

# Withington Apartments External

Installation : Proposed New Installation

Project number : QUO-39813-T5G5Q8  
Customer : Barlow Electrical Supplies Ltd  
Processed by : Antonio Formisano  
Date : 14.04.2021

## Project description:

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

Calculation based on standard reflectance values as 20/30/30 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.

Emergency lighting design has been designed in accordance with BS5266/EN1838/ I.S. 3217 where applicable. The emergency lighting needs to be checked and approved by a local fire control officer and approved by the building owner. This emergency lighting does not include the calculation for the location of critical emergency items such as (Plant or Switch rooms location of task, Reception telephone, First Aid Points, Extinguisher points, Call points, push bars, fire panels, etc.) as there are not present on issued drawings, therefore higher require lux levels under emergency conditions cannot be design at this stage.

In the absence of a Fire Strategy plan, certain assumptions have been made in regard to Exit Sign based on the shortest Exit Routes. These are to be reviewed in order to verify accuracy for this particular prior to proceeding to order/installation. As Ansell have not been issued a risk assessment, we cannot accept responsibility for emergency lighting, therefore this emergency lighting design must be checked by a responsible person or building owner to confirm that assumed risk assessments are correct. In any circumstances, if assumptions being used in this emergency lighting calculation are not correct, we need to be informed and a new emergency calculation will be completed prior to customer order based on new risk assessment issued.

All rooms smaller than 60m<sup>2</sup> will be assumed as "no risk involved" as there is no risk assessment issued from the customer, therefore no emergency lighting will be provided at the design stage, therefore this emergency lighting design must be checked by a responsible person or building owner to confirm that assumed risk assessments are correct.

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

Please Note: the lighting scheme does not consider the contribution of luminaires not provided by Ansell. External Onix installed at 4m; Nappa installed at 2m; External Tornado Pro and Galaxy installed under the canopy at 2.4m; Duo Midi installed at 2.4m; Fidenza step light light installed at 0.3m

Rev. D (21/04/2021) - replaced Mattone bricklight with Fidenza

The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

This exclusion of liability applies irrespective of the legal grounds for both damages and consequential damages suffered by users and third parties.

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## 1 Luminaire data

### 1.1 ANSELL, EMERGENCY - Swift LED Bulkhead (ASWTLED/3M)

#### 1.1.1 Data sheet

Manufacturer: ANSELL



#### ASWTLED/3M Escape luminaires EMERGENCY - Swift LED Bulkhead

ASWTLED/3M

Emergency Swift LED Bulkhead 3W LED White

Swift LED Bulkhead

supplied c/w Legend and Integral Driver

Small and unobtrusive LED bulkhead

Supplied with self-adhesive

Optic design provides optimum performance for escape route lighting

Side and rear cable entries

Screwless gear tray for ease of installation

Viewing distance 17 metres

(Maintained / Non-Maintained)

- Suitable for both internal and external use
- 3 Year Product Warranty
- IP65

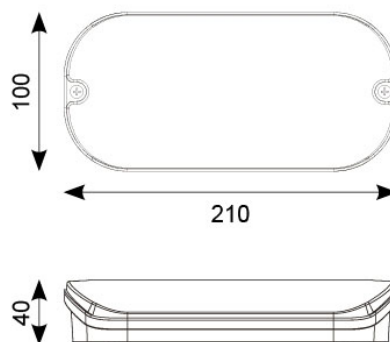
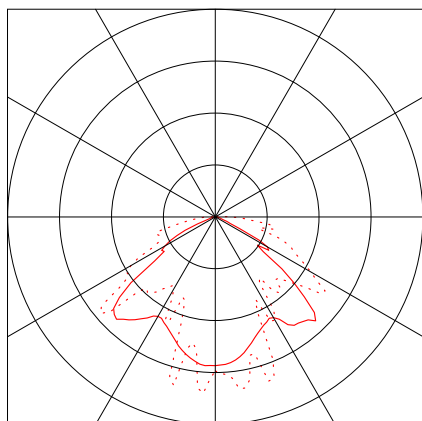
#### Luminaire data

|                      |                      |
|----------------------|----------------------|
| Luminaire efficiency | : 35.4%              |
| Luminaire efficacy   | : 17.26 lm/W         |
| Classification       | : A40 ↓98.9% ↑1.1%   |
| CIE Flux Codes       | : 41 73 92 99 35     |
| UGR 4H 8H            | : 11.9 / 17.6        |
| Control gear         | : Electronic ballast |
| Power                | : 4 W                |
| Luminous flux        | : 69 lm              |

#### Equipped with

|                     |              |
|---------------------|--------------|
| Quantity            | : 1          |
| Designation         | : LED        |
| Colour              | : 840/4000K  |
| Luminous flux       | : 195 lm     |
| Socket              | : --         |
| Colour reproduction | : 1B/80...89 |

Dimensions : 210 mm x 100 mm x 40 mm



#### Emergency Lighting

Light source from normal operation with reduced flux

Luminous flux : 195 lm

Object : Withington Apartments External  
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# 1 Luminaire data

## 1.2 ANSELL, INDUSTRIAL - Tornado Pro LE... (ATORPLED5/M3)

### 1.2.1 Data sheet

Manufacturer: ANSELL



**ATORPLED5/M3 Ceiling mounted luminaire INDUSTRIAL - Tornado Pro LED Non-Corrosive**

ATORPLED5/M3

INDUSTRIAL

Tornado Pro LED Non-Corrosive

LED 29W

Supplied c/w Integral Driver

- Exceeds performance of standard T5 fluorescent
- Ultra slim IP65 LED NCF linear.
- Unique base design caters for multiple installation methods.
- Installer friendly imbedded features aid accurate and fast installation for any application.
- Quick release LED array / gear tray assembly provides the installer the means to faster installation / maintenance.
- Fast latching / permanently located stainless steel side clips ensure a quick and secure connection
- Tridonic LED driver as standard
- Self-test emergency as standard with Li-ion battery technology, reducing charge time and running costs
- LED lifespan L80 B10 54,000 hours

Options

/M3 Self-Test Emergency

/DM3 DALI Emergency

/OCTO OCTO Smart Control

/MWS Integral Microwave Sensor

/DD Digital Dimming (DD1/DD2/DD3/DD4)

Operating Temp -10°C to 40°C

- Suitable for both internal and external use
- 5 Year Product Warranty
- IP65

Luminaire arrangement for:

ATORPLED5/M3

|                                       | Position |        |        | Rotation |       |        |
|---------------------------------------|----------|--------|--------|----------|-------|--------|
|                                       | x[m]     | y[m]   | z[m]   | Z[°]     | C0[°] | C90[°] |
| (ATORPLED/5 1x29W) :                  | 0.000    | 0.000  | -0.030 | 0        | 0     | 0      |
| INDUSTRIAL - Tornado IP65 LED No... : | 0.000    | -0.020 | -0.060 | 0        | 0     | 0      |

Position is the LDC position of the luminaire.

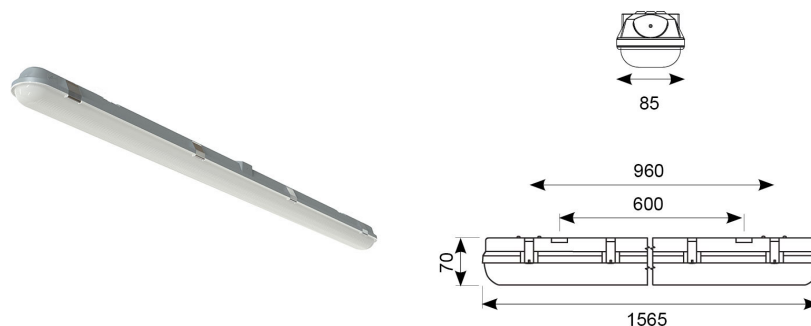
Object : Withington Apartments External  
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## 1 Luminaire data

### 1.2 ANSELL, INDUSTRIAL - Tornado Pro LE... (ATORPLED5/M3)

#### 1.2.1 Data sheet



#### ATORPLED/5

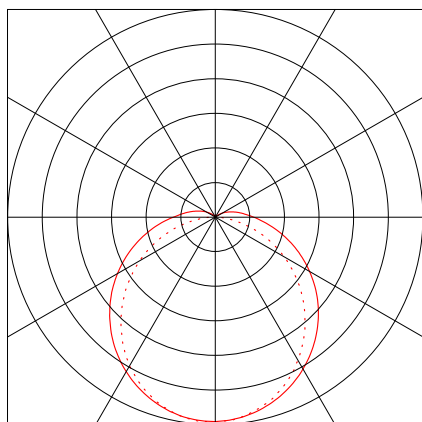
##### Luminaire data

Absolute Photometry  
Luminaire efficacy : 110.66 lm/W  
Classification : A31 ↓ 93.4% ↑ 6.6%  
CIE Flux Codes : 43 72 91 93 100  
UGR 4H 8H : 21.4 / 21.5  
Control gear : Electronic ballast  
Power : 29 W  
Luminous flux : 3209 lm

##### Equipped with

Quantity : 1  
Designation :  
Colour :

Dimensions : 1548 mm x 70 mm x 70 mm



Object : Withington Apartments External  
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## 1 Luminaire data

### 1.2 ANSELL, INDUSTRIAL - Tornado Pro LE... (ATORPLED5/M3)

#### 1.2.1 Data sheet

##### ATORPLED EM Module

##### INDUSTRIAL - Tornado IP65 LED Non-Corrosive

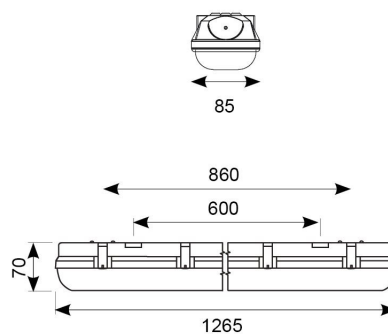
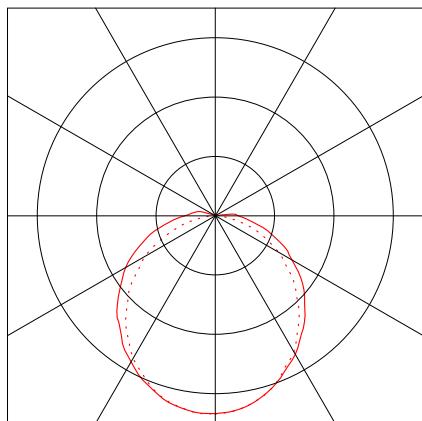
##### Luminaire data

Absolute Photometry  
Luminaire efficacy : 70.67 lm/W  
Classification : A41 ↓ 97.2% ↑ 2.8%  
CIE Flux Codes : 45 75 93 97 100  
UGR 4H 8H : 15.9 / 13.4  
Control gear : Electronic ballast  
Power : 3 W  
Luminous flux : 212 lm

Dimensions : 100 mm x 1200 mm x 1 mm

##### Equipped with

Quantity : 1  
Designation : LED  
Colour : 840/4000K  
Colour reproduction : 1B/80...89



##### Emergency Lighting

Light source from normal operation with reduced flux

Luminous flux : 212 lm

Object : Withington Apartments External  
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## 1 Luminaire data

### 1.3 ANSELL, DISPLAY - Galaxy CCT LED... (AGALED/1/CCT/CW)

#### 1.3.1 Data sheet

Manufacturer: ANSELL



**AGALED/1/CCT/CW ceiling recessed mount fixed LED downlight**      **DISPLAY - Galaxy CCT LED Downlight**

AGALED/1/CCT/CW

DISPLAY

Galaxy CCT LED Downlight

Supplied c/w Remote Driver

- Compact IP65 LED Downlight which out performs twin 18W and 26W PLC lamp variants
- One product provides both 3000K and 4000K colour temperature options
- Identical cut-out dimensions to replace Galaxy PLC
- Fitting and driver pre-wired with ST18 connectors
- Faceted reflector and optical fresnel lens provides outstanding performance, uniformity and glare control
- Removable twist on, twist off bezel provides option of utilising alternative bezel
- Dimmable and Emergency options
- LED lifespan L70 50,000 hours

#### Options

/M3 Remote Emergency

/DD LED Dimmable

/DD/M3 LED Dimmable Emergency

#### Trim Bezel

AGPL/TB/CH Twist On Trim Bezel - Chrome

AGPL/TB/SC Twist On Trim Bezel - Satin Chrome

#### Remote Emergency Box Dimensions

Length 415mm, Width 145mm,

Depth 70mm

- Suitable for internal use only
- 5 Year Product Warranty
- Bathroom Zone 2 BSEN7671:2008
- IP65

#### Luminaire data

Luminaire efficiency : 82.2%  
Luminaire efficacy : 103.85 lm/W  
Classification : A50 ↓99.9% ↑0.1%  
CIE Flux Codes : 62 87 98 100 82  
UGR 4H 8H : 22.5 / 21.5  
Control gear : Electronic ballast  
Power : 15 W  
Luminous flux : 1557.7 lm

Dimensions : Ø226 mm x 8 mm

#### Equipped with

Quantity : 1  
Designation : LED  
Colour : 840/4000K  
Luminous flux : 1895 lm  
Socket : --  
Colour reproduction : 1B/80...89

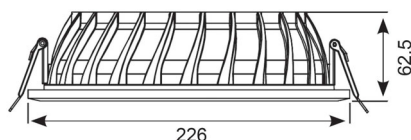
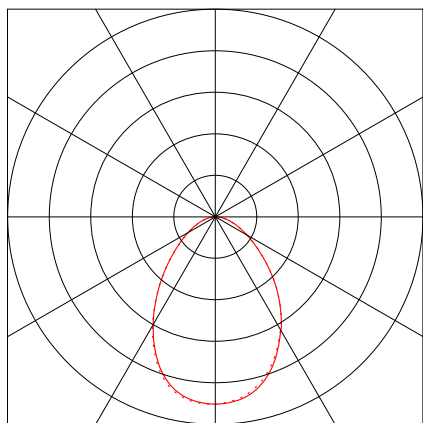
Object : Withington Apartments External  
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## 1 Luminaire data

### 1.3 ANSELL, DISPLAY - Galaxy CCT LED... (AGALED/1/CCT/CW)

#### 1.3.1 Data sheet



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## 1 Luminaire data

### 1.4 ANSELL, FLOODLIGHTING - Onix LED Stre... (AONIXLED/1)

#### 1.4.1 Data sheet

Manufacturer: ANSELL



#### AONIXLED/1 Street luminaire FLOODLIGHTING - Onix LED Street Light

AONIXLED/1

FLOODLIGHTING

Onix LED Street Light

LED 20W - Cool White

Supplied c/w Integral Driver

- Die-cast aluminium construction for optimal heat dissipation for optimal performance
- UV stabilized polycarbonate cover
- Toolless gear tray removal for ease of maintenance
- Built in anti-tamper isolation facility
- Compatible with post top or side entry utility 76mm spigot
- IK10 Rated
- G3 Glare Rating
- Surge protection
- Available in standard, complete with photocell option
- LED lifespan L70 50,000 hours

Options

/PC Electronic Photocell

Accessories

AONIXLED/SBA 48-60mm Spigot Bracket

Operating Temp -20°C to 50°C

- 5 Year Product Warranty
- IP66

#### Luminaire data

Absolute Photometry

Luminaire efficacy

: 103.89 lm/W

Classification

: A30 ↓100.0% ↑0.0%

CIE Flux Codes

: 37 77 99 100 100

UGR 4H 8H

: 31.9 / 20.3

Control gear

: Electronic ballast

Power

: 19 W

Luminous flux

: 1974 lm

Dimensions

: 400 mm x 220 mm x 95 mm

#### Equipped with

Quantity

: 1

Designation

: LED

Colour

: 840/4000K

Socket

: --

Colour reproduction

: 1B/80...89

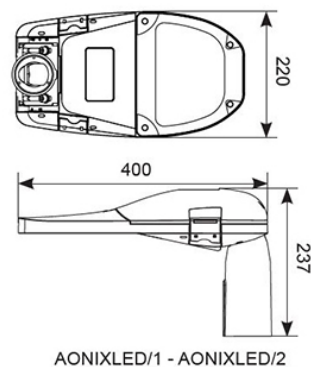
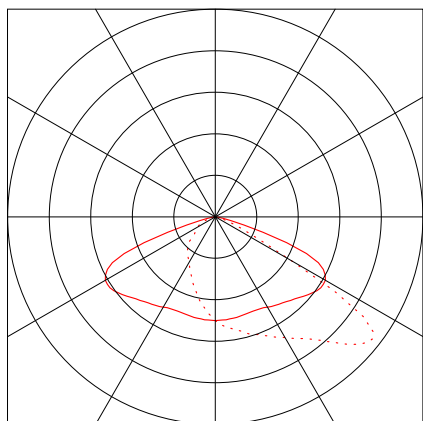
Object : Withington Apartments External  
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## 1 Luminaire data

### 1.4 ANSELL, FLOODLIGHTING - Onix LED Stre... (AONIXLED/1)

#### 1.4.1 Data sheet



Object : Withington Apartments External  
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## 1 Luminaire data

### 1.5 ANSELL, AMENITY - Nappa LED CC... (ANAPLED/B/M3 - ...)

#### 1.5.1 Data sheet

Manufacturer: ANSELL



ANAPLED/B/M3 - CW 18W

ceiling surface fixed wall wash luminaire

AMENITY - Nappa LED CCT

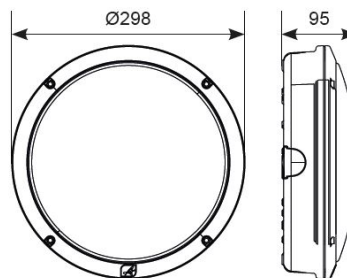
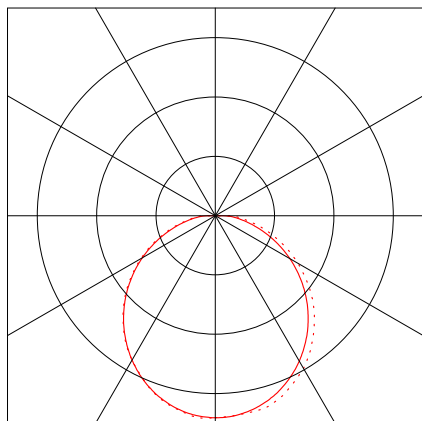
#### Luminaire data

Absolute Photometry  
Luminaire efficacy : 134.62 lm/W  
Classification : A40 ↓100.0% ↑0.0%  
CIE Flux Codes : 46 76 93 100 100  
UGR 4H 8H : 23.1 / 23.0  
Control gear : Electronic ballast  
Power : 18.4 W  
Luminous flux : 2477 lm

#### Equipped with

Quantity : 1  
Designation : LED  
Colour : 840/4000K  
Socket : --  
Colour reproduction : 1B/80...89

Dimensions : Ø325 mm x 125 mm



Object : Withington Apartments External  
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## 1 Luminaire data

### 1.5 ANSELL, AMENITY - Nappa LED CC... (ANAPLED/B/M3 - ...)

#### 1.5.1 Data sheet

##### Emergency Lighting

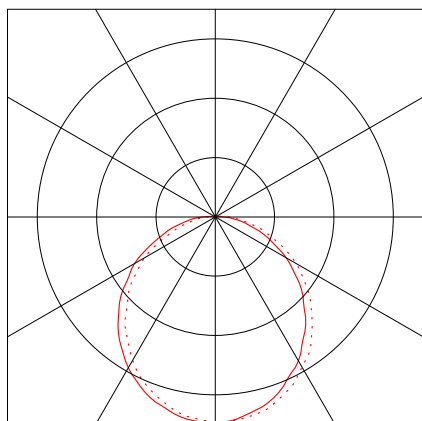
Emergency lighting with own light source

Absolute Photometry

Luminaire efficacy : 22.11 lm/W

Power : 18 W

Luminous flux : 397.9 lm



Object : Withington Apartments External  
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## 1 Luminaire data

### 1.6 ANSELL, AMENITY - Duo Midi LED (ADMLED1/GR/CW)

#### 1.6.1 Data sheet

Manufacturer: ANSELL



ADMLED1/GR/CW Bi-Directional Wall Light AMENITY - Duo Midi LED

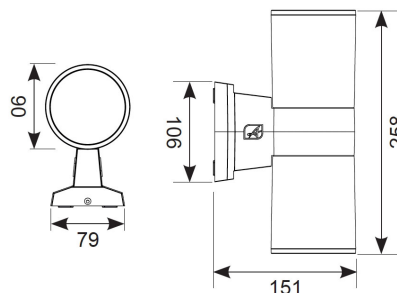
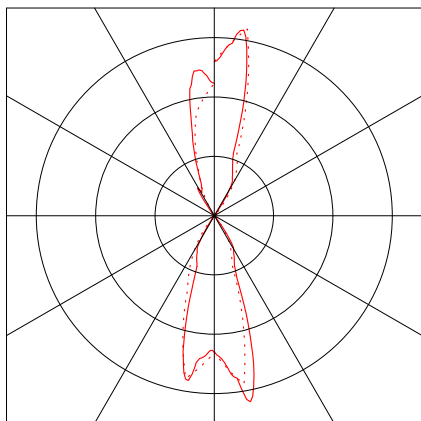
#### Luminaire data

Absolute Photometry  
Luminaire efficacy : 86.71 lm/W  
Classification : C84 ↓54.6% ↑45.4%  
CIE Flux Codes : 97 100 100 55 100  
UGR 4H 8H : <10.0 / <10.0  
Control gear : Electronic ballast  
Power : 19 W  
Luminous flux : 1647.5 lm

#### Equipped with

Quantity : 1  
Designation : LED  
Colour : 840/4000K  
Socket : -  
Colour reproduction : 1B/80...89

Dimensions : Ø90 mm x 258 mm



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## 1 Luminaire data

### 1.7 Ansell Lighting, Fidenza Brick Light + ... (AFBLLED + AFBL/EYE)

#### 1.7.1 Data sheet

Manufacturer: Ansell Lighting

#### AFBLLED + AFBL/EYE

#### Fidenza Brick Light + Eyelid

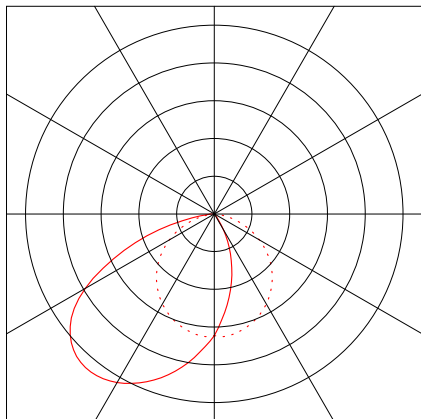
##### Luminaire data

Luminaire efficiency : 100%  
Luminaire efficacy : 21.75 lm/W  
Classification : A40 ↓99.9% ↑0.1%  
CIE Flux Codes : 44 77 96 100 100  
UGR 4H 8H : <10.0 / 20.0  
Power : 1.94 W  
Luminous flux : 42.2 lm

##### Equipped with

Quantity : 1  
Designation :  
Colour : 4158  
Luminous flux : 42.2 lm  
Colour reproduction : 86.7

Dimensions : 220 mm x 85 mm x 10 mm



The logo for Ansell Lighting features a large, stylized white 'A' with a dynamic, sweeping line through it. To the right of the 'A' is the word 'nsell' in a bold, white, sans-serif font. Below 'nsell' is the word 'LIGHTING' in a smaller, white, all-caps, sans-serif font. The entire logo is set against a dark red background.

### 2.1.1 Floor plan



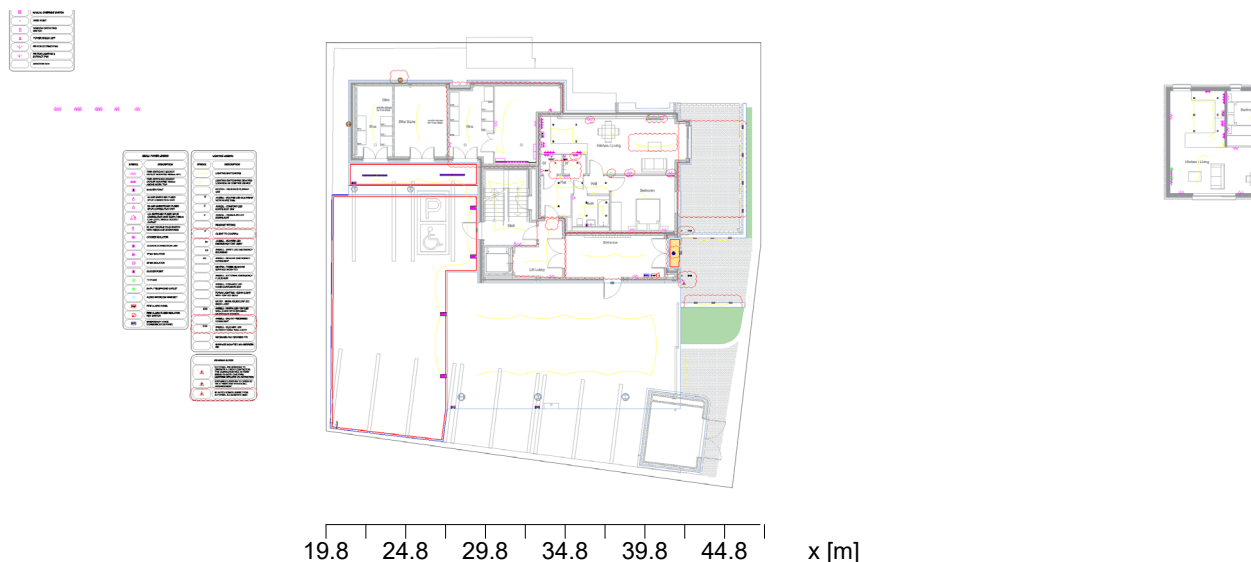
Object : Withington Apartments External  
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## 2 Exterior

### 2.2 Summary, Exterior

#### 2.2.1 Result overview, Entrance



75

100

Illuminance [lx]

#### General

Calculation algorithm used  
 Maintenance factor

Average indirect fraction  
 0.80

Total luminous flux of all lamps  
 Total power  
 Total power per area (1.52 m<sup>2</sup>)

2090.00 lm  
 19.0 W  
 12.53 W/m<sup>2</sup> (10.36 W/m<sup>2</sup>/100lx)

#### Entrance

#### Reference plane 3.1

Horizontal  
 E<sub>m</sub> 121 lx  
 E<sub>min</sub> 96 lx  
 E<sub>min</sub>/E<sub>m</sub> (U<sub>0</sub>) 0.80  
 E<sub>min</sub>/E<sub>max</sub> (U<sub>d</sub>) 0.65  
 Upward light ratio (ULR) 0.07  
 Position 0.00 m

#### Type No. Make

#### ANSELL

1 1



Order No. : ASWTLED/3M -- Emergency Lighting --  
 Luminaire name : EMERGENCY - Swift LED Bulkhead  
 Equipment : 1 x LED 4 W / 195 lm (0%)

3 1



Order No. : AGALED/1/CCT/CW  
 Luminaire name : DISPLAY - Galaxy CCT LED Downlight  
 Equipment : 1 x LED 15 W / 1895 lm

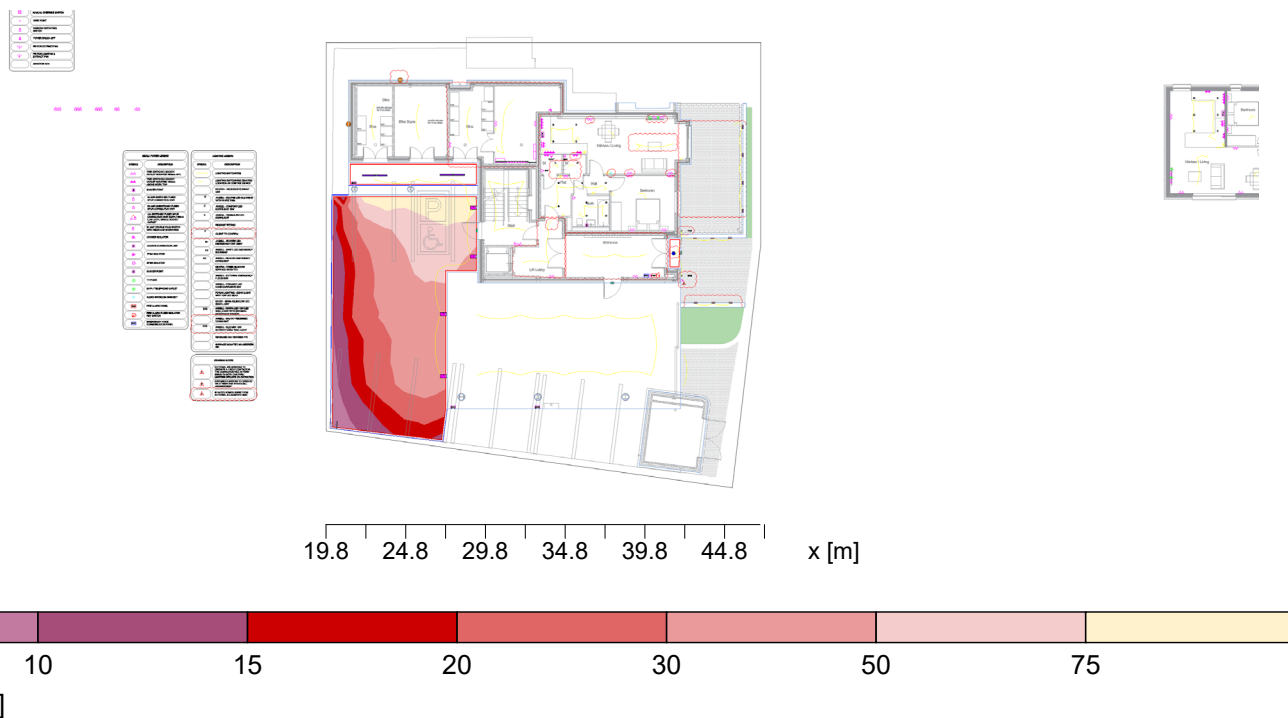
Produced by  
 Ansell Lighting - Lighting Design Department

Object : Withington Apartments External  
 Installation : Proposed New Installation  
 Project number : QUO-39813-T5G5Q8  
 Date : 14.04.2021



## 2.2 Summary, Exterior

### 2.2.2 Result overview, Uncovered Carpark



#### General

Calculation algorithm used  
 Maintenance factor

Average indirect fraction  
 0.80

Total luminous flux of all lamps  
 Total power  
 Total power per area (118.31 m<sup>2</sup>)

8091.00 lm  
 80.0 W  
 0.68 W/m<sup>2</sup> (1.91 W/m<sup>2</sup>/100lx)

#### Uncovered Carpark

#### Reference plane 1.1

Horizontal

Em 35 lx  
 Emin 9 lx  
 Emin/Em (Uo) 0.26  
 Emin/Emax (Ud) 0.10  
 Upward light ratio (ULR) 0.07  
 Position 0.00 m

#### Type No. Make

#### ANSELL

1 1  
 Order No. : ASWTLED/3M -- Emergency Lighting --  
 Luminaire name : EMERGENCY - Swift LED Bulkhead  
 Equipment : 1 x LED 4 W / 195 lm (0%)

4 4  
 Order No. : AONIXLED/1  
 Luminaire name : FLOODLIGHTING - Onix LED Street Light  
 Equipment : 1 x LED 19 W / 1974 lm

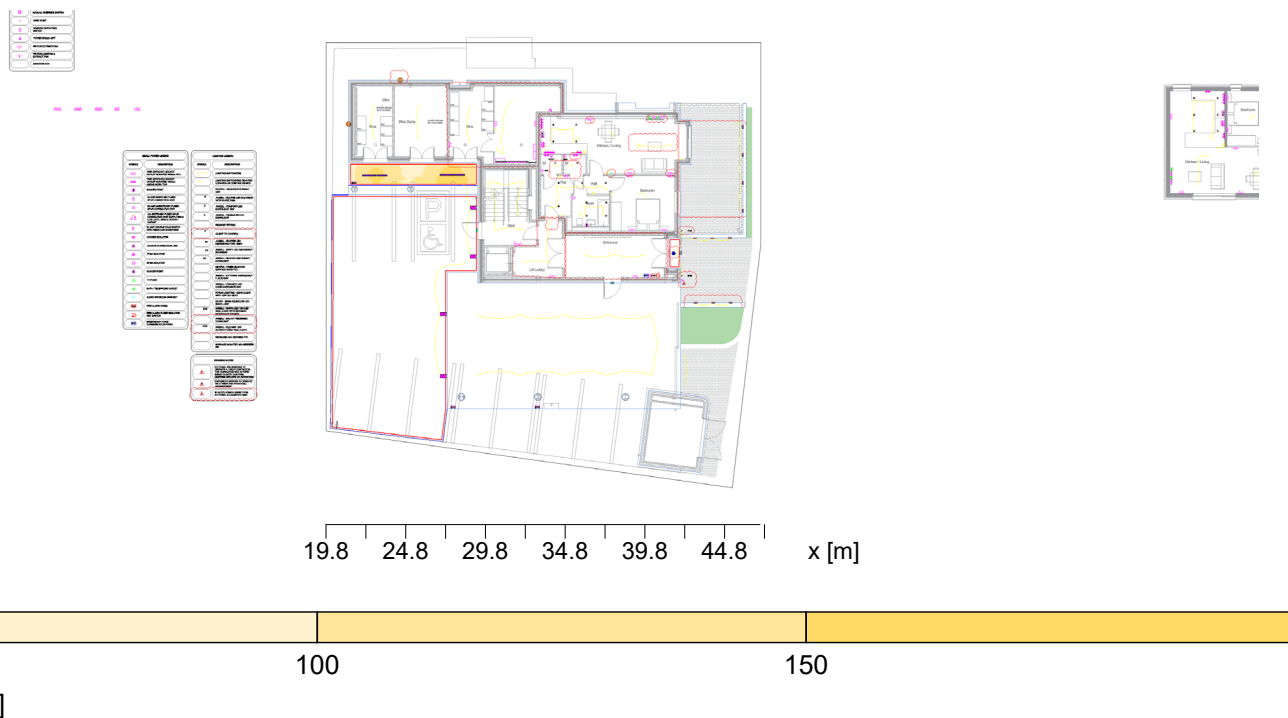
Produced by  
 Ansell Lighting - Lighting Design Department

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## 2.2 Summary, Exterior

### 2.2.3 Result overview, Bin Store Lobby



#### General

Calculation algorithm used  
 Maintenance factor

Average indirect fraction  
 0.80

Total luminous flux of all lamps  
 Total power  
 Total power per area (11.71 m<sup>2</sup>)

6842.00 lm  
 64.0 W  
 5.46 W/m<sup>2</sup> (4.45 W/m<sup>2</sup>/100lx)

#### Bin Store Lobby

#### Reference plane 2.1

Horizontal  
 Em 123 lx  
 Emin 78 lx  
 Emin/Em (Uo) 0.64  
 Emin/Emax (Ud) 0.44  
 Upward light ratio (ULR) 0.07  
 Position 0.00 m

#### Type No. \ Make

|   |   |                |                                              |
|---|---|----------------|----------------------------------------------|
| 2 | 2 | <b>ANSELL</b>  |                                              |
|   |   | Order No.      | : ATORPLED5/M3                               |
|   |   | Luminaire name | : INDUSTRIAL - Tornado Pro LED Non-Corrosive |
|   |   | with           | : 1 x ATORPLED/5                             |
|   |   | Equipment      | : 1 x 29 W / 3209 lm                         |
|   |   | with           | : 1 x ATORPLED EM Module                     |
|   |   | Equipment      | : 1 x LED 3 W / 212 lm (0%)                  |