Installation : Kenyon Lane - Moston

Project number	:	
Customer	:	Challenger Build
Processed by	:	Dave Wood
Date	:	06.08.2025

We have the pleasure in attaching our Lighting Design for the aforementioned project for your approval
Illuminance and uniformity levels are shown for your approval with calculations having been carried out as per the information, drawings and / or specifications details provided. Please check to confirm that all details are correct, especially dimensions of the room(s) and fitting specification to ensure these are as required. In the absence of a written specification areas will be illuminated to the recommended standards according to their primary function. Areas are generally to be open without any obstructions above the working plane unless otherwise advised
Where applicable the design conforms to the latest recommendations and guidelines. if conformity to LG7 is to be proved with exact figure, we may need to add or change the luminaire types. We have used common design parameters for ceiling heights and reflectance's of room surfaces- (wall 50% ceiling 70% floor 20%) as well as maintenance factors (LED light source up to 0.9), in our calculations unless details were provided otherwise
Please note that it is the installers responsibility to check and confirm TP(a) and TP(b) requirements as per Building Regulations Approved Document B Fire Safety 2006 with amendments 2010-2013. Compliant luminaires will generally proposed dependant on the application and / or area type. Should the product specified by us be subsequently replaced with an inferior / non compliant product type - any liability and / or cost incurred for subsequent remedial work required would be the responsibility of the client
Emergency lighting will be designed to the recommended guidelines set out in BS5266. Provision for High Risk areas will be made ONLY where obvious and / or those identified by the client. It is the responsibility of the Purchaser / Installer to endure that the design complies with local fire and health and safety regulations. In the event that the design is not found to comply we will adjust the design in consultation with the customer to ensure that it does comply with such regulations. Please be aware of the Part L2 requirements and check that conformity has been met where required
The following calculations are based on manufacturer lamp / luminaire data however, in practice gradual divergencies can occur. Specific site conditions (such as ambient temperature) can also effect the performance of luminaires and any such adverse conditions should be detailed prior to calculations being carried out to ensure adequate provision has been made for these
Whilst every effort will be made to adhere to the written or product specification provided, it is always the responsibilty of the customer to ensure that any design scheme, specification and / or product supplied satisfies fully and complies with the end users requirements and is suitable for the installation - If unsure of any suggested fittings it is advisable to order samples in advance following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergencies can occur
The following values are based on precise calculations performed on calibrated lamp and luminaires, and their configurations, whereby gradual unaviodable deviations can occur in practise. All guarantee claims are excluded for the specified data
This exclusion of liability applies irrepective of the legal grounds for both damages and consquential damages suffered by users and third parties.

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.

1 Exterior 1

1.1 Description, Exterior 1

1.1.1 Floor plan

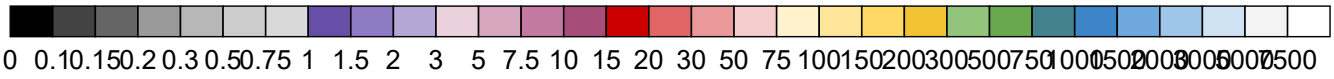


1 Exterior 1

1.2 Summary, Exterior 1

1.2.1 Result overview, Measuring area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	120373.203 lm
Total power	797 W
Total power per area (2796.32 m²)	0.29 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	118 lx
Minimum illuminance	E_{min}	75 lx
Maximum illuminance	E_{max}	143 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.58 (0.63)
Diversity U_d	E_{min}/E_{max}	1:1.92 (0.52)

Type No.\Make

		ANSELL	
1	6 x	Order No.	: AGAB1/1 (40W 4000K)
		Luminaire name	: STREETLIGHTS - Gabbro 4000K
		Equipment	: 1 x LED 39.5 W / 5986.3 lm
2	20 x	Order No.	: ADIS2/1 (16W 4000K)
		Luminaire name	: BULKHEADS - Disco Evo 4000K
		Equipment	: 1 x LED single 840 16 W / 2292 lm

1 Exterior 1

1.2 Summary, Exterior 1

1.2.1 Result overview, Measuring area 1

4 1 x



Order No. : AAZT1/ASY/1 (40W 4000K)
Luminaire name : FLOODLIGHTS - Aztec Floodlight Asymetric 4000K
Equipment : 1 x LED 40 W / 7065.4 lm

JCC

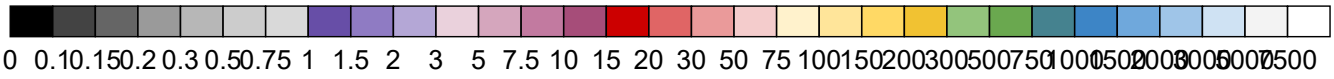
3 10 x

Order No. : JC180102
Luminaire name : ToughLED™ Pro 4ft 19/25/31/37W 3000K/4000K/5700K IP66 FR Microwave on/off
Equipment : 1 x LED 20 W / 3155 lm

1.2 Summary, Exterior 1

1.2.2 Result overview, Measuring area 2





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	120373.203 lm
Total power	797 W
Total power per area (2796.32 m²)	0.29 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	25.5 lx
Minimum illuminance	E_{min}	4.9 lx
Maximum illuminance	E_{max}	58.9 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:5.16 (0.19)
Diversity U_d	E_{min}/E_{max}	1:12 (0.08)

Type No.\Make

1 6 x **ANSELL**
Order No. : AGAB1/1 (40W 4000K)
Luminaire name : STREETLIGHTS - Gabbro 4000K
Equipment : 1 x LED 39.5 W / 5986.3 lm

2 20 x
Order No. : ADIS2/1 (16W 4000K)
Luminaire name : BULKHEADS - Disco Evo 4000K
Equipment : 1 x LED single 840 16 W / 2292 lm

1.2 Summary, Exterior 1

1.2.2 Result overview, Measuring area 2

4 1 x 

Order No. : AAZT1/ASY/1 (40W 4000K)
Luminaire name : FLOODLIGHTS - Aztec Floodlight Asymetric 4000K
Equipment : 1 x LED 40 W / 7065.4 lm

JCC

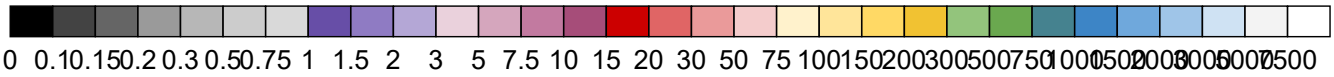
3 10 x

Order No. : JC180102
Luminaire name : ToughLED™ Pro 4ft 19/25/31/37W 3000K/4000K/5700K IP66 FR Microwave on/off
Equipment : 1 x LED 20 W / 3155 lm

1.2 Summary, Exterior 1

1.2.3 Result overview, Cycle Store





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	120373.203 lm
Total power	797 W
Total power per area (2796.32 m²)	0.29 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	144 lx
Minimum illuminance	E_{min}	36 lx
Maximum illuminance	E_{max}	238 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:4.04 (0.25)
Diversity U_d	E_{min}/E_{max}	1:6.67 (0.15)

Type No.\Make

ANSELL

1 6 x
Order No. : AGAB1/1 (40W 4000K)
Luminaire name : STREETLIGHTS - Gabbro 4000K
Equipment : 1 x LED 39.5 W / 5986.3 lm

2 20 x
Order No. : ADIS2/1 (16W 4000K)
Luminaire name : BULKHEADS - Disco Evo 4000K
Equipment : 1 x LED single 840 16 W / 2292 lm

1.2 Summary, Exterior 1

1.2.3 Result overview, Cycle Store

4 1 x


Order No. : AAZT1/ASY/1 (40W 4000K)
Luminaire name : FLOODLIGHTS - Aztec Floodlight Asymetric 4000K
Equipment : 1 x LED 40 W / 7065.4 lm

JCC

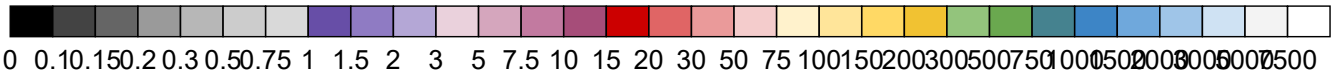
3 10 x

Order No. : JC180102
Luminaire name : ToughLED™ Pro 4ft 19/25/31/37W 3000K/4000K/5700K IP66 FR Microwave on/off
Equipment : 1 x LED 20 W / 3155 lm

1.2 Summary, Exterior 1

1.2.4 Result overview, Measuring area 4





General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	120373.203 lm
Total power	797 W
Total power per area (2796.32 m²)	0.29 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	24 lx
Minimum illuminance	E_{min}	0.1 lx
Maximum illuminance	E_{max}	71.1 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:244 (0)
Diversity U_d	E_{min}/E_{max}	1:723 (0)

Type No.\Make

ANSELL

1 6 x



Order No.	: AGAB1/1 (40W 4000K)
Luminaire name	: STREETLIGHTS - Gabbro 4000K
Equipment	: 1 x LED 39.5 W / 5986.3 lm

2 20 x



Order No.	: ADIS2/1 (16W 4000K)
Luminaire name	: BULKHEADS - Disco Evo 4000K
Equipment	: 1 x LED single 840 16 W / 2292 lm

1.2 Summary, Exterior 1

1.2.4 Result overview, Measuring area 4

4 1 x 

Order No. : AAZT1/ASY/1 (40W 4000K)
Luminaire name : FLOODLIGHTS - Aztec Floodlight Asymetric 4000K
Equipment : 1 x LED 40 W / 7065.4 lm

JCC

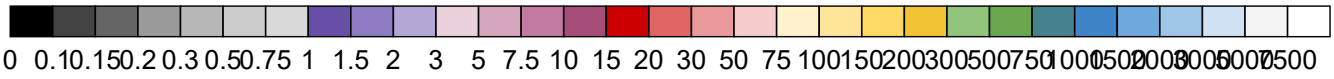
3 10 x

Order No. : JC180102
Luminaire name : ToughLED™ Pro 4ft 19/25/31/37W 3000K/4000K/5700K IP66 FR Microwave on/off
Equipment : 1 x LED 20 W / 3155 lm

1.2 Summary, Exterior 1

1.2.5 Result overview, Measuring area 5





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	120373.203 lm
Total power	797 W
Total power per area (2796.32 m²)	0.29 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	11.6 lx
Minimum illuminance	E_{min}	1.2 lx
Maximum illuminance	E_{max}	34.6 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:9.46 (0.11)
Diversity U_d	E_{min}/E_{max}	1:28.3 (0.04)

Type No.\Make

ANSELL

1 6 x


Order No.	: AGAB1/1 (40W 4000K)
Luminaire name	: STREETLIGHTS - Gabbro 4000K
Equipment	: 1 x LED 39.5 W / 5986.3 lm

2 20 x


Order No.	: ADIS2/1 (16W 4000K)
Luminaire name	: BULKHEADS - Disco Evo 4000K
Equipment	: 1 x LED single 840 16 W / 2292 lm

1.2 Summary, Exterior 1

1.2.5 Result overview, Measuring area 5

4 1 x 

Order No. : AAZT1/ASY/1 (40W 4000K)
Luminaire name : FLOODLIGHTS - Aztec Floodlight Asymetric 4000K
Equipment : 1 x LED 40 W / 7065.4 lm

JCC

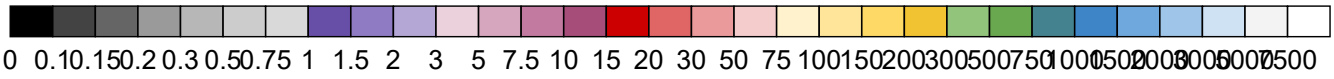
3 10 x

Order No. : JC180102
Luminaire name : ToughLED™ Pro 4ft 19/25/31/37W 3000K/4000K/5700K IP66 FR Microwave on/off
Equipment : 1 x LED 20 W / 3155 lm

1.2 Summary, Exterior 1

1.2.6 Result overview, Measuring area 6





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	120373.203 lm
Total power	797 W
Total power per area (2796.32 m²)	0.29 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	25.5 lx
Minimum illuminance	E_{min}	2.1 lx
Maximum illuminance	E_{max}	65.4 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:12 (0.08)
Diversity U_d	E_{min}/E_{max}	1:30.7 (0.03)

Type No.\Make

ANSELL

1 6 x

Order No.	: AGAB1/1 (40W 4000K)
Luminaire name	: STREETLIGHTS - Gabbro 4000K
Equipment	: 1 x LED 39.5 W / 5986.3 lm

2 20 x

Order No.	: ADIS2/1 (16W 4000K)
Luminaire name	: BULKHEADS - Disco Evo 4000K
Equipment	: 1 x LED single 840 16 W / 2292 lm

1.2 Summary, Exterior 1

1.2.6 Result overview, Measuring area 6

4 1 x 

Order No. : AAZT1/ASY/1 (40W 4000K)
Luminaire name : FLOODLIGHTS - Aztec Floodlight Asymetric 4000K
Equipment : 1 x LED 40 W / 7065.4 lm

JCC

3 10 x

Order No. : JC180102
Luminaire name : ToughLED™ Pro 4ft 19/25/31/37W 3000K/4000K/5700K IP66 FR Microwave on/off
Equipment : 1 x LED 20 W / 3155 lm

1.2 Summary, Exterior 1

1.2.7 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	120373.20 lm
Luminaire luminous flux	120353.20 lm
Total power	797.0 W
Total power per area (2796.32 m²)	0.29 W/m² (1.08 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	26.3 lx
E_{min}	0.8 lx
$E_{min}/\bar{E}_m$ (U_o)	0.03
E_{min}/E_{max} (U_d)	0.01
Position	0.00 m

Type No.\Make

		ANSELL	
1	6 x	Order No.	: AGAB1/1 (40W 4000K)
		Luminaire name	: STREETLIGHTS - Gabbro 4000K
		Equipment	: 1 x LED 39.5 W / 5986.3 lm
2	20 x	Order No.	: ADIS2/1 (16W 4000K)
		Luminaire name	: BULKHEADS - Disco Evo 4000K
		Equipment	: 1 x LED single 840 16 W / 2292 lm

1.2 Summary, Exterior 1

1.2.7 Result overview, Evaluation area 1

4 1 x
Order No. : AAZT1/ASY/1 (40W 4000K)
Luminaire name : FLOODLIGHTS - Aztec Floodlight Asymetric 4000K
Equipment : 1 x LED 40 W / 7065.4 lm

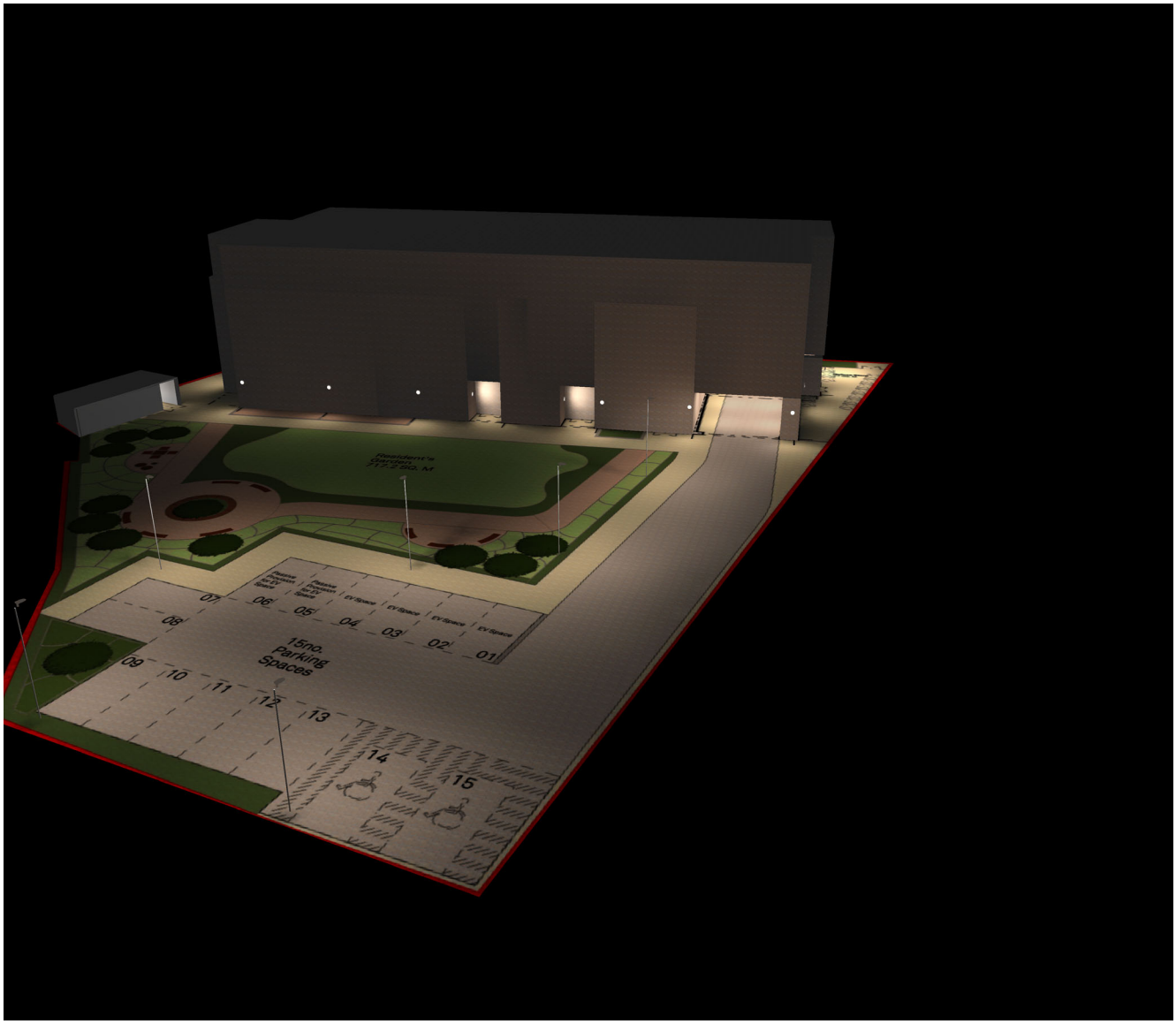
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3 10 x
Order No. : JC180102
Luminaire name : ToughLED™ Pro 4ft 19/25/31/37W 3000K/4000K/5700K IP66 FR Microwave on/off
Equipment : 1 x LED 20 W / 3155 lm

1 Exterior 1

1.3 Calculation results, Exterior 1

1.3.1 3D luminance, View 1



Luminance in the scene
Minimum: : 0 cd/m²
Maximum: : 404 cd/m²

1.3 Calculation results, Exterior 1

1.3.2 3D pseudo colours, View 1 (E)

