

# Russell House Externals Rev B

Installation : Proposed New Lighting

Project number : QUO-82444-F3J2K9

Customer :

Processed by : Mitchell Lea

Date : 26.02.2024

## Project description:

All room/exterior area dimensions to be checked on-site prior to ordering.

Calculation based on standard reflectance values as 70/50/20 and Maintenance Factor 0.8.

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

It is the responsibility of the customer to ensure any scheme provided by Ansell meets all requirements of the end user.

Rev A: Added emergency fittings and removed wall mounted fittings to the carpark as existing lighting is already in place.

Rev B: Updated design to new layout and amended positions of fittings. Wall lights mounted at 3m throughout colour to be 4000K for all fittings as shown in this document.

Light spillage image has been shown within this report.

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# 1 Luminaire data

## 1.1 ANSELL, BULKHEADS - Wolf Mini ... (AWOLF/MINI/BLK/...)

### 1.1.1 Data sheet

Manufacturer: ANSELL



**AWOLF/MINI/BLK/SM3 (CW 4W) Ceiling mounted luminaire BULKHEADS - Wolf Mini Black 4000K**  
AWOLF/MINI/BLK/M3  
FLOODLIGHTING  
Wolf Mini Wallpack CCT Black

- Modern, robust die-cast aluminium low glare wall pack suitable for commercial and industrial applications
- Advanced lens technology offers wide distribution for optimum spacing and uniformity; whilst ensuring minimal uplight and light pollution
- Reduced light pollution with less than 1% upward light distribution, helps with compliance with Dark Skies recommendations
- Power selectable; offering a choice of 2 outputs, in one luminaire
- High efficiency up to 125 Lm/W
- Electrostatic paint finish for enhanced corrosion resistance
- Multiple conduit, 20mm East and West side entries and rear BESA mounting
- Dimmable and Smart options available

Operating Temp -20°C to 40°C

- Suitable for external use
- 5 Year Product Warranty
- IP65

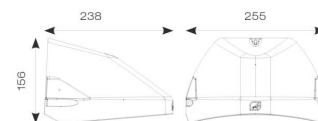
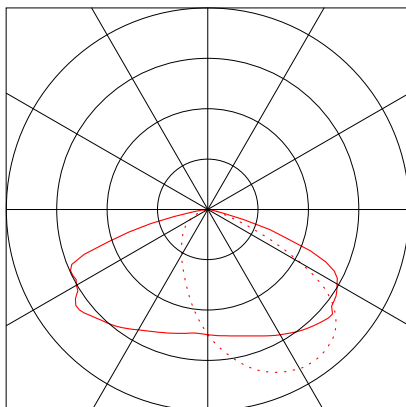
#### Luminaire data

Absolute Photometry  
Luminaire efficacy : 127.75 lm/W  
Classification : A30 ↓100.0% ↑0.0%  
CIE Flux Codes : 40 77 98 100 100  
UGR 4H 8H : 23.8 / 11.8  
Control gear : Electronic ballast  
Power : 4 W  
Luminous flux : 511 lm

#### Equipped with

Quantity : 1  
Designation : LED single 840  
Colour : 4000K  
Socket : --  
Colour reproduction : --

Dimensions : 210 mm x 210 mm x 0.0 mm



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## 1 Luminaire data

### 1.1 ANSELL, BULKHEADS - Wolf Mini ... (AWOLF/MINI/BLK/...)

#### 1.1.1 Data sheet

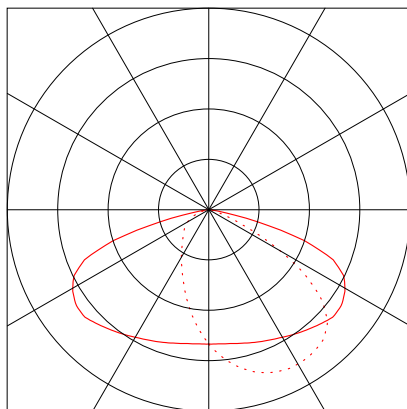
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##### Emergency Lighting

Emergency lighting with own light source

Absolute Photometry

Luminous flux : 405 lm



Object : Russell House Externals Rev B  
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# 1 Luminaire data

## 1.2 ANSELL, BOLLARDS - Taurus (ATALEDB/1000/M3)

### 1.2.1 Data sheet

Manufacturer: ANSELL



**ATALEDB/1000/M3 Freestanding uplighter BOLLARDS - Taurus**

ATALEDB/1000/M3

Amenity

Taurus LED

Supplied c/w Integral Driver

- Robust die-cast aluminium bollard with a textured graphite finish
- Die-cast aluminium head with polycarbonate lens
- Integral emergency option
- Supplied c/w root mounting kit
- LED lifespan L70 50,000 hours
- Non-dimmable

For emergency operation use luminous flux for emergency light of 242 lumens.

- Suitable for external use only
- 5 Year Product Warranty
- IP65

#### Luminaire data

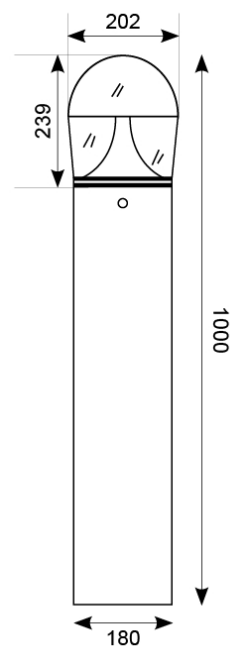
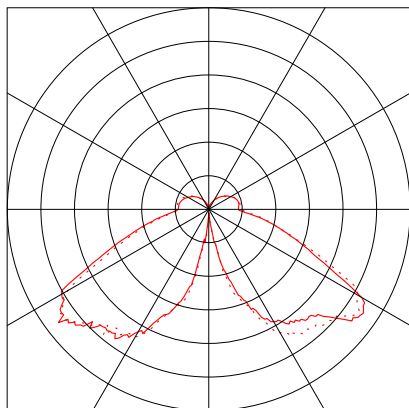
Absolute Photometry

Luminaire efficacy : 98.21 lm/W  
Classification : B21 ↓83.5% ↑16.5%  
CIE Flux Codes : 27 65 90 83 100  
UGR 4H 8H : 25.1 / 24.7  
Control gear : Electronic ballast  
Power : 24.6 W  
Luminous flux : 2416 lm

#### Equipped with

Quantity : 1  
Designation : LED  
Colour :  
Socket : --

Dimensions : Ø200 mm x 90 mm



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## 1 Luminaire data

### 1.2 ANSELL, BOLLARDS - Taurus (ATALEDB/1000/M3)

#### 1.2.1 Data sheet

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#### **Emergency Lighting**

Light source from normal operation with reduced flux

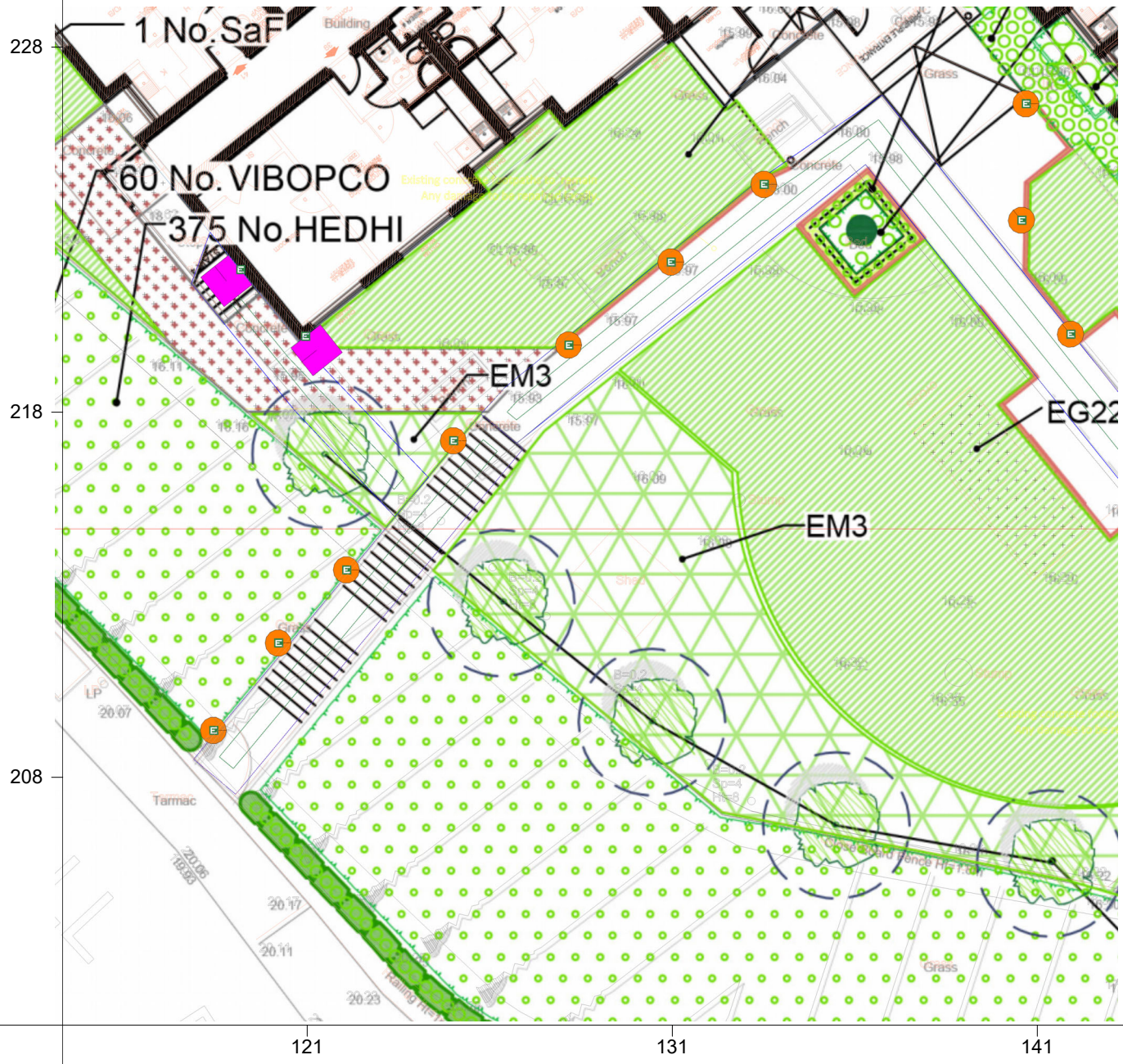
Luminous flux : 242 lm



## 2 Exterior 1

### 2.1 Description, Exterior 1

#### 2.1.1 Floor plan



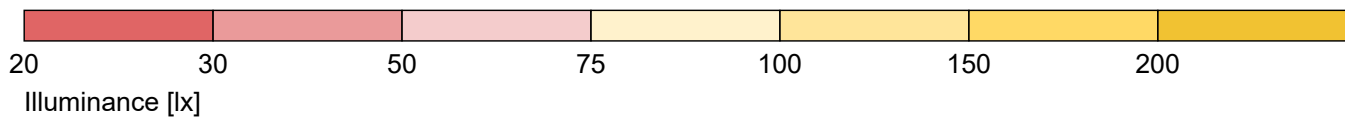
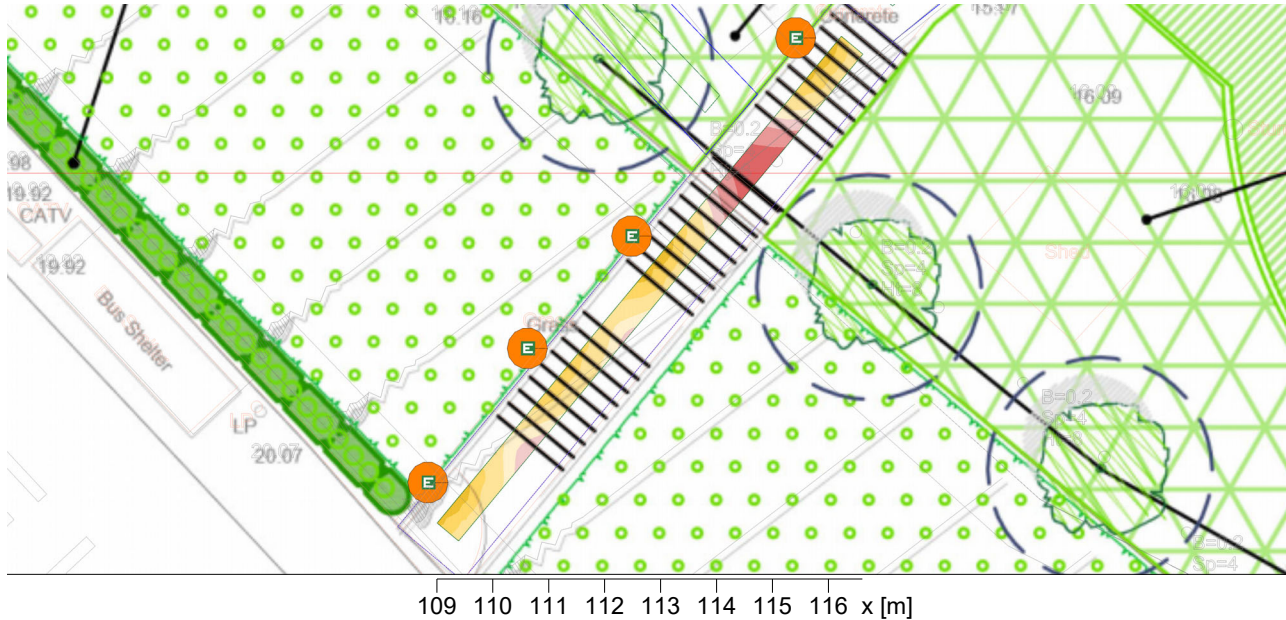
198



## 2 Exterior 1

### 2.2 Summary, Exterior 1

#### 2.2.1 Result overview, Walkway



#### General

Calculation algorithm used  
 Maintenance factor

Average indirect fraction  
 0.80

Total luminous flux

2416.00 lm

Total power

24.6 W

Total power per area (18.44 m<sup>2</sup>)

1.33 W/m<sup>2</sup> (1.15 W/m<sup>2</sup>/100lx)

#### Walkway


#### Reference plane 1.1

Horizontal  
 $\bar{E}_m$  116 lx  
 $E_{min}$  21 lx  
 $E_{min}/\bar{E}_m (U_o)$  0.18  
 $E_{min}/E_{max} (U_d)$  0.09  
 Position 0.00 m

#### Major surfaces

$\bar{E}_m$   $U_o$

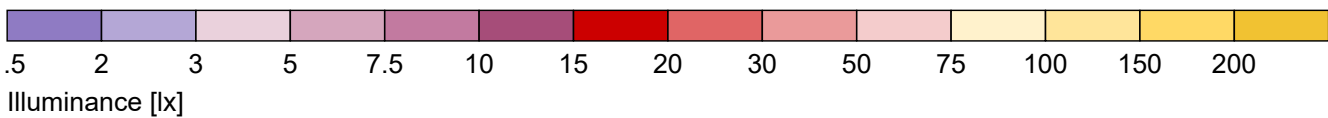
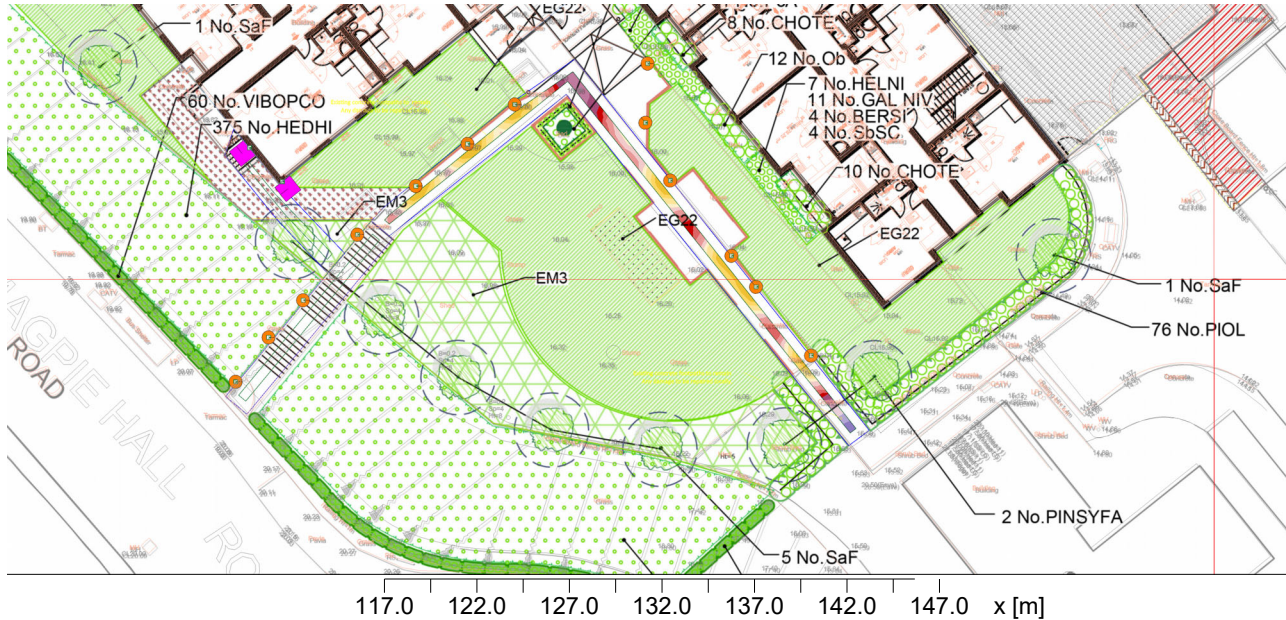
#### Type No. | Make

2 1 x **ANSELL**  
  
 Order No. : ATALEDB/1000/M3  
 Luminaire name : BOLLARDS - Taurus  
 Equipment : 1 x LED 24.6 W / 2416 lm  
 Emergency : 242 lm (10.0 %)



## 2.2 Summary, Exterior 1

### 2.2.2 Result overview, Walkway



#### General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	16912.00 lm
Total power	172.2 W
Total power per area (55.21 m <sup>2</sup> )	3.12 W/m <sup>2</sup> (3.59 W/m <sup>2</sup> /100lx)

#### Walkway


#### Reference plane 2.1

	Horizontal
$\bar{E}_m$	87 lx
$E_{min}$	2 lx
$E_{min}/\bar{E}_m (U_o)$	0.02
$E_{min}/E_{max} (U_d)$	0.01
Position	0.00 m

#### Major surfaces

$\bar{E}_m$	$U_o$
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#### Type No. I Make

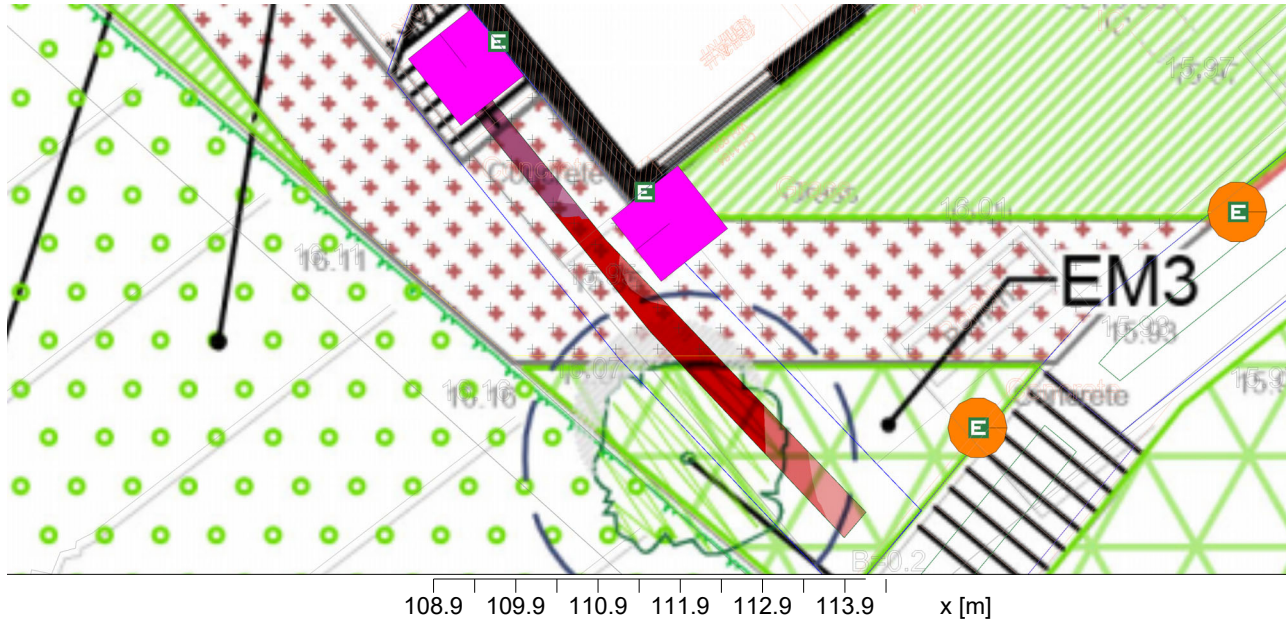
2	7 x	<b>ANSELL</b>	
		Order No.	: ATALEDDB/1000/M3
		Luminaire name	: BOLLARDS - Taurus
		Equipment	: 1 x LED 24.6 W / 2416 lm
		Emergency	: 242 lm (10.0 %)





## 2.2 Summary, Exterior 1

### 2.2.3 Result overview, Walkway



#### General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	511.00 lm
Total power	4.0 W
Total power per area (11.69 m <sup>2</sup> )	0.34 W/m <sup>2</sup> (1.74 W/m <sup>2</sup> /100lx)

#### Walkway


#### Reference plane 3.1

	Horizontal
$\bar{E}_m$	20 lx
$E_{min}$	10 lx
$E_{min}/\bar{E}_m (U_o)$	0.51
$E_{min}/E_{max} (U_d)$	0.22
Position	0.00 m

#### Major surfaces

$\bar{E}_m$	$U_o$
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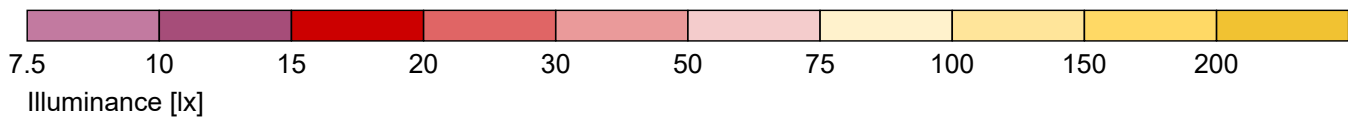
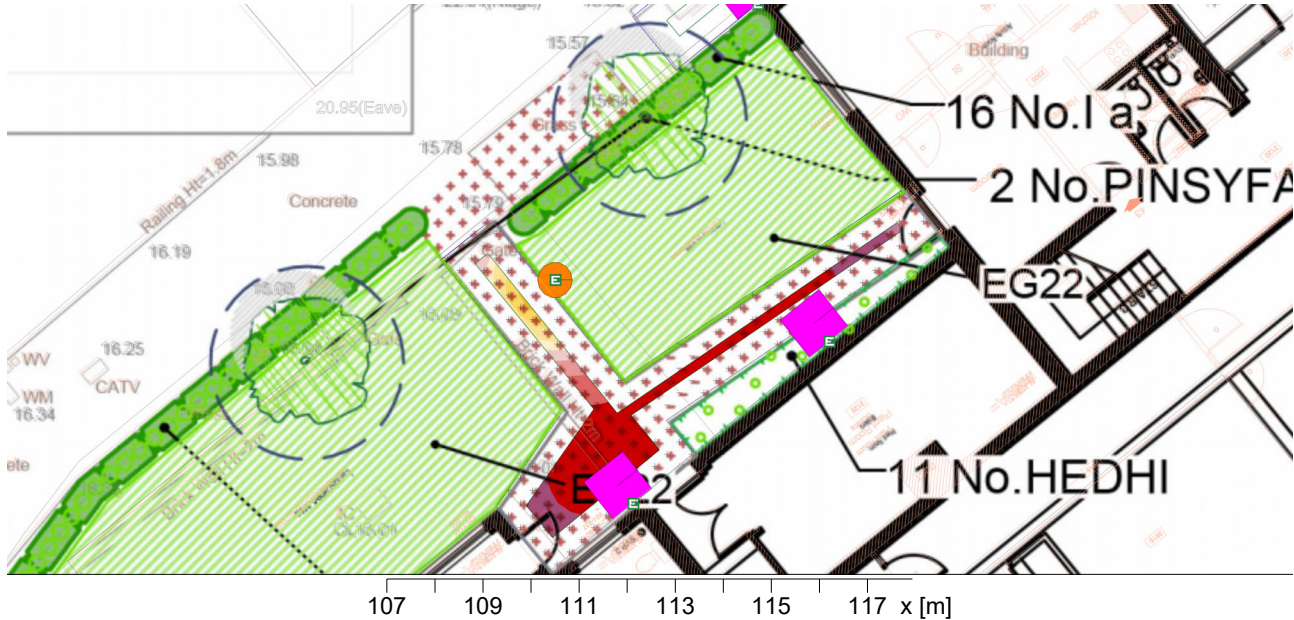
#### Type No./Make

1	1 x	<b>ANSELL</b>	
		Order No.	: AWOLF/MINI/BLK/SM3 (CW 4W)
		Luminaire name	: BULKHEADS - Wolf Mini Black 4000K
		Equipment	: 1 x LED single 840 4 W / 511 lm
		Emergency	: 405 lm (79.3 %)



## 2.2 Summary, Exterior 1

### 2.2.4 Result overview, Walkway



#### General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	511.00 lm
Total power	4.0 W
Total power per area (22.04 m <sup>2</sup> )	0.18 W/m <sup>2</sup> (0.52 W/m <sup>2</sup> /100lx)

#### Walkway

#### Reference plane 4.1

	Horizontal
$\bar{E}_m$	35 lx
$E_{min}$	10 lx
$E_{min}/\bar{E}_m (U_o)$	0.27
$E_{min}/E_{max} (U_d)$	0.05
Position	0.00 m

#### Major surfaces

$\bar{E}_m$	$U_o$
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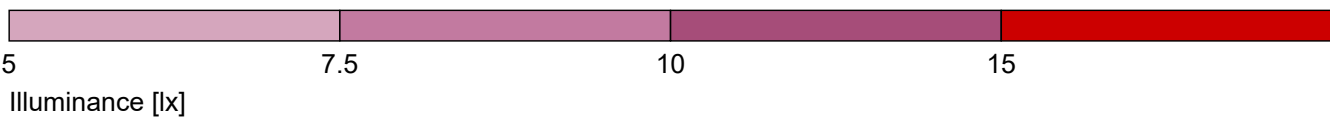
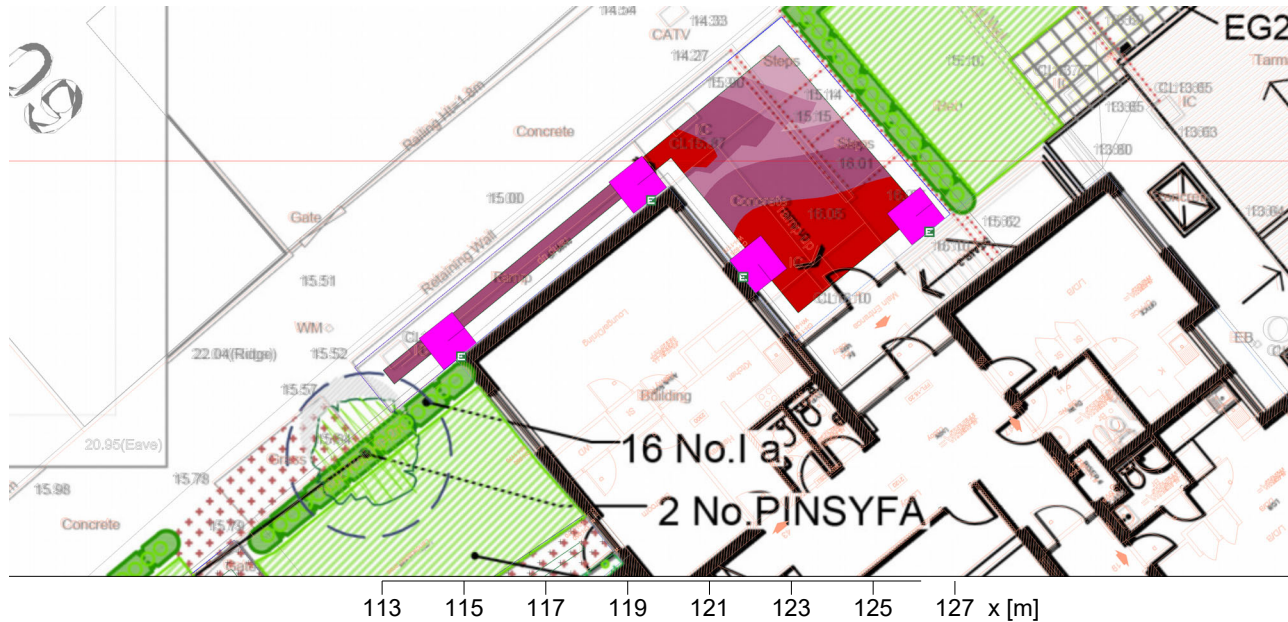
#### Type No. I Make

1	1 x	<b>ANSELL</b>	
		Order No.	: AWOLF/MINI/BLK/SM3 (CW 4W)
		Luminaire name	: BULKHEADS - Wolf Mini Black 4000K
		Equipment	: 1 x LED single 840 4 W / 511 lm
		Emergency	: 405 lm (79.3 %)



## 2.2 Summary, Exterior 1

### 2.2.5 Result overview, Walkway



#### General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	2044.00 lm
Total power	16.0 W
Total power per area (43.17 m <sup>2</sup> )	0.37 W/m <sup>2</sup> (2.79 W/m <sup>2</sup> /100lx)

#### Walkway


#### Reference plane 6.1

	Horizontal
$\bar{E}_m$	13 lx
$E_{min}$	5 lx
$E_{min}/\bar{E}_m (U_o)$	0.39
$E_{min}/E_{max} (U_d)$	0.27
Position	0.00 m

#### Major surfaces

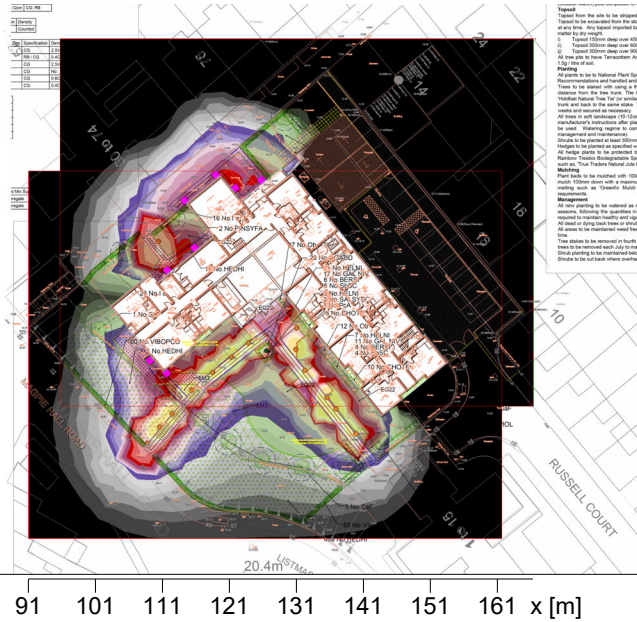
$\bar{E}_m$	$U_o$
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#### Type No. I Make

1	4 x	<b>ANSELL</b>	
		Order No.	: AWOLF/MINI/BLK/SM3 (CW 4W)
		Luminaire name	: BULKHEADS - Wolf Mini Black 4000K
		Equipment	: 1 x LED single 840 4 W / 511 lm
		Emergency	: 405 lm (79.3 %)

## 2.2 Summary, Exterior 1

### 2.2.6 Result overview, Light Spill





#### General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	37912.00 lm
Total power	376.4 W
Total power per area (5417.42 m <sup>2</sup> )	0.07 W/m <sup>2</sup> (1.46 W/m <sup>2</sup> /100lx)

#### Light Spill

<b>Light Spill</b>	<b>Light Spill</b>
$\bar{E}_m$	Horizontal
$E_{min}$	5 lx
$E_{min}/\bar{E}_m (U_o)$	0.0 lx
$E_{min}/E_{max} (U_d)$	---
Position	0.00 m

#### Type No./Make

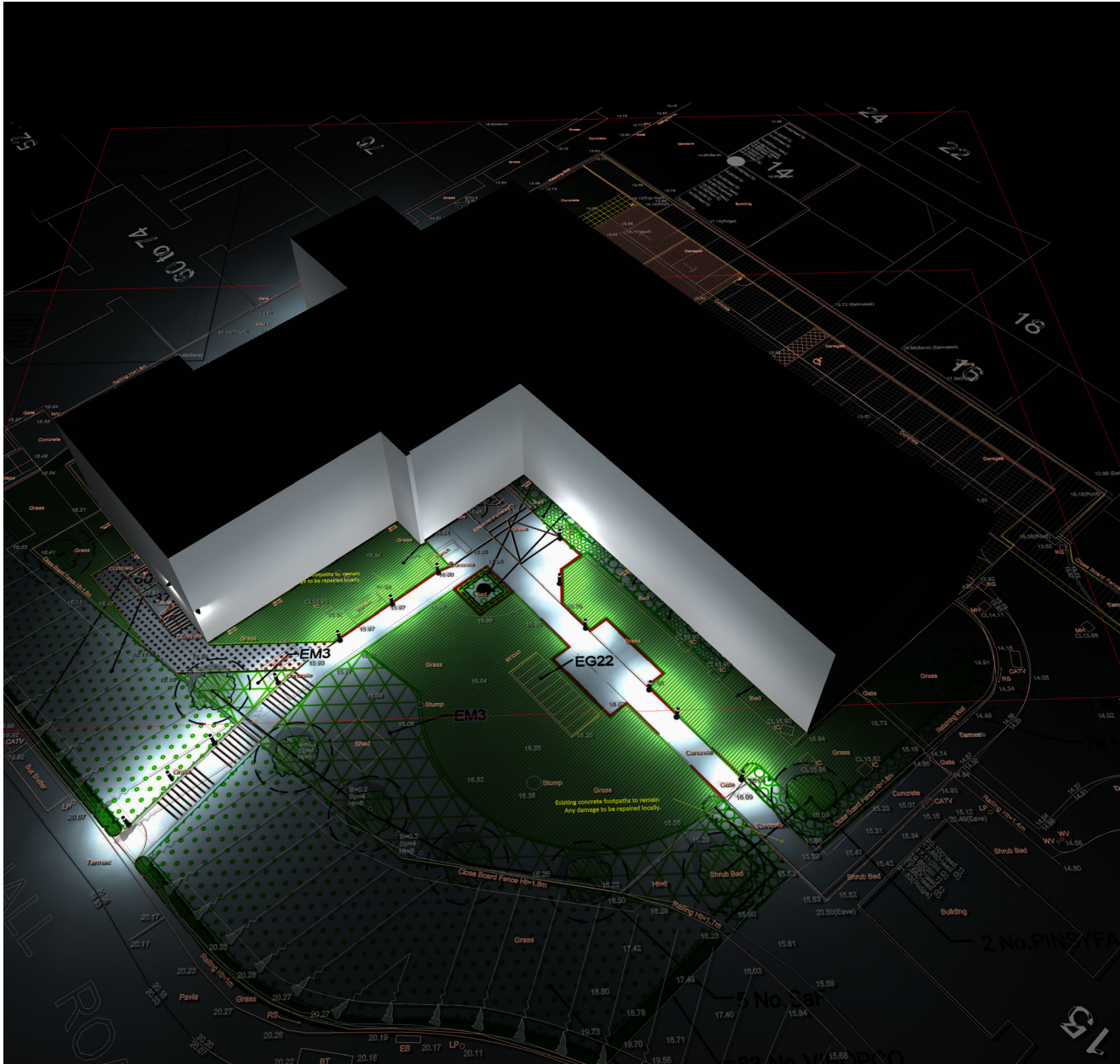
- |   |      |   |  |   |
|---|------|---|--|---|
| 1 | 8 x  |  | <b>ANSELL</b>                                      | Order No. : AWOLF/MINI/BLK/SM3 (CW 4W)      |
|   |      |   | Luminaire name : BULKHEADS - Wolf Mini Black 4000K | Equipment : 1 x LED single 840 4 W / 511 lm |
|   |      |   | Emergency : 405 lm (79.3 %)                        |   |
| 2 | 14 x |  | Order No. : ATALED/1000/M3                         | Luminaire name : BOLLARDS - Taurus          |
|   |      |   | Equipment : 1 x LED 24.6 W / 2416 lm               | Emergency : 242 lm (10.0 %)                 |



## 2 Exterior 1

### 2.3 Calculation results, Exterior 1

#### 2.3.3 3D luminance, View 1



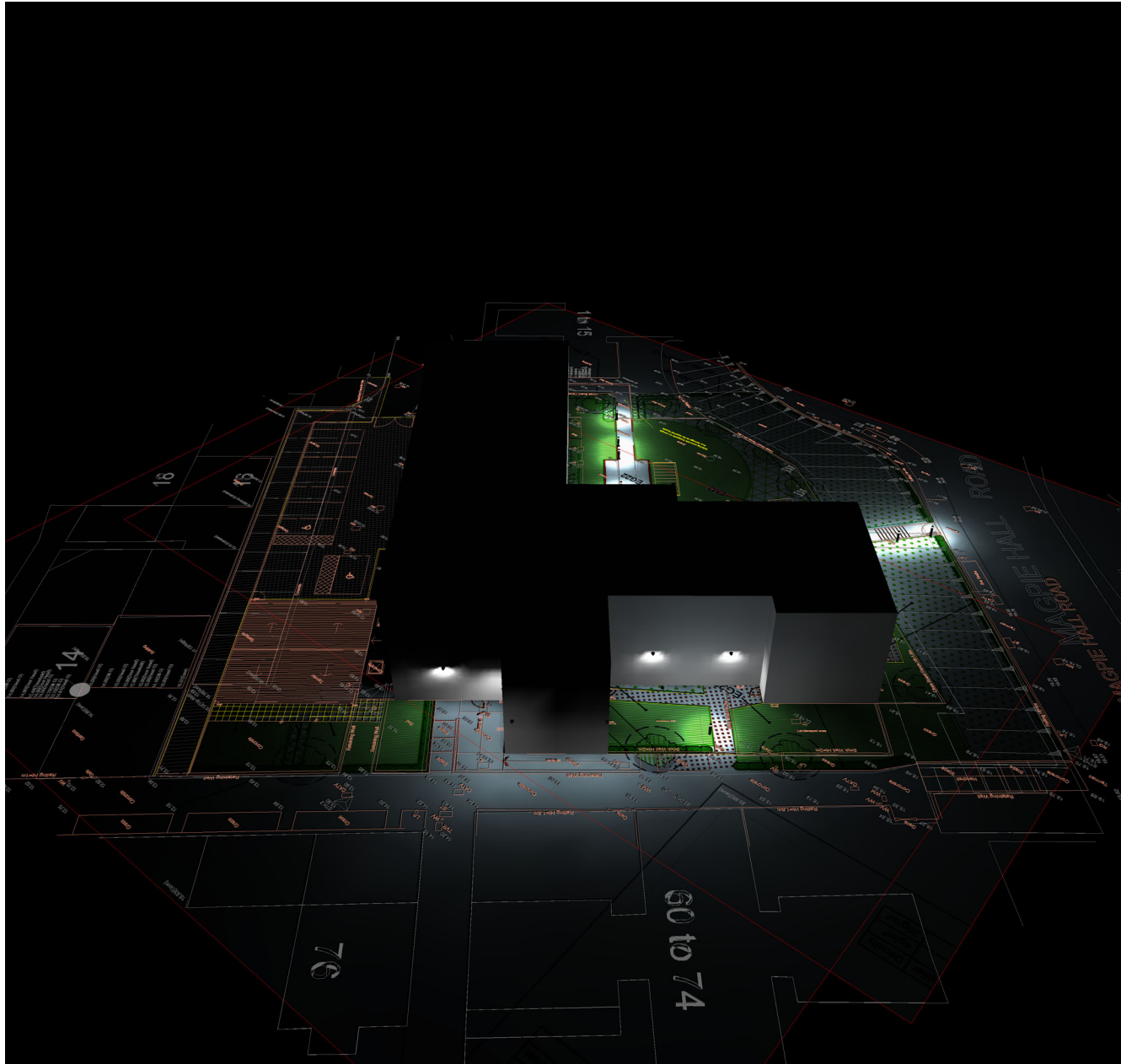
Object : Russell House Externals Rev B  
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## 2.3 Calculation results, Exterior 1

### 2.3.4 3D luminance, View 2

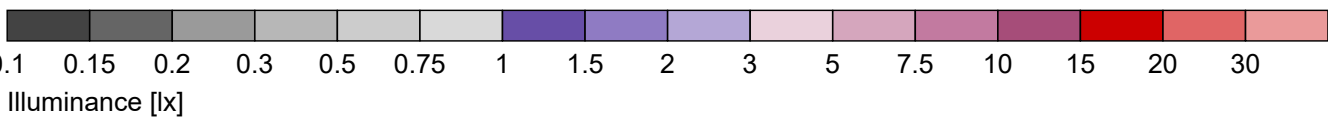
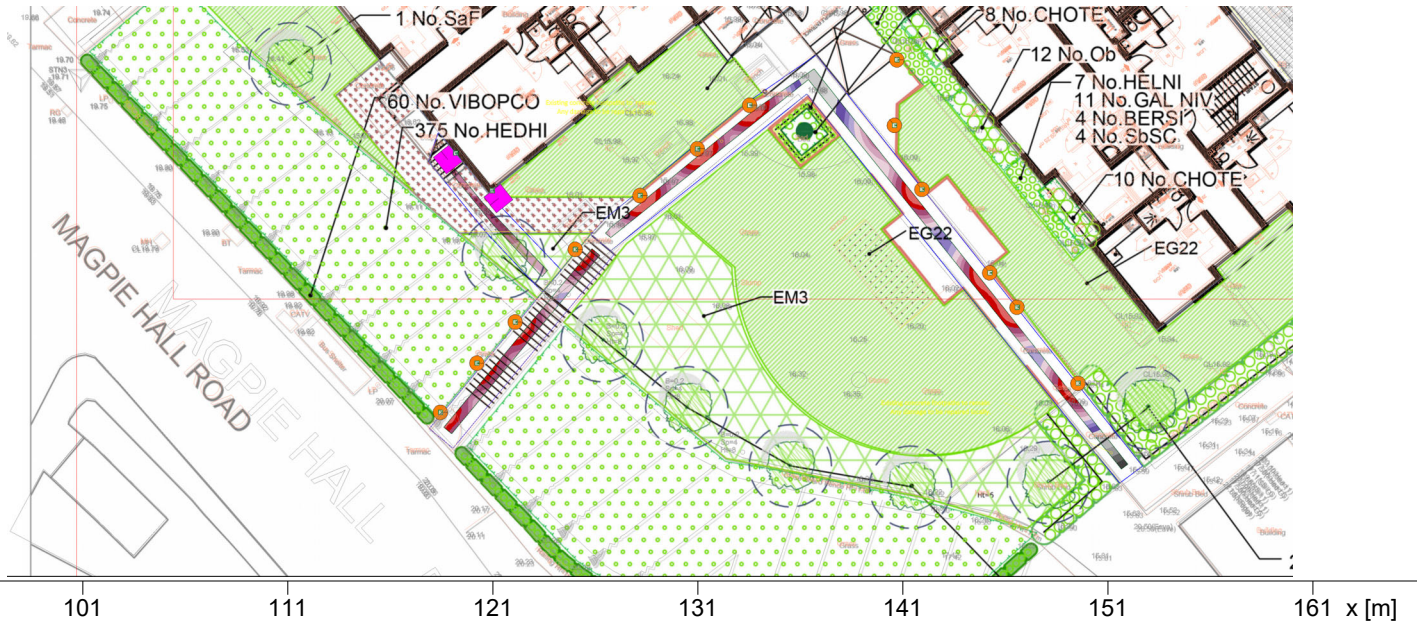




## 2 Exterior 1

### 2.4 Summary, Exterior 1

#### 2.4.1.1 Result overview (emergency lighting)

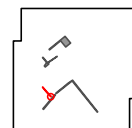
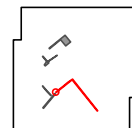
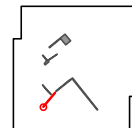


#### General

Calculation algorithm used : Direct component  
 Maintenance factor : 0.8  
 Height (phot. centre) -variable-  
 Maximum I : 150 cd

#### Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
<b>Anti panic area 1.1</b>			
Calculation field: 11.3m x 0.5m (92 x 4 pts), Height = 0.00m			
1	2.47 lx	25.00 lx	1: 10.14
	>= 1 lx		< 1 : 40
<b>Anti panic area 2.1</b>			
Calculation field: 26.76m x 12.66m (41 x 19 pts), Height = 0.00m			
2	0.12 lx	31.04 lx	1:269.39
	>= 0.5 lx		< 1 : 40
<b>Anti panic area 3.1</b>			
Calculation field: 5.21m x 6.08m (19 x 23 pts), Height = 0.00m			
3	4.58 lx	14.41 lx	1: 3.15
	>= 1 lx		< 1 : 40



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## 2 Exterior 1

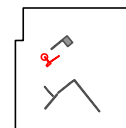
### 2.4 Summary, Exterior 1

#### 2.4.1.1 Result overview (emergency lighting)

##### Anti panic area 4.1

Calculation field: 5.42m x 9.69m (17 x 31 pts), Height = 0.00m

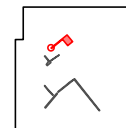
4	5.43 lx	23.93 lx	1: 4.41
	>= 1 lx		< 1 : 40



##### Anti panic area 6.1

Calculation field: 5.35m x 12.63m (21 x 50 pts), Height = 0.00m

5	3.24 lx	14.78 lx	1: 4.57
	>= 1 lx		< 1 : 40



#### Type No. Make

1 8 x



##### ANSELL

Order No. : AWOLF/MINI/BLK/SM3 (CW 4W)  
Luminaire name : BULKHEADS - Wolf Mini Black 4000K  
Equipment : 1 x LED single 840 4 W / 511 lm  
Emergency : 405 lm (79.3 %)

2 14 x



Order No. : ATALEDB/1000/M3  
Luminaire name : BOLLARDS - Taurus  
Equipment : 1 x LED 24.6 W / 2416 lm  
Emergency : 242 lm (10.0 %)