Etihad North Stand Expansion
NSE-SEE-NS-XX-TEC-E-000020
Status S3 – For Review & Comment
Revision P01



Technical Submittal 020

North Stand Lighting Calculations

NSE-SES-TS-E-020

DOCUMENT STATUS

Document Status				
Revision	A	P02		
Date	12/09/2024	29/05/2025		
Author	B Dickinson	B Dickinson		
Checked	B Green	B Green		
Verified	D Hudson	D Hudson		

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Executive Summary

The purpose of this technical submittal is to provide the reader with an overview of the **Lighting Calculations** to be provided within the MCFC North Stand Development.

Appendix A - Basis of Design

- Document No: NSE-MEE-NS-XX-TS-E-008001 RIBA Stage 4a Interim Revision: P01
- Document No: NSE-MEE-NS-XX-TS-E-008002 RIBA Stage 4a Revision: P01
- Document No: NSE-MEE-NS-XX-LS-E-008001 RIBA Stage 4a Interim Revision: P02

Appendix B - Manufacturers Details

Company Name: Park Lighting
Email: StephenHollingworth@park-electrical.co.uk
Tel: 07842433983
Web: www.parklightingdesign.co.uk

Appendix C – Technical Literature

As per technical data attached – see appendix H.

Appendix D – Compliance

In line with the electrical specification and equipment schedule:

- Document No: NSE-MEE-NS-XX-TS-E-008001 RIBA Stage 4a Interim Revision: P01
- Document No: NSE-MEE-NS-XX-TS-E-008002 RIBA Stage 4a Revision: P01
- Document No: NSE-MEE-NS-XX-LS-E-008001 RIBA Stage 4a Interim Revision: P02

Appendix E – Non -Compliance

N/A

Appendix F - Programme

The Purpose of this technical submission is to inform the Etihad client team and professional team of SES intent regards to procurement of systems and equipment to enable input into the MEP design and therefore complete the systems MEP design.

The Technical submission is by no means intended to show full systems design by the way of MEP design drawings and schematics.

Drawings and Schematics will follow once technical submissions have reached A or B status and the technical information from within the approved submission has been inputted into the MEP design.

Appendix G – Drawing Reference

N/A

Appendix H – Attachments

NSE-SEE-NS-00-DR-E-630411
NSE-SEE-NS-00-DR-E-630421
NSE-SEE-NS-00-DR-E-630431
NSE-SEE-NS-00-DR-E-630441
NSE-SEE-NS-00-DR-E-630451
NSE-SEE-NS-00-DR-E-630461
NSE-SEE-NS-01-DR-E-631411
NSE-SEE-NS-01-DR-E-631421
NSE-SEE-NS-01-DR-E-631431
NSE-SEE-NS-01-DR-E-631441
NSE-SEE-NS-01-DR-E-631451
NSE-SEE-NS-01-DR-E-631461
NSE-SEE-NS-02-DR-E-632411
NSE-SEE-NS-02-DR-E-632421
NSE-SEE-NS-02-DR-E-632431
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NSE-SEE-NS-04-DR-E-634431
NSE-SEE-NS-05-DR-E-635411
NSE-SEE-NS-05-DR-E-635421
NSE-SEE-NS-05-DR-E-635431
NSE-SEE-NS-M3-DR-E-633412
NSE-SEE-NS-M3-DR-E-633422
NSE-SEE-NS-M3-DR-E-633432

North Stand - Level 00

Installation : MCFC Redevelopment

Project number	:	SY1023-27
Customer	:	SES
Processed by	:	S Hollingworth
Date	:	07.04.2025

Project description:

Reflectcance Values:
Ceiling 70% (50% plant areas)
Walls 50% (30% plant areas)
Floor 20%

Maintenance Factor: 0.8

Rev A - Initial issue.
Rev B - Updated to reflect latest "White Box" information.
Rev C - Updated to incorporate latest info from Lighting Workshop 29.10.2024, and BG emails 29.10.2024 / 07.11.2024.
Rev D - Updated to take account of the change to luminaire EMG02.
Rev E - Updated to take account of Emergency Lighting Review doc received from BD 06.02.2025.
Rev F - Reviewed against Jump RCPs.

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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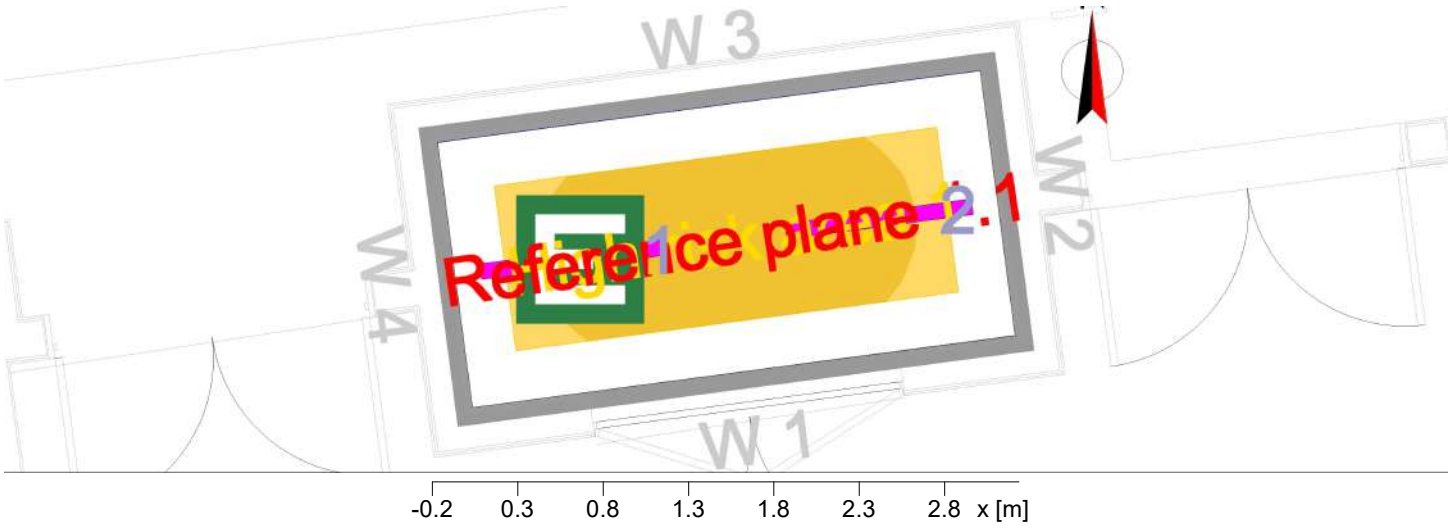
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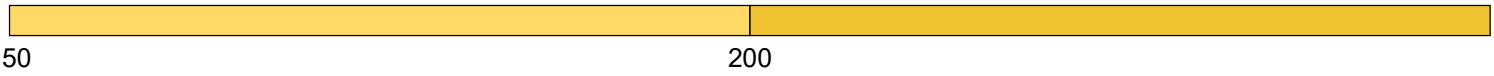
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1 L00-NS-006 Riser

1.1 Summary, L00-NS-006 Riser

1.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.40 m
Maintenance factor	0.80
Total lamp luminous flux	8800 lm
Luminaire luminous flux	8798 lm
Total power	59.8 W
Total power per area (4.99 m²)	11.97 W/m² (5.64 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	212 lx
E_{min}	187 lx
$E_{min}/\bar{E}_m$ (U_o)	0.88
E_{min}/E_{max} (U_d)	0.82
Position	0.00 m

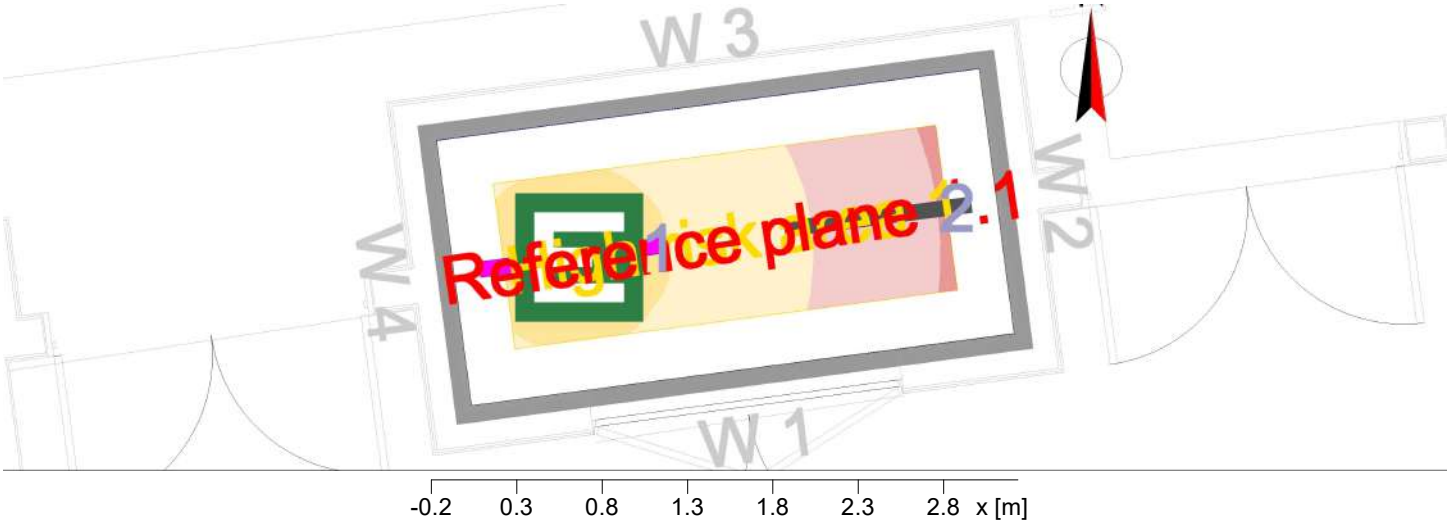
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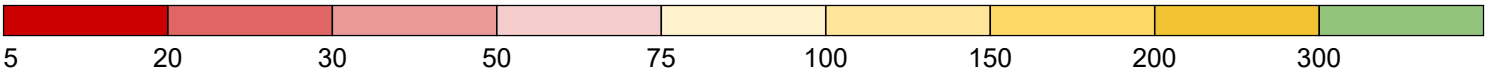
2	2E x	**Thorn**	
		Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

1 L00-NS-006 Riser

1.2 Summary, L00-NS-006 Riser

1.2.1.1 Result overview (emergency lighting)





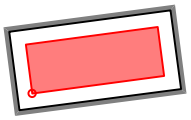
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.33 m	
Maximum I	: 1500 cd	<= 3200 cd

Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)
High risk area 1			
Calculation field: 2.63m x 1.02m (13 x 5 pts), Height = 0.00m			
1	83 lx	47 lx	0.56
	---		>= 0.10



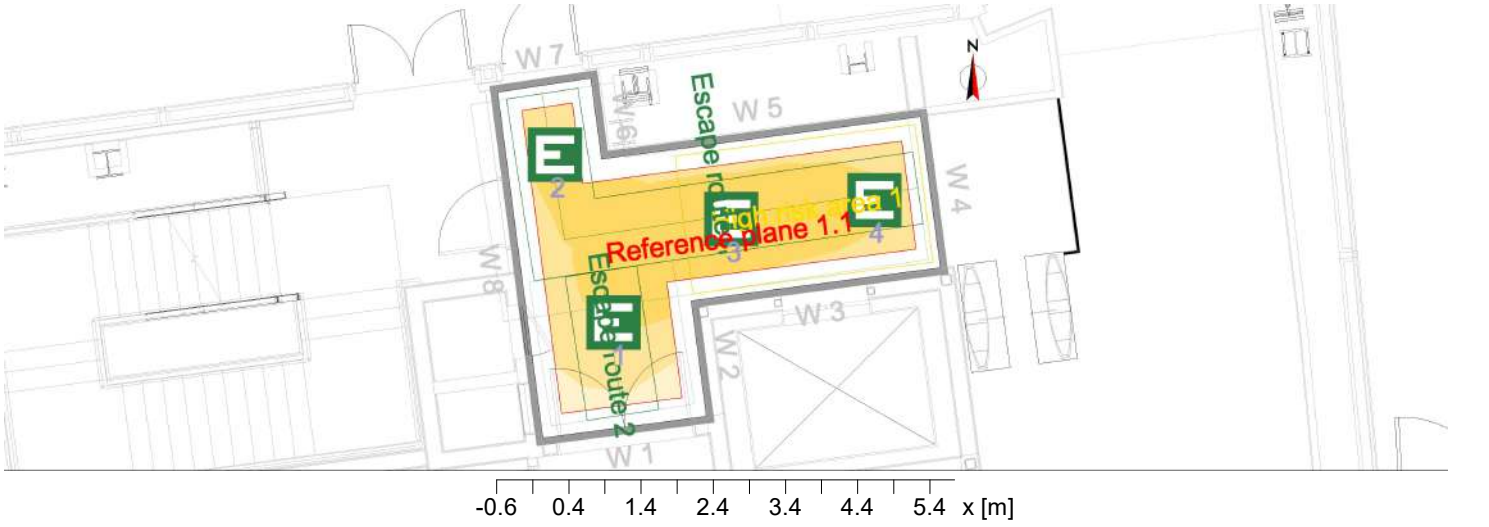
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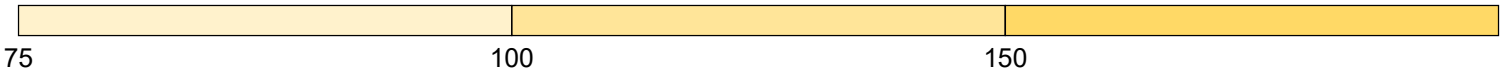
		Thorn		
2	1E x	Order No.	: 96630794	-- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]	
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm	
		Emergency	: 4400 lm (100.0 %)	

2 L00-NS-016 Firefighting Lobby

2.1 Summary, L00-NS-016 Firefighting Lobby

2.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.12 m
Maintenance factor	0.80
Luminaire luminous flux	4197 lm
Total power	56.0 W
Total power per area (17.23 m²)	3.25 W/m² (2.13 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	153 lx
E_{min}	83 lx
$E_{min}/\bar{E}_m$ (U_o)	0.55
E_{min}/E_{max} (U_d)	0.46
Position	0.00 m

Type No.\Make

Chiara Lighting Limited

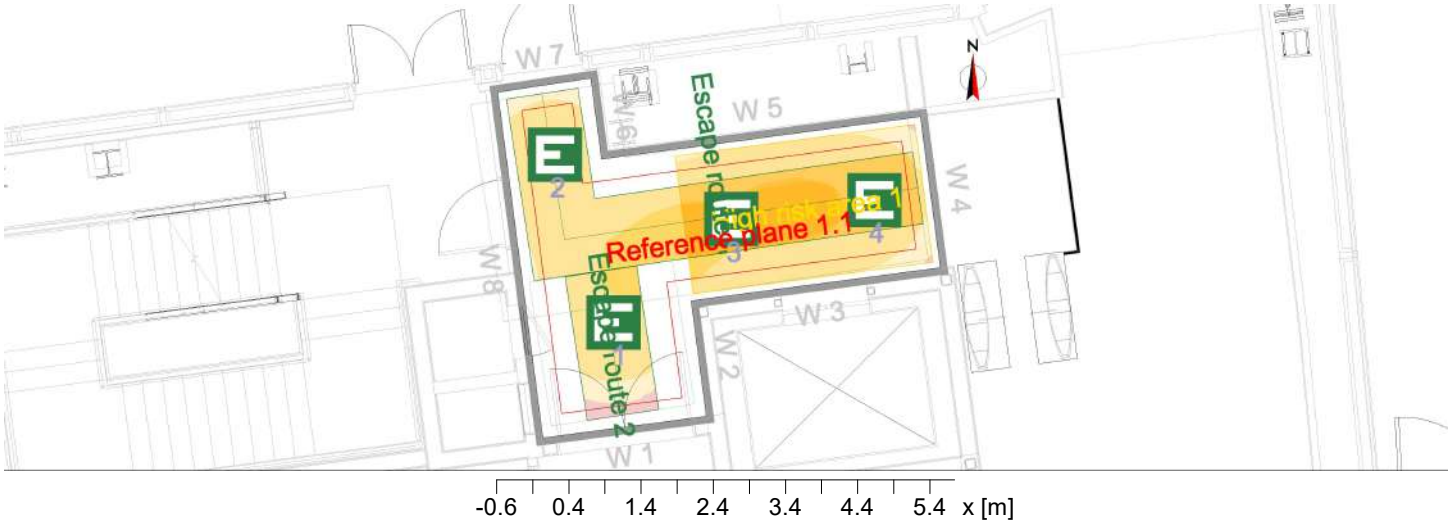
3 4E x

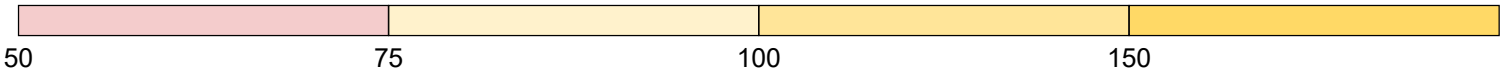
Order No. : !APRF.X.X LE5.27.14.50.X -- Emergency Lighting --
Luminaire name : Arch Pro Round Fixed, 927.14W.50d
Equipment : 1 x 2700K 14 W / 943 lm
Emergency : 943 lm (100.0 %)

2 L00-NS-016 Firefighting Lobby

2.2 Summary, L00-NS-016 Firefighting Lobby

2.2.1.1 Result overview (emergency lighting)





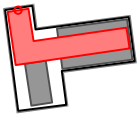
Illuminance [lx]

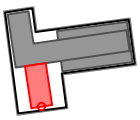
General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.12 m	
Maximum I	: 1400 cd	<= 1600 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 6.98m x 1m (35 x 9 pts), Height = 0.00m					
1	92.90 lx	165.30 lx	1: 1.78	82.16 lx	165.49 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	
Escape route 2					
Calculation field: 2.01m x 1m (10 x 9 pts), Height = 0.00m					
2	59.74 lx	150.46 lx	1: 2.52	50.41 lx	160.18 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	





Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)

2 L00-NS-016 Firefighting Lobby

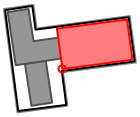
2.2 Summary, L00-NS-016 Firefighting Lobby

2.2.1.1 Result overview (emergency lighting)

High risk area 1

Calculation field: 3.35m x 1.92m (7 x 4 pts), Height = 0.00m

1	120 lx	68 lx	0.56
	---		>= 0.10



Type No.\Make

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3 4E x

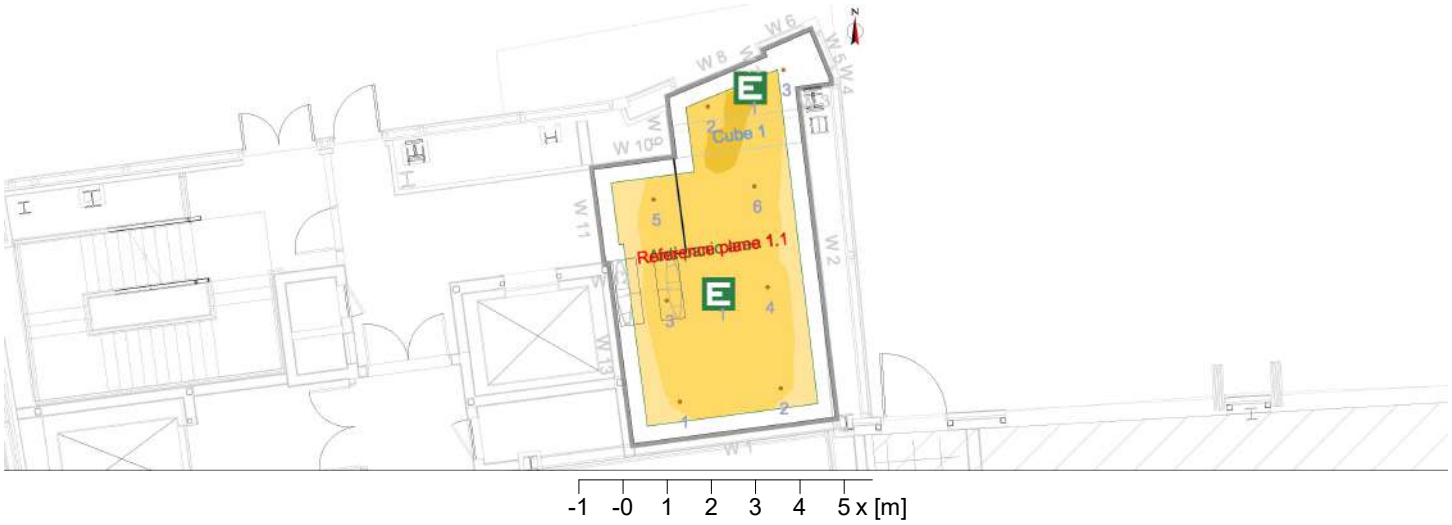


Order No. : !APRF.X.X LE5.27.14.50.X -- Emergency Lighting --
Luminaire name : Arch Pro Round Fixed, 927.14W.50d
Equipment : 1 x 2700K 14 W / 943 lm
Emergency : 943 lm (100.0 %)

3 L00-NS-017 Sky Bar Lobby

3.1 Summary, L00-NS-017 Sky Bar Lobby

3.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.12 m
Maintenance factor	0.80
Luminaire luminous flux	8395 lm
Total power	112.0 W
Total power per area (34.93 m²)	3.21 W/m² (1.92 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	167 lx
E_{min}	131 lx
$E_{min}/\bar{E}_m$ (U_o)	0.79
E_{min}/E_{max} (U_d)	0.63
Position	0.00 m

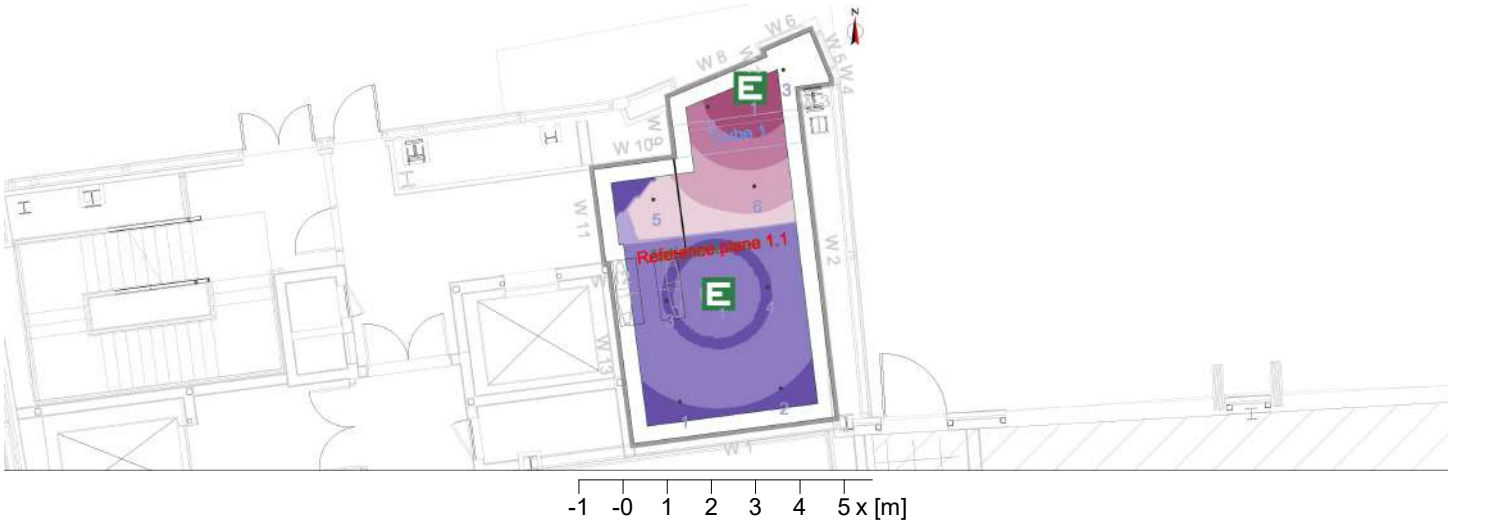
Type No.\Make

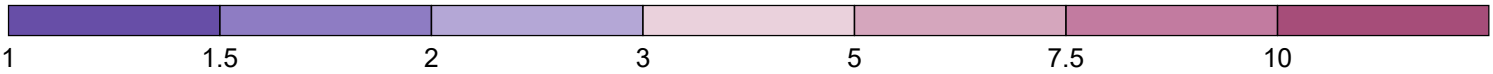
		Chiara Lighting Limited
3	8 x	Order No. : !APRF.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Fixed, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 943 lm
		Emergency : 943 lm (100.0 %)

3 L00-NS-017 Sky Bar Lobby

3.2 Summary, L00-NS-017 Sky Bar Lobby

3.2.1.1 Result overview (emergency lighting)





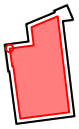
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.12 m	
Maximum I	: 180 cd	<= 1600 cd

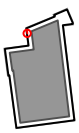
Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 4.06m x 7.59m (5 x 9 pts), Height = 0.00m			
1	1.14 lx	12.29 lx	1: 10.79
	>= 0.5 lx		>= 1 : 40



Places to highlight

No.	Emin [lx]	Surface Emax [lx]
1 Call Point		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	7.12 lx	8.16 lx
	>= 5 lx	



3 L00-NS-017 Sky Bar Lobby

3.2 Summary, L00-NS-017 Sky Bar Lobby

3.2.1.1 Result overview (emergency lighting)

Type No.\Make

Mackwell

4 1E x

Order No. : !LRX HO (OPEN AREA 375lm) -- Emergency Lighting --
Luminaire name : LRX HO (OPEN AREA 375lm)
Equipment : 1 x LED 3 W / 375 lm (0%)
Emergency : 375 lm

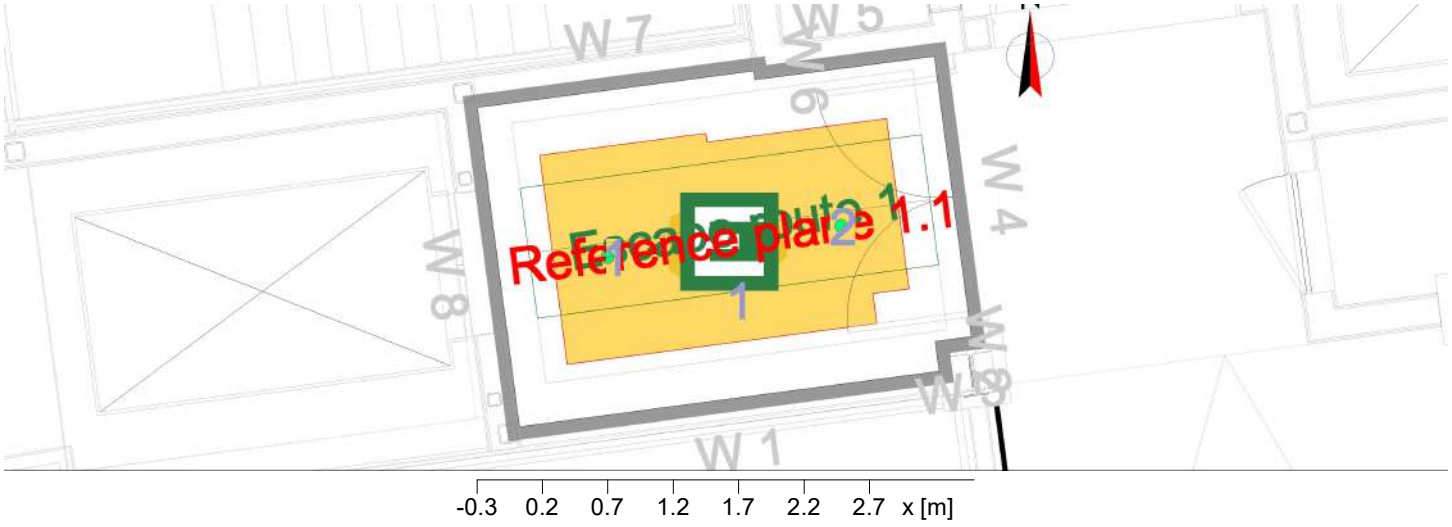
10 1E x

Order No. : !LRX HO (EMPHASIS 375lm) -- Emergency Lighting --
Luminaire name : LRX HO (EMPHASIS 375lm)
Equipment : 1 x LED 2.3 W / 375 lm (0%)
Emergency : 375 lm

4 L00-NS-018 Lift Lobby

4.1 Summary, L00-NS-018 Lift Lobby

4.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.50 m
Maintenance factor	0.80
Total lamp luminous flux	3438 lm
Luminaire luminous flux	3111 lm
Total power	26.2 W
Total power per area (8.46 m²)	3.10 W/m² (1.69 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	183 lx
E_{min}	155 lx
$E_{min}/\bar{E}_m$ (U_o)	0.85
E_{min}/E_{max} (U_d)	0.75
Position	0.00 m

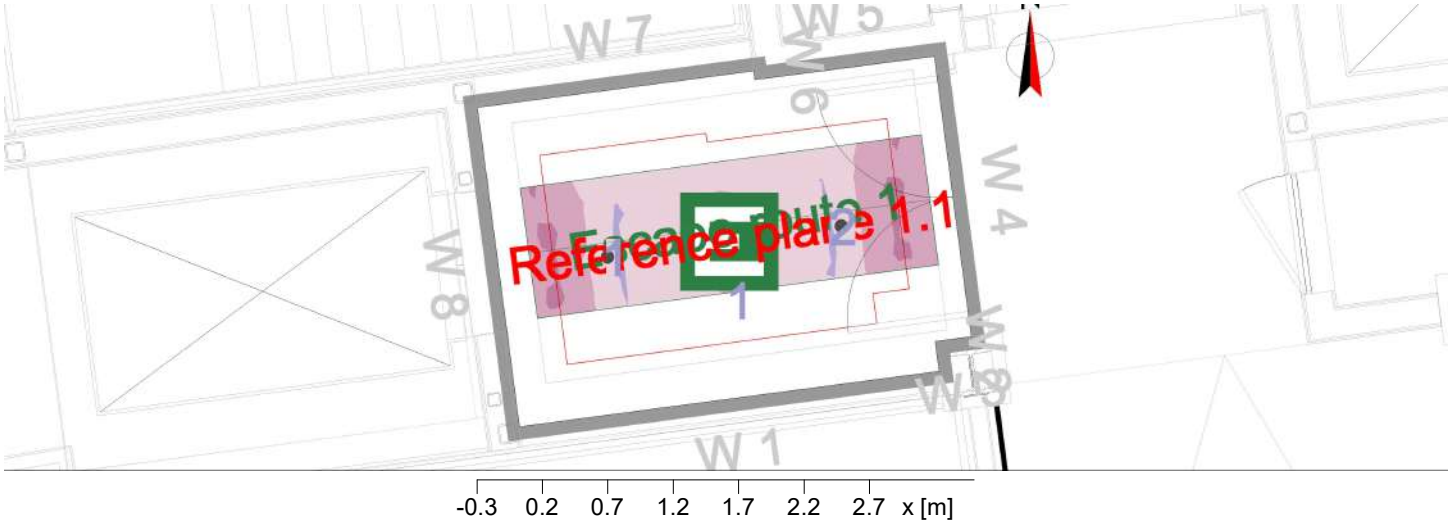
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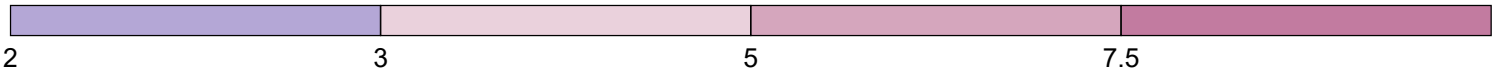
		Hacel Lighting Ltd.	
7	2 x	Order No.	: !594 12W LED 3000K
		Luminaire name	: 594 12W LED 3000K
		Equipment	: 1 x 12W LED 3000K 13.1 W / 1719 lm

4 L00-NS-018 Lift Lobby

4.2 Summary, L00-NS-018 Lift Lobby

4.2.1.1 Result overview (emergency lighting)





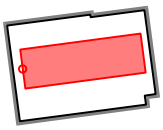
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.47 m	
Maximum I	: 270 cd	<= 1600 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 3.09m x 1m (15 x 9 pts), Height = 0.00m					
1	2.89 lx	7.53 lx	1: 2.61	2.88 lx	7.73 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Type No.\Make

	Mackwell			
8	1E x	Order No.	: !LSX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LSX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

5 L00-NS-021 Circulation

5.1 Summary, L00-NS-021 Circulation

5.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	36519 lm
Luminaire luminous flux	32819 lm
Total power	518.0 W
Total power per area (214.14 m²)	2.42 W/m² (1.84 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	131 lx
E_{min}	86 lx
$E_{min}/\bar{E}_m$ (U_o)	0.65
E_{min}/E_{max} (U_d)	0.32
Position	0.00 m

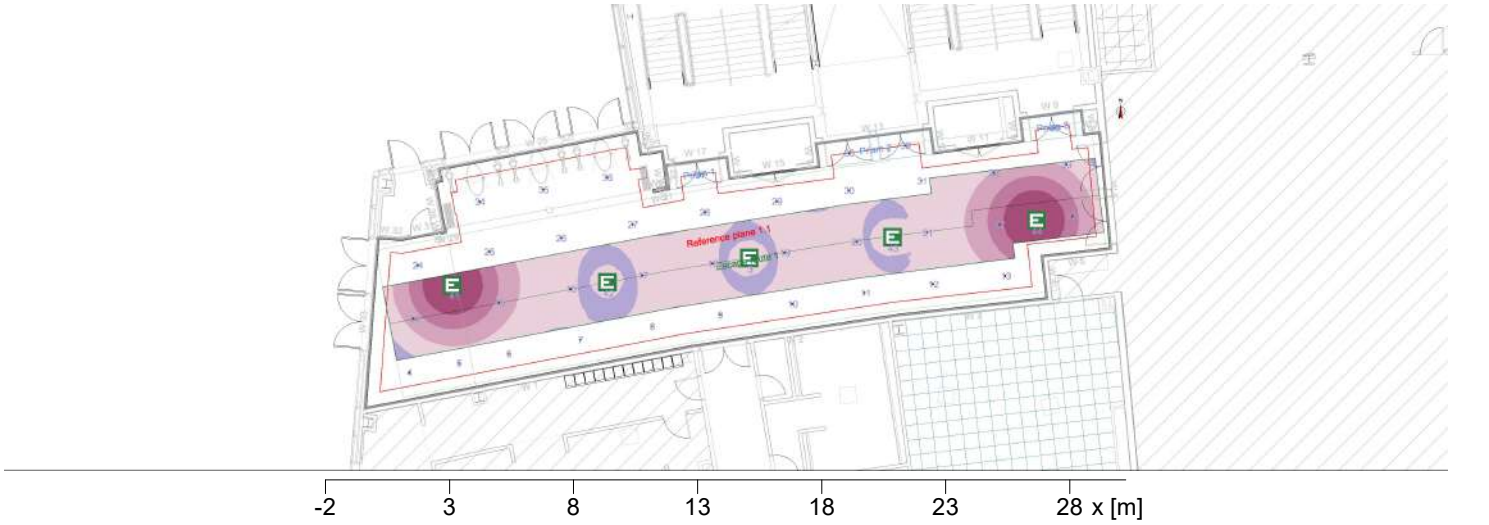
Type No.\Make

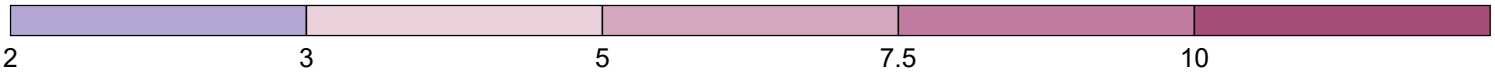
		Chiara Lighting Limited	
5	37 x	Order No.	: !APRF.X.X LE5.30.14.50.X
		Luminaire name	: Arch Pro Round Fixed, 930.14W.50d
		Equipment	: 1 x 3000k 14 W / 987 lm

5 L00-NS-021 Circulation

5.2 Summary, L00-NS-021 Circulation

5.2.1.1 Result overview (emergency lighting)





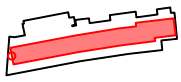
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.00 m	
Maximum I	: 180 cd	<= 900 cd

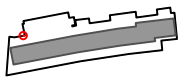
Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 29.64m x 3m (77 x 9 pts), Height = 0.00m					
1	2.92 lx	12.04 lx	1: 4.12	2.16 lx	13.27 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Places to highlight

No.	Surface Emin [lx]	Emax [lx]
1 Call Point (i)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	7.71 lx	8.11 lx
	>= 5 lx	



5 L00-NS-021 Circulation

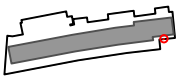
5.2 Summary, L00-NS-021 Circulation

5.2.1.1 Result overview (emergency lighting)

2 Call Point (ii)

Calculation field: 0.2m x 0.2m (3 x 3 pts)

2	7.32 lx	9.11 lx	
	>= 5 lx		



Type No.\Make

Mackwell

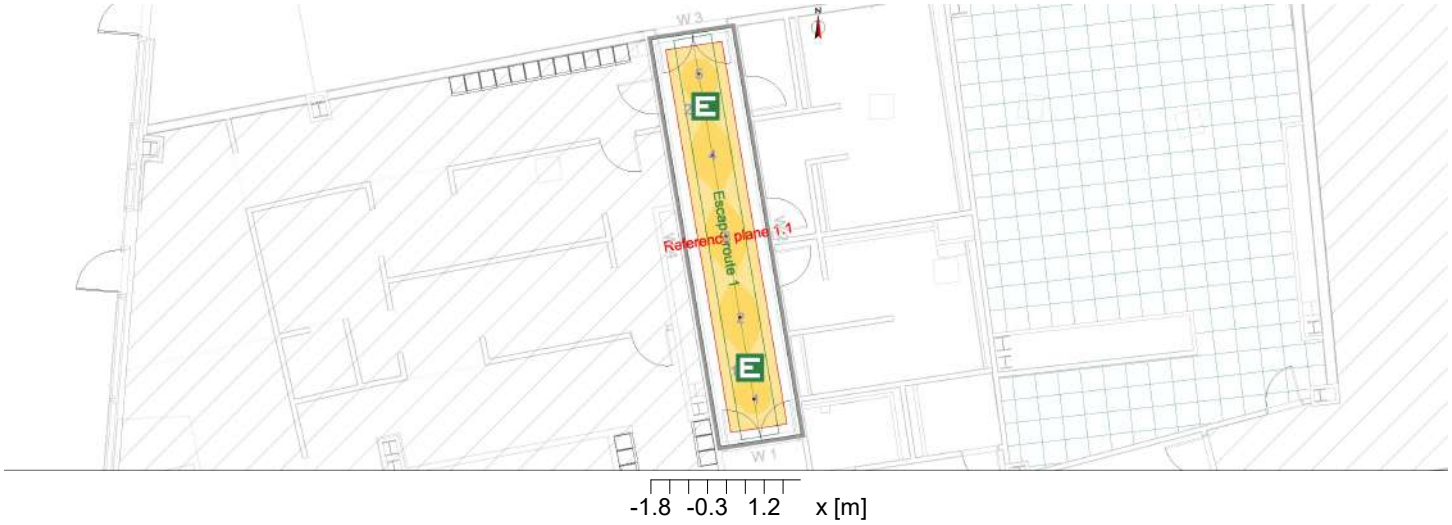
4 3E x
Order No. : !LRX HO (OPEN AREA 375lm) -- Emergency Lighting --
Luminaire name : LRX HO (OPEN AREA 375lm)
Equipment : 1 x LED 3 W / 375 lm (0%)
Emergency : 375 lm

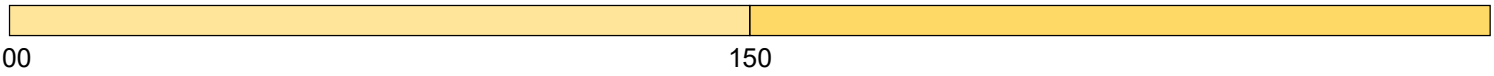
10 2E x
Order No. : !LRX HO (EMPHASIS 375lm) -- Emergency Lighting --
Luminaire name : LRX HO (EMPHASIS 375lm)
Equipment : 1 x LED 2.3 W / 375 lm (0%)
Emergency : 375 lm

6 L00-NS-024 Circulation

6.1 Summary, L00-NS-024 Circulation

6.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.60 m
Maintenance factor	0.80
Total lamp luminous flux	4935 lm
Luminaire luminous flux	4435 lm
Total power	70.0 W
Total power per area (23.41 m²)	2.99 W/m² (2.07 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	145 lx
E_{min}	106 lx
$E_{min}/\bar{E}_m$ (U_o)	0.73
E_{min}/E_{max} (U_d)	0.63
Position	0.00 m

Type No.\Make

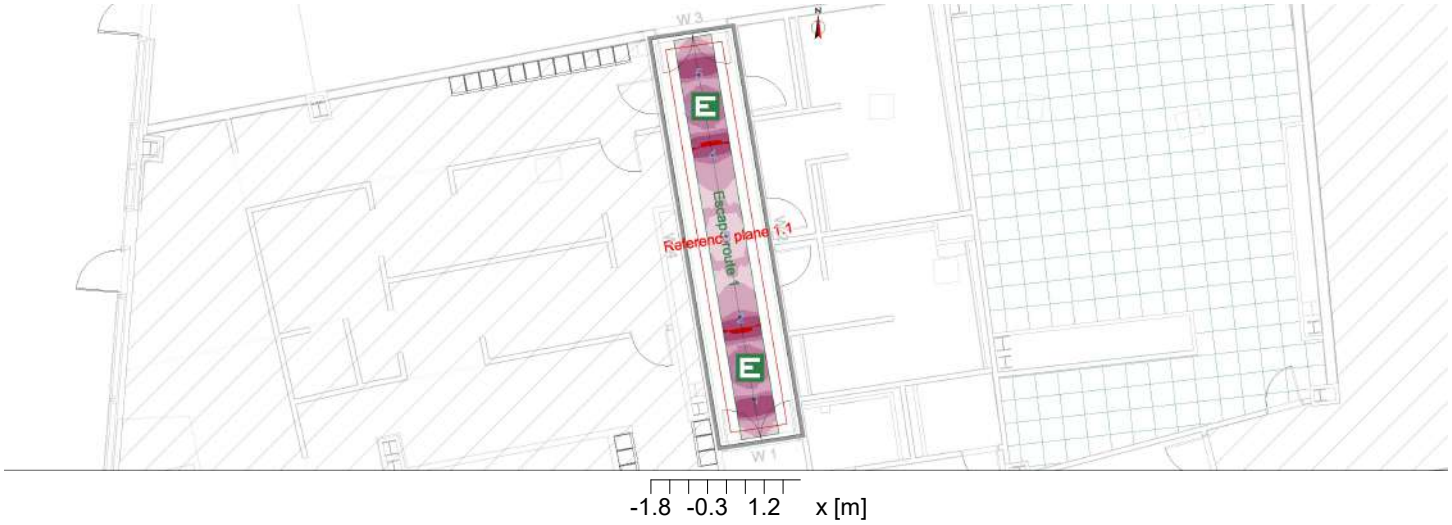
5 5 x

Chiara Lighting Limited
Order No. : !APRF.X.X LE5.30.14.50.X
Luminaire name : Arch Pro Round Fixed, 930.14W.50d
Equipment : 1 x 3000k 14 W / 987 lm

6 L00-NS-024 Circulation

6.2 Summary, L00-NS-024 Circulation

6.2.1.1 Result overview (emergency lighting)





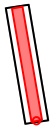
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.60 m	
Maximum I	: 270 cd	<= 900 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 10.69m x 1m (53 x 9 pts), Height = 0.00m					
1	4.53 lx	15.28 lx	1: 3.37	3.84 lx	15.65 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



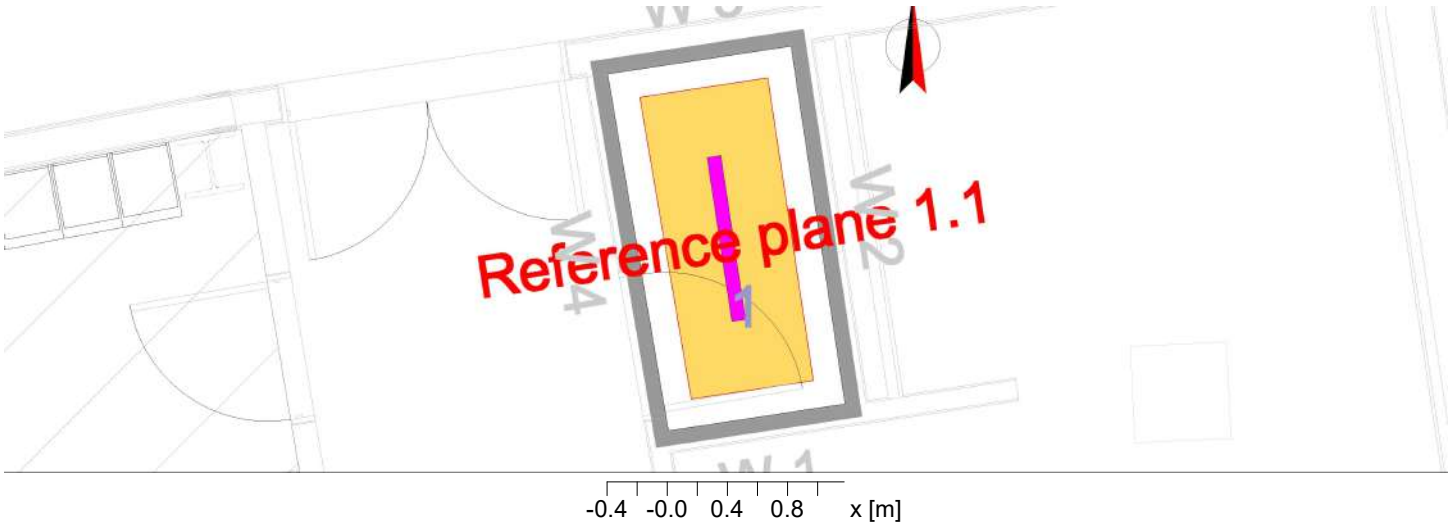
Type No.\Make

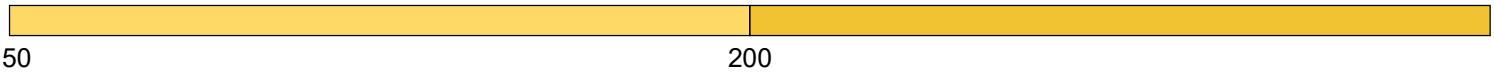
	Mackwell			
9	2E x	Order No.	: !LRX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

7 L00-NS-025 Cleaners Cupboard

7.1 Summary, L00-NS-025 Cleaners Cupboard

7.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.15 m
Maintenance factor	0.80
Total lamp luminous flux	4400 lm
Luminaire luminous flux	4399 lm
Total power	29.9 W
Total power per area (2.90 m²)	10.30 W/m² (5.91 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	174 lx
E_{min}	153 lx
$E_{min}/\bar{E}_m$ (U_o)	0.88
E_{min}/E_{max} (U_d)	0.81
Position	0.00 m

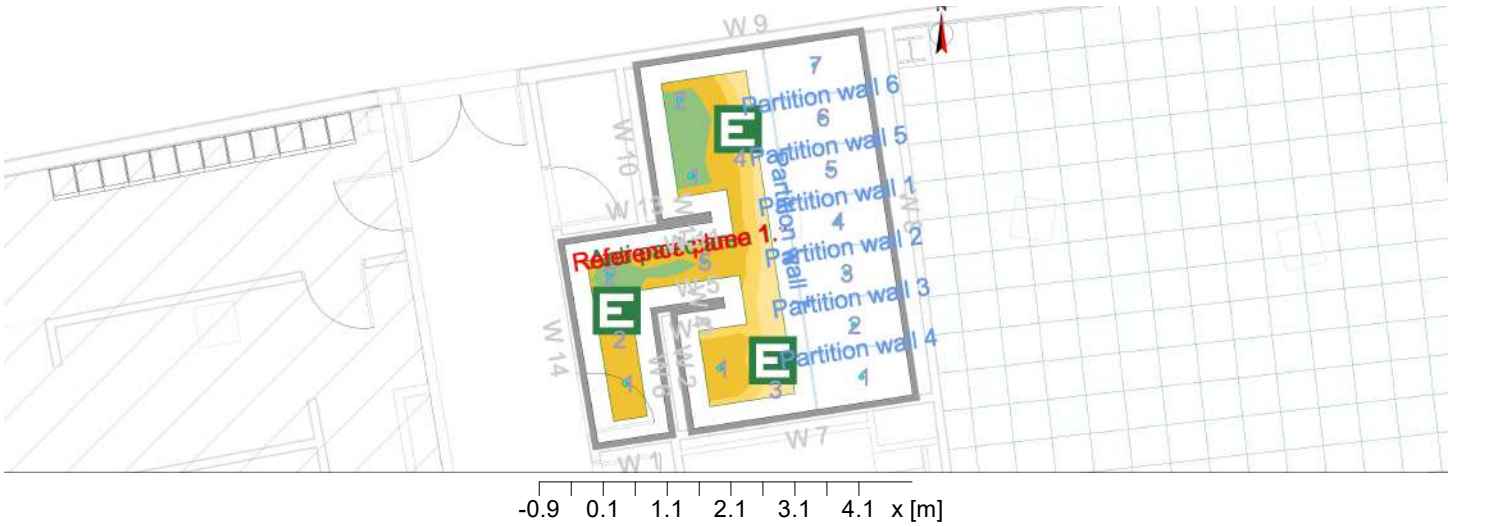
Type No.\Make

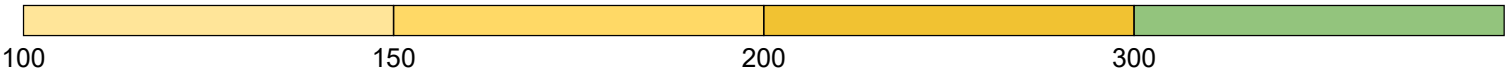
2	1 x	**Thorn**	
		Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

8 L00-NS-026 WC

8.1 Summary, L00-NS-026 WC

8.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Total lamp luminous flux	13273 lm
Luminaire luminous flux	12549 lm
Total power	182.0 W
Total power per area (23.56 m²)	7.73 W/m² (3.22 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	240 lx
E_{min}	127 lx
$E_{min}/\bar{E}_m$ (U_o)	0.53
E_{min}/E_{max} (U_d)	0.38
Position	0.00 m

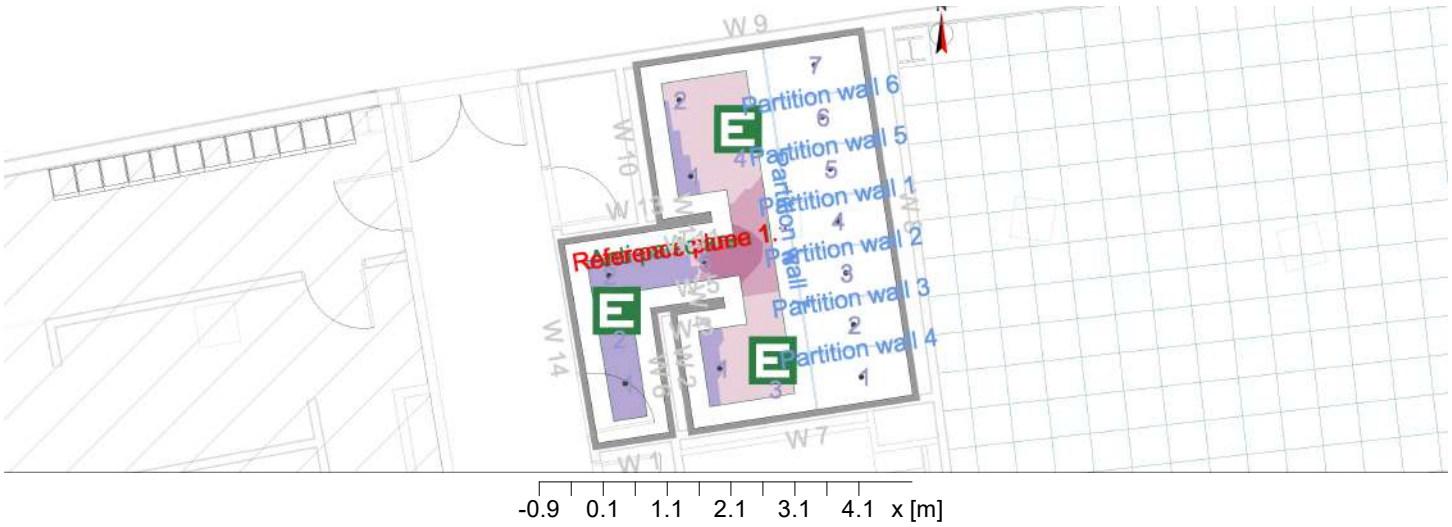
Type No.\Make

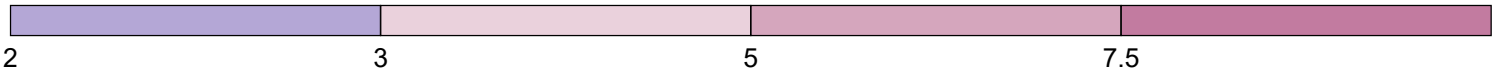
		Chiara Lighting Limited
6	13 x	Order No. : !APRF.X.X LE5.30.14.36.X
		Luminaire name : Arch Pro Round Fixed, 930.14W.36d
		Equipment : 1 x 3000k 14 W / 1021 lm

8 L00-NS-026 WC

8.2 Summary, L00-NS-026 WC

8.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 2.91m x 5.1m (5 x 8 pts), Height = 0.00m			
1	2.49 lx	8.11 lx	1: 3.25
	>= 0.5 lx		>= 1 : 40



Type No.\Make

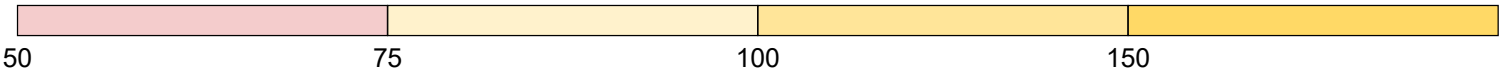
		Mackwell		
4	3E x	Order No.	: !LRX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

9 L00-NS-028 Lobby

9.1 Summary, L00-NS-028 Lobby

9.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total lamp luminous flux	10857 lm
Luminaire luminous flux	9757 lm
Total power	154.0 W
Total power per area (71.71 m²)	2.15 W/m² (1.81 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	119 lx
E_{min}	51 lx
$E_{min}/\bar{E}_m$ (U_o)	0.43
E_{min}/E_{max} (U_d)	0.30
Position	0.00 m

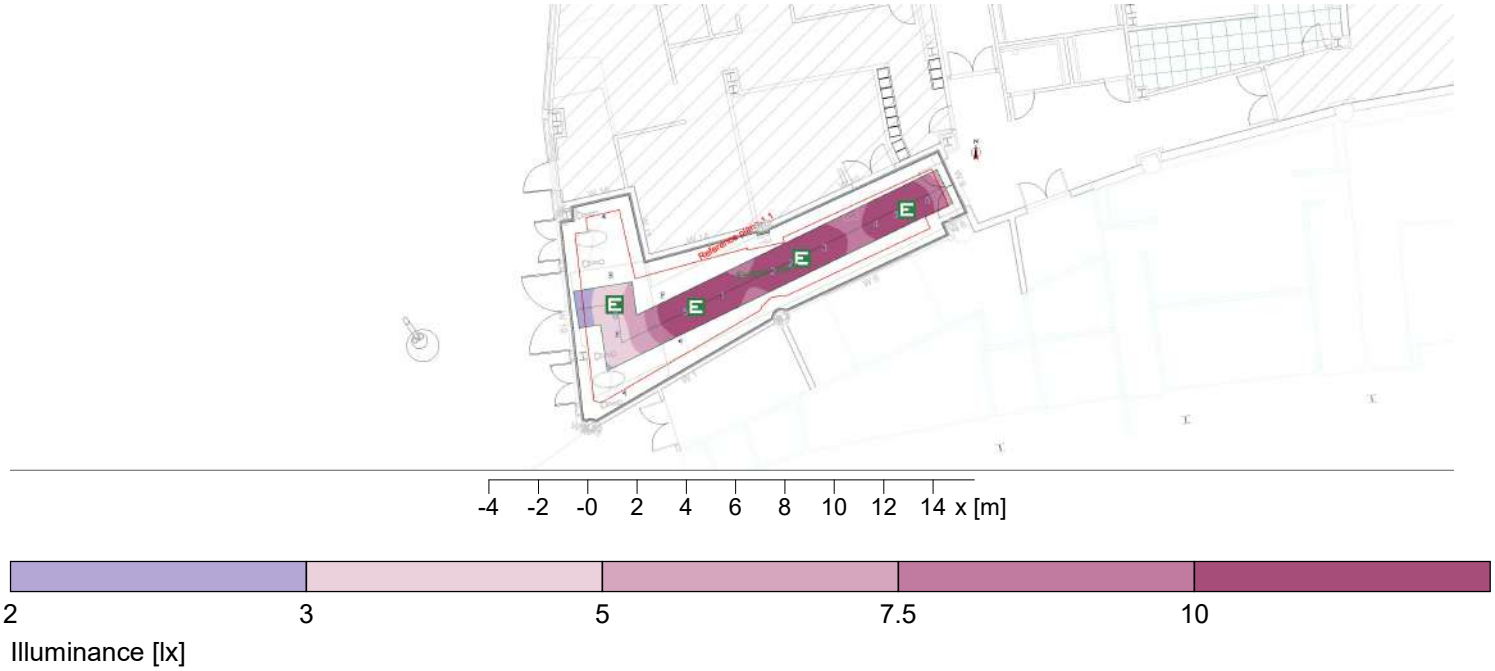
Type No.\Make

		Chiara Lighting Limited	
5	11 x	Order No.	: !APRF.X.X LE5.30.14.50.X
		Luminaire name	: Arch Pro Round Fixed, 930.14W.50d
		Equipment	: 1 x 3000k 14 W / 987 lm

9 L00-NS-028 Lobby

9.2 Summary, L00-NS-028 Lobby

9.2.1.1 Result overview (emergency lighting)

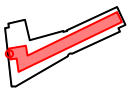


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.00 m	
Maximum I	: 180 cd	<= 900 cd

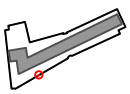
Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 17.79m x 1.5m (67 x 9 pts), Height = 0.00m					
1	2.68 lx	14.70 lx	1: 5.49	2.67 lx	14.70 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Places to highlight

No.	Surface Emin [lx]	Emax [lx]
1 Call Point (i)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	5.26 lx	6.34 lx
	>= 5 lx	



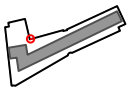
9 L00-NS-028 Lobby

9.2 Summary, L00-NS-028 Lobby

9.2.1.1 Result overview (emergency lighting)

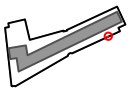
2 Call Point (ii)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

2	5.86 lx	6.58 lx
	>= 5 lx	



3 Call Point (iii)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

3	7.40 lx	8.66 lx
	>= 5 lx	



Type No.\Make

Mackwell

4 1E x

Order No.	: !LRX HO (OPEN AREA 375lm)
Luminaire name	: LRX HO (OPEN AREA 375lm)
Equipment	: 1 x LED 3 W / 375 lm (0%)
Emergency	: 375 lm

-- Emergency Lighting --

10 3E x

Order No.	: !LRX HO (EMPHASIS 375lm)
Luminaire name	: LRX HO (EMPHASIS 375lm)
Equipment	: 1 x LED 2.3 W / 375 lm (0%)
Emergency	: 375 lm

-- Emergency Lighting --

10 L00-NS-029 Support Kitchen

10.1 Summary, L00-NS-029 Support Kitchen

10.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Luminaire luminous flux	69450 lm
Total power	463.5 W
Total power per area (96.53 m²)	4.80 W/m² (0.89 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	538 lx
E_{min}	441 lx
$E_{min}/\bar{E}_m$ (U_o)	0.82
E_{min}/E_{max} (U_d)	0.61
Position	0.75 m

Type No.\Make

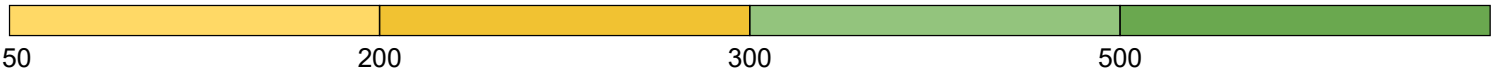
		Thorn	
1	15E x	Order No.	: 96636089 -- Emergency Lighting --
		Luminaire name	: DUOPRF2 4600-840 HFIX PM O M600Q [STD]
		Equipment	: 1 x 96636089 31 W / 4630 lm
		Emergency	: 4630 lm (100.0 %)

10 L00-NS-029 Support Kitchen

10.2 Summary, L00-NS-029 Support Kitchen

10.2.1.1 Result overview (emergency lighting)





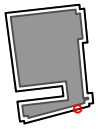
Illuminance [lx]

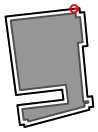
General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.39 m	
Maximum I	: 1600 cd	<= 1000 cd

Places to highlight

No.	Surface Emin [lx]	Emax [lx]
1 Call Point (i)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	215.97 lx >= 5 lx	238.91 lx
2 Call Point (ii)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
2	214.96 lx >= 5 lx	282.58 lx





Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)

10 L00-NS-029 Support Kitchen

10.2 Summary, L00-NS-029 Support Kitchen

10.2.1.1 Result overview (emergency lighting)

High risk area 1

Calculation field: 7.94m x 11.67m (7 x 10 pts), Height = 0.75m

1	402 lx	187 lx	0.47
	---		>= 0.10



Type No.\Make

Thorn

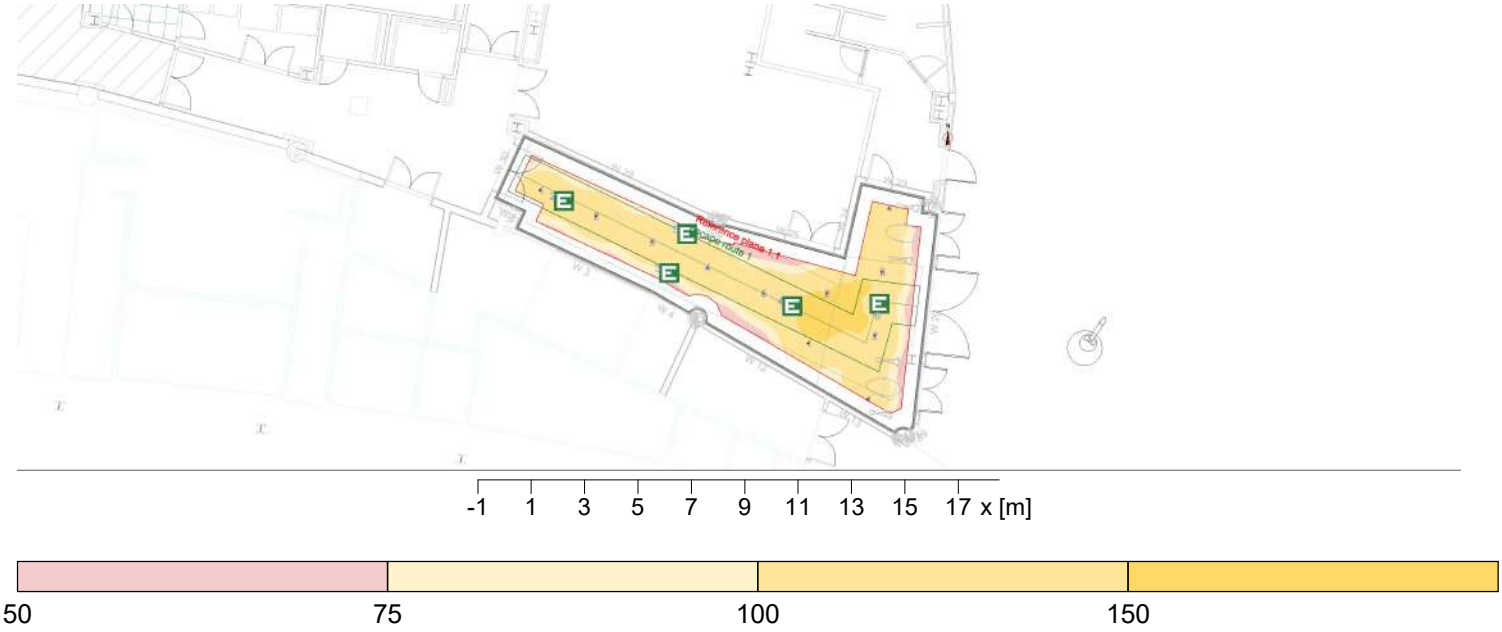
1 15E x

Order No.	: 96636089 -- Emergency Lighting --
Luminaire name	: DUOPRF2 4600-840 HFIX PM O M600Q [STD]
Equipment	: 1 x 96636089 31 W / 4630 lm
Emergency	: 4630 lm (100.0 %)

11 L00-NS-087 Lobby

11.1 Summary, L00-NS-087 Lobby

11.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.99 m
Maintenance factor	0.80
Total lamp luminous flux	10857 lm
Luminaire luminous flux	9757 lm
Total power	154.0 W
Total power per area (73.38 m²)	2.10 W/m² (1.78 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	118 lx
E_{min}	53 lx
$E_{min}/\bar{E}_m$ (U_o)	0.45
E_{min}/E_{max} (U_d)	0.31
Position	0.00 m

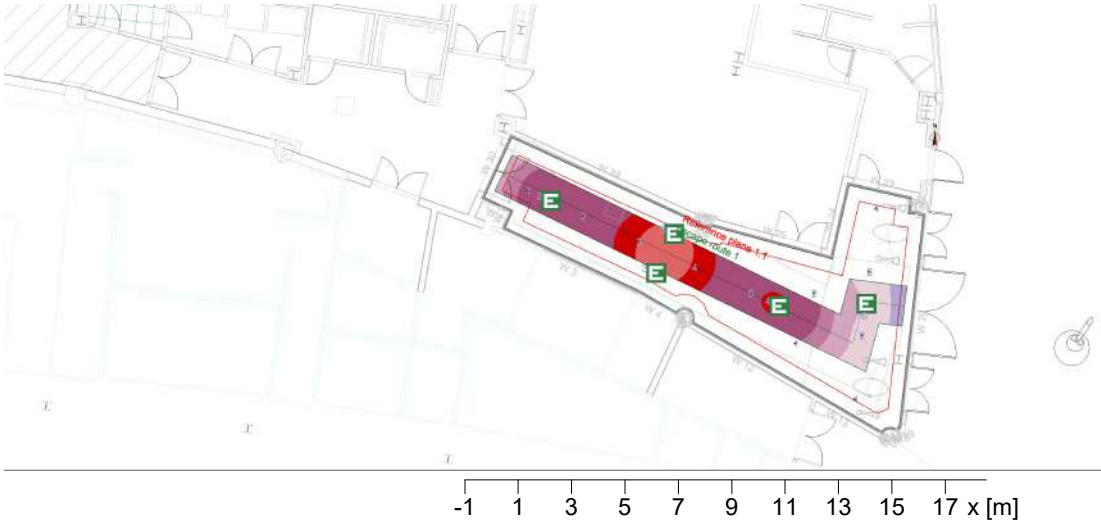
Type No.\Make

		Chiara Lighting Limited
5	11 x	Order No. : !APRF.X.X LE5.30.14.50.X
		Luminaire name : Arch Pro Round Fixed, 930.14W.50d
		Equipment : 1 x 3000k 14 W / 987 lm

11 L00-NS-087 Lobby

11.2 Summary, L00-NS-087 Lobby

11.2.1.1 Result overview (emergency lighting)



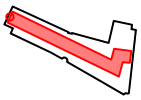


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.00 m	
Maximum I	: 180 cd	<= 900 cd

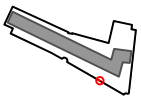
Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 17.69m x 1.5m (67 x 9 pts), Height = 0.00m					
1	2.75 lx	23.86 lx	1: 8.68	2.75 lx	23.86 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Places to highlight

No.	Surface Emin [lx]	Emax [lx]
1 Call Point (i)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	5.17 lx	6.23 lx
	>= 5 lx	



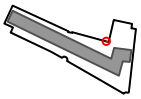
11 L00-NS-087 Lobby

11.2 Summary, L00-NS-087 Lobby

11.2.1.1 Result overview (emergency lighting)

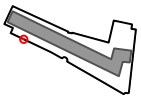
2 Call Point (ii)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

2	6.01 lx	6.74 lx
	>= 5 lx	



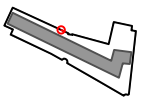
3 Call Point (iii)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

3	7.94 lx	9.10 lx
	>= 5 lx	



4 Fire Alarm Panel
Calculation field: 0.5m x 0.5m (4 x 4 pts)

4	16.46 lx	28.54 lx
	>= 15 lx	



Type No.\Make

Mackwell

4 1E x

Order No.	: !LRX HO (OPEN AREA 375lm)
Luminaire name	: LRX HO (OPEN AREA 375lm)
Equipment	: 1 x LED 3 W / 375 lm (0%)
Emergency	: 375 lm

-- Emergency Lighting --

10 4E x

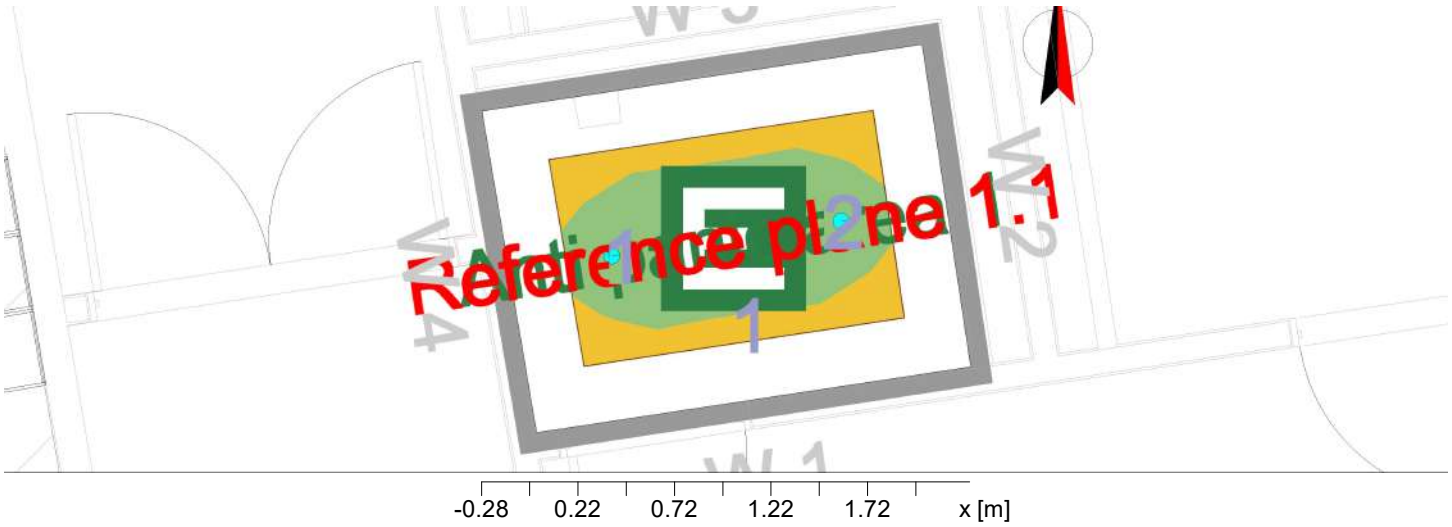
Order No.	: !LRX HO (EMPHASIS 375lm)
Luminaire name	: LRX HO (EMPHASIS 375lm)
Equipment	: 1 x LED 2.3 W / 375 lm (0%)
Emergency	: 375 lm

-- Emergency Lighting --

12 L00-NS-090 AWC

12.1 Summary, L00-NS-090 AWC

12.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Total lamp luminous flux	2042 lm
Luminaire luminous flux	1931 lm
Total power	28.0 W
Total power per area (3.85 m²)	7.27 W/m² (2.28 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	318 lx
E_{min}	280 lx
$E_{min}/\bar{E}_m$ (U_o)	0.88
E_{min}/E_{max} (U_d)	0.79
Position	0.00 m

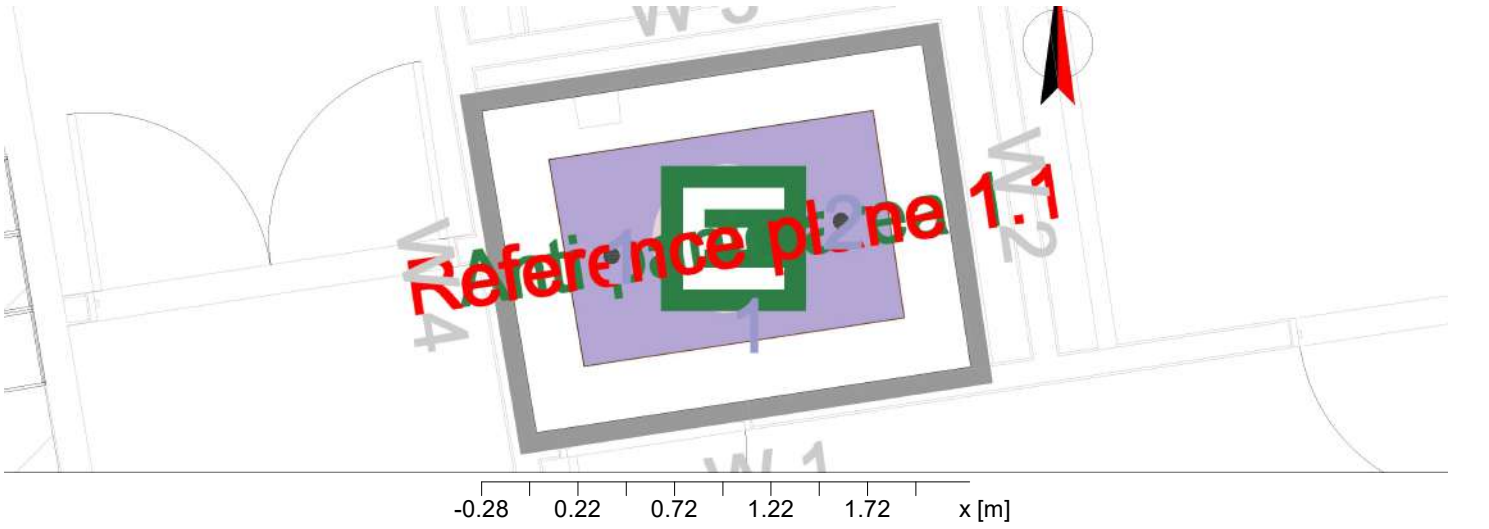
Type No.\Make

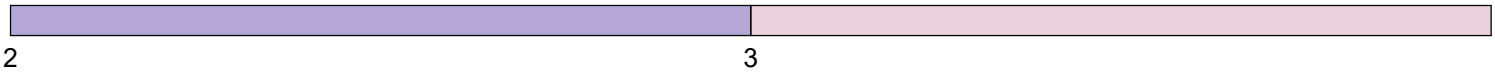
		Chiara Lighting Limited
6	2 x	Order No. : !APRF.X.X LE5.30.14.36.X
		Luminaire name : Arch Pro Round Fixed, 930.14W.36d
		Equipment : 1 x 3000k 14 W / 1021 lm

12 L00-NS-090 AWC

12.2 Summary, L00-NS-090 AWC

12.2.1.1 Result overview (emergency lighting)





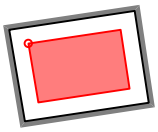
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 1.7m x 1.08m (6 x 4 pts), Height = 0.00m			
1	2.49 lx	3.94 lx	1: 1.58
	>= 0.5 lx		>= 1 : 40



Type No.\Make

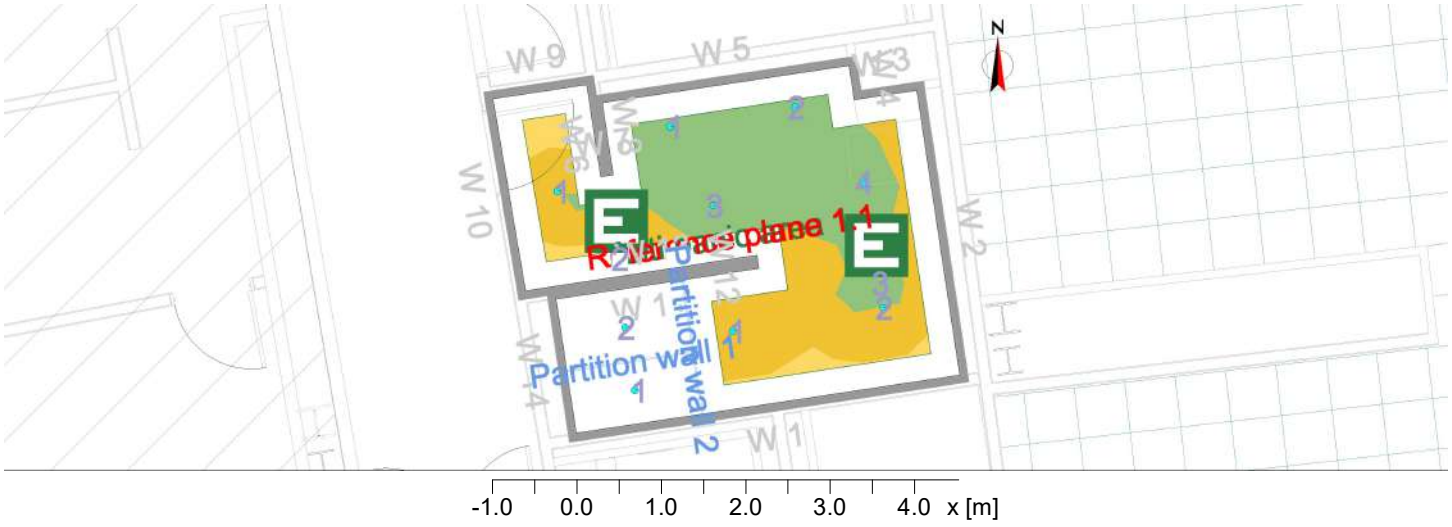
4 1E x **Mackwell**

Order No.	: !LRX HO (OPEN AREA 375lm)	-- Emergency Lighting --
Luminaire name	: LRX HO (OPEN AREA 375lm)	
Equipment	: 1 x LED 3 W / 375 lm (0%)	
Emergency	: 375 lm	

13 L00-NS-092 WC

13.1 Summary, L00-NS-092 WC

13.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Total lamp luminous flux	9189 lm
Luminaire luminous flux	8687 lm
Total power	126.0 W
Total power per area (17.68 m²)	7.13 W/m² (2.24 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	318 lx
E_{min}	185 lx
$E_{min}/\bar{E}_m$ (U_o)	0.58
E_{min}/E_{max} (U_d)	0.40
Position	0.00 m

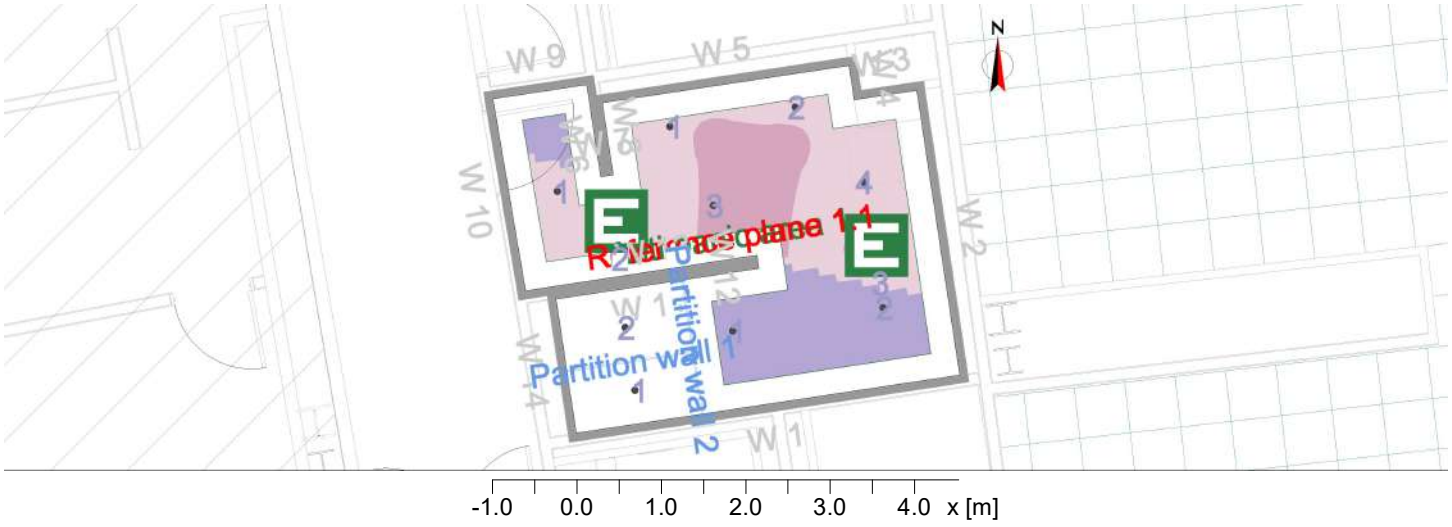
Type No.\Make

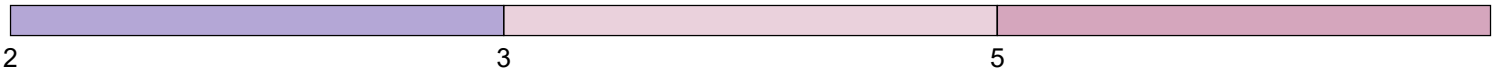
		Chiara Lighting Limited
6	9 x	Order No. : !APRF.X.X LE5.30.14.36.X
		Luminaire name : Arch Pro Round Fixed, 930.14W.36d
		Equipment : 1 x 3000k 14 W / 1021 lm

13 L00-NS-092 WC

13.2 Summary, L00-NS-092 WC

13.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 4.37m x 3.45m (8 x 6 pts), Height = 0.00m			
1	2.11 lx	5.95 lx	1: 2.82
	>= 0.5 lx		>= 1 : 40



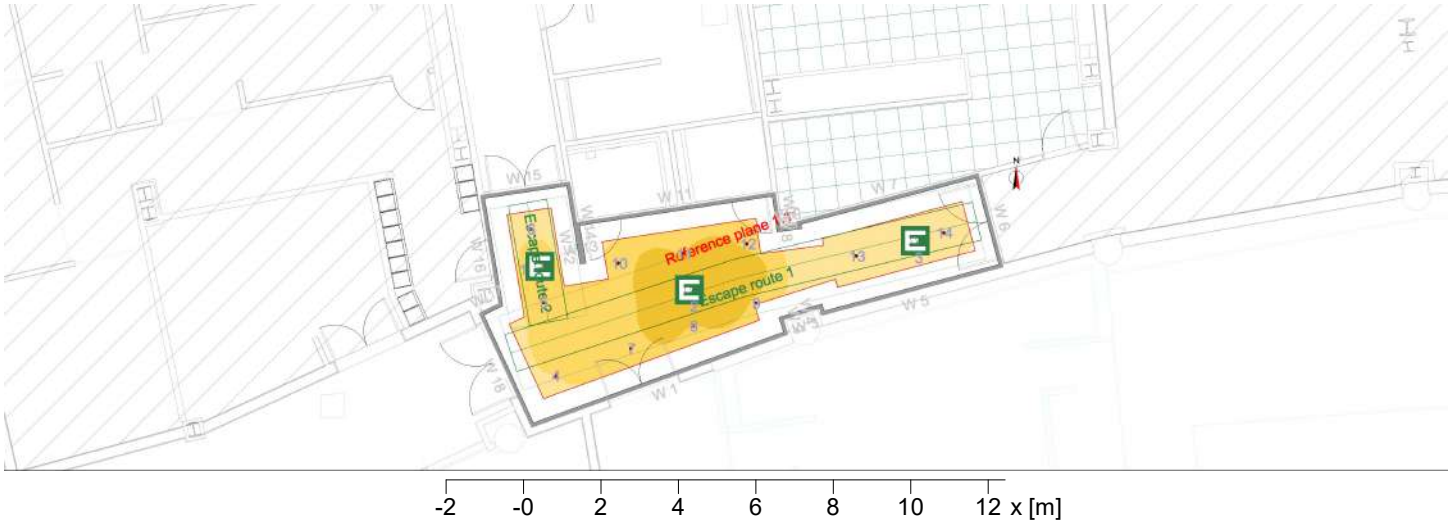
Type No.\Make

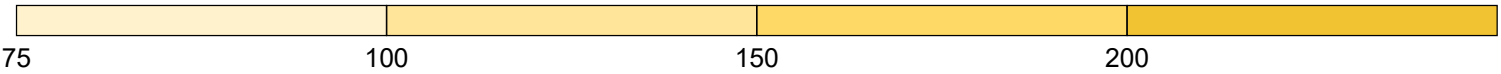
		Mackwell		
4	2E x	Order No.	: !LRX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

14 L00-NS-093 Circulation

14.1 Summary, L00-NS-093 Circulation

14.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total lamp luminous flux	10857 lm
Luminaire luminous flux	9757 lm
Total power	154.0 W
Total power per area (45.24 m²)	3.40 W/m² (1.97 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	173 lx
E_{min}	96 lx
$E_{min}/\bar{E}_m$ (U_o)	0.56
E_{min}/E_{max} (U_d)	0.39
Position	0.00 m

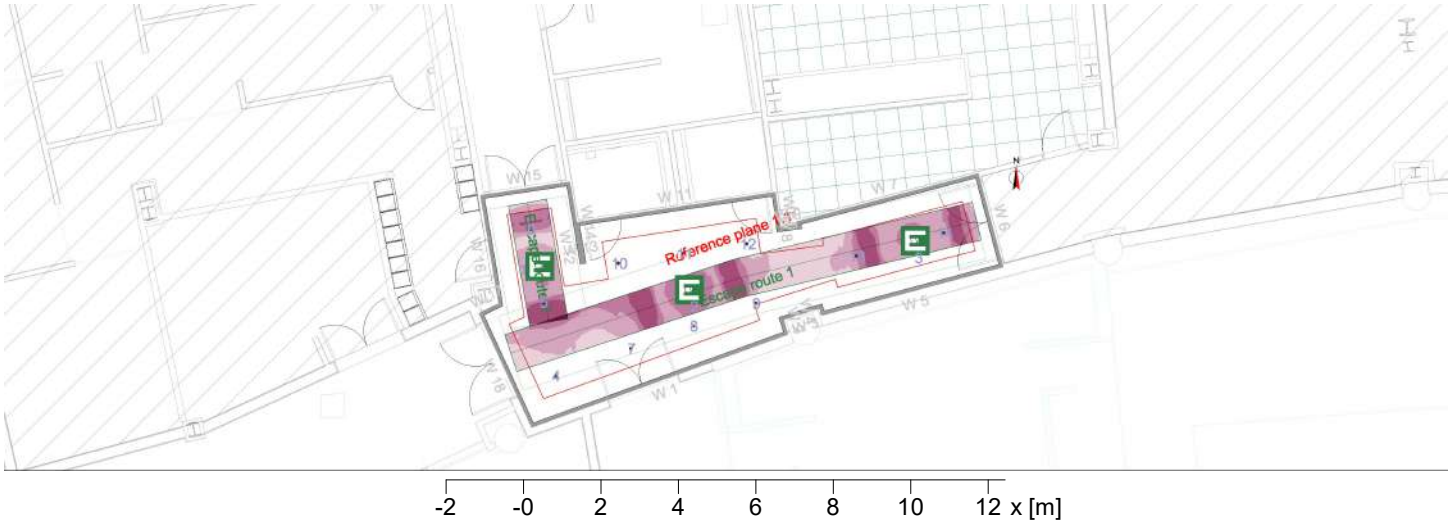
Type No.\Make

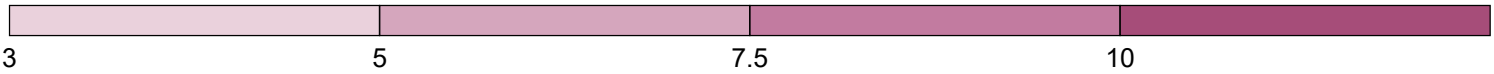
		Chiara Lighting Limited
5	11 x	Order No. : !APRF.X.X LE5.30.14.50.X
		Luminaire name : Arch Pro Round Fixed, 930.14W.50d
		Equipment : 1 x 3000k 14 W / 987 lm

14 L00-NS-093 Circulation

14.2 Summary, L00-NS-093 Circulation

14.2.1.1 Result overview (emergency lighting)





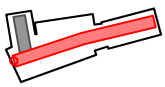
Illuminance [lx]

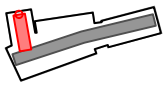
General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.00 m	
Maximum I	: 270 cd	<= 900 cd

Escape routes:

No.	Central axis Emin [lx]	Central axis Emax [lx]	Ud	Surface Emin [lx]	Surface Emax [lx]
Escape route 1					
Calculation field: 12.5m x 1m (63 x 9 pts), Height = 0.00m					
1	3.44 lx	12.76 lx	1: 3.71	3.23 lx	12.84 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	
Escape route 2					
Calculation field: 3.13m x 1m (13 x 9 pts), Height = 0.00m					
2	4.10 lx	12.92 lx	1: 3.15	3.67 lx	13.13 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	





Type No.\Make

14 L00-NS-093 Circulation

14.2 Summary, L00-NS-093 Circulation

14.2.1.1 Result overview (emergency lighting)

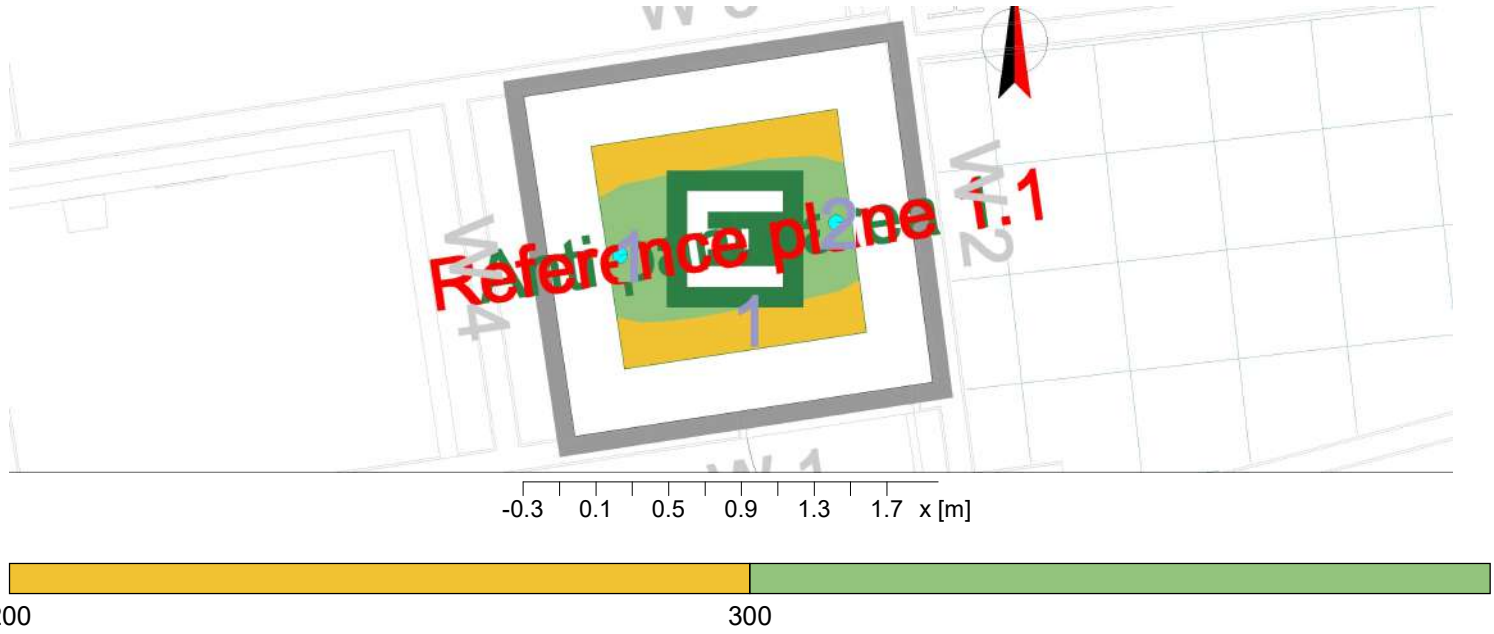
Mackwell

9	3E x	Order No.	: !LRX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

15 L00-NS-120 WC

15.1 Summary, L00-NS-120 WC

15.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Total lamp luminous flux	2042 lm
Luminaire luminous flux	1931 lm
Total power	28.0 W
Total power per area (3.78 m²)	7.41 W/m² (2.35 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	315 lx
E_{min}	271 lx
$E_{min}/\bar{E}_m$ (U_o)	0.86
E_{min}/E_{max} (U_d)	0.74
Position	0.00 m

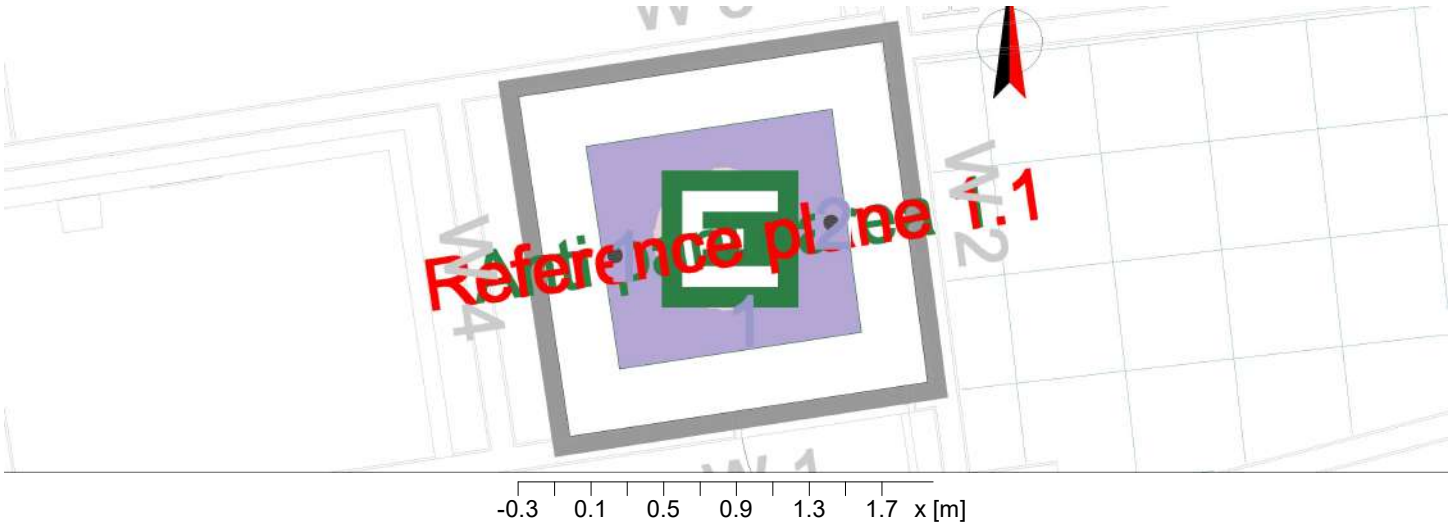
Type No.\Make

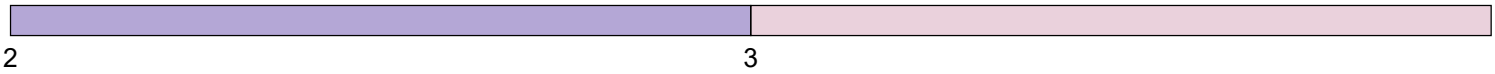
		Chiara Lighting Limited
6	2 x	Order No. : !APRF.X.X LE5.30.14.36.X
		Luminaire name : Arch Pro Round Fixed, 930.14W.36d
		Equipment : 1 x 3000k 14 W / 1021 lm

15 L00-NS-120 WC

15.2 Summary, L00-NS-120 WC

15.2.1.1 Result overview (emergency lighting)





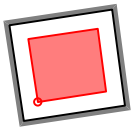
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 1.37m x 1.23m (5 x 5 pts), Height = 0.00m			
1	2.49 lx	4.04 lx	1: 1.62
	>= 0.5 lx		>= 1 : 40



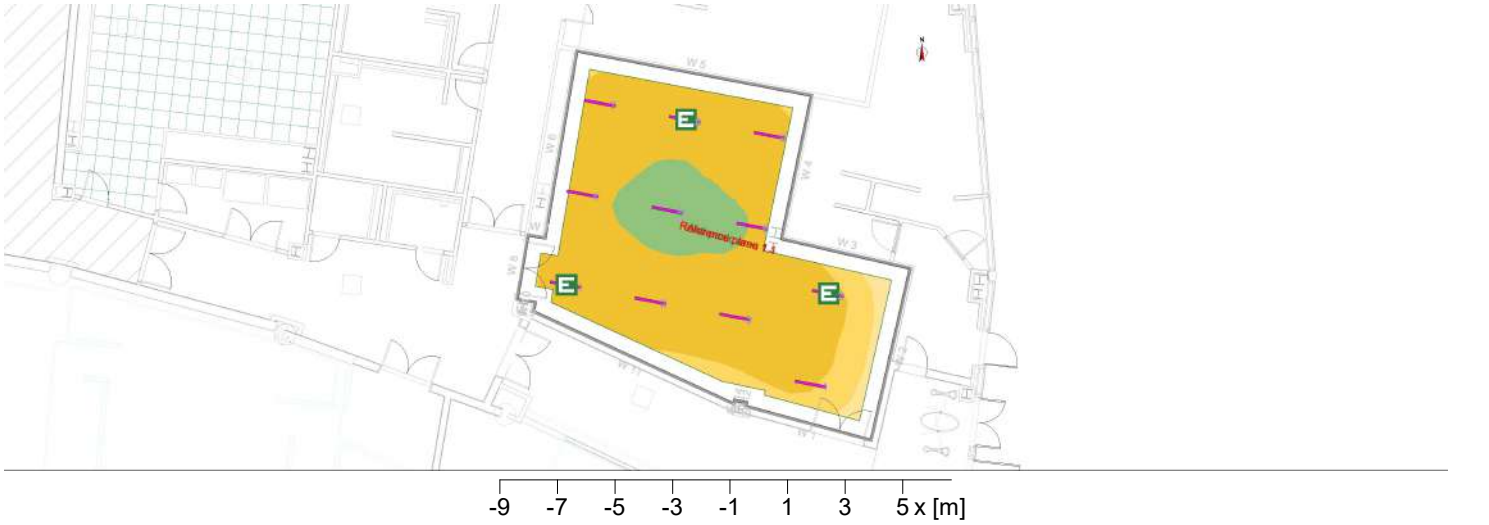
Type No.\Make

		Mackwell		
4	1E x	Order No.	: !LRX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

16 L00-NS-122 Furniture Store

16.1 Summary, L00-NS-122 Furniture Store

16.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.50 m
Maintenance factor	0.80
Total lamp luminous flux	48400 lm
Luminaire luminous flux	48386 lm
Total power	328.9 W
Total power per area (108.61 m²)	3.03 W/m² (1.19 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	254 lx
E_{min}	121 lx
$E_{min}/\bar{E}_m$ (U_o)	0.47
E_{min}/E_{max} (U_d)	0.38
Position	0.00 m

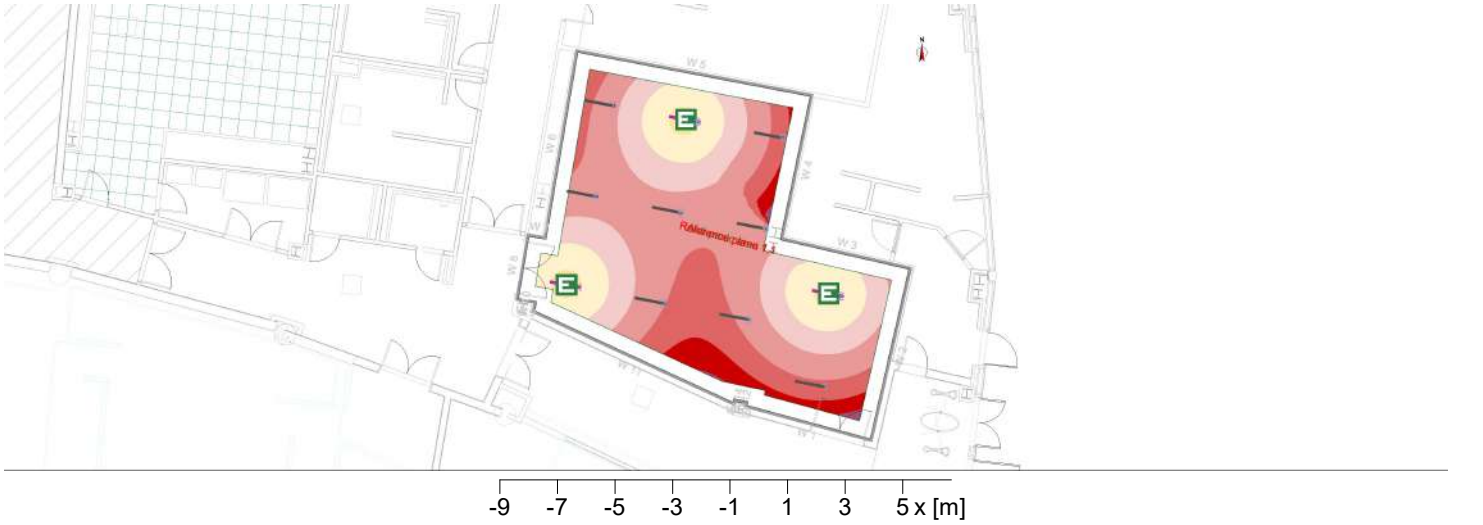
Type No.\Make

		Thorn	
2	11E x	Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

16 L00-NS-122 Furniture Store

16.2 Summary, L00-NS-122 Furniture Store

16.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.43 m	
Maximum I	: 1500 cd	<= 1600 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 12.23m x 9.87m (11 x 9 pts), Height = 0.00m			
1	12.13 lx	104.84 lx	1: 8.64
	>= 0.5 lx		>= 1 : 40



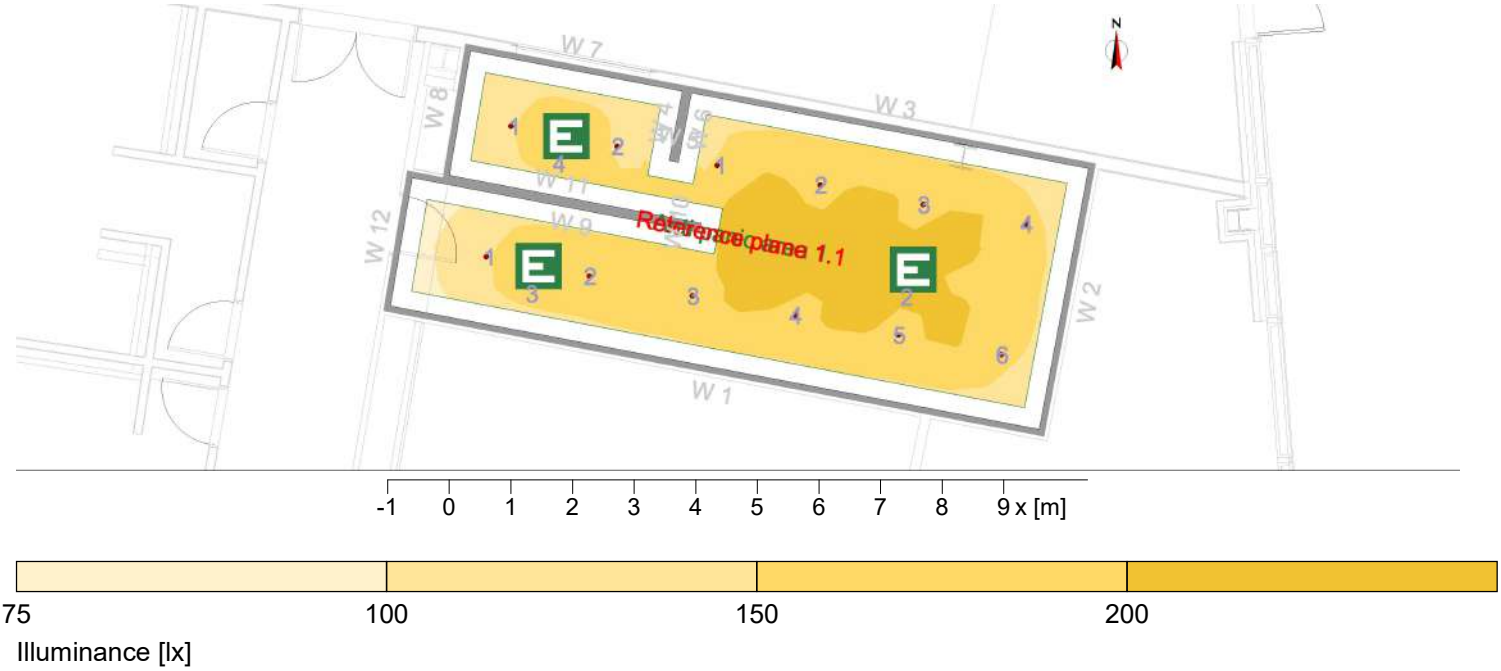
Type No.\Make

		Thorn	
2	3E x	Order No.	: 96630794 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

17 L00-NS-123 Cloaks

17.1 Summary, L00-NS-123 Cloaks

17.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total lamp luminous flux	11844 lm
Luminaire luminous flux	10644 lm
Total power	168.0 W
Total power per area (44.13 m²)	3.81 W/m² (2.18 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	174 lx
E_{min}	89 lx
$E_{min}/\bar{E}_m$ (U_o)	0.51
E_{min}/E_{max} (U_d)	0.42
Position	0.00 m

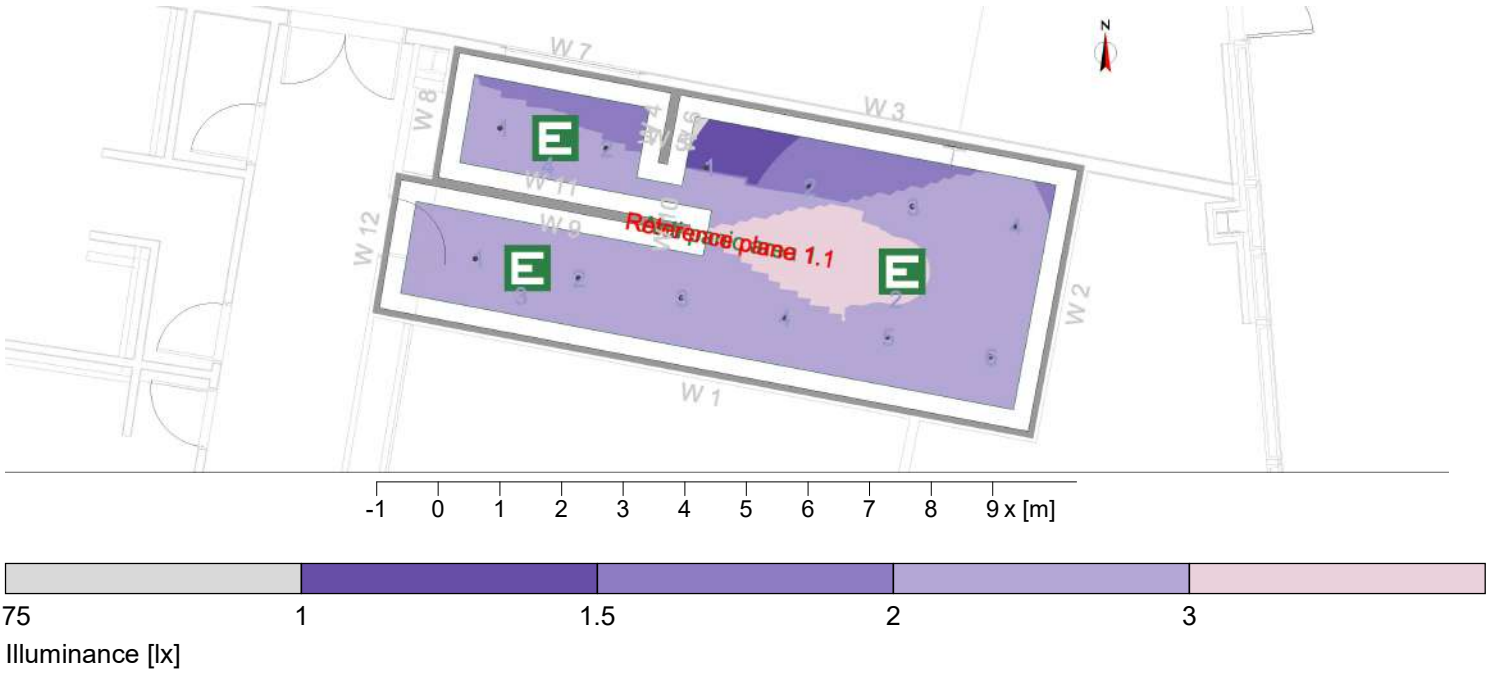
Type No.\Make

		Chiara Lighting Limited
5	12 x	Order No. : !APRF.X.X LE5.30.14.50.X
		Luminaire name : Arch Pro Round Fixed, 930.14W.50d
		Equipment : 1 x 3000k 14 W / 987 lm

17 L00-NS-123 Cloaks

17.2 Summary, L00-NS-123 Cloaks

17.2.1.1 Result overview (emergency lighting)

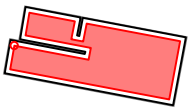


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.00 m	
Maximum I	: 180 cd	<= 1600 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 10.14m x 3.7m (20 x 7 pts), Height = 0.00m			
1	0.94 lx	4.03 lx	1: 4.29
	>= 0.5 lx		>= 1 : 40



Type No.\Make

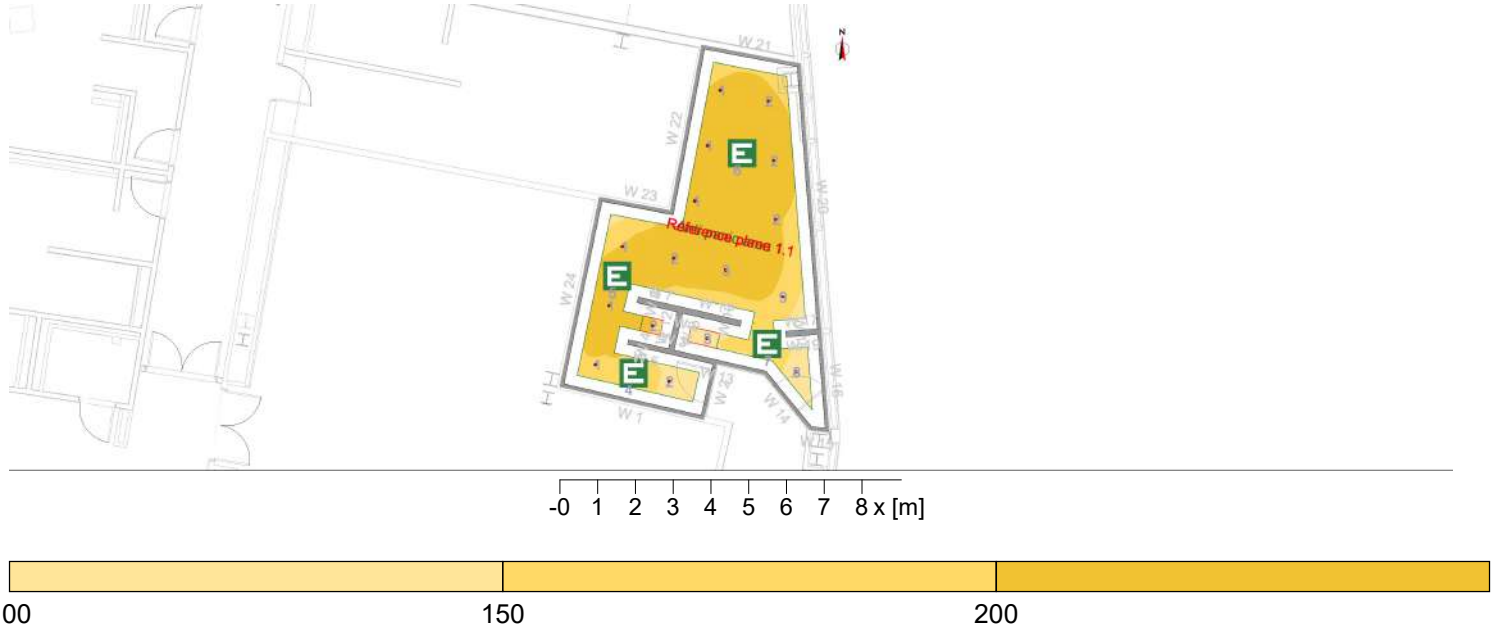
4 3E x **Mackwell**

Order No.	: !LRX HO (OPEN AREA 375lm) -- Emergency Lighting --
Luminaire name	: LRX HO (OPEN AREA 375lm)
Equipment	: 1 x LED 3 W / 375 lm (0%)
Emergency	: 375 lm

18 L00-NS-124 Male Prayer

18.1 Summary, L00-NS-124 Male Prayer

18.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total lamp luminous flux	15792 lm
Luminaire luminous flux	14192 lm
Total power	224.0 W
Total power per area (41.29 m²)	5.43 W/m² (2.44 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	223 lx
E_{min}	107 lx
$E_{min}/\bar{E}_m$ (U_o)	0.48
E_{min}/E_{max} (U_d)	0.36
Position	0.00 m

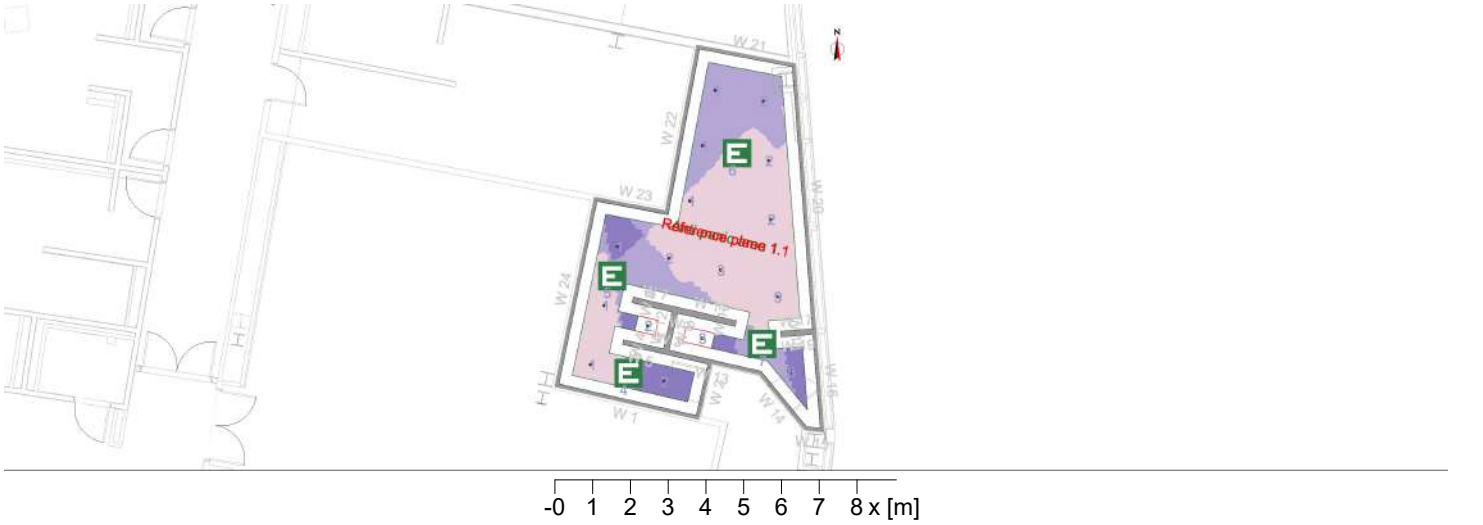
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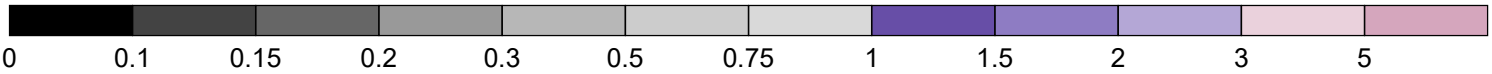
		Chiara Lighting Limited
5	16 x	Order No. : !APRF.X.X LE5.30.14.50.X
		Luminaire name : Arch Pro Round Fixed, 930.14W.50d
		Equipment : 1 x 3000k 14 W / 987 lm

18 L00-NS-124 Male Prayer

18.2 Summary, L00-NS-124 Male Prayer

18.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.00 m	
Maximum I	: 180 cd	<= 1600 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 6.35m x 8.93m (21 x 30 pts), Height = 0.00m			
1	1.59 lx	4.96 lx	1: 3.11
	>= 0.5 lx		>= 1 : 40



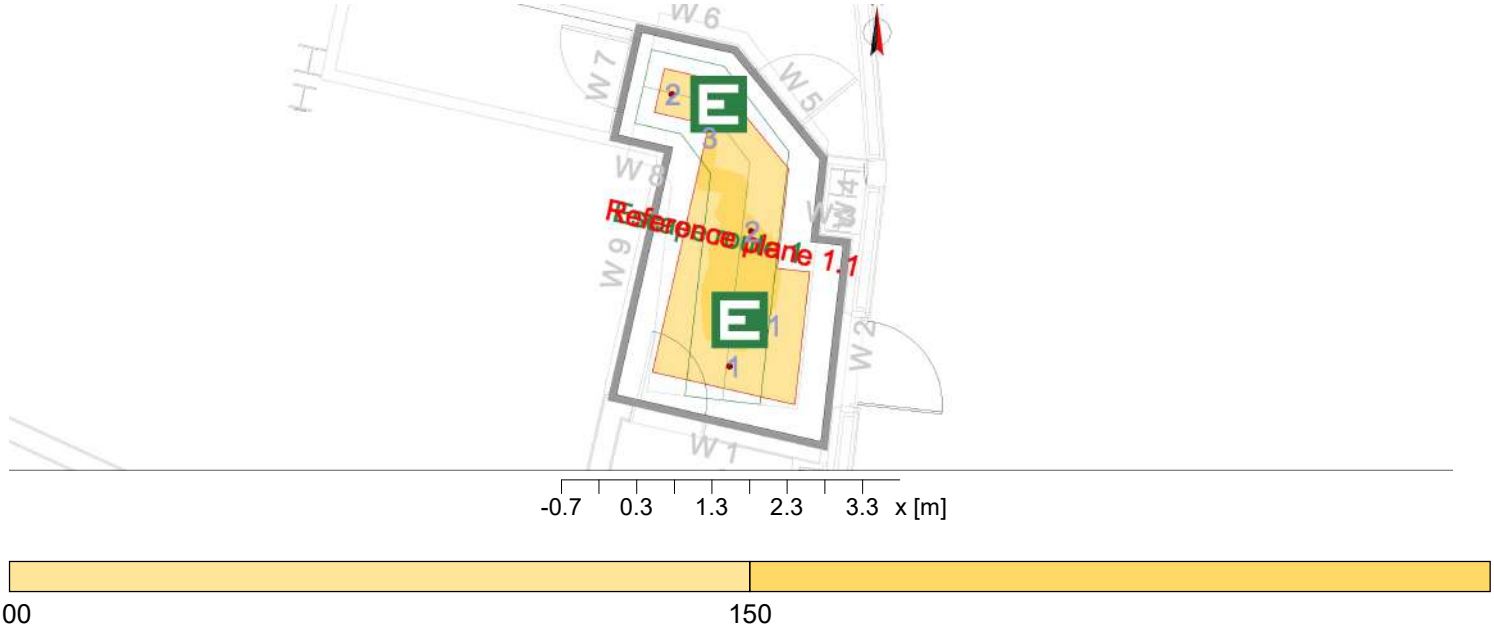
Type No.\Make

		Mackwell		
4	4E x	Order No.	: !LRX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

19 L00-NS-127 Shoes Lobby

19.1 Summary, L00-NS-127 Shoes Lobby

19.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total lamp luminous flux	2961 lm
Luminaire luminous flux	2661 lm
Total power	42.0 W
Total power per area (11.32 m²)	3.71 W/m² (2.61 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	142 lx
E_{min}	106 lx
$E_{min}/\bar{E}_m$ (U_o)	0.74
E_{min}/E_{max} (U_d)	0.62
Position	0.00 m

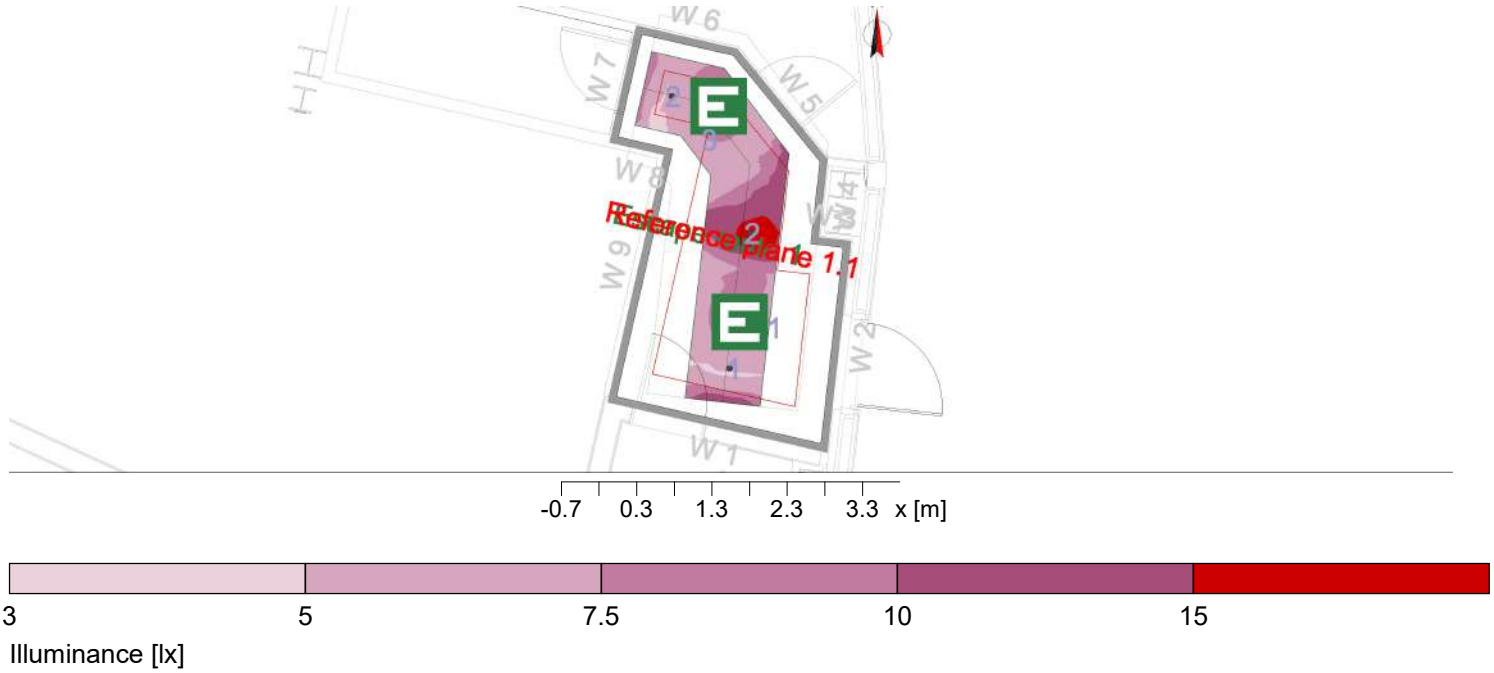
Type No.\Make

		Chiara Lighting Limited
5	3 x	Order No. : !APRF.X.X LE5.30.14.50.X
		Luminaire name : Arch Pro Round Fixed, 930.14W.50d
		Equipment : 1 x 3000k 14 W / 987 lm

19 L00-NS-127 Shoes Lobby

19.2 Summary, L00-NS-127 Shoes Lobby

19.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.00 m	
Maximum I	: 270 cd	<= 900 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 5.01m x 1m (25 x 9 pts), Height = 0.00m					
1	4.88 lx	16.71 lx	1: 3.42	4.02 lx	17.63 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Type No.\Make

	Mackwell			
9	2E x	Order No.	: !LRX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

North Stand - Level 01

Installation : MCFC Redevelopment

Project number	:	SY1023-27
Customer	:	SES
Processed by	:	S Hollingworth
Date	:	07.04.2025

Project description:

Reflectcance Values:
Ceiling 70% (50% plant areas)
Walls 50% (30% plant areas)
Floor 20%

Maintenance Factor: 0.8

Rev A - Initial issue.
Rev B - Amended to incorporate comments from RF 11.07.2024.
Rev C - Updated to reflect latest "White Box" information.
Rev D - Updated to incorporate latest info from Lighting Workshop 29.10.2024, and BG emails 29.10.2024 / 07.11.2024. Also SH, JM _RS Teams meeting 22.11.2024.
Rev E - Updated to take account of the change to luminaire EMG02.
Rev F - Updated to take account of Emergency Lighting Review doc received from BD 06.02.2025.
Rev G - Reviewed against Jump RCPs.

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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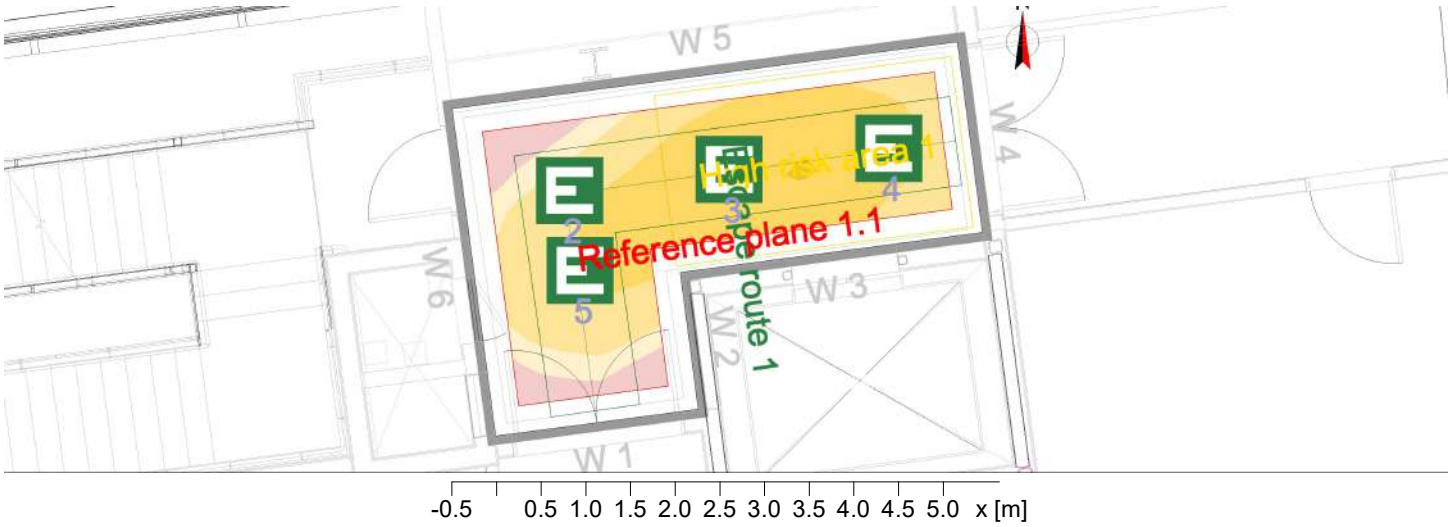
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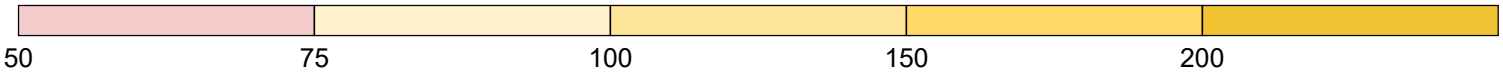
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1 L01-NS-024 FIrefighting Lobby

1.1 Summary, L01-NS-024 FIrefighting Lobby

1.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Luminaire luminous flux	3148 lm
Total power	42.0 W
Total power per area (15.73 m²)	2.67 W/m² (1.85 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	144 lx
E_{min}	62 lx
$E_{min}/\bar{E}_m$ (U_o)	0.43
E_{min}/E_{max} (U_d)	0.30
Position	0.00 m

Type No.\Make

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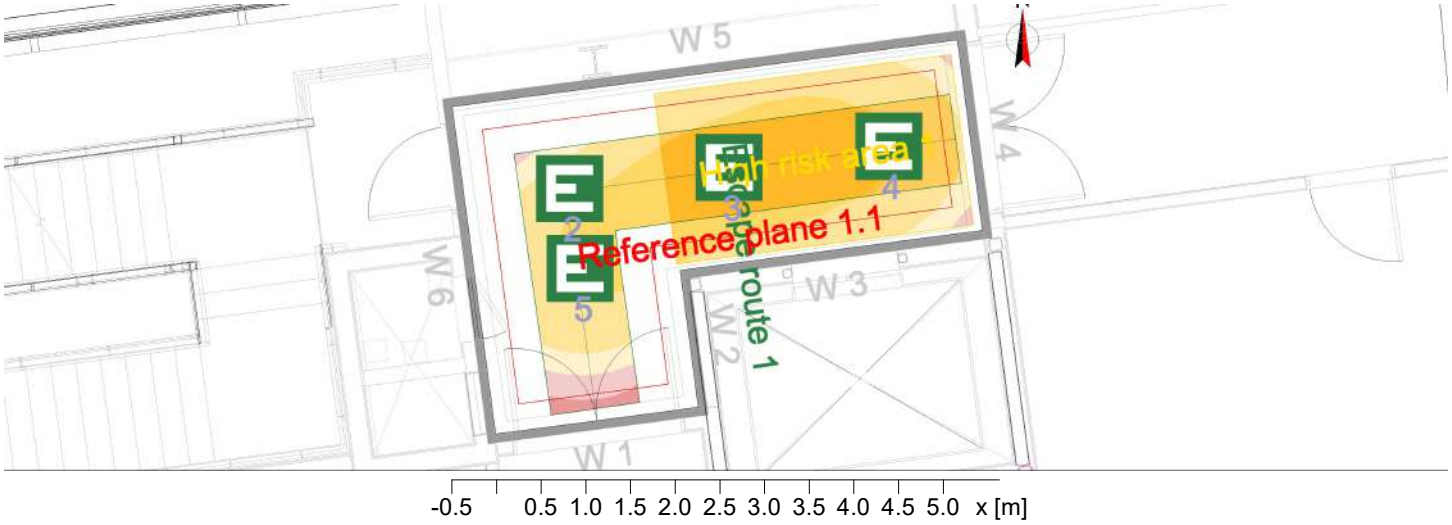
7 3E x

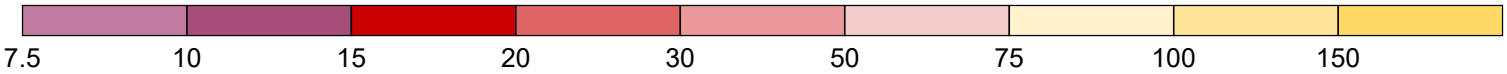
Order No.	: !APRF.X.X LE5.27.14.50.X -- Emergency Lighting --
Luminaire name	: Arch Pro Round Fixed, 927.14W.50d
Equipment	: 1 x 2700K 14 W / 943 lm
Emergency	: 943 lm (100.0 %)

1 L01-NS-024 FIrefighting Lobby

1.2 Summary, L01-NS-024 FIrefighting Lobby

1.2.1.1 Result overview (emergency lighting)



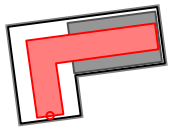


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.00 m	
Maximum I	: 1400 cd	<= 900 cd

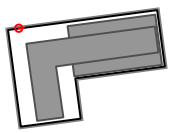
Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 6.85m x 1m (34 x 9 pts), Height = 0.00m					
1	42.04 lx	193.46 lx	1: 4.60	35.75 lx	193.46 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Places to highlight

No.	Surface Emin [lx]	Emax [lx]
1 Call Point		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	9.32 lx	11.19 lx
	>= 5 lx	



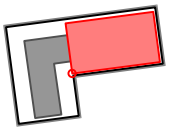
1 L01-NS-024 FIrefighting Lobby

1.2 Summary, L01-NS-024 FIrefighting Lobby

1.2.1.1 Result overview (emergency lighting)

Measuring areas

No.		Surface $\bar{E}_m$	E_{min}	$E_{min}/\bar{E}_m$ (U_o)
High risk area 1				
Calculation field: 3.35m x 1.92m (7 x 4 pts), Height = 0.00m				
1		131 lx	60 lx	0.45
		---		>= 0.10



Type No.\Make

Mackwell

13 1E x


Order No.	: !LRX HO (EMPHASIS 375lm) -- Emergency Lighting --
Luminaire name	: LRX HO (EMPHASIS 375lm)
Equipment	: 1 x LED 2.3 W / 375 lm (0%)
Emergency	: 375 lm

Chiara Lighting Limited

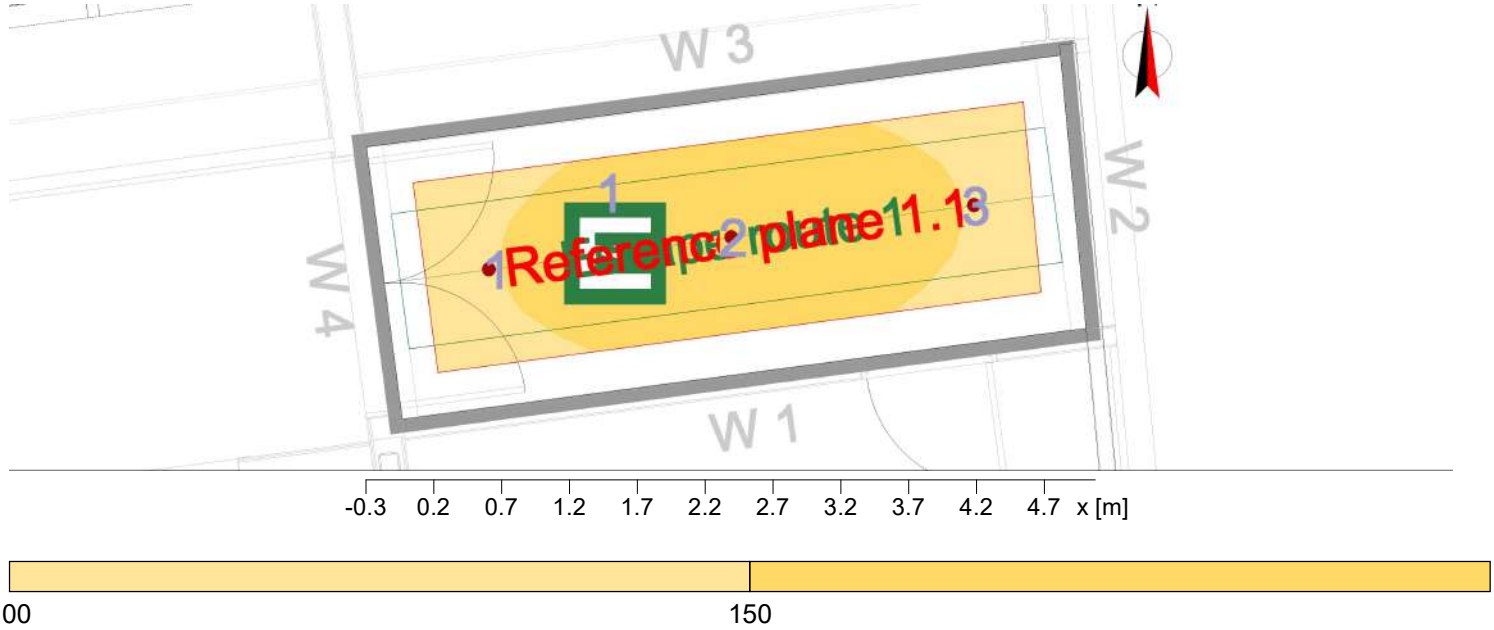
7 3E x


Order No.	: !APRF.X.X LE5.27.14.50.X -- Emergency Lighting --
Luminaire name	: Arch Pro Round Fixed, 927.14W.50d
Equipment	: 1 x 2700K 14 W / 943 lm
Emergency	: 943 lm (100.0 %)

2 L01-NS-025 Lobby

2.1 Summary, L01-NS-025 Lobby

2.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	4.53 m
Maintenance factor	0.80
Total lamp luminous flux	5157 lm
Luminaire luminous flux	4667 lm
Total power	39.3 W
Total power per area (10.31 m²)	3.81 W/m² (2.46 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	155 lx
E_{min}	123 lx
$E_{min}/\bar{E}_m$ (U_o)	0.79
E_{min}/E_{max} (U_d)	0.69
Position	0.00 m

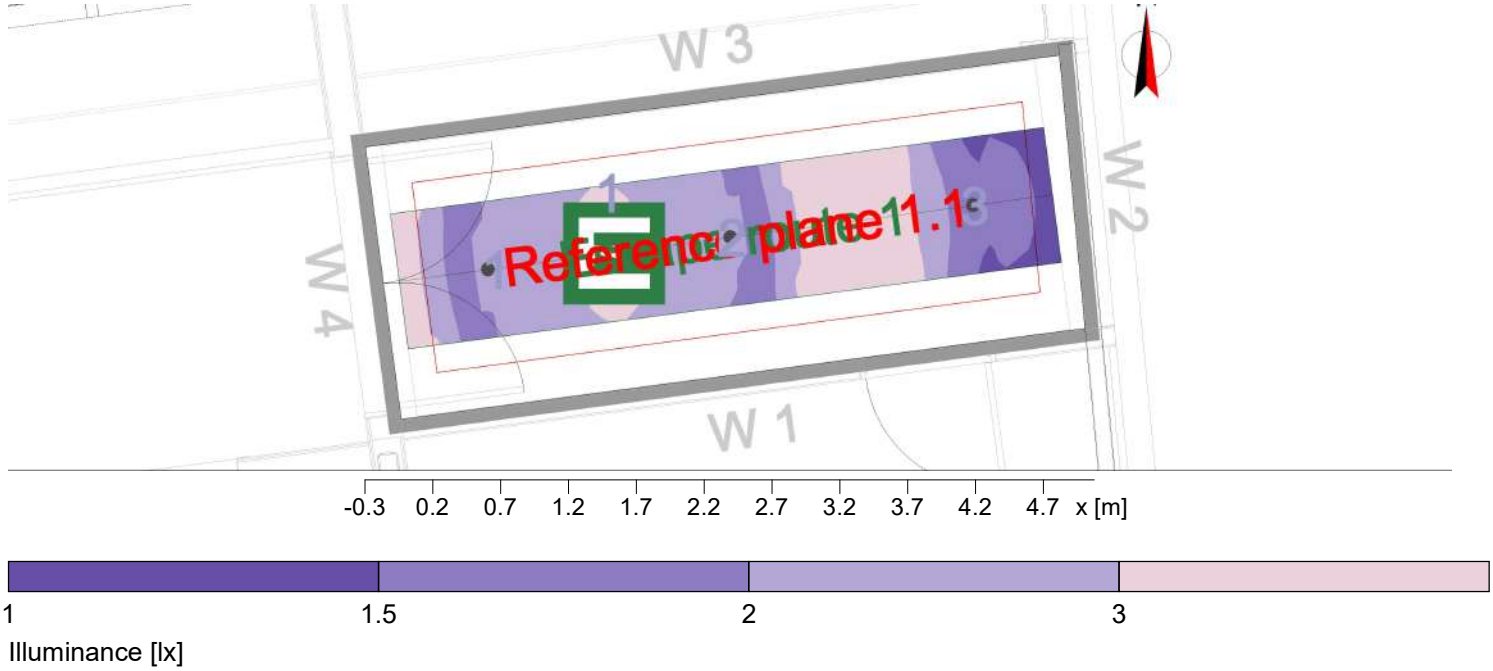
Type No.\Make

		Hacel Lighting Ltd.	
5	3 x	Order No.	: !594 12W LED 3000K
		Luminaire name	: 594 12W LED 3000K
		Equipment	: 1 x 12W LED 3000K 13.1 W / 1719 lm

2 L01-NS-025 Lobby

2.2 Summary, L01-NS-025 Lobby

2.2.1.1 Result overview (emergency lighting)

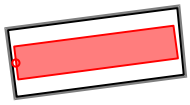


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.51 m	
Maximum I	: 270 cd	<= 5000 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 4.85m x 1m (24 x 9 pts), Height = 0.00m					
1	1.37 lx	4.48 lx	1: 3.27	1.17 lx	4.58 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



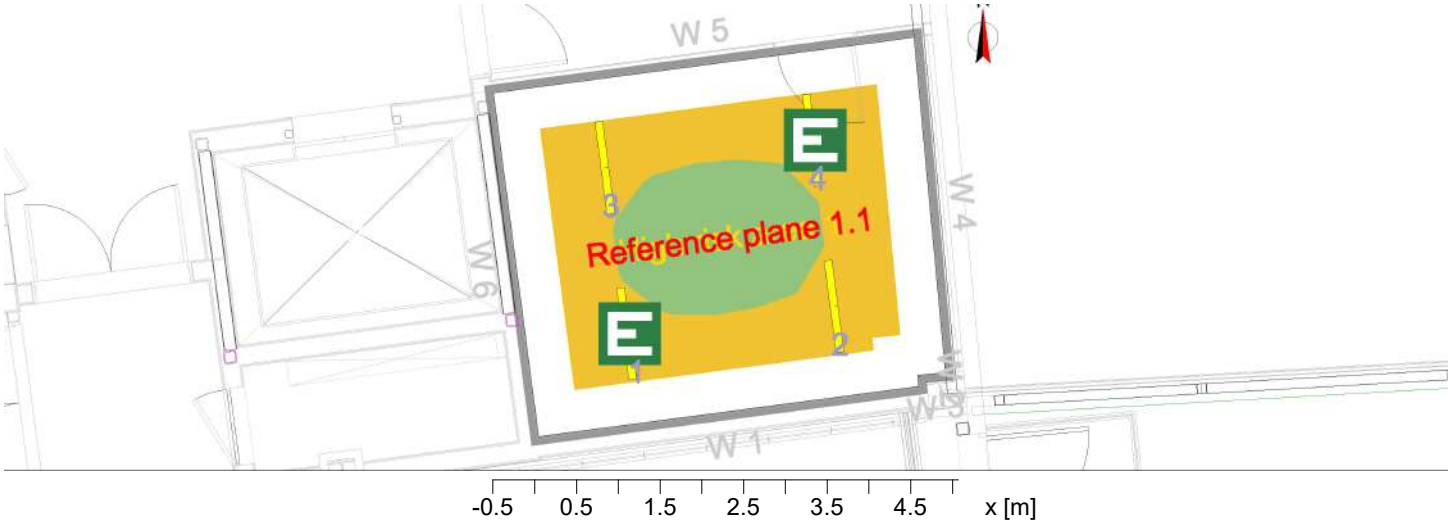
Type No.\Make

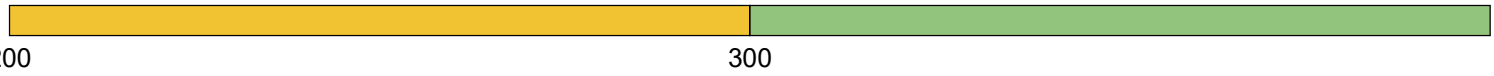
		Mackwell		
6	1E x	Order No.	: !LSX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LSX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

3 L01-NS-026 Telecomms

3.1 Summary, L01-NS-026 Telecomms

3.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.40 m
Maintenance factor	0.80
Total lamp luminous flux	17600 lm
Luminaire luminous flux	17595 lm
Total power	119.6 W
Total power per area (20.61 m²)	5.80 W/m² (2.04 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	285 lx
E_{min}	233 lx
$E_{min}/\bar{E}_m$ (U_o)	0.82
E_{min}/E_{max} (U_d)	0.73
Position	0.00 m

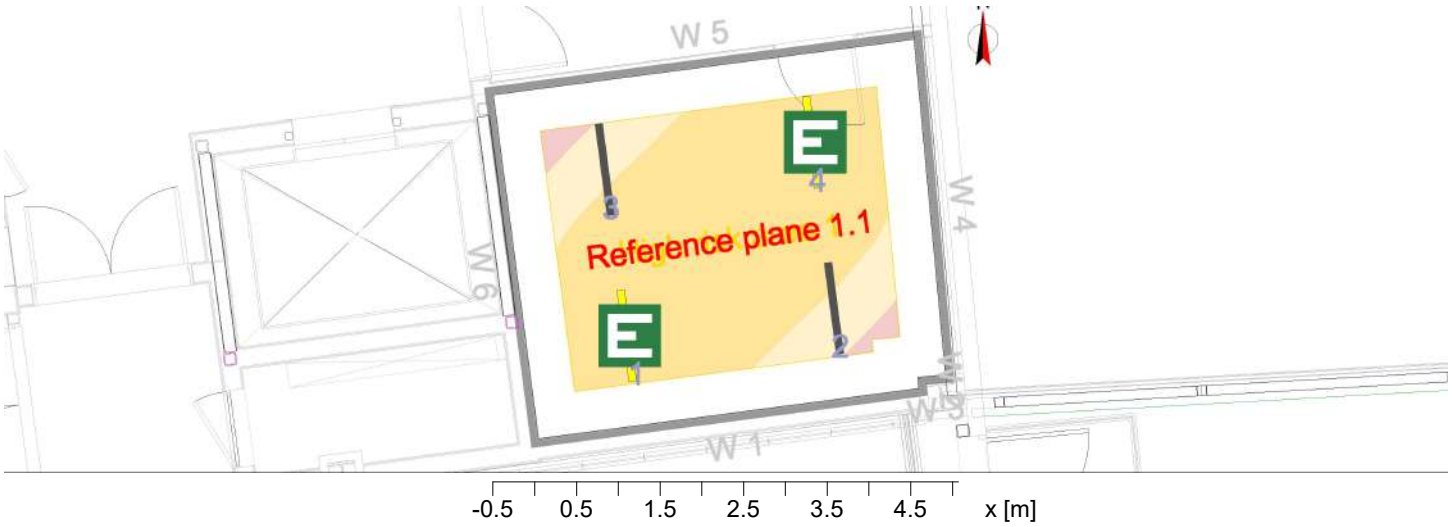
Type No.\Make

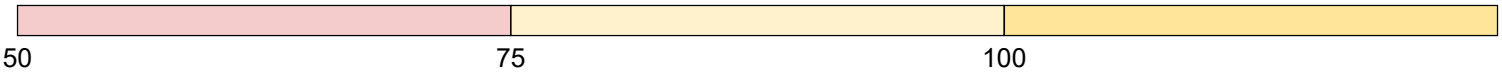
		Thorn	
1	4E x	Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

3 L01-NS-026 Telecomms

3.2 Summary, L01-NS-026 Telecomms

3.2.1.1 Result overview (emergency lighting)





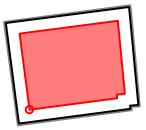
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.33 m	
Maximum I	: 1500 cd	<= 3200 cd

Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)
High risk area 1			
Calculation field: 4.05m x 3.14m (8 x 6 pts), Height = 0.00m			
1	106 lx	61 lx	0.57
	---		>= 0.10



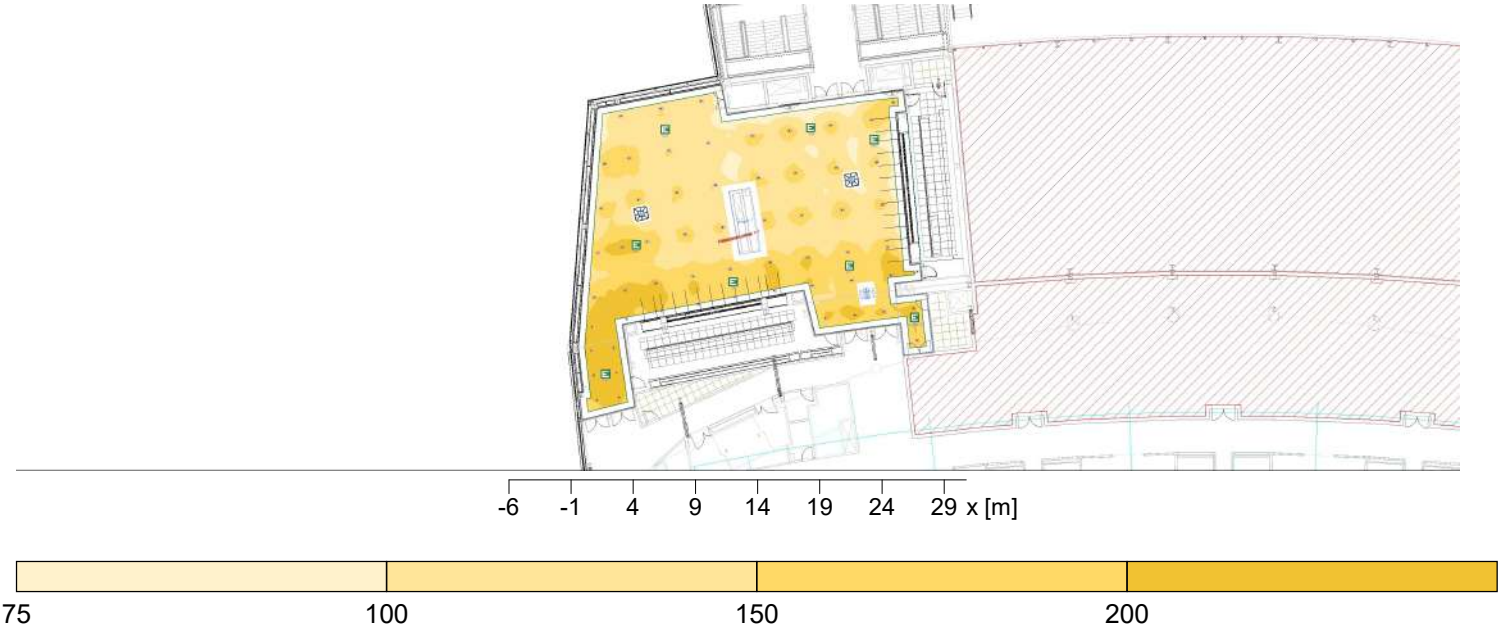
Type No.\Make

		Thorn		
1	2E x	Order No.	: 96630794	-- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]	
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm	
		Emergency	: 4400 lm (100.0 %)	

4 L01-NS-034 Concourse

4.1 Summary, L01-NS-034 Concourse

4.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	101421 lm
Luminaire luminous flux	91776 lm
Total power	772.9 W
Total power per area (473.77 m²)	1.63 W/m² (1.06 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	154 lx
E_{min}	78 lx
$E_{min}/\bar{E}_m$ (U_o)	0.51
E_{min}/E_{max} (U_d)	0.29
Position	0.00 m

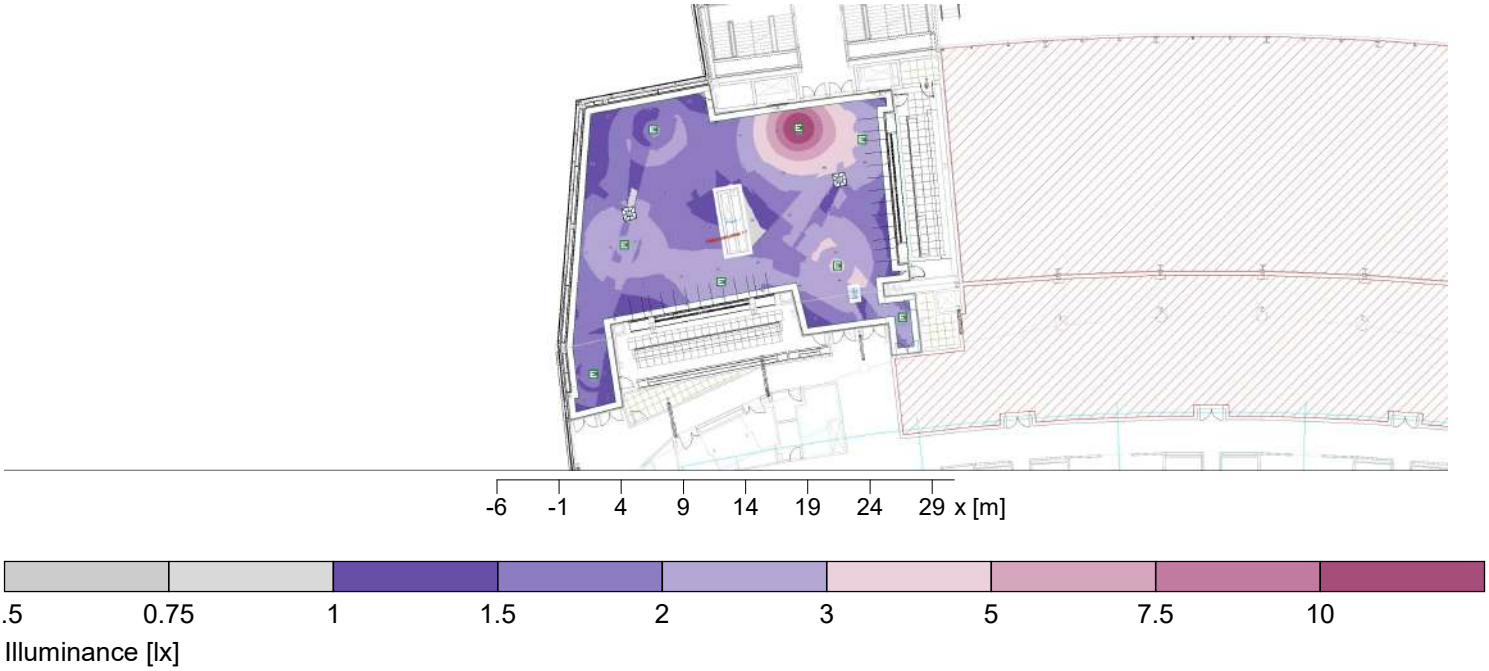
Type No.\Make

		Hacel Lighting Ltd.
5	59 x	Order No. : !594 12W LED 3000K
		Luminaire name : 594 12W LED 3000K
		Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

4 L01-NS-034 Concourse

4.2 Summary, L01-NS-034 Concourse

4.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 180 cd

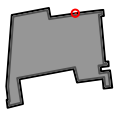
Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 30.32m x 24.45m (30 x 24 pts), Height = 0.00m			
1	0.73 lx	13.13 lx	1: 17.91
	>= 0.5 lx		>= 1 : 40



Places to highlight

No.	Emin [lx]	Surface	Emax [lx]
1 Call Point			
Calculation field: 0.2m x 0.2m (3 x 3 pts)			
1	8.04 lx		9.28 lx
	>= 5 lx		



4 L01-NS-034 Concourse

4.2 Summary, L01-NS-034 Concourse

4.2.1.1 Result overview (emergency lighting)

Type No.\Make

Mackwell

3 7E x

Order No. : !LSX HO (OPEN AREA 375lm) -- Emergency Lighting --
Luminaire name : LSX HO (OPEN AREA 375lm)
Equipment : 1 x LED 3 W / 375 lm (0%)
Emergency : 375 lm

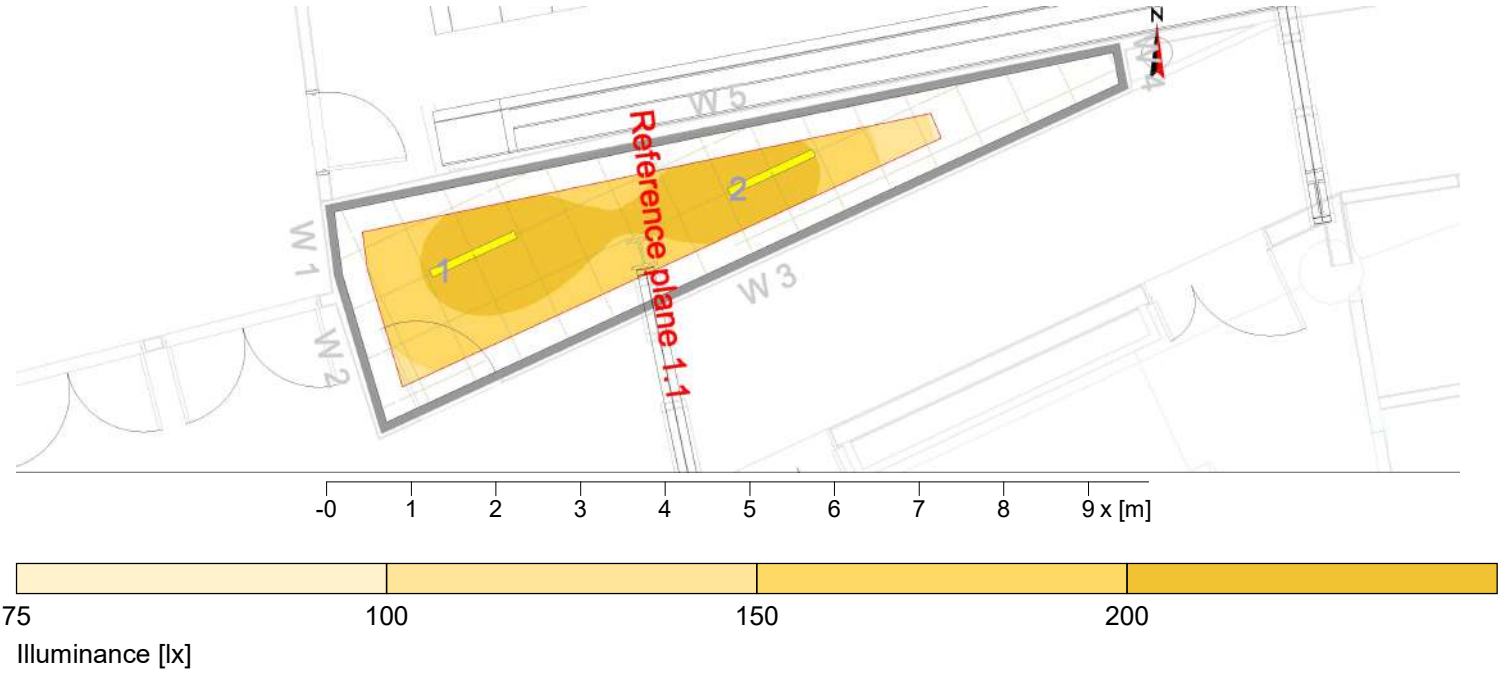
12 1E x

Order No. : !LSX HO (EMPHASIS 375lm) -- Emergency Lighting --
Luminaire name : LSX HO (EMPHASIS 375lm)
Equipment : 1 x LED 2.3 W / 375 lm (0%)
Emergency : 375 lm

5 L01-NS-036 Keg Room

5.1 Summary, L01-NS-036 Keg Room

5.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total lamp luminous flux	8800 lm
Luminaire luminous flux	8798 lm
Total power	59.8 W
Total power per area (13.80 m²)	4.33 W/m² (2.21 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	196 lx
E_{min}	98 lx
$E_{min}/\bar{E}_m$ (U_o)	0.50
E_{min}/E_{max} (U_d)	0.44
Position	0.00 m

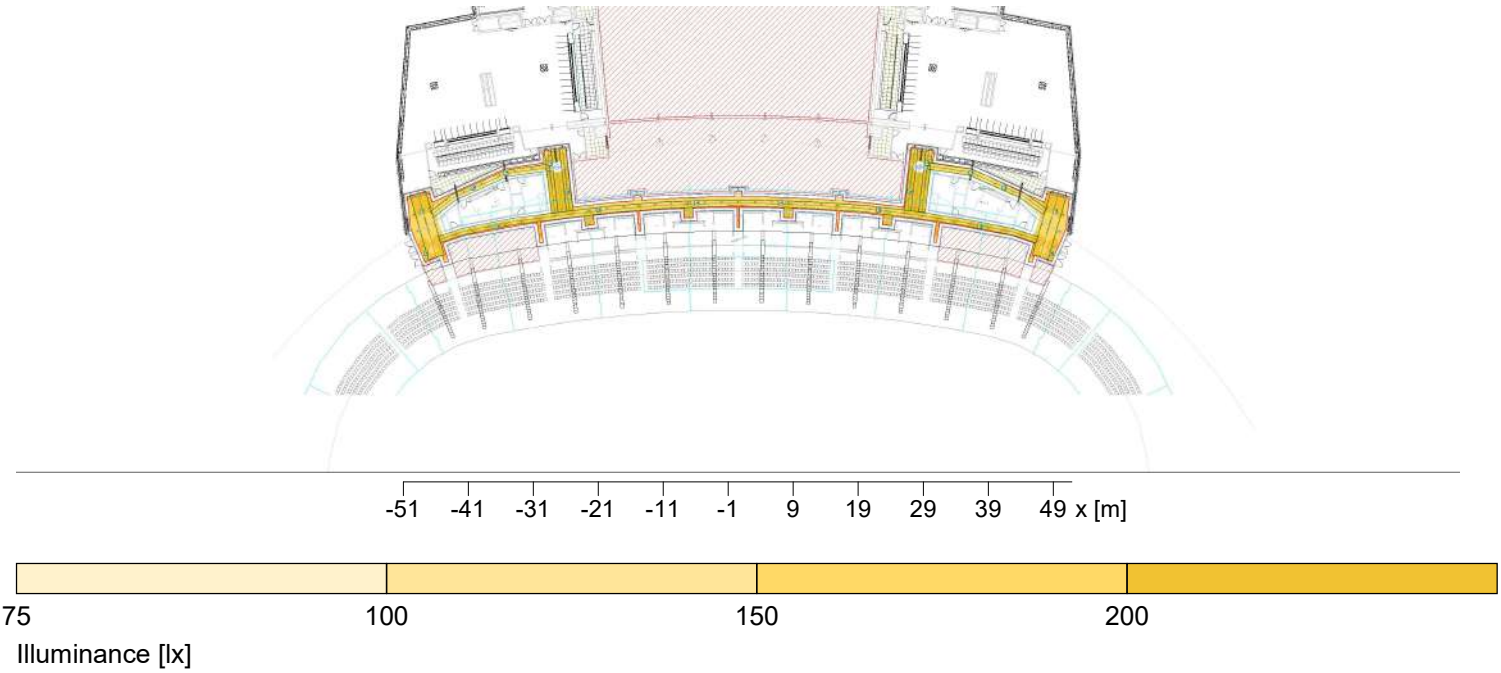
Type No.\Make

		Thorn	
1	2 x	Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

6 L01-NS-037 Concourse

6.1 Summary, L01-NS-037 Concourse

6.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	158148 lm
Luminaire luminous flux	143108 lm
Total power	1205.2 W
Total power per area (690.02 m²)	1.75 W/m² (0.91 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	193 lx
E_{min}	93 lx
$E_{min}/\bar{E}_m$ (U_o)	0.48
E_{min}/E_{max} (U_d)	0.33
Position	0.00 m

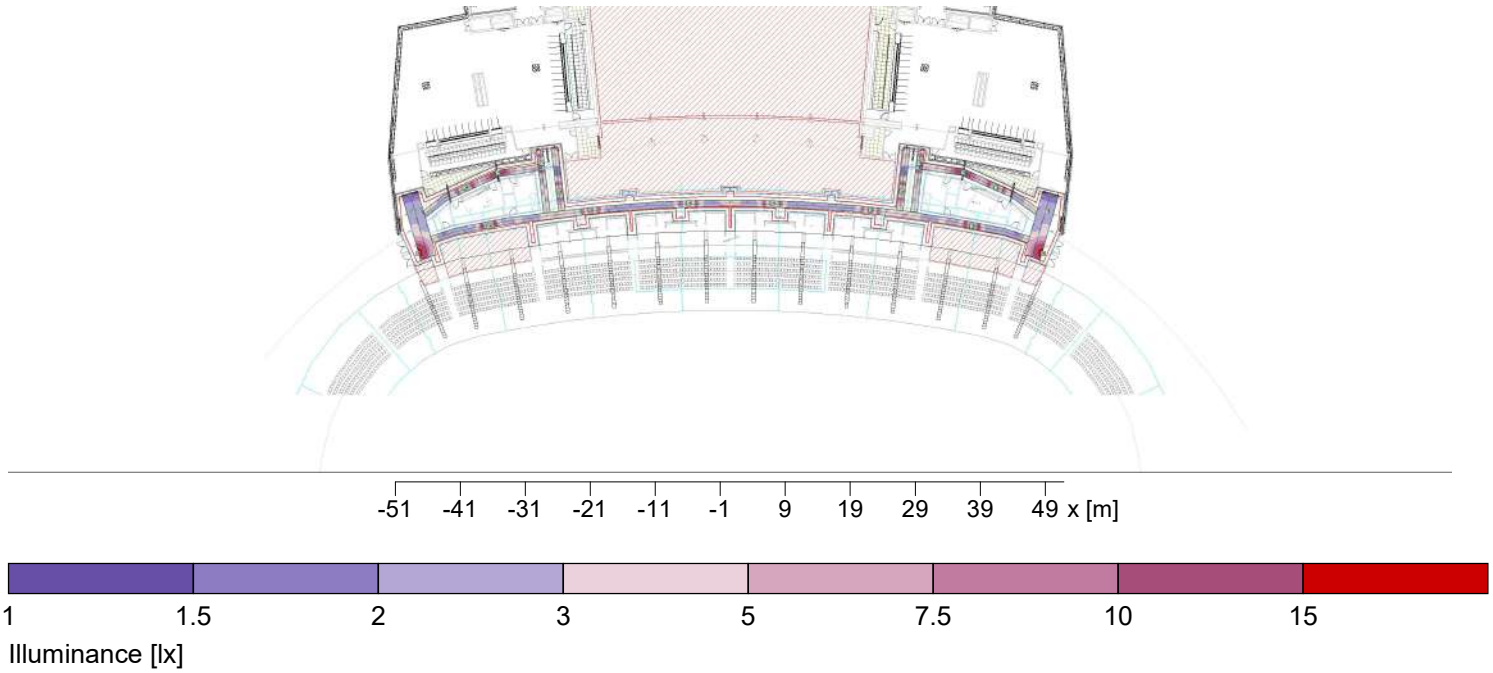
Type No.\Make

		Hacel Lighting Ltd.	
4	92 x	Order No.	: !594 12W LED 3000K
		Luminaire name	: 594 12W LED 3000K
		Equipment	: 1 x 12W LED 3000K 13.1 W / 1719 lm

6 L01-NS-037 Concourse

6.2 Summary, L01-NS-037 Concourse

6.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 270 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]	
Escape route 1						
Calculation field: 10.25m x 2.5m (30 x 9 pts), Height = 0.00m						
1	1.42 lx	10.77 lx	1: 7.58	1.28 lx	17.45 lx	
	>= 1 lx		>= 1 : 40	>= 0.5 lx		
Escape route 2						
Calculation field: 10.25m x 2.5m (30 x 9 pts), Height = 0.00m						
2	1.43 lx	10.56 lx	1: 7.38	1.28 lx	17.30 lx	
	>= 1 lx		>= 1 : 40	>= 0.5 lx		
Escape route 3						
Calculation field: 9.9m x 1m (26 x 9 pts), Height = 0.00m						
3	2.72 lx	10.56 lx	1: 3.88	2.21 lx	10.85 lx	
	>= 1 lx		>= 1 : 40	>= 0.5 lx		

6 L01-NS-037 Concourse

6.2 Summary, L01-NS-037 Concourse

6.2.1.1 Result overview (emergency lighting)

Escape route 4
Calculation field: 9.8m x 1m (26 x 9 pts), Height = 0.00m

4	2.73 lx	10.57 lx	1: 3.87	2.22 lx	10.85 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Escape route 5
Calculation field: 92.8m x 1m (458 x 9 pts), Height = 0.00m

5	1.98 lx	14.26 lx	1: 7.20	1.73 lx	14.39 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Escape route 6
Calculation field: 19.75m x 1m (99 x 9 pts), Height = 0.00m

6	2.30 lx	13.80 lx	1: 6.00	2.06 lx	13.90 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Escape route 7
Calculation field: 19.67m x 1m (98 x 9 pts), Height = 0.00m

7	2.30 lx	13.91 lx	1: 6.05	2.13 lx	13.91 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Escape route 8
Calculation field: 9.9m x 1m (26 x 9 pts), Height = 0.00m

8	1.65 lx	10.39 lx	1: 6.30	1.53 lx	10.66 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Escape route 9
Calculation field: 9.8m x 1m (26 x 9 pts), Height = 0.00m

9	1.65 lx	10.38 lx	1: 6.29	1.40 lx	11.00 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Places to highlight

No.	Emin [lx]	Surface	Emax [lx]
1 Call Point (i)			
Calculation field: 0.2m x 0.2m (3 x 3 pts)			
1	5.33 lx		6.87 lx
	>= 5 lx		



2 Call Point (ii)			
Calculation field: 0.2m x 0.2m (3 x 3 pts)			
2	7.45 lx		9.71 lx
	>= 5 lx		



6 L01-NS-037 Concourse

6.2 Summary, L01-NS-037 Concourse

6.2.1.1 Result overview (emergency lighting)

3 Call Point (iii)
Calculation field: 0.2m x 0.2m (3 x 3 pts)



3	7.79 lx	10.15 lx
	>= 5 lx	

4 Call Point (iv)
Calculation field: 0.2m x 0.2m (3 x 3 pts)



4	5.13 lx	6.64 lx
	>= 5 lx	

Type No.\Make

Mackwell

3 2E x

Order No. : !LSX HO (OPEN AREA 375lm) -- Emergency Lighting --
Luminaire name : LSX HO (OPEN AREA 375lm)
Equipment : 1 x LED 3 W / 375 lm (0%)
Emergency : 375 lm

6 12E x

Order No. : !LSX HO (ESCAPE 375lm) -- Emergency Lighting --
Luminaire name : LSX HO (ESCAPE 375lm)
Equipment : 1 x LED 3 W / 375 lm (0%)
Emergency : 375 lm

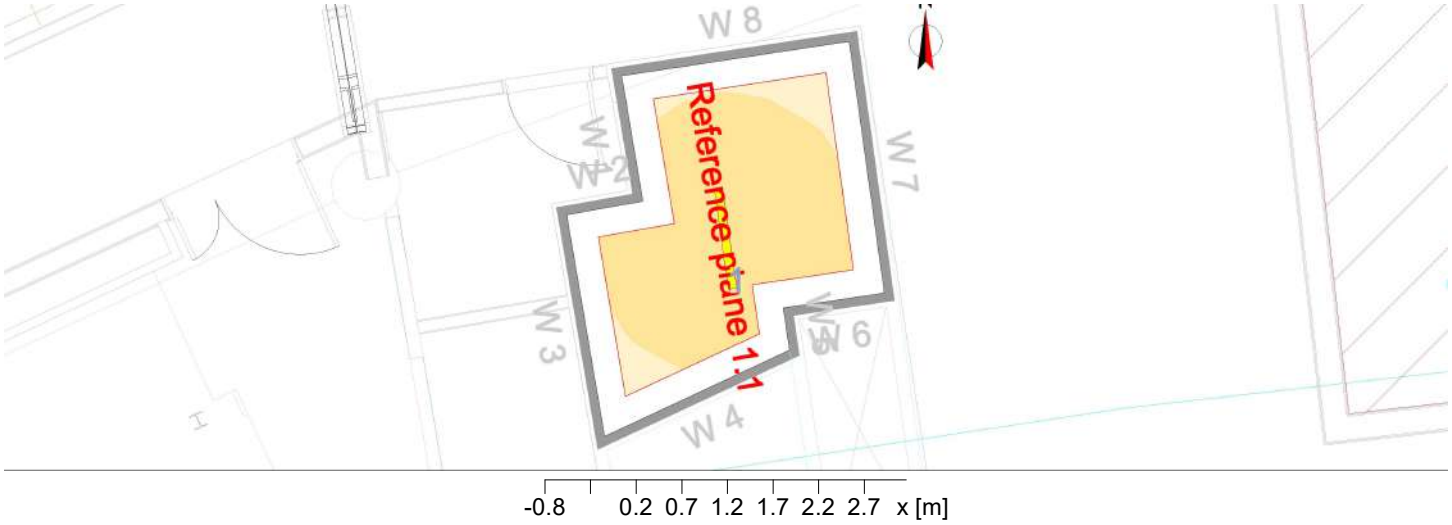
12 4E x

Order No. : !LSX HO (EMPHASIS 375lm) -- Emergency Lighting --
Luminaire name : LSX HO (EMPHASIS 375lm)
Equipment : 1 x LED 2.3 W / 375 lm (0%)
Emergency : 375 lm

7 L01-NS-042 BOH

7.1 Summary, L01-NS-042 BOH

7.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.50 m
Maintenance factor	0.80
Total lamp luminous flux	4400 lm
Luminaire luminous flux	4399 lm
Total power	29.9 W
Total power per area (9.72 m²)	3.08 W/m² (2.62 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	117 lx
E_{min}	90 lx
$E_{min}/\bar{E}_m$ (U_o)	0.77
E_{min}/E_{max} (U_d)	0.65
Position	0.00 m

Type No.\Make

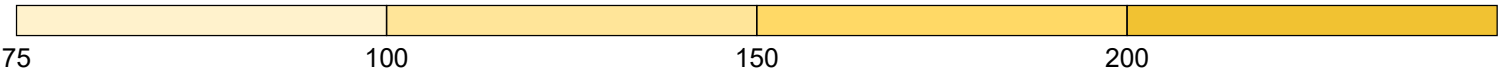
		Thorn	
1	1 x	Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

8 L01-NS-044 WCS

8.1 Summary, L01-NS-044 WCS

8.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.30 m
Maintenance factor	0.80
Total lamp luminous flux	34658 lm
Luminaire luminous flux	31362 lm
Total power	266.6 W
Total power per area (58.12 m²)	4.59 W/m² (2.13 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	216 lx
E_{min}	97 lx
$E_{min}/\bar{E}_m$ (U_o)	0.45
E_{min}/E_{max} (U_d)	0.35
Position	0.00 m

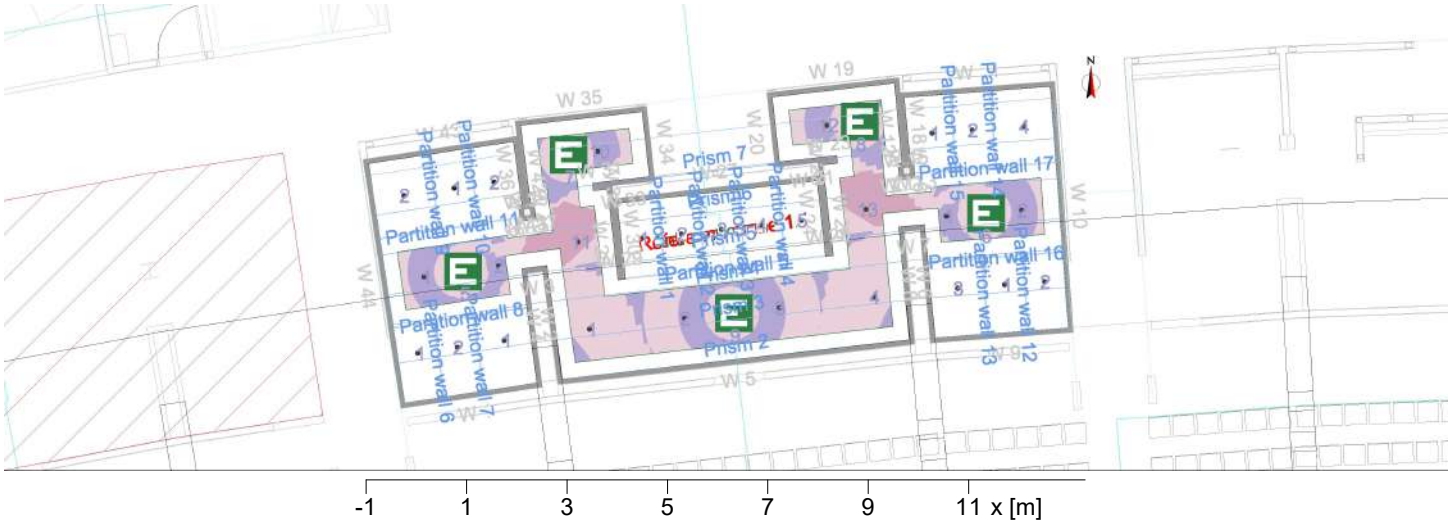
Type No.\Make

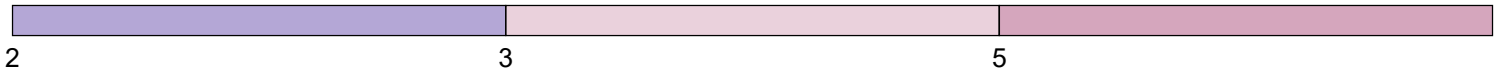
		Hacel Lighting Ltd.
10	31 x	Order No. : !594 7W LED 3000K
		Luminaire name : 594 7W LED 3000K
		Equipment : 1 x 7W LED 3000K 8.6 W / 1118 lm

8 L01-NS-044 WCS

8.2 Summary, L01-NS-044 WCS

8.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.27 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 12.88m x 4.74m (50 x 19 pts), Height = 0.00m			
1	2.18 lx	7.07 lx	1: 3.24
	>= 0.5 lx		>= 1 : 40



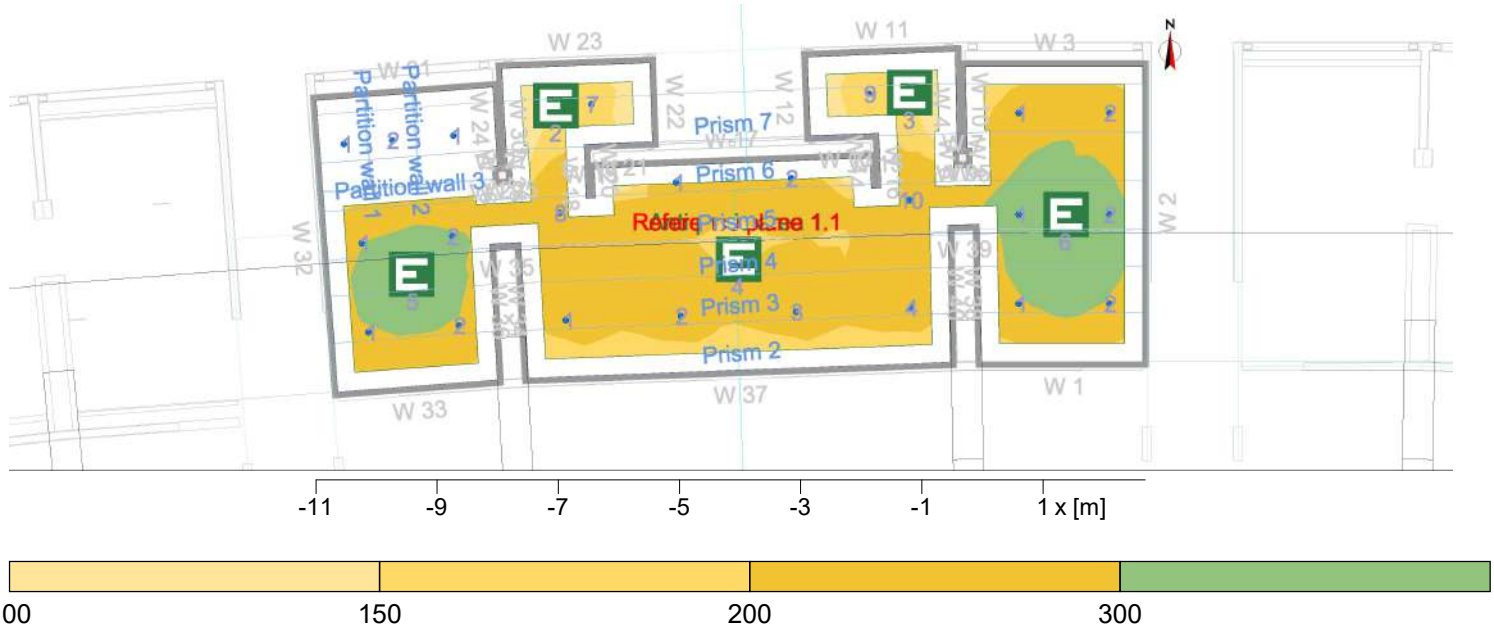
Type No.\Make

		Mackwell		
3	5E x	Order No.	: !LSX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LSX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

9 L01-NS-045 WCS

9.1 Summary, L01-NS-045 WCS

9.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	25714 lm
Luminaire luminous flux	23269 lm
Total power	197.8 W
Total power per area (58.76 m²)	3.37 W/m² (1.37 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	246 lx
E_{min}	135 lx
$E_{min}/\bar{E}_m$ (U_o)	0.55
E_{min}/E_{max} (U_d)	0.37
Position	0.00 m

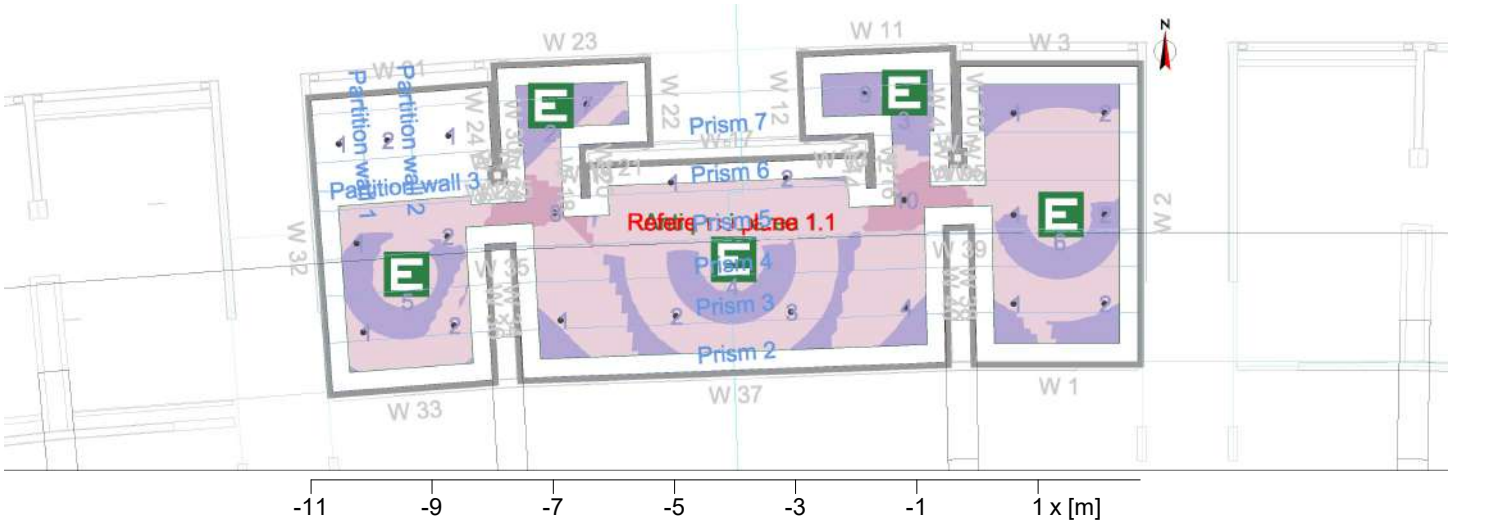
Type No.\Make

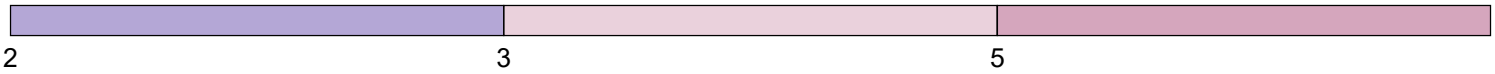
		Hacel Lighting Ltd.	
10	23 x	Order No.	: !594 7W LED 3000K
		Luminaire name	: 594 7W LED 3000K
		Equipment	: 1 x 7W LED 3000K 8.6 W / 1118 lm

9 L01-NS-045 WCS

9.2 Summary, L01-NS-045 WCS

9.2.1.1 Result overview (emergency lighting)





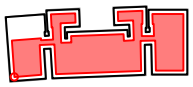
Illuminance [lx]

General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 180 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 12.88m x 4.97m (21 x 8 pts), Height = 0.00m			
1	2.16 lx	7.03 lx	1: 3.26
	>= 0.5 lx		>= 1 : 40



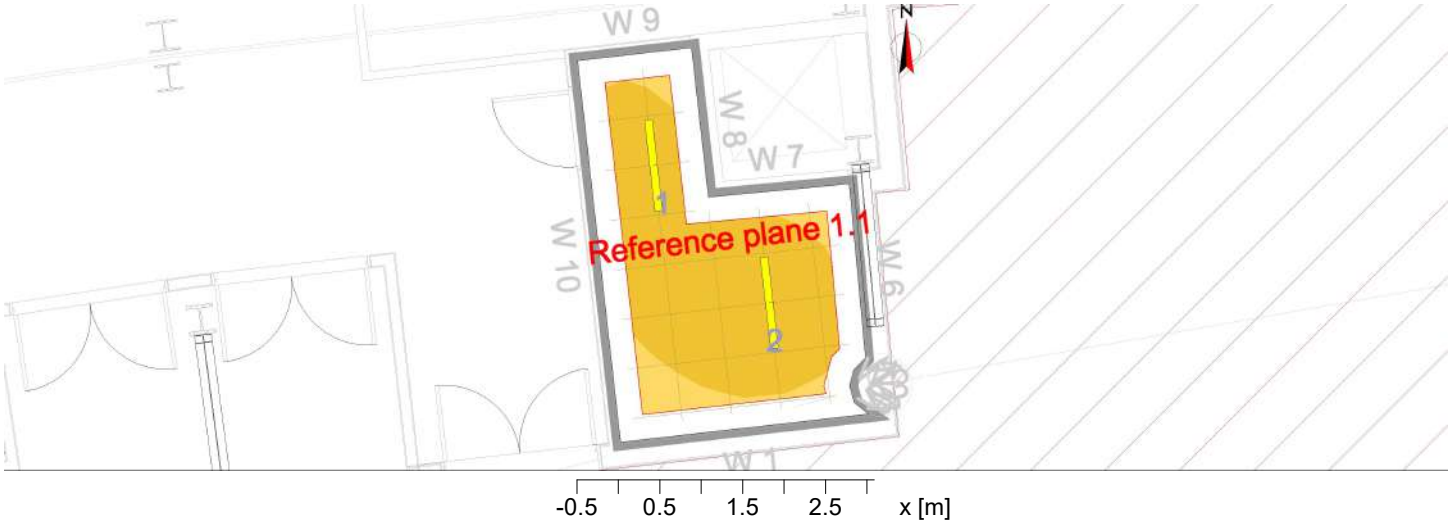
Type No.\Make

		Mackwell		
3	5E x	Order No.	: !LSX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LSX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

10 L01-NS-048 Keg Room

10.1 Summary, L01-NS-048 Keg Room

10.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total lamp luminous flux	8800 lm
Luminaire luminous flux	8798 lm
Total power	59.8 W
Total power per area (10.98 m²)	5.45 W/m² (2.24 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	243 lx
E_{min}	175 lx
$E_{min}/\bar{E}_m$ (U_o)	0.72
E_{min}/E_{max} (U_d)	0.60
Position	0.00 m

Type No.\Make

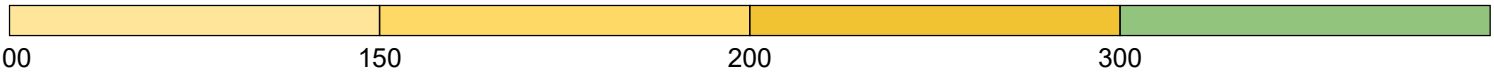
		Thorn
1	2 x	Order No. : 96630794
		Luminaire name : AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment : 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency : 4400 lm (100.0 %)

11 L01-NS-080 City Bar

11.1 Summary, L01-NS-080 City Bar

11.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	19006 lm
Luminaire luminous flux	17199 lm
Total power	146.2 W
Total power per area (48.56 m²)	3.01 W/m² (1.32 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	228 lx
E_{min}	136 lx
$E_{min}/\bar{E}_m$ (U_o)	0.60
E_{min}/E_{max} (U_d)	0.29
Position	0.75 m

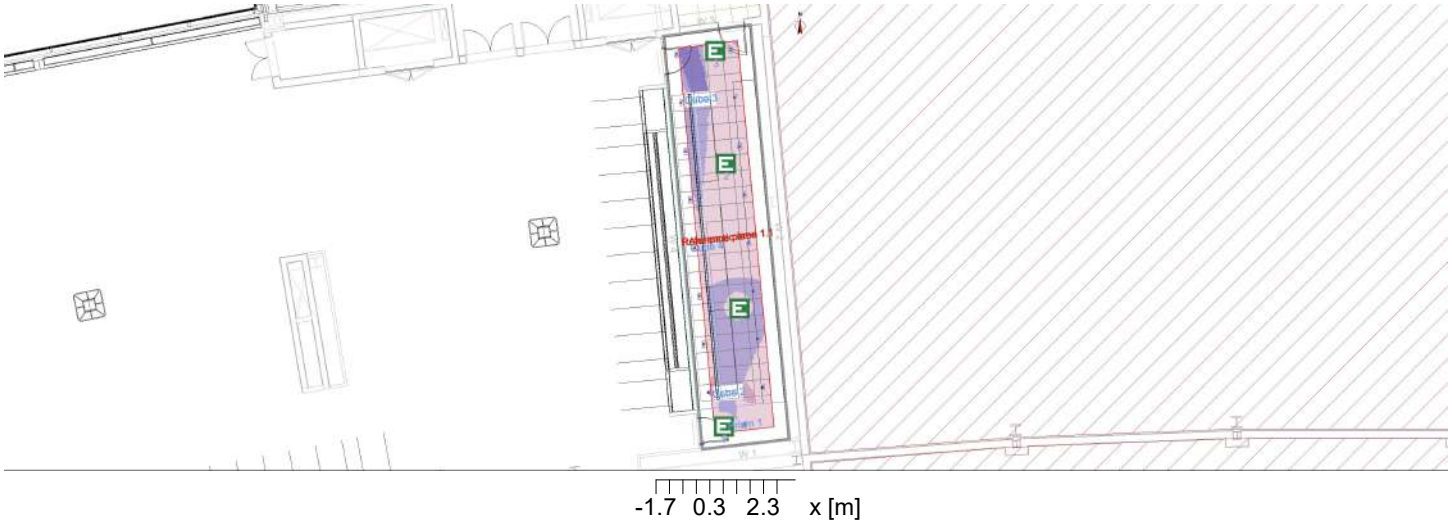
Type No.\Make

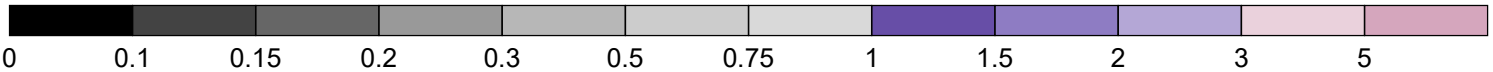
		Hacel Lighting Ltd.	
11	17 x	Order No.	: !594 7W LED 3000K
		Luminaire name	: 594 7W LED 3000K
		Equipment	: 1 x 7W LED 3000K 8.6 W / 1118 lm

11 L01-NS-080 City Bar

11.2 Summary, L01-NS-080 City Bar

11.2.1.1 Result overview (emergency lighting)





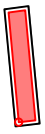
Illuminance [lx]

General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 180 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 2.49m x 14.4m (7 x 38 pts), Height = 0.00m			
1	1.62 lx	5.30 lx	1: 3.27
	>= 0.5 lx		>= 1 : 40



Type No.\Make



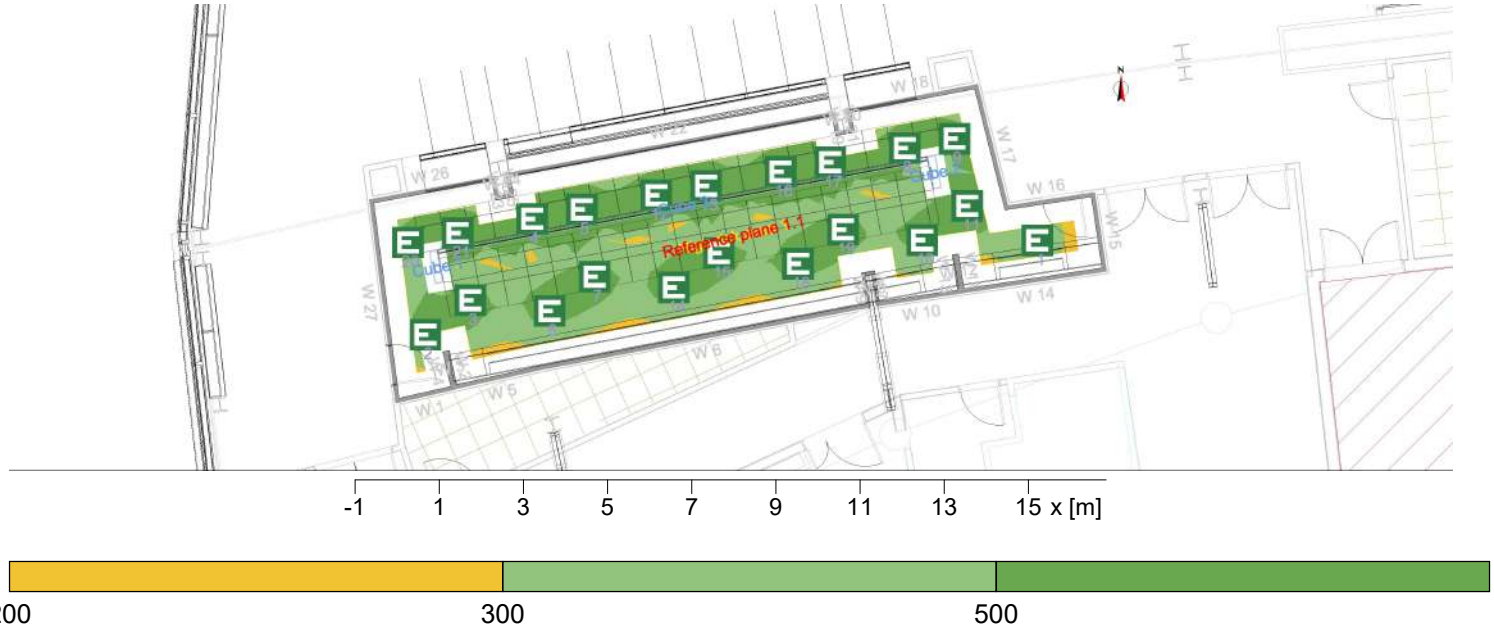
3 4E x **Mackwell**

Order No.	: !LSX HO (OPEN AREA 375lm)	-- Emergency Lighting --
Luminaire name	: LSX HO (OPEN AREA 375lm)	
Equipment	: 1 x LED 3 W / 375 lm (0%)	
Emergency	: 375 lm	

12 L01-NS-081 City Kitchen

12.1 Summary, L01-NS-081 City Kitchen

12.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total lamp luminous flux	50799 lm
Luminaire luminous flux	45968 lm
Total power	382.2 W
Total power per area (69.84 m²)	5.47 W/m² (1.09 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	504 lx
E_{min}	267 lx
$E_{min}/\bar{E}_m$ (U_o)	0.53
E_{min}/E_{max} (U_d)	0.36
Position	0.75 m

Type No.\Make

Hacel Lighting Ltd.

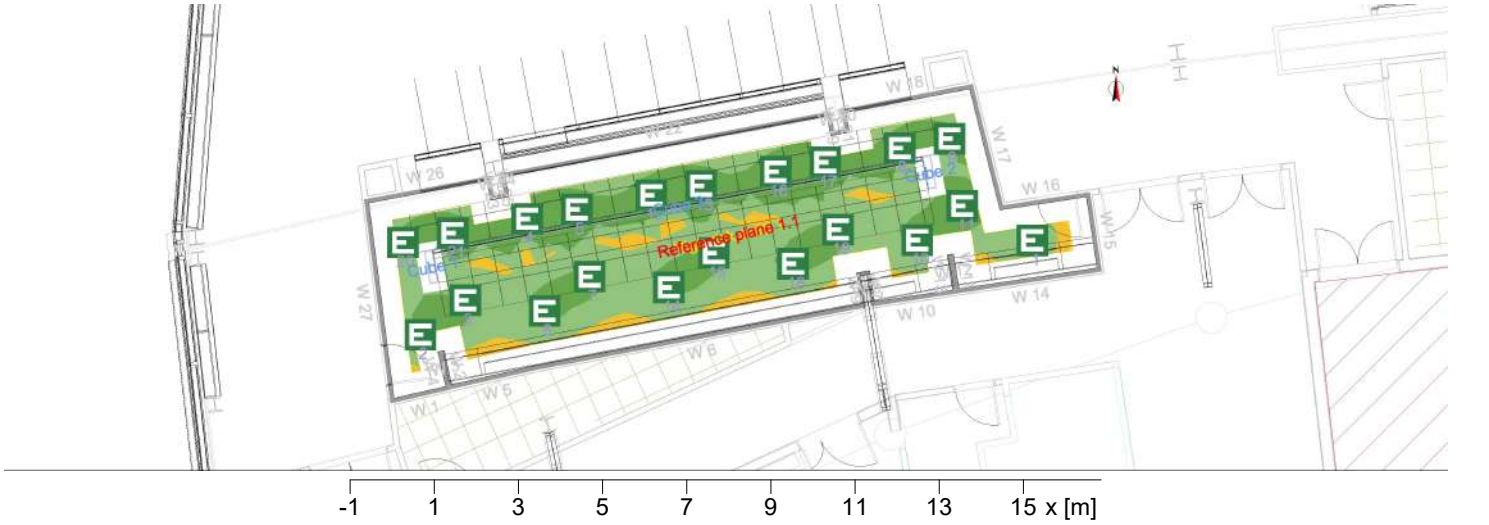
9 21E x

Order No.	: !594 17W LED 3000K	-- Emergency Lighting --
Luminaire name	: 594 17W LED 3000K	
Equipment	: 1 x 17W LED 3000K 18.2 W / 2419 lm	
Emergency	: 2419 lm (100.0 %)	

12 L01-NS-081 City Kitchen

12.2 Summary, L01-NS-081 City Kitchen

12.2.1.1 Result overview (emergency lighting)





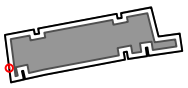
Illuminance [lx]

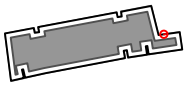
General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.88 m	
Maximum I	: 2400 cd	<= 1800 cd

Places to highlight

No.	Surface Emin [lx]	Emax [lx]
1 Call Point (i)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	134.80 lx >= 5 lx	152.59 lx
2 Call point (ii)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
2	122.39 lx >= 5 lx	144.32 lx





Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)

12 L01-NS-081 City Kitchen

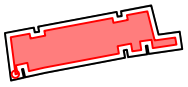
12.2 Summary, L01-NS-081 City Kitchen

12.2.1.1 Result overview (emergency lighting)

High risk area 1

Calculation field: 15.99m x 4.31m (29 x 8 pts), Height = 0.75m

1	459 lx	175 lx	0.38
	>= 0.5 lx		>= 0.10



Type No.\Make

Hacel Lighting Ltd.

9 21E x



Order No. : !594 17W LED 3000K -- Emergency Lighting --
Luminaire name : 594 17W LED 3000K
Equipment : 1 x 17W LED 3000K 18.2 W / 2419 lm
Emergency : 2419 lm (100.0 %)

North Stand - Level 02

Installation : MCFC Redevelopment

Project number	:	SY1023-27
Customer	:	SES
Processed by	:	S Hollingworth
Date	:	07.04.2025

Project description:

Reflectcance Values:
Ceiling 70% (50% plant areas)
Walls 50% (30% plant areas)
Floor 20%

Maintenance Factor: 0.8

Rev A - Initial issue.
Rev B - Amended to incorporate comments from RF 11.07.2024.
Rev C - Updated to incorporate latest info from Lighting Workshop 29.10.2024, and BG emails 29.10.2024 / 07.11.2024. Also SH, JM RS Teams meeting 22.11.2024.
Rev D - Updated to take account of the change to luminaire EMG02.
Rev E - Updated to take account of Emergency Lighting Review doc received from BD 06.02.2025.
Rev F - Reviewed against Jump RCPs.

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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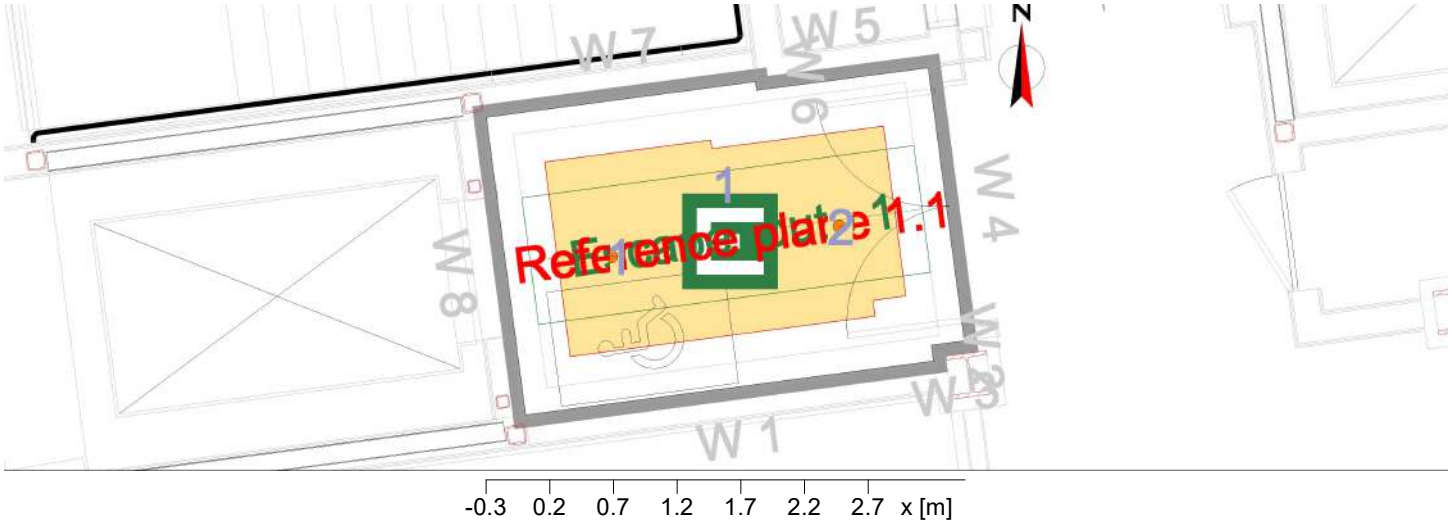
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1 L02-NS-022 Lift Lobby

1.1 Summary, L02-NS-022 Lift Lobby

1.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.50 m
Maintenance factor	0.80
Total lamp luminous flux	2236 lm
Luminaire luminous flux	2023 lm
Total power	17.2 W
Total power per area (8.06 m²)	2.13 W/m² (1.80 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	119 lx
E_{min}	101 lx
$E_{min}/\bar{E}_m$ (U_o)	0.85
E_{min}/E_{max} (U_d)	0.76
Position	0.00 m

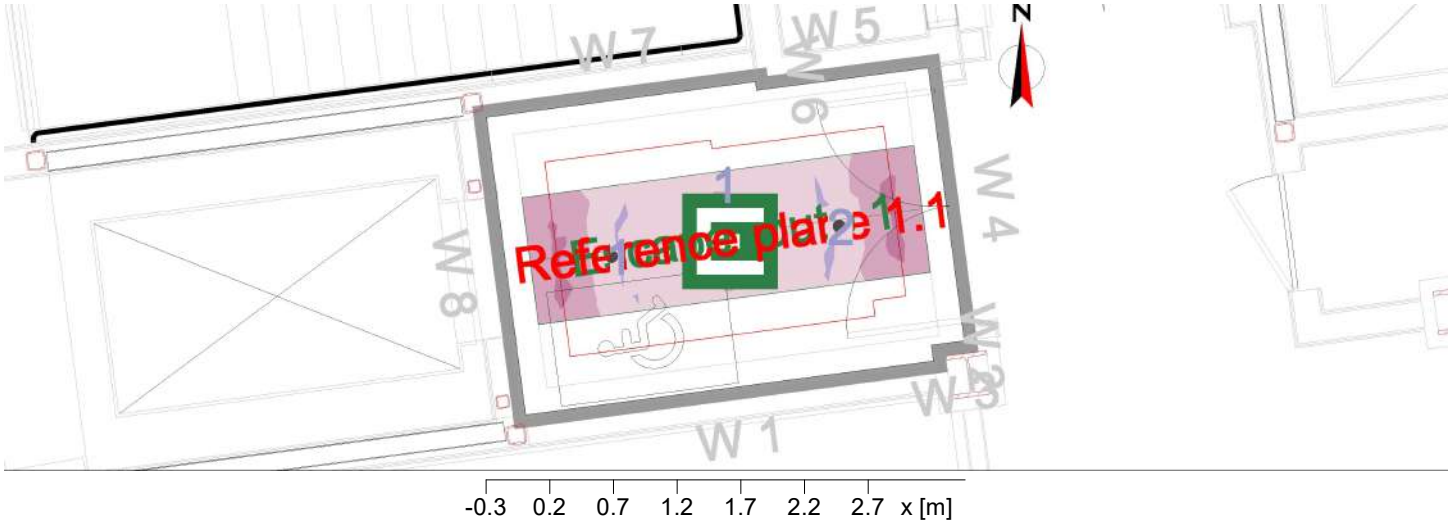
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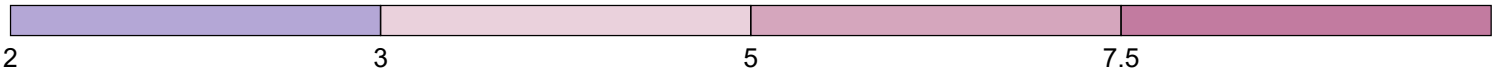
		Hacel Lighting Ltd.
10	2 x	Order No. : !594 7W LED 3000K
		Luminaire name : 594 7W LED 3000K
		Equipment : 1 x 7W LED 3000K 8.6 W / 1118 lm

1 L02-NS-022 Lift Lobby

1.2 Summary, L02-NS-022 Lift Lobby

1.2.1.1 Result overview (emergency lighting)





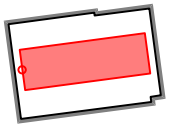
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.47 m	
Maximum I	: 270 cd	<= 1600 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 3.1m x 1m (16 x 9 pts), Height = 0.00m					
1	2.95 lx	7.56 lx	1: 2.56	2.91 lx	7.73 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



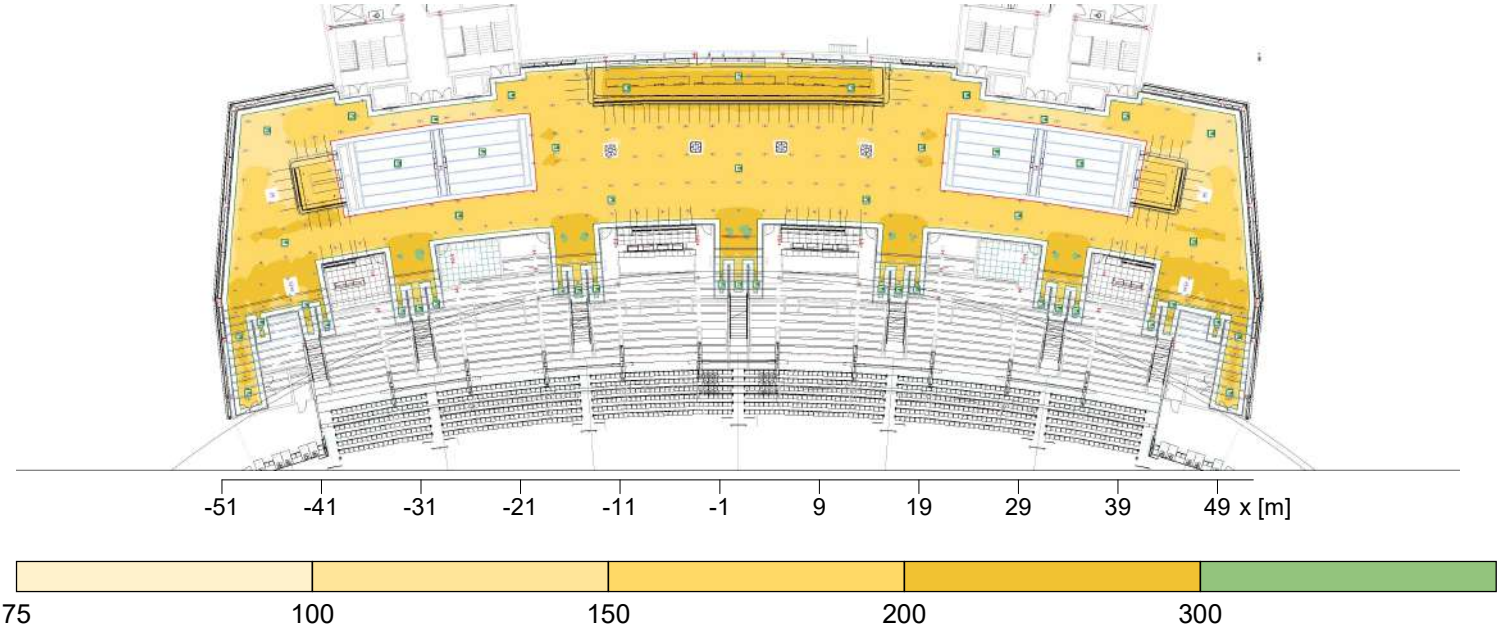
Type No.\Make

	Mackwell			
5	1E x	Order No.	: !LSX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LSX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

2 L02-NS-027 Concourse

2.1 Summary, L02-NS-027 Concourse

2.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	460692 lm
Luminaire luminous flux	416880 lm
Total power	3510.8 W
Total power per area (1975.73 m²)	1.78 W/m² (0.96 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	186 lx
E_{min}	78 lx
$E_{min}/\bar{E}_m$ (U_o)	0.42
E_{min}/E_{max} (U_d)	0.25
Position	0.00 m

Type No.\Make

		Hacel Lighting Ltd.	
3	233 x	Order No.	: !594 12W LED 3000K
		Luminaire name	: 594 12W LED 3000K
		Equipment	: 1 x 12W LED 3000K 13.1 W / 1719 lm

2 L02-NS-027 Concourse

2.1 Summary, L02-NS-027 Concourse

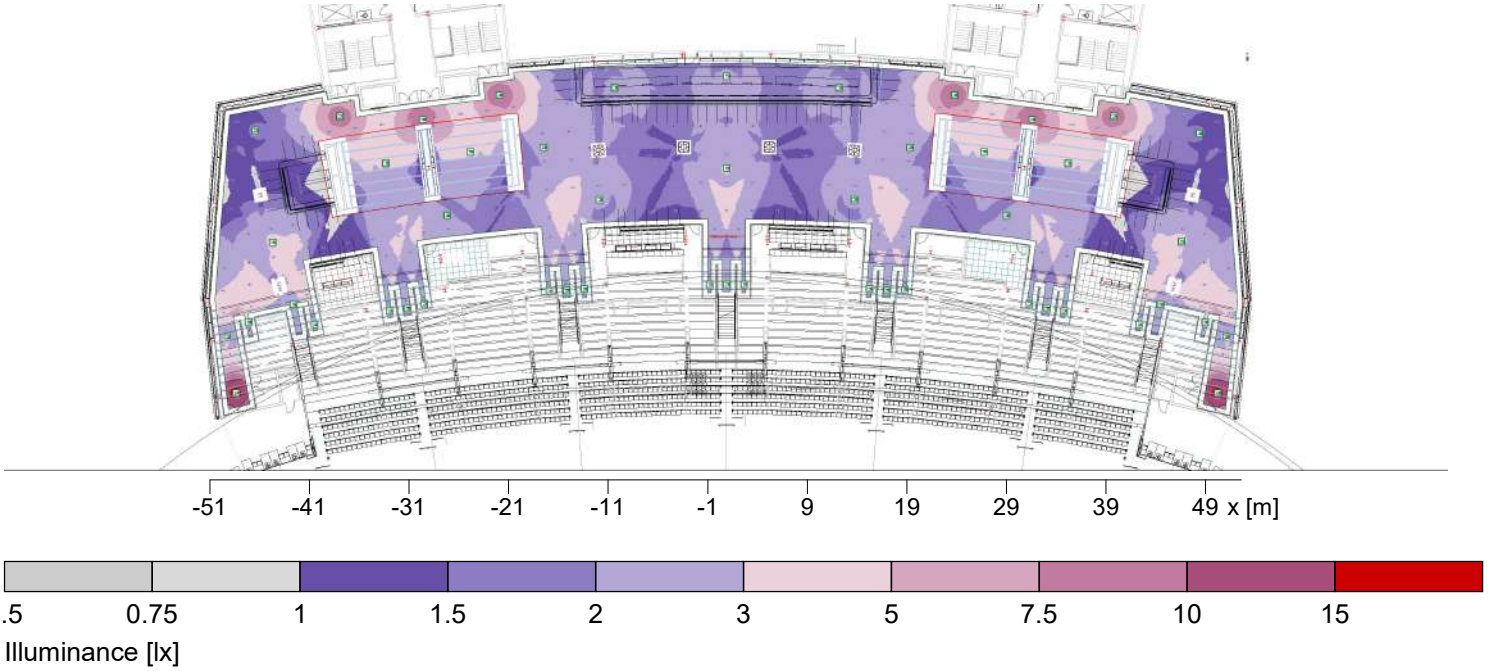
2.1.1 Result overview, Evaluation area 1

4 35 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2 L02-NS-027 Concourse

2.2 Summary, L02-NS-027 Concourse

2.2.1.1 Result overview (emergency lighting)

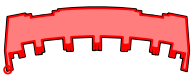


General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 180 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 102.59m x 34.65m (102 x 34 pts), Height = 0.00m			
1	0.59 lx	16.31 lx	1: 27.81
	>= 0.5 lx		>= 1 : 40



Places to highlight

No.	Emin [lx]	Surface Emax [lx]
1 Call Point (i)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	5.14 lx	6.30 lx
	>= 5 lx	



2 L02-NS-027 Concourse

2.2 Summary, L02-NS-027 Concourse

2.2.1.1 Result overview (emergency lighting)

2 Call Point (ii)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

2	6.12 lx	6.45 lx
	>= 5 lx	



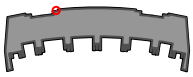
3 Call Point (iii)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

3	5.46 lx	6.32 lx
	>= 5 lx	



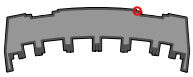
4 Call Point (iv)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

4	7.13 lx	7.68 lx
	>= 5 lx	



5 Call Point (v)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

5	7.13 lx	7.68 lx
	>= 5 lx	



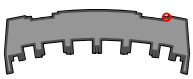
6 Call Point (vi)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

6	5.53 lx	6.42 lx
	>= 5 lx	



7 Call Point (vii)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

7	6.09 lx	6.49 lx
	>= 5 lx	



8 Call Point (viii)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

8	5.07 lx	6.23 lx
	>= 5 lx	



Type No.\Make

Mackwell

6 41E x

Order No. : !LSX HO (OPEN AREA 375lm) -- Emergency Lighting --
Luminaire name : LSX HO (OPEN AREA 375lm)
Equipment : 1 x LED 3 W / 375 lm (0%)
Emergency : 375 lm

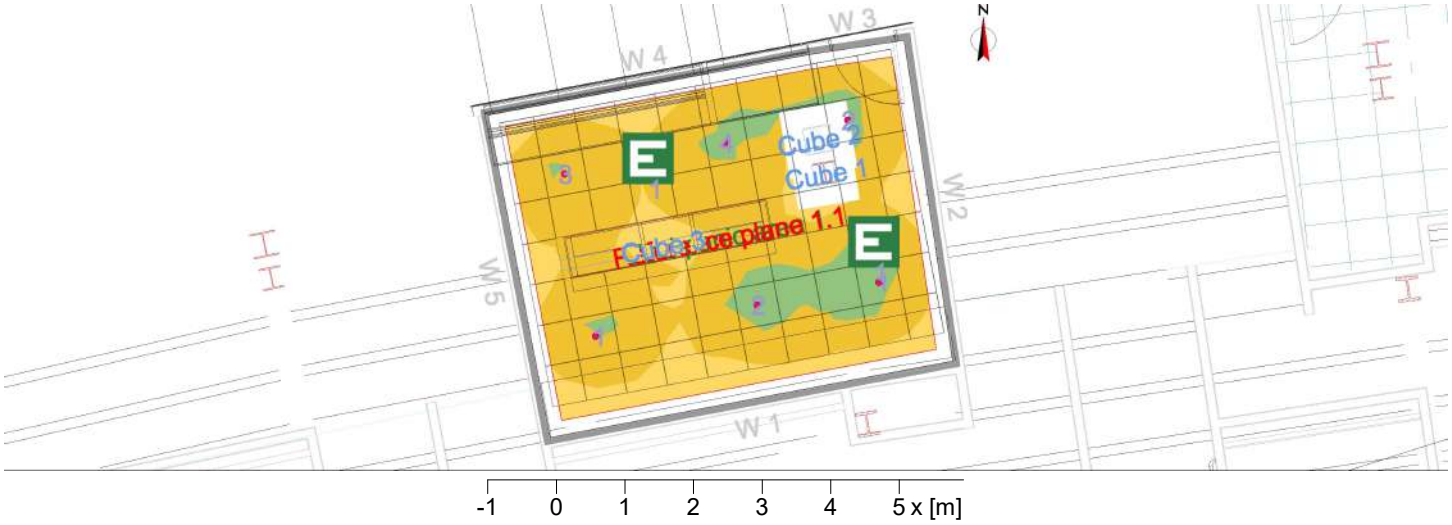
11 8E x

Order No. : !LSX HO (EMPHASIS 375lm) -- Emergency Lighting --
Luminaire name : LSX HO (EMPHASIS 375lm)
Equipment : 1 x LED 2.3 W / 375 lm (0%)
Emergency : 375 lm

3 L02-NS-029 City Bar

3.1 Summary, L02-NS-029 City Bar

3.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total lamp luminous flux	10314 lm
Luminaire luminous flux	9333 lm
Total power	78.6 W
Total power per area (28.85 m²)	2.72 W/m² (1.13 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	240 lx
E_{min}	153 lx
$E_{min}/\bar{E}_m$ (U_o)	0.64
E_{min}/E_{max} (U_d)	0.45
Position	0.75 m

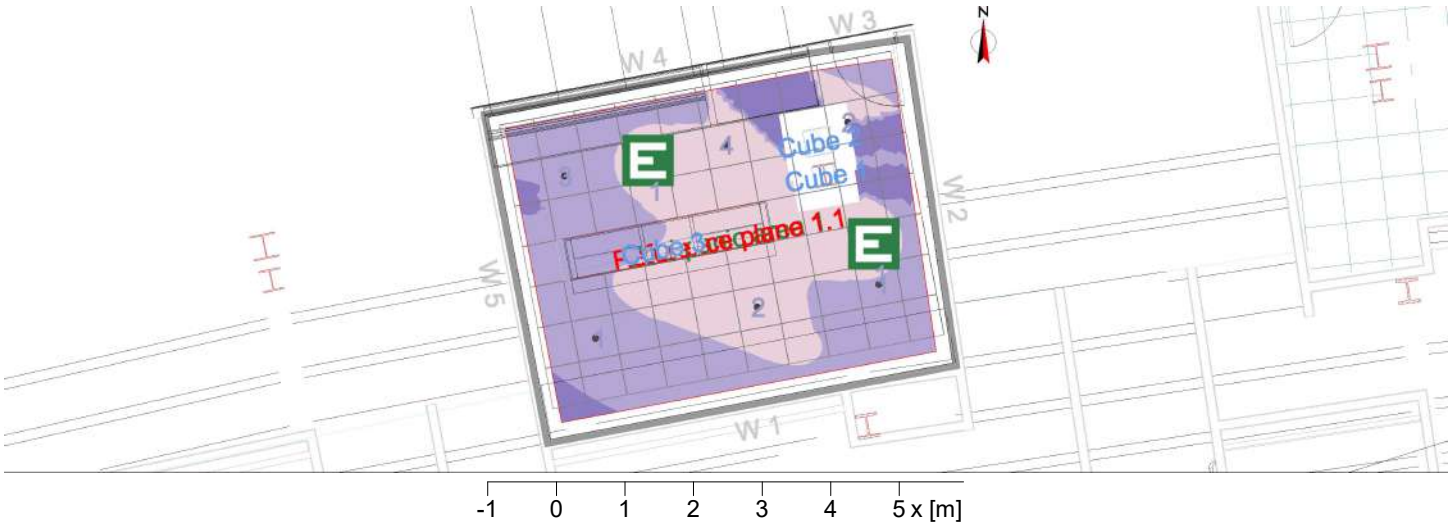
Type No.\Make

		Hacel Lighting Ltd.	
4	6 x	Order No.	: !594 12W LED 3000K
		Luminaire name	: 594 12W LED 3000K
		Equipment	: 1 x 12W LED 3000K 13.1 W / 1719 lm

3 L02-NS-029 City Bar

3.2 Summary, L02-NS-029 City Bar

3.2.1.1 Result overview (emergency lighting)





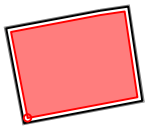
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.97 m	
Maximum I	: 180 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 5.72m x 4.35m (8 x 6 pts), Height = 0.00m			
1	1.53 lx	3.87 lx	1: 2.53
	>= 0.5 lx		>= 1 : 40



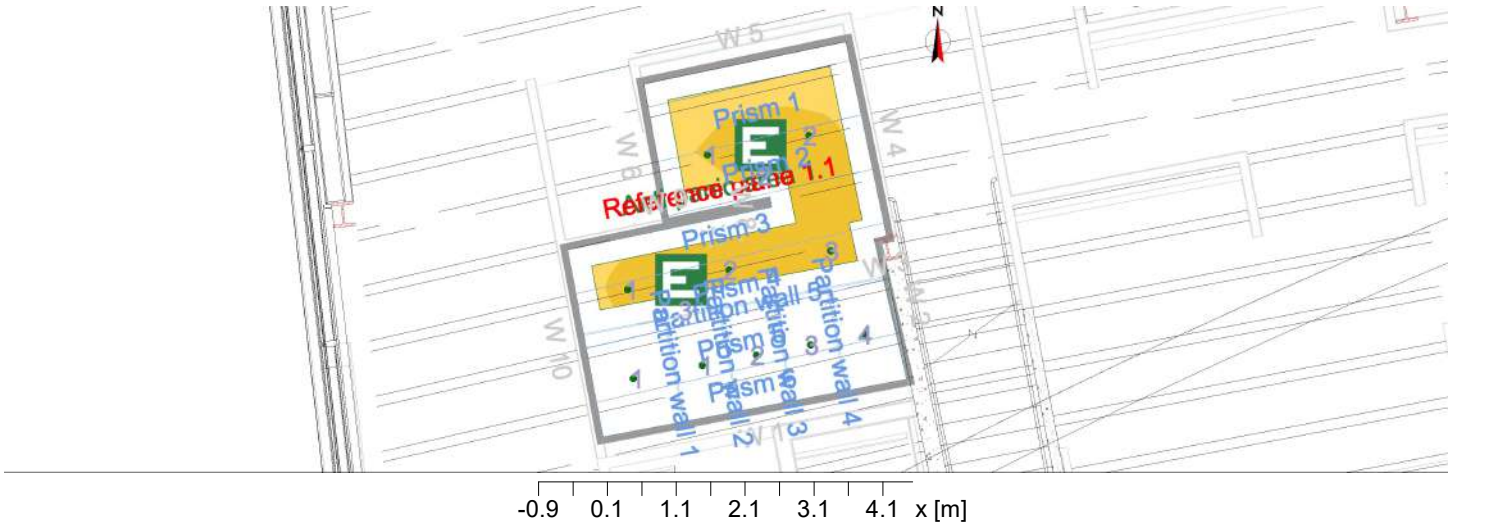
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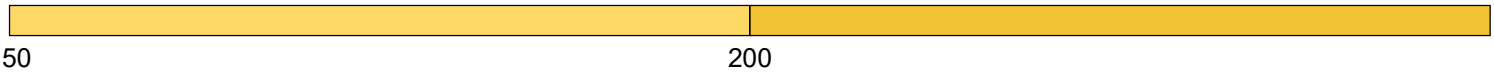
		Mackwell		
6	2E x	Order No.	: !LSX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LSX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

4 L02-NS-030 WCS

4.1 Summary, L02-NS-030 WCS

4.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.50 m
Maintenance factor	0.80
Total lamp luminous flux	11180 lm
Luminaire luminous flux	10117 lm
Total power	86.0 W
Total power per area (18.75 m²)	4.59 W/m² (1.99 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	230 lx
E_{min}	156 lx
$E_{min}/\bar{E}_m$ (U_o)	0.68
E_{min}/E_{max} (U_d)	0.56
Position	0.00 m

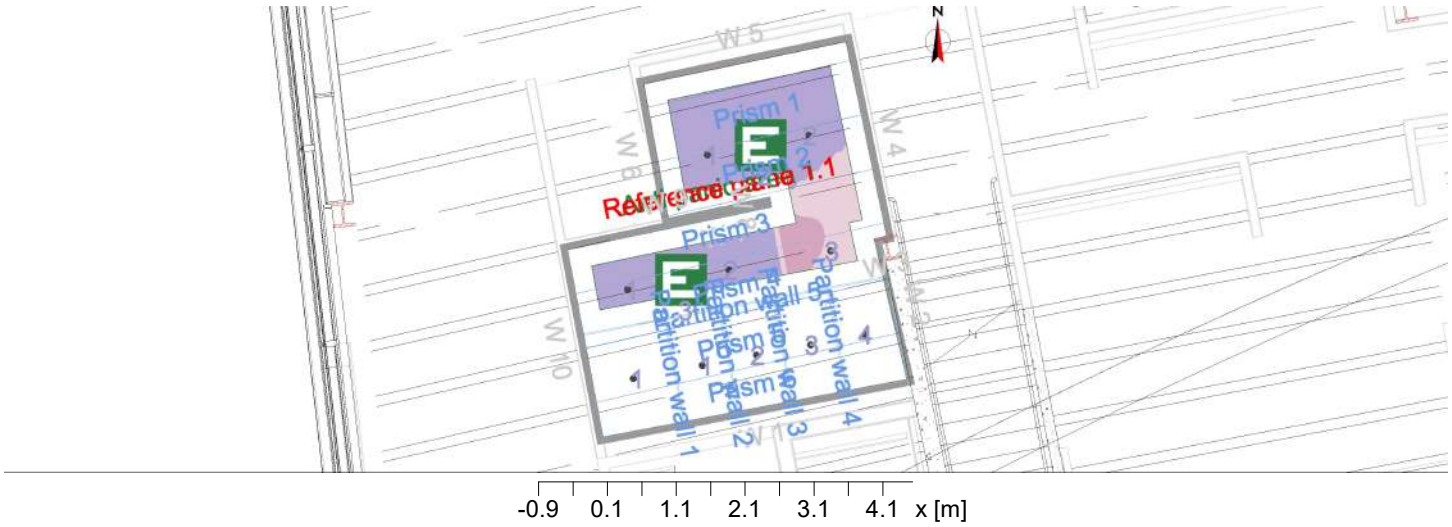
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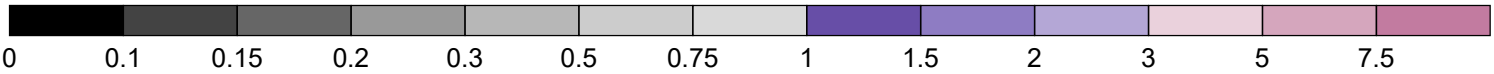
	Hacel Lighting Ltd.	
9	10 x	Order No. : !594 7W LED 3000K
		Luminaire name : 594 7W LED 3000K
		Equipment : 1 x 7W LED 3000K 8.6 W / 1118 lm

4 L02-NS-030 WCS

4.2 Summary, L02-NS-030 WCS

4.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.47 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 3.98m x 2.85m (8 x 5 pts), Height = 0.00m			
1	2.34 lx	5.59 lx	1: 2.39
	>= 0.5 lx		>= 1 : 40



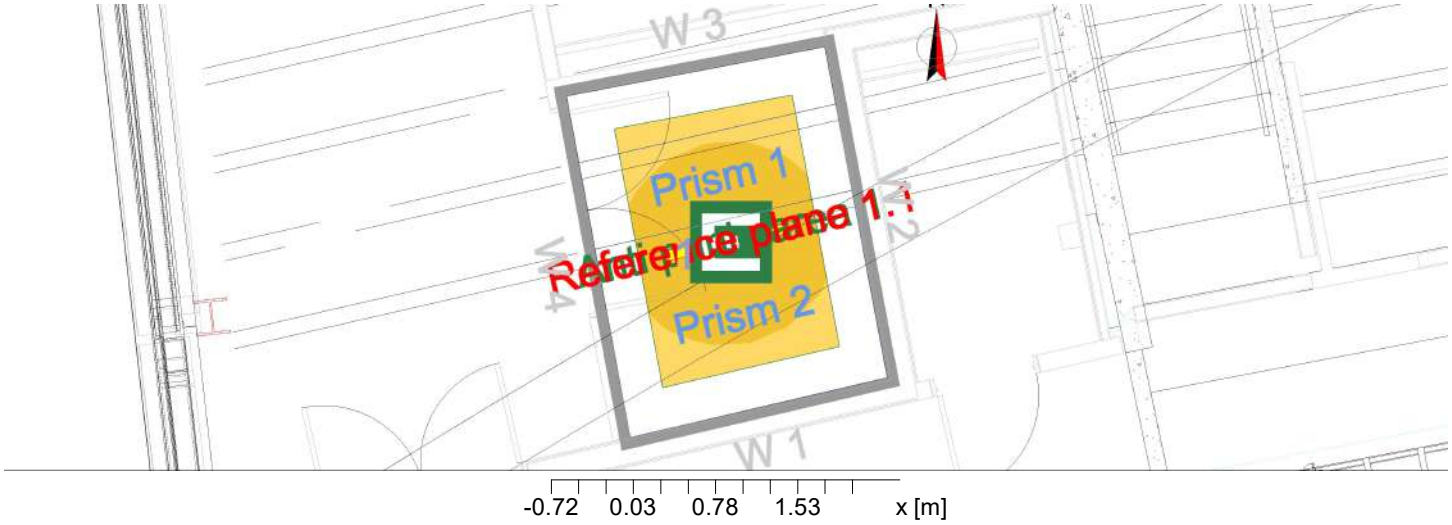
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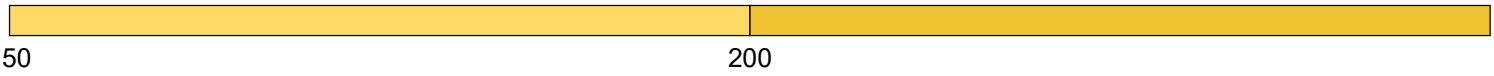
		Mackwell		
6	2E x	Order No.	: !LSX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LSX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

5 L02-NS-031 R&R

5.1 Summary, L02-NS-031 R&R

5.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.50 m
Maintenance factor	0.80
Total lamp luminous flux	4400 lm
Luminaire luminous flux	4399 lm
Total power	29.9 W
Total power per area (7.48 m²)	4.00 W/m² (1.88 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	213 lx
E_{min}	166 lx
$E_{min}/\bar{E}_m$ (U_o)	0.78
E_{min}/E_{max} (U_d)	0.65
Position	0.00 m

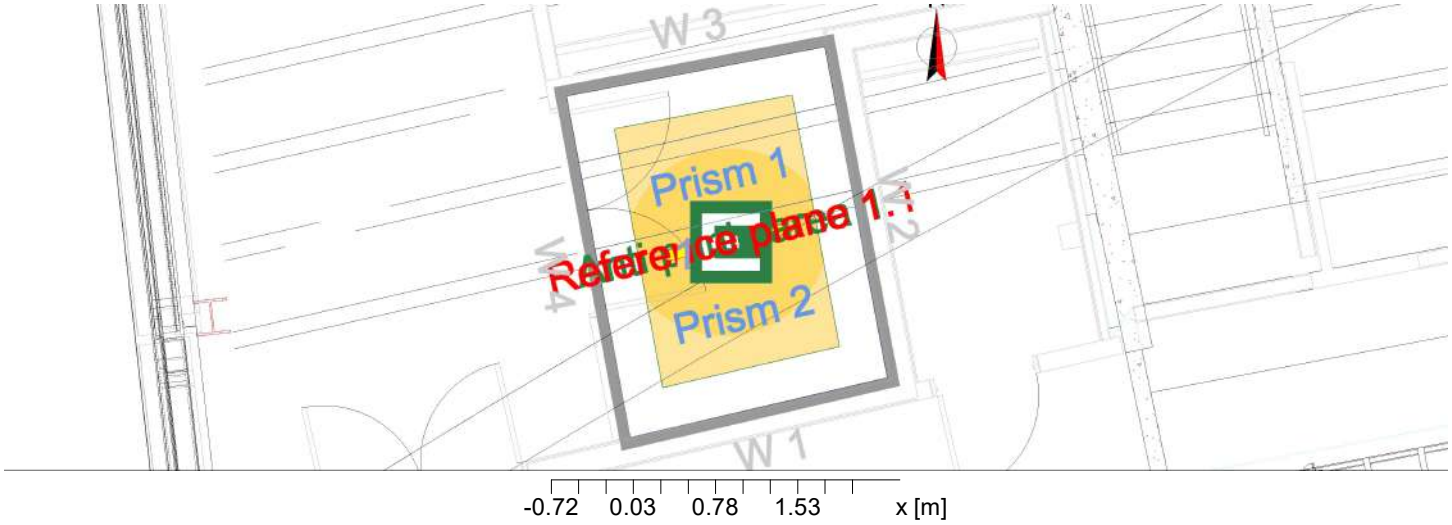
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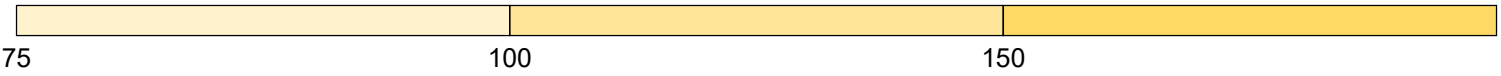
		Thorn	
1	1E x	Order No.	: 96630794 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

5 L02-NS-031 R&R

5.2 Summary, L02-NS-031 R&R

5.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.43 m	
Maximum I	: 1500 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 1.75m x 2.4m (5 x 7 pts), Height = 0.00m			
1	98.21 lx	196.94 lx	1: 2.01
	>= 0.5 lx		>= 1 : 40



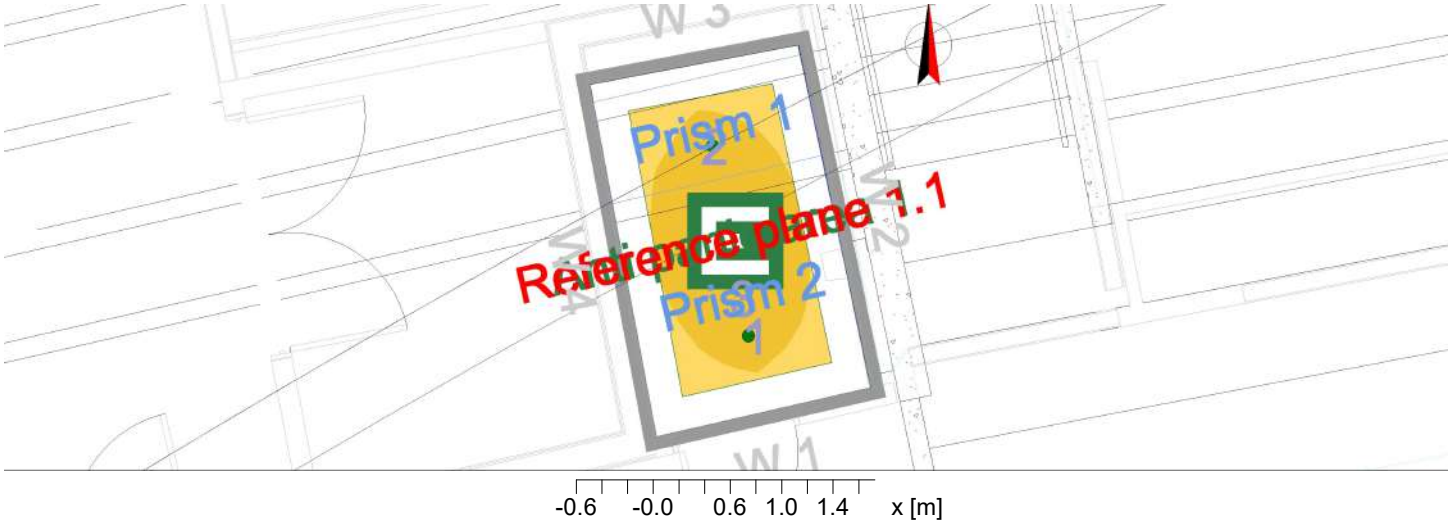
Type No.\Make

		Thorn	
1	1E x	Order No.	: 96630794 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

6 L02-NS-032 AWC

6.1 Summary, L02-NS-032 AWC

6.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.50 m
Maintenance factor	0.80
Total lamp luminous flux	2236 lm
Luminaire luminous flux	2023 lm
Total power	17.2 W
Total power per area (4.61 m²)	3.73 W/m² (1.74 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	214 lx
E_{min}	184 lx
$E_{min}/\bar{E}_m$ (U_o)	0.86
E_{min}/E_{max} (U_d)	0.76
Position	0.00 m

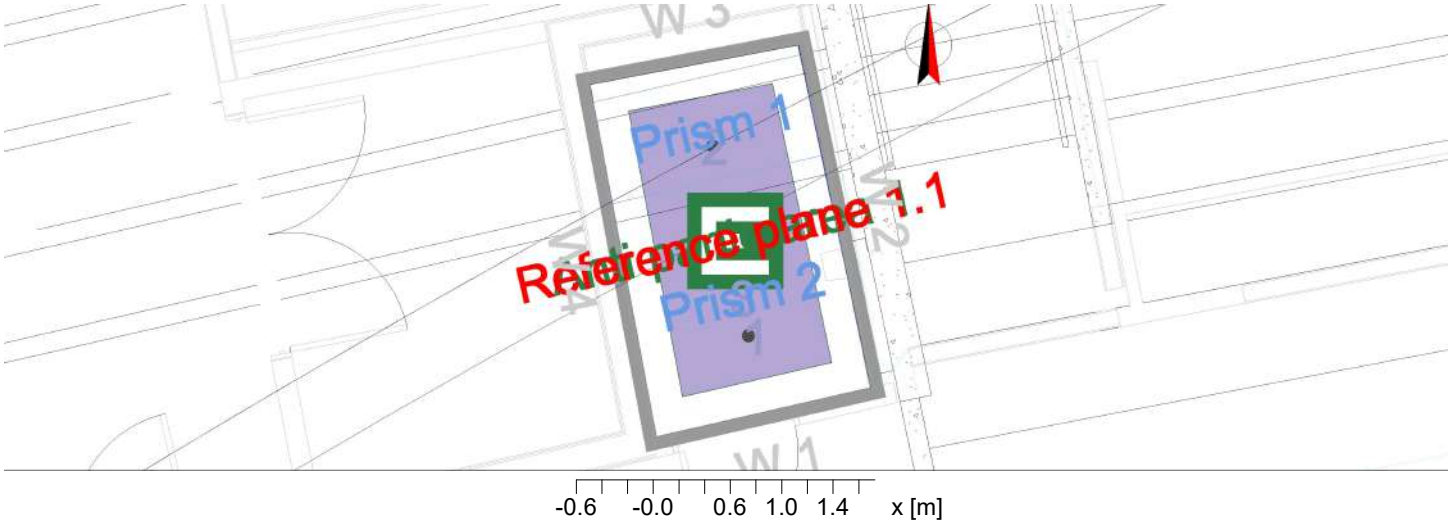
Type No.\Make

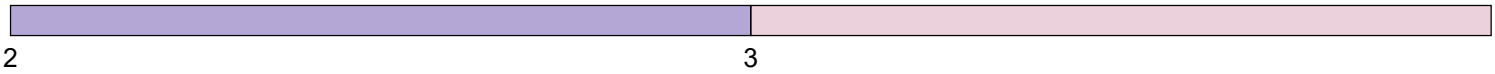
		Hacel Lighting Ltd.
9	2 x	Order No. : !594 7W LED 3000K
		Luminaire name : 594 7W LED 3000K
		Equipment : 1 x 7W LED 3000K 8.6 W / 1118 lm

6 L02-NS-032 AWC

6.2 Summary, L02-NS-032 AWC

6.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.47 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 1.22m x 2.26m (3 x 6 pts), Height = 0.00m			
1	2.34 lx	3.78 lx	1: 1.61
	>= 0.5 lx		>= 1 : 40



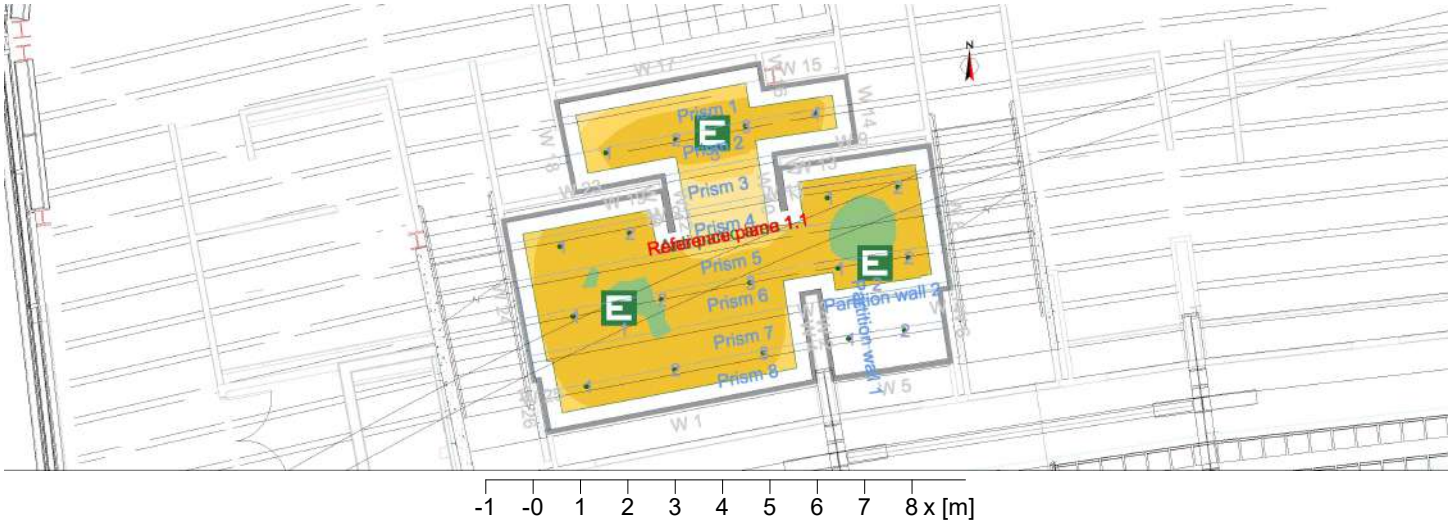
Type No.\Make

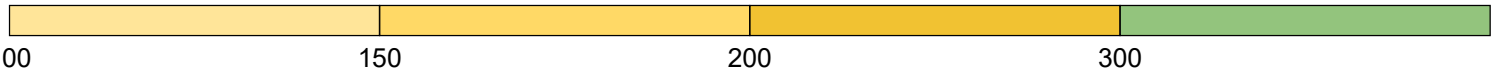
		Mackwell		
6	1E x	Order No.	: !LSX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LSX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

7 L02-NS-033 WCS

7.1 Summary, L02-NS-033 WCS

7.1.1 Result overview, Evaluation area 1





General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.50 m
Maintenance factor	0.80
Total lamp luminous flux	20124 lm
Luminaire luminous flux	18210 lm
Total power	154.8 W
Total power per area (49.19 m²)	3.15 W/m² (1.30 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	243 lx
E_{min}	104 lx
$E_{min}/\bar{E}_m$ (U_o)	0.43
E_{min}/E_{max} (U_d)	0.32
Position	0.00 m

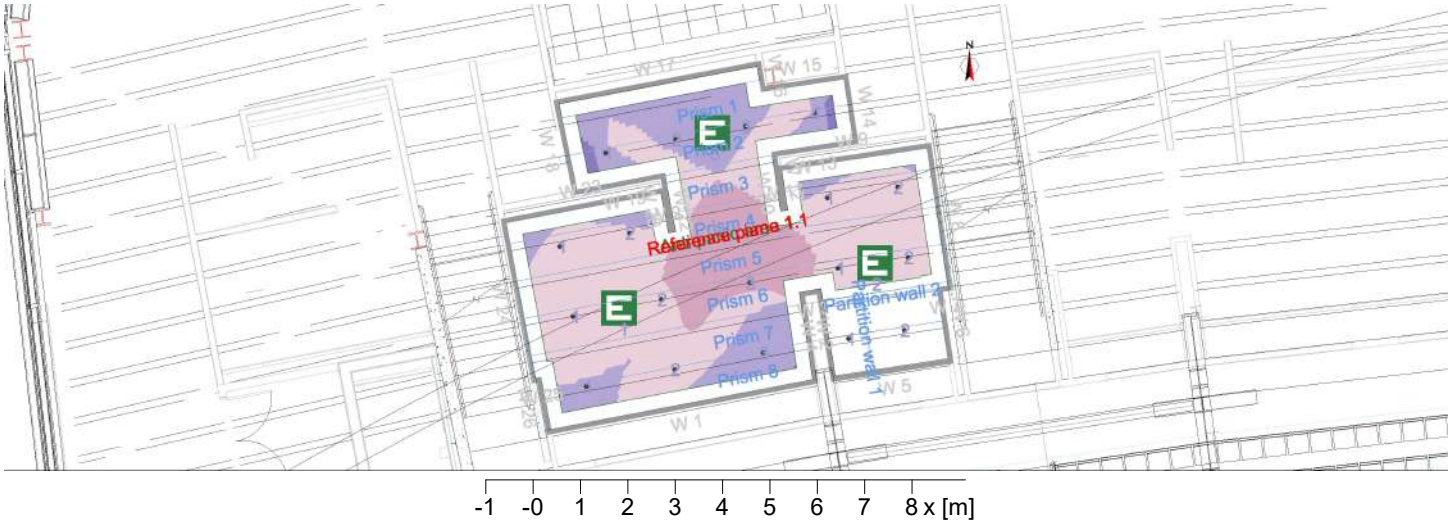
Type No.\Make

		Hacel Lighting Ltd.
9	18 x	Order No. : !594 7W LED 3000K
		Luminaire name : 594 7W LED 3000K
		Equipment : 1 x 7W LED 3000K 8.6 W / 1118 lm

7 L02-NS-033 WCS

7.2 Summary, L02-NS-033 WCS

7.2.1.1 Result overview (emergency lighting)





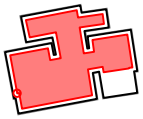
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.47 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 8.4m x 6.1m (16 x 12 pts), Height = 0.00m			
1	1.82 lx	5.85 lx	1: 3.22
	>= 0.5 lx		>= 1 : 40



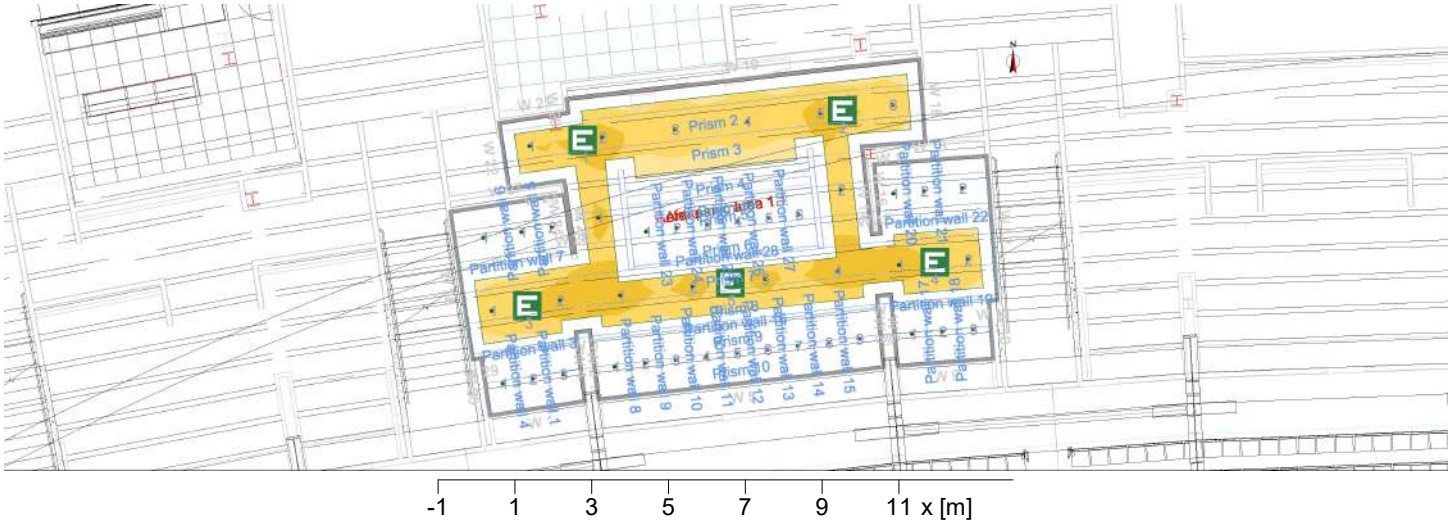
Type No.\Make

		Mackwell		
6	3E x	Order No.	: !LSX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LSX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

8 L02-NS-034 WCS

8.1 Summary, L02-NS-034 WCS

8.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.50 m
Maintenance factor	0.80
Total lamp luminous flux	48074 lm
Luminaire luminous flux	43502 lm
Total power	369.8 W
Total power per area (93.84 m²)	3.94 W/m² (2.14 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	184 lx
E_{min}	107 lx
$E_{min}/\bar{E}_m$ (U_o)	0.58
E_{min}/E_{max} (U_d)	0.44
Position	0.00 m

Type No.\Make

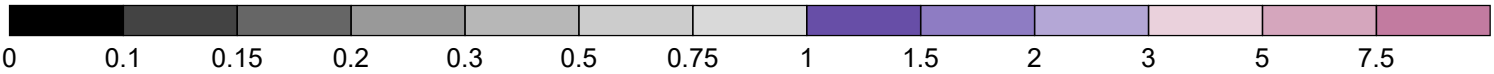
		Hacel Lighting Ltd.
9	43 x	Order No. : !594 7W LED 3000K
		Luminaire name : 594 7W LED 3000K
		Equipment : 1 x 7W LED 3000K 8.6 W / 1118 lm

8 L02-NS-034 WCS

8.2 Summary, L02-NS-034 WCS

8.2.1.1 Result overview (emergency lighting)





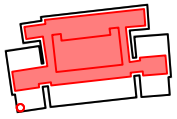
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.47 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 13.15m x 6.1m (47 x 22 pts), Height = 0.00m			
1	1.58 lx	5.78 lx	1: 3.66
	>= 0.5 lx		>= 1 : 40



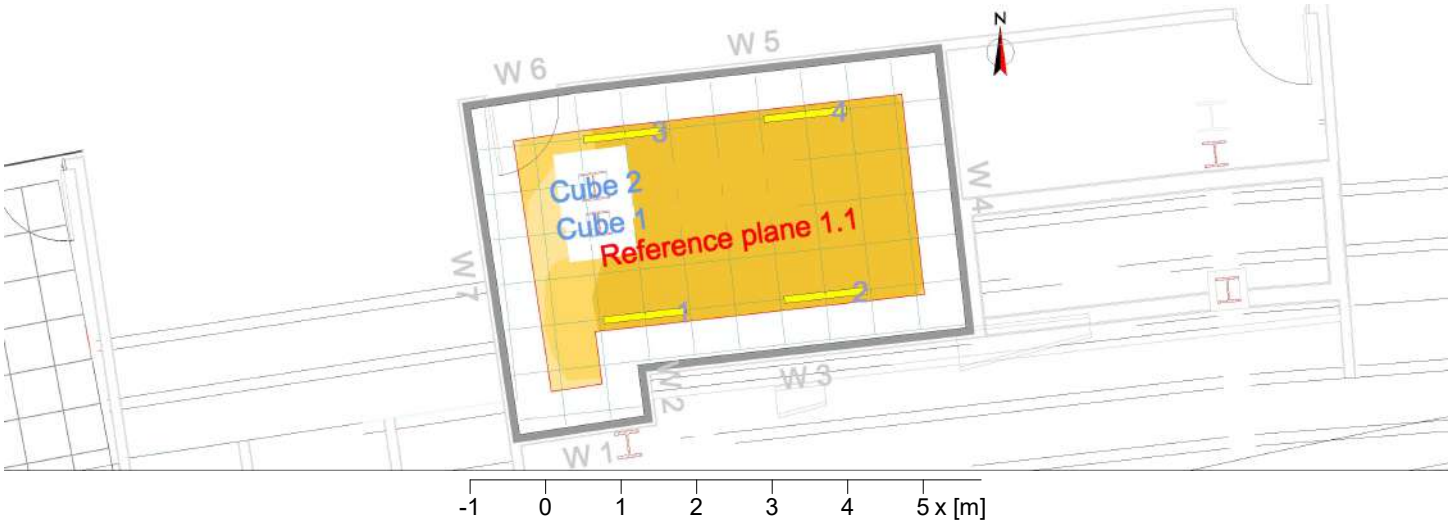
Type No.\Make

		Mackwell		
6	5E x	Order No.	: !LSX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LSX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

9 L02-NS-035 Keg Room

9.1 Summary, L02-NS-035 Keg Room

9.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	4.00 m
Maintenance factor	0.80
Total lamp luminous flux	17600 lm
Luminaire luminous flux	17595 lm
Total power	119.6 W
Total power per area (23.55 m²)	5.08 W/m² (2.06 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	247 lx
E_{min}	124 lx
$E_{min}/\bar{E}_m$ (U_o)	0.50
E_{min}/E_{max} (U_d)	0.42
Position	0.00 m

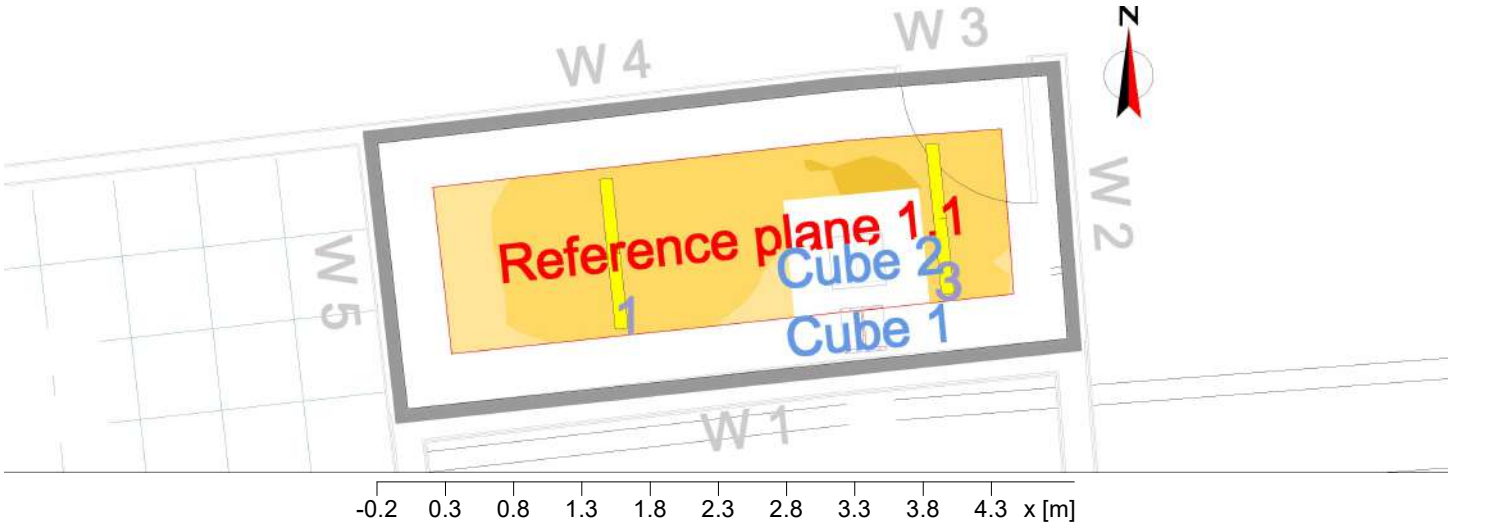
Type No.\Make

		Thorn	
1	4 x	Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

10 L02-NS-036 Store

10.1 Summary, L02-NS-036 Store

10.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.50 m
Maintenance factor	0.80
Total lamp luminous flux	8800 lm
Luminaire luminous flux	8798 lm
Total power	59.8 W
Total power per area (9.59 m²)	6.24 W/m² (3.69 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	169 lx
E_{min}	127 lx
$E_{min}/\bar{E}_m$ (U_o)	0.75
E_{min}/E_{max} (U_d)	0.62
Position	0.00 m

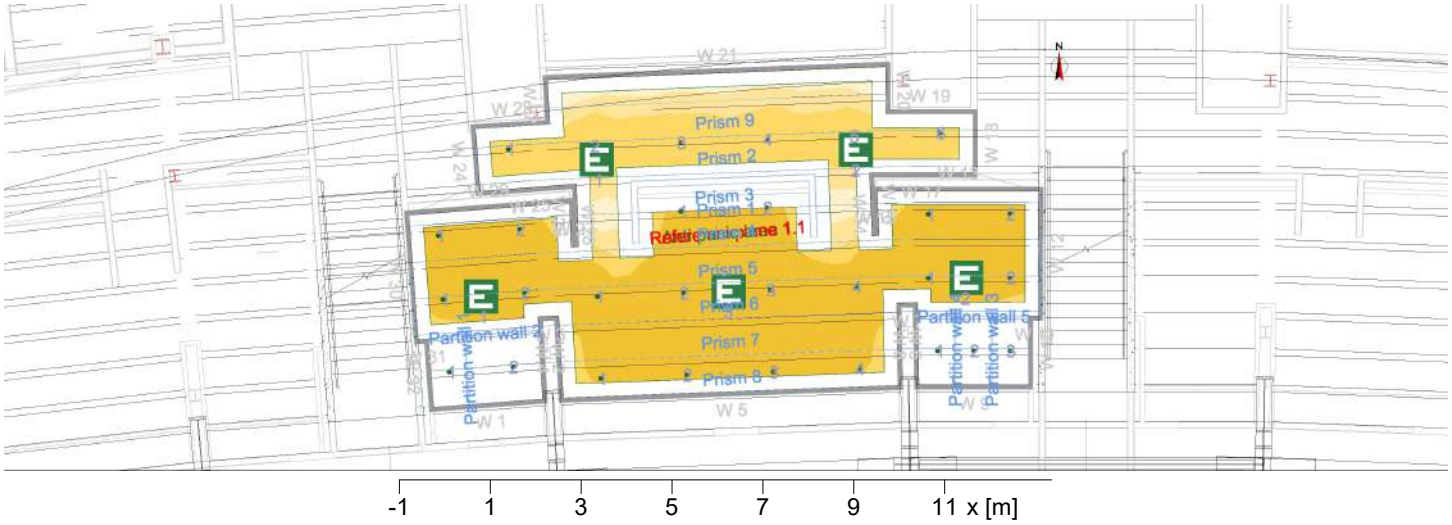
Type No.\Make

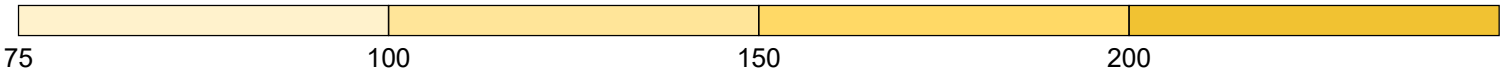
		Thorn	
1	2 x	Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

11 L02-NS-037 WCS

11.1 Summary, L02-NS-037 WCS

11.1.1 Result overview, Evaluation area 1





General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.50 m
Maintenance factor	0.80
Total lamp luminous flux	32422 lm
Luminaire luminous flux	29339 lm
Total power	249.4 W
Total power per area (80.20 m²)	3.11 W/m² (1.47 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	212 lx
E_{min}	95 lx
$E_{min}/\bar{E}_m$ (U_o)	0.45
E_{min}/E_{max} (U_d)	0.32
Position	0.00 m

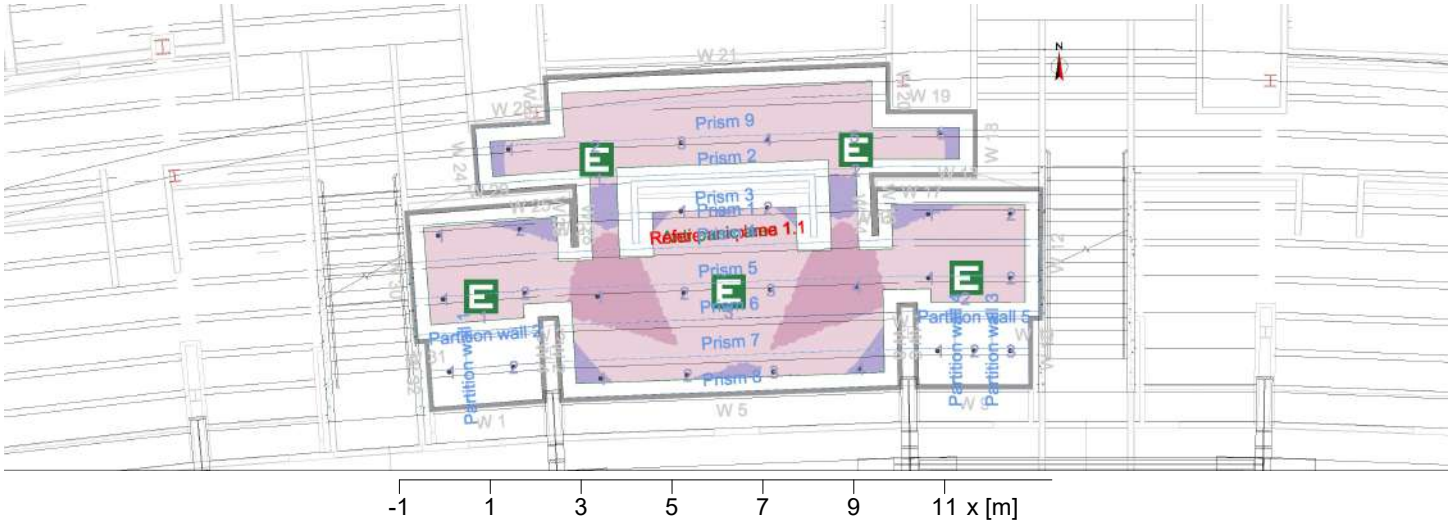
Type No.\Make

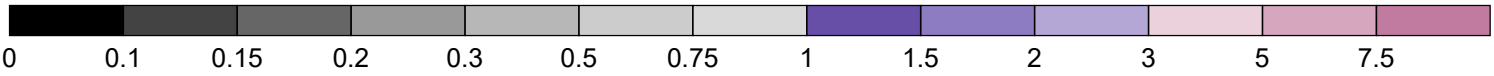
		Hacel Lighting Ltd.	
9	29 x	Order No.	: !594 7W LED 3000K
		Luminaire name	: 594 7W LED 3000K
		Equipment	: 1 x 7W LED 3000K 8.6 W / 1118 lm

11 L02-NS-037 WCS

11.2 Summary, L02-NS-037 WCS

11.2.1.1 Result overview (emergency lighting)





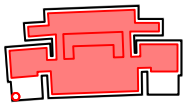
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.47 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 13.22m x 6.64m (14 x 7 pts), Height = 0.00m			
1	2.04 lx	6.72 lx	1: 3.30
	>= 0.5 lx		>= 1 : 40



Type No.\Make

		Mackwell		
6	5E x	Order No.	: !LSX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LSX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

12 L02-NS-038 City Kitchen

12.1 Summary, L02-NS-038 City Kitchen

12.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total lamp luminous flux	38704 lm
Luminaire luminous flux	35023 lm
Total power	291.2 W
Total power per area (53.00 m²)	5.49 W/m² (1.12 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	489 lx
E_{min}	292 lx
$E_{min}/\bar{E}_m$ (U_o)	0.60
E_{min}/E_{max} (U_d)	0.42
Position	0.75 m

Type No.\Make

Hacel Lighting Ltd.

8 16E x

Order No.	: !594 17W LED 3000K -- Emergency Lighting --
Luminaire name	: 594 17W LED 3000K
Equipment	: 1 x 17W LED 3000K 18.2 W / 2419 lm
Emergency	: 2419 lm (100.0 %)

12 L02-NS-038 City Kitchen

12.2 Summary, L02-NS-038 City Kitchen

12.2.1.1 Result overview (emergency lighting)



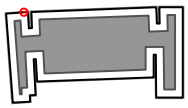


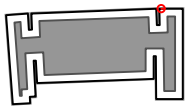
General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.89 m	
Maximum I	: 2400 cd	<= 1800 cd

Places to highlight

No.	Surface Emin [lx]	Emax [lx]
1 Call Point (i)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	64.11 lx >= 5 lx	87.09 lx
2 Call Point (ii)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
2	74.00 lx >= 5 lx	95.28 lx





Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)

12 L02-NS-038 City Kitchen

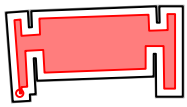
12.2 Summary, L02-NS-038 City Kitchen

12.2.1.1 Result overview (emergency lighting)

High risk area 1

Calculation field: 10.29m x 4.98m (17 x 8 pts), Height = 0.75m

1	413 lx	257 lx	0.62
	>= 0.5 lx		>= 0.10



Type No.\Make

Hacel Lighting Ltd.

8 16E x

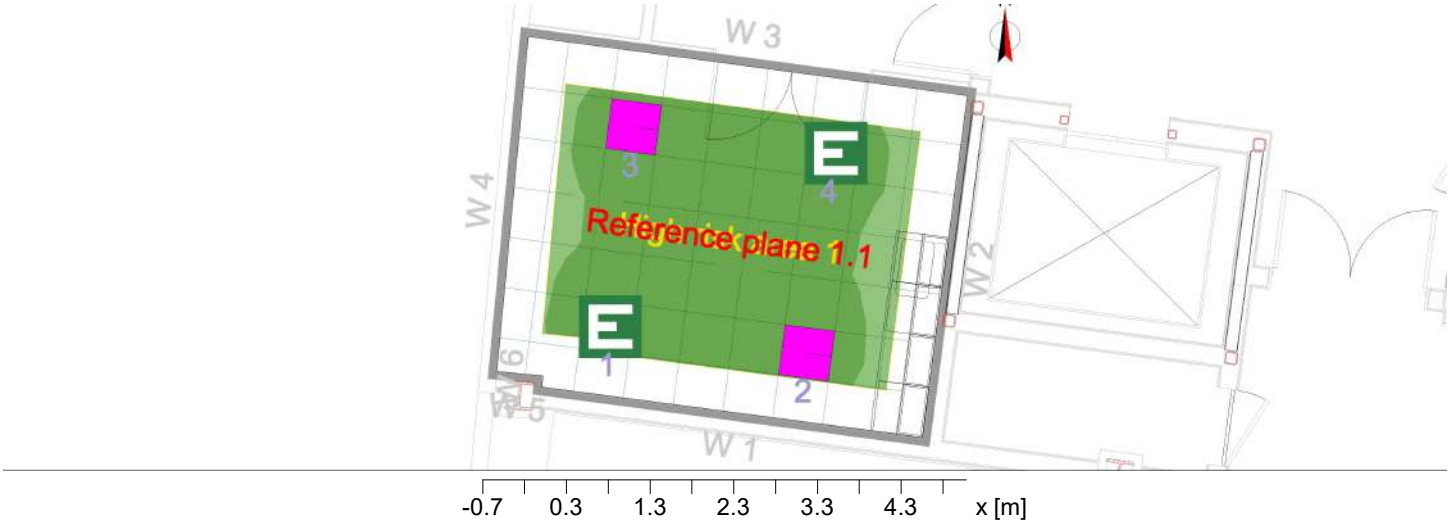


Order No.	: !594 17W LED 3000K -- Emergency Lighting --
Luminaire name	: 594 17W LED 3000K
Equipment	: 1 x 17W LED 3000K 18.2 W / 2419 lm
Emergency	: 2419 lm (100.0 %)

13 L02-NS-053 First Aid

13.1 Summary, L02-NS-053 First Aid

13.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Luminaire luminous flux	18520 lm
Total power	123.6 W
Total power per area (21.36 m²)	5.79 W/m² (1.02 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	566 lx
E_{min}	436 lx
$E_{min}/\bar{E}_m$ (U_o)	0.77
E_{min}/E_{max} (U_d)	0.65
Position	0.75 m

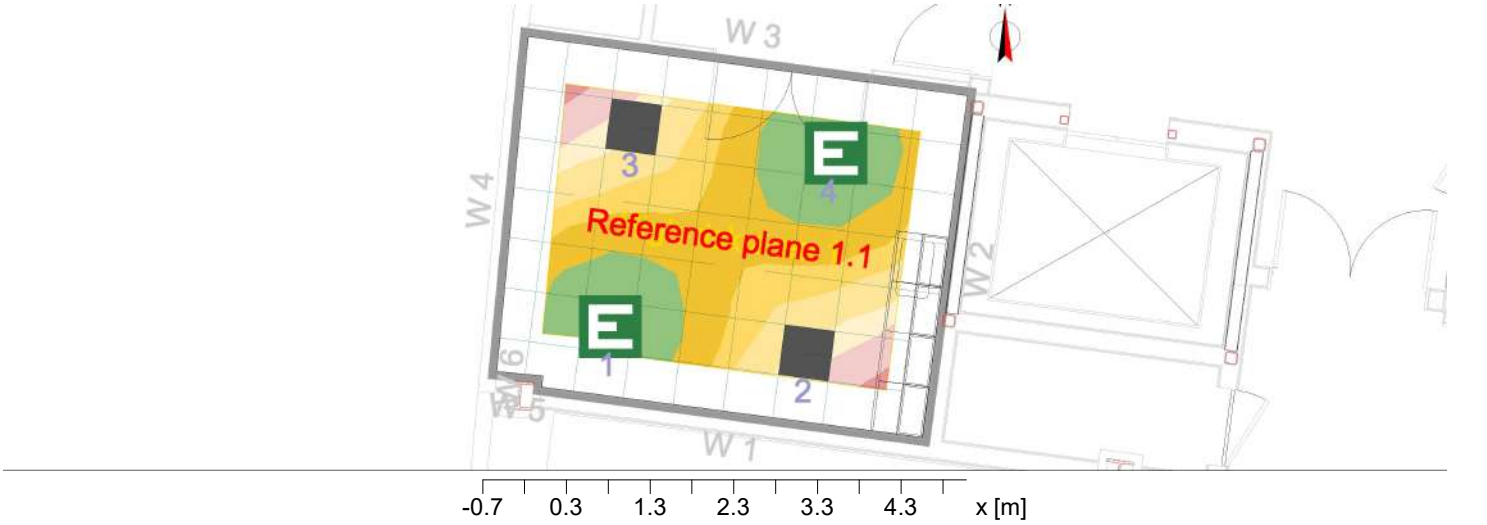
Type No.\Make

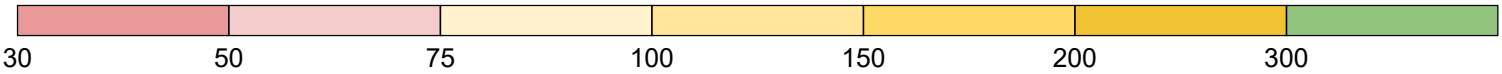
		Thorn	
2	4E x	Order No.	: 96636089
		Luminaire name	: DUOPRF2 4600-840 HFIX PM O M600Q [STD]
		Equipment	: 1 x 96636089 31 W / 4630 lm
		Emergency	: 4630 lm (100.0 %)

13 L02-NS-053 First Aid

13.2 Summary, L02-NS-053 First Aid

13.2.1.1 Result overview (emergency lighting)



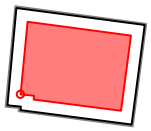


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.39 m	
Maximum I	: 1600 cd	<= 1000 cd

Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)
High risk area 1			
Calculation field: 4.27m x 3.12m (8 x 6 pts), Height = 0.75m			
1	223 lx	41 lx	0.18
	---		>= 0.10



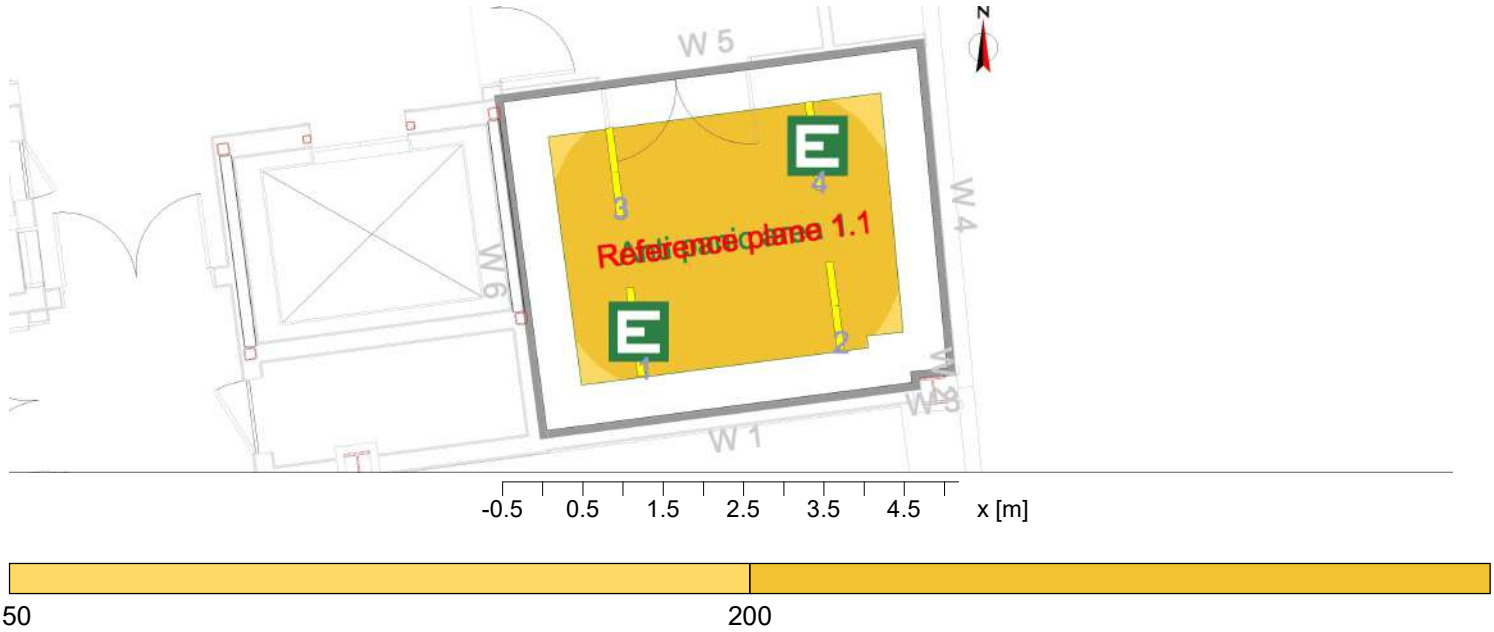
Type No.\Make

		Thorn	
2	2E x	Order No.	: 96636089 -- Emergency Lighting --
		Luminaire name	: DUOPRF2 4600-840 HFIX PM O M600Q [STD]
		Equipment	: 1 x 96636089 31 W / 4630 lm
		Emergency	: 4630 lm (100.0 %)

14 L02-NS-102 Store

14.1 Summary, L02-NS-102 Store

14.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	4.50 m
Maintenance factor	0.80
Total lamp luminous flux	17600 lm
Luminaire luminous flux	17595 lm
Total power	119.6 W
Total power per area (20.94 m²)	5.71 W/m² (2.46 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	232 lx
E_{min}	197 lx
$E_{min}/\bar{E}_m$ (U_o)	0.85
E_{min}/E_{max} (U_d)	0.76
Position	0.00 m

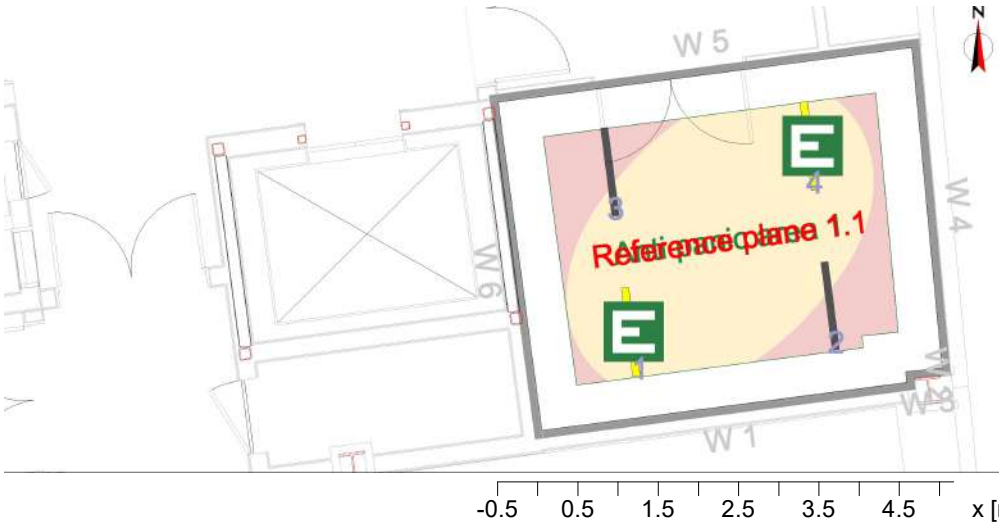
Type No.\Make

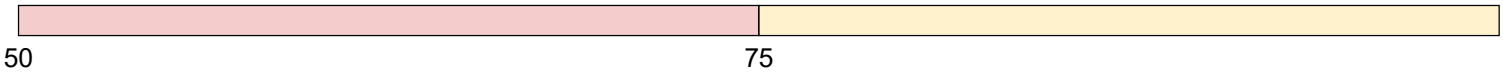
		Thorn	
1	4E x	Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

14 L02-NS-102 Store

14.2 Summary, L02-NS-102 Store

14.2.1.1 Result overview (emergency lighting)





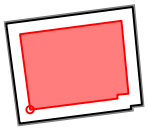
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.43 m	
Maximum I	: 1500 cd	<= 3500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 4.17m x 3.12m (8 x 6 pts), Height = 0.00m			
1	53.07 lx	91.57 lx	1: 1.73
	>= 0.5 lx		>= 1 : 40



Type No.\Make

		Thorn		
1	2E x	Order No.	: 96630794	-- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]	
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm	
		Emergency	: 4400 lm (100.0 %)	

North Stand - Level 03 / 03M

Installation : MCFC Redevelopment

Project number	:	SY1023-27
Customer	:	SES
Processed by	:	S Hollingworth
Date	:	27.05.2025

Project description:

Reflectcance Values:
Ceiling 50% plant areas
Walls 30% plant areas
Floor 20%

Maintenance Factor: 0.8

Rev A - Initial issue.
Rev B - Updated to incorporate latest info from Lighting Workshop 29.10.2024, and BG emails 29.10.2024 / 07.11.2024.
Rev C - Updated to take account of Emergency Lighting Review doc received from BD 06.02.2025. Also luminaires in "L03-NS-018 Plant" now mounted at 2.375m as per JD email 13.02.2025.
Rev D - Reviewed against Jump RCPs.
Rev E - Updated to take account of plant room layout.
Rev F - Lighting added between condenser units in the plant room as per email from BG 27.05.2025.

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.

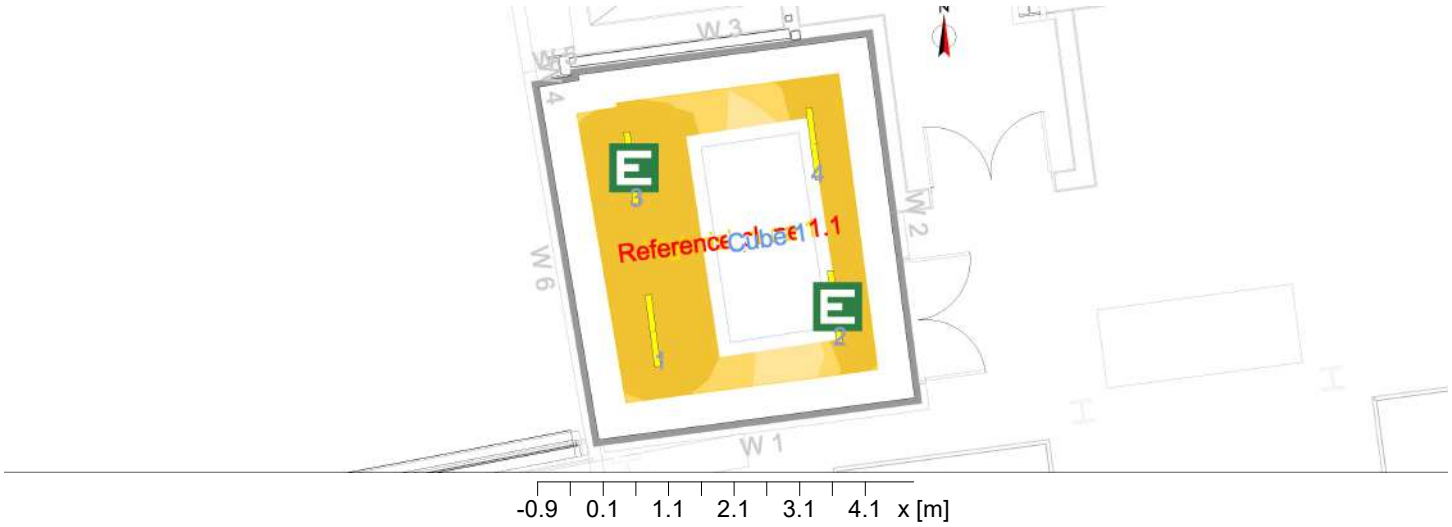
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1 L03-NS-007 HV Switchroom

1.1 Summary, L03-NS-007 HV Switchroom

1.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.38 m
Maintenance factor	0.80
Total lamp luminous flux	17600 lm
Luminaire luminous flux	17595 lm
Total power	119.6 W
Total power per area (27.42 m²)	4.36 W/m² (1.78 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	245 lx
E_{min}	118 lx
$E_{min}/\bar{E}_m$ (U_o)	0.48
E_{min}/E_{max} (U_d)	0.40
Position	0.00 m

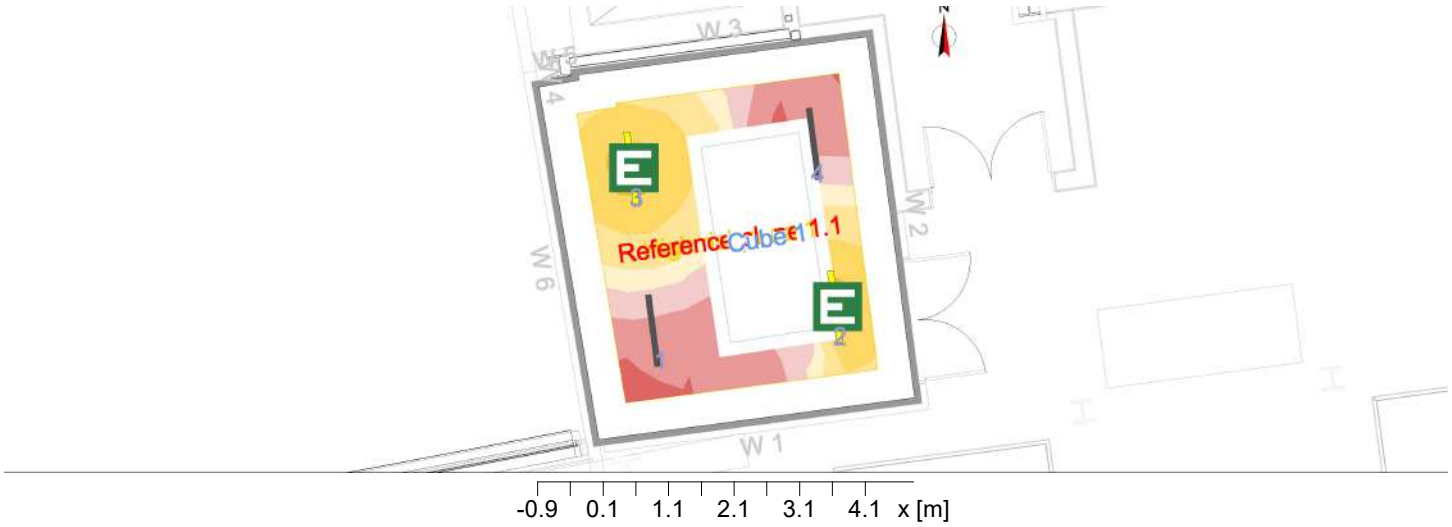
Type No.\Make

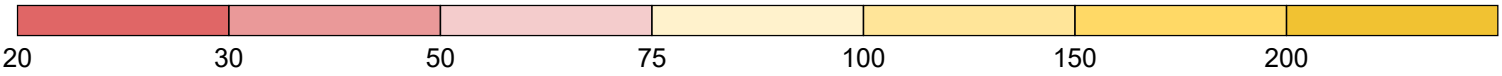
		Thorn	
1	4E x	Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

1 L03-NS-007 HV Switchroom

1.2 Summary, L03-NS-007 HV Switchroom

1.2.1.1 Result overview (emergency lighting)





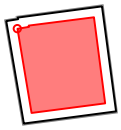
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.31 m	
Maximum I	: 1500 cd	<= 1000 cd

Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)
High risk area 1			
Calculation field: 4.04m x 4.54m (7 x 8 pts), Height = 0.00m			
1	100 lx	21 lx	0.21
	---		>= 0.10



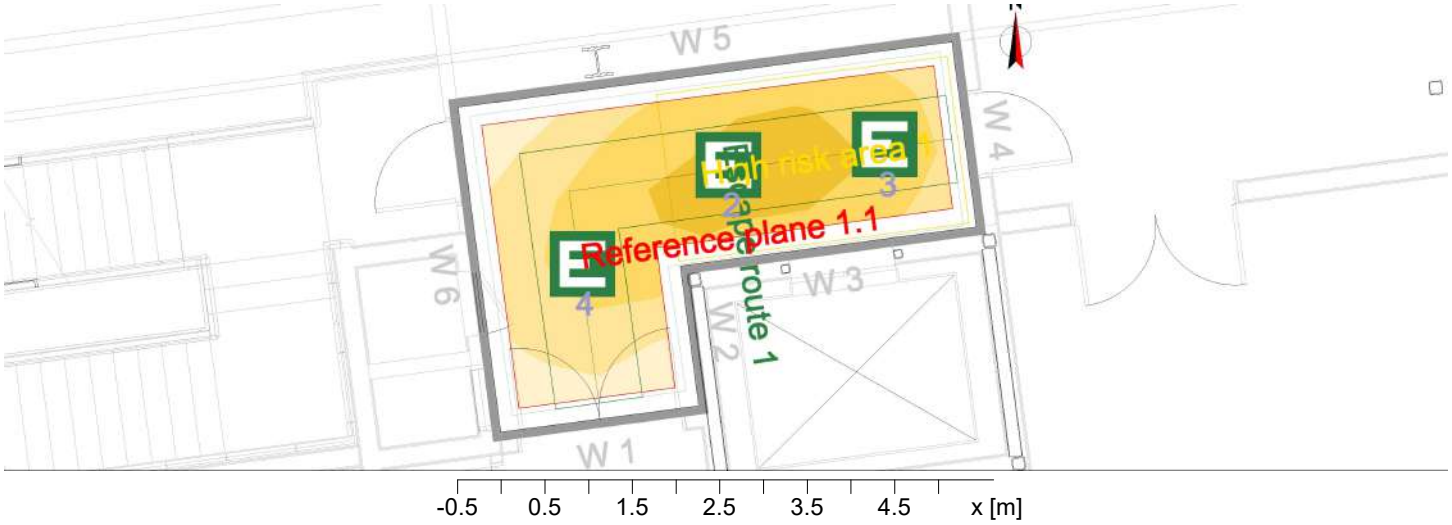
Type No.\Make

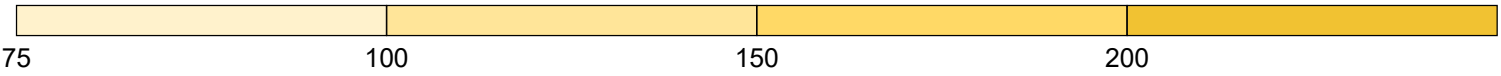
		Thorn		
1	2E x	Order No.	: 96630794	-- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]	
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm	
		Emergency	: 4400 lm (100.0 %)	

2 L03-NS-014 Firefighting Libby

2.1 Summary, L03-NS-014 Firefighting Libby

2.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.50 m
Maintenance factor	0.80
Total lamp luminous flux	5157 lm
Luminaire luminous flux	4667 lm
Total power	39.3 W
Total power per area (15.78 m²)	2.49 W/m² (1.52 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	164 lx
E_{min}	77 lx
$E_{min}/\bar{E}_m$ (U_o)	0.47
E_{min}/E_{max} (U_d)	0.35
Position	0.00 m

Type No.\Make

Hacel Lighting Ltd.

4 3E x

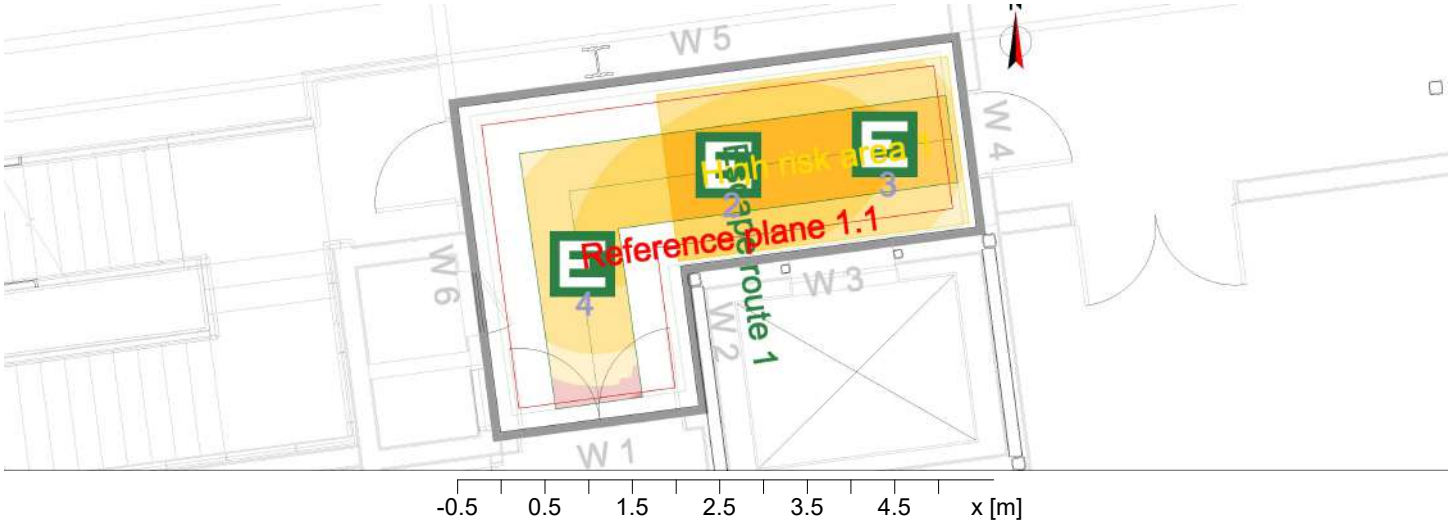


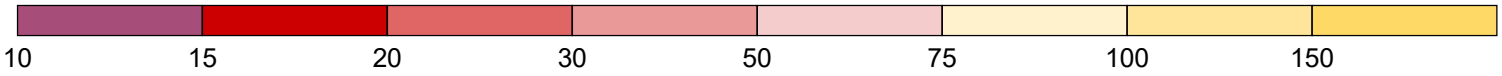
Order No. : !594 12W LED 3000K -- Emergency Lighting --
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm
Emergency : 1719 lm (100.0 %)

2 L03-NS-014 Firefighting Libby

2.2 Summary, L03-NS-014 Firefighting Libby

2.2.1.1 Result overview (emergency lighting)



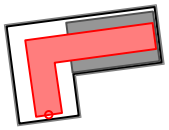


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.39 m	
Maximum I	: 1700 cd	<= 1600 cd

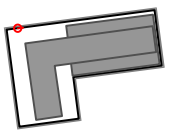
Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 6.85m x 1m (34 x 9 pts), Height = 0.00m					
1	61.61 lx	195.93 lx	1: 3.18	47.19 lx	195.93 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Places to highlight

No.	Surface Emin [lx]	Emax [lx]
1 Call Point		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	14.72 lx	24.08 lx
	>= 5 lx	



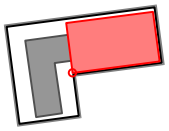
2 L03-NS-014 Firefighting Libby

2.2 Summary, L03-NS-014 Firefighting Libby

2.2.1.1 Result overview (emergency lighting)

Measuring areas

No.		Surface $\bar{E}_m$	E_{min}	$E_{min}/\bar{E}_m$ (U_o)
High risk area 1				
Calculation field: 3.35m x 1.92m (7 x 4 pts), Height = 0.00m				
1		145 lx	80 lx	0.55
		---		>= 0.10



Type No.\Make

Hacel Lighting Ltd.

4 3E x

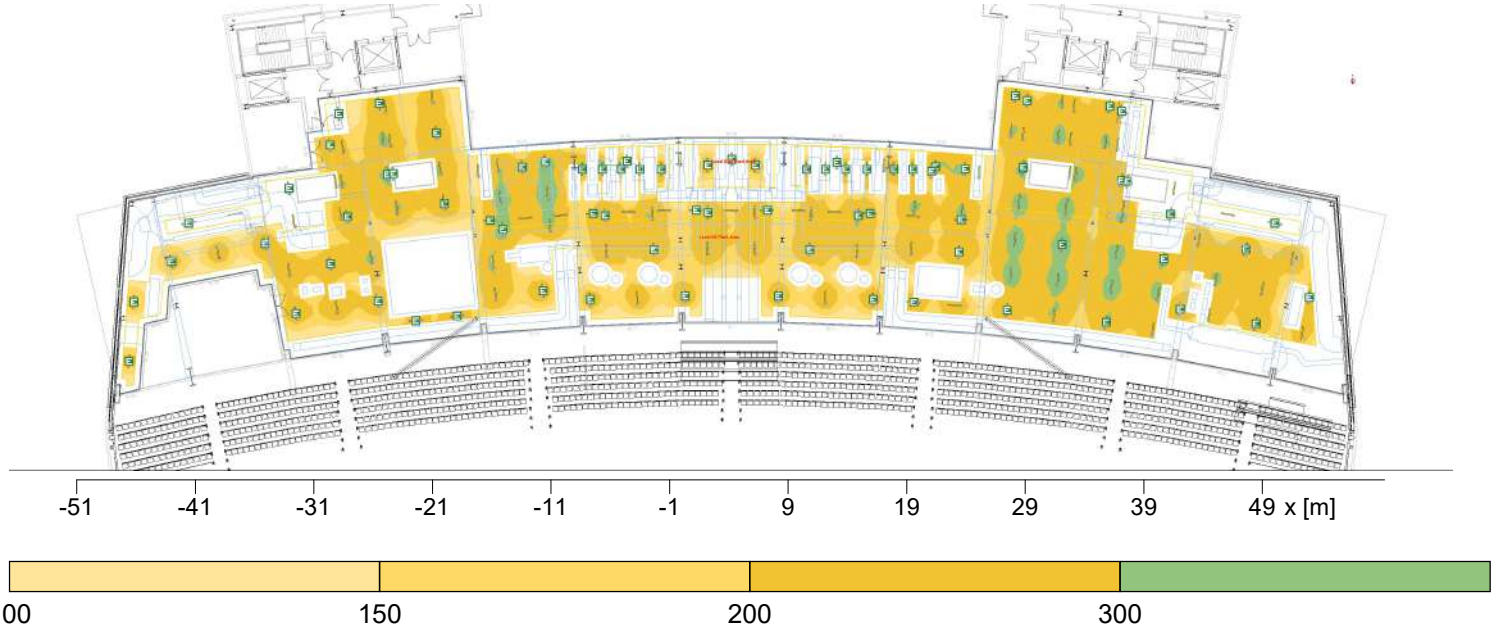


Order No.	: !594 12W LED 3000K -- Emergency Lighting --
Luminaire name	: 594 12W LED 3000K
Equipment	: 1 x 12W LED 3000K 13.1 W / 1719 lm
Emergency	: 1719 lm (100.0 %)

3 L03-NS-018 Plant

3.1 Summary, L03-NS-018 Plant

3.1.1 Result overview, Level 03 Plant Area



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	708400 lm
Total power	4813.9 W
Total power per area (1666.19 m²)	2.89 W/m² (1.29 W/m²/100lx)

Illuminance

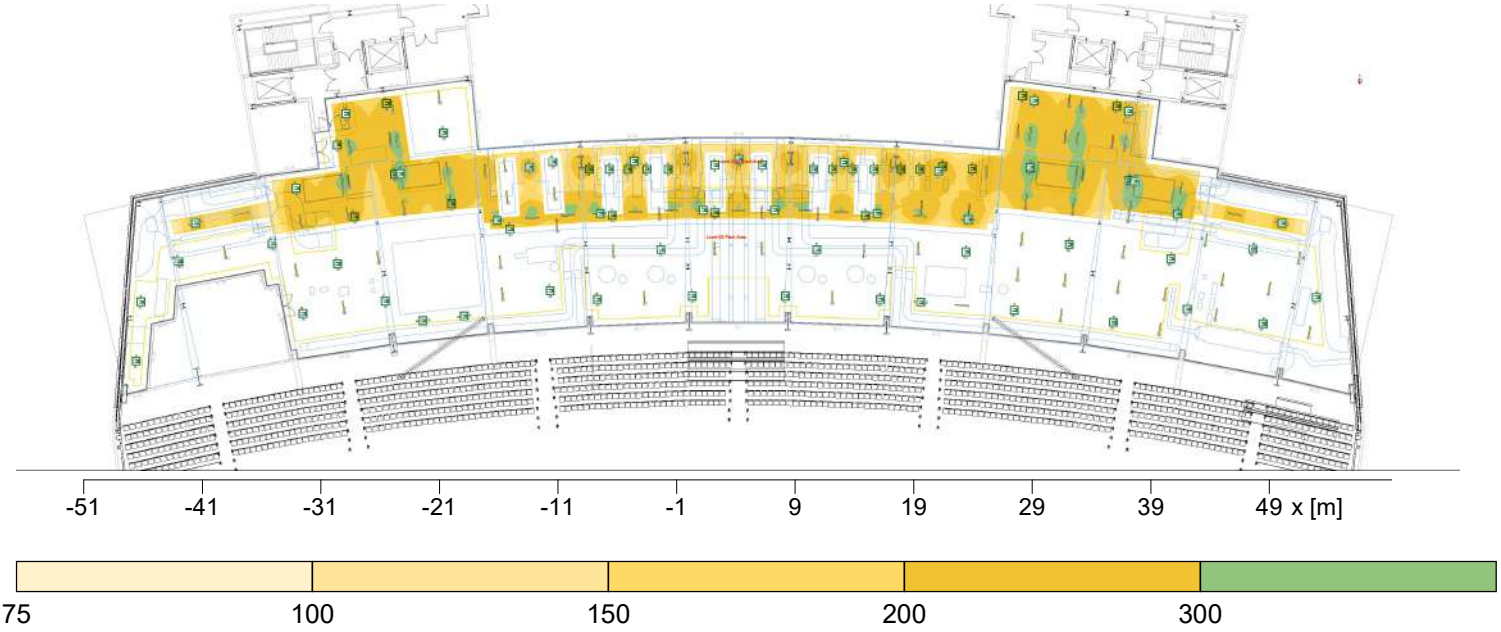
Average illuminance	$\bar{E}_m$	224 lx
Minimum illuminance	E_{min}	102 lx
Maximum illuminance	E_{max}	356 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.21 (0.45)
Diversity U_d	E_{min}/E_{max}	1:3.51 (0.29)

Type No.\Make

		Thorn	
1	161E x	Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

3.1 Summary, L03-NS-018 Plant

3.1.2 Result overview, Level 03M Plant Area



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	4.53 m
Maintenance factor	0.80
Total luminous flux	708400 lm
Total power	4813.9 W
Total power per area (1666.19 m²)	2.89 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	228 lx
Minimum illuminance	E_{min}	97 lx
Maximum illuminance	E_{max}	349 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.36 (0.42)
Diversity U_d	E_{min}/E_{max}	1:3.6 (0.28)

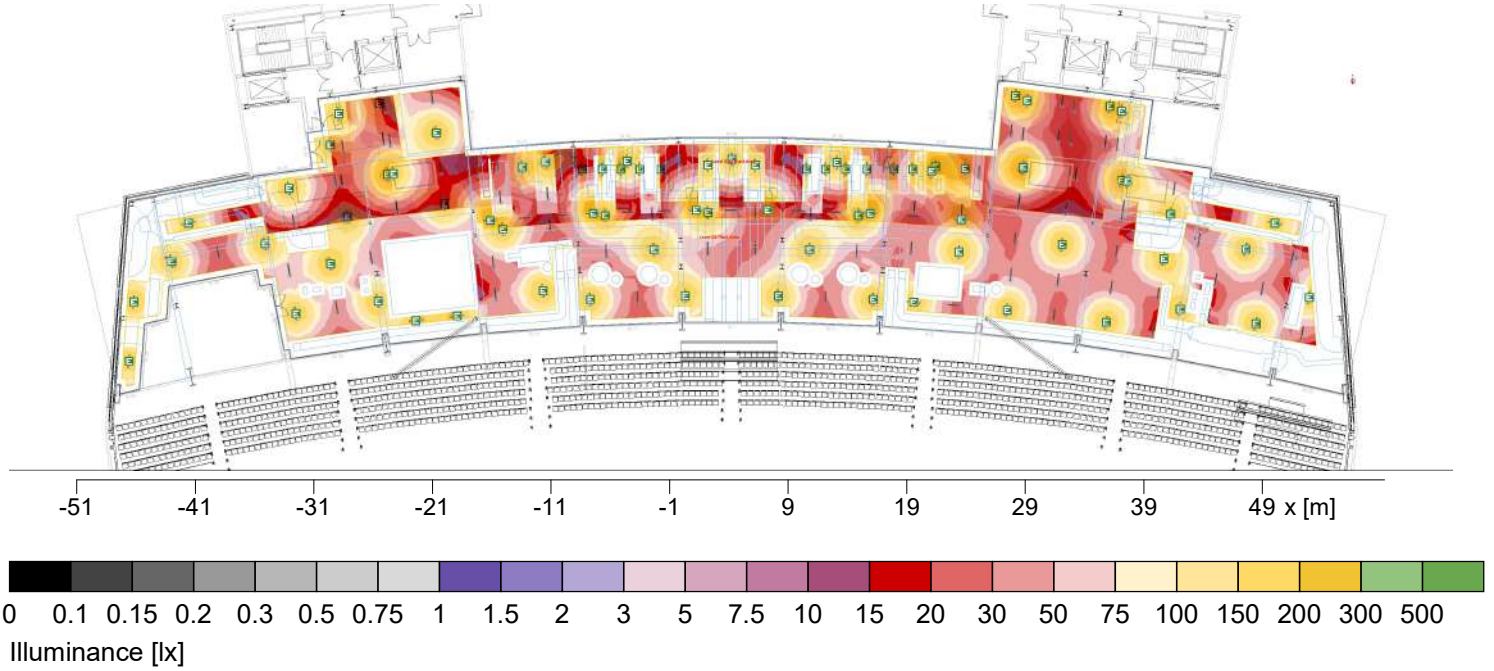
Type No.\Make

		Thorn	
1	161E x	Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

3 L03-NS-018 Plant

3.2 Summary, L03-NS-018 Plant

3.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 1500 cd

Places to highlight

No.	Surface Emin [lx]	Emax [lx]	
1 Call Point (i)			
Calculation field: 0.2m x 0.2m (3 x 3 pts)			
1	92.33 lx >= 5 lx	116.67 lx	
2 Call Point (ii)			
Calculation field: 0.2m x 0.2m (3 x 3 pts)			
2	9.64 lx >= 5 lx	10.78 lx	
3 Call Point (iii)			
Calculation field: 0.2m x 0.2m (3 x 3 pts)			
3	30.83 lx >= 5 lx	41.14 lx	

3 L03-NS-018 Plant

3.2 Summary, L03-NS-018 Plant

3.2.1.1 Result overview (emergency lighting)

4 Call Point (iv)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

4	148.71 lx	197.97 lx
	>= 5 lx	



5 Call Point (v)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

5	113.06 lx	135.77 lx
	>= 5 lx	



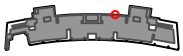
6 Call Point (vi)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

6	11.50 lx	17.29 lx
	>= 5 lx	



7 Call Point (vii)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

7	26.01 lx	28.90 lx
	>= 5 lx	



8 Call Point (viii)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

8	28.51 lx	35.85 lx
	>= 5 lx	



9 Fire Alarm Panel
Calculation field: 0.5m x 0.5m (4 x 4 pts)

9	37.95 lx	65.86 lx
	>= 15 lx	



Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)
2 Level 03 Plant Area			
Calculation field: 100.62m x 25.12m (100 x 25 pts), Height = 0.00m			
1	90 lx	10.8 lx	0.12
	---		>= 0.10



24 Level 03M Plant Area			
Calculation field: 95.75m x 12.42m (95 x 12 pts), Height = 4.53m			
2	70 lx	7.47 lx	0.11
	---		>= 0.10



3 L03-NS-018 Plant

3.2 Summary, L03-NS-018 Plant

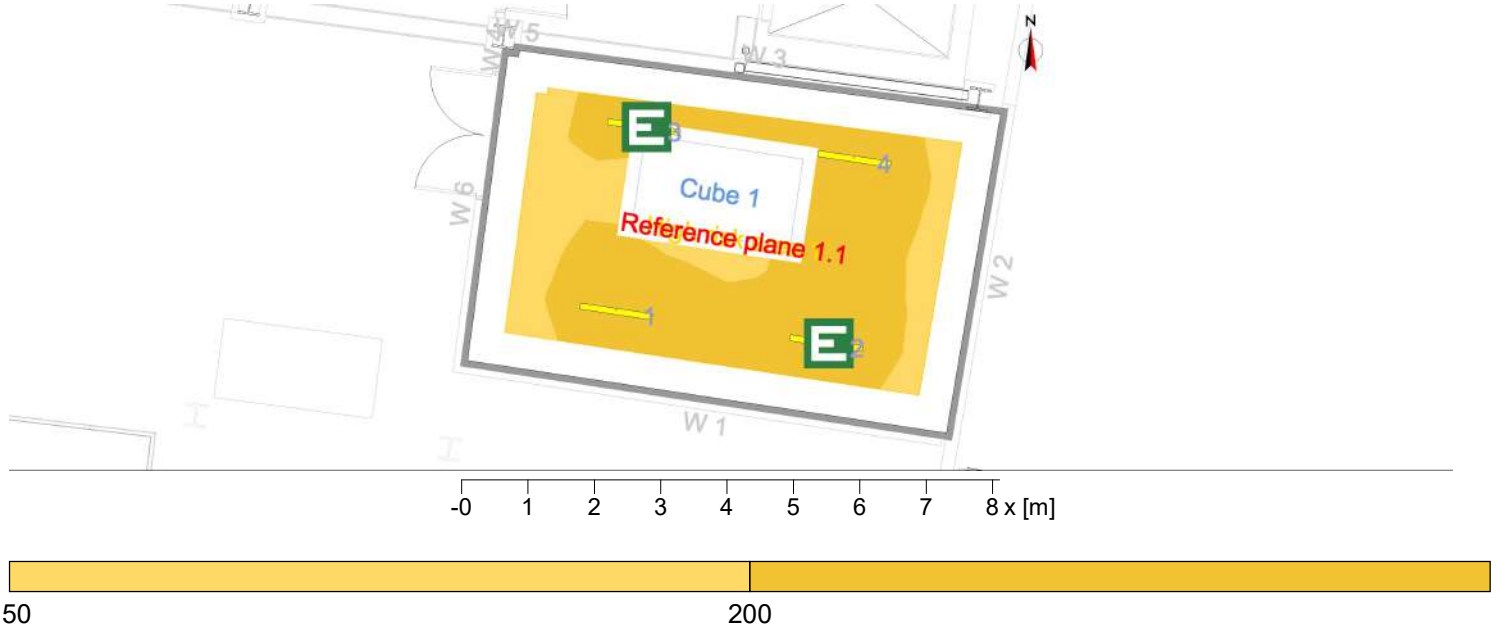
3.2.1.1 Result overview (emergency lighting)

Type	No.	\Make		
		Thorn		
1	77E x	Order No.	: 96630794	-- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]	
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm	
		Emergency	: 4400 lm (100.0 %)	

4 L03-NS-019 Life Safety Switchroom

4.1 Summary, L03-NS-019 Life Safety Switchroom

4.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.38 m
Maintenance factor	0.80
Total lamp luminous flux	17600 lm
Luminaire luminous flux	17595 lm
Total power	119.6 W
Total power per area (35.31 m²)	3.39 W/m² (1.49 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	227 lx
E_{min}	151 lx
$E_{min}/\bar{E}_m$ (U_o)	0.67
E_{min}/E_{max} (U_d)	0.53
Position	0.00 m

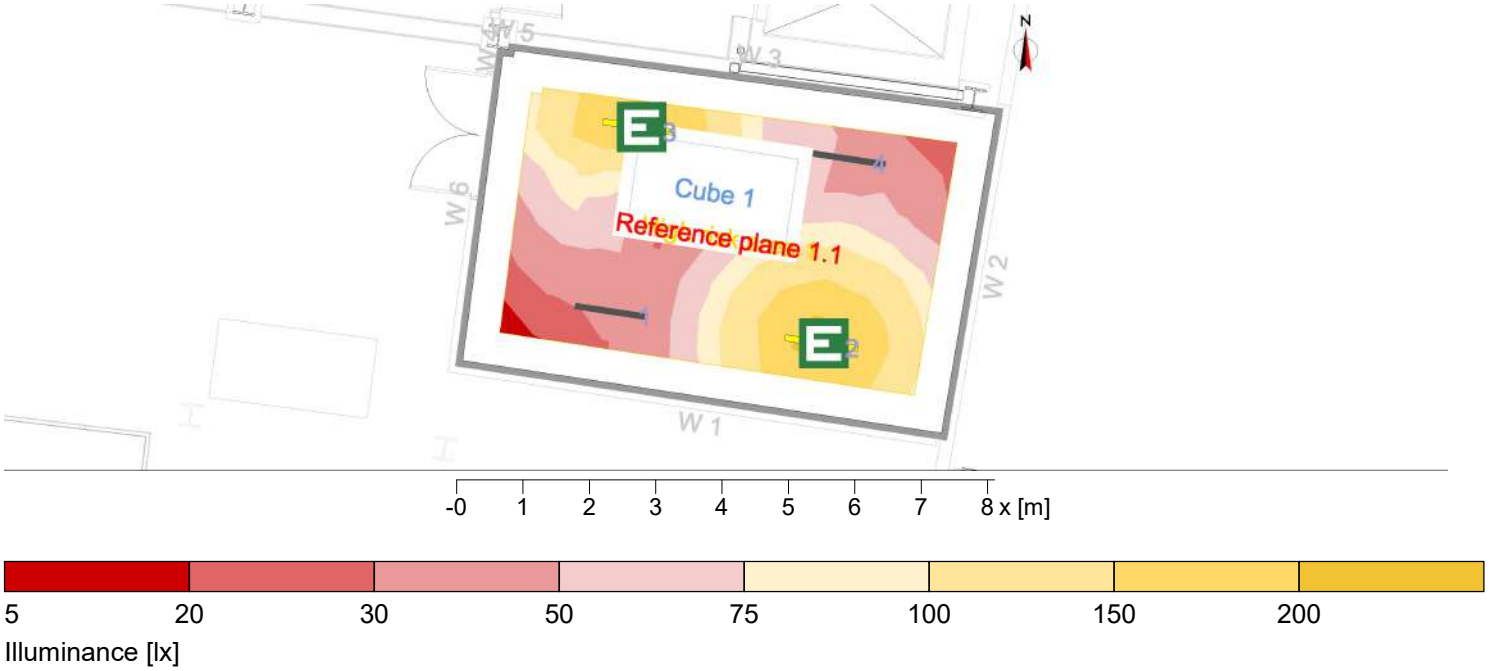
Type No.\Make

		Thorn	
1	4E x	Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

4 L03-NS-019 Life Safety Switchroom

4.2 Summary, L03-NS-019 Life Safety Switchroom

4.2.1.1 Result overview (emergency lighting)

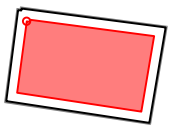


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.31 m	
Maximum I	: 1500 cd	<= 1000 cd

Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)
High risk area 1			
Calculation field: 6.45m x 3.85m (9 x 5 pts), Height = 0.00m			
1	93 lx	15.5 lx	0.17
	---		>= 0.10



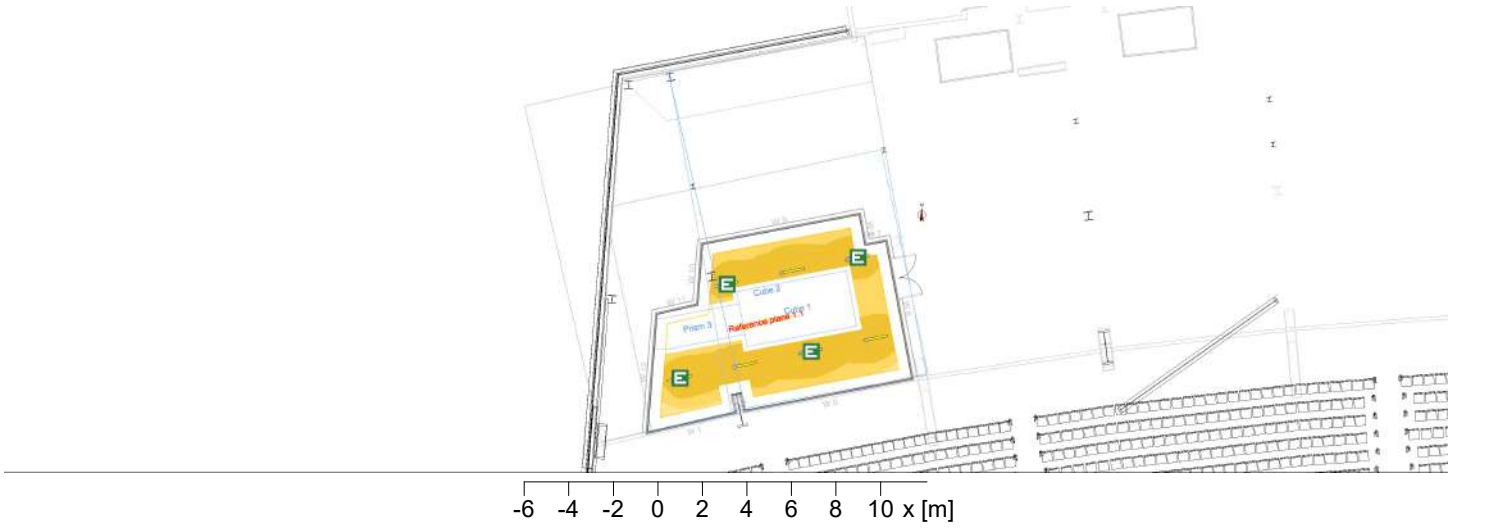
Type No.\Make

		Thorn		
1	2E x	Order No.	: 96630794	-- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]	
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm	
		Emergency	: 4400 lm (100.0 %)	

5 Generator Room

5.1 Summary, Generator Room

5.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.38 m
Maintenance factor	0.80
Total lamp luminous flux	30800 lm
Luminaire luminous flux	30791 lm
Total power	209.3 W
Total power per area (77.49 m²)	2.70 W/m² (1.23 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	220 lx
E_{min}	139 lx
$E_{min}/\bar{E}_m$ (U_o)	0.63
E_{min}/E_{max} (U_d)	0.48
Position	0.00 m

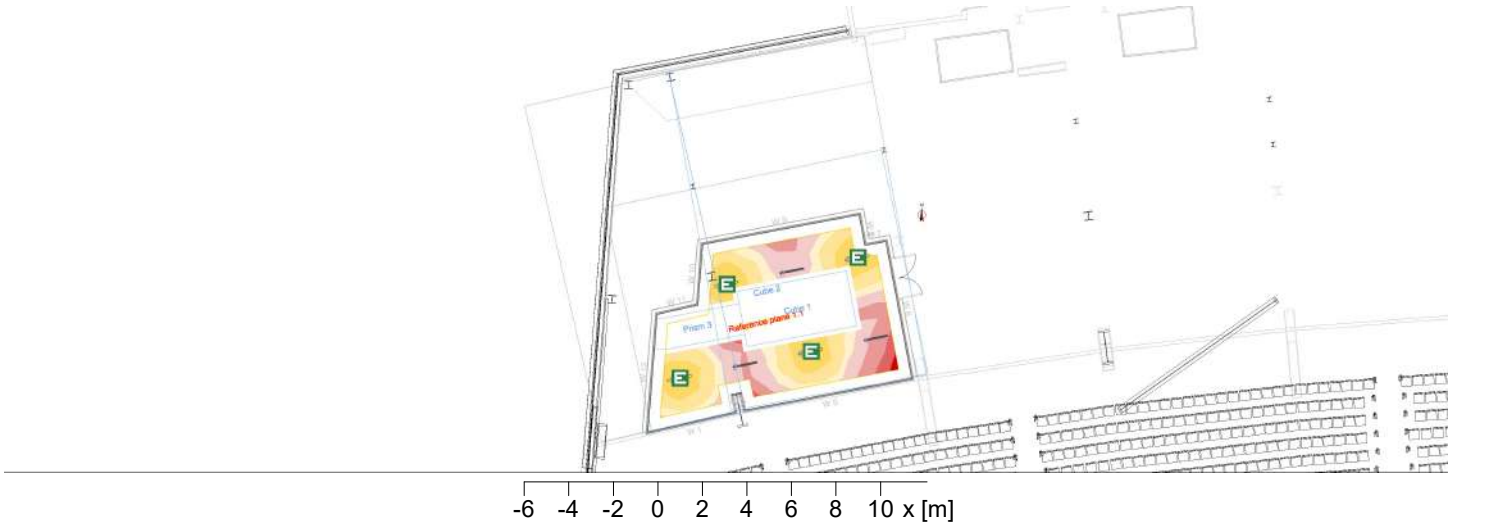
Type No.\Make

		Thorn	
1	7E x	Order No.	: 96630794
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 4400 lm (100.0 %)

5 Generator Room

5.2 Summary, Generator Room

5.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.31 m	
Maximum I	: 1500 cd	<= 1000 cd

Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)
High risk area 1			
Calculation field: 11.1m x 6.9m (10 x 6 pts), Height = 0.00m			
1	100 lx	15.4 lx	0.15
	---		>= 0.10



Type No.\Make

		Thorn		
1	4E x	Order No.	: 96630794	-- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI [STD]	
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm	
		Emergency	: 4400 lm (100.0 %)	

North Stand - Level 04

Installation : MCFC Redevelopment

Project number : SY1023-27
Customer : SES
Processed by : S Hollingworth
Date : 15.04.2025

Project description:

Reflectcance Values:
Ceiling 70% (50% plant areas)
Walls 50% (30% plant areas)
Floor 20%

Maintenance Factor: 0.8

Rev A - Initial issue.
Rev B - Amended to incorporate comments from RF 11.07.2024.
Rev C - Updated to incorporate latest info from Lighting Workshop 29.10.2024, and BG emails 29.10.2024 / 07.11.2024.
Rev D - Amended to incoporate Space Invader information from BD 13.11.2024.
Rev E - Updated to take account of the change to luminaire EMG02.
Rev F - Updated to take account of Emergency Lighting Review doc received from BD 06.02.2025.
Rev G - Reviewed against Jump RCPs.

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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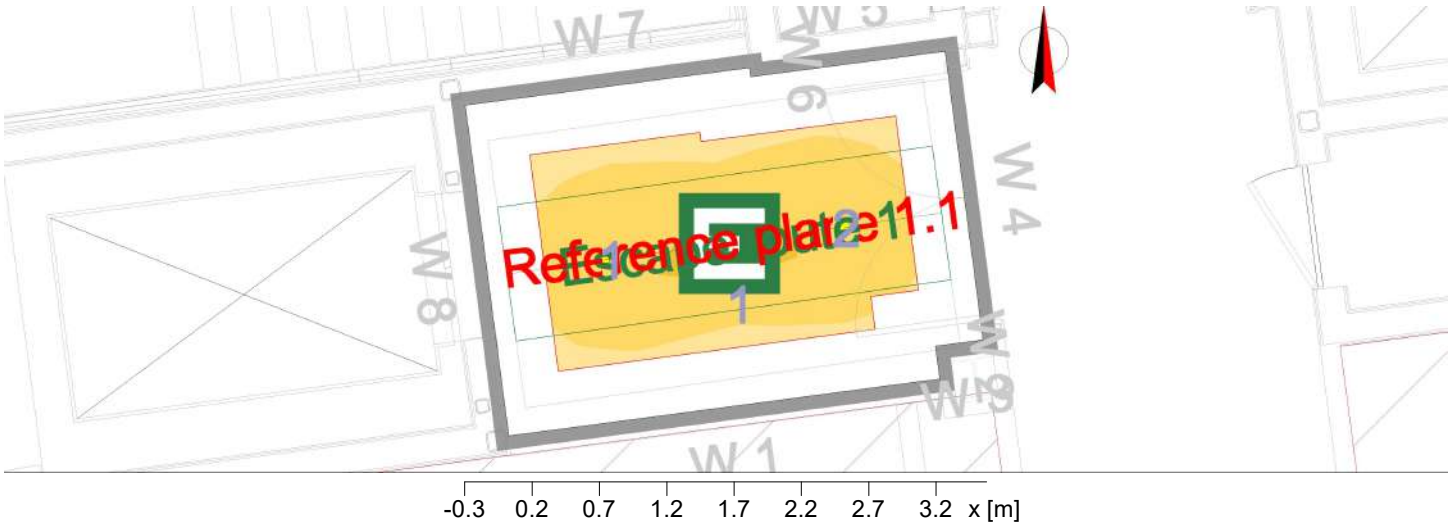
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1 L04-NS-007 Lift Lobby

1.1 Summary, L04-NS-007 Lift Lobby

1.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Total lamp luminous flux	1974 lm
Luminaire luminous flux	1774 lm
Total power	28.0 W
Total power per area (8.66 m²)	3.23 W/m² (1.84 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	176 lx
E_{min}	145 lx
$E_{min}/\bar{E}_m$ (U_o)	0.82
E_{min}/E_{max} (U_d)	0.71
Position	0.00 m

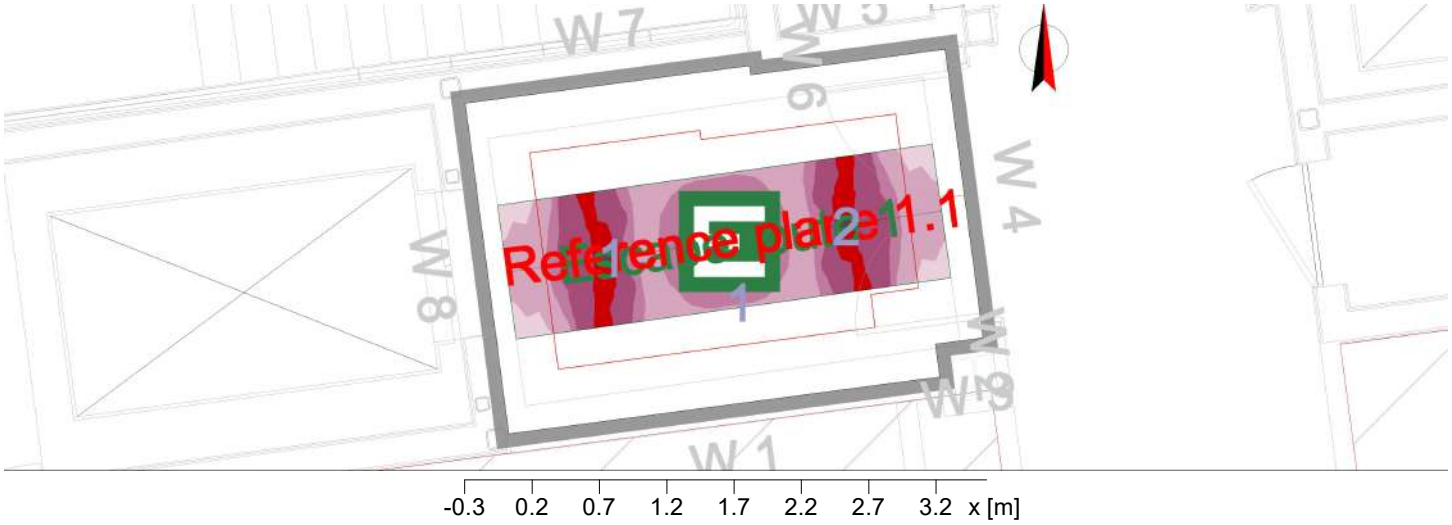
Type No.\Make

		Chiara Lighting Limited	
1	2 x	Order No.	: !APRF.X.X LE5.30.14.50.X
		Luminaire name	: Arch Pro Round Fixed, 930.14W.50d
		Equipment	: 1 x 3000k 14 W / 987 lm

1 L04-NS-007 Lift Lobby

1.2 Summary, L04-NS-007 Lift Lobby

1.2.1.1 Result overview (emergency lighting)





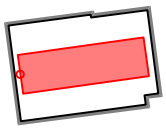
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 270 cd	<= 500 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 3.26m x 1m (16 x 9 pts), Height = 0.00m					
1	5.60 lx	15.83 lx	1: 2.83	4.09 lx	16.33 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



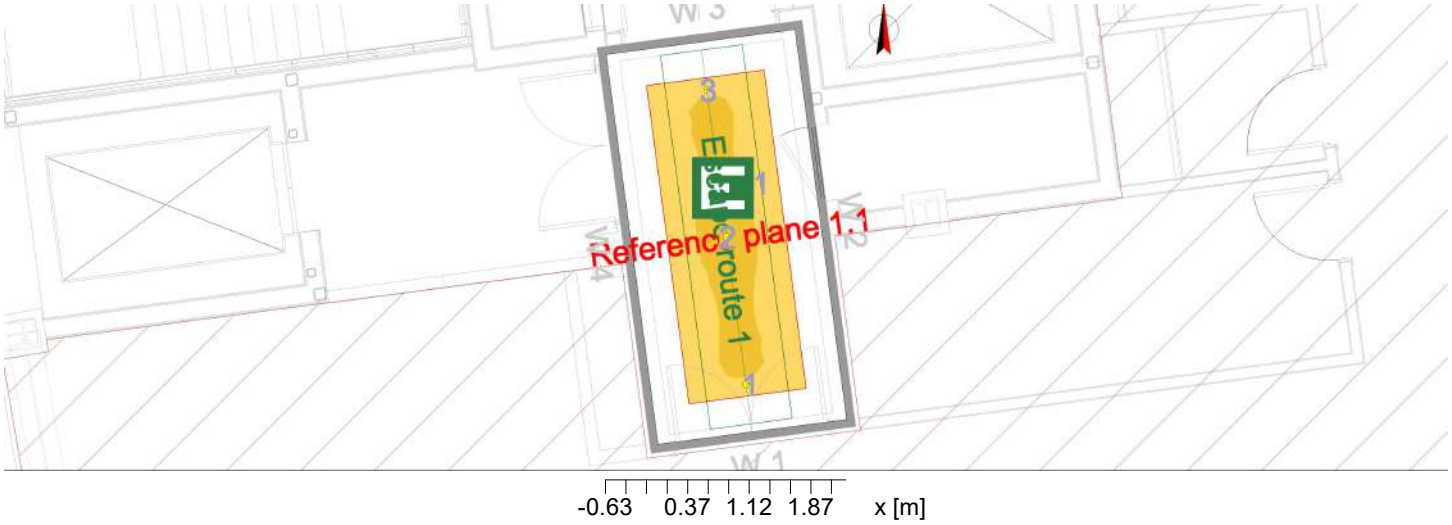
Type No.\Make

	Mackwell			
2	1E x	Order No.	: !LRX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

2 L04-NS-015 Lobby

2.1 Summary, L04-NS-015 Lobby

2.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Total lamp luminous flux	2961 lm
Luminaire luminous flux	2661 lm
Total power	42.0 W
Total power per area (11.04 m²)	3.80 W/m² (2.02 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	189 lx
E_{min}	157 lx
$E_{min}/\bar{E}_m$ (U_o)	0.83
E_{min}/E_{max} (U_d)	0.74
Position	0.00 m

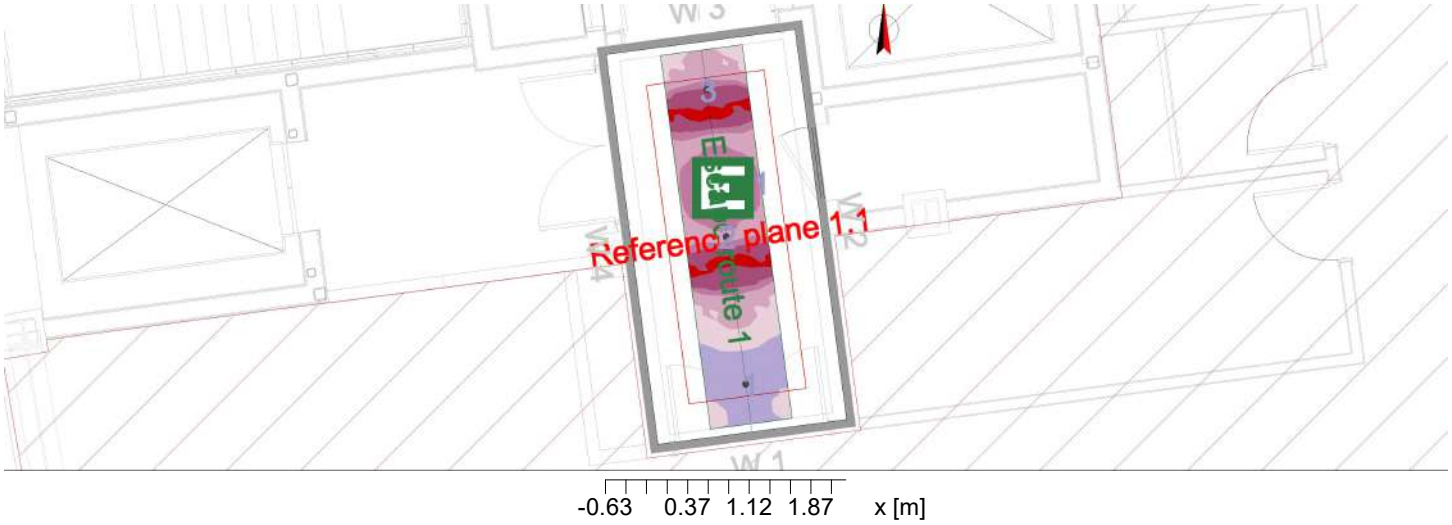
Type No.\Make

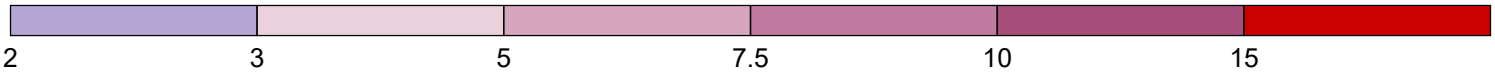
		Chiara Lighting Limited
1	3 x	Order No. : !APRF.X.X LE5.30.14.50.X
		Luminaire name : Arch Pro Round Fixed, 930.14W.50d
		Equipment : 1 x 3000k 14 W / 987 lm

2 L04-NS-015 Lobby

2.2 Summary, L04-NS-015 Lobby

2.2.1.1 Result overview (emergency lighting)





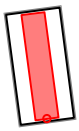
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 270 cd	<= 500 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 4.57m x 1m (23 x 9 pts), Height = 0.00m					
1	2.61 lx	15.83 lx	1: 6.07	2.40 lx	16.20 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



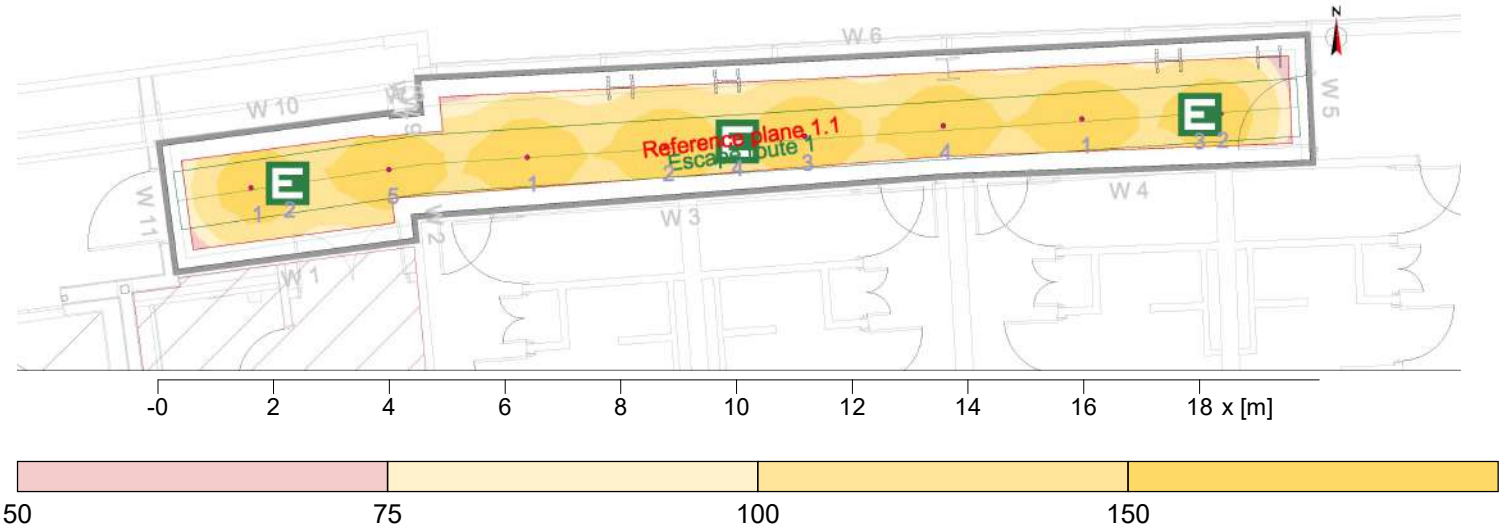
Type No.\Make

		Mackwell		
2	1E x	Order No.	: !LRX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

3 L04-NS-022 Corridor

3.1 Summary, L04-NS-022 Corridor

3.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.69 m
Maintenance factor	0.80
Luminaire luminous flux	8395 lm
Total power	112.0 W
Total power per area (41.94 m²)	2.67 W/m² (1.80 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	148 lx
E_{min}	69 lx
$E_{min}/\bar{E}_m$ (U_o)	0.46
E_{min}/E_{max} (U_d)	0.38
Position	0.00 m

Type No.\Make

9 8 x

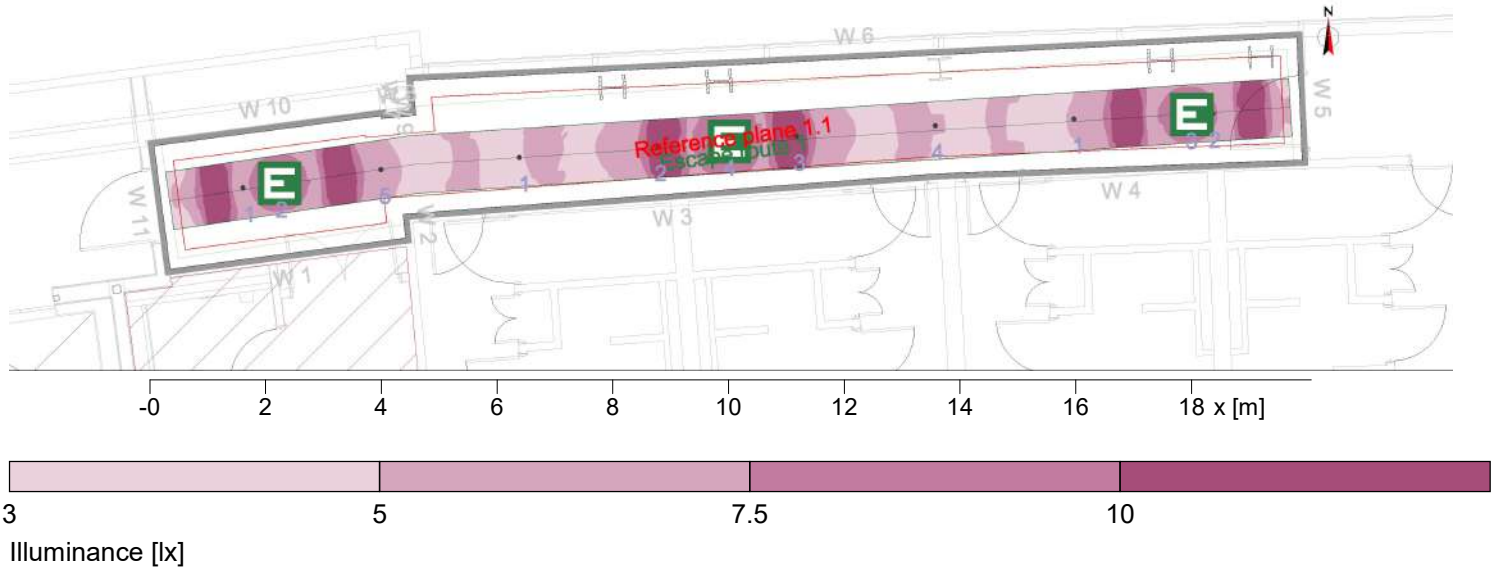
Chiara Lighting Limited

Order No.	: !APRF.X.X LE5.27.14.50.X
Luminaire name	: Arch Pro Round Fixed, 927.14W.50d
Equipment	: 1 x 2700K 14 W / 943 lm
Emergency	: 943 lm (100.0 %)

3 L04-NS-022 Corridor

3.2 Summary, L04-NS-022 Corridor

3.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.69 m	
Maximum I	: 270 cd	<= 900 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 19.42m x 1m (97 x 9 pts), Height = 0.00m					
1	4.51 lx	14.69 lx	1: 3.26	3.67 lx	14.94 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



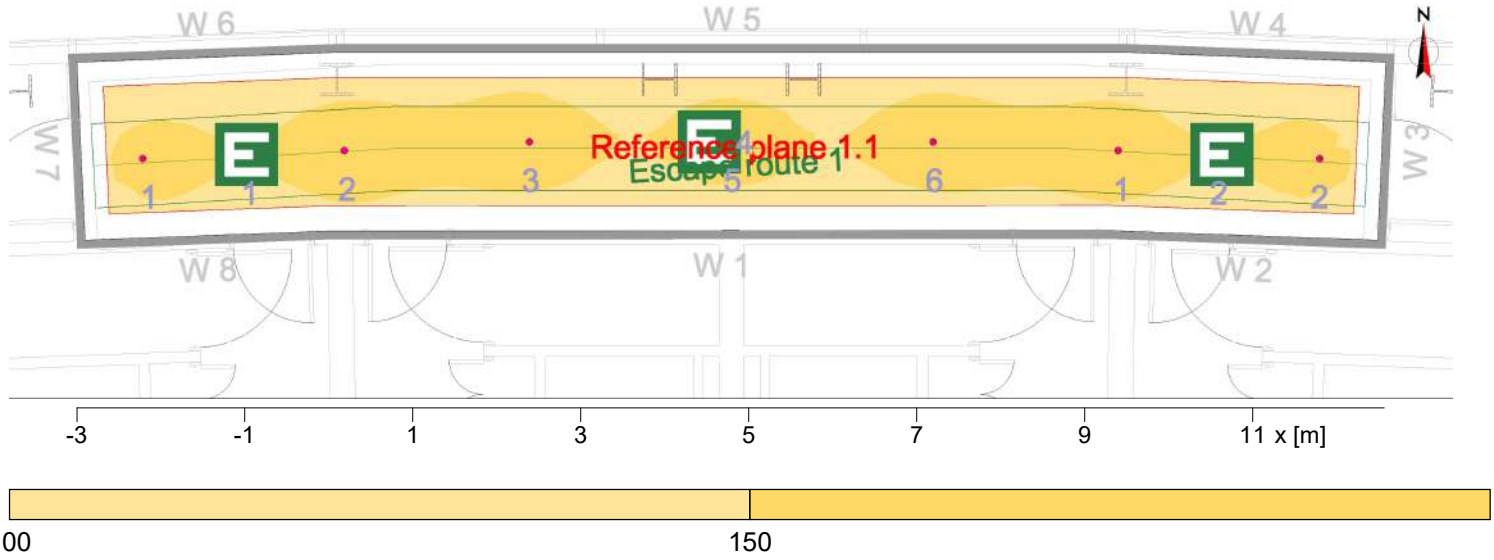
Type No.\Make

		Mackwell		
2	3E x	Order No.	: !LRX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

4 L04-NS-027 Corridor

4.1 Summary, L04-NS-027 Corridor

4.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.96 m
Maintenance factor	0.80
Luminaire luminous flux	7345 lm
Total power	98.0 W
Total power per area (32.78 m²)	2.99 W/m² (2.02 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	148 lx
E_{min}	109 lx
$E_{min}/\bar{E}_m$ (U_o)	0.74
E_{min}/E_{max} (U_d)	0.64
Position	0.00 m (rot: 0°/0.03°)

Type No.\Make

9 7 x

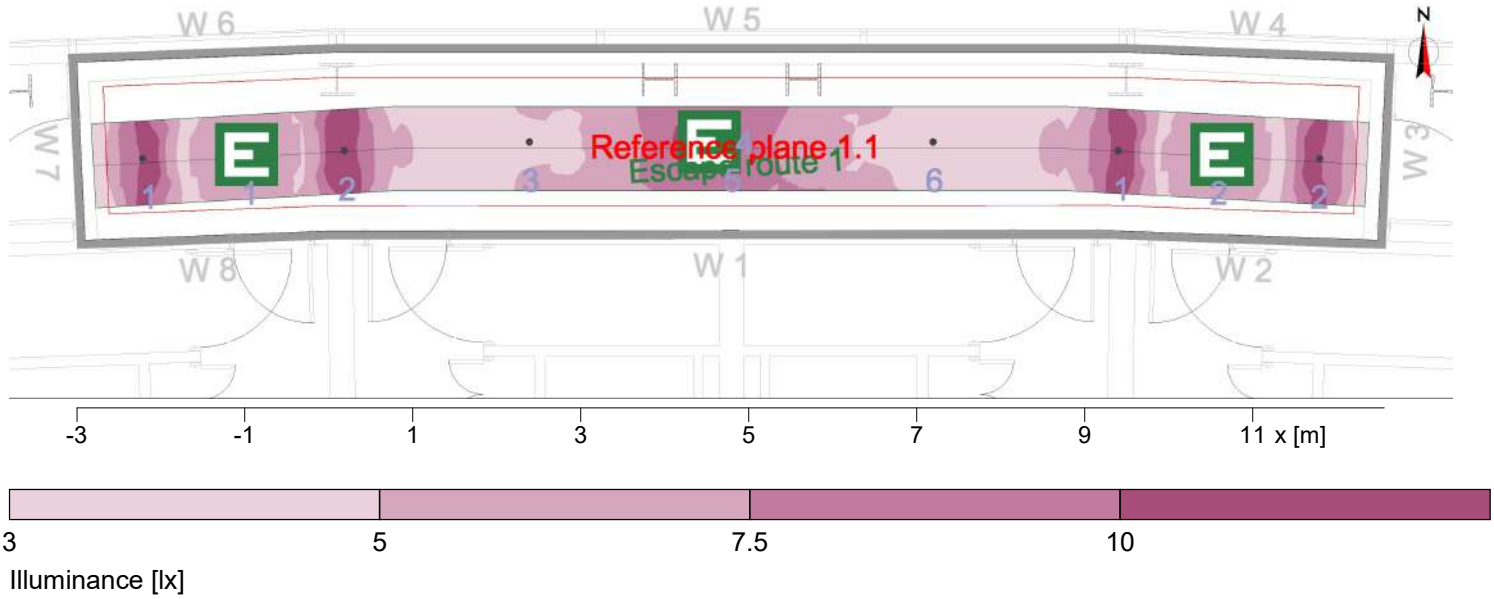
Chiara Lighting Limited

Order No.	: !APRF.X.X LE5.27.14.50.X
Luminaire name	: Arch Pro Round Fixed, 927.14W.50d
Equipment	: 1 x 2700K 14 W / 943 lm
Emergency	: 943 lm (100.0 %)

4 L04-NS-027 Corridor

4.2 Summary, L04-NS-027 Corridor

4.2.1.1 Result overview (emergency lighting)



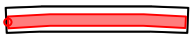
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.96 m	
Maximum I	: 270 cd	<= 900 cd

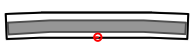
Escape routes:

No.	Central axis Emin [lx]	Central axis Emax [lx]	Ud	Surface Emin [lx]	Surface Emax [lx]
Escape route 1					
Calculation field: 15.15m x 1m (77 x 9 pts), Height = 0.00m					
1	3.20 lx	11.72 lx	1: 3.66	3.18 lx	12.01 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Places to highlight

No.	Surface Emin [lx]	Surface Emax [lx]
1 Call Point		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	5.51 lx	7.85 lx
	>= 5 lx	



4 L04-NS-027 Corridor

4.2 Summary, L04-NS-027 Corridor

4.2.1.1 Result overview (emergency lighting)

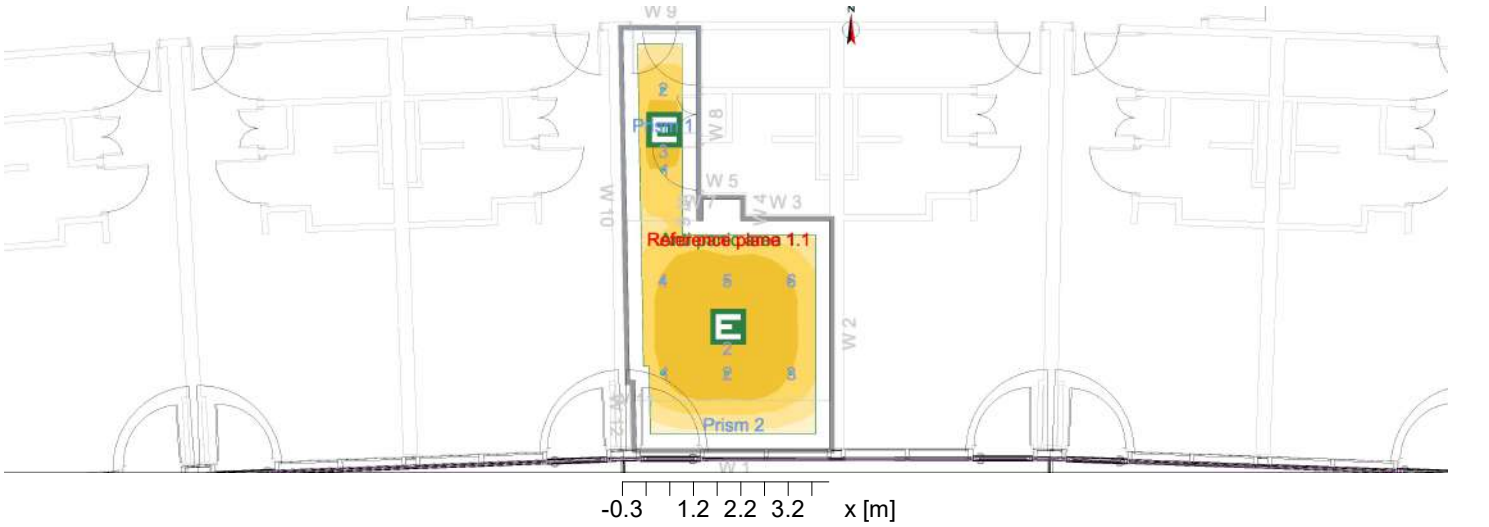
Type No.\Make

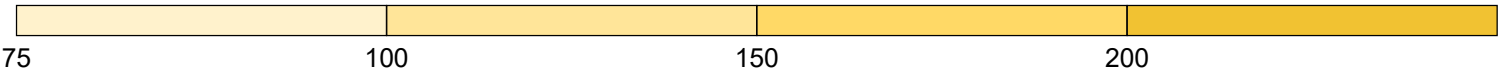
		Mackwell		
2	3E x	Order No.	: !LRX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

5 L04-NS-028 Suite (Bedroom)

5.1 Summary, L04-NS-028 Suite (Bedroom)

5.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	7464 lm
Luminaire luminous flux	6708 lm
Total power	112.0 W
Total power per area (26.55 m²)	4.22 W/m² (2.13 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	198 lx
E_{min}	96 lx
$E_{min}/\bar{E}_m$ (U_o)	0.48
E_{min}/E_{max} (U_d)	0.37
Position	0.00 m

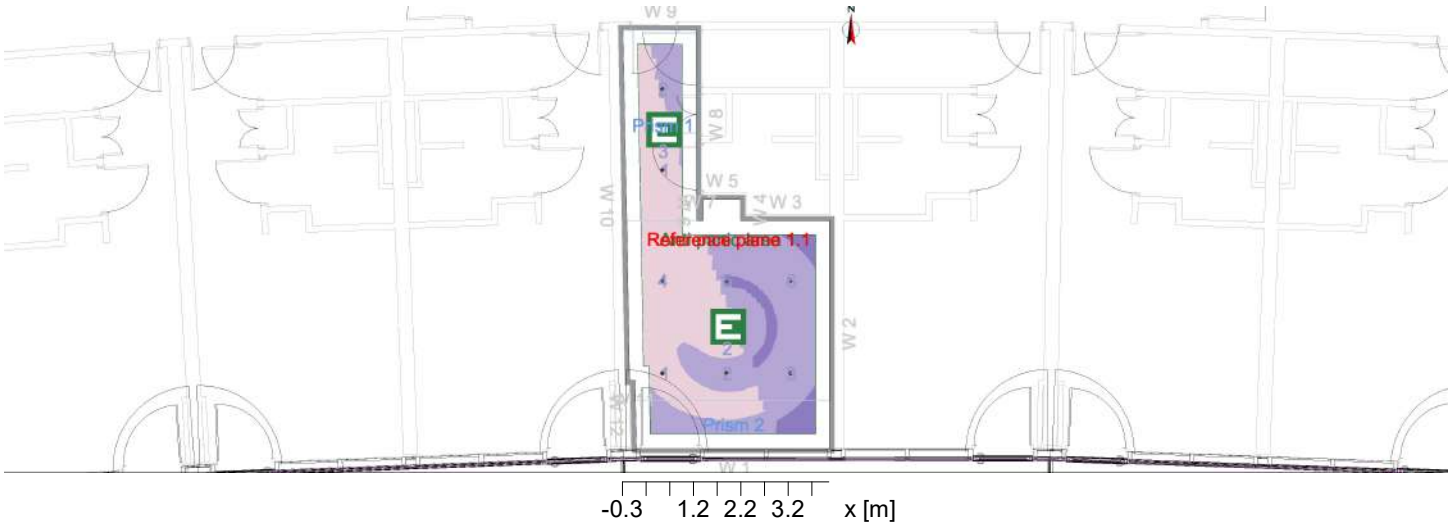
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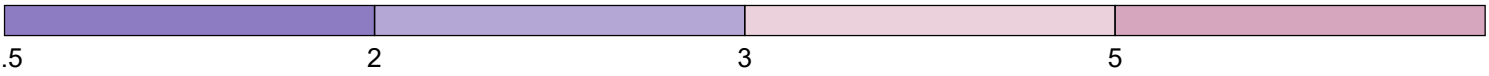
3 8 x **Chiara Lighting Limited**
Order No. : !APRA.X.X LE5.27.14.50.X
Luminaire name : Arch Pro Round Adjustable, 927.14W.50d
Equipment : 1 x 2700K 14 W / 933 lm

5 L04-NS-028 Suite (Bedroom)

5.2 Summary, L04-NS-028 Suite (Bedroom)

5.2.1.1 Result overview (emergency lighting)





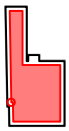
Illuminance [lx]

General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 180 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 3.75m x 8.2m (7 x 16 pts), Height = 0.00m			
1	1.55 lx	5.00 lx	1: 3.22
	>= 0.5 lx		>= 1 : 40



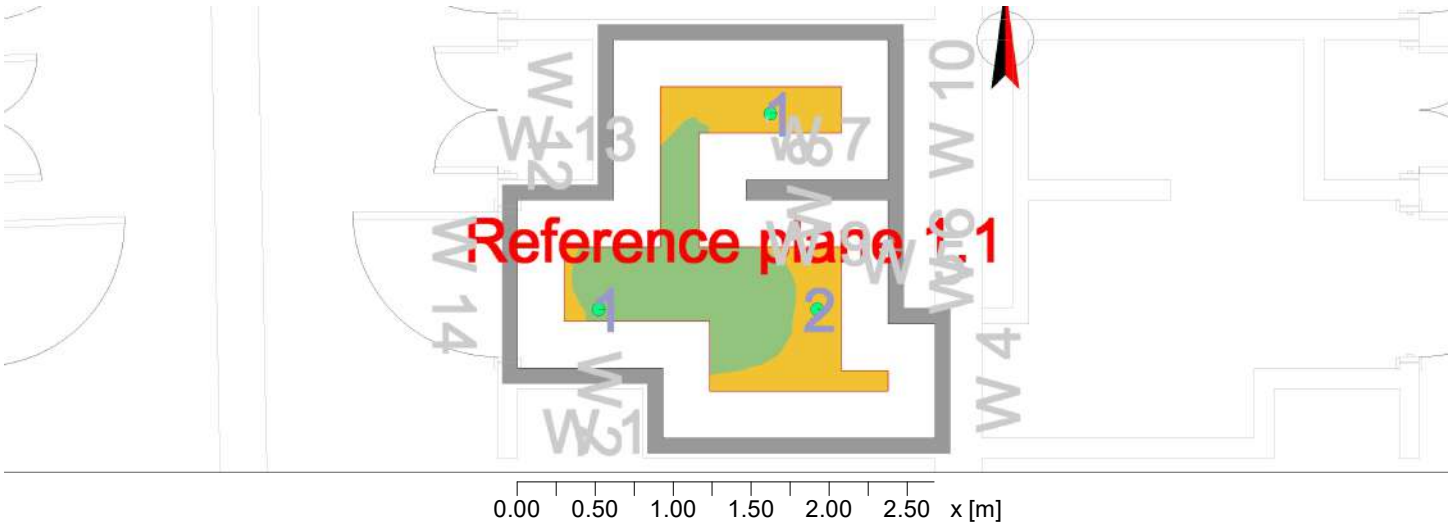
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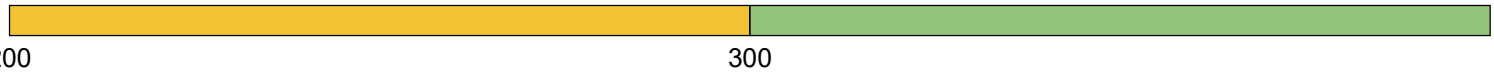
		Mackwell		
4	2E x	Order No.	: !LRX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

6 L04-NS-028 Suite (Ensuite)

6.1 Summary, L04-NS-028 Suite (Ensuite)

6.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Luminaire luminous flux	3148 lm
Total power	42.0 W
Total power per area (5.10 m²)	8.24 W/m² (2.63 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	314 lx
E_{min}	219 lx
$E_{min}/\bar{E}_m$ (U_o)	0.70
E_{min}/E_{max} (U_d)	0.52
Position	0.00 m

Type No.\Make

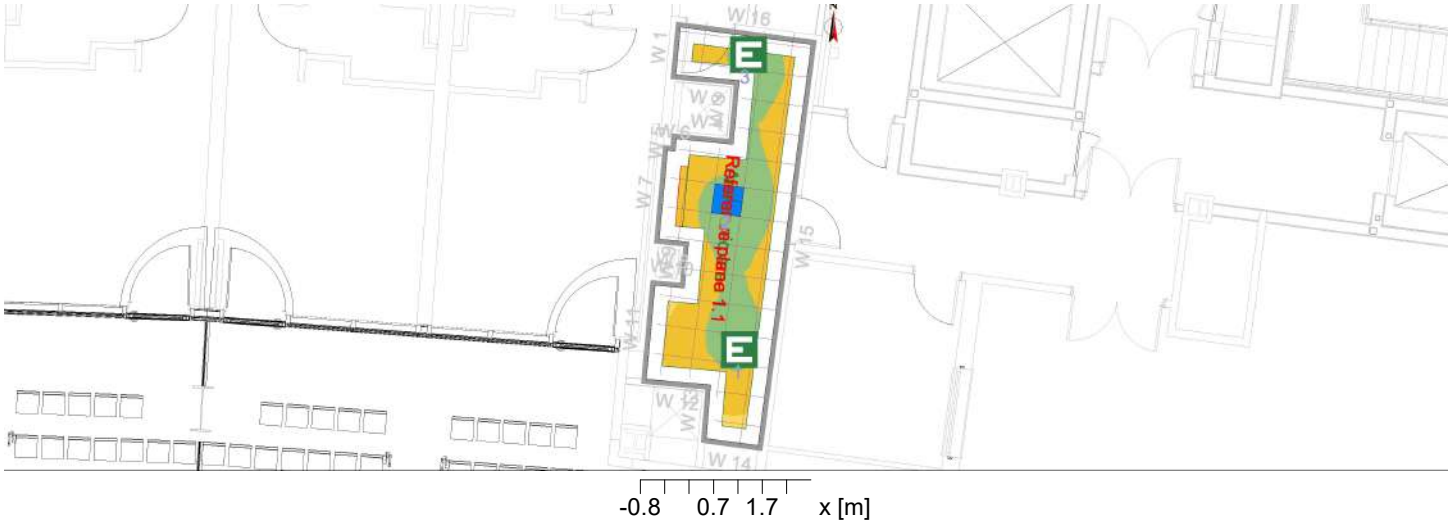
10 3 x

Chiara Lighting Limited
Order No. : APRF.X.X LE5.27.14.50.X
Luminaire name : Arch Pro Round Fixed, 927.14W.50d
Equipment : 1 x 2700K 14 W / 943 lm

7 L04-NS-036 Pantry

7.1 Summary, L04-NS-036 Pantry

7.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Luminaire luminous flux	13890 lm
Total power	92.7 W
Total power per area (17.47 m²)	5.31 W/m² (1.79 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	297 lx
E_{min}	192 lx
$E_{min}/\bar{E}_m$ (U_o)	0.65
E_{min}/E_{max} (U_d)	0.55
Position	0.00 m

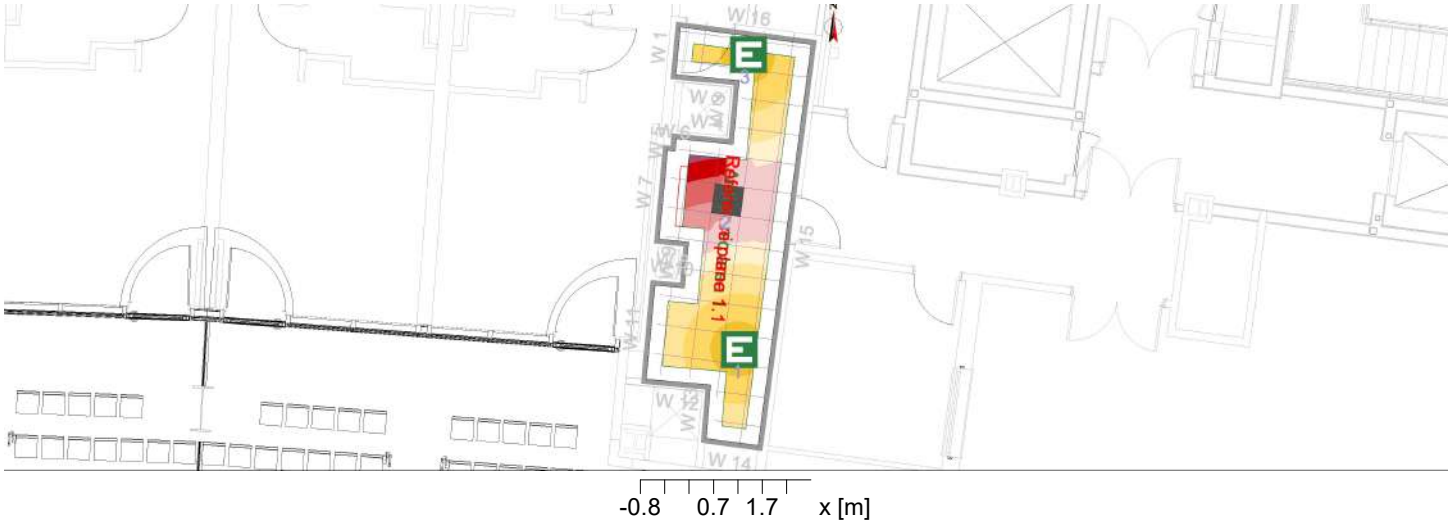
Type No.\Make

		Thorn	
6	3E x	Order No.	: 96636089
		Luminaire name	: DUOPRF2 4600-840 HFIX PM O M600Q [STD]
		Equipment	: 1 x 96636089 31 W / 4630 lm
		Emergency	: 4630 lm (100.0 %)

7 L04-NS-036 Pantry

7.2 Summary, L04-NS-036 Pantry

7.2.1.1 Result overview (emergency lighting)





General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.39 m	
Maximum I	: 1600 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 7.74m x 2.11m (23 x 6 pts), Height = 0.00m			
1	13.14 lx	223.40 lx	1: 17.00
	>= 0.5 lx		>= 1 : 40



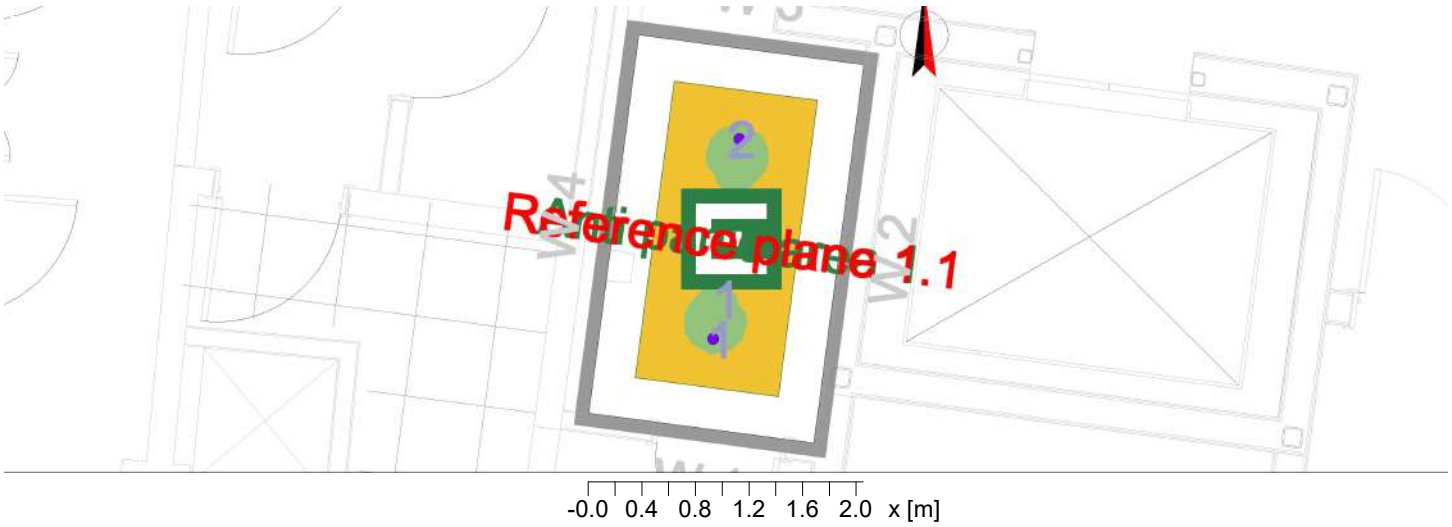
Type No.\Make

	Thorn		
6	2E x	Order No.	: 96636089 -- Emergency Lighting --
		Luminaire name	: DUOPRF2 4600-840 HFIX PM O M600Q [STD]
		Equipment	: 1 x 96636089 31 W / 4630 lm
		Emergency	: 4630 lm (100.0 %)

8 L04-NS-037 AWC

8.1 Summary, L04-NS-037 AWC

8.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Total lamp luminous flux	2042 lm
Luminaire luminous flux	1931 lm
Total power	28.0 W
Total power per area (4.81 m²)	5.82 W/m² (2.14 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	272 lx
E_{min}	226 lx
$E_{min}/\bar{E}_m$ (U_o)	0.83
E_{min}/E_{max} (U_d)	0.72
Position	0.00 m

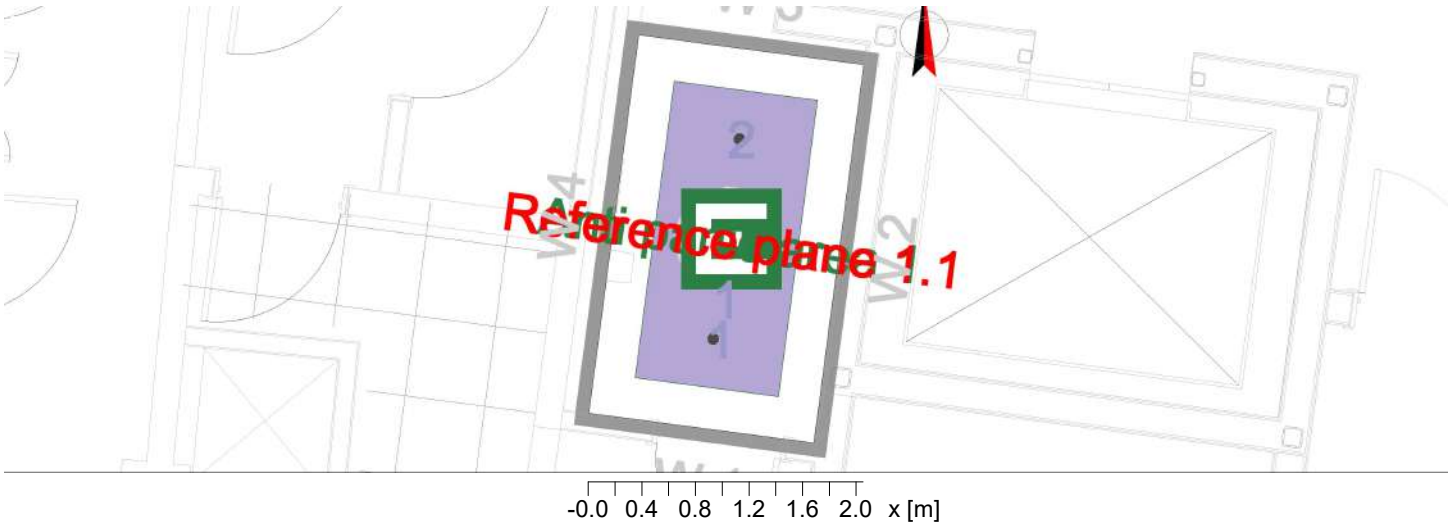
Type No.\Make

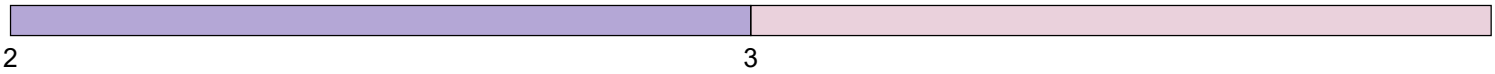
		Chiara Lighting Limited	
5	2 x	Order No.	: !APRF.X.X LE5.30.14.36.X
		Luminaire name	: Arch Pro Round Fixed, 930.14W.36d
		Equipment	: 1 x 3000k 14 W / 1021 lm

8 L04-NS-037 AWC

8.2 Summary, L04-NS-037 AWC

8.2.1.1 Result overview (emergency lighting)





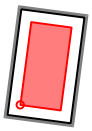
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 1.08m x 2.23m (5 x 11 pts), Height = 0.00m			
1	2.49 lx	3.98 lx	1: 1.60
	>= 0.5 lx		>= 1 : 40



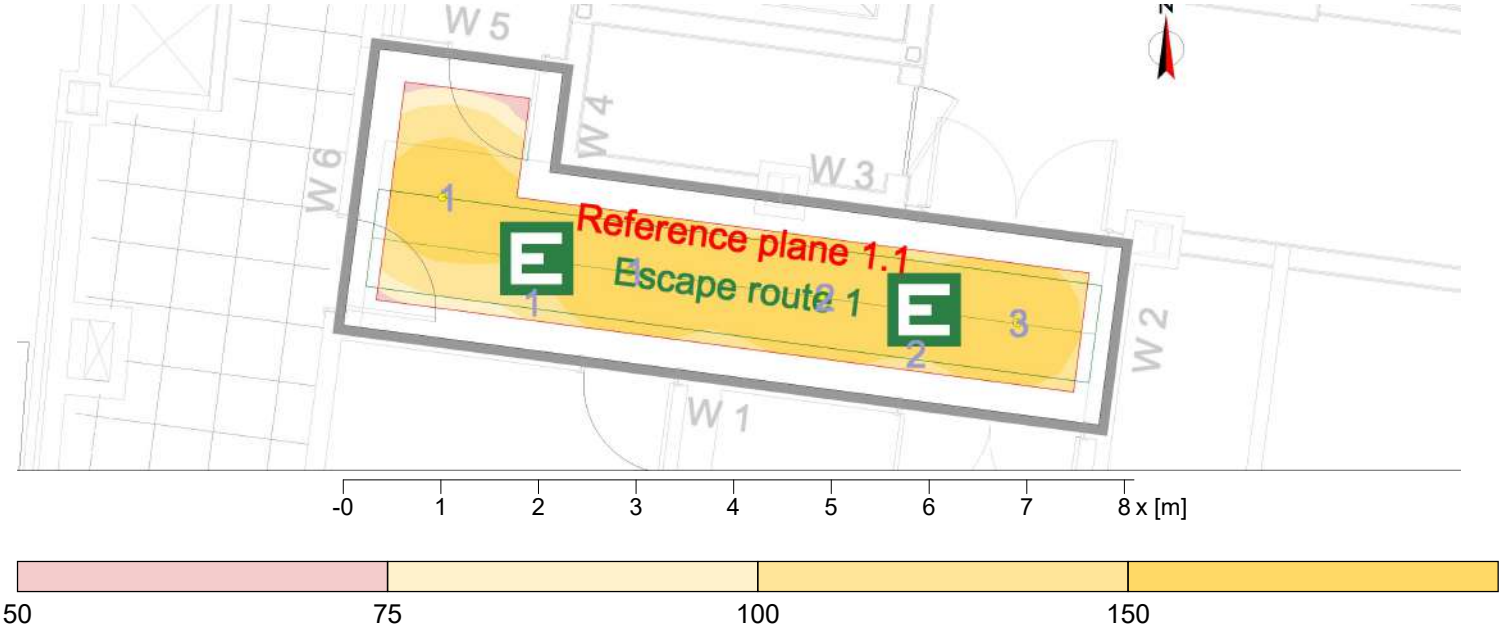
Type No.\Make

		Mackwell		
4	1E x	Order No.	: !LRX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

9 L04-NS-038 Lobby

9.1 Summary, L04-NS-038 Lobby

9.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Total lamp luminous flux	3948 lm
Luminaire luminous flux	3548 lm
Total power	56.0 W
Total power per area (16.15 m²)	3.47 W/m² (2.08 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	166 lx
E_{min}	67 lx
$E_{min}/\bar{E}_m$ (U_o)	0.40
E_{min}/E_{max} (U_d)	0.34
Position	0.00 m

Type No.\Make

		Chiara Lighting Limited
1	4 x	Order No. : !APRF.X.X LE5.30.14.50.X
		Luminaire name : Arch Pro Round Fixed, 930.14W.50d
		Equipment : 1 x 3000k 14 W / 987 lm

9 L04-NS-038 Lobby

9.2 Summary, L04-NS-038 Lobby

9.2.1.1 Result overview (emergency lighting)





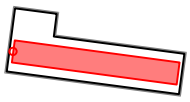
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 270 cd	<= 500 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 7.46m x 1m (37 x 9 pts), Height = 0.00m					
1	5.97 lx	18.68 lx	1: 3.13	4.89 lx	19.34 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



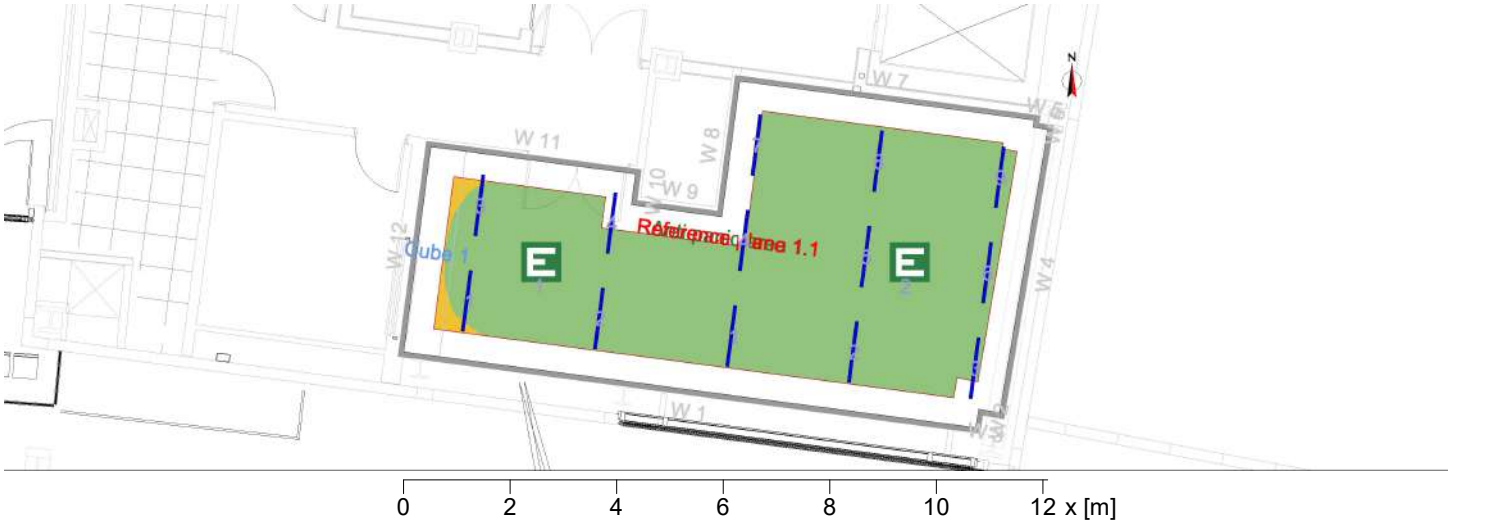
Type No.\Make

		Mackwell		
2	2E x	Order No.	: !LRX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

10 L04-NS-039 TV Studio

10.1 Summary, L04-NS-039 TV Studio

10.1.1 Result overview, Evaluation area 1





200 300

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.02 m
Maintenance factor	0.80
Total lamp luminous flux	36868 lm
Luminaire luminous flux	36863 lm
Total power	347.1 W
Total power per area (54.00 m²)	6.43 W/m² (1.56 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	413 lx
E_{min}	293 lx
$E_{min}/\bar{E}_m$ (U_o)	0.71
E_{min}/E_{max} (U_d)	0.59
Position	0.75 m

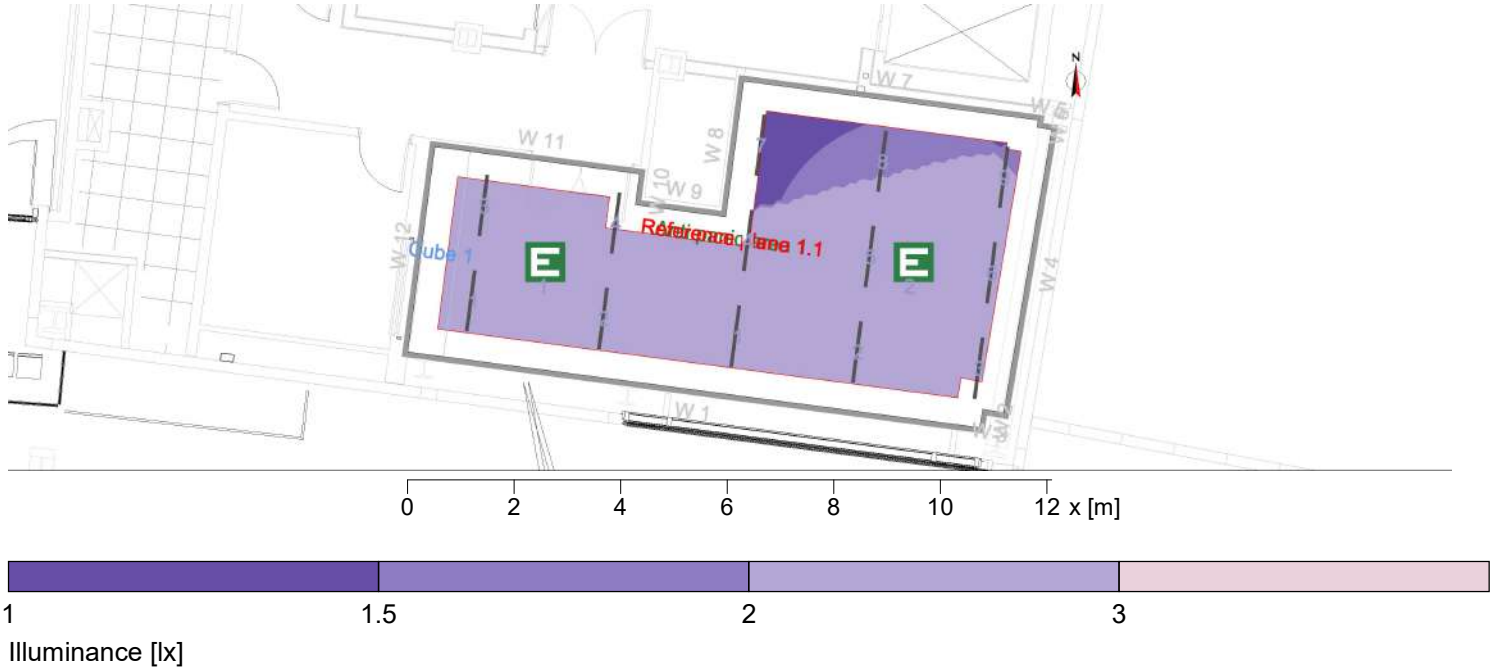
Type No.\Make

		light forms	
7	13 x	Order No.	: Type S1 - LP2.5-SM-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S1 - LP2.5-SM-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm

10 L04-NS-039 TV Studio

10.2 Summary, L04-NS-039 TV Studio

10.2.1.1 Result overview (emergency lighting)



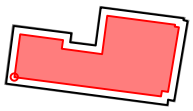
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.00 m	
Maximum I	: 180 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 10.41m x 4.85m (17 x 8 pts), Height = 0.00m			
1	1.01 lx	3.11 lx	1: 3.08
	>= 0.5 lx		>= 1 : 40



Type No.\Make

8 2E x **Mackwell**

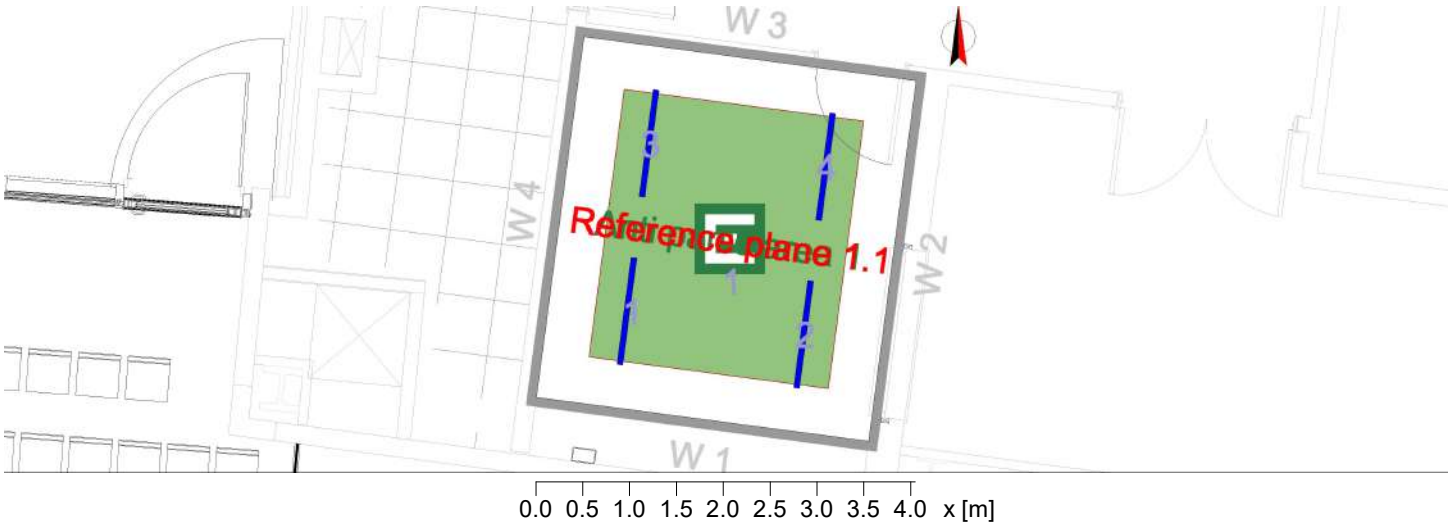
Order No.	: !LSX HO (OPEN AREA 375lm)
Luminaire name	: LSX HO (OPEN AREA 375lm)
Equipment	: 1 x LED 3 W / 375 lm (0%)
Emergency	: 375 lm

-- Emergency Lighting --

11 L04-NS-044 TV Studio Set Up

11.1 Summary, L04-NS-044 TV Studio Set Up

11.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.02 m
Maintenance factor	0.80
Total lamp luminous flux	11344 lm
Luminaire luminous flux	11342 lm
Total power	106.8 W
Total power per area (13.84 m²)	7.72 W/m² (1.92 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	402 lx
E_{min}	354 lx
$E_{min}/\bar{E}_m$ (U_o)	0.88
E_{min}/E_{max} (U_d)	0.81
Position	0.75 m

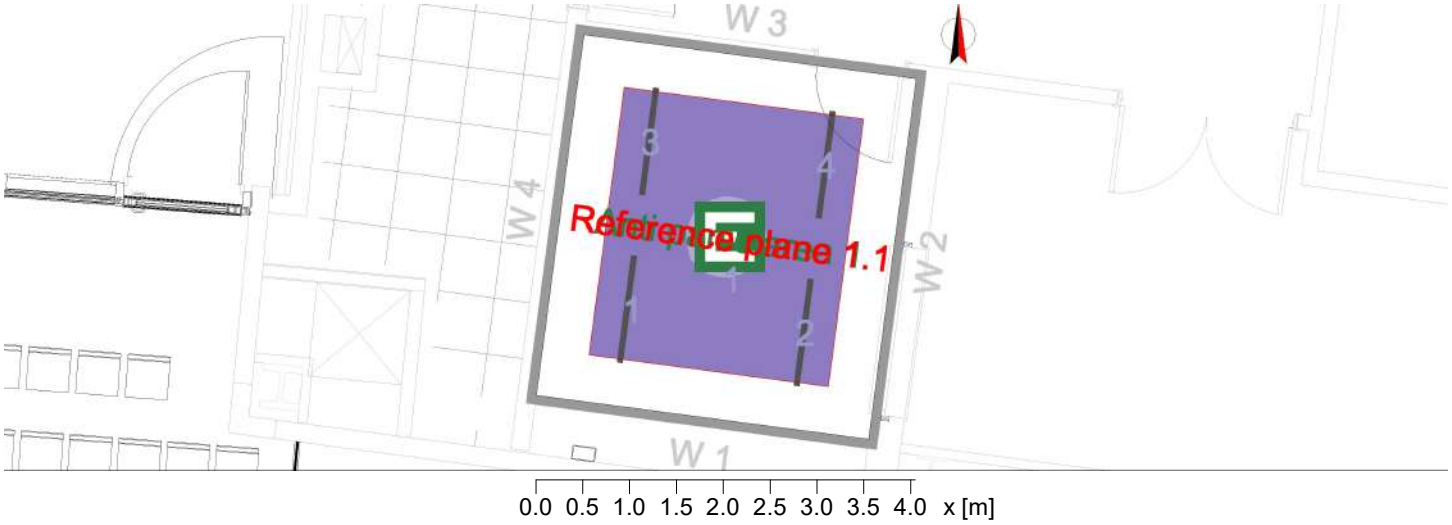
Type No.\Make

		light forms	
7	4 x	Order No.	: Type S1 - LP2.5-SM-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S1 - LP2.5-SM-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm

11 L04-NS-044 TV Studio Set Up

11.2 Summary, L04-NS-044 TV Studio Set Up

11.2.1.1 Result overview (emergency lighting)





1.5 2

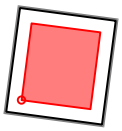
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.00 m	
Maximum I	: 180 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 2.57m x 2.87m (6 x 7 pts), Height = 0.00m			
1	1.59 lx	2.56 lx	1: 1.60
	>= 0.5 lx		>= 1 : 40



Type No.\Make

8 1E x **Mackwell**

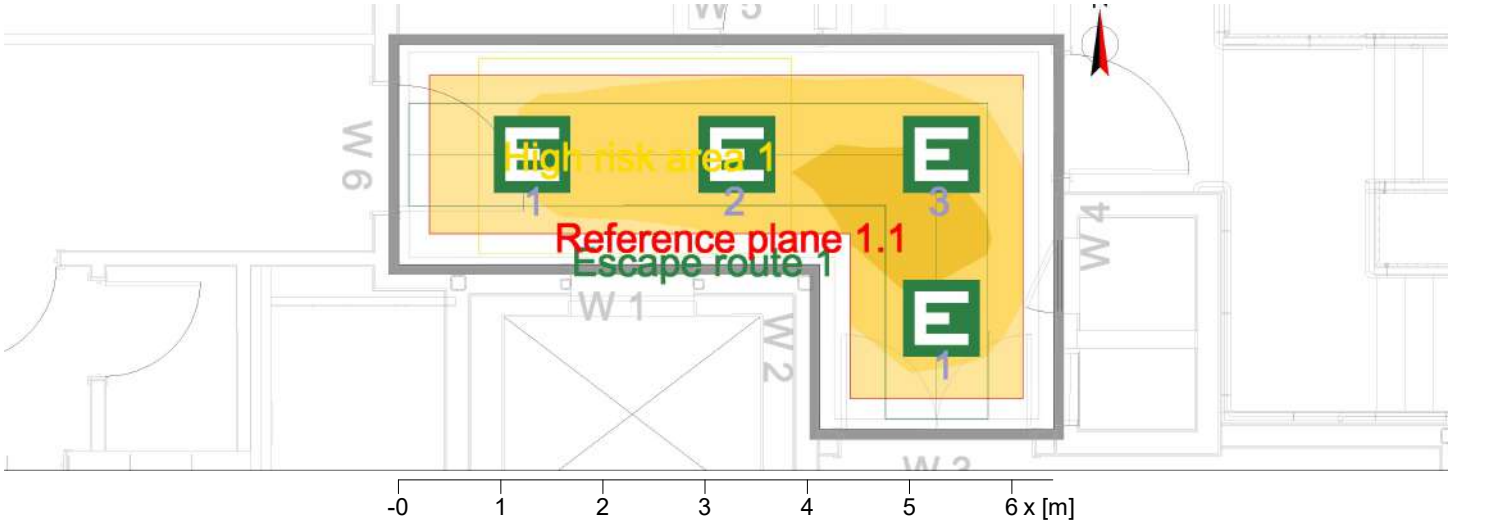
Order No.	: !LSX HO (OPEN AREA 375lm)
Luminaire name	: LSX HO (OPEN AREA 375lm)
Equipment	: 1 x LED 3 W / 375 lm (0%)
Emergency	: 375 lm

-- Emergency Lighting --

12 L04-NS-045 Firefighting Lobby

12.1 Summary, L04-NS-045 Firefighting Lobby

12.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.96 m
Maintenance factor	0.80
Luminaire luminous flux	4197 lm
Total power	56.0 W
Total power per area (17.42 m²)	3.22 W/m² (1.81 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	178 lx
E_{min}	127 lx
$E_{min}/\bar{E}_m$ (U_o)	0.71
E_{min}/E_{max} (U_d)	0.54
Position	0.00 m (rot: 0°/0.01°)

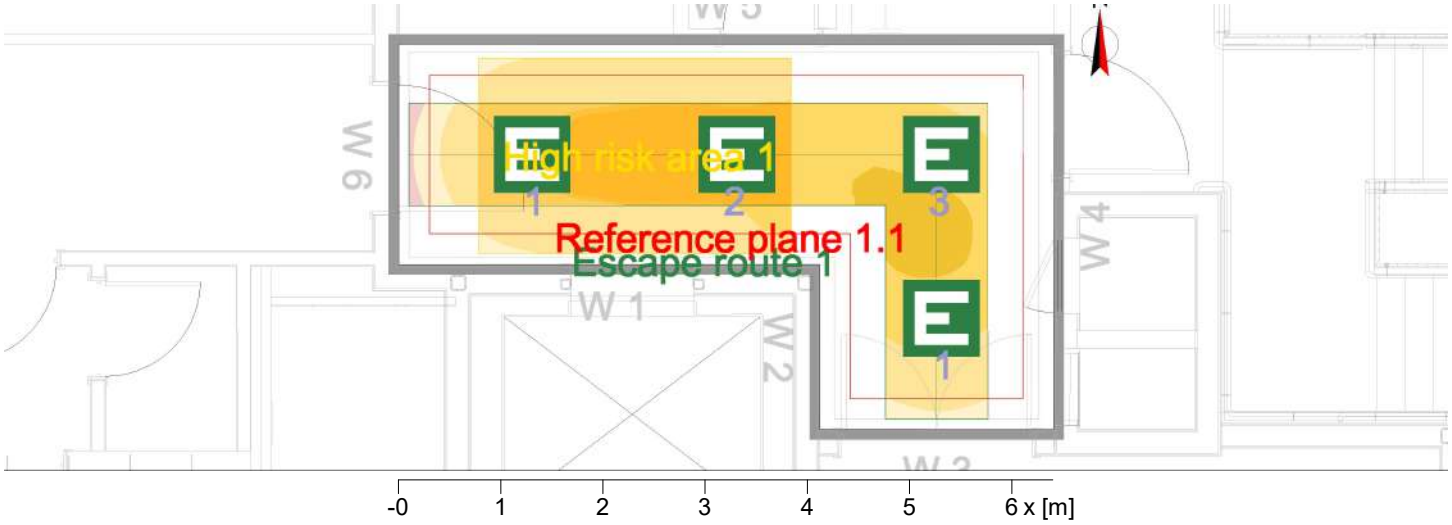
Type No.\Make

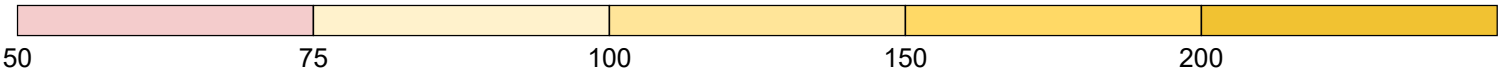
		Chiara Lighting Limited	
9	4E x	Order No.	: !APRF.X.X LE5.27.14.50.X -- Emergency Lighting --
		Luminaire name	: Arch Pro Round Fixed, 927.14W.50d
		Equipment	: 1 x 2700K 14 W / 943 lm
		Emergency	: 943 lm (100.0 %)

12 L04-NS-045 Firefighting Lobby

12.2 Summary, L04-NS-045 Firefighting Lobby

12.2.1.1 Result overview (emergency lighting)





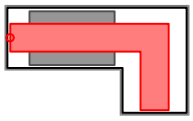
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.96 m	
Maximum I	: 1400 cd	<= 900 cd

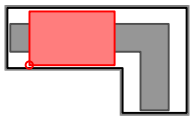
Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 7.74m x 1m (39 x 9 pts), Height = 0.00m					
1	70.28 lx	218.07 lx	1: 3.10	60.65 lx	219.63 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)
High risk area 1			
Calculation field: 3.04m x 1.91m (7 x 4 pts), Height = 0.00m			
1	130 lx	82 lx	0.63
	---		>= 0.10



12 L04-NS-045 Firefighting Lobby

12.2 Summary, L04-NS-045 Firefighting Lobby

12.2.1.1 Result overview (emergency lighting)

Type No.\Make

Chiara Lighting Limited

9 4E x



Order No. : !APRF.X.X LE5.27.14.50.X -- Emergency Lighting --
Luminaire name : Arch Pro Round Fixed, 927.14W.50d
Equipment : 1 x 2700K 14 W / 943 lm
Emergency : 943 lm (100.0 %)

North Stand - Level 05

Installation : MCFC Redevelopment

Project number	:	SY1023-27
Customer	:	SES
Processed by	:	S Hollingworth
Date	:	15.05.2025

Project description:

Reflectcance Values:
Ceiling 70% (50% plant areas)
Walls 50% (30% plant areas)
Floor 20%

Maintenance Factor: 0.8

Rev A - Initial issue.
Rev B - Updated to incorporate latest info from Lighting Workshop 29.10.2024, and BG emails 29.10.2024 / 07.11.2024.
Rev C - Reviewed against Jump RCPs.

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.

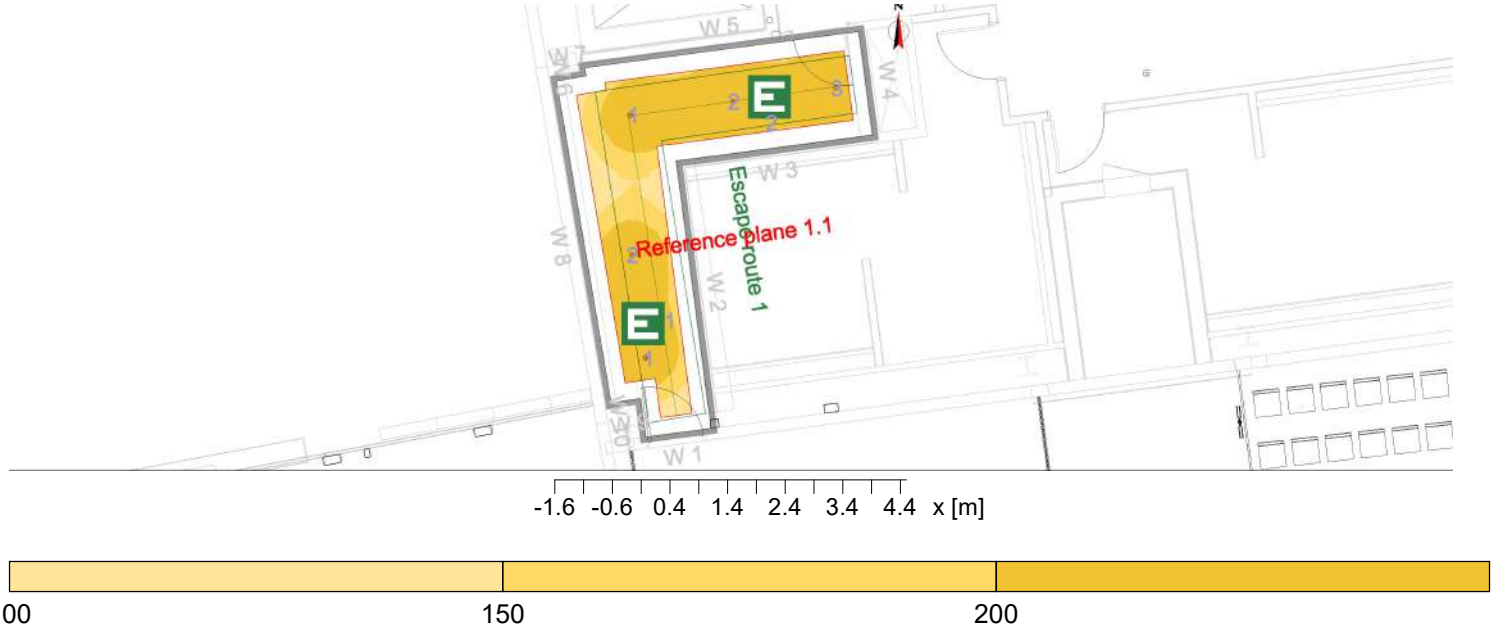
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1 L05-NS-015 Corridor

1.1 Summary, L05-NS-015 Corridor

1.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Luminaire luminous flux	5247 lm
Total power	70.0 W
Total power per area (17.20 m²)	4.07 W/m² (1.88 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	216 lx
E_{min}	105 lx
$E_{min}/\bar{E}_m$ (U_o)	0.49
E_{min}/E_{max} (U_d)	0.41
Position	0.00 m

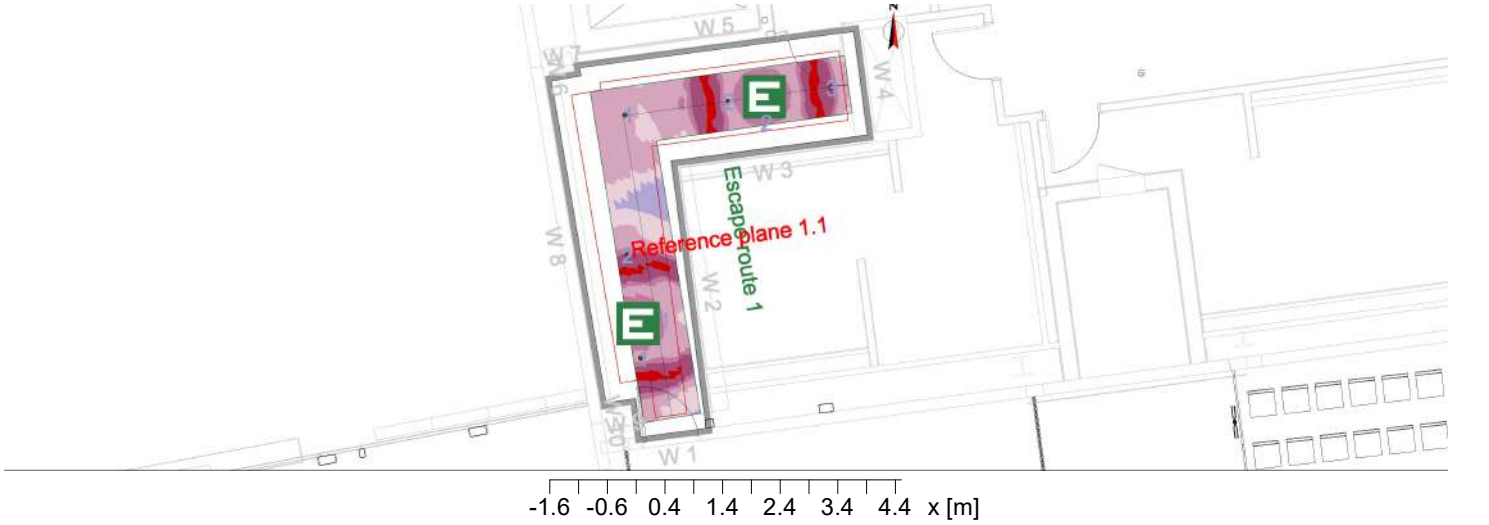
Type No.\Make

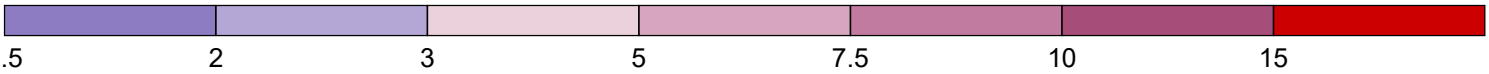
		Chiara Lighting Limited	
3	5 x	Order No.	: !APRF.X.X LE5.27.14.50.X
		Luminaire name	: Arch Pro Round Fixed, 927.14W.50d
		Equipment	: 1 x 2700K 14 W / 943 lm

1 L05-NS-015 Corridor

1.2 Summary, L05-NS-015 Corridor

1.2.1.1 Result overview (emergency lighting)





General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 270 cd	<= 500 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 9.23m x 1m (46 x 9 pts), Height = 0.00m					
1	2.55 lx	15.87 lx	1: 6.22	1.97 lx	16.32 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



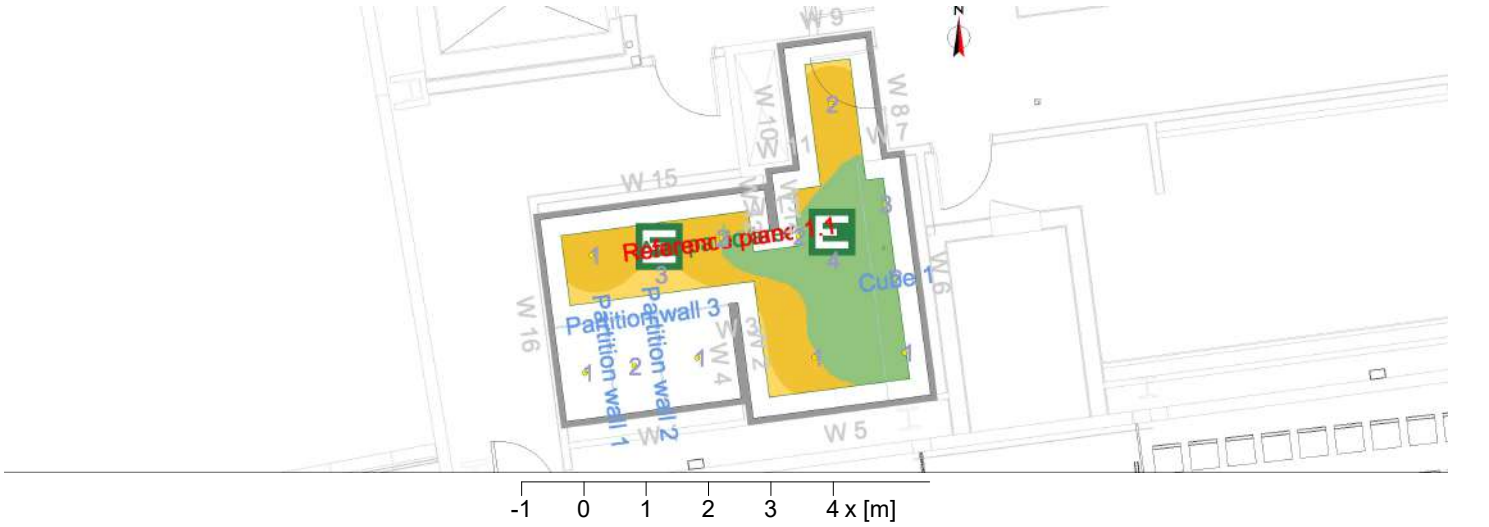
Type No.\Make

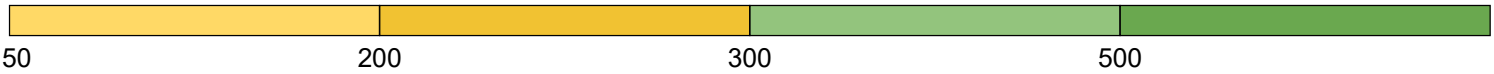
		Mackwell		
4	2E x	Order No.	: !LRX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

2 L05-NS-016 WCS

2.1 Summary, L05-NS-016 WCS

2.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Luminaire luminous flux	11543 lm
Total power	154.0 W
Total power per area (22.76 m²)	6.77 W/m² (2.15 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	315 lx
E_{min}	167 lx
$E_{min}/\bar{E}_m$ (U_o)	0.53
E_{min}/E_{max} (U_d)	0.33
Position	0.00 m

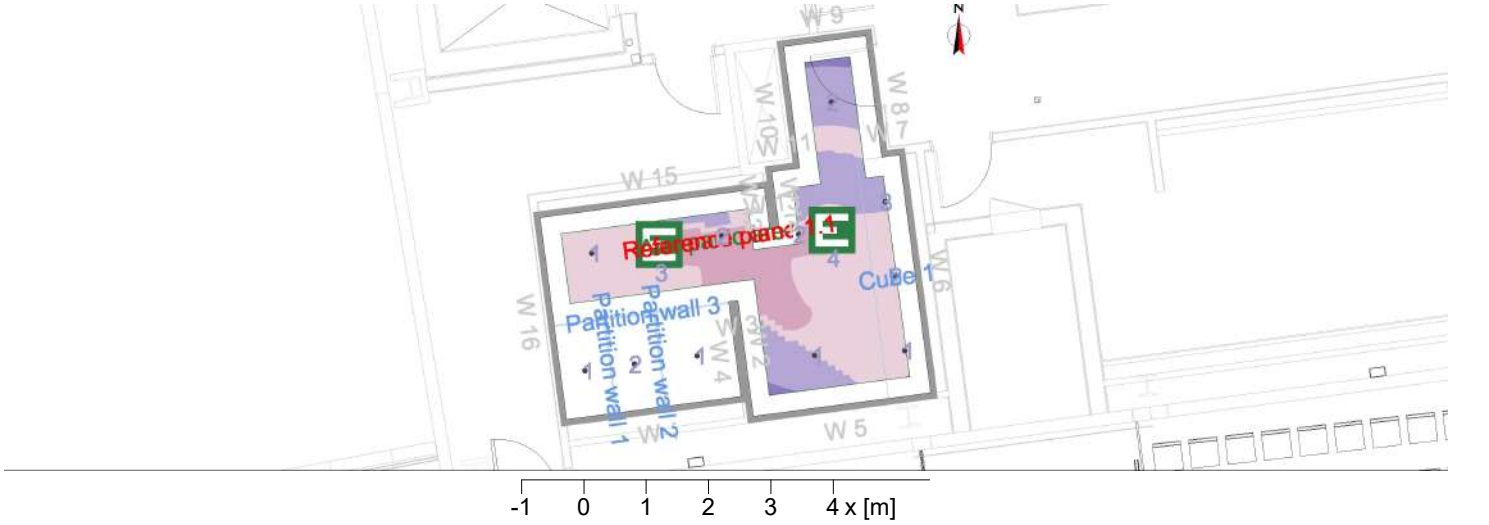
Type No.\Make

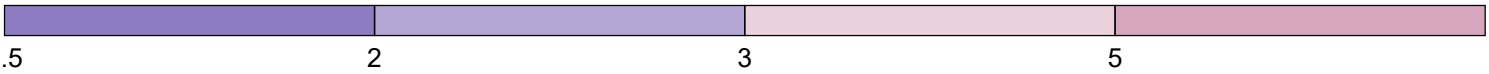
		Chiara Lighting Limited
1	11 x	Order No. : !APRF.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Fixed, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 943 lm

2 L05-NS-016 WCS

2.2 Summary, L05-NS-016 WCS

2.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.35 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 5.24m x 5.2m (21 x 21 pts), Height = 0.00m			
1	1.86 lx	6.20 lx	1: 3.34
	>= 0.5 lx		>= 1 : 40



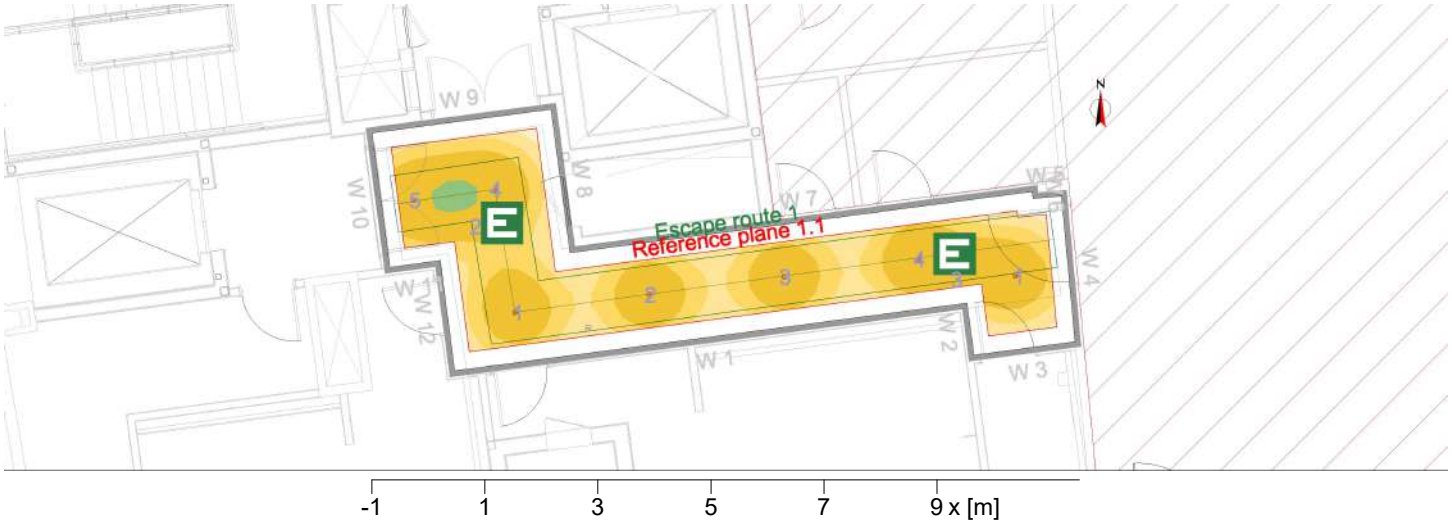
Type No.\Make

		Mackwell		
2	2E x	Order No.	: !LRX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

3 L05-NS-018 Lobby

3.1 Summary, L05-NS-018 Lobby

3.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.30 m
Maintenance factor	0.80
Luminaire luminous flux	7345 lm
Total power	98.0 W
Total power per area (29.43 m²)	3.33 W/m² (1.65 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	202 lx
E_{min}	96 lx
$E_{min}/\bar{E}_m$ (U_o)	0.48
E_{min}/E_{max} (U_d)	0.30
Position	0.00 m

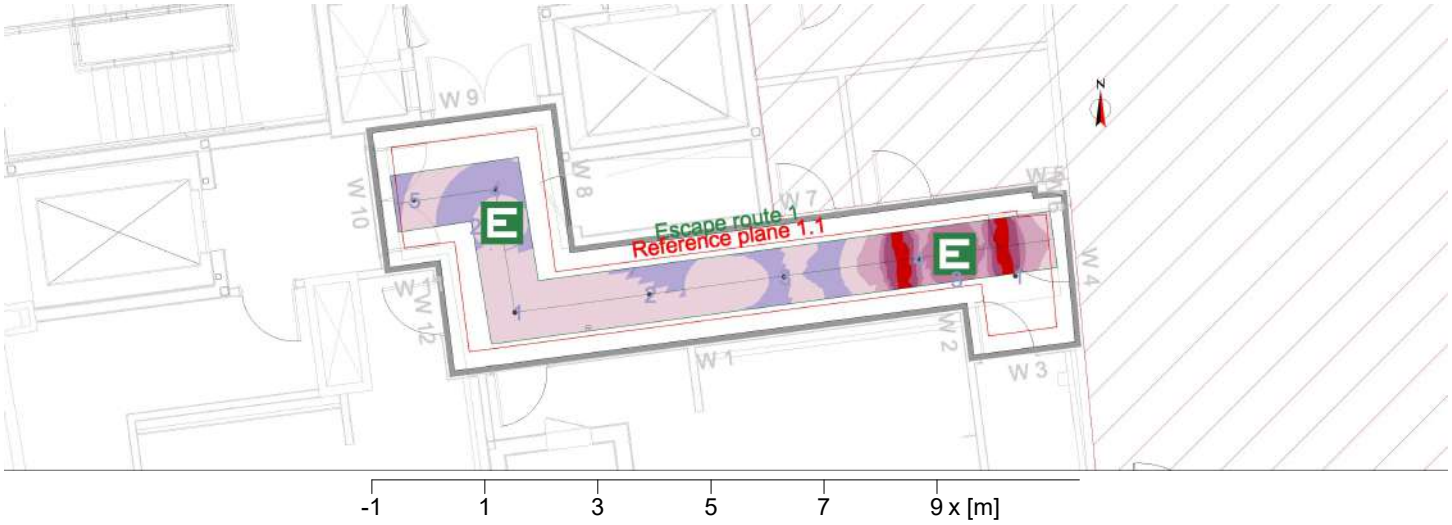
Type No.\Make

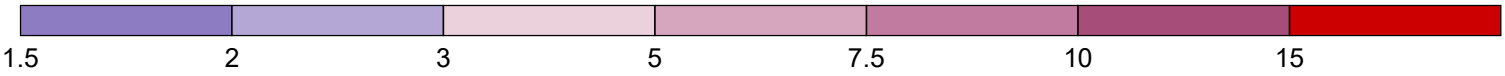
		Chiara Lighting Limited
3	7 x	Order No. : !APRF.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Fixed, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 943 lm

3 L05-NS-018 Lobby

3.2 Summary, L05-NS-018 Lobby

3.2.1.1 Result overview (emergency lighting)





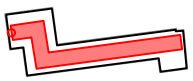
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.30 m	
Maximum I	: 270 cd	<= 500 cd

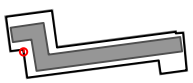
Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 13.6m x 1m (68 x 9 pts), Height = 0.00m					
1	2.66 lx	17.25 lx	1: 6.48	1.70 lx	17.62 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Places to highlight

No.	Surface Emin [lx]	Emax [lx]
1 Call Point		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	9.20 lx	12.64 lx
	>= 5 lx	



3 L05-NS-018 Lobby

3.2 Summary, L05-NS-018 Lobby

3.2.1.1 Result overview (emergency lighting)

Type No.\Make

Mackwell

2 1E x

Order No. : !LRX HO (OPEN AREA 375lm) -- Emergency Lighting --
Luminaire name : LRX HO (OPEN AREA 375lm)
Equipment : 1 x LED 3 W / 375 lm (0%)
Emergency : 375 lm

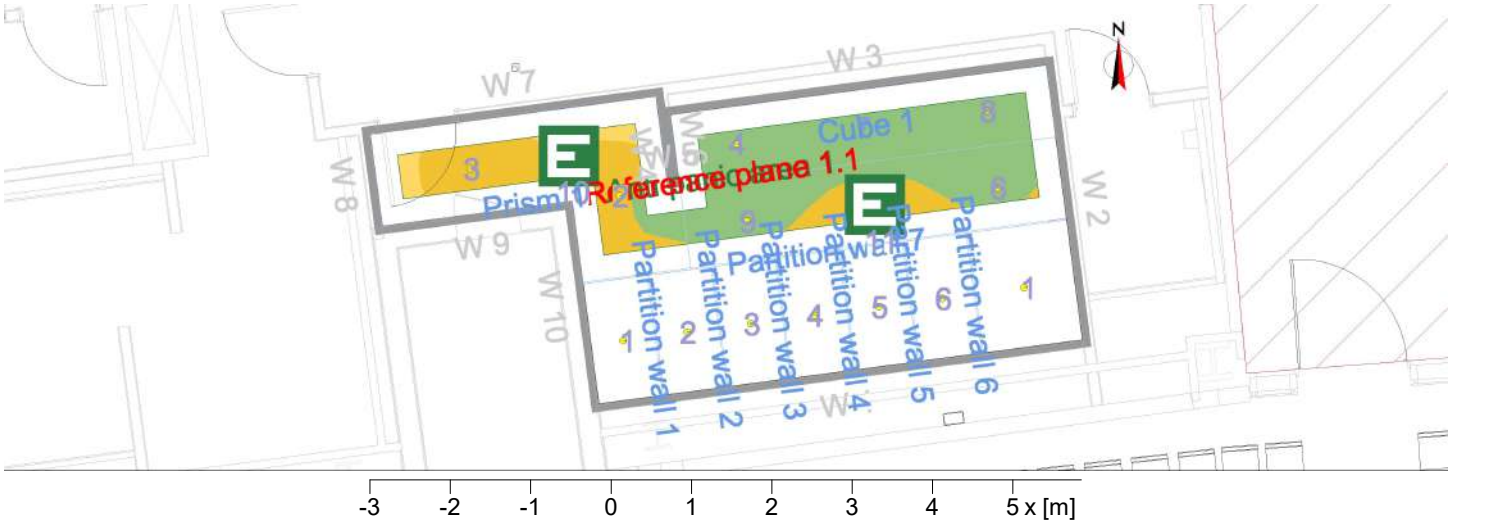
4 1E x

Order No. : !LRX HO (ESCAPE 375lm) -- Emergency Lighting --
Luminaire name : LRX HO (ESCAPE 375lm)
Equipment : 1 x LED 3 W / 375 lm (0%)
Emergency : 375 lm

4 L05-NS-019 WCS

4.1 Summary, L05-NS-019 WCS

4.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Luminaire luminous flux	14691 lm
Total power	196.0 W
Total power per area (23.73 m²)	8.26 W/m² (2.48 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	333 lx
E_{min}	176 lx
$E_{min}/\bar{E}_m$ (U_o)	0.53
E_{min}/E_{max} (U_d)	0.37
Position	0.00 m

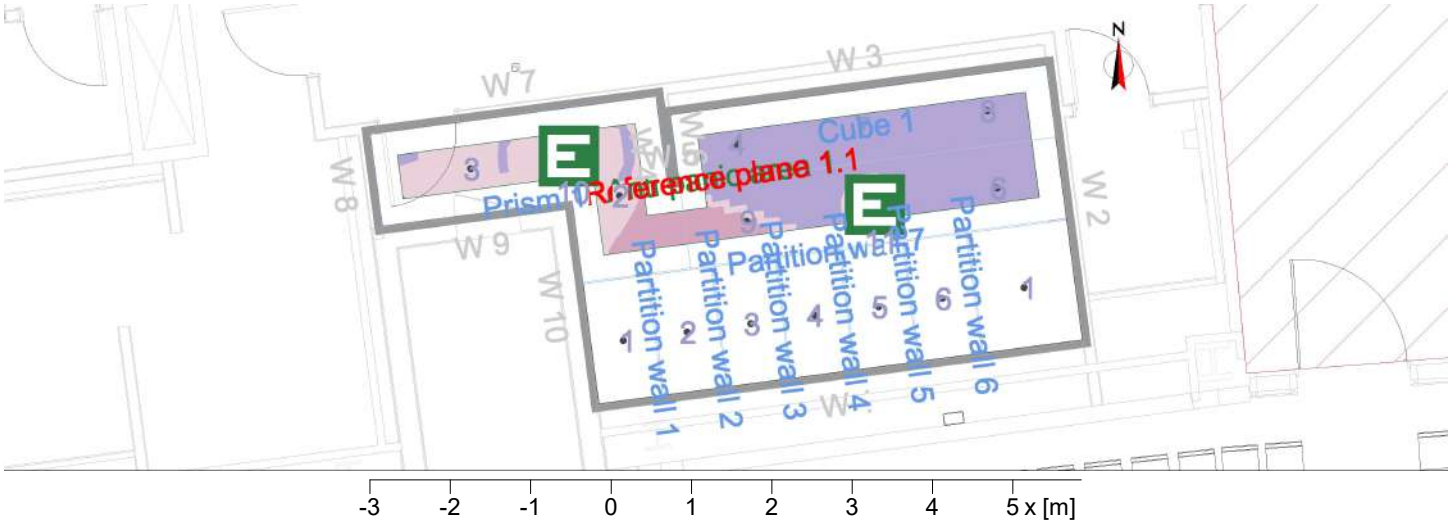
Type No.\Make

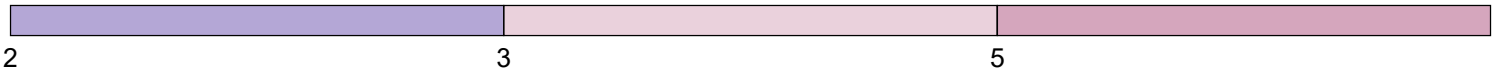
		Chiara Lighting Limited	
1	14 x	Order No.	: !APRF.X.X LE5.27.14.50.X
		Luminaire name	: Arch Pro Round Fixed, 927.14W.50d
		Equipment	: 1 x 2700K 14 W / 943 lm

4 L05-NS-019 WCS

4.2 Summary, L05-NS-019 WCS

4.2.1.1 Result overview (emergency lighting)





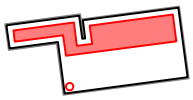
Illuminance [lx]

General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 180 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 7.84m x 1.57m (29 x 6 pts), Height = 0.00m			
1	2.16 lx	5.56 lx	1: 2.58
	>= 0.5 lx		>= 1 : 40



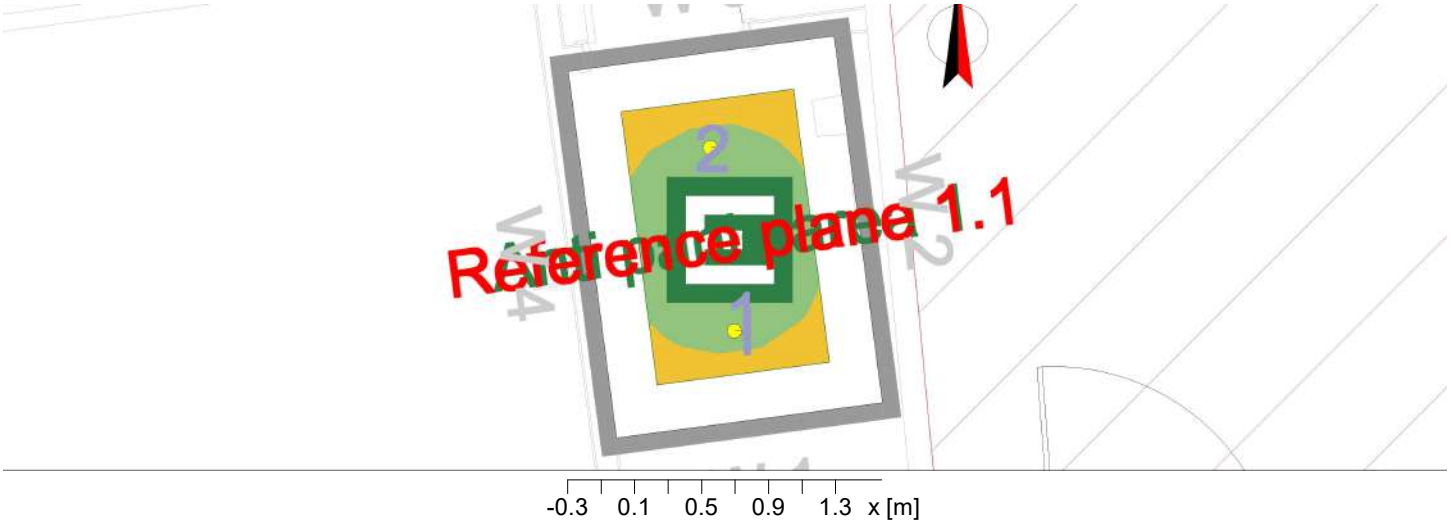
Type No.\Make

		Mackwell		
2	2E x	Order No.	: !LRX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

5 L05-NS-020 AWC

5.1 Summary, L05-NS-020 AWC

5.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Luminaire luminous flux	2099 lm
Total power	28.0 W
Total power per area (3.52 m²)	7.95 W/m² (2.42 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	328 lx
E_{min}	279 lx
$E_{min}/\bar{E}_m$ (U_o)	0.85
E_{min}/E_{max} (U_d)	0.73
Position	0.00 m

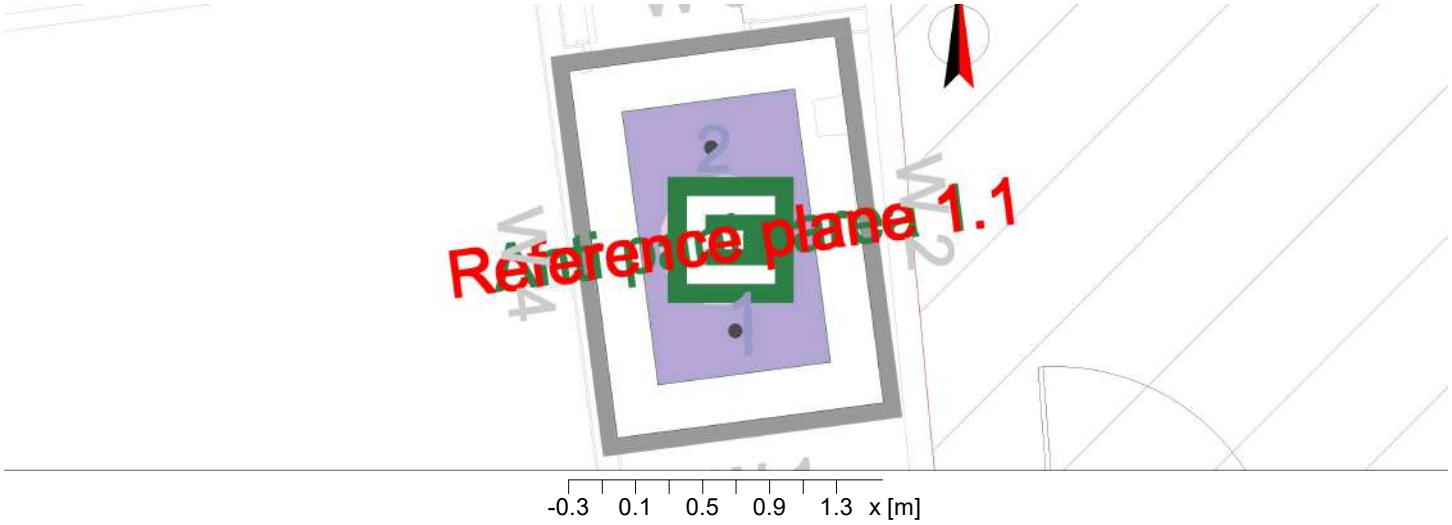
Type No.\Make

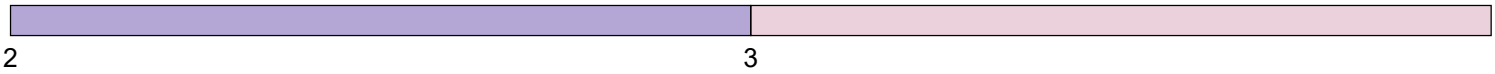
		Chiara Lighting Limited
1	2 x	Order No. : !APRF.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Fixed, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 943 lm

5 L05-NS-020 AWC

5.2 Summary, L05-NS-020 AWC

5.2.1.1 Result overview (emergency lighting)





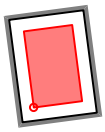
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 180 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 1.04m x 1.64m (4 x 6 pts), Height = 0.00m			
1	2.49 lx	4.03 lx	1: 1.62
	>= 0.5 lx		>= 1 : 40



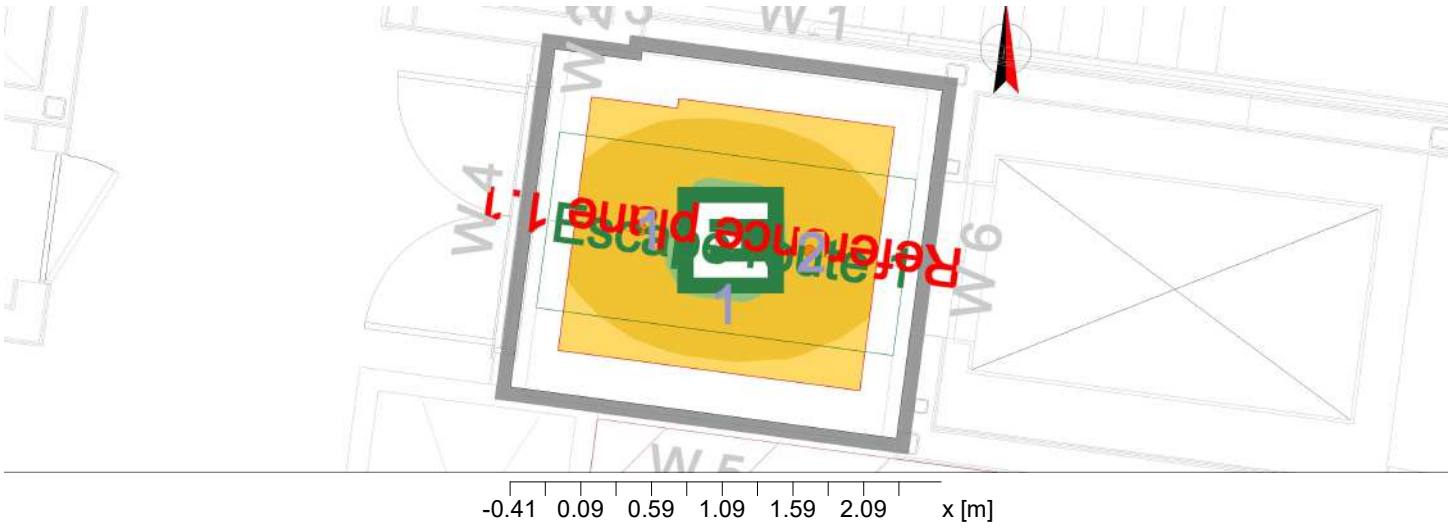
Type No.\Make

		Mackwell		
2	1E x	Order No.	: !LRX HO (OPEN AREA 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (OPEN AREA 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

6 L05-NS-030 Lift Lobby

6.1 Summary, L05-NS-030 Lift Lobby

6.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Luminaire luminous flux	2099 lm
Total power	28.0 W
Total power per area (6.75 m²)	4.15 W/m² (1.67 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	248 lx
E_{min}	171 lx
$E_{min}/\bar{E}_m$ (U_o)	0.69
E_{min}/E_{max} (U_d)	0.50
Position	0.00 m

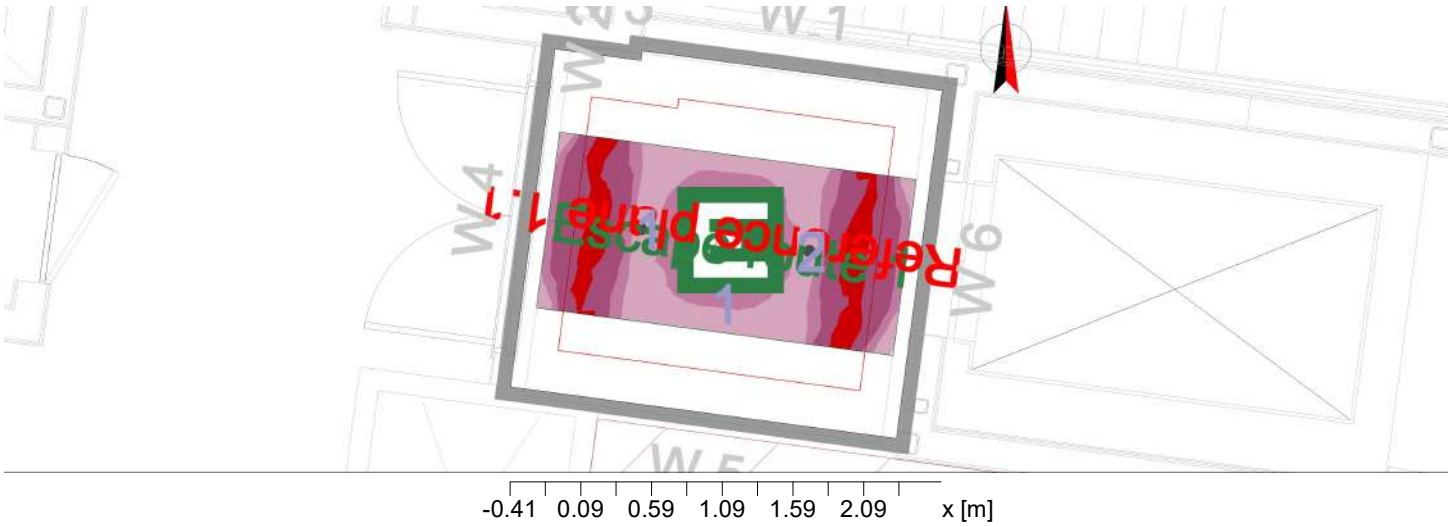
Type No.\Make

		Chiara Lighting Limited
3	2 x	Order No. : !APRF.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Fixed, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 943 lm

6 L05-NS-030 Lift Lobby

6.2 Summary, L05-NS-030 Lift Lobby

6.2.1.1 Result overview (emergency lighting)





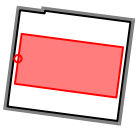
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 270 cd	<= 500 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 2.54m x 1.25m (11 x 9 pts), Height = 0.00m					
1	6.14 lx	15.74 lx	1: 2.56	4.57 lx	16.30 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



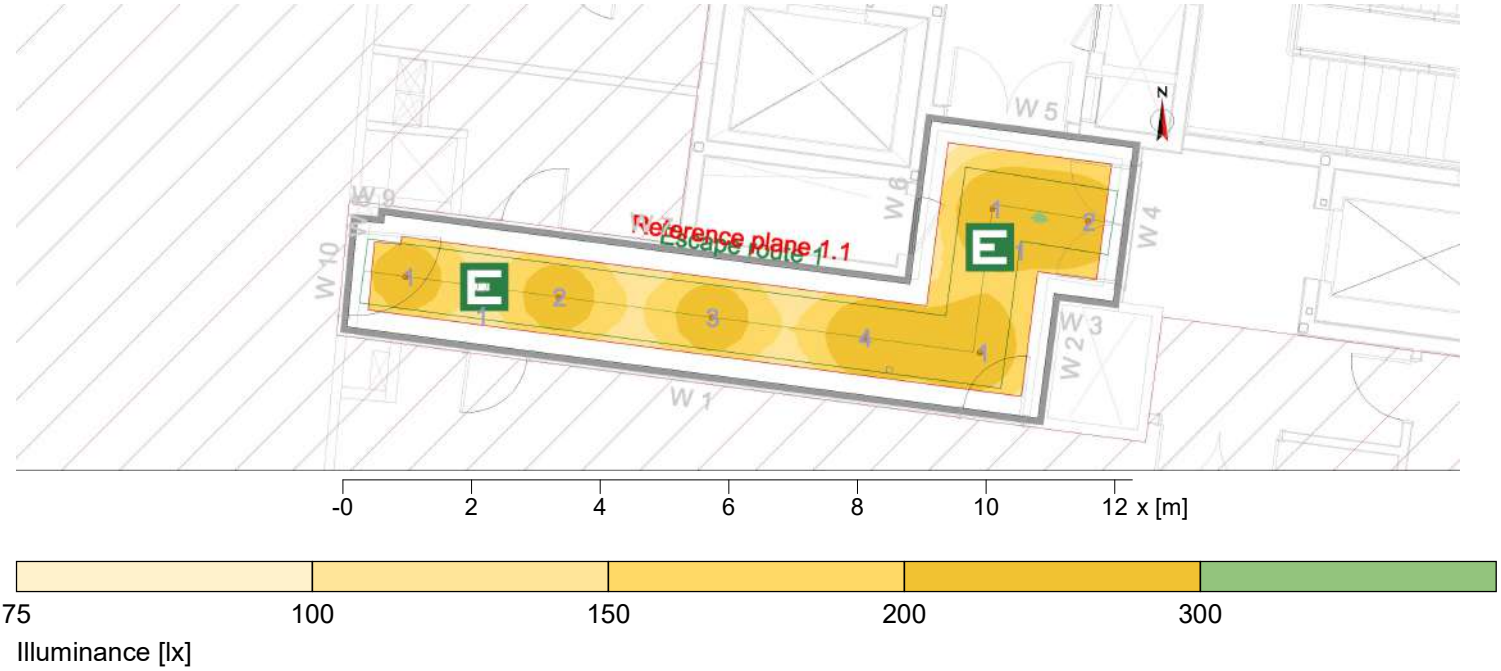
Type No.\Make

		Mackwell		
4	1E x	Order No.	: !LRX HO (ESCAPE 375lm)	-- Emergency Lighting --
		Luminaire name	: LRX HO (ESCAPE 375lm)	
		Equipment	: 1 x LED 3 W / 375 lm (0%)	
		Emergency	: 375 lm	

7 L05-NS-031 BOH Circulation

7.1 Summary, L05-NS-031 BOH Circulation

7.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Luminaire luminous flux	7345 lm
Total power	98.0 W
Total power per area (27.41 m²)	3.58 W/m² (1.78 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	201 lx
E_{min}	95 lx
$E_{min}/\bar{E}_m$ (U_o)	0.47
E_{min}/E_{max} (U_d)	0.31
Position	0.00 m

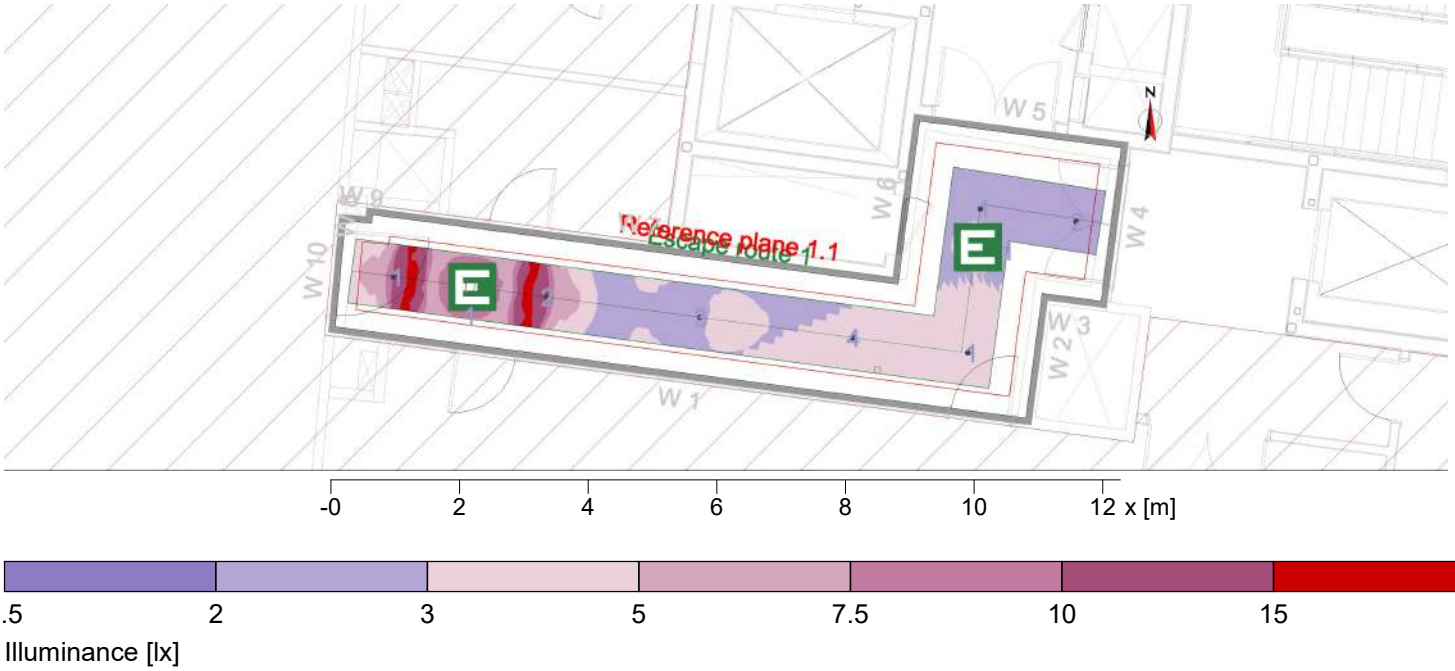
Type No.\Make

		Chiara Lighting Limited
3	7 x	Order No. : !APRF.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Fixed, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 943 lm

7 L05-NS-031 BOH Circulation

7.2 Summary, L05-NS-031 BOH Circulation

7.2.1.1 Result overview (emergency lighting)

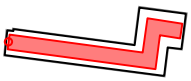


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 270 cd	<= 500 cd

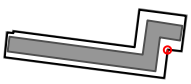
Escape routes:

No.	Central axis Emin [lx]	Central axis Emax [lx]	Ud	Surface Emin [lx]	Surface Emax [lx]
Escape route 1					
Calculation field: 13.75m x 1m (68 x 9 pts), Height = 0.00m					
1	2.49 lx	15.85 lx	1: 6.37	1.80 lx	16.25 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



Places to highlight

No.	Surface Emin [lx]	Surface Emax [lx]
1 Call Point		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	8.03 lx	10.60 lx
	>= 5 lx	



7 L05-NS-031 BOH Circulation

7.2 Summary, L05-NS-031 BOH Circulation

7.2.1.1 Result overview (emergency lighting)

Type No.\Make

Mackwell

2 1E x

Order No. : !LRX HO (OPEN AREA 375lm) -- Emergency Lighting --
Luminaire name : LRX HO (OPEN AREA 375lm)
Equipment : 1 x LED 3 W / 375 lm (0%)
Emergency : 375 lm

4 1E x

Order No. : !LRX HO (ESCAPE 375lm) -- Emergency Lighting --
Luminaire name : LRX HO (ESCAPE 375lm)
Equipment : 1 x LED 3 W / 375 lm (0%)
Emergency : 375 lm

North Stand - Stairs

Installation : MCFC Redevelopment

Project number : SY1023-27
Customer : SES
Processed by : S Hollingworth
Date : 07.04.2025

Project description:

Reflectcance Values:
Ceiling 70%
Walls 50%
Floor 20%

Maintenance Factor: 0.8

Rev A - Initial issue.
Rev B - Amended to incorporate comments from RF 11.07.2024.
Rev C - Updated to incorporate latest info from Lighting Workshop 29.10.2024, and BG emails 29.10.2024 / 07.11.2024.
Rev D - Updated to take account of the change to luminaire EMG02.
Rev E - Reviewed against Jump RCPs.

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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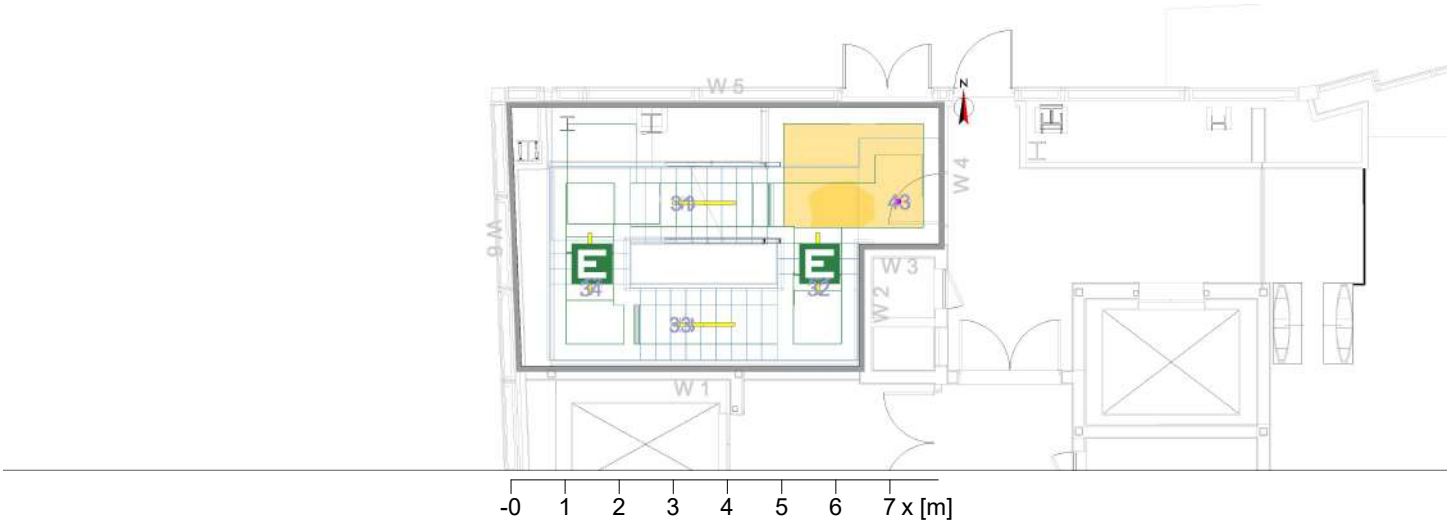
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1 Firefighting Stair

1.1 Summary, Firefighting Stair

1.1.1 Result overview, Level 00





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	138 lx
Minimum illuminance	E_{min}	114 lx
Maximum illuminance	E_{max}	155 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.21 (0.83)
Diversity U_d	E_{min}/E_{max}	1:1.35 (0.74)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1 Firefighting Stair

1.1 Summary, Firefighting Stair

1.1.1 Result overview, Level 00

Hacel Lighting Ltd.

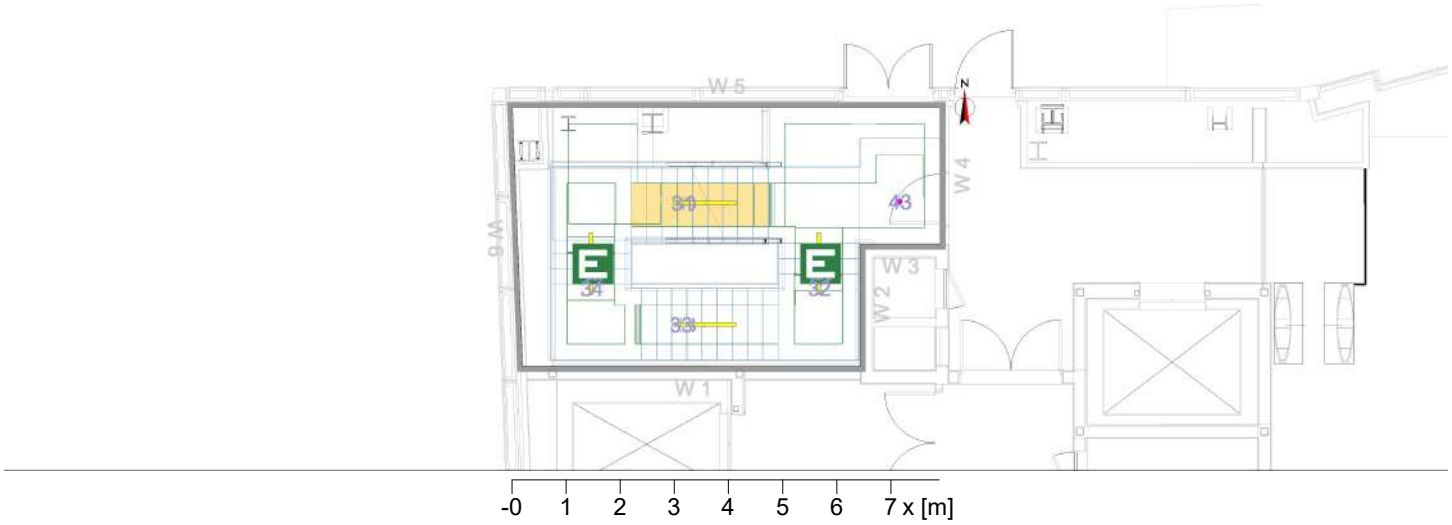
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.2 Result overview, Tread (i)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	136 lx
Minimum illuminance	E_{min}	128 lx
Maximum illuminance	E_{max}	150 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.07 (0.94)
Diversity U_d	E_{min}/E_{max}	1:1.18 (0.85)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.2 Result overview, Tread (i)

Hacel Lighting Ltd.

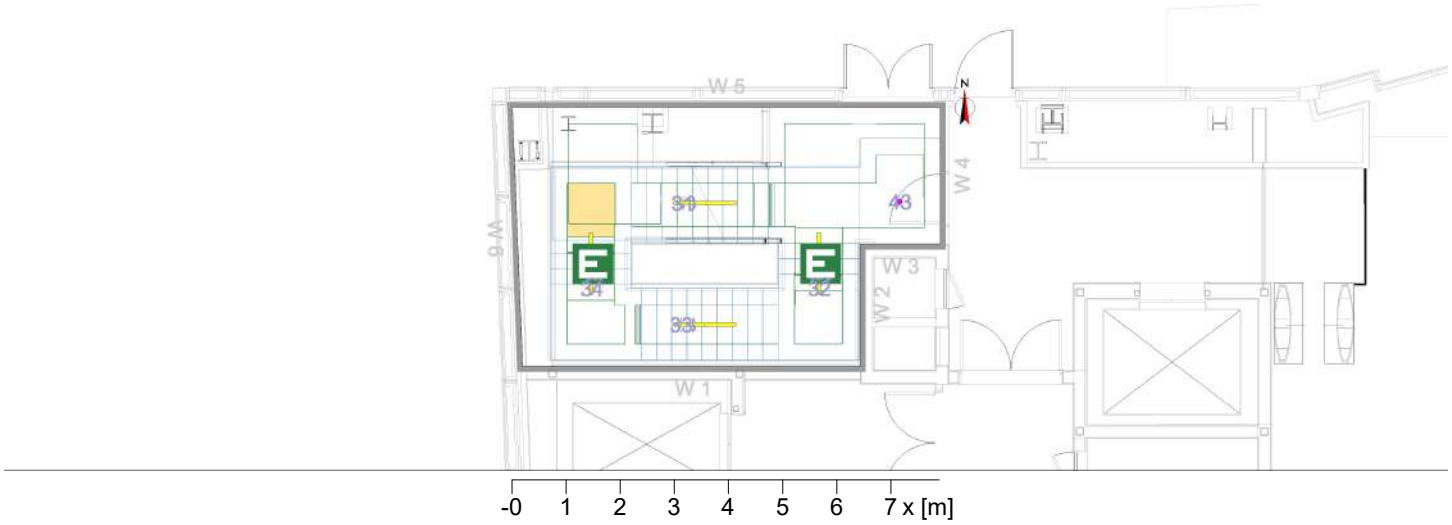
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.3 Result overview, Landing (i)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	129 lx
Minimum illuminance	E_{min}	112 lx
Maximum illuminance	E_{max}	145 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.16 (0.86)
Diversity U_d	E_{min}/E_{max}	1:1.3 (0.77)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.3 Result overview, Landing (i)

Hacel Lighting Ltd.

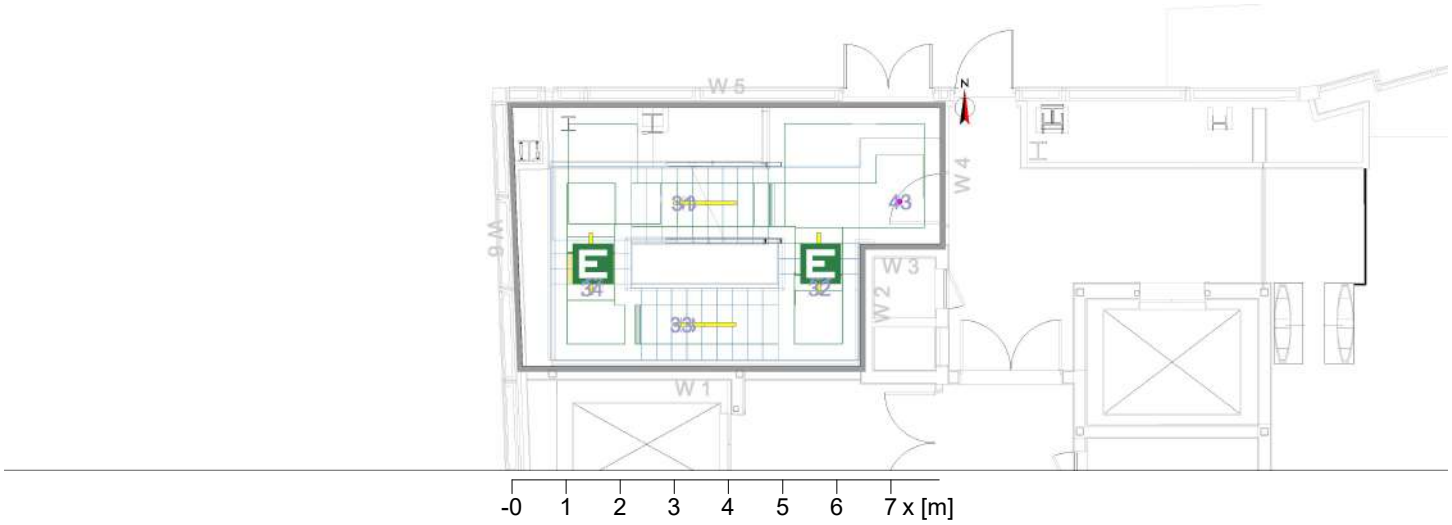
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.4 Result overview, Tread (ii)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	139 lx
Minimum illuminance	E_{min}	124 lx
Maximum illuminance	E_{max}	155 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.12 (0.89)
Diversity U_d	E_{min}/E_{max}	1:1.25 (0.8)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.4 Result overview, Tread (ii)

Hacel Lighting Ltd.

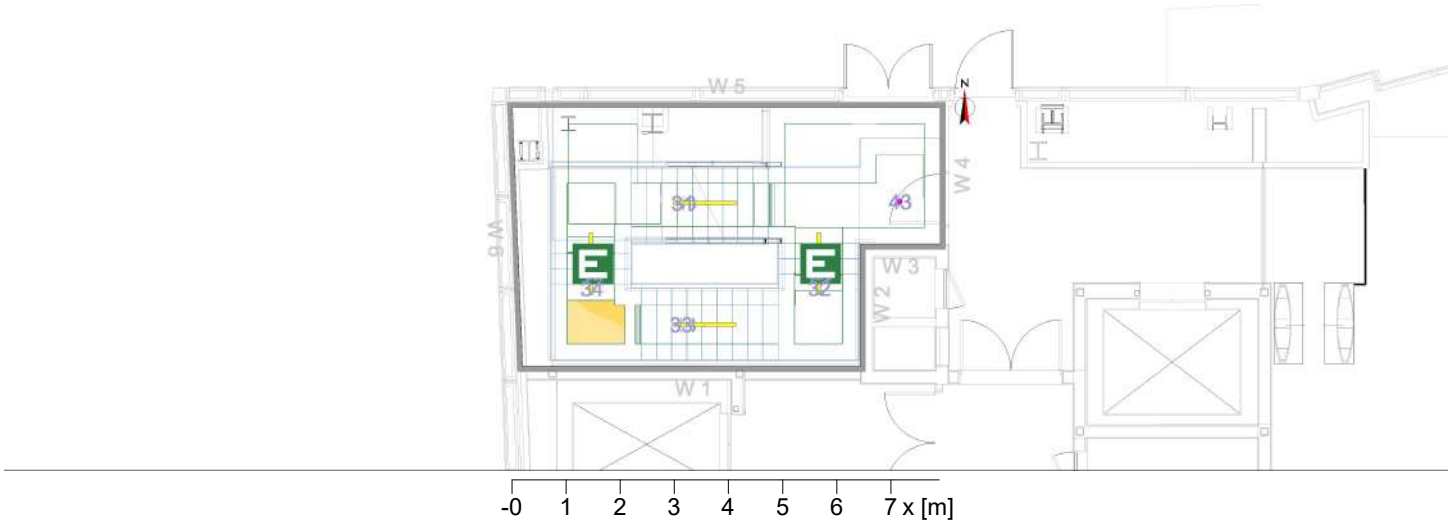
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.5 Result overview, Landing (ii)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	146 lx
Minimum illuminance	E_{min}	132 lx
Maximum illuminance	E_{max}	163 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.1 (0.91)
Diversity U_d	E_{min}/E_{max}	1:1.23 (0.81)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.5 Result overview, Landing (ii)

Hacel Lighting Ltd.

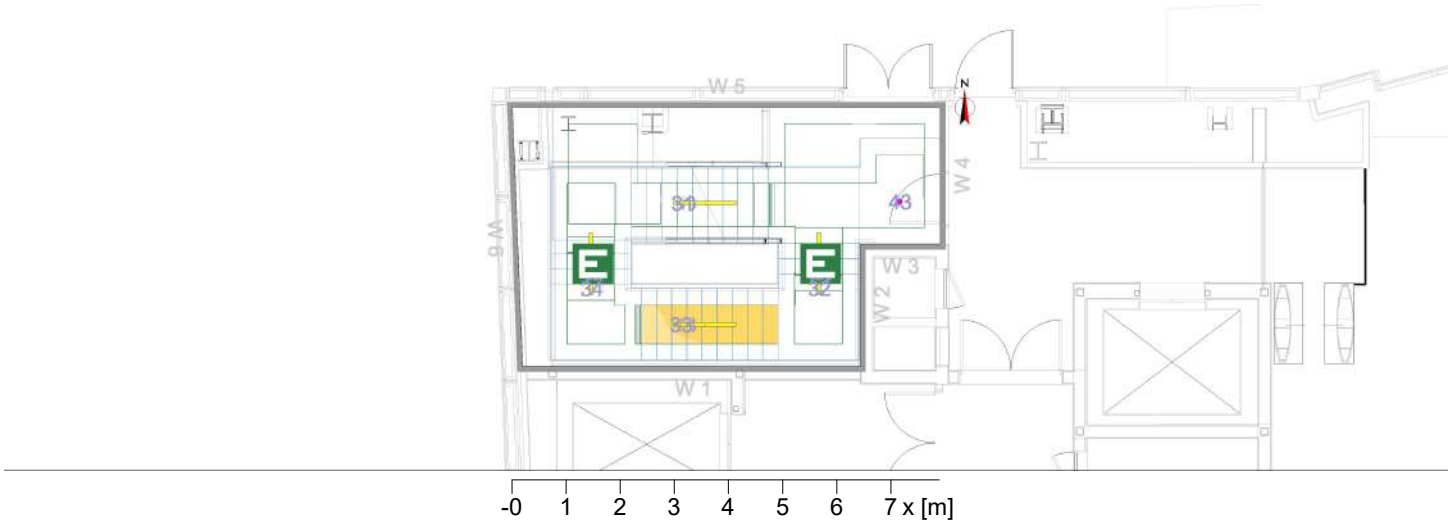
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.6 Result overview, Tread (iii)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	162 lx
Minimum illuminance	E_{min}	130 lx
Maximum illuminance	E_{max}	187 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.25 (0.8)
Diversity U_d	E_{min}/E_{max}	1:1.44 (0.69)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.6 Result overview, Tread (iii)

Hacel Lighting Ltd.

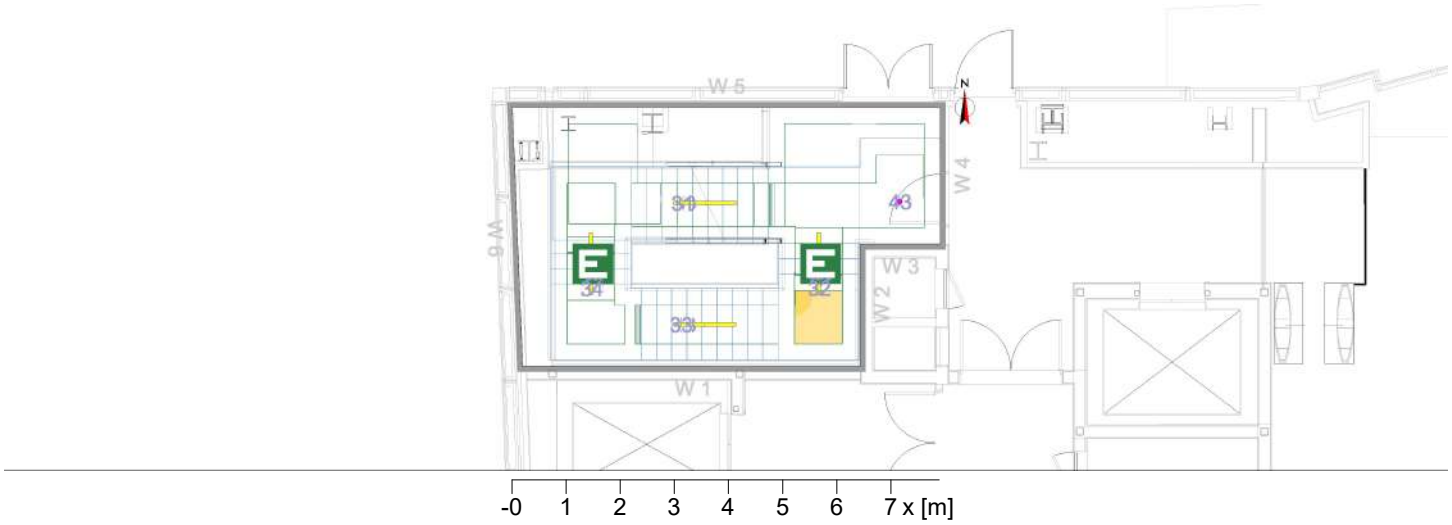
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.7 Result overview, Landing (iii)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	138 lx
Minimum illuminance	E_{min}	115 lx
Maximum illuminance	E_{max}	179 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.2 (0.83)
Diversity U_d	E_{min}/E_{max}	1:1.55 (0.64)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.7 Result overview, Landing (iii)

Hacel Lighting Ltd.

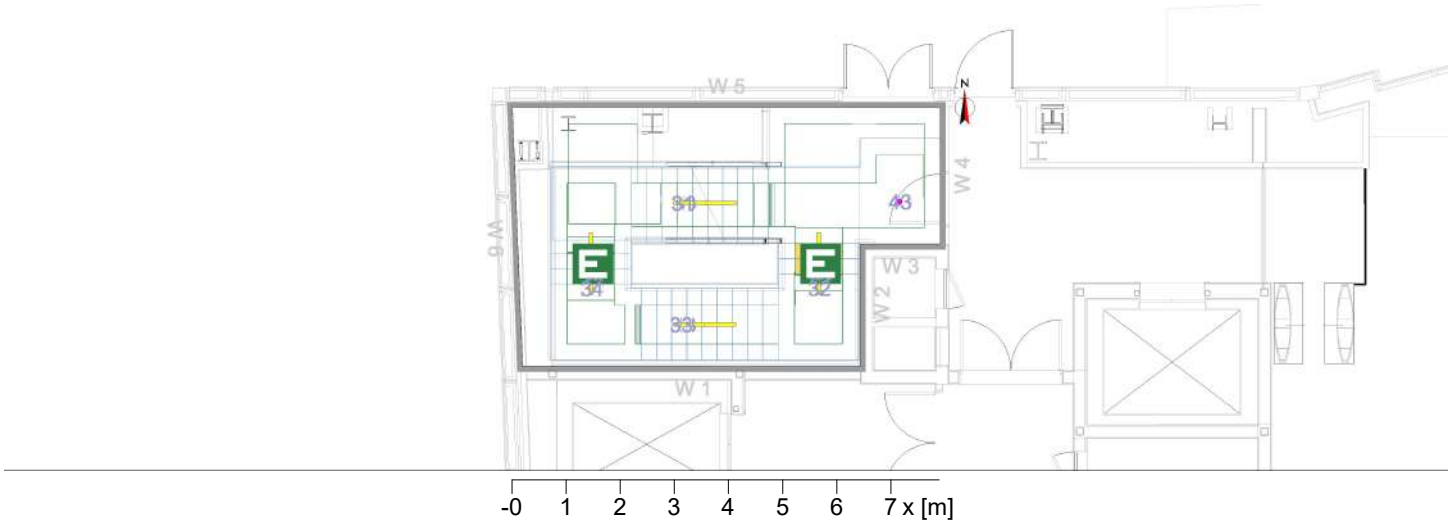
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.8 Result overview, Tread (iv)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	171 lx
Minimum illuminance	E_{min}	126 lx
Maximum illuminance	E_{max}	196 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.35 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.55 (0.64)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.8 Result overview, Tread (iv)

Hacel Lighting Ltd.

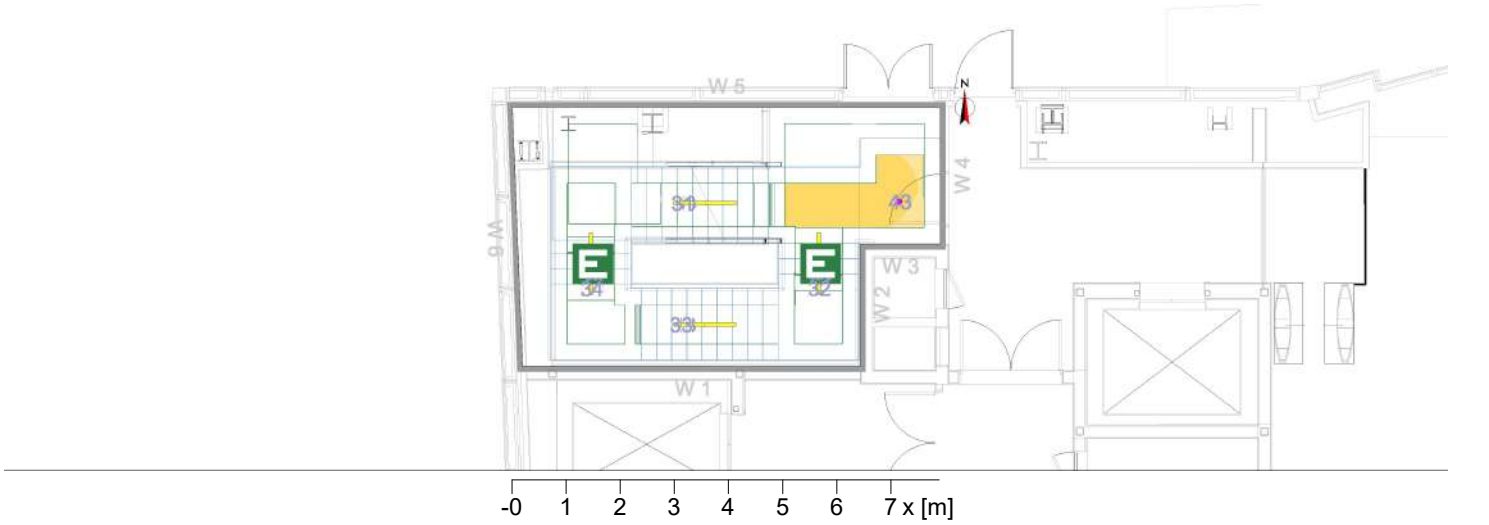
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.9 Result overview, Level 01





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	176 lx
Minimum illuminance	E_{min}	135 lx
Maximum illuminance	E_{max}	197 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.3 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.46 (0.69)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.9 Result overview, Level 01

Hacel Lighting Ltd.

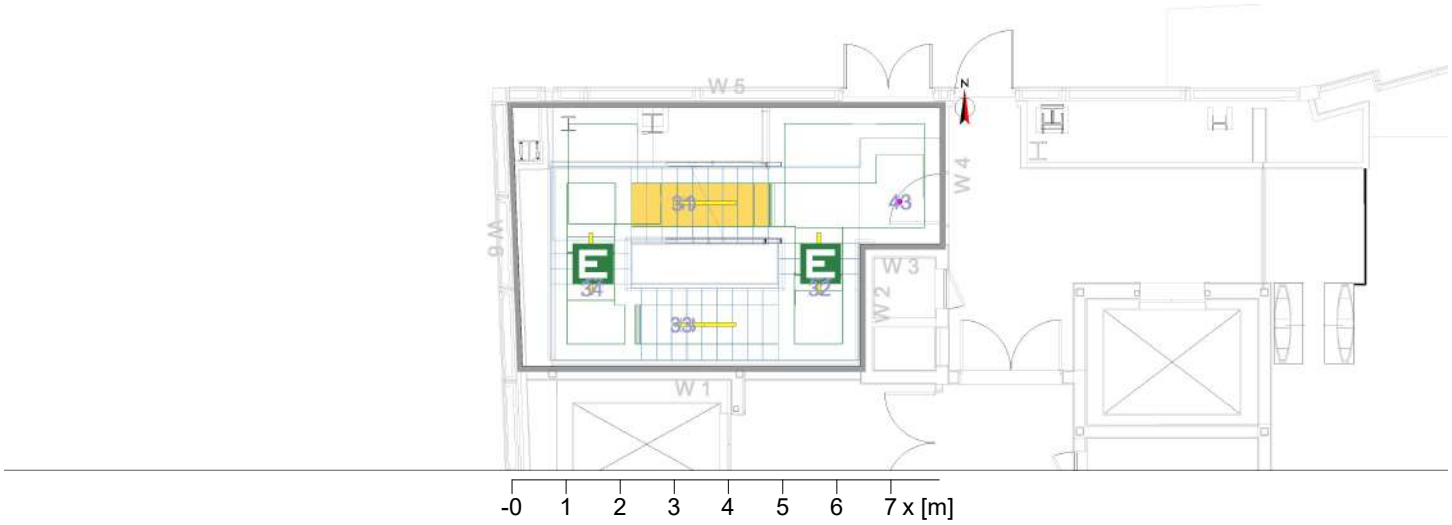
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.10 Result overview, Tread (v)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	172 lx
Minimum illuminance	E_{min}	159 lx
Maximum illuminance	E_{max}	191 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.08 (0.92)
Diversity U_d	E_{min}/E_{max}	1:1.2 (0.83)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.10 Result overview, Tread (v)

Hacel Lighting Ltd.

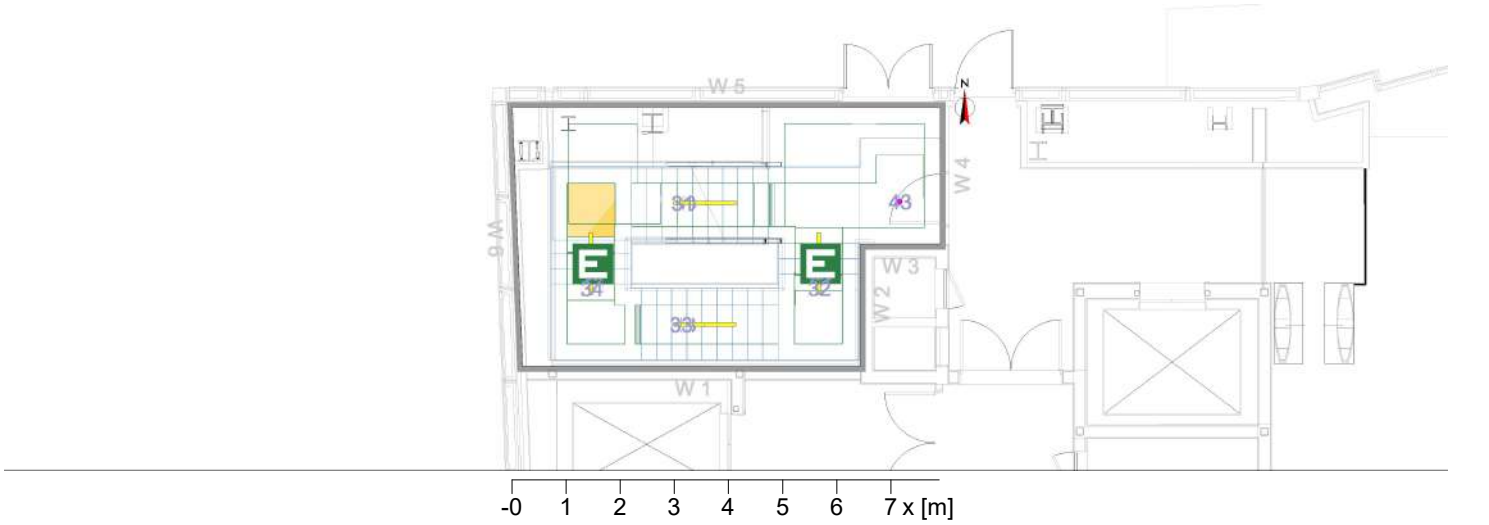
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.11 Result overview, Landing (iv)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	142 lx
Minimum illuminance	E_{min}	122 lx
Maximum illuminance	E_{max}	161 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.16 (0.86)
Diversity U_d	E_{min}/E_{max}	1:1.33 (0.75)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.11 Result overview, Landing (iv)

Hacel Lighting Ltd.

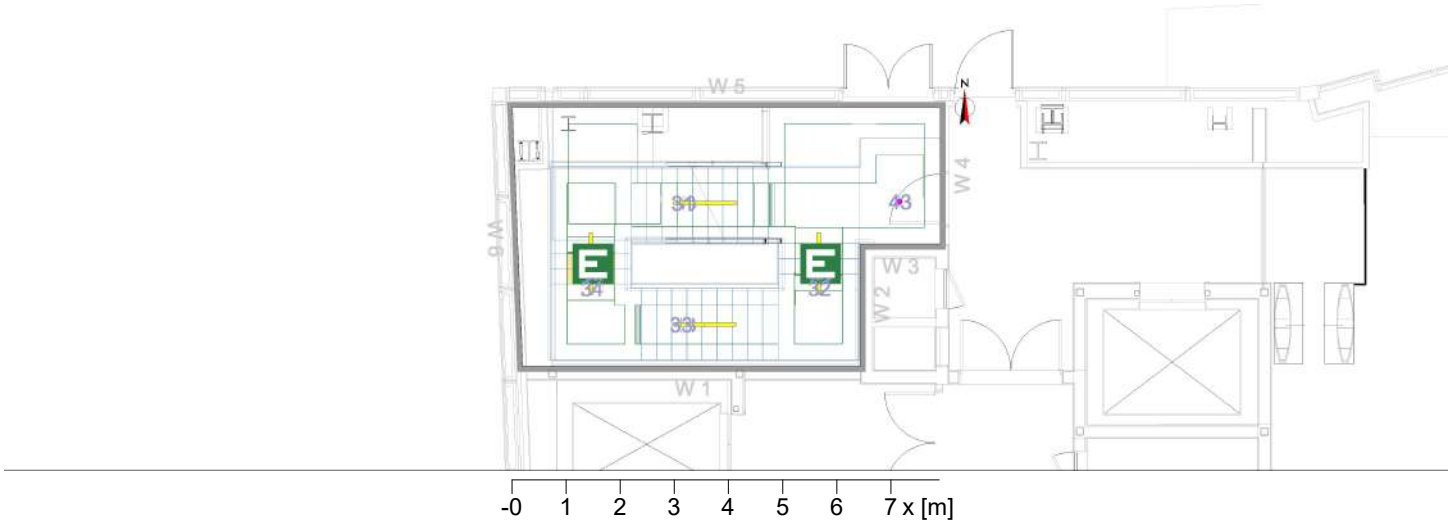
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.12 Result overview, Tread (vi)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	152 lx
Minimum illuminance	E_{min}	135 lx
Maximum illuminance	E_{max}	170 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.13 (0.89)
Diversity U_d	E_{min}/E_{max}	1:1.26 (0.79)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.12 Result overview, Tread (vi)

Hacel Lighting Ltd.

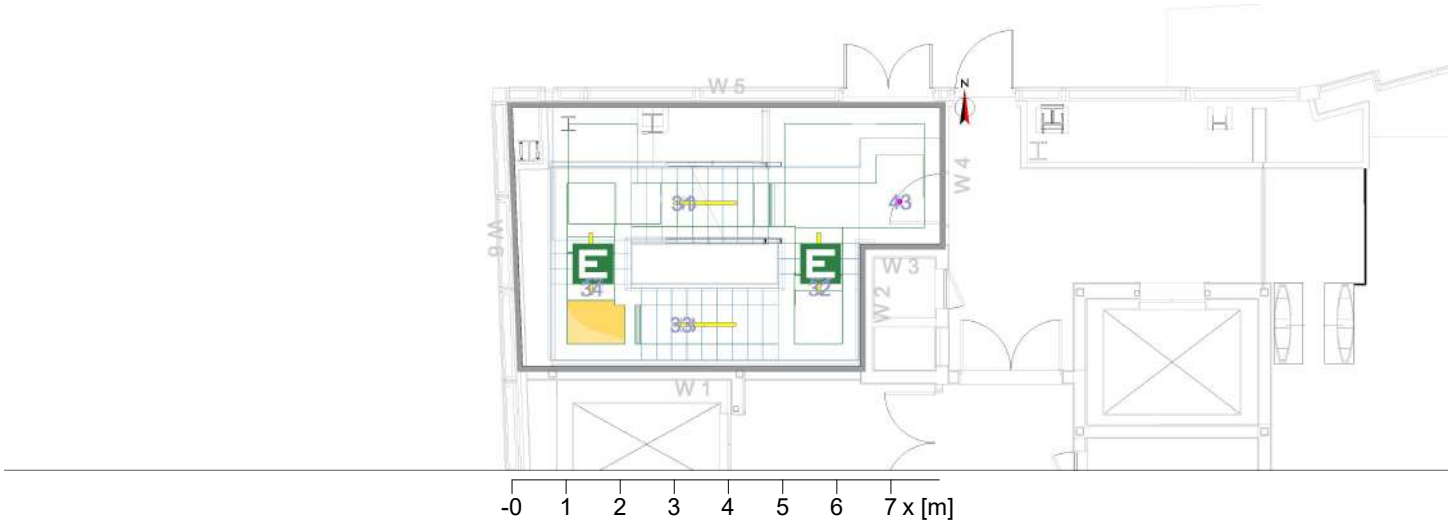
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.13 Result overview, Landing (v)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	155 lx
Minimum illuminance	E_{min}	136 lx
Maximum illuminance	E_{max}	175 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.14 (0.88)
Diversity U_d	E_{min}/E_{max}	1:1.28 (0.78)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.13 Result overview, Landing (v)

Hacel Lighting Ltd.

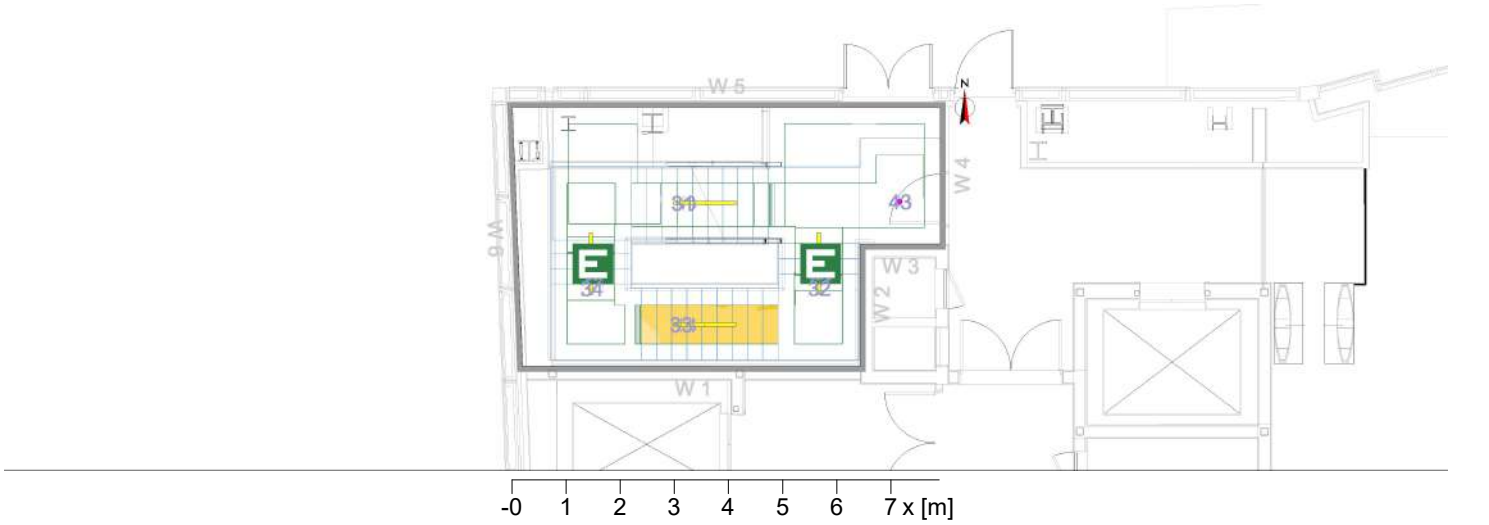
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.14 Result overview, Tread (vii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	177 lx
Minimum illuminance	E_{min}	139 lx
Maximum illuminance	E_{max}	202 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.27 (0.79)
Diversity U_d	E_{min}/E_{max}	1:1.45 (0.69)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.14 Result overview, Tread (vii)

Hacel Lighting Ltd.

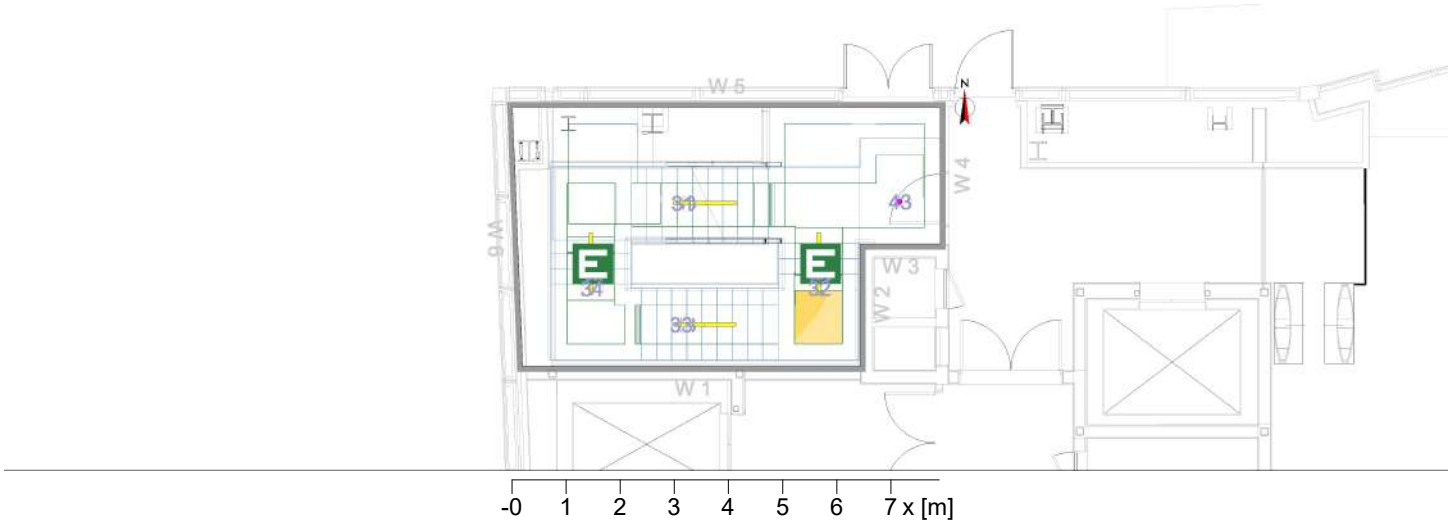
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.15 Result overview, Landing (vi)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	148 lx
Minimum illuminance	E_{min}	118 lx
Maximum illuminance	E_{max}	188 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.25 (0.8)
Diversity U_d	E_{min}/E_{max}	1:1.59 (0.63)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.15 Result overview, Landing (vi)

Hacel Lighting Ltd.

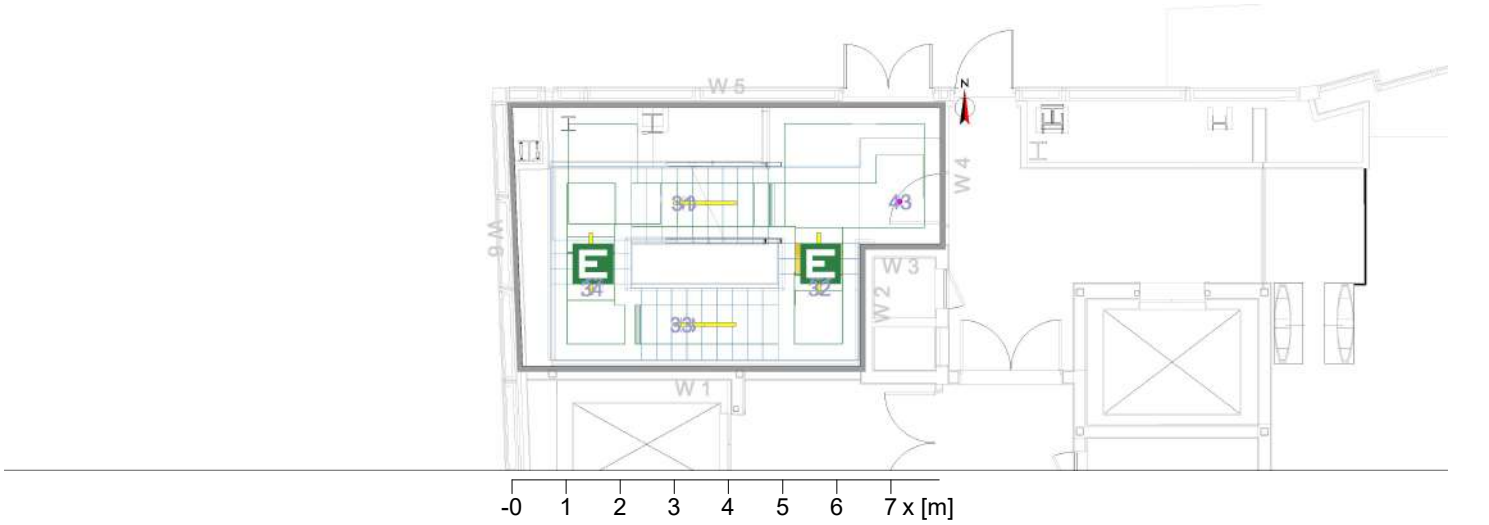
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.16 Result overview, Tread (viii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	190 lx
Minimum illuminance	E_{min}	140 lx
Maximum illuminance	E_{max}	218 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.36 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.56 (0.64)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.16 Result overview, Tread (viii)

Hacel Lighting Ltd.

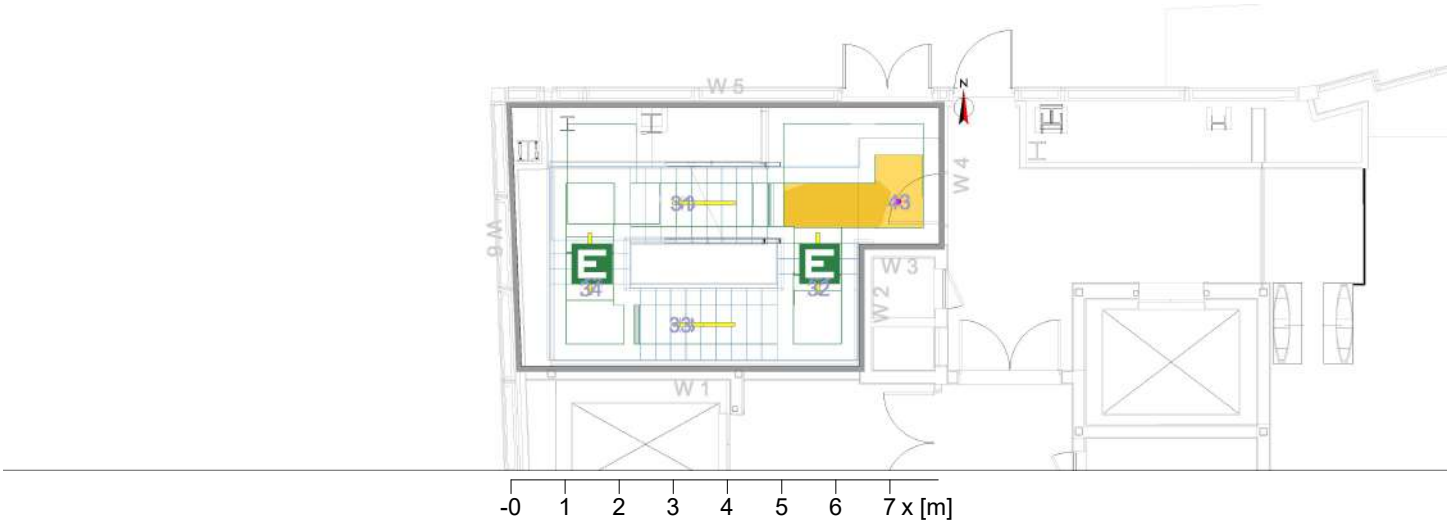
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.17 Result overview, Level 02





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	202 lx
Minimum illuminance	E_{min}	161 lx
Maximum illuminance	E_{max}	224 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.25 (0.8)
Diversity U_d	E_{min}/E_{max}	1:1.39 (0.72)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.17 Result overview, Level 02

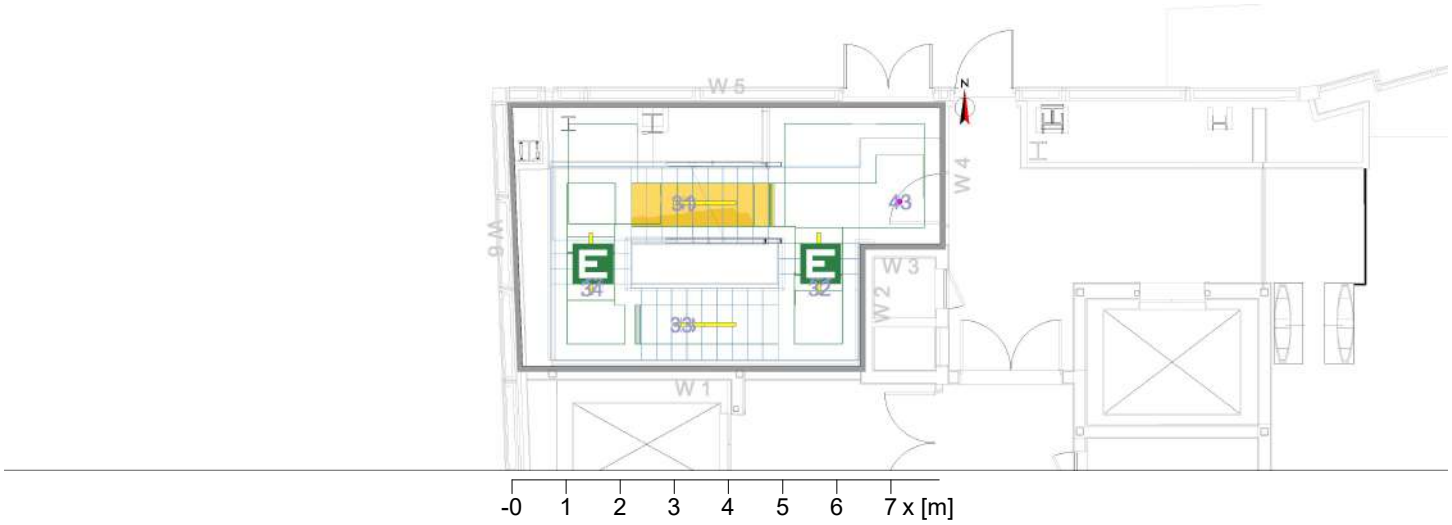
Hacel Lighting Ltd.

2 9 x 

Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.18 Result overview, Tread (ix)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	194 lx
Minimum illuminance	E_{min}	176 lx
Maximum illuminance	E_{max}	216 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.1 (0.91)
Diversity U_d	E_{min}/E_{max}	1:1.22 (0.82)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.18 Result overview, Tread (ix)

Hacel Lighting Ltd.

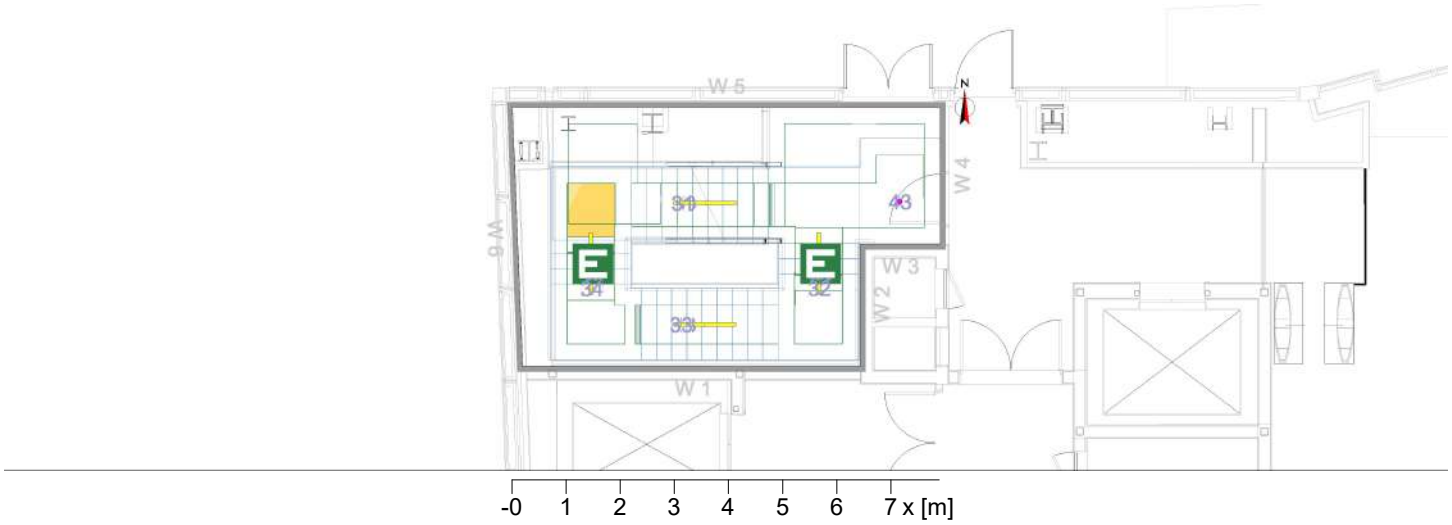
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.19 Result overview, Landing (vii)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	166 lx
Minimum illuminance	E_{min}	147 lx
Maximum illuminance	E_{max}	184 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.13 (0.88)
Diversity U_d	E_{min}/E_{max}	1:1.26 (0.79)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.19 Result overview, Landing (vii)

Hacel Lighting Ltd.

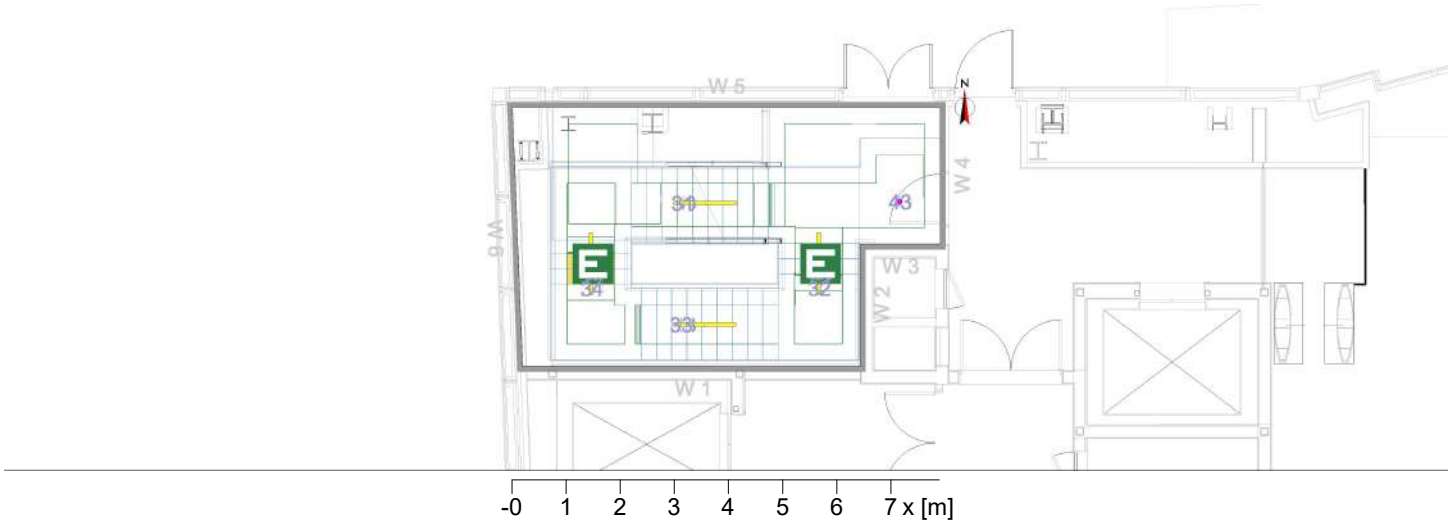
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.20 Result overview, Tread (x)



150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	175 lx
Minimum illuminance	E_{min}	157 lx
Maximum illuminance	E_{max}	192 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.11 (0.9)
Diversity U_d	E_{min}/E_{max}	1:1.22 (0.82)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.20 Result overview, Tread (x)

Hacel Lighting Ltd.

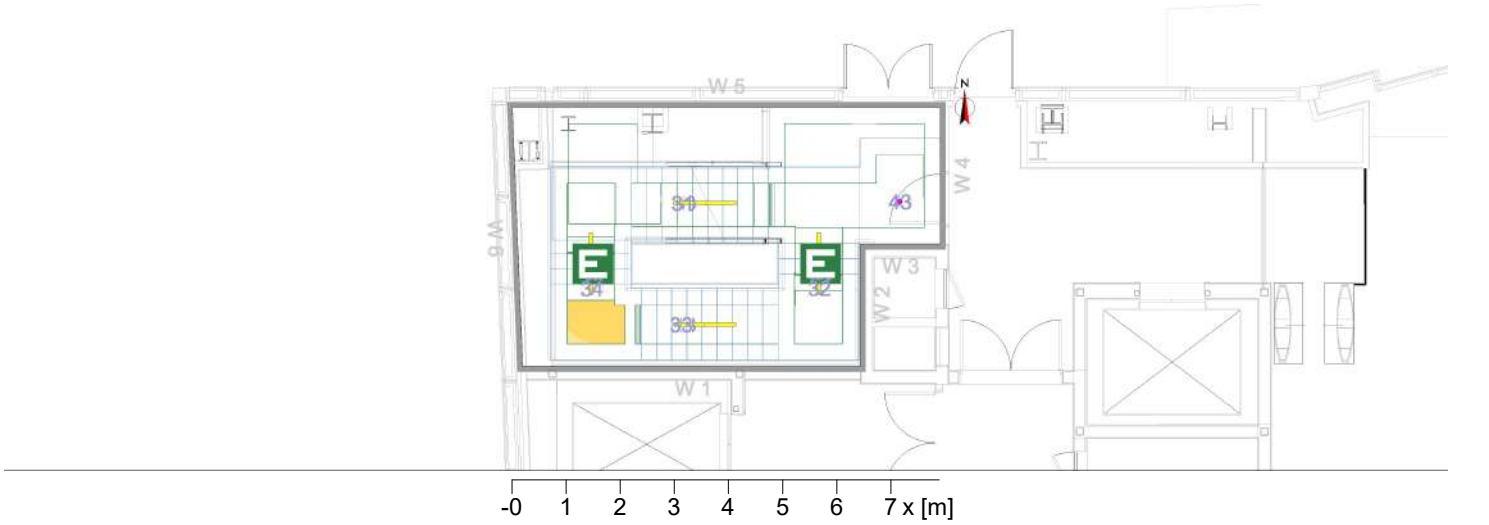
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.21 Result overview, Landing (viii)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	173 lx
Minimum illuminance	E_{min}	146 lx
Maximum illuminance	E_{max}	198 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.18 (0.84)
Diversity U_d	E_{min}/E_{max}	1:1.35 (0.74)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.21 Result overview, Landing (viii)

Hacel Lighting Ltd.

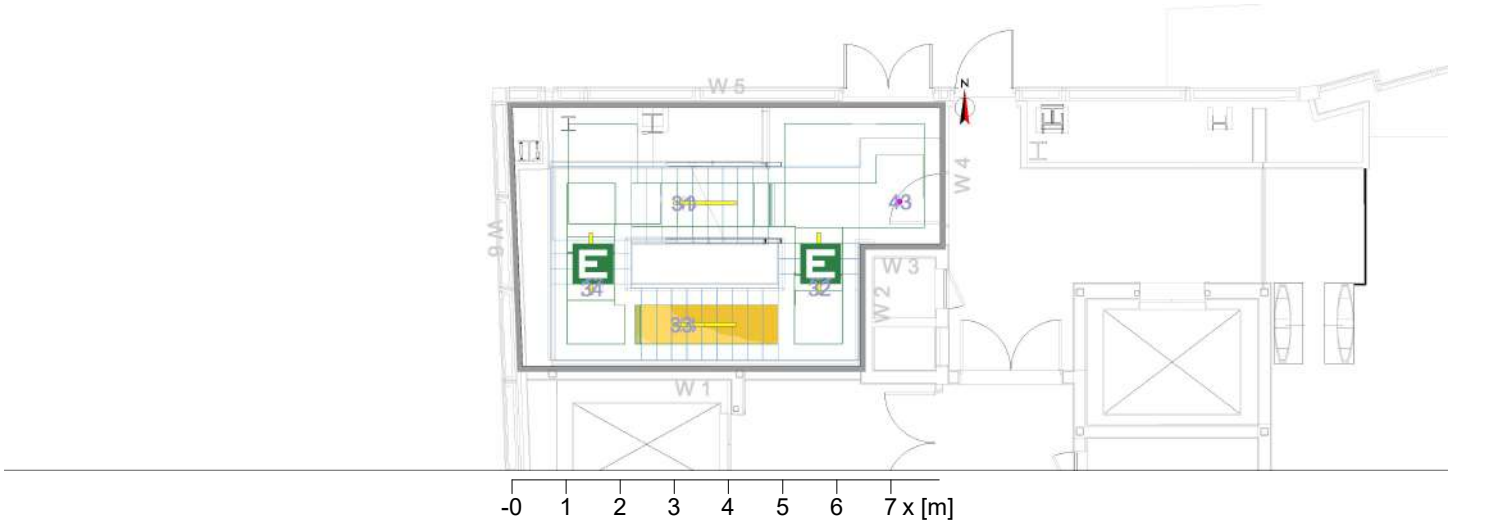
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.22 Result overview, Tread (xi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	200 lx
Minimum illuminance	E_{min}	145 lx
Maximum illuminance	E_{max}	240 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.38 (0.73)
Diversity U_d	E_{min}/E_{max}	1:1.66 (0.6)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.22 Result overview, Tread (xi)

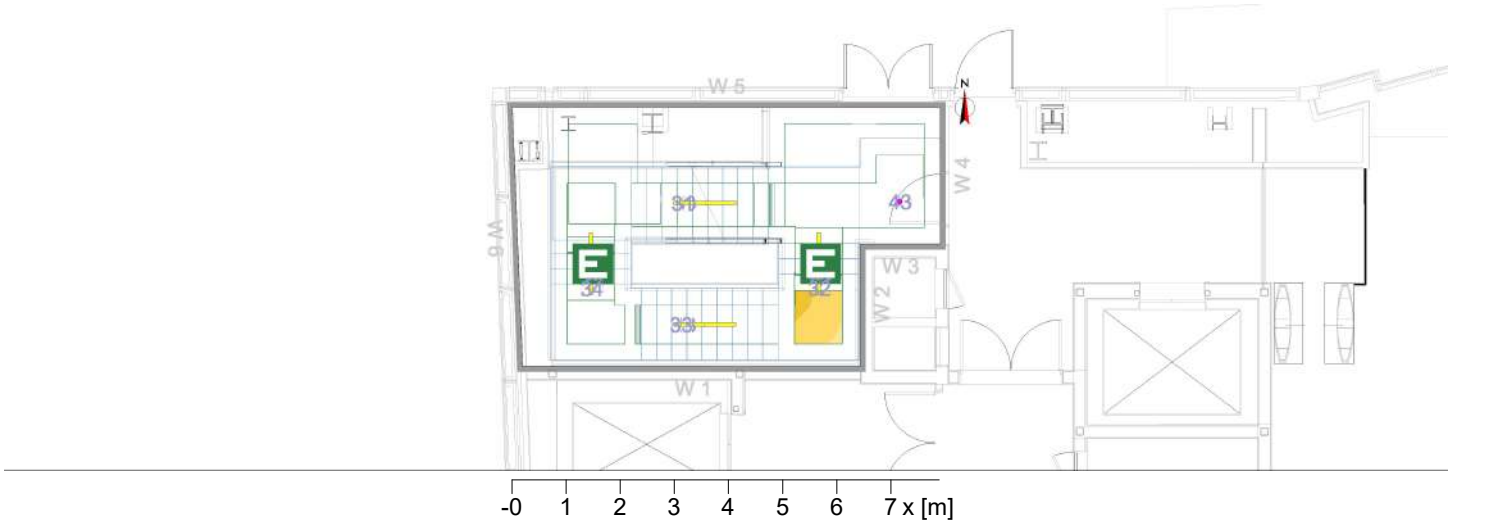
Hacel Lighting Ltd.

2 9 x 

Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.23 Result overview, Landing (ix)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	181 lx
Minimum illuminance	E_{min}	146 lx
Maximum illuminance	E_{max}	231 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.24 (0.81)
Diversity U_d	E_{min}/E_{max}	1:1.58 (0.63)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.23 Result overview, Landing (ix)

Hacel Lighting Ltd.

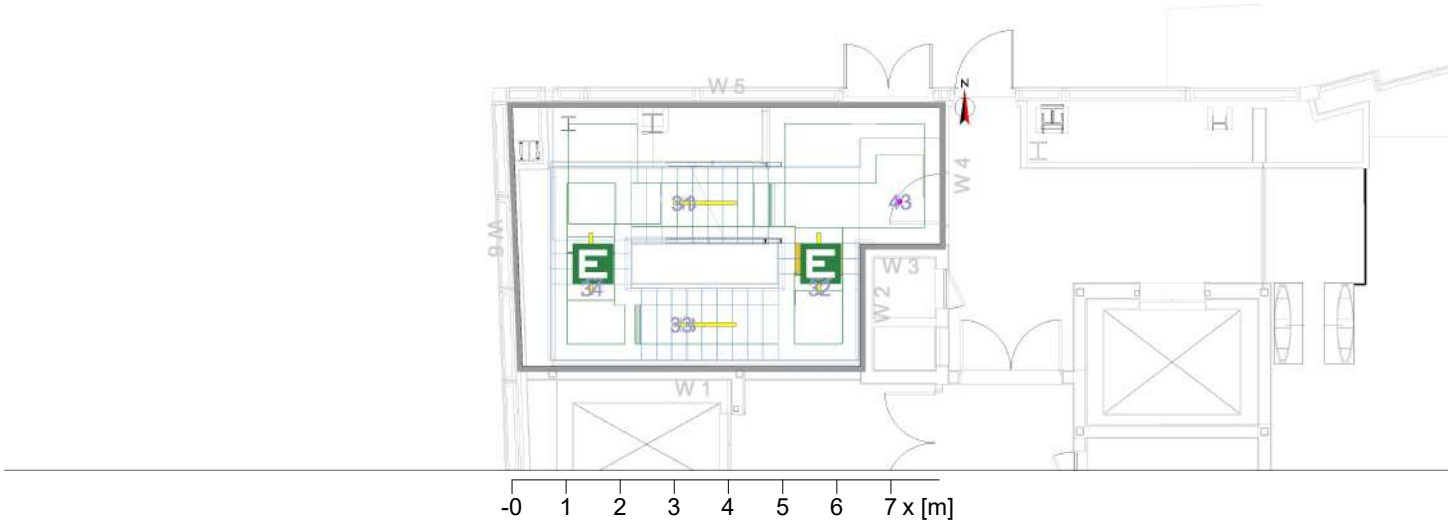
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.24 Result overview, Tread (xii)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	228 lx
Minimum illuminance	E_{min}	173 lx
Maximum illuminance	E_{max}	255 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.48 (0.68)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.24 Result overview, Tread (xii)

Hacel Lighting Ltd.

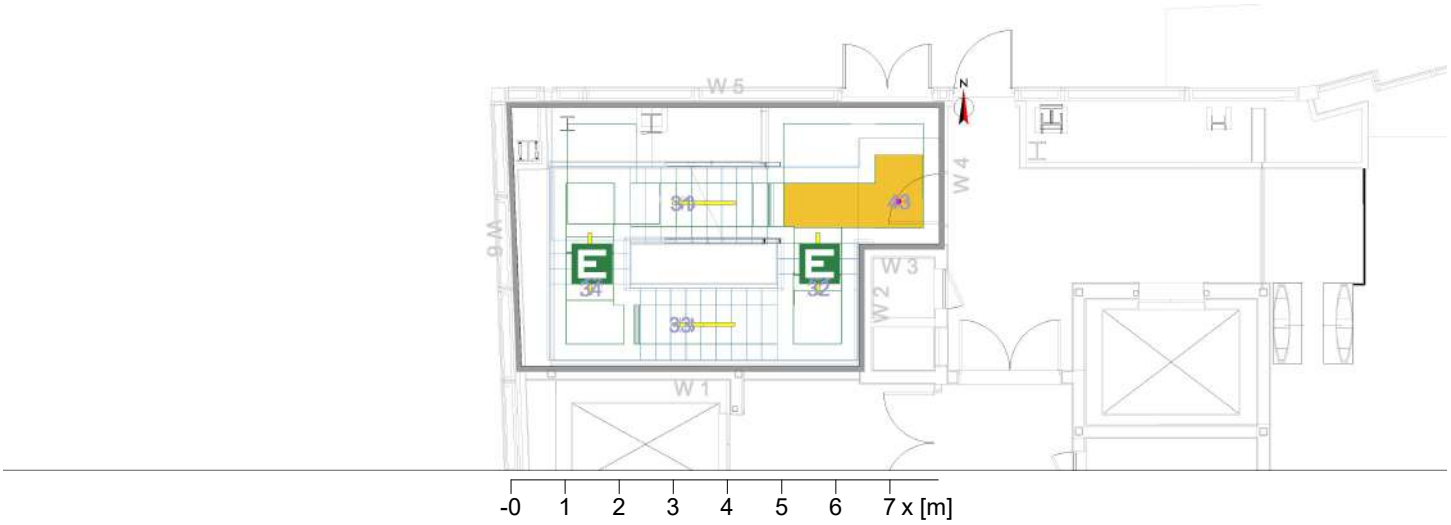
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.25 Result overview, Level 02 M





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	233 lx
Minimum illuminance	E_{min}	202 lx
Maximum illuminance	E_{max}	260 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.15 (0.87)
Diversity U_d	E_{min}/E_{max}	1:1.29 (0.78)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

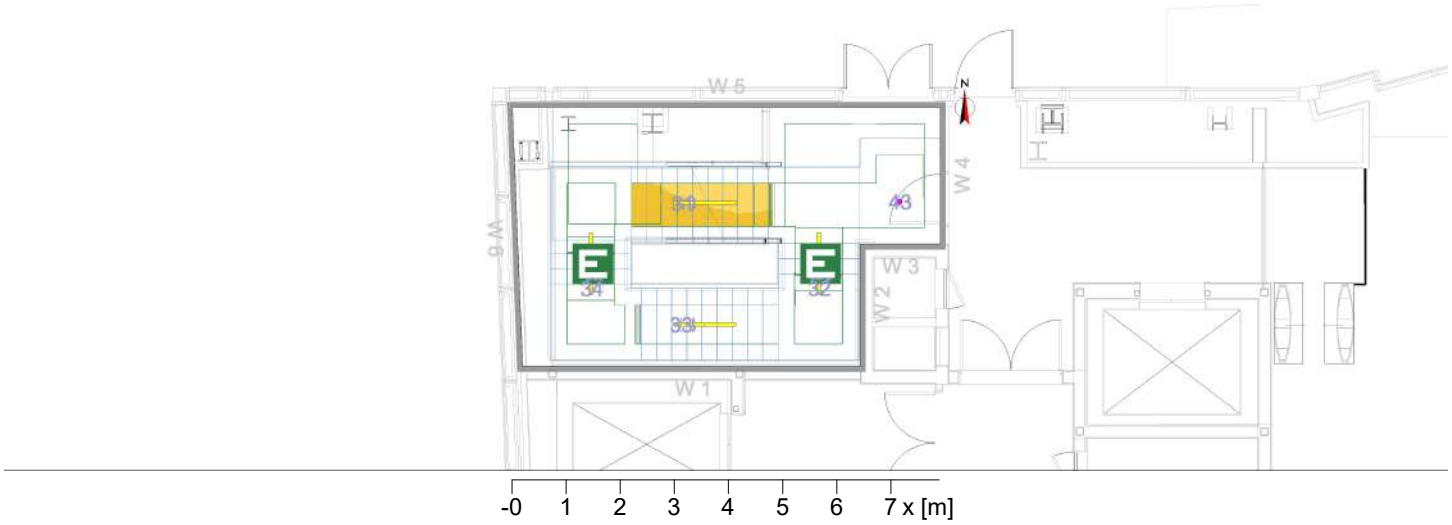
1.1.25 Result overview, Level 02 M

Hacel Lighting Ltd.

2 9 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.26 Result overview, Tread (xiii)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	203 lx
Minimum illuminance	E_{min}	167 lx
Maximum illuminance	E_{max}	231 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.21 (0.83)
Diversity U_d	E_{min}/E_{max}	1:1.38 (0.72)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.26 Result overview, Tread (xiii)

Hacel Lighting Ltd.

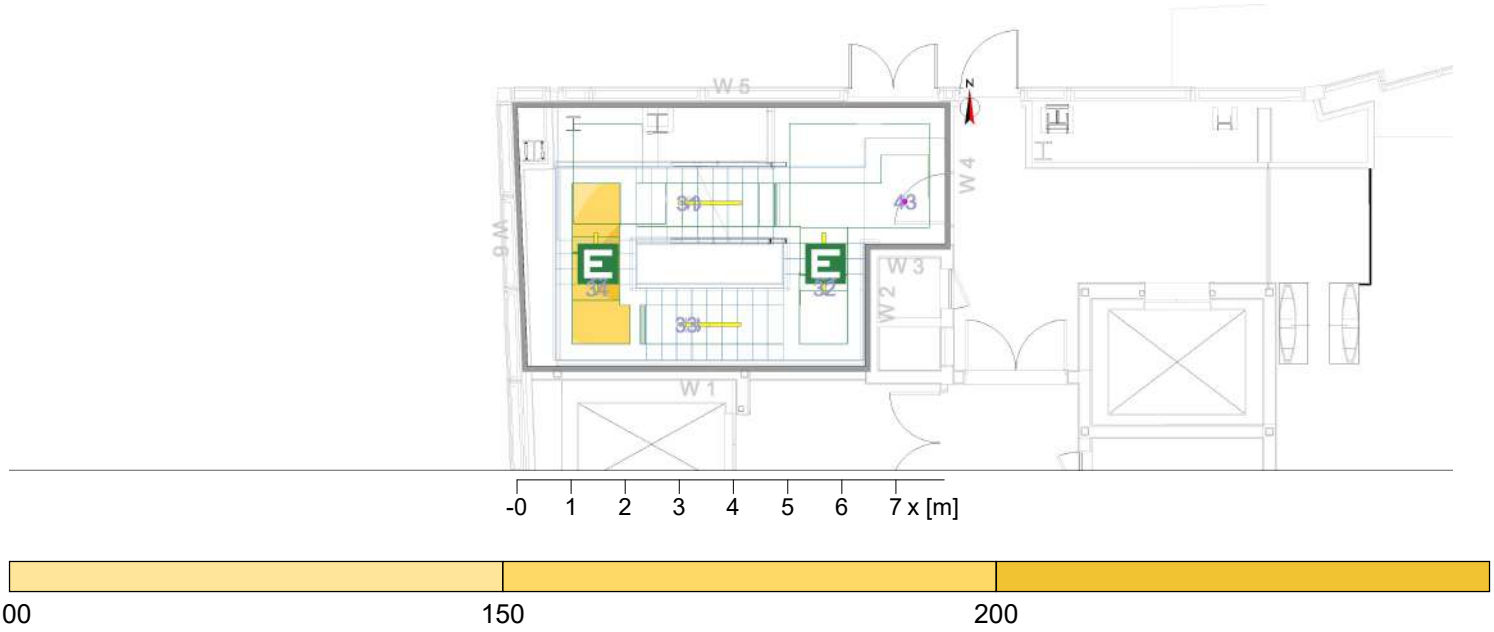
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.27 Result overview, Landing (x)



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	179 lx
Minimum illuminance	E_{min}	135 lx
Maximum illuminance	E_{max}	216 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.6 (0.62)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.27 Result overview, Landing (x)

Hacel Lighting Ltd.

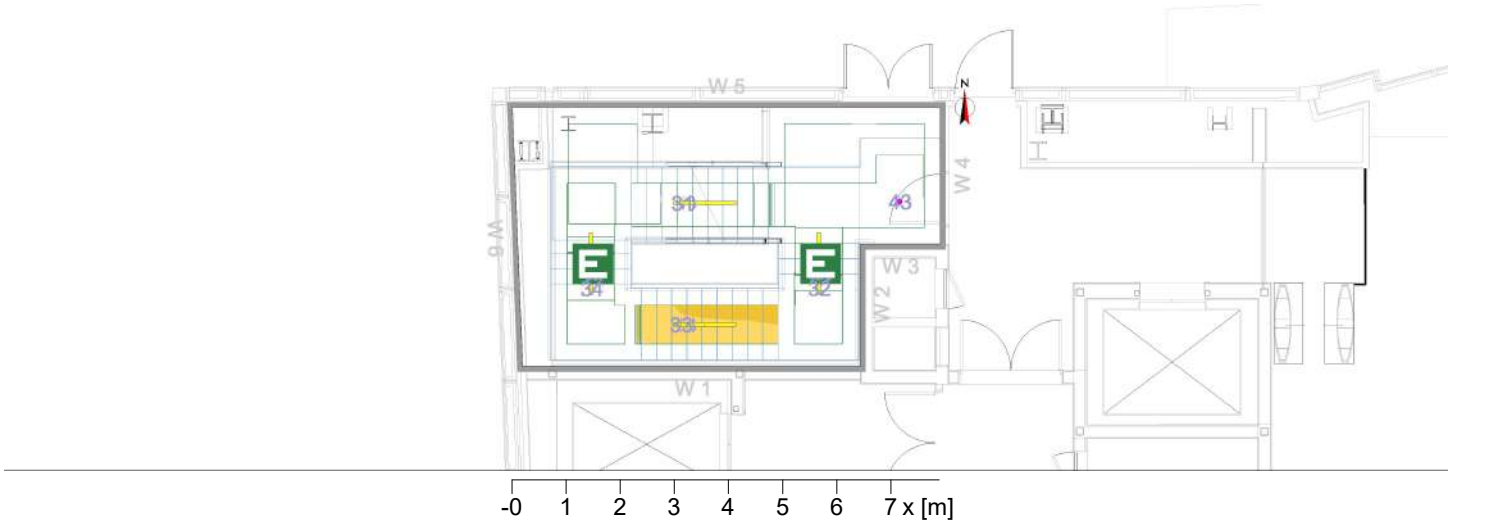
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.28 Result overview, Tread (xiv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	188 lx
Minimum illuminance	E_{min}	149 lx
Maximum illuminance	E_{max}	213 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.26 (0.79)
Diversity U_d	E_{min}/E_{max}	1:1.43 (0.7)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

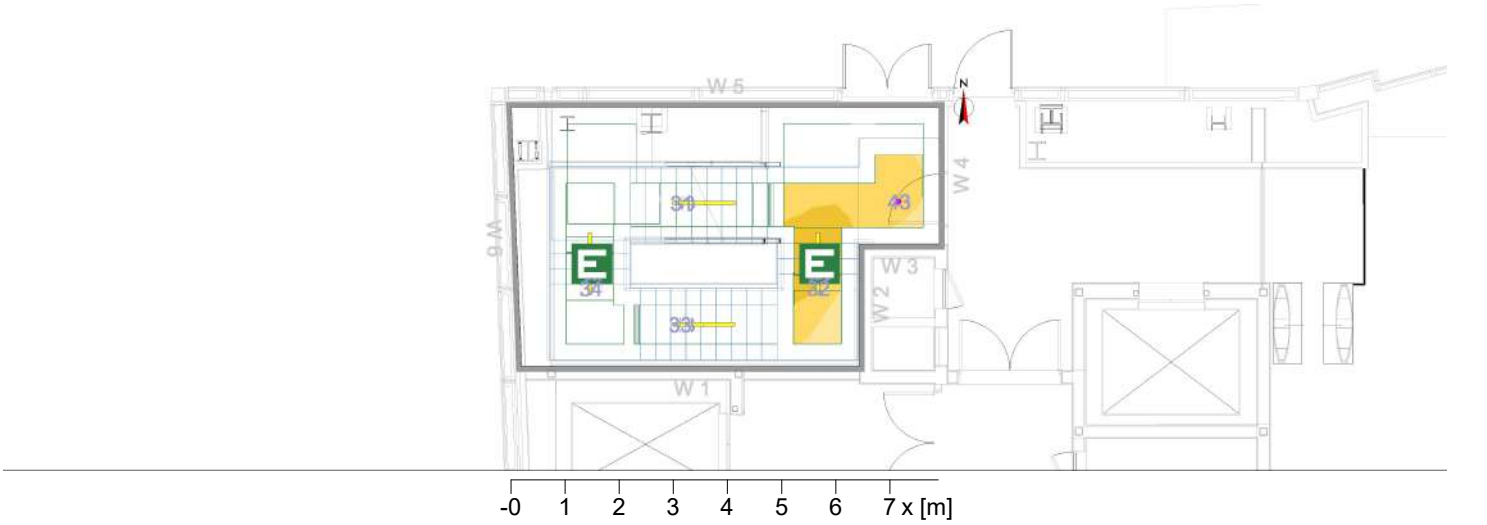
1.1.28 Result overview, Tread (xiv)

Hacel Lighting Ltd.

2 9 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.29 Result overview, Level 03





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	182 lx
Minimum illuminance	E_{min}	125 lx
Maximum illuminance	E_{max}	219 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.46 (0.69)
Diversity U_d	E_{min}/E_{max}	1:1.75 (0.57)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

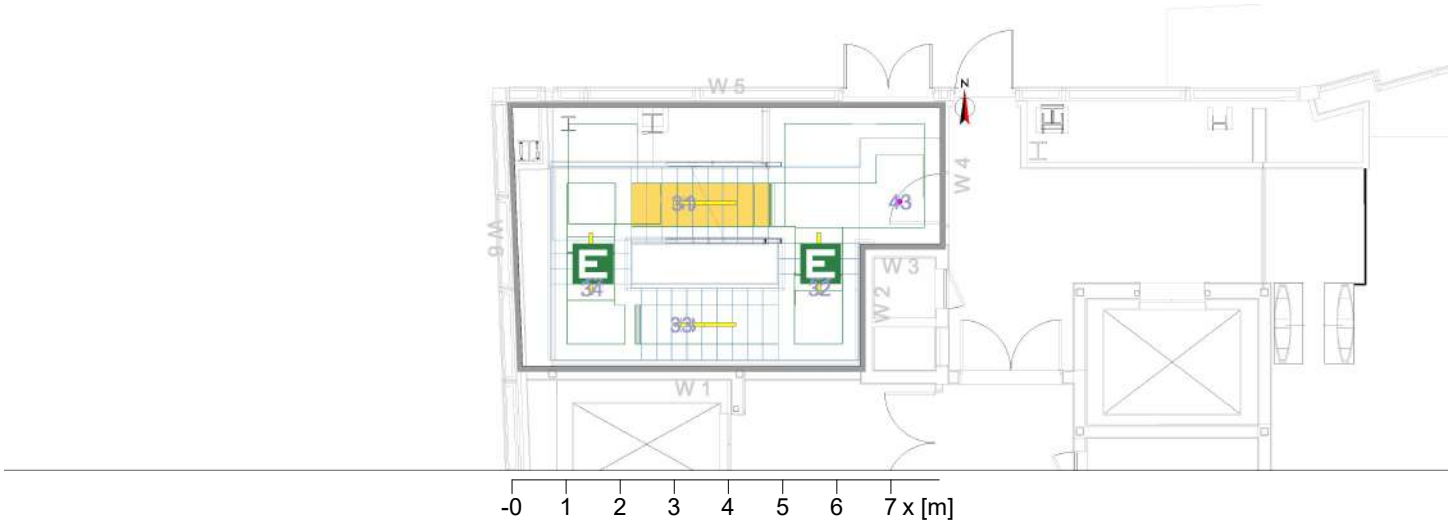
1.1.29 Result overview, Level 03

Hacel Lighting Ltd.

2 9 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.30 Result overview, Tread (xv)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	176 lx
Minimum illuminance	E_{min}	161 lx
Maximum illuminance	E_{max}	195 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.09 (0.92)
Diversity U_d	E_{min}/E_{max}	1:1.21 (0.83)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.30 Result overview, Tread (xv)

Hacel Lighting Ltd.

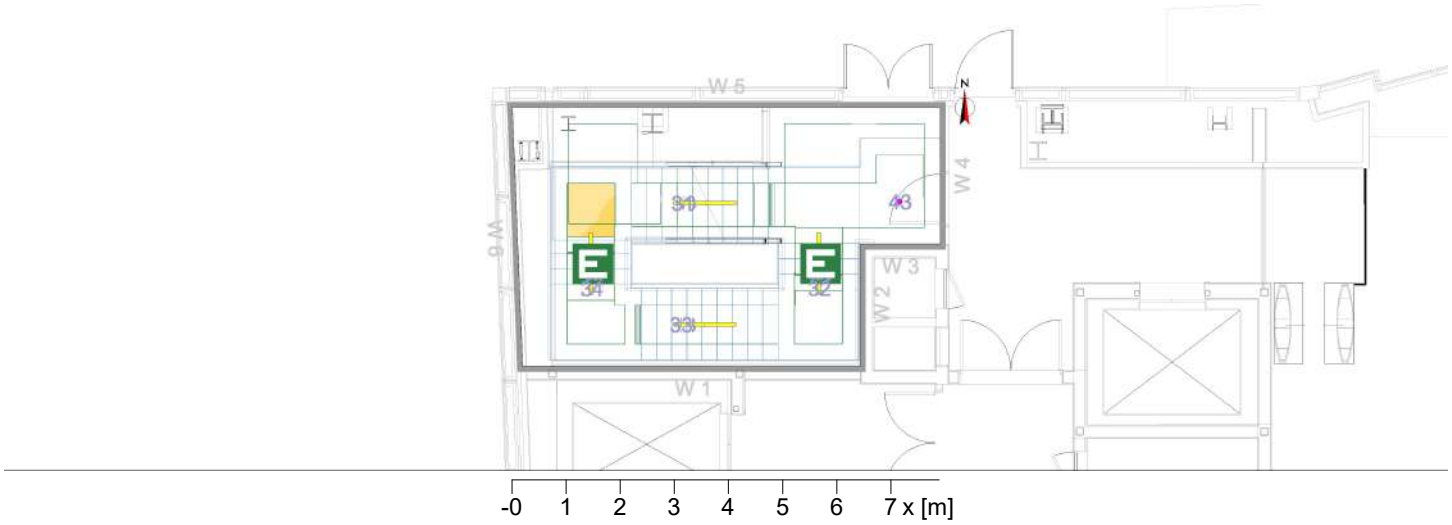
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.31 Result overview, Landing (xi)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	144 lx
Minimum illuminance	E_{min}	124 lx
Maximum illuminance	E_{max}	164 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.16 (0.86)
Diversity U_d	E_{min}/E_{max}	1:1.32 (0.76)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.31 Result overview, Landing (xi)

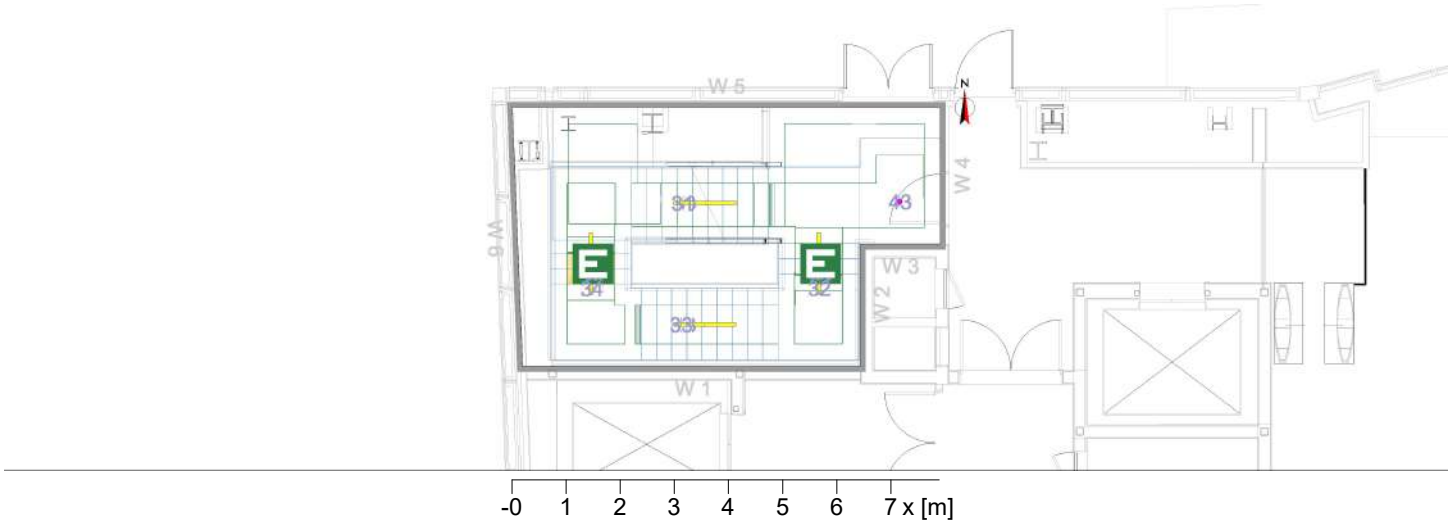
Hacel Lighting Ltd.

2 9 x 

Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.32 Result overview, Tread (xvi)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	158 lx
Minimum illuminance	E_{min}	140 lx
Maximum illuminance	E_{max}	175 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.12 (0.89)
Diversity U_d	E_{min}/E_{max}	1:1.25 (0.8)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.32 Result overview, Tread (xvi)

Hacel Lighting Ltd.

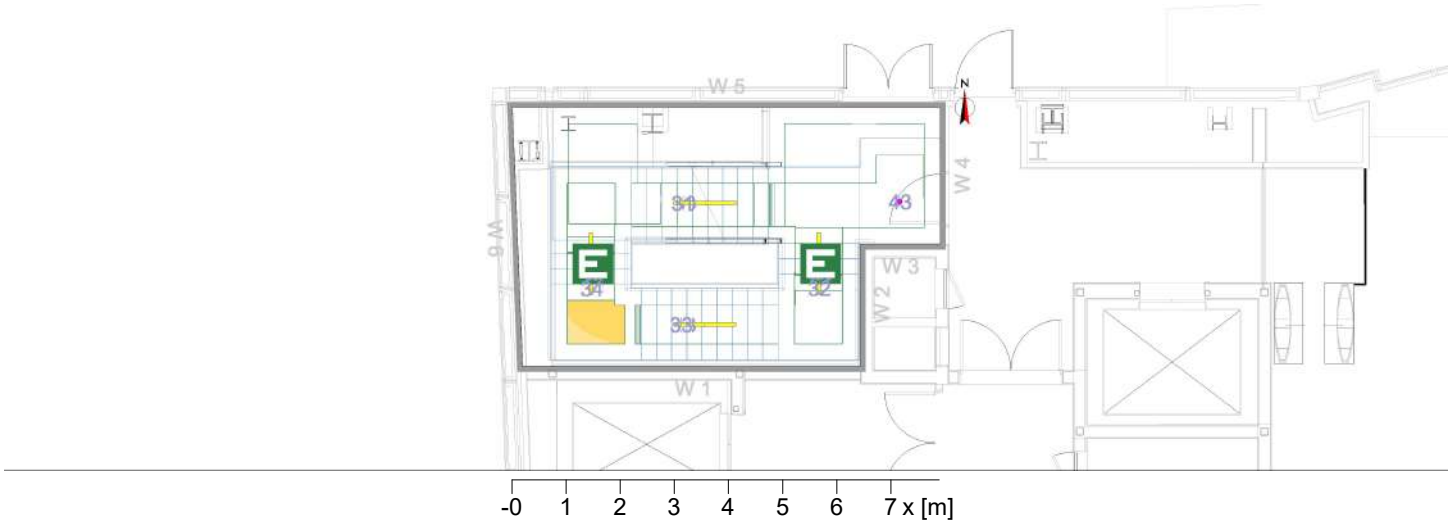
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.33 Result overview, Landing (xii)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	160 lx
Minimum illuminance	E_{min}	141 lx
Maximum illuminance	E_{max}	180 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.13 (0.88)
Diversity U_d	E_{min}/E_{max}	1:1.28 (0.78)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.33 Result overview, Landing (xii)

Hacel Lighting Ltd.

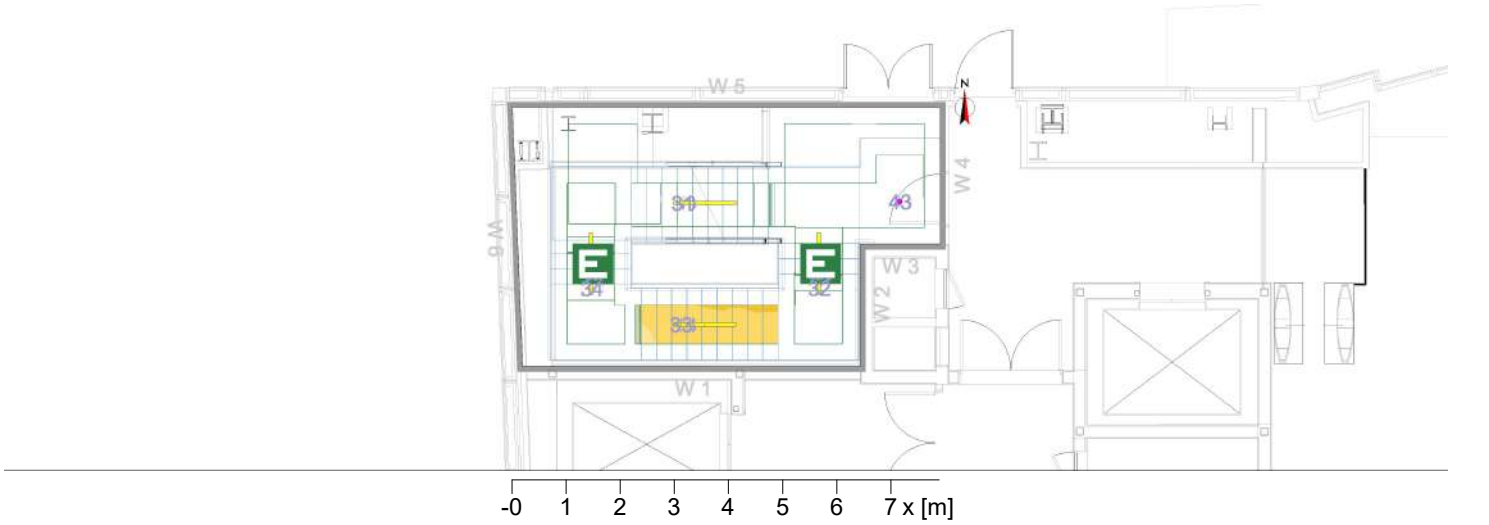
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.34 Result overview, Tread (xvii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	179 lx
Minimum illuminance	E_{min}	144 lx
Maximum illuminance	E_{max}	204 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.24 (0.81)
Diversity U_d	E_{min}/E_{max}	1:1.41 (0.71)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.34 Result overview, Tread (xvii)

Hacel Lighting Ltd.

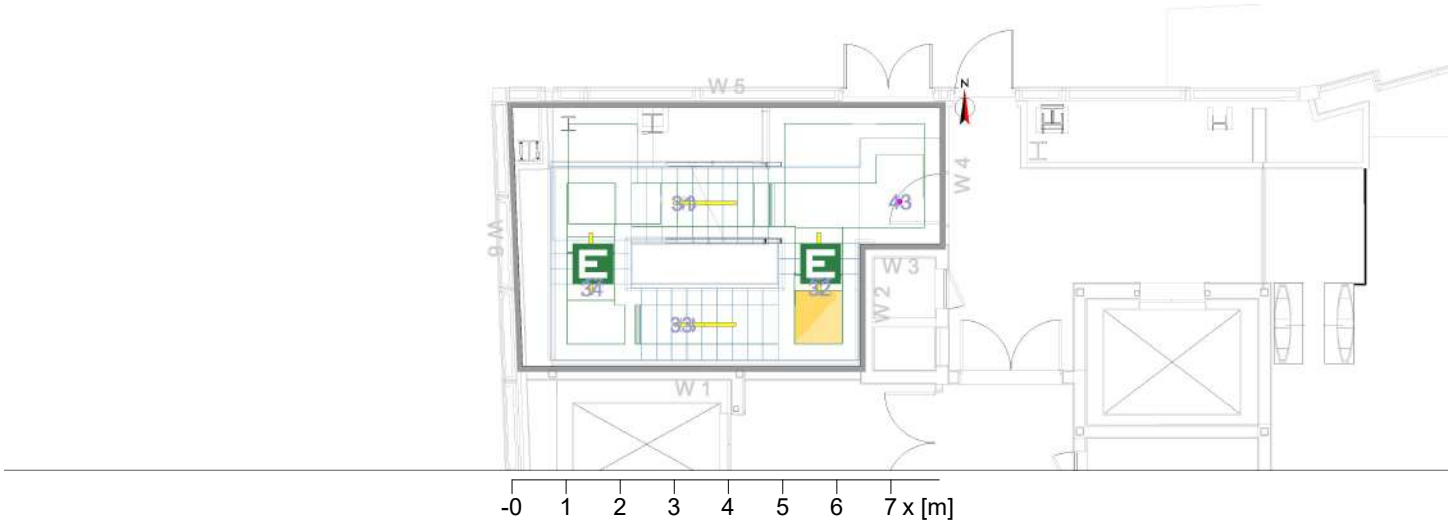
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.35 Result overview, Landing (xiii)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	152 lx
Minimum illuminance	E_{min}	125 lx
Maximum illuminance	E_{max}	190 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.21 (0.82)
Diversity U_d	E_{min}/E_{max}	1:1.52 (0.66)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.35 Result overview, Landing (xiii)

Hacel Lighting Ltd.

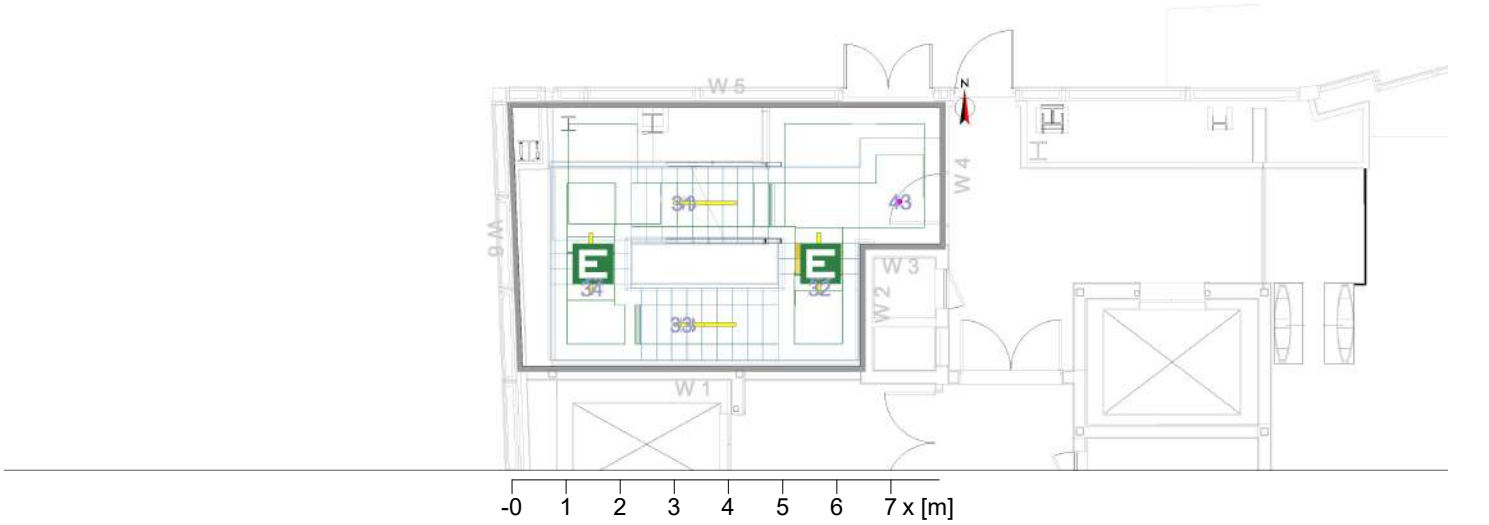
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.36 Result overview, Tread (xviii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	192 lx
Minimum illuminance	E_{min}	144 lx
Maximum illuminance	E_{max}	219 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.53 (0.65)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.36 Result overview, Tread (xviii)

Hacel Lighting Ltd.

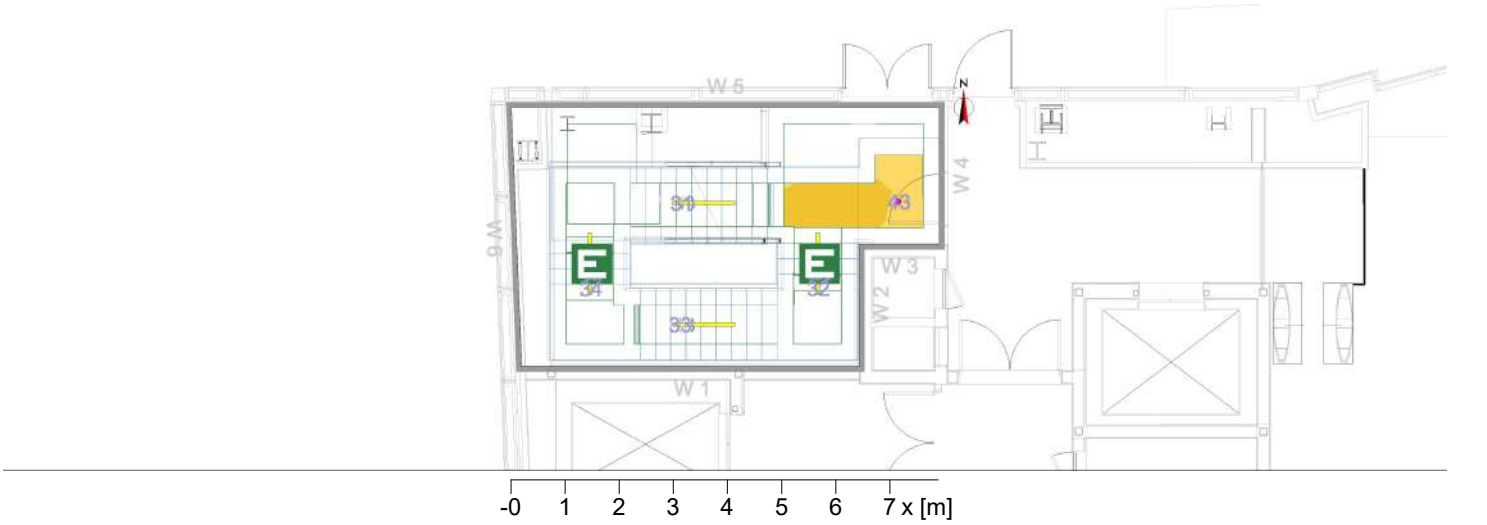
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.37 Result overview, Level 03 M





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	203 lx
Minimum illuminance	E_{min}	162 lx
Maximum illuminance	E_{max}	226 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.25 (0.8)
Diversity U_d	E_{min}/E_{max}	1:1.39 (0.72)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.37 Result overview, Level 03 M

Hacel Lighting Ltd.

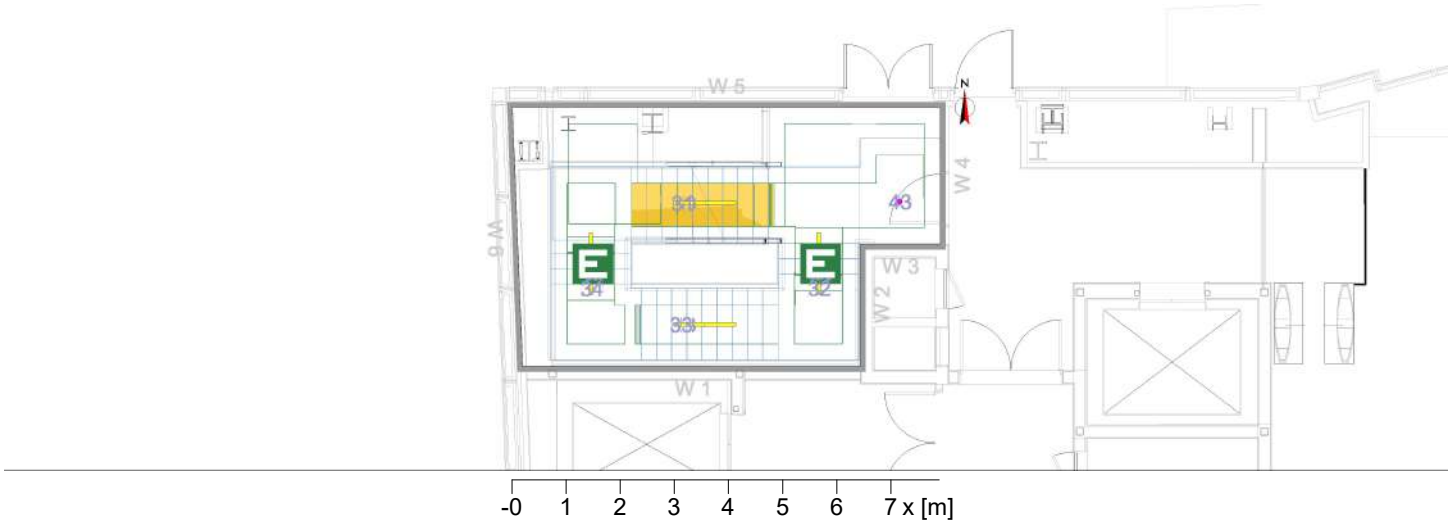
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.38 Result overview, Tread (xix)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	196 lx
Minimum illuminance	E_{min}	181 lx
Maximum illuminance	E_{max}	220 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.09 (0.92)
Diversity U_d	E_{min}/E_{max}	1:1.22 (0.82)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.38 Result overview, Tread (xix)

Hacel Lighting Ltd.

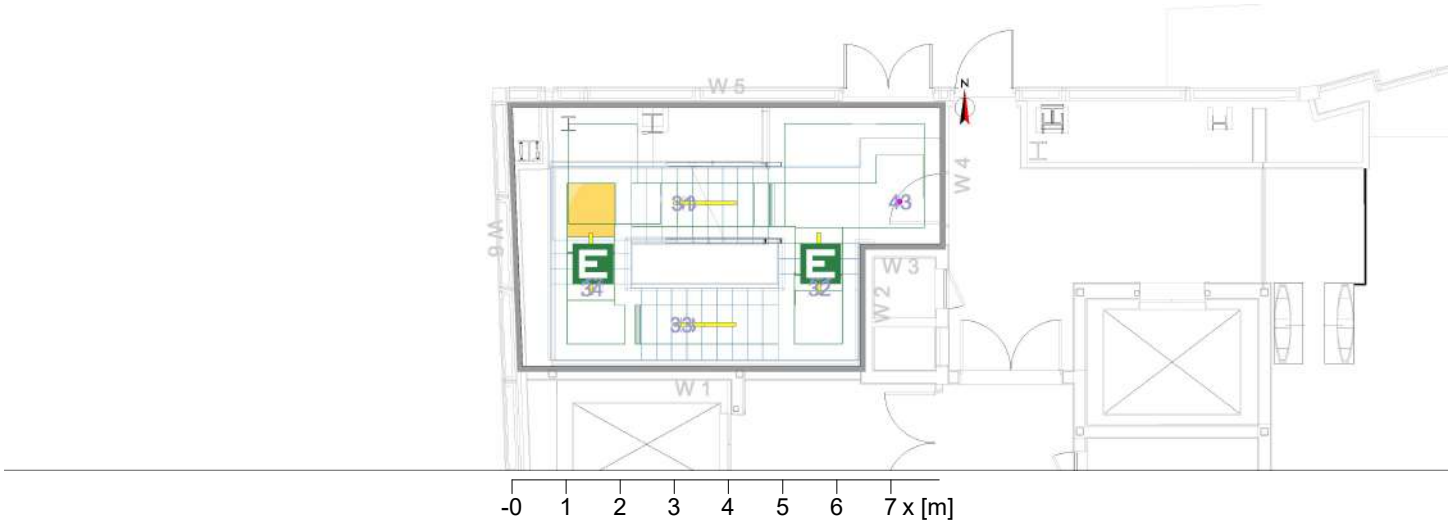
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.39 Result overview, Landing (xiv)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	168 lx
Minimum illuminance	E_{min}	147 lx
Maximum illuminance	E_{max}	190 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.15 (0.87)
Diversity U_d	E_{min}/E_{max}	1:1.3 (0.77)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.39 Result overview, Landing (xiv)

Hacel Lighting Ltd.

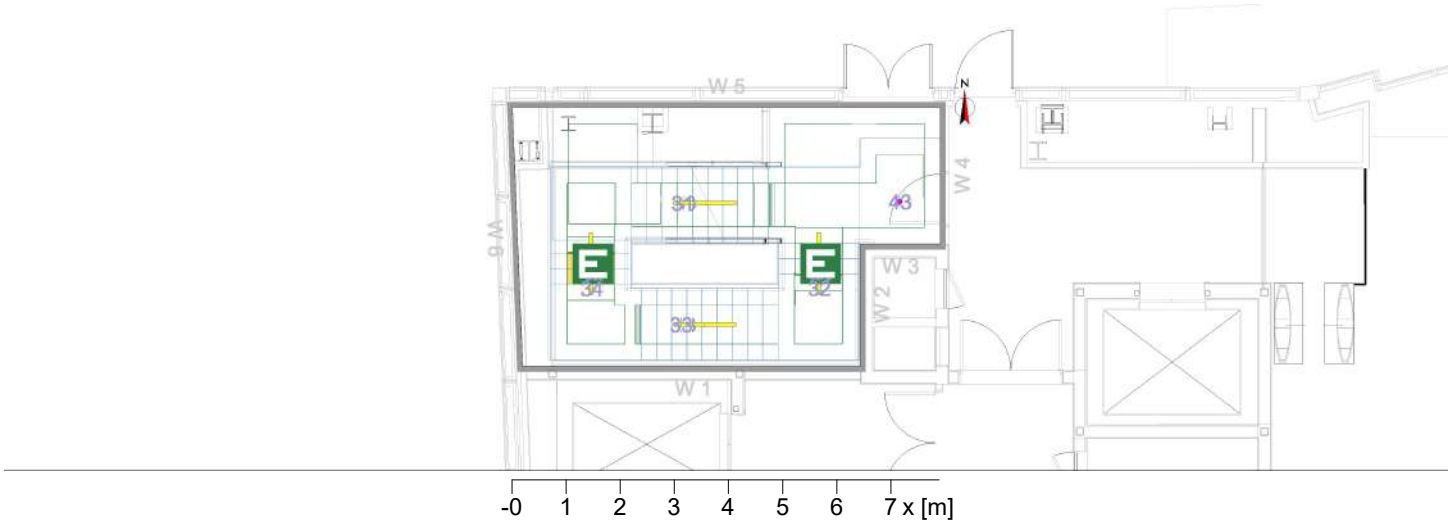
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.40 Result overview, Tread (xx)



150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	179 lx
Minimum illuminance	E_{min}	161 lx
Maximum illuminance	E_{max}	195 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.11 (0.9)
Diversity U_d	E_{min}/E_{max}	1:1.21 (0.82)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.40 Result overview, Tread (xx)

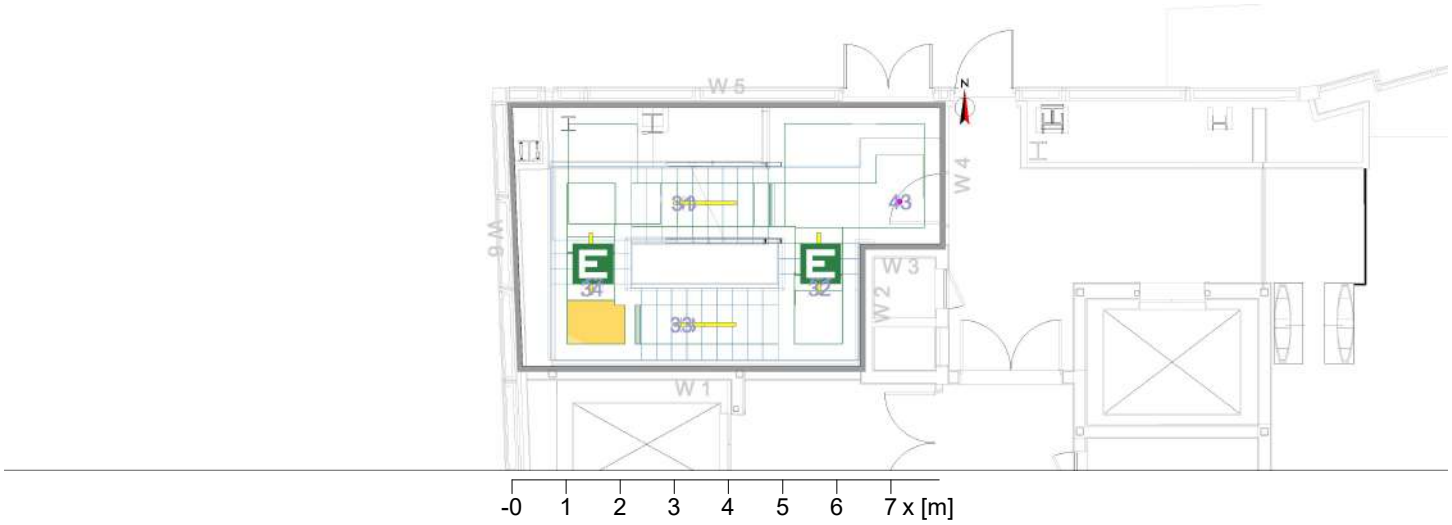
Hacel Lighting Ltd.

2 9 x 

Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.41 Result overview, Landing (xv)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	172 lx
Minimum illuminance	E_{min}	150 lx
Maximum illuminance	E_{max}	198 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.15 (0.87)
Diversity U_d	E_{min}/E_{max}	1:1.32 (0.76)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.41 Result overview, Landing (xv)

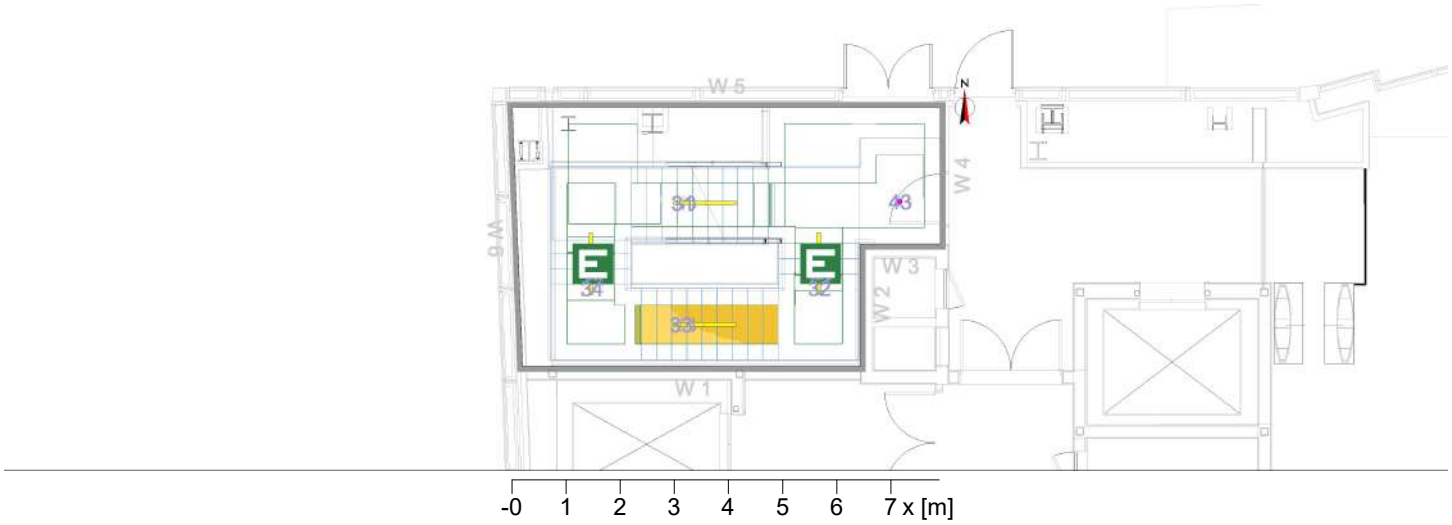
Hacel Lighting Ltd.

2 9 x 

Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.42 Result overview, Tread (xxi)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	202 lx
Minimum illuminance	E_{min}	153 lx
Maximum illuminance	E_{max}	242 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.59 (0.63)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.42 Result overview, Tread (xxi)

Hacel Lighting Ltd.

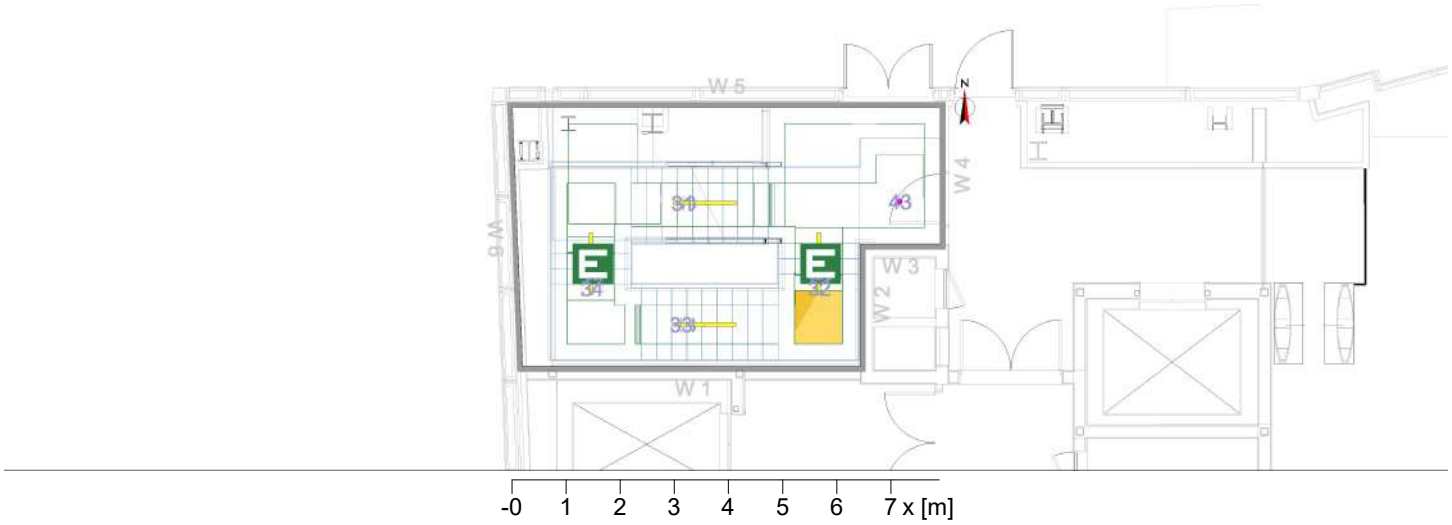
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.43 Result overview, Landing (xvi)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	187 lx
Minimum illuminance	E_{min}	155 lx
Maximum illuminance	E_{max}	233 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.21 (0.83)
Diversity U_d	E_{min}/E_{max}	1:1.51 (0.66)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.43 Result overview, Landing (xvi)

Hacel Lighting Ltd.

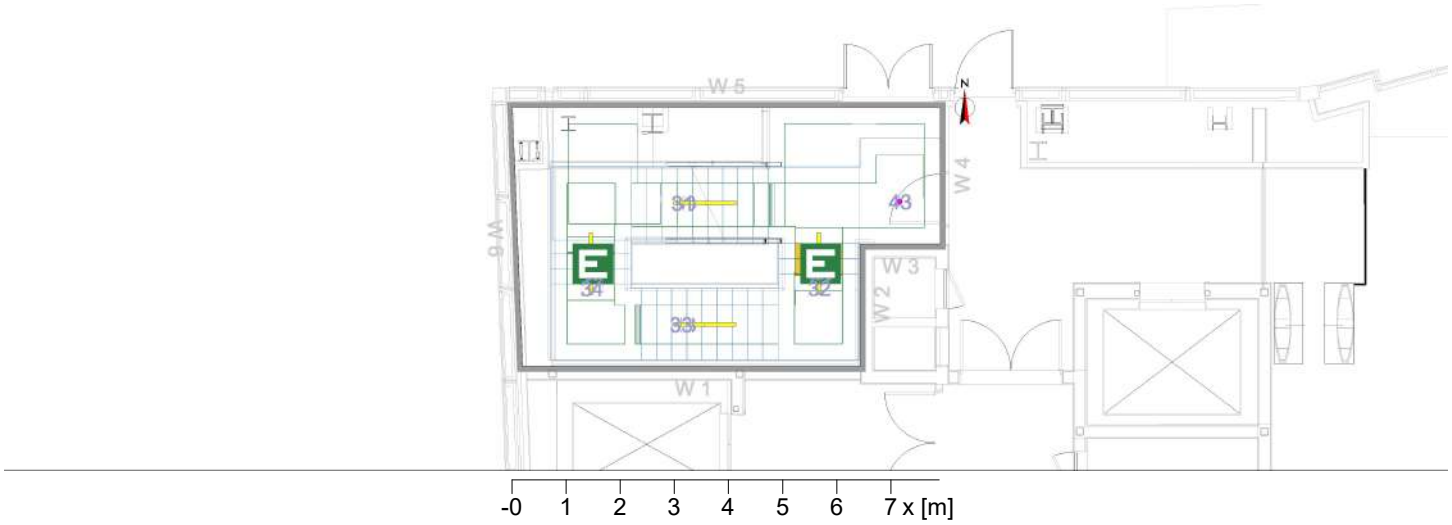
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.44 Result overview, Tread (xxii)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	223 lx
Minimum illuminance	E_{min}	172 lx
Maximum illuminance	E_{max}	249 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.45 (0.69)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.44 Result overview, Tread (xxii)

Hacel Lighting Ltd.

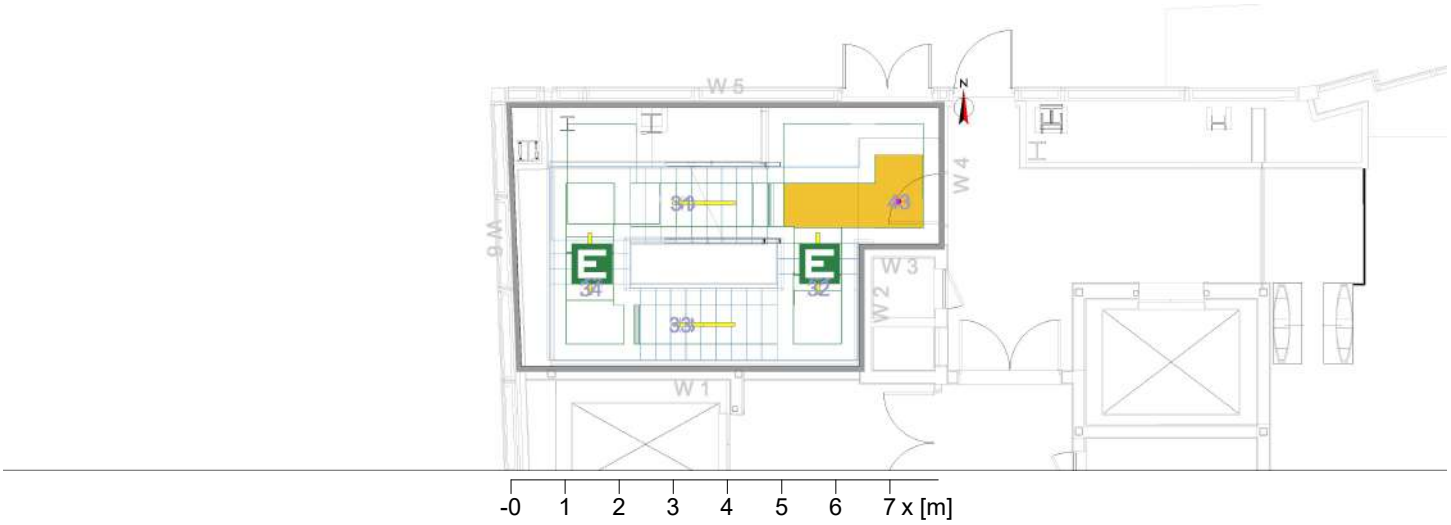
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.45 Result overview, Level 03 M2





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	238 lx
Minimum illuminance	E_{min}	203 lx
Maximum illuminance	E_{max}	266 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.17 (0.85)
Diversity U_d	E_{min}/E_{max}	1:1.31 (0.76)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.45 Result overview, Level 03 M2

Hacel Lighting Ltd.

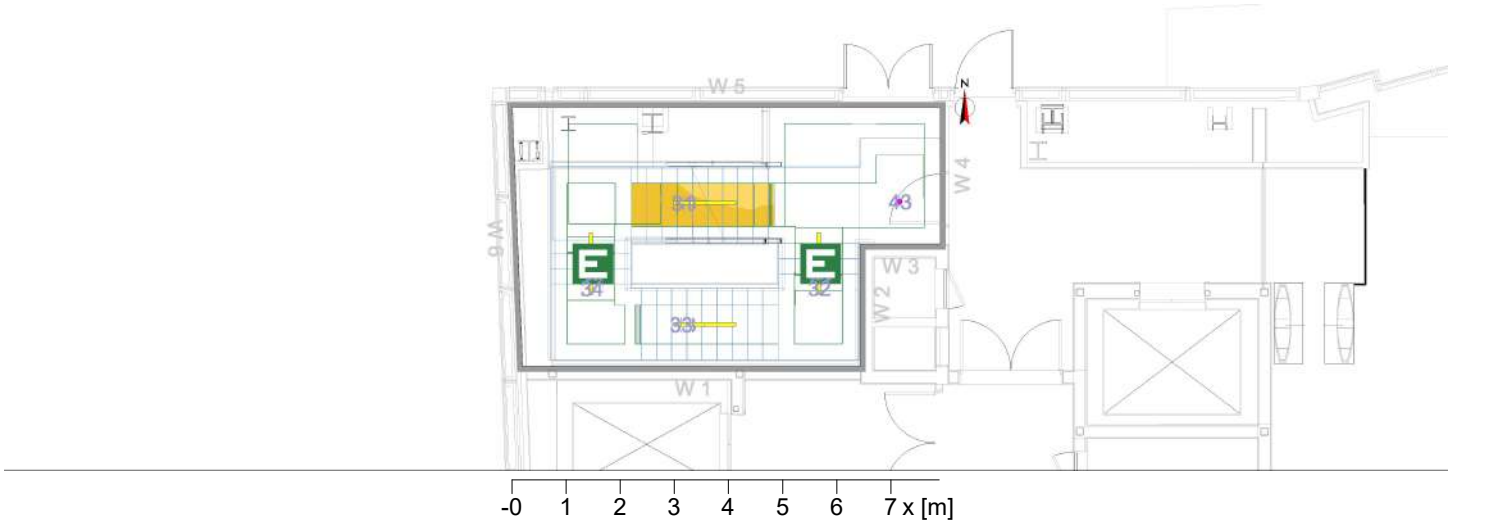
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.46 Result overview, Tread (xxiii)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	213 lx
Minimum illuminance	E_{min}	172 lx
Maximum illuminance	E_{max}	252 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.23 (0.81)
Diversity U_d	E_{min}/E_{max}	1:1.46 (0.68)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.46 Result overview, Tread (xxiii)

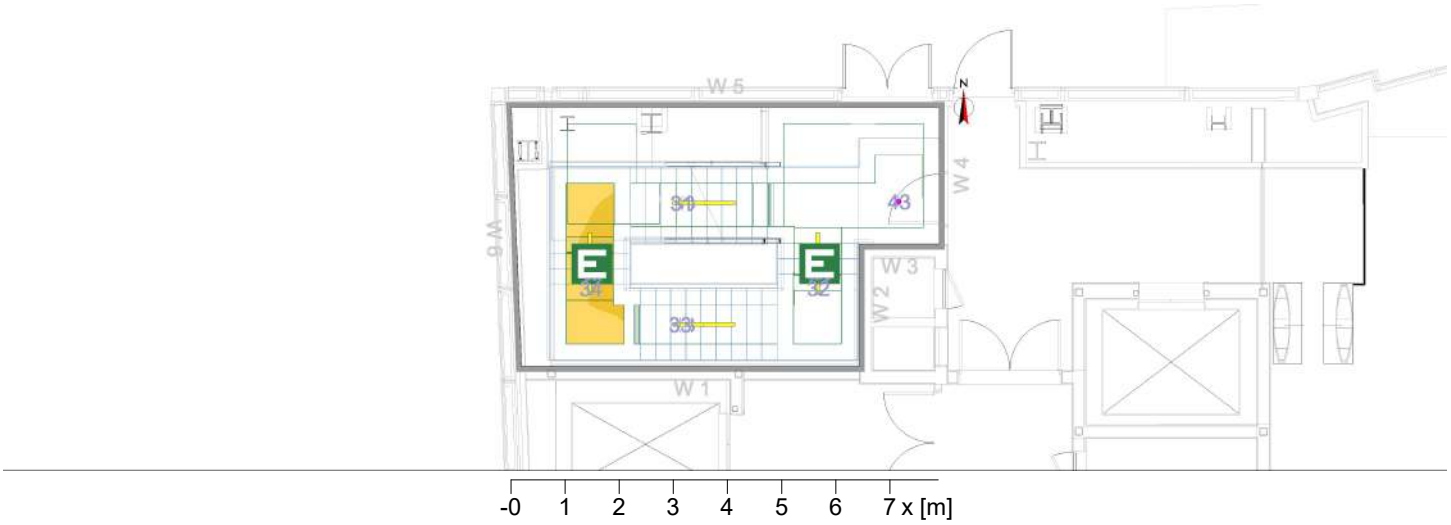
Hacel Lighting Ltd.

2 9 x 

Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.47 Result overview, Landing (xvii)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	195 lx
Minimum illuminance	E_{min}	155 lx
Maximum illuminance	E_{max}	233 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.26 (0.79)
Diversity U_d	E_{min}/E_{max}	1:1.51 (0.66)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.47 Result overview, Landing (xvii)

Hacel Lighting Ltd.

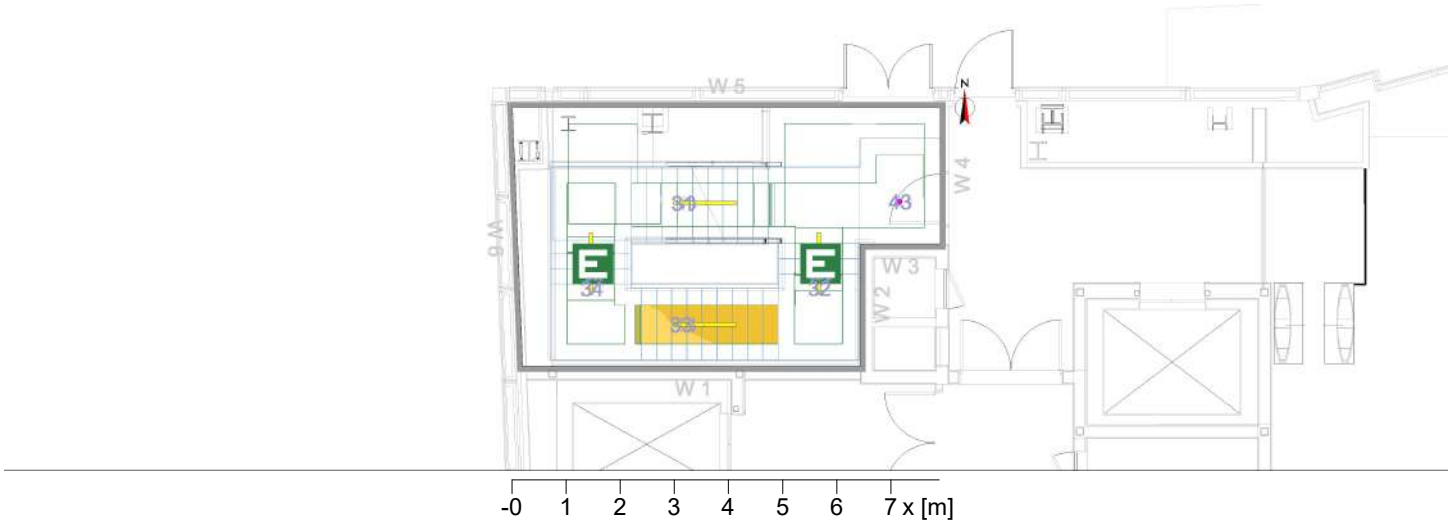
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.48 Result overview, Tread (xxiv)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	218 lx
Minimum illuminance	E_{min}	161 lx
Maximum illuminance	E_{max}	261 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.36 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.62 (0.62)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.48 Result overview, Tread (xxiv)

Hacel Lighting Ltd.

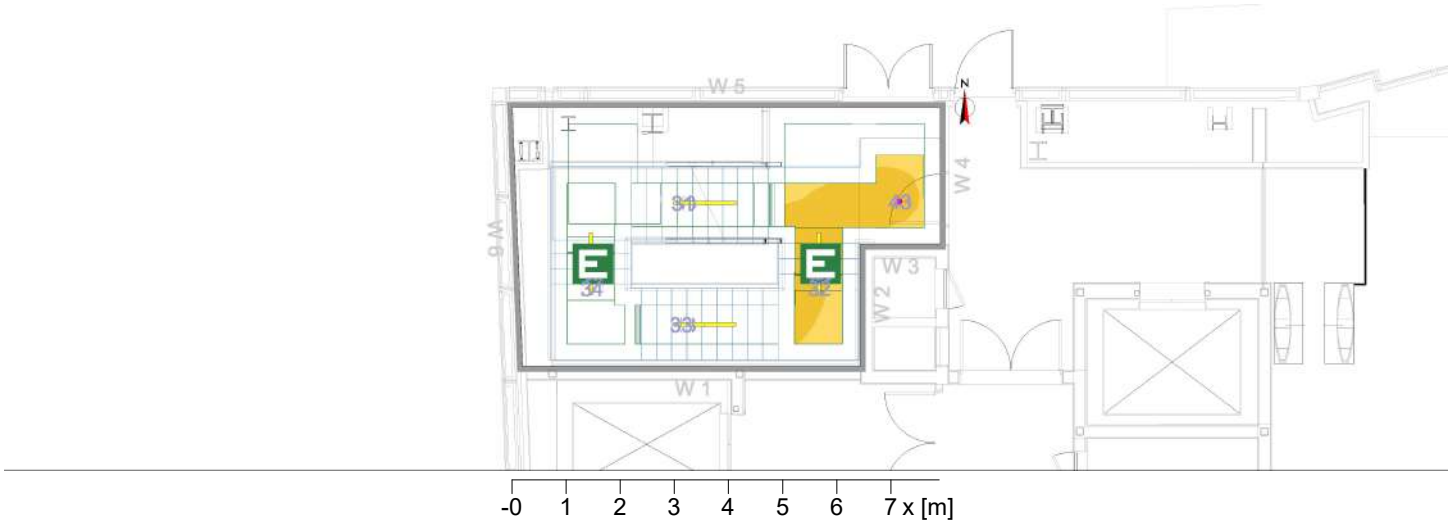
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.49 Result overview, Level 04





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	214 lx
Minimum illuminance	E_{min}	158 lx
Maximum illuminance	E_{max}	250 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.36 (0.73)
Diversity U_d	E_{min}/E_{max}	1:1.59 (0.63)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

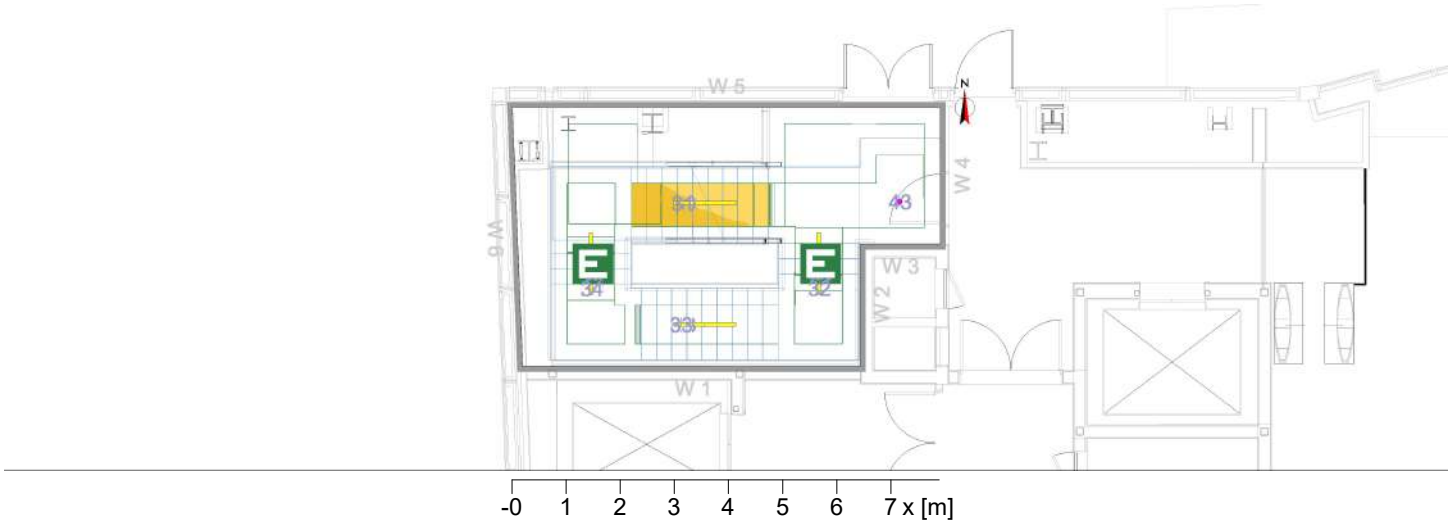
1.1.49 Result overview, Level 04

Hacel Lighting Ltd.

2 9 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.50 Result overview, Tread (xxv)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	198 lx
Minimum illuminance	E_{min}	161 lx
Maximum illuminance	E_{max}	230 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.23 (0.81)
Diversity U_d	E_{min}/E_{max}	1:1.43 (0.7)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.50 Result overview, Tread (xxv)

Hacel Lighting Ltd.

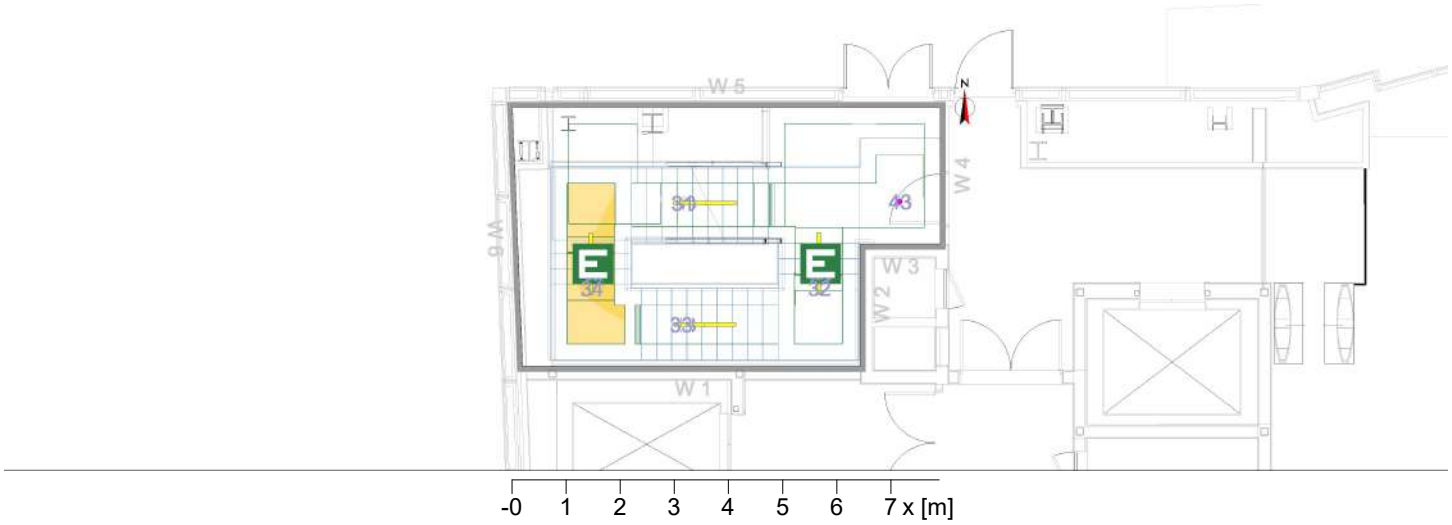
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.51 Result overview, Landing (xviii)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	142 lx
Minimum illuminance	E_{min}	101 lx
Maximum illuminance	E_{max}	176 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.41 (0.71)
Diversity U_d	E_{min}/E_{max}	1:1.74 (0.57)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.51 Result overview, Landing (xviii)

Hacel Lighting Ltd.

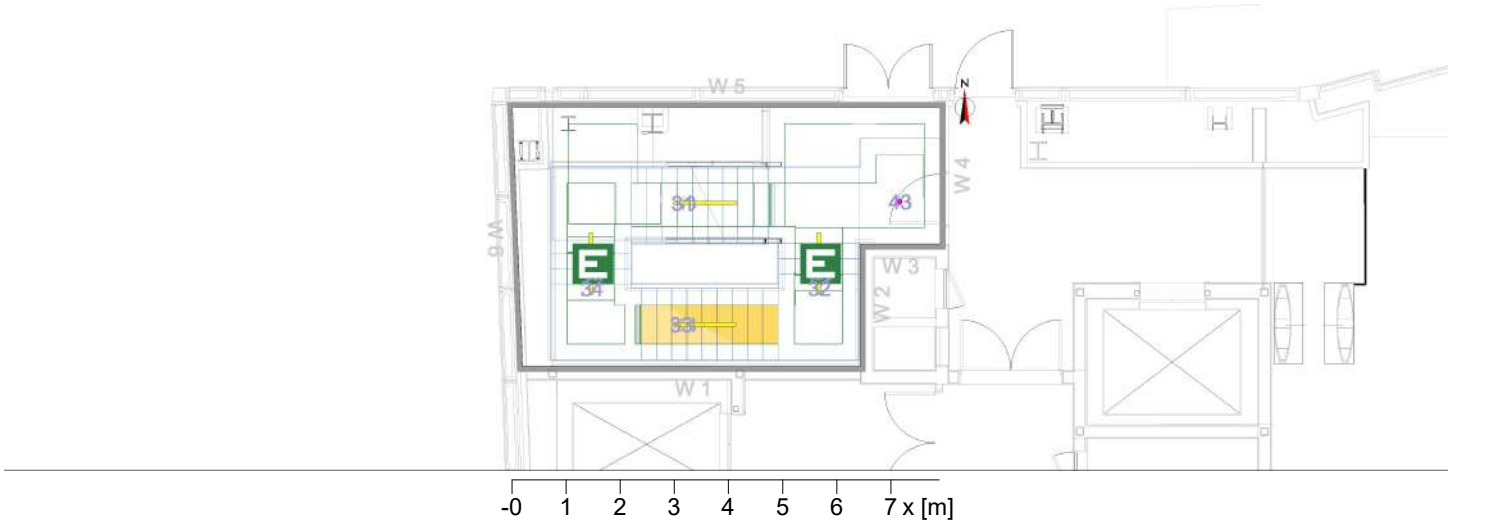
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.52 Result overview, Tread (xxvi)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	152 lx
Minimum illuminance	E_{min}	113 lx
Maximum illuminance	E_{max}	187 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.35 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.66 (0.6)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.52 Result overview, Tread (xxvi)

Hacel Lighting Ltd.

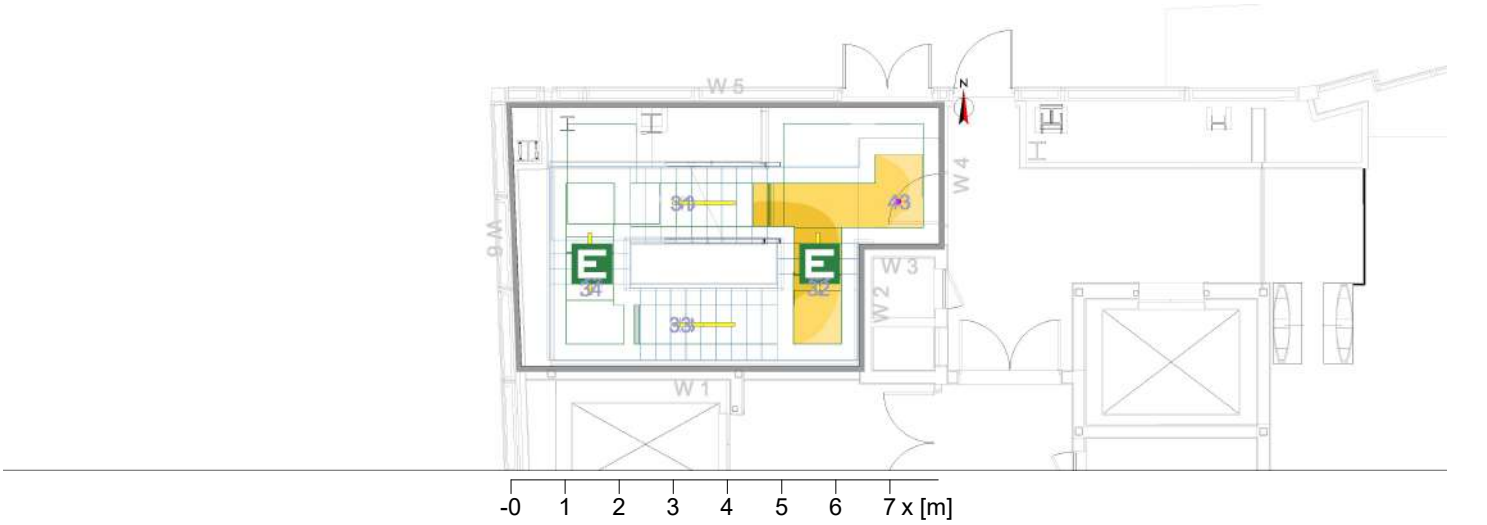
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.53 Result overview, Level 05





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	179 lx
Minimum illuminance	E_{min}	118 lx
Maximum illuminance	E_{max}	215 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.52 (0.66)
Diversity U_d	E_{min}/E_{max}	1:1.83 (0.55)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.53 Result overview, Level 05

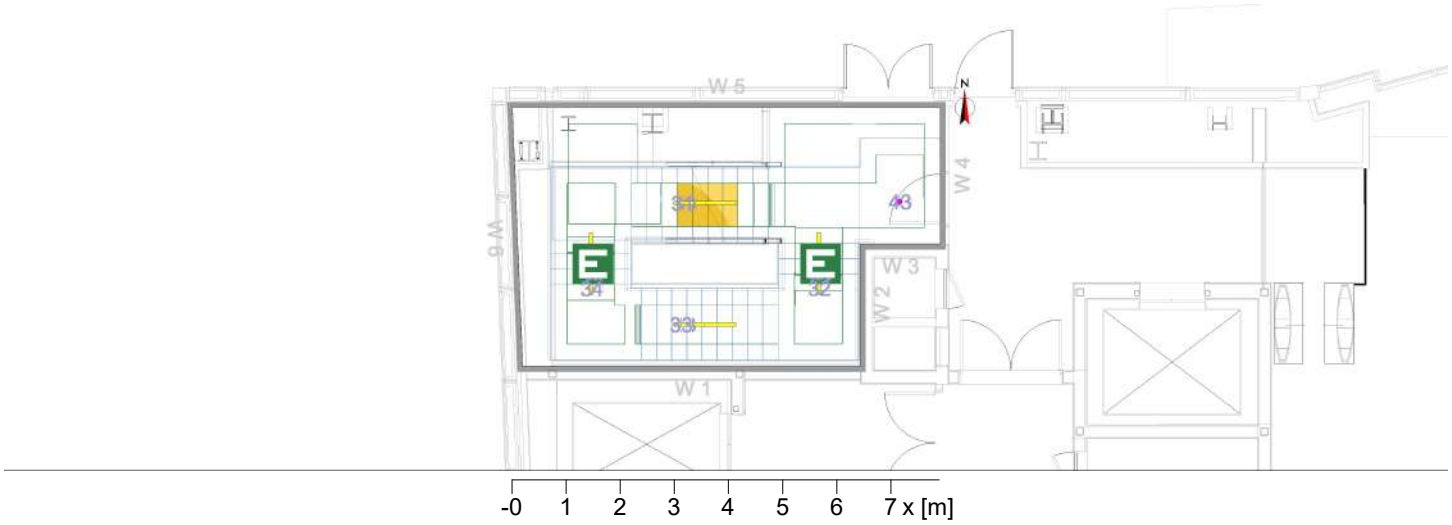
Hacel Lighting Ltd.

2 9 x 

Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.54 Result overview, Tread (xxvii)





150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	205 lx
Minimum illuminance	E_{min}	179 lx
Maximum illuminance	E_{max}	231 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.14 (0.87)
Diversity U_d	E_{min}/E_{max}	1:1.29 (0.78)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.54 Result overview, Tread (xxvii)

Hacel Lighting Ltd.

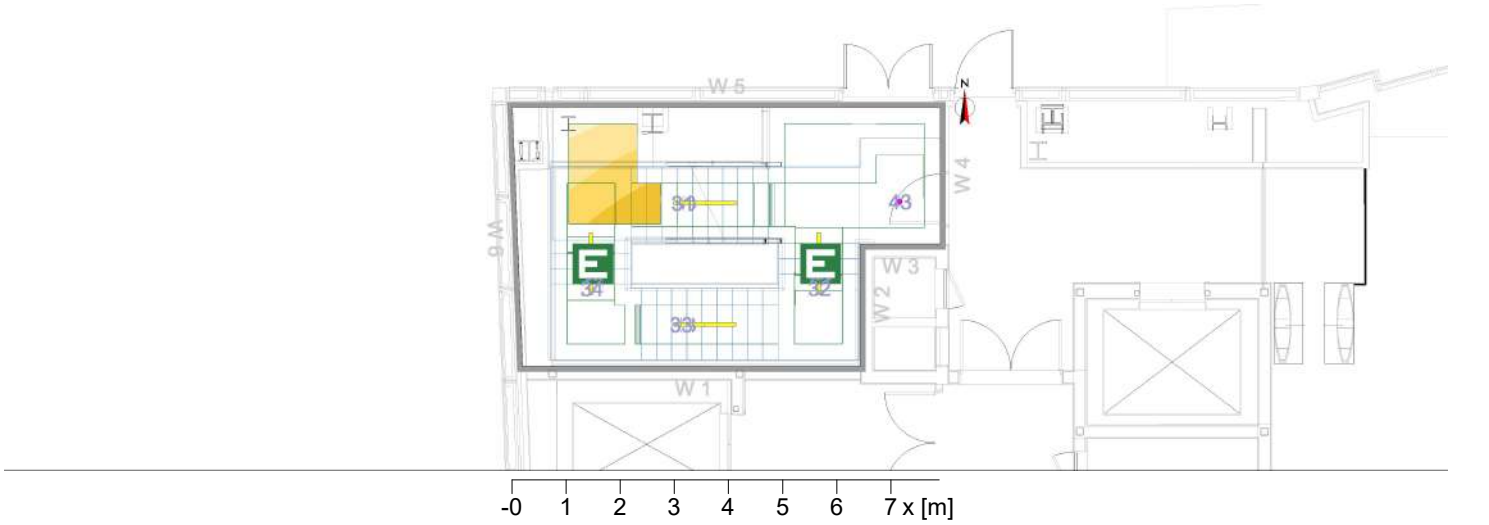
2 9 x

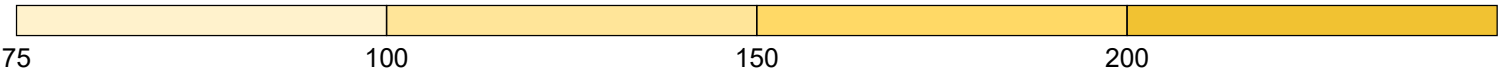


Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.55 Result overview, Level 05 (upper)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	111895 lm
Total power	1025.7 W
Total power per area (33.85 m²)	30.31 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	165 lx
Minimum illuminance	E_{min}	97 lx
Maximum illuminance	E_{max}	238 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.71 (0.59)
Diversity U_d	E_{min}/E_{max}	1:2.45 (0.41)

Type No.\Make

		light forms	
1	34E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 26.7 W / 2836 lm
		Emergency	: 2836 lm (100.0 %)

1.1 Summary, Firefighting Stair

1.1.55 Result overview, Level 05 (upper)

Hacel Lighting Ltd.

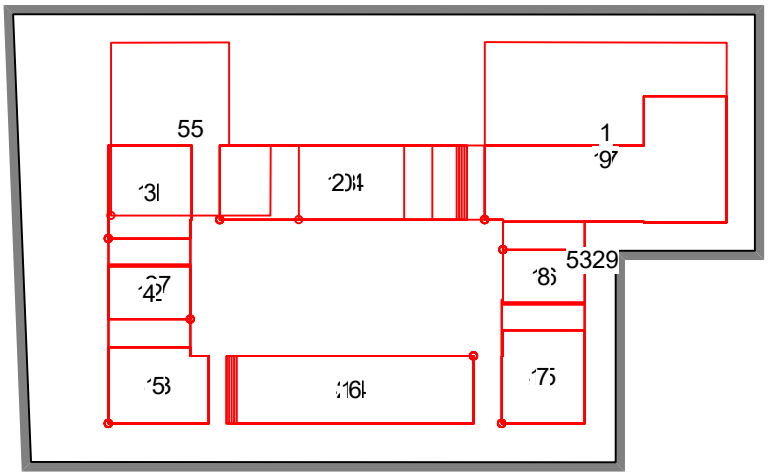
2 9 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

1.1 Summary, Firefighting Stair

1.1.56 Result overview, Ref Planes (1)



Illuminance

No.	Measuring surface	Grid	$\bar{E}_m$	E_{min}	E_{max}	U_o	U_d
1.1	Level 00	7 x 5	138 lx	114 lx	155 lx	0.83	0.74
1.2	Tread (i)	18 x 5	136 lx	128 lx	150 lx	0.94	0.85
1.3	Landing (i)	4 x 5	129 lx	112 lx	145 lx	0.86	0.77
1.4	Tread (ii)	4 x 5	139 lx	124 lx	155 lx	0.89	0.80
1.5	Landing (ii)	5 x 4	146 lx	132 lx	163 lx	0.91	0.81
1.6	Tread (iii)	19 x 5	162 lx	130 lx	187 lx	0.80	0.69
1.7	Landing (iii)	4 x 5	138 lx	115 lx	179 lx	0.83	0.64
1.8	Tread (iv)	4 x 5	171 lx	126 lx	196 lx	0.74	0.64
1.9	Level 01	7 x 3	176 lx	135 lx	197 lx	0.77	0.69
1.10	Tread (v)	18 x 5	172 lx	159 lx	191 lx	0.92	0.83
1.11	Landing (iv)	4 x 5	142 lx	122 lx	161 lx	0.86	0.75
1.12	Tread (vi)	4 x 5	152 lx	135 lx	170 lx	0.89	0.79
1.13	Landing (v)	5 x 4	155 lx	136 lx	175 lx	0.88	0.78
1.14	Tread (vii)	19 x 5	177 lx	139 lx	202 lx	0.79	0.69
1.15	Landing (vi)	4 x 5	148 lx	118 lx	188 lx	0.80	0.63
1.16	Tread (viii)	4 x 5	190 lx	140 lx	218 lx	0.74	0.64
1.17	Level 02	7 x 3	202 lx	161 lx	224 lx	0.80	0.72
1.18	Tread (ix)	18 x 5	194 lx	176 lx	216 lx	0.91	0.82
1.19	Landing (vii)	4 x 5	166 lx	147 lx	184 lx	0.88	0.79
1.20	Tread (x)	4 x 5	175 lx	157 lx	192 lx	0.90	0.82
1.21	Landing (viii)	5 x 4	173 lx	146 lx	198 lx	0.84	0.74
1.22	Tread (xi)	19 x 5	200 lx	145 lx	240 lx	0.73	0.60
1.23	Landing (ix)	4 x 5	181 lx	146 lx	231 lx	0.81	0.63
1.24	Tread (xii)	4 x 5	228 lx	173 lx	255 lx	0.76	0.68
1.25	Level 02 M	7 x 3	233 lx	202 lx	260 lx	0.87	0.78
1.26	Tread (xiii)	18 x 5	203 lx	167 lx	231 lx	0.83	0.72
1.27	Landing (x)	5 x 14	179 lx	135 lx	216 lx	0.75	0.62
1.28	Tread (xiv)	19 x 5	188 lx	149 lx	213 lx	0.79	0.70
1.29	Level 03	12 x 16	182 lx	125 lx	219 lx	0.69	0.57
1.30	Tread (xv)	18 x 5	176 lx	161 lx	195 lx	0.92	0.83
1.31	Landing (xi)	4 x 5	144 lx	124 lx	164 lx	0.86	0.76
1.32	Tread (xvi)	4 x 5	158 lx	140 lx	175 lx	0.89	0.80

1.1 Summary, Firefighting Stair

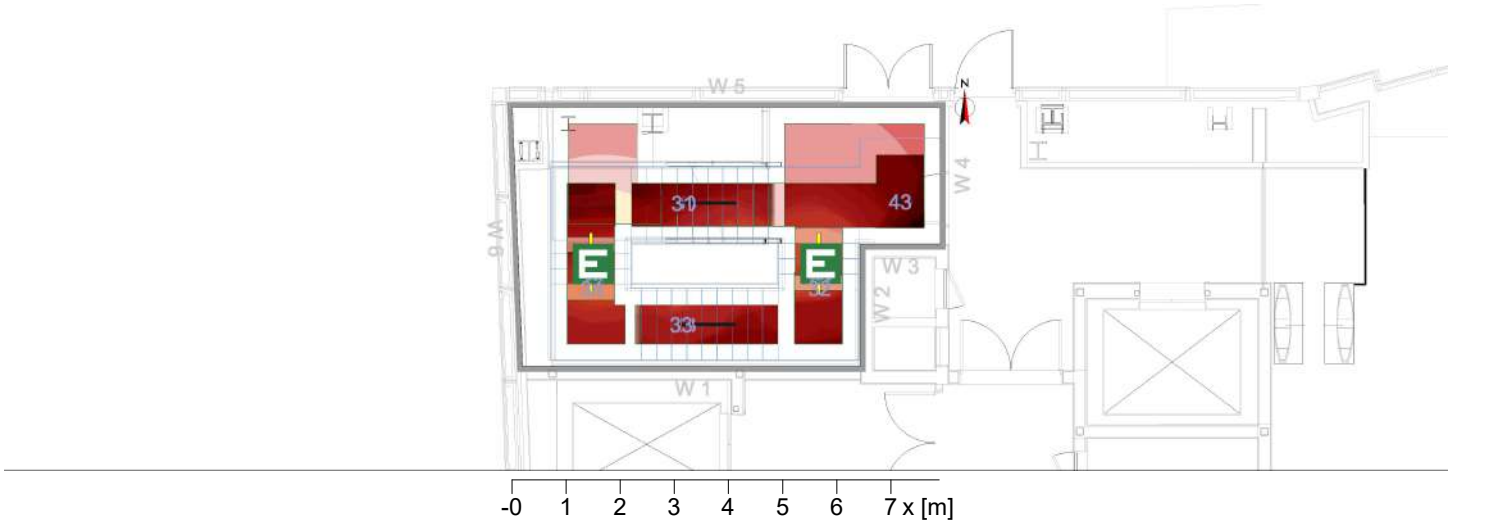
1.1.56 Result overview, Ref Planes (1)

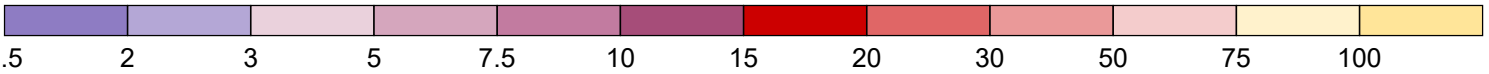
1.33	Landing (xii)	5 x 4	160 lx	141 lx	180 lx	0.88	0.78
1.34	Tread (xvii)	19 x 5	179 lx	144 lx	204 lx	0.81	0.71
1.35	Landing (xiii)	4 x 5	152 lx	125 lx	190 lx	0.82	0.66
1.36	Tread (xviii)	4 x 5	192 lx	144 lx	219 lx	0.75	0.65
1.37	Level 03 M	7 x 3	203 lx	162 lx	226 lx	0.80	0.72
1.38	Tread (xix)	18 x 5	196 lx	181 lx	220 lx	0.92	0.82
1.39	Landing (xiv)	4 x 5	168 lx	147 lx	190 lx	0.87	0.77
1.40	Tread (xx)	4 x 5	179 lx	161 lx	195 lx	0.90	0.82
1.41	Landing (xv)	5 x 4	172 lx	150 lx	198 lx	0.87	0.76
1.42	Tread (xxi)	19 x 5	202 lx	153 lx	242 lx	0.75	0.63
1.43	Landing (xvi)	4 x 5	187 lx	155 lx	233 lx	0.83	0.66
1.44	Tread (xxii)	4 x 5	223 lx	172 lx	249 lx	0.77	0.69
1.45	Level 03 M2	7 x 3	238 lx	203 lx	266 lx	0.85	0.76
1.46	Tread (xxiii)	18 x 5	213 lx	172 lx	252 lx	0.81	0.68
1.47	Landing (xvii)	5 x 14	195 lx	155 lx	233 lx	0.79	0.66
1.48	Tread (xxiv)	19 x 5	218 lx	161 lx	261 lx	0.74	0.62
1.49	Level 04	12 x 16	214 lx	158 lx	250 lx	0.73	0.63
1.50	Tread (xxv)	18 x 5	198 lx	161 lx	230 lx	0.81	0.70
1.51	Landing (xviii)	5 x 14	142 lx	101 lx	176 lx	0.71	0.57
1.52	Tread (xxvi)	19 x 5	152 lx	113 lx	187 lx	0.74	0.60
1.53	Level 05	16 x 17	179 lx	118 lx	215 lx	0.66	0.55
1.54	Tread (xxvii)	5 x 3	205 lx	179 lx	231 lx	0.87	0.78
1.55	Level 05 (upper)	6 x 6	165 lx	97 lx	238 lx	0.59	0.41
Summary			**182 lx**	**97 lx**	**266 lx**	**0.53**	**0.36**

1 Firefighting Stair

1.2 Summary, Firefighting Stair

1.2.1.1 Result overview (emergency lighting)





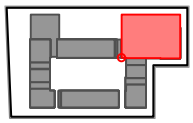
Illuminance [lx]

General

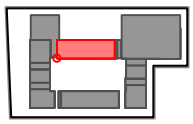
Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 1000 cd

Anti panic area:

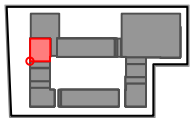
No.	Emin [lx]	Surface Emax [lx]	Ud
1 Level 00			
Calculation field: 2.57m x 1.92m (7 x 5 pts), Height = 0.00m			
1	13.79 lx	54.96 lx	1: 3.99
	>= 1 lx		>= 1 : 40



2 Tread (i)			
Calculation field: 3.01m x 0.79m (18 x 5 pts), Height = 1.85m			
2	31.91 lx	58.54 lx	1: 1.83
	>= 1 lx		>= 1 : 40



3 Landing (i)			
Calculation field: 0.89m x 0.99m (4 x 5 pts), Height = 1.85m			
3	23.66 lx	47.26 lx	1: 2.00
	>= 1 lx		>= 1 : 40



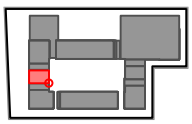
1 Firefighting Stair

1.2 Summary, Firefighting Stair

1.2.1.1 Result overview (emergency lighting)

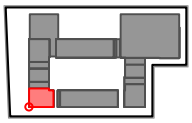
4 Tread (ii)
Calculation field: 0.67m x 0.87m (4 x 5 pts), Height = 2.40m

4	39.28 lx	55.76 lx	1: 1.42
	>= 1 lx		>= 1 : 40



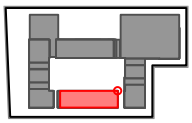
5 Landing (ii)
Calculation field: 1.07m x 0.81m (5 x 4 pts), Height = 2.40m

5	44.32 lx	57.59 lx	1: 1.30
	>= 1 lx		>= 1 : 40



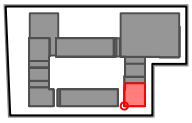
6 Tread (iii)
Calculation field: 3.01m x 0.72m (19 x 5 pts), Height = 4.25m

6	32.30 lx	58.92 lx	1: 1.82
	>= 1 lx		>= 1 : 40



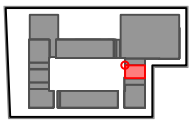
7 Landing (iii)
Calculation field: 0.89m x 0.99m (4 x 5 pts), Height = 4.25m

7	24.63 lx	52.71 lx	1: 2.14
	>= 1 lx		>= 1 : 40



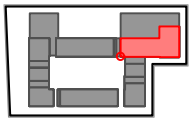
8 Tread (iv)
Calculation field: 0.67m x 0.87m (4 x 5 pts), Height = 4.80m

8	41.26 lx	57.17 lx	1: 1.39
	>= 1 lx		>= 1 : 40



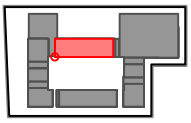
9 Level 01
Calculation field: 2.57m x 1.34m (7 x 3 pts), Height = 4.80m

9	14.28 lx	57.33 lx	1: 4.01
	>= 1 lx		>= 1 : 40



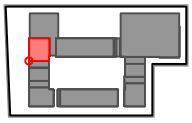
10 Tread (v)
Calculation field: 3.01m x 0.79m (18 x 5 pts), Height = 6.60m

10	33.00 lx	61.15 lx	1: 1.85
	>= 1 lx		>= 1 : 40



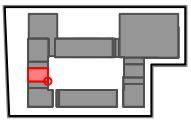
11 Landing (iv)
Calculation field: 0.89m x 0.99m (4 x 5 pts), Height = 6.60m

11	25.22 lx	52.09 lx	1: 2.07
	>= 1 lx		>= 1 : 40



12 Tread (vi)
Calculation field: 0.67m x 0.87m (4 x 5 pts), Height = 7.14m

12	44.55 lx	63.25 lx	1: 1.42
	>= 1 lx		>= 1 : 40



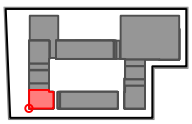
1 Firefighting Stair

1.2 Summary, Firefighting Stair

1.2.1.1 Result overview (emergency lighting)

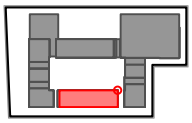
13 Landing (v)
Calculation field: 1.07m x 0.81m (5 x 4 pts), Height = 7.14m

13	48.61 lx	64.88 lx	1: 1.33
	>= 1 lx		>= 1 : 40



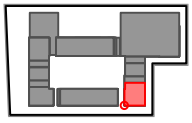
14 Tread (vii)
Calculation field: 3.01m x 0.72m (19 x 5 pts), Height = 8.94m

14	33.37 lx	66.96 lx	1: 2.01
	>= 1 lx		>= 1 : 40



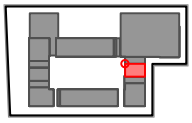
15 Landing (vi)
Calculation field: 0.89m x 0.99m (4 x 5 pts), Height = 8.94m

15	27.69 lx	58.51 lx	1: 2.11
	>= 1 lx		>= 1 : 40



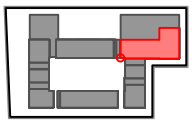
16 Tread (viii)
Calculation field: 0.67m x 0.87m (4 x 5 pts), Height = 9.48m

16	48.47 lx	71.11 lx	1: 1.47
	>= 1 lx		>= 1 : 40



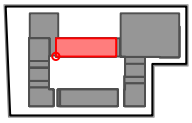
17 Level 02
Calculation field: 2.57m x 1.34m (7 x 3 pts), Height = 9.48m

17	16.50 lx	70.14 lx	1: 4.25
	>= 1 lx		>= 1 : 40



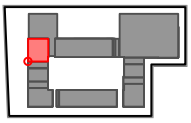
18 Tread (ix)
Calculation field: 3.01m x 0.79m (18 x 5 pts), Height = 11.09m

18	44.56 lx	75.75 lx	1: 1.70
	>= 1 lx		>= 1 : 40



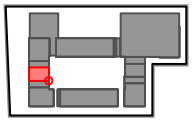
19 Landing (vii)
Calculation field: 0.89m x 0.99m (4 x 5 pts), Height = 11.09m

19	41.12 lx	68.50 lx	1: 1.67
	>= 1 lx		>= 1 : 40



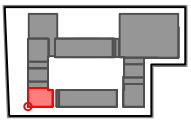
20 Tread (x)
Calculation field: 0.67m x 0.87m (4 x 5 pts), Height = 11.57m

20	59.92 lx	79.48 lx	1: 1.33
	>= 1 lx		>= 1 : 40



21 Landing (viii)
Calculation field: 1.07m x 0.81m (5 x 4 pts), Height = 11.57m

21	52.16 lx	76.62 lx	1: 1.47
	>= 1 lx		>= 1 : 40



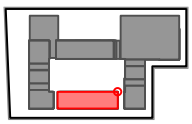
1 Firefighting Stair

1.2 Summary, Firefighting Stair

1.2.1.1 Result overview (emergency lighting)

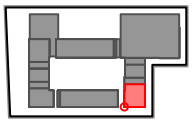
22 Tread (xi)
Calculation field: 3.01m x 0.72m (19 x 5 pts), Height = 13.18m

22	43.18 lx	77.23 lx	1: 1.79
	>= 1 lx		>= 1 : 40



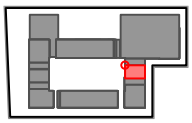
23 Landing (ix)
Calculation field: 0.89m x 0.99m (4 x 5 pts), Height = 13.18m

23	46.47 lx	83.88 lx	1: 1.81
	>= 1 lx		>= 1 : 40



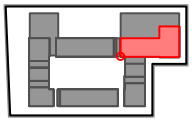
24 Tread (xii)
Calculation field: 0.67m x 0.87m (4 x 5 pts), Height = 13.66m

24	69.59 lx	94.22 lx	1: 1.35
	>= 1 lx		>= 1 : 40



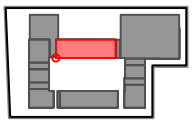
25 Level 02 M
Calculation field: 2.57m x 1.34m (7 x 3 pts), Height = 13.66m

25	18.76 lx	86.91 lx	1: 4.63
	>= 1 lx		>= 1 : 40



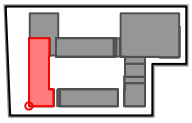
26 Tread (xiii)
Calculation field: 3.01m x 0.79m (18 x 5 pts), Height = 15.33m

26	29.46 lx	83.50 lx	1: 2.83
	>= 1 lx		>= 1 : 40



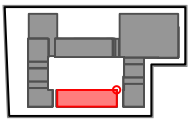
27 Landing (x)
Calculation field: 1.07m x 2.96m (5 x 14 pts), Height = 15.33m

27	29.92 lx	88.44 lx	1: 2.96
	>= 1 lx		>= 1 : 40



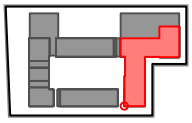
28 Tread (xiv)
Calculation field: 3.01m x 0.72m (19 x 5 pts), Height = 17.00m

28	32.59 lx	78.40 lx	1: 2.41
	>= 1 lx		>= 1 : 40



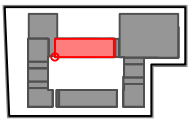
29 Level 03
Calculation field: 2.57m x 3.49m (12 x 16 pts), Height = 17.00m

29	14.65 lx	69.29 lx	1: 4.73
	>= 1 lx		>= 1 : 40



30 Tread (xv)
Calculation field: 3.01m x 0.79m (18 x 5 pts), Height = 18.74m

30	33.21 lx	64.43 lx	1: 1.94
	>= 1 lx		>= 1 : 40



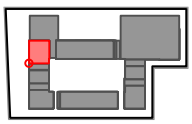
1 Firefighting Stair

1.2 Summary, Firefighting Stair

1.2.1.1 Result overview (emergency lighting)

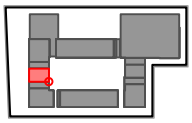
31 Landing (xi)
Calculation field: 0.89m x 0.99m (4 x 5 pts), Height = 18.74m

31	25.62 lx	54.09 lx	1: 2.11
	>= 1 lx		>= 1 : 40



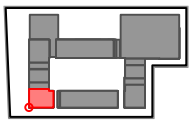
32 Tread (xvi)
Calculation field: 0.67m x 0.87m (4 x 5 pts), Height = 19.26m

32	46.31 lx	67.21 lx	1: 1.45
	>= 1 lx		>= 1 : 40



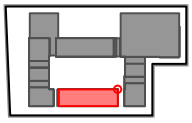
33 Landing (xii)
Calculation field: 1.07m x 0.81m (5 x 4 pts), Height = 19.26m

33	50.15 lx	68.00 lx	1: 1.36
	>= 1 lx		>= 1 : 40



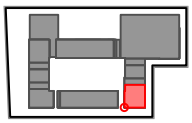
34 Tread (xvii)
Calculation field: 3.01m x 0.72m (19 x 5 pts), Height = 21.00m

34	33.54 lx	68.07 lx	1: 2.03
	>= 1 lx		>= 1 : 40



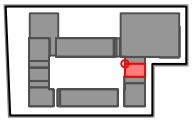
35 Landing (xiii)
Calculation field: 0.89m x 0.99m (4 x 5 pts), Height = 21.00m

35	27.90 lx	57.79 lx	1: 2.07
	>= 1 lx		>= 1 : 40



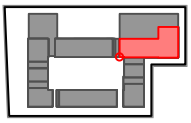
36 Tread (xviii)
Calculation field: 0.67m x 0.87m (4 x 5 pts), Height = 21.53m

36	50.54 lx	69.79 lx	1: 1.38
	>= 1 lx		>= 1 : 40



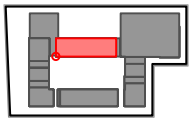
37 Level 03 M
Calculation field: 2.57m x 1.34m (7 x 3 pts), Height = 21.53m

37	16.65 lx	71.46 lx	1: 4.29
	>= 1 lx		>= 1 : 40



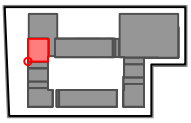
38 Tread (xix)
Calculation field: 3.01m x 0.79m (18 x 5 pts), Height = 23.12m

38	44.71 lx	76.81 lx	1: 1.72
	>= 1 lx		>= 1 : 40



39 Landing (xiv)
Calculation field: 0.89m x 0.99m (4 x 5 pts), Height = 23.12m

39	41.44 lx	69.80 lx	1: 1.68
	>= 1 lx		>= 1 : 40



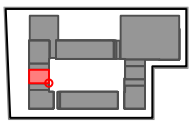
1 Firefighting Stair

1.2 Summary, Firefighting Stair

1.2.1.1 Result overview (emergency lighting)

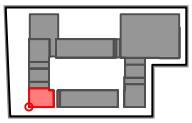
40 Tread (xx)
Calculation field: 0.67m x 0.87m (4 x 5 pts), Height = 23.60m

40	62.27 lx	80.72 lx	1: 1.30
	>= 1 lx		>= 1 : 40



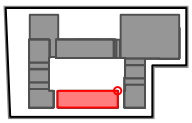
41 Landing (xv)
Calculation field: 1.07m x 0.81m (5 x 4 pts), Height = 23.60m

41	52.47 lx	79.71 lx	1: 1.52
	>= 1 lx		>= 1 : 40



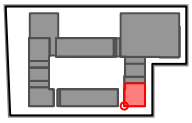
42 Tread (xxi)
Calculation field: 3.01m x 0.72m (19 x 5 pts), Height = 25.20m

42	43.13 lx	80.61 lx	1: 1.87
	>= 1 lx		>= 1 : 40



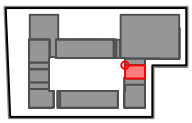
43 Landing (xvi)
Calculation field: 0.89m x 0.99m (4 x 5 pts), Height = 25.20m

43	46.46 lx	78.10 lx	1: 1.68
	>= 1 lx		>= 1 : 40



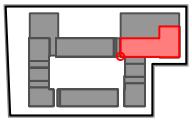
44 Tread (xxii)
Calculation field: 0.67m x 0.87m (4 x 5 pts), Height = 25.68m

44	68.45 lx	90.25 lx	1: 1.32
	>= 1 lx		>= 1 : 40



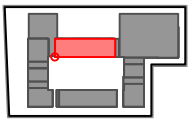
45 Level 03 M2
Calculation field: 2.57m x 1.34m (7 x 3 pts), Height = 25.68m

45	19.82 lx	88.54 lx	1: 4.47
	>= 1 lx		>= 1 : 40



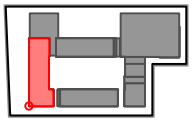
46 Tread (xxiii)
Calculation field: 3.01m x 0.79m (18 x 5 pts), Height = 27.34m

46	42.42 lx	86.95 lx	1: 2.05
	>= 1 lx		>= 1 : 40



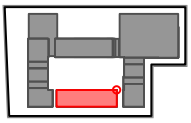
47 Landing (xvii)
Calculation field: 1.07m x 2.96m (5 x 14 pts), Height = 27.34m

47	52.64 lx	100.07 lx	1: 1.90
	>= 1 lx		>= 1 : 40



48 Tread (xxiv)
Calculation field: 3.01m x 0.72m (19 x 5 pts), Height = 29.00m

48	42.49 lx	84.54 lx	1: 1.99
	>= 1 lx		>= 1 : 40



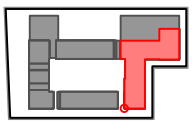
1 Firefighting Stair

1.2 Summary, Firefighting Stair

1.2.1.1 Result overview (emergency lighting)

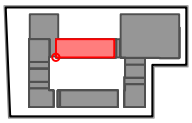
49 Level 04
Calculation field: 2.57m x 3.49m (12 x 16 pts), Height = 29.00m

49	16.82 lx	86.83 lx	1: 5.16
	>= 1 lx		>= 1 : 40



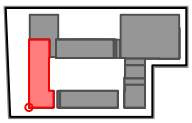
50 Tread (xxv)
Calculation field: 3.01m x 0.79m (18 x 5 pts), Height = 30.75m

50	10.47 lx	77.34 lx	1: 7.39
	>= 1 lx		>= 1 : 40



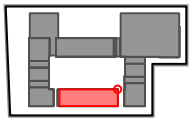
51 Landing (xviii)
Calculation field: 1.07m x 2.96m (5 x 14 pts), Height = 30.75m

51	1.96 lx	45.44 lx	1: 23.19
	>= 1 lx		>= 1 : 40



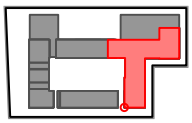
52 Tread (xxvi)
Calculation field: 3.01m x 0.72m (19 x 5 pts), Height = 32.50m

52	29.50 lx	58.38 lx	1: 1.98
	>= 1 lx		>= 1 : 40



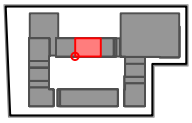
53 Level 05
Calculation field: 3.13m x 3.49m (16 x 17 pts), Height = 32.50m

53	16.74 lx	75.02 lx	1: 4.48
	>= 1 lx		>= 1 : 40



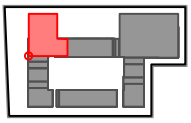
54 Tread (xxvii)
Calculation field: 1.32m x 0.79m (5 x 3 pts), Height = 33.37m

54	44.89 lx	59.32 lx	1: 1.32
	>= 1 lx		>= 1 : 40



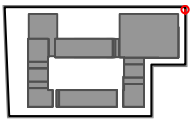
55 Level 05 (upper)
Calculation field: 1.7m x 1.84m (6 x 6 pts), Height = 33.37m

55	31.16 lx	104.41 lx	1: 3.35
	>= 1 lx		>= 1 : 40



Places to highlight

No.	Emin [lx]	Surface Emax [lx]
1 Call Point		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	17.07 lx	19.02 lx
	>= 5 lx	



1 Firefighting Stair

1.2 Summary, Firefighting Stair

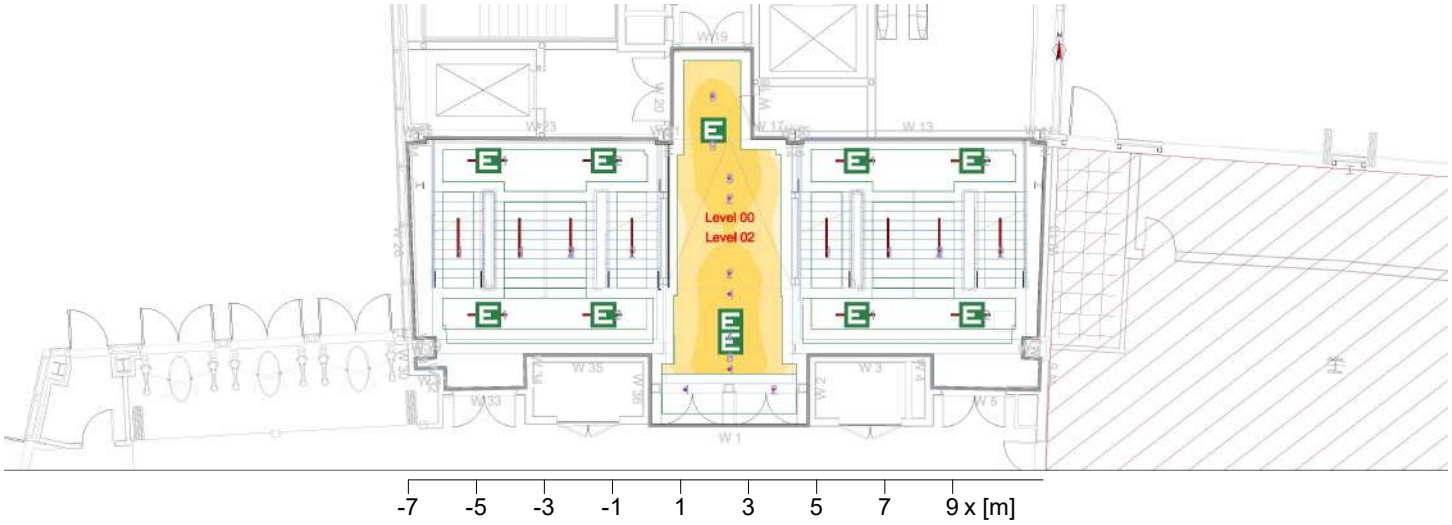
1.2.1.1 Result overview (emergency lighting)

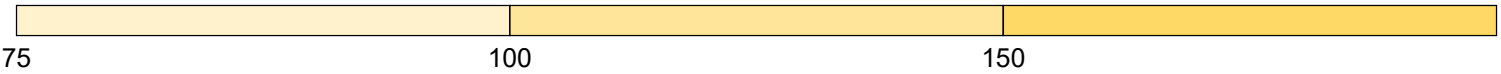
Type	No.\Make			
		light forms		
1	17E x	Order No.	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005	-- Emergency Lighting --
		Luminaire name	: Type S - LP2.5-S-1200-LED-MED-4000-90-DALI-EXT-RAL9005	
		Equipment	: 1 x 26.7 W / 2836 lm	
		Emergency	: 2836 lm (100.0 %)	

2 Stair

2.1 Summary, Stair

2.1.1 Result overview, Level 00





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	-0.00 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	151 lx
Minimum illuminance	E_{min}	88 lx
Maximum illuminance	E_{max}	199 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.71 (0.58)
Diversity U_d	E_{min}/E_{max}	1:2.25 (0.44)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2 Stair

2.1 Summary, Stair

2.1.1 Result overview, Level 00

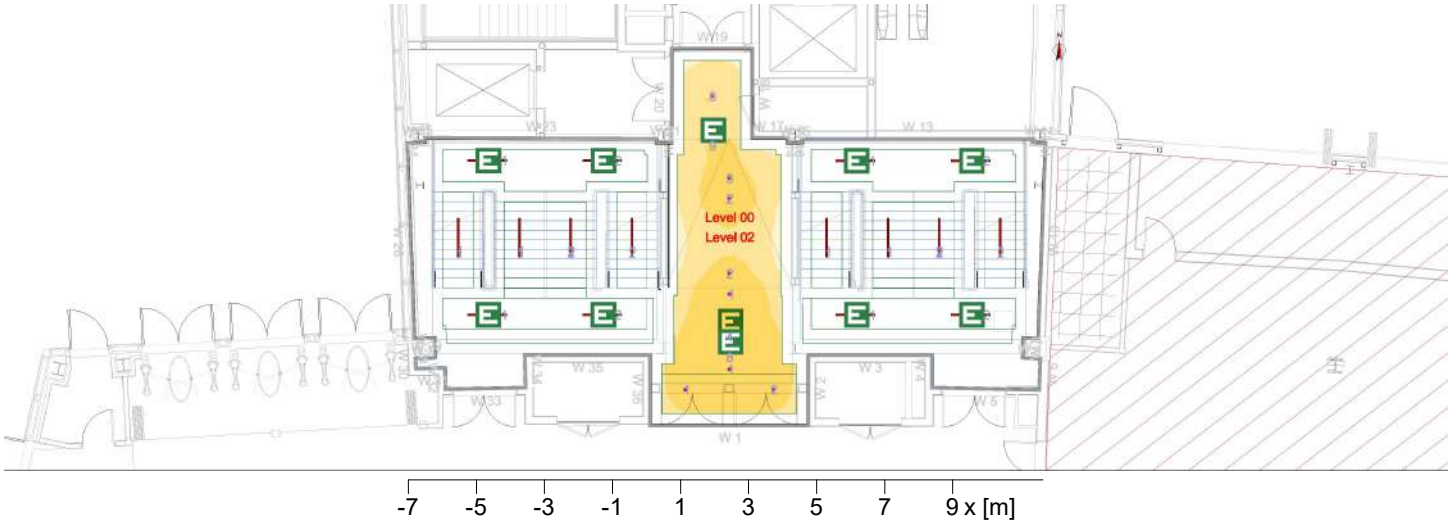
Hacel Lighting Ltd.

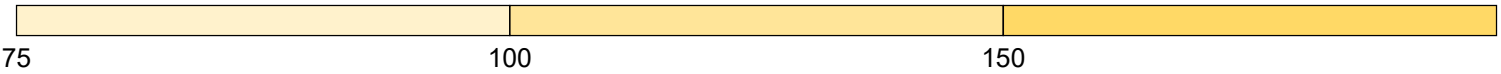
2 14 x 

Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.2 Result overview, Level 01





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	4.80 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	152 lx
Minimum illuminance	E_{min}	86 lx
Maximum illuminance	E_{max}	195 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.76 (0.57)
Diversity U_d	E_{min}/E_{max}	1:2.26 (0.44)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.2 Result overview, Level 01

Hacel Lighting Ltd.

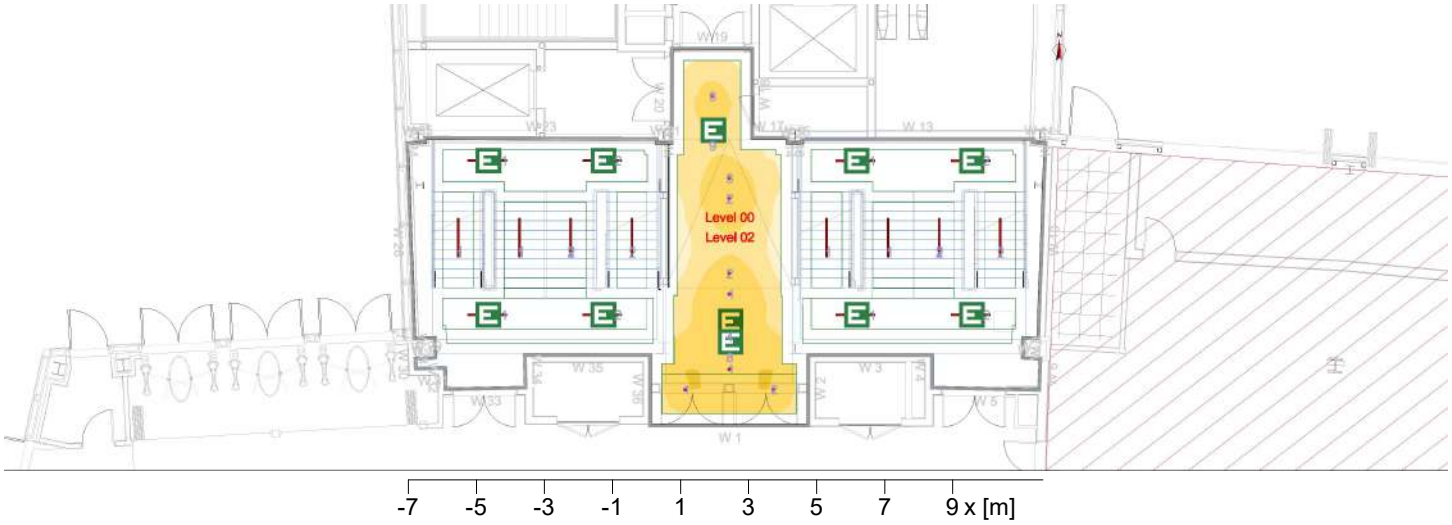
2 14 x

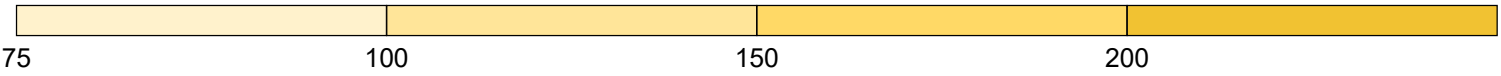


Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.3 Result overview, Level 02





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	9.48 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	153 lx
Minimum illuminance	E_{min}	78 lx
Maximum illuminance	E_{max}	203 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.97 (0.51)
Diversity U_d	E_{min}/E_{max}	1:2.61 (0.38)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.3 Result overview, Level 02

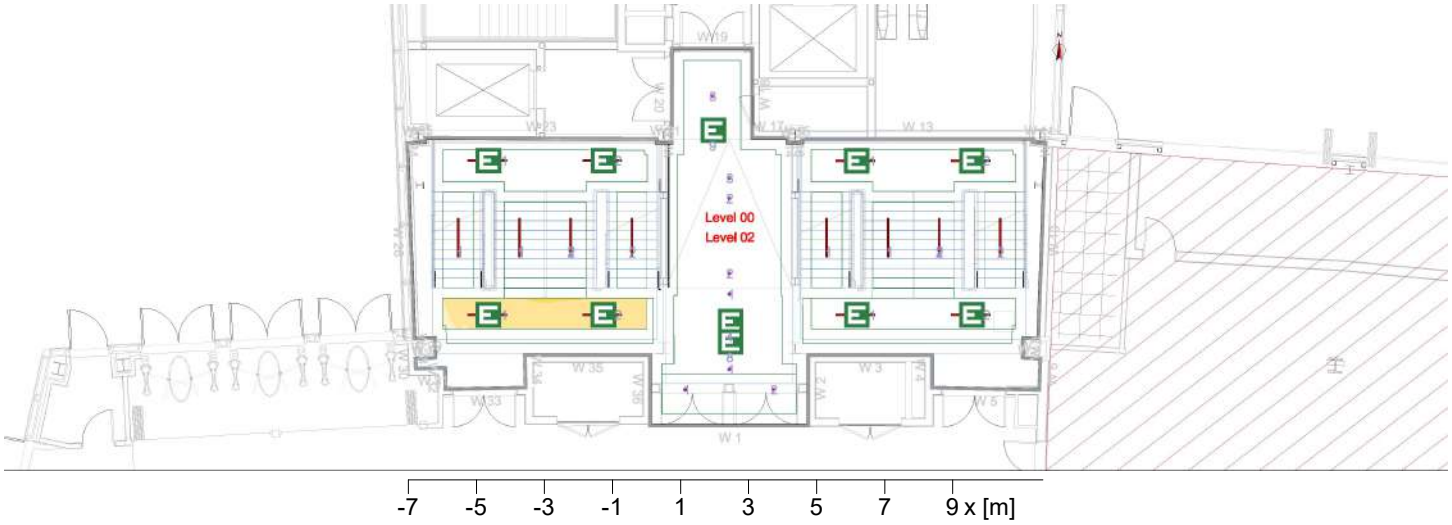
Hacel Lighting Ltd.

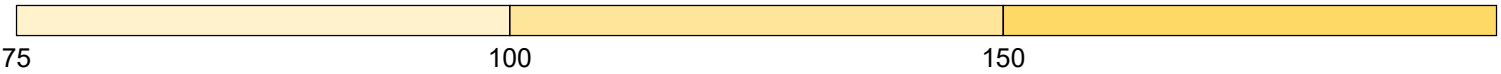
2 14 x 

Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.4 Result overview, LHS Level 00





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	92 lx
Maximum illuminance	E_{max}	153 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.38 (0.72)
Diversity U_d	E_{min}/E_{max}	1:1.65 (0.6)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.4 Result overview, LHS Level 00

Hacel Lighting Ltd.

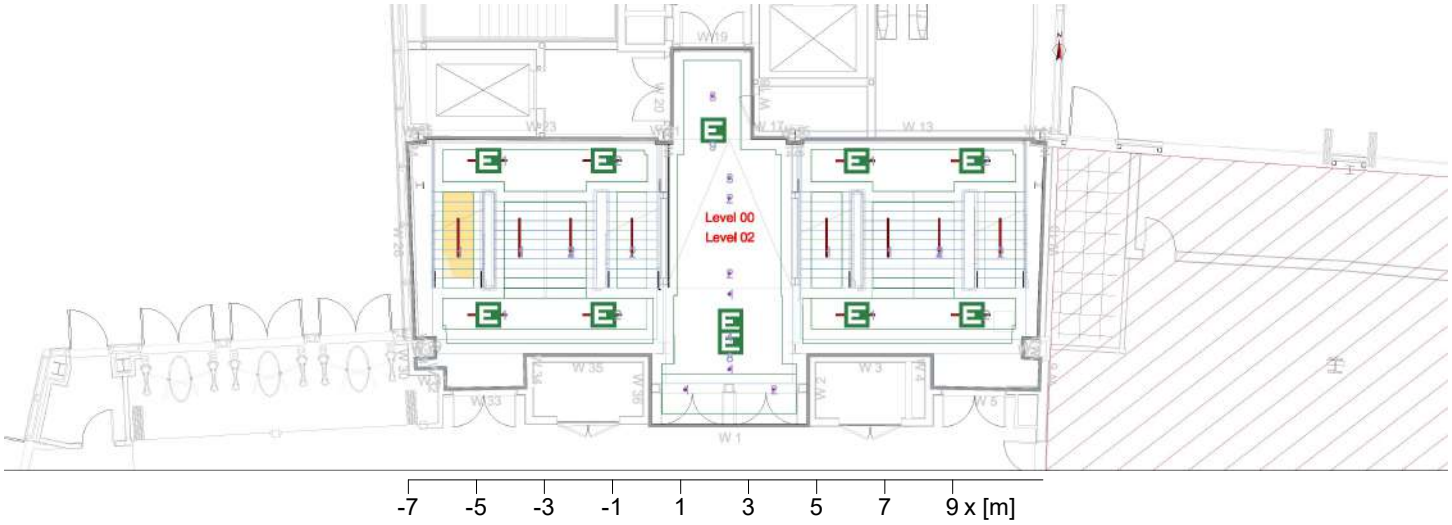
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.5 Result overview, LHS Tread (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	124 lx
Minimum illuminance	E_{min}	93 lx
Maximum illuminance	E_{max}	148 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.58 (0.63)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.5 Result overview, LHS Tread (i)

Hacel Lighting Ltd.

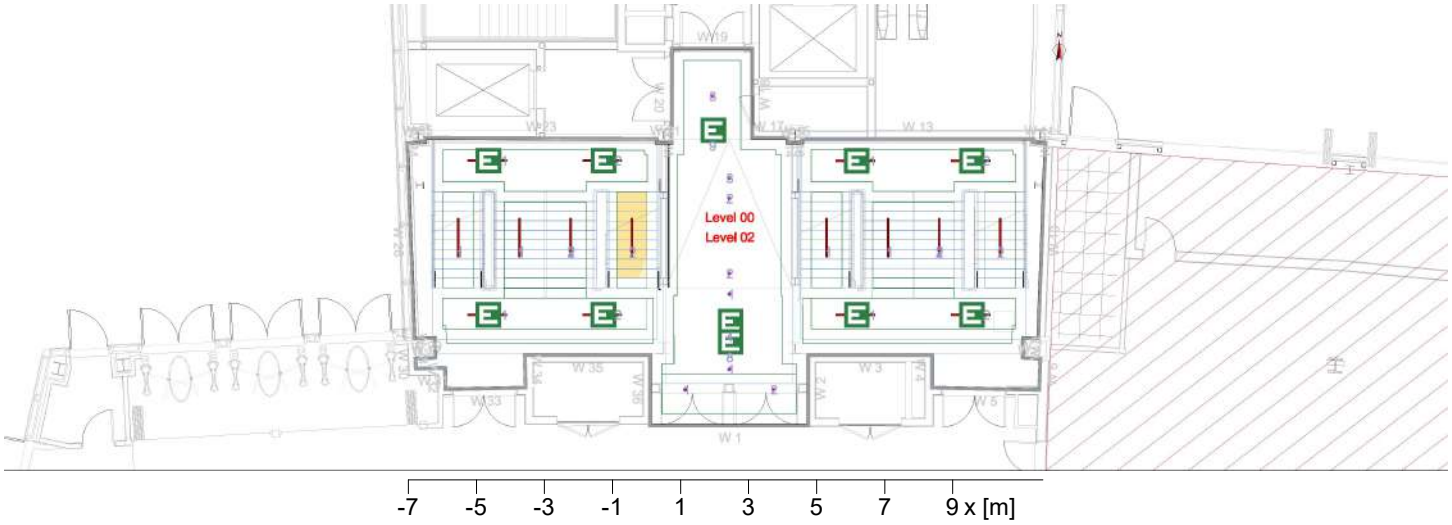
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.6 Result overview, LHS Tread (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	126 lx
Minimum illuminance	E_{min}	95 lx
Maximum illuminance	E_{max}	149 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.56 (0.64)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.6 Result overview, LHS Tread (i)

Hacel Lighting Ltd.

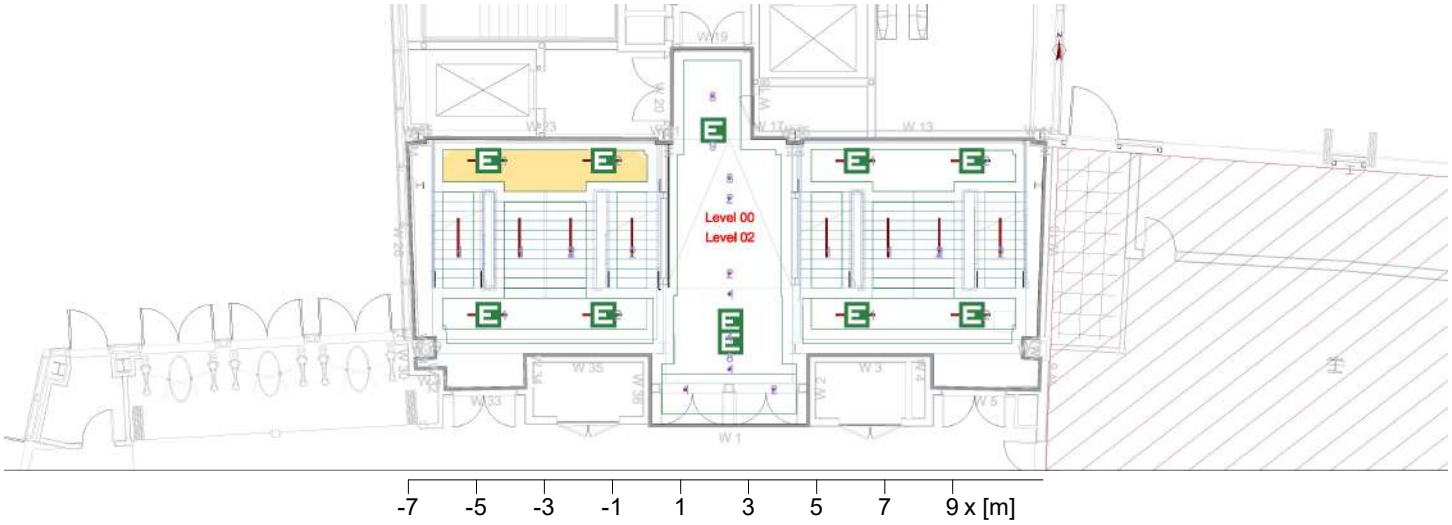
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.7 Result overview, LHS Landing (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	128 lx
Minimum illuminance	E_{min}	96 lx
Maximum illuminance	E_{max}	147 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.34 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.54 (0.65)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.7 Result overview, LHS Landing (i)

Hacel Lighting Ltd.

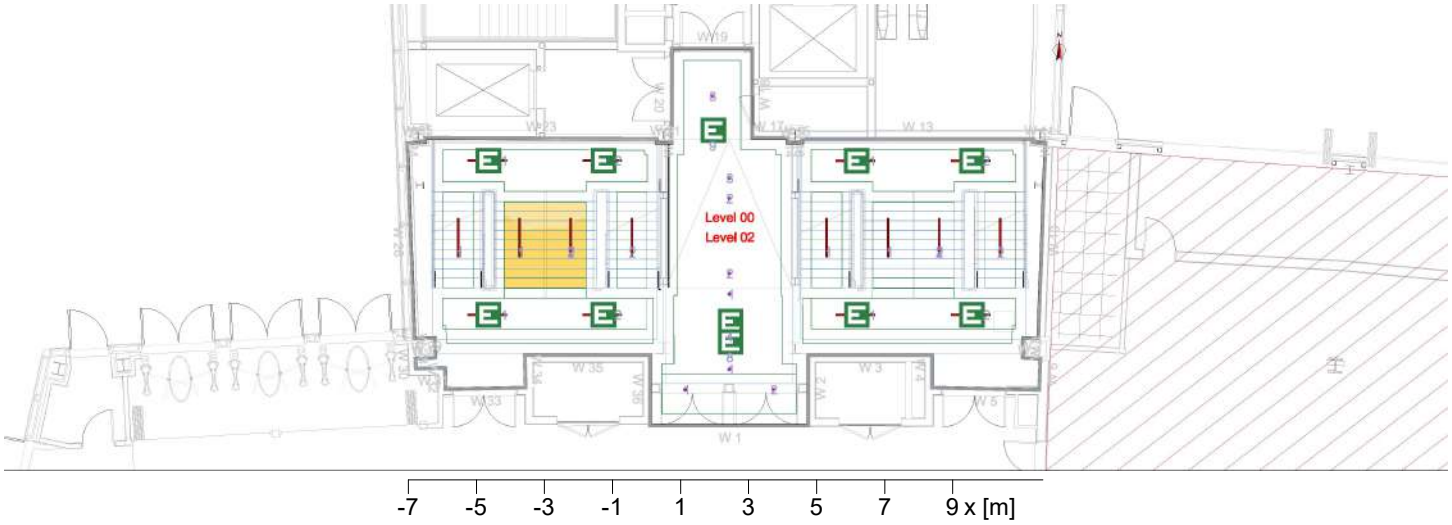
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.8 Result overview, LHS Tread (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	160 lx
Minimum illuminance	E_{min}	136 lx
Maximum illuminance	E_{max}	184 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.18 (0.85)
Diversity U_d	E_{min}/E_{max}	1:1.35 (0.74)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.8 Result overview, LHS Tread (ii)

Hacel Lighting Ltd.

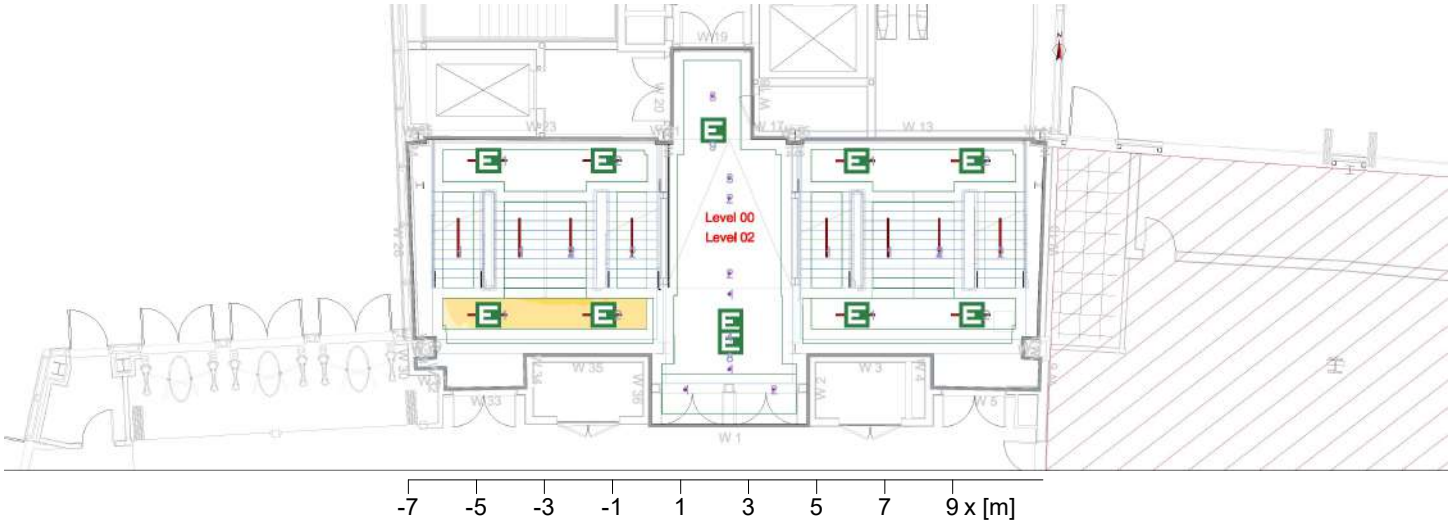
2 14 x

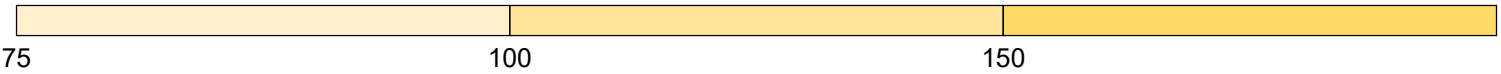


Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.9 Result overview, LHS Landing (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.10 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	128 lx
Minimum illuminance	E_{min}	91 lx
Maximum illuminance	E_{max}	155 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.41 (0.71)
Diversity U_d	E_{min}/E_{max}	1:1.7 (0.59)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.9 Result overview, LHS Landing (ii)

Hacel Lighting Ltd.

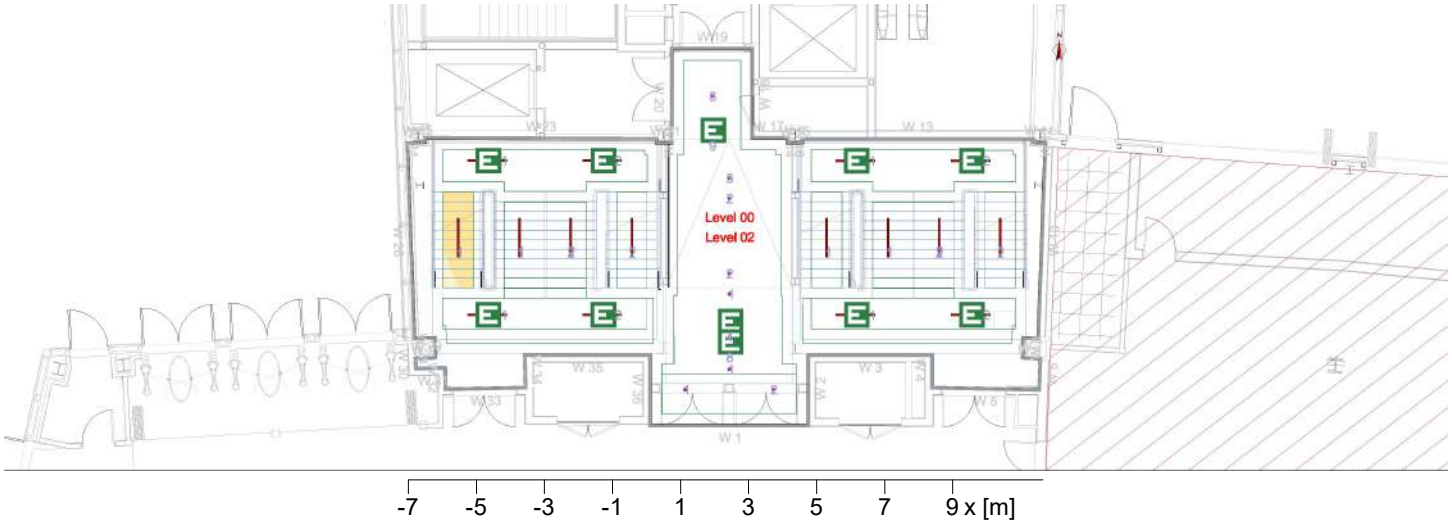
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.10 Result overview, LHS Tread (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	121 lx
Minimum illuminance	E_{min}	89 lx
Maximum illuminance	E_{max}	148 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.35 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.65 (0.6)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.10 Result overview, LHS Tread (iii)

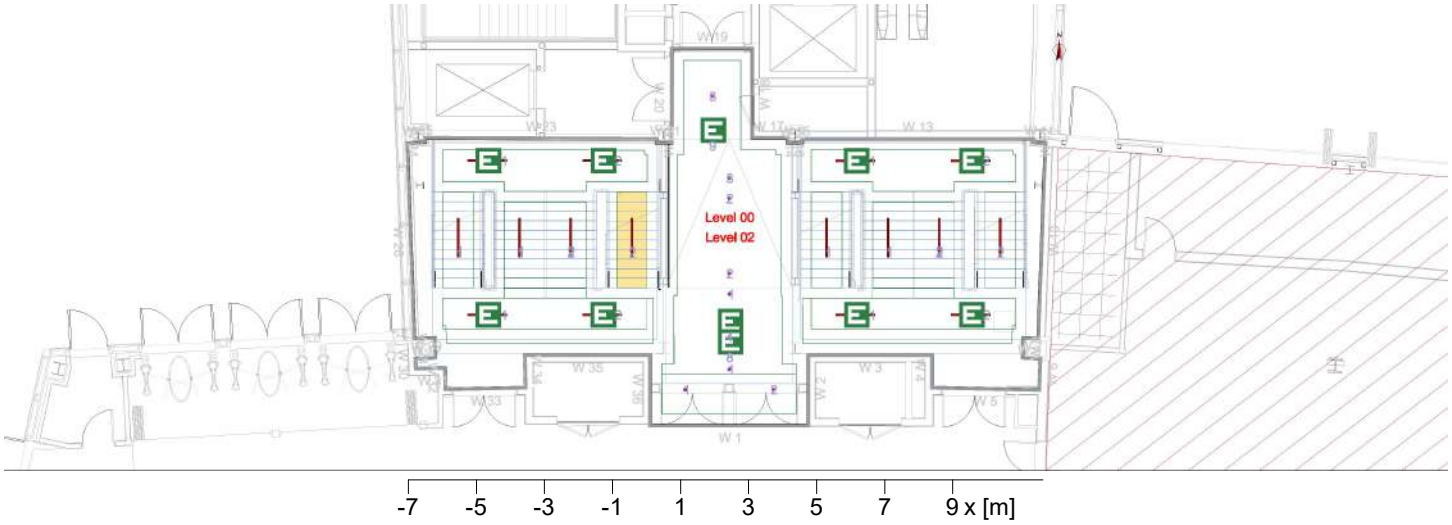
Hacel Lighting Ltd.

2 14 x 

Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.11 Result overview, LHS Tread (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	102 lx
Maximum illuminance	E_{max}	151 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.25 (0.8)
Diversity U_d	E_{min}/E_{max}	1:1.49 (0.67)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.11 Result overview, LHS Tread (iii)

Hacel Lighting Ltd.

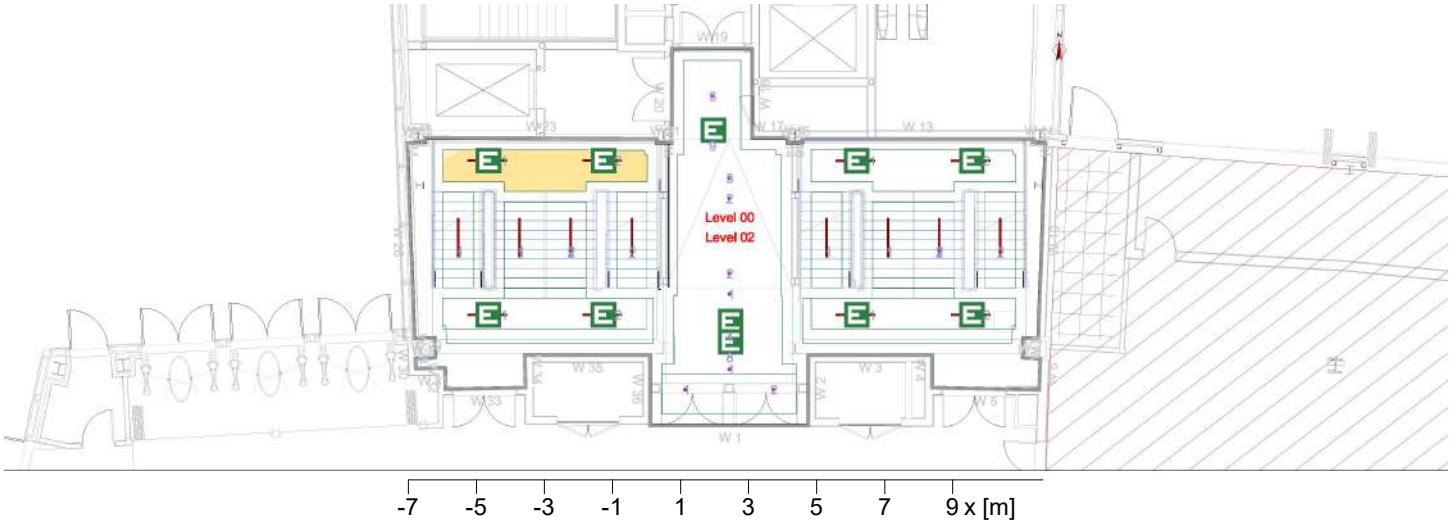
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.12 Result overview, LHS Level 01





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	4.80 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	126 lx
Minimum illuminance	E_{min}	95 lx
Maximum illuminance	E_{max}	147 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.55 (0.65)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.12 Result overview, LHS Level 01

Hacel Lighting Ltd.

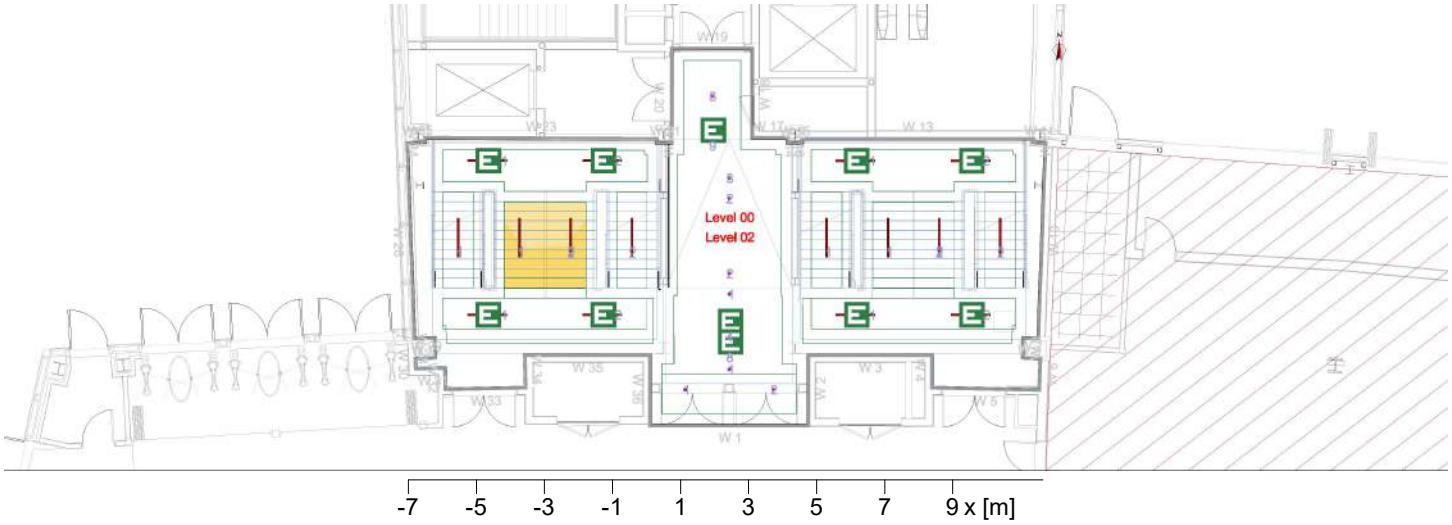
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.13 Result overview, LHS Tread (iv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	150 lx
Minimum illuminance	E_{min}	123 lx
Maximum illuminance	E_{max}	169 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.22 (0.82)
Diversity U_d	E_{min}/E_{max}	1:1.38 (0.72)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

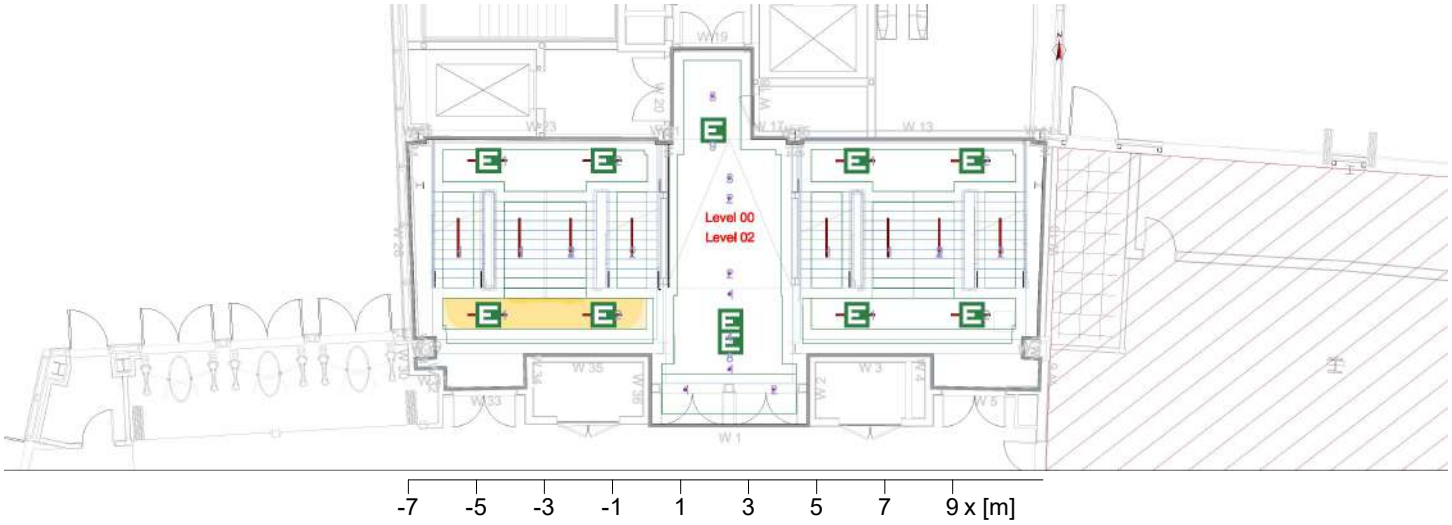
2.1.13 Result overview, LHS Tread (iv)

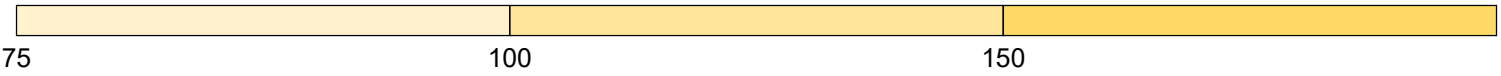
Hacel Lighting Ltd.

2 14 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.14 Result overview, LHS Landing (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	6.36 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	126 lx
Minimum illuminance	E_{min}	91 lx
Maximum illuminance	E_{max}	155 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.38 (0.72)
Diversity U_d	E_{min}/E_{max}	1:1.7 (0.59)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

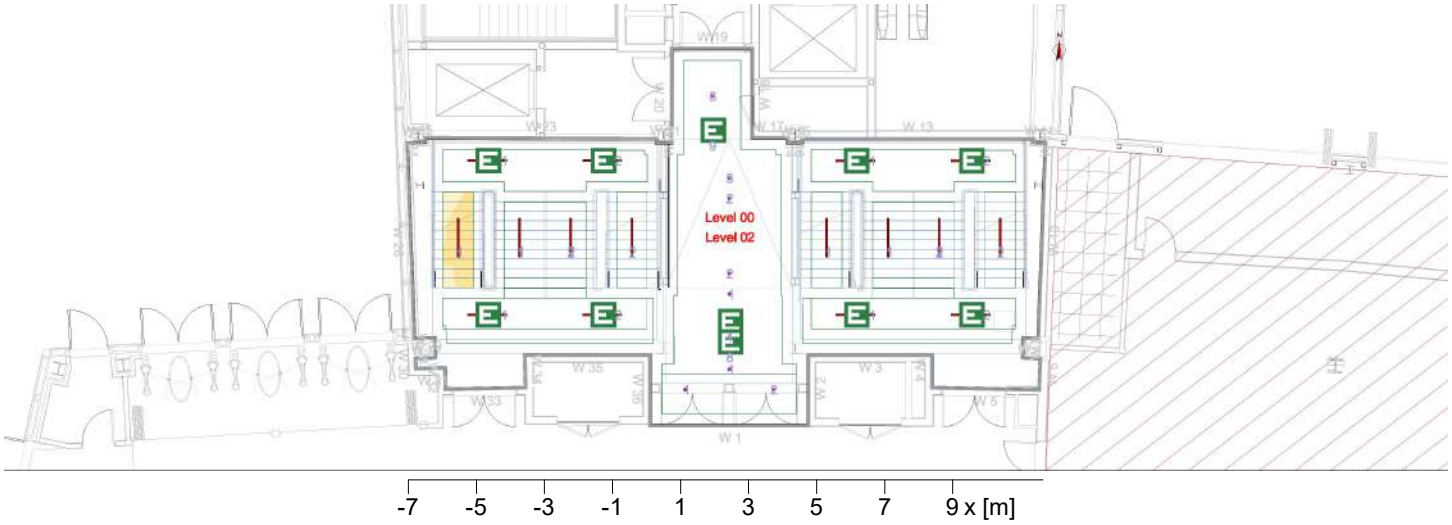
2.1.14 Result overview, LHS Landing (iii)

Hacel Lighting Ltd.

2 14 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.15 Result overview, LHS Tread (v)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	107 lx
Minimum illuminance	E_{min}	91 lx
Maximum illuminance	E_{max}	130 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.18 (0.85)
Diversity U_d	E_{min}/E_{max}	1:1.44 (0.7)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

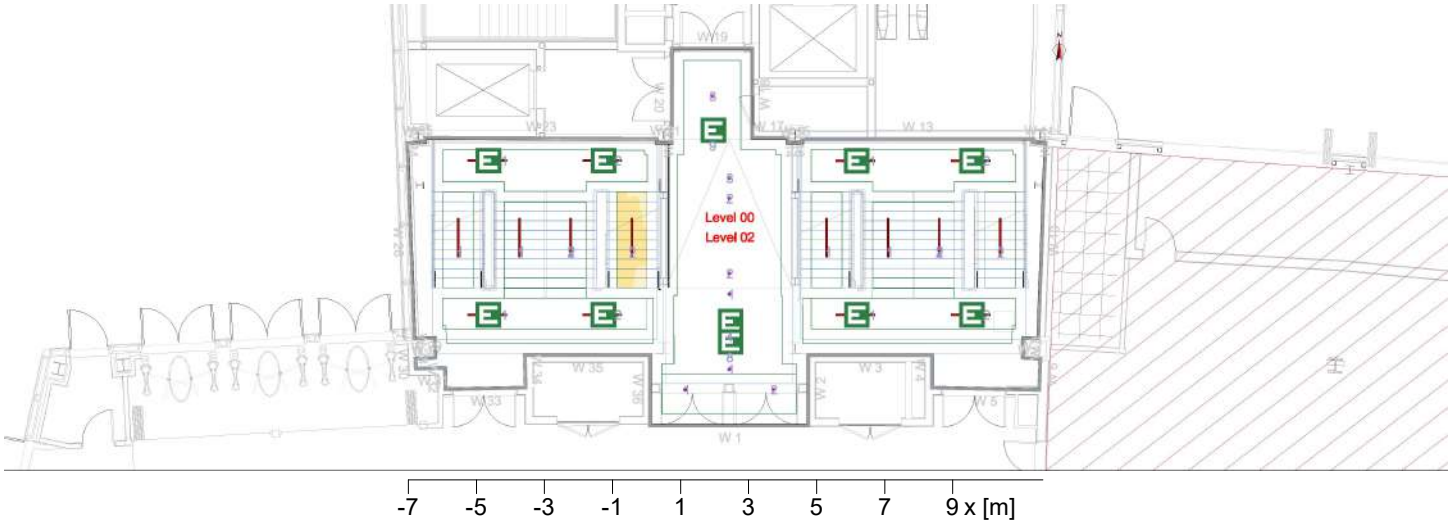
2.1.15 Result overview, LHS Tread (v)

Hacel Lighting Ltd.

2 14 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.16 Result overview, LHS Tread (v)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	108 lx
Minimum illuminance	E_{min}	89 lx
Maximum illuminance	E_{max}	131 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.21 (0.83)
Diversity U_d	E_{min}/E_{max}	1:1.46 (0.68)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.16 Result overview, LHS Tread (v)

Hacel Lighting Ltd.

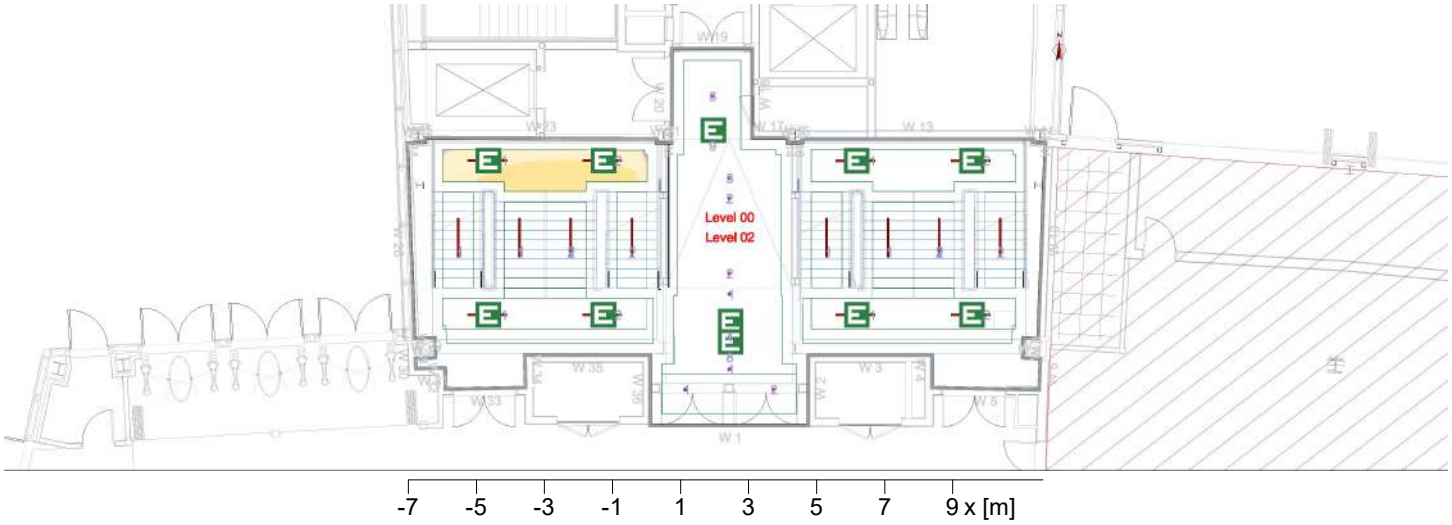
2 14 x

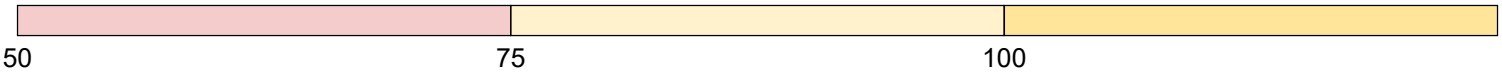


Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.17 Result overview, LHS Landing (iv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	99 lx
Minimum illuminance	E_{min}	73 lx
Maximum illuminance	E_{max}	112 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.35 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.53 (0.66)

Type No.\Make

		light forms
5	56E x	Order No. : Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name : Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment : 1 x 15.9 W / 1432 lm
		Emergency : 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.17 Result overview, LHS Landing (iv)

Hacel Lighting Ltd.

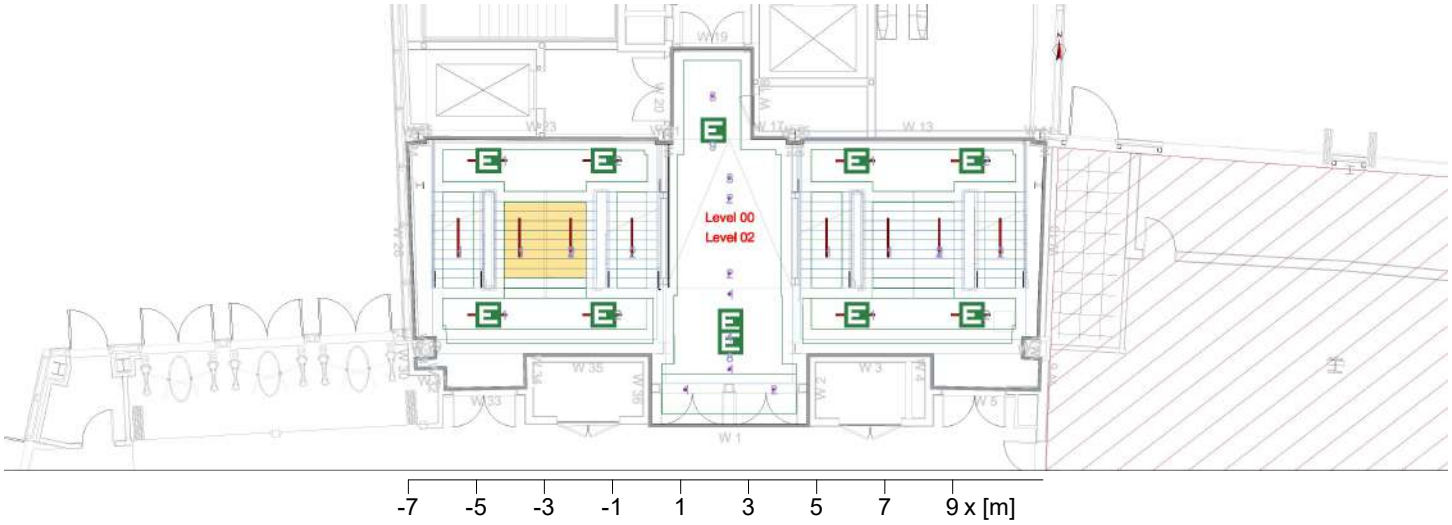
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.18 Result overview, LHS Tread (vi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	130 lx
Minimum illuminance	E_{min}	106 lx
Maximum illuminance	E_{max}	149 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.23 (0.82)
Diversity U_d	E_{min}/E_{max}	1:1.41 (0.71)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.18 Result overview, LHS Tread (vi)

Hacel Lighting Ltd.

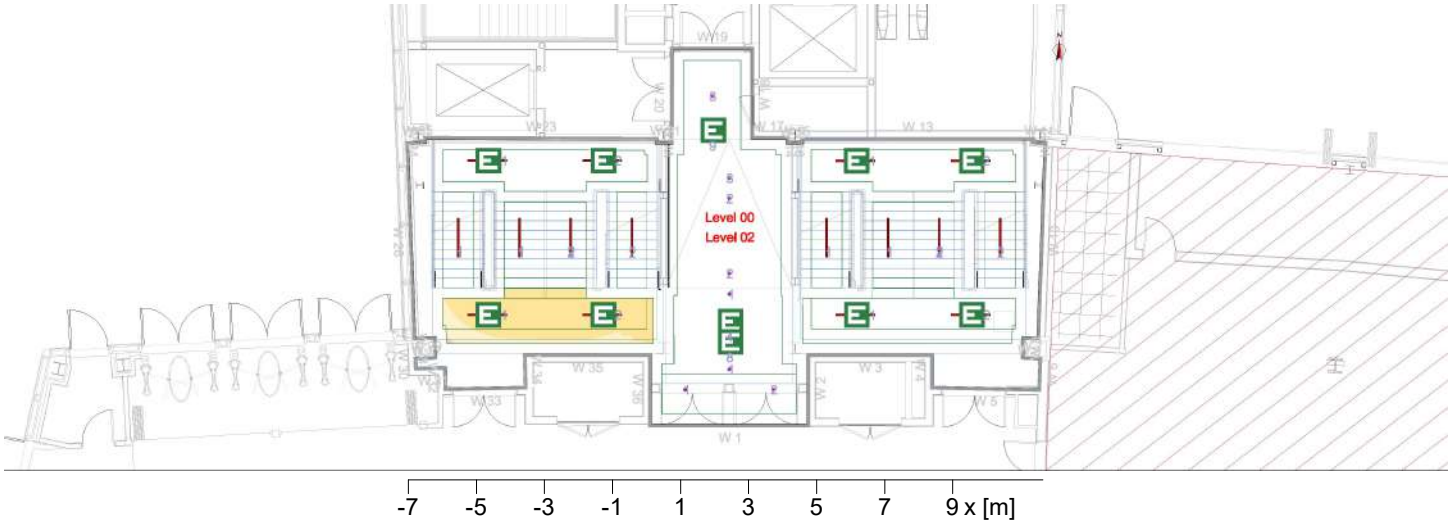
2 14 x

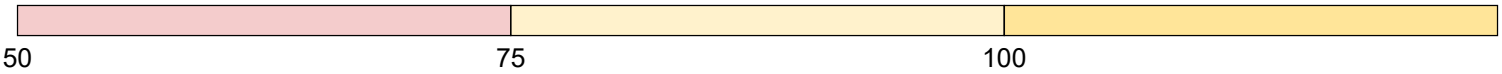


Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.19 Result overview, LHS Level 02





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	9.48 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	116 lx
Minimum illuminance	E_{min}	74 lx
Maximum illuminance	E_{max}	141 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.57 (0.64)
Diversity U_d	E_{min}/E_{max}	1:1.9 (0.53)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.19 Result overview, LHS Level 02

Hacel Lighting Ltd.

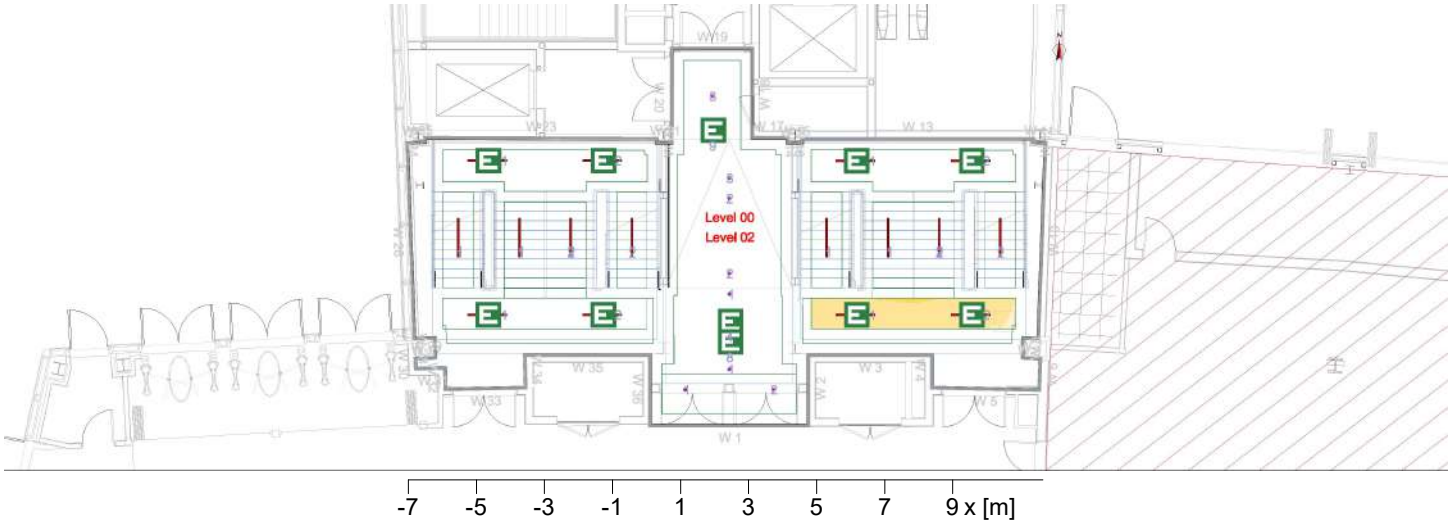
2 14 x

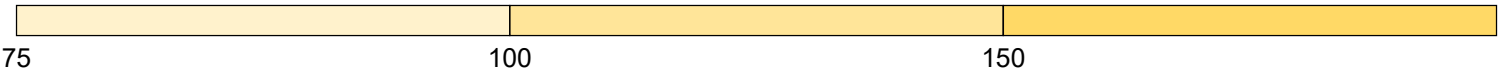


Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.20 Result overview, RHS Level 00





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	128 lx
Minimum illuminance	E_{min}	92 lx
Maximum illuminance	E_{max}	153 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.39 (0.72)
Diversity U_d	E_{min}/E_{max}	1:1.67 (0.6)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

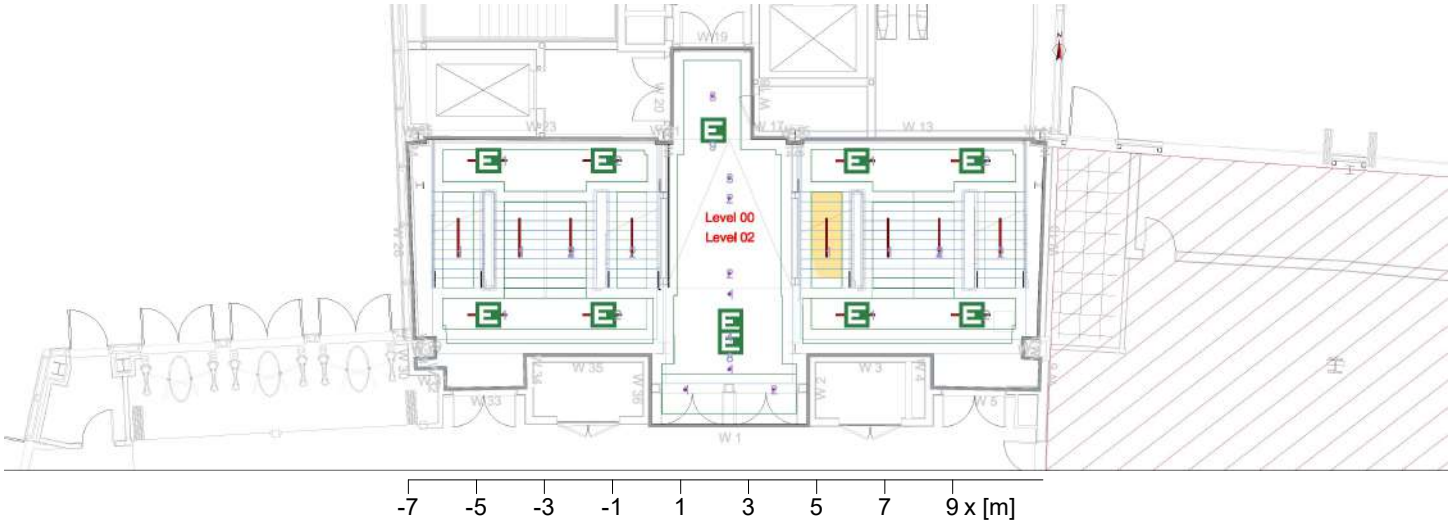
2.1.20 Result overview, RHS Level 00

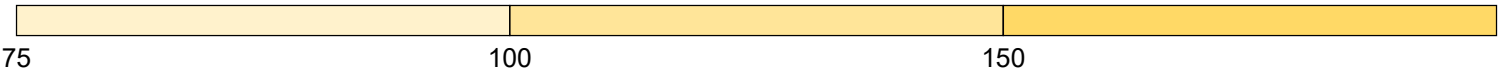
Hacel Lighting Ltd.

2 14 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.21 Result overview, RHS Tread (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	126 lx
Minimum illuminance	E_{min}	96 lx
Maximum illuminance	E_{max}	150 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.31 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.57 (0.64)

Type No.\Make

		light forms
5	56E x	Order No. : Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name : Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment : 1 x 15.9 W / 1432 lm
		Emergency : 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.21 Result overview, RHS Tread (i)

Hacel Lighting Ltd.

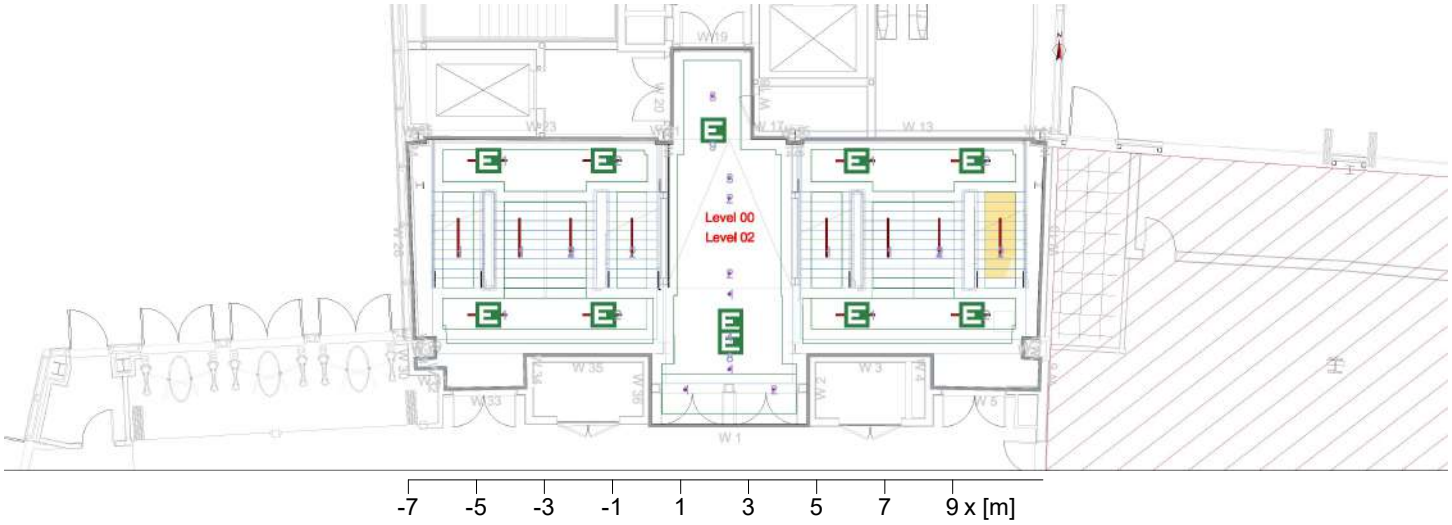
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.22 Result overview, RHS Tread (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	124 lx
Minimum illuminance	E_{min}	93 lx
Maximum illuminance	E_{max}	148 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.59 (0.63)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

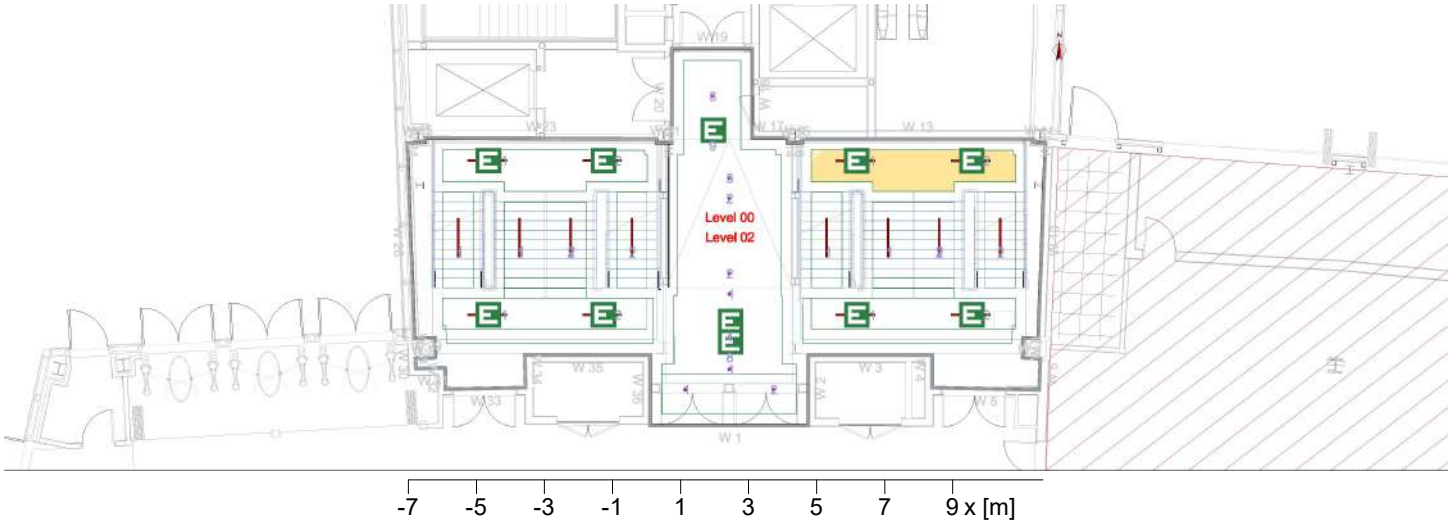
2.1.22 Result overview, RHS Tread (i)

Hacel Lighting Ltd.

2 14 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.23 Result overview, RHS Landing (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	129 lx
Minimum illuminance	E_{min}	97 lx
Maximum illuminance	E_{max}	148 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.53 (0.65)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

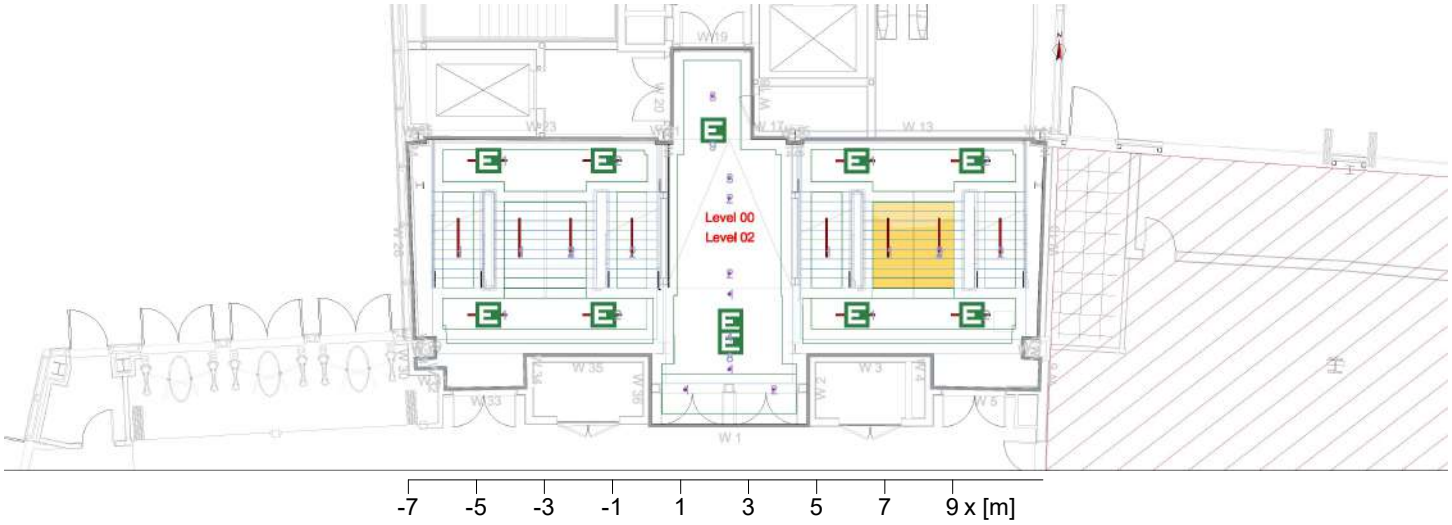
2.1.23 Result overview, RHS Landing (i)

Hacel Lighting Ltd.

2 14 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.24 Result overview, RHS Tread (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	161 lx
Minimum illuminance	E_{min}	137 lx
Maximum illuminance	E_{max}	185 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.18 (0.85)
Diversity U_d	E_{min}/E_{max}	1:1.35 (0.74)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.24 Result overview, RHS Tread (ii)

Hacel Lighting Ltd.

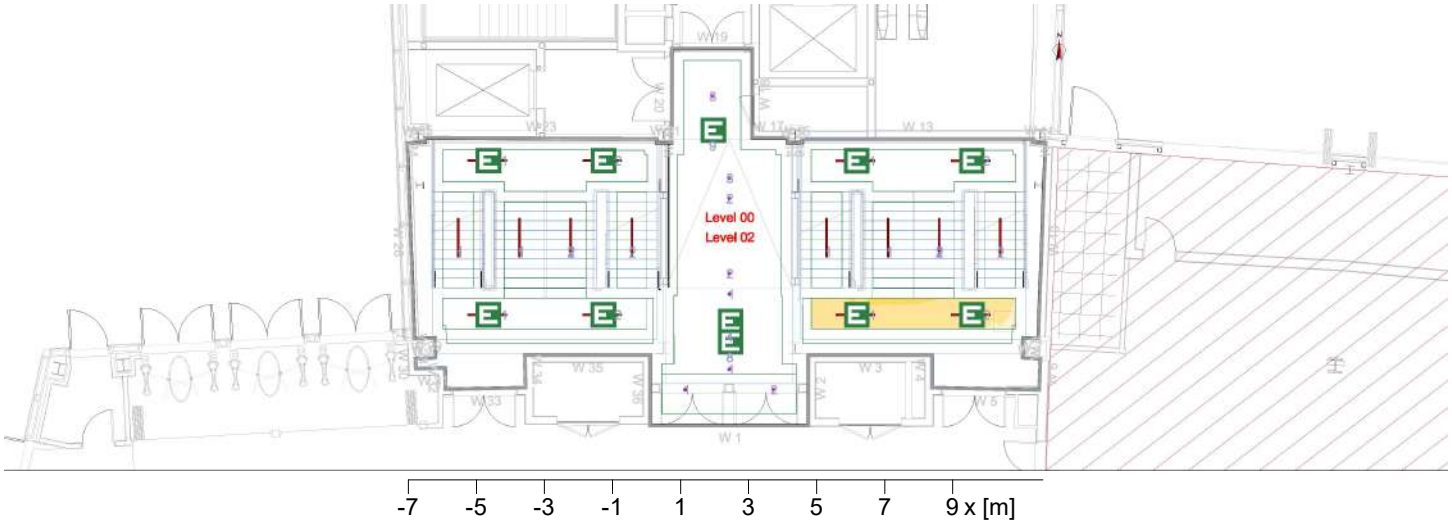
2 14 x

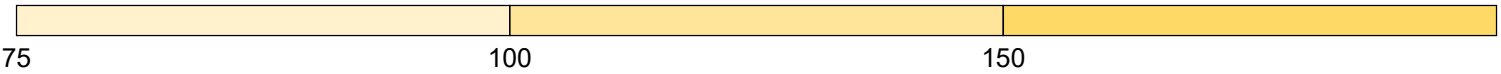


Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.25 Result overview, RHS Landing (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.10 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	129 lx
Minimum illuminance	E_{min}	91 lx
Maximum illuminance	E_{max}	155 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.42 (0.7)
Diversity U_d	E_{min}/E_{max}	1:1.7 (0.59)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.25 Result overview, RHS Landing (ii)

Hacel Lighting Ltd.

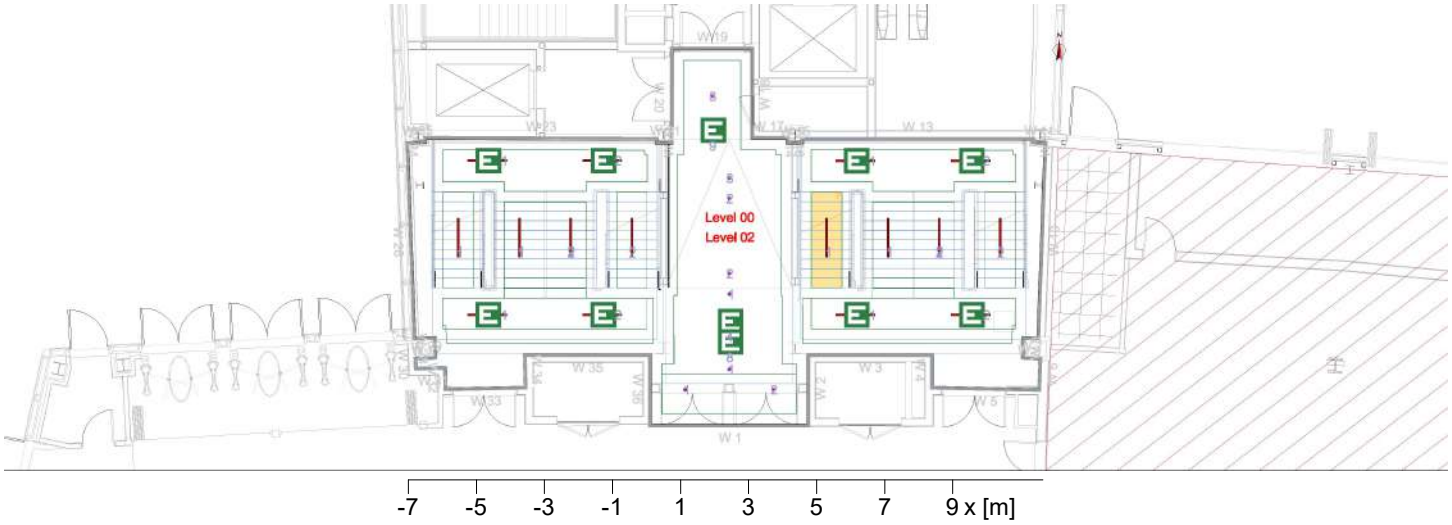
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.26 Result overview, RHS Tread (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	102 lx
Maximum illuminance	E_{max}	152 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.25 (0.8)
Diversity U_d	E_{min}/E_{max}	1:1.49 (0.67)

Type No.\Make

		light forms
5	56E x	Order No. : Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name : Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment : 1 x 15.9 W / 1432 lm
		Emergency : 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.26 Result overview, RHS Tread (iii)

Hacel Lighting Ltd.

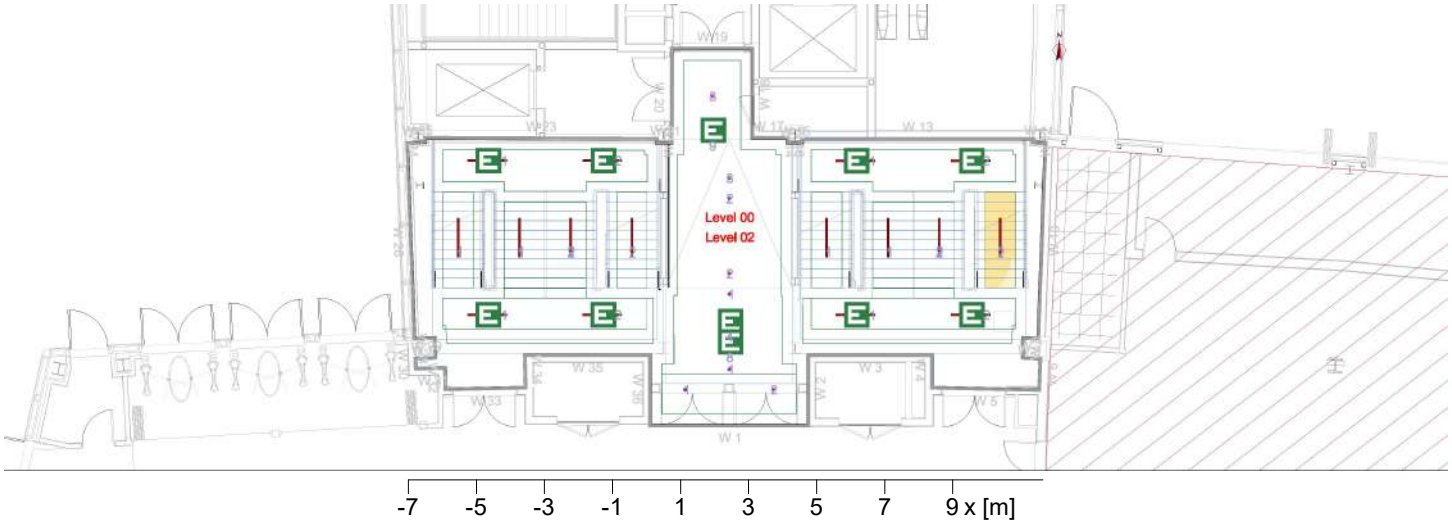
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.27 Result overview, RHS Tread (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	122 lx
Minimum illuminance	E_{min}	90 lx
Maximum illuminance	E_{max}	149 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.36 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.66 (0.6)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

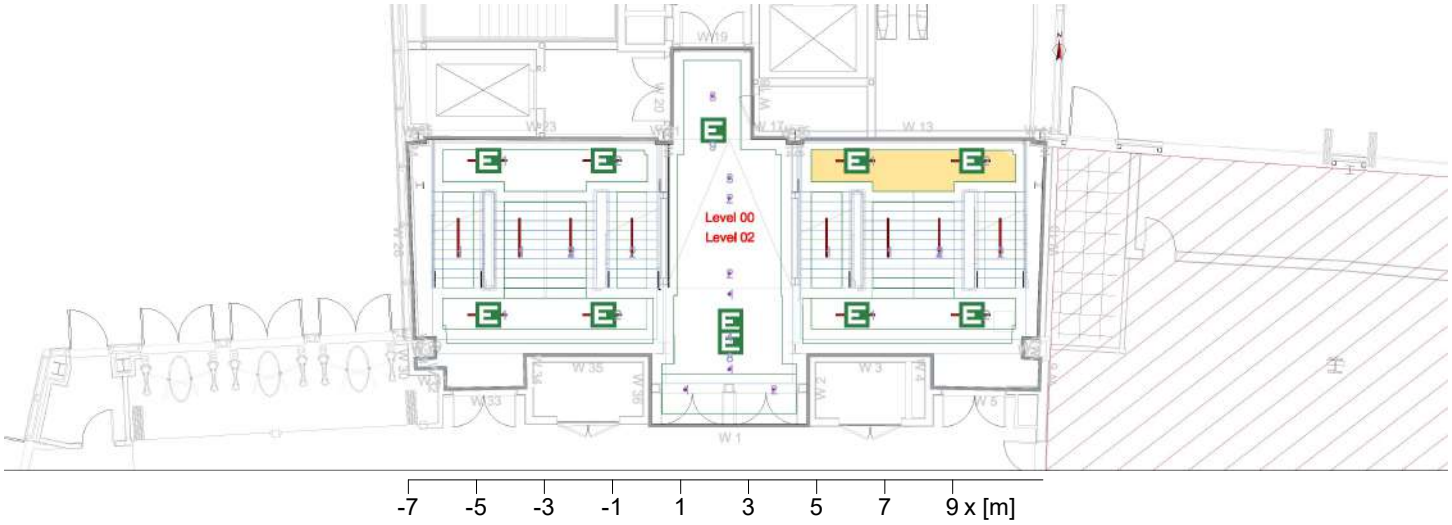
2.1.27 Result overview, RHS Tread (iii)

Hacel Lighting Ltd.

2 14 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.28 Result overview, RHS Level 01





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	4.80 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	98 lx
Maximum illuminance	E_{max}	148 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.3 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.52 (0.66)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.28 Result overview, RHS Level 01

Hacel Lighting Ltd.

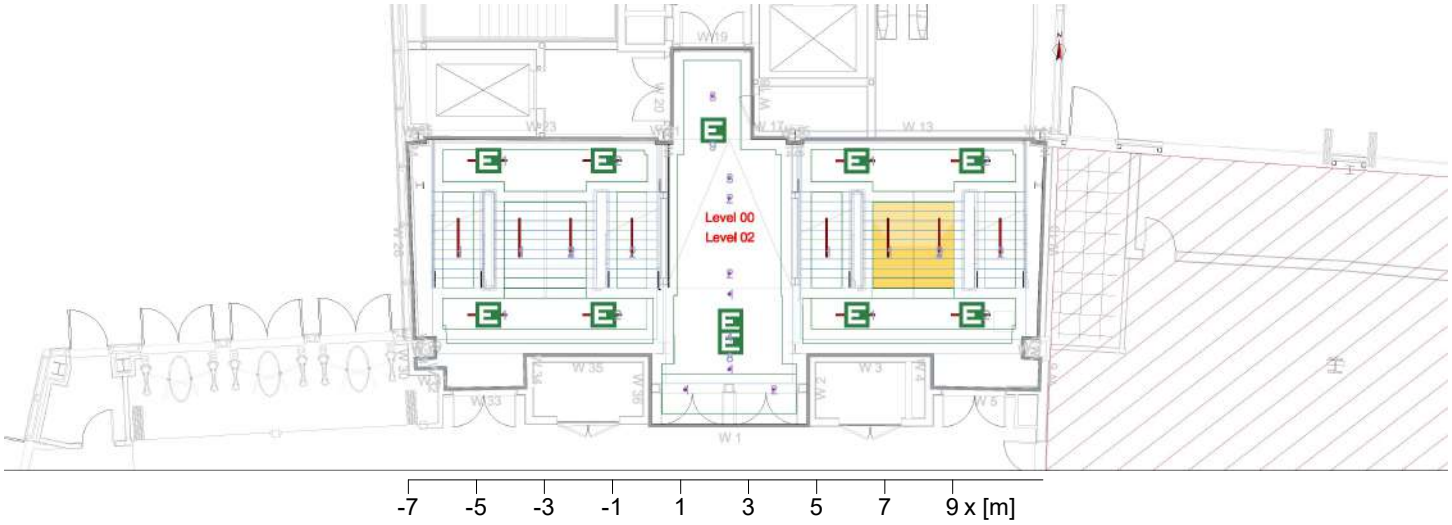
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.29 Result overview, RHS Tread (iv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	150 lx
Minimum illuminance	E_{min}	123 lx
Maximum illuminance	E_{max}	170 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.22 (0.82)
Diversity U_d	E_{min}/E_{max}	1:1.38 (0.72)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.29 Result overview, RHS Tread (iv)

Hacel Lighting Ltd.

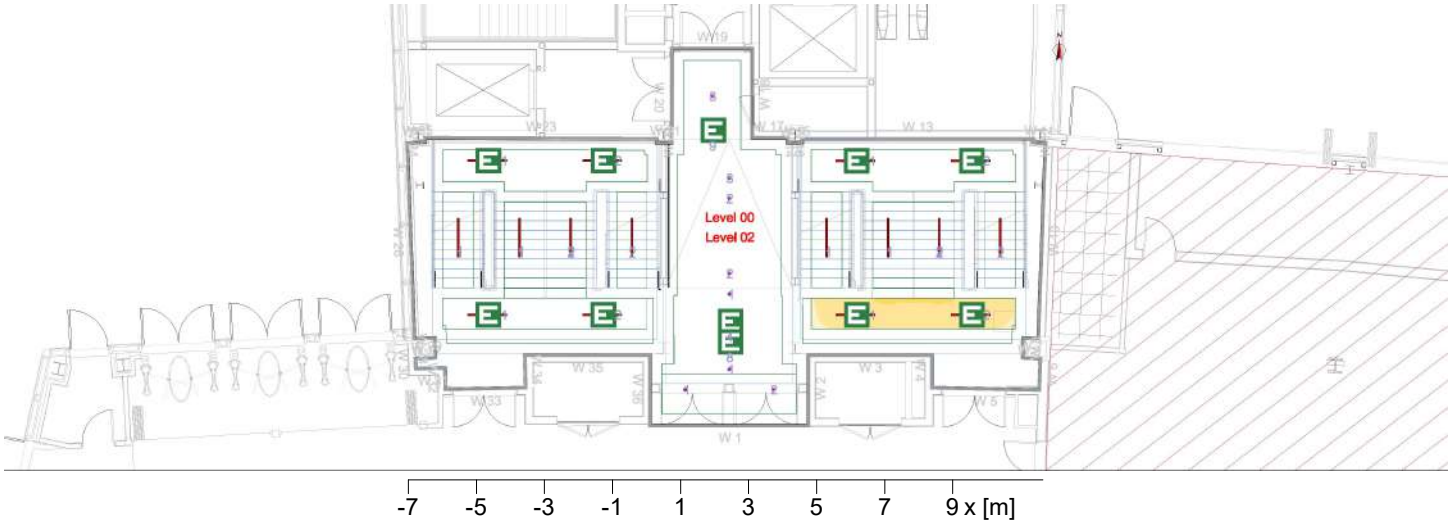
2 14 x

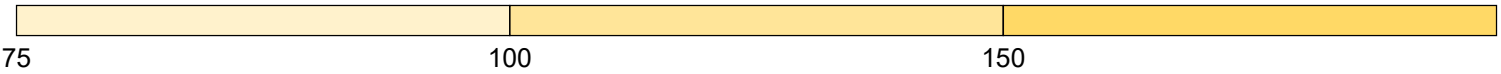


Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.30 Result overview, RHS Landing (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	6.36 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	93 lx
Maximum illuminance	E_{max}	156 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.37 (0.73)
Diversity U_d	E_{min}/E_{max}	1:1.68 (0.6)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

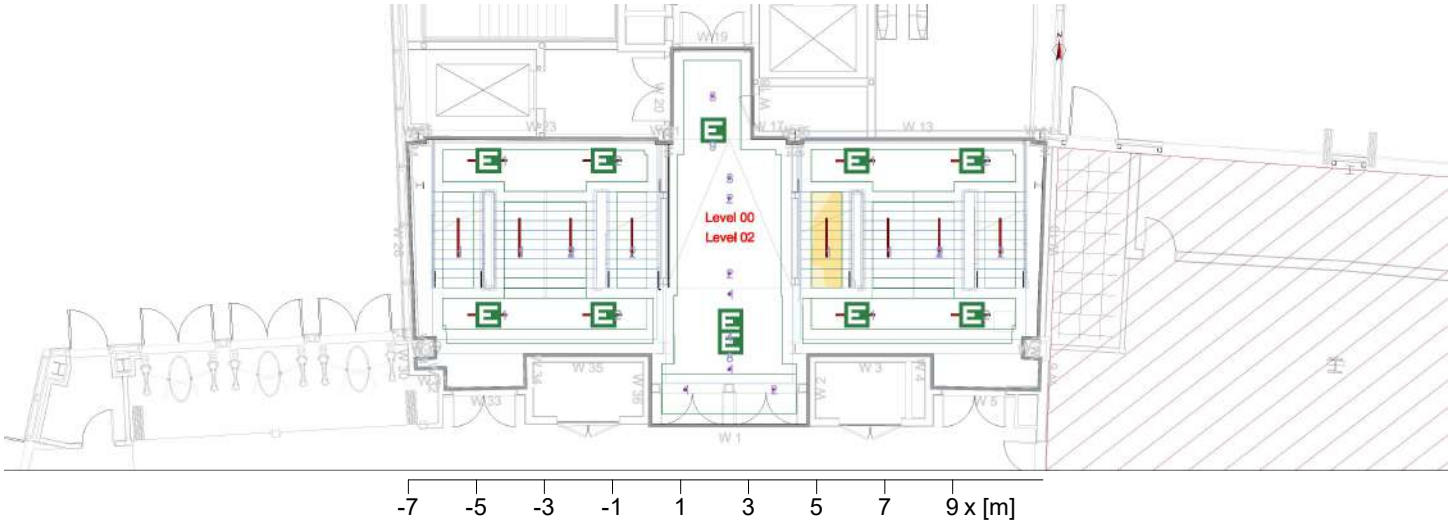
2.1.30 Result overview, RHS Landing (iii)

Hacel Lighting Ltd.

2 14 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.31 Result overview, RHS Tread (v)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	107 lx
Minimum illuminance	E_{min}	89 lx
Maximum illuminance	E_{max}	130 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.2 (0.83)
Diversity U_d	E_{min}/E_{max}	1:1.46 (0.69)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.31 Result overview, RHS Tread (v)

Hacel Lighting Ltd.

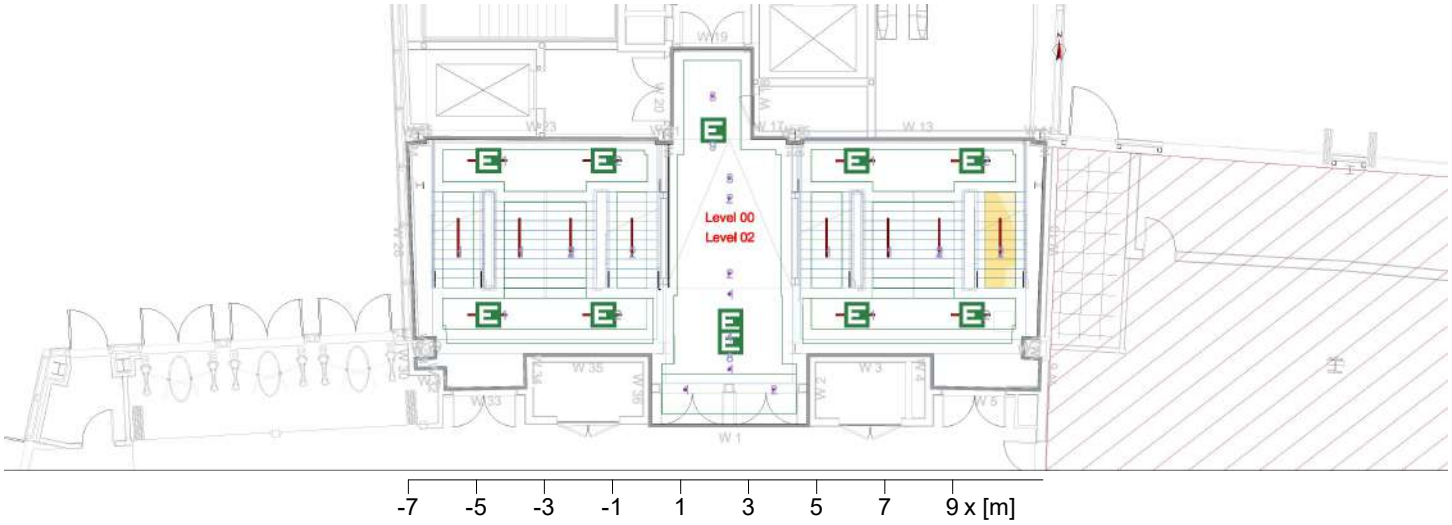
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.32 Result overview, RHS Tread (v)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	108 lx
Minimum illuminance	E_{min}	92 lx
Maximum illuminance	E_{max}	131 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.17 (0.85)
Diversity U_d	E_{min}/E_{max}	1:1.43 (0.7)

Type No.\Make

		light forms
5	56E x	Order No. : Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name : Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment : 1 x 15.9 W / 1432 lm
		Emergency : 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.32 Result overview, RHS Tread (v)

Hacel Lighting Ltd.

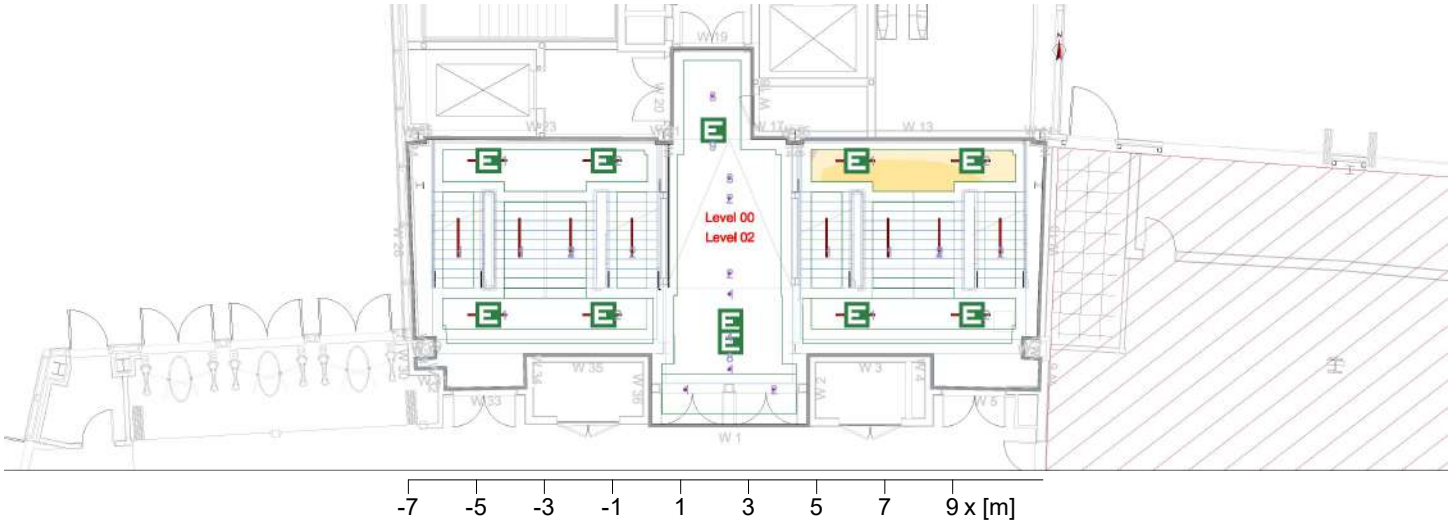
2 14 x

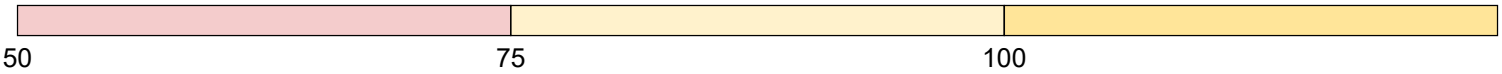


Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.33 Result overview, RHS Landing (iv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	99 lx
Minimum illuminance	E_{min}	74 lx
Maximum illuminance	E_{max}	112 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.35 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.53 (0.65)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.33 Result overview, RHS Landing (iv)

Hacel Lighting Ltd.

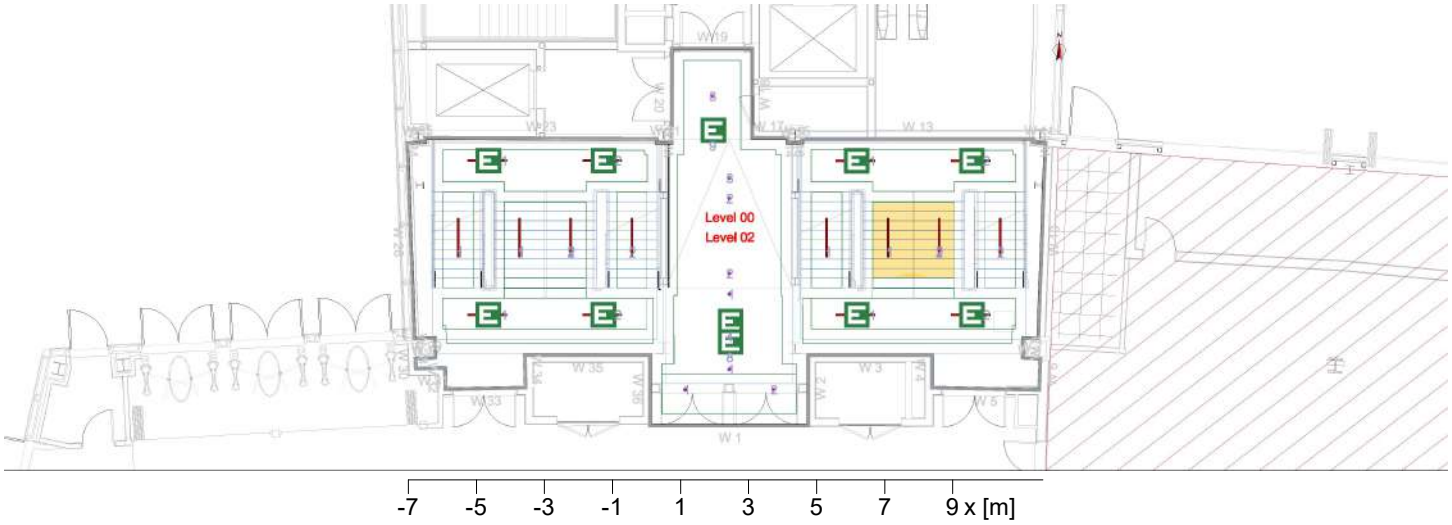
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.34 Result overview, RHS Tread (vi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	130 lx
Minimum illuminance	E_{min}	106 lx
Maximum illuminance	E_{max}	150 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.22 (0.82)
Diversity U_d	E_{min}/E_{max}	1:1.41 (0.71)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

2.1.34 Result overview, RHS Tread (vi)

Hacel Lighting Ltd.

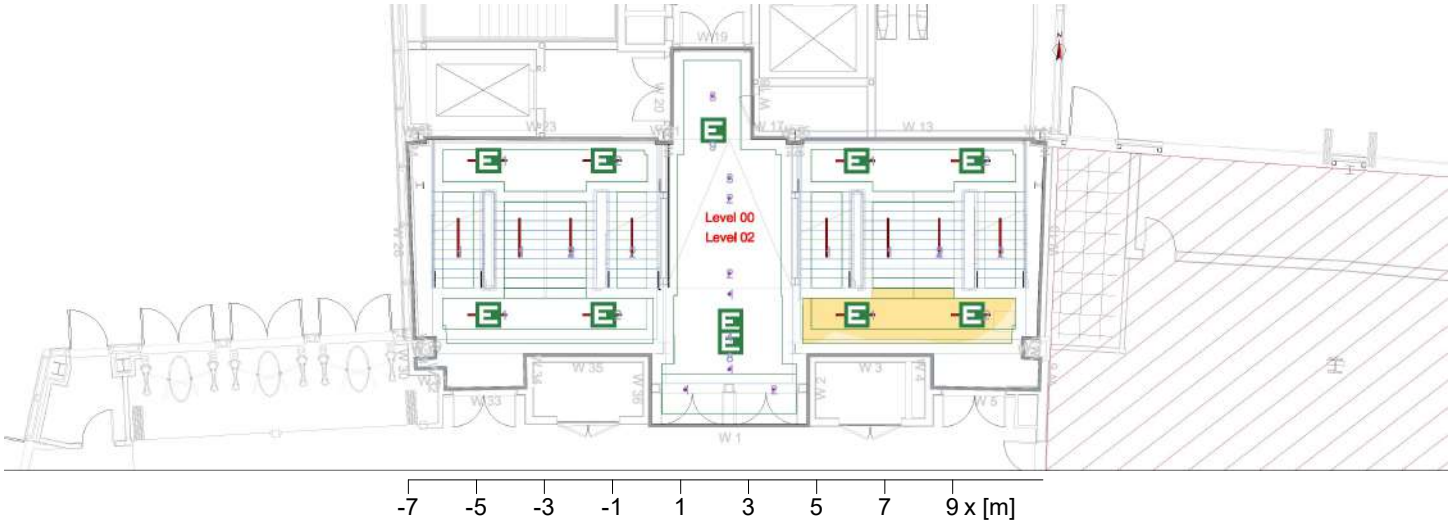
2 14 x



Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.35 Result overview, RHS Level 02





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	9.48 m
Maintenance factor	0.80
Total luminous flux	104258 lm
Total power	1073.8 W
Total power per area (135.34 m²)	7.93 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	118 lx
Minimum illuminance	E_{min}	78 lx
Maximum illuminance	E_{max}	142 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.51 (0.66)
Diversity U_d	E_{min}/E_{max}	1:1.81 (0.55)

Type No.\Make

		light forms	
5	56E x	Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
		Equipment	: 1 x 15.9 W / 1432 lm
		Emergency	: 1432 lm (100.0 %)

2.1 Summary, Stair

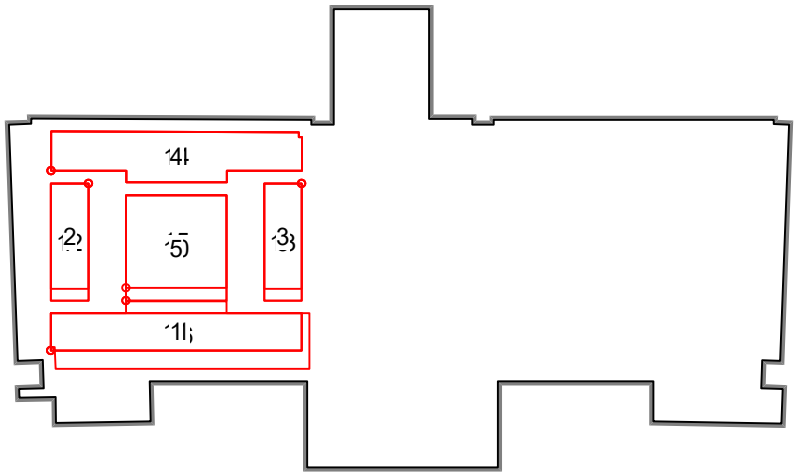
2.1.35 Result overview, RHS Level 02

Hacel Lighting Ltd.

2 14 x Order No. : !594 12W LED 3000K
Luminaire name : 594 12W LED 3000K
Equipment : 1 x 12W LED 3000K 13.1 W / 1719 lm

2.1 Summary, Stair

2.1.36 Result overview, LHS Ref Planes (1)

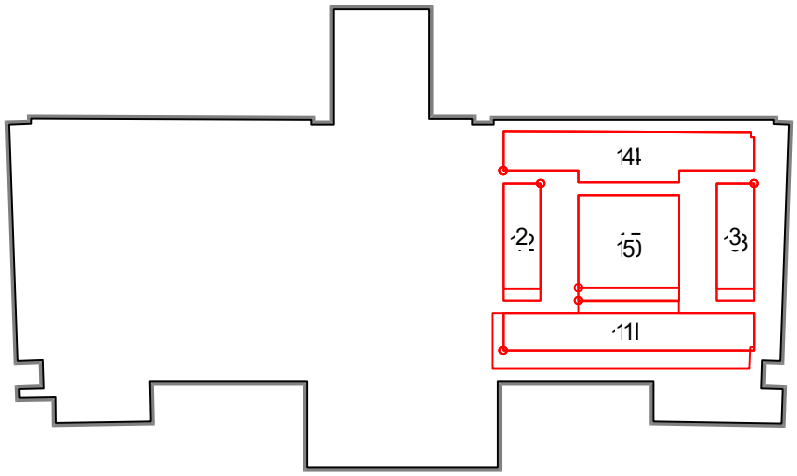


Illuminance

No.	Measuring surface	Grid	$\bar{E}_m$	E_{min}	E_{max}	U_o	U_d
1.1	LHS Level 00	32 x 5	127 lx	92 lx	153 lx	0.72	0.60
1.2	LHS Tread (i)	5 x 15	124 lx	93 lx	148 lx	0.75	0.63
1.3	LHS Tread (i)	5 x 15	126 lx	95 lx	149 lx	0.76	0.64
1.4	LHS Landing (i)	26 x 5	128 lx	96 lx	147 lx	0.75	0.65
1.5	LHS Tread (ii)	6 x 7	160 lx	136 lx	184 lx	0.85	0.74
1.6	LHS Landing (ii)	32 x 5	128 lx	91 lx	155 lx	0.71	0.59
1.7	LHS Tread (iii)	5 x 17	121 lx	89 lx	148 lx	0.74	0.60
1.8	LHS Tread (iii)	5 x 17	127 lx	102 lx	151 lx	0.80	0.67
1.9	LHS Level 01	26 x 5	126 lx	95 lx	147 lx	0.75	0.65
1.10	LHS Tread (iv)	6 x 7	150 lx	123 lx	169 lx	0.82	0.72
1.11	LHS Landing (iii)	32 x 5	126 lx	91 lx	155 lx	0.72	0.59
1.12	LHS Tread (v)	5 x 17	107 lx	91 lx	130 lx	0.85	0.70
1.13	LHS Tread (v)	5 x 17	108 lx	89 lx	131 lx	0.83	0.68
1.14	LHS Landing (iv)	26 x 5	99 lx	73 lx	112 lx	0.74	0.66
1.15	LHS Tread (vi)	6 x 7	130 lx	106 lx	149 lx	0.82	0.71
1.16	LHS Level 02	22 x 6	116 lx	74 lx	141 lx	0.64	0.53
Summary			**127 lx**	**73 lx**	**184 lx**	**0.58**	**0.40**

2.1 Summary, Stair

2.1.37 Result overview, RHS Ref Planes (2)



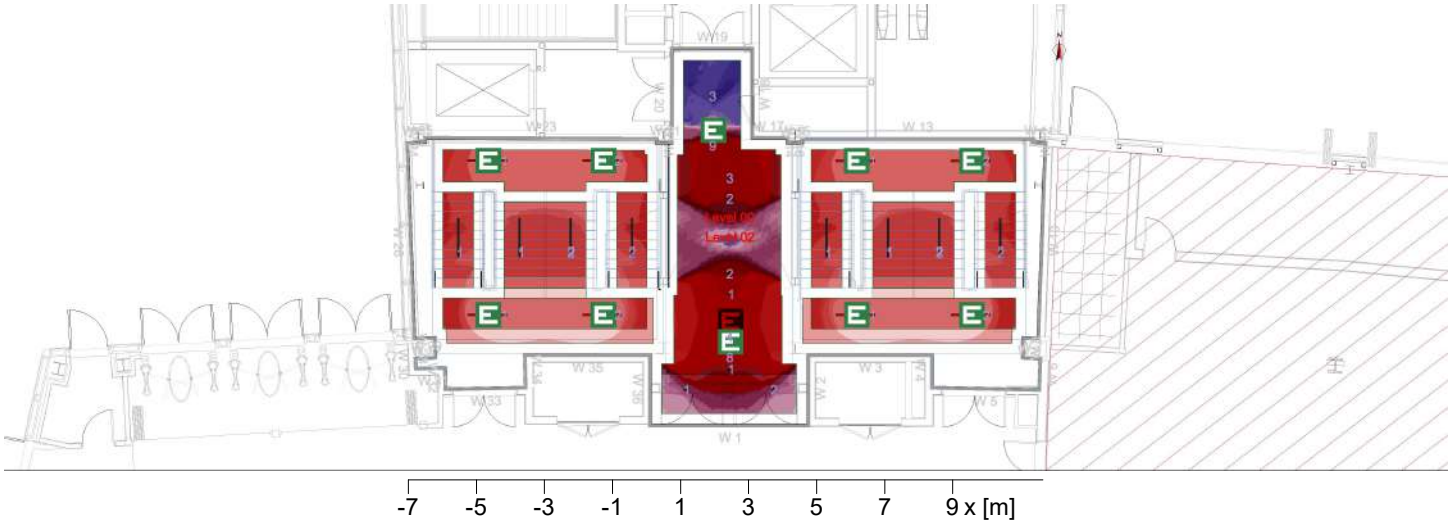
Illuminance

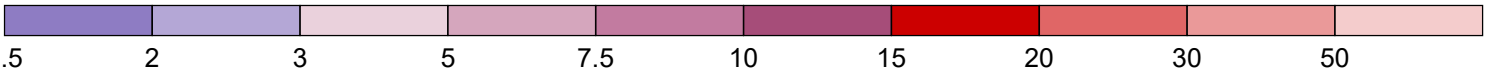
No.	Measuring surface	Grid	$\bar{E}_m$	E_{min}	E_{max}	U_o	U_d
2.1	RHS Level 00	32 x 5	128 lx	92 lx	153 lx	0.72	0.60
2.2	RHS Tread (i)	5 x 15	126 lx	96 lx	150 lx	0.76	0.64
2.3	RHS Tread (i)	5 x 15	124 lx	93 lx	148 lx	0.75	0.63
2.4	RHS Landing (i)	26 x 5	129 lx	97 lx	148 lx	0.75	0.65
2.5	RHS Tread (ii)	6 x 7	161 lx	137 lx	185 lx	0.85	0.74
2.6	RHS Landing (ii)	32 x 5	129 lx	91 lx	155 lx	0.70	0.59
2.7	RHS Tread (iii)	5 x 17	127 lx	102 lx	152 lx	0.80	0.67
2.8	RHS Tread (iii)	5 x 17	122 lx	90 lx	149 lx	0.74	0.60
2.9	RHS Level 01	26 x 5	127 lx	98 lx	148 lx	0.77	0.66
2.10	RHS Tread (iv)	6 x 7	150 lx	123 lx	170 lx	0.82	0.72
2.11	RHS Landing (iii)	32 x 5	127 lx	93 lx	156 lx	0.73	0.60
2.12	RHS Tread (v)	5 x 17	107 lx	89 lx	130 lx	0.83	0.69
2.13	RHS Tread (v)	5 x 17	108 lx	92 lx	131 lx	0.85	0.70
2.14	RHS Landing (iv)	26 x 5	99 lx	74 lx	112 lx	0.74	0.65
2.15	RHS Tread (vi)	6 x 7	130 lx	106 lx	150 lx	0.82	0.71
2.16	RHS Level 02	22 x 6	118 lx	78 lx	142 lx	0.66	0.55
Summary			**127 lx**	**74 lx**	**185 lx**	**0.58**	**0.40**

2 Stair

2.2 Summary, Stair

2.2.1.1 Result overview (emergency lighting)





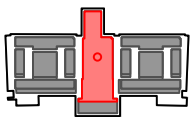
Illuminance [lx]

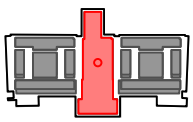
General

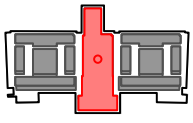
Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 520 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
30 Level 00			
Calculation field: 3.96m x 9.18m (33 x 18 pts), Height = 0.00m			
1	1.72 lx	33.43 lx	1: 19.46
	>= 1 lx		>= 1 : 40
16 Level 01			
Calculation field: 3.96m x 10.35m (37 x 23 pts), Height = 4.80m			
2	1.52 lx	36.82 lx	1: 24.20
	>= 1 lx		>= 1 : 40
31 Level 02			
Calculation field: 3.96m x 10.35m (34 x 21 pts), Height = 9.48m			
3	1.87 lx	28.66 lx	1: 15.29
	>= 1 lx		>= 1 : 40







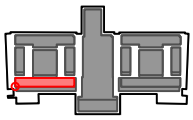
2 Stair

2.2 Summary, Stair

2.2.1.1 Result overview (emergency lighting)

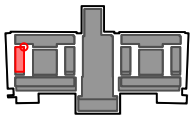
1 LHS Level 00
Calculation field: 6m x 0.9m (32 x 5 pts), Height = 0.00m

4	38.93 lx	66.27 lx	1: 1.70
	>= 1 lx		>= 1 : 40



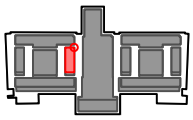
2 LHS Tread (i)
Calculation field: 0.9m x 2.85m (5 x 15 pts), Height = 1.55m

5	27.97 lx	51.88 lx	1: 1.85
	>= 1 lx		>= 1 : 40



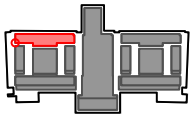
3 LHS Tread (i)
Calculation field: 0.9m x 2.85m (5 x 15 pts), Height = 1.55m

6	27.13 lx	52.69 lx	1: 1.94
	>= 1 lx		>= 1 : 40



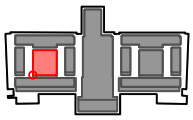
4 LHS Landing (i)
Calculation field: 6m x 1.22m (26 x 5 pts), Height = 1.55m

7	35.56 lx	64.36 lx	1: 1.81
	>= 1 lx		>= 1 : 40



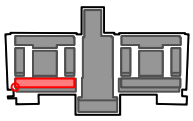
5 LHS Tread (ii)
Calculation field: 2.4m x 2.86m (6 x 7 pts), Height = 3.10m

8	36.66 lx	55.95 lx	1: 1.53
	>= 1 lx		>= 1 : 40



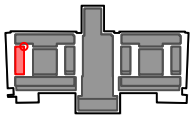
6 LHS Landing (ii)
Calculation field: 6m x 0.9m (32 x 5 pts), Height = 3.10m

9	36.80 lx	59.44 lx	1: 1.62
	>= 1 lx		>= 1 : 40



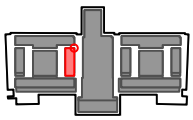
7 LHS Tread (iii)
Calculation field: 0.9m x 3.19m (5 x 17 pts), Height = 4.80m

10	27.21 lx	49.96 lx	1: 1.84
	>= 1 lx		>= 1 : 40



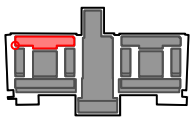
8 LHS Tread (iii)
Calculation field: 0.9m x 3.19m (5 x 17 pts), Height = 4.80m

11	27.04 lx	50.14 lx	1: 1.85
	>= 1 lx		>= 1 : 40



9 LHS Level 01
Calculation field: 6m x 1.22m (26 x 5 pts), Height = 4.80m

12	35.67 lx	63.77 lx	1: 1.79
	>= 1 lx		>= 1 : 40



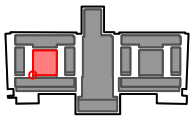
2 Stair

2.2 Summary, Stair

2.2.1.1 Result overview (emergency lighting)

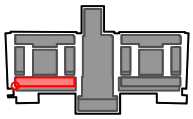
10 LHS Tread (iv)
Calculation field: 2.4m x 2.86m (6 x 7 pts), Height = 6.36m

13	37.99 lx	53.57 lx	1: 1.41
	>= 1 lx		>= 1 : 40



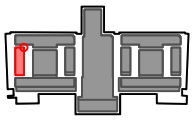
11 LHS Landing (iii)
Calculation field: 6m x 0.9m (32 x 5 pts), Height = 6.36m

14	38.80 lx	62.79 lx	1: 1.62
	>= 1 lx		>= 1 : 40



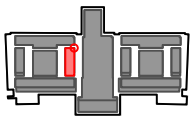
12 LHS Tread (v)
Calculation field: 0.9m x 3.19m (5 x 17 pts), Height = 8.08m

15	30.27 lx	59.09 lx	1: 1.95
	>= 1 lx		>= 1 : 40



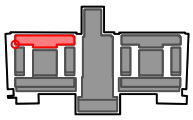
13 LHS Tread (v)
Calculation field: 0.9m x 3.19m (5 x 17 pts), Height = 8.08m

16	29.56 lx	61.34 lx	1: 2.08
	>= 1 lx		>= 1 : 40



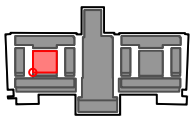
14 LHS Landing (iv)
Calculation field: 6m x 1.22m (26 x 5 pts), Height = 8.08m

17	27.24 lx	41.04 lx	1: 1.51
	>= 1 lx		>= 1 : 40



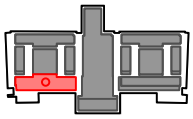
15 LHS Tread (vi)
Calculation field: 2.4m x 2.52m (6 x 7 pts), Height = 9.48m

18	34.45 lx	46.01 lx	1: 1.34
	>= 1 lx		>= 1 : 40



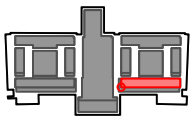
16 LHS Level 02
Calculation field: 6.18m x 1.61m (22 x 6 pts), Height = 9.48m

19	33.57 lx	59.43 lx	1: 1.77
	>= 1 lx		>= 1 : 40



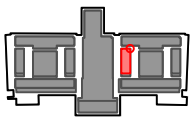
1 RHS Level 00
Calculation field: 6m x 0.9m (32 x 5 pts), Height = 0.00m

20	38.86 lx	65.92 lx	1: 1.70
	>= 1 lx		>= 1 : 40



2 RHS Tread (i)
Calculation field: 0.9m x 2.85m (5 x 15 pts), Height = 1.55m

21	27.37 lx	52.44 lx	1: 1.92
	>= 1 lx		>= 1 : 40



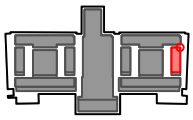
2 Stair

2.2 Summary, Stair

2.2.1.1 Result overview (emergency lighting)

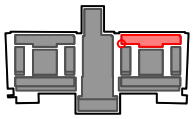
3 RHS Tread (i)
Calculation field: 0.9m x 2.85m (5 x 15 pts), Height = 1.55m

22	27.85 lx	52.09 lx	1: 1.87
	>= 1 lx		>= 1 : 40



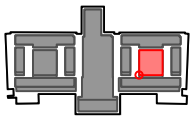
4 RHS Landing (i)
Calculation field: 6m x 1.22m (26 x 5 pts), Height = 1.55m

23	35.09 lx	64.93 lx	1: 1.85
	>= 1 lx		>= 1 : 40



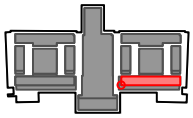
5 RHS Tread (ii)
Calculation field: 2.4m x 2.86m (6 x 7 pts), Height = 3.10m

24	36.91 lx	55.57 lx	1: 1.51
	>= 1 lx		>= 1 : 40



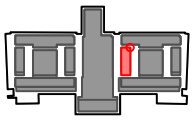
6 RHS Landing (ii)
Calculation field: 6m x 0.9m (32 x 5 pts), Height = 3.10m

25	36.50 lx	59.68 lx	1: 1.64
	>= 1 lx		>= 1 : 40



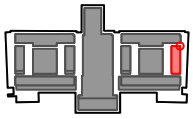
7 RHS Tread (iii)
Calculation field: 0.9m x 3.19m (5 x 17 pts), Height = 4.80m

26	27.30 lx	50.38 lx	1: 1.85
	>= 1 lx		>= 1 : 40



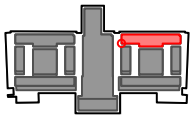
8 RHS Tread (iii)
Calculation field: 0.9m x 3.19m (5 x 17 pts), Height = 4.80m

27	27.15 lx	49.76 lx	1: 1.83
	>= 1 lx		>= 1 : 40



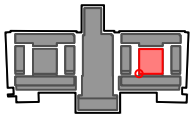
9 RHS Level 01
Calculation field: 6m x 1.22m (26 x 5 pts), Height = 4.80m

28	35.27 lx	64.26 lx	1: 1.82
	>= 1 lx		>= 1 : 40



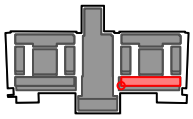
10 RHS Tread (iv)
Calculation field: 2.4m x 2.86m (6 x 7 pts), Height = 6.36m

29	36.75 lx	53.44 lx	1: 1.45
	>= 1 lx		>= 1 : 40



11 RHS Landing (iii)
Calculation field: 6m x 0.9m (32 x 5 pts), Height = 6.36m

30	38.44 lx	62.92 lx	1: 1.64
	>= 1 lx		>= 1 : 40



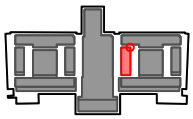
2 Stair

2.2 Summary, Stair

2.2.1.1 Result overview (emergency lighting)

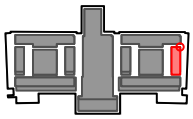
12 RHS Tread (v)
Calculation field: 0.9m x 3.19m (5 x 17 pts), Height = 8.08m

31	29.74 lx	61.57 lx	1: 2.07
	>= 1 lx		>= 1 : 40



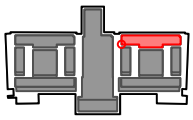
13 RHS Tread (v)
Calculation field: 0.9m x 3.19m (5 x 17 pts), Height = 8.08m

32	30.13 lx	58.85 lx	1: 1.95
	>= 1 lx		>= 1 : 40



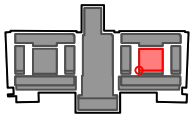
14 RHS Landing (iv)
Calculation field: 6m x 1.22m (26 x 5 pts), Height = 8.08m

33	26.82 lx	40.95 lx	1: 1.53
	>= 1 lx		>= 1 : 40



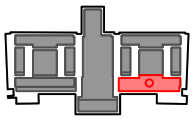
15 RHS Tread (vi)
Calculation field: 2.4m x 2.52m (6 x 7 pts), Height = 9.48m

34	34.82 lx	45.49 lx	1: 1.31
	>= 1 lx		>= 1 : 40



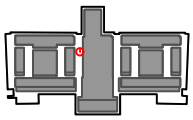
16 RHS Level 02
Calculation field: 6.26m x 1.61m (22 x 6 pts), Height = 9.48m

35	32.83 lx	59.45 lx	1: 1.81
	>= 1 lx		>= 1 : 40

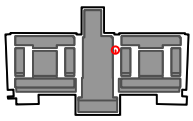


Places to highlight

No.	Emin [lx]	Surface Emax [lx]
1 Call Point (i)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	6.37 lx	6.51 lx
	>= 5 lx	



2 Call Point (ii)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
2	6.73 lx	6.90 lx
	>= 5 lx	



Type No.\Make

5 28E x **light forms**

Order No.	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
Luminaire name	: Type S3 - LP2.5-S-1200-LED-LOW-4000-90-DALI-EXT-RAL9005
Equipment	: 1 x 15.9 W / 1432 lm
Emergency	: 1432 lm (100.0 %)

-- Emergency Lighting --

2 Stair

2.2 Summary, Stair

2.2.1.1 Result overview (emergency lighting)

Mackwell

4 6E x



Order No. : !LSX HO (OPEN AREA 375lm) -- Emergency Lighting --
Luminaire name : LSX HO (OPEN AREA 375lm)
Equipment : 1 x LED 3 W / 375 lm (0%)
Emergency : 375 lm