



GTR - New Factory And Unit B

Installation : Proposed Lighting

Project number :
Customer :
Processed by : Dominic Harkness
Date : 04.01.2021

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.

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 60m² 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.

Note: All column mounted fittings are mounted at 8m FFL. All wall mounted fittings are mounted at 8m except Doppio which is mounted at 4m FFL.

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, FLOODLIGHTING - Onix LED Stre... (AONIXLED/2)

1.1.1 Data sheet

Manufacturer: ANSELL



AONIXLED/2 Street luminaire FLOODLIGHTING - Onix LED Street Light
AONIXLED/2
FLOODLIGHTING
Onix LED Street Light
LED 40W - 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 -40°C to 50°C

- 5 Year Product Warranty
- IP66

Luminaire data

Absolute Photometry

Luminaire efficacy : 98.4 lm/W
Classification : A30 ↓100.0% ↑0.0%
CIE Flux Codes : 37 77 99 100 100
UGR 4H 8H : 34.3 / 22.7
Control gear : Electronic ballast
Power : 40 W
Luminous flux : 3936 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

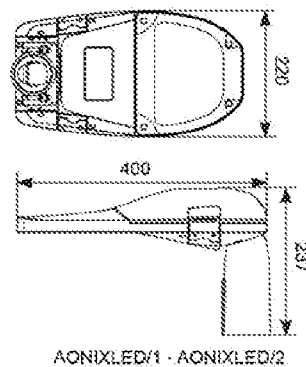
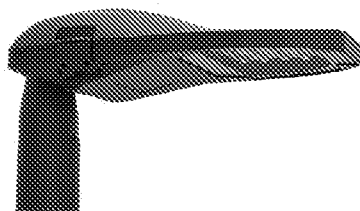
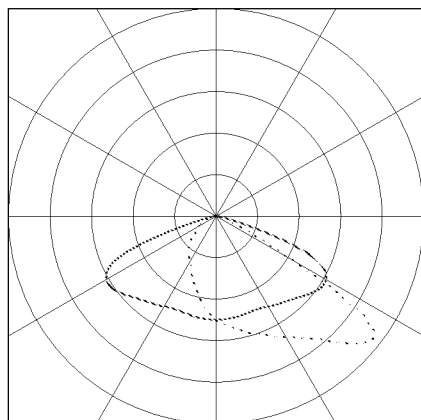
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1 Luminaire data

1.1 ANSELL, FLOODLIGHTING - Onix LED Stre... (AONIXLED/2)

1.1.1 Data sheet



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1 Luminaire data

1.2 ANSELL, AMENITY - Doppio LED (ADOLEDWL)

1.2.1 Data sheet

Manufacturer: ANSELL



ADOLEDWL Ceiling / wall-mounted luminaires AMENITY - Doppio LED

ADOLEDWL

Amenity Directional Wall

Doppio LED

Supplied c/w Integral Driver

LED 20W Cool White

High performance architectural bi-directional wall light

Exceeds performance of 50W HQI

Die-cast aluminium construction with graphite paint finish

20° beam angle

L70 50,000 hours average lifetime

Non-dimmable

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

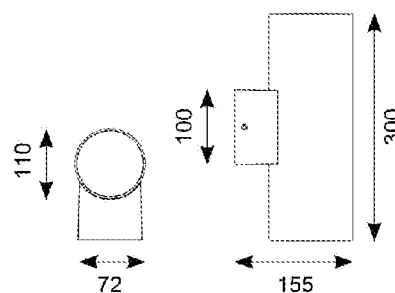
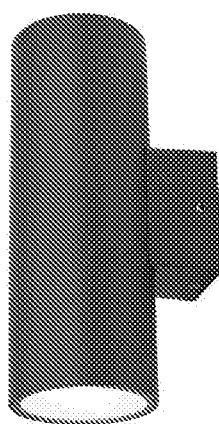
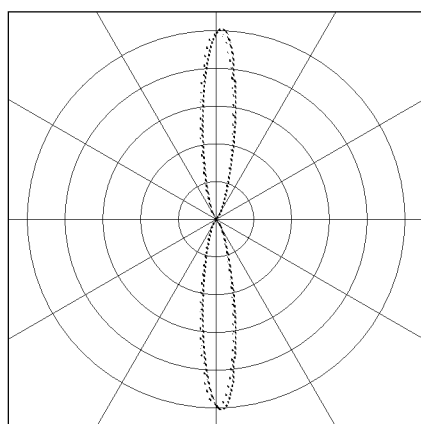
Luminaire data

Luminaire efficiency	: 82.816%
Luminaire efficacy	: 49.93 lm/W
Classification	: C84 ↓50.0% ↑50.0%
CIE Flux Codes	: 96 100 100 50 83
UGR 4H 8H	: <10.0 / <10.0
Control gear	: Electronic ballast
Power	: 34 W
Luminous flux	: 1697.7 lm

Equipped with

Quantity	: 1
Designation	: LED
Colour	: 840/4000K
Luminous flux	: 2050 lm
Socket	: --
Colour reproduction	: 1B/80...89

Dimensions : Ø110 mm x 300 mm



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1 Luminaire data

1.3 ANSELL, FLOODLIGHTING - Aztec LED A... (AAZLED50/ASY)

1.3.1 Data sheet

Manufacturer: ANSELL



AAZLED50/ASY Rectangular projector FLOODLIGHTING - Aztec LED Asymmetric Floodlight
 AAZLED50/ASY
 FLOODLIGHTING
 Aztec LED Asymmetric Floodlight
 LED 50W - Cool White

Supplied c/w Integral Driver

- High performance die-cast aluminium LED floodlight
- High output, high efficiency asymmetric lens technology for anti-light pollution
- Pre-installed breathable gland prevents condensation
- High specification IP66, IK08 ratings
- 60x120° beam angle
- 50W exceeds performance of 70W HQI-TS
- Pre-wired with 1.5 metre of rubber insulated cable for ease of installation
- LED lifespan L80 B10 54,000 hours
- Non-dimmable

Option
 /PIR

Operating Temp -30°C to 50°C

- Suitable for external use
- 5 Year Product Warranty
- IP66

Luminaire data

Absolute Photometry
 Luminaire efficacy : 134.54 lm/W
 Classification : A40 ↓100.0% ↑0.0%
 CIE Flux Codes : 44 86 99 100 100
 UGR 4H 8H : 37.0 / 30.9
 Control gear : Electronic ballast
 Power : 50 W
 Luminous flux : 6727 lm

 Dimensions : 164 mm x 98 mm x 1 mm

Equipped with

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

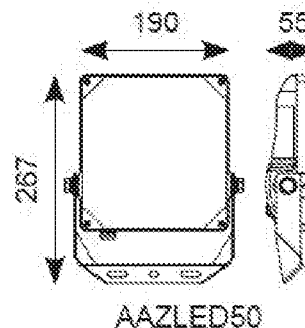
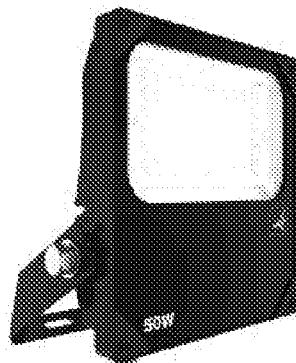
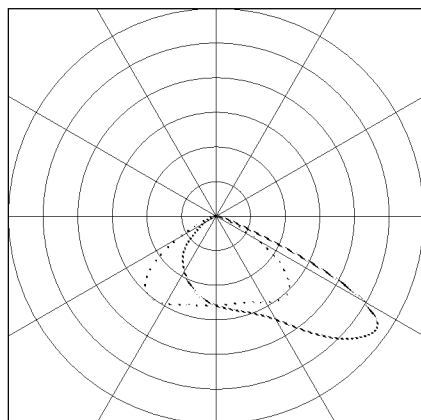
Object : GTR - New Factory And Unit B
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1 Luminaire data

1.3 ANSELL, FLOODLIGHTING - Aztec LED A... (AAZLED50/ASY)

1.3.1 Data sheet



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1 Luminaire data

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

1.4.1 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

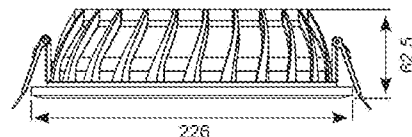
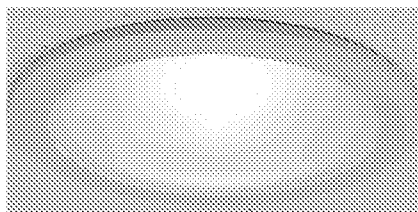
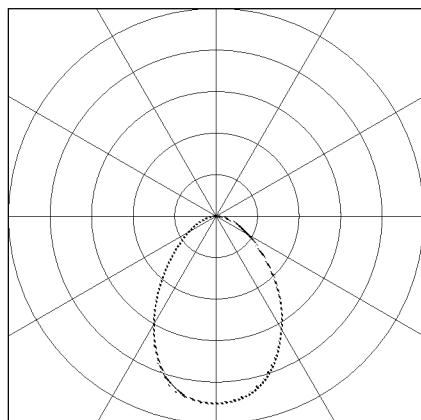
Object : GTR - New Factory And Unit B
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1 Luminaire data

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

1.4.1 Data sheet

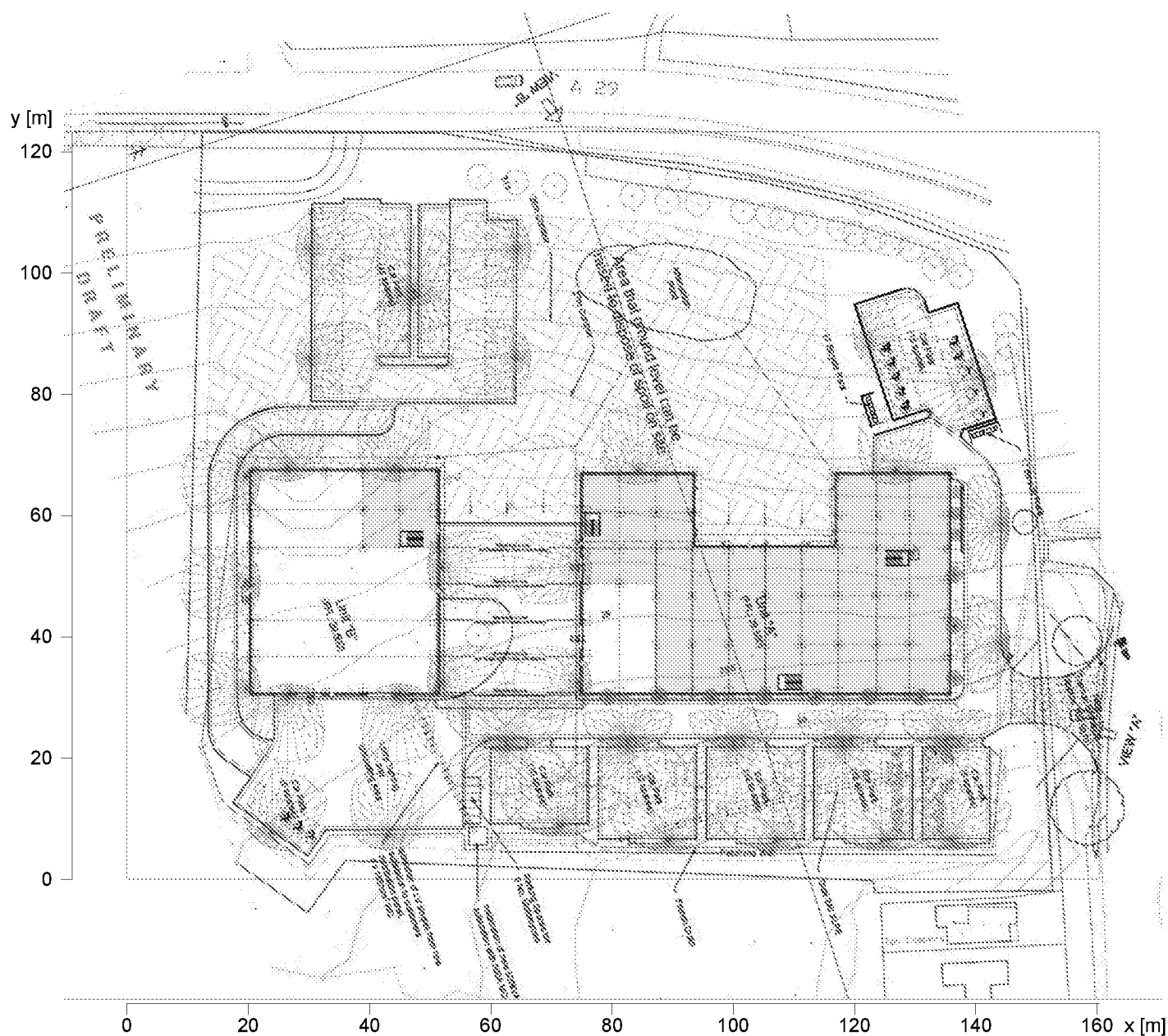




2 Exterior 1

2.1 Description, Exterior 1

2.1.1 Floor plan



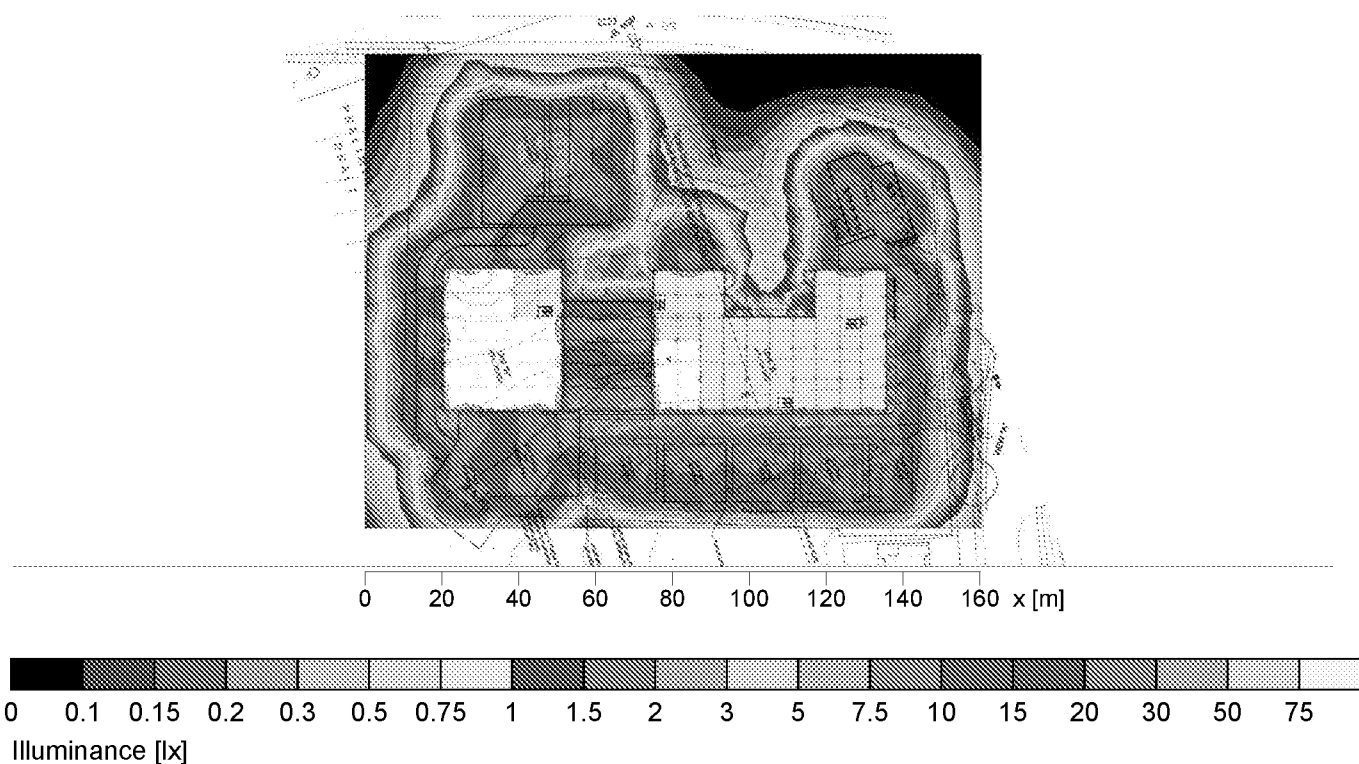
Object : GTR - New Factory And Unit B
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 Project number :
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2 Exterior 1

2.2 Summary, Exterior 1

2.2.1 Result overview, Light Spill



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Total luminous flux of all lamps

261660.00 lm

Total power

2268.0 W

Total power per area (19748.96 m²)

0.11 W/m² (1.11 W/m²/100lx)

Light Spill

Reference plane 1.1

Horizontal

Em 10.4 lx
 Emin 0 lx
 Emin/Em (Uo) 0.00
 Emin/Emax (Ud) 0.00
 Upward light ratio (ULR) 0.04
 Position 0.00 m

Type No. Make

1 17



ANSELL

Order No. : AONIXLED/2
 Luminaire name : FLOODLIGHTING - Onix LED Street Light
 Equipment : 1 x LED 40 W / 3936 lm

2 7



Order No. : ADOLEDWL
 Luminaire name : AMENITY - Doppio LED
 Equipment : 1 x LED 34 W / 2050 lm

Object : GTR - New Factory And Unit B
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2 Exterior 1

2.2 Summary, Exterior 1

2.2.1 Result overview, Light Spill

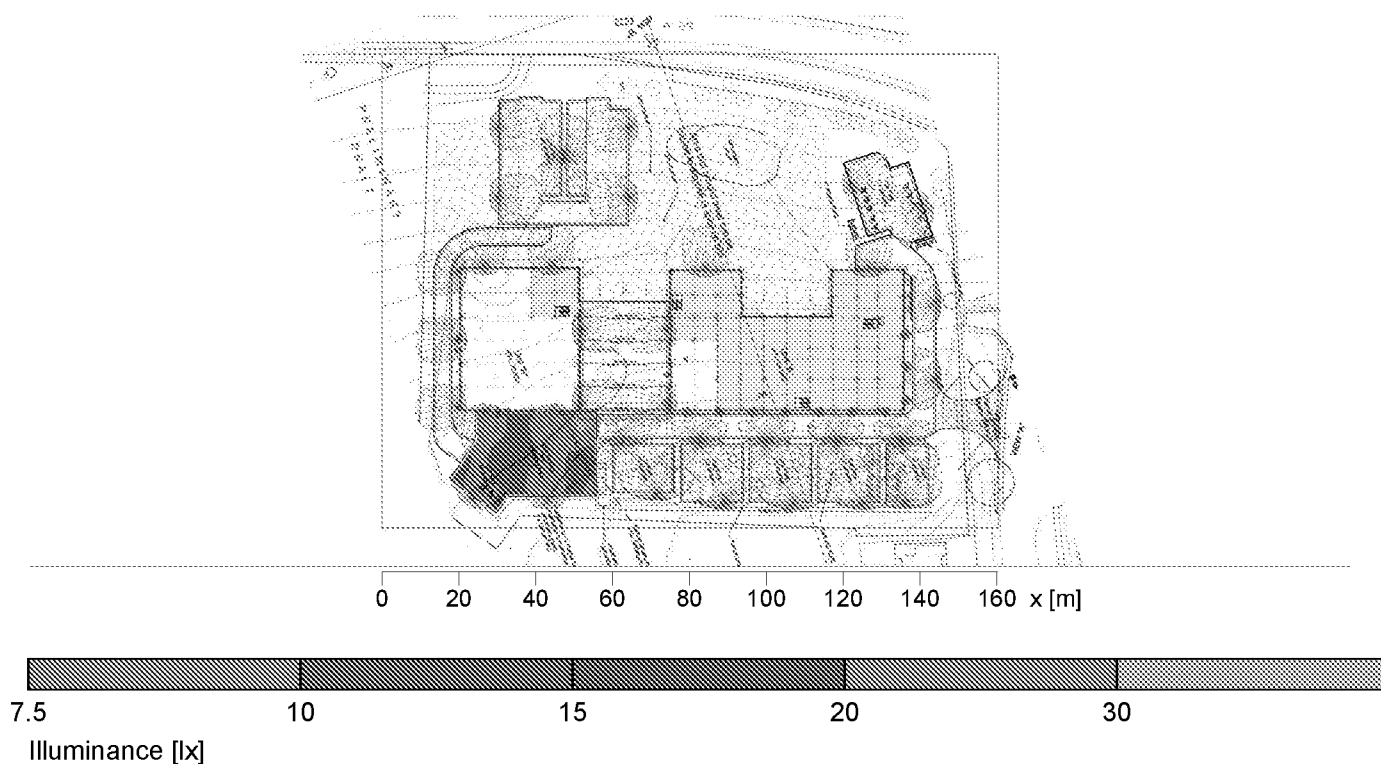
- | | | | |
|---|----|----------------|---|
| 3 | 24 | Order No. | : AAZLED50/ASY |
|  | | Luminaire name | : FLOODLIGHTING - Aztec LED Asymmetric Floodlight |
| | | Equipment | : 1 x LED single 840 50 W / 6727 lm |
| 4 | 10 | Order No. | : AGALED/1/CCT/CW |
|  | | Luminaire name | : DISPLAY - Galaxy CCT LED Downlight |
| | | Equipment | : 1 x LED 15 W / 1895 lm |

Object : GTR - New Factory And Unit B
 Installation : Proposed Lighting
 Project number :
 Date : 04.01.2021



2.2 Summary, Exterior 1

2.2.2 Result overview, Lorry Turning



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Total luminous flux of all lamps

13454.00 lm

Total power

100.0 W

Total power per area (759.58 m²)

0.13 W/m² (0.67 W/m²/100lx)

Lorry Turning

User profile

Reference plane 4.1

General circulation areas at outdoor work places

5.1.3 (EN 12464-2, 05.2014) Regular vehicle traffic (max. 40 km/h) (Ra >20.00)

Horizontal

Em 19.5 lx (≥ 20 lx)

Emin 8.2 lx

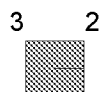
Emin/Em (Uo) 0.42 (≥ 0.40)

Emin/Emax (Ud) 0.24

Upward light ratio (ULR) 0.04

Position 0.00 m

Type No. Make



ANSELL

Order No. : AAZLED50/ASY

Luminaire name : FLOODLIGHTING - Aztec LED Asymmetric Floodlight

Equipment : 1 x LED single 840 50 W / 6727 lm

Object : GTR - New Factory And Unit B
 Installation : Proposed Lighting
 Project number :
 Date : 04.01.2021



2.2 Summary, Exterior 1

2.2.3 Result overview, Central Area



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Total luminous flux of all lamps

26908.00 lm

Total power

200.0 W

Total power per area (652.65 m²)

0.31 W/m² (1.53 W/m²/100lx)

Central Area

Reference plane 12.1

Horizontal

Em	20 lx	(>= 20 lx)
Emin	12.6 lx	
Emin/Em (Uo)	0.63	(>= 0.40)
Emin/Emax (Ud)	0.40	
Upward light ratio (ULR)	0.04	
Position	0.00 m	

Type No. Make

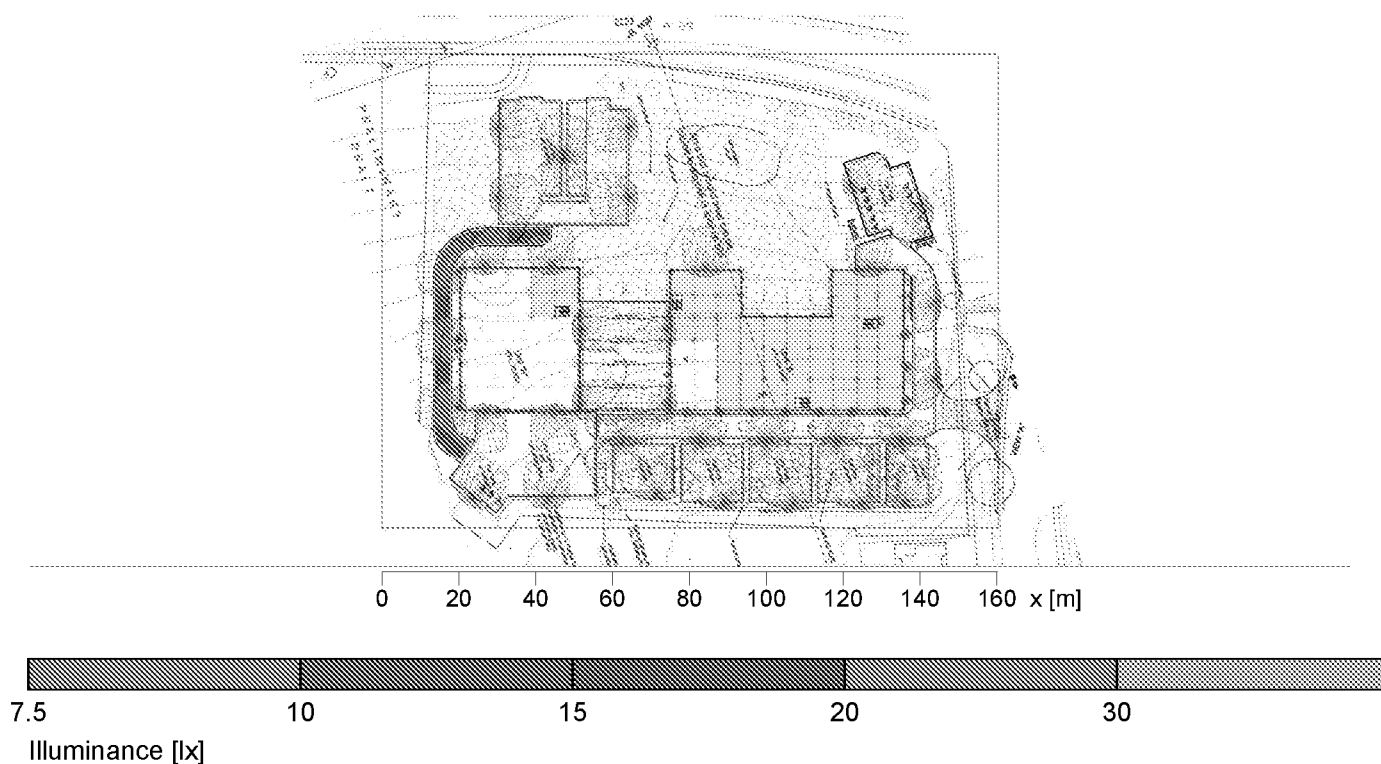
3	4	ANSELL	
		Order No.	: AAZLED50/ASY
		Luminaire name	: FLOODLIGHTING - Aztec LED Asymmetric Floodlight
		Equipment	: 1 x LED single 840 50 W / 6727 lm

Object : GTR - New Factory And Unit B
 Installation : Proposed Lighting
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2.2 Summary, Exterior 1

2.2.4 Result overview, Road



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Road

User profile

Reference plane 3.1

General circulation areas at outdoor work places

5.1.3 (EN 12464-2, 05.2014) Regular vehicle traffic (max. 40 km/h) ($R_a > 20.00$)

Horizontal

Em 19.7 lx (≥ 20 lx)
 Emin 7.8 lx
 Emin/Em (U_o) 0.40 (≥ 0.40)
 Emin/Emax (U_d) 0.25
 Upward light ratio (ULR) 0.04
 Position 0.00 m

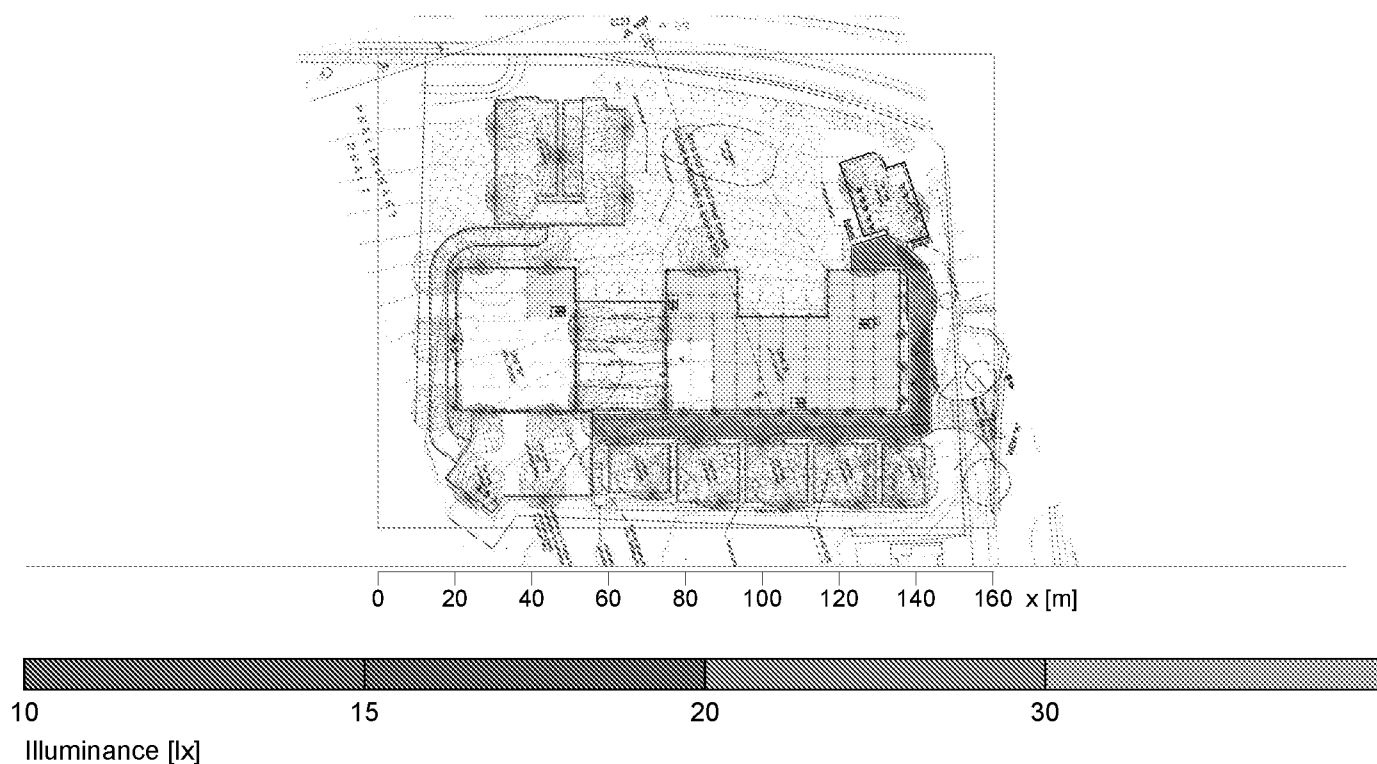
Type No.\Make

Object : GTR - New Factory And Unit B
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2.2 Summary, Exterior 1

2.2.5 Result overview, Road



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Total luminous flux of all lamps

14599.00 lm

Total power

130.0 W

Total power per area (887.97 m²)

0.15 W/m² (0.60 W/m²/100lx)

Road

User profile

Reference plane 5.1

General circulation areas at outdoor work places

5.1.3 (EN 12464-2, 05.2014) Regular vehicle traffic (max. 40 km/h) (Ra >20.00)

Horizontal

Em 24.6 lx (≥ 20 lx)

Emin 11.2 lx

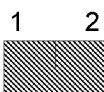
Emin/Em (Uo) 0.46 (≥ 0.40)

Emin/Emax (Ud) 0.24

Upward light ratio (ULR) 0.04

Position 0.00 m

Type No. Make



ANSELL

Order No. : AONIXLED/2

Luminaire name : FLOODLIGHTING - Onix LED Street Light

Equipment : 1 x LED 40 W / 3936 lm

Object : GTR - New Factory And Unit B
Installation : Proposed Lighting
Project number :
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2.2 Summary, Exterior 1

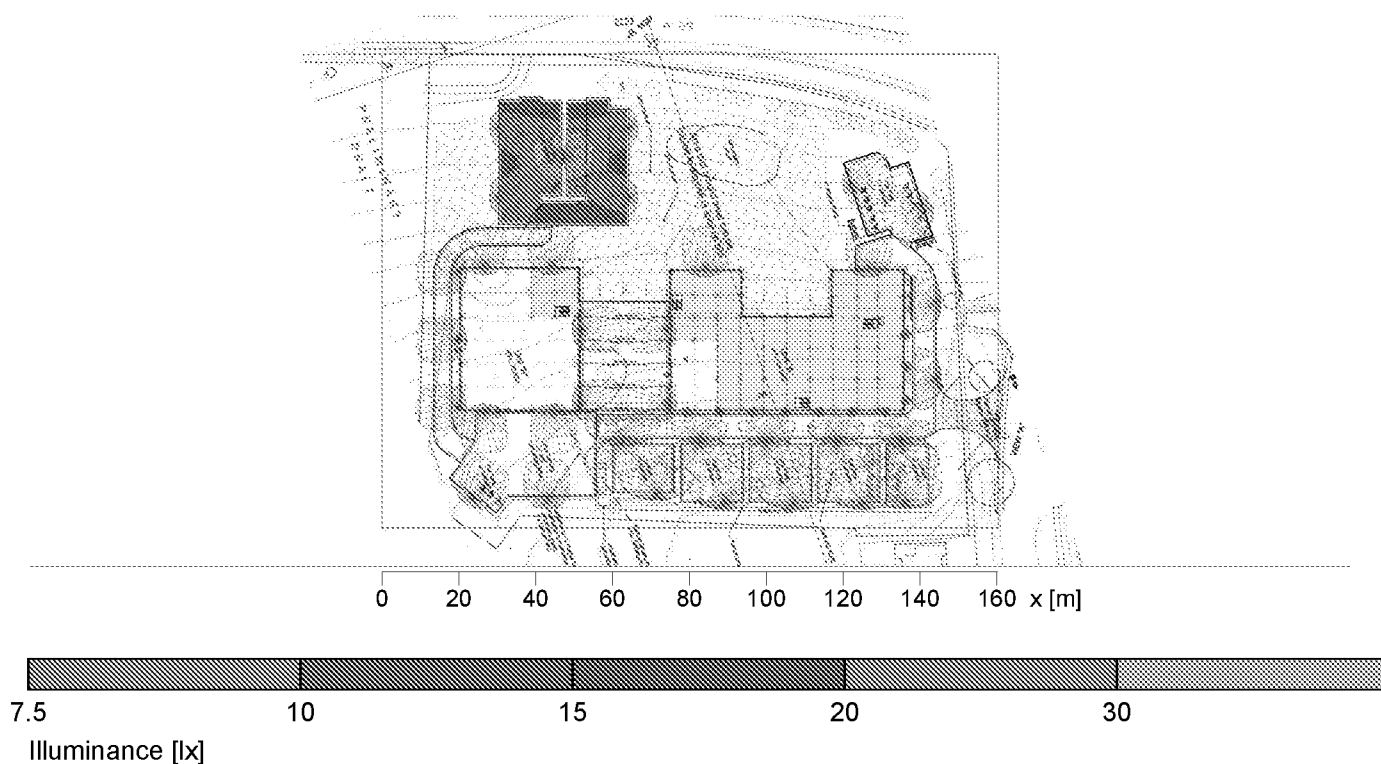
2.2.5 Result overview, Road

3	1	Order No.	: AAZLED50/ASY
		Luminaire name	: FLOODLIGHTING - Aztec LED Asymmetric Floodlight
		Equipment	: 1 x LED single 840 50 W / 6727 lm



2.2 Summary, Exterior 1

2.2.6 Result overview, Car Park



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Total luminous flux of all lamps
 Total power
 Total power per area (1045.76 m²)

13454.00 lm
 100.0 W
 0.10 W/m² (0.43 W/m²/100lx)

Car Park

User profile

Reference plane 2.1

Parking areas

5.9.3 (EN 12464-2, 05.2014) Heavy traffic, e.g. parking areas of schools, churches, major shopping centres, major sports and multipurpose building complexes (Ra >20.00)

Horizontal

Em 22.2 lx (≥ 20 lx)
 Emin 9 lx
 Emin/Em (Uo) 0.41 (≥ 0.25)
 Emin/Emax (Ud) 0.20
 Upward light ratio (ULR) 0.04
 Position 0.00 m

Type No. Make

Object : GTR - New Factory And Unit B
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2.2 Summary, Exterior 1

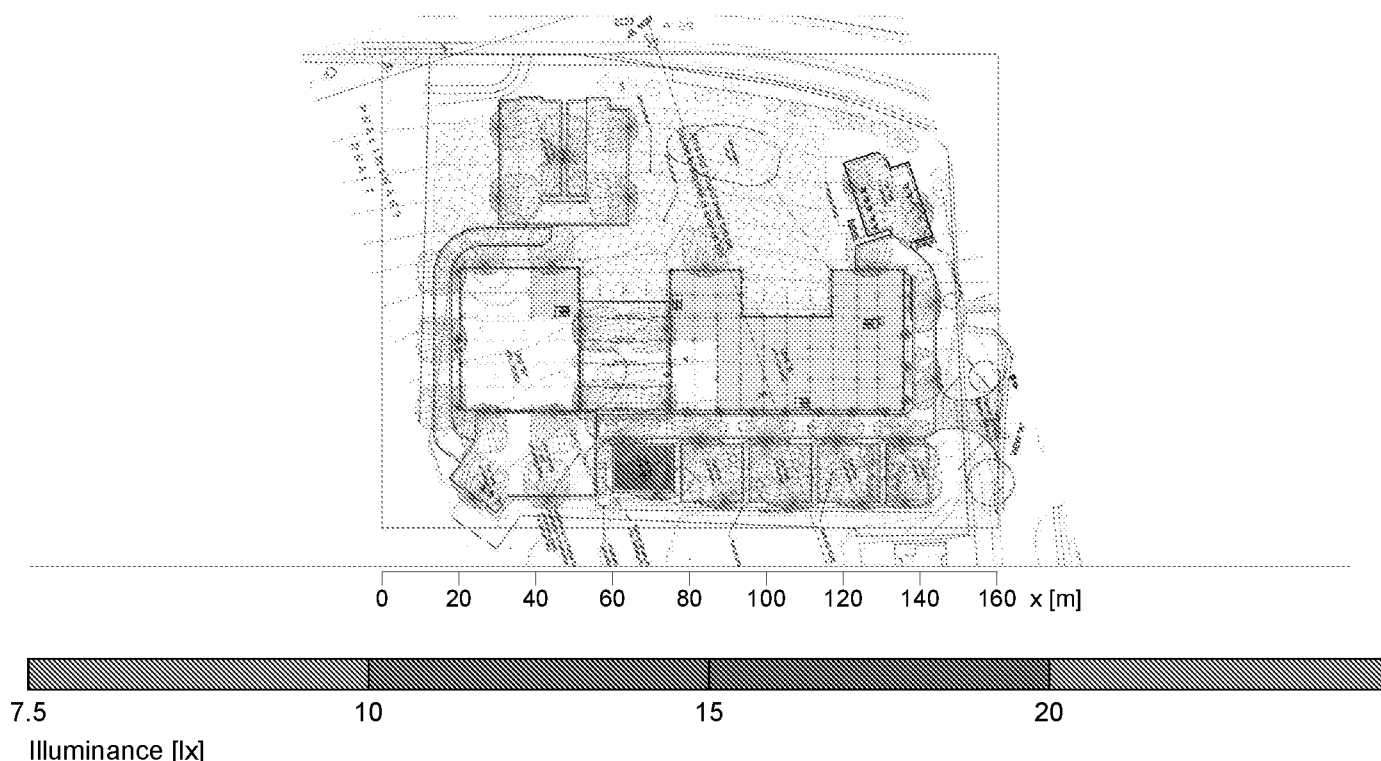
2.2.6 Result overview, Car Park

		ANSELL	
3	2	Order No.	: AAZLED50/ASY
		Luminaire name	: FLOODLIGHTING - Aztec LED Asymmetric Floodlight
		Equipment	: 1 x LED single 840 50 W / 6727 lm



2.2 Summary, Exterior 1

2.2.7 Result overview, Car Park



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Car Park

User profile

Reference plane 6.1

Parking areas

5.9.3 (EN 12464-2, 05.2014) Heavy traffic, e.g. parking areas of schools, churches, major shopping centres, major sports and multipurpose building complexes (Ra >20.00)

Horizontal

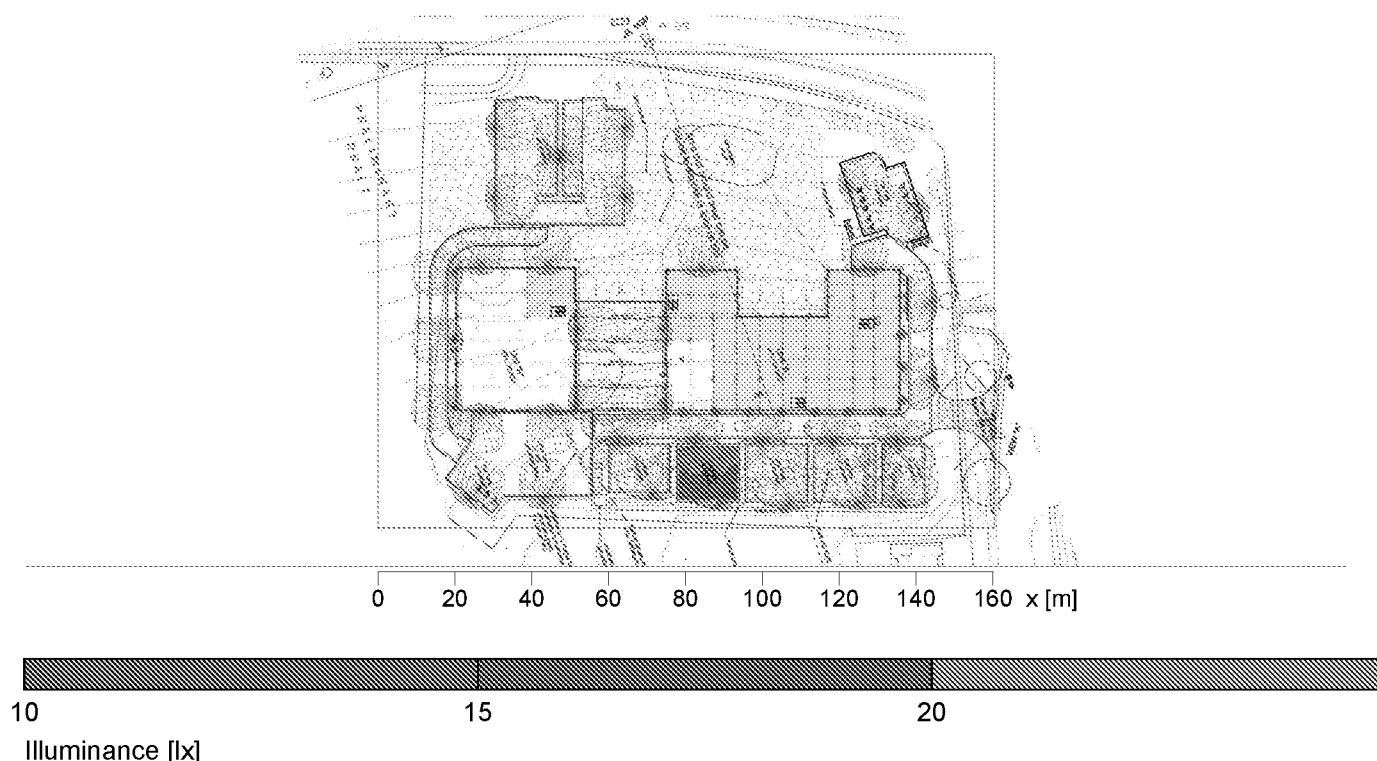
Em	18.3 lx	(≥ 20 lx)
Emin	9.3 lx	
Emin/Em (Uo)	0.51	(≥ 0.25)
Emin/Emax (Ud)	0.34	
Upward light ratio (ULR)	0.04	
Position	0.00 m	

Type No. Make



2.2 Summary, Exterior 1

2.2.8 Result overview, Car Park



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Car Park

User profile

Reference plane 7.1

Parking areas

5.9.3 (EN 12464-2, 05.2014) Heavy traffic, e.g. parking areas of schools, churches, major shopping centres, major sports and multipurpose building complexes (Ra >20.00)

Horizontal

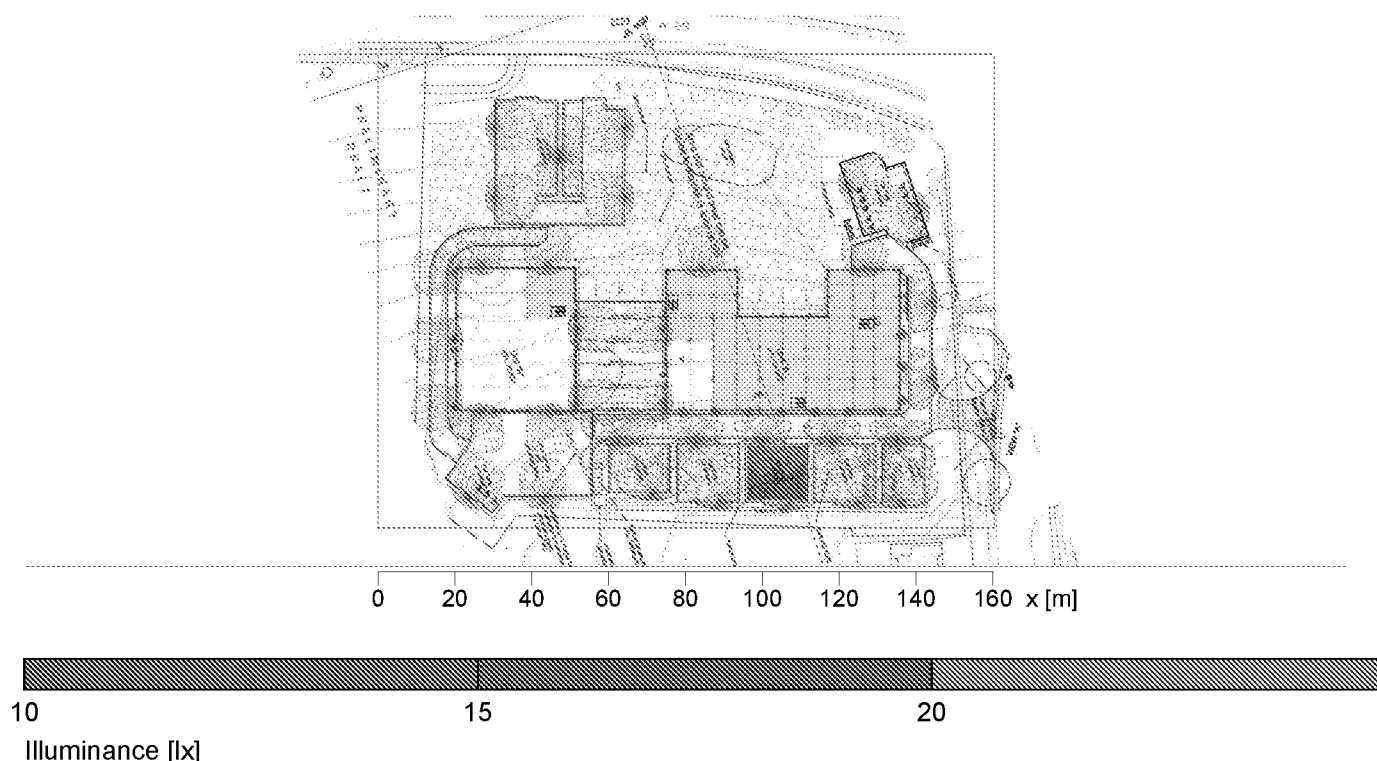
Em	18.8 lx	(>= 20 lx)
Emin	11 lx	
Emin/Em (Uo)	0.58	(>= 0.25)
Emin/Emax (Ud)	0.40	
Upward light ratio (ULR)	0.04	
Position	0.00 m	

Type No. Make



2.2 Summary, Exterior 1

2.2.9 Result overview, Car Park



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Car Park

User profile

Reference plane 8.1

Parking areas

5.9.3 (EN 12464-2, 05.2014) Heavy traffic, e.g. parking areas of schools, churches, major shopping centres, major sports and multipurpose building complexes (Ra >20.00)

Horizontal

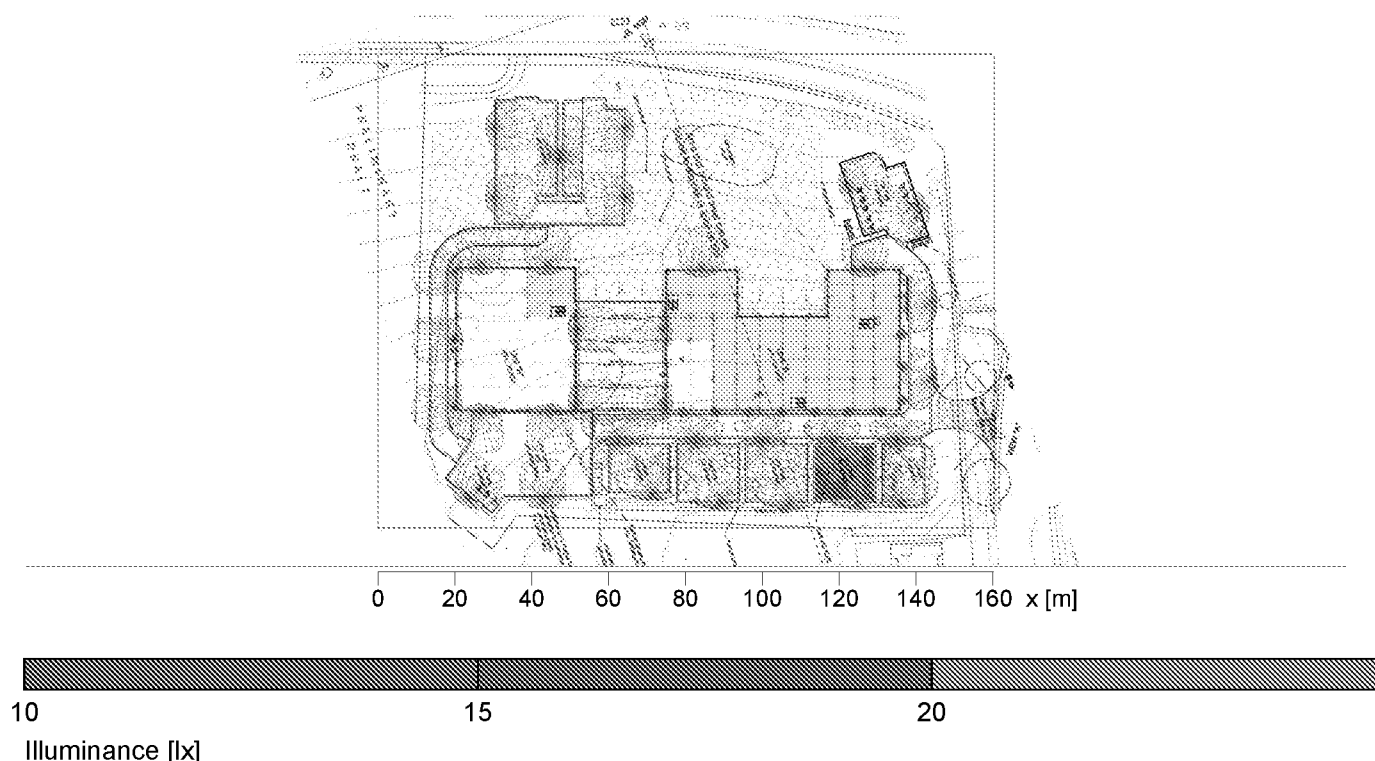
Em	18.8 lx	(>= 20 lx)
Emin	12.4 lx	
Emin/Em (Uo)	0.66	(>= 0.25)
Emin/Emax (Ud)	0.45	
Upward light ratio (ULR)	0.04	
Position	0.00 m	

Type No. Make



2.2 Summary, Exterior 1

2.2.10 Result overview, Car Park



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Car Park

User profile

Reference plane 9.1

Parking areas

5.9.3 (EN 12464-2, 05.2014) Heavy traffic, e.g. parking areas of schools, churches, major shopping centres, major sports and multipurpose building complexes (Ra >20.00)

Horizontal

Em	20.3 lx	(≥ 20 lx)
Emin	12.8 lx	
Emin/Em (Uo)	0.63	(≥ 0.25)
Emin/Emax (Ud)	0.46	
Upward light ratio (ULR)	0.04	
Position	0.00 m	

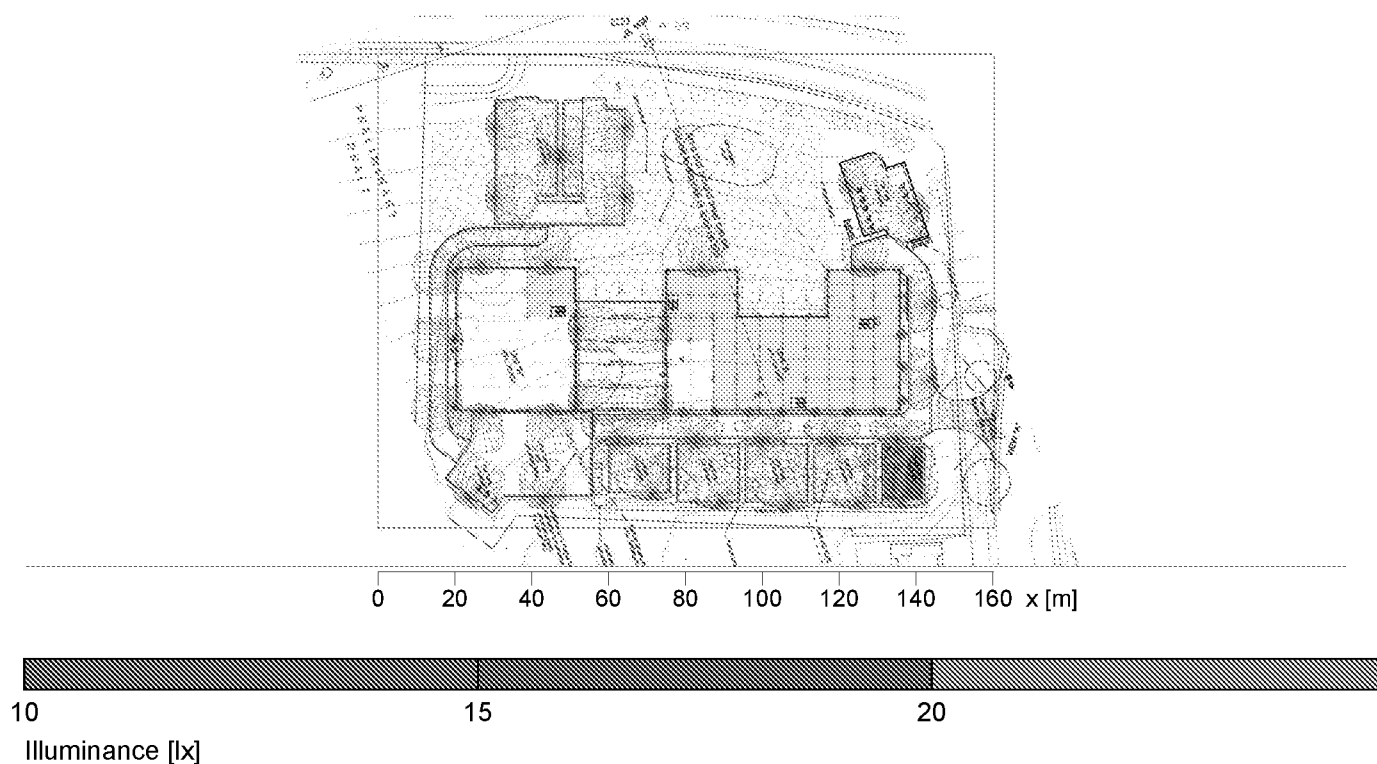
Type No. Make

Object : GTR - New Factory And Unit B
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 Project number :
 Date : 04.01.2021



2.2 Summary, Exterior 1

2.2.11 Result overview, Car Park



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Total luminous flux of all lamps

3936.00 lm

Total power

40.0 W

Total power per area (165.00 m²)

0.24 W/m² (1.28 W/m²/100lx)

Car Park

User profile

Reference plane 10.1

Parking areas

5.9.3 (EN 12464-2, 05.2014) Heavy traffic, e.g. parking areas of schools, churches, major shopping centres, major sports and multipurpose building complexes (Ra >20.00)

Horizontal

Em 18.9 lx (≥ 20 lx)

Emin 11 lx

Emin/Em (Uo) 0.58 (≥ 0.25)

Emin/Emax (Ud) 0.41

Upward light ratio (ULR) 0.04

Position 0.00 m

Type No. Make

Object : GTR - New Factory And Unit B
Installation : Proposed Lighting
Project number :
Date : 04.01.2021



2.2 Summary, Exterior 1

2.2.11 Result overview, Car Park

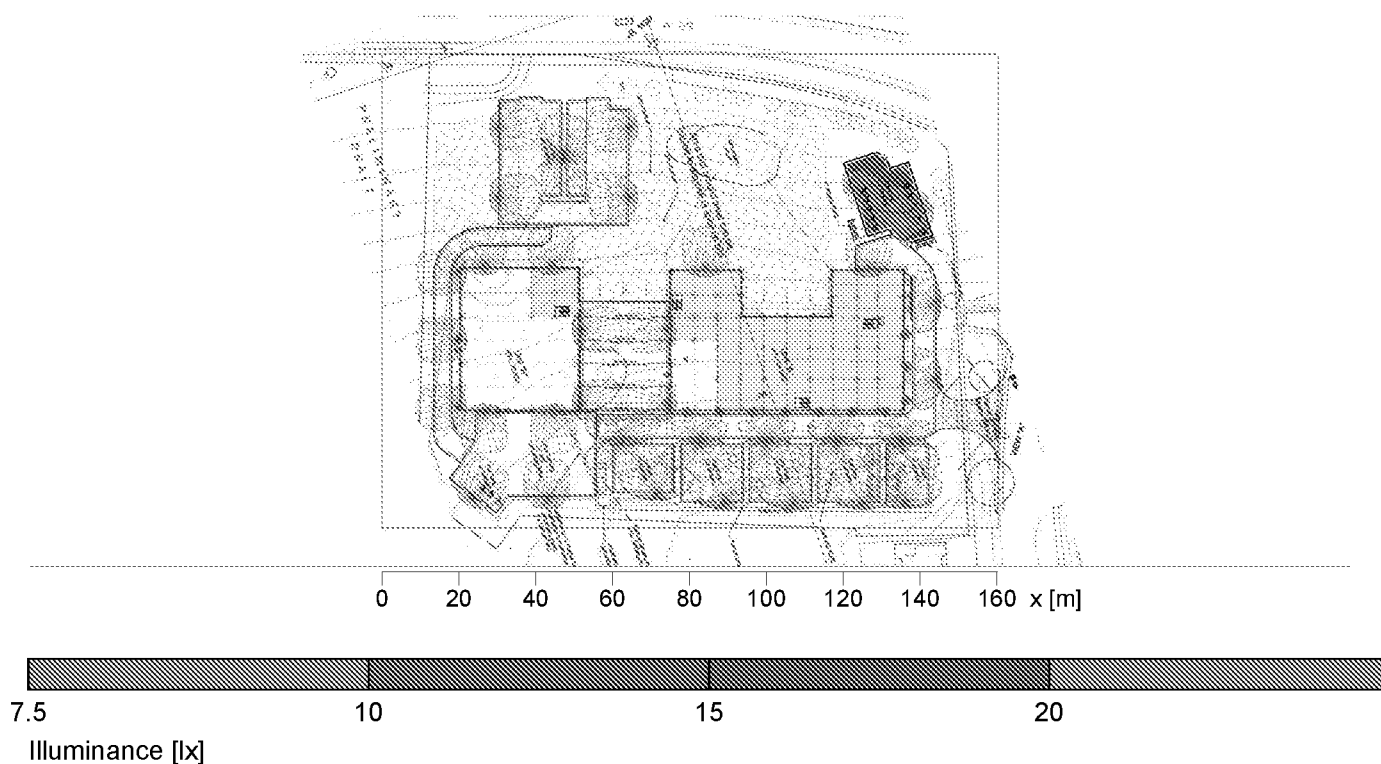
1	1	ANSELL	
		Order No.	: AONIXLED/2
		Luminaire name	: FLOODLIGHTING - Onix LED Street Light
		Equipment	: 1 x LED 40 W / 3936 lm





2.2 Summary, Exterior 1

2.2.12 Result overview, Car Park



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Total luminous flux of all lamps

13454.00 lm

Total power

100.0 W

Total power per area (328.31 m²)

0.30 W/m² (1.51 W/m²/100lx)

Car Park

User profile

Reference plane 11.1

Parking areas

5.9.3 (EN 12464-2, 05.2014) Heavy traffic, e.g. parking areas of schools, churches, major shopping centres, major sports and multipurpose building complexes (Ra >20.00)

Horizontal

Em 20.2 lx (≥ 20 lx)

Emin 9.2 lx

Emin/Em (Uo) 0.46 (≥ 0.25)

Emin/Emax (Ud) 0.37

Upward light ratio (ULR) 0.04

Position 0.00 m

Type No. Make

Object : GTR - New Factory And Unit B
Installation : Proposed Lighting
Project number :
Date : 04.01.2021



2.2 Summary, Exterior 1

2.2.12 Result overview, Car Park

		ANSELL	
3	2	Order No.	: AAZLED50/ASY
		Luminaire name	: FLOODLIGHTING - Aztec LED Asymmetric Floodlight
		Equipment	: 1 x LED single 840 50 W / 6727 lm