

Jersey Wharf Blocks A & B

EYJW-AME-ZZ-XX-TA-E-630001

External Lighting Calculations

Rev. C01

Status - A5

Ref	Date	Description	By
P01	21.08.2025	Preliminary Issue	B.C.
P02	03.09.2025	Revised to SISK comments	B.C.
P03	22.10.2025	Revised to Client Comments	B.C.
C01	08.12.2025	Construction Issue	B.C.



LDL LIGHTING

Jersey Wharf - External Lighting

LIGHTING CALCULATIONS



Jersey Wharf - External Lighting

Installation :

Project number :

Customer : Ameen

Processed by : GW

Date : 04.12.2025

Project description:

NOTE: Luminaire locations are based on the lighting layouts provided.

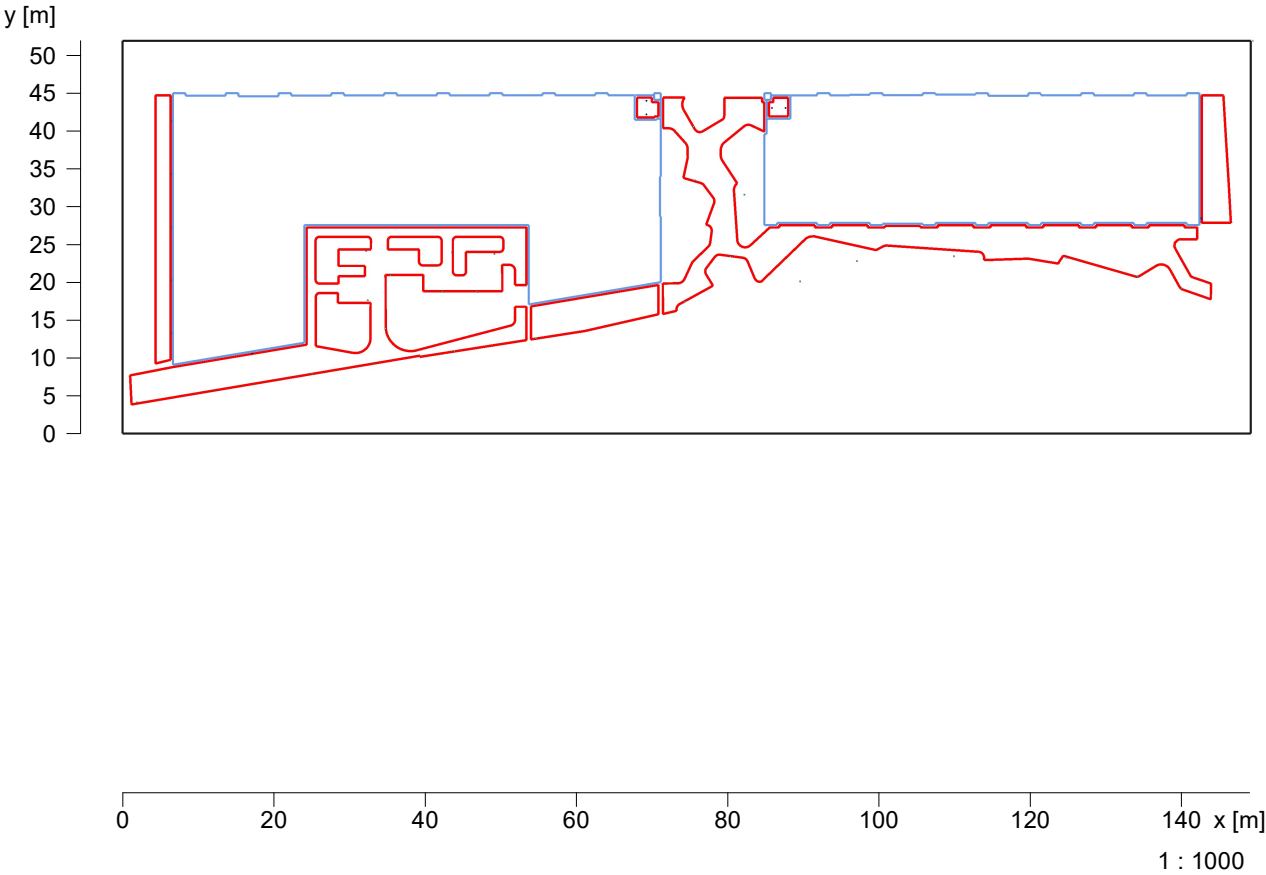
The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

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



Description, JW - External

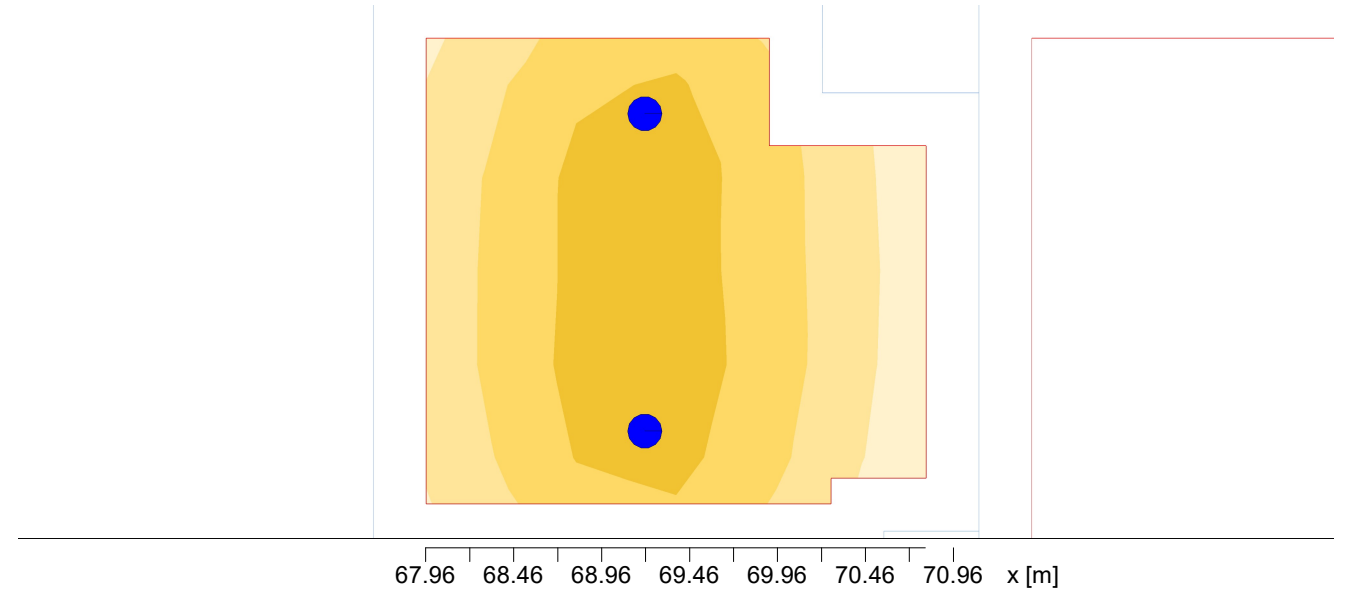
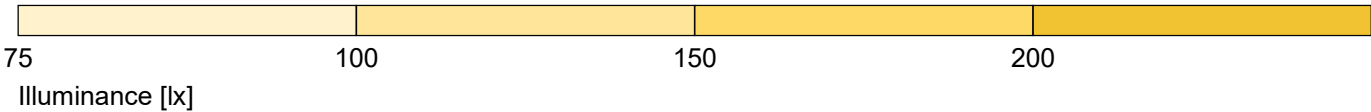
.2 Floor plan





Summary, JW - External

.3 Result overview, Entrance (Canopy)



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	47087 lm
Total power	520.2 W
Total power per area (7730.28 m²)	0.07 W/m² (0.04 W/m²/100lx)

Illuminance

Average illuminance	$\bar{E}_m$	170 lx
Minimum illuminance	E_{min}	92 lx
Maximum illuminance	E_{max}	228 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.84 (0.54)
Diversity U_d	E_{min}/E_{max}	1:2.48 (0.4)

Type No.\Make

LDL	
1 25 x	Order No. : SHE/10/949/4
	Luminaire name : Shelby 1000mm 949lm 10W 730
	Equipment : 1 x LED 10 W / 949 lm
2 4 x	Order No. : HEM/1890/4/SG3
	Luminaire name : HEMERA 1641lm 17w 840 SG3 IP54 FROST GLASS
	Equipment : 1 x LED 17.4 W / 1641 lm

Object : Jersey Wharf - External Lighting
Installation :
Project number :
Date : 04.12.2025



Summary, JW - External

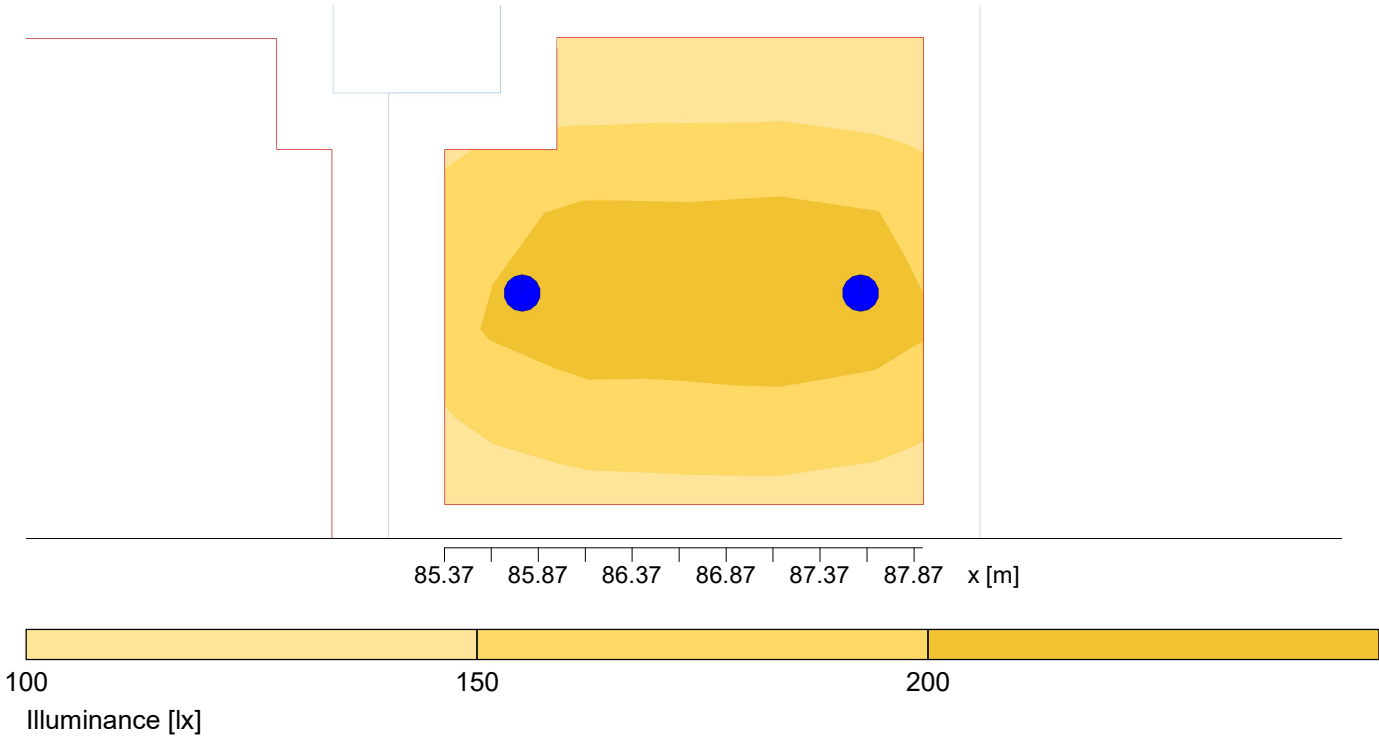
.3 Result overview, Entrance (Canopy)

3	15 x	Order No.	: AVA/938/3
		Luminaire name	: Ava Dir/in-dir 938lm 12W 830
		Equipment	: 1 x LED 12 W / 938 lm
4	2 x	Order No.	: CAM/M/1364/3
		Luminaire name	: Cameron Medium 1364lm 10W 830
		Equipment	: 1 x LED 10.3 W / 1364 lm



Summary, JW - External

.4 Result overview, Entrance (Canopy)



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	47087 lm
Total power	520.2 W
Total power per area (7730.28 m ²)	0.07 W/m ² (0.04 W/m ² /100lx)

Illuminance

Average illuminance	$\bar{E}_m$	182 lx
Minimum illuminance	E_{min}	125 lx
Maximum illuminance	E_{max}	230 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.46 (0.69)
Diversity U_d	E_{min}/E_{max}	1:1.84 (0.54)

Type No.\Make

LDL	
1 25 x	Order No. : SHE/10/949/4
	Luminaire name : Shelby 1000mm 949lm 10W 730
	Equipment : 1 x LED 10 W / 949 lm
2 4 x	Order No. : HEM/1890/4/SG3
	Luminaire name : HEMERA 1641lm 17w 840 SG3 IP54 FROST GLASS
	Equipment : 1 x LED 17.4 W / 1641 lm

Object : Jersey Wharf - External Lighting
Installation :
Project number :
Date : 04.12.2025



Summary, JW - External

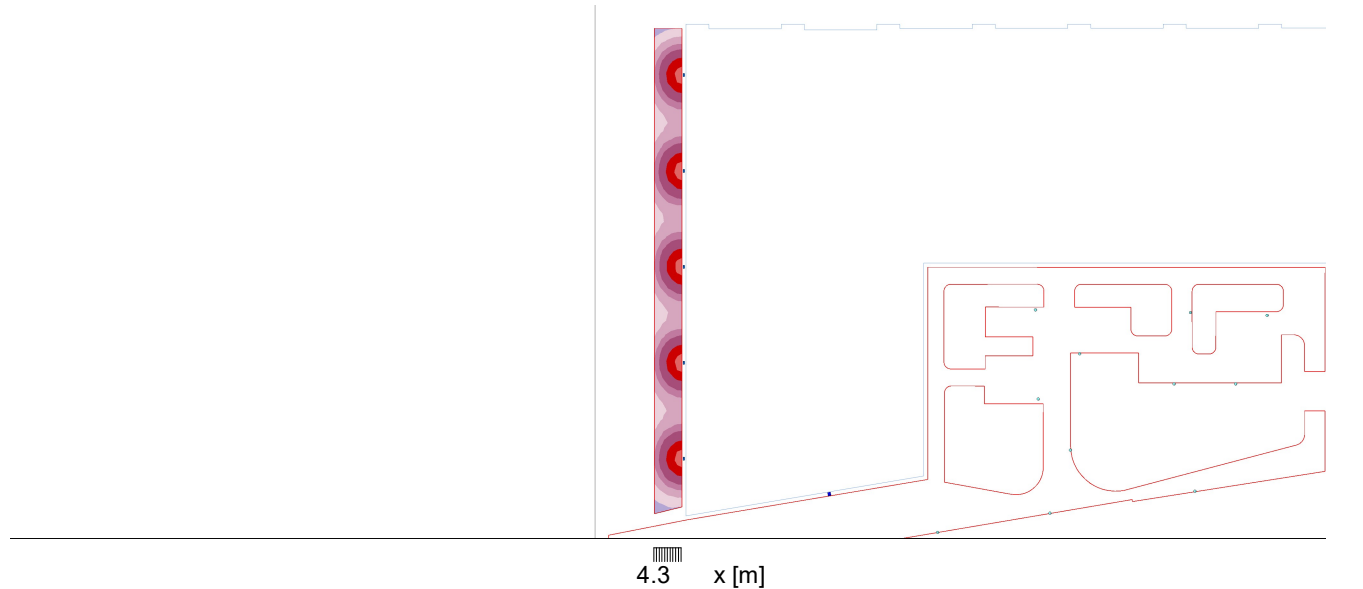
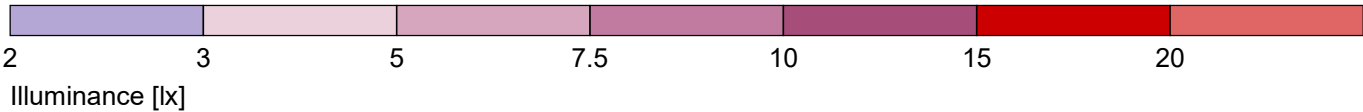
.4 Result overview, Entrance (Canopy)

3	15 x	Order No.	: AVA/938/3
		Luminaire name	: Ava Dir/in-dir 938lm 12W 830
		Equipment	: 1 x LED 12 W / 938 lm
4	2 x	Order No.	: CAM/M/1364/3
		Luminaire name	: Cameron Medium 1364lm 10W 830
		Equipment	: 1 x LED 10.3 W / 1364 lm



Summary, JW - External

.5 Result overview, Walkway



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	47087 lm
Total power	520.2 W
Total power per area (7730.28 m²)	0.07 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	10 lx
Minimum illuminance	E_{min}	2 lx
Maximum illuminance	E_{max}	22 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:4.06 (0.25)
Diversity U_d	E_{min}/E_{max}	1:9.14 (0.11)

Type No.\Make

LDL	
1 25 x	Order No. : SHE/10/949/4
	Luminaire name : Shelby 1000mm 949lm 10W 730
	Equipment : 1 x LED 10 W / 949 lm
2 4 x	Order No. : HEM/1890/4/SG3
	Luminaire name : HEMERA 1641lm 17w 840 SG3 IP54 FROST GLASS
	Equipment : 1 x LED 17.4 W / 1641 lm

Object : Jersey Wharf - External Lighting
Installation :
Project number :
Date : 04.12.2025



Summary, JW - External

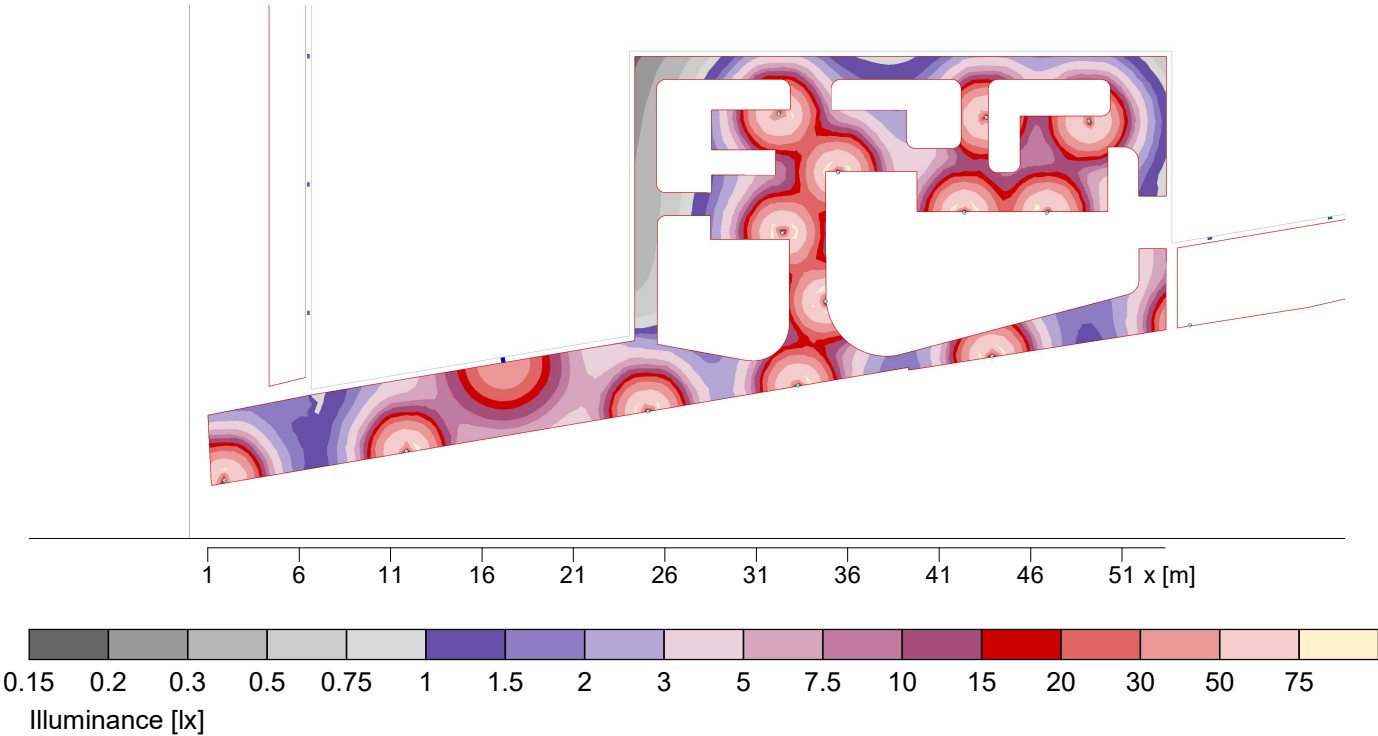
.5 Result overview, Walkway

3	15 x	Order No.	: AVA/938/3
		Luminaire name	: Ava Dir/in-dir 938lm 12W 830
		Equipment	: 1 x LED 12 W / 938 lm
4	2 x	Order No.	: CAM/M/1364/3
		Luminaire name	: Cameron Medium 1364lm 10W 830
		Equipment	: 1 x LED 10.3 W / 1364 lm



Summary, JW - External

.6 Result overview, Walkway



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	47087 lm
Total power	520.2 W
Total power per area (7730.28 m²)	0.07 W/m² (0.40 W/m²/100lx)

Illuminance

Average illuminance	$\bar{E}_m$	17 lx
Minimum illuminance	E_{min}	0.2 lx
Maximum illuminance	E_{max}	79 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:85.7 (0.01)
Diversity U_d	E_{min}/E_{max}	1:407 (0)

Type No.\Make

LDL	
1 25 x	Order No. : SHE/10/949/4
	Luminaire name : Shelby 1000mm 949lm 10W 730
	Equipment : 1 x LED 10 W / 949 lm
2 4 x	Order No. : HEM/1890/4/SG3
	Luminaire name : HEMERA 1641lm 17w 840 SG3 IP54 FROST GLASS
	Equipment : 1 x LED 17.4 W / 1641 lm

Object : Jersey Wharf - External Lighting
Installation :
Project number :
Date : 04.12.2025



Summary, JW - External

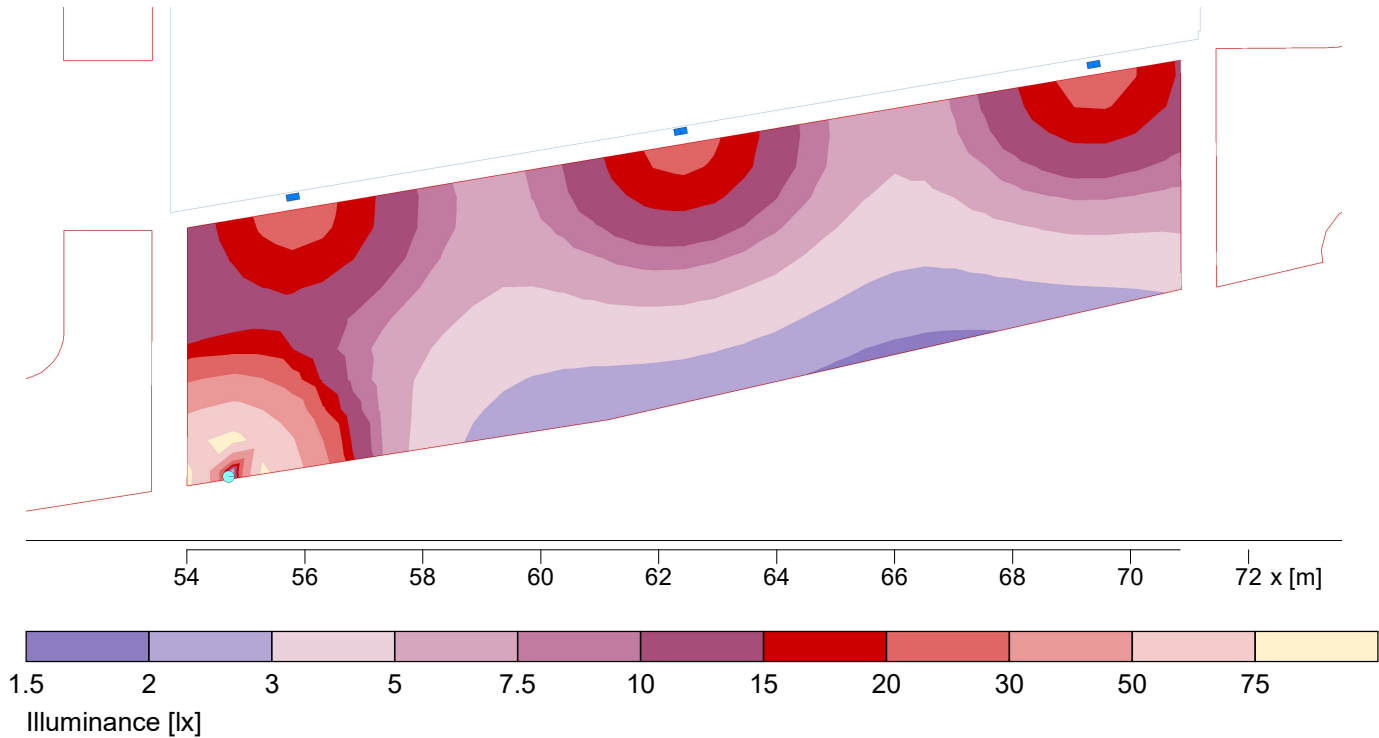
.6 Result overview, Walkway

3	15 x	Order No.	: AVA/938/3
		Luminaire name	: Ava Dir/in-dir 938lm 12W 830
		Equipment	: 1 x LED 12 W / 938 lm
4	2 x	Order No.	: CAM/M/1364/3
		Luminaire name	: Cameron Medium 1364lm 10W 830
		Equipment	: 1 x LED 10.3 W / 1364 lm



Summary, JW - External

.7 Result overview, Walkway



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	47087 lm
Total power	520.2 W
Total power per area (7730.28 m²)	0.07 W/m² (0.65 W/m²/100lx)

Illuminance

Average illuminance	$\bar{E}_m$	10 lx
Minimum illuminance	E_{min}	2 lx
Maximum illuminance	E_{max}	83 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:5.48 (0.18)
Diversity U_d	E_{min}/E_{max}	1:43.9 (0.02)

Type No.\Make

LDL		
1	25 x	Order No. : SHE/10/949/4
		Luminaire name : Shelby 1000mm 949lm 10W 730
		Equipment : 1 x LED 10 W / 949 lm
2	4 x	Order No. : HEM/1890/4/SG3
		Luminaire name : HEMERA 1641lm 17w 840 SG3 IP54 FROST GLASS
		Equipment : 1 x LED 17.4 W / 1641 lm

Object : Jersey Wharf - External Lighting
Installation :
Project number :
Date : 04.12.2025



Summary, JW - External

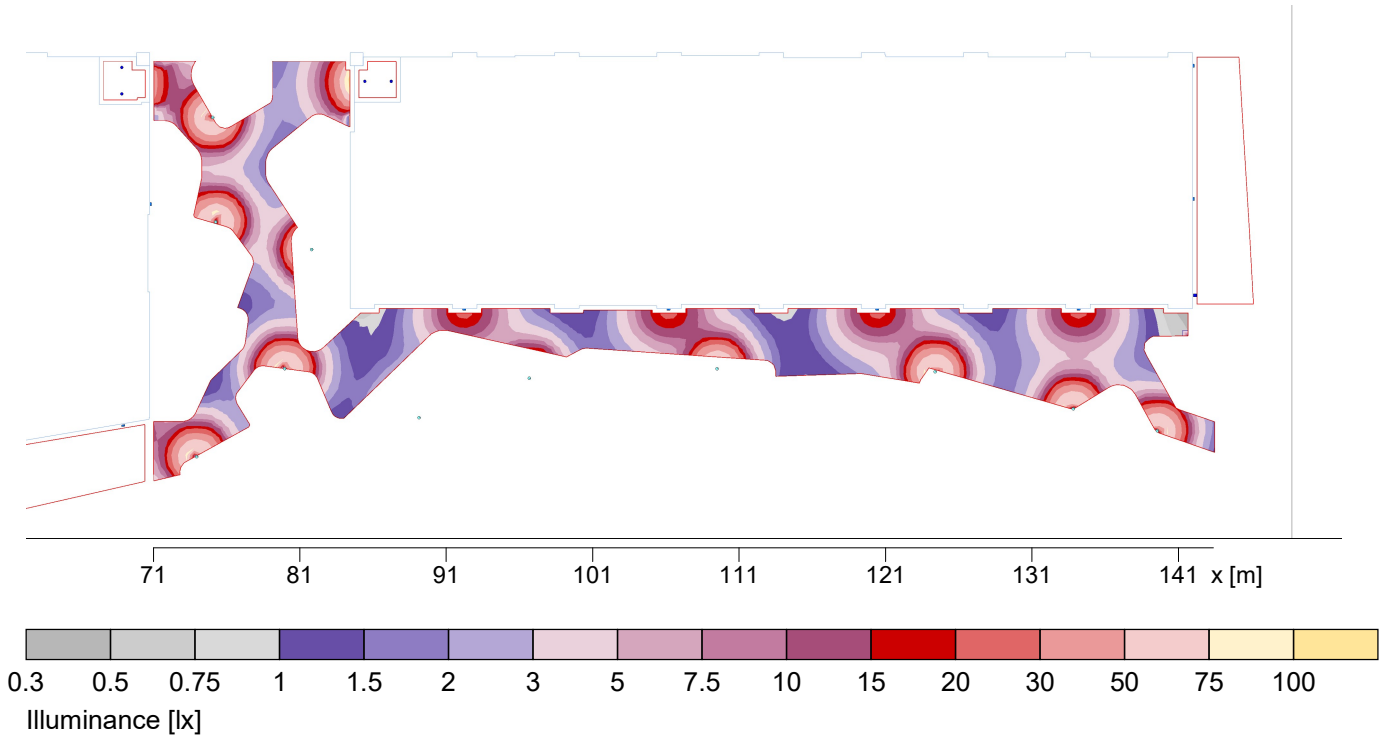
.7 Result overview, Walkway

3	15 x	Order No.	: AVA/938/3
		Luminaire name	: Ava Dir/in-dir 938lm 12W 830
		Equipment	: 1 x LED 12 W / 938 lm
4	2 x	Order No.	: CAM/M/1364/3
		Luminaire name	: Cameron Medium 1364lm 10W 830
		Equipment	: 1 x LED 10.3 W / 1364 lm



Summary, JW - External

.8 Result overview, Walkway



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	47087 lm
Total power	520.2 W
Total power per area (7730.28 m ²)	0.07 W/m ² (0.63 W/m ² /100lx)

Illuminance

Average illuminance	$\bar{E}_m$	11 lx
Minimum illuminance	E_{min}	0.5 lx
Maximum illuminance	E_{max}	103 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	1:23.4 (0.04)
Diversity U_d	E_{min}/E_{max}	1:226 (0)

Type No.\Make

LDL	
1 25 x	Order No. : SHE/10/949/4
	Luminaire name : Shelby 1000mm 949lm 10W 730
	Equipment : 1 x LED 10 W / 949 lm
2 4 x	Order No. : HEM/1890/4/SG3
	Luminaire name : HEMERA 1641lm 17w 840 SG3 IP54 FROST GLASS
	Equipment : 1 x LED 17.4 W / 1641 lm

Object : Jersey Wharf - External Lighting
Installation :
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Date : 04.12.2025



Summary, JW - External

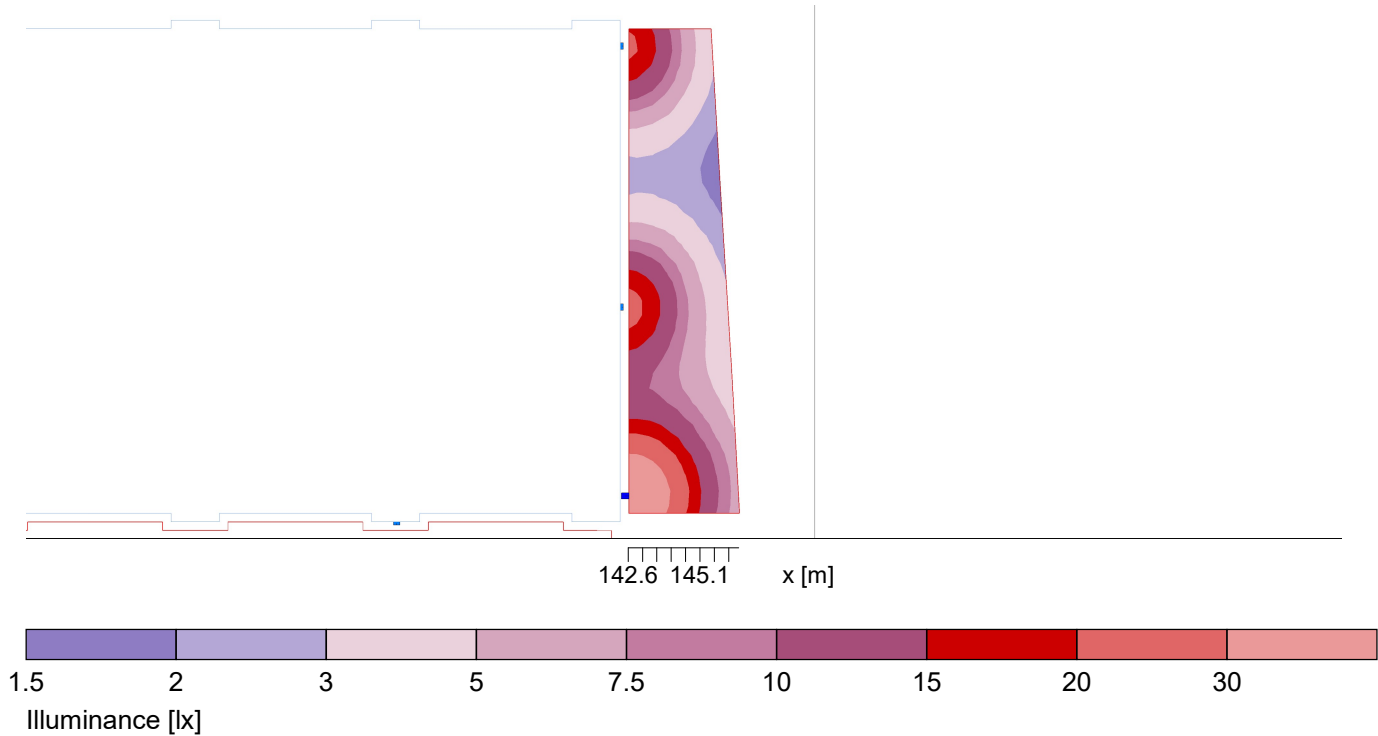
.8 Result overview, Walkway

3	15 x	Order No.	: AVA/938/3
		Luminaire name	: Ava Dir/in-dir 938lm 12W 830
		Equipment	: 1 x LED 12 W / 938 lm
4	2 x	Order No.	: CAM/M/1364/3
		Luminaire name	: Cameron Medium 1364lm 10W 830
		Equipment	: 1 x LED 10.3 W / 1364 lm



Summary, JW - External

.9 Result overview, Walkway



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	47087 lm
Total power	520.2 W
Total power per area (7730.28 m²)	0.07 W/m² (0.69 W/m²/100lx)

Illuminance

Average illuminance	$\bar{E}_m$	10 lx
Minimum illuminance	E_{min}	2 lx
Maximum illuminance	E_{max}	47 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:5.63 (0.18)
Diversity U_d	E_{min}/E_{max}	1:27.1 (0.04)

Type No.\Make

LDL	
1 25 x	Order No. : SHE/10/949/4
	Luminaire name : Shelby 1000mm 949lm 10W 730
	Equipment : 1 x LED 10 W / 949 lm
2 4 x	Order No. : HEM/1890/4/SG3
	Luminaire name : HEMERA 1641lm 17w 840 SG3 IP54 FROST GLASS
	Equipment : 1 x LED 17.4 W / 1641 lm

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Summary, JW - External

.9 Result overview, Walkway

3	15 x	Order No.	: AVA/938/3
		Luminaire name	: Ava Dir/in-dir 938lm 12W 830
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4	2 x	Order No.	: CAM/M/1364/3
		Luminaire name	: Cameron Medium 1364lm 10W 830
		Equipment	: 1 x LED 10.3 W / 1364 lm