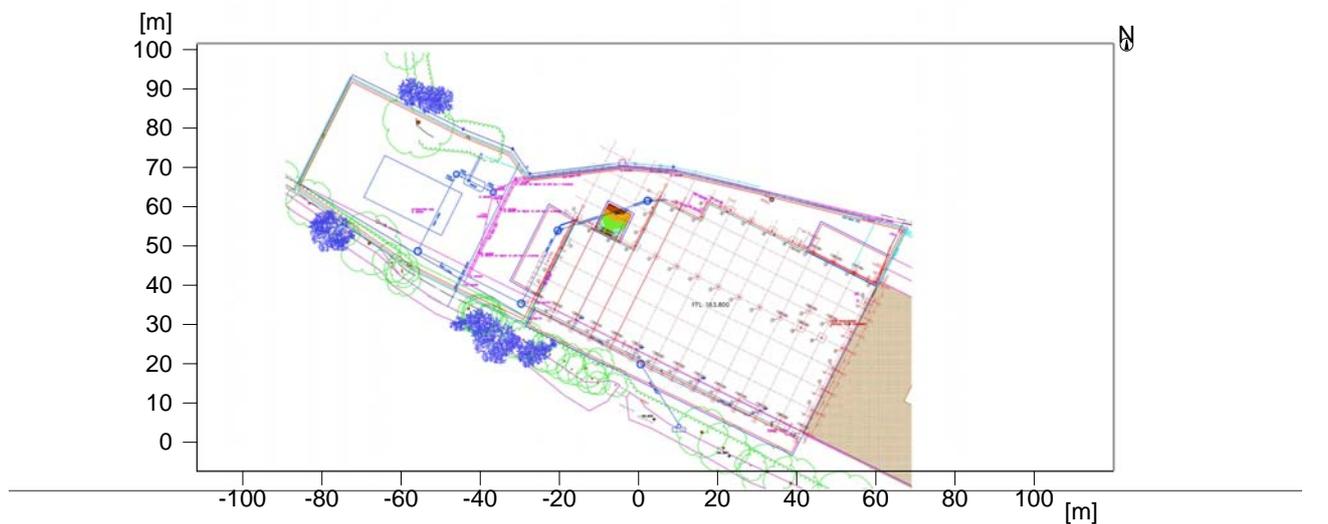
	Horizontal
Em	41.7 lx
Emin	17.5 lx
Emin/Eav (Uo)	0.42
Emin/Emax (Ud)	0.23
Position	0.02 m

#### Type No. \ Make

3	4	<b>ANSELL</b>	
		Order No.	: AMLED50
		Luminaire name	: Floodlighting - Mira LED Floodlight
		Equipment	: 1 x 50.4 W / 4130 lm

## 2.2 Summary, Exterior 1 - New Plan

### 2.2.3 Result overview, Door Area 2



#### General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	4130 lm
Total power	50.4 W
Total power per area (61.95 m <sup>2</sup> )	0.81 W/m <sup>2</sup> (2.13 W/m <sup>2</sup> /100lx)

#### Door Area 2

#### Reference plane 3.1

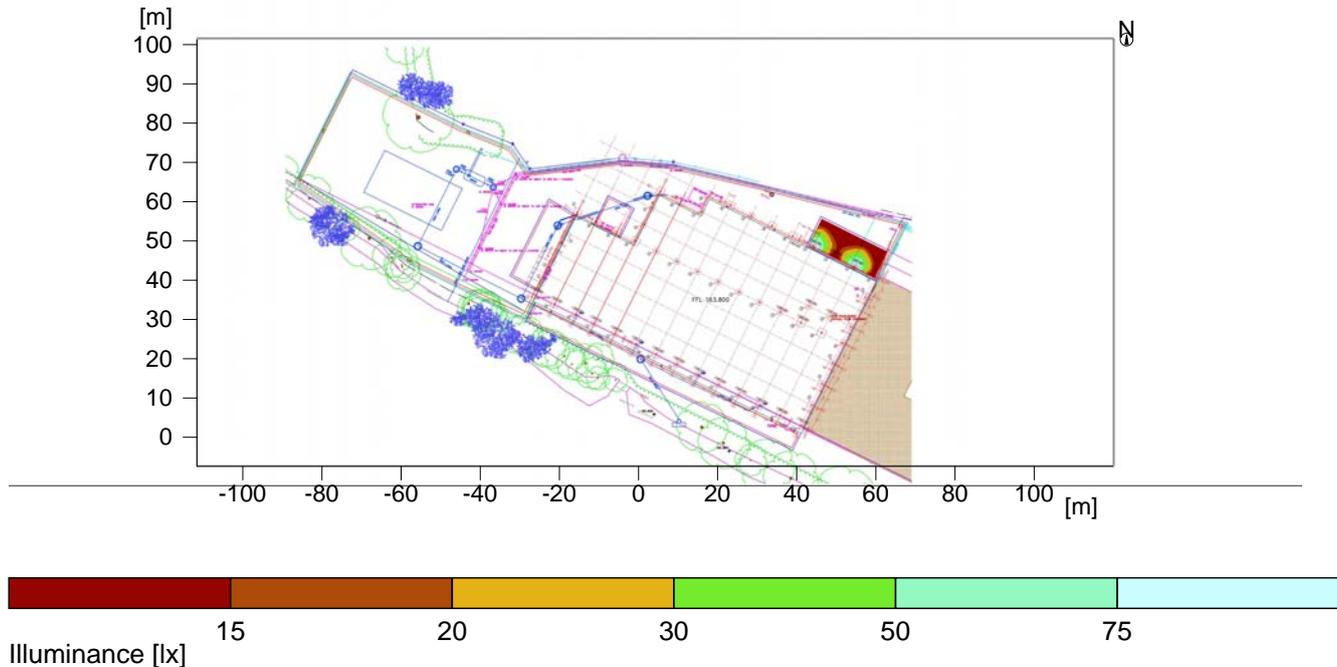
	Horizontal
Em	38.3 lx
Emin	13 lx
Emin/Eav (Uo)	0.34
Emin/Emax (Ud)	0.15
Position	0.02 m

#### Type No. \ Make

3	1	<b>ANSELL</b>	
		Order No.	: AMLED50
		Luminaire name	: Floodlighting - Mira LED Floodlight
		Equipment	: 1 x 50.4 W / 4130 lm

## 2.2 Summary, Exterior 1 - New Plan

### 2.2.4 Result overview, Door Area 3



#### General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	8260 lm
Total power	100.8 W
Total power per area (162.71 m <sup>2</sup> )	0.62 W/m <sup>2</sup> (2.45 W/m <sup>2</sup> /100lx)

#### Door Area 3

#### Reference plane 4.1

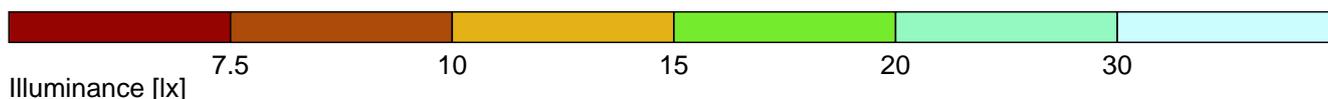
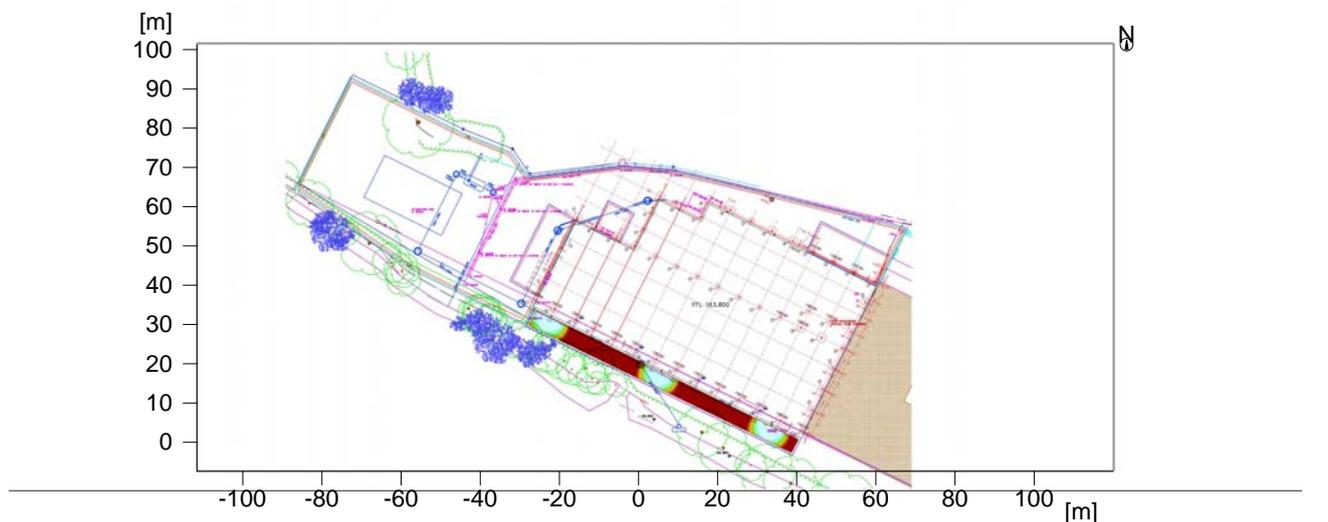
	Horizontal
Em	25.3 lx
Emin	3.9 lx
Emin/Eav (U <sub>o</sub> )	0.15
Emin/Emax (U <sub>d</sub> )	0.04
Position	0.02 m

#### Type No. \ Make

3	2	<b>ANSELL</b>	
		Order No.	: AMLED50
		Luminaire name	: Floodlighting - Mira LED Floodlight
		Equipment	: 1 x 50.4 W / 4130 lm

## 2.2 Summary, Exterior 1 - New Plan

### 2.2.5 Result overview, Possible Future Area



#### General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	12390 lm
Total power	151.2 W
Total power per area (378.59 m <sup>2</sup> )	0.40 W/m <sup>2</sup> (2.57 W/m <sup>2</sup> /100lx)

#### Possible Future Area

#### Reference plane 5.1

	Horizontal
Em	15.6 lx
Emin	0.1 lx
Emin/Eav (Uo)	0.00
Emin/Emax (Ud)	0.00
Position	0.02 m

#### Type No. \ Make

3	3	<b>ANSELL</b>	
		Order No.	: AMLED50
		Luminaire name	: Floodlighting - Mira LED Floodlight
		Equipment	: 1 x 50.4 W / 4130 lm

## 2 Exterior 1 - New Plan

### 2.3 Calculation results, Exterior 1 - New Plan

#### 2.3.1 3D luminance, View 1



Luminance in the scene

Minimum: : 0 cd/m<sup>2</sup>  
Maximum: : 80.2 cd/m<sup>2</sup>

## 2.3 Calculation results, Exterior 1 - New Plan

### 2.3.2 3D luminance, View 2



Luminance in the scene  
Minimum: : 0 cd/m<sup>2</sup>  
Maximum: : 80.2 cd/m<sup>2</sup>

## 2.3 Calculation results, Exterior 1 - New Plan

### 2.3.3 3D luminance, View 3



Luminance in the scene

Minimum: : 0 cd/m<sup>2</sup>  
Maximum: : 80.2 cd/m<sup>2</sup>

## 2.3 Calculation results, Exterior 1 - New Plan

### 2.3.4 3D luminance, View 4



Luminance in the scene

Minimum: : 0 cd/m<sup>2</sup>  
Maximum: : 80.2 cd/m<sup>2</sup>